50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing total cross section vs. energy]
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing total cross section vs. energy (MeV)]
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

10^{-3} 10^{-2}

Cross section (barns)

10^{-1} 10^{1} 10^{2}

total

Energy (MeV)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)

- total
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

10^{-2}

10^{-3}

10^{0}

10^{1}

capture
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR total cross section
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR elastic cross section

- Inf. Dil.
- 100 b
- 1 b

Energy (MeV) vs. Cross section (barns)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR capture cross section

Energy (MeV)

Cross section (barns)

Inf. Dil.
100 b
1 b
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Heating
Energy (MeV) vs. Damage (MeV-barns)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Non-threshold reactions

![Graph showing non-threshold reactions with cross section (barns) vs. energy (MeV).]
Principal cross sections

- Total cross section
- Absorption cross section
- Elastic cross section
- Gamma production cross section

Energy (MeV) vs. Cross section (barns)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Heating

![Graph](attachment:image.png)

- Energy (MeV)
- Heating (MeV/reaction)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Non-threshold reactions

Cross section (barns)

Energy (MeV)

- (n,gma)
- (n,a)
- (n,xa)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Energy (MeV)

Cross section (barns)

Energy (MeV)

(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

![Graph showing cross sections for different inelastic levels (n,n^6) to (n,n^10) as a function of energy (MeV).]
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Cross section (barns)

Energy (MeV)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Cross section (barns) vs Energy (MeV)

- (n,x)
- (n,2n)
- (n,3n)
- (n,n*)a
- (n,2n)a
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Threshold reactions

![Graph showing cross sections for different reactions as a function of energy. The x-axis represents energy in MeV, ranging from 0 to 20, and the y-axis represents cross section in barns, ranging from 0 to 2.5. Different reactions are denoted by lines of different colors: (n,n*)p (black), (n,n*)d (red), (n,2np) (green), (n,n*c) (blue), and (n,p) (purple). The graph peaks at a certain energy for the (n,n*)d reaction and shows a general decrease in cross section with increasing energy.]
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,d)
- (n,t)
- (n,he3)
- (n,xp)
- (n,xd)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
angular distribution for elastic
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*1)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^2)\)
angular distribution for (n,n*3)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*4)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*5)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*6)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*7)\)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*8)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \( (n,n^*9) \)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*10)\)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*11)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*12)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*13)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*14)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*15)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*16)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n\ast17)\)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2n)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,3n)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)a
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2n)a

![Graph showing neutron emission probabilities as a function of energy and secondary energy.](image-url)

- **X-axis (Secondary Energy):** 0 to 20
- **Y-axis (Energy (MeV)):** 0 to 20
- **Z-axis (Probability/MeV):** 10^-1 to 10^1

The graph illustrates the probability distribution of neutron emission for different energy levels, with peaks indicating higher probability at specific energy intervals.
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)p
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)d
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2np)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*\text{c})
Photon emission for \((n,x)\)
Photon emission for (n,2n)
Photon emission for (n,3n)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60
Photon emission for (n,n*)\(a\)

![Graph showing photon emission spectra](image-url)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,2n)a
Photon emission for (n,n*)p
Photon emission for (n,n*)d
Photon emission for (n,2np)
Photon emission for (n,n*1)
Photon emission for \((n,n^*3)\)
Photon emission for (n,n*4)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*5)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*6)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*7)
Photon emission for (n,n*8)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*9)
Photon emission for (n,n'10)

Prob/MeV

$E_\gamma$ (MeV)

$E_n$ (MeV)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*11)
Photon emission for (n,n*12)
Photon emission for (n,n*13)
Photon emission for (n,n*14)
Photon emission for \((n,n'15)\)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*17)
Photon emission for (n,n*c)
Photon emission for (n, gma)

50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum

[Graph showing the gamma production rate as a function of gamma energy (MeV)].
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Particle heating contributions

![Graph showing particle heating contributions across energy (MeV) and MeV/collision. The graph includes lines for protons, deuterons, tritons, he-3, and alphas.](image-url)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Recoil Heating

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**Graph Details:**
- **Y-axis:** Heating (MeV/reaction)
- **X-axis:** Energy (MeV)
- **Line:** recoil heating

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**Graph Data:**
- The graph shows a plot of heating (in MeV/reaction) against energy (in MeV).
- The heating increases significantly with energy, with notable spikes at specific energy levels.
- The peak heating occurs at energies above 150 MeV, with a dramatic increase around 160 MeV.
Particle production cross sections

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

Energy (MeV) vs Cross section (barns)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,n*)p
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,2np)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,n*)d
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
tritons from (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
he3s from (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ alphas from (n,x)
50-SN-117 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,n*)a