

Thermal properties of talc under high pressure

Mitsuhide Yonehara[1]; Masahiro Osako[2]; Eiji Ito[3]; Akira Yoneda[1]

[1] ISEI, Okayama Univ.; [2] Div. Phys. Sci., Natl. Mus. Nature. Sci.; [3] ISEI

<http://www.misasa.okayama-u.ac.jp/jp/>

We have measured thermal properties of talc, a hydrous mineral in the slab, at pressures to 6 GPa and 900 K, applying a pulse heating method for simultaneous thermal conductivity and thermal diffusivity measurement. The measurements were conducted using a Kawai-type high-pressure apparatus at the Institute for Study of the Earth's Interior, Misasa. Talc has significant anisotropy. The measurements were conducted in the direction perpendicular to the foliation of the natural talc. We are now trying to measure the remaining two directions parallel to the foliation.