

$^{78}\text{Se}(\mu^-, n\gamma)$ 2019Zi01

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	30-Sep-2020

Dataset adapted from the XUNDL database, compiled by Jun Chen (NSCL, MSU), May 6, 2019.

2019Zi01: negative muon beams were produced at the Paul Scherrer Institute. Target was natural selenium. Measured E_γ , I_γ , $E(\mu X \text{ ray})$, $I(\mu X \text{ ray})$, $\gamma(t)$, muonic x-rays and γ rays were detected using HPGe detectors. Deduced muon lifetime, and partial capture rates to excited states.

 ^{77}As Levels

Muon disappearance lifetime=165.9 ns *19* (capture+decay), from which the total muon capture rate is deduced as $\lambda_{\text{cap}}=5.59 \times 10^6 \text{ s}^{-1}$ *7* (**2019Zi01**).

<u>E(level)</u>	<u>J^π[†]</u>
0	$3/2^-$
215.5	$3/2^-$

[†] From the Adopted Levels.

 $\gamma(^{77}\text{As})$

<u>E_γ[†]</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>
215.5	215.5	$3/2^-$	0	$3/2^-$

[†] From **2019Zi01**.

 $^{78}\text{Se}(\mu^-, n\gamma)$ 2019Zi01Level Scheme