^{18}O(^{18}O,Xγ) 2009Ch43

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 112, 1393 (2011)	31-Mar-2011

2009Ch43: E(^{18}O)=34 MeV beam produced from the 14 UD BARC-TIFR Pelletron facility at TIFR,Mumbai. Target: prepared by heating a 50 mg/cm^2 Ta foil in an atmosphere of enriched oxygen. Detectors: an array of seven Compton-suppressed clover detectors. Measured Eγ, $\gamma\gamma\theta$. Deduced levels, J^π using the DCO method.

^{33}S Levels

E(level)[†]	J$^\pi$[‡]
0	3/2$^+$
841.1 *8*	1/2$^+$
1967.6 *7*	5/2$^+$
2935.9 *8*	7/2$^-$
3538.4 *13*	
3781.0 *13*	(9/2$^+$)
4796.3 *17*	(11/2$^-$)
4867.1 *13*	
5393.3 *19*	
5990.3 *22*	

[†] From least-squares fit to Eγ data in 2009Ch43.
[‡] From 2009Ch43.

γ(^{33}S)

E$_i$(level)	J$_i^\pi$	E$_\gamma$[†]	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.[†]	Comments
841.1	1/2$^+$	841.1 *10*		0	3/2$^+$	(M1+E2)	
1967.6	5/2$^+$	1126.5 *10*	0.63 *3*	841.1	1/2$^+$	(E2)	
		1967.6 *10*	99.4 *42*	0	3/2$^+$	M1+E2	R(DCO)=1.51 *25*.
2935.9	7/2$^-$	968.4 *10*	51.0 *23*	1967.6	5/2$^+$	E1+M2	R(DCO)=0.84 *14*.
		2935.6 *10*	49.0 *27*	0	3/2$^+$	(M2+E3)	
3538.4		602.5 *10*		2935.9	7/2$^-$		
3781.0	(9/2$^+$)	845.1 *10*		2935.9	7/2$^-$	(E1)	
4796.3	(11/2$^-$)	1015.3 *10*		3781.0	(9/2$^+$)	(E1)	
4867.1		1931.2 *10*		2935.9	7/2$^-$		
5393.3		597 *1*		4796.3	(11/2$^-$)		
5990.3		597 *1*		5393.3			

[†] From 2009Ch43.

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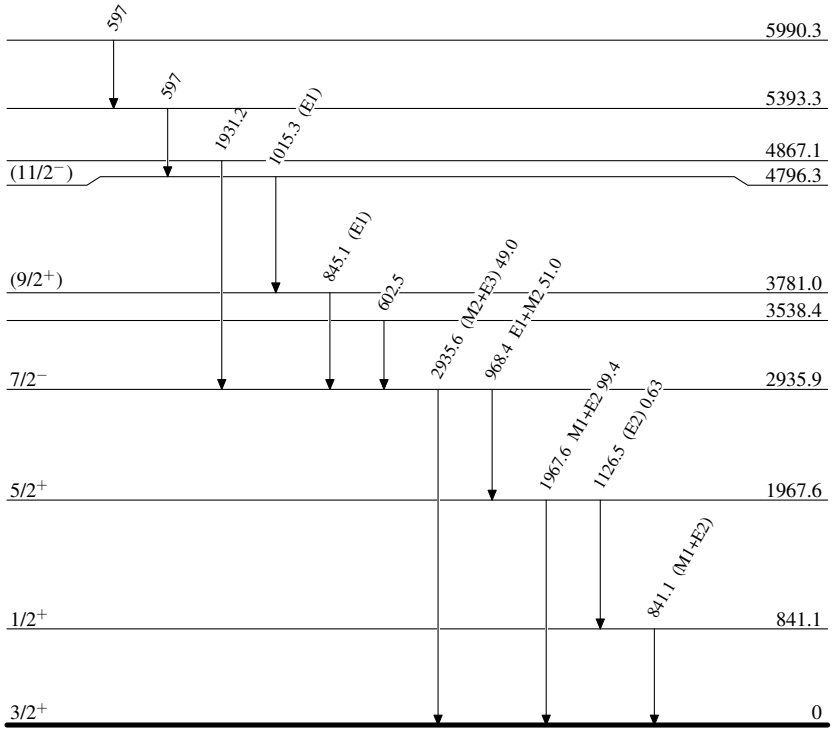
Level Scheme

Intensities: % photon branching from each level



$^{33}_{16}S_{17}$