

FULL PAPERS

新型除草剂及其杂质的LC-MS和GC-MS分析

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摘要 本文应用HPLC-ESI-MS对一种新型环境友好型除草剂进行了分析。文章中还利用GC-MS对其中一个杂质进行结构分析并对其作了溯源性研究。本文实验证明, 色谱和质谱的联用技术, 包括LC-MS和GC-MS, 是农药科学中的一种重要分析手段。

关键词 [农药分析](#), [杂质分析](#), [LC-MS](#), [GC-MS](#)

分类号

Identification of Novel Pesticides and Impurities by the Combination of LC-MS with GC-MS Analysis

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Abstract High performance liquid chromatography (HPLC) and electrospray ionization mass spectrometry (ESI-MS) have been utilized to analyze the synthesized 2-(2-arylaminoethylphenoxy)pyrimidine derivatives, which are a new kind of environmentally benign herbicides and have passed the temporary pesticide registration. The identification of main product and impurities has been achieved according to the UV and mass spectra. Moreover, one impurity, introduced by the raw material in the last step of the synthetic route, was identified by GC-MS analysis. It can be concluded that the combination of chromatography and mass spectrometry, including LC-MS and GC-MS, provided a vital tool of the pesticide science.

Key words [pesticide analysis](#) [impurity analysis](#) [LC-MS](#) [GC-MS](#)

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