

$^{29}\text{Si}(\alpha, \text{d})$ 1986Da18, 1980Bu05

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

$J^\pi(^{29}\text{Si target})=1/2^+$.

1986Da18: E=25 MeV from University of Birmingham Radial Ridge cyclotron. Enriched SiO_2 target. Scattering chamber and solid state ΔE -E detectors for angular distribution measurements and particle identification. Microscopic DWBA analysis. Authors do not provide an L-value from their angular distribution measurements, merely a spin. FWHM=45 keV.

1980Bu05: E=27.2 MeV from R-7 cyclotron of the Institute of Nuclear Research of the Academy of Sciences of Ukraine. Thin target of enriched SiO_2 (^{29}Si 89.4%). Semiconductor ΔE -E telescope for measuring energy and angular distribution of deuterons. DWBA analysis.

 ^{31}P Levels

E(level) [†]	J^π [†]	L [‡]	Comments
0	1/2 ⁺	0	
1270	3/2 ⁺	2	
2230	5/2 ⁺		J^π : 3/2 ⁺ in 1980Bu05; 5/2 ⁺ in Adopted Levels.
3130	1/2 ⁺		
3410	7/2 ⁺		
3510	3/2 ⁺		
4190	5/2 ⁺		
4260	3/2 ⁺		

[†] From 1986Da18. 1980Bu05 have similar J^π values for the first two excited states.

[‡] From 1980Bu05.