

INVESTIGATION OF PENETRATION EFFECTS
FOR K -FORBIDDEN TRANSITIONS IN ^{237}Np

*V. A. Zheltonozhsky, V. M. Mazur, Yu. V. Pilipchenko,
N. V. Strilchuk, V. P. Khomenkov, K. S. Pankratova*

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

S u m m a r y

Internal conversion coefficient (ICC) on the K -shell of γ -transition from ^{237}U decay is measured with high accuracy using the γ - and K_X -spectroscopy techniques. The penetration parameter $\lambda = 0.3 \pm 0.1$ for the $M1$ -transition with an energy of 208 keV between states with $\Delta K = 2$ is calculated based on their obtained data. It is shown that the observed effect can be explained by the 0.05% contribution of a higher state.