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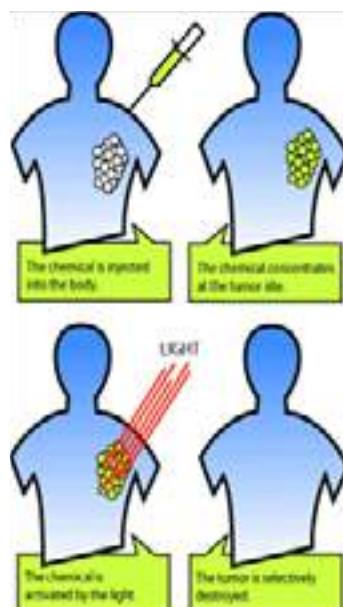
Photonic and Optical Device

Porphyrins, Phthalocyanines and Near-Infrared(NIR) Dyes of the Future.

Porphyrins are a group of organic compounds, many naturally occurring. One of the best-known porphyrins is heme. Porphyrins are heterocyclic macrocycles composed of four modified pyrrole subunits interconnected at their α carbon atoms via methine bridges ($=CH$). Porphyrins are aromatic. That is, they obey Hückel's rule for aromaticity, possessing $4n+2$ π electrons ($n=4$ for the shortest cyclic path) delocalized over the macrocycle. Thus porphyrin macrocycles are highly conjugated systems. As a consequence, they typically have very intense absorption bands in the visible region and may be deeply colored.

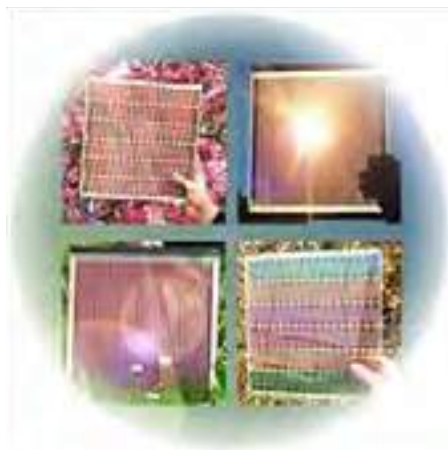
Porphyrins applications:

Medicine Porphyrins have been evaluated in the context of photodynamic therapy since they strongly absorb light, which is then converted to energy and heat in the illuminated areas.



Molecular electronics

Porphyrin-based compounds are of interest in molecular electronics and super molecular building blocks. Phthalocyanines, which are structurally related to porphyrins, are used in commerce as dyes and catalysts. Synthetic porphyrin dyes that are incorporated in the design of solar cells are the subject of ongoing research. Recent applications of porphyrin dyes for dye-sensitized solar cells have shown solar conversion efficiencies approaching silicon based photovoltaic devices.



Phthalocyanines are an intensely blue-green-coloured aromatic macrocyclic compound that is widely used in dyeing. Phthalocyanines form coordination complexes with most elements of the periodic table. These complexes are also intensely colored and also are used as dyes or pigments.

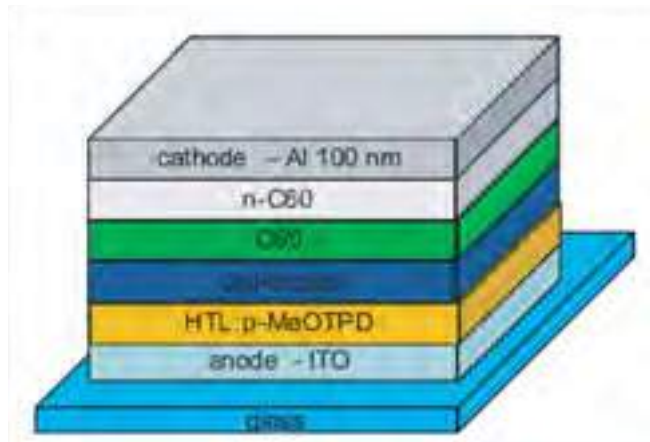
Phthalocyanines applications:

Optical, Electronic and Photo-electronic Devices

Metal phthalocyanines have long been examined as catalysts for redox reactions. Areas of interest are the oxygen reduction reaction and the sweetening of gas streams by removal of hydrogen sulfide.

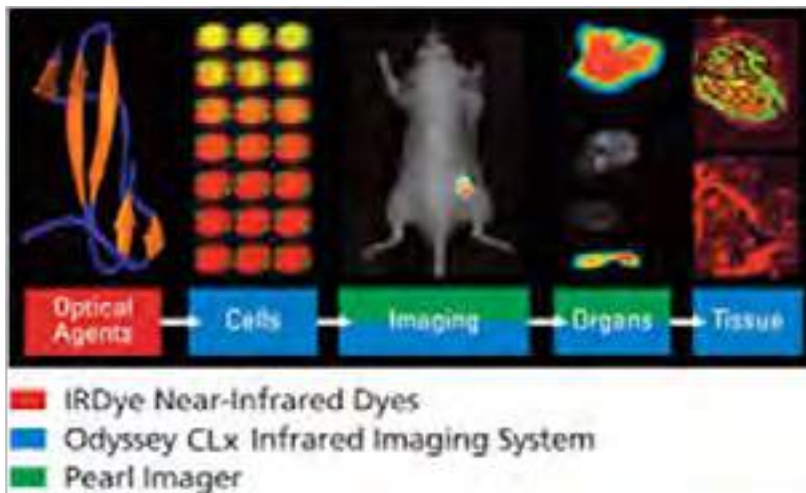
Phthalocyanine compounds have been investigated as donor materials in molecular electronics, e.g. organic field-effect transistors.

Copper Phthalocyanine (CuPC) may possibly be used as storage in quantum computing, due to the length of time its electrons can remain in superposition.



Near-Infrared(NIR) Dyes applications

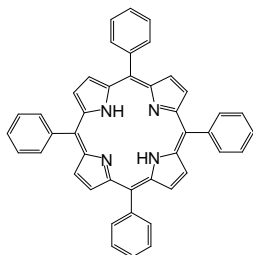
Near-infrared (near-IR, NIR) dyes offer important advantages over traditional visible light dyes. Because cellular or tissue components produce minimal autofluorescence in the near-IR region, near-IR dyes have the potential to offer highly specific and sensitive detection in complex biological systems.



LT-D0001

meso-Tetraphenylporphine

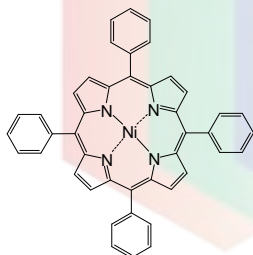
CAS No. : 917-23-7
 Grade : > 95% (HPLC)
 Formula : $C_{44}H_{30}N_4$
 M.W. : 614.75 g/mole
 UV : 514 nm (in CH_2Cl_2)



LT-D0002

Nickel(II) *meso*-tetraphenylporphine

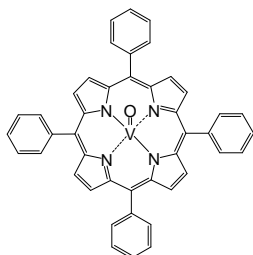
CAS No. : 14172-92-0
 Grade : > 95% (HPLC)
 Formula : $C_{44}H_{28}N_4Ni$
 M.W. : 671.41 g/mole
 UV : 525 nm (in THF)



LT-D0003

Vanadyl *meso*-tetraphenylporphine

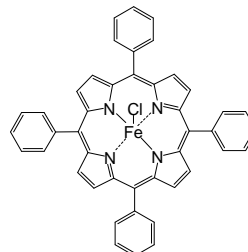
CAS No. : 14705-63-6
 Grade : > 95% (HPLC)
 Formula : $C_{44}H_{28}N_4OV$
 M.W. : 679.66 g/mole
 UV : 423 nm (in THF)



LT-D0004

Iron(III) *meso*-tetraphenylporphine Chloride

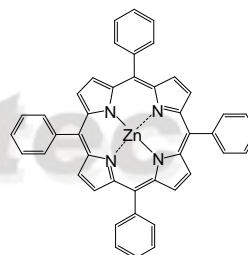
CAS No. : 16456-81-8
 Grade : > 97% (HPLC)
 Formula : $C_{44}H_{28}ClFeN_4$
 M.W. : 704.02 g/mole



LT-D0005

Zinc(II) *meso*-tetraphenylporphine

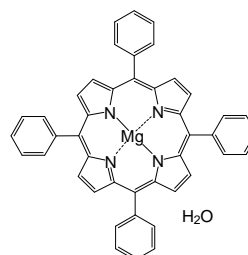
CAS No. : 14074-80-7
 Formula : $C_{44}H_{28}N_4Zn$
 M.W. : 678.11 g/mole



LT-D0006

Magnesium(II) *meso*-tetraphenylporphine hydrate

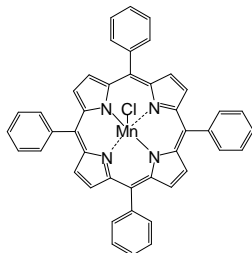
CAS No. : 14640-21-2
 Formula : $C_{44}H_{30}MgN_4O$
 M.W. : 655.04 g/mole



LT-D0007

Manganese(III) *meso*-tetraphenylporphine chloride

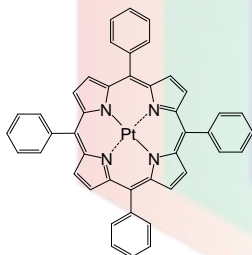
CAS No. : 32195-55-4
 Grade : > 95% (HPLC)
 Formula : $C_{44}H_{28}ClMnN_4$
 M.W. : 703.11 g/mole
 UV : 583 nm (in THF)



LT-D0008

Platinum(II) *meso*-tetraphenylporphine

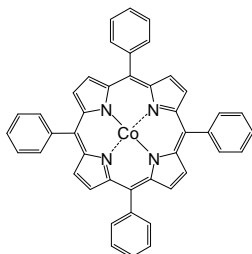
CAS No. : 14187-14-5
 Grade : > 95% (HPLC)
 Formula : $C_{44}H_{28}N_4Pt$
 M.W. : 807.8 g/mole



LT-D0009

Cobalt(II) *meso*-tetraphenylporphine

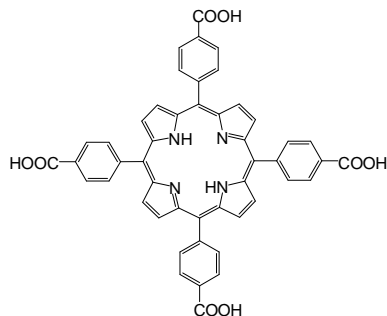
CAS No. : 14172-90-8
 Grade : > 97% (HPLC)
 Formula : $C_{44}H_{28}CoN_4$
 M.W. : 671.65 g/mole



LT-D0010

meso-Tetra(4-carboxyphenyl)porphine

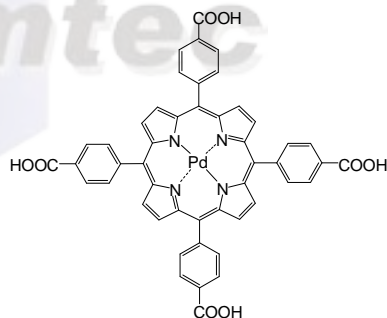
CAS No. : 14609-54-2
 Grade : > 97% (HPLC)
 Formula : $C_{48}H_{30}N_4O_8$
 M.W. : 790.79 g/mole
 UV : 411 nm (in CH_2Cl_2)



LT-D0011

Palladium(II) *meso*-tetra(4-carboxyphenyl)porphine

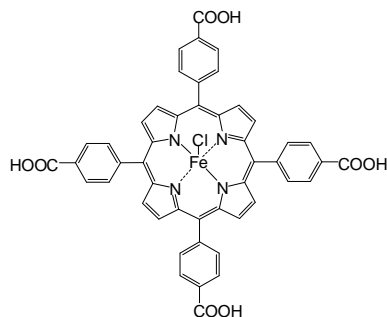
CAS No. : 94288-44-5
 Grade : > 95% (HPLC)
 Formula : $C_{48}H_{28}N_4O_8Pd$
 M.W. : 895.18 g/mole



LT-D0012

Iron(III) *meso*-tetra(4-carboxyphenyl)porphine chloride

CAS No. : 55266-17-6
 Formula : $C_{48}H_{28}ClFeN_4O_8$
 M.W. : 880.06 g/mole

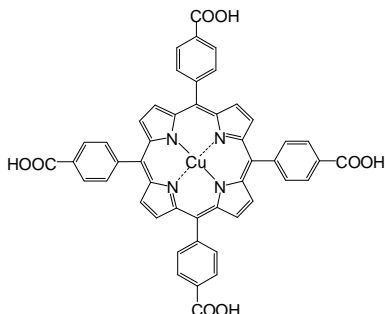


LT-D0013

Copper(II) *meso*-tetra(4-carboxyphenyl)porphine

Formula : $C_{48}H_{28}CuN_4O_8$

M.W. : 852.3 g/mole



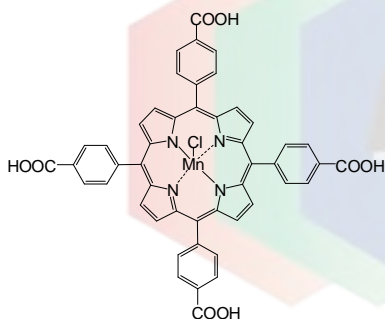
LT-D0014

Manganese(III) *meso*-tetra(4-carboxyphenyl)porphine chloride

CAS No. : 55266-18-7

Formula : $C_{48}H_{28}ClMnN_4O_8$

M.W. : 879.15 g/mole

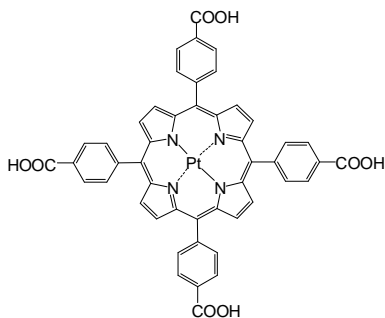


LT-D0015

Platinum(II) *meso*-tetra(4-carboxyphenyl)porphine

Formula : $C_{48}H_{28}N_4O_8Pt$

M.W. : 983.84 g/mole



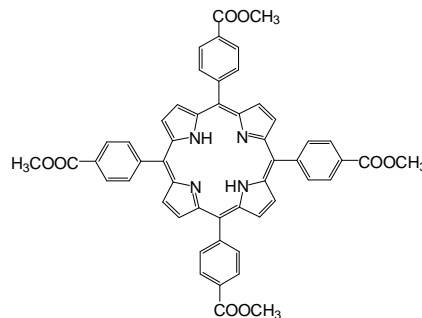
LT-D0016

meso-Tetra(4-carboxyphenyl)porphine tetramethyl ester

CAS No. : 22112-83-0

Formula : $C_{52}H_{38}N_4O_8$

M.W. : 846.88 g/mole



LT-D0017

meso-Tetra(*p*-hydroxyphenyl)porphine

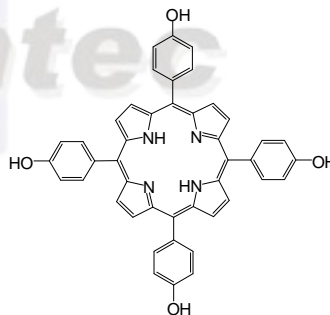
CAS No. : 51094-17-8

Grade : > 95% (HPLC)

Formula : $C_{44}H_{30}N_4O_4$

M.W. : 678.73 g/mole

UV : 421 nm (in CH_2Cl_2)



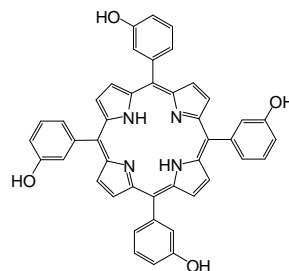
LT-D0018

meso-Tetra(3-hydroxyphenyl)porphine

CAS No. : 22112-79-4

Formula : $C_{44}H_{30}N_4O_4$

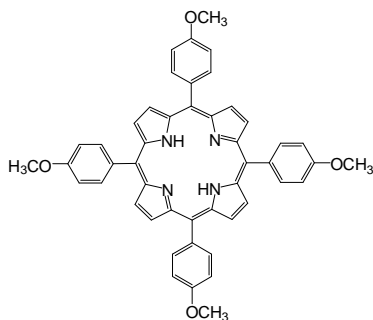
M.W. : 678.73 g/mole



LT-D0019

meso-Tetra (4-methoxyphenyl) porphine

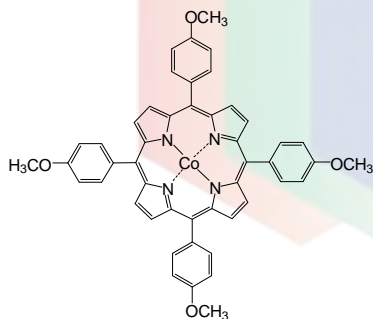
CAS No. : 22112-78-3
 Grade : > 95% (HPLC)
 Formula : $C_{48}H_{38}N_4O_4$
 M.W. : 734.86 g/mole
 UV : 424 nm (in CH_2Cl_2)



LT-D0020

Cobalt(II) *meso*-Tetra (4-methoxyphenyl) porphine

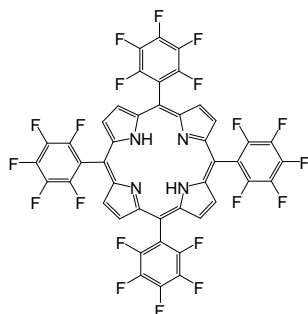
CAS No. : 28903-71-1
 Formula : $C_{48}H_{36}CoN_4O_4$
 M.W. : 791.77 g/mole



LT-D0021

meso-Tetra(pentafluorophenyl)porphine

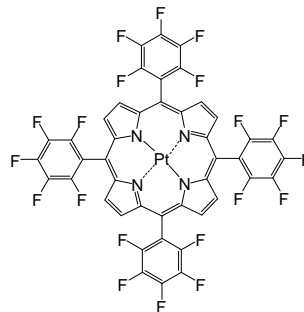
CAS No. : 25440-14-6
 Grade : > 90% (HPLC)
 Formula : $C_{44}H_{10}F_{20}N_4$
 M.W. : 974.56 g/mole
 UV : 416 nm (in CH_2Cl_2)



LT-D0022

Platinum(II) *meso*-tetra(pentafluorophenyl)porphine

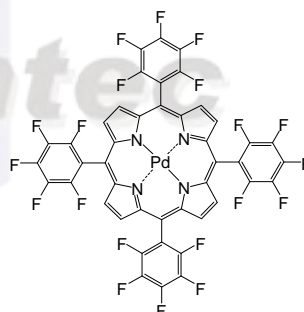
CAS No. : 109781-47-7
 Formula : $C_{44}H_8F_{20}N_4Pt$
 M.W. : 1167.61 g/mole



LT-D0023

Palladium(II) *meso*-tetra(pentafluorophenyl)porphine

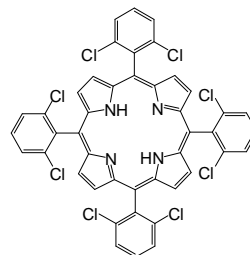
CAS No. : 72076-09-6
 Formula : $C_{44}H_8F_{20}N_4Pd$
 M.W. : 1078.95 g/mole
 UV : 400 nm (in Acetone)



LT-D0024

meso-Tetra(*o*-dichlorophenyl)porphine

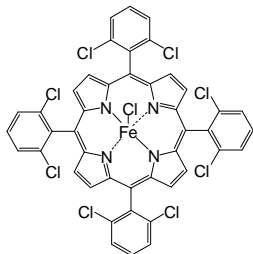
CAS No. : 37083-37-7
 Formula : $C_{44}H_{12}Cl_8N_4$
 M.W. : 890.29 g/mole



LT-D0025

Iron(III) *meso*-tetra(*o*-dichlorophenyl)porphine chloride

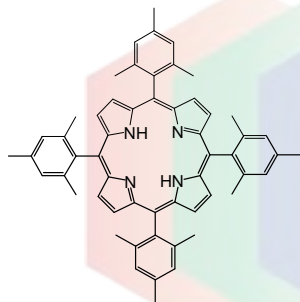
CAS No. : 91042-27-2
 Formula : $C_{45}H_{23}Cl_9FeN_4$
 M.W. : 979.58 g/mole



LT-D0026

meso-Tetra(2,4,6-trimethylphenyl)porphine

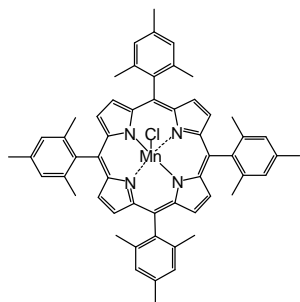
CAS No. : 56396-12-4
 Formula : $C_{56}H_{54}N_4$
 M.W. : 783.08 g/mole



LT-D0027

Manganese(III) *meso*-tetra(2,4,6-trimethylphenyl) porphine chloride

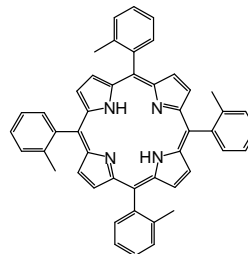
CAS No. : 85939-49-7
 Grade : > 95% (HPLC)
 Formula : $C_{56}H_{52}ClMnN_4$
 M.W. : 871.43 g/mole



LT-D0028

meso-Tetra(2-methylphenyl)porphine

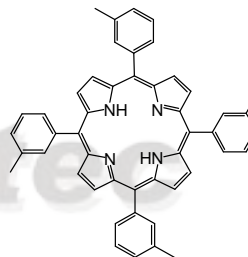
CAS No. : 37083-40-2
 Formula : $C_{48}H_{38}N_4$
 M.W. : 670.84 g/mole



LT-D0029

meso-Tetra(3-methylphenyl) porphine

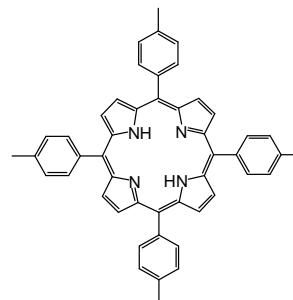
CAS No. : 50849-45-1
 Formula : $C_{48}H_{38}N_4$
 M.W. : 670.84 g/mole



LT-D0030

meso-Tetra(4-methylphenyl) porphine

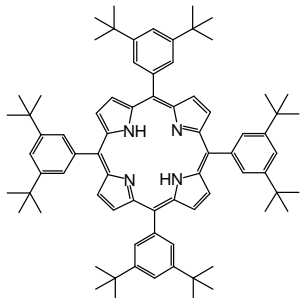
CAS No. : 14527-51-6
 Formula : $C_{48}H_{38}N_4$
 M.W. : 670.84 g/mole



LT-D0031

meso-Tetra(3,5-di-*t*-butylphenyl)porphine

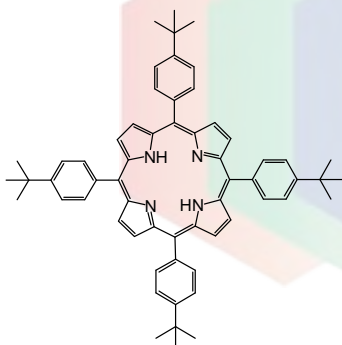
CAS No. : 89372-90-7
 Formula : $C_{76}H_{94}N_4$
 M.W. : 1063.59 g/mole



LT-D0032

meso-Tetra(4-*tert*-butylphenyl)porphine

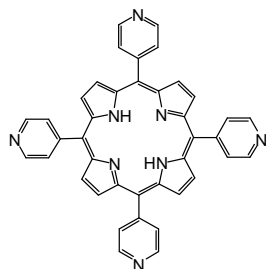
CAS No. : 110452-48-7
 Grade : > 95% (HPLC)
 Formula : $C_{60}H_{62}N_4$
 M.W. : 839.16 g/mole



LT-D0033

meso-Tetra(4-pyridyl)porphine

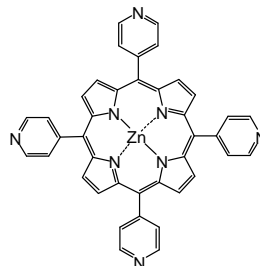
CAS No. : 16834-13-2
 Grade : > 97% (HPLC)
 Formula : $C_{40}H_{26}N_8$
 M.W. : 618.69 g/mole
 UV : 412 nm (in CH_2Cl_2)



LT-D0034

Zinc(II) *meso*-tetra(4-pyridyl)porphine

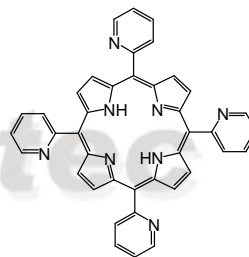
CAS No. : 31183-11-6
 Formula : $C_{40}H_{24}N_8Zn$
 M.W. : 682.06 g/mole



LT-D0035

meso-Tetra(2-pyridyl)porphine

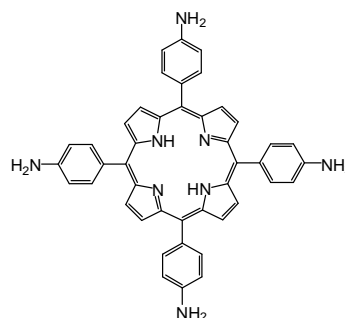
CAS No. : 40904-90-3
 Formula : $C_{40}H_{26}N_8$
 M.W. : 618.69 g/mole



LT-D0036

meso-Tetra(4-aminophenyl)porphine

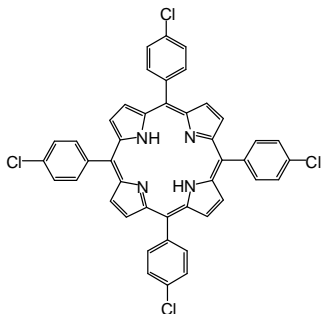
CAS No. : 22112-84-1
 Formula : $C_{44}H_{34}N_8$
 M.W. : 674.81 g/mole



LT-D0037

meso-Tetra (4-chlorophenyl) porphine

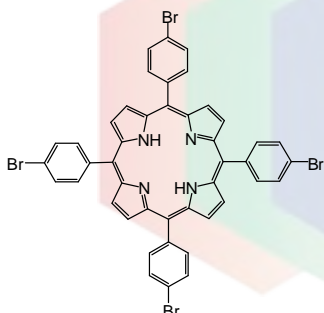
CAS No. : 22112-77-2
 Formula : $C_{44}H_{26}Cl_4N_4$
 M.W. : 752.52 g/mole



LT-D0038

meso-Tetra (4-bromophenyl) porphine

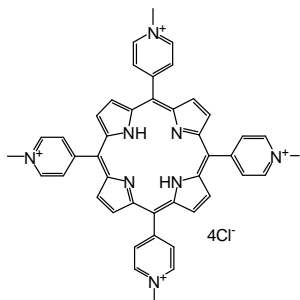
CAS No. : 29162-73-0
 Formula : $C_{44}H_{26}Br_4N_4$
 M.W. : 930.32 g/mole



LT-D0039

meso-Tetra (*N*-methyl-4-pyridyl) porphine tetrachloride

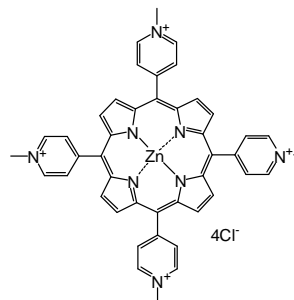
CAS No. : 92739-63-4
 Formula : $C_{44}H_{38}Cl_4N_8$
 M.W. : 820.64 g/mole



LT-D0040

Zinc(II) *meso*-tetra(*N*-methyl-4-pyridyl)porphine tetrachloride

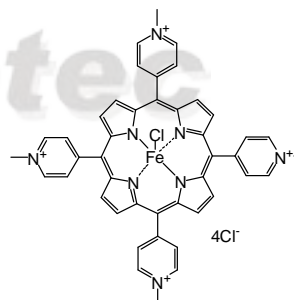
CAS No. : 28850-44-4
 Formula : $C_{44}H_{36}Cl_4N_8Zn$
 M.W. : 884.03 g/mole



LT-D0041

Iron(III) *meso*-tetra(*N*-methyl-4-pyridyl)porphine pentachloride

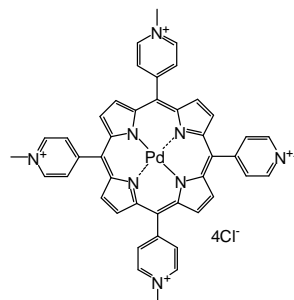
CAS No. : 133314-07-5
 Formula : $C_{44}H_{36}Cl_5FeN_8$
 M.W. : 909.92 g/mole



LT-D0042

Palladium(II) *meso*-tetra(*N*-methyl-4-pyridyl)porphine tetrachloride

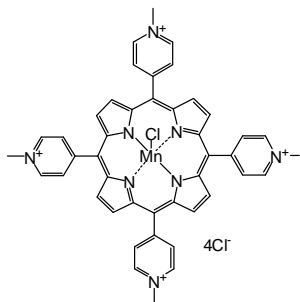
CAS No. : 110314-07-3
 Formula : $C_{44}H_{36}Cl_4N_8Pd$
 M.W. : 925.04 g/mole



LT-D0043

Manganese(III) *meso*-tetra(*N*-methyl-4-pyridyl)porphine pentachloride

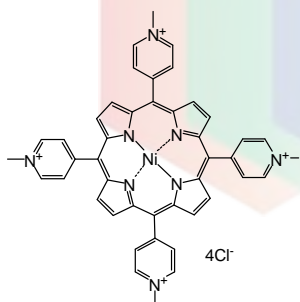
CAS No. : 125565-45-9
 Grade : > 85% (HPLC)
 Formula : $C_{44}H_{36}Cl_5MnN_8$
 M.W. : 909.01 g/mole
 UV : 462 nm (in CH_2Cl_2)



LT-D0044

Nickel(II) *meso*-tetra(*N*-methyl-4-pyridyl)porphine tetrachloride

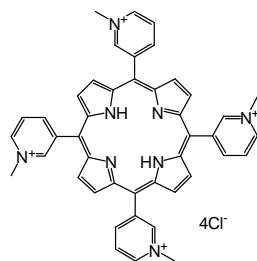
CAS No. : 79407-86-6
 Formula : $C_{44}H_{36}Cl_4N_8Ni$
 M.W. : 877.32 g/mole



LT-D0045

meso-Tetra (*N*-methyl-3-pyridyl) porphine tetrachloride

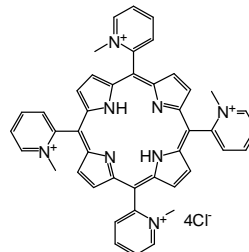
CAS No. : 94343-62-1
 Formula : $C_{44}H_{36}Cl_4N_8$
 M.W. : 820.64 g/mole



LT-D0046

meso-Tetra (*N*-methyl-3-pyridyl) porphine tetrachloride

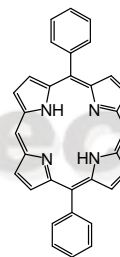
CAS No. : 129051-18-9
 Formula : $C_{44}H_{36}Cl_4N_8$
 M.W. : 820.64 g/mole



LT-D0047

5,15-Diphenylporphine

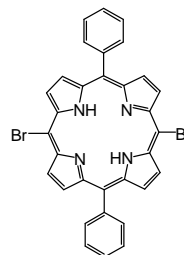
CAS No. : 22112-89-6
 Grade : > 97% (HPLC)
 Formula : $C_{32}H_{22}N_4$
 M.W. : 462.56 g/mole



LT-D0048

5,15-Dibromo-10,20-diphenylporphine

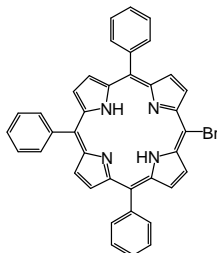
CAS No. : 151256-86-9
 Formula : $C_{32}H_{20}Br_2N_4$
 M.W. : 620.34 g/mole



LT-D0049

5-Bromo-10,15,20-triphenylporphine

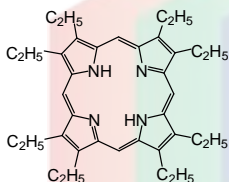
CAS No. : 67066-09-5
 Grade : > 95% (HPLC)
 Formula : $C_{38}H_{25}BrN_4$
 M.W. : 617.54 g/mole



LT-D0050

Octaethylporphine

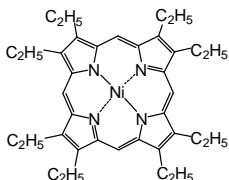
CAS No. : 2683-82-1
 Grade : > 97% (HPLC)
 Formula : $C_{36}H_{46}N_4$
 M.W. : 534.78 g/mole



LT-D0051

Nickel(II) octaethylporphine

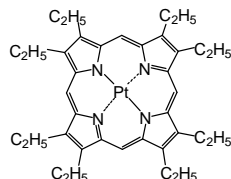
CAS No. : 24803-99-4
 Formula : $C_{36}H_{44}N_4Ni$
 M.W. : 591.45 g/mole



LT-N752

Platinum(II) octaethylporphine

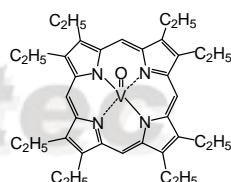
CAS No. : 31248-39-2
 Grade : > 95% (HPLC)
 Formula : $C_{36}H_{44}N_4Pt$
 M.W. : 727.84 g/mole
 UV : 389, 534 nm (in CH_2Cl_2)
 PL : 649 nm (in CH_2Cl_2)



LT-D0052

Vanadyl octaethylporphine

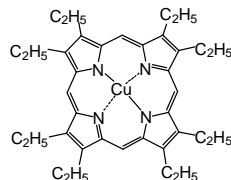
CAS No. : 27860-55-5
 Grade : > 95% (HPLC)
 Formula : $C_{36}H_{44}N_4OV$
 M.W. : 599.7 g/mole
 UV : 407 nm (in THF)



LT-D0053

Copper(II) octaethylporphine

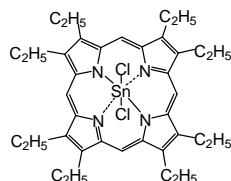
CAS No. : 14409-63-3
 Formula : $C_{36}H_{44}CuN_4$
 M.W. : 596.31 g/mole



LT-D0054

Tin(IV) octaethylporphine dichloride

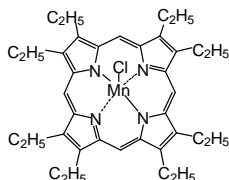
CAS No. : 25777-43-9
 Grade : > 95% (HPLC)
 Formula : $C_{36}H_{44}Cl_2N_4Sn$
 M.W. : 722.38 g/mole



LT-D0055

Manganese(III) octaethylporphine chloride

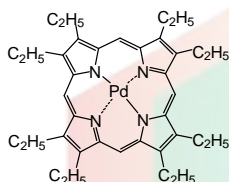
CAS No. : 28265-17-0
 Formula : $C_{36}H_{44}ClMnN_4$
 M.W. : 623.15 g/mole



LT-D0056

Palladium(II) octaethylporphine

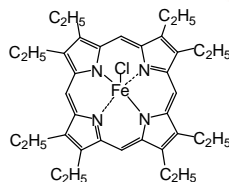
CAS No. : 24804-00-0
 Grade : > 99% (HPLC)
 Formula : $C_{36}H_{44}N_4Pd$
 M.W. : 639.18 g/mole
 UV : 393 nm (in THF)



LT-D0057

Iron(III) octaethylporphine chloride

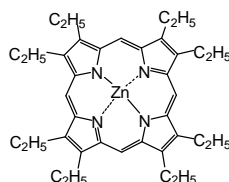
CAS No. : 28755-93-3
 Formula : $C_{36}H_{44}ClFeN_4$
 M.W. : 624.06 g/mole



LT-D0058

Zinc(II) octaethylporphine

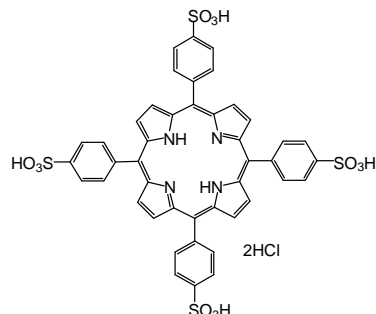
CAS No. : 17632-18-7
 Grade : > 98% (HPLC)
 Formula : $C_{36}H_{44}N_4Zn$
 M.W. : 598.17 g/mole
 UV : 400 nm (in THF)



LT-D0062

meso-Tetra(4-sulfonatophenyl)porphine dihydrochloride

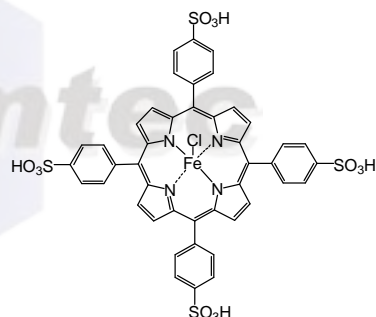
Formula : $C_{44}H_{32}Cl_2N_4O_{12}S_4$
 M.W. : 1007.99 g/mole



LT-D0063

Iron(III) *meso*-tetra(4-sulfonatophenyl)porphine chloride (acid form)

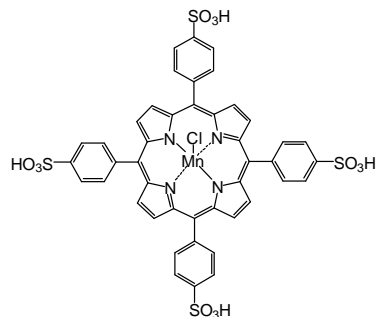
CAS No. : 90384-82-0
 Formula : $C_{44}H_{28}ClFeN_4O_{12}S_4$
 M.W. : 1024.27 g/mole



LT-D0064

Manganese(III) *meso*-tetra(4-sulfonatophenyl)porphine chloride (acid form)

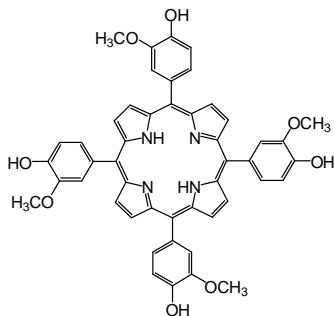
CAS No. : 221176-50-7
 Formula : $C_{44}H_{28}ClMnN_4O_{12}S_4$
 M.W. : 1023.36 g/mole



LT-D0065

meso-Tetra(3-methoxy-4-hydroxyphenyl) porphine

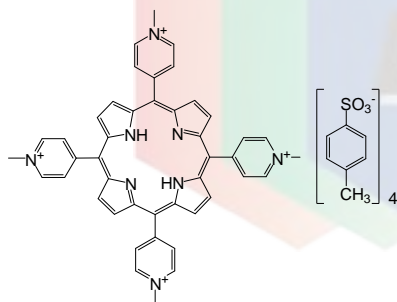
CAS No. : 22112-80-7
 Formula : $C_{48}H_{38}N_4O_8$
 M.W. : 798.84 g/mole



LT-D0066

meso-Tetra (*N*-methyl-4-pyridyl) porphine tetratosylate

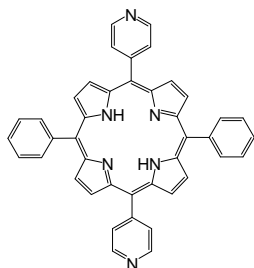
CAS No. : 36951-72-1
 Grade : > 97% (HPLC)
 Formula : $C_{72}H_{66}N_8O_{12}S_4$
 M.W. : 1363.6 g/mole
 UV : 421 nm



LT-D0068

5,15-Diphenyl-10,20-di(4-pyridyl)-21*H*,23*H*-porphine

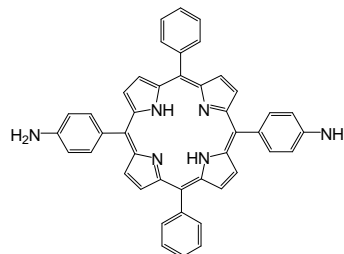
CAS No. : 71410-72-5
 Formula : $C_{42}H_{28}N_6$
 M.W. : 616.71 g/mole



LT-D0069

5,15-Di(4-aminophenyl)-10,20-diphenyl porphine

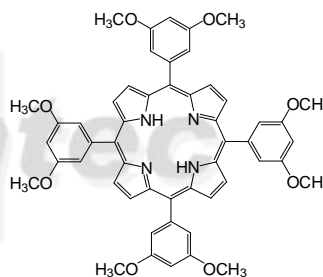
CAS No. : 116206-75-8
 Formula : $C_{44}H_{32}N_6$
 M.W. : 644.77 g/mole



LT-D0074

5,10,15,20-Tetrakis(3,5-dimethoxyphenyl)porphyrin

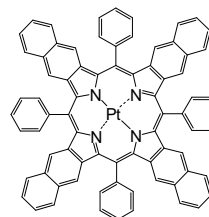
CAS No. : 74684-34-7
 Grade : > 95% (HPLC)
 Formula : $C_{52}H_{46}N_4O_8$
 M.W. : 854.96 g/mole



LT-N760 PtTPNP

Platinum(II) tetraphenyl naphtholporphyrin

CAS No. : 166174-13-6
 Grade : > 96% (HPLC)
 Formula : $C_{76}H_{44}N_4Pt$
 M.W. : 1208.27 g/mole



K0485

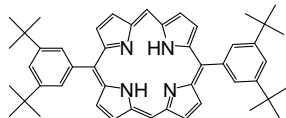
5,15-Bis[3,5-di(*tert*-butyl)phenyl]porphyrin

CAS No. : 173613-63-3

Grade : > 97% (HPLC)

Formula : $C_{48}H_{54}N_4$

M.W. : 686.97 g/mole



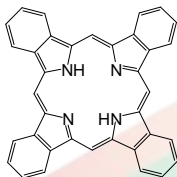
LT-S9044

Tetrabenzoporphine

CAS No. : 52952-31-5

Formula : $C_{36}H_{22}N_4$

M.W. : 510.59 g/mole

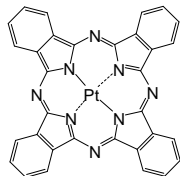


Lumtec

LT-N219 | PtPC

Phthalocyanine, platinum complex

CAS No. : 14075-08-2
 Grade : Sublimed product
 Formula : $C_{32}H_{16}N_8Pt$
 M.W. : 707.6 g/mole
 UV : 314, 684 nm (in CH_2Cl_2)



LT-N222 | H₂PC

Phthalocyanine

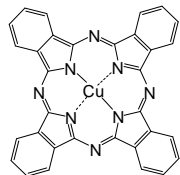
CAS No. : 574-93-6
 Grade : Sublimed product
 Formula : $C_{32}H_{18}N_8$
 M.W. : 514.54 g/mole
 UV : 268 nm (in CH_2Cl_2)
 PL : 415 nm (in CH_2Cl_2)



LT-E201 | CuPC

Copper(II) phthalocyanine

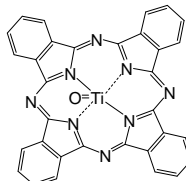
CAS No. : 147-14-8
 Grade : Sublimed product
 Formula : $C_{32}H_{16}CuN_8$
 M.W. : 576.08 g/mole
 UV : 345, 631 nm (in CH_2Cl_2)
 PL : 404 nm (in film)



LT-E206 | TiOPC

Titanium oxide phthalocyanine

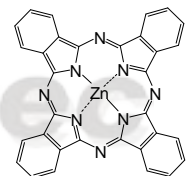
CAS No. : 26201-32-1
 Grade : Sublimed product
 Formula : $C_{32}H_{16}N_8OTi$
 M.W. : 576.39 g/mole
 UV : 692 nm
 PL : 392 (in film)



LT-S906 | ZnPC

Zinc phthalocyanine

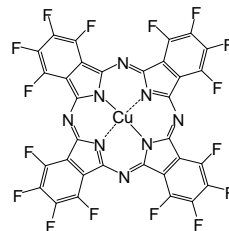
CAS No. : 14320-04-8
 Grade : Sublimed product
 Formula : $C_{32}H_{16}N_8Zn$
 M.W. : 577.92 g/mole
 PL : 534 nm (in CH_2Cl_2)



LT-S928 | F₁₆CuPC

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

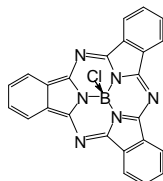
CAS No. : 14916-87-1
 Grade : Sublimed product
 Formula : $C_{32}CuF_{16}N_8$
 M.W. : 863.93 g/mole
 UV : 690 nm (in THF)



LT-S943 | SubPC

Boron subphthalocyanine chloride

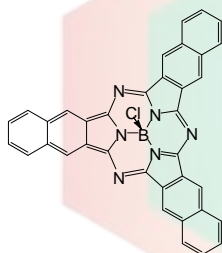
CAS No. : 36530-06-0
 Grade : Sublimed product
 Formula : $C_{24}H_{12}BN_6Cl$
 M.W. : 430.66 g/mole
 UV : 565 nm (in DMF)
 PL : 577 nm (in DMF)



LT-S947 | SubNC

Boron sub-2,3-naphthalocyanine chloride

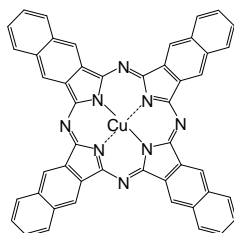
CAS No. : 142710-56-3
 Grade : Sublimed product
 Formula : $C_{36}H_{18}BClN_6$
 M.W. : 580.84 g/mole
 UV : 658 nm (in CH_2Cl_2)



LT-S962 | CuNC

Copper(II) 2,3-naphthalocyanine

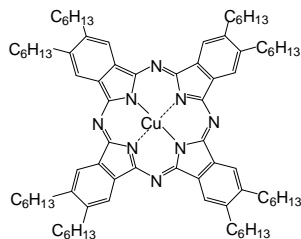
CAS No. : 33273-09-5
 Grade : Sublimed product
 Formula : $C_{48}H_{24}CuN_8$
 M.W. : 776.3 g/mole
 UV : 681 nm (in CH_2Cl_2)



LT-S963 | CuPC-8H

Copper(II)-2,3,9,10,16,17,23,24-octa-n-hexyl-29H,31H-phthalocyanine

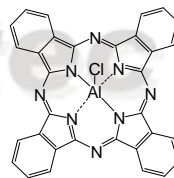
CAS No. : 153151-22-5
 Grade : > 98% (NMR)
 Formula : $C_{80}H_{112}CuN_8$
 M.W. : 1249.34 g/mole
 UV : 680 nm (in CH_2Cl_2)



LT-S9025 | AIPCCI

Phthalocyanine chloroaluminum

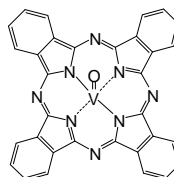
CAS No. : 14154-42-8
 Grade : Sublimed product
 Formula : $C_{32}H_{16}AlClN_8$
 M.W. : 574.97 g/mole
 UV : 675 nm (in DMF)



LT-S9053 | VOPc

Oxyvanadium phthalocyanine

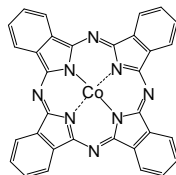
CAS No. : 13930-88-6
 Grade : Sublimed product
 Formula : $C_{32}H_{16}N_8OV$
 M.W. : 579.47 g/mole
 UV : 338, 684 nm (in CH_2Cl_2)



LT-D2001 | CoPC

Cobalt(II) phthalocyanine

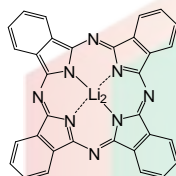
CAS No. : 3317-67-7
 Grade : Sublimed product
 Formula : $C_{32}H_{16}CoN_8$
 M.W. : 571.47 g/mole



LT-D2002 | Li₂PC

Lithium phthalocyanine

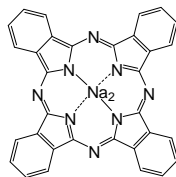
CAS No. : 25510-41-2
 Grade : Sublimed product
 Formula : $C_{32}H_{16}Li_2N_8$
 M.W. : 526.42 g/mole
 UV : 658 nm (in DMF)



LT-D2003 | Na₂PC

Disodium phthalocyanine

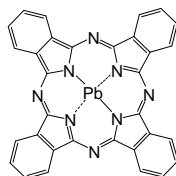
CAS No. : 25476-27-1
 Grade : Sublimed product
 Formula : $C_{32}H_{16}Na_2N_8$
 M.W. : 558.52 g/mole
 UV : 656, 692 nm (in $CHCl_3$)



LT-D2004 | PbPC

Lead(II) phthalocyanine

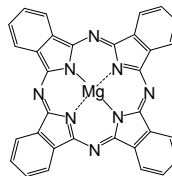
CAS No. : 15187-16-3
 Grade : > 99%
 Formula : $C_{32}H_{16}PbN_8$
 M.W. : 719.74 g/mole
 UV : 698 nm (in DMF)



LT-D2006 | MgPC

Magnesium(II) phthalocyanine

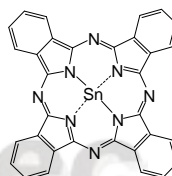
CAS No. : 1661-03-6
 Grade : Sublimed product
 Formula : $C_{32}H_{16}MgN_8$
 M.W. : 536.84 g/mole
 UV : 668 nm (in DMF)



LT-S9086 | SnPC

Tin(II) phthalocyanine

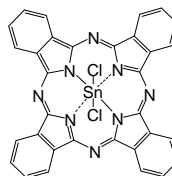
CAS No. : 15304-57-1
 Grade : Sublimed product
 Formula : $C_{32}H_{16}SnN_8$
 M.W. : 631.25 g/mole



LT-D2008 | SnCl₂PC

Tin(IV) phthalocyanine dichloride

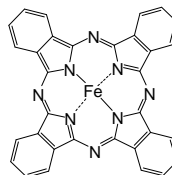
CAS No. : 18253-54-8
 Grade : Sublimed product
 Formula : $C_{32}H_{16}Cl_2N_8Sn$
 M.W. : 702.15 g/mole



LT-D2009 | FePC

Iron(II) phthalocyanine

CAS No. : 132-16-1
 Grade : Sublimed product
 Formula : $C_{32}H_{16}FeN_8$
 M.W. : 568.38 g/mole
 UV : 675 nm (in DMF)

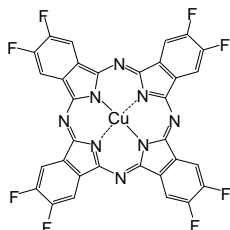


Our products are used for testing and research purpose; they are not guaranteed in patent contention by customer use.

LT-D2010 | 2,3-F₈CuPC

Copper(II) 2,3,9,10,16,17,23,24-octafluorophthalocyanine

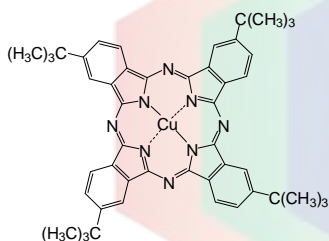
CAS No. : 148651-60-9
 Grade : Sublimed product
 Formula : C₃₂H₈CuF₈N₈
 M.W. : 720.01 g/mole



LT-D2011

Copper(II) 2,9,16,23-tetra-*tert*-butylphthalocyanine

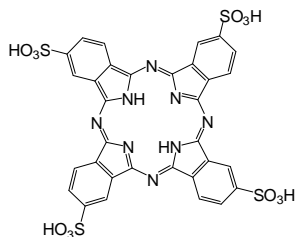
CAS No. : 39001-64-4
 Grade : Sublimed product
 Formula : C₄₈H₄₈CuN₈
 M.W. : 800.51 g/mole
 UV : 672 nm (in DMF)



LT-D2012

Phthalocyanine tetrasulfonic acid

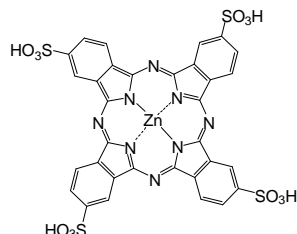
CAS No. : 33308-41-7
 Grade : Sublimed product
 Formula : C₃₂H₁₈N₈O₁₂S₄
 M.W. : 834.79 g/mole



LT-D2013

Zinc(II) phthalocyanine tetrasulfonic acid

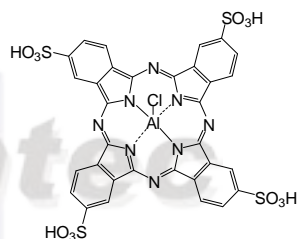
CAS No. : 61586-86-5
 Grade : Sublimed product
 Formula : C₃₂H₁₆N₈O₁₂S₄Zn
 M.W. : 898.19 g/mole



LT-D2014

Aluminum(III) phthalocyanine chloride tetrasulfonic acid

Grade : Sublimed product
 Formula : C₃₂H₁₆AlClN₈O₁₂S₄
 M.W. : 895.21 g/mole

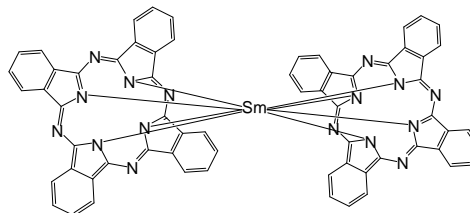


LT-D2015 | SmPC₂

Bis(2(3),9(10),16(17),23(24)-tetrakis-(3,4-phenyl)phthalocyaninato)Samarium(III)

CAS No. : 82800-48-4
 Grade : > 99%
 Formula : C₆₄H₃₂N₁₆Sm
 M.W. : 1175.41 g/mole

Reference : *Inorganica Chimica Acta* (2007), 360(1), 122-130

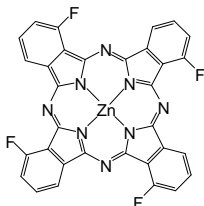


LT-S9171 | F4ZnPc

Zinc(II)-1,8,15,22-tetrafluoro-29H,31H-phthalocyanin, mixture of isomers

CAS No. : 1120355-28-3
 Grade : Sublimed, > 99%
 Formula : $C_{32}H_{12}F_4N_8Zn$
 M.W. : 834.79 g/mole
 UV : 681, 725 nm (in $CHCl_3$)
 TGA : > 300 °C (0.5% weight loss)

Reference : *Solar Energy Materials & Solar Cells* (2013), 118, 165-170

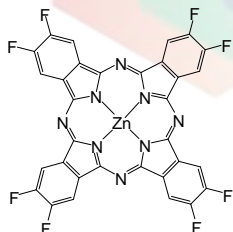


LT-S9172 | F8ZnPc

Zinc(II)-2,3,9,10,16,17,23,24-octafluoro-29H,31H-phthalocyanin

CAS No. : 676519-80-5
 Grade : Sublimed, > 99%
 Formula : $C_{32}H_8F_8N_8Zn$
 M.W. : 721.86 g/mole
 UV : 269, 633 nm (in $CHCl_3$)
 TGA : > 300 °C (0.5% weight loss)

Reference : *Solar Energy Materials & Solar Cells* (2013), 118, 165-170

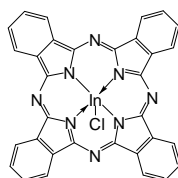


LT-S9176 | InClPC

Indium(III) phthalocyanine chloride

CAS No. : 19631-19-7
 Grade : Sublimed, > 99%
 Formula : $C_{32}H_{16}ClInN_8$
 M.W. : 662.79 g/mole
 UV : 358, 683 nm (in $CHCl_3$)
 TGA : > 300 °C (0.5% weight loss)

Reference : *Organic Electronics* (2015), 17, 229-239

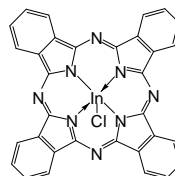


LT-S9177 | F16FePC

Indium(III) phthalocyanine chloride

CAS No. : 23844-93-1
 Grade : Sublimed, > 99%
 Formula : $C_{32}F_{16}FeN_8$
 M.W. : 856.22 g/mole
 UV : 316, 629 nm (in $CHCl_3$)
 TGA : > 300 °C (0.5% weight loss)

Reference : *Nano Letters* (2014), 14(10), 5547-5554

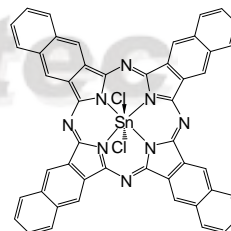


LT-S9180 | SnNCl2

Tin(IV) 2,3-naphthalocyanine dichloride

CAS No. : 26857-61-4
 Grade : Sublimed, > 99%
 Formula : $C_{48}H_{24}Cl_2N_8Sn$
 M.W. : 902.37 g/mole
 TGA : > 300 °C (0.5% weight loss)

Reference : *Organic Electronics* (2013), 14(3), 804-808

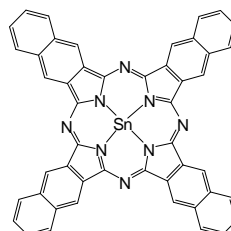


LT-S9182 | SnNC

Tin(II) 2,3-naphthalocyanine

CAS No. : 110479-58-8
 Grade : Sublimed, > 99%
 Formula : $C_{48}H_{24}N_8Sn$
 M.W. : 831.47 g/mole
 TGA : > 300 °C (0.5% weight loss)

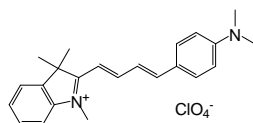
Reference : *Journal of Physical Chemistry A* (2011), 115(33), 9265-9272



LT-D1233 | LDS 730

2-[4-[4-(Dimethylamino)phenyl]-1,3-butadienyl]-1,3,3-trimethyl-3*H*-indolium perchlorate

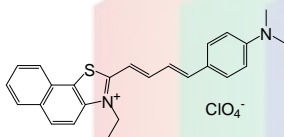
CAS No. : 76433-27-7
 Grade : > 97% (HPLC)
 Formula : $C_{23}H_{27}N_2 \cdot ClO_4$
 M.W. : 430.93 g/mole
 UV : 603 nm (in MeOH)
 PL : 668 nm (in MeOH)



LT-D1234

2-[4-[4-(Dimethylamino)phenyl]-1,3-butadienyl]-3-ethyl-naphtho[2,1-*d*]thiazolium perchlorate

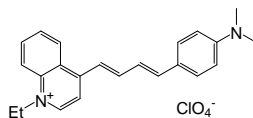
CAS No. : 89872-07-1
 Grade : > 97% (HPLC)
 Formula : $C_{25}H_{25}N_2S \cdot ClO_4$
 M.W. : 484 g/mole
 UV : 572 nm (in MeOH)
 PL : 704 nm (in MeOH)



LT-D1235 | LDS 798

4-(4-(4-(Dimethylamino)phenyl)-1,3-butadienyl)-1-ethylquinolinium perchlorate

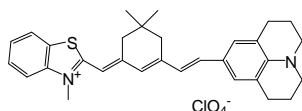
CAS No. : 92479-59-9
 Grade : > 97% (HPLC)
 Formula : $C_{23}H_{25}N_2 \cdot ClO_4$
 M.W. : 428.91 g/mole
 UV : 558 nm (in MeOH)
 PL : 766 nm (in MeOH)



LT-D1236 | LDS 798

2-(6-(9-(2,3,6,7-Tetrahydro-1*H*,5*H*-benzo(*i,j*)quinolinizinium)))2,4-neopentylene-1,3,5-hexatrienyl)-3-methylbenzothiazolium perchlorate

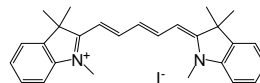
CAS No. : 385437-35-4
 Grade : > 95% (HPLC)
 Formula : $C_{31}H_{35}N_2S \cdot ClO_4$
 M.W. : 567.15 g/mole
 UV : 651 nm (in EtOH)



LT-D1237 | HIDC iodide

1,1',3,3,3',3'-Hexamethylindodicarbocyanine iodide

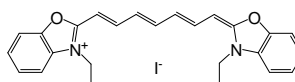
CAS No. : 36536-22-8
 Grade : > 98% (HPLC)
 Formula : $C_{27}H_{33}IN_2$
 M.W. : 510.45 g/mole
 UV : 643 nm (in EtOH)
 PL : 670 nm (in EtOH)



LT-D1238

3,3'-Diethyl-2,2'-oxathiacarbocyanine iodide

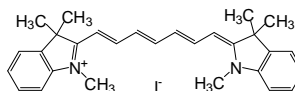
CAS No. : 15185-43-0
 Grade : > 97% (HPLC)
 Formula : $C_{25}H_{25}N_2O_2 \cdot I$
 M.W. : 512.38 g/mole
 UV : 686 nm (in EtOH)
 PL : 726 nm (in EtOH)



LT-D1240 | HITC iodide

1,1',3,3,3',3'-Hexamethylindotricarbocyanine iodide

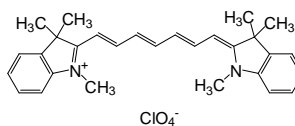
CAS No. : 19764-96-6
 Grade : > 97% (HPLC)
 Formula : $C_{29}H_{33}IN_2$
 M.W. : 536.49 g/mole
 UV : 751 nm (in DMSO)
 PL : 792 nm (in DMSO)



LT-D1241 | HITC perchlorate

1,1',3,3,3',3'-Hexamethylindotricarbocyanine perchlorate

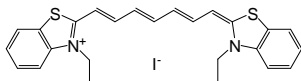
CAS No. : 16595-48-5
 Grade : > 97% (HPLC)
 Formula : $C_{29}H_{33}N_2 \cdot ClO_4$
 M.W. : 509.04 g/mole
 UV : 750 nm (in DMSO)
 PL : 790 nm (in DMSO)



LT-D1242 | DTTC iodide

3,3'-Diethylthiatricocyanine iodide

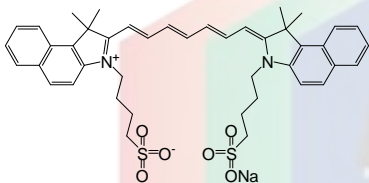
CAS No. : 3071-70-3
 Grade : > 98% (HPLC)
 Formula : $C_{25}H_{25}IN_2S_2$
 M.W. : 544.51 g/mole
 UV : 761 nm (in EtOH)
 PL : 813 nm (in EtOH)



LT-D1243 | Indocyanine green

Sodium 2-(7-(3,3-dimethyl-1-(4-sulfonatobutyl)benz(e)indolin-2-ylidene)hepta-1,3,5-trien-1-yl)-3,3-dimethyl-1-(4-sulfonatobutyl)benz[e]indolinium

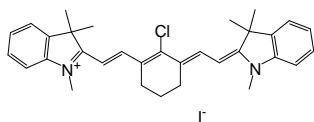
CAS No. : 3599-32-4
 Grade : > 90% (HPLC)
 Formula : $C_{43}H_{47}N_2NaO_6S_2$
 M.W. : 774.96 g/mole
 UV : 795 nm (in DMSO)
 PL : 832 nm (in DMSO)



LT-D1248 | IR-786

2-[2-[2-Chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,3,3-trimethylindolium iodide

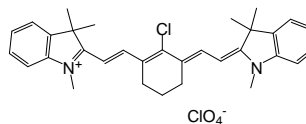
CAS No. : 56289-67-9
 Grade : > 98% (HPLC)
 Formula : $C_{32}H_{36}ClIN_2$
 M.W. : 611.02 g/mole
 UV : 775 nm (in MeOH)
 PL : 817 nm (in MeOH)



LT-D1249 | IR-786 perchlorate

2-(2-[2-Chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl)-1,3,3-trimethylindolium perchlorate

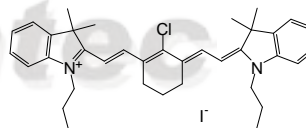
CAS No. : 102185-03-5
 Grade : > 98% (HPLC)
 Formula : $C_{32}H_{36}Cl_2N_2O_4$
 M.W. : 583.55 g/mole
 UV : 775 nm (in MeOH)
 PL : 817 nm (in MeOH)



LT-D1250 | IR-780 iodide

2-[2-[2-Chloro-3-[(1,3-dihydro-3,3-dimethyl-1-propyl-2H-indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-propylindolium iodide

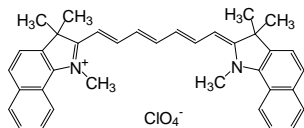
CAS No. : 207399-07-3
 Grade : > 98% (HPLC)
 Formula : $C_{36}H_{44}ClIN_2$
 M.W. : 667.11 g/mole
 UV : 776 nm (in MeOH)
 PL : 817 nm (in MeOH)



LT-D1261 | HDITC perchlorate

1,1',3,3,3',3'-4,4',5,5'-Di-benzo-2,2'-indotricarbocyanine perchlorate

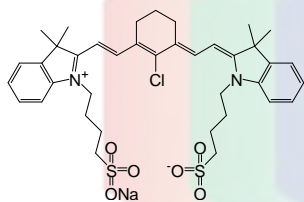
CAS No. : 23178-67-8
 Grade : > 98% (HPLC)
 Formula : $C_{37}H_{37}ClN_2O_4$
 UV : 609.15 g/mole
 PL : 781 nm (in MeOH)



LT-D1262 | IR-783

2-[2-[2-Chloro-3-[2-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-ethylidene]-1-cyclohexen-1-yl]-ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt sodium salt

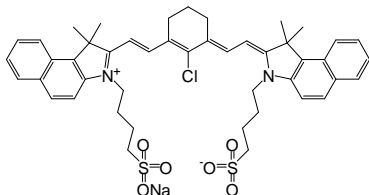
CAS No. : 115970-66-6
 Grade : > 90% (HPLC)
 Formula : $C_{38}H_{46}ClN_2NaO_6S_2$
 M.W. : 749.35 g/mole
 UV : 782 nm (in MeOH)



LT-D1263 | IR-820

2-[2-[2-Chloro-3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benzo[e]indol-2-ylidene]-ethylidene]-1-cyclohexen-1-yl]-ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-1H-benzo[e]indolium hydroxide inner salt, sodium salt

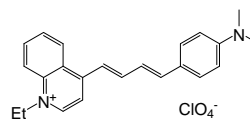
CAS No. : 172616-80-7
 Grade : > 80% (HPLC)
 Formula : $C_{46}H_{50}ClN_2NaO_6S_2$
 M.W. : 849.47 g/mole
 UV : 820 nm (in MeOH)



LT-D1264 | Pyridine 2

4-[4-(4-Dimethylaminophenyl)-1,3-butadienyl]-1-ethylpyridinium perchlorate

CAS No. : 89846-21-9
 Grade : > 97% (HPLC)
 Formula : $C_{19}H_{23}N_2ClO_4$
 M.W. : 378.86 g/mole
 UV : 494 nm (in MeOH)
 PL : 702 nm (in MeOH)



Lumtec