

$^{244}\text{Es } \alpha$  decay (37 s)    1973Es02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh, E. Browne		NDS 109, 2439 (2008)	31-Jul-2008

Parent:  $^{244}\text{Es}$ : E=0;  $T_{1/2}=37$  s 4;  $Q(\alpha)=7940$  SY; % $\alpha$  decay=4.5 25

$^{244}\text{Es-Q}(\alpha)$ : 7940 100 (syst,[2003Au03](#)).

$^{244}\text{Es-T}_{1/2}$ : From [1973Es02](#). Other: 38 s 11 ([2002Sh02](#)).

$^{244}\text{Es-}\% \alpha$  decay:  $\% \alpha=4+3-2$  (evaluation by [2003Ak04](#)). Alpha and electron capture branchings were determined by [1973Es02](#) from alpha counts from  $^{244}\text{Es}$  and from  $^{244}\text{Cf}$  decays, assuming that  $^{244}\text{Cf}$  decays 100% by  $\alpha$ .

[1973Es02](#): Measured  $E\alpha$ ,  $I\alpha$ .

Other: [2002Sh02](#): Measured electron-capture delayed fission of  $^{244}\text{Es}$  studied by [2002Sh02](#);  $\% \varepsilon$ (delayed fission)=0.012 4.

 $^{240}\text{Bk}$  Levels

E(level)	Comments
0	
$2.4 \times 10^2$ 10	$E\text{(level)}$ : calculated from the observed $E\alpha=7570$ 20 from $^{244}\text{Es}$ and $Q(\alpha)(^{244}\text{Es})=7940$ 100 (syst, <a href="#">2003Au03</a> ).

 $\alpha$  radiations

$E\alpha$	$E\text{(level)}$	Comments
7570 20	240	$E\alpha$ : 7580 ( <a href="#">2002Sh02</a> ). $I\alpha$ : HF≈2.2, if $I\alpha$ ≈100 and $r_0(^{240}\text{Bk})$ ≈1.50.

 $\gamma(^{240}\text{Bk})$ 

$E_\gamma$	$E_i\text{(level)}$	$E_f$
(≈330)	$2.4 \times 10^2$	0

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Legend

Decay Scheme $\gamma$  Decay (Uncertain) $^{244}_{99}\text{Es}_{145}$       0      37 s 4  
 $Q_\alpha = 7940 \text{ SY}$   
% $\alpha = 4.5$ 