



catalysts



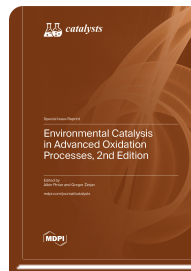
Special Issue Reprint

Environmental Catalysis in Advanced Oxidation Processes, 2nd Edition

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The reprint, ‘Environmental Catalysis in Advanced Oxidation Processes, 2nd Edition’, presents a comprehensive collection of eleven high-quality contributions addressing recent advances in catalytic and photocatalytic technologies for environmental remediation. This reprint highlights the design, synthesis, and characterisation of novel heterogeneous catalysts and their application in advanced oxidation processes (AOPs) for the degradation of persistent organic pollutants and wastewater treatment. The featured studies cover diverse approaches, including photo-Fenton systems, peroxydisulfate activation, catalytic wet air oxidation, and semiconductor-based photocatalysis, with emphasis on both radical and non-radical oxidation pathways. Innovative reactor concepts, such as 3D-printed and rotating photo-disc reactors, are explored alongside investigations of noble and non-noble metal catalysts, biochar-based materials, and metal-free systems. Collectively, the contributions provide mechanistic insights and demonstrate how process intensification, material engineering, and light management can enhance pollutant removal efficiency. This reprint is intended for researchers, engineers, and students in catalysis, environmental chemistry, and process engineering, offering a timely overview of state-of-the-art strategies to address global environmental challenges.



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