

Petrogenesis of the Ore-bearing Porphyries and Forecast of the Large Stratiform Pyrite-polymetallic Deposits

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Porphyries of pyrite-polymetallic deposits are unique volcanic rocks. The average content of silica is 77.5%, potassium oxide - 8-10%, sodium 6-8%. Potassium and sodium types are revealed among porphyries between which the genetic similarity is determined.

Porphyries were formed in the process of their pulsated migration from the abyssal zones of earth crust to the upper in crustal intermittent focuses. Such spasmodic migration of fusion from the lower level to the upper one leads to the contrast alkalic-silicic, potassium-sodium, magnesium-ferrous, aluminium-calcium, fluorine-chlorine splitting, which frequently take place in the process of pulsated migration of the focus zone because of the removal of outer pressure and rising of fluid saturation of magmasystem.

Real bedding of porphyries of the different alkalinity and silicic acidity in an ore area is opposite to their location in the focus zone. The scales of ore-formation are in the direct dependence of the stage of porphyritic contrast splitting. Except the main ore stratolevel, the forecast of the lowest under the potassium porphyries ore localisation horizon is based, where the revelation of huge deposits above-porphyritic with pyrite-copper-zinc with gold metallization is possible.

Porphyritic magmatism and ore-genesis was attracted to the frontal part of the continent with the powerful mature crust, which is exposed to basification by the way of magmatic substitution in the process of subduction of the oceanic crust under the continent.