^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin, E. A. Mccutchan	NDS 151, 334 (2018)	30-Jun-2018

2012Zh22: 209 MeV ^{48}Ca beam provided by the ATLAS facility at Argonne National Laboratory. Target: ≈0.5 mg/cm^2 ^{128}Te with 0.5 mg/cm^2 Au layers on the front and back. Coincident gamma rays were measured by the Gammasphere array consisting of 100 Compton-suppressed Ge detectors. Measured Eγ, Iγ, γγ-coin, DCO ratios. Deduced high-spin levels, J^π, configurations, bands, multipolarities, B(M1)/B(E2) ratios for high-K bands, alignments, band crossing frequencies. Comparison with cranked shell-model calculations. See also 2007Zh46.

2011Mu02: E=207 MeV; 1.0 mg/cm^2 enriched ^{128}Te target backed by 15.81 μg/cm^2 layer of Au and with thin layer of 70 μg/cm^2 Au evaporated onto the front of the target; measured Eγ, Iγ, γγ coin using GAMMASPHERE array composed of 101 Compton-suppressed Ge detectors at Argonne facility; DSAM and line-shape analysis quadrupole moment measurements for the enhanced deformation band; comparison with cranked model calculations.

2007Zh46: E=209 MeV; isotopically-enriched ^{128}Te target with Au layers front and back; beam wobbling device and target wheel to assist with heat dissipation In target; measured Eγ, Iγ, γγ, γγ(θ)(DCO) using GAMMASPHERE array (100 Compton-suppressed Ge detectors) at Argonne facility; deduced a new enhanced deformation band; compared with cranked relativistic mean-field calculations (CRMF).

1997Cu01, 2000Cu01: ^{128}Te(^{48}Ca,5nγ), E(^{48}Ca)=200 MeV; ^{197}Au-backed thick Te target; GAMMASPHERE detector array (64 Compton-suppressed Ge detectors); measured Eγ, Iγ, γγ coin (1997Cu01) and DSAM (2000Cu01).

The level scheme is from 2012Zh22.

^{171}Hf Levels

Nomenclature for quasiparticle orbitals:
A: ν7/2[633],α=+1/2; $i_{13/2}$.
B: ν7/2[633],α=−1/2; $i_{13/2}$.
C: ν5/2[642],α=+1/2; $i_{13/2}$.
D: ν5/2[642],α=−1/2; $i_{13/2}$.
E: ν1/2[521],α=+1/2; $f_{5/2}$.
F: ν1/2[521],α=−1/2; $f_{5/2}$.
G: ν5/2[512],α=+1/2; $f_{7/2}$.
H: ν5/2[512],α=−1/2; $f_{7/2}$.
M: ν7/2[514],α=+1/2; $h_{9/2}$.
N: ν7/2[514],α=−1/2; $h_{9/2}$.
a: π7/2[404],α=+1/2; $g_{7/2}$.
b: π7/2[404],α=−1/2; $g_{7/2}$.
c: π5/2[402],α=+1/2; $d_{5/2}$.
d: π5/2[402],α=−1/2; $d_{5/2}$.
m: π1/2[660],α=+1/2; $i_{13/2}$.
e: π9/2[514],α=+1/2; $h_{11/2}$.
f: π9/2[514],α=−1/2; $h_{11/2}$.
g: π1/2[541],α=+1/2; $h_{9/2}$.

E(level)[†]	J^π[‡]	$T_{1/2}$[#]	Comments
0.0[b]	7/2$^{(+)}$	12.1 h *4*	$T_{1/2}$,J^π: from the Adopted Levels.
21.93[h] *9*	1/2$^{(−)}$	29.5 s *9*	E(level),$T_{1/2}$: from the Adopted Levels.
49.61[j] *10*	5/2$^−$	64 ns *4*	
61.89[a] *10*	9/2$^+$		
88.45[i] *20*	3/2$^−$		
102.31[h] *20*	5/2$^−$		
142.00[k] *18*	7/2$^−$		

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

^{171}Hf Levels (continued)

E(level)[†]	J^π[‡]	$T_{1/2}$[#]
145.91[b] *14*	11/2+	
244.91[a] *16*	13/2+	
254.38[i] *22*	7/2−	
258.56[j] *18*	9/2−	
277.81[h] *25*	9/2−	
382.25[b] *17*	15/2+	
399.02[k] *20*	11/2−	
508.17[i] *25*	11/2−	
512.19[a] *18*	17/2+	
536.8[h] *3*	13/2−	
560.95[j] *20*	13/2−	
716.12[b] *19*	19/2+	
741.75[k] *22*	15/2−	
838.1[i] *3*	15/2−	
866.24[a] *20*	21/2+	
866.9[h] *4*	17/2−	
940.46[j] *23*	17/2−	
1145.62[b] *21*	23/2+	
1153.61[k] *23*	19/2−	
1234.4[i] *4*	19/2−	
1257.0[h] *4*	21/2−	
1306.15[a] *22*	25/2+	
1379.30[j] *23*	21/2−	
1615.46[k] *22*	23/2−	
1644.43[d] *21*	19/2+	6.2 ns *14*
1661.52[b] *24*	27/2+	
1688.7[i] *4*	23/2−	
1697.2[h] *4*	25/2−	
1793.7[c] *3*	21/2+	
1827.57[a] *25*	29/2+	
1857.88[j] *23*	25/2−	
1976.8[d] *3*	23/2+	
1984.0[f] *4*	23/2−	18 ns *2*
2112.91[k] *23*	27/2−	
2161.4[e] *4*	25/2−	
2183.6[h] *5*	29/2−	
2188.4[c] *3*	25/2+	
2195.9[i] *4*	27/2−	
2254.3[b] *3*	31/2+	
2365.2[j] *3*	29/2−	
2371.6[f] *4*	27/2−	
2425.3[d] *3*	27/2+	
2425.8[a] *3*	33/2+	
2610.9[e] *4*	29/2−	
2641.0[k] *3*	31/2−	
2684.8[c] *3*	29/2+	
2711.8[h] *5*	33/2−	
2753.1[i] *5*	31/2−	
2876.2[f] *4*	31/2−	
2882.4[q] *5*	33/2+	
2907.8[j] *3*	33/2−	
2913.5[b] *3*	35/2+	0.46[&] ps *+8−6*
2965.9[d] *4*	31/2+	
3090.2[g] *5*	33/2−	
3092.6[a] *3*	37/2+	0.37[&] ps *+8−3*
3165.6[e] *4*	33/2−	
3199.7[k] *3*	35/2−	
3265.5[c] *4*	33/2+	
3283.1[h] *5*	37/2−	0.59[&] ps *5*
3356.7[i] *5*	35/2−	0.43[&] ps *+3−5*
3428.5 *6*	(37/2)	
3476.5[f] *5*	35/2−	
3480.8[q] *3*	37/2+	
3502.6[j] *3*	37/2−	
3515.2[@n] *8*	33/2−	
3583.8[d] *4*	35/2+	
3629.2[b] *3*	39/2+	0.215[&] ps *21*
3642.2[g] *5*	37/2−	
3799.8[k] *3*	39/2−	
3807.7[e] *5*	37/2−	
3819.5[a] *4*	41/2+	0.208[&] ps *21*
3904.5[h] *5*	41/2−	0.35[&] ps *3*
3919.7[c] *4*	37/2+	
3999.3[i] *5*	39/2−	0.46 ps *+10−4*
4069.6[n] *6*	37/2−	
4087.4[q] *4*	41/2+	
4154.2[j] *5*	41/2−	
4156.5[f] *5*	39/2−	
4261.2[g] *5*	41/2−	
4261.8[d] *4*	39/2+	
4393.8[b] *4*	43/2+	0.18[&] ps *3*
4434.8[@] *16*		
4455.7[k] *4*	43/2−	
4523.1[e] *5*	41/2−	
4570.9[o] *7*	(39/2+)	
4582.7[h] *6*	45/2−	0.249[&] ps *21*
4594.0[a] *4*	45/2+	0.194[&] ps *21*
4614.7[c] *4*	41/2+	
4677.8[n] *6*	41/2−	
4679.2[i] *6*	43/2−	0.25[&] ps *5*
4736.1[q] *4*	45/2+	
4861.3[j] *7*	45/2−	
4903.5[f] *5*	43/2−	
4944.5[g] *6*	45/2−	

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

^{171}Hf Levels (continued)

E(level)[†]	Jπ[‡]	T1/2[#]	Comments
4964.8[d] *4*	43/2+		
5046.8 *12*			
5122.8[@] *12*			
5139.4[o] *6*	43/2+		
5175.3[k] *4*	47/2−		
5204.5[b] *4*	47/2+		
5295.7[e] *5*	45/2−		
5301.9[c] *5*	45/2+		
5321.0[h] *6*	49/2−	0.17[&] ps *3*	
5330.1[n] *6*	45/2−		
5378.5[a] *4*	49/2+		
5414.0[i] *6*	47/2−	0.19[&] ps *4*	
5492.8[q] *4*	49/2+		
5625.5[j] *9*	49/2−		
5639.6[d] *5*	47/2+		
5682.7[g] *6*	49/2−		
5696.0[f] *6*	47/2−		
5699.8[o] *6*	47/2+		
5961.2[k] *5*	51/2−		E(level): misprinted As 6961.7 In table I of 2012Zh22.
5988.9[c] *5*	49/2+		
6042.1[n] *5*	49/2−		
6067.4[b] *5*	51/2+		
6095.6[e] *6*	49/2−		
6120.6[h] *6*	53/2−	0.194[&] ps *+28−21*	
6178.9[a] *5*	53/2+		
6209.6[i] *6*	51/2−		
6327.2[o] *7*	51/2+		
6339.5[l] *6*	53/2+	0.30[&] ps *6*	
6354.4[d] *5*	51/2+		
6400.6[m] *6*	53/2+		
6448.6[j] *10*	53/2−		
6469.4[g] *6*	53/2−		
6480.9[f] *7*	51/2−		
6735.1[c] *6*	53/2+		
6812.2[k] *7*	55/2−		
6828.7[n] *5*	53/2−		
6861.9[e] *9*	53/2−		
6976.1[b] *5*	55/2+		
6981.1[h] *6*	57/2−	0.097[&] ps *21*	
7006.8[o] *7*	55/2+	90 fs *10*	Q(transition)=11.0 *6* (2011Mu02).
7041.8[a] *5*	57/2+		
7071.2[i] *7*	55/2−		
7134.3[d] *6*	55/2+		
7183.4[l] *8*	57/2+		
7235.2[f] *8*	55/2−		
7300.6[g] *6*	57/2−		
7309.5[m] *7*	57/2+		
7327.0[j] *11*	57/2−		

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

^{171}Hf Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	$T_{1/2}$[#]	Comments
7550.6[c] *6*	57/2$^+$		
7684.5[n] *7*	57/2$^-$		
7724.4[k] *9*	59/2$^-$		
7743.6[o] *7*	59/2$^+$	72 fs *10*	Q(transition)=10.0 *6* (2011Mu02).
7902.4[h] *7*	61/2$^-$		
7938.3[b] *6*	59/2$^+$		
7972.2[a] *6*	61/2$^+$		
7985.7[d] *7*	59/2$^+$		E(level): the value of 7585.9 in Table I of 2012Zh22 is a misprint.
7988.0[i] *8*	59/2$^-$		
8055.2[f] *13*	(59/2$^-$)		
8079.6[l] *9*	61/2$^+$		
8171.0[g] *7*	61/2$^-$		
8273.4[j] *12*	61/2$^-$		
8280.5[m] *12*	61/2$^+$		
8436.6[c] *7*	61/2$^+$		
8539.1[o] *8*	63/2$^+$	53 fs *8*	Q(transition)=9.7 *6* (2011Mu02).
8610.7[n] *9*	61/2$^-$		
8698.3[k] *10*	63/2$^-$		
8882.6[h] *7*	65/2$^-$		
8904.6[d] *9*	63/2$^+$		
8944.5[b] *8*	63/2$^+$		
8962.0[i] *10*	63/2$^-$		
8964.4[a] *6*	65/2$^+$		
9041.6[l] *11*	65/2$^+$		
9092.3[g] *7*	65/2$^-$		
9265.7[j] *13*	65/2$^-$		
9276.5[m] *16*	65/2$^+$		
9386.6[c] *11*	65/2$^+$		
9394.9[o] *8*	67/2$^+$	40 fs *5*	Q(transition)=9.2 *6* (2011Mu02).
9600.8[n] *10*	65/2$^-$		
9714.4[k] *11*	67/2$^-$		
9892.5[b] *9*	67/2$^+$		
9917.1[h] *7*	69/2$^-$		
9978.1[i] *14*	67/2$^-$		
10010.5[a] *8*	69/2$^+$		
10059.7[l] *15*	69/2$^+$		
10073.7[g] *7*	69/2$^-$		
10228.6?[m] *19*	(69/2$^+$)		
10298.7[j] *17*	69/2$^-$		
10309.1[o] *8*	71/2$^+$	27.0 fs *35*	Q(transition)=9.5 *7* (2011Mu02).
10645.3[n] *11*	69/2$^-$		
10761.4[k] *12*	71/2$^-$		
10857.1[b] *9*	71/2$^+$		
10995.6[h] *8*	73/2$^-$		
11028.1[i] *17*	71/2$^-$		
11098.6[a] *9*	73/2$^+$		
11111.7[l] *18*	73/2$^+$		
11111.9[g] *9*	73/2$^-$		
11280.7[o] *8*	75/2$^+$	19.4 fs *35*	Q(transition)=9.6 *10* (2011Mu02).

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

^{171}Hf Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	Comments
11728.9[n] *13*	73/2$^-$	
11809.6[k] *13*	75/2$^-$	
11859.4[b] *11*	75/2$^+$	
12104.5[h] *9*	77/2$^-$	
12186.7[l] *21*	77/2$^+$	
12198.5[a] *11*	77/2$^+$	
12199.9[g] *13*	77/2$^-$	
12306.6[o] *9*	79/2$^+$	
12828.9[n] *16*	77/2$^-$	
12889.6[k] *14*	79/2$^-$	
12910.4[b] *15*	79/2$^+$	
13240.2[h] *10*	81/2$^-$	
13313.9[g] *17*	81/2$^-$	
13331.5[a] *15*	81/2$^+$	
13385.8[o] *9*	83/2$^+$	
14016.3[k] *15*	83/2$^-$	
14407.2[h] *15*	85/2$^-$	
14515.7[o] *9*	87/2$^+$	
15195.3[k] *18*	87/2$^-$	
15602.2[h] *18*	89/2$^-$	
15698.4[o] *9*	91/2$^+$	
16431.3[k] *21*	91/2$^-$	
16933.9[o] *11*	95/2$^+$	
17732.3[k] *23*	(95/2$^-$)	
18226.5[o] *12*	99/2$^+$	
19575.2[o] *13*	103/2$^+$	
20981.2[o] *16*	107/2$^+$	
0.0+x[p]	J	Additional information 1.
717.50+x[p] *20*	(J+2)	
1490.0+x[p] *6*	(J+4)	
2321.7+x[p] *6*	(J+6)	
3213.8+x[p] *6*	(J+8)	
4167.6+x[p] *7*	(J+10)	
5184.3+x[p] *9*	(J+12)	
6265.1+x[p] *10*	(J+14)	
7409.8+x[p] *11*	(J+16)	
8621.4+x[p] *12*	(J+18)	
9899.4+x[p] *16*	(J+20)	

† From least-squares fit to Eγ (reduced χ^2=0.76).

‡ Values proposed by 2012Zh22.

From DSAM (2011Mu02), except as noted. The uncertainties are statistical only. Systematic uncertainties due to stopping powers may be as high as 15% and have not been included in the quoted values.

@ Deexciting transition(s) from this level not reported by 2012Zh22.

& From DSAM in (^{48}Ca,5nγ) (2000Cu01), except as noted. Transition quadrupole moments derived by 2000Cu01 from $T_{1/2}$ assuming a rotational model are given also in comments on the relevant transitions.

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$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)

^{171}Hf Levels (continued)

[a] Band(A): ν7/2[633] or A, α=+1/2. BC crossing at $\hbar\omega\approx$380 keV (alignment gain=6$\hbar$) (2012Zh22).
[b] Band(a): ν7/2[633] or B, α=−1/2. AD crossing at $\hbar\omega\approx$380 keV; fg crossing at $\hbar\omega\approx$490 keV.
[c] Band(B): 19/2$^+$ 3-qp band, α=+1/2. Possible configurations: adA, bcA. BC crossing at $\hbar\omega\approx$320 keV. 19/2$^+$ band intensity=5.7% 7 relative to yrast band in (^{48}Ca,5nγ) At E=209 MeV. 1997Cu01 propose Configuration=((π 7/2[404])(π 5/2[402])(ν 7/2[633])).
[d] Band(b): 19/2$^+$ 3-qp band, α=−1/2. Possible configurations: acA, bdA. BC crossing at $\hbar\omega\approx$320 keV. See comment on signature partner band.
[e] Band(C): K$^\pi$=23/2$^-$, α=+1/2 *3*-qp afA band. BC crossing at $\hbar\omega\approx$360 keV. Likely configuration=((π 7/2[404])(π 9/2[514])(ν 7/2[633])) (1997Cu01). 23/2$^-$ band intensity=8.3% 7 relative to yrast band in (^{48}Ca,5nγ).
[f] Band(c): K$^\pi$=23/2$^-$, α=−1/2 3-qp bfA band. Likely configuration=((π 7/2[404])(π 9/2[514])(ν 7/2[633])) (1997Cu01). BC crossing at $\hbar\omega$ ≈ 360 keV. See comment on signature partner band.
[g] Band(D): K$^\pi$=33/2- 3-qp band, α=+1/2. Lower part of the band may be vibrational band based on EAB configuration. CD crossing at $\hbar\omega$ ≈ 410 keV.
[h] Band(E): ν1/2[521] or E, α=+1/2. AB crossing at $\hbar\omega\approx$240 keV; fg crossing at $\hbar\omega\approx$510 keV, with alignment gains of 9.5$\hbar$ and >4.7$\hbar$, respectively.
[i] Band(e): ν1/2[521] or F, α=−1/2. AB crossing at $\hbar\omega\approx$250 keV.
[j] Band(F): ν5/2[512] or G, α=+1/2. See comment on signature partner band.
[k] Band(f): ν5/2[512] or H, α=−1/2. AB crossing at $\hbar\omega\approx$250 keV; fg crossing at $\hbar\omega\approx$550 keV, with alignment gains of 9.5$\hbar$ and 5.2$\hbar$, respectively (2012Zh22).
[l] Band(G): Band based on 53/2$^+$, α=+1/2. This band may involve A, B and C orbitals and GH crossing.
[m] Band(H): Band based on 53/2$^+$, α=+1/2. Continuation of band A with either proton pair crossing or CD neutron crossing at $\hbar\omega$ ≈ 500 keV.
[n] Band(I): 3-qp, MAB band.
[o] Band(J): ED-1 band,α=−1/2. Enhanced deformation band in second potential well. Configuration=$\pi(i_{13/2}h_{9/2})\otimes\nu h_{9/2}$. Percent population=1.4 *1* (2007Zh46) at E=209 MeV. Newly-reported band structure from 2007Zh46 who discuss possible configuration for this band based on structure calculations and comparison with neighboring Hf nuclides. Q(transition)=9.5 *6* (2011Mu02) from lifetime measurements. At lower spins, expected configuration=$\pi(i_{13/2},h_{9/2})\otimes\nu j_{15/2}$. At higher spins, configuration=$\pi i^2_{13/2}\otimes\nu(i_{13/2},h_{9/2},j_{15/2})$. This structure is not much associated with triaxiality, thus the band is probably not TSD (2011Mu02).
[p] Band(K): ED2-2 band. Enhanced deformation band with alignment similar to ED-1 band. This band may be signature partner of ED-1 band, SD or TSD band.
[q] Band(L): α=+1/2 band based on (33/2$^+$).

$\gamma(^{171}$Hf)

DCO are for gates on ΔJ=2, Q transitions (expected values are 1.0 for ΔJ=2, Q and 0.6 for ΔJ=1, pure D transitions; however, for ΔJ=1, D+Q transitions, value can vary from 0.2 to 1.3, depending on the value of the mixing ratio) (2012Zh22).

E_γ[†]	I_γ	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	α[a]	Comments
(21.93[#] *9*)		21.93	1/2$^{(-)}$	0.0	7/2$^{(+)}$	[E3][#]	5.44×10^5 *16*	
49.6[#] *1*		49.61	5/2$^-$	0.0	7/2$^{(+)}$	[E1][#]	0.447	
61.9[#] *1*		61.89	9/2$^+$	0.0	7/2$^{(+)}$	[M1+E2][#]	14 *12*	
66.4 *2*		88.45	3/2$^-$	21.93	1/2$^{(-)}$	[M1+E2]		
80.5 *2*		102.31	5/2$^-$	21.93	1/2$^{(-)}$	[E2]	8.44 *15*	
84.1 *2*		145.91	11/2$^+$	61.89	9/2$^+$	[M1+E2]	6.8 *3*	
92.2 *2*		142.00	7/2$^-$	49.61	5/2$^-$	[E2]	4.86 *8*	
98.9 *2*	8.9 *4*	244.91	13/2$^+$	145.91	11/2$^+$	D+Q	3.91 *24*	DCO=0.46 *10*
116.3 *2*	2.4 *4*	258.56	9/2$^-$	142.00	7/2$^-$	D	2.3 *4*	DCO=0.60 *4*
129.8 *2*	11 *2*	512.19	17/2$^+$	382.25	15/2$^+$	D(+Q)	1.6 *3*	DCO=0.5 *1*
137.2 *2*	16 *2*	382.25	15/2$^+$	244.91	13/2$^+$	D	1.3 *3*	DCO=0.60 *6*

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$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)

$\gamma(^{171}Hf)$ (continued)

E_γ[†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[a]	Comments
139.6 *5*	0.8 *5*	399.02	11/2⁻	258.56	9/2⁻	D(+Q)	1.3 *3*	DCO=0.52 *10*
145.9 *2*		145.91	11/2⁺	0.0	7/2(+)	[E2]	0.857	
149.3 *2*	6.6 *6*	1793.7	21/2⁺	1644.43	19/2⁺	(D+Q)	1.03 *25*	DCO=0.92 *6* I(149γ):I(1133γ)=93 *3*:100 *3* At E=200 MeV (1997Cu01). Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the latter.
150.2 *2*	18 *2*	866.24	21/2⁺	716.12	19/2⁺	D(+Q)	1.01 *25*	DCO=0.45 *12*
152.3 *2*	6.2 *7*	254.38	7/2⁻	102.31	5/2⁻	D+Q	0.97 *24*	DCO=0.77 *6*
160.3 *2*	2.9 *5*	1306.15	25/2⁺	1145.62	23/2⁺	D(+Q)	0.83 *22*	DCO=0.65 *10*
161.6 *2*	2.6 *3*	560.95	13/2⁻	399.02	11/2⁻	D		DCO=0.5 *1*
165.4 *2*	1.5 *9*	1827.57	29/2⁺	1661.52	27/2⁺	[M1+E2]	0.75 *21*	E_γ: poor fit, level-energy difference=166.0.
165.8 *2*	6.9 *6*	254.38	7/2⁻	88.45	3/2⁻	[E2]	0.545	DCO=0.80 *13* Mult.: DCO low for Q (ΔJ=2), consistent with D+Q (ΔJ=1); authors propose the former.
170.8 *5*	0.5 *1*	2425.8	33/2⁺	2254.3	31/2⁺	[M1+E2]	0.68 *20*	
175.4 *2*	32 *2*	277.81	9/2⁻	102.31	5/2⁻	(Q)	0.449	DCO=0.87 *12* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the former.
177.4 *2*	6.3 *5*	2161.4	25/2⁻	1984.0	23/2⁻	[M1+E2]	0.61 *18*	
179.2 *5*	0.4 *1*	3092.6	37/2⁺	2913.5	35/2⁺	[M1+E2]	0.59 *18*	
180.4 *2*	1.2 *6*	741.75	15/2⁻	560.95	13/2⁻	M1+E2	0.58 *18*	DCO=0.53 *8*
183.0 *2*	12 *1*	244.91	13/2⁺	61.89	9/2⁺	Q	0.388	DCO=1.03 *5*
183.1 *2*	8.8 *6*	1976.8	23/2⁺	1793.7	21/2⁺	(D+Q)		DCO=0.96 *5* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the latter.
190.2 *5*	0.5 *3*	3819.5	41/2⁺	3629.2	39/2⁺	[M1+E2]	0.49 *16*	
190.3 *2*	2.1 *4*	1984.0	23/2⁻	1793.7	21/2⁺	[E1]	0.0667	
198.3 *5*	0.8 *4*	940.46	17/2⁻	741.75	15/2⁻	D	0.44 *14*	DCO=0.6 *1*
203.6 *2*	16 *2*	716.12	19/2⁺	512.19	17/2⁺	D		DCO=0.53 *10*
209.1 *2*	1.8 *6*	258.56	9/2⁻	49.61	5/2⁻	[E2]	0.248	DCO=0.7 *2* Mult.: DCO low for Q (ΔJ=2), consistent with D+Q (ΔJ=1); authors propose the former.
210.2 *2*	7.0 *7*	2371.6	27/2⁻	2161.4	25/2⁻	[M1+E2]	0.37 *13*	
211.6 *2*	6.6 *5*	2188.4	25/2⁺	1976.8	23/2⁺	M1+E2	0.36 *13*	DCO=0.94 *5*
213.5 *5*	0.9 *2*	1153.61	19/2⁻	940.46	17/2⁻	[M1+E2]	0.35 *12*	
225.4 *5*	0.4 *5*	1379.30	21/2⁻	1153.61	19/2⁻	D+Q	0.30 *11*	DCO=0.70 *2*
230.4 *2*	2.5 *5*	508.17	11/2⁻	277.81	9/2⁻	(D+Q)	0.28 *10*	DCO=0.96 *6* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the latter.
235.8 *5*	0.8 *2*	1615.46	23/2⁻	1379.30	21/2⁻	(D+Q)	0.26 *10*	DCO=0.9 *1* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the latter.
236.5 *2*	30 *2*	382.25	15/2⁺	145.91	11/2⁺	[E2]	0.1659	
237.1 *2*	12 *1*	2425.3	27/2⁺	2188.4	25/2⁺	[M1+E2]	0.26 *10*	
239.3 *2*	4.5 *6*	2610.9	29/2⁻	2371.6	27/2⁻	[M1+E2]	0.25 *10*	
241.9 *5*	0.2 *1*	1857.88	25/2⁻	1615.46	23/2⁻	D	0.24 *9*	DCO=0.53 *11*
252.3 *5*	<0.3	2365.2	29/2⁻	2112.91	27/2⁻	[M1+E2]	0.22 *9*	
253.9 *2*	17 *1*	508.17	11/2⁻	254.38	7/2⁻	Q	0.1323	DCO=1.04 *3*
254.8 *2*	1.0 *2*	2112.91	27/2⁻	1857.88	25/2⁻	D+Q	0.21 *8*	DCO=0.8 *1*
257.1 *2*	1.3 *7*	399.02	11/2⁻	142.00	7/2⁻	(Q)	0.1272	DCO=0.86 *12* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the former.
258.8 *2*	49 *1*	536.8	13/2⁻	277.81	9/2⁻	Q	0.1246	DCO=1.14 *10*
259.4 *2*	10 *1*	2684.8	29/2⁺	2425.3	27/2⁺	[M1+E2]	0.20 *8*	DCO=1.1 *1*
265.3 *2*	7.1 *9*	2876.2	31/2⁻	2610.9	29/2⁻	[M1+E2]	0.19 *8*	

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$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)

$\gamma(^{171}Hf)$ (continued)

E_γ[†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[a]	Comments
266.4 5	0.4 4	2907.8	33/2⁻	2641.0	31/2⁻	D	0.19 8	DCO=0.7 1
267.3 2	50 1	512.19	17/2⁺	244.91	13/2⁺	Q	0.1127	DCO=1.05 5
267.8 5	<0.3	4087.4	41/2⁺	3819.5	41/2⁺			
276.0 5	0.4 2	2641.0	31/2⁻	2365.2	29/2⁻	[M1+E2]	0.17 7	DCO=0.7 8
279.3 2	10 1	1145.62	23/2⁺	866.24	21/2⁺	D	0.16 7	DCO=0.5 1
281.0 2	9.6 8	2965.9	31/2⁺	2684.8	29/2⁺	[M1+E2]	0.16 7	
289.4 2	5.1 8	3165.6	33/2⁻	2876.2	31/2⁻	[M1+E2]	0.15 6	
291.4 5	<0.3	3199.7	35/2⁻	2907.8	33/2⁻	D	0.14 6	DCO=0.6 1
296.7 5	<0.3	3799.8	39/2⁻	3502.6	37/2⁻	[M1+E2]	0.14 6	
299.6 2	2.2 6	3265.5	33/2⁺	2965.9	31/2⁺	[M1+E2]	0.13 6	I(300γ):I(581γ)=20.2 8:21.2 9 At E=200 MeV (1997Cu01).
301.0 2	1.7 9	838.1	15/2⁻	536.8	13/2⁻	M1+E2	0.13 6	DCO=0.96 13
302.2 5	<0.3	3502.6	37/2⁻	3199.7	35/2⁻	[M1+E2]	0.13 6	
302.4 2	2.0 8	560.95	13/2⁻	258.56	9/2⁻	Q	0.0773	DCO=0.99 3
310.9 2	3.4 3	3476.5	35/2⁻	3165.6	33/2⁻	[M1+E2]	0.12 5	
318.4 2	2.3 6	3583.8	35/2⁺	3265.5	33/2⁺	[M1+E2]	0.11 5	I(319γ):I(618γ)=20.7 9:23.0 10 At E=200 MeV (1997Cu01).
330.1 2	22 2	838.1	15/2⁻	508.17	11/2⁻	Q	0.0597	DCO=1.1 1
330.4 2	74 1	866.9	17/2⁻	536.8	13/2⁻	Q	0.0595	DCO=1.09 7
331.2 2	3.5 7	3807.7	37/2⁻	3476.5	35/2⁻	[M1+E2]	0.10 5	
332.4 2	1.2 4	1976.8	23/2⁺	1644.43	19/2⁺	[E2]	0.0585	DCO=1.5 6
334.0 2	40 1	716.12	19/2⁺	382.25	15/2⁺	[E2]	0.0577	
335.8 5	@	3919.7	37/2⁺	3583.8	35/2⁺	[M1+E2]	0.10 4	
337.1 5	@	5301.9	45/2⁺	4964.8	43/2⁺	[M1+E2]	0.10 4	
337.8 5	@	5639.6	47/2⁺	5301.9	45/2⁺	[M1+E2]	0.10 4	
342.1 2	2.8 7	4261.8	39/2⁺	3919.7	37/2⁺	[M1+E2]	0.09 4	
343.0 2	3.7 2	741.75	15/2⁻	399.02	11/2⁻	E2	0.0534	DCO=0.99 2
348.8 2	2.1 6	4156.5	39/2⁻	3807.7	37/2⁻	[M1+E2]	0.09 4	
348.8 5	0.3 1	6469.4	53/2⁻	6120.6	53/2⁻	[M1]	0.1240	
349.4 5	≈0.7	5988.9	49/2⁺	5639.6	47/2⁺	[M1+E2]	0.09 4	
350.1 2	2.4 6	4964.8	43/2⁺	4614.7	41/2⁺	[M1+E2]	0.09 4	E_γ: Eγ=361 in figure 1 of 2000Cu01 does not fit placement and is presumed to be a misprint of 351; Eγ=350 In fig. 1 of 1997Cu01.
352.9 2	≈2	4614.7	41/2⁺	4261.8	39/2⁺	[M1+E2]	0.08 4	
354.1 2	53 2	866.24	21/2⁺	512.19	17/2⁺	[E2]	0.0488	
354.2 5	<0.3	4154.2	41/2⁻	3799.8	39/2⁻	[M1+E2]	0.08 4	
354.9 2	8.5 7	1661.52	27/2⁺	1306.15	25/2⁺	[M1+E2]	0.08 4	E_γ: Somewhat poor fit, level-energy difference=355.4.
356.7 5	0.4 3	4261.2	41/2⁻	3904.5	41/2⁻	[M1]	0.1168	DCO=0.92 5
359.1 5	0.6 5	3642.2	37/2⁻	3283.1	37/2⁻	[M1]	0.1147	
361.7 5	0.6 3	5682.7	49/2⁻	5321.0	49/2⁻	[M1]	0.1126	DCO=0.99 5 DCO for 362.0γ+361.7γ doublet.
362.0 5	0.6 3	4944.5	45/2⁻	4582.7	45/2⁻	[M1]	0.1123	DCO=0.99 5 DCO is for 362.0+361.7 doublet.
365.5 2	1.3 7	6354.4	51/2⁺	5988.9	49/2⁺	[M1+E2]	0.08 4	
366.6 2	1.4 6	4523.1	41/2⁻	4156.5	39/2⁻	[M1+E2]	0.08 4	
367.8 2	1.0 7	1234.4	19/2⁻	866.9	17/2⁻	[M1+E2]	0.08 4	
373 1	<0.3	7235.2	55/2⁻	6861.9	53/2⁻	[M1+E2]	0.07 3	
378.4 5	0.6 4	3090.2	33/2⁻	2711.8	33/2⁻	[M1]	0.0998	
379.6 2	2.3 2	940.46	17/2⁻	560.95	13/2⁻	Q	0.0401	DCO=1.04 4
380.4 2	1.1 7	4903.5	43/2⁻	4523.1	41/2⁻	[M1+E2]	0.07 3	
380.7 5	0.3 6	6735.1	53/2⁺	6354.4	51/2⁺	[M1+E2]	0.07 3	
381 1	<0.3	6861.9	53/2⁻	6480.9	51/2⁻	[M1+E2]	0.07 3	
385.3 5	<0.3	6480.9	51/2⁻	6095.6	49/2⁻	[M1+E2]	0.07 3	
387.6 2	1.5 4	2371.6	27/2⁻	1984.0	23/2⁻	[E2]	0.0379	

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

γ(^{171}Hf) (continued)

Eγ[†]	Iγ	Ei(level)	J^{π}_{i}	Ef	J^{π}_{f}	Mult.[‡]	α[a]	Comments
388.2 *2*	1.7 *1*	3480.8	37/2+	3092.6	37/2+	(D+Q)		DCO=1.11 *6* Mult.: DCO consistent with either D+Q ΔJ=1 or ΔJ=2 Q; authors propose the former.
390.0 *2*	75 *1*	1257.0	21/2−	866.9	17/2−	Q	0.0372	DCO=1.16 *11*
392.2 *2*	2.1 *6*	5295.7	45/2−	4903.5	43/2−	[M1+E2]	0.06 *3*	
394.7 *2*	2.2 *6*	2188.4	25/2+	1793.7	21/2+	[E2]	0.0360	
396.0 *2*	17 *1*	1234.4	19/2−	838.1	15/2−	(Q)	0.0357	DCO=1.3 *5* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the former.
399.2 *5*	<0.3	7134.3	55/2+	6735.1	53/2+	[M1+E2]	0.06 *3*	
399.6 *5*	@	6095.6	49/2−	5696.0	47/2−	[M1+E2]	0.06 *3*	
400.3 *5*	@	5696.0	47/2−	5295.7	45/2−	[M1+E2]	0.06 *3*	
411.8 *2*	4.6 *7*	1153.61	19/2−	741.75	15/2−	Q	0.0321	DCO=1.06 *5*
416.3 *5*	<0.3	7550.6	57/2+	7134.3	55/2+	[M1+E2]	0.054 *24*	
426.7 *2*	3.8 *6*	2254.3	31/2+	1827.57	29/2+	[M1+E2]	0.051 *22*	
429.3 *2*	52 *2*	1145.62	23/2+	716.12	19/2+	[E2]	0.0287	
432.0 *5*	0.8 *7*	1688.7	23/2−	1257.0	21/2−	[M1+E2]	0.049 *22*	
435.1 *5*	<0.3	7985.7	59/2+	7550.6	57/2+	[M1+E2]	0.048 *21*	
438.8 *2*	2.4 *9*	1379.30	21/2−	940.46	17/2−	Q	0.0271	DCO=1.03 *4*
440.0 *2*	68 *2*	1306.15	25/2+	866.24	21/2+	Q	0.0269	DCO=1.2 *1*
440.1 *2*	73 *1*	1697.2	25/2−	1257.0	21/2−	(Q)	0.0269	DCO=1.23 *8* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the former.
448.4 *2*	5.8 *6*	2425.3	27/2+	1976.8	23/2+	[E2]	0.0256	
449.4 *5*	0.9 *6*	2610.9	29/2−	2161.4	25/2−	[E2]	0.0254	I(449γ):I(239γ)=1.06 *24*:7.6 *4* At E=200 MeV (1997Cu01).
450.8 *5*	<0.3	8436.6	61/2+	7985.7	59/2+	[M1+E2]	0.044 *19*	
454.4 *2*	16 *1*	1688.7	23/2−	1234.4	19/2−	(Q)	0.0247	DCO=1.4 *2* Mult.: DCO consistent with (Q)(ΔJ=2) or D+Q (ΔJ=1);authors propose the former.
456.7 *5*	<0.3	2882.4	33/2+	2425.3	27/2+			
458.1 *5*	<0.3	4087.4	41/2+	3629.2	39/2+	D	0.0604	DCO=0.46 *6*
461.9 *2*	4.5 *2*	1615.46	23/2−	1153.61	19/2−	Q	0.0237	DCO=1.08 *7*
468 *1*	<0.3	8904.6	63/2+	8436.6	61/2+	[M1+E2]	0.040 *18*	
478.6 *2*	1.9 *5*	1857.88	25/2−	1379.30	21/2−	Q	0.0216	DCO=1.1 *1*
482 *1*	<0.3	9386.6	65/2+	8904.6	63/2+	[M1+E2]	0.037 *16*	
486.4 *2*	62 *1*	2183.6	29/2−	1697.2	25/2−	[E2]	0.0207	DCO=1.21 *12*
487.5 *2*	4.5 *8*	2913.5	35/2+	2425.8	33/2+	[M1+E2]	0.036 *16*	
496.4 *2*	5.2 *3*	2684.8	29/2+	2188.4	25/2+	[E2]	0.0197	I(496γ):I(259γ)=18.5 *9*:34.0 *13* At E=200 MeV (1997Cu01).
497.7 *2*	6.0 *5*	2112.91	27/2−	1615.46	23/2−	(Q)	0.0196	DCO=1.17 *5*
498.5 *2*	1.8 *5*	2195.9	27/2−	1697.2	25/2−	M1+E2	0.034 *15*	DCO=1.10 *3* Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the latter.
504.6 *2*	3.1 *7*	2876.2	31/2−	2371.6	27/2−	[E2]	0.0189	I(505γ):I(265γ)=1.85 *27*:7.3 *4* At E=200 MeV (1997Cu01).
507.3 *2*	17 *1*	2195.9	27/2−	1688.7	23/2−	(Q)	0.0187	DCO=1.25 *10*
507.4 *2*	3.1 *5*	2365.2	29/2−	1857.88	25/2−	[E2]	0.0186	
515.0 *5*	<0.3	3428.5	(37/2)	2913.5	35/2+			
515.9 *2*	53 *1*	1661.52	27/2+	1145.62	23/2+	[E2]	0.0179	
521.8 *2*	70 *5*	1827.57	29/2+	1306.15	25/2+	Q	0.01739	DCO=1.08 *5*
528.1 *2*	3.0 *5*	2641.0	31/2−	2112.91	27/2−	[E2]	0.01688	
528.2 *2*	54 *1*	2711.8	33/2−	2183.6	29/2−	[E2]	0.01688	
536.4 *2*	1.6 *3*	3629.2	39/2+	3092.6	37/2+	[M1+E2]	0.028 *12*	
540.7 *2*	8.5 *9*	2965.9	31/2+	2425.3	27/2+	[E2]	0.01593	I(541γ):I(281γ)=23.6 *10*:29.3 *11* At E=200 MeV (1997Cu01).

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

γ(^{171}Hf) (continued)

E_γ[†]	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡]	α[a]	Comments
542.7 *2*	1.2 *5*	2907.8	33/2⁻	2365.2	29/2⁻	[E2]	0.01579	
552.0 *2*	1.2 *5*	3642.2	37/2⁻	3090.2	33/2⁻	[E2]	0.01515	DCO=1.1 *2*
554.4 *5*	<0.3	4069.6	37/2⁻	3515.2	33/2⁻			
554.8 *2*	2.4 *5*	3165.6	33/2⁻	2610.9	29/2⁻	[E2]	0.01497	I(554γ):I(289γ)=2.1 *3*:5.6 *3* At E=200 MeV (1997Cu01).
557.3 *2*	16 *2*	2753.1	31/2⁻	2195.9	27/2⁻	[E2]	0.01480	
558.7 *2*	2.1 *5*	3199.7	35/2⁻	2641.0	31/2⁻	[E2]	0.01471	
560.4 *2*	1.9 *2*	5699.8	47/2⁺	5139.4	43/2⁺	(Q)		DCO=0.90 *1*
567.4 *5*	0.3 *1*	3480.8	37/2⁺	2913.5	35/2⁺	D+Q		DCO=0.74 *8*
568.4 *5*	0.7 *1*	5139.4	43/2⁺	4570.9	(39/2⁺)	[E2]	0.01412	
568.9 *5*	0.9 *1*	2753.1	31/2⁻	2183.6	29/2⁻	[M1+E2]	0.024 *11*	
571.4 *2*	≈50	3283.1	37/2⁻	2711.8	33/2⁻	[E2]	0.01394	Q(transition)=6.6 *4* (2000Cu01).
574.4 *2*	1.6 *9*	4393.8	43/2⁺	3819.5	41/2⁺	[M1+E2]	0.024 *10*	
577[&] *1*	[@]	5699.8	47/2⁺	5122.8				
580.6 *2*	8.8 *7*	3265.5	33/2⁺	2684.8	29/2⁺	[E2]	0.01342	
589.1 *5*	<0.3	3502.6	37/2⁻	2913.5	35/2⁺	[E1]		
593.0 *2*	29 *2*	2254.3	31/2⁺	1661.52	27/2⁺	[E2]	0.01276	
594.8 *2*	3.4 *6*	3502.6	37/2⁻	2907.8	33/2⁻	[E2]	0.01267	
598.1 *2*	69 *2*	2425.8	33/2⁺	1827.57	29/2⁺	[E2]	0.01251	
598.4 *5*	<0.3	3480.8	37/2⁺	2882.4	33/2⁺	Q		DCO=1.0 *1*
600.1 *2*	3.0 *5*	3799.8	39/2⁻	3199.7	35/2⁻	[E2]	0.01241	
600.3 *2*	1.7 *7*	3476.5	35/2⁻	2876.2	31/2⁻	[E2]	0.01240	
603.5 *2*	15 *2*	3356.7	35/2⁻	2753.1	31/2⁻	[E2]	0.01224	Q(transition)=6.6 *4*.
607.2 *5*	0.3 *3*	4087.4	41/2⁺	3480.8	37/2⁺	Q	0.01207	DCO=1.0 *1*
608.2 *2*	1.1 *3*	4677.8	41/2⁻	4069.6	37/2⁻	(Q)	0.01202	DCO=0.89 *3*
612[&] *1*	[@]	5046.8		4434.8				
617.9 *2*	6.6 *7*	3583.8	35/2⁺	2965.9	31/2⁺	[E2]	0.01159	
619.0 *2*	1.3 *5*	4261.2	41/2⁻	3642.2	37/2⁻	[E2]	0.01154	
621.4 *2*	44 *1*	3904.5	41/2⁻	3283.1	37/2⁻	[E2]	0.01143	Q(transition)=6.9 *3*.
627.4 *2*	6.1 *3*	6327.2	51/2⁺	5699.8	47/2⁺	Q	0.01118	DCO=1.08 *8*
636.2 *5*	<0.3	4455.7	43/2⁻	3819.5	41/2⁺	[E1]		
641.1 *5*	0.6 *2*	4069.6	37/2⁻	3428.5	(37/2)			
642.1 *2*	1.7 *8*	3807.7	37/2⁻	3165.6	33/2⁻	[E2]	0.01060	I(641γ):I(331γ)=1.6 *3*:3.75 *27* At E=200 MeV (1997Cu01).
642.6 *2*	9.7 *7*	3999.3	39/2⁻	3356.7	35/2⁻	[E2]	0.01058	Q(transition)=5.6 +*12*−*5*.
645.5 *5*	<0.3	3356.7	35/2⁻	2711.8	33/2⁻	[M1+E2]	0.18 *8*	
649.0 *5*	0.4 *4*	4736.1	45/2⁺	4087.4	41/2⁺	Q	0.01034	DCO=0.99 *3*
651.9 *5*	0.8 *5*	4154.2	41/2⁻	3502.6	37/2⁻	[E2]	0.01024	
652.3 *5*	0.6 *3*	5330.1	45/2⁻	4677.8	41/2⁻	Q	0.01022	DCO=1.10 *5*
653[&] *1*	[@]	5699.8	47/2⁺	5046.8				
653.2 *5*	0.7 *3*	2907.8	33/2⁻	2254.3	31/2⁺	[E1]		
654.2 *2*	9.1 *9*	3919.7	37/2⁺	3265.5	33/2⁺	[E2]	0.01016	
655.9 *2*	1.1 *5*	4455.7	43/2⁻	3799.8	39/2⁻	[E2]	0.01010	
659.4 *2*	29 *2*	2913.5	35/2⁺	2254.3	31/2⁺	[E2]		Q(transition)=5.2 +*9*−*6* (2000Cu01).
663.5 *5*	0.5 *6*	1379.30	21/2⁻	716.12	19/2⁺	[E1]		
666.7 *2*	38 *1*	3092.6	37/2⁺	2425.8	33/2⁺	[E2]		Q(transition)=5.6 +*12*−*5* (2000Cu01).
674.7 *2*	9.6 *2*	5639.6	47/2⁺	4964.8	43/2⁺	[E2]		
678.0 *2*	6.3 *6*	4261.8	39/2⁺	3583.8	35/2⁺	[E2]		
678.2 *2*	32 *1*	4582.7	45/2⁻	3904.5	41/2⁻	[E2]		Q(transition)=6.6 +*5*−*3* (2000Cu01).
679.6 *2*	8.1 *4*	7006.8	55/2⁺	6327.2	51/2⁺	Q		DCO=0.97 *7*
679.9 *2*	7.7 *8*	4679.2	43/2⁻	3999.3	39/2⁻	[E2]		Q(transition)=6.6 *12* (2000Cu01).
680.0 *2*	1.4 *6*	4156.5	39/2⁻	3476.5	35/2⁻	[E2]		I(681γ):I(349γ)=1.37 *27*:2.32 *22* At E=200 MeV (1997Cu01).
683.2 *2*	3.6 *7*	4944.5	45/2⁻	4261.2	41/2⁻	Q		DCO=0.94 *2*
687.0 *2*	≈1	5988.9	49/2⁺	5301.9	45/2⁺	[E2]		

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

γ(^{171}Hf) (continued)

Eγ[†]	Iγ	Ei(level)	J^π_i	Ef	J^π_f	Mult.[‡]	α[a]	Comments
687.2 2	≈3	5301.9	45/2+	4614.7	41/2+	[E2]		
695.1 2	6.4 9	4614.7	41/2+	3919.7	37/2+	[E2]		
703.0 2	6.4 8	4964.8	43/2+	4261.8	39/2+	[E2]		
703.6 5	0.6 1	2365.2	29/2−	1661.52	27/2+	D		DCO=0.56 7
707.1 5	0.6 4	4861.3	45/2−	4154.2	41/2−	[E2]		
707.2 5	0.5 4	3799.8	39/2−	3092.6	37/2+	[E1]		
711.9 5	0.4 3	6042.1	49/2−	5330.1	45/2−	Q		DCO=0.99 4
712.2 2	1.7 3	1857.88	25/2−	1145.62	23/2+	D		DCO=0.47 6
714.9 2	2.1 4	6354.4	51/2+	5639.6	47/2+	[E2]		
715.4 2	2.1 6	4523.1	41/2−	3807.7	37/2−	[E2]		I(715γ):I(366γ)=0.69 27:1.19 19 At E=200 MeV (1997Cu01).
715.7 2	19 2	3629.2	39/2+	2913.5	35/2+	[E2]		Q(transition)=6.2 6 (2000Cu01).
716.0[b] 5	<0.3	3999.3	39/2−	3283.1	37/2−	[M1+E2]	0.014 6	
717.5 2	1.0 7	717.50+x	(J+2)	0.0+x	J	[E2]		
719.6 2	1.6 3	5175.3	47/2−	4455.7	43/2−	[E2]		
727.0 2	27 1	3819.5	41/2+	3092.6	37/2+	[E2]		Q(transition)=6.1 +7−6 (2000Cu01).
734.8 2	5.1 5	5414.0	47/2−	4679.2	43/2−	[E2]		Q(transition)=6.1 +12−13 (2000Cu01).
736.8 2	7.0 4	7743.6	59/2+	7006.8	55/2+	Q		DCO=0.99 9
738.3 2	26 1	5321.0	49/2−	4582.7	45/2−	[E2]		Q(transition)=6.5 12 (2000Cu01).
738.3 2	4.4 8	5682.7	49/2−	4944.5	45/2−	Q		DCO=0.97 2
746.2 5	0.5 8	6735.1	53/2+	5988.9	49/2+	[E2]		
747.0 5	0.9 4	4903.5	43/2−	4156.5	39/2−	[E2]		other Eγ: 744 (1997Cu01).
749.4 2	1.2 2	1615.46	23/2−	866.24	21/2+	D		DCO=0.63 6
754.4 5	0.4 3	7235.2	55/2−	6480.9	51/2−	[E2]		
756.8 2	1.2 4	5492.8	49/2+	4736.1	45/2+	Q		DCO=1.03 4
764.2 5	0.3 2	5625.5	49/2−	4861.3	45/2−	[E2]		
764.4 2	12 3	4393.8	43/2+	3629.2	39/2+	[E2]		Q(transition)=5.7 11 (2000Cu01).
766 1	0.5 7	6861.9	53/2−	6095.6	49/2−	[E2]		
772.5 5	0.9 7	1490.0+x	(J+4)	717.50+x	(J+2)	[E2]		
772.6 2	1.6 7	5295.7	45/2−	4523.1	41/2−	[E2]		
774.0 5	0.7 6	3199.7	35/2−	2425.8	33/2+	[E1]		
774.5 2	18 1	4594.0	45/2+	3819.5	41/2+	[E2]		Q(transition)=5.4 +6−5 (2000Cu01).
774.7[b] 5	<0.3	4679.2	43/2−	3904.5	41/2−	[M1+E2]	0.011 5	
778.1 2	1.1 6	1644.43	19/2+	866.24	21/2+	[M1]	0.01555	I(782γ):I(1133γ)=10.5 3:100 3 At E=200 MeV (1997Cu01). other Eγ: 782.2 (1997Cu01).
779.9 5	<0.3	7134.3	55/2+	6354.4	51/2+	[E2]		
784.5 2	10 1	5378.5	49/2+	4594.0	45/2+	[E2]		
784.9 5	0.6 6	6480.9	51/2−	5696.0	47/2−	[E2]		
785.9 2	1.2 2	5961.2	51/2−	5175.3	47/2−	[E2]		
786.6 2	1.2 3	6828.7	53/2−	6042.1	49/2−	(Q)		DCO=0.90 5
786.7 2	4.4 8	6469.4	53/2−	5682.7	49/2−	(Q)		DCO=0.88 5
792.4 5	0.9 7	5696.0	47/2−	4903.5	43/2−	[E2]		
795.5 2	6.3 3	8539.1	63/2+	7743.6	59/2+	Q		DCO=0.98 8
795.6 2	2.5 6	6209.6	51/2−	5414.0	47/2−	[E2]		
799.6 2	12 1	6120.6	53/2−	5321.0	49/2−	[E2]		Q(transition)=5.5 +8−5 (2000Cu01).
799.9 5	0.8 6	6095.6	49/2−	5295.7	45/2−	[E2]		
800.4 2	5.5 1	6178.9	53/2+	5378.5	49/2+	[E2]		
806.7 2	1.1 2	2112.91	27/2−	1306.15	25/2+	D		DCO=0.69 9
810.7 2	6.9 7	5204.5	47/2+	4393.8	43/2+	[E2]		
813.1 5	0.9 2	2641.0	31/2−	1827.57	29/2+	D		DCO=0.5 1
815.5 5	<0.3	7550.6	57/2+	6735.1	53/2+	[E2]		
820 1	0.3 6	8055.2	(59/2−)	7235.2	55/2−	[E2]		
823.1 5	0.3 3	6448.6	53/2−	5625.5	49/2−	[E2]		
831.1[b] 5	<0.3	5414.0	47/2−	4582.7	45/2−	[M1+E2]		

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$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)

$\gamma(^{171}Hf)$ (continued)

E_γ[†]	I_γ	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	α[a]	Comments
831.2 2	4.2 6	7300.6	57/2⁻	6469.4	53/2⁻	Q		DCO=1.11 5
831.7 2	1.2 9	2321.7+x	(J+6)	1490.0+x	(J+4)	[E2]		
837.6 2	1.5 3	6042.1	49/2⁻	5204.5	47/2⁺	D		DCO=0.66 6
843.9 5	0.3 1	7183.4	57/2⁺	6339.5	53/2⁺	(Q)		DCO=0.89 4 Mult.: DCO consistent with Q (ΔJ=2) or D+Q (ΔJ=1); authors propose the former.
846.7 5	0.7 2	6339.5	53/2⁺	5492.8	49/2⁺			DCO=0.86 4 Q(transition)=4.0 7 (2000Cu01). Mult.: interpreted by authors as Q, ΔJ=2, but DCO also consistent with D+Q, ΔJ=1.
851.0 5	0.9 3	6812.2	55/2⁻	5961.2	51/2⁻	[E2]		
851.4 5	<0.3	7985.7	59/2⁺	7134.3	55/2⁺	[E2]		
855.7 2	5.3 4	9394.9	67/2⁺	8539.1	63/2⁺	Q		DCO=0.9 1
855.8 5	0.8 3	7684.5	57/2⁻	6828.7	53/2⁻	Q		DCO=1.03 4
860.5 2	10 1	6981.1	57/2⁻	6120.6	53/2⁻	[E2]		Q(transition)=6.1 14 (2000Cu01).
861.6 2	1.8 6	7071.2	55/2⁻	6209.6	51/2⁻	[E2]		
862.9 2	2.8 6	6067.4	51/2⁺	5204.5	47/2⁺	[E2]		
862.9 2	3.9 7	7041.8	57/2⁺	6178.9	53/2⁺	[E2]		
870.4 2	2.5 5	8171.0	61/2⁻	7300.6	57/2⁻	Q		DCO=0.99 4
878.4 5	<0.3	7327.0	57/2⁻	6448.6	53/2⁻	[E2]		
885.9 5	<0.3	8436.6	61/2⁺	7550.6	57/2⁺	[E2]		
892.1 2	1.1 8	3213.8+x	(J+8)	2321.7+x	(J+6)	[E2]		
896.2 5	0.3 1	8079.6	61/2⁺	7183.4	57/2⁺	Q		DCO=1.0 1
898.8 2	4.5 3	5492.8	49/2⁺	4594.0	45/2⁺	Q		DCO=1.1 1
906.6 5	<0.3	3090.2	33/2⁻	2183.6	29/2⁻	[E2]		
907.8 5	0.7 3	6400.6	53/2⁺	5492.8	49/2⁺			DCO=0.99 4 DCO for 908γ+909γ doublet is consistent with Q ΔJ=2.
908.7 2	1.9 5	6976.1	55/2⁺	6067.4	51/2⁺	[E2]		
908.9 5	0.6 3	7309.5	57/2⁺	6400.6	53/2⁺	Q		DCO=0.99 4 DCO: for 907.8γ+908.9γ.
912.2 5	0.9 2	7724.4	59/2⁻	6812.2	55/2⁻	[E2]		
914.2 2	4.4 4	10309.1	71/2⁺	9394.9	67/2⁺	Q		DCO=1.0 1
916.5 2	3.0 4	4736.1	45/2⁺	3819.5	41/2⁺	Q		DCO=1.01 5
916.8 5	0.8 3	7988.0	59/2⁻	7071.2	55/2⁻	Q		DCO=1.15 3
919 1	<0.3	8904.6	63/2⁺	7985.7	59/2⁺	[E2]		
921.3 2	4.7 5	7902.4	61/2⁻	6981.1	57/2⁻	[E2]		
921.3 2	1.8 3	9092.3	65/2⁻	8171.0	61/2⁻	Q		DCO=1.06 3
926.2 5	0.4 2	8610.7	61/2⁻	7684.5	57/2⁻	Q		DCO=0.91 6
928.2 2	2.5 8	1644.43	19/2⁺	716.12	19/2⁺	[M1]	0.01001	other Eγ: 929.3 (1997Cu01). I(929γ):I(1133γ)=13.6 4:100 3 At E=200 MeV (1997Cu01).
930.4 5	0.4 3	3642.2	37/2⁻	2711.8	33/2⁻	[E2]		DCO=1.0 1
930.4 2	2.8 9	7972.2	61/2⁺	7041.8	57/2⁺	[E2]		
946.4 5	<0.3	8273.4	61/2⁻	7327.0	57/2⁻	[E2]		
948.0 5	0.1 3	9892.5	67/2⁺	8944.5	63/2⁺	[E2]		
950 1	<0.3	9386.6	65/2⁺	8436.6	61/2⁺	[E2]		
952[b] 1	<0.3	10228.6?	(69/2⁺)	9276.5	65/2⁺	[E2]		
953.8 2	1.1 7	4167.6+x	(J+10)	3213.8+x	(J+8)	[E2]		
962.0 5	<0.3	9041.6	65/2⁺	8079.6	61/2⁺	Q		DCO=0.95 5
962.2 2	1.6 5	7938.3	59/2⁺	6976.1	55/2⁺	[E2]		DCO=0.83 11
964.6 2	1.9 6	10857.1	71/2⁺	9892.5	67/2⁺	[E2]		
970.0 5	0.6 4	7309.5	57/2⁺	6339.5	53/2⁺	[E2]		
971 1	0.3 3	8280.5	61/2⁺	7309.5	57/2⁺	Q		DCO=0.90 6
971.6 2	3.5 6	11280.7	75/2⁺	10309.1	71/2⁺	(Q)		DCO=0.90 9
973.9 5	0.4 3	8698.3	63/2⁻	7724.4	59/2⁻	[E2]		

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^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

γ(^{171}Hf) (continued)

Eγ[†]	Iγ	Ei(level)	J^{π}_i	E_f	J^{π}_f	Mult.[‡]	Comments
974.0 5	0.5 3	8962.0	63/2−	7988.0	59/2−	Q	DCO=1.12 4
978.1 5	<0.3	4261.2	41/2−	3283.1	37/2−	Q	DCO=0.92 9
980.2 2	3.2 6	8882.6	65/2−	7902.4	61/2−	[E2]	
981.4 2	1.4 3	10073.7	69/2−	9092.3	65/2−	Q	DCO=1.02 5
990.1 5	0.3 2	9600.8	65/2−	8610.7	61/2−	Q	DCO=0.95 6
992.2 2	1.7 8	8964.4	65/2+	7972.2	61/2+	Q	DCO=1.1 1
992.3 5	<0.3	9265.7	65/2−	8273.4	61/2−	[E2]	
994.8 2	2.0 2	4087.4	41/2+	3092.6	37/2+	Q	DCO=0.98 5
996 1	0.3 3	9276.5	65/2+	8280.5	61/2+	Q	DCO=1.1 1
1002.3 5	0.1 5	11859.4	75/2+	10857.1	71/2+	[E2]	
1006.2 5	0.4 4	8944.5	63/2+	7938.3	59/2+	[E2]	
1016 1	0.3 3	9978.1	67/2−	8962.0	63/2−	Q	DCO=1.04 5
1016.1 5	<0.3	9714.4	67/2−	8698.3	63/2−	[E2]	
1016.7 5	0.9 9	5184.3+x	(J+12)	4167.6+x	(J+10)	[E2]	
1018 1	<0.3	10059.7	69/2+	9041.6	65/2+	(Q)	DCO=0.89 5
1025.9 2	2.8 5	12306.6	79/2+	11280.7	75/2+	Q	DCO=0.95 5
1033 1	<0.3	10298.7	69/2−	9265.7	65/2−	[E2]	
1034.5 2	2.2 5	9917.1	69/2−	8882.6	65/2−	[E2]	
1038.2 5	0.9 4	11111.9	73/2−	10073.7	69/2−	Q	DCO=1.01 7
1039.9 5	0.4 3	4944.5	45/2−	3904.5	41/2−	Q	DCO=0.98 5
1044.5 5	<0.3	10645.3	69/2−	9600.8	65/2−	[E2]	
1046.1 5	0.9 5	10010.5	69/2+	8964.4	65/2+	[E2]	DCO=1.3 1
1047.0 5	<0.3	10761.4	71/2−	9714.4	67/2−	[E2]	
1048.2 5	<0.3	11809.6	75/2−	10761.4	71/2−	[E2]	
1048.4[b] 5	<0.3	4677.8	41/2−	3629.2	39/2+	[E1]	
1050 1	<0.3	11028.1	71/2−	9978.1	67/2−	[E2]	
1051 1	<0.3	12910.4	79/2+	11859.4	75/2+	[E2]	
1052 1	<0.3	11111.7	73/2+	10059.7	69/2+	Q	DCO=1.1 1
1055.1 2	2.0 2	3480.8	37/2+	2425.8	33/2+	Q	DCO=0.99 6
1075 1	<0.3	12186.7	77/2+	11111.7	73/2+	[E2]	
1078.5 2	1.2 6	10995.6	73/2−	9917.1	69/2−	(Q)	DCO=0.9 3
1079.2 2	1.8 4	13385.8	83/2+	12306.6	79/2+	Q	DCO=1.04 8
1080.0 5	<0.3	12889.6	79/2−	11809.6	75/2−	[E2]	
1080.8 5	0.7 8	6265.1+x	(J+14)	5184.3+x	(J+12)	[E2]	
1083.6 5	<0.3	11728.9	73/2−	10645.3	69/2−	[E2]	
1088 1	0.5 2	12199.9	77/2−	11111.9	73/2−	[E2]	
1088.1 5	0.4 3	11098.6	73/2+	10010.5	69/2+	[E2]	
1099.9 5	<0.3	12198.5	77/2+	11098.6	73/2+	[E2]	
1100.0 5	0.3	5682.7	49/2−	4582.7	45/2−	[E2]	
1100 1	<0.3	12828.9	77/2−	11728.9	73/2−	[E2]	
1108.9 5	0.5 6	12104.5	77/2−	10995.6	73/2−	[E2]	DCO=1.5 7
1114 1	<0.3	13313.9	81/2−	12199.9	77/2−	[E2]	
1117.4 5	0.9 1	5699.8	47/2+	4582.7	45/2−	(D)	DCO=0.51 2 Mult.: stretched D from DCO; ΔJ=0 with large E2 admixture is also consistent with DCO but not likely based on decay pattern.
1126.7 5	<0.3	14016.3	83/2−	12889.6	79/2−	[E2]	
1129.9 2	2.0 2	14515.7	87/2+	13385.8	83/2+	Q	DCO=0.92 9
1132.4 2	10 1	1644.43	19/2+	512.19	17/2+	[M1]	other Eγ: 1133.6 (1997Cu01). I(1263γ):I(1133γ)=8.5 3:100 3 At E=200 MeV (1997Cu01).
1133 1	<0.3	13331.5	81/2+	12198.5	77/2+	[E2]	
1135.7 5	0.3 4	13240.2	81/2−	12104.5	77/2−	[E2]	
1144.7 5	0.5 6	7409.8+x	(J+16)	6265.1+x	(J+14)	[E2]	
1148.4 5	<0.3	6469.4	53/2−	5321.0	49/2−	[E2]	
1167 1	<0.3	14407.2	85/2−	13240.2	81/2−	[E2]	

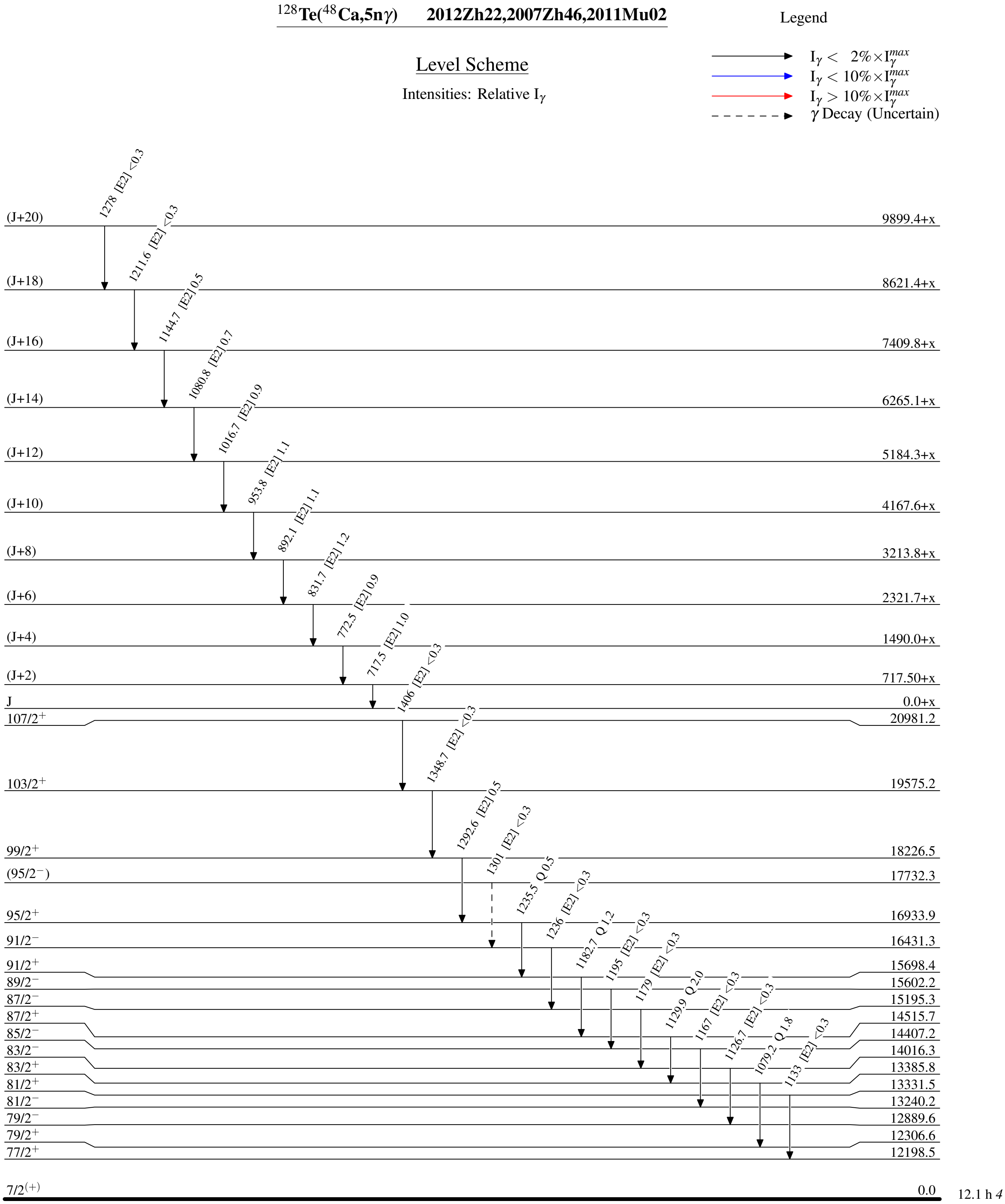
Continued on next page (footnotes at end of table)

^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02 (continued)

γ(^{171}Hf) (continued)

E_γ[†]	I_γ	E_i(level)	J^π_i	E_f	J^π_f	Mult.[‡]	Comments
1179 *1*	<0.3	15195.3	87/2⁻	14016.3	83/2⁻	[E2]	
1180.0 *5*	<0.3	7300.6	57/2⁻	6120.6	53/2⁻	[E2]	
1182.7 *2*	1.2 *3*	15698.4	91/2⁺	14515.7	87/2⁺	Q	DCO=1.1 *1*
1195 *1*	<0.3	15602.2	89/2⁻	14407.2	85/2⁻	[E2]	
1211.6 *5*	<0.3	8621.4+x	(J+18)	7409.8+x	(J+16)	[E2]	
1234.7 *5*	0.5 *2*	5139.4	43/2⁺	3904.5	41/2⁻	(D)	DCO=0.53 *2* Mult.: stretched D from DCO; ΔJ=0 with large E2 admixture is also consistent with DCO but not likely from decay pattern.
1235.5 *5*	0.5 *2*	16933.9	95/2⁺	15698.4	91/2⁺	Q	DCO=0.9 *1*
1236 *1*	<0.3	16431.3	91/2⁻	15195.3	87/2⁻	[E2]	
1262.3 *5*	0.9 *6*	1644.43	19/2⁺	382.25	15/2⁺	[E2]	other Eγ: 1263.0 (1997Cu01).
1278 *1*	<0.3	9899.4+x	(J+20)	8621.4+x	(J+18)	[E2]	
1287.7 *5*	<0.3	4570.9	(39/2⁺)	3283.1	37/2⁻	[E1]	
1292.6 *5*	0.5 *2*	18226.5	99/2⁺	16933.9	95/2⁺	[E2]	
1301[b] *1*	<0.3	17732.3	(95/2⁻)	16431.3	91/2⁻	[E2]	
1348.7 *5*	<0.3	19575.2	103/2⁺	18226.5	99/2⁺	[E2]	
1406 *1*	<0.3	20981.2	107/2⁺	19575.2	103/2⁺	[E2]	

† From 2012Zh22, except As noted. Based on a general statement by 2012Zh22, uncertainties of 0.2 keV are assigned for γ rays with Iγ>1, and 0.5 keV for those with Iγ<1. The evaluator assigns 1 keV uncertainty when Eγ is given only to the nearest keV.
‡ From DCO values, when available. For the majority of transitions, however, no DCO data are given by 2012Zh22 and assignments are based on interband linkages, band structures and comparison with theoretical calculations for band configurations.
# From Adopted Gammas.
@ Intensity for this γ ray is not given in 2012Zh22.
& From Figure 1 of 2012Zh22; not listed in authors' Table I.
a 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.
b Placement of transition in the level scheme is uncertain.



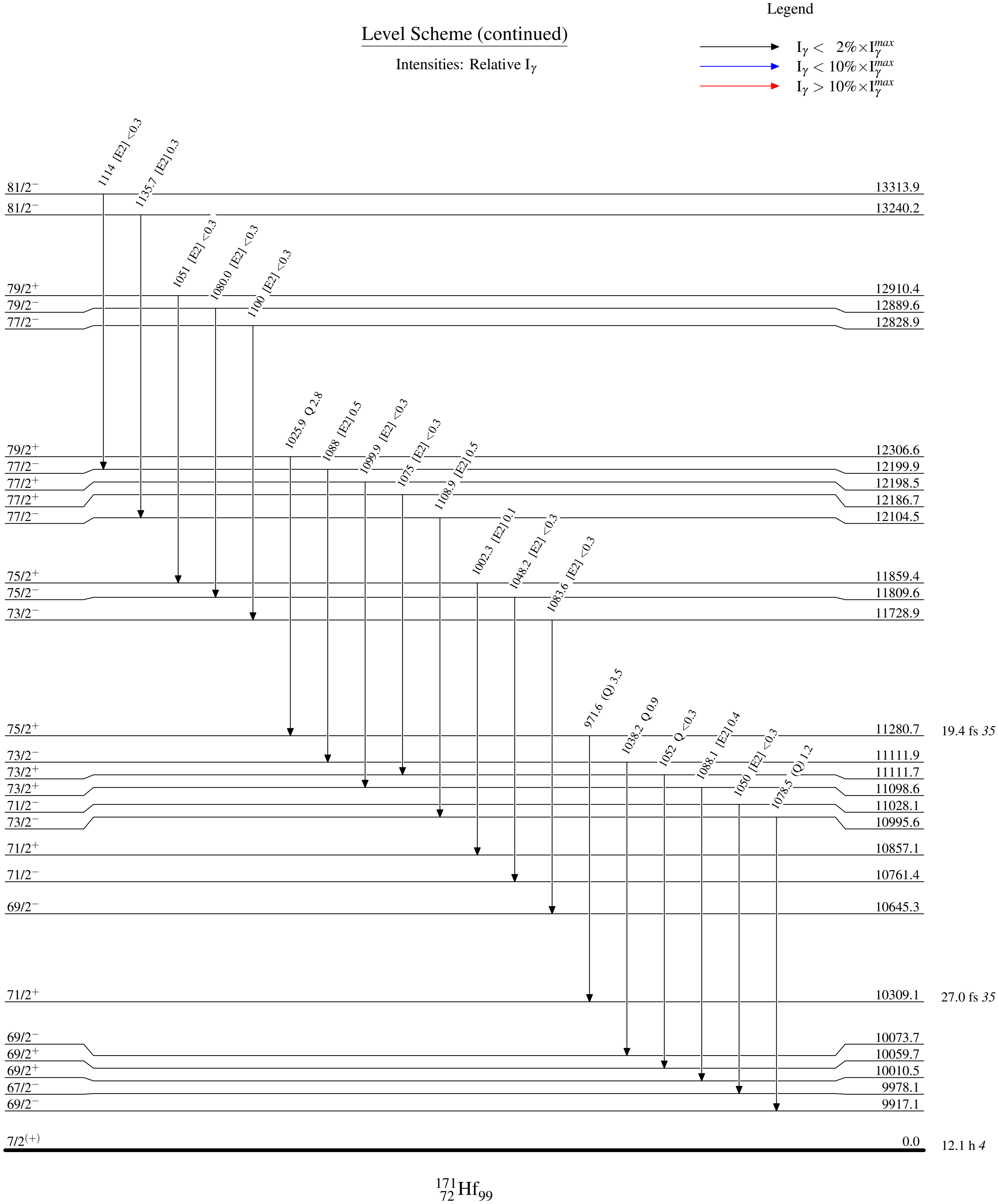
^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02
Legend
Level Scheme
Intensities: Relative Iγ
Iγ < 2%×Iγ max
Iγ < 10%×Iγ max
Iγ > 10%×Iγ max
γ Decay (Uncertain)
(J+20) 9899.4+x
(J+18) 8621.4+x
(J+16) 7409.8+x
(J+14) 6265.1+x
(J+12) 5184.3+x
(J+10) 4167.6+x
(J+8) 3213.8+x
(J+6) 2321.7+x
(J+4) 1490.0+x
(J+2) 717.50+x
J 0.0+x
107/2+ 20981.2
103/2+ 19575.2
99/2+ 18226.5
(95/2−) 17732.3
95/2+ 16933.9
91/2− 16431.3
91/2+ 15698.4
89/2− 15602.2
87/2− 15195.3
87/2+ 14515.7
85/2− 14407.2
83/2− 14016.3
83/2+ 13385.8
81/2+ 13331.5
81/2− 13240.2
79/2− 12889.6
79/2+ 12306.6
77/2+ 12198.5
7/2(+) 0.0 12.1 h 4
1278 [E2] <0.3
1211.6 [E2] <0.3
1144.7 [E2] 0.5
1080.8 [E2] 0.7
1016.7 [E2] 0.9
953.8 [E2] 1.1
892.1 [E2] 1.1
831.7 [E2] 1.2
772.5 [E2] 0.9
717.5 [E2] 1.0
1406 [E2] <0.3
1348.7 [E2] <0.3
1292.6 [E2] 0.5
1301 [E2] <0.3
1235.5 Q 0.5
1236 [E2] <0.3
1182.7 Q 1.2
1195 [E2] <0.3
1179 [E2] <0.3
1129.9 Q 2.0
1167 [E2] <0.3
1126.7 [E2] <0.3
1079.2 Q 1.8
1133 [E2] <0.3

$^{171}_{72}Hf_{99}$

$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

Intensities: Relative I_γ



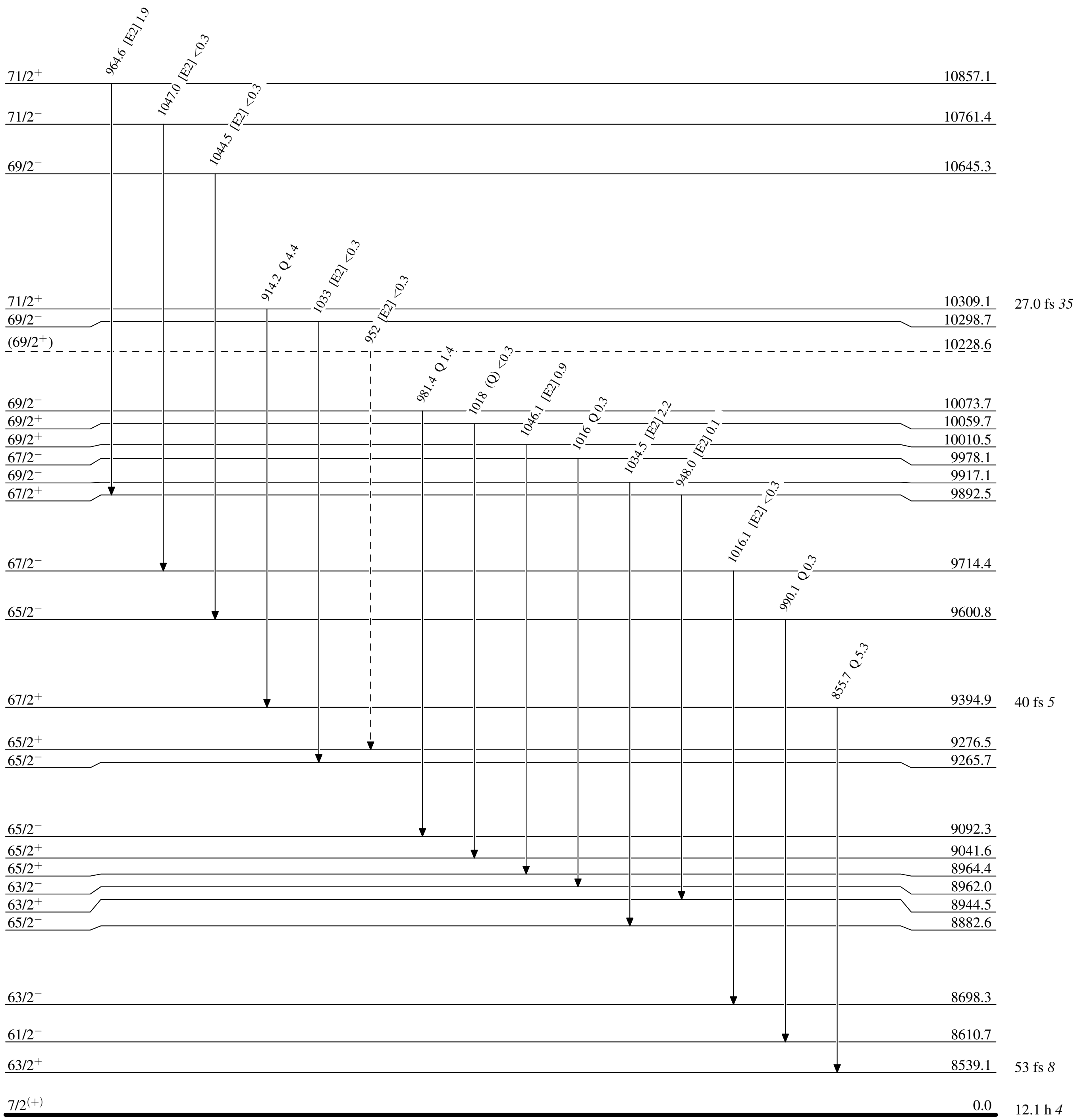
$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02

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)

Level Scheme (continued)

Intensities: Relative I_γ

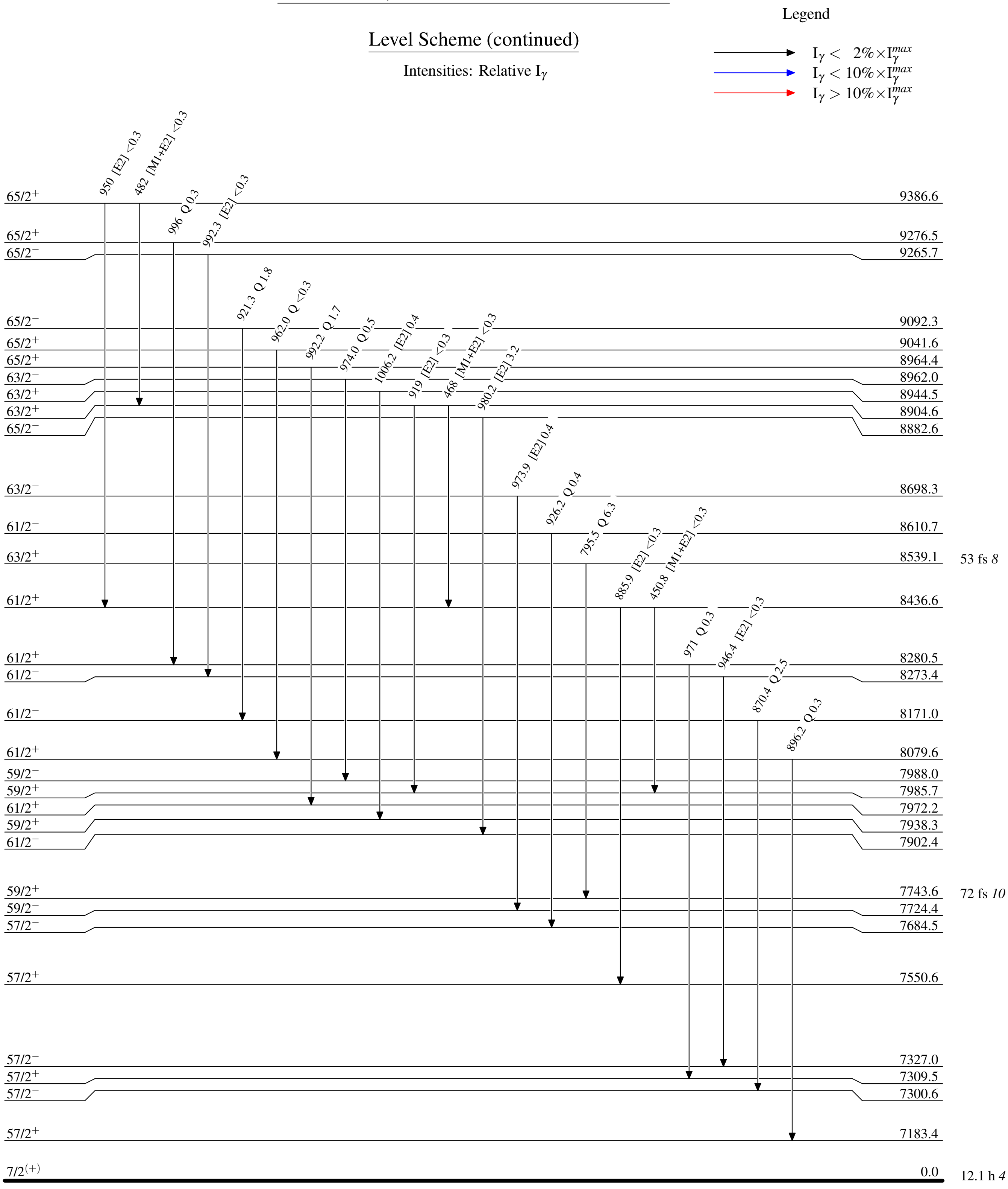


$^{171}_{72}Hf_{99}$

$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

Intensities: Relative I_γ

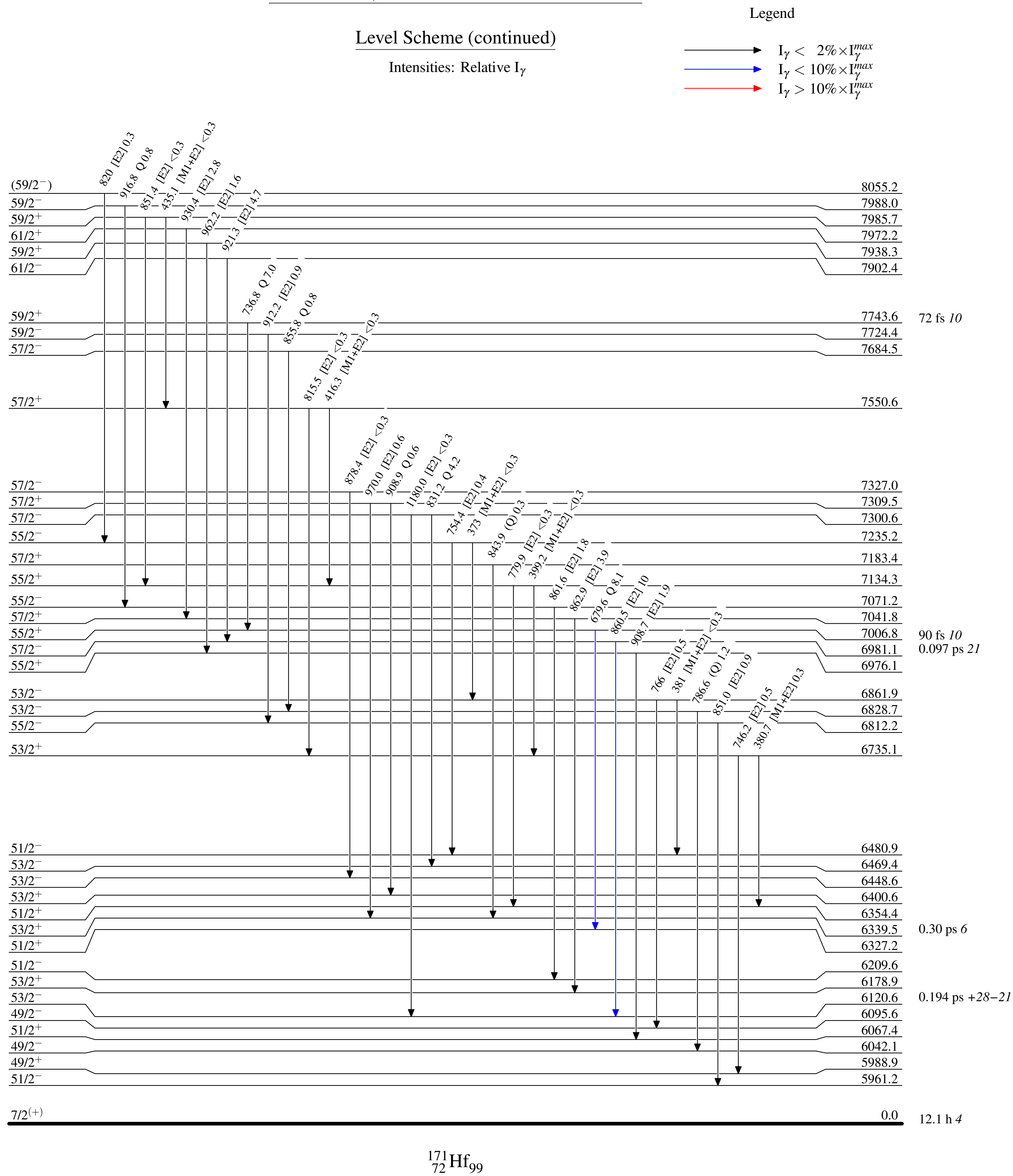


$^{171}_{72}Hf_{99}$

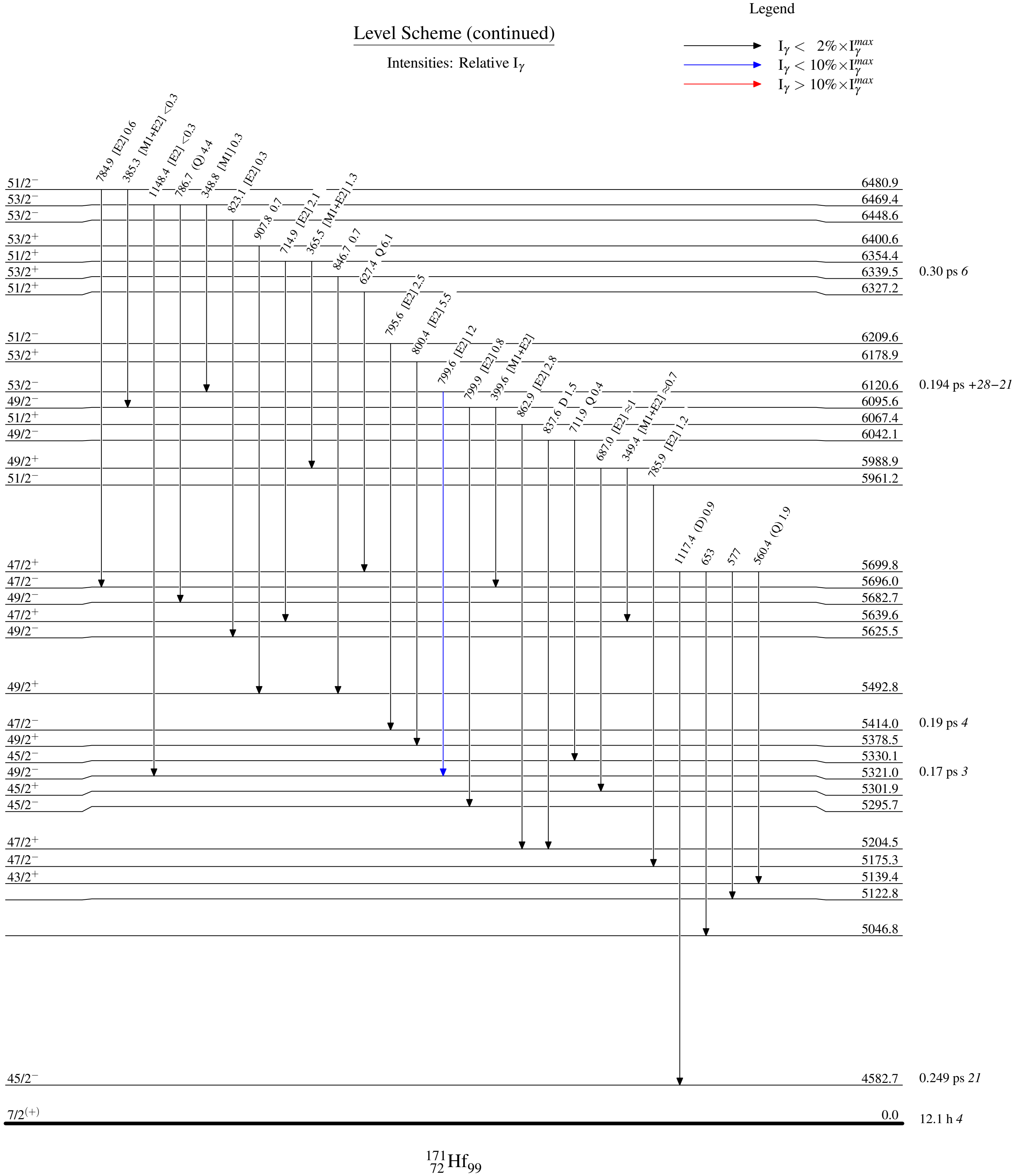
^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

Intensities: Relative I_γ



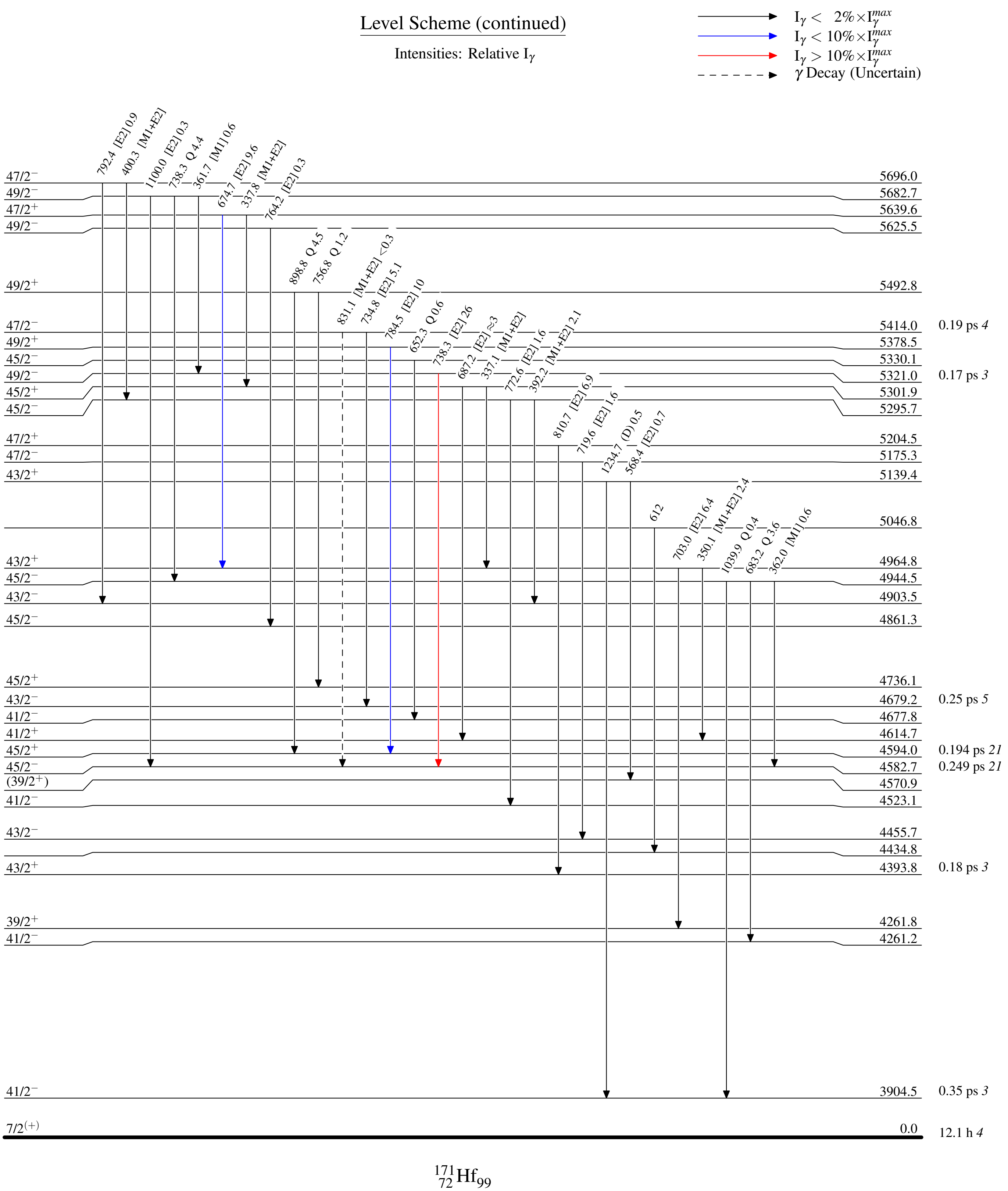
$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02



$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

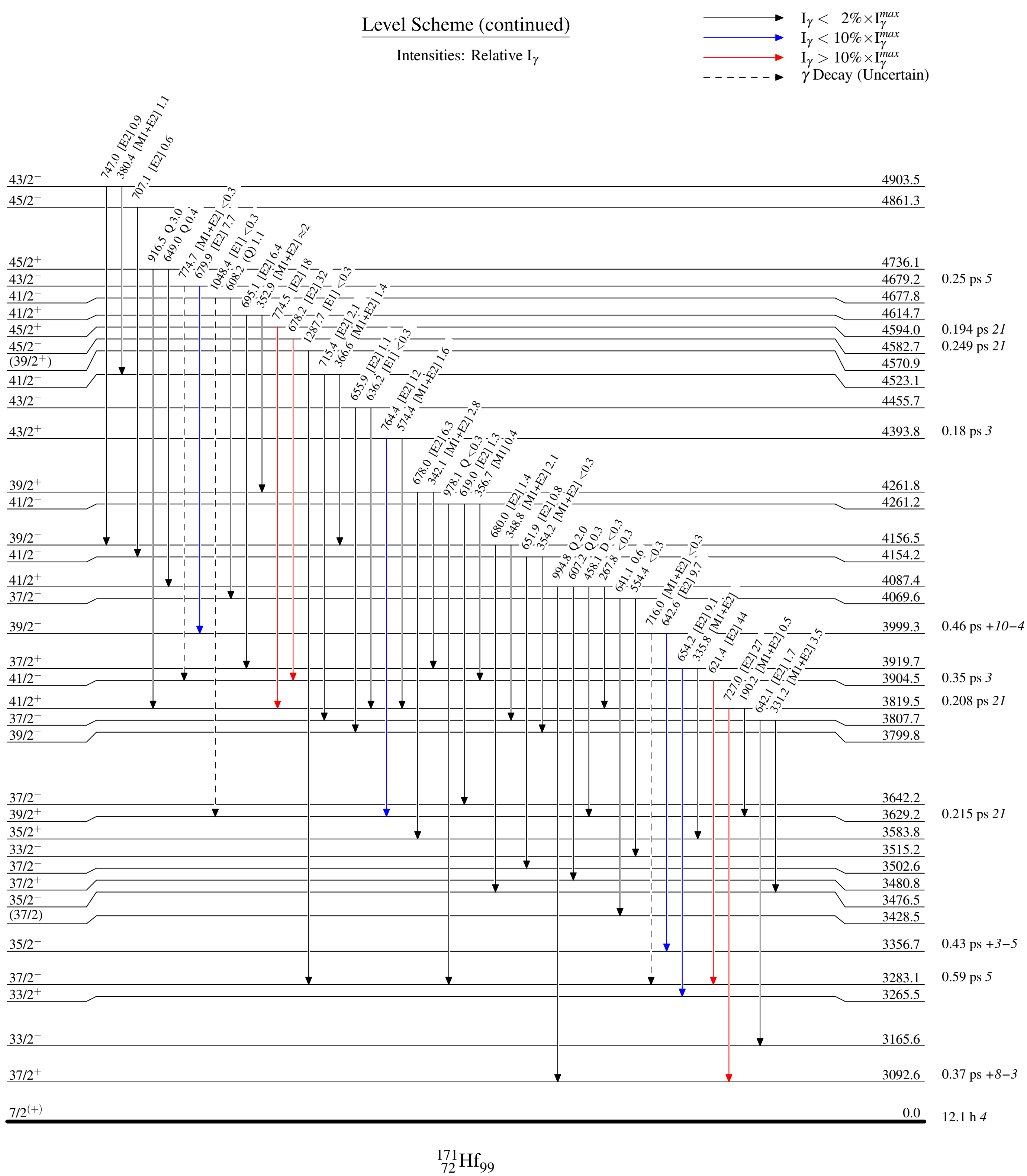
Intensities: Relative I_γ



^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

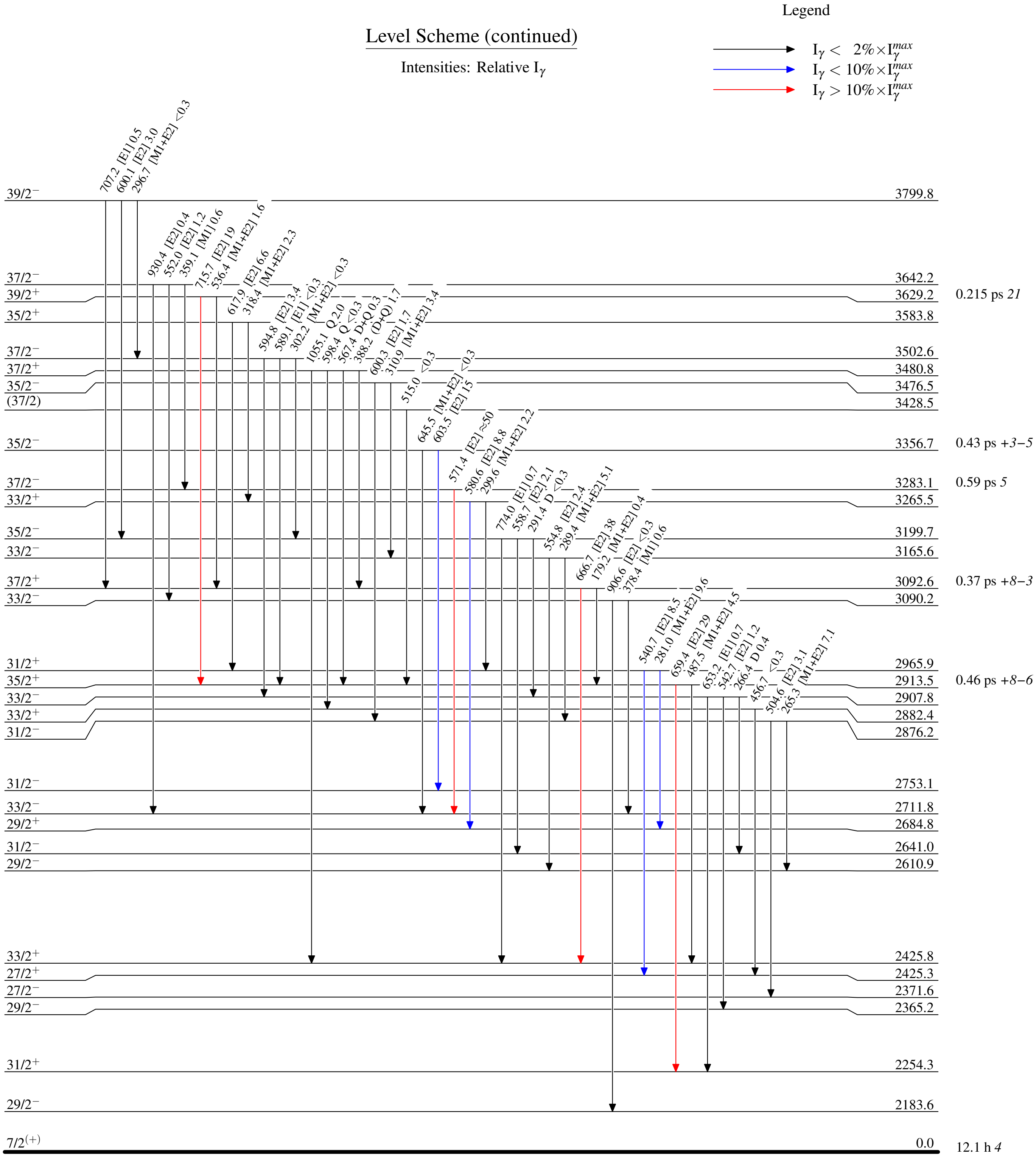
Intensities: Relative I_γ



$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02

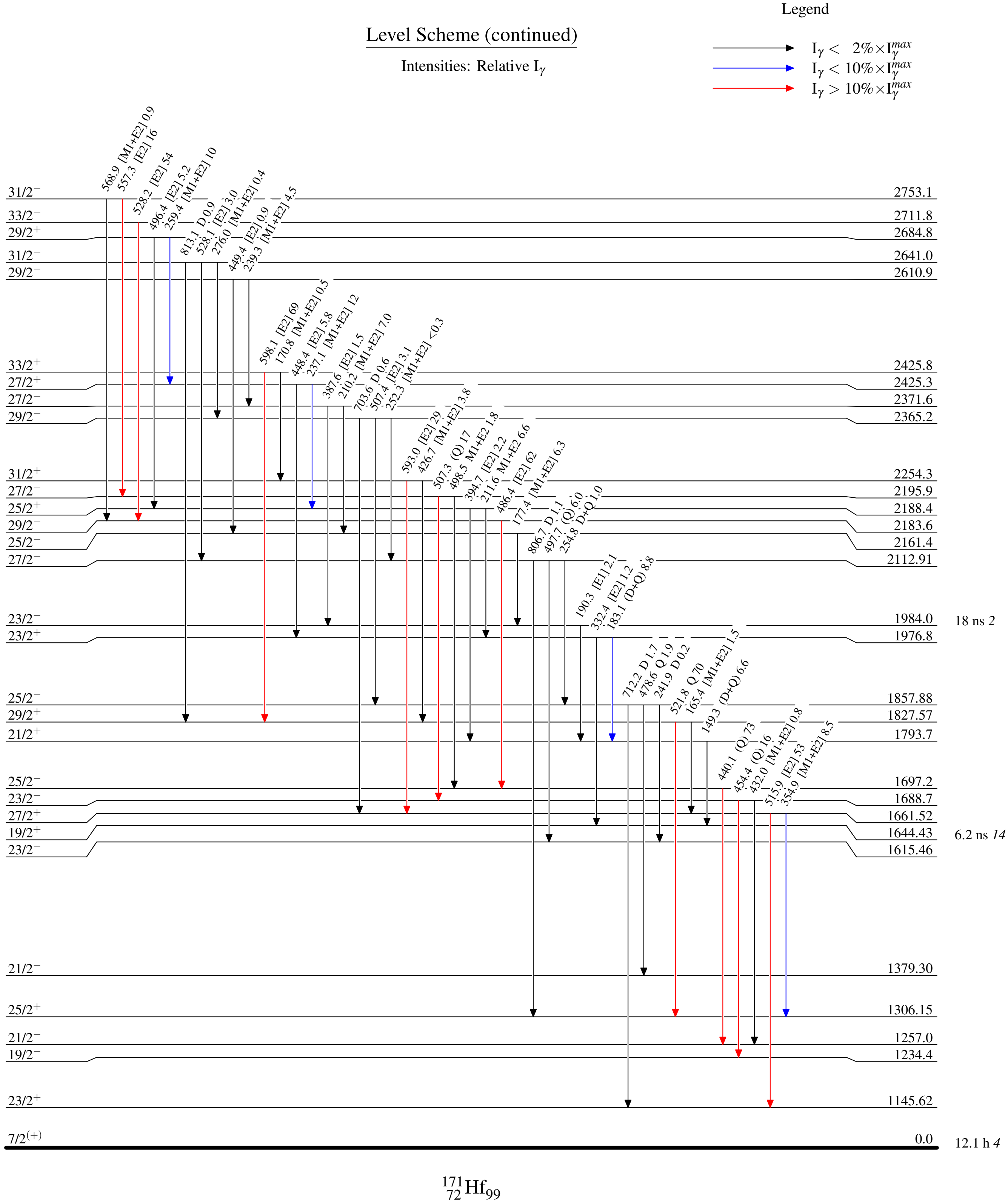
Level Scheme (continued)

Intensities: Relative I_γ



$^{171}_{72}Hf_{99}$

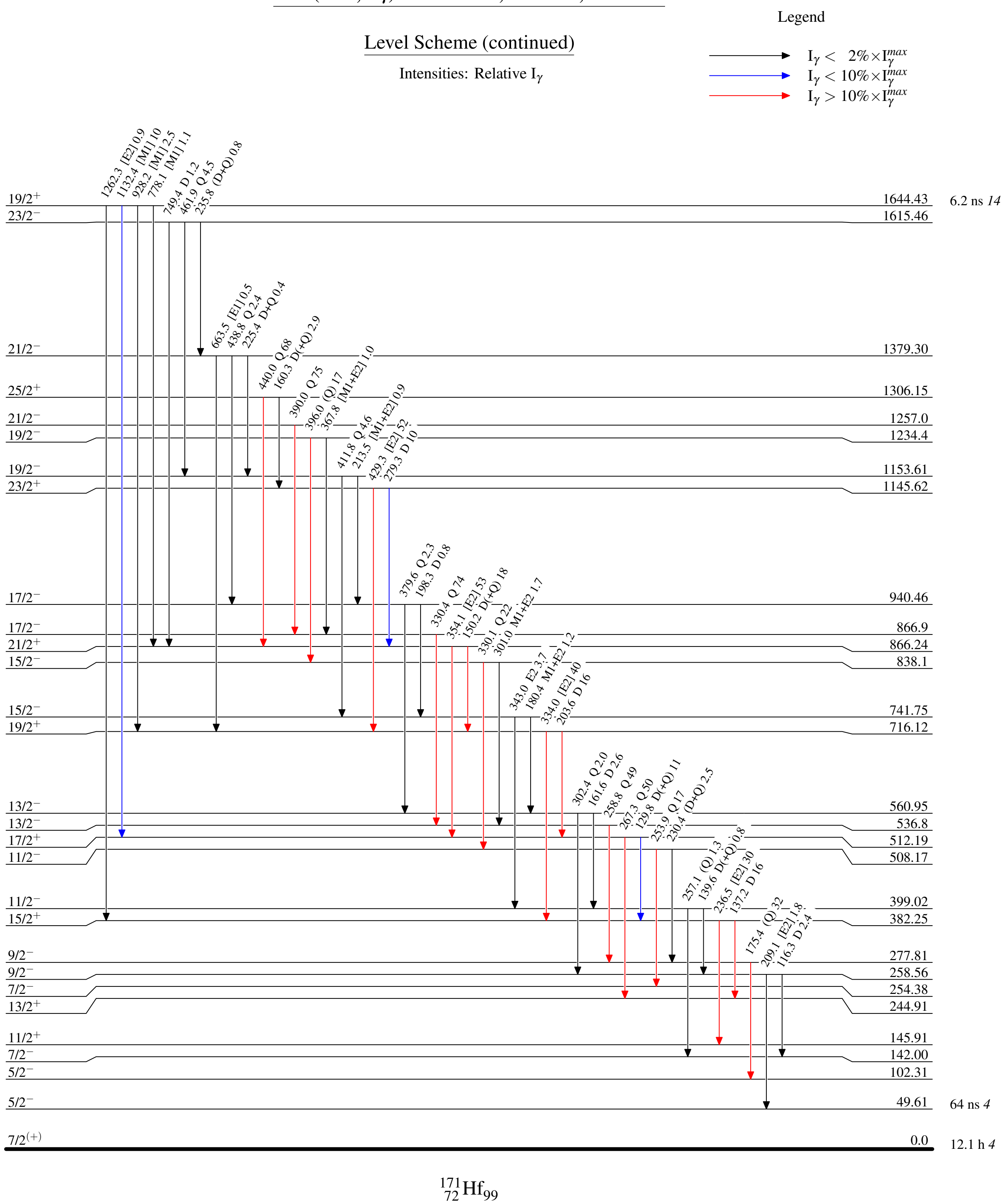
^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02



^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

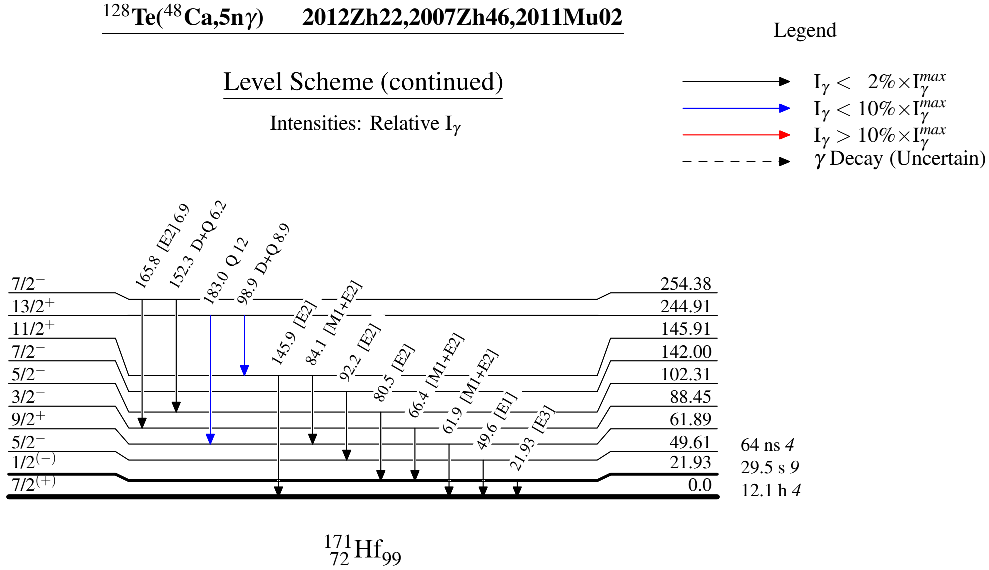
Intensities: Relative I_γ



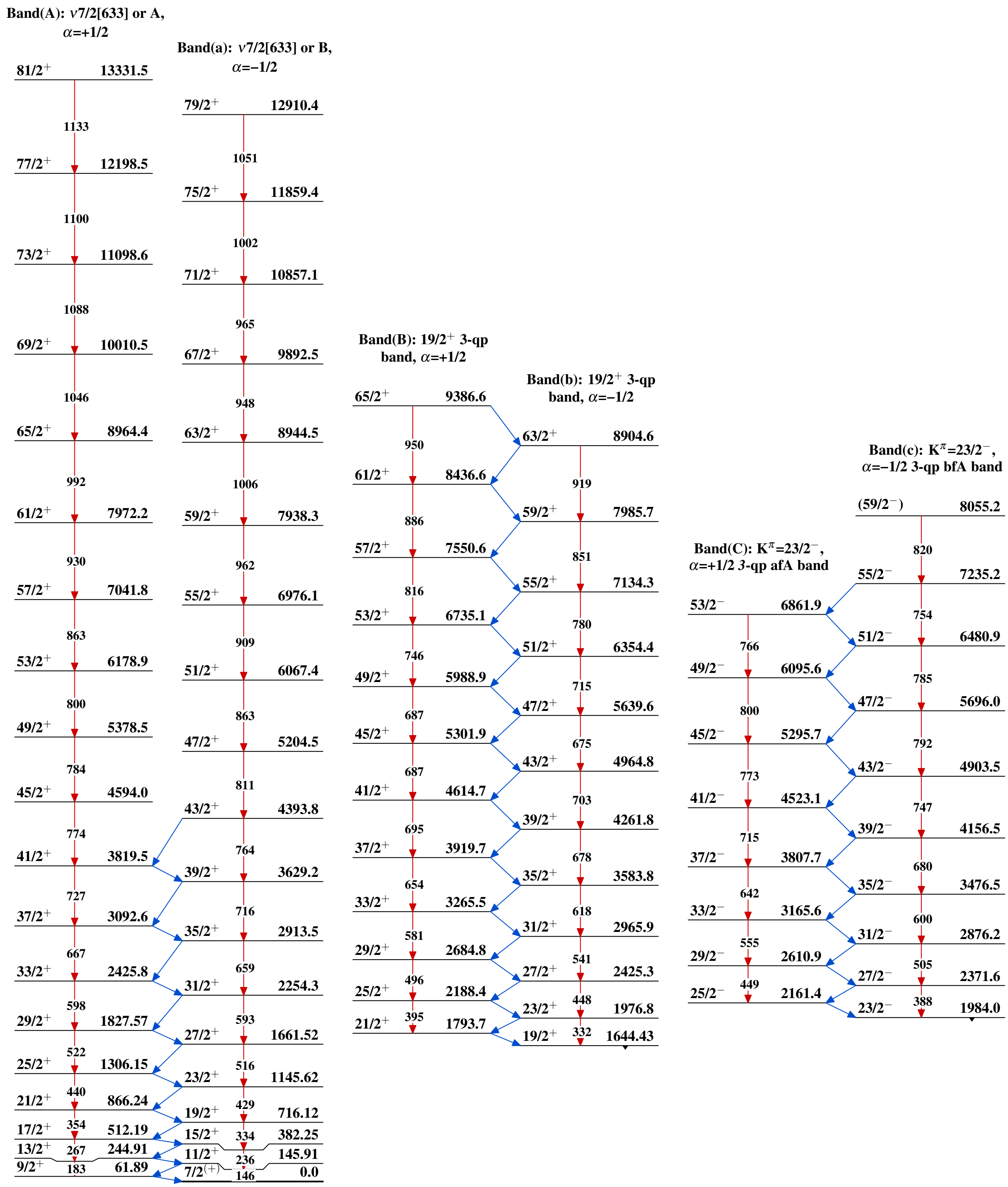
^{128}Te(^{48}Ca,5nγ) 2012Zh22,2007Zh46,2011Mu02

Level Scheme (continued)

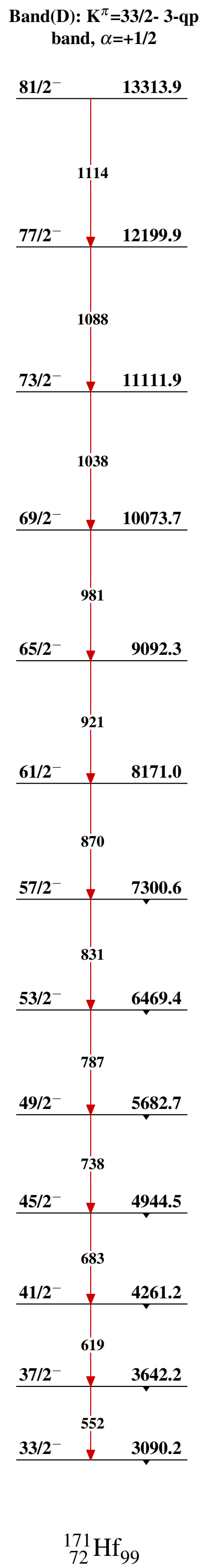
Intensities: Relative I_γ



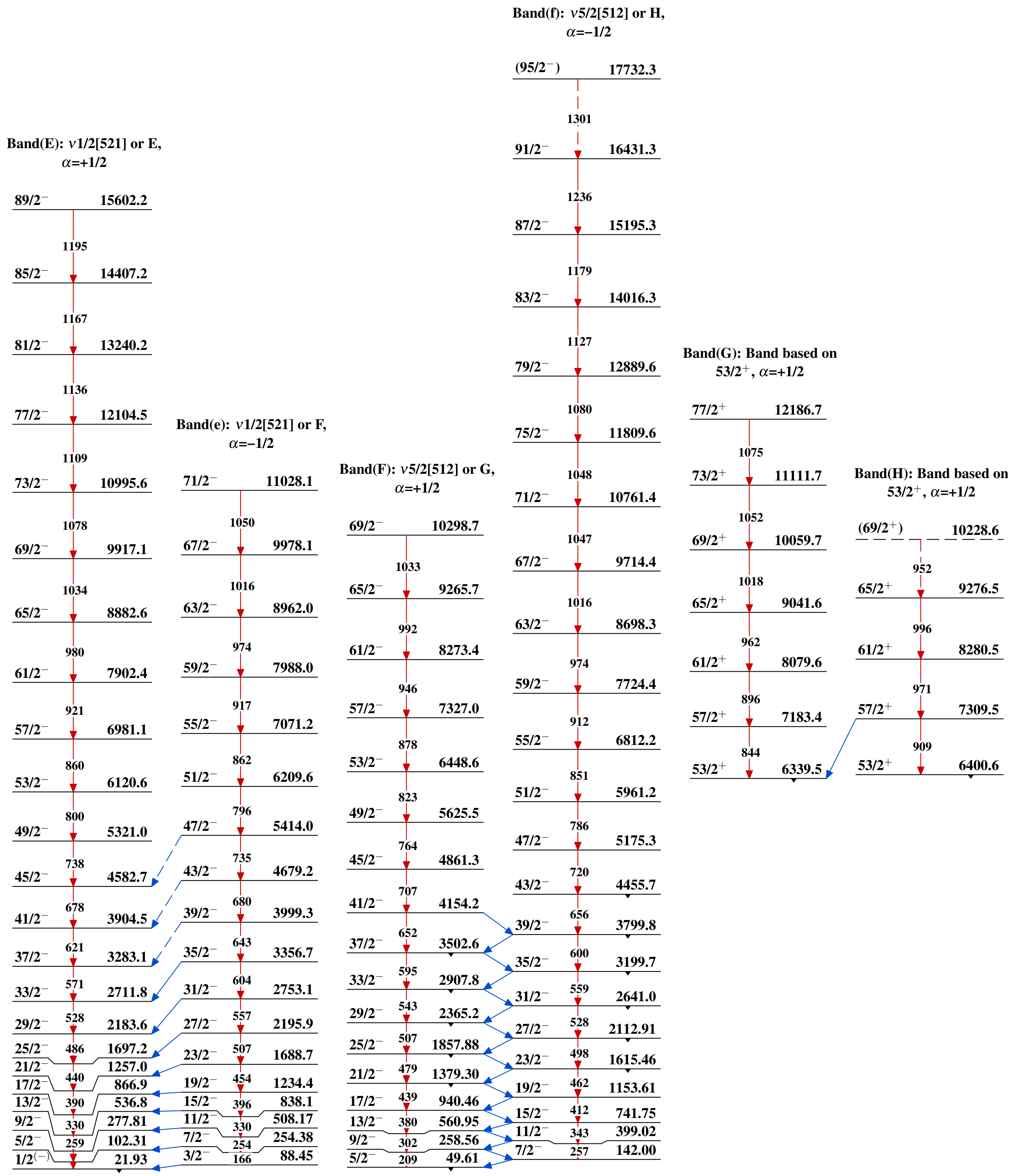
$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02



$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)

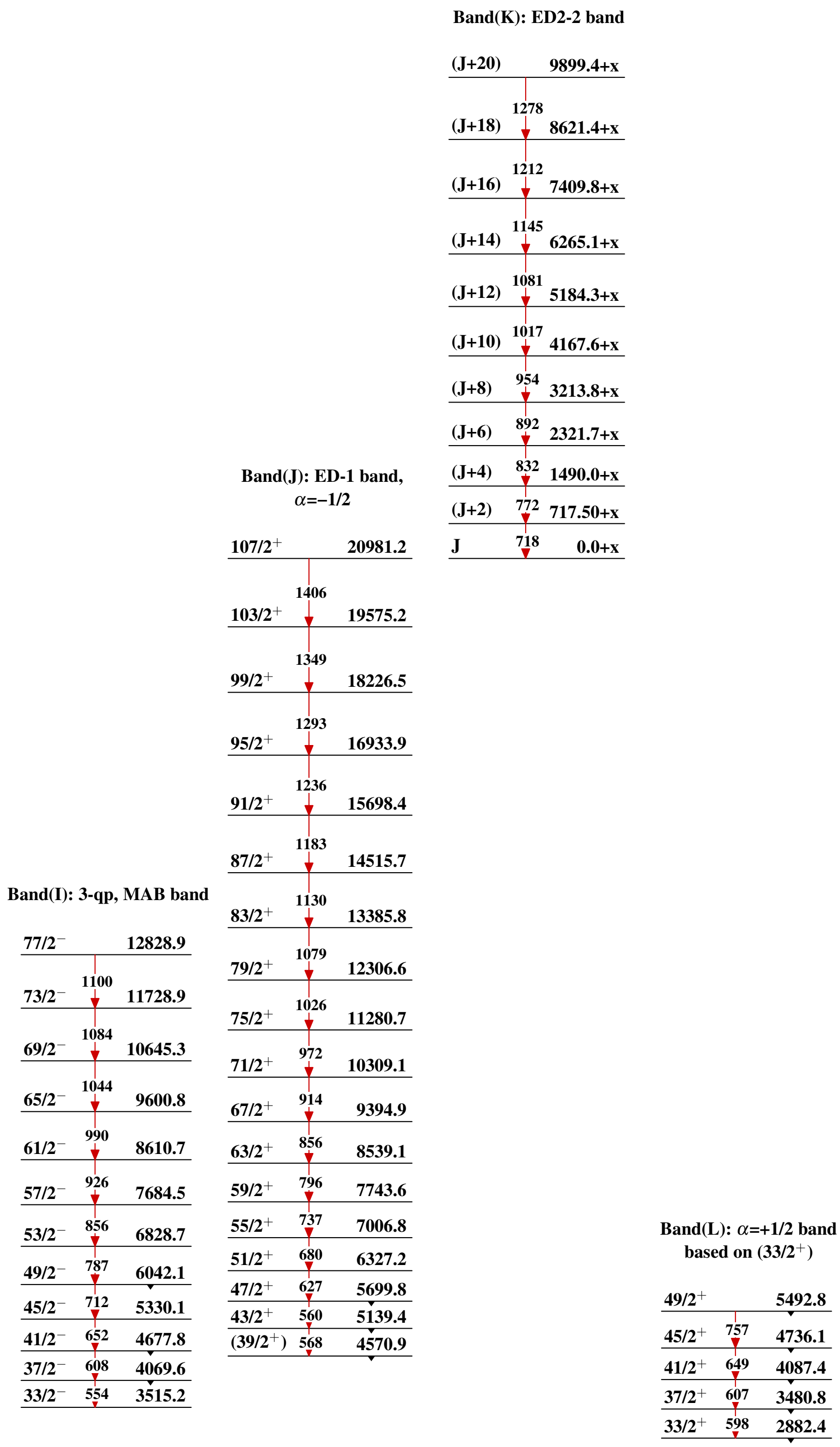


$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)



$^{171}_{72}Hf_{99}$

$^{128}Te(^{48}Ca,5n\gamma)$ 2012Zh22,2007Zh46,2011Mu02 (continued)



$^{171}_{72}Hf_{99}$