JEFF-3.1 SI-30
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production
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resonance total cross section

Energy (MeV)

Cross section (barns)

10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1} 10^{2} 10^{3}
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resonance total cross section

Cross section (barns)

Energy (MeV)
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resonance total cross section

Cross section (barns)

Energy (MeV)
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resonance absorption cross sections

Energy (MeV)

Cross section (barns)

- capture
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resonance absorption cross sections

Cross section (barns)

Energy (MeV)
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resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)
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Non-threshold reactions

Energy (MeV)

Cross section (barns)

$(n, gma)$
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Threshold reactions

Cross section (barns)

Energy (MeV)

(n,xp)
(n,xa)
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angular distribution for elastic
JEFF-3.1 SI-30
angular distribution for (n,n*1)
JEFF-3.1 SI-30
angular distribution for (n,n*2)
JEFF-3.1 SI-30
angular distribution for (n,n*3)
JEFF-3.1 SI-30
angular distribution for \((n,n^*4)\)
JEFF-3.1 SI-30
angular distribution for (n,n*5)
JEFF-3.1 SI-30
angular distribution for (n,n*6)
JEFF-3.1 SI-30
angular distribution for \((n,n^*7)\)
JEFF-3.1 SI-30
angular distribution for (n,n*8)
JEFF-3.1 SI-30
angular distribution for \((n,n^*9)\)
JEFF-3.1 SI-30
angular distribution for \((n,n^*10)\)
JEFF-3.1 SI-30
angular distribution for (n,n*11)
JEFF-3.1 SI-30
angular distribution for (n,n*12)
JEFF-3.1 SI-30
angular distribution for (n,n*13)
JEFF-3.1 SI-30
angular distribution for (n,n*14)
JEFF-3.1 SI-30
angular distribution for (n, n*15)
JEFF-3.1 SI-30
angular distribution for (n,n*16)
JEFF-3.1 SI-30
angular distribution for (n,n*17)
JEFF-3.1 SI-30
angular distribution for (n,n*18)
JEFF-3.1 SI-30
angular distribution for \((n,n^{*}19)\)
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Neutron emission for (n,2n)
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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 \((n,n^*c)\)
JEFF-3.1 SI-30
Photon emission for (n,gma)
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Photon emission for (n,a)
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Photon emission for nonelastic
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thermal capture photon spectrum

Gamma Prod (barns/MeV)

Gamma Energy (MeV)
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14 MeV photon spectrum
JEFF-3.1 SI-30
Particle heating contributions

![Graph showing particle heating contributions. The x-axis represents Energy (MeV) and the y-axis represents MeV/collision. Two lines are plotted: one for protons and one for alphas. The protons line starts at a lower value and remains relatively flat until around 15 MeV, after which it shows a gradual increase. The alphas line begins at a higher value and shows a more significant increase, peaking around 16 MeV before dropping and then rising again.](attachment:image.png)
JEFF-3.1 SI-30
Recoil Heating

Energy (MeV)

Heating (MeV/reaction)

recoil heating
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protons from (n,xp)
JEFF-3.1 SI-30
alphas from (n,xa)