(HI,xnγ) 1994Je11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 109, 1383 (2008)	1-Mar-2008

^{94}Zr(^{17}O,pxn) E=80 MeV, "NORDBALL" detector.
Measured γ, γγ,γ(θ). Charged particles were detected with a system called "Hystrix".

^{107}Ag Levels

E(level)[†]	Jπ[‡]	Comments
0.0	1/2⁻	
125.7[#]	9/2⁺	Additional information 1.
773.22[#] *8*	11/2⁺	
991.08[#] *8*	13/2⁺	
1800.05[#] *13*	15/2⁺	
2053.65[#] *13*	17/2⁺	
2172.35 *24*	15/2⁻	
2297.91[&] *12*	15/2⁻	
2411.33[&] *13*	17/2⁻	
2542.03[&] *17*	19/2⁻	
2746.45[&] *20*	21/2⁻	
2892.11[#] *17*	19/2⁺	
3046.65[a] *22*	23/2⁻	
3054.42[&] *22*	23/2⁻	
3148.49[#] *15*	21/2⁺	
3236.85[a] *24*	25/2⁻	
3297.5 *3*	21/2⁺	
3460.41[#] *17*	23/2⁺	
3464.51[&] *23*	25/2⁻	
3597.5 *7*		
3682.35[#] *19*	25/2⁺	
3722.1[a] *4*	27/2⁻	
3741.6 *11*		
3925.83[&] *25*	27/2⁻	
3954		
3977.19[#] *23*	27/2⁺	
4030.5 *10*		
4355.92[#] *23*	29/2⁺	
4395.8[&] *3*	29/2⁻	
4752.2[#] *3*	31/2⁺	
4967.6[@] *4*	29/2⁺	
5004.7[&] *4*	31/2⁻	
5246.3[#] *3*	33/2⁺	
5256.9[@] *4*	31/2⁺	
5563.2[&] *4*	33/2⁻	
5574.7[@] *4*	33/2⁺	
5747.4[#] *3*	35/2⁺	
5944.3[@] *4*	35/2⁺	
6318.8[#] *4*	37/2⁺	

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(HI,xnγ) 1994Je11 (continued)

^{107}Ag Levels (continued)

E(level)[†]	Jπ[‡]
6376.1[@] *5*	37/2$^+$
6887.2[@] *5*	39/2$^+$
6911.9[#] *4*	39/2$^+$
7441.4[@] *5*	41/2$^+$
8046.0[@] *5*	43/2$^+$
8717.5[@] *6*	45/2$^+$

[†] Level energy from least-squares adjustment.
[‡] From 1994Je11 based on γ's mult and/or band considerations.
[#] Band(A): πg9/2 ,Yrast.
[@] Band(B): ΔJ=1 Band based on 29/2$^+$.
[&] Band(C): ΔJ=1 band based on (15/2$^-$).
[a] Band(D): 3 quasi -particle band (1997Es02). Jπ from cranked-shell model.

γ(^{107}Ag)

Eγ	Iγ	Ei(level)	Jiπ	Ef	Jfπ	Mult.[†]	Comments
113.5 *1*	308 *8*	2411.33	17/2$^-$	2297.91	15/2$^-$	M1,E2	Mult.: DCO=0.99 *4*.
130.7 *1*	307 *12*	2542.03	19/2$^-$	2411.33	17/2$^-$	M1,E2	Mult.: DCO=0.98 *4*.
162.9 *3*	43 *14*	3460.41	23/2$^+$	3297.5	21/2$^+$	M1,E2	Mult.: DCO=1.30 *17*.
190.2 *1*	92 *6*	3236.85	25/2$^-$	3046.65	23/2$^-$	M1,E2	Mult.: DCO=1.12 *12*.
204.4 *1*	275 *11*	2746.45	21/2$^-$	2542.03	19/2$^-$	M1,E2	Mult.: DCO=0.96 *4*.
217.9 *1*	120 *11*	991.08	13/2$^+$	773.22	11/2$^+$	M1,E2	Mult.: DCO=1.37 *22*.
221.9 *1*	326 *23*	3682.35	25/2$^+$	3460.41	23/2$^+$	M1,E2	Mult.: DCO=0.99 *4*.
253.6 *2*	28 *8*	2053.65	17/2$^+$	1800.05	15/2$^+$	M1,E2	Mult.: DCO=0.80 *25*.
256.0 *3*	62 *13*	3148.49	21/2$^+$	2892.11	19/2$^+$	M1,E2	Mult.: DCO=1.13 *14*.
288.9 *5*	50 *20*	4030.5		3741.6			
289.4 *1*	175 *32*	5256.9	31/2$^+$	4967.6	29/2$^+$	M1,E2	Mult.: DCO=0.98 *6*.
294.6 *2*	316 *29*	3977.19	27/2$^+$	3682.35	25/2$^+$	M1,E2	Mult.: DCO=0.94 *5*.
300.2 *1*	119 *6*	3046.65	23/2$^-$	2746.45	21/2$^-$	M1,E2	Mult.: DCO=1.03 *9*.
307.9 *1*	216 *10*	3054.42	23/2$^-$	2746.45	21/2$^-$	M1,E2	Mult.: DCO=0.90 *5*.
311.9 *1*	287 *16*	3460.41	23/2$^+$	3148.49	21/2$^+$	M1,E2	Mult.: DCO=1.07 *6*.
317.8 *1*	133 *10*	5574.7	33/2$^+$	5256.9	31/2$^+$	M1,E2	Mult.: DCO=0.89 *6*.
369.5 *1*	134 *11*	5944.3	35/2$^+$	5574.7	33/2$^+$	M1,E2	Mult.: DCO=0.97 *10*.
372.3 *2*	59 *15*	2172.35	15/2$^-$	1800.05	15/2$^+$	E1	Mult.: DCO=1.03 *8*.
378.7 *1*	218 *13*	4355.92	29/2$^+$	3977.19	27/2$^+$	M1,E2	Mult.: DCO=0.95 *7*.
396.4 *2*	215 *13*	4752.2	31/2$^+$	4355.92	29/2$^+$	M1,E2	Mult.: DCO=1.02 *8*.
410.0 *1*	181 *10*	3464.51	25/2$^-$	3054.42	23/2$^-$	M1,E2	Mult.: DCO=0.92 *6*.
431.8 *1*	130 *11*	6376.1	37/2$^+$	5944.3	35/2$^+$	M1,E2	Mult.: DCO=0.90 *11*.
461.3 *1*	113 *13*	3925.83	27/2$^-$	3464.51	25/2$^-$	M1,E2	Mult.: DCO=1.06 *16*.
470.0 *1*	93 *9*	4395.8	29/2$^-$	3925.83	27/2$^-$	M1,E2	Mult.: DCO=1.02 *14*.
485.2 *2*	55 *5*	3722.1	27/2$^-$	3236.85	25/2$^-$	M1,E2	Mult.: DCO=0.89 *12*.
494.1 *2*	156 *10*	5246.3	33/2$^+$	4752.2	31/2$^+$	M1,E2	Mult.: DCO=0.81 *15*.
501.0 *2*	139 *14*	5747.4	35/2$^+$	5246.3	33/2$^+$	M1,E2	Mult.: DCO=1.16 *20*.
511.1 *2*	113 *20*	6887.2	39/2$^+$	6376.1	37/2$^+$	M1,E2	Mult.: DCO=1.06 *13*.
513.1 *6*	21 *4*	3054.42	23/2$^-$	2542.03	19/2$^-$		
516.8 *3*	38 *12*	3977.19	27/2$^+$	3460.41	23/2$^+$	E2	Mult.: DCO=0.94 *5*.
535.0 *5*	30 *10*	3682.35	25/2$^+$	3148.49	21/2$^+$	E2	Mult.: DCO=0.40 *20*.
554.2 *2*	85 *11*	7441.4	41/2$^+$	6887.2	39/2$^+$	M1,E2	Mult.: DCO=0.83 *15*.

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(HI,xnγ) 1994Je11 (continued)

$\gamma(^{107}Ag)$ (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	Comments
558.5 *2*	41 *5*	5563.2	$33/2^-$	5004.7	$31/2^-$		
568.2 *2*	29 *8*	3460.41	$23/2^+$	2892.11	$19/2^+$	E2	Mult.: DCO=1.07 *6*.
571.3 *2*	92 *10*	6318.8	$37/2^+$	5747.4	$35/2^+$	M1,E2	Mult.: DCO=1.08 *18*.
593.1 *2*	90 *16*	6911.9	$39/2^+$	6318.8	$37/2^+$	M1,E2	Mult.: DCO=1.07 *27*.
604.4 *2*	84 *18*	8046.0	$43/2^+$	7441.4	$41/2^+$	M1,E2	Mult.: DCO=0.93 *20*.
606.0 *5*	56 *17*	5574.7	$33/2^+$	4967.6	$29/2^+$	E2	Mult.: DCO=1.02 *38*.
608.8 *3*	61 *10*	5004.7	$31/2^-$	4395.8	$29/2^-$	M1,E2	Mult.: DCO=0.83 *14*.
611.2 *1*	90 *15*	2411.33	$17/2^-$	1800.05	$15/2^+$	E1	Mult.: DCO=1.06 *9*.
647.5 *1*	258 *20*	773.22	$11/2^+$	125.7	$9/2^+$		
671.3 *3*	61 *13*	8717.5	$45/2^+$	8046.0	$43/2^+$		
673.8 *2*	58 *16*	4355.92	$29/2^+$	3682.35	$25/2^+$	E2	Mult.: DCO=0.70 *5*.
687.6 *3*	33 *11*	5944.3	$35/2^+$	5256.9	$31/2^+$	E2	Mult.: DCO=0.58 *26*.
718.8 *4*	39 *4*	3464.51	$25/2^-$	2746.45	$21/2^-$	E2	Mult.: DCO=0.68 *20*.
774.6 *3*	40 *11*	4752.2	$31/2^+$	3977.19	$27/2^+$	E2	Mult.: DCO=0.67 *11*.
802.7 *6*	32 *12*	6376.1	$37/2^+$	5574.7	$33/2^+$	E2	Mult.: DCO=0.72 *19*.
808.7 *2*	118 *14*	1800.05	$15/2^+$	991.08	$13/2^+$	M1,E2	Mult.: DCO=1.05 *19*.
838.0 *4*	77 *12*	2892.11	$19/2^+$	2053.65	$17/2^+$		
865.4 *1*	742 *25*	991.08	$13/2^+$	125.7	$9/2^+$	E2	Mult.: DCO=0.98 *8*.
871.8 *3*	47 *5*	3925.83	$27/2^-$	3054.42	$23/2^-$		
890.4 *3*	45 *9*	5246.3	$33/2^+$	4355.92	$29/2^+$	E2	Mult.: DCO=0.70 *14*.
931.1 *3*	52 *10*	4395.8	$29/2^-$	3464.51	$25/2^-$	E2	Mult.: DCO=0.49 *35*.
937.1 *9*	40 *15*	4967.6	$29/2^+$	4030.5			
942.9 *3*	25 *11*	6887.2	$39/2^+$	5944.3	$35/2^+$	E2	Mult.: DCO=0.62 *7*.
990.4 *3*	55 *5*	4967.6	$29/2^+$	3977.19	$27/2^+$		
995.3 *2*	64 *15*	5747.4	$35/2^+$	4752.2	$31/2^+$	E2	Mult.: DCO=0.66 *13*.
1014.0 *5*	16 *7*	4967.6	$29/2^+$	3954			
1026.6 *2*	48 *12*	1800.05	$15/2^+$	773.22	$11/2^+$		
1062.6 *1*	403 *21*	2053.65	$17/2^+$	991.08	$13/2^+$	E2	Mult.: DCO=0.58 *5*.
1065.2 *3*	85 *18*	7441.4	$41/2^+$	6376.1	$37/2^+$		
1072.7 *4*	55 *16*	6318.8	$37/2^+$	5246.3	$33/2^+$		
1078.8 *4*	34 *4*	5004.7	$31/2^-$	3925.83	$27/2^-$		
1091.9 *2*	25 *12*	2892.11	$19/2^+$	1800.05	$15/2^+$		
1094.9 *1*	305 *18*	3148.49	$21/2^+$	2053.65	$17/2^+$	E2	Mult.: DCO=0.57 *4*.
1159.2 *4*	23 *12*	8046.0	$43/2^+$	6887.2	$39/2^+$		
1164.4 *4*	52 *14*	6911.9	$39/2^+$	5747.4	$35/2^+$	E2	Mult.: DCO=0.61 *23*.
1168.0 *7*	31 *7*	5563.2	$33/2^-$	4395.8	$29/2^-$	E2	Mult.: DCO=0.54 *29*.
1243.9 *4*	45 *9*	3297.5	$21/2^+$	2053.65	$17/2^+$		
1276.5 *5*	31 *12*	8717.5	$45/2^+$	7441.4	$41/2^+$		
1306.9 *1*	112 *23*	2297.91	$15/2^-$	991.08	$13/2^+$	E1	Mult.: DCO=1.01 *7*.
1370.1 *5*	22 *4*	4967.6	$29/2^+$	3597.5			

[†] From DCO ratios. E2 have DCO close of 0.6 and M1,E2 have DCO≈1.0.

(HI,xnγ) 1994Je11

Level Scheme

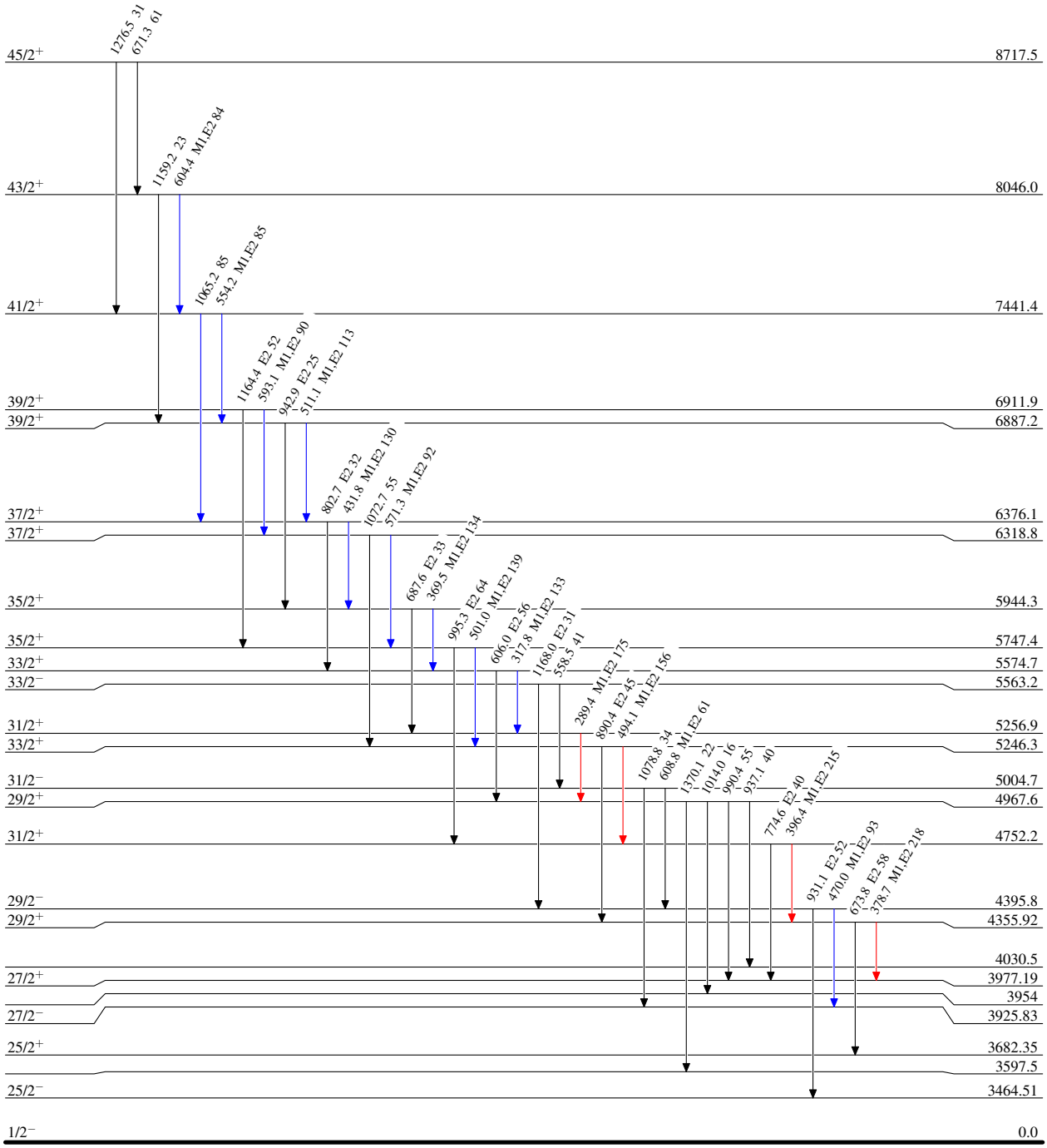
Intensities: Relative I_γ

Legend

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

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

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



$^{107}_{47}Ag_{60}$

(HI,xnγ) 1994Je11

Level Scheme (continued)

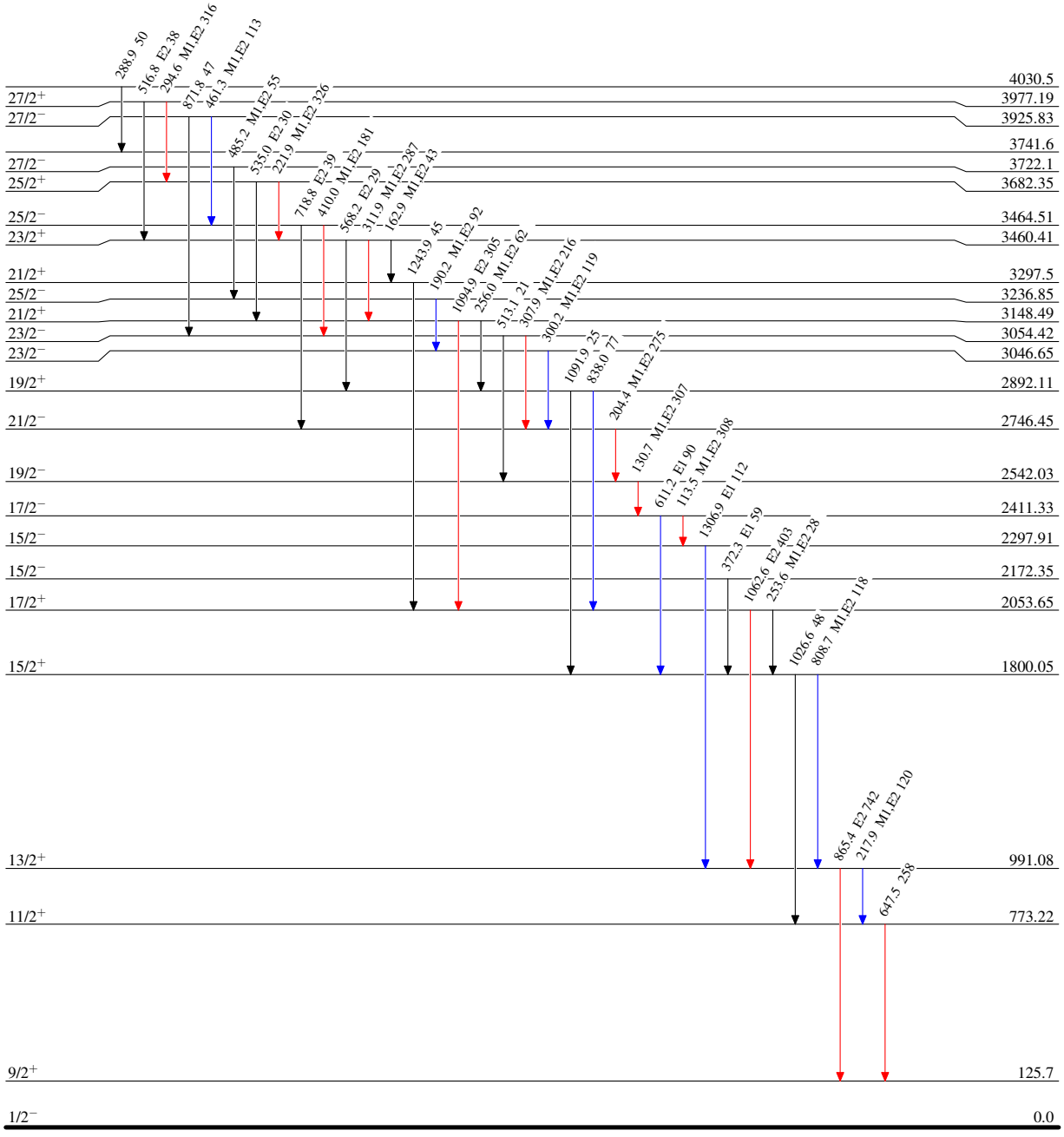
Intensities: Relative I_γ

Legend

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

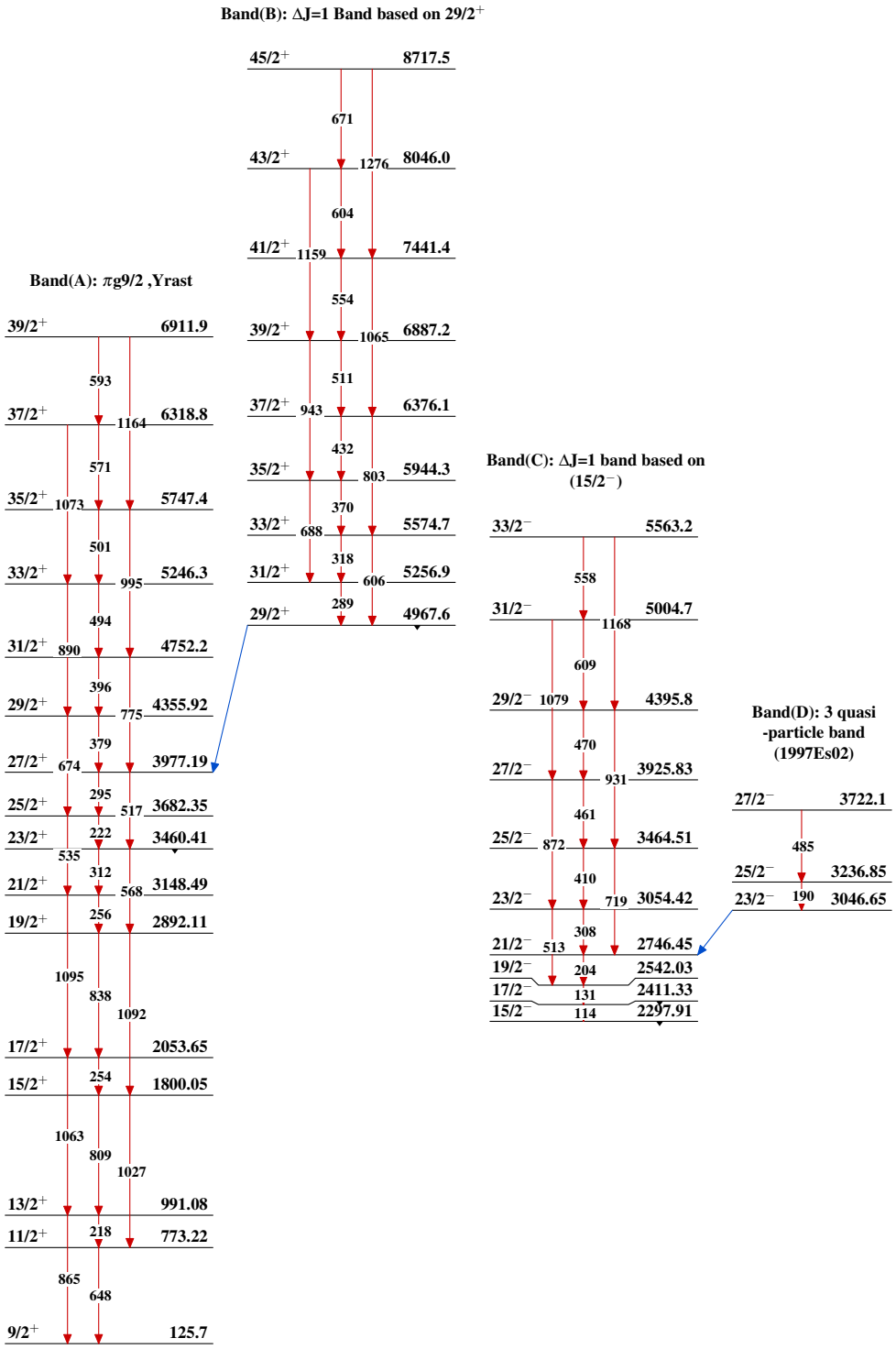
$I_\gamma < 10\% \times I_\gamma^{max}$

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



$^{107}_{47}Ag_{60}$

(HI,xnγ) 1994Je11



$^{107}_{47}Ag_{60}$