URANIUM ORE GIANTS OF NORTHERN EURASIA: THE REASONS FOR ORIGIN AND FORMATION CONDITIONS

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The largest uranium-ore provinces of the Northern Eurasia – Zabaikal'skaya, Middle-Asian and Central-European – are within the median massifs of the global Paleozoic-Mesozoic mobile belt, which includes the southern periphery of Russia, and spreads out to the Central Europe, including Bohemia massif. The main precondition for genesis of giant uranium deposits (above 100000 tons) was persistent long-term functioning in the blocks that host deposits of the powerful deep-seated fluid-thermal flows, which brought uranium and other components. These flows produced series of closely related in time and space geodynamic, petrogenetic and ore-forming processes – persistent blocks uplift, metamorphism, hydrothermal, including uranium, ore formation.In these conditions originated giant uranium deposits of three types: 1) endogenic – closely associated in time and space with the late-orogenic magmatism:leucogranites (Shlema-Alberoda in Bohemia massif) or continental volcanism of basalt-liparite series (Strel'tsovskoe ore field in the Eastern Zabaikalie); 2) polygenic – associated with the recurrent but separated in time hydrothermal ore formation processes, alternating with exogenic processes (Ronnenburg ore field in Bohemia massif frame); 3) exogenic – formed by infiltration processes in artesian basins with stratified sedimentary strata that accumulated from of erosion of the uranium-bearing median massifs granite-metamorphic basement.