

"ADS-research in Russia"

Leonid Ponomarev

Corresponding Member of Russian Academy of Sciences
Russian Research Center "Kurchatov Institute".

Abstract

Two Russian research programs are presented: "Comparative study of different ADS-burners of the transuranic radioactive waste" and "Systematic measurements and evaluation of the minor actinide nuclear data". The main feature of the first program is taking into account not only the efficiency of transmutation, but also the time of transmutation and peculiarities of the nuclear fuel cycles. To reduce the power of accelerator-driver the cascade scheme of the neutron flux amplification is used.

The essence of the second program is the comprehensive study of the MA nuclear data in a wide range of the neutron energy range by the combination of the differential and integral measurements using the all a valuable installation in Russia: tandem generator (IPPE, Obninsk); electron accelerator (VNIIEF, Sarov); lead slow down spectrometer (INR, Troitsk) and high flux reactors (RIAR, Dimitrovgrad). Cross check and evaluation of the obtained data will be performed by the world known Russian team.