

NUCLEI PRODUCED FROM ^{238}U IRRADIATED BY SECONDARY GAMMA INITIATED BY ELECTRON BEAM ($E = 140\text{ MeV}$).

Saturday 17 October 2020 16:00 (20 minutes)

The experiment was carried out at the electron accelerator (JINR, Dubna).

We studied the reaction products inside thin ^{238}U sample irradiated by secondary gamma created from lead target by electron beam [1,2].

The mass distribution of uranium fission products on electron beam at energy of 140 MeV is shown in Fig. 1.

Fig. 1. Fission product yield of ^{238}U on electron beam $E_{e-} = 140\text{ MeV}$:

1- ^{78}Ge , 2- ^{79}Kr , 3- ^{84}Br , 4- ^{85}Kr , 5- ^{89}Rb , 6- ^{94}Y , ^{94m}Tc , 7- ^{97}Zr , ^{97}Nb , 8- ^{99}Pd , 9- ^{104}Cd , 10- ^{105}Rh , 11- ^{112}Ag , 12- ^{114m}In , 13- ^{117}Sb , 14- ^{123}I , 15- ^{127}Sn , 16- ^{128}Sn , ^{128}Sb , 17- ^{129}Sb , 18- ^{130}Sb , 19- ^{132}I , 20- ^{133}I , ^{133}Te , 21- ^{134}I , ^{134}Te , 22- ^{135}I , ^{135m}Xe , 23- ^{138}Cs , 24- ^{141}Ce , ^{141}Ba , 25- ^{142}La , 26- ^{146}Pr , 27- ^{149}Nd .

1. A.N.Ermakov et al. // Physics of Atomic Nuclei, 2010, Vol. 73, No. 5, pp. 737–745.
2. S.S.Belyshev et al. // Eur. Phys. J. A (2015) 51: 67.

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Session Classification: Section 3. Modern nuclear physics methods and technologies

Track Classification: Section 3. Modern nuclear physics methods and technologies.