^{27}Al(^{6}Li,d)   1979Es05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 184, 29 (2022)	24-Jun-2022

J^π(^{27}Al target)=5/2$^+$.

1979Es05: E=36 MeV ^{6}Li from MP tandem accelerator at the University of Rochester. Outgoing deuterons momentum analyzed by an Enge split pole magnetic spectrograph. Kodak NTB-50 nuclear emulsions plates for detection. Natural Al target. Surface barrier detector to monitor scattered deuterons. Measured E(d) and $\sigma(\theta)$ at θ_{lab}=5°−40°. Deduced levels, L-transfers, spectroscopic factors from DWBA analysis.

^{31}P Levels

E(level)[†]	J^π[‡]	L[#]	Relative Strength[#]	E(level)[†]	J^π[‡]	L[#]	Relative Strength[#]
0	1/2$^+$	2	1.00	3510	3/2$^+$	2	0.22
1270	3/2$^+$	4	0.73	4190	5/2$^+$	0	0.23
2230	5/2$^+$	0	0.61	4430	7/2$^-$	(1+3+5)	
3130	1/2$^+$	2	0.05	4780	5/2$^+$	0	0.28
3300	5/2$^+$	(0+2+4)	0.20	5340	9/2$^+$	2	0.59
3410	7/2$^+$	2	0.08				

[†] From 1979Es05.
[‡] As used in 1979Es05 for extracting spectroscopic strengths. The same values are adopted in Adopted Levels.
[#] From DWBA analysis of measured $\sigma(\theta)$ (1979Es05).