ENDF/B-VII I-131
Principal cross sections

![Graph showing cross sections vs. energy (MeV)](image)

- **Total**
- **Absorption**
- **Elastic**

Energy (MeV)

Cross section (barns)
ENDF/B-VII I-131
resonance absorption cross sections

Energy (MeV)

Cross section (barns)
ENDF/B-VII I-131
UR total cross section
ENDF/B-VII I-131
UR elastic cross section

Energy (MeV)

Cross section (barns)

Inf. Dil.

100 b
ENDF/B-VII I-131
UR capture cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII I-131
Heating

Heating (MeV/reaction)

Energy (MeV)
ENDF/B-VII I-131
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
ENDF/B-VII I-131
Heating

Heating (MeV/reaction) vs. Energy (MeV)
ENDF/B-VII I-131
Non-threshold reactions

![Graph showing the cross section (barns) vs. energy (MeV) for (n,gma) reactions. The cross section is plotted on a logarithmic scale, with values ranging from $10^{-2}$ to $10^{-3}$ barns. The energy scale is from 0 to 20 MeV. The graph shows a downward trend in the cross section with increasing energy, with a minimum around 8 MeV.]
ENDF/B-VII I-131
Inelastic levels

Energy (MeV)
- Cross section (barns)
  - (n,n*6)
  - (n,n*7)
  - (n,n*8)
  - (n,n*9)
  - (n,n*10)
ENDF/B-VII I-131
Inelastic levels

Cross section (barns) vs. Energy (MeV)

- (n,n*11)
- (n,n*12)
- (n,n*13)
- (n,n*14)
- (n,n*15)
ENDF/B-VII I-131
Threshold reactions

Cross section (barns) vs. Energy (MeV)
- (n,2n)
- (n,3n)
- (n,n^*)a
- (n,n^*)p
- (n,n^*)d

Threshold reactions for I-131 as a function of energy.
ENDF/B-VII I-131
Threshold reactions

Energy (MeV)

Cross section (barns)

- \((n,n^*)t\)
- \((n,n^*c)\)
- \((n,p)\)
- \((n,d)\)
- \((n,t)\)
ENDF/B-VII I-131
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,a)
ENDF/B-VII I-131
angular distribution for elastic
ENDF/B-VII I-131 angular distribution for (n,2n)

Energy (MeV) [0, 14]  
Cosine [-1, 1]  
Prob/cos [10, 20]
ENDF/B-VII I-131
angular distribution for (n,3n)
ENDF/B-VII I-131
angular distribution for (n,n*)a
ENDF/B-VII.1-131
angular distribution for (n,n*)p

Energy (MeV)

Prob/Cos

Cosine
ENDF/B-VII.1-131 angular distribution for (n,n*)d
ENDF/B-VII I-131
angular distribution for \((n,n^*)t\)
angular distribution for (n,n^2)
ENDF/B-VII 1-131
angular distribution for (n,n*3)

Energy (MeV)

Cosine

Prob/Cos

10 20 18 16 14

0 2 4 6 8 10

1.0 0.5 0.0 -0.5 -1.0
ENDF/B-VII I-131 angular distribution for (n,n*4)
angular distribution for (n,n*5)
ENDF/B-VII I-131
angular distribution for (n,n*7)
ENDF/B-VII.1-131

Angular distribution for (n,n*8)
ENDF/B-VII.1-131
angular distribution for (n,n*10)
ENDF/B-VII I-131
angular distribution for (n,n*11)
ENDF/B-VII I-131
angular distribution for (n,n*12)
ENDF/B-VII I-131
angular distribution for (n,n*13)
ENDF/B-VII.1-131 angular distribution for (n,n*14)
ENDF/B-VII I-131
angular distribution for (n,n*15)
ENDF/B-VII I-131
angular distribution for (n,n*c)
ENDF/B-VII I-131
Neutron emission for (n,2n)
ENDF/B-VII I-131
Neutron emission for (n,3n)
ENDF/B-VII I-131
Neutron emission for \((n,n^*)a\)
ENDF/B-VII 1-131
Neutron emission for (n,n*)t

Energy (MeV)

Secondary Energy

Primary Energy

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