
Oral | Symbol M (Multidisciplinary and Interdisciplinary) | M-IS Intersection

[M-IS32_30PM1]Drilling Earth Science

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Wed. Apr 30, 2014 2:15 PM - 4:00 PM 416 (4F)

"Earth Drilling Science" session aims to exchange the latest information and scientific achievements in Ocean/Continental drilling projects and to promote the interdisciplinary science. The session covers a wide range of drilling sciences, earth dynamics, environments, and the drilling-related technologies. The overview of the recent IODP cruises will be reported.

3:45 PM - 4:00 PM

[MIS32-P04_PG]Structural characteristics of Nankai accretionary prism at C0002: Preliminary results from IODP Expedition 348

3-min talk in an oral session

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Keywords:Expedition 348, C0002, Fault zone, Core, Cuttings

Integrated Ocean Discovery Program (IODP) Expedition 348 has deepened hole down to 3058.5 mbsf at Site C0002, and collected cutting and core samples of Upper Miocene Nankai accretionary prism. The structural key observation made on cuttings in Holes C0002N and C0002P, and cores retrieved in Hole C0002P are:a) The structures observed in intact cuttings include slickenlined surfaces, scaly fabric, deformation bands, minor faults and mineral veins. Slickenlines are observed throughout the whole interval, but scaly fabric is increasingly observed below ~2200 mbsf. The other types of structures are scattered throughout the whole section.b) The cored interval is characterized by steep bedding planes (more than 75°). A fault zone, 90 cm in thickness, with a few mm-size angular clasts is present in one of the cores (2204.9-2205.8 mbsf). In its present position, the brittle fault zone is associated with a normal faulting sense. It is unclear if this represents an early thrust rotated after its development or late normal fault.c) SEM images in the upper part of Hole C0002N show little evidence for opal diagenesis, implying T