

$^{172}\text{Yb}(^3\text{He}, ^3\text{He}'\gamma)$ 1989A103

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

E=45 MeV. Enriched (97%) target. Measured γ , ^3He - γ coin, γ -ray multiplicity. FWHM of particle telescope \approx 300 keV.

 ^{172}Yb Levels

E(level)	J^π †	E(level)	J^π †	E(level)	J^π †	E(level)	J^π †
0.0	0 ⁺	1043? 1	0 ⁺	1222.6 8	3 ⁻	1551.3 10	
79.1 7	2 ⁺	1119.0 10	2 ⁺	1263.6 8	4 ⁺	1658.0 11	4 ⁺
260.8 7	4 ⁺	1156.9 12	1 ⁻	1376.6 7	5 ⁺	1756.8 16	2 ⁻
540.4 7	6 ⁺	1172.9 7	3 ⁺	1466.8 7	2 ⁺	1802.8 9	4 ⁺
912.2 7	6 ⁺	1198.8 9	2 ⁻	1510.5 8	6 ⁺	1821.9 10	3 ⁻

† From Adopted Levels.

 $\gamma(^{172}\text{Yb})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
79		79.1	2 ⁺	0.0	0 ⁺	961.8 4	5 3	1222.6	3 ⁻	260.8	4 ⁺
181.6 1	100 5	260.8	4 ⁺	79.1	2 ⁺	964†		1043?	0 ⁺	79.1	2 ⁺
203.7 1	12 2	1376.6	5 ⁺	1172.9	3 ⁺	1004.1 5	2 1	1263.6	4 ⁺	260.8	4 ⁺
246.9 1	8 3	1510.5	6 ⁺	1263.6	4 ⁺	1077.8 10	8 3	1156.9	1 ⁻	79.1	2 ⁺
279.6 1	30 3	540.4	6 ⁺	260.8	4 ⁺	1093.8 1	51 6	1172.9	3 ⁺	79.1	2 ⁺
371.8 2	9 2	912.2	6 ⁺	540.4	6 ⁺	1119.6 6	6 4	1198.8	2 ⁻	79.1	2 ⁺
599.9 10	8 3	1756.8	2 ⁻	1156.9	1 ⁻	1290.5 7	9 3	1551.3		260.8	4 ⁺
623.1 6	2 1	1821.9	3 ⁻	1198.8	2 ⁻	1387.6 4	11 4	1466.8	2 ⁺	79.1	2 ⁺
629.8 6	2 1	1802.8	4 ⁺	1172.9	3 ⁺	1466.9 8	4 3	1466.8	2 ⁺	0.0	0 ⁺
722.7 3	5 2	1263.6	4 ⁺	540.4	6 ⁺	1578.8 8	4 2	1658.0	4 ⁺	79.1	2 ⁺
858.2 7	3 2	1119.0	2 ⁺	260.8	4 ⁺	1743.0 14	9 3	1821.9	3 ⁻	79.1	2 ⁺
912.1 4	7 2	1172.9	3 ⁺	260.8	4 ⁺						

† Placement of transition in the level scheme is uncertain.

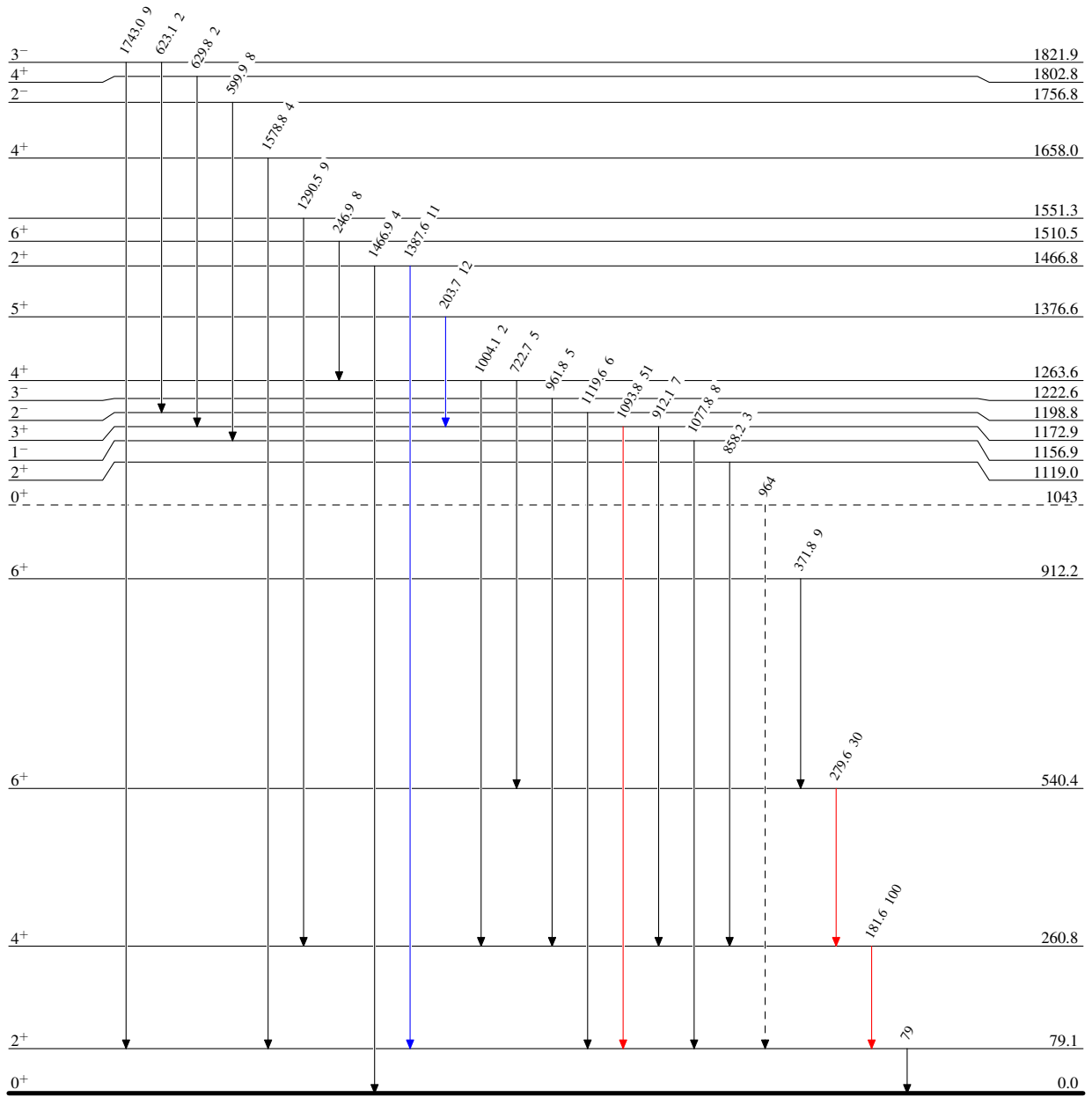
$^{172}\text{Yb}(^3\text{He}, ^3\text{He}'\gamma)$ 1989At03

Legend

Level Scheme

Intensities: Relative I_γ

- ▶ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- - -▶ γ Decay (Uncertain)

 $^{172}_{70}\text{Yb}_{102}$