$^{12}C(^{24}F,p^{23}O)$ 2003Th07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia[#], A. Chakraborty[##]	NDS 171, 1 (2021)	1-Jun-2020

Also $^{12}C(^{25}F,pn^{23}O)$ and $^{12}C(^{26}F,p2n^{23}O)$.

Other references: 2004Th13, 2003Th10 – both are conf. paper – from the same research group of 2003Th07.

One-proton knockout reaction.

2003Th07: ^{24}F beam, E=46.7 MeV/nucleon, was produced from fragmentation of ^{48}Ca, E=110 MeV/nucleon, on a thick Be target. The fragments were separated by A1900 fragment separator at NSCL. Three 500−μm thick Si surface barrier detectors followed by three 5000−μm thick Li-drifted Si diodes. Fragments were identified by energy loss (ΔE) and time-of-flight information. The secondary (reaction) target was 146 mg/cm^2 thick ^{12}C. The outgoing ^{23}O fragments were tracked by ΔE-E signals. Deduce one-proton knock out cross section, spectroscopic factor.

^{23}O Levels

E(level)	J^π	C^2S	Comments
0.0	$1/2^+$	6.6 *9*	J^π: From Adopted Levels. C^2S: For $^{12}C(^{24}F,p^{23}O)$. Measured cross section=6.6 mb *10* for $^{12}C(^{24}F,p^{23}O)$, 6.4 mb *9* for $^{12}C(^{25}F,pn^{23}O)$, and 8.9 mb *24* for $^{12}C(^{26}F,p2n^{23}O)$.