

Distributions of mantle heterogeneity across segment at southern segment of Central Indian Ridge

SATO, Hiroshi^{1*} ; MACHIDA, Shiki² ; SENDA, Ryoko³

¹Senshu Univ., ²Waseda Univ., ³JAMSTEC

Recent petrological and geochemical investigations of MORB at the southern segments of Central Indian Ridge (CIR) reveal the heterogeneous distributions of MORB-source mantle (Sato et al., 2015). Sato et al. (2015) concluded that MORB from CIR-S2 segment and off-ridge area at the CIR-S1 segment are depleted compositions than typical MORB. Furthermore, depletions based on trace element geochemistry of off-ridge MORB from CIR-S1 segment decrease toward present spreading ridge. Because off-ridge MORB was recovered from several dredge sites parallel to the flow line, these distributions might indicate spatial distributions of mantle heterogeneity beneath CIR-S1 segment.

Keywords: mid-ocean ridge basalt, Central Indian Ridge, mantle heterogeneity, geochemistry