

## Dehydration and Deformation process of subducted large Oceanic Plateau -case study of the Mikabu blueschist-

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In order to know an origin of mega-earthquake related to subducted large seamount, observation of deformation process recorded in the blueschist (high P/T metamorphic rock) is the best method. Mikabu blueschist is considered as accreted large oceanic plateau and suffered blueschist facies metamorphism at Jurassic time. It extends approximately 1000 km in EW direction from the Kanto Mountain to Kyushu Island. In north-south direction, succession of ocean plateau stratigraphy can be reconstructed although accretion thrusts duplicate them. We have done detailed field observation along the N-S route and collected the rock sample systematically. In the outcrop, the Mikabu blueschist is well foliated with mineral lineation. However, we have identified massive, cataclastic samples in the structural middle in the NS section. Under the microscope, glassy parts suffered brittle and ductile deformation. Origin of the most glass part can be ascribed as igneous product. However, some glass layers along the deformation band in stilpnomelane aggregates might be formed as melt due to shear heating. If this zone is related to earthquake fault zone, it indicates that a huge earthquake has occurred. Metamorphic petrology based on mineral assemblage divides the Mikabu belt as three zones; the North, Mid, and the South zone, respectively. Pseudo-section analysis concludes that the North zone suffered relatively higher T metamorphism compared to the South zone. In the Mid zone, local temperature increase stabilized stilpnomelane after chlorite.

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