

[M-AG38_2PM2]Dynamics of radionuclides emitted from Fukushima Dai-ichi Nuclear Power Plant in the environment

Convener:*Kazuyuki Kita(Faculty of Science, Ibaraki University), Yuichi Onda(Center for Research on Isotopes and Environmental Dynamics, University of Tsukuba), Teruyuki Nakajima(Atmosphere and Ocean Research Institute), Yasuhito Igarashi(Atmospheric Environment and Applied Meteorology Research Department, Meteorological Research Institute), Jun Matsumoto(Deaprtment of Geography, Tokyo Metropolitan University), Masatoshi Yamada(Institute of Radiation Emergency Medicine, Hiroasaki University), Chisato Takenaka(Graduate School of Bioagricultural Sciences, Nagoya University), masayoshi yamamoto(Low Level Radioactivity Laboratory, Kanazawa University), jota kanda(Tokyo University of Marine Science and Technology), atsushi shinohara(Osaka university), Chair:Motoyoshi Ikeda(Hokkaido University)

Fri. May 2, 2014 4:15 PM - 5:00 PM 501 (5F)

The Great East Japan Earthquake caused the severe accident in TEPCO Fukushima dai-ichi nuclear power plant (FDNPP), leading to emission of huge amount of radionuclides to the environment. They have been transported and diffused by atmospheric motion, depositing them to soil and vegetation. Deposited radionuclides are dynamically shifted in the earth environment; atmosphere, soil, inland water, ocean, and ecosystem. To understand this dynamic shift in the environment and for the long-term prediction of the disaster by the radionuclides, investigation and discussion based on not only the earth sciences including ecology but also on the radiochemistry and other related sciences. In this session, various efforts to understand the dynamic behavior of radionuclides emitted from FDNPP accident in the earth system as well as to predict their influences on the environment. It is expected that this session will offer a good opportunity to discuss radionuclides in the earth environment from wide aspect and to exchange information in various research fields.

4:45 PM - 5:00 PM

[MAG38-P01_PG]Characteristics of radioactive Cs in reservoir sediment in Iwaki, Fukushima prefecture

3-min talk in an oral session

*Yusuke AOI¹, Keisuke FUKUSHI², Seiichi TOMIHARA³, Seiya NAGAO², Taeko ITONO¹ (1.Graduate School of Natural Science and Technology, Kanazawa University, 2.Institute of Nature and Environmental Technology, Kanazawa University, 3.Aquamarine Fukushima)

Keywords:Radioactive Cs, Sediment, Erosion, Soil, Clay mineral

Large amount of radioactive elements, mainly Cs, were emitted from Fukushima Daiichi Nuclear Power Plant (FDNPP) because of Tohoku Earthquake occurred in March, 2011 and Fukushima prefecture and prefectures of the neighborhood were contaminated. Nuclear Regulation Authority, Japan (2013) reported that air dose rates evaluated based on the airborne monitoring results clearly show larger declines than those calculated based on the physical half-life of radioactive Cs. The reasons for such larger declines may include the effects of natural environmental erosion, such as rainfall. We have applied the sediment trap to sample the reservoir sediment. Sediment trap can observed the erosion continuously. Our purpose is to examine the characteristics of Cs contaminated soil continuously from summer to winter in 2013 in detail in Iwaki city, Fukushima prefecture.