عنوان مقاله:

Preconcentration of copper(II) Using mesoporous organosilicas and determination by Flame Atomic Absorption Spectrometry

محل انتشار:

همایش ملی مهندسی شیمی (سال: 1388)

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خلاصه مقاله:

A simple and reproducible method for the rapid extraction and determination of trace amounts of copper(II) ions using mesoporous organo-silicas mesoporous silica and atomic absorption spectrometry is presented.Common coexisting ions did not interfere with the separation and determination. The preconcentration factor was 100 (1 ml elution volume) for a 100 ml sample volume. The limit of detection of the proposed method is 1.0 ng ml 1. The maximum sorption capacity of sorbent under optimum conditions has been found to be 5mg of copper per gram of sorbent. The relative standard deviation under optimum conditions was 2.8% (n = 10).Accuracy and application of the method was estimated by using test samples of natural and synthetic water spiked with different amounts of copper(II) ion.

کلمات کلیدی:

Preconcentration; Copper; mesoporous organo-silica ; Solid phase extraction; Flame Atomic Absorption Spectrometry ((FAAS