

Textural and magnetic evolution of serpentinites observed with magnetic dipole anomaly in Shikoku.

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Generation and spatio-temporal distribution of serpentinite is an essential problem to understand the interaction between interior and surface of the earth.

Serpentinites in the southeast Japan are arranged intermittently from west to east. The interval of these serpentinites bodies show relatively good relation with magnetic dipole anomaly observed in the magnetic anomaly maps (GSJ, 1996) (e.g. Murakami and Yoshikura, 1992; Kido et al., 2001). Enriched magnetic mineral by hydration of mantle rock into serpentinite lead to high magnetic intensity (Toft et al., 1990; Nazarova, 1994) and would be apparent as a regional magnetic anomaly when they exposed as a body. In order to understand this relationship, serial study on magnetic anomaly and paleo-magnetics of serpentinites have carried on since 1999. In this study, we report the meter- to micrometer- scale textural relationship with magnetic characters.