DETECTION SYSTEM OF THE DGFRS-2 SETUP: FIRST APPLICATIONS IN LONG TERM IRRADIATIONS WITH INTENSE HEAVY ION BEAMS AT DC-280 CYCLOTRON

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Double Side Silicon Detector (DSSD) based spectrometer of the DGFRS-2 setup has been applied in a different heavy ion induced complete fusion nuclear reactions leading to formation of superheavy nuclei. Nuclear reactions with ^{48}Ca, ^{40}Ar, ^{54}Cr projectiles were used [1,2]. Materials of ^{206}Pb, ^{nat}Yb, ^{232}Th, ^{238}U, ^{242}Pu, ^{243}Am were used as targets. We report about different stability tests during these long term experiment. Radiation damage induced of achange in leakage current values of DSSD detectors are under consideration.Formation of the evaporation residue (ER) registered energy spectrum measured with DSSD focal plane detector is presented. Comparison with the PC-based simulation code for these spectra generation is made for different cases. A specific of application of "active correlation" real-time method is reported in brief too [3]. Review of the design of the DGFRS-2 spectrometer is preceding the main results [4-6].

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