"REMOVAL OF ARSENIC BY PHYTOREMEDIATION"

(Sponsored By K.S.C.S.T., Bangalore)

A Project Report
submitted in partial fulfillment of the requirements
for the award of the Degree of
Bachelor of Engineering in Chemical Engineering
of the Visvesvaraya Technological University, Belgaum

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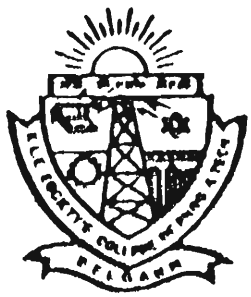

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2010-2011

ABSTRACT

Phytoremediation is an alternative technology to remove heavy metals in contaminated soil. Vetiveria zizanioides, pteris vittata ,adiantum capillus,pteris longifolia were chosen used for arsenic removal experiments. They were grown in the experimental pots of which contained the soil with containing sodium arsenate ($Na_2HAsO_4.7H_2O$) at different concentrations (control, 10, 20, 30, 40, and 50 mg As/kg soil). The experiments were conducted on two different spices of plant, these plants were harvested, and their growth were observed and analyzed for the arsenic accumulation in their roots stem and leaves after every 15,30 and 45 days . From the results, it was observed that all of the plants grew well in every concentration of arsenic, with 100% survival. Accumulation of arsenic in the roots of both species was higher than in the leaf. In addition, arsenic removal efficiency of these species increased with increasing exposure time.

Key word: vetiver, pteris vittata, pteris longifolia, arsenic removal, phytoremediation.