

Main Regularities In Kazakhstan Uranium Deposits Localization

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On the territory of Kazakhstan there were revealed more than 50 uranium deposits. They are characterized by great diversity of genetic and lithological types of enclosing rocks (intrusive, volcanogenic, metamorphic, sedimentary), their wide age interval (from Cambrian to Quaternary), complex mineral composition of ores and paragenetic associations (with vanadium, phosphorus, molybdenum, germanium, rhenium, scandium, rare earths, etc.).

As to territorial feature and enclosing structures types, deposits are grouped in seven ore provinces. North-Kazakhstani, Betpakdalinskaia, Kendyktas-Chu-Ilyiskaka provinces are connected with block uplifts formed by paleozoic magmatic and sedimentary-metamorphic rocks. Ores of Ilyiskaia, Chu-Saryssuiskaia and Syrdaryinskaia provinces occur in Mesozoic-Cainozoic strata of intermountain depressions activated in Neogenoues-Quaternary age. Prikaspiian province with uranium mineralization in Paleogene sea clays is connected with activated peak of Mangyshlak plateau.

Regularities covering all types of deposits are: 1) ore provinces connection with belts of Earth crust intermediate type in junction of global zones of meridian and latitudinal spreading; 2) genetic connection of ore process with late stages of tectonic-magmatic activization where ore-generating intrusions have hypabissal character; 3) control of position of ore provinces and deposits by block fractures of orhtogonal system and their feathering.