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**Original**

# Possibility of Cs Elution from Incineration Fly Ash by Mixing Soil

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● **Summary** ● Decontamination wastes with radioactivity caused by Fukushima Daiichi nuclear power plant accident are reduced with the volume by incineration. Toward the final landfill disposal of reduced decontamination wastes, it is demanded to control Cs elution from incineration fly ash. In this study, we analyzed the reduction of Cs elusion from incineration fly ash by mixing soil and derived the equation whose dominant parameter is RIP(Radiocaesium Interception Potential) to estimate Cs elution rate. As a result, Cs elution rate could be estimated from K content in fly ash within about several % error using this equation which tends to a little overestimate. The derived equation shows that amount of K in incineration fly ash must be less than $1.1 \times 10^{-1}$ mmol/g or RIP value of soil used must be about 5 meq/g in order to keep less than 10% Cs elution from the soil when the ratio of mixing soil to fly ash is set to be 1:1. The equation of Cs elution rate derived in this study has potential to be applied in the case of heat treatment of decontamination wastes including large amount of soil and also in the case of mixing incineration fly ash with soil.

**Key Words:** Cs, decontamination waste, incineration fly ash, elusion rate, RIP

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