

2018

Organic Electronics & Photonics

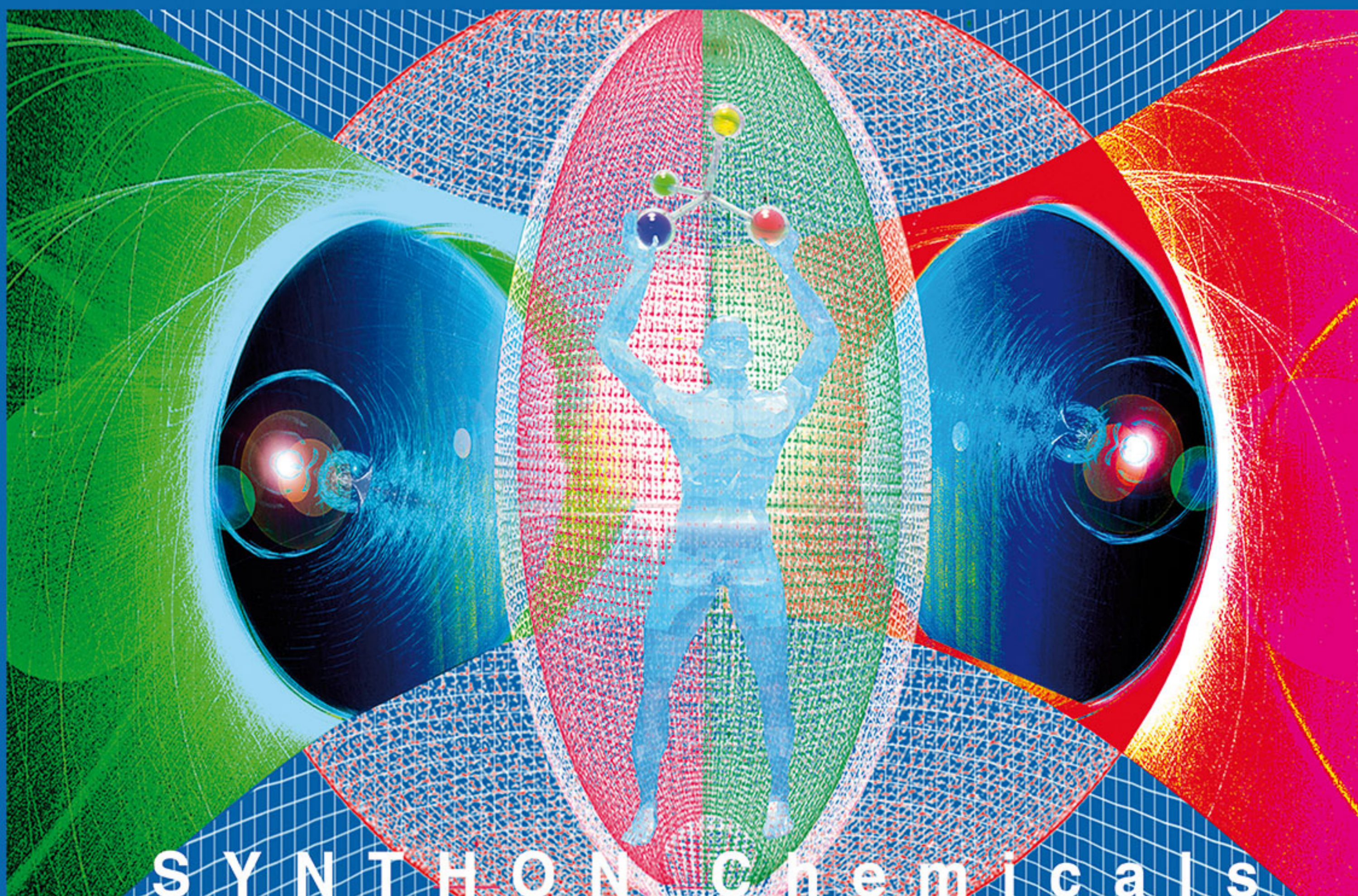
SYNTHON

Market Expansion  
Services by  
www.dksh.jp



DKSHジャパン株式会社  
生産資材事業部門 化学品ビジネスライン  
〒108-8360 東京都港区三田 3-4-19  
Phone 03-5441-4526, Fax 03-5441-4528  
〒542-0081 大阪市中央区南船場 4-3-11 豊田ビル  
Phone 06-6282-0174, Fax 06-6282-1718

# Organic Electronics & Photonics



SYNTHON Chemicals

**Functional Dyes**

機能性色素

**Reactive Mesogens**

反応性メソゲン

**Custom Synthesis**

カスタム合成

**Liquid Crystals**

液晶

**Organic Semiconductors**

有機半導体

**Charge Transport Material**

電荷輸送材料

2018





SYNTHON Chemicals is a producer and distributor of research and fine chemicals for organic synthesis in semi-bulk quantities.

The company has special expertise in the following fields:

- Liquid Crystals and Liquid Crystal Intermediates
- Intermediates for LC-Polymers
- Organic Semiconductors
- Products for Solar Cells
- Dyes
  - Sensitizers for Photography
  - IR-Sensitizers for Offset printing (CTP)
  - Fluorescent and Laser dyes
  - Dichroic Dyes
  - Emitters for OLED
  - Products for Biolabelling
- Reagents for Organic Synthesis
- Heterocycles
- Pharmaceutical Intermediates
- Custom Synthesis

With 1700 squaremeters of laboratories, warehouses and offices SYNTHON supplies the industry with organic intermediates and final products in quantities from a few grams up to several hundred kilograms.

A highly skilled team of chemists and technicians is able to develop multi-step procedures from laboratory to pilot plant scale.

All products are tested by modern analytical methods to meet highest quality standards.

Most of our products are kept in stock in semi-bulk quantities to offer you the service of just-in-time delivery.

## GENERAL TERMS AND CONDITIONS OF BUSINESS

### 1. Placement of orders

1.1 In respect of the conclusion, performance and wind-up of contracts concluded with SYNTHON, the optional law shall be replaced exclusively by the conditions of sale, delivery and payment stipulated hereinafter. The said conditions shall be deemed accepted upon placement of orders and shall, therefore, be binding upon both parties. Divergent contractual conditions, if any, shall be valid only if approved of in writing by SYNTHON. The same shall apply to all agreements differing from SYNTHON's order confirmation.

1.2 Placing of orders shall be in writing. The written-form requirement shall also be deemed as having been complied with if the order is placed by telefacsimile or e-mail.

1.3 All offers of SYNTHON shall be subject to alteration, i.e. they shall be but an invitation to Customer to submit a contractual offer. The contract after Customer's placement of order in writing shall not be deemed concluded until after SYNTHON's confirmation of order.

### 2. Prices

Subject to agreements to the contrary the prices applicable at the time of the contract conclusion shall be deemed agreed. If an interval of more than 4 months is between the conclusion of contract and the term of delivery, SYNTHON's prices applicable at the time of delivery shall be authoritative.

### 3. Terms of delivery

3.1 Delivery shall be made in accordance with the terms of delivery as scheduled or otherwise as soon as possible under consideration of the prevailing conditions. If stipulated times of delivery are exceeded by no more than 30 days, Customer shall have no right to rescind the contract. The same applies if the time of delivery is exceeded by more than 30 days, if the delay is not SYNTHON's responsibility or if Buyer has not scheduled an adequate grace period for the delivery.

3.2 Deliveries shall be exclusive of costs of shipment according to SYNTHON's discretion unless it has been agreed otherwise with Customer. All deliveries shall be in packing customary in trade practice. If so desired, SYNTHON shall give advice of customary shipment units.

3.3 Subject to agreements to the contrary, shipment shall be at Customer's risk. Complaints, if any, for reasons of an incomplete delivery or externally visible damage to or loss of goods in transit shall be immediately communicated to SYNTHON. Shipments the external appearance of which allows the conclusion that the goods have suffered damage (in transit) shall be accepted under the reserve of compensation claims against the carrier, asserting the damage incurred.

3.4 SYNTHON shall not be liable for force majeure, consequences of strike, interruption of transport and other circumstances that SYNTHON has no power to control.

3.5 SYNTHON shall have the right to make the performance of contracts conditional on the provision of security, rescinding the contract in case inadequate security should be provided. SYNTHON shall be authorized to withhold services to be provided by it if and to the extent that Customer should be in breach of its contractual obligations.

### 4. Terms of payment

4.1 Unless agreed otherwise, all invoices of SYNTHON shall be due for payment within 30 days from the invoice date. In case of delayed payment

interest on arrears in the amount of 8 percent points above the basic rate of interest pursuant to Article 247 BGB shall be deemed as owed.

4.2 Payments shall not be deemed made until the amount is made available to SYNTHON unconditionally and not subject to defence.

### 5. Reservation of title

5.1 The goods supplied by SYNTHON, pending full settlement of all claims unsettled at the time of delivery, shall remain SYNTHON's unrestricted property.

5.2 In case of resale, Customer shall assign its purchase price claim including all subsidiary rights to SYNTHON; SYNTHON hereby accepts such assignment. Should any goods supplied by SYNTHON be processed, SYNTHON shall acquire joint property rights in the resultant products in proportion of the value of the reserved merchandise to the material otherwise used by Customer for manufacturing purposes.

### 6. Notification of defects of quality; Warranty; Liability

6.1 SYNTHON shall warrant that its products are in line with the description set out in its brochures, specifications and test certificates. However, SYNTHON will not assume liability for the fitness of its products for Customer's purported use. Incidentally, SYNTHON will not be liable, except for fatal and physical injury or health risk, unless in case of action with aforethought or gross negligence.

6.2 Customer undertakes to check the merchandise immediately after receipt thereof. In case the inspection reveals apparent defects, Customer shall advise SYNTHON thereof, without delay, or within 30 days after the receipt of goods at the latest, sending a copy of the delivery note or the like. Hidden defects shall be notified within 2 months after the defect could have or actually has been discovered. In case a defect has occurred SYNTHON shall have the right to remedy the same. In case remedial efforts have failed twice, Customer shall be entitled to a rebate or shall be authorized to rescind the contract.

6.3 The period of prescription for claims based on defects shall be one year. Exempted herefrom shall be claims under SYNTHON's warranty or in respect of which SYNTHON is liable because it has wilfully concealed a defective condition of which it had been aware.

### 7. Place of Performance; Applicable law

The place of performance in respect of the delivery of goods to be supplied by SYNTHON and in respect of the services to be provided by Customer shall be the place of business of SYNTHON. Incidentally, the law of the Federal Republic of Germany shall apply, waiving the rules of the UN Convention on Contracts for the International Sale of Goods and of the German International Private Law.

### 8. Salvatorian Clause

Should a provision contained in these General Terms and Conditions of Business be or become invalid in whole or in part, the validity of the contracts concluded, incorporating the present General Terms and Conditions of Business, would be left unaffected thereby. The invalid provision, within the scope of existing contract relationships, should then be replaced by a provision coming closest to the economic object pursued by the parties hereto by the invalid provision. The same applies once it has proved that the provisions of these General Terms and Conditions of Business, by inadvertence, contain a gap.

# Content

<b>FUNCTIONAL AND FLUORESCENCE DYES</b>	1
AZO DYES	1
COUMARINES	2
CYANINES / POLYMETHINES	7
FLUORESCEINES	14
MEROCYANINES	16
PYRYLIUM DYES	17
RHODAMINES	19
TRIPHENYLMETHANE DYES	22
AROMATIC HYDROCARBONS	23
NAPHTHALIMIDES	27
METAL COMPLEXES	28
MISCELLANEOUS	29
<b>DOPANTS FOR POLYMER- AND LC-APPLICATIONS</b>	35
DOPANTS FOR POLYMER- AND LC-APPLICATIONS	35
<b>PHTHALOCYANINES AND PORPHYRINES</b>	36
PHTHALOCYANINES AND PORPHYRINES	36
<b>INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS</b>	39
INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS	39
<b>PHOTOINITIATORS</b>	48
PHOTOINITIATORS	48
<b>CHARGE TRANSPORT MATERIALS</b>	50
ELECTRON TRANSPORT MATERIALS	50
HOLE TRANSPORT MATERIALS	51
SEMICONDUCTORS FOR OFET	54
MISCELLANEOUS	55

# Content

<b>INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS</b>	57
FLUORENES	57
CARBAZOLES	64
ARYLAMINES	69
MISCELLANEOUS	74
<b>ORGANIC PHOTOVOLTAICS</b>	84
SOLAR CELLS	84
DYE CELLS	85
<b>LIQUID CRYSTALS</b>	88
AZOMETHINES	88
DIOXANES	89
PYRIMIDINES	91
4,4'-BISUBSTITUTED PHENYLBENZOATES	96
4'-ALKYL-4-CYANOBIHENYLS	100
4'-ALKOXY-4-CYANOBIHENYLS	102
4'-(ALKENYLOXY)-4-CYANOBIHENYLS	104
4'-ALKYL-4-CYANOTERPHENYLS	105
TRANS-4,4'-ALKYLCYCLOHEXYL-BENZONITRILES	106
CHOLESTERYLESTERS	107
TOLANES	109
DISCOTICS	111
MISCELLANEOUS	114
MIXTURES	116
REACTIVE MESOGENS - MONOFUNCTIONAL	117
REACTIVE MESOGENS - BIFUNCTIONAL	120
<b>DOPANTS FOR LC-APPLICATIONS</b>	123
CHIRAL DOPANTS	123

# Content

<b>LC-POLYMER PRECURSORS</b>	124
ACRYLATES AND METHACRYLATES	124
SPACERS	127
<b>PRECURSORS FOR LIQUID CRYSTALS</b>	131
4-(TRANS-4-ALKYLCYCLOHEXYL)PHENOLS	131
TRANS-4-ALKYL-1,1'-BI(CYCLOHEXAN)-4-OLS	132
2-ALKYL-PROPANE-1,3-DIOLS	133
TRANS-(ALKYLCYCLOHEXYL)PROPANE-1,3-DIOLES	143
TRANS-4-ALKYL-CYCLOHEXANECARBOXYLIC ACIDS	135
4-ALKYL-1,1'-BICYCLOHEXYL-4'-CARBOXYLIC ACIDS	136
4-(4'-ALKYLCYCLOHEX-1-YL)CYCLOHEXANONES	137
ALKYLBENZENES	138
4-ALKYLPHENYLBORONIC ACIDS	140
4-ALKOXYPHENYLBORONIC ACIDS	141
4-ALKYL-ACETOPHENONES	142
4-ALKYL-PHENYLACETYLENES	144
4-ALKYLBROMOBENZENES	145
4-ALKOXYBROMOBENZENES	147
4-ALKYL- AND 4-CYANOPHENOLS	148
4-ALKOXYPHENOLS	150
4-ALKYLBENZONITRILES	152
4-ALKOXYBENZONITRILES	153
4-ALKYLBENZOYL CHLORIDES	154
4-ALKOXYBENZOYL CHLORIDES	156
4-ALKYLBENZOIC ACIDS	157
4-ALKENYLBENZOIC ACIDS	159
4-ALKOXYBENZOIC ACIDS	160
4-ALKENYLOXYBENZOIC ACIDS	162

# Content

4-ALKYLBENZALDEHYDES	163
4-ALKOXYBENZALDEHYDES	164
4-ALKYLBIPHENYLCARBOXYLIC ACIDS	166
4-ALKOXYBIPHENYLCARBOXYLIC ACIDS	168
4-(4'-ALKYLCYCLOHEXYL)BENZOIC ACIDS	169
4-ALKYLBIPHENYL-4'-ALDEHYDES	170
4-ALKOXYBIPHENYL-4'-ALDEHYDES	171
4-ALKYL-CYCLHEXANONES	172
4-ALKYLCYCLOHEXANOLS	173
HYDROQUINONES	174
5-ALKYL-2-CHLOROPYRIMIDINES	175
4-ALKYL-4'-BROMO-1,1'-BIPHENYLS	176
ACETALS AND KETALS	177
MISCELLANEOUS	178
<b>SUPPLEMENTS</b>	186
CAS NO INDEX	186
CHEMICAL NAME INDEX	193
CONCORDANCE	221
MOLECULAR FORMULA INDEX	227

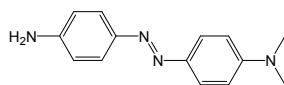
## FUNCTIONAL AND FLUORESCENT DYES: AZO DYES

### 4-Amino-4'-dimethylaminoazobenzene

**ST03254**

539-17-3

C14H16N4



min. 95 % (HPLC);

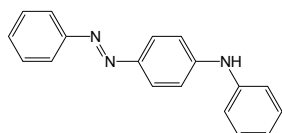
abs. max.: 413 nm (MeOH); molar absorptivity: >25000 l/(mol\*cm);

### 4-(Phenylazo)diphenylamine

**ST00347**

101-75-7

C18H15N3



4-Anilinoazobenzene

min. 97 % (HPLC);

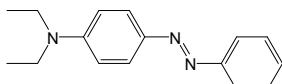
abs. max.: 409 nm (MeOH); 539 nm (MeOH; Toluene sulphonic acid); m. p.: 88-91°C; acichromic dye;

### 4-(N,N-Diethylamino)azobenzene

**ST01968**

2481-94-9

C16H19N3



4'-(N,N-Diethylamino)-(1E)-diphenyldiazene

min. 97 % (HPLC);

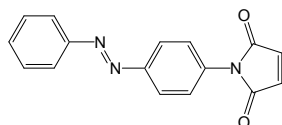
abs. max.: 415 nm (MeOH), molar absorptivity: >28000 l/(mol\*cm);

### 4-Phenylazomaleinanyl

**ST04404**

16201-96-0

C16H11N3O2



1-(4-Phenylazophenyl)pyrrole-2,5-dione

min. 98 % (HPLC);

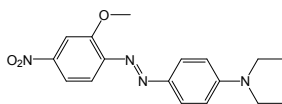
m. p.: 161-165°C;

### N,N-Diethyl-4-[(2-methoxy-4-nitro)phenylazo]aniline

**ST02590**

6373-95-1

C17H20N4O3



min. 98 % (HPLC);

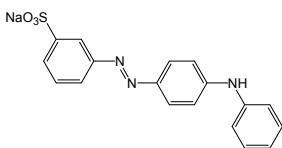
abs. max.: 495 nm (MeOH); molar absorptivity: >30000 l/(mol\*cm);

### Metanil yellow

**ST02092**

587-98-4

C18H14N3NaO3S



Acid Yellow 36

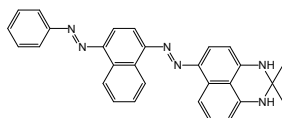
abs. max.: 414-417 nm (MeOH);

### Solvent Black 3 (C.I. 26150)

**ST04351**

4197-25-5

C29H24N6



Sudan Black B

moisture: max. 0.5 %; Fe-content: max. 150 ppm; ash: max. 0.5 %;

abs. max.: 598-603 nm (EtOH); molar absorptivity: >28000 l/(mol\*cm);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



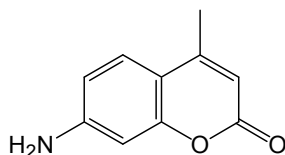
## FUNCTIONAL AND FLUORESCENT DYES: COUMARINES

### 7-Amino-4-methylcoumarin

**ST01790**

26093-31-2

C10H9NO2



Coumarin 120, Coumarin 440

min. 98 % (HPLC);

abs. max.: 348-552 nm (EtOH); molar absorptivity: >18000

l/(mol\*cm); emiss. max.: 435 nm (EtOH);

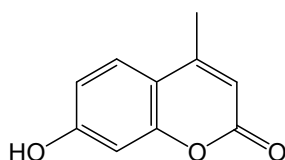
laser dye for pulsed and CW operation, tunable around 440 nm;

### 7-Hydroxy-4-methylcoumarin

**ST01789**

90-33-5

C10H8O3



Coumarin 4, Coumarin 456, Umbelliferone 47

min. 98 % (HPLC);

abs. max.: 372 nm (MeOH); molar absorptivity: >21000 l/(mol\*cm);

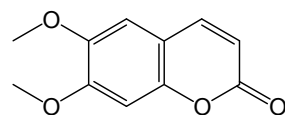
emiss. max.: 445 nm;

### 6,7-Dimethoxycoumarin

**ST03759**

120-08-1

C11H10O4



Scoparone

min. 97.5 % (HPLC);

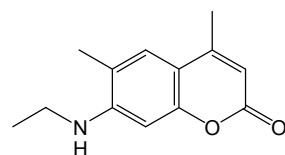
m. p.: 144-146°C;

### 4,6-Dimethyl-7-ethylaminocoumarin

**ST01788**

26078-25-1

C13H15NO2



Coumarin 2, Coumarin 450

min. 97 % (HPLC);

abs. max.: 366 nm; molar absorptivity: >20000 l/(mol\*cm); emiss.

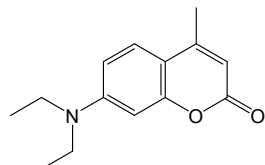
max.: 435 nm;

### 7-Diethylamino-4-methylcoumarin

**ST01778**

91-44-1

C14H17NO2



Coumarin 1, Coumarin 47

min. 99 % (GC);

abs. max.: 373 nm (EtOH); molar absorptivity: >21000 l/(mol\*cm);

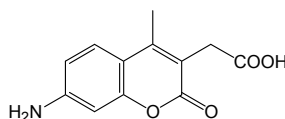
m. p.: 71-75°C;

### 7-Amino-4-methyl-2-oxo-2H-chromen-3-ylacetic acid

**ST00534**

106562-32-7

C12H11NO4



7-Amino-4-methyl-3-coumarinyl acetic acid

min. 90 % (HPLC);

emiss. max.: 433 nm; exc.: 350 nm (MeOH);

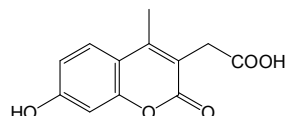
fluorescent dye for biolabelling;

### (7-Hydroxy-4-methyl-cumarone-3-yl)acetic acid

**ST00362**

5852-10-8

C12H10O5



min. 98 % (HPLC);

emiss. max.: 450 nm; exc.: 360 nm (0.1 Tris pH 9.0);

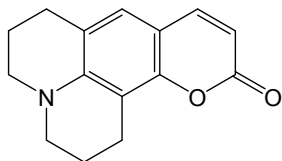
fluorescent dye for biolabelling;

## FUNCTIONAL AND FLUORESCENT DYES: COUMARINES

### Coumarin 6H

**ST01794**

58336-35-9

C<sub>15</sub>H<sub>15</sub>NO<sub>2</sub>

Coumarin 540H

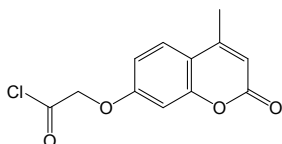
min. 98 % (HPLC);

abs. max.: 390 nm (EtOH); molar absorptivity: &gt;21600 l/(mol\*cm);

### 7-(Chlorocarbonylmethoxy)-4-methylcoumarin

**ST01885**

91454-65-8

C<sub>12</sub>H<sub>9</sub>ClO<sub>4</sub>

4-Methylcoumarin-7-yloxyacetyl chloride

min. 97 % (titr.);

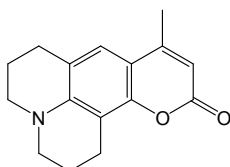
m. p.: 127-130°C;

fluorescent dye for biolabelling;

### Coumarin 102

**ST01792**

41267-76-9

C<sub>16</sub>H<sub>17</sub>NO<sub>2</sub>

Coumarin 480

abs. max.: 390-392 nm (EtOH); molar absorptivity: &gt;21600

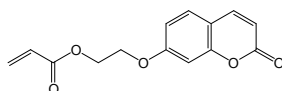
l/(mol\*cm); emiss. max.: 466 nm;

laser dye for pulsed and cw operation, tunable around 480 nm;

### 7-((2-Acryloyloxy)ethoxy)coumarin

**ST04292**

917988-37-5

C<sub>14</sub>H<sub>12</sub>O<sub>5</sub>

Acrylic acid 2-(2-oxo-2H-chromen-7-yloxy)ethyl ester

min. 95 % (HPLC);

abs. max.: 319-321 nm; molar absorptivity: &gt;13000 l/(mol\*cm);

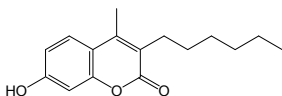
emiss. max.: 384 nm;

polymerizable coumarin with violet emission;

### 3-n-Hexyl-7-hydroxy-4-methylcoumarin

**ST04291**

109565-17-5

C<sub>16</sub>H<sub>20</sub>O<sub>3</sub>

3-Hexyl-7-hydroxy-4-methyl-chromen-2-one

min. 97 % (HPLC); abs.max.: 318.5 nm;

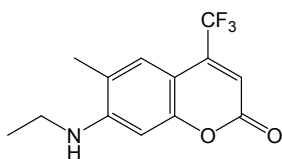
molar absorptivity: 15000 l/(mol\*cm); emiss. max.: 382 nm; m. p.:

113-114°C;

### Coumarin 307

**ST01229**

55804-70-1

C<sub>13</sub>H<sub>12</sub>F<sub>3</sub>NO<sub>2</sub>

Coumarin 503

m. p.: 182-184°C;

abs. max.: 395 nm (EtOH); molar absorptivity: &gt;18500 l/(mol\*cm);

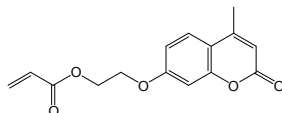
emiss. max. (EtOH): 490 nm;

laser dye for pulsed and CW operation;

### 7-((2-Acryloyloxy)ethoxy)-4-methylcoumarin

**ST04293**

124246-69-1

C<sub>15</sub>H<sub>14</sub>O<sub>5</sub>

Acrylic acid 2-(4-methyl-2-oxo-2H-chromen-7-yloxy)ethyl ester

min. 95 % (HPLC);

abs. max.: 318-320 nm; molar absorptivity: &gt;13000 l/(mol\*cm);

emiss. max.: 381 nm;

polymerizable coumarin with violet emission;

### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



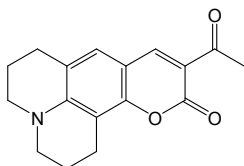
## FUNCTIONAL AND FLUORESCENT DYES: COUMARINES

### Coumarin 334

**ST01797**

55804-67-6

C17H17NO3



Coumarin 521

min. 98 % (HPLC);

abs. max.: 452 nm (EtOH); molar absorptivity: &gt;47500 l/(mol\*cm);

emiss. max.: 495 nm;

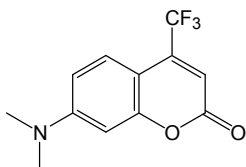
laser dye for pulsed and cw operation, tunable around 480 nm;

### Coumarin 152

**ST01230**

53518-14-2

C14H14F3NO2



Coumarin 485 \* C2F

min. 97 % (HPLC); m. p.: 147-149°C;

abs. max.: 396-398 nm (EtOH); molar absorptivity: &gt;19000

l/(mol\*cm); emiss. max.: 510 nm;

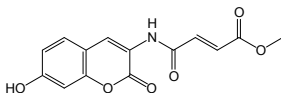
laser dye for pulsed and cw operation, tunable around 520 nm;

### 3-(7-Hydroxy-2-oxo-2H-chromen-3-ylcarbamoyl)acrylic acid methylester

**ST04235**

173888-41-9

C14H11NO6



min. 95 % (HPLC);

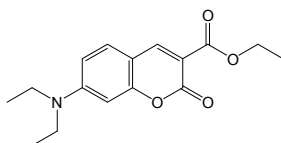
abs. max.: 347 nm (MeOH); molar absorptivity: &gt;20000 l/(mol\*cm);

### Ethyl 7-Diethylaminocoumarin-3-carboxylate

**ST02061**

28705-46-6

C16H19NO4



7-Diethylaminocoumarin-3-carboxylic acid ethyl ester

min. 98 % (HPLC);

abs. max.: 416-420 nm (EtOH); molar absorptivity: &gt;45000

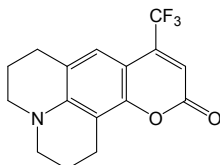
l/(mol\*cm);

### Coumarin 153

**ST01599**

53518-18-6

C16H14NO2F3



Coumarin 540A

min. 97 % (HPLC);

abs. max.: 423 nm (EtOH); molar absorptivity: &gt;18900 l/(mol\*cm);

emiss. Max.: 480 nm;

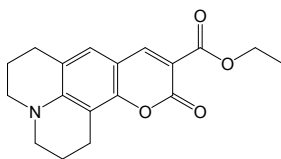
laser dye for pulsed and cw operation, tunable around 500 nm;

### Coumarin 314

**ST01208**

55804-66-5

C18H19NO4



Coumarin 504

min. 98 % (HPLC);

abs. max.: 437 nm (EtOH); molar absorptivity: &gt;46000 l/(mol\*cm);

lasing peak: 503 nm; emiss. max.: 480 nm;

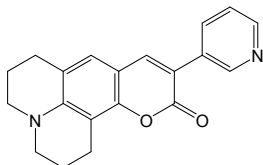
laser dye for pulsed and cw operation, tunable around 505 nm;

### Coumarin 510

**ST03242**

87349-92-6

C20H18N2O2



2,3,5,6-1H,4H-Tetrahydro-9-(3-pyridyl)quinolizino[9,9a,1-g]coumarin

min. 97 % (HPLC);

abs. max.: 425 nm (EtOH); molar absorptivity: &gt;34000 l/(mol\*cm);

laser dye for pulsed and cw operation, tunable around 510 nm;

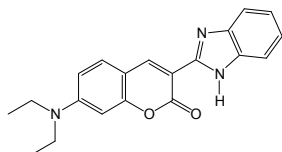
## FUNCTIONAL AND FLUORESCENT DYES: COUMARINES

### Coumarin 7

#### ST01787

27425-55-4

C20H19N3O2



Coumarin 535

min. 99 % (HPLC);

abs. max.: 433 nm; molar absorptivity: >50500 l/(mol\*cm); emiss.

max.: 493 nm;

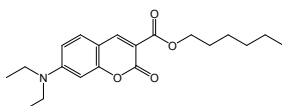
laser dye for pulsed and cw operation, tunable around 530 nm;

### n-Hexyl 7-diethylaminocoumarin-3-carboxylate

#### ST04535

851963-03-6

C20H27NO4



min. 98 % (HPLC);

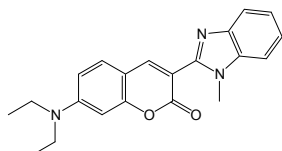
m. p.: 65-69°C;

### Coumarin 30

#### ST01796

41044-12-6

C21H21N3O2



Coumarin 515

min. 99 % (HPLC);

abs. max.: 415 nm (EtOH); molar absorptivity: >40000 l/(mol\*cm);

emiss. max.: 488 nm;

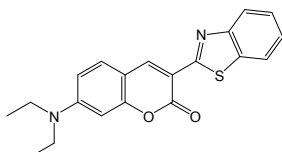
laser dye for pulsed and cw operation, tunable around 510 nm;

### Coumarin 6

#### ST01786

38215-36-0

C20H18N2O2S



Coumarin 540

min. 99 % (HPLC);

abs. max.: 458 nm (EtOH); molar absorptivity: >50000 l/(mol\*cm);

emiss. max.: 505 nm;

laser dye for pulsed and cw operation, tunable around 540 nm;

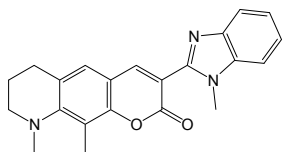
green dopant for OLED;

### 9-(1-Methyl-benzimidazol-2-yl)-2,3-5-6-tetrahydroquinolizino[9,9a,1-gh]coumarin

#### ST03595

601506-57-4

C23H21N3O2



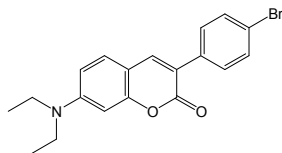
min. 97 % (HPLC);

### 3-(4-Bromophenyl)-7-diethylaminochromen-2-one

#### ST04185

720674-46-4

C19H18BrNO2



min. 97 % (HPLC);

abs. max.: 405 nm (EtOH); molar absorptivity: >30000 l/(mol\*cm);

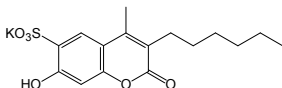
m. p.: 159-163°C;

### 3-n-Hexyl-7-hydroxy-4-methylcoumarinyl-6-sulfonic acid potassium salt

#### ST04242

123133-94-8

C16H19KO6S



min. 95 % (HPLC);

abs. max.: 322 nm (MeOH); molar absorptivity: >16300 l/(mol\*cm);

emiss. max.: 386 nm (MeOH); m. p.: 175-185°C;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



## FUNCTIONAL AND FLUORESCENT DYES: COUMARINES

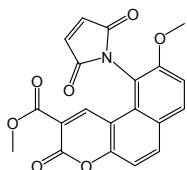
Methyl 10-(2,5-dioxo-2,5-dihydro-1H-pyrrol-1-yl)-9-methoxy-3-oxo-3H-benzo[f]chromene-2-carboxylate

**ST06405**

137350-66-4

C20H13NO7

**NEW**



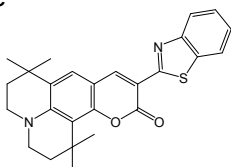
min. 90 % (HPLC)

10-(2-Benzothiazolyl)-2,3,6,7-tetrahydro-2,2,6,6-tetramethyl-1H-5H-[1]benzopyrano[6,7,8-ii]quinolizin-11-one

**ST01878**

155306-71-1

C26H26N2O2S



C545T

min. 97 % (HPLC);

abs. max.: 475-479 nm (EtOH); emiss. max.: 510-514 nm;

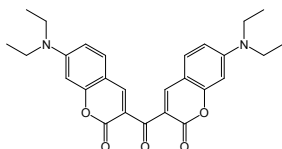
green dopant for OLED;

3,3'-Carbonyl-bis(7-diethylaminocoumarine)

**ST00804**

63226-13-1

C27H28N2O5



min. 97 % (HPLC);

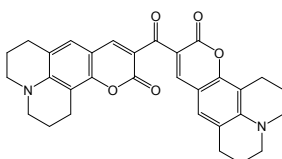
abs. max.: 447-451 nm (Toluene); molar absorptivity: >80000 l/(mol\*cm); m. p.: 214-217°C;

Bis(2,3,5,6-1H,4H-Tetrahydroquinolino[9,9a,1-gh]coumarin-3-yl)carbonyl

**ST03869**

83179-50-4

C31H28N2O5



min. 97 % (HPLC);

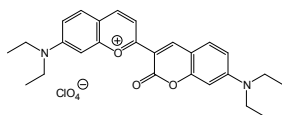
abs. max.: 469 nm; m. p.: 332°C (dec.);

7-Diethylamino-2-(7-diethylamino-chroman-2-one-3-yl)chromylium perchlorate

**ST00197**

81190-25-2

C26H29ClN2O7



abs. max.: 670 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: 80000 l/(mol\*cm);

lasing wavelength: 764 nm; lasing range: 715-805 nm; solvent:

CH<sub>2</sub>Cl<sub>2</sub>; laser efficiency: 5%;

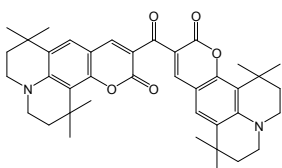
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

Bis(1,1,6,6-tetramethyl-2,3,5,6-1H,4H-tetrahydroquinolino[9,9a,1-gh]coumarin-3-yl)carbonyl

**ST03876**

168412-88-2

C39H44N2O5



min. 98 % (HPLC);

abs. max.: 478 nm; m. p.: 306-308°C;

## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

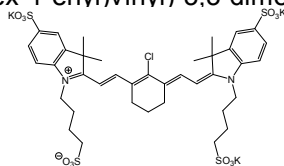
Tripotassium 2-(2-(2-chloro-3-(2-(3,3-dimethyl-5-sulfonato-1-(4-sulfonatobutyl)indolin-2-ylidene)-ethylidene)cyclohex-1-enyl)vinyl)-3,3-dimethyl-1-(4-sulfonatobutyl)-3H-indolium-5-sulfonate

**ST01289**

138081-45-5

C38H44ClK3N2O12

S4



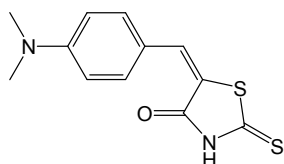
abs. max.: 790 nm (MeOH); molar absorptivity: >260000 l/(mol\*cm);

5-[(4-Dimethylamino)benzylidene]rhodanine

**ST00762**

536-17-4

C12H12ON2S2



97-103 % (titr.);

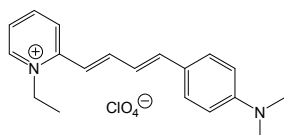
abs. max.: 451 nm (MeOH); m. p.: 285-288°C;

1-Ethyl-2-[4-(4-Dimethylaminophenyl)-1,3-butadien-1-yl]pyridinium perchlorate

**ST02615**

87004-02-2

C19H23ClN2O4



Pyridin 1, LDS 698

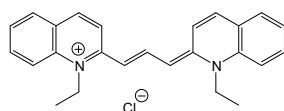
abs. max.: 488-492 nm (EtOH); molar absorptivity: >32000 l/(mol\*cm); m. p.: 200-210°C;

2,2'-Trimethinequinocyanine chloride

**ST04388**

2768-90-3

C25H25ClN2



Quinaldine blue, Pinacyanol chloride

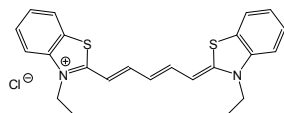
abs. max.: 563 and 607 nm; molar absorptivity.: >80000 and >180000 l/(mol\*cm);

3-Ethyl-2-(5-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)penta-1,3-dienyl)benzo[d]thiazol-3-ium chloride

**ST00081**

54646-38-7

C23H23ClN2S2



abs. max.: 655 nm (MeOH); molar absorptivity: >20000 l/(mol\*cm);

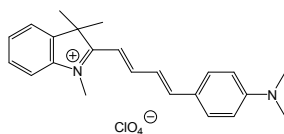
sensitizer for photography;

Styryl 6

**ST03239**

76433-27-7

C23H27ClN2O4



abs. max.: 615 nm (EtOH); molar absorptivity: >73800 l/(mol\*cm);

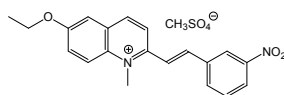
laser dye;

Pinacryptol yellow

**ST01367**

25910-85-4

C21H22N2O7S



min. 97 % (HPLC);

abs. max.: 382-386 nm (CH3OH); molar absorptivity: >22000 l/(mol\*cm); m. p.: 265°C;

desensitizer for silver halide photographic emulsions;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



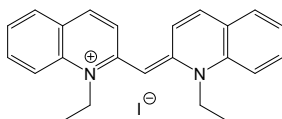
## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

### 1-Ethyl-2-[(1-ethylquinolin-2(1H)-ylidene)methyl]quinolinium iodide

**ST00067**

977-96-8

C23H23IN2



min. 97 % (UV-VIS at 523 nm);

abs. max.: 523 nm (MeOH); molar absorptivity: >74000 l/(mol\*cm);

m. p.: 170-176°C;

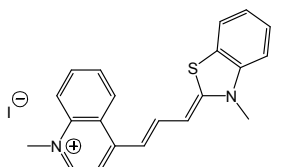
sensitizer for photography;

### 1,3'-Dimethyl-4,2'-quinolythiacarbocyanine iodide

**ST06294**

2642-25-3

C21H19IN2S



Abs. max. 629,0

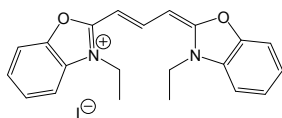
mol. Ext. 131000

### 3,3'-Diethyloxacarbo-cyanine iodide

**ST03229**

905-96-4

C21H21IN2O2



DOCI

abs. max.: 485 nm (EtOH); molar absorptivity: >126000 l/(mol\*cm);

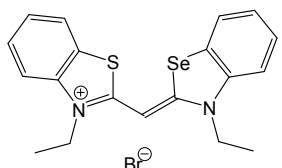
laser dye; solvent soluble cyanine dye;

### 3-Ethyl-2-((3-ethylbenzo[d][1,3]selenazol-2(3H)-ylidene)methyl)benzo[d]thiazol-3-ium bromide

**ST02186**

143269-59-4

C19H19BrN2SSe



abs. max.: 426 nm (MeOH); molar absorptivity: >72000 l/(mol\*cm);

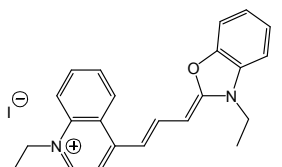
m. p.: 290-295°C;

### 1-Ethyl-4-((1E,3Z)-3-(3-ethylbenzo[d]oxazol-2(3H)-ylidene)prop-1-enyl)quinolinium iodide

**ST06295**

32151-96-5

C23H23IN2O



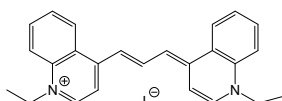
abs. max. 629,0; molar absorptivity: 131000

### 1,1'-Diethyl-4,4'-carbocyanine iodide

**ST01380**

4727-50-8

C25H25IN2



Cryptocyanine

min. 97 % (titr.);

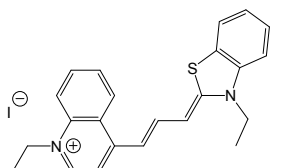
abs. max.: 706 nm (MeOH); molar absorptivity: >225000 l/(mol\*cm);

### 1,3'-Diethyl-4,2'-quinolythiacarbocyanine iodide

**ST03230**

2642-25-3

C23H23IN2S



DQTCl, LC 6290

abs. max.: 629 nm (MeOH); molar absorptivity: >131000 l/(mol\*cm);

laser dye;

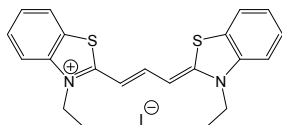
## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

3-Ethyl-2-(3-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)prop-1-enyl)benzo[d]thiazol-3-ium iodide

**ST00074**

905-97-5

C21H21IN2S2



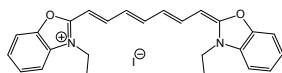
abs. max.: 563 nm (CH<sub>2</sub>Cl<sub>2</sub>), 556 nm (MeOH); molar absorptivity: >150000 l/(mol\*cm); sensitizer for photography; solvent soluble cyanine dye;

3-Ethyl-2-[7-(3-ethyl-3H-benzoxazol-2-ylidene)hepta-1,3,5-trienyl]benzoxazolium iodide

**ST04011**

15185-43-0

C25H25IN2O2



DOTCl

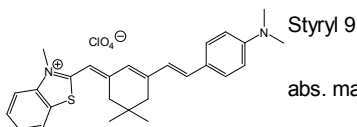
abs. max.: 965 nm (DMSO); molar absorptivity: >175000 l/(mol\*cm);

Styryl 9M

**ST03358**

82988-08-7

C27H31ClN2O4S



abs. max.: 585 nm (EtOH); molar absorptivity: >50500 l/(mol\*cm);

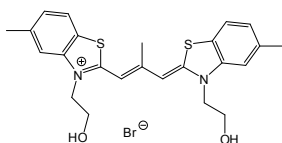
laser dye;

3,3'-Dihydroxyethyl-5,5'-dimethyl-9-methylthiacarbocyanine bromide

**ST00657**

36393-83-6

C24H27BrN2O2S2



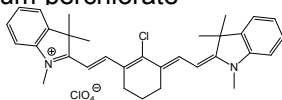
abs. max.: 551 nm; molar absorptivity: >120000 l/(mol\*cm);

2-(2-(2-Chloro-3-(2-(1,3,3-trimethylindolin-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,3,3-trimethyl-3H-indolium perchlorate

**ST00949**

102185-03-5

C32H36ClN2O4



abs. max.: 775 nm (MeOH); molar absorptivity: >260000 l/(mol\*cm);

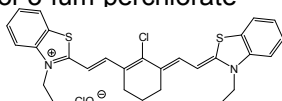
antihalation dye;

2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3-ethylbenzo[d]thiazol-3-ium perchlorate

**ST00946**

219595-74-1

C28H28ClN2O4S2



abs. max.: 794 nm (MeOH); molar absorptivity: >230000 l/(mol\*cm);

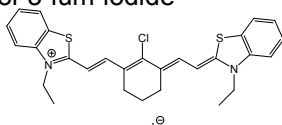
sensitizer for silver halide materials;

2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3-ethylbenzo[d]thiazol-3-ium iodide

**ST00971**

65303-15-3

C28H28ClIN2S2



abs. max.: 795 nm (MeOH); molar absorptivity: >230000 l/(mol\*cm);

### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

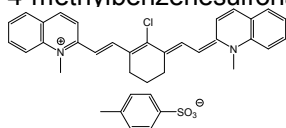
## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

2-(2-(2-Chloro-3-(2-(1-methylquinolidine-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1-methylquinolinium 4-methylbenzenesulfonate

**ST00959**

287194-09-6

C37H35ClN2O3S



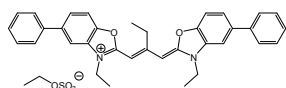
abs. max.: 844 nm (MeOH); molar absorptivity: >170000 l/(mol\*cm);

3-Ethyl-2-(2-((3-ethylbenzo[d]oxazol-2(3H)-ylidene)methyl)but-1-enyl)benzo[d]oxazol-3-ium ethylsulfate

**ST00069**

41503-61-1

C37H38N2O6S



abs. max.: 502 nm (MeOH); molar absorptivity: >160000 l/(mol\*cm);

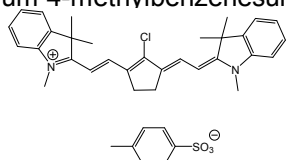
sensitizer for photography;

2-(2-(2-Chloro-3-(2-(1,3,3-trimethylindolin-2-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,3,3-trimethyl-3H-indolium 4-methylbenzenesulfonate

**ST00990**

193687-61-5

C38H41ClN2O3S



abs. max.: 798 nm (MeOH); molar absorptivity: >280000 l/(mol\*cm);

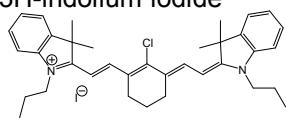
solvent soluble cyanine dye;

2-(2-(2-Chloro-3-(2-(3,3-dimethyl-1-propylindolin-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3,3-dimethyl-1-propyl-3H-indolium iodide

**ST03087**

207399-07-3

C36H44ClIN2



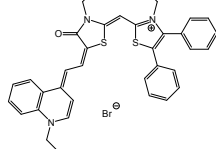
abs. max.: 781 nm (MeOH); molar absorptivity: >79000 l/(mol\*cm);

3-Ethyl-2-((3-ethyl-5-(2-(1-ethylquinolin-4(1H)-ylidene)ethylidene)-4-oxothiazolidin-2-ylidene)methyl)-4,5-diphenylthiazol-3-ium bromide

**ST00100**

51257-37-5

C36H34BrN3OS2



abs. max.: 669 nm (MeOH); molar absorptivity: >119000 l/(mol\*cm);

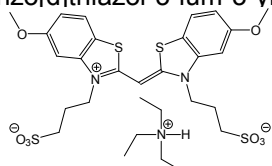
sensitizer for photography;

Triethylammonium 3-(5-methoxy-2-((5-methoxy-3-(3-sulfonatopropyl)benzo[d]thiazol-2(3H)-ylidene)methyl)benzo[d]thiazol-3-ium-3-yl)propane-1-sulfonate

**ST02125**

63148-97-0

C29H41N3O8S4



abs. max.: 440 nm (MeOH); molar absorptivity: >79000 l/(mol\*cm);

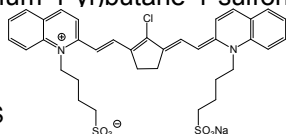
sodium 4-(2-(2-(2-chloro-3-(2-(1-(4-sulfonatobutyl)quinolin-2(1H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)quinolinium-1-yl)butane-1-sulfonate

**ST01226**

287183-28-2

C35H36ClN2NaO6S

2



abs. max.: 876 nm (MeOH); molar absorptivity: >141000 l/(mol\*cm);

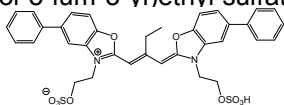
## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

2-(5-phenyl-2-(2-((5-phenyl-3-(2-(sulfooxy)ethyl)benzo[d]oxazol-2(3H)-ylidene)methyl)but-1-enyl)benzo[d]oxazol-3-ium-3-yl)ethyl sulfate

**ST02185**

27746-90-3

C35H32N2O10S2



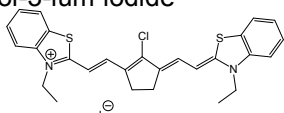
abs. max.: 503 nm (MeOH); molar absorptivity: >135000 l/(mol\*cm);

2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-3-ethylbenzof[d]thiazol-3-ium iodide

**ST01139**

65303-14-2

C27H26ClIN2S2



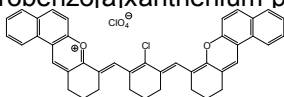
abs. max.: 818 nm (MeOH); molar absorptivity: >245000 l/(mol\*cm);

8-((2-Chloro-3-((10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)cyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]xanthenium perchlorate

**ST00186**

62580-63-6

C42H34Cl2O6



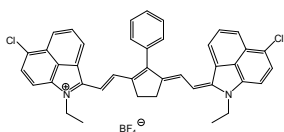
abs. max.: 1055 nm (CH2Cl2);

IR 1051

**ST01965**

100012-45-1

C41H33BCl2F4N2



abs. max.: 1042 nm (MeOH/HCOOH);

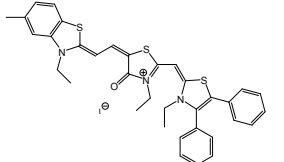
IR-absorber;

3-Ethyl-2-((3-ethyl-4,5-diphenylthiazol-2(3H)-ylidene)methyl)-5-(2-(3-ethyl-5-methylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)-4-oxo-4,5-dihydrothiazol-3-ium iodide

**ST02109**

143269-96-9

C35H34N3O1S3



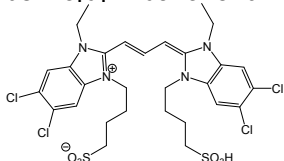
abs. max.: 594 nm (MeOH); molar absorptivity: >100000 l/(mol\*cm);  
m. p.: 281-284 °C;

4-(5,6-Dichloro-2-(3-(5,6-dichloro-1-ethyl-3-(4-sulfobutyl)-1H-benzo[d]imidazol-2(3H)-ylidene)prop-1-enyl)-1-ethyl-1H-benzof[d]imidazol-3-ium-3-yl)butane-1-sulfonate

**ST01058**

10049-96-4

C29H34Cl4N4O6S2



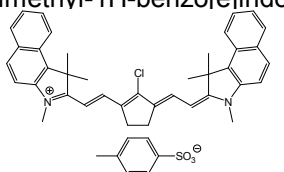
abs. max.: 518 nm (MeOH); molar absorptivity: >90000 l/(mol\*cm)  
(as Triethylammonium salt);

2-(2-(2-Chloro-3-(2-(1,1,3-trimethyl-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,1,3-trimethyl-1H-benzo[e]indolium 4-methylbenzenesulfonate

**ST01133**

287182-34-7

C46H45ClN2O3S



abs. max.: 838 nm (MeOH); molar absorptivity: >230000 l/(mol\*cm);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

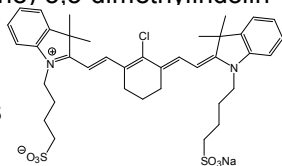
Sodium 4-(2-(2-(2-chloro-3-(2-(3,3-dimethyl-1-(4-sulfonatobutyl)-3H-indolium-2-yl)vinyl)cyclohex-2-enylidene)ethylidene)-3,3-dimethylindolin-1-yl)butane-1-sulfonate

**ST00947**

115970-66-6

C38H46ClN2NaO6S

2



abs. max.: 783 nm (MeOH); molar absorptivity: >240000 l/(mol\*cm);

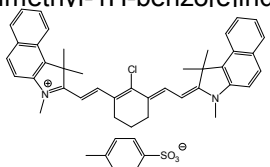
antihalation dye; water soluble cyanine dye;

2-(2-(2-Chloro-3-(2-(1,1,3-trimethyl-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,1,3-trimethyl-1H-benzofelindolium 4-methylbenzenesulfonate

**ST00798**

134127-48-3

C47H47ClN2O3S



abs. max.: 813 nm (MeOH); molar absorptivity: >235000 l/(mol\*cm);

min. 97.5 % (HPLC);

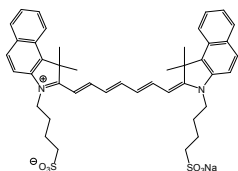
NIR dye for thermic off-set printing systems (CTP). Used in systems with laser diodes; emitting at 830 nm;

Indocyanin Green

**ST00084**

3599-32-4

C43H47N2NaO6S2



Fox Green

min. 98 % (HPLC);

abs. max.: 784 nm (MeOH); molar absorptivity: >235000 l/(mol\*cm);

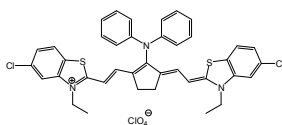
sensitizer for photography;

IR 140

**ST01844**

53655-17-7

C39H34Cl3N3O4S2



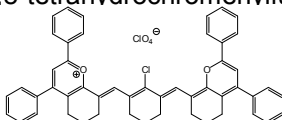
abs. max.: 805 nm (MeOH); molar absorptivity: >160000 l/(mol\*cm);

8-((2-Chloro-3-((2,4-diphenyl-6,7-dihydro-5H-chromen-8-yl)methylene)cyclohex-1-enyl)methylene)-2,4-diphenyl-5,6,7,8-tetrahydrochromenylium perchlorate

**ST01291**

61010-07-9

C50H42Cl2O6



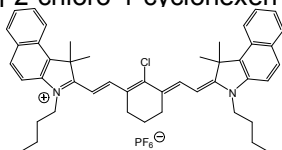
abs. max.: 1120 nm (CH2Cl2); molar absorptivity: >113000 l/(mol\*cm);

3-Butyl-2-[(E)-2-((3E)-3-((2Z)-2-(3-butyl-1,1-dimethyl-1,3-dihydro-2H-benzo[e]indol-2-ylidene)ethylidene)-2-chloro-1-cyclohexen-1-yl)vinyl]-1,1-dimethyl-1H-benzofelindolium

**ST06261**

885691-99-6

C46H52ClF6N2P



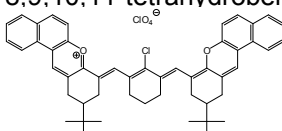
UV/VIS conforms, NMR conforms, HPLC: min. 97 %

10-tert-Butyl-8-((3-(tert-butyl-10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)-2-chlorocyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]xanthenium perchlorate

**ST01292**

287185-31-3

C50H50Cl2O6



abs. max.: 1057 nm (CH2Cl2); molar absorptivity: >150000 l/(mol\*cm);

## FUNCTIONAL AND FLUORESCENT DYES: CYANINES / POLYMETHINES

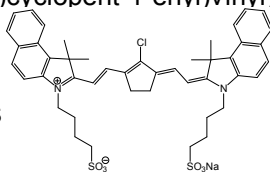
---

Sodium 4-(2-(2-(2-chloro-3-(2-(1,1-dimethyl-3-(4-sulfonatobutyl)-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,1-dimethyl-1H-benzofelindolium-3-yl)butane-1-sulfonate  
**ST01651**

162093-45-0

C45H48ClN2NaO6S

2



abs. max.: 845 nm (MeOH); molar absorptivity: >220000 l/(mol\*cm);

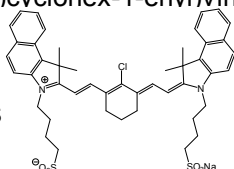
---

Sodium 4-(2-(2-(2-chloro-3-(2-(1,1-dimethyl-3-(4-sulfonatobutyl)-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,1-dimethyl-1H-benzofelindolium-3-yl)butane-1-sulfonate  
**ST01347**

172616-80-7

C46H50ClN2NaO6S

2



min. 97 % (HPLC);

abs. max.: 818-822 nm (MeOH); mol. absorptivity: >250000

l/(mol\*cm);

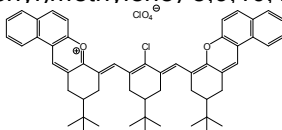
water soluble cyanine dye;

---

10-tert-Butyl-8-((5-tert-butyl-3-((10-tert-butyl-10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)-2-chlorocyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]xanthenium perchlorate  
**ST01458**

847227-39-8

C54H58Cl2O6



abs. max.: 1056 nm (CH2Cl2); molar absorptivity: >136000

l/(mol\*cm);

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

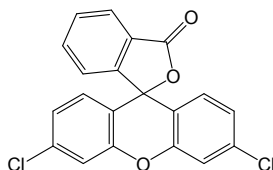
## FUNCTIONAL AND FLUORESCENT DYES: FLUORESCINES

### 3',6'-Dichlorofluorane

#### ST01145

630-88-6

C20H10Cl2O3



min. 95 % (HPLC);

abs. max.: 296 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >4500 l/(mol\*cm);

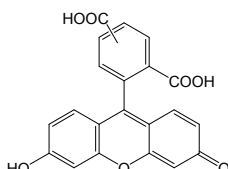
m. p.: 253-258°C;

### 5(6)-Carboxy-fluorescein, isomer mixture

#### ST00992

72088-94-9

C21H12O7



min. 96 % (HPLC, sum of isomers);

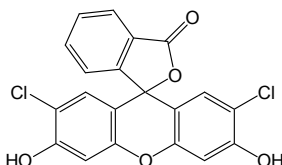
abs. max.: 497 nm (in basic MeOH); molar absorptivity: >70000 l/(mol\*cm);

### 2',7'-Dichlorofluorescein, A.C.S. Reagent

#### ST00562

76-54-0

C20H10Cl2O5



Fluorescein 27

abs. max.: 509 nm (EtOH, 1 drop NaOH); molar absorptivity: >100000 l/(mol\*cm);

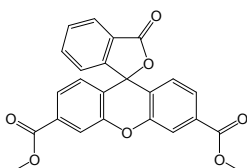
biological stain;

### Fluorescein diacetate

#### ST05360

596-09-8

C24H16O7



abs. max.: 488-494 nm (0.1 N NaOH); molar absorptivity: >86000 l/(mol\*cm);

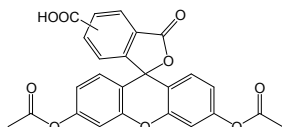
m. p.: 200-203°C;

### 5(6)-Carboxyfluorescein diacetate

#### ST04265

124387-19-5

C25H16O9



min. 95 % (HPLC);

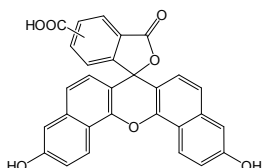
fluorescence max.: 492 nm; em.: 517 nm and pH 8.0 (esterase);

### 5(6)-Carboxynaphthofluorescein, isomer mixture

#### ST04691

128724-35-6

C29H16O7



fluorescence max.: 602 nm; em.: 672 nm (basic, 0.1 M Tris pH 9.0);

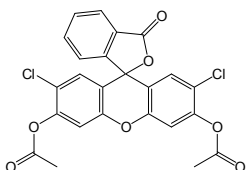
for fluorescence;

### 2',7'-Dichlorofluorescein diacetate

#### ST01079

2044-85-1

C24H14Cl2O7



min. 97 % (HPLC);

m. p.: 232-234°C;

## FUNCTIONAL AND FLUORESCENT DYES: FLUORESCEINES

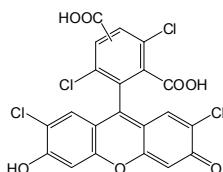
---

4,7,2',7'-Tetrachloro-5(6)-carboxyfluorescein, mixture of isomers

**ST03957**

155911-13-0 or 155

C22H12Cl4O7



5(6)TET

min. 85 % mixture of isomers (HPLC);

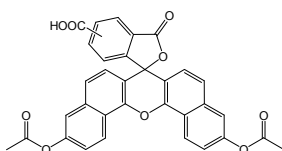
---

5(6)-Carboxynaphthofluorescein diacetate, isomer mixture

**ST04690**

163831-68-3

C33H20O9



fluorescence ex: 512 nm; em.: 567 nm (acidic/neutral);

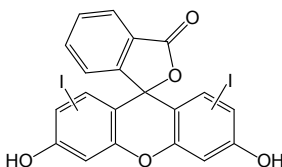
---

Diodofluorescein

**ST04361**

31395-16-1

C20H10I2O5



90-110 % (titr.);

abs. max.: 522 nm; m. p.: ca. 240°C (dec.);

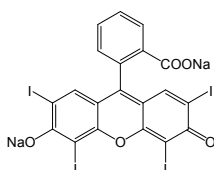
---

Erythrosin B

**ST00672**

568-63-8

C20H6I4Na2O5



2',4',5',7'-Tetraiodo-fluoresceine disodium salt

abs. max.: 525 nm (water);

biological stain;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

15

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



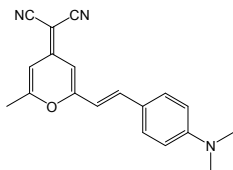
## FUNCTIONAL AND FLUORESCENT DYES: MEROCYANINES

### 4-(Dicyanomethylene)-2-methyl-6-(p-dimethylaminostyryl)-4H-pyran

**ST00381**

51325-91-8

C19H17N3O



DCM

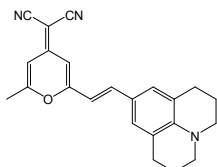
abs. max.: 468 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >47000 l/(mol\*cm);  
emiss. max.: 627 nm (DMSO); lasing wavelength: 661 nm (DMSO);  
laser dye for pulsed and cw operation, tunable around 650 nm; red  
dopant for OLED;

### 4-(Dicyanomethylen)-2-methyl-4-((julolidin-6-yl)vin-1-yl)-4H-pyran

**ST01198**

51325-95-2

C23H21N3O



DCJ, DCM2

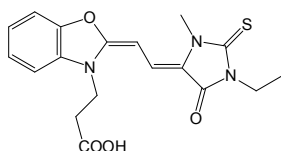
abs. max.: 507 nm (ClCH<sub>2</sub>-CH<sub>2</sub>Cl); molar absorptivity: >50000  
l/(mol\*cm); emiss. max.: 730 nm (EtOH);  
laser dye, red dopant for OLED;

### 1-Methyl-3-ethyl-5-[2-(3-(2-carboxyethyl)-benzoxazol-2-ylidene)-ethylidene]-2-thioxo-imidazolidin-4-one

**ST00661**

219556-03-3

C18H19N3O4S



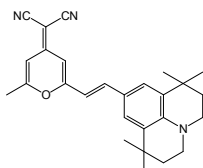
abs. max.: 483 nm (MeOH); molar absorptivity: >70000 l/(mol\*cm);

### 4-(Dicyanomethylen)-2-methyl-4-((1,1,7,7-tetramethyljulolidin-6-yl)vin-1-yl)-4H-pyran

**ST01165**

159788-00-8

C27H29N3O



Tetramethyl-DCM2, DCJT

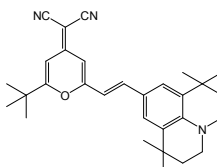
abs. max.: 520 nm (ClCH<sub>2</sub>-CH<sub>2</sub>Cl); emiss. max.: 615 nm;  
red dopant for OLED;

### 4-(Dicyanomethylen)-2-(tert-butyl)-4-((1,1,7,7-tetramethyljulolidin-6-yl)vin-1-yl)-4H-pyran

**ST01911**

200052-70-6

C30H35N3O



DCJTb

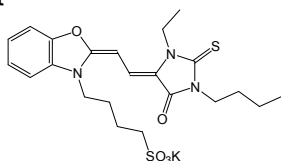
abs. max.: 497 nm (THF); emiss. max.: 604 nm;  
red dopant for OLED;

### 3-Butyl-1-ethyl-5-[2-(3-sulfobutyl-benzo[1,3]oxazolin-2-ylidene)-ethylidene]-2-thioxo-imidazolidin-4-one potassium salt

**ST00342**

77418-33-8

C22H28KN3O5S2



abs. max.: 484 nm (MeOH); molar absorptivity: >66000 l/(mol\*cm);

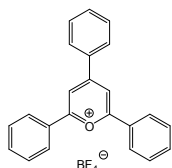
## FUNCTIONAL AND FLUORESCENT DYES: PYRYLIUM DYES

### 2,4,6-Triphenylpyrylium tetrafluoroborate

**ST03405**

448-61-3

C23H17BF4O



min. 97 % (HPLC);

abs. max.: 369 nm (MeCN); molar absorptivity: >38000 l/(mol\*cm);

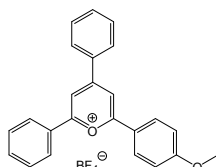
m.p.: 251-257°C;

### 2,4-Diphenyl-6-(4'-methoxyphenyl)pyrylium tetrafluoroborate

**ST00702**

2907-13-3

C24H19BF4O2



abs. max.: 357 nm (MeCN); molar absorptivity: >30000 l/(mol\*cm);

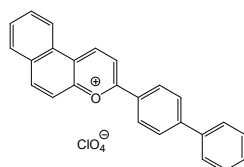
laser dye;

### 3-(Biphenyl-4-yl)-3H-benzo[f]chromylium perchlorate

**ST00194**

126634-31-9

C25H17ClO5



abs. max.: 470 nm (MeCN);

lasing wavelength: 583 nm; lasing range: 542-648 nm; solvent:

MeCN; laser efficiency: 8%;

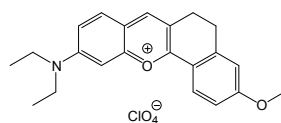
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

### 10-Diethylamino-3-methoxy-6,12a-dihydro-5H-benzo[c]xanthylum perchlorate

**ST00195**

111068-14-5

C24H22ClNO6



abs. max.: 584 nm (CH2Cl2);

lasing wavelength: 675 nm; lasing range: 640-722 nm; solvent:

CH2Cl2; laser efficiency: 5%;

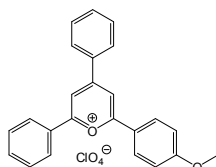
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

### 2,4-Diphenyl-6-(4'-methoxyphenyl)pyrylium perchlorate

**ST00703**

47501-44-0

C24H19ClO6



abs. max.: 357 nm (MeCN); molar absorptivity: >30000 l/(mol\*cm);

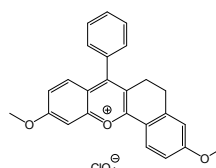
laser dye;

### 3,10-Dimethoxy-7-phenyl-6,12a-dihydro-5H-benzo[c]xanthylum perchlorate

**ST00193**

126634-30-8

C25H21ClO7



abs. max.: 488 nm (MeCN);

lasing wavelength: 547 nm; lasing range: 518-581 nm; solvent:

MeCN; laser efficiency: 16%;

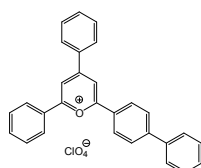
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

### 2-(Biphenyl-4-yl)-4,6-diphenylpyrylium perchlorate

**ST00192**

3557-64-0

C29H21ClO5



abs. max.: 363.7 nm, 436.4 nm (MeCN);

lasing wavelength: 627 nm; lasing range: 546-691 nm; solvent:

MeCN; laser efficiency: 10%;

new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

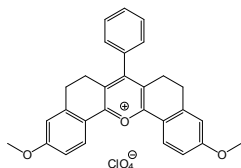
## FUNCTIONAL AND FLUORESCENT DYES: PYRYLIUM DYES

3,11-Dimethoxy-7-phenyl-6,8,9,13b-tetrahydro-5H-dibenzo[c,h]xanthylium perchlorate

**ST00191/01**

108826-49-9

C29H25ClO7



abs. max.: 497 nm (MeCN);

lasing wavelength: 570 nm; lasing range: 546-628 nm; solvent:

MeCN; laser efficiency: 10%;

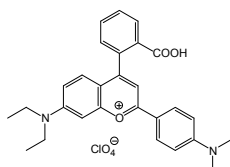
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

4-(2-Carboxy-phenyl)-7-diethylamino-2-(4-dimethylamino-phenyl)chromylium perchlorate

**ST00183**

168206-23-3

C28H29ClN2O7



abs. max.: 603 nm (CH2Cl2); molar absorptivity: >85000 l/(mol\*cm);

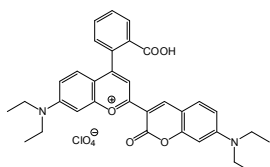
highly fluorescent dye;

4-(2-Carboxy-phenyl)-7-diethylamino-2-(7-diethylamino-chroman-2-one-3-yl)-chromylium perchlorate

**ST00184**

168206-21-1

C33H33ClN2O9



abs. max.: 661 nm (CH2Cl2); molar absorptivity: >70000 l/(mol\*cm);

m. p.: 328-330 °C (dec.);

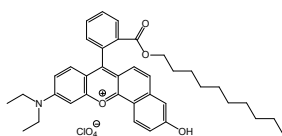
highly fluorescent dye;

10-Diethylamino-7-(2-decyloxy-carbonyl-phenyl)-3-hydroxy-benzo[c]xanthylium perchlorate

**ST00187**

135656-96-1

C38H44ClNO8



abs. max.: 560 nm (CH2Cl2); molar absorptivity: >37000 l/(mol\*cm);

achromatic dye; 670 nm (basic);

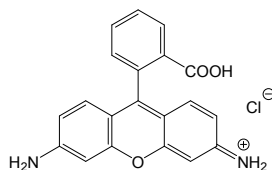
## FUNCTIONAL AND FLUORESCENT DYES: RHODAMINES

### Rhodamine 110 chloride

**ST00708**

13558-31-1

C20H15ClN2O3



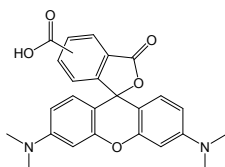
abs. max.: 509 nm (EtOH); molar absorptivity: >90000 l/(mol\*cm);  
emiss. max.: 535 nm (EtOH);  
efficient laser dye for pulsed and CW operation;

### 5(6)-Carboxy-tetramethylrhodamine

**ST01092**

98181-63-6

C25H22N2O5



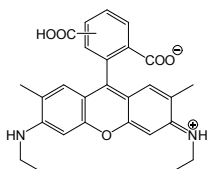
5(6)-TAMRA

abs. max.: 545 nm (MeOH, NaOH); molar absorptivity: >73000  
l/(mol\*cm);

### 5(6)-Carboxyrhodamine 6G

**ST06425**

C27H26N2O5

**NEW**

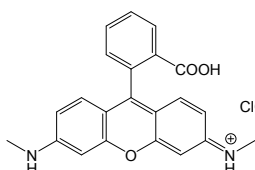
5(6)CR6G

### Rhodamine 116 perchlorate

**ST00706**

62669-77-6

C22H19ClN2O7



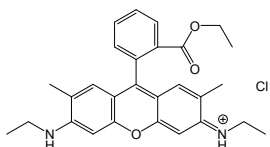
abs. max.: 576 nm (acid EtOH); molar absorptivity: >95000  
l/(mol\*cm);

### Rhodamine 6G

**ST00767**

989-38-8

C28H31ClN2O3



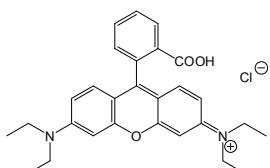
abs. max.: 530 nm (EtOH); molar absorptivity: >105000 l/(mol\*cm);  
emiss. max.: 575 nm;  
laser dye for pulsed and cw operation, tunable around 590 nm;

### Rhodamine B

**ST03256**

81-88-9

C28H31ClN2O3



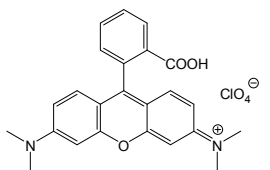
abs. max.: 552 nm (EtOH); molar absorptivity: >107000 l/(mol\*cm);  
emiss. max.: 580 nm;  
laser dye for pulsed and cw operation, tunable around 610 nm;

### Tetramethylrhodamine perchlorate

**ST00707**

62669-72-1

C24H23ClN2O7



abs. max.: 543 nm (EtOH); emiss. max.: 568 nm;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



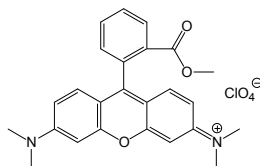
## FUNCTIONAL AND FLUORESCENT DYES: RHODAMINES

### Tetramethylrhodamine methylester perchlorate

**ST01334**

115532-50-8

C25H25ClN2O7



TMRM

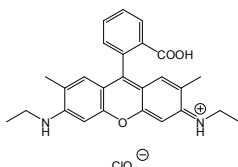
abs. max.: 546 nm (MeOH); molar absorptivity: >95000 l/(mol\*cm);

### Rhodamine 19

**ST03257**

62669-66-3

C26H27ClN2O7



abs. max.: 528 nm (EtOH); molar absorptivity: >109000 l/(mol\*cm);

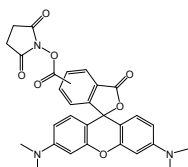
laser dye;

### 5(6)-Carboxytetramethylrhodamine N-succinimidyl ester

**ST02848**

150408-83-6

C29H25N3O7



min. 80 % (HPLC);

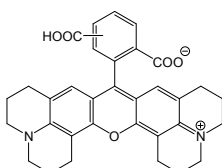
abs. max.: 547 nm (CH3OH); molar absorptivity: >63000 l/(mol\*cm);

### 5(6)-Carboxy-X-rhodamine

**ST01159**

198978-94-8

C33H30N2O5



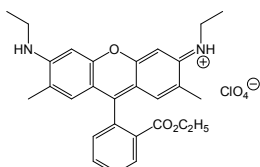
abs. max.: 574 nm (MeOH); molar absorptivity: >55000 l/(mol\*cm);

### [9-(2-Ethoxycarbonylphenyl)-6-ethylamino-2,7-dimethylxanthen-3-ylidene]ethyl-ammonium perchlorate

**ST03236**

13161-28-9

C28H31ClN2O7



Rhodamine 6G Perchlorate

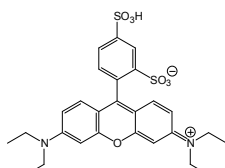
abs. max.: 530 nm (EteOH); molar absorptivity: 100000 l/(mol\*cm);

### Sulforhodamine B, acid form

**ST04041**

2609-88-3

C27H30N2O7S2



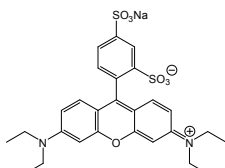
abs. max.: 555-561 nm; molar absorptivity: >100000 l/(mol\*cm);

### Sulforhodamine B, sodium salt

**ST04699**

3520-42-1

C27H30N2NaO7S2



Acid red 52

min. 98 % (HPLC);

abs. max.: 555-559 nm (MeOH); molar absorptivity: 95000 l/(mol\*cm);

## FUNCTIONAL AND FLUORESCENT DYES: RHODAMINES

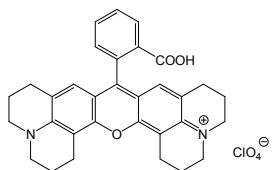
---

### Rhodamine 101 perchlorate

**ST00709**

72102-91-1

C32H31ClN2O7



Rhodamine 640 perchlorate

abs. max.: 576 nm (acid EtOH); molar absorptivity: 95000 l/(mol\*cm);

fluorescence max.: 594 nm; lasing wavelength: 600 nm; lasing

range: 590-620 nm;

laser dye for pulsed and cw operation, tunable around 640 nm;

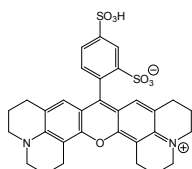
---

### Sulforhodamine 101

**ST03274**

60311-02-6

C31H30N2O7S2



Sulforhodamine 640

abs. max.: 578 nm (EtOH); molar absorptivity: >106000 l/(mol\*cm);

laser dye for pulsed and cw operation, tunable around 650 nm;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

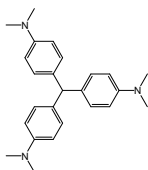
## FUNCTIONAL AND FLUORESCENT DYES: TRIPHENYLMETHANE DYES

### Tris[4-dimethylamino-phenyl]methan

**ST00573**

603-48-5

C25H31N3



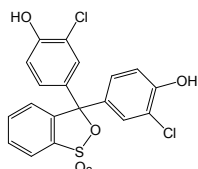
Leuco crystal violet  
min. 98 % (HPLC);

### Chlorophenol Red

**ST00370**

4430-20-0

C19H12Cl2O5S



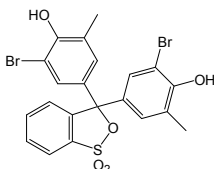
transition interval: pH 4,8 (yellow) - pH 6.7 (violet);  
abs. max.: 575 nm (buffer pH 8.5); molar absorptivity: >65000  
l/(mol\*cm);  
indicator;

### Bromocresol Purple

**ST00369**

115-40-2

C21H16Br2O5S



BCP

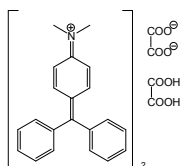
abs. max.: 419 nm (buffer pH 7); molar absorptivity: >20000  
l/(mol\*cm); m. p.: 241-245°C;

### Malachite green oxalate, pure

**ST02097**

2437-29-8

C46H50N4 x  
C2O42- x C2H2O4



Basic green 4, pure

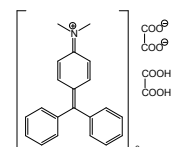
abs. max.: 618 nm (H2O); molar absorptivity: >170000 l/(mol\*cm);  
N,N-Dimethylaniline: max. 100 ppm;

### Malachite green oxalate

**ST04057**

2437-29-8

C46H50N4 x  
C2O42- x C2H2O4



Basic green 4

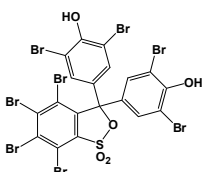
min. 97 % (HPLC);  
abs. max.: 618 nm (H2O); molar absorptivity: >130000 l/(mol\*cm);

### Tetrabromophenol Blue

**ST04645**

4430-25-5

C19H6Br8O5S



min. 85 % (HPLC); m. p.: 204°C (dec.);

abs. max.: 607-615 nm (buffer pH 5.0); molar absorptivity: 55000  
l/(mol\*cm);

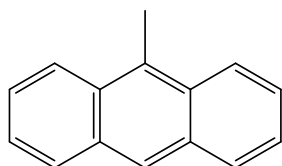
## FUNCTIONAL AND FLUORESCENT DYES: AROMATIC HYDROCARBONS

### 9-Methylanthracene

**ST01073**

779-02-2

C15H12



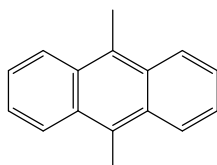
min. 98 % (HPLC);  
m. p.: 77-79°C (min. 77°C);  
intermediate for biolabelling;

### 9,10-Dimethylanthracene

**ST00711**

781-43-1

C16H14



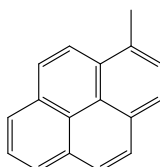
min. 99 % (HPLC);  
m. p.: 180-185°C;  
scintillator;

### 1-Methylpyrene

**ST01076**

2381-21-7

C17H12



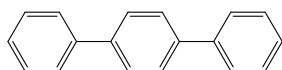
min. 97 % (HPLC);  
m. p.: 72-74°C;

### p-Terphenyl

**ST00712**

92-94-4

C18H14



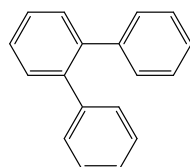
PTP  
min. 99 % (GC);  
abs. max.: 275 nm (cyclohexane); molar absorptivity: >32100  
l/(mol\*cm);  
scintillator;

### o-Terphenyl

**ST04484**

84-15-1

C18H14



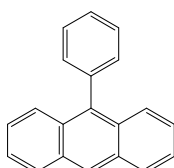
[1,1';2',1'']Terphenyl  
min. 99 % (GC);

### 9-Phenylanthracene

**ST02754**

602-55-1

C20H14



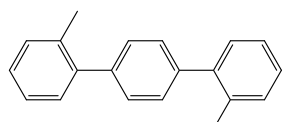
min. 98 % (HPLC);  
m. p.: 149-155°C;

### 2,2''-Dimethyl-p-terphenyl

**ST03243**

53092-64-1

C20H18



BM-Terphenyl, DMT  
abs. max.: 251 nm (cyclohexane); molar absorptivity: >19800  
l/(mol\*cm); emiss. max.: 335 nm;  
laser dye for pulsed and cw operation, tunable around 336 nm;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

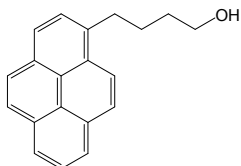
## FUNCTIONAL AND FLUORESCENT DYES: AROMATIC HYDROCARBONS

### 4-(1-Pyrenyl)-n-butanol

**ST02234**

67000-89-9

C<sub>20</sub>H<sub>18</sub>O



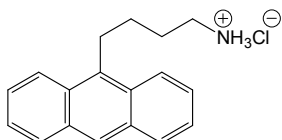
min. 97 % (HPLC);

blue-violet fluorescent dye for biolabelling;

### 4-(9-Anthracenyl)butyl amine hydrochloride

**ST03989**

C<sub>18</sub>H<sub>20</sub>ClN



min. 97 % (titr.);

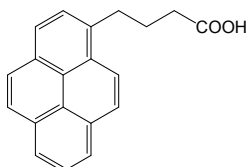
violet emitter for biolabelling;

### 4-(Pyrene-1-yl)-n-butyric acid

**ST00726**

3443-45-6

C<sub>20</sub>H<sub>16</sub>O<sub>2</sub>



97-103 % (titr.); min. 98 % (HPLC); 1H-NMR conforms;  
m. p.: min. 185°C;

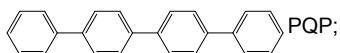
fluorescence marker with blue-violet fluorescence;

### p-Quaterphenyl

**ST01819**

135-70-6

C<sub>24</sub>H<sub>18</sub>



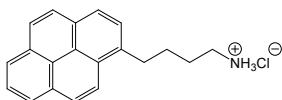
abs. max.: 298 nm (dioxane); molar absorptivity: >44000 l/(mol\*cm);  
scintillator;

### 4-(1-Pyrenyl)butyl amine hydrochloride

**ST03990**

71942-37-5

C<sub>20</sub>H<sub>20</sub>ClN



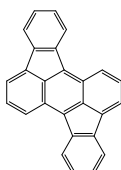
min. 97 % (titr.); 1H-NMR conforms;

### Rubicen

**ST01366**

197-61-5

C<sub>26</sub>H<sub>14</sub>



min. 97.5 % (HPLC);

abs. max.: 495 nm (CHCl<sub>3</sub>); emiss. max. (CHCl<sub>3</sub>): 560 nm, 588 nm;

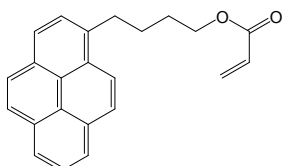
orange red emitter;

### Acrylic acid 4-pyren-1-yl-butyl ester

**ST03831**

877066-81-4

C<sub>23</sub>H<sub>20</sub>O<sub>2</sub>



min. 97 % (HPLC);

m.p.: 72-76°C;

polymerizable fluorescent dye with violet emission;

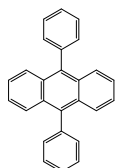
## FUNCTIONAL AND FLUORESCENT DYES: AROMATIC HYDROCARBONS

### 9,10-Diphenylanthracene

**ST00640**

1499-10-1

C26H18



min. 99 % (HPLC);

m. p.: 247-250°C;

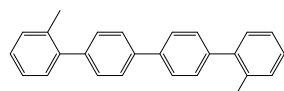
scintillator, fluorescent host material for OLED;

### 2,2''-Dimethyl-p-quaterphenyl

**ST03228**

107014-26-6

C26H22



BMQ

abs. max.: 275 nm (cyclohexane); molar absorptivity: >33500 l/(mol\*cm);

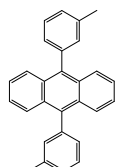
laser dye for pulsed operation, tunable around 336 nm;

### 9,10-Bis(3-methylphenyl)anthracene

**ST02063**

43217-32-9

C28H22



Bis[m-tolyl]anthracene, DTA

min.: 98 % (HPLC);

m. p.: 221-223°C;

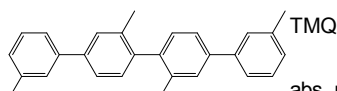
scintillator;

### 3,3',2'',3'''-Tetramethyl-p-quaterphenyl

**ST03237**

4575-13-7

C28H26



TMQ

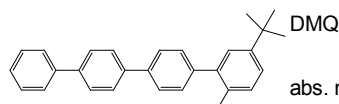
abs. max.: 266 nm (cyclohexan); molar absorptivity: 39900 l/(mol\*cm);

### 2-Methyl-5-tert-butyl-p-quaterphenyl

**ST03954**

114932-35-3

C29H28



DMQ

abs. max.: 285 nm; molar absorptivity: >38600 l/(mol\*cm);

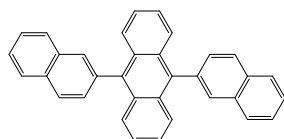
laser dye for pulsed operation, tunable around 360 nm;

### 9,10-Bis-(2-naphthyl)anthracene

**ST02456**

122648-99-1

C34H22



<sup>1</sup>H-NMR conforms;

m. p.: 182-185°C;

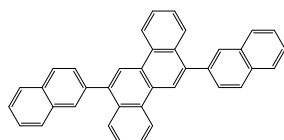
fluorescent host material for OLED;

### 6,12-Bis(2-naphthyl)chrysene

**ST03470**

663954-29-8

C38H24



min. 98 % (HPLC);

fluorescent host material for OLED;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



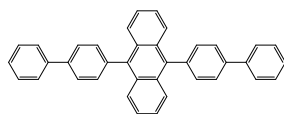
## FUNCTIONAL AND FLUORESCENT DYES: AROMATIC HYDROCARBONS

### 9,10-Bis[(1,1'-biphenyl)-4-yl]anthracene

**ST02082**

43069-36-9

C38H26



min. 98 % (HPLC);

abs. max.: 263 nm (CHCl<sub>3</sub>); molar absorptivity: >90000 l/(mol\*cm);

m. p.: 415°C (Lit.);

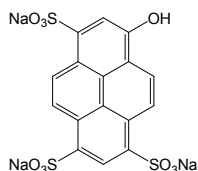
fluorescent host material for OLED;

### Pyranine

**ST00739/01**

6358-69-6

C16H7Na3O10S3



Solvent Green 7

min. 90 % (UV-VIS), loss on drying: max. 15 %;

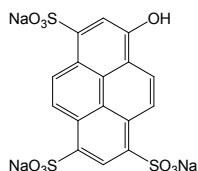
abs. max.: 452-456 nm (0.1 N NaOH); molar absorptivity: >20000 l/(mol\*cm);

### Pyranine, laser grade

**ST00739/02**

6358-69-6

C16H7Na3O10S3



Solvent Green 7

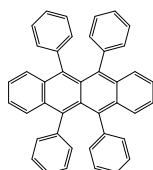
abs. max.: 452 nm (0.1 N NaOH); molar absorptivity: >24000 l/(mol\*cm);  
laser grade;

### Rubrene

**ST01468**

517-51-1

C42H28



5,6,11,12-Tetraphenylnaphthacene

min. 99 % (HPLC);

abs. max.: 526 nm (toluene); molar absorptivity: >11000 l/(mol\*cm);

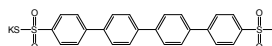
orange-red dopant for OLED;

### p-Quaterphenyl-4,4''-disulfonic acid dipotassium salt

**ST02613**

122636-62-8

C24H16K2O6S2



1,1':4',1'':4'',1'''-Quaterphenyl-4,4''-disulfonic acid dipotassium salt

abs. max.: 308 nm (water); molar absorptivity: >51900 l/(mol\*cm);

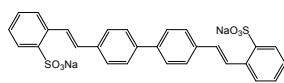
laser dye for pulsed operation, tunable around 390 nm;

### Stilbene 3

**ST02614**

27344-41-8

C28H20Na2O6S2



abs. max.: 350 nm (EtOH); molar absorptivity: >58900 l/(mol\*cm);

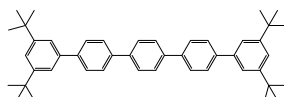
laser dye for pulsed operation, tunable around 425 nm;

### 3,5,3''',5''''-Tetra-t-butyl-p-quinquephenyl

**ST02612**

89703-16-2

C46H54



QUI, LC3690

abs. max.: 310 nm (dioxane); molar absorptivity: >60000 l/(mol\*cm);

laser dye for pulsed operation, tunable around 390 nm;

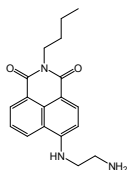
## FUNCTIONAL AND FLUORESCENT DYES: NAPHTHALIMIDES

6-(2-Aminoethylamino)-2-butyl-1H-benzo[de]isoquinoline-1,3(2H)-9-dione

**ST04559**

154273-87-7

C18H21N3O2

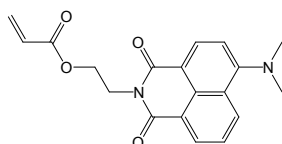


<sup>1</sup>H-NMR conforms; fluoresc. ex.: 420 nm; fluoresc. max.: 524 nm;  
abs. max.: 432-436 nm (MeOH); molar absorptivity: 13000  
l/(mol\*cm); m. p.: 137.7 (DSC peak);

Acrylic acid 2-(6-dimethylamino-1,3-dioxo-1H,3H-benzo[de]isoquinolin-2-yl)ethyl ester

**ST05178**

C19H18N2O4



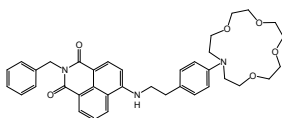
min. 99 % (HPLC); <sup>1</sup>H-NMR conforms;

N-Benzyl-[4-(aza-15-crown-5)-phenylethylamino]-1,8-naphthalimide

**ST05902**

87700-65-0

C37H41N3O6

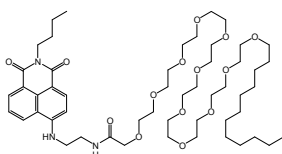


min. 97 % (HPLC);

N-[2-(2-Butyl-1,3-dioxo-2,3-dihydro-1H-benzo[de]isoquinolin-6-ylamino)ethyl]-2-(2-{2-[2-(2-{2-[2-(2-

**ST04375**

C52H87N3O14



<sup>1</sup>H-NMR conforms;  
abs. max.: 431 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: min. 5000 l/mol/cm;  
fluorescence ex.: 430nm; fluorescence max.: 503 nm;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## FUNCTIONAL AND FLUORESCENT DYES: METAL COMPLEXES

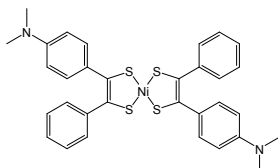
---

Bis(4-dimethylaminodithiobenzil)nickel

**ST01207**

38465-55-3

C32H30N2NiS4



BDN

abs. max.: 1070 nm (MeOH); molar absorptivity: >28000 l/(mol\*cm);

IR absorber;

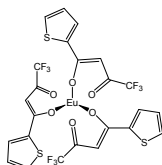
---

Europium(III) thenoyltrifluoroacetate

**ST03598**

14054-87-6

C24H12EuF9O6S3



<sup>1</sup>HNMR conforms to structure; C,H,N analysis conforms structure;

abs. max.: 344 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: 50000 l/(mol\*cm);

fluorescence max.: 610 nm;

red dopant for OLED

---

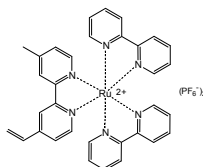
Ruthenium(4-vinyl-4'-methyl-2,2'-bipyridine)bis(2,2'-bipyridine)bis(hexafluorophosphate)

**ST06010**

74171-78-1

C33H28F12N6P2Ru

u



absorption max.: 456 nm; molar absorptivity: > 15500 l/(mol\*cm);

fluorescence max.: 628 nm (H<sub>2</sub>O);

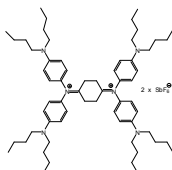
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

N,N,N',N'-Tetrakis(4-dibutylaminophenyl)phenylene-1,4-diammonium bis(hexafluoroantimonate)

**ST01014**

5496-71-9

C62H92N6F12Sb2



IRG-22, Dye 1602

abs. max.: 1067 nm (MeOH); molar absorptivity: >95000 l/(mol\*cm);

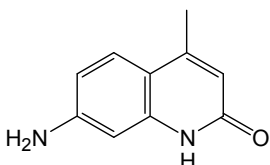
IR absorber; solvent soluble cyanine dye;

7-Amino-4-methyl-2(1H)quinolinone

**ST01582**

19840-99-4

C10H10N2O



Carbostyryl 124, Carbostyryl 7

min. 98.5 % (titr.);

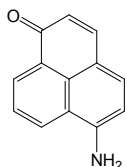
abs. max.: 350 nm (EtOH); molar absorptivity: >14600 l/(mol\*cm);

6-Amino-1H-phenalene-1-one

**ST00955**

70402-14-1

C13H9NO



Phenalemine 160, Phenalemin 610

abs. max.: 530 nm; molar absorptivity: 16300 l/(mol\*cm);

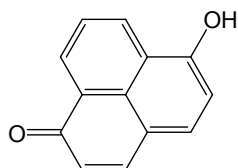
emiss. max.: 606 nm (MeOH); lasing peak (range): 612 (600-626) nm; pump source: Nd: YAG (532 nm); laser dye, fluorescent dye for biolabelling;

6-Hydroxy-1H-phenalen-1-one

**ST03215**

3352-82-7

C13H8O2



abs. max.: 263 nm;

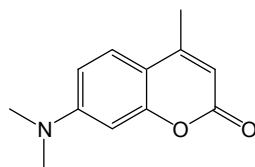
m. p.: 295-297°C;

7-(dimethylamino)-4-methyl-2H-chromen-2-one

**ST06188**

87-01-4

C12H13NO2



7-Dimethylamino-4-methylcoumarin

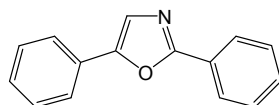
min. 97 % (HPLC);

2,5-Diphenyloxazol

**ST03234**

92-71-7

C15H11NO



PPO

min. 99 % (HPLC); water: max. 0.5 % (KF);

abs. max.: 303 nm (EtOH); molar absorptivity: >28000 l/(mol\*cm);

fluorescence max.: 365 nm (toluene);

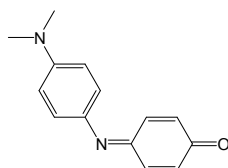
scintillator, laser dye for pulsed operation, tunable around 380 nm;

4-[[4-(Dimethylamino)phenyl]imino]cyclohexa-2,5-dien-1-one

**ST03704**

2150-58-5

C14H14N2O



min. 95 % (HPLC);

abs. max.: 608 nm (MeOH); molar absorptivity: >23000 l/(mol\*cm);

m. p.: 159-162°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

29

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

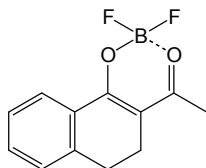
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

### 1-[1-(Difluoroboryl)oxy-3,4-dihydro-naphthalen-2-yl]ethanone inner complex

**ST00188**

55923-05-2

C12H11BF2O2



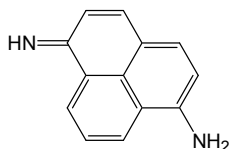
abs. max.: 359 nm (MeCN);  
lasing wavelength: 442 nm; lasing range: 408-493 nm; laser efficiency: 11 %;  
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

### 6-Imino-6H-phenalen-1-ylamine hydrochloride hydrate

**ST00957**

113702-14-0

C13H10N2 x HCl x H2O



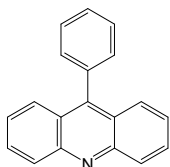
Phenalemine 430 chloride, Phenalemine 628  
abs. max.: 588 nm (MeOH); molar absorptivity: 26000 l/(mol\*cm);  
emiss. max.: 633 nm (MeOH); lasing range: 632-642 nm; pump H<sub>2</sub>O source: Nd: YAG (532 nm);  
HCl laser dye, dye for biolabelling;

### 9-Phenylacridine

**ST00766**

602-56-2

C19H13N



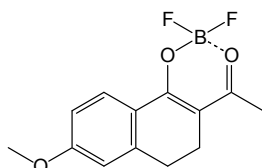
min. 98 % (GC);  
abs. max. 359 nm; m. p.: 182-184°C;

### 1-[1-(Difluoroboryl)oxy-3,4-dihydro-6-methoxy-naphthalen-2-yl]ethanone inner complex

**ST00189**

55923-08-5

C13H13BF2O3



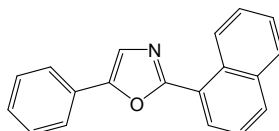
abs. max.: 381 nm (EtOH); molar absorptivity: 35000 l/(mol\*cm);  
lasing wavelength: 432 nm; lasing range: 410-460 nm; solvent: EtOH, laser efficiency: 10%;  
new laser dye: improved solubility and stability, high lasing efficiency, large tuning range;

### 2-(1-Naphthyl)-5-phenyloxazole

**ST01999**

846-63-9

C19H13NO



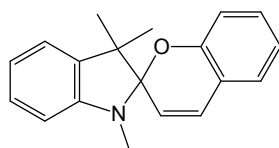
alpha-NPO  
min. 99 % (HPLC);  
abs. max.: 333 nm (dioxane); molar absorptivity: >21500 l/(mol\*cm);  
emiss. max.: 396 nm (dioxane);  
laser dye for pulsed operation, tunable around 400 nm;

### 1',3',3'-Trimethylspiro(2H-1-benzopyran-2,2'-indoline)

**ST05967**

1485-92-3

C19H19NO



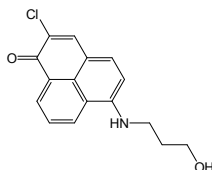
min. 98 % (HPLC);

### 2-Chloro-6-(3-hydroxypropyl)amino-1H-phenalen-1-one

**ST00956**

113722-81-9

C16H14ClNO2



Phenalemine 510, Phenalemine 625  
abs. max.: 568 nm; molar absorptivity: 29300 l/(mol\*cm);  
emiss. max.: 612 nm (MeOH); lasing range: 615-634 nm; pump source: Nd: YAG (532 nm);  
laser dye, dye for biolabelling;

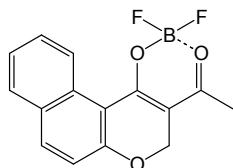
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

### 1-(1-(Difluoroboryl)oxy-3H-benzof[*f*]chromen-2-yl)ethanone inner complex

**ST00190**

119634-42-3

C15H11BF2O3



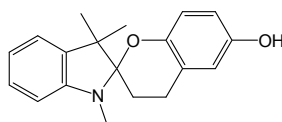
abs. max.: 418 nm (MeCN); molar absorptivity: 16600 l/(mol\*cm);  
lasing wavelength: 509 nm; lasing range: 479-549 nm; solvent:  
MeCN; laser efficiency: 10%;  
new laser dye: improved solubility and stability, high lasing  
efficiency, large tuning range;

### 1',3',3'-Trimethyl-6-hydroxyspiro(2H-1-benzopyran-2,2'-indoline)

**ST05908**

23001-29-8

C19H19NO2



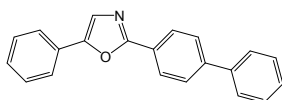
min. 98.5 % (HPLC);  
m. p.: 144-150°C;

### 2-(Biphenyl)-5-phenyloxazole

**ST02038**

852-37-9

C21H15NO



min. 98 % (HPLC);

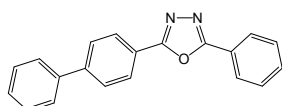
laser dye for pulsed operation, tunable around 400 nm;

### 2-(4-Biphenyl)-5-phenyl-1,3,4-oxadiazole

**ST02137**

852-38-0

C20H14N2O



PBD

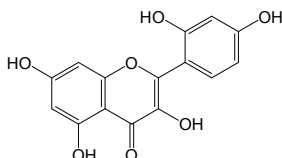
abs. max.: 302 nm (EtOH); molar absorptivity: >39000 l/(mol\*cm);  
m. p.: 165-170°C;

### Morin

**ST03315**

480-16-0

C15H10O7



2',3,4',5,7-Pentahydroxyflavon

min. 92 % (HPLC); water: max. 7 % (KF);

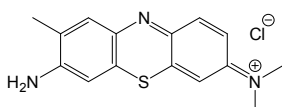
IR conforms; UV-VIS conforms;

### Toluidine Blue O

**ST00991**

92-31-9

C15H16ClN3S



Basic Blue 17 C.I. 52040, Toluidine Blue

min. 80 % (HPLC, UV-VIS at 627 nm);

abs. max.: 627 nm (water); 634 nm (MeOH);

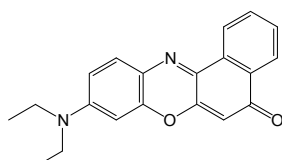
biological stain;

### 9-Diethylaminobenzo[*a*]phenoxazone

**ST04299**

7385-67-3

C20H18N2O2



Nile red, Nile blue A oxazone

abs. max.: 549-553 nm; molar absorpt.: 0.55 - 0.63 l/(0.01 g/0.5 cm);

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



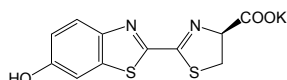
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

D-Luciferin, potassium salt

**ST06039**

115144-35-9

C11H7KN2O3S2



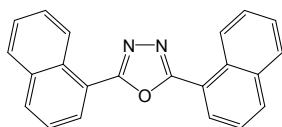
min. 99 % (HPLC);

2,5-Di-naphthalen-1-yl-[1,3,4]-oxadiazole

**ST01686**

905-62-4

C22H14N2O



min. 99 % (HPLC);

m. p.: 176-180°C;

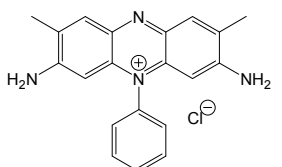
Scintillator;

Safranin O

**ST01577**

477-73-6

C20H19ClN4



3,7-Diamino-2,8-dimethyl-5-phenylphenazinium chloride, Safranin T,

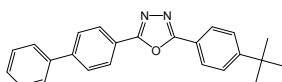
abs. max.: 523-532 nm (MeOH); molar absorptivity: >55000 l/(mol\*cm);

2-(4-Biphenyl)-5-(4-tertbutylphenyl)-1,3,4-oxadiazole

**ST01563**

15082-28-7

C24H22N2O



min. 98 % (HPLC);

abs. max.: 302 nm (dioxane); molar absorptivity: >43500 l/(mol\*cm);

emiss. max.: 368 nm (cyclohexane);

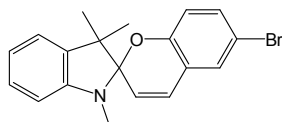
scintillator;

1',3',3'-Trimethyl-6-bromospiro(2H-1-benzopyran-2,2'-indoline)

**ST05968**

16650-14-9

C19H18BrNO



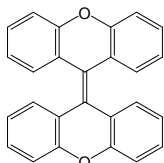
min. 98 % (HPLC);

9,9'-Bis(xanthenyliden)

**ST00763**

517-45-3

C26H16O2



min. 97 % (GC);

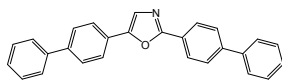
abs. max.: 364 nm (CHCl3); m. p.: 315-319°C;

2,5-Bis(4-biphenyl)oxazol

**ST03678**

2083-09-2

C27H19NO



min. 98 % (HPLC);

abs. max.: 339 nm (toluene); molar absorptivity: >47600 l/(mol\*cm);

emiss. max.: 412 nm (toluene);

laser dye for pulsed operation, tunable around 690 nm;

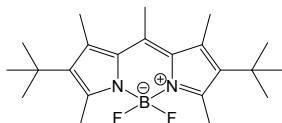
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

### 2,6-Di-tert-butyl-1,3,5,7,8-pentamethylpyrromethenedifluoroborate complex

#### ST02369

137829-79-9

C22H33BF2N2



min. 97 % (HPLC);

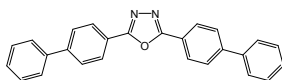
abs. max.: 528 nm (CHCl<sub>3</sub>); molar absorptivity: >60000 l/(mol\*cm);

### 2,5-Bis(1,1'-biphen-4-yl)-1,3,4-oxadiazole

#### ST01685

2043-06-3

C26H18N2O



min. 98 % (HPLC);

abs. max.: 314 nm (dioxane); molar absorptivity: >53000 l/(mol\*cm);

emiss. max.: 380 nm (dioxane);

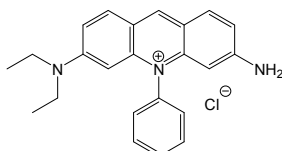
scintillator;

### Diethyl safranine

#### ST01579

4569-86-2

C22H23ClN4



3-Amino-7-diethylamino-5-phenylphenazin-5-ium chloride

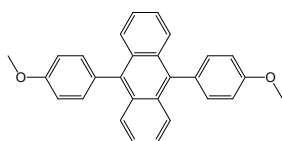
abs. max.: 556 nm (H<sub>2</sub>O); molar absorptivity: >35000 l/(mol\*cm);

### 9,10-Bis(4-methoxyphenyl)anthracene

#### ST03625

24672-76-2

C28H22O2



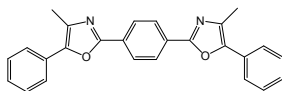
min. 98 % (HPLC);

### 1,4-Bis[(4-methyl-5-phenyl)oxazol-2-yl]benzene

#### ST02721

3073-87-8

C26H20N2O2



Dimethyl-POPOP

min. 98 % (HPLC);

m. p.: 232-234°C;

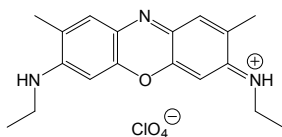
scintillator;

### 3-Ethylamino-7-ethyliminium-2,8-dimethylphenoxazin perchlorate

#### ST03240

41830-81-3

C18H22ClN3O5



Oxazine 4

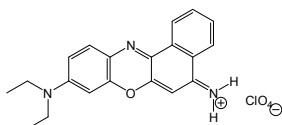
abs. max.: 615 nm (EtOH); molar absorptivity: 109000 l/(mol\*cm);

### Oxazine 725

#### ST03231

53340-16-2

C20H20ClN3O5



Nile blue

abs. max.: 633 nm (EtOH); molar absorptivity: >77500 l/(mol\*cm);

emiss. max.: 627 nm (in basic EtOH);

laser dye for pulsed operation, tunable around 690 nm;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

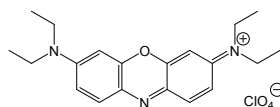
## FUNCTIONAL AND FLUORESCENT DYES: MISCELLANEOUS

### 3-Diethylamino-7-diethyliminophenoxazonium perchlorate

**ST03232**

24796-94-9

C20H26ClN3O5



Oxazine 1

$\text{ClO}_4^-$  abs. max.: 646 nm (EtOH); molar absorptivity: >120000 l/(mol\*cm);

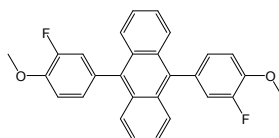
laser dye;

### 9,10-Bis(3-fluoro-4-methoxyphenyl)anthracene

**ST03621**

1271728-13-2

C28H20F2O2



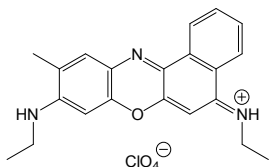
min. 98 % (HPLC);

### 9-Ethylamino-5-ethylimino-10-methyl-5H-benzo[a]phenoxazonium perchlorate

**ST03241**

62669-60-7

C21H22ClN3O5



Oxazine 170, Oxazine 720

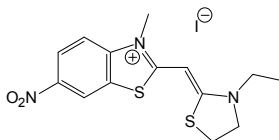
abs. max.: 627 nm (EtOH); molar absorptivity: 92000 l/(mol\*cm);

### 2-((3-Ethyl-2-thiazolinidylidene)methyl)-3-methyl-6-nitrobenzothiazolium iodide

**ST04516**

38586-42-4

C14H16IN3O2S2



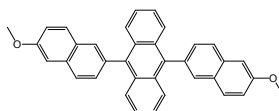
abs. max.: 400-405 nm (MeOH), molar ext. coeff.: 50000 l/(mol \* cm)

### 9,10-Bis-(6-methoxynaphthalen-2-yl)anthracene

**ST03617**

235099-48-6

C36H26O2



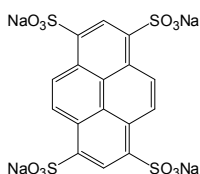
min. 98 % (HPLC);

### Pyrene-1,3,6,8-tetrasulfonic acid tetra sodium salt

**ST00541**

59572-10-0

C16H6Na4O12S4



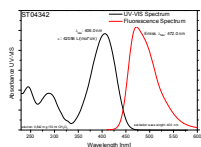
min. 94 % (HPLC); max. 5 % TV;

## DOPANTS FOR POLYMER- AND LC-APPLICATIONS

### Green Fluorescent Dye 7

**ST04342**

CxHy-406



Green FD7-P

min. 97 % (HPLC);

abs. max.: 406 nm (MeOH); molar absorptivity: >40000 l/(mol\*cm);

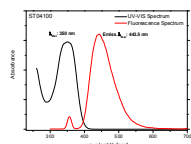
emiss. max.: 472 nm;

polymerizable fluorescent dye with green emission, aligns with nematic mixtures.

### Blue LC-Fluorescent Dye 2

**ST04100**

CxHy-350



Blue LC-FD2-NP

min. 97 % (HPLC);

abs. max.: 350 nm, 443 nm (CH<sub>2</sub>Cl<sub>2</sub>); mesophase behaviour: T<sub>g</sub> -

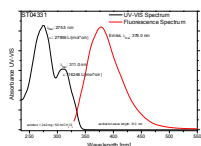
11 Cr1 71 Cr2 84 N 135 I (on heating);

nematic fluorescent dye with blue emission, not polymerizable;

### UV-Violet LC-Fluorescent Dye 6

**ST04331**

CxHy-275



UV-Violet LC-FD6-P

min 96 % (HPLC);

abs. max.: 275, 311 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >25000

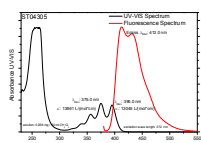
l/(mol\*cm); emiss. max.: 378 nm; m. p.: 67-69°C (smectic 54-53 );

colourless monotropic fluorescent dye with a narrow smectic phase, polymerizable;

### Blue-violet Fluorescent Dye 4

**ST04305**

CxHy-375



Blue FD4-NP

min. 97 % (HPLC);

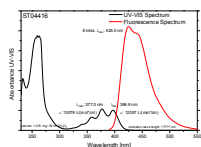
abs. max.: 375 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >12000 l/(mol\*cm);

emiss. max.: 413 nm;

### Blue LC-Fluorescent Dye 13

**ST04416**

CxHy-377



Blue-Violet FD13-P

min. 96 % (HPLC);

abs. max.: 377, 397 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >10000

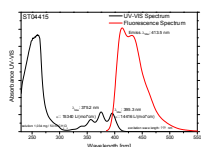
l/(mol\*cm); emiss. max.: 425 nm;

polymerizable fluorescent dye with blue-violet emission with 2 polymerizable groups;

### Blue LC-Fluorescent Dye 14

**ST04415**

CxHy-375



Blue-Violet FD14-P

min. 98 % (HPLC);

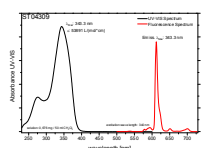
abs. max.: 375 (395) nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >12500

l/(mol\*cm); emiss. max.: 414 nm;

### Red Fluorescent Dye 5

**ST04309**

CxHyOzNw-344



Red FD5-NP

1H-NMR conforms;

abs. max.: 344 nm (CH<sub>2</sub>Cl<sub>2</sub>); molar absorptivity: >40000 l/(mol\*cm);

emiss. max.: 612 nm;

nearly colourless metal complex based dye with bright red emission;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

35

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

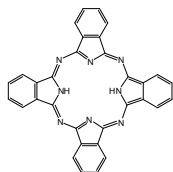
## PHTHALOCYANINES AND PORPHYRINES

Phthalocyanine; metal free; beta-modification

### ST03917

574-93-6

C32H18N8

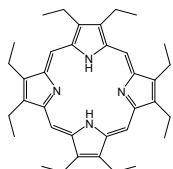


2,3,7,8,12,13,17,18-Octaethylporphyrine

### ST02982

2683-82-1

C36H46N4



2,3,7,8,12,13,17,18-Octaethyl-21H,23H-porphine  
min. 97 % (EA of C,N);

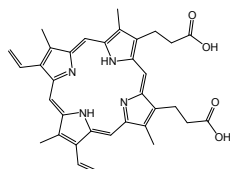
3,7,12,17-Tetramethyl-8,13-divinyl-2,18-porphinedipropionic acid

### ST06412

553-12-8

C34H34N4O4

NEW



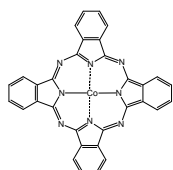
Protoporphyrin IX  
absorption max: 420 - 424 nm; molar absorptivity: 430.000

Cobalt(II)phthalocyanine,  $\beta$ -modification

### ST04007

3317-67-7

C32H16CoN8



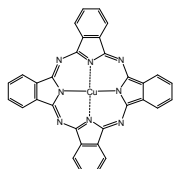
min. 97 %;  
abs. max.: 672 ( $\pm 5$ ) nm, molar absorptivity: >50000 l/(mol\*cm);

Phthalocyanine, Copper complex sublimed

### ST00010/13S

147-14-8

C32H16CuN8



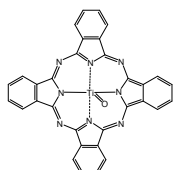
Cu assay 11.00 ... 11.20 % (ICP-OES, 11.03 % theo)  
Violet blue crystals

Phthalocyanine titanium oxide complex, Y-modification

### ST03918

26201-32-1

C32H16N8OTi



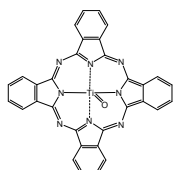
for xerographic use;

Phthalocyanine titanium oxide complex, beta-modification

### ST03919

26201-32-1

C32H16N8OTi



for xerographic use;

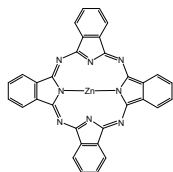
## PHTHALOCYANINES AND PORPHYRINES

---

### Phthalocyanine zinc complex sublimed

**ST00010/12S**

14320-04-8

C<sub>32</sub>H<sub>16</sub>N<sub>8</sub>Zn

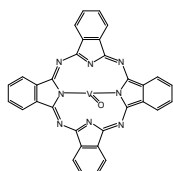
purified pigment with very low content of soluble impurities;

---

### Phthalocyanine vanadium(IV) oxide complex sublimed

**ST00010/11S**

13930-88-6

C<sub>32</sub>H<sub>16</sub>N<sub>8</sub>O<sub>V</sub>

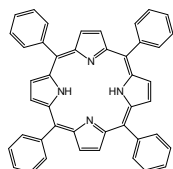
purified pigment with very low content of soluble impurities;

---

### meso-Tetraphenylporphyrin

**ST02468**

917-23-7

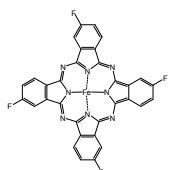
C<sub>44</sub>H<sub>30</sub>N<sub>4</sub>5,10,15,20-Tetraphenyl-21H,23H-porphine  
1-3% chlorine; NMR conforms, UV-VIS conforms;  
m. p.: > 300°C;

---

### Iron tetrafluorophthalocyanine

**ST06323**

52418-30-1

C<sub>32</sub>H<sub>12</sub>F<sub>4</sub>FeN<sub>8</sub>

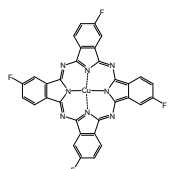
98 % (Iron content)

---

### Tetrafluoro-phthalocyanine, Copper complex sublimed

**ST01657S**

65602-84-8

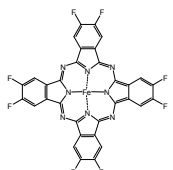
C<sub>32</sub>H<sub>12</sub>CuF<sub>4</sub>N<sub>8</sub>

---

### Iron octafluorophthalocyanine

**ST06324**

125825-46-9

C<sub>32</sub>H<sub>8</sub>F<sub>8</sub>FeN<sub>8</sub>

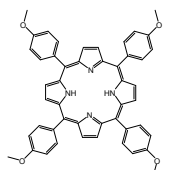
98 % (Iron content)

---

### meso-Tetraanisylporphyrin

**ST02470**

22112-78-3

C<sub>48</sub>H<sub>38</sub>N<sub>4</sub>O<sub>4</sub>5,10,15,20-Tetrakis(4-methoxyphenyl)-21H,23H-porphine  
min. 95 % (EA of C,N);

---

**INQUIRIES and ORDERS**Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**



## PHTHALOCYANINES AND PORPHYRINES

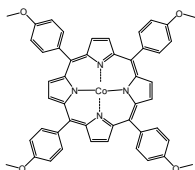
---

Tetra(4-methoxyphenyl)porphyrine cobalt complex

**ST00371**

28903-71-1

C<sub>48</sub>H<sub>36</sub>CoN<sub>4</sub>O<sub>4</sub>



min. 95% (Co analysis);

<sup>1</sup>H-NMR conforms;

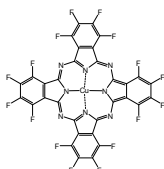
---

Perfluoro-phthalocyanine, Copper complex sublimed

**ST01658S**

14916-87-1

C<sub>32</sub>Cu<sub>1</sub>F<sub>16</sub>N<sub>8</sub>



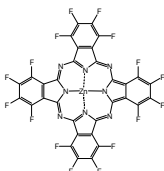
---

Zinc 1,2,3,4,8,9,10,11,15,16,17,18,22,23,24,25-hexadecafluoro-29H,31H-phthalocyanine

**ST06226**

31396-84-6

C<sub>32</sub>F<sub>16</sub>N<sub>8</sub>Zn



Zinc hexadecafluorophthalocyanine

min. 6.55-8.55 % Zn (ICP-OES);

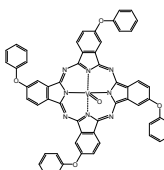
---

Vanadyl 2,9,16,23-tetraphenoxy-29H,31H-phthalocaynine

**ST03984**

109738-21-8

C<sub>56</sub>H<sub>32</sub>N<sub>8</sub>O<sub>5</sub>V



abs. max.: 700 nm (DMF); molar absorptivity: >160000 l/(mol\*cm);

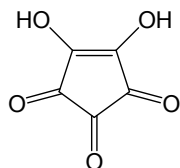
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 4,5-Dihydroxy-cyclopent-4-ene-1,2,3-trione

**ST00630**

488-86-8

C<sub>5</sub>H<sub>2</sub>O<sub>5</sub>



Croconic acid  
titr.: 97-103 %;

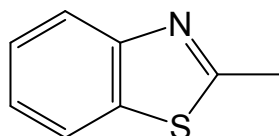
intermediate for synthesis of croconine dyes;

### 2-Methylbenzothiazole

**ST00107**

120-75-2

C<sub>8</sub>H<sub>7</sub>NS



min. 99 % (GC);

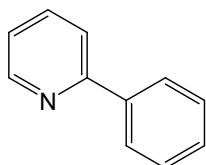
intermediate for synthesis of polymethine dyes;

### 2-Phenylpyridine

**ST03216**

1008-89-5

C<sub>11</sub>H<sub>9</sub>N



min. 98 % (GC);

b. p.: 268-270°C; 116°C (5 mm);

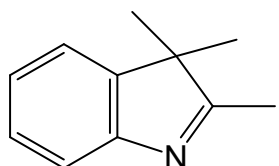
intermediate for the synthesis of OLED emitters on basis of iridium complexes;

### 2,3,3-Trimethyl-3H-indole

**ST00102**

1640-39-7

C<sub>11</sub>H<sub>13</sub>N



min. 98 % (GC);

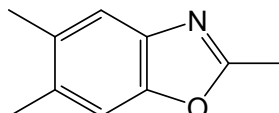
intermediate for synthesis of polymethine dyes;

### 2,5,6-Trimethylbenzoxazole

**ST00728**

19219-98-8

C<sub>10</sub>H<sub>11</sub>NO



min. 98 % (HPLC);

m. p.: 91-94°C;

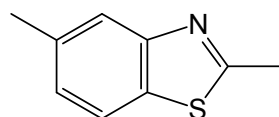
intermediate for the synthesis of polymethine dyes;

### 2,5-Dimethylbenzothiazole

**ST00200**

95-26-1

C<sub>9</sub>H<sub>9</sub>NS



min. 98 % (GC);

m. p.: 36-40 °C;

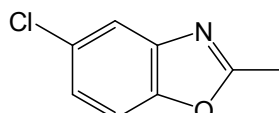
intermediate for the synthesis of polymethine dyes;

### 5-Chloro-2-methylbenzoxazole

**ST01843**

19219-99-9

C<sub>8</sub>H<sub>6</sub>ClNO



min. 98 % (GC);

m. p.: 55-57°C;

intermediate for the synthesis of polymethine dyes;

### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

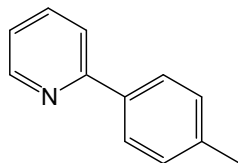
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 2-(4-Methylphenyl)pyridine

**ST02919**

4467-06-5

C12H11N



2-(p-Tolyl)pyridine  
min. 97 % (GC);

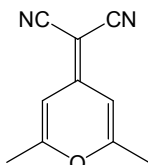
intermediate for emitters on basis of iridium complexes;

### 4-(Dicyanomethylene)-2,6-dimethyl-4H-pyran

**ST01290**

28286-88-6

C10H8N2O



2-(2,6-Dimethyl-4H-pyran-4-ylidene)malononitrile  
min. 97 % (HPLC);  
m. p.: 193-198°C;

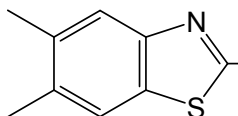
intermediate for the synthesis of DCM dyes;

### 2,5,6-Trimethylbenzothiazole

**ST00143**

5683-41-0

C10H11NS



min. 98 % (HPLC);  
m. p.: 81-84 °C;

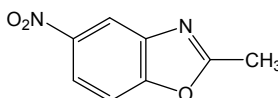
intermediate for synthesis of polymethine dyes;

### 2-Methyl-5-nitrobenzoxazole

**ST03112**

32046-51-8

C8H6N2O3



min. 98 % (GC);  
m. p.: 153-155°C;

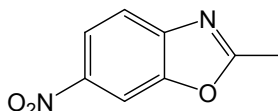
intermediate for the synthesis of polymethine dyes;

### 2-Methyl-6-nitrobenzoxazole

**ST00808**

5683-43-2

C8H6N2O3



min. 98 % (GC);  
m. p.: 154-156°C;

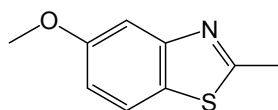
intermediate for synthesis of polymethine dyes;

### 5-Methoxy-2-methylbenzothiazole

**ST00203**

2941-69-7

C9H9NOS



min. 98 % (HPLC);

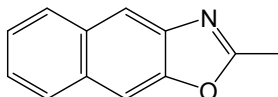
intermediate for synthesis of polymethine dyes;

### 2-Methylnaphtho[2,3-d]oxazole

**ST00807**

20686-66-2

C12H9NO



min. 98 % (HPLC);  
m. p.: 85-88°C;

intermediate for synthesis of polymethine dyes;

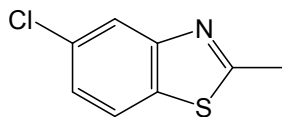
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 5-Chloro-2-methylbenzothiazole

**ST02046**

1006-99-1

C8H6ClNS



min. 98 % (HPLC);

m. p.: 68-71°C;

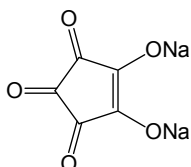
intermediate for the synthesis of polymethine dyes;

### 4,5-Dihydroxy-cyclopent-4-ene-1,2,3-trione disodiumsalt

**ST03762**

14379-00-1

C5O5Na2



Croconic acid disodiumsalt

min. 98 % (titr.);

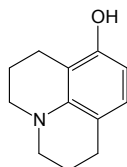
intermediate for the synthesis of croconine dyes;

### 8-Hydroxyjulolidine

**ST00364**

41175-50-2

C12H15NO



min. 98 % (HPLC);

m. p.: 132-134°C;

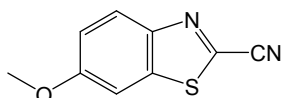
intermediate for synthesis of coumarines and rhodamines;

### 6-Methoxybenzothiazole-2-carbonitrile

**ST01456**

943-03-3

C9H6N2OS



2-Cyano-6-methoxybenzothiazole

min. 98 % (GC);

m. p.: 128-130°C;

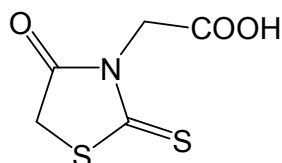
intermediate for the synthesis of luciferine;

### (4-Oxo-2-thioxo-thiazolidin-3-yl)acetic acid

**ST00114**

5718-83-2

C5H5NO3S2



Rhodanine-N-acetic acid

min. 98 % (GC);

m. p.: 145-148°C;

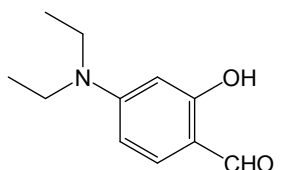
intermediate for synthesis of polymethine dyes;

### 4-(Diethylamino)-2-hydroxybenzaldehyde

**ST03300**

17754-90-4

C11H15NO2



4-Diethylaminosalicylic aldehyde

min. 98 % (HPLC);

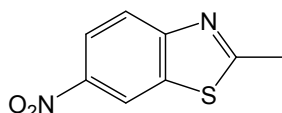
intermediate for the synthesis of coumarines;

### 2-Methyl-6-nitrobenzothiazole

**ST01205**

2941-63-1

C8H6N2O2S



min. 98 % (HPLC);

m. p.: 165-167°C;

intermediate for the synthesis of polymethine dyes;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

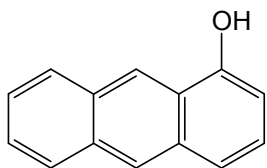
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### Anthracen-1-ol

**ST06238**

610-50-4

C<sub>14</sub>H<sub>10</sub>O



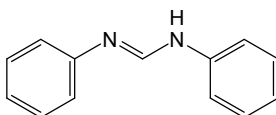
1-Hydroxyanthracen  
min. 98 % (GC);

### N,N'-Diphenylformamidine

**ST00113**

622-15-1

C<sub>13</sub>H<sub>12</sub>N<sub>2</sub>



min. 97.5 % (HPLC);  
m. p.: 138-140°C;

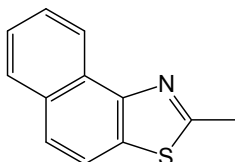
intermediate for synthesis of polymethine dyes;

### 2-Methylnaphtho[1,2-d]thiazole

**ST00205**

2682-45-3

C<sub>12</sub>H<sub>9</sub>NS



min. 98 % (HPLC);  
m. p.: 91-94°C;

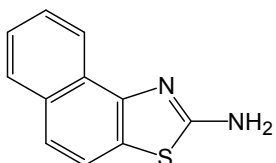
intermediate for synthesis of polymethine dyes;

### 2-Aminonaphtho[1,2-d]thiazole

**ST00251**

40172-65-4

C<sub>11</sub>H<sub>8</sub>N<sub>2</sub>S



97-103 % (titr.);  
m. p.: 185-190°C;

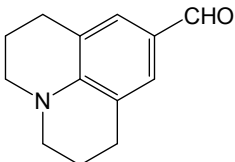
intermediate for synthesis of polymethine dyes;

### 9-Julolidine carboxaldehyde

**ST02107**

33985-71-6

C<sub>13</sub>H<sub>15</sub>NO



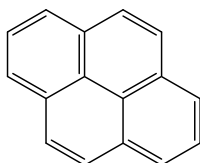
2,3,6,7-Tetrahydro-1H,5H-pyrido[3,2,1-ij]quinoline-9-carbaldehyde  
min. 96 % (HPLC);  
m. p.: 80-85°C;

### Pyrene

**ST03639**

129-00-0

C<sub>16</sub>H<sub>10</sub>



min. 98 % (GC);  
m. p.: 149-155°C;

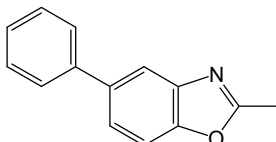
intermediate for violet and blue emitters;

### 2-Methyl-5-phenyl-benzoxazole

**ST00222**

61931-68-8

C<sub>14</sub>H<sub>11</sub>NO



min. 98 % (HPLC);  
m. p.: 62-65°C;

intermediate for synthesis of polymethine dyes;

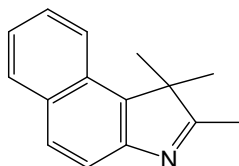
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 2,3,3-Trimethyl-3H-benzo[e]indole

**ST00104**

41532-84-7

C15H15N



min. 98 % (HPLC);

m. p.: 115-119°C;

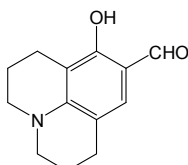
intermediate for synthesis of dyes;

### 8-Hydroxy-2,3,6,7-tetrahydro-1H,5H-benzo[i,j]quinolizine-9-carboxaldehyde

**ST00779**

63149-33-7

C13H15NO2



8-Hydroxyjulolidine-9-carboxaldehyde

min. 98 % (HPLC);

m. p.: 68-74°C;

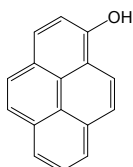
intermediate for the synthesis of coumarines;

### 1-Hydroxypyrene

**ST03986**

5315-79-7

C16H10O



min. 99 % (HPLC);

m. p.: 176-178°C;

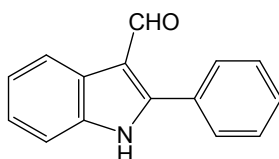
intermediate for violet emitters;

### 2-Phenylindole-3-aldehyde

**ST00731**

25365-71-3

C15H11NO



3-Formyl-2-phenylindole

min. 98 % (HPLC);

m. p.: 249-253°C;

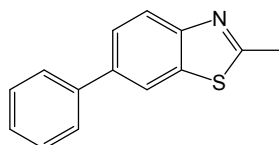
dye intermediate;

### 2-Methyl-6-phenylbenzothiazole

**ST01648**

107559-02-4

C14H11NS



min. 97 % (HPLC);

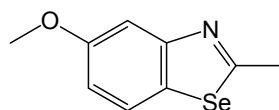
m. p.: 90-94 °C;

### 5-Methoxy-2-methylbenzoselenazole

**ST00212**

2946-17-0

C9H9NOSe



min. 97 % (GC);

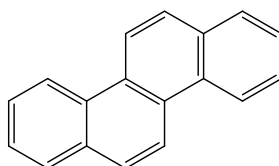
intermediate for synthesis of polymethine dyes;

### Chrysene

**ST03494**

218-01-9

C18H12



min. 98% (HPLC);

m. p.: 254-256°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

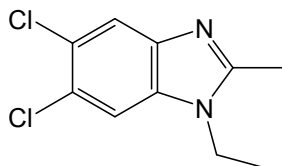
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 5,6-Dichloro-1-ethyl-2-methylbenzimidazole

**ST00873**

3237-62-5

C10H10Cl2N2



min. 95 % (GC);  
m. p.: 108-110°C;

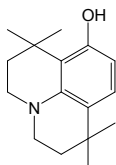
intermediate for the synthesis of polymethine dyes;

### 8-Hydroxy-1,1,7,7-tetramethyljulolidine

**ST01398**

115704-83-1

C16H23NO



HTMJ  
min. 98 % (HPLC);  
m. p.: 160-163°C;

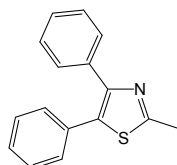
intermediate for the synthesis of coumarines;

### 2-Methyl-4,5-diphenylthiazole

**ST00210**

3755-83-7

C16H13NS



min. 97 % (HPLC);  
m. p.: 50-53°C;

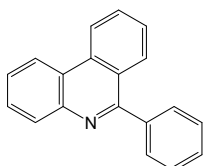
intermediate for synthesis of polymethine dyes;

### 6-Phenylphenanthridine

**ST03961**

2720-93-6

C19H13N



min 97 % (GC);  
m. p.: 100-103°C;

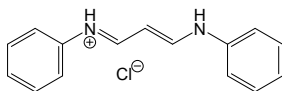
ligand for emitters based on metal complexes;

### Malondialdehyde dianile hydrochloride

**ST00673**

28140-60-5

C15H15ClN2



MAD  
min. 99 % (HPLC);  
m. p.: 220°C (dec.);

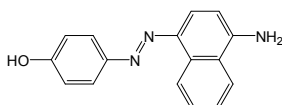
intermediate for synthesis of polymethine dyes;

### 4-(4-Aminonaphthalen-1-ylazo)phenol

**ST02222**

74217-45-1

C16H13N3O



min. 95 % (HPLC);  
abs. max.: 433 nm (acetone); m. p.: 177-183°C;

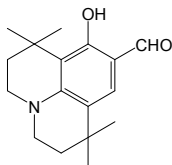
intermediate for synthesis of azo dyes;

### 8-Hydroxy-1,1,7,7-tetramethyljulolidine-9-carboxaldehyde

**ST02677**

115662-09-4

C17H23NO2



min. 97 % (HPLC);  
m. p.: 70-77°C;

organic synthesis for OLED;



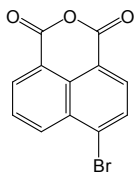
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 4-Bromo-1,8-naphthalic anhydride

**ST04433**

81-86-7

C<sub>12</sub>H<sub>5</sub>BrO<sub>3</sub>



min. 98 % (GC); water: max. 0.5 % (KF);

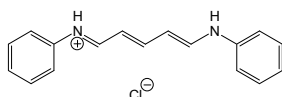
m. p.: 217-220°C;

### Glutacondialdehyde dianile hydrochloride

**ST00376**

1497-49-0

C<sub>17</sub>H<sub>17</sub>ClN<sub>2</sub>



GAD

min. 98.5 % (HPLC);

m. p.: approx. 126°C (dec.);

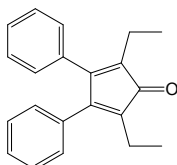
intermediate for synthesis of polymethine dyes;

### 2,5-Diethyl-3,4-diphenylcyclopentadienone

**ST02232**

51932-77-5

C<sub>21</sub>H<sub>20</sub>O



min. 94 % (GC);

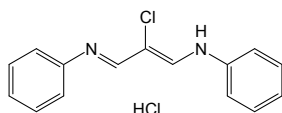
m. p.: 99-103°C;

### N-(2-Chloro-3-phenylimino-1-propenyl)aniline hydrochloride

**ST01887**

6684-16-8

C<sub>15</sub>H<sub>13</sub>ClN<sub>2</sub> x HCl



min. 97 % (HPLC);

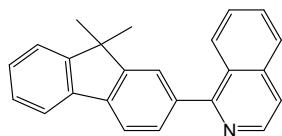
intermediate for the synthesis of polymethine dyes;

### 1-(9,9-Dimethylfluoren-2-yl)isoquinoline

**ST03618**

435277-99-9

C<sub>24</sub>H<sub>19</sub>N



min. 97 % (HPLC);

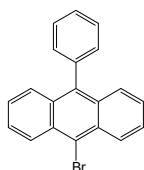
intermediate for emitters based on metal complexes;

### 9-Bromo-10-phenylantracene

**ST04402**

23674-20-6

C<sub>20</sub>H<sub>13</sub>Br



min. 99 % (GC);

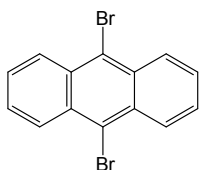
m. p.: 154-156°C;

### 9,10-Dibromoanthracene

**ST03166**

523-27-3

C<sub>14</sub>H<sub>8</sub>Br<sub>2</sub>



min. 98 % (GC);

m.p.: 222-224 °C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

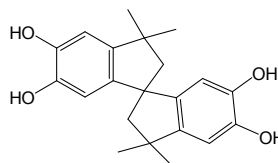
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 5,5',6,6'-Tetrahydroxy-3,3,3',3'-tetramethyl-1,1'-spirobisindane

**ST00674**

77-08-7

C21H24O4



3,3,3'3'-Tetramethyl-spiro-1,1'-biindan-5,5',6,6'-tetrol  
min. 97 % (HPLC); titr.: 98-102 %;

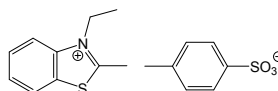
used for thermo sensitive paper in combination with ferric salts;

### 3-Ethyl-2-methylbenzothiazolium p-toluenesulfonate

**ST01615**

14933-76-7

C17H19NO3S2



1H-NMR conforms;

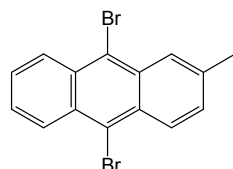
intermediate for synthesis of polymethine dyes;

### 9,10-Dibromo-2-methylantracene

**ST04263**

177839-45-1

C15H10Br2



min. 99 % (GC);  
m. p.: 138-143°C;

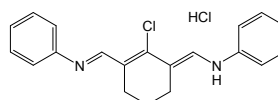
intermediate for blue-violet emitters;

### N-[(2-Chloro-1-phenyliminomethyl-1-cyclohexene-3-ylidene)methyl]aniline hydrochloride

**ST03088**

63857-00-1

C20H20Cl2N2



3-Chloro-2,4-trimethyleneglutacondianil hydrochloride  
min. 90 % (HPLC);

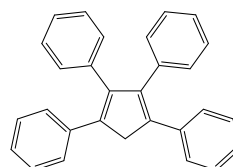
intermediate for the synthesis of polymethine dyes;

### 1,2,3,4-Tetraphenyl-1,3-cyclopentadiene

**ST00366**

15570-45-3

C29H22



min. 98 % (GC);  
m. p.: 177-180°C;

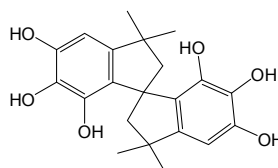
intermediate for the synthesis of polymethine dyes;

### 5,5',6,6',7,7'-Hexahydroxy-3,3,3',3'-tetramethylspirobiindane

**ST01181**

32737-33-0

C21H24O6



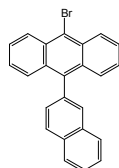
IR conforms;

### 9-Bromo-10-(naphthalen-2-yl)anthracene

**ST04275**

474688-73-8

C24H15Br



min. 99.5 % (GC);  
m. p.: 171-174°C;

intermediate for dopant with blue emission;

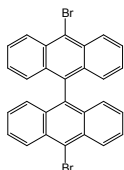
## INTERMEDIATES FOR FUNCTIONAL DYES AND FLUORESCENTS

### 10,10'-Dibromo-9,9'-bianthracene

**ST04264**

121848-75-7

C28H16Br2



10,10'-Dibromo-9,9'-bianthryl

min. 98 % (GC);

m. p.: 345-346°C; 357-359°C (different references);

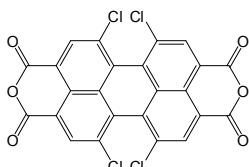
intermediate for blue emitters;

### Tetrachloroperylene tetracarboxylic acid dianhydride

**ST00639**

156028-26-1

C24H4Cl4O6



min. 90% (HPLC); loss on drying: max. 3 %;

assay: min 90 % (calculated on Cl); technical grade;

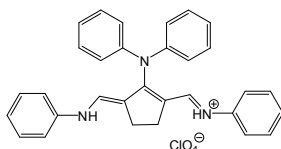
intermediate for the synthesis of perylene dyes;

### N-Phenyl-N-[5-(phenylamino)methylene]-2-[(phenylimino)methyl]-1-yl]benzeneamine monoperchlorate

**ST01533**

120929-15-9

C31H28ClN3O4



abs. max.: 511 nm (MeCN); molar absorptivity: >50000 l/(mol\*cm);

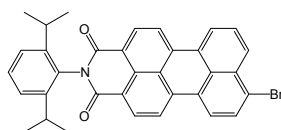
intermediate for the synthesis of NIR dyes;

### 8-Bromo-2-(2,6-diisopropylphenyl)-1H-benzo[5,10]anthra[2,1,9-def]isoquinoline-1,3(2H)-dione

**ST06005**

165550-62-9

C34H26BrNO2



min. 97 % (HPLC);

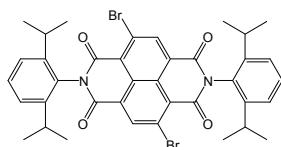
m. p.: > 300°C;

### 4,9-Dibromo-2,7-bis(2,6-diisopropylphenyl)benzo[1,2,3-cd]phenanthroline-1,3,6,8-tetraone

**ST06028**

958872-48-5

C38H36Br2N2O4



NDI Br2

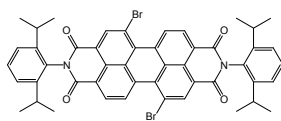
min. 97 % (HPLC);

### 5,12-Dibromo-2,9-bis(2,6-diisopropylphenyl)anthra[2,1,9-def;6,5,10-d'e'f']diisoquinoline-1,3,8,10-tetraone

**ST06030**

331861-94-0

C48H40Br2N2O4



PDI Br2

min. 98 % (HPLC);

m. p.: > 300°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

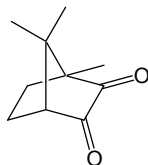
## PHOTOINITIATORS

### d,l-Camphor quinone

**ST00517**

10373-78-1

C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>



(+/-)-2,3-Bornanedione, 2,3-Bornanedione, DL-Camphoroquinone  
min. 99.5 %; (selenium content max. 20 ppm);

m. p.: 191-193°C;

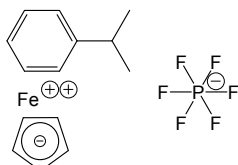
photo initiator for dental fillings;

### (Cumol)-(cyclopentadienyl)iron(II)hexafluorophosphate

**ST04697**

32760-80-8

C<sub>14</sub>H<sub>17</sub>F<sub>6</sub>FeP



<sup>1</sup>H-NMR: conforms; TLC: min. 97 %;

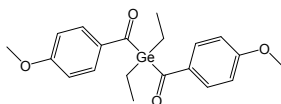
m. p.: 82-85°C;

### Bis(4-methoxybenzoyl)diethylgermanium (Ivocerin®)

**ST03909**

1207515-90-9

C<sub>20</sub>H<sub>24</sub>GeO<sub>4</sub>



For dental applications, please ask Ivoclar directly!

min. 96 % (HPLC), <sup>1</sup>H-NMR: conforms, Sulfur: max. 1 % (EA);

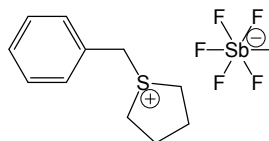
Highly sensitive photoinitiator for radical initiated polymerisation reactions. Excitation at 460 nm (blue diode). No inert gas required. Please consider the following patent group: Ivoclar Vivadent AG EP 1905415, EP 2103297, US 2009239967, JP 2009228005;

### Benzylthiolaniumhexafluoroantimonate

**ST04694**

87301-55-1

C<sub>11</sub>H<sub>15</sub>F<sub>6</sub>SSb



<sup>1</sup>H-NMR: conforms; TLC: min. 97 %;

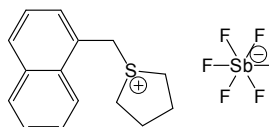
m. p.: 124°C;

### S-[(1-Naphtyl)methyl]thiolanium hexafluoroantimonate

**ST04696**

151175-19-8

C<sub>15</sub>H<sub>17</sub>F<sub>6</sub>SSb



<sup>1</sup>H-NMR: conforms; TLC: min. 97 %;

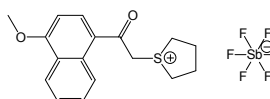
m. p.: 149-150°C;

### S-[2-(4-Methoxynapht-1-yl)-2-oxoethyl]thiolanium hexafluoroantimonate

**ST04695**

219127-07-8

C<sub>17</sub>H<sub>19</sub>F<sub>6</sub>O<sub>2</sub>SSb



<sup>1</sup>H-NMR: conforms; TLC: min. 97 %;

m. p.: 198-201°C;

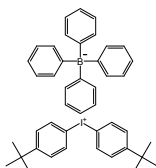
### Bis(4-tert-butylphenyl)iodonium tetraphenylborate

**ST06393**

131725-16-1

C<sub>44</sub>H<sub>46</sub>BI

**NEW**



## PHOTOINITIATORS

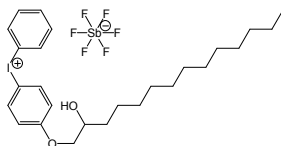
---

{4-[(2-Hydroxytetradecyl)oxy]phenyl}phenyliodonium hexafluoroantimonate

**ST06012**

139301-16-9

C<sub>26</sub>H<sub>38</sub>F<sub>6</sub>O<sub>2</sub>Sb



min. 97 % (HPLC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

49

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## CHARGE TRANSPORT MATERIALS: ELECTRON TRANSPORT MATERIALS

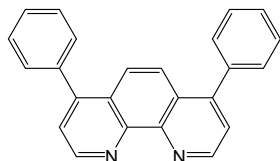
---

### 4,7-Diphenyl-1,10-phenanthroline

**ST03709**

1662-01-7

C24H16N2



Bathophenanthroline

min. 98 % (HPLC);

m. p.: 217-221°C;

HOMO: -6,40 eV LUMO: -3,0 eV

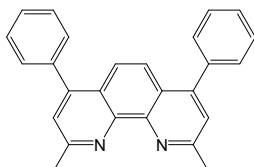
---

### 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline

**ST02087**

4733-39-5

C26H20N2



Bathocuproine

min. 95 % (HPLC); 98-102 % (titr.);

HOMO: -6,70 eV LUMO: -3,20 eV

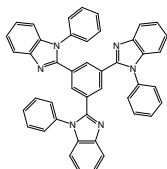
---

### 1,3,5-Tris(1-phenyl-1H-benzimidazol-2-yl)benzene

**ST02961**

192198-85-9

C45H30N6



TPBi

min. 99.5 % (HPLC);

m. p.: 272-274°C;

HOMO: -6,3 eV LUMO: -2,7 eV

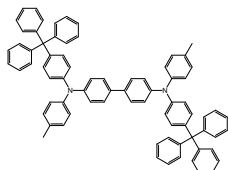
---

## CHARGE TRANSPORT MATERIALS: HOLE TRANSPORT MATERIALS

N,N'-Bis-(4-methyl-phenyl)-N,N'-bis-(4-triphenylmethyl-phenyl)-benzidine sublimed

**ST02103S**

C76H60N2



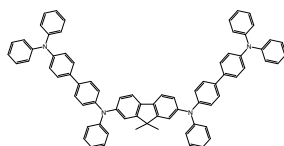
HOMO: -5,53 eV

2,7-Bis-(N-phenyl-N-(4'-N,N-diphenylamino-biphenyl-4-yl))-9,9-dimethyl-fluorene sublimed

**ST01693S**

463302-86-5

C75H58N4



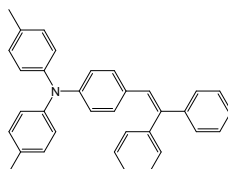
HOMO: -5,20 eV LUMO: -1,86 eV

4-(2,2-Bisphenyl-ethen-1-yl)-4',4''-dimethyl-triphenylamine sublimed

**ST01374S**

89114-91-0

C34H29N

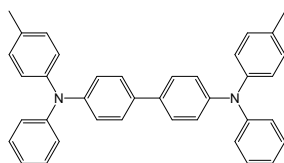


N,N'-Bis-(4-methylphenyl)-N,N'-bis-(phenyl)-benzidine sublimed

**ST00016/04S**

20441-06-9

C38H32N2



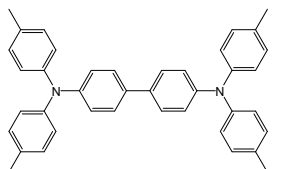
HOMO: -5.5 eV LUMO: -2.3 eV

N,N,N',N'-Tetrakis(4-methylphenyl)-benzidine sublimed

**ST00016/03S**

161485-60-5

C40H36N2



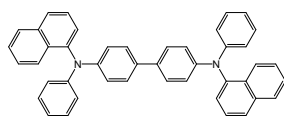
HOMO: -5,2 eV LUMO: -3,4 eV

N,N'-Di(naphthalen-1-yl)-N,N'-diphenyl-benzidine sublimed

**ST00016/07S**

123847-85-8

C44H32N2



alpha-NPD  
min. 99,5 % (HPLC)  
272-278 ° C (onset, DSC), Tg 96 - 102 ° C (midpoint, DSC)

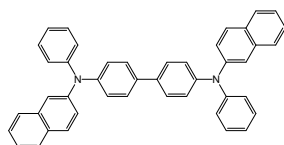
HOMO: -5,5 eV LUMO: -2,4 eV

N,N'-Di(naphthalen-2-yl)-N,N'-diphenyl-benzidine sublimed

**ST00016/09S**

139255-17-7

C44H32N2



HOMO: -5,2 eV LUMO: -2,4 eV

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## CHARGE TRANSPORT MATERIALS: HOLE TRANSPORT MATERIALS

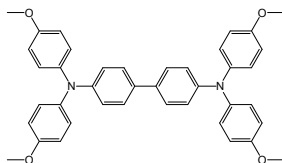
---

### N,N,N',N'-Tetrakis(4-methoxyphenyl)benzidine

**ST05894**

122738-21-0

C40H36N2O4



min. 99 % (HPLC);  
HOMO: -5,1 eV LUMO: -1,89 eV

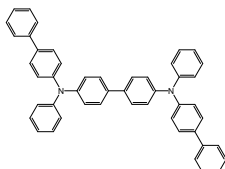
---

### N,N'-Bis-(phenyl)-N,N'-bis-(biphenyl-4-yl)-benzidine sublimed

**ST00016/15S**

134008-76-7

C48H36N2



HOMO: -5,44 eV LUMO: -2,33 eV

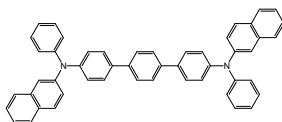
---

### 4,4''-Bis(N-(naphth-2-yl)-N-phenyl-amino)-p-terphenyl; sublimed

**ST06248S**

757235-41-9

C50H36N2



HOMO: -5,56 eV LUMO: -2,30 eV

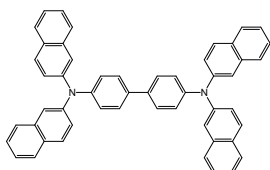
---

### N,N,N',N'-Tetrakis(naphth-2-yl)benzidine sublimed

**ST00016/18S**

141752-82-1

C52H36N2



HOMO: -5,2 eV LUMO: -2,4 eV

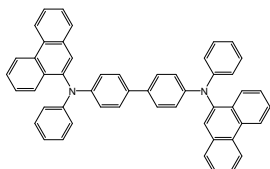
---

### N,N'-Bis(phenanthren-9-yl)-N,N'-bis-phenyl-benzidine sublimed

**ST00016/19S**

182507-83-1

C52H36N2



HOMO: -5,48 eV LUMO: -1,89 eV

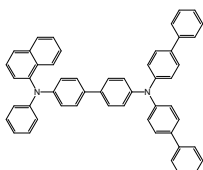
---

### 4,4-Bis-(biphenyl-4-yl)-4'-phenyl-4''-(naph-1-yl)benzidine; sublimed

**ST06247S**

897671-42-0

C52H38N2



HOMO: -5,39 eV LUMO: -2,30 eV

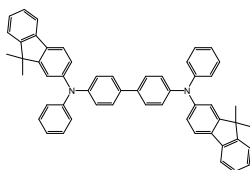
---

### N,N'-Diphenyl-N,N'-bis(9,9,-dimethylfluorenyl)benzidine

**ST05190**

361486-60-4

C54H44N2



PF-DBP  
min. 99 % (HPLC); 1H-NMR: conforms;  
HOMO: -5,39 eV LUMO: -2,30 eV



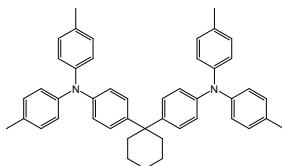
## CHARGE TRANSPORT MATERIALS: HOLE TRANSPORT MATERIALS

1,1-Bis-(4-bis(4-methyl-phenyl)-amino-phenyl)-cyclohexane sublimed

**ST00755S**

58473-78-2

C46H46N2



TAPC

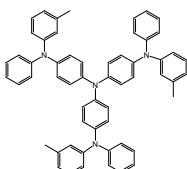
HOMO: -5,46 eV LUMO: -1,96 eV

4,4',4''-Tris(N-3-methylphenyl-N-phenylamino)triphenylamine

**ST00627**

124729-98-2

C57H48N4



m-TDATA

min. 99 % (HPLC);

m. p.: 207-208°C;

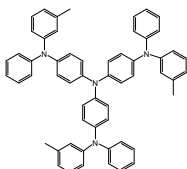
HOMO: -5,04 eV LUMO: -1,83 eV

4,4',4''-Tris(N-3-methylphenyl-N-phenylamino)triphenylamine sublimed

**ST00627S**

124729-98-2

C57H48N4



m-TDATA

min. 99. % (HPLC);

m. p.: 207-208°C;

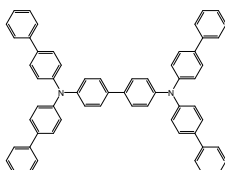
HOMO: -5,04 eV LUMO: -1,83 eV

N,N,N',N'-Tetrakis(biphenyl-4-yl)benzidine sublimed

**ST00016/16S**

164724-35-0

C60H44N2



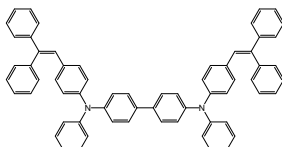
HOMO: -5,44 eV LUMO: -2,83 eV

N,N'-Di(4-(2,2-diphenyl-ethen-1-yl)phenyl)-N,N'-diphenyl-benzidine sublimed

**ST01189S**

218598-81-3

C64H48N2

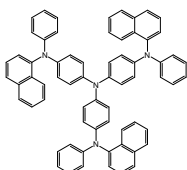


4,4',4''-Tris(N-(1-naphthyl)-N-phenyl-amino)triphenylamine sublimed

**ST00638S**

185690-39-5

C66H48N4



min. 99,5 % (HPLC)

248 - 252 ° C (peak, DSC)

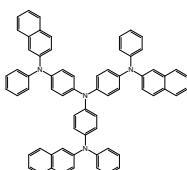
HOMO: -5,0 eV LUMO: -2,4 eV

4,4',4''-Tris(N-(2-naphthyl)-N-phenyl-amino)triphenylamine sublimed

**ST00664S**

185690-41-9

C66H48N4



min. 99.0 % (HPLC)

298 - 301 ° C (DSC, Peak)

HOMO: -5,1 eV LUMO: -2,4 eV

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## CHARGE TRANSPORT MATERIALS: SEMICONDUCTORS FOR OFET

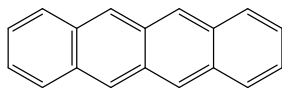
---

Tetracene

**ST03017**

92-24-0

C18H12



Naphthacene

min. 98 % (HPLC);

HOMO: -5,4 eV LUMO: -2,7 eV

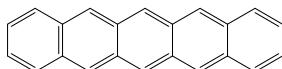
---

Pentacene (sublimed)

**ST02636**

135-48-8

C22H14



Elemental analysis conforms;

m. p.: > 318°C;

HOMO: -5,0 eV LUMO: -2,47 eV

---

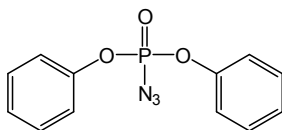
## CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

Phosphoric acid diphenyl ester azide

**ST06421**

26386-88-9

C<sub>12</sub>H<sub>10</sub>N<sub>3</sub>O<sub>3</sub>P

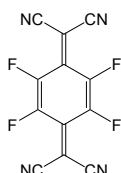


2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane

**ST05891**

29261-33-4

C<sub>12</sub>F<sub>4</sub>N<sub>4</sub>



F4TCNQ

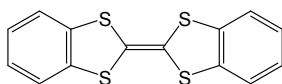
min. 98 % (GC);

Dibenzotetrathiafulvalene

**ST03833**

24648-13-3

C<sub>14</sub>H<sub>8</sub>S<sub>4</sub>



[2,2']Bi[benzo[1,3]dithiolyliene]

1H-NMR conforms;

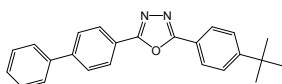
m. p.: 241-243°C;

2-(4-Biphenyl)-5-(4-tertbutylphenyl)-1,3,4-oxadiazole sublimed

**ST01563S**

15082-28-7

C<sub>24</sub>H<sub>22</sub>N<sub>2</sub>O



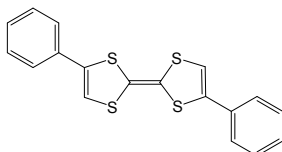
HOMO: -5,9 eV LUMO: -2,6 eV

4,4'-Diphenyltetrathiafulvalene

**ST00041/01**

5152-94-3

C<sub>18</sub>H<sub>12</sub>S<sub>4</sub>



1H-NMR conforms;

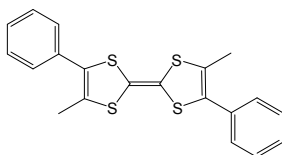
organic electronic conductor;

4,4'-Dimethyl-5,5'-diphenyltetrathiafulvalene

**ST00041/10**

56851-13-9

C<sub>20</sub>H<sub>16</sub>S<sub>4</sub>



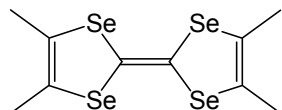
min. 97 % (HPLC);

4,5-Dimethyl-2-(4,5-dimethyl-1,3-diselenol-2-ylidene)-1,3-diselenole

**ST04693**

55259-49-9

C<sub>10</sub>H<sub>12</sub>Se<sub>4</sub>



1H-NMR: conforms;

m. p.: 274-276°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

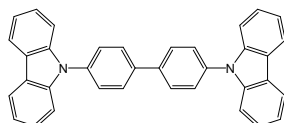
## CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 4,4'-Bis(carbazol-9-yl)-biphenyl sublimed

**ST00918S**

58328-31-7

C36H24N2



CBP

min. 99 % (HPLC)

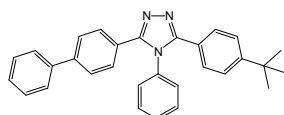
HOMO: -5,96 eV LUMO: -2,6 eV

### 3-(4-Biphenyl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole sublimed

**ST00669S**

150405-69-9

C30H27N3



TAZ

min. 99.4 % (HPLC)

236-239 ° C (peak, DSC)

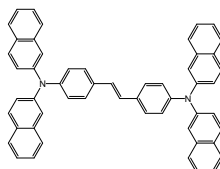
HOMO: -6,5 eV LUMO: -2,6 eV

### 4,4'-Di(dinaphthyl-2-ylamino)stilbene

**ST04546**

462631-35-2

C54H38N2



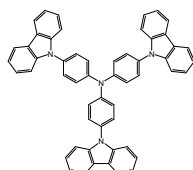
min. 99 % (HPLC);

### 4,4',4''-Tris(carbazol-9-yl)triphenylamine

**ST00776**

139092-78-7

C54H36N4



TCTA

min. 99.0 % (HPLC); TLC: one spot;

m. p.: 299-301°C;

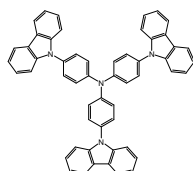
HOMO: -5,9 eV LUMO: -2,7 eV

### 4,4',4''-Tris(carbazol-9-yl)triphenylamine sublimed

**ST00776S**

139092-78-7

C54H36N4



TCTA

min. 99.0 % (HPLC)

HOMO: -5,9 eV LUMO: -2,7 eV

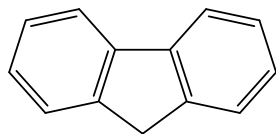
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

Fluorene

**ST03065**

86-73-7

C<sub>13</sub>H<sub>10</sub>



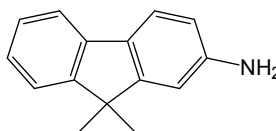
min. 98 % (GC);  
m. p.: 112-116°C;

9,9-Dimethyl-9H-fluoren-2-ylamine

**ST05315**

108714-73-4

C<sub>15</sub>H<sub>15</sub>N



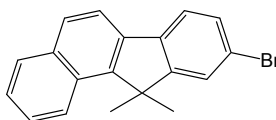
min. 99 % (HPLC);

9-Bromo-11,11-dimethyl-11H-benzo[a]fluorene

**ST05930**

1198396-29-0

C<sub>19</sub>H<sub>15</sub>Br



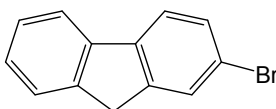
min. 97 % (HPLC);

2-Bromofluorene

**ST01472**

1133-80-8

C<sub>13</sub>H<sub>9</sub>Br



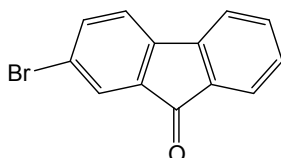
min. 98 % (GC);  
m. p.: 112-114°C;

2-Bromo-9-fluorenon

**ST02811**

3096-56-8

C<sub>13</sub>H<sub>7</sub>BrO



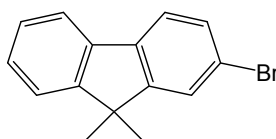
min. 97 % (GC);  
m. p.: 146-148°C;

2-Bromo-9,9-dimethylfluoren

**ST03619**

28320-31-2

C<sub>15</sub>H<sub>13</sub>Br



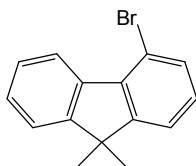
min. 98 % (GC);  
m. p.: 63-66°C;

4-Bromo-9,9-dimethyl-9H-fluorene

**ST05492**

942615-32-9

C<sub>15</sub>H<sub>13</sub>Br



min. 98 % (GC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

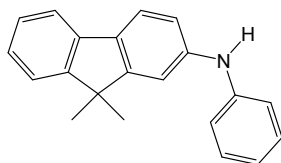
---

### 9,9-Dimethyl-2-phenylaminofluorene

**ST05864**

355832-04-1

C21H19N



min. 99 % (GC);

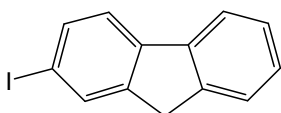
---

### 2-Iodo-9H-fluorene

**ST04148**

2523-42-4

C13H9I



min. 97 % (HPLC);  
m. p.: 126-129°C;

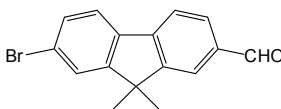
---

### 7-Bromo-9,9-dimethyl-9H-fluorene-2-carbaldehyde

**ST05487**

944940-90-3

C16H13BrO



min. 95 % (GC);

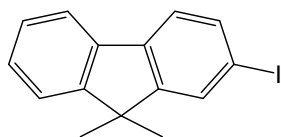
---

### 2-Iodo-9,9-dimethylfluorene

**ST01561**

144981-85-1

C15H13I



min. 97 % (GC);  
m. p.: 65-66°C;

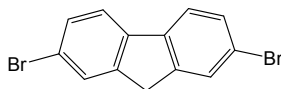
---

### 2,7-Dibromofluorene

**ST01405**

16433-88-8

C13H8Br2



min. 98 % (HPLC);  
m.p.: 164-167°C;

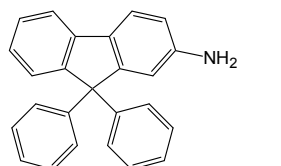
---

### 9,9-Diphenyl-9H-fluorene-2-ylamine

**ST05498**

1268519-74-9

C25H19N



min. 98 % (HPLC);

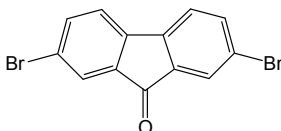
---

### 2,7-Dibromofluoren-9-one

**ST04149**

14348-75-5

C13H6Br2O



min. 98 % (1H-NMR);  
m. p.: 203-207°C;

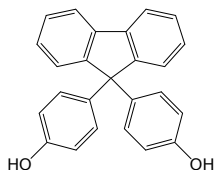
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

### 4,4'-(9-Fluorenylidene)diphenol

**ST04277**

3236-71-3

C<sub>25</sub>H<sub>18</sub>O<sub>2</sub>



min. 97 % (HPLC);

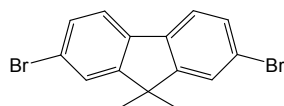
m. p.: 224-226°C;

### 2,7-Dibromo-9,9-dimethyl-fluorene

**ST01498**

28320-32-3

C<sub>15</sub>H<sub>12</sub>Br<sub>2</sub>



min. 98 % (HPLC);

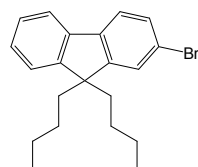
m.p. 178-180°C;

### 2-Bromo-9,9-di-n-butylfluoren

**ST04070**

88223-35-2

C<sub>21</sub>H<sub>25</sub>Br



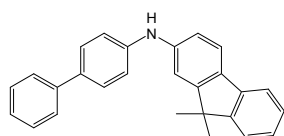
min. 97 % (HPLC);

### Biphenyl-4-yl-(9,9-dimethyl-9H-fluoren-2-yl)amine

**ST05476**

897671-69-1

C<sub>27</sub>H<sub>23</sub>N



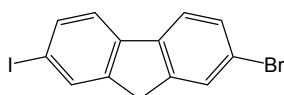
min. 99 % (HPLC);

### 2-Bromo-7-iodo-9H-fluoren

**ST04127**

123348-27-6

C<sub>13</sub>H<sub>8</sub>BrI



min. 97 % (GC);

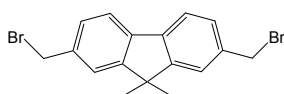
m. p.: 188-191°C;

### 2,7-Bis(bromomethyl)-9,9-dimethyl-9H-fluorene

**ST04142**

1033000-98-4

C<sub>17</sub>H<sub>16</sub>Br<sub>2</sub>



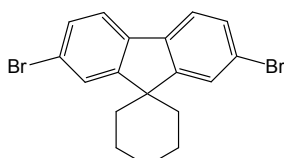
min. 98 % (1H-NMR);

### 2,7-Dibromospiro(cyclohexane-1',9--9H-fluorene)

**ST04147**

925890-05-7

C<sub>18</sub>H<sub>16</sub>Br<sub>2</sub>



min. 98 % (1H-NMR);

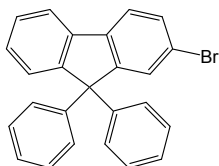
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

### 2-Bromo-9,9-diphenyl-9H-fluorene

**ST05254**

474918-32-6

C25H17Br



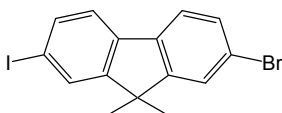
min. 98 % (HPLC);

### 2-Bromo-7-iodo-9,9-dimethyl-fluoren

**ST04128**

319906-45-1

C15H12BrI



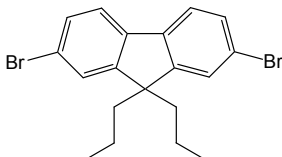
min. 97 % (GC);  
m. p.: 190-192°C;

### 2,7-Dibromo-9,9-di(1-propyl)-9H-fluorene

**ST04144**

157771-56-7

C19H20Br2



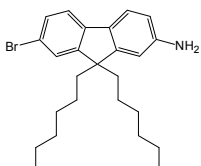
min. 98 % (HPLC);  
m. p.: 138-140°C;

### 2-Amino-7-bromo-9,9-dihexylfluorene

**ST05962**

126414-52-7

C25H34BrN



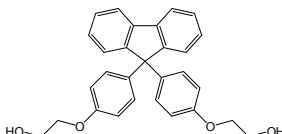
7-Bromo-9,9-dihexyl-9H-fluoren-2-ylamine  
min. 98 % (GC);

### Bisphenoxyethanolfuorene

**ST05469**

117344-32-8

C29H26O4



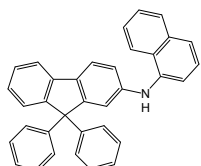
min. 99 % (HPLC);

### (9,9-Diphenyl-9H-fluoren-2-yl)-naphthalen-1-yl-amine

**ST05490**

1196694-11-7

C35H25N



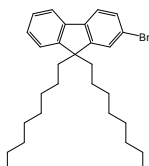
min. 99 % (HPLC);

### 2-Bromo-9,9-(di-n-octyl)-9H-fluorene

**ST04044**

302554-80-9

C29H41Br



min. 95 % (HPLC);



## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

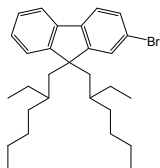
---

### 2-Bromo-9,9-bis(2-ethylhexyl)fluorene

**ST04072**

355135-07-8

C<sub>29</sub>H<sub>41</sub>Br



min. 97 % (HPLC);

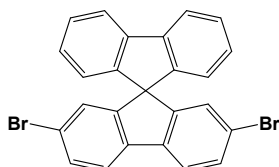
---

### 2,7-Dibromo-9,9'-spirobi(fluorene)

**ST04575**

171408-84-7

C<sub>25</sub>H<sub>14</sub>Br<sub>2</sub>



min. 98 % (GC);

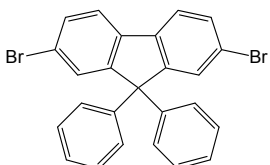
---

### 2,7-Dibromo-9,9-diphenyl-9H-fluorene

**ST05375**

186259-63-2

C<sub>25</sub>H<sub>16</sub>Br<sub>2</sub>



min. 99 % (HPLC);

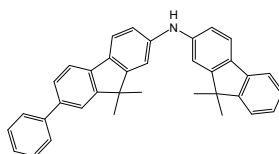
---

### N-(9,9-dimethyl-9H-fluoren-2-yl)-9,9-dimethyl-7-phenyl-9H-fluoren-2-amine

**ST06088**

1267248-45-2

C<sub>36</sub>H<sub>31</sub>N



min. 98 % (GC);

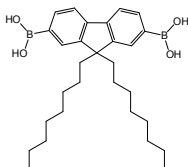
---

### 9,9-Di-n-octyl-9H-fluorene-2,7-diboronic acid

**ST04595**

258865-48-4

C<sub>29</sub>H<sub>44</sub>B<sub>2</sub>O<sub>4</sub>



min. 97.5 % (HPLC); titr.: 95.5 - 104.5 % (NaOH);  
m. p.: 158-162°C;

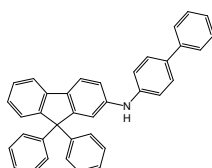
---

### Biphenyl-4-yl-(9,9-diphenyl-9H-fluoren-2-yl)amine

**ST05488**

1268520-04-2

C<sub>37</sub>H<sub>27</sub>N



min. 99.5 % (HPLC);

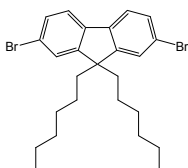
---

### 2,7-Dibromo-9,9-di(1-hexyl)-9H-fluorene

**ST04145**

189367-54-2

C<sub>25</sub>H<sub>32</sub>Br<sub>2</sub>



min. 98 % (1H-NMR);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

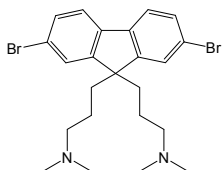
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

2,7-Dibromo-9,9-bis(3-dimethylaminoprop-1-yl)-9H-fluorene

**ST04530**

673474-73-2

C23H30Br2N2



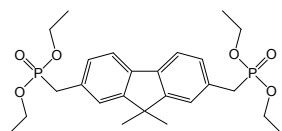
min. 95 % (HPLC);

2,7-Bis(diethylphosphonomethyl)-9,9-dimethyl-9H-fluorene

**ST04143**

1033000-99-5

C25H36O6P2



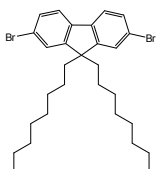
min. 98 % (1H-NMR);

2,7-Dibromo-9,9-di-n-octyl-9H-fluorene

**ST04594**

198964-46-4

C29H40Br2



95.5 - 104.5 % (titr. of bromide);

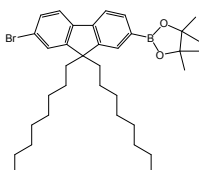
m. p.: 59-63°C;

2-(7-Bromo-9,9-dioctyl-9H-fluoren-2-yl)-4,4,5,5-tetramethyl-1,3-dioxolane

**ST06301**

620624-96-6

C36H53BrO2



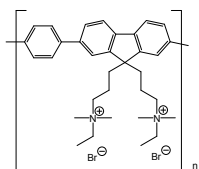
97% (GC)

Poly-{9,9-bis[3-(N,N-dimethyl-N-ethylammonium)-1-propyl]-2,7-fluorene}-alt-1,4-phenylene dibromid

**ST04534**

889673-03-4

(C33H44Br2N2) x n



P4

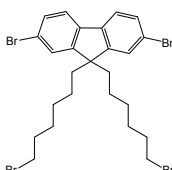
min. 90 % (HPLC);

9,9-Bis(6-bromohexyl)-2,7-dibromofluorene

**ST04369**

570414-33-4

C25H30Br4



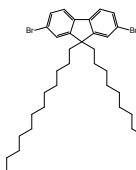
min. 95 % (HPLC); 1H-NMR conforms;

2,7-Dibromo-9,9-di(1-dodecyl)-9H-fluorene

**ST04146**

286438-45-7

C37H56Br2



min. 98 % (1H-NMR);

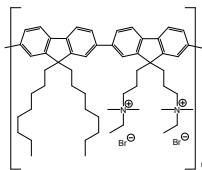
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: FLUORENES

Poly-{9,9-bis[3-(N,N-dimethyl-N-ethylammonium)-1-propyl]-2,7-fluorene}-alt-2,7-(9,9-dioctylfluorene) dibromide

**ST04532**

889672-99-5

$(C_{56}H_{80}Br_2N_2) \times n$



P2

1H-NMR conforms;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

63

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

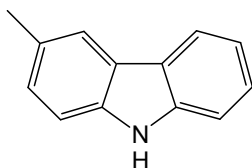
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: CARBAZOLES

### 3-Methyl-9H-carbazole

**ST04152**

4630-20-0

C13H11N



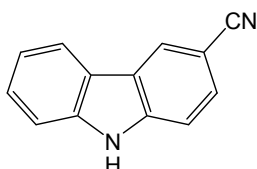
min. 98 % (HPLC);

### 9H-Carbazole-3-carbonitrile

**ST05938**

57102-93-9

C13H8N2



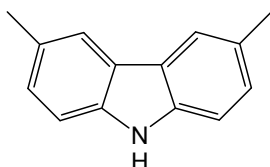
3-Cyanocarbazole  
min. 97 % (HPLC);

### 3,6-Dimethyl-9H-carbazole

**ST04153**

5599-50-8

C14H13N



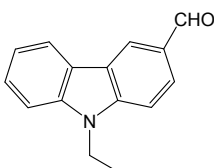
min. 97 % (HPLC);  
m. p.: 219-224°C;

### 9-Ethylcarbazole-3-carbaldehyde

**ST00028**

7570-45-8

C15H13NO



min. 98 % (HPLC);  
m. p.: 86-88°C;

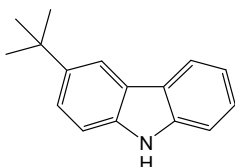
intermediate for synthesis of organic photoconductors;

### 3-tert-Butyl-9H-carbazole

**ST04150**

22401-74-7

C16H17N



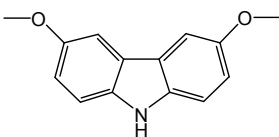
min. 98 % (HPLC);

### 3,6-Dimethoxy-9H-carbazole

**ST06300**

57103-01-2

C14H13NO2



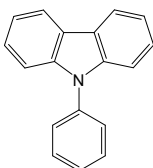
98% (HPLC)

### 9-Phenylcarbazole

**ST03032**

1150-62-5

C18H13N



N-Phenylcarbazole  
min. 97 % (GC);  
m. p.: 95-97°C;

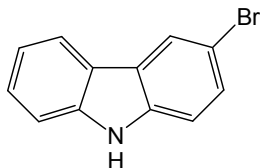
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: CARBAZOLES

### 3-Bromo-9H-carbazole

**ST04154**

1592-95-6

C<sub>12</sub>H<sub>8</sub>BrN



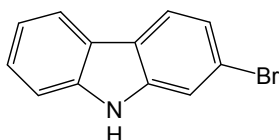
min. 97 % (1H-NMR);

### 2-Bromo-9H-carbazole

**ST04157**

3652-90-2

C<sub>12</sub>H<sub>8</sub>BrN



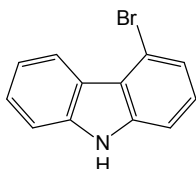
min. 98 % (HPLC); 1H-NMR: conforms;  
m. p.: 252-256°C;

### 4-Bromo-9H-carbazole

**ST05699**

3652-89-9

C<sub>12</sub>H<sub>8</sub>BrN



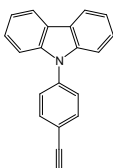
min. 99 % (GC);

### 9-(4-Ethynylphenyl)-9H-carbazole

**ST04174**

262861-81-4

C<sub>20</sub>H<sub>13</sub>N



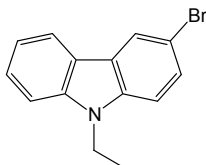
min. 98 % (HPLC, 1H-NMR);  
m. p.: 106-107°C;

### 3-Bromo-9-ethyl-9H-carbazole

**ST05698**

57102-97-3

C<sub>14</sub>H<sub>12</sub>BrN



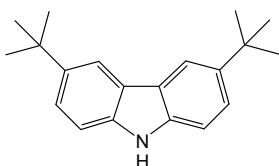
min. 99 % (GC);

### 3,6-Di(tert-butyl)-9H-carbazole

**ST04151**

37500-95-1

C<sub>20</sub>H<sub>25</sub>N



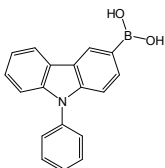
min. 98 % (HPLC);  
m. p.: 228-232°C;

### 9-Phenyl-9H-carbazol-3-ylboronic acid

**ST04141**

854952-58-2

C<sub>18</sub>H<sub>14</sub>BNO<sub>2</sub>



min. 97 % (1H-NMR);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

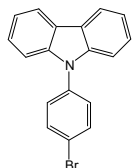
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: CARBAZOLES

### 9-(4-Bromo-phenyl)-9H-carbazole

**ST04160**

57102-42-8

C<sub>18</sub>H<sub>12</sub>BrN



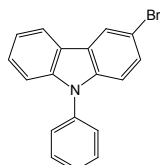
min. 98 % (GC);  
m. p.: 145-150°C;

### 3-Bromo-9-phenyl-9H-carbazole

**ST04427**

1153-85-1

C<sub>18</sub>H<sub>12</sub>BrN



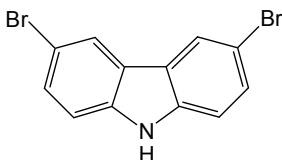
3-Bromo-N-phenylcarbazole  
min. 98 % (GC);  
m. p.: 77-80°C;

### 3,6-Dibromo-9H-carbazole

**ST04155**

6825-20-3

C<sub>12</sub>H<sub>7</sub>Br<sub>2</sub>N



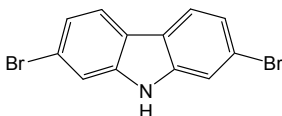
min. 98 % (HPLC); 1H-NMR conforms;  
m. p.: 206-210°C;

### 2,7-Dibromo-9H-carbazole

**ST04156**

136630-39-2

C<sub>12</sub>H<sub>7</sub>Br<sub>2</sub>N



min. 98 % (HPLC);  
m. p.: 228-231°C;

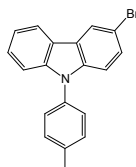
Intermediate for charge transport material;

### 3-Bromo-9-p-tolyl-9H-carbazole

**ST05590**

731016-44-7

C<sub>19</sub>H<sub>14</sub>BrN



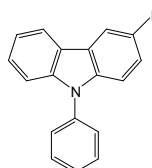
min. 99 % (HPLC);

### 3-Iodo-N-phenylcarbazole

**ST03721**

502161-03-7

C<sub>18</sub>H<sub>12</sub>I<sub>2</sub>N



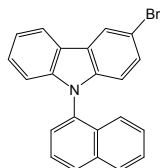
min. 98 % (GC);  
m. p.: 103-106°C;

### 3-Bromo-9-naphthalen-1-yl-9H-carbazole

**ST05618**

934545-83-2

C<sub>22</sub>H<sub>14</sub>BrN



min. 99 % (HPLC);

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: CARBAZOLES

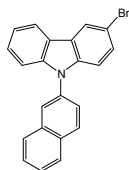
---

### 3-Bromo-9-naphthalen-2-yl-9H-carbazole

**ST05619**

1427316-53-7

C22H14BrN



min. 99 % (HPLC);

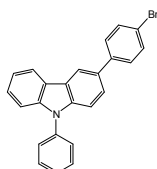
---

### 3-(4-Bromophenyl)-9-phenyl-9H-carbazole

**ST05501**

1028647-93-9

C24H16BrN



min. 99 % (HPLC);

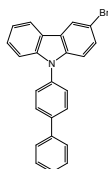
---

### 9-Biphenyl-4-yl-3-bromo-9H-carbazole

**ST05620**

894791-46-9

C24H16BrN



min. 99 % (HPLC);

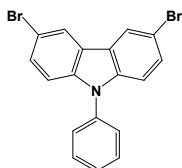
---

### 3,6-Dibromo-9-phenyl-9H-carbazole

**ST04577**

57103-20-5

C18H11Br2N



min. 98 % (GC);

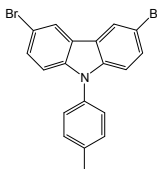
---

### 3,6-Dibromo-9-p-tolyl-9H-carbazole

**ST04158**

357437-74-2

C19H13Br2N



min. 98 % (HPLC); 1H-NMR conforms;  
m. p.: 207-210°C;

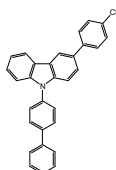
---

### 9-Biphenyl-4-yl-3-(4-chlorophenyl)-9H-carbazole

**ST05502**

1219821-48-3

C30H20ClN



min. 99 % (HPLC);

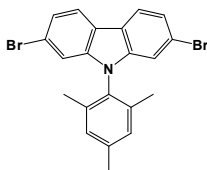
---

### 2,7-Dibromo-9-mesityl-9H-carbazole

**ST06273**

1873363-34-8

C21H17Br2N



min. 98 % (GC)

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: CARBAZOLES

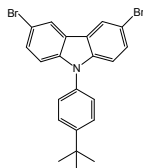
---

### 3,6-Dibromo-9-(4-tert-butylphenyl)-9H-carbazole

**ST04159**

741293-42-5

C22H19Br2N



min. 98 % (1H-NMR);

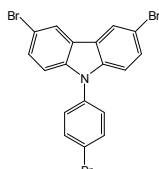
---

### 3,6-Dibromo-9-(4-bromo-phenyl)-9H-carbazole

**ST04161**

73087-83-9

C18H10Br3N



min. 98 % (HPLC); 1H-NMR conforms;  
m. p.: 207-210°C;

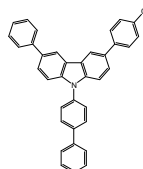
---

### 9-Biphenyl-4-yl-3-(4-chlorophenyl)-6-phenyl-9H-carbazole

**ST05552**

1221238-04-5

C36H24ClN



min. 99 % (HPLC);

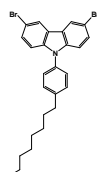
---

### 3,6-Dibromo-9-(4-octylphenyl)-9H-carbazole

**ST06272**

1186524-00-4

C26H27Br2N



min. 98 % (GC)



## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: ARYLAMINES

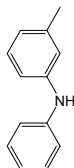
---

### N-Phenyl-m-toluidine

**ST00019**

1205-64-7

C13H13N



3-Methyldiphenylamine  
min. 98 % (GC);

intermediate for synthesis of organic photoconductors;

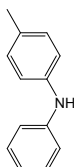
---

### 4-Methyl-diphenylamine

**ST00670**

620-84-8

C13H13N



min. 98 % (HPLC);  
m.p.: 86-90°C;

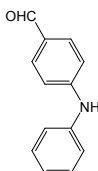
---

### 4-Phenylaminobenzaldehyde

**ST04167**

100727-07-9

C13H11NO



min. 98 % (1H-NMR);

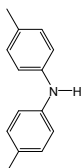
---

### di(p-tolyl)amine

**ST00671**

620-93-9

C14H15N



min. 98 % (HPLC);  
m. p.: 79-83°C;

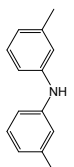
---

### 3,3'-Dimethyl-diphenylamine

**ST00723**

626-13-1

C14H15N



min. 98 % (GC);

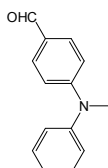
---

### 4-(Methyl(phenyl)amino)benzaldehyde

**ST04218**

55489-38-8

C14H13NO



min. 97 % (HPLC);

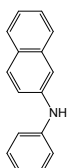
---

### N-Phenyl-2-naphthylamine

**ST02866**

135-88-6

C16H13N



min. 97 % (GC); min. 97 % (HPLC);  
m. p.: 105-110°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

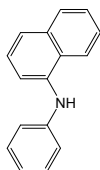
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: ARYLAMINES

### N-Phenyl-1-naphthylamine

**ST02867**

90-30-2

C<sub>16</sub>H<sub>13</sub>N



min. 98 % (GC);

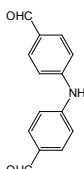
m. p.: 59-63°C

### 4,4'-Diformyldiphenylamine

**ST04166**

336619-72-8

C<sub>14</sub>H<sub>11</sub>NO<sub>2</sub>



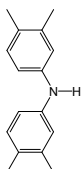
min. 98 % (1H-NMR);

### Bis(3,4-dimethylphenyl)amine

**ST00738**

55389-75-8

C<sub>16</sub>H<sub>19</sub>N



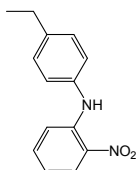
min. 97 % (HPLC);

m. p.: 72-74°C;

### N-(4-Ethylphenyl)-2-nitroaniline

**ST06341**

C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>



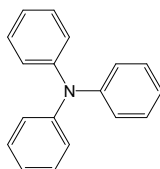
97,00 - 100,00 % (GC)

### Triphenylamine

**ST00635**

603-34-9

C<sub>18</sub>H<sub>15</sub>N



min. 99 % (GC);

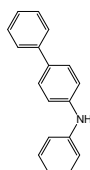
m. p.: 125-130°C;

### N-(4-Biphenyl)-N-phenylamine

**ST01491**

32228-99-2

C<sub>18</sub>H<sub>15</sub>N



N-(4-Biphenyl)anilin

min. 99.5 % (HPLC);

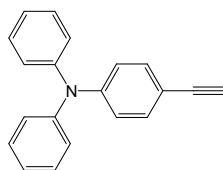
m. p.: 112-114°C;

### (4-Ethynylphenyl)diphenylamine

**ST04172**

205877-26-5

C<sub>20</sub>H<sub>15</sub>N



min. 98 % (HPLC); 1H-NMR conforms;

m. p.: 109-111°C;

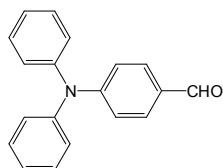
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: ARYLAMINES

### 4-(Diphenylamino)benzaldehyde

**ST00029**

4181-05-9

C<sub>19</sub>H<sub>15</sub>NO



min. 98 % (HPLC);

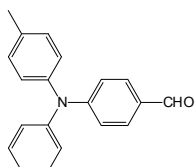
m. p.: min. 131°C;

### 4-(Phenyl-p-tolylamino)benzaldehyde

**ST04164**

89115-21-9

C<sub>20</sub>H<sub>17</sub>NO



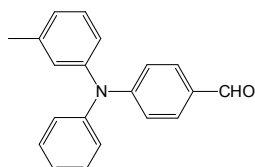
min. 98 % (1H-NMR);

### 4-((Phenyl-m-tolyl)amino)benzaldehyde

**ST04165**

218272-56-1

C<sub>20</sub>H<sub>17</sub>NO



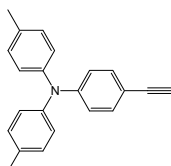
min. 98 % (1H-NMR);

### (4-Ethynylphenyl)-di-p-tolylamine

**ST04173**

596109-87-4

C<sub>22</sub>H<sub>19</sub>N



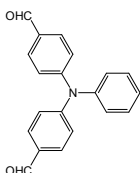
min. 98 % (1H-NMR);

### 4,4'-Diformyltriphenylamine

**ST04162**

53566-95-3

C<sub>20</sub>H<sub>15</sub>NO<sub>2</sub>



min. 97 % (HPLC);

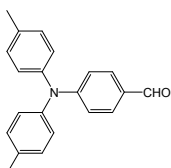
m. p.: 142-146°C;

### N,N-Bis(4-methylphenyl)aminobenzaldehyde

**ST01228**

42906-19-4

C<sub>21</sub>H<sub>19</sub>NO



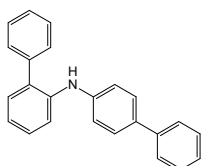
min. 97% (HPLC);

### (Biphenyl-4-yl)biphenyl-2-ylamine

**ST04672**

1372775-52-4

C<sub>24</sub>H<sub>19</sub>N



min. 98 % (HPLC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

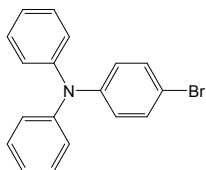
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: ARYLAMINES

### 4-Bromotriphenylamine

**ST03673**

36809-26-4

C<sub>18</sub>H<sub>14</sub>BrN



min. 97 % (HPLC);

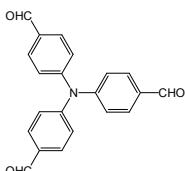
m. p.: 108-112°C;

### 4,4',4''-Triformyltriphenylamine

**ST04163**

119001-43-3

C<sub>21</sub>H<sub>15</sub>NO<sub>3</sub>



min. 97 % (HPLC);

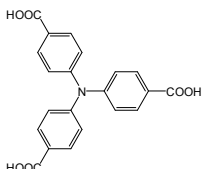
m. p.: 244-248°C;

### 4,4',4''-Nitrilotrisbenzoic acid

**ST05852**

118996-38-6

C<sub>21</sub>H<sub>15</sub>NO<sub>6</sub>



4,4',4''-Tricarboxytriphenylamine

min. 97 % (HPLC);

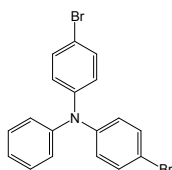
m. p.: 329-332°C;

### 4,4'-Dibromo-triphenylamine

**ST04664**

81090-53-1

C<sub>18</sub>H<sub>13</sub>Br<sub>2</sub>N



min. 98 % (GC);

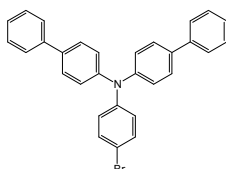
m. p.: 69°C;

### Bis(biphenyl-4-yl)-(4-bromo-phenyl)amine

**ST05917**

499128-71-1

C<sub>30</sub>H<sub>22</sub>BrN



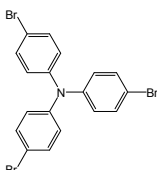
min. 99 % (HPLC);

### Tris(4-Bromophenyl)amine

**ST03332**

4316-58-9

C<sub>18</sub>H<sub>12</sub>Br<sub>3</sub>N



min. 98 % (HPLC);

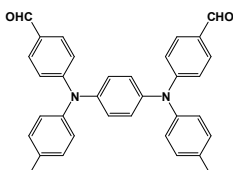
m.p.: 143-145°C;

### 4,4'-(1,4-phenylenebis(4-methylphenyl)imino)dibenzaldehyde

**ST04487**

131660-39-4

C<sub>34</sub>H<sub>28</sub>N<sub>2</sub>O<sub>2</sub>



min. 98 % (1H-NMR);

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: ARYLAMINES

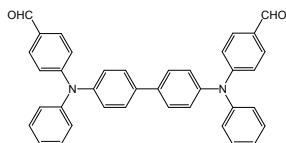
---

### N,N'-Diphenyl-N,N'-di(4-formylphenyl)benzidine

**ST04171**

137911-28-5

C38H28N2O2



min. 98 % (HPLC); 1H-NMR conforms;  
m. p.: 183-187°C;

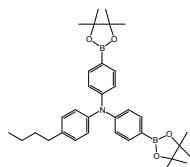
---

### N-(4-Butyl)-N,N-bis[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]aniline

**ST06007**

444289-55-8

C34H45B2NO4



min. 98 % (GC); 1H-NMR conforms;

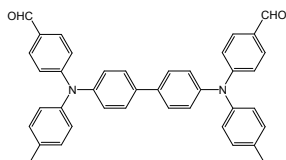
---

### N,N'-Di-p-tolyl-N,N'-di(4-formylphenyl)benzidine

**ST04169**

181064-88-0

C40H32N2O2



min. 98 % (1H-NMR);

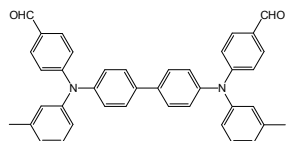
---

### N,N'-Di-m-tolyl-N,N'-di(4-formylphenyl)benzidine

**ST04170**

462102-80-3

C40H32N2O2



min. 98 % (1H-NMR);

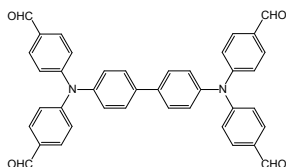
---

### N,N,N',N'-Tetra(4-formylphenyl)benzidine

**ST04168**

865448-72-2

C40H28N2O4



min. 98 % (1H-NMR);

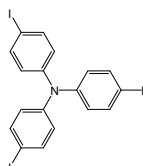
---

### Tris(4-iodophenyl)amine

**ST00577**

4181-20-8

C18H12I3N



min. 98 % (HPLC);  
m. p.: 183-185°C;

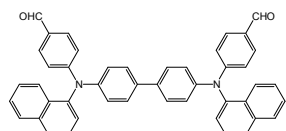
---

### 4,4'-(1,1'-Biphenyl-4,4'-diylbis(1-naphthalenyliminodiyl))dibenzaldehyde

**ST04486**

854938-56-0

C46H32N2O2



min. 98 % (1H-NMR);

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

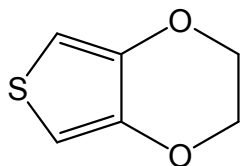
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 2,3-Dihydrothieno[3,4-b]-1,4-dioxin

**ST03594**

126213-50-1

C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>S



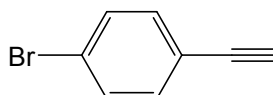
EDOT  
min. 99 % (GC);  
b. p.: 225°C;

### 1-Bromo-4-ethynylbenzene

**ST02579**

766-96-1

C<sub>8</sub>H<sub>5</sub>Br



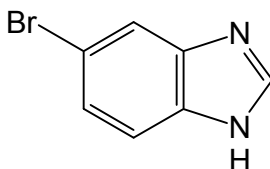
4-Bromophenylacetylene  
min. 98 % (GC);  
m. p.: 64-67°C;

### 5-Bromo-1H-benzimidazole

**ST05926**

4887-88-1

C<sub>7</sub>H<sub>5</sub>BrN<sub>2</sub>



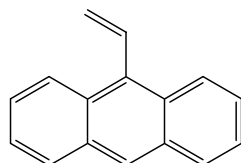
min. 98 % (GC);

### 9-Vinylnanthracene

**ST05910**

2444-68-0

C<sub>16</sub>H<sub>12</sub>



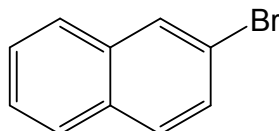
min. 99 % (GC);

### 2-Bromonaphthalene

**ST02294**

580-13-2

C<sub>10</sub>H<sub>7</sub>Br



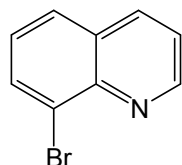
min. 98 % (GC);  
m. p.: 53-56°C;

### 8-Bromoquinoline

**ST05925**

16567-18-3

C<sub>9</sub>H<sub>6</sub>BrN



min. 98 % (GC);

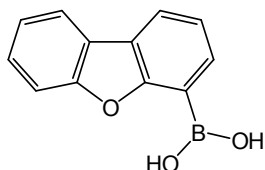
### Dibenzofuran-4-boronic acid

**ST06433**

100124-06-9

C<sub>12</sub>H<sub>9</sub>BO<sub>3</sub>

**NEW**



min. 99 %

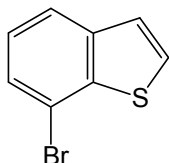
INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

7-Bromo-benzo[b]thiophene

**ST05933**

1423-61-6

C<sub>8</sub>H<sub>5</sub>BrS



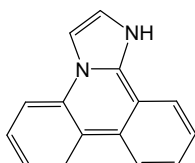
min. 98 % (GC);

1,8-Dihydroimidazo[1,2-f]phenanthridine

**ST05928**

37694-95-4

C<sub>15</sub>H<sub>12</sub>N<sub>2</sub>



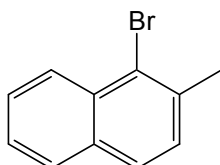
min. 98 % (HPLC);

1-Bromo-2-methylnaphthalene

**ST05913**

2586-62-1

C<sub>11</sub>H<sub>9</sub>Br



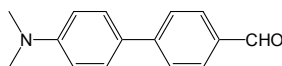
min. 98 % (GC);

4-Dimethylamino-biphenyl-4-carbaldehyde

**ST04217**

173991-06-5

C<sub>15</sub>H<sub>15</sub>NO



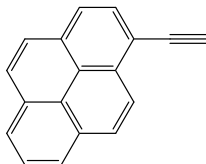
min. 97 % (HPLC);

1-Ethynylpyrene

**ST04685**

34993-56-1

C<sub>18</sub>H<sub>10</sub>



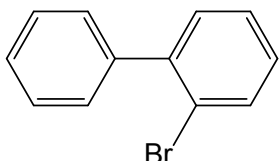
min. 95 % (HPLC); 1H-NMR conforms;

2-Bromobiphenyl

**ST01556**

2052-07-5

C<sub>12</sub>H<sub>9</sub>Br



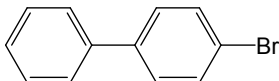
min. 98 % (GC);

4-Bromobiphenyl

**ST01624**

92-66-0

C<sub>12</sub>H<sub>9</sub>Br



min. 98 % (HPLC);  
m. p.: 88-91°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

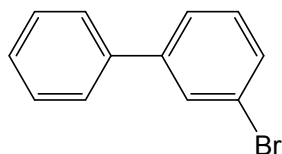
---

### 3-Bromobiphenyl

**ST01974**

2113-57-7

C<sub>12</sub>H<sub>9</sub>Br



min. 97.5 % (GC);

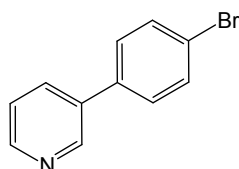
---

### 3-(4-Bromophenyl)pyridine

**ST05919**

129013-83-8

C<sub>11</sub>H<sub>8</sub>BrN



min. 98 % (GC);

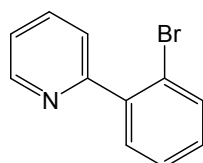
---

### 2-(2-Bromophenyl)pyridine

**ST05920**

109306-86-7

C<sub>11</sub>H<sub>8</sub>BrN



min. 99 % (GC);

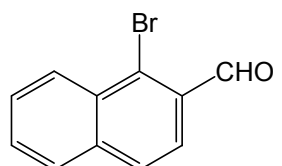
---

### 1-Bromonaphthalene-2-carbaldehyde

**ST05914**

3378-82-3

C<sub>11</sub>H<sub>7</sub>BrO



min. 99 % (GC);

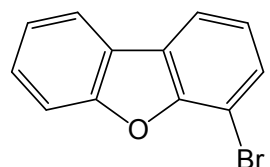
---

### 4-Bromodibenzofuran

**ST05934**

89827-45-2

C<sub>12</sub>H<sub>7</sub>BrO



min. 99 % (GC);

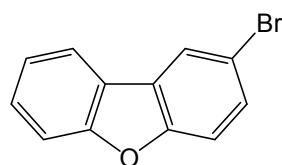
---

### 2-Bromodibenzofuran

**ST05972**

86-76-0

C<sub>12</sub>H<sub>7</sub>BrO



min. 95 % (GC);

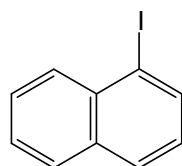
---

### 1-Iodonaphthalene

**ST04583**

90-14-2

C<sub>10</sub>H<sub>7</sub>I



min. 99 % (GC);



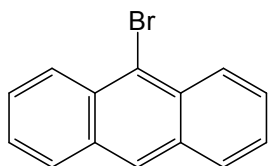
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 9-Bromoanthracene

**ST02884**

1564-64-3

C<sub>14</sub>H<sub>9</sub>Br



min. 98 % (GC);

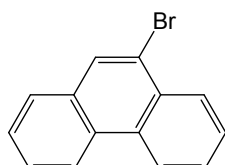
m. p.: 98-100°C;

### 9-Bromophenanthrene

**ST03023**

573-17-1

C<sub>14</sub>H<sub>9</sub>Br



min. 98 % (GC);

m. p.: 60-64°C;

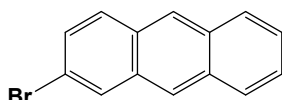
intermediate for OLED products;

### 2-Bromoanthracene

**ST04578**

7321-27-9

C<sub>14</sub>H<sub>9</sub>Br



min. 98 % (GC);

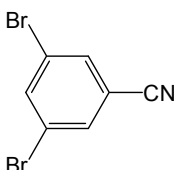
m. p.: 219-223°C;

### 3,5-Dibromobenzonitrile

**ST05929**

97165-77-0

C<sub>7</sub>H<sub>3</sub>Br<sub>2</sub>N



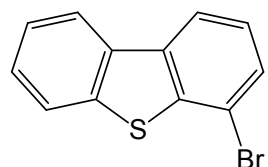
min. 99 % (GC);

### 4-Bromodibenzothiophene

**ST05931**

97511-05-2

C<sub>12</sub>H<sub>7</sub>BrS



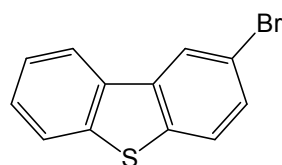
min. 99 % (GC);

### 2-Bromodibenzothiophene

**ST05932**

22439-61-8

C<sub>12</sub>H<sub>7</sub>BrS



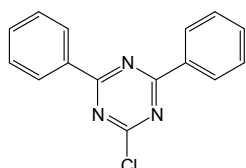
min. 99 % (GC);

### 2-Chloro-4,6-diphenyl[1,3,5]triazine

**ST05923**

3842-55-5

C<sub>15</sub>H<sub>10</sub>ClN<sub>3</sub>



min. 99 % (GC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

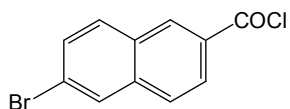
---

### 6-Bromonaphthalene-2-carbonyl chloride

**ST05915**

87700-60-5

C<sub>11</sub>H<sub>6</sub>BrClO



min. 98 % (GC);

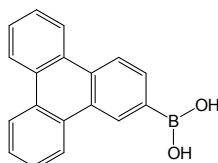
---

### Triphenylene-2-boronic acid

**ST04629**

654664-63-8

C<sub>18</sub>H<sub>13</sub>BO<sub>2</sub>



min. 95 % (1H-NMR);

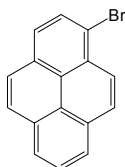
---

### 1-Bromopyrene

**ST01496**

1714-29-0

C<sub>16</sub>H<sub>9</sub>Br



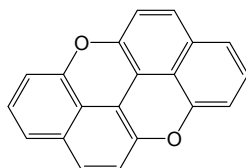
---

### Xantheno[2,1,9,8-klmna]xanthene

**ST04527**

191-28-6

C<sub>20</sub>H<sub>10</sub>O<sub>2</sub>



PXX  
min. 95 % (HPLC);

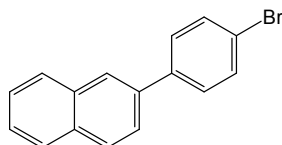
---

### 2-(4-Bromophenyl)naphthalene

**ST05911**

22082-99-1

C<sub>16</sub>H<sub>11</sub>Br



min. 99 % (HPLC)

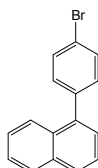
---

### 1-(4-Bromophenyl)naphthalene

**ST05912**

204530-94-9

C<sub>16</sub>H<sub>11</sub>Br



min. 99 % (GC);

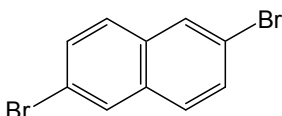
---

### 2,6-Dibromonaphthalene

**ST04556**

13720-06-4

C<sub>10</sub>H<sub>6</sub>Br<sub>2</sub>



min. 99 % (HPLC);  
m. p.: 162-167°C;

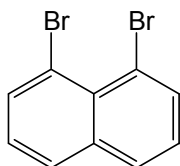
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 1,8-Dibromonaphthalene

**ST05916**

17135-74-9

C<sub>10</sub>H<sub>6</sub>Br<sub>2</sub>



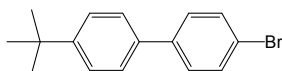
min. 98 % (GC);

### 4-Bromo-4'-tert-butylbiphenyl

**ST03345**

162258-89-1

C<sub>16</sub>H<sub>17</sub>Br



4-Bromo-4'-tert-butyl-1,1'-biphenyl

min. 98 % (GC);

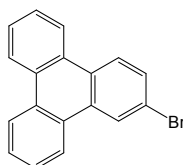
m. p.: 141-143°C;

### 2-Bromotriphenylene

**ST04628**

19111-87-6

C<sub>18</sub>H<sub>11</sub>Br



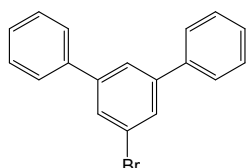
min. 98 % (HPLC );

### 5'-Bromo[1,1';3,1'']terphenyl

**ST05922**

103068-20-8

C<sub>18</sub>H<sub>13</sub>Br



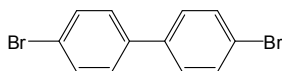
min. 99 % (HPLC);

### 4,4'-Dibromobiphenyl

**ST01438**

92-86-4

C<sub>12</sub>H<sub>8</sub>Br<sub>2</sub>



min. 98 % (GC);

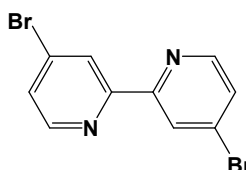
m. p.: 166-169°C;

### 4,4'-Dibromo-2,2'-bipyridine

**ST04579**

18511-71-2

C<sub>10</sub>H<sub>6</sub>Br<sub>2</sub>N<sub>2</sub>



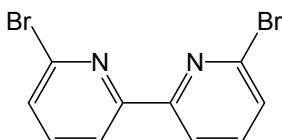
min. 98 % (GC);

### 6,6'-Dibromo[2,2']bipyridinyl

**ST05921**

49669-22-9

C<sub>10</sub>H<sub>6</sub>Br<sub>2</sub>N<sub>2</sub>



min. 98 % (GC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

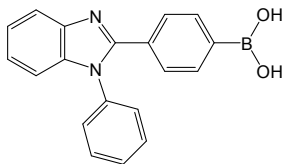
---

### 4-(1-Phenyl-1H-benzimidazol-2-yl)phenylboronic acid

**ST03905**

952514-79-3

C<sub>19</sub>H<sub>15</sub>BN<sub>2</sub>O<sub>2</sub>



98-102 % (titr); <sup>1</sup>H-NMR conforms;

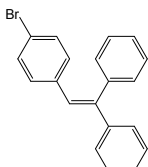
---

### (2-(4-bromophenyl)ethene-1,1-diyl)dibenzene

**ST04307**

18648-66-3

C<sub>20</sub>H<sub>15</sub>Br



2-(4-Bromophenyl)-1,1-diphenylethene  
min. 97 % (GC);

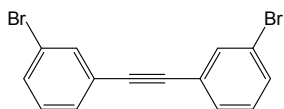
---

### Bis(3-bromophenyl)acetylene

**ST03937**

91790-32-8

C<sub>14</sub>H<sub>8</sub>Br<sub>2</sub>



3,3'-Dibromotolane  
min. 99 % (GC);

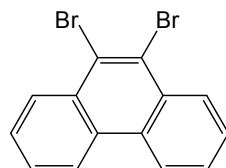
---

### 9,10-Dibromophenanthrene

**ST05918**

15810-15-8

C<sub>14</sub>H<sub>8</sub>Br<sub>2</sub>



min. 98 % (GC);

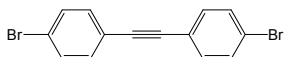
---

### 4,4'-Dibromotolane

**ST01567**

2789-89-1

C<sub>14</sub>H<sub>8</sub>Br<sub>2</sub>



min. 97 % (GC);  
m. p.: 185-186°C;

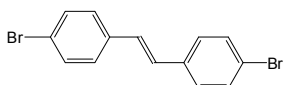
---

### 4,4'-Dibromostilbene

**ST01566**

18869-30-2

C<sub>14</sub>H<sub>10</sub>Br<sub>2</sub>



min. 98 % (GC);

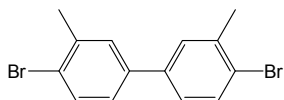
---

### 4,4'-Dibromo-3,3'-dimethylbiphenyl

**ST03873**

61794-96-5

C<sub>14</sub>H<sub>12</sub>Br<sub>2</sub>



min. 98 % (GC);

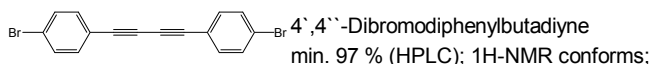
## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 1,4-Bis(4-bromophenyl)buta-1,3-diyne

**ST04362**

959-88-6

C16H8Br2

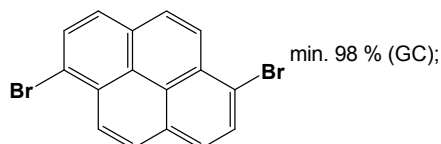


### 1,6-Dibromopyrene

**ST04580**

27973-29-1

C16H8Br2

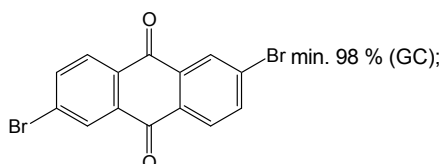


### 2,6-Dibromoanthraquinone

**ST05705**

633-70-5

C14H6Br2O2



### 9-Bromo-10-naphthalen-1-ylanthracene

**ST05711**

400607-04-7

C24H15Br

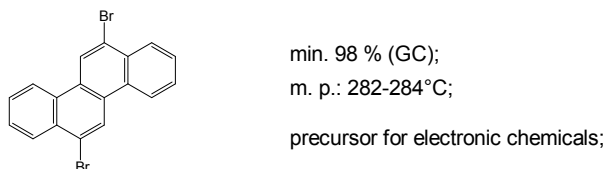


### 6,12-Dibromochrysene

**ST03469**

131222-99-6

C18H10Br2



### 2,7-Dibromotriphenylene

**ST06100**

888041-37-0

C18H10Br2

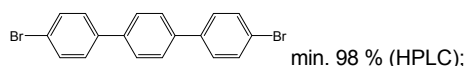


### 4,4-Dibromo-p-terphenyl

**ST01261**

17788-94-2

C18H12Br2



**INQUIRIES and ORDERS**

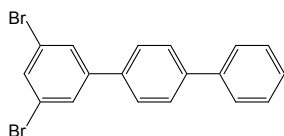
Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

### 3,5-Dibromo-p-terphenyl

**ST05985**

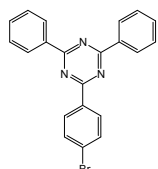


min. 98 % (GC);

C18H12Br2

### 2-(4-Bromophenyl)-4,6-diphenyl[1,3,5]triazine

**ST05927**



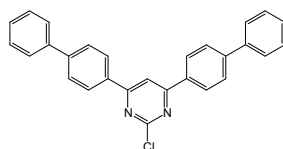
min. 99 % (HPLC);

23449-08-3

C21H14BrN3

### 4,6-Bis(biphenyl-4-yl)-2-chloropyrimidine

**ST05924**



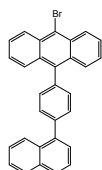
min. 99 % (HPLC);

1421599-29-2

C28H19ClN2

### 9-Bromo-10-(4-naphthalen-1-ylphenyl)anthracene

**ST05528**



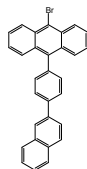
min. 99 % (HPLC);

1092390-01-6

C30H19Br

### 9-Bromo-10-(4-naphthalen-2-ylphenyl)anthracene

**ST05716**



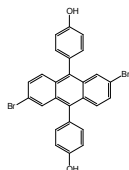
min. 98 % (HPLC);

866611-29-2

C30H19Br

### 2,6-Dibromo-9,10-di(4-hydroxyphenyl)anthracene

**ST05838**

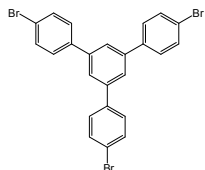


min. 99 % (GC);

C26H16Br2O2

### 1,3,5-Tris(4-bromophenyl)benzene

**ST01636**



min. 98 % (HPLC);

7511-49-1

m. p.: 260-265°C;

C24H15Br3

## INTERMEDIATES FOR CHARGE TRANSPORT MATERIALS: MISCELLANEOUS

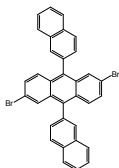
---

2,6-Dibromo-9,10-dinaphthalen-2-ylanthracene

**ST05836**

561064-15-1

C<sub>34</sub>H<sub>20</sub>Br<sub>2</sub>



min. 99 % (HPLC);

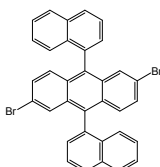
---

2,6-Dibromo-9,10-dinaphthalen-1-ylanthracene

**ST06094**

914306-89-1

C<sub>34</sub>H<sub>20</sub>Br<sub>2</sub>



min. 97 % (GC);

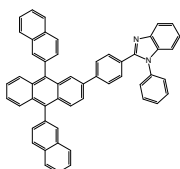
---

2-{4-[9,10-Di-(naphthalen-2-yl)anthracen-2-yl]-phenyl}-1-phenyl-1H-benzimidazole

**ST05837**

561064-11-7

C<sub>53</sub>H<sub>34</sub>N<sub>2</sub>



min. 99 % (HPLC);

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

83

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## ORGANIC PHOTOVOLTAICS: SOLAR CELLS

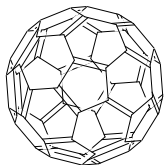
---

Fullerene C60

**ST03819**

99685-96-8

C60



Buckminsterfullerene, Footballene  
min. 99 % ( HPLC);

---

Fullerene C70

**ST06355**

115383-22-7

C70

**NEW**



(C70-D5h)[5,6]fullerene, rugbyballene  
99,0 % (HPLC)

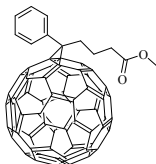
---

(6,6)-Phenyl-C61 butyric acid methyl ester

**ST03839**

161196-25-4

C72H14O2



PCBM  
1H-NMR: conforms;

electron acceptor;

---



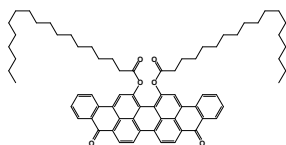
## ORGANIC PHOTOVOLTAICS: DYE CELLS

5,10-dioxo-5,10-dihydroanthra[9,1,2-cde]benzo[rst]pentaphene-16,17-diyl distearate

**ST04574**

82145-74-2

C70H84O6



Pentaphene-78, Violantrone-78

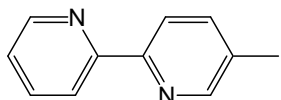
abs. max.: 577 nm (toluene); m. p.: 287.2°C (dec.), (Lit.);

5-Methyl-2,2'-bipyridyl

**ST02980**

56100-20-0

C11H10N2



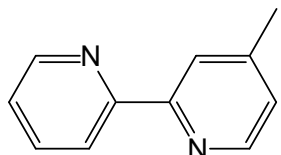
min. 97 % (GC);

4-Methyl-2,2'-bipyridine

**ST02981**

56100-19-7

C11H10N2



min. 97 % (GC);

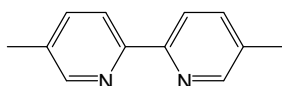
m. p.: 65-67°C;

5,5'-Dimethyl-2,2'-bipyridyl

**ST01552**

1762-34-1

C12H12N2



min. 97 % (GC);

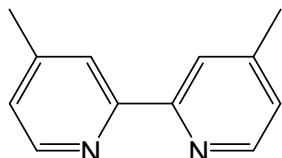
m. p.: 113-115°C;

4,4'-Dimethyl-2,2'-bipyridine

**ST01738**

1134-35-6

C12H12N2



min. 98 % (GC);

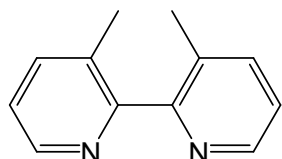
m. p.: 169-173°C;

3,3'-Dimethyl-2,2'-bipyridine

**ST03889**

1762-32-9

C12H12N2



min. 98 % (GC);

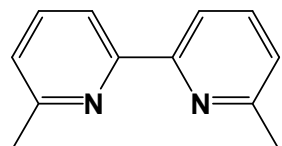
m. p.: 69-70°C;

6,6'-Dimethyl-2,2'-bipyridine

**ST04472**

4411-80-7

C12H12N2



min. 98 % (GC);

m. p.: 86-96°C;

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## ORGANIC PHOTOVOLTAICS: DYE CELLS

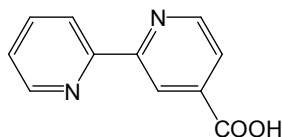
---

### 2,2'-Bipyridyl-4-carboxylic acid

**ST03929**

1748-89-6

C11H8N2O2



min. 97 % (HPLC);

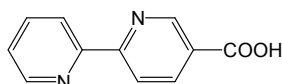
---

### 2,2'-Bipyridyl-5-carboxylic acid

**ST03930**

1970-80-5

C11H8N2O2



min. 97 % (HPLC);

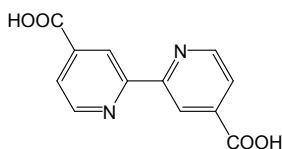
---

### 2,2'-Bipyridyl-4,4'-dicarboxylic acid

**ST00700**

6813-38-3

C12H8N2O4



min. 98 % (HPLC); 97-103 % ( titr.);

m. p.: 395°C;

COOH intermediate for ruthenium dyes (Graetzel cell);

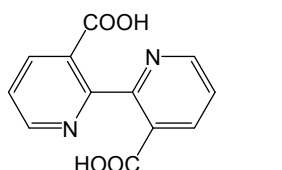
---

### 2,2'-Bipyridyl-3,3'-dicarboxylic acid

**ST03926**

4433-01-6

C12H8N2O4



min. 97 % (HPLC); 97-103 % (titr.);

m. p.: 266-268°C (dec.);

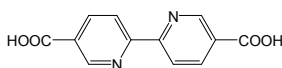
---

### 2,2'-Bipyridyl-5,5'-dicarboxylic acid

**ST03927**

1802-30-8

C12H8N2O4



min. 97 % (HPLC);

m. p.: >360°C;

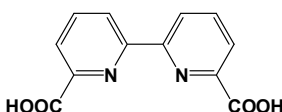
---

### 2,2'-Bipyridyl-6,6'-dicarboxylic acid

**ST04473**

4479-74-7

C12H8N2O4



min. 97 % (HPLC); 97-103 (titr.);

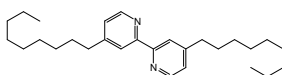
---

### 4,4'-Dinonyl-2,2'-bipyridine

**ST04353**

142646-58-0

C28H44N2



4,4'-Dinonyl-2,2'-bipyridyl, 4,4'-Dinonyl-[2,2']bipyridinyl;

min. 98 % (GC);

m. p.: 64-65°C;

complexing agent, synthesis of Ru complexes for photovoltaic cells (Graetzel complex);

## ORGANIC PHOTOVOLTAICS: DYE CELLS

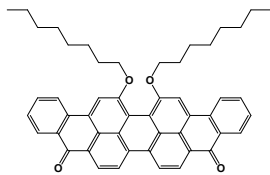
---

16,17-Bis(octyloxy)anthra[9,1,2-cde]benzo[rst]pentaphene-5,10-dione

**ST04573**

85652-50-2

C50H48O4



Violantrone-79

abs. max.: 633 nm (toluene); m. p.: 193-196°C (Lit.);

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: AZOMETHINES

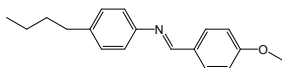
---

### N-(Methoxybenzylidene)-4-butylaniline

**ST00484**

26227-73-6

C18H21NO



MBBA

min. 98.5 % (GC);

mesophase behaviour: Cr 22; N 48 I;

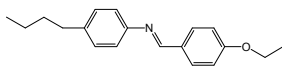
---

### N-(4-Ethoxybenzylidene)-4-butylaniline

**ST00483**

29743-08-6

C19H23NO



min. 99.5 % (HPLC);

mesophase behaviour: Cr 36.5 N 79.8 I;

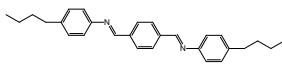
---

### N,N'-Terephthalylidene-bis(4-butylaniline)

**ST00482**

29743-21-3

C28H32N2



TBBA

min. 99 % (HPLC);

mesophase behaviour: Cr 113 S 74 SH 89.2 SG 144.5 SC 172 A  
199 N 235 I;

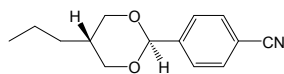
## LIQUID CRYSTALS: DIOXANES

trans-2-(4-Cyanophenyl)-5-n-propyl-1,3-dioxane

**ST00693**

80285-16-1

C14H17NO2



PDX-3

min. 99.5 % (HPLC);

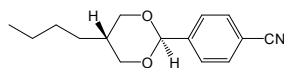
mesophase behaviour: Cr 58 N 43 I;

trans-2-(4-Cyanophenyl)-5-n-butyl-1,3-dioxane

**ST00694**

74800-54-7

C15H19NO2



PDX-4

min. 99.5 % (HPLC);

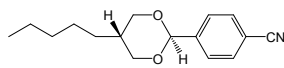
mesophase behaviour: Cr 42 N 36 I;

trans-2-(4-Cyanophenyl)-5-n-pentyl-1,3-dioxane

**ST00695**

74800-62-7

C16H21NO2



PDX-5

min. 99.5 % (HPLC);

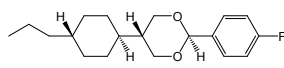
mesophase behaviour: Cr 56 N 49 I;

trans-2-(4-Fluorophenyl)-5-(trans-4-n-propylcyclohexyl)-1,3-dioxane

**ST03206**

133058-92-1

C19H27FO2



min. 99 % (HPLC);

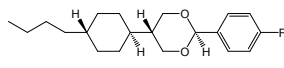
mesophase behaviour: Cr 82.4 N 146.2 I;

trans-2-(4-Fluorophenyl)-5-(trans-4-n-butylcyclohexyl)-1,3-dioxane

**ST03207**

132828-01-4

C20H29FO2



min. 99 % (HPLC);

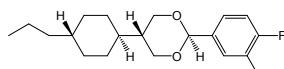
mesophase behaviour: Cr 70 S 77.7 N 145 I;

trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-propylcyclohexyl)-1,3-dioxane

**ST03209**

133059-01-5

C19H26F2O2



min. 99 % (HPLC);

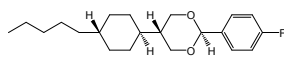
mesophase behaviour: Cr 88.5 N 105.1 I;

trans-2-(4-Fluorophenyl)-5-(trans-4-n-pentylcyclohexyl)-1,3-dioxane

**ST03208**

133058-95-4

C21H31FO2



min. 99 % (HPLC);

mesophase behaviour: Cr 65 S 47.6 N 155.7 I;

### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: DIOXANES

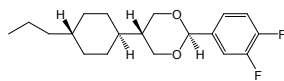
---

trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-butylcyclohexyl)-1,3-dioxane

**ST03210**

132828-03-6

C20H28F2O2



min. 99 % (HPLC);

mesophase behaviour: Cr 89.8 N 109.7 I;

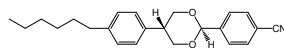
---

4-[5-(4-Hexylphenyl)-[1,3]dioxan-2-yl]benzonitrile

**ST05944**

74800-93-4

C23H27NO2



min. 99 % (HPLC);

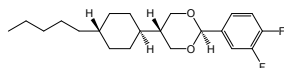
---

trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-pentylcyclohexyl)-1,3-dioxane

**ST03211**

133059-04-8

C21H30O2F2



min. 99 % (HPLC);

mesophase behaviour: Cr 77 N 113.8 I;

---

## LIQUID CRYSTALS: PYRIMIDINES

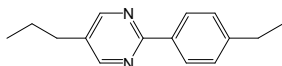
---

### 2-(4-n-Ethylphenyl)-5-n-propylpyrimidine

**ST00547**

98495-11-5

C15H18N2



min. 99.5 % (HPLC);

m. p.: 40-42°C;

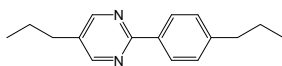
---

### 2-(4-n-Propylphenyl)-5-n-propylpyrimidine

**ST00548**

98495-13-7

C16H20N2



min. 99.5 % (HPLC);

m. p.: 52-53.5°C;

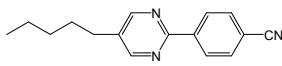
---

### 2-(4-Cyanophenyl)-5-n-pentylpyrimidine

**ST02757**

119467-18-4

C16H17N3



4-(5-n-Pentyl-pyrimidin-2-yl)benzonitrile

min. 99 % (HPLC);

m. p.: 71-72°C;

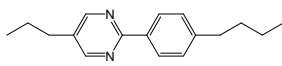
---

### 2-(4-n-Butylphenyl)-5-n-propylpyrimidine

**ST00549**

123740-94-3

C17H22N2



min. 99.5 % (HPLC);

m. p.: 27.5-29.5°C;

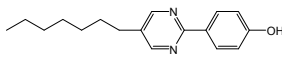
---

### 2-(4'-Hydroxyphenyl)-5-n-heptylpyrimidine

**ST01569**

58415-62-6

C17H22N2O



min. 99 % (HPLC);

m. p.: 88-90°C;

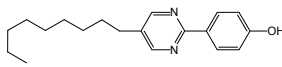
---

### 2-(4'-Hydroxyphenyl)-5-n-nonylpyrimidine

**ST05954**

102408-53-7

C19H26N2O



min. 99 % (GC);

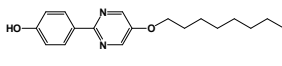
---

### 2-(4'-Hydroxyphenyl)-5-n-octyloxy pyrimidine

**ST06299**

104539-91-5

C18H24N2O2



4-(5-(Octyloxy)pyrimidin-2-yl)phenol

98% (HPLC)

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: PYRIMIDINES

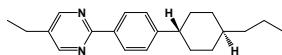
---

### 5-Ethyl-2-[trans-(4-n-propylcyclohexyl)phenyl]pyrimidine

**ST03737**

98495-16-0

C21H28N2



min. 99.5 % (GC);

mesophase behaviour: Cr 102-103 N 181-182 I;

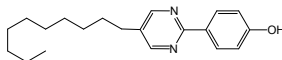
---

### 2-(4'-Hydroxyphenyl)-5-n-decylpyrimidine

**ST05955**

102408-54-8

C20H28N2O



min. 99 % (GC);

---

### 5-Butyl-2-(4-heptyloxyphenyl)pyrimidine

**ST02755**

57202-14-9

C21H30N2O



min. 99 % (HPLC);

m. p.: 27-30°C;

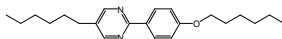
---

### 5-n-Hexyl-2-(4-n-hexyloxyphenyl)pyrimidine

**ST03333**

227605-57-4

C22H32N2O



min. 98 % (HPLC);

m.p.: 31-32 °C;

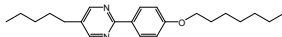
---

### 2-(4-n-Heptyloxyphenyl)-5-n-pentylpyrimidine

**ST02756**

57202-22-9

C22H32N2O



min. 99 % (HPLC);

m. p.: 39-41°C;

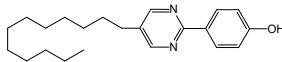
---

### 2-(4'-Hydroxyphenyl)-5-n-dodecylpyrimidine

**ST05956**

102408-55-9

C22H32N2O



min. 99 % (HPLC);

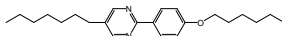
---

### 5-n-Heptyl-2-(4-n-hexyloxyphenyl)pyrimidine

**ST00550**

57202-37-6

C23H34N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 45.5 SA 33 N 69.5 I;



## LIQUID CRYSTALS: PYRIMIDINES

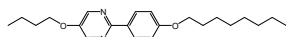
---

### 2-(4-n-Octyloxyphenyl)-5-n-butylpyrimidine

**ST01060**

287179-18-4

C22H32N2O2



min. 99.5 % (HPLC);

mesophase behaviour: Cr 57 SC (85) SA 96 N 98 I;

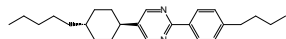
---

### trans-2-(4-Butylphenyl)-5-(4-pentylcyclohexyl)pyrimidine

**ST06081**

82885-43-6

C25H36N2



min. 99 % (HPLC);

mesophase behaviour: Cr 37 S 187 I;

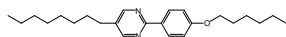
---

### 2-(4-n-Hexyloxyphenyl)-5-n-octylpyrimidine

**ST00552**

57202-48-9

C24H36N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 27.5 SC 44.5S SA 57.5 N 65 I;

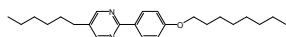
---

### 5-n-Hexyl-2-(4-n-octyloxyphenyl)pyrimidine

**ST03334**

57202-30-9

C24H36N2O



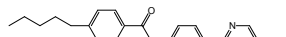
min. 98 % (HPLC);

mesophase behaviour: Cr 51 SB 63 SA 87 I;

---

### 4-Pentylbenzoic acid 4-(5-cyanopyrimidin-2-yl)phenyl ester

**ST05945**



min. 98 % (HPLC);

C23H21N3O2

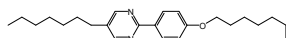
---

### 5-n-Heptyl-2-(4-n-octyloxyphenyl)pyrimidine

**ST00551**

57202-39-8

C25H38N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 49 SA 44 N 69.5 I;

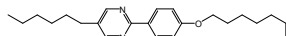
---

### 5-n-Hexyl-2-(4-n-nonyloxyphenyl)pyrimidine

**ST03335**

51462-26-1

C25H38N2O



min. 98 % (HPLC);

mesophase behaviour: Cr 57 SB 63.5 SA 85 I;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: PYRIMIDINES

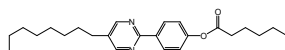
---

n-Heptanoic acid 4-(5-n-octylpyrimidin-2-yl)phenyl ester

**ST00558**

58415-91-1

C25H36N2O2



LC E-68

min. 99.5 % (HPLC);

mesophase behaviour: Cr 43 SC 48 SA 51.5 I;

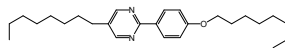
---

5-n-Octyl-2-(4-n-octyloxyphenyl)pyrimidine

**ST00553**

57202-50-3

C26H40N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 28.5 SC 55.5 SA 62 N 68 I;

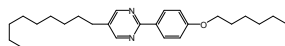
---

2-(4-n-Heptyloxyphenyl)-5-n-nonylpyrimidine

**ST00556**

57202-57-0

C26H40N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 45.5 SC 51 SA 74.5 I;

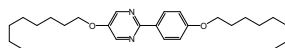
---

5-Octyloxy-2-(4-octyloxyphenyl)pyrimidine

**ST01059**

114767-84-9

C26H40N2O2



min. 99.5 % (HPLC);

mesophase behaviour: Cr 51 SC (91) SA 100 N 101 I;

---

2-(4-Hexyloxyphenyl)-5-(4-hexylphenyl)pyrimidine

**ST06082**

135071-49-7

C28H36N2O



min. 99 % (HPLC);

mesophase behaviour: Cr 75 SC 151 SA 193 I;

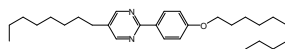
---

2-(4-n-Decyloxyphenyl)-5-n-octylpyrimidine

**ST00554**

57202-52-5

C28H44N2O



PYP 8010

min. 99.5 % (HPLC);

mesophase behaviour: Cr 32 SC 59.5 SA 65.5 N 69.5 I;

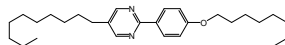
---

5-n-Decyl-2-(4-n-octyloxyphenyl)pyrimidine

**ST00557**

57202-62-7

C28H44N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 37 SC 68.5 SA 73.5 I;

## LIQUID CRYSTALS: PYRIMIDINES

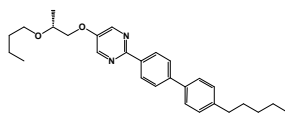
---

(R)-5-(2-butoxypropoxy)-2-(4'-pentylbiphenyl-4-yl)pyrimidine

**ST06114**

119217-83-3

C28H36N2O2



min. 98 % (HPLC);

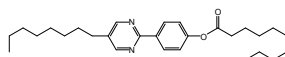
---

n-Decanoic acid 4-(5-n-octylpyrimidin-2-yl)phenyl ester

**ST00559**

58415-94-4

C28H42N2O2



LC E-98

min. 99.5 % (HPLC);

mesophase behaviour: Cr 42 SC 55.5 N 59.8 I;

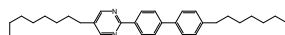
---

2-(4'-Heptylbiphenyl-4-yl)-5-octylpyrimidine

**ST06083**

117433-12-2

C31H42N2



min. 99 % (HPLC);

mesophase behaviour: Cr 58 SC 134 SA 144 N 157 I;

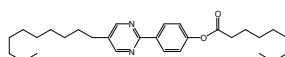
---

n-Nonanoic acid 4-(5-n-decylpyrimidin-2-yl)phenyl ester

**ST00560**

129470-93-5

C29H44N2O2



min. 99.5 % (HPLC);

mesophase behaviour: Cr 44 SA 69 N I;

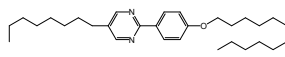
---

2-(4-n-Dodecyloxyphenyl)-5-n-octylpyrimidine

**ST00555**

57202-54-7

C30H48N2O



min. 99.5 % (HPLC);

mesophase behaviour: Cr 42 SC 61.5 SA 68.5 N 70 I;

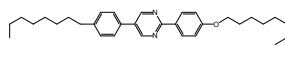
---

2-(4-Octyloxyphenyl)-5-(4-octylphenyl)pyrimidine

**ST06087**

117392-53-7

C32H44N2O



min. 99 % (HPLC);

mesophase behaviour: Cr 68 SC 152 N 174 I;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

95

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: 4,4'-BISUBSTITUTED PHENYLBENZOATES

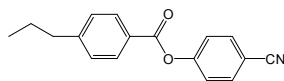
---

### 4-Cyanophenyl 4-n-propylbenzoate

**ST00485**

56131-49-8

C17H15NO2



min. 99.5 % (HPLC);  
mesophase behaviour: Cr 102 N 53 I;

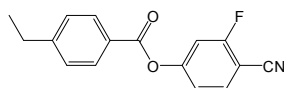
---

### 4-Cyano-3-fluorophenyl-4-ethylbenzoate

**ST02629**

86776-50-3

C16H12FNO2



min. 99.5 % (HPLC);  
mesophase behaviour: Cr 78 N 8 I;

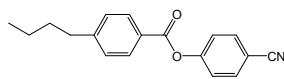
---

### 4-Cyanophenyl 4-n-butylbenzoate

**ST00486**

38690-77-6

C18H17NO2



min. 99.5 % (HPLC);  
mesophase behaviour: Cr 67.1 N 42.6 I;

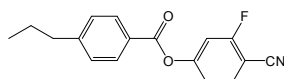
---

### 4-Cyano-3-fluorophenyl 4-propylbenzoate

**ST02630**

86776-51-4

C17H14FNO2



min. 99.5 % (HPLC);  
mesophase behaviour: Cr 70 N 20 I;

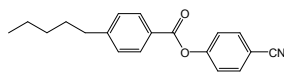
---

### 4-Cyanophenyl 4-n-pentylbenzoate

**ST00487**

49763-64-6

C19H19NO2



min. 99.5 % (HPLC);  
mesophase behaviour: Cr 64.4 N 55.4 I;

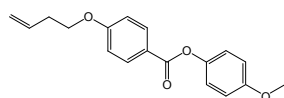
---

### (4-But-3-enyloxy)benzoic acid 4-methoxyphenyl ester

**ST05893**

76487-56-4

C18H18O4



min. 98 % (GC);

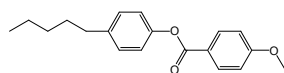
---

### 4-Methoxybenzoic acid 4-pentylphenyl ester

**ST04668**

38444-13-2

C19H22O3



min. 96.5 % (HPLC);

## LIQUID CRYSTALS: 4,4'-BISUBSTITUTED PHENYL BENZOATES

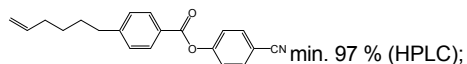
---

### 4-Hex-5-enyl-benzoic acid 4-cyano-phenyl ester

**ST05885**

189027-29-0

C20H19NO2



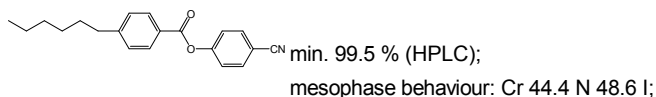
---

### 4-Cyanophenyl 4-n-hexylbenzoate

**ST00488**

50793-85-6

C20H21NO2



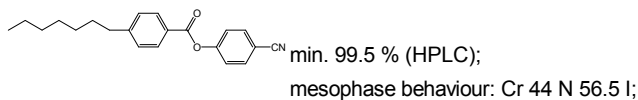
---

### 4-Cyanophenyl 4-heptylbenzoate

**ST00489**

38690-76-5

C21H23NO2



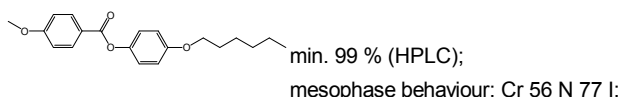
---

### 4-Hexyloxyphenyl 4-methoxybenzoate

**ST00478**

38454-29-4

C20H24O4



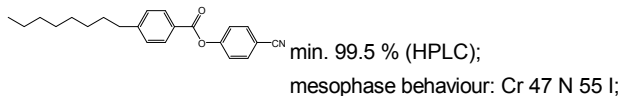
---

### 4-Cyanophenyl 4-n-octylbenzoate

**ST00490**

50793-86-7

C22H25NO2



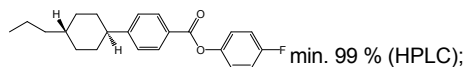
---

### 4-(4-trans-Propylcyclohexyl)benzoic acid 4-fluorophenyl ester

**ST05946**

120893-64-3

C22H25FO2



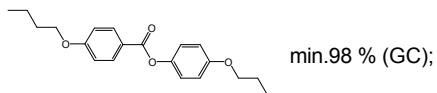
---

### 4-Butoxyphenyl 4-butoxybenzoate

**ST06229**

38454-23-8

C21H26O4



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: 4,4'-BISUBSTITUTED PHENYLBENZOATES

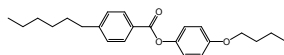
---

### 4-n-Butyloxyphenyl 4-n-hexylbenzoate

**ST00481**

38454-21-6

C23H30O3



min. 99 % (HPLC);

mesophase behaviour: Cr2 24 Cr1 40 N 49.5 I;

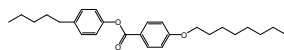
---

### 4-Octyloxybenzoic acid 4-pentylphenyl ester

**ST04669**

50649-56-4

C26H36O3



min. 99 % (GC);

mesophase behaviour: Cr 57 N 66 I;

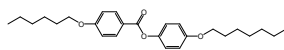
---

### 4-n-Heptyloxyphenyl 4-n-hexyloxybenzoate

**ST00479**

38454-39-6

C26H36O4



min. 99 % (HPLC);

mesophase behaviour: Cr 55 N 88 I;

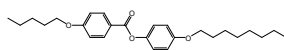
---

### 4-n-Octyloxyphenyl 4-n-pentyloxybenzoate

**ST00480**

50649-44-0

C26H36O4



min. 99 % (HPLC);

mesophase behaviour: Cr 52 N 85 I;

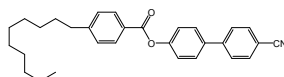
---

### 4-Decylbenzoic acid 4'-cyanobiphenyl-4-yl ester

**ST05005**

59446-85-5

C30H33NO2



min. 99 % (GC);

mesophase behaviour: Cr 91 N 205 I;

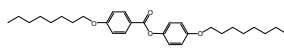
---

### 4-(Octyloxy)phenyl 4-(octyloxy)benzoate

**ST06291**

50649-44-0

C29H42O4



99,5 % (GC)

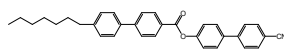
---

### 4'-Heptylbiphenyl-4-carboxylic acid 4'-cyanobiphenyl-4-yl ester

**ST05066**

72928-30-4

C33H31NO2



BB7

min. 99 % (HPLC);

mesophase behaviour: Cr1 106 Cr2 126 N 358 I;

## LIQUID CRYSTALS: 4,4'-BISUBSTITUTED PHENYLBENZOATES

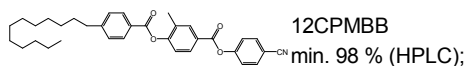
---

4-Cyanophenyl 4-(4-dodecylbenzoyloxy)-3-methylbenzoate

**ST06086**

71299-59-7

C34H39NO4

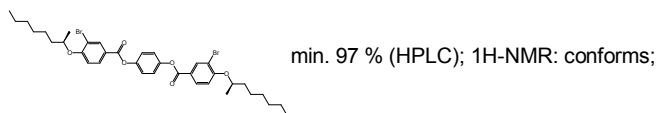


---

(S)-1,4-phenylene bis(3-bromo-4-((S)-octan-2-yloxy)benzoate)

**ST06044**

C36H44Br2O6

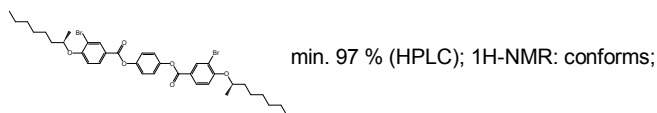


---

(R)-1,4-phenylene bis(3-bromo-4-((R)-octan-2-yloxy)benzoate)

**ST06045**

C36H44Br2O6



**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

99

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

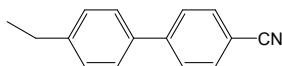
## LIQUID CRYSTALS: 4'-ALKYL-4-CYANOBIPHENYLS

### 4-Cyano-4'-ethyl-biphenyl

**ST00680**

58743-75-2

C15H13N



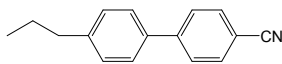
4'-Ethylbiphenyl-4-carbonitrile, 2CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr 75 N (22) I;

### 4-Cyano-4'-n-propyl-biphenyl

**ST00681**

58743-76-3

C16H15N



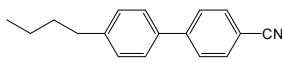
4'-n-Propylbiphenyl-4-carbonitrile, 3CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr 67.3 N 30.3 I;

### 4-Butyl-4'-cyanobiphenyl

**ST00682**

52709-83-8

C17H17N



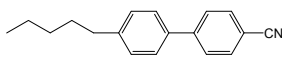
4'-n-Butylbiphenyl-4-carbonitrile, 4CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr 48 N 16.5 I;

### 4-Cyano-4'-n-pentylbiphenyl

**ST00683**

40817-08-1

C18H19N



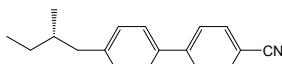
4'-n-Pentylbiphenyl-4-carbonitrile, 5CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr 24 N 35.5 I;

### (S)-4-Cyano-4'-(2-methylbutyl)biphenyl

**ST02804**

63799-11-1

C18H19N



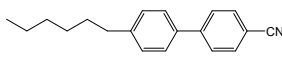
CB15  
min. 99.5 % (GC);  
mesophase behaviour: Cr -54 N\* -30 I;  
chiral liquid crystal;

### 4-Cyano-4'-n-hexylbiphenyl

**ST02678**

41122-70-7

C19H21N



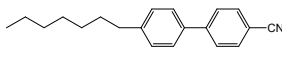
4'-n-Hexyl-1,1'-biphenyl-4-carbonitrile, 6CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr 12 N 29 I;

### 4-Cyano-4'-n-heptylbiphenyl

**ST00684**

41122-71-8

C20H23N



4'-n-Heptylbiphenyl-4-carbonitrile, 7CB  
min. 99.5 % (GC);  
mesophase behaviour: Cr2 15 Cr1 30 N 42.8 I;



## LIQUID CRYSTALS: 4'-ALKYL-4-CYANOBIPHENYLS

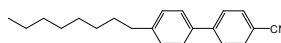
---

### 4-Octyl-4'-cyanobiphenyl

**ST01422**

52709-84-9

C21H25N



4'-Octyl-biphenyl-4-carbonitrile, 8CB

min. 99.5 % (GC);

mesophase behaviour: Cr 21.5 SA 33 N 40.5 I;

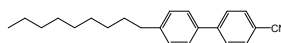
---

### 4-Cyano-4'-n-nonylbiphenyl

**ST02890**

52709-85-0

C22H27N



4-n-Nonyl-biphenyl-4'-carbonitrile, 9CB

min. 99 % (GC);

mesophase behaviour: Cr 42 SA 47.5 N 49.5 I;

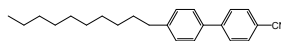
---

### 4-Cyano-4'-n-decylbiphenyl

**ST02891**

59454-35-2

C23H29N



4-n-Decyl-biphenyl-4'-carbonitrile, 10CB

min. 99.5 % (GC);

mesophase behaviour: Cr 44 SA 51.5 I;

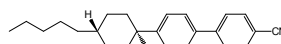
---

### trans-4-(4-n-Pentyl)cyclohexyl-4'-cyanobiphenyl

**ST03992**

68065-81-6

C24H29N



5-CCB

min. 99.5 % (GC);

mesophase behaviour: Cr 96 N 222 I;

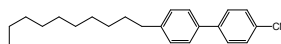
---

### 4-Undecyl-4'-cyanobiphenyl

**ST04048**

65860-74-4

C24H31N



4'-Undecyl-biphenyl-4-carbonitrile, 11CB

min. 99 % (GC);

mesophase behaviour: Cr 53 S 57 N 57.5 I;

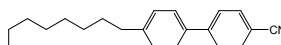
---

### 4-Cyano-4'-dodecylbiphenyl

**ST03202**

57125-49-2

C25H33N



4-Dodecylbiphenyl-4-carbonitrile, 12CB

min. 99 % (HPLC);

mesophase behaviour: Cr 46 S 58 I;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: 4'-ALKOXY-4-CYANOBIPHENYLS

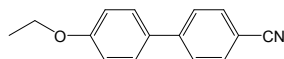
---

### 4-Cyano-4'-ethoxybiphenyl

**ST01562**

58743-78-5

C15H13NO



4'-Ethoxy-biphenyl-4-carbonitrile, 2OCB

min. 99.5 % (GC);

m. p.: 100-102°C;

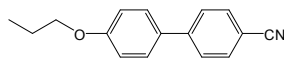
---

### 4-Cyano-4'-propyloxybiphenyl

**ST01529**

52709-86-1

C16H15NO



4'-Propoxy-biphenyl-4-carbonitrile, 3OCB

min. 99.5 % (GC);

mesophase behaviour: Cr 76 N (69) I;

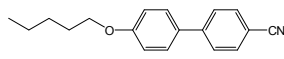
---

### 4-Cyano-4'-pentyloxybiphenyl

**ST00685**

52364-71-3

C18H19NO



4'-n-Pentyloxybiphenyl-4-carbonitrile, 5OCB

min. 99.5 % (GC);

mesophase behaviour: Cr1 48 Cr2 53 N 68 I;

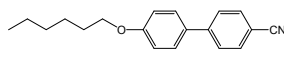
---

### 4-Cyano-4'-hexyloxybiphenyl

**ST02576**

41424-11-7

C19H21NO



4-(4'-n-Hexyloxyphenyl)benzotrile, 6OCB

min. 99.5 % (GC);

mesophase behaviour: C 57 N 76 I;

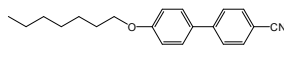
---

### 4-Cyano-4'-n-heptyloxybiphenyl

**ST00686**

52364-72-4

C20H23NO



4'-n-Heptyloxybiphenyl-4-carbonitrile, 7OCB

min. 99.5 % (GC);

mesophase behaviour: Cr2 47.5 Cr1 53.5 N 75 I;

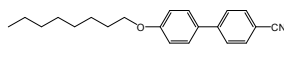
---

### 4-(4'-n-Octyloxyphenyl)benzotrile

**ST01191**

52364-73-5

C21H25NO



4-Cyano-4'-n-octyloxybiphenyl, 8OCB

min. 99.5 % (GC);

mesophase behaviour: Cr 54.5 S 67 N 80 I;

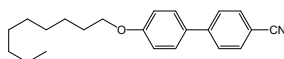
---

### 4-Cyano-4'-nonyloxybiphenyl

**ST03203**

58932-13-1

C22H27NO



9 OCB, 4-Nonyloxybiphenyl-4'-carbonitrile

min. 99.5 % (GC);

mesophase behaviour: Cr 43.5 N 58 I;

## LIQUID CRYSTALS: 4'-ALKOXY-4-CYANOBIPHENYLS

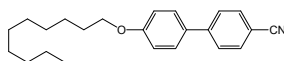
---

### 4-Cyano-4'-decyloxybiphenyl

**ST03204**

70247-25-5

C23H29NO



10 OCB, 4-Decyloxybiphenyl-4'-carbonitrile

min. 99.5 % (GC);

mesophase behaviour: Cr 58 S 83 I;

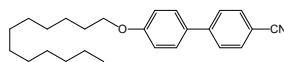
---

### 4-Cyano-4'-dodecyloxybiphenyl

**ST04312**

57125-50-5

C25H33NO



12OCB, M36

min. 99.5 % (GC);

mesophase behaviour: Cr 69 S 89 I;

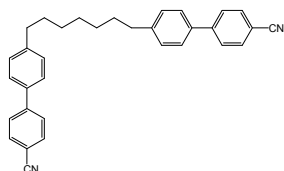
---

### 4',4''-(Heptane-1,7-diyl)dibiphenyl-4-carbonitrile

**ST06137**

149430-73-9

C33H30N2



CB7CB

min. 98 % (HPLC);

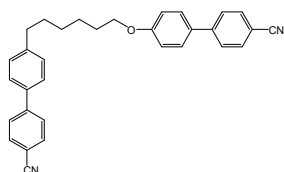
---

### 4'-(6-(4'-Cyanobiphenyl-4-yl)hexyloxy)biphenyl-4-carbonitrile

**ST06136**

1531588-29-0

C32H28N2O



6B6OCB

min. 98 % (HPLC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

103

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: 4'-(ALKENYLOXY)-4-CYANOBIPHENYLS

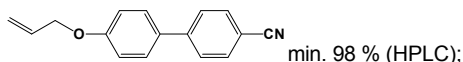
---

### 4'-Allyloxy-biphenyl-4-carbonitrile

**ST04474**

111928-38-2

C16H13NO



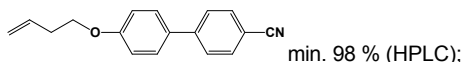
---

### 4'-But-3-enyloxy-biphenyl-4-carbonitrile

**ST04475**

120817-64-3

C17H15NO



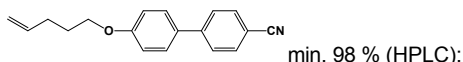
---

### 4'-Pent-4-enyloxy-biphenyl-4-carbonitrile

**ST04476**

111928-39-3

C18H17NO



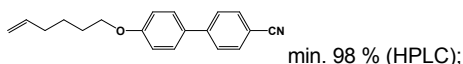
---

### 4'-Hex-5-enyloxy-biphenyl-4-carbonitrile

**ST04477**

125786-59-6

C19H19NO



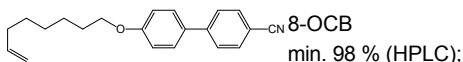
---

### 4'-(Oct-7-enyloxy)biphenyl-4-carbonitrile

**ST04623**

130916-21-1

C21H23NO



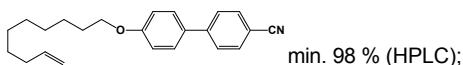
---

### 4'-Dec-9-enyloxy-biphenyl-4-carbonitrile

**ST04478**

129281-14-7

C23H27NO



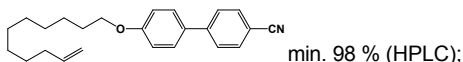
---

### 4'-Undec-10-enyloxy-biphenyl-4-carbonitrile

**ST04479**

105531-79-1

C24H29NO



## LIQUID CRYSTALS: 4'-ALKYL-4-CYANOTERPHENYLS

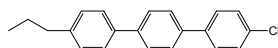
---

### 4-Cyano-4'-n-propyl-p-terphenyl

**ST00688**

54296-25-2

C22H19N



4''-n-Propyl-1,1':4',1''-terphenyl-4-carbonitrile, 3CT

min. 99 % (GC);

mesophase behaviour: Cr2 179 Cr1 182.2 N 257.5 I;

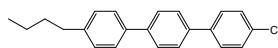
---

### 4-Cyano-4'-n-pentyl-p-terphenyl

**ST00689**

54211-46-0

C24H23N



4''-n-Pentyl-1,1':4',1''-terphenyl-4-carbonitrile, 5CT

min. 99.5 % (GC);

mesophase behaviour: Cr 130 N 240 I;

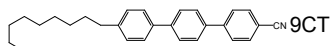
---

### 4-Nonyl-[1,1';4',1'']terphenyl-4''-carbonitrile

**ST04891**

107396-27-0

C28H31N



9CT

min. 99 % (GC);

mesophase behaviour: Cr 87 SE 110 SA 206 N 212 I;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: TRANS-4,4'-ALKYLCYCLOHEXYL-BENZONITRILES

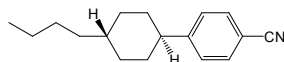
---

trans-4-(4'-n-Butylcyclohexyl)benzonitrile

**ST00691**

61204-00-0

C17H23N



PCH 4  
min. 99.5 % (GC);  
mesophase behaviour: Cr 41 N 41 I;

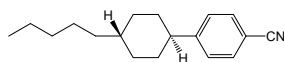
---

trans-4-(4'-n-Pentylcyclohexyl)benzonitrile

**ST00692**

61204-01-1

C18H25N



PCH 5  
min. 99.5 % (GC);  
mesophase behaviour: Cr 31 N 55 I;

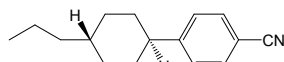
---

4-(trans-4'-n-Propylcyclohexyl)benzonitrile

**ST01862**

61203-99-4

C16H21N



PCH3  
min. 99.5 % (GC);  
mesophase behaviour: Cr 43 N 46 I;

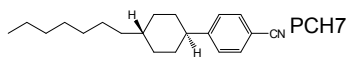
---

4-(trans-4'-n-Heptylcyclohexyl)benzonitrile

**ST06252**

82029-02-5

C20H29N



PCH7

## LIQUID CRYSTALS: CHOLESTERYL ESTERS

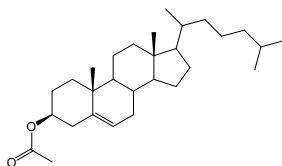
---

### Cholesteryl acetate

**ST00492**

604-35-3

C29H48O2



min. 96 % (HPLC);

mesophase behaviour: Cr 116.5 CH 94.5 I;

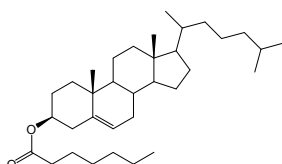
---

### Cholesteryl heptanate

**ST00497**

1182-07-6

C34H58O2



min. 97 % (HPLC);

mesophase behaviour: Cr 114;

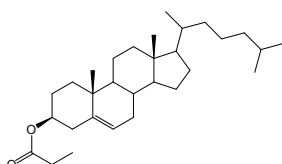
---

### Cholesteryl caprylate

**ST00498**

1182-42-9

C35H60O2



min. 96 % (HPLC);

mesophase behaviour: Cr 110 (S 69.5 CH 96.5) I;

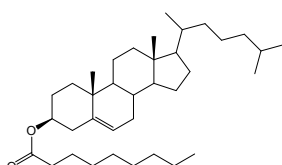
---

### Cholesteryl pelargonate

**ST00499**

1182-66-7

C36H62O2



min. 96 % (HPLC);

mesophase behaviour: Cr 80.5 (S 77.5) CH 92 I;

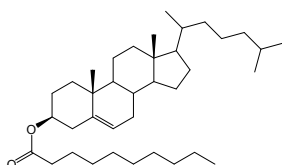
---

### Cholesteryl decanoate

**ST00500**

1183-04-6

C37H64O2



min. 95 % (HPLC);

mesophase behaviour: Cr 85.5 (S 81.5) CH 92.5 I;

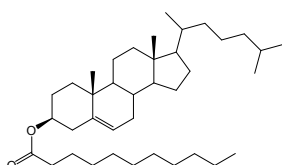
---

### Cholesteryl undecanoate

**ST00501**

24385-24-8

C38H66O2



min. 95 % (HPLC);

mesophase behaviour: Cr 92.5 (S 81.9 CH 90) I;

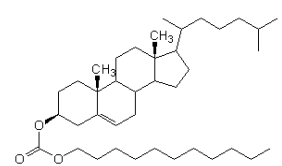
---

### Cholesteryl undecyl carbonate

**ST02927**

15834-73-8

C39H68O3



min. 90 % (HPLC);

mesophase behaviour: Cr 70.5 CH 74.4;

---

**INQUIRIES and ORDERS**Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: CHOLESTERYL ESTERS

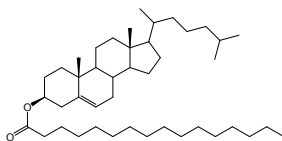
---

Cholesteryl palmitate

**ST00506**

601-34-3

C43H76O2



min. 97 % (HPLC);

mesophase behaviour: Cr 76.3 CH 79.8 I;

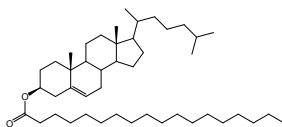
---

Cholesteryl stearate

**ST00508**

35602-69-8

C45H80O2



min. 95 % (HPLC);

mesophase behaviour: Cr 83 (SA 75.5 CH 59.5) I;

---



## LIQUID CRYSTALS: TOLANES

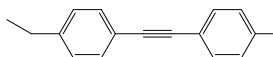
---

### 1-(4-Ethylphenyl)-2-(4-methylphenyl)acetylene

**ST01845**

22692-80-4

C17H16



Tolane 2-1  
min. 99.5 % (GC);  
m. p.: 73.5°C;

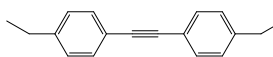
---

### 1,2-Bis(4-ethylphenyl)acetylene

**ST02286**

79135-69-6

C18H18



Tolane 2-2; 2T2; 4,4'-Diethyltolane  
min. 99.7 % (GC);  
m. p.: 74°C;

---

### 1-(4-Ethylphenyl)-2-(4-methoxyphenyl)acetylene

**ST01847**

63221-88-5

C17H16O



Tolane 2-O1  
min. 99.5 % (GC);  
mesophase behaviour: Cr 72.5 N 34.7 I;

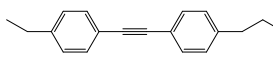
---

### 1-(4-Ethylphenyl)-2-(4-n-propylphenyl)acetylene

**ST02287**

102225-55-8

C19H20



Tolane 2-3; 2T3; 4-Ethyl-4'-n-propyltolane  
min. 99.7 % (GC);  
m. p.: 51°C;

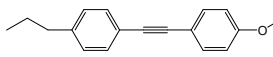
---

### 1-(4-Methoxyphenyl)-2-(4-n-propylphenyl)acetylene

**ST01848**

39969-26-1

C18H18O



Tolane 3-O1  
min. 99.5 % (GC);  
mesophase behaviour: Cr 65 N (61.4) I;

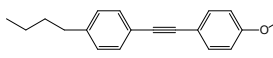
---

### 1-(4-n-Butylphenyl)-2-(4-methoxyphenyl)acetylene

**ST01849**

35684-12-9

C19H20O



Tolane 4-O1  
min. 99.5 % (GC);  
mesophase behaviour: Cr 50.4 N (40.2) I;

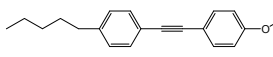
---

### 1-(4-Methoxyphenyl)-2-(4-n-pentylphenyl)acetylene

**ST01850**

39969-28-3

C20H22O



Tolane 5-O1  
min. 99.5 % (GC);  
mesophase behaviour: Cr 47.0 N 58.0 I;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

## LIQUID CRYSTALS: TOLANES

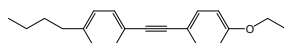
---

### 1-(4-n-Butylphenyl)-2-(4-ethoxyphenyl)acetylene

**ST01851**

85583-83-1

C20H22O



Tolane 4-O2

min. 99.5 % (GC);

mesophase behaviour: Cr 54.0 N 80.0 I;

---

### 1,2-Bis(4-n-butylphenyl)acetylene

**ST01846**

80221-11-0

C22H26



Tolane 4-4

min. 99.5 % (GC);

m. p.: 40-42°C;

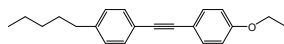
---

### 1-(4-Ethoxyphenyl)-2-(4-n-pentylphenyl)acetylene

**ST01898**

95480-29-8

C21H24O



Tolane 5-O2

min. 99.5 % (GC);

mesophase behaviour: Cr 62 N 89 I;

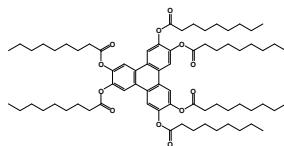
## LIQUID CRYSTALS: DISCOTICS

### 2,3,6,7,10,11-Hexakis[nonanoyloxy]triphenylen

**ST04468**

70351-95-0

C72H108O12



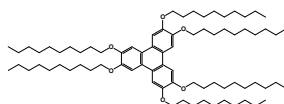
min. 97 % (HPLC);  
mesophase behaviour: Cr 62 M 125;

### 2,3,6,7,10,11-Hexakis[decyloxy]triphenylene

**ST04466**

70351-89-2

C78H132O6

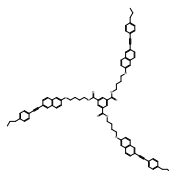


min. 97 % (HPLC);  
mesophase behaviour: Cr 58 M 69 I;

### Benzene-1,3,5-tricarboxylic acid tris-{4-[6-(4-propyl-phenylethynyl)naphthalene-2-yloxy]butyl} ester

**ST02714**

C84H78O9



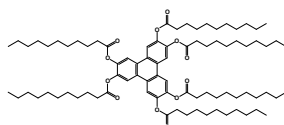
<sup>1</sup>H-NMR conforms;  
mesophase behaviour: Cr 137 N(D) 176 I;

### 2,3,6,7,10,11-Hexakis[undecanoyloxy]triphenylen

**ST04469**

70351-97-2

C84H132O12



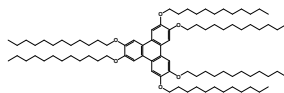
min. 97 % (HPLC);  
mesophase behaviour: Cr 67 M1 108 M2 121.5;

### 2,3,6,7,10,11-Hexakis[dodecyloxy]triphenylene

**ST04524**

214958-05-1

C90H144O6



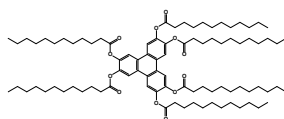
min. 96 % (HPLC);  
mesophase behaviour: Cr 55 M1 58 M2 63 I;

### 2,3,6,7,10,11-Hexakis[dodecanoyloxy]triphenylen

**ST04525**

70187-34-7

C90H144O12



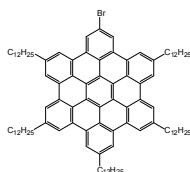
min. 96 % (HPLC);  
mesophase behaviour: Cr 80 M1 93 M2 111 M3 122.3 I;

### 2-Bromo-5,8,11,14,17-pentakis-(dodecyl)-hexa-peri-hexabenzocoronene

**ST06014**

283602-40-4

C102H137Br



<sup>1</sup>H-NMR conforms;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

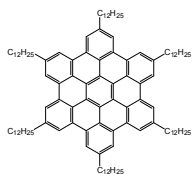
## LIQUID CRYSTALS: DISCOTICS

2,5,8,11,14,17-Hexakis(dodecyl)-hexa-peri-hexabenzocoronene

**ST06015**

170698-88-1

C114H162



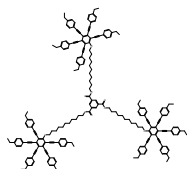
<sup>1</sup>H-NMR: conforms;

Tris{11-[pentakis-(4'-ethylphenylethynyl)phenoxy]undecyl} trimesate

**ST01771**

847227-41-2

C210H204O9



<sup>1</sup>H-NMR conforms;

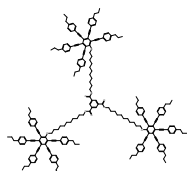
mesophase behaviour: Cr 122 N(D) 147 I;

Tris-{11-[pentakis-(4'-propylphenylethynyl)phenoxy]undecyl} trimesate

**ST01606**

671197-46-9

C225H234O9



<sup>1</sup>H-NMR conforms;

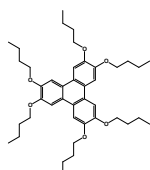
mesophase behaviour: Cr 60 N(D) 139 I;

2,3,6,7,10,11-Hexakis[butyloxy]triphenylene

**ST04489**

70351-85-8

C42H60O6



min. 98 % (HPLC);

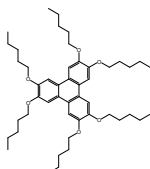
mesophase behaviour: Cr 88 M 144 I;

2,3,6,7,10,11-Hexakis[pentyloxy]triphenylene

**ST01612**

69079-52-3

C48H72O6



min. 98 % (HPLC);

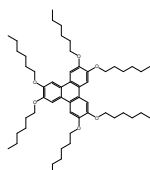
mesophase behaviour: Cr 69 Col(ho) 123 I;

2,3,6,7,10,11-Hexakis[hexyloxy]triphenylene

**ST04310**

70351-86-9

C54H84O6



min. 98 % (HPLC);

mesophase behaviour: Cr 68 M 97 I;

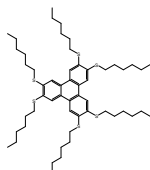
2,3,6,7,10,11-Hexakis(hexylthio)triphenylene

**ST06383**

90430-82-3

C54H84S6

**NEW**



112

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: DISCOTICS

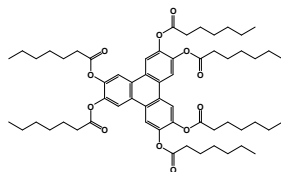
---

### 2,3,6,7,10,11-Hexakis[heptanoyloxy]triphenylen

**ST04467**

70368-32-0

C60H84O12



min. 97 % (HPLC);

mesophase behaviour: Cr 106 M 108 I;

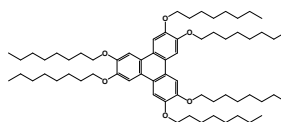
---

### 2,3,6,7,10,11-Hexakis(octyloxy)triphenylene

**ST04465**

70351-87-0

C66H108O6



min. 98 % (HPLC);

mesophase behaviour: Cr 66.8 M 85.6 I;

---

#### INQUIRIES and ORDERS

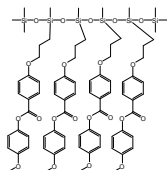
Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: MISCELLANEOUS

(4-Methoxyphenyl 4-propoxybenzoatedimethyl)siloxane homopolymer

**ST06376**



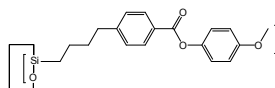
<sup>1</sup>H-NMR: conform

C78H98O21Si6

**NEW**

(Pentamethyl)pentaoxapentasiloxane, LC23

**ST06133**



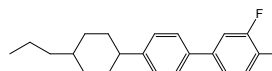
<sup>1</sup>H-NMR: conforms;

142303-13-7

C95H110O20Si5

3,4-Difluoro-4'-(4-propyl-cyclohexyl)biphenyl

**ST04227**



3CPGF

85312-59-0

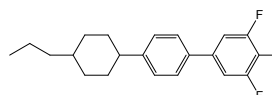
min. 99.5 % (GC);

C21H24F2

mesophase behaviour: Cr 68 N 98 I;

3,4,5-Trifluoro-4'-(4-propyl-cyclohexyl)biphenyl

**ST04229**



3CPUF

132123-39-8

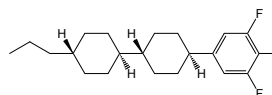
min. 99.5 % (GC);

C21H23F3

m. p.: 35-36°C;

all-trans-4-Propyl-4'-(3,4,5-trifluorophenyl)bi(cyclohexane)

**ST04332**



3CPGF

131819-23-3

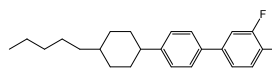
min. 99.5 % (GC);

C21H29F3

m. p.: 65-66°C;

3,4-Difluoro-4'-(4-pentyl-cyclohexyl)biphenyl

**ST04228**



5CPGF

134412-17-2

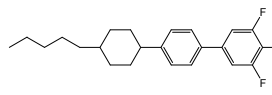
min. 99.5 % (GC);

C23H28F2

mesophase behaviour: Cr 58 N 106 I;

3,4,5-Trifluoro-4'-(4-pentyl-cyclohexyl)biphenyl

**ST04230**



5CPUF

137019-95-5

min. 99.5 % (GC);

C23H27F3

mesophase behaviour: Cr 31 N 56.5 I;

## LIQUID CRYSTALS: MISCELLANEOUS

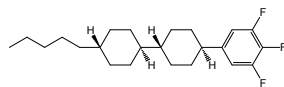
---

all-trans-4-Pentyl-4'-(3,4,5-trifluorophenyl)bi(cyclohexane)

**ST04333**

137644-54-3

C23H33F3



min. 99.5 % (GC);  
mesophase behaviour: Cr 87 M 101 I;

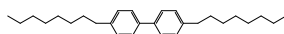
---

4,4'-Dioctylbiphenyl

**ST06290**

26916-71-2

C28H42



min. 99,5 % (GC)

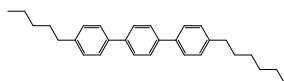
---

4-Hexyl-4''-pentyl-p-terphenyl

**ST06204**

497263-86-2

C29H36



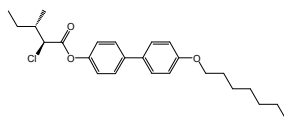
min. 98 % (GC);

---

(2S,3S)-4'-(Heptyloxy)biphenyl-4-yl 2-chloro-3-methylpentanoate

**ST06228**

C25H33ClO3



min. 98 % (GC);

---

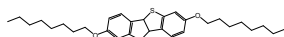
2,7-Dioctyloxy[1]benzothieno[3,2b][1]benzothiophene

**ST06409**

C30H42O2S2

**NEW**

---



**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

115

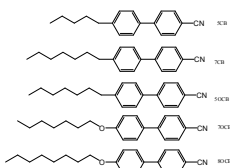
**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: MIXTURES

---

### Liquid crystal mixture E5

**ST06241**



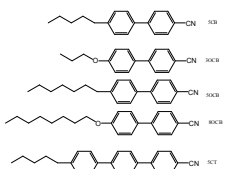
refraction index 1,5220 - 1,52400

C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>N<sub>w</sub>

---

### Liquid crystal mixture E8

**ST06242**



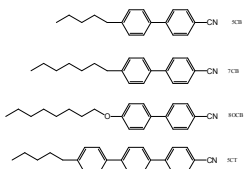
refraction index 1,5220 - 1,52400

C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>N<sub>w</sub>

---

### Liquid crystal mixture E7

**ST04287**



water: max. 0.1 % (KF); refractive index: 1.5220-1.5240 (20°C);  
mesophase behaviour: T<sub>g</sub> -62 N 60 I; clearing point: min. 58°C  
(DSC on cooling);  
nematic LC-mixture for electronic applications; nematic between  
minus 60 to plus 60°C;

C<sub>x</sub>H<sub>y</sub>O<sub>z</sub>N<sub>w</sub>



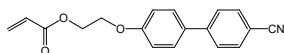
## LIQUID CRYSTALS: REACTIVE MESOGENS - MONOFUNCTIONAL

Acrylic acid 2-(4'-cyano-biphenyl-4-yloxy)ethyl ester

**ST04570**

80122-94-7

C18H15NO3



min. 97 % (HPLC);

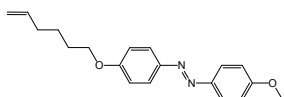
m. p.: 93-94°C;

E-(4-Hex-5-enyloxyphenyl)-(4-methoxyphenyl)diazene

**ST05887**

195058-84-5

C19H22N2O2



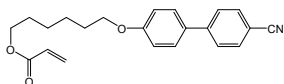
min. 97 % (GC);

6-(4-Cyano-biphenyl-4'-yloxy)hexyl acrylate

**ST03474**

89823-23-4

C22H23NO3



min. 97 % (HPLC);

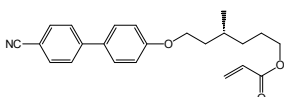
m.p.: 70-71°C;

(S)-6-(4'-cyanobiphenyl-4-yloxy)-4-methylhexyl acrylate

**ST06126**

247191-70-4

C23H25NO3



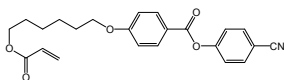
min. 97 % (HPLC);

4[4[6-Acryloyloxyhex-1-yl)oxyphenyl]carboxybenzonitrile

**ST02670**

83847-14-7

C23H23NO5



min. 97 % (HPLC);

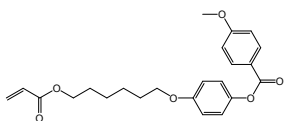
m. p.: 78-80°C;

4-Methoxybenzoic acid 4-(6-acryloyloxyhexyloxy)phenyl ester

**ST03866**

130953-14-9

C23H26O6



min. 97 % (HPLC);

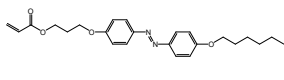
mesophase behaviour: Cr 55 N (44) I;

Acrylic acid 3-[4-(4-hexyloxyphenylazo)phenoxy]propyl ester

**ST06065**

210281-65-5

C24H30N2O4



min. 97 % (HPLC);

**INQUIRIES and ORDERS**

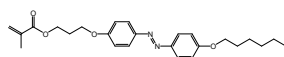
Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: REACTIVE MESOGENS - MONOFUNCTIONAL

2-Methylacrylic acid 3-[4-(4-hexyloxyphenylazo)phenoxy]propyl ester

**ST06064**

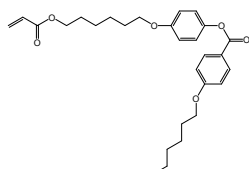


min. 97 % (HPLC);

C25H32N2O4

4-(6-Acryloxy-hex-1-yl-oxy)phenyl 4-(hexyloxy)benzoate

**ST03457**



min. 98 % (HPLC);

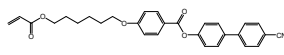
mesophase behaviour: Cr 54 N 67 I;

863394-23-4

C28H36O6

4[4[6-Acryloxyhex-1-yl)-oxyphenyl]carboxy-biphenyl-4'-carbonitrile

**ST02669**



min. 97 % (HPLC);

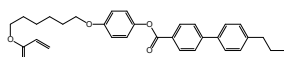
mesophase behaviour: Cr 109-113 M1 172-174 M2 220 I;

130166-92-6

C29H27NO5

4'-Propylbiphenyl-4-carboxylic acid 4-(acryloxyhexyloxy)phenyl ester

**ST05867**



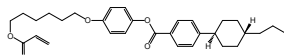
min. 98 % (HPLC);

mesophase behaviour: Cr 97.5 M 164.2 I;

C31H34O5

4-(6-(Acryloyloxy)hexyloxy)phenyl 4-(trans-4-propylcyclohexyl)benzoate

**ST05874**



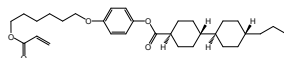
min. 98 % (HPLC);

m. p.: 66-67°C;

C31H40O5

trans,trans-4-(6-(Acryloyloxy)hexyloxy)phenyl 4'-propylbi(cyclohexane)-4-carboxylate

**ST04717**



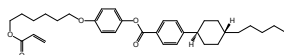
min. 99 % (HPLC);

m. p.: 63-65°C;

C31H46O5

4-(4-Pentylcyclohexyl)benzoic acid 4-(6-acryloyloxyhexyloxy)phenyl ester

**ST04654**



min. 97 % (HPLC);

mesophase behaviour: Cr 80 N 161 I;

196881-65-9

C33H44O5

## LIQUID CRYSTALS: REACTIVE MESOGENS - MONOFUNCTIONAL

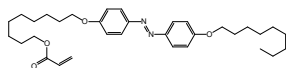
---

### 9-(4-(4-Nonyloxyphenylazo)phenoxy)acrylate

**ST04180**

1062044-75-0

C33H48N2O4



min. 93 % (HPLC);

mesophase behaviour: Cr 64 S 97 I;

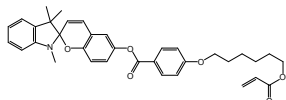
photomobile reactive mesogen, cis/trans-isomerization under irradiation with UV-light; precursor for polymers (artificial muscles);

---

### 1',3',3'-Trimethylspiro[chromene-2,2'-indoline]-6-yl 4-(6-(acryloyloxy)hexyloxy)benzoate

**ST04718**

C35H37NO6



min. 95 % (HPLC);

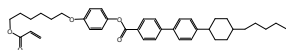
photochromic reactive mesogen;

---

### 4-(6-(acryloyloxy)hexyloxy)phenyl 4'-(4-pentylcyclohexyl)biphenyl-4-carboxylate

**ST06115**

C39H48O5



min. 95 % (HPLC);

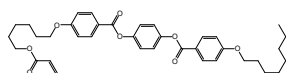
---

### 4-(4-(6-(acryloyloxy)hexyloxy)benzoyloxy)phenyl 4-(octyloxy)benzoate

**ST06013**

193146-12-2

C37H44O8



min. 95 % (HPLC)

m. p.: 99°C;

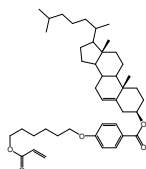
---

### Cholesteryl [4-(6-(acryloyloxy)hexyloxy)benzoate

**ST03952**

206053-52-3

C43H64O5



min. 95 % (HPLC);

mesophase behaviour: Cr 73 N\* 99 I;

chiral reactive mesogen;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

## LIQUID CRYSTALS: REACTIVE MESOGENS - BIFUNCTIONAL

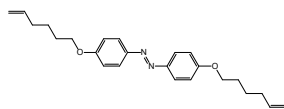
---

### E-1,2-Bis(4-hex-5-enyloxyphenyl)diazene

**ST05888**

1007319-13-2

C24H30N2O2



min. 97 % (GC); 1H-NMR: conforms;

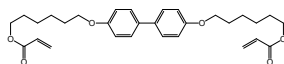
---

### Acrylic acid 6-[4'-(6-acryloyloxy-hexyloxy)biphenyl-4-yloxy]hexyl ester

**ST03776**

125337-31-7

C30H38O6



min. 96 % (HPLC);  
m. p.: 79-82°C;

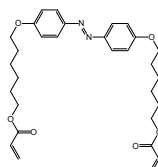
---

### 4,4'-Bis(6-acryloyloxyhexyloxy)azobenzene

**ST06080**

1011714-83-2

C30H38N2O6



min. 95 % (HPLC);

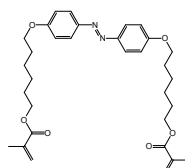
---

### 4,4'-Bis(6-methacryloyloxyhexyloxy)azobenzene

**ST06016**

874111-00-9

C32H42N2O6

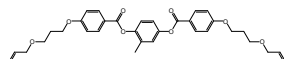


min. 95 % (HPLC); 1H-NMR conforms;

---

### 2-Methyl-1,4-phenylene bis(4-(3-(allyloxy)propoxy)benzoate)

**ST06090**



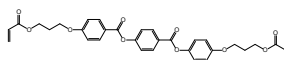
min. 97 % (HPLC);

C33H36O8

---

### 4-{{4-[3-(Acryloyloxy)propoxy]phenoxy}carbonyl}phenyl 4-(3-(acryloyloxy)propoxy)benzoate

**ST04315**



min. 96 % (HPLC);

mesophase behaviour: Cr 81 SA 114 N 169 I;

C32H30O10

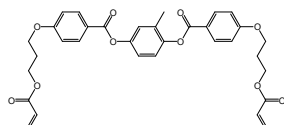
---

### 1,4-Bis-[4-(3-acryloyloxypropyloxy)benzoyloxy]-2-methylbenzene

**ST03021**

174063-87-7

C33H32O10



min. 97 % (HPLC);

mesophase behaviour: Cr 64 N 126 I;

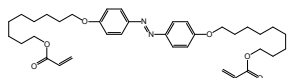
## LIQUID CRYSTALS: REACTIVE MESOGENS - BIFUNCTIONAL

### 4,4'-Bis[9-(acryloyloxy)nonyloxy]azobenzene

**ST04181**

864711-37-5

C36H50N2O6



min. 95 % (HPLC);

mesophase behaviour: Cr 74 S 91 I;

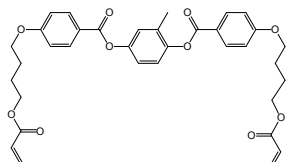
photomobile reactive mesogen, cis/trans-isomerization under irradiation with UV-light; precursor for polymers (artificial muscles);

### 1,4-Bis[4-(3-acryloyloxybutyloxy)benzoyloxy]-2-methylbenzene

**ST04501**

146184-09-0

C35H36O10



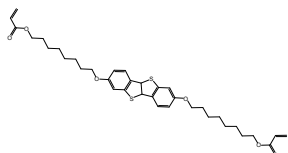
min. 96 % (HPLC);

### 2,7-Bis(8-acryloyloxy)octyloxy[1]benzothieno[3,2-b][1]benzothiophene

**ST06410**

C36H46O6S2

**NEW**



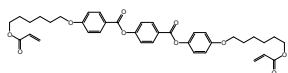
min. 95 % (HPLC)

### 4-{{4-[6-(Acryloyloxy)hexyloxy]phenoxy}carbonyl}phenyl 4-(6-(acryloyloxy)hexyloxy)benzoate

**ST04321**

161841-15-2

C38H42O10



min. 96 % (HPLC);

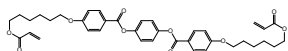
mesophase behaviour: Cr 76 SA 138 N 150 I;

### 1,4-Phenylene bis(4-(6-(acryloyloxy)hexyloxy)benzoate)

**ST05953**

161841-15-2

C38H42O10



min. 97 % (HPLC);

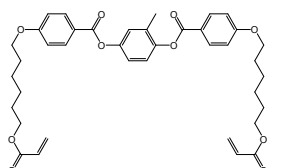
mesophase behaviour: Cr 107 N 157I;

### 1,4-Bis-[4-(6-acryloyloxyhexyloxy)benzoyloxy]-2-methylbenzene

**ST00975**

125248-71-7

C39H44O10



min. 97 % (HPLC); 1H-NMR: conforms;

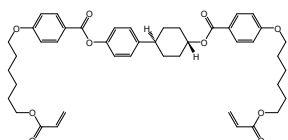
mesophase behaviour: Cr 86 N 116 I;

### 6-{{4-[4-(Acryloyloxy)hexyloxy]cyclohexyl}phenoxy}hexyl acrylate

**ST01011**

216879-99-1

C44H52O10



min. 97 % (HPLC);

mesophase behaviour: Cr 89.5 S(F) 107.8 S(G) 164 N 232 I;

#### INQUIRIES and ORDERS

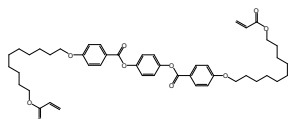
Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LIQUID CRYSTALS: REACTIVE MESOGENS - BIFUNCTIONAL

1,4-phenylene bis(4-(10-(acryloyloxy)decyloxy)benzoate)

**ST06251**



min. 95 % (HPLC) 1H-NMR: conforms;

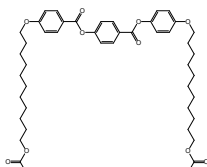
C46H58O10

4-((4-(11-(acryloyloxy)undecyloxy)phenoxy)carbonyl)phenyl 4-(11-(acryloyloxy)undecyloxy)benzoate

**ST04666**

132900-74-4

C48H62O10



min. 95 % (HPLC);

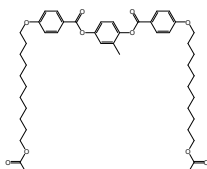
mesophase behaviour: Cr 66 M1 90 M2 130 I;

1,4-Bis[4-(11-acryloyloxyundecyloxy)benzoyloxy]-2-methylbenzene

**ST04587**

215304-94-2

C49H64O10



min. 95 % (HPLC);

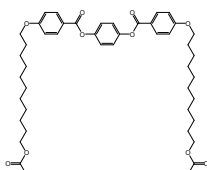
mesophase behaviour: Cr 72-75 Sy 86 Sx 93 I;

1,4-Bis[4-(11-acryloyloxyundecyloxy)benzoyloxy]benzene

**ST06132**

132900-74-4

C48H62O10

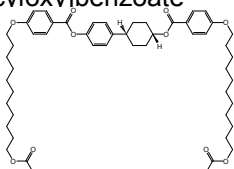


min. 96 % (HPLC);

4-{4-[4-[11-(Acryloyloxy)undecyloxy]benzoyloxy]cyclohexyl}phenyl 4-[11-(acryloyloxy)undecyloxy]benzoate

**ST04674**

C54H72O10



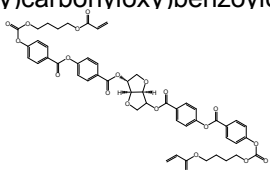
min. 95 % (HPLC);

(3R,3aS,6aS)-Hexahydrofuro[3,2-b]furan-3,6-diyl bis(4-(4-(4-(acryloyloxy)butoxy)carbonyloxy)benzoyloxy)benzoate

**ST06287**

223572-88-1

C50H46O20



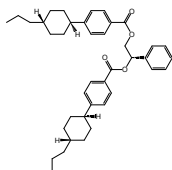
LC756

## DOPANTS FOR LC-APPLICATIONS: CHIRAL DOPANTS

---

Benzoic acid, 4-(trans-4-propylcyclohexyl)-1,1'-[(1(S)(+))-1-phenyl-1,2-ethanediyl] ester

**ST06152**



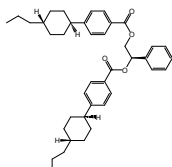
min. 99.5 % (HPLC);  
m. p.: 144.5 (DSC-Peak);

C40H50O4

---

Benzoic acid, 4-(trans-4-propylcyclohexyl)-1,1'-[(1(R)(-))-1-phenyl-1,2-ethanediyl] ester

**ST06153**



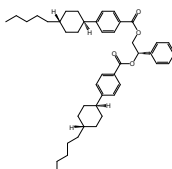
min. 98 % (HPLC);

C40H50O4

---

Benzoic acid, 4-(trans-4-pentylcyclohexyl)-1,1'-[(1(S)(+))-1-phenyl-1,2-ethanediyl] ester

**ST05865**



min. 99.5 % (HPLC);  
m. p.: 131-133°C;

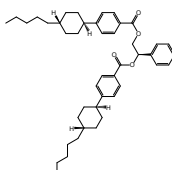
165660-09-3

C44H58O4

---

Benzoic acid, 4-(trans-4-pentylcyclohexyl)-1,1'-[(1(R)(-))-1-phenyl-1,2-ethanediyl] ester

**ST05866**



min. 99.5 % (HPLC);  
m. p.: 131-134°C;

154102-21-3

C44H58O4

---

### INQUIRIES and ORDERS

123

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LC-POLYMER PRECURSORS: ACRYLATES AND METHACRYLATES

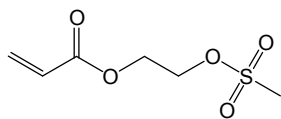
---

### Acrylic acid 2-(methanesulfonyloxy)ethyl ester

**ST04313**

89599-42-8

C6H10O5S



min. 94 % (GC); 1H-NMR conforms;

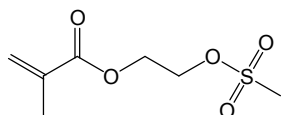
---

### Methacrylic acid 2-(methanesulfonyloxy)ethyl ester

**ST04314**

16081-17-7

C7H12O5S



min. 94 % (GC); 1H-NMR conforms;

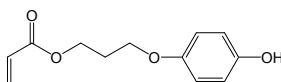
---

### Acrylic acid 3-(4-hydroxy-phenoxy)propyl ester

**ST04327**

1092853-38-7

C12H14O4



min. 98 % (HPLC);

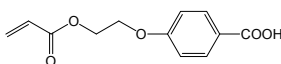
---

### 4-(2-Acryloyloxyethyl-1-yloxy)benzoic acid

**ST01630**

69260-38-4

C12H12O5



min. 95 % (HPLC);  
m. p.: 143-147°C;

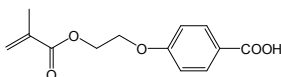
---

### 4-(2-Methacryloyloxyethyl-1-yloxy)benzoic acid

**ST01889**

69260-39-5

C13H14O5



min. 97 % (HPLC);  
m. p.: 145-147°C;

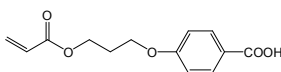
---

### 4-(3-Acryloxy-n-prop-1-yloxy)benzoic acid

**ST02453**

245349-46-6

C13H14O5



min. 96 % (HPLC);  
m. p.: 123-125°C;

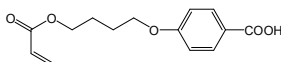
---

### 4-(4-Acryloyloxy-n-but-1-yloxy)benzoic acid

**ST01680**

69260-42-0

C14H16O5



min. 96 % (HPLC);  
m. p.: 121-124°C;



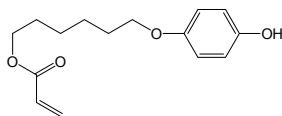
## LC-POLYMER PRECURSORS: ACRYLATES AND METHACRYLATES

### 4-(6-Acryloyloxy-n-hex-1-yloxy)phenol

**ST03456**

161841-12-9

C15H20O4



min. 98 % (HPLC);

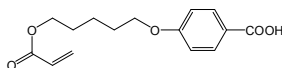
m. p.: 53-56°C;

### 4-(5-Acryloxy-pentyl-1-oxy)benzoic acid

**ST02454**

167771-51-9

C15H18O5



min. 96% HPLC;

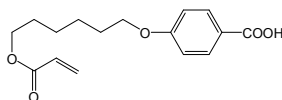
mesophase behaviour: Cr 97 N 110 I;

### 4-(6-Acryloyloxy-n-hex-1-yloxy)benzoic acid

**ST00902**

83883-26-5

C16H20O5



min. 96 % (HPLC);

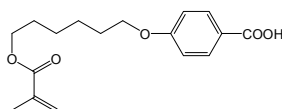
m. p.: 90-93°C;

### 4-(6-Methacryloyloxy-n-hex-1-yloxy)benzoic acid

**ST01618**

91652-00-5

C17H22O5



min. 96 % (HPLC);

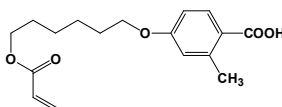
m. p.: 87-92°C;

### 4-(6-Acryloyloxy-n-hex-1-yloxy)-2-methylbenzoic acid

**ST03606**

325976-65-6

C17H22O5



min. 95 % (HPLC);

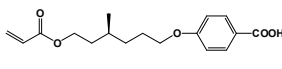
m. p.: 68-75°C;

### (S)-4-(6-(Acryloyloxy)-4-methylhexyloxy)benzoic acid

**ST06347**

164590-17-4

C17H22O5



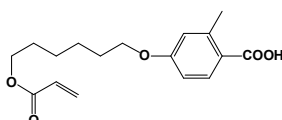
96,00 - 100,00 % (HPLC)

### 4-(6-(Acryloyloxy)hexyloxy)-2-methylbenzoic acid

**ST06429**

C17H22O5

**NEW**



min. 95 % (HPLC)

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

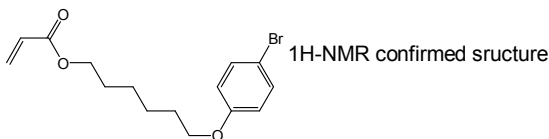
## LC-POLYMER PRECURSORS: ACRYLATES AND METHACRYLATES

### 6-(4-Bromophenoxy)hexyl acrylate

**ST06335**

1431880-70-4

C15H19BrO3

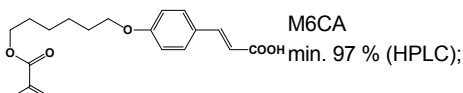


### 2-Methylacrylic acid 6-[4-(2-carboxyvinyl)phenoxy]hexyl ester

**ST05958**

125274-23-9

C19H24O5

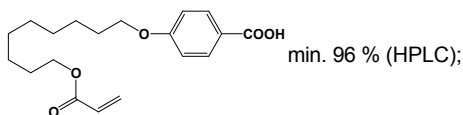


### 4-(11-Acryloyloxy-n-non-1-yloxy)benzoic acid

**ST04572**

186046-62-8

C19H26O5

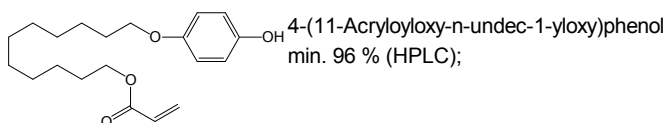


### Acrylic acid 11-(4-hydroxyphenoxy)undecyl ester

**ST04667**

250593-96-5

C20H30O4

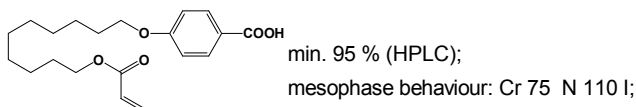


### 4-(10-Acryloyloxy-n-dec-1-yloxy)benzoic acid

**ST03604**

143203-04-7

C20H28O5

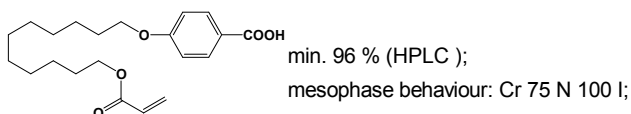


### 4-(11-Acryloyloxy-n-undec-1-yloxy)benzoic acid

**ST04463**

106620-90-0

C21H30O5

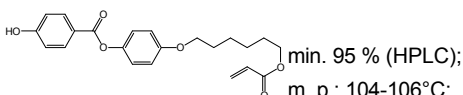


### 4-Hydroxybenzoic acid 4-[(6-acryloyloxy)hexyloxy]phenyl ester

**ST04354**

161841-14-1

C22H24O6



## LC-POLYMER PRECURSORS: SPACERS

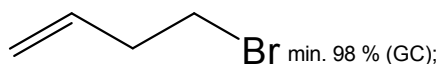
---

4-Bromo-1-butene

**ST00864**

5162-44-7

C<sub>4</sub>H<sub>7</sub>Br



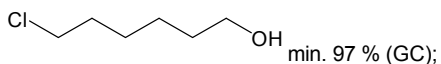
---

6-Chloro-1-hexanol

**ST01359**

2009-83-8

C<sub>6</sub>H<sub>13</sub>ClO



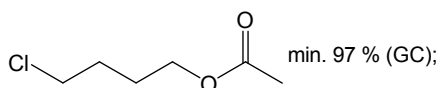
---

4-Chlorobutyl acetate

**ST01168**

6962-92-1

C<sub>6</sub>H<sub>11</sub>ClO<sub>2</sub>



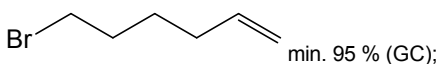
---

6-Bromo-1-hexene

**ST03780**

2695-47-8

C<sub>6</sub>H<sub>11</sub>Br



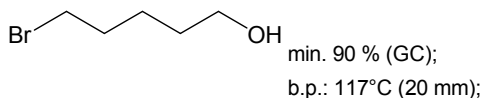
---

5-Bromo-1-pentanol

**ST01740**

34626-51-2

C<sub>5</sub>H<sub>11</sub>BrO



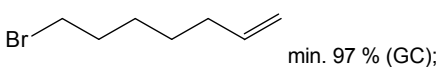
---

7-Bromo-1-heptene

**ST05905**

4117-09-3

C<sub>7</sub>H<sub>13</sub>Br



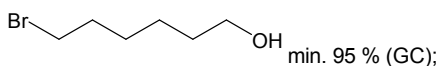
---

6-Bromo-1-hexanol

**ST01360**

4286-55-9

C<sub>6</sub>H<sub>13</sub>BrO



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LC-POLYMER PRECURSORS: SPACERS

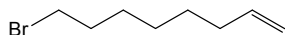
---

### 8-Bromo-1-octene

**ST06164**

2695-48-9

C<sub>8</sub>H<sub>15</sub>Br



min. 97 % (GC);

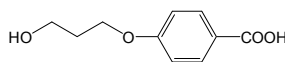
---

### 4-(3-Hydroxy-propyloxy)benzoic acid

**ST05936**

46350-87-2

C<sub>10</sub>H<sub>12</sub>O<sub>4</sub>



min. 97 % (HPLC);  
m. p.: 145-150°C;

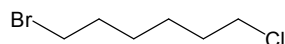
---

### 1-Bromo-6-chlorohexane

**ST03808**

6294-17-3

C<sub>6</sub>H<sub>12</sub>BrCl



min. 97 % (GC);

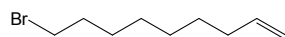
---

### 9-Bromo-1-nonene

**ST02929**

89359-54-6

C<sub>9</sub>H<sub>17</sub>Br



min. 95 % (GC);

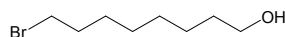
---

### 8-Bromo-1-octanol

**ST01670**

50816-19-8

C<sub>8</sub>H<sub>17</sub>BrO



min. 95 % (GC);

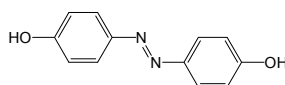
---

### 4,4'-(1,2-Diazenediyl)bisphenol

**ST04178**

2050-16-0

C<sub>12</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub>



4,4'-Dihydroxyazobenzene  
min. 97 % (HPLC); 1H-NMR conforms;  
m. p.: 217-221°C;

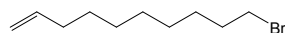
---

### 10-Bromo-1-decene

**ST01247**

62871-09-4

C<sub>10</sub>H<sub>19</sub>Br



min. 96 % (GC);

## LC-POLYMER PRECURSORS: SPACERS

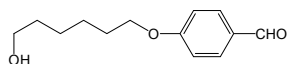
---

### 4-(6-Hydroxyhexyloxy)benzaldehyde

**ST05957**

96735-91-0

C13H18O3



min. 97 % (GC);

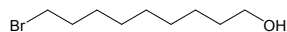
---

### 9-Bromo-1-nonanol

**ST01739**

55362-80-6

C9H19BrO



min. 97 % (GC);

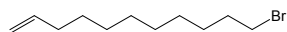
---

### 11-Bromo-1-undecene

**ST00724**

7766-50-9

C11H21Br



Undec-10-en-1-ylbromide  
min. 97 % (GC);

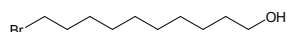
---

### 10-Bromo-1-decanol

**ST00914**

53463-68-6

C10H21BrO



min. 95 % (GC);

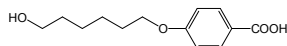
---

### 4-(6-Hydroxyhexyloxy)benzoic acid

**ST04135**

83883-25-4

C13H18O4



min. 97 % (HPLC);  
m. p.: 138.8°C (DSC-Peak);

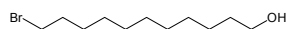
---

### 11-Bromo-1-undecanol

**ST01660**

1611-56-9

C11H23BrO



min. 97 % (GC);

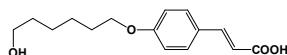
---

### 3-[4-(6-Hydroxyhexyloxy)phenyl]acrylic acid

**ST05999**

503000-67-7

C15H20O4



min. 97 % (HPLC);

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## LC-POLYMER PRECURSORS: SPACERS

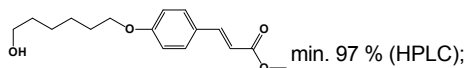
---

3-[4-(6-Hydroxyhexyloxy)phenyl]acrylic acid methyl ester

**ST06000**

878283-77-3

C<sub>16</sub>H<sub>22</sub>O<sub>4</sub>



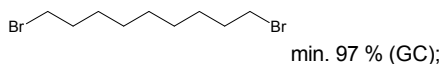
---

1,9-Dibromononane

**ST04255**

4549-33-1

C<sub>9</sub>H<sub>18</sub>Br<sub>2</sub>



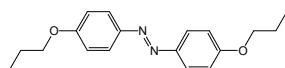
---

1,2-Bis(4-propoxyphenyl)diazene

**ST06430**

C<sub>18</sub>H<sub>22</sub>N<sub>2</sub>O<sub>2</sub>

**NEW**



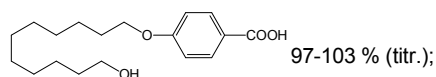
---

4-(11-Hydroxyundecyloxy)benzoic acid

**ST04554**

59100-59-3

C<sub>18</sub>H<sub>28</sub>O<sub>4</sub>



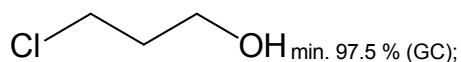
---

3-Chloro-1-propanol

**ST04082**

627-30-5

C<sub>3</sub>H<sub>7</sub>ClO



## PRECURSORS FOR LIQUID CRYSTALS: 4-(TRANS-4-ALKYLCYCLOHEXYL)PHENOLS

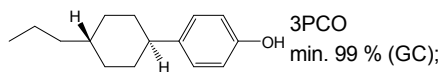
---

trans-4-(4'-n-Propylcyclohexyl)phenol

**ST03931**

81936-33-6

C15H22O



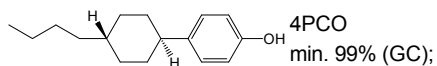
---

trans-4-(4'-n-Butylcyclohexyl)phenol

**ST03932**

88581-00-4

C16H24O



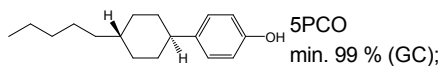
---

trans-4-(4'-n-Pentylcyclohexyl)phenol

**ST03933**

82575-69-7

C17H26O



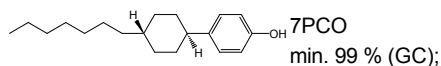
---

trans-4-(4'-n-Heptylcyclohexyl)phenol

**ST04097**

90525-37-4

C19H30O



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

131

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

PRECURSORS FOR LIQUID CRYSTALS: TRANS-4-ALKYL-1,1'-BI(CYCLOHEXAN)-4-OLS

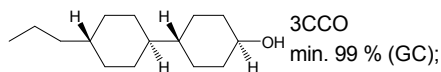
---

trans-4-(trans-4-n-Propylcyclohexyl)cyclohexanol

**ST03934**

82832-72-2

C15H28O



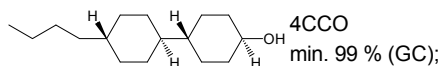
---

trans-4-(trans-4-n-Butylcyclohexyl)cyclohexanol

**ST03935**

88580-99-8

C16H30O



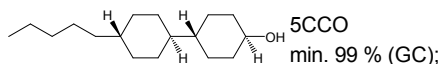
---

trans-4-(trans-4-n-Pentylcyclohexyl)cyclohexanol

**ST03936**

82575-70-0

C17H32O



---

(trans,trans)-4-(Bromomethyl)-4'-pentyl-1,1'-bicyclohexyl

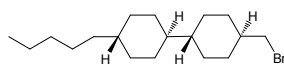
**ST06370**

82575-65-3

C18H33Br

**NEW**

---





## PRECURSORS FOR LIQUID CRYSTALS: 2-ALKYL-PROPANE-1,3-DIOLS

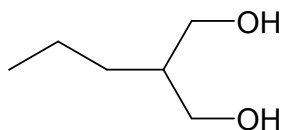
---

2-n-Propyl-propane-1,3-diol

**ST00569**

2612-28-4

C6H14O2



min. 98 % (GC);  
b. p.: 96-98°C (3 Torr);

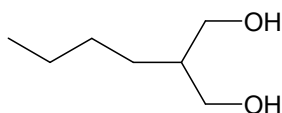
---

2-n-Butyl-propane-1,3-diol

**ST00570**

2612-26-2

C7H16O2



min. 97 % (GC);

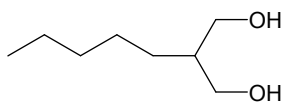
---

2-n-Pentyl-propane-1,3-diol

**ST00571**

25462-23-1

C8H18O2



min. 97 % (GC);

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

133

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

PRECURSORS FOR LIQUID CRYSTALS: TRANS-(ALKYLCYCLOHEXYL)PROPANE-1,3-DIOLES

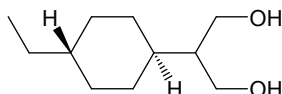
---

2-(trans-4'-Ethylcyclohexyl)propane-1,3-diol

**ST00994**

93129-38-5

C11H22O2



min. 99 % (GC);

mesophase behaviour: Cr 54 Sb 84-85 I;

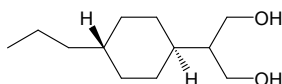
---

2-(trans-4'-n-Propylcyclohexyl)propane-1,3-diol

**ST00934**

132310-86-2

C12H24O2



min. 99 % (GC);

mesophase behaviour: Cr 63 Sb 102 I;

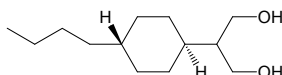
---

2-(trans-4'-n-Butyl-cyclohexyl)propane-1,3-diol

**ST00810**

132310-87-3

C13H26O2



min. 99 % (GC);

mesophase behaviour: Cr 64 Sb 113 I;

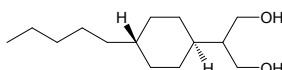
---

2-(trans-4'-n-Pentylcyclohexyl)propane-1,3-diol

**ST01288**

93129-37-4

C14H28O2



min. 99 % (GC);

mesophase behaviour: Cr 70 Sb 114.5 I;

## PRECURSORS FOR LIQUID CRYSTALS: TRANS-4-ALKYLCYCLOHEXANE-CARBOXYLIC ACIDS

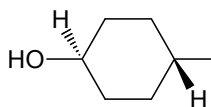
---

trans-4-Hydroxycyclohexanecarboxylic acid

**ST03668**

3685-26-5

C7H12O3



95-105 % (titr.); 1-H-NMR conforms;  
m. p.: 147.9 (DSC-Peak);

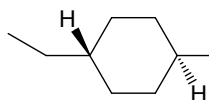
---

trans-(4-Ethylcyclohexane)carboxylic acid

**ST01116**

6833-47-2

C9H16O2



min. 98 % (GC);  
m. p.: 28-30°C;

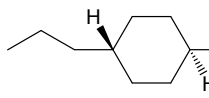
---

trans-(4-n-Propylcyclohexane)carboxylic acid

**ST01369**

38289-27-9

C10H18O2



min. 99 % (GC);  
m. p.: 98-100°C;

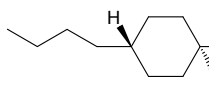
---

trans-(4-n-Butylcyclohexane)carboxylic acid

**ST01370**

38289-28-0

C11H20O2



min. 98 % (GC);  
m. p.: 36-40°C;

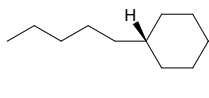
---

trans-(4-n-Pentylcyclohexane)carboxylic acid

**ST01117**

38289-29-1

C12H22O2



min. 98 % (GC);  
m. p.: 51-54°C;

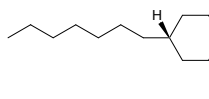
---

trans-(4-n-Heptylcyclohexane)carboxylic acid

**ST05861**

38289-31-5

C14H26O2



min. 98 % (GC);  
mesophase behaviour: Cr 74-76 N 101-102 I;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

135

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-1,1'-BICYCLOHEXYL-4'-CARBOXYLIC ACIDS

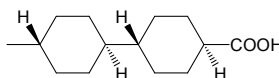
---

trans-4-(trans-4'-Methylcyclohexyl)cyclohexane carboxylic acid

**ST02507**

1072109-04-6

C14H24O2



all-trans-4'-Methylbicyclohexyl-4-carboxylic acid  
min. 99 % (GC);

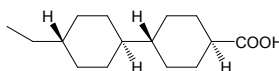
---

trans-4-(trans-4'-Ethylcyclohexyl)cyclohexane carboxylic acid

**ST02200**

84976-67-0

C15H26O2



all-trans-4'-Ethyl-bicyclohexyl-4-carboxylic acid  
min. 99 % (GC);

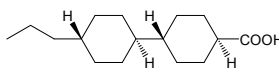
---

trans-4-(trans-4'-n-Propylcyclohexyl)cyclohexane carboxylic acid

**ST02201**

65355-32-0

C16H28O2



trans-4-(trans-4'-n-Propylcyclohexyl)cyclohexane carboxylic acid  
min. 99 % (GC);

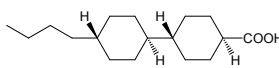
---

trans-4-(trans-4'-n-Butylcyclohexyl)cyclohexane carboxylic acid

**ST02508**

89111-63-7

C17H30O2



all-trans-4'-n-Butyl-bicyclohexyl-4-carboxylic acid  
min. 99 % (GC);

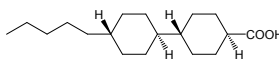
---

trans-4-(trans-4'-n-Pentylcyclohexyl)cyclohexane carboxylic acid

**ST02202**

65355-33-1

C18H32O2



all-trans-4'-n-Pentyl-bicyclohexyl-4-carboxylic acid  
min. 99 % (GC);

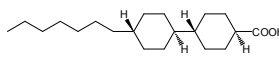
---

trans-4-(trans-4'-n-Heptylcyclohexyl)cyclohexane carboxylic acid

**ST05947**

65355-34-2

C20H36O2



all-trans-4'-Heptylbicyclohexyl-4-carboxylic acid  
min. 99 % (GC);

PRECURSORS FOR LIQUID CRYSTALS: 4-(4'-ALKYLCYCLOHEX-1-YL)CYCLO-  
HEXANONES

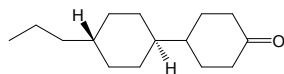
---

4-(trans-4'-n-Propylcyclohexyl)cyclohexanone

**ST01860**

82832-73-3

C15H26O



min. 99 % (GC);

m. p.: 28.4°C (DSC peak);

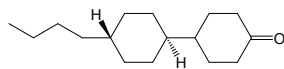
---

4-(trans-4'-n-Butylcyclohexyl)cyclohexanone

**ST02056**

92413-47-3

C16H28O



min. 99 % (GC);

m. p.: 43.9°C (DSC peak);

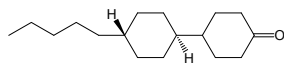
---

4-(trans-4'-n-Pentylcyclohexyl)cyclohexanone

**ST01861**

84868-02-0

C17H30O



min. 99 % (GC);

m. p.: 32.6°C (DSC peak);

---

INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

137

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: ALKYL BENZENES

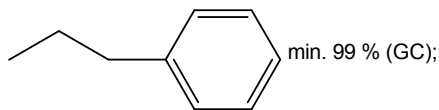
---

n-Propylbenzene

**ST00714**

103-65-1

C<sub>9</sub>H<sub>12</sub>



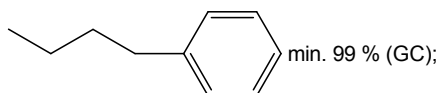
---

n-Butylbenzene

**ST00715**

104-51-8

C<sub>10</sub>H<sub>14</sub>



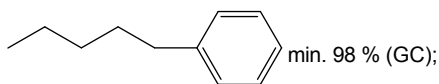
---

n-Pentylbenzene

**ST00716**

538-68-1

C<sub>11</sub>H<sub>16</sub>



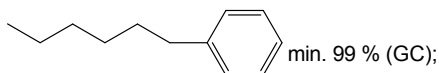
---

n-Hexylbenzene

**ST00717**

1077-16-3

C<sub>12</sub>H<sub>18</sub>



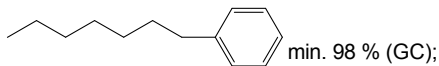
---

n-Heptylbenzene

**ST00718**

1078-71-3

C<sub>13</sub>H<sub>20</sub>



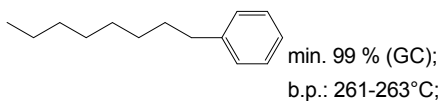
---

n-Octylbenzene

**ST00719**

2189-60-8

C<sub>14</sub>H<sub>22</sub>



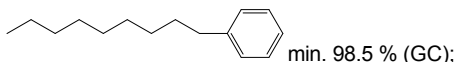
---

n-Nonylbenzene

**ST00720**

1081-77-2

C<sub>15</sub>H<sub>24</sub>



## PRECURSORS FOR LIQUID CRYSTALS: ALKYL BENZENES

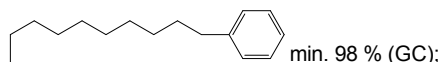
---

### n-Decylbenzene

**ST06121**

104-72-3

C<sub>16</sub>H<sub>26</sub>



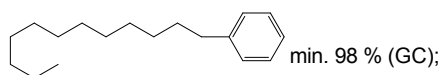
---

### n-Dodecylbenzene

**ST04421**

123-01-3

C<sub>18</sub>H<sub>30</sub>



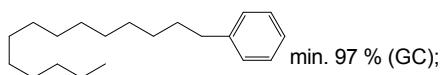
---

### Tetradecylbenzene

**ST03010**

1459-10-5

C<sub>20</sub>H<sub>34</sub>



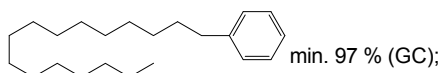
---

### Hexadecylbenzene

**ST03009**

1459-09-2

C<sub>22</sub>H<sub>38</sub>



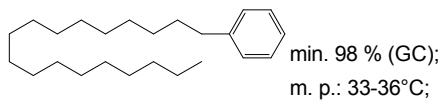
---

### n-Octadecylbenzene

**ST03174**

4445-07-2

C<sub>24</sub>H<sub>42</sub>



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

139

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLPHENYLBORONIC ACIDS

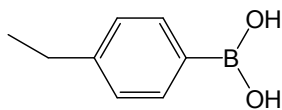
---

(4-Ethylphenyl)boronic acid

**ST03851**

63139-21-9

C<sub>8</sub>H<sub>11</sub>BO<sub>2</sub>



1H-NMR conforms;

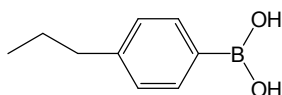
---

(4-n-Propylphenyl)boronic acid

**ST03852**

134150-01-9

C<sub>9</sub>H<sub>13</sub>BO<sub>2</sub>



1H-NMR conforms;

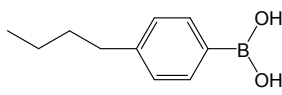
---

(4-n-Butylphenyl)boronic acid

**ST03853**

145240-28-4

C<sub>10</sub>H<sub>15</sub>BO<sub>2</sub>



1H-NMR conforms;  
m. p.: 91-97°C;

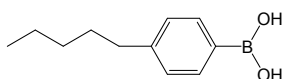
---

(4-n-Pentylphenyl)boronic acid

**ST03854**

121219-12-3

C<sub>11</sub>H<sub>17</sub>BO<sub>2</sub>



min. 98 % (HPLC); 1 H-NMR conforms;

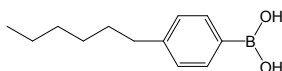
---

(4-n-Hexylphenyl)boronic acid

**ST03855**

105365-50-2

C<sub>12</sub>H<sub>19</sub>BO<sub>2</sub>



min. 98 % (HPLC); 1 H-NMR conforms;

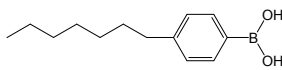
---

(4-n-Heptylphenyl)boronic acid

**ST03856**

256383-44-5

C<sub>13</sub>H<sub>21</sub>BO<sub>2</sub>



1H-NMR conforms;

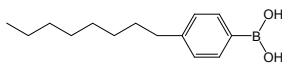
---

(4-n-Octylphenyl)boronic acid

**ST03857**

133997-05-4

C<sub>14</sub>H<sub>23</sub>BO<sub>2</sub>



min. 98 % (HPLC); 1 H-NMR conforms;



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYPHENYLBORONIC ACIDS

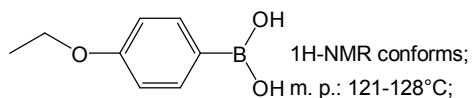
---

### (4-n-Ethoxyphenyl)boronic acid

**ST03858**

22237-13-4

C8H11BO3



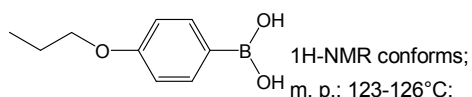
---

### (4-n-Propoxyphenyl)boronic acid

**ST03859**

186497-67-6

C9H13BO3



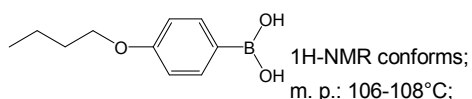
---

### (4-n-Butoxyphenyl)boronic acid

**ST03860**

105365-51-3

C10H15BO3



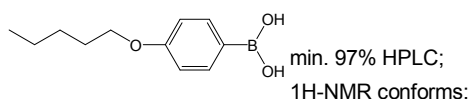
---

### (4-n-Pentyloxyphenyl)boronic acid

**ST03861**

146449-90-3

C11H17BO3



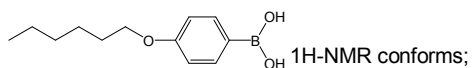
---

### (4-n-Hexyloxyphenyl)boronic acid

**ST03862**

121219-08-7

C12H19BO3



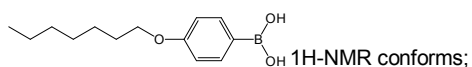
---

### (4-n-Heptyloxyphenyl)boronic acid

**ST03863**

136370-19-9

C13H21BO3



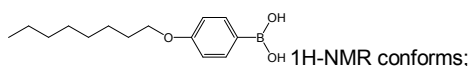
---

### (4-n-Octyloxyphenyl)boronic acid

**ST03864**

121554-09-4

C14H23BO3



---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-ACETOPHENONES

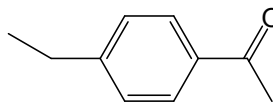
---

### 4'-Ethylacetophenone

**ST01516**

937-30-4

C<sub>10</sub>H<sub>12</sub>O



1-(4-Ethylphenyl)ethanone  
min. 98 % (GC);

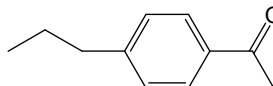
---

### 4'-n-Propylacetophenone

**ST01517**

2932-65-2

C<sub>11</sub>H<sub>14</sub>O



1-(4-n-Propylphenyl)ethanone  
min. 97 % (GC);

---

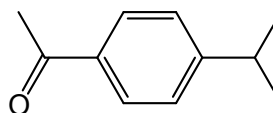
### 4'-Isopropylacetophenone

**ST06423**

645-13-6

C<sub>11</sub>H<sub>14</sub>O

**NEW**



min. 98 % (GC)

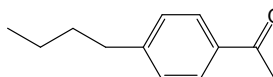
---

### 4'-n-Butylacetophenone

**ST01518**

37920-25-5

C<sub>12</sub>H<sub>16</sub>O



1-(4-n-Butylphenyl)ethanone  
min. 98 % (GC);

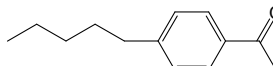
---

### 4'-n-Pentylacetophenone

**ST01519**

37593-02-5

C<sub>13</sub>H<sub>18</sub>O



1-(4-n-Pentylphenyl)ethanone  
min. 98 % (GC);

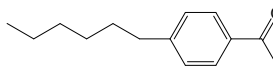
---

### 4'-n-Hexylacetophenone

**ST01520**

37592-72-6

C<sub>14</sub>H<sub>20</sub>O



1-(4-n-Hexylphenyl)ethanone  
min. 98 % (GC);

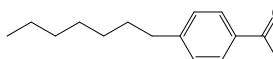
---

### 4'-n-Heptylacetophenone

**ST01521**

37593-03-6

C<sub>15</sub>H<sub>22</sub>O



1-(4-n-Heptylphenyl)ethanone  
min. 98 % (GC);

---

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-ACETOPHENONES

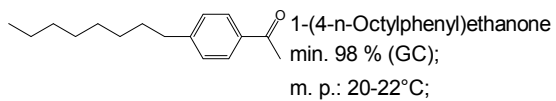
---

4'-n-Octylacetophenone

**ST01522**

10541-56-7

C<sub>16</sub>H<sub>24</sub>O



**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

143

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-PHENYLACETYLENES

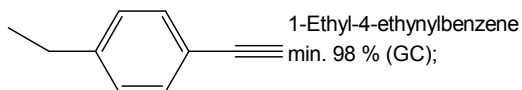
---

### 4-Ethylphenylacetylene

**ST01596**

40307-11-7

C10H10



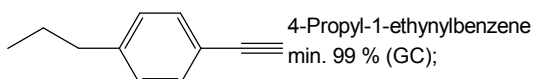
---

### 4-n-Propylphenylacetylene

**ST01416**

62452-73-7

C11H12



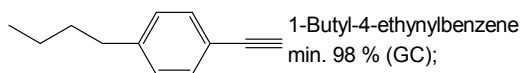
---

### 4-n-Butylphenylacetylene

**ST04650**

79887-09-5

C12H14



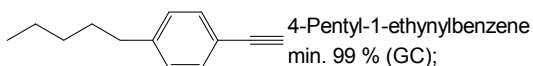
---

### 4-n-Pentylphenylacetylene

**ST01417**

79887-10-8

C13H16



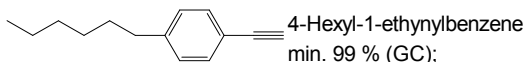
---

### 4-n-Hexylphenylacetylene

**ST03262**

79887-11-9

C14H18



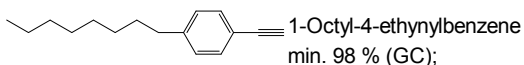
---

### 4-n-Octylphenylacetylene

**ST04537**

79887-13-1

C16H22



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBROMOBENZENES

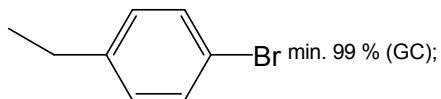
---

### 1-Bromo-4-ethylbenzene

**ST01281**

1585-07-5

C<sub>8</sub>H<sub>9</sub>Br



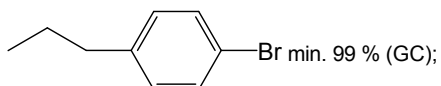
---

### 1-Bromo-4-n-propylbenzene

**ST01282**

588-93-2

C<sub>9</sub>H<sub>11</sub>Br



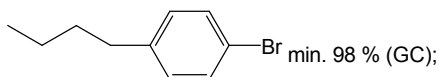
---

### 1-Bromo-4-n-butylbenzene

**ST01283**

41492-05-1

C<sub>10</sub>H<sub>13</sub>Br



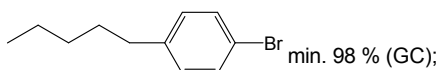
---

### 1-Bromo-4-n-pentylbenzene

**ST01284**

51554-95-1

C<sub>11</sub>H<sub>15</sub>Br



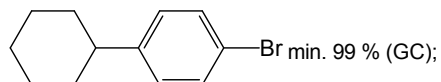
---

### 1-Bromo-4-cyclohexylbenzene

**ST04414**

25109-28-8

C<sub>12</sub>H<sub>15</sub>Br



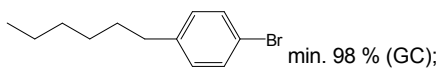
---

### 1-Bromo-4-n-hexylbenzene

**ST01285**

23703-22-2

C<sub>12</sub>H<sub>17</sub>Br



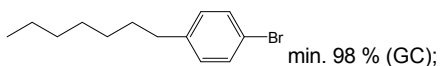
---

### 1-Bromo-4-n-heptylbenzene

**ST01286**

76287-49-5

C<sub>13</sub>H<sub>19</sub>Br



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

145

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBROMOBENZENES

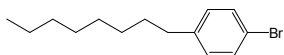
---

1-Bromo-4-n-octylbenzene

**ST01287**

51554-93-9

C<sub>14</sub>H<sub>21</sub>Br



min. 98 % (GC);

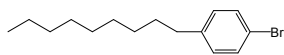
---

1-Bromo-4-n-nonylbenzene

**ST04294**

51554-94-0

C<sub>15</sub>H<sub>23</sub>Br



min. 98 % (GC);

---

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBROMOBENZENES

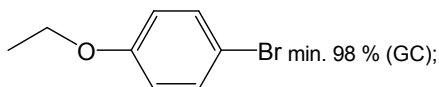
---

### 1-Bromo-4-ethoxybenzene

**ST01274**

588-96-5

C<sub>8</sub>H<sub>9</sub>BrO



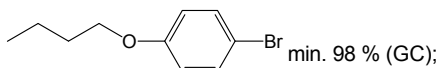
---

### 1-Bromo-4-n-butyloxybenzene

**ST01276**

39969-57-8

C<sub>10</sub>H<sub>13</sub>BrO



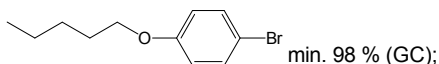
---

### 1-Bromo-4-n-pentyloxybenzene

**ST01277**

30752-18-2

C<sub>11</sub>H<sub>15</sub>BrO



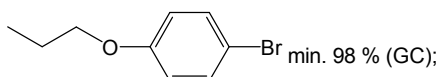
---

### 1-Bromo-4-n-propyloxybenzene

**ST01275**

39969-56-7

C<sub>9</sub>H<sub>11</sub>BrO



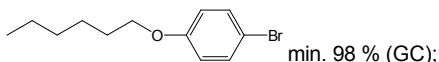
---

### 1-Bromo-4-n-hexyloxybenzene

**ST01278**

30752-19-3

C<sub>12</sub>H<sub>17</sub>BrO



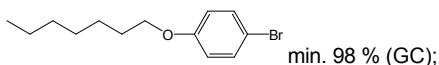
---

### 1-Bromo-4-n-heptyloxybenzene

**ST01279**

123732-04-7

C<sub>13</sub>H<sub>19</sub>BrO



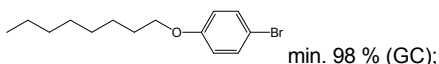
---

### 1-Bromo-4-n-octyloxybenzene

**ST01280**

96693-05-9

C<sub>14</sub>H<sub>21</sub>BrO



---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

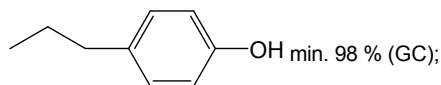
## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL- AND 4-CYANOPHENOLS

### 4-n-Propylphenol

**ST00444**

645-56-7

C<sub>9</sub>H<sub>12</sub>O

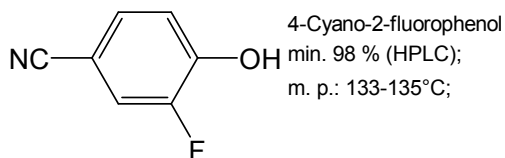


### 3-Fluoro-4-hydroxybenzonitrile

**ST00732**

405-04-9

C<sub>7</sub>H<sub>4</sub>FNO

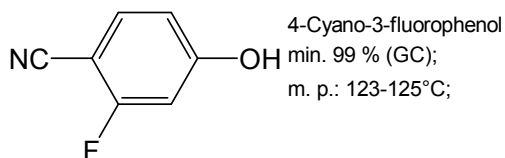


### 2-Fluoro-4-hydroxybenzonitrile

**ST00733**

82380-18-5

C<sub>7</sub>H<sub>4</sub>FNO

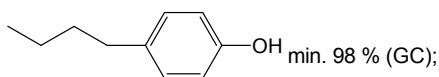


### 4-n-Butylphenol

**ST00445**

1638-22-8

C<sub>10</sub>H<sub>14</sub>O

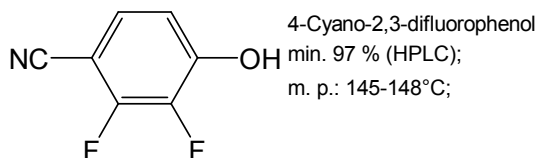


### 2,3-Difluoro-4-hydroxybenzonitrile

**ST00734**

126162-38-7

C<sub>7</sub>H<sub>3</sub>F<sub>2</sub>NO

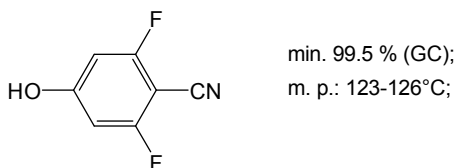


### 2,6-Difluoro-4-hydroxybenzonitrile

**ST02863**

123843-57-2

C<sub>7</sub>H<sub>3</sub>F<sub>2</sub>NO

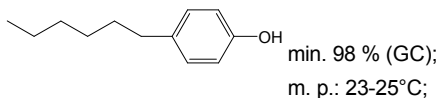


### 4-n-Pentylphenol

**ST00446**

14938-35-3

C<sub>11</sub>H<sub>16</sub>O





## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL- AND 4-CYANOPHENOLS

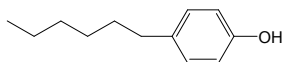
---

### 4-n-Hexylphenol

**ST00447**

2446-69-7

C12H18O



min. 98 % (GC);

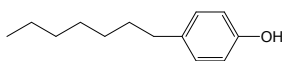
---

### 4-n-Heptylphenol

**ST00448**

1987-50-4

C13H20O



min. 98 % (GC);

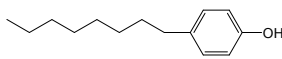
---

### 4-n-Octylphenol

**ST00449**

1806-26-4

C14H22O



min. 98 % (GC);

m.p.: 43-45 °C

liquid crystal intermediate;

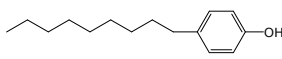
---

### 4-n-Nonylphenol

**ST01067**

104-40-5

C15H24O



min. 99 % (GC);

m. p.: 43-44°C;

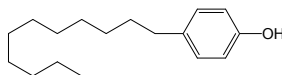
---

### 4-Undecylphenol

**ST06237**

20056-73-9

C17H28O



min. 98 % (GC);

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

149

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYPHENOLS

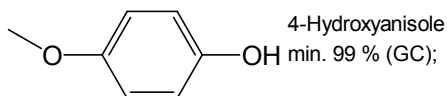
---

### 4-Methoxyphenol

**ST01293**

150-76-5

C<sub>7</sub>H<sub>8</sub>O<sub>2</sub>



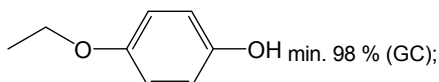
---

### 4-Ethoxyphenol

**ST00436**

622-62-8

C<sub>8</sub>H<sub>10</sub>O<sub>2</sub>



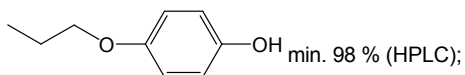
---

### 4-n-Propyloxyphenol

**ST00437**

18979-50-5

C<sub>9</sub>H<sub>12</sub>O<sub>2</sub>



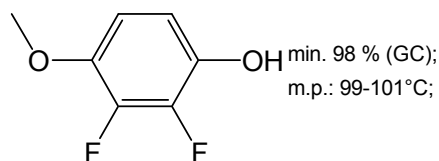
---

### 2,3-Difluoro-4-methoxyphenol

**ST03659**

261763-29-5

C<sub>7</sub>H<sub>6</sub>F<sub>2</sub>O<sub>2</sub>



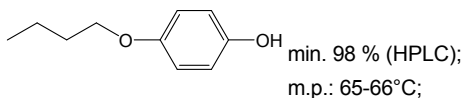
---

### 4-n-Butyloxyphenol

**ST00438**

122-94-1

C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>



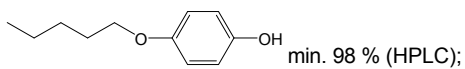
---

### 4-n-Pentyloxyphenol

**ST00439**

18975-53-8

C<sub>11</sub>H<sub>16</sub>O<sub>2</sub>



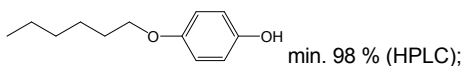
---

### 4-n-Hexyloxyphenol

**ST00440**

18979-55-0

C<sub>12</sub>H<sub>18</sub>O<sub>2</sub>



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYPHENOLS

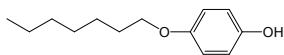
---

### 4-Heptyloxyphenol

**ST00441**

13037-86-0

C<sub>13</sub>H<sub>20</sub>O<sub>2</sub>



min. 98 % (HPLC);

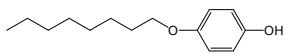
---

### 4-n-Octyloxyphenol

**ST00442**

3780-50-5

C<sub>14</sub>H<sub>22</sub>O<sub>2</sub>



min. 98 % (HPLC);

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

151

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZONITRILES

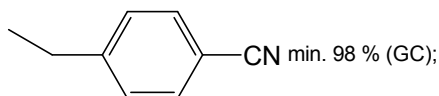
---

### 4-Ethylbenzonitrile

**ST00429**

25309-65-3

C<sub>9</sub>H<sub>9</sub>N



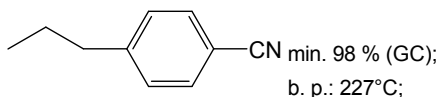
---

### 4-n-Propylbenzonitrile

**ST00430**

60484-66-4

C<sub>10</sub>H<sub>11</sub>N



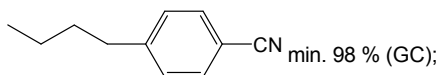
---

### 4-n-Butylbenzonitrile

**ST00431**

20651-73-4

C<sub>11</sub>H<sub>13</sub>N



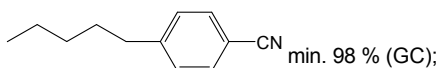
---

### 4-n-Pentylbenzonitrile

**ST00432**

10270-29-8

C<sub>12</sub>H<sub>15</sub>N



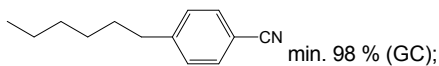
---

### 4-n-Hexylbenzonitrile

**ST00433**

29147-95-3

C<sub>13</sub>H<sub>17</sub>N



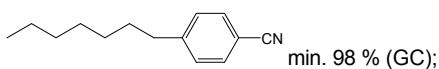
---

### 4-n-Heptylbenzonitrile

**ST00434**

60484-67-5

C<sub>14</sub>H<sub>19</sub>N



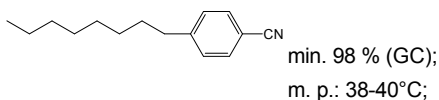
---

### 4-n-Octylbenzonitrile

**ST00435**

60484-68-6

C<sub>15</sub>H<sub>21</sub>N



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZONITRILES

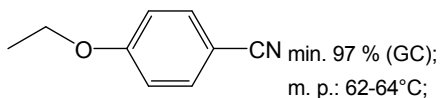
---

### 4-Ethoxybenzonitrile

**ST00422**

25117-74-2

C<sub>9</sub>H<sub>9</sub>NO



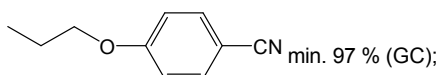
---

### 4-n-Propyloxybenzonitrile

**ST00423**

60758-84-1

C<sub>10</sub>H<sub>11</sub>NO



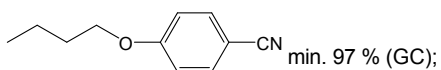
---

### 4-n-Butyloxybenzonitrile

**ST00424**

5203-14-5

C<sub>11</sub>H<sub>13</sub>NO



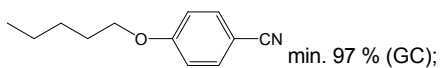
---

### 4-n-Pentyloxybenzonitrile

**ST00425**

120893-63-2

C<sub>12</sub>H<sub>15</sub>NO



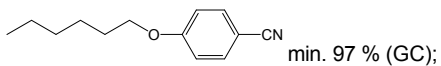
---

### 4-n-Hexyloxybenzonitrile

**ST00426**

66052-06-0

C<sub>13</sub>H<sub>17</sub>NO



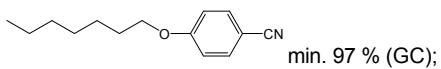
---

### 4-n-Heptyloxybenzonitrile

**ST00427**

29147-88-4

C<sub>14</sub>H<sub>19</sub>NO



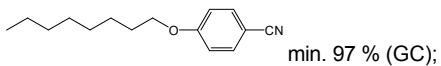
---

### 4-n-Octyloxybenzonitrile

**ST00428**

88374-55-4

C<sub>15</sub>H<sub>21</sub>NO



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

153

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZOYL CHLORIDES

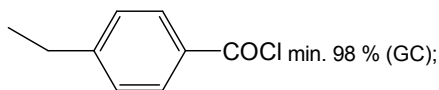
---

### 4-Ethylbenzoyl chloride

**ST00415**

16331-45-6

C<sub>9</sub>H<sub>9</sub>ClO



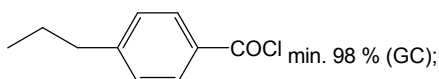
---

### 4-n-Propylbenzoyl chloride

**ST00416**

52710-27-7

C<sub>10</sub>H<sub>11</sub>ClO



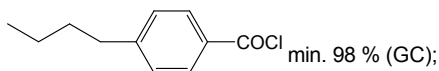
---

### 4-n-Butylbenzoyl chloride

**ST00417**

28788-62-7

C<sub>11</sub>H<sub>13</sub>ClO



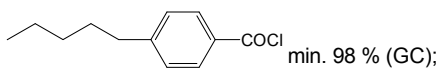
---

### 4-n-Pentylbenzoyl chloride

**ST00418**

49763-65-7

C<sub>12</sub>H<sub>15</sub>ClO



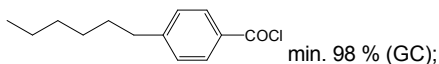
---

### 4-n-Hexylbenzoyl chloride

**ST00419**

50606-95-6

C<sub>13</sub>H<sub>17</sub>ClO



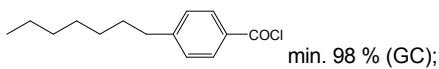
---

### 4-n-Heptylbenzoyl chloride

**ST00420**

50606-96-7

C<sub>14</sub>H<sub>19</sub>ClO



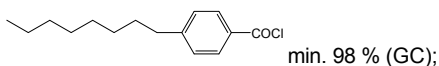
---

### 4-n-Octylbenzoyl chloride

**ST00421**

50606-97-8

C<sub>15</sub>H<sub>21</sub>ClO



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZOYL CHLORIDES

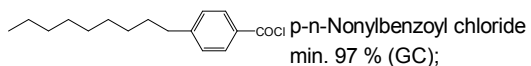
---

4-n-Nonylbenzoyl chloride

**ST00916**

54963-70-1

C<sub>16</sub>H<sub>23</sub>ClO



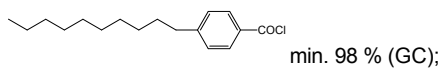
---

4-n-Decylbenzoyl chloride

**ST01392**

54256-43-8

C<sub>17</sub>H<sub>25</sub>ClO



**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

155

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZOYL CHLORIDES

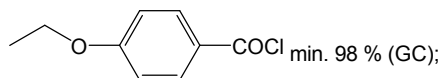
---

### 4-Ethoxybenzoyl chloride

**ST00408**

16331-46-7

C<sub>9</sub>H<sub>9</sub>ClO<sub>2</sub>



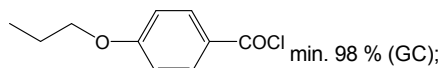
---

### 4-Propoxybenzoyl chloride

**ST00409**

40782-58-9

C<sub>10</sub>H<sub>11</sub>ClO<sub>2</sub>



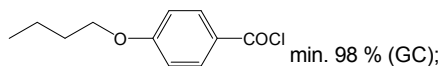
---

### 4-n-Butyloxybenzoyl chloride

**ST00410**

33863-86-4

C<sub>11</sub>H<sub>13</sub>ClO<sub>2</sub>



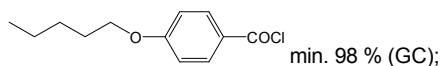
---

### 4-n-Pentyloxybenzoyl chloride

**ST00411**

36823-84-4

C<sub>12</sub>H<sub>15</sub>ClO<sub>2</sub>



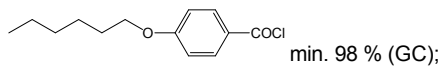
---

### 4-n-Hexyloxybenzoyl chloride

**ST00412**

39649-71-3

C<sub>13</sub>H<sub>17</sub>ClO<sub>2</sub>



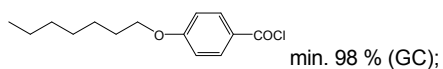
---

### 4-n-Heptyloxybenzoyl chloride

**ST00413**

40782-54-5

C<sub>14</sub>H<sub>19</sub>ClO<sub>2</sub>



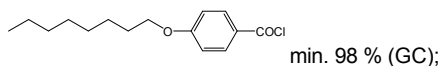
---

### 4-n-Octyloxybenzoyl chloride

**ST00414**

40782-53-4

C<sub>15</sub>H<sub>21</sub>ClO<sub>2</sub>





## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZOIC ACIDS

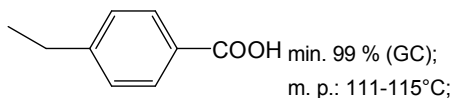
---

### 4-Ethylbenzoic acid

**ST00401**

619-64-7

C9H10O2



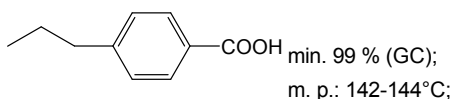
---

### 4-n-Propylbenzoic acid

**ST00402**

2438-05-3

C10H12O2



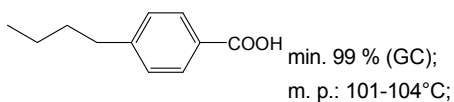
---

### 4-n-Butylbenzoic acid

**ST00403**

20651-71-2

C11H14O2



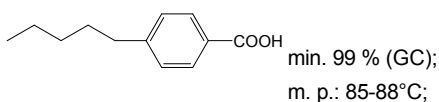
---

### 4-n-Pentylbenzoic acid

**ST00404**

26311-45-5

C12H16O2



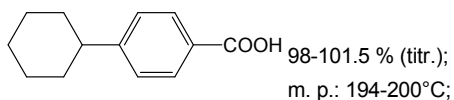
---

### 4-Cyclohexylbenzoic acid

**ST01897**

20029-52-1

C13H16O2



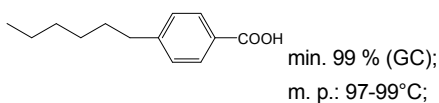
---

### 4-n-Hexylbenzoic acid

**ST00405**

21643-38-9

C13H18O2



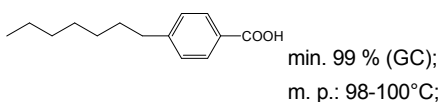
---

### 4-n-Heptylbenzoic acid

**ST00406**

38350-87-7

C14H20O2



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

157

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZOIC ACIDS

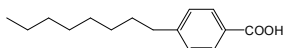
---

### 4-n-Octylbenzoic acid

**ST00407**

3575-31-3

C15H22O2



min. 98 % (GC);

m. p.: 93-96°C;

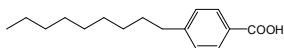
---

### 4-n-Nonylbenzoic acid

**ST01296**

38289-46-2

C16H24O2



min. 99 % (GC);

mesophase behaviour: Cr 97.5 N 115-115.5 I;

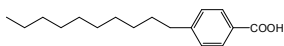
---

### 4-n-Decylbenzoic acid

**ST01391**

38300-04-8

C17H26O2



min. 99 % (GC);

mesophase behaviour: Cr 94 N 109.5 I;

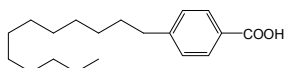
---

### 4-Dodecylbenzoic acid

**ST05371**

21021-55-6

C19H30O2



min. 98 % (GC);

mesophase behaviour: Cr 95 Sm 99 N 107.5 N;

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKENYLBENZOIC ACIDS

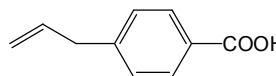
---

### 4-Allylbenzoic acid

**ST05882**

1076-99-9

C10H10O2



<sup>1</sup>H-NMR conforms;  
m. p.: 101-103°C;

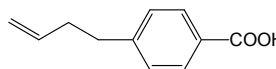
---

### 4-(But-3-enyl)benzoic acid

**ST05883**

15451-35-1

C11H12O2



<sup>1</sup>H-NMR conforms;  
m. p.: 118-120°C;

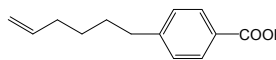
---

### 4-(Hex-5-enyl)benzoic acid

**ST05884**

134831-52-0

C13H16O2



min. 99 % (HPLC); <sup>1</sup>H-NMR conforms;  
m. p.: 119-121°C;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

159

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZOIC ACIDS

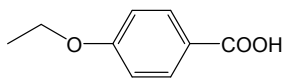
---

### 4-Ethoxybenzoic acid

**ST00394**

619-86-3

C9H10O3



min. 99 % (GC);  
m. p.: 197-201°C;

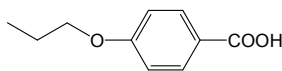
---

### 4-n-Propyloxybenzoic acid

**ST00395**

5438-19-7

C10H12O3



min. 98 % (GC);  
m. p.: 145-147°C;

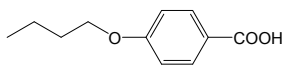
---

### 4-n-Butyloxybenzoic acid

**ST00396**

1498-96-0

C11H14O3



min. 98 % (HPLC);  
m. p.: 147-150°C;

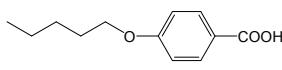
---

### 4-n-Pentyloxybenzoic acid

**ST00397**

15872-41-0

C12H16O3



min. 99 % (HPLC);  
m. p.: 126-128°C;

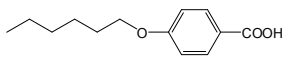
---

### 4-n-Hexyloxybenzoic acid

**ST00398**

1142-39-8

C13H18O3



min. 99 % (HPLC);  
m. p.: 105-107°C;

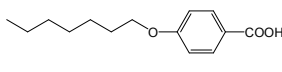
---

### 4-n-Heptyloxybenzoic acid

**ST00399**

15872-42-1

C14H20O3



min. 99 % (HPLC);  
m. p.: 91-93°C;

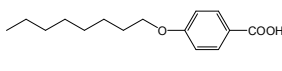
---

### 4-n-Octyloxybenzoic acid

**ST00400**

2493-84-7

C15H22O3



min. 99 % (HPLC);  
m. p.: 99-101°C;

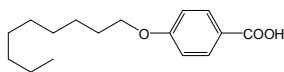
---

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZOIC ACIDS

---

p- Nonyloxybenzoic acid

**ST06194**



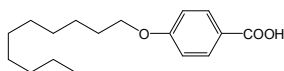
min. 98 % (GC);

C16H24O3

---

p- Decyloxybenzoic acid

**ST06196**



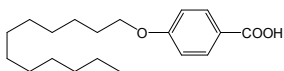
min. 98 % (GC);

C17H26O3

---

4-n-Dodecyloxybenzoic acid

**ST03433**



min. 98 % (GC);

mesophase behaviour: Cr 95 S 129 N 137 I;

2312-15-4

C19H30O3

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

161

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKENYLOXYBENZOIC ACIDS

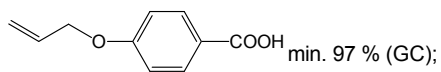
---

### 4-Allyloxybenzoic acid

**ST06022**

27914-60-9

C<sub>10</sub>H<sub>10</sub>O<sub>3</sub>



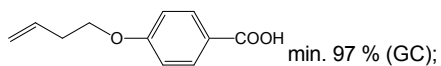
---

### 4-(3-Butenyloxy)benzoic acid

**ST06023**

115595-27-2

C<sub>11</sub>H<sub>12</sub>O<sub>3</sub>



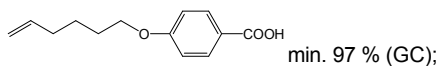
---

### 4-(5-Hexenyloxy)benzoic acid

**ST06024**

115595-28-3

C<sub>13</sub>H<sub>16</sub>O<sub>3</sub>



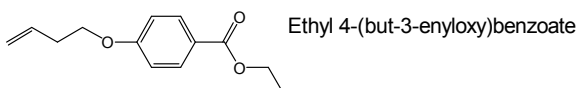
---

### 4-But-3-enyloxy-benzoic acid ethyl ester

**ST06275**

89091-82-7

C<sub>13</sub>H<sub>16</sub>O<sub>3</sub>



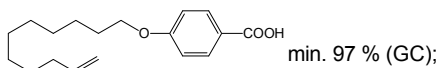
---

### 4-(10-undecylenoxy)benzoic acid

**ST06025**

59100-95-7

C<sub>18</sub>H<sub>26</sub>O<sub>3</sub>



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBENZALDEHYDES

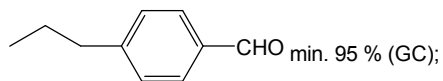
---

### 4-n-Propylbenzaldehyde

**ST00388**

28785-06-0

C10H12O



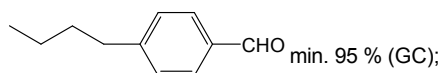
---

### 4-n-Butylbenzaldehyde

**ST00389**

1200-14-2

C11H14O



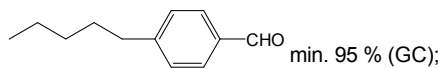
---

### 4-n-Pentylbenzaldehyde

**ST00390**

6853-57-2

C12H16O



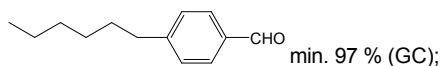
---

### 4-n-Hexylbenzaldehyde

**ST00391**

49763-69-1

C13H18O



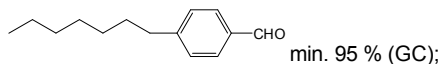
---

### 4-n-Heptylbenzaldehyde

**ST00392**

49763-67-9

C14H20O



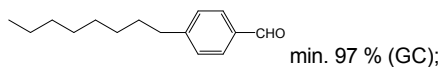
---

### 4-n-Octylbenzaldehyde

**ST00393**

49763-66-8

C15H22O



---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

163

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZALDEHYDES

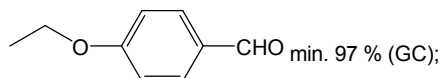
---

### 4-Ethoxybenzaldehyde

**ST03294**

19931-82-0

C<sub>9</sub>H<sub>10</sub>O<sub>2</sub>



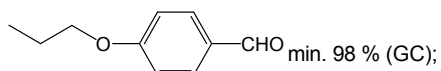
---

### 4-n-Propyloxybenzaldehyde

**ST00382**

5736-85-6

C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>



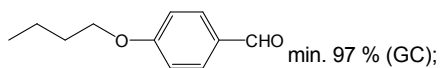
---

### 4-n-Butyloxybenzaldehyde

**ST00383**

5736-88-9

C<sub>11</sub>H<sub>14</sub>O<sub>2</sub>



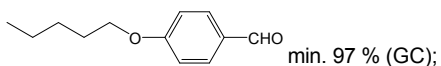
---

### 4-n-Pentyloxybenzaldehyde

**ST00384**

5736-91-4

C<sub>12</sub>H<sub>16</sub>O<sub>2</sub>



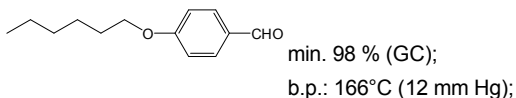
---

### 4-n-Hexyloxybenzaldehyde

**ST00385**

5736-94-7

C<sub>13</sub>H<sub>18</sub>O<sub>2</sub>



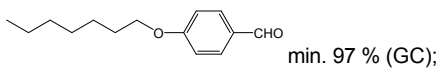
---

### 4-n-Heptyloxybenzaldehyde

**ST00386**

27893-41-0

C<sub>14</sub>H<sub>20</sub>O<sub>2</sub>



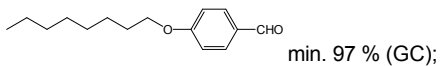
---

### 4-n-Octyloxybenzaldehyde

**ST00387**

24083-13-4

C<sub>15</sub>H<sub>22</sub>O<sub>2</sub>





## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBENZALDEHYDES

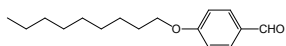
---

### 4-n-Nonyloxybenzaldehyde

**ST03599**

50262-46-9

C16H24O2



min. 98 % (GC);

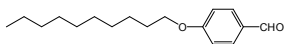
---

### 4-n-Decyloxybenzaldehyde

**ST02581**

24083-16-7

C17H26O2



min. 98 % (GC);

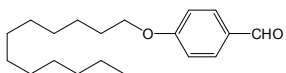
---

### 4-n-Dodecyloxybenzaldehyde

**ST01023**

24083-19-0

C19H30O2



min. 98 % (GC);

m. p.: 26-29°C;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

165

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBIPHENYL CARBOXYLIC ACIDS

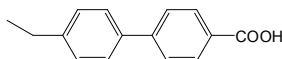
---

### 4-Ethylbiphenyl-4'-carboxylic acid

**ST00471**

5731-13-5

C15H14O2



min. 98 % (HPLC);

m. p.: 246-250°C;

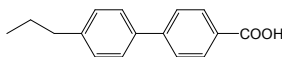
---

### 4-n-Propylbiphenyl-4'-carboxylic acid

**ST00472**

88038-94-2

C16H16O2



min. 98 % (HPLC);

mesophase behaviour: Cr1 156 Cr2 170 Cr3 214 Cr4 226 N 278;

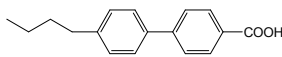
---

### 4-n-Butylbiphenyl-4'-carboxylic acid

**ST00473**

59662-46-3

C17H18O2



min. 98 % (HPLC);

m. p.: 198-200°C;

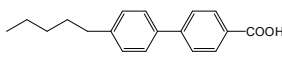
---

### 4-n-Pentylbiphenyl-4'-carboxylic acid

**ST00474**

59662-47-4

C18H20O2



min. 98 % (HPLC);

m. p.: 177-179°C;

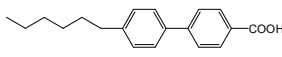
---

### 4-Hexylbiphenyl-4'-carboxylic acid

**ST00475**

59662-48-5

C19H22O2



min. 98 % (HPLC);

m. p.: 113-115°C;

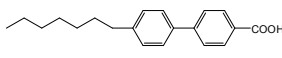
---

### 4-n-Heptylbiphenyl-4'-carboxylic acid

**ST00476**

58573-94-7

C20H24O2



min. 98 % (HPLC);

mesophase behaviour: Cr1 88 Cr2 159 Sx 175 Sy 233 N 255;

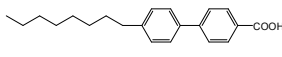
---

### 4-n-Octylbiphenyl-4'-carboxylic acid

**ST00477**

59662-49-6

C21H26O2



min. 98 % (HPLC);

mesophase behaviour: Cr 150 Sx 238 N 249 I;

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBIPHENYL CARBOXYLIC ACIDS

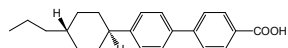
---

4'-(4-trans-Propylcyclohexyl)biphenyl-4-carboxylic acid

**ST05177**

101241-31-0

C22H26O2



min. 97 % (HPLC);

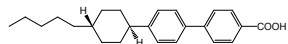
---

4'-(4-trans-Pentylcyclohexyl)biphenyl-4-carboxylic acid

**ST05176**

68065-89-4

C24H30O2



min. 97 % (HPLC);

mesophase behaviour: Cr 278 Sx 346 I;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

167

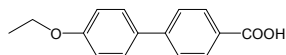
**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBIPHENYL CARBOXYLIC ACIDS

---

### 4-n-Ethoxybiphenyl-4'-carboxylic acid

**ST00464**



729-18-0

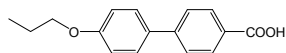
min. 98 % (HPLC);

C15H14O3

---

### 4-n-Propyloxybiphenyl-4'-carboxylic acid

**ST00465**



59748-13-9

min. 98 % (HPLC);

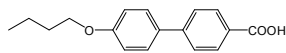
m. p.: 257-260°C;

C16H16O3

---

### 4-n-Butyloxybiphenyl-4'-carboxylic acid

**ST00466**



59748-14-0

min. 98 % (HPLC);

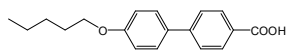
m. p.: 242-245°C;

C17H18O3

---

### 4-n-Pentyloxybiphenyl-4'-carboxylic acid

**ST00467**



59748-15-1

min. 98 % (HPLC);

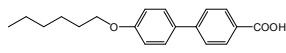
m. p.: 226-228°C;

C18H20O3

---

### 4-n-Hexyloxybiphenyl-4'-carboxylic acid

**ST00468**



59748-16-2

min. 98 % (HPLC);

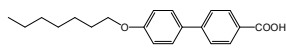
m. p.: 232-235°C;

C19H22O3

---

### 4-n-Heptyloxybiphenyl-4'-carboxylic acid

**ST00469**



59748-17-3

min. 98 % (HPLC);

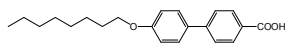
m. p.: 194-197°C;

C20H24O3

---

### 4-n-Octyloxybiphenyl-4'-carboxylic acid

**ST00470**



59748-18-4

min. 98 % (HPLC);

m. p.: 181-184°C;

C21H26O3

---

## PRECURSORS FOR LIQUID CRYSTALS: 4-(4'-ALKYLCYCLOHEXYL)BENZOIC ACIDS

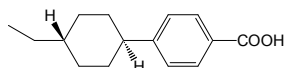
---

### 4-(trans-4-n-Ethylcyclohexyl)benzoic acid

**ST02999**

87592-41-4

C15H20O2



min. 99 % (HPLC);  
m. p.: 217-220°C;

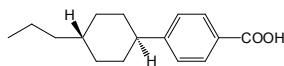
---

### 4-(4-trans-n-Propylcyclohexyl)benzoic acid

**ST02726**

65355-29-5

C16H22O2



min. 99 % (HPLC);  
m. p.: 216-219°C;

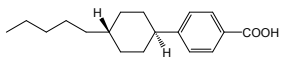
---

### trans-4-(4-n-Pentylcyclohexyl)benzoic acid

**ST02762**

65355-30-8

C18H26O2



5PCA  
min. 99.5 % (GC);  
m. p.: 178-181°C;

---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLBIPHENYL-4'-ALDEHYDES

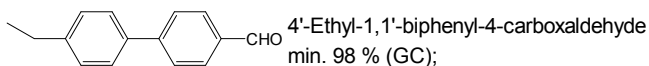
---

### 4-(4-Ethylphenyl)benzaldehyde

**ST02561**

101002-44-2

C15H14O



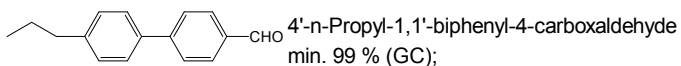
---

### 4-(4-n-Propylphenyl)benzaldehyde

**ST03846**

93972-05-5

C16H16O



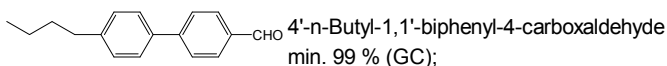
---

### 4-(4-n-Butylphenyl)benzaldehyde

**ST03847**

93972-06-6

C17H18O



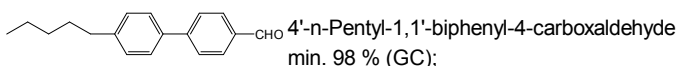
---

### 4-(4-n-Pentylphenyl)benzaldehyde

**ST03848**

56741-21-0

C18H20O



## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKOXYBIPHENYL-4'-ALDEHYDES

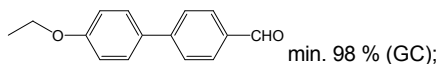
---

### 4'-Ethoxybiphenyl-4-carbaldehyde

**ST04584**

251320-77-1

C15H14O2



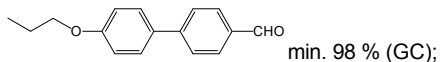
---

### 4'-Propoxybiphenyl-4-carbaldehyde

**ST04585**

1204036-33-8

C16H16O2



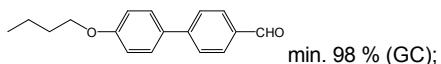
---

### 4'-Butoxybiphenyl-4-carbaldehyde

**ST04586**

75472-36-5

C17H18O2



**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

171

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-CYCLHEXANONES

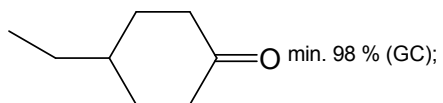
---

### 4-Ethylcyclohexanone

**ST00878**

5441-51-0

C<sub>8</sub>H<sub>14</sub>O



organic intermediate;

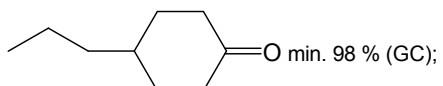
---

### 4-n-Propylcyclohexanone

**ST00879**

40649-36-3

C<sub>9</sub>H<sub>16</sub>O

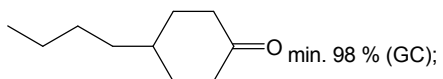


### 4-n-Butylcyclohexanone

**ST03325**

61203-82-5

C<sub>10</sub>H<sub>18</sub>O

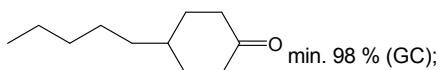


### 4-n-Pentylcyclohexanone

**ST01233**

61203-83-6

C<sub>11</sub>H<sub>20</sub>O





## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYLCYCLOHEXANOLS

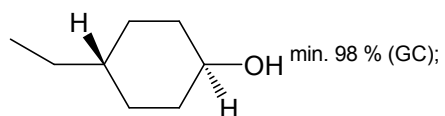
---

trans-4-Ethylcyclohexanol

**ST03949**

19781-62-5

C<sub>8</sub>H<sub>16</sub>O



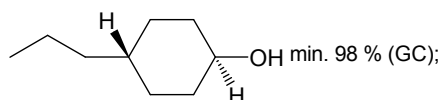
---

trans-4-n-Propylcyclohexanol

**ST03950**

77866-58-1

C<sub>9</sub>H<sub>18</sub>O



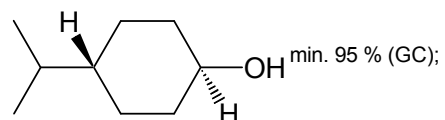
---

trans-4-iso-Propylcyclohexanol

**ST04450**

15890-36-5

C<sub>9</sub>H<sub>18</sub>O



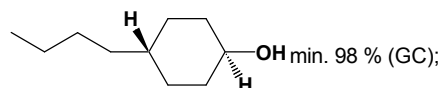
---

trans-4-n-Butylcyclohexanol

**ST03590**

67590-13-0

C<sub>10</sub>H<sub>20</sub>O



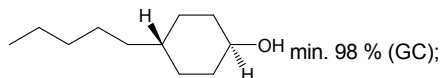
---

trans-4-n-Pentylcyclohexanol

**ST03951**

77866-59-2

C<sub>11</sub>H<sub>22</sub>O



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

173

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: HYDROQUINONES

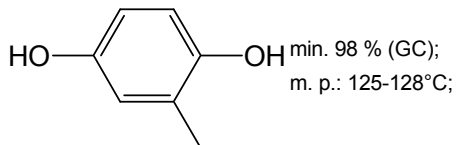
---

### Methylhydroquinone

**ST04093**

95-71-6

C<sub>7</sub>H<sub>8</sub>O<sub>2</sub>



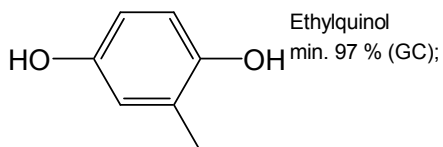
---

### 2-Ethylhydroquinone

**ST03960**

2349-70-4

C<sub>8</sub>H<sub>10</sub>O<sub>2</sub>



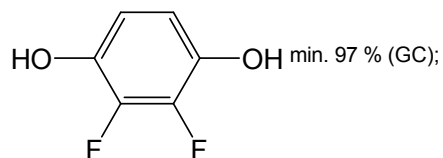
---

### 2,3-Difluorohydroquinone

**ST01718**

124728-90-1

C<sub>6</sub>H<sub>4</sub>F<sub>2</sub>O<sub>2</sub>



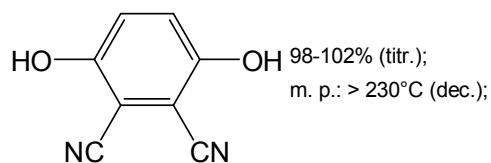
---

### 2,3-Dicyanohydroquinone

**ST01341**

4733-50-0

C<sub>8</sub>H<sub>4</sub>N<sub>2</sub>O<sub>2</sub>



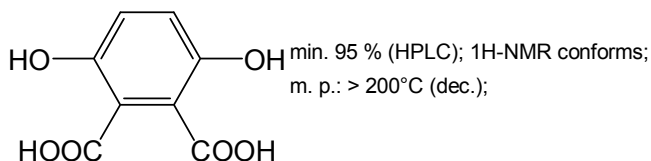
---

### 3,6-Dihydroxyphthalic acid

**ST01386**

3786-46-7

C<sub>8</sub>H<sub>6</sub>O<sub>6</sub>



## PRECURSORS FOR LIQUID CRYSTALS: 5-ALKYL-2-CHLORO-PYRIMIDINES

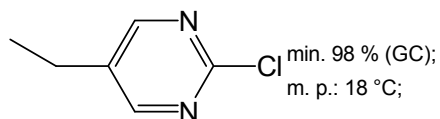
---

### 2-Chloro-5-ethylpyrimidine

**ST03825**

111196-81-7

C6H7ClN2



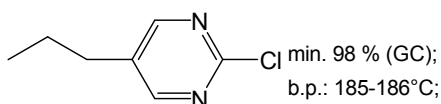
---

### 2-Chloro-5-n-propylpyrimidine

**ST00633**

219555-98-3

C7H9ClN2



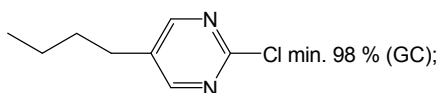
---

### 5-n-Butyl-2-chloropyrimidine

**ST01335**

847227-37-6

C8H11ClN2



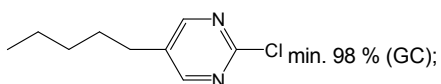
---

### 2-Chloro-5-n-pentylpyrimidine

**ST01336**

154466-62-3

C9H13ClN2



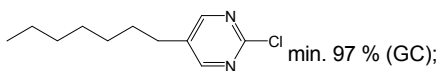
---

### 2-Chloro-5-n-heptylpyrimidine

**ST01356**

221641-56-1

C11H17ClN2



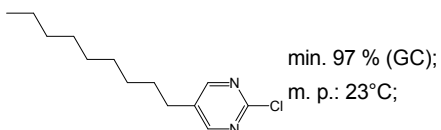
---

### 2-Chloro-5-n-nonylpyrimidine

**ST00735**

219581-06-3

C13H21ClN2



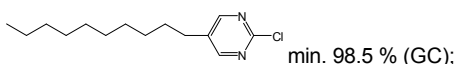
---

### 2-Chloro-5-n-decylpyrimidine

**ST01066**

170434-06-7

C14H23ClN2



---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

175

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: 4-ALKYL-4'-BROMO-1,1'-BIPHENYLS

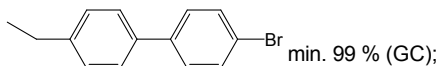
---

### 4-Bromo-4'-ethyl-1,1'-biphenyl

**ST02214**

58743-79-6

C14H13Br



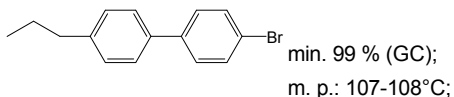
---

### 4-Bromo-4'-n-propyl-1,1'-biphenyl

**ST02215**

58743-81-0

C15H15Br



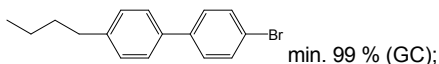
---

### 4-Bromo-4'-n-butyl-1,1'-biphenyl

**ST02216**

63619-54-5

C16H17Br



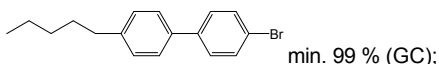
---

### 4-Bromo-4'-n-pentyl-1,1'-biphenyl

**ST02217**

63619-59-0

C17H19Br



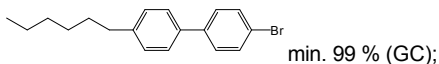
---

### 4-Bromo-4'-n-hexyl-1,1'-biphenyl

**ST02218**

63619-60-3

C18H21Br



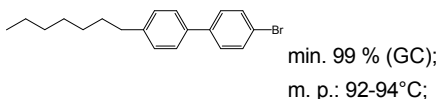
---

### 4-Bromo-4'-n-heptyl-1,1'-biphenyl

**ST02219**

58573-93-6

C19H23Br



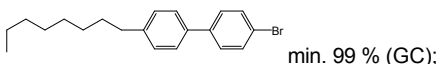
---

### 4-Bromo-4'-n-octyl-1,1'-biphenyl

**ST02220**

63619-61-4

C20H25Br



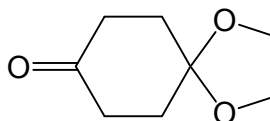
## PRECURSORS FOR LIQUID CRYSTALS: ACETALS AND KETALS

### 1,4-Cyclohexanedione monoethylene ketal

**ST01294**

4746-97-8

C8H12O3



1,4-Dioxaspiro[4,5]decan-8-one

min. 99 % (GC);

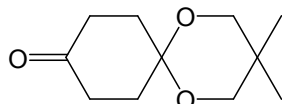
m. p.: 72-74°C; assay of water: max. 0.5 % (KF);

### 3,3-Dimethyl-1,5-dioxaspiro[5,5]undecan-9-one

**ST02259**

69225-59-8

C11H18O3



1,4-Cyclohexanedione mononeopentyl ketal

min. 99 % (GC);

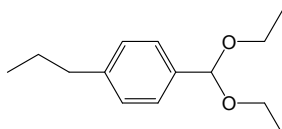
m. p.: 49-50°C;

### 4-n-Propylbenzaldehyde diethyl acetal

**ST01128**

89557-35-7

C14H22O2



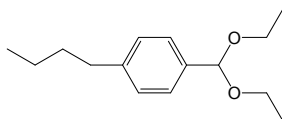
min. 97 % (GC);

### 4-n-Butylbenzaldehyde diethylacetale

**ST01333**

83803-80-9

C15H24O2



1-Butyl-4-diethoxymethylbenzene

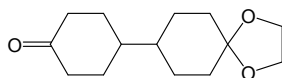
min. 95 % (GC);

### 1,1'-Bicyclohexane-4,4'-dione monoethylene ketal

**ST01967**

56309-94-5

C14H22O3



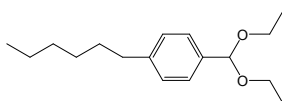
min. 99 % (GC);

### 4-n-Hexylbenzaldehyde diethyl acetal

**ST01129**

89511-01-3

C17H28O2



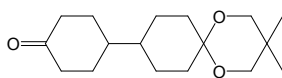
ca. 95 % (GC);

### 4-(3,3-Dimethyl-1,5-dioxaspiro[5,5]undec-9-yl)cyclohexanone

**ST01042**

221300-33-0

C17H28O3



4,4'-Dicyclohexanon mononeopentylketal

min. 97 % (GC);

m. p.: 81-86°C;

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

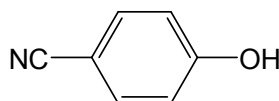
---

### 4-Hydroxybenzonitrile

**ST00632**

767-00-0

C7H5NO



4-Cyanophenol  
min. 99 % (GC);  
m. p.: 109-114°C;

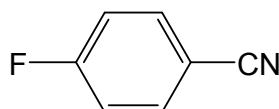
---

### 4-Fluorobenzonitrile

**ST00912**

1194-02-1

C7H4FN



min. 99 % (GC); assay of water: max. 0.1 % (KF);  
m. p.: 34-37°C;

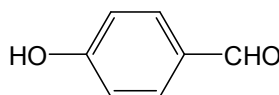
---

### 4-Hydroxybenzaldehyde

**ST01172**

123-08-0

C7H6O2



min. 99 % (GC);  
m. p.: 115-118°C;

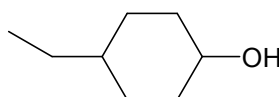
---

### 4-Ethylcyclohexanol, cis/trans-mixture

**ST02117**

4534-74-1

C8H16O



min. 99 % (GC);

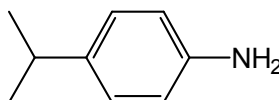
---

### 4-Isopropylaniline

**ST06302**

99-88-7

C9H13N



97% (GC)

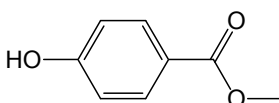
---

### Methyl 4-hydroxybenzoate

**ST02078**

99-76-3

C8H8O3



4-Hydroxybenzoic acid methyl ester  
min. 99 % (GC); 98-102 % (titr.);  
m. p.: 125-128°C;  
organic intermediate;

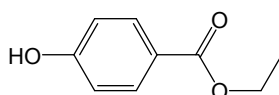
---

### Ethyl 4-hydroxybenzoate

**ST02304**

120-47-8

C9H10O3



4-Hydroxybenzoic acid ethyl ester  
min. 98 % (GC); 98-102 % (titr.);  
m. p.: 115-118°C;

## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

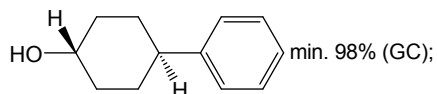
---

### trans-4-Phenylcyclohexanol

**ST03484**

5769-13-1

C12H16O



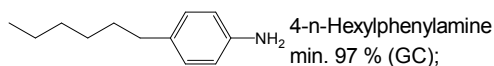
---

### 4-n-Hexylaniline

**ST01515**

33228-45-4

C12H19N



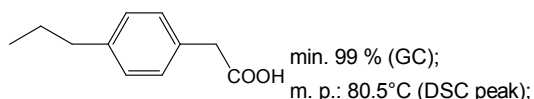
---

### (4-n-Propylphenyl)acetic acid

**ST03875**

26114-12-5

C11H14O2



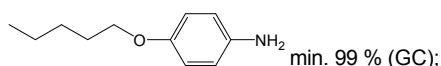
---

### 4-Pentyloxyaniline

**ST01057**

39905-50-5

C11H17NO



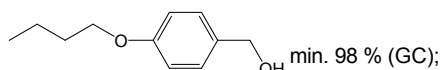
---

### 4-n-Butyloxybenzyl alcohol

**ST03832**

6214-45-5

C11H16O2



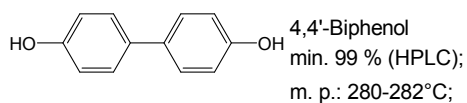
---

### 4,4'-Dihydroxybiphenyl

**ST00927**

92-88-6

C12H10O2



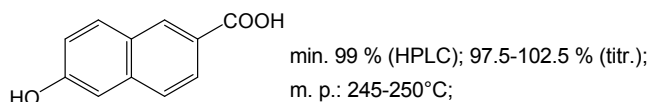
---

### 6-Hydroxy-2-naphthoic acid

**ST00887**

16712-64-4

C11H8O3



---

#### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

179

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

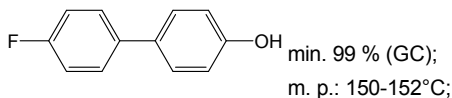
---

### 4-Fluoro-4'-hydroxybiphenyl

**ST01859**

324-94-7

C12H9FO



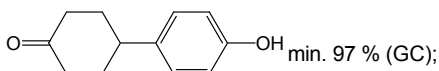
---

### 4-(4'-Hydroxyphenyl)cyclohexanone

**ST01123**

105640-07-1

C12H14O2



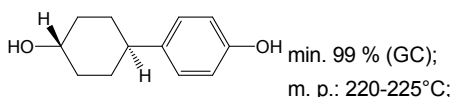
---

### 4-(trans-4'-Hydroxycyclohexyl)phenol

**ST00960**

65132-43-6

C12H16O2



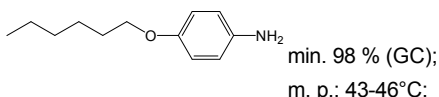
---

### 4-n-Hexyloxyaniline

**ST02119**

39905-57-2

C12H19NO



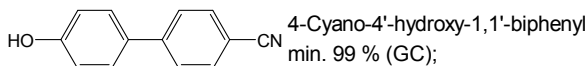
---

### 4-(4'-Hydroxyphenyl)benzotrile

**ST01100**

19812-93-2

C13H9NO



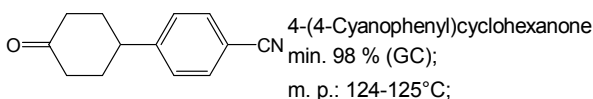
---

### 4-(4-Oxo-cyclohexyl)benzotrile

**ST03872**

73204-07-6

C13H13NO



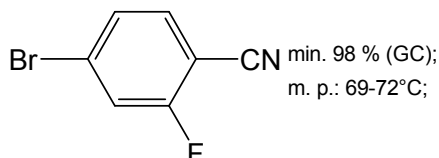
---

### 4-Bromo-2-fluorobenzonitril

**ST02659**

105942-08-3

C7H3BrFN





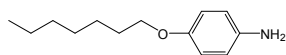
## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

### 4-n-Heptyloxyaniline

**ST03338**

39905-44-7

C13H21NO



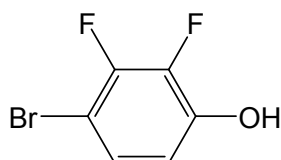
min. 98 % (GC);

### 4-Bromo-2,3-difluorophenol

**ST03464**

144292-32-0

C6H3BrF2O



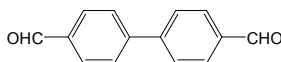
98-102 % (titr.);

### Biphenyl-4,4'-dicarboxaldehyde

**ST00973**

66-98-8

C14H10O2



4,4'-Diformylbiphenyl

min. 97 % (GC);

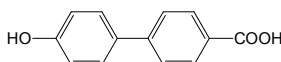
m. p.: 144-146°C;

### 4-Hydroxy-4'-biphenylcarboxylic acid

**ST00831**

58574-03-1

C13H10O3



min. 98 % (HPLC); 98.5-101.5 % ( titr.);

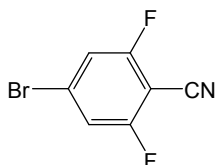
m. p.: 296-299°C;

### 4-Bromo-2,6-difluorobenzonitrile

**ST01661**

123843-67-4

C7H2BrF2N



min. 98.5 (GC);

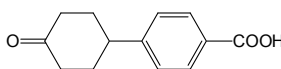
m. p.: 78-81°C;

### 4-(4-Oxocyclohexyl)benzoic acid

**ST05966**

137465-01-1

C13H14O3



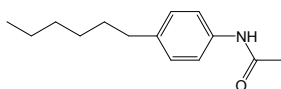
min. 98 % (HPLC);

### N-(4-n-Hexylphenyl)acetamide

**ST00811**

20330-59-0

C14H21NO



4'-n-Hexylacetanilide

min. 98 % (GC);

m. p.: 89-91°C;

### INQUIRIES and ORDERS

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

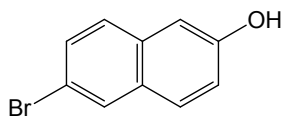
## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

### 6-Bromo-2-naphthol

**ST01224**

15231-91-1

C10H7BrO



min. 98 % (HPLC);

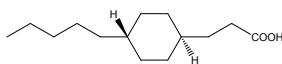
m.p.: 125-130°C;

### 3-(trans-4-n-Pentylcyclohexyl)propionic acid

**ST02921**

86446-58-4

C14H26O2



min. 97 % (GC); 97-103 (titr.);

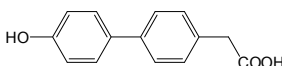
m. p.: 33-35°C;

### 4-Hydroxybiphenyl-4'-acetic acid

**ST04258**

51350-23-3

C14H12O3



p-Hydroxybiphenylacetic acid

min. 97 % (HPLC);

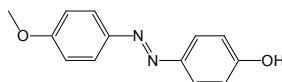
m. p.: 244-245°C;

### E-4-(4-Methoxyphenylazo)phenol

**ST05889**

2496-25-5

C13H12N2O2



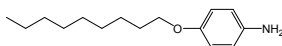
min. 97 % (HPLC);

### 4-n-Nonyloxyaniline

**ST03336**

50262-67-4

C15H25NO



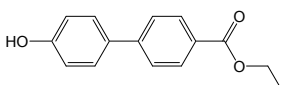
min. 98 % (GC);

### 4'-Hydroxy-4-biphenyl-4-carboxylic acid ethyl ester

**ST04189**

50670-76-3

C15H14O3



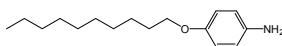
min. 97 % (GC);

### 4-n-Decyloxyaniline

**ST03337**

39905-47-0

C16H27NO



min. 98 % (GC);

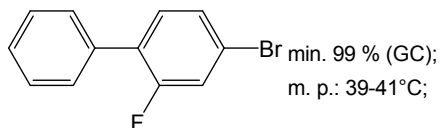
PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

4-Bromo-2-fluorobiphenyl

**ST01221**

41604-19-7

C<sub>12</sub>H<sub>8</sub>BrF

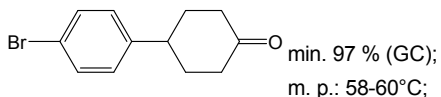


4-(4-Bromophenyl)cyclohexanone

**ST03367**

84892-43-3

C<sub>12</sub>H<sub>13</sub>BrO

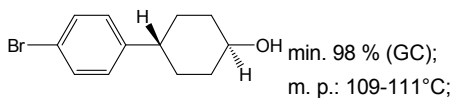


trans-4-(4-Bromophenyl)cyclohexanol

**ST03368**

84892-42-2

C<sub>12</sub>H<sub>15</sub>BrO

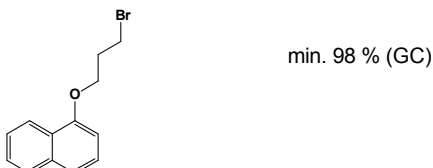


1-(3-Bromopropoxy)naphthalene

**ST06310**

3351-50-6

C<sub>13</sub>H<sub>13</sub>BrO

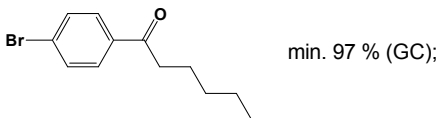


1-(4-Bromophenyl)heptan-1-one

**ST03742**

99474-02-9

C<sub>13</sub>H<sub>17</sub>BrO

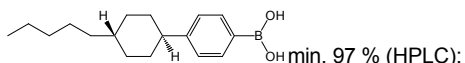


4-(trans-4-n-pentylcyclohexyl)phenylboronic acid

**ST06129**

136321-96-5

C<sub>17</sub>H<sub>27</sub>BO<sub>2</sub>

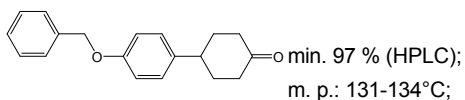


4-(4'-Benzyloxy-phenyl)cyclohexanone

**ST01251**

82240-03-7

C<sub>19</sub>H<sub>20</sub>O<sub>2</sub>



**INQUIRIES and ORDERS**

183

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

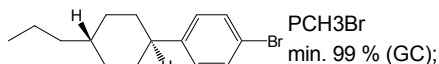
---

### 1-Bromo-4-(trans-4-n-propylcyclohexyl)benzene

**ST04120**

86579-53-5

C15H21Br



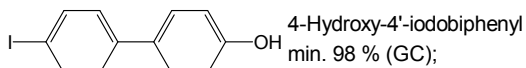
---

### 4-(4'-Iodophenyl)phenol

**ST01232**

29558-78-9

C12H9IO



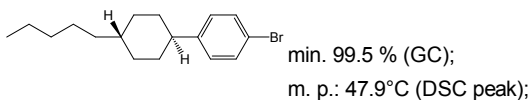
---

### 1-Bromo-4-(trans-4-n-pentylcyclohexyl)benzene

**ST03902**

79832-89-6

C17H25Br



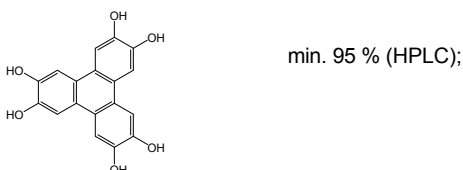
---

### 2,3,6,7,10,11-Hexahydroxytriphenylene

**ST04276**

4877-80-9

C18H12O6



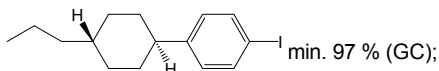
---

### 1-(trans-4-n-Propylcyclohexyl)-4-iodobenzene

**ST03444**

111158-11-3

C15H21I



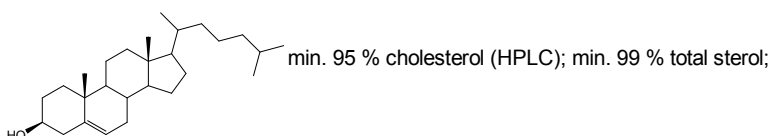
---

### Cholesterol

**ST01146**

57-88-5

C27H46O



---

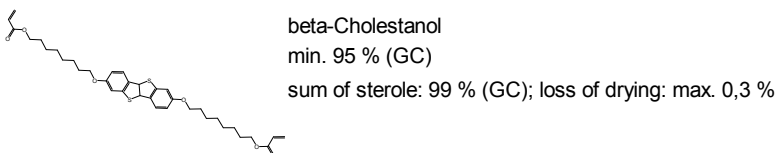
### 5 $\alpha$ -Cholestan-3 $\beta$ -ol

**ST06411**

80-97-7

C27H48O

**NEW**



---

184

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

## PRECURSORS FOR LIQUID CRYSTALS: MISCELLANEOUS

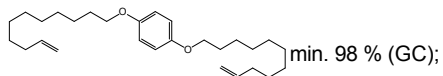
---

1,4-Bis(undec-10-enyloxy)benzene

**ST05892**

138551-10-7

C28H46O2



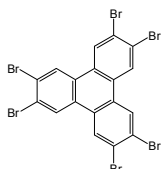
---

2,3,6,7,10,11-Hexabromotriphenylene

**ST06041**

82632-80-2

C18H6Br6



min. 97 % (HPLC);

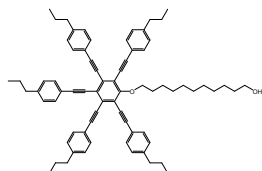
---

11-[Pentakis-(4-propylphenylethynyl)phenoxy]undecan-1-ol

**ST01605**

671197-45-8

C72H78O2



min. 97 % (HPLC);

mesophase behaviour: Cr 93 N(D) 148 I;

---

**INQUIRIES and ORDERS**

Phone: +49 (0)3494 63 69 00 - Fax: +49 (0)3494 63 69 69 - email: [synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)

185

**Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.**

### CAS No INDEX

---

100012-45-1	11	1076-99-9	159	1183-04-6	107	124246-69-1	3
100124-06-9	74	1077-16-3	138	1186524-00-4	68	124387-19-5	14
10049-96-4	11	1078-71-3	138	118996-38-6	72	124728-90-1	174
1006-99-1	41	1081-77-2	138	119001-43-3	72	124729-98-2	53
100727-07-9	69	108714-73-4	57	119217-83-3	95	124729-98-2	53
1007319-13-2	120	108826-49-9	18	1194-02-1	178	125248-71-7	121
1008-89-5	39	1092390-01-6	82	119467-18-4	91	125274-23-9	126
101002-44-2	170	1092853-38-7	124	119634-42-3	31	125337-31-7	120
1011714-83-2	120	109306-86-7	76	1196694-11-7	60	125786-59-6	104
101241-31-0	167	109565-17-5	3	1198396-29-0	57	125825-46-9	38
101-75-7	1	109738-21-8	38	1200-14-2	163	126162-38-7	148
102185-03-5	9	111068-14-5	17	120-08-1	2	126213-50-1	74
102225-55-8	109	111158-11-3	184	1204036-33-8	171	126414-52-7	60
102408-53-7	91	111196-81-7	175	120-47-8	178	126634-30-8	17
102408-54-8	92	111928-38-2	104	1205-64-7	69	126634-31-9	17
102408-55-9	92	111928-39-3	104	1207515-90-9	48	1267248-45-2	61
10270-29-8	152	1133-80-8	57	120-75-2	39	1268519-74-9	58
1028647-93-9	67	1134-35-6	85	120817-64-3	104	1268520-04-2	61
103068-20-8	79	113702-14-0	30	120893-63-2	153	1271728-13-2	34
1033000-98-4	59	113722-81-9	30	120893-64-3	97	128724-35-6	14
1033000-99-5	62	1142-39-8	160	120929-15-9	47	129-00-0	42
103-65-1	138	114767-84-9	94	121219-08-7	141	129013-83-8	76
10373-78-1	48	114932-35-3	25	121219-12-3	140	129281-14-7	104
104-40-5	149	1150-62-5	64	121554-09-4	141	129470-93-5	95
104-51-8	138	115144-35-9	31	121848-75-7	47	130166-92-6	118
104539-91-5	91	115383-22-7	84	1219821-48-3	67	13037-86-0	151
104-72-3	139	1153-85-1	63	1221238-04-5	65	130916-21-1	104
105365-50-2	140	115-40-2	22	122636-62-8	26	130953-14-9	117
105365-51-3	141	115532-50-8	20	122648-99-1	25	131222-99-6	81
10541-56-7	143	115595-27-2	162	122738-21-0	52	13161-28-9	20
105531-79-1	104	115595-28-3	162	122-94-1	150	131660-39-4	72
105640-07-1	180	115662-09-4	44	123-01-3	139	131725-16-1	48
105942-08-3	180	115704-83-1	44	123-08-0	178	131819-23-3	114
1062044-75-0	119	115970-66-6	12	123133-94-8	5	132123-39-8	114
106562-32-7	2	117344-32-8	60	123348-27-6	59	132310-86-2	134
106620-90-0	126	117392-53-7	95	123732-04-7	147	132310-87-3	134
107014-26-6	25	117433-12-2	95	123740-94-3	91	132828-01-4	89
1072109-04-6	136	1182-07-6	107	123843-57-2	148	132828-03-6	90
107396-27-0	105	1182-42-9	107	123843-67-4	181	132900-74-4	122
107559-02-4	43	1182-66-7	107	123847-85-8	51	132900-74-4	122

---

## CAS No INDEX

133058-92-1	89	1431880-70-4	126	157771-56-7	60	171408-84-7	61
133058-95-4	89	14320-04-8	37	15810-15-8	80	1714-29-0	78
133059-01-5	89	143203-04-7	126	15834-73-8	107	172616-80-7	13
133059-04-8	90	143269-59-4	8	1585-07-5	145	173888-41-9	4
133997-05-4	140	143269-96-9	11	15872-41-0	160	173991-06-5	75
134008-76-7	52	14348-75-5	58	15872-42-1	160	174063-87-7	120
134127-48-3	12	14379-00-1	41	15890-36-5	173	1748-89-6	86
134150-01-9	140	144292-32-0	181	1592-95-6	65	1762-32-9	85
134412-17-2	114	144981-85-1	58	159788-00-8	16	1762-34-1	85
134831-52-0	159	145240-28-4	140	16081-17-7	124	17754-90-4	41
135071-49-7	94	1459-09-2	139	1611-56-9	129	177839-45-1	46
135-48-8	54	1459-10-5	139	161196-25-4	84	17788-94-2	81
13558-31-1	19	146184-09-0	121	161485-60-5	51	1802-30-8	86
135656-96-1	18	146449-90-3	141	161841-12-9	125	1806-26-4	149
135-70-6	24	147-14-8	36	161841-14-1	126	181064-88-0	73
135-88-6	69	1485-92-3	30	161841-15-2	121	182507-83-1	52
136321-96-5	183	14916-87-1	37	161841-15-2	121	18511-71-2	79
136370-19-9	141	14933-76-7	46	16201-96-0	1	185690-39-5	53
136630-39-2	63	14938-35-3	148	162093-45-0	13	185690-41-9	53
137019-95-5	114	149430-73-9	103	162258-89-1	79	186046-62-8	126
13720-06-4	78	1497-49-0	45	16331-45-6	154	186259-63-2	61
1372775-52-4	71	1498-96-0	160	16331-46-7	156	18648-66-3	80
137350-66-4	6	1499-10-1	25	1638-22-8	148	186497-67-6	141
137465-01-1	181	150405-69-9	56	163831-68-3	15	1873363-34-8	67
137644-54-3	115	150408-83-6	20	1640-39-7	39	18869-30-2	80
137829-79-9	33	150-76-5	150	16433-88-8	58	189027-29-0	97
137911-28-5	73	15082-28-7	32	164590-17-4	125	189367-54-2	61
138081-45-5	7	15082-28-7	55	164724-35-0	53	18975-53-8	150
138551-10-7	185	151175-19-8	48	165550-62-9	47	18979-50-5	150
139092-78-7	56	15185-43-0	9	165660-09-3	123	18979-55-0	150
139092-78-7	56	15231-91-1	182	16567-18-3	74	19111-87-6	76
139255-17-7	51	1531588-29-0	103	1662-01-7	50	191-28-6	78
139301-16-9	49	154102-21-3	123	16650-14-9	32	192198-85-9	50
13930-88-6	37	154273-87-7	27	16712-64-4	179	19219-98-8	39
14054-87-6	28	154466-62-3	175	167771-51-9	125	19219-99-9	39
141752-82-1	52	15451-35-1	159	168206-21-1	18	193146-12-2	119
1421599-29-2	82	155306-71-1	6	168206-23-3	18	193687-61-5	10
142303-13-7	114	15570-45-3	46	168412-88-2	6	195058-84-5	117
1423-61-6	75	155911-13-0 or	15	170434-06-7	175	196881-65-9	118
142646-58-0	86	156028-26-1	47	170698-88-1	112	1970-80-5	86
1427316-53-7	67	1564-64-3	77	17135-74-9	79	197-61-5	24

## CAS No INDEX

---

19781-62-5	173	219595-74-1	9	25309-65-3	152	286438-45-7	62
19812-93-2	180	22082-99-1	78	25365-71-3	43	28705-46-6	4
19840-99-4	29	22112-78-3	37	25462-23-1	133	287179-18-4	93
1987-50-4	149	221300-33-0	177	256383-44-5	140	287182-34-7	11
198964-46-4	62	221641-56-1	175	2586-62-1	75	287183-28-2	10
198978-94-8	20	22237-13-4	141	258865-48-4	61	287185-31-3	12
19931-82-0	164	223572-88-1	122	25910-85-4	7	287194-09-6	10
200052-70-6	16	22401-74-7	64	26078-25-1	2	28785-06-0	163
20029-52-1	158	22439-61-8	77	26093-31-2	2	28788-62-7	154
20056-73-9	149	22692-80-4	109	2609-88-3	20	28903-71-1	38
2009-83-8	127	227605-57-4	92	26114-12-5	179	2907-13-3	17
20330-59-0	181	23001-29-8	30	2612-26-2	133	29147-88-4	153
2043-06-3	33	2312-15-4	161	2612-28-4	133	29147-95-3	152
20441-06-9	51	23449-08-3	82	261763-29-5	150	29261-33-4	55
2044-85-1	14	2349-70-4	174	26201-32-1	36	2932-65-2	142
204530-94-9	78	235099-48-6	34	26201-32-1	36	2941-63-1	41
2050-16-0	128	23674-20-6	45	26227-73-6	88	2941-69-7	40
2052-07-5	75	23703-22-2	145	262861-81-4	65	2946-17-0	43
205877-26-5	70	2381-21-7	23	26311-45-5	157	29558-78-9	184
206053-52-3	119	24083-13-4	164	26386-88-9	56	29743-08-6	88
20651-71-2	157	24083-16-7	165	2642-25-3	8	29743-21-3	88
20651-73-4	152	24083-19-0	165	2642-25-3	8	302554-80-9	60
20686-66-2	40	2437-29-8	22	2682-45-3	42	3073-87-8	33
207399-07-3	10	2437-29-8	22	2683-82-1	36	30752-18-2	147
2083-09-2	32	2438-05-3	157	26916-71-2	115	30752-19-3	147
21021-55-6	158	24385-24-8	107	2695-47-8	127	3096-56-8	57
210281-65-5	117	2444-68-0	74	2695-48-9	128	31395-16-1	15
2113-57-7	76	2446-69-7	149	2720-93-6	44	31396-84-6	37
214958-05-1	111	245349-46-6	124	27344-41-8	26	319906-45-1	60
2150-58-5	29	24648-13-3	55	27425-55-4	5	32046-51-8	40
215304-94-2	122	24672-76-2	33	2768-90-3	7	32151-96-5	8
21643-38-9	157	247191-70-4	117	27746-90-3	11	32228-99-2	70
216879-99-1	121	24796-94-9	34	27893-41-0	164	3236-71-3	59
218-01-9	43	2481-94-9	1	2789-89-1	80	3237-62-5	44
218272-56-1	71	2493-84-7	160	27914-60-9	162	324-94-7	180
218598-81-3	53	2496-25-5	182	27973-29-1	81	325976-65-6	125
2189-60-8	138	250593-96-5	126	28140-60-5	44	32737-33-0	46
219127-07-8	48	25109-28-8	145	28286-88-6	40	32760-80-8	48
219555-98-3	175	25117-74-2	153	28320-31-2	57	3317-67-7	36
219556-03-3	16	251320-77-1	171	28320-32-3	59	331861-94-0	47
219581-06-3	175	2523-42-4	58	283602-40-4	111	33228-45-4	179

---



## CAS No INDEX

3351-50-6	183	38350-87-7	157	4181-20-8	73	49763-64-6	96
3352-82-7	31	3842-55-5	77	41830-81-3	33	49763-65-7	154
336619-72-8	70	38444-13-2	96	4197-25-5	1	49763-66-8	163
3378-82-3	76	38454-21-6	98	4286-55-9	127	49763-67-9	163
33863-86-4	156	38454-23-8	97	42906-19-4	71	49763-69-1	163
33985-71-6	42	38454-29-4	97	43069-36-9	26	499128-71-1	72
3443-45-6	24	38454-39-6	98	4316-58-9	72	502161-03-7	63
34626-51-2	127	38465-55-3	28	43217-32-9	25	50262-46-9	165
34993-56-1	75	38586-42-4	34	435277-99-9	45	50262-67-4	182
3520-42-1	20	38690-76-5	97	4411-80-7	85	503000-67-7	129
355135-07-8	61	38690-77-6	96	4430-20-0	22	50606-95-6	154
3557-64-0	17	39649-71-3	156	4430-25-5	22	50606-96-7	154
355832-04-1	58	39905-44-7	181	4433-01-6	86	50606-97-8	154
35602-69-8	108	39905-47-0	182	444289-55-8	73	50649-44-0	98
35684-12-9	109	39905-50-5	179	4445-07-2	139	50649-44-0	98
357437-74-2	67	39905-57-2	180	4467-06-5	40	50649-56-4	98
3575-31-3	158	39969-26-1	109	4479-74-7	87	50670-76-3	182
3599-32-4	12	39969-28-3	109	448-61-3	17	50793-85-6	97
361486-60-4	52	39969-56-7	147	4534-74-1	178	50793-86-7	97
36393-83-6	9	39969-57-8	147	4549-33-1	130	50816-19-8	128
3652-89-9	65	400607-04-7	78	4569-86-2	33	51257-37-5	10
3652-90-2	65	40172-65-4	42	4575-13-7	25	51325-91-8	16
36809-26-4	72	40307-11-7	144	462102-80-3	73	51325-95-2	16
36823-84-4	156	405-04-9	148	462631-35-2	56	51350-23-3	182
3685-26-5	135	40649-36-3	172	4630-20-0	64	51462-26-1	93
37500-95-1	65	40782-53-4	156	463302-86-5	51	5152-94-3	55
3755-83-7	44	40782-54-5	156	46350-87-2	128	51554-93-9	146
37592-72-6	142	40782-58-9	156	4727-50-8	8	51554-94-0	146
37593-02-5	142	40817-08-1	100	4733-39-5	50	51554-95-1	145
37593-03-6	142	41044-12-6	5	4733-50-0	174	5162-44-7	127
37694-95-4	75	41122-70-7	100	474688-73-8	46	517-45-3	32
3780-50-5	151	41122-71-8	100	4746-97-8	177	517-51-1	26
3786-46-7	174	4117-09-3	127	474918-32-6	60	51932-77-5	45
37920-25-5	142	41175-50-2	41	47501-44-0	17	5203-14-5	153
38215-36-0	5	41267-76-9	3	477-73-6	32	523-27-3	45
38289-27-9	135	41424-11-7	102	480-16-0	31	52364-71-3	102
38289-28-0	135	41492-05-1	145	4877-80-9	184	52364-72-4	102
38289-29-1	135	41503-61-1	10	4887-88-1	74	52364-73-5	102
38289-31-5	135	41532-84-7	43	488-86-8	39	52418-30-1	38
38289-46-2	158	41604-19-7	183	49669-22-9	79	52709-83-8	100
38300-04-8	158	4181-05-9	71	497263-86-2	115	52709-84-9	101

## CAS No INDEX

52709-85-0	101	5683-43-2	40	58573-94-7	166	610-50-4	42
52709-86-1	102	56851-13-9	55	58574-03-1	181	61203-82-5	172
52710-27-7	154	568-63-8	15	58743-75-2	100	61203-83-6	172
53092-64-1	23	570414-33-4	62	58743-76-3	100	61203-99-4	106
5315-79-7	43	57102-42-8	66	58743-78-5	102	61204-00-0	106
53340-16-2	33	57102-93-9	64	58743-79-6	176	61204-01-1	106
53463-68-6	129	57102-97-3	65	58743-81-0	176	61794-96-5	80
53518-14-2	4	57103-01-2	64	587-98-4	1	61931-68-8	42
53518-18-6	4	57103-20-5	67	588-93-2	145	619-64-7	157
53566-95-3	71	57125-49-2	101	588-96-5	147	619-86-3	160
536-17-4	7	57125-50-5	103	58932-13-1	102	620624-96-6	63
53655-17-7	12	5718-83-2	41	59100-59-3	130	620-84-8	69
538-68-1	138	57202-14-9	92	59100-95-7	162	620-93-9	69
539-17-3	1	57202-22-9	92	59446-85-5	98	6214-45-5	179
54211-46-0	105	57202-30-9	93	59454-35-2	101	622-15-1	42
54256-43-8	155	57202-37-6	92	59572-10-0	34	622-62-8	150
54296-25-2	105	57202-39-8	93	596-09-8	14	62452-73-7	144
5438-19-7	160	57202-48-9	93	596109-87-4	71	62580-63-6	11
5441-51-0	172	57202-50-3	94	59662-46-3	166	626-13-1	69
54646-38-7	7	57202-52-5	94	59662-47-4	166	62669-60-7	34
54963-70-1	155	57202-54-7	95	59662-48-5	166	62669-66-3	20
5496-71-9	29	57202-57-0	94	59662-49-6	166	62669-72-1	19
55259-49-9	55	57202-62-7	94	59748-13-9	168	62669-77-6	19
553-12-8	36	5731-13-5	166	59748-14-0	168	627-30-5	130
55362-80-6	129	573-17-1	77	59748-15-1	168	62871-09-4	128
55389-75-8	70	5736-85-6	164	59748-16-2	168	6294-17-3	128
55489-38-8	69	5736-88-9	164	59748-17-3	168	630-88-6	14
55804-66-5	4	5736-91-4	164	59748-18-4	168	63139-21-9	140
55804-67-6	4	5736-94-7	164	601-34-3	108	63148-97-0	10
55804-70-1	3	574-93-6	36	601506-57-4	5	63149-33-7	43
55923-05-2	30	5769-13-1	179	602-55-1	23	63221-88-5	109
55923-08-5	30	57-88-5	184	602-56-2	30	63226-13-1	6
5599-50-8	64	580-13-2	74	60311-02-6	21	633-70-5	81
56100-19-7	85	58328-31-7	55	603-34-9	70	6358-69-6	26
56100-20-0	85	58336-35-9	3	603-48-5	22	6358-69-6	26
561064-11-7	83	58415-62-6	91	604-35-3	107	63619-54-5	176
561064-15-1	83	58415-91-1	94	60484-66-4	152	63619-59-0	176
56131-49-8	96	58415-94-4	95	60484-67-5	152	63619-60-3	176
56309-94-5	177	58473-78-2	53	60484-68-6	152	63619-61-4	176
56741-21-0	170	5852-10-8	2	60758-84-1	153	6373-95-1	1
5683-41-0	40	58573-93-6	176	61010-07-9	12	63748-28-7	116

## CAS No INDEX

---

63799-11-1	100	70351-89-2	111	79832-89-6	184	852-37-9	31
63857-00-1	46	70351-95-0	111	79887-09-5	144	852-38-0	30
645-13-6	142	70351-97-2	111	79887-10-8	144	85312-59-0	114
645-56-7	148	70368-32-0	113	79887-11-9	144	854938-56-0	73
65132-43-6	180	70402-14-1	29	79887-13-1	144	854952-58-2	65
65303-14-2	11	71299-59-7	99	80122-94-7	117	85583-83-1	110
65303-15-3	9	71942-37-5	24	80221-11-0	110	85652-50-2	86
65355-29-5	169	720674-46-4	5	80285-16-1	89	863394-23-4	118
65355-30-8	169	72088-94-9	14	80-97-7	184	86446-58-4	182
65355-32-0	136	72102-91-1	21	81090-53-1	72	864711-37-5	121
65355-33-1	136	729-18-0	168	81190-25-2	6	865448-72-2	73
65355-34-2	136	72928-30-4	98	81-86-7	45	86579-53-5	184
654664-63-8	78	73087-83-9	67	81-88-9	19	866611-29-2	82
65602-84-8	37	731016-44-7	63	81936-33-6	131	86-73-7	57
65860-74-4	101	73204-07-6	180	82029-02-5	106	86-76-0	76
66052-06-0	153	7321-27-9	77	82145-74-2	85	86776-50-3	96
663954-29-8	25	7385-67-3	31	82240-03-7	183	86776-51-4	96
6684-16-8	45	741293-42-5	68	82380-18-5	148	87004-02-2	7
66-98-8	181	74171-78-1	28	82575-65-3	132	87-01-4	29
67000-89-9	24	74217-45-1	44	82575-69-7	131	87301-55-1	48
671197-45-8	185	74800-54-7	89	82575-70-0	132	87349-92-6	4
671197-46-9	112	74800-62-7	89	82632-80-2	185	874111-00-9	120
673474-73-2	62	74800-93-4	90	82832-72-2	132	87592-41-4	169
67590-13-0	173	7511-49-1	82	82832-73-3	137	87700-60-5	78
68065-81-6	101	75472-36-5	171	82885-43-6	93	87700-65-0	27
68065-89-4	167	7570-45-8	64	82988-08-7	9	877066-81-4	24
6813-38-3	86	757235-41-9	52	83179-50-4	6	878283-77-3	130
6825-20-3	63	76287-49-5	145	83803-80-9	177	88038-94-2	166
6833-47-2	135	76433-27-7	7	83847-14-7	117	88223-35-2	59
6853-57-2	163	76487-56-4	93	83883-25-4	129	88374-55-4	153
69079-52-3	112	76-54-0	14	83883-26-5	125	885691-99-6	12
69225-59-8	177	766-96-1	74	84-15-1	23	88580-99-8	132
69260-38-4	124	767-00-0	178	846-63-9	30	88581-00-4	131
69260-39-5	124	77-08-7	46	847227-37-6	175	888041-37-0	81
69260-42-0	124	77418-33-8	16	847227-39-8	13	889672-99-5	62
6962-92-1	127	7766-50-9	129	847227-41-2	112	889673-03-4	62
70187-34-7	111	77866-58-1	173	84868-02-0	137	89091-82-7	162
70247-25-5	103	77866-59-2	173	84892-42-2	183	89111-63-7	136
70351-85-8	112	779-02-2	23	84892-43-3	183	89114-91-0	51
70351-86-9	112	781-43-1	23	84976-67-0	135	89115-21-9	71
70351-87-0	113	79135-69-6	109	851963-03-6	5	89359-54-6	128

---

## CAS No INDEX

---

894791-46-9	64	944940-90-3	58
89511-01-3	177	952514-79-3	80
89557-35-7	177	95-26-1	39
89599-42-8	124	95480-29-8	110
89703-16-2	26	95-71-6	174
897671-42-0	52	958872-48-5	47
897671-69-1	59	959-88-6	81
89823-23-4	117	96693-05-9	147
89827-45-2	76	96735-91-0	129
90-14-2	76	97165-77-0	77
90-30-2	70	97511-05-2	77
90-33-5	2	977-96-8	8
90430-82-3	112	98181-63-6	19
90525-37-4	131	98495-11-5	91
905-62-4	32	98495-13-7	91
905-96-4	8	98495-16-0	92
905-97-5	9	989-38-8	19
914306-89-1	83	99474-02-9	183
91-44-1	2	99685-96-8	84
91454-65-8	3	99-76-3	178
91652-00-5	125	99-88-7	178
917-23-7	37		
91790-32-8	80		
917988-37-5	3		
92-24-0	54		
92-31-9	31		
92413-47-3	137		
925890-05-7	59		
92-66-0	75		
92-71-7	29		
92-86-4	79		
92-88-6	179		
92-94-4	23		
93129-37-4	134		
93129-38-5	134		
934545-83-2	63		
937-30-4	142		
93972-05-5	170		
93972-06-6	170		
942615-32-9	57		
943-03-3	41		

## CHEMICAL NAME INDEX

(2-(4-bromophenyl)ethene-1,1-diyl)dibenzene	80
(2S,3S)-4'-(Heptyloxy)biphenyl-4-yl 2-chloro-3-methylpentanoate	115
(3R,3aS,6aS)-Hexahydrofuro[3,2-b]furan-3,6-diyl bis(4-(4-(4-(acryloyloxy)butoxy)carbonyloxy)benzoyloxy)benzoate)	122
(4-But-3-enyloxy)benzoic acid 4-methoxyphenyl ester	93
(4-Ethylphenyl)boronic acid	140
(4-Ethynylphenyl)diphenylamine	70
(4-Ethynylphenyl)-di-p-tolylamine	71
(4-Methoxyphenyl 4-propoxybenzoatedimethyl)siloxane homopolymer	114
(4-n-Butoxyphenyl)boronic acid	141
(4-n-Butylphenyl)boronic acid	140
(4-n-Ethoxyphenyl)boronic acid	141
(4-n-Heptyloxyphenyl)boronic acid	141
(4-n-Heptylphenyl)boronic acid	140
(4-n-Hexyloxyphenyl)boronic acid	141
(4-n-Hexylphenyl)boronic acid	140
(4-n-Octyloxyphenyl)boronic acid	141
(4-n-Octylphenyl)boronic acid	140
(4-n-Pentyloxyphenyl)boronic acid	141
(4-n-Pentylphenyl)boronic acid	140
(4-n-Propoxyphenyl)boronic acid	141
(4-n-Propylphenyl)acetic acid	179
(4-n-Propylphenyl)boronic acid	140
(4-Oxo-2-thioxo-thiazolidin-3-yl)acetic acid	41
(6,6)-Phenyl-C61 butyric acid methyl ester	84
(7-Hydroxy-4-methyl-cumarone-3-yl)acetic acid	2
(9,9-Diphenyl-9H-fluoren-2-yl)-naphthalen-1-yl-amine	60
(Biphenyl-4-yl)biphenyl-2-ylamine	71
(Cumol)-(cyclopentadienyl)iron(II)hexafluorophosphate	48
(Pentamethyl)pentaoxapentasilecane, LC23	114
(R)-1,4-phenylene bis(3-bromo-4-((R)-octan-2-yloxy)benzoate)	99
(R)-5-(2-butoxypropoxy)-2-(4'-pentylbiphenyl-4-yl)pyrimidine	95
(S)-1,4-phenylene bis(3-bromo-4-((S)-octan-2-yloxy)benzoate)	99
(S)-4-(6-(Acryloyloxy)-4-methylhexyloxy)benzoic acid	125
(S)-4-Cyano-4'-(2-methylbutyl)biphenyl	100
(S)-6-(4'-cyanobiphenyl-4-yloxy)-4-methylhexyl acrylate	117
(trans,trans)-4-(Bromomethyl)-4'-pentyl-1,1'-bicyclohexyl	132
[9-(2-Ethoxycarbonylphenyl)-6-ethylamino-2,7-dimethylxanthen-3-ylidene]ethyl-ammonium perchlorate	20
{4-[(2-Hydroxytetradecyl)oxy]phenyl}phenyliodonium hexafluoroantimonate	49
1-(1-(Difluoroboryl)oxy-3H-benzo[f]chromen-2-yl)ethanone inner complex	31

## CHEMICAL NAME INDEX

1-(3-Bromopropoxy)naphthalene	183
1-(4-Bromophenyl)heptan-1-one	183
1-(4-Bromophenyl)naphthalene	78
1-(4-Ethoxyphenyl)-2-(4-n-pentylphenyl)acetylene	110
1-(4-Ethylphenyl)-2-(4-methoxyphenyl)acetylene	109
1-(4-Ethylphenyl)-2-(4-methylphenyl)acetylene	109
1-(4-Ethylphenyl)-2-(4-n-propylphenyl)acetylene	109
1-(4-Methoxyphenyl)-2-(4-n-pentylphenyl)acetylene	109
1-(4-Methoxyphenyl)-2-(4-n-propylphenyl)acetylene	109
1-(4-n-Butylphenyl)-2-(4-ethoxyphenyl)acetylene	110
1-(4-n-Butylphenyl)-2-(4-methoxyphenyl)acetylene	109
1-(9,9-Dimethylfluoren-2-yl)isoquinoline	45
1-(trans-4-n-Propylcyclohexyl)-4-iodobenzene	184
1,1'-Bicyclohexane-4,4'-dione monoethylene ketal	177
1,1-Bis-(4-bis(4-methyl-phenyl)-amino-phenyl)-cyclohexane sublimed	53
1,1'-Diethyl-4,4'-carbocyanine iodide	8
1,2,3,4-Tetraphenyl-1,3-cyclopentadiene	46
1,2-Bis(4-ethylphenyl)acetylene	109
1,2-Bis(4-n-butylphenyl)acetylene	110
1,2-Bis(4-propoxyphenyl)diazene	130
1',3',3'-Trimethyl-6-bromospiro(2H-1-benzopyran-2,2'-indoline)	32
1',3',3'-Trimethyl-6-hydroxyspiro(2H-1-benzopyran-2,2'-indoline)	30
1',3',3'-Trimethylspiro(2H-1-benzopyran-2,2'-indoline)	30
1',3',3'-Trimethylspiro[chromene-2,2'-indoline]-6-yl 4-(6-(acryloyloxy)hexyloxy)benzoate	119
1,3,5-Tris(1-phenyl-1H-benzimidazol-2-yl)benzene	50
1,3,5-Tris(4-bromophenyl)benzene	82
1,3'-Diethyl-4,2'-quinolythiacarbocyanine iodide	8
1,3'-Dimethyl-4,2'-quinolythiacarbocyanine iodide	8
1,4-Bis(4-bromophenyl)buta-1,3-diyne	81
1,4-Bis(undec-10-enyloxy)benzene	185
1,4-Bis[(4-methyl-5-phenyl)oxazol-2-yl]benzene	33
1,4-Bis[4-(11-acryloyloxyundecyloxy)benzoyloxy]-2-methylbenzene	122
1,4-Bis[4-(11-acryloyloxyundecyloxy)benzoyloxy]benzene	122
1,4-Bis[4-(3-acryloyloxybutyloxy)benzoyloxy]-2-methylbenzene	121
1,4-Bis-[4-(3-acryloyloxypropyloxy)benzoyloxy]-2-methylbenzene	120
1,4-Bis-[4-(6-acryloyloxyhexyloxy)benzoyloxy]-2-methylbenzene	121
1,4-Cyclohexanedione monoethylene ketal	177
1,4-phenylene bis(4-(10-(acryloyloxy)decyloxy)benzoate)	122
1,4-Phenylene bis(4-(6-(acryloyloxy)hexyloxy)benzoate)	121
1,6-Dibromopyrene	81

## CHEMICAL NAME INDEX

1,8-Dibromonaphthalene	79
1,8-Dihydroimidazo[1,2-f]phenanthridine	75
1,9-Dibromononane	130
1-[1-(Difluoroboryl)oxy-3,4-dihydro-6-methoxy-naphthalen-2-yl]ethanone inner complex	30
1-[1-(Difluoroboryl)oxy-3,4-dihydro-naphthalen-2-yl]ethanone inner complex	30
10-(2-Benzothiazolyl)-2,3,6,7-tetrahydro-2,2,6,6-tetramethyl-1H-5H-[1]benzopyrano[6,7,8-ij]quinolizin-11-one	6
10,10'-Dibromo-9,9'-bianthracene	47
10-Bromo-1-decanol	129
10-Bromo-1-decene	128
10-Diethylamino-3-methoxy-6,12a-dihydro-5H-benzo[c]xanthylum perchlorate	17
10-Diethylamino-7-(2-decyloxy-carbonyl-phenyl)-3-hydroxy-benzo[c]xanthylum perchlorate	18
10-tert-Butyl-8-((3-(tert-butyl-10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)-2-chlorocyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]xanthenium perchlorate	12
10-tert-Butyl-8-((5-tert-butyl-3-((10-tert-butyl-10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)-2-chlorocyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]-xanthenium perchlorate	13
11-[Pentakis-(4-propylphenylethynyl)phenoxy]undecan-1-ol	185
11-Bromo-1-undecanol	129
11-Bromo-1-undecene	129
16,17-Bis(octyloxy)anthra[9,1,2-cde]benzo[rs]pentaphene-5,10-dione	86
1-Bromo-2-methylnaphthalene	75
1-Bromo-4-(trans-4-n-pentylcyclohexyl)benzene	184
1-Bromo-4-(trans-4-n-propylcyclohexyl)benzene	184
1-Bromo-4-cyclohexylbenzene	145
1-Bromo-4-ethylbenzene	145
1-Bromo-4-ethyloxybenzene	147
1-Bromo-4-ethynylbenzene	74
1-Bromo-4-n-butylbenzene	145
1-Bromo-4-n-butyloxybenzene	147
1-Bromo-4-n-heptylbenzene	145
1-Bromo-4-n-heptyloxybenzene	147
1-Bromo-4-n-hexylbenzene	145
1-Bromo-4-n-hexyloxybenzene	147
1-Bromo-4-n-nonylbenzene	146
1-Bromo-4-n-octylbenzene	146
1-Bromo-4-n-octyloxybenzene	147
1-Bromo-4-n-pentylbenzene	145
1-Bromo-4-n-pentyloxybenzene	147
1-Bromo-4-n-propylbenzene	145
1-Bromo-4-n-propyloxybenzene	147
1-Bromo-6-chlorohexane	128
1-Bromonaphthalene-2-carbaldehyde	76

## CHEMICAL NAME INDEX

1-Bromopyrene	78
1-Ethyl-2-[(1-ethylquinolin-2(1H)-ylidene)methyl]quinolinium iodide	8
1-Ethyl-2-[4-(4-Dimethylaminophenyl)-1,3-butadien-1-yl]pyridinium perchlorate	7
1-Ethyl-4-((1E,3Z)-3-(3-ethylbenzo[d]oxazol-2(3H)-ylidene)prop-1-enyl)quinolinium iodide	8
1-Ethynylpyrene	75
1-Hydroxypyrene	43
1-Iodonaphthalene	76
1-Methyl-3-ethyl-5-[2-(3-(2-carboxyethyl)-benzoxazol-2-ylidene)-ethylidene]-2-thioxo-imidazolidin-4-one	16
1-Methylpyrene	23
2-((3-Ethyl-2-thiazolinidylidene)methyl)-3-methyl-6-nitrobenzothiazolium iodide	34
2-(1-Naphthyl)-5-phenyloxazole	30
2-(2-(2-Chloro-3-(2-(1,1,3-trimethyl-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,1,3-trimethyl-1H-benzo[e]indolium 4-methylbenzenesulfonate	12
2-(2-(2-Chloro-3-(2-(1,1,3-trimethyl-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,1,3-trimethyl-1H-benzo[e]indolium 4-methylbenzenesulfonate	11
2-(2-(2-Chloro-3-(2-(1,3,3-trimethylindolin-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,3,3-trimethyl-3H-indolium perchlorate	9
2-(2-(2-Chloro-3-(2-(1,3,3-trimethylindolin-2-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,3,3-trimethyl-3H-indolium 4-methylbenzenesulfonate	10
2-(2-(2-Chloro-3-(2-(1-methylquinolidine-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1-methylquinolinium 4-methylbenzenesulfonate	10
2-(2-(2-Chloro-3-(2-(3,3-dimethyl-1-propylindolin-2-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3,3-dimethyl-1-propyl-3H-indolium iodide	10
2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3-ethylbenzo[d]thiazol-3-ium iodide	9
2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-3-ethylbenzo[d]thiazol-3-ium perchlorate	9
2-(2-(2-Chloro-3-(2-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-3-ethylbenzo[d]thiazol-3-ium iodide	11
2-(2-Bromophenyl)pyridine	76
2-(4'-Hydroxyphenyl)-5-n-octyloxy pyrimidine	91
2-(4-Biphenyl)-5-(4-tertbutylphenyl)-1,3,4-oxadiazole	32
2-(4-Biphenyl)-5-(4-tertbutylphenyl)-1,3,4-oxadiazole sublimed	55
2-(4-Biphenyl)-5-phenyl-1,3,4-oxadiazole	30
2-(4-Bromophenyl)-4,6-diphenyl[1,3,5]triazine	82
2-(4-Bromophenyl)naphthalene	78
2-(4-Cyanophenyl)-5-n-pentylpyrimidine	91
2-(4'-Heptylbiphenyl-4-yl)-5-octylpyrimidine	95
2-(4-Hexyloxyphenyl)-5-(4-hexylphenyl)pyrimidine	94
2-(4'-Hydroxyphenyl)-5-n-decylpyrimidine	92
2-(4'-Hydroxyphenyl)-5-n-dodecylpyrimidine	92
2-(4'-Hydroxyphenyl)-5-n-heptylpyrimidine	91
2-(4'-Hydroxyphenyl)-5-n-nonylpyrimidine	91
2-(4-Methylphenyl)pyridine	40
2-(4-n-Butylphenyl)-5-n-propylpyrimidine	91



## CHEMICAL NAME INDEX

2-(4-n-Decyloxyphenyl)-5-n-octylpyrimidine	94
2-(4-n-Dodecyloxyphenyl)-5-n-octylpyrimidine	95
2-(4-n-Ethylphenyl)-5-n-propylpyrimidine	91
2-(4-n-Heptyloxyphenyl)-5-n-nonylpyrimidine	94
2-(4-n-Heptyloxyphenyl)-5-n-pentylpyrimidine	92
2-(4-n-Hexyloxyphenyl)-5-n-octylpyrimidine	93
2-(4-n-Octyloxyphenyl)-5-n-butyloxy pyrimidine	93
2-(4-n-Propylphenyl)-5-n-propylpyrimidine	91
2-(4-Octyloxyphenyl)-5-(4-octylphenyl)pyrimidine	95
2-(5-phenyl-2-(2-((5-phenyl-3-(2-(sulfooxy)ethyl)benzo[d]oxazol-2(3H)-ylidene)methyl)but-1-enyl)benzo[d]oxazol-3-ium-3-yl)ethyl sulfate	11
2-(7-Bromo-9,9-dioctyl-9H-fluoren-2-yl)-4,4,5,5-tetramethyl-1,3-dioxolane	63
2-(Biphenyl-4-yl)-4,6-diphenylpyrylium perchlorate	17
2-(Biphenyl)-5-phenyloxazole	31
2-(trans-4'-Ethylcyclohexyl)propane-1,3-diol	134
2-(trans-4'-n-Butyl-cyclohexyl)propane-1,3-diol	134
2-(trans-4'-n-Pentylcyclohexyl)propane-1,3-diol	134
2-(trans-4'-n-Propylcyclohexyl)propane-1,3-diol	134
2,2"-Dimethyl-p-quaterphenyl	25
2,2'-Trimethinequinocyanine chloride	7
2,2'-Bipyridyl-3,3'-dicarboxylic acid	86
2,2'-Bipyridyl-4-carboxylic acid	86
2,2'-Bipyridyl-5,5'-dicarboxylic acid	86
2,2'-Bipyridyl-5-carboxylic acid	86
2,2'-Bipyridyl-6,6'-dicarboxylic acid	87
2,2'-Bipyridyl-4,4'-dicarboxylic acid	86
2,2"-Dimethyl-p-terphenyl	23
2,3,3-Trimethyl-3H-benzo[e]indole	43
2,3,3-Trimethyl-3H-indole	39
2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane	55
2,3,6,7,10,11-Hexabromotriphenylene	185
2,3,6,7,10,11-Hexahydroxytriphenylene	184
2,3,6,7,10,11-Hexakis(hexylthio)triphenylene	112
2,3,6,7,10,11-Hexakis(octyloxy)triphenylene	113
2,3,6,7,10,11-Hexakis[butyloxy]triphenylene	112
2,3,6,7,10,11-Hexakis[decyloxy]triphenylene	111
2,3,6,7,10,11-Hexakis[dodecanoyloxy]triphenylen	111
2,3,6,7,10,11-Hexakis[dodecyloxy]triphenylene	111
2,3,6,7,10,11-Hexakis[heptanoyloxy]triphenylen	113
2,3,6,7,10,11-Hexakis[hexyloxy]triphenylene	112
2,3,6,7,10,11-Hexakis[nonanoyloxy]triphenylen	111

## CHEMICAL NAME INDEX

2,3,6,7,10,11-Hexakis[pentyloxy]triphenylene	112
2,3,6,7,10,11-Hexakis[undecanoyloxy]triphenylene	111
2,3,7,8,12,13,17,18-Octaethylporphyrine	36
2,3-Dicyanohydroquinone	174
2,3-Difluoro-4-hydroxybenzotrile	148
2,3-Difluoro-4-methoxyphenol	150
2,3-Difluorohydroquinone	174
2,3-Dihydrothieno[3,4-b]-1,4-dioxin	74
2,4,6-Triphenylpyrylium tetrafluoroborate	17
2,4-Diphenyl-6-(4'-methoxyphenyl)pyrylium perchlorate	17
2,4-Diphenyl-6-(4'-methoxyphenyl)pyrylium tetrafluoroborate	17
2,5,6-Trimethylbenzothiazole	40
2,5,6-Trimethylbenzoxazole	39
2,5,8,11,14,17-Hexakis(dodecyl)-hexa-peri-hexabenzocoronene	112
2,5-Bis(1,1'-biphen-4-yl)-1,3,4-oxadiazole	33
2,5-Bis(4-biphenyl)oxazol	32
2,5-Diethyl-3,4-diphenylcyclopentadienone	45
2,5-Dimethylbenzothiazole	39
2,5-Di-naphthalen-1-yl-[1,3,4]-oxadiazole	32
2,5-Diphenyloxazol	29
2,6-Dibromo-9,10-di(4-hydroxyphenyl)anthracene	82
2,6-Dibromo-9,10-dinaphthalen-1-ylanthracene	83
2,6-Dibromo-9,10-dinaphthalen-2-ylanthracene	83
2,6-Dibromoanthraquinone	81
2,6-Dibromonaphthalene	78
2,6-Difluoro-4-hydroxybenzotrile	148
2,6-Di-tert-butyl-1,3,5,7,8-pentamethylpyrromethenedifluoroborate complex	33
2,7-Bis(8-acryloyloxy)octyloxy[1]benzothieno[3,2-b][1]benzothiophene	121
2,7-Bis(bromomethyl)-9,9-dimethyl-9H-fluorene	59
2,7-Bis(diethylphosphonomethyl)-9,9-dimethyl-9H-fluorene	62
2,7-Bis-(N-phenyl-N-(4'-N,N-diphenylamino-biphenyl-4-yl))-9,9-dimethyl-fluorene sublimed	51
2,7-Dibromo-9,9-bis(3-dimethylaminoprop-1-yl)-9H-fluorene	62
2,7-Dibromo-9,9-di(1-dodecyl)-9H-fluorene	62
2,7-Dibromo-9,9-di(1-hexyl)-9H-fluorene	61
2,7-Dibromo-9,9-di(1-propyl)-9H-fluorene	60
2,7-Dibromo-9,9-dimethyl-fluorene	59
2,7-Dibromo-9,9-di-n-octyl-9H-fluorene	62
2,7-Dibromo-9,9-diphenyl-9H-fluorene	61
2,7-Dibromo-9,9'-spirobi(fluorene)	61
2,7-Dibromo-9H-carbazole	63

## CHEMICAL NAME INDEX

---

2,7-Dibromo-9-mesityl-9H-carbazole	67
2,7-Dibromofluoren-9-one	58
2,7-Dibromofluorene	58
2,7-Dibromospiro(cyclohexane-1',9--9H-fluorene)	59
2,7-Dibromotriphenylene	81
2',7'-Dichlorofluorescein diacetate	14
2,7-Dioctyloxy[1]benzothieno[3,2b][1]benzothiophene	115
2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline	50
2-[4-[9,10-Di-(naphthalen-2-yl)anthracen-2-yl]-phenyl]-1-phenyl-1H-benzimidazole	83
2',7'-Dichlorofluorescein, A.C.S. Reagent	14
2-Amino-7-bromo-9,9-dihexylfluorene	60
2-Aminonaphtho[1,2-d]thiazole	42
2-Bromo-5,8,11,14,17-pentakis-(dodecyl)-hexa-peri-hexabenzocoronene	111
2-Bromo-7-iodo-9,9-dimethyl-fluoren	60
2-Bromo-7-iodo-9H-fluoren	59
2-Bromo-9,9-(di-n-octyl)-9H-fluorene	60
2-Bromo-9,9-bis(2-ethylhexyl)fluoren	61
2-Bromo-9,9-dimethylfluoren	57
2-Bromo-9,9-di-n-butylfluoren	59
2-Bromo-9,9-diphenyl-9H-fluorene	60
2-Bromo-9-fluorenon	57
2-Bromo-9H-carbazole	65
2-Bromoanthracene	77
2-Bromobiphenyl	75
2-Bromodibenzofuran	76
2-Bromodibenzothiophene	77
2-Bromofluorene	57
2-Bromonaphthalene	74
2-Bromotriphenylene	76
2-Chloro-4,6-diphenyl[1,3,5]triazine	77
2-Chloro-5-ethylpyrimidine	175
2-Chloro-5-n-decylpyrimidine	175
2-Chloro-5-n-heptylpyrimidine	175
2-Chloro-5-n-nonylpyrimidine	175
2-Chloro-5-n-pentylpyrimidine	175
2-Chloro-5-n-propylpyrimidine	175
2-Chloro-6-(3-hydroxypropyl)amino-1H-phenalen-1-one	30
2-Ethylhydroquinone	174
2-Fluoro-4-hydroxybenzotrile	148
2-Iodo-9,9-dimethylfluorene	58

## CHEMICAL NAME INDEX

---

2-Iodo-9H-fluorene	58
2-Methyl-1,4-phenylene bis(4-(3-(allyloxy)propoxy)benzoate)	120
2-Methyl-4,5-diphenylthiazole	44
2-Methyl-5-nitrobenzoxazole	40
2-Methyl-5-phenyl-benzoxazole	42
2-Methyl-5-tert-butyl-p-quaterphenyl	25
2-Methyl-6-nitrobenzothiazole	41
2-Methyl-6-nitrobenzoxazole	40
2-Methyl-6-phenylbenzothiazole	43
2-Methylacrylic acid 3-[4-(4-hexyloxyphenylazo)phenoxy]propyl ester	118
2-Methylacrylic acid 6-[4-(2-carboxyvinyl)phenoxy]hexyl ester	126
2-Methylbenzothiazole	39
2-Methylnaphtho[1,2-d]thiazole	42
2-Methylnaphtho[2,3-d]oxazole	40
2-n-Butyl-propane-1,3-diol	133
2-n-Pentyl-propane-1,3-diol	133
2-n-Propyl-propane-1,3-diol	133
2-Phenylindole-3-aldehyde	43
2-Phenylpyridine	39
3-(4-Biphenyl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole sublimed	56
3-(4-Bromophenyl)-7-diethylaminochromen-2-one	5
3-(4-Bromophenyl)-9-phenyl-9H-carbazole	67
3-(4-Bromophenyl)pyridine	76
3-(7-Hydroxy-2-oxo-2H-chromen-3-ylcarbamoyl)acrylic acid methylester	4
3-(Biphenyl-4-yl)-3H-benzo[f]chromylium perchlorate	17
3-(trans-4-n-Pentylcyclohexyl)propionic acid	182
3,10-Dimethoxy-7-phenyl-6,12a-dihydro-5H-benzo[c]xanthylum perchlorate	17
3,11-Dimethoxy-7-phenyl-6,8,9,13b-tetrahydro-5H-dibenzo[c,h]xanthylum perchlorate	18
3,3',2'',3'''-Tetramethyl-p-quarterphenyl	25
3,3'-Dimethyl-2,2'-bipyridine	85
3,3'-Dimethyl-diphenylamine	69
3,3'-Carbonyl-bis(7-diethylaminocoumarine)	6
3,3'-Diethyloxacarbocyanine iodide	8
3,3'-Dihydroxyethyl-5,5'-dimethyl-9-methylthiacarbocyanine bromide	9
3,3-Dimethyl-1,5-dioxa-spiro[5.5]undecan-9-one	177
3,4,5-Trifluoro-4'-(4-pentyl-cyclohexyl)biphenyl	114
3,4,5-Trifluoro-4'-(4-propyl-cyclohexyl)biphenyl	114
3,4-Difluoro-4'-(4-pentyl-cyclohexyl)biphenyl	114
3,4-Difluoro-4'-(4-propyl-cyclohexyl)biphenyl	114
3,5,3''',5'''-Tetra-t-butyl-p-quinquephenyl	26

## CHEMICAL NAME INDEX

3,5-Dibromobenzonitrile	77
3,5-Dibromo-p-terphenyl	82
3,6-Di(tert-butyl)-9H-carbazole	65
3,6-Dibromo-9-(4-bromo-phenyl)-9H-carbazole	67
3,6-Dibromo-9-(4-octylphenyl)-9H-carbazole	68
3,6-Dibromo-9-(4-tert-butylphenyl)-9H-carbazole	68
3,6-Dibromo-9H-carbazole	63
3,6-Dibromo-9-phenyl-9H-carbazole	67
3,6-Dibromo-9-p-tolyl-9H-carbazole	67
3',6'-Dichlorofluorane	14
3,6-Dihydroxyphthalic acid	174
3,6-Dimethoxy-9H-carbazole	64
3,6-Dimethyl-9H-carbazole	64
3,7,12,17-Tetramethyl-8,13-divinyl-2,18-porphinedipropionic acid	36
3-[4-(6-Hydroxyhexyloxy)phenyl]acrylic acid	129
3-[4-(6-Hydroxyhexyloxy)phenyl]acrylic acid methyl ester	130
3-Bromo-9-ethyl-9H-carbazole	65
3-Bromo-9H-carbazole	65
3-Bromo-9-naphthalen-1-yl-9H-carbazole	63
3-Bromo-9-naphthalen-2-yl-9H-carbazole	67
3-Bromo-9-phenyl-9H-carbazole	63
3-Bromo-9-p-tolyl-9H-carbazole	63
3-Bromobiphenyl	76
3-Butyl-1-ethyl-5-[2-(3-sulfobutyl-benzo[1,3]oxazolin-2-ylidene)-ethylidene]-2-thioxo-imidazolidin-4-one potassium salt	16
3-Butyl-2-[(E)-2-[(3E)-3-[(2Z)-2-(3-butyl-1,1-dimethyl-1,3-dihydro-2H-benzo[e]indol-2-ylidene)ethylidene]-2-chloro-1-cyclohexen-1-yl]vinyl]-1,1-dimethyl-1H-benzo[e]indolium hexafluorophosphate	12
3-Chloro-1-propanol	130
3-Diethylamino-7-diethyliminophenoxazonium perchlorate	34
3-Ethyl-2-((3-ethyl-4,5-diphenylthiazol-2(3H)-ylidene)methyl)-5-(2-(3-ethyl-5-methylbenzo[d]thiazol-2(3H)-ylidene)ethylidene)-4-oxo-4,5-dihydrothiazol-3-ium iodide	11
3-Ethyl-2-((3-ethyl-5-(2-(1-ethylquinolin-4(1H)-ylidene)ethylidene)-4-oxothiazolidin-2-ylidene)methyl)-4,5-diphenylthiazol-3-ium bromide	10
3-Ethyl-2-((3-ethylbenzo[d][1,3]selenazol-2(3H)-ylidene)methyl)benzo[d]thiazol-3-ium bromide	8
3-Ethyl-2-(2-((3-ethylbenzo[d]oxazol-2(3H)-ylidene)methyl)but-1-enyl)benzo[d]oxazol-3-ium ethylsulfate	10
3-Ethyl-2-(3-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)prop-1-enyl)benzo[d]thiazol-3-ium iodide	9
3-Ethyl-2-(5-(3-ethylbenzo[d]thiazol-2(3H)-ylidene)penta-1,3-dienyl)benzo[d]thiazol-3-ium chloride	7
3-Ethyl-2-[7-(3-ethyl-3H-benzoxazol-2-ylidene)hepta-1,3,5-trienyl]benzoxazolium iodide	9
3-Ethyl-2-methylbenzothiazolium p-toluenesulfonate	46
3-Ethylamino-7-ethyliminium-2,8-dimethylphenoxazin perchlorate	33
3-Fluoro-4-hydroxybenzonitrile	148
3-Iodo-N-phenylcarbazole	63
3-Methyl-9H-carbazole	64

## CHEMICAL NAME INDEX

---

3-n-Hexyl-7-hydroxy-4-methylcoumarin	3
3-n-Hexyl-7-hydroxy-4-methylcoumarinyl-6-sulfonic acid potassium salt	5
3-tert-Butyl-9H-carbazole	64
4-((4-(11-(acryloyloxy)undecyloxy)phenoxy)carbonyl)phenyl 4-(11-(acryloyloxy)undecyloxy)benzoate	122
4-((Phenyl-m-tolyl)amino)benzaldehyde	71
4-(10-Acryloyloxy-n-dec-1-yloxy)benzoic acid	126
4-(10-undecylenoxy)benzoic acid	162
4-(11-Acryloyloxy-n-non-1-yloxy)benzoic acid	126
4-(11-Acryloyloxy-n-undec-1-yloxy)benzoic acid	126
4-(11-Hydroxyundecyloxy)benzoic acid	130
4-(1-Phenyl-1H-benzimidazol-2-yl)phenylboronic acid	80
4-(1-Pyrenyl)butyl amine hydrochloride	24
4-(1-Pyrenyl)-n-butanol	24
4-(2,2-Bisphenyl-ethen-1-yl)-4',4"-dimethyl-triphenylamine sublimed	51
4-(2-Acryloyloxyeth-1-yloxy)benzoic acid	124
4-(2-Carboxy-phenyl)-7-diethylamino-2-(4-dimethylamino-phenyl)chromylium perchlorate	18
4-(2-Carboxy-phenyl)-7-diethylamino-2-(7-diethylamino-chroman-2-one-3-yl)-chromylium perchlorate	18
4-(2-Methacryloyloxyeth-1-yloxy)benzoic acid	124
4-(3,3-Dimethyl-1,5-dioxo-spiro[5,5]undec-9-yl)cyclohexanone	177
4-(3-Acryloxy-n-prop-1-yloxy)benzoic acid	124
4-(3-Butenyloxy)benzoic acid	162
4-(3-Hydroxy-propyloxy)benzoic acid	128
4-(4-(6-(acryloyloxy)hexyloxy)benzoyloxy)phenyl 4-(octyloxy)benzoate	119
4-(4'-Hydroxyphenyl)cyclohexanone	180
4-(4-Acryloyloxy-n-but-1-yloxy)benzoic acid	124
4-(4-Aminonaphthalen-1-ylazo)phenol	44
4-(4'-Benzyloxy-phenyl)cyclohexanone	183
4-(4-Bromophenyl)cyclohexanone	183
4-(4-Ethylphenyl)benzaldehyde	170
4-(4'-Hydroxyphenyl)benzotrile	180
4-(4'-Iodophenyl)phenol	184
4-(4-n-Butylphenyl)benzaldehyde	170
4-(4'-n-Octyloxyphenyl)benzotrile	102
4-(4-n-Pentylphenyl)benzaldehyde	170
4-(4-n-Propylphenyl)benzaldehyde	170
4-(4-Oxocyclohexyl)benzoic acid	181
4-(4-Oxo-cyclohexyl)benzotrile	180
4-(4-Pentylcyclohexyl)benzoic acid 4-(6-acryloyloxyhexyloxy)phenyl ester	118
4-(4-trans-n-Propylcyclohexyl)benzoic acid	169
4'-(4-trans-Pentylcyclohexyl)biphenyl-4-carboxylic acid	167

## CHEMICAL NAME INDEX

4-(4-trans-Propylcyclohexyl)benzoic acid 4-fluorophenyl ester	97
4'-(4-trans-Propylcyclohexyl)biphenyl-4-carboxylic acid	167
4-(5,6-Dichloro-2-(3-(5,6-dichloro-1-ethyl-3-(4-sulfobutyl)-1H-benzo[d]imidazol-2(3H)-ylidene)prop-1-enyl)-1-ethyl-1H-benzo[d]imidazol-3-ium-3-yl)butane-1-sulfonate	11
4-(5-Acryloxy-pentyl-1-oxy)benzoic acid	125
4-(5-Hexenyloxy)benzoic acid	162
4'-(6-(4'-Cyanobiphenyl-4-yl)hexyloxy)biphenyl-4-carbonitrile	103
4-(6-(Acryloyloxy)hexyloxy)-2-methylbenzoic acid	125
4-(6-(acryloyloxy)hexyloxy)phenyl 4'-(4-pentylcyclohexyl)biphenyl-4-carboxylate	119
4-(6-(Acryloyloxy)hexyloxy)phenyl 4-(trans-4-propylcyclohexyl)benzoate	118
4-(6-Acryloxy-hex-1-yl-oxy)phenyl 4-(hexyloxy)benzoate	118
4-(6-Acryloyloxy-n-hex-1-yloxy)-2-methylbenzoic acid	125
4-(6-Acryloyloxy-n-hex-1-yloxy)benzoic acid	125
4-(6-Acryloyloxy-n-hex-1-yloxy)phenol	125
4-(6-Hydroxyhexyloxy)benzaldehyde	129
4-(6-Hydroxyhexyloxy)benzoic acid	129
4-(6-Methacryloyloxy-n-hex-1-yloxy)benzoic acid	125
4-(9-Anthracenyl)butyl amine hydrochloride	24
4-(But-3-enyl)benzoic acid	159
4-(Dicyanomethylen)-2-(tert-butyl)-4-((1,1,7,7-tetramethyljulolidin-6-yl)vin-1-yl)-4H-pyran	16
4-(Dicyanomethylen)-2-methyl-4-((1,1,7,7-tetramethyljulolidin-6-yl)vin-1-yl)-4H-pyran	16
4-(Dicyanomethylen)-2-methyl-4-(julolidin-6-yl)vin-1-yl)-4H-pyran	16
4-(Dicyanomethylene)-2,6-dimethyl-4H-pyrane	40
4-(Dicyanomethylene)-2-methyl-6-(p-dimethylaminostyryl)-4H-pyran	16
4-(Diethylamino)-2-hydroxybenzaldehyde	41
4-(Diphenylamino)benzaldehyde	71
4-(Hex-5-enyl)benzoic acid	159
4-(Methyl(phenyl)amino)benzaldehyde	69
4-(N,N-Diethylamino)azobenzene	1
4'-(Oct-7-enyloxy)biphenyl-4-carbonitrile	104
4-(Octyloxy)phenyl 4-(octyloxy)benzoate	98
4-(Phenylazo)diphenylamine	1
4-(Phenyl-p-tolylamino)benzaldehyde	71
4-(Pyrene-1-yl)-n-butyric acid	24
4-(trans-4'-n-Heptylcyclohexyl)benzotrile	106
4-(trans-4'-Hydroxycyclohexyl)phenol	180
4-(trans-4'-n-Butylcyclohexyl)cyclohexanone	137
4-(trans-4-n-Ethylcyclohexyl)benzoic acid	169
4-(trans-4'-n-Pentylcyclohexyl)cyclohexanone	137
4-(trans-4-n-pentylcyclohexyl)phenylboronic acid	183
4-(trans-4'-n-Propylcyclohexyl)benzotrile	106

## CHEMICAL NAME INDEX

4-(trans-4'-n-Propylcyclohexyl)cyclohexanone	137
4',4''-(Heptane-1,7-diyl)dibiphenyl-4-carbonitrile	103
4,4'-(1,1'-Biphenyl-4,4'-diylbis(1-naphthalenyliminodiyl))dibenzaldehyde	73
4,4'-(1,4-phenylenebis(4-methylphenyl)imino)dibenzaldehyde	72
4,4',4''-Nitrilotrisbenzoic acid	72
4,4',4''-Triformyltriphenylamine	72
4,4',4''-Tris(carbazol-9-yl)triphenylamine	56
4,4',4''-Tris(carbazol-9-yl)triphenylamine sublimed	56
4,4'-(1,2-Diazenediyl)bisphenol	128
4,4'-Dimethyl-5,5'-diphenyltetrafulvalene	55
4,4'-Dinonyl-2,2'-bipyridine	86
4,4'-(9-Fluorenylidene)diphenol	59
4,4',4''-Tris(N-(1-naphthyl)-N-phenyl-amino)triphenylamine sublimed	53
4,4',4''-Tris(N-(2-naphthyl)-N-phenyl-amino)triphenylamine sublimed	53
4,4',4''-Tris(N-3-methylphenyl-N-phenylamino)triphenylamine	53
4,4',4''-Tris(N-3-methylphenyl-N-phenylamino)triphenylamine sublimed	53
4,4'-Dibromo-3,3'-dimethylbiphenyl	80
4,4'-Dibromo-triphenylamine	72
4,4'-Bis(6-acryloyloxyhexyloxy)azobenzene	120
4,4'-Bis(6-methacryloyloxyhexyloxy)azobenzene	120
4,4-Bis-(biphenyl-4-yl)-4'-phenyl-4'-(naph-1-yl)benzidine; sublimed	52
4,4'-Bis(carbazol-9-yl)-biphenyl sublimed	55
4,4''-Bis(N-(naphth-2-yl)-N-phenyl-amino)-p-terphenyl; sublimed	52
4,4'-Bis[9-(acryloyloxy)nonoxy]azobenzene	121
4,4'-Di(dinaphthyl-2-ylamino)stilbene	56
4,4'-Dibromo-2,2'-bipyridine	79
4,4'-Dibromobiphenyl	79
4,4-Dibromo-p-terphenyl	81
4,4'-Dibromostilbene	80
4,4'-Dibromotolane	80
4,4'-Diformyldiphenylamine	70
4,4'-Diformyltriphenylamine	71
4,4'-Dihydroxybiphenyl	179
4,4'-Dimethyl-2,2'-bipyridine	85
4,4'-Dioctylbiphenyl	115
4,4'-Diphenyltetrafulvalene	55
4,5-Dihydroxy-cyclopent-4-ene-1,2,3-trione	39
4,5-Dihydroxy-cyclopent-4-ene-1,2,3-trione disodiumsalt	41
4,5-Dimethyl-2-(4,5-dimethyl-1,3-diselenol-2-ylidene)-1,3-diselenole	55
4,6-Bis(biphenyl-4-yl)-2-chloropyrimidine	82



## CHEMICAL NAME INDEX

4,6-Dimethyl-7-ethylaminocoumarin	2
4,7,2',7'-Tetrachloro-5(6)-carboxyfluorescein, mixture of isomers	15
4,7-Diphenyl-1,10-phenanthroline	50
4,9-Dibromo-2,7-bis(2,6-diisopropylphenyl)benzo[[lmn]][3,8]phenanthroline-1,3,6,8-tetraone	47
4[4[6-Acryloxyhex-1-yl)oxyphenyl]carboxybenzotrile	117
4[4[6-Acryloxyhex-1-yl)-oxyphenyl]carboxy-biphenyl-4'-carbonitrile	118
4-[5-(4-Hexylphenyl)-[1,3]dioxan-2-yl]benzotrile	90
4'-Allyloxy-biphenyl-4-carbonitrile	104
4'-But-3-enyloxy-biphenyl-4-carbonitrile	104
4'-Dec-9-enyloxy-biphenyl-4-carbonitrile	104
4'-Hex-5-enyloxy-biphenyl-4-carbonitrile	104
4'-Pent-4-enyloxy-biphenyl-4-carbonitrile	104
4'-Undec-10-enyloxy-biphenyl-4-carbonitrile	104
4-[[4-(Dimethylamino)phenyl]imino]cyclohexa-2,5-dien-1-one	29
4-{{4-[3-(Acryloyloxy)propoxy]phenoxy}carbonyl}phenyl 4-(3-(acryloyloxy)propoxy)benzoate	120
4-{{4-[6-(Acryloyloxy)hexyloxy]phenoxy}carbonyl}phenyl 4-(6-(acryloyloxy)hexyloxy)benzoate	121
4-{{4-[4-[11-(Acryloyloxy)undecyloxy]benzoyloxy]cyclohexyl}phenyl 4-[11-(acryloyloxy)undecyloxy]benzoate	122
4'-Hydroxy-4-biphenyl-4-carboxylic acid ethyl ester	182
4'-Isopropylacetophenone	142
4-Allylbenzoic acid	159
4-Allyloxybenzoic acid	162
4-Amino-4'-dimethylaminoazobenzene	1
4-Bromo-1,8-naphthalic anhydride	45
4-Bromo-1-butene	127
4-Bromo-2,3-difluorophenol	181
4-Bromo-2,6-difluorobenzotrile	181
4-Bromo-2-fluorobenzonitril	180
4-Bromo-2-fluorobiphenyl	183
4-Bromo-4'-ethyl-1,1'-biphenyl	176
4-Bromo-4'-n-butyl-1,1'-biphenyl	176
4-Bromo-4'-n-hexyl-1,1'-biphenyl	176
4-Bromo-4'-n-pentyl-1,1'-biphenyl	176
4-Bromo-4'-n-propyl-1,1'-biphenyl	176
4-Bromo-4'-n-heptyl-1,1'-biphenyl	176
4-Bromo-4-n-octyl-1,1'-biphenyl	176
4-Bromo-4'-tert-butylbiphenyl	79
4-Bromo-9,9-dimethyl-9H-fluorene	57
4-Bromo-9H-carbazole	65
4-Bromobiphenyl	75
4-Bromodibenzofuran	76

## CHEMICAL NAME INDEX

---

4-Bromodibenzothiophene	77
4-Bromotriphenylamine	72
4-But-3-enyloxy-benzoic acid ethyl ester	162
4'-Butoxybiphenyl-4-carbaldehyde	171
4-Butoxyphenyl 4-butoxybenzoate	97
4-Butyl-4'-cyanobiphenyl	100
4-Chlorobutyl acetate	127
4-Cyano-3-fluorophenyl 4-propylbenzoate	96
4-Cyano-3-fluorophenyl-4-ethylbenzoate	96
4-Cyano-4'-dodecyloxybiphenyl	103
4-Cyano-4'-decyloxybiphenyl	103
4-Cyano-4'-dodecylbiphenyl	101
4-Cyano-4'-ethyl-biphenyl	100
4-Cyano-4'-ethyloxybiphenyl	102
4-Cyano-4'-hexyloxybiphenyl	102
4-Cyano-4'-n-decylbiphenyl	101
4-Cyano-4'-n-heptylbiphenyl	100
4-Cyano-4'-n-heptyloxybiphenyl	102
4-Cyano-4'-n-hexylbiphenyl	100
4-Cyano-4'-n-nonylbiphenyl	101
4-Cyano-4'-nonyloxybiphenyl	102
4-Cyano-4'-n-pentylbiphenyl	100
4-Cyano-4'-n-pentyl-p-terphenyl	105
4-Cyano-4'-n-propyl-biphenyl	100
4-Cyano-4'-n-propyl-p-terphenyl	105
4-Cyano-4'-pentyloxybiphenyl	102
4-Cyano-4'-propyloxybiphenyl	102
4-Cyanophenyl 4-(4-dodecylbenzoyloxy)-3-methylbenzoate	99
4-Cyanophenyl 4-heptylbenzoate	97
4-Cyanophenyl 4-n-butylbenzoate	96
4-Cyanophenyl 4-n-hexylbenzoate	97
4-Cyanophenyl 4-n-octylbenzoate	97
4-Cyanophenyl 4-n-pentylbenzoate	96
4-Cyanophenyl 4-n-propylbenzoate	96
4-Cyclohexylbenzoic acid	158
4-Decylbenzoic acid 4'-cyanobiphenyl-4-yl ester	98
4-Dimethylamino-biphenyl-4-carbaldehyde	75
4-Dodecylbenzoic acid	158
4'-Ethoxybiphenyl-4-carbaldehyde	171
4'-Ethylacetophenone	142

## CHEMICAL NAME INDEX

---

4-Ethylbenzoic acid	157
4-Ethylbenzotrile	152
4-Ethylbenzoyl chloride	154
4-Ethylbiphenyl-4'-carboxylic acid	166
4-Ethylcyclohexanol, cis/trans-mixture	178
4-Ethylcyclohexanone	172
4-Ethoxybenzaldehyde	164
4-Ethoxybenzoic acid	160
4-Ethoxybenzotrile	153
4-Ethoxybenzoyl chloride	156
4-Ethoxyphenol	150
4-Ethylphenylacetylene	144
4-Fluoro-4'-hydroxybiphenyl	180
4-Fluorobenzotrile	178
4'-Heptylbiphenyl-4-carboxylic acid 4'-cyanobiphenyl-4-yl ester	98
4-Heptyloxyphenol	151
4-Hex-5-enyl-benzoic acid 4-cyano-phenyl ester	97
4-Hexyl-4"-pentyl-p-terphenyl	115
4-Hexylbiphenyl-4'-carboxylic acid	166
4-Hexyloxyphenyl 4-methoxybenzoate	97
4-Hydroxy-4'-biphenylcarboxylic acid	181
4-Hydroxybenzaldehyde	178
4-Hydroxybenzoic acid 4-[(6-acryloyloxy)hexyloxy]phenyl ester	126
4-Hydroxybenzotrile	178
4-Hydroxybiphenyl-4'-acetic acid	182
4-Isopropylaniline	178
4-Methoxybenzoic acid 4-(6-acryloyloxyhexyloxy)phenyl ester	117
4-Methoxybenzoic acid 4-pentylphenyl ester	96
4-Methoxyphenol	150
4-Methyl-2,2'-bipyridine	85
4-Methyl-diphenylamine	69
4'-n-Butylacetophenone	142
4-n-Butylbenzaldehyde	163
4-n-Butylbenzaldehyde diethylacetale	177
4-n-Butylbenzoic acid	157
4-n-Butylbenzotrile	152
4-n-Butylbenzoyl chloride	154
4-n-Butylbiphenyl-4'-carboxylic acid	166
4-n-Butylcyclohexanone	172
4-n-Butyloxybenzaldehyde	164

## CHEMICAL NAME INDEX

---

4-n-Butyloxybenzoic acid	160
4-n-Butyloxybenzotrile	153
4-n-Butyloxybenzoyl chloride	156
4-n-Butyloxybenzyl alcohol	179
4-n-Butyloxybiphenyl-4'-carboxylic acid	168
4-n-Butyloxyphenol	150
4-n-Butyloxyphenyl 4-n-hexylbenzoate	98
4-n-Butylphenol	148
4-n-Butylphenylacetylene	144
4-n-Decylbenzoic acid	158
4-n-Decylbenzoyl chloride	155
4-n-Decyloxyaniline	182
4-n-Decyloxybenzaldehyde	165
4-n-Dodecyloxybenzaldehyde	165
4-n-Dodecyloxybenzoic acid	161
4-n-Ethoxybiphenyl-4'-carboxylic acid	168
4'-n-Heptylacetophenone	142
4-n-Heptylbenzaldehyde	163
4-n-Heptylbenzoic acid	157
4-n-Heptylbenzotrile	152
4-n-Heptylbenzoyl chloride	154
4-n-Heptylbiphenyl-4'carboxylic acid	166
4-n-Heptyloxyaniline	181
4-n-Heptyloxybenzaldehyde	164
4-n-Heptyloxybenzoic acid	160
4-n-Heptyloxybenzotrile	153
4-n-Heptyloxybenzoyl chloride	156
4-n-Heptyloxybiphenyl-4'-carboxylic acid	168
4-n-Heptyloxyphenyl 4-n-hexyloxybenzoate	98
4-n-Heptylphenol	149
4'-n-Hexylacetophenone	142
4-n-Hexylaniline	179
4-n-Hexylbenzaldehyde	163
4-n-Hexylbenzaldehyde diethyl acetal	177
4-n-Hexylbenzoic acid	157
4-n-Hexylbenzotrile	152
4-n-Hexylbenzoyl chloride	154
4-n-Hexyloxyaniline	180
4-n-Hexyloxybenzaldehyde	164
4-n-Hexyloxybenzoic acid	160

## CHEMICAL NAME INDEX

---

4-n-Hexyloxybenzotrile	153
4-n-Hexyloxybenzoyl chloride	156
4-n-Hexyloxybiphenyl-4'-carboxylic acid	168
4-n-Hexyloxyphenol	150
4-n-Hexylphenol	149
4-n-Hexylphenylacetylene	144
4-n-Nonylbenzoic acid	158
4-n-Nonylbenzoyl chloride	155
4-n-Nonyloxyaniline	182
4-n-Nonyloxybenzaldehyde	165
4-n-Nonylphenol	149
4'-n-Octylacetophenone	143
4-n-Octylbenzaldehyde	163
4-n-Octylbenzoic acid	158
4-n-Octylbenzotrile	152
4-n-Octylbenzoyl chloride	154
4-n-Octylbiphenyl-4'-carboxylic acid	166
4-n-Octyloxybenzaldehyde	164
4-n-Octyloxybenzoic acid	160
4-n-Octyloxybenzotrile	153
4-n-Octyloxybenzoyl chloride	156
4-n-Octyloxybiphenyl-4'-carboxylic acid	168
4-n-Octyloxyphenol	151
4-n-Octyloxyphenyl 4-n-pentyloxybenzoate	98
4-n-Octylphenol	149
4-n-Octylphenylacetylene	144
4-Nonyl-[1,1';4',1'']terphenyl-4''-carbonitrile	105
4'-n-Pentylacetophenone	142
4-n-Pentylbenzaldehyde	163
4-n-Pentylbenzoic acid	157
4-n-Pentylbenzotrile	152
4-n-Pentylbenzoyl chloride	154
4-n-Pentylbiphenyl-4'-carboxylic acid	166
4-n-Pentylcyclohexanone	172
4-n-Pentyloxybenzaldehyde	164
4-n-Pentyloxybenzoic acid	160
4-n-Pentyloxybenzotrile	153
4-n-Pentyloxybenzoyl chloride	156
4-n-Pentyloxybiphenyl-4'-carboxylic acid	168
4-n-Pentyloxyphenol	150

## CHEMICAL NAME INDEX

---

4-n-Pentylphenol	148
4-n-Pentylphenylacetylene	144
4'-n-Propylacetophenone	142
4-n-Propylbenzaldehyde	163
4-n-Propylbenzaldehyde diethyl acetal	177
4-n-Propylbenzoic acid	157
4-n-Propylbenzotrile	152
4-n-Propylbenzoyl chloride	154
4-n-Propylbiphenyl-4'-carboxylic acid	166
4-n-Propylcyclohexanone	172
4-n-Propyloxybenzaldehyde	164
4-n-Propyloxybenzoic acid	160
4-n-Propyloxybenzotrile	153
4-n-Propyloxybiphenyl-4'-carboxylic acid	168
4-n-Propyloxyphenol	150
4-n-Propylphenol	148
4-n-Propylphenylacetylene	144
4-Octyl-4'-cyanobiphenyl	101
4-Octyloxybenzoic acid 4-pentylphenyl ester	98
4-Pentylbenzoic acid 4-(5-cyanopyrimidin-2-yl)phenyl ester	93
4-Pentyloxylaniline	179
4-Phenylaminobenzaldehyde	69
4-Phenylazomaleinanil	1
4'-Propoxybiphenyl-4-carbaldehyde	171
4'-Propylbiphenyl-4-carboxylic acid 4-(acryloxyhexyloxy)phenyl ester	118
4-Propyloxybenzoyl chloride	156
4-Undecyl-4'-cyanobiphenyl	101
4-Undecylphenol	149
5(6)-Carboxyfluorescein diacetate	14
5(6)-Carboxy-fluorescein, isomer mixture	14
5(6)-Carboxynaphthofluorescein diacetate, isomer mixture	15
5(6)-Carboxynaphthofluorescein, isomer mixture	14
5(6)-Carboxyrhodamine 6G	19
5(6)-Carboxy-tetramethylrhodamine	19
5(6)-Carboxytetramethylrhodamine N-succinimidyl ester	20
5(6)-Carboxy-X-rhodamine	20
5,10-dioxo-5,10-dihydroanthra[9,1,2-cde]benzo[rst]pentaphene-16,17-diyl distearate	85
5,12-Dibromo-2,9-bis(2,6-diisopropylphenyl)anthra[2,1,9-def;6,5,10-d'e'f]diisoquinoline-1,3,8,10-tetraone	47
5,5',6,6',7,7'-Hexahydroxy-3,3,3',3'-tetramethylspirobiindane	46
5,5',6,6'-Tetrahydroxy-3,3,3',3'-tetramethyl-1,1'-spirobisindane	46

## CHEMICAL NAME INDEX

---

5,5'-Dimethyl-2,2'-bipyridyl	85
5,6-Dichloro-1-ethyl-2-methylbenzimidazole	44
5-[(4-Dimethylamino)benzylidene]rhodanine	7
5'-Bromo[1,1';3',1'']terphenyl	79
5-Bromo-1H-benzimidazole	74
5-Bromo-1-pentanol	127
5-Butyl-2-(4-heptyloxyphenyl)pyrimidine	92
5-Chloro-2-methylbenzothiazole	41
5-Chloro-2-methylbenzoxazole	39
5-Ethyl-2-[trans-(4-n-propylcyclohexyl)phenyl]pyrimidine	92
5-Methoxy-2-methylbenzoselenazole	43
5-Methoxy-2-methylbenzothiazole	40
5-Methyl-2,2'-bipyridyl	85
5-n-Butyl-2-chloropyrimidine	175
5-n-Decyl-2-(4-n-octyloxyphenyl)pyrimidine	94
5-n-Heptyl-2-(4-n-hexyloxyphenyl)pyrimidine	92
5-n-Heptyl-2-(4-n-octyloxyphenyl)pyrimidine	93
5-n-Hexyl-2-(4-n-hexyloxyphenyl)pyrimidine	92
5-n-Hexyl-2-(4-n-nonyloxyphenyl)pyrimidine	93
5-n-Hexyl-2-(4-n-octyloxyphenyl)pyrimidine	93
5-n-Octyl-2-(4-n-octyloxyphenyl)pyrimidine	94
5-Octyloxy-2-(4-octyloxyphenyl)pyrimidine	94
5 $\alpha$ -Cholestan-3 $\beta$ -ol	184
6-(2-Aminoethylamino)-2-butyl-1H-benzo[de]isoquinoline-1,3(2H)-9-dione	27
6-(4-Bromophenoxy)hexyl acrylate	126
6-(4-Cyano-biphenyl-4'-yloxy)hexyl acrylate	117
6,12-Bis(2-naphthyl)chrysene	25
6,12-Dibromochrysene	81
6,6'-Dimethyl-2,2'-bipyridine	85
6,6'-Dibromo[2,2']bipyridinyl	79
6,7-Dimethoxycoumarine	2
6-{4-[4-(Acryloyloxy)hexyloxy]cyclohexyl}phenoxyhexyl acrylate	121
6-Amino-1H-phenalene-1-one	29
6-Bromo-1-hexanol	127
6-Bromo-1-hexene	127
6-Bromo-2-naphthol	182
6-Bromonaphthalene-2-carbonyl chloride	78
6-Chloro-1-hexanol	127
6-Hydroxy-1H-phenalen-1-one	31
6-Hydroxy-2-naphthoic acid	179

---

## CHEMICAL NAME INDEX

6-Imino-6H-phenalen-1-ylamine hydrochloride hydrate	30
6-Methoxybenzothiazole-2-carbonitrile	41
6-Phenylphenanthridine	44
7-((2-Acryloyloxy)ethoxy)-4-methylcoumarin	3
7-((2-Acryloyloxy)ethoxy)coumarin	3
7-(Chlorocarbonylmethoxy)-4-methylcoumarin	3
7-(dimethylamino)-4-methyl-2H-chromen-2-one	29
7-Amino-4-methyl-2(1H)quinolinone	29
7-Amino-4-methyl-2-oxo-2H-chromen-3-ylacetic acid	2
7-Amino-4-methylcoumarin	2
7-Bromo-1-heptene	127
7-Bromo-9,9-dimethyl-9H-fluorene-2-carbaldehyde	58
7-Bromo-benzo[b]thiophene	75
7-Diethylamino-2-(7-diethylamino-chroman-2-one-3-yl)chromylium perchlorate	6
7-Diethylamino-4-methylcoumarin	2
7-Hydroxy-4-methylcoumarin	2
8-((2-Chloro-3-((10,11-dihydro-9H-benzo[a]xanthen-8-yl)methylene)cyclohex-1-enyl)methylene)-8,9,10,11-tetrahydrobenzo[a]xanthenium perchlorate	11
8-((2-Chloro-3-((2,4-diphenyl-6,7-dihydro-5H-chromen-8-yl)methylene)cyclohex-1-enyl)methylene)-2,4-diphenyl-5,6,7,8-tetrahydrochromenylium perchlorate	12
8-Bromo-1-octanol	128
8-Bromo-1-octene	128
8-Bromo-2-(2,6-diisopropylphenyl)-1H-benzo[5,10]anthra[2,1,9-def]isoquinoline-1,3(2H)-dione	47
8-Bromoquinoline	74
8-Hydroxy-1,1,7,7-tetramethyljulolidine	44
8-Hydroxy-1,1,7,7-tetramethyljulolidine-9-carboxaldehyde	44
8-Hydroxy-2,3,6,7-tetrahydro-1H,5H-benzo[i,j]quinolizine-9-carboxaldehyde	43
8-Hydroxyjulolidine	41
9-(1-Methyl-benzimidazol-2-yl)-2,3-5-6-tetrahydroquinolizino[9,9a,1-g]coumarin	5
9-(4-(4-Nonyloxyphenylazo)phenoxyonyl)acrylate	119
9-(4-Bromo-phenyl)-9H-carbazole	66
9-(4-Ethynylphenyl)-9H-carbazole	65
9,10-Bis-(2-naphthyl)anthracene	25
9,10-Bis(3-fluoro-4-methoxyphenyl)anthracene	34
9,10-Bis(3-methylphenyl)anthracene	25
9,10-Bis(4-methoxyphenyl)anthracene	33
9,10-Bis-(6-methoxynaphthalen-2-yl)anthracene	34
9,10-Bis[(1,1'-biphenyl)-4-yl]anthracene	26
9,10-Dibromo-2-methylantracene	46
9,10-Dibromoanthracene	45
9,10-Dibromophenanthrene	80



## CHEMICAL NAME INDEX

---

9,10-Dimethylantracene	23
9,10-Diphenylantracene	25
9,9-Bis(6-bromohexyl)-2,7-dibromofluorene	62
9,9'-Bis(xanthenyliiden)	32
9,9-Dimethyl-2-phenylaminofluorene	58
9,9-Dimethyl-9H-fluoren-2-ylamine	57
9,9-Di-n-octyl-9H-fluorene-2,7-diboronic acid	61
9,9-Diphenyl-9H-fluoren-2-ylamine	58
9-Biphenyl-4-yl-3-(4-chlorophenyl)-6-phenyl-9H-carbazole	65
9-Biphenyl-4-yl-3-(4-chlorophenyl)-9H-carbazole	67
9-Biphenyl-4-yl-3-bromo-9H-carbazole	64
9-Bromo-10-(4-naphthalen-1-ylphenyl)anthracene	82
9-Bromo-10-(4-naphthalen-2-ylphenyl)anthracene	82
9-Bromo-10-(naphthalen-2-yl)anthracene	46
9-Bromo-10-naphthalen-1-ylantracene	78
9-Bromo-10-phenylantracene	45
9-Bromo-11,11-dimethyl-11H-benzo[a]fluorene	57
9-Bromo-1-nonanol	129
9-Bromo-1-nonene	128
9-Bromoanthracene	77
9-Bromophenanthrene	77
9-Diethylaminobenzo[a]phenoxazone	31
9-Ethylamino-5-ethylimino-10-methyl-5H-benzo[a]phenoxazonium perchlorate	34
9-Ethylcarbazole-3-carbaldehyde	64
9H-Carbazole-3-carbonitrile	64
9-Julolidine carboxaldehyde	42
9-Methylantracene	23
9-Phenyl-9H-carbazol-3-ylboronic acid	65
9-Phenylacridine	30
9-Phenylantracene	23
9-Phenylcarbazole	64
9-Vinylantracene	74
Acrylic acid 11-(4-hydroxyphenoxy)undecyl ester	126
Acrylic acid 2-(4'-cyano-biphenyl-4-yloxy)ethyl ester	117
Acrylic acid 2-(6-dimethylamino-1,3-dioxo-1H,3H-benzo[de]isoquinolin-2-yl)ethyl ester	27
Acrylic acid 2-(methanesulfonyloxy)ethyl ester	124
Acrylic acid 3-(4-hydroxy-phenoxy)propyl ester	124
Acrylic acid 3-[4-(4-hexyloxyphenylazo)phenoxy]propyl ester	117
Acrylic acid 4-pyren-1-yl-butyl ester	24
Acrylic acid 6-[4'-(6-acryloyloxy-hexyloxy)biphenyl-4-yloxy]hexyl ester	120

## CHEMICAL NAME INDEX

all-trans-4-Pentyl-4'-(3,4,5-trifluorophenyl)bi(cyclohexane)	115
all-trans-4-Propyl-4'-(3,4,5-trifluorophenyl)bi(cyclohexane)	114
Anthracen-1-ol	42
Benzene-1,3,5-tricarboxylic acid tris-{4-[6-(4-propyl-phenylethynyl)naphthalene-2-yloxy]butyl} ester	111
Benzoic acid, 4-(trans-4-pentylcyclohexyl)-1,1'-[(1(R)(-))-1-phenyl-1,2-ethanediyl] ester	123
Benzoic acid, 4-(trans-4-pentylcyclohexyl)-1,1'-[(1(S)(+))-1-phenyl-1,2-ethanediyl] ester	123
Benzoic acid, 4-(trans-4-propylcyclohexyl)-1,1'-[(1(R)(-))-1-phenyl-1,2-ethanediyl] ester	123
Benzoic acid, 4-(trans-4-propylcyclohexyl)-1,1'-[(1(S)(+))-1-phenyl-1,2-ethanediyl] ester	123
Benzylthiolaniumhexafluoroantimonate	48
Biphenyl-4,4'-dicarboxaldehyde	181
Biphenyl-4-yl-(9,9-dimethyl-9H-fluoren-2-yl)amine	59
Biphenyl-4-yl-(9,9-diphenyl-9H-fluoren-2-yl)amine	61
Bis(1,1,6,6-tetramethyl-2,3,5,6-1H,4H-tetrahydroquinolizino[9,9a,1-gh]coumarin-3-yl)carbonyl	6
Bis(2,3,5,6-1H,4H-Tetrahydroquinolizino[9,9a,1-gh]coumarin-3-yl)carbonyl	6
Bis(3,4-dimethylphenyl)amine	70
Bis(3-bromophenyl)acetylene	80
Bis(4-dimethylaminodithiobenzil)nickel	28
Bis(4-methoxybenzoyl)diethylgermanium (Ivocerin®)	48
Bis(4-tert-butylphenyl)iodonium tetraphenylborate	48
Bis(biphenyl-4-yl)-(4-bromo-phenyl)amine	72
Bisphenoxyethanoldfluorene	60
Blue LC-Fluorescent Dye 13	35
Blue LC-Fluorescent Dye 14	35
Blue LC-Fluorescent Dye 2	35
Blue-violet Fluorescent Dye 4	35
Bromocresol Purple	22
Chlorophenol Red	22
Cholesterol	184
Cholesteryl [4-(6-acryloyloxy)hexyloxy]benzoate	119
Cholesteryl acetate	107
Cholesteryl caprylate	107
Cholesteryl decanoate	107
Cholesteryl heptanate	107
Cholesteryl palmitate	108
Cholesteryl pelargonate	107
Cholesteryl stearate	108
Cholesteryl undecanoate	107
Cholesteryl undecyl carbonate	107
Chrysene	43
Cobalt(II)phthalocyanine, β-modification	36

## CHEMICAL NAME INDEX

---

Coumarin 102	3
Coumarin 152	4
Coumarin 153	4
Coumarin 30	5
Coumarin 307	3
Coumarin 314	4
Coumarin 334	4
Coumarin 510	4
Coumarin 6	5
Coumarin 6H	3
Coumarin 7	5
d,l-Camphor quinone	48
di(p-tolyl)amine	69
Dibenzofuran-4-boronic acid	74
Dibenzotetrathiafulvalene	55
Diethyl safranine	33
Diodofluorescein	15
D-Luciferin, potassium salt	31
E-(4-Hex-5-enyloxyphenyl)-(4-methoxyphenyl)diazene	117
E-1,2-Bis(4-hex-5-enyloxyphenyl)diazene	120
E-4-(4-Methoxyphenylazo)phenol	182
Erythrosin B	15
Ethyl 4-hydroxybenzoate	178
Ethyl 7-Diethylaminocoumarin-3-carboxylate	4
Europium(III) thenoyltrifluoroacetate	28
Fluorene	57
Fluorescein diacetate	14
Fullerene C60	84
Fullerene C70	84
Glutacondialdehyde dianile hydrochloride	45
Green Fluorescent Dye 7	35
Hexadecylbenzene	139
Indocyanin Green	12
IR 1051	11
IR 140	12
Iron octafluorophthalocyanine	38
Iron tetrafluorophthalocyanine	38
Liquid crystal mixture E5	116
Liquid crystal mixture E7	116
Liquid crystal mixture E8	116

## CHEMICAL NAME INDEX

Malachite green oxalate	22
Malachite green oxalate, pure	22
Malondialdehyde dianile hydrochloride	44
meso-Tetraanisylporphyrin	37
meso-Tetraphenylporphyrin	37
Metanil yellow	1
Methacrylic acid 2-(methanesulfonyloxy)ethyl ester	124
Methyl 10-(2,5-dioxo-2,5-dihydro-1H-pyrrol-1-yl)-9-methoxy-3-oxo-3H-benzof[ <i>f</i> ]chromene-2-carboxylate	6
Methyl 4-hydroxybenzoate	178
Methylhydroquinone	174
Morin	31
N-(2-Chloro-3-phenylimino-1-propenyl)aniline hydrochloride	45
N-(4-Biphenyl)-N-phenylamine	70
N-(4-Butyl)-N,N-bis[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]aniline	73
N-(4-Ethoxybenzylidene)-4-butylaniline	88
N-(4-Ethylphenyl)-2-nitroaniline	70
N-(4-n-Hexylphenyl)acetamide	181
N-(9,9-dimethyl-9H-fluoren-2-yl)-9,9-dimethyl-7-phenyl-9H-fluoren-2-amine	61
N-(Methoxybenzylidene)-4-butylaniline	88
N,N,N',N'-Tetra(4-formylphenyl)benzidin	73
N,N,N',N'-Tetrakis(4-dibutylaminophenyl)phenylene-1,4-diammonium bis(hexafluoroantimonate)	29
N,N,N',N'-Tetrakis(4-methoxyphenyl)benzidine	52
N,N,N',N'-Tetrakis(4-methylphenyl)-benzidine sublimed	51
N,N,N',N'-Tetrakis(biphenyl-4-yl)benzidine sublimed	53
N,N,N',N'-Tetrakis(naphth-2-yl)benzidine sublimed	52
N,N'-Diphenylformamidine	42
N,N'-Diphenyl-N,N'-bis(9,9-dimethylfluorenyl)benzidine	52
N,N-Bis(4-methylphenyl)aminobenzaldehyde	71
N,N'-Bis-(4-methyl-phenyl)-N,N'-bis-(4-triphenylmethyl-phenyl)-benzidine sublimed	51
N,N'-Bis-(4-methylphenyl)-N,N'-bis-(phenyl)-benzidine sublimed	51
N,N'-Bis(phenanthren-9-yl)-N,N'-bis-phenyl-benzidine sublimed	52
N,N'-Bis-(phenyl)-N,N'-bis-(biphenyl-4-yl)-benzidine sublimed	52
N,N'-Di(4-(2,2-diphenyl-ethen-1-yl)phenyl)-N,N'-diphenyl-benzidine sublimed	53
N,N'-Di(naphthalen-1-yl)-N,N'-diphenyl-benzidine sublimed	51
N,N'-Di(naphthalen-2-yl)-N,N'-diphenyl-benzidine sublimed	51
N,N-Diethyl-4-[(2-methoxy-4-nitro)phenylazo]aniline	1
N,N'-Di-m-tolyl-N,N'-di(4-formylphenyl)benzidin	73
N,N'-Diphenyl-N,N'-di(4-formylphenyl)benzidin	73
N,N'-Di-p-tolyl-N,N'-di(4-formylphenyl)benzidin	73
N,N'-Terephthalylidene-bis(4-butylaniline)	88

## CHEMICAL NAME INDEX

N-[(2-Chloro-1-phenyliminomethyl-1-cyclohexene-3-ylidene)methyl]aniline hydrochloride	46
N-[2-(2-Butyl-1,3-dioxo-2,3-dihydro-1H-benzo[de]isoquinolin-6-ylamino)ethyl]-2-(2-[2-(2-[2-(2-[2-(2-dodecyloxyethoxy)ethoxy]ethoxy)ethoxy]ethoxy)ethoxy]ethoxy)ethoxy]acetamid	27
N-Benzyl-[4-(aza-15-crown-5)-phenylethylamino]-1,8-naphthalimide	27
n-Butylbenzene	138
n-Decanoic acid 4-(5-n-octylpyrimidin-2-yl)phenyl ester	95
n-Decylbenzene	139
n-Dodecylbenzene	139
n-Heptanoic acid 4-(5-n-octylpyrimidin-2-yl)phenyl ester	94
n-Heptylbenzene	138
n-Hexyl 7-diethylaminocoumarin-3-carboxylate	5
n-Hexylbenzene	138
n-Nonanoic acid 4-(5-n-decyl-pyrimidin-2-yl)phenyl ester	95
n-Nonylbenzene	138
n-Octadecylbenzene	139
n-Octylbenzene	138
n-Pentylbenzene	138
N-Phenyl-1-naphthylamine	70
N-Phenyl-2-naphthylamine	69
N-Phenyl-m-toluidine	69
N-Phenyl-N-[5-(phenylamino)methylene]-2-[(phenylimino)methyl]-1-yl]benzeneamine monoperchlorate	47
n-Propylbenzene	138
o-Terphenyl	23
Oxazine 725	33
p- Decyloxybenzoic acid	161
p- Nonyloxybezoic acid	161
Pentacene (sublimed)	54
Perfluoro-phthalocyanine, Copper complex sublimed	37
Phosphoric acid diphenyl ester azide	56
Phthalocyanine titanium oxide complex, beta-modification	36
Phthalocyanine titanium oxide complex, Y-modification	36
Phthalocyanine vanadium(IV) oxide complex sublimed	37
Phthalocyanine zinc complex sublimed	37
Phthalocyanine, Copper complex sublimed	36
Phthalocyanine; metal free; beta-modification	36
Pinacryptol yellow	7
Poly-{9,9-bis[3-(N,N-dimethyl-N-ethylammonium)-1-propyl]-2,7-fluoren}-alt-1,4-phenylene dibromide	62
Poly-{9,9-bis[3-(N,N-dimethyl-N-ethylammonium)-1-propyl]-2,7-fluoren}-alt-2,7-(9,9-dioctylfluorene) dibromide	62
p-Quaterphenyl	24
p-Quaterphenyl-4,4"-disulfonic acid dipotassium salt	26
p-Terphenyl	23

## CHEMICAL NAME INDEX

Pyranine	26
Pyranine, laser grade	26
Pyrene	42
Pyrene-1,3,6,8-tetrasulfonic acid tetra sodium salt	34
Red Fluorescent Dye 5	35
Rhodamine 101 perchlorate	21
Rhodamine 110 chloride	19
Rhodamine 116 perchlorate	19
Rhodamine 19	20
Rhodamine 6G	19
Rhodamine B	19
Rubicen	24
Rubrene	26
Ruthenium(4-vinyl-4'-methyl-2,2'-bipyridine)bis(2,2'bipyridine)bis(hexafluorophosphate)	28
S-[(1-Naphtyl)methyl]thiolanium hexafluoroantimonate	48
S-[2-(4-Methoxynaphth-1-yl)-2-oxoethyl]thiolanium hexafluoroantimonate	48
Safranin O	32
sodium 4-(2-(2-(2-chloro-3-(2-(1-(4-sulfonatobutyl)quinolin-2(1H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)quinolinium-1-yl)butane-1-sulfonate	10
Sodium 4-(2-(2-(2-chloro-3-(2-(1,1-dimethyl-3-(4-sulfonatobutyl)-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclohex-1-enyl)vinyl)-1,1-dimethyl-1H-benzo[e]indolium-3-yl)butane-1-sulfonate	13
Sodium 4-(2-(2-(2-chloro-3-(2-(1,1-dimethyl-3-(4-sulfonatobutyl)-1H-benzo[e]indol-2(3H)-ylidene)ethylidene)cyclopent-1-enyl)vinyl)-1,1-dimethyl-1H-benzo[e]indolium-3-yl)butane-1-sulfonate	13
Sodium 4-(2-(2-(2-chloro-3-(2-(3,3-dimethyl-1-(4-sulfonatobutyl)-3H-indolium-2-yl)vinyl)cyclohex-2-enylidene)ethylidene)-3,3-dimethylindolin-1-yl)butane-1-sulfonate	12
Solvent Black 3 (C.I. 26150)	1
Stilbene 3	26
Styryl 6	7
Styryl 9M	9
Sulforhodamine 101	21
Sulforhodamine B, acid form	20
Sulforhodamine B, sodium salt	20
Tetra(4-methoxyphenyl)porphyrine cobalt complex	38
Tetrabromophenol Blue	22
Tetracene	54
Tetrachloroperylene tetracarboxylic acid dianhydride	47
Tetradecylbenzene	139
Tetrafluoro-phthalocyanine, Copper complex sublimed	37
Tetramethylrhodamine methylester perchlorate	20
Tetramethylrhodamine perchlorate	19
Toluidine Blue O	31
trans-(4-Ethylcyclohexane)carboxylic acid	135
trans-(4-n-Butylcyclohexane)carboxylic acid	135

## CHEMICAL NAME INDEX

trans-(4-n-Heptylcyclohexane)carboxylic acid	135
trans-(4-n-Pentylcyclohexane)carboxylic acid	135
trans-(4-n-Propylcyclohexane)carboxylic acid	135
trans,trans-4-(6-(Acryloyloxy)hexyloxy)phenyl 4'-propylbi(cyclohexane)-4-carboxylate	118
trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-butylcyclohexyl)-1,3-dioxane	90
trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-pentylcyclohexyl)-1,3-dioxane	90
trans-2-(3,4-Difluorophenyl)-5-(trans-4-n-propylcyclohexyl)-1,3-dioxane	89
trans-2-(4-Butylphenyl)-5-(4-pentylcyclohexyl)pyrimidine	93
trans-2-(4-Cyanophenyl)-5-n-butyl-1,3-dioxane	89
trans-2-(4-Cyanophenyl)-5-n-pentyl-1,3-dioxane	89
trans-2-(4-Cyanophenyl)-5-n-propyl-1,3-dioxane	89
trans-2-(4-Fluorophenyl)-5-(trans-4-n-butylcyclohexyl)-1,3-dioxane	89
trans-2-(4-Fluorophenyl)-5-(trans-4-n-pentylcyclohexyl)-1,3-dioxane	89
trans-2-(4-Fluorophenyl)-5-(trans-4-n-propylcyclohexyl)-1,3-dioxane	89
trans-4-(4'-n-Butylcyclohexyl)phenol	131
trans-4-(4'-n-Heptylcyclohexyl)phenol	131
trans-4-(4'-n-Pentylcyclohexyl)phenol	131
trans-4-(4'-n-Propylcyclohexyl)phenol	131
trans-4-(4-Bromophenyl)cyclohexanol	183
trans-4-(4'-n-Butylcyclohexyl)benzotrile	106
trans-4-(4-n-Pentyl)cyclohexyl-4'-cyanobiphenyl	101
trans-4-(4-n-Pentylcyclohexyl)benzoic acid	169
trans-4-(4'-n-Pentylcyclohexyl)benzotrile	106
trans-4-(trans-4'-Ethylcyclohexyl)cyclohexane carboxylic acid	135
trans-4-(trans-4'-Methylcyclohexyl)cyclohexane carboxylic acid	136
trans-4-(trans-4'-n-Butylcyclohexyl)cyclohexane carboxylic acid	136
trans-4-(trans-4-n-Butylcyclohexyl)cyclohexanol	132
trans-4-(trans-4'-n-Heptylcyclohexyl)cyclohexane carboxylic acid	136
trans-4-(trans-4'-n-Pentylcyclohexyl)cyclohexane carboxylic acid	136
trans-4-(trans-4-n-Pentylcyclohexyl)cyclohexanol	132
trans-4-(trans-4'-n-Propylcyclohexyl)cyclohexane carboxylic acid	136
trans-4-(trans-4-n-Propylcyclohexyl)cyclohexanol	132
trans-4-Ethylcyclohexanol	173
trans-4-Hydroxycyclohexanecarboxylic acid	135
trans-4-iso-Propylcyclohexanol	173
trans-4-n-Butylcyclohexanol	173
trans-4-n-Pentylcyclohexanol	173
trans-4-n-Propylcyclohexanol	173
trans-4-Phenylcyclohexanol	179
Triethylammonium 3-(5-methoxy-2-((5-methoxy-3-(3-sulfonatopropyl)benzo[d]thiazol-2(3H)-ylidene)methyl)benzo[d]thiazol-3-ium-3-yl)propane-1-sulfonate	10

## CHEMICAL NAME INDEX

---

Triphenylamine	70
Triphenylene-2-boronic acid	78
Tripotassium 2-(2-(2-chloro-3-(2-(3,3-dimethyl-5-sulfonato-1-(4-sulfonatobutyl)indolin-2-ylidene)-ethylidene)cyclohex-1-enyl)vinyl)-3,3-dimethyl-1-(4-sulfonatobutyl)-3H-indolium-5-sulfonate	7
Tris(4-Bromophenyl)amine	72
Tris(4-iodophenyl)amine	73
Tris[4-dimethylamino-phenyl]methan	22
Tris{11-[pentakis-(4'-ethylphenylethynyl)phenoxy]undecyl} trimesate	112
Tris-{11-[pentakis-(4'-propylphenylethynyl)phenoxy]undecyl} trimesate	112
UV-Violet LC-Fluorescent Dye 6	35
Vanadyl 2,9,16,23-tetraphenoxy-29H,31H-phthalocaynine	38
Xantheno[2,1,9,8-klmna]xanthene	78
Zinc 1,2,3,4,8,9,10,11,15,16,17,18,22,23,24,25-hexadecafluoro-29H,31H-phthalocyanine	37



## CONCORDANCE

54	54	ST00193	17	ST00399	160	ST00437	150	ST00490	97
ST00010/11S	37	ST00194	17	ST00400	160	ST00438	150	ST00492	107
ST00010/12S	37	ST00195	17	ST00401	157	ST00439	150	ST00497	107
ST00010/13S	36	ST00197	6	ST00402	157	ST00440	150	ST00498	107
ST00016/03S	51	ST00200	39	ST00403	157	ST00441	151	ST00499	107
ST00016/04S	51	ST00203	40	ST00404	157	ST00442	151	ST00500	107
ST00016/07S	51	ST00205	42	ST00405	157	ST00444	148	ST00501	107
ST00016/09S	51	ST00210	44	ST00406	157	ST00445	148	ST00506	108
ST00016/15S	52	ST00212	43	ST00407	158	ST00446	148	ST00508	108
ST00016/16S	53	ST00222	42	ST00408	156	ST00447	149	ST00517	48
ST00016/18S	52	ST00251	42	ST00409	156	ST00448	149	ST00534	2
ST00016/19S	52	ST00342	16	ST00410	156	ST00449	149	ST00541	34
ST00019	69	ST00347	1	ST00411	156	ST00464	168	ST00547	91
ST00028	64	ST00362	2	ST00412	156	ST00465	168	ST00548	91
ST00029	71	ST00364	41	ST00413	156	ST00466	168	ST00549	91
ST00041/01	55	ST00366	46	ST00414	156	ST00467	168	ST00550	92
ST00041/10	55	ST00369	22	ST00415	154	ST00468	168	ST00551	93
ST00067	8	ST00370	22	ST00416	154	ST00469	168	ST00552	93
ST00069	10	ST00371	38	ST00417	154	ST00470	168	ST00553	94
ST00074	9	ST00376	45	ST00418	154	ST00471	166	ST00554	94
ST00081	7	ST00381	16	ST00419	154	ST00472	166	ST00555	95
ST00084	12	ST00382	164	ST00420	154	ST00473	166	ST00556	94
ST00100	10	ST00383	164	ST00421	154	ST00474	166	ST00557	94
ST00102	39	ST00384	164	ST00422	153	ST00475	166	ST00558	94
ST00104	43	ST00385	164	ST00423	153	ST00476	166	ST00559	95
ST00107	39	ST00386	164	ST00424	153	ST00477	166	ST00560	95
ST00113	42	ST00387	164	ST00425	153	ST00478	97	ST00562	14
ST00114	41	ST00388	163	ST00426	153	ST00479	98	ST00569	133
ST00143	40	ST00389	163	ST00427	153	ST00480	98	ST00570	133
ST00183	18	ST00390	163	ST00428	153	ST00481	98	ST00571	133
ST00184	18	ST00391	163	ST00429	152	ST00482	88	ST00573	22
ST00186	11	ST00392	163	ST00430	152	ST00483	88	ST00577	73
ST00187	18	ST00393	163	ST00431	152	ST00484	88	ST00627	53
ST00188	30	ST00394	160	ST00432	152	ST00485	96	ST00627S	53
ST00189	30	ST00395	160	ST00433	152	ST00486	96	ST00630	39
ST00190	31	ST00396	160	ST00434	152	ST00487	96	ST00632	178
ST00191/01	18	ST00397	160	ST00435	152	ST00488	97	ST00633	175
ST00192	17	ST00398	160	ST00436	150	ST00489	97	ST00635	70

## CONCORDANCE

---

ST00638S	53	ST00719	138	ST00934	134	ST01159	20	ST01292	12
ST00639	47	ST00720	138	ST00946	9	ST01165	16	ST01293	150
ST00640	25	ST00723	69	ST00947	12	ST01168	127	ST01294	177
ST00657	9	ST00724	129	ST00949	9	ST01172	178	ST01296	158
ST00661	16	ST00726	24	ST00955	29	ST01181	46	ST01333	177
ST00664S	53	ST00728	39	ST00956	30	ST01189S	53	ST01334	20
ST00669S	56	ST00731	43	ST00957	30	ST01191	102	ST01335	175
ST00670	69	ST00732	148	ST00959	10	ST01198	16	ST01336	175
ST00671	69	ST00733	148	ST00960	180	ST01205	41	ST01341	174
ST00672	15	ST00734	148	ST00971	9	ST01207	28	ST01347	13
ST00673	44	ST00735	175	ST00973	181	ST01208	4	ST01356	175
ST00674	46	ST00738	70	ST00975	121	ST01221	183	ST01359	127
ST00680	100	ST00739/01	26	ST00990	10	ST01224	182	ST01360	127
ST00681	100	ST00739/02	26	ST00991	31	ST01226	10	ST01366	24
ST00682	100	ST00755S	53	ST00992	14	ST01228	71	ST01367	7
ST00683	100	ST00762	7	ST00994	134	ST01229	3	ST01369	135
ST00684	100	ST00763	32	ST01011	121	ST01230	4	ST01370	135
ST00685	102	ST00766	30	ST01014	29	ST01232	184	ST01374S	51
ST00686	102	ST00767	19	ST01023	165	ST01233	172	ST01380	8
ST00688	105	ST00776	56	ST01042	177	ST01247	128	ST01386	174
ST00689	105	ST00776S	56	ST01057	179	ST01251	183	ST01391	158
ST00691	106	ST00779	43	ST01058	11	ST01261	81	ST01392	155
ST00692	106	ST00798	12	ST01059	94	ST01274	147	ST01398	44
ST00693	89	ST00804	6	ST01060	93	ST01275	147	ST01405	58
ST00694	89	ST00807	40	ST01066	175	ST01276	147	ST01416	144
ST00695	89	ST00808	40	ST01067	149	ST01277	147	ST01417	144
ST00700	86	ST00810	134	ST01073	23	ST01278	147	ST01422	101
ST00702	17	ST00811	181	ST01076	23	ST01279	147	ST01438	79
ST00703	17	ST00831	181	ST01079	14	ST01280	147	ST01456	41
ST00706	19	ST00864	127	ST01092	19	ST01281	145	ST01458	13
ST00707	19	ST00873	44	ST01100	180	ST01282	145	ST01468	26
ST00708	19	ST00878	172	ST01116	135	ST01283	145	ST01472	57
ST00709	21	ST00879	172	ST01117	135	ST01284	145	ST01491	70
ST00711	23	ST00887	179	ST01123	180	ST01285	145	ST01496	78
ST00712	23	ST00902	125	ST01128	177	ST01286	145	ST01498	59
ST00714	138	ST00912	178	ST01129	177	ST01287	146	ST01515	179
ST00715	138	ST00914	129	ST01133	11	ST01288	134	ST01516	142
ST00716	138	ST00916	155	ST01139	11	ST01289	7	ST01517	142
ST00717	138	ST00918S	55	ST01145	14	ST01290	40	ST01518	142
ST00718	138	ST00927	179	ST01146	184	ST01291	12	ST01519	142

---

## CONCORDANCE

---

ST01520	142	ST01739	129	ST02046	41	ST02468	37	ST02927	107
ST01521	142	ST01740	127	ST02056	137	ST02470	37	ST02929	128
ST01522	143	ST01771	112	ST02061	4	ST02507	136	ST02961	50
ST01529	102	ST01778	2	ST02063	25	ST02508	136	ST02980	85
ST01533	47	ST01786	5	ST02078	178	ST02561	170	ST02981	85
ST01552	85	ST01787	5	ST02082	26	ST02576	102	ST02982	36
ST01556	75	ST01788	2	ST02087	50	ST02579	74	ST02999	169
ST01561	58	ST01789	2	ST02092	1	ST02581	165	ST03009	139
ST01562	102	ST01790	2	ST02097	22	ST02590	1	ST03010	139
ST01563	32	ST01792	3	ST02103S	51	ST02612	26	ST03021	120
ST01563S	55	ST01794	3	ST02107	42	ST02613	26	ST03023	77
ST01566	80	ST01796	5	ST02109	11	ST02614	26	ST03032	64
ST01567	80	ST01797	4	ST02117	178	ST02615	7	ST03065	57
ST01569	91	ST01819	24	ST02119	180	ST02629	96	ST03087	10
ST01577	32	ST01843	39	ST02125	10	ST02630	96	ST03088	46
ST01579	33	ST01844	12	ST02137	30	ST02636	54	ST03112	40
ST01582	29	ST01845	109	ST02185	11	ST02659	180	ST03166	45
ST01596	144	ST01846	110	ST02186	8	ST02669	118	ST03174	139
ST01599	4	ST01847	109	ST02200	135	ST02670	117	ST03202	101
ST01605	185	ST01848	109	ST02201	136	ST02677	44	ST03203	102
ST01606	112	ST01849	109	ST02202	136	ST02678	100	ST03204	103
ST01612	112	ST01850	109	ST02214	176	ST02714	111	ST03206	89
ST01615	46	ST01851	110	ST02215	176	ST02721	33	ST03207	89
ST01618	125	ST01859	180	ST02216	176	ST02726	169	ST03208	89
ST01624	75	ST01860	137	ST02217	176	ST02754	23	ST03209	89
ST01630	124	ST01861	137	ST02218	176	ST02755	92	ST03210	90
ST01636	82	ST01862	106	ST02219	176	ST02756	92	ST03211	90
ST01648	43	ST01878	6	ST02220	176	ST02757	91	ST03215	31
ST01651	13	ST01885	3	ST02222	44	ST02762	169	ST03216	39
ST01657S	37	ST01887	45	ST02232	45	ST02804	100	ST03228	25
ST01658S	37	ST01889	124	ST02234	24	ST02811	57	ST03229	8
ST01660	129	ST01897	158	ST02259	177	ST02848	20	ST03230	8
ST01661	181	ST01898	110	ST02286	109	ST02863	148	ST03231	33
ST01670	128	ST01911	16	ST02287	109	ST02866	69	ST03232	34
ST01680	124	ST01965	11	ST02294	74	ST02867	70	ST03234	29
ST01685	33	ST01967	177	ST02304	178	ST02884	77	ST03236	20
ST01686	32	ST01968	1	ST02369	33	ST02890	101	ST03237	25
ST01693S	51	ST01974	76	ST02453	124	ST02891	101	ST03239	7
ST01718	174	ST01999	30	ST02454	125	ST02919	40	ST03240	33
ST01738	85	ST02038	31	ST02456	25	ST02921	182	ST03241	34

---

## CONCORDANCE

---

ST03242	4	ST03617	34	ST03862	141	ST04007	36	ST04165	71
ST03243	23	ST03618	45	ST03863	141	ST04011	9	ST04166	70
ST03254	1	ST03619	57	ST03864	141	ST04041	20	ST04167	69
ST03256	19	ST03621	34	ST03866	117	ST04044	60	ST04168	73
ST03257	20	ST03625	33	ST03869	6	ST04048	101	ST04169	73
ST03262	144	ST03639	42	ST03872	180	ST04057	22	ST04170	73
ST03274	21	ST03659	150	ST03873	80	ST04070	59	ST04171	73
ST03294	164	ST03668	135	ST03875	179	ST04072	61	ST04172	70
ST03300	41	ST03673	72	ST03876	6	ST04082	130	ST04173	71
ST03315	31	ST03678	32	ST03889	85	ST04093	174	ST04174	65
ST03325	172	ST03704	29	ST03902	184	ST04097	131	ST04178	128
ST03332	72	ST03709	50	ST03905	80	ST04100	35	ST04180	119
ST03333	92	ST03721	63	ST03909	48	ST04120	184	ST04181	121
ST03334	93	ST03737	92	ST03917	36	ST04127	59	ST04185	5
ST03335	93	ST03742	183	ST03918	36	ST04128	60	ST04189	182
ST03336	182	ST03759	2	ST03919	36	ST04135	129	ST04217	75
ST03337	182	ST03762	41	ST03926	86	ST04141	65	ST04218	69
ST03338	181	ST03776	120	ST03927	86	ST04142	59	ST04227	114
ST03345	79	ST03780	127	ST03929	86	ST04143	62	ST04228	114
ST03358	9	ST03808	128	ST03930	86	ST04144	60	ST04229	114
ST03367	183	ST03819	84	ST03931	131	ST04145	61	ST04230	114
ST03368	183	ST03825	175	ST03932	131	ST04146	62	ST04235	4
ST03405	17	ST03831	24	ST03933	131	ST04147	59	ST04242	5
ST03433	161	ST03832	179	ST03934	132	ST04148	58	ST04255	130
ST03444	184	ST03833	55	ST03935	132	ST04149	58	ST04258	182
ST03456	125	ST03839	84	ST03936	132	ST04150	64	ST04263	46
ST03457	118	ST03846	170	ST03937	80	ST04151	65	ST04264	47
ST03464	181	ST03847	170	ST03949	173	ST04152	64	ST04265	14
ST03469	81	ST03848	170	ST03950	173	ST04153	64	ST04275	46
ST03470	25	ST03851	140	ST03951	173	ST04154	65	ST04276	184
ST03474	117	ST03852	140	ST03952	119	ST04155	63	ST04277	59
ST03484	179	ST03853	140	ST03954	25	ST04156	63	ST04287	116
ST03494	43	ST03854	140	ST03957	15	ST04157	65	ST04291	3
ST03590	173	ST03855	140	ST03960	174	ST04158	67	ST04292	3
ST03594	74	ST03856	140	ST03961	44	ST04159	68	ST04293	3
ST03595	5	ST03857	140	ST03984	38	ST04160	66	ST04294	146
ST03598	28	ST03858	141	ST03986	43	ST04161	67	ST04299	31
ST03599	165	ST03859	141	ST03989	24	ST04162	71	ST04305	35
ST03604	126	ST03860	141	ST03990	24	ST04163	72	ST04307	80
ST03606	125	ST03861	141	ST03992	101	ST04164	71	ST04309	35

---

## CONCORDANCE

---

ST04310	112	ST04478	104	ST04650	144	ST05502	67	ST05914	76
ST04312	103	ST04479	104	ST04654	118	ST05528	82	ST05915	78
ST04313	124	ST04484	23	ST04664	72	ST05552	65	ST05916	79
ST04314	124	ST04486	73	ST04666	122	ST05590	63	ST05917	72
ST04315	120	ST04487	72	ST04667	126	ST05618	63	ST05918	80
ST04321	121	ST04489	112	ST04668	96	ST05619	67	ST05919	76
ST04327	124	ST04501	121	ST04669	98	ST05620	64	ST05920	76
ST04331	35	ST04516	34	ST04672	71	ST05698	65	ST05921	79
ST04332	114	ST04524	111	ST04674	122	ST05699	65	ST05922	79
ST04333	115	ST04525	111	ST04685	75	ST05705	81	ST05923	77
ST04342	35	ST04527	78	ST04690	15	ST05711	78	ST05924	82
ST04351	1	ST04530	62	ST04691	14	ST05716	82	ST05925	74
ST04353	86	ST04532	62	ST04693	55	ST05836	83	ST05926	74
ST04354	126	ST04534	62	ST04694	48	ST05837	83	ST05927	82
ST04361	15	ST04535	5	ST04695	48	ST05838	82	ST05928	75
ST04362	81	ST04537	144	ST04696	48	ST05852	72	ST05929	77
ST04369	62	ST04546	56	ST04697	48	ST05861	135	ST05930	57
ST04375	27	ST04554	130	ST04699	20	ST05864	58	ST05931	77
ST04388	7	ST04556	78	ST04717	118	ST05865	123	ST05932	77
ST04402	45	ST04559	27	ST04718	119	ST05866	123	ST05933	75
ST04404	1	ST04570	117	ST04891	105	ST05867	118	ST05934	76
ST04414	145	ST04572	126	ST05005	98	ST05874	118	ST05936	128
ST04415	35	ST04573	86	ST05066	98	ST05882	159	ST05938	64
ST04416	35	ST04574	85	ST05176	167	ST05883	159	ST05944	90
ST04421	139	ST04575	61	ST05177	167	ST05884	159	ST05945	93
ST04427	63	ST04577	67	ST05178	27	ST05885	97	ST05946	97
ST04433	45	ST04578	77	ST05190	52	ST05887	117	ST05947	136
ST04450	173	ST04579	79	ST05254	60	ST05888	120	ST05953	121
ST04463	126	ST04580	81	ST05315	57	ST05889	182	ST05954	91
ST04465	113	ST04583	76	ST05360	14	ST05891	55	ST05955	92
ST04466	111	ST04584	171	ST05371	158	ST05892	185	ST05956	92
ST04467	113	ST04585	171	ST05375	61	ST05893	93	ST05957	129
ST04468	111	ST04586	171	ST05469	60	ST05894	52	ST05958	126
ST04469	111	ST04587	122	ST05476	59	ST05902	27	ST05962	60
ST04472	85	ST04594	62	ST05487	58	ST05905	127	ST05966	181
ST04473	87	ST04595	61	ST05488	61	ST05908	30	ST05967	30
ST04474	104	ST04623	104	ST05490	60	ST05910	74	ST05968	32
ST04475	104	ST04628	76	ST05492	57	ST05911	78	ST05972	76
ST04476	104	ST04629	78	ST05498	58	ST05912	78	ST05985	82
ST04477	104	ST04645	22	ST05501	67	ST05913	75	ST05999	129

---

## CONCORDANCE

---

ST06000	130	ST06152	123	ST06383	112
ST06005	47	ST06153	123	ST06393	48
ST06007	73	ST06164	128	ST06405	6
ST06010	28	ST06188	29	ST06409	115
ST06012	49	ST06194	161	ST06410	121
ST06013	119	ST06196	161	ST06411	184
ST06014	111	ST06204	115	ST06412	36
ST06015	112	ST06226	37	ST06421	56
ST06016	120	ST06228	115	ST06423	142
ST06022	162	ST06229	97	ST06425	19
ST06023	162	ST06237	149	ST06429	125
ST06024	162	ST06238	42	ST06430	130
ST06025	162	ST06241	116	ST06433	74
ST06028	47	ST06242	116		
ST06030	47	ST06247S	52		
ST06039	31	ST06248S	52		
ST06041	185	ST06251	122		
ST06044	99	ST06252	106		
ST06045	99	ST06261	12		
ST06064	118	ST06272	68		
ST06065	117	ST06273	67		
ST06080	120	ST06275	162		
ST06081	93	ST06287	122		
ST06082	94	ST06290	115		
ST06083	95	ST06291	98		
ST06086	99	ST06294	8		
ST06087	95	ST06295	8		
ST06088	61	ST06299	91		
ST06090	120	ST06300	64		
ST06094	83	ST06301	63		
ST06100	81	ST06302	178		
ST06114	95	ST06310	183		
ST06115	119	ST06323	38		
ST06121	139	ST06324	38		
ST06126	117	ST06335	126		
ST06129	183	ST06341	70		
ST06132	122	ST06347	125		
ST06133	114	ST06355	84		
ST06136	103	ST06370	132		
ST06137	103	ST06376	114		

---

## MOLECULAR FORMULA INDEX

C22H14BrN	67	C8H5Br	74	C9H13BO2	140	C10H14	138
C22H14BrN	63	C8H6ClNO	39	C9H13BO3	141	C10H14O	148
C24H16BrN	64	C8H6ClNS	41	C9H13ClN2	175	C10H14O2	150
C35H37NO6	119	C8H6N2O2S	41	C9H13N	178	C10H14O2	48
C24H16O7	14	C8H6N2O3	40	C9H16O	172	C10H15BO2	140
C3H7ClO	130	C8H6N2O3	40	C9H16O2	135	C10H15BO3	141
C4H7Br	127	C8H6O6	174	C9H17Br	128	C10H18O	172
C5H2O5	39	C8H7NS	39	C9H18Br2	130	C10H18O2	135
C46H58O10	122	C8H8O3	178	C9H18O	173	C10H19Br	128
C5H5NO3S2	41	C8H9Br	145	C9H18O	173	C10H20O	173
C5H11BrO	127	C8H9BrO	147	C9H19BrO	129	C10H21BrO	129
C5O5Na2	41	C8H10O2	174	CxHyOzNw	116	C11H7KN2O3S	31
C6H3BrF2O	181	C8H10O2	150	CxHyOzNw	116	C11H8N2O2	86
C6H4F2O2	174	C8H11BO2	140	C10H6Br2	78	C11H8N2O2	86
C6H6O2S	74	C8H11BO3	141	C10H6Br2N2	79	C11H8N2S	42
C6H7ClN2	175	C8H11ClN2	175	C10H7Br	74	C11H8O3	179
C6H10O5S	124	C8H12O3	177	C10H7BrO	182	C11H9N	39
C6H11Br	127	C8H14O	172	C10H7I	76	C11H10N2	85
C6H11ClO2	127	C8H15Br	128	C10H8N2O	40	C11H10N2	85
C6H12BrCl	128	C8H16O	178	C10H8O3	2	C11H10O4	2
C6H13BrO	127	C8H16O	173	C10H9NO2	2	C11H12	144
C6H13ClO	127	C8H17BrO	128	C10H10	144	C11H12O2	159
C6H14O2	133	C8H18O2	133	C10H10Cl2N2	44	C11H12O3	162
C7H2BrF2N	181	C9H6N2OS	41	C10H10N2O	29	C11H13ClO	154
C7H3BrFN	180	C9H9ClO	154	C10H10O2	159	C11H13ClO2	156
C7H3F2NO	148	C9H9ClO2	156	C10H10O3	162	C11H13N	39
C7H3F2NO	148	C9H9N	152	C10H11ClO	154	C11H13N	152
C7H4FN	178	C9H9NO	153	C10H11ClO2	156	C11H13NO	153
C7H4FNO	148	C9H9NOS	40	C10H11N	152	C11H14O	163
C7H4FNO	148	C9H9NOSe	43	C10H11NO	39	C11H14O	142
C7H5NO	178	C9H9NS	39	C10H11NO	153	C11H14O	142
C7H6F2O2	150	C9H10O2	157	C10H11NS	40	C11H14O2	164
C7H6O2	178	C9H10O2	164	C10H12O	163	C11H14O2	157
C7H8O2	174	C9H10O3	178	C10H12O	142	C11H14O2	179
C7H8O2	150	C9H10O3	160	C10H12O2	164	C11H14O3	160
C7H9ClN2	175	C9H11Br	145	C10H12O2	157	C11H15Br	145
C7H12O3	135	C9H11BrO	147	C10H12O3	160	C11H15BrO	147
C7H12O5S	124	C9H12	138	C10H12Se4	55	C11H15F6SSb	48
C7H16O2	133	C9H12O	148	C10H13Br	145	C11H15NO2	41
C8H4N2O2	174	C9H12O2	150	C10H13BrO	147	C11H16	138

## MOLECULAR FORMULA INDEX

C11H16O	148	C12H11N	40	C13H8Br2	58	C13H19BrO	147
C11H16O2	179	C12H11NO4	2	C13H8O2	31	C13H20	138
C11H16O2	150	C12H12N2	85	C13H9Br	57	C13H20O	149
C11H17BO2	140	C12H12N2	85	C13H9I	58	C13H20O2	151
C11H17BO3	141	C12H12N2	85	C13H9NO	29	C13H21BO2	140
C11H17CIN2	175	C12H12N2	85	C13H9NO	180	C13H21BO3	141
C11H17NO	179	C12H12ON2S2	7	C13H10	57	C13H21CIN2	175
C11H18O3	177	C12H12O5	124	C13H10N2 x H	30	C13H21NO	181
C11H20O	172	C12H13BrO	183	C13H10O3	181	C13H26O2	134
C11H20O2	135	C12H14	144	C13H11N	64	C14H6Br2O2	81
C11H21Br	129	C12H14O2	180	C13H11NO	69	C14H8Br2	80
C11H22O	173	C12H14O4	124	C13H12F3NO2	3	C14H8Br2	80
C11H22O2	134	C12H15Br	145	C13H12N2	42	C14H8Br2	45
C11H23BrO	129	C12H15BrO	183	C13H12N2O2	182	C14H8S4	55
C12F4N4	55	C12H15ClO	154	C13H13BF2O3	30	C14H9Br	77
C12H5BrO3	45	C12H15ClO2	156	C13H13BrO	183	C14H9Br	77
C12H7Br2N	63	C12H15N	152	C13H13N	69	C14H9Br	77
C12H7Br2N	63	C12H15NO	153	C13H13N	69	C14H10Br2	80
C12H8BrN	65	C12H15NO	41	C13H13NO	180	C14H10O	42
C12H8BrF	183	C12H16O	142	C13H14O5	124	C14H10O2	181
C12H8BrN	65	C12H16O	163	C13H14O5	124	C14H11NO	42
C12H8BrN	65	C12H16O	179	C13H15NO	42	C14H11NO2	70
C12H8Br2	79	C12H16O2	164	C13H15NO2	43	C14H11NO6	4
C12H8N2O4	86	C12H16O2	180	C13H15NO2	2	C14H11NS	43
C12H8N2O4	87	C12H16O2	157	C13H16	144	C14H12BrN	65
C12H8N2O4	86	C12H16O3	160	C13H16O2	159	C14H12Br2	80
C12H8N2O4	86	C12H17Br	145	C13H16O2	158	C14H12O3	182
C12H9BO3	74	C12H17BrO	147	C13H16O3	162	C14H12O5	3
C12H9Br	76	C12H18	138	C13H16O3	162	C14H13Br	176
C12H9Br	75	C12H18O	149	C13H17BrO	183	C14H13N	64
C12H9Br	75	C12H18O2	150	C13H17ClO	154	C14H13NO	69
C12H9ClO4	3	C12H19BO2	140	C13H17ClO2	156	C14H13NO2	64
C12H9FO	180	C12H19BO3	141	C13H17N	152	C14H14F3NO2	4
C12H9IO	184	C21H19IN2S	8	C13H17NO	153	C14H14N2O	29
C12H9NO	40	C12H19N	179	C13H18O	163	C14H14N2O2	70
C12H9NS	42	C12H19NO	180	C13H18O	142	C14H15N	69
C12H10N2O2	128	C12H22O2	135	C13H18O2	157	C14H15N	69
C12H10N3O3P	56	C12H24O2	134	C13H18O2	164	C14H16IN3O2	34
C12H10O2	179	C13H6Br2O	58	C13H18O3	160	C14H16N4	1
C12H10O5	2	C13H7BrO	57	C13H18O4	129	C14H16O5	124
C12H11BF2O2	30	C13H8BrI	59	C13H19Br	145	C14H17F6FeP	48



## MOLECULAR FORMULA INDEX

C14H17NO2	2	C15H13NO	64	C16H6Na4O12	34	C16H22O4	130
C14H17NO2	89	C15H14O	170	C16H7Na3O10	26	C16H23ClO	155
C14H18	144	C15H14O2	166	C16H7Na3O10	26	C16H23NO	44
C14H19ClO	154	C15H14O2	171	C16H8Br2	81	C16H24O	143
C14H19ClO2	156	C15H14O3	168	C16H8Br2	81	C16H24O	131
C14H19N	152	C15H14O3	182	C16H9Br	78	C16H24O2	158
C14H19NO	153	C15H14O5	3	C16H10	42	C16H24O2	165
C14H20O	142	C15H15Br	176	C16H10O	43	C16H26	139
C14H20O	163	C15H15ClN2	44	C16H11N3O2	1	C16H27NO	182
C14H20O2	164	C15H15N	43	C16H12FNO2	96	C16H28O	137
C14H20O2	157	C15H15NO	75	C16H13BrO	58	C16H28O2	136
C14H20O3	160	C15H15NO2	3	C16H13N	69	C16H30O	132
C14H21Br	146	C15H16ClN3S	31	C16H13N	70	C17H12	23
C14H21BrO	147	C15H17F6SSb	48	C16H13NO	104	C17H14FNO2	96
C14H21NO	181	C15H18N2	91	C16H13NS	44	C17H15NO	104
C14H22	138	C15H18O5	125	C16H13N3O	44	C17H15NO2	96
C14H22O	149	C15H19BrO3	126	C16H14	23	C17H16	109
C14H22O2	177	C15H19NO2	89	C16H14ClNO2	30	C17H16Br2	59
C14H22O2	151	C15H20O2	169	C16H14NO2F3	4	C17H16O	109
C14H22O3	177	C15H20O4	129	C16H15N	100	C17H17ClN2	45
C14H23BO2	140	C15H20O4	125	C16H15NO	102	C17H17N	100
C14H23BO3	141	C15H21Br	184	C16H16O	170	C17H17NO3	4
C14H23ClN2	175	C15H21ClO	154	C16H16O2	166	C17H18O	170
C14H24O2	136	C15H21ClO2	156	C16H16O2	171	C17H18O2	166
C14H26O2	135	C15H21I	184	C16H16O3	168	C17H18O2	171
C14H26O2	182	C15H21N	152	C16H17Br	79	C17H18O3	168
C14H28O2	134	C15H21NO	153	C16H17Br	176	C17H19Br	176
C15H10Br2	46	C15H22O	163	C16H17N	64	C17H19F6O2S	48
C15H10O7	31	C15H22O	142	C16H17NO2	3	C17H19NO3S2	46
C15H11BF2O3	31	C15H22O	131	C16H17N3	91	C17H20N4O3	1
C15H11NO	29	C15H22O2	164	C16H19KO6S	5	C17H22N2	91
C15H11NO	43	C15H22O2	158	C16H19N	70	C17H22N2O	91
C15H12	23	C15H22O3	160	C16H19NO4	4	C17H22O5	125
C15H12BrI	60	C15H23Br	146	C16H19N3	1	C17H22O5	125
C15H12Br2	59	C15H24	138	C16H20N2	91	C17H22O5	125
C15H13Br	57	C15H24O	149	C16H20O3	3	C17H22O5	125
C15H13Br	57	C15H24O2	177	C16H20O5	125	C17H23N	106
C15H13ClN2 x	45	C15H25NO	182	C16H21N	106	C17H23NO2	44
C15H13I	58	C15H26O	137	C16H21NO2	89	C17H25Br	184
C15H13N	100	C15H26O2	135	C16H22	144	C17H25ClO	155
C15H13NO	102	C15H28O	132	C16H22O2	169	C17H26O	131

## MOLECULAR FORMULA INDEX

C17H26O2	158	C18H18O	109	C19H20O2	183	C20H19NO2	97
C17H26O2	165	C18H18O4	93	C19H21N	100	C20H19N3O2	5
C17H27BO2	183	C18H19N	100	C19H21NO	102	C20H20CIN	24
C17H28O	149	C18H19N	100	C19H22N2O2	117	C20H20CIN3O5	33
C17H28O2	177	C18H19NO	102	C19H22O2	166	C20H20CI2N2	46
C17H28O3	177	C18H19NO4	4	C19H22O3	96	C20H21NO2	97
C17H30O	137	C18H19N3O4S	16	C19H22O3	168	C20H22O	110
C17H30O2	136	C18H20CIN	24	C19H23Br	176	C20H22O	109
C17H32O	132	C18H20O	170	C19H23CIN2O4	7	C20H23N	100
C18H6Br6	185	C18H20O2	166	C19H23NO	88	C20H23NO	102
C18H10	75	C18H20O3	168	C19H26F2O2	89	C20H24GeO4	48
C18H10Br2	81	C18H21Br	176	C19H26O5	126	C20H24O2	166
C18H10Br2	81	C18H21NO	88	C19H27FO2	89	C20H24O3	168
C18H10Br3N	67	C18H21N3O2	27	C19H30O	131	C20H24O4	97
C18H11Br	76	C18H22CIN3O5	33	C19H30O2	158	C20H25Br	176
C18H11Br2N	67	C18H22N2O2	130	C19H30O2	165	C20H25N	65
C18H12	54	C18H24N2O2	91	C19H30O3	161	C20H26CIN3O5	34
C18H12	43	C18H25N	106	C20H6I4Na2O5	15	C20H27NO4	5
C18H12BrN	63	C18H26O2	169	C20H10CI2O3	14	C20H28F2O2	90
C18H12BrN	66	C18H26O3	162	C20H10CI2O5	14	C20H28O5	126
C18H12Br2	81	C18H28O4	130	C20H10I2O5	15	C20H29FO2	89
C18H12Br3N	72	C18H30	139	C20H10O2	78	C20H29N	106
C18H12IN	63	C18H32O2	136	C20H13Br	45	C20H30O4	126
C18H12I3N	73	C18H33Br	132	C20H13N	65	C20H34	139
C18H12O6	184	C19H6Br8O5S	22	C20H13NO7	6	C21H12O7	14
C18H12S4	55	C19H12CI2O5S	22	C20H14	23	C21H15NO	31
C18H13BO2	78	C19H13Br2N	67	C20H14N2O	30	C21H15NO3	72
C18H13N	64	C19H13N	30	C20H15Br	80	C21H15NO6	72
C18H14	23	C19H13N	44	C20H15CIN2O3	19	C21H16Br2O5	22
C18H14	23	C19H13NO	30	C20H15N	70	C21H17Br2N	67
C18H14BNO2	65	C19H14BrN	63	C20H15NO2	71	C21H19N	58
C18H14BrN	72	C19H15BN2O2	80	C20H16O2	24	C21H19NO	71
C18H14N3NaO	1	C18H13Br2N	72	C20H16S4	55	C21H20O	45
C18H15N	70	C19H15NO	71	C20H17NO	71	C21H21IN2O2	8
C18H15N	70	C19H17N3O	16	C20H17NO	71	C21H21IN2S2	9
C18H15NO3	117	C19H18BrNO2	5	C20H18	23	C21H21N3O2	5
C18H15N3	1	C19H19BrN2S	8	C20H18N2O2	31	C21H22CIN3O5	34
C18H16Br2	59	C19H19NO2	96	C20H18N2O2	4	C21H22N2O7S	7
C18H17NO	104	C19H20	109	C20H18N2O2S	5	C21H23F3	114
C18H17NO2	96	C19H20Br2	60	C20H18O	24	C21H23NO	104
C18H18	109	C19H20O	109	C20H19CIN4	32	C21H23NO2	97

## MOLECULAR FORMULA INDEX

C21H24F2	114	C23H23CIN2S2	7	C24H30O2	167	C26H29CIN2O7	6
C21H24O	110	C23H23IN2	8	C24H31N	101	C26H36O3	98
C21H24O4	46	C23H23IN2O	8	C24H36N2O	93	C26H36O4	98
C21H24O6	46	C23H23IN2S	8	C24H36N2O	93	C26H36O4	98
C21H25Br	59	C23H23NO5	117	C24H42	139	C26H38F6IO2S	49
C21H25N	101	C23H25NO3	117	C25H14Br2	61	C26H40N2O	94
C21H25NO	102	C23H26O6	117	C25H16Br2	61	C26H40N2O	94
C21H26O2	166	C23H27CIN2O4	7	C25H16O9	14	C26H40N2O2	94
C21H26O3	168	C23H27NO	104	C25H17Br	60	C27H19NO	32
C21H26O4	97	C23H27F3	114	C25H17ClO5	17	C27H23N	59
C21H28N2	92	C23H28F2	114	C25H18O2	59	C27H26ClIN2S	11
C21H29F3	114	C23H29N	101	C25H19N	58	C27H26N2O5	19
C21H30N2O	92	C23H29NO	103	C25H21ClO7	17	C27H28N2O5	6
C21H30O2F2	90	C23H30Br2N2	62	C25H22N2O5	19	C27H29N3O	16
C21H30O5	126	C23H30O3	98	C25H25CIN2	7	C27H30N2NaO	20
C21H31FO2	89	C23H33F3	115	C25H25CIN2O7	20	C27H30N2O7S	20
C22H12Cl4O7	15	C23H34N2O	92	C25H25IN2	8	C27H31CIN2O4	9
C22H14	54	C24H4Cl4O6	47	C25H25IN2O2	9	C27H46O	184
C22H14N2O	32	C24H12EuF9O	28	C25H30Br4	62	C27H48O	184
C22H19Br2N	68	C24H14Cl2O7	14	C25H31N3	22	C28H16Br2	47
C22H19CIN2O7	19	C24H15Br	46	C25H32Br2	61	C28H20F2O2	34
C22H19N	105	C24H15Br	78	C25H32N2O4	118	C28H20Na2O6	26
C22H19N	71	C24H15Br3	82	C25H33ClO3	115	C28H22	25
C22H23CIN4	33	C24H16BrN	67	C25H33N	101	C28H22O2	33
C22H23NO3	117	C24H16K2O6S	26	C25H33NO	103	C28H26	25
C22H24O6	126	C24H16N2	50	C25H36N2	93	C28H28ClIN2S	9
C22H25NO2	97	C24H18	24	C25H36N2O2	94	C28H28Cl2N2O	9
C22H26	110	C24H19BF4O2	17	C25H36O6P2	62	C28H29CIN2O7	18
C22H26O2	167	C24H19ClO6	17	C25H38N2O	93	C28H31CIN2O3	19
C22H27N	101	C24H19N	45	C25H38N2O	93	C28H31CIN2O7	20
C22H27NO	102	C24H19N	71	C26H14	24	C28H31CIN2O3	19
C22H28KN3O5	16	C24H22CINO6	17	C26H16Br2O2	82	C28H32N2	88
C22H32N2O	92	C24H22N2O	32	C26H16O2	32	C28H36N2O	94
C22H32N2O	92	C24H22N2O	55	C26H18	25	C28H36N2O2	95
C22H32N2O2	93	C24H23CIN2O7	19	C26H18N2O	33	C28H36O6	118
C22H33BF2N2	33	C24H23N	105	C26H20N2	50	C28H42	115
C22H38	139	C24H27BrN2O	9	C26H20N2O2	33	C28H42N2O2	95
C23H17BF4O	17	C24H29N	101	C26H22	25	C28H44N2	86
C23H20O2	24	C19H19NO	104	C26H26N2O2S	6	C28H44N2O	94
C23H21N3O	16	C24H29NO	104	C26H27Br2N	68	C28H44N2O	94
C23H21N3O2	5	C24H30N2O4	117	C26H27CIN2O7	20	C28H46O2	185

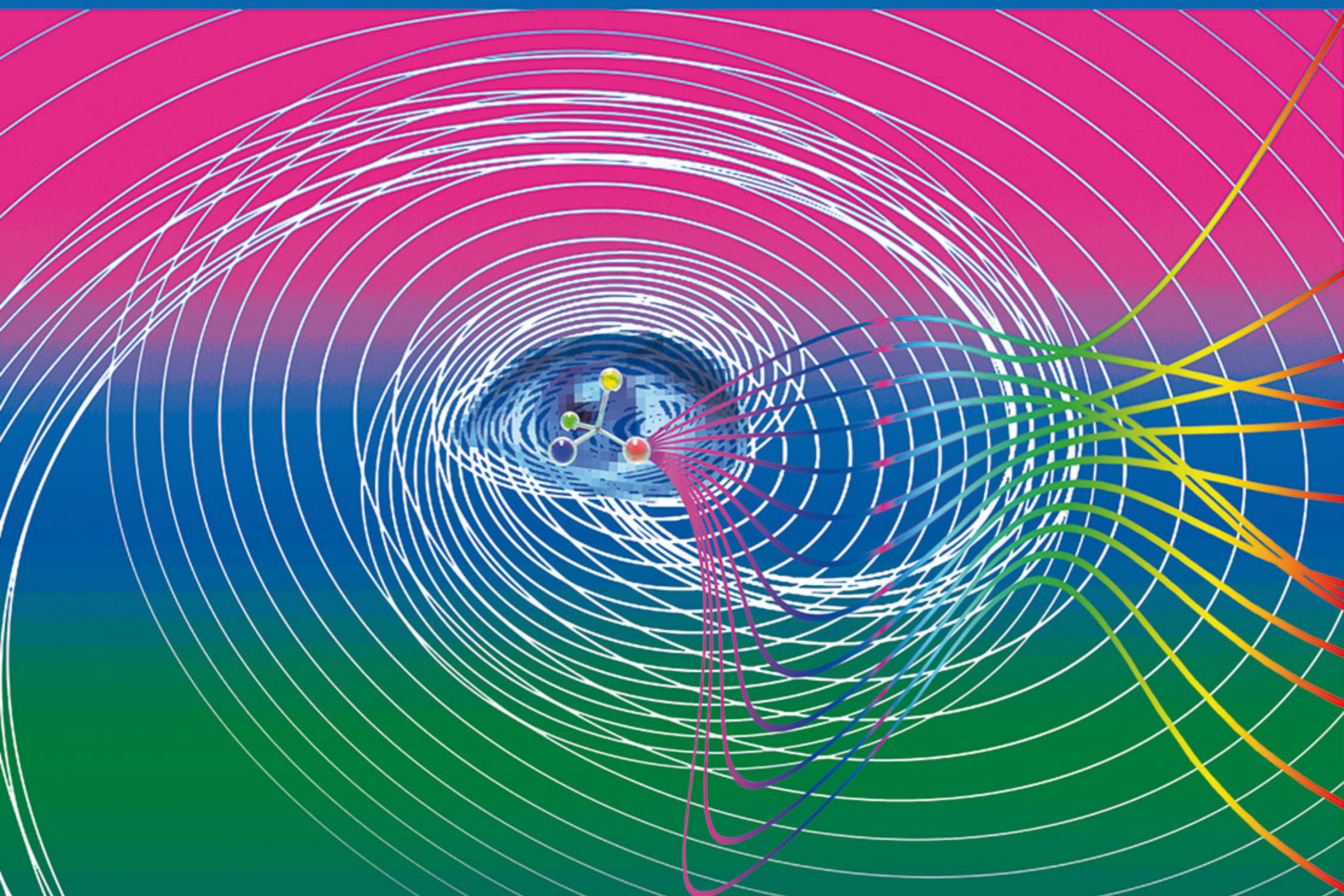
## MOLECULAR FORMULA INDEX

C29H16O7	14	C32H16CoN8	36	C36H24N2	55	C40H50O4	123
C29H21ClO5	17	C32H16CuN8	36	C36H26O2	34	C41H33BCl2F4	11
C29H22	46	C32H16N8OTi	36	C36H31N	61	C42H28	26
C29H24N6	1	C32H16N8OTi	36	C36H34BrN3O	10	C42H34Cl2O6	11
C29H25ClO7	18	C32H16N8OV	37	C36H44Br2O6	99	C42H60O6	112
C29H25N3O7	20	C32H16N8Zn	37	C36H44Br2O6	99	C43H47N2NaO	12
C29H26O4	60	C32H18N8	36	C36H44ClIN2	10	C43H64O5	119
C29H27NO5	118	C32H28N2O	103	C36H46N4	36	C43H76O2	108
C29H28	25	C32H30N2NiS4	28	C36H46O6S2	121	C44H30N4	37
C29H34Cl4N4O	11	C32H30O10	120	C36H50N2O6	121	C44H32N2	51
C29H36	115	C32H31ClN2O7	21	C36H53BrO2	63	C44H32N2	51
C29H40Br2	62	C32H36Cl2N2O	9	C36H62O2	107	C44H46BI	48
C29H41Br	60	C32H42N2O6	120	C37H27N	61	C44H52O10	121
C29H41Br	61	C32H44N2O	95	C37H35ClN2O3	10	C44H58O4	123
C29H41N3O8S	10	C33H20O9	15	C37H38N2O6S	10	C44H58O4	123
C29H42O4	98	C33H28F12N6	28	C37H41N3O6	27	C45H30N6	50
C29H44B2O4	61	C33H30N2	103	C37H44O8	119	C45H48ClN2Na	13
C29H44N2O2	95	C33H30N2O5	20	C37H56Br2	62	C45H80O2	108
C29H48O2	107	C33H31NO2	98	C37H64O2	107	C46H32N2O2	73
C30H19Br	82	C33H32O10	120	C38H24	25	C46H45ClN2O3	11
C30H19Br	82	C33H33ClN2O9	18	C38H26	26	C46H46N2	53
C30H20ClN	67	C33H36O8	120	C38H28N2O2	73	C46H50ClN2Na	13
C30H27N3	56	(C33H44Br2N2)	62	C38H32N2	51	C46H50N4 x C	22
C30H33NO2	98	C33H44O5	118	C38H36Br2N2	47	C46H50N4 x C	22
C30H35N3O	16	C33H48N2O4	119	C38H41ClN2O3	10	C46H52ClF6N2	12
C30H38N2O6	120	C34H20Br2	83	C38H42O10	121	C46H54	26
C30H38O6	120	C34H20Br2	83	C38H44ClK3N2	7	C47H47ClN2O3	12
C30H42O2S2	115	C34H22	25	C38H44ClNO8	18	C48H36CoN4O	38
C30H48N2O	95	C34H26BrNO2	47	C38H46ClN2Na	12	C48H36N2	52
C31H28ClN3O4	47	C34H28N2O2	72	C38H66O2	107	C48H38N4O4	37
C31H28N2O5	6	C34H29N	51	C39H34Cl3N3O	12	C48H40Br2N2	47
C31H30N2O7S	21	C34H34N4O4	36	C39H44N2O5	6	C48H62O10	122
C31H34O5	118	C34H39NO4	99	C39H44O10	121	C48H62O10	122
C31H40O5	118	C34H45B2NO4	73	C39H48O5	119	C48H72O6	112
C31H42N2	95	C34H58O2	107	C39H68O3	107	C49H64O10	122
C31H46O5	118	C35H25N	60	C40H28N2O4	73	C50H36N2	52
C32Cu1F16N8	37	C35H32N2O10	11	C40H32N2O2	73	C50H42Cl2O6	12
C32F16N8Zn	37	C35H34N3OIS	11	C40H32N2O2	73	C50H46O20	122
C32H8F8FeN8	38	C35H36ClN2Na	10	C40H36N2	51	C50H48O4	86
C32H12CuF4N	37	C35H36O10	121	C40H36N2O4	52	C50H50Cl2O6	12
C32H12F4FeN	38	C35H60O2	107	C40H50O4	123	C52H36N2	52

## MOLECULAR FORMULA INDEX

C52H36N2	52	C10H6Br2	79	C24H30N2O2	120
C52H38N2	52	C10H6Br2N2	79	C25H34BrN	60
C52H87N3O14	27	C114H162	112	C28H19CIN2	82
C53H34N2	83	C11H6BrClO	78	C28H31N	105
C54H36N4	56	C11H7BrO	76	C19H18N2O4	27
C54H36N4	56	C11H8BrN	76	C30H22BrN	72
C54H38N2	56	C11H8BrN	76	C36H24CIN	65
C15H15N	57	C11H9Br	75	C38H42O10	121
C54H58Cl2O6	13	C12H13NO2	29	C7H13Br	127
C54H72O10	122	C12H7BrO	76	C7H3Br2N	77
C54H84O6	112	C12H7BrO	76	C7H5BrN2	74
C54H84S6	112	C12H7BrS	77	C8H5BrS	75
C54H44N2	52	C12H7BrS	77	C9H6BrN	74
C56H32N8O5V	38	C13H14O3	181	CxHyOzNw	116
(C56H80Br2N2)	62	C13H18O3	129	CxHyOzNw-344	35
C57H48N4	53	C13H8N2	64	CxHy-275	35
C57H48N4	53	C14H8Br2	80	CxHy-350	35
C60	84	C15H10CIN3	77	CxHy-375	35
C60H44N2	53	C15H12N2	75	CxHy-375	35
C60H84O12	113	C16H11Br	78	CxHy-377	35
C62H92N6F12	29	C16H11Br	78	CxHy-406	35
C64H48N2	53	C16H12	74		
C66H48N4	53	C16H24O3	161		
C66H48N4	53	C17H26O3	161		
C66H108O6	113	C18H12Br2	82		
C70	84	C18H13Br	79		
C70H84O6	85	C19H15Br	57		
C72H14O2	84	C19H18BrNO	32		
C72H78O2	185	C19H19NO	30		
C72H108O12	111	C19H19NO2	30		
C75H58N4	51	C19H24O5	126		
C76H60N2	51	C19H26N2O	91		
C78H98O21Si6	114	C20H28N2O	92		
C78H132O6	111	C20H36O2	136		
C84H78O9	111	C210H204O9	112		
C84H132O12	111	C21H14BrN3	82		
C90H144O12	111	C225H234O9	112		
C90H144O6	111	C22H25FO2	97		
C95H110O20Si	114	C22H32N2O	92		
C102H137Br	111	C23H21N3O2	93		
C10H12O4	128	C23H27NO2	90		





## Organic Electronics & Photonics

SYNTHON Chemicals GmbH & Co.KG  
ChemiePark Bitterfeld Wolfen  
Areal A - Werkstattstraße 10  
D-06766 Wolfen - Germany  
Tel.:+49(0)3494 63 69 00  
Fax:+49(0)3494 63 69 69  
[www.synthon-chemicals.com](http://www.synthon-chemicals.com)  
email:[synthon@synthon-chemicals.com](mailto:synthon@synthon-chemicals.com)