

First experimental studies in the framework of the FLAP collaboration at the linear electron accelerator LINAC-200 (JINR) (on behalf of FLAP collaboration)

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First experimental measurements at accelerated electron beams in an energy range of 100–200 MeV were performed in the framework of the FLAP collaboration. Time of flight neutron spectra generated by short electron pulses in Fe, W, Pb targets were measured. The experimental capabilities allow one to identify neutrons from gammas. Short (100 ns) electron pulses provide the possibility to register energy of an individual neutron in an energy range of up to 18 MeV. First studies of transition and diffraction Cherenkov radiation at relativistic electron beams with various targets were performed. The scientific program of further experimental studies with LINAC-200 beams in the field of fundamental and applied research, in particular, for development of non-invasive diagnostics of relativistic ion beams of the NICA collider, is discussed.