عنوان فارسی مقاله:

بازدهی مونتموریلونیت-آهن دار برای حذف رودامین بی و کروم شش ظرفیتی

عنوان انگلیسی مقاله:

Efficiency of Fe–montmorillonite on the removal of Rhodamine B and hexavalent chromium from aqueous solution

توجه:
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک کنید.
4. Conclusion

The results of this study indicate that the hydroxyiron-montmorillonite is a very promising adsorbent for the removal of hexavalent chromium (Cr(VI)) and rhodamine B (RhB) from aqueous solution simultaneously. The adsorptions of Cr(VI) and RhB on Fe–Mt follow the pseudo-second order model. The adsorption rates and capacities of Fe–Mt toward Cr(VI) and RhB were slightly higher than those in the corresponding single adsorption systems. The most effective pH range was found to be 3.0–4.0 for the removal of both contaminants. The adsorption isotherm of Cr(VI) was best fitted with the two-site Langmuir model while RhB isotherm best followed the Freundlich model. For both contaminants, the adsorption of one contaminant increased with increase in the initial concentration of the other one. Therefore, Cr(VI) and RhB could be simultaneously adsorbed onto Fe–Mt and this offers a potentially useful method for the simultaneous removal of these pollutants from the environment.

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