

マグマ分化過程の環境を推定する指標となる角閃石の微細構造  
Amphibole Microstructures  
as an Indicator of the Trend of Crystallization

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Cretaceous-Paleogene Granitoids in the inner zone of southwest Japan have been divided into two series: magnetite series and ilmenite series. Three issues are not yet clear: (1) Have the components of both series of magma differed from each other since their creation, (2) how were re-equilibrated and crystallized from minerals in magma, (3) how and when were the minerals influenced by hydrothermal fluid.

In this study, oscillatory zoning, exsolution lamellae of amphibole and pyroxene relic within the cores of amphibole were found located in the Harima granodiorite (Kakogawa-Takasago city/San-yo belt) and Nunobiki granodiorite (Kobe city/San-yo belt). Furthermore, we investigated the Daito-Yokota quartz diorite in the eastern part of Shimane prefecture (San-in belt), and found it contained the same fine structures of amphibole. These granitoids were formed in the late Cretaceous.

The fine structures of amphibole have been used as an available indicator that records the trends of a magma differentiation process (temperature of ion substitution and magma degas), and verifies that the San-yo and San-in belts can be compared.