

# T1/2 Averaging – Y. Dong

There are three  $T_{1/2}$  measurements. The newest measurement (2011Da08) is 90 ms smaller than 2003So21 and 112 ms smaller than 2009Pa16, and has the largest uncertainty of 81 ms comparing with 9 ms of 2003So21. For 2011Da08 and 2003So21, both experiments were performed at GANIL and the result of 2003So21 was not given in 2003So21 but in 2011Da08. For methods, 2011Da08 and 2003So21 detected the time dependence of  $\beta$  particles and the fitting procedure involved the daughter and granddaughter half-lives. 2009Pa16 detected the 189-keV  $\beta$  ray of daughter nuclide  $^{67}\text{Co}$  and will not be affected by the daughter nuclide half-life. Although 2011Da08 gave a much shorter  $T_{1/2}$  and 2003So21 gave a very small uncertainty, there seems to be no reason to ignore their result. In the present evaluation, the unweighted average of three measurements is recommended and in this case the large uncertainty of 2011Da08 is ignored.

$^{67}\text{Fe}$  L0 (1/2-) 371 MS 34

$^{67}\text{Fe}$  cL  $T_{1/2}$  unweighted average of 304 ms {181} (2011Da08), 416 ms {129}

$^{67}\text{Fe}$  2cL (2009Pa16), 394 ms {19} (2003So21, provided by 2011Da08).

Reference	Half-life	Technique
2011Da08	304 (81) ms	beta(t)
2009Pa16	416 (29) ms	189g(t)
2003So21	394 (9) ms	beta(t)

# Normalization Averaging – Y. Dong

67ZN 67GA EC DECAY (3.2617 D)

67ZN c The normalization: 2005Ya01, 2007BoAA, and 2014Di03 have measured the  
67ZN2c  $\gamma$  absolute intensity directly. Besides, 1998At04 and 2000Si03 have  
67ZN3c measured the absolute intensity of internal conversion electron of  
67ZN4c 93 keV  $\gamma$ . Using total conversion coefficient calculated by BrICC, the  
67ZN5c absolute intensity of 93 keV  $\gamma$  can be given. Should the results of  
67ZN6c 1998At04 and 2000Si03 be considered for the 93 keV  $\gamma$  intensity? If  
67ZN7c the 93 keV  $\gamma$  intensity is given as the average of the five  
67ZN8c experiments, should the intensities of the other  $\gamma$ -rays got by the  
67ZN9c weighted average of 2005Ya01, 2007BoAA, and 2014Di03 be changed  
67ZNac relative to the intensity of 93 keV  $\gamma$ ? In the present evaluation,  
67ZNbc the results of 1998At04 and 2000Si03 are ignored for the normalization  
67ZNcc since the calculated CC is involved to calculate the 93 keV  $\gamma$  absolute  
67ZNdc intensity and the  $\gamma$ -rays' absolute intensities are the weighted  
67ZNec average of the first three experiments. Besides, the intensities are  
67ZNfc almost the same whether consider 1998At04 and 2000Si03 or not.

2005Ya01	measurement absolute Ig
2007BoAA	measurement absolute Ig
2014Di03	measurement absolute Ig
1998At04	Measurement absolute Ice (93g)
2000Si03	Measurement absolute Ice (93g)

Should the results of 1998At04 and 2000Si03 be considered for the 93 keV |g intensity?

If the 93 keV |g intensity is given as the average of the five experiments, should the intensities of the other |g-rays got by the weighted average of 2005Ya01, 2007BoAA, and 2014Di03 be changed relative to the intensity of 93 keV |g