

$^{252}\text{No}$   $\alpha$  decay

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 122, 377 (2014)	1-Sep-2014

Parent:  $^{252}\text{No}$ :  $E=0.0$ ;  $J^\pi=0^+$ ;  $T_{1/2}=2.44$  s 4;  $Q(\alpha)=8548$  6;  $\% \alpha$  decay=67.8 19

$^{252}\text{No}$ - $\% \alpha$  decay: From  $\% \text{SF}=31.5$  12 and  $(\epsilon+\beta^+)/\alpha < 0.016$  5 (2002He01), one gets  $\% \alpha=67.8$  19 and  $\% \epsilon+\beta^+=0.7$  7. The value for  $\% \text{SF}$  is a weighted average of 29.3 9 (2011Ga19) and 32.2 5 (2001Og08). Other  $\% \text{SF}$ : 1977Be09, 1993An10, and 2003Be18.

 $^{248}\text{Fm}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0 <sup>†</sup>	0 <sup>+</sup>	35.1 s 8	$T_{1/2}$ : from 2011Ga19.
44 <sup>†</sup> 10	2 <sup>+</sup>		E(level): from $\Delta Q(\alpha)$ .

<sup>†</sup> Band(A):  $K=0^+$  g.s. band.

 $\alpha$  radiations

$E\alpha$ <sup>†</sup>	E(level)	$I\alpha$ <sup>‡@</sup>	HF <sup>#</sup>
8372 8	44	$\approx 25$	$\approx 2.2$
8415 6	0.0	$\approx 75$	1.0

<sup>†</sup> Measurements by 1977Be09. Other measurement: 1967Gh01, 1967Mi03.

<sup>‡</sup> Intensity per 100  $\alpha$  decays, measured by 1977Be09.

<sup>#</sup>  $r_0=1.479$  2 for  $^{248}\text{Fm}$  is calculated from  $\text{Hf}(8415\alpha)=1$  with the uncertainty in  $I\alpha$  set at 10.

<sup>@</sup> For absolute intensity per 100 decays, multiply by 0.678 19.

${}^{252}\text{No}$   $\alpha$  decayBand(A): K=0<sup>+</sup> g.s. band2<sup>+</sup>                      440<sup>+</sup>                      0.0 ${}^{248}_{100}\text{Fm}_{148}$