

## Special Issue

# Changes and Adaptations of the Plant Metabolism Under Elemental Nutrient Deficiencies

### Message from the Guest Editor

Nutrient elements are integral to a range of physiological and metabolic processes within plants, including photosynthesis, respiration, energy metabolism, and signal transduction. They serve as essential building blocks for the growth, development, yield, and quality of plants. Nutrient elements are actively involved in the biosynthesis of plant metabolites and are crucial in the stress response, resistance, and intricate interplay between plants and their environment. This Special Issue aims to showcase recent advancements regarding the elucidation of the significance of nutrient elements and their deficiencies. We welcome the submission of original research papers, reviews, communications, and opinion papers devoted to the changes and adaptations of the plant metabolism under elemental nutrient deficiencies. Understanding the crucial role that nutrient elements play in plant growth and development is valuable for genetic breeding and optimal fertilizer usage

---

### Guest Editor

Dr. Rui Li

College of Life Sciences, Northeast Agricultural University, Harbin 150030, China

---

### Deadline for manuscript submissions

closed (20 March 2025)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/200863](https://mdpi.com/si/200863)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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





# International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* 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, and molecular biophysics. *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.

---

### Editor-in-Chief

Prof. Dr. José L. Quiles  
Department of Physiology, Institute of Nutrition and Food Technology  
"Jose Mataix", Biomedical Research Center, University of Granada,  
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

---

### 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, CAPus / SciFinder, and other databases.

#### Journal Rank:

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