

Special Issue

Recent Advances in Laccases and Laccase-Based Bioproducts: 2nd Edition

Message from the Guest Editors

In recent years, there has been unprecedented expansion in our knowledge and use of enzymes across wide range of basic research and industrial applications. Laccases (E.C. 1.10.3.2) are among the most important lignolytic oxidoreductases, capable of oxidizing both phenolic and non-phenolic compounds and highly recalcitrant environmental xenobiotics. This allows them to be used in a variety of biotechnological applications. These enzymes are ubiquitous in nature, serving important protective functions in aerobic organisms from almost all kingdoms. Since their discovery 140 years ago, laccase and products of reactions catalyzed by it have been comprehensively studied, providing innovative solutions for industry, medicine and bioproducts. This Special Issue will cover all aspects of laccase and laccase-based reactions with importance in the field of modern biotechnology and medicine, highlighting possible areas for development. Research and reviews that improve our understanding of laccases functioning in living organisms, biotechnological applications and laccase-based bioproducts, especially using “-omics” techniques and molecular methods, are highly welcome.

Guest Editors

Prof. Dr. Grzegorz Janusz

Department of Biochemistry and Biotechnology, Institute of Biological Sciences, Maria Curie-Skłodowska University, Akademicka 19 Street, 20-033 Lublin, Poland

Dr. Anna Pawlik

Department of Biochemistry and Biotechnology, Institute of Biological Sciences, Maria Curie-Skłodowska University, Lublin, Poland

Deadline for manuscript submissions

31 December 2025



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/241280

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

[mdpi.com/journal/
biomolecules](https://mdpi.com/journal/biomolecules)





Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



[mdpi.com/journal/
biomolecules](https://mdpi.com/journal/biomolecules)



About the Journal

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

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, MEDLINE, PMC, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)