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**Preparation and characterization of magnetic allylamine
modified graphene oxide-poly(vinyl acetate-co-divinylbenzene)
nanocomposite for vortex assisted magnetic solid phase extraction
of some metal ions**

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Abstract

Magnetic allylamine modified graphene oxide-poly(vinyl acetate-co-divinylbenzene) (MGO-DVB-VA) was synthesized and used for magnetic solid phase extraction of Pb(II), Cd(II), Cu(II), Ni(II) and Co(II) prior to their determination by flame atomic absorption spectroscopy. The adsorbent surface functional group was characterized by using FT-IR and Raman spectroscopy. XRD pattern was used to determine the layers of GO. Surface morphology and elemental composition of the adsorbent were evaluated by using SEM and EDX analysis. Various parameters, effecting adsorption efficiency like initial solution pH, adsorbent dose, type and volume of eluent, volume of sample and diverse ions effects were optimized. The preconcentration factor (PF) is 40 for all the metals and the limits of detection

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