^{3}He(d,X),^{4}He(p,X) 2002Ti10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	X. Hu, D. R. Tilley, J. H. Kelley	NP A708,3 (2002)	23-Aug-2001

^{5}Li Levels

Levels are based on the complex poles and residues of the S-matrix (extended R-matrix). See 2002Ti10 for a discussion of the adopted(S-matrix) levels and the alternate (R-matrix) levels. The fits are based on data from all possible reactions for the two-body channels d + ^{3}He and p + ^{4}He at CM energies corresponding to E_x<23 MeV. In addition, p + 4he* channels are included to approximate the effects of three-body breakup processes.

E(level)	J^{π}	$T_{1/2}$	Comments
0.0	$3/2^-$	1.23 MeV	%p=? T=1/2 Γ_p=10.06 MeV; Γ_{p0}=1.06 MeV Widthd=43.1 MeV. Note that the partial Γ corresponding to excited ^{4}He in the final state is 9 MeV, and (large) partial widths in closed channels have meaning only as asymtotic normalization constants.
1490	$1/2^-$	6.60 MeV	%p=? T=1/2 Γ_p=3.78 MeV Widthd=16.4 MeV but note that (large) partial widths in closed channels have meaning only as asymtotic normalization constants.
16870	$3/2^+$	267 keV	%p=?; %d=?; %IT=? T=1/2 Γ_p=55 keV Widthd=134 keV.
19280	$3/2^-$	959 keV	%p=?; %d=?; %n=? T=1/2 Γ_p=742 keV Widthd=40 keV.
19450	$7/2^+$	3.28 MeV	%p=?; %d=? T=1/2 Γ_p=40 keV Widthd=1.82 MeV.
19710	$5/2^+$	4.31 MeV	%p=?; %d=? T=1/2 Γ_p=11 keV Widthd=2.03 MeV.
20530	$1/2^+$	5.00 MeV	%p=?; %d=?; %n=? T=1/2 Γ_p=222 keV Widthd=1.53 MeV.
22060	$5/2^-$	15.0 MeV	%p=?; %d=? T=1/2 Γ_p=928 keV Widthd=2.33 MeV.
23740	$5/2^+$	5.43 MeV	%p=?; %d=? T=1/2 Γ_p=234 keV Widthd=2.49 MeV.
25420	$3/2^+$	534 keV	%p=?; %d=? T=1/2 Γ_p=23 keV Widthd=467 keV.

Continued on next page (footnotes at end of table)

^{3}He(d,X),^{4}He(p,X) 2002Ti10 (continued)

^{5}Li Levels (continued)

E(level)	J^{π}	$T_{1/2}$	Comments
25440	$7/2^{+}$	2.63 MeV	%p=?; %d=? T=1/2 Γ_p=43 keV Widthd=1.94 MeV.
32530	$1/2^{-}$	35.7 MeV	%p=?; %d=? T=1/2 Γ_p=8.75 MeV Widthd=13 keV.

$\gamma(^{5}Li)$

E_γ	E_i(level)	J_i^{π}	E_f	J_f^{π}
15355	16870	$3/2^{+}$	1490	$1/2^{-}$
16840	16870	$3/2^{+}$	0.0	$3/2^{-}$

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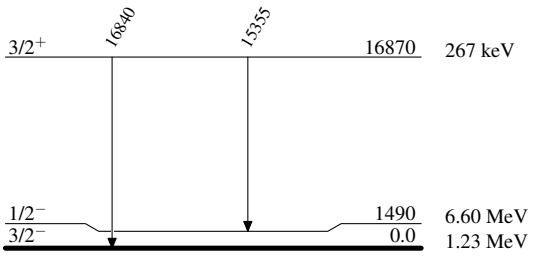
Level Scheme



$^{5}_{3}Li_{2}$