



water



an Open Access Journal by MDPI

## Advanced Technologies for Water/Wastewater Treatment: Research Progress, Challenges, and Prospects

Guest Editors:

### Dr. Murtaza Sayed

Radiation Chemistry Laboratory,  
National Centre of Excellence in  
Physical Chemistry, University of  
Peshawar, Peshawar 25120,  
Pakistan

### Dr. Noor Samad Shah

Department of Environmental  
Sciences, COMSATS University  
Islamabad, Vehari Campus,  
Islamabad, Pakistan

### Dr. Faiza Rehman

Department of Chemistry,  
University of Poonch, Rawalakot,  
Azad Kashmir, Pakistan

Deadline for manuscript  
submissions:

**closed (30 August 2023)**

### Message from the Guest Editors

Due to rapid industrialization, the quality of water has declined drastically. The problems of water contamination have been somewhat addressed using traditional wastewater treatment (WWT) techniques; however, in the case of some persistent contaminants, these traditional WWT methods may not be efficient and thus require improvement. Recently, advanced oxidation/reduction processes have been employed to eliminate/ degrade such persistent contaminants (pesticides, pharmaceuticals, dyes, sunscreen agents, etc.).

The current issue is designed to specifically focus on these advanced technologies for water/wastewater treatment, recent progress, current challenges, and future perspectives. The key technologies that define the scope of this issue include but are not limited to:

- Advanced reduction technologies
- CO<sub>2</sub> electrocatalytic reduction
- Heterogenous photocatalysis
- Homogenous photocatalysis
- Gamma irradiation process
- Electrocatalysis
- Photoelectrocatalysis
- Membrane technologies
- Synthetic polymers for effective adsorption/catalysis



[mdpi.com/si/157752](https://mdpi.com/si/157752)

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, Grosspeteranlage 5  
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)