

ABOUT THE MECHANISM OF EMISSION  
OF NEAR-ZERO-ENERGY ELECTRONS  
FROM THE SURFACE OF RADIOACTIVE  
SOURCES OR TARGETS UNDER  
BOMBARDMENT BY CHARGED  
PARTICLES

*V.T. Kupryashkin, L.P. Sidorenko,  
A.I. Feoktistov, I.P. Shapovalova*

Scientific Centre "Institute for Nuclear Research",  
Nat. Acad. Sci. of Ukraine  
(47, Nauky Prosp., Kyiv 03028, Ukraine)

S u m m a r y

The main characteristics of emission of near-zero-energy electrons  $e_0$  ( $E \sim 1$  eV) from the surface of a solid body which were received in investigations of radioactive decay or under bombardment by charged particles, are considered. The existing ideas about the nature of this phenomenon are discussed, and our explanation of the emission of  $e_0$ -electrons is the shake off of electrons from the surface due to a sudden splash of a charge near the source surface in radioactive decay or under bombardment of the target by charged particles. On the base of these ideas, the emission of  $e_0$ -electrons is considered at different modes of radioactive decay and in nuclear reactions.