

$^{165}\text{Ho}(\text{p,t})$ 1973Go14,1972GoYY

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich, Balraj Singh		NDS 111, 1211 (2010)	12-Apr-2010

Additional information 1.

$E_p = 30$ MeV. $J^\pi = 7/2^-$ for the ^{165}Ho g.s.

1973Go14, 1972GoYY (also 1971GoYX): measured $\sigma(10^\circ - 80^\circ)$. FWHM ≈ 12 . DWBA.

1985Mi06: g.s. transition strength measured.

 ^{163}Ho Levels

E(level) [†]	J^π [‡]	L [†]	E(level) [†]	J^π [‡]	L [†]	E(level) [†]	J^π [‡]	L [†]
0 ^d	7/2 ⁻	0	807 ^e 3	(9/2 ⁻)		1232? ^{&} 5		
100 ^d 3	(9/2 ⁻)	2	826? [@] 3			1245? [@] 5		
224 ^d 3	(11/2 ⁻)	2	898? [@] 3			1259 ^e 5	(15/2 ⁻)	
369 ^d 3	(13/2 ⁻)		912? [@] 3			1286 5		(2) ^a
533 ^d 3	(15/2 ⁻)		926 ^e 3	(11/2 ⁻)		1308? [@] 5		
560 ^e 3	(3/2 ⁻)	2	1060 3			1345? [@] 5		
618 ^e 3	(5/2 ⁻)	2	1075 ^e 3	(13/2 ⁻)		1373 ^c 5	7/2 ⁻	0
695 ^e 3	(7/2 ⁻)		1117? ^{&} 3			1419? [@] 5		
720 ^d 3	(17/2 ⁻)		1156? ^{&} 3			1441 5		
755? ^{#@} 3		b	1175? [@] 3			1457? [@] 5		(2) ^a
791? [#] 3			1194 3	(2) ^a		1513 5		

[†] From 1972GoYY.

[‡] From L-transfer, systematics, and membership in the indicated band. Parentheses added by the evaluators.

Strongly excited, but origin unknown since it appears unrelated to the other observed levels.

@ Given by 1972GoYY only, not listed in 1973Go14. This level is not given in Adopted Levels, since it is not confirmed in any other study of the ^{163}Ho levels.

& Given by 1972GoYY only.

^a Based only on the positions of the relative maximum.

^b The $\sigma(\theta)$ distribution is flat and unstructured.

^c Overall shape and strength of $\sigma(\theta)$ suggest a β or pairing vibration.

^d Band(A): $\pi 7/2[523]$ band.

^e Band(B): $\pi 7/2[533] + K-2$ γ -vib (?). Possible K-2 γ -vibrational band built on the g.s. ($\pi 7/2[523]$) (?).

$^{165}\text{Ho}(\text{p,t})$ 1973Go14,1972GoYYBand(B): $\pi 7/2[533]+K-2$
 $\gamma\text{-vib} (?)$ (15/2⁻) 1259(13/2⁻) 1075(11/2⁻) 926(9/2⁻) 807Band(A): $\pi 7/2[523]$ band(17/2⁻) 720(7/2⁻) 695(5/2⁻) 618(3/2⁻) 560(15/2⁻) 533(13/2⁻) 369(11/2⁻) 224(9/2⁻) 1007/2⁻ 0