^{176}Yb(^{48}Ca,Xγ),^{176}Yb(^{154}Sm,Xγ) 1999As05,1997Le11,1997Le10

Type	Author	History Citation	Literature Cutoff Date
Update	M. S. Basunia		31-Jan-2005

1999As05: ^{176}Yb(^{154}Sm,Xγ), Target: 97.8% enriched ^{176}Yb. Projectile: ^{154}Sm, E=949 MeV. Deep inelastic scattering. Measured Eγ, particle-$\gamma\gamma\gamma$ coin, $\gamma\gamma(\theta)$. Detector: GAMMASPHERE (an array of 55 HPGe detectors), a Si strip detector.
1997Le11,1997Le10: ^{176}Yb(^{48}Ca,Xγ), Target: 97.8% enriched ^{176}Yb. Projectile: ^{48}Ca, E=250 MeV. Deep inelastic scattering. Measured Eγ, $\gamma\gamma$ coin, $\gamma\gamma(\theta)$. Detector: GAMMASHERE (an array of 36 HPGe detectors).

^{175}Yb Levels

E(level)†	J$^\pi$‡	Comments
0.0#	7/2$^-$	J$^\pi$: From Adopted Levels.
104.516# *8*	9/2$^-$	
232.1# *7*	11/2$^-$	
267.532@ *7*	9/2$^+$	E(level): From Adopted Levels.
380.8# *8*	13/2$^-$	
384.745@ *9*	11/2$^+$	E(level): From Adopted Levels.
524.1@ *10*	13/2$^+$	E(level): From Adopted Levels.
551.8# *9*	15/2$^-$	
685.0@ *10*	15/2$^+$	
742.2# *11*	17/2$^-$	
867.9@ *15*	17/2$^+$	
955.1# *14*	19/2$^-$	
1072.8@ *15*	19/2$^+$	
1185.1# *15*	21/2$^-$	
1298.2@ *18*	21/2$^+$	
1436.8# *17*	23/2$^-$	
1547.7@ *18*	23/2$^+$	
1703.8# *18*	25/2$^-$	
1812.9@ *20*	25/2$^+$	
1991.0# *20*	27/2$^-$	
2108.1@ *20*	27/2$^+$	
2292.8# *20*	29/2$^-$	
2407.7@ *23*	29/2$^+$	
2612.6# *22*	31/2$^-$	
2947.4# *23*	33/2$^-$	
3297.2# *24*	35/2$^-$	
3660.1# *25*	37/2$^-$	
4035# *3*	39/2$^-$	
4426# *3*	41/2$^-$	

† Deduced by evaluator from a least-squares fit to γ-ray energies, assuming ΔE=1 keV for all γ rays, except as noted.
‡ Tentative J^π assignments are based on rotational structure and stretched E2 transition assumption (Authors′ value).
# 7/2[514] band.
@ 9/2[624] band: Members of this band above the 13/2$^+$ state are added by evaluator from ^{177}Yb level scheme. A comparison with (d,p), (d,t), (^{3}He,α) datasets supports these levels as higher member of this band. In 2003Ko33 a difference of the ^{177}Yb level scheme (1999As05,1997Le11) with respective datasets is noted and not adopted.

^{176}Yb(^{48}Ca,Xγ),^{176}Yb(^{154}Sm,Xγ) 1999As05,1997Le11,1997Le10 (continued)

$\gamma(^{175}Yb)$

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Comments
104.0	104.516	9/2$^-$	0.0	7/2$^-$	
117.214 *6*	384.745	11/2$^+$	267.532	9/2$^+$	E_γ: From Adopted Levels.
128.0	232.1	11/2$^-$	104.516	9/2$^-$	
149.0	380.8	13/2$^-$	232.1	11/2$^-$	
163.017 *4*	267.532	9/2$^+$	104.516	9/2$^-$	E_γ: From Adopted Levels.
171.0	551.8	15/2$^-$	380.8	13/2$^-$	
190.0	742.2	17/2$^-$	551.8	15/2$^-$	
231.6†	232.1	11/2$^-$	0.0	7/2$^-$	
256.6#	524.1	13/2$^+$	267.532	9/2$^+$	
267.532 *7*	267.532	9/2$^+$	0.0	7/2$^-$	E_γ: From Adopted Levels.
276.4†	380.8	13/2$^-$	104.516	9/2$^-$	
280.228 *7*	384.745	11/2$^+$	104.516	9/2$^-$	E_γ: From Adopted Levels.
300.3#	685.0	15/2$^+$	384.745	11/2$^+$	
319.3†	551.8	15/2$^-$	232.1	11/2$^-$	
343.8#	867.9	17/2$^+$	524.1	13/2$^+$	
361.8†	742.2	17/2$^-$	380.8	13/2$^-$	
387.8#	1072.8	19/2$^+$	685.0	15/2$^+$	
403.3†	955.1	19/2$^-$	551.8	15/2$^-$	
430.3#	1298.2	21/2$^+$	867.9	17/2$^+$	
442.9†	1185.1	21/2$^-$	742.2	17/2$^-$	
474.9#	1547.7	23/2$^+$	1072.8	19/2$^+$	
481.7†	1436.8	23/2$^-$	955.1	19/2$^-$	
514.7#	1812.9	25/2$^+$	1298.2	21/2$^+$	
518.7†	1703.8	25/2$^-$	1185.1	21/2$^-$	
554.2†	1991.0	27/2$^-$	1436.8	23/2$^-$	
560.4#	2108.1	27/2$^+$	1547.7	23/2$^+$	
589.0†	2292.8	29/2$^-$	1703.8	25/2$^-$	
594.8#	2407.7	29/2$^+$	1812.9	25/2$^+$	
621.6†	2612.6	31/2$^-$	1991.0	27/2$^-$	
654.6†	2947.4	33/2$^-$	2292.8	29/2$^-$	
684.6†	3297.2	35/2$^-$	2612.6	31/2$^-$	
712.7†	3660.1	37/2$^-$	2947.4	33/2$^-$	
738.0‡	4035	39/2$^-$	3297.2	35/2$^-$	
765.6‡	4426	41/2$^-$	3660.1	37/2$^-$	

† Average of 1999As05 and 1997Le11.
‡ From 1999As05; not reported in 1997Le11.
# From ^{177}Yb decay scheme in 1999As05 and 1997Le11.

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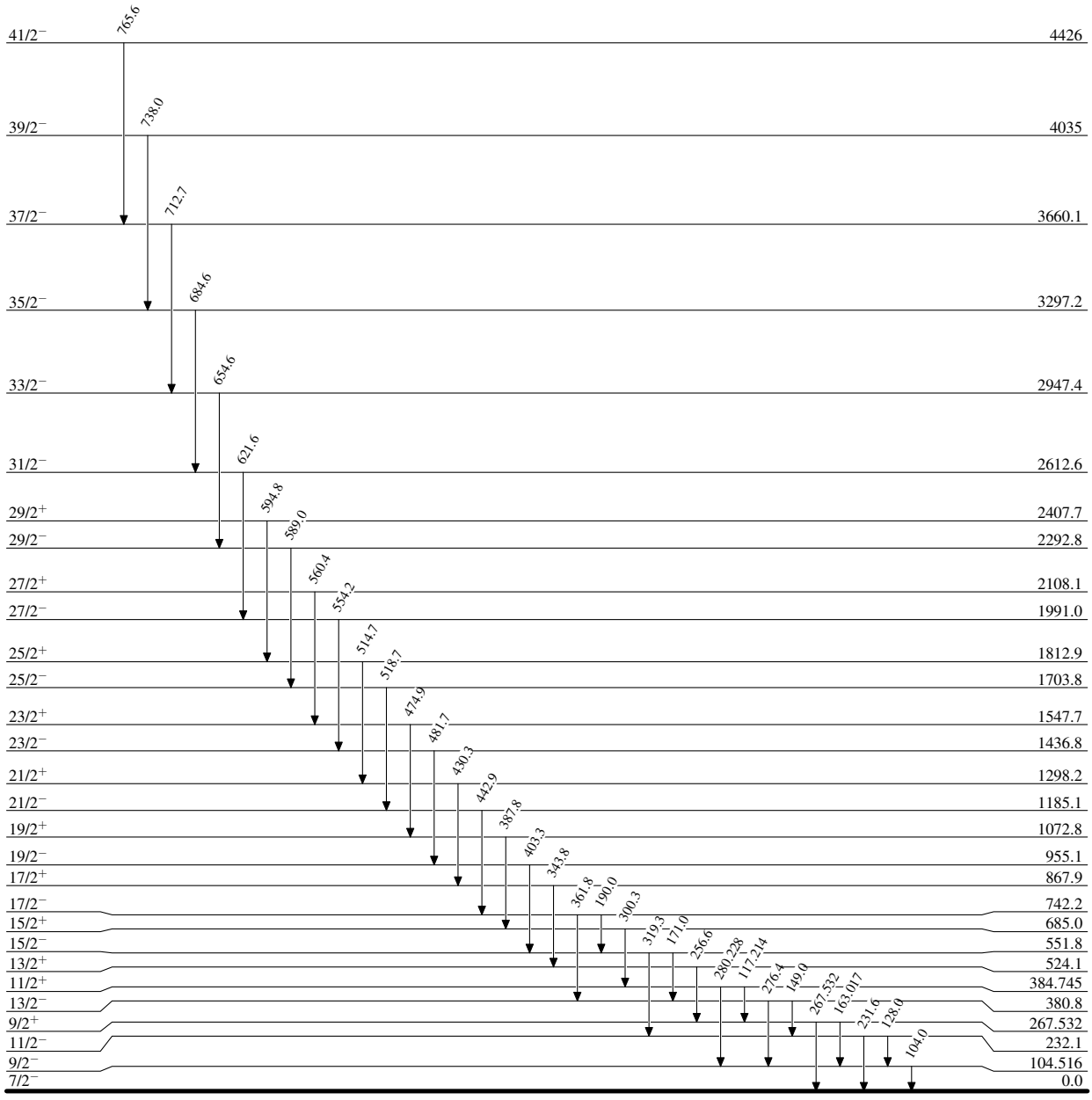
Level Scheme



$^{175}_{70}Yb_{105}$