

INVESTIGATION OF THE ANGULAR  
DISTRIBUTION OF ELECTRONS  
EMITTED FROM THE SURFACE  
OF RADIOACTIVE SOURCES

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S u m m a r y

By the method of timing ( $e\gamma$ )-, ( $e\alpha$ )-, and ( $eX$ )-coincidences, we study the angular distributions (ADs) of electrons  $e_0$  with near-zero-energy and fast electrons  $e_f$  for different types of radioactive decay. It is established that the AD of  $e_0$ -electrons is strongly prolate forwards, whereas it has the cosine form for  $e_f$ . The character of the AD of  $e_0$ -electrons is affected by the passage of the surface barrier at different angles. The performed studies confirm our ideas of the emission of  $e_0$ -electrons as the shake-off of free electrons from the surface with radioactive sources due to the sudden appearance of an electric charge near the surface.