^{83}Nb

^{83}Nb was discovered by Kuroyanagi et al., as reported in their 1988 paper, "New Neutron-Deficient Isotopes ^{83}Nb and ^{85}Nb" (1988Ku14). A 95 MeV ^{28}Si beam from the Kyushu University tandem accelerator bombarded an enriched ^{58}Ni target and ^{83}Nb was formed in the fusion evaporation reaction ^{58}Ni(^{28}Si,p2n). Gamma- and β-rays were detected with a Ge detector and plastic scintillator following the irradiation. "The activity with the half-life of 4.1 sec is undoubtedly assigned to a previously unidentified nuclide of ^{83}Nb, because of the appearance of two gamma-rays of which the energies agree with the transition energies from first and second excited states of ^{83}Zr, and cascade relations of the gamma- and beta-rays."

Adapted from reference (2012Ny02)

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