⁸⁴Rb β⁻ decay (32.82 d) 1958Be81

History

Type Author Citation Literature Cutoff Date
Full Evaluation B. Singh, A. Negret, and K. Zuber NDS 110,2815 (2009) 30-Sep-2009

Parent: 84 Rb: E=0; J $^{\pi}$ =2 $^{-}$; T_{1/2}=32.82 d 7; Q(β^{-})=896 3; % β^{-} decay=3.9

⁸⁴Rb-Q(β ⁻): From 2009AuZZ. Other: 894 3 (2003Au03).

 84 Rb- J^{π} , $T_{1/2}$: from Adopted Levels for 84 Rb.

⁸⁴Rb-%β⁻ decay: %β⁻=3.9 20 from decay mode of ⁸⁴Rb g.s. in ⁸⁴Rb Adopted Levels. Uncertainty is not quoted in the data field to avoid it being considered twice in deducing the absolute β feeding.

1958Be81: measured $E\beta$, $I\beta$, magnetic spectrometer.

⁸⁴Sr Levels

 $\frac{\text{E(level)}}{0} \quad \frac{\text{J}^{\pi}}{0^{+}} \quad \frac{\text{T}_{1/2}}{\text{stable}}$

 β^- radiations

E(decay) E(level) $I\beta^{-7}$ Log ft (896 3) 0 3.9 20 $9.4^{1u} 3$

Comments

Iβ⁻: deduced by the evaluator from Iβ⁻(g.s.)/Iβ⁺(g.s.)=0.29 15 (an estimate by 1958Be81 with a 50% uncertainty assumed by the evaluator) and Iβ⁺(g.s.)=13.7% 9, calculated by the evaluator from the following information: Iβ⁺(881.4)/Iβ⁺(g.s.)=0.97 5 (average of 0.92 and 1.008 12 as deduced from β⁺ spectra (1971Bo01) and $\gamma^{\pm}\gamma^{\pm}$ and $\gamma^{\pm}\gamma^{\pm}$ 881 γ triple coincidences (1971Ge10), respectively), ε (g.s.)/Iβ⁺(g.s.)=1.015 12 (theory, deduced using Q(β⁻)=-2686 keV 3 (2009AuZZ)) and ε (881.4)/Iβ⁺(881.4)=4.43 18

(1970Go44).

av E β = 332.8 13

[†] Absolute intensity per 100 decays.