

$^{232}\text{Th}(\text{P}, ^{20}\text{N})$  1988Wo09

<u>Type</u>	<u>Author</u>	<u>History</u>	<u>Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	C. G. Sheu, J. H. Kelley		ENSDF	31-Dec-2018

[1986Vi09](#),[1988Wo09](#): Mass measurements of several neutron-rich light nuclei were carried out using an improved fitting technique for deducing nuclear mass values from measurements of time-of-flight (ToF) through the LANL/TOFI spectrometer; the ToF through the spectrometer depends on the mass-to-charge ratio and is independent of ion velocity.

The rare isotope species were produced by proton spallation reactions on a Th target. Typical flight times of 500 ns, with timing uncertainties near 180 ps yielded typical mass-to-charge resolutions of  $3.6 \times 10^{-4}$  from analysis of multiple runs that involved multiple charge states.

A  $^{20}\text{N}$  mass excess of 21.78 MeV *l2* was deduced in ([1988Wo09](#)), which compares with 21.64 MeV *l6* which was previously deduced in ([1986Vi09](#)).

See also ([1988ViZP](#),[1993WoZZ](#)).

 $^{20}\text{N}$  Levels

E(level)

0