

$^{79}\text{Cu}$   $\beta^-$  decay (241.0 ms) [1991Kr15,2014Xu07](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 135, 193 (2016)	31-May-2016

Parent:  $^{79}\text{Cu}$ :  $E=0.0$ ;  $T_{1/2}=241.0$  ms 32;  $Q(\beta^-)=11530$  SY;  $\% \beta^-$  decay=100.0

$^{79}\text{Cu}$ - $T_{1/2}$ : From  $^{79}\text{Cu}$  Adopted Levels.

$^{79}\text{Cu}$ - $J^\pi$ : ( $5/2^-$ ) from systematics and shell-model predictions ([2012Sr02,2010Da06,2010Si11](#)).

$^{79}\text{Cu}$ - $Q(\beta^-)$ : 11530 400 (syst,[2012Wa38](#)).

Measured  $T_{1/2}$ ,  $\% \beta^-$  n.

The isotope produced by  $^{238}\text{U}(p,X)$   $E=600$  MeV reaction followed by chemical (thermochromatographic) and mass separation techniques. [1995En07](#) use  $^9\text{Be}(^{238}\text{U},F)$  reaction at 750 MeV/nucleon followed by TOF and magnetic methods to identify  $^{79}\text{Cu}$ .

[2014Xu07](#): measured half-life of  $^{79}\text{Cu}$ .

[2012Ko29](#) (also [2009Gr06](#)): decay of  $^{79}\text{Cu}$  by delayed-neutron branch to first  $2^+$  level in  $^{78}\text{Zn}$ .

[2010Ho12](#): measured half-life of  $^{79}\text{Cu}$  and  $\% \beta^-$  n.

Level scheme and gamma-ray information are not available.

 $^{79}\text{Zn}$  Levels

E(level)	$J^\pi$	Comments
0	$9/2^+$	It is assumed that the g.s. is populated in this decay.
4020+x		$S(n)(^{79}\text{Zn})=4020.4$ 30 ( <a href="#">2012Wa38</a> ), $x < 7510$ keV, from $Q(\beta^-)(^{79}\text{Cu})-S(n)(^{79}\text{Zn})$ .

 $\beta^-$  radiations

E(decay)	E(level)	$I\beta^-^\dagger$	Comments
(3755 $^\ddagger$ SY)	4020+x	66 12	$I\beta^-$ : $\% \beta^-$ n=66 12 (from $^{79}\text{Cu}$ Adopted Levels).

$^\dagger$  Absolute intensity per 100 decays.

$^\ddagger$  Estimated for a range of levels.