

¹⁵⁰Er

“Very proton rich nuclei with $N \approx 82$ ” was published in 1982 by Nolte et al. documenting the observation of ¹⁵⁰Er ([1982No08](#)). ⁵⁸Ni beams of energies between 233 and 250 MeV from the Munich MP tandem and heavy-ion linear rf post accelerator were used to bombard ⁹⁴Mo targets forming ¹⁵⁰Tm in the fusion-evaporation reaction ⁹⁴Mo(⁵⁸Ni,np). ¹⁵⁰Er was then populated by the β decay of ¹⁵⁰Tm. Gamma-ray singles and coincidences were measured with coaxial and planar Ge(Li) detectors. “With the help of measured excitation functions, cross bombardments and coincidences with x-rays, the 475.8 keV line was assigned to the β decay of ¹⁵⁰Er to ¹⁵⁰Ho. [The figure] shows the decay of this line after 30 s irradiations. The half-life of ¹⁵⁰Er was found to be 18.5 ± 0.7 s.” Within a few months after the submission by Nolte et al. (Feb. 11), half-lives of 20(2) s (Moltz et al., May 14 ([1982Mo19](#))), 22(2) s (Toth et al., July 14 ([1982To14](#))), and 17(2) s (Batist et al. published in Nov. ([1982Ba75](#))), as well as a γ -ray spectrum (Helppi et al. Mar. 5 ([1982He08](#))) were reported independently. Helppi et al. and Batist et al. were aware of the work by Nolte et al, referring to a conference proceeding and a preprint, respectively. Previously, the observation of two isomers were assigned to either ¹⁵⁰Ho or ¹⁵⁰Er ([1979Ha29](#)).

Adapted from reference ([2013Fr10](#))

- [1979Ha29](#) D. C. J. M. Hageman, M. J. A. de Voigt, and J. F. W. Jansen, Phys. Lett. B **84**, 301 (1979).
- [1982Ba75](#) L. Kh. Batist, Yu. S. Blinnikov, N. Ganbaatar, Yu. V. Elkin *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **46**, 136 (1982).
- [1982He08](#) H. Helppi, Y. H. Chung, P. J. Daly, S. R. Faber *et al.*, Phys. Lett. B **115**, 11 (1982).
- [1982Mo19](#) D. M. Moltz, K. S. Toth, Y. A. Ellis-Akovali, and J. D. Cole, Phys. Rev. C **26**, 1316 (1982).
- [1982No08](#) E. Nolte, S. Z. Gui, G. Colombo, G. Korschinek, and K. Eskola, Z. Phys. A **306**, 223 (1982).
- [1982To14](#) K. S. Toth, Y. A. Ellis-Akovali, D. M. Moltz, and R. L. Mlekodaj, Phys. Lett. B **117**, 11 (1982).
- [2013Fr10](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 520 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”