

Computer analysis of nuclear track emulsion exposed to thermal neutrons and Cf-252 source

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Application of the nuclear track emulsion technique (NTE) in radioactivity and nuclear fission studies is discussed. It is suggested to use a HSP-1000 automated microscope for searching for a collinear cluster tripartition of heavy nuclei implanted in NTE. Calibrations of α -particles and ion ranges in a novel NTE are carried out. Surface exposures of NTE samples to a Cf-252 source started. Planar events containing fragments and long-range α -particles as well as fragment triples only are studied. Splittings induced by thermal neutrons are studied in boron-enriched emulsion. Use of the image recognition program "ImageJ" for obtaining characteristics of individual events and for events from the large scan area are presented.

Presentation type

Section talk (10+5 min)

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