¹²⁶Rh β⁻ decay **2013Wa24**

History

Type Author Citation Literature Cutoff Date
Full Evaluation H. Iimura, J. Katakura, S. Ohya NDS 180, 1 (2022) 1-Oct-2021

Parent: 126 Rh: E=0.0; $T_{1/2}$ =19 ms 3; $Q(\beta^-)$ =14590 SY; $\%\beta^-$ decay=100.0

2013Wa24: E=345 MeV/nucleon 238 U⁸⁶⁺ beam incident on 9 Be target of 3 mm thickness. Identification of fission fragments was done by Δ E-tof-B ρ method using BigRIPS and ZeroDegree spectrometers at RIKEN. Separated fragments were deposited in highly segmented stopper WAS3ABi consisting of an array of eight DSSSDs. Besides particle detection, this array also detected β rays. Gamma rays were detected by EURICA spectrometer consisting of 12 Cluster HPGe detectors. Measured: gamma rays in coincidence with β rays detected within 100 ms after implantation of 126 Rh.

126Pd Levels

E(level)	J^{π}
0.0	0+
693.3	(2^{+})
1481.0	(4^{+})
2023.4	(5^{-})

 γ (126Pd)

$$\begin{array}{c|ccccc} \underline{E_{\gamma}} & \underline{E_{i}(\text{level})} & \underline{J_{i}^{\pi}} & \underline{E_{f}} & \underline{J_{f}^{\pi}} \\ 542.4 & 2023.4 & (5^{-}) & 1481.0 & (4^{+}) \\ 693.3 & 693.3 & (2^{+}) & 0.0 & 0^{+} \\ 787.7 & 1481.0 & (4^{+}) & 693.3 & (2^{+}) \end{array}$$

¹²⁶Rh β^- decay **2013Wa24**

Decay Scheme

$$\begin{array}{c|c}
0.0 & 19 \text{ ms } 3 \\
\hline
Q_{\beta^{-}=14590 \text{ SY}} & \%\beta^{-}=100 \\
126 \text{ Rh}_{81} & & & & \\
\end{array}$$

