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Chemical Leaching of Metals from Landfill’s Fine Fraction

Authors : E. Balkauskaitė, A. Bučinskas, R. Ivanauskas, M. Kriipsalu, G. Denafas

Abstract : Leaching of heavy metals (chromium, zinc, copper) from the fine fraction of the Torma landfill (Estonia) was investigated. The leaching kinetics studies have determined the dependence of some metal’s concentration on the leaching time. Metals were leached with Aqua Regia, distilled water and EDTA (Ethylenediaminetetraacetic acid); process was most intensive 2 hours after the start of the experiment, except for copper with EDTA (0.5 h) and lead with EDTA (4 h). During leaching, steady concentrations of Fe, Mn, Cd and Pb were fully stabilized after 8 h; however concentrations of Cu and Ni were not stabilized after 10 h.

Keywords : fine fraction, landfills, leached metals, leaching kinetics
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