

$^2\text{H}(^{35}\text{Cl},p\gamma)$ 1976Co02,1977He12,1973Wa10

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|-------------------------------------------|---------|-------------------|------------------------|
| Full Evaluation | Ninel Nica, John Cameron and Balraj Singh | | NDS 113, 1 (2012) | 31-Dec-2011 |

1976Co02: E=60 MeV; measured $E\gamma$, $I\gamma$, $T_{1/2}$ (RDM).

1977He12: E=50 MeV; measured $p\gamma$ coincidences, $T_{1/2}$ (DSAM).

1973Wa10: E=57.4 MeV; measured γ , $T_{1/2}$ (DSAM).

 ^{36}Cl Levels

| E(level) | $T_{1/2}$ | Comments |
|----------|------------------|------------------------------------------------------------------------------------------------------------------------------|
| 0.0 | | |
| 788.2 | 14.7 ps 10 | $T_{1/2}$: mean lifetime τ In ps: 19.9 17 (1977He12), 23 2 (1976Co02); weighted average: 21.2 15. Other:>5 (1973Wa10). |
| 1164.6 | 6.9 ps 4 | $T_{1/2}$: mean lifetime τ In ps: 9.2 6 (1977He12), 10.4 5 (1976Co02), weighted average: 9.9 6. Other:>3 (1973Wa10). |
| 1601.0 | 0.65 ps 4 | $T_{1/2}$: mean lifetime τ In ps: 0.94 6 (1977He12). |
| 1951.0 | 2.04 ps 10 | $T_{1/2}$: mean lifetime τ In ps: 2.95 14 (1976Co02). |
| 1959.8 | | |
| 2468.4 | 1.04 ps 12 | $T_{1/2}$: mean lifetime τ In ps: 1.50 18 (1973Wa10). |
| 2491 | | |
| 2518.1 | ≈ 1.7 ns | $T_{1/2}$: mean lifetime τ In ns: ≈ 2.4 (1976Co02). |
| 2810.1 | 3.4 ps 7 | $T_{1/2}$: mean lifetime τ In ps: 4.9 10 (1976Co02). |
| 2896.6 | | |
| 3100.7 | | |

 $\gamma(^{36}\text{Cl})$

| $E_i(\text{level})$ | E_γ^\dagger | I_γ^\dagger | E_f | $E_i(\text{level})$ | E_γ^\dagger | E_f |
|---------------------|--------------------|--------------------|--------|---------------------|--------------------|--------|
| 788.2 | 788.2 2 | 100 | 0.0 | 2468.4 | 517.4 2 | 1951.0 |
| 1164.6 | 1164.6 3 | 100 | 0.0 | 2491 | 1327.0 10 | 1164.6 |
| 1601.0 | 436.4 3 | | 1164.6 | 2518.1 | 1729.7 3 | 788.2 |
| | 1600.7 3 | | 0.0 | | 2518.0 6 | 0.0 |
| 1951.0 | 786.4 3 | 34 8 | 1164.6 | 2810.1 | 859.1 4 | 1951.0 |
| | 1951.0 3 | 66 8 | 0.0 | | 2021.8 3 | 788.2 |
| 1959.8 | 358.9 3 | | 1601.0 | 2896.6 | 936.8 10 | 1959.8 |
| | 1171.6 5 | | 788.2 | | 2896.5 4 | 0.0 |
| | 1960.0 5 | | 0.0 | 3100.7 | 632.3 4 | 2468.4 |

\dagger From 1976Co02.

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Level Scheme

Intensities: % photon branching from each level

