ENDF/B-VII CE-143
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII CE-143
resonance total cross section

![Graph showing resonance total cross section with two peaks at different energies.](image)
ENDF/B-VII CE-143
resonance total cross section

![Graph showing the resonance total cross section for ENDF/B-VII CE-143 with energy on the x-axis and cross section on the y-axis, both in units of barns.]
ENDF/B-VII CE-143
resonance absorption cross sections

![Graph of resonance absorption cross sections]

- Energy (MeV) on the x-axis
- Cross section (barns) on the y-axis
- Capture cross section indicated

The graph shows multiple resonance peaks across a range of energy levels.
ENDF/B-VII CE-143
UR total cross section

Cross section (barns) vs. Energy (MeV)
ENDF/B-VII CE-143
UR capture cross section

Energy (MeV)

Cross section (barns)

Inf. Dil.

100 b
ENDF/B-VII CE-143

Heating

![Graph](graph.png)
ENDF/B-VII CE-143
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
ENDF/B-VII CE-143
Damage

Damage (MeV-barns) vs. Energy (MeV)

- Damage line

*10^-3
ENDF/B-VII CE-143

Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-VII CE-143
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,2np)
- (n,n*o)
- (n,p)
- (n,a)
ENDF/B-VII CE-143
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,a*0)
- (n,a*1)
- (n,a*2)
- (n,a*3)
- (n,a*4)
ENDF/B-VII CE-143
Threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII CE-143
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,a*10)
- (n,a*11)
- (n,a*c)
angular distribution for elastic
ENDF/B-VII CE-143 angular distribution for (n,n*1)

Energy (MeV) vs. Pro/Co vs. Cosine
angular distribution for \((n,n^3)\)
ENDF/B-VII CE-143
angular distribution for (n,n*4)
ENDF/B-VII CE-143
angular distribution for (n,n*5)
ENDF/B-VII CE-143
angular distribution for \((n,n^6)\)
angular distribution for (n,n*7)
ENDF/B-VII CE-143
angular distribution for \((n,n^8)\)
ENDF/B-VII CE-143
angular distribution for (n,n*9)
ENDF/B-VII CE-143
angular distribution for (n,n*11)
ENDF/B-VII CE-143
angular distribution for (n,n*13)
ENDF/B-VII CE-143
angular distribution for (n,n*14)
ENDF/B-VII CE-143
Neutron emission for (n,2n)
ENDF/B-VII CE-143
Neutron emission for (n,3n)
ENDF/B-VII CE-143
Neutron emission for (n,n*)a
ENDF/B-VII CE-143
Neutron emission for (n,2n)a
ENDF/B-VII CE-143
Neutron emission for \((n,n^*)p\)
ENDF/B-VII CE-143
Neutron emission for (n,2np)
ENDF/B-VII CE-143
Neutron emission for (n,n*c)
Photon emission for (n,2n)
ENDF/B-VII CE-143
Photon emission for (n,3n)
ENDF/B-VII CE-143
Photon emission for (n,n*)a
ENDF/B-VII CE-143
Photon emission for (n,2n)a
ENDF/B-VII CE-143
Photon emission for \((n,n^*)p\)
Photon emission for (n,2np)
ENDF/B-VII CE-143
Photon emission for (n,gma)
ENDF/B-VII CE-143
Photon emission for (n,p*c)
ENDF/B-VII CE-143
Photon emission for (n,a*c)
ENDF/B-VII CE-143
thermal capture photon spectrum
ENDF/B-VII CE-143
14 MeV photon spectrum
ENDF/B-VII CE-143
Particle heating contributions

Energy (MeV)

MeV/collision

0 2 4 6 8 10 12 14 16 18 20

0 10^{-3} 0 10 20 30 40 50 60

*protons*

*alphas*
ENDF/B-VII CE-143
Recoil Heating

Energy (MeV)

Heating (MeV/reaction)

*10^-3

recoil heating
ENDF/B-VII CE-143
protons from \((n,n^*)p\)
ENDF/B-VII CE-143
protons from (n,2np)
ENDF/B-VII CE-143
angular distribution for (n,p*2) proton
ENDF/B-VII CE-143
angular distribution for (n,p*3) proton
ENDF/B-VII CE-143
angular distribution for (n,p*4) proton
ENDF/B-VII CE-143
angular distribution for (n,p*) proton
ENDF/B-VII CE-143
angular distribution for \((n,p^*6)\) proton
ENDF/B-VII CE-143
angular distribution for (n,p*7) proton
ENDF/B-VII CE-143

Angular distribution for (n,p*9) proton
ENDF/B-VII CE-143
angular distribution for (n,p*10) proton
ENDF/B-VII CE-143
angular distribution for (n,p*11) proton

Energy (MeV)

Cosine

Prob/Cos

10

10

0.5

0.0

-0.5

-1.0

0.0

0.5

1.0
ENDF/B-VII CE-143
angular distribution for \((n,p^*12)\) proton
ENDF/B-VII CE-143
angular distribution for \((n,p*13)\) proton
ENDF/B-VII CE-143

angular distribution for (n,p*14) proton
ENDF/B-VII CE-143
angular distribution for (n,p*15) proton
angular distribution for (n,p*16) proton
ENDF/B-VII CE-143
protons from (n,p*c)
ENDF/B-VII CE-143
alphas from (n,n*)a
ENDF/B-VII CE-143
alphas from (n,2n)a

Prob./MeV

Energy (MeV)

Sec. Energy
angular distribution for (n,a*0) alpha

ENDF/B-VII CE-143

Energy (MeV)
ENDF/B-VII CE-143
angular distribution for (n,a*1) alpha
ENDF/B-VII CE-143
angular distribution for (n,a^2) alpha
ENDF/B-VII CE-143
angular distribution for (n,a^3) alpha
angular distribution for (n,a*5) alpha

ENDF/B-VII CE-143
ENDF/B-VII CE-143
angular distribution for (n,a*6) alpha
angular distribution for (n,a*7) alpha
ENDF/B-VII CE-143
angular distribution for \((n, a^8)\) alpha

Energy (MeV)

Cosine

Prob/Cos
ENDF/B-VII CE-143
angular distribution for (n,a*9) alpha
ENDF/B-VII CE-143
angular distribution for (n,a*10) alpha
ENDF/B-VII CE-143
angular distribution for (n,a*11) alpha
ENDF/B-VII CE-143
alphas from (n,a*c)