

# Hydration and alteration processes by hydrothermal fluid circulation

# Hiroshi Isobe[1]

[1] Dept. Earth. Sci., Fac. Sci., Kumamoto Univ

Hydrothermal fluid circulation apparatus is developed to reproduce reactions in migration paths of super-critical magmatic fluid. Maximum temperature and pressure are 600 degree C and 80 MPa, respectively. Permeability of the sample will be monitored by pressure trend of upper and lower part of fluid tubing across the sample. Powdered obsidian is subject to the first experiment precipitating alteration products in grain boundary to affect permeability by super-critical fluid.