¹³⁵Nd ε decay (5.5 min):? 1970Ab07

History

Type Author Citation Literature Cutoff Date
Full Evaluation Balraj Singh, Alexander A. Rodionov And Yuri L. Khazov NDS 109, 517 (2008) 22-Jan-2008

Parent: ¹³⁵Nd: E=65.0 2; $J^{\pi}=(1/2^{+})$; $T_{1/2}=5.5$ min 5; $Q(\varepsilon)=4722$ 23; $\%\varepsilon+\%\beta^{+}$ decay=99.985 15 ¹³⁵Nd- $\%\varepsilon+\%\beta^{+}$ decay: %IT<0.03 (from RUL(M4)=30).

1970Ab07: source produced by spallation reaction (600 MeV protons in a Gd target), measured $T_{1/2}$.

Identification of this isomer is uncertain. No data are available for its decay through ε , β^+ or IT and γ rays. The half-life (5.5 min 5) was measured (1970Ab07) indirectly by growth and decline of intensity of 296 γ from the decay of daughter activity of ¹³⁵Pr produced from the neodymium fraction. A similar $T_{1/2}$ =6 min I was measured (1970Ab07) from the decay of 266 γ from ¹³⁵Ce decay