

Special Issue on  
**Advances in Mass Spectrometry-Based Imaging  
Techniques and Their Applications in Biology**

# CALL FOR PAPERS

Mass spectrometry imaging (MSI) as a new molecular microscope has proven to be the powerful tool in the exploration of spatial and/or temporal information of molecules in various biological materials. Over the last two decades, MSI allows researchers to study normal and pathological animal/human tissues, to localize in vivo drug and their metabolites distributions in animal tissues, to visualize the spatial distribution of plant secondary metabolites, and to localize biomarkers of food origin and authenticity, and, ultimately, to extend our understanding of transportation and accumulation of endogenous and exogenous chemicals, biosynthesis and metabolism of key molecules, and cell-to-cell communication in biological system.

The goal of this special issue is creating a multidisciplinary forum of discussion on recent advances in MS-based imaging techniques as well as their applications to medical, pharmaceutical, food, botanical, microbiological, and nanotechnology research. The accepted papers will show a diversity of new developments in these areas. This issue accepts high quality articles containing original research results and review articles of exceptional merit, and it will let the readers of this journal know more about this fundamental area of MSI.

Potential topics include but are not limited to the following:

- ▶ Advances in mass spectrometry (MS) imaging techniques
- ▶ Technique-developments for ambient MS imaging
- ▶ MS imaging based metabolomics, lipidomics, peptidomics, and proteomics
- ▶ Applications of MS imaging to oncology research
- ▶ Applications of MS imaging to drug metabolism and disposition
- ▶ Applications of MS imaging to plant metabolites research
- ▶ Applications of MS imaging to biofilm and microbiological communities
- ▶ Applications of MS imaging to biomarker screening and discovery
- ▶ Applications of MS imaging to latent fingerprints
- ▶ Applications of MS imaging to biodistribution of nanomaterial in tissue samples
- ▶ Technique development for quantitative MS imaging
- ▶ Matrix-free laser desorption/ionization (LDI) MS imaging techniques (e.g., surface-assisted LDI and nanoparticle-assisted LDI MSI)

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jamc/amsit/>.

**Lead Guest Editor**

Bin Li, University of Illinois at  
Urbana-Champaign, Illinois, USA  
[bili9942@illinois.edu](mailto:bili9942@illinois.edu)

**Guest Editors**

Xiaodong Wang, Minzu University of  
China, Beijing, China  
[xiaodong@muc.edu.cn](mailto:xiaodong@muc.edu.cn)

Sohee Yoon, Korea Research Institute of  
Standards and Science, Daejeon,  
Republic of Korea  
[shyoon@kriss.re.kr](mailto:shyoon@kriss.re.kr)

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