ENDF/B-VII.1 GD-155
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production

10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7}
ENDF/B-VII.1 GD-155
resonance total cross section

![Graph showing resonance total cross section vs energy. The x-axis represents energy in MeV ranging from $10^{-7}$ to $10^{-6}$, and the y-axis represents cross section in barns ranging from $10^{-7}$ to $10^{4}$. The line is labeled as total.]
ENDF/B-VII.1 GD-155
resonance total cross section
ENDF/B-VII.1 GD-155
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 GD-155
resonance absorption cross sections

Energy (MeV) vs. Cross section (barns)

Capture cross sections for GD-155 as a function of energy.
ENDF/B-VII.1 GD-155
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
ENDF/B-VII.1 GD-155
UR total cross section

Energy (MeV) vs. Cross section (barns)

- Inf. Dil.
- 100 b
- 1 b

Note: The graph shows the total cross section for UR as a function of energy in MeV, with three curves representing different cross sections.
ENDF/B-VII.1 GD-155
Heating

Energy (MeV) vs Heating (MeV/reaction)
ENDF/B-VII.1 GD-155
Non-threshold reactions

- $(n,\gamma m\alpha)$
- $(n,a)$
- $(n,x\alpha)$
ENDF/B-VII.1 GD-155
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII.1 GD-155 Damage

Energy (MeV) vs. Damage (MeV-barns)

- The graph shows the relationship between energy (in MeV) and damage (in MeV-barns).
- As energy increases, damage also increases.
- The damage is plotted on a logarithmic scale on the y-axis.
- The energy is plotted on a linear scale on the x-axis.

*10^{-3}
ENDF/B-VII.1 GD-155
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
(n,a)
(n,xa)
ENDF/B-VII.1 GD-155
Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 GD-155
Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)
ENDF/B-VII.1 GD-155
Inelastic levels

Energy (MeV) vs. Cross section (barns) for different inelastic reactions:
- (n,n*36)
- (n,n*37)
- (n,n*38)
ENDF/B-VII.1 GD-155
Threshold reactions

Energy (MeV)
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

Cross section (barns)

6 8 10 12 14 16 18 20

Energy (MeV)

(n,2n)
(n,3n)
(n,α)n*
(n,α)n*
(n,α)n*
(n,α)n*
ENDF/B-VII.1 GD-155
angular distribution for elastic
ENDF/B-VII.1 GD-155
angular distribution for (n,n*1)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*2)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*3)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*4)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*5)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*6)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*7)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*8)
ENDF/B-VII.1 GD-155
angular distribution for (n,n^g)

Prob/Cos

Energy (MeV)

Cosine

0.0 0.5 0.0 0.5 1.0 1.0 1.0

20 18 16 14 12 10 8 6 4 2 0
ENDF/B-VII.1 GD-155
angular distribution for (n,n*10)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*11)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*12)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*)
ENDF/B-VII.1 GD-155
angular distribution for \((n,n^*14)\)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*15)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*16)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*17)
ENDF/B-VII.1 GD-155
angular distribution for (n,n^*18)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*19)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*20)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*21)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*22)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*23)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*24)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*25)
ENDF/B-VII.1 GD-155
angular distribution for \((n,n^*26)\)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*27)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*28)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*29)
ENDF/B-VII.1 GD-155
angular distribution for \((n,n^*30)\)
ENDF/B-VII.1 GD-155
angular distribution for (n,n\*31)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*32)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*33)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*34)
ENDF/B-VII.1 GD-155
angular distribution for \((n, n^*35)\)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*36)
ENDF/B-VII.1 GD-155
angular distribution for (n,n*37)
ENDF/B-VII.1 GD-155
angular distribution for (n,n^*38)
ENDF/B-VII.1 GD-155
Neutron emission for (n,2n)
ENDF/B-VII.1 GD-155
Neutron emission for (n,3n)
ENDF/B-VII.1 GD-155
Neutron emission for \((n,n^*)a\)
ENDF/B-VII.1 GD-155
Neutron emission for (n,2n)a
ENDF/B-VII.1 GD-155
Neutron emission for (n,n*)p
ENDF/B-VII.1 GD-155
Neutron emission for (n,2np)
ENDF/B-VII.1 GD-155
Neutron emission for (n,n\textsuperscript{*}c)
ENDF/B-VII.1 GD-155
Photon emission for (n,2n)
ENDF/B-VII.1 GD-155
Photon emission for (n,3n)
ENDF/B-VII.1 GD-155
Photon emission for \((n,n^*)a\)
ENDF/B-VII.1 GD-155
Photon emission for (n,2n)a
ENDF/B-VII.1 GD-155
Photon emission for (n,n*)p
ENDF/B-VII.1 GD-155
Photon emission for (n,2np)
ENDF/B-VII.1 GD-155
Photon emission for (n,n*c)
ENDF/B-VII.1 GD-155
Photon emission for (n,gma)
ENDF/B-VII.1 GD-155
Photon emission for (n,p*c)
ENDF/B-VII.1 GD-155
thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII.1 GD-155
14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII.1 GD-155
Particle heating contributions

**Graph:**
- **X-axis:** Energy (MeV)
- **Y-axis:** MeV/collision
- **Legend:**
  - Black line: Protons
  - Red line: Alphas

The graph illustrates the particle heating contributions as a function of energy, with a significant increase in MeV/collision for certain energy levels.
ENDF/B-VII.1 GD-155
Particle production cross sections

Cross section (barns) vs. Energy (MeV)
- Protons
- Alphas
ENDF/B-VII.1 GD-155
protons from \((n,n^*)p\)
ENDF/B-VII.1 GD-155
protons from (n,2np)
ENDF/B-VII.1 GD-155
angular distribution for (n,p*0) proton

[Diagram showing the angular distribution for (n,p*0) proton with axes labeled as Energy (MeV) and Cosine, and a logarithmic scale for Probability/Cosine.]
ENDF/B-VII.1 GD-155 angular distribution for (n,p*1) proton
ENDF/B-VII.1 GD-155
angular distribution for \( (n,p^*2) \) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*3) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*4) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*5) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*7) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*8) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*9) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*10) proton
ENDF/B-VII.1 GD-155
angular distribution for (n,p*11) proton
ENDF/B-VII.1 GD-155
protons from (n,p*c)
ENDF/B-VII.1 GD-155
alphas from \((n,n^*)a\)
ENDF/B-VII.1 GD-155
alphas from (n,2n)a