

REMOVAL OF Cu^{2+} IONS BY IMMOBILIZED A. LENTULUS FUNGAL STRAIN FROM INDUSTRIAL WASTEWATER

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ABSTRACT

In spite of applying very strict regulation for the treatment of industrial waste water because of life threatening level of the heavy metal accumulation in the aquatic life which is transferred to human bodies through food chain. For this purpose there was development of new technology in which A.lentulus strain immobilized with biopolymeric bead of alginate and gelatin was prepared and characterized by Dispersion microscope .Uptake of metal was very fast initially and equilibrium was attained within 240 min. Sorption data conformed well to Langmuir and Freundlich isotherm model. Highest Cu (II) by selected biomass (4.0 g/l, dry wt).immobilized in sodium alginate and gelatin occurred at 35 °C, 180 rpm when initial copper concentration was 100 mg/l.

KEYWORDS: Biosorption, Metal Removal, Gelatin & Alginate Bead, A. Lentulus