

Geodynamics and Metallogeny of Great Caucasus.

PRUTSKY N. I. Federal Geological Enterprise «Kavkasgeol-syomka», Essentuky, Russia.

The creation of Great Caucasus construction have taken place from Precambrian till now. Its geological history can be divided on several stages. Each of them accompanied magmatic events and has specific features of metallogeny.

Pre-Variscan and Early Variscan ore deposits located inside various nappe complexes, their rocks were formed in different geodynamic situations of Paleo-Tethys' northern margin. Fragments of island arc, oceanic, back-arc basin complexes and of continental plates are known here. First of them are characterized by presence Devonian stratiform sulfide deposits (of Ural type). As well as host rocks they are allochthonous and rootless. The Variscan napping processes have been followed granite intrusions (later Variscan) originated tungsten, gold and polymetallic ore deposits which in that way are neoautochthonous formations.

Further, after intensive Indosynian folding there were intrusions of gold ore-bearing small magmatic bodies of granodiorite-porphiries. From this time our region appears as part of the stable domain which was the subject of periodic active movements during Alpine time in consequence of approaching of Euroasian and African plates. Island arc and transarc basin arised on its south margin again. Such geodynamic situation originated magmatic processes with forming of copper-polymetallic stratiform, gold, rare metalls and other types of deposits which can be related to category of autochthonous formations.