

${}^8\text{Li}$ β^- decay 1986Wa01,1989Ba31

Type	Author	History	Citation	Literature Cutoff Date
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Parent: ${}^8\text{Li}$: $E=0.$; $J^\pi=2^+$; $T_{1/2}=839.9$ ms 9; $Q(\beta^-)=16005.16$ 10; $\% \beta^-$ decay=100

1960Fa04: ${}^8\text{Li}(\beta^-)$. Deduced nuclear properties.

1960Gr10: ${}^8\text{Li}(\beta^-)$, deduced nuclear properties.

1960No01: ${}^8\text{Li}(\beta^-)$, deduced nuclear properties.

1960No05: ${}^8\text{Li}(\beta^-)$, deduced nuclear properties.

1970Sc34: ${}^8\text{Li}(\beta^-)$, measured β -delayed α -spectrum. ${}^8\text{Be}$ deduced level.

1971Wi05: ${}^8\text{Li}(\beta^-)$, measured delayed α spectra, $T_{1/2}$. Deduced No second-class current contribution.

1974Tr01: ${}^8\text{Li}(\beta^-)$, measured $\text{Ba}(\theta)$.

1980Mc07: ${}^8\text{Li}(\beta^-)$, measured $\text{Ba}(\theta)$. Deduced final state energy dependence.

1982Fi03: ${}^8\text{Li}(\beta^-)$, measured β -delayed E_α , I_α .

1984La27: ${}^8\text{Li}(\beta^-)$, measured charge particle spectra following β -decay. Deduced evidence for β -delayed triton emission.

1986Wa01: ${}^8\text{Li}(\beta^-)$, analyzed β -delayed breakup α -spectra. ${}^8\text{Be}$ deduced level, Γ , Gamow-Teller matrix elements. R-matrix.

1988Ha21: ${}^8\text{Li}(\beta^-)$, measured β -decay asymmetry vs $E(\beta)$. Deduced No second class current evidence.

1989Ba31: ${}^8\text{Li}(\beta^-)$; calculated α -spectra. ${}^8\text{Be}$ deduce possible broad intruder state. Many-level R-matrix fit.

1992De07: ${}^8\text{Li}(\beta^-)$. Deduced BaALPHA-correlation measurement procedure.

1993Mo28: ${}^8\text{Li}(\beta^-)$, measured β -decay end point energy.

1996Eb01: ${}^8\text{Li}(\beta^-)$, measured β -decay count rate asymmetry.

2002Bh03: ${}^8\text{Li}(\beta^-)$, analyzed β -delayed E_α . ${}^8\text{Be}$ deduced R-matrix parameters.

2003Hu06: ${}^8\text{Li}(\beta^-)$, measured β -decay asymmetry from polarized source, electrons transverse polarization. Deduced time reversal violating triple correlation parameter, scalar leptoquark mass limit.

 ${}^8\text{Be}$ Levels

E(level)	J^π^\dagger	$T_{1/2}^\dagger$	Comments
0.0	0^+	5.57 eV 25	
3030 10	2^+	1513 keV 15	$\% \alpha=100$

† From Adopted Levels.

 β^- radiations

E(decay)	E(level)	$I\beta^-^\dagger$	Log ft	Comments
(12975 10)	3030	≈ 100	≥ 5.37	av $E\beta=6248$ 5 log $ft=5.37$ from (1986Wa01). Other value In the literature is log $ft=5.72$ (1989Ba31). Because broad levels of ${}^8\text{Be}$ participate In the β^- -decay, it is necessary to make detailed computations to determine the log ft value.

† Absolute intensity per 100 decays.