Special Issue

Enhanced Photocatalytic Activity over Ti, Zn, or Sn-Based Catalysts

Message from the Guest Editors

In this Special Issue, photocatalysis holds tremendous potential for addressing pressing global challenges related to pollution, energy, and sustainable development, making it an exciting and rapidly evolving field of research and innovation. We encourage articles to face several challenges, including limited photocatalyst efficiency, selectivity of reactions, and scalability. Researchers are actively exploring strategies to enhance photocatalytic activity, improve stability, and broaden the scope of photocatalytic reactions. We focus on developing novel photocatalyst materials with tailored properties, such as narrow bandgaps, for enhanced light absorption, efficient charge separation, and improved catalytic performance. This Special Issue is especially targeted in the oxides based on Ti, Zn, or Sn, which have great potential and include modifications, doping, photosensitization nanocomposites, and derived enhanced innovative materials and processes. Also, the photocatalysis approach is applied to degrade toxic dyes and compounds such as dyes, pesticides, and drugs, including alcohol and CO2 reductions.

Guest Editors

Dr. Andres Castro-Beltrán

Dr. Clemente Guadalupe Alvarado-Beltrán

Dr. Horacio Edgardo Garrafa-Gálvez

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

mdpi.com/journal/catalysts

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Prof. Dr. Keith Hohn
Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).