^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04

History

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

E=24 MeV (1983Ba10); 18-26 MeV (1983Ba10); 12.6-27 MeV (1982Pa04).
Measured: γ, $\gamma\gamma$, $\gamma(\theta)$, ce (1983Ba10,1982Pa04), γ(t) (1982Pa04).

^{145}Gd Levels

E(level)	J$^{\pi}$[†]	T$_{1/2}$[‡]	E(level)	J$^{\pi}$[†]
0.0	$1/2^+$		2442.7	$13/2^-$
27.3 *1*	$3/2^+$		2472.4	
748.8	$11/2^-$		2784.1	$(11/2^+,13/2^+)$
1015.1	$5/2^+$		2823.2	$15/2^+$
1272.9	$7/2^-$		2872.6	
1415.3	$7/2^+$	<0.3 ns	2886.0	$(13/2,15/2,17/2)^-$
1498.0	$5/2^+$		2974.8	$(13/2,15/2)^+$
1524.7	$(5/2,7/2)^-$		2987.3	
1666.3	$7/2^{(-)}$		3176.2	
1683.9	$9/2^-$		3195.1	
1809.9	$9/2^-$		3207.3	$17/2^+$
2181.8	$(9/2^-)$	<0.3 ns	3285.1	
2195.6	$11/2^-$		3354.2	
2200.1	$13/2^+$	20.4 ns *16*	3357.1	$19/2^+$
2258.5	$11/2^-$		3458.4	$21/2^+$
2301.6	$13/2^+$		3469.6	
2382.3	$(9/2^-)$		3511.7	
2411.4[#]	$15/2^+$		3573.6	
2432.4	$17/2^+$	0.37 ns *15*		

[†] Adopted values.
[‡] From 1982Pa04.
[#] Two levels at 2411.4 and 2411.8 were proposed by 1983Ba10, one decaying through 109.8γ and the other through 211.7. Based on the level scheme of 1996Sc04 (from the same laboratory as 1983Ba10), only one level is adopted here.

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04 (continued)

$\gamma(^{145}Gd)$

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡#]	δ	α[†]	$I_{(\gamma+ce)}$	Comments
20.7[@] *2*		2432.4	$17/2^+$	2411.4	$15/2^+$				81 *43*	$I_{(\gamma+ce)}$: based on branching in 1982Pa04.
27.3[@] *1*		27.3	$3/2^+$	0.0	$1/2^+$					I_γ: 125 *15* (1982Pa04) at 20.2 MeV.
77.8[@]		3285.1		3207.3	$17/2^+$					I_γ: 5 *2* (1982Pa04).
101.3	20 *4*	3458.4	$21/2^+$	3357.1	$19/2^+$	D				Mult.: A_2=−0.21 *7*, A_4=+0.05 *8*. Others: A_2=−0.21 *2*, A_4=−0.04 *3* (1982Pa04).
109.5	4 *2*	1524.7	$(5/2,7/2)^-$	1415.3	$7/2^+$					
109.8	105 *8*	2411.4	$15/2^+$	2301.6	$13/2^+$	D+Q				Mult.: A_2=−0.19 *2*, A_4=+0.06 *2*. Others: A_2=−0.21 *1*, A_4=−0.01 *2* (1982Pa04).
112.5	5 *2*	3469.6		3357.1	$19/2^+$					
115.2	8 *4*	3573.6		3458.4	$21/2^+$					
141.6	5 *2*	1666.3	$7/2^{(-)}$	1524.7	$(5/2,7/2)^-$					
149.8	25 *4*	3357.1	$19/2^+$	3207.3	$17/2^+$	D				Mult.: A_2=−0.15 *5*; A_4=−0.05 *5*.
168.3	22 *4*	1666.3	$7/2^{(-)}$	1498.0	$5/2^+$	D				Mult.: A_2=−0.15 *5*, A_4=+0.03 *5*. Others: A_2=−0.21 *2*, A_4=−0.07 *3* (1982Pa04).
170.8[@] *8*		2472.4		2301.6	$13/2^+$					I_γ: 4 *1* (1982Pa04) at 20.2 MeV.
190.7	25 *5*	2974.8	$(13/2,15/2)^+$	2784.1	$(11/2^+,13/2^+)$	M1(+E2)		0.29 *4*		α(K)=0.23 *5*; α(L)=0.051 *12*; α(M)=0.012 *3*; α(N+..)=0.0030 *8* α(N)=0.0026 *7*; α(O)=0.00038 *8*; α(P)=1.5×10^{-5} *6* Mult.: α(K)exp=0.33 *9*, A_2=−0.31 *1*, A_4=+0.01 *2* (1982Pa04). Others: A_2=−0.24 *4*, A_4=+0.03 *5* (1983Ba10).
201.4	10 *3*	3176.2		2974.8	$(13/2,15/2)^+$	D				Mult.: A_2=−0.2 *1*.
211.7	15 *5*	2411.4	$15/2^+$	2200.1	$13/2^+$	M1(+E2)		0.21 *3*		α(K)=0.17 *4*; α(L)=0.036 *6*; α(M)=0.0080 *16*; α(N+..)=0.0021 *4* α(N)=0.0018 *4*; α(O)=0.00026 *4*; α(P)=1.1×10^{-5} *4* Mult.: A_2=−0.36 *9*, A_4=−0.03 *12*.
220.3	7 *3*	3195.1		2974.8	$(13/2,15/2)^+$	D				Mult.: A_2=−0.27 *11*, A_4=−0.06 *14*.
225.1	5 *2*	1498.0	$5/2^+$	1272.9	$7/2^-$	D				Mult.: A_2=−1.04.
247.1	42 *4*	2442.7	$13/2^-$	2195.6	$11/2^-$	M1(+E2)	+0.1 *1*	0.160 *3*		α(K)=0.1356 *25*; α(L)=0.0194 *3*; α(M)=0.00421 *7*; α(N+..)=0.001128 *17* α(N)=0.000968 *15*; α(O)=0.0001502 *22*; α(P)=1.003×10^{-5} *21* Mult.: α(K)exp=0.13 *3*, A_2=−0.01 *1*, A_4=−0.01 *2*. Others: α(K)exp=0.15 *3*, A_2=−0.00 *2*, A_4=−0.02 *2* (1982Pa04).
257.8	176 *8*	1272.9	$7/2^-$	1015.1	$5/2^+$	E1		0.0234		α(K)=0.0199 *3*; α(L)=0.00278 *4*; α(M)=0.000599 *9*; α(N+..)=0.0001587 *23* α(N)=0.0001368 *20*; α(O)=2.07×10^{-5} *3*; α(P)=1.248×10^{-6} *18* Mult.: α(K)exp=0.021 *5*, A_2=−0.12 *3*, A_4=+0.01 *1*. Others: α(K)exp=0.019 *3*, A_2=−0.133 *4*, A_4=−0.011 *6* (1982Pa04).

From ENSDF

$^{145}_{64}Gd_{81}$-2

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04 (continued)

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

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡#]	δ	α[†]	Comments
268.6	25 *5*	1683.9	$9/2^-$	1415.3	$7/2^+$	E1		0.0211	α(K)=0.0179 *3*; α(L)=0.00249 *4*; α(M)=0.000538 *8*; α(N+..)=0.0001427 *20* α(N)=0.0001229 *18*; α(O)=1.86×10^{-5} *3*; α(P)=1.129×10^{-6} *16* Mult.: α(K)exp=0.025 *9*, A_2=−0.12 *3*, A_4=+0.00 *5*. Others: α(K)exp=0.017 *5*, A_2=−0.20 *3*, A_4=−0.10 *5* (1982Pa04).
290.2	8 *2*	3176.2		2886.0	$(13/2,15/2,17/2)^-$	M1(+E2)		0.086 *19*	α(K)=0.070 *19*; α(L)=0.01248 *18*; α(M)=0.00277 *7*; α(N+..)=0.000730 *11* α(N)=0.000631 *12*; α(O)=9.4×10^{-5} *4*; α(P)=4.8×10^{-6} *17* Mult.: α(K)exp=0.07 *2*.
309.1	4 *2*	3195.1		2886.0	$(13/2,15/2,17/2)^-$				
335.5		3511.7		3176.2					E_γ: from level scheme and coin data (1983Ba10).
341.4	12 *4*	2784.1	$(11/2^+,13/2^+)$	2442.7	$13/2^-$				
371.9	4 *2*	2181.8	$(9/2^-)$	1809.9	$9/2^-$				
379.4	4 *2*	3354.2		2974.8	$(13/2,15/2)^+$				
393.9	10 *2*	1666.3	$7/2^{(-)}$	1272.9	$7/2^-$	D+Q			Mult.: A_2=+0.4 *1*.
448.6	12 *2*	2258.5	$11/2^-$	1809.9	$9/2^-$	M1+E2	+0.3 *1*	0.0322 *10*	α(K)=0.0272 *9*; α(L)=0.00386 *9*; α(M)=0.000837 *17*; α(N+..)=0.000224 *5* α(N)=0.000193 *4*; α(O)=2.98×10^{-5} *7*; α(P)=1.99×10^{-6} *7* Mult.: α(K)exp=0.022 *7*, A_2=+0.14 *9*, A_4=+0.05 *1*. Others: α(K)exp≤0.03, A_2=+0.30 *8*, A_4=−0.08 *12* (1982Pa04).
474.6	15 *3*	2886.0	$(13/2,15/2,17/2)^-$	2411.4	$15/2^+$	E1		0.00530 *8*	α=0.00530 *8*; α(K)=0.00452 *7*; α(L)=0.000612 *9*; α(M)=0.0001318 *19*; α(N+..)=3.51×10^{-5} *5* α(N)=3.02×10^{-5} *5*; α(O)=4.63×10^{-6} *7*; α(P)=2.97×10^{-7} *5* Mult.: α(K)exp=0.007 *3*, A_2=−0.3 *1*, A_4=−0.1 *1*. Others: α(K)exp=0.006 *3*, A_2=−0.25 *2*, A_4=−0.09 *4* (1982Pa04).
509.8	50 *20*	1524.7	$(5/2,7/2)^-$	1015.1	$5/2^+$	E1		0.00451 *7*	α=0.00451 *7*; α(K)=0.00385 *6*; α(L)=0.000519 *8*; α(M)=0.0001118 *16*; α(N+..)=2.98×10^{-5} *5* α(N)=2.56×10^{-5} *4*; α(O)=3.93×10^{-6} *6*; α(P)=2.54×10^{-7} *4* Mult.: α(K)exp=0.0035 *20* (1983Ba10,1982Pa04).
524.1	52 *4*	1272.9	$7/2^-$	748.8	$11/2^-$	E2		0.01234	α(K)=0.01007 *15*; α(L)=0.001770 *25*; α(M)=0.000392 *6*; α(N+..)=0.0001033 *15* α(N)=8.93×10^{-5} *13*; α(O)=1.325×10^{-5} *19*;

From ENSDF

$^{145}_{64}Gd_{81}$-3

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04 (continued)

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

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡#]	δ	α[†]	Comments
									α(P)=6.78×10^{-7} *10* Mult.: α(K)exp=0.011 *2*, A_2=+0.15 *3*, A_4=+0.03 *4*. Others: α(K)exp=0.012 *3*, A_2=+0.11 *1*, A_4=+0.03 *2* (1982Pa04).
532.1	8 *2*	2974.8	(13/2,15/2)$^+$	2442.7	13/2$^-$				Mult.: α(K)exp=0.015 *5* gives M1(+E2), in conflict with other assigned $\Delta\pi$.
537.0	78 *6*	1809.9	9/2$^-$	1272.9	7/2$^-$	M1+E2	+0.8 *2*	0.0174 *13*	α(K)=0.0146 *11*; α(L)=0.00216 *11*; α(M)=0.000470 *23*; α(N+..)=0.000126 *7* α(N)=0.000108 *6*; α(O)=1.66×10^{-5} *9*; α(P)=1.05×10^{-6} *9* Mult.: α(K)exp=0.016 *2*, A_2=+0.33 *2*, A_4=+0.04 *3*. Others: α(K)exp=0.018 *2*, A_2=+0.28 *1*, A_4=+0.06 *2* (1982Pa04).
544.6	10 *3*	2987.3		2442.7	13/2$^-$				α(K)=0.01763; α(L)=0.00244 Mult.: α(K)exp=0.025 *8* gives M1 but the transition may be mixed.
563.4	8 *2*	2974.8	(13/2,15/2)$^+$	2411.4	15/2$^+$	M1(+E2)		0.014 *5*	α(K)=0.012 *4*; α(L)=0.0018 *4*; α(M)=0.00040 *8*; α(N+..)=0.000106 *22* α(N)=9.1×10^{-5} *19*; α(O)=1.4×10^{-5} *4*; α(P)=9.E−7 *3* Mult.: A_2=−0.1 *1* (1983Ba10), α(K)exp=0.018 *5* (1982Pa04).
572.4	7 *2*	2382.3	(9/2$^-$)	1809.9	9/2$^-$	D+Q			Mult.: A_2=+0.4 *3*.
623.1	28 *4*	2823.2	15/2$^+$	2200.1	13/2$^+$	M1+E2	+0.8 *3*	0.0120 *13*	α(K)=0.0101 *11*; α(L)=0.00146 *12*; α(M)=0.00032 *3*; α(N+..)=8.5×10^{-5} *7* α(N)=7.3×10^{-5} *6*; α(O)=1.12×10^{-5} *10*; α(P)=7.2×10^{-7} *9* Mult.: α(K)exp=0.012 *4*, A_2=+0.51 *6*; A_4=+0.02 *8*;
651.7	10 *5*	1666.3	7/2$^{(-)}$	1015.1	5/2$^+$				
721.5	1000	748.8	11/2$^-$	27.3	3/2$^+$	M4		0.1454	α(K)=0.1149 *16*; α(L)=0.0237 *4*; α(M)=0.00538 *8*; α(N+..)=0.001439 *21* α(N)=0.001241 *18*; α(O)=0.000187 *3*; α(P)=1.077×10^{-5} *15* Mult.: $\gamma(\theta)$ is isotropic because of large $T_{1/2}$=85 s; α(K) was used for normalization of α(K)exp for other gammas. See IT decay.
775.5[@]	7 *4*	3207.3	17/2$^+$	2432.4	17/2$^+$				I_γ: based on branching in 1982Pa04.
795.9	32 *2*	3207.3	17/2$^+$	2411.4	15/2$^+$	M1+E2	−0.13 *4*	0.00788 *12*	α=0.00788 *12*; α(K)=0.00671 *10*; α(L)=0.000918 *14*; α(M)=0.000198 *3*; α(N+..)=5.33×10^{-5} *8* α(N)=4.57×10^{-5} *7*; α(O)=7.12×10^{-6} *11*; α(P)=4.87×10^{-7} *8* Mult.: α(K)exp=0.005 *2*, A_2=−0.52 *4*, A_4=−0.02 *6*. Others: α(K)exp≤0.01, A_2=−0.47 *1*, A_2=−0.04 *2* (1982Pa04).
908.9	8 *3*	2181.8	(9/2$^-$)	1272.9	7/2$^-$				
924.7	50 *4*	3357.1	19/2$^+$	2432.4	17/2$^+$	M1		0.00552 *8*	α=0.00552 *8*; α(K)=0.00470 *7*; α(L)=0.000639 *9*; α(M)=0.0001381 *20*; α(N+..)=3.71×10^{-5} *6* α(N)=3.18×10^{-5} *5*; α(O)=4.95×10^{-6} *7*; α(P)=3.40×10^{-7} *5* Mult.: α(K)exp=0.0046 *10*, A_2=−0.64 *3*, A_4=+0.05 *5*. Others: α(K)exp=0.0050 *6*, A_2=−0.62 *1*, A_4=+0.03 *2* (1982Pa04).
927.2	72 *6*	2200.1	13/2$^+$	1272.9	7/2$^-$	E3		0.00711 *10*	B(E3)(W.u.)=52 *7* α=0.00711 *10*; α(K)=0.00579 *9*; α(L)=0.001031 *15*; α(M)=0.000229 *4*; α(N+..)=6.06×10^{-5} *9*

From ENSDF

$^{145}_{64}Gd_{81}$-4

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04 (continued)

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

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡#]	δ	α[†]	Comments
									α(N)=5.24×10^{-5} *8*; α(O)=7.85×10^{-6} *11*; α(P)=4.23×10^{-7} *6* Mult.: α(K)exp=0.0057 *10*, A_2=+0.30 *3*, A_4=+0.08. Others: α(K)exp=0.0061 *6*, A_2=+0.33 *4*, A_4=+0.04 *6* (1982Pa04).
935.1	40 *4*	1683.9	9/2$^-$	748.8	11/2$^-$	M1+E2		0.0043 *11*	α=0.0043 *11*; α(K)=0.0036 *10*; α(L)=0.00051 *12*; α(M)=0.000110 *25*; α(N+..)=2.9×10^{-5} *7* α(N)=2.5×10^{-5} *6*; α(O)=3.9×10^{-6} *10*; α(P)=2.6×10^{-7} *8* Mult.: α(K)exp=0.0046 *7*, A_2=−0.17 *4*, A_4=+0.04 *5*. Others: α(K)exp=0.0053 *7*, A_2=−0.19 *4*, A_4=+0.05 *6* (1982Pa04).
985.6	30 *2*	2258.5	11/2$^-$	1272.9	7/2$^-$	E2		0.00284 *4*	α=0.00284 *4*; α(K)=0.00239 *4*; α(L)=0.000348 *5*; α(M)=7.56×10^{-5} *11*; α(N+..)=2.01×10^{-5} *3* α(N)=1.732×10^{-5} *25*; α(O)=2.65×10^{-6} *4*; α(P)=1.658×10^{-7} *24* Mult.: α(K)exp=0.003 *1*, A_2=+0.31 *11*, A_4=+0.05 *14*.
987.8	320 *20*	1015.1	5/2$^+$	27.3	3/2$^+$	M1+E2	+0.20 *5*	0.00464 *8*	α=0.00464 *8*; α(K)=0.00395 *7*; α(L)=0.000537 *9*; α(M)=0.0001159 *19*; α(N+..)=3.11×10^{-5} *5* α(N)=2.67×10^{-5} *5*; α(O)=4.16×10^{-6} *7*; α(P)=2.85×10^{-7} *5* Mult.: α(K)exp=0.0032 *5*; A_2=+0.01 *1*, A_4=+0.00 *1*. Others: α(K)exp=0.0041 *3*, A_2=−0.04 *1*, A_4=+0.01 *2*, δ=+0.10 *4* (1982Pa04).
1015.1	30 *10*	1015.1	5/2$^+$	0.0	1/2$^+$	E2		0.00267 *4*	α=0.00267 *4*; α(K)=0.00225 *4*; α(L)=0.000325 *5*; α(M)=7.07×10^{-5} *10*; α(N+..)=1.88×10^{-5} *3* α(N)=1.620×10^{-5} *23*; α(O)=2.48×10^{-6} *4*; α(P)=1.560×10^{-7} *22* Mult.: α(K)exp=0.0021 *6* (1982Pa04).
1026.0	8 *4*	3458.4	21/2$^+$	2432.4	17/2$^+$				
1062.7	30 *5*	2872.6		1809.9	9/2$^-$				
1109.4	15 *5*	2382.3	(9/2$^-$)	1272.9	7/2$^-$				
1388.0	120 *10*	1415.3	7/2$^+$	27.3	3/2$^+$	E2		0.001463 *21*	α=0.001463 *21*; α(K)=0.001211 *17*; α(L)=0.0001665 *24*; α(M)=3.60×10^{-5} *5*; α(N+..)=4.97×10^{-5} α(N)=8.26×10^{-6} *12*; α(O)=1.277×10^{-6} *18*; α(P)=8.40×10^{-8} *12*; α(IPF)=4.01×10^{-5} *6* B(E2)(W.u.)>0.0081 Mult.: α(K)exp=0.0011 *3*, A_2=+0.19 *2*, A_4=−0.05 *3*. Others: α(K)exp=0.0012 *2*, A_2=+0.15 *3*, A_4=−0.01 *5* (1982Pa04).
1446.8	115 *8*	2195.6	11/2$^-$	748.8	11/2$^-$	M1+E2		0.0017 *3*	α=0.0017 *3*; α(K)=0.0014 *3*; α(L)=0.00019 *4*; α(M)=4.0×10^{-5} *8*; α(N+..)=7.1×10^{-5} *6* α(N)=9.2×10^{-6} *17*; α(O)=1.4×10^{-6} *3*; α(P)=9.8×10^{-8} *20*; α(IPF)=6.1×10^{-5} *4* Mult.: α(K)exp=0.0012 *3*, A_2=+0.21 *4*, A_4=−0.02 *4*. Others: α(K)exp=0.0022 *3*, A_2=+0.16 *2*, A_4=−0.03 *2* (1982Pa04).
1451.3	40 *3*	2200.1	13/2$^+$	748.8	11/2$^-$	E1+M2+E3	−1.2 *+8−4*	0.0029 *17*	α=0.0029 *17*; α(K)=0.0024 *15*; α(L)=0.00033 *21*; α(M)=7.E−5 *5*; α(N+..)=0.00010 *6* α(N)=1.7×10^{-5} *11*; α(O)=2.6×10^{-6} *17*; α(P)=1.8×10^{-7} *11*; α(IPF)=8.E−5 *7*

From ENSDF

$^{145}_{64}Gd_{81}$-5

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04 (continued)

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

E_γ[‡]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[‡#]	α[†]	Comments
								B(E1)(W.u.)=6.E−10 *5*; B(M2)(W.u.)=0.0018 *11* Mult.: α(K)exp=0.0025 *6*, A_2=−0.06 *1*, A_4=−0.07 *2*, 30% E1+40% M2+39% E3 (1982Pa04). Others: α(K)exp=0.0014 *5*, A_2=+0.05 *6*, A_4=−0.04 *9*, E1+(M2) (1983Ba10).
1471.0	50 *5*	1498.0	5/2$^+$	27.3	3/2$^+$	M1+E2	0.0016 *3*	α=0.0016 *3*; α(K)=0.00133 *25*; α(L)=0.00018 *4*; α(M)=3.9×10^{-5} *7*; α(N+..)=7.9×10^{-5} *6* α(N)=8.9×10^{-6} *16*; α(O)=1.38×10^{-6} *25*; α(P)=9.4×10^{-8} *19*; α(IPF)=6.9×10^{-5} *5* Mult.: α(K)exp=0.0014 *4*, A_2=−0.03 *10*, A_4=+0.08 *15* (1982Pa04). Others: A_2=−0.05 *10*, A_4=+0.05 d(1983Ba10).
1552.8	265 *15*	2301.6	13/2$^+$	748.8	11/2$^-$	E1	0.000764 *11*	α=0.000764 *11*; α(K)=0.000448 *7*; α(L)=5.75×10^{-5} *8*; α(M)=1.233×10^{-5} *18*; α(N+..)=0.000247 *4* α(N)=2.83×10^{-6} *4*; α(O)=4.41×10^{-7} *7*; α(P)=3.02×10^{-8} *5*; α(IPF)=0.000243 *4* Mult.: α(K)exp=0.00046 *5*, A_2=−0.16 *1*, A_4=−0.02 *2*. Others: α(K)exp=0.00046 *6*, A_2=−0.20 *1*, A_4=+0.00 (1982Pa04).
1683.6	65 *5*	2432.4	17/2$^+$	748.8	11/2$^-$	E3	0.00192 *3*	α=0.00192 *3*; α(K)=0.001556 *22*; α(L)=0.000226 *4*; α(M)=4.92×10^{-5} *7*; α(N+..)=8.35×10^{-5} *12* α(N)=1.130×10^{-5} *16*; α(O)=1.740×10^{-6} *25*; α(P)=1.117×10^{-7} *16*; α(IPF)=7.04×10^{-5} *10* B(E3)(W.u.)=31 *16* Mult.: α(K)exp=0.0016 *2*, A_2=+0.35 *4*, A_4=+0.5 *5*. Others: α(K)exp=0.0016 *3*, A_2=+0.47 *3*, A_4=+0.02 *4* (1982Pa04).
2035.3	70 *6*	2784.1	(11/2$^+$,13/2$^+$)	748.8	11/2$^-$			Mult.: α(K)exp=0.0010 *2* (E3) (1982Pa04). Others: α(K)exp=0.00084 *12*, A_2=+0.28 *5* A_4=−0.13 *6*, may be E1+M2 (1983Ba10).

† Additional information 1.
‡ From 1983Ba10 at E(^{3}He)=24 MeV, unless otherwise stated.
# α(K)exp were normalized to α(K)(721γ)=0.115 for pure M4.
@ From 1982Pa04.

From ENSDF

$^{145}_{64}Gd_{81}$-6

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04

Level Scheme

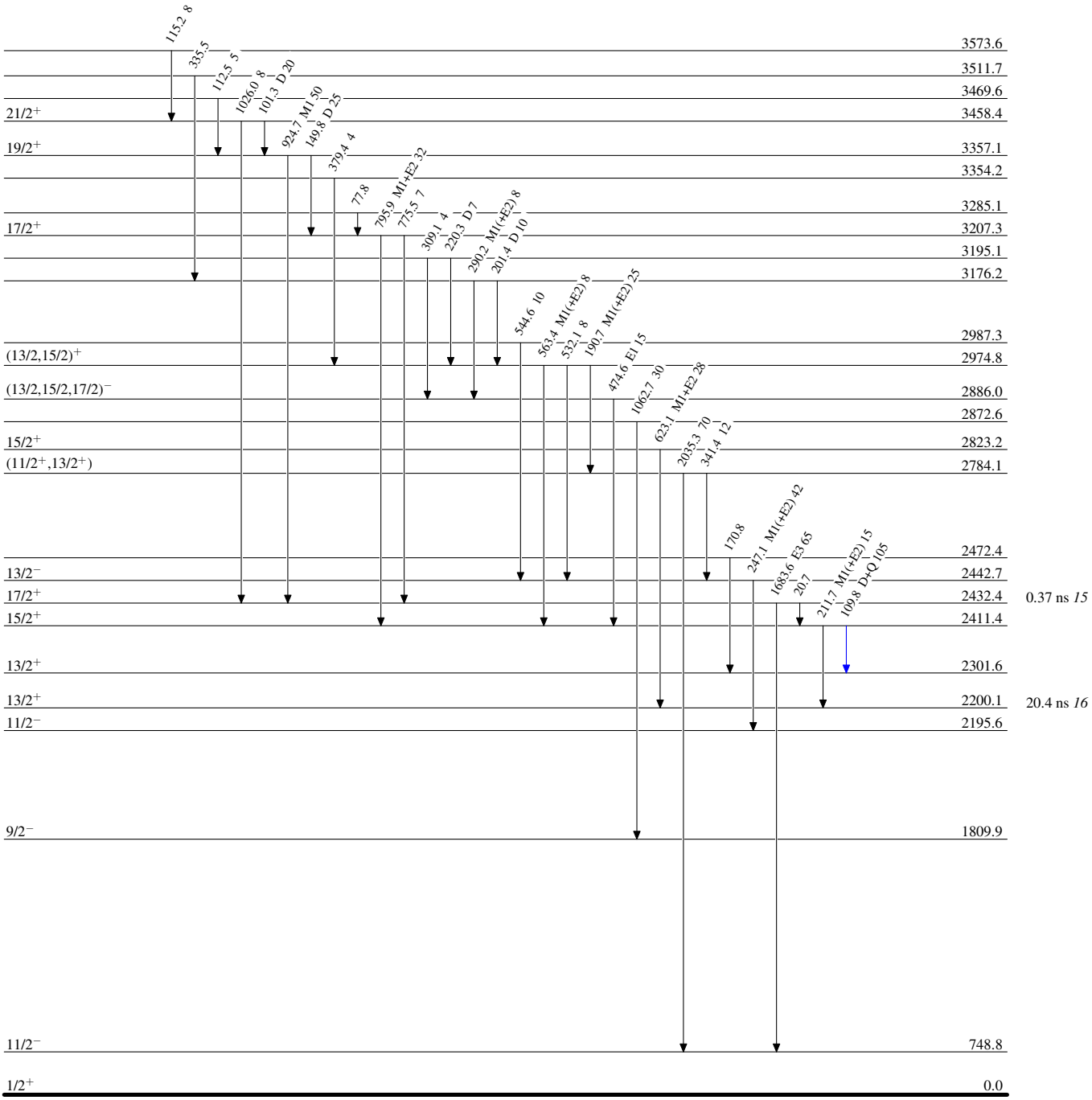
Intensities: Relative I_γ

Legend

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

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

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

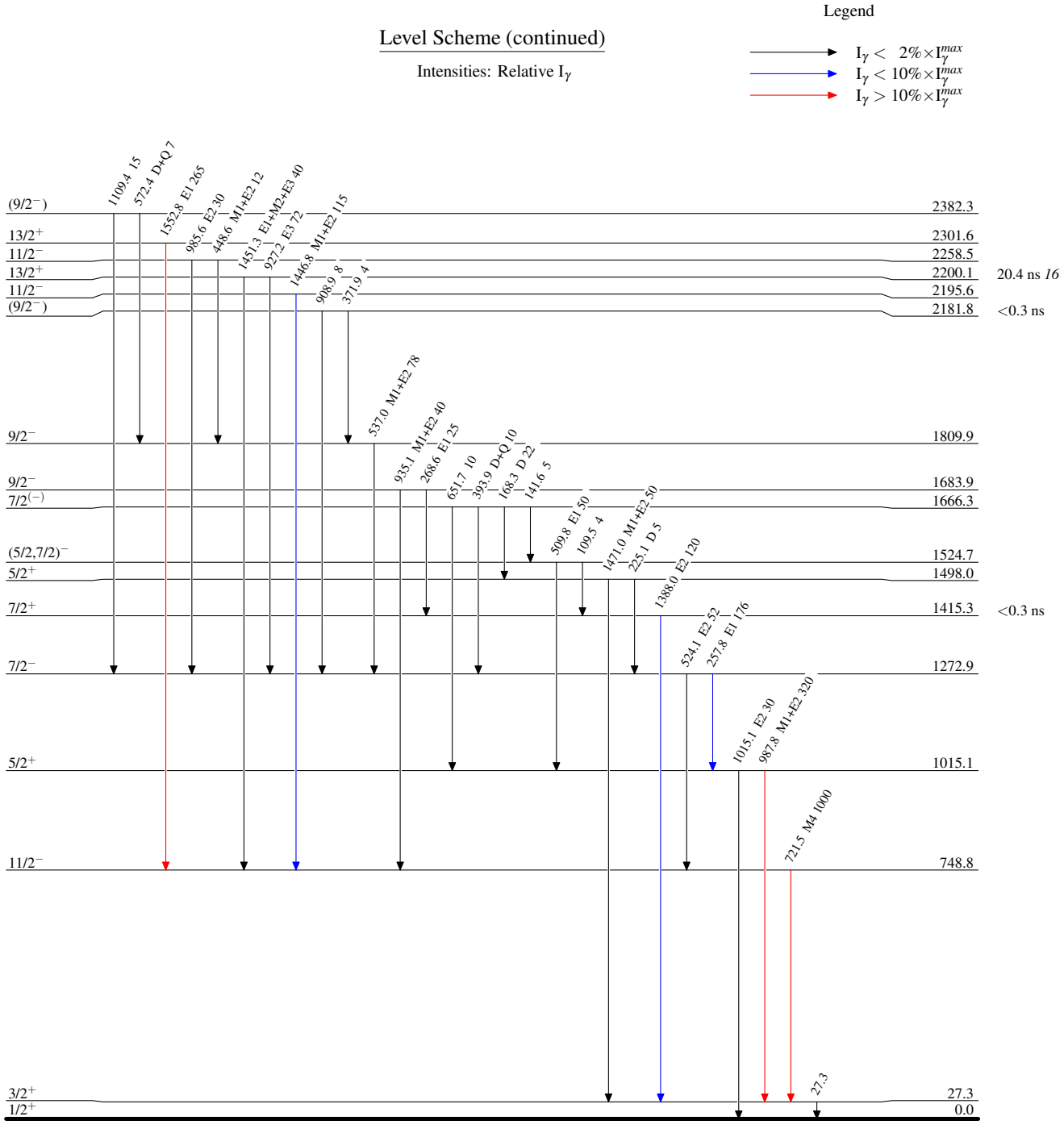


$^{145}_{64}Gd_{81}$

^{144}Sm(^{3}He,2nγ) 1983Ba10,1982Pa04

Level Scheme (continued)

Intensities: Relative I_γ



$^{145}_{64}Gd_{81}$