^{124}Sn(^{3}He,4nγ),^{123}Sb(d,2nγ) 1978HaYQ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 174, 1 (2021)	15-Apr-2021

1978HaYQ: measured Eγ, $\gamma\gamma$-coin. Deduced levels, J, π, band structures.

^{123}Te Levels

E(level)†	J$^\pi$‡	Comments
0.0@	1/2$^+$	
159.0@	3/2$^+$	
247.5#	11/2$^-$	
440.0	3/2$^+$	
489.8@	(5/2$^+$)	J$^\pi$: (7/2$^+$) in Adopted Levels.
505.4	5/2$^+$,3/2$^+$	J$^\pi$: 5/2$^+$ in Adopted Levels.
688.0	3/2$^+$	
697.6		
871.2@	(7/2$^+$)	J$^\pi$: (3/2$^+$,5/2,7/2$^+$) in Adopted Levels.
886.9#	(15/2$^-$)	
919.8	(13/2$^-$)	
1138.6?@		
1244.4		
1496.6?		
1552.6	(17/2$^-$)	
1609.8#	(19/2$^-$)	
1708.1		
1929.6# *3*	(21/2$^-$)	
2357.2#	(23/2$^-$)	
2811.8		

† As given in 1978HaYQ based on Eγ data.
‡ As given in 1978HaYQ based on band assignments. Some assignments are different from adopted ones as given under comments.
# Seq.(A): Negative-parity sequence based on 1νh$_{11/2}$.
@ Seq.(B): Sequence based on g.s.

γ(^{123}Te)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
159.0	159.0	3/2$^+$	0.0	1/2$^+$	529.0	688.0	3/2$^+$	159.0	3/2$^+$
192.2‡	697.6		505.4	5/2$^+$,3/2$^+$	538.6	697.6		159.0	3/2$^+$
267.4#	1138.6?		871.2	(7/2$^+$)	546.8	1244.4		697.6	
280.9	440.0	3/2$^+$	159.0	3/2$^+$	625.4#	1496.6?		871.2	(7/2$^+$)
319.7 *1*	1929.6	(21/2$^-$)	1609.8	(19/2$^-$)	632.7	1552.6	(17/2$^-$)	919.8	(13/2$^-$)
330.8	489.8	(5/2$^+$)	159.0	3/2$^+$	639.4	886.9	(15/2$^-$)	247.5	11/2$^-$
346.4	505.4	5/2$^+$,3/2$^+$	159.0	3/2$^+$	648.8#	1138.6?		489.8	(5/2$^+$)
377#	1929.6	(21/2$^-$)	1552.6	(17/2$^-$)	665.7	1552.6	(17/2$^-$)	886.9	(15/2$^-$)
381.4	871.2	(7/2$^+$)	489.8	(5/2$^+$)	672.3	919.8	(13/2$^-$)	247.5	11/2$^-$
427.7	2357.2	(23/2$^-$)	1929.6	(21/2$^-$)	712.2	871.2	(7/2$^+$)	159.0	3/2$^+$
440.1	440.0	3/2$^+$	0.0	1/2$^+$	722.9	1609.8	(19/2$^-$)	886.9	(15/2$^-$)
463.7	1708.1		1244.4		881.8	2811.8		1929.6	(21/2$^-$)
505.4	505.4	5/2$^+$,3/2$^+$	0.0	1/2$^+$					

Continued on next page (footnotes at end of table)

^{124}Sn(^{3}He,4nγ),^{123}Sb(d,2nγ) 1978HaYQ (continued)

$\gamma(^{123}Te)$ (continued)

† From 1978HaYQ.
‡ 1978HaYQ could have mistakenly assigned 192.2γ to be from 688.0 level to 505.4 level, since E(688.0)-E(505.4)=182.6.
# Placement of transition in the level scheme is uncertain.

Legend

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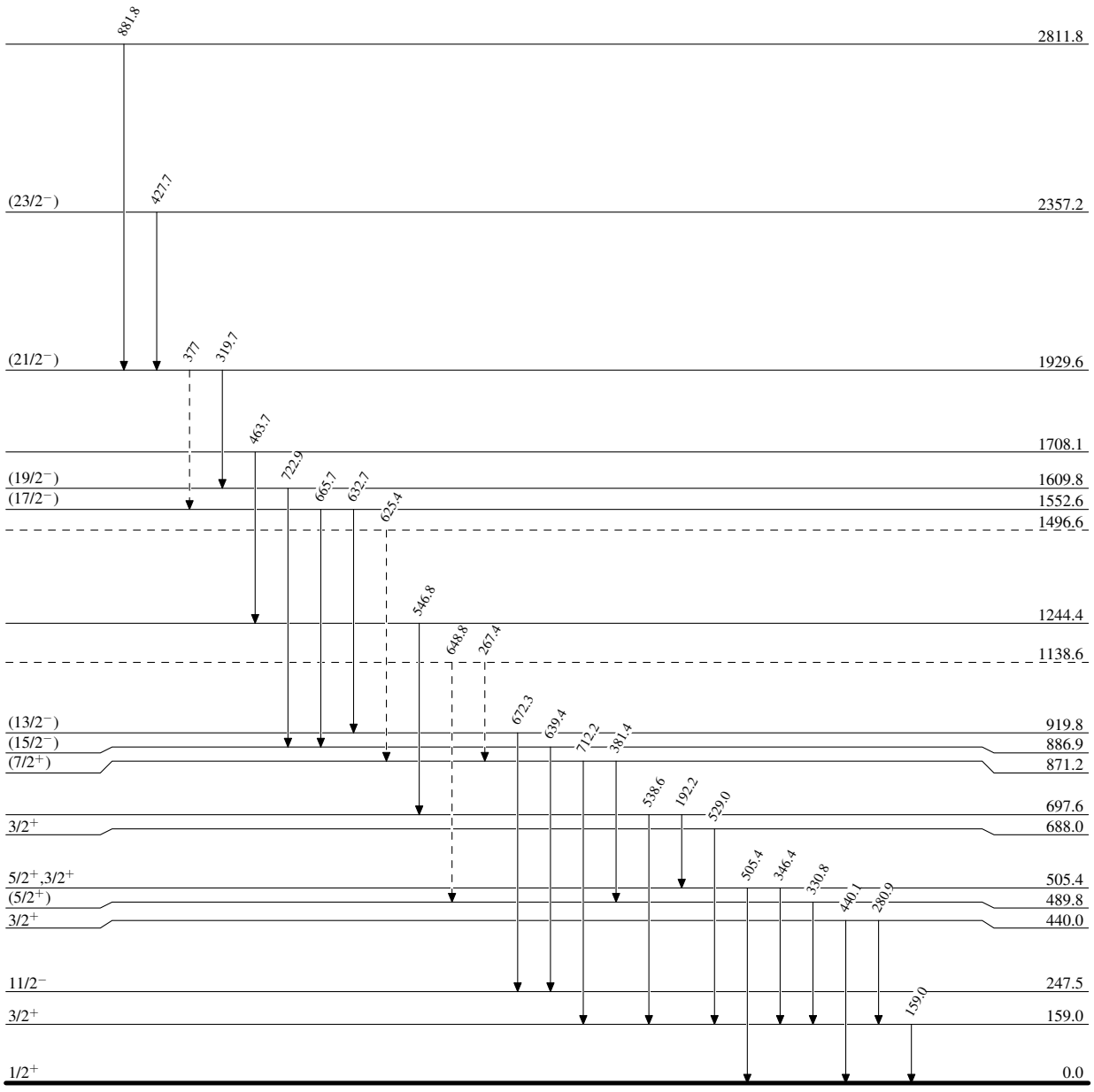
Level Scheme

γ Decay (Uncertain)



$^{123}_{52}Te_{71}$

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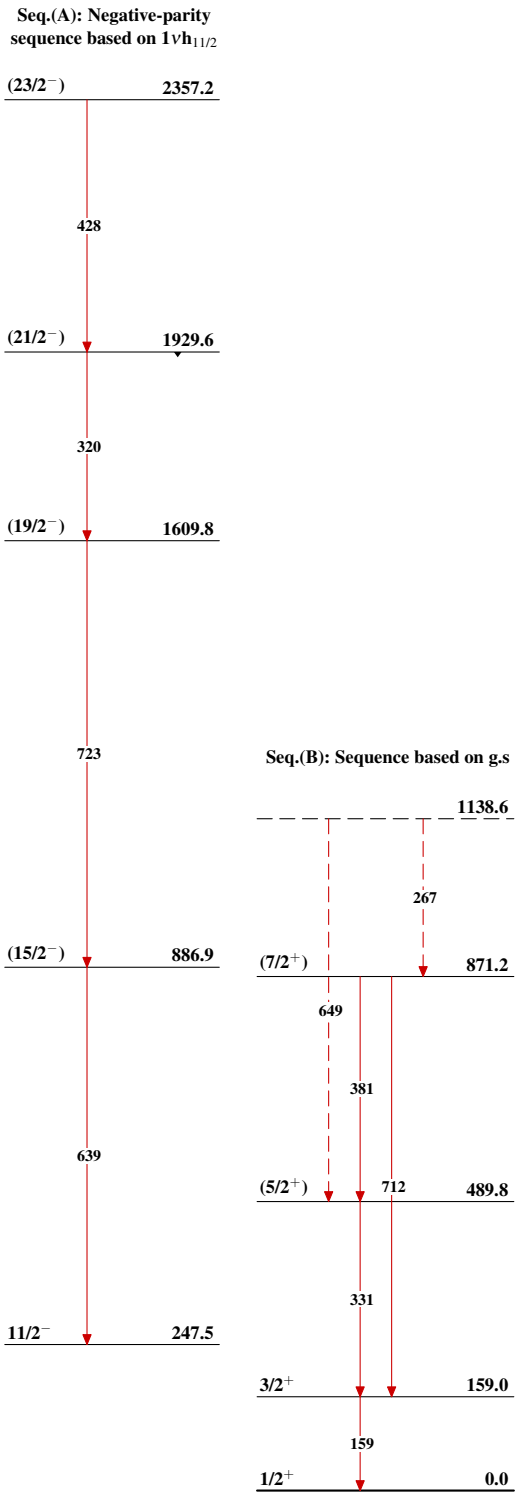

$^{123}_{52}Te_{71}$