ENDF/B-VII CA-46
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production
ENDF/B-VII CA-46
Principal cross sections

Energy (MeV)

Cross section (barns)

total
absorption
elastic
gamma production

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
0 20 40 60 80 100 120 140 160 180 200

Energy (MeV)
ENDF/B-VII CA-46

Heating

Heating (MeV/reaction) vs. Energy (MeV)
ENDF/B-VII CA-46
Non-threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII CA-46
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,x)
(n,2n)
(n,3n)
(n,n*)a
(n,n*)p
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns)

Energy (MeV)

- (n,n*c)
- (n,p)
- (n,d)
- (n,t)
- (n,a)
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns)

Energy (MeV)

Graph showing cross section versus energy for different threshold reactions:
- (n,p*0)
- (n,p*1)
- (n,p*2)
- (n,p*3)
- (n,p*4)
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns)

Energy (MeV)

- (n,p⁵)
- (n,p⁶)
- (n,p⁷)
- (n,p⁸)
- (n,p⁹)
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,p*10)
- (n,p*c)
- (n,d*0)
- (n,d*1)
- (n,d*2)
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns) vs. Energy (MeV) for various reactions:
- (n,d*)
- (n,d*)
- (n,d*)
- (n,d*)
- (n,t*)

*10^{-3}
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,t*)c
- (n,a*0)
- (n,a*1)
- (n,a*2)
- (n,a*3)
ENDF/B-VII CA-46
Threshold reactions

Cross section (barns) vs Energy (MeV)

- (n,a*4)
- (n,a*c)
ENDF/B-VII CA-46
angular distribution for elastic
ENDF/B-VII CA-46

angular distribution for elastic
ENDF/B-VII CA-46

angular distribution for (n,n*1)
ENDF/B-VII CA-46
angular distribution for (n,n\textsuperscript{2})
ENDF/B-VII CA-46
angular distribution for (n,n*3)
ENDF/B-VII CA-46
angular distribution for (n,n*4)
ENDF/B-VII CA-46
angular distribution for \((n,n^5)\)
ENDF/B-VII CA-46
angular distribution for \((n,n^*6)\)
angular distribution for (n,n*7)
ENDF/B-VII CA-46
angular distribution for (n,n^*)
ENDF/B-VII CA-46
angular distribution for (n,n*9)
ENDF/B-VII CA-46
angular distribution for (n,n*10)
ENDF/B-VII CA-46
angular distribution for \((n,n*11)\)
ENDF/B-VII CA-46
angular distribution for \((n,n^*12)\)
ENDF/B-VII CA-46
angular distribution for (n,n*13)
ENDF/B-VII CA-46
angular distribution for (n,n*14)
ENDF/B-VII CA-46
angular distribution for \((n,n^\ prime 15)\)
ENDF/B-VII CA-46

Angular distribution for (n,n*16)
ENDF/B-VII CA-46
angular distribution for (n,n*17)
ENDF/B-VII CA-46
angular distribution for (n,n*19)
ENDF/B-VII.CA-46 angular distribution for (n,n*20)
ENDF/B-VII CA-46
Neutron emission for \((n,x)\)
ENDF/B-VII CA-46
Neutron emission for \((n,2n)\)
ENDF/B-VII CA-46
Neutron emission for (n,3n)
ENDF/B-VII CA-46
Neutron emission for \((n, n^*)a\)
ENDF/B-VII CA-46
Neutron emission for \((n,n^*)p\)
ENDF/B-VII CA-46
Neutron emission for \((n, n^* c)\)
ENDF/B-VII CA-46
Photon emission for (n,x)
ENDF/B-VII CA-46
Photon emission for (n,2n)
ENDF/B-VII CA-46
Photon emission for (n,3n)
ENDF/B-VII CA-46
Photon emission for (n,n*)a
ENDF/B-VII CA-46
Photon emission for \( (n,n^*)p \)
Photon emission for $(n,n'1)$. 

ENDF/B-VII CA-46
ENDF/B-VII CA-46
Photon emission for \((n,n^2)\)
ENDF/B-VII CA-46
Photon emission for (n,n*3)
ENDF/B-VII CA-46
Photon emission for (n,n*4)
ENDF/B-VII CA-46
Photon emission for (n,n*5)
ENDF/B-VII CA-46
Photon emission for \((n,n^*6)\)
ENDF/B-VII CA-46
Photon emission for (n,n*7)
ENDF/B-VII CA-46
Photon emission for \((n,n^*8)\)
ENDF/B-VII CA-46
Photon emission for \((n,n^*g)\)
ENDF/B-VII CA-46
Photon emission for (n,n*10)
ENDF/B-VII CA-46
Photon emission for (n,n*11)
ENDF/B-VII CA-46
Photon emission for \((n, n^*12)\)
ENDF/B-VII CA-46
Photon emission for (n,n*13)
ENDF/B-VII CA-46
Photon emission for \((n, n^*14)\)
ENDF/B-VII CA-46
Photon emission for (n,n*16)
ENDF/B-VII CA-46
Photon emission for (n,n*17)
ENDF/B-VII CA-46
Photon emission for \((n,n^{*18})\)
ENDF/B-VII CA-46
Photon emission for (n,n*19)
ENDF/B-VII CA-46
Photon emission for \((n,n^{*20})\)
ENDF/B-VII CA-46
Photon emission for \((n,n^*c)\)
ENDF/B-VII CA-46
Photon emission for (n,gma)
ENDF/B-VII CA-46
Photon emission for \((n,p^{*}1)\)
ENDF/B-VII CA-46
Photon emission for (n,p*2)
ENDF/B-VII CA-46
Photon emission for (n,p*5)
ENDF/B-VII CA-46
Photon emission for (n,p*6)
ENDF/B-VII CA-46
Photon emission for (n,p*7)
ENDF/B-VII CA-46
Photon emission for \( (n,p^8) \)
Photon emission for (n,p^*9)
ENDF/B-VII CA-46
Photon emission for (n,p*10)
Photon emission for (n,p*)

ENDF/B-VII CA-46

E_{γ} (MeV)

E_{n} (MeV)

Prob/MeV
ENDF/B-VII CA-46
Photon emission for (n,d*1)
ENDF/B-VII CA-46
Photon emission for (n,d*2)
ENDF/B-VII CA-46
Photon emission for (n,d*3)
ENDF/B-VII CA-46
Photon emission for (n,d*4)
ENDF/B-VII CA-46
Photon emission for (n,d*5)
ENDF/B-VII CA-46
Photon emission for (n,d*\textit{c})
ENDF/B-VII CA-46
Photon emission for \((n,t^*1)\)
ENDF/B-VII CA-46
Photon emission for (n,t*3)
ENDF/B-VII CA-46
Photon emission for (n,t*5)
ENDF/B-VII CA-46
Photon emission for (n,t*c)
ENF/B-VII CA-46
Photon emission for (n,a*1)
ENDF/B-VII CA-46
Photon emission for (n,a*3)
ENDF/B-VII CA-46
Photon emission for \((n,a^*4)\)
ENDF/B-VII CA-46
Photon emission for \((n,a^\ast c)\)
ENDF/B-VII CA-46
thermal capture photon spectrum
ENDF/B-VII CA-46

14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII CA-46
Particle heating contributions

MeV/collision

Energy (MeV)

protons
deuterons
tritons
he-3
alphas
ENDF/B-VII CA-46
Recoil Heating

Energy (MeV)

Heating (MeV/reaction)

recoil heating
ENDF/B-VII CA-46
Particle production cross sections

Cross section (barns)

Energy (MeV)

- protons
- deuterons
- tritons
- he-3
- alphas
ENDF/B-VII CA-46 protons from (n,x)
ENDF/B-VII CA-46
protons from (n,n*)p

Energy (MeV)
ENDF/B-VII CA-46
angular distribution for (n,p*0) proton
ENDF/B-VII CA-46
angular distribution for (n,p*1) proton

Cosine  0.0  -0.5  -1.0  -
Prob/Cos  1.0  0.5  0.0  -
Energy (MeV)  8  10  12  14  16  18  20

10^0
ENDF/B-VII CA-46
angular distribution for \((n,p^*2)\) proton
ENDF/B-VII CA-46

Angular distribution for (n,p*3) proton
ENDF/B-VII CA-46
angular distribution for (n,p*4) proton
ENDF/B-VII CA-46
angular distribution for (n,p*5) proton
ENDF/B-VII CA-46
angular distribution for (n,p^*6) proton
ENDF/B-VII CA-46

angular distribution for (n,p*7) proton
ENDF/B-VII CA-46
angular distribution for (n,p*8) proton

![Angular distribution graph for (n,p*8) proton.](image)
ENDF/B-VII CA-46

Angular distribution for (n,p*9) proton

Energy (MeV)

Cosine

Pro/b Cos
ENDF/B-VII CA-46

Angular distribution for (n,p*10) proton
ENDF/B-VII CA-46
protons from (n,p* c)
ENDF/B-VII CA-46
angular distribution for (n,d*0) deuteron
ENDF/B-VII CA-46
angular distribution for (n,d\*1) deuteron
ENDF/B-VII CA-46
angular distribution for \((n,d^*2)\) deuteron
ENDF/B-VII CA-46
angular distribution for \((n,d^*3)\) deuteron
ENDF/B-VII CA-46
angular distribution for (n,d*4) deuteron
ENDF/B-VII CA-46

angular distribution for (n,d*) deuteron
ENDF/B-VII CA-46
deuterons from \((n,d^*c)\)
ENDF/B-VII CA-46
tritons from (n,x)
ENDF/B-VII CA-46
angular distribution for \((n, t^*0)\) triton

![Graph showing angular distribution for \((n, t^*0)\) triton.](image)
ENDF/B-VII CA-46
angular distribution for (n,t*1) triton
ENDF/B-VII CA-46
angular distribution for (n,t*3) triton
ENDF/B-VII CA-46
angular distribution for (n,t*4) triton
ENDF/B-VII CA-46
angular distribution for (n,t*5) triton
ENDF/B-VII CA-46
tritons from (n, t*c)
ENDF/B-VII CA-46
he3s from (n,x)
ENDF/B-VII CA-46
alphas from (n,x)
ENDF/B-VII CA-46
alphas from (n,n*)a
ENDF/B-VII CA-46
angular distribution for \((n,a^*0)\) alpha
ENDF/B-VII CA-46
angular distribution for (n,a*1) alpha
angular distribution for (n,a*2) alpha

ENDF/B-VII CA-46
ENDF/B-VII CA-46

Angular distribution for (n,a*3) alpha
ENDF/B-VII CA-46
alphas from (n,a*c)