F118-020 Room: 301A Time: May 30 15:45-16:00

Observation of the Radon Flux across Air-Sea Interface

Shigeki Tasaka[1]; masaya matsubara[2]; Takao Iida[3]; Shoichi Taguchi[4]; Mutsuo Inoue[5]; Yusuke Nakano[6]

[1] IMC, Gifu Univ; [2] IMC, Gifu Univ.; [3] Dept. of Energy Engineering and Science, Nagoya Univ.; [4] AIST; [5] LLRL, Kanazawa Univ.; [6] Chemistry, Kanazawa Univ.

The concentrations of 222Rn in near-surface seawater and atmosphere were continuously observed in order to measure the ocean radon flux across the air-sea interface, during the cruise of the Oceanographic Research Vessel MIRAI on the northern part Pacific Ocean by the use of the high sensitive radon detector. The radon flux was estimated from the measurements of sea water and atmosphere radon concentrations, wind speed and sea surface temperature, by the model of Wanninkhof(1992) for gas transfer velocity. Observation results of radon flux were compared with the estimations of radon emissions from the ocean by S.D.Schery and S.Huang(2004). Observations of the radon flux across air-sea interface will be contributed to the development of the air-sea gas transfer model.