

⁸⁴Y

⁸⁴Y was discovered by Maxia et al. in the 1962 paper “The Neutron-Deficient Yttrium Isotopes ⁸²Y, ⁸³Y and ⁸⁴Y” (1962Ma44). A beam of approximately 120 MeV ¹²C from the Berkeley Heavy-Ion Linear Accelerator was used to bombard powdered arsenic metal targets. The isotopes were produced in the fusion evaporation reactions ⁷⁵As(¹²C,3n)⁸⁴Y. Half-lives were determined by measuring β -particles with an end-window, flowing methane-proportional counter. “Yttrium-84: When the yttrium fraction obtained from the bombardment of arsenic with C¹² ions was chemically repurified approximately 2 hr after the irradiation, the gamma-ray spectrum decayed with 39±2 min.” A previously reported half-life of 3.7(1) h (1952Ca29) for ⁸⁴Y was incorrect.

Adapted from reference (2012Ny02)

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