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Chrome recycling from leather solid wastes

O. A. Mohamed, H.S. Mohamady and N. H. El-Sayed*

*Chemistry of Tanning materials and Leather Technology Department of
Chemical*

Industries Research Division, National Research Centre, Cairo, Egypt.

Leather processing is one of the industrial activities that generate chromium bearing wastes in different forms, one of them is chrome shavings which contributes about 10% of the quantum raw skins /hides, and causes on burning dangerous human hazardous. Hydrolysis processes by different alkalis such as (LiOH, KOH, NaOH) have been applied to recover chrome from solid wastes. The extent of hydrolysis was studied as a function of alkalis concentrations, in presence and absence of reducing agents, shaking time and temperature. Hydrolysis process exhibits 99%, 98% and 97%, chrome recovery for LiOH, KOH and NaOH respectively. The recovered chrome has been used in retaining process, examined through visual and mechanical tests of leather samples. The evaluation of the tanning process with recovered chrome gave acceptable results.