

# POTENTIAL OF DUCKWEED (*LEMNA MINOR*) FOR REMOVAL OF LEAD FROM WASTEWATER BY PHYTOREMEDIATION

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## ABSTRACT

This investigation was undertaken to study Pb uptake by small free floating aquatic plant *Lemna minor* from wastewater polluted by contaminated with heavy metals. Metal accumulation process was affected by various parameters such as different pH, temperature and concentration of Pb solution. Total chlorophyll contents in *Lemna minor* was adversely affected from increased with increasing Pb concentrations. The plant was adversely affected by pH 6 more than by pH 7 and pH 8. Lead accumulation in the plant tissues increased with increasing Pb concentration. However, the highest % removal of Pb was found at pH 9. The highest bioconcentration potential of Pb was observed by *Lemna minor* (0.900) at pH 6 and the minimum of 0.438 at pH 5. Thus, duckweed may be useful from a phytoremediation standpoint. These results indicate that *L. minor* has potential for removing Pb from industrial wastewater.

**KEYWORDS:** *Lemna*, Lead, wastewater, Phytoremediation, Chlorophyll content, Bioconcentration.