

$^{208}\text{Pb}(^{18}\text{O},\text{F}\gamma)$ 2002Ve08

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 110, 1239 (2009)	1-Feb-2008

E=85 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ using the Euroball IV array comprised of 15 cluster Ge detectors, 26 clover Ge detectors and 30 tapered single-crystal Ge detectors.

 ^{111}Rh Levels

E(level) [†]	J ^π	T _{1/2}	Comments
0 [‡]	7/2 ⁺		
211.3 [#] 3	9/2 ⁺		
303.78 18			E(level): from Adopted Levels.
395.04 ^c 23	3/2 ⁺	87 ns 8	T _{1/2} : from Adopted Levels.
490.6 [‡] 3	(11/2 ⁺)		
492.9 ^b 4	1/2 ⁻	6.8 ns	T _{1/2} : from 1998LH02.
567.5 ^c 5	(7/2 ⁺)		
608.0 [@] 4	(11/2 ⁺)		
715.1 [#] 4	(13/2 ⁺)		
732.7 ^b 5	(5/2 ⁻)		
922.5 ^c 11	(11/2 ⁺)		
1018.7 [@] 4	(13/2 ⁺)		
1157.5 [‡] 4	(15/2 ⁺)		
1168.3 ^b 7	(9/2 ⁻)		
1373.0 [@] 4	(15/2 ⁺)		
1382.1 [#] 5	(17/2 ⁺)		
1444.4 ^c 12	(15/2 ⁺)		
1547.8 [@] 5	(17/2 ⁺)		
1759.3 ^b 12	(13/2 ⁻)		
1931.7 [‡] 6	(19/2 ⁺)		
1949.7 ^{&} 5	(17/2 ⁻)		J ^π : J=17/2 ⁺ in ²⁵² Sf and in Adopted.
2110.3 ^{&} 7	(19/2 ⁻)		E(level): In Adopted the band starts from this level.
2112.4 ^c 16	(19/2 ⁺)		
2156.1 [#] 7	(21/2 ⁺)		
2352.3 ^{&} 8	(21/2 ⁻)		
2647.1 ^{&} 9	(23/2 ⁻)		
2893.8 [#] 10	(25/2 ⁺)		
2959.8 ^{&} 10	(25/2 ⁻)		
3271.4 ^a 11			
3321.1 ^{&} 13	(27/2 ⁻)		
3522.0 ^a 12			

[†] From least-squares fit to $E\gamma$'s (by evaluator).

[‡] Band(A): $\pi g_{9/2}$, $\alpha=-1/2$.

[#] Band(a): $\pi g_{9/2}$, $\alpha=+1/2$.

[@] Band(B): $\Delta J=1$ band based on (11/2⁺).

[&] Band(C): $\Delta J=1$ band based on (17/2⁻)(in Adopted the band starts from 19/2).

^a Band(D): Possible band structure.

Continued on next page (footnotes at end of table)

$^{208}\text{Pb}(^{18}\text{O},\text{F}\gamma)$ 2002Ve08 (continued) ^{111}Rh Levels (continued)^b Band(E): $\pi 1/2[301]$, $\alpha = +1/2$.^c Band(F): $\pi(g_{7/2}$ or $d_{5/2})$, $\alpha = -1/2$. $\gamma(^{111}\text{Rh})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
91.3 [†] 3		395.04	3/2 ⁺	303.78	
160.6 5	20 5	2110.3	(19/2 ⁻)	1949.7	(17/2 ⁻)
172.5 4	2 1	567.5	(7/2 ⁺)	395.04	3/2 ⁺
189.1 [†] 3		492.9	1/2 ⁻	303.78	
211.2 3	100 10	211.3	9/2 ⁺	0	7/2 ⁺
224.4 5	29 6	715.1	(13/2 ⁺)	490.6	(11/2 ⁺)
224.4 [‡] 5	13 [‡] 3	1382.1	(17/2 ⁺)	1157.5	(15/2 ⁺)
224.4 [‡] 5	13 [‡] 3	2156.1	(21/2 ⁺)	1931.7	(19/2 ⁺)
239.8 3	20 4	732.7	(5/2 ⁻)	492.9	1/2 ⁻
242.0 4	12 3	2352.3	(21/2 ⁻)	2110.3	(19/2 ⁻)
250.6 5	3 2	3522.0		3271.4	
279.2 3	32 7	490.6	(11/2 ⁺)	211.3	9/2 ⁺
294.8 4	7 2	2647.1	(23/2 ⁻)	2352.3	(21/2 ⁻)
303.8 [†] 2		303.78		0	7/2 ⁺
312.7 5	5 2	2959.8	(25/2 ⁻)	2647.1	(23/2 ⁻)
354.2 3	13 3	1373.0	(15/2 ⁺)	1018.7	(13/2 ⁺)
355 1	7 3	922.5	(11/2 ⁺)	567.5	(7/2 ⁺)
361.3 7	3 1	3321.1	(27/2 ⁻)	2959.8	(25/2 ⁻)
377.6 5	5 2	3271.4		2893.8	(25/2 ⁺)
395.0 [†] 3		395.04	3/2 ⁺	0	7/2 ⁺
396.7 3	29 5	608.0	(11/2 ⁺)	211.3	9/2 ⁺
401.8 3	9 2	1949.7	(17/2 ⁻)	1547.8	(17/2 ⁺)
410.6 3	32 7	1018.7	(13/2 ⁺)	608.0	(11/2 ⁺)
435.6 4	16 3	1168.3	(9/2 ⁻)	732.7	(5/2 ⁻)
442.2 3	24 5	1157.5	(15/2 ⁺)	715.1	(13/2 ⁺)
490.7 4	16 3	490.6	(11/2 ⁺)	0	7/2 ⁺
503.9 4	24 5	715.1	(13/2 ⁺)	211.3	9/2 ⁺
521.9 4	5 2	1444.4	(15/2 ⁺)	922.5	(11/2 ⁺)
529.0 4	12 3	1547.8	(17/2 ⁺)	1018.7	(13/2 ⁺)
549.7 5	7 3	1931.7	(19/2 ⁺)	1382.1	(17/2 ⁺)
576.8 4	13 3	1949.7	(17/2 ⁻)	1373.0	(15/2 ⁺)
591 1	8 2	1759.3	(13/2 ⁻)	1168.3	(9/2 ⁻)
658.0 4	7 2	1373.0	(15/2 ⁺)	715.1	(13/2 ⁺)
667.1 [#] 4	12 [#] 3	1157.5	(15/2 ⁺)	490.6	(11/2 ⁺)
667.1 [#] 4	22 [#] 3	1382.1	(17/2 ⁺)	715.1	(13/2 ⁺)
668 1	3 1	2112.4	(19/2 ⁺)	1444.4	(15/2 ⁺)
737.7 6	7 2	2893.8	(25/2 ⁺)	2156.1	(21/2 ⁺)
765.2 4	8 2	1373.0	(15/2 ⁺)	608.0	(11/2 ⁺)
774 [‡] 1	13 [‡] 3	1931.7	(19/2 ⁺)	1157.5	(15/2 ⁺)
774 [‡] 1	13 [‡] 3	2156.1	(21/2 ⁺)	1382.1	(17/2 ⁺)
792.1 4	5 2	1949.7	(17/2 ⁻)	1157.5	(15/2 ⁺)

[†] From Adopted Levels.[‡] Multiply placed with undivided intensity.[#] Multiply placed with intensity suitably divided.

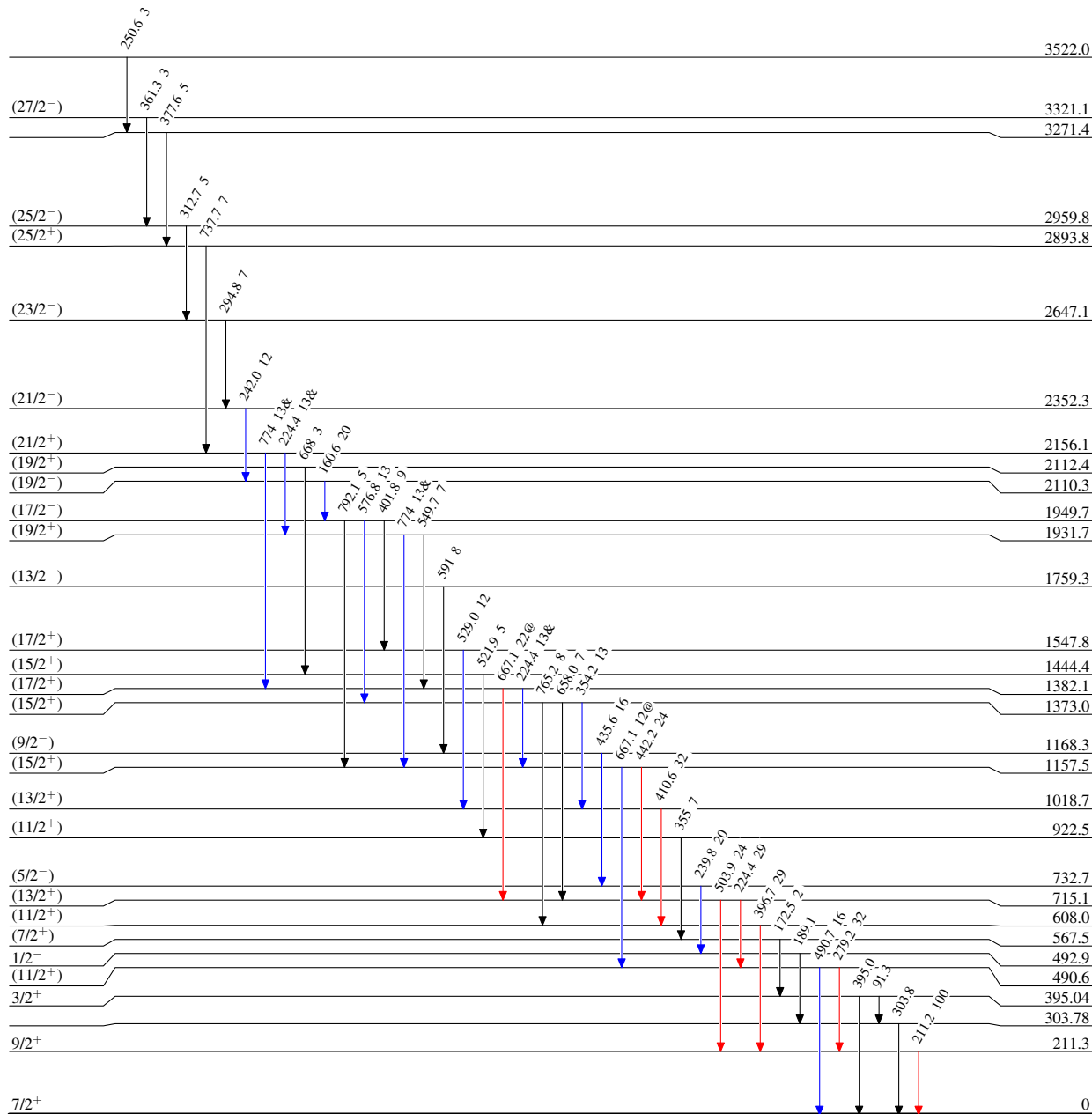
$^{208}\text{Pb}(^{18}\text{O},\text{F}\gamma)$ 2002Ve08

Level Scheme

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

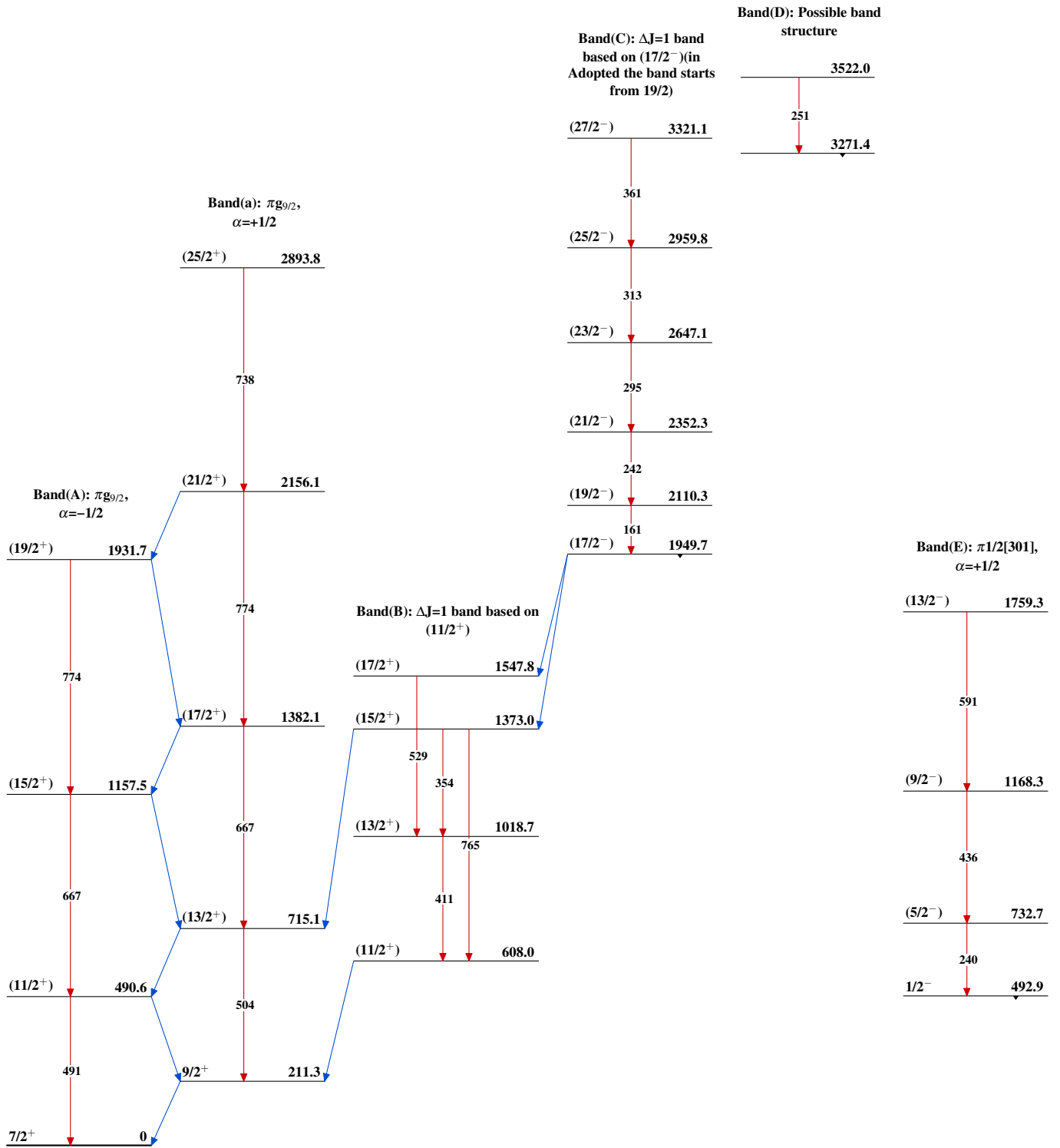
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$



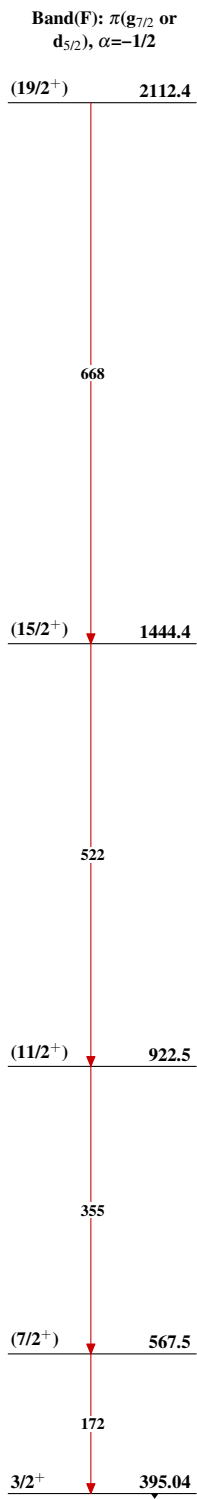
6.8 ns
87 ns 8

$^{111}_{45}\text{Rh}_{66}$

²⁰⁸Pb(¹⁸O,F γ) 2002Ve08



¹¹¹Rh₄₅⁶⁶

$^{208}\text{Pb}(^{18}\text{O},\text{F}\gamma)$ 2002Ve08 (continued) $^{111}_{45}\text{Rh}_{66}$