

Fracture Analysis of the Granitic Rock around the Atera Fault, Central Japan

Akihiro Ohshima[1], Naoki Fujiwarra[1], Shiro Tanaka[2], Hidekazu Yoshida[3]

[1] Earth and Planetary Sci., Nagoya Univ, [2] Earth and Planetary Sci., Nagoya Univ., [3] NUM

Understanding of the fractures formed outside of crushed zone is important to evaluate stability and water permeability of basementrock. Detailed observation of fault rocks and fractures identified in the granitic rock distributed around the Atera Fault, eastern part of Gifu Prefecture, have been conducted in order to clarify the relationship between the fault and fractures formed thereafter.

Results are summarized as follows;

- (1) The distribution of fault gouges and cataclasites is up to 50m.
- (2) The density of fractures has a logarithmic decrease in the vicinity of the Atera fault with the fracture density from 5 - 8 to 1 -3 (N/m²). The lower value of fracture density may consider the frequency number of fractures originally formed in granitic rock.