79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

![Graph showing principal cross sections for 79-AU-197 from FENDL-3.2. The graph plots cross sections in barns against energy in MeV on a logarithmic scale. The cross sections include total, absorption, elastic, and gamma production.](image-url)
79-AU-197 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). The cross section is given in barns, with a peak at around 10^{-5} MeV.]
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing the total cross section for 79-AU-197 from FENDL-3.2, calculated by NJOY2016.60, with energy on the x-axis (in MeV) and cross section on the y-axis (in barns).]
79-AU-197 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 in MeV. The y-axis represents cross section in barns, and the x-axis represents energy in MeV. The graph shows a series of peaks and valleys indicating resonance behavior.]
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Energy (MeV)

Cross section (barns)

10^1

10^2

total
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

![Graph showing the energy spectrum with cross section in barns and energy in MeV]
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Capture cross section as a function of energy (MeV).
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Capture cross section as a function of energy (MeV), showing a decrease with increasing energy.
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Damage

Energy (MeV) vs Damage (MeV-barns)

- Energy (MeV) ranges from $10^{-11}$ to $10^1$.
- Damage (MeV-barns) ranges from $10^{-5}$ to $10^0$.

- The graph shows a line labeled 'damage' with fluctuations across the energy spectrum.
Non-threshold reactions

Energy (MeV)

Cross section (barns)

\( (n,\text{gma}) \)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

![Graph showing cross sections as a function of energy. The graph plots cross section (in barns) on the y-axis against energy (in MeV) on the x-axis. The graph includes four plots, labeled as total, absorption, elastic, and gamma production, each represented by different line styles.]
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Heating

![Graph showing heating versus energy (MeV)].

Heating (MeV/reaction) vs. Energy (MeV)
Non-threshold reactions

\[
\begin{align*}
\text{Cross section (barns)} &= 10^{-1} \\
\text{Energy (MeV)} &= 0 - 30
\end{align*}
\]
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Energy (MeV)

Cross section (barns)

Energy (MeV)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ Inelastic levels

Cross section (barns)

Energy (MeV)

(n,n^11)
(n,n^12)
(n,n^13)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Cross section (barns)

Energy (MeV)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

![Graph showing cross section versus energy for (n,p) and (n,a) reactions.](image-url)
angular distribution for elastic
angular distribution for elastic
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,2n)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,3n)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,4n)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*1)
angular distribution for (n,n*2)
angular distribution for (n,n*3)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*4)
angular distribution for (n,n*5)
angular distribution for (n,n*6)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*7)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*8)\)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*9)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*10)
angular distribution for (n, n*11)
angular distribution for \((n,n^*12)\)
angular distribution for \((n,n*13)\)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,x)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,2n)
Neutron emission for (n,4n)
Neutron emission for \( n, n^\ast c \)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,gma)
Photon emission for inelastic

\begin{equation}
E_\gamma (\text{MeV})
\end{equation}

\begin{equation}
\text{Prob}/\text{MeV}
\end{equation}

\begin{equation}
E_n (\text{MeV})
\end{equation}
Photon emission for (n,2n)
Photon emission for $(n,3n)$

![Graph showing photon emission for $(n,3n)$]
Photon emission for (n,4n)
Photon emission for (n,x)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum

Gamma Energy (MeV) vs. Gamma Prod (barns/MeV)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)

10^1

0 10 20 30

Gamma Energy (MeV)
Particle heating contributions

79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

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

Energy (MeV) vs. MeV/collision

Energy (MeV) range: 20 to 160
MeV/collision range: 0 to 12
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Recoil Heating

![Graph showing recoil heating vs energy (MeV)](image_url)
Particle production cross sections for 79-AU-197.

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

Energy (MeV) vs. Cross section (barns) graph.
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuteron from (n,x)

![Graph depicting the distribution of secondary energies and energies in a three-dimensional plot.](image)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
tritons from (n,x)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
he3s from (n,x)
79-AU-197 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,x)