

Mineral concentration in volcanic rocks from Miyake-jima volcano and its origin

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Plagioclase-controlled trend exists in basaltic rocks from Miyake-jima volcano same as Izu-oshima volcano and Hachijyo-jima Nishiyama volcano. On the volcanic rocks from Miyake-jima volcano, there is positive correlation among the modal volume of plagioclase phenocryst, Al_2O_3 content and Eu positive anomaly. Though clearly plagioclase concentrate in magma, the trend is only explained by plagioclase concentration but together with olivine and augite. The concentration could not explain by the floating of these minerals to the top of magma chamber. Phenocryst minerals are divided into equilibrated group and unequilibrated one, the latter would be concentration phase.