

$^{25}\text{Mg}(\text{p,t})$ 1981Na01

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

$J^\pi(^{25}\text{Mg})=5/2^+$.

Other: 1969Ha38.

1981Na01: $^{25}\text{Mg}(\text{p,t})$, E=40 MeV. Measured $\sigma(\theta)$. DWBA analysis, shell model spectroscopic amplitudes. Enriched target. FWHM = 10-15 MeV.

 ^{23}Mg Levels

E(level)	L	$d\sigma/d\Omega$ ($\mu\text{b/sr}$) [‡]	Comments
0.0	3	76.0	
450	3	235.0	
2047	3	50.9	
2355	5	3.4	
2712	5	34.2	
2768	5	50.9	
2905	5	6.2	
3801	5	61.0	
3863	5	12.9	
3973	5	50.9	
4350	6	5.1	
4688	6	3.0	
5290	6	2+4	
5463	6	>3	L: ≥ 4 in 1981Na01.
5662	8	0	55.0
5695	8	2	5.0
5715	8	2	4.9
5933	6		6.1
5984	6		11.3
6123	6	3	22.0
6189	6	>3	5.9 L: ≥ 4 in 1981Na01.
6234	6	2	4.5
6370	6	10	4 2.4
6440	6		6.3
6507	6	2	12.0
6536	6	2	2.0
6566	8	0	5.6
6771	6		
6799	6		8.1
6809	6		4.4
6899	5	0	11.2
6982	5	0	39.0
7017	5	2	5.0
7111	7	4	2.2
7148	6	2(+0)	21.8
7231	7	4	1.5
7259	7	>3	2.2 L: ≥ 4 in 1981Na01.
7381	8		
7444	8		3.8
7493	8	2	4.4
7582	6	0	4.2
7621	8	2	3.4
7780	6	4	7.4
7795	6	0	140.0

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$^{25}\text{Mg}(\text{p,t})$ 1981Na01 (continued) ^{23}Mg Levels (continued)

<u>E(level)</u>	<u>L</u>	<u>$d\sigma/d\Omega$ ($\mu\text{b}/\text{sr}$)[‡]</u>	<u>Comments</u>
7852 6		3.2	
8016 6		4.7	
8058 7			
8076 8			
8155 6	0	46.0	
8193 8			
8285 8			
8334 8			
8393 6			
8420 6			
8453 5	4	7.4	
8557 6			
8617 6	>3	2.0	L: (≥ 4) in 1981Na01.
8758 6		2.8	
8793 8			
8870 8		2.1	
8916 6	4	5.9	
8941 7			
8990 6	2	18.1	
9018 8		2.2	
9060 8			
9103 6		6.3	
9138 6	4	4.6	
9253 8			
9328 8		4.0	
9374 8			
9403 8			
9420 8			
9465 6	2	17.0	
9596 8		3.8	
9642 8		5.6	
9662 8			
9717 8		4.8	

[†] 7788 keV 25 in 1969Ha38 appears to be a doublet.

[‡] Value at the maximum in the angular distribution (1981Na01).