

⁵¹V(¹²⁷I,4nγ) **1987Ga12**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, Huo Junde		NDS 87, 15 (1999)	1-Nov-1998

E=610 MeV. Measured E_γ, I_γ. Detectors: BGO Compton-suppressed Ge.

¹⁷⁴Os Levels

E(level)	J ^π †	T _{1/2} ‡	E(level)	J ^π †	T _{1/2} ‡	E(level)	J ^π †	T _{1/2} ‡
0.0 [@]	0 ⁺		2102.44 ^{&} 25	8 ⁻	9.7 ps 18	3577.3 ^a 4	15 ⁻	0.35 ps 21
158.69 [@] 13	2 ⁺	0.35 ns 4	2113.5 [@] 3	12 ⁺	0.97 ps 14	3861.8 [@] 4	18 ⁺	0.14 ps 7
435.12 [@] 18	4 ⁺	18.2 ps 8	2205.69 ^a 25	9 ⁻	5.3 ps 8	3924.8 ^{&} 4	16 ⁽⁻⁾	0.8 ps 6
777.77 [@] 21	6 ⁺	5.8 ps 6	2476.4 ^{&} 3	10 ⁽⁻⁾	3.9 ps 7	4114.4 ^a 4	17 ⁻	0.25 ps 15
1171.96 [@] 23	8 ⁺	2.7 ps 6	2613.6 ^a 3	11 ⁻	2.4 ps 3	4524.9 [@] 4	20 ⁺	0.28 ps 14
1549.69 ^{&} 22	4 ^{-b}	35 [#] ps 21	2656.0 [@] 4	14 ⁺	0.49 ps 14	4676.6 ^a 4	19 ⁻	0.76 ps 21
1596.38 ^a 22	5 ^{(-)b}	35 [#] ps 21	2906.4 ^{&} 3	12 ⁻	3.4 ps 6	5232.7 [@] 5	22 ⁺	
1617.56 [@] 25	10 ⁺	2.1 ps 2	3073.8 ^a 4	13 ⁻	1.3 ps 2	5261.8 ^a 4	21 ⁻	0.62 ps 17
1790.27 ^{&} 22	6 ⁽⁻⁾	8 ps 4	3239.7 [@] 4	16 ⁺	0.42 ps 7			
1860.46 ^a 24	7 ⁽⁻⁾	7.8 ps 16	3388.7 ^{&} 4	14 ⁻	1.9 ps 3			

† Based on rotational structure.

‡ Recoil-distance technique.

Combined for the 1550 and 1596 levels.

@ Band(A): K^π=0⁺ g.s. rotational band.

& Band(B): K^π=(4⁻) rotational band.

^a Band(C): K^π=(5⁻) rotational band.

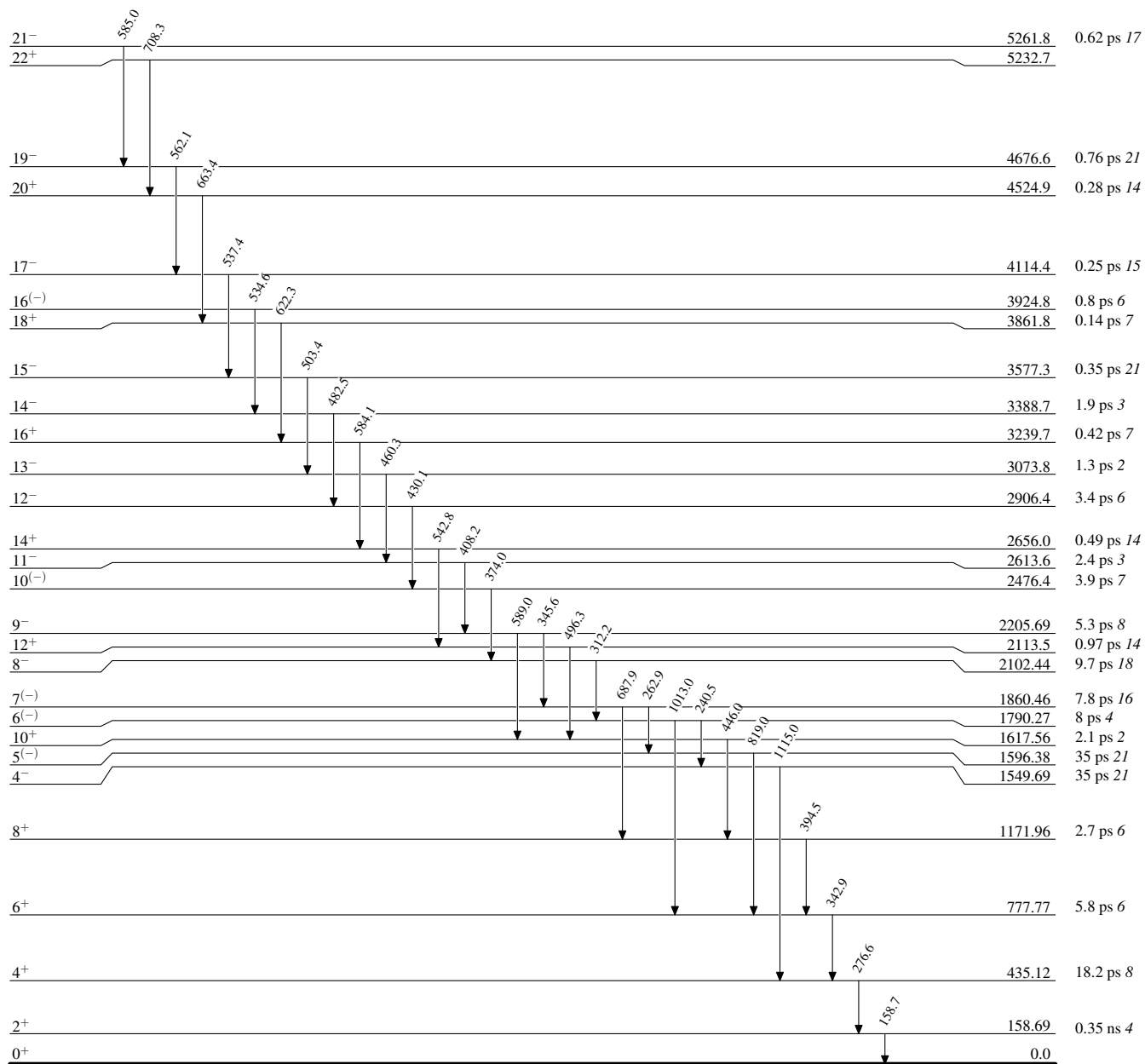
^b Not necessarily band head (1990Fa02).

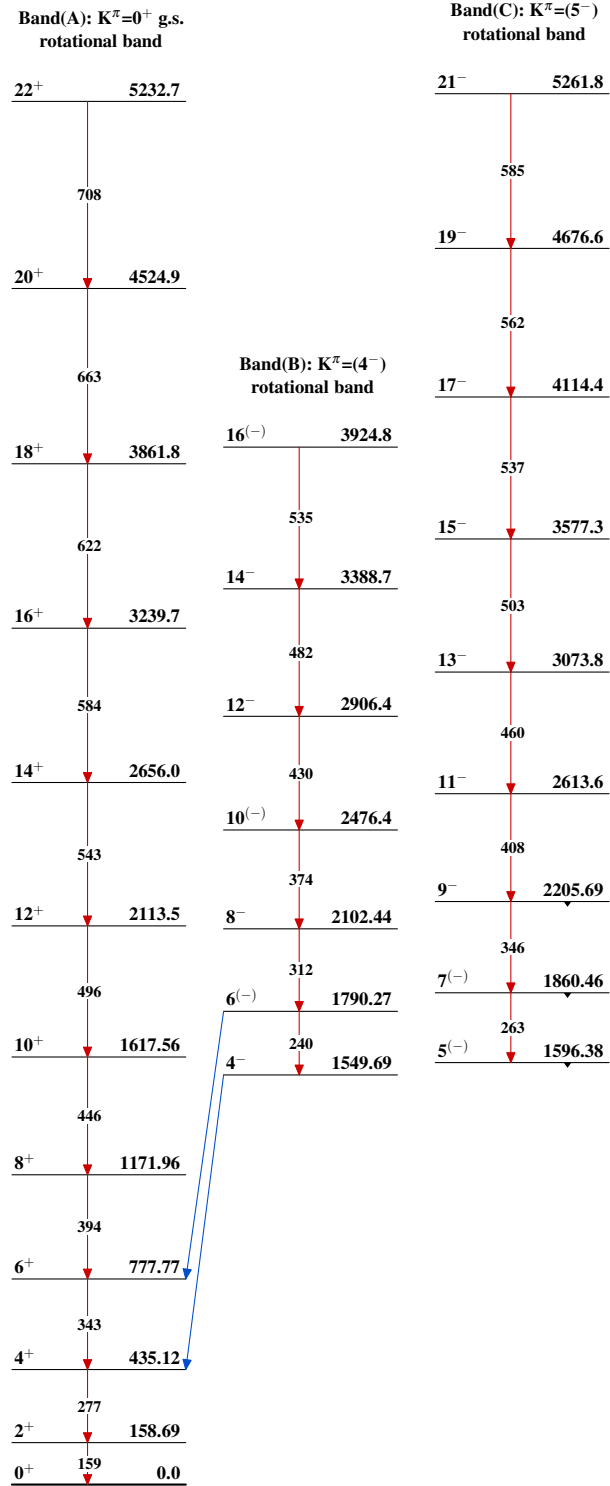
γ(¹⁷⁴Os)

E _γ	E _i (level)	J _i ^π	E _f	J _f ^π	E _γ	E _i (level)	J _i ^π	E _f	J _f ^π
158.7 3	158.69	2 ⁺	0.0	0 ⁺	503.4 3	3577.3	15 ⁻	3073.8	13 ⁻
240.5 3	1790.27	6 ⁽⁻⁾	1549.69	4 ⁻	534.6 3	3924.8	16 ⁽⁻⁾	3388.7	14 ⁻
262.9 3	1860.46	7 ⁽⁻⁾	1596.38	5 ⁽⁻⁾	537.4 3	4114.4	17 ⁻	3577.3	15 ⁻
276.6 3	435.12	4 ⁺	158.69	2 ⁺	542.8 3	2656.0	14 ⁺	2113.5	12 ⁺
312.2 3	2102.44	8 ⁻	1790.27	6 ⁽⁻⁾	562.1 3	4676.6	19 ⁻	4114.4	17 ⁻
342.9 3	777.77	6 ⁺	435.12	4 ⁺	584.1 3	3239.7	16 ⁺	2656.0	14 ⁺
345.6 3	2205.69	9 ⁻	1860.46	7 ⁽⁻⁾	585.0 3	5261.8	21 ⁻	4676.6	19 ⁻
374.0 3	2476.4	10 ⁽⁻⁾	2102.44	8 ⁻	589.0 3	2205.69	9 ⁻	1617.56	10 ⁺
394.5 3	1171.96	8 ⁺	777.77	6 ⁺	622.3 3	3861.8	18 ⁺	3239.7	16 ⁺
408.2 3	2613.6	11 ⁻	2205.69	9 ⁻	663.4 3	4524.9	20 ⁺	3861.8	18 ⁺
430.1 3	2906.4	12 ⁻	2476.4	10 ⁽⁻⁾	687.9 6	1860.46	7 ⁽⁻⁾	1171.96	8 ⁺
446.0 3	1617.56	10 ⁺	1171.96	8 ⁺	708.3 3	5232.7	22 ⁺	4524.9	20 ⁺
460.3 3	3073.8	13 ⁻	2613.6	11 ⁻	819.0 6	1596.38	5 ⁽⁻⁾	777.77	6 ⁺
482.5 3	3388.7	14 ⁻	2906.4	12 ⁻	1013.0 6	1790.27	6 ⁽⁻⁾	777.77	6 ⁺
496.3 3	2113.5	12 ⁺	1617.56	10 ⁺	1115.0 6	1549.69	4 ⁻	435.12	4 ⁺

$^{51}\text{V}(^{127}\text{I},4n\gamma)$ 1987Ga12

Level Scheme

 $^{174}_{76}\text{Os}_{98}$

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