Special Issue

Metal Alloy Nanoparticles for Synergistic Photocatalytic Degradations of Pollutants

Message from the Guest Editor

We invite researchers to submit cutting-edge studies on the use of metal alloy nanoparticles for the synergistic photocatalytic degradation of pollutants in liquids. We welcome work exploring high-entropy alloys, single-atom or multiple-atom metal in a host nanoparticle matrix, and innovative metal-to-metal oxide or nitride combinations with unique structural and electronic properties that enhance photocatalytic efficiency. We are particularly interested in submissions addressing the degradation of harmful bacteria and organic pollutants. Studies should focus on light-activated photocatalysis in the liquid phase, examining how these metal alloy nanoparticles promote the generation of reactive species under various wavelengths and conditions, accelerating the breakdown of pollutants. Research that dives into the synthesis, characterization, and mechanism of action of metal alloy nanoparticles, and explores their role in sustainable water purification and pollution control, is highly encouraged.

- metal alloys
- single atom
- entropy alloys
- water remediation
- pollutant removal
- plasmonic
- heterojunction

Guest Editor

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Deadline for manuscript submissions

closed (10 May 2025)

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