

## **Tectono-metamorphogenic gold mineralization of South Verkhoyanie (Northeastern Russia)**

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Tectono-metamorphogenic gold mineralization of South Verkhoyanie is known in the Allakh-Jun metallogenic zone. The zone is restricted to the western slope of the Minoro-Kideriky fault. The mineralization is confined to the late Carboniferous - early Permian terrigenous series and forms multilayered deposits. Orebodies are composed of quartz, carbonate, pyrite, arsenopyrite, pyrrhotite, sphalerite, galenite and chalcopyrite. The mineralization is restricted to the shear zones associated with the high-grade metamorphic rocks.

The metamorphism on the territory of the ore field is manifested with different intensity degree. A recrystallization of fragmental quartz grains with lengthening along schistosity and formation of "beams" of regenerated quartz are placed. The relic and newly formed minerals (quartz, feldspar, chlorite, sericite) are distributed in accordance with cleavage directions. Porphyroclasts of elliptical form are experiencing rotation and separate (microboudinage). The recrystallization blastitic structures, schistose textures and sulphidation are typical for zones of intensive metamorphic changes, and they associate with mineralization. The slickenite cleavage, mullion and boudinage structures and transpositional elements are developed within the shear zones. Metamorphic rock changes of Jurassic Brindakit ore field in the shear zones correspond with chlorite-muscovite facies of green schistose facies of metamorphism.