ENDF/B-VII.1 PR-141
resonance total cross section

[Graph showing the resonance total cross section as a function of energy (MeV) with a peak at a certain energy range.]
ENDF/B-VII.1 PR-141
resonance total cross section

Energy (MeV)

Cross section (barns)

-10
-5
-3
-1
1
10
100
1000
10000

10^{-4}
10^{-3}

10^{-4}
ENDF/B-VII.1 PR-141
resonance total cross section
ENDF/B-VII.1 PR-141
resonance total cross section

Energy (MeV) vs. Cross section (barns) graph

- Energy (MeV) axis: $10^{-1}$ to $10^{-2}$
- Cross section (barns) axis: $10^1$

Graph shows a linear decrease in cross section with increasing energy.
ENDF/B-VII.1 PR-141
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

- Capture
ENDF/B-VII.1 PR-141
resonance absorption cross sections

energy (MeV)
cross section (barns)
capture
ENDF/B-VII.1 PR-141
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

capture
ENDF/B-VII.1 PR-141 resonance absorption cross sections

Energy (MeV) vs. Cross section (barns) plot with a line labeled 'capture.'
ENDF/B-VII.1 PR-141
UR total cross section
ENDF/B-VII.1 PR-141
UR elastic cross section

Energy (MeV)

Cross section (barns)

Inf. Dil.
100 b
1 b

10^{-2} 10^{-1}
ENDF/B-VII.1 PR-141
UR capture cross section

Energy (MeV)

Cross section (barns)

Inf. Dil.
100 b
1 b

Energy (MeV)

Cross section (barns)
ENDF/B-VII.1 PR-141
Damage

Energy (MeV)

Damage (MeV-barns)
ENDF/B-VII.1 PR-141
Principal cross sections

Energy (MeV)

Cross section (barns)

total
absorption
elastic
gamma production

Energy (MeV)
ENDF/B-VII.1 PR-141
Non-threshold reactions

Energy (MeV)

Cross section (barns)

$^{(n,gma)}$
ENDF/B-VII.1 PR-141
Inelastic levels

Cross section (barns) vs. Energy (MeV)

- (n,n*1)
- (n,n*2)
- (n,n*3)
- (n,n*4)
- (n,n*5)
ENDF/B-VII.1 PR-141
Threshold reactions

Energy (MeV)

Cross section (barns)

Energy (MeV)

Cross section (barns)

(n,xp)

(n,xa)

(n,p*0)

(n,p*1)

(n,p*2)
ENDF/B-VII.1 PR-141
Threshold reactions

Cross section (barns) vs Energy (MeV)

- \((n,\alpha^2)\)
- \((n,\alpha^3)\)
- \((n,\alpha^4)\)
- \((n,\alpha^5)\)
- \((n,\alpha^6)\)
ENDF/B-VII.1 PR-141
angular distribution for elastic

Prob|Cos

10^1

10^-1

1.0 0.5 0.0 -0.5 -1.0 0

Cosine

Energy (MeV)

10 15 20
ENDF/B-VII.1 PR-141
angular distribution for (n,n*1)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*2)
ENDF/B-VII.1 PR-141
angular distribution for (n, n^3)

Prob/Cos

Energy (MeV)

Cosine
ENDF/B-VII.1 PR-141
angular distribution for (n,n*4)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*5)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*6)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*7)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*8)
ENDF/B-VII.1 PR-141
angular distribution for \((n, n^*9)\)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*10)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*12)
ENDF/B-VII.1 PR-141
angular distribution for (n,n*13)
ENDF/B-VII.1 PR-141
Neutron emission for (n,2n)
ENDF/B-VII.1 PR-141
Neutron emission for (n,3n)
ENDF/B-VII.1 PR-141
Neutron emission for (n,n*)a
ENDF/B-VII.1 PR-141
Neutron emission for \((n,n^*)p\)
ENDF/B-VII.1 PR-141
Neutron emission for \((n,2np)\)
ENDF/B-VII.1 PR-141
Neutron emission for \((n,n^*c)\)
ENDF/B-VII.1 PR-141
Photon emission for (n,2n)
ENDF/B-VII.1 PR-141
Photon emission for (n,3n)
ENDF/B-VII.1 PR-141
Photon emission for (n,n*)a
ENDF/B-VII.1 PR-141
Photon emission for (n,2n)a
ENDF/B-VII.1 PR-141
Photon emission for \((n,n^*)p\)
ENDF/B-VII.1 PR-141
Photon emission for \((n,gma)\)
ENDF/B-VII.1 PR-141
Photon emission for (n,p*c)
ENDF/B-VII.1 PR-141
Photon emission for (n,a*c)
ENDF/B-VII.1 PR-141
thermal capture photon spectrum

Gamma Prod (barns/MeV)

Gamma Energy (MeV)
Recoil Heating

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

- Recoil heating

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ENDF/B-VII.1 PR-141
ENDF/B-VII.1 PR-141
protons from \((n,n^*)p\)
ENDF/B-VII.1 PR-141
protons from (n,2np)
ENDF/B-VII.1 PR-141
angular distribution for (n,p*0) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*1) proton
ENDF/B-VII.1 PR-141
angular distribution for \((n,p^2)\) proton

Probability vs. Cosine vs. Energy (MeV)
ENDF/B-VII.1 PR-141
angular distribution for (n,p*3) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*4) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*5) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*6) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*7) proton
ENDF/B-VII.1 PR-141
angular distribution for \((n,p^8)\) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*9) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*10) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*11) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*12) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*13) proton
ENDF/B-VII.1 PR-141
angular distribution for (n,p*14) proton
ENDF/B-VII.1 PR-141
protons from (n,p*c)
ENDF/B-VII.1 PR-141
alphas from (n,n*)a

3D plot showing the distribution of probabilities as a function of secondary energy and energy (MeV).
ENDF/B-VII.1 PR-141
alphas from (n,2n)a
angular distribution for (n,a*0) alpha
ENDF/B-VII.1 PR-141
angular distribution for (n,α^1) alpha
ENDF/B-VII.1 PR-141
angular distribution for (n,a^2) alpha
ENDF/B-VII.1 PR-141
angular distribution for (n,a*4) alpha
ENDF/B-VII.1 PR-141
angular distribution for (n,a*5) alpha
ENDF/B-VII.1 PR-141
angular distribution for (n,a*6) alpha
ENDF/B-VII.1 PR-141
alphas from (n,a*c)