



The MoHole

A crustal Journey and Mantle Quest

An international workshop sponsored by
IODP, JAMSTEC, J-DESC, InterRidge, Kanazawa University

Kanazawa-shi Bunka Hall, Kanazawa, Japan
3-5 June, 2010

The mid-ocean ridges and the new oceanic lithosphere that they create are the principal pathway for energy and mass exchange and physical/chemical interactions between the earth's interior, the hydrosphere, and the biosphere. Bio-geochemical reactions between the oceans and oceanic crust occur throughout its lifetime, and hence the ocean lithosphere records the inventory of global thermal, chemical and biological exchanges. Drilling an ultra-deep hole in an intact portion of oceanic lithosphere, through the crust to the Mohorovicic discontinuity, and into the uppermost mantle is a long-standing goal of scientific ocean drilling; it remains critical to answer many fundamental questions about the dynamics of the Earth and global elemental cycles.

The 2010 MoHole workshop follows several recent scientific planning meetings on scientific drilling in the ocean lithosphere. These meetings have clearly articulated that a deep hole through a complete section of fast-spread ocean crust is a renewed priority for the ocean lithosphere community and imperative to answer a wide range of fundamental science questions.

Workshop participants will begin developing a roadmap for the technology development and the project implementation plan that are necessary to achieve our deep drilling objectives. Participants will also identify a limited (2 to 3) number of potential MoHole sites in the Pacific (i.e., in fast-spread crust), where the scientific community will focus geophysical site survey efforts over the next few years. Selecting drilling sites is essential to clearly identify the range of water depths, drilling target depths and temperatures that we anticipate, and better constrain the technological options that should be developed and implemented to drill and log the MoHole. These discussions will be held jointly between ocean lithosphere specialists, marine geophysicists, and drilling engineers, with the aim of identifying the best possible sites in fast-spread crust given our current geological, geophysical and technological knowledge and expertise.

Information on application, accommodation and travel to Kanazawa are available at :

<http://earth.s.kanazawa-u.ac.jp/~Mohole/>

Registration for the workshop is free. National agencies may be able to provide travel and subsistence support. Please e-mail mohole@earth.s.kanazawa-u.ac.jp for further details.

Steering Committee: Benoît Ildefonse (CNRS, France, co-chair), Natsue Abe (IFREE, JAMSTEC, Japan, co-chair), Yoshio Isozaki (CDEX, JAMSTEC, Japan, co-chair), Donna Blackman (Scripps, USA), Pablo Canales (WHOI, USA), Greg Myers (COL, USA), Mladen Nedimovic (LDEO, USA), Shuichi Kodaira (JAMSTEC, Japan), Damon Teagle (NOC, UK), Susumu Umino (Kanazawa University, Japan), Doug Wilson (UCSB, USA)

