JEFF-3.0 CR-50
Principal cross sections

Energy (MeV) vs. Cross section (barns)

- Total cross section
- Absorption cross section
- Elastic cross section
- Gamma production cross section
JEFF-3.0 CR-50
resonance total cross section

Energy (MeV) vs. Cross section (barns)
JEFF-3.0 CR-50
resonance total cross section
JEFF-3.0 CR-50
resonance total cross section

Energy (MeV) vs. Cross section (barns)

- Total cross section
JEFF-3.0 CR-50
resonance total cross section

Cross section (barns)

Energy (MeV)
JEFF-3.0 CR-50
resonance absorption cross sections

Capture cross section as a function of energy (MeV).

Cross section (barns)

Energy (MeV)
JEFF-3.0 CR-50
resonance absorption cross sections

Energy (MeV)

Cross section (barns)
Jeff-3.0 CR-50 resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)
JEFF-3.0 CR-50
resonance absorption cross sections

Cross section (barns)

Energy (MeV)

10^{-3}

10^{0}

10^{1}
JEFF-3.0 CR-50
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
JEFF-3.0 CR-50
Non-threshold reactions

Cross section (barns)

Energy (MeV)
JEFF-3.0 CR-50
Inelastic levels

Energy (MeV)

Cross section (barns)

*(n,n^*6)
JEFF-3.0 CR-50
angular distribution for elastic
JEFF-3.0 CR-50
Neutron emission for (n,2n)
JEFF-3.0 CR-50
Neutron emission for (n,n^*)a
JEFF-3.0 CR-50
Neutron emission for \((n,n^*)p\)
JEFF-3.0 CR-50
Neutron emission for (n,n*c)
JEFF-3.0 CR-50
Photon emission for (n,gma)
JEFF-3.0 CR-50
Photon emission for (n,2n)
JEFF-3.0 CR-50
Photon emission for \((n,n^*)a\)
JEFF-3.0 CR-50
Photon emission for \((n,n^*)p\)
JEFF-3.0 CR-50
Photon emission for \((n,n^*c)\)
JEFF-3.0 CR-50
Photon emission for (n,p)
JEFF-3.0 CR-50
Photon emission for \( (n,a) \)
JEFF-3.0 CR-50
thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
JEFF-3.0 CR-50
14 MeV photon spectrum
JEFF-3.0 CR-50
Particle heating contributions

Energy (MeV)

MeV/collision

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

0 2 4 6 8 10 12 14 16 18 20

protons
alphas

Energy (MeV)
JEFF-3.0 CR-50
Recoil Heating

Energy (MeV)

-2.5
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0

Heating (MeV/reaction)

recoil heating
JEFF-3.0 CR-50
Particle production cross sections

Energy (MeV)

Cross section (barns)

protons
alphas

Energy (MeV)
JEFF-3.0 CR-50
protons from \((n,n^*)p\)
JEFF-3.0 CR-50 protons from (n,p)
JEFF-3.0 CR-50
alphas from \((n,n^*)a\)
JEFF-3.0 CR-50
alphas from (n,a)