Principal cross sections

ENDF/B-VII.1 HG-201

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII.1 HG-201
resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0

total
ENDF/B-VII.1 HG-201
resonance total cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 HG-201
resonance total cross section
ENDF/B-VII.1 HG-201
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 HG-201
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
ENDF/B-VII.1 HG-201
Heating

Energy (MeV)

Heating (MeV/reaction)
ENDF/B-VII.1 HG-201
Non-threshold reactions

Energy (MeV)

Cross section (barns)

- (n,gma)
- (n,a)
- (n,xa)
ENDF/B-VII.1 HG-201
Principal cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 HG-201

Heating

![Graph showing the relationship between Heating (MeV/reaction) and Energy (MeV). The graph indicates a positive correlation, with Heating increasing as Energy increases. At Energy 0, Heating is approximately 0, and as Energy increases, Heating increases significantly.](image-url)
ENDF/B-VII.1 HG-201
Damage

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

- The graph shows the damage as a function of energy.
- The damage increases with energy and reaches a peak around 100 MeV.
- Beyond 100 MeV, the damage decreases slightly but remains relatively high.
ENDF/B-VII.1 HG-201
Inelastic levels

Energy (MeV)

Cross section (barns)

-(n,n*1)
-(n,n*2)
-(n,n*3)
-(n,n*4)
-(n,n*5)
ENDF/B-VII.1 HG-201
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,x)
- (n,2n)
- (n,3n)
- (n,n*)a
- (n,n*)p
ENDF/B-VII.1 HG-201
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,n*^c)
- (n,p)
- (n,d)
- (n,xp)
- (n,xd)
ENDF/B-VII.1 HG-201
Threshold reactions

Energy (MeV)

Cross section (barns)

Energy (MeV)

*10^{-3}

(n,xt)
ENDF/B-VII.1 HG-201
angular distribution for elastic
ENDF/B-VII.1 HG-201
angular distribution for elastic

Prob/Cos

Cosine

Energy (MeV)

1.0 0.5 0.0 -0.5 -1.0 20 40 60 80 100 120 140 160

10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2}
ENDF/B-VII.1 HG-201
angular distribution for (n,n*1)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*2)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*3)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*4)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*6)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*7)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*8)
ENDF/B-VII.1 HG-201
angular distribution for \((n,n^*9)\)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*11)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*12)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*13)
ENDF/B-VII.1 HG-201
angular distribution for (n,n*c)
ENDF/B-VII.1 HG-201
Neutron emission for (n,2n)
ENDF/B-VII.1 HG-201
Neutron emission for (n,3n)
ENDF/B-VII.1 HG-201
Neutron emission for \((n,n^*)a\)
ENDF/B-VII.1 HG-201
Neutron emission for \((n,n^*)p\)
ENDF/B-VII.1 HG-201
Neutron emission for (n,n*c)
ENDF/B-VII.1 HG-201
Photon emission for (n,3n)
ENDF/B-VII.1 HG-201
Photon emission for (n,n*)a
ENDF/B-VII.1 HG-201
Photon emission for (n,n*c)
ENDF/B-VII.1 HG-201
Photon emission for (n,gma)
ENDF/B-VII.1 HG-201
Photon emission for (n,p)
ENDF/B-VII.1 HG-201
Photon emission for (n,d)
ENDF/B-VII.1 HG-201
Photon emission for (n,a)
ENDF/B-VII.1 HG-201
Photon emission for (n,x)
ENDF/B-VII.1 HG-201
14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII.1 HG-201
Particle heating contributions

Energy (MeV)

MeV/collision

Energy (MeV)

protons
deuterons
tritons
alphas
ENDF/B-VII.1 HG-201
Recoil Heating

![Graph showing the recoil heating as a function of energy (MeV). The graph has a y-axis labeled Heating (MeV/reaction) and an x-axis labeled Energy (MeV). The graph shows a linear increase in heating with increasing energy, with a notable peak at around 20 MeV.](image-url)
ENDF/B-VII.1 HG-201
protons from (n,x)
ENDF/B-VII.1 HG-201
deuterons from (n,x)
ENDF/B-VII.1 HG-201
tritons from (n,x)
ENDF/B-VII.1 HG-201
alphas from (n,x)