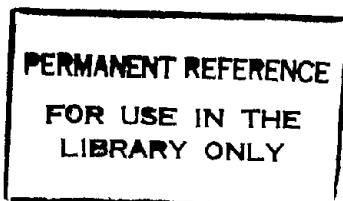


**THE ANALYSIS OF SLUDGE, SOIL, AND PLANTS FOR LEAD
CONTAMINATION AND INVESTIGATION OF SUITABLE METHODS
FOR THE REMOVAL OF LEAD**



A PROJECT REPORT PRESENTED BY

NALAKA GUNAWARDANA

to the Board of Study in Chemical Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

*in partial fulfillment of the requirement
for the award of the degree of*

MASTER OF SCIENCE IN ANALYTICAL CHEMISTRY

of the

**UNIVERSITY OF PERADENIYA
SRI LANKA**

2004

573490

THE ANALYSIS OF SLUDGE, SOIL AND PLANT FOR LEAD CONTAMINATION AND TESTING OF LEAD REMOVING METHODS

Nalaka Gunawardana

Postgraduate Institute of Science

University of Peradeniya

Peradeniya

Sri Lanka

Exposure to lead can be hazardous to human health, even at very low exposure levels, especially for children who have heightened susceptibility because of their immature neurological system.

In these days one of the most critical problems in industrialized areas is industrial waste and effluents are directed to the public environment. This study is conducted to analyze the present of lead in the sludge and there is any relationship between lead in the sludge and the plants that are closely grown to the wastewater canals. Furthermore, soil and the relative plant samples are collected from the plant beds, which are close to industrialized area were analyzed for any trace amount of lead to direct this study to human health and bioaccumulation. Removing lead from the soil or water is not an easy task even though this study put steps forward to remove lead from soil and water through phytoremediation and physical adsorption methods.