

## **Biosorption of basic dyes by water hyacinth roots**

### **ABSTRACT**

Laboratory investigations of the potential of the biomass of non-living, dried, roots of water hyacinth (*Eichhornia crassipes*) to remove two basic dyes, methylene blue and Victoria blue, from aqueous solutions were conducted. Parameters studied included pH, sorbent dosage, contact time and initial concentrations. The Langmuir isotherm was found to represent the measured sorption data well. Maximum sorption capacities of water hyacinth roots for methylene blue and Victoria blue were 128.9 and 145.4 mg/g respectively. Water hyacinth roots could represent a cheap source of biosorbent for basic dyes as they are readily available in great abundance.

**Keyword:** Sorption; Methylene blue; Victoria blue; Water hyacinth roots; *Eichhornia crassipes*