

## **Geochemical studies of hydrothermal system within the modern sediment layer at the submarine volcano Wakamiko crater**

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The Wakamiko crater is located at 200m depth seafloor in Kagoshima Bay, on the north-eastern slope of the active volcano, Sakurajima. During the NT05-13 cruise, in 2005, surface sediments were collected with a MBARI corer (up to 30cm length) from two active hydrothermal mounds (Area-1 and Area-2). Chemical compositions of the pore waters are explained by mixing of the hydrothermal component and seawater. This suggests the hydrothermal fluid ascends within the surface sediment. Estimated chemical composition of the hydrothermal endmembers showed difference between Area-1 and Area-2. Temperature of the hydrothermal reservoir was estimated as 205 degrees C and 220 degrees C at Area-1 and Area-2, respectively.