

# THE METHOD AND EQUIPMENT FOR THE INVESTIGATION OF IONS ORIENTING TRANSMISSION THROUGH THIN SINGLE CRYSTALS

V. I. Soroka, M. V. Artsimovich, I. O. Mazny

A new approach is proposed to solve the task of angular distribution measurement of intensity strongly differentiated ions fluxes. Channeling effect makes this problem a regular feature of experimental study of ions orientating transmission through thin single crystals. The approach is based on the use of ions additional scattering by an amorphous (polycrystalline) target after passing through single crystal. The additional target manipulator is joined with the principal target chamber equipment with three-axis goniometer. The manipulator allows to move an additional target in the vicinity of the accelerator beam within the limits of  $\pm 3^\circ$  in all directions and allows to measure the angular distribution of scattered ions with the accuracy of 1 min. The method and equipment were tested at the single ended electrostatic accelerator (EG-5) using a proton beam. At present the measurements have been resumed at the tandem accelerator (EG-10) of the Institute for Nuclear Research of the Academy of Sciences of Ukraine.