

Distribution and occurrence of the fault rocks along the Asume Shear Zone, Aichi Prefecture, SW Japan

Hideaki Sakamaki[1], Hideo Takagi[2]

[1] Resources and Environ. Engin., Waseda Univ., [2] Earth Sci., Waseda Univ.

Asume Shear Zone is composed of small-scale brittle-ductile shear zones associated with pseudotachylyte in the Ryoke granitoid. It extends about 14km to the 50km northwest from the Median Tectonic Line.

We have examined the location of the fault rocks along the whole shear zone. Mylonite-ultramylonite locally occurs along the shear zone up to 3 km near Koraneki. Pseudotachylyte occurs up to 10 km, and cataclasite occurs along whole shear zone (14km). Foliations of the ultramylonites and foliated cataclasites strikes ENE-WSW and dip steeply to the west. Lineation plunges about 40-60 degrees to the west. Shear sense determined from several kinematic indicators under the microscope gives sinistral. Thus the slip direction along the shear zones is sinistral-extensional.

The strike of small-scale shear zones tends to be oblique to the trend of whole shear zone forming P shear and right-stepping en echelon arrangement. R1 orientation has not been identified. Such P shear development must be related to the fault-normal extension which is indicated by the attitude of plunging lineations.