^{48}Ca(^{18}O,^{18}C) 1982Fi10

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Kelley, C. G. Sheu	ENSDF	01-May-2017

1982Fi10: The mass and excitation spectrum of ^{18}C were determined using the ^{48}Ca(^{18}O,^{18}C) reaction. A beam of 112 MeV ^{18}O ions, from the Australian National University pelletron accelerator, impinged on a 97% enriched 100μg/cm^2 ^{48}Ca target. The ^{18}C reaction products were detected at θ=50° using an Enge split-pole spectrometer. Peaks corresponding to states in ^{18}C and ^{48}Ti are observed and discussed. The Q-value (−21434 keV *30*) was deduced, which corresponds to ΔM=24923 keV *30*.

1982Na04: An earlier rapid communication was published that reported on a mass measurement carried out at Orsay. A 100 MeV ^{18}O beam impinged on a 1.3 mg/cm^2 ^{48}C target and the reaction products were momentum analyzed using a magnetic spectrometer. $^{18}C_{g.s}$ and ^{48}Ti*(984 keV) were observed. The Q-value −21.33 MeV *30* was measured, which yields ΔM=24.82 MeV *30* and is consistent with prior results.

^{18}C Levels

E(level)	Comments
0	ΔM=24923 keV *30* is deduced in 1982Fi10.
1620 *20*	E(level): from 1982Fi10.