Special Issue

Waste-to-Resources Through Catalysis in Green and Sustainable Way

Message from the Guest Editor

Recently, the valorization of waste to manufacture fuel and/or chemicals has begun to gain greater attention. A series of catalytic technologies have been developed for application in the green and sustainable manufacturing of value-added bioresources. This Special Issue of Catalysts aims to cover new research and trends in the development and application of novel catalytic processes with chemical and/or biological catalysts for producing value-added chemicals and biofuels from municipal, agricultural, industrial, food, and special wastes via green and sustainable approaches. The editors welcome contributions of high-quality research papers, reviews, and short communications focusing on this topic. This topic encompasses, but is not limited to, the following:

Development of novel homogeneous and heterogeneous catalysts for waste valorization;
Development of chemocatalysis and/or biocatalysis for waste valorization in a benign catalytic system;
New technologies to generate fuel molecules and (bio)chemicals from typical and special wastes;
Case studies addressing the catalysis of specific wastes (plastics, biomass, food residue, healthcare, medical, etc.).

Guest Editor

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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).

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