ENDF/B-VII ND-145
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII ND-145
resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}

total

10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
ENDF/B-VII ND-145
resonance total cross section
ENDF/B-VII ND-145
resonance total cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII ND-145
resonance total cross section

Energy (MeV)

Cross section (barns)
ENDF/B-VII ND-145
resonance absorption cross sections

![Graph showing resonance absorption cross sections vs. energy (MeV). The y-axis represents cross section (barns) on a log scale from $10^{-6}$ to $10^3$, and the x-axis represents energy (MeV) from $10^{-6}$ to $10^{-5}$. There is a sharp peak at an energy slightly above $10^{-6}$ MeV. The line is labeled 'capture'.]
ENDF/B-VII ND-145
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII ND-145
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
ENDF/B-VII ND-145
UR elastic cross section

Energy (MeV) vs. Cross section (barns)

- Inf. Dil.
- 100 b
ENDF/B-VII ND-145
UR capture cross section

Energy (MeV) vs Cross section (barns) plot.

Lines indicate different capture cross sections:
- Inf. Dil.
- 100 b
ENDF/B-VII ND-145
Heating

Heating (MeV/reaction)

Energy (MeV)
ENDF/B-VII ND-145
Damage

Energy (MeV)

Damage (MeV-barns)
ENDF/B-VII ND-145
Non-threshold reactions

![Graph showing non-threshold reactions with energy on the x-axis and cross section on the y-axis. The graph includes data for (n,gma), (n,a), and (n,xa) reactions.]
ENDF/B-VII ND-145
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII ND-145
Non-threshold reactions

Energy (MeV)

Cross section (barns)

- (n,gma)
- (n,a)
- (n,xa)

Energy (MeV)
ENDF/B-VII ND-145
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p*1)
(n,p*2)
(n,p*3)
(n,p*4)
(n,p*5)
ENDF/B-VII ND-145
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p*11)
(n,p*12)
(n,p*13)
(n,p*14)
(n,p*c)
ENDF/B-VII ND-145
angular distribution for elastic

Prob/Cos

Energy (MeV)

Cosine

10^{-1}

0.5

0.0

-0.5

-1.0
ENDF/B-VII ND-145
angular distribution for (n,n*1)
ENDF/B-VII ND-145
angular distribution for (n,n*2)
ENDF/B-VII ND-145
angular distribution for (n,n*3)
ENDF/B-VII ND-145
angular distribution for (n,n*5)
ENDF/B-VII ND-145
angular distribution for (n,n*6)
ENDF/B-VII ND-145
angular distribution for (n,n*7)
ENDF/B-VII ND-145
angular distribution for (n,n*8)
ENDF/B-VII ND-145 angular distribution for (n,n*9)
ENDF/B-VII ND-145
angular distribution for (n,n*10)
ENDF/B-VII ND-145
angular distribution for (n,n*11)
ENDF/B-VII ND-145
angular distribution for (n,n*12)
ENDF/B-VII ND-145
angular distribution for (n,n*13)
ENDF/B-VII ND-145
angular distribution for (n,n*14)
ENDF/B-VII ND-145 angular distribution for (n,n*15)
ENDF/B-VII ND-145
angular distribution for (n,n*16)
ENDF/B-VII ND-145
angular distribution for (n,n*17)
ENDF/B-VII ND-145
angular distribution for \((n, n^* 18)\)
ENDF/B-VII ND-145
angular distribution for (n,n*19)
ENDF/B-VII ND-145
angular distribution for (n,n*20)
angular distribution for (n,n^*)
ENDF/B-VII ND-145
angular distribution for \((n,n^{*22})\)
ENDF/B-VII ND-145
angular distribution for (n,n*23)
ENDF/B-VII ND-145 angular distribution for (n,n*24)
ENDF/B-VII ND-145
angular distribution for (n,n*25)
ENDF/B-VII ND-145
Neutron emission for (n,2n)
ENDF/B-VII ND-145
Neutron emission for (n,3n)
ENDF/B-VII ND-145
Neutron emission for (n, n*) a
ENDF/B-VII ND-145
Neutron emission for (n,2n)a
ENDF/B-VII ND-145
Neutron emission for (n,n*)p
ENDF/B-VII ND-145
Neutron emission for \((n,2np)\)
ENDF/B-VII ND-145
Neutron emission for \((n,n^*c)\)
ENDF/B-VII ND-145
Photon emission for (n,2n)
ENDF/B-VII ND-145
Photon emission for \((n,3n)\)
Photon emission for (n,2n) reaction.
ENDF/B-VII ND-145
Photon emission for \((n,n^*)p\)
ENDF/B-VII ND-145
Photon emission for \((n,2np)\)
Photon emission for (n,n*c)
ENDF/B-VII ND-145
Photon emission for (n,gma)
Photon emission for (n,p^∗c)
ENDF/B-VII ND-145
thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII ND-145
14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII ND-145
Particle heating contributions

Energy (MeV) vs. MeV/collision

- Protons
- Alphas
ENDF/B-VII ND-145
Particle production cross sections

Cross section (barns)

Energy (MeV)

protons

alphas
ENDF/B-VII ND-145
protons from $(n,n^*)p$
ENDF/B-VII ND-145
protons from (n,2np)
ENDF/B-VII ND-145
angular distribution for (n,p^0) proton
ENDF/B-VII ND-145
angular distribution for (n,p*1) proton
ENDF/B-VII ND-145
angular distribution for (n,p²) proton

Energy (MeV)

Cosine

Prob/Cos
ENDF/B-VII ND-145
angular distribution for (n,p*3) proton
ENDF/B-VII ND-145
angular distribution for (n,p*4) proton

Energy (MeV)

Probl/Cos

Cosine
ENDF/B-VII ND-145
angular distribution for (n,p*5) proton
ENDF/B-VII ND-145
angular distribution for (n,p*6) proton
ENDF/B-VII ND-145
angular distribution for (n, p^8) proton

Energy (MeV)

Cosine

Prob/Cos
ENDF/B-VII ND-145
angular distribution for (n,p*9) proton
ENDF/B-VII ND-145
angular distribution for (n,p*10) proton
ENDF/B-VII ND-145
angular distribution for (n,p*11) proton
ENDF/B-VII ND-145
angular distribution for (n,p*12) proton
ENDF/B-VII ND-145
angular distribution for \((n,p^{*13})\) proton
ENDF/B-VII ND-145
angular distribution for (n,p*14) proton
ENDF/B-VII ND-145
protons from (n,p*c)
ENDF/B-VII ND-145
alphas from (n,n*)a
ENDF/B-VII ND-145
alphas from (n,2n)a