^{84}Kr(^{3}He,α) 1976Me01

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

E(^{3}He)=18 MeV. Measured $\sigma(\theta)$ in 3.75° steps starting at 7.5° using a multi-angle spectrograph and Ilford K-1 emulsion plates (FWHM=25 keV); DWBA analysis.

^{83}Kr Levels

E(level)	L†	C^{2}S‡	E(level)	L†	C^{2}S‡	E(level)	L†
0	4	(8)	1668# *15*	(3)	1.9	2495 *20*	(1)
561 *5*	(3)	2.8	2035 *15*	(3)	1.4	2585 *20*	(3,2)
694 *5*	(3)	0.8	2121 *15*	(3,2)	0.6,0.4	2733 *20*	(3)
811 *8*	1	2.2	2188 *15*	(3,2)	0.2,0.1		
1100 *10*	(1)	4.2	2261 *20*	(3,2)	0.5,0.3		

† From DWBA analysis. Most states have rather structureless angular distributions. The calculated distributions for L=3 and L=4 were too similar to make definite spin assignments to most states. Furthermore, some angular distributions are well fitted with L=2 curves. However, it is unlikely that ^{84}Kr contains appreciable population of either the 2d5/2 or 2d3/2 neutron orbitals. All L-values, except those for the g.s. and 811-keV states, must thus be regarded as questionable.

‡ C^{2}S from DWBA analysis, derived from $d\sigma/d\Omega=N\times C^2S\times\sigma_{DWBA}/(2J+1)$. Normalization, N, is chosen to give the shell-model value C^{2}S=8 for the g.s. C^{2}S is given for the most probable configuration, consistent with L-assignment. See 1976Me01 for additional S-values for other possibilities if L-assignment is uncertain.

Possible doublet.