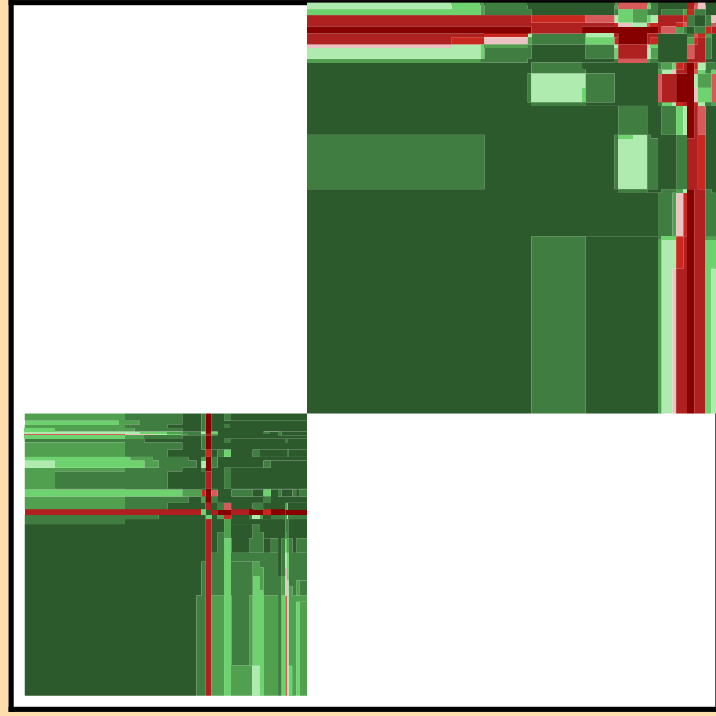
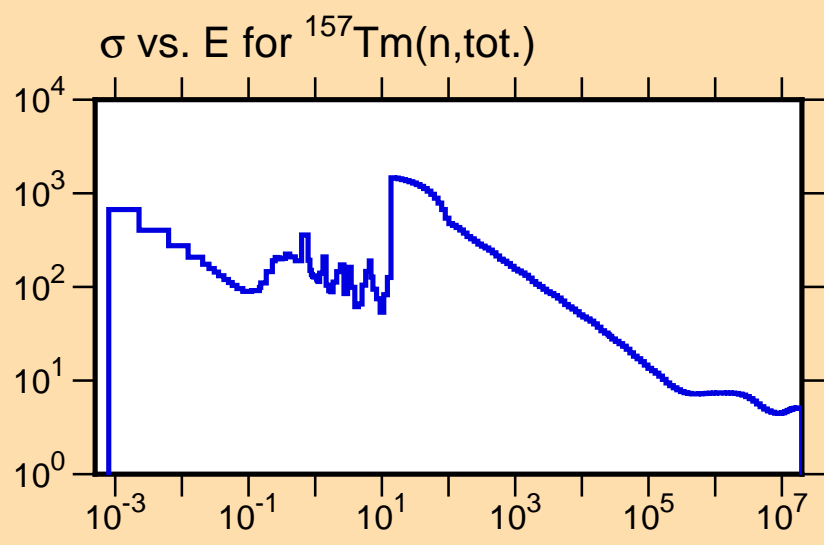


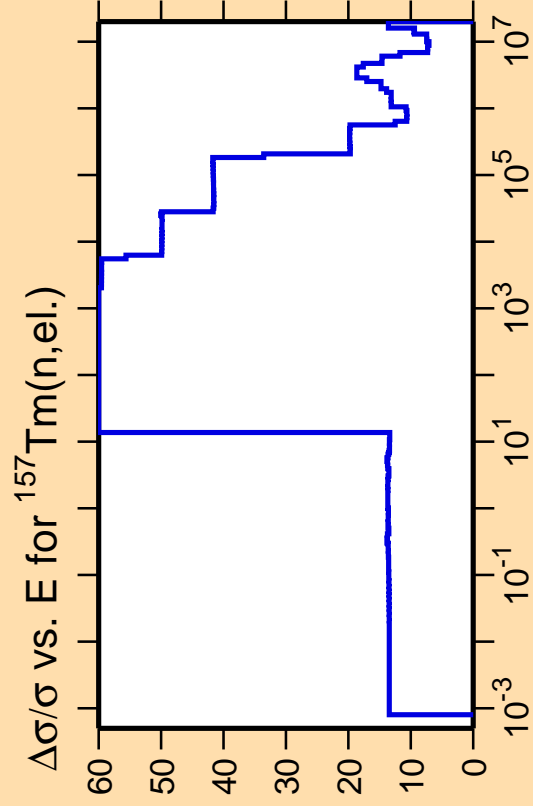
Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).



Correlation Matrix



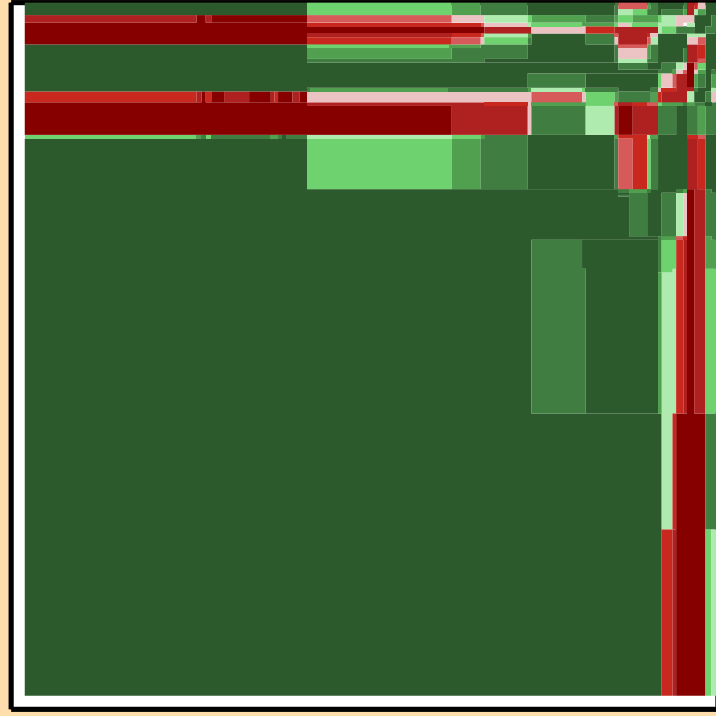
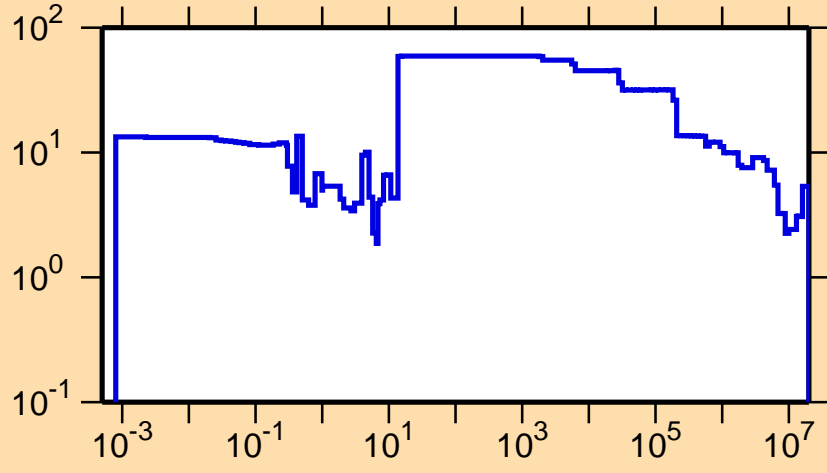


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

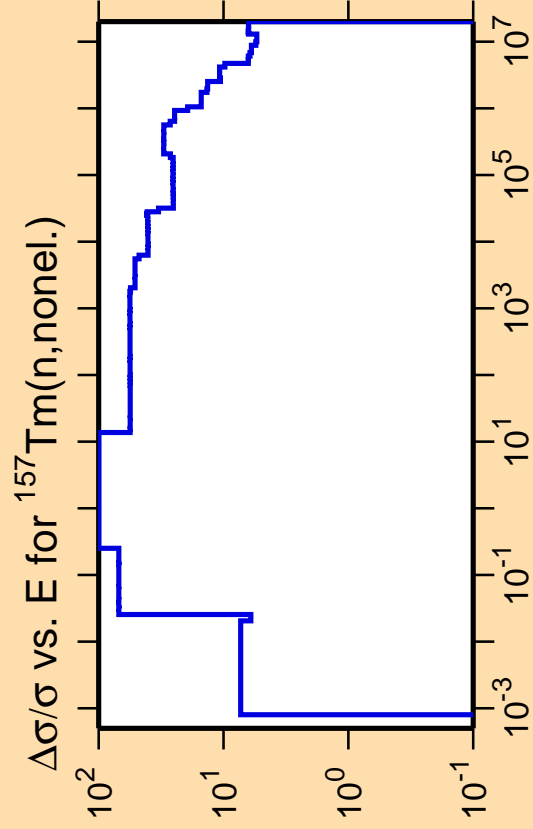
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



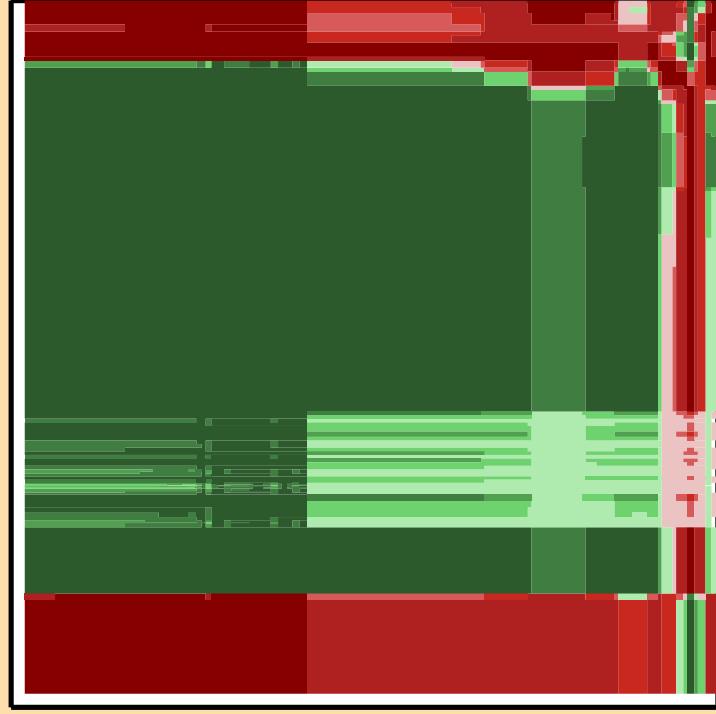
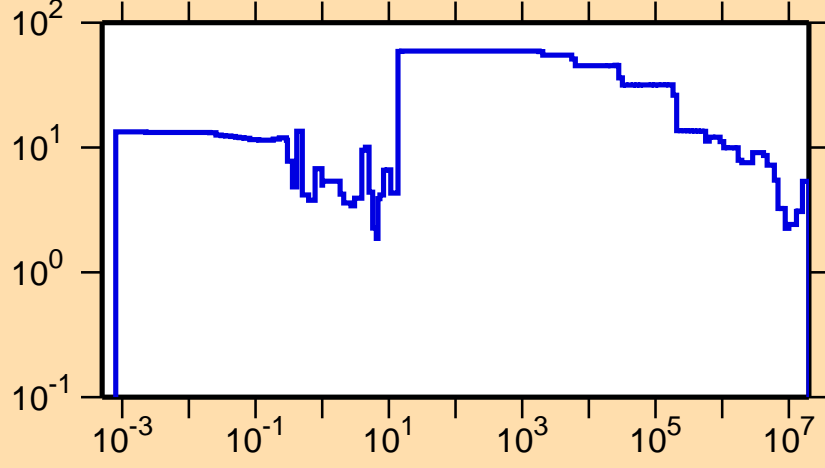


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

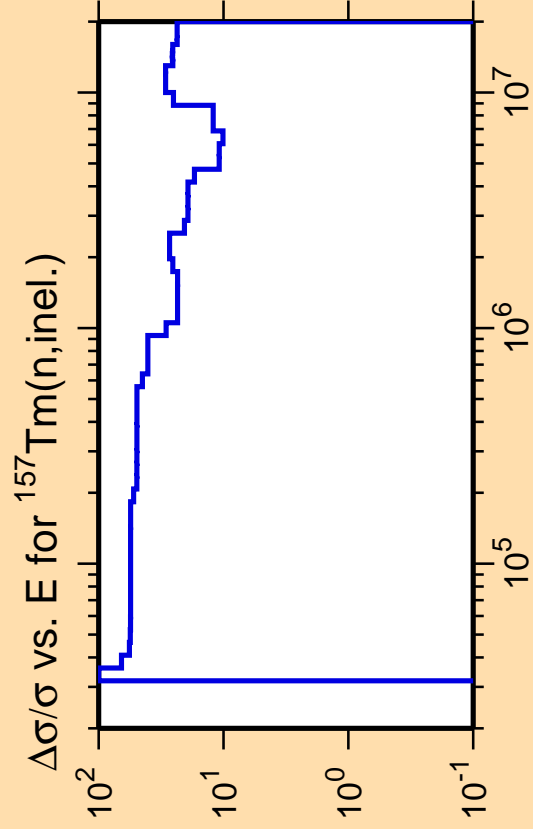
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



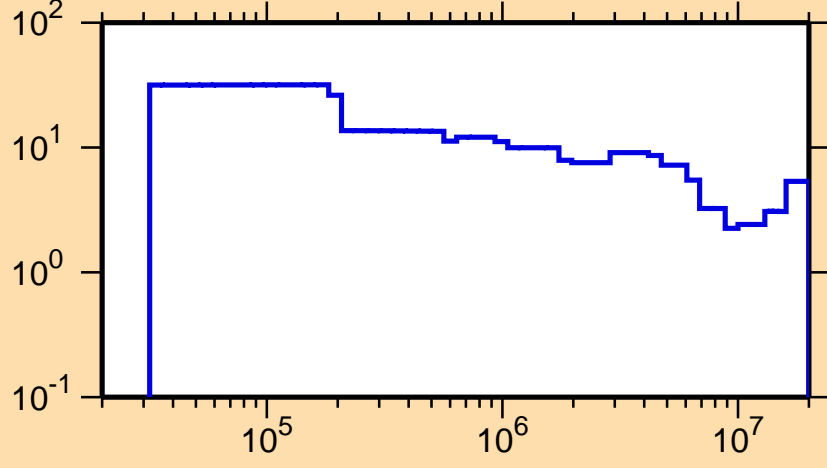


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

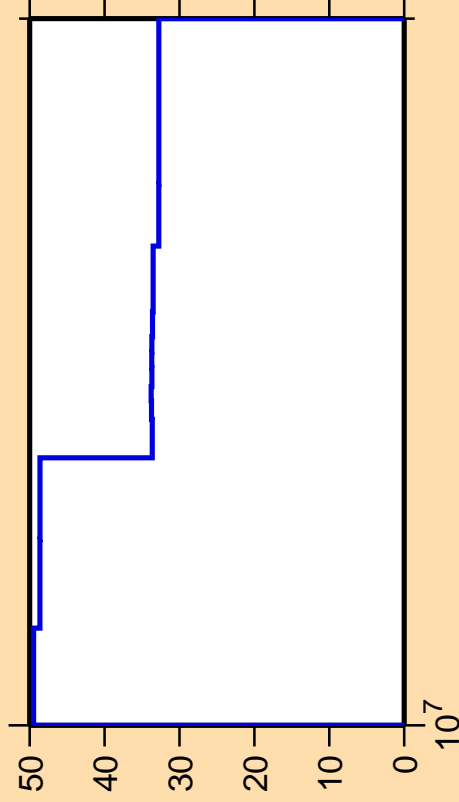
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



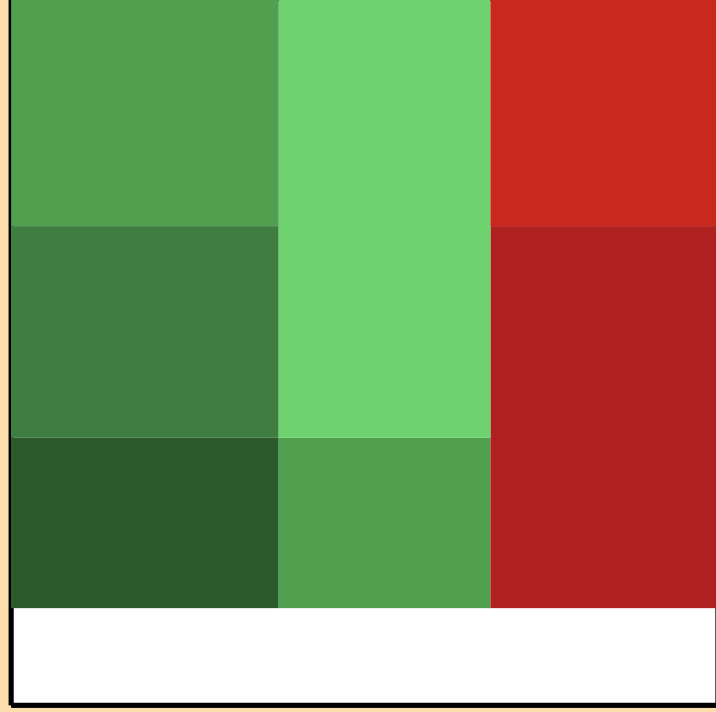
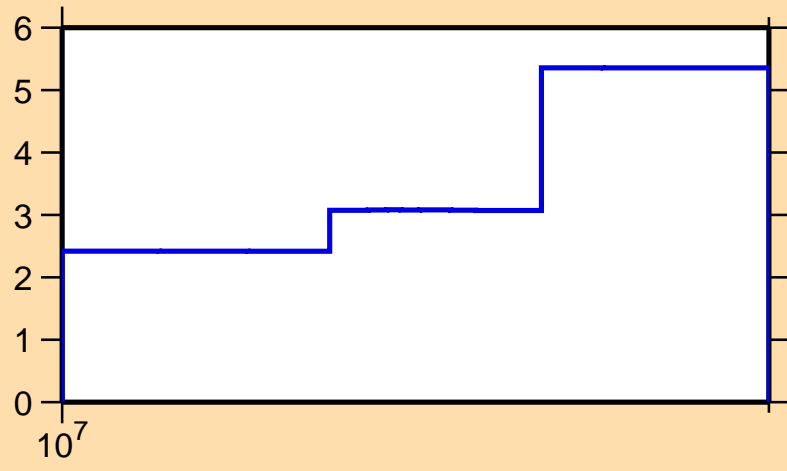
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Ordinate scale is %
relative standard deviation.

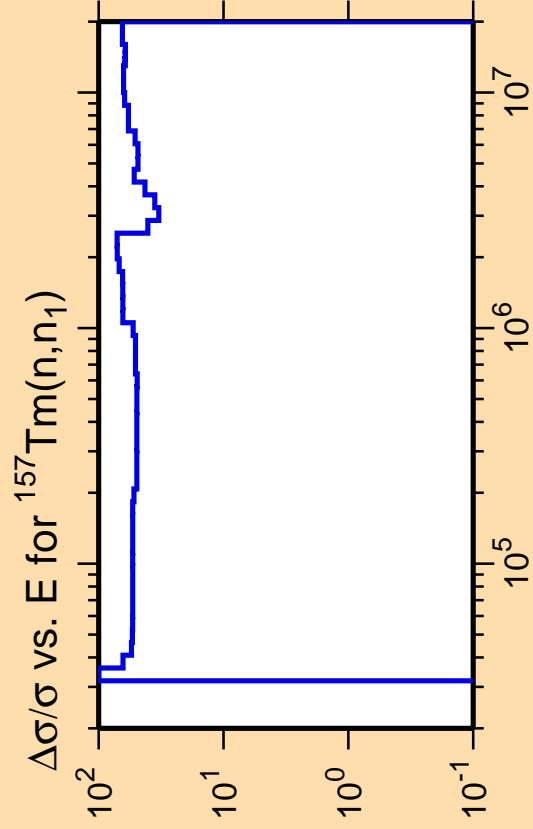
Abscissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



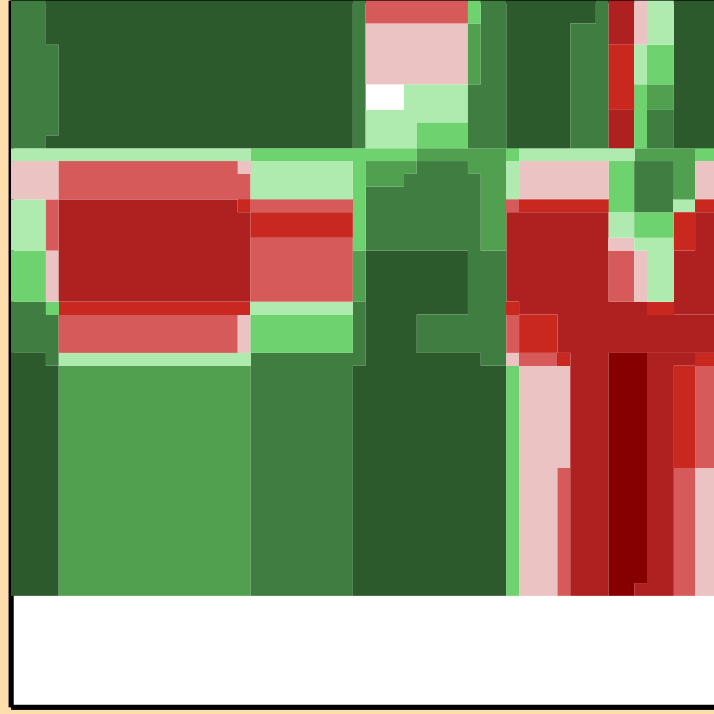
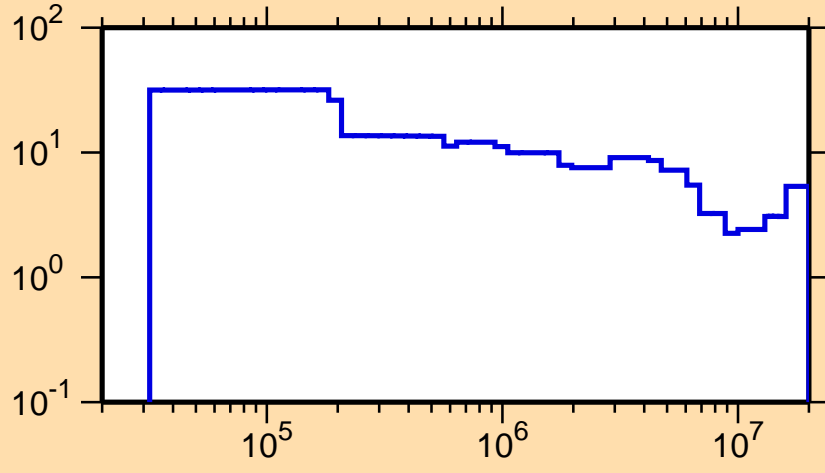


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

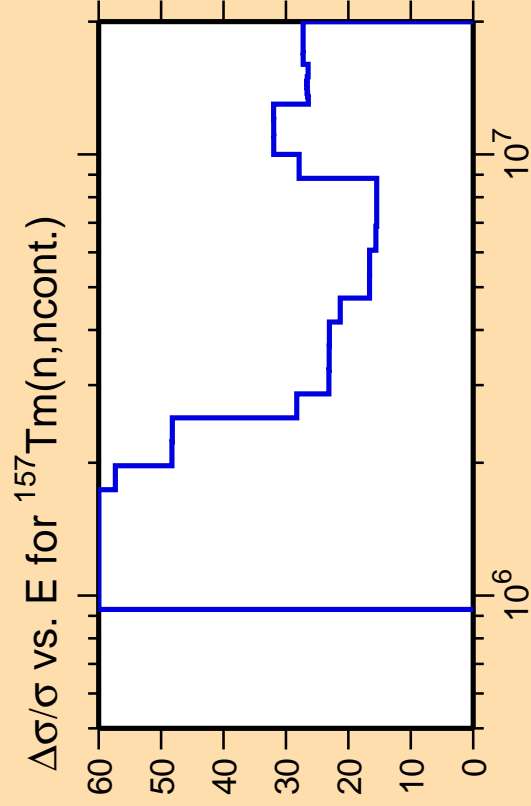
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



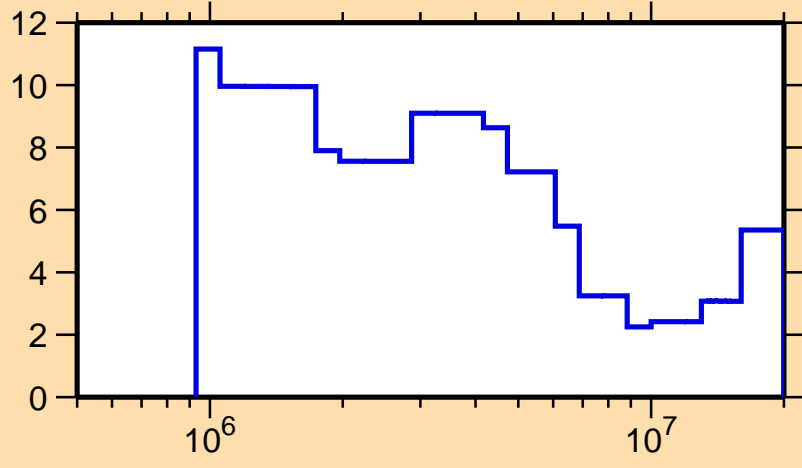


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

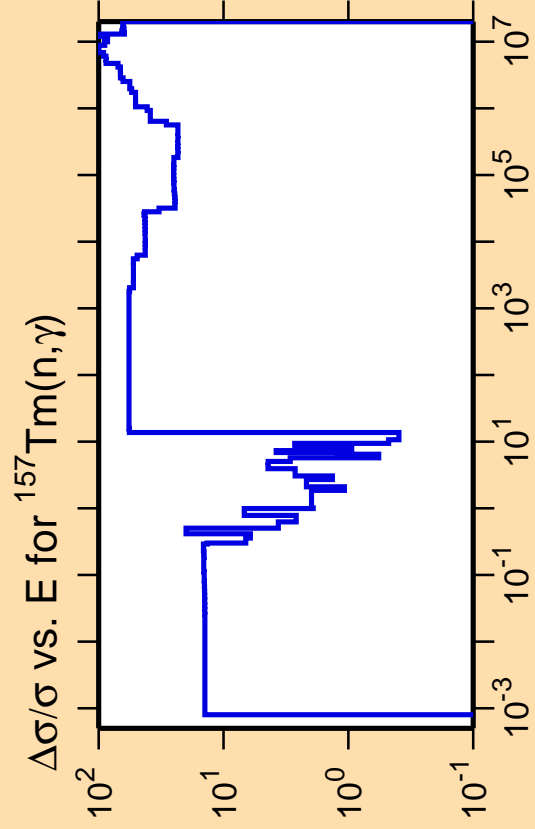
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n, \text{tot.})$



Correlation Matrix



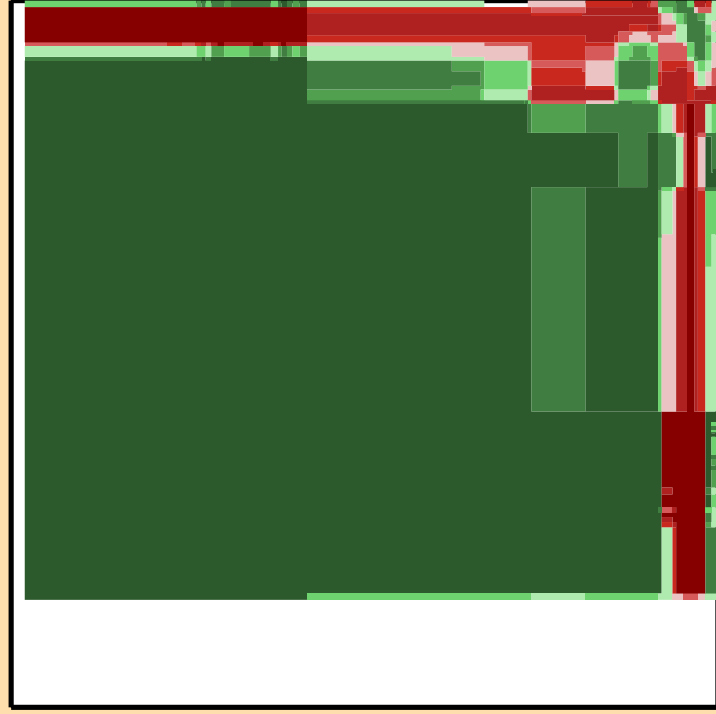
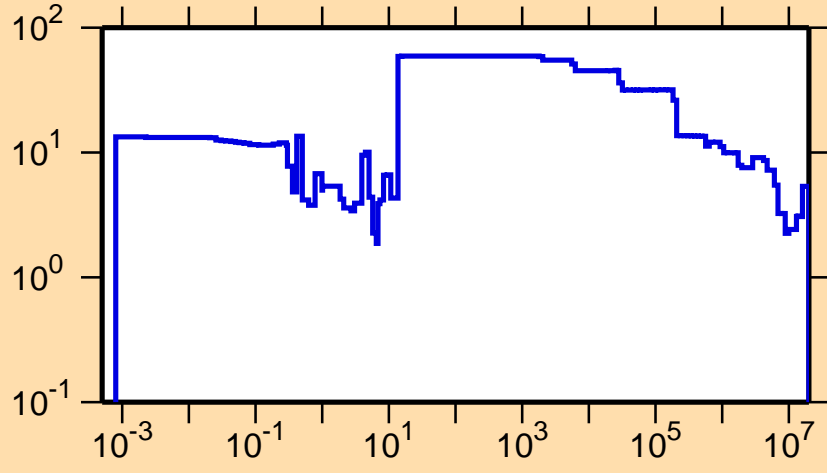


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

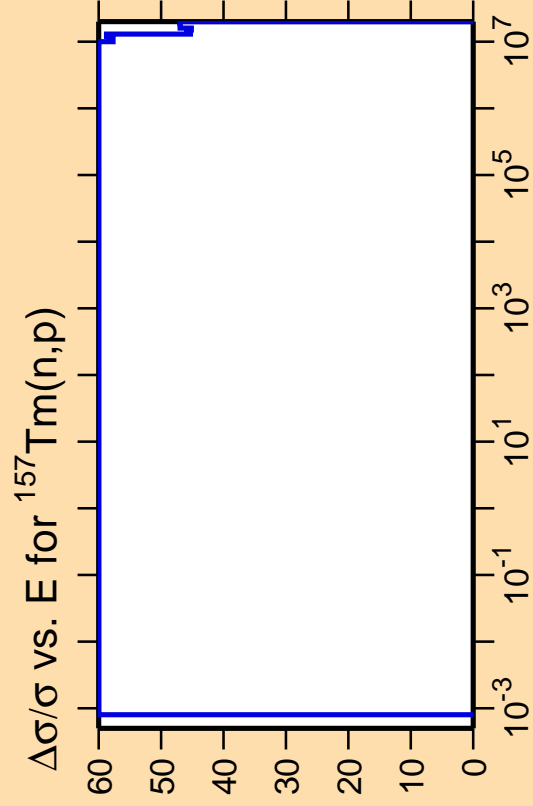
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



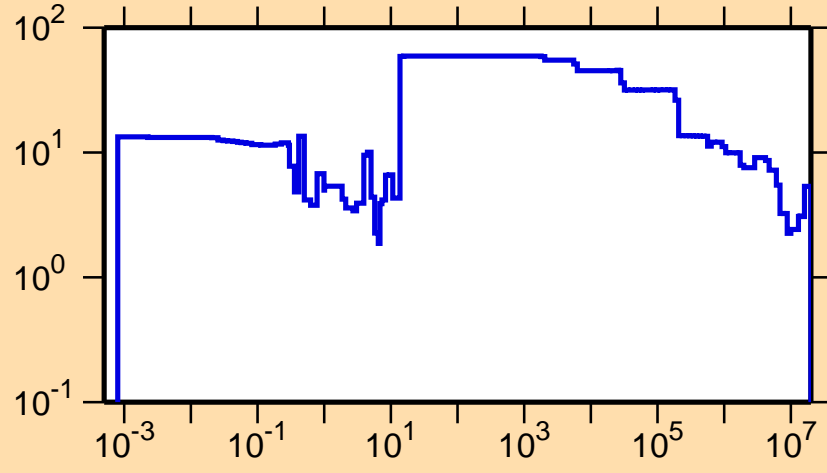


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

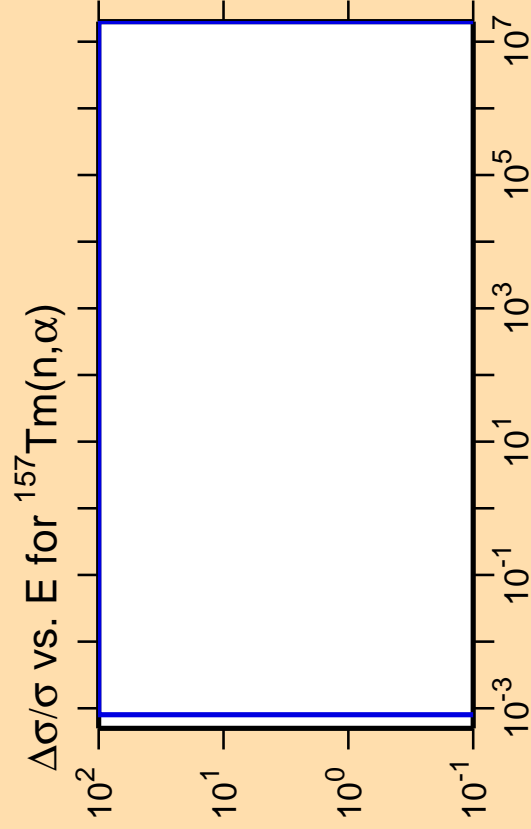
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix



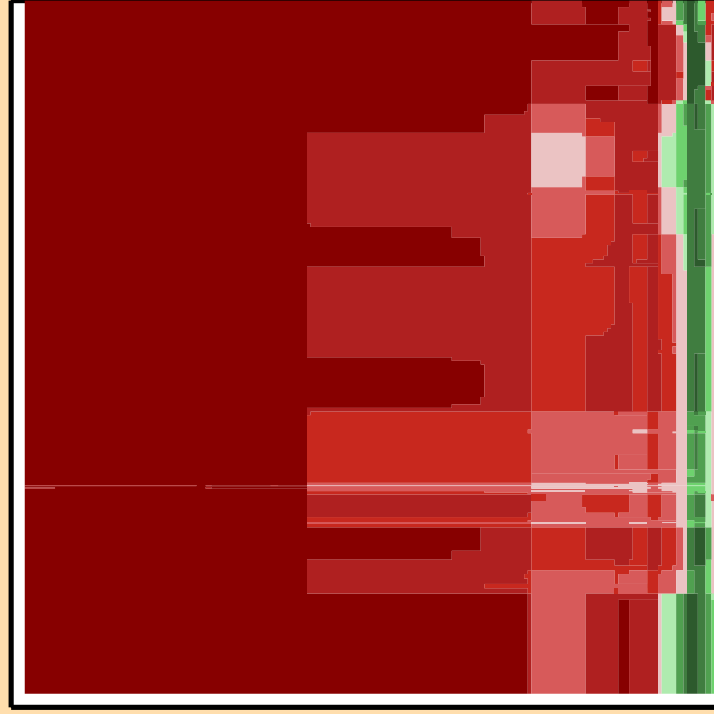
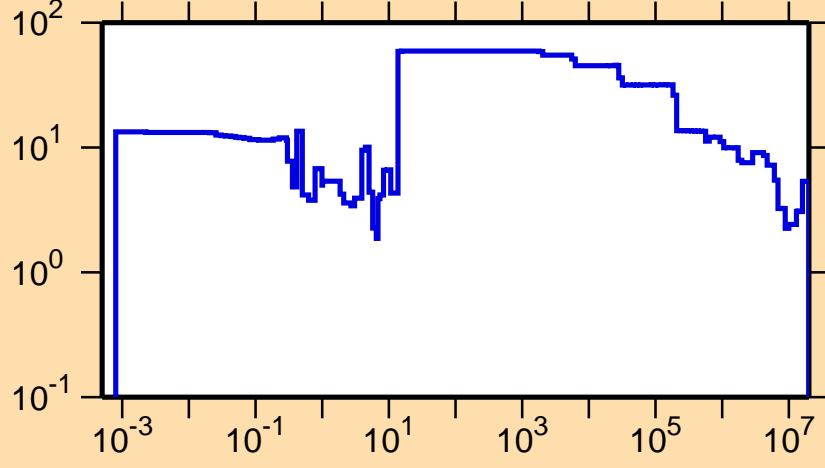


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

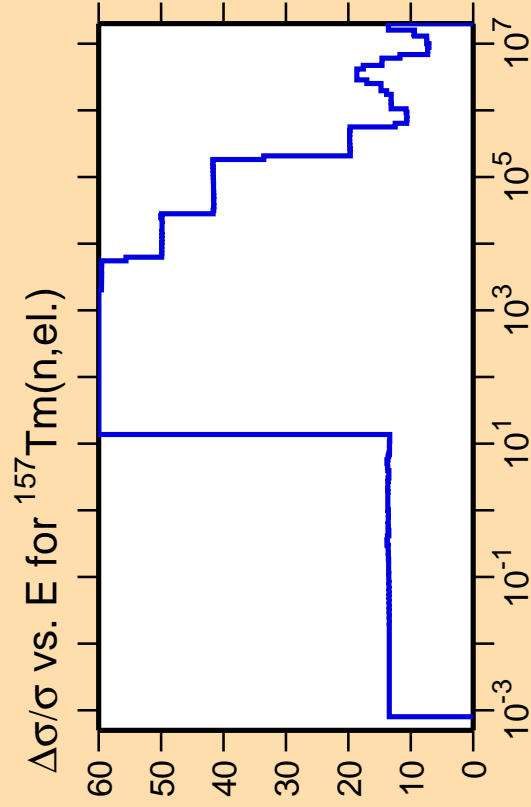
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{tot.})$



Correlation Matrix

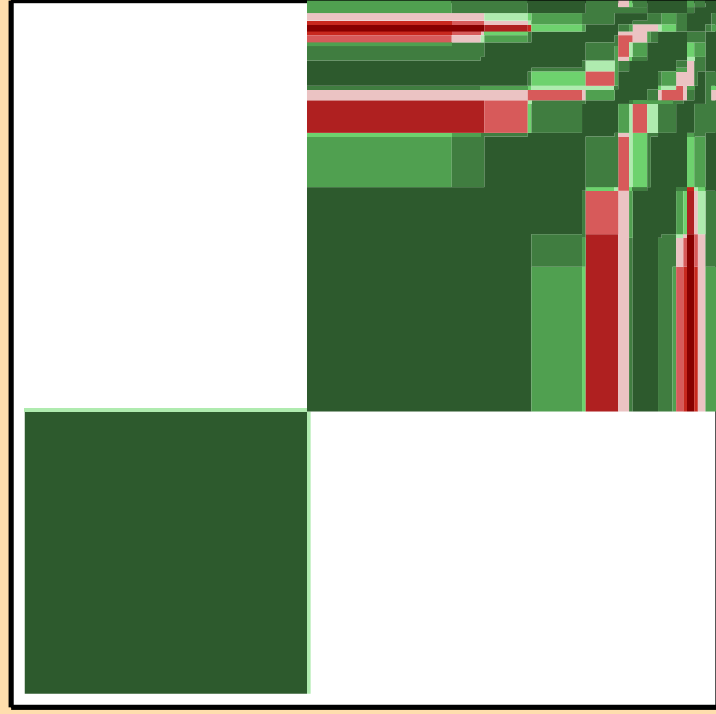
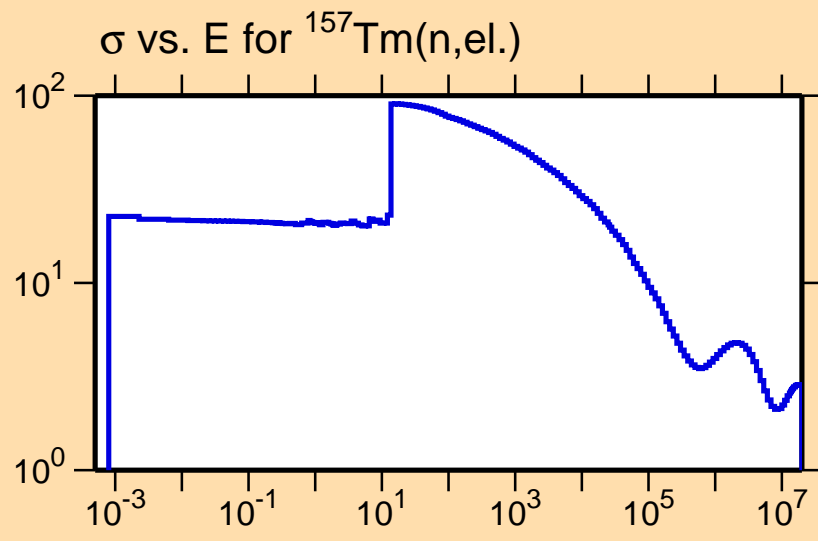




Ordinate scales are % relative standard deviation and barns.

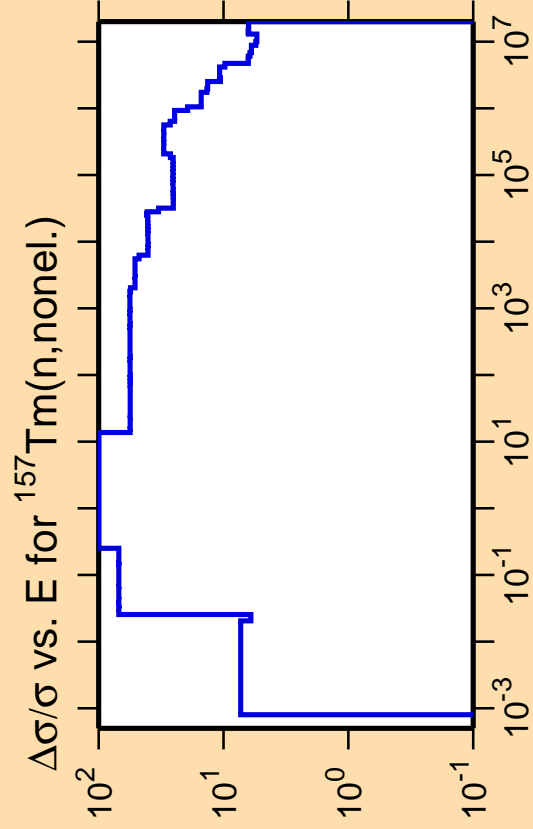
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix



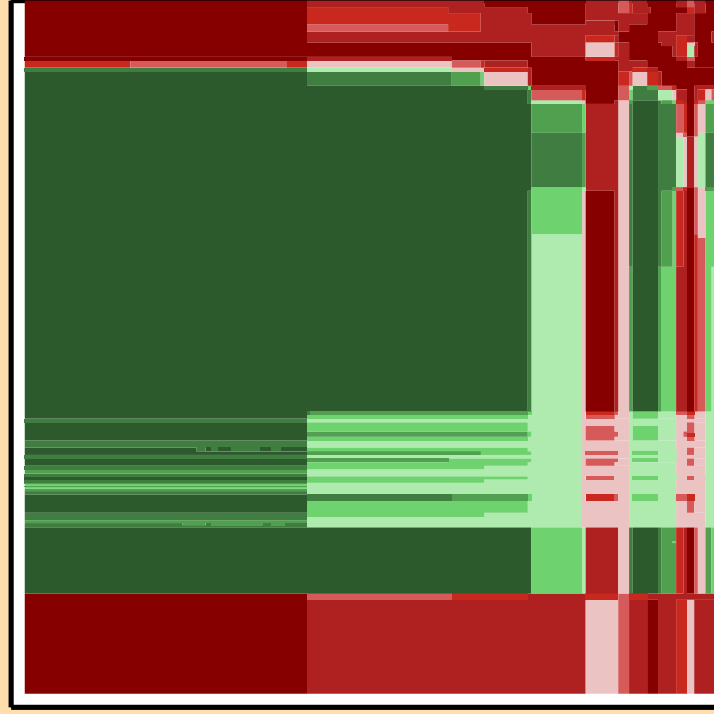
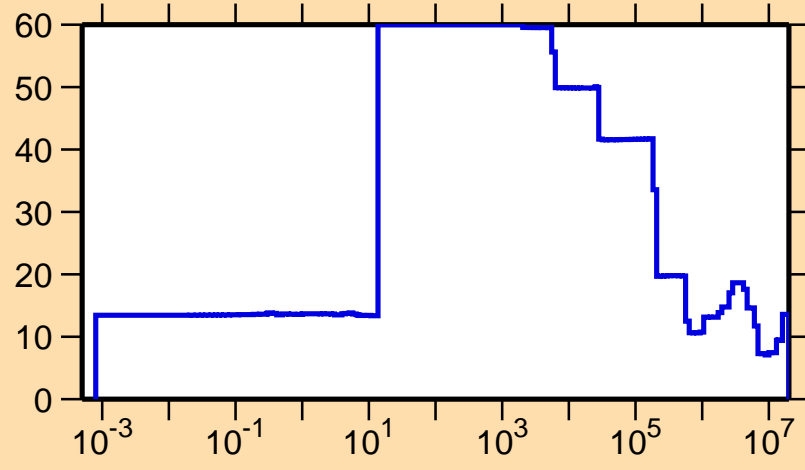


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

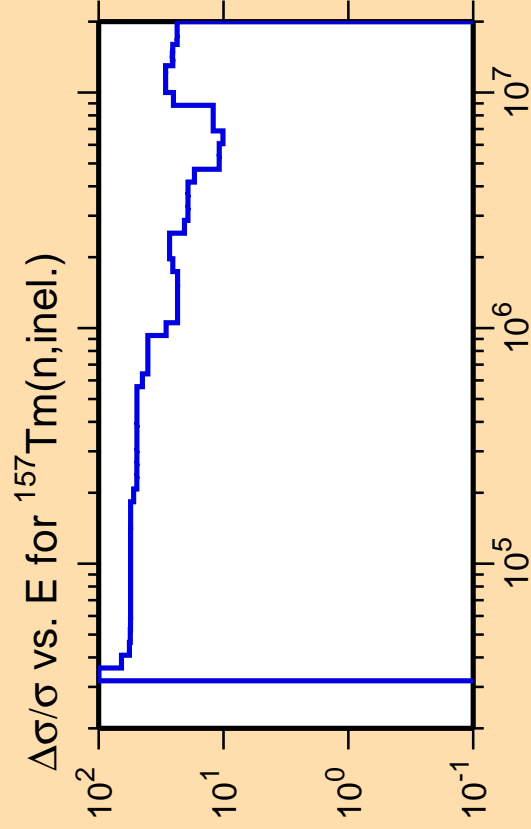
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix



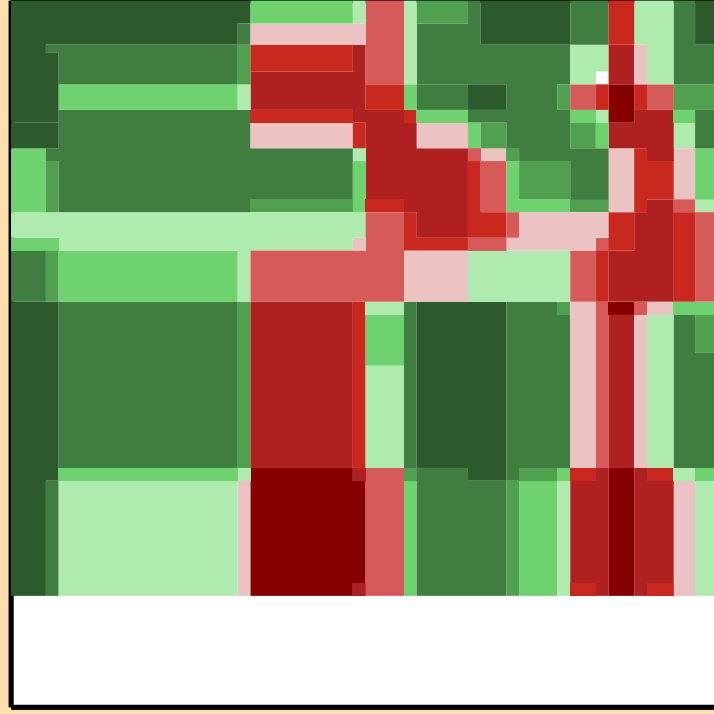
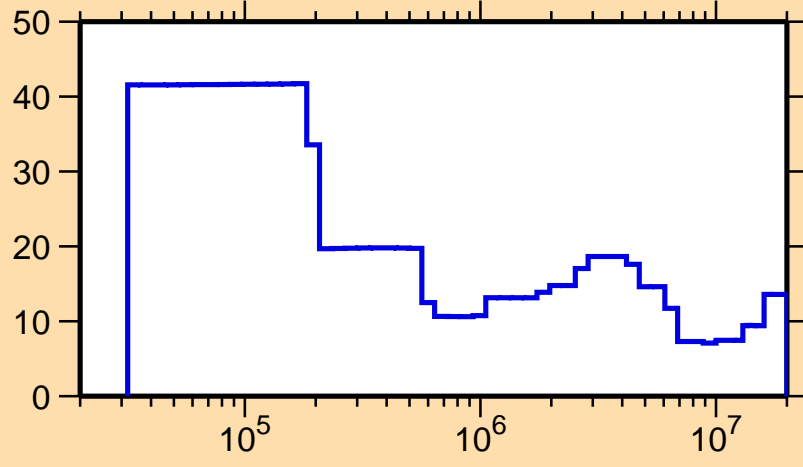


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

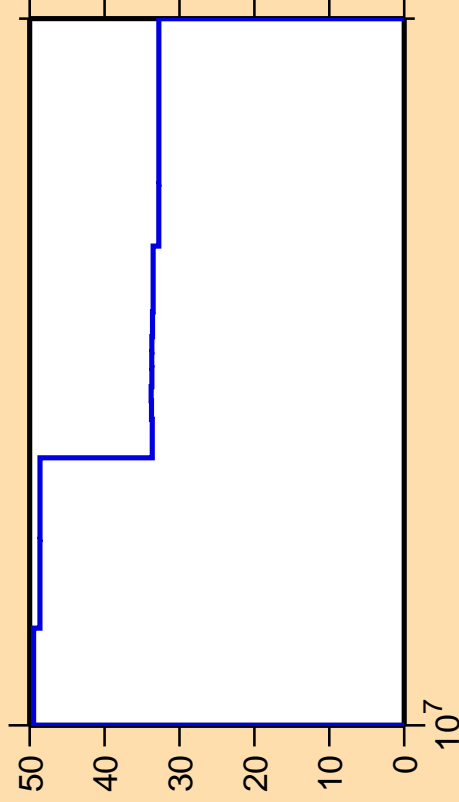
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix



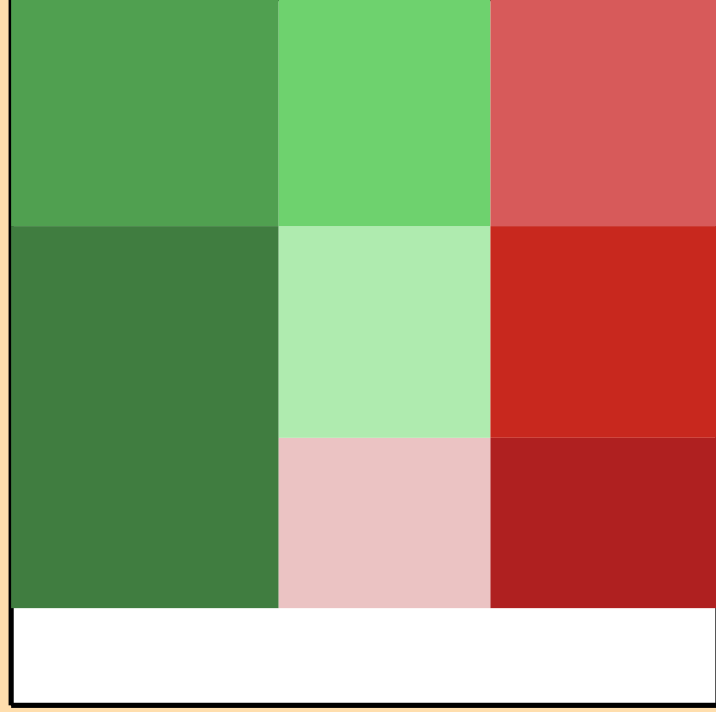
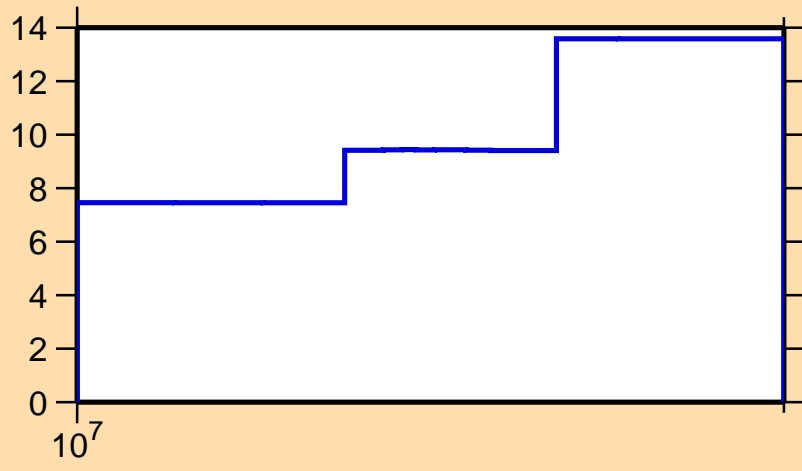
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Ordinate scale is %
relative standard deviation.

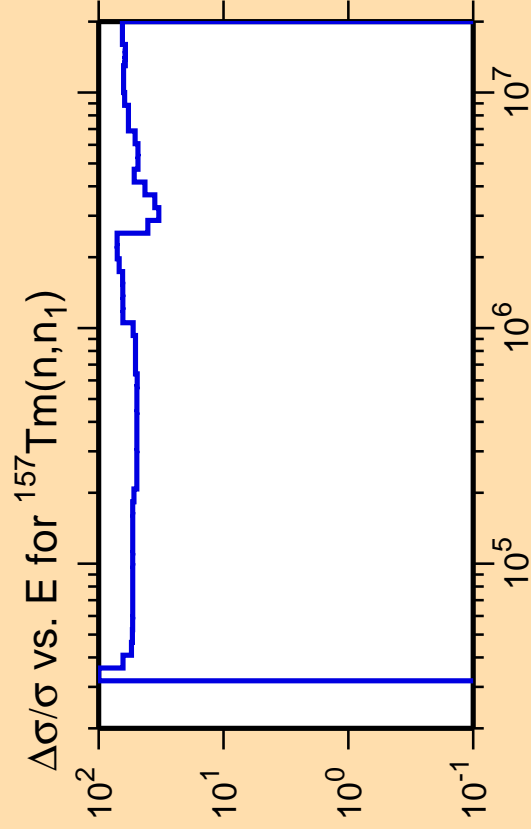
Abscissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix



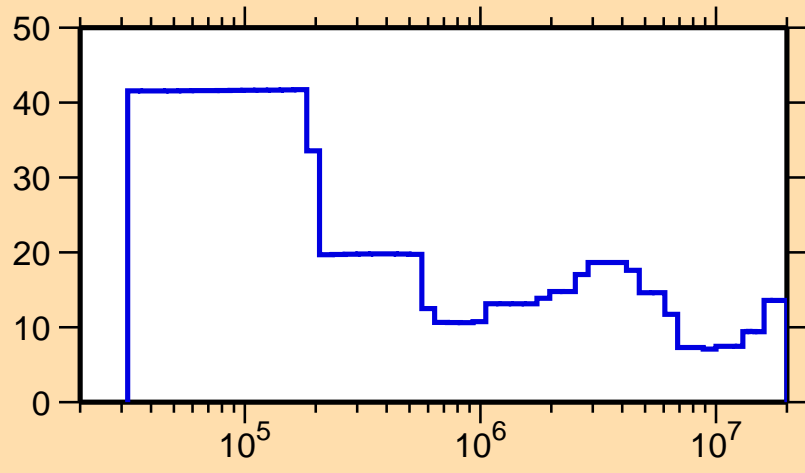


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

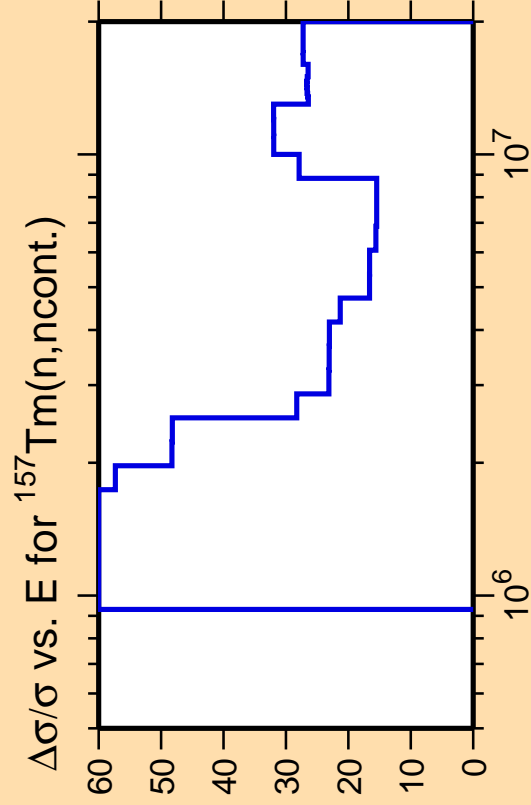
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix

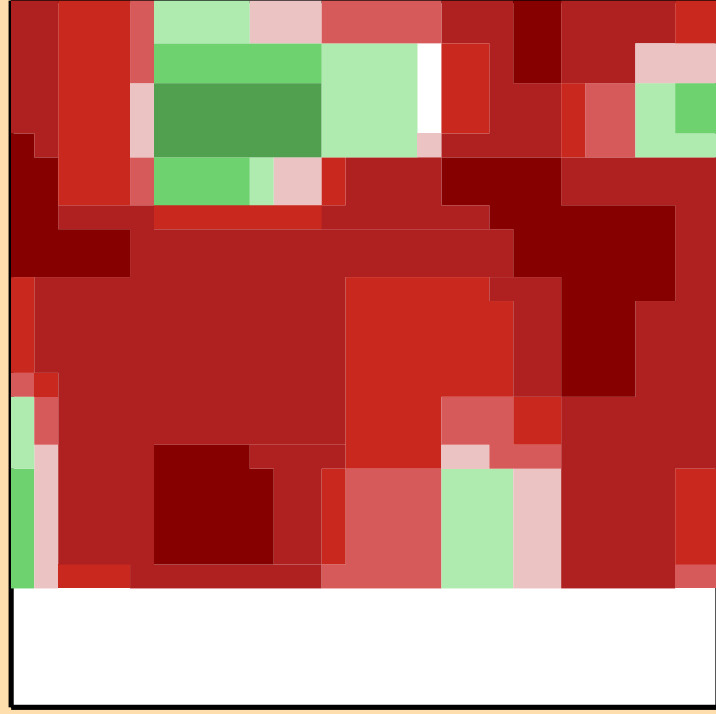
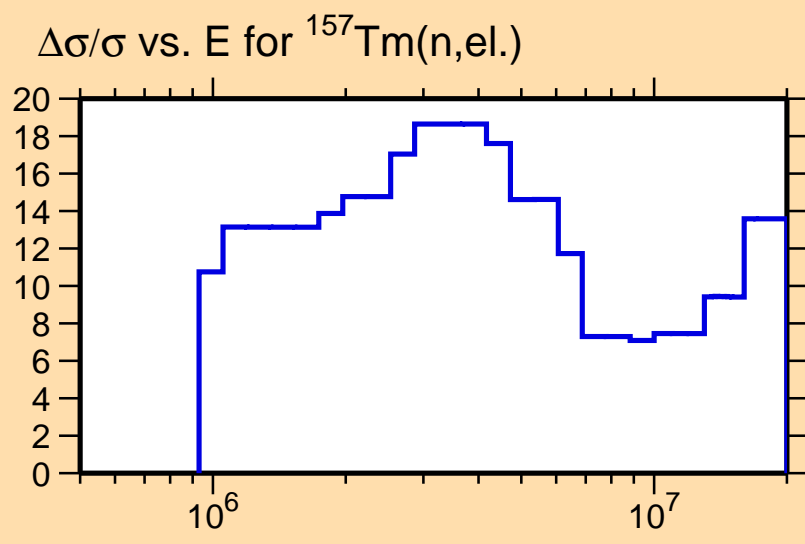




Ordinate scale is %
relative standard deviation.

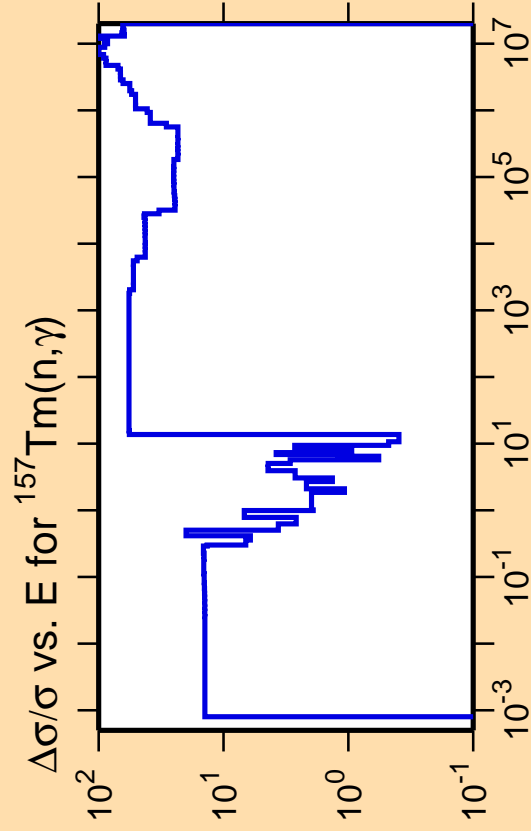
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix



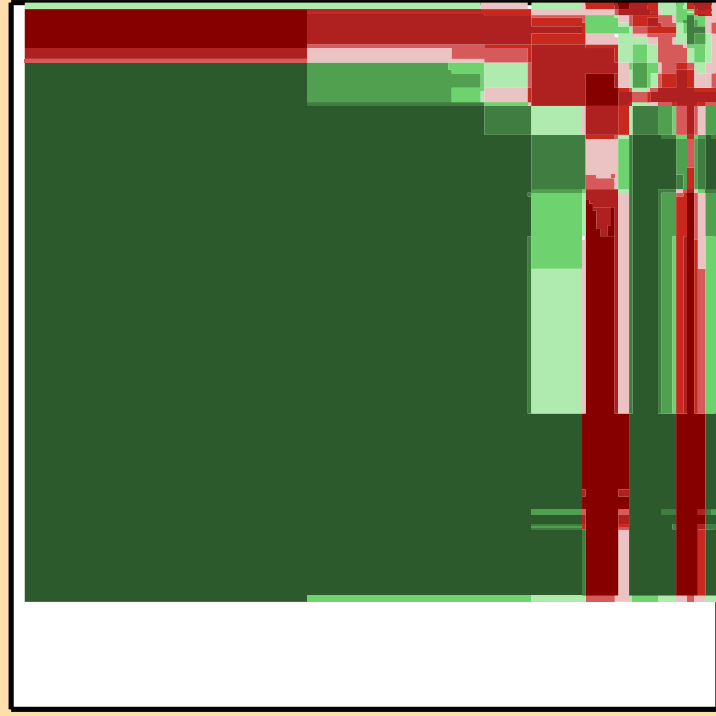
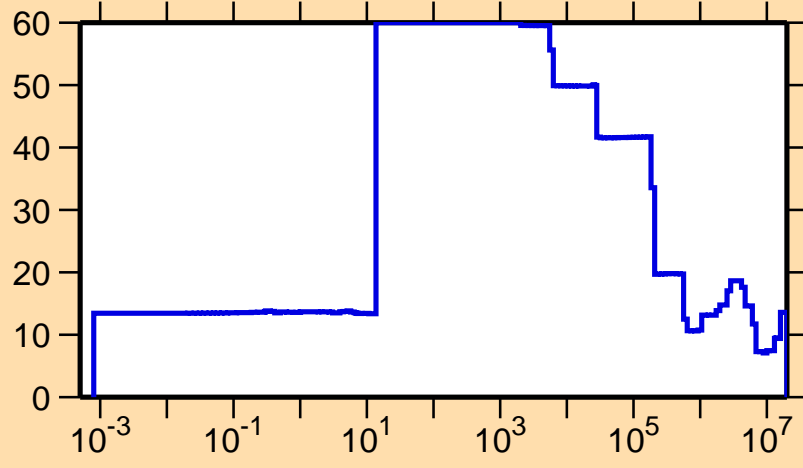


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

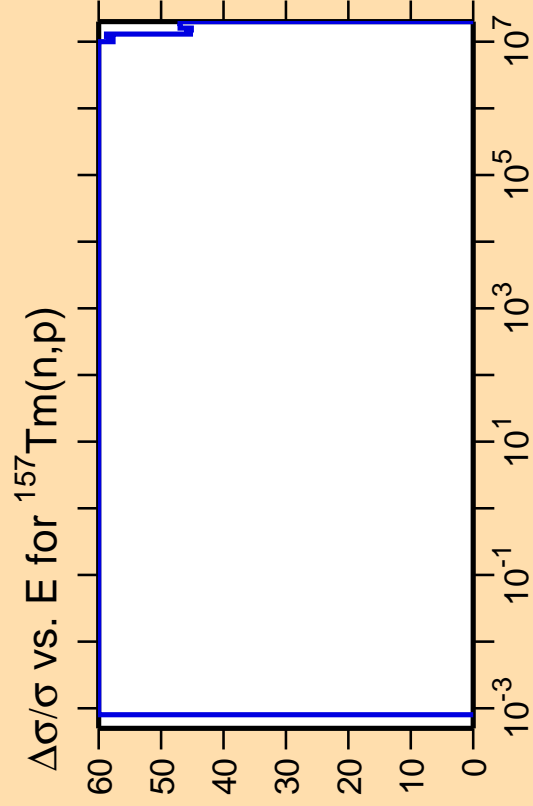
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix



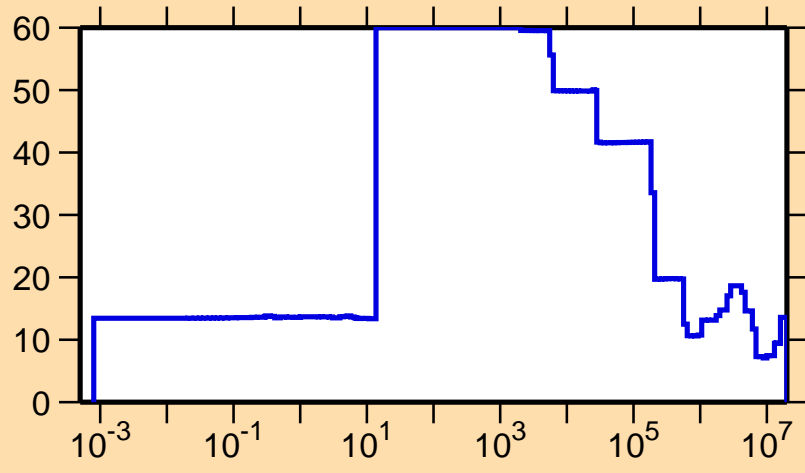


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

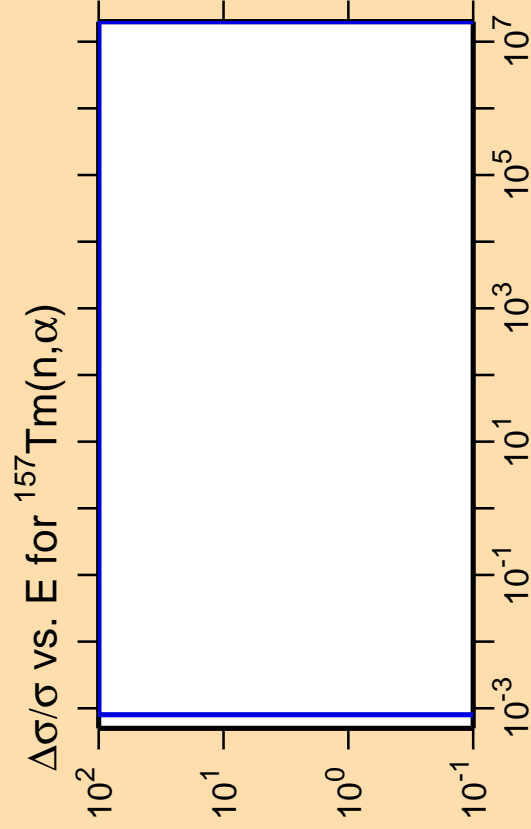
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix



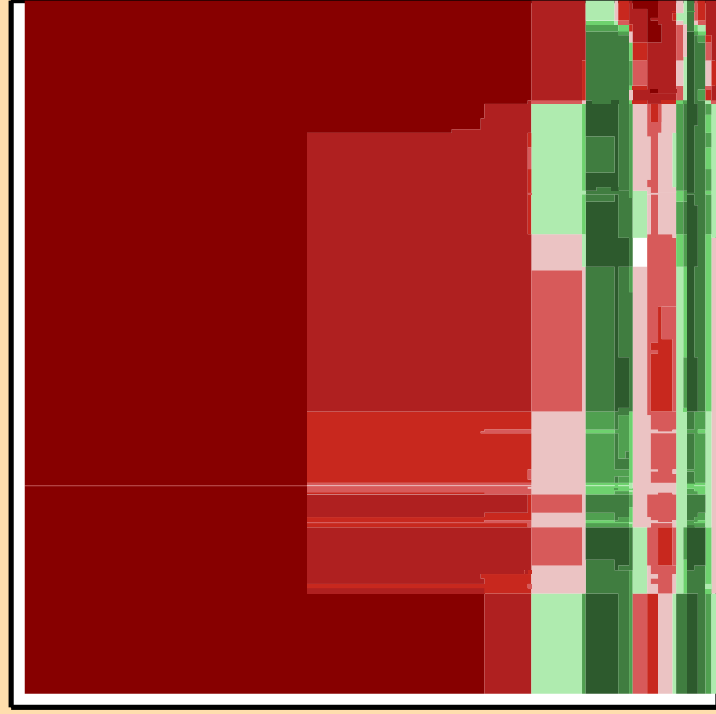
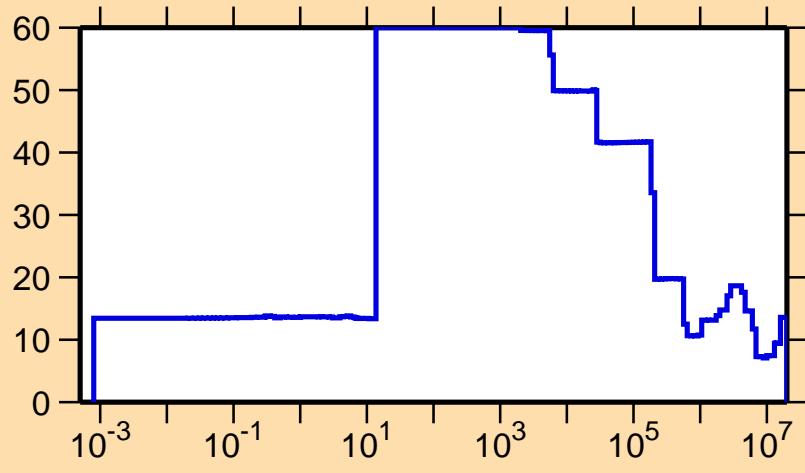


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

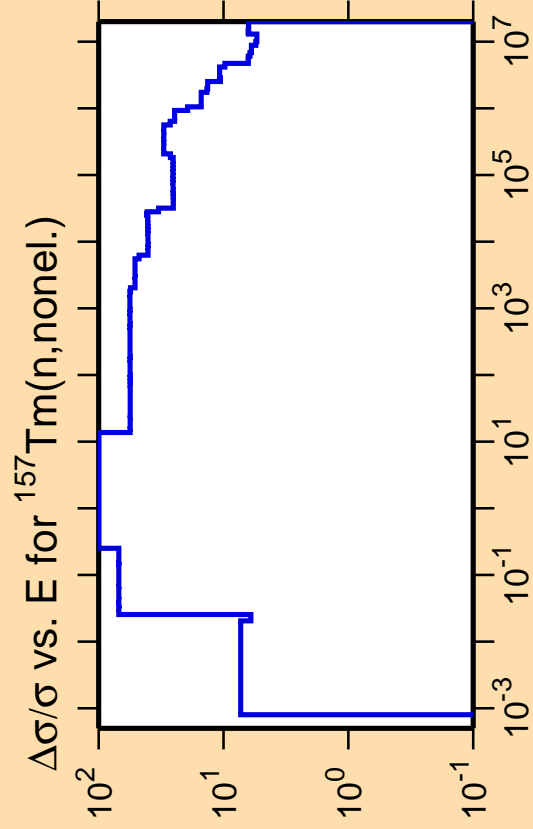
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{el.})$



Correlation Matrix

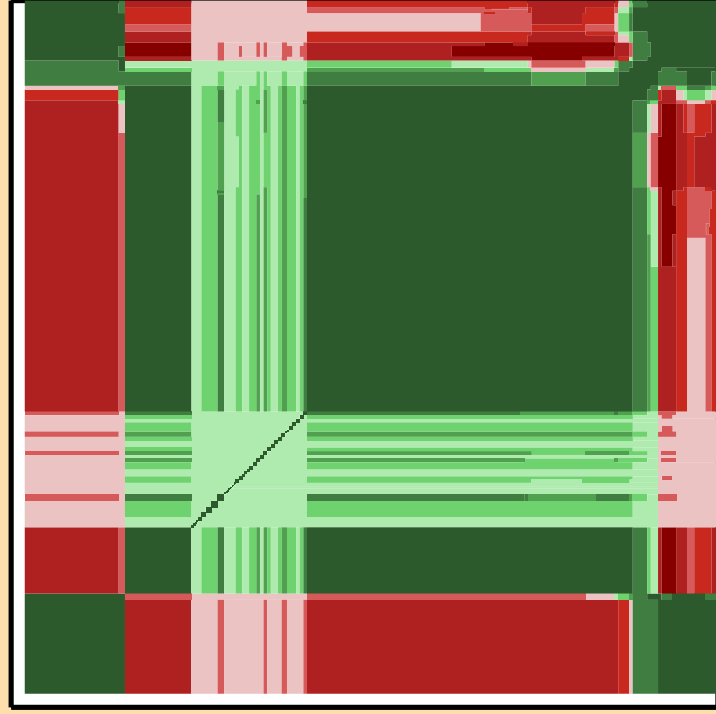
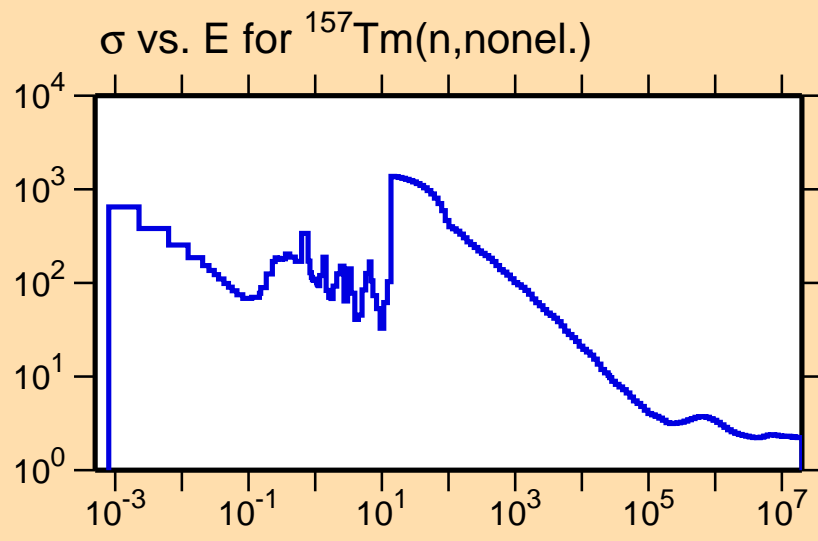




Ordinate scales are % relative standard deviation and barns.

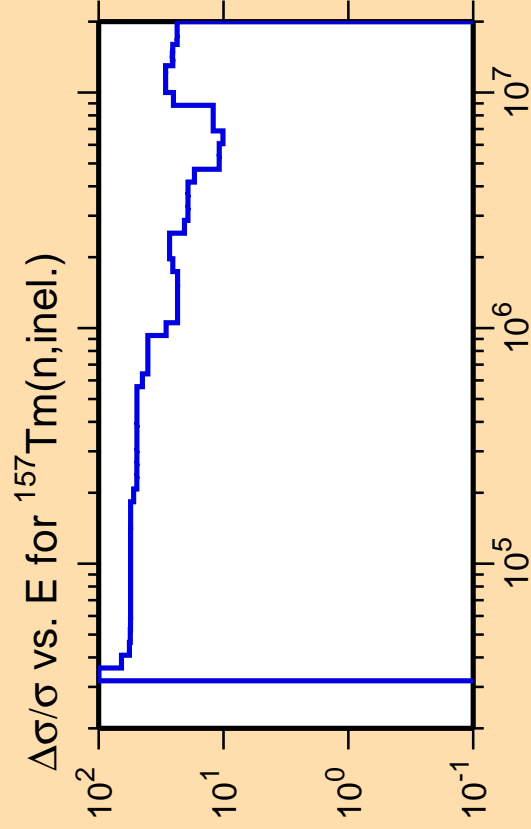
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix



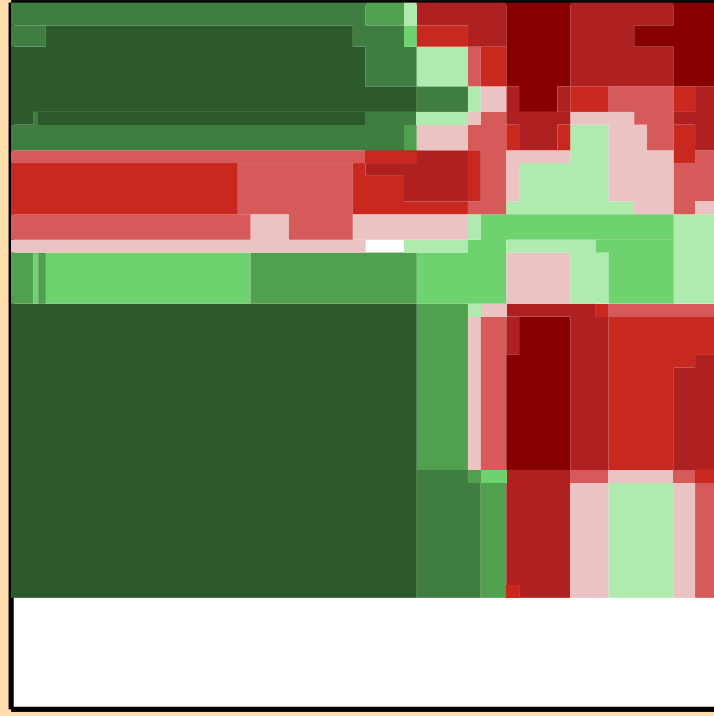
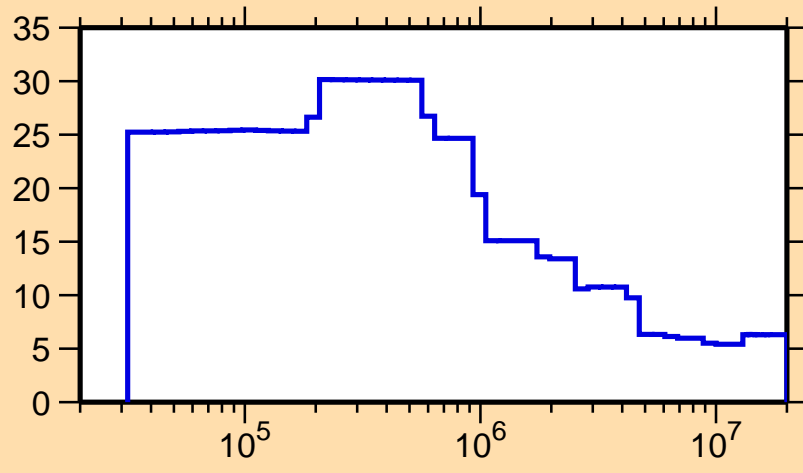


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

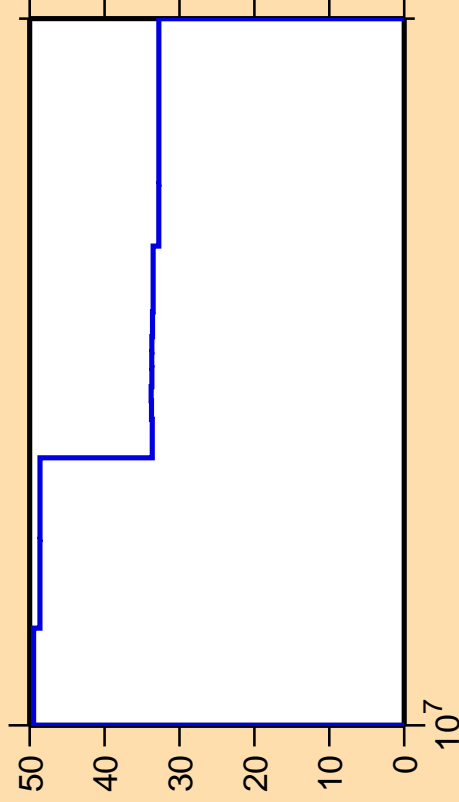
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix



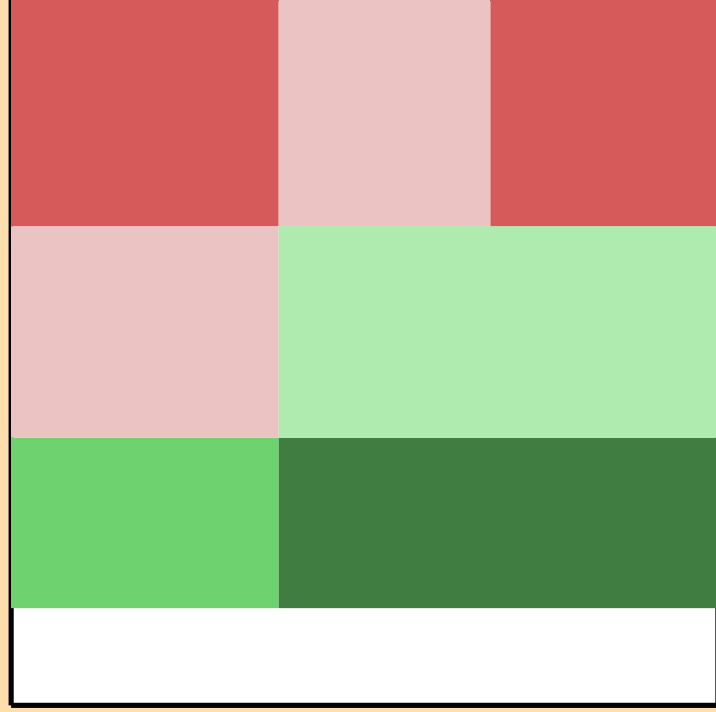
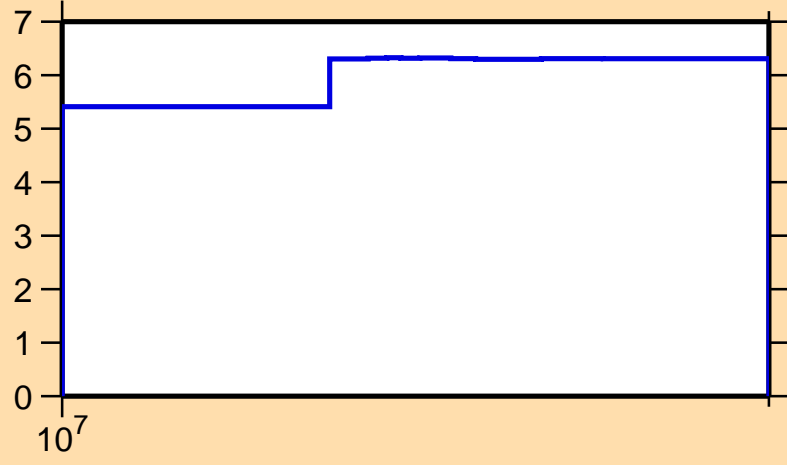
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Ordinate scale is %
relative standard deviation.

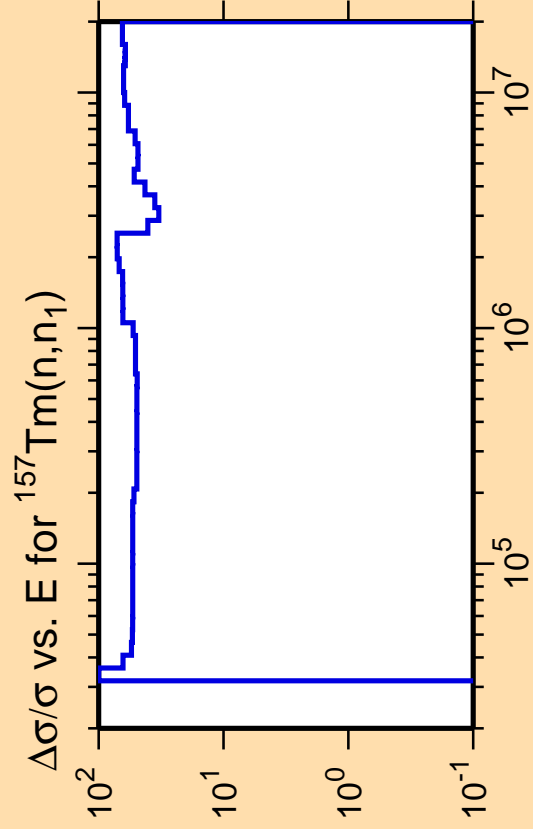
Abscissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix



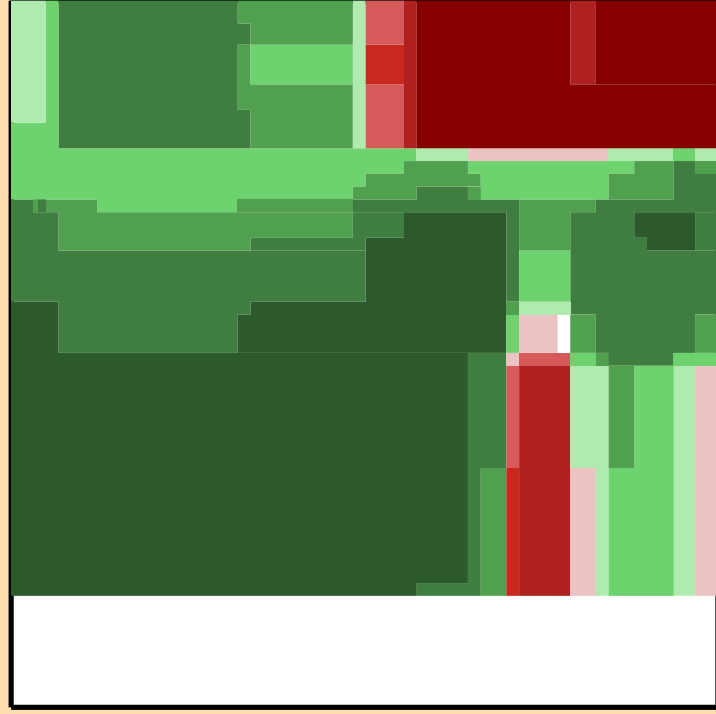
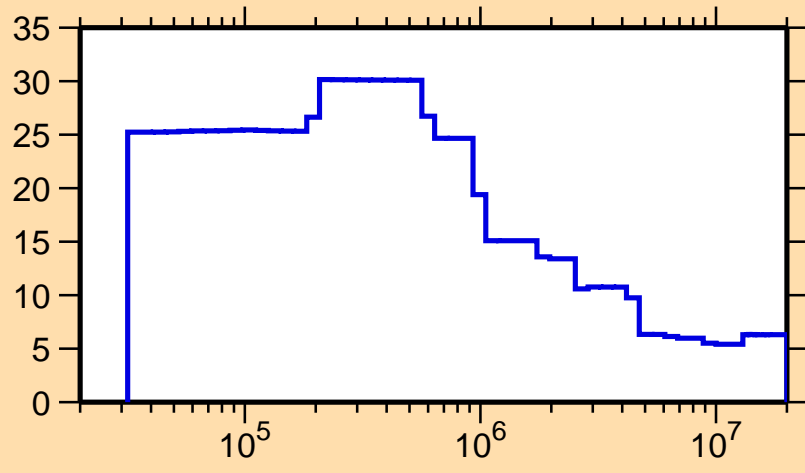


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

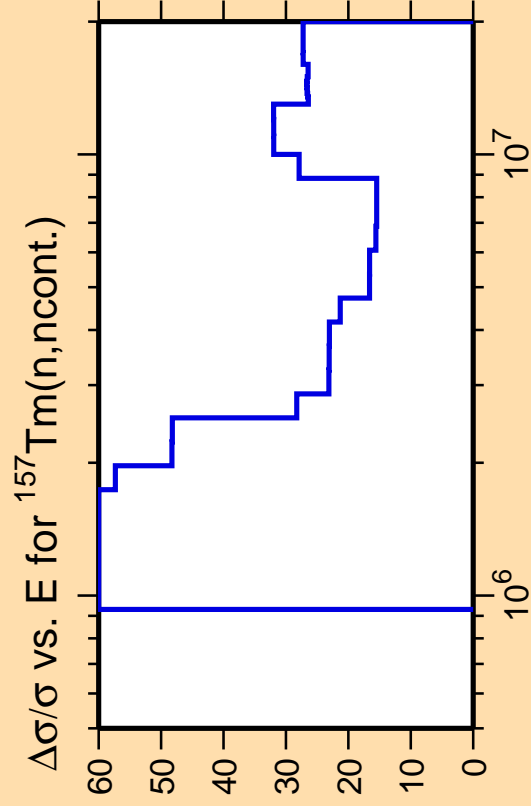
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix



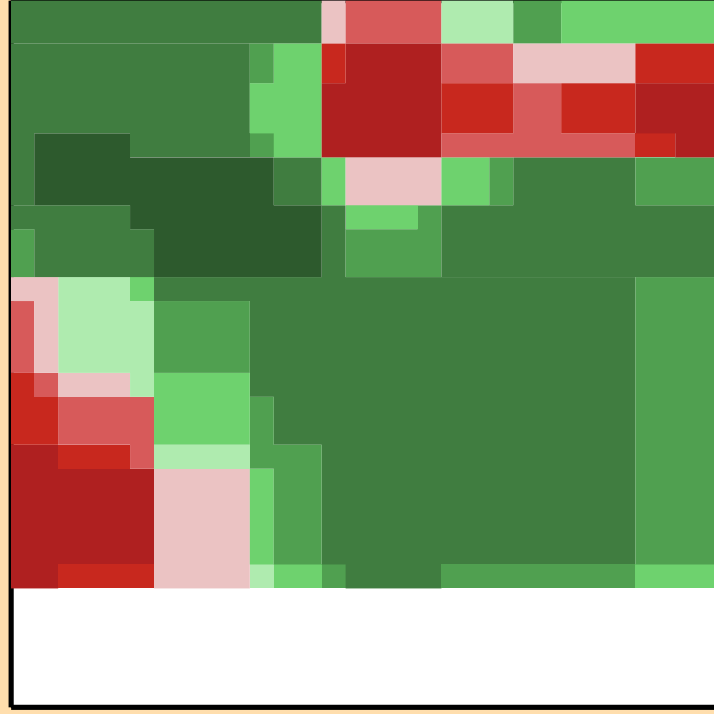
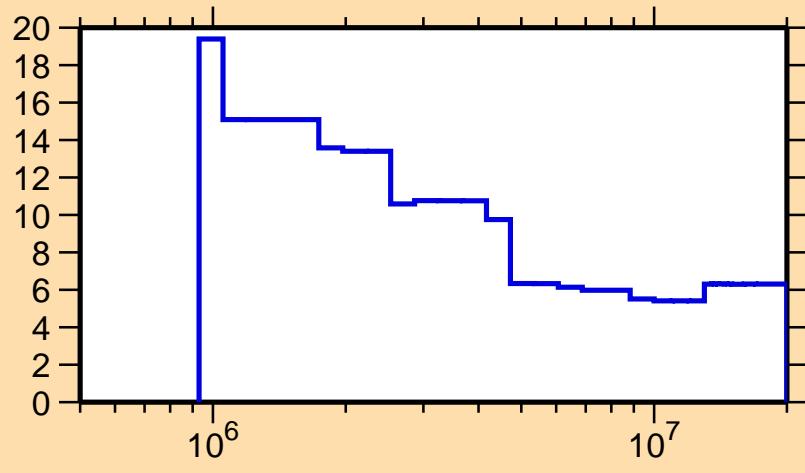


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

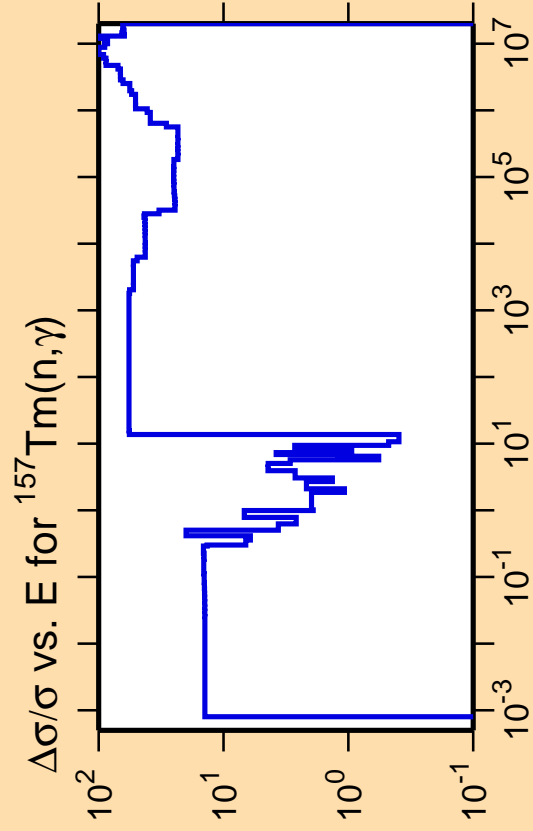
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n, \text{nonel.})$



Correlation Matrix



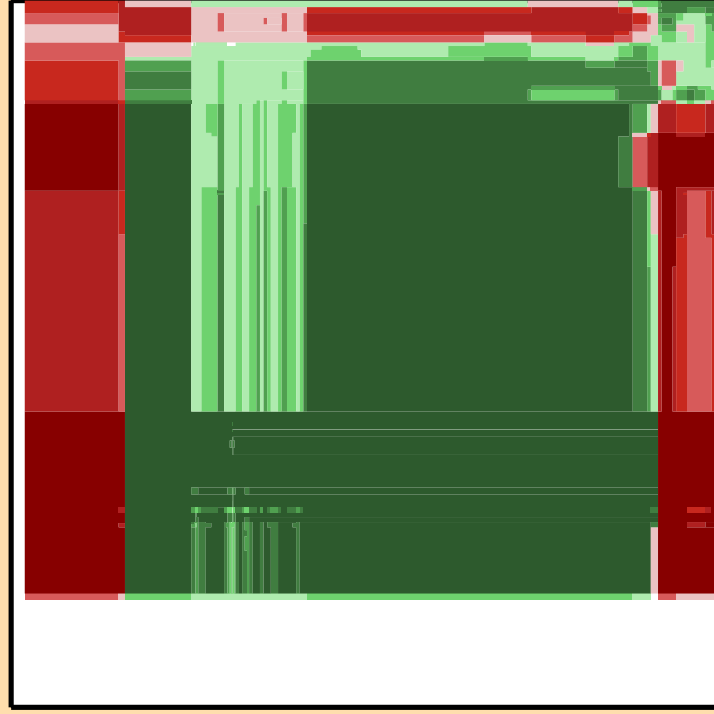
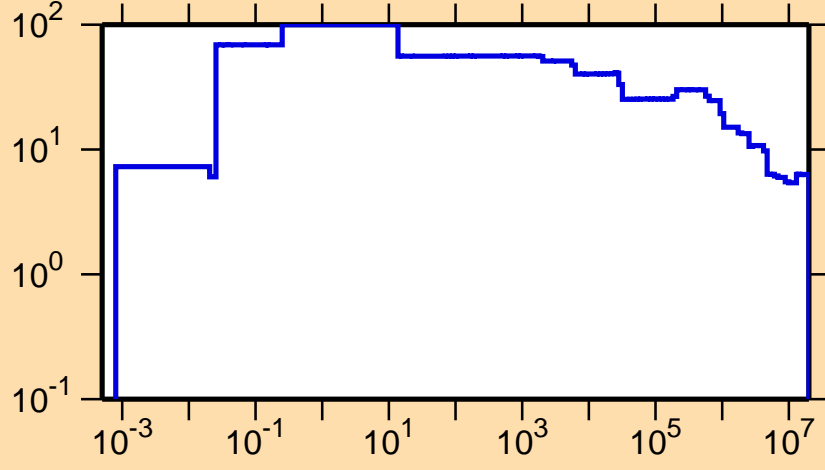


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

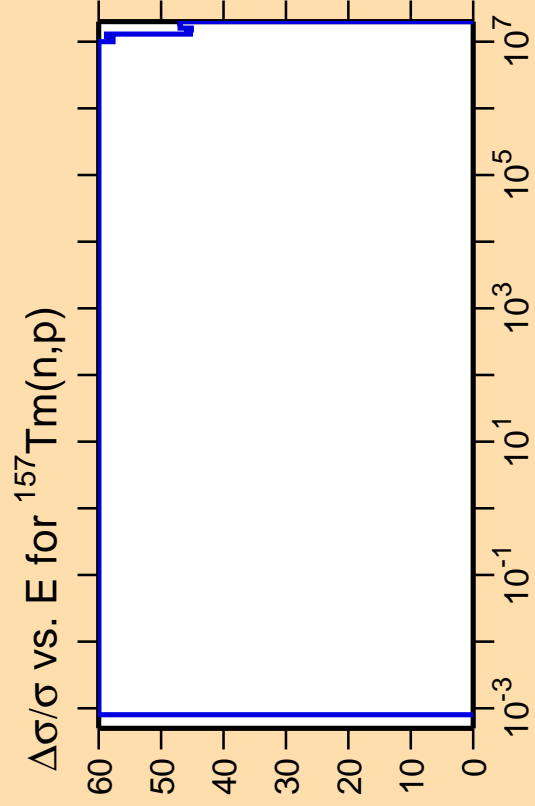
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix



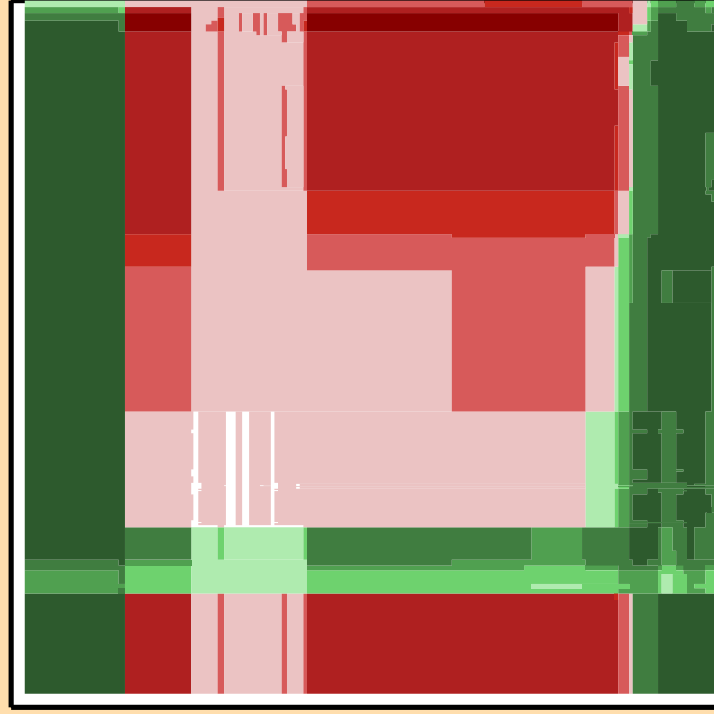
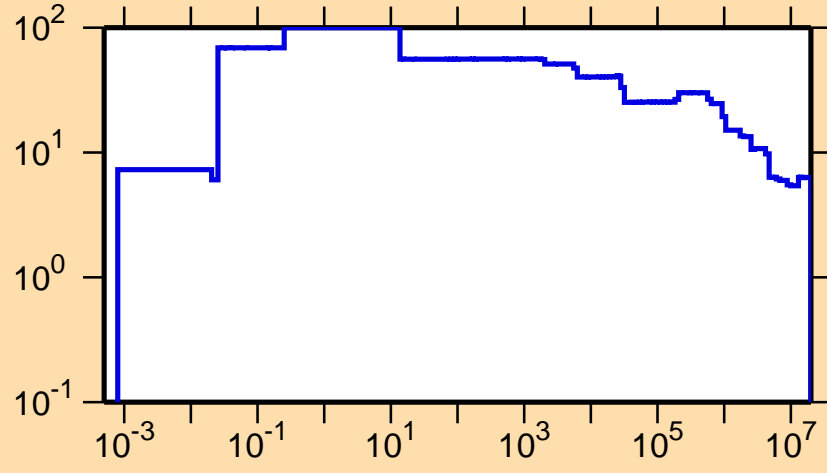


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

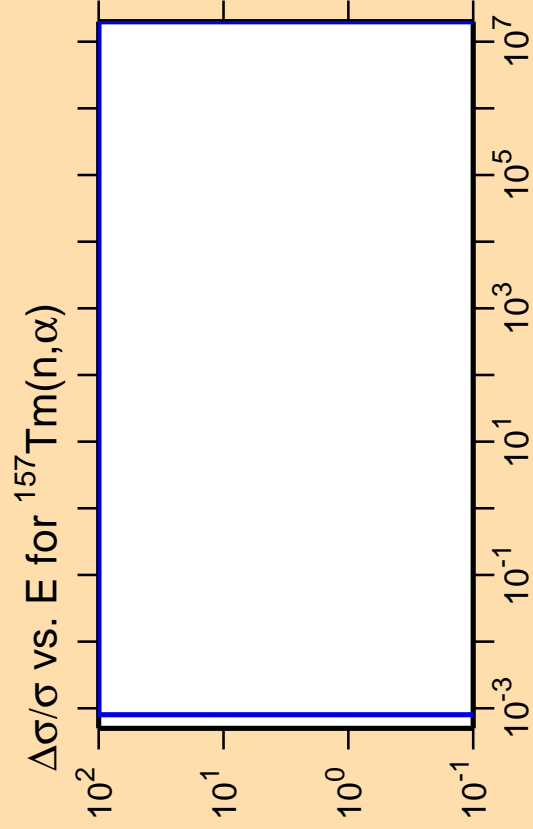
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix



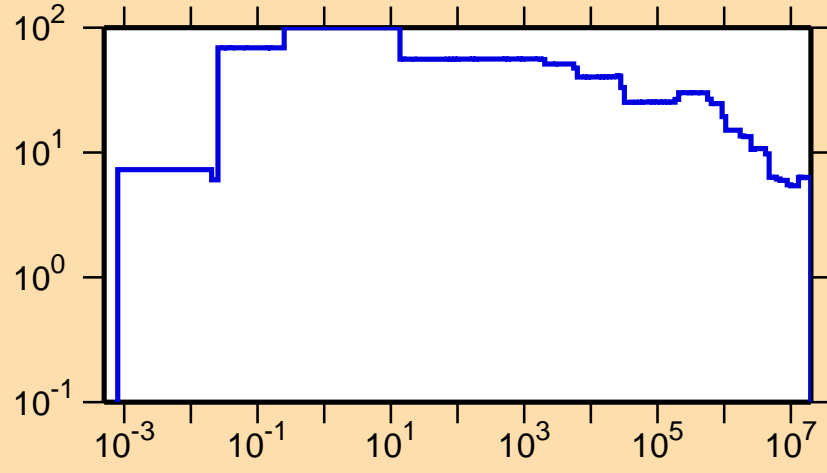


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

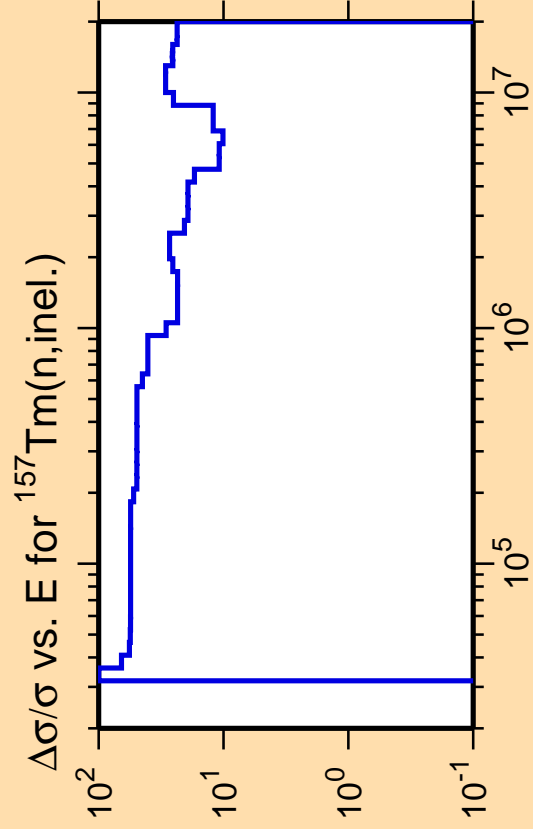
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{nonel.})$



Correlation Matrix

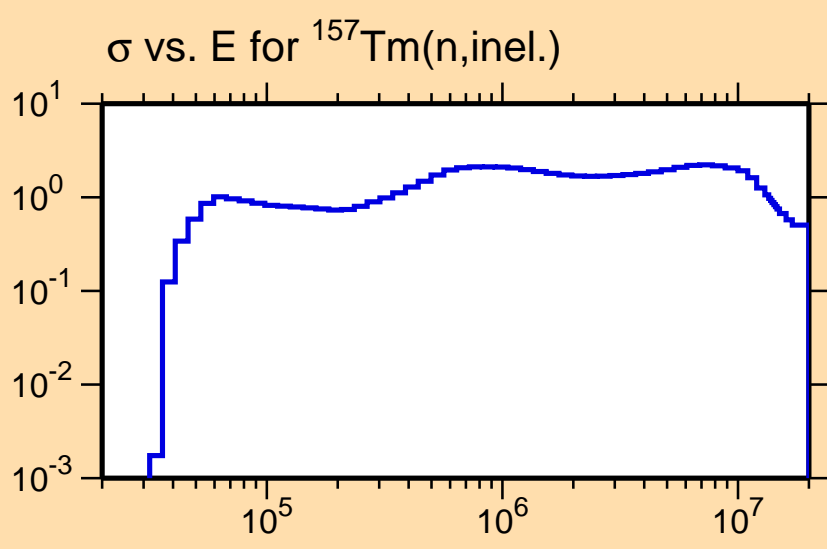




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

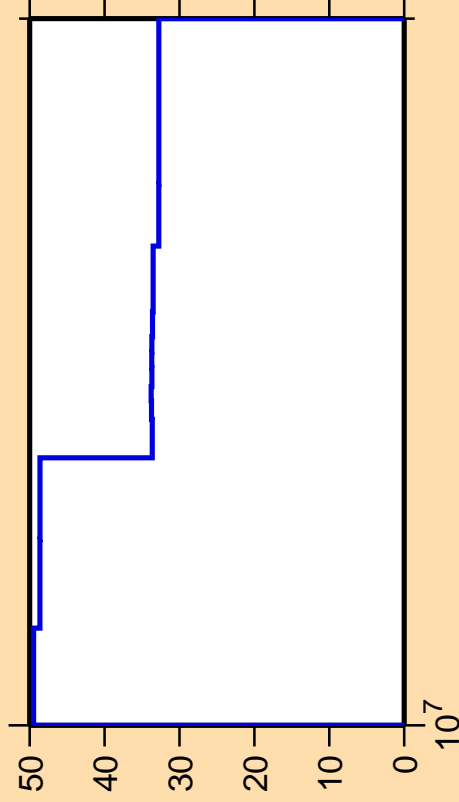
Warning: some uncertainty data were suppressed.



Correlation Matrix



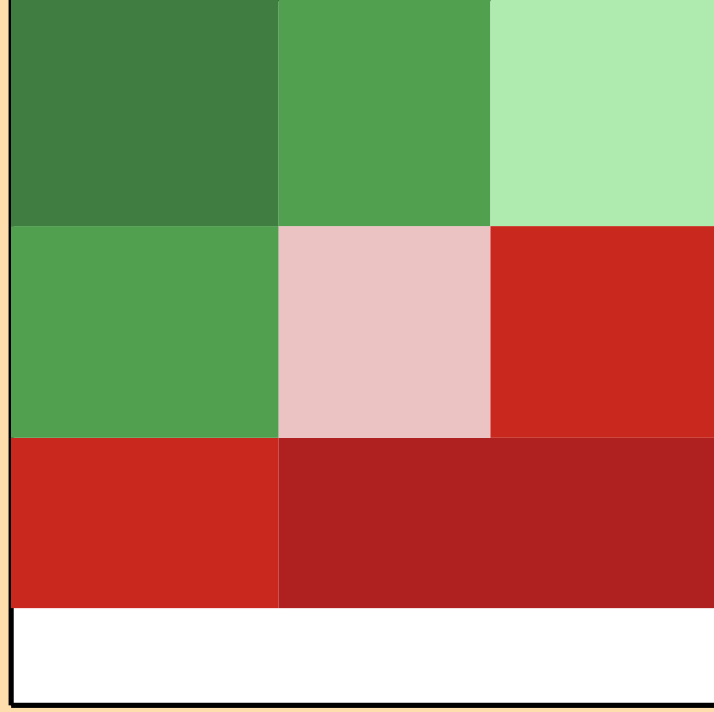
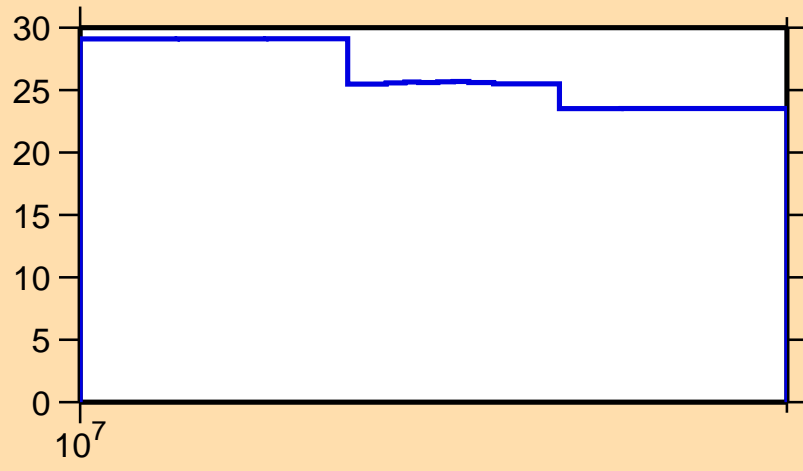
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Ordinate scale is %
relative standard deviation.

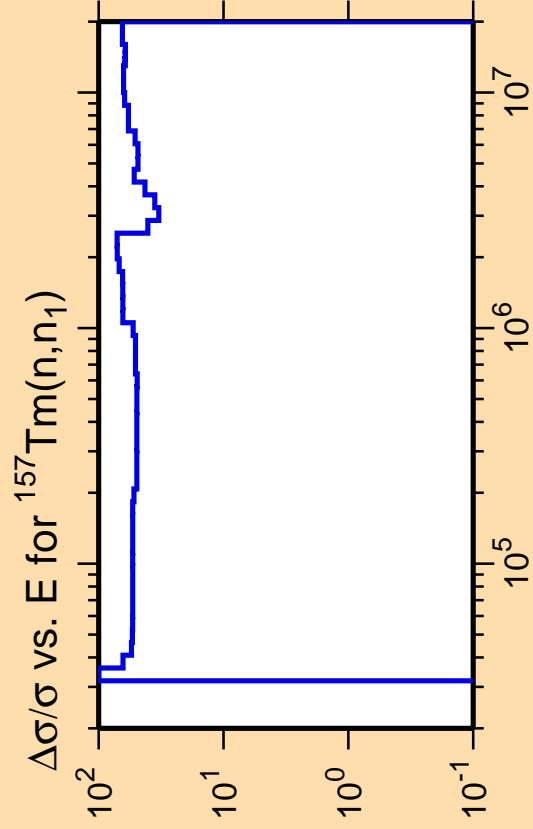
Abcissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{inel.})$



Correlation Matrix

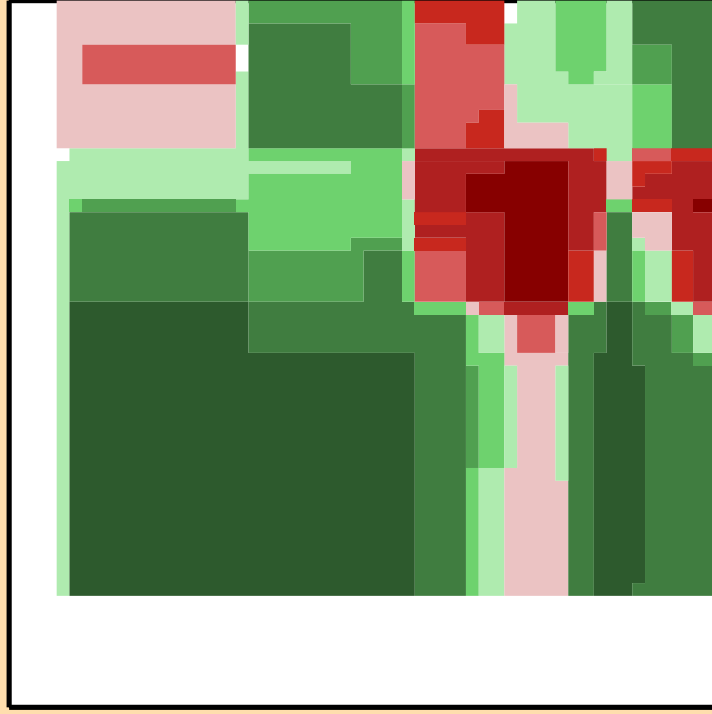
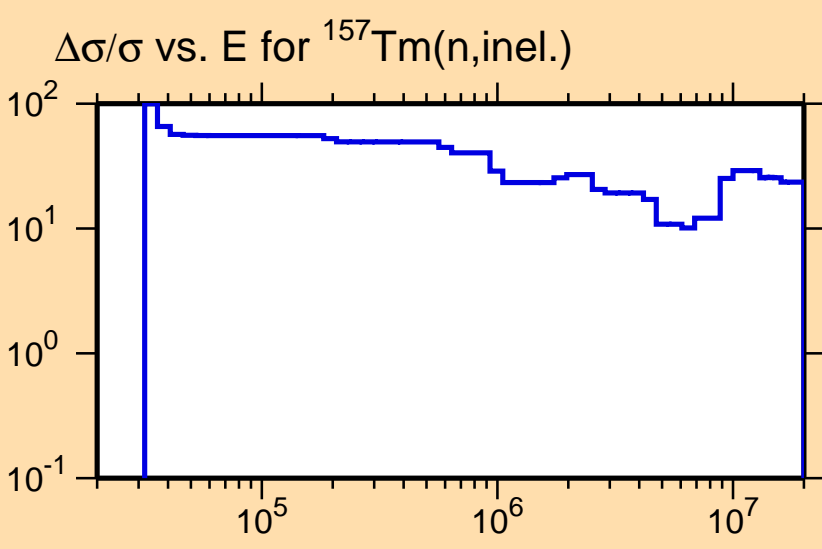




Ordinate scale is %
relative standard deviation.

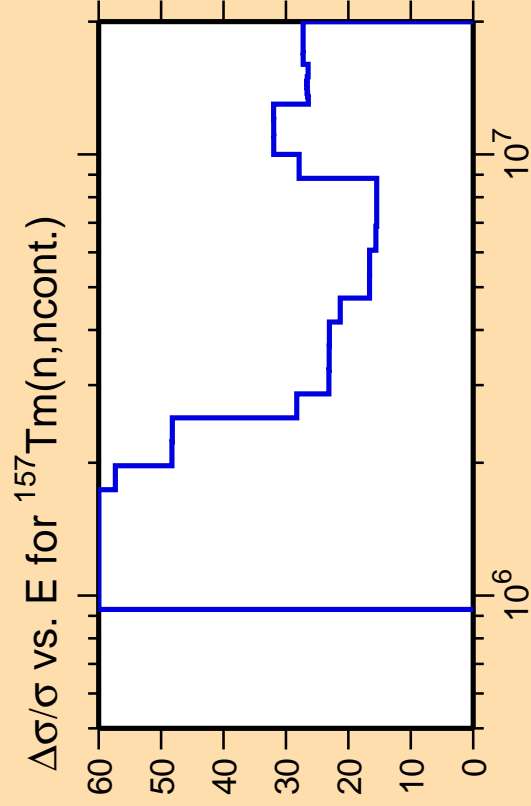
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix



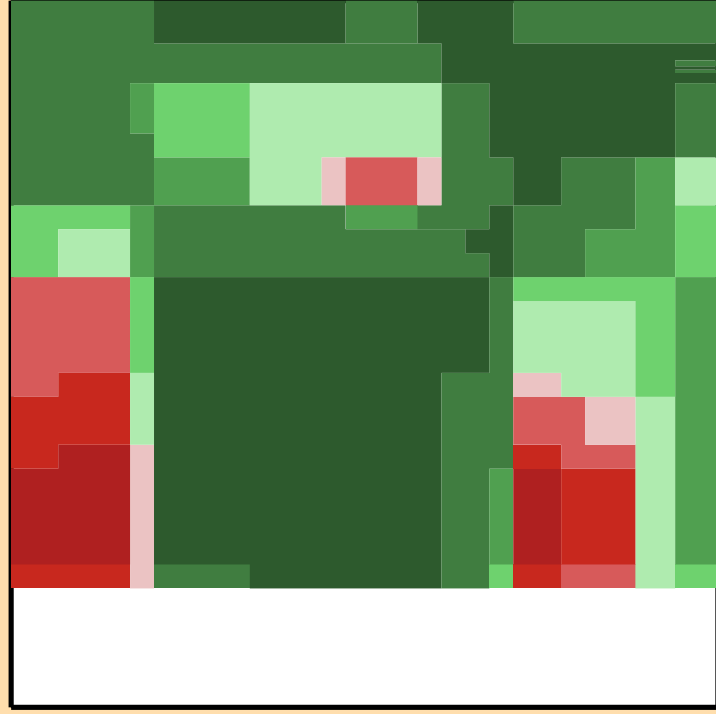
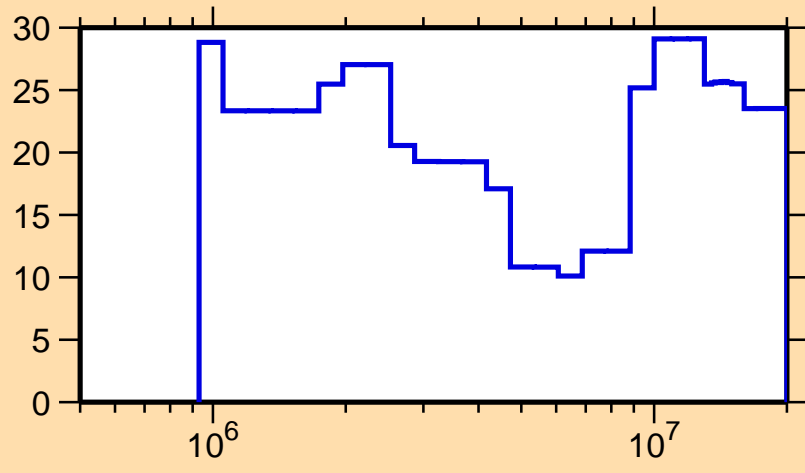


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

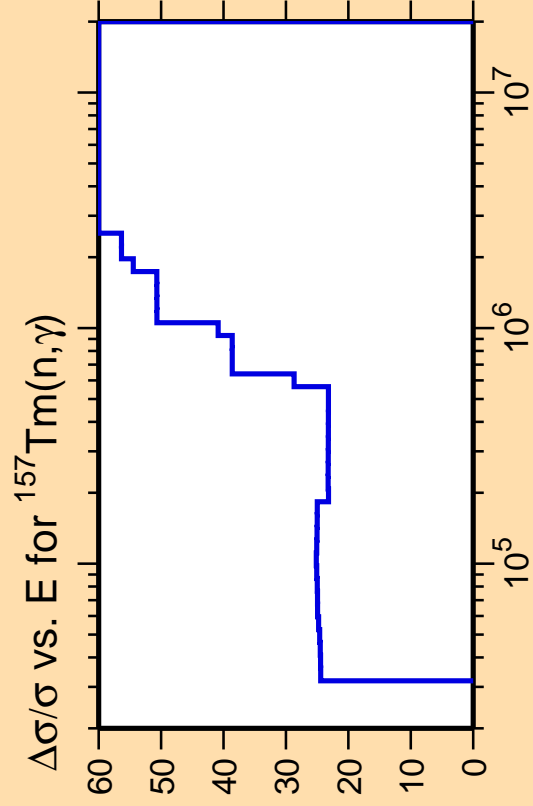
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{inel.})$



Correlation Matrix



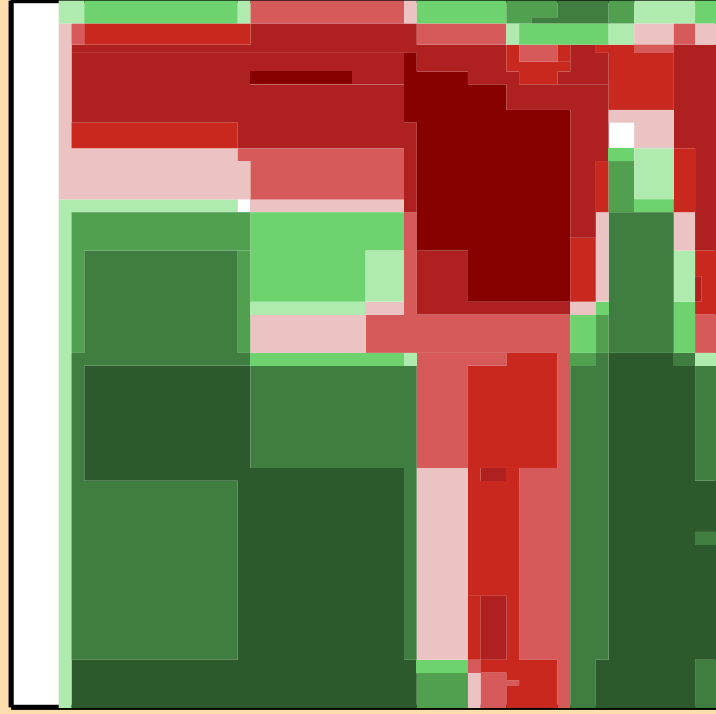
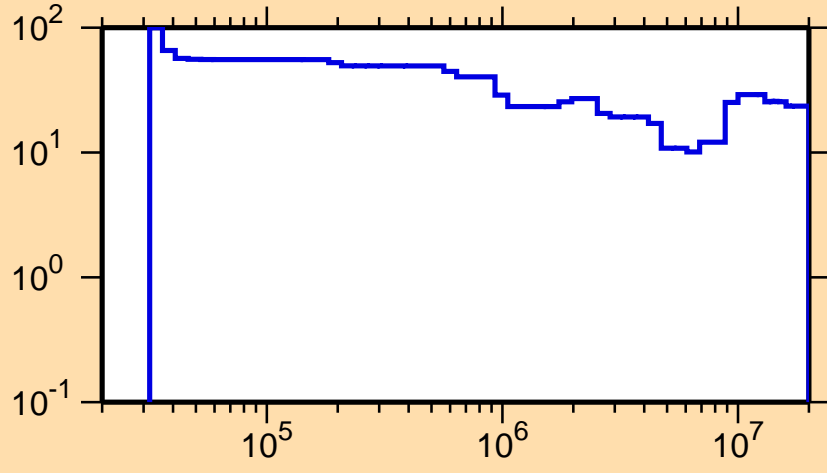


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

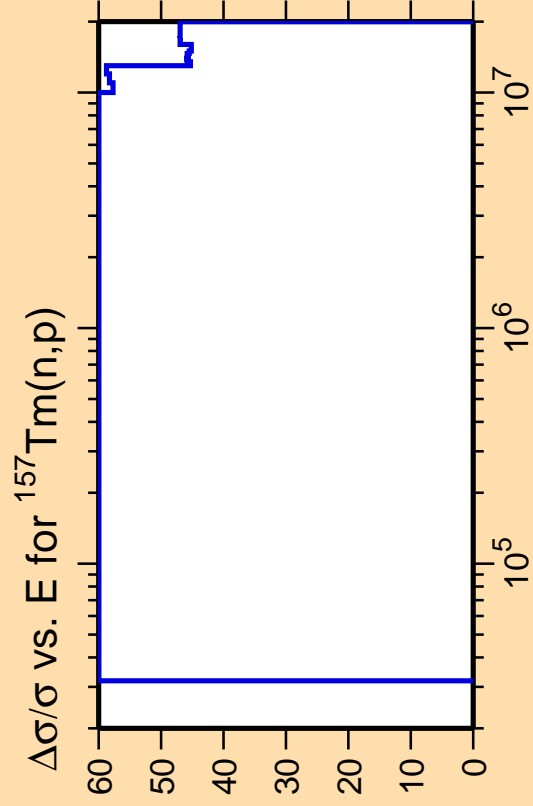
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{inel.})$



Correlation Matrix

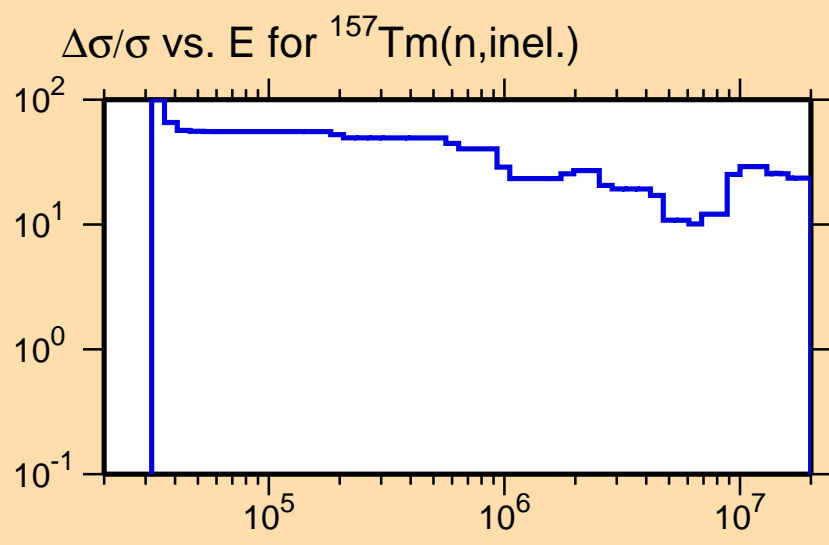




Ordinate scale is %
relative standard deviation.

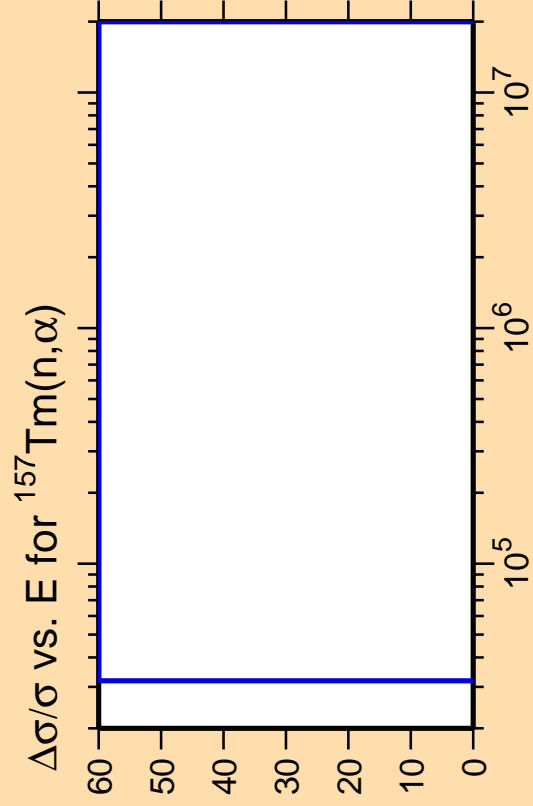
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix

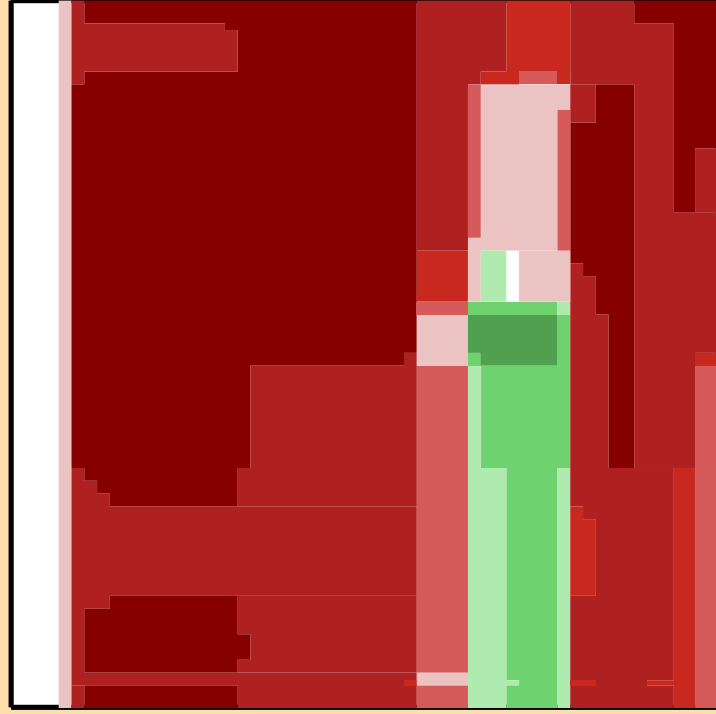
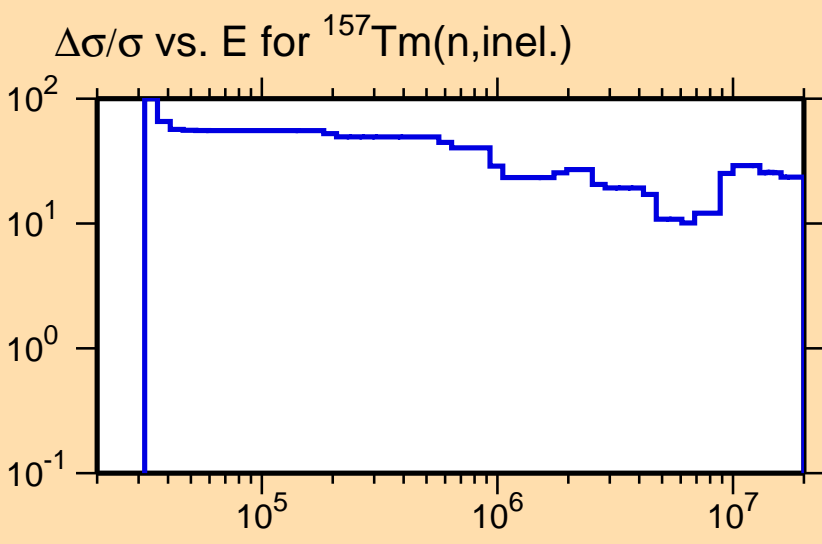




Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

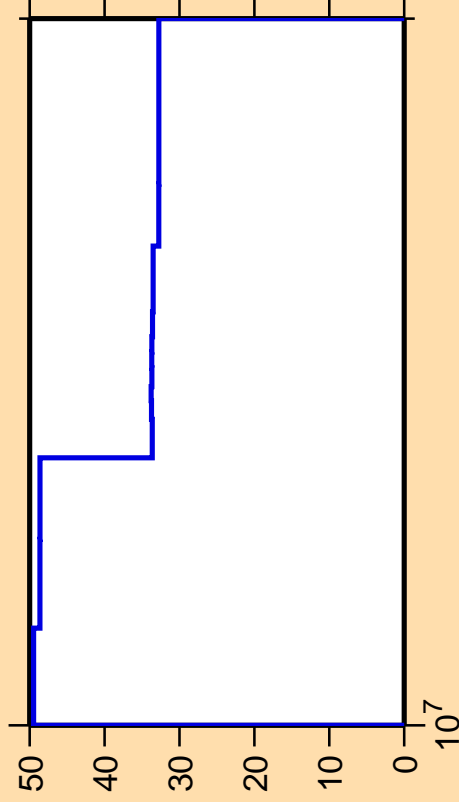
Warning: some uncertainty
data were suppressed.



Correlation Matrix



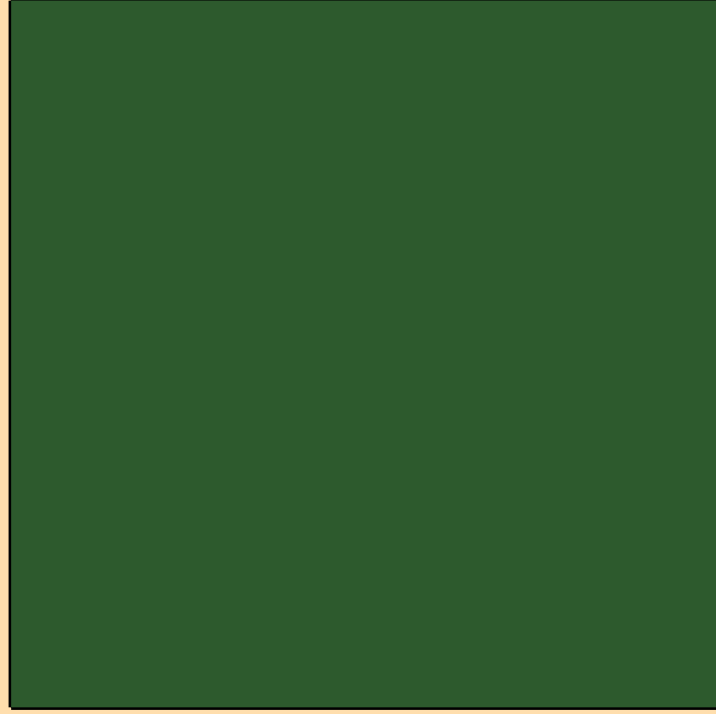
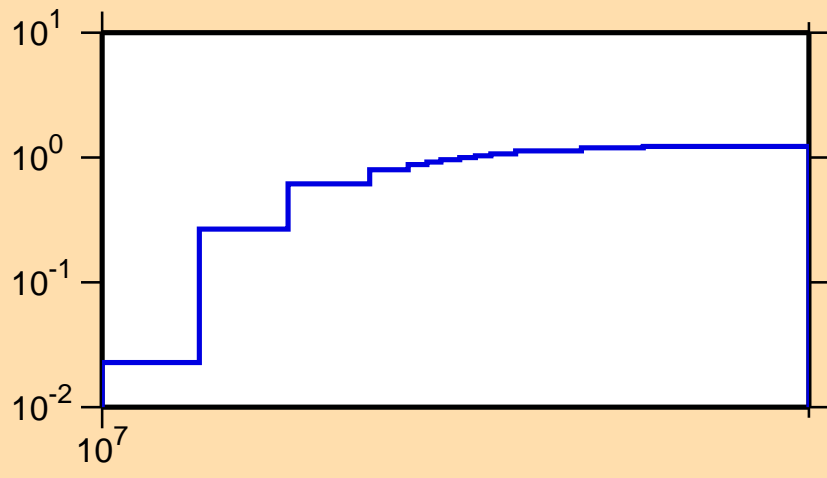
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

σ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,n_1)$

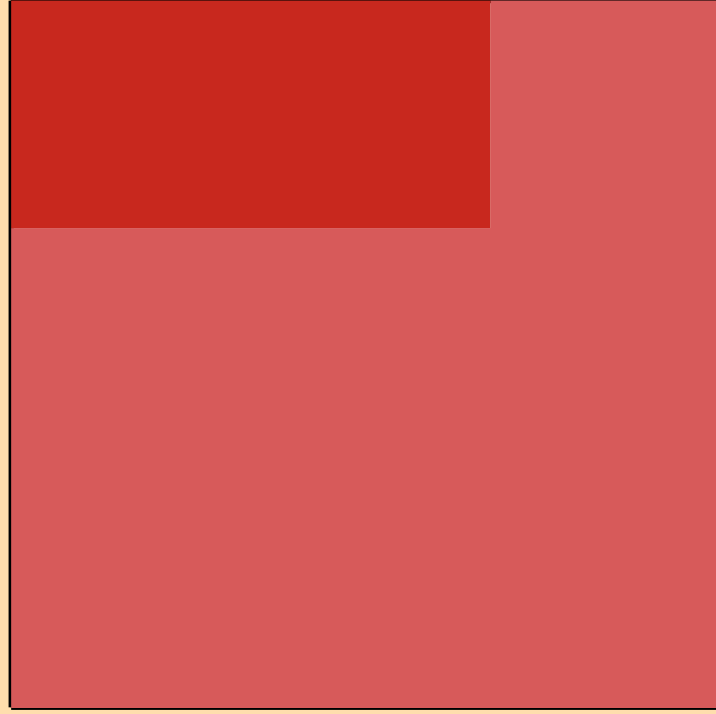
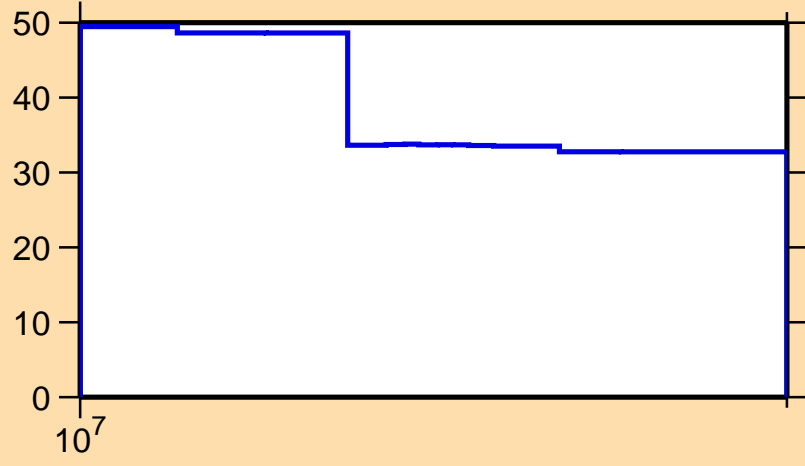


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

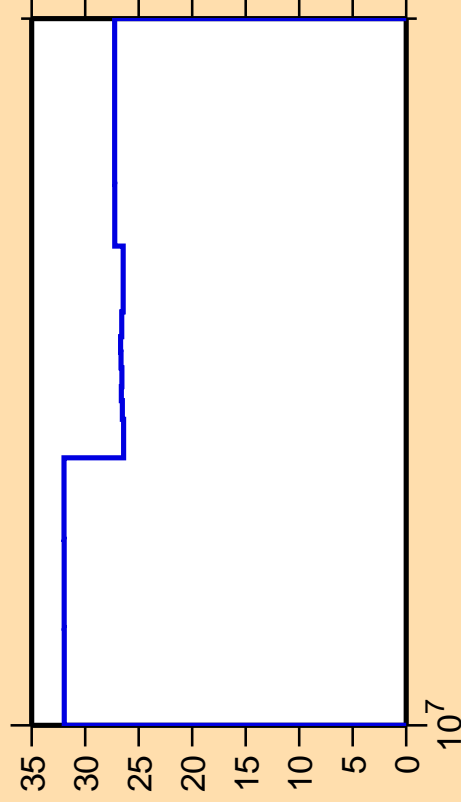
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



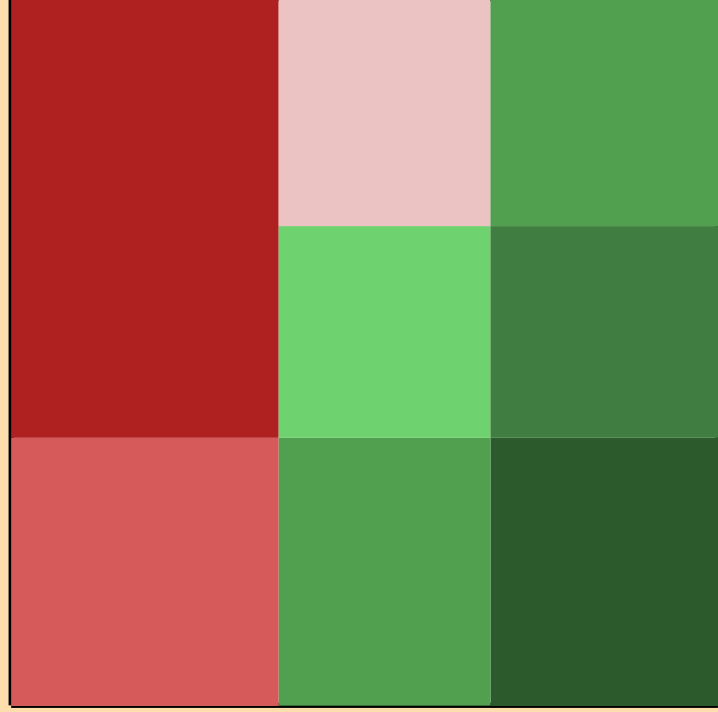
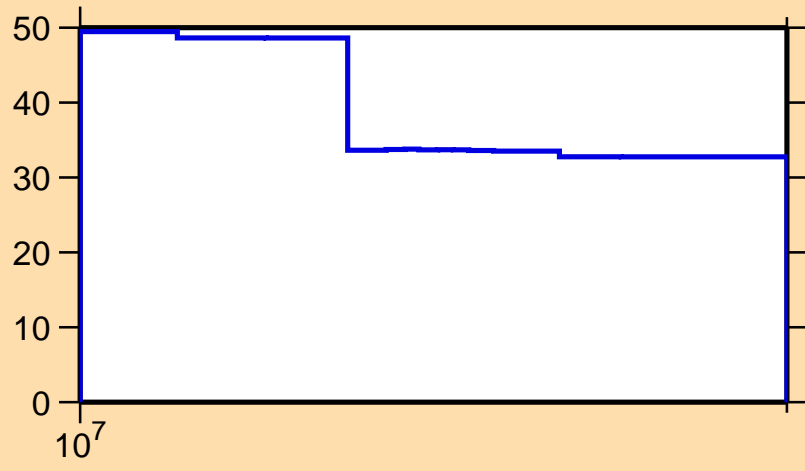
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,n_{\text{cont}})$.



Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\gamma)$

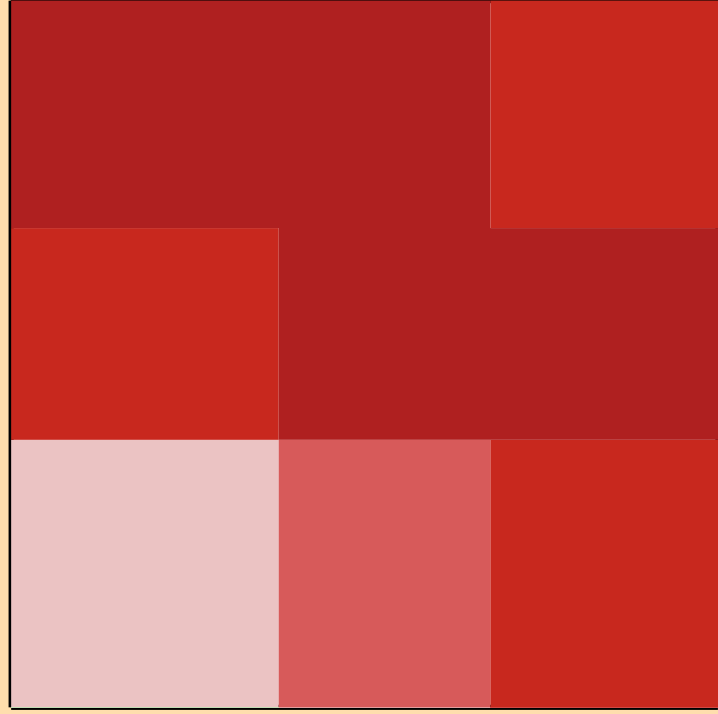
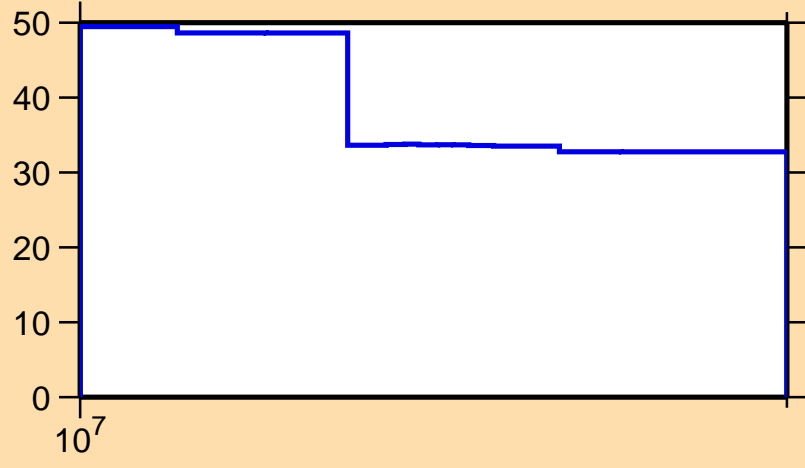


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

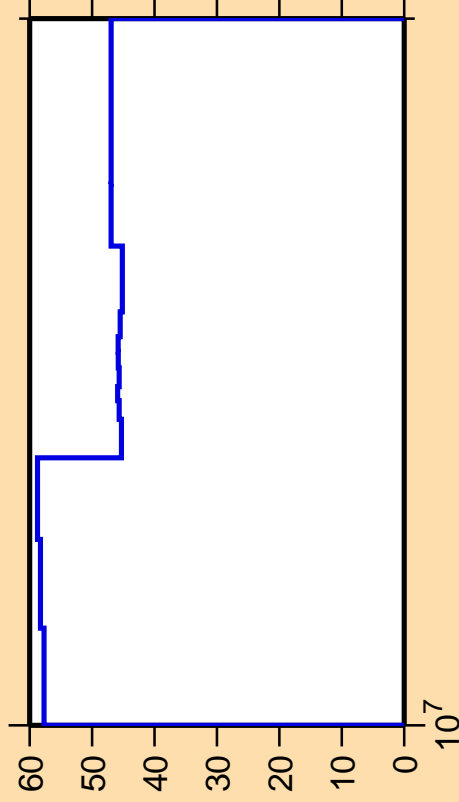
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



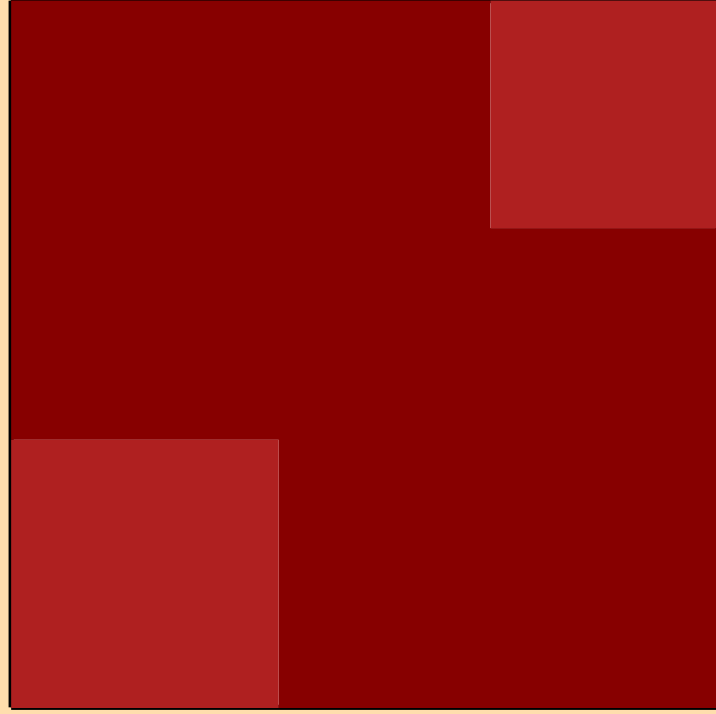
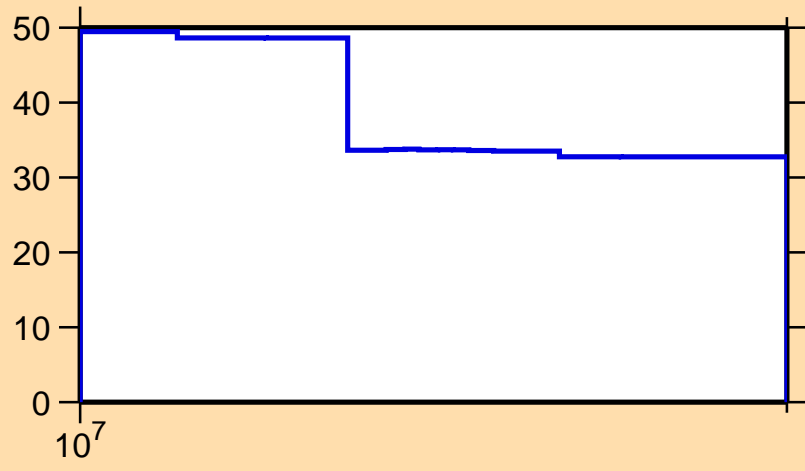
$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,p)$



Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\alpha)$

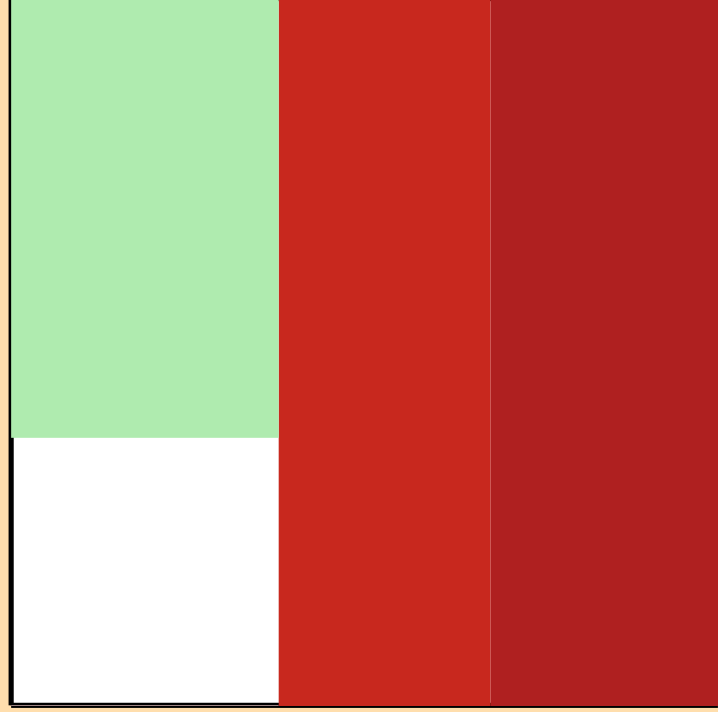
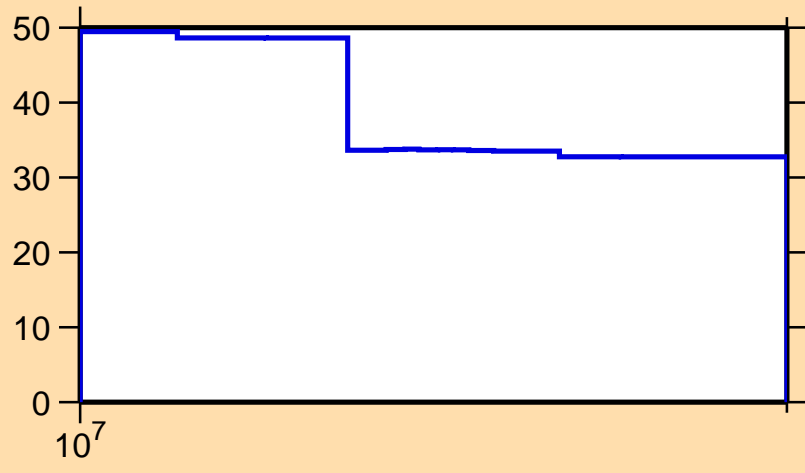


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2n)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,3n)$



Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

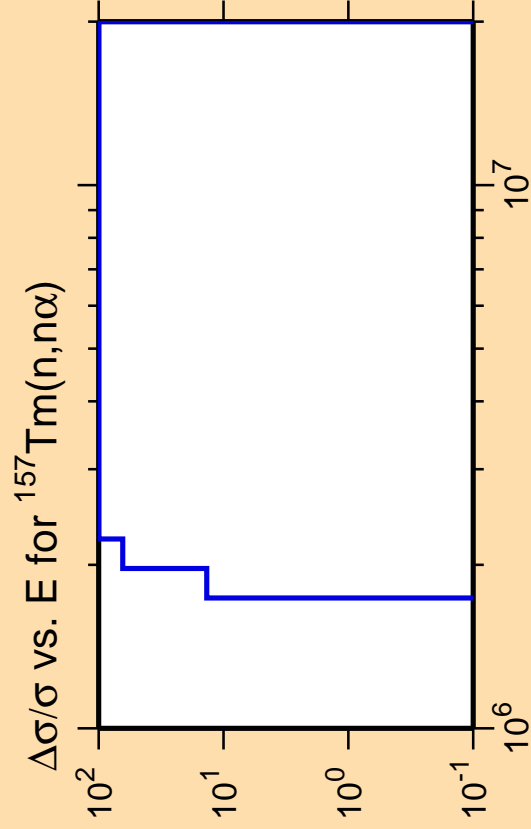
Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,3n)$



Correlation Matrix

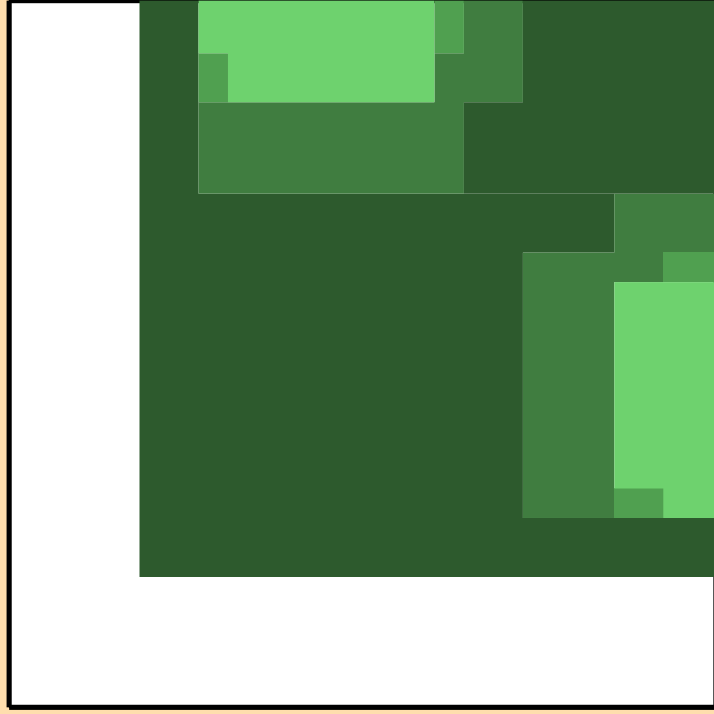
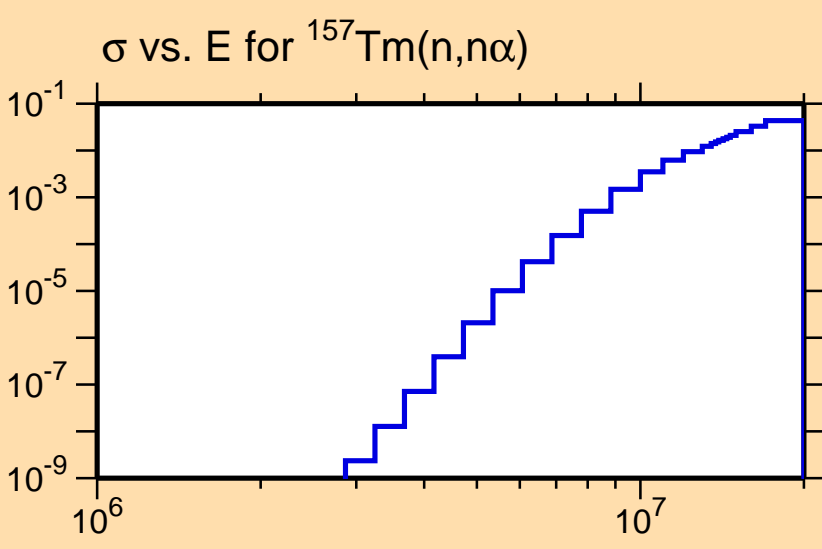




Ordinate scales are % relative standard deviation and barns.

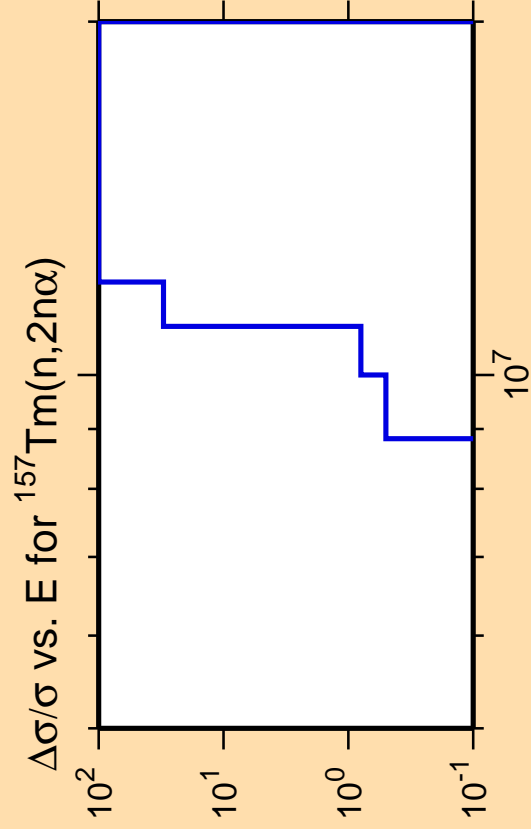
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

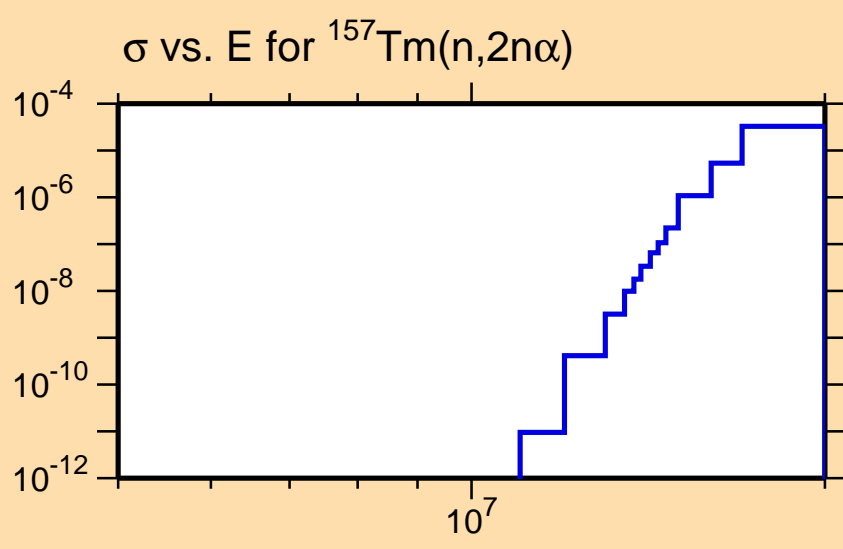




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

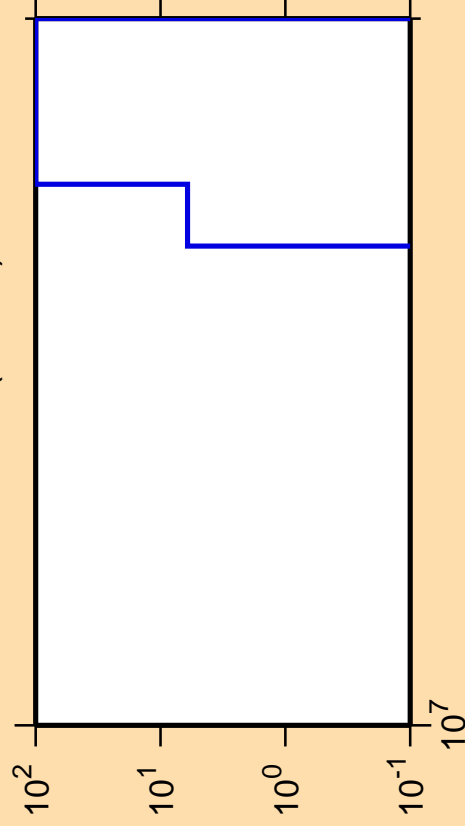
Warning: some uncertainty data were suppressed.



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,3n\alpha)$

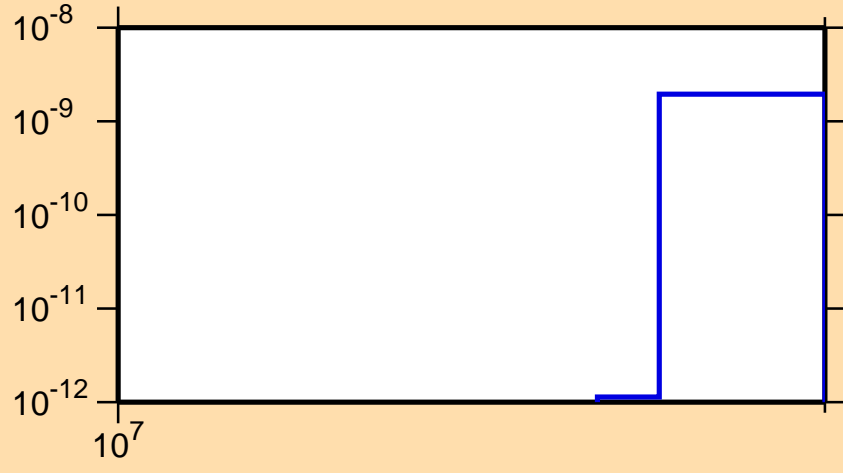


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,3n\alpha)$



10⁷

10⁻⁸

10⁻⁹

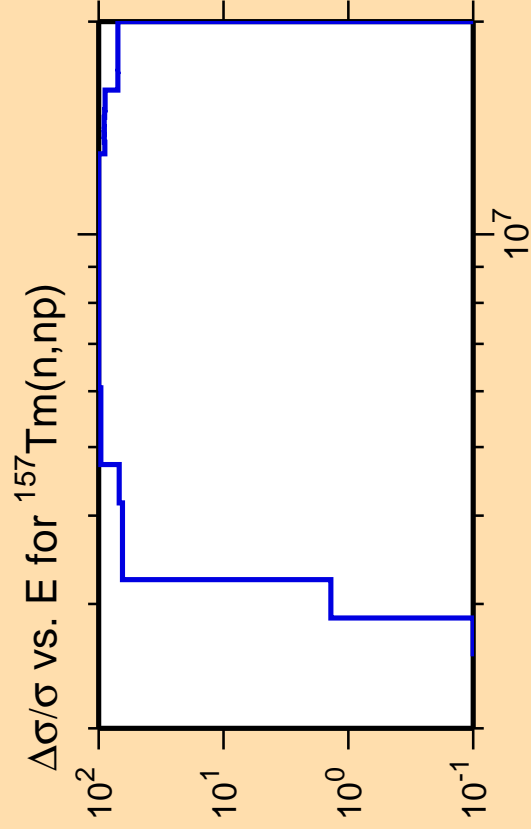
10⁻¹⁰

10⁻¹¹

10⁻¹²

Correlation Matrix

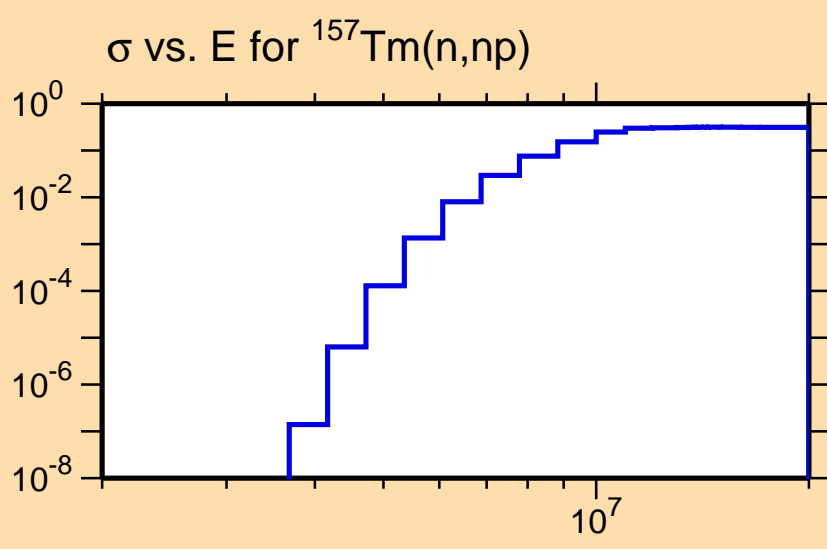




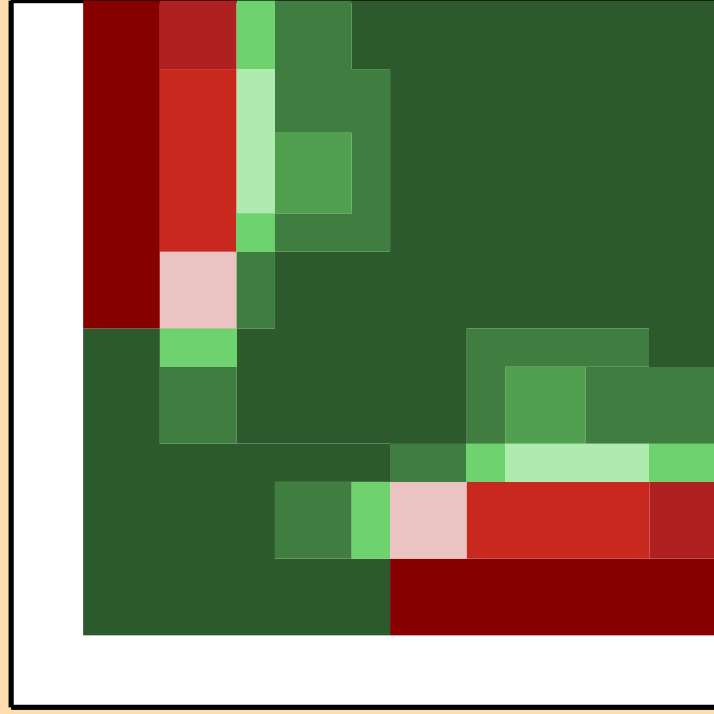
Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

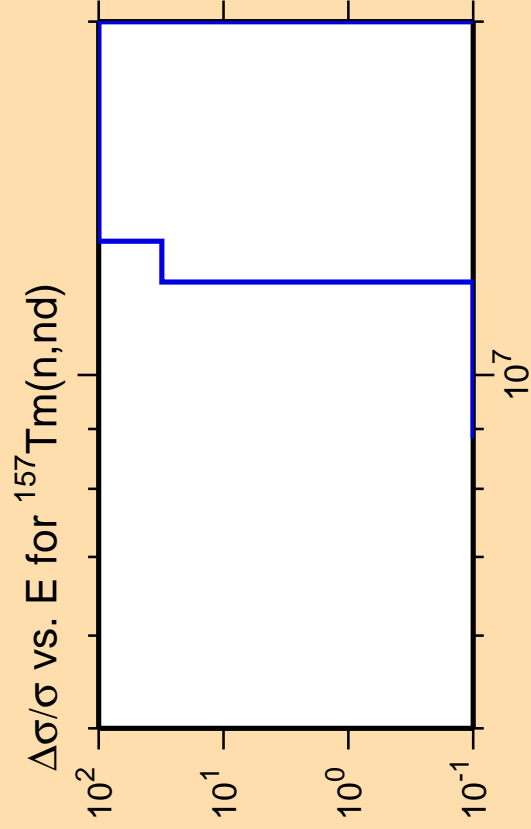


σ vs. E for $^{157}\text{Tm}(n,np)$



Correlation Matrix

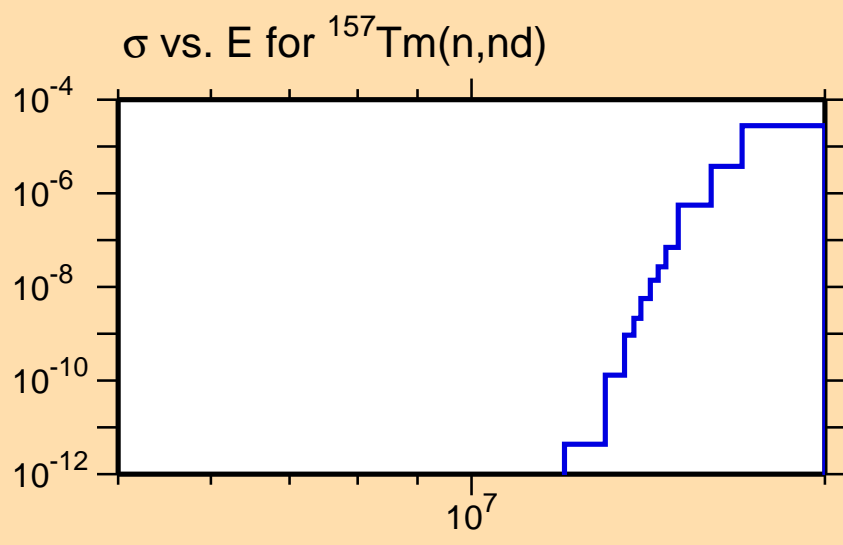




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



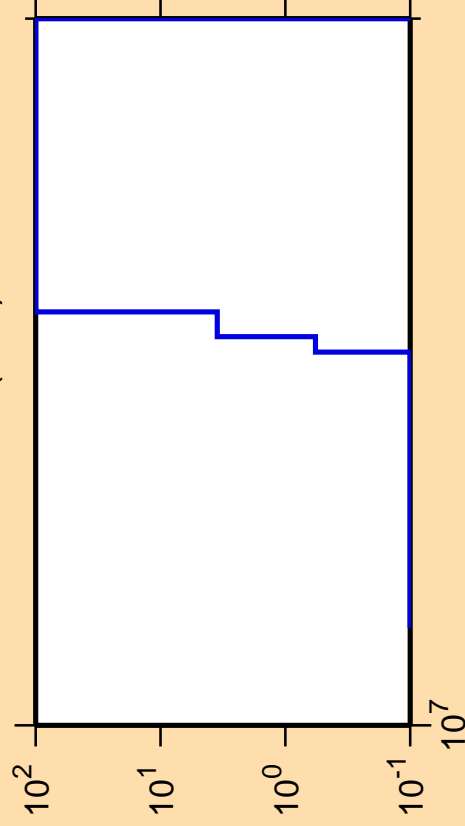
σ vs. E for $^{157}\text{Tm}(n,nd)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,nt)$

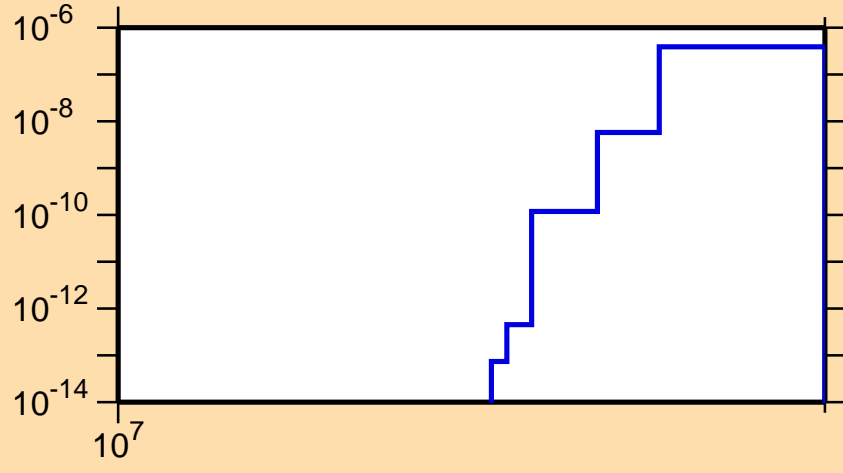


Ordinate scales are % relative standard deviation and barns.

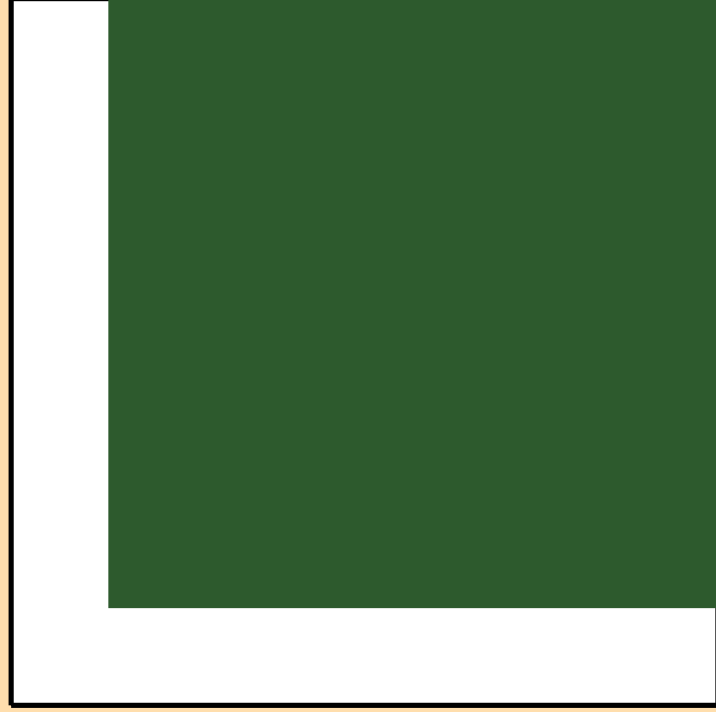
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,nt)$



10^7

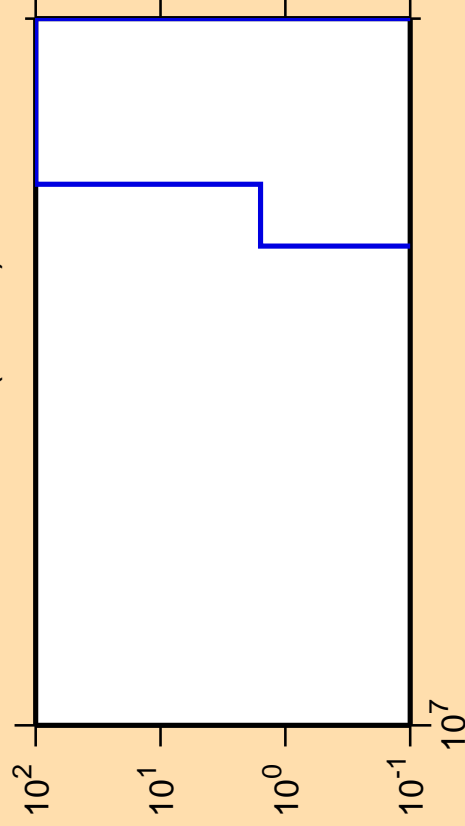


Correlation Matrix



-1.0
-0.8
-0.6
-0.4
-0.2
0.0

$\Delta\sigma/\sigma$ vs. E for ^{157}Tm (mt 34)

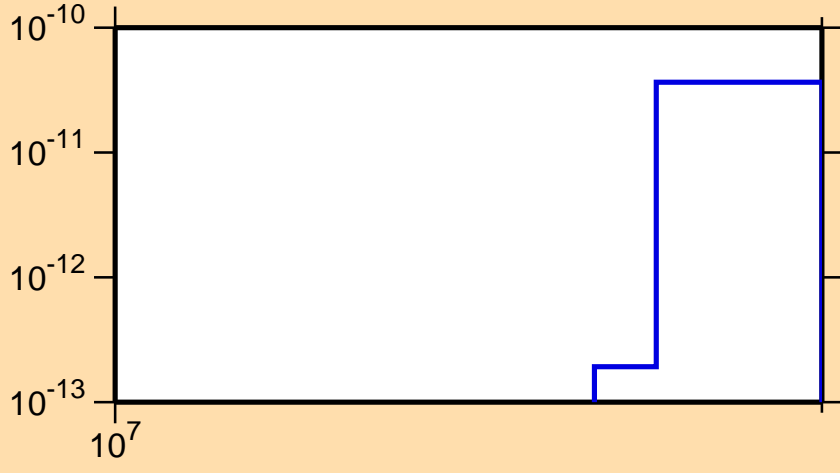


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

σ vs. E for ^{157}Tm (mt 34)



10^7

10^{-13}

10^{-12}

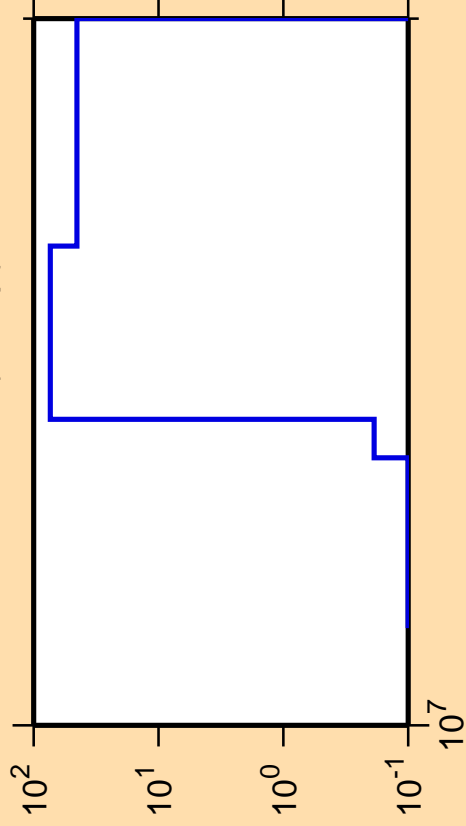
10^{-11}

10^{-10}

Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,2np)$

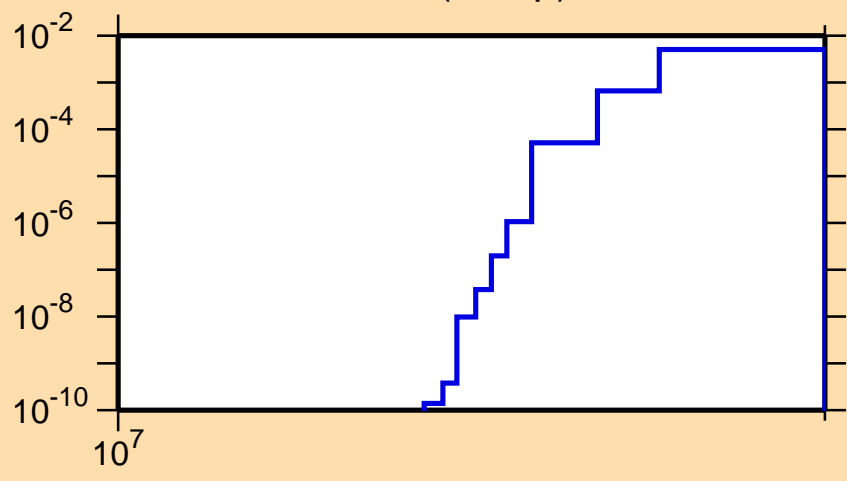


Ordinate scales are % relative standard deviation and barns.

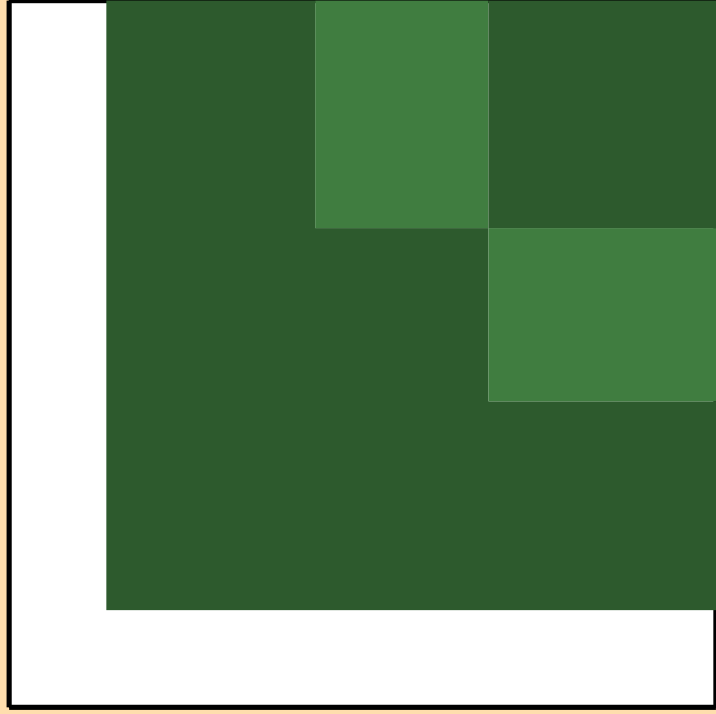
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

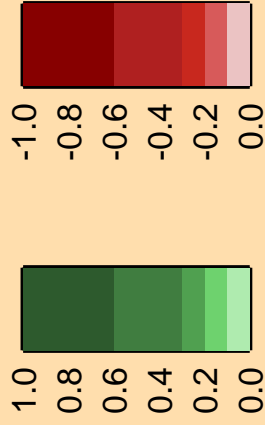
σ vs. E for $^{157}\text{Tm}(n,2np)$



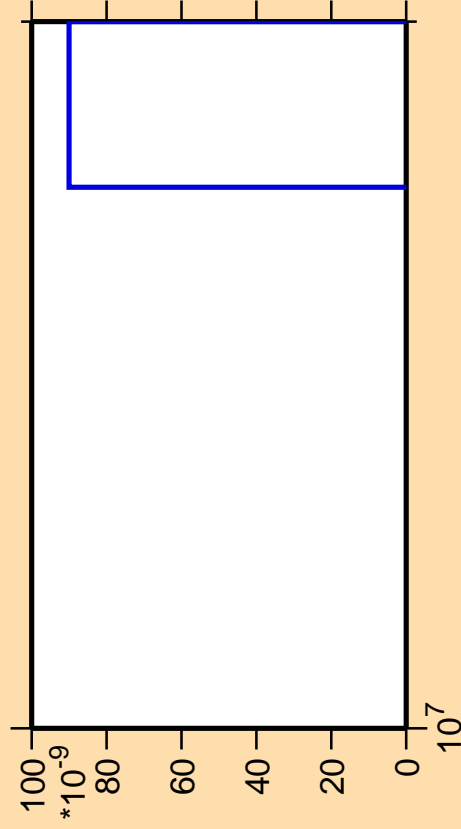
10^7



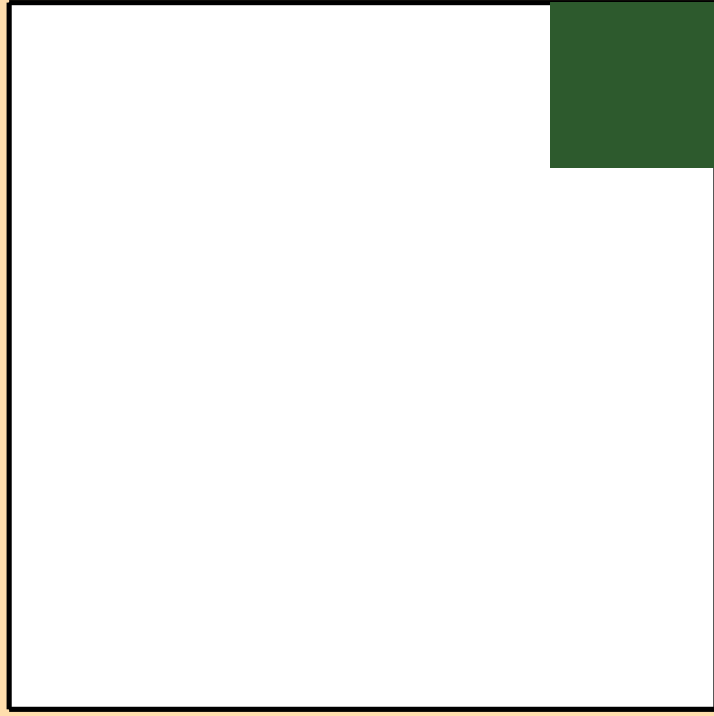
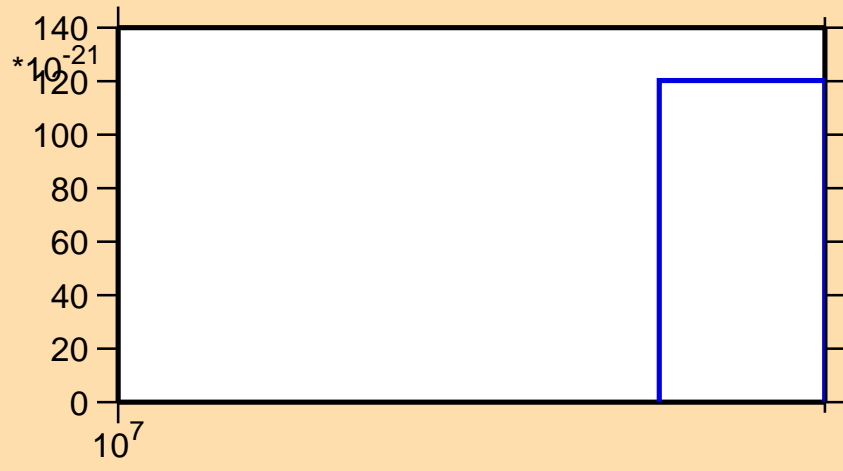
Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for ^{157}Tm (mt 42)

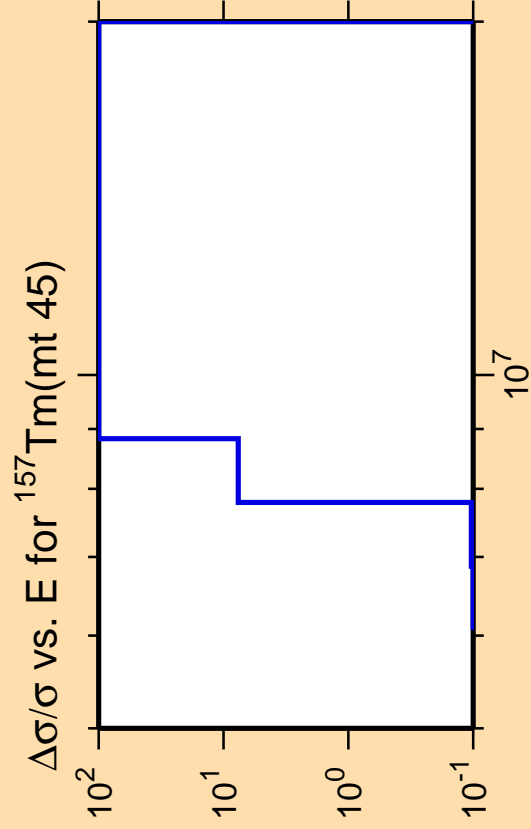


σ vs. E for ^{157}Tm (mt 42)



Correlation Matrix

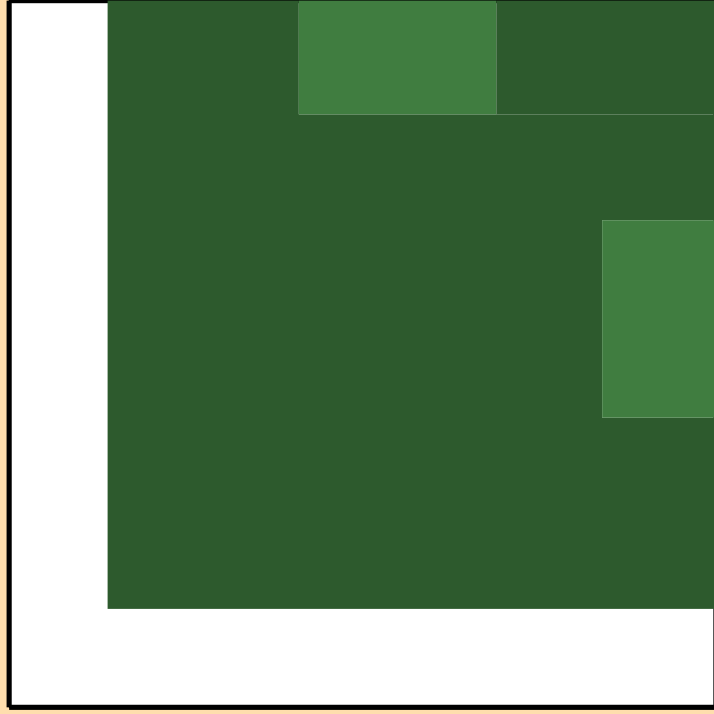
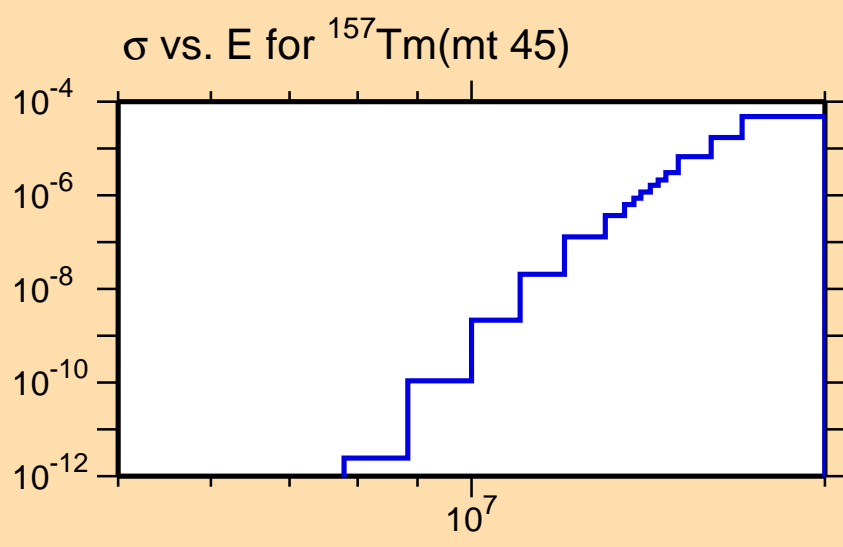




Ordinate scales are % relative standard deviation and barns.

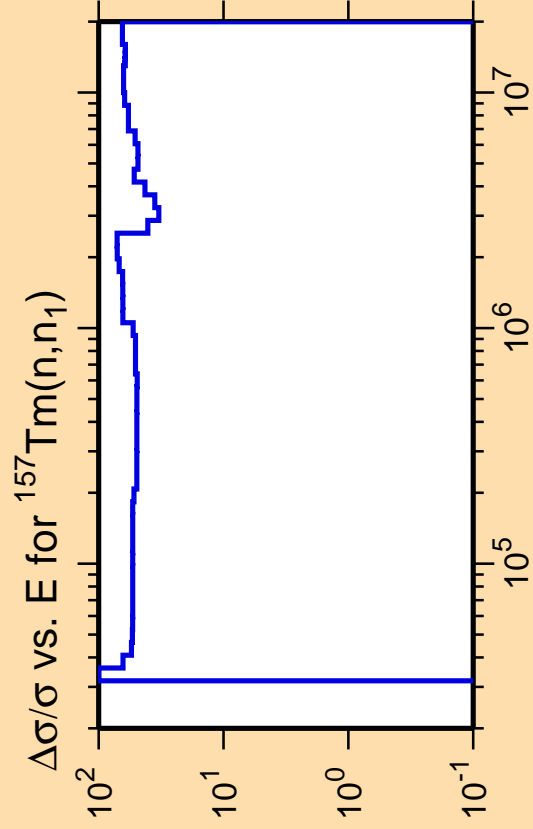
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

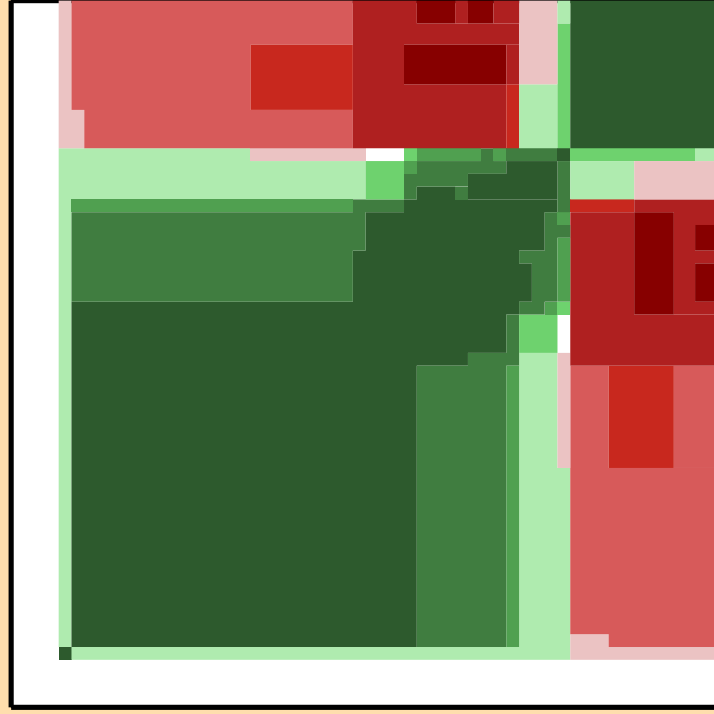
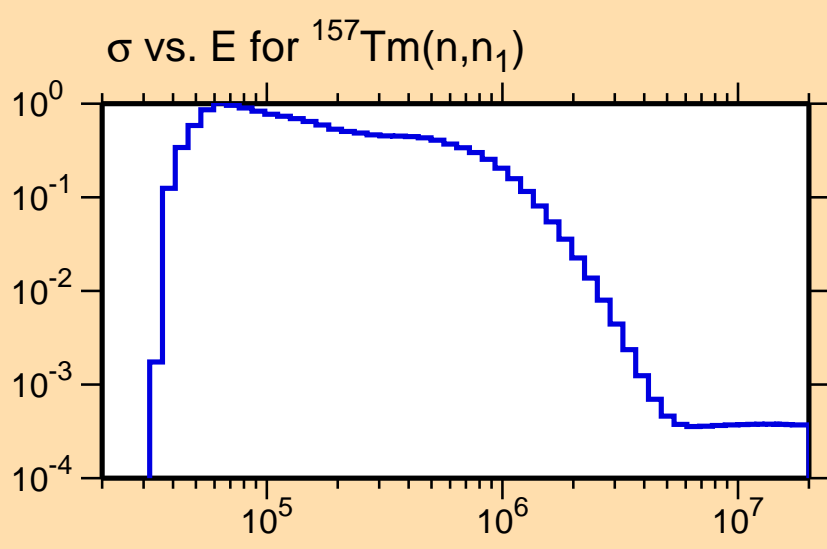




Ordinate scales are % relative standard deviation and barns.

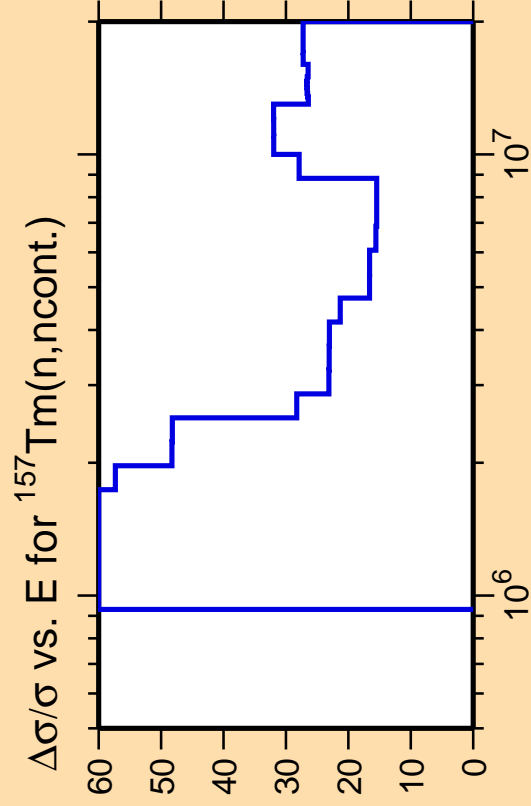
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

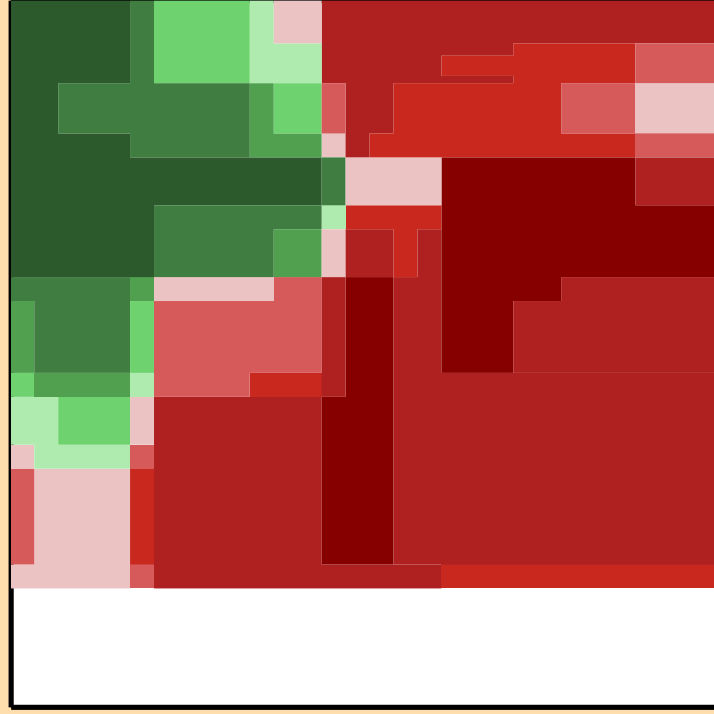
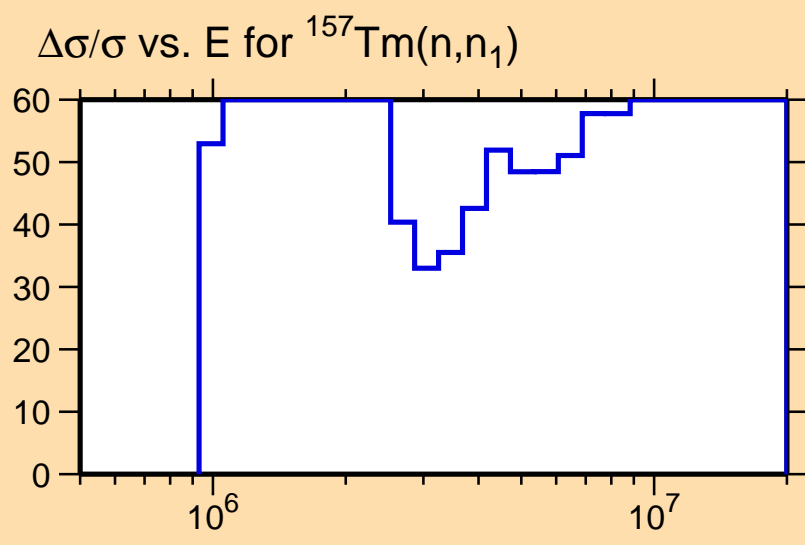




Ordinate scale is %
relative standard deviation.

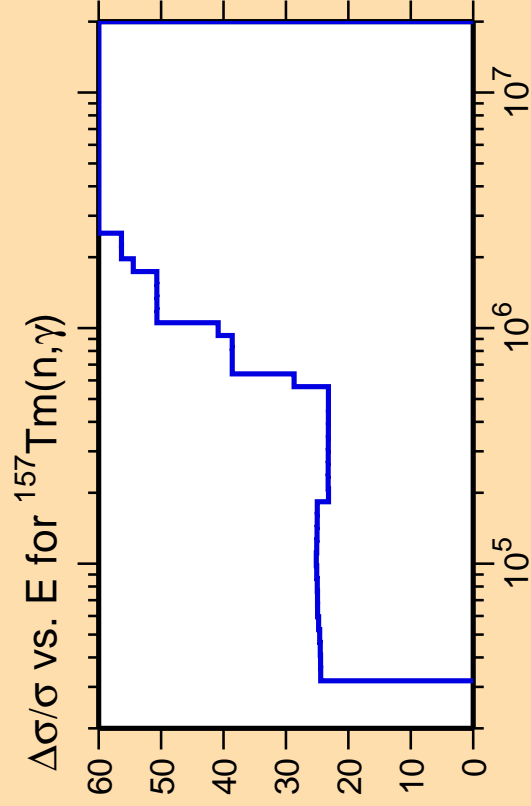
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix

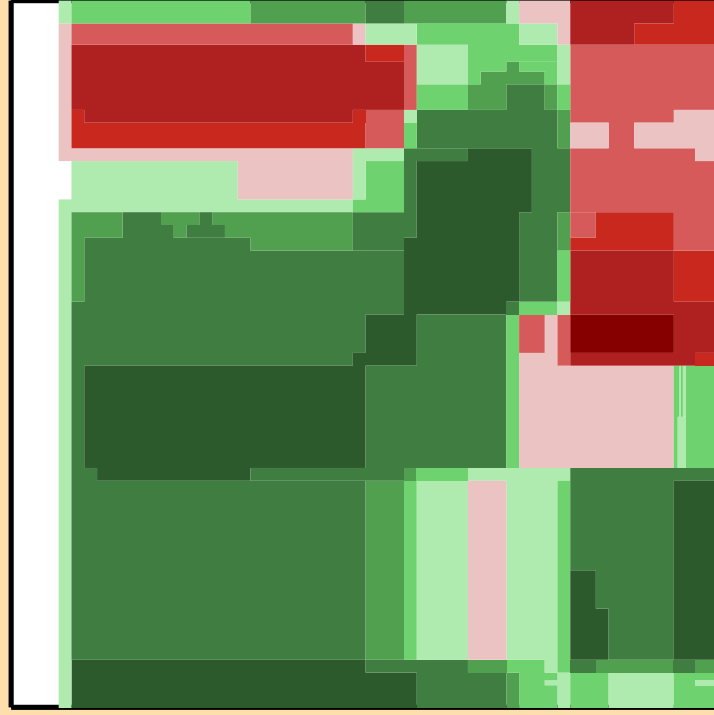
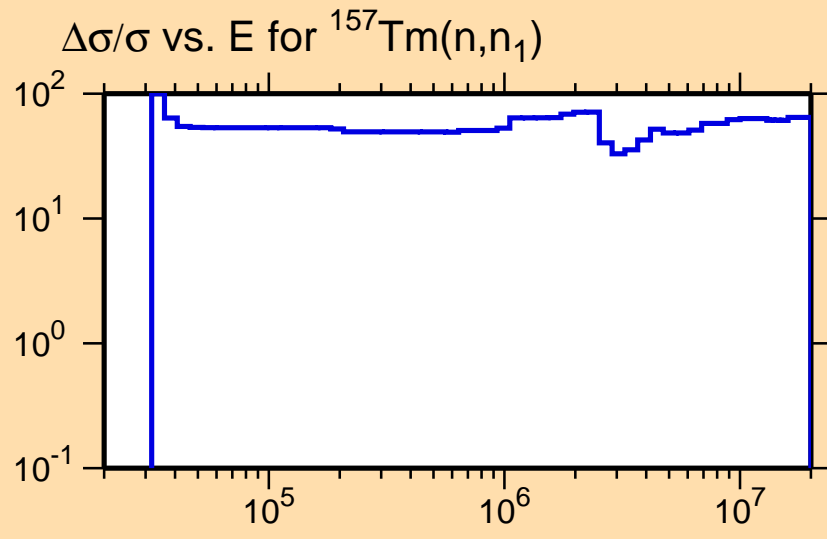




Ordinate scale is %
relative standard deviation.

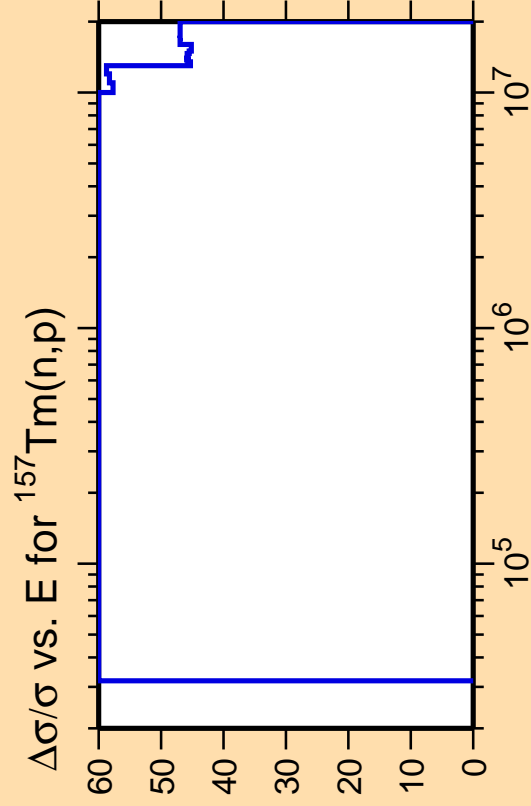
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix

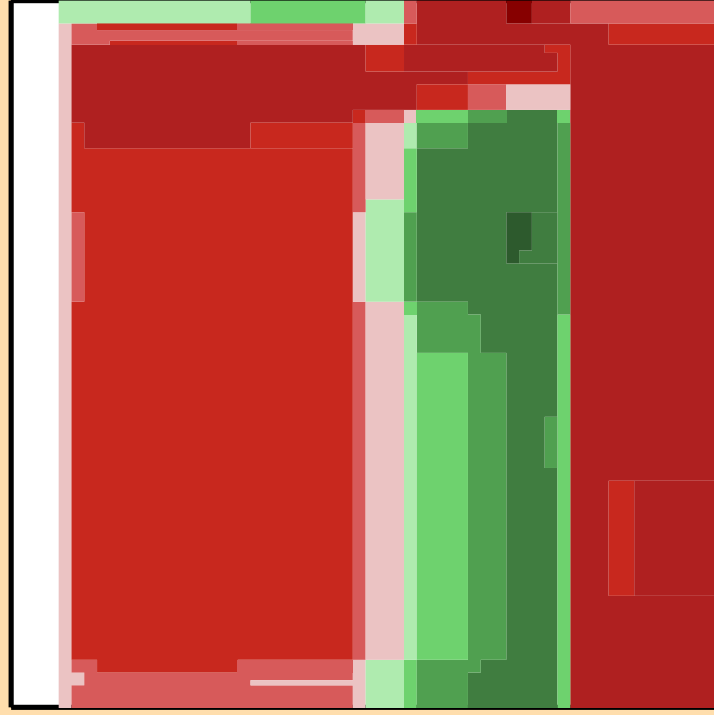
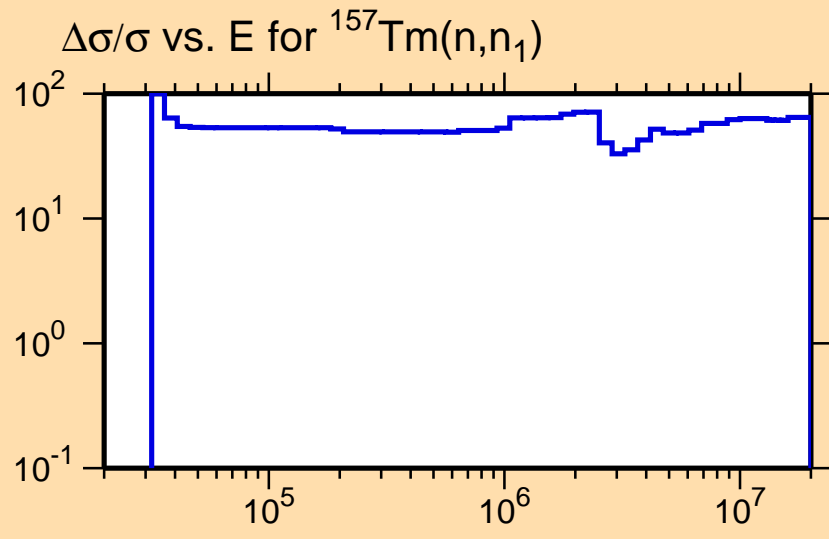




Ordinate scale is %
relative standard deviation.

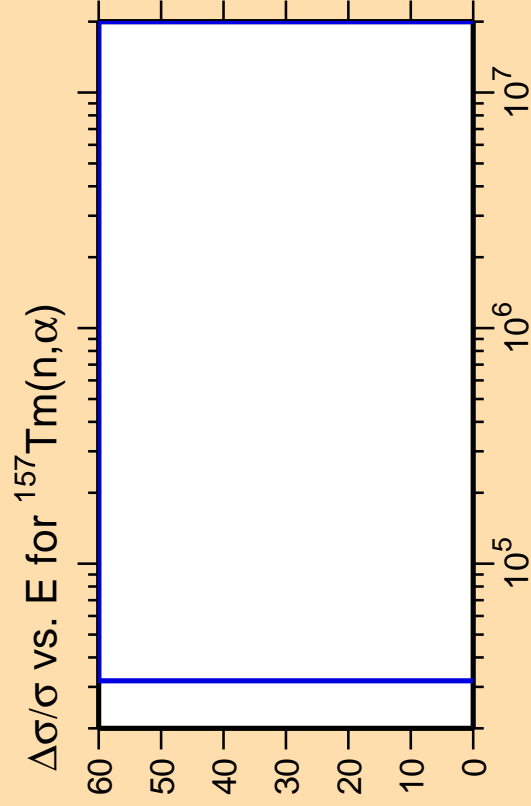
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix

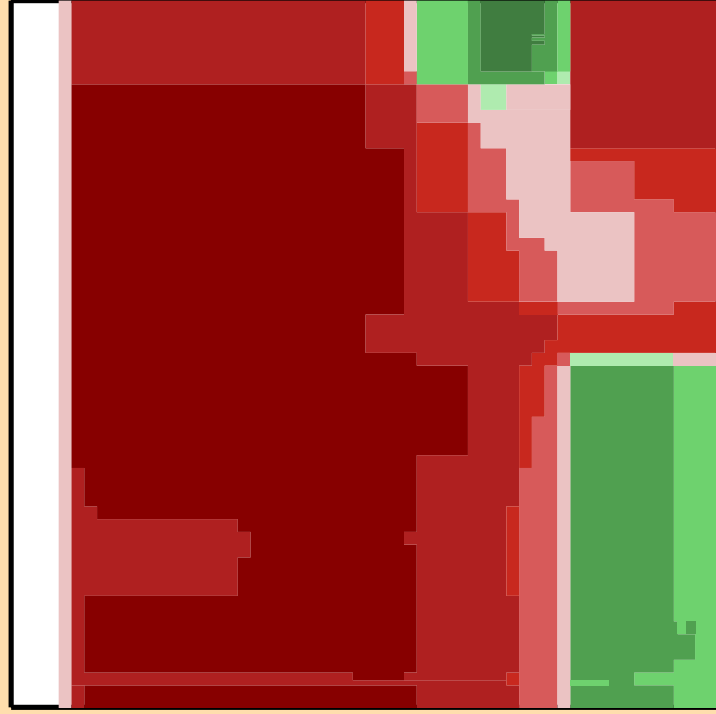
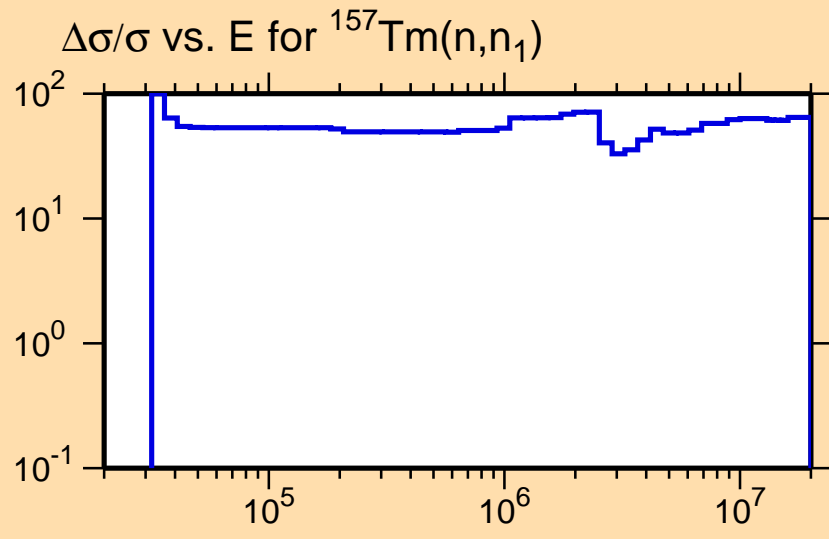




Ordinate scale is %
relative standard deviation.

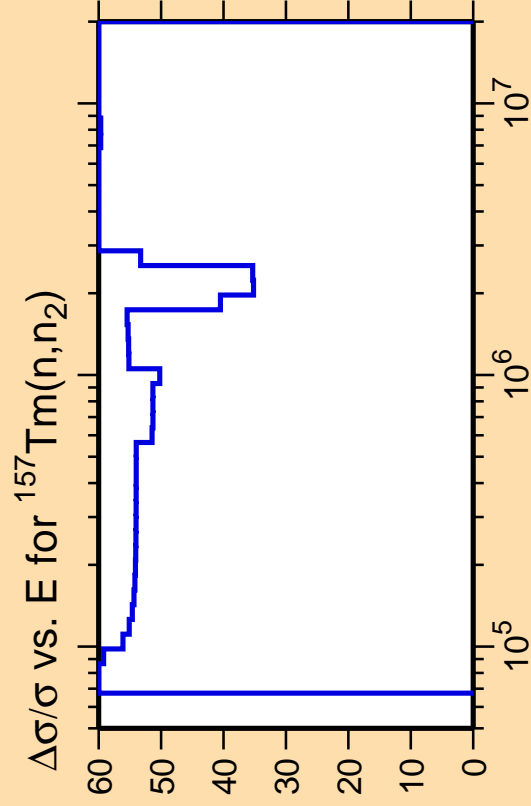
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix

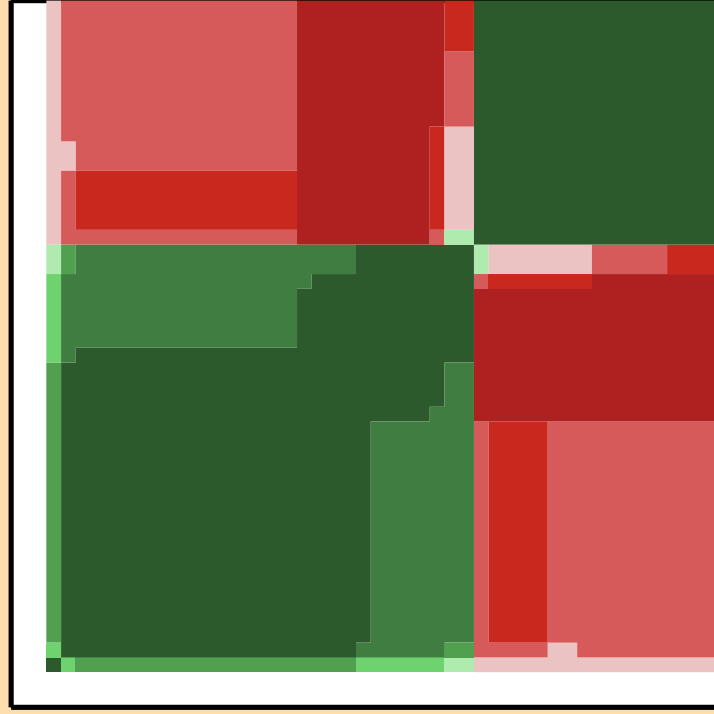
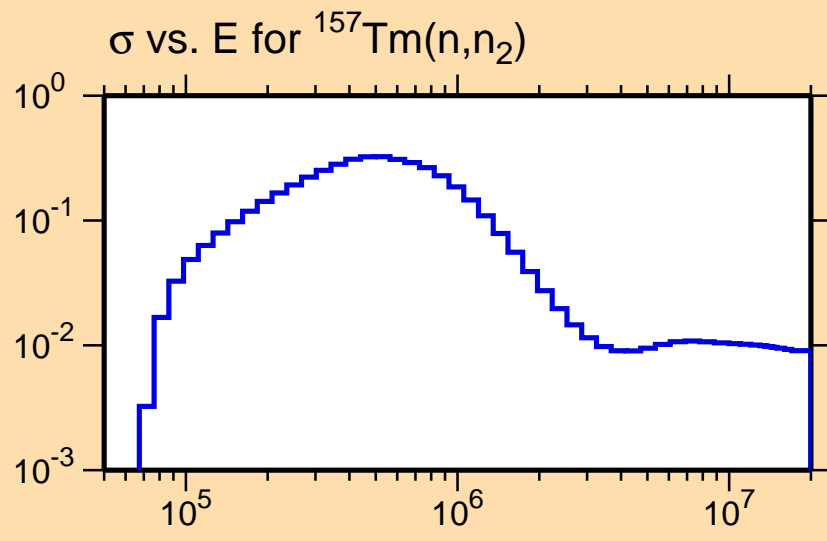




Ordinate scales are % relative standard deviation and barns.

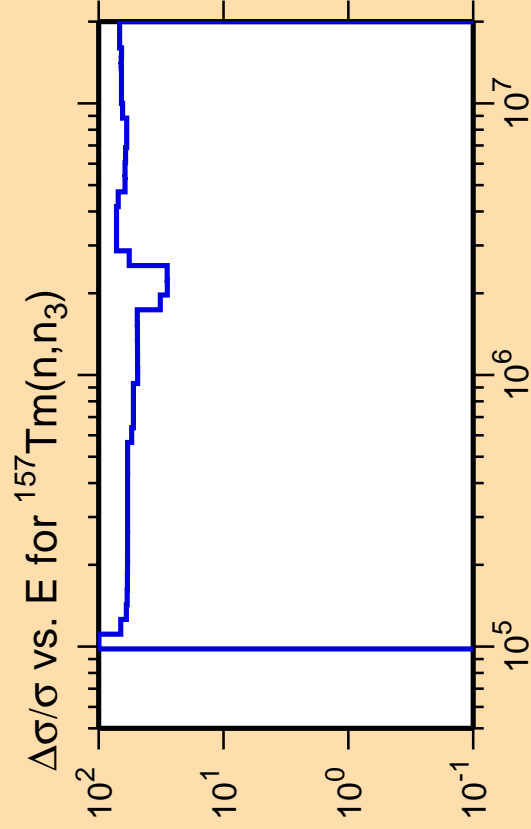
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

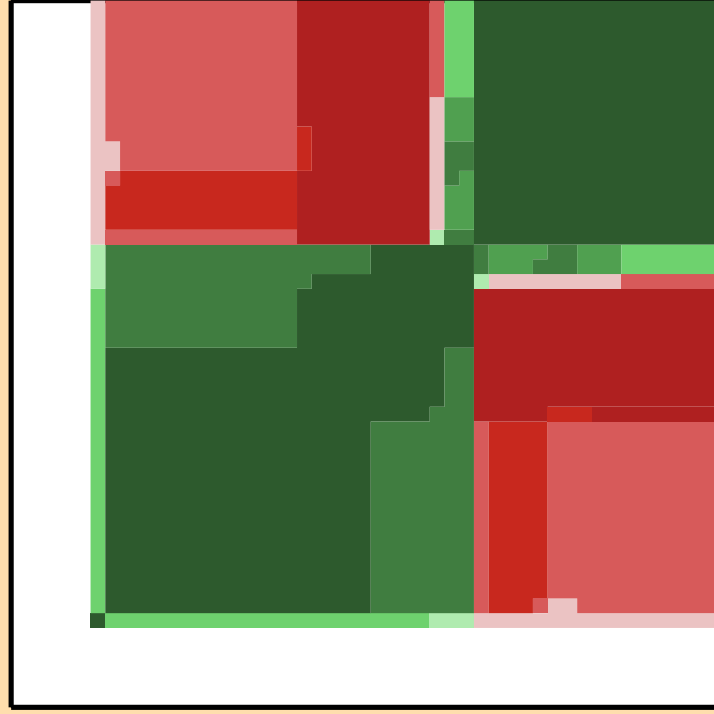
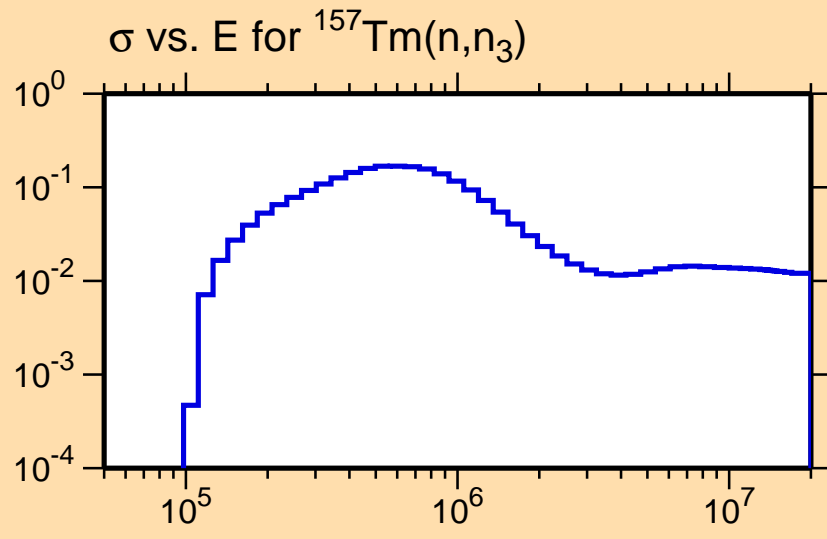




Ordinate scales are % relative standard deviation and barns.

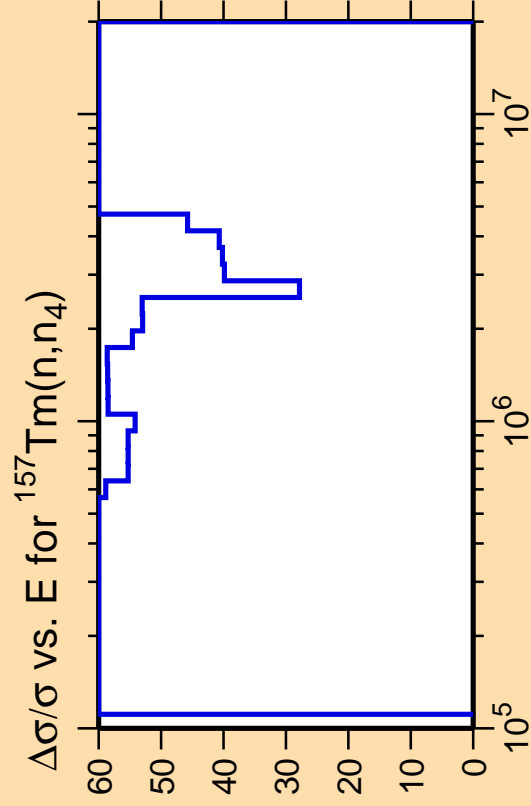
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

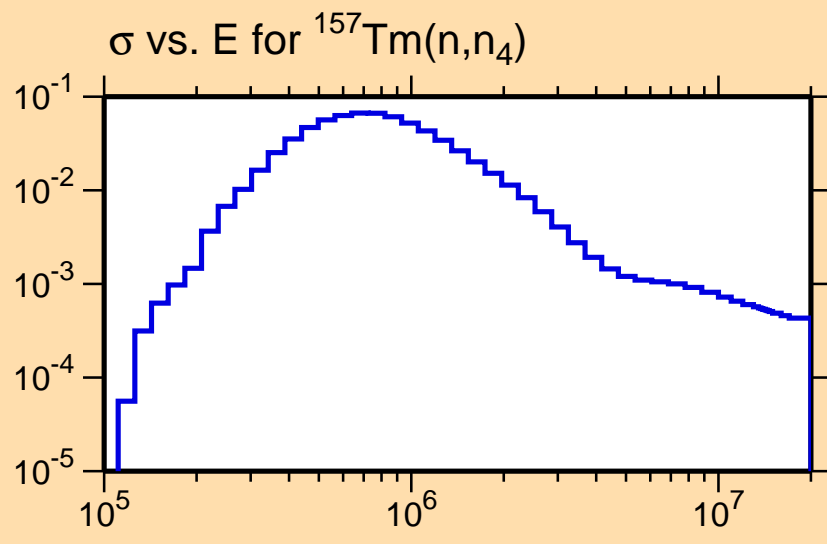


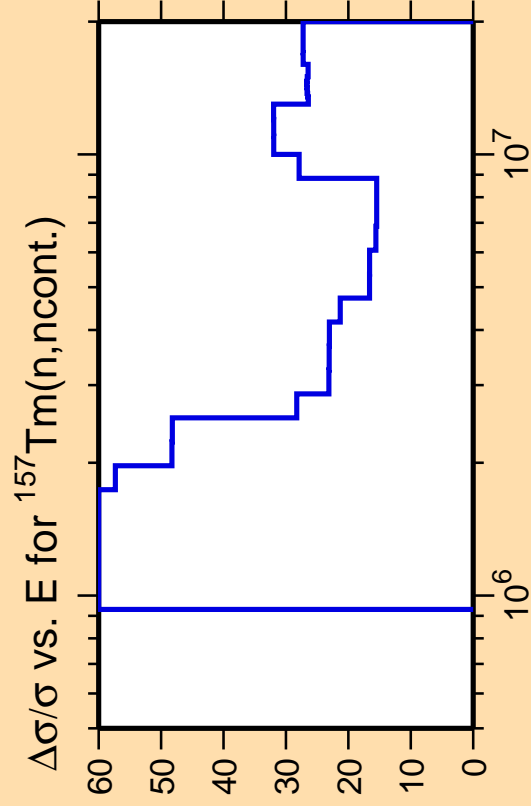


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

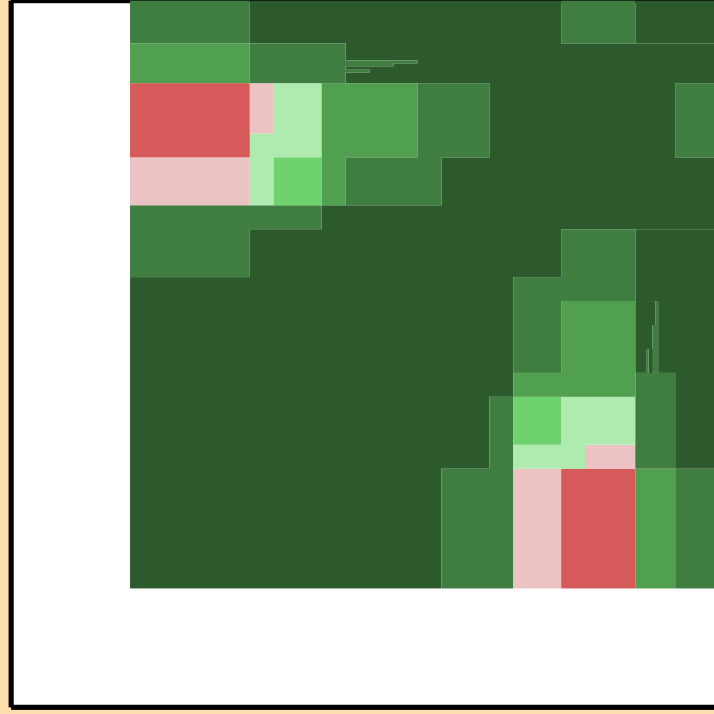
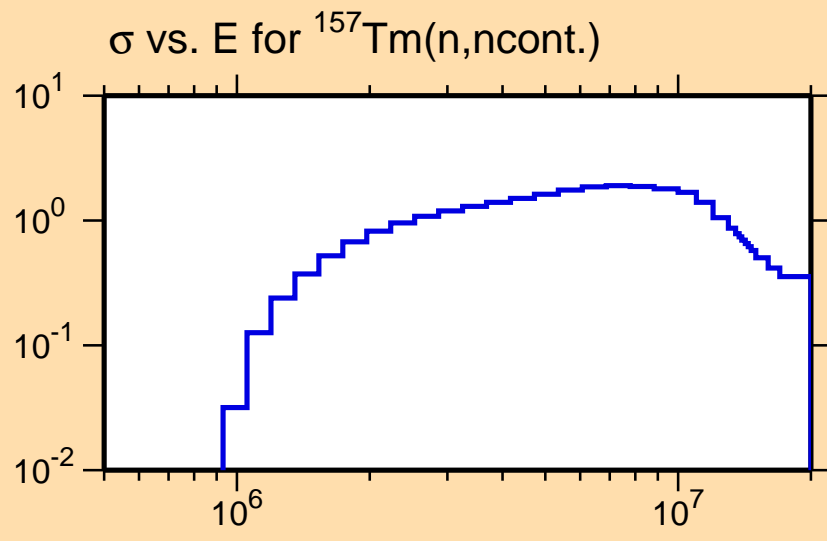




Ordinate scales are % relative standard deviation and barns.

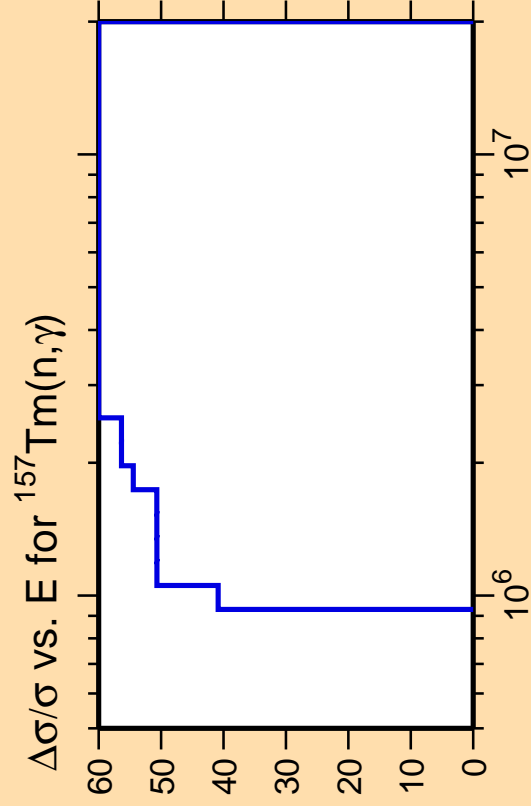
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix



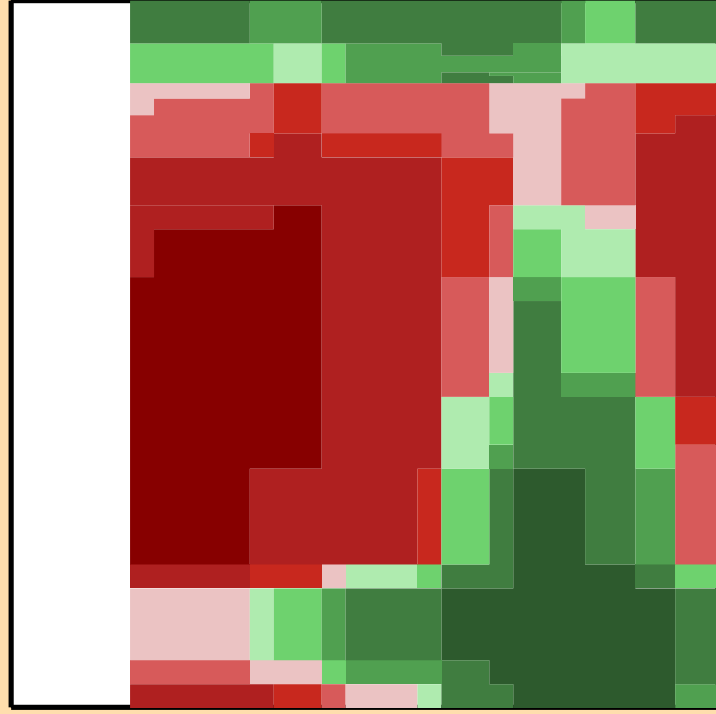
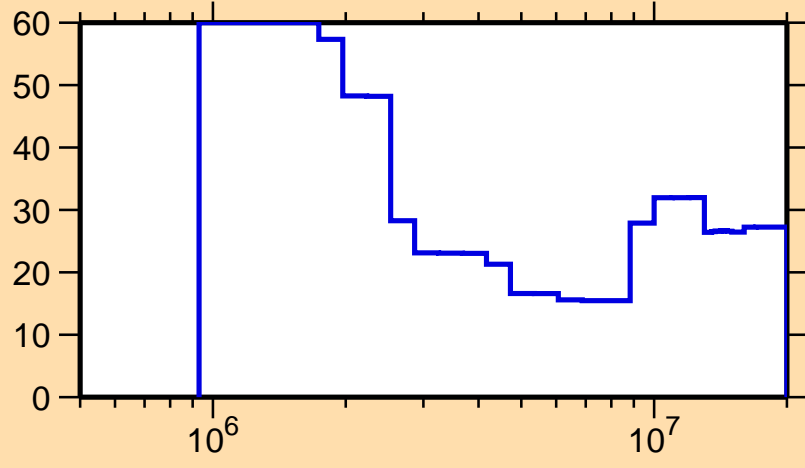


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

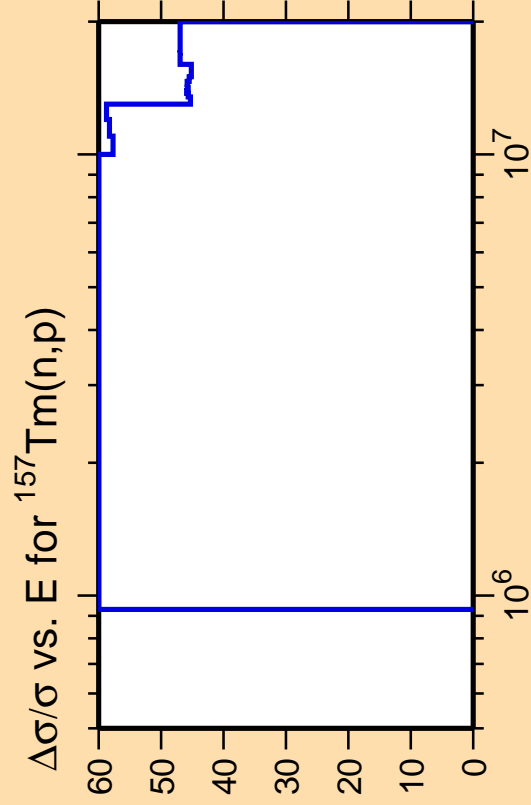
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,n\text{cont.})$



Correlation Matrix

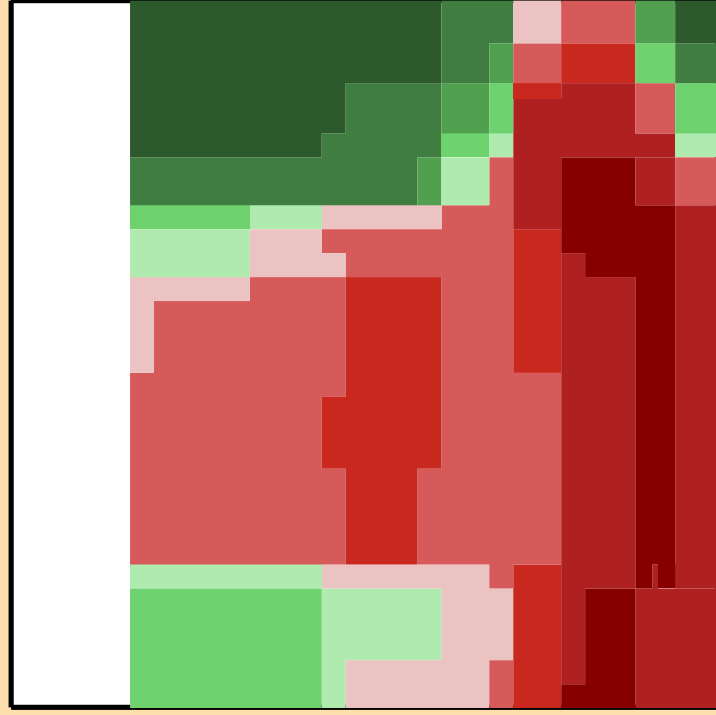
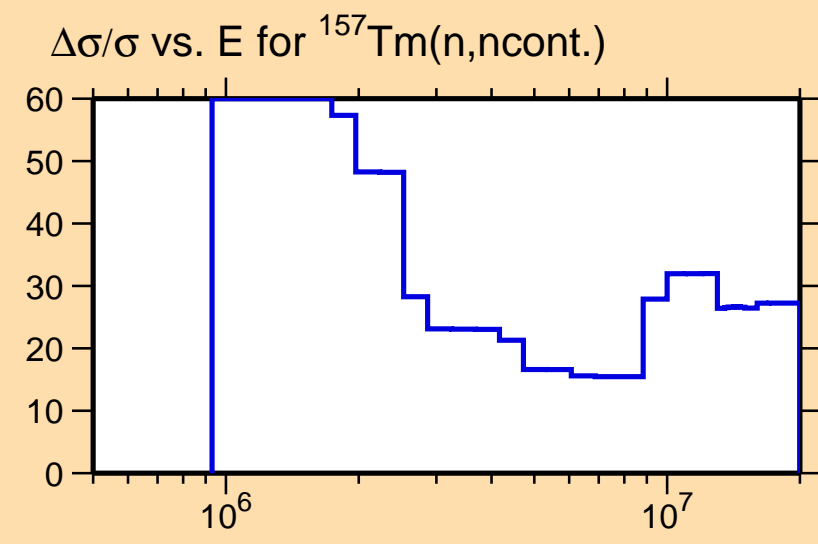




Ordinate scale is %
relative standard deviation.

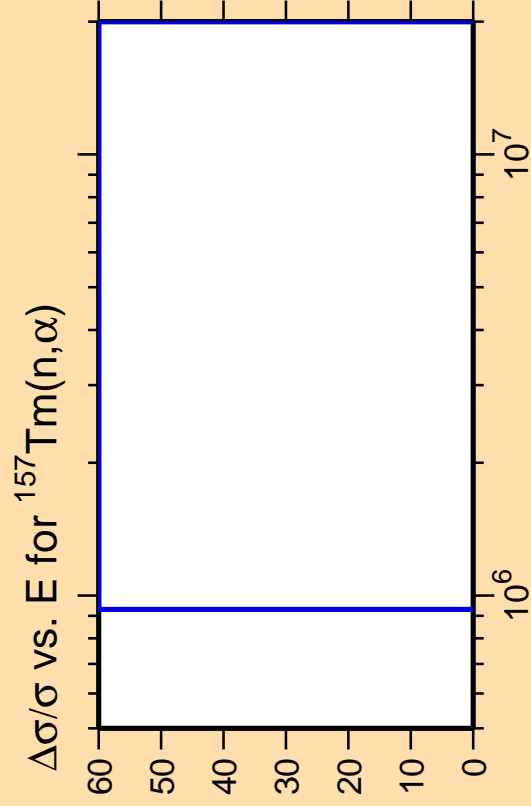
Abscissa scales are energy (eV).

Warning: some uncertainty
data were suppressed.



Correlation Matrix



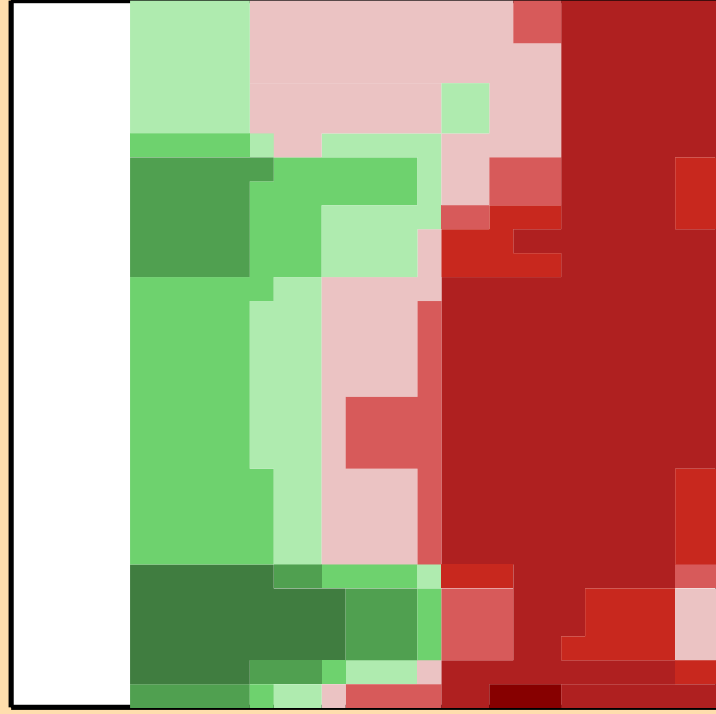
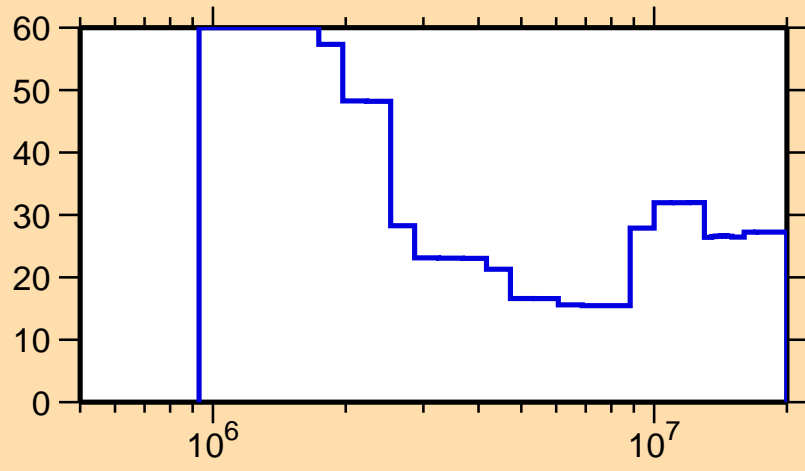


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

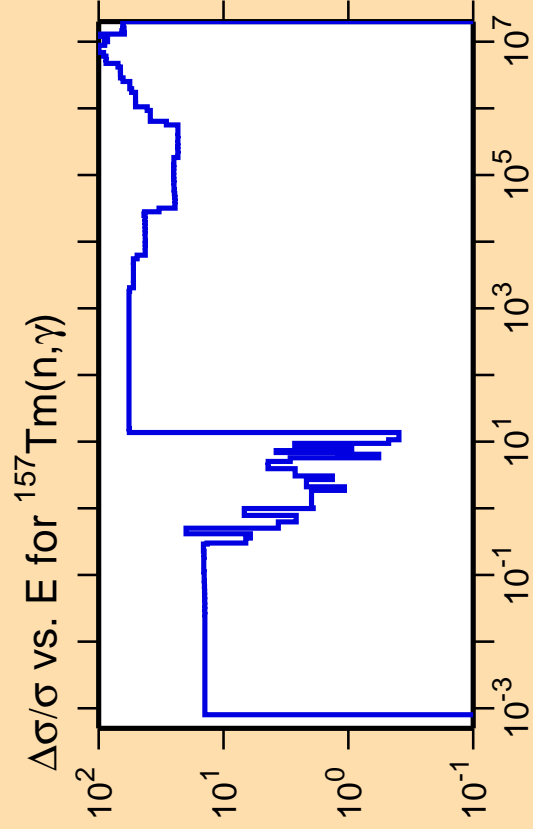
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,n\text{cont.})$



Correlation Matrix

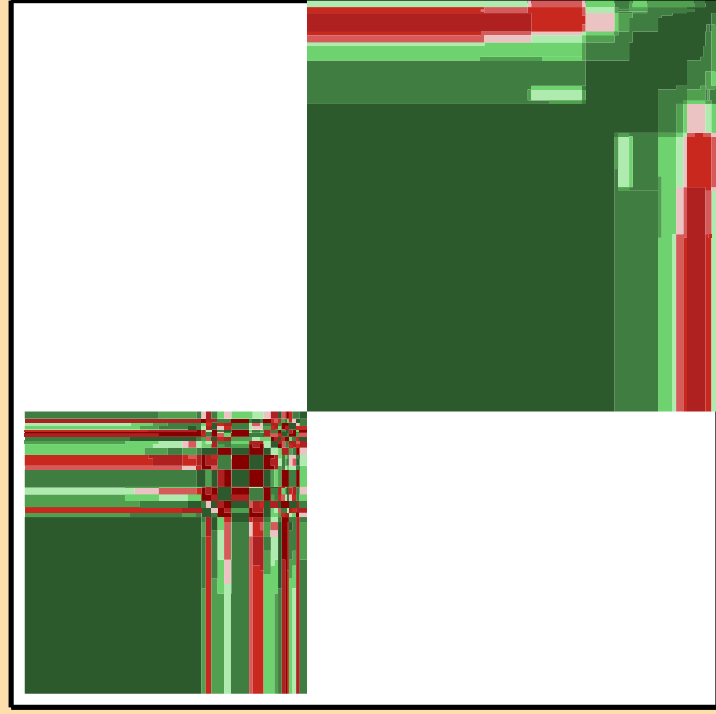
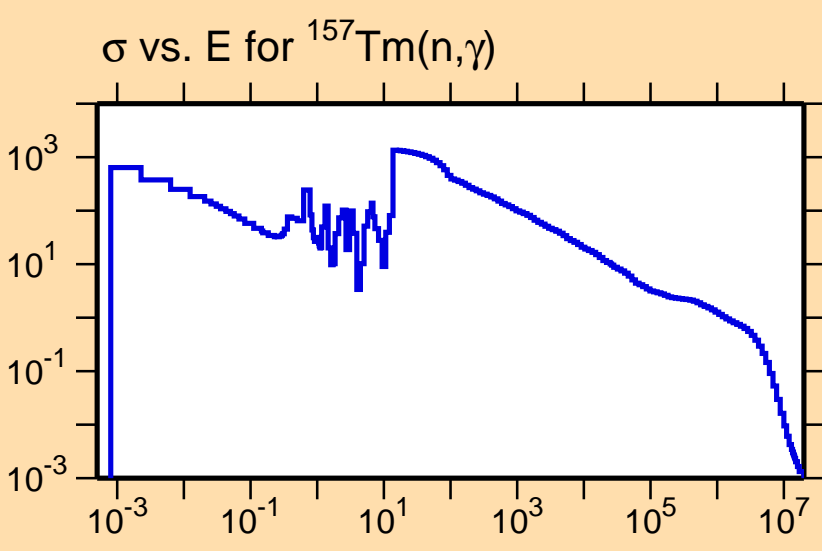




Ordinate scales are % relative standard deviation and barns.

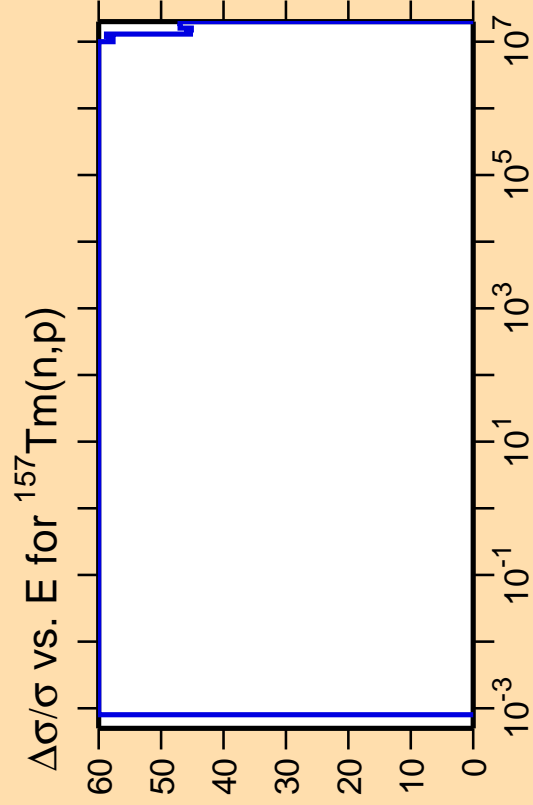
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

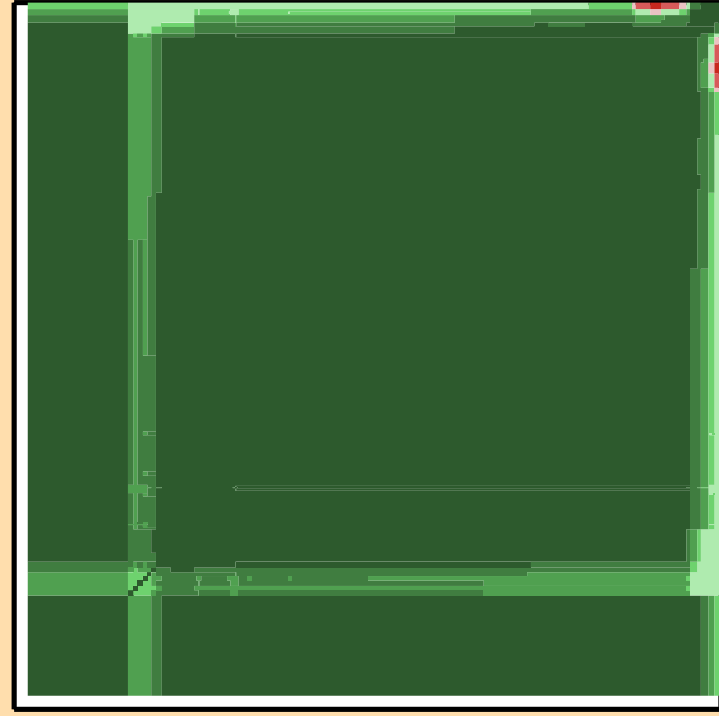




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

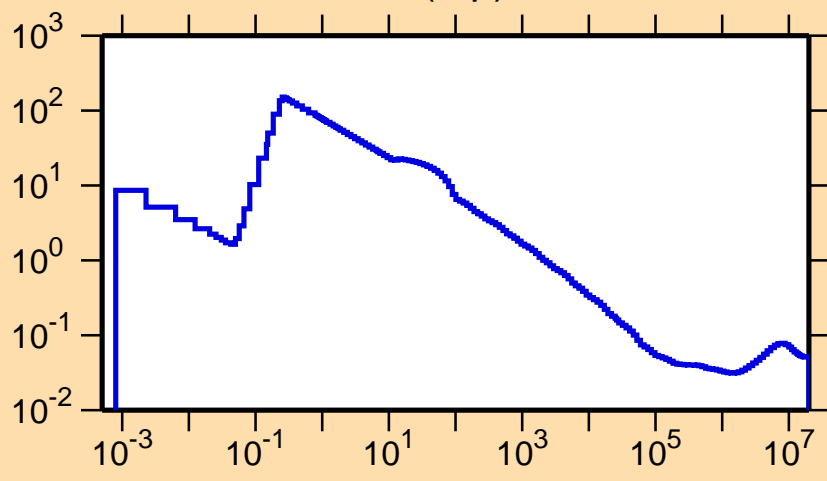
Warning: some uncertainty data were suppressed.

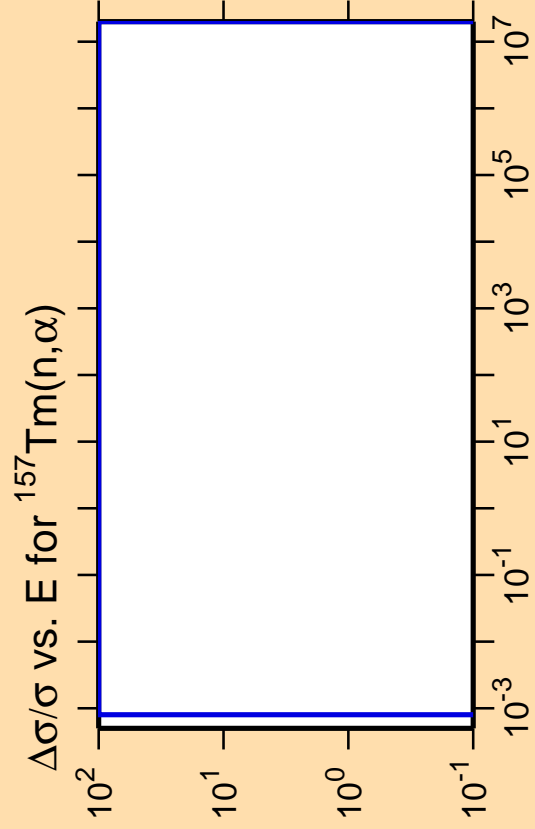


Correlation Matrix



σ vs. E for $^{157}\text{Tm}(n,p)$



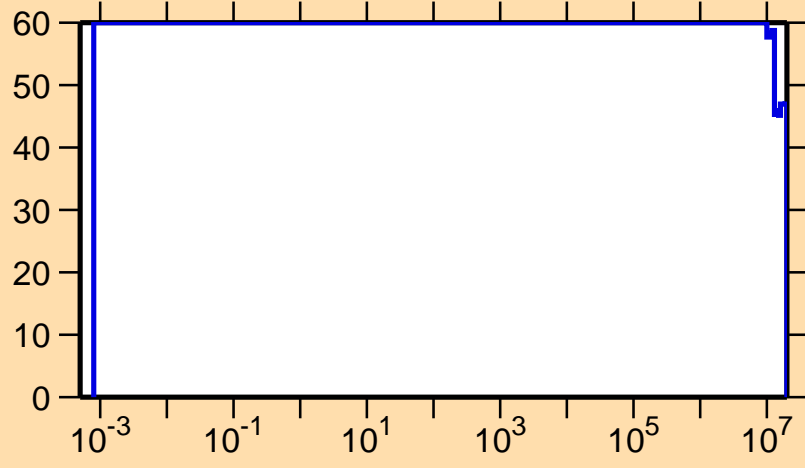


Ordinate scale is %
relative standard deviation.

Abscissa scales are energy (eV).

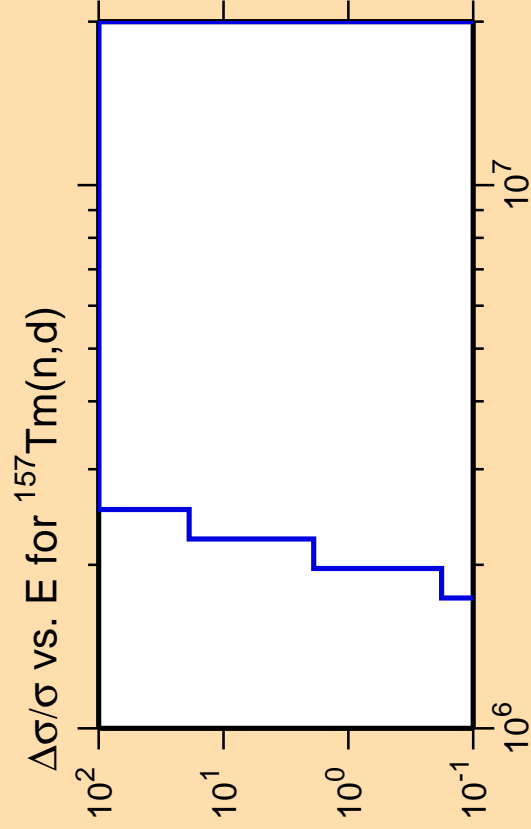
Warning: some uncertainty
data were suppressed.

$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,p)$



Correlation Matrix



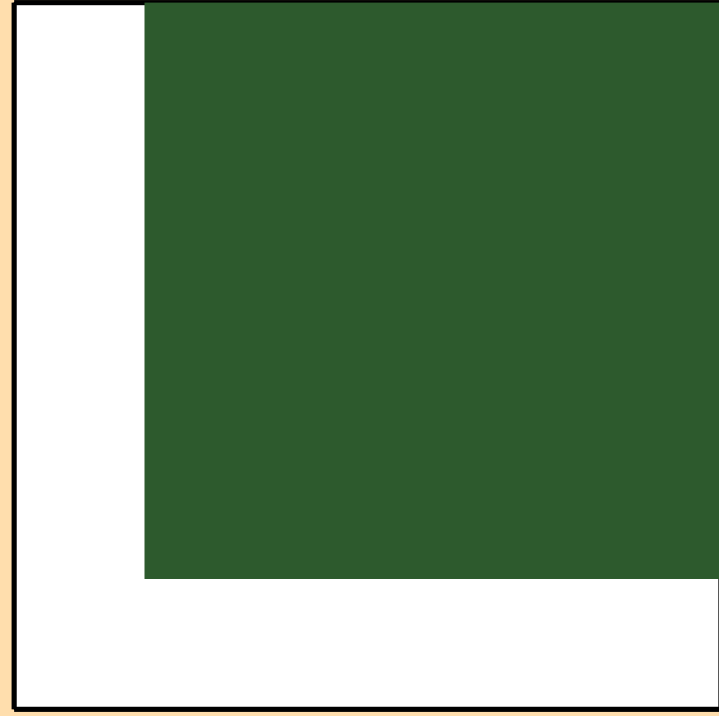
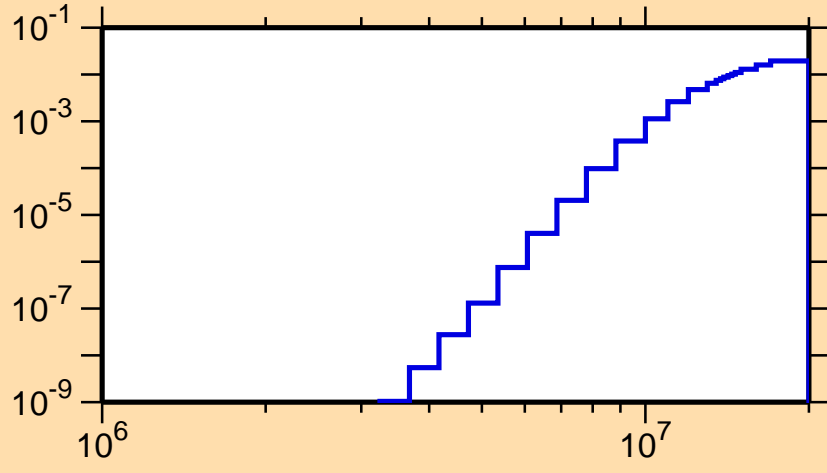


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

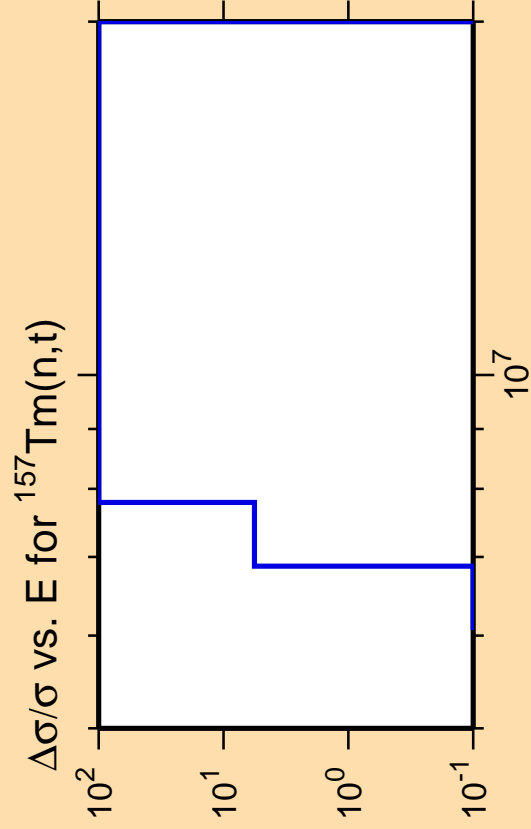
Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,d)$



Correlation Matrix

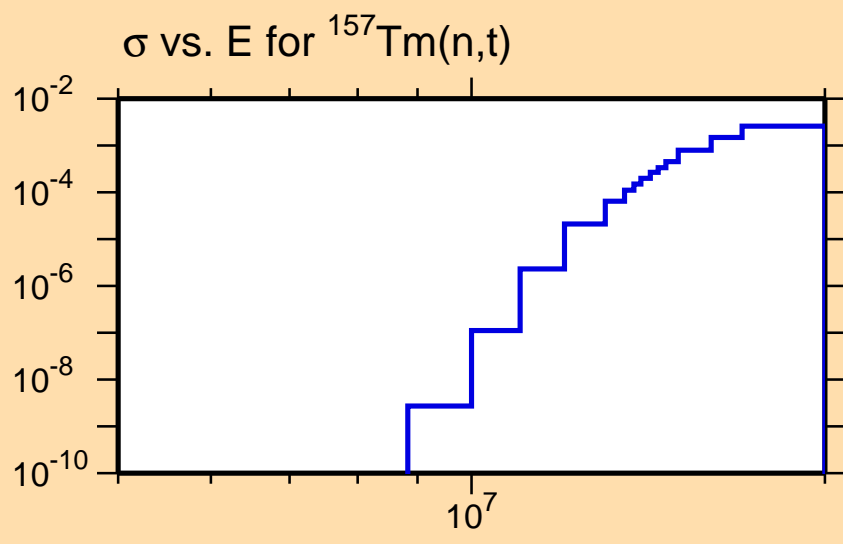




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

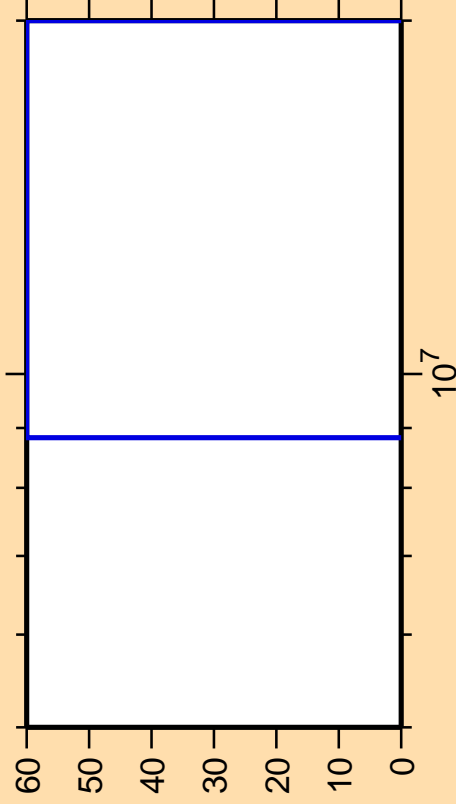
Warning: some uncertainty data were suppressed.



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{He}3)$

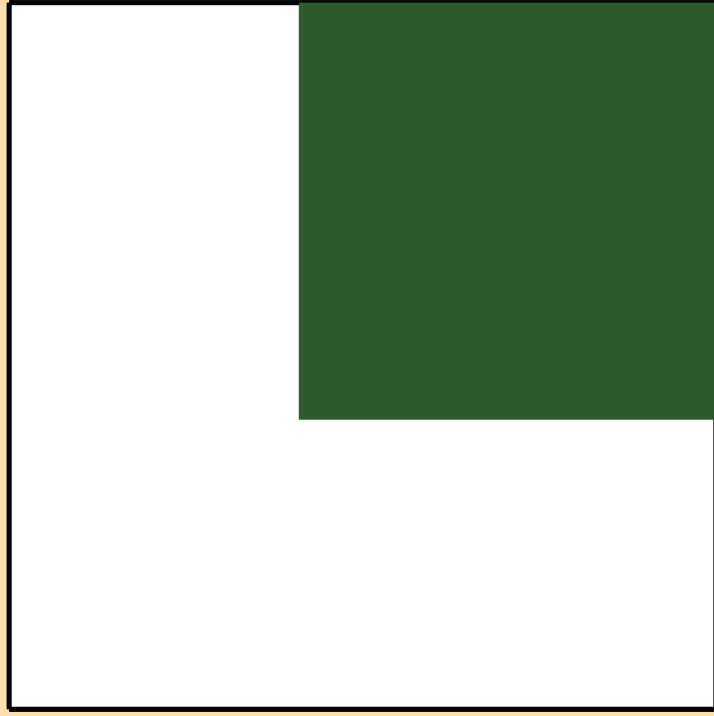
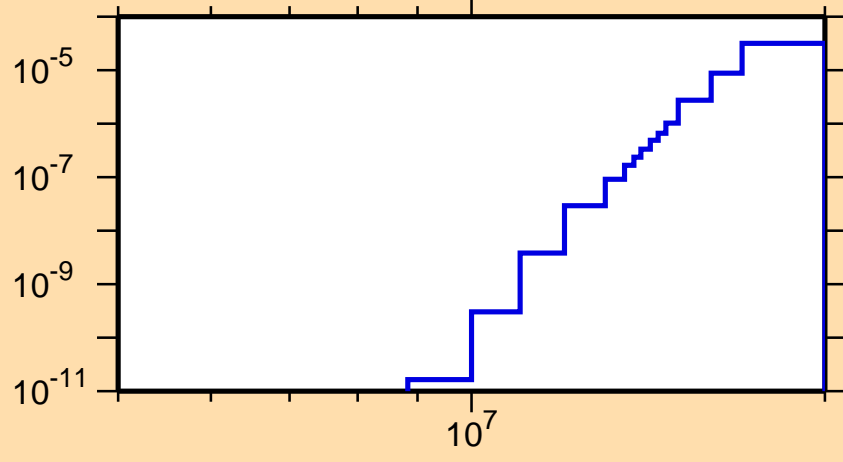


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

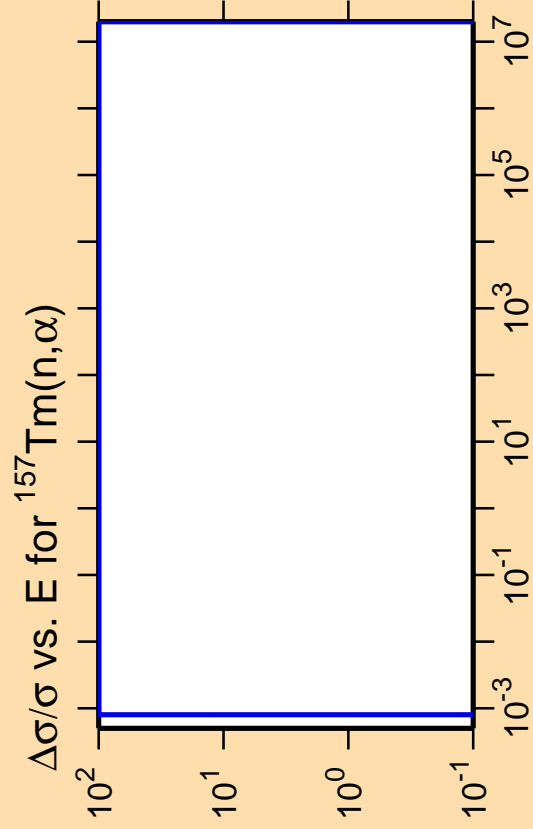
Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,\text{He}3)$



Correlation Matrix



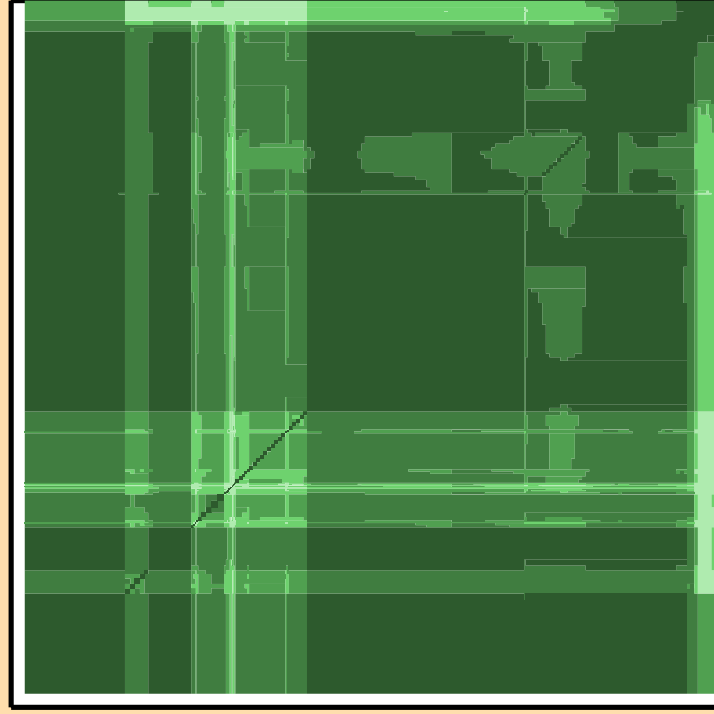
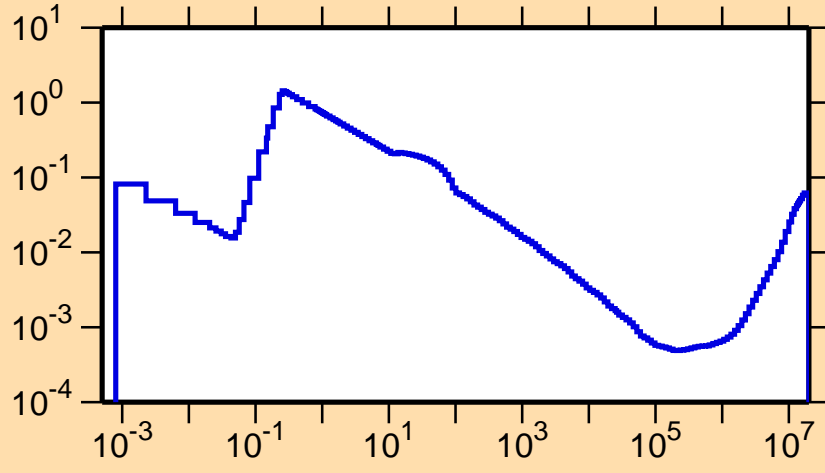


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

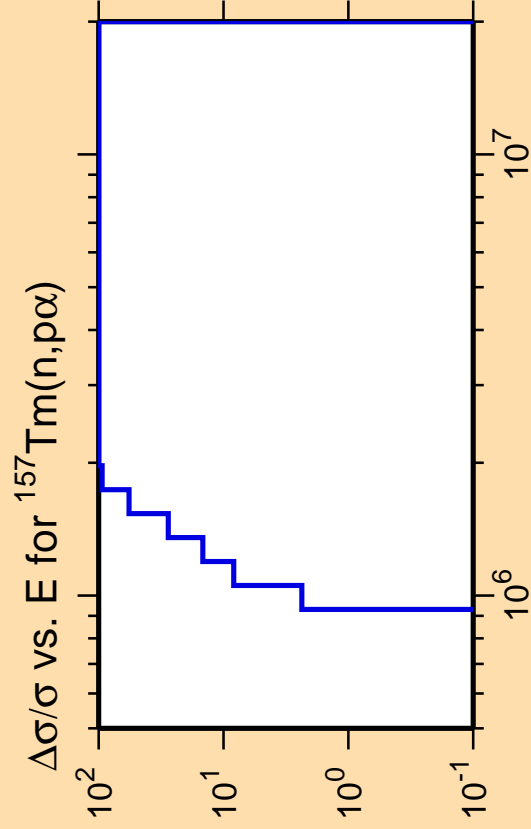
Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,\alpha)$



Correlation Matrix

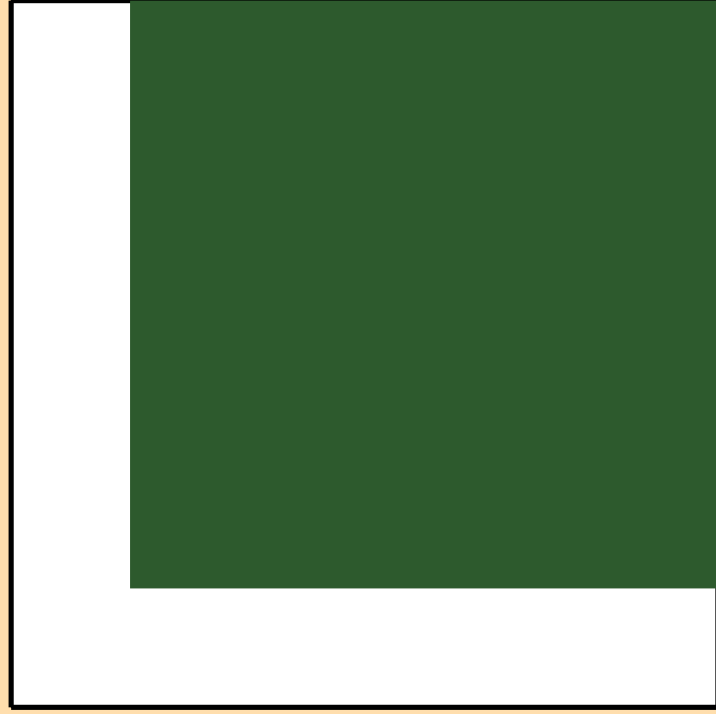
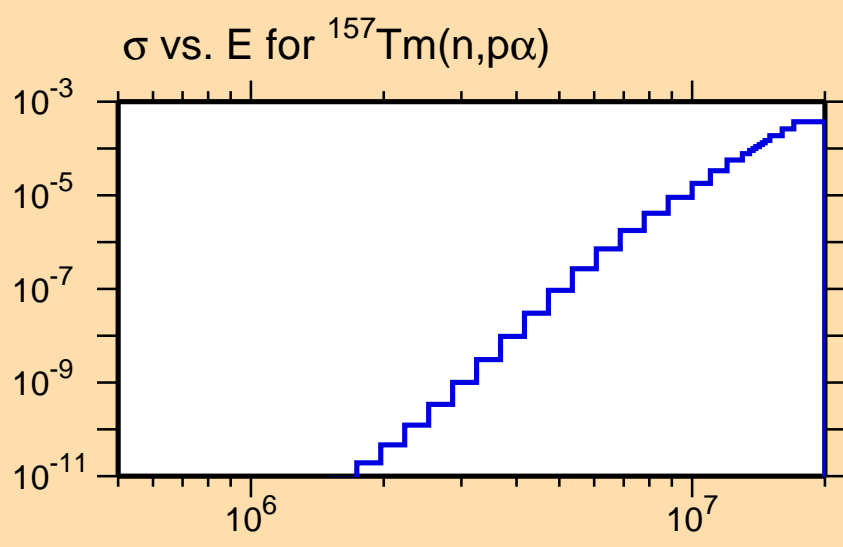




Ordinate scales are % relative standard deviation and barns.

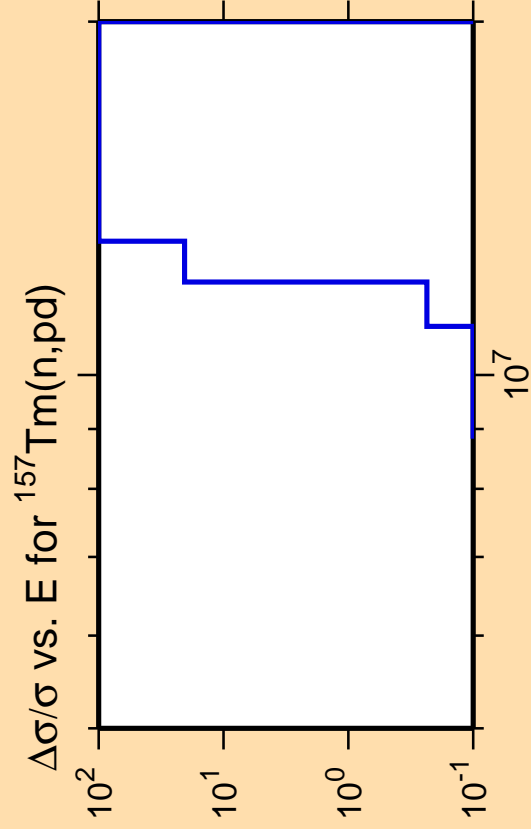
Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

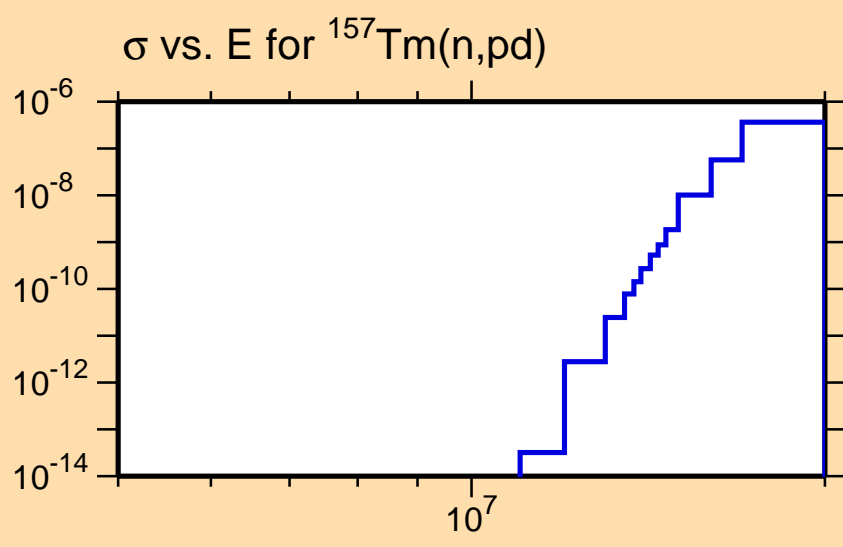




Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



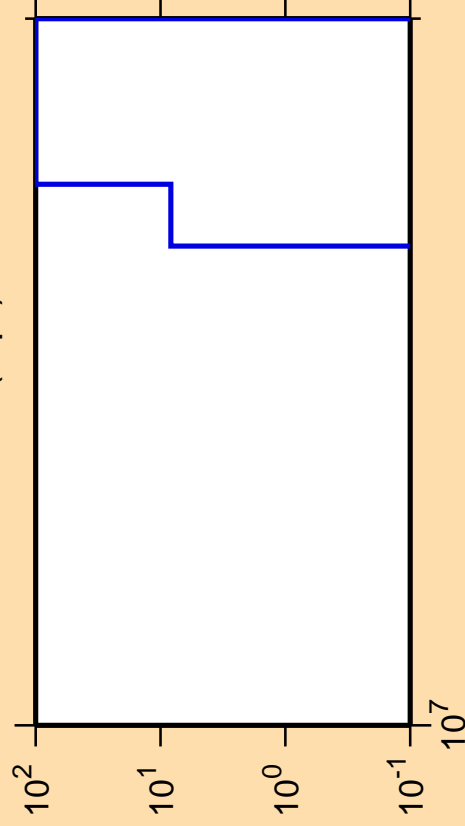
σ vs. E for $^{157}\text{Tm}(n,pd)$



Correlation Matrix



$\Delta\sigma/\sigma$ vs. E for $^{157}\text{Tm}(n,\text{pt})$

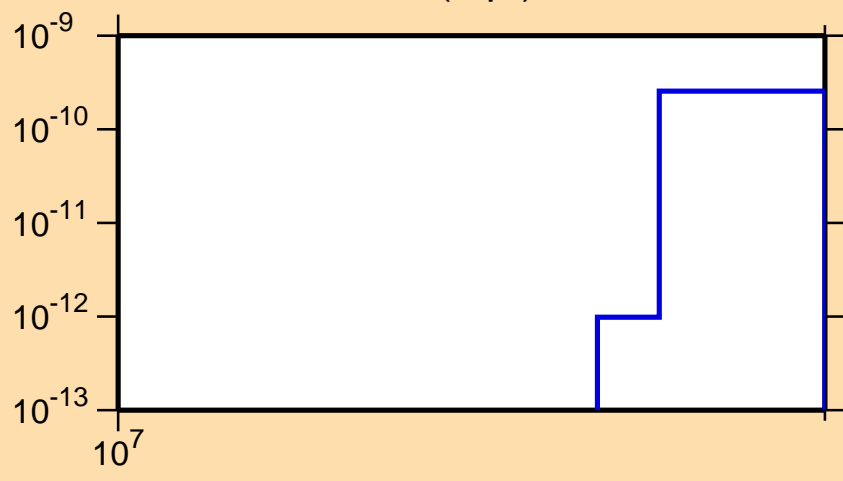


Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.

σ vs. E for $^{157}\text{Tm}(n,\text{pt})$



10^7

10^{-13}

10^{-12}

10^{-11}

10^{-10}

10^{-9}

Correlation Matrix



1.0

0.8

0.6

0.4

0.2

0.0

-1.0

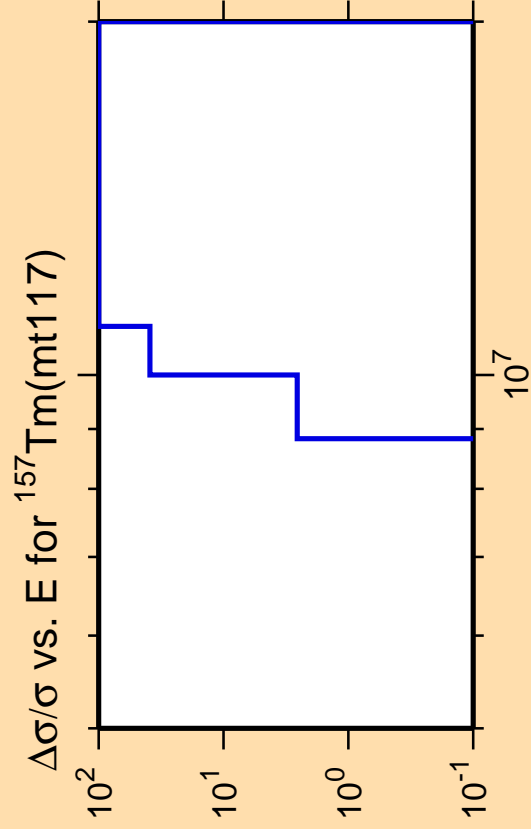
-0.8

-0.6

-0.4

-0.2

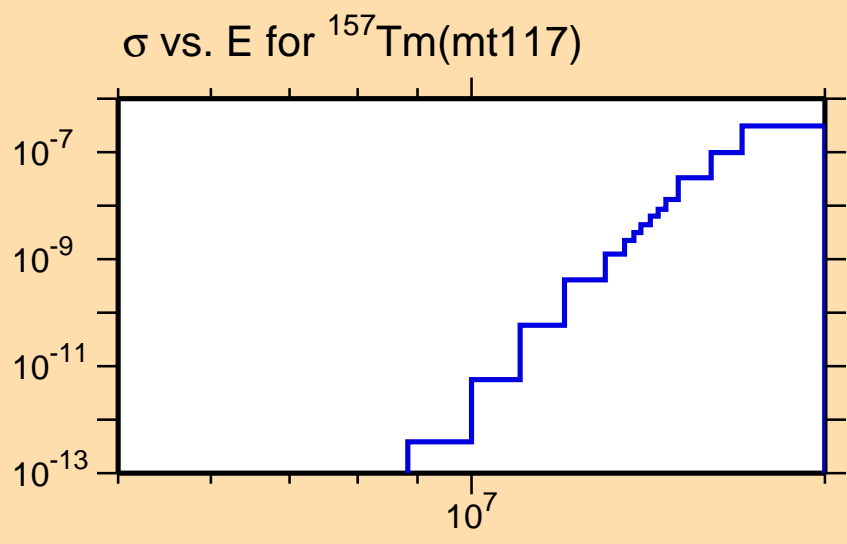
0.0



Ordinate scales are % relative standard deviation and barns.

Abscissa scales are energy (eV).

Warning: some uncertainty data were suppressed.



Correlation Matrix

