



Photocatalysis for a Green Future: Breaking Barriers in Energy, Environment, and Healthcare

Guest Editor:

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Message from the Guest Editor

Photocatalysis is a revolutionary process leveraging light energy to expedite chemical reactions; it presents a multitude of advantages and its applications range widely. This versatile technology not only addresses contemporary challenges but also contributes significantly to sustainable solutions across diverse domains.

The primary drawback of this method lies in the selection of semiconductor materials. Numerous semiconductors exhibit limitations. In this context, this Special Issue will compile recent developments in the field of new semiconductor materials for several photocatalytic applications.

The articles presented in this Special Issue will cover various topics, such as the following:

- The synthesis and characterization of novel photocatalysts;
- The photocatalytic synthesis of organic and inorganic compounds;
- Photocatalytic materials to address specific sustainability challenges;
- Applications of photocatalysts in different areas:
 - Wastewater and air treatment;
 - Energy conversion;
 - Drug delivery;
 - others;
- Critical reviews and perspectives on photocatalyst applications.





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Message from the Editor-in-Chief

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