^{78}Kr(p,t) 1981Ma30

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, Jun Chen and Ameenah R. Farhan	NDS 194,3 (2024)	8-Jan-2024

1981Ma30: E=51.9 MeV. Enriched gas target, broad range magnetic spectrometer giving FWHM≈100 keV. Cross section data from 10° to 65° in steps of 2.5°. Absolute cross sections accurate to 15%. Data analyzed by DWBA calculations. See also 1982Ma18 from the same group.

Cross section data		
Level	dσ/dΩ(μb/sr)	θ(c.m.)
0	340	17.5
424	80	12.5
762	3.6	17.5
1041	2.6	20.0
1218	11	12.5
1681	10	12.5
2079	9.0	12.5
2260	34	15.0
2601	13	15.0
2697	14	12.5
2872	31	15.0

^{76}Kr Levels

E(level)	L[†]	Enhancement factor[‡]	Comments
0	0	24	
424 *15*	2	16	
762 *15*	0	0.23	
1041 *15*	(4)	0.86	
1218 *15*	2	2.1	
1681 *15*	2	1.9	
2079 *15*	(2,3,4)	1.7	Enhancement factor: for L=2. Enhancement factor=0.17 and 1.9 for L=3 and 4, respectively.
2260 *15*	3	0.78	
2601 *15*	(3,4)	0.30	Enhancement factor: for L=3. Enhancement factor=3.3 for L=4.
2697 *15*	2	2.6	
2872 *15*	3	0.75	
3246 *15*			
3457 *15*			
3629 *15*			
3796?[#] *15*			
3978 *15*			

[†] Even L values correspond to pick up of two $1g_{9/2}$ neutrons whereas odd L values correspond to pick up of one $1g_{9/2}$ and one $2p_{3/2}$ neutron.

[‡] Enhancement factor=(2J+1)(dσ/dΩ)(exp)/N×C^{2}σ(DWUCK); where N=212.8.

[#] Taken from the figure shown by 1981Ma30.