

³¹Cl β⁺p decay 2006Ka11,1996Og01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 111, 2331 (2010)	30-Jun-2010

Parent: ³¹Cl: E=0; T_{1/2}=150 ms 25; Q(β⁺p)=5850 50; %β⁺p decay=0.7

Others: 1985Ay02, 1983Ay02.

2006Ka11: ³¹Cl produced by bombarding ZnS target with 40⁻ or 45-MeV protons through ³²S(p,2n) reaction; product nuclei were accelerated and mass separated using the IGISOL facility, implanted on carbon foil; 1 HPGe detector and 3 double sided silicon strip detectors; Measured: β delayed E_p, I_p.

1996Og01: ³¹Cl produced by bombarding ZnS target with 45-MeV protons; helium-jet transport, ΔE gas + E silicon as a particle telescope; analyzed proton spectra.

³⁰P Levels

E(level)	J ^π	T _{1/2}	Comments
0	1 ⁺	2.498 min 4	J ^π ,T _{1/2} : From Adopted Levels.

Delayed Protons (³⁰P)

E(p) [†]	E(³⁰ P)	I(p) [‡] &	E(³¹ S) [@]	Comments
762 14	0	9.1 2	2 6912	
851 [#] 16	0	1.2 1	2 7012	
985 [‡] 6	0	100 2	7151	Intensity from 1996Og01. Other: 100 4 (2006Ka11).
1174 [#] 14	0	1.7 6	7347	
1523 [‡] 8	0	13.6 1	4 7707	Other intensity: 11 5 (2006Ka11).
1692 [#] 15	0	3.9 7	7882	
1826 [#] 15	0	8.8 1	1 8021	
2092 [#] 20	0	1.3 5	8296	
2211 [#] 20	0	4.1 8	8418	
2299 30	0	1.5 5	8509	
2454 40	0	1.0 4	8669	
2601 40	0	0.4 3	8821	
2751 40	0	0.6 3	8977	

[†] From 2006Ka11, except otherwise noted.

[‡] Weighted average of data from 2006Ka11, 1996Og01, 1985Ay02 and 1983Ay02.

[#] Weighted average of data from 2006Ka11 and 1985Ay02.

[@] For corresponding proton energies, reported by 2006Ka11.

[&] For absolute intensity per 100 decays, multiply by 0.007.

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Decay Scheme

I(p) Intensities: Relative I(p)

