^{38}Ar(α,^{2}He) 1978Ja10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

1978Ja10 (also 1978Ja22 and thesis by 1980StZO): E=65 MeV alpha beam was produced from the Lawrence Berkeley Laboratory 88-inch cyclotron. Target was ^{38}Ar gas in a 6-cm diameter cylindrical gas cell. Reaction products were detected by two telescopes of a 380−μm phosphorus diffused Si ΔE detector and a 5-mm Si(Li) E counter and a 5-mm Si(Li) veto counter (FWHM=300-600 keV). Measured pp-coin, $\sigma(\theta)$, TOF. Deduced levels, J, π.

^{40}Ar Levels

E(level)[†]	J$^{\pi}$[#]
0	0$^+$
1460 *70*	2$^+$
2890 *70*	4$^+$
3470 *70*	6$^+$
8.2×10^3[‡] *8*	
9.0×10^3 *1*	

[†] From 1978Ja10.
[‡] Broad peak, probably complex structure of many states.
[#] As given 1978Ja10, member of $(f_{7/2})^2$ multiplet.