

# Volcanic activity during the final stage of the Parece Vela Basin spreading

# Hiroshi Sato[1]; Kana Yoshiki[2]; Osamu Ishizuka[3]; Yasuhiko Ohara[4]; Kyoko Okino[5]

[1] School Business Administration, Senshu Univ.; [2] Inst. Mineral. Petrol. Econ. Geol., Tohoku Univ.

; [3] GSJ/AIST; [4] Hydrographic and Oceanographic Dept.of Japan; [5] ORI

The Parece Vela basin is one of the largest back-arc basin in the Philippine Sea Plate at the northwest Pacific. At the final stage of the back-arc basin spreading, enriched volcanic activity occurred at the Shikoku Basin, whereas amagmatic activity characterized by deep and rough topography of Parece Vela rift occurred at the Parece Vela Basin. In this presentation, we report petrographical and petrological characteristics of volcanic rocks from the Parece Vela Basin recovered during KR03-01 cruise.

The results are summarized as follows: 1. Most of volcanic rocks were classified into subalkali rock series, whereas some basalts from site KR0301-D18 were alkali rock series with normative Ne, 2. Magma segregation depth (pressure) based on estimated primary magma composition ranges from 10 to 15 kb, 3. Volcanic rocks recovered from the site close to the Parece Vela rift have higher Zr/Nb ratio, and 4. Source mantle changed to more depleted compositions toward the cessation of the back-arc spreading.