^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. A. Rodionov and S. Sakharov, Balraj Singh	NDS 104, 497 (2005)	10-Feb-2005

Includes ^{117}Sn(^{19}F,4nγ) from 2001Ko30 and ^{100}Mo(^{37}Cl,5nγ) from 1994Ha28.

1998Pe05, 1998Pe06: ^{104}Pd(^{32}S,3pnγ) E=160 MeV. Measured Eγ and $\gamma\gamma$ using GASP spectrometer, consisting of 40 Compton-suppressed Ge detectors and an 80-element BGO ball. Light charged particles were detected with the ISIS ball, composed of 40 ΔE-E Si telescopes.

2001Ko30: ^{117}Sn(^{19}F,4nγ) E=88 MeV. Measured Eγ and $\gamma\gamma$ using a Compton-suppressed HPGe detector array in conjunction with a 14 element BGO multiplicity filter.

1994Ha28: ^{100}Mo(^{37}Cl,5nγ) E=155 MeV. Measured Eγ, Iγ, $\gamma\gamma$ and $\gamma\gamma(\theta)$(DCO) using EUROGAM (PHASE I) array consisting of 41 large-volume Compton escape-suppressed HPGe detectors.

Most data are from 1998Pe05 and 1998Pe06. 2001Ko30 give only selected members of a band interpreted as a Chiral doublet partner of $h_{11/2}\nu h_{11/2}$ band with revised J^π assignments for four levels in this band. 1994Ha28 provide date for 14 transitions only for one of the highly-deformed bands (band #4).

^{132}Pr Levels

E(level)[#]	J$^\pi$[†]	Comments
0+x	5$^{(+)}$	
58.0+x *15*	6$^{(+)}$	
87.0+x *12*	6$^{(+)}$	
98.0+x[@] *10*	6$^-$	
145.0+x[&] *13*	7$^-$	
261.0+x[@] *13*	8$^-$	
381.0+x *13*	7$^+$	
405.0+x[a] *15*	8$^+$	
439.0+x[&] *14*	9$^-$	
468.2+x[b] *16*	9$^+$	
598.1+x[a] *16*	10$^+$	
668.0+x[@] *14*	10$^-$	
804.9+x *17*	(10$^+$)	J$^\pi$: (9$^+$) in Adopted Levels.
864.1+x[b] *17*	11$^+$	
945.1+x[&] *15*	11$^-$	
1104.2+x[a] *18*	12$^+$	
1174.8+x[f] *17*	(11$^+$)	
1194.0+x[e] *18*	(11$^+$)[‡]	
1257.0+x[@] *16*	12$^-$	
1487.9+x[b] *18*	13$^+$	
1500.0+x[d] *18*	(12$^+$)[‡]	
1609.0+x[&] *17*	13$^-$	
1715.9+x[f] *18*	(13$^+$)	
1809.6+x[a] *19*	14$^+$	
1925.0+x[e] *21*	(13$^+$)[‡]	J$^\pi$: (14$^+$) (1998Pe06).
1985.1+x[@] *17*	14$^-$	
2262.8+x[b] *19*	15$^+$	
2293.0+x[d] *23*	(14$^+$)[‡]	J$^\pi$: (16$^+$) (1998Pe06).
2376.9+x[f] *21*	(15$^+$)	
2392.1+x[&] *18*	15$^-$	
2657.5+x[a] *20*	16$^+$	

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^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)

^{132}Pr Levels (continued)

E(level)[#]	J$^{\pi}$[†]	Comments
2810.1+x[@] *18*	16$^-$	
3101.0+x[e] *25*		J$^{\pi}$: (18$^+$) (1998Pe06). However, according to J^{π} assignments by 2001Ko30 for this band, (16$^+$) is more likely. This level is not included in the partial level scheme of 2001Ko30.
3121.9+x[f] *23*	(17$^+$)	
3142.2+x[b] *20*	17$^+$	
3245.1+x[&] *19*	17$^-$	
3599.3+x[a] *21*	18$^+$	
3687.1+x[@] *20*	18$^-$	
3914.2+x[f] *23*	(19$^+$)	
4073.2+x[b] *21*	19$^+$	
4115.1+x[&] *21*	19$^-$	
4562.3+x[a] *22*	20$^+$	
4563.0+x[@] *22*	20$^-$	
4565.3+x[c] *22*	20$^+$	
4751.3+x[f] *23*	(21$^+$)	
4997.1+x[&] *24*	21$^-$	
5002.3+x[b] *22*	21$^+$	
5481.0+x[@] *24*	22$^-$	
5524.3+x[c] *24*	22$^+$	
5562.3+x[a] *24*	22$^+$	
5663.4+x[f] *23*	(23$^+$)	
5953+x[&] *3*	23$^-$	
5957.3+x[b] *24*	23$^+$	
6479+x[@] *3*	24$^-$	
6587+x[c] *3*	24$^+$	
6624+x[a] *3*	24$^+$	
6672.2+x[f] *23*	(25$^+$)	
6984+x[b] *3*	25$^+$	
7004+x[&] *3*	25$^-$	
7581+x[@] *3*	26$^-$	
7745+x[c] *3*	26$^+$	
7784.3+x[f] *23*	(27$^+$)	
8085+x[b] *3*	27$^+$	
8993+x[c] *3*	28$^+$	
8998+x[f] *3*	(29$^+$)	
9230+x[b] *3*	29$^+$	
10304+x[f] *3*	(31$^+$)	
10318+x[c] *3*	30$^+$	
10403+x[b] *4*	31$^+$	
11588+x[b] *4*	33$^+$	
11707+x[f] *3*	(33$^+$)	
y[g]	J	
695.30+y[g] *20*	J+2	
1460.2+y[g] *3*	J+4	
2300.0+y[g] *4*	J+6	
3211.7+y[g] *6*	J+8	
4195.5+y[g] *8*	J+10	

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^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)

^{132}Pr Levels (continued)

E(level)[#]	Jπ[†]	E(level)[#]	Jπ[†]	E(level)[#]	Jπ[†]
5250.6+y[g] *10*	J+12	7830.3+z[h] *12*	J1+18	11941.9+u[i] *25*	J2+22
6377.1+y[g] *11*	J+14	9064.1+z[h] *16*	J1+20	v[j]	J3≈(16)
7575.6+y[g] *12*	J+16	10370.0+z[h] *19*	J1+22	736.0+v[j] *10*	J3+2
8848.4+y[g] *16*	J+18	11754.3+z[h] *21*	J1+24	1541.0+v[j] *11*	J3+4
10196.1+y[g] *19*	J+20	13218.4+z[h] *24*	J1+26	2410.6+v[j] *11*	J3+6
11622.8+y[g] *21*	J+22	u[i]	J2≈(12)	3291.6+v[j] *12*	J3+8
13130.9+y[g] *24*	J+24	709.0+u[i] *10*	J2+2	4210.0+v[j] *13*	J3+10
z[h]	J1≈(12)	1447.2+u[i] *11*	J2+4	5207.5+v[j] *14*	J3+12
564.90+z[h] *20*	J1+2	2261.1+u[i] *11*	J2+6	6282.8+v[j] *15*	J3+14
1205.8+z[h] *3*	J1+4	3159.0+u[i] *12*	J2+8	7427.1+v[j] *16*	J3+16
1933.7+z[h] *4*	J1+6	4148.0+u[i] *13*	J2+10	8628.4+v[j] *19*	J3+18
2736.1+z[h] *4*	J1+8	5225.8+u[i] *14*	J2+12	9884.3+v[j] *21*	J3+20
3612.3+z[h] *7*	J1+10	6392.4+u[i] *15*	J2+14	11207.9+v[j] *23*	J3+22
4560.2+z[h] *9*	J1+12	7647.8+u[i] *18*	J2+16	12617+v[j] *3*	J3+24
5578.5+z[h] *10*	J1+14	8989.9+u[i] *21*	J2+18	14125+v[j] *3*	J3+26
6669.2+z[h] *11*	J1+16	10414.9+u[i] *23*	J2+20	15734+v[j] *3*	J3+28

[†] From 1998Pe05 and 1998Pe06, unless otherwise stated.
[‡] From 2001Ko30.
[#] From least-squares fit to Eγ's.
[@] Band(A): Band based on 6⁻, α=0.
[&] Band(a): Band based on 6⁻, α=1.
[a] Band(B): $\pi h_{11/2}\nu h_{11/2}$, α=0.
[b] Band(b): $\pi h_{11/2}\nu h_{11/2}$, α=1.
[c] Band(C): Band based on 20⁺.
[d] Band(D): Chiral doublet partner of $\pi h_{11/2}\nu h_{11/2}$, α=0. (2001Ko30).
[e] Band(d): Chiral doublet partner of $\pi h_{11/2}\nu h_{11/2}$, α=1. (2001Ko30).
[f] Band(E): Highly-deformed band (1998Pe06,1994Ha28), α=1. Configuration=$\pi h^3_{11/2}\nu(f_{7/2}/h_{9/2})$. Percent population ≈9 (1998Pe06). 1998Pe06 proposed that this band and SD-3 band are signature partners, but this conclusion is not confirmed by 1999Ko21 who propose configuration=$\pi h_{11/2}\nu(f_{7/2}/h_{9/2})$ for this band.
[g] Band(F): Highly-deformed (SD-1) band (1998Pe06). Band is built on $\pi g_{9/2}\nu i_{13/2}$ configuration. Percent population ≈1.4.
[h] Band(G): Highly-deformed (SD-2) band (1998Pe06). Band is built on $\pi g_{9/2}\nu i_{13/2}$ configuration. Percent population ≈1.4.
[i] Band(H): Highly-deformed (SD-3) band (1998Pe06). Configuration=$\pi h^3_{11/2}\nu(f_{7/2}/h_{9/2})$, α=0. Percent population ≈1.4. See also comment for decoupled band starting at 1174.8+x.
[j] Band(I): Highly-deformed (SD-4) band (1998Pe06). Percent population ≈2.4.

γ(^{132}Pr)

Eγ[†]	Ei(level)	J^π_i	E_f	J^π_f	Eγ[†]	Ei(level)	J^π_i	E_f	J^π_f
24[#]	405.0+x	8⁺	381.0+x	7⁺	130	598.1+x	10⁺	468.2+x	9⁺
40	98.0+x	6⁻	58.0+x	6⁽⁺⁾	163	261.0+x	8⁻	98.0+x	6⁻
47	145.0+x	7⁻	98.0+x	6⁻	178	439.0+x	9⁻	261.0+x	8⁻
58	145.0+x	7⁻	87.0+x	6⁽⁺⁾	193	598.1+x	10⁺	405.0+x	8⁺
63	468.2+x	9⁺	405.0+x	8⁺	229	668.0+x	10⁻	439.0+x	9⁻
98	98.0+x	6⁻	0+x	5⁽⁺⁾	236	381.0+x	7⁺	145.0+x	7⁻
116	261.0+x	8⁻	145.0+x	7⁻	240	1104.2+x	12⁺	864.1+x	11⁺

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^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)

$\gamma(^{132}Pr)$ (continued)

E_γ [†]	I_γ [‡]	E_i(level)	J_i^π	E_f	J_f^π	Comments
266		864.1+x	11^+	598.1+x	10^+	
277		945.1+x	11^-	668.0+x	10^-	
283		381.0+x	7^+	98.0+x	6^-	
294		381.0+x	7^+	87.0+x	$6^{(+)}$	
294		439.0+x	9^-	145.0+x	7^-	
306		1500.0+x	(12^+)	1194.0+x	(11^+)	
307		405.0+x	8^+	98.0+x	6^-	
312		1257.0+x	12^-	945.1+x	11^-	
322		1809.6+x	14^+	1487.9+x	13^+	
352		1609.0+x	13^-	1257.0+x	12^-	
368		2293.0+x	(14^+)	1925.0+x	(13^+)	
370		1174.8+x	(11^+)	804.9+x	(10^+)	
376		1985.1+x	14^-	1609.0+x	13^-	
384		1487.9+x	13^+	1104.2+x	12^+	
395		2657.5+x	16^+	2262.8+x	15^+	
396		864.1+x	11^+	468.2+x	9^+	
400		804.9+x	(10^+)	405.0+x	8^+	
407		668.0+x	10^-	261.0+x	8^-	
407		2392.1+x	15^-	1985.1+x	14^-	
418		2810.1+x	16^-	2392.1+x	15^-	
425		1925.0+x	(13^+)	1500.0+x	(12^+)	
435		3245.1+x	17^-	2810.1+x	16^-	
437		5002.3+x	21^+	4565.3+x	20^+	
440		5002.3+x	21^+	4562.3+x	20^+	
442		3687.1+x	18^-	3245.1+x	17^-	
453		2262.8+x	15^+	1809.6+x	14^+	
457		3599.3+x	18^+	3142.2+x	17^+	
474		4073.2+x	19^+	3599.3+x	18^+	
485		3142.2+x	17^+	2657.5+x	16^+	
489		4562.3+x	20^+	4073.2+x	19^+	
492		4565.3+x	20^+	4073.2+x	19^+	
506		945.1+x	11^-	439.0+x	9^-	
506		1104.2+x	12^+	598.1+x	10^+	
521.8 *2*	0.10 *1*	1715.9+x	(13^+)	1194.0+x	(11^+)	E_γ: from 1994Ha28.
541	0.66 *3*	1715.9+x	(13^+)	1174.8+x	(11^+)	E_γ: 540.9 *2* (1994Ha28). DCO=1.28 *10* (1994Ha28).
564.9 *2*		564.90+z	J1+2	z	J1≈(12)	
577.0 *2*	0.55 *2*	1174.8+x	(11^+)	598.1+x	10^+	E_γ: from 1994Ha28. DCO=0.56.
589		1257.0+x	12^-	668.0+x	10^-	
596.0 *2*	0.10 *1*	1194.0+x	(11^+)	598.1+x	10^+	E_γ: from 1994Ha28. DCO=0.66.
624		1487.9+x	13^+	864.1+x	11^+	
636		1500.0+x	(12^+)	864.1+x	11^+	E_γ: from 2001Ko30.
640.9 *2*		1205.8+z	J1+4	564.90+z	J1+2	
660.9 *2*	1.00 *4*	2376.9+x	(15^+)	1715.9+x	(13^+)	E_γ: 660.8 *2* (1994Ha28). DCO=0.92 *5* (1994Ha28).
664		1609.0+x	13^-	945.1+x	11^-	
695.3 *2*		695.30+y	J+2	y	J	
705		1809.6+x	14^+	1104.2+x	12^+	
706		1174.8+x	(11^+)	468.2+x	9^+	
709 *1*		709.0+u	J2+2	u	J2≈(12)	
727.9 *2*		1933.7+z	J1+6	1205.8+z	J1+4	
728		1985.1+x	14^-	1257.0+x	12^-	
736 *1*		736.0+v	J3+2	v	J3≈(16)	
738.2 *2*		1447.2+u	J2+4	709.0+u	J2+2	

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^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)

$\gamma(^{132}Pr)$ (continued)

E_γ †	I_γ ‡	E_i(level)	J_i^π	E_f	J_f^π	Comments
745.0 *2*	0.80 *3*	3121.9+x	(17^+)	2376.9+x	(15^+)	E_γ: 745.1 *2* (1994Ha28). DCO=1.00 *7* (1994Ha28).
764.9 *2*		1460.2+y	J+4	695.30+y	J+2	
775		2262.8+x	15^+	1487.9+x	13^+	
783		2392.1+x	15^-	1609.0+x	13^-	
792.3 *2*	0.80 *9*	3914.2+x	(19^+)	3121.9+x	(17^+)	E_γ: 792.4 *2* (1994Ha28). DCO=1.10 *7* (1994Ha28).
802.4 *2*		2736.1+z	J1+8	1933.7+z	J1+6	
805.0 *2*		1541.0+v	J3+4	736.0+v	J3+2	
808		3101.0+x		2293.0+x	(14^+)	
813.9 *2*		2261.1+u	J2+6	1447.2+u	J2+4	
825		2810.1+x	16^-	1985.1+x	14^-	
837.1 *2*	0.58 *3*	4751.3+x	(21^+)	3914.2+x	(19^+)	E_γ: 837.4 *2* (1994Ha28).
839.8 *2*		2300.0+y	J+6	1460.2+y	J+4	
848		2657.5+x	16^+	1809.6+x	14^+	
853		3245.1+x	17^-	2392.1+x	15^-	
869.6 *2*		2410.6+v	J3+6	1541.0+v	J3+4	
870		4115.1+x	19^-	3245.1+x	17^-	
876		4563.0+x	20^-	3687.1+x	18^-	
876.2 *5*		3612.3+z	J1+10	2736.1+z	J1+8	
877		3687.1+x	18^-	2810.1+x	16^-	
879		3142.2+x	17^+	2262.8+x	15^+	
881.0 *5*		3291.6+v	J3+8	2410.6+v	J3+6	
882		4997.1+x	21^-	4115.1+x	19^-	
897.9 *5*		3159.0+u	J2+8	2261.1+u	J2+6	
911.7 *5*		3211.7+y	J+8	2300.0+y	J+6	
912.1 *2*	0.57 *2*	5663.4+x	(23^+)	4751.3+x	(21^+)	E_γ: 912.5 *2* (1994Ha28).
918		5481.0+x	22^-	4563.0+x	20^-	
918.4 *5*		4210.0+v	J3+10	3291.6+v	J3+8	
929		5002.3+x	21^+	4073.2+x	19^+	
931		4073.2+x	19^+	3142.2+x	17^+	E_γ: 933 (2001Ko30).
942		3599.3+x	18^+	2657.5+x	16^+	
947.9 *5*		4560.2+z	J1+12	3612.3+z	J1+10	
955		5957.3+x	23^+	5002.3+x	21^+	
956		5953+x	23^-	4997.1+x	21^-	
959		5524.3+x	22^+	4565.3+x	20^+	
963		4562.3+x	20^+	3599.3+x	18^+	
966		4565.3+x	20^+	3599.3+x	18^+	
983.8 *5*		4195.5+y	J+10	3211.7+y	J+8	
989.0 *5*		4148.0+u	J2+10	3159.0+u	J2+8	
997.5 *5*		5207.5+v	J3+12	4210.0+v	J3+10	
998		6479+x	24^-	5481.0+x	22^-	
1000		5562.3+x	22^+	4562.3+x	20^+	
1008.8 *5*	0.42 *2*	6672.2+x	(25^+)	5663.4+x	(23^+)	E_γ: 1010.0 *2* (1994Ha28).
1018.3 *5*		5578.5+z	J1+14	4560.2+z	J1+12	
1027		6984+x	25^+	5957.3+x	23^+	
1051		7004+x	25^-	5953+x	23^-	
1055.1 *5*		5250.6+y	J+12	4195.5+y	J+10	
1062		6624+x	24^+	5562.3+x	22^+	
1063		6587+x	24^+	5524.3+x	22^+	
1075.3 *5*		6282.8+v	J3+14	5207.5+v	J3+12	
1077.8 *5*		5225.8+u	J2+12	4148.0+u	J2+10	
1090.7 *5*		6669.2+z	J1+16	5578.5+z	J1+14	
1101		8085+x	27^+	6984+x	25^+	
1102		7581+x	26^-	6479+x	24^-	
1112.1 *5*	0.24 *2*	7784.3+x	(27^+)	6672.2+x	(25^+)	E_γ: 1113.5 *2* (1994Ha28).

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^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)

$\gamma(^{132}Pr)$ (continued)

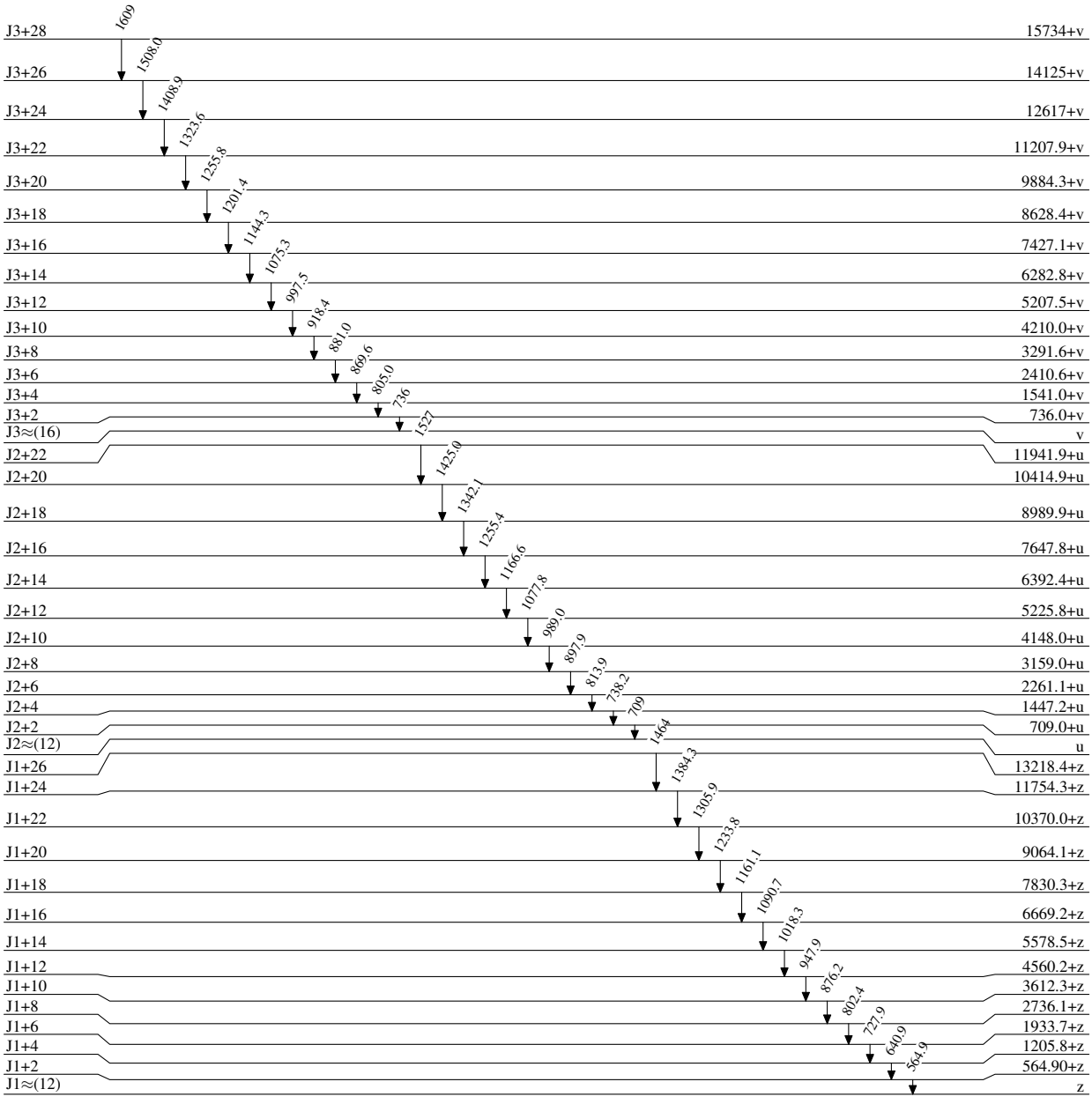
E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Comments
1126.5 *5*		6377.1+y	J+14	5250.6+y	J+12	
1144.3 *5*		7427.1+v	J3+16	6282.8+v	J3+14	
1145		9230+x	29^+	8085+x	27^+	
1158		7745+x	26^+	6587+x	24^+	
1161.1 *5*		7830.3+z	J1+18	6669.2+z	J1+16	
1166.6 *5*		6392.4+u	J2+14	5225.8+u	J2+12	
1173		10403+x	31^+	9230+x	29^+	
1185		11588+x	33^+	10403+x	31^+	
1198.5 *5*		7575.6+y	J+16	6377.1+y	J+14	
1201.4 *10*		8628.4+v	J3+18	7427.1+v	J3+16	
1213.5 *5*	0.08 *1*	8998+x	(29^+)	7784.3+x	(27^+)	E_γ: 1217.3 *2* (1994Ha28).
1233.8 *10*		9064.1+z	J1+20	7830.3+z	J1+18	
1248		8993+x	28^+	7745+x	26^+	
1255.4 *10*		7647.8+u	J2+16	6392.4+u	J2+14	
1255.8 *10*		9884.3+v	J3+20	8628.4+v	J3+18	
1272.8 *10*		8848.4+y	J+18	7575.6+y	J+16	
1305.7 *10*		10304+x	(31^+)	8998+x	(29^+)	E_γ: 1308.0 *2* (1994Ha28).
1305.9 *10*		10370.0+z	J1+22	9064.1+z	J1+20	
1323.6 *10*		11207.9+v	J3+22	9884.3+v	J3+20	
1325		10318+x	30^+	8993+x	28^+	
1342.1 *10*		8989.9+u	J2+18	7647.8+u	J2+16	
1347.7 *10*		10196.1+y	J+20	8848.4+y	J+18	
1384.3 *10*		11754.3+z	J1+24	10370.0+z	J1+22	
1403.4 *10*		11707+x	(33^+)	10304+x	(31^+)	E_γ: 1406 *1* (1994Ha28).
1408.9 *10*		12617+v	J3+24	11207.9+v	J3+22	
1425.0 *10*		10414.9+u	J2+20	8989.9+u	J2+18	
1426.7 *10*		11622.8+y	J+22	10196.1+y	J+20	
1464 *1*		13218.4+z	J1+26	11754.3+z	J1+24	
1508 *1*		13130.9+y	J+24	11622.8+y	J+22	
1508.0 *10*		14125+v	J3+26	12617+v	J3+24	
1527 *1*		11941.9+u	J2+22	10414.9+u	J2+20	
1609 *1*		15734+v	J3+28	14125+v	J3+26	

[†] From 1998Pe05 and 1998Pe06, unless otherwise stated.
[‡] Relative intensities within the band from 1994Ha28.
[#] Placement of transition in the level scheme is uncertain.

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30

Level Scheme

Intensities: Relative I_γ



$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30

Level Scheme (continued)

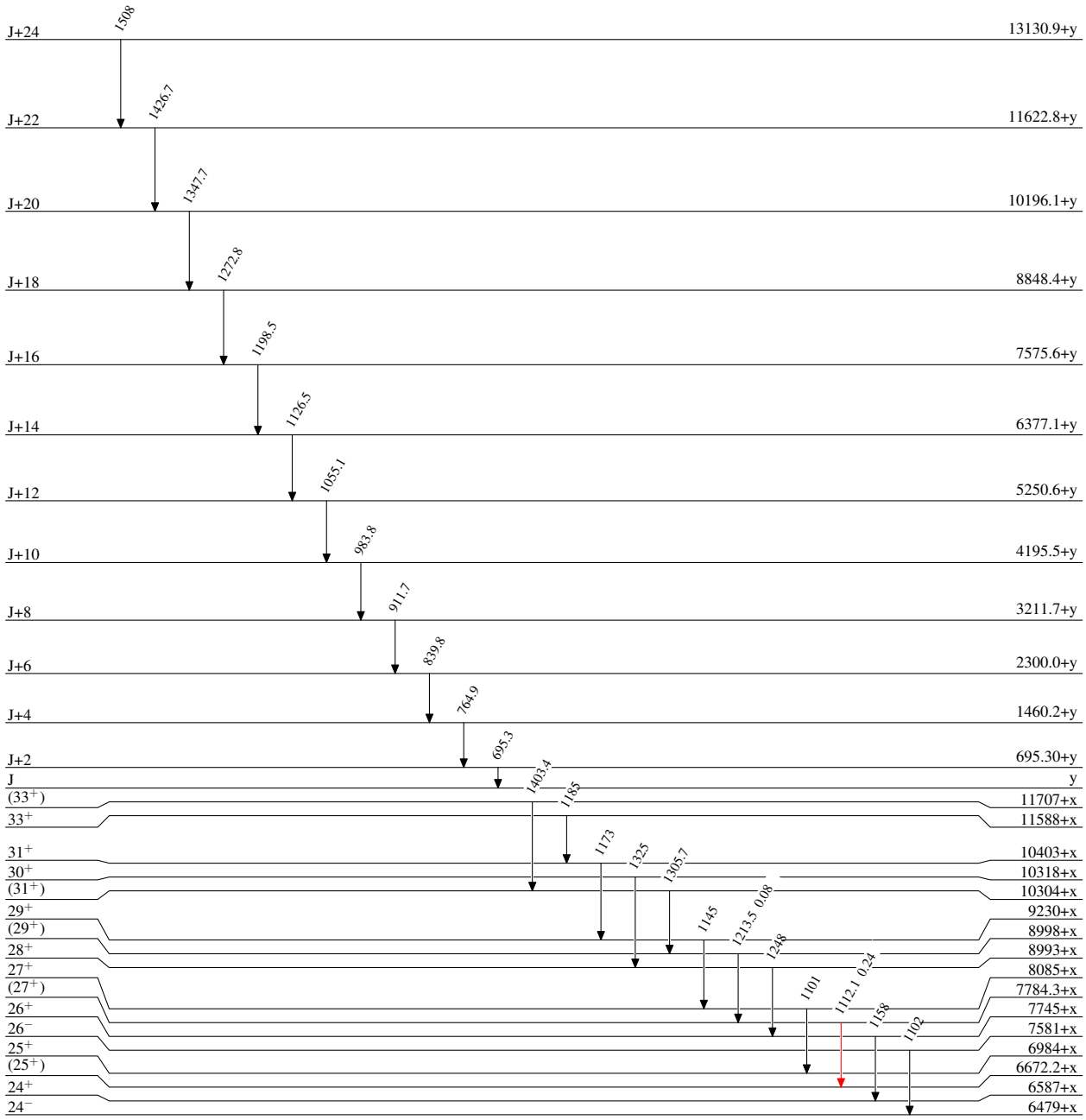
Intensities: Relative I_γ

Legend

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

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

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



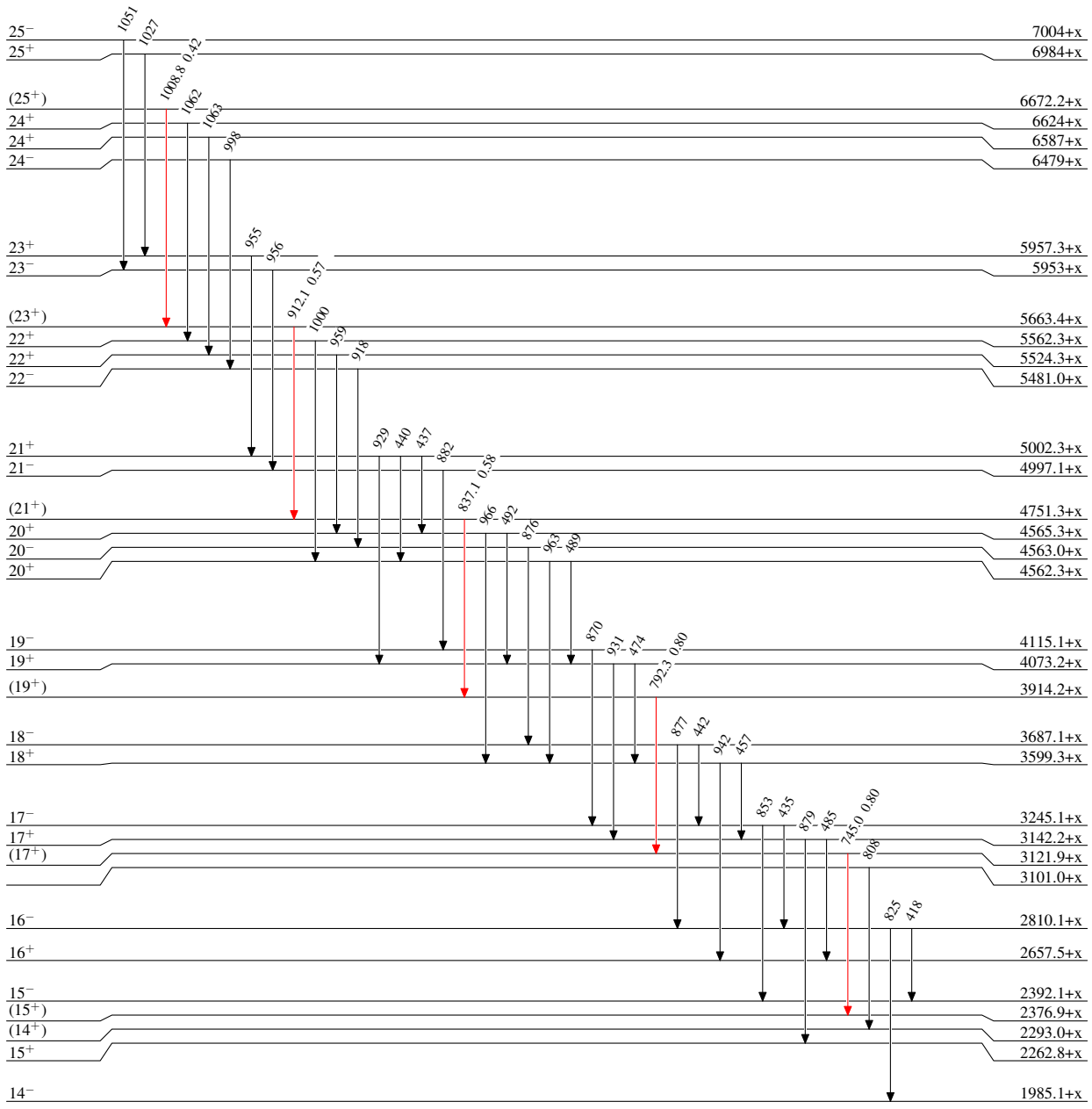
$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30

Level Scheme (continued)

Intensities: Relative I_γ

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



$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30

Level Scheme (continued)

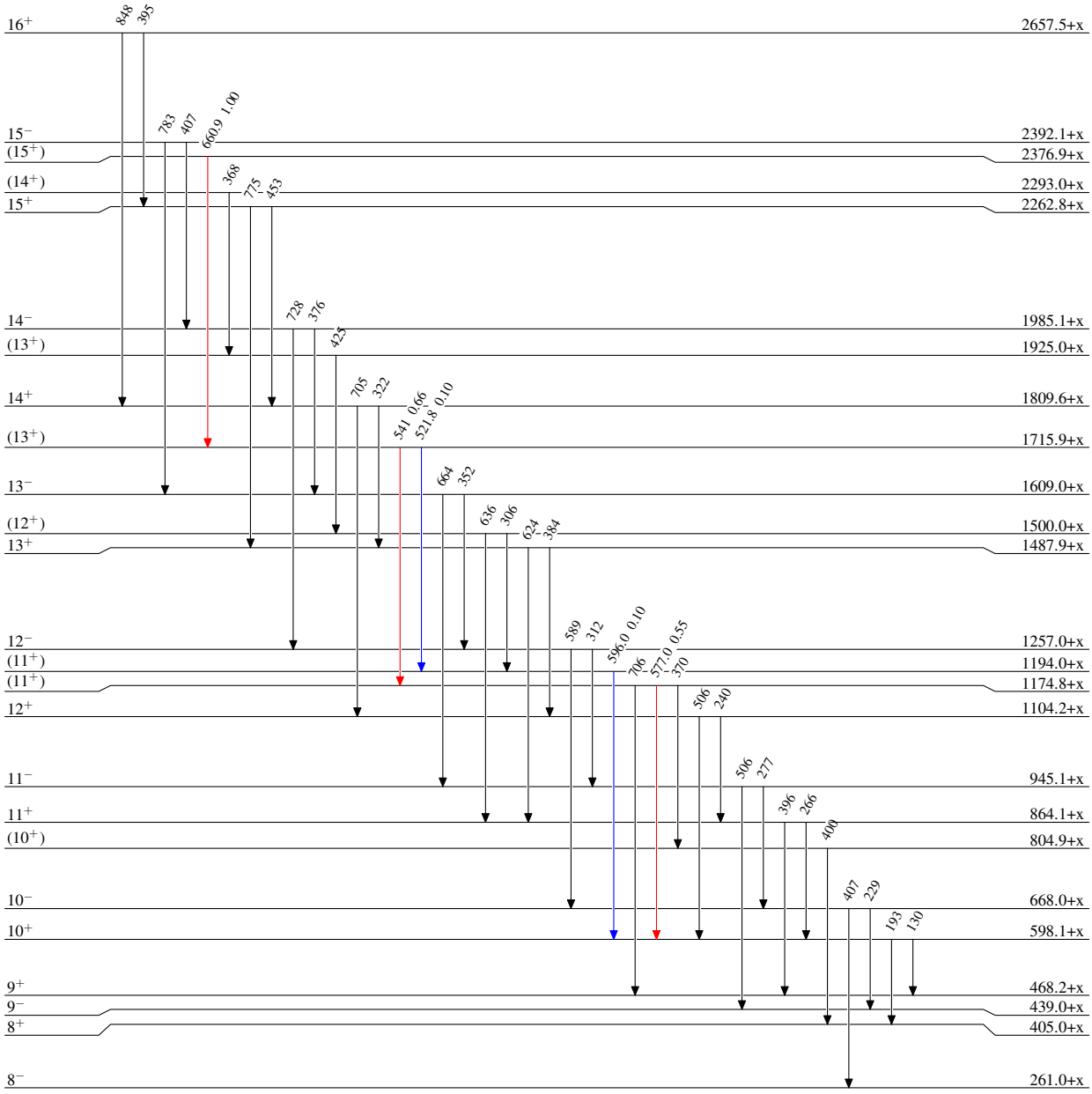
Intensities: Relative I_γ

Legend

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

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

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



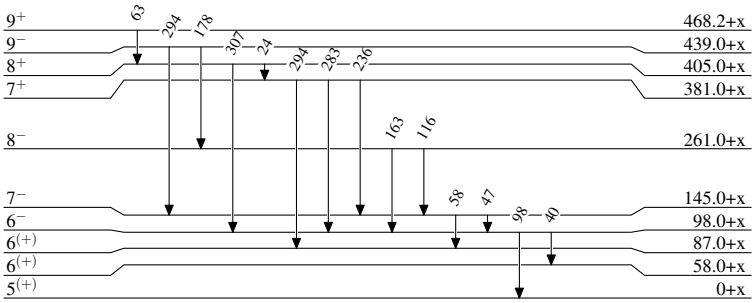
$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 Legend

Level Scheme (continued)

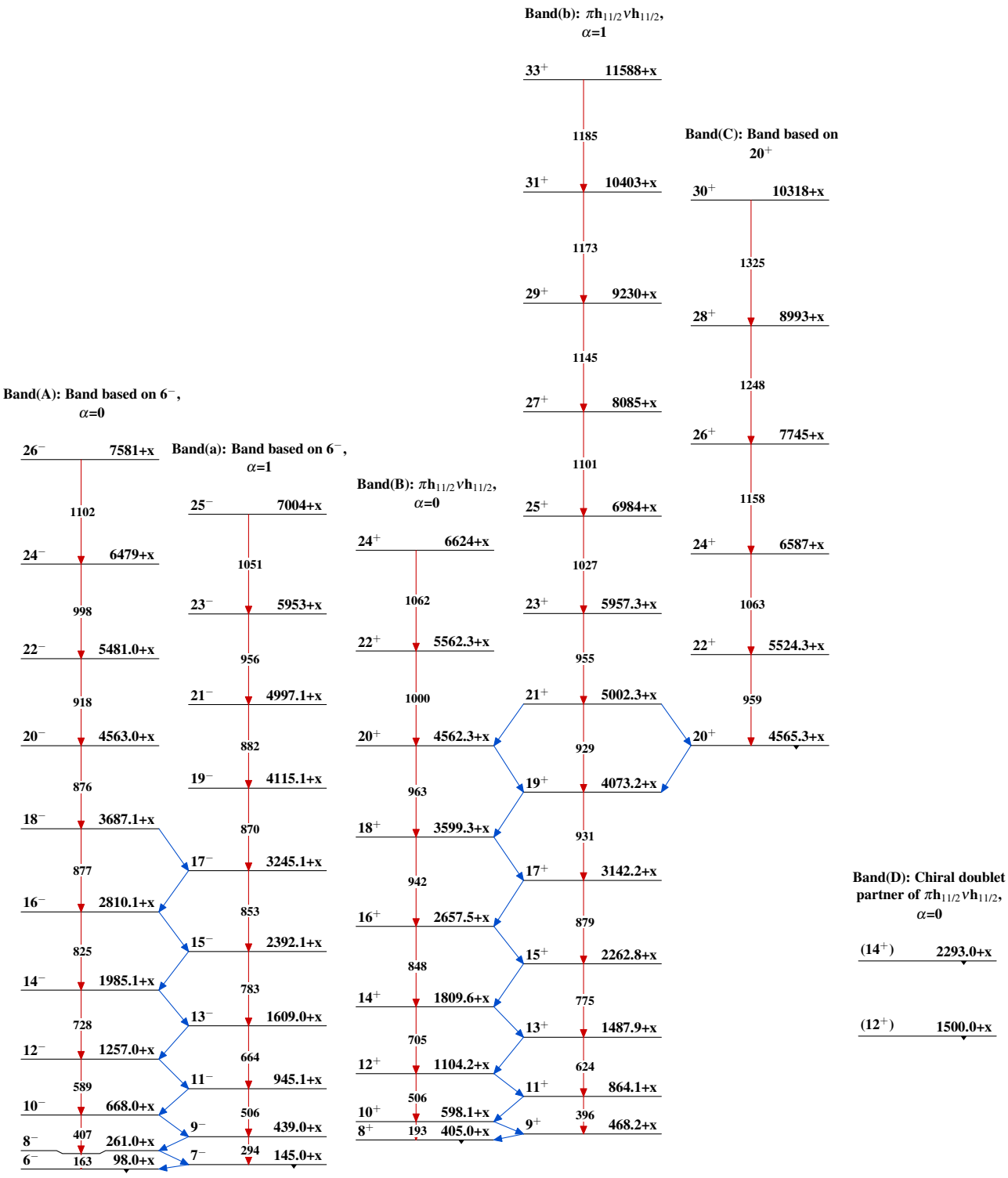
Intensities: Relative I_γ

γ Decay (Uncertain)



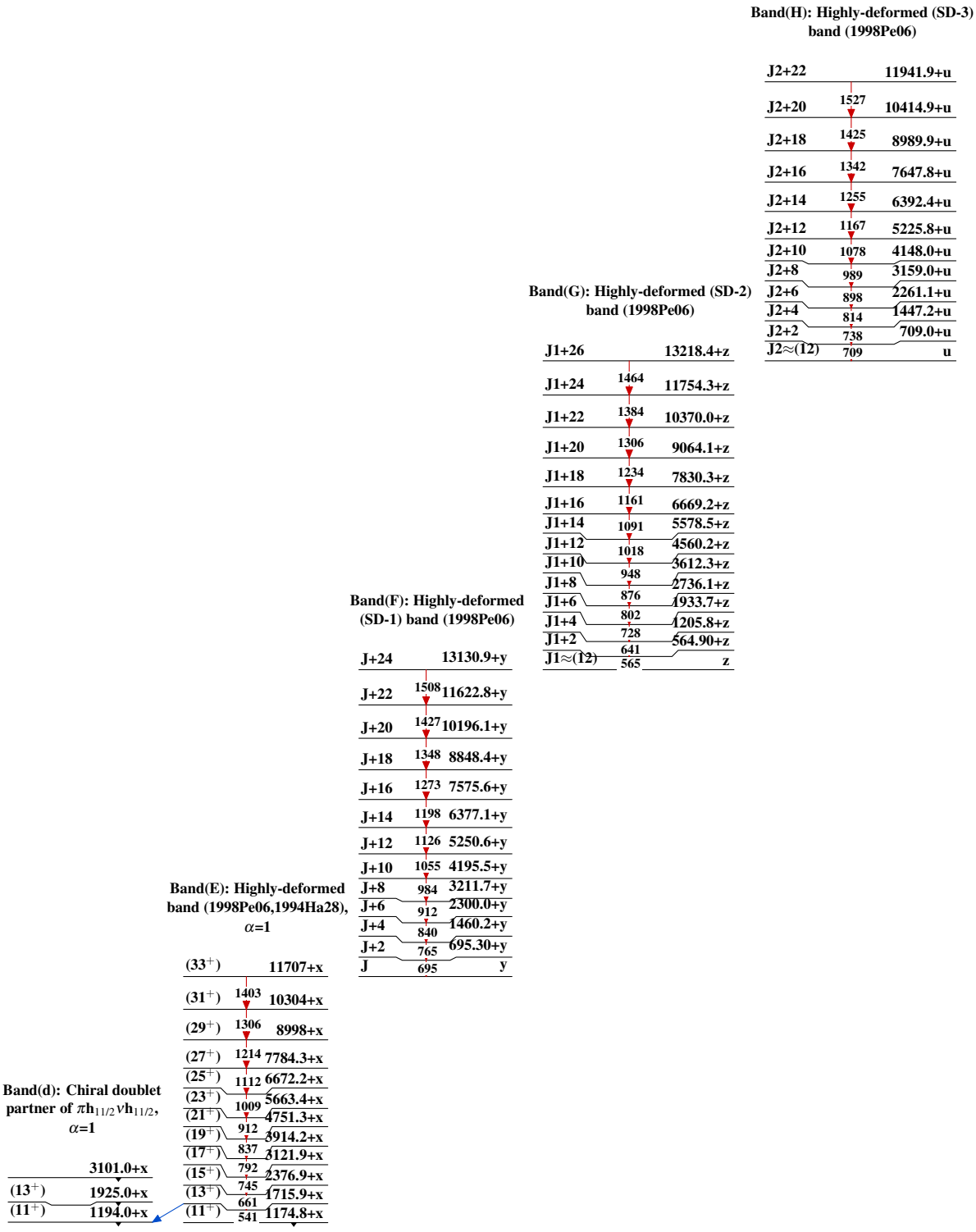
$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30



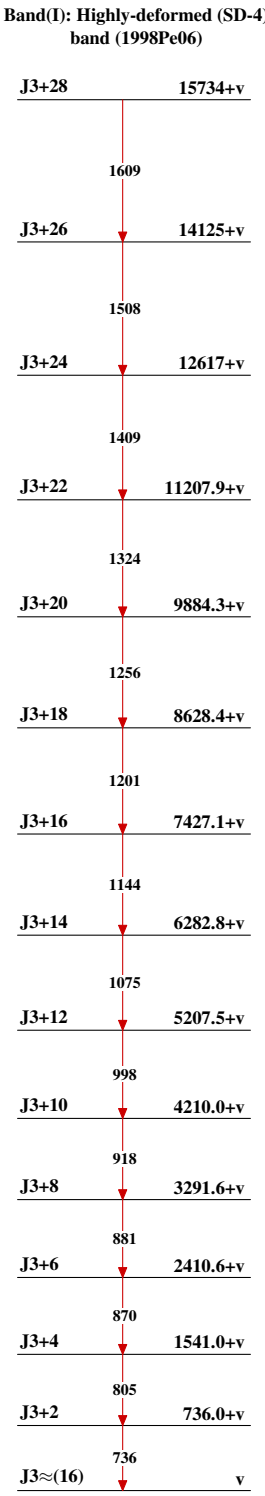
$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)



$^{132}_{59}Pr_{73}$

^{104}Pd(^{32}S,3pnγ) 1998Pe05,1998Pe06,2001Ko30 (continued)



$^{132}_{59}Pr_{73}$