ENDF/B-VI I-127B
Principal cross sections

Cross section (barns)

Energy (MeV)

Total
Absorption
Elastic
Gamma production
ENDF/B-VI I-127B
resonance total cross section
ENDF/B-VI I-127B
resonance total cross section

Energy (MeV)

Cross section (barns)

total
ENDF/B-VI I-127B
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VI I-127B
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VI I-127B
Heating

Heating (MeV/reaction) vs. Energy (MeV)

- Heating curve shows a peak around 10^{-4} MeV/reaction at energies around 10^{-5} MeV.
- The heating decreases to a minimum around 10^{-6} MeV/reaction at energies around 10^{-6} MeV.
- Above 10^{-5} MeV, the heating increases significantly, approaching 10^{0} MeV/reaction at energies around 10^{1} MeV.
ENDF/B-VI I-127B
Damage

Energy (MeV)

Damage (MeV-barns)

Damage

0 5 10 15 20 25 30

0 250 500 750 1000 1250 1500 1750 2000

*10^{-3}
ENDF/B-VI I-127B
Non-threshold reactions

Energy (MeV)

Cross section (barns)

- (n,gma)
- (n,p)
- (n,a)
- (n,xp)
- (n,xa)

Energy (MeV)
ENDF/B-VI I-127B
Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)
ENDF/B-VI I-127B
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,2n)
- (n,3n)
- (n,n^*)a
- (n,n^*)p
- (n,4n)
ENDF/B-VI I-127B
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p*16)
(n,p*17)
(n,p*18)
(n,p*19)
(n,p*20)
ENDF/B-VI I-127B
Threshold reactions

Cross section (barns)

Energy (MeV)

(n,p*21)

(n,p*22)

(n,p*c)
ENDF/B-VI I-127B
angular distribution for elastic
ENDF/B-VI I-127B
angular distribution for (n,n*1)
ENDF/B-VI I-127B
angular distribution for (n,n*2)
ENDF/B-VI I-127B
angular distribution for (n,n*3)
ENDF/B-VI I-127B
angular distribution for \((n,n^{*}4)\)
ENDF/B-VI I-127B
angular distribution for (n,n*6)
ENDF/B-VI I-127B
angular distribution for (n,n*7)
ENDF/B-VI I-127B
angular distribution for (n,n*8)
ENDF/B-VI I-127B
angular distribution for (n,n*9)
ENDF/B-VI I-127B
angular distribution for (n,n*10)
ENDF/B-VI I-127B
angular distribution for (n,n*11)
ENDF/B-VI I-127B
angular distribution for (n,n*12)
ENDF/B-VI I-127B
angular distribution for (n,n*13)
ENDF/B-VI I-127B
angular distribution for \((n,n^\ast 14)\)
ENDF/B-VI I-127B
angular distribution for (n,n*15)
ENDF/B-VI I-127B
angular distribution for (n,n*16)
ENDF/B-VI I-127B
angular distribution for \((n,n^{*}17)\)
ENDF/B-VI I-127B
angular distribution for (n,n*18)
ENDF/B-VI I-127B
angular distribution for (n,n*19)
ENDF/B-VI I-127B
angular distribution for (n,n*20)
ENDF/B-VI I-127B
angular distribution for (n,n*21)
ENDF/B-VI I-127B
Neutron emission for (n,2n)
ENDF/B-VI I-127B
Neutron emission for (n,3n)
ENDF/B-VI I-127B
Neutron emission for \((n,n^*)a\)
ENDF/B-VI I-127B
Neutron emission for \((n, n^*)p\)
ENDF/B-VI I-127B
Neutron emission for (n,4n)
ENDF/B-VI I-127B
Neutron emission for \((n,n^*c)\)
ENDF/B-VI I-127B
Photon emission for (n,gma)
ENDF/B-VI I-127B
Photon emission for (n,2n)
ENDF/B-VI I-127B
Photon emission for \((n,3n)\)
ENDF/B-VI I-127B
Photon emission for (n,n*)a
ENDF/B-VI I-127B
Photon emission for (n,4n)
Photon emission for \((n,n^*1)\)
ENDF/B-VI I-127B
Photon emission for (n,n*2)
ENDF/B-VI I-127B
Photon emission for (n,n*3)
ENDF/B-VI I-127B
Photon emission for (n,n*4)
ENDF/B-VI I-127B
Photon emission for (n,n*5)
ENDF/B-VI I-127B
Photon emission for (n,n*6)
ENDF/B-VI I-127B
Photon emission for (n,n*7)
ENDF/B-VI I-127B
Photon emission for (n,n*8)
ENDF/B-VI I-127B
Photon emission for (n,n^9)

![Graph showing photon emission](image-url)
ENDF/B-VI I-127B
Photon emission for (n,n*10)
ENDF/B-VI I-127B
Photon emission for (n,n*11)
ENDF/B-VI I-127B
Photon emission for (n,n*12)
ENDF/B-VI I-127B
Photon emission for (n,n*13)
ENDF/B-VI I-127B
Photon emission for \((n,n'14)\)
ENDF/B-VI I-127B
Photon emission for (n,n*15)
ENDF/B-VI I-127B
Photon emission for (n,n*16)
ENDF/B-VI I-127B
Photon emission for (n,n*17)
ENDF/B-VI I-127B
Photon emission for \((n,n^{*}18)\)
ENDF/B-VI I-127B
Photon emission for \( (n,n'*19) \)
ENDF/B-VI I-127B
Photon emission for (n,n^*20)
ENDF/B-VI I-127B
Photon emission for $(n,n'^*21)$
ENDF/B-VI I-127B
Photon emission for (n,n^*c)
ENDF/B-VI I-127B
Photon emission for \((n,p^{*1})\)
ENDF/B-VI I-127B
Photon emission for (n,p*2)
ENDF/B-VI I-127B
Photon emission for (n,p*3)
ENDF/B-VI I-127B
Photon emission for (n,p*4)
ENDF/B-VI I-127B
Photon emission for (n,p*5)
ENDF/B-VI I-127B
Photon emission for (n,p*6)
ENDF/B-VI I-127B
Photon emission for (n,p*7)
ENDF/B-VI I-127B
Photon emission for (n,p*8)
ENDF/B-VI I-127B
Photon emission for (n,p*9)
ENDF/B-VI I-127B
Photon emission for (n,p*10)
ENDF/B-VI I-127B
Photon emission for (n,p*11)
ENDF/B-VI I-127B
Photon emission for (n,p*12)
ENDF/B-VI I-127B
Photon emission for (n,p*14)
ENDF/B-VI I-127B
Photon emission for (n,p*15)
ENDF/B-VI I-127B
Photon emission for (n,p*16)
ENDF/B-VI I-127B
Photon emission for (n,p*17)
ENDF/B-VI I-127B
Photon emission for (n,p*18)
ENDF/B-VI I-127B
Photon emission for \((n,p^*19)\)
ENDF/B-VI I-127B
Photon emission for \((n,p^*20)\)
ENDF/B-VI I-127B
Photon emission for \((n,p^{*21})\)
ENDF/B-VI I-127B
Photon emission for (n,p*22)
ENDF/B-VI I-127B
Photon emission for (n,p*c)

\[ P_{\text{prob}}(\text{MeV}) \]

\[ E_{\gamma} (\text{MeV}) \]

\[ E_n (\text{MeV}) \]
ENDF/B-VI I-127B
Photon emission for (n,a*1)
ENDF/B-VI I-127B
Photon emission for (n,a\*c)
ENDF/B-VI I-127B
thermal capture photon spectrum
ENDF/B-VI I-127B
14 MeV photon spectrum
ENDF/B-VI I-127B
Particle production cross sections

Energy (MeV)

Cross section (barns)

protons

alphas
ENDF/B-VI I-127B
protons from (n,n*)p
ENDF/B-VI I-127B
angular distribution for (n,p*0) proton
ENDF/B-VI I-127B
angular distribution for (n,p$^*$1) proton
ENDF/B-VI I-127B
angular distribution for (n,p*2) proton
ENDF/B-VI I-127B
angular distribution for (n,p*3) proton
ENDF/B-VI I-127B
angular distribution for (n,p*4) proton
ENDF/B-VI I-127B
angular distribution for (n,p*5) proton
ENDF/B-VI I-127B
angular distribution for (n,p*7) proton
ENDF/B-VI I-127B
angular distribution for (n,p*8) proton

Prob/Cos

10^0

10^-1

1.0 0.5 0.0 -0.5 -1.0

Cosine

10 15 20 25 30

Energy (MeV)
ENDF/B-VI I-127B
angular distribution for (n,p*9) proton

Energy (MeV)

Cosine

Prob/Cos
ENDF/B-VI I-127B
angular distribution for (n,p*10) proton
ENDF/B-VI I-127B
angular distribution for (n,p*11) proton
ENDF/B-VI I-127B
angular distribution for (n,p*12) proton
ENDF/B-VI I-127B
angular distribution for (n,p*13) proton
ENDF/B-VI I-127B
angular distribution for (n,p*14) proton
ENDF/B-VI I-127B
angular distribution for (n,p*15) proton
ENDF/B-VI I-127B
angular distribution for (n,p*16) proton
ENDF/B-VI I-127B
angular distribution for (n,p*17) proton
ENDF/B-VI I-127B
angular distribution for (n,p*18) proton
ENDF/B-VI I-127B
angular distribution for (n,p*19) proton
ENDF/B-VI I-127B
angular distribution for (n,p*20) proton
ENDF/B-VI I-127B
angular distribution for (n,p*21) proton
ENDF/B-VI I-127B
angular distribution for (n,p^*22) proton
ENDF/B-VI I-127B protons from (n,p*c)
ENDF/B-VI I-127B
alphas from \((n,n^*)a\)
ENDF/B-VI I-127B
angular distribution for (n,a*0) alpha

![Graph showing angular distribution for (n,a*0) alpha. The x-axis represents cosine values ranging from -1 to 1, the y-axis represents probability on a log scale from 10^-1 to 10^1, and the z-axis represents energy in MeV from 5 to 30.](image-url)
ENDF/B-VI I-127B
angular distribution for (n,a^1) alpha
ENDF/B-VI I-127B
alphas from (n,a*c)