Coulomb excitation   1984Dr03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 113, 715 (2012)	31-May-2011

p: E=43.6 MeV (1966Ec02), α: E=9.7-12 MeV (1984Dr03), ^{16}O: E=35-45 MeV (1984Dr03), 43.6 MeV (1966Ec02); ^{14}N: E=52 MeV (1963Al30).

Measured: γ rays (1984Dr03,1966Ec02,1963Al30).

^{143}Nd Levels

E(level)	$J^{\pi\ddagger}$	$T_{1/2}$†	Comments
0.0	$7/2^-$		
741.2	$3/2^-$	2.8 ps 1	B(E2)↑=0.045 2 (1984Dr03)
			$T_{1/2}$: from B(E2). Others: B(E2)=0.047 12 (1966Ec02), 0.058 (1963Al30).
1407.8	$9/2^-$		
1432.1	$11/2^-$	0.135 ps 14	B(E2)↑=0.105 11 (1984Dr03)

† From B(E2).
‡ From Adopted Levels.

$\gamma(^{143}$Nd)

E_γ	$I_\gamma{}^{\ddagger}$	E_i(level)	J_i^π	E_f	J_f^π	Mult.	$\alpha^{\dagger}$	Comments
741.2	100	741.2	$3/2^-$	0.0	$7/2^-$	E2	0.00437 7	α=0.00437 7; α(K)=0.00369 6; α(L)=0.000538 8; α(M)=0.0001147 16; α(N+..)=2.96×10^{-5} 5 α(N)=2.55×10^{-5} 4; α(O)=3.80×10^{-6} 6; α(P)=2.22×10^{-7} 4 Mult.: From Adopted Gammas.
1407.8	100	1407.8	$9/2^-$	0.0	$7/2^-$			
1432.1	100	1432.1	$11/2^-$	0.0	$7/2^-$	[E2]	0.001135 16	α=0.001135 16; α(K)=0.000927 13; α(L)=0.0001217 17; α(M)=2.57×10^{-5} 4; α(N+..)=6.10×10^{-5} α(N)=5.74×10^{-6} 8; α(O)=8.70×10^{-7} 13; α(P)=5.63×10^{-8} 8; α(IPF)=5.44×10^{-5} 8

† Additional information 1.
‡ Branching in %.

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Legend

Level Scheme

Intensities: Relative I$_\gamma$

I$_\gamma$ < 2%×I$_\gamma^{max}$
I$_\gamma$ < 10%×I$_\gamma^{max}$
I$_\gamma$ > 10%×I$_\gamma^{max}$

1432.1 [E2] 100	1407.8 100	

11/2$^-$		1432.1	0.135 ps *14*
9/2$^-$		1407.8	

741.2 E2 100

3/2$^-$		741.2	2.8 ps *1*

7/2$^-$		0.0

$^{143}_{60}$Nd$_{83}$