

Geochemistry of ferromanganese sediment in the Japanese accretionary complex: Os isotope composition of late Cretaceous seawater.

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We report Os isotope compositions of ferromanganese sediment (umber) in the accretionary complex of the Mugi and Ryujin formations in the Shimanto belt. Geochemical features of umber are very similar to those of modern hydrothermal metalliferous sediment at a mid-ocean ridge. Thus the umber is expected to have Os isotopic record of late Cretaceous seawater. The $^{187}\text{Os}/^{186}\text{Os}$ ratios of umber ranging from 3.37 to 4.64 are quite different from those obtained from Fe-Mn oxides in the deep-sea pelagic sediment. This discrepancy is probably due to a contamination of terrigenous Os in the Fe-Mn oxides of pelagic sediment.