ENDF/B-VII.1 DY-164
resonance total cross section

Cross section (barns) vs. Energy (MeV)
ENDF/B-VII.1 DY-164
resonance total cross section
ENDF/B-VII.1 DY-164
resonance absorption cross sections

Energy (MeV) vs. Cross section (barns)
ENDF/B-VII.1 DY-164
resonance absorption cross sections
ENDF/B-VII.1 DY-164
UR total cross section

Energy (MeV) vs. Cross section (barns)

- Inf. Dil.
- 100 b
- 1 b

Cross section decreases with increasing energy.
ENDF/B-VII.1 DY-164
UR elastic cross section
ENDF/B-VII.1 DY-164
UR capture cross section

Cross section (barns) vs. Energy (MeV)
ENDF/B-VII.1 DY-164 Damage

Energy (MeV)

Damage (MeV-barns)

- Energy (MeV) ranges from $10^{-11}$ to $10^1$
- Damage (MeV-barns) ranges from $10^{-6}$ to $10^0$

The graph shows the damage as a function of energy, with a logarithmic scale on both axes.
ENDF/B-VII.1 DY-164
Non-threshold reactions
ENDF/B-VII.1 DY-164
Principal cross sections

The graph shows the variation of cross sections across different energy levels in MeV. The x-axis represents the energy in MeV, ranging from 2 to 20, while the y-axis shows the cross section in barns, ranging from 0 to 12. The graph includes the following lines:

- Black line: total cross section
- Blue line: absorption cross section
- Green line: elastic cross section
- Red line: gamma production cross section

The graph highlights the energy (MeV) and cross section (barns) for each category, illustrating the peak and trough values across the energy spectrum.
ENDF/B-VII.1 DY-164 Damage

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

- Damage increases linearly with energy.
- The damage scale ranges from 0 to 300 MeV-barns.
- The energy scale ranges from 0 to 20 MeV.
ENDF/B-VII.1 DY-164
Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 DY-164
Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 DY-164
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,a*6)
- (n,a*7)
- (n,a*8)
- (n,a*9)
- (n,a*10)
ENDF/B-VII.1 DY-164
angular distribution for elastic
ENDF/B-VII.1 DY-164
angular distribution for (n,n*1)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*2)
ENDF/B-VII.1 DY-164
angular distribution for (n,n\*4)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*5)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*6)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*7)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*8)
ENDF/B-VII.1 DY-164
angular distribution for \((n,n^9)\)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*10)
ENDF/B-VII.1 DY-164
angular distribution for \((n,n^*11)\)
ENDF/B-VII.1 DY-164
angular distribution for \((n,n^*12)\)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*13)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*14)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*15)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*16)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*17)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*18)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*19)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*20)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*21)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*22)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*23)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*24)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*25)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*26)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*27)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*28)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*29)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*30)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*31)
ENDF/B-VII.1 DY-164
angular distribution for (n,n*32)
ENDF/B-VII.1 DY-164
Neutron emission for (n,2n)
ENDF/B-VII.1 DY-164
Neutron emission for (n,3n)
ENDF/B-VII.1 DY-164
Neutron emission for \((n,n^*)a\)
ENDF/B-VII.1 DY-164
Neutron emission for \((n,2n)a\)
ENDF/B-VII.1 DY-164
Neutron emission for \((n,n^*)p\)
ENDF/B-VII.1 DY-164
Neutron emission for (n,2np)
ENDF/B-VII.1 DY-164
Neutron emission for (n,n^*c)
ENDF/B-VII.1 DY-164
Photon emission for (n,2n)
ENDF/B-VII.1 DY-164
Photon emission for (n,3n)
ENDF/B-VII.1 DY-164
Photon emission for (n,n*)a

![Graph showing photon emission for (n,n*)a](image-url)
ENDF/B-VII.1 DY-164
Photon emission for (n,2n)a
ENDF/B-VII.1 DY-164
Photon emission for \((n,n^*)p\)
ENDF/B-VII.1 DY-164
Photon emission for (n,2np)
ENDF/B-VII.1 DY-164
Photon emission for (n,n*c)
ENDF/B-VII.1 DY-164
Photon emission for (n,gma)
ENDF/B-VII.1 DY-164
Photon emission for (n,p*c)
ENDF/B-VII.1 DY-164
Photon emission for (n,a*c)
ENDF/B-VII.1 DY-164
thermal capture photon spectrum
Particle heating contributions

- protons
- alphas

Energy (MeV)

MeV/collision

*10^-3
ENDF/B-VII.1 DY-164
Recoil Heating

Heating (MeV/reaction) vs Energy (MeV)

- Fig. showing the recoil heating as a function of energy.

Heating increases with energy, peaking around 20 MeV.
ENDF/B-VII.1 DY-164
protons from \((n,n^*)p\)
ENDF/B-VII.1 DY-164
protons from (n,2np)
ENDF/B-VII.1 DY-164
angular distribution for (n,p*0) proton
ENDF/B-VII.1 DY-164
protons from (n,p*c)
ENDF/B-VII.1 DY-164
alphas from (n,n*)a
ENDF/B-VII.1 DY-164
alphas from (n,2n)a
ENDF/B-VII.1 DY-164
angular distribution for (n,a*0) alpha

Prob/Cos

10^0

10^-1

Cosine 0.5 0.0 -0.5 -1.0

Energy (MeV)

20

15

10

5

0
ENDF/B-VII.1 DY-164
angular distribution for (n,a*1) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*2) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*3) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*4) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*5) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*6) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*7) alpha
ENDF/B-VII.1 DY-164
angular distribution for \((n,a^8)\) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*9) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*10) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*11) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*12) alpha
ENDF/B-VII.1 DY-164
angular distribution for (n,a*13) alpha
ENDF/B-VII.1 DY-164
alphas from (n,a*c)