

International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle: Exploration, Mining, Production, Supply and Demand, Economics and Environmental Issues (URAM-2018)



Contribution ID: 9

Type: POSTER

Possibility of Uranium industry wastes reprocessing in Tajikistan

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

Total amount of wastes in tailings of former uranium industry in Republic of Tajikistan is approximately 55 million tons. Summary activity of wastes according to different assessments is from 6.5 till 7.7 thousands Curie. Dump fields basically are not arranged, their amount and area are not exactly determined. Practically all tailings and dump fields are subject to erosion processes and drained by underground waters to adjoining creeks and river network.

The surface of tailings, especially those which doesn't have protective coverage or subject to destructive effect of natural factors or digging animals are presenting threat for considerable dispersion of contaminated substances and residues of tailings beyond of their initial localization.

Uranium ores reprocessing methods are known which allows extracting of uranium oxide from barren ores. However, these methods require preliminary preparation of the ore, grinding and in addition are contaminating the environment.

We propose the diagram of uranium ores reprocessing with the purpose of raw material base extension, production of uranium oxide from uranium industry wastes with uranium content from 0,03 up to 0,3 mass per cent. Final product is uranium oxide containing 75% of U₃O₈. Product output is from 90 to 99 per cent.

Country or International Organization

Tajikistan

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Session Classification: Poster Session

Track Classification: Track 11. Tailings and waste management