

Deformational environment of the Pleistocene Ashigara group along the northern margin of the Philippine sea plate

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On the northern convergence border of the Philippine Sea plate, Pleistocene Ashigara group (1.6-0.5Ma) filled a trough. Miocene Tanzawa group is distributed on the north side, and both are bounded with the Kannawa fault system. The Kannawa fault system is divided into five groups of active faults (e.g. Shiozawa fault system: NE-SW, sinistral-reverse). The Shiozawa formation (conglomerates) which is the high-end strata of the Ashigara group is distributed over the southeastern side of the Shiozawa fault. Parts of the conglomerates are deformed remarkably. P-R1 cataclasites are distributed over the range of 600m from the Shiozawa fault. The shear sense is reverse fault mainl. Quartz grain becomes fine fragment by crush, and biotite does basal slip, it is thought that this cataclasite was formed under environment of 250-300 oC, and 10km in depth. It is necessary to assume uplift rate more than 10m/Ka or an abnormally high geothermal gradient.

Keywords: Kanagawa Prefecture, Ashigara group, Shiozawa formation, cataclasite, coalification, Philippine sea plate