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

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

Other: 1997Le10.

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. Detector: GAMMASPHERE (an array of 55 HPGe detectors) , 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. Detector: GAMMASPHERE (an array of 36 HPGe detectors).

^{176}Yb level scheme is presented only in 1999As05 from (^{154}Sm,Xγ) and (^{48}Ca,Xγ) nuclear reactions.

^{176}Yb Levels

E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡	E(level)†	J$^\pi$‡
0.0	0^+	564.2 *18*	6^+	1985.0 *25*	12^+	3978 *3*	18^+
81.7 *10*	2^+	954.0 *20*	8^+	2601 *3*	14^+	4729 *4*	20^+
271.2 *15*	4^+	1431.4 *23*	10^+	3268 *3*	16^+		

† Deduced by evaluator from a least-square fit to γ-ray energies, assuming ΔE=1 keV for all γ rays.

‡ J$^\pi$ assignments are based on rotational structure and stretched E2 transition assumption.

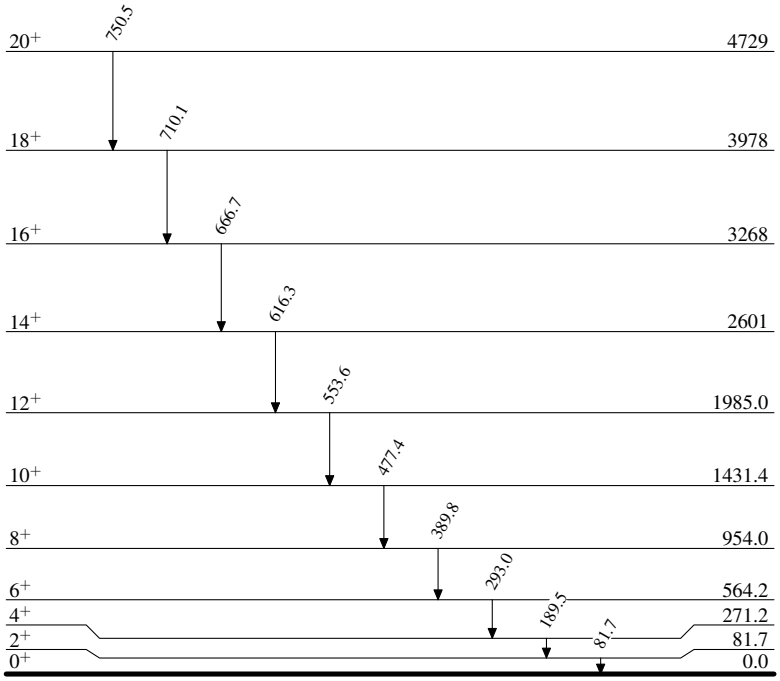
γ(^{176}Yb)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
81.7	81.7	2^+	0.0	0^+
189.5	271.2	4^+	81.7	2^+
293.0	564.2	6^+	271.2	4^+
389.8	954.0	8^+	564.2	6^+
477.4	1431.4	10^+	954.0	8^+
553.6	1985.0	12^+	1431.4	10^+
616.3	2601	14^+	1985.0	12^+
666.7	3268	16^+	2601	14^+
710.1	3978	18^+	3268	16^+
750.5	4729	20^+	3978	18^+

† From 1999As05.

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

Level Scheme



$^{176}_{70}Yb_{106}$