30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

![Graph showing cross sections vs. energy](image)

- **Total Cross Section**
- **Absorption Cross Section**
- **Elastic Cross Section**
- **Gamma Production Cross Section**

**Energy (MeV)**

**Cross section (barns)**
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

[Graph showing total cross section as a function of energy (MeV).]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph depicting the cross section (barns) versus energy (MeV). The graph shows the total cross section over a range of energies from 10^{-2} to 10^{-1} (MeV).]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph](image-url)

- Total cross section vs. energy (MeV)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

- Energy (MeV) vs. Cross section (barns)
- Total cross section plotted against energy.
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture

Energy (MeV)

Cross section (barns)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

Capture
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture

Energy (MeV)

Cross section (barns)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

![Graph showing capture cross section as a function of energy in MeV. The x-axis represents energy (MeV) ranging from $10^0$ to $10^1$, and the y-axis represents cross section (barns) ranging from $10^{-3}$ to $10^{-2}$]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ UR total cross section

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

- Inf. Dil.
- 100 b
- 1 b
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ UR elastic cross section

![Graph showing the cross section in barns as a function of energy in MeV. The graph includes lines labeled Inf. Dil., 100 b, and 1 b, with the cross section decreasing as energy increases.]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

UR capture cross section

Cross section (barns)

Energy (MeV)

- Inf. Dil.
- 100 b
- 1 b

10^{-2} - 10^{-1} - 10^{0}
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Heating

Heating (MeV/reaction) vs. Energy (MeV) graph.
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Damage

Energy (MeV)

Damage (MeV-barns)

-10^{-11} -10^{-9} -10^{-7} -10^{-5} -10^{-3} -10^{-1} 10^{0} 10^{1}
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Non-threshold reactions

Energy (MeV)

Cross section (barns)

$\text{(n,gma)}$

$\text{(n,a)}$

$\text{(n,xa)}$

Energy (MeV)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

Elastic
Gamma production
Absorption
Total
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Heating

![Graph showing the relationship between Energy (MeV) and Heating (MeV/reaction). The graph has a line labeled 'heating'.]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Damage

Energy (MeV)

Damage (MeV-barns)

0 20 40 60 80 100 120 140 160

0 10 350 300 250 200 150 100 50

*10^-3
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
(n,a)
(n,xa)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Energy (MeV)

Cross section (barns)

$n,n^1$

$n,n^2$

$n,n^3$

$n,n^4$

$n,n^5$
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

![Graph showing cross sections for (n,n*16) and (n,n*17) reactions as functions of energy (MeV). The x-axis represents energy in MeV ranging from 2 to 20, and the y-axis represents cross section in barns ranging from 0 to 6*10^-3. Two curves are shown: one black and one red. The black curve represents (n,n*16) with a significant peak at around 4 MeV, while the red curve representing (n,n*17) remains relatively flat across the energy range.](attachment:image.png)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

![Graph showing cross section vs. energy for different reactions](image-url)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

![Diagram showing cross-section plots for different nuclear reactions: (n,n*)p, (n,n*)d, (n,n*c), (n,p), (n,d). The x-axis represents energy in MeV ranging from 0 to 20, while the y-axis represents cross-section in barns ranging from 0 to 1.6.]
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

![Graph showing cross sections for different reactions]

- (n,t)
- (n,he3)
- (n,2a)
- (n,2p)
- (n,pa)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,pd)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*1)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*2)\)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*3)\)
angular distribution for (n,n*4)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*5)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*6)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*7)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*8)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*9)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*10)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \( (n,n^{\ast}11) \)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*12)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*13)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*14)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*15)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*16)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*17)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for \((n, x)\)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2n)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,3n)
Neutron emission for (n,n*)a
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2n)a
Neutron emission for (n,n*)p
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n\*)d
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*c)
Photon emission for (n,x)
Photon emission for (n,2n)
Photon emission for (n,3n)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for \((n,n^*)a\)
Photon emission for (n,2n)a
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*)d

![Graph showing photon emission](image-url)
Photon emission for (n,n*1)
Photon emission for (n,n*2)

30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Phonon emission for \((n,n^*3)\)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*4)
Photon emission for \((n,n^*5)\)
Photon emission for (n,n*6)
Photon emission for (n,n*7)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*8)
Photon emission for \((n,n^*9)\)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*10)
Photon emission for (n,n*11)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*12)
Photon emission for (n,n*13)
Photon emission for (n,n*14)
Photon emission for (n,n*15)
Photon emission for (n,n*16)
Photon emission for (n,n\*17)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*c)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum
Particle heating contributions

30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

- protons
- deuterons
- tritons
- alphas

MeV/collision vs Energy (MeV)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Recoil Heating

![Graph showing heating vs. energy](image-url)
Particle production cross sections for 30-ZN-66 from FENDL-3.2 by NJOY2016.60+

Graph showing the energy (MeV) on the x-axis and the cross section (barns) on the y-axis. The graph includes lines for protons, deuterons, tritons, and alphas.
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from \((n,n^*)p\)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,x)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ deuterons from (n,n*)d

3D graph with axes labeled as follows:
- X-axis: Energy (MeV)
- Y-axis: Secondary Energy (MeV)
- Z-axis: Probability/MeV
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,x)
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY 2016.60+ alphas from (n,n*)a
30-ZN-66 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,2n)a