

Recovery of uranium from U₃O₈ irradiated with thermal neutrons

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Abstract

The extraction of uranium with different concentrations of HDEHP in n-hexane from varying concentrations of nitric acid solutions was investigated. Uranium in the organic phase was quantitatively stripped with a solution containing 8M H₂SO₄ and 6M HCl, the partition coefficient was determined by X-ray fluorescence and U. V. spectrophotometry. The assay of ⁹⁵Zr, ⁹⁵Nb, ²³⁹Np and other gamma-emitters was made with a Ge(Li) detector coupled to a 4096 multichannel analyzer.