

SIMPLE METHOD FOR OBTAINING MASS DISTRIBUTIONS OF FISSION FRAGMENTS

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An experimental method is presented for simply obtaining the mass distributions of fission fragments. A feature of this method is the simultaneous use of two detectors for time-of-flight measurements, one of which is considered as a start detector and the other as a stop detector. The relevant quantity in the described method is the difference in the time of flight of two coinciding fission fragments ΔT (used earlier, for example, in Refs [1,2]).

It is shown, that the distribution form ΔT obtained for two additional fragments is completely identical to their mass distribution.

The paper presents the time-of-flight difference spectra of fragments of spontaneous fission ^{252}Cf and induced fission of target nuclei ^{238}U and ^{235}U , measured by detectors located on both sides of the target. Experiments on U and W fission were carried out on a proton beam with an energy of $E_p = 1$ GeV at the PNPI synchrocyclotron.

1. G. G. Semenchuk, et al., Preprint of LNPI. 171, (1975).
2. C. Guet, M. Asghar, P. Perrin, and C. Signarbieux, NIM. 150, 189 (1978).

The speaker is a student or young scientist

No

Section

1. Experimental and theoretical studies of nuclear reactions

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