Japan Geoscience Union Meeting 2013
(May 19-24 2013 at Makuhari, Chiba, Japan)

SCG61-03 会場:102A 時間:5 月 22 日 14:45-15:00

西南日本白亜紀古第三紀花崗岩の年代学的研究および同位体比測定
Chronology and isotope study for Cretaceous and Paleogene Granitic Rocks SW Japan

飯田 和也[1*], 岩森光[1], Park Taeho[2], 折橋裕二[3], 谷水雅治[4], Yong-Joo Jwa[5], Sung-Tack Kwon[6], 檀原 徹[7], 岩野英樹[7]
Kazuya Iida[1*], Iwamori Hikaru[1], Park Taeho[2], Orihashi Yuji[3], Tanimizu Masaharu[4], Yong-Joo Jwa[5], Sung-Tack Kwon[6], Tohru Danhara[7], Hideki Iwano[7]

[1] 東京工業大学, [2] 株式会社　遠一, [3] 東京大学地震研究所, [4] 独立行政法人海洋研究開発機構, [5]Gyeongsang Nat'l University, [6]University of Yonsei, [7] 株式会社京都フィッション・トラック
[1]Tokyo Institute of Technology, [2]Eichi, [3]Earthquake Research Institute, [4]JAMSTEC, [5]Gyeongsang Nat'l University, [6]University of Yonsei, [7]Kyoto Fission-Track

We especially focus on (1)spatial-temporal variation of granitic rock, (2) temporal variation of isotopic signature and whole rock chemistry and (3) tectonic and dynamic setting that caused the observed spatial-temporal variation and provided heat for the melt generation, based on the U-Pb zircon age, whole rock chemistry and Sr isotope ratio.

U-Pb zircon age determinations using LA-ICPMS was performed on total 81 rock samples. The obtained age ranges from 95 Ma to 30 Ma, with a possible temporal gap between 60 Ma and 50 Ma. During 95-60 Ma, the systematic migration of granitoid magmatism from the south to the north occurred. We also compile temporal variation of petrological signatures from literature. As a result, we observed (1) initial ratio of Sr isotopes (87Sr/86Sr) decreased from enriched characters (0.7090-0.7065) to depleted ones (0.7065-0.7050), and (2) rock types of granitoid changed from ilmenite-series to magnetite-series.

In this study, we also conduct Sr and Pb isotope initial ratio and whole rock chemistry of dated granitic samples. Based on these results, we discuss the origin of these variations and origin of granitic rocks in the SW Japan.