

Desorption of Cs from Cs contaminated smectite by major cations

Yuki Yamashina¹, FUKUSHI, Keisuke^{2*}

¹School of Natural System, College of Science and Engineering, Kanazawa University, ²Institute of Nature and Environmental Tehcnology, Kanazawa University

Expandable clay mineral can fix Cs strongly on the inter layer position. However, the fixed Cs can be desorbed by reaction with other cationic species, if the concentrations of the species are especially high. Although it is very important to know the desorption behavior of Cs fixed in expandable clay minerals by major cations, there are very few studies to systematically examine the desorption behaviors. The purposes of the study are (1) to examine the desorption behavior of Cs on smectite by major cations (Na⁺, K⁺, Mg²⁺, Ca²⁺ and NH₄⁺) as function of the cation concentrations and (2) to construct the predictive model for the Cs desorption on smectite by the major cations.

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