

Resuspension of radioactive cesium from soil and forest

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Radionuclides emitted from the Fukushima dai-ichi nuclear power plant (FNDPP) accident have been deposited on the soil, ocean and vegetation. Re-suspension of radioactive cesium from the soil and vegetation to the atmosphere may be one of significant path in the diffusion of radionuclides after the accident. Therefore, the quantitative understanding of these re-suspensions is important to understand future transition of radionuclides. Identification of aerosol species which bring Cs-134/137 is necessary to understand the mechanism of re-suspension, and its efficiency.

We have measured atmospheric concentration of radiation by Cs-134/137 in Namie high school Tsushima-branch where is away 30km from FNDPP. Relationship between Cesium radioactivity and aerosol size distribution show that multiple re-suspension mechanisms contribute and their contribution varies with the season. The mechanisms of re-suspension will be shown and discussed.