^{169}Re

"Copper ion induced reactions on $^{110-108-106}$Cd, $^{109-107}$Ag and ^{110}Pd. New rhenium, osmium and iridium isotopes" was published in 1978 by Cabot et al. announcing the discovery of ^{169}Re (1978Ca11). A 400 MeV ^{63}Cu beam from the ALICE accelerator at Orsay, France, bombarded isotopically enriched ^{108}Cd, ^{109}Ag, and ^{110}Pd targets to populate ^{169}Re in the fusion-evaporation reactions (^{63}Cu,2p), (^{63}Cu,p2n), and (^{63}Cu,4n), respectively. Alpha particles from fragments collected by a He-jet were detected to determine the decay energies and half-lives. "Our conclusion is that the 5.05 MeV emission is due to the ^{169}Re α-decay. Then ^{169}Re is the first identified α-emitter of this element."

Adapted from reference (2012Ro36)

1978Ca11 C. Cabot, S. Della Negra, C. Deprun, H. Gauvin, and Y. Le Beyec, Z. Phys. A **287**, 71 (1978).

2012Ro36 R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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