

**USE OF PROTON BEAM OF THE EPG-10 TANDEM ACCELERATOR
AT THE KYIV INSTITUTE FOR NUCLEAR RESEARCH FOR RADIATION IMITATION
OF SOLAR BATTERY PHOTOCONVERTERS OF SPACECRAFT EQUIPMENT
(TECHNIQUE AND FIRST RESULTS)**

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Studies of radiation damage imitation of spacecraft equipment solar battery photoconverters is called forth by design of new technologies of silicon photoconverters manufacture for new generation spacecraft equipments (Microsatellite class) at the Institute of Semiconductor Physics of the Academy of Sciences of Ukraine (Kyiv). The technique of imitation testing has been designed. Protons of 4 MeV were used to irradiate samples. The radiation dose was between 10^{11} and 10^{14} protons/cm². The inhomogeneity of the dose to the samples surface was $\leq 1\%$. The effect of radiation damage on photoenergy parameters of photoconverters was studied. Feasible mechanisms of the radiation damage effect on such parameters as the short-circuit current, the open-circuit voltage, the fill factor of the volt-ampere characteristic and the efficiency were considered. The degradation of the photoenergy parameters with increased dose was revealed. The studies are planned to be continued.