^{101}Tc

The discovery of ^{101}Tc is credited to the 1941 paper "Untersuchung über das '19-Minuten'-Isotop von Molybdän und das daraus entstehende Isotop von Element 43" by Maurer and Ramm from the Max Planck Institut in Berlin Dahlem, Germany (1941Ma03). Slow neutrons from the bombardment of beryllium with deuterons were used to activate molybdenum targets. The resulting activities were measured following chemical separation. "Auf Grund der von uns gemessenen fast gleichen Halbwertszeiten von 14,6 Minuten für Molybdän und 14,0 Minuten für Element 43, lassen sich obige Widersprüche als nur scheinbare jedoch leicht auffklären." [Based on our measurements of almost identical half-lives of 14.6 min for molybdenum and 14.0 for element 43, the above mentioned apparent contradiction can easily be resolved.] Hahn and Strassmann simultaneously submitted two papers reporting the same half-life for ^{101}Tc (1941Ha07, 1941Ha16) giving Maurer and Ramm credit for the solution to the puzzle of the equal half-lives of ^{101}Mo and ^{101}Tc. A year earlier, Sagane et al. had measured a half-life of 9 minutes assigned to ^{101}Tc (1940Sa09, 1940Sa08).

Adapted from reference (2012Ny02). We were made aware of the contribution by Sagane et al. by the paper "Discovery, nuclear properties, synthesis, and applications of technetium-101" by E. V. Johnstone, N. Mayordomo, and E. J. Mausolf. (2022Jo06)

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