(HI,xnγ) 1996Ur03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 110, 507 (2009)	1-Oct-2008

^{134}Xe(^{15}N,4nγ) E=78 MeV, ^{146}Nd(d,3nγ) E=18 MeV Measured Eγ, Iγ, γγ, γγ(θ)(DCO) using TESSA array of 16 Ge detectors. Measured Iγ and ce in (d,3nγ) reaction.

1993Gl03, 1992Gl03: ^{130}Te(^{19}F,4nγ), E=85 MeV Measured Eγ, Iγ, γγ, γ(θ), γγ(θ)(DCO) using four Compton-suppressed Ge detectors. DCO ratios were measured in 0°, 90° geometry. Excit (E=70-85 MeV, 1992Gl03). Their level scheme is in agreement with that of 1996Ur03.

^{145}Pm Levels

E(level)	Jπ	$T_{1/2}$	E(level)	Jπ
0.0†	5/2+		2124.70‡ *18*	19/2+
61.27‡ *8*	7/2+		2441.57& *22*	21/2(+)
492.68# *10*	3/2+		2448.60@ *19*	23/2−
660.71# *19*	5/2+		2615.29 *25*	(21/2+)
669.99† *9*	7/2+		2811.57& *23*	23/2(+)
713.99‡ *11*	9/2+		3052.42@ *20*	27/2−
750.73† *9*	9/2+		3159.93& *22*	25/2(+)
794.81@ *11*	11/2−	17 ns *2*	3497.06& *24*	27/2(+)
823.95# *20*	7/2+		3665.34a *25*	(25/2)
836.84‡ *11*	11/2+		3760.41& *24*	29/2(+)
1102.05 *17*	9/2−		3850.9 *3*	(27/2)
1207.19† *11*	11/2+		4013.8& *3*	(31/2+)
1284.89 *15*	11/2−		4086.25a *25*	(27/2)
1347.53‡ *13*	13/2+		4223.7@ *3*	(29/2)
1385.2 *4*			4362.6& *3*	(31/2+,33/2+)
1397.82† *16*	13/2+		4389.71a *25*	(29/2)
1447.91@ *14*	15/2−		4701.4a *3*	(31/2)
1493.94 *23*			4760.3& *4*	(35/2+,37/2+)
1502.54‡ *14*	15/2+		4935.1a *4*	(33/2)
1582.61 *23*			5030.5@ *4*	
1649.59† *18*	15/2+		5482.7 *4*	(35/2+,37/2+)
1836.64 *24*			5727.3 *5*	
1844.76‡ *16*	17/2+		5891.7 *4*	(39/2+,41/2+)
1896.57† *24*	17/2+		6130.7 *5*	
2013.4 *4*			6853.7 *5*	
2026.01@ *17*	19/2−		7216.8 *6*	

† Band(A): 5/2+, g.s. band.
‡ Band(B): 7/2+ band.
# Band(C): 3/2+ band.
@ Band(D): 11/2− band.
& Band(E): 21/2+ band.
a Band(F): (25/2) band.

$\gamma(^{145}Pm)$

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
44		794.81	$11/2^-$	750.73	$9/2^+$			
61.3 *1*	80[‡] *8*	61.27	$7/2^+$	0.0	$5/2^+$			
62.0[@] *3*		1347.53	$13/2^+$	1284.89	$11/2^-$			Inferred from 570.9γ-155.0γ coincidence.
80.7 *3*	4[‡] *2*	794.81	$11/2^-$	713.99	$9/2^+$	E1	0.479 *9*	α(exp)=0.5 *3* α(K)=0.402 *7*; α(L)=0.0600 *11*; α(M)=0.01277 *23*; α(N+..)=0.00324 *6* α(N)=0.00282 *5*; α(O)=0.000398 *7*; α(P)=1.92×10^{-5} *4* B(E1)(W.u.)=1.4×10^{-6} *8*
80.8 *3*		750.73	$9/2^+$	669.99	$7/2^+$	M1+E2	0.00446 *7*	α(K)=2.27 *17*; α(L)=1.3 *10*; α(M)=0.29 *22*; α(N+..)=0.07 *6* α(N)=0.06 *5*; α(O)=0.008 *6*; α(P)=0.00012 *4* α(K)exp=2.1 *9* α=0.00446 *7*; α(K)=0.00375 *6*; α(L)=0.000554 *8*; α(M)=0.0001189 *17*; α(N+..)=3.08×10^{-5} *5* α(N)=2.66×10^{-5} *4*; α(O)=3.94×10^{-6} *6*; α(P)=2.24×10^{-7} *4* α(K)exp=0.004 *1* I_γ: 4 *2* in (d,3nγ). I_γ: 198 *10* in (d,3nγ).
123.0 *3*	6.6[‡] *18*	836.84	$11/2^+$	713.99	$9/2^+$	M1+E2	0.00413 *6*	α(K)exp=1.3 *7* α(K)=0.69 *4*; α(L)=0.22 *12*; α(M)=0.05 *3*; α(N+..)=0.012 *7* α(N)=0.011 *6*; α(O)=0.0014 *7*; α(P)=3.8×10^{-5} *9* α=0.00413 *6*; α(K)=0.00349 *5*; α(L)=0.000511 *8*; α(M)=0.0001095 *16*; α(N+..)=2.84×10^{-5} *4* α(K)exp=0.004 *1* α(N)=2.45×10^{-5} *4*; α(O)=3.63×10^{-6} *5*; α(P)=2.08×10^{-7} *3*
138.7 *3*	5 *1*	4362.6	$(31/2^+,33/2^+)$	4223.7	(29/2)			R(DCO)= 2.2 *7*.
155.0 *2*	18[‡] *2*	1502.54	$15/2^+$	1347.53	$13/2^+$	M1+E2	0.00593 *9*	α(K)exp=0.42 *10* α(K)=0.35 *3*; α(L)=0.09 *4*; α(M)=0.019 *9*; α(N+..)=0.0049 *20* α(N)=0.0043 *18*; α(O)=0.00059 *21*; α(P)=2.0×10^{-5} *5* α=0.00593 *9*; α(K)=0.00497 *7*; α(L)=0.000756 *11*; α(M)=0.0001628 *23*; α(N+..)=4.21×10^{-5} *6* α(N)=3.64×10^{-5} *6*; α(O)=5.35×10^{-6} *8*; α(P)=2.94×10^{-7} *5* α(K)exp=0.006 *2* I_γ: 21 *1* in (^{15}N,4nγ). R(DCO)= 0.9 *3*.
163.3 *3*	2.0[‡] *10*	823.95	$7/2^+$	660.71	$5/2^+$			
164.5 *3*	7 *2*	5891.7	$(39/2^+,41/2^+)$	5727.3				R(DCO)= 2.0 *5*.
168.1 *3*	2.2[‡] *6*	660.71	$5/2^+$	492.68	$3/2^+$	M1+E2	0.361 *7*	α(K)exp=0.2 *1* α(K)=0.28 *3*; α(L)=0.064 *23*; α(M)=0.014 *6*; α(N+..)=0.0036 *13* α(N)=0.0032 *12*; α(O)=0.00044 *13*; α(P)=1.6×10^{-5} *4*
168.6 *3*	8[‡] *2*	2013.4		1844.76	$17/2^+$			
190.6 *2*	28[‡] *4*	1397.82	$13/2^+$	1207.19	$11/2^+$	M1+E2	0.245 *9*	α(K)exp=0.22 *6*

(HI,xnγ) 1996Ur03 (continued)

γ(^{145}Pm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
								α(K)=0.193 *22*; α(L)=0.041 *11*; α(M)=0.009 *3*; α(N+..)=0.0023 *7* α(N)=0.0020 *6*; α(O)=0.00028 *7*; α(P)=1.1×10^{-5} *3*
196.3 *3*	6 *1*	2811.57	23/2$^{(+)}$	2615.29	(21/2$^+$)			
233.8 *3*	9 *1*	4935.1	(33/2)	4701.4	(31/2)			
239.0 *3*	6 *2*	6130.7		5891.7	(39/2$^+$,41/2$^+$)			
244.6 *3*	5.5 *8*	5727.3		5482.7	(35/2$^+$,37/2$^+$)			R(DCO)= 1.5 *3*.
247.0 *2*	16[‡] *2*	1896.57	17/2$^+$	1649.59	15/2$^+$	M1+E2	0.113 *13*	α(K)exp=0.13 *6* α(K)=0.092 *15*; α(L)=0.0167 *21*; α(M)=0.0036 *6*; α(N+..)=0.00093 *12* α(N)=0.00081 *11*; α(O)=0.000116 *10*; α(P)=5.4×10^{-6} *14*
251.8 *1*	36[‡] *4*	1649.59	15/2$^+$	1397.82	13/2$^+$	M1+E2	0.107 *12*	α(K)exp=0.10 *3* α(K)=0.087 *15*; α(L)=0.0157 *18*; α(M)=0.0034 *5*; α(N+..)=0.00088 *10* α(N)=0.00076 *10*; α(O)=0.000109 *9*; α(P)=5.1×10^{-6} *14*
253.4 *2*	13.2 *8*	4013.8	(31/2$^+$)	3760.41	29/2$^{(+)}$			R(DCO)= 1.3 *2*.
263.3 *3*	5.8 *7*	3760.41	29/2$^{(+)}$	3497.06	27/2$^{(+)}$			
279.9 *2*	24[‡] *4*	2124.70	19/2$^+$	1844.76	17/2$^+$	M1+E2	0.078 *11*	α(K)exp=0.11 *4* α(K)=0.064 *12*; α(L)=0.0111 *7*; α(M)=0.00242 *19*; α(N+..)=0.00062 *4* α(N)=0.00054 *4*; α(O)=7.78×10^{-5} *21*; α(P)=3.8×10^{-6} *11* R(DCO)= 1.3 *2*.
283.1 *3*	6[‡] *2*	1385.2		1102.05	9/2$^-$			
303.5 *3*	4 *1*	4389.71	(29/2)	4086.25	(27/2)			
307.5 *3*	10[‡] *4*	1102.05	9/2$^-$	794.81	11/2$^-$	M1+E2	0.060 *10*	α(K)=0.049 *10*; α(L)=0.00824 *17*; α(M)=0.00179 *7*; α(N+..)=0.000460 *10* α(N)=0.000399 *11*; α(O)=5.80×10^{-5} *14*; α(P)=3.0×10^{-6} *8* α(K)exp=0.05 *1* I_γ: 4 *2* in (^{15}N,4nγ).
311.7 *2*	12 *2*	4701.4	(31/2)	4389.71	(29/2)			R(DCO)= 1.9 *5*.
316.9 *3*	7 *1*	2441.57	21/2$^{(+)}$	2124.70	19/2$^+$	M1+E2	0.055 *10*	α(K)=0.046 *10*; α(L)=0.00751 *11*; α(M)=0.00163 *4*; α(N+..)=0.000419 *6* α(N)=0.000364 *6*; α(O)=5.29×10^{-5} *19*; α(P)=2.7×10^{-6} *8* α(K)exp=0.05 *2* I_γ: 10 *2* in (d,3nγ). R(DCO)= 1.6 *3*.
331.4 *3*	6.4[‡] *10*	823.95	7/2$^+$	492.68	3/2$^+$	E2	0.0399	α(K)exp=0.06 *1* α(K)=0.0318 *5*; α(L)=0.00642 *10*; α(M)=0.001413 *21*; α(N+..)=0.000359 *6* α(N)=0.000313 *5*; α(O)=4.39×10^{-5} *7*; α(P)=1.753×10^{-6} *25*
334.1 *2*	20[‡] *4*	1836.64		1502.54	15/2$^+$			
337.2 *2*	11 *2*	3497.06	27/2$^{(+)}$	3159.93	25/2$^{(+)}$			
342.2 *1*	54[‡] *8*	1844.76	17/2$^+$	1502.54	15/2$^+$	M1+E2	0.044 *9*	α(K)exp=0.04 *1* α(K)=0.037 *8*; α(L)=0.00593 *21*; α(M)=0.00128 *3*; α(N+..)=0.000331 *12* α(N)=0.000287 *9*; α(O)=4.2×10^{-5} *3*; α(P)=2.2×10^{-6} *7* R(DCO)= 1.5 *3*.

$^{145}_{61}Pm_{84}$-3

(HI,xnγ) 1996Ur03 (continued)

γ(^{145}Pm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
348.2 *3*	5 *2*	3159.93	25/2$^{(+)}$	2811.57	23/2$^{(+)}$			
348.8 *2*	15 *2*	4362.6	(31/2$^+$,33/2$^+$)	4013.8	(31/2$^+$)			R(DCO)= 1.45 *18*.
362.9 *3*	8.3 *7*	2811.57	23/2$^{(+)}$	2448.60	23/2$^-$			R(DCO)= 1.0 *2*.
369.9 *3*	9 *1*	2811.57	23/2$^{(+)}$	2441.57	21/2$^{(+)}$			
370.5 *2*	12[‡] *4*	1207.19	11/2$^+$	836.84	11/2$^+$	M1+E2	0.036 *8*	α(K)exp=0.05 *2* α(K)=0.030 *7*; α(L)=0.0047 *3*; α(M)=0.00101 *5*; α(N+..)=0.000261 *17* α(N)=0.000226 *13*; α(O)=3.3×10^{-5} *3*; α(P)=1.8×10^{-6} *6*
388.0 *3*		1102.05	9/2$^-$	713.99	9/2$^+$		0.00577 *9*	α=0.00577 *9*; α(K)=0.00494 *7*; α(L)=0.000653 *10*; α(M)=0.0001383 *20*; α(N+..)=3.59×10^{-5} *5* α(K)exp=0.006 *5* α(N)=3.10×10^{-5} *5*; α(O)=4.63×10^{-6} *7*; α(P)=2.82×10^{-7} *4*
397.8 *3*	7 *1*	4760.3	(35/2$^+$,37/2$^+$)	4362.6	(31/2$^+$,33/2$^+$)			R(DCO)= 0.8 *3*.
403.5 *3*	1.0 *5*	6130.7		5727.3				
409.0 *3*	2.0 *5*	5891.7	(39/2$^+$,41/2$^+$)	5482.7	(35/2$^+$,37/2$^+$)			
415.4 *3*	4.5 *8*	2441.57	21/2$^{(+)}$	2026.01	19/2$^-$			I$_\gamma$: 6 *2* in (d,3nγ).
421.0 *3*	6 *1*	4086.25	(27/2)	3665.34	(25/2)			
422.6 *1*	72 *3*	2448.60	23/2$^-$	2026.01	19/2$^-$	E2	0.0195	α(K)=0.01591 *23*; α(L)=0.00285 *4*; α(M)=0.000622 *9*; α(N+..)=0.0001591 *23* α(N)=0.0001384 *20*; α(O)=1.98×10^{-5} *3*; α(P)=9.08×10^{-7} *13* α(K)exp=0.02 *1* I$_\gamma$: 12 *2* in (d,3nγ).
442.2 *3*	8[‡] *2*	1649.59	15/2$^+$	1207.19	11/2$^+$			
444.6 *3*	8.2 *8*	3497.06	27/2$^{(+)}$	3052.42	27/2$^-$			R(DCO)= 0.85 *15*.
456.4 *1*	70[‡] *6*	1207.19	11/2$^+$	750.73	9/2$^+$	M1+E2	0.020 *5*	α(K)exp=0.024 *8* α(K)=0.017 *5*; α(L)=0.0026 *4*; α(M)=0.00055 *7*; α(N+..)=0.000143 *19* α(N)=0.000124 *16*; α(O)=1.8×10^{-5} *3*; α(P)=1.0×10^{-6} *3*
490.6 *3*	7 *1*	2615.29	(21/2$^+$)	2124.70	19/2$^+$	M1+E2	0.017 *4*	α(K)=0.014 *4*; α(L)=0.0021 *3*; α(M)=0.00045 *6*; α(N+..)=0.000117 *17* α(N)=0.000101 *15*; α(O)=1.50×10^{-5} *25*; α(P)=9.E−7 *3* α(K)exp=0.015 *4* I$_\gamma$: 10 *2* in (d,3nγ). R(DCO)= 1.4 *4*.
492.7 *1*	46[‡] *4*	492.68	3/2$^+$	0.0	5/2$^+$	M1+E2	0.017 *4*	α(K)exp=0.030 *8* α(K)=0.014 *4*; α(L)=0.0021 *3*; α(M)=0.00044 *6*; α(N+..)=0.000115 *17* α(N)=0.000100 *15*; α(O)=1.48×10^{-5} *25*; α(P)=9.E−7 *3*
493.2 *2*	16[‡] *4*	1207.19	11/2$^+$	713.99	9/2$^+$	M1+E2	0.017 *4*	α(K)exp=0.022 *5* α(K)=0.014 *4*; α(L)=0.0021 *3*; α(M)=0.00044 *6*; α(N+..)=0.000115 *17* α(N)=0.000100 *15*; α(O)=1.48×10^{-5} *25*; α(P)=8.6×10^{-7} *25*

$^{145}_{61}Pm_{84}$-4

(HI,xnγ) 1996Ur03 (continued)

γ(^{145}Pm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
497.3 *3*	10[‡] *4*	1844.76	17/2$^+$	1347.53	13/2$^+$	E2	0.01247	α(K)exp=0.05 *2* α(K)=0.01028 *15*; α(L)=0.001722 *25*; α(M)=0.000374 *6*; α(N+..)=9.60×10^{-5} *14* α(N)=8.34×10^{-5} *12*; α(O)=1.205×10^{-5} *17*; α(P)=5.96×10^{-7} *9*
498.7 *3*	2.0[‡] *10*	1896.57	17/2$^+$	1397.82	13/2$^+$			
510.7 *1*	46[‡] *6*	1347.53	13/2$^+$	836.84	11/2$^+$	M1+E2	0.00669 *10*	α(K)exp=0.015 *5* α(K)=0.013 *4*; α(L)=0.0019 *3*; α(M)=0.00040 *6*; α(N+..)=0.000105 *16* α(N)=9.0×10^{-5} *14*; α(O)=1.34×10^{-5} *23*; α(P)=7.9×10^{-7} *23* α=0.00669 *10*; α(K)=0.00559 *8*; α(L)=0.000864 *13*; α(M)=0.000186 *3*; α(N+..)=4.81×10^{-5} *7* α(K)exp=0.007 *3* α(N)=4.16×10^{-5} *6*; α(O)=6.10×10^{-6} *9*; α(P)=3.30×10^{-7} *5*
516.9 *3*	4.5 *7*	4013.8	(31/2$^+$)	3497.06	27/2$^{(+)}$			
537.1 *3*	4[‡] *2*	1207.19	11/2$^+$	669.99	7/2$^+$			
539.0 *3*	2 *1*	4389.71	(29/2)	3850.9	(27/2)			
544.6 *3*	4 *2*	3159.93	25/2$^{(+)}$	2615.29	(21/2$^+$)			
545.5[@] *3*		4935.1	(33/2)	4389.71	(29/2)			
570.9 *1*		1284.89	11/2$^-$	713.99	9/2$^+$	E1	0.00307 *5*	α=0.00307 *5*; α(K)=0.00263 *4*; α(L)=0.000344 *5*; α(M)=7.27×10^{-5} *11*; α(N+..)=1.89×10^{-5} *3* α(K)exp=0.004 *2* α(N)=1.633×10^{-5} *23*; α(O)=2.45×10^{-6} *4*; α(P)=1.519×10^{-7} *22*
578.1 *1*	95 *5*	2026.01	19/2$^-$	1447.91	15/2$^-$	E2	0.00841 *12*	α=0.00841 *12*; α(K)=0.00700 *10*; α(L)=0.001112 *16*; α(M)=0.000240 *4*; α(N+..)=6.19×10^{-5} *9* α(N)=5.37×10^{-5} *8*; α(O)=7.83×10^{-6} *11*; α(P)=4.11×10^{-7} *6* α(K)exp=0.009 *3* I_γ: 46 *6* in (d,3nγ).
599.5[@] *3*		660.71	5/2$^+$	61.27	7/2$^+$			
600.5 *3*	2.9 *5*	3760.41	29/2$^{(+)}$	3159.93	25/2$^{(+)}$			
603.8 *1*	45 *2*	3052.42	27/2$^-$	2448.60	23/2$^-$			
608.6 *3*	6[‡] *2*	669.99	7/2$^+$	61.27	7/2$^+$		0.0077 *19*	α=0.0077 *19*; α(K)=0.0065 *17*; α(L)=0.00092 *18*; α(M)=0.00020 *4*; α(N+..)=5.1×10^{-5} *10* α(N)=4.4×10^{-5} *9*; α(O)=6.6×10^{-6} *14*; α(P)=4.0×10^{-7} *12* α(K)exp=0.009 *2* I_γ: 7.1 *7* in (^{15}N,4nγ).
613.0 *3*	5 *1*	3665.34	(25/2)	3052.42	27/2$^-$			
615.3 *3*	3 *1*	4701.4	(31/2)	4086.25	(27/2)			
622.2 *2*	18[‡] *2*	2124.70	19/2$^+$	1502.54	15/2$^+$			
647.2 *2*	20[‡] *4*	1397.82	13/2$^+$	750.73	9/2$^+$			I_γ: 20 *4* in (d,3nγ).
652.7 *1*	18 *2*	713.99	9/2$^+$	61.27	7/2$^+$			I_γ: 70 *10* in (d,3nγ).
653.1 *1*	100 *5*	1447.91	15/2$^-$	794.81	11/2$^-$	E2	0.00621 *9*	α=0.00621 *9*; α(K)=0.00520 *8*; α(L)=0.000796 *12*; α(M)=0.0001713 *24*;

$^{145}_{61}Pm_{84}$-5

(HI,xnγ) 1996Ur03 (continued)

γ(^{145}Pm) (continued)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[#]	Comments
								α(N+..)=4.43×10^{-5} *7* α(N)=3.83×10^{-5} *6*; α(O)=5.63×10^{-6} *8*; α(P)=3.07×10^{-7} *5* I_γ: 100 *10* in (d,3nγ).
657.1 *2*	20[‡] *4*	1493.94		836.84	11/2$^+$			
660.7 *3*		660.71	5/2$^+$	0.0	5/2$^+$			
708.0 *2*	17 *1*	3760.41	29/2$^{(+)}$	3052.42	27/2$^-$			R(DCO)= 2.1 *3*.
711.3 *3*	1.5 *5*	4935.1	(33/2)	4223.7	(29/2)			
711.6 *3*	7.5 *5*	3159.93	25/2$^{(+)}$	2448.60	23/2$^-$			R(DCO)= 1.8 *4*.
718.3 *3*	5 *1*	3159.93	25/2$^{(+)}$	2441.57	21/2$^{(+)}$			
724.4 *3*	4 *1*	4389.71	(29/2)	3665.34	(25/2)			
733.6 *1*	70[‡] *8*	794.81	11/2$^-$	61.27	7/2$^+$	M2	0.00903 *13*	α(K)=0.01783 *25*; α(L)=0.00259 *4*; α(M)=0.000557 *8*; α(N+..)=0.0001458 *21* α(N)=0.0001256 *18*; α(O)=1.90×10^{-5} *3*; α(P)=1.195×10^{-6} *17* α(K)exp=0.021 *3* α=0.00903 *13*; α(K)=0.00735 *11*; α(L)=0.001322 *19*; α(M)=0.000289 *4*; α(N+..)=7.45×10^{-5} *11* α(N)=6.46×10^{-5} *9*; α(O)=9.37×10^{-6} *14*; α(P)=4.60×10^{-7} *7* α(K)exp=0.010 *3* B(M2)(W.u.)=0.28 *6* I_γ: 51 *3* in (^{15}N,4nγ). I_γ: 2.2 *5* in (^{15}N,4nγ).
762.5 *3*	6[‡] *2*	823.95	7/2$^+$	61.27	7/2$^+$			
787.8 *2*	3 *1*	1582.61		794.81	11/2$^-$			α(K)exp=0.011 *3* I_γ: 16 *4* in (d,3nγ).
806.8 *3*	2.3 *8*	5030.5		4223.7	(29/2)			
853.8 *3*	5.3 *7*	3665.34	(25/2)	2811.57	23/2$^{(+)}$			R(DCO)= 1.5 *4*.
926.2 *3*	6.0 *9*	4086.25	(27/2)	3159.93	25/2$^{(+)}$			R(DCO)= 2.0 *6*.
962.0 *3*	3.1 *8*	6853.7		5891.7	(39/2$^+$,41/2$^+$)			
1034.0 *3*	0.8 *4*	4086.25	(27/2)	3052.42	27/2$^-$			R(DCO)≈1.
1040.7 *2*	16[‡] *4*	1102.05	9/2$^-$	61.27	7/2$^+$			I_γ: 9 *3* in (^{15}N,4nγ).
1086.1 *3*	7.4 *9*	7216.8		6130.7				R(DCO)= 1.6 *3*.
1120.1 *3*	7.8 *9*	5482.7	(35/2$^+$,37/2$^+$)	4362.6	(31/2$^+$,33/2$^+$)			R(DCO)= 0.9 *2*.
1131.4 *3*	3.9 *8*	5891.7	(39/2$^+$,41/2$^+$)	4760.3	(35/2$^+$,37/2$^+$)			R(DCO)= 1.0 *3*.
1171.2 *2*	10 *1*	4223.7	(29/2)	3052.42	27/2$^-$			R(DCO)= 1.9 *2*.
1337.0 *3*	4.1 *7*	4389.71	(29/2)	3052.42	27/2$^-$			R(DCO)= 1.9 *5*.
1402.5 *3*	1.0 *5*	3850.9	(27/2)	2448.60	23/2$^-$			R(DCO)<1.

[†] From (^{15}N,4nγ).
[‡] Value from (d,3nγ) relative to 100 for 653.1γ from 1448 level.

$^{145}_{61}Pm_{84}$-6

(HI,xnγ) 1996Ur03 (continued)

$\gamma(^{145}Pm)$ (continued)

[#] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
[@] Placement of transition in the level scheme is uncertain.

$^{145}_{61}Pm_{84}$-7

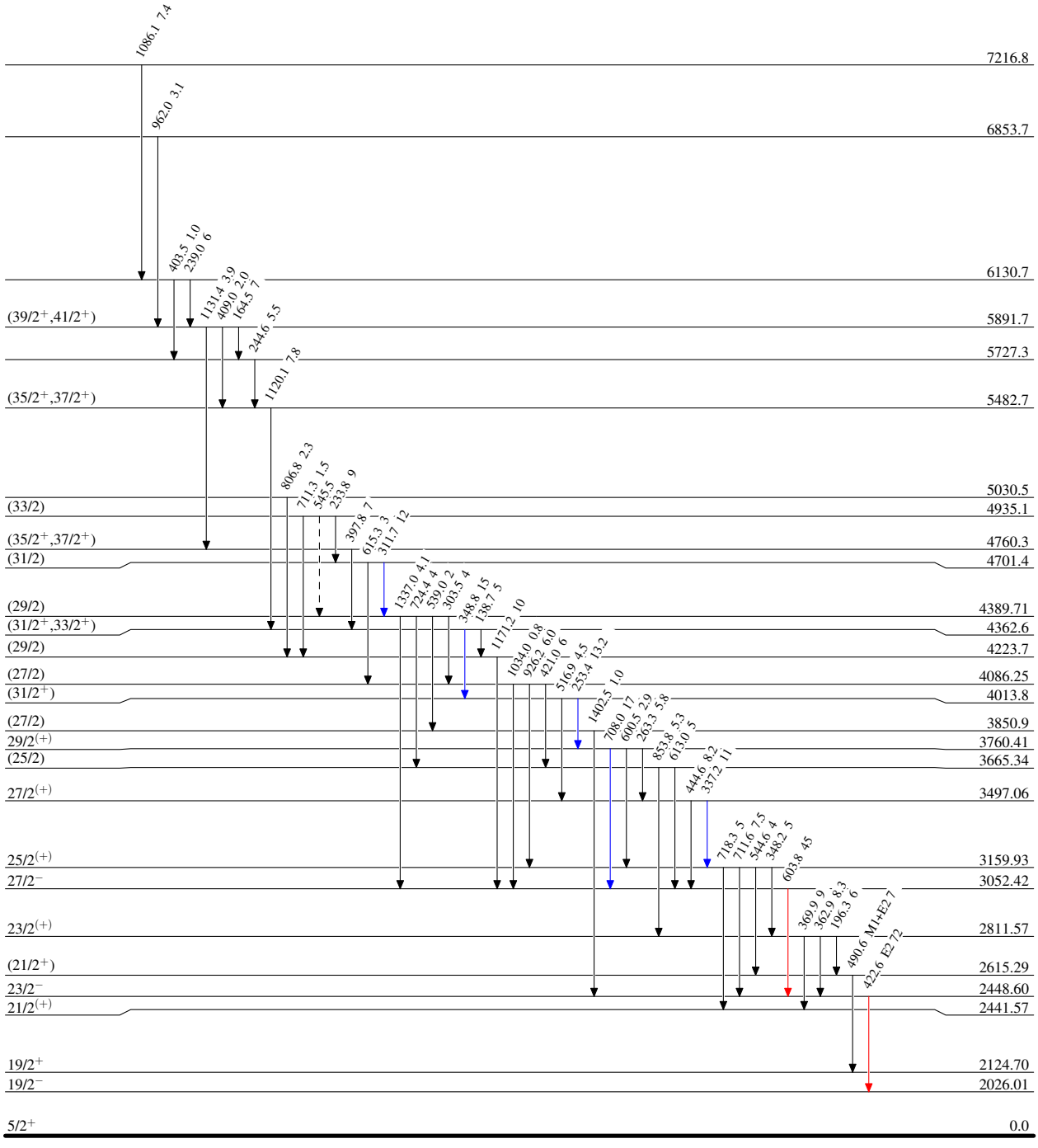
(HI,xnγ) 1996Ur03

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)



$^{145}_{61}Pm_{84}$

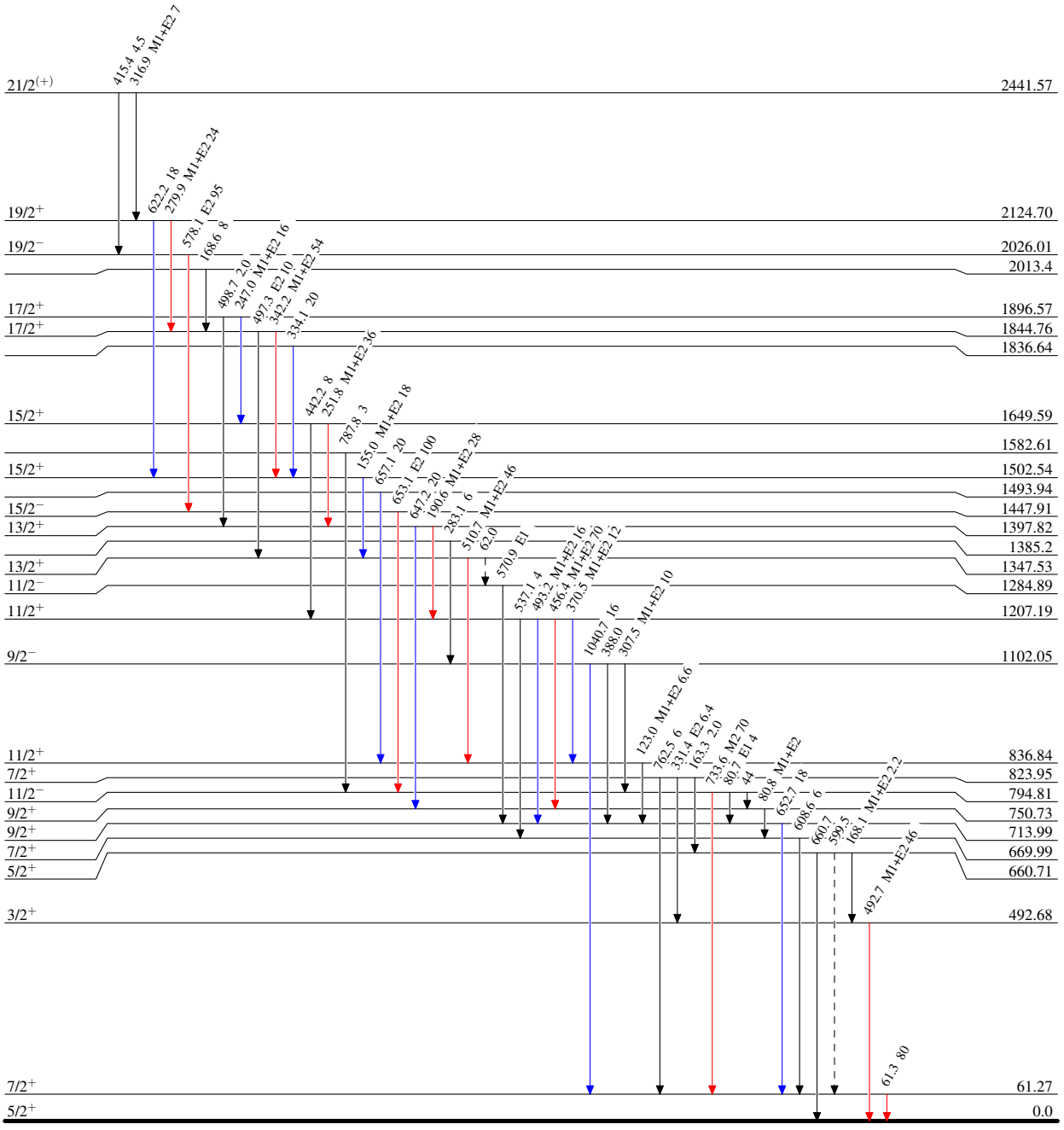
(HI,xnγ) 1996Ur03

Level Scheme (continued)

Intensities: Relative I_γ

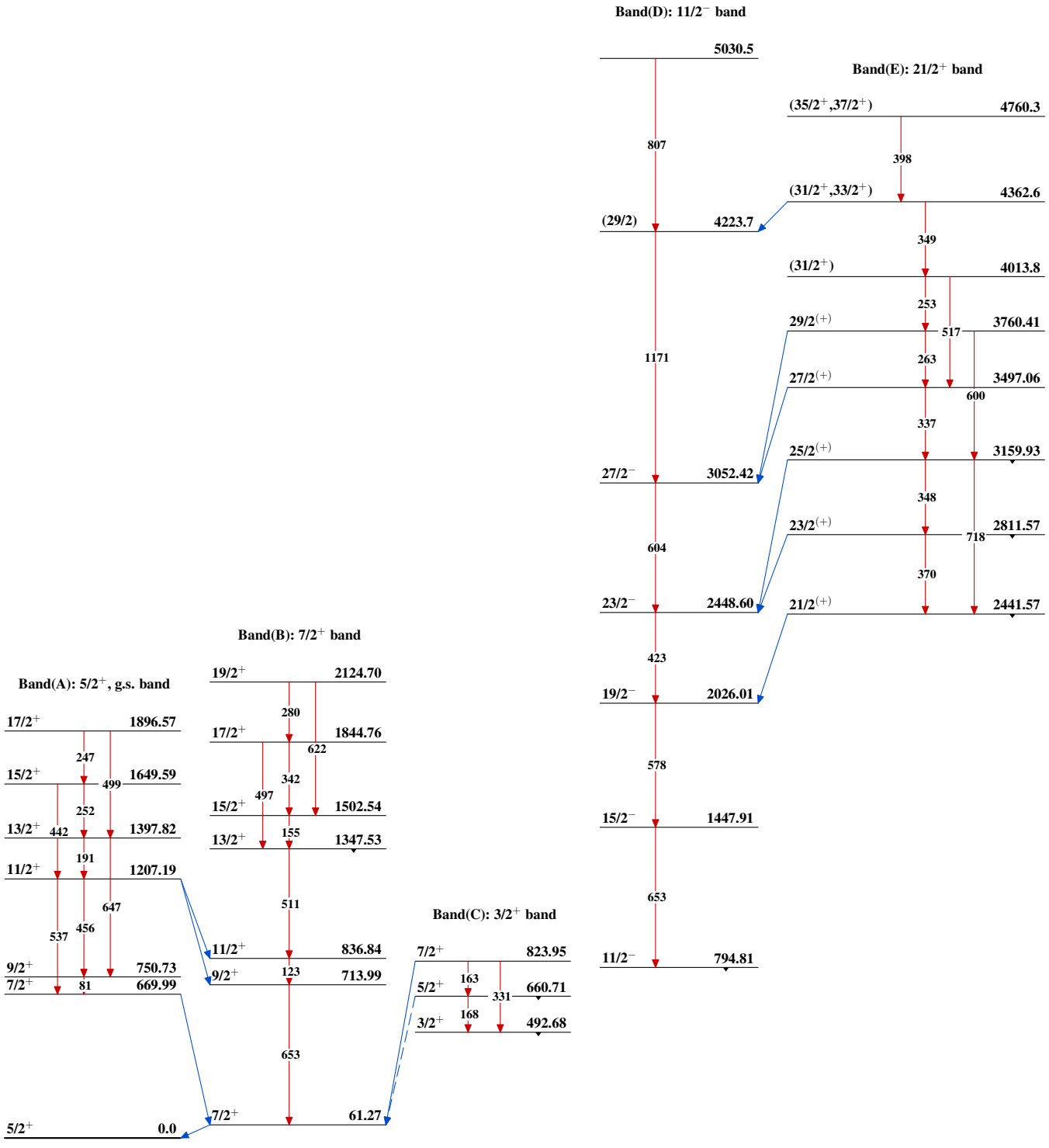
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



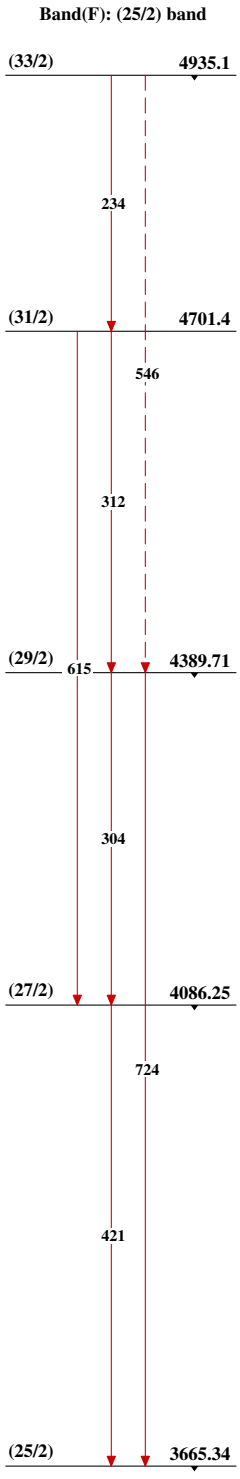
$^{145}_{61}Pm_{84}$

(HI,xnγ) 1996Ur03



$^{145}_{61}Pm_{84}$

(HI,xnγ) 1996Ur03 (continued)



$^{145}_{61}Pm_{84}$