

## Estimation of emplacement depth of the Kaikomagatake granitoid pluton using hornblende geobarometry

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The Miocene Kaikomagatake pluton is one of the Neogene granitoid plutons exposed in the Izu Collision Zone. The pluton intrudes into the Cretaceous to Paleogene Shimanto accretionary complex of the Honshu arc along the Itoigawa-Shizuoka Tectonic Line. The pluton consists of hornblende- and biotite-bearing granodiorite, monzogranite and granite (*sensu stricto*). In order to constrain the emplacement depth of the pluton, we applied the Al-in-hornblende barometry. We used samples with mineral assemblage of hornblende + biotite + plagioclase + quartz - K-feldspar + Fe-Ti oxides. Rim compositions of hornblende were used for barometry. Applying the barometry for 6 samples yielded ~2.3 - 3.4 kbar showing relatively low pressures in northern area of the pluton. The estimated pressures correspond to ~9 - 13 km for the emplacement depth of the Kaikomagatake pluton.

Keywords: Kaikomagatake pluton, Granodiorite, Hornblende geobarometer