

222Rnを用いた沿岸海底湧水の空間調査：別府湾・大槌湾・小浜湾をモデルフィールドに
Local scale assessment of submarine groundwater discharge in coastal seas (Beppu, Obama and Otuchi Bay)

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Submarine groundwater discharge (SGD) is important as a major pathway for freshwater and nutrients loads from land to ocean. Various natural tracers of SGD have been applied to quantify local to regional SGD fluxes. Radon-222 (²²²Rn) is a naturally occurring radioactive gas that is typically 2-3 orders of magnitude higher in groundwater than surface waters. Therefore, it is a powerful tracer of groundwater inputs to oceans. We have applied the continuous ²²²Rn monitoring survey to three local scale coasts (Beppu Bay, Obama Bay and Otsuchi Bay), which have large amounts of groundwater resources in each watershed. As a result, spatial distributions of ²²²Rn and other parameters displayed not only influence of submarine groundwater discharge but also possibility of submarine hot spring discharge.

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