

Chemical compositions and strontium isotopic ratios for Shitara volcanic rocks, Central Japan

Taro Shinmura[1]

[1] Economics, Kumamoto Gakuen Univ

Chemical compositions and strontium isotopic ratios for the middle Miocene Shitara volcanic rocks in central Japan, revealed development of the magma plumbing system of volcanic structures. Initial values of $^{87}/^{86}$ Strontium isotopic ratios were follows, 1) cone sheets: 0.7035-0.7085, 2) lavas: 0.7045-0.7055, 3) Tsugu volcanic rocks: 0.703-0.7045, 4) Ryoke metamorphic rocks: 0.7125-0.7190. Tsugu volcanic rocks reserved depleted value. Lavas of both igneous complexes were varied mainly by fractionation. The origin of cone sheets was depleted magma, and chemical and isotopic compositions for the magma were varied by both fractionation and assimilation of crustal materials (Ryoke metamorphic rocks and etc.).