

$^{82}\text{Kr}(\text{d,p})$ 1975Ch11

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

E(d)=11 MeV. Measured $\sigma(\theta)$ from 20° to 160° in 5° steps using four Si(Li) detectors (FWHM≈30 keV); DWBA analysis.

 ^{83}Kr Levels

Levels without L are only weakly excited. Above 1 MeV, these are flagged as questionable and not included in the Adopted Levels.

A level at 35 keV is also only weakly excited, but likely corresponds to the well-known 42-keV isomeric state.

E(level)	L [†]	S [‡]	Comments
0.0	4	0.458	$d\sigma/d\Omega(\text{max})=0.941$ mb/sr.
35			L: from shell model arguments, if the 569-keV level is the L=1, $3/2^-$ state, then the 35-keV level is likely the L=1, $1/2^-$ level.
569	1	0.084	$d\sigma/d\Omega(\text{max})=0.784$ mb/sr.
796	2	0.146	$d\sigma/d\Omega(\text{max})=1.861$ mb/sr.
1085?			
1214	2	0.283	$d\sigma/d\Omega(\text{max})=3.988$ mb/sr.
1271	0	0.336	$d\sigma/d\Omega(\text{max})=4.009$ mb/sr.
1460?			
1614?			
1773?			
2183?			
2236	2	0.0581	$d\sigma/d\Omega(\text{max})=1.027$ mb/sr.
2379	0	0.0487	$d\sigma/d\Omega(\text{max})=0.637$ mb/sr.
2588	2	0.0601	$d\sigma/d\Omega(\text{max})=1.028$ mb/sr.
2944	2	0.0268	$d\sigma/d\Omega(\text{max})=0.520$ mb/sr.
3140	0	0.139	$d\sigma/d\Omega(\text{max})=1.624$ mb/sr.
3718	2	0.0830	$d\sigma/d\Omega(\text{max})=1.389$ mb/sr.
3772	4	0.356	$d\sigma/d\Omega(\text{max})=0.835$ mb/sr.

[†] From DWBA analysis.

[‡] $S=\sigma_{\text{exp}}/[(2J+1)\sigma_{\text{DWBA}}]$.