

$\text{U}(\text{P},^{18}\text{C}),(\text{N},^{18}\text{C})$ [1970Bu22](#)

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

- [1970Bu22](#): The particle stability of ^{18}C was confirmed at the Bevatron by [1970Bu22](#) who analyzed the spallation products emitted in the 5.5 GeV proton bombardment of a $^{\text{nat}}\text{U}$ target. The reaction products were detected in a set of Si detectors that were placed at $\theta=90^\circ$ with respect to the incident beam. The two detectors, which provided ΔE and E signals were located at distances of 14.5 cm and 25.7 cm from the target. Particle identification was unambiguously determined by evaluating ΔE , E and the time-of-flight between the detectors.
- [1974Bo05](#): Similar to [1970Bu22](#), spallation products emitted in the 4.8 GeV proton bombardment of a $^{\text{nat}}\text{U}$ target were analyzed in a survey of bound light neutron rich nuclei in the A=14-22 mass region. Evidence of A=10-19 isotopes of carbon was observed. A ^{18}C production cross section of $\approx 100 \mu\text{b}$ was measured.
- [1986Pi09](#): Spallation products from 800 MeV proton bombardment of a uranium target at LAMPF were detected using a series of detectors that provided ΔE , E and time-of-flight information. The products were analyzed to obtain A and Z identification, and mass excesses were obtained for a few carbon, nitrogen, oxygen, fluorine and neon isotopes. $\Delta M=22.7 \text{ MeV } 80$ was obtained for ^{18}C .
- [1986Do08](#): The yields of various He, Li, Be, B, C, O and Ne isotopes – including ^{18}C , produced via thermal neutron induced fission reactions on ^{235}U at the ILL, were determined. The fission fragments were magnetically analyzed in the Lohengrin spectrometer and detected in a ΔE -E telescope.

 ^{18}C LevelsE(level)

0