^{82}Se(t,α)   1982Mo04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 199,271 (2025)	1-Sep-2024

No significant change compared to the previous evaluation by C.M. Baglin (2008Ba34).

E(t)=18 MeV; multiangle spectrograph; 87.8% ^{82}Se target; FWHM=25 keV at 25 MeV; θ(c.m.)$\approx$20$°$−60$°$ (4-6 angles); measured $\sigma(\theta)$ and Q=7467 6. DWBA analysis of $\sigma(\theta)$.

^{81}As Levels

E(level)	L‡	C^{2}S†	E(level)	L‡	C^{2}S†	E(level)	L‡	C^{2}S†
0.0	1	1.37	1497 8	1	0.24	3098 6	3	0.72
285$^@$ 6	(1,3)	(0.09,0.17)	1613 5	0	0.08	3306$^\#$ 9		
334 4	3	2.75	1674 5	(3)	(0.18)	3480 7	0	0.02
727 9	3	0.12	1879$^@$ 8	4	0.04	3596$^\#$ 12	0	0.03
757 9	4	0.07	2077$^\#$ 13	(1,3)	(0.09,0.17)	3742 9		
1014 5	1	0.07	2518?$^@$ 1			3818 12	1	0.04
1038$^\&$ 6			2723 9	1	0.07	3914 8	(0,3)	(0.35,0.07)
1132$^\#$ 8			2999 3	1	0.01	3995 7	(0,3)	(0.38,0.05)

† C^{2}S defined by σ(exp)=N$\times$C^{2}S$\times\sigma$(DWBA)/(2J+1), with N=18.2. 3s$_{1/2}$, 2p$_{3/2}$, 1f$_{5/2}$, 1g$_{9/2}$ orbitals assumed for L=0, 1, 3, 4, respectively.

‡ From DWBA. Note, however, that $\sigma(\theta)$ may be poorly defined by only 4-6 points and, in such cases, the deduced L value may not be reliable.

$^\#$ Doublet.

$^@$ Level is evident in spectrum but E is labeled "assumed" in table in 1982Mo04; authors indicate that level was previously unknown, so significance of label is unclear.

$^\&$ Observed only at few angles (1982Mo04).