

## <sup>97</sup>Ru

In 1946, Sullivan et al. published the first study of <sup>97</sup>Ru in “Discovery, Identification, and Characterization of 2.8d Ru<sup>97</sup>” (1946Su11). Ruthenium samples were bombarded with neutrons and deuterons and <sup>97</sup>Ru was identified by differential absorption-decay curve techniques following chemical separation. “The average half-life value of the short-lived component was found to be 2.8±0.3 days. Using the assumption that the activation cross sections for Ru<sup>96</sup> and Ru<sup>102</sup> did not differ greatly and that the bombardment time was effectively ‘indefinitely short,’ it was found that the observed and predicted ratios were in much closer agreement for the assignments 2.8d Ru<sup>97</sup> and 42d Ru<sup>103</sup>, than for the assignments, 42d Ru<sup>97</sup> and 2.8d Ru<sup>103</sup>.” The paper was included in the National Nuclear Energy Series (NNES) published in 1951 (1951SuZY). The irradiation probably occurred at the Chicago cyclotron as stated in another paper in the NNES on ruthenium isotopes by the same authors which refers to the same two internal reports (1950Su13). However, another paper (1951SuZX) by these authors also mention irradiations at the St. Louis cyclotron (2016ThZW).

Adapted from reference (2012Ny02)

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