

⁹⁴Tc

In 1948, Motta and Boyd reported the first observation of ⁹⁴Tc in their paper “Characterization of Tc Activities Produced by Deuteron Bombardment of Separated Mo Isotopes” (1948Mo19). The experiments were most likely performed at the Carnegie Institution at Washington, DC. Deuterons bombarded a ⁹⁴Mo target and ⁹⁴Tc was identified by measuring β - and γ rays. “On the basis of the yield of the activity from the molybdenum enhanced in Mo⁹⁴, the assignment of the 50-minute Tc period to mass 94 is considered probable.” A 52-min half-life had previously been reported without a mass assignment (1946Gu09, 1947Gu03). This half-life corresponds to an isomeric state and the ground state half-life of 270(12) min was reported fourteen years later by Monaro et al. (1962Mo06).

Adapted from reference (2012Ny02)

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