^{57}Fe(^{3}He,d) 1972Sc13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja and B. Singh	ENSDF	31-Oct-2015

E=18 MeV, FWHM≈14 keV.
$J^{\pi}(^{57}Fe)=1/2^{-}$.
Additional information 1.
Other: 1969Tr06.
Measured: σ(E,θ).

^{58}Co Levels

E(level)[†]	L	C^2S'[#]	E(level)[†]	L	C^2S'[#]	E(level)[†]	L	C^2S'[#]
0.0	1	0.02	2444 *7*	(1)	0.012	3517 *11*	1	0.033
54 *2*	3	0.86	2477 *7*	1	0.015	3526 *11*	(1+3)	0.010+0.077
111 *2*	3	0.52	2524 *8*	1	0.12	3548 *11*	1	0.018
366 *2*	3	0.17	2624 *8*	1	0.20	3559 *11*	(0)	0.005
371 *2*			2646 *8*	3+(1)	0.42+0.007	3607 *11*	(1+3)	0.005+0.036
455 *2*			2695 *8*	1	0.09	3619 *11*		
882 *3*	3+(1)	0.07	2733 *8*	(1+3)	0.62+0.035	3639 *11*	1	0.048
1038 *3*			2781 *8*	1	0.05	3668 *11*	1	0.16
1042 *3*	1	0.41	2844 *9*	4	0.12	3685 *11*	1	0.019
1233 *4*	1	0.56	2884 *9*	1	0.004	3725 *11*	3+(1)	0.067+0.002
1350 *4*	1	0.07	2946 *9*	3	0.19	3775 *11*	1	0.068
1369 *4*	1	0.26	2995 *9*	(0)	0.002	3790 *11*	(0)	0.01
1383 *4*	1	0.05	3007 *9*	3	0.096	3806 *11*	2	0.13
1431 *4*	1	0.34	3062 *9*	3	0.17	3853 *12*	1	0.049
1517[‡] *5*	1	0.007	3096 *9*	1	0.03	3869 *12*	1	0.008
1602 *5*	3	0.14	3123 *9*	1+3	0.007+0.046	3898 *12*	0	0.005
1665 *5*	1+(3)	0.07+0.5	3186 *10*	3	0.075	3916 *12*	2	0.06
1729 *5*	1	0.04	3199 *10*	0	0.004	3943 *12*	1	0.009
1743 *5*	1+(3)	0.035	3226 *10*	1+(3)	0.038+0.088	3957 *12*	1+(3)	0.039+0.08
1811 *5*	1	0.006	3243 *10*	(1)	0.013	4006 *12*	1	0.065
1863 *6*	1	0.15	3261 *10*	1+(3)	0.010+0.023	4082 *12*	1+(3)	0.045+0.14
1974 *6*	3+(1)	0.49+0.007	3337 *10*	1+(3)	0.12+0.27	4097 *12*	(1+4)	0.026+0.62
2007 *6*	3	0.041	3376 *10*	1+3	0.023+0.20	4110 *12*	(4+2)	0.71+0.055
2070 *6*	3	0.073	3414 *10*	1+(3)	0.048+0.11	6140 *18*	(0)	0.035
2166 *6*	3	0.10	3442 *10*	1	0.032			
2242 *7*	1	0.037	3455 *10*	3	0.35			

[†] Authors quote a single set of energies for their (d,α) and (^{3}He,d) work, uncertainties are stated as 0.3% or 2 keV, whichever is higher.
[‡] Labeled as 1512+1522 in both (d,α) and (^{3}He,d), based on known levels, but only one peak is resolved. The evaluators assign energy of 1517 keV.
[#] Calculated average of values for J=L+1 and L-1 if J is not known.