^{85}Rb(p,nγ) 1979Ba13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

1979Ba13 (also 1975Ba49): E=3.8 MEV. Measured Eγ, Iγ, lifetimes by DSAM.

^{85}Sr Levels

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
0.0	$9/2^+$		
231.7 *5*	$7/2^+$		
238.7 *8*	$1/2^-$	67.63 min *4*	$T_{1/2}$: from Adopted Levels.
743.2 *8*	$3/2^-$	≥0.09 ps	
767.50 *20*	$(5/2^+)$	≥0.13 ps	
785.4 *13*	$(5/2^-)$		
937.0 *11*	$(5/2^-)$		
1152.7 *8*	$(1/2^-,3/2^-)$	0.14 ps *+6–3*	
1220.6 *10*	$(7/2,11/2^+)$	0.21 ps *+9–6*	
1262.1 *5*	$(11/2^+)$	0.18 ps *+9–5*	Jπ: $9/2^+$ in Adopted Levels.
1355.2 *5*	$(5/2^+)$	≥0.13 ps	
1555.5 *3*	$(5/2^+)$	≥0.11 ps	
1559.5 *13*	$(1/2^-,3/2^-)$		
1588.6 *8*	$(7/2^+,9/2^+)$		

[†] From least-squares fit to Eγ data.
[‡] As given in 1979Ba13, mostly taken from literature and 1971Ho42 NDS evaluation. See Adopted Levels for somewhat more definite assignments.
[#] From DSA method (1979Ba13). The uncertainties are statistical only. Uncertainties due to stopping power (≥20%) are not included.

γ(^{85}Sr)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments
231.7	$7/2^+$	231.6	100	0.0	$9/2^+$		
238.7	$1/2^-$	238.7		0.0	$9/2^+$	M4	Mult.: from Adopted Gammas.
743.2	$3/2^-$	504.53[†] *20*	100	238.7	$1/2^-$		
767.50	$(5/2^+)$	535.7 *6*	47	231.7	$7/2^+$		
		767.50[†] *20*	53	0.0	$9/2^+$		
785.4	$(5/2^-)$	546.7	100	238.7	$1/2^-$		
937.0	$(5/2^-)$	193.9	25	743.2	$3/2^-$		
		698.2	75	238.7	$1/2^-$		
1152.7	$(1/2^-,3/2^-)$	215.8[‡]	4	937.0	$(5/2^-)$		
		409.6	13	743.2	$3/2^-$		
		914.00[†] *20*	83	238.7	$1/2^-$		
1220.6	$(7/2,11/2^+)$	989.0[‡]	10	231.7	$7/2^+$		
		1220.6[†]	9	0.0	$9/2^+$		
1262.1	$(11/2^+)$	1030.40[†] *20*	67	231.7	$7/2^+$		
		1262.1	33	0.0	$9/2^+$		
1355.2	$(5/2^+)$	612.1	39	743.2	$3/2^-$		
		1123.50[†] *20*	61	231.7	$7/2^+$		
1555.5	$(5/2^+)$	788.00[†] *20*	61	767.50	$(5/2^+)$		
		1323.8	32	231.7	$7/2^+$		

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^{85}Rb(p,nγ) 1979Ba13 (continued)

γ(^{85}Sr) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
1555.5	$(5/2^+)$	1555.5‡	7	0.0	$9/2^+$
1559.5	$(1/2^-,3/2^-)$	1320.8	100	238.7	$1/2^-$
1588.6	$(7/2^+,9/2^+)$	821.2	32	767.50	$(5/2^+)$
		1356.4‡	19	231.7	$7/2^+$
		1588.5	49	0.0	$9/2^+$

† Uncertainty increased by evaluators from≈0.05 keV to 0.2 keV.
‡ Placement of transition in the level scheme is uncertain.

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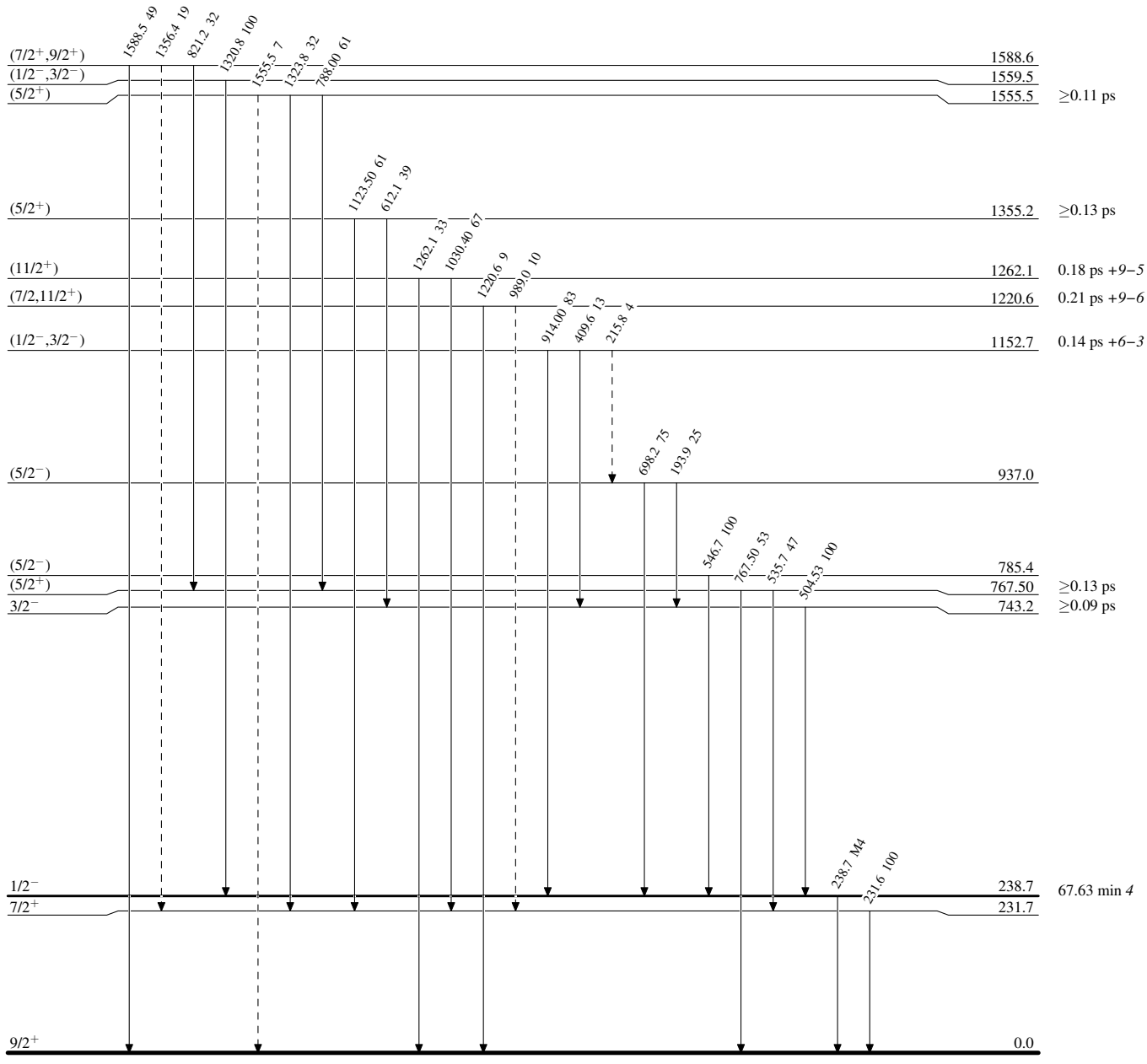
Legend

Level Scheme

Intensities: % photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{85}_{38}Sr_{47}$