

Spatial U-Pb age distributions of plutonic rocks in the central Abukuma Plateau, north-eastern Japan Arc

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Intrusive ages of the Abukuma plutonic rocks, a major Cretaceous granitic suite in the Japan Arc, were determined using zircon U?Pb age method. The U?Pb ages of the 'Hbl-Bt granitoids' distributed in the western to central part of the Abukuma Plateau were 113-99 Ma, whereas five 'east leucocratic granitoids' intruded within a short time range of 112-106 Ma. The U?Pb ages of a gabbro from the Mt. Katasone and of the 'western leucocratic granitoid' were 115.2 ± 1.1 Ma and 96.7 ± 1.0 Ma, respectively. The above age distribution combined with geochemical results suggests that. Based on these zircon U?Pb age, significant difference of the intrusive age between 'east-' and 'west leucocratic granitoids' was indicated.

Keywords: Abukuma, granite, zircon, U-Pb, LA-ICP-MS