^{63}Sc

The discovery of ^{63}Sc was reported by Tarasov et al. in the 2025 article "Discovery of new isotopes in the fragmentation of ^{82}Se and insights into their production" (2025Ta21). A 228 MeV/u ^{82}Se beam from the FRIB (Facility for Rare Isotope Beams) linear accelerator at Michigan State University impinged on a 1.89 g/cm^3 thick rotating carbon target. Projectile fragments were separated with the Advanced Rare Isotope Separator ARIS and stopped in a telescope consisting of two silicon PIN diode and a think plastic scintillator detector. The identification was achieved from the magnetic rigidity, time-of-flight, energy loss and total kinetic energy. "Over the course of the experiment, four new isotopes−^{63}Sc (3 events), ^{65}Ti (2), ^{66}Ti (2), and ^{68}V (5)−were observed for the first time."

2025Ta21 O. B. Tarasov, B. M. Sherrill, A. C. Dombos, K. Fukushima *et al.*, Phys. Rev. C **112**, 034604 (2025).

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