

Magnetic Susceptibility of the Mugi melange of the Shimanto belt, and its relationship to the strain history of the melange

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For the outcrops always appear with accumulation of complicated deformations, there are many difficulties to quantify the deformation of the rocks of accretionary prism. The studied area is the Mugi melange, the Shimanto belt in Southwest Japan. Several thrust sheets preserving a sea-floor stratigraphy are piled up (Ikesawa et al., 2002, this meeting). Ikesawa and others also found a pseudotachylite from the Okitsu melange, almost equivalent to the Mugi melange, and the finding means that the rock was subducted in the seismogenic zone. Matsumura et al. (2001) also documents the burial depth and temperature for the Mugi melange from the estimation of P-T condition using fluid inclusion analysis. Thus rocks of

the Mugi melange hold significant information of accretionary deformation process. Anisotropy of magnetic susceptibility reflecting arrangement of magnetic minerals was applied to analyze tectonic fabrics of the melange. The results are (1) rocks are highly deformed in part and (2) the magnetic fabrics are not equivalent about each sampling location.