



MODULE 2, LESSON 2

MARINE MINERAL RESOURCES: SCIENTIFIC ASPECTS

READING LIST

REQUIRED READING

Petersen, S., Krätschell, A., Augustin, N., et al., 2016. News from the seabed – Geological characteristics and resource potential of deep-sea mineral resources. *Marine Policy* 70, 175–187. doi:10.1016/j.marpol.2016.03.012.

OPTIONAL READING

- Hannington, M., Petersen, S., Krätschell, A., 2017. Subsea mining moves closer to shore. *Nature Geoscience* 10, 158–159. doi:10.1038/ngeo2897
- Hein, J.R., Mizell, K., Koschinsky, A., Conrad, T.A., 2013. Deep-ocean mineral deposits as a source of critical metals for high- and green-technology applications: Comparison with land-based resources. *Ore Geology Reviews* 51, 1–14. doi:10.1016/j.oregeorev.2012.12.001.
- Hein, J.R., Koschinsky, A., Kuhn, T., 2020. Deep-ocean polymetallic nodules as a resource for critical materials. *Nature Reviews Earth & Environment* 1–12. doi:10.1038/s43017-020-0027-0.
- Jamieson, J.W., Gartman, A., 2020. Defining active, inactive, and extinct seafloor massive sulfide deposits. *Marine Policy* 117, 103926. doi:10.1016/j.marpol.2020.103926
- Lusty, P.A.J., Hein, J.R., Josso, P., 2018. Formation and occurrence of ferromanganese crusts: Earth's storehouse for critical metals. *Elements* 14, 313–318. doi:10.2138/gselements.14.5.313
- Van Dover, C.L., Colaço, A., Collins, P.C., et al., 2020. Research is needed to inform environmental management of hydrothermally inactive and extinct polymetallic sulfide (PMS) deposits. *Marine Policy* 121, 104183. doi:10.1016/j.marpol.2020.104183