

## **Radiochemical separation of actinides obtaining in nucleon transfer reactions**

Nucleon transfer reactions is a possible way of synthesizing neutron-rich nuclei of heavy and superheavy elements [1,2]. Here we present a radiochemical approach aiming at the analysis of nuclear reaction products from irradiated actinide targets by heavy ion-beams, such as  $^{48}\text{Ca}$  and  $^{50}\text{Ti}$  at energies up to 280 MeV. Model experiments with lanthanides as chemical analogs of heavy actinides were carried out to optimize the separation procedure using cation-exchange-chromatography with  $\alpha$ -HIBA. Each fraction was analyzed by gamma-spectrometry. First results of the radiochemical separation of actinides from different matrices will be shown.

- 1) V.V. Volkov, Deep inelastic transfer reactions - The new type of reactions between complex nuclei, Physics Reports 44, 93 (1978).
- 2) A. V. Karpov, V. V. Saiko; Phys. Rev. C. (2017) Vol. 96. P. 024618

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