^{91}Rb

Kofoed-Hansen and Nielsen reported the discovery of ^{91}Rb in the 1951 paper "Short-lived krypton isotopes and their daughter substances" (1951Ko10). Uranium was bombarded with neutrons produced at the Copenhagen cyclotron and fission fragments were transported to an ion source of a mass separator. Activities were measured following chemical separation. "Furthermore it was found that Rb^{91} has an isomeric state. Both these states of Rb^{91} (half-lives 100 sec and 14 min, respectively) decay to the well-known Sr^{91} 9.7 hr which again decays to the 60-day and the 50-min isomers of Y^{91}." Although the half-life of 100 s for ^{91}Rb differs from the correct value of 58.2(3) s (2013Ba52) by almost a factor of two and the existence of a 14 min isomer was found to be incorrect by Wahl et al. (1962Wa36) we credit the discovery to Kofoed-Hansen and Nielsen, because Wahl et al. did not question the validity of the ground-state reporting a 72 s half-life. An 80 s half-life was observed earlier without a mass assignment (1940Ha23).

Adapted from reference (2012Pa21)

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