^{20}Ne(^{7}Li,α) 1984Fo14

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia[#], A. Chakraborty[##]	NDS 171,1 (2021)	1-Jun-2020

Target: Enriched ^{20}Ne in a gas cell with no entrance window; Projectile: ^{7}Li, E=22.0 MeV; outgoing α particles were momentum analyzed in a multiangle spectrograph and detected in nuclear emulsion plates. Mylar foil stopped all particles heavier than α's. Deduced excitation energy and differential cross section. FWHM ~50 keV.

^{23}Na Levels

E(level)[†]	$(d\sigma/d\Omega)_{max}$[@]	Comments
0.0		
2082 *7*	12.3	
2389 *2*	39.6	
2647 *8*	11.2	
2705 *6*	8.5	
2984 *2*	42.8	
3668 *5*	24.5	
3842 *7*	13.1	
3914 *5*	8.2	
4426 *3*	29.2	
4770 *3*	24.4	
5378 *2*		
5528 *6*	17.1	
5742[#] *4*	29.4	
5923 *10*	14.5	
5958 *14*	13.3	
6030 *8*	10.1	
6117 *6*	5.2	
6182 *10*	11.2	
6235 *6*	14.6	
6320[‡] *2*	67.4	
6588[‡] *10*	55.0	
6729 *12*	12.7	
6928[‡] *9*	275	
7079[‡] *13*	142	
7279[‡] *10*	33.4	
7463[‡] *8*	348	E(level): 1984Fo14 identify as doublet of 7448 and 7489 – there is one additional level 7477.4 within the range in Adopted dataset. Not referenced (XREF) in Adopted dataset.
7575 *7*	52.6	
7751 *10*	655	
7862 *10*	72.6	
8304 *10*	208	
8478 *8*	165	
8570 *14*	43.9	
8644 *11*	105	
8801[‡] *19*	37.4	
8965[‡] *10*	223	E(level): 1984Fo14 identify as doublet of 8945 and 8972 – but there is one additional level 8963.9 within the range in Adopted dataset. Not referenced (XREF) in Adopted dataset.
9024 *17*	37.4	
9107[‡] *14*	39.8	

[†] From 1984Fo14.
[‡] Doublet.

Continued on next page (footnotes at end of table)

^{20}Ne(^{7}Li,α) 1984Fo14 (continued)

^{23}Na Levels (continued)

Triplet (1984Fo14), not referenced in the Adopted Levels.
@ In units of μb/sr.