The progress of researches on REY-rich mud —A general overview —

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Since the discovery of deep-sea sediment extremely enriched in rare-earth elements and yttrium (REY) within the Japanese Exclusive Economic Zone (EEZ) around Minamitorishima Island, we have conducted a variety of researches on the REY-rich mud such as geochemical and statistical analyses, careful investigation of sub-bottom profiling data, and experiments of a mineral processing technique, toward a near-future development of the new and highly promising resource for the industrially critical elements. Our findings are bringing the seafloor mineral resources, which are merely an object of “scientific research” so far, to a realistic target of “commercial development” for the first time in the human being’s history. Moreover, we also investigate the spatial distribution of REY-rich mud in an oceanwide scale and its controlling factor(s) from a perspective of Earth system dynamics. In the presentation, we report a general overview of the latest research results on REY-rich mud.

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