JENDL-3.3 ZR-94
Principal cross sections

![Graph showing principal cross sections across different energy levels. The graph plots cross section (barns) against energy (MeV) with logarithmic scales. The graph includes lines for total, absorption, elastic, and gamma production reactions.]
JENDL-3.3 ZR-94
resonance total cross section

Energy (MeV)

Cross section (barns)
JENDL-3.3 ZR-94
resonance total cross section

Cross section (barns)

Energy (MeV)
JENDL-3.3 ZR-94
resonance total cross section

Energy (MeV)

Cross section (barns)

total
JENDL-3.3 ZR-94
resonance absorption cross sections

![Graph showing resonance absorption cross sections with energy (MeV) on the x-axis and cross section (barns) on the y-axis. The graph includes a line labeled 'capture'.]
JENDL-3.3 ZR-94
resonance absorption cross sections

density

capture

Energy (MeV)

Cross section (barns)

$10^{-2}$

$10^{-1}$
JENDL-3.3 ZR-94
resonance absorption cross sections

Energy (MeV)

Cross section (barns)

Capture
JENDL-3.3 ZR-94
Principal cross sections

Energy (MeV)

Cross section (barns)

total
absorption
elastic
gamma production
JENDL-3.3 ZR-94
Heating

Heating (MeV/reaction)

Energy (MeV)
JENDL-3.3 ZR-94
Threshold reactions

Energy (MeV)

Cross section (barns)

(n,2n)
JENDL-3.3 ZR-94
angural distribution for elastic
JENDL-3.3 ZR-94
angular distribution for (n,n*1)
JENDL-3.3 ZR-94 angular distribution for (n,n*3)
JENDL-3.3 ZR-94
angular distribution for (n,n*4)
JENDL-3.3 ZR-94
angular distribution for \((n,n^*5)\)
JENDL-3.3 ZR-94
angular distribution for \( (n, n^*6) \)
JENDL-3.3 ZR-94
angular distribution for (n,n*7)
JENDL-3.3 ZR-94
angular distribution for \( (n,n^*8) \)
JENDL-3.3 ZR-94
angular distribution for (n,n*9)
JENDL-3.3 ZR-94
angular distribution for (n,n*10)
JENDL-3.3 ZR-94
angular distribution for (n,n*11)
JENDL-3.3 ZR-94
angular distribution for (n,n*12)
JENDL-3.3 ZR-94 angular distribution for (n,n*13)
JENDL-3.3 ZR-94 angular distribution for (n,n*14)
JENDL-3.3 ZR-94
Neutron emission for (n,2n)
JENDL-3.3 ZR-94
Neutron emission for (n,3n)
JENDL-3.3 ZR-94
Neutron emission for \((n,n^*)a\)
JENDL-3.3 ZR-94
Neutron emission for (n,n*)p
JENDL-3.3 ZR-94
Neutron emission for (n,n*)d

![Graph showing neutron emission for (n,n*)d](image)

- Proportionality axes on the y-axis are labeled as Prob/MeV.
- Energy on the x-axis is labeled as Energy (MeV), ranging from 15 to 20.
- Secondary energy on the x-axis is labeled as Sec. Energy, ranging from 0.0 to 2.0.

The graph displays two distinct peaks, indicating the neutron emission behavior for the given reaction.
JENDL-3.3 ZR-94
Neutron emission for \((n,n^*c)\)
JENDL-3.3 ZR-94
Photon emission for (n,2n)
JENDL-3.3 ZR-94
Photon emission for (n,3n)
JENDL-3.3 ZR-94
Photon emission for (n,n*)a
JENDL-3.3 ZR-94
Photon emission for \((n,n^*)p\)
JENDL-3.3 ZR-94
Photon emission for (n,n*c)
JENDL-3.3 ZR-94
Photon emission for (n,gma)
JENDL-3.3 ZR-94
Photon emission for (n,p)
JENDL-3.3 ZR-94
Photon emission for (n,a)
JENDL-3.3 ZR-94
14 MeV photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
JENDL-3.3 ZR-94
protons from \((n,xp)\)
JENDL-3.3 ZR-94
deuteron from (n,xd)
JENDL-3.3 ZR-94
tritons from (n,xt)