

In situ sea bottom gamma ray survey by submersibles

Mutsuo Hattori[1], Masaharu Okano[2]

[1] JAMSTEC, [2] DSR JAMSTEC

<http://www.jamstec.go.jp/jamstec-e/shinkai/Dynamics/htm/gammae.htm>

Recent results of sea bottom gamma ray surveys by manned submersibles "Shinkai2000", "Shinkai6500" and ROV "Dolphin-3K" were reported. The numbers of total analyzed dives were 285 by "Shinkai2000", 144 by "Shinkai6500" and 92 by "Dolphin-3K". "Shinkai6500" found new thermal vent sites at western Okinawa trough and sea bottom gamma ray was measured at the sites. Measured gamma ray values of the active chimney at Dai4 Yonaguni knoll were 884 cps (intensity), 19 ppm (U-series) and 38 ppm (Th-series). Strong radioactive site at Ishigaki knoll was surveyed by "Dolphin-3K". Measured value was 7666 cps. The activity of hot vent at Hatoma knoll and cold seep at Kuroshima knoll were described based on intensity and contents of radionuclides.