^{164}W

In 1973, Eastham and Grant were the first to produce the isotope ^{164}W as reported in "Alpha Decay of Neutron-Deficient Isotopes of Tungsten" (1973Ea01). Magnesium beams of energies between 110 and 204 MeV from the Manchester University Hilac were used on samarium targets. ^{164}W was produced in the two reactions ^{144}Sm(^{24}Mg,4n) and ^{147}Sm(^{24}Mg,7n). The isotope was identified by its radioactivity using a helium jet technique. "As the bombarding energy is increased, the 5.153 MeV group due to ^{164}W first appears at the same time as the daughters at 4.77 MeV (^{160}Hf) and 4.80 MeV (^{156}Yb and ^{152}Er)." The measured half-life was 6.3(5) s.

Adapted from reference (2010Fr08)

1973Ea01 D. A. Eastham and I. S. Grant, Nucl. Phys. A **208**, 119 (1973).

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