ENDF/B-VII.1 SI-29
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production

Energy (MeV)
ENDF/B-VII.1 SI-29
resonance total cross section

Energy (MeV) vs. Cross section (barns)
ENDF/B-VII.1 SI-29
resonance total cross section

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 SI-29
resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)
ENDF/B-VII.1 SI-29
resonance absorption cross sections

Energy (MeV) vs Cross section (barns)
ENDF/B-VII.1 SI-29
resonance absorption cross sections

Capture
ENDF/B-VII.1 SI-29
Heating

Heating (MeV/reaction)

Energy (MeV)
ENDF/B-VII.1 SI-29
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
ENDF/B-VII.1 SI-29

Heating

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

- Heating
ENDF/B-VII.1 SI-29
Non-threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 SI-29
Inelastic levels

Energy (MeV) vs Cross section (barns)

- (n,n*6)
- (n,n*7)
- (n,n*8)
- (n,n*9)
- (n,n*10)
ENDF/B-VII.1 SI-29
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,p)

(n,a)
ENDF/B-VII.1 SI-29
Threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII.1 SI-29
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,p*11)
- (n,p*12)
- (n,p*13)
- (n,p*14)
- (n,p*15)
ENDF/B-VII.1 SI-29
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,p*c)
- (n,a*0)
- (n,a*1)
- (n,a*2)
- (n,a*3)
ENDF/B-VII.1 SI-29
Threshold reactions

Energy (MeV)

Cross section (barns)
(n,a^9)  (n,a^10)  (n,a^11)  (n,a^12)  (n,a^13)

0  2  4  6  8  10  12  14  16  18

4  6  8  10  12  14  16  18  20

Energy (MeV)
ENDF/B-VII.1 SI-29
angular distribution for elastic
ENDF/B-VII.1 SI-29
angular distribution for elastic
ENDF/B-VII.1 SI-29
angular distribution for (n,n*1)
ENDF/B-VII.1 SI-29
angular distribution for \((n,n^*2)\)
ENDF/B-VII.1 SI-29
angular distribution for (n,n^*3)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*4)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*5)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*6)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*7)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*8)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*9)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*10)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*11)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*12)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*13)
ENDF/B-VII.1 SI-29
angular distribution for (n,n*14)
ENDF/B-VII.1 SI-29
Neutron emission for (n,x)
ENDF/B-VII.1 SI-29
Neutron emission for (n,2n)
ENDF/B-VII.1 SI-29
Neutron emission for (n,n*)a
ENDF/B-VII.1 SI-29
Neutron emission for \((n,n^*)p\)
ENDF/B-VII.1 SI-29
Neutron emission for \((n,n^*c)\)
ENDF/B-VII.1 SI-29
Photon emission for (n,x)
ENDF/B-VII.1 SI-29
Photon emission for (n,2n)
ENDF/B-VII.1 SI-29
Photon emission for (n,n*)a

![Graph showing photon emission for (n,n*)a in ENDF/B-VII.1 SI-29. The graph plots the probability of photon emission as a function of neutron energy (E_n, MeV) and photon energy (E_\gamma, MeV). The axes and scale are labeled accordingly.](image-url)
ENDF/B-VII.1 SI-29
Photon emission for \((n,n^* )p\)
ENDF/B-VII.1 SI-29
Photon emission for (n,n^c)
ENDF/B-VII.1 SI-29
Photon emission for (n,p* c)
ENDF/B-VII.1 SI-29
Photon emission for (n,a\*c)
ENDF/B-VII.1 SI-29
thermal capture photon spectrum
ENDF/B-VII.1 SI-29
14 MeV photon spectrum
ENDF/B-VII.1 SI-29
Recoil Heating

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

- Recoil heating

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5

0 20 40 60 80 100 120 140 160

Energy (MeV)
ENDF/B-VII.1 SI-29
protons from \((n,n^*)p\)
ENDF/B-VII.1 SI-29
angular distribution for (n,p*1) proton
ENDF/B-VII.1 SI-29
angular distribution for \((n,p^*2)\) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*3) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*4) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*5) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*6) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*7) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*8) proton
ENDF/B-VII.1 SI-29
angular distribution for $(n,p^*9)$ proton

Energy (MeV)

Cosine
ENDF/B-VII.1 SI-29
angular distribution for (n,p*11) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*12) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*13) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*14) proton
ENDF/B-VII.1 SI-29
angular distribution for (n,p*15) proton
ENDF/B-VII.1 SI-29
protons from (n,p*c)
ENDF/B-VII.1 SI-29
deuterons from (n,x)
ENDF/B-VII.1 SI-29
tritons from (n,x)
ENDF/B-VII.1 SI-29
alphas from (n,x)
ENDF/B-VII.1 SI-29
alphas from (n,n*)a
ENDF/B-VII.1 SI-29
angular distribution for \((n, a^*0)\) alpha
ENDF/B-VII.1 SI-29
angular distribution for \( (n,a^2) \) alpha

\[
\text{Prob/Cos} = \frac{P_r}{\cos^{-1} \theta}
\]

\[
\theta = 1.0, 0.5, 0.0, -0.5, -1.0
\]

\[
\cos \theta = 1.0, 0.5, 0.0, -0.5, -1.0
\]

\[
\text{Energy (MeV)} = 4, 6, 8, 10, 12, 14, 16, 18, 20
\]
ENDF/B-VII.1 SI-29
angular distribution for (n,α^3) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n, α^4) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*5) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*6) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*7) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*9) alpha
ENDF/B-VII.1 SI-29
angular distribution for \((n,a^*10)\) alpha

\[ \text{Probl/Cos} \times 10^0 \]

\[ \text{Cosine} \]

\[ \text{Energy (MeV)} \]

\[ 1.0 \quad 0.5 \quad 0.0 \quad -0.5 \quad -1.0 \]

\[ 4 \quad 6 \quad 8 \quad 10 \quad 12 \quad 14 \quad 16 \quad 18 \quad 20 \]
ENDF/B-VII.1 SI-29
angular distribution for (n,a*11) alpha
ENDF/B-VII.1 SI-29
angular distribution for \((n,a*12)\) alpha
ENDF/B-VII.1 SI-29
angular distribution for \((n,a^*13)\) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*14) alpha

Probl/Cos

Energy (MeV)

Cosine
ENDF/B-VII.1 SI-29
angular distribution for (n,a*15) alpha

Energy (MeV)

Cosine

Prob/Cos

10^0

0 0.5 1.0
ENDF/B-VII.1 SI-29
angular distribution for (n,a*16) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n,a*17) alpha
ENDF/B-VII.1 SI-29
angular distribution for \((n,a^*18)\) alpha
ENDF/B-VII.1 SI-29
angular distribution for (n, a*19) alpha
ENDF/B-VII.1 SI-29
alphas from (n,a*c)