## **Special Issue**

## Nanoparticles for Photocatalytic Water and Air Remediation

### Message from the Guest Editor

Photocatalysis, discovered in the early 20th century, has seen a major research surge for several decades now, leading to advancements in mechanisms, materials, and applications such as biomass valorization, microorganism inactivation, and hydrogen production. Despite extensive studies, photocatalysis remains crucial for addressing key challenges, such as environmental pollution (CECs, PPCPs, and microplastics), public health crises (e.g., COVID-19), and energy crises. Further progress is needed to optimize surface and optical properties, enhance charge separation, and expand UV-visible absorption. This necessitates the development of advanced nanomaterials and nanocatalysts. Although water treatment was one of the first applications of photocatalysis and numerous catalysts have since been developed, more than 5000 international publications on this topic are recorded each year.

- nanophotocatalyst
- photocatalyst
- water treatment
- semiconductor
- environmental remediation
- advanced oxidation technology
- heterogeneous catalysis

#### **Guest Editor**

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### Deadline for manuscript submissions

closed (20 November 2025)



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