

PRODUCTION OF  $^{178m2}\text{Hf}$  ON A 1.2-GeV  
ELECTRON ACCELERATOR

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S u m m a r y

A Ge(Li)  $\gamma$ -detector is used for investigations of the spectrum of  $\gamma$ -radiation of a tantalum plate that served as a radiator to obtain bremsstrahlung beams on the 1.2-GeV electron accelerator of the Kharkiv Institute of Physics and Technology. The plate was positioned in the electron guide of the accelerator from the moment of its start in 1966 and till its shutdown in 1990. Cascade lines arisen in the radioactive decay of  $^{178m2}\text{Hf}$  isomer (half-life  $T = 31$  yr) and other long-lived isotopes were discovered in the radiation spectrum. The number of  $^{178m2}\text{Hf}$  nuclei in the Ta plate amounts to  $(2.7 \pm 0.3) \times 10^{11}$ . The obtained results are compared to data of other authors.