

$^{26}\text{Mg}(\text{p,n}),(\text{p,n}\gamma)$ 1987Ma19,1988Le17,1972Pr09

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia and A. M. Hurst	NDS 134,1 (2016)	1-Feb-2016

Others: [1994Br11](#),[1987Ra23](#),[1987Sk01](#),[1985Wa24](#),[1981No03](#),[1980Be23](#),[1980Go07](#), [1980Pa14](#),[1980St08](#),[1979Ki02](#).
 $J^\pi(^{26}\text{Mg})=0^+$.

[1987Ma19](#): (p,n) – 99.45% enriched ^{26}Mg target; proton beam, E=134.4 MeV; three NE102 plastic scintillators, Time-of-flight spectra, FWHM 370 keV for 128.5 MeV neutrons, DWIA calculation; deduced Gamow-Teller strengths.

[1988Le17](#): (p,n) – 99.45% enriched ^{26}Mg target; proton beam, E=135 MeV; Neutrons were detected using three rectangular bars of fast plastic scintillator; Time-of-flight spectra were measured in approximately 4° steps from 0° to 63° ; measured cross sections, DWIA calculations, deduced excited levels, spin and parity.

[1972Pr09](#): (p, γ) – ^{26}Mg target (thickness 1 mg/cm²) on gold backing bombarded by proton beams, E=7.4 MeV; Ge(Li)-NaI(Tl) escape suppressed and pair-escape spectrometer; Measured E_γ , I_γ , γ -ray angular distribution; Deduced level scheme, spin and parity.

 ^{26}Al Levels

E(level) [†]	J^π	L	Comments
0.0	$5^+\#$		
228.305 13		0	a precision measurement of the threshold for the excitation of 1st excited state in (p,n) reaction has yielded $E_{(-\text{threshold})}=5209.46$ keV 12 (1994Br11).
416.852 3	3^+	0	
1057.739 12		0	
1850.62 3		0	
2068.86 5	$4^+\@$	0^\ddagger	
2069.47 3		0^\ddagger	
2071.64 4	1		
2740.03 3		0	
3402.65 6	$5^+\#$		
3723.81 4		0	
6891.70 4	$6^-\#$		
10660 10	$6^-\#$		

[†] From Adopted Levels, except otherwise noted.

[‡] L=0 for triplet ([1987Ma19](#)).

[#] From angular distribution measurements and DWIA calculations ([1988Le17](#)).

[@] From [1972Pr09](#), based on γ -ray angular distribution measurements.