

## 豚草及三裂叶豚草挥发物成分的GC和GC/MS分析

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**摘要** 本文运用XAD-4和GDX104树脂吸附的方法,对豚草(Ambrosia artemissifolia)和三裂叶豚草(A. trifida)的挥发物进行了研究,发现XAD-4和GDX104在吸附两种杂草挥发物的性能上基本相同.豚草挥发物的主要成分为: $\alpha$ -蒎烯、 $\beta$ -蒎烯、蒎烯、2-冰片烯;三裂叶豚草的挥发物主要为:2,4-二甲基癸烷、 $\alpha$ -蒎烯、2,6,7-三甲基癸烷、5-甲基壬烷、2-冰片烯.这些研究结果表明两种豚草挥发物的成分差别较大,对进一步研究它们的化感作用有重要意义.

**关键词** [豚草](#) [三裂叶豚草](#) [挥发物成分](#) [色质分析](#)

分类号

**Abstract** GC and GC/MS Analysis of Volatile of Ambrosia artemissifolia and A. trifida\$\$\$\$Wang Dali; Zhu Xinru(Research Center for Eco-Environment Science, Chinese Academy of Science s, Beijing, P. O. Box 2871, 100085, China)Abstract: Volatile of Ambrosia artemisiafolia and A. trifida was researched in this paper.Firstly, the absorbility of Amberlite XAD-4 and GDX 104 resin s was compared. Wefound these two kinds resins had the same ability in absorbing volatile of A. artemissifolia and A. trifida,and all suit for allelopathy research. Secondly,the components of A.art emissifolia and A. trifida were analysed by GC and GC/MS methods. As a result,wefound their c omponents were different although they were belong to the same GunesAmbrosia. The major co mponents of A. artemissifolia . volatile were  $\alpha$ -pinene, $\beta$ -pinene,bornylene and carene. Heptane, 2, 4-dimethyl,  $\alpha$ -pinene, decane, 2, 6, 7-trimethyl,nonane,5-methyl and bornylene were the comp onents of A. trifida.Keyword: Volatile, Ambrosia artemissifolia, A. trifida, GC, GC/MS

### Key words

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