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REMOVAL OF HEAVY METAL (Zn) FROM AQUEOUS SOLUTION USING EICHHORNIA CRASSIPES

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ABSTRACT

Heavy metals like Cr, Pb, Cu, Cd, Ni and Zn etc present in water and wastewater could be toxic to aquatic life and cause natural water to be unsuitable as portable water sources. These heavy metals are normally released into natural water bodies from domestic and industrial wastewater discharge. In order to remove these heavy metals pollutants from water and wastewater, the activated carbons are used commonly used as the adsorbent. It is not economical due to its high production and regeneration cost. Therefore the natural waste product is being used as adsorbents. Eichhornia crassipes (EC) was used as an adsorbent for the removal of Zinc (Zn) from aqueous solution and the sorption studies were performed in the laboratory by conducting batch experiments. The vital parameters affecting the adsorption process such as pH, contact time and different adsorbent dose in aqueous solution were studied. From the studies, it was observed that the uptake of zinc was 82.75%.

KEYWORDS: Heavy Metals, Eichhornia Crassipes, Bio-Sorption, Adsorbent