

$^{18}\text{O}(\text{p,d})$ 1973Pi09

Type	Author	Citation	Literature Cutoff Date
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1963Le03: $^{18}\text{O}(\text{p,d})$, $E_p=17.6\text{-}20$ MeV; angular distributions were taken and absolute differential cross sections were obtained; reduced widths and spectroscopic factors were calculated.

1967Lu05: A proton beam at $E=18.2$ MeV, from the Livermore variable energy cyclotron, impinged on an oxygen enriched target gas cell (99.06% ^{18}O , 0.35% $^{18}\text{O}^{17}\text{O}$, 0.59% $^{18}\text{O}^{16}\text{O}$). A telescope consisting of a transmission type surface barrier ΔE detector and a lithium-drifted Si E detector was used to detect particles. DWBA analyses were performed and energy levels of $^{17}\text{O}^*(0,0.871,3.058,3.846(J^\pi=5/2^-)$ MeV) were obtained. There was no evidence of a simple pick-up reaction leading to the state of $^{17}\text{O}^*(3.846$ MeV: $J^\pi=5/2^-)$.

1973Pi09: $^{18}\text{O}(\text{pol. p,d})$, $E=24.4$ MeV; measured $\sigma(\text{Ed,Et},\theta)$, $A(\theta)$. Deduced reaction mechanism. ^{17}O levels deduced S.

1974Pi05: $^{18}\text{O}(\text{p,d})$, $E=20\text{-}45$ MeV; measured $\sigma(\text{Ed},\theta)$, deduced optical model parameters. ^{17}O levels deduced L, J, π .

1977Oh02: $^{18}\text{O}(\text{p,d})$, $E=51.9$ MeV; measured $\sigma(\text{Ed},\theta)$. ^{17}O levels deduced L, S. Enriched ^{18}O target.

Theory:

1970Hi15: ^{17}O ; calculated negative-parity levels, S for $^{18}\text{O}(\text{p,d})$. Particle-hole formalism.

1973Ig02: $^{18}\text{O}(\text{p,d})$, calculated $\sigma(\theta)$.

1973Or09: $^{18}\text{O}(\text{p,d})$, $E=17.6$ MeV; calculated $\sigma(\text{Ed},\theta)$.

1977Bo42: $^{18}\text{O}(\text{p,d})$, $E=17.6$ MeV; calculated $\sigma(\theta)$.

 ^{17}O Levels

E(level) [†]	J^π [†]	L	S^b	Comments
0 [‡] #@&a	5/2 ⁺	2	1.31	L: See (1963Le03,1973Pi09).
870 [‡] #@&a	1/2 ⁺	0	0.07	L: See (1963Le03,1973Pi09).
3050 [‡] #@&a	1/2 ⁻	1	0.88	L: See (1963Le03,1973Pi09).
3840@&a	5/2 ⁻	3		L: See (1973Pi09).
4550&a	3/2 ⁻	1	0.14	L: See (1973Pi09).
5080 ^a	3/2 ⁺	2	0.13	L: See (1973Pi09).
5220 ^a	(7/2,9/2,11/2) ⁻			L: See (1973Pi09).
5380 ^a	3/2 ⁻	1		L: See (1973Pi09).

[†] Nominal level energy and J^π values listed in (1973Pi09).

[‡] Observed in (1963Le03).

Observed in (1977Oh02).

@ Observed in (1967Lu05).

& Observed in (1974Pi05).

^a Observed in (1973Pi09).

^b Mean values from (1973Pi09).