Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

Cross section (barns)

Energy (MeV)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

![Graph showing the capture cross section with a resonance peak at high energies.]
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

[Graph showing cross section (barns) vs. Energy (MeV).]
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ UR total cross section

![Graph showing the cross section as a function of energy. The graph plots Cross section (barns) on the y-axis and Energy (MeV) on the x-axis. The cross sections are represented on a log-log scale. The legend includes lines for In. Dil., 100 b, and 1 b.]
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR elastic cross section

Energy (MeV) vs. Cross section (barns)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
UR capture cross section

![Graph showing capture cross section vs energy](image-url)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Heating

Heating (MeV/reaction)

Energy (MeV)
Energy (MeV) vs Cross section (barns) plot for non-threshold reactions.
Principal cross sections

Cross section (barns) vs. Energy (MeV)

- Total
- Absorption
- Elastic
- Gamma production
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ Heating

![Graph showing heating as a function of energy (MeV)].

- Y-axis: Heating (MeV/reaction)
- X-axis: Energy (MeV)
- The graph shows a positive correlation between heating and energy.
Non-threshold reactions

Cross section (barns)
47-AG-109 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)

Energy (MeV)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Cross section (barns)

Energy (MeV)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

![Graph showing cross section (barns) vs. energy (MeV) for inelastic levels](image-url)
Inelastic levels

Cross section (barns)

Energy (MeV)

- \( (n,n^{*16}) \)
- \( (n,n^{*17}) \)
- \( (n,n^{*18}) \)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

- $(n,x)$
- $(n,2n)$
- $(n,3n)$
- $(n,n^*)a$
- $(n,2n)a$
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p*5)  (n,p*6)  (n,p*7)  (n,p*8)  (n,p*9)

Energy (MeV)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p*10)
(n,p*11)
(n,p*12)
(n,p*13)
(n,p*14)
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,p\textsuperscript{15})
- (n,p\textsuperscript{16})
- (n,p\textsuperscript{17})
- (n,p\textsuperscript{18})
- (n,p\textsuperscript{19})
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Cross section (barns)

Energy (MeV)
angular distribution for elastic
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*1)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*2)
angular distribution for (n,n*)
Angular distribution for \((n,n^*4)\)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*5)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*6)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*7)
angular distribution for (n,n*8)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*9)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*10)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*11)
angular distribution for $(n,n^{*12})$
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*13)
angular distribution for (n,n*14)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*15)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*16)
angular distribution for (n,n*17)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*18)
Neutron emission for (n,2n)
Neutron emission for (n,3n)
Neutron emission for \((n,n^*)a\)
Neutron emission for (n,2n)a

47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)p

The graph shows the probability distribution of secondary energy (labeled as Sec. Energy) versus neutron energy (labeled as Energy (MeV)). The y-axis represents the probability density (Prob/Mev) on a logarithmic scale.
Neutron emission for (n,2np)
47-AG-109 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)

\[ P(E_\gamma, E_n) \]
Photon emission for \((n,3n)\)
Photon emission for (n,n*)a

47-AG-109 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,2np)

- $E_γ$ (MeV)
- $E_n$ (MeV)
- Prob/MeV

Graph showing the probability distribution of $E_γ$ and $E_n$.
Photon emission for (n,n*c)
Photon emission for (n,gma)
Photon emission for (n,p\*c)
Photon emission for (n,a*c)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum
Particle heating contributions

Energy (MeV) vs. MeV/collision for protons, deuterons, tritons, he-3, and alphas.
Recoil Heating

Energy (MeV) vs Heating (MeV/reaction)

- Heating increases with energy.
- The heating level starts low and increases steadily to approximately 2.5 MeV at 200 MeV.
- The curve shows several flat regions, indicating a slowdown in heating increase at certain energy values.
Particle production cross sections

- Protons
- Deuterons
- Tritons
- He-3
- Alphas
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,n*)p
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+ protons from \((n,2np)\)
angular distribution for (n,p*0) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*1) proton
angular distribution for (n,p*2) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*3) proton
angular distribution for (n,p*4) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*5) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*6) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*7) proton
angular distribution for \((n,p^*8)\) proton
angular distribution for (n,p*9) proton
angular distribution for (n,p*10) proton
angular distribution for (n,p*11) proton
For FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Angular distribution for (n, p*12) proton

Plot showing the probability (Probl/Cos) as a function of energy (MeV) and cosine of the angle.
angular distribution for (n,p*13) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*14) proton
angular distribution for (n,p*15) proton
angular distribution for (n,p*16) proton
angular distribution for (n,p*17) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*18) proton
angular distribution for (n,p*19) proton
angular distribution for (n,p*20) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*21) proton
angular distribution for (n,p*22) proton
For FENDL-3.2 from FENDL-3.2 by NJOY2016.60+

Angular distribution for (n,p*23) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*24) proton
angular distribution for (n,p*25) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p*26) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,p^*27)\) proton

\[
\text{Prob/Cos} \times 10^0 \quad 1.0 \quad 0.5 \quad 0.0 \quad -0.5 \quad -1.0
\]
\[
\text{Energy (MeV)} \quad 2 \quad 4 \quad 6 \quad 8 \quad 10 \quad 12 \quad 14 \quad 16 \quad 18 \quad 20
\]
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,p$^*$28) proton
angular distribution for \((n,p^*29)\) proton
angular distribution for (n,p*30) proton
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,p*σ)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,x)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
he3s from (n,x)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,x)
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,n*)a
47-AG-109 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,2n)a
angular distribution for \((n,a^0)\) alpha