ENDF/B-VII CD-115M
resonance total cross section

![Graph showing resonance total cross section with a peak at a specific energy value.](image-url)
ENDF/B-VII CD-115M
resonance total cross section

Energy (MeV)

Cross section (barns)

total
ENDF/B-VII CD-115M resonance absorption cross sections

Capture cross section as a function of energy (MeV).
ENDF/B-VII CD-115M
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-VII CD-115M
UR capture cross section

Cross section (barns)

Energy (MeV)

10^{-3}

10^{-1}

10^{0}

Inf. Dil.

100 b
ENDF/B-VII CD-115M

Heating

Energy (MeV) vs Heating (MeV/reaction)

- Heating curve is shown with a logarithmic scale on both axes.
- The energy range is from $10^{-11}$ to $10^{1}$ MeV.
- The heating values range from $10^{-6}$ to $10^{-1}$ MeV/reaction.
- The curve peaks at high energy values, indicating a significant heating effect at these energies.
ENDF/B-VII CD-115M
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
ENDF/B-VII CD-115M
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
gamma production
ENDF/B-VII CD-115M
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 CD-115M
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 CD-115M
Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,2n)
- (n,3n)
- (n,n*)a
- (n,2n)a
- (n,n*)p

Energy (MeV)
ENDF/B-VII CD-115M Threshold reactions

Energy (MeV) vs. Cross section (barns)

- (n,xp)
- (n,xa)
- (n,p^0)
- (n,p^1)
- (n,p^2)
ENDF/B-VII CD-115M
Threshold reactions
ENDF/B-VII CD-115M
Threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII CD-115M
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,a*1)
(n,a*2)
(n,a*3)
(n,a*4)
(n,a*5)
ENDF/B-VII CD-115M
Threshold reactions

Energy (MeV)

Cross section (barns)

*(n,a*6)
*(n,a*7)
*(n,a*8)
*(n,a*9)
*(n,a*10)
ENDF/B-VII CD-115M
Threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-VII CD-115M
angular distribution for elastic
ENDF/B-VII CD-115M
angular distribution for (n,n*1)
ENDF/B-VII CD-115M
angular distribution for (n,n*2)
ENDF/B-VII CD-115M
angular distribution for (n,n\*3)
ENDF/B-VII CD-115M
angular distribution for (n,n*4)
ENDF/B-VII CD-115M
angular distribution for (n,n*5)
ENDF/B-VII CD-115M
angular distribution for (n,n*6)
ENDF/B-VII CD-115M
angular distribution for (n,n*8)
ENDF/B-VII CD-115M
angular distribution for (n,n^9)
ENDF/B-VII CD-115M
angular distribution for (n,n*10)
ENDF/B-VII CD-115M
angular distribution for (n,n*12)
ENDF/B-VII CD-115M
Neutron emission for (n,2n)
ENDF/B-VII CD-115M
Neutron emission for (n,3n)
ENDF/B-VII CD-115M
Neutron emission for (n,n*)a
ENDF/B-VII CD-115M
Neutron emission for \((n,2n)a\)
ENDF/B-VII CD-115M
Neutron emission for \((n,n^*)p\)
ENDF/B-VII CD-115M
Neutron emission for (n,2np)
ENDF/B-VII CD-115M
Photon emission for (n,2n)

$P_{\text{ro}}/M_eV$ vs $E_\gamma (\text{MeV})$
Photon emission for (n,3n)
ENDF/B-VII CD-115M
Photon emission for \((n,n^*)a\)
Photon emission for (n,2n)a

ENDF/B-VII CD-115M

Prob/Mev

Eγ (MeV)

Em (MeV)
ENDF/B-VII CD-115M
Photon emission for (n,n*)p
ENDF/B-VII CD-115M
Photon emission for (n,2np)
ENDF/B-VII CD-115M
Photon emission for (n,n'c)
ENDF/B-VII CD-115M
Photon emission for (n,gma)
ENDF/B-VII CD-115M
Photon emission for (n,p*c)
ENDF/B-VII CD-115M
Photon emission for \((n,a^*c)\)
ENDF/B-VII CD-115M
thermal capture photon spectrum
ENDF/B-VII CD-115M
14 MeV photon spectrum
ENDF/B-VII CD-115M
Particle heating contributions

![Graph showing heating contributions for protons and alphas as a function of energy. The x-axis represents energy in MeV, and the y-axis represents MeV/collision. The graph shows a significant increase in heating contributions with energy.]

- *protons*
- *alphas*
ENDF/B-VII CD-115M
Particle production cross sections
ENDF/B-VII CD-115M
protons from (n,n*)p
ENDF/B-VII CD-115M
protons from (n,2np)
ENDF/B-VII CD-115M
angular distribution for (n,p*0) proton
ENDF/B-VII CD-115M

angular distribution for (n,p*1) proton

Energy (MeV)

Cosine

Prob/Cos

10^0 10^-1 1.0 0.5 0.0 -0.5 -1.0
ENDF/B-VII CD-115M
angular distribution for (n,p*2) proton
ENDF/B-VII CD-115M
angular distribution for (n,p*3) proton
ENDF/B-VII CD-115M
angular distribution for (n,p*5) proton
ENDF/B-VII CD-115M
angular distribution for (n,p*6) proton
ENDF/B-VII CD-115M
angular distribution for (n,p^9) proton
ENDF/B-VII CD-115M angular distribution for (n,p*10) proton
ENDF/B-VII CD-115M
protons from (n,p*c)
ENDF/B-VII CD-115M
alphas from (n,n*)a
ENDF/B-VII CD-115M
alphas from (n,2n)a
angular distribution for \((n,a^0)\) alpha
ENDF/B-VII CD-115M
angular distribution for (n,a^1) alpha
ENDF/B-VII CD-115M
angular distribution for \((n,a^2)\) alpha
ENDF/B-VII CD-115M
angular distribution for (n,a*3) alpha
ENDF/B-VII CD-115M
angular distribution for (n,a*4) alpha
ENDF/B-VII CD-115M
angular distribution for (n,a*6) alpha

Energy (MeV)

Cosine

Prob/Cos

10

10

1.0

0.5

0.0

-0.5

-1.0
ENDF/B-VII CD-115M
angular distribution for \((n,a^*7)\) alpha
ENDF/B-VII CD-115M
angular distribution for \((n,a^8)\) alpha

Energy (MeV)

Prob/Cos

Cosine

Prob/Cos
ENDF/B-VII CD-115M
angular distribution for (n,a*9) alpha
ENDF/B-VII CD-115M angular distribution for (n,a*10) alpha
ENDF/B-VII CD-115M
alphas from (n,a*c)