

عنوان مقاله:

Preparation of mercaptopropyl trimethoxy silane/ graphene nanosheets composite for improving heavy metals preconcentration from water sample

محل انتشار:

همایش ملی شیمی پاک (سال: 1393)

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خلاصه مقاله:

One of the major environmental pollutants is presence of organic pollutants in water, soil and air. Effect of mercapto propyl tri-methoxy silane and composite graphene oxide / mercapto propyl tri-methoxy silane, each alone in removing heavy metals, it has been proved through various experiments. In this project, initially by oxidize graphene in hummer method, alcohol and carbonyl groups were added to graphene. Then During Incremental processes mercapto propyl tri-methoxy silane composite was added to the graphene oxide and graphene Oxide / mercapto propyl tri-methoxy-silane Composite (black powder) was synthesized. To demonstrate the synthesis was used of FTIR, XRD and SEM devices which images obtained from these devices has proven to be the synthesis of these compounds. Then mercapto propyl tri-methoxy silane Polymeric (white powder) was synthesized. Then black and white powders was solved separately In a solution of mercury nitrate mono-hydrate and a solution of cadmium acetate with PH=3, And in the time period of 30 , 60 , 90 and 120 minutes was placed on the stirrer. Absorbance of each sample was obtained after smoothing. Ecstatic obtained indicate that graphene Oxide / mercapto propyl tri-methoxy silane composites is more effective in absorbing heavy metals

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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