

Adsorption Behavior of Cadmium and Nickel from Aqueous Solution by *Saraca Indica* Linn. Leaf Powder – M.M. Srivastava, Aditya Chauhan, Pushpa Kumari, Parul Sharma, Shalini Srivastava

Summary

The development of economic and efficient processes for the removal of toxic metals from water bodies has become a priority task for environmentalists. Biosorption processes are tangible alternatives to traditional methodologies, particularly if low metal concentration, large volume and cost are considered. The present communication reports the unexploited sorption properties of the *Saraca indica* leaf powder (SILP) for the removal of Cd(II) and Ni(II) from aqueous media. Sorption studies using standard practices were carried out in batch experiments as a function of biomass dosage, metal concentration, contact time, particle size and pH. Sorption studies result into the standardization of optimum conditions for the removal of Cd(II) – 92.60% and Ni(II) – 46.20% as follows: biomass dosage (4.0 g), metal concentration (Cd(II) 10 $\mu\text{g}/\text{cm}^3$, Ni(II) 10 $\mu\text{g}/\text{cm}^3$) and volume of the test solution (200 cm^3) at pH 6.5 for Cd(II) and Ni(II). The present study explores for the first time, the efficacy of *Saraca indica* leaf powder as a novel and environment friendly possibility to remediate heavy metal contaminated water in a cost efficient manner.