

## Special Issue

# Derivatization Techniques in Mass Spectrometry: Unlocking the Low-Abundance Metabolome

### Message from the Guest Editors

The comprehensive characterization of the metabolome remains a significant challenge. This Special Issue aims to highlight recent advancements in chemical derivatization and probe-based strategies designed to overcome these analytical barriers. We invite researchers to submit papers focusing on novel tagging reagents, isotope-coded probes, and affinity enrichment strategies that enhance detection sensitivity, selectivity, and structural elucidation in mass spectrometry. Topics include, but are not limited to:

- Design and synthesis of new MS probes for specific functional groups (e.g., amines, carboxyls, carbonyls).
- Strategies to improve ionization efficiency and chromatographic behavior.
- Applications of derivatization in targeted and untargeted metabolomics for biomarker discovery.
- Integration of chemical labeling with advanced MS platforms.
- Quantitative metabolomics using stable isotope-labeled probes.

By showcasing cutting-edge methodologies and their applications in biology, medicine, and environmental science, this issue seeks to provide a comprehensive overview of how derivatization techniques are reshaping our ability to explore the "dark matter" of the metabolome.

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### Guest Editors

Prof. Dr. Yuqi Feng

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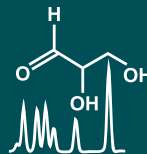
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### Deadline for manuscript submissions

20 November 2026



## Metabolites

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## 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.

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### Editor-in-Chief

Dr. Amedeo Lonardo  
Internal Medicine, Ospedale Civile di Baggiovara, Azienda Ospedaliero-  
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#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.7 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the second half of 2025).