ENDF/B-III AL-27
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production
ENDF/B-III AL-27
resonance total cross section

Energy (MeV) vs. Cross section (barns)

- Total cross section with a peak at a specific energy level.
ENDF/B-III AL-27
resonance total cross section

Energy (MeV)

Cross section (barns)

- total
ENDF/B-III AL-27
resonance total cross section
ENDF/B-III AL-27
resonance total cross section

Energy (MeV) vs Cross section (barns)

Graph showing the resonance total cross section for ENDF/B-III AL-27, with energy on the x-axis ranging from 10^{-1} to 10^{1} MeV and cross section on the y-axis ranging from 10^{-1} to 10^{0} barns.
ENDF/B-III AL-27

resonance absorption cross sections

Cross section (barns) vs. Energy (MeV)
ENDF/B-III AL-27
resonance absorption cross sections

Cross section (barns)

Energy (MeV)
ENDF/B-III AL-27 resonance absorption cross sections

Energy (MeV)

Cross section (barns)

Capture
ENDF/B-III AL-27
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)
ENDF/B-III AL-27
Principal cross sections

Energy (MeV)
Cross section (barns)

- total
- absorption
- elastic
- gamma production

Energy (MeV)
ENDF/B-III AL-27
Non-threshold reactions

Cross section (barns)

Energy (MeV)
ENDF/B-III AL-27
Inelastic levels

Energy (MeV)

Cross section (barns)

*10^{-3}

(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)
ENDF/B-III AL-27
Inelastic levels

Energy (MeV)

Cross section (barns)

(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)
ENDF/B-III AL-27
Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-III AL-27
Inelastic levels

Cross section (barns)

Energy (MeV)
ENDF/B-III AL-27
Inelastic levels

Cross section (barns)

Energy (MeV)

- (n,n*26)
- (n,n*27)
- (n,n*28)
- (n,n*29)
- (n,n*30)
ENDF/B-III AL-27
Inelastic levels

Energy (MeV)

Cross section (barns) x 10^{-3}

14 15 16 17 18 19 20

(n,n*31) (n,n*32) (n,n*33) (n,n*34) (n,n*35)
ENDF/B-III AL-27
Inelastic levels

Energy (MeV)

Cross section (barns)
ENDF/B-III AL-27
angular distribution for elastic

Prob/Cos

Cosine

1.0 0.5 0.0 -0.5 -1.0 0

Energy (MeV)

10^-1 10^-2 10^-3 10^-4 10^-5 10^-6 10^-7

10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7 10^8 10^9 10^10 10^11 10^12 10^13 10^14 10^15 10^16 10^17 10^18 10^19 10^20
ENDF/B-III AL-27
angular distribution for (n,2n)
ENDF/B-III AL-27
angular distribution for (n,n*1)
ENDF/B-III AL-27
angular distribution for (n,n*2)
ENDF/B-III AL-27
angular distribution for \((n,n^*4)\)
ENDF/B-III AL-27
angular distribution for (n,n*5)
ENDF/B-III AL-27
angular distribution for (n,n*6)
ENDF/B-III AL-27
angular distribution for (n,n*7)
ENDF/B-III
AL-27
angular distribution for \((n,n^8)\)
ENDF/B-III AL-27
angular distribution for \((n,n^*9)\)
ENDF/B-III AL-27
angular distribution for \( (n,n^*10) \)
ENDF/B-III AL-27
angular distribution for (n,n*11)
ENDF/B-III AL-27
angular distribution for (n,n*12)
ENDF/B-III AL-27
angular distribution for (n,n*13)
ENDF/B-III AL-27
angular distribution for (n,n*14)
ENDF/B-III AL-27
angular distribution for (n,n*15)
ENDF/B-III AL-27
angular distribution for (n,n*16)
ENDF/B-III AL-27
angular distribution for (n,n*17)
ENDF/B-III AL-27
angular distribution for (n,n*18)
ENDF/B-III AL-27
angular distribution for \((n,n^*19)\)
ENDF/B-III AL-27
angular distribution for (n,n*20)
ENDF/B-III AL-27
angular distribution for (n,n*21)
ENDF/B-III AL-27
angular distribution for (n,n*22)
ENDF/B-III AL-27
angular distribution for \( (n,n*23) \)
ENDF/B-III AL-27
angular distribution for (n,n*24)
ENDF/B-III AL-27
angular distribution for (n,n*25)
ENDF/B-III AL-27
angular distribution for \((n,n^*26)\)
ENDF/B-III AL-27
angular distribution for (n,n*27)
ENDF/B-III AL-27
angular distribution for (n,n*28)
ENDF/B-III AL-27
angular distribution for (n,n^*29)
ENDF/B-III AL-27
angular distribution for (n,n*30)
ENDF/B-III AL-27
angular distribution for (n,n*31)
ENDF/B-III AL-27
angular distribution for (n,n*32)
ENDF/B-III AL-27
angular distribution for (n,n*33)
ENDF/B-III AL-27
angular distribution for (n,n*34)
ENDF/B-III AL-27
angular distribution for \((n,n^{*35})\)
ENDF/B-III AL-27
angular distribution for (n,n*36)
ENDF/B-III AL-27
angular distribution for (n,n*38)
ENDF/B-III AL-27
angular distribution for (n,n*39)
ENDF/B-III AL-27
angular distribution for (n,n^*40)
ENDF/B-III AL-27
Neutron emission for (n,2n)
ENDF/B-III AL-27
Photon emission for (n,gma)
ENDF/B-III AL-27
Photon emission for inelastic

\[ P(\gamma) = \frac{E_{\gamma}^{4}}{E_{n}^{2}} \]

Prob/MeV

$E_{\gamma}$ (MeV)

$E_{n}$ (MeV)
ENDF/B-III AL-27
thermal capture photon spectrum
ENDF/B-III AL-27
14 MeV photon spectrum