

$^{165}\text{Ho}(\pi^{-}, 7n\gamma)$ **1975Eb06,1984Sh09**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

 ^{158}Dy Levels

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
0.0	0 ⁺	637.75 12	6 ⁺	2048.7 10	12 ⁺	3781 [#]	18 ⁺
98.93 7	2 ⁺	1043.84 17	8 ⁺	2612.5	14 ⁺	4407	20 ⁺
317.28 9	4 ⁺	1520.73 27	10 ⁺	3190 [#]	16 ⁺		

[†] Calculated from E_γ.[‡] From ^{158}Dy Adopted Levels which confirms authors' assumption that γ's are from deexcitation of the ground-state band.[#] From ^{158}Dy Adopted Levels; level not reported in this reaction, but shown for completeness. $\gamma(^{158}\text{Dy})$

E_γ [‡]	I_γ [#]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [@]	α [†]	Comments
98.93 7	2.2 4	98.93	2 ⁺	0.0	0 ⁺	E2	2.82	$\alpha(K)=1.153$ 17; $\alpha(L)=1.284$ 19; $\alpha(M)=0.308$ 5; $\alpha(N+..)=0.0773$ 12 $\alpha(N)=0.0690$ 10; $\alpha(O)=0.00829$ 12; $\alpha(P)=4.77\times 10^{-5}$ 7 I_γ : 1975Eb06 value multiplied by 0.53.
218.35 6	6.2 2	317.28	4 ⁺	98.93 2 ⁺	E2	0.1768	$\alpha(K)=0.1223$ 18; $\alpha(L)=0.0421$ 6; $\alpha(M)=0.00984$ 14; $\alpha(N+..)=0.00251$ 4 $\alpha(N)=0.00223$ 4; $\alpha(O)=0.000284$ 4; $\alpha(P)=5.96\times 10^{-6}$ 9	
320.47 7	4.9 1	637.75	6 ⁺	317.28 4 ⁺	E2	0.0528	$\alpha(K)=0.0401$ 6; $\alpha(L)=0.00989$ 14; $\alpha(M)=0.00227$ 4; $\alpha(N+..)=0.000587$ 9 $\alpha(N)=0.000516$ 8; $\alpha(O)=6.84\times 10^{-5}$ 10; $\alpha(P)=2.11\times 10^{-6}$ 3	
406.09 12	3.5 1	1043.84	8 ⁺	637.75 6 ⁺	E2	0.0266	$\alpha(K)=0.0209$ 3; $\alpha(L)=0.00441$ 7; $\alpha(M)=0.001002$ 14; $\alpha(N+..)=0.000261$ 4 $\alpha(N)=0.000229$ 4; $\alpha(O)=3.10\times 10^{-5}$ 5; $\alpha(P)=1.143\times 10^{-6}$ 16	
476.89 21	2.1 2	1520.73	10 ⁺	1043.84 8 ⁺	E2	0.01716	$\alpha(K)=0.01375$ 20; $\alpha(L)=0.00265$ 4; $\alpha(M)=0.000599$ 9; $\alpha(N+..)=0.0001565$ 22 $\alpha(N)=0.0001369$ 20; $\alpha(O)=1.88\times 10^{-5}$ 3; $\alpha(P)=7.66\times 10^{-7}$ 11	
528 1	0.6 1	2048.7	12 ⁺	1520.73 10 ⁺	E2	0.01317	$\alpha(K)=0.01066$ 16; $\alpha(L)=0.00196$ 3; $\alpha(M)=0.000440$ 7; $\alpha(N+..)=0.0001152$ 18 $\alpha(N)=0.0001006$ 16; $\alpha(O)=1.395\times 10^{-5}$ 21; $\alpha(P)=5.99\times 10^{-7}$ 9	
563.4 ^{&}	0.5 2	2612.5	14 ⁺	2048.7 12 ⁺	E2	0.01118	$\alpha(K)=0.00910$ 13; $\alpha(L)=0.001623$ 23; $\alpha(M)=0.000364$ 5; $\alpha(N+..)=9.54\times 10^{-5}$ 14 $\alpha(N)=8.33\times 10^{-5}$ 12; $\alpha(O)=1.160\times 10^{-5}$ 17; $\alpha(P)=5.14\times 10^{-7}$ 8	
578.1 ^a		3190	16 ⁺	2612.5	14 ⁺			
591.0 ^a		3781	18 ⁺	3190	16 ⁺			
625.8 ^{&}	0.5 2	4407	20 ⁺	3781	18 ⁺	E2	0.00864 12	$\alpha=0.00864$ 12; $\alpha(K)=0.00709$ 10; $\alpha(L)=0.001212$ 17; $\alpha(M)=0.000270$ 4; $\alpha(N+..)=7.11\times 10^{-5}$ 10

Continued on next page (footnotes at end of table)

$^{165}\text{Ho}(\pi^-, 7n\gamma)$ [1975Eb06,1984Sh09](#) (continued) $\gamma(^{158}\text{Dy})$ (continued)

<u>E_γ</u> [‡]	<u>$E_i(\text{level})$</u>	<u>Comments</u>
		$\alpha(\text{N})=6.20\times 10^{-5}$ 9; $\alpha(\text{O})=8.70\times 10^{-6}$ 13; $\alpha(\text{P})=4.03\times 10^{-7}$ 6

[†] [Additional information 1.](#)

[‡] From [1975Eb06](#), except as otherwise noted.

[#] From [1984Sh09](#), except as noted. $I_\gamma(1+\alpha)$ given by [1975Eb06](#) and corresponding I_γ are a factor of ≈ 1.9 larger than those given here.

[@] From ^{158}Dy Adopted γ 's.

[&] From ^{158}Dy Adopted γ 's.

^a From ^{158}Dy Adopted γ 's; γ not reported in this reaction, but shown for completeness.

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Level Scheme

Intensities: γ 's per 100 stopped π^- (1984Sh09)

Legend

- $\longrightarrow$ $I_\gamma < 2\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma < 10\% \times I_\gamma^{\max}$
 $\longrightarrow$ $I_\gamma > 10\% \times I_\gamma^{\max}$

