



Bioprocesses and Biotechnology Related to Extremophiles— Molecular Aspects

Guest Editors:

Dr. Martina Aulitto

Department of Biology,
Università degli Studi di Napoli
Federico II, 80138 Napoli, Italy

Dr. Paola Imbimbo

Department of Chemical
Sciences, University of Naples
Federico II, Via Cinthia 4, 80126
Naples, Italy

Deadline for manuscript
submissions:

20 September 2024

Message from the Guest Editors

Dear Colleagues,

Over the last decades, the number of isolated and sequenced extremophiles has drastically increased. Since extremophiles thrive in harsh environments, the study of their metabolic pathways and enzymes has gained interest owing to their ability to catalyze reactions under severe industrial conditions. Currently, extremozymes from thermophilic, psychrophilic alkaliphilic, acidophilic, and halophilic microorganisms are employed in several biotechnological processes. These cell biocatalysts or their enzymes are applied in different fields such as wastewater treatment, resource recovery, bioremediation, and for the production of biofuels and biochemicals. To date, metabolic engineering and synthetic biology technologies for high-efficiency bioprocess applications are also introduced.

The aim of this Special Issue is to collect original research articles, review articles, and short communications dealing with the comprehensive application of extremophiles and extremozymes in biotechnological bioprocesses.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of
Odontostomatologic and
Specialized Clinical Sciences,
Sez-Biochimica, Faculty of
Medicine, Università Politecnica
delle Marche, Via Ranieri 65,
60100 Ancona, Italy

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

Contact Us

International Journal of Molecular
Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/ijms
ijms@mdpi.com
X@IJMS_MDPI