
[J] Poster | S (Solid Earth Sciences) | S-CG Complex & General

[S-CG56]Oceanic plate as inputs to subduction zone: evolution process of the oceanic plate

Thu. May 26, 2022 5:15 PM - 6:45 PM Exhibition Hall 8

As the inputs to subduction zone, the nature of the incoming oceanic plate, such as surface relief, thermal state, lithology, and the water content, affects various processes occurring in the subduction zone, including arc magmatism and interplate and intraplate seismic activities. The oceanic plate is formed in the oceanic spreading ridge and moves through the ocean basin for a long time and subducts from the oceanic trench. The nature of the incoming oceanic plate is determined by all the processes occurring from the spreading ridge to the subduction trench; e.g., hydrothermal circulation, sedimentation and diagenesis for more than millions years at the oceanic basin, and plate bending-related faulting near the subduction trench. Therefore, for studying the nature of the subduction inputs, it is essential to reveal the various evolution processes of the oceanic plate between the spreading ridge and the subduction trench.

We welcome contributions from a broad range of earth science (geophysics, geology, petrology, drilling science, and so on) discussing topics related to the inputs to subduction zones, such as tectonic process associated with the plate bending prior to subduction, post-spreading volcanic activities including large seamount formation and petit-spot volcanoes, and the nature of the "normal" or "typical" oceanic plate.

This session is supported by the focus group of hard rock drilling science.

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