

^{137}Xe

The identification of ^{137}Xe was reported by Riezler at Grundlsee, Austria, in the 1943 article “Aktivierung von Xenon durch Neutronen” (1943Ri01). Xenon gas was irradiated with thermal neutrons and neutrons produced by bombarding beryllium and lithium with 7 MeV deuterons. The resulting activities were measured with a double-walled counter. “Die Strahlung des 3.4-Minuten-Körpers ist sehr hart, 2 mm Aluminium lassen noch 25% durch. Es ist anzunehmen, daß diese Aktivität mit dem von H. J. Born und W. Seelman-Eggebert bei der Uranspaltung gefundenen 3.8-Minuten-Körper identisch ist. Als Massenzahl kommt dann nur 137 in Frage.” [The radiation of the 3.4 min emitter is very hard; 25% are transmitted through 2 mm aluminum. It can be assumed that this activity is identical to the 3.8 min emitter that H. J. Born and W. Seelman-Eggebert found in the fission of uranium. Only mass number 137 is then reasonable.] The quote referred to a 1943 paper by Seelmann-Eggebert and Born who measured a 3.8 min half-life without a mass assignment (1943Se01).

Adapted from reference (2013Ka01)

- 1943Ri01 W. Riezler, *Naturwissenschaften* **31**, 326 (1943).
1943Se01 W. Seelmann-Eggebert and H. J. Born, *Naturwissenschaften* **31**, 59 (1943).
2013Ka01 J. Kathawa, C. Fry, and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 22 (2013).

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