<center>^{259}No α decay　　**2013As02**</center>

History

	Type	Author	Citation	Literature Cutoff Date
	Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1041 (2013)	1-Nov-2011

Parent: ^{259}No: E=0; J$^\pi$=(9/2$^+$); T$_{1/2}$=58 min 5; Q(α)=7858 5; %α decay=75 4

^{259}No-Q(α): from Eα=7505 5 to 231.4 level (2013As02). Q(α)=7885 100 (from syst,2012Wa38).

^{259}No-T$_{1/2}$: T$_{1/2}$=1.6 h 8 from α(t) (2013As02).

Additional information 1.

2013As02: ^{259}No activity produced by ^{248}Cm(^{18}O,α3n), E=94 MeV. Measured α, $\alpha\gamma$ coincidences, Si and Ge detectors.
　　Preliminary results for $\alpha\gamma$ were reported by 2008AsZY.

1973Si40: produced by ^{248}Cm(^{18}O,α3n) E=96 MeV, ion chem; measured α, SF, excit. Eα=7455 10 (13%),7500 10 (39%), 7533
　　10 (23%), 7605 10 (14%), 7685 10 (11%). 2013As02 assign only 7500α to ^{259}No decay.

<center>^{255}Fm Levels</center>

E(level)	J$^\pi$	T$_{1/2}$
0.0†	7/2$^+$	
61.7† 3	9/2$^+$	
231.4‡	9/2$^+$	<30 ns

† Band(A): 7/2[613].
‡ Band(B): 9/2[615].

<center>α radiations</center>

E$\alpha^\ddagger$	E(level)	I$\alpha^{\ddagger\#}$	HF†	Comments
7505 5	231.4	100	1.4	HF: Deduced by 2013As02, using r$_0$=1.487 and T$_{1/2}$ (^{259}No)= 58 min 5.

† r$_0$(^{255}Fm)=1.487 20.
‡ From 1973Si40.
$^\#$ For absolute intensity per 100 decays, multiply by 0.75 4.

<center>γ(^{255}Fm)</center>

E$\gamma^\dagger$	I$\gamma^\dagger$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.‡
61.7	30 15	61.7	9/2$^+$	0.0	7/2$^+$	
169.6	88 30	231.4	9/2$^+$	61.7	9/2$^+$	M1+E2
231.4	100 38	231.4	9/2$^+$	0.0	7/2$^+$	M1+E2

† From 2008AsZY based on $\alpha\gamma$.
‡ From K x ray to Iγ intensity ratios (2013As02).

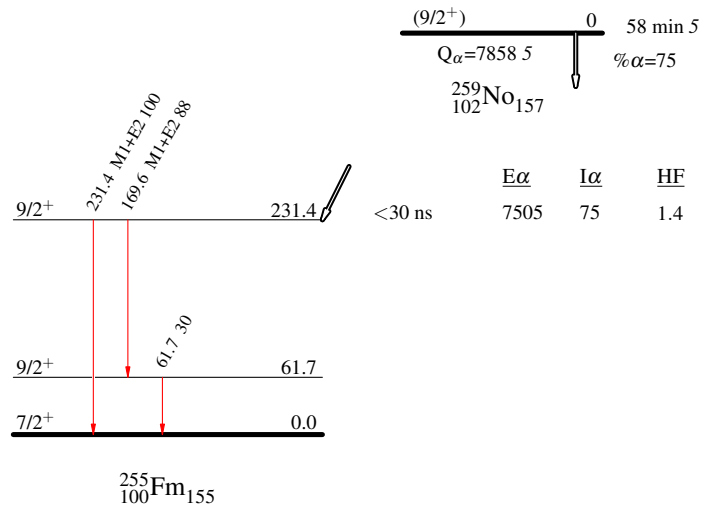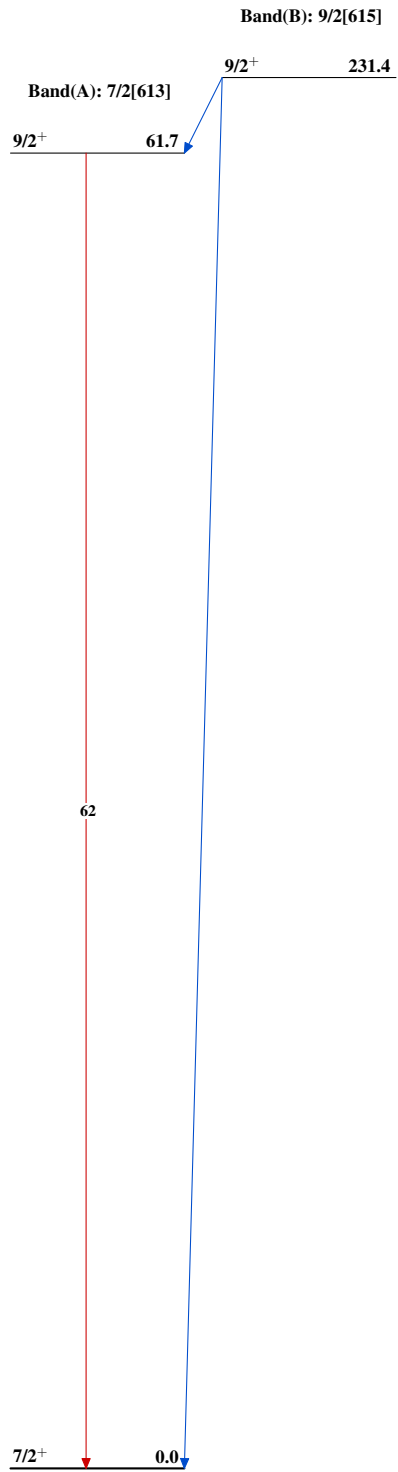## ^{259}No α decay   2013As02

Decay Scheme

Intensities: Type not specified

Legend

$I_\gamma < \ 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

$(9/2^+)$ 0   58 min 5

Q_α=7858 5   %α=75

$^{259}_{102}$No$_{157}$

231.4 M1+E2 100

169.6 M1+E2 88

	$E\alpha$	$I\alpha$	HF

9/2$^+$ 231.4   <30 ns   7505   75   1.4

61.7 30

9/2$^+$ 61.7

7/2$^+$ 0.0

$^{255}_{100}$Fm$_{155}$

^{259}No α decay   2013As02

Band(B): 9/2[615]

9/2$^+$ 231.4

Band(A): 7/2[613]

9/2$^+$ 61.7

62

7/2$^+$ 0.0

$^{255}_{100}$Fm$_{155}$