Special Issue

Nanomaterial Catalysts for Wastewater Treatments

Message from the Guest Editors

The increasing global demand for clean water, coupled with the complex composition of industrial and municipal wastewater, has underscored the urgent need for advanced treatment technologies. Among emerging solutions, nanomaterials-based catalysts have demonstrated remarkable potential due to their high surface area, tunable properties, and unique physicochemical characteristics that enable efficient and selective degradation of a wide range of organic and inorganic pollutants. This Special Issue aims to highlight recent advances in design, synthesis, and application of nanomaterial-based catalysts for wastewater treatment. We welcome original research articles, reviews, and perspectives that address the challenges and opportunities in this field, with a particular focus on catalytic oxidation, reduction, photocatalysis, Fenton-like reactions, electrocatalysis, and synergistic hybrid systems involving nanomaterials.

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