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## GEOLOGY, MINERALOGY AND PETROGRAPHY OF ROCKS WITH RADIOACTIVE ELEMENT MINERALIZATION IN ANOMALY 6 OF THE KHOSHUMI AREA, ISLAMIC REPUBLIC OF IRAN

*Wednesday, 27 June 2018 17:00 (1 hour)*

Khoshumi area is located in the Yazd province. It's part of the central Iran zone. The oldest rocks in this area are gneiss, micaschist and amphibolite. Based on microscopic studies, radioactive mineralization is relevant to gneiss and pegmatites. The main minerals in the gneiss are felsic minerals, biotite and amphibole. Pegmatitic rocks has mainly quartz, albite and pertite. Major alterations are potassic, sodic, siliceous and carbonate. Main mineralization is consist of three categories: REE minerals, radioactive and inactive minerals. The first category is includes zircon, zirconolite and etc. Radioactive minerals are Pitch-blend and uranium silicates such as coffinite. In the specimens, pitch-blend and uranium silicates hase granular texture, and aggregational to spheroidal textures. Also, inactive minerals are a set of iron and titanium-bearing minerals. Mineralization in the Khoshumi area is related to pegmatitic and hydrothermal phases. These Phases are associated with enrichment in the REE, U, Cu, Mo, Ni and Th in some areas. In the Pegmatitic phase, enrichment of U and REE is occurred in zircon and allanite. Hydrothermal mineralization led to formation of minerals like pitch-blend and arsenopyrite. In the final stage.

### Country or International Organization

Iran

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