ENDF/B-VII.1 Y-90
resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}

10^{-4} 10^{-3}
ENDF/B-VII.1 Y-90
resonance absorption cross sections

![Graph showing resonance absorption cross sections for Y-90. The graph plots energy (MeV) on the x-axis and cross section (barns) on the y-axis. There are two resonances with sharp peaks at specific energy levels. The graph includes a label for the capture process.](image-url)
ENDF/B-VII.1 Y-90 resonance absorption cross sections

Energy (MeV) vs. Cross section (barns)
ENDF/B-VII.1 Y-90
UR capture cross section

Cross section (barns) vs. Energy (MeV)

- Inf. Dil.
- 100 b
- 1 b
ENDF/B-VII.1 Y-90
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(\text{n,gma})
ENDF/B-VII.1 Y-90
Principal cross sections

Energy (MeV) vs. Cross section (barns)

- Total
- Absorption
- Elastic
- Gamma production

Graph showing the variation of cross sections with energy for Y-90.
ENDF/B-VII.1 Y-90 Damage

Energy (MeV) vs. Damage (MeV-barns) graph.
ENDF/B-VII.1 Y-90
Non-threshold reactions

Cross section (barns) vs. Energy (MeV)

(n,g ma)
ENDF/B-VII.1 Y-90
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 Y-90
Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*6)  (n,n*7)  (n,n*8)  (n,n*9)
ENDF/B-VII.1 Y-90
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,p*8)
- (n,p*9)
- (n,p*10)
- (n,p*11)
- (n,p*12)
ENDF/B-VII.1 Y-90
Threshold reactions

Energy (MeV)

Cross section (barns)

**ENDF/B-VII.1 Y-90**
Threshold reactions

- $(n,p*13)$
- $(n,p*14)$
- $(n,p*15)$
- $(n,p*16)$
- $(n,p*c)$

Energy (MeV)
ENDF/B-VII.1 Y-90
Threshold reactions

Energy (MeV) vs. Cross section (barns)

Symbols:
- (n,a*0)
- (n,a*1)
- (n,a*2)
- (n,a*3)
- (n,a*4)
ENDF/B-VII.1 Y-90
Threshold reactions

Cross section (barns) vs. Energy (MeV)

- (n,a*5)
- (n,a*6)
- (n,a*7)
- (n,a*8)
- (n,a*9)
ENDF/B-VII.1 Y-90 angular distribution for elastic
ENDF/B-VII.1 Y-90
angular distribution for (n,n*1)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*2)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*3)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*4)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*5)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*6)
ENDF/B-VII.1 Y-90
angular distribution for (n,n*7)
ENDF/B-VII.1 Y-90 angular distribution for (n,n*8)
ENDF/B-VII.1 Y-90 angular distribution for (n,n*9)
ENDF/B-VII.1 Y-90
Neutron emission for (n,2n)
ENDF/B-VII.1 Y-90
Neutron emission for (n,3n)
ENDF/B-VII.1 Y-90
Neutron emission for \((n,n^*)a\)
ENDF/B-VII.1 Y-90
Neutron emission for (n,2n)a
ENDF/B-VII.1 Y-90
Neutron emission for \((n,n^*)p\)
ENDF/B-VII.1 Y-90
Neutron emission for (n,2np)
ENDF/B-VII.1 Y-90
Neutron emission for (n,n*c)
ENDF/B-VII.1 Y-90
Photon emission for (n,2n)
ENDF/B-VII.1 Y-90
Photon emission for (n,3n)
ENDF/B-VII.1 Y-90
Photon emission for (n,n*)a
ENDF/B-VII.1 Y-90
Photon emission for (n,2n)a
ENDF/B-VII.1 Y-90
Photon emission for (n,2np)
ENDF/B-VII.1 Y-90
Photon emission for (n,n*c)
ENDF/B-VII.1 Y-90
Photon emission for (n,gma)
ENDF/B-VII.1 Y-90
Photon emission for \((n,p^*c)\)
ENDF/B-VII.1 Y-90
Photon emission for (n,a*c)
ENDF/B-VII.1 Y-90 thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
ENDF/B-VII.1 Y-90
14 MeV photon spectrum
ENDF/B-VII.1 Y-90
Particle heating contributions

Energy (MeV)

MeV/collision

protons

alphas

0 2 4 6 8 10 12 14 16 18 20

0 50 100 150 200 250 300 350

*10^{-3}
ENDF/B-VII.1 Y-90
Recoil Heating

Heating (MeV/reaction)

Energy (MeV)

*10^{-3}
ENDF/B-VII.1 Y-90 protons from (n, n^*)p
ENDF/B-VII.1 Y-90 protons from (n,2np)
ENDF/B-VII.1 Y-90 angular distribution for (n,p*0) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*1) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*2) proton

Energy (MeV)
Co6sne
1.0 0.5 0.0 -0.5 -1.0 0 1 2 3 4 6 8 10 12 14 16 18 20
Prob/Cos
10^0 10^-1 10^-2

ENDB/B-VII.1 Y-90
angular distribution for (n,p*2) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*3) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*4) proton

Diagram showing the angular distribution of neutrons for the reaction (n,p*4) as a function of energy and cosine of the angle. The x-axis represents the cosine of the angle, the y-axis represents the energy in MeV, and the z-axis represents the probability density.
ENDF/B-VII.1 Y-90 angular distribution for (n,p*5) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*6) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*7) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*8) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p\*9) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*10) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*11) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*12) proton
ENDF/B-VII.1 Y-90 angular distribution for (n,p*13) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*14) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*15) proton
ENDF/B-VII.1 Y-90
angular distribution for (n,p*16) proton
ENDF/B-VII.1 Y-90
protons from (n,p*c)
ENDF/B-VII.1 Y-90 alphas from (n,n*)a
ENDF/B-VII.1 Y-90 alphas from (n,2n)a
ENDF/B-VII.1 Y-90
angular distribution for (n,a*0) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a\*1) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*2) alpha
ENDF/B-VII.1 Y-90 angular distribution for \((n,a^*3)\) alpha
ENDF/B-VII.1 Y-90 angular distribution for (n,a*4) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*5) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*6) alpha
ENDF/B-VII.1 Y-90 angular distribution for (n,a*7) alpha
ENDF/B-VII.1 Y-90 angular distribution for (n,a*8) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*9) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*10) alpha
ENDF/B-VII.1 Y-90 angular distribution for (n,a*11) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*12) alpha
ENDF/B-VII.1 Y-90 angular distribution for (n,a*13) alpha
ENDF/B-VII.1 Y-90 angular distribution for \((n,a^*14)\) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*15) alpha
ENDF/B-VII.1 Y-90
angular distribution for (n,a*17) alpha