Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)

- total
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Cross section (barns) vs Energy (MeV)](image)

- Energy (MeV)
- Cross section (barns)
- total
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}

10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}

total
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing the total cross section as a function of energy.](image)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture

Cross section (barns)

Energy (MeV)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture

Cross section (barns)

Energy (MeV)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Capture
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

![Graph showing the relationship between energy (MeV) and cross section (barns).](image)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR total cross section

Energy (MeV) vs Cross section (barns) graph with three lines:
- Inf. Dil.
- 100 b
- 1 b

The graph shows the cross section in barns as a function of energy in MeV.
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR elastic cross section

[Graph showing cross section vs. energy with different lines labeled Inf. Dil., 100 b, and 1 b]
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR capture cross section
Non-threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,gamma)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

![Graph showing cross sections](image_url)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ Heating
Damage

Energy (MeV)

Damage (MeV-barns)
Non-threshold reactions

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

- Cross section in barns
- Energy in MeV

The plot shows the cross section as a function of energy for non-threshold reactions.

(n,gma) line on the graph.
Threshold reactions

Cross section (barns)

Energy (MeV)
angular distribution for elastic
angular distribution for elastic
angular distribution for (n,n*1)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*2)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*3)\)
angular distribution for (n,n*4)
angular distribution for (n,n*5)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n*6)\)
angular distribution for \((n,n^*7)\)
angular distribution for (n,n*8)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*9)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

angular distribution for (n,n*10)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^{*11})\)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*12)
angular distribution for (n,n*13)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*14)
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angular distribution for (n,n*c)
Neutron emission for (n,x)

Energy (MeV)

Sec. Energy

Prob/MeV

10.0

10.2

10.4

10.6

10.8

11.0

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Neutron emission for (n,2n)
Neutron emission for (n,3n)
Neutron emission for \((n,n^*)p\)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*c)
Photon emission for (n,2n)
Photon emission for (n,3n)
Photon emission for \((n,n^*)p\)
Photon emission for \((n,n^*c)\)
Photon emission for (n,gma)
Photon emission for (n,p)
Photon emission for (n,a)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum

Gamma Prod (barns/MeV) vs. Gamma Energy (MeV)
Particle heating contributions

- protons
- deuterons
- tritons
- he-3
- alphas

Energy (MeV)

MeV/collision

Energy (MeV)
Recoil Heating

Heating (MeV/reaction)

Energy (MeV)
Particle production cross sections

- Protons
- Deuterons
- Tritons
- He-3
- Alphas

Energy (MeV) vs. Cross section (barns)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,x)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
tritons from (n,x)
73-TA-181 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,x)