^{58}Ca

^{58}Ca was discovered by Tarasov et al. in 2009 and published in "Evidence for a Change in the Nuclear Mass Surface with the Discovery of the Most Neutron-Rich Nuclei with $17 \leq Z \leq 25$" (2009Ta05). Beryllium and tungsten targets were irradiated by 132 MeV/u ^{76}Ge ions accelerated by the Coupled Cyclotron Facility at the National Superconducting Cyclotron Laboratory at Michigan State University. ^{58}Ca was produced in projectile fragmentation reactions and identified with a two-stage separator consisting of the A1900 fragment separator and the S800 analysis beam line. "The observed fragments include fifteen new isotopes that are the most neutron-rich nuclides of the elements chlorine to manganese (^{50}Cl, ^{53}Ar, ^{55,56}K, ^{57,58}Ca, ^{59,60,61}Sc, ^{62,63}Ti, ^{65,66}V, ^{68}Cr, ^{70}Mn)."

Adapted from reference (2011Am01)

2009Ta05 O. B. Tarasov, D. J. Morrissey, A. M. Amthor, T. Baumann *et al.*, Phys. Rev. Lett. **102**, 142501 (2009).

2011Am01 S. Amos, J. L. Gross, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 383 (2011).

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