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Resource Assessment of Cobalt-Rich Ferromanganese Crusts in Central and
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Studies of the distribution, variability, and geochemistry of ferromanganese crusts within the Exclusive Economic Zone (EEZ) of Hawaii and south-western Pacific nations indicate that ferromanganese crusts are widely distributed within the EEZs and that the crusts provide an important potential economic resource. Ferromanganese crust thicknesses vary widely, but often show maximum thicknesses of 12 cm on older seamounts. Elemental abundances and depth relationships observed are similar to results from other central and western Pacific seamount studies. The dominant crystalline manganese mineral phase is two-peak δMnO_2 . The substrates on which the manganese crusts occur include basalts, hyaloclastites, and sediments, with hyaloclastites and basalts the most common substrates. The seismic reflection studies and SeaMARC II data analyses indicate rock type varies considerably on a local scale on EEZ seamounts.