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## Characteristics of movement of heavy metals in farmland soil by paddy field type electrokinetic soil remediation test

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The development of an effective cadmium reduction plan of the farmland is demanded by reviewing the standard of the cadmium content of the food inside. The purpose of this study is to clarify the heavy metal removal characteristic of the paddy soil by an electrokinetic technique by the experiment. Paddy field type EK tests for heavy metal removal were conducted for evaluation of the effect of EK treatment. Based on the result of EK test applying to farmland soil, conclusions were obtained in the followings.

- i) It is found that the EK method worked effectively for the heavy metal pollution of a low concentration.
- ii) The order of moving the heavy metal by the EK processing was Fe>Mn>Zn>Cd.
- iii) Cu, Pb, and Ni were expected the purification efficiency was worse than Zn and Cd, and an effect was not seen about Cr and As.
- iv) It is found that a remarkable soil pH decrease progresses by the EK processing, and the exchangeability cations such as Ca and Mg are lost.

Keywords: electrokinetic remediaton, cadmium, paddy soil