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Studies on the Reduction of Lead And Cadmium From Aqueous Solutions Using Citrus Pennivesiculata (Gajanimma) Peel

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ABSTRACT

Currently there are numerous methods for the removal and recovery of toxic metals from waste water. Adsorption is one of the alternative purification and separation technique used in industry especially for water and waste water treatment. Cost is also an important parameter for comparing the adsorbent materials. In the present study reduction of lead and cadmium from aqueous solutions has been investigated using low cost and eco-friendly biosorbent derived from Citrus Pennivesiculata (Gajanimma) peel. The influence of pH, contact time, metal concentration, adsorbent dosage on the selectivity and sensitivity of the removal process was investigated. The adsorption efficiencies were found to be good at pH 5. The equilibrium time was attained at 120 min and the maximum removal percentage was achieved at an adsorbent loading weight of 125 mg L^{-1}.

Keywords: Biosorption, Lead, Cadmium.