

^{90}Rh εp decay (0.56 s) [2019Pa16](#)

| Type | History | | Literature Cutoff Date |
|-----------------|--------------|----------|------------------------|
| | Author | Citation | |
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Parent: ^{90}Rh : $E=0+x$; $J^\pi=(7^+)$; $T_{1/2}=0.56$ s 2; $Q(\varepsilon\text{p})=8470$ SY; $\% \varepsilon\text{p}$ decay=9.6 10

^{90}Rh -E: $x=500$ from shell-model calculations ([2019Pa16](#)).

^{90}Rh - $J^\pi, T_{1/2}$: from [2019Pa16](#).

^{90}Rh - $Q(\varepsilon\text{p})$: 8470 200 (syst, [2021Wa16](#)).

^{90}Rh - $\% \varepsilon\text{p}$ decay: $\% \beta^+\text{p}=9.6$ 10 for the decay of ^{90}Rh isomer.

Dataset adapted from compiled dataset in the XUNDL database from [2019Pa16](#) by E.A. McCutchan (NNDC,BNL), August 16, 2019.

[2019Pa16](#): $^{90\text{m}}\text{Rh}$ produced in $^9\text{Be}(^{124}\text{Xe}, X)$, $E=345$ MeV/nucleon reaction followed by separation of fragments of interest using BigRIPS and ZeroDegree spectrometers, and separated ions implanted in WAS3ABi stopper and detector system consisting of three double-sided silicon strip detectors and ten single-sided silicon strip detectors at RIBF-RIKEN. The γ rays from the decay of ^{89}Ru were detected using the EURICA array consisting 84 HPGe detectors in 12 clusters. Measured E_γ , I_γ , β spectra, $E(\text{p})$, $I(\text{p})$, $\beta^+\gamma^-$, $\beta^+\text{p}$ - and $\gamma\beta^+\text{p}$ -coin, half-life and β^+ -delayed proton emission of ^{90}Rh isomer.

 ^{89}Tc Levels

| E(level) | J^π^\dagger | Comments |
|----------|----------------------|-----------------------------|
| 0.0 | (9/2 ⁺) | |
| 797.7 17 | (13/2 ⁺) | E(level): From E_γ . |

[†] From the Adopted Levels.

 $\gamma(^{89}\text{Tc})$

| E_γ | I_γ | $E_i(\text{level})$ | J_i^π | E_f | J_f^π | Comments |
|------------|------------|---------------------|----------------------|-------|---------------------|--|
| 797.7 17 | 27 15 | 797.7 | (13/2 ⁺) | 0.0 | (9/2 ⁺) | I_γ : relative to 100 12 for 738.1 γ from ^{90}Rh decay to ^{90}Ru . |

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Decay Scheme

Intensities: Relative I_γ

