^{77}Zn

Aleklett et al. reported the observation of ^{77}Zn in "Total β-Decay Energies and Masses of Short-Lived Isotopes of Zinc, Gallium, Germanium and Arsenic" in 1977 (1977Al17). Fission products from the R2-0 reactor at Studsvik were detected by the OSIRIS separator facility. "The γ-lines depopulating lower levels have also been used as gates but the coincident β-spectra have the same end-point energies as those feeding the levels around 2 MeV thus proving the large β-feeding to this region... The resulting Q_β value for ^{77}Zn is Q_β = 6.91 $\pm$ 0.22 MeV... The half-life 1.6 s for ^{78}Zn has been determined by means of γ-counting." The half-life of 1.4 s quoted for ^{77}Zn had been mentioned in earlier publications (1974Gr29, 1975Al11), however, these papers were only referring to unpublished work. In addition, this half-life was incorrect, falling between the value for the ground state of 2.08(5) s and an isomeric excited state of 1.05(10) s.

Adapted from reference (2012Gr02)

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