

SAWDUST PRE-TREATMENT FOR THE USE AS HEAVY METALS ADSORBENT IN WASTEWATER TREATMENT

D. LUCACI¹ A. DUȚĂ²

Abstract: *The use of wastes for de-pollution processes is part of a sustainable environment strategy; waste as sawdust can be used for advanced wastewater treatment, as adsorbent for heavy metal removal. A pre-requisite for waste-adsorbent is to have a high adsorption efficiency and zero heavy metals release. Therefore, pre-treatment processes must be developed and optimized for extracting the heavy metals existent in the raw sawdust. The paper reports the results obtained for lead, copper and zinc extraction. The optimized conditions, leading to maximum extraction are: contact time: 60 min, solvent: aqueous solution of NaOH 3n, at T = 22 °C.*

Key words: *modified sawdust, heavy metal adsorption, wastewater treatment.*

¹ ICAS Braşov, Romania.

² Chemistry Dept., Transilvania University of Braşov.