^{162}Ho $\varepsilon+\beta^+$ decay (67.0 min) 1999Za15,1971Wo09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 195,1 (2024)	19-Sep-2023

Parent: ^{162}Ho: E=105.87 *6*; J$^\pi$=6$^-$; $T_{1/2}$=67.0 min *7*; Q(ε)=2141 *3*; %ε+%β^+ decay≈37

^{162}Ho-E: Additional information 1.

^{162}Ho-J$^\pi$: Additional information 2.

^{162}Ho-$T_{1/2}$: Additional information 3.

^{162}Ho-Q(ε): From 2021Wa16.

^{162}Ho-%ε+%β^+ decay: from evaluator′s analysis based on Ice(L)(38.34)/Ice(K)(184.99) ratio measured by 1961Jo10, with 38.34γ in ^{162}Ho IT decay (67 min) scheme and 184.99γ in ^{162}Ho ε decay (67.0 min) scheme, giving %IT=63 and %ε=37. See ^{162}Ho IT decay (67.0 min) dataset for details.

1999Za15: ^{162}Ho produced using the ^{159}Tb(α,n) reaction. Both 15-min and 67-min activities were present in the sources. γ′s detected using a Clover detector and a 70% Ge detector. Measured Eγ, Iγ for mixed sources, $\gamma\gamma$. Emphasis was on this 67-min activity, but new data were also obtained for the 15-min activity. See, also, the ^{162}Ho ε decay (15.0 min) Data Set. Other reports from this same group are given in 2000Za03 and 1998LiZR.

1973Ch28: ^{162}Ho (67 min) from ^{159}Tb(α,n). Measured $T_{1/2}$ for the 80 and 1485 levels, using NaI(Tl) and/or plastic scintillators.

1971Wo09: ^{162}Ho produced in the ^{159}Tb(α,n) reaction, with chemical extraction of the rare-earth activities. Samples contained both ^{162}Ho activities. γ′s measured using Ge detectors. Measured Eγ, Iγ for both activities. 42 γ′s reported. See, also, the ^{162}Ho ε decay (15.0 min) Data Set.

1969Ho17: ^{162}Ho (67 min) produced in ^{162}Dy(d,2n). Measured $T_{1/2}$(1485, 5$^-$, level) using NaI(Tl) and/or plastic scintillators.

1963Li04: ^{162}Ho (67 min) from ^{159}Tb(α,n). Measured $T_{1/2}$ for the 80 and 265 levels, using plastic scintillators.

1961Jo10: ^{162}Ho produced in ^{159}Tb(α,n). Some sources were isotope separated. γ singles and $\gamma\gamma$ coincidences measured using NaI(Tl) detectors. ce, β^+, and ceγ coincidences measured using magnetic spectrometer. 7 γ′s reported.

Others: 1957Mi67; 1961Ha23; 1969Ak01; 1976Ko34.

These data are primarily from 1999Za15, with some input from those of 1971Wo09 and the ^{162}Dy Adopted Levels, Gammas dataset.

Level scheme is incomplete: the sum of energies is 550 *7*, while Q×(%ε+%β^+ decay)=831.3 *11*. For this reason no ε,β^+ radiations table is given for this dataset.

Additional information 4.

^{162}Dy Levels

Additional information 5.

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$[#]	Comments
0.0[@]	0$^+$	stable	
80.670[@] *20*	2$^+$	2.19 ns *2*	$T_{1/2}$: adopted value. 2.25 ns *7* from 1963Li04 from electron-γ coincidences with two plastic scintillators. Other: 3.05 ns *20* (1973Ch28).
265.661[@] *27*	4$^+$	0.132 ns *5*	$T_{1/2}$: adopted value. 0.132 ns *8* from 1963Li04 from electron-γ coincidences with two plastic scintillators.
548.544[@] *35*	6$^+$		
888.36[&] *5*	2$^+$		
962.99[&] *4*	3$^+$		
1061.02[&] *4*	4$^+$		
1148.36[a] *21*	2$^-$		
1182.79[&] *4*	5$^+$		
1210.136[a] *35*	3$^-$		
1296.95[a] *4*	4$^-$		
1324.51[&] *5*	6$^+$		

Continued on next page (footnotes at end of table)

^{162}Ho $\varepsilon+\beta^+$ decay (67.0 min) 1999Za15,1971Wo09 (continued)

^{162}Dy Levels (continued)

E(level)[†]	Jπ[‡]	$T_{1/2}$[#]	Comments
1390.54[a] *5*	5⁻		
1485.705[b] *34*	5⁻	1.92 ns *11*	$T_{1/2}$: Weighted average of 1.91 ns *19* (1969Ho17) and 1.93 ns *13* (1973Ch28 from x-γ coincidences with plastic scintillators). Additional information 6.
1530.26[a] *11*	6⁻		
1575.64[b] *5*	6⁻		Jπ: from expected band structure. 1999Za15 suggest J^π=5⁻,6⁻.

[†] From least-squares fit to γ energies.

[‡] J^π and band assignments are from ^{162}Dy Adopted Levels. Arguments for each assignment are given there.

[#] From measurements following decay of ^{162}Ho (67 min) only. See ^{162}Dy Adopted Levels for a summary of all half-life results.

[@] Band(A): $K^\pi=0^+$ ground-state band.

[&] Band(B): $K^\pi=2^+$ γ-vibrational band.

[a] Band(C): $K^\pi=2^-$ octupole-vibrational band. Dominant configuration=(π 7/2[523])-(π 3/2[411]).

[b] Band(D): $K^\pi=5^-$ band, Configuration=(ν 5/2[523])+(ν 5/2[642]).

$\gamma(^{162}Dy)$

Iγ normalization: computed by requiring that the total γ+ce intensity in the $\varepsilon+\beta^+$ decay that passes through 100 keV be 100%. In computing this, the evaluator has used the total intensity of the γ′s feeding the 265 level rather than the I(γ+ce) value of the deexciting 185γ, since this latter value is significantly smaller than the former.

Coincidence data on the drawing are from 1961Jo10.

1971Wo09 report γ′s having Eγ=205.5 *3*, 467.9 *2*, 1276.0 *10*, and 1806.0 *10*. These have not been placed in the proposed level scheme. Unplaced transitions from the ce data of 1961Ha23 are not listed. These latter γ′s could be from ^{162}Ho (15 min) or some other nuclide.

E_γ	I_γ[†@]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ[#]	α[&]	Comments
80.67 *2*	187 *6*	80.670	2^+	0.0	0^+	E2		6.13	α(K)=1.82 *3*; α(L)=3.32 *5*; α(M)=0.796 *12*; α(N+..)=0.200 *3* α(N)=0.178 *3*; α(O)=0.0212 *3*; α(P)=7.66×10^{-5} *11* %Iγ≈4.5 I_γ: computed from the intensity balance at the 80.7 level, assuming no $\varepsilon+\beta^+$ feeding.
89.98 *10*	9.6[‡] *3*	1575.64	6^-	1485.705	5^-	M1+E2	0.53 *3*	3.42 *6*	α(K)=2.45 *5*; α(L)=0.75 *4*; α(M)=0.174 *8*; α(N+..)=0.0447 *20* α(N)=0.0394 *18*; α(O)=0.00514 *21*; α(P)=0.000146 *3* %Iγ≈0.23 I_γ: computed from Iγ(90γ)/Iγ(329.8γ) in (α,2nγ) and Iγ(392.8γ). 1999Za15 report Iγ=37 *8* for the composite peak.
95.25 *10*	20[‡] *2*	1485.705	5^-	1390.54	5^-	[M1,E2]		3.0 *3*	α(K)=1.8 *6*; α(L)=0.9 *6*; α(M)=0.22 *15*; α(N+..)=0.06 *4* α(N)=0.05 *4*; α(O)=0.006 *4*; α(P)=0.00010 *5* %Iγ≈0.48 I_γ: listed value is close to that expected from (n,γ). Thus, most of the intensity of this doublet is associated with this placement.
149.07 *10*	10.4[‡] *4*	1210.136	3^-	1061.02	4^+				%Iγ≈0.25 E_γ: assumed by the evaluator to be the same as the 149.100 γ in (n,γ).
161.16 *5*	2.9 *2*	1485.705	5^-	1324.51	6^+	[E1]		0.0861	α(K)=0.0724 *11*; α(L)=0.01068 *15*; α(M)=0.00234 *4*; α(N+..)=0.000611 *9* α(N)=0.000533 *8*; α(O)=7.45×10^{-5} *11*; α(P)=3.57×10^{-6} *5* %Iγ≈0.069
184.99 *2*	1000 *3*	265.661	4^+	80.670	2^+	E2		0.307	α(K)=0.200 *3*; α(L)=0.0826 *12*; α(M)=0.0194 *3*; α(N+..)=0.00494 *7* α(N)=0.00438 *7*; α(O)=0.000551 *8*; α(P)=9.37×10^{-6} *14* %Iγ≈24
188.78 *3*	3.8 *5*	1485.705	5^-	1296.95	4^-	M1+E2	0.89 *19*	0.349 *14*	α(K)=0.270 *17*; α(L)=0.061 *4*; α(M)=0.0139 *9*; α(N+..)=0.00361 *20* α(N)=0.00317 *18*; α(O)=0.000427 *18*; α(P)=1.55×10^{-5} *14* α(K)=0.336 *5*; α(L)=0.0489 *7*; α(M)=0.01073 *15*; α(N+..)=0.00287 *4* α(N)=0.00248 *4*; α(O)=0.000364 *5*; α(P)=2.08×10^{-5} *3* %Iγ≈0.091
219.6 *10*	1.2 *6*	1182.79	5^+	962.99	3^+	E2		0.173	α(K)=0.1203 *24*; α(L)=0.0412 *10*; α(M)=0.00962 *23*; α(N+..)=0.00246

$^{162}_{66}Dy_{96}$-3

γ(^{162}Dy) (continued)

E_γ	I_γ [†@]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [#]	α [&]	Comments
								6 α(N)=0.00217 *5*; α(O)=0.000277 *7*; α(P)=5.87×10^{-6} *11* %Iγ≈0.029 I_γ: computed by the evaluator from Iγ(219.6γ)/Iγ(917.2γ) from 1971Wo09 and Iγ(917.2γ). γ not reported by 1999Za15.
236.04 *10*	2.2[‡] *4*	1296.95	4$^-$	1061.02	4$^+$	E1	0.0316	α(K)=0.0267 *4*; α(L)=0.00383 *6*; α(M)=0.000837 *12*; α(N+..)=0.000220 *3* α(N)=0.000192 *3*; α(O)=2.71×10^{-5} *4*; α(P)=1.376×10^{-6} *20* %Iγ≈0.052 I_γ: from Iγ(236.0γ)/Iγ(333.9γ) in (n,γ) and Iγ(333.9γ), one computes Iγ(236.0γ)=2.2 *4*. However, the 333.9γ is itself complex (1999Za15) and thus this deduced value is an upper limit. See the comment on the 333.95 γ. 1999Za15 report Iγ=15.8 *2* for this γ.
247.12 *8*	1.5 *3*	1210.136	3$^-$	962.99	3$^+$	E1	0.0281	α(K)=0.0238 *4*; α(L)=0.00340 *5*; α(M)=0.000742 *11*; α(N+..)=0.000195 *3* α(N)=0.0001700 *24*; α(O)=2.41×10^{-5} *4*; α(P)=1.229×10^{-6} *18* %Iγ≈0.036
251.10 *8*	1.0 *3*	1575.64	6$^-$	1324.51	6$^+$	[E1]	0.0270	α(K)=0.0228 *4*; α(L)=0.00326 *5*; α(M)=0.000711 *10*; α(N+..)=0.000187 *3* α(N)=0.0001630 *23*; α(O)=2.31×10^{-5} *4*; α(P)=1.182×10^{-6} *17* %Iγ≈0.024
260.00 *20*	0.3 *1*	1148.36	2$^-$	888.36	2$^+$	E1	0.0246	α(K)=0.0209 *3*; α(L)=0.00297 *5*; α(M)=0.000650 *10*; α(N+..)=0.0001712 *25* α(N)=0.0001489 *21*; α(O)=2.12×10^{-5} *3*; α(P)=1.086×10^{-6} *16* %Iγ≈0.0072
275.55 *3*	30.2 *8*	1485.705	5$^-$	1210.136	3$^-$	E2	0.0839	α(K)=0.0617 *9*; α(L)=0.01716 *24*; α(M)=0.00397 *6*; α(N+..)=0.001021 *15* α(N)=0.000900 *13*; α(O)=0.0001174 *17*; α(P)=3.16×10^{-6} *5* %Iγ≈0.72
278.49 *12*	≤5[‡]	1575.64	6$^-$	1296.95	4$^-$			%Iγ<0.12 1999Za15 report Iγ=3.0 *20* for the composite peak.
282.86 *3*	429 *8*	548.544	6$^+$	265.661	4$^+$	E2	0.0773	α(K)=0.0572 *8*; α(L)=0.01557 *22*; α(M)=0.00360 *5*; α(N+..)=0.000925 *13* α(N)=0.000816 *12*; α(O)=0.0001067 *15*; α(P)=2.95×10^{-6} *5* %Iγ≈10.2
302.91 *3*	12.5 *3*	1485.705	5$^-$	1182.79	5$^+$	E1	0.01679	α(K)=0.01423 *20*; α(L)=0.00201 *3*; α(M)=0.000439 *7*; α(N+..)=0.0001158 *17* α(N)=0.0001007 *14*; α(O)=1.437×10^{-5} *21*; α(P)=7.51×10^{-7} *11* %Iγ≈0.30
321.76 *5*	3.7 *4*	1210.136	3$^-$	888.36	2$^+$	E1	0.01446	α(K)=0.01226 *18*; α(L)=0.001726 *25*; α(M)=0.000377 *6*; α(N+..)=9.95×10^{-5} *14* α(N)=8.65×10^{-5} *13*; α(O)=1.236×10^{-5} *18*; α(P)=6.50×10^{-7} *10* %Iγ≈0.088
329.47 *10*	2.0[‡] *5*	1390.54	5$^-$	1061.02	4$^+$	[E1]	0.01365	α(K)=0.01157 *17*; α(L)=0.001627 *23*; α(M)=0.000355 *5*; α(N+..)=9.38×10^{-5} *14* α(N)=8.15×10^{-5} *12*; α(O)=1.166×10^{-5} *17*; α(P)=6.15×10^{-7} *9* %Iγ≈0.048 I_γ: computed from Iγ(329.4γ)/Iγ(842.0γ) (from 1971Wo09) and Iγ(842.0γ). 1999Za15 report Iγ=3.5 *2* for the composite peak.

$^{162}_{66}$Dy$_{96}$-4

γ(^{162}Dy) (continued)

E_γ	I_γ[†@]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ[#]	α[&]	Comments
333.95 *10*	15.9[‡] *2*	1296.95	4⁻	962.99	3⁺	E1		0.01320	α(K)=0.01120 *16*; α(L)=0.001573 *22*; α(M)=0.000343 *5*; α(N+..)=9.07×10^{-5} *13* α(N)=7.88×10^{-5} *11*; α(O)=1.128×10^{-5} *16*; α(P)=5.95×10^{-7} *9* %Iγ≈0.38 I_γ: 1999Za15 indicate that this γ is a doublet. Evaluator has assumed that all the intensity is associated with this placement. Thus, this listed value is an upper limit.
347.47 *10*	2.6 *2*	1530.26	6⁻	1182.79	5⁺	[E1]		0.01199	α(K)=0.01017 *15*; α(L)=0.001426 *20*; α(M)=0.000311 *5*; α(N+..)=8.22×10^{-5} *12* α(N)=7.14×10^{-5} *10*; α(O)=1.023×10^{-5} *15*; α(P)=5.42×10^{-7} *8* %Iγ≈0.062
392.86 *4*	9.4 *3*	1575.64	6⁻	1182.79	5⁺	[E1]		0.00894	α(K)=0.00759 *11*; α(L)=0.001057 *15*; α(M)=0.000230 *4*; α(N+..)=6.10×10^{-5} *9* α(N)=5.29×10^{-5} *8*; α(O)=7.61×10^{-6} *11*; α(P)=4.08×10^{-7} *6* %Iγ≈0.22
424.69 *4*	15.0 *8*	1485.705	5⁻	1061.02	4⁺	[E1]		0.00745	α(K)=0.00633 *9*; α(L)=0.000877 *13*; α(M)=0.000191 *3*; α(N+..)=5.06×10^{-5} *7* α(N)=4.40×10^{-5} *7*; α(O)=6.33×10^{-6} *9*; α(P)=3.42×10^{-7} *5* %Iγ≈0.36
634.21 *5*	3.9 *3*	1182.79	5⁺	548.544	6⁺	E2+M1	−7 *+2−20*	0.00853 *19*	α(K)=0.00701 *17*; α(L)=0.001184 *22*; α(M)=0.000264 *5*; α(N+..)=6.95×10^{-5} *13* α(N)=6.05×10^{-5} *11*; α(O)=8.52×10^{-6} *17*; α(P)=4.00×10^{-7} *10* %Iγ≈0.093
697.28 *10*	2.3 *4*	962.99	3⁺	265.661	4⁺	E2(+M1)	>45	0.00670	α(K)=0.00553 *8*; α(L)=0.000909 *13*; α(M)=0.000202 *3*; α(N+..)=5.33×10^{-5} *8* α(N)=4.64×10^{-5} *7*; α(O)=6.56×10^{-6} *10*; α(P)=3.17×10^{-7} *5* %Iγ≈0.055
775.81 *10*	3.2 *4*	1324.51	6⁺	548.544	6⁺	E2(+M1)	>2.3	0.0056 *4*	α(K)=0.0047 *4*; α(L)=0.00073 *4*; α(M)=0.000162 *9*; α(N+..)=4.28×10^{-5} *23* α(N)=3.72×10^{-5} *20*; α(O)=5.3×10^{-6} *3*; α(P)=2.71×10^{-7} *21* %Iγ≈0.076
795.36 *5*	13.3 *4*	1061.02	4⁺	265.661	4⁺	E2+M1	+12 *+18−4*	0.00500 *8*	α(K)=0.00416 *7*; α(L)=0.000655 *10*; α(M)=0.0001449 *22*; α(N+..)=3.83×10^{-5} *6* α(N)=3.33×10^{-5} *5*; α(O)=4.75×10^{-6} *8*; α(P)=2.39×10^{-7} *4* %Iγ≈0.32 I_γ: Contribution from 15-min activity subtracted, even though it is not shown explicitly in ^{162}Dy ε decay (15 min) data.
807.65 *7*	1.9 *4*	888.36	2⁺	80.670	2⁺	E2+M1	+57 *+∞−33*	0.00481	α(K)=0.00400 *6*; α(L)=0.000628 *9*; α(M)=0.0001390 *20*; α(N+..)=3.68×10^{-5} *6* α(N)=3.20×10^{-5} *5*; α(O)=4.56×10^{-6} *7*; α(P)=2.30×10^{-7} *4*

$^{162}_{66}Dy_{96}$-5

γ(^{162}Dy) (continued)

E_γ	I_γ †@	E_i(level)	J^π_i	E_f	J^π_f	Mult.#	δ#	α&	Comments
									%Iγ≈0.045 I_γ: computed by the evaluator by subtracting the contribution (1.9 *2*) from the 15-min activity from the observed Iγ value (3.8 *3*).
842.00 *5*	16.7 *4*	1390.54	5⁻	548.544	6⁺	E1		1.73×10⁻³	α(K)=0.001479 *21*; α(L)=0.000198 *3*; α(M)=4.30×10⁻⁵ *6*; α(N+..)=1.143×10⁻⁵ *16* α(N)=9.90×10⁻⁶ *14*; α(O)=1.444×10⁻⁶ *21*; α(P)=8.22×10⁻⁸ *12* %Iγ≈0.40
882.32 *5*	13.2 *3*	962.99	3⁺	80.670	2⁺	E2+M1	+41 *+34−13*	0.00397	α(K)=0.00332 *5*; α(L)=0.000508 *8*; α(M)=0.0001121 *16*; α(N+..)=2.97×10⁻⁵ *5* α(N)=2.58×10⁻⁵ *4*; α(O)=3.69×10⁻⁶ *6*; α(P)=1.91×10⁻⁷ *3* %Iγ≈0.32
888.2 *10*	3.1 *4*	888.36	2⁺	0.0	0⁺	E2		0.00391	α(K)=0.00327 *5*; α(L)=0.000500 *8*; α(M)=0.0001103 *16*; α(N+..)=2.92×10⁻⁵ *5* α(N)=2.54×10⁻⁵ *4*; α(O)=3.64×10⁻⁶ *6*; α(P)=1.88×10⁻⁷ *3* %Iγ≈0.074 I_γ: computed by the evaluator by subtracting the contribution (1.6 *3*) from the 15-min activity from the observed Iγ value (4.7 *2*).
917.17 *5*	21.3 *4*	1182.79	5⁺	265.661	4⁺	E2+M1	+50 *+50−20*	0.00365	α(K)=0.00306 *5*; α(L)=0.000464 *7*; α(M)=0.0001022 *15*; α(N+..)=2.71×10⁻⁵ *4* α(N)=2.35×10⁻⁵ *4*; α(O)=3.38×10⁻⁶ *5*; α(P)=1.761×10⁻⁷ *25* %Iγ≈0.51
937.17 *5*	436 *9*	1485.705	5⁻	548.544	6⁺	E1		1.41×10⁻³	α(K)=0.001205 *17*; α(L)=0.0001604 *23*; α(M)=3.48×10⁻⁵ *5*; α(N+..)=9.27×10⁻⁶ *13* α(N)=8.03×10⁻⁶ *12*; α(O)=1.172×10⁻⁶ *17*; α(P)=6.72×10⁻⁸ *10* %Iγ≈10
944.45 *6*	8.8 *4*	1210.136	3⁻	265.661	4⁺	E1+M2	−0.10 *+3−5*	0.00153 *18*	α(K)=0.00130 *15*; α(L)=0.000176 *22*; α(M)=3.8×10⁻⁵ *5*; α(N+..)=1.02×10⁻⁵ *13* α(N)=8.8×10⁻⁶ *12*; α(O)=1.29×10⁻⁶ *17*; α(P)=7.4×10⁻⁸ *10* %Iγ≈0.21
980.43 *9*	11.2 *9*	1061.02	4⁺	80.670	2⁺	[E2]		0.00317	α(K)=0.00266 *4*; α(L)=0.000398 *6*; α(M)=8.75×10⁻⁵ *13*; α(N+..)=2.32×10⁻⁵ *4* α(N)=2.02×10⁻⁵ *3*; α(O)=2.90×10⁻⁶ *4*; α(P)=1.535×10⁻⁷ *22* %Iγ≈0.27 I_γ: Contribution from 15-min activity subtracted, even though it is not shown explicitly in ^{162}Dy ε decay (15 min) data.

$^{162}_{66}$Dy$_{96}$-6

^{162}Ho $\varepsilon+\beta^{+}$ decay (67.0 min) 1999Za15,1971Wo09 (continued)

γ(^{162}Dy) (continued)

E_γ	I_γ[†@]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ[#]	α[&]	Comments
1026.93 *20*	2.5 *3*	1575.64	6^-	548.544	6^+				%Iγ≈0.060
1058.85 *16*	1.6 *3*	1324.51	6^+	265.661	4^+	E2		0.00271	α(K)=0.00228 *4*; α(L)=0.000335 *5*; α(M)=7.35×10^{-5} *11*; α(N+..)=1.95×10^{-5} *3* α(N)=1.694×10^{-5} *24*; α(O)=2.45×10^{-6} *4*; α(P)=1.314×10^{-7} *19* %Iγ≈0.038
1124.90 *6*	46.4 *14*	1390.54	5^-	265.661	4^+	E1		1.01×10^{-3}	α(K)=0.000860 *12*; α(L)=0.0001136 *16*; α(M)=2.46×10^{-5} *4*; α(N+..)=1.050×10^{-5} *15* α(N)=5.68×10^{-6} *8*; α(O)=8.31×10^{-7} *12*; α(P)=4.81×10^{-8} *7*; α(IPF)=3.94×10^{-6} *6* %Iγ≈1.11
1129.46 *6*	14.9 *5*	1210.136	3^-	80.670	2^+	E1+M2	+0.05 *+5−3*	0.00102 *7*	α(K)=0.00087 *6*; α(L)=0.000115 *9*; α(M)=2.50×10^{-5} *18*; α(N+..)=1.12×10^{-5} *5* α(N)=5.8×10^{-6} *5*; α(O)=8.5×10^{-7} *7*; α(P)=4.9×10^{-8} *4*; α(IPF)=4.52×10^{-6} *8* α(K)=0.000854 *12*; α(L)=0.0001128 *16*; α(M)=2.44×10^{-5} *4*; α(N+..)=1.104×10^{-5} *16* α(N)=5.64×10^{-6} *8*; α(O)=8.25×10^{-7} *12*; α(P)=4.77×10^{-8} *7*; α(IPF)=4.53×10^{-6} *7* %Iγ≈0.36
1220.04 *6*	991 *22*	1485.705	5^-	265.661	4^+	E1		9.00×10^{-4}	α(K)=0.000744 *11*; α(L)=9.79×10^{-5} *14*; α(M)=2.12×10^{-5} *3*; α(N+..)=3.76×10^{-5} *6* α(N)=4.90×10^{-6} *7*; α(O)=7.17×10^{-7} *10*; α(P)=4.16×10^{-8} *6*; α(IPF)=3.19×10^{-5} *5* %Iγ≈23.6
1310.05 *10*	4.3 *3*	1575.64	6^-	265.661	4^+				%Iγ≈0.1

† Values are from 1999Za15, unless noted otherwise. Where appropriate, these values have been corrected for the contributions from the 15-min ^{162}Ho activity, inferred on the basis of the data given in the ^{162}Ho ε decay (15 min) Data Set.

‡ γ reported as a doublet by 1999Za15, with the combined intensity reported. Where it was possible to infer the intensity associated with the listed placement, this has been done. NOTE: the "other" γ is not listed here as unplaced.

Assignments and values are from the ^{162}Dy Adopted Gammas dataset.

@ For absolute intensity per 100 decays, multiply by ≈0.0238.

& 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.

$^{162}_{66}Dy_{96}$-7

^{162}Ho ε decay (67.0 min) 1999Za15,1971Wo09