
ABSTRACT

In the present work "Bioremediation of aquatic environment polluted with three coexisting heavy metals viz. nickel, lead and chromium by local algal species " has been studied by using natural biomass of *Oedogonium sp.* and *Spirogyra sp.* The effect of various pH values , temperatures, concentrations of the biomasses and times of exposures have been studied in mixed metal solutions containing 50 ppm of each of Cr, Ni and Lead and compared with their biosorption from single metal solutions. $K_2Cr_2O_7$, was used for Cr ions, $NiCl_2$ was used for Ni ions and $Pb(CH_3COO)_2$ was used for Pb ions.

The biosorption was carried out on temperature-controlled shaker. The metal ions remaining after biosorption were estimated on an atomic absorption Spectrometer.

The Cr^{++} were maximally absorbed at pH 3 and 25 °C in 70 minutes by *Oedogonium sp.* and at pH 3 and 25 °C in 70 minutes by *Spirogyra sp.*. The Ni^{++} were maximally absorbed at pH 7 and 25 °C in 15 minutes by *Oedogonium sp.* and at pH 7 and 25 °C in 15 minutes by *Spirogyra sp.*. The Pb^{++} were maximally absorbed at pH 3 and 25 °C in 8 minutes by *Oedogonium sp.* and at pH 4 and 25 °C in 10 minutes by *Spirogyra sp.*
