

Metallogeny in the solution of some problems of plate tectonics

MUSTAFAEV G.V. Geology Institute of Azerbaijan Academy Sciences,
Baku, Azerbaijan

The Alpine folded belt, in particular, its Caucasus segment is rich of pyritaceous field. The study of the geodynamic surroundings of the formation not only of these fields but the data on the pyritaceous fields in the other regions in the world allows to make some conclusions about the general problems of the plate tectonics.

In the theory of plate tectonics there exist a number of questions that require additional proofs. Thus, the post-Mesozoic mechanism of the formation of geodynamical surroundings often involves more ancient history of the Earth. This is determined by the fact that the parallel zones of the magnet striped anomalies are older than Mesozoic and are not determined by owing to the subduction of these zones. Nevertheless, it is supposed that the existing mechanism of the plate tectonics functioned since the very early period of the formation of the earth crust when it acquired necessary hardness.

It is known that pyritaceous fields are formed owing to the rise into the day surface of a differentiated basalt magma in the zones of the extension of the earth crust, in the island arch conditions and go out into the surface together with the mantle substance in the ophiolite zones. The pyritaceous fields are formed during the whole history of the Earth starting from the Archean and ending in the Antropogen. This proves the repeatedness of the geodynamic and physical-chemical conditions. If the formation of these fields in the Meso-Cenozoic is a consequence of geodynamic surrounding created by the plate tectonics, the formation of these fields in the early periods of the earth crust formation era also determined by these condinions. Thus, the mechanism of the plate tectonics really functioned, at least, starting from the Archean.