62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Principal cross sections

Cross section (barns)

Energy (MeV)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
resonance total cross section

![Graph showing resonance total cross section.](image-url)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+resonance total cross section

Energy (MeV)

Cross section (barns)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+resonance total cross section

![Graph showing the total cross section as a function of energy. The x-axis represents energy in MeV, ranging from $10^{-4}$ to $10^{-3}$, and the y-axis represents cross section in barns, ranging from $10^{-4}$ to $10^3$. The graph displays oscillations typical of nuclear resonance phenomena.](image-url)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
resonance total cross section
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+resonance absorption cross sections

Energy (MeV) vs. Cross section (barns) graph with a peak at around 10^{-6} MeV.
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+resonance absorption cross sections

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

- Capture cross section

The graph shows the variation of cross sections with energy, demonstrating the resonance absorption behavior in the energy spectrum.
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

capture

Energy (MeV)

Cross section (barns)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

resonance absorption cross sections

capture

Energy (MeV)

Cross section (barns)

10^{-3}

10^{-2}

10^{-1}

10^0

10^1
Energy (MeV) vs. Heating (MeV/reaction)

- Heating range: $10^{-11}$ to $10^{1}$
- Energy range: $10^{-11}$ to $10^{1}$

The graph shows the heating as a function of energy, with a distinct peak at approximately $10^{-5}$ MeV.
Non-threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,gma)
- (n,a)
- (n,2a)
- (n,xa)
Principal cross sections

Energy (MeV) vs Cross section (barns)

- Total
- Absorption
- Elastic
- Gamma production
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

Heating

Energy (MeV)

Heating (MeV/reaction)
Non-threshold reactions

![Graph showing cross section vs. energy for different reactions](image-url)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 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)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 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)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Inelastic levels

![Graph showing inelastic levels](image-url)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+

Inelastic levels

Cross section (barns)

Energy (MeV)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*21)  
(n,n*22)  
(n,n*23)  
(n,n*24)  
(n,n*25)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
Inelastic levels

Cross section (barns)

Energy (MeV)

- (n,n\textsuperscript{26})
- (n,n\textsuperscript{27})
- (n,n\textsuperscript{28})
- (n,n\textsuperscript{29})
- (n,n\textsuperscript{30})
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,x)
- (n,2nd)
- (n,2n)
- (n,3n)
- (n,n*)a
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,n*)t
- (n,n*)he3
- (n,4n)
- (n,2np)
- (n,3np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
Threshold reactions

![Graph showing cross sections for different reactions as a function of energy.](image)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
Threshold reactions

Cross section (barns)

Energy (MeV)

- (n,pt)
- (n,da)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Threshold reactions

![Graph showing cross section vs energy for different reactions](image-url)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for elastic
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for elastic

Prob/Cos

10^2

10^1

10^0

10^-1

10^-2

Cosine

0.0

0.5

1.0

Energy (MeV)

80

100

120

140

160

180

200
angular distribution for (n,n*1)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+angular distribution for (n,n*2)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*3)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*4)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*5)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*6)
angular distribution for \((n,n^*7)\)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*8)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*9)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*10)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+angular distribution for (n,n*11)
angular distribution for (n,n*13)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*14)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*15)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*16)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*18)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*19)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
angular distribution for (n,n*20)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*21)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*22)
angular distribution for (n,n*24)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*25)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60 -
angular distribution for (n,n*26)
Angular distribution for (n,n*27)

Energy (MeV)

Cosine

Prob|Cos

10.0
1.0
0.5
0.0
-0.5
-1.0
0
5
10
15
20
25
30
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60 angular distribution for (n,n*28)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*29)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
angular distribution for (n,n*30)
Neutron emission for (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,2nd)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,3n)
Neutron emission for (n,n*)a
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,3n)a
Neutron emission for \((n,n^*)p\)
Neutron emission for \((n,n^*)2a\)
Neutron emission for \((n,n^*)t\)
Neutron emission for \((n,n^*)he3\)
Neutron emission for (n,4n)
Neutron emission for (n,2np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,3np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,2np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Neutron emission for (n,npa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

Neutron emission for (n,n*c)
Photon emission for (n,x)
Photon emission for (n,2nd)
Photon emission for (n,2n)
Photon emission for $(n,3n)$
Photon emission for \((n,n^*)a\)
Photon emission for (n,2n)a
Photon emission for (n,3n)a
Photon emission for \((n,n^*)p\)
Photon emission for (n,n*)2a
Photon emission for (n,n*)d
Photon emission for (n,n*)t
Photon emission for \((n,n^*)\text{he3}\)
Photon emission for (n,4n)
Photon emission for (n,2np)
Photon emission for (n,3np)
Photon emission for (n,2np)
Photon emission for (n,npa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
Photon emission for (n,n*c)
Photon emission for (n,gma)
Photon emission for (n,p)
Photon emission for (n,d)
Photon emission for (n,t)
Photon emission for (n,he3)
Photon emission for (n,a)
Photon emission for (n,2a)
Photon emission for (n,pa)
Photon emission for (n,pd)
Photon emission for (n,pt)
Photon emission for (n,da)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+thermal capture photon spectrum
Gamma Energy (MeV)
Particle heating contributions

- protons
- deuterons
- tritons
- he-3
- alphas
Particle production cross sections

Energy (MeV)

Cross section (barns)

- protons
- deuterons
- tritons
- he-3
- alphas
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
protons from (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
protons from (n,n*)p
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60: protons from (n,2np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+ protons from (n,3np)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
protons from \((n,2np)\)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-protons from (n,npa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+protons from (n,p)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
protons from (n,2p)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60 protons from (n,pa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
protons from (n,pd)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-protons from (n,pt)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
deuterons from (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+deuterons from (n,2nd)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
deuterons from (n,n*)d
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+deuterons from (n,d)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+deuterons from (n,pd)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+deuterons from (n,da)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60

tritons from (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
tritons from (n,n*)t

![Graph showing the probability per MeV as a function of secondary energy and energy (MeV).](image)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
tritons from (n,t)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+tritons from (n,pt)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
he3s from (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
he3s from (n,n*)he3
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
he3s from (n,he3)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+alphas from (n,x)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+alphas from (n,n*)a
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60-
alphas from (n,2n)a
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
alphas from (n,n*)2a
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+alphas from (n,npa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
alphas from (n,a)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60
alphas from (n,2a)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+alphas from (n,pa)
62-SM-147 FOR FENDL-3.2 FROM TENDL-2019 BY NJOY2016.60+
alphas from (n,da)