In-situ Gamma ray measurements by using

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Gamma ray activity measurements were carried out on MODE'98 Leg2 cruise, and results were obtained from fifteen dives.Gamma ray activity was very low throuh fifteen dives of "Shinkai 6500". Commonly gamma ray total count shows about 5cps. This value may be indicate background of the instrument. Maximum gamma ray intensity (about 120cps) measuremed at Rainbow Site. Peaks detected in gamma ray intensity correspond to "Shinkai 6500" events, for example rock sampling, and so on.

Gamma ray activity measurements were carried out on MODE'98 Leg2 cruise, and results were obtained from fifteen dives. Gamma ray activity measurements of bottom seafloor has been caried out around Japan area by JAMSTEC using ROV, "Shinkai 2000" and "Shinki 6500". Example of total count of intencites (cps) of gamma ray measurements around Japan area are, as follows: (1) Iheya knoll and Izena hole in Okinawa Trough shows high total cps (maximum count 9000cps), (2) cold seep area along active fault in Sagami and Suruga Bay shows from 18 to 120cps, (3) active fault or thrust zones of Nankai Trough shows from 50 to 235cps (Hattori et al., 1997).

Therefore the objective of in-situ gamma ray measurement is to detect gamma ray activity in hydrothermal fluid, and compare gamma ray activity of two other geological settings.

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