

Reasons of coseismic groundwater level changes and role of small faults around the Tsukiyoshi fault.

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Tsukiyoshi fault is a reversed fault which gives the displacement in granitic rocks (72-62Ma) and Miocene series (20-15Ma). We examined mainly distribution and those features of small faults in the Miocene series and of electric conductivity of granite around the tsukiyoshi fault with review of boring data of the uranium exploration and core observation. The synthetic examination was carried out on the dynamic and hydrologic changes with the faulting, with our results and the existing results of radioactive disequilibrium investigation and groundwater investigation.

We observed small faults (with the striation; accumulation displacement are several decade cm) and crack which was filled with carbonate in a part of Miocene series. Most of the small fault distributed in rimited 3 zone that are zone of near the Tsukiyoshi fault and zones lies in north and south south sides of the Tsukiyoshi fault. The later zones lies on the granitic rocks that have low value of electric conductivity.

The small faults might be re-open, when the changes of pore water pressure were generated with the crustal strain changes that related to large earthquakes. It seems to be that the oxidized water including the uranium that had passed through the small fault, rose into the uranium rich zone in which it was reduced and the uranium re-concentrated with the biochemistry reaction.