Principal cross sections

**Graph Description**

- **Title:** ENDF/B-VII PD-107
- **Subtitle:** Principal cross sections

**Axes**
- **Y-axis:** Cross section (barns)
  - **Label:**
  - 10^3
  - 10^2
  - 10^1
  - 10^0
  - 10^{-1}
  - 10^{-2}
- **X-axis:** Energy (MeV)
  - **Label:**
  - 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

**Legend**
- **Lines:**
  - Total (black)
  - Absorption (blue)
  - Elastic (green)

**Graph Details**
- The graph illustrates the variation of cross sections with energy across different energy ranges.
- Cross sections are categorized into total, absorption, and elastic types.
- The graph shows significant variation in cross sections with energy, particularly notable peaks and valleys.
- The y-axis scale is logarithmic, emphasizing the wide range of cross section values.
- The x-axis scale is also logarithmic, covering a wide energy range from ultralow to ultrahigh energies.
ENDF/B-VII PD-107
resonance total cross section

![Graph showing resonance total cross section with energy on the x-axis and cross section on the y-axis, with data points indicating the cross section at different energies.](image-url)
ENDF/B-VII PD-107
resonance total cross section

Energy (MeV)

Cross section (barns)

$10^{-1}$ $10^{0}$

$10^{-1}$ $10^{0}$
ENDF/B-VII PD-107
resonance total cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII PD-107
resonance absorption cross sections

Energy (MeV) vs. Cross section (barns) plot.
ENDF/B-VII PD-107
resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)

- Capture
ENDF/B-VII PD-107
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
ENDF/B-VII PD-107
resonance absorption cross sections

- Energy (MeV)
- Cross section (barns)

[Graph showing the relationship between energy and cross section with a downward trend]
ENDF/B-VII PD-107
UR total cross section

Energy (MeV)

Cross section (barns)

- Inf. Dil.
- 100 b
ENDF/B-VII PD-107
UR elastic cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII PD-107
UR capture cross section

Energy (MeV)

Cross section (barns)
ENDF/B-VII PD-107
Heating

Energy (MeV) vs Heating (MeV/reaction) graph
ENDF/B-VII PD-107
Non-threshold reactions

Energy (MeV)

Cross section (barns)

\((n,g\alpha)\)
ENDF/B-VII PD-107
Principal cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII PD-107
Heating

![Graph showing heating as a function of energy (MeV). The x-axis represents energy in MeV ranging from 0 to 20, and the y-axis represents heating in MeV/reaction ranging from 0 to 5.]
ENDF/B-VII PD-107
Damage

Damage (MeV-barns)

Energy (MeV)
ENDF/B-VII PD-107
Non-threshold reactions

Cross section (barns) vs. Energy (MeV) graph.
ENDF/B-VII PD-107
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,2n)
- (n,3n)
- (n,n*)a
- (n,n*)p
- (n,n*)d

Energy (MeV)
ENDF/B-VII PD-107
Threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII PD-107
angular distribution for elastic
ENDF/B-VII PD-107
angular distribution for (n,2n)
ENDF/B-VII PD-107
angular distribution for (n,3n)
ENDF/B-VII PD-107
angular distribution for (n,n*)a
ENDF/B-VII PD-107
angular distribution for (n,n*)p
ENDF/B-VII PD-107
angular distribution for (n,n*)d
ENDF/B-VII PD-107
angular distribution for (n,n*1)
ENDF/B-VII PD-107
angular distribution for (n,n^2)
angular distribution for (n,n*3)
ENDF/B-VII PD-107
angular distribution for (n,n*4)
ENDF/B-VII PD-107
angular distribution for (n,n*5)
ENDF/B-VII PD-107
angular distribution for (n,n*6)
angular distribution for (n,n*7)
ENDF/B-VII PD-107

angular distribution for (n,n*8)
ENDF/B-VII PD-107
angular distribution for (n,n^9)
ENDF/B-VII PD-107
angular distribution for (n,n*10)
ENDF/B-VII PD-107
angular distribution for (n,n*11)
ENDF/B-VII PD-107
angular distribution for (n,n*12)
ENDF/B-VII PD-107

Angular distribution for \((n,n^{*13})\)
angular distribution for (n,n*14)

ENDF/B-VII PD-107 angular distribution for (n,n*14)
ENDF/B-VII PD-107
angular distribution for (n,n*15)
ENDF/B-VII PD-107

angular distribution for (n,n*16)
ENDF/B-VII PD-107
angular distribution for (n,n*17)
angular distribution for (n,n*18)
ENDF/B-VII PD-107 angular distribution for (n,n*19)
ENDF/B-VII PD-107

angular distribution for (n,n*20)

Energy (MeV)
ENDF/B-VII PD-107
angular distribution for (n,n*c)
Neutron emission for (n,2n)

ENDF/B-VII PD-107

Energy (MeV) vs. Sec. Energy
ENDF/B-VII PD-107
Neutron emission for (n,3n)
ENDF/B-VII PD-107
Neutron emission for (n,n*)a
ENDF/B-VII PD-107
Neutron emission for (n,n*)d

Energy (MeV)

Sec. Energy

10^{-1} 10^{-1} 10^{-3} 10^{0} 10^{1} 10^{2} 10^{3}

Prob./MeV

1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
ENDF/B-VII PD-107
Neutron emission for (n,n*c)