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Nanostructured Materials for Photocatalysis

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Message from the Guest Editors

Photocatalysis has been identified as a suitable and sustainable approach to address two of the main issues facing humanity: Environmental protection and clean and sustainable energy production. Many efforts have been dedicated over the past few decades to the realization of efficient semiconductor photocatalysts and understanding the fundamentals governing efficiency. This is because of the advantages of the process operating under ambient conditions and the utilization of clean and endless solar energy. This Special Issue aims at presenting the current scientific developments in the area of photoactive heterojunction nanomaterials and their photocatalytic applications to environmental protection, clean energy production and chemical synthesis/processing. It is open to both original research articles and reviews.

Keywords

- environmental pollution
- water and air contamination
- hydrogen production
- CO_2 reduction
- N_2 photoactivation
- organic synthesis
- reactors and testing methods
- reaction kinetics and mechanism
- semiconductors
- light-matter interaction
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