

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	J. Katakura	NDS 112, 495 (2011)	1-Jan-2010

1995Wi06: $^{122}\text{Te}(\alpha,n)$, E=16 MeV, enriched target 95%; $^{123}\text{Te}(\alpha,2n)$, E=26 MeV; $\gamma\gamma$ coin, $\gamma(\theta)$, linear polarization.

1993Ya06: $^{122}\text{Te}(\alpha,n)$, E=16 MeV; $\gamma\gamma$ coin, $\gamma(\theta)$, linear polarization.

1983Ir02: $^{122}\text{Te}(\alpha,n\gamma)$, E=17.5 MeV, enriched target 85.5%, semi γ , $\gamma\gamma$ -coin, polarization.

1978Gi16: $^{124}\text{Te}(\alpha,3n\gamma)$ E=32 MeV, semi γ , $\gamma\gamma$ coin, $\gamma(\theta)$.

1970Re01: $^{124}\text{Te}(\alpha,3n\gamma)$ E=43 MeV, semi γ , $\gamma\gamma$ coin, $\gamma(\theta)$.

1979He15: $^{125}\text{Te}(\alpha,3n\gamma)$, E=20-27 MeV, enriched target 92%, semi γ , $\gamma\gamma$ coin, $\gamma(\theta)$.

Non-yrast structure (up to 23/2 and 3 MeV) is from 1995Wi06 and the yrast structure above is from 1991Gr02 and 1993Wi19.

 ^{125}Xe Levels

E(level) [†]	J π [‡]	T _{1/2} [#]	E(level) [†]	J π [‡]
0.0 [@]	1/2 ⁽⁺⁾		1063.83 24	
111.78 [@] 10	3/2 ⁽⁺⁾		1077.03 25	
252.51 ^a 13	9/2 ⁽⁻⁾		1103.67 16	(9/2,11/2 ⁺)
265.51 ^f 15	7/2		1121.0 4	
295.74 ^{&} 13	7/2 ⁽⁺⁾	0.14 μs 3	1126.29 18	
310.38 ^a 13	11/2 ⁽⁻⁾		1137.5 4	
335.26 [@] 10	5/2 ⁽⁺⁾		1141.04 18	3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾
471.05 ^e 10	3/2 ⁽⁺⁾		1161.80 17	5/2 ⁽⁺⁾
483.60 [@] 11	7/2 ⁽⁺⁾		1171.64 24	
496.93 11	5/2 ⁽⁺⁾		1193.02 15	7/2 ⁽⁺⁾ ,9/2 ⁽⁺⁾
526.33 15	1/2 ⁽⁺⁾ ,3/2 ⁽⁺⁾		1209.79 ^{&} 16	13/2 ⁽⁺⁾
540.03 ^d 13	3/2 ⁽⁺⁾		1217.10 18	5/2 ⁽⁺⁾
594.00 12	5/2,7/2 ⁽⁺⁾		1245.31 18	(9/2 ⁻ ,11/2,13/2 ⁻)
596.65 ^{&} 12	9/2 ⁽⁺⁾		1246.7 3	
607.70 13	7/2 ⁽⁻⁾		1247.58 ^c 18	11/2
708.31 ^e 12	3/2 ⁽⁺⁾ ,5/2 ⁽⁺⁾		1263.51 20	
711.13 13	3/2 ⁽⁺⁾		1281.62 18	
736.71 ^a 14	13/2 ⁽⁻⁾		1287.70 18	
741.32 12	7/2 ⁽⁺⁾		1307.1 ^e 4	
762.25 15	(5/2 ⁻)		1310.01 ^b 17	15/2 ⁽⁻⁾
765.64 14	3/2,5/2 ⁽⁺⁾		1312.13 18	3/2,5/2,7/2
796.46 ^a 15	15/2 ⁽⁻⁾		1315.68 15	(11/2 ⁺)
837.21 [@] 12	9/2 ⁽⁺⁾		1321.03 18	
870.49 ^{&} 15	11/2 ⁽⁺⁾		1326.9 3	
886.87 ^f 17	9/2,11/2 ⁽⁻⁾		1330.81 16	3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾
889.27 13	7/2 ⁽⁺⁾		1341.10 ^g 20	(9/2 ⁻ ,11/2,13/2 ⁻)
893.37 16	13/2 ⁽⁻⁾		1359.67 21	3/2,5/2,7/2
895.99 16	5/2 ⁽⁻⁾		1370.17 16	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾
919.73 ^f 17	11/2		1379.85 15	7/2,9/2 ⁽⁺⁾
932.67 14	3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾		1387.79 ^a 17	17/2
946.14 ^d 14	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾		1395.45 ^h 19	11/2 ⁽⁻⁾ ,13/2,15/2
969.06 ^e 14	7/2 ⁽⁺⁾		1399.18 24	
987.48 17			1403.75 18	5/2 ⁽⁺⁾ ,7/2,9/2 ⁽⁺⁾
1018.95 14	9/2 ⁽⁺⁾		1416.02 18	5/2 ⁽⁺⁾
1024.31 ^g 17	(11/2 ⁻)		1425.2 4	
1030.15 [@] 14	11/2 ⁽⁺⁾		1438.82 17	11/2 ⁽⁺⁾

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$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06,1979He15** (continued) ^{125}Xe Levels (continued)

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
1440.94 ^a 18	19/2 ⁽⁻⁾	1718.50 [@] 22	15/2	2226.49 25	13/2
1473.7 4		1723.49 21		2226.7 4	
1477.30 20		1739.51 25		2237.7 [@] 3	17/2
1480.56 [@] 18	13/2 ⁽⁺⁾	1752.78 24	7/2,9/2,11/2 ⁽⁺⁾	2254.84 ^g 23	
1489.81 18	3/2 ⁽⁺⁾ ,5/2,7/2	1759.82 19		2272.0 ^{&} 3	19/2 ⁽⁺⁾
1492.49 ^d 17		1804.61 20		2301.4 4	
1494.6 4		1808.6 4		2315.09 18	
1510.19 18		1825.85 ^h 24		2317.6 ^e 4	
1536.05 ^{&} 18	15/2 ⁽⁺⁾	1826.12 21	(15/2)	2349.3 3	
1537.84 24	7/2 ⁽⁺⁾	1832.74 25	(9/2 ⁻ ,11/2,13/2 ⁺)	2384.2 4	
1573.26 ^f 18	(13/2)	1858.96 20	17/2 ⁽⁻⁾	2384.63 24	21/2 ⁽⁻⁾
1578.51 24	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾	1864.92 25		2414.7 3	
1579.75 19	17/2 ⁽⁻⁾	1882.89 ^g 22	(15/2)	2423.71 20	19/2 ⁽⁺⁾
1580.05 24		1905.57 22		2447.4? 4	
1585.38 ^g 17	(15/2)	1925.27 ^{&} 24	17/2 ⁽⁺⁾	2464.6 3	
1599.97 ^e 21	(11/2)	1934.5 4		2484.91 ^h 21	(15/2 ⁻ ,17/2,19/2 ⁻)
1601.80 25		1975.61 ^c 21	(15/2)	2508.1 ^f 3	15/2 ⁽⁻⁾ ,17/2,19/2
1603.8 4		2004.44 ^h 21	(15/2,17/2)	2508.6 4	
1605.98 18	5/2 ⁽⁺⁾ ,7/2,9/2 ⁽⁺⁾	2006.30 ^b 19	19/2 ⁽⁻⁾	2550.75 [@] 22	19/2
1617.44 18		2030.91 21	(9/2 ⁺ ,11/2,13/2 ⁺)	2571.8 4	
1624.88 18		2035.5 3		2604.2 4	
1627.96 22	7/2 ⁽⁺⁾	2046.4 4	9/2 ⁽⁺⁾	2616.6 4	(15/2,17/2)
1640.04 16	11/2 ⁽⁻⁾ ,13/2 ⁽⁺⁾	2062.69 25		2652.65 23	19/2
1647.66 24		2081.8 3		2664.1? ^c 4	
1648.8 4		2094.91 25		2671.2 3	
1659.54 ^f 18	15/2	2096.7 3		2704.2 ^{&} 4	21/2 ⁽⁺⁾
1668.60 24	3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾	2144.4 4		2811.3 ^b 3	(23/2)
1678.75 17	7/2 ⁽⁺⁾ ,9/2,11/2 ⁽⁺⁾	2150.73 19	15/2 ⁽⁻⁾	2819.15 21	(17/2)
1684.38 25		2166.5 4		2852.5 ^h 4	
1687.81 21		2166.55 ^a 23	21/2	2890.33 ⁱ 24	(21/2)
1688.29 18		2174.6 ^f 3		2926.2 4	(19/2)
1690.38 18	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾	2174.7 4		2952.4 3	(19/2)
1713.9 3		2193.8 4		2970.2 [@] 4	(21/2)
1716.44 22		2215.3 ^a 3	23/2 ⁽⁻⁾	2999.5 4	

[†] From least-squares fit to E γ 's.

[‡] From Adopted Levels.

From $\gamma(t)$ (1979He15).

@ Band(A): d_{3/2},s_{1/2} mixture, decoupled.

& Band(B): g_{7/2}, decoupled.

^a Band(C): h_{11/2}-1, decoupled.

^b Band(D): h_{11/2}-2, decoupled.

^c Band(E): probably $\pi=+$.

^d Band(F): Probably band-1. decaying mainly to positive-parity state.

^e Band(G): Probably band-2. decaying mainly to positive-parity state.

^f Band(H): $\pi=-$.

^g Band(I): probably $\pi=-$.

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$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

^{125}Xe Levels (continued)

- ^h Band(J): Probably band. Decaying mainly to negative-parity state.
ⁱ Band(K): positive-parity band.

$\gamma(^{125}\text{Xe})$

relative γ ray's intensities from $^{125}\text{Te}(\alpha, n\gamma)$ (1979He15)

E_γ	I_γ^*	E_γ	I_γ^*
43.3	16	488.9	8
57.9	130	502.0	38
59.7	2	522.1	6
111.8	1000	546.5	84
135.7	2	549.1	19
140.8	245	553.9	9
148.4	17	573.4	42
161.6	4	574.8**	81
184.1	130		13
223.5	9	583.1	54
244.5	17	591.1	40
273.8	5	613.2	51
277.7	9	617.6	14
297.0	11	640.9	56
300.9	90	643.4	20
335.4	114	644.7	104
339.4	4	651.0**	40
353.4	8		10
359.3	8	665.7	40
372.0	180	686.4	44
385.2	30	688.5	30
405.8	19	715.1	25
416.8	14	725.4	15
426.4	142	735.9	21
428.1	24	774.5	26
445.5	8	778.8**	12
471.1	16		10
484.2	50	783.5	15
486.1	265	952.1	12

* Normalized to $I(111.8\gamma)=1000$. Errors are 10% for stronger transitions and 30% for weaker transitions.

** multiply placement

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
111.78	3/2(+)	111.8 \ddagger 2	100	0.0	1/2(+)	M1+E2	0.27 +10-13	0.64 4	$\alpha(\text{K})=0.536$ 20; $\alpha(\text{L})=0.083$ 12; $\alpha(\text{M})=0.017$ 3; $\alpha(\text{N}+..)=0.0039$ 6 $\alpha(\text{N})=0.0035$ 5; $\alpha(\text{O})=0.00042$ 5 Mult., δ : From Adopted Levels, gammas.

$\gamma(^{125}\text{Xe})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}[#]</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.[@]</u>	<u>δ&</u>	<u>α^a</u>	<u>Comments</u>
252.51	9/2 ⁽⁻⁾	140.5 \ddagger 2	100	111.78	3/2 ⁽⁺⁾	E3		4.11	A ₂ =+0.090 7, A ₄ =-0.002 7 (1983Ir02); $\alpha(\text{exp})=0.75$ 15 estimated from intensity balance (1978Gi16). $\alpha(\text{K})=1.94$ 3; $\alpha(\text{L})=1.71$ 3; $\alpha(\text{M})=0.377$ 6; $\alpha(\text{N+..})=0.0817$ 14 $\alpha(\text{N})=0.0744$ 12; $\alpha(\text{O})=0.00726$ 12 Mult.: From adopted gammas. A ₂ =+0.004 11, A ₄ =+0.007 12 (1983Ir02). Additional information 1.
265.51	7/2	(13)		252.51	9/2 ⁽⁻⁾				E _{γ} : Suggested decay mode (1995Wi06). E _{γ} too low to be observed.
295.74	7/2 ⁽⁺⁾	43.3 3	12 4	252.51	9/2 ⁽⁻⁾	(E1)		2.09 5	$\alpha(\text{K})=1.76$ 4; $\alpha(\text{L})=0.266$ 7; $\alpha(\text{M})=0.0536$ 14; $\alpha(\text{N+..})=0.0119$ 3 $\alpha(\text{N})=0.0107$ 3; $\alpha(\text{O})=0.00120$ 3 E _{γ} : From 1979He15. I _{γ} : From I _{γ} (43 γ)/I _{γ} (184 γ)=0.12 4 (1979He15) measured at 125°. Uncertainties are assumed to be 30 % for 43 γ and 10 % for 184 γ . Mult.: From intensity-balance and T _{1/2} of 296-keV level (1979He15).
		183.8 \ddagger 2	100 10	111.78	3/2 ⁽⁺⁾	(E2)		0.215	$\alpha(\text{K})=0.1678$ 25; $\alpha(\text{L})=0.0373$ 6; $\alpha(\text{M})=0.00784$ 12; $\alpha(\text{N+..})=0.00174$ 3 $\alpha(\text{N})=0.001572$ 23; $\alpha(\text{O})=0.000171$ 3 I _{γ} : From 1979He15. Mult.: From intensity-balance and T _{1/2} of 296-keV level (1979He15). $\gamma(\theta)$ data disagree with (E2) assignment.
310.38	11/2 ⁽⁻⁾	57.8 1	100	252.51	9/2 ⁽⁻⁾	M1+E2	-0.16 9	4.2 4	A ₂ =+0.052 7, A ₄ =+0.020 7 (1983Ir02). $\alpha(\text{K})=3.47$ 10; $\alpha(\text{L})=0.59$ 19; $\alpha(\text{M})=0.12$ 4; $\alpha(\text{N+..})=0.028$ 9 $\alpha(\text{N})=0.025$ 8; $\alpha(\text{O})=0.0029$ 8 E _{γ} : From 1978Gi16. δ : -0.25 \leq δ \leq -0.07 from $\gamma(\theta)$ and estimated $\alpha(\text{exp})$ (1978Gi16). A ₂ =-0.32 2, A ₄ =-0.03 3 (1979He15); A ₂ =-0.36 10, $\alpha(\text{exp})=4.4$ 3 estimated from intensity balance (1978Gi16).
335.26	5/2 ⁽⁺⁾	223.4 \ddagger 3	6 1	111.78	3/2 ⁽⁺⁾	M1+E2	+3.6 +37-19	0.109 5	$\alpha(\text{K})=0.088$ 3; $\alpha(\text{L})=0.0169$ 15; $\alpha(\text{M})=0.0035$ 3; $\alpha(\text{N+..})=0.00079$ 7 $\alpha(\text{N})=0.00071$ 6; $\alpha(\text{O})=8.0\times 10^{-5}$ 6 A ₂ =+0.20 1, A ₄ =-0.01 1, pol.=-0.01 7 (1995Wi06).
		335.1 \ddagger 2	100 14	0.0	1/2 ⁽⁺⁾	E2		0.0294	$\alpha(\text{K})=0.0244$ 4; $\alpha(\text{L})=0.00400$ 6; $\alpha(\text{M})=0.000826$ 12; $\alpha(\text{N+..})=0.000187$ 3 $\alpha(\text{N})=0.0001679$ 24; $\alpha(\text{O})=1.95\times 10^{-5}$ 3 A ₂ =+0.16 1, A ₄ =-0.12 5, pol.=+0.26 5 (1995Wi06) A ₂ =+0.181 5, A ₄ =-0.012 5, pol.=+0.28 3 (1983Ir02). A ₂ =+0.14 2, A ₄ =+0.03 3 (1979He15).
471.05	3/2 ⁽⁺⁾	135.6 3	17 5	335.26	5/2 ⁽⁺⁾				I _{γ} : 1983Ir02 report I _{γ} (136)/I _{γ} (471)=0.027 20.
		359.3 \ddagger 2	37 1	111.78	3/2 ⁽⁺⁾				A ₂ =+0.05 1, A ₄ =-0.01 2, pol.=+0.01 2 (1995Wi06). A ₂ =+0.02 5, A ₄ =-0.04 5 (1983Ir02).
		471.0 \ddagger 2	100 14	0.0	1/2 ⁽⁺⁾	M1+E2	-0.94 18	0.0118 3	$\alpha(\text{K})=0.0101$ 3; $\alpha(\text{L})=0.001369$ 22; $\alpha(\text{M})=0.000279$ 5; $\alpha(\text{N+..})=6.44\times 10^{-5}$ 11 $\alpha(\text{N})=5.74\times 10^{-5}$ 9; $\alpha(\text{O})=7.04\times 10^{-6}$ 13

$\gamma(^{125}\text{Xe})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}[#]</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.[@]</u>	<u>δ&</u>	<u>α^a</u>	<u>Comments</u>
									δ : From 1983Ir02. Phase convention was changed by evaluators from Rose-Brink phase convention to Krane-Steffen one.
483.60	7/2 ⁽⁺⁾	148.3 ^b 3	13 4	335.26	5/2 ⁽⁺⁾	(M1+E2)		0.36 9	A ₂ =-0.274 15, A ₄ =+0.033 18, pol.=+0.10 4 (1983Ir02). A ₂ =-0.04 3, A ₄ =+0.07 5 (1979He15). α (K)=0.29 6; α (L)=0.06 3; α (M)=0.013 7; α (N+...)=0.0028 14 α (N)=0.0025 13; α (O)=0.00028 12 Mult.: D+Q and relevant levels. A ₂ =-0.13 10, A ₄ =+0.27 12 (1983Ir02). A ₂ =-0.02 2, A ₄ =+0.06 3 (1979He15).
		187.7 3	1	295.74	7/2 ⁽⁺⁾				
		371.8 [‡] 2	100 14	111.78	3/2 ⁽⁺⁾	E2		0.0213	α (K)=0.0178 3; α (L)=0.00282 4; α (M)=0.000579 9; α (N+...)=0.0001319 19 α (N)=0.0001180 17; α (O)=1.383×10 ⁻⁵ 20 A ₂ =+0.187 5, A ₄ =-0.032 5, pol.=+0.20 3 (1983Ir02). A ₂ =+0.14 2, A ₄ =-0.00 2 (1979He15).
496.93	5/2 ⁽⁺⁾	161.7 [‡] 3	11 3	335.26	5/2 ⁽⁺⁾	(M1+E2)		0.27 6	α (K)=0.22 4; α (L)=0.043 20; α (M)=0.009 5; α (N+...)=0.0020 9 α (N)=0.0018 9; α (O)=0.00020 8 Mult.: D+Q and relevant levels. A ₂ =-0.13 6, A ₄ =-0.15 10 (1979He15).
		200.9 3	7 2	295.74	7/2 ⁽⁺⁾				
		231.3 3	12 2	265.51	7/2				A ₂ =-0.13 2, A ₄ =-0.01 2 (1995Wi06).
		385.2 2	100 14	111.78	3/2 ⁽⁺⁾	M1+E2	-0.12 +8-12	0.0214 4	α (K)=0.0184 3; α (L)=0.00236 4; α (M)=0.000477 7; α (N+...)=0.0001112 16 α (N)=9.88×10 ⁻⁵ 15; α (O)=1.239×10 ⁻⁵ 18 δ : From 1983Ir02. Phase convention was changed by evaluators from Rose-Brink phase convention to Krane-Steffen one. A ₂ =-0.211 8, A ₄ =+0.018 9, pol.=-0.14 6 (1983Ir02). A ₂ =-0.10 3, A ₄ =+0.08 5 (1979He15).
526.33	1/2 ⁽⁺⁾ , 3/2 ⁽⁺⁾	497.1 3	11 2	0.0	1/2 ⁽⁺⁾				
		414.6 3	8 2	111.78	3/2 ⁽⁺⁾				
		526.4 3	100 16	0.0	1/2 ⁽⁺⁾				
540.03	3/2 ⁽⁺⁾	204.6 3	5 2	335.26	5/2 ⁽⁺⁾				
		428.2 3	50 8	111.78	3/2 ⁽⁺⁾				A ₂ =+0.08 3, A ₄ =-0.07 4 (1979He15).
		540.1 3	100 14	0.0	1/2 ⁽⁺⁾	M1(+E2)	-0.03 +7-13	0.00921 14	α =0.00921 14; α (K)=0.00796 12; α (L)=0.001002 15;

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$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
									$\alpha(\text{M})=0.000203\ 3; \alpha(\text{N}+..)=4.73\times 10^{-5}\ 7$ $\alpha(\text{N})=4.20\times 10^{-5}\ 6; \alpha(\text{O})=5.28\times 10^{-6}\ 8$ $A_2=-0.18\ 1, A_4=+0.02\ 1, \text{pol.}=-0.08\ 2$ (1995Wi06). $A_2=-0.033\ 22, A_4=+0.023\ 25, \text{pol.}=-0.2\ 5$ (1983Ir02).
594.00	5/2,7/2(+)	259.0 3	2 1	335.26	5/2(+)				
		482.3 3	100 15	111.78	3/2(+)				
596.65	9/2(+)	286.1 3	2 1	310.38	11/2(-)				
		300.9 ^b 3	100 14	295.74	7/2(+)	M1+E2	-3.76 12	0.0414	$\alpha(\text{K})=0.0342\ 5; \alpha(\text{L})=0.00574\ 9; \alpha(\text{M})=0.001186\ 18;$ $\alpha(\text{N}+..)=0.000269\ 4$ $\alpha(\text{N})=0.000241\ 4; \alpha(\text{O})=2.78\times 10^{-5}\ 4$ $A_2=-0.32\ 1, A_4=+0.14\ 1, \text{pol.}=+0.14\ 2$ (1995Wi06). $A_2=-0.23\ 2, A_4=+0.10\ 3$ (1979He15).
		344.1 3	5 1	252.51	9/2(-)	E1		0.00731 11	$\alpha=0.00731\ 11; \alpha(\text{K})=0.00632\ 9; \alpha(\text{L})=0.000792\ 12;$ $\alpha(\text{M})=0.0001596\ 23; \alpha(\text{N}+..)=3.69\times 10^{-5}\ 6$ $\alpha(\text{N})=3.29\times 10^{-5}\ 5; \alpha(\text{O})=4.05\times 10^{-6}\ 6$ $A_2=+0.28\ 3, A_4=-0.02\ 3, \text{pol.}=-0.49\ 10$ (1995Wi06).
607.70	7/2(-)	272.4 3	5 1	335.26	5/2(+)				
		297.2 3	14 2	310.38	11/2(-)				
		342.2 3	10 2	265.51	7/2				
		355.1 3	100 15	252.51	9/2(-)				$A_2=-0.12\ 1, A_4=-0.01\ 3$ (1995Wi06).
708.31	3/2(+), 5/2(+)	168.2 3	2 1	540.03	3/2(+)				$A_2=+0.16\ 1, A_4=+0.01\ 1$ (1995Wi06).
		211.2 3	13 2	496.93	5/2(+)				
		237.2 3	13 3	471.05	3/2(+)				
		372.9 3	64 9	335.26	5/2(+)				
		412.7 3	100 15	295.74	7/2(+)				
		596.8 3	54 9	111.78	3/2(+)				
		708.4 3	81 12	0.0	1/2(+)				
711.13	3/2(+)	240.1 3	2 1	471.05	3/2(+)				
		375.6 3	34 5	335.26	5/2(+)				
		599.3 3	100 16	111.78	3/2(+)				
		711.1 3	97 15	0.0	1/2(+)	M1(+E2)	+0.07 +7-20	0.00473 7	$\alpha=0.00473\ 7; \alpha(\text{K})=0.00410\ 6; \alpha(\text{L})=0.000511\ 8;$ $\alpha(\text{M})=0.0001034\ 15; \alpha(\text{N}+..)=2.41\times 10^{-5}\ 4$ $\alpha(\text{N})=2.14\times 10^{-5}\ 3; \alpha(\text{O})=2.69\times 10^{-6}\ 4$ $A_2=-0.15\ 1, A_4=+0.02\ 2, \text{pol.}=-0.15\ 4$ (1995Wi06).
736.71	13/2(-)	426.4 3	100 15	310.38	11/2(-)	M1+E2	-0.42 +5-7	0.0162 3	$\alpha(\text{K})=0.01394\ 23; \alpha(\text{L})=0.00181\ 3; \alpha(\text{M})=0.000368\ 6;$ $\alpha(\text{N}+..)=8.55\times 10^{-5}\ 12$ $\alpha(\text{N})=7.60\times 10^{-5}\ 11; \alpha(\text{O})=9.47\times 10^{-6}\ 14$ $A_2=-0.86\ 6, A_4=+0.08\ 1, \text{pol.}=+0.01\ 1$ (1995Wi06). $A_2=-0.68\ 2, A_4=+0.06\ 3$ (1979He15).
		484.3 3	29 5	252.51	9/2(-)	E2		0.00982 14	$\alpha=0.00982\ 14; \alpha(\text{K})=0.00830\ 12; \alpha(\text{L})=0.001214\ 18;$ $\alpha(\text{M})=0.000248\ 4; \alpha(\text{N}+..)=5.69\times 10^{-5}\ 8$

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
									$\alpha(\text{N})=5.08\times 10^{-5}$ 8; $\alpha(\text{O})=6.08\times 10^{-6}$ 9 Mult.: From Adopted Levels. $A_2=+0.26$ 4, $A_4=-0.01$ 7 (1979He15).
741.32	$7/2^{(+)}$	144.6 3 147.3 3 244.4 3	3 1 5 2 100 15	596.65 594.00 496.93	$9/2^{(+)}$ $5/2, 7/2^{(+)}$ $5/2^{(+)}$	(M1+E2)		0.076 6	$\alpha(\text{K})=0.063$ 4; $\alpha(\text{L})=0.0101$ 24; $\alpha(\text{M})=0.0021$ 5; $\alpha(\text{N}+..)=0.00047$ 11 $\alpha(\text{N})=0.00042$ 10; $\alpha(\text{O})=5.0\times 10^{-5}$ 9 $A_2=-0.40$ 5, $A_4=-0.08$ 8 (1979He15).
		257.8 3	11 2	483.60	$7/2^{(+)}$	M1(+E2)	-0.18 +37-15	0.0609 11	$\alpha(\text{K})=0.0523$ 8; $\alpha(\text{L})=0.0068$ 3; $\alpha(\text{M})=0.00139$ 6; $\alpha(\text{N}+..)=0.000324$ 12 $\alpha(\text{N})=0.000288$ 11; $\alpha(\text{O})=3.59\times 10^{-5}$ 11 $A_2=+0.23$ 4, $A_4=-0.02$ 7, pol.=+0.52 23 (1995Wi06).
		445.5 3	57 8	295.74	$7/2^{(+)}$	M1+E2	+0.38 +13-12	0.0145 3	$\alpha(\text{K})=0.0125$ 3; $\alpha(\text{L})=0.001618$ 24; $\alpha(\text{M})=0.000328$ 5; $\alpha(\text{N}+..)=7.63\times 10^{-5}$ 11 $\alpha(\text{N})=6.78\times 10^{-5}$ 10; $\alpha(\text{O})=8.46\times 10^{-6}$ 14 $A_2=+0.29$ 2, $A_4=+0.01$ 3, pol.=+0.23 5 (1995Wi06).
		475.7 3 488.8 3	13 3 78 12	265.51 252.51	$7/2$ $9/2^{(-)}$	E1		0.00310 5	$A_2=+0.13$ 4, $A_4=+0.03$ 7 (1979He15).
									$\alpha=0.00310$ 5; $\alpha(\text{K})=0.00269$ 4; $\alpha(\text{L})=0.000333$ 5; $\alpha(\text{M})=6.70\times 10^{-5}$ 10; $\alpha(\text{N}+..)=1.555\times 10^{-5}$ 22 $\alpha(\text{N})=1.383\times 10^{-5}$ 20; $\alpha(\text{O})=1.717\times 10^{-6}$ 25 $A_2=-0.11$ 1, $A_4=+0.01$ 1, pol.=+0.09 2 (1995Wi06).
762.25	$(5/2^-)$	154.5 3 278.5 ^c 3 291.3 ^c 3 496.9 3	72 22 7 2 100 16	607.70 483.60 471.05 265.51	$7/2^{(-)}$ $7/2^{(+)}$ $3/2^{(+)}$ $7/2$				$A_2=-0.06$ 1, $A_4=+0.04$ 2 (1995Wi06).
		509.7 ^b 3	83 14	252.51	$9/2^{(-)}$				
765.64	$3/2, 5/2^{(+)}$	225.4 ^c 3 268.7 ^c 3 294.5 3 430.2 ^c 3 500.1 3	7 2 7 2 7 2 9 2 100 15	540.03 496.93 471.05 335.26 265.51	$3/2^{(+)}$ $5/2^{(+)}$ $3/2^{(+)}$ $5/2^{(+)}$ $7/2$				
		653.7 3 765.7 3	19 4 47 8	111.78 0.0	$3/2^{(+)}$ $1/2^{(+)}$				
796.46	$15/2^{(-)}$	59.7 3	0.8 2	736.71	$13/2^{(-)}$				E_γ : From 1979He15 . I_γ : From $I_\gamma(60\gamma)/I_\gamma(486\gamma)=0.008$ 2 measured at 125° (1979He15). Uncertainties are assumed to be 30 % for 60 γ and 10 % for 486 γ .
		486.0 3	100 14	310.38	$11/2^{(-)}$	E2		0.00972 14	$\alpha=0.00972$ 14; $\alpha(\text{K})=0.00822$ 12; $\alpha(\text{L})=0.001201$ 17; $\alpha(\text{M})=0.000246$ 4; $\alpha(\text{N}+..)=5.63\times 10^{-5}$ 8

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$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. [@]	$\delta\&$	α^a	Comments
									$\alpha(\text{N})=5.03\times 10^{-5}$ 8; $\alpha(\text{O})=6.02\times 10^{-6}$ 9 Mult.: From Adopted Levels. $A_2=+0.31$ 3, $A_4=+0.02$ 4 (1979He15).
837.21	9/2 ⁽⁺⁾	229.5 3 240.5 3 353.4 3 501.8 [‡] 2	2 1 9 2 100 15	607.70 596.65 483.60 335.26	7/2 ⁽⁻⁾ 9/2 ⁽⁺⁾ 7/2 ⁽⁺⁾ 5/2 ⁽⁺⁾	E2		0.00889 13	$\alpha=0.00889$ 13; $\alpha(\text{K})=0.00753$ 11; $\alpha(\text{L})=0.001091$ 16; $\alpha(\text{M})=0.000223$ 4; $\alpha(\text{N}+.)=5.11\times 10^{-5}$ 8 $\alpha(\text{N})=4.57\times 10^{-5}$ 7; $\alpha(\text{O})=5.48\times 10^{-6}$ 8 $A_2=+0.171$ 12, $A_4=-0.009$ 13, pol.=+0.062 3 (1983Ir02). $A_2=+0.22$ 2, $A_4=-0.00$ 3 (1979He15).
870.49	11/2 ⁽⁺⁾	273.8 3 386.9 3 574.8 [‡] 2	6 1 2 1 100 14	596.65 483.60 295.74	9/2 ⁽⁺⁾ 7/2 ⁽⁺⁾ 7/2 ⁽⁺⁾	(M1+E2) E2		0.0540 24 0.00614 9	$\alpha(\text{K})=0.0453$ 10; $\alpha(\text{L})=0.0070$ 13; $\alpha(\text{M})=0.0014$ 3; $\alpha(\text{N}+.)=0.00033$ 6 $\alpha(\text{N})=0.00029$ 6; $\alpha(\text{O})=3.5\times 10^{-5}$ 5 Mult.: From Adopted Levels. $\alpha=0.00614$ 9; $\alpha(\text{K})=0.00523$ 8; $\alpha(\text{L})=0.000734$ 11; $\alpha(\text{M})=0.0001497$ 21; $\alpha(\text{N}+.)=3.44\times 10^{-5}$ 5 $\alpha(\text{N})=3.07\times 10^{-5}$ 5; $\alpha(\text{O})=3.72\times 10^{-6}$ 6 Mult.: From Adopted Levels. $A_2=+0.25$ 3, $A_4=+0.01$ 5 (1979He15).
886.87	9/2, 11/2 ⁽⁻⁾	279.1 3 576.4 3 634.3 3	45 9 100 17 36 8	607.70 310.38 252.51	7/2 ⁽⁻⁾ 11/2 ⁽⁻⁾ 9/2 ⁽⁻⁾				
889.27	7/2 ⁽⁺⁾	292.6 ^c 3 295.3 3 392.4 3 405.9 [‡] 2 418.1 3 554.0 3 593.3 3 623.9 ^c 3 777.3 3	100 15 80 12 35 6 34 6 42 8	596.65 594.00 496.93 483.60 471.05 335.26 295.74 265.51 111.78	9/2 ⁽⁺⁾ 5/2, 7/2 ⁽⁺⁾ 5/2 ⁽⁺⁾ 7/2 ⁽⁺⁾ 3/2 ⁽⁺⁾ 5/2 ⁽⁺⁾ 7/2 ⁽⁺⁾ 7/2 3/2 ⁽⁺⁾	D+Q			$A_2=0.14$ 4, $A_4=0.13$ 7 (1979He15).
893.37	13/2 ⁽⁻⁾	582.9 3 640.9 3	94 14 100 14	310.38 252.51	11/2 ⁽⁻⁾ 9/2 ⁽⁻⁾	M1+E2 E2	+21 +4-3	0.00592 9 0.00463 7	$\alpha=0.00592$ 9; $\alpha(\text{K})=0.00504$ 7; $\alpha(\text{L})=0.000706$ 10; $\alpha(\text{M})=0.0001439$ 21; $\alpha(\text{N}+.)=3.31\times 10^{-5}$ 5 $\alpha(\text{N})=2.95\times 10^{-5}$ 5; $\alpha(\text{O})=3.58\times 10^{-6}$ 5 Mult.: D+Q with large δ . $A_2=+0.04$ 1, $A_4=+0.22$ 1 (1995Wi06). $A_2=+0.05$ 2, $A_4=+0.20$ 3 (1979He15). $\alpha=0.00463$ 7; $\alpha(\text{K})=0.00395$ 6; $\alpha(\text{L})=0.000542$ 8;

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
									$\alpha(\text{M})=0.0001104$ 16; $\alpha(\text{N}+..)=2.55\times 10^{-5}$ 4 $\alpha(\text{N})=2.27\times 10^{-5}$ 4; $\alpha(\text{O})=2.76\times 10^{-6}$ 4 $A_2=+0.31$ 1, $A_4=-0.08$ 1, pol.=+0.50 1 (1995Wi06). $A_2=+0.29$ 4, $A_4=-0.03$ 6 (1979He15).
895.99	5/2 ⁽⁻⁾	355.7 ^{bc} 3 399.2 3 412.1 3 424.9 3		540.03 3/2 ⁽⁺⁾ 496.93 5/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾		E1(+M2)	-0.03 +10-26	0.004 5	$\alpha=0.004$ 5; $\alpha(\text{K})=0.004$ 4; $\alpha(\text{L})=0.0005$ 6; $\alpha(\text{M})=0.00010$ 11; $\alpha(\text{N}+..)=2.2\times 10^{-5}$ 25 $\alpha(\text{N})=2.0\times 10^{-5}$ 22; $\alpha(\text{O})=2.E-6$ 3 $A_2=-0.25$ 5, $A_4=+0.08$ 1, pol.=+0.32 16 (1995Wi06).
919.73	11/2	560.9 ^b 3 784.2 ^b 3 654.3 3 667.4 3	100 22 100 17 31 6	335.26 5/2 ⁽⁺⁾ 111.78 3/2 ⁽⁺⁾ 265.51 7/2 252.51 9/2 ⁽⁻⁾		Q			$A_2=+0.26$ 2, $A_4=-0.04$ 1 (1995Wi06).
932.67	3/2 ⁽⁺⁾ , 5/2, 7/2 ⁽⁺⁾	392.5 ^b 3 435.6 3 449.1 3 461.7 3 597.7 3		540.03 3/2 ⁽⁺⁾ 496.93 5/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾					
946.14	5/2 ⁽⁺⁾ , 7/2 ⁽⁺⁾	204.7 3 238.0 3 338.4 ^c 3 349.4 3 352.2 3 406.2 3 449.2 3 462.6 3 475.2 3	100 22 32 6 13 3 40 7 88 15 100 16 97 16 78 12 34 6 15 3	741.32 7/2 ⁽⁺⁾ 708.31 3/2 ⁽⁺⁾ , 5/2 ⁽⁺⁾ 607.70 7/2 ⁽⁻⁾ 596.65 9/2 ⁽⁺⁾ 594.00 5/2, 7/2 ⁽⁺⁾ 540.03 3/2 ⁽⁺⁾ 496.93 5/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾					
969.06	7/2 ⁽⁺⁾	610.8 3 131.9 3 375.1 3 429.0 3 485.3 3 498.1 3 633.8 3 857.2 3	84 12 4 2 26 4 13 2 33 5 85 13 100 16 14 3	335.26 5/2 ⁽⁺⁾ 837.21 9/2 ⁽⁺⁾ 594.00 5/2, 7/2 ⁽⁺⁾ 540.03 3/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾ 111.78 3/2 ⁽⁺⁾					
987.48		393.6 3		594.00 5/2, 7/2 ⁽⁺⁾					

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
987.48		447.4 3 490.4 3 652.2 3 875.8 3		540.03 496.93 335.26 111.78	3/2(+) 5/2(+) 5/2(+) 3/2(+)				
1018.95	9/2(+)	277.6 ^b 3	100 15	741.32	7/2(+)	M1+E2	-0.26 +6-9	0.0501 8	$\alpha(\text{K})=0.0430$ 7; $\alpha(\text{L})=0.00568$ 14; $\alpha(\text{M})=0.00115$ 3; $\alpha(\text{N}+..)=0.000268$ 6 $\alpha(\text{N})=0.000238$ 6; $\alpha(\text{O})=2.96\times 10^{-5}$ 6 $A_2=-0.53$ 2, $A_4=+0.04$ 2, pol. $=-0.08$ 4 (1995Wi06). $A_2=-0.54$ 13, $A_4=+0.02$ 19 (1979He15).
		422.3 3	23 4	596.65	9/2(+)	M1(+E2)	-0.13 +20-12	0.0169 3	$\alpha(\text{K})=0.01461$ 23; $\alpha(\text{L})=0.00186$ 3; $\alpha(\text{M})=0.000377$ 6; $\alpha(\text{N}+..)=8.78\times 10^{-5}$ 13 $\alpha(\text{N})=7.80\times 10^{-5}$ 11; $\alpha(\text{O})=9.78\times 10^{-6}$ 14 $A_2=+0.35$ 4, $A_4=-0.13$ 6, pol. $=+0.77$ 19 (1995Wi06).
		522.1 3	79 11	496.93	5/2(+)	E2		0.00797 12	$\alpha=0.00797$ 12; $\alpha(\text{K})=0.00675$ 10; $\alpha(\text{L})=0.000969$ 14; $\alpha(\text{M})=0.000198$ 3; $\alpha(\text{N}+..)=4.55\times 10^{-5}$ 7 $\alpha(\text{N})=4.06\times 10^{-5}$ 6; $\alpha(\text{O})=4.88\times 10^{-6}$ 7 $A_2=+0.23$ 2, $A_4=-0.01$ 2, pol. $=+0.56$ 10 (1995Wi06).
		535.5 3 683.7 3 708.5 3	13 2 18 3 55 9	483.60 335.26 310.38	7/2(+) 5/2(+) 11/2(-)				
1024.31	(11/2 ⁻)	287.5 3 416.6 3 713.8 3 771.8 3		736.71 607.70 310.38 252.51	13/2(-) 7/2(-) 11/2(-) 9/2(-)				$A_2=-0.76$ 2, $A_4=-0.01$ 2 (1995Wi06).
1030.15	11/2(+)	192.9 3 433.4 3 546.5 ^b 3	3 1 2 1 100 14	837.21 596.65 483.60	9/2(+) 9/2(+) 7/2(+)	Q			$A_2=+0.26$ 3, $A_4=+0.05$ 5 (1979He15).
1063.83		456.1 3 467.2 3		607.70 596.65	7/2(-) 9/2(+)				
1077.03		314.7 3 469.4 3		762.25 607.70	(5/2 ⁻) 7/2(-)				
1103.67	(9/2, 11/2 ⁺)	266.3 3 362.2 3 509.7 ^b 3 619.9 3 808.0 3	58 10 100 14	837.21 741.32 594.00 483.60 295.74	9/2(+) 7/2(+) 5/2, 7/2(+) 7/2(+) 7/2(+)				$A_2=+0.47$ 5, $A_4=-0.02$ 7 (1995Wi06).
1121.0		524.3 3		596.65	9/2(+)				

¹²²Te($\alpha, n\gamma$), ¹²³Te($\alpha, 2n\gamma$) **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

E _i (level)	J _i ^{π}	E _{γ} [†]	I _{γ} [#]	E _f	J _f ^{π}	Mult. [@]	δ ^{&}	α^a	Comments	
1126.29		417.9 3		708.31	3/2 ⁽⁺⁾ , 5/2 ⁽⁺⁾					
		600.0 3		526.33	1/2 ⁽⁺⁾ , 3/2 ⁽⁺⁾					
		655.3 3		471.05	3/2 ⁽⁺⁾					
		791.0 3		335.26	5/2 ⁽⁺⁾					
1137.5		341.0 3		796.46	15/2 ⁽⁻⁾					
1141.04	3/2 ⁽⁺⁾ , 5/2, 7/2 ⁽⁺⁾	429.7 3	100 15	711.13	3/2 ⁽⁺⁾					
		657.4 3		483.60	7/2 ⁽⁺⁾					
1161.80	5/2 ⁽⁺⁾	805.8 3	64 12	335.26	5/2 ⁽⁺⁾					
		229.3 3		932.67	3/2 ⁽⁺⁾ , 5/2, 7/2 ⁽⁺⁾					
		272.3 ^c 3		889.27	7/2 ⁽⁺⁾					
		450.5 3		711.13	3/2 ⁽⁺⁾					
		635.4 3		526.33	1/2 ⁽⁺⁾ , 3/2 ⁽⁺⁾					
		690.7 3		471.05	3/2 ⁽⁺⁾	M1+E2	+0.13 3	0.00506 8	$\alpha=0.00506$ 8; $\alpha(K)=0.00438$ 7; $\alpha(L)=0.000547$ 8; $\alpha(M)=0.0001107$ 16; $\alpha(N+..)=2.58\times 10^{-5}$ 4 $\alpha(N)=2.29\times 10^{-5}$ 4; $\alpha(O)=2.88\times 10^{-6}$ 4 $A_2=-0.11$ 2, $A_4=+0.16$ 4, pol. $=-0.48$ 13 (1995Wi06).	
1171.64		1050.1 3		111.78	3/2 ⁽⁺⁾					
		674.6 ^b 3		496.93	5/2 ⁽⁺⁾					
		700.7 3		471.05	3/2 ⁽⁺⁾					
		836.3 ^{bc} 3		335.26	5/2 ⁽⁺⁾					
1193.02	7/2 ⁽⁺⁾ , 9/2 ⁽⁺⁾	303.8 3	23 5	889.27	7/2 ⁽⁺⁾					
		355.7 ^b 3		837.21	9/2 ⁽⁺⁾					
		484.8 3		100 16	708.31					3/2 ⁽⁺⁾ , 5/2 ⁽⁺⁾
		585.3 3		4 2	607.70					7/2 ⁽⁻⁾
		596.6 3			596.65					9/2 ⁽⁺⁾
		709.2 3		29 6	483.60					7/2 ⁽⁺⁾
		927.5 3			265.51					7/2
1209.79	13/2 ⁽⁺⁾	940.5 3	6 2	252.51	9/2 ⁽⁻⁾	M1+E2		0.0290 8		
		339.3 3		870.49	11/2 ⁽⁺⁾					
		613.2 3	100 14	596.65	9/2 ⁽⁺⁾	E2		0.00519 8	$\alpha(K)=0.0245$ 11; $\alpha(L)=0.0036$ 3; $\alpha(M)=0.00073$ 7; $\alpha(N+..)=0.000167$ 13 $\alpha(N)=0.000149$ 12; $\alpha(O)=1.79\times 10^{-5}$ 8 pol. $=-1.1$ 2, DCO-intensities (1995Wi06). $\alpha=0.00519$ 8; $\alpha(K)=0.00442$ 7; $\alpha(L)=0.000612$ 9; $\alpha(M)=0.0001247$ 18; $\alpha(N+..)=2.87\times 10^{-5}$ 4 $\alpha(N)=2.56\times 10^{-5}$ 4; $\alpha(O)=3.11\times 10^{-6}$ 5 $A_2=+0.25$ 1, $A_4=-0.04$ 2, pol. $=+0.34$ 6 (1995Wi06). $A_2=+0.32$ 2, $A_4=-0.04$ 3 (1979He15).	
1217.10	5/2 ⁽⁺⁾	623.0 3		594.00	5/2, 7/2 ⁽⁺⁾					

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
1217.10	5/2 ⁽⁺⁾	746.0 3 881.9 3 1105.4 3		471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾ 111.78 3/2 ⁽⁺⁾		M1(+E2)	-0.05 +8-15	0.00170 3	$\alpha=0.00170$ 3; $\alpha(\text{K})=0.001475$ 25; $\alpha(\text{L})=0.000182$ 3; $\alpha(\text{M})=3.67\times 10^{-5}$ 6; $\alpha(\text{N}+..)=9.03\times 10^{-6}$ 15 $\alpha(\text{N})=7.60\times 10^{-6}$ 13; $\alpha(\text{O})=9.58\times 10^{-7}$ 16; $\alpha(\text{IPF})=4.70\times 10^{-7}$ 9 $A_2=-0.20$ 3, $A_4=-0.05$ 5, pol. $=-0.23$ 8 (1995Wi06).
1245.31	(9/2 ⁻ , 11/2, 13/2 ⁻)	352.0 ^C 3 358.2 3 508.6 3 935.0 3 992.9 3		893.37 13/2 ⁽⁻⁾ 886.87 9/2, 11/2 ⁽⁻⁾ 736.71 13/2 ⁽⁻⁾ 310.38 11/2 ⁽⁻⁾ 252.51 9/2 ⁽⁻⁾					
1246.7		509.8 3		736.71 13/2 ⁽⁻⁾					
1247.58	11/2	377.0 3 650.9 3 952.0 3		870.49 11/2 ⁽⁺⁾ 596.65 9/2 ⁽⁺⁾ 295.74 7/2 ⁽⁺⁾					
1263.51		522.4 3 792.4 3 928.1 3		741.32 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾					
1281.62		516.0 3 519.4 3 674.0 3 946.2 3		765.64 3/2, 5/2 ⁽⁺⁾ 762.25 (5/2 ⁻) 607.70 7/2 ⁽⁻⁾ 335.26 5/2 ⁽⁺⁾					
1287.70		761.4 3 790.9 3 816.5 3 952.4 3		526.33 1/2 ⁽⁺⁾ , 3/2 ⁽⁺⁾ 496.93 5/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾					
1307.1		598.8 3		708.31 3/2 ⁽⁺⁾ , 5/2 ⁽⁺⁾					
1310.01	15/2 ⁽⁻⁾	416.7 3	29 5	893.37 13/2 ⁽⁻⁾		M1+E2	-1.5 5	0.0159 6	$\alpha(\text{K})=0.0135$ 5; $\alpha(\text{L})=0.00194$ 3; $\alpha(\text{M})=0.000396$ 6; $\alpha(\text{N}+..)=9.09\times 10^{-5}$ 13 $\alpha(\text{N})=8.11\times 10^{-5}$ 12; $\alpha(\text{O})=9.77\times 10^{-6}$ 17 $A_2=-0.46$ 3, $A_4=+0.12$ 5, pol. $=+0.18$ 6 (1995Wi06). $A_2=-0.61$ 3, $A_4=+0.13$ 5 (1979He15).
		513.5 3	22 4	796.46 15/2 ⁽⁻⁾		M1+E2	-4.4 +14-18	0.00844 16	$\alpha=0.00844$ 16; $\alpha(\text{K})=0.00716$ 15; $\alpha(\text{L})=0.001024$ 16; $\alpha(\text{M})=0.000209$ 4; $\alpha(\text{N}+..)=4.80\times 10^{-5}$ 8

¹²²Te($\alpha, n\gamma$), ¹²³Te($\alpha, 2n\gamma$) [1995Wi06](#), [1979He15](#) (continued)

$\gamma(^{125}\text{Xe})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}[#]</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.[@]</u>	<u>δ^{&}</u>	<u>α^a</u>	<u>Comments</u>
									$\alpha(\text{N})=4.29\times 10^{-5}$ 7; $\alpha(\text{O})=5.16\times 10^{-6}$ 9 Mult.: D+Q with large δ . $A_2=+0.02$ 1, $A_4=-0.10$ 2 (1995Wi06). $\alpha=0.00679$ 12; $\alpha(\text{K})=0.00581$ 10; $\alpha(\text{L})=0.000782$ 12; $\alpha(\text{M})=0.0001590$ 24; $\alpha(\text{N}+..)=3.68\times 10^{-5}$ $\alpha(\text{N})=3.27\times 10^{-5}$ 5; $\alpha(\text{O})=4.02\times 10^{-6}$ 7 δ : -1.4 1 or -0.6 +1-2. $A_2=-0.83$ 2, $A_4=+0.15$ 2, pol. $=-0.13$ 5, DCO-intensities (1995Wi06). $A_2=-0.76$ 2, $A_4=+0.09$ 3 (1979He15).
1310.01	15/2 ⁽⁻⁾	573.3 3	100 15	736.71	13/2 ⁽⁻⁾	M1+E2	-1.4 1	0.00679 12	
1312.13	3/2,5/2,7/2	549.9 3 704.4 3 815.2 3 841.1 3		762.25 (5/2 ⁻) 607.70 7/2 ⁽⁻⁾ 496.93 5/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾					
1315.68	(11/2 ⁺)	296.8 3 445.2 3 478.4 3 574.4 3 578.9 3 718.9 3 1063.1 3	94 16 14 4 69 15 85 15 100 19	1018.95 9/2 ⁽⁺⁾ 870.49 11/2 ⁽⁺⁾ 837.21 9/2 ⁽⁺⁾ 741.32 7/2 ⁽⁺⁾ 736.71 13/2 ⁽⁻⁾ 596.65 9/2 ⁽⁺⁾ 252.51 9/2 ⁽⁻⁾		D+Q Q			$A_2=-0.12$ 2, $A_4=+0.03$ 4 (1979He15). $A_2=+0.25$ 3, $A_4=+0.01$ 5 for doublet. (1979He15).
1321.03		609.7 3 794.7 3 850.0 3 1209.4 3		711.13 3/2 ⁽⁺⁾ 526.33 1/2 ⁽⁺⁾ ,3/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 111.78 3/2 ⁽⁺⁾					
1326.9		843.1 3		483.60 7/2 ⁽⁺⁾					
1330.81	3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾	619.8 3 846.9 3 859.7 3 995.5 3 1219.3 3		711.13 3/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾ 111.78 3/2 ⁽⁺⁾					
1341.10	(9/2 ⁻ ,11/2,13/2 ⁻)	604.3 3 1088.4 3	74 14 100 20	736.71 13/2 ⁽⁻⁾ 252.51 9/2 ⁽⁻⁾					
1359.67	3/2,5/2,7/2	593.9 3 597.6 3 751.9 3 1024.0 ^c 3		765.64 3/2,5/2 ⁽⁺⁾ 762.25 (5/2 ⁻) 607.70 7/2 ⁽⁻⁾ 335.26 5/2 ⁽⁺⁾					
1370.17	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾	533.0 3 628.7 3 773.4 3		837.21 9/2 ⁽⁺⁾ 741.32 7/2 ⁽⁺⁾ 596.65 9/2 ⁽⁺⁾					

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ **1995Wi06, 1979He15** (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	$\gamma(^{125}\text{Xe})$ (continued)					Comments
				E_f	J_f^π	Mult. @	$\delta\&$	α^a	
1370.17	$5/2^{(+)}, 7/2^{(+)}$	776.3 3		594.00	$5/2, 7/2^{(+)}$				
		830.2 3		540.03	$3/2^{(+)}$				
		886.6 3		483.60	$7/2^{(+)}$				
1379.85	$7/2, 9/2^{(+)}$	349.6 3		1030.15	$11/2^{(+)}$				
		447.1 3		932.67	$3/2^{(+)}, 5/2, 7/2^{(+)}$				1995Wi06 report 477.1 keV but it seems typo.
		542.7 3		837.21	$9/2^{(+)}$				
		783.1 3		596.65	$9/2^{(+)}$				
		786.0 3		594.00	$5/2, 7/2^{(+)}$				
		883.0 3		496.93	$5/2^{(+)}$				
		896.2 3		483.60	$7/2^{(+)}$				
1387.79	17/2	591.3 3	92 15	796.46	$15/2^{(-)}$	D+Q	-0.8 1		$A_2=-0.93$ 1, $A_4=+0.08$ 2 (1995Wi06). $A_2=-0.44$ 6, $A_4=+0.16$ 11 (1979He15).
		651.1 3	100 15	736.71	$13/2^{(-)}$	Q			$A_2=+0.29$ 2, $A_4=-0.11$ 3 (1995Wi06). $A_2=+0.25$ 6, $A_4=+0.03$ 10 (1979He15).
1395.45	$11/2^{(-)}, 13/2, 15/2$	371.1 3	29 3	1024.31	$(11/2^{-})$				
		475.7 3	13 2	919.73	11/2				
		502.1 ^c 3		893.37	$13/2^{(-)}$				
		599.1 3	100 10	796.46	$15/2^{(-)}$				
		658.9 3		736.71	$13/2^{(-)}$				
1399.18		430.1 ^b 3		969.06	$7/2^{(+)}$				
		915.6 3		483.60	$7/2^{(+)}$				
1403.75	$5/2^{(+)}, 7/2, 9/2^{(+)}$	566.3 3		837.21	$9/2^{(+)}$				
		809.9 3		594.00	$5/2, 7/2^{(+)}$				
		920.3 3		483.60	$7/2^{(+)}$				
		1068.4 3		335.26	$5/2^{(+)}$				
1416.02	$5/2^{(+)}$	674.6 ^b 3		741.32	$7/2^{(+)}$				
		808.4 3		607.70	$7/2^{(-)}$				
		945.0 3		471.05	$3/2^{(+)}$				
		1304.2 3		111.78	$3/2^{(+)}$	M1+E2	-2.7 4	0.000981 17	$\alpha=0.000981$ 17; $\alpha(K)=0.000829$ 15; $\alpha(L)=0.0001033$ 18; $\alpha(M)=2.09\times 10^{-5}$ 4; $\alpha(N+..)=2.76\times 10^{-5}$ $\alpha(N)=4.31\times 10^{-6}$ 8; $\alpha(O)=5.39\times 10^{-7}$ 10; $\alpha(IPF)=2.27\times 10^{-5}$ 4 Mult.: D+Q with large δ . $A_2=-0.43$ 5, $A_4=+0.28$ 8, pol.=+0.05 7 (1995Wi06).
1425.2		817.5 3		607.70	$7/2^{(-)}$				
1438.82	$11/2^{(+)}$	229.2 3		1209.79	$13/2^{(+)}$				

$^{122}\text{Te}(\alpha,\text{n}\gamma), ^{123}\text{Te}(\alpha,2\text{n}\gamma)$ **1995Wi06,1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
1438.82	11/2 ⁽⁺⁾	408.6 3	29 6	1030.15	11/2 ⁽⁺⁾	M1+E2	+0.29 +25-23	0.0183 5	$\alpha(\text{K})=0.0157$ 5; $\alpha(\text{L})=0.00203$ 3; $\alpha(\text{M})=0.000411$ 7; $\alpha(\text{N}+..)=9.56\times 10^{-5}$ 14 $\alpha(\text{N})=8.50\times 10^{-5}$ 13; $\alpha(\text{O})=1.062\times 10^{-5}$ 17 $A_2=+0.30$ 4, $A_4=-0.11$ 6, pol.=+0.28 7 (1995Wi06).
		549.5 3	100 17	889.27	7/2 ⁽⁺⁾				
		601.5 3	45 9	837.21	9/2 ⁽⁺⁾				
		842.2 3		596.65	9/2 ⁽⁺⁾	M1+E2	-4.8 12	0.00242 5	$A_2=-0.11$ 1, $A_4=+0.07$ 2 (1995Wi06). $\alpha=0.00242$ 5; $\alpha(\text{K})=0.00208$ 4; $\alpha(\text{L})=0.000272$ 5; $\alpha(\text{M})=5.51\times 10^{-5}$ 9; $\alpha(\text{N}+..)=1.276\times 10^{-5}$ 21 $\alpha(\text{N})=1.135\times 10^{-5}$ 19; $\alpha(\text{O})=1.401\times 10^{-6}$ 24 Mult.: D+Q with large δ . $A_2=-0.35$ 2, $A_4=+0.09$ 3 (1995Wi06).
1440.94	19/2 ⁽⁻⁾	644.7 3	100	796.46	15/2 ⁽⁻⁾	E2		0.00456 7	$\alpha=0.00456$ 7; $\alpha(\text{K})=0.00389$ 6; $\alpha(\text{L})=0.000534$ 8; $\alpha(\text{M})=0.0001087$ 16; $\alpha(\text{N}+..)=2.51\times 10^{-5}$ 4 $\alpha(\text{N})=2.23\times 10^{-5}$ 4; $\alpha(\text{O})=2.72\times 10^{-6}$ 4 $A_2=+0.34$ 3, $A_4=+0.07$ 5 (1979He15).
1473.7		580.3 3		893.37	13/2 ⁽⁻⁾				
		587.1 ^c 3		886.87	9/2,11/2 ⁽⁻⁾				
1477.30		736.0 ^b 3		741.32	7/2 ⁽⁺⁾				
		993.6 3		483.60	7/2 ⁽⁺⁾				
		1142.1 3		335.26	5/2 ⁽⁺⁾				
1480.56	13/2 ⁽⁺⁾	450.5 3	6 1	1030.15	11/2 ⁽⁺⁾				
		643.3 3	100 10	837.21	9/2 ⁽⁺⁾	E2		0.00458 7	$\alpha=0.00458$ 7; $\alpha(\text{K})=0.00391$ 6; $\alpha(\text{L})=0.000537$ 8; $\alpha(\text{M})=0.0001093$ 16; $\alpha(\text{N}+..)=2.52\times 10^{-5}$ 4 $\alpha(\text{N})=2.25\times 10^{-5}$ 4; $\alpha(\text{O})=2.73\times 10^{-6}$ 4 $A_2>0$ (1979He15).
		684.2 3	18 2	796.46	15/2 ⁽⁻⁾				
		1170.2 3	31 3	310.38	11/2 ⁽⁻⁾				
1489.81	3/2 ⁽⁺⁾ ,5/2,7/2	896.0 3		594.00	5/2,7/2 ⁽⁺⁾				
		1006.2 3		483.60	7/2 ⁽⁺⁾				
		1018.8 3		471.05	3/2 ⁽⁺⁾				
		1154.3 3		335.26	5/2 ⁽⁺⁾				
1492.49		388.7 3		1103.67	(9/2,11/2 ⁺)				
		473.5 3		1018.95	9/2 ⁽⁺⁾				
		546.5 ^b 3		946.14	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾				
		655.2 3		837.21	9/2 ⁽⁺⁾				
		895.9 3		596.65	9/2 ⁽⁺⁾				
1494.6		997.7 3		496.93	5/2 ⁽⁺⁾				
1510.19		673.2 3		837.21	9/2 ⁽⁺⁾				
		913.4 3		596.65	9/2 ⁽⁺⁾				

¹²²Te(α,γ), ¹²³Te($\alpha,2n\gamma$) **1995Wi06,1979He15** (continued)

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta^\&$	α^a	Comments
1510.19		915.9 3 1026.8 3		594.00 483.60	5/2,7/2 ⁽⁺⁾ 7/2 ⁽⁺⁾				
1536.05	15/2 ⁽⁺⁾	326.3 3 505.8 3 665.6 3	2 1 2 1 100 10	1209.79 1030.15 870.49	13/2 ⁽⁺⁾ 11/2 ⁽⁺⁾ 11/2 ⁽⁺⁾	D+Q E2		0.00421 6	$\alpha=0.00421$ 6; $\alpha(K)=0.00359$ 5; $\alpha(L)=0.000490$ 7; $\alpha(M)=9.97\times 10^{-5}$ 14; $\alpha(N+..)=2.30\times 10^{-5}$ 4 $\alpha(N)=2.05\times 10^{-5}$ 3; $\alpha(O)=2.50\times 10^{-6}$ 4 Mult.: RUL excludes M2. $A_2>0$ (1979He15). DCO-intensities (1995Wi06).
1537.84	7/2 ⁽⁺⁾	700.6 3 1202.6 3		837.21 335.26	9/2 ⁽⁺⁾ 5/2 ⁽⁺⁾	M1+E2	-0.6 +3-5	0.00133 9	$\alpha=0.00133$ 9; $\alpha(K)=0.00115$ 8; $\alpha(L)=0.000142$ 9; $\alpha(M)=2.86\times 10^{-5}$ 18; $\alpha(N+..)=1.31\times 10^{-5}$ 4 $\alpha(N)=5.9\times 10^{-6}$ 4; $\alpha(O)=7.5\times 10^{-7}$ 5; $\alpha(IPF)=6.46\times 10^{-6}$ 17 $A_2=-0.36$ 3, $A_4=+0.05$ 4, pol.=+0.05 4 (1995Wi06).
1573.26	(13/2)	232.0 3 263.4 3 327.9 3 653.6 3 686.5 3	11 2 20 3 24 3 56 20 100 10	1341.10 1310.01 1245.31 919.73 886.87	(9/2 ⁻ ,11/2,13/2 ⁻) 15/2 ⁽⁻⁾ (9/2 ⁻ ,11/2,13/2 ⁻) 11/2 9/2,11/2 ⁽⁻⁾				
1578.51	5/2 ⁽⁺⁾ ,7/2 ⁽⁺⁾	836.3 ^{bc} 3 870.2 3		736.71 708.31	13/2 ⁽⁻⁾ 3/2 ⁽⁺⁾ ,5/2 ⁽⁺⁾	D+Q M1+E2	+0.6 +3-4 +14 +33-11	0.00221 8	$A_2=+0.40$ 3, $A_4=-0.11$ 4 (1995Wi06). $\alpha=0.00221$ 8; $\alpha(K)=0.00190$ 7; $\alpha(L)=0.000248$ 8; $\alpha(M)=5.04\times 10^{-5}$ 15; $\alpha(N+..)=1.17\times 10^{-5}$ 4 $\alpha(N)=1.04\times 10^{-5}$ 4; $\alpha(O)=1.28\times 10^{-6}$ 5 Mult.: D+Q with large δ . $A_2=+0.27$ 5, $A_4=+0.01$ 8, pol.=+0.07 11 (1995Wi06).
1579.75	17/2 ⁽⁻⁾	984.5 3 269.8 3 686.4 3	5 1 100 10	594.00 1310.01 893.37	5/2,7/2 ⁽⁺⁾ 15/2 ⁽⁻⁾ 13/2 ⁽⁻⁾	(E2)		0.00389 6	$\alpha=0.00389$ 6; $\alpha(K)=0.00333$ 5; $\alpha(L)=0.000451$ 7; $\alpha(M)=9.18\times 10^{-5}$ 13; $\alpha(N+..)=2.12\times 10^{-5}$ 3 $\alpha(N)=1.89\times 10^{-5}$ 3; $\alpha(O)=2.31\times 10^{-6}$ 4 Mult.: From adopted gammas. $A_2=+0.16$ 3, $A_4=+0.15$ 6 (1979He15). DCO-intensities (1995Wi06). pol.=-0.02 3, DCO-intensities (1995Wi06).
		783.4 3	26 3	796.46	15/2 ⁽⁻⁾	(D+Q)			

¹²²Te(α,nγ), ¹²³Te(α,2nγ) 1995Wi06,1979He15 (continued)

γ(¹²⁵Xe) (continued)

E _i (level)	J _i ^π	E _γ [†]	I _γ [#]	E _f	J _f ^π	Mult. [@]	δ ^{&}	α ^a	Comments
1580.05		1040.0 3 1109.0 3		540.03 3/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾					
1585.38	(15/2)	560.9 ^b 3 665.9 3 691.9 3 789.0 3 848.5 3	31 8 52 11 62 13 100 21	1024.31 (11/2 ⁻) 919.73 11/2 893.37 13/2 ⁽⁻⁾ 796.46 15/2 ⁽⁻⁾ 736.71 13/2 ⁽⁻⁾					A ₂ =-0.12 3, A ₄ =-0.04 5 (1995Wi06). A ₂ =+0.30 5, A ₄ =-0.03 4 (1995Wi06).
1599.97	(11/2)	569.6 3 630.9 3 763.0 3	100 22	1030.15 11/2 ⁽⁺⁾ 969.06 7/2 ⁽⁺⁾ 837.21 9/2 ⁽⁺⁾					
1601.80		836.3 ^b 3 839.4 3		765.64 3/2,5/2 ⁽⁺⁾ 762.25 (5/2 ⁻)					
1603.8		1492.0 3		111.78 3/2 ⁽⁺⁾					
1605.98	5/2 ⁽⁺⁾ ,7/2,9/2 ⁽⁺⁾	673.3 3 1009.2 3 1122.3 3 1270.9 3		932.67 3/2 ⁽⁺⁾ ,5/2,7/2 ⁽⁺⁾ 596.65 9/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾					
1617.44		851.8 3 855.3 3 1023.5 3 1146.2 3		765.64 3/2,5/2 ⁽⁺⁾ 762.25 (5/2 ⁻) 594.00 5/2,7/2 ⁽⁺⁾ 471.05 3/2 ⁽⁺⁾					
1624.88		735.7 3 883.6 3 916.3 3 1141.4 3		889.27 7/2 ⁽⁺⁾ 741.32 7/2 ⁽⁺⁾ 708.31 3/2 ⁽⁺⁾ ,5/2 ⁽⁺⁾ 483.60 7/2 ⁽⁺⁾					
1627.96	7/2 ⁽⁺⁾	300.9 ^b 3 1131.1 3 1292.8 3		1326.9 496.93 5/2 ⁽⁺⁾ 335.26 5/2 ⁽⁺⁾		M1+E2	-0.24 +17-53	0.00120 9	α=0.00120 9; α(K)=0.00103 8; α(L)=0.000126 9; α(M)=2.55×10 ⁻⁵ 17; α(N+..)=2.55×10 ⁻⁵ 4 α(N)=5.3×10 ⁻⁶ 4; α(O)=6.7×10 ⁻⁷ 5; α(IPF)=1.95×10 ⁻⁵ 5 A ₂ =-0.44 7, A ₄ =-0.09 12, pol.=-0.17 12 (1995Wi06).
1640.04	11/2 ⁽⁻⁾ ,13/2 ⁽⁺⁾	324.2 3 392.5 ^b 3 430.1 ^b 3 621.1 3 746.6 3		1315.68 (11/2 ⁺) 1247.58 11/2 1209.79 13/2 ⁽⁺⁾ 1018.95 9/2 ⁽⁺⁾ 893.37 13/2 ⁽⁻⁾					

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
1640.04	$11/2^{(-)}, 13/2^{(+)}$	769.7 3		870.49	$11/2^{(+)}$				
		843.6 3		796.46	$15/2^{(-)}$				
		1043.5 3		596.65	$9/2^{(+)}$				
1647.66		1121.4 3		526.33	$1/2^{(+)}, 3/2^{(+)}$				
		1312.3 3		335.26	$5/2^{(+)}$				
1648.8		1151.9 ^b 3		496.93	$5/2^{(+)}$				
1659.54	$15/2$	635.2 3	42 5	1024.31	$(11/2^-)$	(E2)		0.00474 7	$\alpha=0.00474$ 7; $\alpha(K)=0.00404$ 6; $\alpha(L)=0.000556$ 8; $\alpha(M)=0.0001132$ 16; $\alpha(N+..)=2.61\times 10^{-5}$ 4 $\alpha(N)=2.33\times 10^{-5}$ 4; $\alpha(O)=2.83\times 10^{-6}$ 4 $A_2=+0.20$ 3, $A_4=-0.05$ 4 (1995Wi06).
		739.7 3	100 10	919.73	$11/2$	E2		0.00324 5	$\alpha=0.00324$ 5; $\alpha(K)=0.00278$ 4; $\alpha(L)=0.000371$ 6; $\alpha(M)=7.55\times 10^{-5}$ 11; $\alpha(N+..)=1.744\times 10^{-5}$ 25 $\alpha(N)=1.553\times 10^{-5}$ 22; $\alpha(O)=1.90\times 10^{-6}$ 3 $A_2=+0.23$ 4, $A_4=-0.02$ 7, pol.=+0.46 14 (1995Wi06).
		766.0 3	48 6	893.37	$13/2^{(-)}$				
		863.3 3	10 10	796.46	$15/2^{(-)}$				
		922.8 3	50 6	736.71	$13/2^{(-)}$	(M1+E2)	-0.19 +2-27	0.00255 10	$\alpha=0.00255$ 10; $\alpha(K)=0.00221$ 9; $\alpha(L)=0.000274$ 10; $\alpha(M)=5.53\times 10^{-5}$ 19; $\alpha(N+..)=1.29\times 10^{-5}$ 5 $\alpha(N)=1.15\times 10^{-5}$ 4; $\alpha(O)=1.44\times 10^{-6}$ 6 $A_2=-0.66$ 5, $A_4=-0.09$ 7 (1995Wi06).
1668.60	$3/2^{(+)}, 5/2, 7/2^{(+)}$	1184.8 3		483.60	$7/2^{(+)}$				
		1557.0 3		111.78	$3/2^{(+)}$				
1678.75	$7/2^{(+)}, 9/2, 11/2^{(+)}$	537.5 3		1141.04	$3/2^{(+)}, 5/2, 7/2^{(+)}$				
		648.5 3		1030.15	$11/2^{(+)}$				
		841.3 3		837.21	$9/2^{(+)}$				
		1082.4 3		596.65	$9/2^{(+)}$				
1684.38		1195.4 3		483.60	$7/2^{(+)}$				
		922.0 3		762.25	$(5/2^-)$				
1687.81		1076.8 3		607.70	$7/2^{(-)}$				
		372.0 3		1315.68	$(11/2^+)$				
1688.29		669.0 3		1018.95	$9/2^{(+)}$				
		817.3 3		870.49	$11/2^{(+)}$				
		440.5 ^c 3		1247.58	$11/2$				
		922.4 3		765.64	$3/2, 5/2^{(+)}$				
		926.1 3		762.25	$(5/2^-)$				
		1080.5 3		607.70	$7/2^{(-)}$				

¹²²Te(α,nγ), ¹²³Te(α,2nγ) **1995Wi06,1979He15** (continued)

γ(¹²⁵Xe) (continued)

E _i (level)	J ^π _i	E _γ [†]	I _γ [#]	E _f	J ^π _f	Mult. [@]	α ^a	Comments
1688.29		1353.3 3		335.26	5/2 ⁽⁺⁾			
1690.38	5/2 ⁽⁺⁾ , 7/2 ⁽⁺⁾	979.4 3		711.13	3/2 ⁽⁺⁾			
		982.2 3		708.31	3/2 ⁽⁺⁾ , 5/2 ⁽⁺⁾			
		1093.7 3		596.65	9/2 ⁽⁺⁾			
		1096.1 ^b 3		594.00	5/2, 7/2 ⁽⁺⁾			
1713.9		794.2 3		919.73	11/2			
		827.0 3		886.87	9/2, 11/2 ⁽⁻⁾			
1716.44		796.8 3		919.73	11/2			
		822.8 3		893.37	13/2 ⁽⁻⁾			
		979.9 3		736.71	13/2 ⁽⁻⁾			
1718.50	15/2	688.4 3		1030.15	11/2 ⁽⁺⁾	Q		A ₂ =+0.28 8, A ₄ =-0.22 12 (1979He15).
1723.49		961.2 3		762.25	(5/2 ⁻)			
		1115.8 3		607.70	7/2 ⁽⁻⁾			
		1239.9 3		483.60	7/2 ⁽⁺⁾			
1739.51		635.6 3	90 10	1103.67	(9/2, 11/2 ⁺)			
		709.6 3	100 20	1030.15	11/2 ⁽⁺⁾			
1752.78	7/2, 9/2, 11/2 ⁽⁺⁾	722.7 3		1030.15	11/2 ⁽⁺⁾			
		1269.1 3		483.60	7/2 ⁽⁺⁾			
1759.82		872.9 3		886.87	9/2, 11/2 ⁽⁻⁾			
		922.6 3		837.21	9/2 ⁽⁺⁾			
		1151.9 ^b 3		607.70	7/2 ⁽⁻⁾			
		1276.5 3		483.60	7/2 ⁽⁺⁾			
1804.61		1196.9 3		607.70	7/2 ⁽⁻⁾			
		1210.6 3		594.00	5/2, 7/2 ⁽⁺⁾			
		1321.0 3		483.60	7/2 ⁽⁺⁾			
1808.6		615.6 3		1193.02	7/2 ⁽⁺⁾ , 9/2 ⁽⁺⁾			
1825.85		936.5 3		889.27	7/2 ⁽⁺⁾			
		1084.6 3		741.32	7/2 ⁽⁺⁾			
1826.12	(15/2)	438.5 3	36 4	1387.79	17/2			
		1029.4 3	41 5	796.46	15/2 ⁽⁻⁾			
		1089.5 3	100 11	736.71	13/2 ⁽⁻⁾			A ₂ =-0.14 3, A ₄ =+0.13 5 (1995Wi06).
1832.74	(9/2 ⁻ , 11/2, 13/2 ⁺)	1096.1 ^b 3		736.71	13/2 ⁽⁻⁾			
		1236.0 3		596.65	9/2 ⁽⁺⁾			
1858.96	17/2 ⁽⁻⁾	279.2 3	7 1	1579.75	17/2 ⁽⁻⁾			
		548.9 3	100 10	1310.01	15/2 ⁽⁻⁾	M1+E2	0.0079 10	α=0.0079 10; α(K)=0.0068 9; α(L)=0.00090 7; α(M)=0.000183 13; α(N+..)=4.2×10 ⁻⁵ 4 α(N)=3.8×10 ⁻⁵ 3; α(O)=4.7×10 ⁻⁶ 5 A ₂ =-0.57 6, A ₄ =+0.05 11 (1979He15).
		965.8 3	19 2	893.37	13/2 ⁽⁻⁾	Q		
1864.92		968.9 3		895.99	5/2 ⁽⁻⁾			

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	$\delta\&$	α^a	Comments
1864.92		1324.9 3		540.03	3/2 ⁽⁺⁾				
1882.89	(15/2)	309.8 ^c 3	29 4	1573.26	(13/2)				
		495.1 3	100 11	1387.79	17/2				
		541.7 3	78 9	1341.10	(9/2 ⁻ , 11/2, 13/2 ⁻)				
1905.57		1146.4 3	70 9	736.71	13/2 ⁽⁻⁾				$A_2=-0.66$ 9, $A_4=-0.06$ 5 (1995Wi06).
		985.8 3	100 12	919.73	11/2				
		1012.3 3		893.37	13/2 ⁽⁻⁾				
		1168.8 3	35 6	736.71	13/2 ⁽⁻⁾				
1925.27	17/2 ⁽⁺⁾	715.3 ^b 3	100	1209.79	13/2 ⁽⁺⁾	E2		0.00352 5	$\alpha=0.00352$ 5; $\alpha(\text{K})=0.00301$ 5; $\alpha(\text{L})=0.000405$ 6; $\alpha(\text{M})=8.23\times 10^{-5}$ 12; $\alpha(\text{N}+..)=1.90\times 10^{-5}$ 3 $\alpha(\text{N})=1.694\times 10^{-5}$ 24; $\alpha(\text{O})=2.07\times 10^{-6}$ 3 Mult.: From adopted gammas. $A_2=+0.26$ 4, $A_4=-0.13$ 7 (1979He15).
1934.5		1172.2 3		762.25	(5/2 ⁻)				
1975.61	(15/2)	439.4 ^c 3		1536.05	15/2 ⁽⁺⁾				
		659.9 3	48 7	1315.68	(11/2 ⁺)				
		728.1 3	100 10	1247.58	11/2				
		728.8 3	100 11	1246.7					
		765.9 3	20 3	1209.79	13/2 ⁽⁺⁾				
		1239.2 ^c 3		736.71	13/2 ⁽⁻⁾				$A_2=-0.13$ 4, $A_4=+0.02$ 6 (1995Wi06).
2004.44	(15/2, 17/2)	419.0 3	29 4	1585.38	(15/2)				
		563.5 3	100 11	1440.94	19/2 ⁽⁻⁾				$A_2=+0.39$ 2, $A_4=-0.41$ 3 (1995Wi06).
		609.2 3	86 10	1395.45	11/2 ⁽⁻⁾ , 13/2, 15/2				
		1207.8 3	17 3	796.46	15/2 ⁽⁻⁾				
2006.30	19/2 ⁽⁻⁾	426.4 ^c 3		1579.75	17/2 ⁽⁻⁾				
		565.4 3	17 2	1440.94	19/2 ⁽⁻⁾				
		618.5 3	59 6	1387.79	17/2	M1+E2	-0.9 3	0.0059 3	$\alpha=0.0059$ 3; $\alpha(\text{K})=0.0051$ 3; $\alpha(\text{L})=0.000664$ 24; $\alpha(\text{M})=0.000135$ 5; $\alpha(\text{N}+..)=3.13\times 10^{-5}$ 12 $\alpha(\text{N})=2.78\times 10^{-5}$ 10; $\alpha(\text{O})=3.45\times 10^{-6}$ 15 $A_2=+0.16$ 2, $A_4=+0.04$ 3, pol. $=-0.17$ 44, DCO-intensities (1995Wi06).
		696.3 3	100 10	1310.01	15/2 ⁽⁻⁾				
		1209.9 3		796.46	15/2 ⁽⁻⁾				
2030.91	(9/2 ⁺ , 11/2, 13/2 ⁺)	715.3 ^b 3		1315.68	(11/2 ⁺)				
		821.1 3		1209.79	13/2 ⁽⁺⁾				
		1434.2 3		596.65	9/2 ⁽⁺⁾				
2035.5		1142.1 3		893.37	13/2 ⁽⁻⁾				
		1298.9 3		736.71	13/2 ⁽⁻⁾				
2046.4	9/2 ⁽⁺⁾	1562.8 3		483.60	7/2 ⁽⁺⁾	M1+E2	-5.7 +24-33	0.000756 13	$\alpha=0.000756$ 13; $\alpha(\text{K})=0.000567$ 11;

$\gamma(^{125}\text{Xe})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}[#]</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.[@]</u>	<u>δ^{&}</u>	<u>α^a</u>	<u>Comments</u>
									$\alpha(\text{L})=6.98\times 10^{-5}$ 13; $\alpha(\text{M})=1.41\times 10^{-5}$ 3; $\alpha(\text{N}+..)=0.0001054$ $\alpha(\text{N})=2.91\times 10^{-6}$ 6; $\alpha(\text{O})=3.65\times 10^{-7}$ 7; $\alpha(\text{IPF})=0.0001022$ 15 Mult.: D+Q with large δ . $A_2=-0.20$ 6, $A_4=+0.14$ 9, pol.=+0.06 18 (1995Wi06).
2062.69		1032.7 3		1030.15	11/2(+)				
		1325.8 3		736.71	13/2(-)				
2081.8		834.2 3		1247.58	11/2				
		1345.2 3		736.71	13/2(-)				
2094.91		885.2 3		1209.79	13/2(+)				
		1257.6 ^b 3		837.21	9/2(+)				
2096.7		1360.0 3		736.71	13/2(-)				
2144.4		1547.7 3		596.65	9/2(+)				
2150.73	15/2(-)	577.7 3		1573.26	(13/2)				
		840.6 3		1310.01	15/2(-)				
		1257.6 ^b 3		893.37	13/2(-)	M1+E2	-7 +1-2	0.001020 15	$\alpha=0.001020$ 15; $\alpha(\text{K})=0.000869$ 13; $\alpha(\text{L})=0.0001088$ 16; $\alpha(\text{M})=2.20\times 10^{-5}$ 4; $\alpha(\text{N}+..)=1.97\times 10^{-5}$ $\alpha(\text{N})=4.54\times 10^{-6}$ 7; $\alpha(\text{O})=5.67\times 10^{-7}$ 8; $\alpha(\text{IPF})=1.461\times 10^{-5}$ 21 Mult.: D+Q with large δ . $A_2=+0.40$ 11, $A_4=-0.59$ 18 (1995Wi06).
		1354.0 3		796.46	15/2(-)				
		1413.9 3		736.71	13/2(-)				
2166.5		1246.8 3		919.73	11/2				
2166.55	21/2	725.4 3	64 6	1440.94	19/2(-)	D+Q	-0.6 1		$A_2=-0.29$ 1, $A_4=+0.09$ 2, DCO-intensities (1995Wi06).
		778.9 ^b 3	100 10	1387.79	17/2	Q			DCO-intensities (1995Wi06).
2174.6		291.8 3		1882.89	(15/2)				
		601.2 3		1573.26	(13/2)				
2174.7		1438.0 3		736.71	13/2(-)				
2193.8		1163.6 3		1030.15	11/2(+)				
2215.3	23/2(-)	774.4 3		1440.94	19/2(-)	E2		0.00290 4	$\alpha=0.00290$ 4; $\alpha(\text{K})=0.00249$ 4; $\alpha(\text{L})=0.000331$ 5; $\alpha(\text{M})=6.71\times 10^{-5}$ 10; $\alpha(\text{N}+..)=1.552\times 10^{-5}$ 22 $\alpha(\text{N})=1.382\times 10^{-5}$ 20; $\alpha(\text{O})=1.698\times 10^{-6}$ 24 Mult.: From adopted gammas. $A_2=+0.28$ 9, $A_4=+0.09$ 15 (1979He15).
2226.49	13/2	1196.1 3		1030.15	11/2(+)				
		1490.0 3		736.71	13/2(-)	D+Q	+0.9 +2-3		$A_2=+0.42$ 8, $A_4=-0.33$ 11, pol.=+0.10 15 (1995Wi06).
2226.7		785.8 3		1440.94	19/2(-)				
2237.7	17/2	757.3 3	100 11	1480.56	13/2(+)	(Q)			
		1441.0 3	44 6	796.46	15/2(-)	(D)			
2254.84		669.4 3		1585.38	(15/2)				

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	δ &	α^a	Comments
2254.84		675.2 3 867.0 3		1579.75 1387.79	17/2 ⁽⁻⁾ 17/2				
2272.0	19/2 ⁽⁺⁾	736.0 ^b 3		1536.05	15/2 ⁽⁺⁾	E2		0.00328 5	$\alpha=0.00328$ 5; $\alpha(\text{K})=0.00281$ 4; $\alpha(\text{L})=0.000376$ 6; $\alpha(\text{M})=7.64\times 10^{-5}$ 11; $\alpha(\text{N}+..)=1.766\times 10^{-5}$ 25 $\alpha(\text{N})=1.574\times 10^{-5}$ 22; $\alpha(\text{O})=1.93\times 10^{-6}$ 3 Mult.: From adopted gammas. $A_2=+0.28$ 5, $A_4=-0.19$ 8 (1979He15).
2301.4		1408.0 3		893.37	13/2 ⁽⁻⁾				
2315.09		218.4 3 779.0 3 1005.0 3 1518.7 3 1578.4 3		2096.7 1536.05 1310.01 796.46 736.71	15/2 ⁽⁺⁾ 15/2 ⁽⁻⁾ 15/2 ⁽⁻⁾ 13/2 ⁽⁻⁾				
2317.6		717.6 3	100 10	1599.97	(11/2)				
2349.3		490.3 3 763.9 3		1858.96 1585.38	17/2 ⁽⁻⁾ (15/2)				
2384.2		2048.9 3		335.26	5/2 ⁽⁺⁾				
2384.63	21/2 ⁽⁻⁾	378.2 3 805.0 ^b 3	7 1 100 10	2006.30 1579.75	19/2 ⁽⁻⁾ 17/2 ⁽⁻⁾	(E2)		0.00265 4	$\alpha=0.00265$ 4; $\alpha(\text{K})=0.00227$ 4; $\alpha(\text{L})=0.000300$ 5; $\alpha(\text{M})=6.09\times 10^{-5}$ 9; $\alpha(\text{N}+..)=1.409\times 10^{-5}$ 20 $\alpha(\text{N})=1.255\times 10^{-5}$ 18; $\alpha(\text{O})=1.543\times 10^{-6}$ 22 DCO-intensities and relevant levels (1995Wi06).
		943.7 3	15 2	1440.94	19/2 ⁽⁻⁾	M1+E2	-5.2	0.00186 3	$\alpha=0.00186$ 3; $\alpha(\text{K})=0.001605$ 23; $\alpha(\text{L})=0.000207$ 3; $\alpha(\text{M})=4.19\times 10^{-5}$ 6; $\alpha(\text{N}+..)=9.71\times 10^{-6}$ 14 $\alpha(\text{N})=8.64\times 10^{-6}$ 23; $\alpha(\text{O})=1.070\times 10^{-6}$ 15 Mult.: D+Q with large δ . δ : Uncertainty exceeds DMR columns. Authors give +24-260. $A_2=-0.25$ 6, $A_4=+0.13$ 10, DCO-intensities (1995Wi06).
2414.7		555.9 3 1618.1 3		1858.96 796.46	17/2 ⁽⁻⁾ 15/2 ⁽⁻⁾				
2423.71	19/2 ⁽⁺⁾	705.1 3 887.6 3 982.9 3 1035.9 3		1718.50 1536.05 1440.94 1387.79	15/2 15/2 ⁽⁺⁾ 19/2 ⁽⁻⁾ 17/2	D			DCO-intensities (1995Wi06).
2447.4?		707.9 ^c 3		1739.51					γ energy is not reported in authors' Table 2, but the transition is indicated in the figure of the level scheme. Energy is calculated from the difference of the level energy by evaluator.
2464.6		805.1 3 1076.7 3		1659.54 1387.79	15/2 17/2				

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	$I_\gamma^\#$	E_f	J_f^π	Mult. @	δ &	α^a	Comments
2484.91	(15/2 ⁻ , 17/2, 19/2 ⁻)	658.8 3 1044.1 3 1097.1 3 1688.3 3		1826.12 1440.94 1387.79 796.46	(15/2) 19/2 ⁽⁻⁾ 17/2 15/2 ⁽⁻⁾				
2508.1	15/2 ⁽⁻⁾ , 17/2, 19/2	848.4 3 1067.4 3		1659.54 1440.94	15/2 19/2 ⁽⁻⁾				
2508.6		1120.8 3		1387.79	17/2				
2550.75	19/2	625.5 3 832.3 3		1925.27 1718.50	17/2 ⁽⁺⁾ 15/2	E2		0.00245 4	$\alpha=0.00245$ 4; $\alpha(\text{K})=0.00210$ 3; $\alpha(\text{L})=0.000276$ 4; $\alpha(\text{M})=5.61\times 10^{-5}$ 8; $\alpha(\text{N}+..)=1.298\times 10^{-5}$ 19 $\alpha(\text{N})=1.155\times 10^{-5}$ 17; $\alpha(\text{O})=1.424\times 10^{-6}$ 20 Mult.: From adopted gammas. DCO-intensities (1995Wi06). DCO-intensities (1995Wi06).
2571.8		1163.0 3 1130.9 3		1387.79 1440.94	17/2 19/2 ⁽⁻⁾	D			
2604.2		1807.7 3		796.46	15/2 ⁽⁻⁾				
2616.6	(15/2, 17/2)	898.1 3		1718.50	15/2				
2652.65	19/2	646.5 3 793.7 3 1264.7 3		2006.30 1858.96 1387.79	19/2 ⁽⁻⁾ 17/2 ⁽⁻⁾ 17/2	M1+E2		0.00114 14	$\alpha=0.00114$ 14; $\alpha(\text{K})=0.00097$ 12; $\alpha(\text{L})=0.000120$ 14; $\alpha(\text{M})=2.4\times 10^{-5}$ 3; $\alpha(\text{N}+..)=2.10\times 10^{-5}$ 4 $\alpha(\text{N})=5.0\times 10^{-6}$ 6; $\alpha(\text{O})=6.3\times 10^{-7}$ 8; $\alpha(\text{IPF})=1.53\times 10^{-5}$ 6 Mult.: D+Q with large δ . δ : -2.3 +1-2 or -9 +6-7. $A_2=-0.75$ 2, $A_4=+0.30$ 3, pol.=+0.08 11 (1995Wi06). γ energy is not reported but the transition is indicated in the figure of the level scheme in 1995Wi06. Energy is calculated from the difference of the level energy by evaluator.
2664.1?		688.5 ^c 3		1975.61	(15/2)				
2671.2		356.0 3 952.8 3	73 8 100 12	2315.09 1718.50	15/2				
2704.2	21/2 ⁽⁺⁾	778.9 ^b 3		1925.27	17/2 ⁽⁺⁾	E2		0.00286 4	$\alpha=0.00286$ 4; $\alpha(\text{K})=0.00246$ 4; $\alpha(\text{L})=0.000326$ 5; $\alpha(\text{M})=6.61\times 10^{-5}$ 10; $\alpha(\text{N}+..)=1.530\times 10^{-5}$ 22 $\alpha(\text{N})=1.362\times 10^{-5}$ 20; $\alpha(\text{O})=1.674\times 10^{-6}$ 24 Mult.: From adopted gammas. DCO-intensities (1995Wi06). DCO-intensities (1995Wi06).
2811.3	(23/2)	596.1 3 805.0 ^b 3		2215.3 2006.30	23/2 ⁽⁻⁾ 19/2 ⁽⁻⁾	(D+Q)	-0.5 4		
2819.15	(17/2)	268.5 3 504.2 3 813.0 3		2550.75 2315.09 2006.30	19/2 19/2 ⁽⁻⁾				

$\gamma(^{125}\text{Xe})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	E_f	J_f^π	$E_i(\text{level})$	J_i^π	E_γ^\dagger	E_f	J_f^π
2819.15	(17/2)	893.7 3	1925.27	17/2 ⁽⁺⁾	2926.2	(19/2)	1485.2 3	1440.94	19/2 ⁽⁻⁾
		1378.0 3	1440.94	19/2 ⁽⁻⁾	2952.4	(19/2)	528.8 3	2423.71	19/2 ⁽⁺⁾
2852.5		848.1 3	2004.44	(15/2, 17/2)			680.5 3	2272.0	19/2 ⁽⁺⁾
2890.33	(21/2)	466.5 3	2423.71	19/2 ⁽⁺⁾			785.7 3	2166.55	21/2
		618.3 3	2272.0	19/2 ⁽⁺⁾	2970.2	(21/2)	732.5 3	2237.7	17/2
		675.1 3	2215.3	23/2 ⁽⁻⁾			1529.6 ^c 3	1440.94	19/2 ⁽⁻⁾
		723.9 3	2166.55	21/2	2999.5		784.2 ^b 3	2215.3	23/2 ⁽⁻⁾

[†] From [1995Wi06](#), unless otherwise noted. Uncertainties are assumed to be 0.3 keV by evaluators. See [1991Gr02](#).

[‡] From [1983Ir02](#).

Photon branching ratios. From [1995Wi06](#).

@ From angular distribution and linear polarization ([1995Wi06](#)) and collective structures are taken into account, unless otherwise noted.

& From [1995Wi06](#), unless otherwise noted.

^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 Multiply placed.

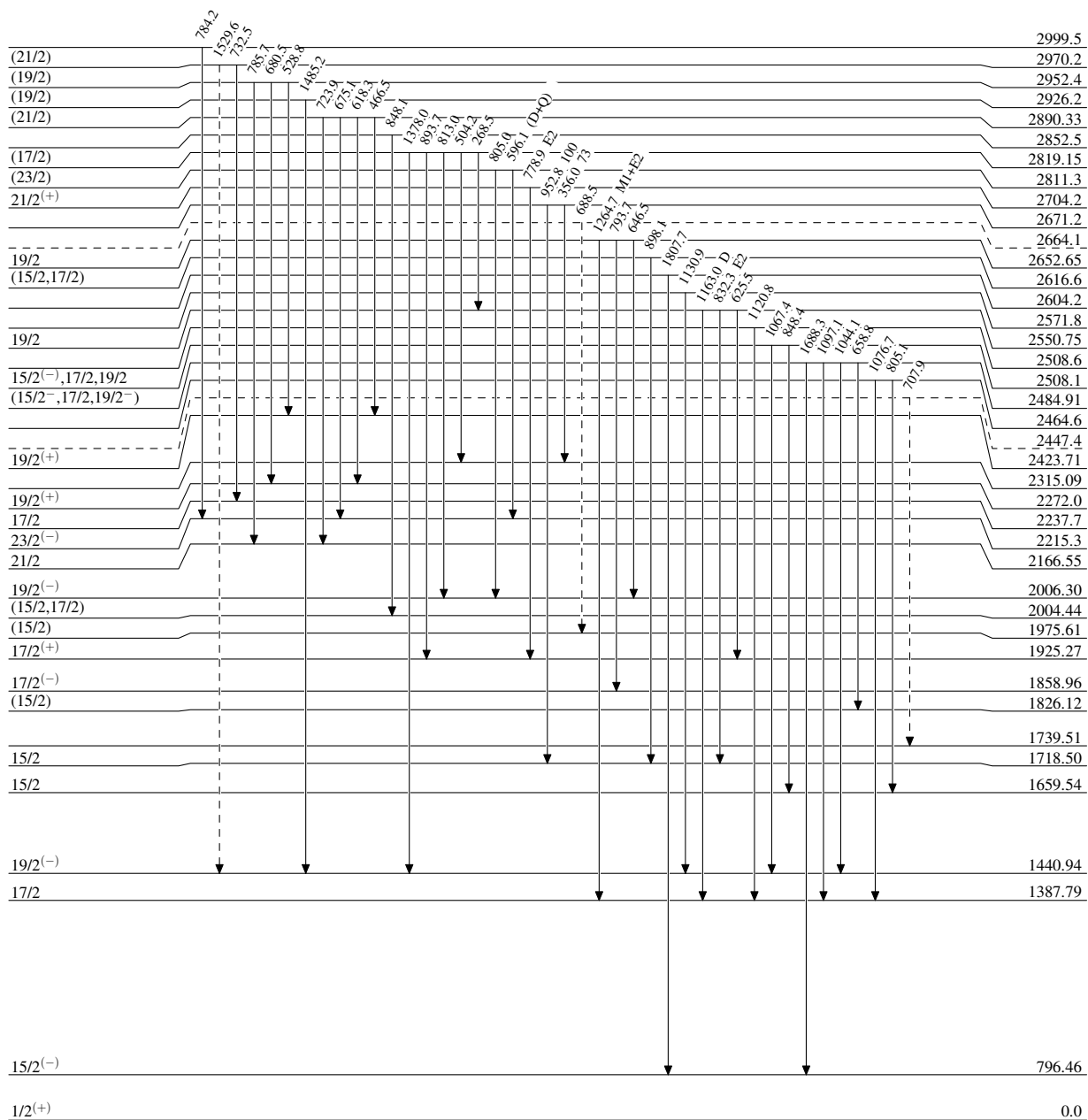
^c Placement of transition in the level scheme is uncertain.

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme

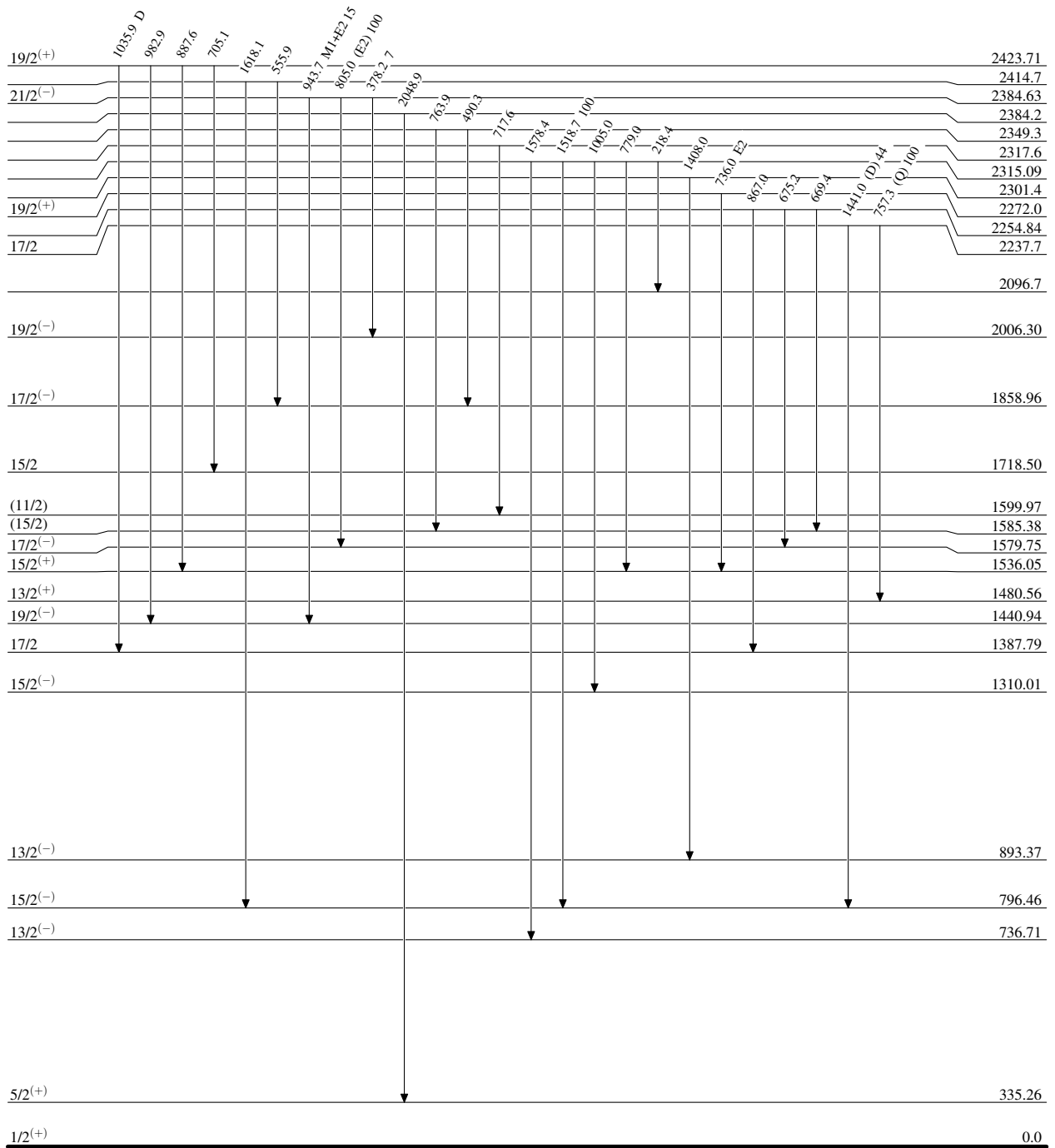
Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Level Scheme (continued)

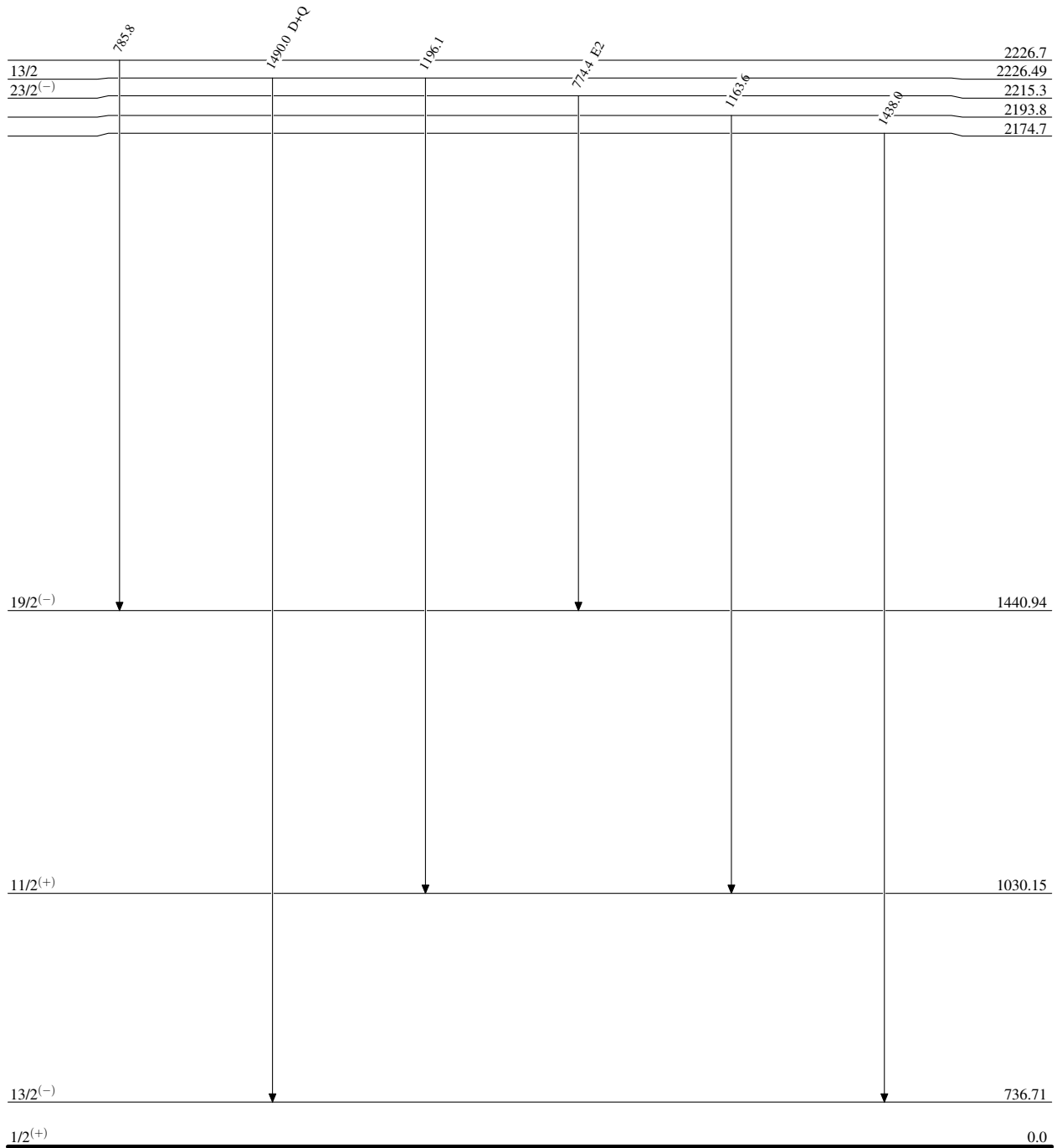
Intensities: Relative photon branching from each level



$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Level Scheme (continued)

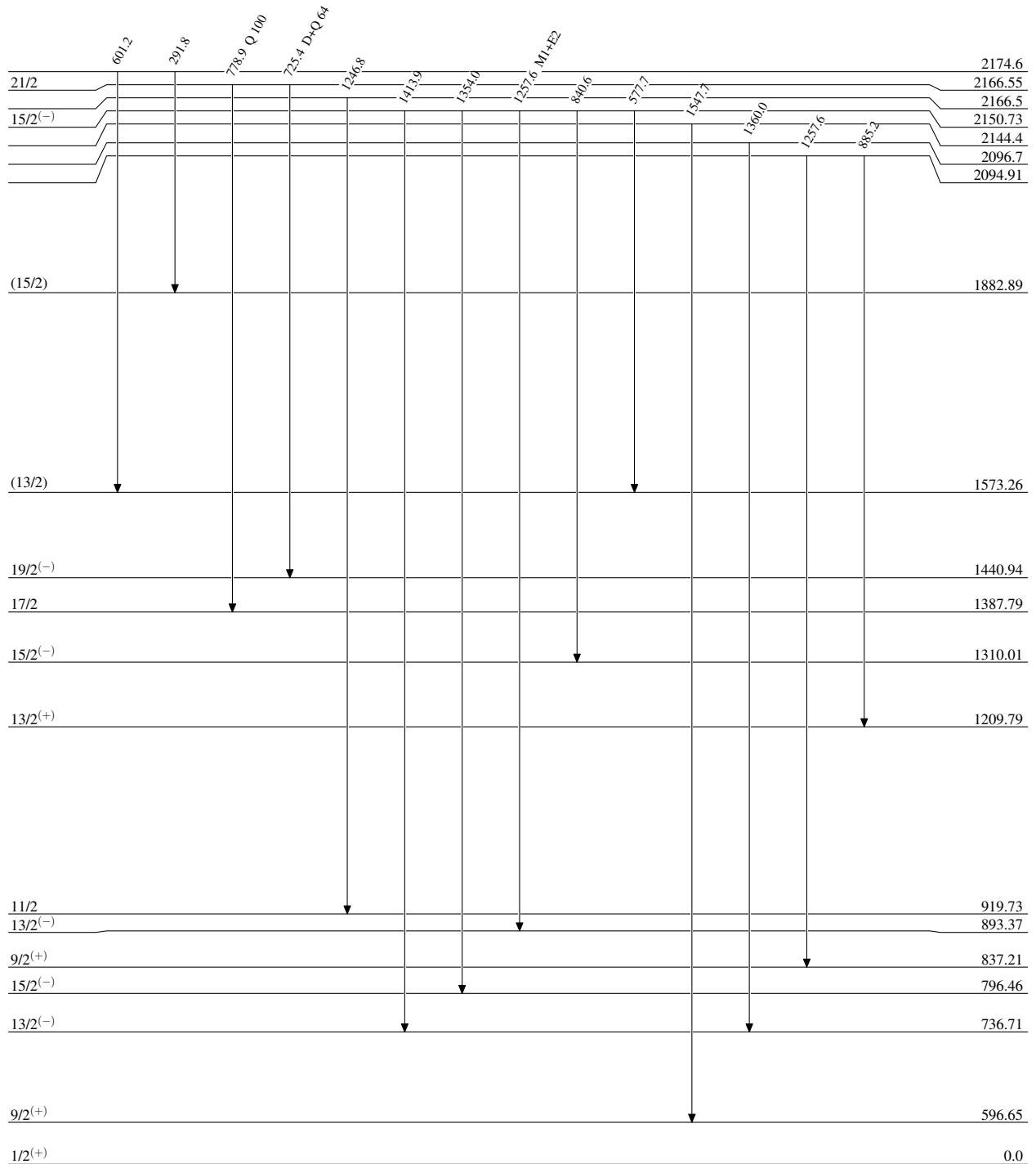
Intensities: Relative photon branching from each level

 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Level Scheme (continued)

Intensities: Relative photon branching from each level

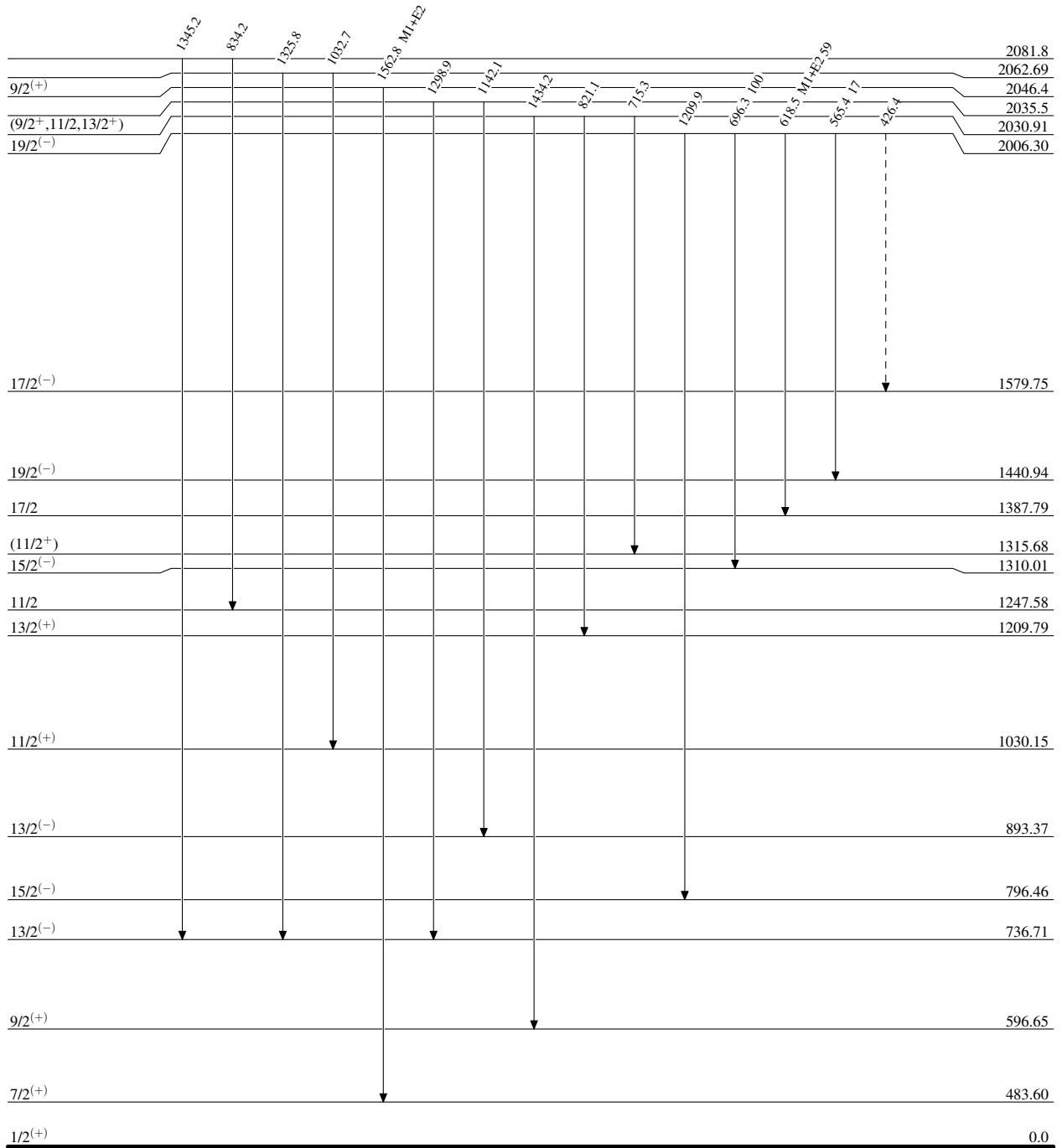
 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,\gamma), ^{123}\text{Te}(\alpha,2\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

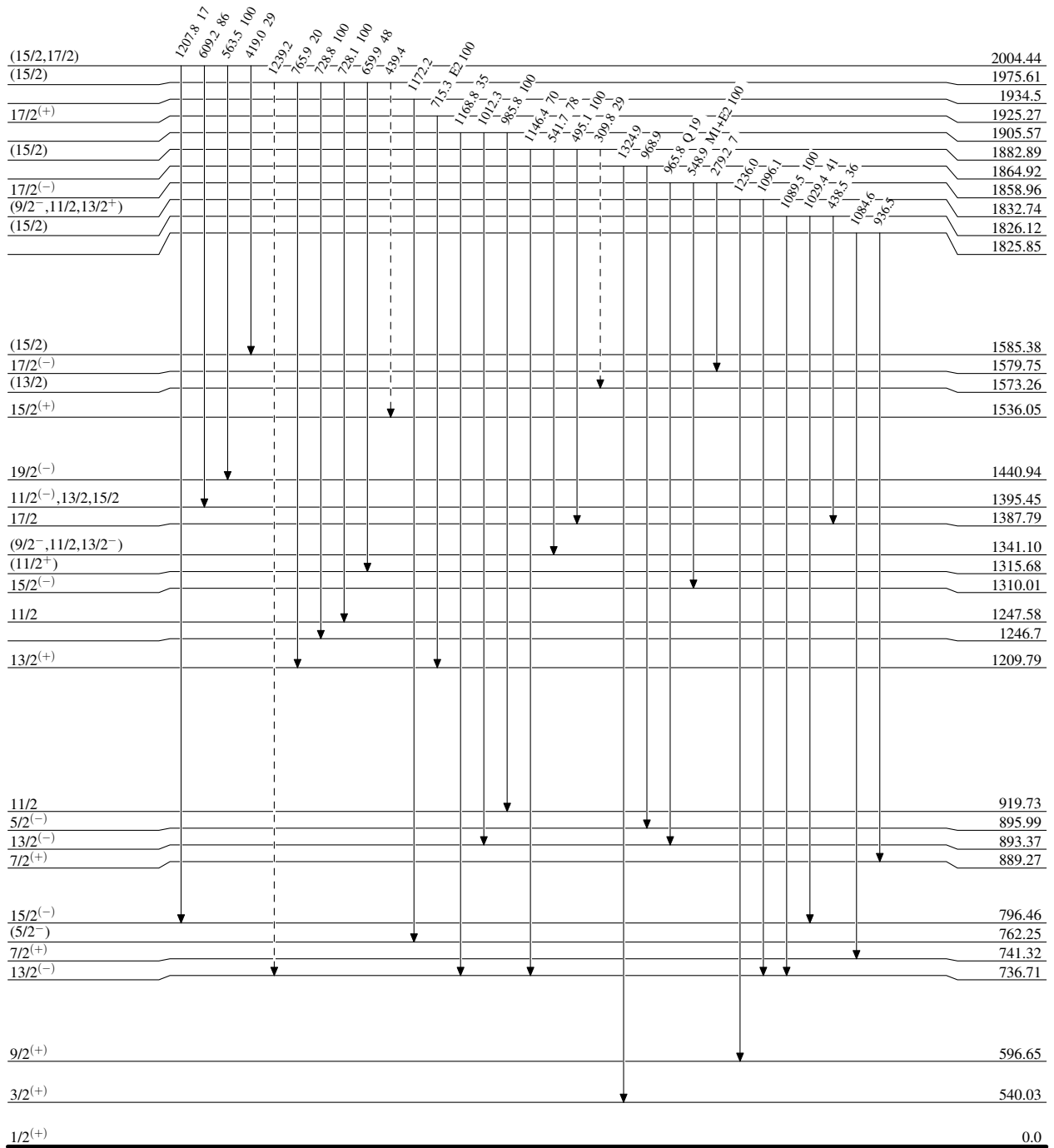
-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

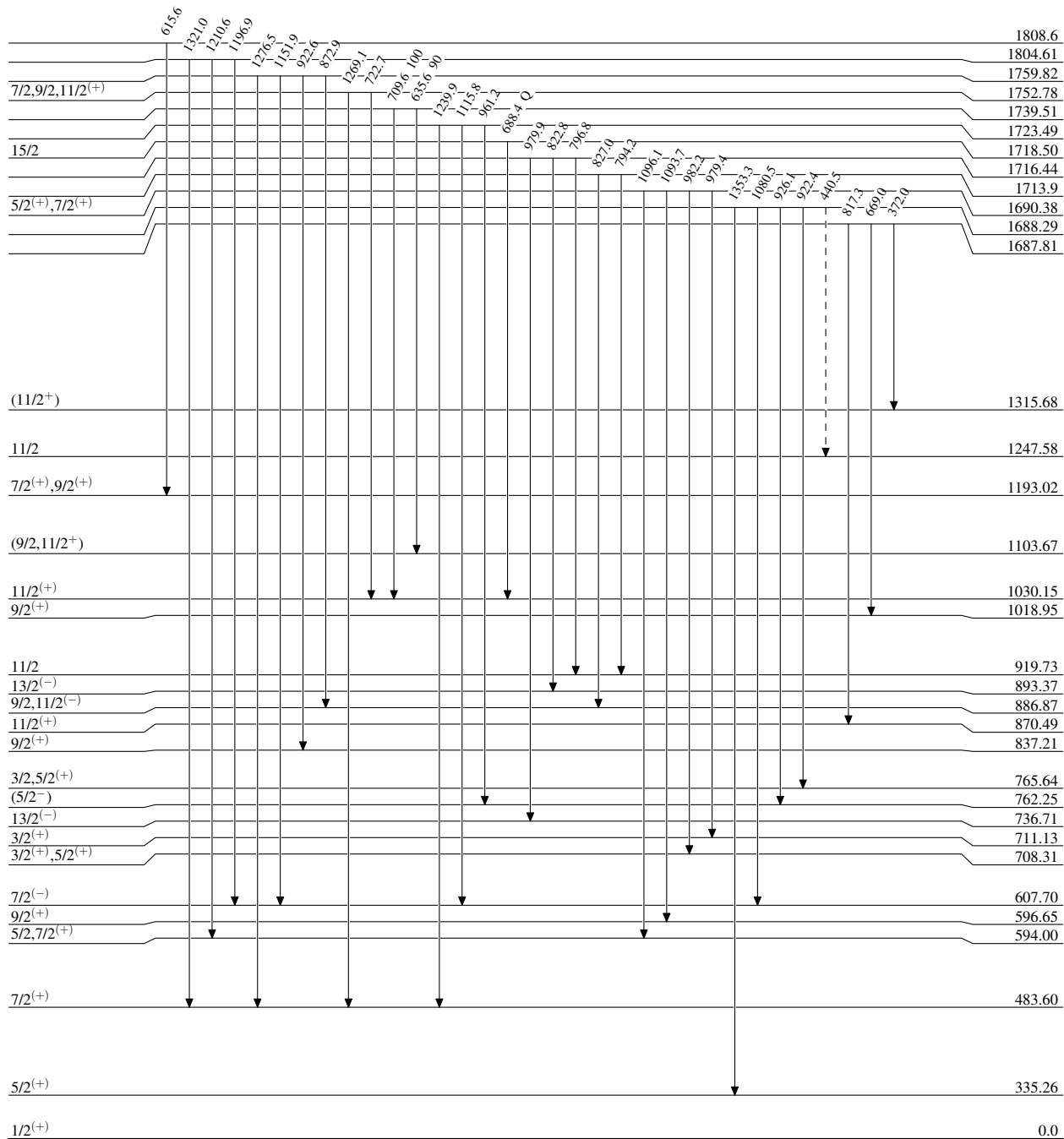
$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)

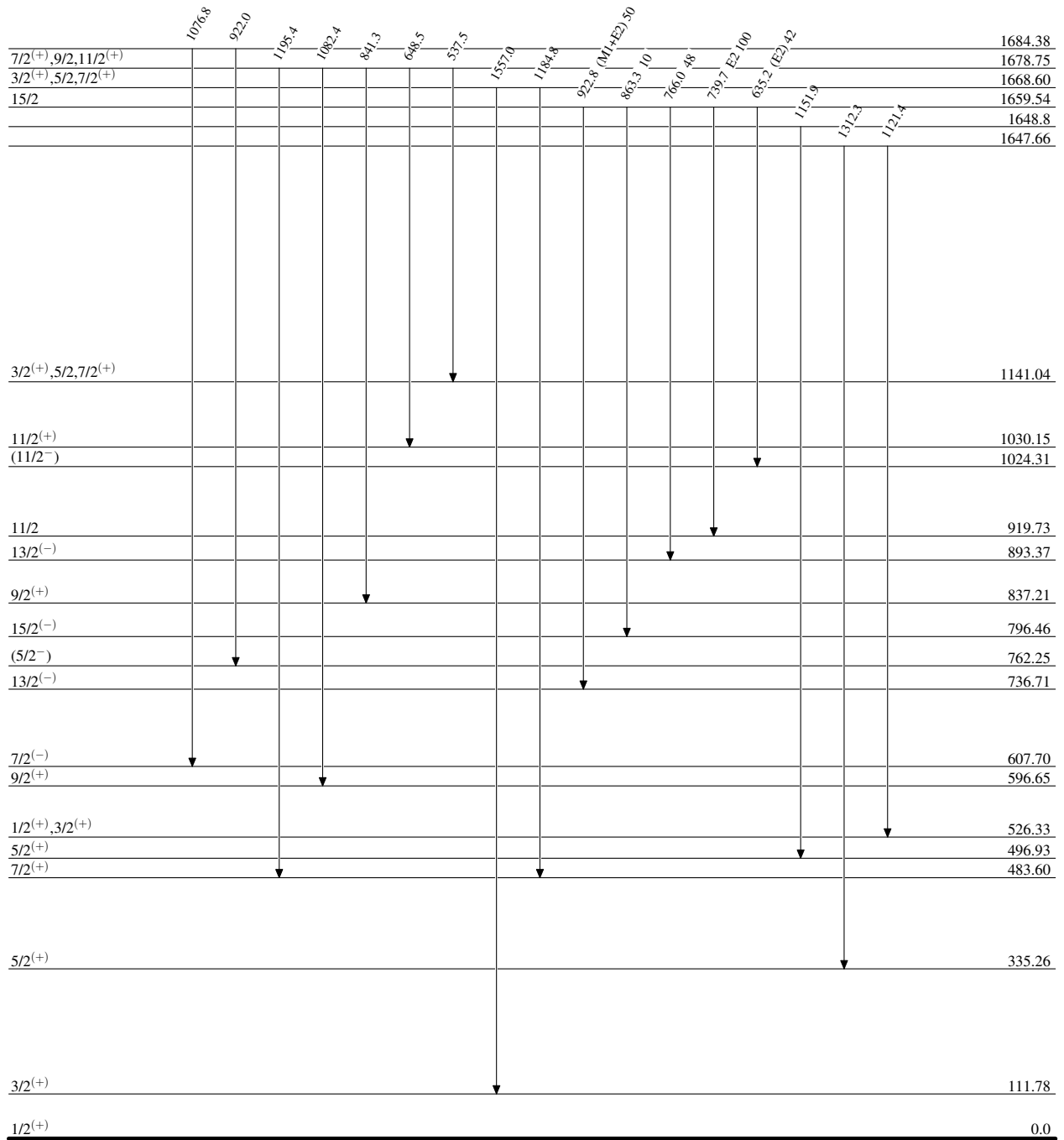


$^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Level Scheme (continued)

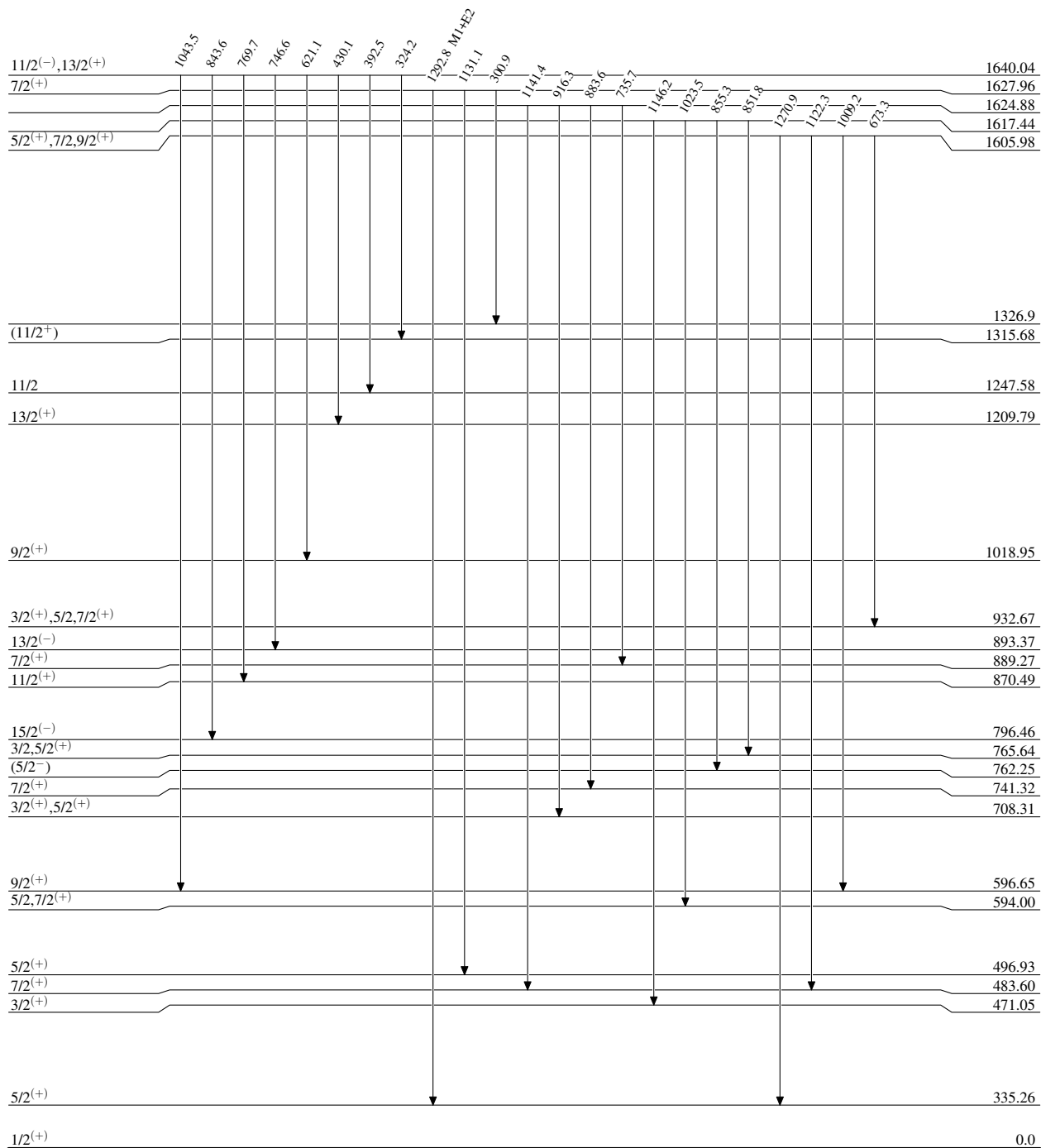
Intensities: Relative photon branching from each level

 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Level Scheme (continued)

Intensities: Relative photon branching from each level

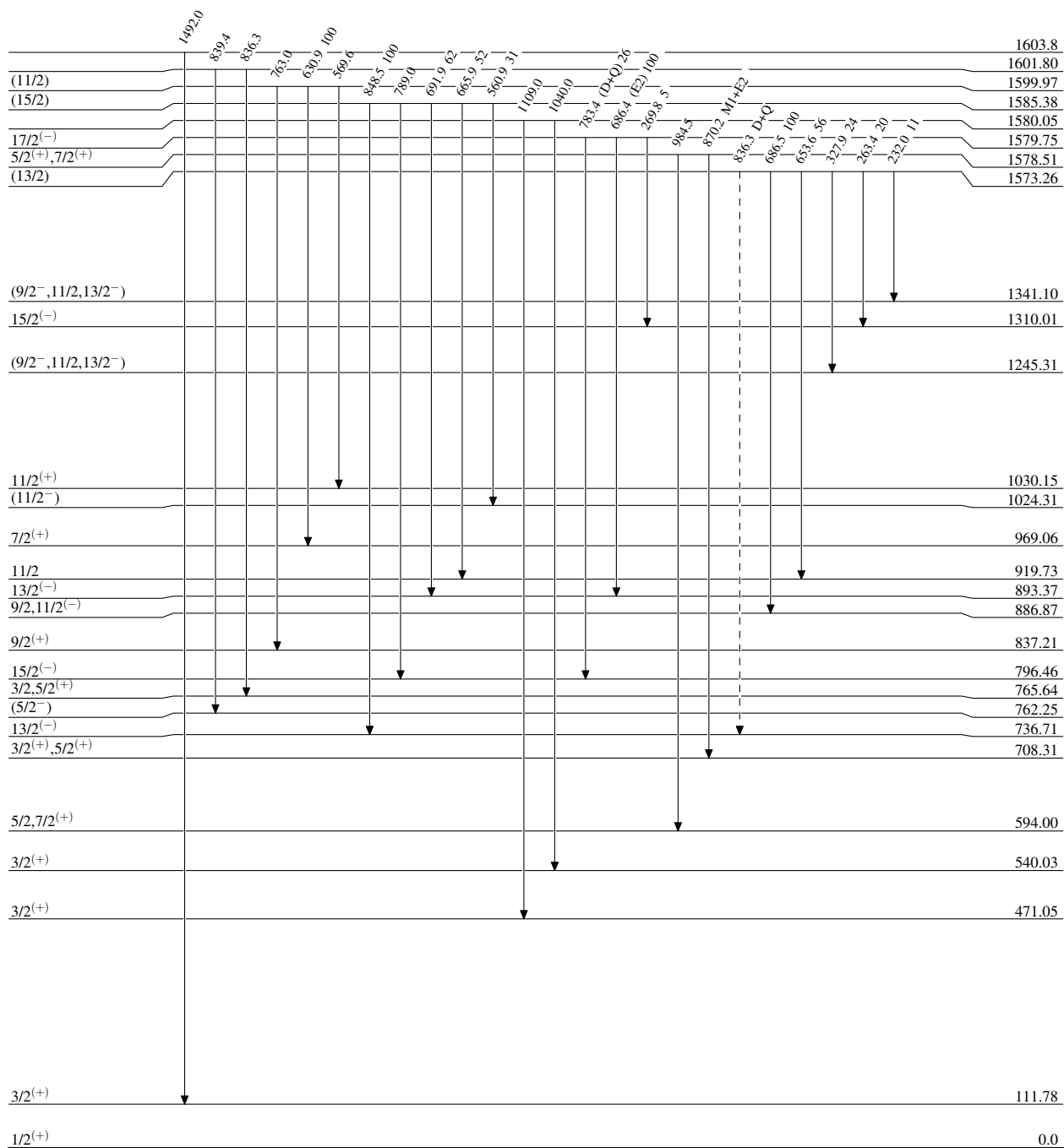
 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

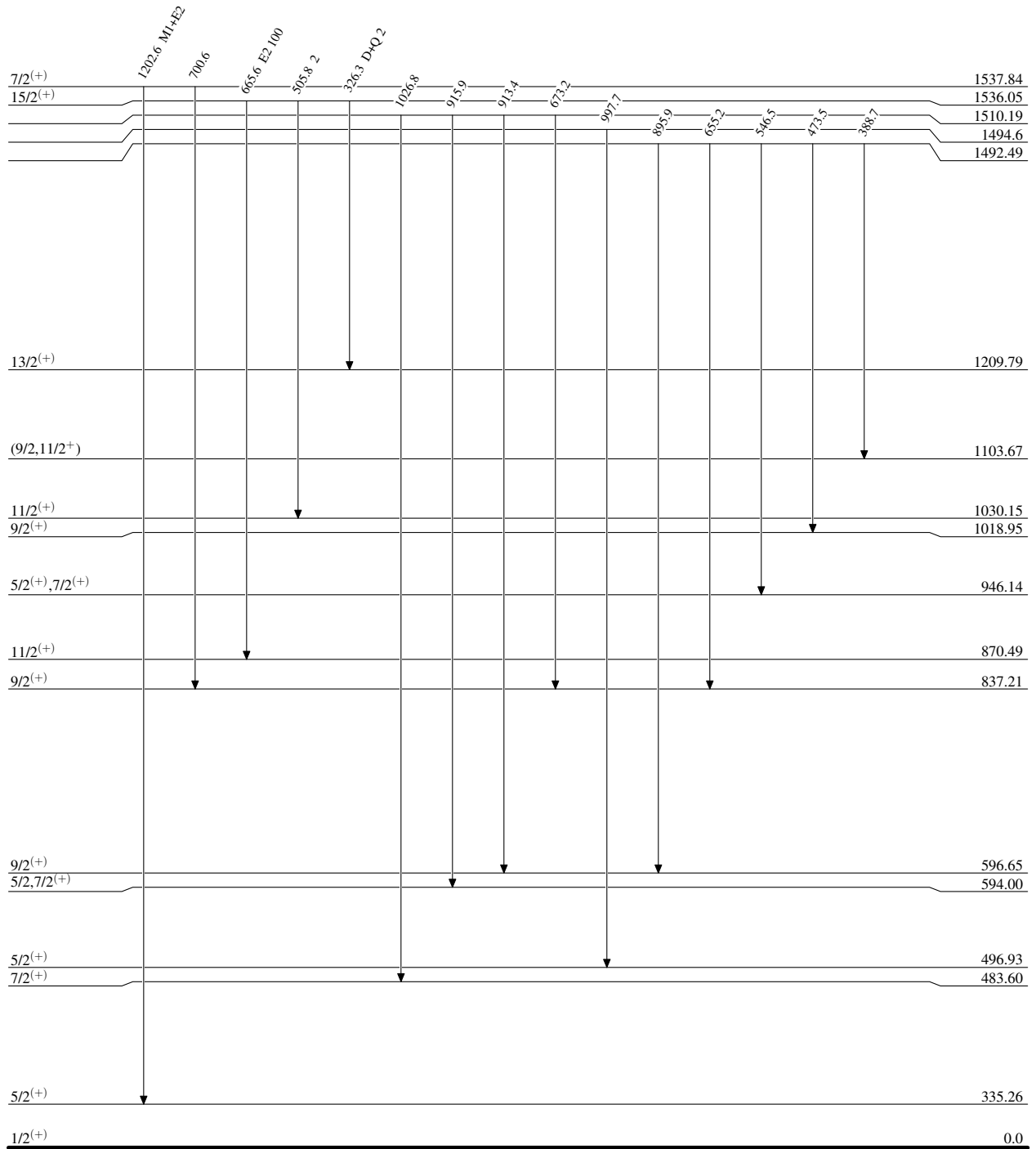
Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Level Scheme (continued)

Intensities: Relative photon branching from each level

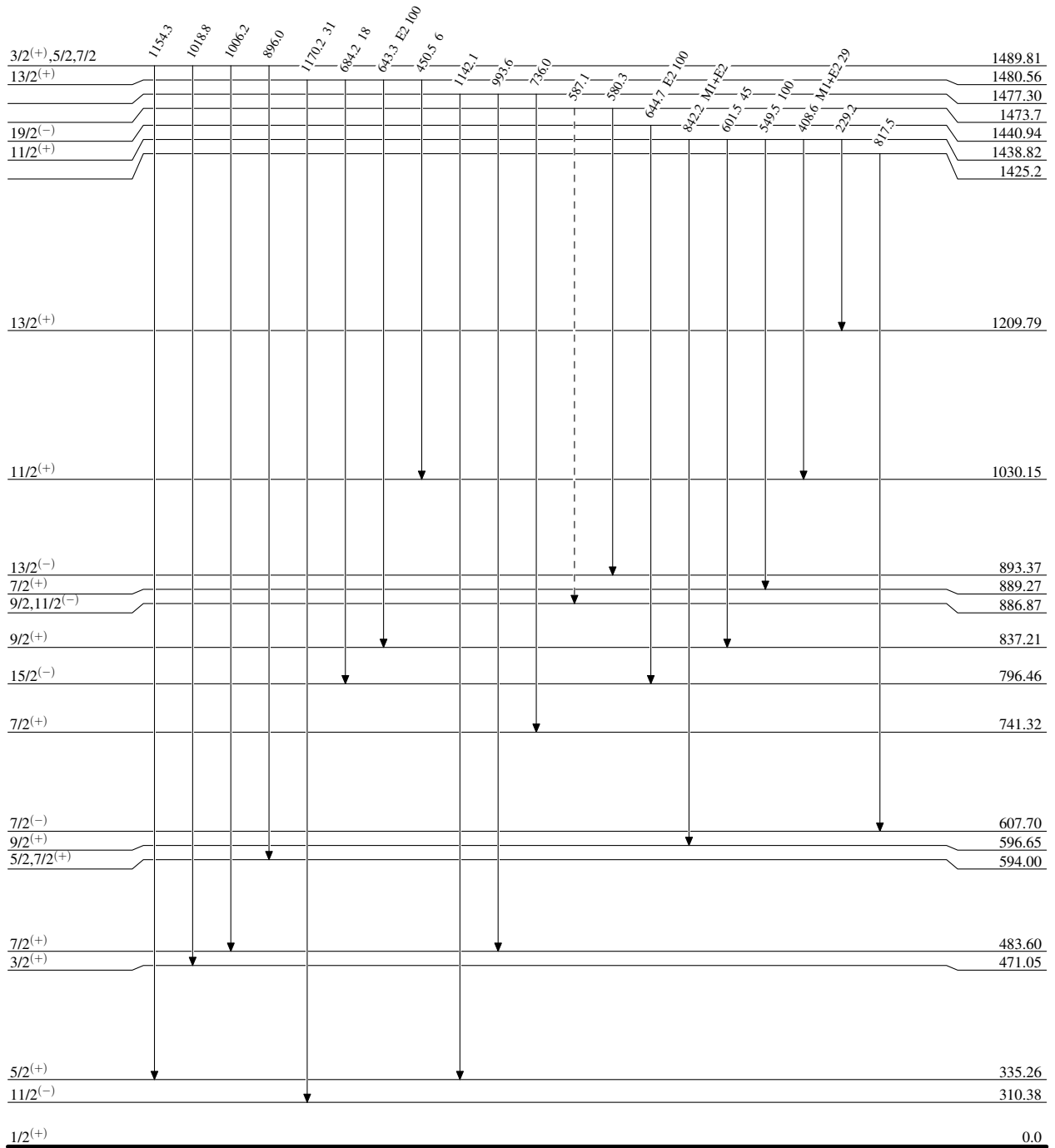
 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

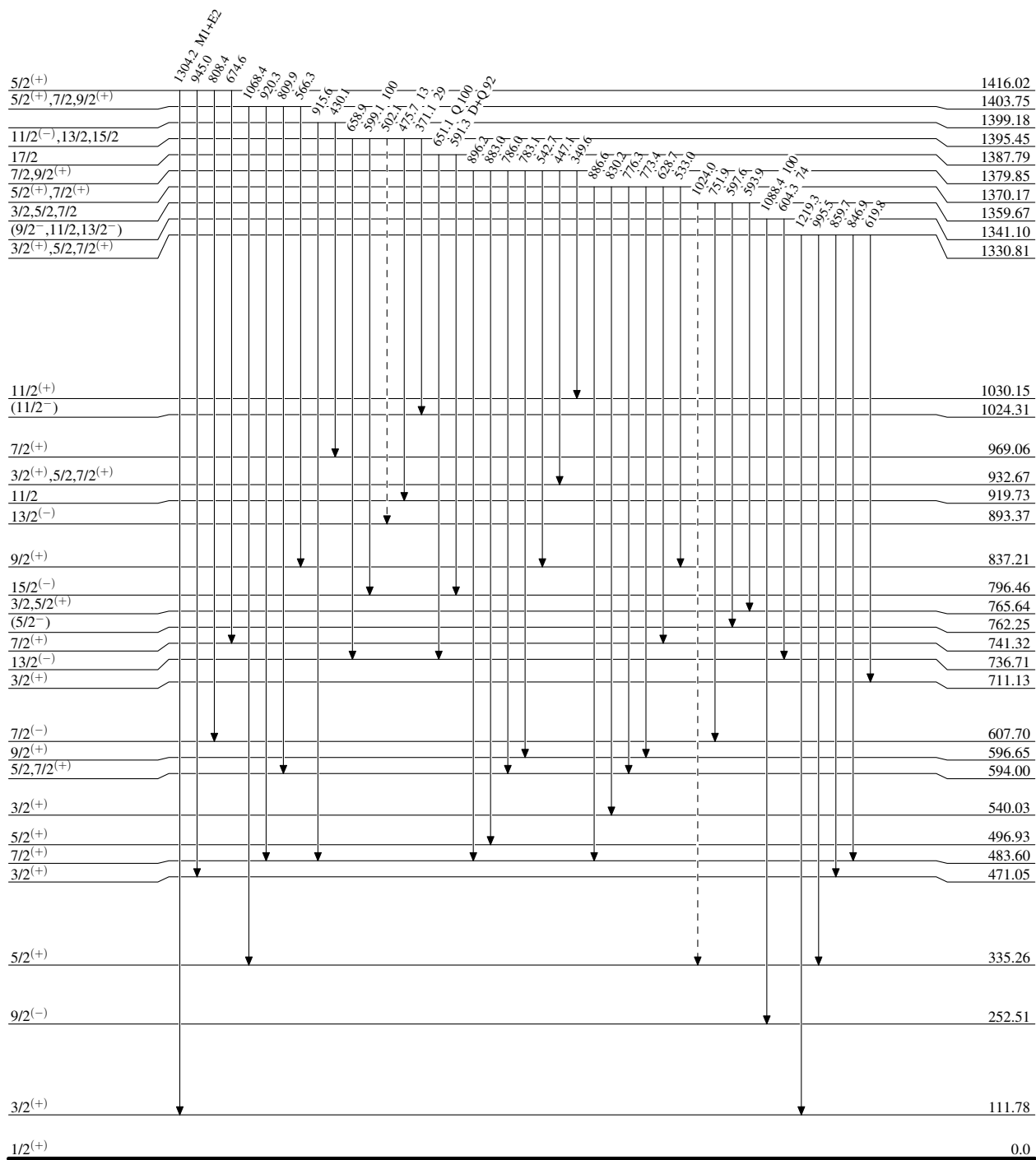
-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

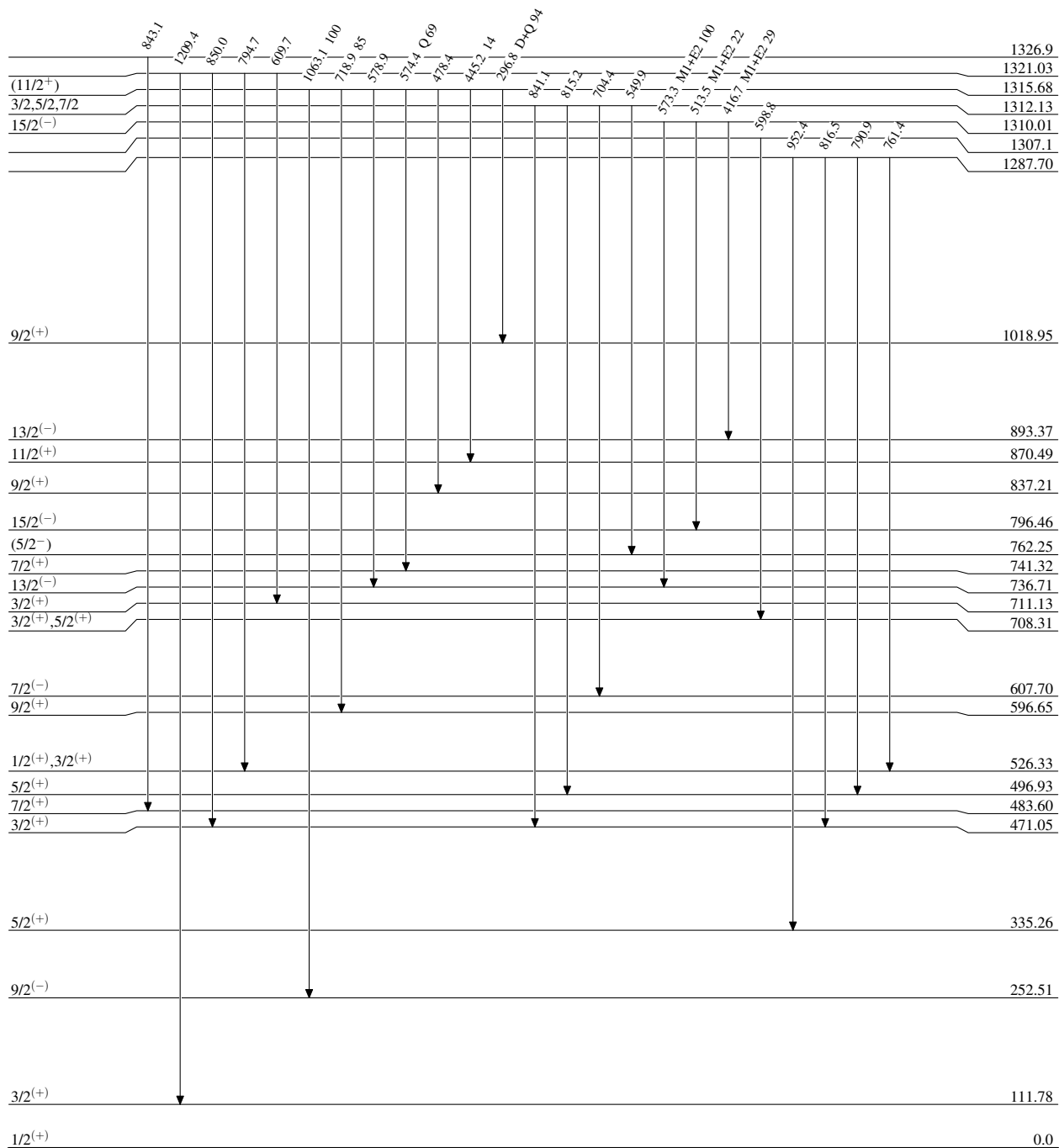
Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha,n\gamma), ^{123}\text{Te}(\alpha,2n\gamma)$ 1995Wi06,1979He15

Level Scheme (continued)

Intensities: Relative photon branching from each level

 $^{125}_{54}\text{Xe}_{71}$

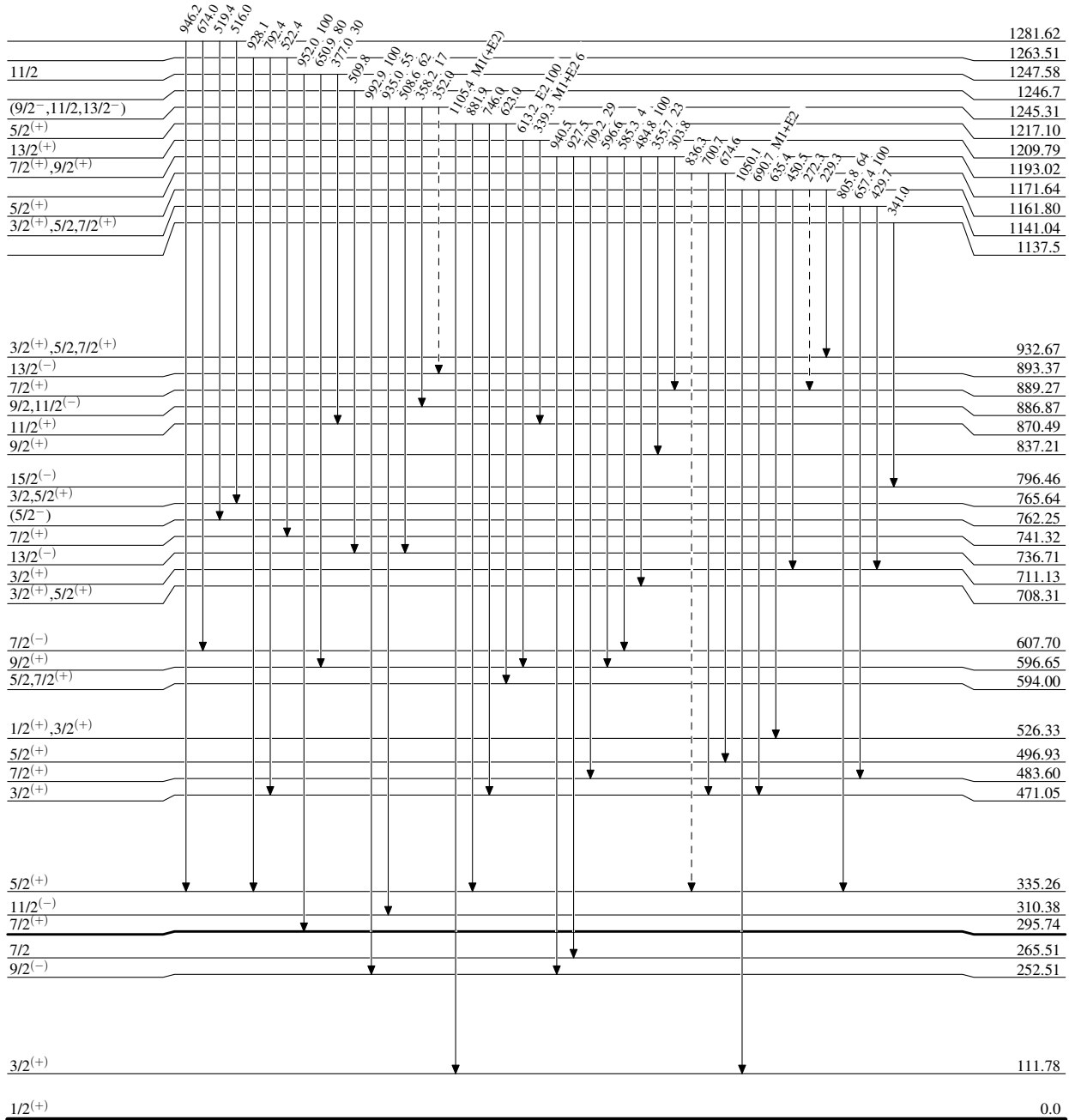
$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain)

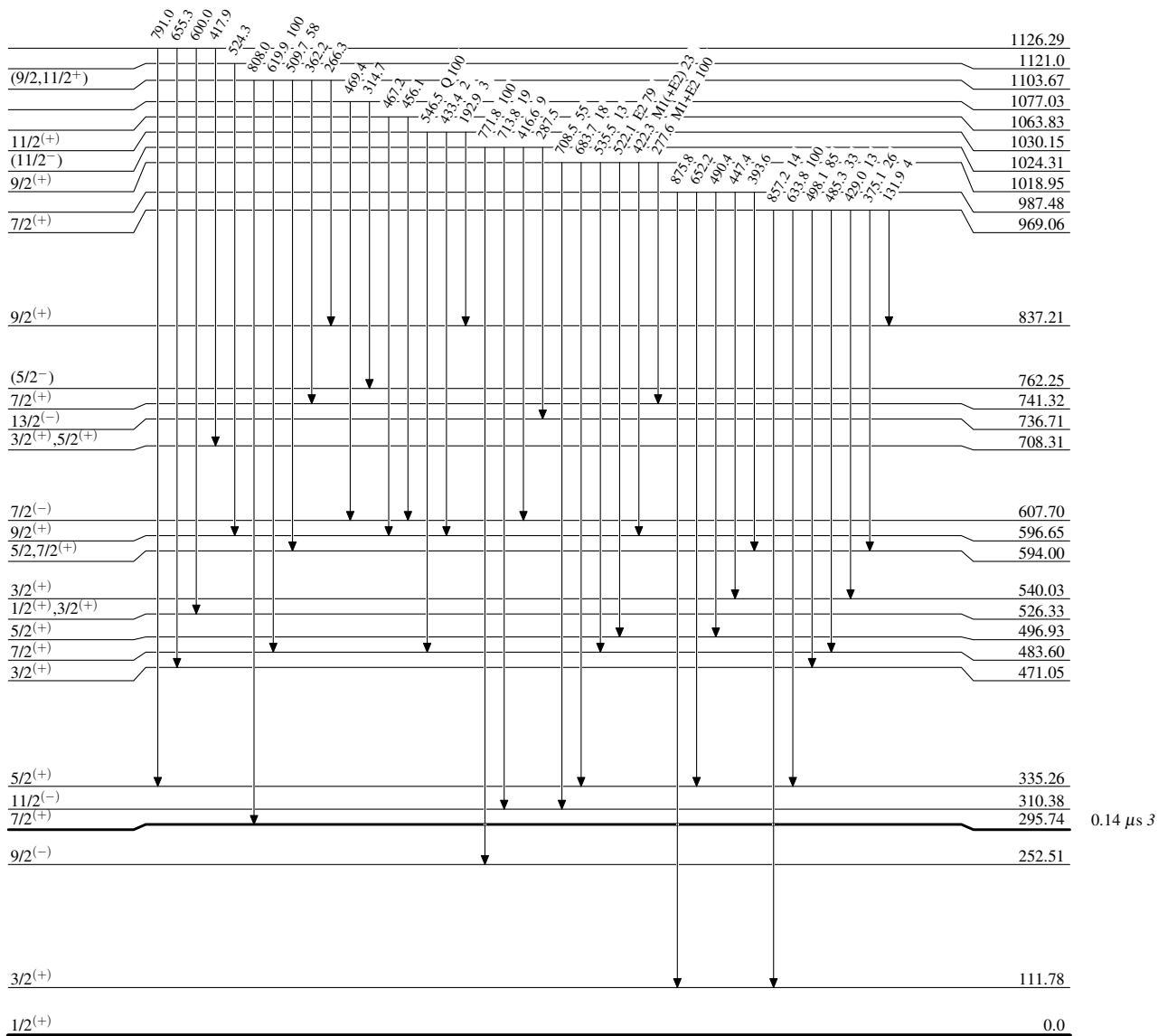


0.14 μs 3

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Level Scheme (continued)

Intensities: Relative photon branching from each level



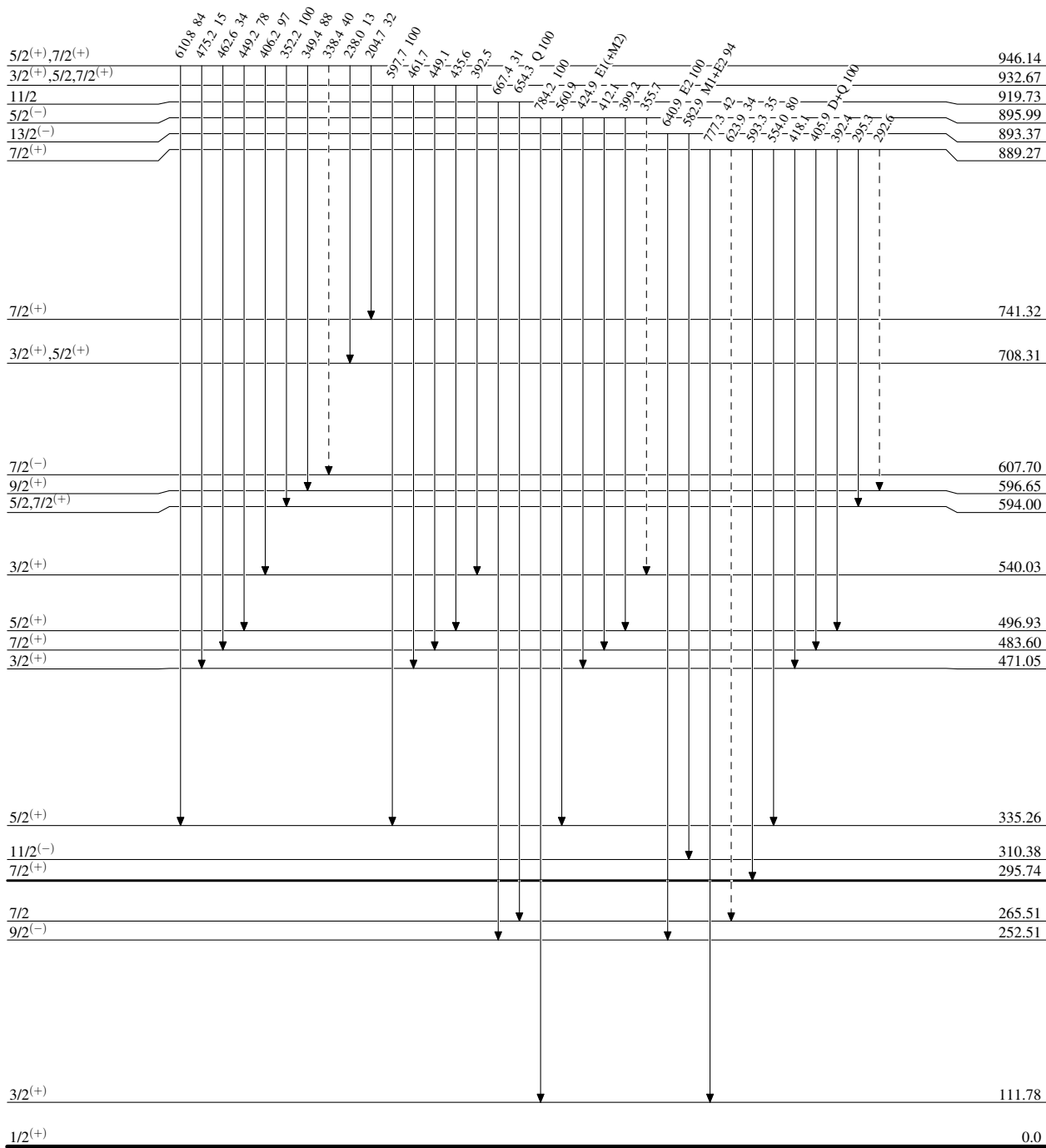
$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06,1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----> γ Decay (Uncertain)



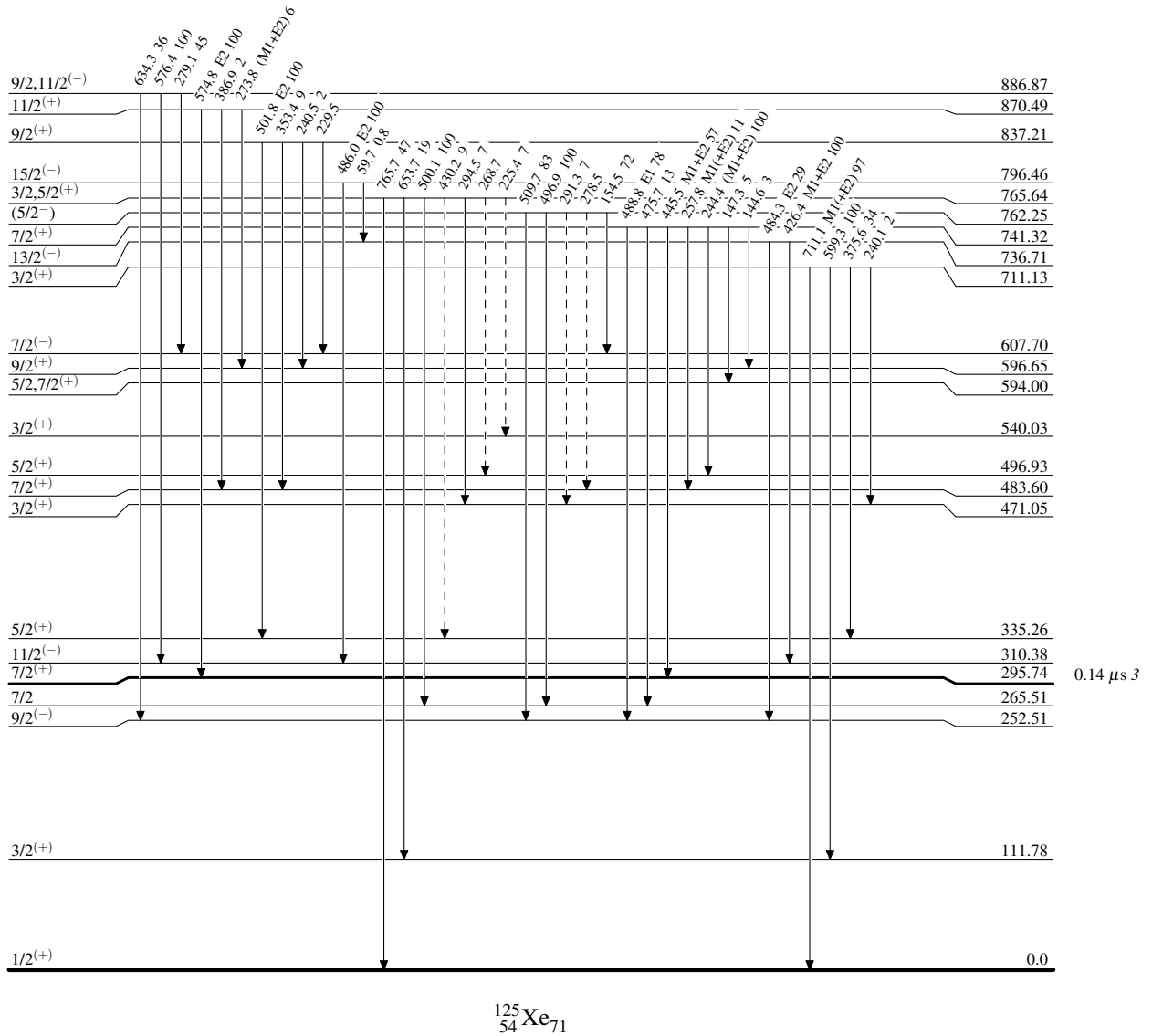
0.14 μs

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

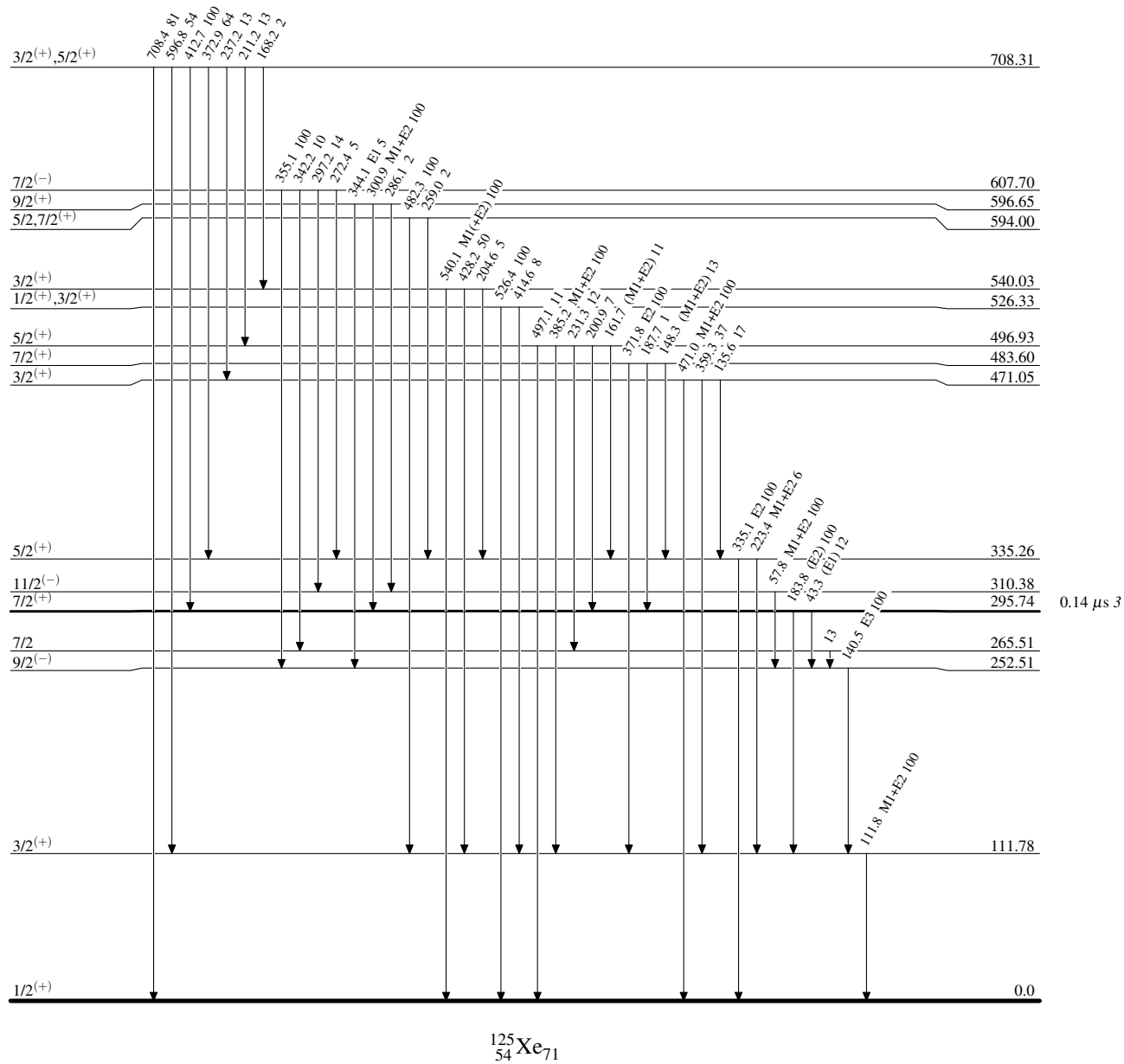
-----► γ Decay (Uncertain)

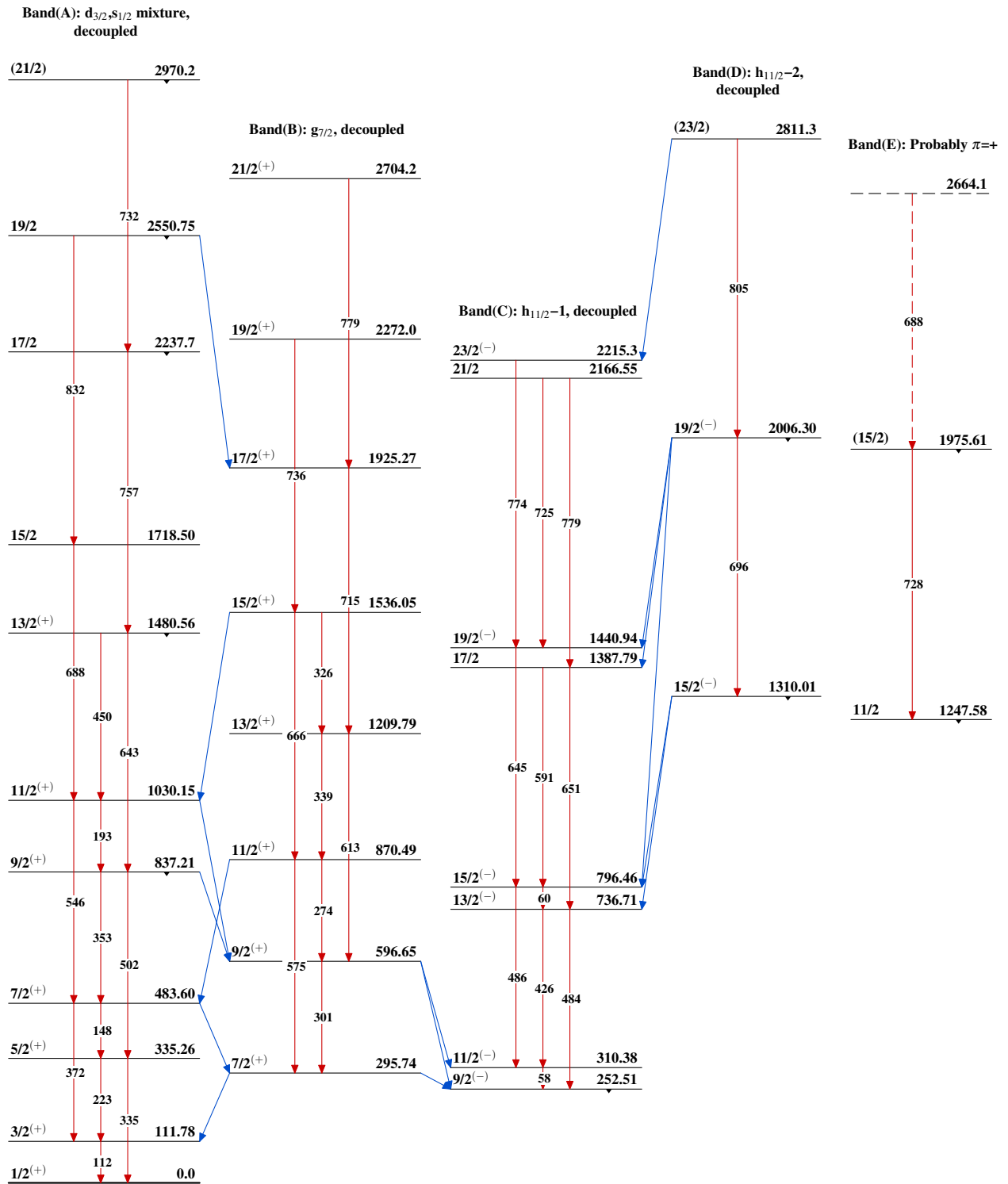
$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06,1979He15

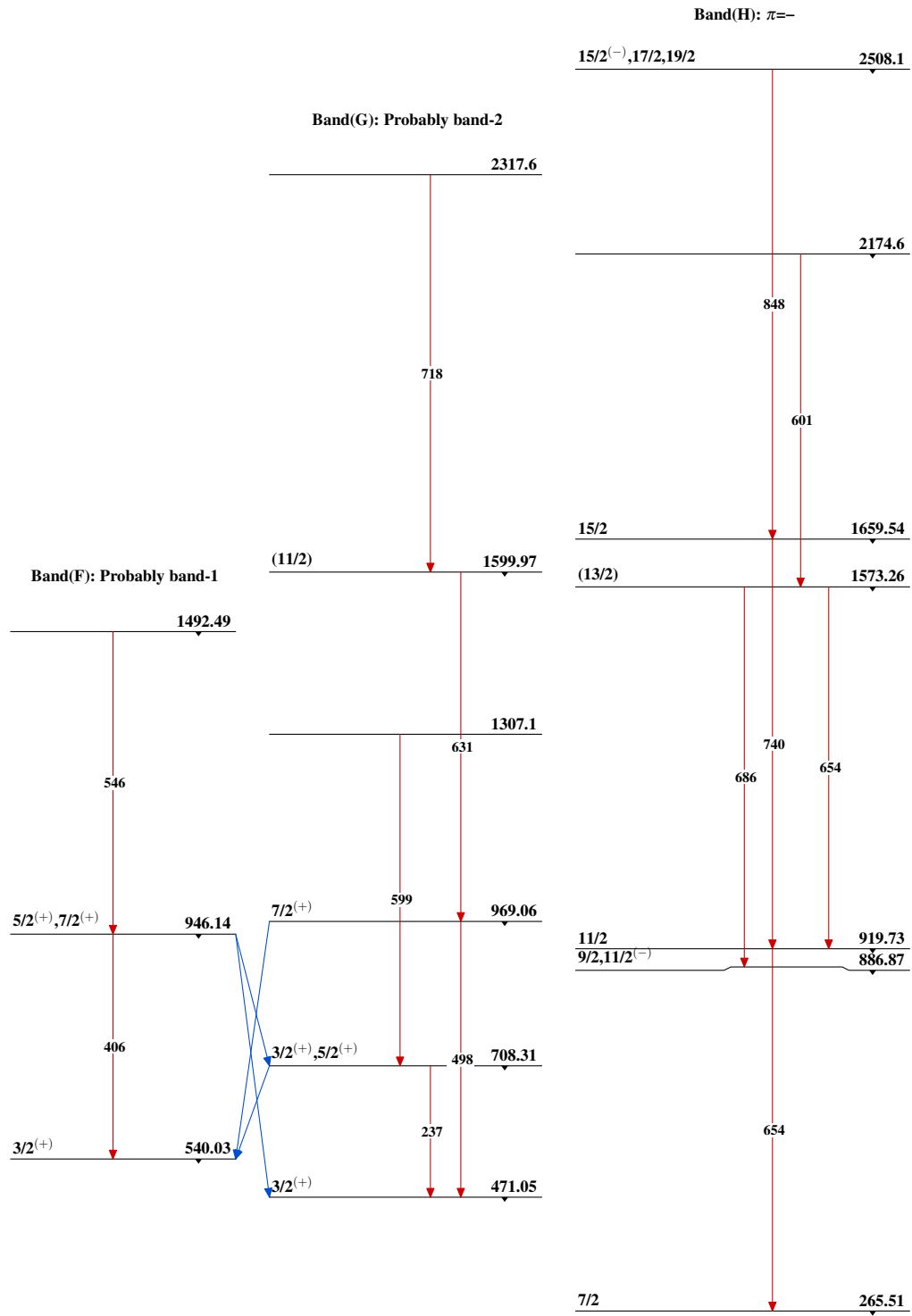
Legend

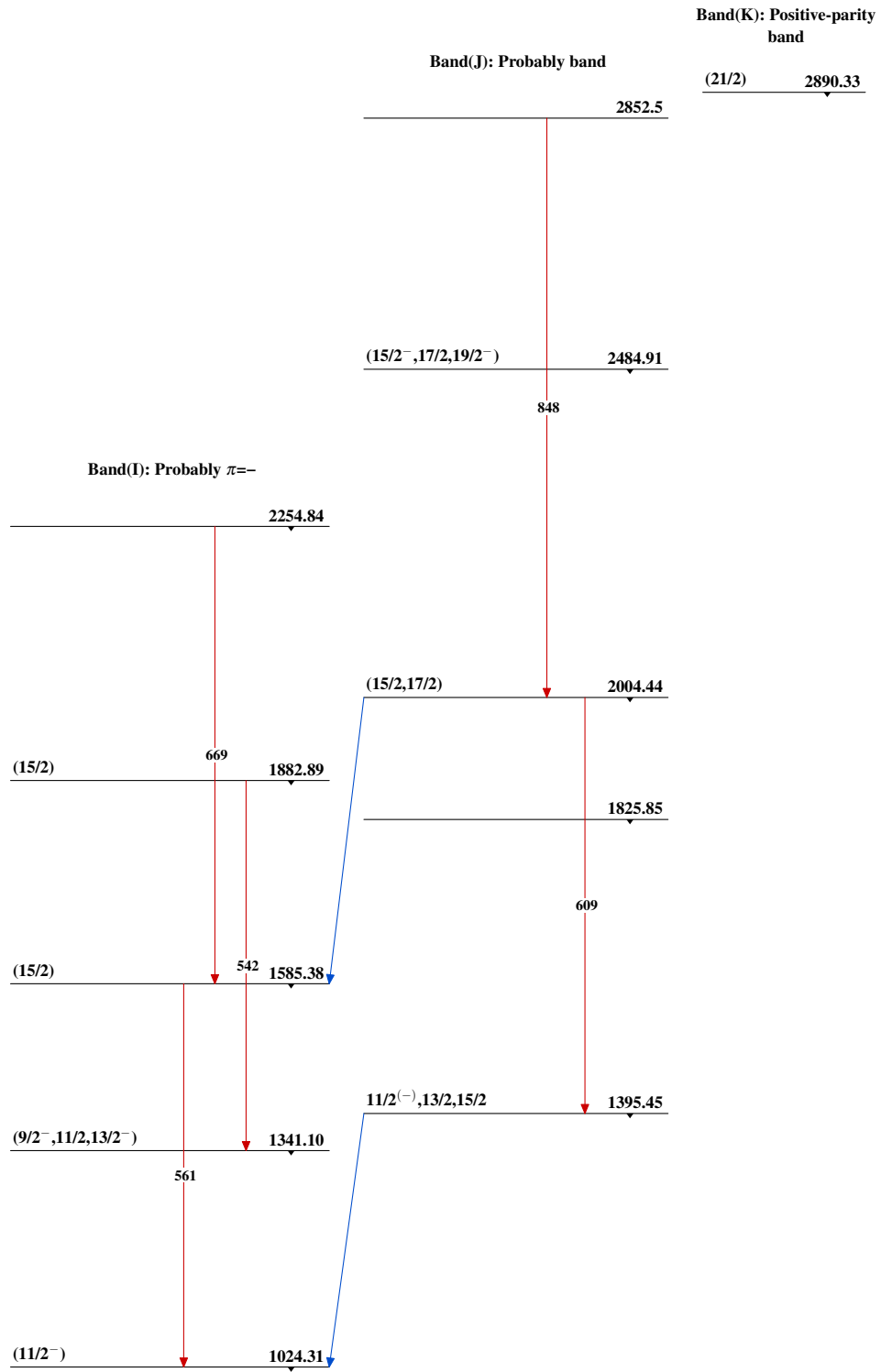
Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15 $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15 (continued) $^{125}_{54}\text{Xe}_{71}$

$^{122}\text{Te}(\alpha, n\gamma), ^{123}\text{Te}(\alpha, 2n\gamma)$ 1995Wi06, 1979He15 (continued) $^{125}_{54}\text{Xe}_{71}$