## $^{32}$P $\beta^-$ decay (14.268 d) 2002Un02,1994Co02,1979Pr14

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Christian Ouellet, Balraj Singh | NDS 112, 2199 (2011) | 24-Aug-2011 |

Parent: $^{32}$P: E=0; $J^\pi=1^+$; $T_{1/2}$=14.268 d *5*; Q($\beta^-$)=1710.66 *4*; %$\beta^-$ decay=100.0

$^{32}$P-$T_{1/2}$: From $^{32}$P Adopted Levels.

$^{32}$P-Q($\beta^-$): From 2011AuZZ. Other: 1710.48 *22* (2003Au03).

Half-life measurements: 2002Un02, 1994Co02, 1979Pr14, 1977Mu07, 1977Be59, 1969La34, 1969Pe04, 1966Go16, 1961Ma46, 1959Ro51, 1958Da10, 1957An03, Bayly (Can J Research 28$\alpha$, 520 (1956)), 1953Lo09, 1951Si25, 1948Kl28, Mulder (Physica 7, 849 (1940)), 1938Ca01, Capron (Physica 5, 882 (1938)); Newson (Phys Rev 51, 624 (1937)); Sizoo (Physica 3, 1053 (1936)); Preiswerk (Compt Rendu 201, 722 (1935)); Ambrosen (Z. Phys 91, 43 (1934)).

2000Ga56: measurement of effect on half-life by chiral molecular solvents with right-handed and left-handed polarizations. The authors report a maximum change of 1.52% in $T_{1/2}$ with values ranging from 14.28 d *8* (standard value from literature used as reference for sample in water) to 14.07 d *8* for right handed 2-phenylbutyric acid. These measurements need to be verified independently.

$\beta$-endpoint energy measurements: 2001Ko07, 1993Gr17, 1979Pr14, 1976Mo12, 1971Ze04, 1971Pe03, 1971Bo01, 1969Fl02, 1968Fi04, 1966Ca10, 1963Bo31, Fehrentz (Nucl Instr Meth 10, 185 (1961)), 1961Ni02, 1958Jo33, 1958Da10, 1957Ri41, 1956Po07, Antoneva (Izv Akad Nauk Fiz 18, 93 (1954)), 1952Je12, Marshaw (Phys Rev 80, 288 (1950)), 1950Ag01, 1949La06, 1946Si09, Capron (Physica 5, 882 (1938)); Newson (Phys Rev 51, 624 (1937)); Lyman (Phys Rev 51, 1 (1937)).

Additional information 1.

From RADLIST code, deduced energy balance=1710.6 keV *2* as compared to 1710.66 keV *4* from Q value.

### $^{32}$S Levels

| E(level) | $J^\pi$[†] |
|---|---|
| 0 | $0^+$ |

[†] From Adopted Levels.

### $\beta^-$ radiations

| E(decay) | E(level) | I$\beta^-$[†] | Log *ft* | Comments |
|---|---|---|---|---|
| (1710.66 *4*) | 0 | 100 | 7.9002 *2* | av E$\beta$=695.03 |

[†] Absolute intensity per 100 decays.