

## Geochemical features of rare-earth elements and yttrium-rich mud from north region of Minamitorishima EEZ

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Recently, deep-sea sediment enriched in rare-earth elements and yttrium (REY) (called REY-rich mud) has been reported from a central part of the Pacific Ocean (Kato et al., 2011). Due to its great potential as a completely new REY resource, the REY-rich mud attracts particular attention from a wide field of scientists and non-scientists. In 2013, we have discovered the deep-sea sediments that are extremely enriched in REY (~6,600 ppm) from the south region of the Minamitorishima within the Japanese exclusive economic zone (EEZ) (Kato et al., 2013; Fujinaga et al., 2013; Suzuki et al., 2013). In 2014, in order to investigate the detailed distribution of REY-rich mud in the EEZ of Minamitorishima, we further conducted research cruises (MR13-E02 Leg. 2 and KR14-02) in the north region of the Minamitorishima. Here, we report the distribution, mineral composition, and geochemical features of the REY-rich mud from the north region of the Minamitorishima EEZ.

Keywords: rare earth elements (REEs), REY-rich mud, Minamitorishima, deep-sea mineral resource