

SPECIFICATION OF ICC IN γ -TRANSITIONS IN THE ^{153}Gd AND ^{160}Tb DECAY

N. F. Mitrokhovich

Based on performed specification of internal conversion coefficients (ICC) for basic γ -transitions in decay ^{153}Gd and ^{160}Tb the anomalies in ICC, conditioned by penetration effect were defined and studied. For $\gamma_{70}(\text{M1+E2})$ and $\gamma_{103}(\text{M1+E2})$ in decay ^{153}Gd a penetration parameter in M1-component is measured, which equal accordingly 0.8 ± 0.2 and 4.7 ± 0.4 . The values δ is defined with calculation λ and equal to 0.105 ± 0.008 and 0.117 ± 0.004 . In decay ^{160}Tb anomalies in ICC are defined for γ -transitions 299, 1178, 1272 keV with E1 multipolarity and definite penetration λ_i parameters. For γ_{299} $\lambda_1 = -1.8 \pm 1.3$; for γ_{1178} $\lambda_1 = 2 \pm 0.9$; for γ_{1272} $\lambda_1 = 1 \pm 0.5$; $\lambda_2 = 17 \pm 3$; $\lambda_3 = 3.8 \pm 0.5$.