

THE NONRELATIVISTIC STORAGE RING OF  
TRITIUM IONS AS A NEUTRON SOURCE

*E. V. Inopin, A. S. Tarasenko*

National Scientific Center  
"Kharkiv Institute of Physics and Technology"  
(1, Academichna Str., Kharkiv 61108, Ukraine)

S u m m a r y

On the basis of experimental data, it is shown that the proton stopping cross section in hydrogen or helium provides the damping of all kinds of oscillations of hydrogen isotope ions in a cyclic magnetic system. The energy range of particles is 20 - 80 keV per nucleon. The estimations of the magnetic system and circulating triton beam parameters with the energy of ~ 150 keV are done. On the basis of a triton storage ring, the source of neutrons is proposed. It is shown that such a source is more economical than other types of neutron sources.