

¹⁸⁰Ir

In 1972, Akhmadzhanov et al. reported the discovery of ¹⁸⁰Ir in the paper “The new isotopes ¹⁷⁸Ir, ¹⁸⁰Ir, ¹⁸¹Ir. Decay scheme for ¹⁸²Ir” (1972Ak03). ¹⁶O beams from the JINR U-300 accelerator bombarded thulium targets and ¹⁸⁰Ir was formed in the fusion-evaporation reactions ¹⁶⁹Tm(¹⁶O,5n) and ¹⁶⁹Tm(¹⁶O,4n), respectively. Gamma-rays singles, γ – γ coincidence spectra and decay curves were measured. “¹⁸⁰Ir:… We obtained this iridium isotope by irradiating metallic thulium with 121 MeV ¹⁶O ions. The identification was based on the intensity decay of the γ -transitions with energies of 276.3 and 132.2 keV, which depopulate the levels of the known ground-state band of ¹⁸⁰Os. The half-life found in this manner is 1.5 ± 0.1 min.” A previously reported half-life of 6.5(15) min for ¹⁸⁰Ir (1971Na27) were incorrect.

Adapted from reference (2012Ro36)

- 1971Na27 E. Nadzhakov, B. Bochev, T. Venkova, Z. Shcheglovski *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **35**, 1999 (1972).
- 1972Ak03 A. I. Akhmadzhanov, B. Bayar, R. Broda, V. Valyus *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **36**, 1820 (1973).
- 2012Ro36 R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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