^{176}Yb(^{16}O,5nγ) 1975De24,1975De39,1988AbZZ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

1975De24,1975De39: Target: ^{176}Yb; Projectile: ^{16}O, E(^{16}O)=75-98 MeV; deduced ^{187}Pt level scheme.
1988AbZZ: Target: ^{176}Yb; Projectile:^{16}O, E not given; deduced ^{187}Pt level scheme.
All references are from the same group.

^{187}Pt Levels

The positive parity levels have been assigned by 1975De24, 1975De39 and the negative parity levels are assigned by 1988AbZZ on the basis of $\gamma\gamma$-coincidence data, angular distributions, and excitation functions.

E(level)†	J$^\pi$@	Comments
0.0	3/2$^-$	
57.11# *14*	(7/2$^-$)	
203.24# *24*	(13/2$^+$)	
226.0 *5*	(9/2$^-$)	
431.1 *4*	(11/2$^-$)	
505.7 *5*	(17/2$^+$)	
652.0 *5*	(13/2$^-$)	
769.7?‡ *11*		E(level): not reported in ^{173}Yb(^{18}O,4nγ). 264.0γ placed from 3116 keV and 264.1γ placed from 3839 keV levels. Not adopted.
895.2 *6*	(15/2$^-$)	
943.7 *7*	(21/2$^+$)	
1153.0 *12*	(17/2$^-$)	
1322.9?‡ *14*	(19/2$^+$)	E(level): not reported in ^{173}Yb(^{18}O,4nγ). 379.0γ placed from 3992 keV (J=37/2) and 379.1γ from 2070 keV (J$^\pi$=25/2$^-$). Not adopted. J$^\pi$: From 1975De24.
1497.1 *9*	(25/2$^+$)	
2094.1 *16*	(27/2$^+$)	J$^\pi$: Placement of the 597γ in the rotational band structure indicates J$^\pi$=29/2$^+$ for this level, although no J$^\pi$ is shown in the decay scheme (1975De39). J$^\pi$=(27/2$^+$) is assigned by the evaluator comparing the placement of adopted 596.3(7) keV γ-ray from the 2091.6 keV (J$^\pi$=27/2$^+$) adopted level.

† From a least-squares adjustment to the γ-rays assuming ΔE=0.5 keV for all the γ-rays.
‡ 769.70- and 1322.9-keV levels are assigned 15/2$^+$ and 19/2$^+$, respectively, by 1975De24. In Adopted Levels, (15/2$^+$) and (19/2$^+$) assignments are at 465.5- and 903.3-keV levels, respectively.
# From Adopted Levels.
@ From Adopted Levels, except otherwise noted.

γ(^{187}Pt)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
168.9	226.0	(9/2$^-$)	57.11	(7/2$^-$)	
205.3	431.1	(11/2$^-$)	226.0	(9/2$^-$)	
220.6	652.0	(13/2$^-$)	431.1	(11/2$^-$)	
243.5	895.2	(15/2$^-$)	652.0	(13/2$^-$)	
257.8	1153.0	(17/2$^-$)	895.2	(15/2$^-$)	
264.0‡	769.7?		505.7	(17/2$^+$)	E$_\gamma$: In the Adopted Levels, 264.0γ placed from 3116.4 keV and 264.1γ placed from 3839.2 keV levels.
302.3	505.7	(17/2$^+$)	203.24	(13/2$^+$)	

Continued on next page (footnotes at end of table)

^{176}Yb(^{16}O,5nγ) 1975De24,1975De39,1988AbZZ (continued)

$\gamma(^{187}Pt)$ (continued)

E_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
373.7	431.1	$(11/2^-)$	57.11	$(7/2^-)$	
379.2‡	1322.9?	$(19/2^+)$	943.7	$(21/2^+)$	E_γ: In the Adopted Levels, 379.0γ placed from 3992.2 keV (J=37/2) and 379.1γ from 2070.7 keV ($J^\pi=25/2^-$).
426.7	652.0	$(13/2^-)$	226.0	$(9/2^-)$	
438.0	943.7	$(21/2^+)$	505.7	$(17/2^+)$	
463.9	895.2	$(15/2^-)$	431.1	$(11/2^-)$	
553.4	1497.1	$(25/2^+)$	943.7	$(21/2^+)$	
597.0	2094.1	$(27/2^+)$	1497.1	$(25/2^+)$	

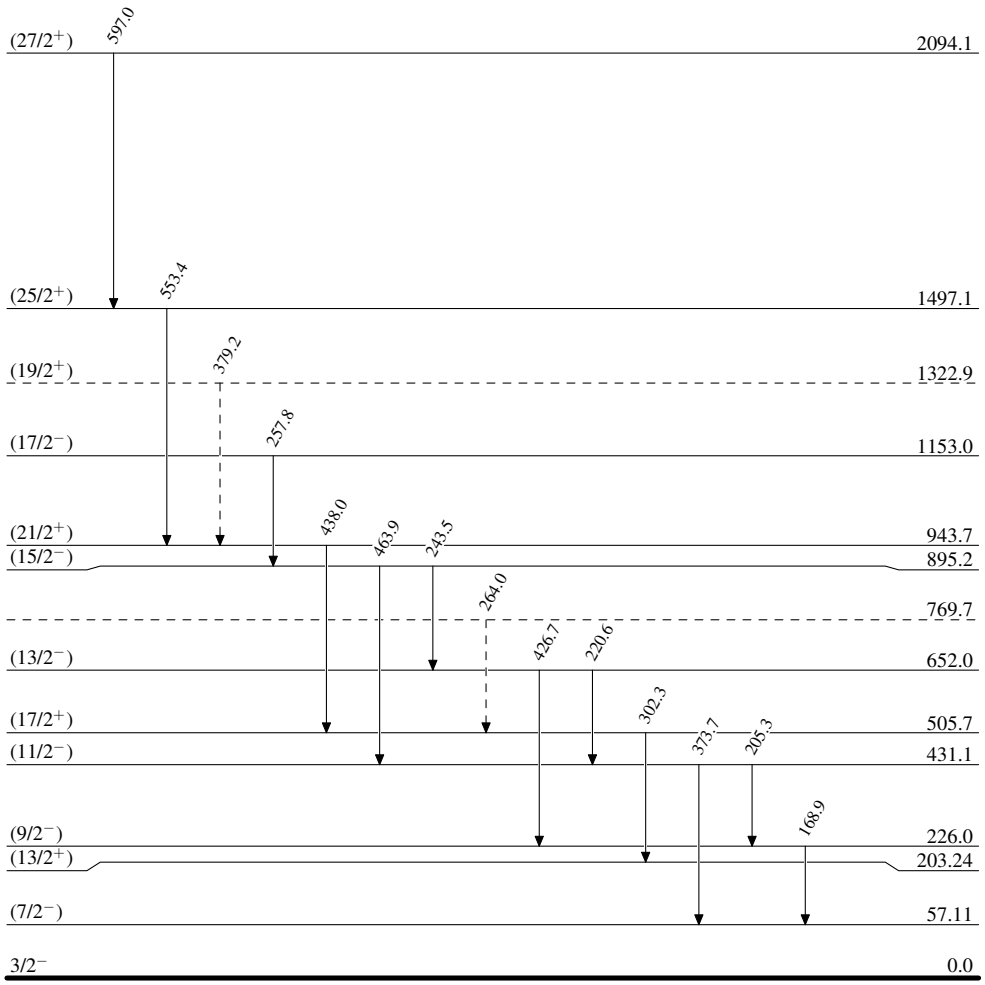
† From 1975De24, 1988AbZZ. 0.5-keV uncertainty assumed by the evaluator.
‡ Placement of transition in the level scheme is uncertain.

Legend

^{176}Yb(^{16}O,5nγ) 1975De24,1975De39,1988AbZZ

Level Scheme

γ Decay (Uncertain)



$^{187}_{78}Pt_{109}$