^{52}Ar

^{52}Ar 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). ^{9}Be targets were bombarded with 132 MeV/u ^{76}Ge ions accelerated by the Coupled Cyclotron Facility at the National Superconducting Cyclotron Laboratory at Michigan State University. ^{52}Ar 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)." ^{52}Ar was not specifically mentioned as a new observation because of the previous publication in a conference abstract (2008Ma59), however, it is clearly visible in the particle identification plot of the measured atomic number Z versus the calculated function N−Z.

Adapted from reference (2012Th10)

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