

MINERAL FUND OF THE WORLD OCEAN(METALLOGENIC MAP OF THE WORLD OCEAN)

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The first Metallogenic Map of the World Ocean (1:10 000 000) is being compiled in Russia (VNIIOkeangeologia, St.-Petersburg) with an explanatory note (1998). It gives a full visualisation of composition, special features and a scale of distribution of oceanic ores, including Fe-Mn nodules (Mn, Ni, Cu, Co), crusts (Co, Mn) deep-sea sulphides, ore-bearing oozes, brines (Zn, Cu), silver and gold, phosphorites (P₂O₅). Composition, morphology and the type of occurrence suggests a new planetary process of differentiating of plutonic mantle substance. It took place in the process of formation of a global geological structure – the World Ocean, which corresponds to a new stage of the Earth's evolution.Regulations of occurrence of oceanic ores are determined in interaction of the seawater column with the Ocean's foundation and the subjacent mantle, which integrate endogenic and exogenic processes.Today's knowledge and the world conjuncture put to the forefront ferromanganese nodules and crusts. Resources of ferromanganese ore belts in the Ocean are generally estimated to reach 100 billion tons. They occur in 20 fields, the largest being the Clarion-Clipperton, Peruvian, Central Indian Ocean (nodules), and Mid-Pacific, Magellan Seamounts, Hawaii (crusts). Ocean resources of nickel, cobalt, molybdenum and manganese exceed the land resources; for copper and platinum they account for 50%. At present the productive concretion areas of the sea bottom have been divided between nations. A selection of perspective cobalt-bearing crusts will be completed soon.