

## **Structural analyses of serpentinitized peridotites derived from serpentinite seamounts in the Mariana arc**

# Ayano Fujii[1]; Katsuyoshi Michibayashi[2]; Teruaki Ishii[3]

[1] Inst. Geosciences, Shizuoka Univ.; [2] Inst. Geosciences, Shizuoka Univ; [3] JAMSTEC

Serpentinite seamounts are unique seamounts that have only been discovered in Izu-Bonin-Mariana arc. Conical seamount is located at the most northern Mariana trench. South Chamorro seamount is located at the most southern point and is about 650km away from Conical seamount. Serpentinite samples from Conical seamount do not show any foliation and lamination, whereas some serpentinite samples from South Chamorro seamount have foliation and lamination. Olivine crystal preferred orientations (CPOs) have distinctive difference between two seamounts. All of Conical seamount samples are characterized by a strong point maximum of b-axis with girdle distribution of a-axis. South Chamorro samples dominantly have strong point maximum of a-axis with weak girdle distribution of b- and c-axis. It suggests that rather heterogeneous mantle structures could occur underneath the Mariana fore-arc.