

Sr, Nd and Pb isotopic compositions of Aono volcanoes and Abu volcanic group in SW Japan arc.

Hajime Shimoda[1], Susumu Nohda[2]

[1] Geothermal Reserch Institute, Kyoto Univ., [2] Envi.Sci.,Kumamoto Univ.

In order to evaluate a process, which is responsible for the hot subduction zone magmatism, Pb, Nd and Sr isotopic compositions of North Aono volcanoes, South Aono volcanoes and Abu volcanic group in SW Japan arc, which is subducted young Philippine Sea plate, were determined. The characteristics of these magmas are 1. Sr, Nd and Pb isotopic composition form linear trend between Shikoku basin basalt and Setouchi volcanic rocks on the isotopic diagram, 2.high Sr/Y ratio, low Y and high Sr concentration. These geochemical features would be explained by slab melt derived from subducted altered oceanic crust and mantle component.