

# Sulfur isotopes of sulfides at the hydrothermal fields of the southern Mariana: significance of the regional difference

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Sulfur isotope analyses were performed on sulfide minerals collected from the southern Mariana hydrothermal fields. Besides previously found hydrothermal field (Fryer Site), we found Yamanaka Site on the ridge-axis and Pika Site on the off-ridge axis. Sulfur isotopes are ranging from +7.0 to +8.4 per mil at Fryer Site, +5.1 to +5.6 per mil at Yamanaka Site, and -0.3 to +1.7 per mil at Pika Site. Such regional difference may be reflecting the sulfur source and style of hydrothermal circulation in the oceanic crust.