

A Corrected ACE file for Protons onto Be9

Web Documentation, LA-UR-22-24547

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References: (Both documents are available in the nuclear data team memo archive)

- (1) Robert C. Little, “New ACE Format Proton Table for Be-9”, memo XCP-DO:19-003, Los Alamos National Laboratory, 2019.
- (2) Holly Trellue, Robert C. Little, M. Beth Lee, “New ACE-Formatted Neutron and Proton Libraries Based on ENDF/B-VII.0”, LA-UR-08-1999, Los Alamos National Laboratory, 2008.

A replacement ACE file for protons onto Be9 has been produced which corrects a longstanding bug in the previous (2008) version. MCNP requires that the number of discrete gamma lines be constant throughout the data and older versions of NJOY did not adhere to this policy. NJOY was corrected years ago but a corrected ACE file has not yet been released (until now).

A new ACE file for protons onto Be9 (using the old evaluation) was produced using a modern version of NJOY (2016.60) and it does have a constant number of discrete gamma lines (even if the probability of some of the lines is 0.0).

The generic form of the XSDIR entry for the new protons onto Be9 file is:

```
4009.00h 8.934761 filename route 1 1 77875 0 0 0.000E+00
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