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### GC测定山西产连翘中有机氯及拟除虫菊酯类农药残留

#### Determination of Organochlorine and Pyrethroids Pesticide Residues in Forsythiae Fructus from Shanxi Province by GC

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中文关键词: [连翘](#) [有机氯](#) [拟除虫菊酯](#) [农药残留](#) [毛细管气相色谱法](#)

英文关键词: [Forsythiae Fructus](#) [organochlorine](#) [pyrethroids](#) [pesticide residues](#) [GC](#)

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中文摘要:

**目的** 建立连翘中有机氯和拟除虫菊酯类农药残留的GC测定方法。**方法** 样品用石油醚(60~90 °C)-丙酮(4:1)混合溶液超声提取, Florisil-氧化铝固相柱净化, 用GC-ECD同时测定了9种有机氯和3种拟除虫菊酯类农药残留量。**结果** 所测定12种农药标准曲线的相关系数 $r$ 在0.999 2~0.999 9之间, 回收率在80.69%~115.6%之间; 17个样品(其中11个野生样品, 6个栽培样品)中未检测到农药残留, 3个栽培样品检测到 $\gamma$ -BCH和氯氰菊酯残留。**结论** 该方法简便、快速、准确, 可用于连翘中有机氯及拟除虫菊酯类农药的残留量测定; 山西野生连翘生长环境优良, 未受有机氯和拟除虫菊酯类农药污染。

英文摘要:

**OBJECTIVE** To establish a method for the determination of organochlorine and pyrethroids pesticide residues in Forsythiae Fructus. **METHODS** The samples with petroleum ether (60-90 °C)-acetone (4:1) mixture were extracted by ultrasonic wave and the extracted solution was cleaned by Florisil-alumina column. Nine kinds of organochlorine and three kinds of pyrethroids pesticides were directly analyzed by GC-ECD. **RESULTS** For all of the analyzed pesticides, the correlative coefficient of the calibration curves were in the range of 0.999 2-0.999 9 and the recovery rates were in the range of 80.69%-115.6%. Pesticide residues in seventeen samples(including eleven wild samples and six cultivated samples) were not found, and  $\gamma$ -BCH and cypermethrin residues was detected in three culture samples. **CONCLUSION** The new method is convenient, rapid, accurate and can be applied to determine pesticides in Fructus Forsythiae. Shanxi wild Forsythiae Fructus growth environment is good, and has not been contaminated by organochlorine and pyrethroid pesticide.

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