

Restoration of Cd-contaminated Farmland by the Electrokinetic Method(2)-Removal of Cd from Soil under Constant Current Condition

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Recently, the development of the risk decreasing technology of the cadmium pollution in agricultural land is important because the reference value concerning cadmium in food such as rice was decided by an international committee. In this study, removal of cadmium, other heavy metal and major ions from 4X20cm soil columns are studied. While sample for water quality analysis took from electrode tanks by tubing pump at constant discharge, distilled water and diluted HNO₃ was supplied to anode tank and cathode tank respectively. It energized to interelectrode under the fixed current condition of 10mA, and the removal characteristic of cadmium and other elements from the samples were examined. As a result of the experiment, almost 100% of Cd was removed Cd in the pollution soil of 1M HCl extraction. Power requirements of that time were 230 Wh/kg(dry soil). The possibility of the application of the electrokinetic remediation technique to the polluted farmland where relatively low density of pollution spread was shown.