Application of LA-ICPMS U-Pb dating for zircons to the Neogene Shimanto accretionary complex

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Mass flux in convergent plate margins is important to understanding the global mass circulation because subduction zones are the only major routes through which superficial materials can be returned to great depth of interior the earth. Continental mass flux in the last two or three million years has been thoroughly examined by reviews of the results of ocean drilling, ocean floor geomorphology, seismic reflection surveys, and others. Decrease of continental mass is suggested (Clift and Vannucchi, 2004).

This study aims to establish the technique for determine the depositional age in the younger than 10 Ma, and to begin to draw the accretion growth rate and the development process. The technique is expected to become standard.

We determined the U-Pb ages of zircon grains (using LA-ICPMS laser technology) contained in accretionary complex of Miura-Bose area in the Shimanto Belt.