

Adopted Levels

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	E. A. Mccutchan	ENSDF	1-Jun-2022

$Q(\beta^-)=5690$  SY;  $S(n)=4510$  SY;  $S(p)=9030$  SY [2021Wa16](#)

Estimated uncertainties:  $\Delta Q(\beta^-)=310$ ,  $\Delta S(n)=360$ ,  $\Delta S(p)=500$  ([2021Wa16](#)).

$Q(\beta^-n)=2140$  300,  $S(2n)=7900$  300 (syst,[2021Wa16](#)).

[2016Ca25](#), [2017Ca12](#):  $^{215}\text{Tl}$  produced in  $^9\text{Be}(^{238}\text{U},X)$  reaction with  $E = 1$  GeV/nucleon produced by the SIS synchrotron at GSI.

Fragments were separated and identified by GSI Fragment Separator (FRS) using  $B\rho-\Delta E-B\rho$  technique. Measured betas, neutrons,  $\beta$ -n,  $\beta(t)$  using BELEN (BEta-deLayeEd Neutron) array consisting of 30  $^3\text{He}$  tubes embedded in polyethylene.

[2010A124](#):  $^{215}\text{Tl}$  nuclide produced in  $^9\text{Be}(^{238}\text{U},X)$  reaction with  $E = 1$  GeV/nucleon produced by the SIS synchrotron at GSI facility. Fragments were analyzed with the Fragment Recoil Separator (FRS) and identified using magnetic rigidity, velocity, time-of-flight, energy loss and atomic number of the fragments.

[2004DeZV](#): authors mention using RILIS ionization source to study the  $^{215}\text{Tl}$  activity using  $\beta\gamma\gamma$  coincidence setup, however, no resonant  $\gamma$  rays were seen. Probably, the  $^{215}\text{Tl}$  activity was not formed in this study.

 $^{215}\text{Tl}$  Levels

E(level)	$T_{1/2}$	Comments
0.0	9.7 s 38	$\% \beta^- = 100$ ; $\% \beta^-n = 4.6$ 46 E(level): observed fragments are assumed to be in the ground state of $^{215}\text{Tl}$ . $T_{1/2}$ : from implant- $\beta(t)$ and analyzed using analyzed by maximum-likelihood method ( <a href="#">2016Ca25</a> , <a href="#">2017Ca12</a> ). $\% \beta^-n$ : from implant- $\beta$ and implant- $\beta$ -neutron correlations backward directions ( <a href="#">2017Ca12</a> , <a href="#">2016Ca25</a> ).