

^{211}Fr

In 1964, Griffioen and MacFarlane reported the identification of ^{211}Fr in the paper “Alpha-decay properties of some francium isotopes near the 126-neutron closed shell” (1964Gr04). ^{197}Au , $^{203,205}\text{Tl}$, and ^{208}Pb targets were bombarded with ^{16}O , ^{12}C , and ^{11}B beams with energies up to 10.38 MeV/amu from the Berkeley HILAC. Recoil products were collected on a catcher foil which was positioned in front of gold surface-barrier detector which measured subsequent α decay. “ Fr^{211} and Fr^{210} : ... These facts seem to indicate that this group is due to two different isotopes, Fr^{211} and Fr^{210} , which were formed by ($\text{C}^{12},6\text{n}$) and ($\text{C}^{12},7\text{n}$) reactions, respectively... ” The measured half-life was 186(4) s.

Adapted from reference (2013Fr09)

1964Gr04 R. D. Griffioen and R. D. Macfarlane, Phys. Rev. **133**, B1373 (1964).
2013Fr09 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 497 (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)”