23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing the resonant total cross section]
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section

![Graph showing cross section (barns) vs. Energy (MeV)]
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance total cross section
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

resonance total cross section

Energy (MeV)

Cross section (barns)

- total
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Capture

Cross section (barns)

23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

10^{-2}

capture
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
resonance absorption cross sections

capture

Cross section (barns)

Energy (MeV)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Heating

![Graph showing Heating vs. Energy (MeV)](image)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Damage

Damage (MeV-barns)

Energy (MeV)
Energy (MeV) vs. Cross section (barns) for various non-threshold reactions:

- (n,gma)
- (n,p)
- (n,xp)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

Cross section (barns)

<table>
<thead>
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<th>Energy (MeV)</th>
<th>total</th>
<th>absorption</th>
<th>elastic</th>
<th>gamma production</th>
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<tr>
<td>4.0</td>
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</tbody>
</table>

Energy (MeV)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Heating

Energy (MeV) vs. Heating (MeV/reaction)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Damage

Energy (MeV)

Damage (MeV-barns)

damage
Non-threshold reactions

Cross section (barns)

Energy (MeV)

- $(n,\gamma\alpha)$
- $(n,p)$
- $(n,xp)$
23-V-50 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)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Cross section (barns) vs. Energy (MeV)

- (n,n*11)
- (n,n*12)
- (n,n*13)
- (n,n*14)
- (n,n*15)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Cross section (barns)

Energy (MeV)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Cross section (barns)

Energy (MeV)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Inelastic levels

Energy (MeV)

Cross section (barns)

- (n,n*36)
- (n,n*37)
- (n,n*38)
- (n,n*39)
- (n,n*40)
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,x)
- (n,2n)
- (n,n*)a
- (n,n*)p
- (n,n*)d

23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Threshold reactions

Cross section (barns)

Energy (MeV)
Threshold reactions

- (n,a)
- (n,2p)
- (n,pa)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,xd)
- (n,xt)
- (n,xhe3)
- (n,xa)
angular distribution for elastic
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*1)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60
angular distribution for (n,n*2)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*3)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*4)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*5)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*6)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*7)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*8)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*9)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*10)\)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*11)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*12)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*13)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*14)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*15)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*16)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*17)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*18)
angular distribution for \( (n, n^{*19}) \)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*20)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*21)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*22)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*23)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*24)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*25)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*26)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*27)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*28)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*29)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*30)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*31)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*32)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for \((n,n^*33)\)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*34)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*35)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*36)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*37)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*38)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*39)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,n*40)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,x)
Neutron emission for (n,2n)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)a
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for \((n,n^*)p\)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Neutron emission for (n,n*)d
Neutron emission for (n,2np)
23-V-50 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 \((n,n^*)a\)
Photon emission for (n,n*)p
Photon emission for (n,n*)d
Photon emission for (n,2np)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n\*1)
Photon emission for (n,n*2)
Photon emission for (n,n*3)
Photon emission for (n,n*4)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*5)
Photon emission for (n,n*6)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*7)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*8)
Photon emission for (n,n*9)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*10)
Photon emission for (n,n*11)
Photon emission for (n,n*12)
Photon emission for (n,n*13)
 Photon emission for (n,n*14)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*15)
Photon emission for (n,n*16)
Photon emission for (n,n*17)
Photon emission for (n,n*18)
Photon emission for \((n, n^*19)\)
Photon emission for (n,n*21)
Photon emission for \((n,n^*22)\)
Photon emission for (n,n*23)
Photon emission for \((n,n*24)\)
Photon emission for \((n,n'25)\)
Photon emission for (n,n*26)
Photon emission for (n,n*27)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*28)
Photon emission for \( (n,n^{\ast}29) \)
Photon emission for (n,n*30)

23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

![Graph showing photon emission probabilities vs. neutron energies]
Photon emission for (n,n*31)
Photon emission for (n,n*32)
Photon emission for $(n,n^{*}33)$
Photon emission for (n,n*34)
Photon emission for (n,n*35)
Photon emission for $(n, n'36)$
Photon emission for (n,n*37)
Photon emission for (n,n*38)
Photon emission for (n,n*39)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,n*40)
Photon emission for (n,n*c)
Photon emission for (n,gma)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum
Particle heating contributions

- protons
- deuterons
- tritons
- he-3
- alphas
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Recoil Heating

Recoil heating

Energy (MeV)

Heating (MeV/reaction)
Particle production cross sections

Energy (MeV)

Cross section (barns)

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

23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,x)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
protons from (n,n*)p
23-V-50 FOR FENDL-3.2 FROM FENDL 3.2 BY NJOY2016.60+
deuterons from (n,x)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
deuterons from (n,n*)d
23-V-50 FOR FENDL-3.2 FROM FENDL 3.2 BY NJOY2016.60+
he3s from (n,x)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,x)
23-V-50 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
alphas from (n,n*)a