What we understood and where we are going in research for earthquake fault dedueced from TCDP Hole B Core analyses

Wonn Soh[1]; TCDP Hole-B Research Group[2]

[1] JAMSTEC; [2] -

In the last years, TCDP core samples were analysed in multidisciplinary methods including triaxial and isotope geochemical experiments as well as non-destructive methods in order to understand why and how the rupture was propagated into the shallow part of the fault zone. Several data deduced from TCDP can suggest the material and circumstance conditions in and around the fault zone, and demonstarte us that a lot of phenomena was caused in co-seismic stage. Among them, we think the most important factor is behavior of pore water in the sedimentary rock. It may control the maximum temperature caused by shearing, and the frictional mode as well as material transfer in the fault zone. In the talk I am going to overview recent results of frictional experiments and isotope geochemical study in and around the fault zone and proposed the scenario of behavior of fault material in the 1999 Chichi Earthquake event.