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Porphyrins and Phthalocyanines in Catalysis

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Message from the Guest Editors

Porphyrins and phthalocyanines are particularly attractive in catalysis due to the straightforward modifications of their aromatic peripheral structure and the facile complexation with most metallic elements, which allow modulating their physical properties and catalytic activity.

In this Special Issue, we aim to cover the most relevant and scalable porphyrin and phthalocyanine-catalyzed reactions, showing how such compounds engage in broad applications in catalysis, engineering, and modern synthetic chemistry. Potential topics, among others, include the following:

- Synthesis, coordination studies, and catalytic applications of porphyrins and phthalocyanines;
- Organocatalysis with porphyrins and phthalocyanines;
- Porphyrin and phthalocyanine metal complexes and their use in homogeneous catalysis;
- Immobilized and heterogeneous catalysis;
- Photocatalysis;
- Continuous-flow processes;
- Catalytic oxidation reactions;
- Catalytic reduction reactions;
- Catalytic C–C and C–N coupling reactions;
- Catalytic carbon dioxide activation (CO₂ photoreduction, CO₂ cycloaddition to epoxides, CO₂/epoxide copolymerization, etc.).





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