

عنوان مقاله:

Application of response surface methodology for optimization of cadmium (II) in aqueous solution by chitosan/MCM-41

محل انتشار:

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خلاصه مقاله:

In this study, removal of cadmium from aqueous solution was conducted by chitosan and MCM-41 nano composite. Response surface methodology (RSM) was used for modeling and optimizing the process, and to gain a better understanding of the process performance. Centered Composite Design (CCD) was used as the experimental design. Parameters effects such as temperature, pH, contact time, initial Cd(II) concentration and adsorbent dose on the adsorption process were studied. The numerical optimization revealed that the optimum removal (87.15%) obtained at ct/mcm-41 dosage of 0.1g, initial Cd (II) concentration of 20 mgL⁻¹, contact time of 30 min, temperature 300c and pH .of 6

کلمات کلیدی:

Aqueous solution, Cd (II) removal, Response surface methodology

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