

RARE METAL DEPOSITS OF RUSSIA: ECONOMIC TYPES, MINERAL RESOURCES, AND LOCATION REGULARITIES

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The first predictive metallogenic map of Russian rare metal deposits (Be, Li, Rb, Cs, Nb, Ta, TR, Y, Sr, Zr, V, Bi, Ge, Se, Sc; scale 1:5,000,000) is designed and will be presented. The map is based upon the authors' classification that implies relationships of these deposits with endo- and supergeneous ore-producing rock series, and relevant geodynamic settings. The map demonstrates location of 350 deposits and more than 1000 occurrences. Geology, mineralogy, and chemistry of each object is characterized in brief, along with content(s) and resources of rare element(s). The map demonstrates location of regional metallogenic zones; known and predicted rare metal provinces are contoured. A special consideration is given to large and unique rare metal deposits of Russia (Ta, Nb, TR, Zr—Lovozerkoe, Nb, Y, Sc—Tomtorskoe, Li, Cs, Ta—Gol'tsovoe, Be—Ermakovskoe; more than 20 of such objects in total), as well as new promising rare metal objects, e.g., Li-Cs-bearing biotite/fluorite-polyolithionite and U-V-bearing metasomatites, Eu-monazite placers, Re-bearing active fumaroles, etc. Variations in Russian mineral resources, production, and consumption of rare metals are analyzed. Predictions for the world rare metal market trends are made for the XXI century.