

EMISSION OF NEAR-ZERO ENERGY  
ELECTRONS FROM THE SURFACE  
OF A SOURCE WITH COMPLEX  
RADIONUCLIDE COMPOSITION

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

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

S u m m a r y

The emission of near-zero energy electrons  $e_0$  from the surface of a source with complex radionuclide composition is investigated by the  $(e\gamma)$ -coincidence method. Yields of  $e_0$ -electrons are determined in  $\beta$ -decay, electron capture, and internal conversion of  $\gamma$ -rays for radionuclides which were created as admixtures in the thin layer of Pt and Al substrate after irradiation by neutrons in a reactor. The density distribution of radionuclides over the thickness of the Pt layer is determined. The developed  $(e\gamma)$ -coincidence method allows one to investigate  $e_0$ -electron emission for admixed radionuclides whose contents are a few hundredths of percent.