

^{82}As

In 1968, at the Institute of Nuclear Sciences in Lower Hutt, New Zealand, Mathew et al. discovered ^{82}As which was reported in “New Isotope ^{82}As ” (1968Ma38). The new isotope was produced in the reaction $^{82}\text{Se}(n,p)^{82}\text{As}$ where the neutrons were produced by bombarding a tritium target with 0.8 MeV deuterons. A coaxial Ge(Li) detector was used to measure the γ -ray spectrum. “Two new γ -activities of energies 655 ± 0.5 keV and 817 ± 0.5 keV and half-life 15 ± 2 s have been produced by irradiation of natural selenium and enriched ^{82}Se , with 16.4 MeV neutrons. These activities are assigned to the β^- decay of ^{82}As formed in the reaction $^{82}\text{Se}(n,p)^{82}\text{As}$.”

Adapted from reference (2010Sh34)

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