

Kinetic evaluation for desorption of riverine particulate Cs in estuarine water

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Radiocesium (RCs) from the water, off Fukushima has been remediated since Fukushima Dai-ichi Nuclear power plant accident, but the remaining issue is to seek the factor heightening dissolved RCs in estuarine seawater. One of the factors is the desorption of RCs from riverine particles that had been introduced into estuarine seawater. However, it is unclear how fast desorption rate is during the mixing of riverine particles including high RCs with seawater. Herein we evaluated the desorption rates for weak and strong sorption sites through the desorption experiments. Desorption of RCs for weak sorption site was estimated to complete within 30 min after the experiment. Desorption rates for strong site were dependent on the characteristics of riverine particles, and weathering.