

研究论文

## 自然水体悬浮颗粒物中主要化学组分对铅、铜的吸附作用——实验室模拟吸附特征与水环境中富集特征的比较

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**摘要** 利用主要组分萃取-吸附-统计分析方法研究了自然水体悬浮颗粒物样品中主要化学组分对铅、铜的吸附特征, 并采用天然悬浮颗粒物样品直接萃取的方法研究了实际水环境中悬浮颗粒物样品各组分对重金属的富集特征, 通过二者对比进一步研究了悬浮颗粒物中主要化学组分在铅、铜吸附中的作用. 结果表明, 悬浮颗粒物样品中各组分的吸附特征与富集特征具有较好的可比性, 铅主要与颗粒物中的铁氧化物相结合, 铜则主要与有机质相结合.

**关键词** [悬浮颗粒物](#) [铅](#) [铜](#) [吸附](#) [化学组分](#)

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## Pb and Cu Adsorption to Main Components of Suspended Particulate in Natural Water—Comparison of Adsorption Characteristic and Enrichment Characteristic

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**Abstract** Selective extraction techniques followed by adsorption experiment and statistical analysis were applied to investigate the relative adsorption contribution of different components of suspended particulate for Pb and Cu and direct extraction method was employed to study the enrichment characteristic of suspended particulate. By comparison of adsorption characteristic and enrichment characteristic, the roles of main components of suspended particulate for Pb and Cu adsorption onto suspended particulate were confirmed. The results indicate that the adsorption characteristic of components was comparable to enrichment characteristic of them. Pb tends to bind with Fe oxides. Organic materials were most important adsorbents for Cu adsorption and enrichment.

**Key words** [Suspended particulate](#) [Lead](#) [Copper](#) [Adsorption](#) [Chemical component](#)

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