

Special Issue

Photosynthetic Adaptation and Photoprotection in Plants

Message from the Guest Editor

Phototrophic organisms such as plants; algae; lichens; Cyanobacteria; and members of the phyla Proteobacteria, Chlorobiota, Chloroflexota, and Heliobacteria occur in continuously changing environments and are exposed to detrimental conditions which affect their growth and development. To cope with abiotic and biotic stresses, these organisms should be able to respond quickly to these stresses and activate mechanisms to adapt and protect their photosynthetic machinery. To comprehend how phototrophic organisms cope with different types of stress, it is important to understand the underlying physiological, biochemical–biophysical, and molecular responses. During the last few decades, multiple studies have highlighted these issues; however, the fundamental mechanisms operating in resistance and mitigation strategies remain to be fully elucidated. The aim of this Special Issue is to focus on the fundamental mechanisms involved in photosynthetic adaptation and photoprotection in phototrophic organisms, which enable them to cope with environmental stresses.

Guest Editor

Dr. Roland Valcke

Faculty of Sciences, Hasselt University, 3590 Diepenbeek, Belgium

Deadline for manuscript submissions

28 February 2026



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/249790

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, CAPlus / SciFinder, and other databases.

Journal Rank:

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