

$^{70}\text{Zn } 2\beta^-$  decay [2011Be39](#)

<u>Type</u>	<u>Author</u>	<u>History</u>	<u>Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	G. Gürdal, E. A. Mccutchan		NDS 136, 1 (2016)	1-Jul-2016

Parent:  $^{70}\text{Zn}$ :  $E=0$ ;  $J^\pi=0^+$ ;  $T_{1/2} \geq 3.8 \times 10^{18}$  y;  $Q(2\beta^-)=997.1$  21; % $2\beta^-$  decay=100.0

$^{70}\text{Zn}$ - $T_{1/2}$ : From [2011Be39](#) for  $2\nu\beta\beta$  mode at 90% confidence level (C.L.). Other:  $2.3 \times 10^{17}$  from [2009Be27](#).

$^{70}\text{Zn}$ - $Q(2\beta^-)$ : From [2012Wa38](#).

[2011Be39](#), [2009Be27](#): Measured half-life for double  $\beta$  decay using  $\text{ZnWO}_4$  crystal scintillators with a total mass of 984 g fixed in polystyrene light- guide and photomultiplier tubes. The detector installed in low background DAMA/R&D setup at the Gran Sasso National Lab of INFN. Measured  $\beta(\gamma)$  events.

 $^{70}\text{Ge}$  Levels

<u>E(level)</u>	<u><math>J^\pi</math></u>
0	$0^+$