## $^{37}$Cl($^{3}$He,$\alpha\gamma$) 1976Ve01

History

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

$J^{\pi}(^{37}Cl)=3/2^{+}$.

1976Ve01: $^{37}$Cl($^{3}$He,$\alpha$) and $^{37}$Cl($^{3}$He,$\alpha\gamma$), E=18 MeV, measured $\sigma$(E$\gamma$), $\alpha$-$\gamma$ coin, deduced E(level) and decay scheme with $\gamma$ branching.

### $^{36}$Cl Levels

| E(level)† | E(level)† | E(level)† | E(level)† |
|---|---|---|---|
| 0.0 | 2676.9 *11* | 4554 | 6379 |
| 789 | 2812 *2* | 4884 | 6771 |
| 1165 | 2862.4 *15* | 5702 | 7085 |
| 1601 | 3471.0 *11* | 5734 | 7564 |
| 1960 | 3725 *3* | 6095 | 8859 |
| 2491.2 *11* | 4300 | 6146 | |
| 2518.9 *11* | 4524 | 6184 | |

† More precise E(level) values are extracted by 1976Ve01 from more intense transitions In Ge(Li) $\gamma$-ray spectra, while most of their other levels are given with No decimal figures and No uncertainty.

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

| $E_i$(level) | $E_\gamma$† | $I_\gamma$ | $E_f$ | $E_i$(level) | $E_\gamma$† | $I_\gamma$ | $E_f$ | $E_i$(level) | $E_\gamma$† | $I_\gamma$ | $E_f$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 789 | 789 | 100 | 0.0 | 2862.4 | 2862.3 | 100 | 0.0 | 6095 | 6095 | | 0.0 |
| 1165 | 1165 | 100 | 0.0 | 3471.0 | 659 | 100 | 2812 | 6146 | 6146 | | 0.0 |
| 1601 | 436 | 15 | 1165 | 4300 | 1623 | 7 *3* | 2676.9 | 6184 | 6184 | | 0.0 |
| | 1601 | 85 | 0.0 | | 2699 | 65 *8* | 1601 | 6379 | 6379 | | 0.0 |
| 1960 | 1171 | 20 | 789 | | 3135 | 28 *5* | 1165 | 6771 | 5982 | | 789 |
| | 1960 | 80 | 0.0 | 4524 | 4524 | | 0.0 | 7085 | 6296 | | 789 |
| 2491.2 | 531 | 6 | 1960 | 4554 | 2594 | | 1960 | 7564 | 5073 | 18 *4* | 2491.2 |
| | 1326 | 82 | 1165 | | 4554 | | 0.0 | | 5604 | 40 *6* | 1960 |
| | 2491.1 | 12 | 0.0 | 4884 | 2022 | | 2862.4 | | 5963 | 42 *6* | 1601 |
| 2518.9 | 2518.8 | | 0.0 | | 3719 | | 1165 | 8859 | 8070 | | 789 |
| 2676.9 | 2676.8 | 100 | 0.0 | 5702 | 5702 | | 0.0 | | | | |
| 2812 | 2023 | 100 | 789 | 5734 | 5734 | | 0.0 | | | | |

† From 1976Ve01. E$\gamma$'s from transitions from the more precisely determined E(level)'s to g.s. were recalculated by evaluators.

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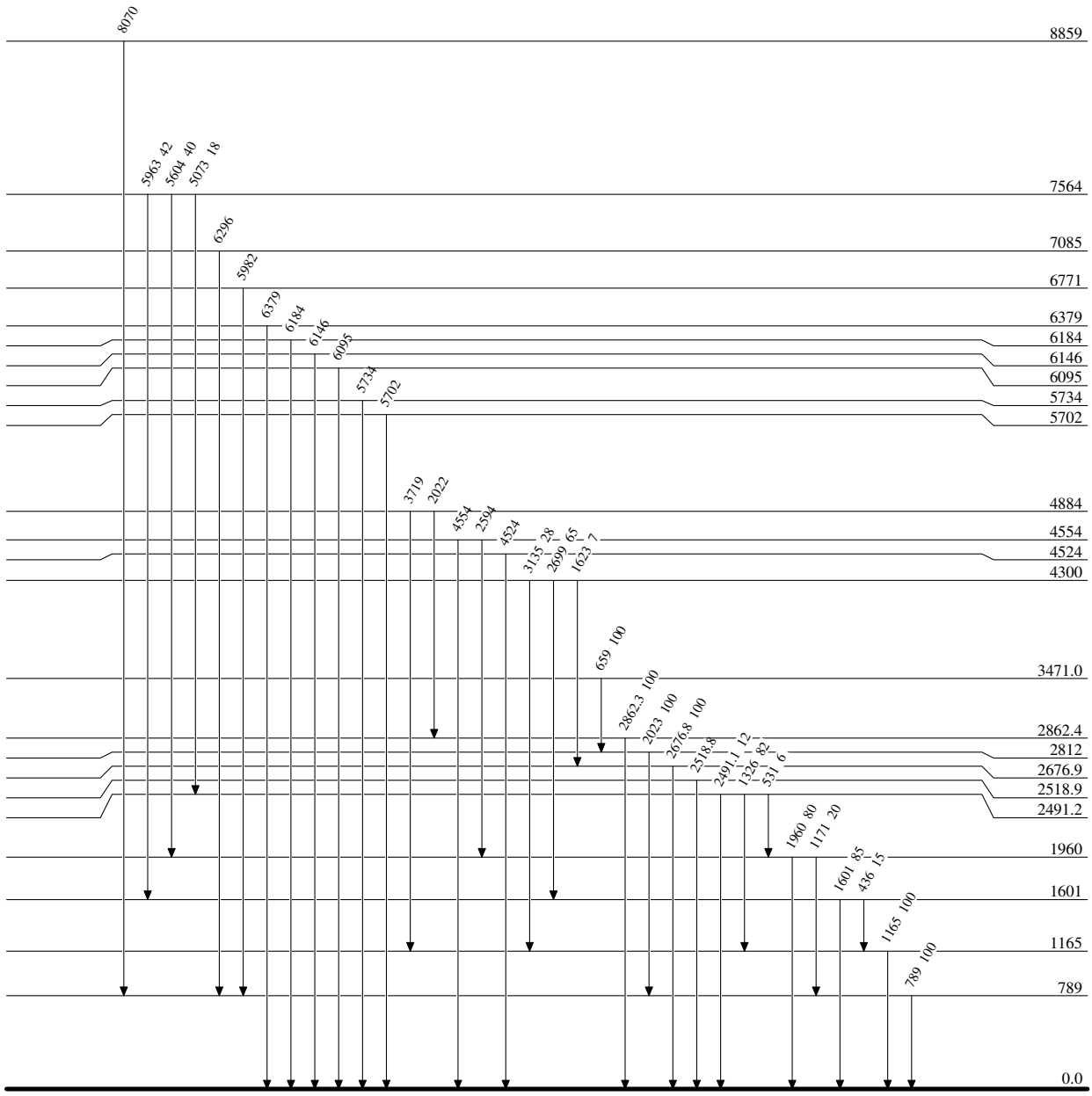
Level Scheme

Intensities: % photon branching from each level




$^{36}_{17}Cl_{19}$