

¹⁶⁹Os

“Evidence for the α decay of the new isotope ¹⁶⁹Os” reported the discovery of ¹⁶⁹Os in 1972 by Toth et al. ([1972To19](#)). Enriched ¹⁵⁶Dy targets were bombarded with a ²⁰Ne beam from the Oak Ridge isochronous cyclotron. ¹⁶⁹Os was produced in the fusion-evaporation reaction ¹⁵⁶Dy(²⁰Ne,7n) and identified by measuring α -decay spectra. “In a series of ²⁰Ne bombardments of ¹⁵⁶Dy a new α emitter was identified with a half-life of 3.0 ± 0.5 sec and an α -decay energy of 5.56 ± 0.02 MeV. On the basis of α -decay systematics and the variation of its yield with bombarding energy, the most likely nuclidic assignment for this α group is ¹⁶⁹Os.”

Adapted from reference ([2012Ro36](#))

- [1972To19](#) K. S. Toth, R. L. Hahn, C. R. Bingham, M. A. Ijaz, and R. F. Walker Jr., Phys. Rev. C **6**, 2297 (1972).
[2012Ro36](#) R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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