

$^{21}\text{Ne}(t,p)$ 1975De33

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

$J^\pi(^{21}\text{Ne})=3/2^+$.

Triton beams having energies 3 and 3.25 MeV were used. 91% enriched ^{21}Ne target was used. The reaction products were detected using four solid state telescopes covering an angular range from 20 to 160 degrees. Measured $\sigma(\theta)$. Deduced energies and spin-parity of the levels. FWHM 40-50 keV.

 ^{23}Ne Levels

E(level) [†]	J^π	L	Comments
0.0			
1017 [‡]			
1702 [‡]			
1822 [‡]		0+2	
2315 [‡]			
2517 [‡]			
3221 [‡]			
3445 [#]	3/2 ⁺	0	E(level): Average of 3431.6 and 3458.5.
3837 [@]			E(level): Average of 3830.9, 3836.4 and 3842.3.
3999 [#]			E(level): Average of 3987.8 and 4010.
4270 [‡]			
4436 [‡]			
4764 [‡]			
4867 [‡]			
5012 [#]		0	E(level): Average of 4995 and 5029.
5202			E(level): 1975De33 show doublet of 5186 and 5226 in Table I, appears to be a triplet compared to level energies of 5185, 5200, and 5220 in the adopted dataset. Listed energy is the average of these three values.
5366 40			
5481 40			
5649 40			
5745 40	3/2 ⁺	0	
5899 40			
6093 40			
6329 40			E(level): Energy of the upper member of doublet.
6445 40			

[†] From 1975De33, unless otherwise stated.

[‡] From Adopted Levels, rounded value without uncertainty. 1975De33 list level energy from literature.

[#] Unresolved doublet in 1975De33. Listed energy is the average of Adopted Level energies.

[@] Unresolved triplet in 1975De33. Listed energy is the average of Adopted Level energies.