

Adopted Levels

| Type | History | | Literature Cutoff Date |
|-----------------|--------------|----------|------------------------|
| | Author | Citation | |
| Full Evaluation | Balraj Singh | ENSDF | 15-Aug-2010 |

$Q(\beta^-)=1.35\times 10^4$ syst; $S(n)=2.2\times 10^3$ syst [2012Wa38](#)

Note: Current evaluation has used the following Q record \$ 13050 calc 2200 calc 18420 calc -12520 calc [1997Mo25](#).

$S(2n)=6960$, $S(2p)=35400$ ([1997Mo25](#),calculated).

[2010Oh02](#): ^{107}Sr nuclide identified in $\text{Be}(^{238}\text{U},\text{F})$ and $\text{Pb}(^{238}\text{U},\text{F})$ reactions with a $^{238}\text{U}^{86+}$ beam energy of 345 MeV/nucleon produced by the cascade operation of the RBIF accelerator complex of the linear accelerator RILAC and four cyclotrons RRC, fRC, IRC and SRC. Identification of ^{107}Sr nuclei was made on the basis of magnetic rigidity, time-of-flight and energy loss of the fragments using BigRIPS fragment separator. Experiments performed at RIKEN facility.

Based on A/Q spectrum and Z versus A/Q plot, 2 counts were assigned to ^{107}Sr isotope. (Q=charge state).

 ^{107}Sr Levels

| E(level) | $T_{1/2}$ | Comments |
|----------|-----------|--|
| 0 | >395 ns | $\% \beta^- = ?$; $\% \beta^- n = ?$; $\% \beta^- 2n = ?$ Measured $\sigma = 1$ pb (2010Oh02), systematic uncertainty $\approx 40\%$. $T_{1/2}$: lower limit from time-of-flight in 2010Oh02 , as communicated to the evaluator by T. Kubo in an e-mail reply of July 14, 2010. Actual half-life is expected to be much longer as suggested by the calculated value of 34.7 ms (1997Mo25). Probability of misidentification of ^{107}Sr isotope = 0.48% (2010Oh02). J^π : $7/2^-$ predicted in calculations (1997Mo25). Calculated $\% \beta^- n = 28.3$, $\% \beta^- 2n = 3.2$ (1997Mo25). |