

High Resolution Biological Sample Detection using Novel Mass Spectrometry Microfluidic Device

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Categories:

- Biotechnology
- Chemistry and Chemical Analysis

Keywords:

- Biological Samples
- High Resolution
- high throughput
- Mass Spectrometry Imaging
- Microfluidic Device
- Tissue Sections

Researchers at Purdue University have developed a microfluidic mass spectrometry device which can aid in robust detection and subcellular localization of biomolecules in biological samples with a spatial resolution of 10 microns. This technology allows researchers to obtain detailed spatial maps of metabolites, lipids, and proteins with high sensitivity and without sample pretreatment. The integrated device is easy to operate and enables chemical analysis with a substantially higher throughput compared to methods developed in the past.

Advantages:

- Increased Resolution
- Ease of use
- Increased Throughput

Potential Applications:

- Metabolomics
- Mass Spectrometry
- Mass spectrometry imaging
- High-throughput sampling
- Spatial metabolomics, lipidomics, proteomics

People:

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Intellectual Property:

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