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SSS029-P11

Room:Convention Hall

Time:May 23 14:00-16:30

Fluid-rock interaction in the fault gouge of the Median Tectonic Line

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Frictional heating during coseismic slip induces transient fluid-rock interaction and fluid transfer. In order to understand these physicochemical process and mechanism, we performed geochemical analyses of major- and minor-element concentrations and Sr isotope. The fault gouge samples used were collected from the Anko outcrop, Nagano prefecture, of the Middle Tectonic Line. Using the fluid-mobile trace element spectrum, which is sensitive to fluid-rock interaction at high temperatures, we estimated that the black gouge experienced frictional heating of approximately 150 degree Celsius. This temperature signal probably indicates that frictional heating have occurred in the gouge together with high amount of coseismic fluid transfer.