

عنوان مقاله:

Preparation of Nd-TiO₂/PVP/Bentonite nanocomposite for the adsorption of heavy metals in aqueous solution

محل انتشار:

دومین کنفرانس بین المللی نفت، گاز و پتروشیمی (سال: 1393)

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خلاصه مقاله:

Due to its importance water, a lot of research has been done in the field of nanotechnology for water purification. In this study, Nd-TiO₂/PVP/bentonite nanocomposit was synthesized by three chemical compounds that had adsorption property. Microstructure of synthesis nanocomposite was investigated by XRD, SEM and FT-IR. The removal process of Cu²⁺ was performed by flotation of nanocomposite in the bulk of sample. The effective parameters were investigated in removal process, such as: removal time, sample volume, amount of nanocomposite, pH and etc. The concentration of selected ion was monitored by using a flame-atomic absorption spectrometer. In the optimized condition, effect of interference ions was studied and according results, no evidence of interference was observed. The photocatalytic activity of Nd-TiO₂/PVP/bentonite nanocomposite will investigate under visible light irradiation

کلمات کلیدی:

TiO₂, Bentonite, Removal, Adsorption

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