^{163}W

In 1973, Eastham and Grant were the first to produce the isotope ^{163}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. ^{163}W was produced in the two reactions ^{144}Sm(^{24}Mg,5n) and ^{147}Sm(^{24}Mg,8n). The isotope was identified by its radioactivity using a helium jet technique. "Similarly, the 5.385 MeV group is seen in association with the daughter products of ^{163}W at 5.09 MeV (^{159}Hf) and 5.20 MeV (^{155}Yb)." The measured half-life was 2.5(3) s.

Adapted from reference (2010Fr08)

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

2010Fr08 A. Fritsch, J. Q. Ginepro, M. Heim, A. Schuh *et al.*, At. Data Nucl. Data Tables **96**, 315 (2010).

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