

Preconcentration and Determination of Lead Ion in Environmental Samples by Poly Urea-Formaldehyde

Authors : Elham Moniri, Parvane Bozorgniya, Hamidreza Shahbazi

Abstract : In this research, poly urea-formaldehyde was prepared. The poly urea-formaldehyde was characterized by fourier transform infra-red spectroscopy. Then the effects of various parameters on Pb(II) sorption such as pH, contact time were studied. The optimum pH value for sorption of Pb(II) was 5. The sorption capacity of poly urea-formaldehyde for Pb(II) were 40 mg g⁻¹. A Pb(II) removal of 90% was obtained. The profile of Pb(II) uptake on this sorbent reflects good accessibility of the chelating sites in the poly urea-formaldehyde. The developed method was utilized for determination of Pb(II) in environmental water samples by flame atomic absorption spectrometry with satisfactory results.

Keywords : poly urea-formaldehyde, lead Ion, environmental sample, determination

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