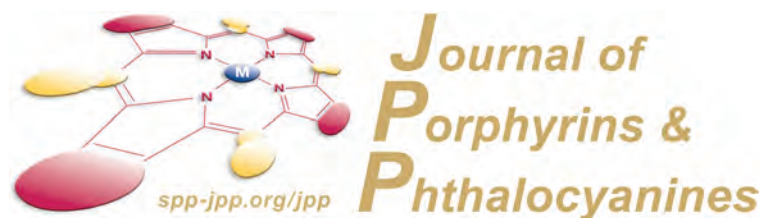
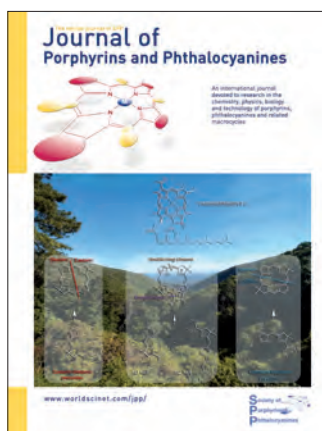


CONTENTS



About the Cover



The cover illustrates and highlights the article in this issue entitled *Bacteriochlorin syntheses – Status, problems, and exploration*.

The development of bacteriochlorin synthetic chemistry is inspired by the native bacteriochlorophyll a, the chief pigment of anoxygenic photosynthetic bacteria.

The backdrop of the image is a view from the mountains of North Carolina facing toward Raleigh, where the work in bacteriochlorin chemistry of Jonathan Lindsey and his research group has been carried out over the years.

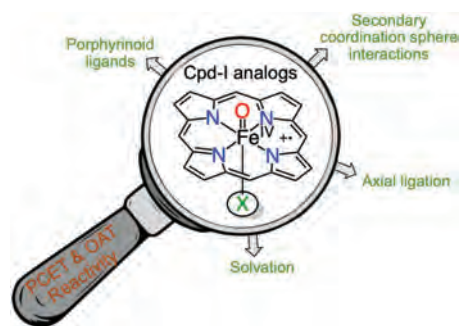
Review

pp. 1489–1501

Factors controlling the reactivity of synthetic compound-I analogs

Jithin Thomas and David P. Goldberg*

Porphyrinoid ligands serve as excellent motifs to generate and stabilize reactive Cpd-I species. This review summarizes progress in understanding the PCET and OAT reactivity of Cpd-I analogs. Many factors such as the type of porphyrinoid ligand, secondary coordination sphere interactions, axial ligation and solvation contribute to the structural, spectroscopic and reactivity properties of Cpd-I species in synthetic systems.



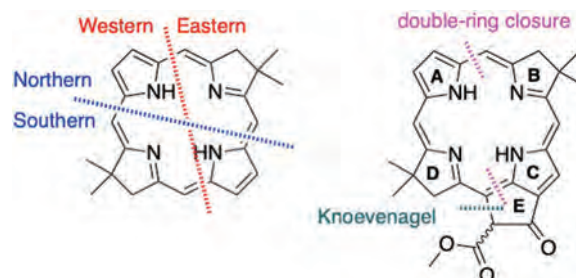
Articles

pp. 1502–1551

Bacteriochlorin syntheses – Status, problems, and exploration

Vy-Phuong Tran, Pengzhi Wang, Nobuyuki Matsumoto, Sijia Liu, Haoyu Jing, Phattananawee Nalaoh, Khiem Chau Nguyen, Masahiko Taniguchi, and Jonathan S. Lindsey*

New methodology is explored to overcome limitations of the three present routes to gem-dimethyl-substituted bacteriochlorins.



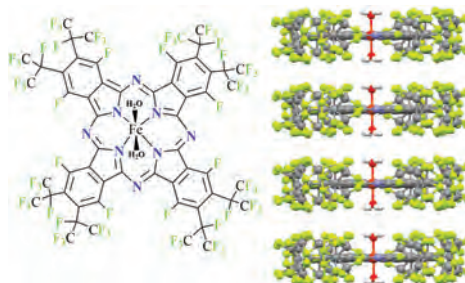
Articles

pp. 1552–1561

Synthesis, structures and alkane oxygenation reactivity of bioinspired fluoroalkyl iron phthalocyanines

Mufeda Zhort, Hyun-Jin Lee, and Sergiu M. Gorun*

Iron(II) perfluoroalkyl fluorophthalocyanine, exhibiting labile axial ligands, structurally akin to the active site of Cytochrome P450, is a single-site, efficient catalyst for the oxygenation of cyclohexane to cyclohexanol and cyclohexanone using both *t*-butyl hydroperoxide and air. The catalyst is stable under reaction conditions.



pp. 1562–1572

Synthesis, physicochemical properties and theoretical calculations of a subphthalocyanine peripherally substituted by multiple anthryl-ethynyl-aniline moieties

Oscar Fernandez-Vera, Yifan Bo, Yusen Luo, Jorge Labella, Dirk M. Guldi*, Tomás Torres* and Giovanni Bottari*

The synthesis of a novel electron donor-acceptor conjugate based on a C_3 -subphthalocyanine functionalized at its peripheral positions with three anthryl-ethynyl-*N,N*-dimethylaniline groups is presented together with an in-depth spectroscopic, spectrometric, and electrochemical analysis as well as theoretical calculations.

