^{82}Se(^{3}He,d) 1983Zu01

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

E(^{3}He)=24.0 MeV. Measured E(d) and $\sigma(\theta)$ from θ=5° to 60° using 100 cm magnetic spectrograph and nuclear track plates for E(d) (FWHM=18-25 keV) and position sensitive gas proportional counters for $\sigma(\theta)$ (FWHM=25-30 keV); DWBA analysis using DWUCK4 code. See also 1982Zu04 for Q value determination and 1981ZuZX, thesis.

^{83}Br Levels

E(level)	L[†]	(2J+1)C^{2}S[‡]	Comments
0	1	1.55 *16*	(2J+1)C^{2}S: for adopted J^π=3/2$^-$.
357.5 *14*	3	1.94 *19*	
801.9 *14*	3	1.04 *10*	
871.8 *21*	(1)	0.018,0.015	
990.5 *14*	1	0.59,0.50	
1030.5 *21*	(1)	0.064,0.055	
1056.0 *14*	1	1.37,1.18	
1093.9 *14*	4	5.4 *5*	(2J+1)C^{2}S: for adopted J^π=9/2$^-$. (2J+1)C^{2}S=10.4 *10* for J^π=7/2$^-$.
1113.7 *26*			
1355.6 *17*	2	0.34 *3*	(2J+1)C^{2}S: for adopted J^π=5/2$^+$. (2J+1)C^{2}S=0.44 *4* for J^π=3/2$^+$.
1423.1 *20*	2+4	0.017,0.013	(2J+1)C^{2}S: for L=2. For L=4, (2J+1)C^{2}S=0.25 and 0.129.
1662.6 *15*	1	0.191,0.165	
1704.1 *18*	2+4	0.044,0.034	(2J+1)C^{2}S: for L=2. For L=4, (2J+1)C^{2}S=0.52 and 0.271.
1809.3 *25*	2+4	0.010,0.008	(2J+1)C^{2}S: for L=2. For L=4, (2J+1)C^{2}S=0.104 and 0.055.
2050.1 *24*	(1+2)	0.006,0.005	L: or 2+4. (2J+1)C^{2}S: for L=1. For L=2, (2J+1)C^{2}S=0.021 and 0.016. For L=4, (2J+1)C^{2}S=0.061 and 0.032.
2400.3 *14*	4	2.27,1.20	
2729.6 *18*	1	0.055,0.048	
2759.9 *24*	(1)	0.069,0.059	
2813.3 *22*	1	0.031,0.027	
2953.3 *17*	2	0.150,0.117	
2993.8 *22*			
3034.6 *20*	2	0.039,0.030	
3130.6 *23*	0	0.023 *2*	
3369.0 *22*			
3441.0 *27*			
3548.4 *23*			
3613.7 *22*			
3667.8 *22*			
3749.3 *22*			
3804.9 *22*			
3873.0 *22*			
3967.5 *22*			
4016.3 *22*			
4049.2 *26*			
4097.6 *25*			
4160.3 *22*			
4194.1 *27*			

[†] From DWBA analysis of $\sigma(\theta)$.

[‡] Derived from σ_{exp}=N×(2J+1)C^{2}S×σ_{DWBA}/(2J+1), with N=4.42. The first value given is for J=L−1/2, the second one for J=L+1/2. Authors provide only a general statement that uncertainty is ≈10%. For L=3 transitions, 1983Zu01 deduced, from shell model considerations, that only the 1f5/2 orbital is available, so only J=5/2 is tabulated.