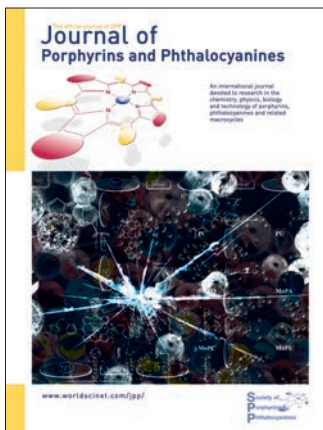


About the Cover



The cover shows a montage of the science presented in the current issue.

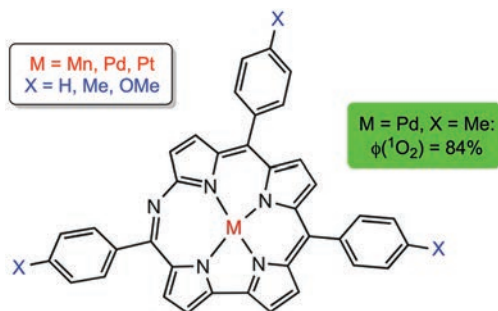
Articles

487–496

Transition metal azahemiporphycenes as singlet oxygen sensitizers

Abraham B. Alemayehu, Kevin J. Gagnon, Yoann Rousselin, Max Schmallegger, Sergey M. Borisov* and Abhik Ghosh*

Although nonluminescent, a palladium 6-azahemiporphycene has been found to efficiently sensitize singlet oxygen formation, with a singlet oxygen quantum yield of 84% in 9:1 v/v ethanol:tetrahydrofuran at room temperature. For comparison, the values for the analogous Pt(II) and Mn(II) complexes are 11% and 0%, respectively.

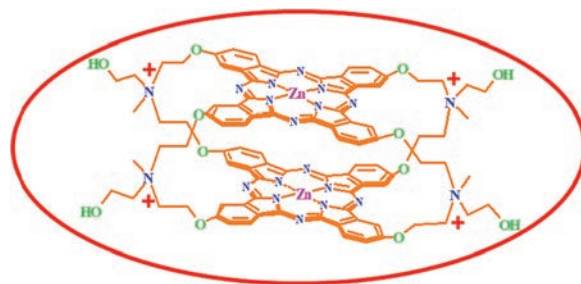


497–502

Photodynamic activity of cationic ball-type zinc phthalocyanine in cell culture experiments with MCF-7 and MG63 cancer cells

Sinan Soylu, Efan Bağda, Ahmet Altun, Esra Bağda, Atilla Kurt, Fuat Erden and Ebru Yavaş*

The activities of water-soluble BT-Pc against MCF-7 and MG63 cancer cells and further experiments on L929 healthy fibroblast cells showed whether this approach to cancer cells was selective. The photodynamic activity of water-soluble BT-Pc against MCF-7 and MG63 cancer cells was also evaluated.



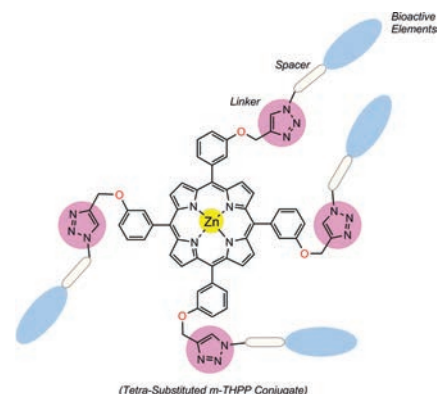
Articles

503–514

Click approach for the synthesis of 1,4-disubstituted-1,2,3-triazoles of porphyrin-isatin/sulfa drug conjugates based on *m*-THPP

Ayman M. Sweed, Sherif S. Ragab*, Mohamed Fikry, Reham A. Mohamed-Ezzat and Yasser M. Shaker*

Porphyrin-isatin/sulfa drugs conjugates with 1,2,3-triazole linker were synthesized through the cycloaddition reaction of *m*-THPP-alkyne with azides of isatin or sulfa drugs. The porphyrin-conjugates contained mono-, tri-, or tetrafunctionalized units. The targeted porphyrin conjugates were accessed by applying click reaction using copper(I) catalyzed azide-alkyne cycloaddition (CuAAC) approach. The photophysical properties of porphyrin conjugates were also investigated.

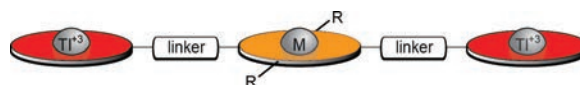


515–526

Synthesis of porphyrin triads chelated with thallium(III) for studies of ground-state hole/electron transfer

Jieqi Wang, Masahiko Taniguchi, David F. Bocian and Jonathan S. Lindsey*

Four target porphyrin triads containing thallium(III) have been prepared to clock the ground-state hole/electron transfer rate between the macrocycles.



527–535

Synthesis of (oxo)chlorin dimers chelated with thallium(III)

Kunche Aravindu, Masahiko Taniguchi, David F. Bocian and Jonathan S. Lindsey*

Two target (oxo)chlorin dimers have been prepared that contain thallium(III) for clocking the rate of ground-state hole/electron transfer between the two macrocycles.



536–548

Porphyrin films as discrete elements for nucleoside identification: Experimental and DFT study

Estefania G. Vera-Alvizar, Jesús M. Rivera, Diana E. Tahuilan-Anguiano, Violeta Álvarez-Venicio, María del Pilar Carreón-Castro and M. Rivera*

Metal-free and manganese porphyrin films were employed to investigate the selectivity adsorption properties of different nucleosides. Morphological and spectroscopical analysis, as well as conductivity measurements and theoretical calculations, were employed. From the results, purine molecules were better adsorbed on metal-free porphyrin films, while Mn porphyrin surfaces adsorbed pyrimidine molecules preferentially.

