1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

Energy (MeV)

Cross section (barns)

- total
- absorption
- elastic
- gamma production
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Principal cross sections

![Graph showing principal cross sections for 1-H-1 from FENDL-3.2 using NJOY2016.60+]

- Total cross section
- Absorption cross section
- Elastic cross section
- Gamma production cross section
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+

Heating

Heating (MeV/reaction) vs. Energy (MeV)

- Heating

Energy (MeV):
- 0
- 20
- 40
- 60
- 80
- 100
- 120
- 140
- 160

Heating (MeV/reaction):
- 0
- 20
- 40
- 60
- 80
- 100

Graph showing a linear relationship between Energy (MeV) and Heating (MeV/reaction).
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Damage

![Graph showing the relationship between energy (MeV) and damage (MeV-barns).]

- **Energy (MeV):** 0, 20, 40, 60, 80, 100, 120, 140, 160
- **Damage (MeV-barns):** 0, 0.01, 0.02, 0.03, 0.04, 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.0

The graph illustrates the decrease in damage as energy increases. The curve shows that damage decreases rapidly at lower energies and more gradually at higher energies.
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Non-threshold reactions

Energy (MeV)

Cross section (barns)

(n,gma)

(n,xd)
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for elastic
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Photon emission for (n,gma)
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
thermal capture photon spectrum
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
14 MeV photon spectrum
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
Particle heating contributions

![Graph showing deuterons energy vs. MeV/collision with energy in MeV on the x-axis and MeV/collision on the y-axis. The graph depicts a curve that increases as energy increases.]
Recoil Heating

Heating (MeV/reaction) vs. Energy (MeV)

- Recoil heating line

Parameters:
- Energy range: 0 to 160 MeV
- Heating range: 0 to 100 MeV/reaction
Particle production cross sections

Cross section (barns) vs. Energy (MeV)

- Deuterons
1-H-1 FOR FENDL-3.2 FROM FENDL-3.2 BY NJOY2016.60+
angular distribution for (n,gma) deuteron