^{35}Cl(γ,γ') 1991Li12,1966Ho02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, John Cameron and Balraj Singh	NDS 112,2715 (2011)	20-Oct-2011

1991Li12: γ-rays produced by focusing a 4.1 MeV electron beam onto a radiator target of a gold disc on a water cooled copper at the bremstrahlung facility at the Stuttgart Dynamitron Accelerator. Target of ^{35}Cl. Measured Eγ, Iγ. Deduced half-lives for the levels of 2694, 3002 and 3918 keV.

1966Ho02: E_γ=1.0-1.3 MeV γ-rays from bremstrahlung production by electrons impinging on a thin layer of lead with the electrons from the 1.4 MeV pressurized cascade electron accelerator of the Diamond Research Laboratory in Johannesburg. Targets of C_2Cl_6. A 7.6-cm by 7.6-cm NaI crystal. Measured Eγ, Iγ. Deduced half-life for the level of 1220 keV by the resonance scattering of photons.

Others: 1962Bo17, 1972Sh07, 1976Sp09.

^{35}Cl Levels

$\Gamma_0\Gamma_f/\Gamma$ from 1991Li12. Γ_0, G_f and Γ are the decay width to the ground state, decay width to the final state and total width, respectively.

E(level)	$T_{1/2}$[†]	Comments
0		
1220.0 *10*	90 fs *21*	
2693.71 *10*	24 fs *7*	$\Gamma_0\Gamma_f/\Gamma$=12 meV *3* (1991Li12).
3002.7 *4*	17 fs *7*	$\Gamma_0\Gamma_f/\Gamma$=26 meV *11* (1991Li12).
3918.6 *6*	4.9 fs *14*	$\Gamma_0\Gamma_f/\Gamma$=63 meV *18* (1991Li12).

[†] From the resonance scattering of photons. The method described in 1959MeZZ and 1962Bo17.

γ(^{35}Cl)

E_γ[†#]	E_i(level)	E_f
1220[‡]	1220.0	0
2693.6 *1*	2693.71	0
3002.6 *4*	3002.7	0
3918.4 *6*	3918.6	0

[†] From 1991Li12, unless otherwise noted.
[‡] From 1966Ho02.
[#] From least-squares fit to Eγ's.

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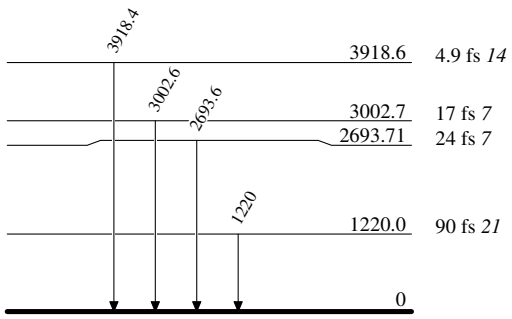
Level Scheme



$^{35}_{17}Cl_{18}$