

عنوان مقاله:

Extraction sorbent with Octadecane-functionalized nano graphene (OD-G) for the preconcentration of Chromium Species in water and Paraffin-Embedded Tissues from Liver Loggerhead Turtles Specimens by FAAS

محل انتشار:

اولین همایش ملی تکنولوژی های نوین در شیمی و پتروشیمی (سال: 1393)

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خلاصه مقاله:

nano graphene (OD-G) were used as absorbent for extraction of Cr(III) and Cr(VI), ions in the presence of diethyldithiocarbamate as a chelate by solid phase extraction method. A novel and selective method for the fast determination of trace amounts of chromium species in water samples has been developed. The procedure is based on the selective formation of chromium diethyldithiocarbamate complexes at different pH in the presence of Mn(II) as an enhancement agent of chromium signals followed by elution with organic eluents and determination by atomic absorption spectrometry. The maximum capacity of the employed disks was found to be 498 μg and 487 μg for Cr(III) and Cr(VI), respectively. The detection limit of the proposed method is 21 and 12 ng.L^{-1} for Cr(III) and Cr(VI), respectively. The proposed method was successfully applied for determination of chromium Species Cr(III) and Cr(VI) in different water samples.

کلمات کلیدی:

Solid phase extraction, Sodium diethyldithiocarbamate, Flame atomic absorption spectrometry, Octadecyl silica (membrane disk, nano graphene (OD-G

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