

	2014 年度 第 7 回	日時：6 月 18 日（水）17 時～ 場所：総合研究棟 B 棟 112 教室
	<h1>地質学セミナー</h1>	
<h2>Petrochemical study on plutonic xenoliths from Niijima volcano, Northern Izu-arc</h2>		
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In this study, petrographical and geochemical characteristics for newly observed plutonic-textured xenoliths from Niijima Volcano, in Northern-Izu volcanic arc, are presented. Gabbroic xenoliths were collected from two lithological units, from Wakago pyroclastic surge deposits (host rock is olivine-basalt; bulk SiO₂ wt% = 49.5-51.0) and 2 samples collected from Attiyama lava dome (host lava is biotite-rhyolite; bulk SiO₂ wt% = 76.8-78.0). They are divided into two types (A- and B-type) by differences in their occurrences, petrographical and geochemical features as follows.

The A-type rocks comprise gabbro, leuco-gabbro and gabbro norite, appear in only Wakago pyroclastic deposits. These rocks contain plagioclase, clinopyroxene and orthopyroxene and show cumulus textures. Distinct depletion in trace elements and REE contents are observed in comparison with host basaltic rocks. The variation patterns of trace elements concentrations for the A-type rocks are similar to those of the gabbroic suite in Tanzawa plutonic complex.

On the other hand, the B-type rocks are mostly composed of hornblende gabbros occur in Atti-yama lava dome. These rocks have less evolved compositions in mineral chemistry than not only those in the host rhyolite, but the other rhyolite from Niijima volcano. Chemical compositions of hornblende in B-type rocks overlap with hornblende in gabbroic suite in Tanzawa rocks. Based on these results, the genetic relationships between two types of gabbroic xenoliths and their host magmas, and differentiation process will be discussed.



Fig.1. Close-up of gabbroic xenolith from Atti-yama lava dome.

次回のお知らせ

日時：6 月 25 日（水）17 時～

場所：総合研究棟 B 棟 110 教室

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