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# *Removal of lead from contaminated soil: Application of soil washing*

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## Abstract:

In the present study, experiments were conducted to optimize the use of two chelating agents such as EDTA and $CaCl_2$ in removing lead from an artificially contaminated soil. It was proved that at a soil/solution ratio of 2:1 and molar concentration of 0.03, $Na_2$EDTA could remove 96.8% lead from a soil with initial lead content of 19.3mg/g. This value varied depending upon the pH of the environment and the duration of mixing period. In the case of CaCl2, the soil/solution ratio was of 5:1. Optimum performance was noted at molar concentration of 0.4M and 59.3% removal of lead from contaminated soil was achieved for this chelant. Hence it is shown that for achieving better performance in soil washing great care has to be given in selecting a chelating agent which is suitable for a soil and importance has to be given to control the parameters influencing the removal efficiency.

## Keywords:

Soil washing, chelating agent, batch study.