

$^{36}\text{S}(\text{d},\alpha),(\text{pol d},\alpha)$ 1987TrZZ,1978Ba30

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, Balraj Singh		NDS 113, 1563 (2012)	28-May-2012

1987TrZZ: (pol d, α),(pol d, $\alpha\gamma$) E=6-16 MeV. Measured $E\alpha$ at five angles, $\alpha\gamma(\theta)$, tensor analyzing power T_{20} at 0° . Enriched (81.1%) target. The α particles were analyzed using an Enge split-pole spectrograph and detected in a focal-plane position-sensitive delay-line counter.

1978Ba30: (d, α) E=3.05-3.26 MeV, measured α spectra with a magnetic analyzer, enriched (81.1%) target.

 ^{34}P Levels

E(level) [†]	$J\pi^{\ddagger}$	Comments
0	1+#	
430 4	2+ ^a	J^π : natural parity (1987TrZZ). E(level): 429 7 (1978Ba30).
1610 3	1+# ^a	E(level): 1616 10 (1978Ba30).
2231 10	(3+) [#]	E(level): 2236 10 (1978Ba30).
2307 7	[#]	E(level): 2302 20 (1978Ba30).
2372 @ 20		
2628 @ 12		
2683 7	(1+,2-,3+) [#]	
3086 & 15		
3201 @ 16		
3291 & 23		
3482 8		
3546 & 12		
4306 7	(1+,2-,3+) [#]	
4438 & 13		
4744 9	(1+,2-,3+,4-) [#]	

[†] From 1987TrZZ, unless otherwise stated.

[‡] Parity (natural or unnatural) from measurement of tensor analyzing power T_{20} in 1987TrZZ.

[#] Unnatural parity state (1987TrZZ).

@ From 1978Ba30 only, not observed in 1987TrZZ.

& Level in 1987TrZZ is either weakly populated or observed only at one or two of the five angles; tensor polarization measurement was not possible.

^a Spin and parity determined in (pol d, α) and (pol d, $\alpha\gamma$) experiments by 1987TrZZ.