

# AT THE ORIGINS OF STRATAL-INFILTRATION URANIUM ORE FORMATION THEORY

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**Abstract.** Creating a theory of epigenetic uranium ore formation is associated with the study of Near-Tianshan uranium ore mega-provinces. The uranium deposits in Central Asia, occurring in bed oxidation zones (roll front type) in the young permeable sediments, have begun to study the in 1944–1954 years. The main ore control is the relationship of uranium mineralization to the pinching out of zones of oxidation. Such ores are usually located in roll shaped bodies separated from them by barren ores intervals. At first, the ore of deposits considered syngenetic. Uchkuduk deposit in the Kyzyl-Kum uranium province is discovery in 1952. It proved – this deposit is epigenetic. Uranium mineralization controlled by a system of stratum oxidation (roll-front) zones in water-bearing horizons of the upper Cretaceous sequence. The Uchkuduk ore deposit structure is divided into several zones: oxidation zone, epigenetic uranium accumulation zone (with subzones: halo of uranium dispersion, of low-grade ores, of normal ores, of rich ores, of mineralization break), and the epigenetic unaltered rocks. Now the Near-Tianshan uranium ore mega-provinces are the most significant provinces for industrial development using in situ leach (ISL) technology to recover uranium.

**Keywords:** uranium ore, syngeneses, epigenesis, oxidation zone, roll, Uchkuduk.