

# **Geodynamics of ore-magmatic systems of the Caucasus**

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According to geodynamic model of the Caucasus, two large geodynamic areas are distinguished there, uniting lithogeodynamic complexes of the Mesozoic and Cenozoic with their typical ore-magmatic systems.

These areas reflect the conditions of ocean beds, island arc systems, active continental margins and collision zones. Tholeiitic, calc-alkali and subalkaline formations are typical for them with following fields - copper-pyritic on uplift slopes, pyritic-polymetallic, polymetallic, and also baritic and ferromanganesian in subaerial conditions, and in more later stages - copper-porphyric fields. The specific feature of their formation are stratiformal in deep-sea and cross-cutting ore bodies in subaerial conditions. Granitoid batholithes with hydrothermal copper-molybdenic, copper-cobaltic and arsenic-antimonial-mercuric ores are observed in collision period.

Considerable part of fields is represented by poligenic and polichronous formations. Zoning in location on lateral from uplifts to troughs - pyritic, pyritic-polymetallic, ferromanganesian and copper-porphyric - is observed.

At the Late Cenozoic period there are volcanites from tholeiitic to alkaline, forming in conditions of moderate compressions and extensions, without fields of definite profile.

Specific feature of the Alpine magmatism and metallogeny on the Caucasus is its activity movement from the north to the south, replacement of island arc magmatism by marginal-continental and pyritic ores - by pyritic-polymetallic and ferromanganesian. Ore formations together with geologic ones form spatial-time associations composing united ore-magmatic systems.