^{70}Cu

In 1971, ^{70}Cu was first observed by Taff et al. in "The Decays of ^{70a}Cu, ^{70b}Cu and ^{67}Ni" (1971Ta03). An enriched ^{70}Zn metal bead was bombarded with 14-MeV neutrons produced in the reaction ^{3}He(d,n)^{4}He from the Groningen Cockcroft-Walton cascade generator. ^{70}Cu was produced in the (n,p) charge exchange reaction and identified by β- and γ-rays measured with plastic, Na(Tl) scintillators and Ge(Li) detectors. "Three activities with half-lives of 5$\pm$1 s, 42$\pm$3 s and 18$\pm$4 s, have been assigned to two isomers of ^{70}Cu [from ^{70}Zn(n,p)], and to ^{67}Ni [from ^{70}Zn(n,α)], respectively." The 42$\pm$3 s and the 5$\pm$1 s half-lives correspond to the ground state and an isomeric state, respectively.

Adapted from reference (2012Ga06)

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