





an Open Access Journal by MDPI

Advanced Functional Materials for Environmental Catalysis, 2nd Edition

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Deadline for manuscript submissions:

closed (20 January 2024)

Message from the Guest Editors

Advanced functional materials, including metals, metallic oxides, conducting polymers, and carbon nanomaterials, have sparked tremendous interest in energy conversion and storage, environmental remediation, and catalytic fields over the last few decades. Despite the fact that the use of various functional materials in energy and environmental fields has been reported, there are still many challenges that must be addressed in order to develop advanced functional materials with high sensitivity, efficiency, and selectivity. The key factor to consider when designing an efficient functional material is sustainability.

The topics covered in this Special Issue include, but are not limited to, the following:

- Advanced oxidation processes (e.g., photocatalysis, electrocatalysis, electro-Fenton and persulfate/peroxymonosulfate oxidation);
- Catalytic elimination of environmental pollutants;
- Advanced water and wastewater treatment processes;
- Nanotechnology;
- Batteries and supercapacitors;
- Hydrogen generation and storage;
- Catalysis for recycling/reuse (e.g., microbial fuel cell techniques).



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