

رسائل الماجستير الخاصة بالهيئة المعاونة
بقسم الهندسة الكيميائية

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Title of Thesis:
Modeling of Chromium Removal from Tannery Wastewater
using Bagasse

Summary:
The objective of this study is the removal of chromium ions from tannery wastewater using bagasse as adsorbent. The batch kinetic studies indicated that the use of bagasse as adsorbent is an effective tool to remove around 70% of chromium from tannery wastewater after 2 hours and that the best pH was 6. The equilibrium data based on correlation coefficients could be best explained by different isotherms. The Langmuir isotherm was found to describe the best adsorption isotherm in comparison with other isotherm.

The results revealed that waste bagasse may efficiently be used for the removal of chromium from tannery wastewater effluents with pH around 6, weight ratio 10 g/l, using agitation rate 250 rpm at 75°C.