

Special Issue

Research on Separation Techniques for Metabolomics and Pharmacokinetics Analysis

Message from the Guest Editor

Metabolomics and pharmacokinetics research relies on advanced separation technologies to analyze complex biological samples with high precision and sensitivity. High-performance liquid chromatography (HPLC) and gas chromatography (GC) remain widely used, but current advancements, such as ultra-high-performance liquid chromatography (UHPLC) coupled with high-resolution mass spectrometry (MS) and supercritical fluid chromatography (SFC), are improving resolution, speed, and sensitivity. Coupling these separation techniques with nuclear magnetic resonance (NMR) spectroscopy is another emerging trend, allowing for improved metabolite profiling and pharmacokinetic assessments. Additionally, microfluidic and nano-separation technologies are revolutionizing sample preparation and analysis, enabling high-throughput and miniaturized workflows. Furthermore, current uses of artificial intelligence (AI) and machine learning (ML) are further revolutionizing the separation techniques by optimizing experimental conditions and data analysis, leading to more accurate and efficient results. These advancements are crucial in drug development, biomarker discovery, and personalized medicine.

Guest Editor

Dr. Mamunur Rashid

Department of Pharmacy Practice & Science, School of Pharmacy,
University of Nebraska Medical Center, 42nd and Emile, Omaha, NE
68198, USA

Deadline for manuscript submissions

20 March 2027



Separations

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 6.4



mdpi.com/si/232413

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

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





Separations

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 6.4



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



About the Journal

Message from the Editor-in-Chief

Separations offers the scientific community a high-quality, open-access journal option with rapid time-to-publication without any sacrifice of a rigorous peer-review process. We invite contributions ranging from fundamental characterization and instrumentation development through application of techniques to shed light on a broad spectrum of separation science needs. Since inception, *Separations*, has become unique in its combination of rapid publication and thorough scientific content. We invite you to consider us for your next contribution.

Editor-in-Chief

Prof. Dr. Frank L. Dorman
Department of Chemistry, Dartmouth College, Hanover, NH 03755,
USA

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Chemistry, Analytical) / CiteScore - Q2 (Analytical Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.1 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2026).