JEFF-3.1 ER-167
Principal cross sections

Energy (MeV) vs Cross section (barns)

- total cross section
- absorption cross section
- elastic scattering cross section
- gamma production cross section
JEFF-3.1 ER-167
resonance total cross section

Energy (MeV) vs Cross section (barns) plot

- Energy (MeV) on the x-axis
- Cross section (barns) on the y-axis
- The total cross section is represented by a line graph.

The graph shows a peak in the cross section at a certain energy, indicating a resonance effect.
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resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{2} 10^{3} 10^{4}

total
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resonance total cross section

Energy (MeV)

Cross section (barns)

total
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resonance absorption cross sections

Cross section (barns)

Energy (MeV)
JEFF-3.1 ER-167 resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)

- Capture
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resonance absorption cross sections

Energy (MeV)

Cross section (barns)

Capture
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UR total cross section

Cross section (barns)

Energy (MeV)

Inf. Dil.
100 b
1 b
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UR elastic cross section

Energy (MeV) vs Cross section (barns)
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Damage

Energy (MeV)

Damage (MeV-barns)
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Heating

Energy (MeV)

Heating (MeV/reaction)

0.6

0.5

0.4

0.3

0.2

0.1

0.0

0.0

20

15

10

5

0

Energy (MeV)
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Damage

Energy (MeV)

Damage (MeV-barns)

*10^{-3}
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Non-threshold reactions

Cross section (barns)

Energy (MeV)
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Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*1)

(n,n*2)

(n,n*3)

(n,n*4)

(n,n*5)
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Threshold reactions

Energy (MeV)

Cross section (barns)

(n,n*c) (n,p) (n,d) (n,t) (n,a)
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angular distribution for elastic
JEFF-3.1 ER-167
angular distribution for (n,n*1)
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angular distribution for (n,n*2)
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angular distribution for (n,n*3)
JEFF-3.1 ER-167
angular distribution for (n,n*4)
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angular distribution for (n,n*5)
JEFF-3.1 ER-167
angular distribution for (n,n*6)
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angular distribution for (n,n*7)
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angular distribution for (n,n*9)
JEFF-3.1 ER-167
angular distribution for (n,n*10)
JEFF-3.1 ER-167
angular distribution for (n,n*11)
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angular distribution for \((n,n^*12)\)
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angular distribution for (n,n^*14)
JEFF-3.1 ER-167
angular distribution for (n,n^{*15})
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angular distribution for (n,n*16)
JEFF-3.1 ER-167
angular distribution for (n,n*17)
JEFF-3.1 ER-167
angular distribution for (n, n*18)
JEFF-3.1 ER-167
angular distribution for (n,n*19)
JEFF-3.1 ER-167
angular distribution for (n,n*20)
JEFF-3.1 ER-167
angular distribution for (n,n*21)
JEFF-3.1 ER-167
angular distribution for (n,n*22)
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angular distribution for \((n, n^{*23})\)
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angular distribution for (n,n*c)
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Neutron emission for (n,2n)
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Neutron emission for (n,3n)
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Neutron emission for (n,n*)a
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Neutron emission for \((n,n^*)p\)
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Neutron emission for (n,n*c)
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Photon emission for (n,2n)
JEFF-3.1 ER-167
Photon emission for (n,3n)
JEFF-3.1 ER-167
Photon emission for \((n,n^*)a\)
JEFF-3.1 ER-167
Photon emission for (n,n*)p
JEFF-3.1 ER-167
Photon emission for \((n,n^*c)\)
JEFF-3.1 ER-167
Photon emission for (n,p)
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Photon emission for (n,d)
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Photon emission for (n,a)
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thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
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14 MeV photon spectrum

Gamma Prod (barns/MeV) vs. Gamma Energy (MeV)