

研究论文

运用色谱指纹图谱与化学计量学方法对灵芝进行分类

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摘要 采用95%乙醇为提取溶剂, 运用高效液相色谱(HPLC)指纹图谱技术与化学计量学方法, 对11个不同灵芝菌株子实体进行分类。通过相似度分析分别获得提取样品指纹图谱的13个共有峰及每个样品之间的相似度; 以相对共有峰面积为分析参数, 运用化学计量学方法包括聚类分析(HCA)、主成分分析(PCA)及判别分析(DA)对其进行分类, 结果分为紫芝、赤芝和美国大灵芝3类。实验结果表明, 用化学计量学的方法对灵芝样品的指纹图谱数据进行分析, 是一种可用于其分类的科学方法。

关键词 [高效液相色谱](#) [指纹图谱](#) [化学计量学](#) [分类](#) [灵芝](#)

Discrimination of Ganoderma based on high performance liquid chromatographic fingerprints combined with chemometrics methods

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Abstract

High performance liquid chromatography (HPLC)-based system was utilized for generating chemical fingerprints of 11 Ganoderma strains. The data were statistically evaluated by using chemometric methods in order to classify the samples. The similarities of all the 11 samples and the relative peak areas of 13 common peaks were newly calculated separately. Then different chemometrics methods including hierarchical cluster analysis (HCA), principal component analysis (PCA) and discriminate analysis (DA) were applied to classify the *G. lucidum* samples. Consistent results show that the application of HPLC fingerprint coupled with powerful chemometrics analysis in the discrimination and classification of Ganoderma is a reliable and scientific approach.

Key words [high performance liquid chromatography \(HPLC\)](#) [fingerprint](#) [chemometrics classification](#) [Ganoderma](#)

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