



*water*

an Open Access Journal by MDPI



## Photocatalytical Behavior of Metal NPs over Wastewater Treatment

Guest Editors:

**Dr. Awais Ahmad**

Department of Chemistry,  
University of Lahore, Lahore,  
Pakistan

**Prof. Dr. Shahid Hussain**

School of Materials Science and  
Engineering, Jiangsu University,  
Zhenjiang, China

**Prof. Dr. Muhammad Bilal**

School of Life Science and Food  
Engineering, Huaiyin Institute of  
Technology, Huaian 223003,  
China

Deadline for manuscript  
submissions:

**closed (28 February 2022)**

### Message from the Guest Editors

Dear Colleagues,

Process of photocatalysis involves green chemistry, because all energy obtained from photons are utilized into chemical energy. In last few decades, an increase in use of photoreactors was emerged. In present era several modifications were brought for designing a diversified modification in those materials from which semiconductors could be formed, with efficient activity to be employed for photocatalysis of heterogenous materials. Based on modification, band gap, composition and charge transfer process semiconductors to be used in photocatalysis are categorized into four types. These include Z scheme, solid solutions, intrinsic semiconductors and electrical junction created between variant materials termed as heterojunction type II. Photocatalysis involves phenomena of oxidation. In this process, semiconductors capable of photocatalytic activity deteriorate contaminants that are organic in nature. These photocatalysts include zinc oxide and titanium oxide etc. Along with semiconductors, the agent [...]

For further reading, please follow the link to the Special Issue Website at:

[https://www.mdpi.com/journal/water/special\\_issues/Photocatalytical\\_Behavior](https://www.mdpi.com/journal/water/special_issues/Photocatalytical_Behavior)



[mdpi.com/si/90958](https://www.mdpi.com/si/90958)

# Special Issue



*water*



an Open Access Journal by MDPI

## Editor-in-Chief

### **Dr. Jean-Luc PROBST**

Laboratory of Functional Ecology  
and Environment, Centre  
National de la Recherche  
Scientifique (CNRS), University of  
Toulouse, Campus ENSAT,  
Auzeville Tolosane, France

## Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

**Journal Rank:** JCR - Q2 (*Water Resources*) / CiteScore - Q1 (*Water Science and Technology*)

## Contact Us

---

Water Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/water](http://mdpi.com/journal/water)  
[water@mdpi.com](mailto:water@mdpi.com)  
[X@Water\\_MDPI](https://twitter.com/Water_MDPI)