Special Issue

Green Processing of Lignocellulosic and Food Waste in Biorefinery and Circular Bioeconomy: The Role of (Bio)Catalysts

Message from the Guest Editors

This Special Issue focuses on utilizing biotechnologically relevant enzymes or catalysts for processing agroindustry and food wastes, including fruit, vegetable, meat and poultry, to value-added products with the potential for commercialization. We welcome submissions related, but not limited to, the following themes of interest:

- Application of carbohydrate-active enzymes and proteolytic enzymes in agriculture, food, feed and the biofuel/chemical industry
- Production of biofertilizer, bio-composting and biocontrol agents using hydrolytic enzymes and microbes
- Effects of pretreatment methods on biomass structure and enzymatic activity
- Production of a protein hydrolysate, antioxidant and antimicrobial peptides
- Production of antioxidants and antimicrobial lignin
- Development of enzymatic processes or physicochemical processes using green catalysts or solvents for polysaccharide and protein extraction
- Enzymology of carbohydrate-active enzymes, proteolytic enzymes and lipases
- Development of protein expression and hosts for expressing enzymes, as well as techniques for increasing enzymatic activity and stability
- Modular structures and substrate-enzyme interactions

Guest Editors

Dr. Paripok Phitsuwan

Division of Biochemical Technology, School of Bioresources and Technology, King Mongkut's University of Technology Thonburi, Bangkok 10150, Thailand

Prof. Dr. Ken-Lin Chang

Institute of Environmental Engineering, National Sun Yat-Sen University, Kaohsiung 80424, Taiwan



Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



mdpi.com/si/144958

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

mdpi.com/journal/catalysts





Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Keith Hohn

Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, CAB Abstracts, and other databases.

Journal Rank:

JCR - Q2 (Chemistry, Physical) / CiteScore - Q1 (General Environmental Science)

Rapid Publication:

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).

