

## Seafloor mineral deposits during the Earth's history

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There are several types of mineral deposits on modern seafloor. The deposits include manganese nodules, manganese crusts, and volcanogenic massive sulfide deposits. In addition, very recently, the author and his co-workers have discovered rare-earth elements and yttrium (REY)-rich mud-type deposits on Pacific deep-sea floor<sup>[1]</sup>. In the Japanese accretionary complexes, on the other hand, there are strata-bound mineral deposits that were originally precipitated on ancient seafloor. Deciphering a genetic linkage between modern and ancient seafloor mineral deposits gives us an important hint for exploring mineral deposits on modern seafloor.

[1] Kato, Y. *et al.* Deep-sea mud in the Pacific Ocean as a potential resource for rare-earth elements. *Nature Geoscience* **4**, 535-539 (2011).