^{46}Ti(^{14}C,^{16}O) 1979Pe08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 190,1 (2023)	20-Jun-2023

1979Pe08: E=51 MeV ^{14}C beam was produced from a sputter source and accelerated in a Van de Graaff accelerator at Los Alamos Scientific Laboratory. Target was 100 μg/cm^2 self-supporting ^{46}Ti. Scattered ^{16}O particles were momentum-analyzed and identified with a Q3D magnetic spectrograph and detected with a helical cathode proportional counter on the focal plane. Measured σ(E(^{16}O),θ). Deduced levels, J^π, L-transfers and spectroscopic factors from DWBA analysis.

^{44}Ca Levels

E(level)	J$^\pi$	L[‡]	Spectroscopic factors[†‡]
0	0$^+$	0	0.84
1160	2$^+$	2	0.76
1880	0$^+$	0	0.34
2280	4$^+$	4	0.88
2660	2$^+$	2	0.70
3040	4$^+$	4	0.80
3310		3	3.88

† α(N)^{2}s$_1$C^{2}S$_2$ values (1979Pe08).
‡ Extracted from DWBA analysis of measured $\sigma(\theta)$ (1979Pe08).