ENDF/B-VI P-31
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production

Log-log scale with energy on the x-axis and cross section on the y-axis.
ENDF/B-VI P-31
Damage

Energy (MeV) vs. Damage (MeV-barns)

Damage graph showing a decreasing trend from $10^{-1}$ to $10^{-4}$ as energy decreases from $10^{-11}$ to $10^{-8}$, followed by an increasing trend from $10^{-8}$ to $10^{-1}$. The graph includes a label for the damage line.
ENDF/B-VI P-31
Principal cross sections

- Total
- Absorption
- Elastic
- Gamma production

Energy (MeV)
Cross section (barns)

Graph showing the principal cross sections for ENDF/B-VI P-31 with different cross sections plotted against energy in MeV.
ENDF/B-VI P-31
Non-threshold reactions

Energy (MeV)

Cross section (barns)

$10^{-3}$

(n,gma)
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Threshold reactions

Energy (MeV)

Cross section (barns)

- (n,2n) (n,n*)p (n,n*c)
- (n,p) (n,a)
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angular distribution for elastic

Prob/Cos

10^1
10^0
10^-1

Cosine

1.0 0.5 0.0 -0.5 -1.0 0

Energy (MeV)

10 15 20

1.0 0.5 0.0 -0.5 -1.0 0
ENDF/B-VI P-31
Neutron emission for (n,2n)
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Neutron emission for \((n,n^*)p\)
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Neutron emission for (n,n^c)

Energy (MeV)

Secondary Energy

Problems MeV

$10^3$

$10^1$

$10^0$
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Photon emission for (n,gma)
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Photon emission for nonelastic
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thermal capture photon spectrum

Gamma Energy (MeV)

Gamma Prod (barns/MeV)
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14 MeV photon spectrum