

$^{181}\text{Ta}(\pi^-, 9n\gamma)$  1978Be24

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 75,199 (1995)	31-May-1995

E=125 MeV.

Muon channel, graphite degrader, metallic Ta plate, counter telescope Compton suppression Ge(Li) spectrometer.

 $^{172}\text{Hf}$  Levels

E(level) <sup>‡</sup>	J <sup>π</sup> <sup>†</sup>
0.0 <sup>#</sup>	0 <sup>+</sup>
95.3 <sup>#</sup>	2 <sup>+</sup>
309.3 <sup>#</sup>	4 <sup>+</sup>
628.1 <sup>#</sup>	6 <sup>+</sup>
1037.3 <sup>#</sup>	8 <sup>+</sup>
1521.1 <sup>#</sup>	10 <sup>+</sup>
2064.5 <sup>#</sup>	12 <sup>+</sup>
2654.0 <sup>#</sup>	14 <sup>+</sup>
3277.2 <sup>#</sup>	(16 <sup>+</sup> )

<sup>†</sup> From Adopted Levels.<sup>‡</sup> Rounded off values from Adopted Levels.<sup>#</sup> Band(A): g.s. band. $\gamma(^{172}\text{Hf})$ 

E <sub>γ</sub> <sup>†</sup>	I <sub>γ</sub> <sup>‡</sup>	E <sub>i</sub> (level)	J <sub>i</sub> <sup>π</sup>	E <sub>f</sub>	J <sub>f</sub> <sup>π</sup>
95.3		95.3	2 <sup>+</sup>	0.0	0 <sup>+</sup>
214.1	0.122 13	309.3	4 <sup>+</sup>	95.3	2 <sup>+</sup>
318.8	0.059 3	628.1	6 <sup>+</sup>	309.3	4 <sup>+</sup>
409.2	0.028 10	1037.3	8 <sup>+</sup>	628.1	6 <sup>+</sup>
483.8	0.010 3	1521.1	10 <sup>+</sup>	1037.3	8 <sup>+</sup>
543.5	0.0062 13	2064.5	12 <sup>+</sup>	1521.1	10 <sup>+</sup>
589.4	0.0043 3	2654.0	14 <sup>+</sup>	2064.5	12 <sup>+</sup>
623.2 19		3277.2	(16 <sup>+</sup> )	2654.0	14 <sup>+</sup>

<sup>†</sup> Rounded off values from adopted gammas.<sup>‡</sup> Yield per captured pion. The normalization is obtained from the intensities of the pionic x-rays.

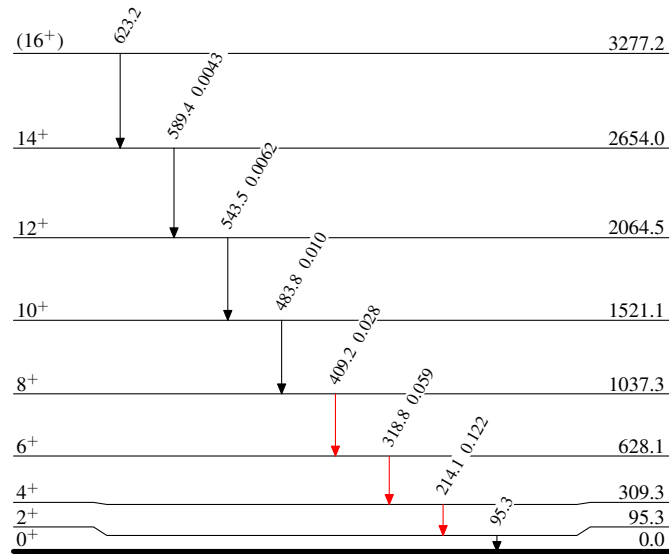
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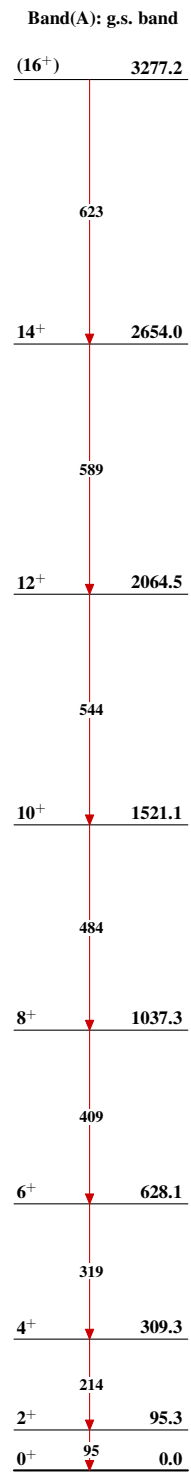
## Level Scheme

Intensities:  $I_\gamma$  yield per captured pion

## Legend

- $\blackrightarrow$   $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $\color{blue}\blackrightarrow$   $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $\color{red}\blackrightarrow$   $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

 $^{172}_{72}\text{Hf}_{100}$

${}^{181}\text{Ta}(\pi^{-},9n\gamma)$  1978Be24 ${}^{172}_{72}\text{Hf}_{100}$