

## Volcanisms of the backarc echelon seamounts along the Enpo seamount chain in the northern Izu-Ogasawara arc

# Shiki Machida[1], Teruaki Ishii[2]

[1] ORI, Univ.Tokyo, [2] Ocean Floor Geotec., Ocean Res. Inst., Univ. Tokyo

The several backarc echelon seamount chains are existed in the backarc region of the northern Izu-Ogasawara Arc. In this study, the Enpo seamount chain was selected for detail petrological investigations.

Bulk chemistry of trace element and chromian spinel composition indicate that there are two types of basalts in the Enpo seamount chain, that is "enriched" and "subduction relating" magmas. These were produced from different mantle source each other. Based on mineralogical and geochemical studies, it is suggested that andesites are produced by mainly fractionation of "sbdution relating" basalts, and fractionation involves magma mixing and/or interaction with crustal materials. Another andesites, which cannot be explained with fractionation, request different magma genesis.