

Distribution of pore waters in the slope basin and accretionary sediments: ^{129}I preliminary results from NanTroSEIZE Exp. 315

Hitoshi Tomaru[1]; Samuel Hulme[2]; Juichiro Ashi[3]; Hideki Masago IODP Expedition 315 Scientists[4]

[1] New Energy Resources Research Center, Kitami Institute of Technology; [2] SOEST, Univ. of Hawaii; [3] ORI, Univ. Tokyo; [4] -

During IODP NanTroSEIZE Expedition 315, the upper accretionary prism underlying the thick forearc basin sediment was drilled and cored continuously on the hanging wall of the megasplay fault in the Nankai Trough, off Kii Peninsula (Site C0001). Pore waters were extracted and analyzed to determine the source, migration, and reaction history at depths, as a geochemical proxy of the splay fault activities. Here we applied a recently developed geochronological analysis of a long-lived radioisotope of iodine, ^{129}I , enriched in pore waters, to construct three-dimensional distribution of variously aged fluids. The iodine ages of pore water will highlight the source variation of fluids delivered through the splay fault into the overlying sediments. Coupled geochemical analyses on the origin of dissolved species and water are essential for the modeling of fluid migration in the seismogenic system.