

$^{103}\text{Rh}(^{16}\text{O},\text{p}2\text{n}\gamma)$ 1997Mo23

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 717 (2010)	1-Dec-2009

Taken from XUNDL.

$^{103}\text{Rh}(^{16}\text{O},\text{p}2\text{n}\gamma)$ E=80 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma\gamma(\theta)$ (DCO) using seven Ge detectors and BGO filter.

The level scheme proposed by 1997Mo23 is less complete than the one from 1997Se04 and their proposed band structures do not agree with each other. The 4337 level 12^+ is not given as a member of the g.s. band. The large 10^+ to (42^+) band of 1997Se04 is not seen by 1997Mo23.

 ^{116}Te Levels

E(level) [†]	J π [‡]	E(level) [†]	J π [‡]	E(level) [†]	J π [‡]	E(level) [†]	J π [‡]
0 ^{&}	0 ⁺	3991.6 ^c	10 ⁻	5721.3 ^b	15 ⁻	7640.9 [@]	19 ⁻
678.4 ^{&}	2 ⁺	4226.3 ^b	11 ⁻	5772.3 [@]	15 ⁻	7642.5 [#]	20 ⁺
1358.8 ^{&}	4 ⁺	4326.2 [@]	11 ⁻	6104.6	16 ⁺	7729.0 ^b	19 ⁻
2001.6 ^{&}	6 ⁺	4337.6 [#]	12 ⁺	6141.5 ^d	(16)	8085.9 ^f	20 ⁻
2339.2 ^g	6 ⁺	4436.3 ^d	(12)	6271.6 ^{&}	16 ⁺	8120.0 ^a	21 ⁻
2772.1 ^{&}	8 ⁺	4484.3 ^{&}	12 ⁺	6359.0 [@]		8150.9 ^e	20 ⁻
3026.1 ^b	7 ⁻	4701.9 ^c	12 ⁻	6373.7 ^e	16 ⁻	8466.8 ^b	
3173.3 ^c	8 ⁻	4739.5 ^g	12 ⁺	6499.4		8667.5 ^f	22 ⁻
3189.0 [@]	7 ⁻	4916.8 ^b	13 ⁻	6658.4 [@]	17 ⁻	8684.9 [@]	21 ⁻
3244.5 ^g	8 ⁺	4992.3 [@]	13 ⁻	6673.6 [#]	18 ⁺	8995.7 ^a	23 ⁻
3428.1 ^b	9 ⁻	5107.9 [#]	14 ⁺	6798.5 ^b	17 ⁻	9756.3 ^f	24 ⁻
3573.5 ^{&}	10 ⁺	5195.2 ^c	14 ⁻	7055.7		10058.5 ^f	25 ⁽⁻⁾
3696.9 [#]	10 ⁺	5235.8 ^d	(14)	7092.1 ^a	19 ⁻	11129.6 ^f	27 ⁽⁻⁾
3744.6 [@]	9 ⁻	5369.7 ^{&}	14 ⁺	7141.0 ^d	(18)		
3751.3 ^d	(10)	5472.0 ^g	14 ⁺	7160.6 ^{&}			
3991.5 ^g	10 ⁺	5619.3 [#]	16 ⁺	7306.7 ^e	18 ⁻		

[†] From least-squares fit (by compiler) to $E\gamma$'s, assuming $\Delta(E\gamma)=0.3$ keV.

[‡] From 1997Mo23, based on their $\gamma\gamma(\theta)$ (DCO) data and band assignments.

[#] Band(A): g.s. band (higher part of the adopted).

[@] Band(B): Band based on 7⁻.

[&] Band(C): g.s. band (lower part of the adopted).

^a Band(D): $\Delta J=1$ band based on 19⁻ (not adopted).

^b Band(E): Band based on 7⁻.

^c Band(F): Band based on 8⁻.

^d Band(G): Band based on (10).

^e Band(H): Band based on 16⁻ (part of the band F in adopted).

^f Band(I): Band based on 20⁻ (not adopted).

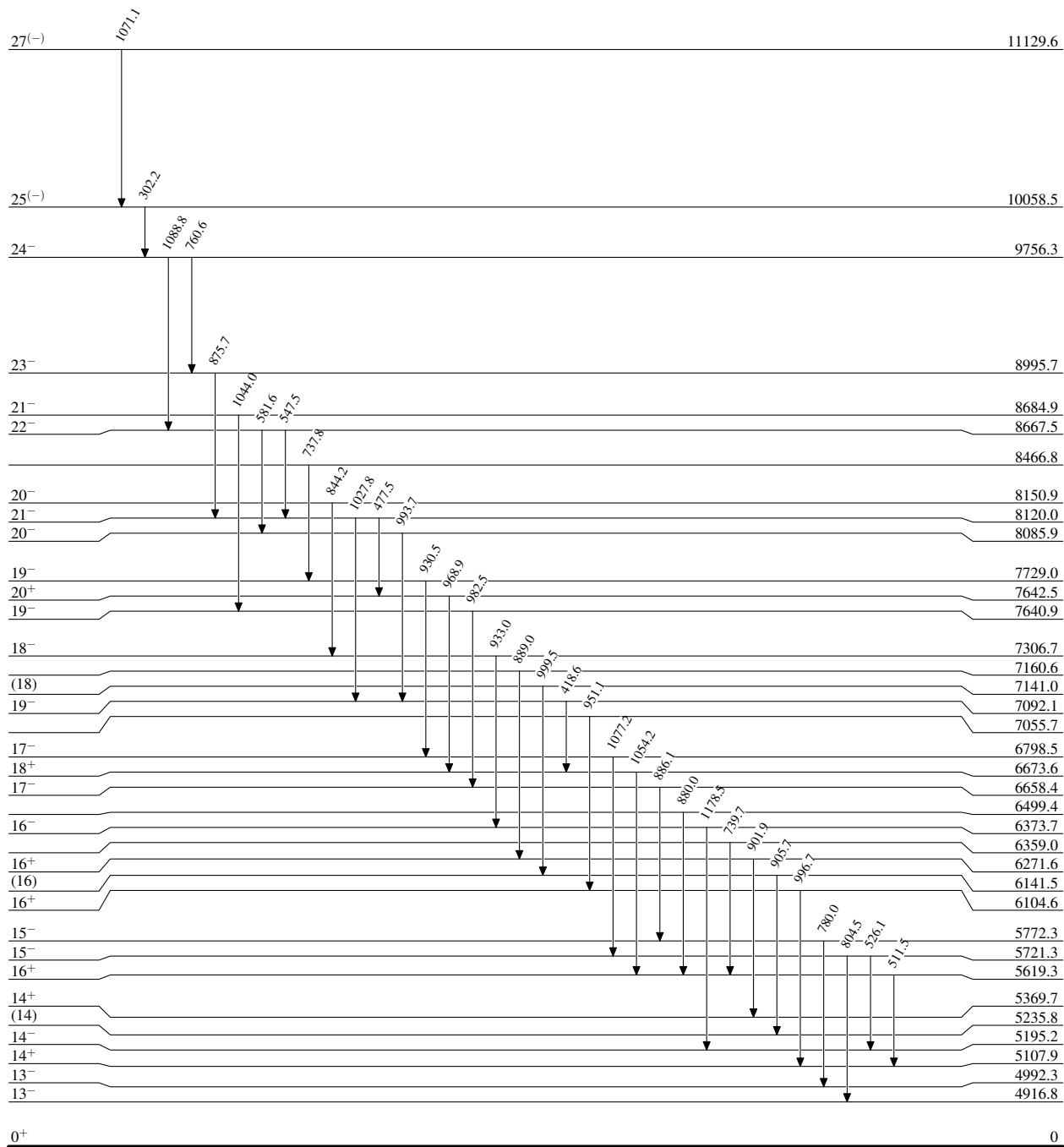
^g Band(J): Band based on 6⁺ (not adopted).

$^{103}\text{Rh}(^{16}\text{O,p}2\text{n}\gamma)$ **1997Mo23 (continued)** $\gamma(^{116}\text{Te})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
147.2	3173.3	8 ⁻	3026.1	7 ⁻	770.5	2772.1	8 ⁺	2001.6	6 ⁺
183.6	3428.1	9 ⁻	3244.5	8 ⁺	780.0	5772.3	15 ⁻	4992.3	13 ⁻
254.8	3428.1	9 ⁻	3173.3	8 ⁻	798.2	4226.3	11 ⁻	3428.1	9 ⁻
278.4	5195.2	14 ⁻	4916.8	13 ⁻	799.5	5235.8	(14)	4436.3	(12)
302.2	10058.5	25 ⁽⁻⁾	9756.3	24 ⁻	801.3	3573.5	10 ⁺	2772.1	8 ⁺
337.5	2339.2	6 ⁺	2001.6	6 ⁺	804.5	5721.3	15 ⁻	4916.8	13 ⁻
402.0	3428.1	9 ⁻	3026.1	7 ⁻	818.2	3991.6	10 ⁻	3173.3	8 ⁻
418.6	7092.1	19 ⁻	6673.6	18 ⁺	844.2	8150.9	20 ⁻	7306.7	18 ⁻
433.0	2772.1	8 ⁺	2339.2	6 ⁺	875.7	8995.7	23 ⁻	8120.0	21 ⁻
477.5	8120.0	21 ⁻	7642.5	20 ⁺	880.0	6499.4		5619.3	16 ⁺
493.3	5195.2	14 ⁻	4701.9	12 ⁻	885.4	5369.7	14 ⁺	4484.3	12 ⁺
511.5	5619.3	16 ⁺	5107.9	14 ⁺	886.1	6658.4	17 ⁻	5772.3	15 ⁻
526.1	5721.3	15 ⁻	5195.2	14 ⁻	889.0	7160.6		6271.6	16 ⁺
547.5	8667.5	22 ⁻	8120.0	21 ⁻	901.9	6271.6	16 ⁺	5369.7	14 ⁺
555.6	3744.6	9 ⁻	3189.0	7 ⁻	905.2	3244.5	8 ⁺	2339.2	6 ⁺
563.4	3991.5	10 ⁺	3428.1	9 ⁻	905.7	6141.5	(16)	5235.8	(14)
578.0	3751.3	(10)	3173.3	8 ⁻	910.8	4484.3	12 ⁺	3573.5	10 ⁺
581.5	4326.2	11 ⁻	3744.6	9 ⁻	924.8	3696.9	10 ⁺	2772.1	8 ⁺
581.6	8667.5	22 ⁻	8085.9	20 ⁻	930.5	7729.0	19 ⁻	6798.5	17 ⁻
640.6	4337.6	12 ⁺	3696.9	10 ⁺	933.0	7306.7	18 ⁻	6373.7	16 ⁻
642.8	2001.6	6 ⁺	1358.8	4 ⁺	951.1	7055.7		6104.6	16 ⁺
656.0	3428.1	9 ⁻	2772.1	8 ⁺	968.9	7642.5	20 ⁺	6673.6	18 ⁺
666.1	4992.3	13 ⁻	4326.2	11 ⁻	972.5	3744.6	9 ⁻	2772.1	8 ⁺
678.4	678.4	2 ⁺	0	0 ⁺	980.5	2339.2	6 ⁺	1358.8	4 ⁺
680.4	1358.8	4 ⁺	678.4	2 ⁺	982.5	7640.9	19 ⁻	6658.4	17 ⁻
685.0	4436.3	(12)	3751.3	(10)	993.7	8085.9	20 ⁻	7092.1	19 ⁻
686.8	3026.1	7 ⁻	2339.2	6 ⁺	996.7	6104.6	16 ⁺	5107.9	14 ⁺
690.5	4916.8	13 ⁻	4226.3	11 ⁻	999.5	7141.0	(18)	6141.5	(16)
710.4	4701.9	12 ⁻	3991.6	10 ⁻	1024.5	3026.1	7 ⁻	2001.6	6 ⁺
732.5	5472.0	14 ⁺	4739.5	12 ⁺	1027.8	8120.0	21 ⁻	7092.1	19 ⁻
737.8	8466.8		7729.0	19 ⁻	1044.0	8684.9	21 ⁻	7640.9	19 ⁻
739.7	6359.0		5619.3	16 ⁺	1054.2	6673.6	18 ⁺	5619.3	16 ⁺
747.0	3991.5	10 ⁺	3244.5	8 ⁺	1071.1	11129.6	27 ⁽⁻⁾	10058.5	25 ⁽⁻⁾
748.0	4739.5	12 ⁺	3991.5	10 ⁺	1077.2	6798.5	17 ⁻	5721.3	15 ⁻
752.7	4326.2	11 ⁻	3573.5	10 ⁺	1088.8	9756.3	24 ⁻	8667.5	22 ⁻
760.6	9756.3	24 ⁻	8995.7	23 ⁻	1178.5	6373.7	16 ⁻	5195.2	14 ⁻
764.1	4337.6	12 ⁺	3573.5	10 ⁺	1187.4	3189.0	7 ⁻	2001.6	6 ⁺
770.3	5107.9	14 ⁺	4337.6	12 ⁺					

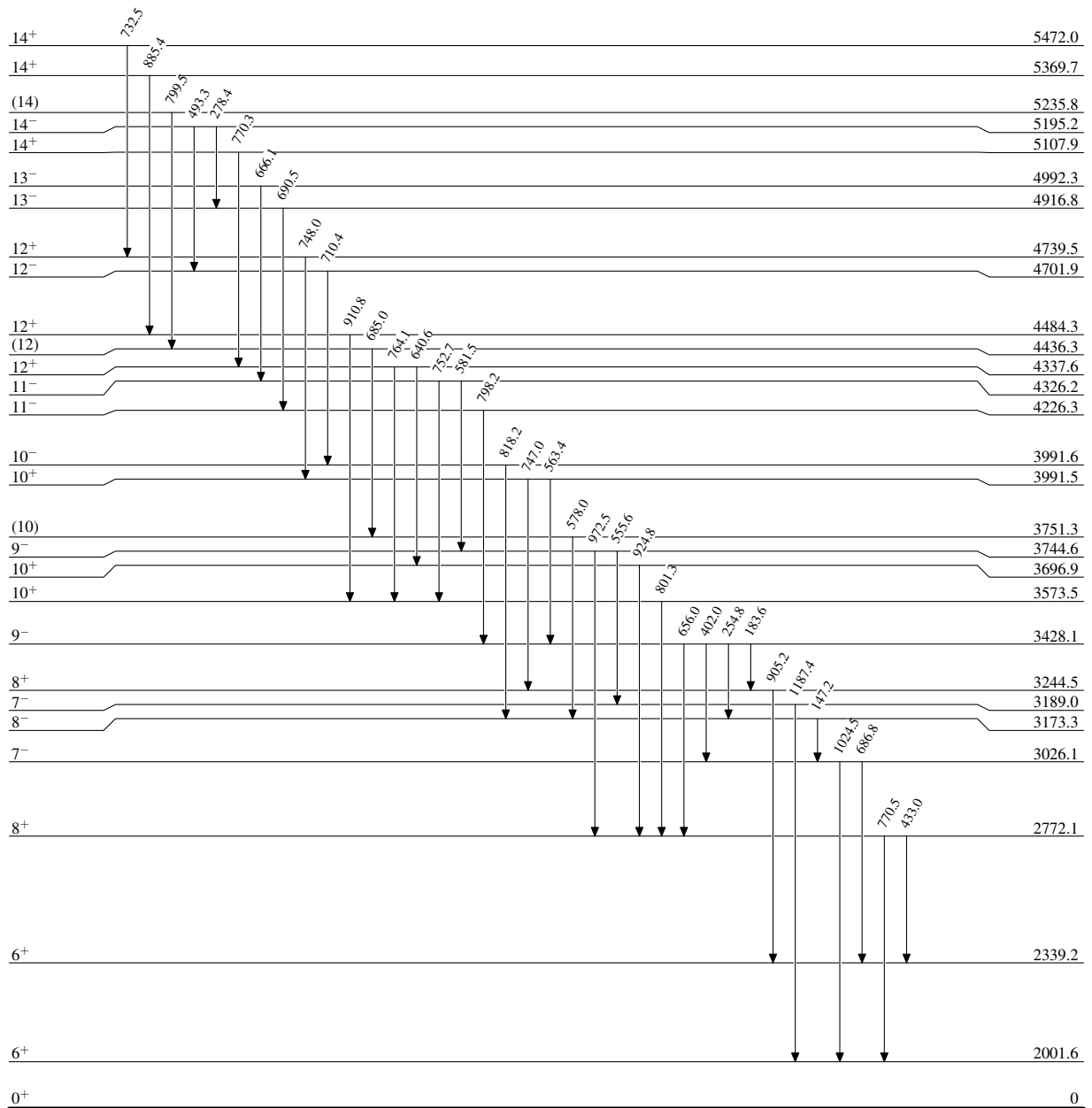
$^{103}\text{Rh}(^{16}\text{O,p}2n\gamma)$ 1997Mo23

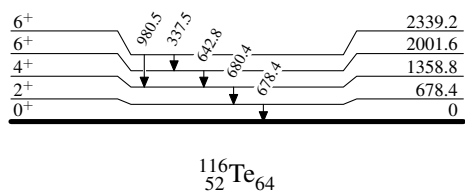
Level Scheme

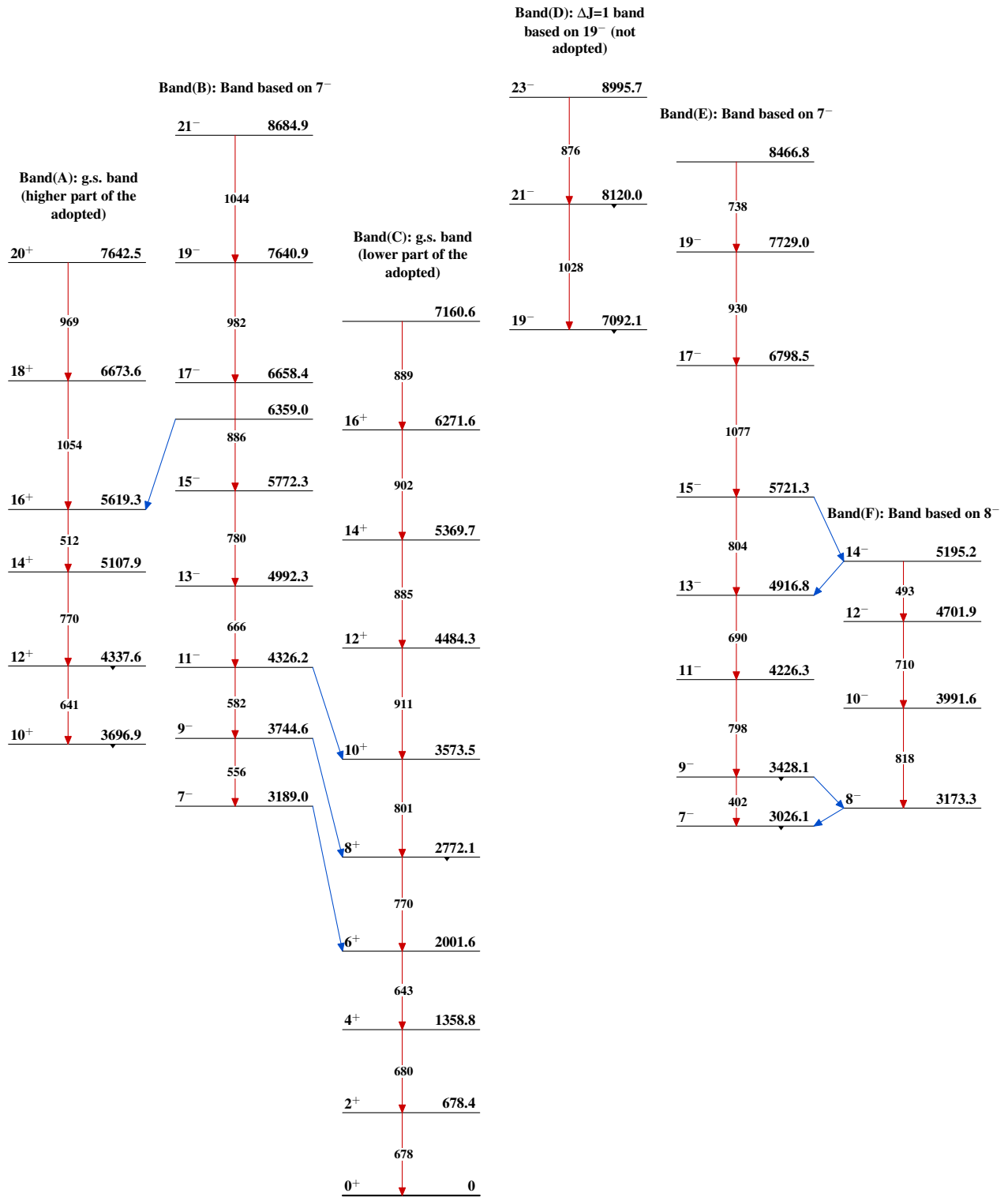
 $^{116}_{52}\text{Te}_{64}$

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Level Scheme (continued)



 $^{103}\text{Rh}(^{16}\text{O,p2n}\gamma)$ 1997Mo23Level Scheme (continued)

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$^{103}\text{Rh}(^{16}\text{O},\text{p}2\text{n}\gamma)$ 1997Mo23 (continued)