

# Porphyryns and Phthalocyanines

Compounds containing the porphine structural unit serve as dyes, and they also play important roles in both inorganic chemistry and the chemistry of life. Our *Stains & Dyes* division continues to expand its offerings of porphyryns, phthalocyanines, and naphthalocyanines. A few examples from this product line are listed here, and applications of our new listings are listed on the right.

To receive your **FREE** copy of our **Dyes, Indicators & Intermediates** catalog or to have your questions answered, please call our Technical Services Department at **800-231-8327**.

## Applications of New Listings

**electron transfer reactions** Schouten, P.G. et al. *J. Am. Chem. Soc.* **1994**, *116*, 6880.

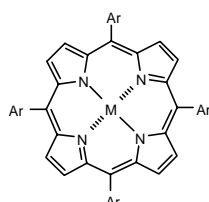
**spectral hole burning & optical storage** Pan, Y. et al. *Opt. Commun.* **1995**, *119*, 538. Zhao, Y. et al. *J. Lumin.* **1995**, *64*, 161.

**photosensitizers** Serguievski, P. et al. *Langmuir* **1996**, *12*, 348. Nahor, G.S.; Rabani, J. *Macromolecules* **1989**, *22*, 2516.

**interactions with viologens** Ohtani, B. et al. *J. Polym. Sci., Part C: Polym. Lett.* **1987**, *25*, 373. Amao, Y. et al. *J. Photochem. Photobiol., A* **1996**, *98*, 59.

**synthesis & catalysis** Woehrlie, D. et al. *Zeolites* **1995**, *15*, 540. D' Souza, F. et al. *J. Electroanal. Chem.* **1996**, *411*, 167.

## 21/23/Porphines

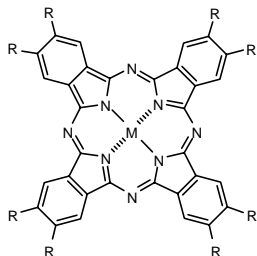


M = 2H<sup>+</sup>, Co(II), Ni(II),  
Fe(III)Cl, Zn(II)

Ar = Ph, 4-pyridyl, C<sub>6</sub>F<sub>5</sub>,  
4-MeOC<sub>6</sub>H<sub>4</sub>,  
other aryl groups

- |                      |   |                 |
|----------------------|---|-----------------|
| <b>NEW!</b> 45,271-8 | Zinc 5,10,15,20-tetra(4-pyridyl)-21 <i>H</i> ,23 <i>H</i> -porphine                                     | 250mg; 1g       |
| 25,220-4             | 5,10,15,20-Tetraphenyl-21 <i>H</i> ,23 <i>H</i> -porphine nickel(II), synthetic                         | 500mg0; 5g      |
| 25,288-3             | 5,10,15,20-Tetrakis(4-methoxyphenyl)-21 <i>H</i> ,23 <i>H</i> -porphine                                 | 1g; 5g          |
| 25,292-1             | 5,10,15,20-Tetrakis(pentafluorophenyl)-21 <i>H</i> ,23 <i>H</i> -porphine, synthetic                    | 25mg; 100mg; 1g |
| 16,099-7             | 5,10,15,20-Tetraphenyl-21 <i>H</i> ,23 <i>H</i> -porphine   | 1g; 5g; 25g     |
| 37,907-7             | 4,4',4'',4'''-(21 <i>H</i> ,23 <i>H</i> -Porphine-5,10,15,20-tetrayl)tetrakis(benzoic acid)             | 250mg; 1g       |
| 27,586-7             | 5,10,15,20-Tetrakis(4-methoxyphenyl)-21 <i>H</i> ,23 <i>H</i> -porphine cobalt(II), synthetic           | 1g; 10g         |
| 25,761-3             | 5,10,15,20-Tetra(4-pyridyl)-21 <i>H</i> ,23 <i>H</i> -porphine, synthetic, 97%                          | 250mg; 1g; 5g   |
| <b>NEW!</b> 45,301-3 | Zinc 5,10,15,20-tetra(4-pyridyl)-21 <i>H</i> ,23 <i>H</i> -porphine tetrakis(methochloride)             | 100mg; 500mg    |
| 25,291-3             | 5,10,15,20-Tetrakis(pentafluorophenyl)-21 <i>H</i> ,23 <i>H</i> -porphine iron(III) chloride, synthetic | 25mg; 100mg     |

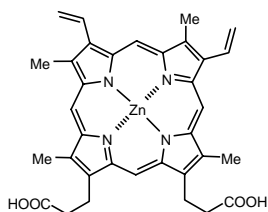
## 29/31/Phthalocyanines



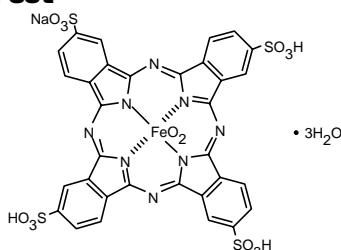
M = Si(OH)<sub>2</sub>, Cu(II), Zn(II), 2H<sup>+</sup>  
R = CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>O

- |                      |   |              |
|----------------------|---|--------------|
| <b>NEW!</b> 46,351-5 | Silicon 2,3,9,10,16,17,23,24-octakis(octyloxy)-29 <i>H</i> ,31 <i>H</i> -phthalocyanine dihydroxide | 25mg; 100mg  |
| <b>NEW!</b> 45,971-2 | Copper(II) 2,3,9,10,16,17,23,24-octakis(octyloxy)-29 <i>H</i> ,31 <i>H</i> -phthalocyanine          | 100mg; 500mg |
| <b>NEW!</b> 45,972-0 | Zinc 2,3,9,10,16,17,23,24-octakis(octyloxy)-29 <i>H</i> ,31 <i>H</i> -phthalocyanine                | 100mg; 500mg |
| <b>NEW!</b> 46,220-9 | 2,3,9,10,16,17,23,24-Octakis(octyloxy)-29 <i>H</i> ,31 <i>H</i> -phthalocyanine                     | 100mg; 250mg |

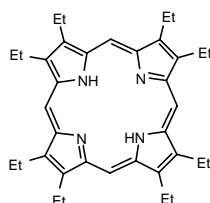
## Other Porphyrins of Interest



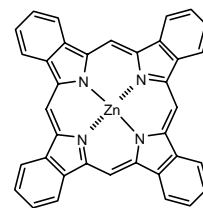
- 28,282-0 Protoporphyrin IX  
zinc(II) 50mg;  
250mg



- 45,252-1 **NEW!** Iron(III) phthalocyanine-4,4',4'',4'''-tetrasulfonic acid, monosodium salt, compound with oxygen trihydrate  
250mg; 1g



- 25,240-9 2,3,7,8,12,13,17,18-Octaethyl-21*H*,23*H*-porphine, 97%  
100mg;  
1g; 5g



- 42,314-9 **NEW!** Zinc 29*H*,31*H*-tetrabenzob[b,g,l,q]-porphine  
250mg \$22.50;  
1g \$63.00



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