

## 海洋底拡大軸で採取した玄武岩の自然残留磁化

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### Natural remanent magnetization of oceanic basalt on the spreading axis

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Magnetic anomaly high on a spreading axis has been a well-known character of the magnetic anomalies in the ocean, which is possibly related to magnetization intensity reduction of oceanic basalt due to alteration (low-temperature oxidation of titanomagnetite). For a better understanding of natural remanent magnetization (NRM) of oceanic basalt, we studied NRM and rock-magnetic property of basaltic rocks in the back-arc spreading axis in the southern Mariana. One to four meter cores were drilled from the seafloor by using a BMS in the cruise of TAIGA project (Taiga10M). Block samples were also collected during the dives of SHINKAI6500 in the cruise YK10-11. NRM intensities of these samples show a clear decrease within 2 km from the ridge axis. The variation in NRM is consistent with a reported one from the East Pacific Rise. These data suggest that the alteration has completed within 2 km distance from the ridge axis. Consistent values from different ridges suggest that the NRM intensity reduction, which yields magnetic anomaly variation, may be related to the structure of ridge axis, for example, active hydrothermal circulation zone. Discussions of previous studies assume that the alteration process of ocean basalt is associated with age.