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The Formation Models Main Traits of Gold Deposits Dynamometamorphic Systems in Russia Eastern Regions

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The common traits and signs of dynamometamorphic ore formation were identified on the examples of 10 gold deposits studied by the authors. They characterize the main formation elements of the different ages charriage-thrust tectonotype ore-forming systems in orogenic belts. Ore-forming systems are characterized by a two-three-stage development scenario of ore-forming processes possessing the same mobilization deformation mechanisms and ore matter concentration from different age ore-bearing rock thicknesses of various lithological and petrographic compositions. A necessary formation condition for commercial auriferous bodies of the investigated deposits is the increased geochemical rocks background of the ore-bearing strata.

4 types of ore-controlling thrusters are allocated: single-seam and multi-seam thrusts, tectonic and autoclastic melange zones each of them is characterized by its peculiarities of auriferous mineralization distribution and different productivity, determined by the dynamometamorphic transformations degree of the host mineralization rocks. It is identified that ore-bearing one are dynamometamorphites (granular quartz, mylonites, blastomylonites, cataclasite, tectonobreccia, shaped pseudotachylite) making thrusts seams, cementing the matrix and rims around blocks (pod) in mélange zones. A distinctive feature of the auriferous bodies is the presence of granoblastic texture granular quartz. It was found out that during in the ore deposits formation in the charriage-thrust structures rock mainly different origin such as basite-ultrabasite, gabbro-diorite-granite magmatic series of granite-Greenstone areas, carbon deposits with high gold content served the gold source. An effective method of prospecting and geological prospecting, taking into account the localization structural and material factors industrial gold concentrations in the studied fields, is proposed.

Biography:

Yalovik, Georgy Ayratovich was born in 1973. In 1995 he graduated from Irkutsk state University with a degree in geological survey, prospecting and exploration of deposits, received a diploma of engineer-geologist. In 2016, defended his thesis "Structural and material features of gold deposits in the latter-thrust structures of the Yana-Kolyma and the Mongol-Okhotsk orogenic belts, for example Badransk, Carian, Pylnensk deposits" in Tomsk National Research Polytechnic University. He received the degree of geological and mineralogical Sciences candidate At various times, he was engaged in the search, exploration and scientific study of gold deposits in Yakutia, Magadan, Irkutsk regions, the TRANS-Baikal territory, Buryatia. Range of interests: Mineralogy of the gold, the forecasting technique of prospecting and ore deposits exploration, information technologies in Geology. Currently works as Director of FBI "TFGI in Siberian Federal district".

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