Special Issue

Recent Advances on Nano-Catalysts for Biological Processes

Message from the Guest Editors

Nanoparticles with a size of 100 nm or less have attracted great research attention due to their high surface to volume ratio and unusual and fascinating properties. Several biological applications of nanoparticles can be listed, e.g., carbohydrate hydrolysis, production of biofuel, immobilization of enzyme, biotransformation, gene and drug delivery, and the detection of pathogen and proteins. Recently, various nanocarriers have also been used for the immobilization of different enzymes to produce nanobiocatalysts (NBCs) which further enhance enzyme performance. In view of this, this Special Issue aims to cover the most recent progress and advances in the application of nanocatalysts for biological processes. This Special Issue includes but is not limited to the green synthesis of nanoparticles, application of nanoparticles in wastewater treatment, dark fermentation, biofuel production, nanobiocatalysts in bioprocessing applications, usage of nanoparticles in pretreatment processes, and the production of other value-added products.

Guest Editors

Dr. Pritam Kumar Dikshit

Department of Biotechnology, K. L. University, Guntur 522302, Andhra Pradesh,India

Prof. Dr. Beom Soo Kim

Department of Chemical Engineering, Chungbuk National University, Cheongju, Chungbuk, Republic of Korea

Deadline for manuscript submissions

closed (10 August 2022)



Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 7.6



mdpi.com/si/73363

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).

