

分离工程

## 分子印迹吸附剂对红景天水煎液中重金属的吸附

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摘要

采用分子印迹技术, 以Pb(II)为印迹离子制备了铅印迹壳聚糖包覆硅藻土微球(PbCSDE)。研究了PbCSDE对红景天水煎液中重金属Pb(II)、Cu(II)的吸附, 考察了吸附时间、溶液pH对吸附的影响。与732商业树脂比较, 铅印迹壳聚糖包覆硅藻土微球(PbCSDE)对红景天水煎液中Pb(II)、Cu(II)的吸附能力提高了2倍多。紫外光谱和高效液相色谱分析表明, 经PbCSDE吸附后, 红景天水煎液中的活性成分红景天苷没有发生改变。

关键词

[分子印迹](#) [吸附](#) [红景天水煎液](#) [重金属](#)

分类号

## Adsorption properties for heavy metal ions of molecular imprinting chitosan-coated diatomite beads in water-extraction liquid of *Rhodiola* L.

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### Abstract

By using the molecular imprinting technology, the novel Pb(II) imprinting chitosan-coated diatomite beads with Pb(II) as imprinted ions (PbCSDE) were prepared. The adsorption behavior for heavy metal ions from water-extraction liquid of *Rhodiola* L. was studied. The effects on adsorption ability of such factors as adsorption time, pH value of the initial solution were investigated. Adsorption ability for lead and copper ions of PbCSDE was 2 times higher than that of 732 resins. Moreover, the influence of adsorption on salidroside was analyzed by the UV spectra and HPLC. The results revealed that the salidroside in the water-extraction liquid of *Rhodiola* L. did not change after adsorption by PbCSDE.

### Key words

[molecular imprinting](#) [adsorption](#) [water-extraction of \*Rhodiola\* L.](#) [heavy metal ions](#)

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