

## SEM observation on the active fault surface

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SEM observation of the fault surface was attempted in order to clarify the feature of the fault plane of active fault. The sharp plane of cutting other structures in outcrop was judged to be the latest activity surface, and the block sampling of the latest surface was carried out. After identifying the continuity of the fault plane by observing the internal structure of the sample in detail using helical X-ray CT, the samples for SEM observation were prepared. As a result of observation on the latest activity surface with a stereomicroscope and a scanning electron microscope, the following features have been identified. (1) A slickenside and striations are observed on the latest fault surface. (2) The fault plane is formed of the crushed fine-grained particles, and the dumpling-like structure where fine-grained particle was covered with paste-like clay is observed as a feature. (3) Growth of euhedral minerals formed by diagenesis in deep such as illite and chlorite, were not observed on the latest fault surface.

Keywords: active fault, fault surface, clay minerals