^{32}Mg β^-n decay (80.4 ms)   **2004Gr08,1984La03**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 184, 29 (2022)	24-Jun-2022

Parent: ^{32}Mg: E=0; J^π=0$^+$; $T_{1/2}$=80.4 ms *4*; Q(β^-n)=6050 *4*; %β^-n decay=5.5 *5*

^{32}Mg-$T_{1/2}$: From 2017Ha23. Other less precise measurements: 86 ms *5* (2004Gr08, ^{32}Mg fragment)γ-coin decay curve; 120 ms *20* (1984La03) and 85 ms *13* (1995ReZZ).

^{32}Mg-Q(β^-n): From 2021Wa16.

^{32}Mg-%β^-n decay: %β^-n=5.5 *5* (2004Gr08). Other: %β^-n=2.4 *5* (1984La03). The larger value from 2004Gr08 can be understood by the neutron emission occuring around 300 keV as noted by the authors.

1984La03: measured ^{32}Mg half-life and %β^-n branch at CERN.

2004Gr08: ^{32}Mg from 50 MeV/nucleon ^{36}S primary beam at GANIL on a Be target. Large neutron array TONNERRE used to measure %β^-n and time of flight for $T_{1/2}$.

other: 2017Ha23: measured $T_{1/2}$ from (^{32}Mg fragment)β-coin decay curve.

^{31}Al Levels

E(level)	J^π	$T_{1/2}$	Comments
0	5/2$^{(+)}$	644 ms *25*	J^π,$T_{1/2}$: from Adopted Levels.