^{176}Yb(^{28}Si,Fγ), ^{208}Pb(^{18}O,Fγ)   **2009Po10,2000PoZZ**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan and A. A. Sonzogni	NDS 115, 135 (2014)	1-Nov-2013

2009Po10: ^{208}Pb(^{18}O,Fγ), E(^{18}O)=85 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$, and $\gamma\gamma$(t) using EUROBALL IV array consisting of 15 Cluster Ge detectors, 26 Clover detectors and 30 tapered single-crystal Ge detectors.

2000PoZZ, ^{176}Yb(^{28}Si,γ), E(^{28}Si)=145 MeV. Measured Eγ, $\gamma\gamma$, γ(t) using EUROGAM2 array consisting of 30 coaxial Ge detectors and 24 Clover detectors.

Other measurement: 2000LuZY: ^{238}U(^{12}C,Fγ) E=90 MeV, measured Eγ, $\gamma\gamma$ using EUROBALL III array. Reported the γ decay from the isomeric level at 1373 keV.

α: Additional information 1.

^{88}Rb Levels

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$	Comments
0.0	2$^-$		
27.5 5	3$^-$		E(level): From the coincidence relation and the difference between 340 keV and 313 keV transitions; the 27.5 keV transition was not observed in the experiment.
267.5 5	4$^-$		
339.9 5	4$^{(-)}$		
725.9 5	5$^-$		
1373.5 9	7$^+$	123 ns 13	T$_{1/2}$: from $\gamma\gamma$(t) (2009Po10). Other: ≈100 ns (2000PoZZ). Configuration: πg$_{9/2}\nu$d$_{5/2}$ (2009Po10).
2924.1 9	(8$^+$,9$^+$)		
3191.6 9	(9$^+$)		
3587.5 10	(10$^+$)		
3786.4 10			
4242.5 14			
5008.7 12			
5904.7 15			

† From least-squares fit to Eγ, by evaluators.
‡ From 2009Po10.

γ(^{88}Rb)

Eγ[†]	Iγ[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[‡]	α	Comments
(27.5)		27.5	3$^-$	0.0	2$^-$			
240.5 3	45 5	267.5	4$^-$	27.5	3$^-$			
313.0 3	41 5	339.9	4$^{(-)}$	27.5	3$^-$	D		
339.8 5	4 2	339.9	4$^{(-)}$	0.0	2$^-$			
386.0 3	45 5	725.9	5$^-$	339.9	4$^{(-)}$	D		
395.8 4	33 7	3587.5	(10$^+$)	3191.6	(9$^+$)	(D)		
458.3 3	45 5	725.9	5$^-$	267.5	4$^-$	D		
595[#] 1		3786.4		3191.6	(9$^+$)			
647.2 3	91 9	1373.5	7$^+$	725.9	5$^-$	(M2)	0.00374	B(M2)(W.u.)=0.10 1 Mult.: Q from $\gamma\gamma(\theta)$, (M2) from from similar decay pattern of 1578-keV isomeric level in ^{87}Rb.
655 1	14 5	4242.5		3587.5	(10$^+$)			
663.6 5	14 5	3587.5	(10$^+$)	2924.1	(8$^+$,9$^+$)			
862.3 4	47 7	3786.4		2924.1	(8$^+$,9$^+$)			
896 1	18 5	5904.7		5008.7				
1105.9 7	9 3	1373.5	7$^+$	267.5	4$^-$	[E3]	8.55×10^{-4}	B(E3)(W.u.)=1.0 3

Continued on next page (footnotes at end of table)

^{176}Yb(^{28}Si,Fγ), ^{208}Pb(^{18}O,Fγ)   **2009Po10,2000PoZZ (continued)**

γ(^{88}Rb) (continued)

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]
1222.3 *6*	40 *9*	5008.7		3786.4		
1550.6 *4*	59 *6*	2924.1	$(8^+,9^+)$	1373.5	7^+	(Q)
1818.2 *4*	41 *5*	3191.6	(9^+)	1373.5	7^+	(Q)

[†] From 2009Po10. Intensities are given relative to $\Sigma[I\gamma(647\gamma)+I\gamma(110\gamma)]$=100.

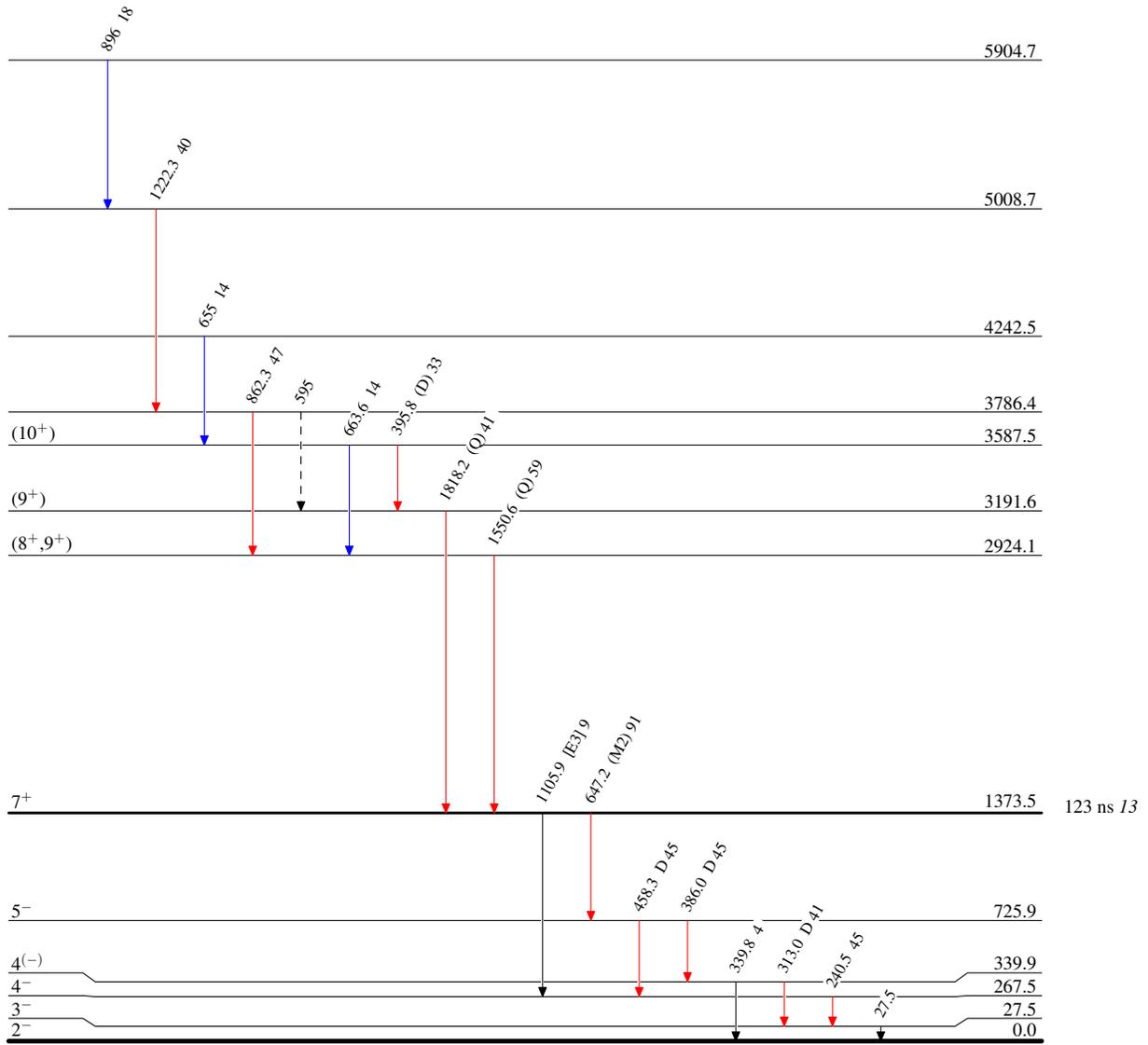[‡] From $\gamma\gamma(\theta)$ data taken at 22°, 46° and 75°, except where noted.

[#] Placement of transition in the level scheme is uncertain.

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<u>Level Scheme</u>

Intensities: Type not specified

$I_\gamma <$ 2%$\times I_\gamma^{max}$
$I_\gamma <$ 10%$\times I_\gamma^{max}$
$I_\gamma >$ 10%$\times I_\gamma^{max}$
γ Decay (Uncertain)

$^{88}_{37}$Rb$_{51}$