Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance total cross section

![Graph showing total cross section vs. energy (MeV).](image)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance total cross section

![Graph showing total cross section vs. energy. The x-axis represents energy in MeV, ranging from 10^{-3} to 10^{-2}, and the y-axis represents cross section in barns, ranging from 10^{-2} to 10^{3}. The graph shows multiple resonances with peaks at various energies.]
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)

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

total

Energy (MeV)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance total cross section
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance total cross section
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance absorption cross sections

Capture cross section vs. Energy (MeV)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance absorption cross sections

\[
\begin{align*}
\text{Cross section (barns)} & \quad \text{Energy (MeV)} \\
10^1 & \quad 10^{-3} \\
10^0 & \quad 10^{-2} \\
10^{-1} & \quad 10^{-1} \\
10^{-2} & \quad 10^{-2} \\
10^{-3} & \quad 10^{-3} \\
\end{align*}
\]

capture
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance absorption cross sections

capture
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance absorption cross sections

![Graph showing the capture cross section as a function of energy. The plot displays a decreasing trend in cross section with increasing energy. The x-axis represents energy in MeV on a logarithmic scale ranging from 1 to 10^0, while the y-axis represents cross section in barns on a logarithmic scale ranging from 10^{-2} to 10^{-1}. The curve shows a smooth decrease with a slight increase at higher energies.]
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Heating

Energy (MeV)

Heating (MeV/reaction)

heating
Principal cross sections

Energy (MeV)

Cross section (barns)

total
absorption
elastic
gamma production

0 20 40 60 80 100 120 140 160
0 1 2 3 4 5 6
Heating
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Non-threshold reactions

Cross section (barns)

Energy (MeV)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*)6
(n,n*)7
(n,n*)8
(n,n*)9
(n,n*)10

Energy (MeV)

2 4 6 8 10 12 14 16 18 20

100
10^{-3}

29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Inelastic levels

![Graph showing cross section (barns) vs. Energy (MeV) for different inelastic levels: (n,n*11), (n,n*12), and (n,n*13).]
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,p)
- (n,d)
- (n,t)
- (n,he3)
- (n,a)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,xp)
(n,xd)
(n,xt)
(n,xhe3)
(n,xa)

Energy (MeV)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
angular distribution for elastic
angular distribution for elastic
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
angular distribution for (n,n*1)
angular distribution for (n,n*2)
angular distribution for (n,n*3)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
angular distribution for (n,n*4)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
angular distribution for (n,n*13)
Neutron emission for (n,x)
Neutron emission for (n,2n)
Neutron emission for \((n,n^*)a\)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
Neutron emission for (n,n*)p
Neutron emission for (n,n*c)
Photon emission for (n,gma)
Photon emission for \((n,x)\)
Photon emission for (n,2n)
Photon emission for \((n,n^*)a\)
Photon emission for \( (n,n^*)p \)
Photon emission for (n,n*c)
Photon emission for \((n,p)\)
Photon emission for \((n,a)\)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
thermal capture photon spectrum

Gamma Prod (barns/MeV)

Gamma Energy (MeV)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
14 MeV photon spectrum
Particle heating contributions

- Protons
- Deuterons
- Tritons
- Alphas

Energy (MeV) vs. MeV/collision
29-CU-65 FOR FENDL-3.2 FROM ENDF/B-VII BY NJOY2016.60+
Recoil Heating

Energy (MeV) vs Heating (MeV/reaction)
Particle production cross sections

Cross section (barns) vs. Energy (MeV)

- Protons
- Deuterons
- Tritons
- Alphas
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
protons from (n,x)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
protons from \((n,n^*)p\)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
protons from (n,p)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
deuterons from (n,x)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
tritons from (n,x)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
nalphas from (n,x)
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
alphas from (n,n*)a
29-CU-65 FOR FENDL-3.2 FROM ENDF/B VII BY NJOY2016.60+
alphas from (n,a)