

^{53}Co p decay (247 ms) 1970Ce04,1972Ce01,1976Vi02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 128, 185 (2015)	10-Jul-2015

Parent: ^{53}Co : E=3190; $J^\pi=(19/2^-)$; $T_{1/2}=247$ ms *I2*; Q(p)=1615 *7*; %p decay=1.5

^{53}Co - $T_{1/2}$: From 1972Ce01. Others: 260 ms *20* (1976Vi02), 242 ms *I5* (1970Ce04), 218 ms (1993Xu04).

^{53}Co -E: From 1972Ce01.

1970Ce04,1972Ce01: ^{53}Co produced by $^{54}\text{Fe}(p,2n)$, E=35 MeV, measured E(p), I(p), a counter telescope, 14 μm ΔE detectors, 50 μm E detector.

1976Vi02: ^{53}Co produced by $^{40}\text{Ca}(^{16}\text{O},p2n)$, E=65 MeV, measured: E(p), $T_{1/2}$, a semiconductor counter telescope, 14-19 μm for the ΔE detectors, 107-250 μm for the E detectors.

1993Xu04: ^{53}Co produced by $^{28}\text{Si}(^{28}\text{Si},p2n)$, E=104, 115.5, and 127.2 MeV, measured: E(p), $T_{1/2}$, three particle telescopes, each consisting of three semiconductor detectors: 20 μm for the ΔE detector, 250 μm for the E detector, 250 μm for the E_{rej} detector which was used as a rejection detector to eliminate positron interference.

 ^{52}Fe Levels

E(level)	J^π^\dagger
0.0	0^+
(849)	2^+

† From Adopted Levels.

Protons (^{52}Fe)

Particle normalization: from comparison of measured and calculated σ for $^{54}\text{Fe}(p,2n)$ (1972Ce01).

E(p)	E(^{52}Fe)	I(p)	Comments
≈ 750	(849)	<0.4	E(p): From 1972Ce01. I(p): p decay to 2^+ 849-keV state in ^{52}Fe was not observed. other: <0.05 (1976Vi02).
1590 30	0.0	≈ 100	E(p): From 1972Ce01. Others: 1570 30 (1970Ce04), 1540 (1993Xu04), and 1590 (1976Vi02).