Principal cross sections

<table>
<thead>
<tr>
<th>Energy (MeV)</th>
<th>Cross section (barns)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10^{-11}</td>
<td>10^{-2}</td>
</tr>
<tr>
<td>10^{-9}</td>
<td>10^{-1}</td>
</tr>
<tr>
<td>10^{-7}</td>
<td>10^{0}</td>
</tr>
<tr>
<td>10^{-5}</td>
<td>10^{-1}</td>
</tr>
<tr>
<td>10^{-3}</td>
<td>10^{0}</td>
</tr>
<tr>
<td>10^{-1}</td>
<td>10^{0}</td>
</tr>
<tr>
<td>10^{1}</td>
<td>10^{2}</td>
</tr>
</tbody>
</table>

- **total**
- **absorption**
- **elastic**
- **gamma production**
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance total cross section

Energy (MeV)

Cross section (barns)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance total cross section

Energy (MeV)

Cross section (barns)

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

10^{-2} 10^{-1} 10^0 10^1 10^2
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance total cross section

Energy (MeV)

Cross section (barns)

total
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99 resonance total cross section

![Graph showing resonance total cross section with energy on the x-axis and cross section on the y-axis. The graph has a logarithmic scale for both axes.](image-url)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance absorption cross sections
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

Capture
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
resonance absorption cross sections

![Graph showing resonance absorption cross sections](image-url)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99 resonance absorption cross sections

![Graph showing cross section versus energy with a logarithmic scale for both axes. The y-axis is labeled 'Cross section (barns)' and the x-axis is labeled 'Energy (MeV)'. The graph demonstrates a decrease in cross section as energy increases. A line labeled 'capture' is present.]
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
Non-threshold reactions

Cross section (barns)

Energy (MeV)

(n,gma)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
Inelastic levels

Energy (MeV)

Cross section (barns)

- (n,n*11)
- (n,n*12)
- (n,n*13)

Energy (MeV)
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,x)

(n,2n)

(n,n*)a

(n,n*)p

(n,n*c)
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,xp)
- (n,xd)
- (n,xt)
- (n,xa)
angular distribution for elastic
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
angular distribution for elastic

Energy (MeV)

Cosine

Prob/Cos

10.1
10.0
1.0
0.0
-0.5
-1.0
20
40
60
80
100
120
140
160
Neutron emission for \((n,x)\)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
Neutron emission for (n,2n)
Neutron emission for (n,n*)a

N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99

Diagram showing the neutron emission probabilities as a function of secondary energy and energy (MeV) on a logarithmic scale.
Neutron emission for $(n, n^*)p$
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
Neutron emission for (n,n*c)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
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)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
14 MeV photon spectrum
Particle heating contributions

MeV/collision vs. Energy (MeV)

- Protons
- Deuterons
- Tritons
- Alphas
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
protons from (n,x)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
protons from (n,n*)p
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
protons from (n,p)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
deuterons from (n,x)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
tritons from (n,x)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NuJOY 99
alphas from (n,x)
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
alphas from (n,n*)a
N + 24-CR-53 ENDF/B-VI.6 APT LA150 NJOY 99
alphas from (n,a)