عنوان مقاله:

Synthesis of Modified Nano Xerogel and Use them for Adsorption of Chlorophenol Compounds

محل انتشار:

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خلاصه مقاله:

Xerogels are nano-porous materials obtained from drying the sol-gels of tetraalkoxy silanes such as tetramethoxy orthosilane (TMOS). They carry negative surface charges in water where the pH is higher than the Point of Zero Charge. This feature was employed to load divalent metal cations on the surfaces of these materials. Although xerogels do not show affinity for adsorption of chlorophenols from aqueous medium, TMOS xerogel loaded with Zn2+ (TMOS-Zn) showed a 306 percent increase in 2-chlorophenol adsorption compared to that of neat TMOS xerogel. ..TMOS-Zn adsorbent is stable and follows a chemisorption mechanism for adsorption of 2-chlorophenol

کلمات کلیدی:

chlorophenols; divalent cations; nano-xerogel