Special Issue

Mass Spectrometry-Based Metabolomics Identification of Plant Components

Message from the Guest Editor

Metabolomics is a central tool for studying plant physiology, evaluating the quality of food crops, and exploring bioactive natural products. In the analysis of complex plant materials, mass spectrometry (MS) is used in combination with upstream sample extraction and separation to quantify and identify metabolites. Since all natural compounds are built from the same chemical building blocks with intrinsic mass and predictable physical properties, MS is a universal analytical method. However, the vast chemical diversity of plant metabolites and their dynamic range in mixtures make it challenging to annotate signals. In addition, novel analytical tools, such as ambient ionization, MS imaging, and real-time monitoring, require custom data processing. This Special Issue presents strategies and examples for the MS-based identification of plant components, such as software, databases, instrumentation, and analytical and informatic workflows.

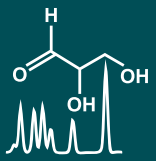
Guest Editor

Prof. Dr. Robert Winkler

Advanced Genomics Unit (UGA), Center for Research and Advanced Studies, Cinvestav, Irapuato 36821, Mexico

Deadline for manuscript submissions

closed (30 June 2024)



Metabolites

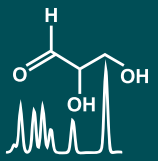
an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 6.9
Indexed in PubMed

mdpi.com/si/187751

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

mdpi.com/journal/metabolites



Metabolites

an Open Access Journal by MDPI

Impact Factor 3.7
CiteScore 6.9
Indexed in PubMed

mdpi.com/journal/metabolites

MDPI

About the Journal

Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

Editor-in-Chief

Dr. Amedeo Lonardo
Internal Medicine, Ospedale Civile di Baggiovara, Azienda Ospedaliero-Universitaria, 41126 Modena, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q2 (Endocrinology, Diabetes and Metabolism)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.4 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2025).