^{188}At

The first observation of ^{188}At was reported in the 2025 Nature Communication article "New proton emitter ^{188}At implies an interaction unprecedented in heavy nuclei" by Kokkonen et al. (2025Ko13). The K-130 cyclotron of the Accelerator Laboratory of the University of Jyväskylä in Finland accelerated an ^{84}Sr beam to 380 MeV and 390 MeV and irradiated a 1 mg/cm^2 thick ^{nat}Ag target. Evaporation residues from the reaction ^{107}Ag(^{84}Sr,3n) were separated with the gas-filled recoil-separator RITU (Recoil-Ion Transport Unit) and identified in the Gamma Recoil Electron Alpha Tagging spectrometer (GREAT). "Two decay events of the new isotope ^{188}At were observed... The proton-particle energy extracted from the proton-emission event is E_p = 1500(40) keV and the half-life deduced, using maximum-likelihood method, from the two decays is $T_{1/2} = 190^{+350}_{-80}$ μs."

2025Ko13 H. Kokkonen, K. Auranen, P. Siwach, P. Arumugam *et al.*, Nat. Commun. **16**, 4985 (2025).

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