Special Issue

Advanced Photocatalysts for Environmental Remediation and Contaminant Removal

Message from the Guest Editor

Nonbiodegradable organic contaminants such as antibiotics, dyes, and pesticide pollutants can be removed from industrial wastewater via advanced photocatalysts under visible or ultraviolet light irradiation. Different preparation methods should be explored to produce novel photocatalysts, and their photophysical and photochemical properties should be characterized, including determining the cell parameters and position coordinates of elements. Moreover, intermediate products of contaminants should be detected via liquid chromatography–mass spectrometry, and their degradation pathways identified. The energy gap values of advanced photocatalysts should be calculated. Concurrently, their granular appearance and chemical composition should be ascertained using transmission or scanning electron microscopy. Finally, various oxidic radicals such as hydroxyl radicals, superoxide anions, singlet oxygen, and photoinduced holes should be investigated using trapping agents to reveal the degradation mechanism. We welcome submissions focusing on environmental remediation using advanced photocatalysts.

Guest Editor

Prof. Dr. Jingfei Luan

1. School of Physics, Changchun Normal University, Changchun 130032, China
2. State Key Laboratory of Pollution Control and Resource Reuse, School of the Environment, Nanjing University, Nanjing 210093, China

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

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Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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