

A wide and abundant distribution of hydrogenetic ferromanganese oxide deposits over the NW Pacific

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The ferromanganese deposit is characterized by a low-grade and large-scale deposit with its diversity in regional distribution in metal composition. The deposit is markedly abundant in the NW Pacific because of highly dense distribution of the Cretaceous seamounts which provides geological stable rock outcrops. However, the factors controlling variation patterns of chemical composition and growth rates of metal flux are yet unknown. We attempt to figure out more clear patterns of growth of the deposits in space and time by updating out previous database map of distribution (Usui et al., 1994).

An additional update will be made on the basis of abundant data of beryllium isotope. The data suggests a common and usual growth of hydrogenetic ferromanganese deposits in space and in time during the water depths between 900 and over 6100 meters in all over the deep-sea floors in the NW Pacific Ocean. We believe that these data are of great use for exploration of new ore deposits and for paleoceanographic reconstruction during their growth.

Keywords: NW Pacific, manganese, hydrogenetic, crust, nodule, rare metal