

$^{176}\text{Hf}(\text{d},2\text{n}\gamma),(\text{p},\text{n}\gamma)$ 1978Du06

| Type | Author | History Citation | Literature Cutoff Date |
|-----------------|---------------|---------------------|------------------------|
| Full Evaluation | M. S. Basunia | NDS 107, 791 (2006) | 15-Sep-2005 |

(d,2n γ): E(d)=13 MeV. Measured E γ , I γ (not reported), $\gamma(\theta)$ (not reported), $\gamma\gamma$ coin, $\gamma(t)$ in the ns and ms ranges. Detectors: Ge(Li), LEPS.

(p,n γ): E(p)=6.5 MeV. Measured prompt and delayed γ rays. Detectors: Ge(Li).

 ^{176}Ta Levels

| E(level) [†] | J π [‡] | T _{1/2} [#] | Comments |
|-----------------------|---|-------------------------------|---|
| 0.0 | (1) ⁻ | | |
| 46.0 10 | (2) ⁻ | | |
| 69.5 15 | (1 ⁻ ,2 ⁻ ,3 ⁻) | | |
| 100.0 10 | (0) ⁺ | 30.5 ns 10 | T _{1/2} : From 100.0 keV $\gamma(t)$ measurements. |
| 103.0 18 | (⁺) | 1.05 ms 10 | T _{1/2} : From 46.0 keV and 33.5 keV $\gamma(t)$ measurements. |
| 184.0 15 | (1) ⁺ | | |
| 193.8? | (⁺) | 13.3 ns 10 | T _{1/2} : From 90.8 keV $\gamma(t)$ measurements. |
| 194.8 15 | (1) ⁺ | | |

[†] From a least squares fit to the γ -ray energies assuming $\Delta E=1$ keV for all γ -ray energies by evaluator.

[‡] From Adopted Levels.

[#] From $\gamma(t)$ measurements in 1978Du06.

 $\gamma(^{176}\text{Ta})$

| E γ | E _i (level) | J π _i | E _f | J π _f | Mult. [†] |
|-------------------|------------------------|---|----------------|---|--------------------|
| 23.5 | 69.5 | (1 ⁻ ,2 ⁻ ,3 ⁻) | 46.0 | (2) ⁻ | (M1) |
| 33.5 | 103.0 | (⁺) | 69.5 | (1 ⁻ ,2 ⁻ ,3 ⁻) | E1 |
| 46.0 | 46.0 | (2) ⁻ | 0.0 | (1) ⁻ | M1 |
| 84.0 | 184.0 | (1) ⁺ | 100.0 | (0) ⁺ | |
| 90.8 [‡] | 193.8? | (⁺) | 103.0 | (⁺) | (M1,E2) |
| 94.8 | 194.8 | (1) ⁺ | 100.0 | (0) ⁺ | |
| 100.0 | 100.0 | (0) ⁺ | 0.0 | (1) ⁻ | E1 |

[†] From $\gamma(\theta)$.

[‡] Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

-----> γ Decay (Uncertain)