
 ^{161}Dy α decay:? **2011Be18**

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	N. Nica	NDS 132, 1 (2016)	4-Dec-2015

Parent: ^{161}Dy : $E=0.0$; $J^\pi=5/2^+$; $T_{1/2}\geq 3.5\times 10^{16}$ y; $Q(\alpha)=343.4$ I3; % α decay=?

^{161}Dy - $T_{1/2}$: From [2011Be18](#), limit based on 83 events which can be excluded at 90% confidence level (C.L.) and detector efficiency of 0.2%.

^{161}Dy - $Q(\alpha)$: From [2012Wa38](#).

[Additional information 1.](#)

Compiled for the XUNDL database by M. Birch and B. Singh (McMaster).

Search for α decay of ^{161}Dy .

Measured lower limit of the half life for the α decay process in ^{161}Dy using a 322 g Dy_2O_3 sample and an ultra-low background

HPGe detector installed in the underground at the Gran Sasso National Laboratories of the INFN (Italy). The detector was passively shielded using lead, copper and borated polyethylene. Contaminants in the sample were identified and their radioactivities measured to accurately identify the source of γ lines in the observed spectrum.

Only first excited state in ^{157}Gd , 54.5 keV and $5/2^-$, is expected to be populated in this decay.