^{13}C(^{18}O,^{18}O)

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. E. Purcell	NDS 198,1 (2024)	1-Aug-2024

2010Ru13: ^{13}C(^{18}O,^{18}O),(^{18}O,^{18}O′) E=105 MeV; measured reaction products; deduced partial σ, optical model parameters, spectroscopic amplitudes.

2011Ru04: XUNDL dataset compiled by TUNL, 2011.

The authors measured the angular distribution of ^{18}O and ^{13}C recoils from ^{13}C + ^{18}O –>^{13}C + ^{18}O reactions. A beam of E(^{18}O)=105 MeV ions from the Warsaw University Cyclotron impinged on a 500 μg/cm^2 ^{13}C target that was enriched to 90%. The recoils were detected in a ΔE-E telescope. The ^{13}C and ^{18}O elastic and inelastic data were analyzed with other data at E_{cm}=6.29-13.94 MeV, and optical potential parameters were deduced.

2023Ma02: ^{13}C(^{18}O,^{18}O); analyzed mass asymmetry and charge asymmetry effects in elastic scattering of light nuclei.

^{13}C Levels

E(level)	J^{π}[†]
0	$1/2^-$
3.09×10^3	$1/2^+$
3.68×10^3[‡]	$3/2^-$
3.85×10^3[‡]	$5/2^+$

[†] From coupled-reaction-channels model analysis in (2011Ru04).

[‡] Unresolved.