

Special Issue

Enzyme Engineering and Biocatalysis: Principles and Applications

Message from the Guest Editors

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.

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

Prof. 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

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Editor-in-Chief

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

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