



Enzyme Engineering and Biocatalysis: Principles and Applications

Guest Editors:

Dr. Urszula Jankiewicz

Department of Biochemistry and Microbiology, Institute of Biology, Warsaw University of Life Sciences—SGGW, 159 Street, 02-776 Warsaw, Poland

Dr. Maria Swiontek-Brzezinska

Department of Environmental Microbiology and Biotechnology, Faculty of Biological and Veterinary Sciences, Nicolaus Copernicus University in Torun, Lwowska 1, 87-100 Torun, Poland

Deadline for manuscript submissions:

closed (20 June 2024)

Message from the Guest Editors

Dear Colleagues,

Enzymes are not only biocatalysts for the proper functioning of living organisms. They are also catalytically active proteins of great applied importance in many areas of biotechnology. Many enzymes of natural origin exhibit desirable substrate specificity but poor stability in the reaction environment. These limitations in biocatalysis can be overcome by methods of improving the properties of enzyme proteins such as enzyme immobilization or directed enzyme evolution. These advanced techniques make it possible to obtain enzymes with high activity that are stable in various environments. The results of research into the mechanism of enzyme promiscuity, which allows a radical change in substrate specificity under certain conditions, are also extremely valuable to the industry.

Dr. Urszula Jankiewicz

Dr. Maria Swiontek-Brzezinska

Guest Editors





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)