

Geochemical investigation for evaluation of submarine groundwater discharge in Suruga Bay

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Submarine groundwater discharge (SGD) has been recognized as an important pathway for material transport from land to ocean and it is expected as ubiquitous phenomenon in coastal area. Our study site, Suruga Bay is adjacent to the southern foot of Mt. Fuji where the permeable lava flow deposits and the active groundwater flow system exist. Therefore, large amount of SGD could be occurred at the coastal area.

To estimate the spatial distribution of SGD, geophysical surveys such as multi-beam sonar, side scan sonar and sub-bottom profiler, have been conducted in this area. This study attempts to evaluate SGD by using geochemical tracers, such as radon and radium in coastal water. We will show the spatial distribution of these tracers in Suruga Bay and discuss their relationship to SGD.

Keywords: submarine groundwater discharge, Suruga Bay, geochemical tracer