

Special Issue

Porphyrin-Based Compounds: Synthesis and Application

Message from the Guest Editors

Porphyrins, metalloporphyrins and their analogues, are a family of macrocycles that are ubiquitous in nature, playing key roles in numerous biological functions, such as in plant light-harvesting (e.g., chlorophyll, a magnesium–chlorin complex), oxygen binding and transport (e.g., heme group, an iron–porphyrin complex, responsible for animal cellular respiration), and bacteria photosynthesis. The pivotal functions played by these naturally occurring porphyrinoids have motivated and inspired organic chemists to produce synthetic porphyrins and analogues in the laboratory. In the last few years, the multitude of porphyrin applications has transformed the interest in these compounds from purely academic to industrial processes. It is very relevant to implement new, more selective and efficient synthetic methods with a low environmental impact. In this Special Issue, we invite original research papers and comprehensive reviews with a focus on the synthesis and functionalization of tetrapyrrolic macrocycles and their potential applications in different fields covering any aspect related to the abovementioned topics.

Guest Editors

Dr. Carlos Monteiro

Dr. M. Amparo F. Faustino

Dr. Carlos Serpa

Deadline for manuscript submissions

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of
Münster, Corrensstrasse 48, D-48149 Münster, Germany

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