^{85}Nb

^{85}Nb was discovered by Kuroyanagi et al., as reported in their 1988 paper, "New Neutron-Deficient Isotopes ^{83}Nb and ^{85}Nb" (1988Ku14). A 105 MeV ^{32}S beam from the Kyushu University tandem accelerator bombarded an enriched ^{58}Ni target and ^{85}Nb was formed in the fusion evaporation reaction ^{58}Ni(^{32}S,αp). Gamma- and β-rays were detected with a Ge detector and plastic scintillator following the irradiation. "The activity with the half-life of 20.9 sec is uniquely attributed to a previously unknown isotope of ^{85}Nb, because the energy value of 50.1 keV gamma-ray appearing in the present experiments agrees with the energy of the first excited level of 50.07$\pm$0.03 keV which has been established in the in-beam study of ^{85}Zr." An earlier report of a 2.3(3) min half-life (1982De36) was incorrect.

Adapted from reference (2012Ny02)

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