

^{190}At

The discovery of ^{190}At was reported by Kokkonen et al. in “Properties of the new α -decaying isotope ^{190}At ” in 2023 ([2023Ko10](#)). The K-130 cyclotron at the Accelerator Laboratory of the University of Jyväskylä (JYFL) accelerated a ^{84}Sr beam to 380–390 MeV which then impinged on a natural tin target. ^{190}At was formed in the fusion evaporation reaction $^{109}\text{Ag}(^{84}\text{Sr},3n)$. Evaporation residues were separated with the gas-filled recoil separator RITU (Recoil Ion Transport Unit) and identified with the GREAT (Gamma Recoil Electron Alpha Tagging) spectrometer. “An α -particle energy of 7750(20) keV and a half-life of $1.0^{+1.4}_{-0.4}$ ms were measured. ”

Adapted from reference ([2024Th02](#))

[2023Ko10](#) H. Kokkonen, K. Auranen, J. Uusitalo, S. Eeckhaudt *et al.*, Phys. Rev. C **107**, 064312 (2023).

[2024Th02](#) M. Thoennessen, Int. J. Mod. Phys. E **33**, 2430001 (2024).

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)”