

$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108, 455 (2007)	30-Sep-2006

See also $^{122}\text{Te}(n,n'\gamma)$ E=fast.

2005Hi04: Neutron beam from $^3\text{H}(p,n)^3\text{He}$ reaction at $E(p)=7$ MeV. $E \leq 3.6$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(\theta)$, $\gamma\gamma(\theta)$, lifetimes with four high-efficiency HPGe in a coplanar arrangement for $\gamma\gamma$ coincidence data and a Compton-suppressed n-type HPGe detector for singles data. $\gamma(\theta)$'s were measured at incident neutron energies of 1.7, 2.8 and 3.4 MeV at five, eight and nine angles, respectively. DSAM analysis for lifetimes.

2005HiZZ: A_0 , A_2 and A_4 data for **2005Hi04**.

 ^{122}Te Levels

E(level)	J^π	$T_{1/2}$	E(level)	J^π	$T_{1/2}$
0.0	0 ⁺		2719.22 [#] 9	1,2 ⁺	68 ps +13-10
564.06 4	2 ⁺	7.42 ps 5	2742.46 10	1,2,3	80 ps +13-11
1181.31 5	4 ⁺		2755.76 9	0 ⁺ ,1 ⁺ ,2 ⁺	0.143 ps +34-24
1256.91 4	2 ⁺	0.8 ps +6-3	2758.45 13	(6 ⁻)	
1357.35 9	0 ⁺	>1.39 ps	2758.57 8	(4,5,6) ⁺	0.133 ps +17-13
1746.95 6	0 ⁺	>1.32 ps	2770.57 [#] 10		0.18 ps +6-4
1751.02 7	6 ⁺		2772.55 [#] 10		0.20 ps +9-5
1752.58 5	2 ⁺	0.38 ps +5-4	2777.49 [#] 12	1,2,3	0.118 ps +10-9
1909.55 5	4 ⁺	0.85 ps +35-20	2789.68 [#] 14		
1940.03 6	0 ⁺	>1.39 ps	2796.18 [#] 13	1,2,3	19.4 fs 14
1951.69 5	3 ⁺		2801.28 [#] 11	(2,3)	0.32 ps +6-5
2041.09 5	4 ⁺	0.59 ps +10-8	2808.80? 7		
2099.33 [#] 7	(2) ⁺	0.261 ps +21-19	2810.07 8	3,4 ⁺	
2196.75 5	3 ⁻	0.1040 ps 35	2816.79 8	3,4,5	0.6 ps +8-2
2203.74 [#] 5	1,2 ⁺	0.126 ps 7	2822.8 3		
2283.55 8	6 ⁺	0.15 ps +29-7	2837.5 4		
2287.32 6	2 ⁺	0.148 ps 8	2839.1? 5		
2297.41 [#] 7	(0 ⁺)	0.9 ps +6-3	2839.57 [#] 7	3 ⁺	96 fs 10
2310.65 7	(2) ⁺	0.85 ps +31-18	2860.58 8	4,5	0.148 ps +29-23
2407.38 9	5 ⁻	0.210 ps +28-22	2885.64 [#] 12	1 ⁺ ,2 ⁺ ,3 ⁺	50.6 fs 28
2407.91 [#] 7	(2) ⁺	95 fs 6	2889.8 10	(7 ⁻)	
2448.54 7	(4 ⁺)	0.24 ps +4-3	2897.5 3		
2499.61 [#] 9	(0 ⁺)	0.7 ps +8-3	2898.89 15		0.20 ps +10-5
2508.60 [#] 6	(2) ⁺	63.1 fs 28	2901.15 12		0.29 ps +15-8
2535.77 [#] 10	3,4,5	>0.47 ps	2910.93 22		
2538.59 ^{#&} 6		>0.76 ps	2911.18 11	1 ⁺ ,2 ⁺	0.102 ps 8
2557.84 [#] 8	1,2,3	0.292 ps +28-24	2913.16 25		
2560.47 22	+		2915.97 [#] 11	1,2 ⁺	13.9 fs 14
2592.47 [@] 10	1	18.0 fs 14	2919.35 [#] 13	1,2 ⁺	37 fs 4
2593.06 [@] 11	2 ⁺		2930.17 [#] 11	1,2,3	0.18 ps +4-3
2600.85 [#] 7	3 ⁺	0.7 ps +12-3	2930.53 [#] 8	3,4	42 fs +6-5
2603.83 [#] 15	3,4,5		2938.90 [#] 12		36.7 fs 21
2636.08 [#] 6	1,2,3		2944.2 8		
2637.8 4			2958.10 11	3,4 ⁺	0.117 ps +9-8
2654.47 [#] 7	1,2,3	0.5 ps +5-2	2959.12 [#] 15	1,2 ⁺	
2669.11 [#] 8	3 ⁺	0.34 ps +23-10	2961.46 22		
2679.46 7	4 ⁺	0.41 ps +18-10	2975.36 [#] 14	2,3,4	
2693.67 [#] 8	3 ⁺ ,4 ⁺	0.15 ps +4-3	2982.33 [#] 8	1,2 ⁺	46 fs +13-10

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued) ^{122}Te Levels (continued)

E(level)	J^π^\dagger	$T_{1/2}^\ddagger$	E(level)	J^π^\dagger	$T_{1/2}^\ddagger$
2993.62 9	4 ⁺	0.51 ps +28-14	3155.79 23		
2996.3 [#] 3	3,4,5	0.3 ps +4-2	3157.90 12		
2998.02 [#] 9	2 ⁺ ,3,4 ⁺	51 fs 6	3159.75 14	2 ⁺ ,3,4 ⁺	
3009.49 15			3160.17 12		
3012.62 [#] 12	3	25.0 fs 28	3172.40 12		
3026.79 [#] 8	2 ⁺ ,3 ⁺	0.169 ps +33-24	3177.24 10		
3030.59 11		0.16 ps +4-3	3183.2 4		83 fs +17-13
3037.10 [#] 8	2 ⁺ ,3 ⁺		3192.73 11	4,5,6	0.10 ps +11-4
3042.10 [#] 13		52 fs +6-5	3196.7 6	4,5,6	
3044.40 [#] 13	1 ⁺ ,2 ⁺	0.21 ps +12-6	3198.19 16	1,2,3	56 fs +7-6
3047.76 13	(3)	73 fs +12-10	3199.3 6	1,2 ⁺	26 fs +6-5
3052.11 19	0 ⁺ ,1,2	60 fs +21-15	3207.85 20	1,2 ⁺	15.9 fs 28
3057.2 19			3209.85 17	0 ⁺ ,1,2,3	5.5 fs 21
3061.0 4	1 ⁺ ,2 ⁺	0.194 ps +24-22	3210.33 13		
3068.7 4			3211.3 4		40 fs +14-11
3069.36 11	3,4,5 ⁻	0.141 ps +33-24	3223.30 9	4 ⁺	68 fs +10-8
3071.23 17			3246.4 5		0.11 ps +9-4
3074.49 10	1,2 ⁺		3252.48 17	1,2 ⁺	58 fs +27-17
3080.7 14			3256.1 4		
3084.6 13			3262.50 23		
3086.16 10			3283.86 17		
3094.65 8	2 ⁺		3289.1 5	1,2 ⁺	
3104.1 5	1,2 ⁺	0.13 ps +14-5	3293.4 5		16 fs 6
3112.69 22	2,3	<0.76 ps	3297.1 9		
3132.21 9	(2 ⁺ ,3 ⁺ ,4 ⁺)	0.5 ps +8-2	3300.8 5		
3134.5 5			3302.7 4	0 ⁺ ,1,2	
3139.64 15			3315.3 5		
3142.9 5			3333.6 5		
3147.58 13			3335.7 5		
3150.64 23	0 ⁺ ,1,2	25.6 fs 21	3339.1 5		
3153.12 23			3357.2 5		

[†] From Adopted Levels; **2005Hi04** demonstrated J^π dependence of production cross sections and of excitation functions in comparison with calculation in the statistical model code CINDY.

[‡] From Doppler-shift attenuation method probably for the most intense transition(s) from a level.

[#] **2005Hi04** point out that calculations show that gamma-ray strength is probably missing from this level.

@ **2005Hi04** placed 1335.99 γ and 2029.25 γ to this level, but this choice gives E(level)=2592.82 17 and 2593.37 30, exceeding the uncertainty of 2592.44 γ ; evaluator displaced the 1335.99 γ and the 2029.25 γ to the 2593.36 level as observed in ^{122}I ε decay and $^{122}\text{Te}(n,n'\gamma)$ E=fast. The present placement resolves the inconsistency for the I_γ ratios relating to 2592.44 and 2593.36 levels in the relevant reactions.

& A possible candidate of 4⁻ excitation in ^{122}Te (**1990Be50**), but not yet J^π confirmed (**2005Hi04**).

 $\gamma(^{122}\text{Te})$

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Comments
564.06	2 ⁺	564.01 13	100	0.0	0 ⁺	$A_2=+0.174$ 4, $A_4=-0.040$ 5. Additional information 1.
1181.31	4 ⁺	617.12 5	100	564.06	2 ⁺	$A_2=+0.114$ 25, $A_4=-0.218$ 25. Additional information 2.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
1256.91	2 ⁺	692.66 5	83.1 2	564.06	2 ⁺	M1+E2	-1.5 +5-8	Mult.: A ₂ =-0.141 12, A ₄ =+0.090 16; RUL. Additional information 3. E _γ : poor fit. Level-energy difference=692.84.
		1256.87 5	16.9 2	0.0	0 ⁺			A ₂ =+0.16 3, A ₄ =-0.30 3. Additional information 4.
1357.35	0 ⁺	793.18 9	100	564.06	2 ⁺			A ₂ =-0.09 4, A ₄ =-0.02 5. Additional information 5.
1746.95	0 ⁺	490.06 20	29.3 ^b 6	1256.91	2 ⁺			A ₂ =-0.04 5, A ₄ =-0.10 5. Additional information 6.
		1182.88 5	70.7 ^b 6	564.06	2 ⁺			A ₂ =-0.04 3, A ₄ =-0.11 4. Additional information 7.
1751.02	6 ⁺	569.68 5	100	1181.31	4 ⁺			A ₂ =+0.15 5, A ₄ =-0.16 6. Additional information 8.
1752.58	2 ⁺	395.07 21	4.5 1	1357.35	0 ⁺	E2		Mult.: A ₂ =+0.23 7, A ₄ =-0.09 9; RUL. Additional information 9.
		495.54 22	4.3 1	1256.91	2 ⁺	M1+E2	-0.55 +19-18	Mult.: A ₂ =-0.06 7, A ₄ =+0.03 9; RUL. Additional information 10.
		1188.48 5	31.2 2	564.06	2 ⁺	(M1+E2)		Mult.: A ₂ =+0.085 22, A ₄ =-0.14 3; RUL. Additional information 11.
		1752.64 6	60.0 2	0.0	0 ⁺	E2		δ: +2.7 +24-12 or -0.03 19. Mult.: A ₂ =+0.201 18, A ₄ =-0.132 23; RUL. Additional information 12.
1909.55	4 ⁺	652.62 5	13.4 3	1256.91	2 ⁺	E2		Mult.: A ₂ =+0.33 5, A ₄ =-0.09 6; RUL. Additional information 13.
		728.19 5	49.6 3	1181.31	4 ⁺	M1+E2	+4.5 +7-6	Mult.: A ₂ =-0.060 25, A ₄ =-0.13 3; RUL. Additional information 14.
		1345.53 7	37.0 3	564.06	2 ⁺			A ₂ =+0.10 5, A ₄ =-0.30 6. Additional information 15.
1940.03	0 ⁺	683.10 6	96.0 3	1256.91	2 ⁺			A ₂ =+0.000 21, A ₄ =0.00 3. Additional information 16.
		1376.02 9	4.0 3	564.06	2 ⁺			A ₂ =-0.05 37, A ₄ =0.0 5. Additional information 17.
1951.69	3 ⁺	694.87 10	53.8 ^b 4	1256.91	2 ⁺	M1(+E2)	0.00 +6-3	Mult.: A ₂ =-0.188 17, A ₄ =+0.002 20; Δπ=no from mult.(770γ). Additional information 18.
		770.07 5	16.3 ^b 4	1181.31	4 ⁺	M1(+E2)	-0.22 +19-18	Mult.: A ₂ =0.00 4, A ₄ =-0.13 5; RUL. Additional information 19. E _γ : poor fit. Level-energy difference=770.38.
		1387.79 5	29.9 ^b 3	564.06	2 ⁺	M1+E2		Mult.: A ₂ =0.00 3, A ₄ =+0.06 3; RUL. Additional information 20. δ: -32 +16-1223. E _γ : poor fit. Level-energy difference=1387.62.

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$^{122}\text{Te}(n,n'\gamma) E=1.7,2.8,3.4 \text{ MeV}$ **2005Hi04,2005HiZZ** (continued) $\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2041.09	4 ⁺	783.7 [@] 3	7.3 2	1256.91	2 ⁺	(E2)		Mult.: $A_2=+0.43$ 9, $A_4=+0.09$ 11; RUL. Additional information 21.
		859.70 5	45.5 3	1181.31	4 ⁺	M1+E2	+0.78 +21-27	Mult.: $A_2=+0.35$ 3, $A_4=-0.11$ 3; RUL. Additional information 22.
		1477.07 5	47.2 3	564.06	2 ⁺	E2		Mult.: $A_2=+0.33$ 3, $A_4=-0.15$ 4; RUL. Additional information 23.
2099.33	(2) ⁺	1535.11 6	96.4 2	564.06	2 ⁺	M1(+E2)		Mult.: $A_2=+0.184$ 22, $A_4=-0.04$ 3; RUL. Additional information 24.
		2098.9 4	3.6 2	0.0	0 ⁺	(E2)		δ : +2.30 +20-18 or 0.00 +6-3. Mult.: $A_2=+0.47$ 16, $A_4=+0.07$ 21; RUL. Additional information 25.
2196.75	3 ⁻	939.92 6	1.4 2	1256.91	2 ⁺	E1		Mult.: $\Delta\pi$ =yes from Adopted Levels; $A_2=-1.7$ 5, $A_4=-1.0$ 6. A_2 and A_4 quoted by 2005HiZZ seem unrealistically large In magnitude (Evaluator). Additional information 26.
		1014.87 [@] 10	3.1 2	1181.31	4 ⁺	E1		Mult.: $\Delta\pi$ =yes from Adopted Levels. E_γ : poor fit. Level-energy difference=1015.43.
		1632.86 5	95.5 3	564.06	2 ⁺	E1		Mult.: $A_2=-0.287$ 20, $A_4=-0.030$ 24; $\Delta\pi$ =yes from Adopted Levels. Additional information 27. E_γ : poor fit. level-energy difference=1632.68.
2203.74	1,2 ⁺	946.77 12	7.0 3	1256.91	2 ⁺	D(+Q)	+1 +125-1	Mult.: $A_2=-0.16$ 12, $A_4=+0.07$ 14. Additional information 28.
		1639.69 3	72.0 3	564.06	2 ⁺	D(+Q)	+0.2 +5-4	δ : +1 +1254-1. Mult.: $A_2=-0.02$ 3, $A_4=+0.02$ 4. Additional information 29.
		2203.58 10	21.0 3	0.0	0 ⁺			$A_2=-0.13$ 5, $A_4=-0.03$ 7. Additional information 30.
2283.55	6 ⁺	532.48 9	51.9 22	1751.02	6 ⁺	M1(+E2)	+0.2 +4-3	Mult.: $A_2=+0.59$ 22, $A_4=+0.2$ 3; RUL. Additional information 31.
		1102.28 9	48.1 22	1181.31	4 ⁺	E2		$A_2=+0.41$ 22, $A_4=+0.3$ 3; RUL. Additional information 32.
2287.32	2 ⁺	1030.18 15	5.0 1	1256.91	2 ⁺	M1+E2		Mult.: $A_2=-0.71$ 13, $A_4=-0.31$ 14; RUL. Additional information 33.
		1105.5 5	2.0 1	1181.31	4 ⁺			δ : +12< δ <-0.32. $A_2=-0.3$ 3, $A_4=-0.4$ 3. Additional information 34.
		1723.23 5	84.2 4	564.06	2 ⁺	M1+E2		Mult.: $A_2=+0.249$ 20, $A_4=-0.101$ 25;

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
								RUL. Additional information 35.
2287.32	2 ⁺	2287.52 15	8.8 3	0.0	0 ⁺			δ : +1.3 3 or +0.32 +15-10. $A_2=+0.03$ 16, $A_4=-0.37$ 17.
2297.41	(0 ⁺)	1733.34 [@] 6	100	564.06	2 ⁺			Additional information 36. $A_2=-0.10$ 4, $A_4=-0.20$ 5.
2310.65	(2 ⁺)	557.8 5	4 3	1752.58	2 ⁺	M1+E2	-2 +1-125	Mult.: $A_2=-0.7$ 4, $A_4=-0.7$ 4; RUL. Additional information 37.
		953.05 16	3.9 1	1357.35	0 ⁺			δ : -2 +1-1254. $A_2=+0.09$ 14, $A_4=-0.24$ 17.
		1129.64 24	3.3 1	1181.31	4 ⁺			Additional information 39. $A_2=+0.02$ 17, $A_4=-0.02$ 20.
		1746.59 6	88.8 4	564.06	2 ⁺	M1+E2		Additional information 40. Mult.: $A_2=-0.1270$ 24, $A_4=-0.07$ 3; RUL.
2407.38	5 ⁻	1225.89 9	100	1181.31	4 ⁺	E1		Additional information 41. δ : -11 +4-5 or -0.55 8. Mult.: $A_2=-0.26$ 4, $A_4=+0.06$ 4; $\Delta\pi$ =yes from Adopted Levels.
2407.91	(2 ⁺)	1843.84 5	100	564.06	2 ⁺	M1+E2	+2 +4-1	Additional information 42. Mult.: $A_2=+0.220$ 19, $A_4=-0.128$ 17; RUL.
2448.54	(4 ⁺)	1267.25 5	91.6 ^b 8	1181.31	4 ⁺	M1(+E2)	+0.09 +12-19	Additional information 43. Mult.: $A_2=+0.38$ 4, $A_4=0.00$ 5; RUL.
		1884.27 12	8.4 ^b 8	564.06	2 ⁺			Additional information 44. $A_2=-0.3$ 3, $A_4=-0.3$ 4.
2499.61	(0 ⁺)	1242.80 [@] 11	22.2 ^c 8	1256.91	2 ⁺			Additional information 45. $A_2=-0.28$ 12, $A_4=-0.19$ 14.
		1935.43 11	77.6 8	564.06	2 ⁺			Additional information 46. $A_2=+0.05$ 6, $A_4=+0.08$ 7.
2508.60	(2 ⁺)	1251.6 3	8.8 3	1256.91	2 ⁺	M1(+E2)	-0.2 4	Additional information 47. Mult.: $A_2=+0.21$ 13, $A_4=+0.23$ 16; $\Delta\pi$ =no from mult.(1944 γ).
		1944.53 5	91.2 3	564.06	2 ⁺	M1+E2	+1.6 +6-3	Additional information 48. Mult.: $A_2=+0.18$ 3, $A_4=-0.14$ 4; RUL.
2535.77	3,4,5	1354.45 9	100	1181.31	4 ⁺	D+Q	-1.0 +3-4	Additional information 49. Mult.: $A_2=-0.97$ 10, $A_4=+0.30$ 11.
2538.59		586.82 5	64.3 6	1951.69	3 ⁺			Additional information 50. $A_2=-0.27$ 5, $A_4=+0.04$ 5.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2538.59		629.07 8	12.7 8	1909.55	4 ⁺			Additional information 51. A ₂ =+0.40 14, A ₄ =-0.04 18.
		1357.54 10	23.0 6	1181.31	4 ⁺			Additional information 52. A ₂ =+0.49 11, A ₄ =+0.21 14.
2557.84	1,2,3	1300.91 7	100	1256.91	2 ⁺	D+Q	+1.1 +4-2	Additional information 53. Mult.: A ₂ =+0.19 3, A ₄ =-0.17 3.
2560.47	+	1379.15 [@] 21	100	1181.31	4 ⁺			Additional information 54. A ₂ =+0.08 3, A ₄ =-0.05 4.
2592.47	1	2592.44 10	100 ^b 10	0.0	0 ⁺			Additional information 55. A ₂ =-0.20 4, A ₄ =-0.05 5.
2593.06	2 ⁺	1335.99 13	44 ^b 4	1256.91	2 ⁺	D+Q		Additional information 56. Mult.: A ₂ =-0.08 13, A ₄ =+0.12 16.
		2029.25 17	100 ^b 10	564.06	2 ⁺	D+Q		Additional information 57. δ : all values possible. Mult.: A ₂ =-0.06 9, A ₄ =-0.06 11.
2600.85	3 ⁺	1419.58 6	67.2 ^b 11	1181.31	4 ⁺	M1(+E2)	+2.0 15	Additional information 58. δ : all values possible. Mult.: A ₂ =-0.48 7, A ₄ =+0.11 11; RUL.
		2036.57 12	32.8 ^b 11	564.06	2 ⁺	M1(+E2)	-0.83 +24-29	Additional information 59. Mult.: A ₂ =-0.74 9, A ₄ =+0.03 3; RUL.
2603.83	3,4,5	1422.51 [@] 14	100 ^c	1181.31	4 ⁺	D+Q	+0.8 +3-7	Additional information 60. Mult.: A ₂ =+0.36 6, A ₄ =-0.09 8.
2636.08	1,2,3	1379.14 [@] 5	84.4 ^c 7	1256.91	2 ⁺	D+Q	+3.9 +13-11	Additional information 61. Mult.: A ₂ =+0.08 3, A ₄ =-0.05 4.
		2072.16 [@] 15	15.6 ^c 7	564.06	2 ⁺	D(+Q)	-2 +2-14	Additional information 62. Mult.: A ₂ =-0.18 9, A ₄ =-0.20 11.
2637.8		2073.7 ^{#@} 4	100	564.06	2 ⁺			Additional information 63. A ₂ =-0.18 9, A ₄ =-0.20 11.
2654.47	1,2,3	1397.54 6	82.6 7	1256.91	2 ⁺	D(+Q)	-6 +3-4	Additional information 64. Mult.: A ₂ =-0.16 6, A ₄ =-0.06 7.
		2091.0 4	17.4 7	564.06	2 ⁺	D(+Q)		Additional information 65. Mult.: A ₂ =+0.00 19, A ₄ =-0.20 23.
2669.11	3 ⁺	1487.80 7	83.7 11	1181.31	4 ⁺	M1(+E2)	-0.09 +9-10	Additional information 66. δ : +1.3< δ <-14. Mult.: A ₂ =-0.37 9, A ₄ =-0.08 10; $\Delta\pi$ =no from mult.(2105 γ). Additional information 67.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued) $\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2669.11	3 ⁺	2104.96 15	16.3 11	564.06	2 ⁺	M1+E2	-0.8 +4-8	Mult.: A ₂ =-0.8 3, A ₄ =0.0 4; RUL. Additional information 68.
2679.46	4 ⁺	1422.51 @ 6	29.6 ^c 15	1256.91	2 ⁺	E2		Mult.: A ₂ =+0.36 6, A ₄ =-0.09 8; RUL. Additional information 69.
		2116.02 25	70.4 15	564.06	2 ⁺	E2		Mult.: A ₂ =+0.43 7, A ₄ =-0.02 9; RUL. Additional information 70.
2693.67	3 ⁺ ,4 ⁺	1436.6 4	7.3 ^b 16	1256.91	2 ⁺			A ₂ =+3.52 13, A ₄ =+3.35 13. A ₂ and A ₄ quoted by 2005HiZZ seem unrealistically large in magnitude. Additional information 71.
		1512.35 6	92.7 ^b 16	1181.31	4 ⁺	M1(+E2)	+0.1 +12-2	Mult.: A ₂ =+0.348 21, A ₄ =-0.07 3; RUL. Additional information 72.
2719.22	1,2 ⁺	2155.18 @ 12	55.9 13	564.06	2 ⁺	D+Q		Mult.: A ₂ =+0.01 12, A ₄ =+0.08 15. Additional information 73.
		2719.14 12	44.1 13	0.0	0 ⁺			δ : all values possible. A ₂ =-0.08 16, A ₄ =+0.06 18. Additional information 74.
2742.46	1,2,3	1485.59 15	15.4 4	1256.91	2 ⁺	D+Q		Mult.: A ₂ =+0.01 7, A ₄ =-0.18 11. Additional information 75.
		2178.35 11	84.6 4	564.06	2 ⁺	D+Q		δ : all values possible. Mult.: A ₂ =+0.139 19, A ₄ =+0.02 3. Additional information 76.
2755.76	0 ⁺ ,1 ⁺ ,2 ⁺	1498.71 9	53.8 6	1256.91	2 ⁺			δ : -0.32 < δ < -1.40. A ₂ =+0.13 4, A ₄ =+0.09 6. Additional information 77.
		2192.46 22	46.2 6	564.06	2 ⁺			A ₂ =-0.11 5, A ₄ =-0.04 7. Additional information 78.
2758.45	(6 ⁻)	351.20 24	67.3 11	2407.38	5 ⁻	D+Q	-0.32 +10-8	E _{γ} : poor fit. Level-energy difference=2191.68. Mult.: A ₂ =-0.78 9, A ₄ =-0.10 9. Additional information 79.
		1007.39 12	32.7 11	1751.02	6 ⁺			A ₂ =+1.2 11, A ₄ =+0.62 15. Additional information 80.
2758.57	(4,5,6) ⁺	717.20 14	18.0 5	2041.09	4 ⁺	M1+E2	+3 +3-1	Mult.: A ₂ =+0.41 8, A ₄ =+0.22 11; RUL. Additional information 81.
		1577.31 7	82.0 5	1181.31	4 ⁺	(M1+E2)	+0.51 +12-9	Mult.: A ₂ =+0.45 3, A ₄ =+0.10 4; RUL.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2770.57		1589.24 9	100	1181.31	4 ⁺			Additional information 82. A ₂ =+0.28 5, A ₄ =+0.03 7.
2772.55		1591.22 9	100	1181.31	4 ⁺			Additional information 83. A ₂ =+0.02 6, A ₄ =+0.05 9.
2777.49	1,2,3	2213.41 11	100	564.06	2 ⁺	D(+Q)	-0.03 +9-6	Additional information 84. Mult.: A ₂ =+0.151 22, A ₄ =+0.03 3.
2789.68		2225.60 13	100	564.06	2 ⁺			Additional information 85. A ₂ =+0.38 11, A ₄ =+0.09 17.
2796.18	1,2,3	2232.10 12	100	564.06	2 ⁺	D(+Q)	0.00 9	Additional information 86. Mult.: A ₂ =+0.168 22, A ₄ =+0.05 3.
2801.28	(2,3)	604.10 17	14.5 ^b 10	2196.75	3 ⁻	D+Q	+0.5 +5-3	Additional information 87. Mult.: A ₂ =+0.53 12, A ₄ =-0.02 17.
		1544.5 5	11.7 ^b 11	1256.91	2 ⁺	D+Q	-3.5 +13-17	Additional information 88. Mult.: A ₂ =-0.33 6, A ₄ =+0.37 10.
		2237.40 12	73.8 ^b 13	564.06	2 ⁺	D(+Q)	-0.03 6	Additional information 89. Mult.: A ₂ =-0.229 23, A ₄ =-0.05 3.
2808.80?		899.28 ^{#&f} 5		1909.55	4 ⁺			Additional information 90.
2810.07	3,4 ⁺	1628.81 [@] 7	91.8 ^c 7	1181.31	4 ⁺	D(+Q)	+0.03 +23-12	Additional information 91. Mult.: A ₂ =+0.35 3, A ₄ =+0.08 4.
		2245.51 19	8.2 7	564.06	2 ⁺			Additional information 92. A ₂ =+0.20 26, A ₄ =-0.2 4.
2816.79	3,4,5	907.06 10	29.3 ^b 14	1909.55	4 ⁺	D(+Q)	+0.2 +4-3	Additional information 93. Mult.: A ₂ =-0.14 6, A ₄ =-0.48 9.
		1635.61 9	70.7 ^b 14	1181.31	4 ⁺	D+Q	+0.47 +12-7	Additional information 94. Mult.: A ₂ =+0.40 4, A ₄ =0.00 5.
2822.8		1641.5 ^{#@} 3		1181.31	4 ⁺			Additional information 95.
2837.5		1656.2 ^{#@} 4		1181.31	4 ⁺			A ₂ =+0.01 7, A ₄ =+0.16 11.
2839.1?		899.1 ^{#&f} 5		1940.03	0 ⁺			Additional information 96.
2839.57	3 ⁺	1582.42 12	23.8 ^c 7	1256.91	2 ⁺	M1+E2	-0.03 19	Additional information 97. Mult.: A ₂ =-0.23 6, A ₄ =-0.09 10; $\Delta\pi$ =(no) from Mult.(1658 γ).
		1658.29 [@] 6	19.0 ^c 22	1181.31	4 ⁺	M1+E2	+1.7 +7-11	Additional information 98. Mult.: A ₂ =-0.477 21, A ₄ =+0.04 3; RUL.
								Additional information 99.

Continued on next page (footnotes at end of table)

$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued) $\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2839.57	3 ⁺	2275.8 3	57.2 17	564.06	2 ⁺	M1+E2	-0.8 3	Mult.: A ₂ =-0.63 3, A ₄ =+0.03 4; RUL. Additional information 100.
2860.58	4,5	452.10 22	36.7 6	2407.38	5 ⁻	D+Q	+0.4 3	E _γ : poor fit. Level-energy difference=453.20. Mult.: A ₂ =+0.47 5, A ₄ =-0.04 8. Additional information 101.
		1679.33 6	63.3 6	1181.31	4 ⁺	D(+Q)	+0.03 +6-3	Mult.: A ₂ =-0.17 3, A ₄ =+0.09 5. Additional information 102.
2885.64	1 ⁺ ,2 ⁺ ,3 ⁺	1628.8 [@] 5	10.8 ^c 6	1256.91	2 ⁺	M1+E2	+3.1 +13-10	Mult.: A ₂ =+0.35 3, A ₄ =+0.08 4; RUL. Additional information 103.
		2321.55 11	89.2 6	564.06	2 ⁺	M1+E2	+0.51 +8-9	Mult.: A ₂ =+0.279 21, A ₄ =+0.04 3; RUL. Additional information 104.
2889.8	(7 ⁻)	1138.8 [#] 10		1751.02	6 ⁺			A ₂ =+0.15 6, A ₄ =-0.11 9. Additional information 105.
2897.5		1640.6 ^{#@} 3		1256.91	2 ⁺			A ₂ =+0.54 5, A ₄ =-0.04 7. Additional information 106.
2898.89		1642.6 ^{#@} 3		1256.91	2 ⁺			A ₂ =-0.15 24, A ₄ =-0.4 3. Additional information 107.
		2334.63 16		564.06	2 ⁺			
2901.15		1719.82 11		1181.31	4 ⁺			
2910.93		1159.91 21		1751.02	6 ⁺			
2911.18	1 ⁺ ,2 ⁺	1654.3 3	16.3 ^b 4	1256.91	2 ⁺	M1+E2	-0.4 +2-3	Mult.: A ₂ =+0.01 7, A ₄ =+0.16 11; Δπ=no from mult.(2347γ). Additional information 108.
		2347.08 11	76.4 ^b 5	564.06	2 ⁺	M1+E2	+0.5 +7-3	Mult.: A ₂ =+0.301 24, A ₄ =+0.03 3; RUL. Additional information 109.
		2911.5 8	7.3 ^b 4	0.0	0 ⁺			A ₂ =-0.04 16, A ₄ =-0.66 24. Additional information 110.
2913.16		1656.3 ^{#@} 4		1256.91	2 ⁺			A ₂ =-0.477 21, A ₄ =+0.04 3. Additional information 111.
2915.97	1,2 ⁺	1731.8 ^{#@} 3		1181.31	4 ⁺			
		2351.96 13	51.0 5	564.06	2 ⁺	D(+Q)	-0.3 +5-2	Mult.: A ₂ =+0.13 3, A ₄ =+0.22 5. Additional information 112.
		2915.81 16	49.0 5	0.0	0 ⁺			A ₂ =-0.29 4, A ₄ =-0.07 6. Additional information 113.
2919.35	1,2 ⁺	2919.31 13		0.0	0 ⁺			A ₂ =-0.19 4, A ₄ =-0.08 5. Additional information 114.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2930.17	1,2,3	1673.22 14	40.3 7	1256.91	2 ⁺	D+Q	-4.5 +10-17	Mult.: A ₂ =-0.17 6, A ₄ =+0.09 8. Additional information 115.
		2366.11 15	59.7 7	564.06	2 ⁺	D(+Q)	-0.06 +6-10	Mult.: A ₂ =-0.25 4, A ₄ =+0.04 7. Additional information 116.
2930.53	3,4	733.42 8	26 2	2196.75	3 ⁻	D+Q	+0.78 +10-5	Mult.: A ₂ =+0.41 4, A ₄ =-0.19 6. Additional information 117.
		1750.01 12	74 2	1181.31	4 ⁺	D+Q	+0.93 +18-16	E _γ : poor fit. Level-energy difference=733.79. Mult.: A ₂ =+0.31 4, A ₄ =-0.05 6. Additional information 118.
2938.90		2374.82 11		564.06	2 ⁺			E _γ : poor fit. Level-energy difference=1749.21. A ₂ =+0.307 25, A ₄ =+0.07 4. Additional information 119.
2944.2		1762.9#@ 8		1181.31	4 ⁺			
2958.10	3,4 ⁺	1701.5 5	15.3 3	1256.91	2 ⁺			A ₂ =+0.04 7, A ₄ =+0.09 12. Additional information 120.
		1776.78 11	52.6 5	1181.31	4 ⁺	D(+Q)	+0.4 +5-4	Mult.: A ₂ =+0.45 4, A ₄ =-0.06 5. Additional information 121.
		2393.8 3	32.1 5	564.06	2 ⁺			A ₂ =+0.14 5, A ₄ =-0.05 7. Additional information 122.
2959.12	1,2 ⁺	2959.08 15		0.0	0 ⁺			A ₂ =-0.23 14, A ₄ =-1.04 22. Additional information 123.
2961.46		1780.13#@ 21		1181.31	4 ⁺			A ₂ =-0.22 4, A ₄ =-0.35 5. Additional information 124.
2975.36	2,3,4	778.61 13		2196.75	3 ⁻	D+Q	-1.7 +5-4	Mult.: A ₂ =-0.63 4, A ₄ =+0.08 7. Additional information 125.
2982.33	1,2 ⁺	1725.30 9	22.9 9	1256.91	2 ⁺	D+Q		Mult.: A ₂ =-0.08 12, A ₄ =-0.13 19. Additional information 126.
		2418.1 3	15.3 5	564.06	2 ⁺	D+Q		δ: all values possible. Mult.: A ₂ =-0.36 9, A ₄ =-0.25 14. Additional information 127.
		2982.54 13	61.8 9	0.0	0 ⁺			δ: all values possible. A ₂ =-0.22 4, A ₄ =+0.02 5. Additional information 128.
2993.62	4 ⁺	1736.2 3	12.6 5	1256.91	2 ⁺			A ₂ =-0.05 12, A ₄ =+0.28 17. Additional information 129.
		1812.34 9	70.0 6	1181.31	4 ⁺	M1+E2		Mult.: A ₂ =-0.18 4, A ₄ =-0.16 6; RUL. Additional information 130. δ: +6.6<δ<-10.0.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued) $\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
2993.62	4 ⁺	2429.49 22	17.4 4	564.06	2 ⁺	E2		Mult.: $A_2=+0.46$ 7, $A_4=-0.14$ 10; RUL. Additional information 131.
2996.3	3,4,5	1086.7 3		1909.55	4 ⁺	D+Q	-2.7 +12-24	$A_2=-0.34$ 22, $A_4=+0.53$ 23. Additional information 132.
2998.02	2 ⁺ ,3,4 ⁺	1816.73 9		1181.31	4 ⁺			Mult.: $A_2=+0.34$ 4, $A_4=-0.04$ 6. Additional information 133.
3009.49		2433.83 [#] 14		564.06	2 ⁺			
3012.62	3	2445.40 14		564.06	2 ⁺			
3012.62	3	1831.28 12	63.0 6	1181.31	4 ⁺	D+Q	+0.13 +14-9	Mult.: $A_2=-0.18$ 4, $A_4=-0.06$ 6. Additional information 134.
		2448.58 21	37.0 6	564.06	2 ⁺	D(+Q)	+0.03 +10-12	Mult.: $A_2=-0.19$ 5, $A_4=-0.10$ 8. Additional information 135.
3026.79	2 ⁺ ,3 ⁺	468.81 22	25.3 6	2557.84	1,2,3	D(+Q)	+0.1 +4-3	Mult.: $A_2=+0.19$ 7, $A_4=+0.02$ 10. Additional information 136.
		1074.90 10	17.6 4	1951.69	3 ⁺	M1(+E2)	+0.03 +23-22	Mult.: $A_2=-0.17$ 6, $A_4=-0.26$ 10; $\Delta\pi=\text{no}$ from mult.(2463 γ). Additional information 137.
		1770.05 9	46.7 6	1256.91	2 ⁺	M1+E2	+0.6 +4-2	Mult.: $A_2=+0.36$ 4, $A_4=+0.02$ 6; RUL. Additional information 138.
		2462.5 21	10.4 8	564.06	2 ⁺	M1+E2		Mult.: $A_2=-0.13$ 16, $A_4=0.00$ 24; RUL. Additional information 139.
		3026.9 ^a 5	<0.2	0.0	0 ⁺			$\delta: +2.1 < \delta < 0$.
3030.59		1849.26 10	100	1181.31	4 ⁺	(E2)		$A_2=+0.52$ 5, $A_4=-0.05$ 7. Additional information 140.
3037.10	2 ⁺ ,3 ⁺	1780.08 [@] 9	29.4 12	1256.91	2 ⁺			δ value (+14< δ <-0.4) is given in table 1 of 2005Hi04, but no A_2 and A_4 are given in 2005HiZZ. See comment in 1856 γ . Additional information 141.
		1856.32 16	25.0 10	1181.31	4 ⁺			$A_2=-0.10$ 11, $A_4=+0.21$ 16: these values are not consistent with the 2 ⁺ to 4 ⁺ transition. the evaluator assumes these values belong to the 1780.08 γ . Additional information 142.
		2472.71 20	45.6 12	564.06	2 ⁺	M1+E2	+2.3 +16-6	E_γ : poor fit. Level-energy difference=1855.77. Mult.: $A_2=+0.13$ 6, $A_4=-0.05$ 9; RUL.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
3037.10 3042.10	2 ⁺ ,3 ⁺	3036.7 ^a 5 1860.77 12	<0.2	0.0 1181.31	0 ⁺ 4 ⁺			Additional information 143. A ₂ =+0.26 5, A ₄ =-0.35 7.
3044.40	1 ⁺ ,2 ⁺	945.5 ^{#@} 5		2099.33	(2) ⁺			Additional information 144. A ₂ =+0.24 8, A ₄ =-0.02 12.
		1787.46 24	<21	1256.91	2 ⁺	M1(+E2)		Additional information 145. Mult.: A ₂ =+0.24 11, A ₄ =+0.54 13; RUL.
		2480.35 16	<66	564.06	2 ⁺	M1(+E2)	-1 +1-13	Additional information 146. δ : +1.9< δ <0.13. Mult.: A ₂ =+0.11 10, A ₄ =+0.18 12; $\Delta\pi$ =no from mult.(1787 γ).
		3043.7 5	<13	0.0	0 ⁺			Additional information 147. A ₂ =+0.80 12, A ₄ =-0.69 18.
3047.76	(3)	1790.39 24	13.4 7	1256.91	2 ⁺	D(+Q)	-1 +1-13	Additional information 148. Mult.: A ₂ =+0.25 14, A ₄ =+0.59 22.
		1865.97 25	37.7 8	1181.31	4 ⁺	D+Q		Additional information 149. Mult.: A ₂ =0.00 5, A ₄ =+0.34 8.
		2484.17 18	48.9 9	564.06	2 ⁺	D+Q		Additional information 150. δ : +3.4< δ <-3.5. Mult.: A ₂ =+0.04 11, A ₄ =+0.36 13.
3052.11	0 ⁺ ,1,2	1795.21 19	57.9 12	1256.91	2 ⁺			Additional information 151. δ : +34< δ <-2.5. A ₂ =+0.15 8, A ₄ =+0.44 10.
		2487.7 7	42.1 12	564.06	2 ⁺			Additional information 152. A ₂ =-0.33 9, A ₄ =-0.46 14.
3057.2		1875.9 19		1181.31	4 ⁺			Additional information 153. A ₂ =-0.05 12, A ₄ =-0.12 22.
3061.0	1 ⁺ ,2 ⁺	2496.7 4	16.4 6	564.06	2 ⁺	M1(+E2)		Additional information 154. Mult.: A ₂ =+0.24 10, A ₄ =-0.13 15; RUL.
		3061.2 5	83.6 6	0.0	0 ⁺			Additional information 155. δ : all values possible. A ₂ =+0.37 3, A ₄ =-0.28 5.
3068.7 3069.36	3,4,5 ⁻	2504.6 4 873.30 15	11.4 7	564.06 2196.75	2 ⁺ 3 ⁻			Additional information 156. A ₂ =0.00 23, A ₄ =-0.3 3.
		1887.58 12	88.6 7	1181.31	4 ⁺	D+Q	+8 +6-2	Additional information 157. E γ : poor fit. Level-energy difference=872.60. Mult.: A ₂ =+0.19 3, A ₄ =+0.24 6.
								Additional information 158.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
3071.23		1890.03 [@] 18	74.1 ^c 11	1181.31	4 ⁺			E _γ : poor fit. Level-energy difference=1888.03. Additional information 159.
		2506.5 4	25.9 11	564.06	2 ⁺			Additional information 160.
3074.49	1,2 ⁺	1134.45 ^e 8	^{ec}	1940.03	0 ⁺			Additional information 161.
3080.7		1899.4 [#] 14		1181.31	4 ⁺			Additional information 162.
3084.6		1903.3 ^{#&} 13		1181.31	4 ⁺			Additional information 163.
3086.16		1134.45 ^e 8	49.6 ^{ec} 21	1951.69	3 ⁺			Additional information 164.
		1905.5 7	50.4 21	1181.31	4 ⁺			A ₂ =-0.79 13, A ₄ =+0.25 21. Additional information 165.
3094.65	2 ⁺	898.78 ^{&} 11	18.7 6	2196.75	3 ⁻			Additional information 166.
		994.95 9	31.4 6	2099.33	(2) ⁺			E _γ : poor fit. Level-energy difference=897.90. A ₂ =+0.31 4, A ₄ =+0.10 6. Additional information 167.
		1142.7 7	9.4 8	1951.69	3 ⁺			E _γ : poor fit. Level-energy difference=995.32. A ₂ =+1.1 3, A ₄ =+1.0 4. Additional information 168.
		1837.18 15	28.2 6	1256.91	2 ⁺			A ₂ =+0.21 6, A ₄ =-0.06 9. Additional information 169.
		2530.3 12	5.6 5	564.06	2 ⁺			E _γ : poor fit. Level-energy difference=1837.73. A ₂ =-0.29 24, A ₄ =+0.6 3. Additional information 170.
		3094.0 5	6.7 4	0.0	0 ⁺			A ₂ =+0.42 17, A ₄ =-1.72 25. Additional information 171.
3104.1	1,2 ⁺	3104.1 5		0.0	0 ⁺			A ₂ =-0.28 25, A ₄ =+0.1 4. Additional information 172.
3112.69	2,3	1161.4 3	45.2 1	1951.69	3 ⁺	D(+Q)	0 +4-1	Mult.: A ₂ =+0.49 8, A ₄ =+0.42 13. Additional information 173.
		2548.2 3	54.8 1	564.06	2 ⁺	D+Q	-0.7 +3-6	Mult.: A ₂ =-0.70 5, A ₄ =-0.23 9. Additional information 174.
3132.21	(2 ⁺ ,3 ⁺ ,4 ⁺)	935.57 16	32.8 9	2196.75	3 ⁻	(E1)		A ₂ =+0.39 8, A ₄ =+0.42 11; Δπ=(yes) from mult.(2568γ). Additional information 175.
		1950.83 ^{#&} 11	14.4 ^c 13	1181.31	4 ⁺			Additional information 176.

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$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
3132.21	(2 ⁺ ,3 ⁺ ,4 ⁺)	2568.09 20	52.8 11	564.06	2 ⁺	(E2)		A ₂ =+0.29 6, A ₄ =-0.34 9; RUL. Additional information 177.
3134.5		1953.2#& 5	100 ^c	1181.31	4 ⁺			Additional information 178.
3139.64		1958.31@ 14	100 ^c	1181.31	4 ⁺			Additional information 179.
3142.9		1961.6@ 5	100 ^c	1181.31	4 ⁺			Additional information 180.
3147.58		1048.7 4	20.0 13	2099.33	(2) ⁺			A ₂ =-1.4 4, A ₄ =-1.1 3. A ₂ and A ₄ quoted by 2005HiZZ seem unrealistically large in magnitude (Evaluator). Additional information 181.
		1890.27#@ 15	34.7 ^c 13	1256.91	2 ⁺			Additional information 182.
		2584.17#@ 22	45.3 ^c 12	564.06	2 ⁺			Additional information 183. E _γ : poor fit. Level-energy difference=2583.48.
3150.64	0 ⁺ ,1,2	2586.55#@ 22		564.06	2 ⁺			Additional information 184.
3153.12		2589.03#& 22		564.06	2 ⁺			
3155.79		2591.70#& 22		564.06	2 ⁺			
3157.90		1900.98#& 11		1256.91	2 ⁺			Additional information 185.
3159.75	2 ⁺ ,3,4 ⁺	1903.0#& 13		1256.91	2 ⁺			Additional information 186.
		1977.8 4		1181.31	4 ⁺			A ₂ =+0.19 5, A ₄ =+0.54 10. Additional information 187.
		2595.73# 14		564.06	2 ⁺			
3160.17		1903.25#& 11		1256.91	2 ⁺			Additional information 188.
3172.40		1991.07#@ 11	84.2 19	1181.31	4 ⁺			Additional information 189.
		2607.8 12	15.8 19	564.06	2 ⁺			A ₂ =-0.26 6, A ₄ =-4.1 11. A ₄ quoted by 2005HiZZ seems unrealistically large (Evaluator). Additional information 190.
3177.24		1077.88 8		2099.33	(2) ⁺			A ₂ =+0.86 20, A ₄ =+0.1 3. Additional information 191.
		1920.50# 21		1256.91	2 ⁺			
3183.2		2001.9 4		1181.31	4 ⁺			A ₂ =+0.34 3, A ₄ =0.00 6. Additional information 192.
3192.73	4,5,6	2011.40 10		1181.31	4 ⁺	D+Q	-0.8 +6-17	Mult.: A ₂ =-0.4 4, A ₄ =-1.4 6. Additional information 193.
3196.7	4,5,6	2015.4 6		1181.31	4 ⁺	D+Q	-0.8 +5-7	Mult.: A ₂ =-0.76 8, A ₄ =-0.40 12.

Continued on next page (footnotes at end of table)

$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV **2005Hi04,2005HiZZ** (continued)

$\gamma(^{122}\text{Te})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^d	δ^d	Comments
3198.19	1,2,3	2634.10 15		564.06	2 ⁺	D(+Q)	0.00 3	Additional information 194. Mult.: A ₂ =-0.19 4, A ₄ =-0.01 6.
3199.3	1,2 ⁺	3199.3 6		0.0	0 ⁺			Additional information 195. A ₂ =-0.55 7, A ₄ =+0.01 11.
3207.85	1,2 ⁺	1950.91 [@] 21 3207.9 5	37.0 ^C 11 63.0 11	1256.91 0.0	2 ⁺ 0 ⁺			Additional information 196. Additional information 197. A ₂ =-0.04 6, A ₄ =+0.16 9.
3209.85	0 ⁺ ,1,2,3	2645.76 16		564.06	2 ⁺			Additional information 198. A ₂ =+0.02 5, A ₄ =-0.07 7.
3210.33		1300.65 [@] 17 2029.12 [@] 17		1909.55 1181.31	4 ⁺ 4 ⁺			Additional information 199.
3211.3		1954.2 ^{#@} 5 2647.4 5	43.1 15 56.9 15	1256.91 564.06	2 ⁺ 2 ⁺			Additional information 200. A ₂ =+0.20 11, A ₄ =+0.08 15.
3223.30	4 ⁺	1966.39 9 2659.17 16	26.4 9 73.6 9	1256.91 564.06	2 ⁺ 2 ⁺	E2		Mult.: A ₂ =+0.44 8, A ₄ =+0.02 14; RUL. Additional information 201. Additional information 202. A ₂ =+0.15 5, A ₄ =-0.17 7.
3246.4		1989.6 [@] 5 2681.4 15	74.4 ^C 12 25.6 12	1256.91 564.06	2 ⁺ 2 ⁺			Additional information 203. Additional information 204. A ₂ =+0.05 13, A ₄ =+0.65 19.
3252.48	1,2 ⁺	2688.40 16 3252.2 9	55.8 14 44.2 14	564.06 0.0	2 ⁺ 0 ⁺			Additional information 205. A ₂ =-0.04 12, A ₄ =+0.27 18. Additional information 206.
3256.1		2074.8 ^{#@} 4		1181.31	4 ⁺			A ₂ =+0.55 14, A ₄ =-0.53 21. Additional information 207.
3262.50		2081.17 22		1181.31	4 ⁺			A ₂ =+0.45 14, A ₄ =+0.22 20. Additional information 208.
3283.86		2027.45 23 2719.30 [@] 22		1256.91 564.06	2 ⁺ 2 ⁺			
3289.1	1,2 ⁺	3289.1 5		0.0	0 ⁺			A ₂ =-0.77 10, A ₄ =-0.17 16. Additional information 209.
3293.4		2112.1 [#] 5		1181.31	4 ⁺			A ₂ =+0.69 10, A ₄ =+0.62 13. Additional information 210.
3297.1		2733.0 [#] 9		564.06	2 ⁺			A ₂ =-0.12 11, A ₄ =-0.03 17. Additional information 211.
3300.8		1013.5 [#] 5		2287.32	2 ⁺			
3302.7	0 ⁺ ,1,2	2045.5 [#] 5 2738.8 [#] 5		1256.91 564.06	2 ⁺ 2 ⁺			
3315.3		2751.2 [#] 5		564.06	2 ⁺			
3333.6		2152.3 [#] 5		1181.31	4 ⁺			
3335.7		2771.6 [#] 5		564.06	2 ⁺			
3339.1		2775.0 [#] 5		564.06	2 ⁺			
3357.2		2175.9 [#] 5		1181.31	4 ⁺			

[†] From [2005Hi04](#).

[‡] Branching ratios deduced from A₀ coefficient in $\gamma(\theta)$ data at the lowest incident neutron energy possible, except when stated otherwise. The A₀ values from $\gamma(\theta)$ data ([2005HiZZ](#)) are given under 'document records' in this dataset.

$^{122}\text{Te}(\text{n},\text{n}'\gamma)$ E=1.7,2.8,3.4 MeV 2005Hi04,2005HiZZ (continued)

$\gamma(^{122}\text{Te})$ (continued)

Assignment from $\gamma\gamma$ coin only.

@ Doublet.

& Triplet.

^a Seen In summed angle data only.

^b Branching ratio from excitation function data.

^c Doublet or multiplet strength split using coin yields.

^d From $\gamma(\theta)$ and RUL: transitions with $A_2 \approx +0.3$ and $A_4 \approx -0.1$ are assigned as stretched Q, further applying RUL conditions, mult.=E2 are deduced; D(+Q) transitions with large δ are assigned as M1(+E2) using RUL conditions (this assignment process was applied for the γ 's decaying from E(level)<3MeV excitation). If the J^π of the parent level is known, ΔJ and/or $\Delta\pi$ change(s) are used for the mult. assignments.

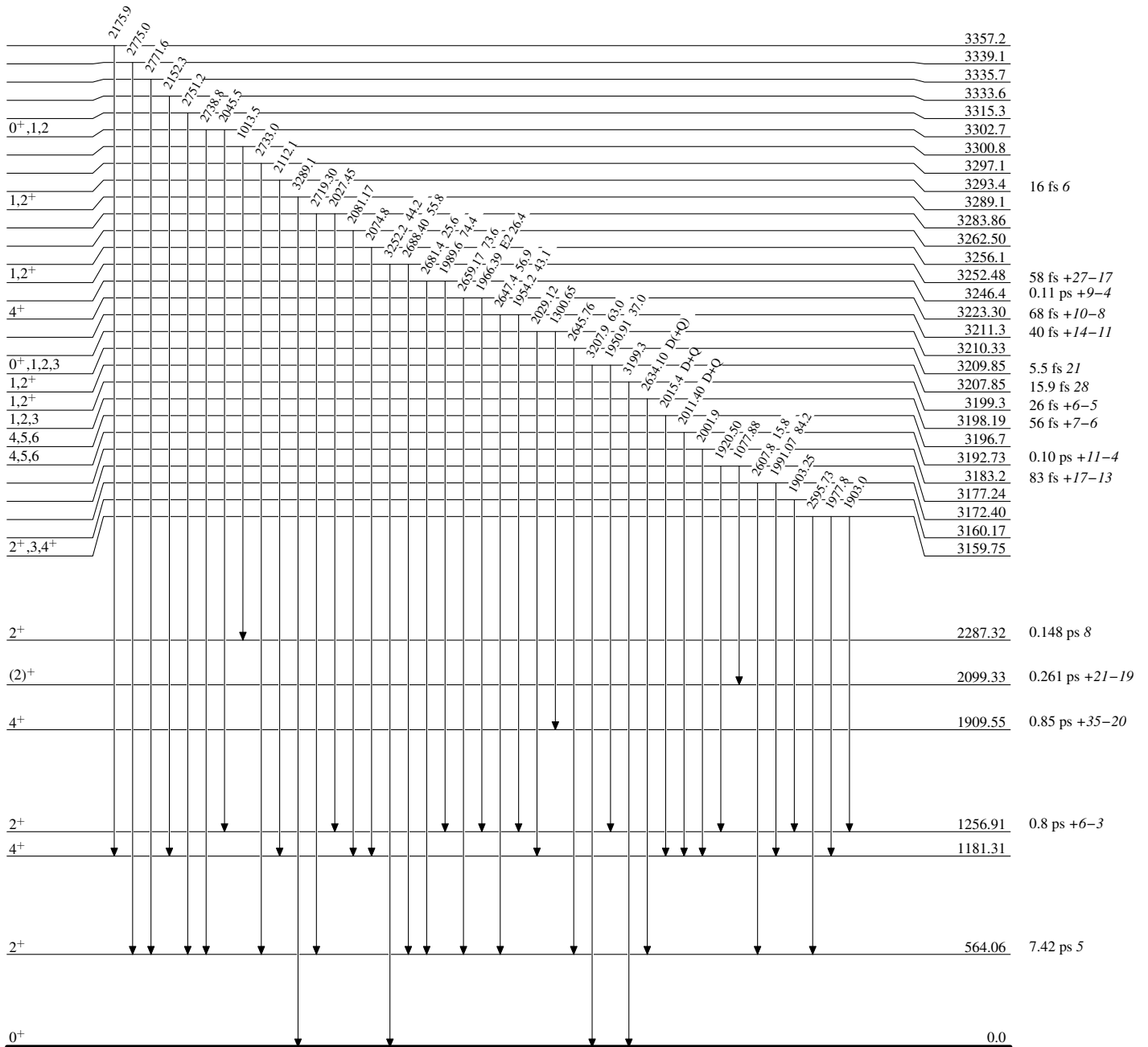
^e Multiply placed with intensity suitably divided.

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

$^{122}\text{Te}(n,n'\gamma) E=1.7,2.8,3.4 \text{ MeV}$ 2005Hi04,2005HiZZ

Level Scheme

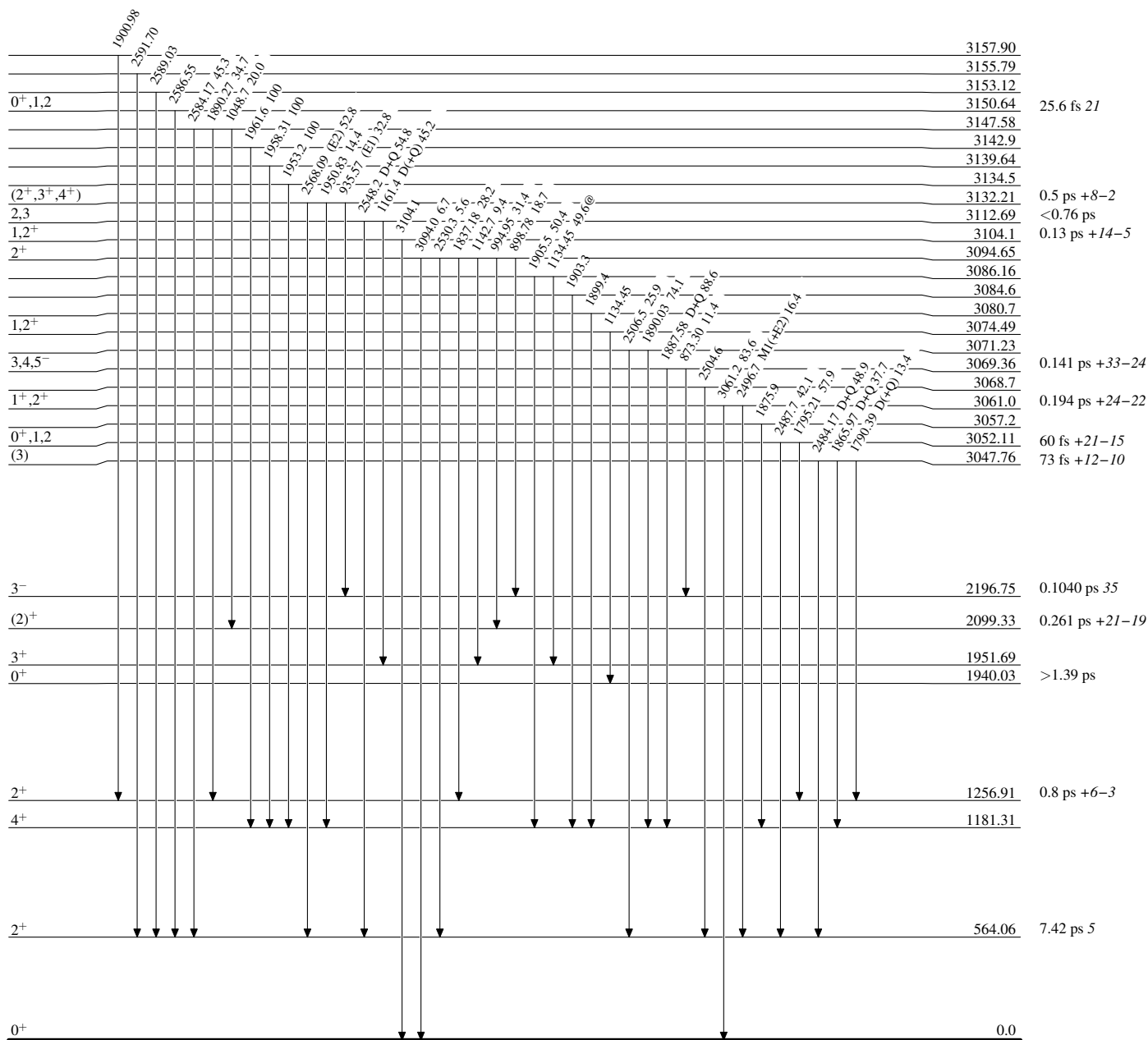
Intensities: % photon branching from each level

 $^{122}\text{Te}_{70}$

$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV 2005Hi04,2005HiZZ

Level Scheme (continued)

Intensities: % photon branching from each level
 @ Multiply placed: intensity suitably divided

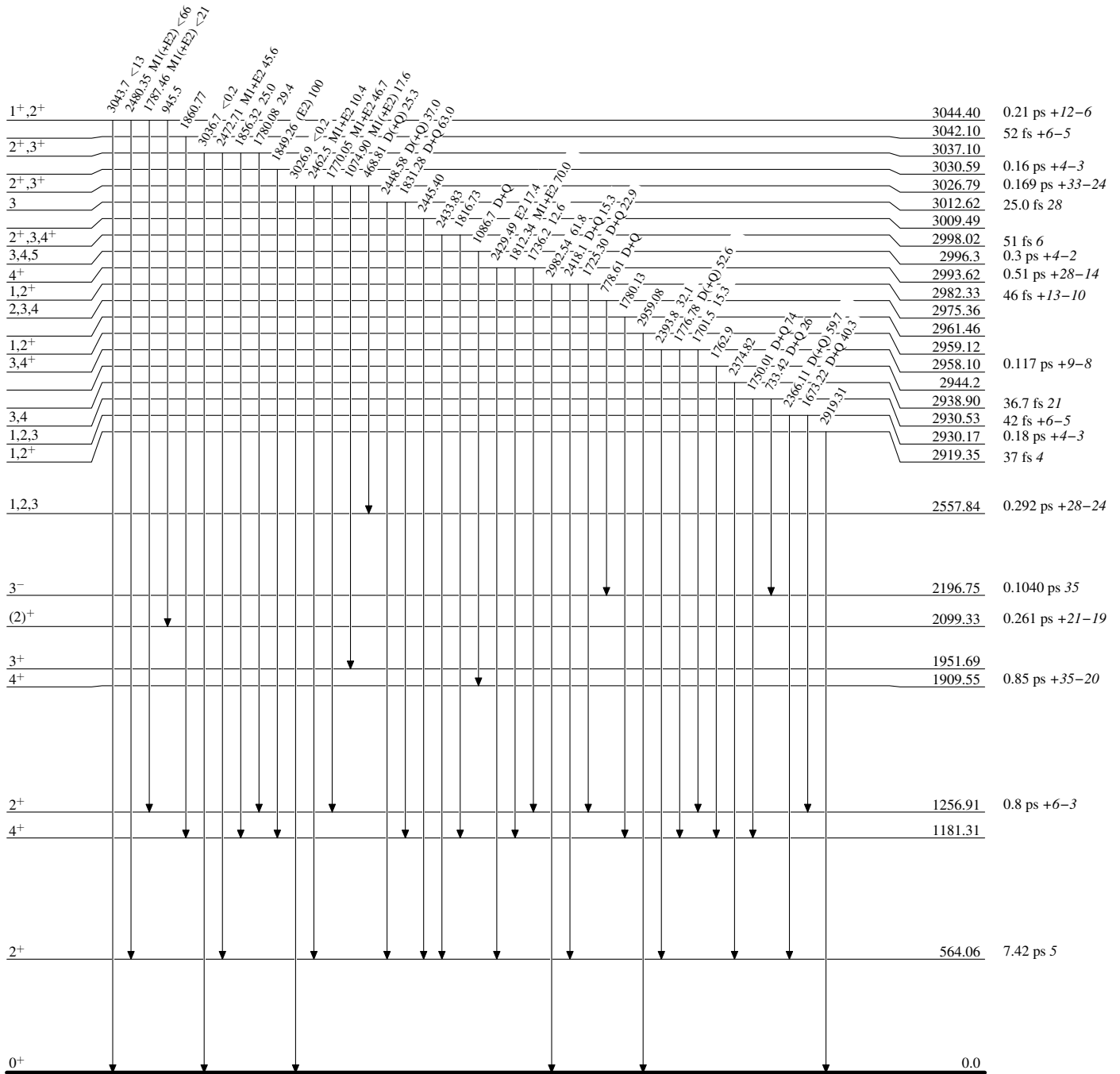


$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV 2005Hi04,2005HiZZ

Level Scheme (continued)

Intensities: % photon branching from each level

@ Multiply placed: intensity suitably divided



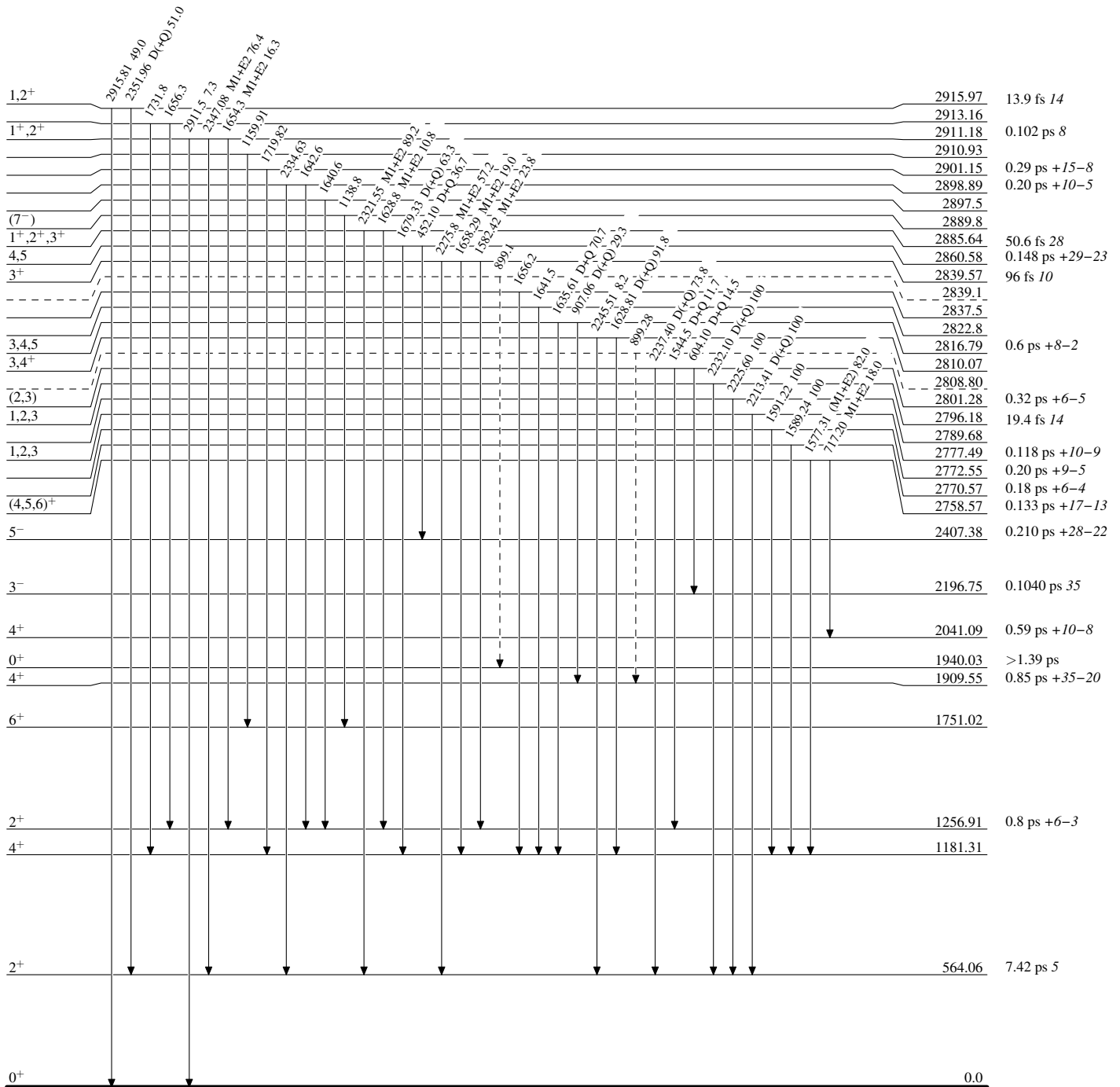
$^{122}\text{Te}(n,n'\gamma) E=1.7,2.8,3.4 \text{ MeV}$ 2005Hi04,2005HiZZ

Legend

Level Scheme (continued)

Intensities: % photon branching from each level
@ Multiply placed: intensity suitably divided

-----▶ γ Decay (Uncertain)



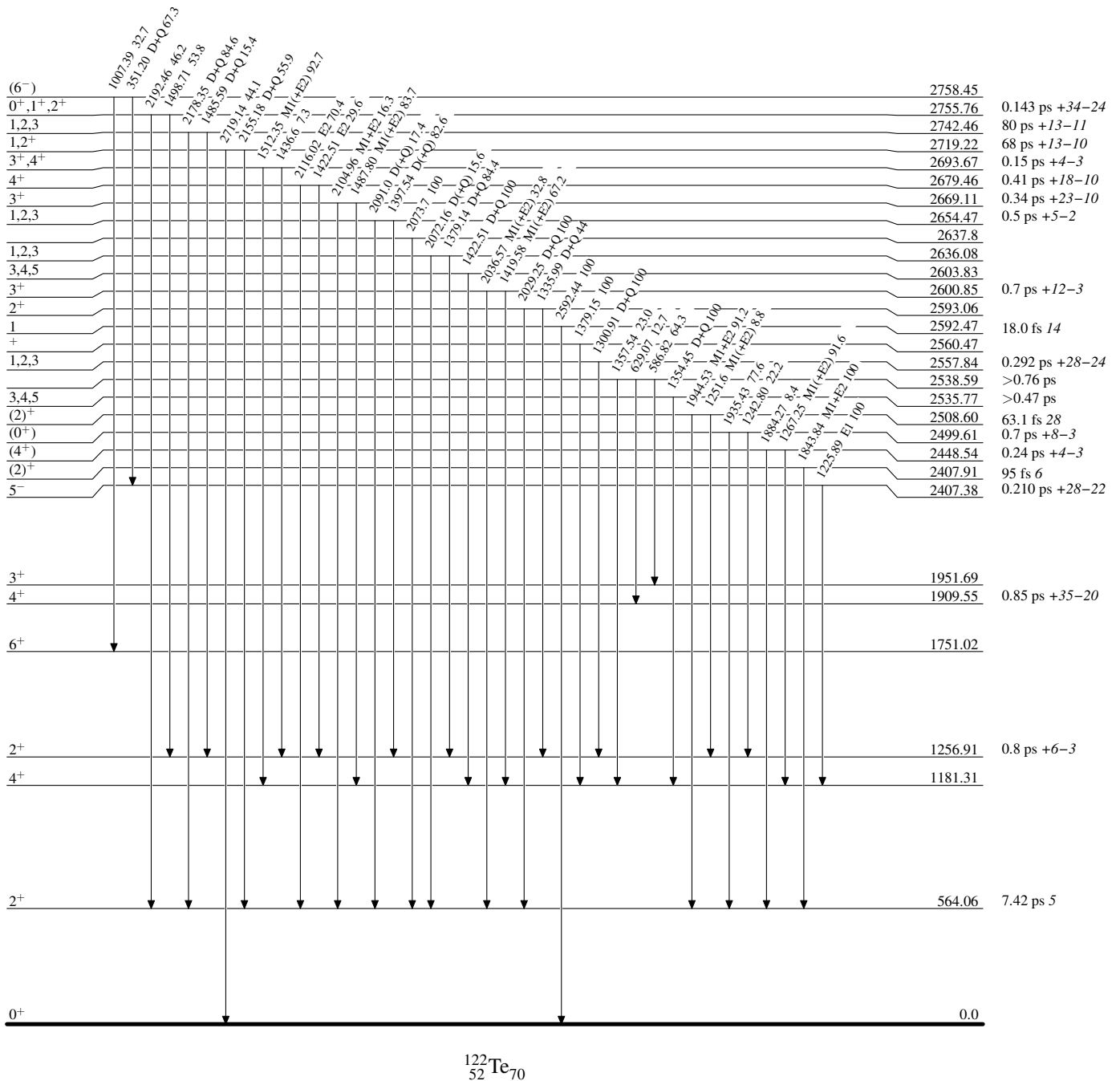
$^{122}_{52}\text{Te}_{70}$

$^{122}\text{Te}(n,n'\gamma)$ E=1.7,2.8,3.4 MeV 2005Hi04,2005HiZZ

Level Scheme (continued)

Intensities: % photon branching from each level

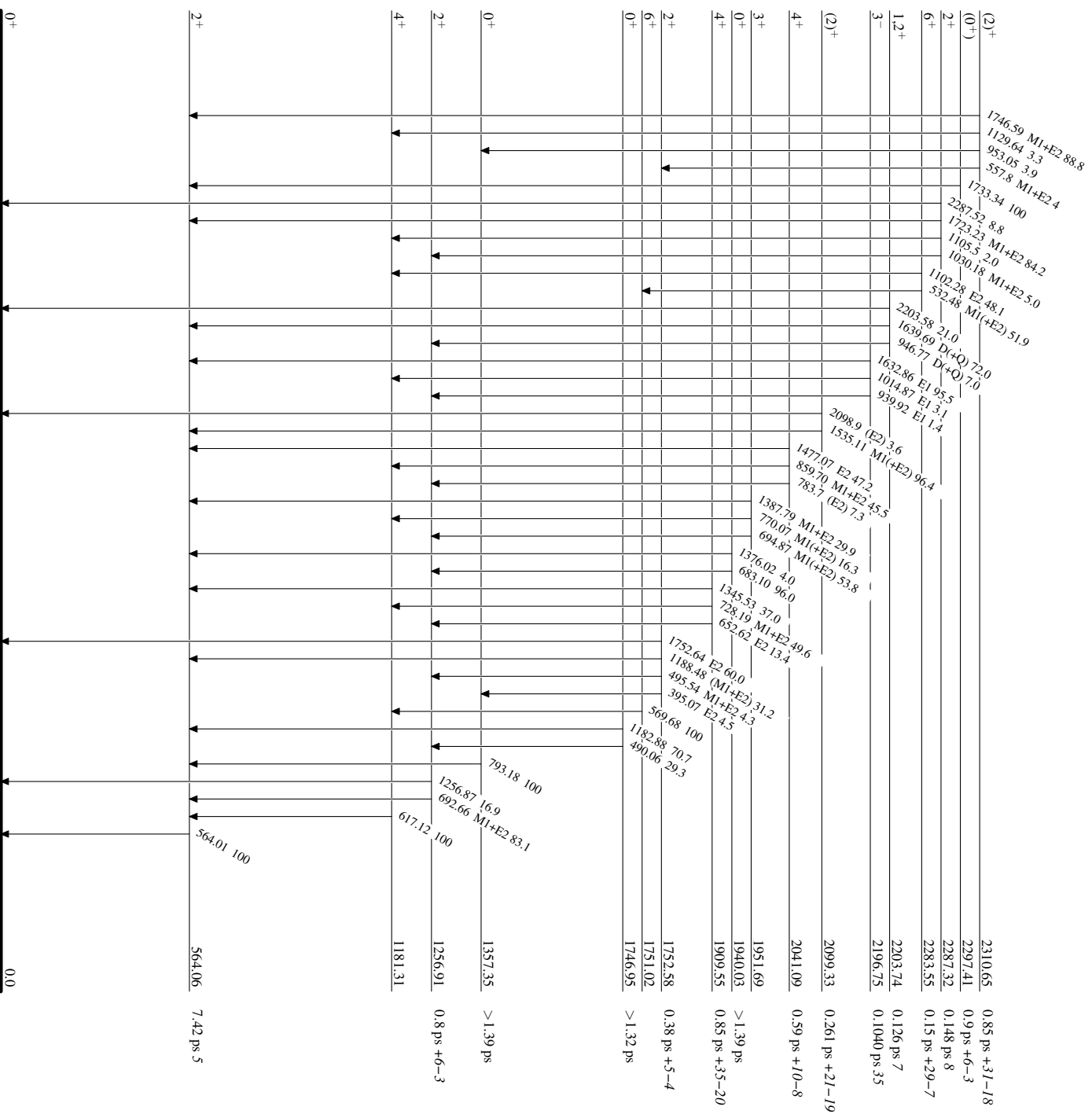
@ Multiply placed: intensity suitably divided



¹²²Te(u,n' γ) E=1.7,2.8,3.4 MeV 2005HI04,2005HI22

Level Scheme (continued)

Intensities: % photon branching from each level
 @ Multiply placed: intensity suitably divided



¹²²Te₇₀