

日本沿岸域におけるラドン濃度の地域的差異に関わる環境要因の検討 Investigation of environmental factors related to regional differences in radon concentration in Japanese coasts

本田 尚美^{1*}; 谷口 真人¹; 小野 昌彦²; 細野 高啓³; 梅澤 有⁴; 杉本 亮⁵; 山田 誠¹
HONDA, Hisami^{1*}; TANIGUCHI, Makoto¹; ONO, Masahiko²; HOSONO, Takahiro³; UMEZAWA, Yu⁴; SUGIMOTO, Ryo⁵; YAMADA, Makoto¹

¹ 総合地球環境学研究所, ² 産業技術総合研究所, ³ 熊本大学, ⁴ 長崎大学, ⁵ 福井県立大学

¹Research Institute for Humanity and Nature, ²National Institute of Advanced Industrial Science and Technology, ³Kumamoto University, ⁴Nagasaki University, ⁵Fukui Prefectural University

In recent years, submarine groundwater discharge (SGD) have received considerable attention in hydrology and oceanography. Radon-222 (^{222}Rn) is a useful tracer to detect SGD because ^{222}Rn in groundwater has extremely high concentration compared with surface waters. In Japanese coasts, many researches have been done SGD observations using ^{222}Rn tracer techniques. If we compiled ^{222}Rn data from many coasts with different environmental condition, we can get generality related environmental parameters to SGD. Therefore, objectives of this study are to compile the existing observed data in Japanese coasts and to evaluate environmental parameters concerning the regional difference in ^{222}Rn activities. Firstly, we consolidated ^{222}Rn data in coastal waters at 10 sites from the northern part to the southern part of Japan. We also prepared environmental parameters in each watershed such as precipitation, geological data and geomorphological characteristics to examine and effect of driving forces on the regional difference of ^{222}Rn activity. In this presentation, we will show the regional difference of ^{222}Rn activities in Japanese coasts and statistical analysis results of relationship between compiled ^{222}Rn data and environmental parameters.

Keywords: ^{222}Rn , SGD