

^{165}Os

“Copper ion induced reactions on $^{110-108-106}\text{Cd}$, $^{109-107}\text{Ag}$ and ^{110}Pd . New rhenium, osmium and iridium isotopes” was published in 1978 by Cabot et al. announcing the discovery of ^{165}Os ([1978Ca11](#)). A 400 MeV ^{63}Cu beam from the ALICE accelerator at Orsay, France, bombarded isotopically enriched ^{106}Cd target to populate ^{165}Os in the fusion-evaporation reaction $^{106}\text{Cd}(^{63}\text{Cu},\text{p}3\text{n})$. Alpha particles from fragments collected by a He-jet were detected to determine the decay energies and half-lives. “From [the figure] it is clear that we have only the rising part of the excitation function for the reaction emitting one extra particle and we propose to assign this 6.20 MeV α -ray to ^{165}Os formed by the (Cu,p3n) reaction. The α systematics are again consistent with those mass assignments.”

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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