^{208}Pb(^{48}Ca,Xγ) 2003Fo03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 108,1583 (2007)	1-Jun-2007

E(^{48}Ca)=305 MeV.

^{208}Bi Levels

E(level)‡	Jπ†	$T_{1/2}$	Comments
1571.1 *4*	10^-	2.58 ms *4*	E(level): from Adopted Levels.
2426.8 *5*	11^-		
3201.1 *5*	(12^+)		
3449.4 *5*	(13^+)		
3499.7 *9*	(11^+)		
3600.7 *7*	(12^+)		
4159.1 *7*	(13^+)		
4291.0 *7*	(13)		
4484.3 *7*	(14^+)		
4635.3 *7*	(15^+)		
4836.2 *7*	(14^-)		
5463.0 *7*	(15^-)		
5626.7 *7*	(16^-)		
≈9000		≈40 ns	E(level),$T_{1/2}$: the authors state that they have established the presence of an isomer At about 9.0 MeV with $T_{1/2}$ of the order of 40 ns. No other data are given.

† From Adopted Levels.
‡ From a least-squares fit to the Eγ values.

γ(^{208}Bi)

Eγ	Iγ†	Ei(level)	J_i^π	Ef	J_f^π	Mult.	δ	α‡	Comments
(101)		3600.7	(12^+)	3499.7	(11^+)				Eγ: not observed, but required by coincidences between the 1929γ and transitions feeding the 3601 level.
151.0 *5*	5	4635.3	(15^+)	4484.3	(14^+)				
163.7 *5*	11	5626.7	(16^-)	5463.0	(15^-)				
x222.2 *5*	3								
248.4 *3*	42	3449.4	(13^+)	3201.1	(12^+)	M1(+E2)	≤0.76	0.8 *2*	Mult.: from α=0.8 *2* determined from the requirement of an intensity balance At the 3449 level In γγ coincidence work.
x257.8 *5*	5								
x271.4 *6*	6								
x272.3 *5*	11								
x321.1 *6*	8								
325.2 *3*	28	4484.3	(14^+)	4159.1	(13^+)				
x337.2 *8*	9								
x368.0 *7*	5								
x426.3 *7*	6								
x456.6 *7*	4								
475.9 *6*	5	4635.3	(15^+)	4159.1	(13^+)				
545.2 *4*	13	4836.2	(14^-)	4291.0	(13)				
x557.2 *6*	5								
558.8 *8*	1	4159.1	(13^+)	3600.7	(12^+)				
x591.1 *6*	4								
x607.2 *6*	5								

Continued on next page (footnotes at end of table)

^{208}Pb(^{48}Ca,Xγ) 2003Fo03 (continued)

$\gamma(^{208}Bi)$ (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
626.8 *4*	15	5463.0	(15^-)	4836.2	(14^-)	[x]1015.0 *7*	9				
677.2 *4*	5	4836.2	(14^-)	4159.1	(13^+)	1034.9 *5*	4	4484.3	(14^+)	3449.4	(13^+)
690.3 *4*	7	4291.0	(13)	3600.7	(12^+)	[x]1159.8 *4*	5				
709.7 *3*	37	4159.1	(13^+)	3449.4	(13^+)	1173.9 *4*	15	3600.7	(12^+)	2426.8	11^-
[x]772.7 *6*	3					1185.9 *4*	5	4635.3	(15^+)	3449.4	(13^+)
774.4 *3*	79	3201.1	(12^+)	2426.8	11^-	[x]1196.8 *7*	2				
841.7 *4*	10	4291.0	(13)	3449.4	(13^+)	1336[#] *1*	<1	4836.2	(14^-)	3499.7	(11^+)
855.7 *2*	100	2426.8	11^-	1571.1	10^-	1386.7 *4*	8	4836.2	(14^-)	3449.4	(13^+)
[x]911.6 *4*	8					1629.9 *3*	45	3201.1	(12^+)	1571.1	10^-
[x]935.5 *4*	5					1928.6 *10*	3	3499.7	(11^+)	1571.1	10^-
[x]956.8 *6*	5					2178 *1*	1	5626.7	(16^-)	3449.4	(13^+)
957.8 *5*	13	4159.1	(13^+)	3201.1	(12^+)	2262.0 *8*	3	5463.0	(15^-)	3201.1	(12^+)
990.8 *7*	4	5626.7	(16^-)	4635.3	(15^+)	2588 *1*	2	4159.1	(13^+)	1571.1	10^-
[x]1002.4 *5*	4										

[†] Relative photon intensity normalized to 100 for the 855.7γ.

[‡] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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

[x] γ ray not placed in level scheme.

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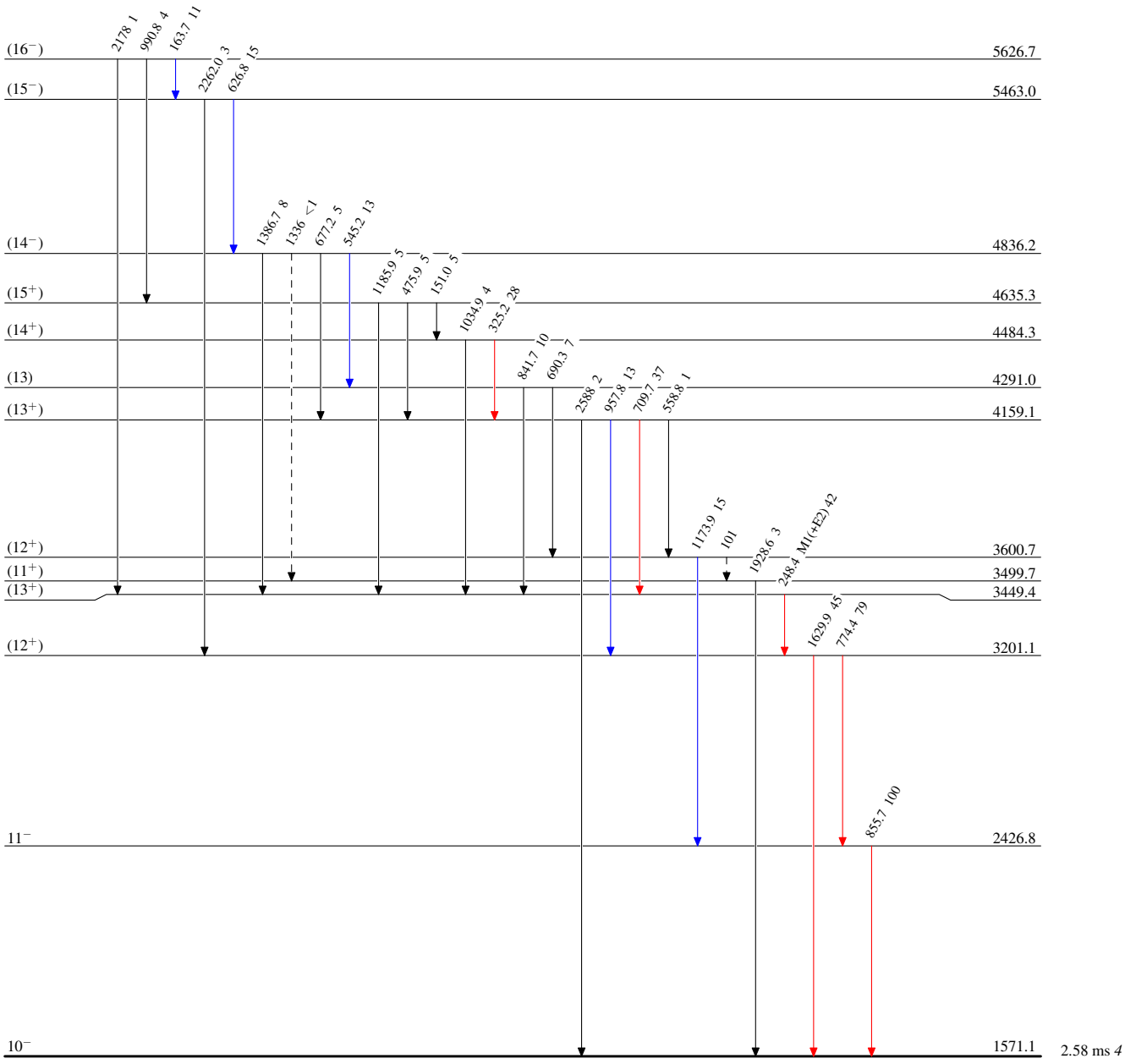
Level Scheme

Intensities: Relative I_γ

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



$^{208}_{83}Bi_{125}$