

## Philippine sea plate motion since the Pleistocene viewed from deformed conglomerates of the Ashigara group

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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 the Kannawa fault (E-W direction, dextral sense) of the narrow sense, Hisari fault system (NE-SW, sinistral-normal), Nakatsugawa fault system (NW-SE, dextral-reverse), Shiozawa fault system (NE-SW, sinistral-reverse), etc. 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. These deformation zones are divided into six types (P-R1 cataclasite: A, B, C; fault gouge: Dr, Dg, Db) based on the fault rock property, shear sense, cutting relations. The cataclasites are distributed over the range of 600m from the Shiozawa fault. The shear sense is reverse fault mainly, but shows sinistral in a part of the B and Db type. Quartz grain becomes fine fragment by crush, and biotite does basal slip, it is thought that this cataclasite was formed under environment of 150-300 oC, and 5-10km in depth. The influence of the subducting Philippine Sea plate might have increased. In addition, the moving direction was not constant, northwest and north might be mixed in the Pleistocene age.

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