

Growth history of Fe-Mn crusts in the northwest Pacific Ocean: Insights from trace element and Os isotope geochemistry

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A ferromanganese crust (hereafter called Fe-Mn crust) is a chemical sediment widely occurring on the slope of seamounts and known as a versatile material for deciphering the paleocean environmental changes throughout the Cenozoic period (e.g., Hein et al., 1992; Klemm et al., 2005; Burton, 2006). Here we report trace element and Os isotope compositions of Fe-Mn crusts in the northwest Pacific Ocean determined by ICP-QMS and MC-ICP-MS analyses. Based on our results together with previous geochemical data, we discuss the growth history of the Fe-Mn crusts and its relationship between genesis and paleocean environmental changes.

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