^{24}Mg(^{18}O,αpγ) 1975Ol01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	John Cameron, Jun Chen and Balraj Singh, Ninel Nica	NDS 113, 365 (2012)	15-Jan-2012

1975Ol01: E=40 MeV ^{18}O beam produced at the Brookhaven National Laboratory. Target of ^{24}Mg. Ge(Li) detectors. Measured Eγ, Iγ, $\gamma(\theta)$, $\gamma\gamma$-coin, $\gamma(\theta)$, γ-polarization. Deduced levels.

^{37}Cl Levels

E(level)[†]	J$^\pi$[‡]
0	3/2$^+$
3103.54 *20*	7/2$^-$
4009.8 *4*	9/2$^-$
4545.7 *4*	11/2$^-$
5270.1 *4*	13/2$^-$

[†] From a least-square fit to Eγ's.
[‡] From Adopted Levels.

γ(^{37}Cl)

E$_\gamma$[†]	I$_\gamma$[†]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
535.91 *10*	71	4545.7	11/2$^-$	4009.8	9/2$^-$	A$_2$=−0.26 *4*, A$_4$=+0.08 *4*, pol=−0.26 *7* (1975Ol01).
724.44 *15*	27	5270.1	13/2$^-$	4545.7	11/2$^-$	A$_2$=−0.22 *6*, A$_4$=+0.17 *8*, pol=−0.44 *15* (1975Ol01).
906.22 *30*	62	4009.8	9/2$^-$	3103.54	7/2$^-$	A$_2$=+0.30 *3*, A$_4$=+0.08 *4*, pol=−0.66 *16* (1975Ol01).
3103.4 *2*	100	3103.54	7/2$^-$	0	3/2$^+$	A$_2$=+0.29 *7*, A$_4$=+0.08 *9*, pol=+0.09 *51* (1975Ol01).
4009.6	37	4009.8	9/2$^-$	0	3/2$^+$	A$_2$=+0.37 *10*, A$_4$=+0.07 *10*, pol=+1.9 *24* (1975Ol01).

[†] From 1975Ol01.

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Level Scheme

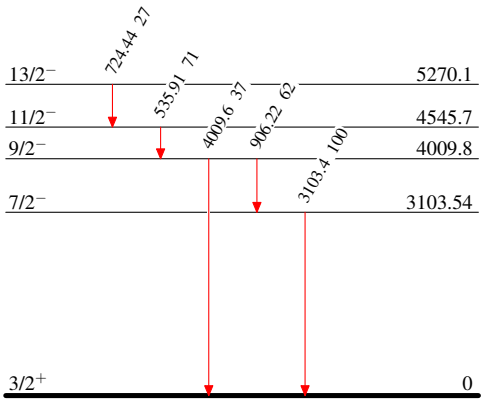
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{37}_{17}Cl_{20}$