^{58}Cu

^{58}Cu was measured by Martin and Breckon in 1952 as described in "The New Radioactive Isotopes Vanadium 46, Manganese 50, Cobalt 54" (1952Ma55). Nickel foils were bombarded with 15 MeV protons from the McGill cyclotron and ^{58}Cu was formed in (p,n) charge-exchange reactions. Activation measurements were performed with a pneumatic target extractor and a scintillation counter. "Analysis of the photographs gave the mean values of 0.873 sec. and 3.04 sec. respectively for the half lives of Sc^{41} and Cu^{58}." The authors did not consider their measurement of ^{58}Cu a discovery citing a data compilation (1950WaZY). However, this compilation only referred to a private communication. Previous reports of half-lives of 80(2) s (1938Ri01), 81(2) s (1939De01), and 10 min (1947Le07) were incorrect. The first two half-lives most likely corresponded to ^{59}Cu.

Adapted from reference (2012Ga06)

1938Ri01 L. N. Ridenour, L. A. Delsasso, M. G. White, and R. Sherr, Phys. Rev. **53**, 770 (1938).

1939De01 L. A. Delsasso, L. N. Ridenour, R. Sherr, and M. G. White, Phys. Rev. **55**, 113 (1939).

1947Le07 C. E. Leith, A. Bratenahl, and B. J. Moyer, Phys. Rev. **72**, 732 (1947).

1950WaZY K. Way, L. Fano, M. R. Scott, and K. Thew, NBS-CIRCULAR-499 (1950).

1952Ma55 W. M. Martin and S. W. Breckon, Can. J. Phys. **30**, 643 (1952).

2012Ga06 K. Garofali, R. Robinson, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 356 (2012).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"