^{40}Ca(^{40}Ca,2αpγ) 2005Fi10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 188,1 (2023)	17-Jan-2023

2005Fi10: E(^{40}Ca)=160 MeV. Measured Eγ, Iγ, γγ-coin, gated γ(θ) using Gammasphere and Microball arrays at ATLAS-ANL facility. Deduced levels, J, π, Band structures, γ-ray multipolarities, mixing ratios. Details of γ(θ) data are not available. 2005Fi10 also discuss ^{71}Kr to ^{71}Br decay and support 5/2$^-$ for the ground state of ^{71}Kr parent, as expected for the mirror partner.

^{71}Br Levels

E(level)†	Jπ‡	$T_{1/2}$	Comments
0.0#	5/2$^-$		
9.81 *20*	1/2$^-$		Configuration may be 1/2[301] as assigned for ground state of ^{73}Br.
207.80& *14*	3/2$^-$		
407.03d *17*	5/2$^-$		
615.06 *24*	(3/2,7/2$^-$)		
669.56a *14*	5/2$^+$		
722.0? *3*	(7/2$^-$)		
759.06c *19*	9/2$^+$	32.5 ns *25*	$T_{1/2}$: from Adopted Levels.
776.1@ *4*	5/2$^-$		
806.5& *3*	7/2$^-$		
892.07b *22*	7/2$^+$		
929.26# *25*	7/2$^-$		
1055.4?# *4*	(9/2$^-$)		
1070.2?d *4*	(7/2$^-$)		
1174.02a *22*	9/2$^+$		
1490.2b *3*	11/2$^+$		
1491.8d *3*	9/2$^-$		
1496.6c *3*	13/2$^+$		
1586.1 *4*	11/2$^+$		
1683.4@ *4*	9/2$^-$		
1714.1& *3*	11/2$^-$		
2122.0f *3*	13/2$^+$		
2216.5# *4*	13/2$^-$		
2217.1a *4*	13/2$^+$		
2352.4b *4*	15/2$^+$		
2392.7c *4*	17/2$^+$		
2477.6@ *4*	13/2$^-$		
2519.9& *4*	15/2$^-$		
3046.6a *4*	(17/2$^+$)		
3187.8# *5*	17/2$^-$		
3262.0f *5*	17/2$^+$		
3376.9@ *4*	17/2$^-$		
3434.0b *6*	19/2$^+$		
3475.2c *5*	21/2$^+$		
3529.3& *4*	19/2$^-$		
4015.8 *4*	21/2$^-$		
4092.2a *7*	(21/2$^+$)		
4311.1@ *4*	21/2$^-$		

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^{40}Ca(^{40}Ca,2αpγ) 2005Fi10 (continued)

^{71}Br Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
4313.7[f] 6	21/2+	6167.2[&] 6	27/2−	8244.8[a] 12	(33/2+)	10992.4[e] 23	(41/2+)
4503.0[e] 6	25/2+	6190.8[c] 8	29/2+	8422.6[g] 9		11030.8[@] 23	(41/2−)
4741.8[&] 5	23/2−	6613.4[@] 6	29/2−	8955.7[e] 17	37/2+	11434[c] 3	(41/2+)
4743.6[c] 7	25/2+	6709.2[a] 9	(29/2+)	9090.4[b] 14	35/2+	11487.6[g] 24	
4745.9[b] 9	23/2+	7157.1[e] 8	33/2+	9194.8[@] 10	37/2−	12381[b] 3	(43/2+)
4969.4 6	25/2+	7424.7[g] 9		9320.4[&] 22	(35/2−)	12875[e] 3	(45/2+)
5313.7[a] 8	(25/2+)	7470.8[b] 11	31/2+	9526.7[c] 23	37/2+	13472[c] 4	(45/2+)
5375.1[@] 5	25/2−	7759.1[&] 17	(31/2−)	9721.6[g] 13		14959[e] 4	(49/2+)
5811.7[e] 7	29/2+	7785.5[@] 8	33/2−	9996.8[a] 24	(37/2+)		
5994.8[b] 10	27/2+	7789.8[c] 12	33/2+	10752.1[b] 20	(39/2+)		

† From a least-squares fit to Eγ data.
‡ As proposed in 2005Fi10 based on their γ(θ) data, band structures, decay patterns, and systematics of neighboring nuclides. The assignments in Adopted Levels are the same, except that all have been given in parentheses, due to the absence of strong supporting arguments for low-lying levels and bandheads.
# Band(A): π5/2[312]. Configuration contains small admixtures from 5/2 members of other rotational bands.
@ Band(B): π3/2[312],α=+1/2.
& Band(b): π3/2[312],α=−1/2.
a Band(C): π5/2[422],α=+1/2.
b Band(c): π5/2[422],α=−1/2.
c Band(D): Band based on 9/2+. Probable oblate structure.
d Band(E): Band based on 5/2−.
e Band(F): Band based on 25/2+.
f Band(G): Band based on 13/2+.
g Seq.(H): γ cascade.

γ(^{71}Br)

Eγ	Iγ†	Ei(level)	J_i^π	E_f	J_f^π	Mult.@	δ@	Comments
54.8 5		669.56	5/2+	615.06	(3/2,7/2−)			
89.3 4	40.4 15	759.06	9/2+	669.56	5/2+			
133.2 3	4.6 3	892.07	7/2+	759.06	9/2+	(D(+Q))[c]	+0.02 16	Mult.: M1/E2 in 2005Fi10.
198.0 2	53.4 11	207.80	3/2−	9.81	1/2−	(M1+E2)	+0.21 7	Mult.: M1/E2 in 2005Fi10. Iγ: combined intensity for 198.0 and 199.0 γ rays.
199.0 5	53.4 11	407.03	5/2−	207.80	3/2−			Iγ: combined intensity for 198.0 and 199.0 γ rays.
207.7 2	16.0 4	207.80	3/2−	0.0	5/2−	[a]		Mult.: (E2) in 2005Fi10. Iγ: combined intensity for 207.7 and 208.0 γ rays.
208.0 5	16.0 4	615.06	(3/2,7/2−)	407.03	5/2−			Iγ: combined intensity for 207.7 and 208.0 γ rays.
222.4[d&] 3	12.3[d‡] 3	892.07	7/2+	669.56	5/2+	(M1+E2)	+0.12 5	Mult.: M1/E2 in 2005Fi10.
222.4[d] 3	12.3[d‡] 3	1714.1	11/2−	1491.8	9/2−	(M1+E2)	+0.23 10	Mult.: M1/E2 in 2005Fi10.
262.5[&] 3	5.20 23	669.56	5/2+	407.03	5/2−	D[b]		Mult.: E1 in 2005Fi10.
276.5[&] 5	1.0 2	892.07	7/2+	615.06	(3/2,7/2−)	D[b]		Mult.: ΔJ=0 transition. (E1) in 2005Fi10.
281.9 3	4.80 22	1174.02	9/2+	892.07	7/2+	(D+Q)[c]	+0.14 13	Mult.: M1/E2 in 2005Fi10.
303.4 5	0.8 2	2519.9	15/2−	2216.5	13/2−			

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^{40}Ca(^{40}Ca,2αpγ) 2005Fi10 (continued)

γ(^{71}Br) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ[@]	Comments
316.1 *3*	3.50 *21*	1490.2	11/2$^+$	1174.02	9/2$^+$	(D(+Q))[c]	+0.02 *13*	Mult.: M1/E2 in 2005Fi10.
397.2[&] *2*	5.4 *3*	407.03	5/2$^-$	9.81	1/2$^-$	Q[a]		Mult.: (E2) in 2005Fi10.
407.2[d] *3*	15.9[d] *5*	407.03	5/2$^-$	0.0	5/2$^-$	(M1+E2)	−0.74 *14*	Mult.: M1/E2 in 2005Fi10.
407.2[d] *3*	15.9[d] *5*	615.06	(3/2,7/2$^-$)	207.80	3/2$^-$			
414.8 *3*	11.4 *4*	1174.02	9/2$^+$	759.06	9/2$^+$	(M1+E2)	−0.5 *4*	Mult.: M1/E2 in 2005Fi10.
446.2 *3*	2.00 *21*	6613.4	29/2$^-$	6167.2	27/2$^-$	(M1+E2)	−0.36 *13*	Mult.: M1/E2 in 2005Fi10.
461.7[&] *2*	13.6 *3*	669.56	5/2$^+$	207.80	3/2$^-$	D[b]		Mult.: E1 in 2005Fi10.
486.8 *3*	17.3 *5*	4015.8	21/2$^-$	3529.3	19/2$^-$	(M1+E2)	−0.18	Mult.: M1/E2 in 2005Fi10.
504.5 *3*	12.2 *5*	1174.02	9/2$^+$	669.56	5/2$^+$	[a]		Mult.: (E2) in 2005Fi10.
514.3[e] *3*	15.5 *4*	722.0?	(7/2$^-$)	207.80	3/2$^-$			
522.2 *4*	11.5 *4*	929.26	7/2$^-$	407.03	5/2$^-$			
535.9 *4*	3.5 *3*	2122.0	13/2$^+$	1586.1	11/2$^+$			
562.5 *3*	16.8 *5*	1491.8	9/2$^-$	929.26	7/2$^-$	(M1+E2)	+0.30 *3*	Mult.: M1/E2 in 2005Fi10.
568.3 *4*	2.5 *3*	776.1	5/2$^-$	207.80	3/2$^-$	(D(+Q))[c]	+0.03 *9*	Mult.: M1/E2 in 2005Fi10.
598.0 *4*	56.1 *12*	1490.2	11/2$^+$	892.07	7/2$^+$	[a]		Mult.: (E2) in 2005Fi10. I_γ: combined intensity for 598.0 and 598.7 γ rays.
598.7 *3*	56.1 *12*	806.5	7/2$^-$	207.80	3/2$^-$	[a]		Mult.: E2 in 2005Fi10. I_γ: combined intensity for 598.0 and 598.7 γ rays.
613.4 *4*	5.2 *3*	1683.4	9/2$^-$	1070.2?	(7/2$^-$)	[a]		Mult.: (E2) in 2005Fi10.
625.4 *4*	1.6 *2*	2122.0	13/2$^+$	1496.6	13/2$^+$	(D(+Q))[c]	−0.4 *7*	Mult.: M1/E2 in 2005Fi10.
631.2 *4*		2217.1	13/2$^+$	1586.1	11/2$^+$	(D(+Q))[c]	+0.06 *9*	Mult.: M1/E2 in 2005Fi10.
633.1 *3*	28.7 *8*	5375.1	25/2$^-$	4741.8	23/2$^-$	(M1+E2)	−0.18 *4*	Mult.: M1/E2 in 2005Fi10.
637.0 *5*		8422.6		7785.5	33/2$^-$			
638.8 *3*	10.4 *4*	4015.8	21/2$^-$	3376.9	17/2$^-$	[a]		Mult.: E2 in 2005Fi10.
653.8 *4*		3046.6	(17/2$^+$)	2392.7	17/2$^+$			
655.7 *3*	17.7 *5*	4969.4	25/2$^+$	4313.7	21/2$^+$	[a]		Mult.: E2 in 2005Fi10.
663.4[e] *4*	11.5 *7*	1070.2?	(7/2$^-$)	407.03	5/2$^-$	(M1+E2)	+0.24 *7*	Mult.: (M1/E2) in 2005Fi10.
669.5 *2*	9.2 *5*	669.56	5/2$^+$	0.0	5/2$^-$	[b]		Mult.: (E1) in 2005Fi10.
693.8 *5*		3046.6	(17/2$^+$)	2352.4	15/2$^+$			
721.0 *10*	6.7 *3*	929.26	7/2$^-$	207.80	3/2$^-$			
724.5 *5*	20.4 *6*	2216.5	13/2$^-$	1491.8	9/2$^-$	[a]		Mult.: E2 in 2005Fi10.
727.0 *5*		2217.1	13/2$^+$	1490.2	11/2$^+$			
731.2 *4*	8.1 *5*	1490.2	11/2$^+$	759.06	9/2$^+$	(M1+E2)	+0.64 *8*	Mult.: M1/E2 in 2005Fi10.
737.6 *3*	100.0 *22*	1496.6	13/2$^+$	759.06	9/2$^+$	[a]		Mult.: E2 in 2005Fi10.
759.1 *3*		759.06	9/2$^+$	0.0	5/2$^-$			I_γ: very strong γ ray, but intensity is not listed by 2005Fi10.
762.8 *4*	18.8 *5*	2477.6	13/2$^-$	1714.1	11/2$^-$	(M1+E2)	+0.27 *5*	Mult.: M1/E2 in 2005Fi10.
781.7 *4*	11.2 *4*	4311.1	21/2$^-$	3529.3	19/2$^-$	(D(+Q))[c]	−0.06 *6*	Mult.: M1/E2 in 2005Fi10.
794.5 *5*	17.0 *5*	2477.6	13/2$^-$	1683.4	9/2$^-$	[a]		Mult.: E2 in 2005Fi10.
806.0 *3*	75.9 *16*	2519.9	15/2$^-$	1714.1	11/2$^-$	[a]		Mult.: E2 in 2005Fi10.
827.2 *4*	7.5 *4*	1586.1	11/2$^+$	759.06	9/2$^+$			
829.9 *5*	8.2 *4*	3046.6	(17/2$^+$)	2217.1	13/2$^+$			
842.3 *4*	19.9 *5*	5811.7	29/2$^+$	4969.4	25/2$^+$	[a]		Mult.: E2 in 2005Fi10.
857.1 *4*	25.7 *7*	3376.9	17/2$^-$	2519.9	15/2$^-$	(M1+E2)	−0.11 *4*	Mult.: M1/E2 in 2005Fi10.
861.9 *4*	17.6 *5*	2352.4	15/2$^+$	1490.2	11/2$^+$	[a]		Mult.: E2 in 2005Fi10.
869.4 *4*	2.8 *4*	3262.0	17/2$^+$	2392.7	17/2$^+$			
896.2 *3*	84.9 *21*	2392.7	17/2$^+$	1496.6	13/2$^+$	[a]		Mult.: E2 in 2005Fi10.
898.9 *4*	18.8 *19*	3376.9	17/2$^-$	2477.6	13/2$^-$	[a]		Mult.: E2 in 2005Fi10.
907.2 *4*	45.3 *11*	1683.4	9/2$^-$	776.1	5/2$^-$	[a]		Mult.: E2 in 2005Fi10. I_γ: combined intensity for 907.2 and 907.7 γ rays.

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^{40}Ca(^{40}Ca,2αpγ) 2005Fi10 (continued)

γ(^{71}Br) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	δ[@]	Comments
907.7 *4*	45.3 *11*	1714.1	11/2$^-$	806.5	7/2$^-$	*a*		Mult.: E2 in 2005Fi10. I_γ: combined intensity for 907.2 and 907.7 γ rays.
924.6 *5*		3046.6	(17/2$^+$)	2122.0	13/2$^+$	*a*		Mult.: (E2) in 2005Fi10.
929.3 *4*	10.2 *6*	929.26	7/2$^-$	0.0	5/2$^-$			
934.2 *4*	26.5 *9*	4311.1	21/2$^-$	3376.9	17/2$^-$	*a*		Mult.: E2 in 2005Fi10.
947.8 *4*	21.7 *15*	2122.0	13/2$^+$	1174.02	9/2$^+$	*a*		Mult.: E2 in 2005Fi10.
954.2[&] *5*	25.3 *14*	1714.1	11/2$^-$	759.06	9/2$^+$	(D(+Q))[*c*]	−0.03 *7*	Mult.: E1 in 2005Fi10.
971.4 *4*	31.1 *8*	3187.8	17/2$^-$	2216.5	13/2$^-$	*a*		Mult.: E2 in 2005Fi10.
992.4 *5*		1714.1	11/2$^-$	722.0?	(7/2$^-$)			
998.0 *5*		8422.6		7424.7				
1009.4 *3*	62.0 *13*	3529.3	19/2$^-$	2519.9	15/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1027.8 *4*	30.9 *7*	4503.0	25/2$^+$	3475.2	21/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1045.6 *5*	15.4 *5*	4092.2	(21/2$^+$)	3046.6	(17/2$^+$)	*a*		Mult.: E2 in 2005Fi10.
1051.8 *4*	13.2 *9*	4313.7	21/2$^+$	3262.0	17/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1055.7 *5*	11.4 *9*	1055.4?	(9/2$^-$)	0.0	5/2$^-$			
1064.0 *4*	44.7 *10*	5375.1	25/2$^-$	4311.1	21/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1081.6 *4*	88.4[#] *19*	3434.0	19/2$^+$	2352.4	15/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1082.4 *4*	88.4[#] *19*	3475.2	21/2$^+$	2392.7	17/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1123.3 *4*	31.9 *10*	4311.1	21/2$^-$	3187.8	17/2$^-$	*a*		Mult.: (E2) in 2005Fi10.
1139.8 *5*	14.4 *8*	3262.0	17/2$^+$	2122.0	13/2$^+$	*a*		Mult.: (E2) in 2005Fi10.
1161.3 *4*	16.3 *6*	2216.5	13/2$^-$	1055.4?	(9/2$^-$)			
1171.9 *6*	48.0 *12*	7785.5	33/2$^-$	6613.4	29/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1212.3 *4*	47.8 *11*	4741.8	23/2$^-$	3529.3	19/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1221.5 *4*	12.7 *6*	5313.7	(25/2$^+$)	4092.2	(21/2$^+$)	*a*		Mult.: E2 in 2005Fi10.
1238.2 *3*	59.2 *13*	6613.4	29/2$^-$	5375.1	25/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1248.9 *4*	12.4 *6*	5994.8	27/2$^+$	4745.9	23/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1258.0 *10*		7424.7		6167.2	27/2$^-$			
1268.4 *4*	24.2 *7*	4743.6	25/2$^+$	3475.2	21/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1299 *1*	23.3 *9*	9721.6		8422.6				
1308.7 *6*	16.7 *8*	5811.7	29/2$^+$	4503.0	25/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1311.9 *6*	19.0 *7*	4745.9	23/2$^+$	3434.0	19/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1345.4 *4*	33.6 *9*	7157.1	33/2$^+$	5811.7	29/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1359.7 *5*	24.5 *9*	5375.1	25/2$^-$	4015.8	21/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1395.5 *5*	21.9 *6*	6709.2	(29/2$^+$)	5313.7	(25/2$^+$)	*a*		Mult.: (E2) in 2005Fi10.
1409.3 *6*	18.1 *6*	9194.8	37/2$^-$	7785.5	33/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1426.0 *10*	16.3 *8*	6167.2	27/2$^-$	4741.8	23/2$^-$	*a*		Mult.: E2 in 2005Fi10.
1447.2 *5*	18.3 *6*	6190.8	29/2$^+$	4743.6	25/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1476.0 *5*	18.1 *9*	7470.8	31/2$^+$	5994.8	27/2$^+$	*a*		Mult.: (E2) in 2005Fi10.
1494.1 *6*	16.6 *10*	4969.4	25/2$^+$	3475.2	21/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1535.6 *8*	7.2 *4*	8244.8	(33/2$^+$)	6709.2	(29/2$^+$)	*a*		Mult.: (E2) in 2005Fi10.
1561.3 *15*		9320.4	(35/2$^-$)	7759.1	(31/2$^-$)			
1591.9 *15*		7759.1	(31/2$^-$)	6167.2	27/2$^-$			
1599.0 *8*	15.2 *5*	7789.8	33/2$^+$	6190.8	29/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1619.6 *8*	20.9 *7*	9090.4	35/2$^+$	7470.8	31/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1629[*e*] *2*		12381	(43/2$^+$)	10752.1	(39/2$^+$)			
1661.7[*e*] *15*	8.8 *4*	10752.1	(39/2$^+$)	9090.4	35/2$^+$			
1736.8 *20*		9526.7	37/2$^+$	7789.8	33/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1752 *2*		9996.8	(37/2$^+$)	8244.8	(33/2$^+$)			
1766 *2*		11487.6		9721.6				
1798.5 *15*	29.1 *8*	8955.7	37/2$^+$	7157.1	33/2$^+$	*a*		Mult.: E2 in 2005Fi10.
1836 *2*	9.5 *4*	11030.8	(41/2$^-$)	9194.8	37/2$^-$			

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^{40}Ca(^{40}Ca,2αpγ) 2005Fi10 (continued)

$\gamma(^{71}Br)$ (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
1883[e] *2*	11.7 *7*	12875	$(45/2^+)$	10992.4	$(41/2^+)$
1907[e] *2*		11434	$(41/2^+)$	9526.7	$37/2^+$
2036.7[e] *15*	18.1 *10*	10992.4	$(41/2^+)$	8955.7	$37/2^+$
2038[e] *2*		13472	$(45/2^+)$	11434	$(41/2^+)$
2084[e] *2*		14959	$(49/2^+)$	12875	$(45/2^+)$

† Uncertainties given in 2005Fi10 are statistical only and the evaluators have added an additional 2% uncertainty in quadrature to account for systematic uncertainty typically seen in other work with the Gammasphere.

‡ 12.3 *2* listed in table I of 2005Fi10 for each γ seems to be combined intensity for the double placement of 222.4γ, although no comment is made about the intensity by 2005Fi10.

88.4 *6* listed in table I of 2005Fi10 for each γ seems to be combined intensity for the doublet 1081.6 and 1082.4, although no comment is made about the intensity by 2005Fi10.

@ From gated $\gamma(\theta)$ measurements of 2005Fi10, but no angular distribution coefficients are listed in the paper.

& The $\gamma(\theta)$ distribution shown in figure 4 of 2005Fi10.

a E2 assigned by 2005Fi10, but coefficients of $\gamma(\theta)$ data are not listed by the authors.

b E1 assigned by 2005Fi10, but coefficients of $\gamma(\theta)$ data are not listed by the authors.

c 2005Fi10 give M1+E2, the evaluators assign (D(+Q)) since listed mixing ratio overlaps zero and no angular distribution coefficients are listed in 2005Fi10, except that for six transitions $\gamma(\theta)$ distributions are shown in Fig. 4 in paper.

d Multiply placed with undivided intensity.

e Placement of transition in the level scheme is uncertain.

^{40}Ca(^{40}Ca,2αpγ) 2005Fi10

Level Scheme

Intensities: Relative I_γ

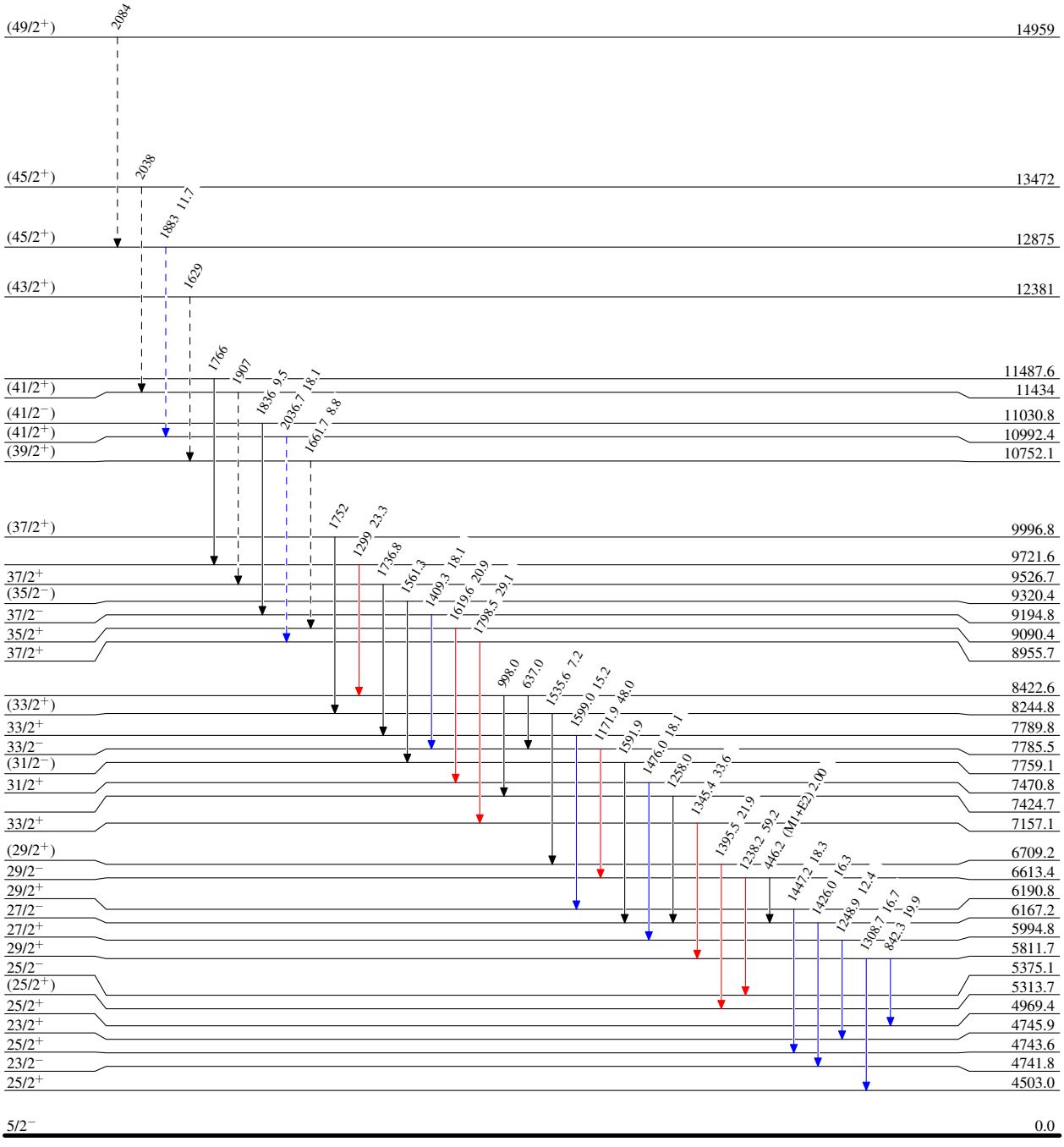
Legend

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

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

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

γ Decay (Uncertain)

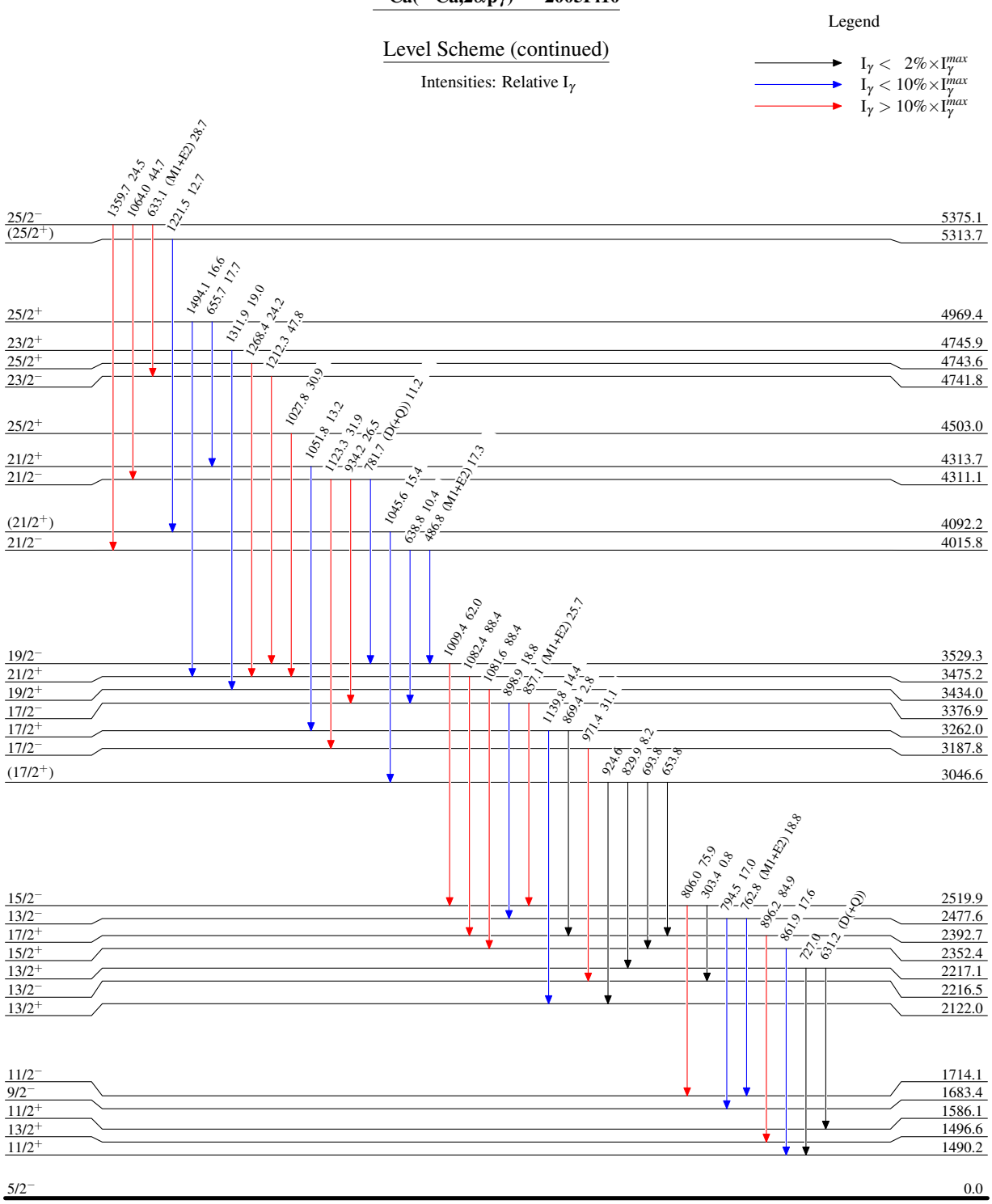


$^{71}_{35}Br_{36}$

^{40}Ca(^{40}Ca,2αpγ) 2005Fi10

Level Scheme (continued)

Intensities: Relative I_γ



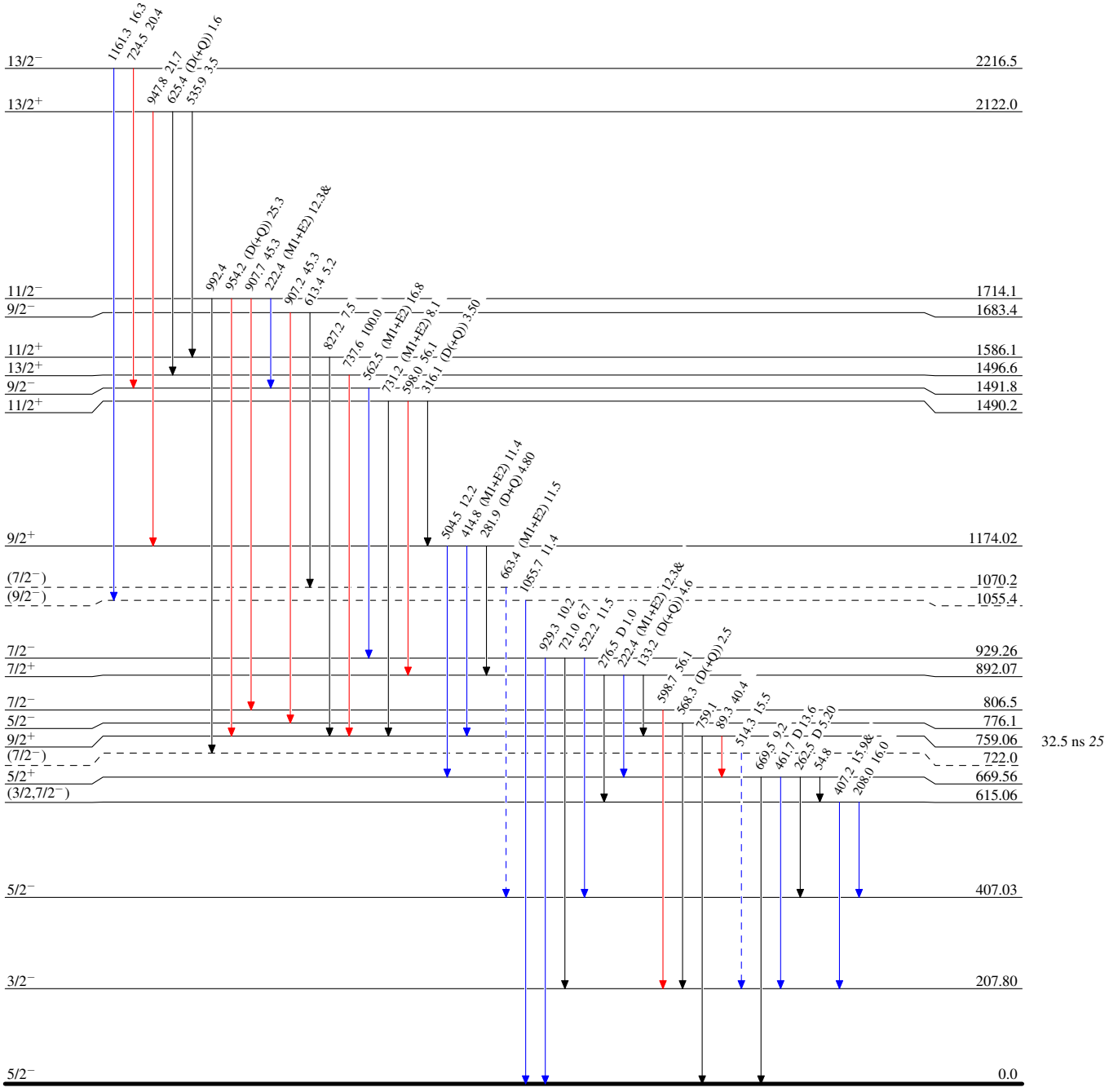
$^{71}_{35}Br_{36}$

^{40}Ca(^{40}Ca,2αpγ) **2005Fi10**

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

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)

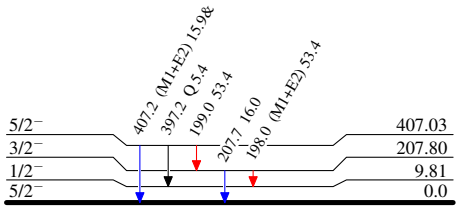


$^{71}_{35}Br_{36}$

^{40}Ca(^{40}Ca,2αpγ) 2005Fi10

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

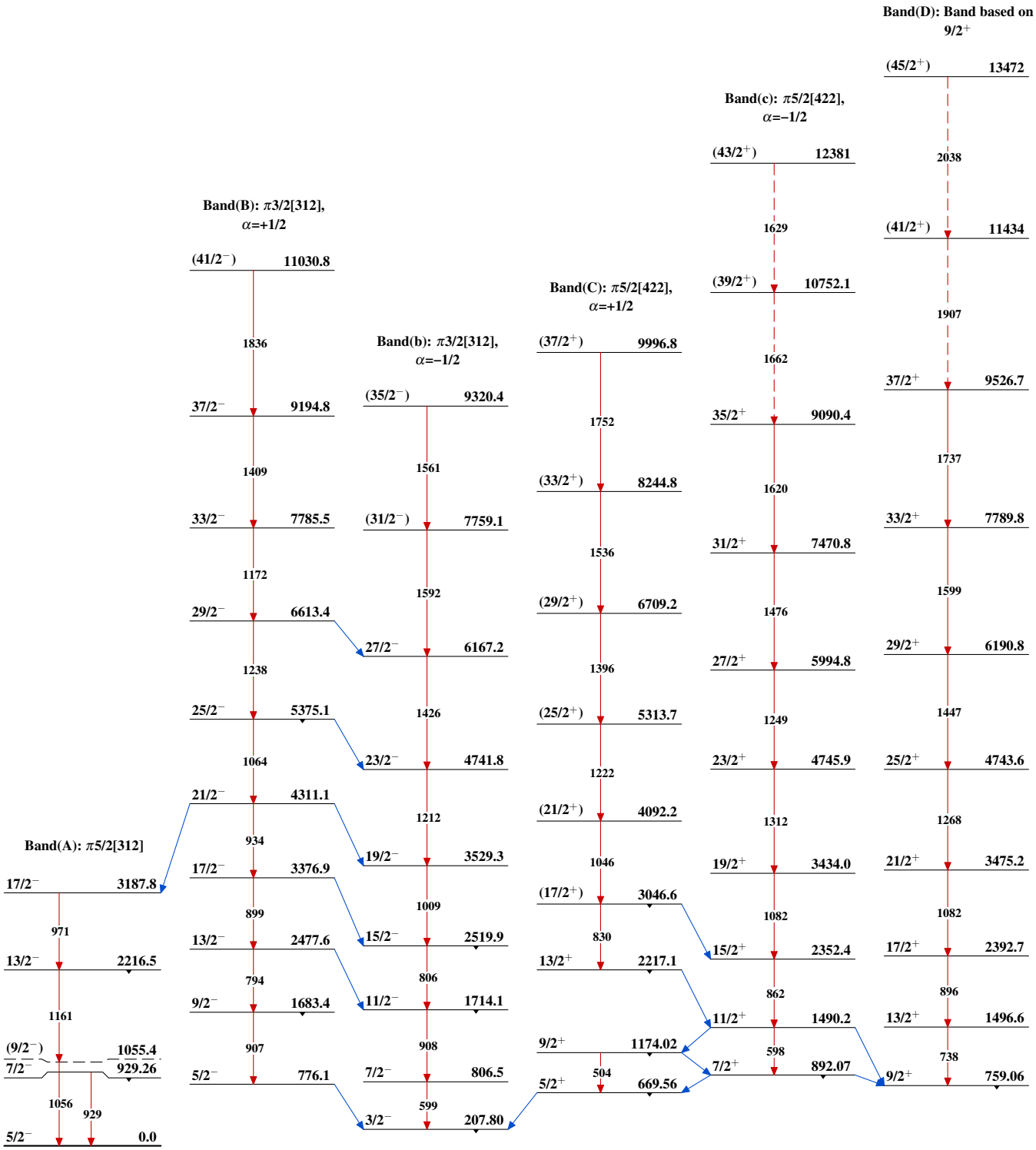


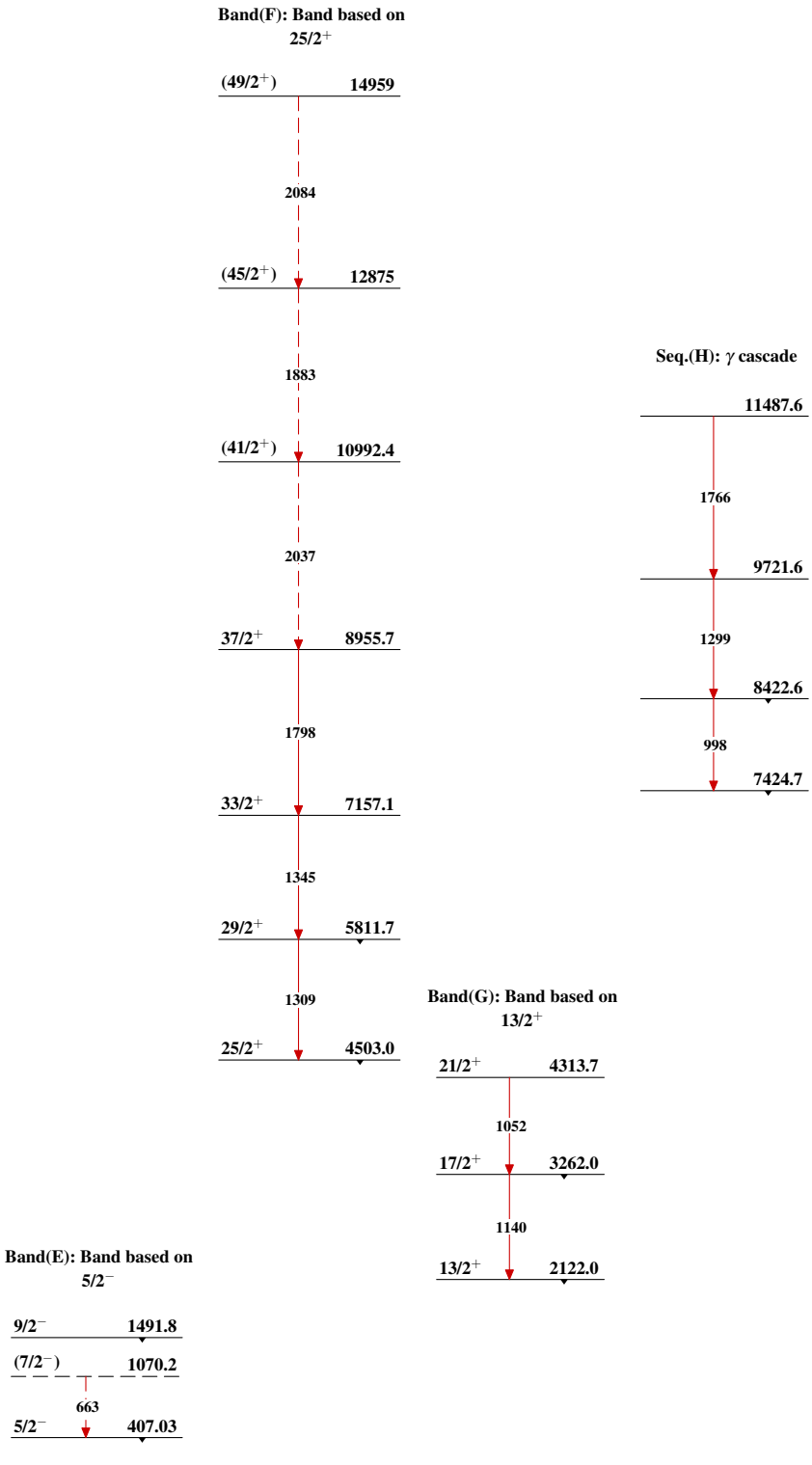
$^{71}_{35}Br_{36}$

Legend

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

^{40}Ca(^{40}Ca,2αpγ) 2005Fi10



$^{71}_{35}Br_{36}$

$^{40}Ca(^{40}Ca,2\alpha p\gamma)$ 2005Fi10 (continued)