^{24}Al β^+p decay 1994Ba54

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia[#], A. Chakraborty[##]	NDS 171,1 (2021)	1-Jun-2020

Parent: ^{24}Al: E=0.0; $J^\pi=4^+$; $T_{1/2}$=2.053 s *4*; Q(β^+p)=2192.02 *23*; %β^+p decay=0.0012 *3*

^{24}Al-%β^+p decay: Measured by 1994Ba54.

1994Ba54: ^{24}Al was produced from ^{24}Mg(p,n) reaction using pulsed proton beam, E=28.5 and 20 MeV; 99.8% enriched ^{24}Mg target (thickness 1.9 mg/cm^2); Recoil products were collected using a helium-jet system to the counting chamber and deposited onto a tape in the center of a low-energy proton detector ball; the detector consists of six individual gas-ΔE, gas-ΔE, Si-E triple telescopes; measured Ep spectrum; deduced β delayed proton branch of ^{24}Al.

^{23}Na Levels

E(level)	J^π
0.0	$3/2^+$

Delayed Protons (^{23}Na)

E(p)	E(^{23}Na)	Comments
7.0×10^2 *40*	0.0	E(p): From a range of 300 − 1100 keV in spectrum.