^{28}Si(^{18}O,^{14}C) 1979Be01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 201,1 (2025)	31-Oct-2024

1979Be01: E=60 MeV ^{18}O from Saclay super FN tandem accelerator. Target was 99.91% enriched ^{28}Si with a thickness of 128 μg/cm^2 on a carbon backing. Reaction products were momentum analyzed with a Q3D magnetic spectrograph and detected with a gas proportional counters for particle ΔE-E. Measured $\sigma(^{14}C,\theta)$, θ_{cm}=5° to 25°. Deduced levels, J, π. EFR-DWBA calculations stated by author as not reproducing the data.

^{32}S Levels

E(level)†	J^π†
0	(0^+)
2230	(2^+)
4280	(2^+)
4460	(4^+)
5010	(3^-)
5800	(1^-)
6760	(2,3,4,5)
7120	(2^+)
7430	$(0^-,1^-,2^-)$
7700	(2,3,4)

† From 1979Be01. Spin-parity is deduced based on DWBA analysis of measured $\sigma(\theta)$ and the fact that no unnatural-parity state is measurable populated in (^{18}O,^{14}C) reaction, as stated by the authors.