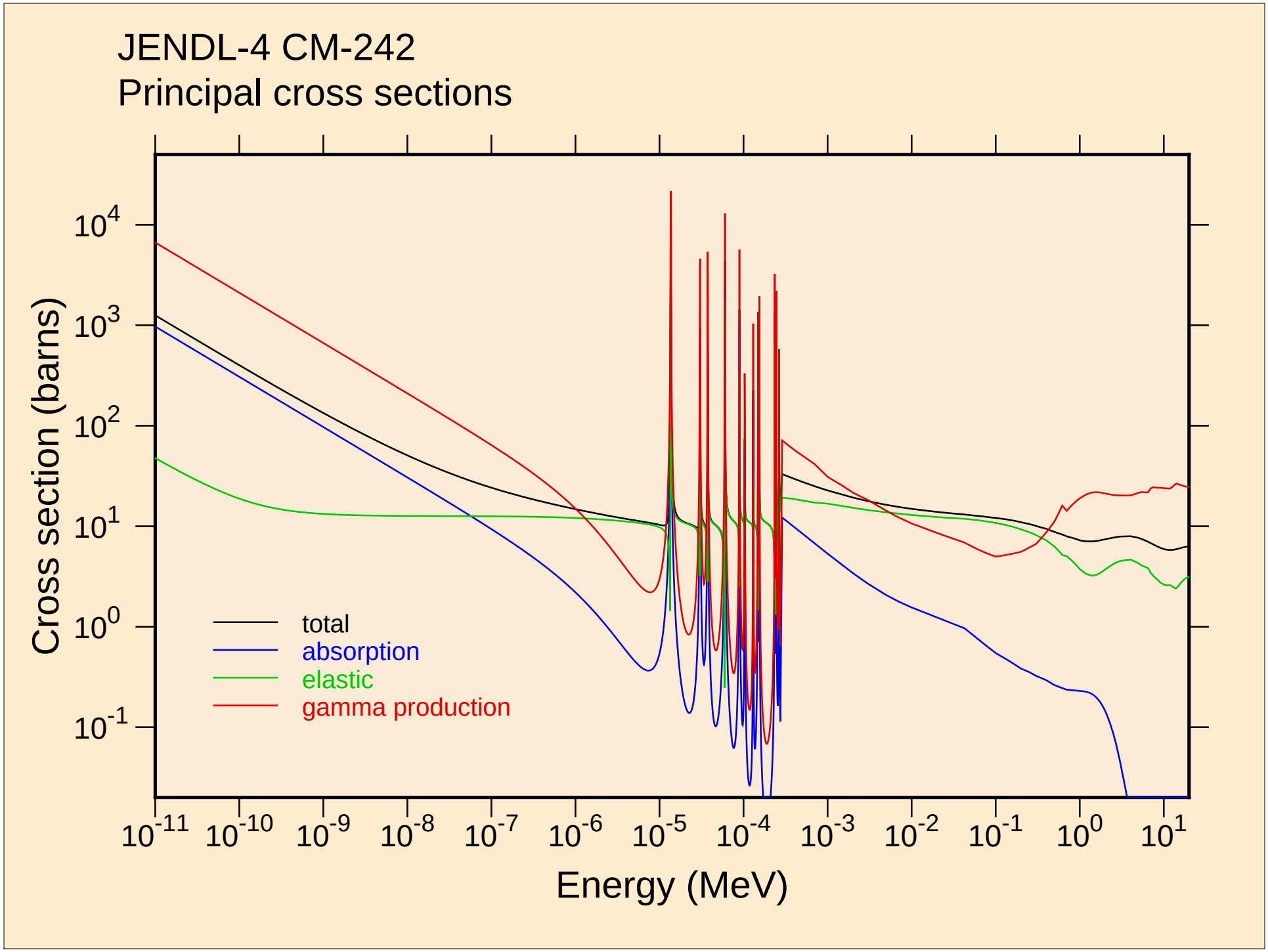
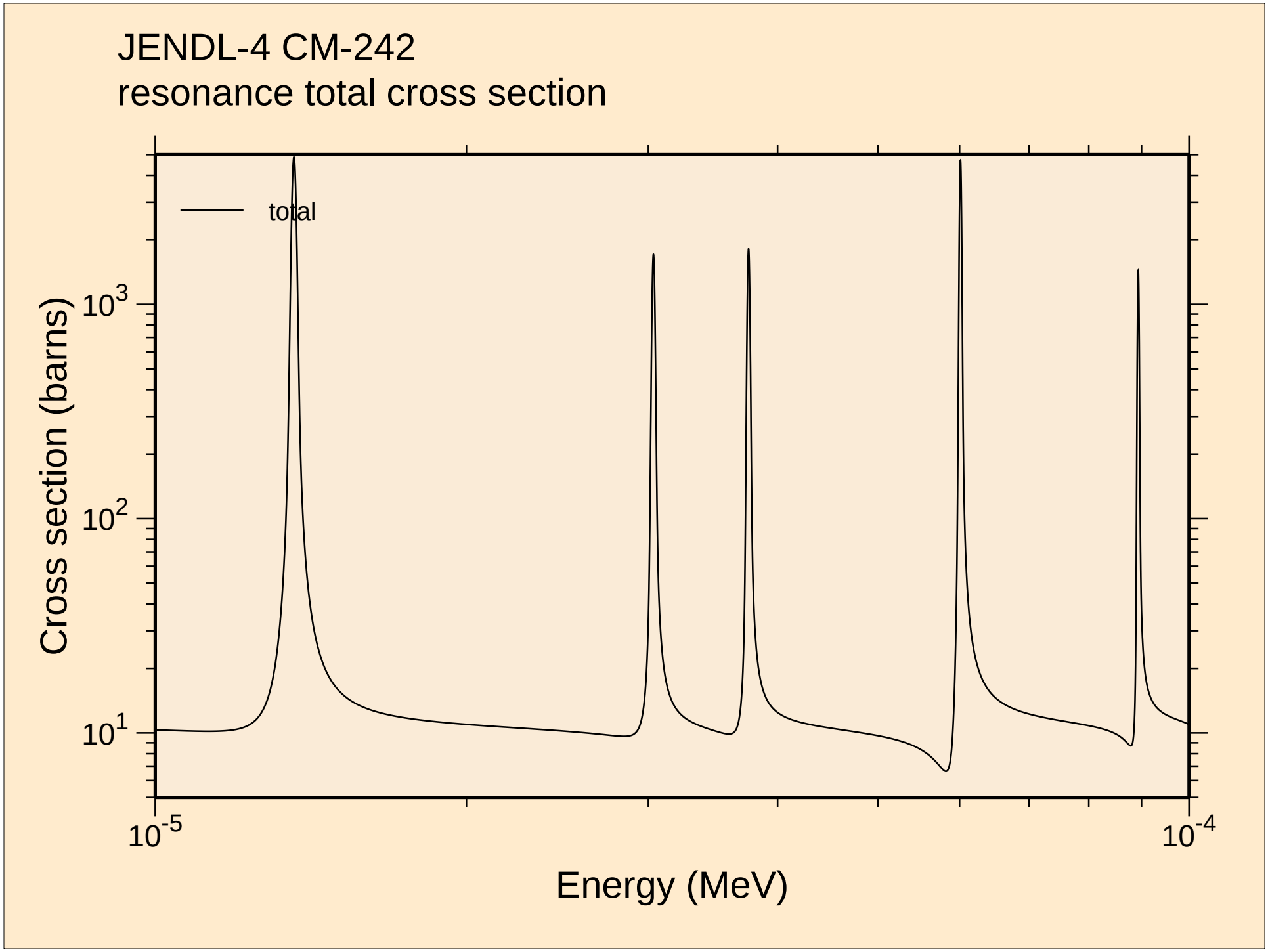
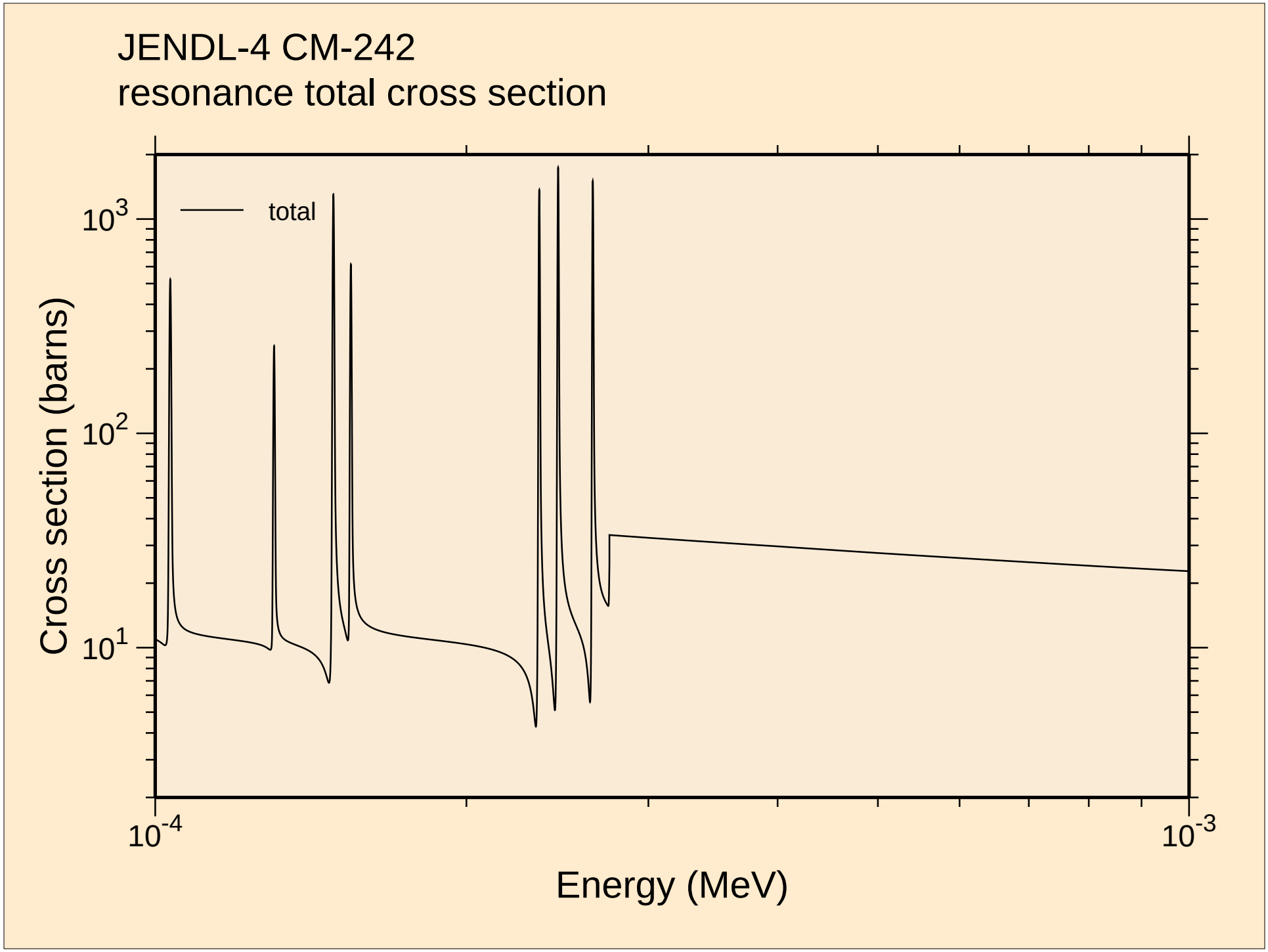
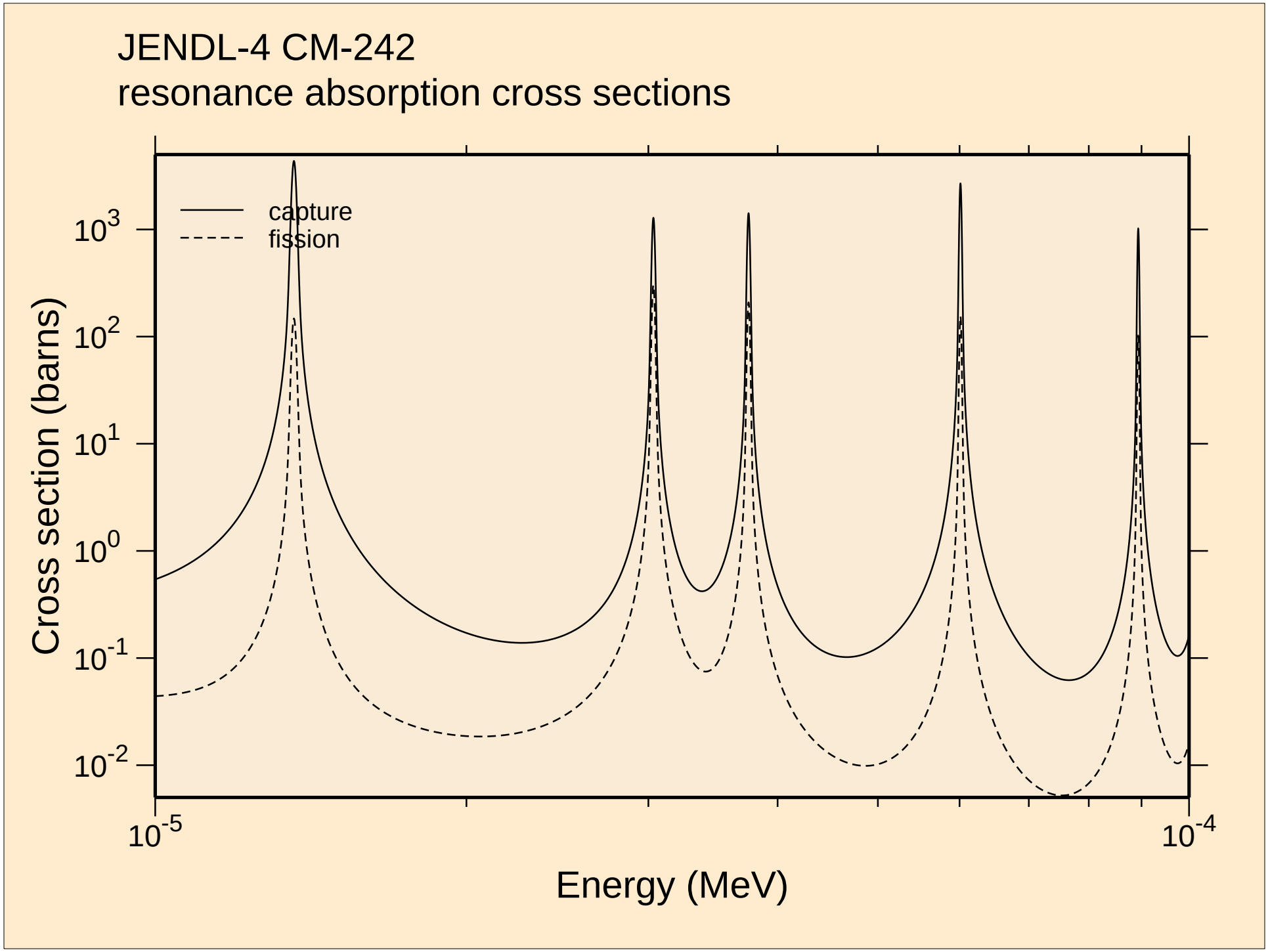
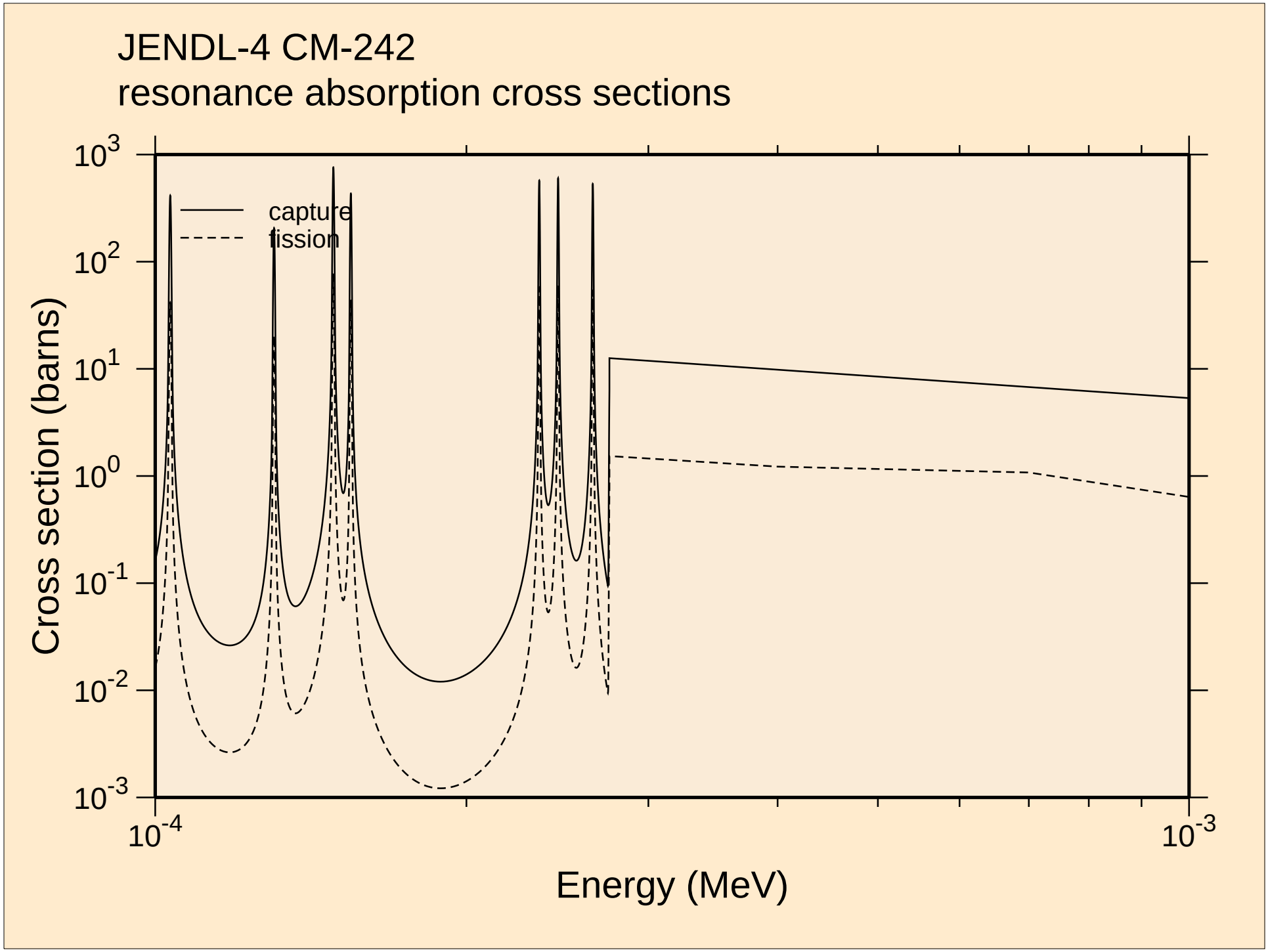
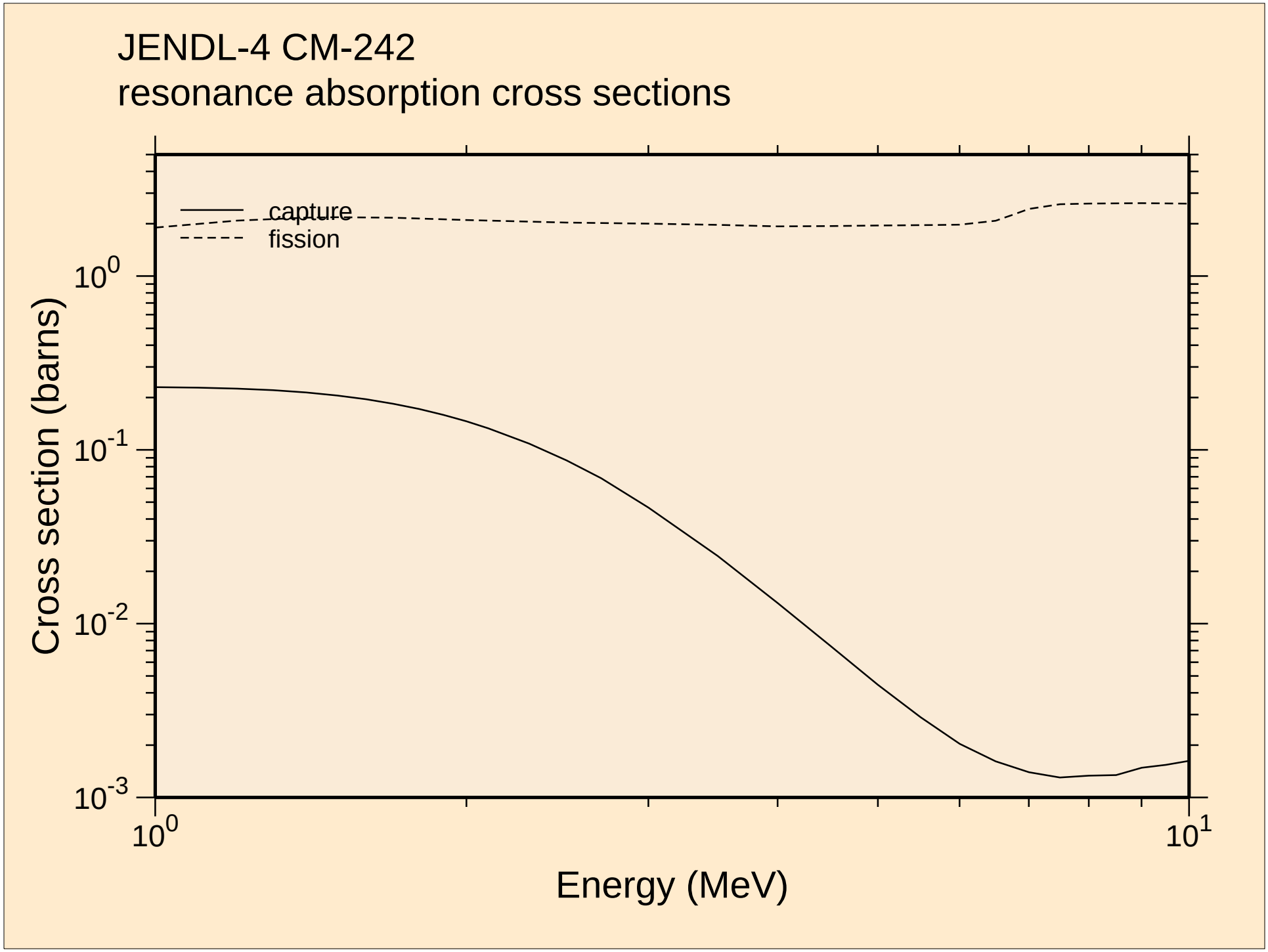

JENDL-4 CM-242
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

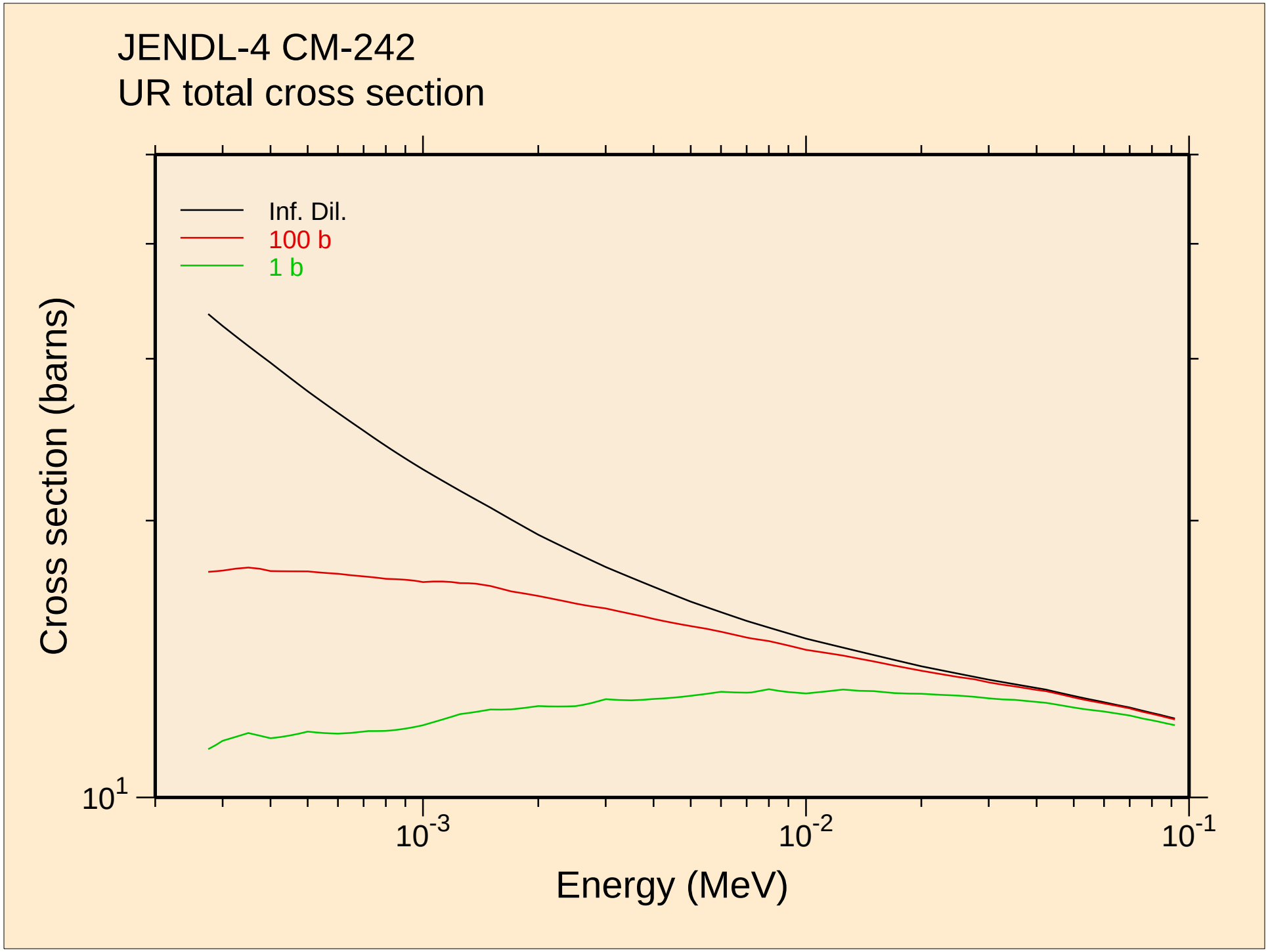

JENDL-4 CM-242
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^{-5}
10^{-4}
Energy (MeV)

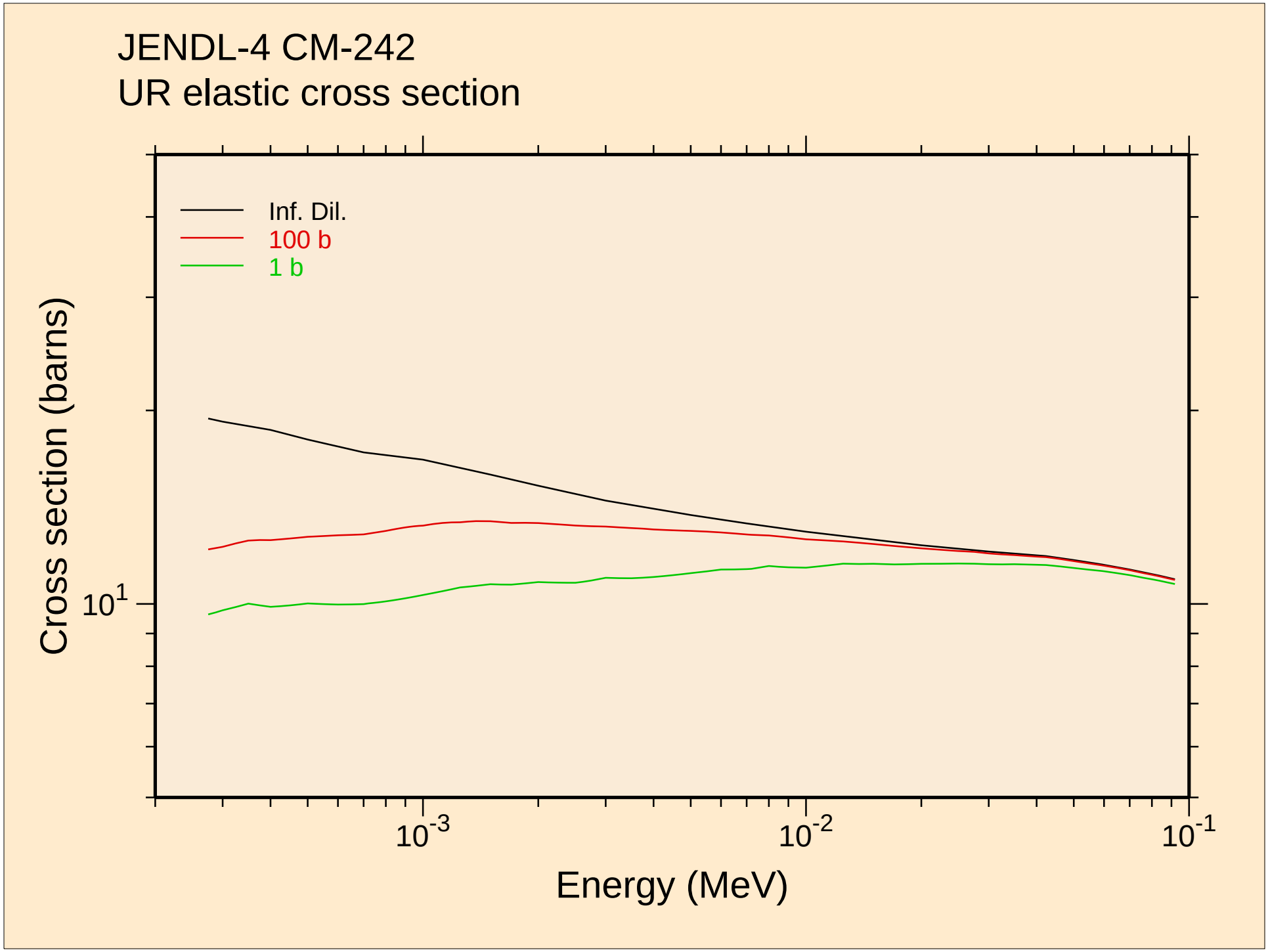

JENDL-4 CM-242
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^{-4}
10^{-3}
Energy (MeV)

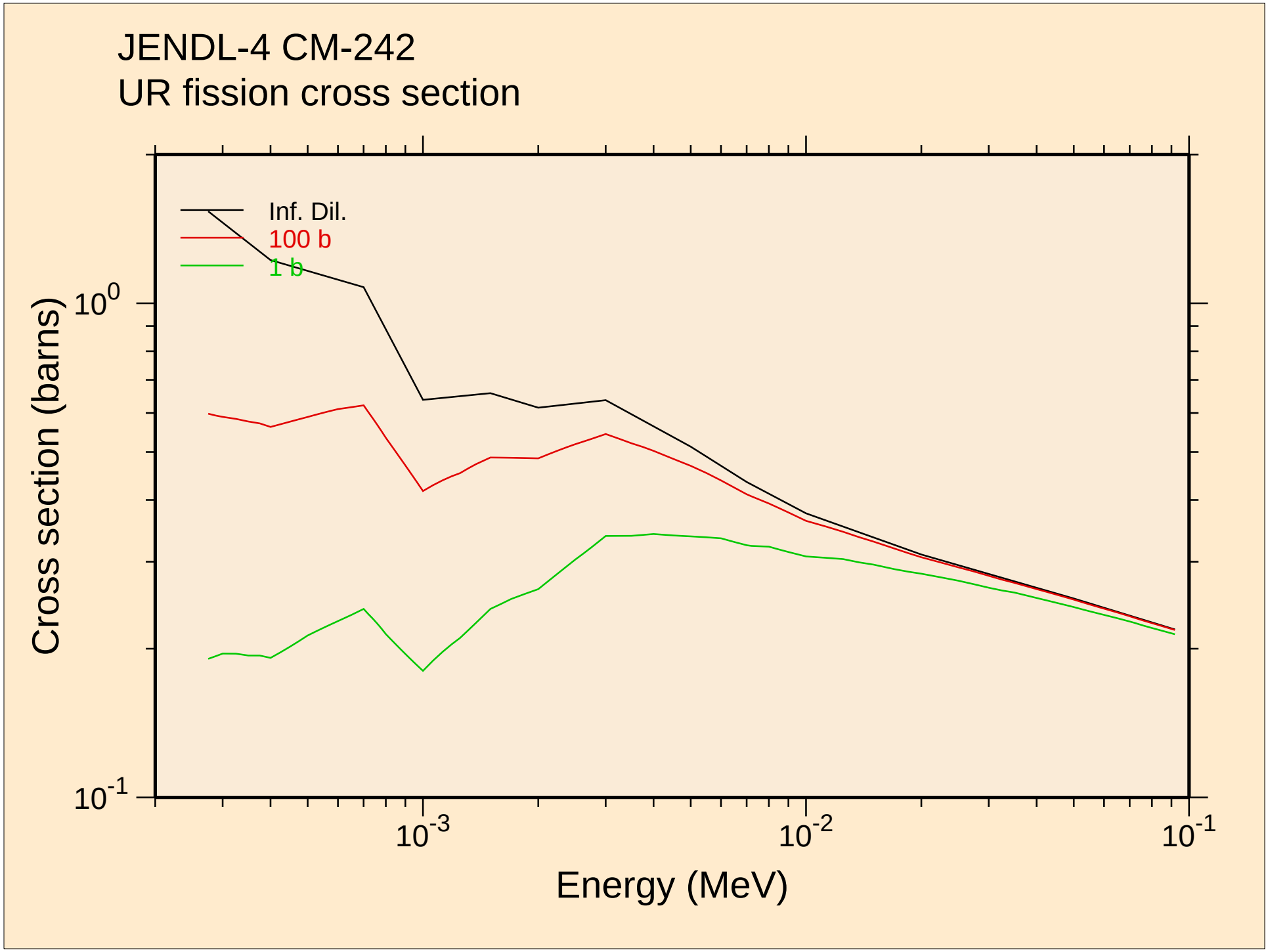

JENDL-4 CM-242
resonance absorption cross sections
capture
fission
Cross section (barns)
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-5}
10^{-4}
Energy (MeV)

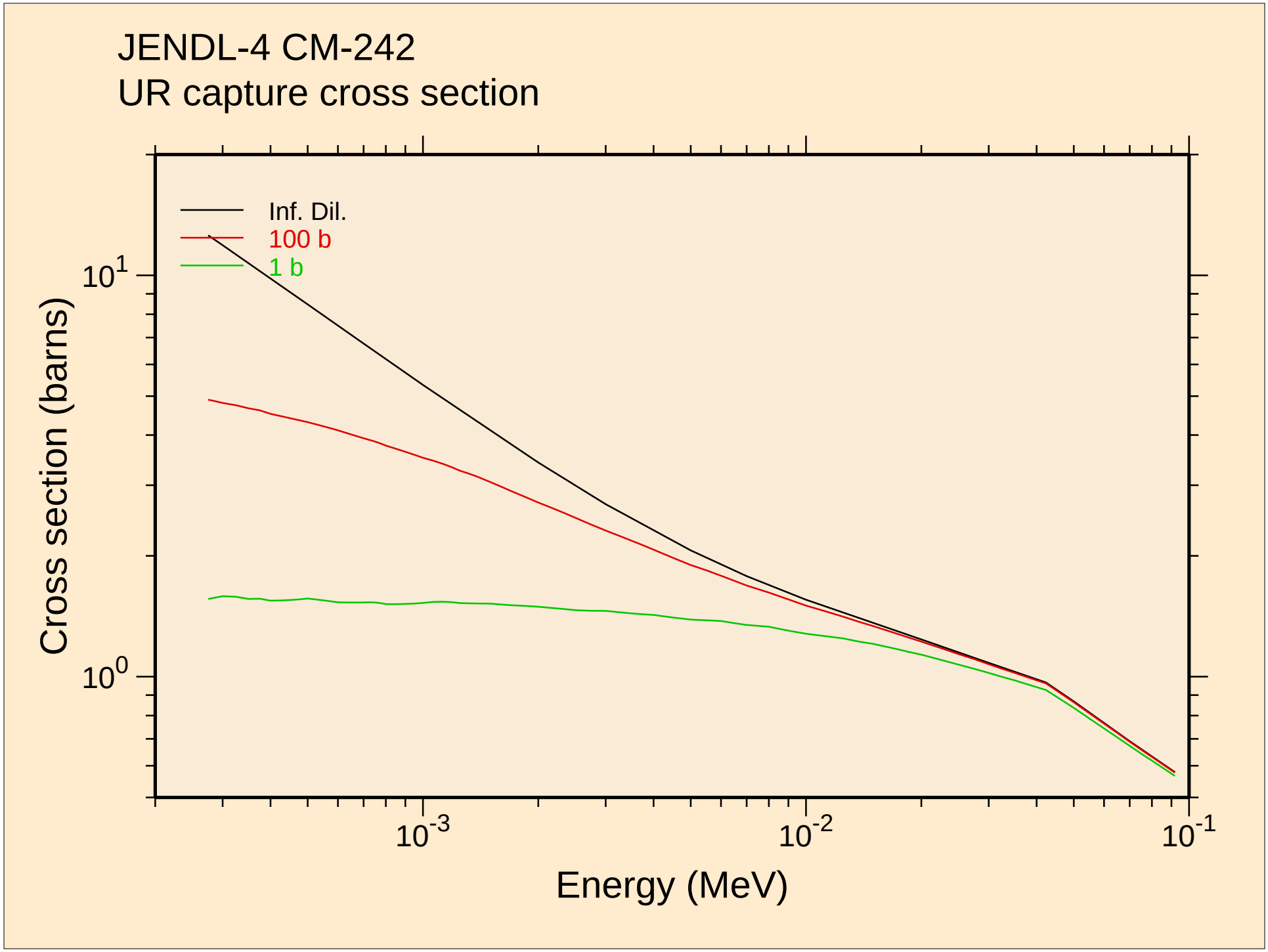

JENDL-4 CM-242
resonance absorption cross sections
capture
fission
Cross section (barns)
Energy (MeV)
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-3

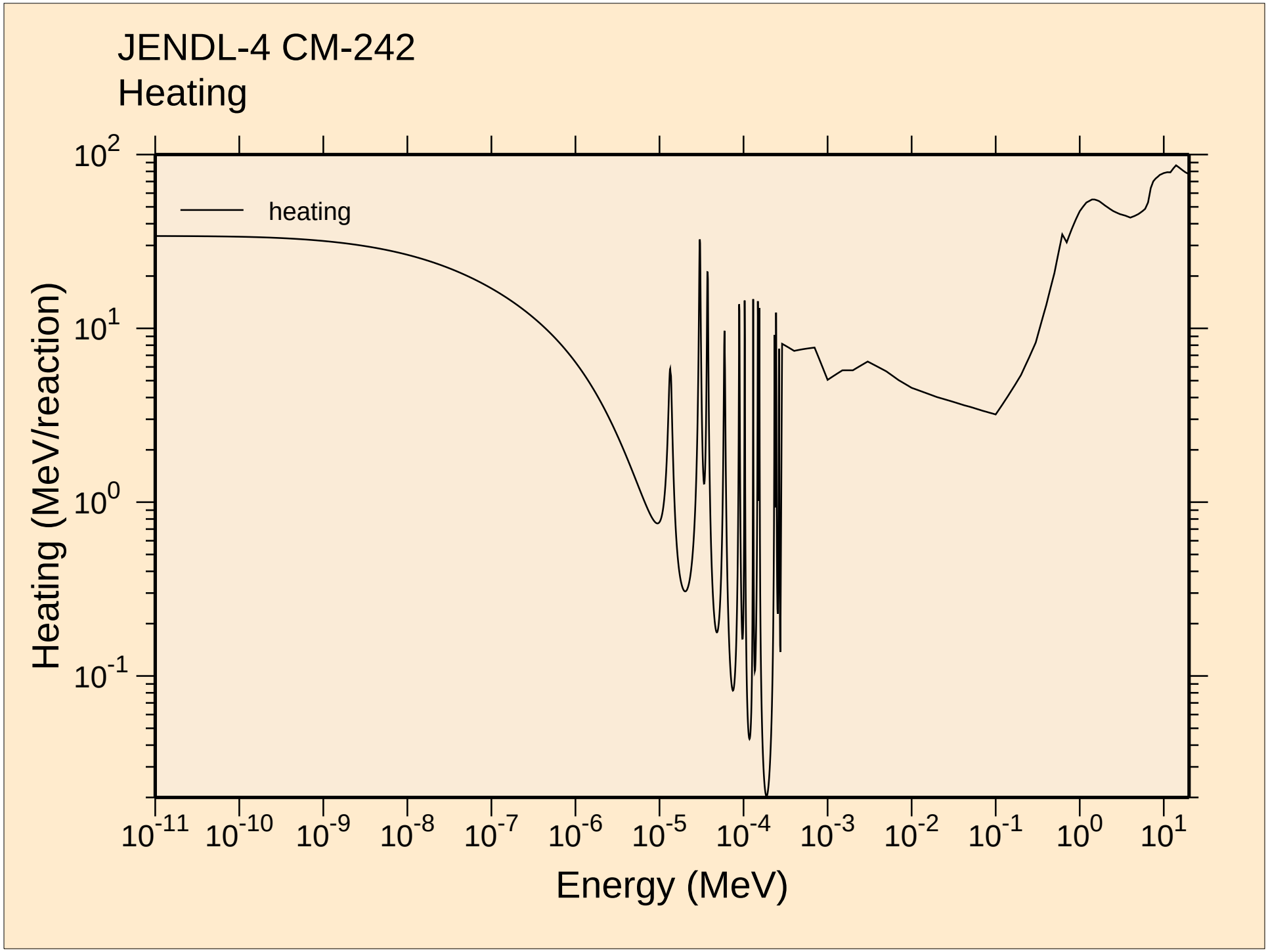

JENDL-4 CM-242
resonance absorption cross sections
capture
fission
Cross section (barns)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{0}
10^{1}
Energy (MeV)

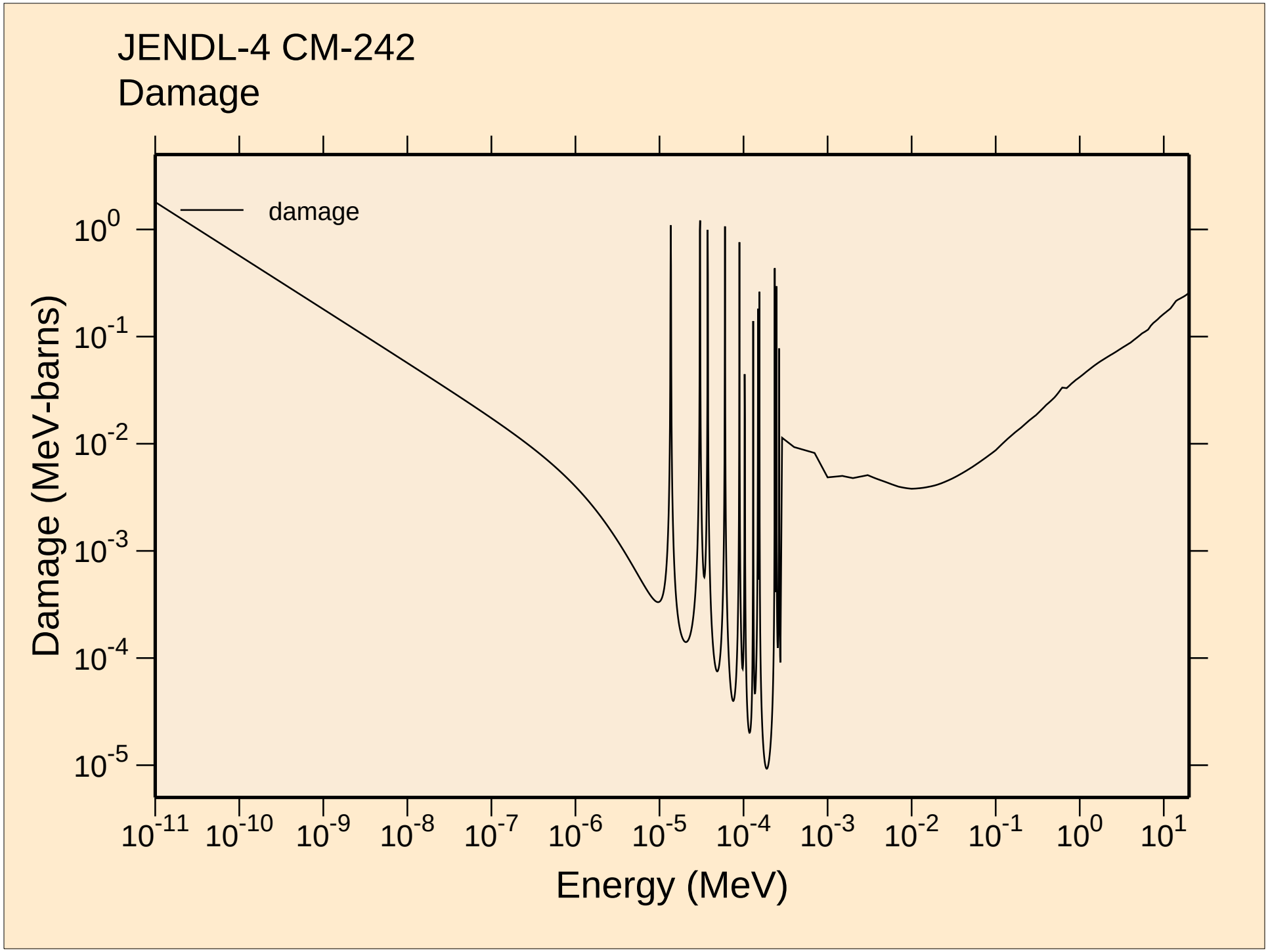

JENDL-4 CM-242
UR total cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^1
10^{-3}
10^{-2}
10^{-1}
Energy (MeV)

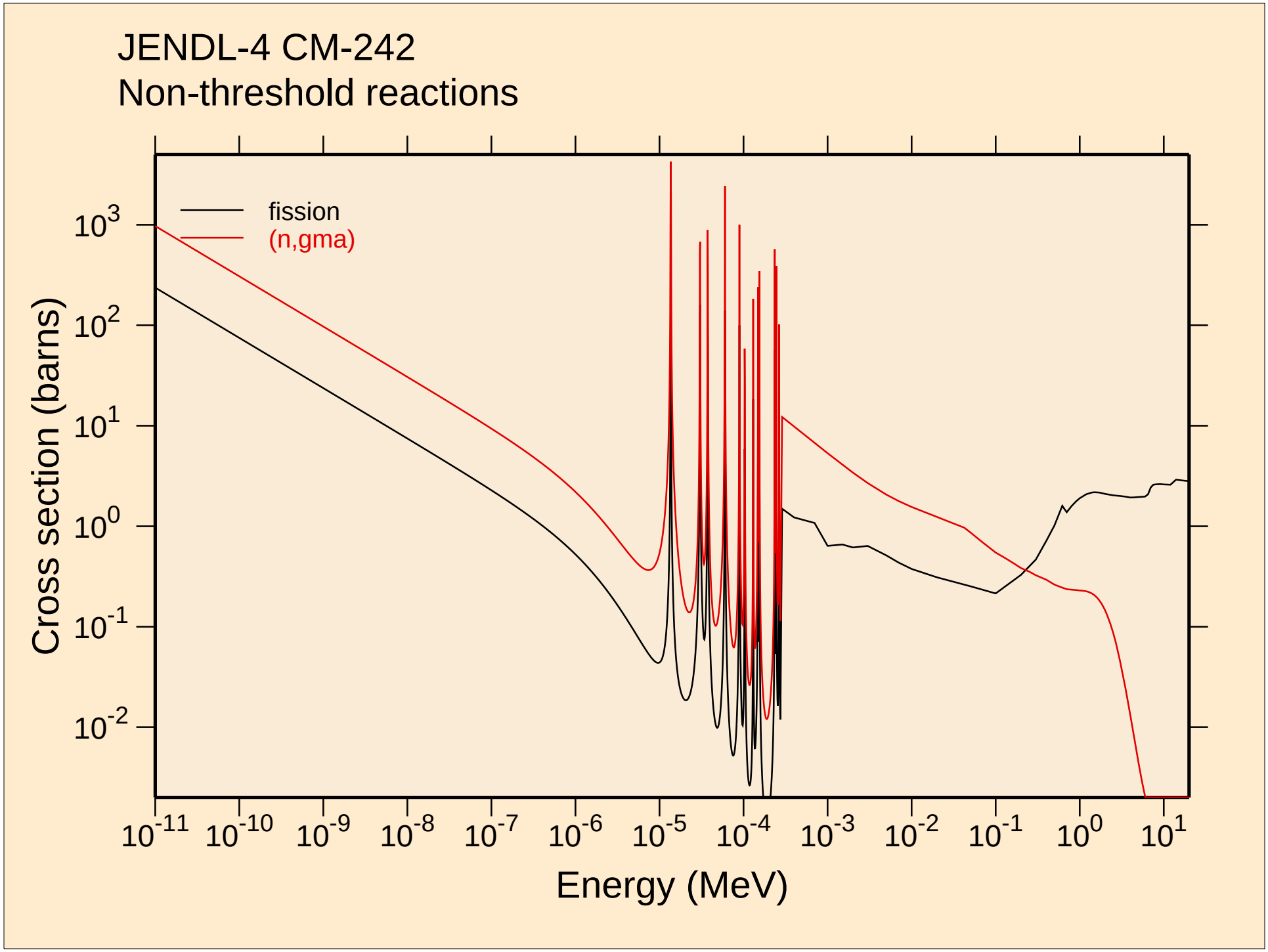

JENDL-4 CM-242
UR elastic cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^1
10^-3
10^-2
10^-1
Energy (MeV)

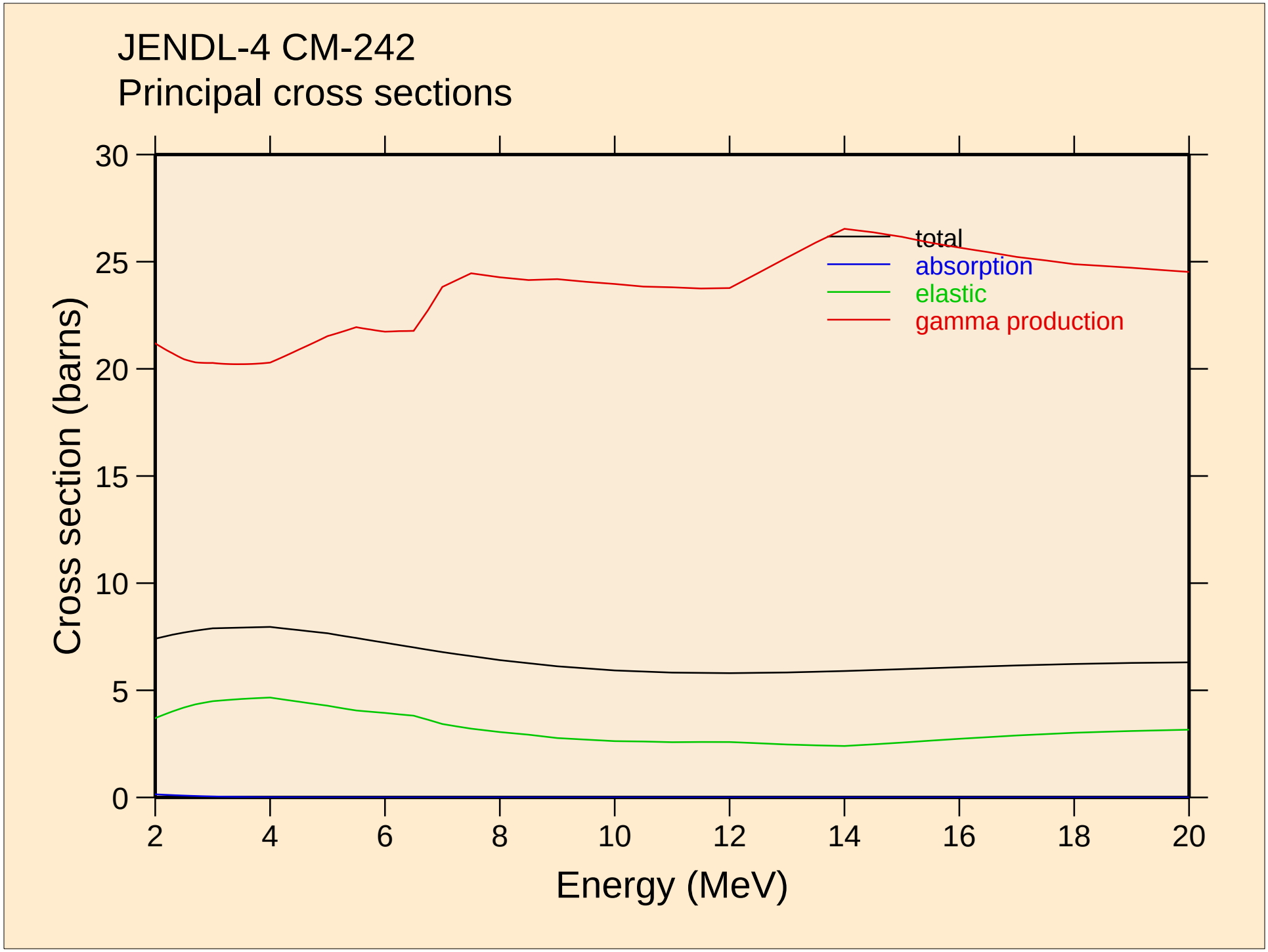

JENDL-4 CM-242
UR fission cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^{0}
10^{-1}
10^{-3}
10^{-2}
10^{-1}
Energy (MeV)

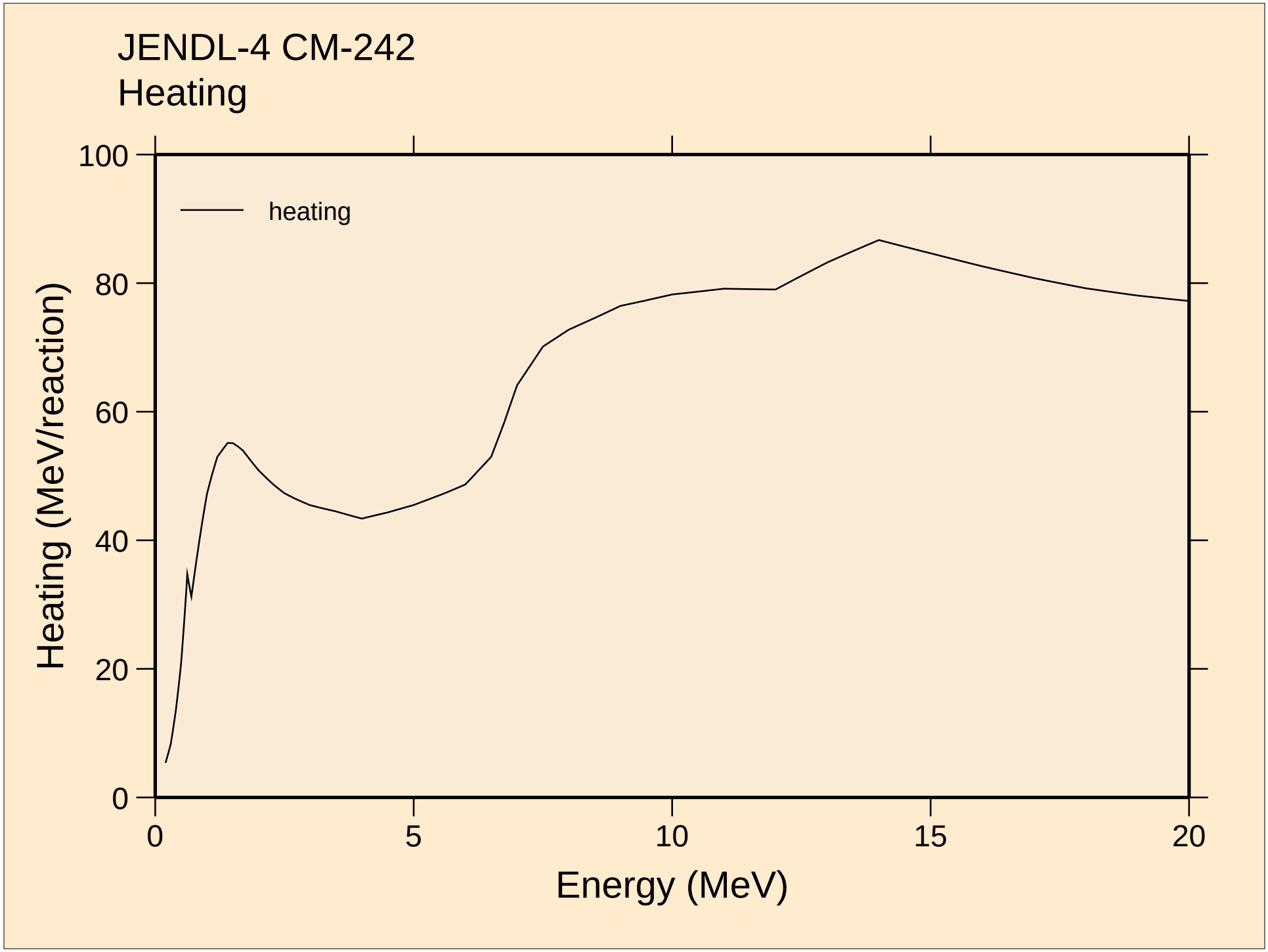

JENDL-4 CM-242
UR capture cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^1
10^0
10^{-3}
10^{-2}
10^{-1}
Energy (MeV)

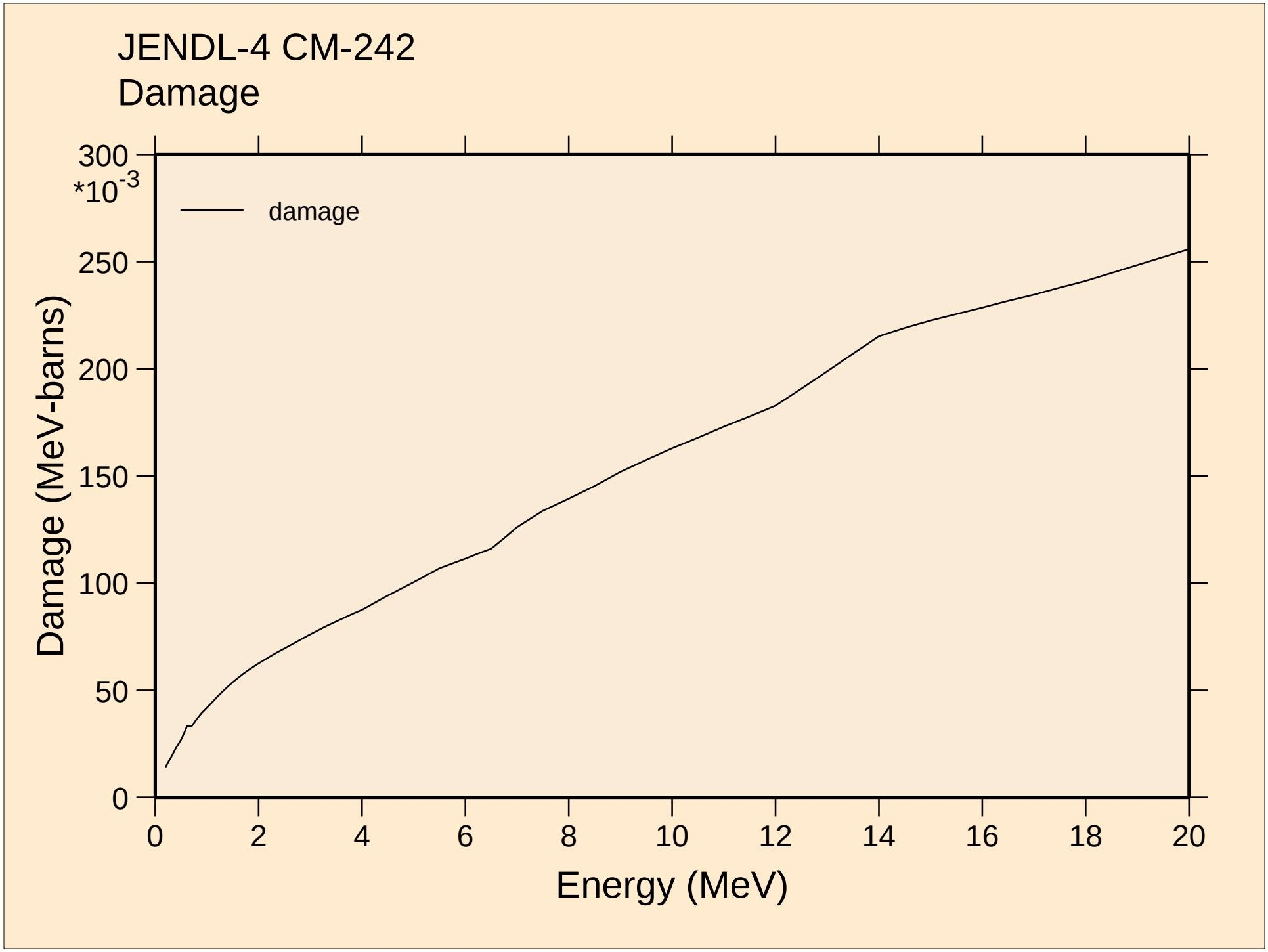

JENDL-4 CM-242
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^2
10^1
10^0
10^-1
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

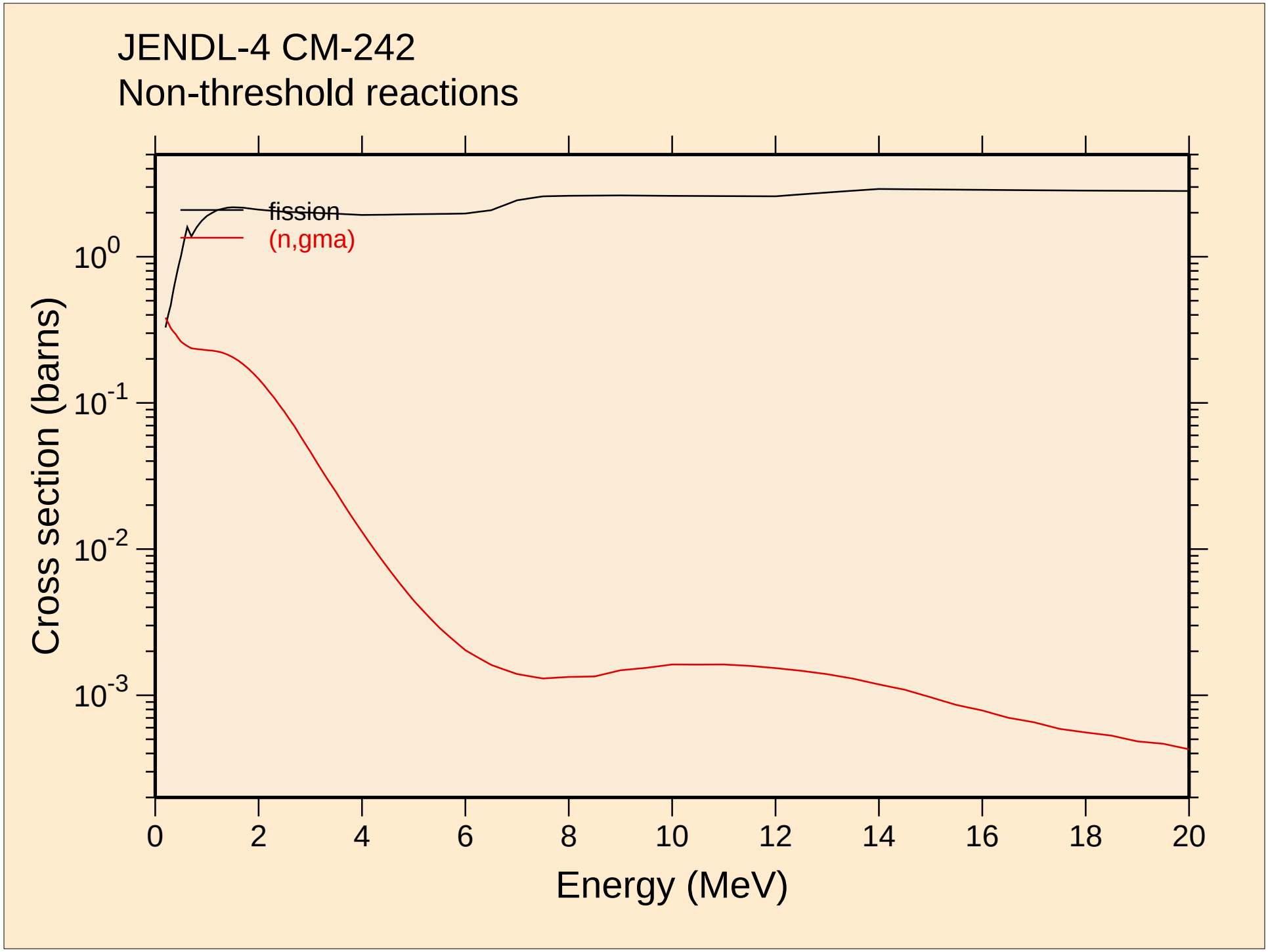

JENDL-4 CM-242
Damage
damage
Damage (MeV-barns)
Energy (MeV)
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
10^{-5}
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}

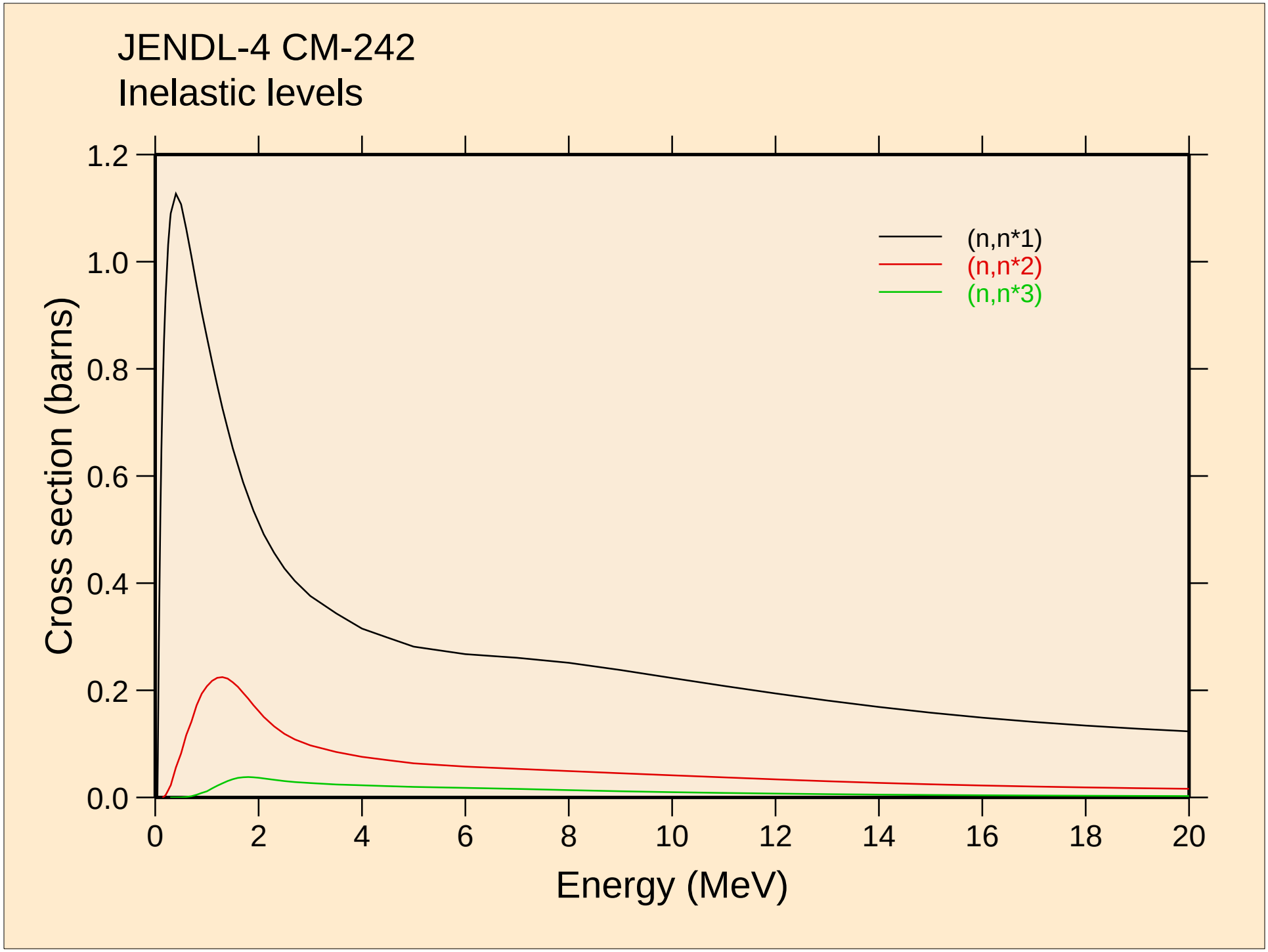

JENDL-4 CM-242
Non-threshold reactions
fission
(n,gma)
Cross section (barns)
Energy (MeV)
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

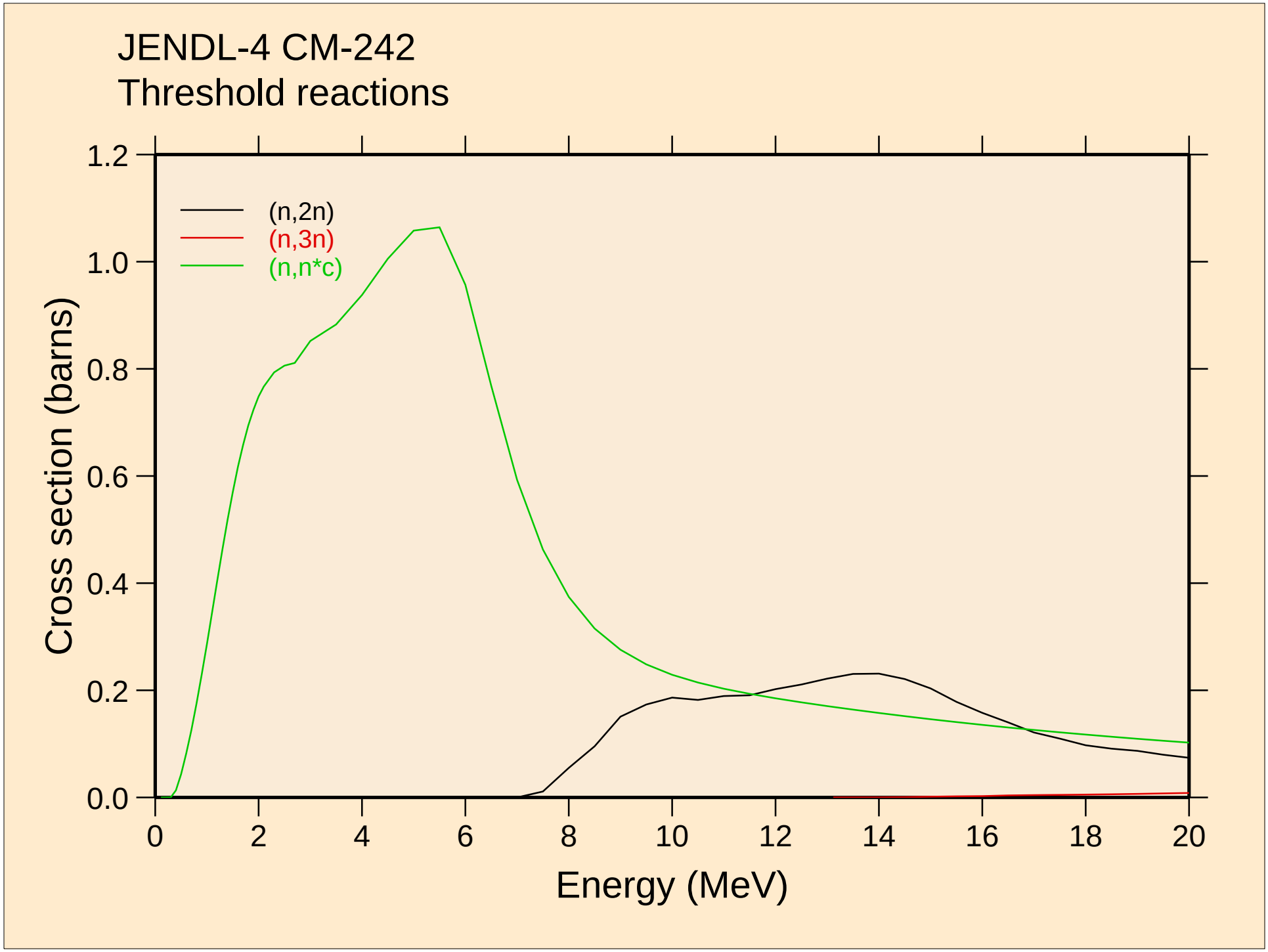

JENDL-4 CM-242
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production
0
5
10
15
20
25
30
2
4
6
8
10
12
14
16
18
20


JENDL-4 CM-242
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
20
40
60
80
100
0
5
10
15
20

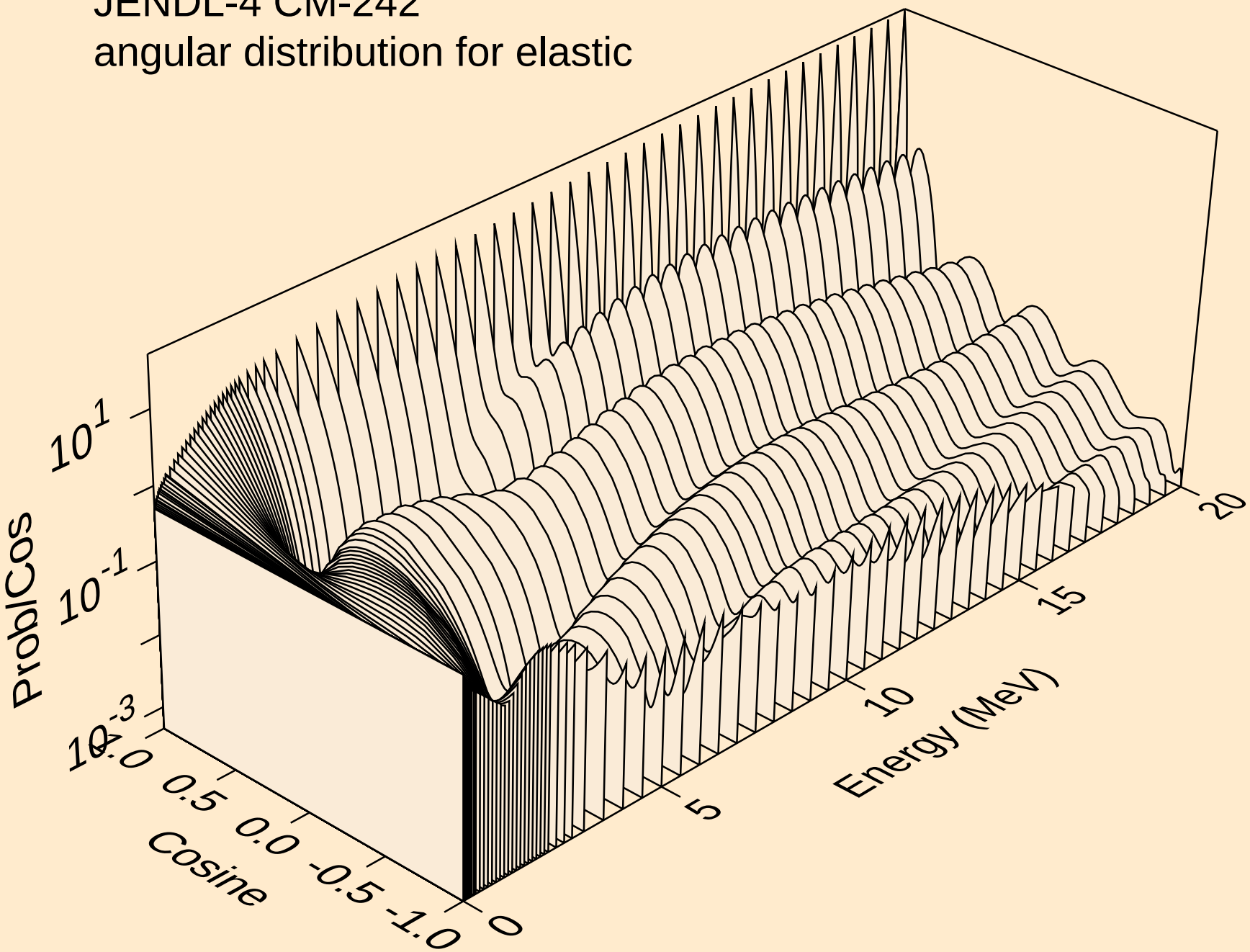

JENDL-4 CM-242
Damage
damage
Damage (MeV-barns)
*10-3
300
250
200
150
100
50
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

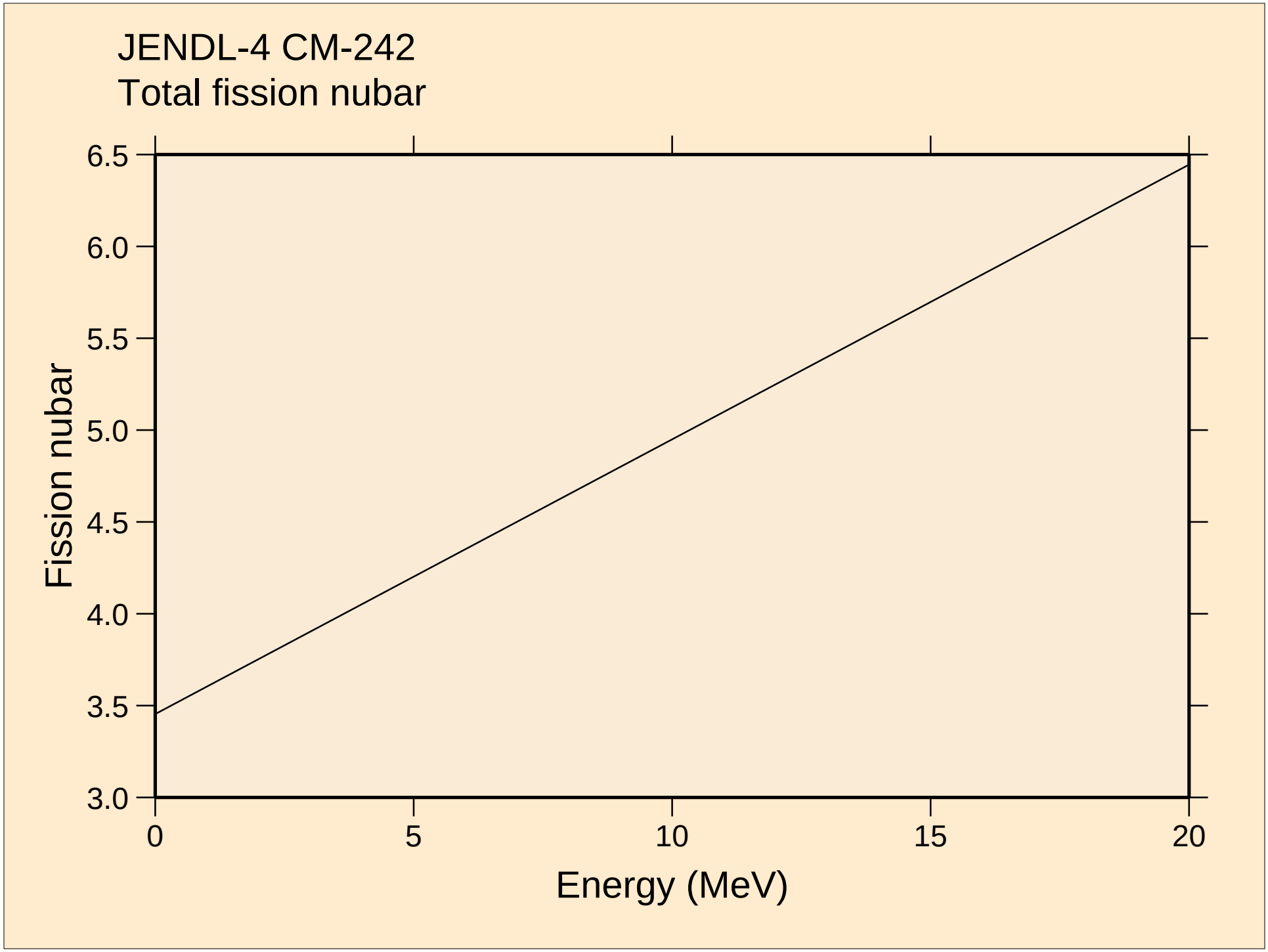

JENDL-4 CM-242
Non-threshold reactions
fission
(n,gma)
Cross section (barns)
10^{0}
10^{-1}
10^{-2}
10^{-3}
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

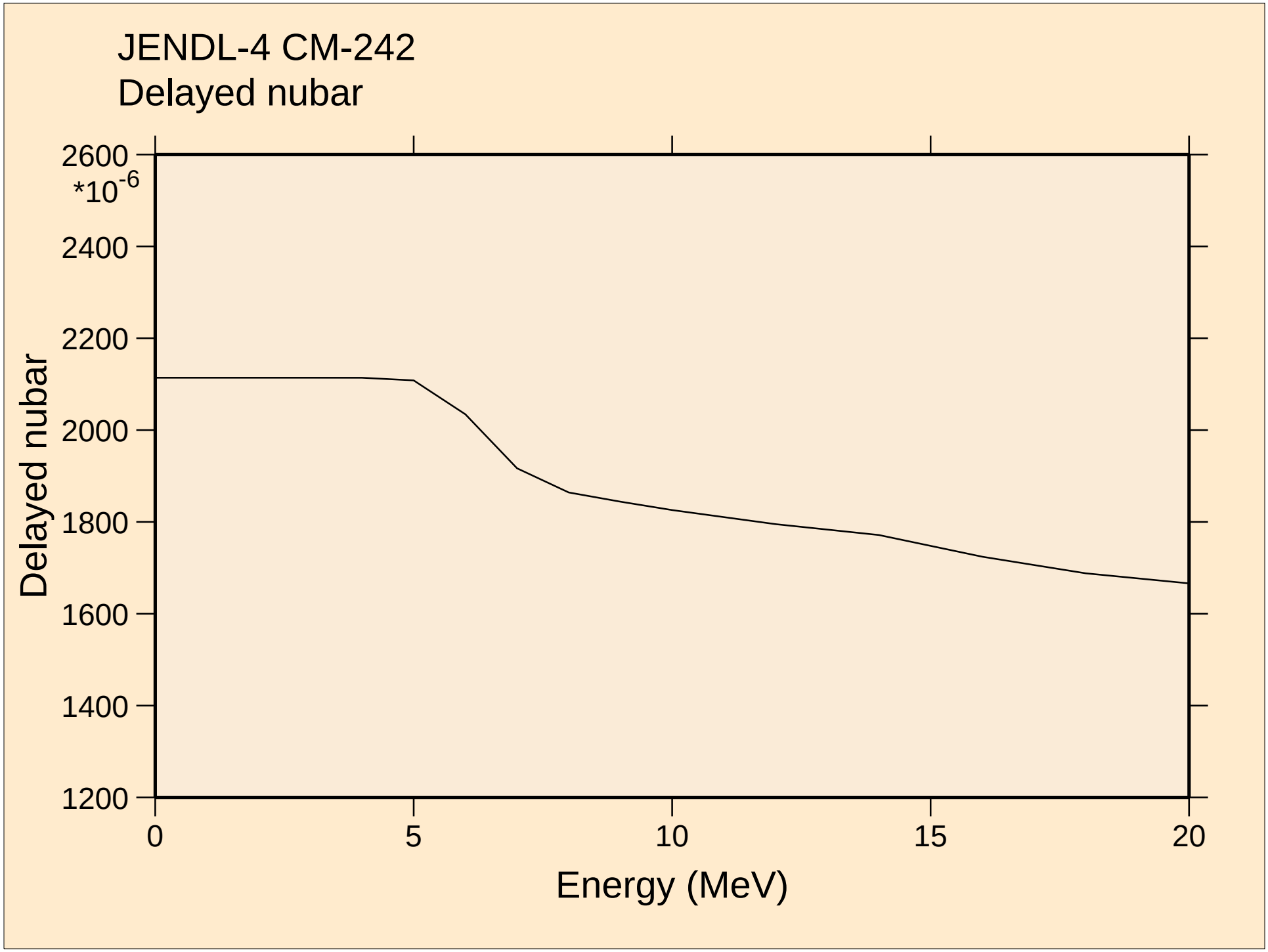

JENDL-4 CM-242
Inelastic levels
(n,n*1)
(n,n*2)
(n,n*3)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
2
4
6
8
10
12
14
16
18
20

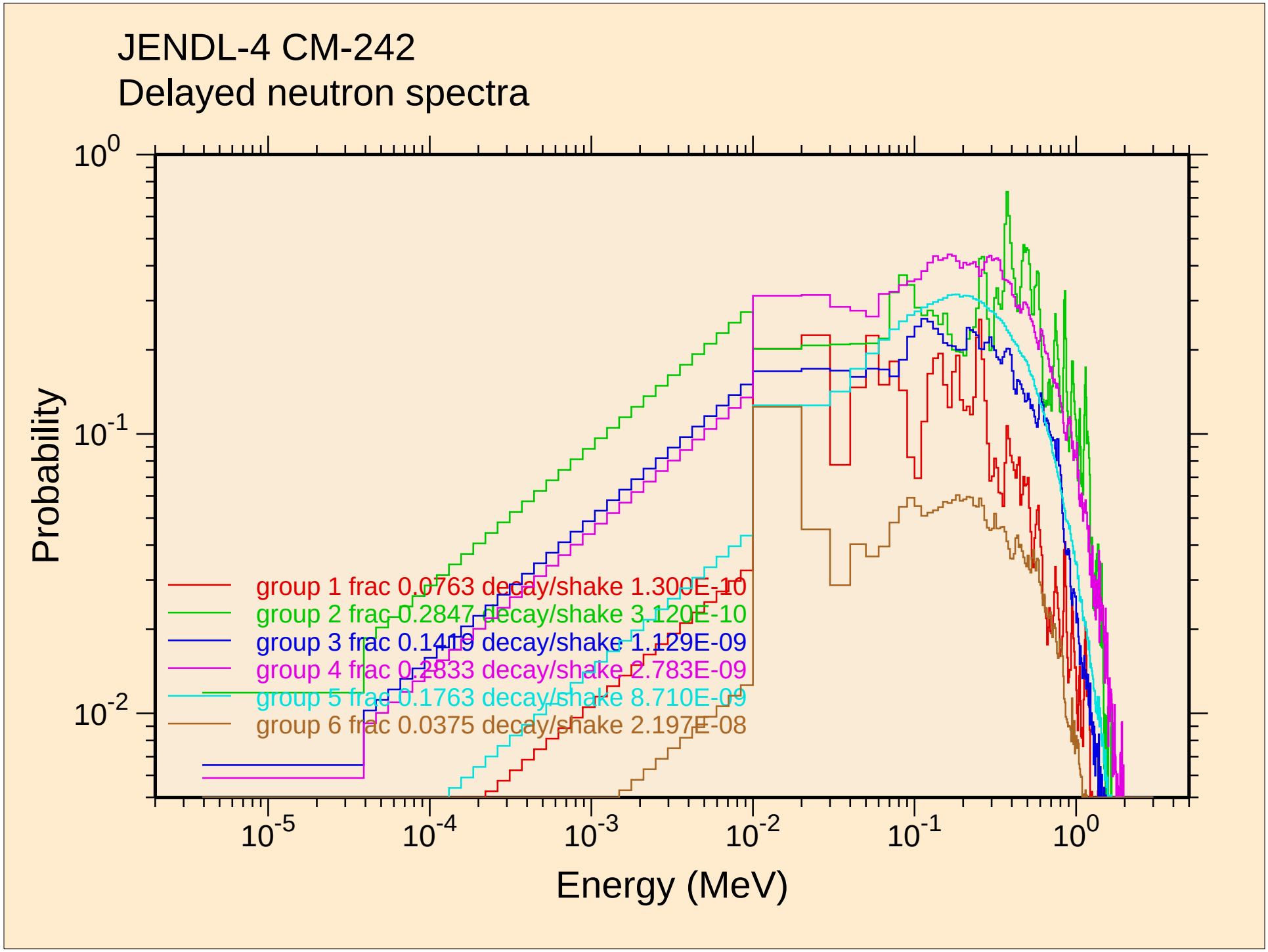

JENDL-4 CM-242
Threshold reactions
(n,2n)
(n,3n)
(n,n*c)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
2
4
6
8
10
12
14
16
18
20

JENDL-4 CM-242
angular distribution for elastic

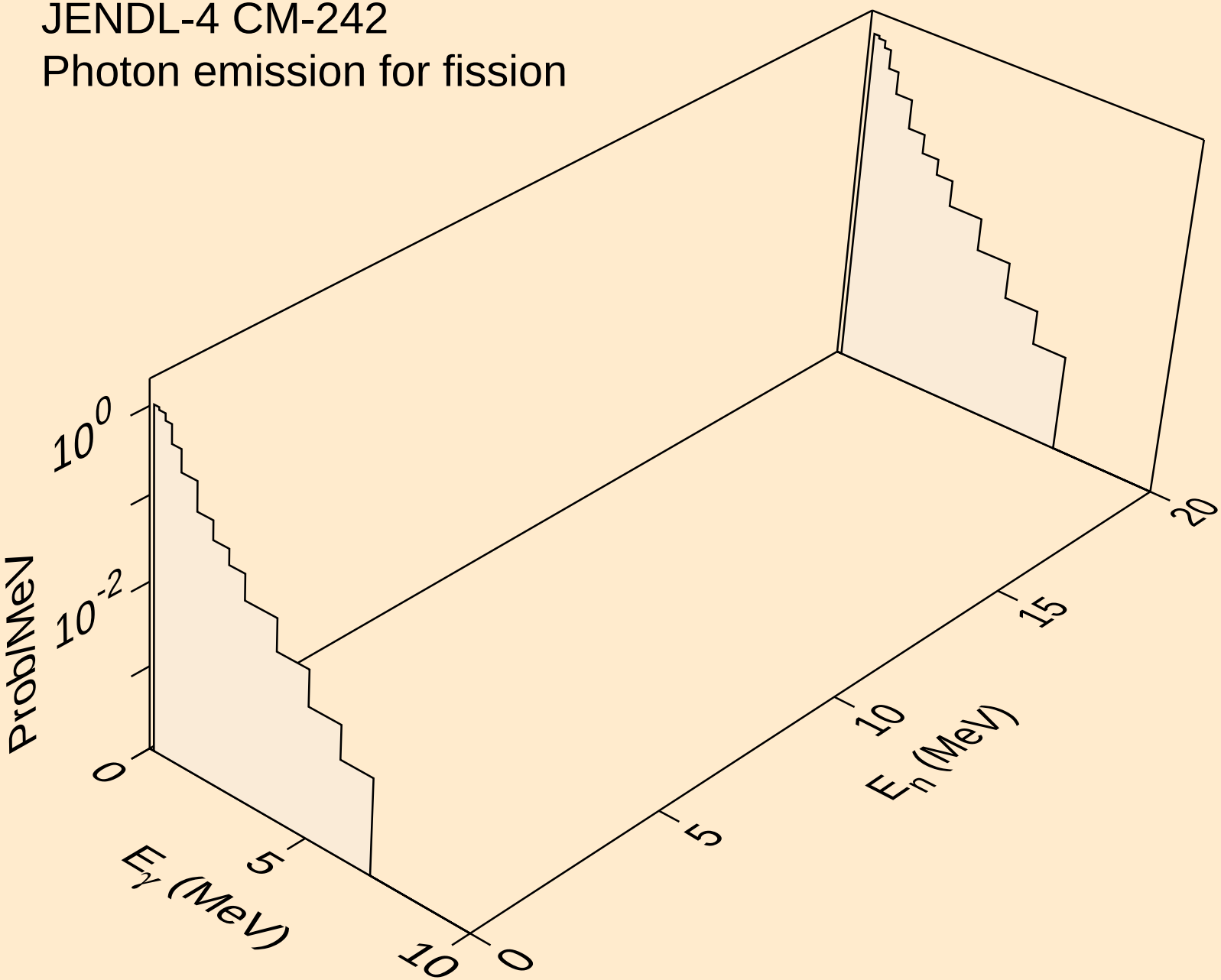


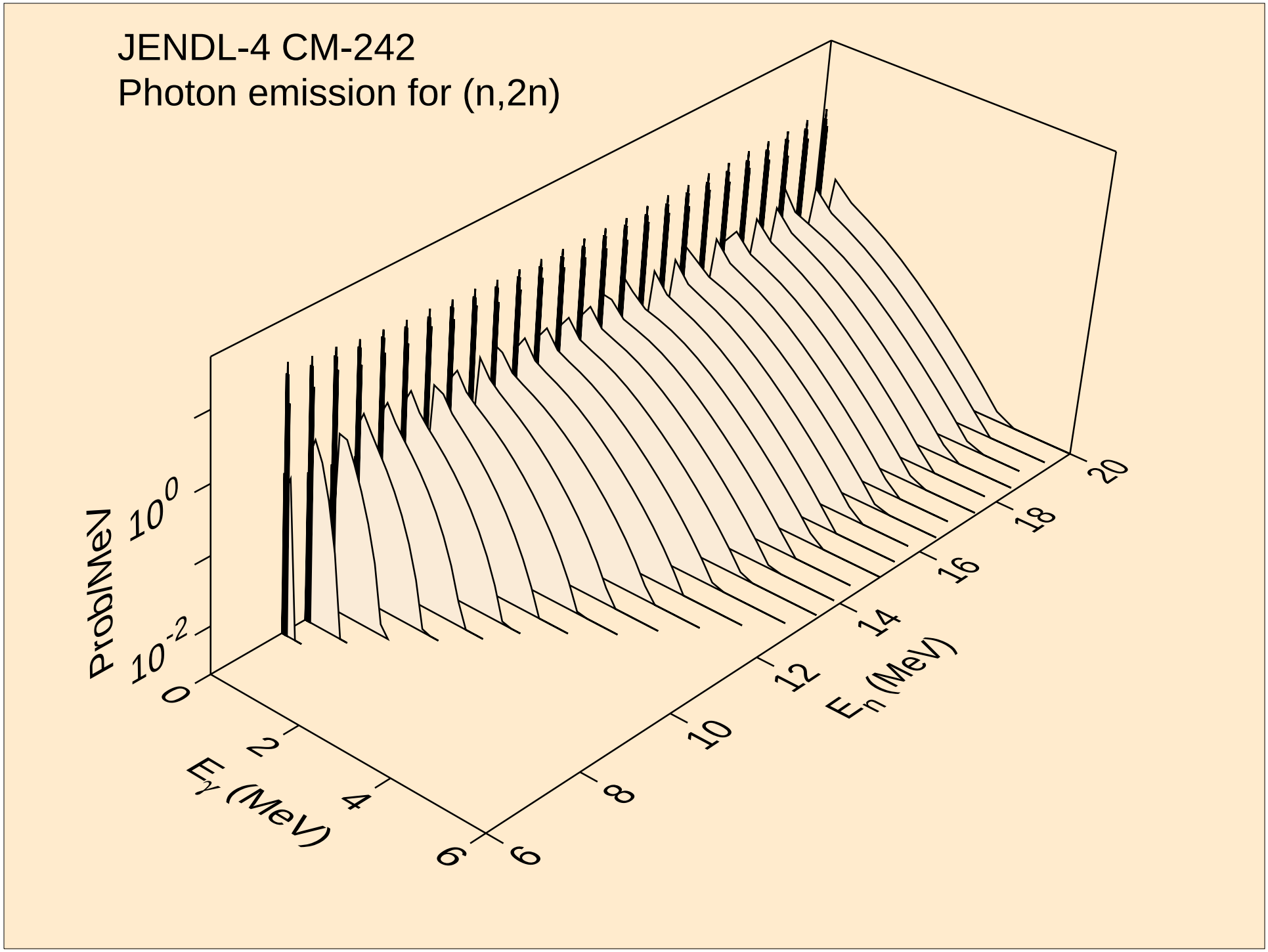

JENDL-4 CM-242
Total fission nubar
Fission nubar
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
0
5
10
15
20
Energy (MeV)

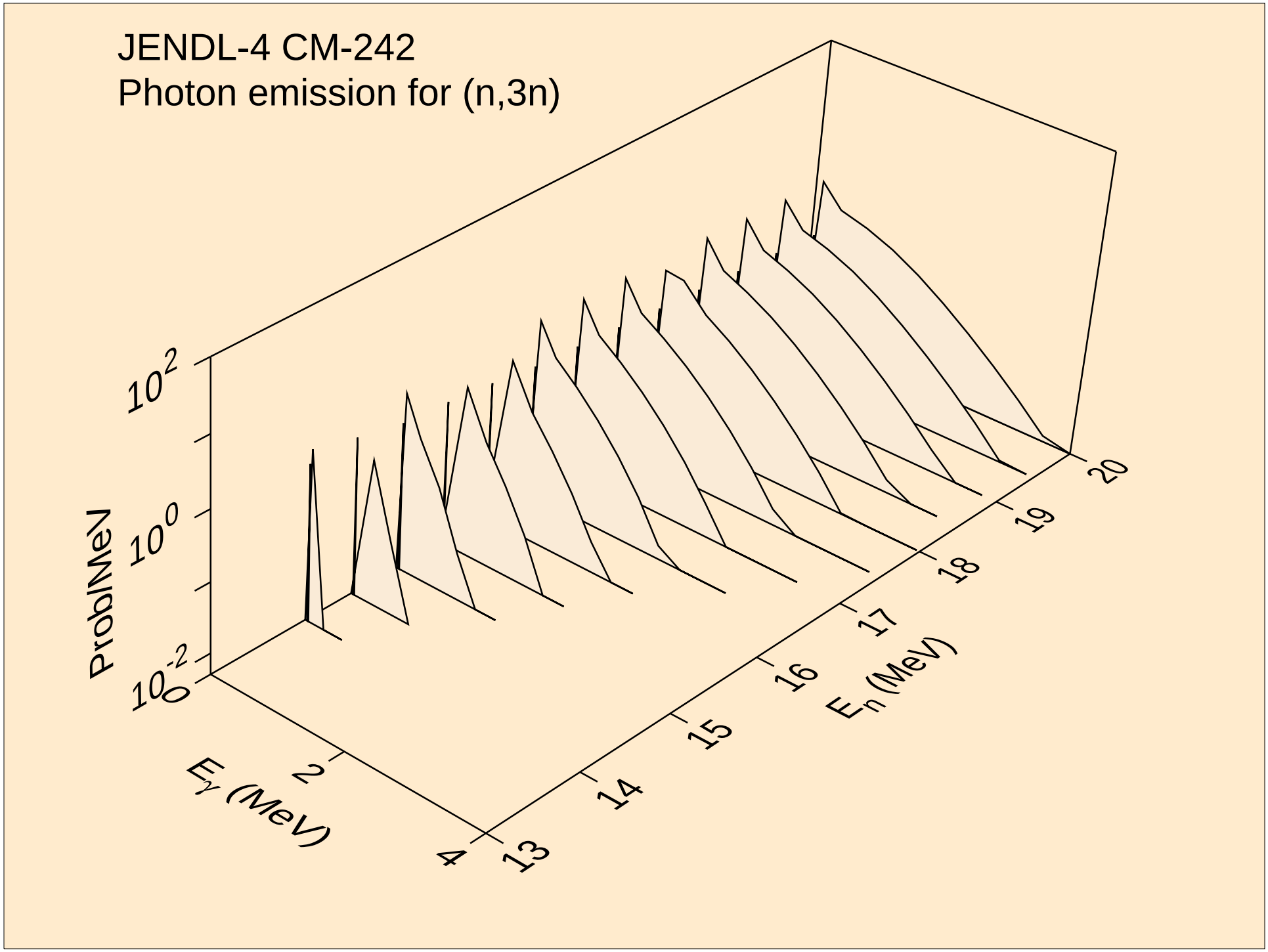

JENDL-4 CM-242
Delayed nubar
2600
*10-6
2400
2200
2000
1800
1600
1400
1200
Delayed nubar
0
5
10
15
20
Energy (MeV)

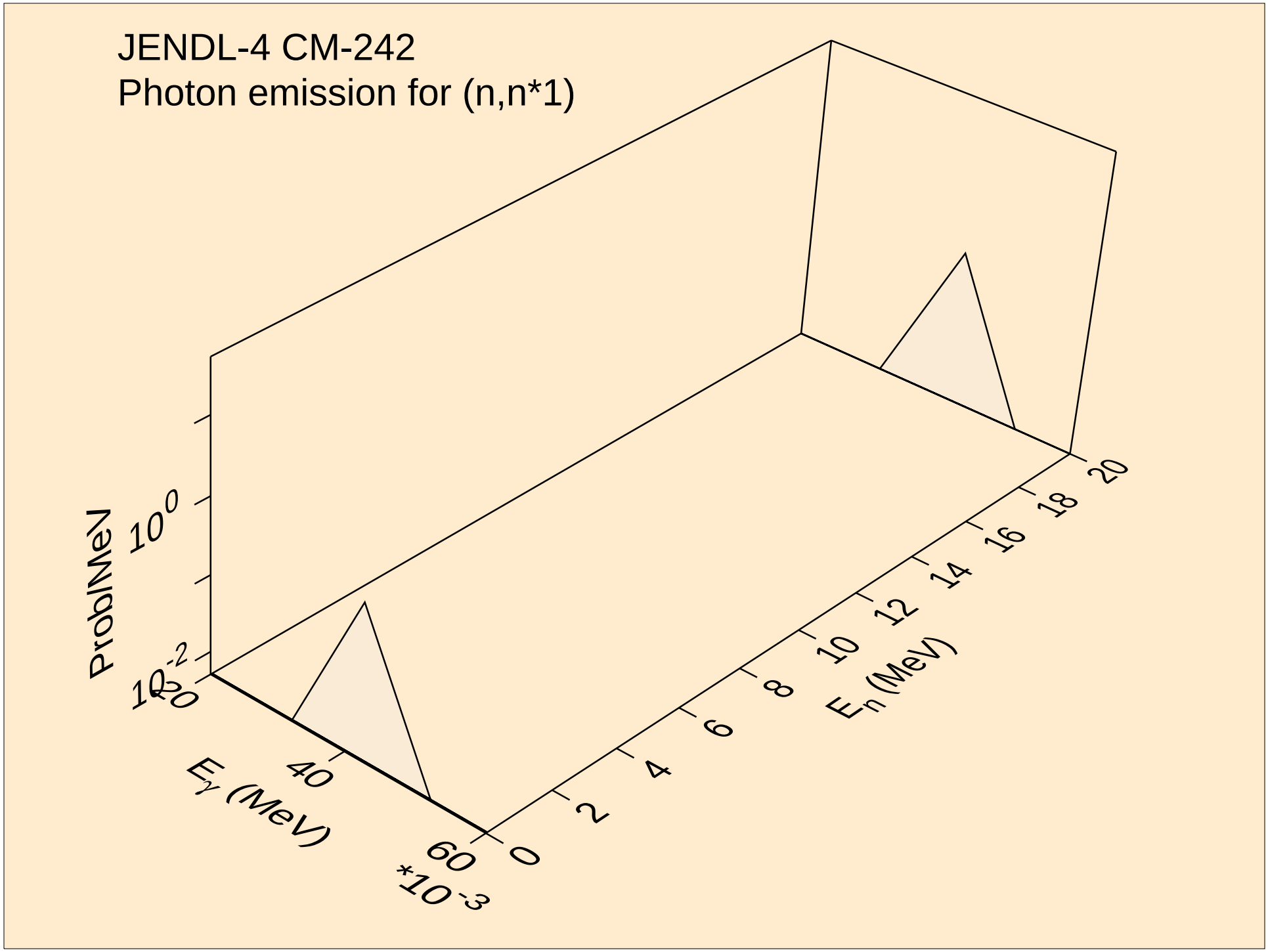

JENDL-4 CM-242
Delayed neutron spectra
Probability
Energy (MeV)
group 1 frac 0.0763 decay/shake 1.300E-10
group 2 frac 0.2847 decay/shake 3.120E-10
group 3 frac 0.1419 decay/shake 1.129E-09
group 4 frac 0.2833 decay/shake 2.783E-09
group 5 frac 0.1763 decay/shake 8.710E-09
group 6 frac 0.0375 decay/shake 2.197E-08

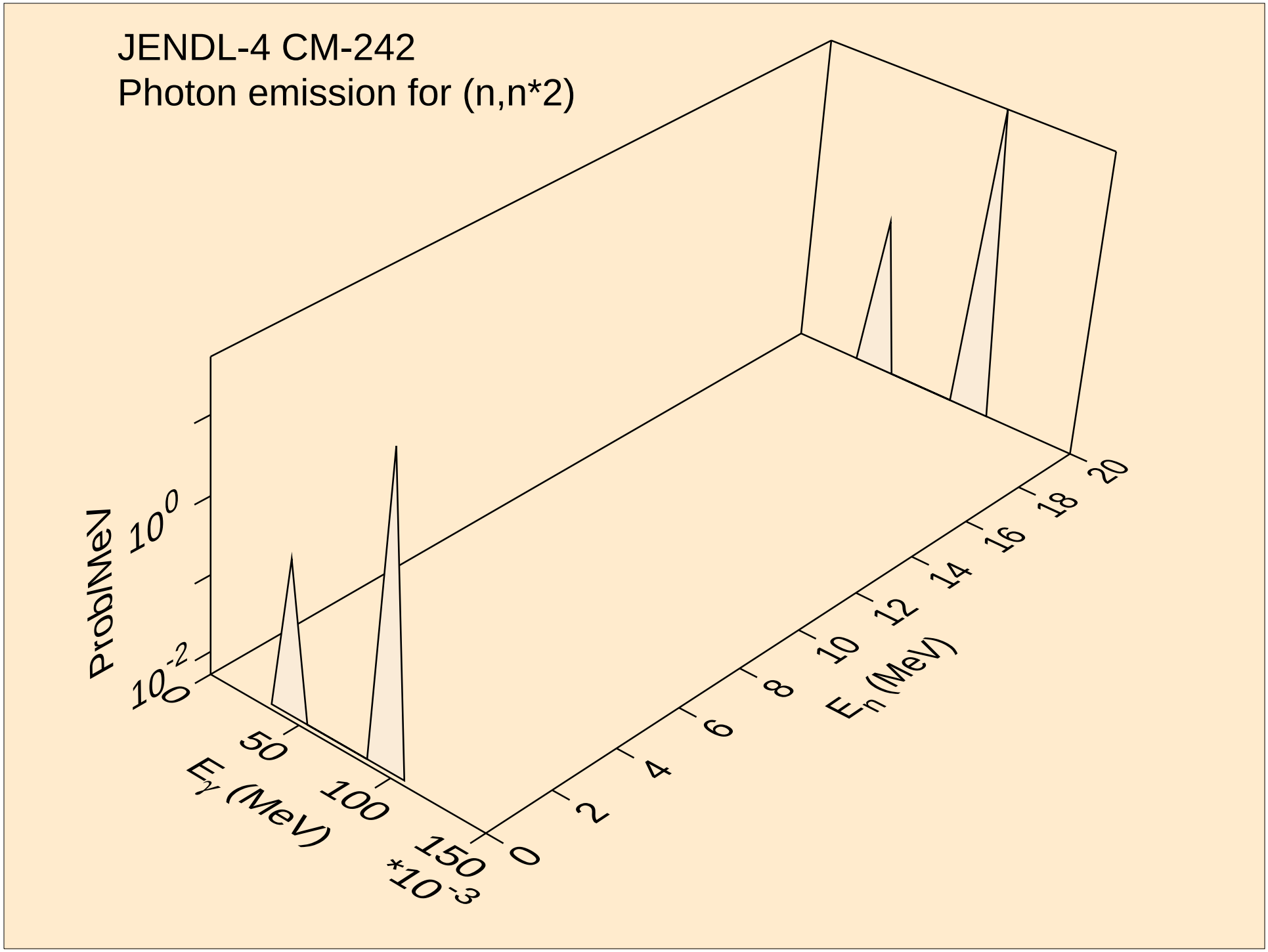
JENDL-4 CM-242
Photon emission for fission

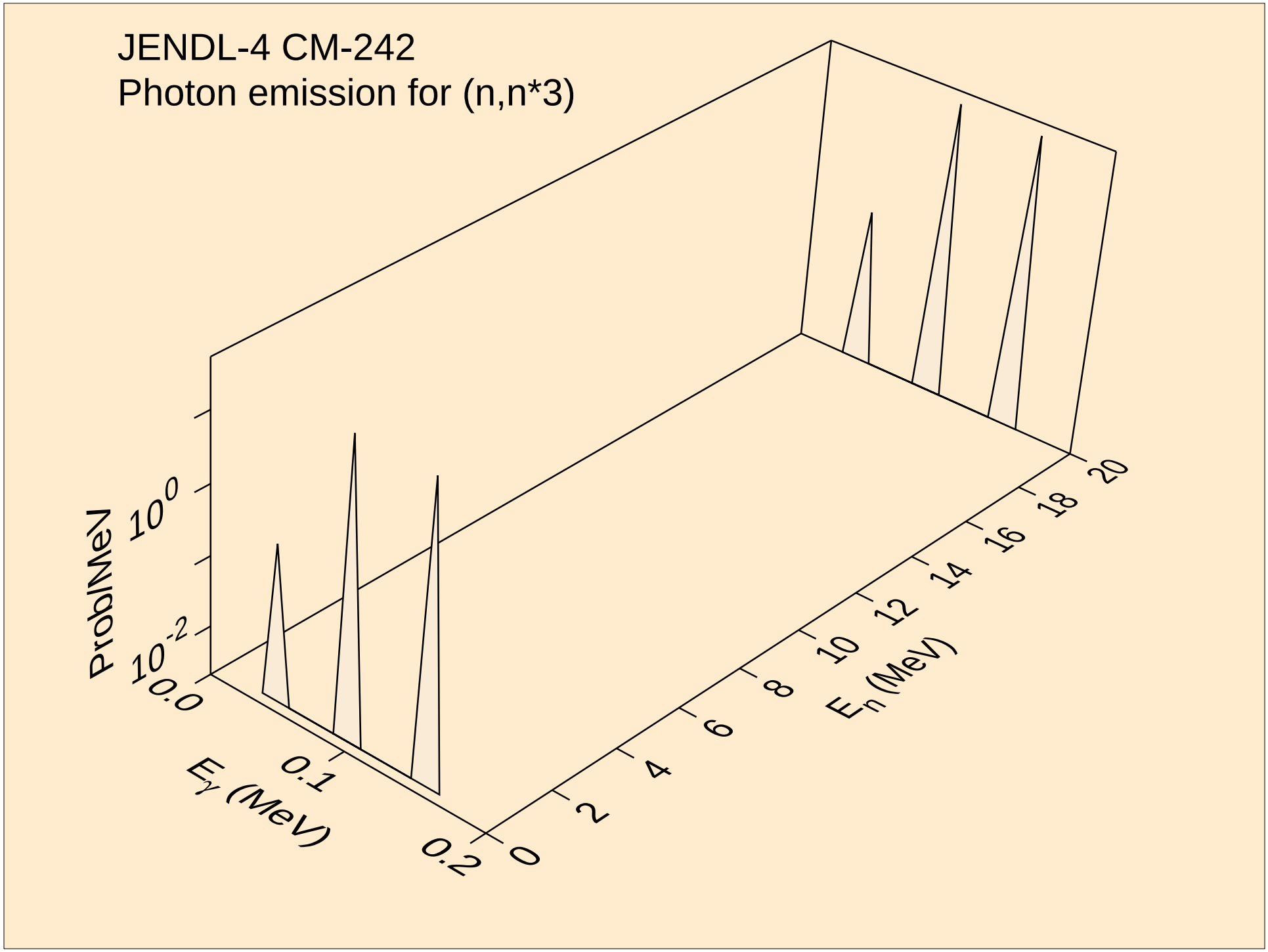


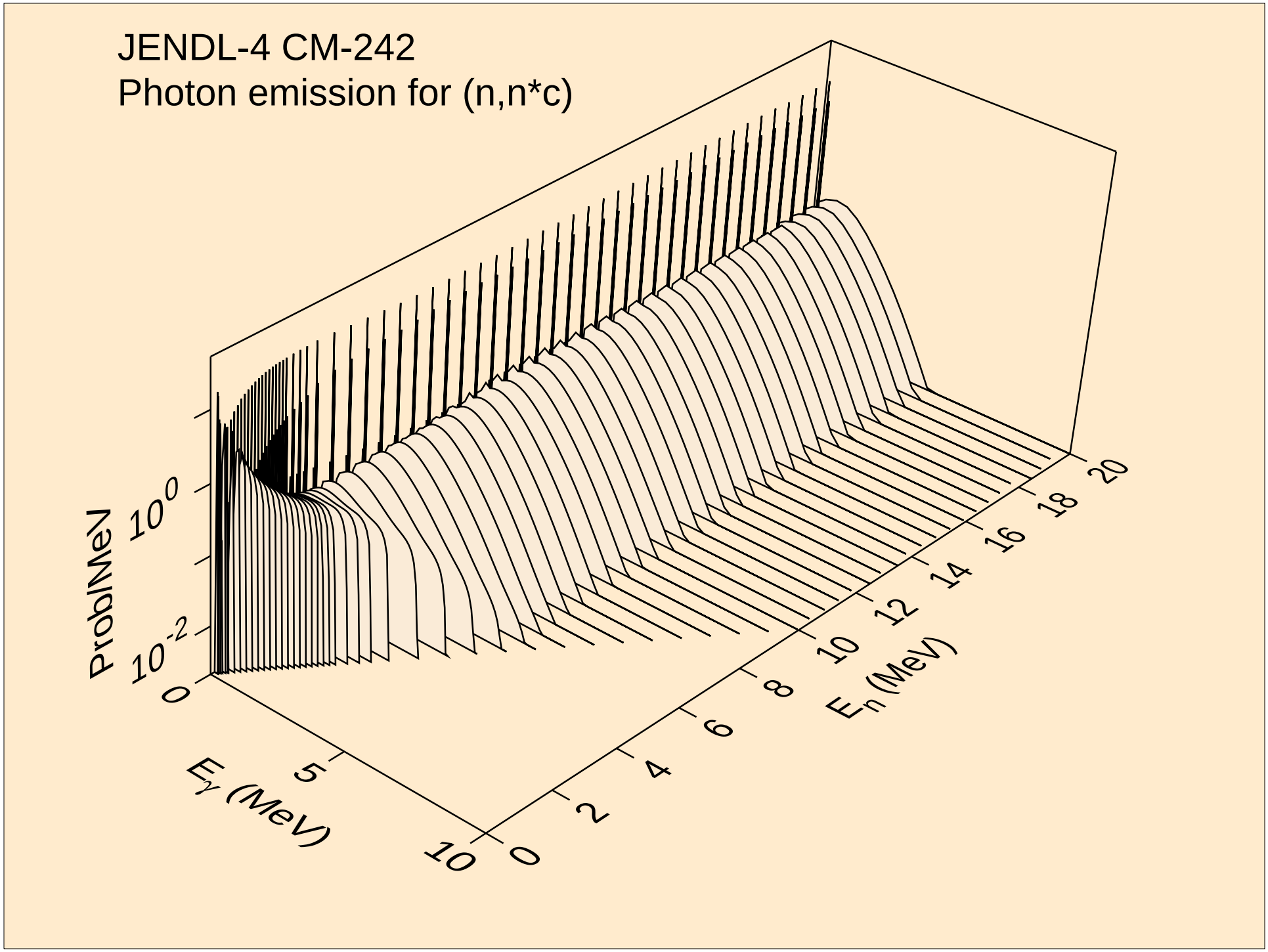

JENDL-4 CM-242
Photon emission for (n,2n)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
6
8
10
12
14
16
18
20
E_n (MeV)


JENDL-4 CM-242
Photon emission for (n,3n)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
13
14
15
16
17
18
19
20
E_n (MeV)

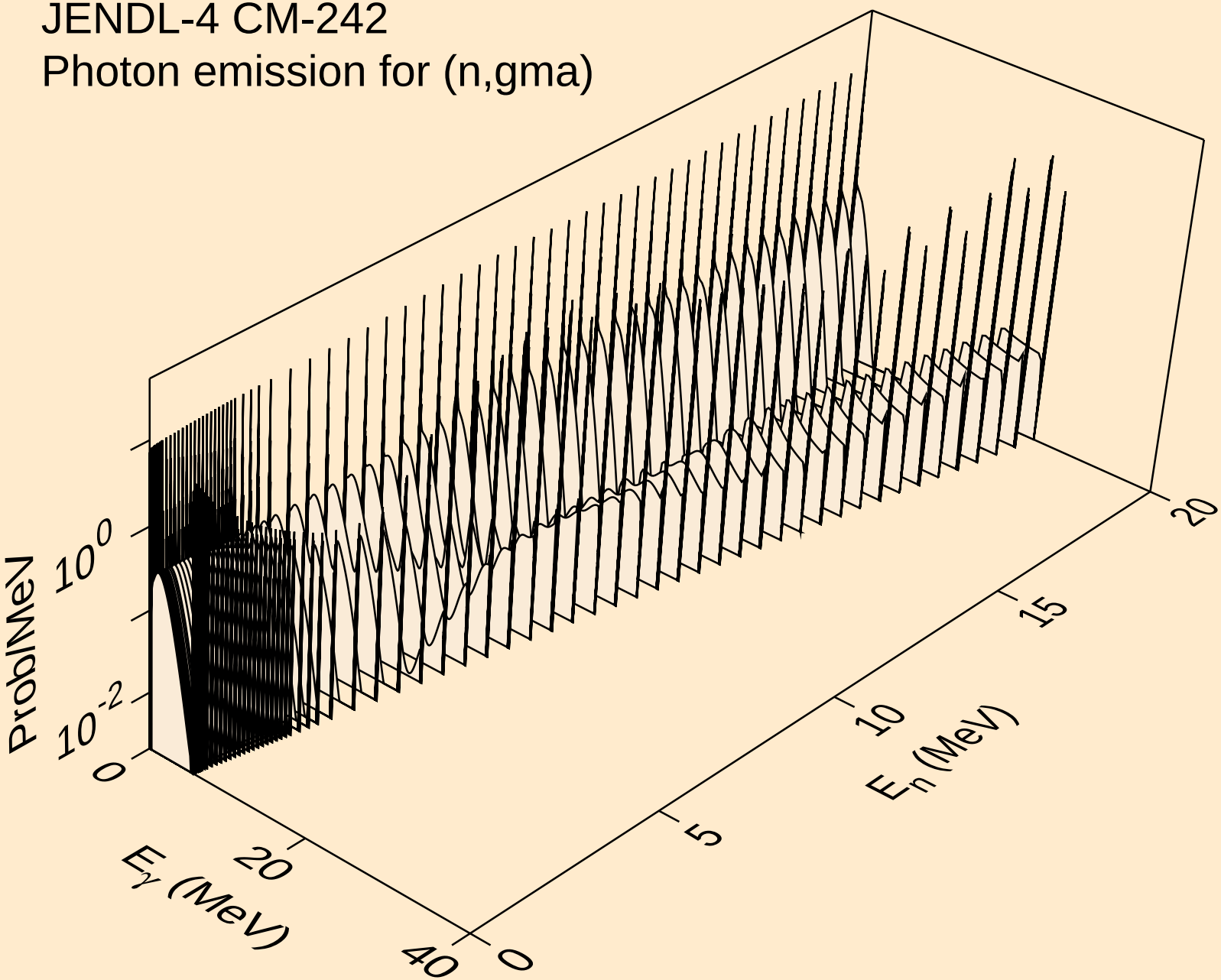

JENDL-4 CM-242
Photon emission for (n,n*1)
Prob/MeV
10^{0}
10^{-2}
E_γ (MeV)
0
20
40
60
*10^{-3}
E_n (MeV)
0
2
4
6
8
10
12
14
16
18
20

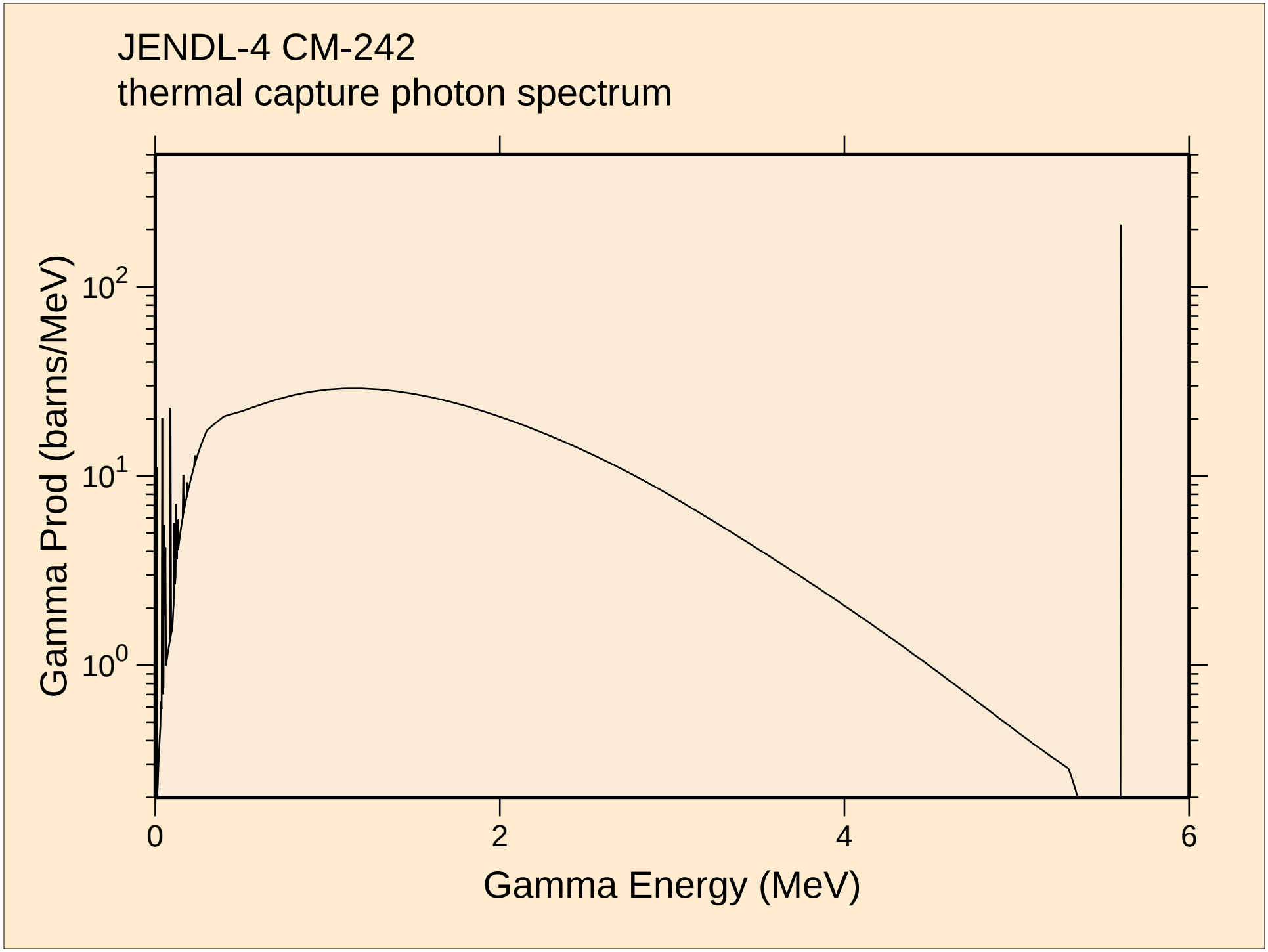

JENDL-4 CM-242
Photon emission for (n,n*2)
Prob/MeV
10^{0}
10^{-2}
0
50
100
150
E_γ (MeV)
$*10^{-3}$
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

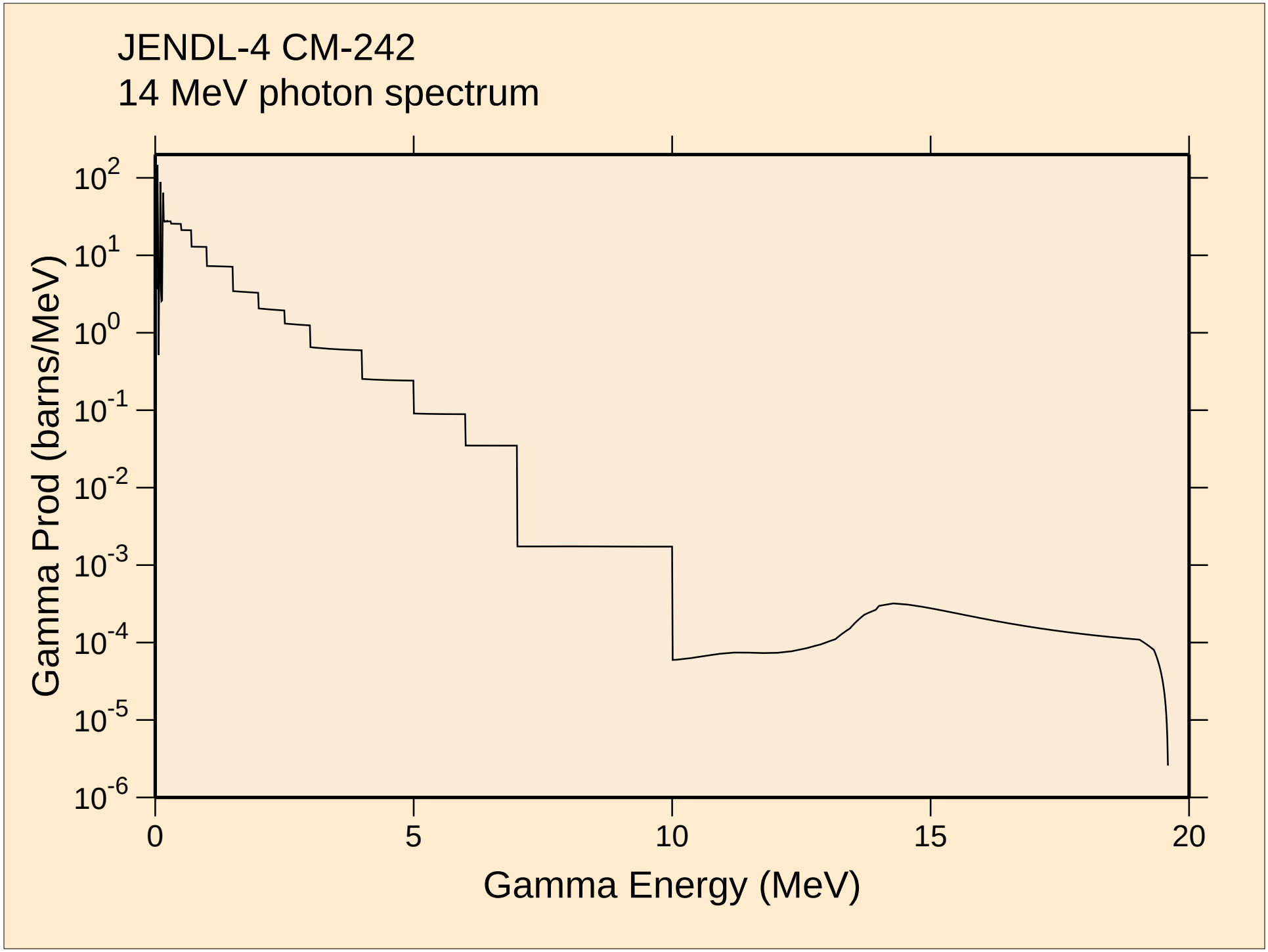

JENDL-4 CM-242
Photon emission for (n,n*3)
Prob/MeV
10^0
10^{-2}
0.0
0.1
0.2
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)


JENDL-4 CM-242
Photon emission for (n,n*c)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
0
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

JENDL-4 CM-242
Photon emission for (n,gma)




JENDL-4 CM-242
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
0
2
4
6
Gamma Energy (MeV)


JENDL-4 CM-242
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
0
5
10
15
20
Gamma Energy (MeV)