



鄰氨基苯甲酸衍生物作為基質輔助雷射脫附游離法的基質應用在質譜分析

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簡歷： (可列出相關連結，例如系所、研究室網頁)

徐丞志老師實驗室網站:

<https://cchlabblog.wordpress.com/>

徐丞志老師 簡歷:

https://cchlabblog.files.wordpress.com/2020/05/cv_cheng-chih-hsu_05252020.pdf

市場及需求:

可應用於醫院疾病診斷、質譜技術開發、雙極性質譜影像分析。

技術摘要(含成果):

應用有機合成和精準光譜分析，設計雙極性基質輔助雷射脫附游離法基質，並將其應用在質譜影像上，可使樣品進行正負離子的化合物組成分析，拓展分析樣品的資訊量，以獲得研究上更多以及更精準的量測。

優勢:

同時具備小分子和大分子的高游離效果，並且能應用在質譜影像分析。

競爭產品:

MALDI 基質: 1,5-Diaminonaphthalene, 3-Aminophthalhydrazide (Luminol)

專利現況:

1. 專利申請中
2. 本實驗室致力於研究質譜儀相關技術研發多年，累積發表文章達 60 篇。合作單位和對象廣泛，與中研院、台大醫院和成大醫院均有相關技術的合作。

聯絡方式(請不用填):

臺大產學合作總中心

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Use of Anthranilic Acid Derivatives as Matrices in MALDI Mass Spectrometry

PI : Prof. Cheng-Chih Hsu

Department of Chemistry, National Taiwan U.

Experience:

Prof. Cheng-Chih Hsu's lab website:

<https://cchlabblog.wordpress.com/>

Prof. Cheng-Chih Hsu's Curriculum Vitae

https://cchlabblog.files.wordpress.com/2020/05/cv_cheng-chih-hsu_05252020.pdf

Market Needs:

Can be applied to Hospital diseases diagnosis, Mass spectrometry technique development, dual-polarity mass spectrometry imaging analysis.

Our Technology:

Through organic synthesis and precise optical spectrum measurement, we designed a series of dual-polarity MALDI matrices and directly applied to MALDI mass spectrometry imaging for biological samples. Using our matrices can simultaneously measure the chemical composition in samples in both positive and negative ion modes. With such an invention, we can broaden the quantity of information from the samples and offer a more precise analysis of our research.

Strength:

Enable MALDI mass spectrometry simultaneously detecting positive and negative ions with high ionization efficiency and broad mass detection range. Already verified for application on MALDI mass spectrometry imaging analysis.

Competing Products:

Other MALDI matrix: 1,5-Diaminonaphthalene, 3-Aminophthalhydrazide (Luminol)

Intellectual Properties:

1. Patent Pending
2. Prof. Cheng-Chih Hsu's lab has dedicated to inventing various mass spectrometry ionization methods and related techniques. To date, the accumulated publication has already reached 60 papers. Our collaborators are diverse from different hospitals and research centers, including Academia Sinica, National Taiwan University Hospital, and National Cheng Kung University Hospital.

Contact (do not need to fill out):

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