Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 115,1 (2014)	31-Jul-2013

Q(β^-)=1.11×10^4 *syst*; S(n)=3.3×10^3 *syst*; S(p)=1.80×10^4 *syst*; Q(α)=−1.35×10^4 *syst* 2012Wa38
Note: Current evaluation has used the following Q record 11110 SY3300 SY18050 syst-13044 syst 2011Wa38.
ΔQ(β^-)=440, ΔS(n)=540, ΔS(p)=640, ΔQ(α)=500 (syst,2012Wa38).
Q(β^-n)=4800 *430* (syst,2012Wa38).

2011Da08,2002MaZN (thesis): Produced by projectile fragmentation of ^{86}Kr beam on 50 mg/cm^2 thick Ta at 57.8 MeV/nucleon. Separated by LISE2000 spectrometer at GANIL. Detector system included a three-element Si-detector telescope containing a double-sided silicon-strip detector (DSSSD) backed by a Si(Li) detector and surrounded by four clover type EXOGAM Ge detectors. Product identified by mass, atomic number, charge, energy loss and time of flight. Measured isotopic $T_{1/2}$ from timing correlation between implanted ions and β decay events. Fitting procedure included five parameters: β-detection efficiency, background rate, mother, daughter and granddaughter half-lives.

2010Sc18: Summary and compilation of the discovery of Fe isotopes.

2003So21,2005GaZR (thesis): Produced by fragmentation of $^{76}Ge^{30+}$ beam on a ^{58}Ni target at 61.8 MeV/nucleon. Nuclei separated by LISE3 achromatic spectrometer at GANIL, and identified by three consecutive Si detectors where two were used for energy loss and time-of-flight measurements while the third was used to determine their residual energies. Measured isotopic $T_{1/2}$ from correlations between implanted nuclei and β decay.

2003So02: Produced by fragmentation of $^{76}Ge^{30+}$ beam on a ^{58}Ni target at 61.8 MeV/nucleon. Nuclei separated by LISE3 achromatic spectrometer at GANIL.

1998Am04,1997AmZZ: Produced by fragmentation of ^{86}Kr beam on a Be target at 500 MeV/nucleon. Fission fragments separated with the FRS separator at GSI and identified by combination of Bρ, Z, and tof techniques. Measured isotopic $T_{1/2}$ from timing correlations of implanted fragments and β decay.

1992We04: Produced by fragmentation of ^{86}Kr beam on a Be target at 500 MeV/nucleon. Isotope identification by the fragment separator FRS at GSI in combination with tof and energy-loss measurements. A total of 12 counts were assigned to ^{69}Fe corresponding to cross section of 2.5 nanobarns with an uncertainty of 80%.

^{69}Fe Levels

E(level)	$T_{1/2}$	Comments
0.0	110 ms *5*	%β^-=100 J$^\pi$: possible (1/2$^-$) from J$^\pi$ suggested by 2008Bl05 (and Erratum) for ^{65}Fe and ^{67}Fe. $T_{1/2}$: from weighted average of 110 ms *6* (2011Da08) and 109 ms *9* (2003So21). Other: 0.17 s *3* (1998Am04). %β^-n: 6.94 estimated from theory (1997Mo25).