Special Issue

Green Catalytic Materials for Environmental Application

Message from the Guest Editors

Green catalytic materials are transforming atmospheric pollution control and soil remediation through high efficiency, low energy consumption, and environmental compatibility. In NOx/SO_2 catalytic reduction, novel materials achieve selective conversion across wide temperature ranges by optimizing active sites and support structures, with enhanced resistance to sulfur and water poisoning. For catalytic thermal desorption, green catalysts lower activation energy for organic pollutants, enabling low-temperature, efficient remediation while reducing energy use and secondary emissions. In photocatalysis, visible-light-responsive materials and heterojunction designs have overcome solar-energy utilization limitations, showing promise for VOC degradation, sterilization, and water purification.

This Special Issue invites world-leading scientists to report latest advances in green catalytic materials. Topics include catalyst development, process design, system analysis, and multidisciplinary approaches. Original research, reviews, and short communications are welcome.

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