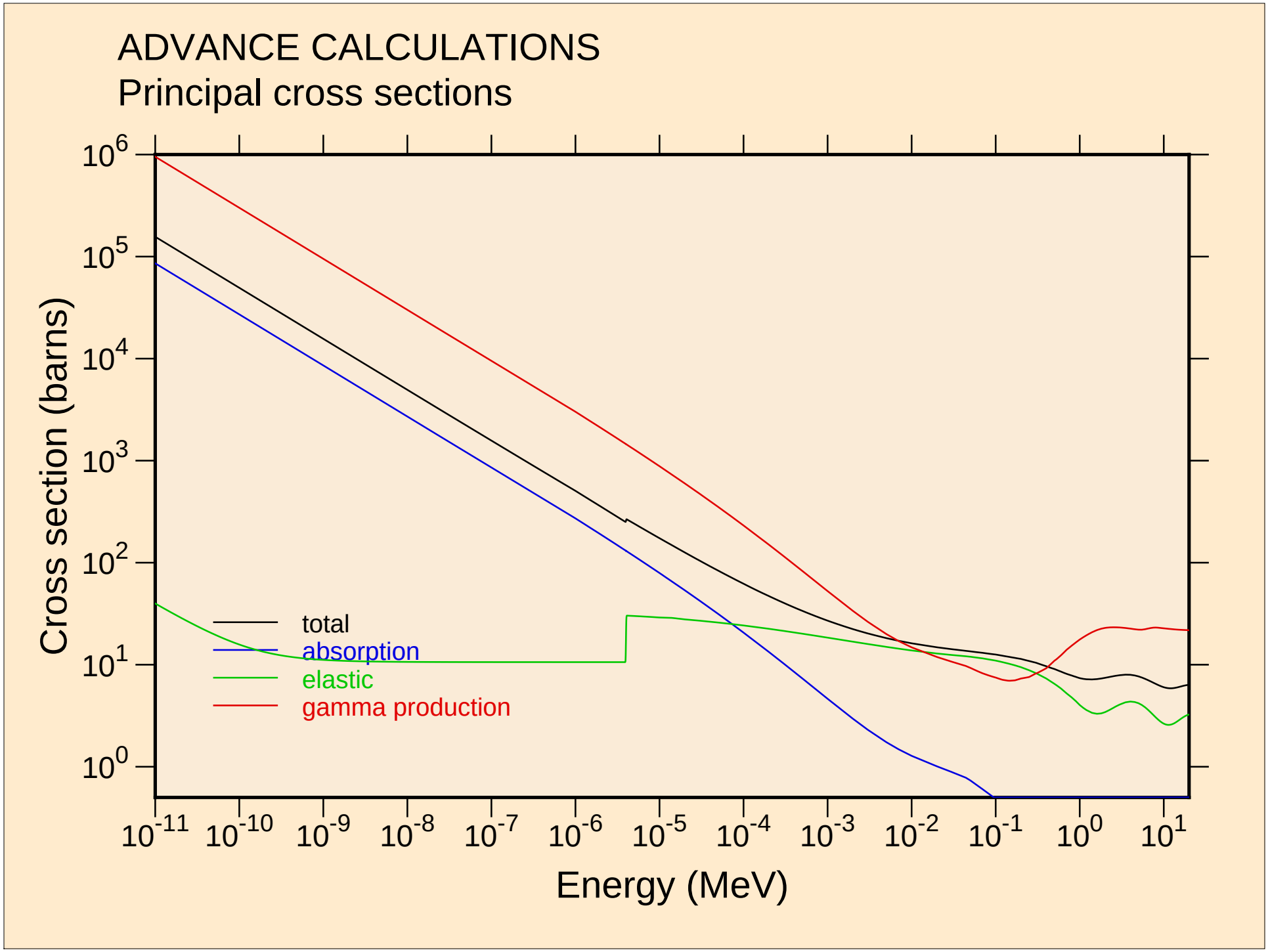
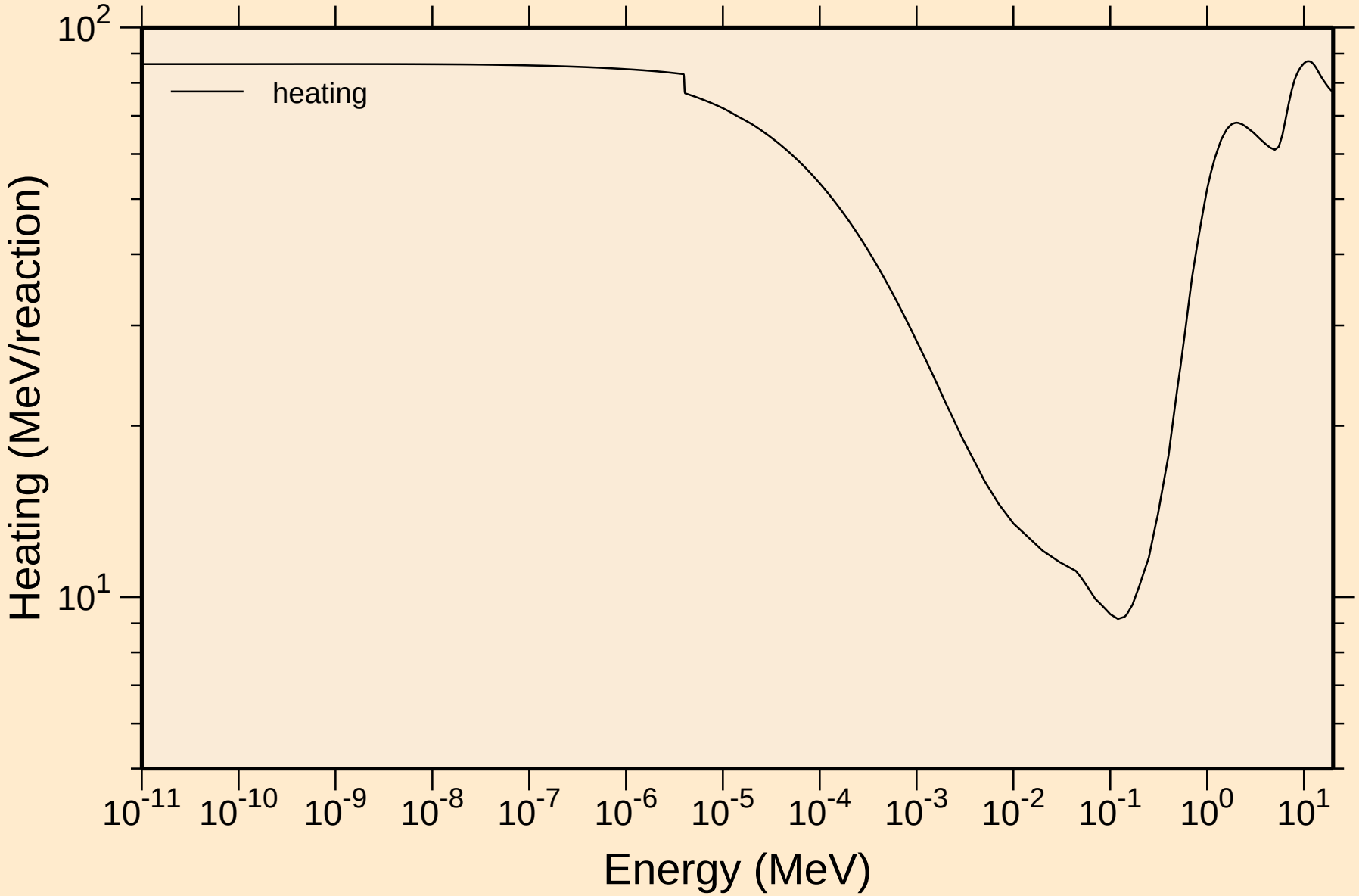
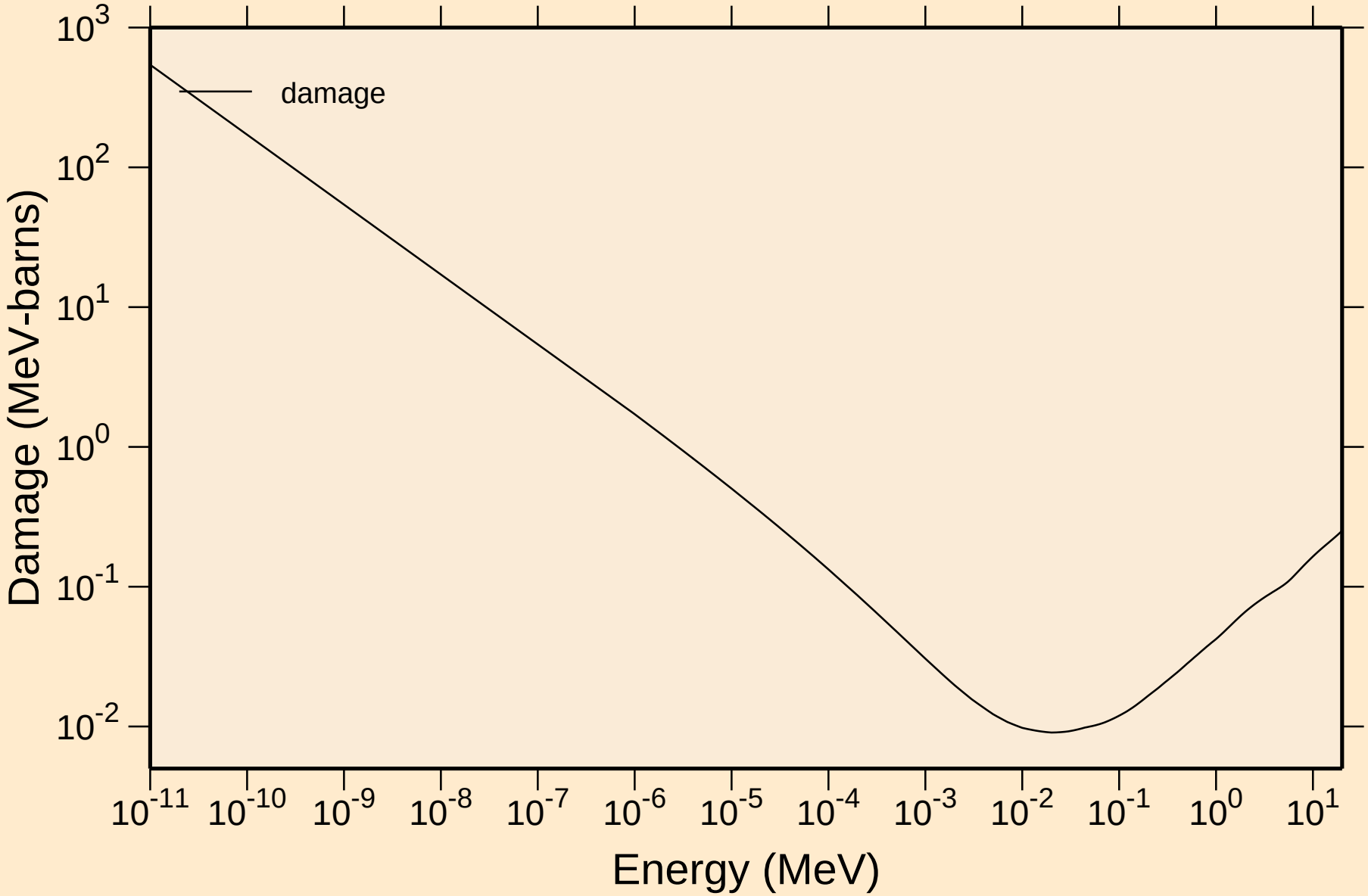

ADVANCE CALCULATIONS
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

ADVANCE CALCULATIONS

Heating

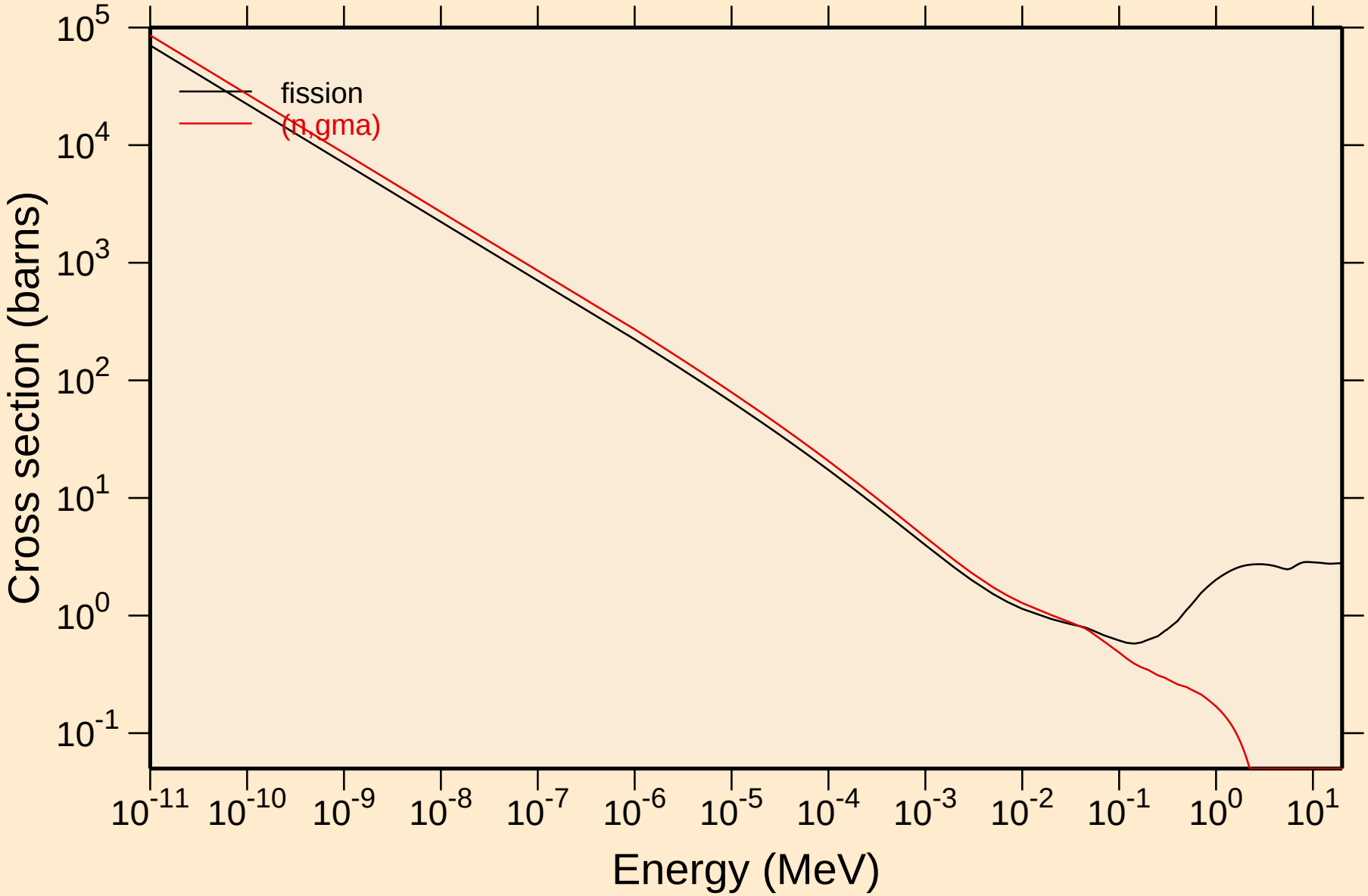


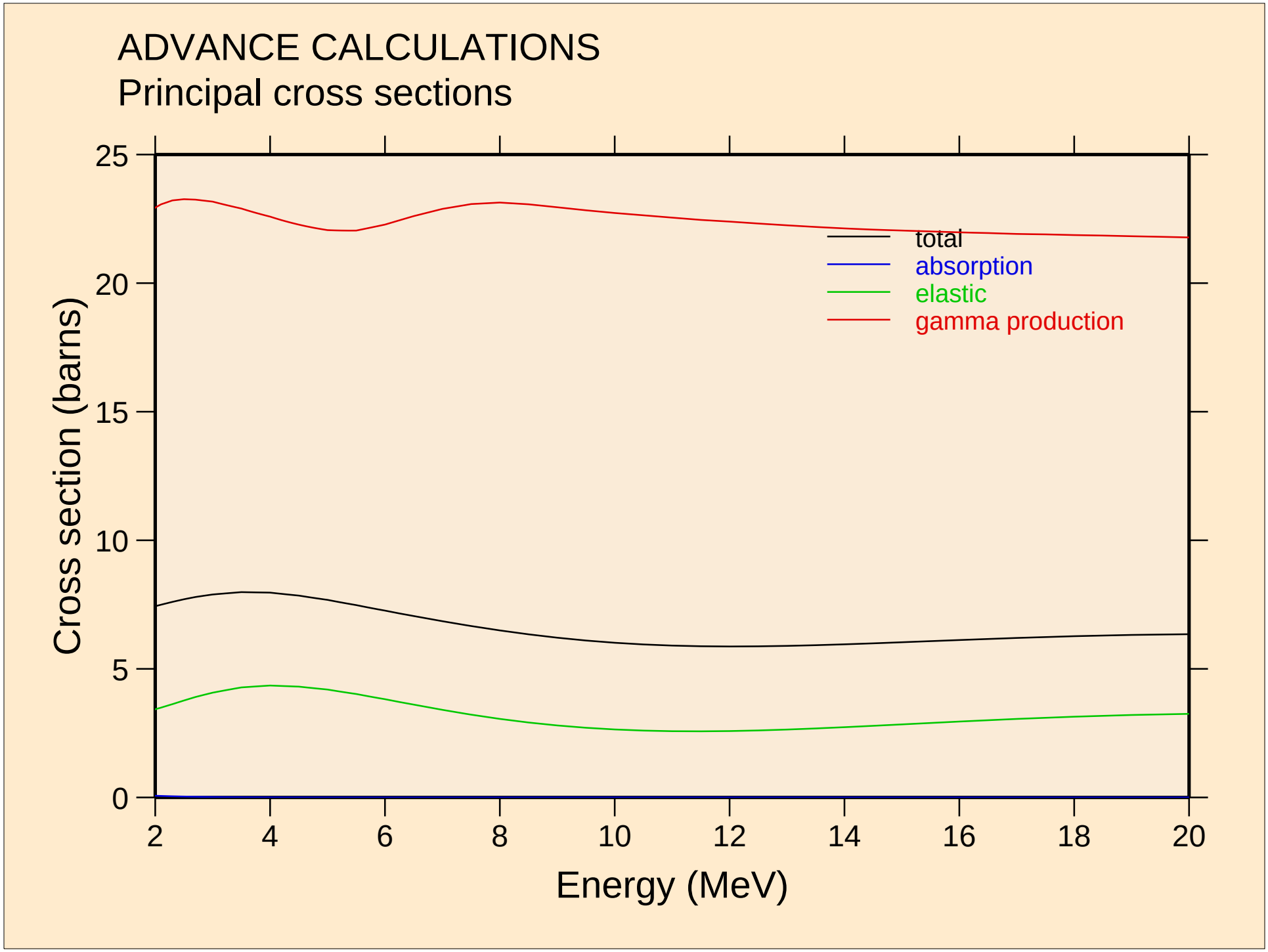
ADVANCE CALCULATIONS
Damage



ADVANCE CALCULATIONS

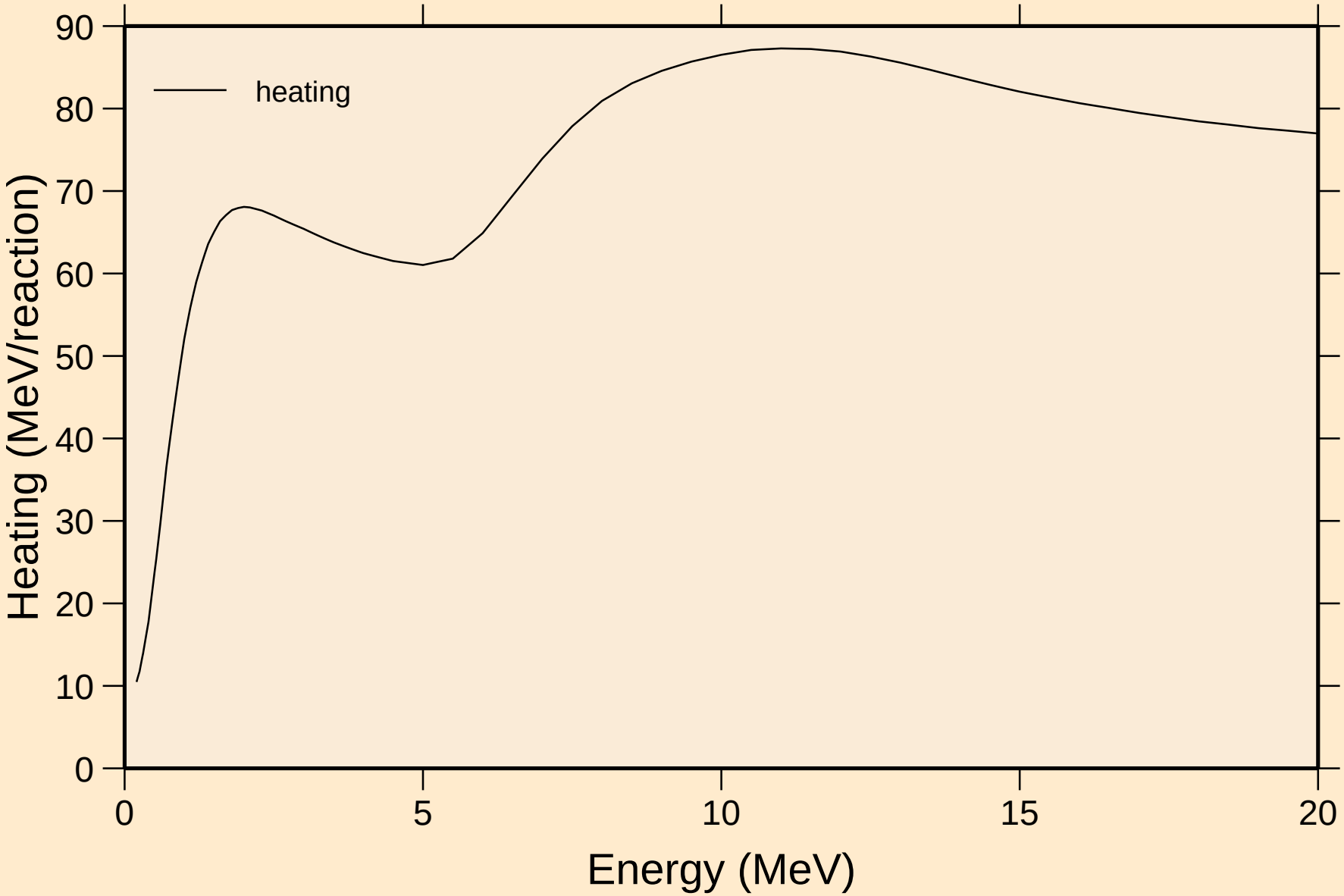
Non-threshold reactions




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

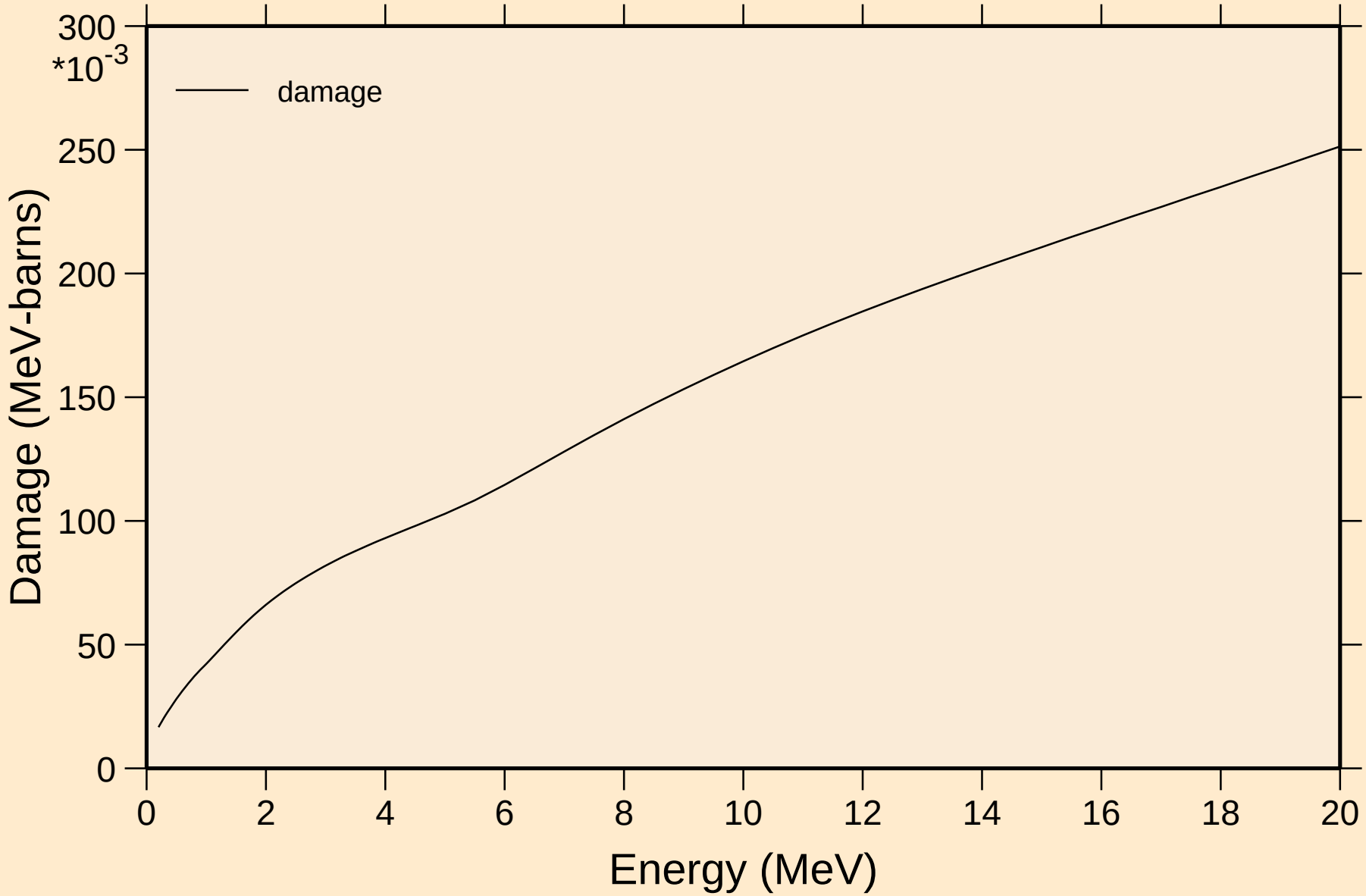
ADVANCE CALCULATIONS

Heating



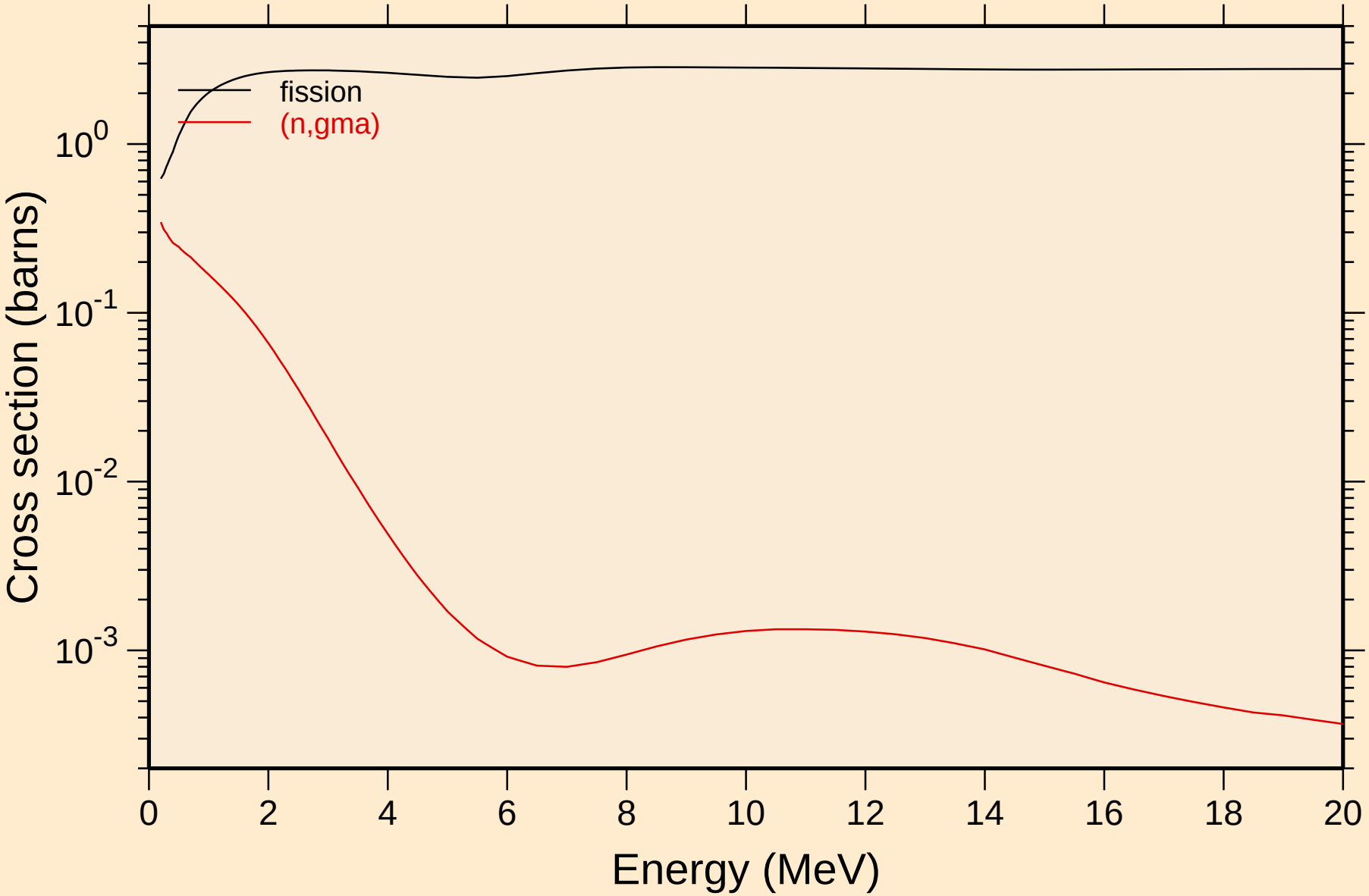
ADVANCE CALCULATIONS

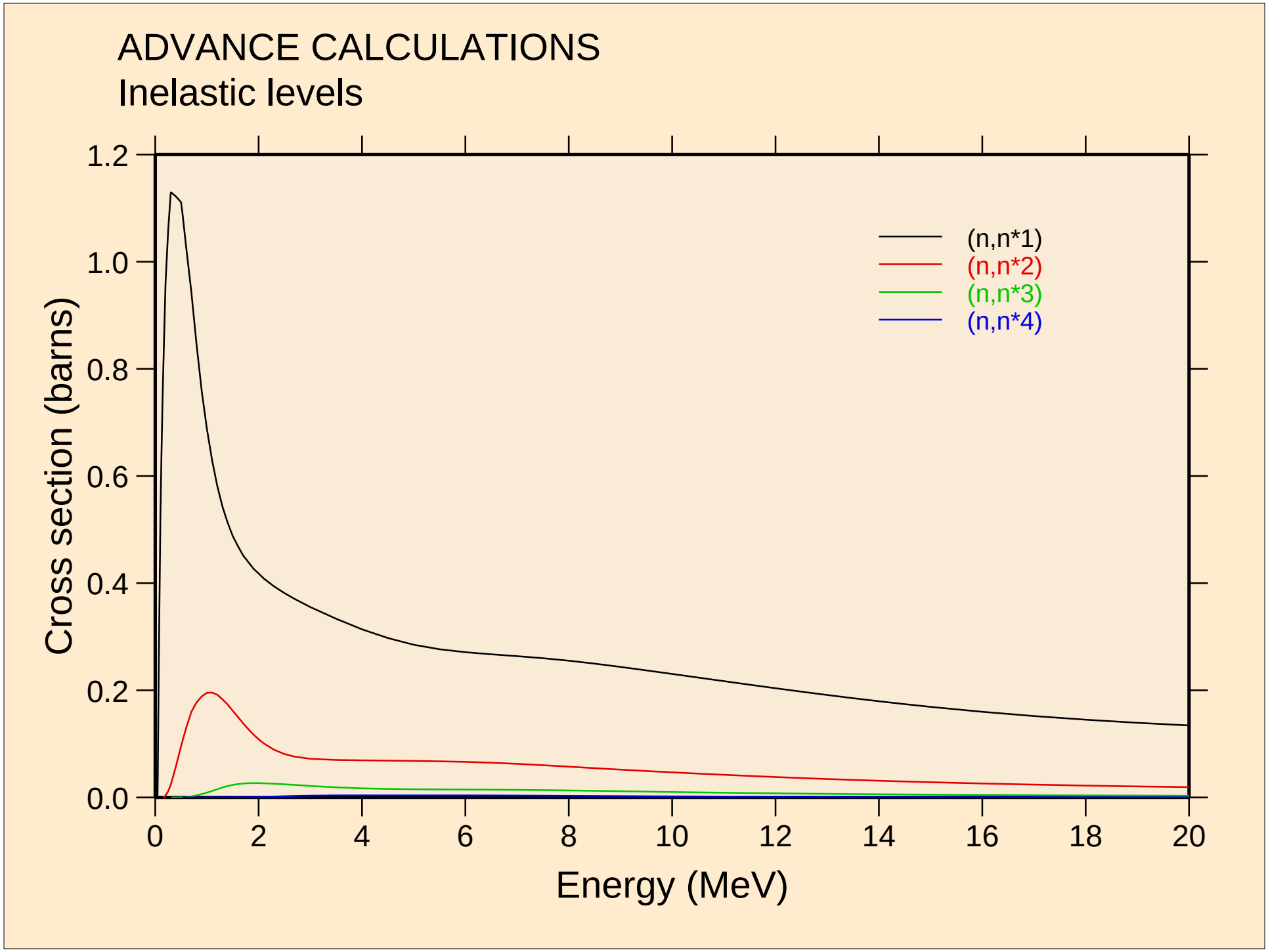
Damage



ADVANCE CALCULATIONS

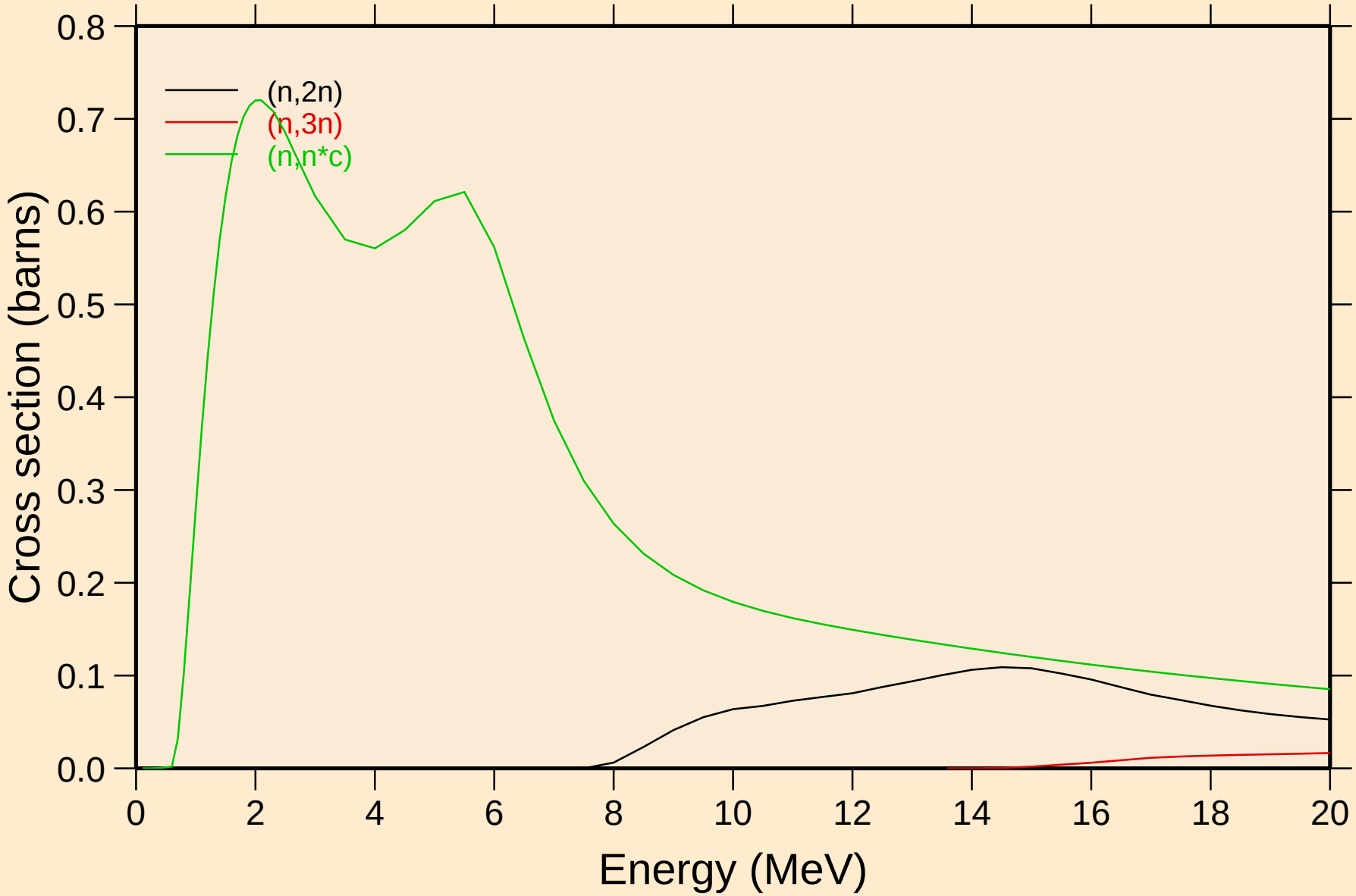
Non-threshold reactions



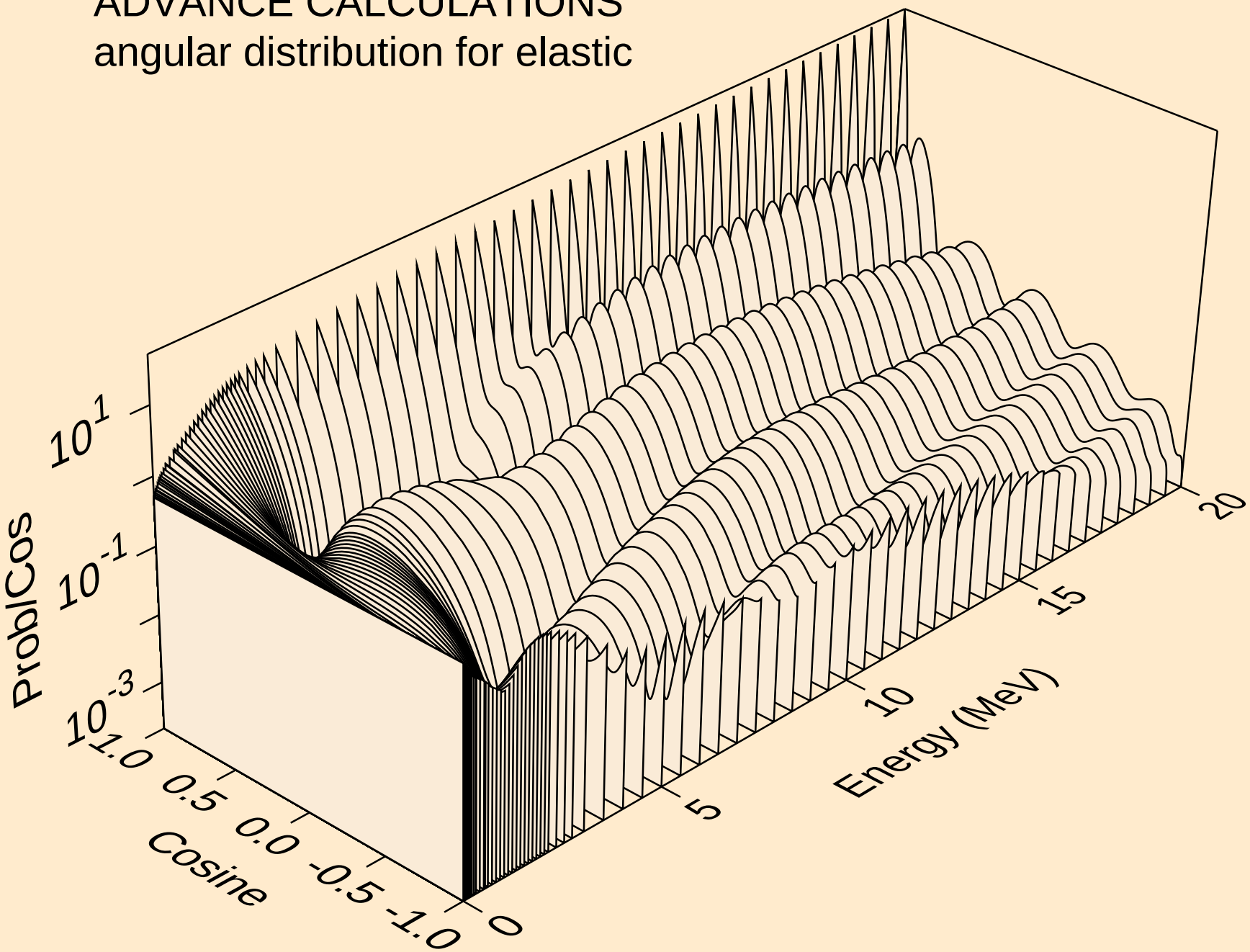

ADVANCE CALCULATIONS
Inelastic levels
Cross section (barns)
Energy (MeV)
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
2
4
6
8
10
12
14
16
18
20

ADVANCE CALCULATIONS

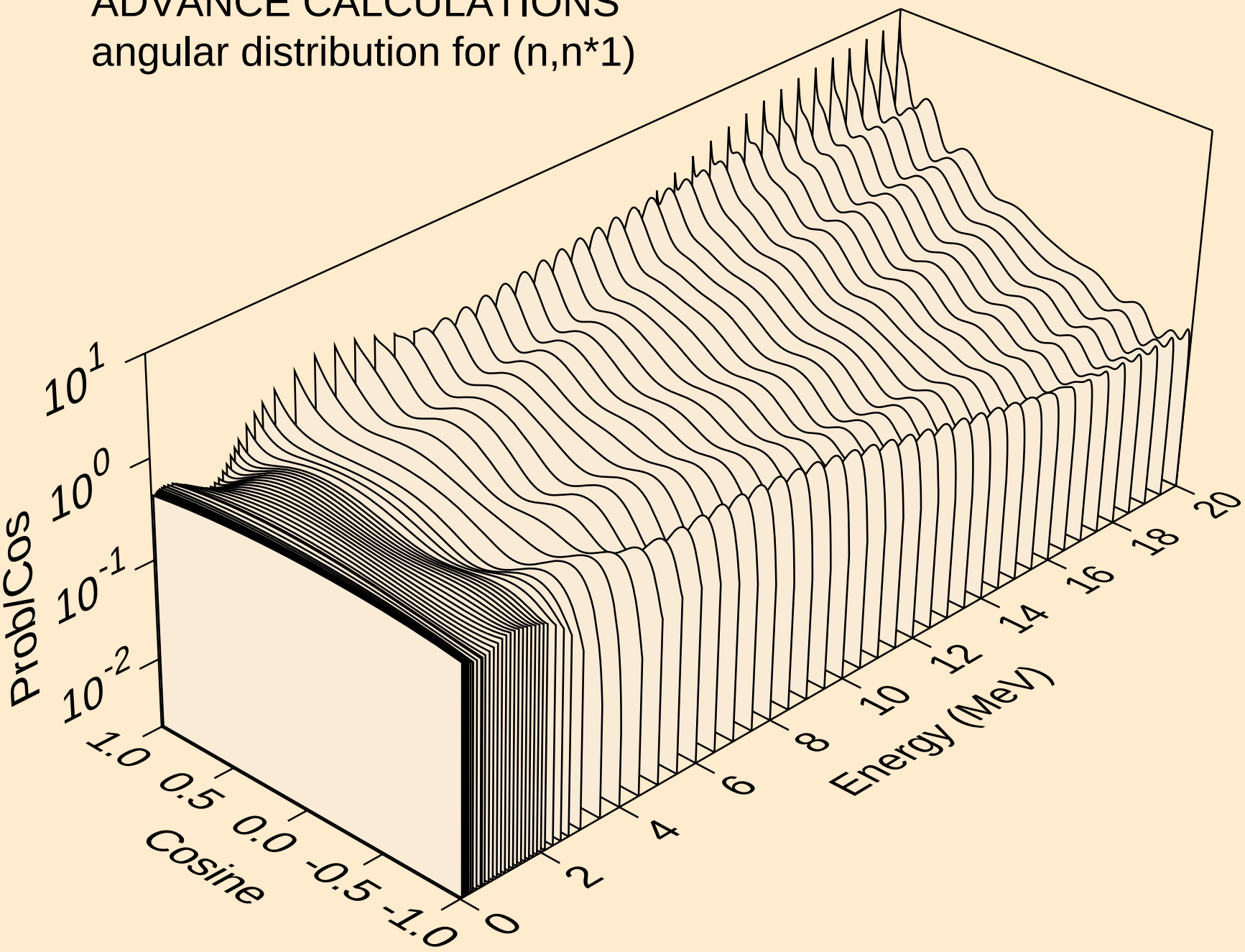
Threshold reactions



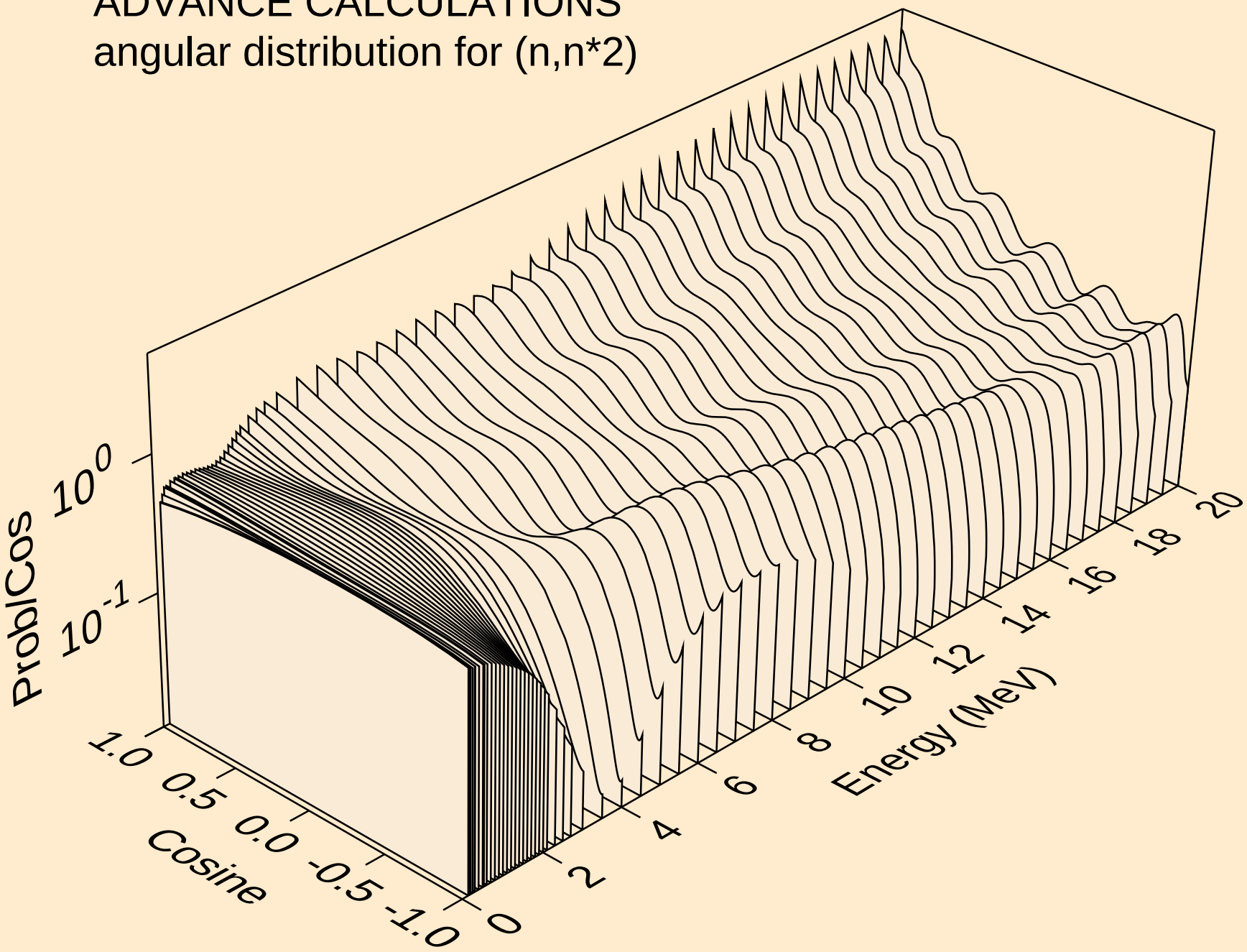
ADVANCE CALCULATIONS
angular distribution for elastic



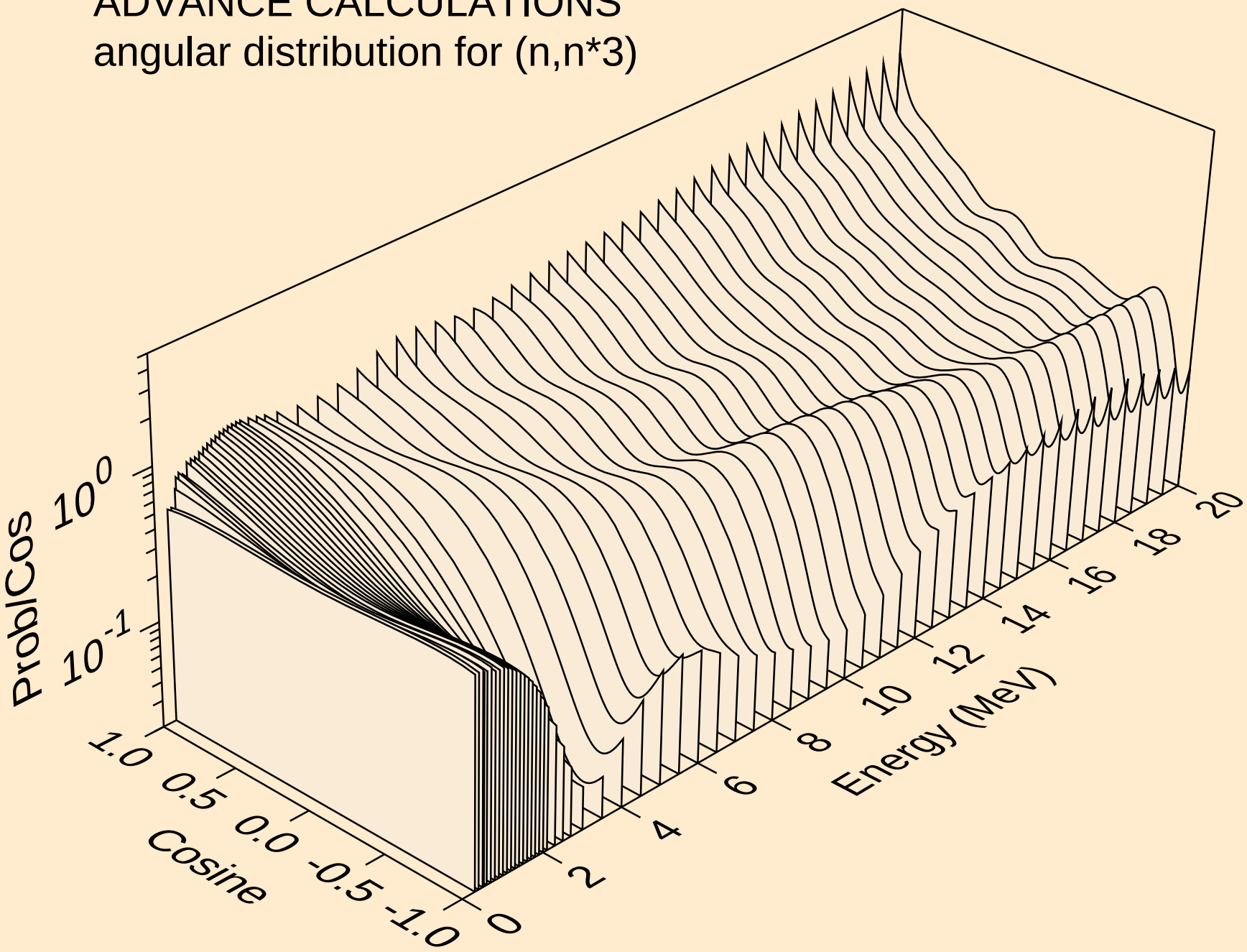
ADVANCE CALCULATIONS
angular distribution for (n,n*1)



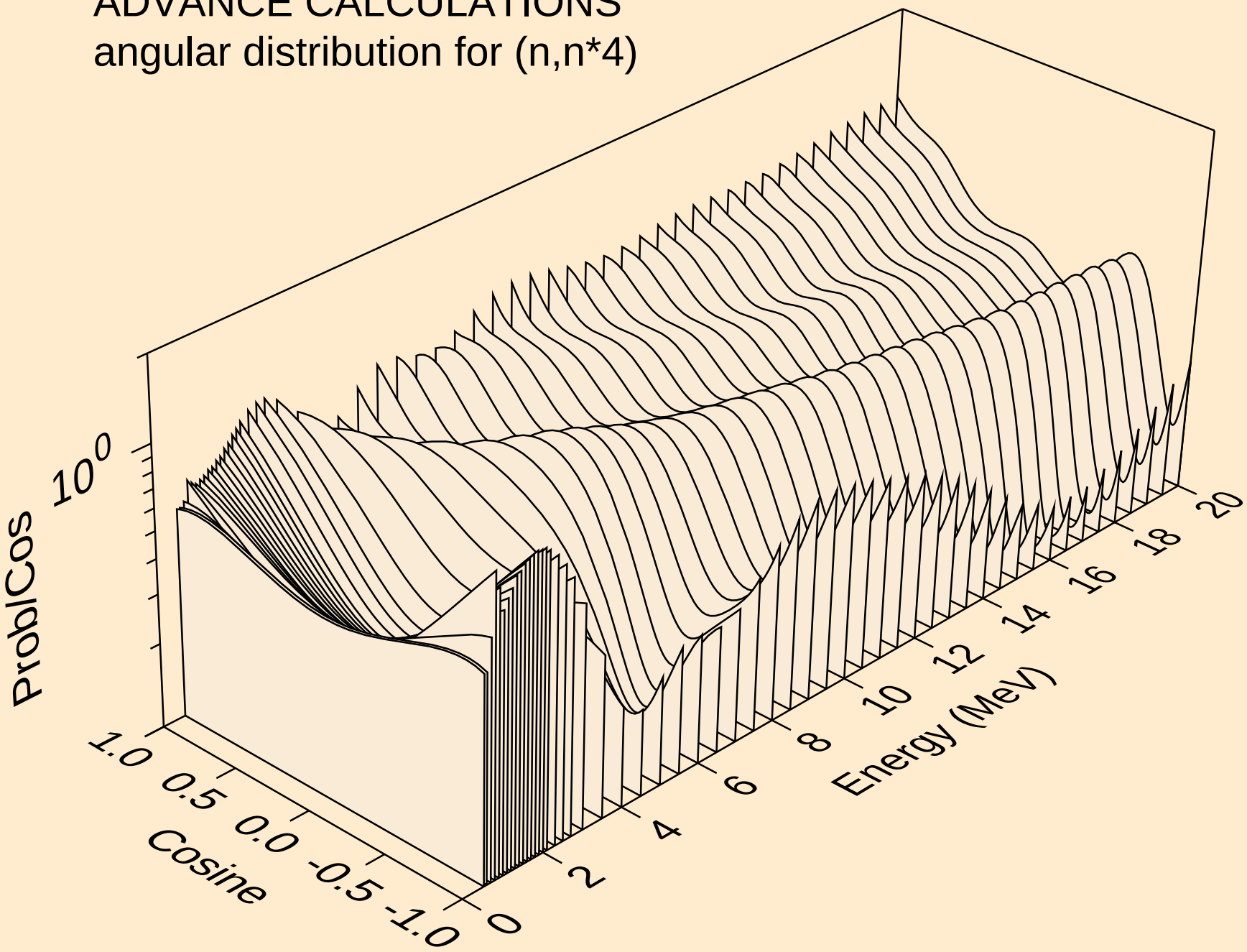
ADVANCE CALCULATIONS
angular distribution for (n,n*2)

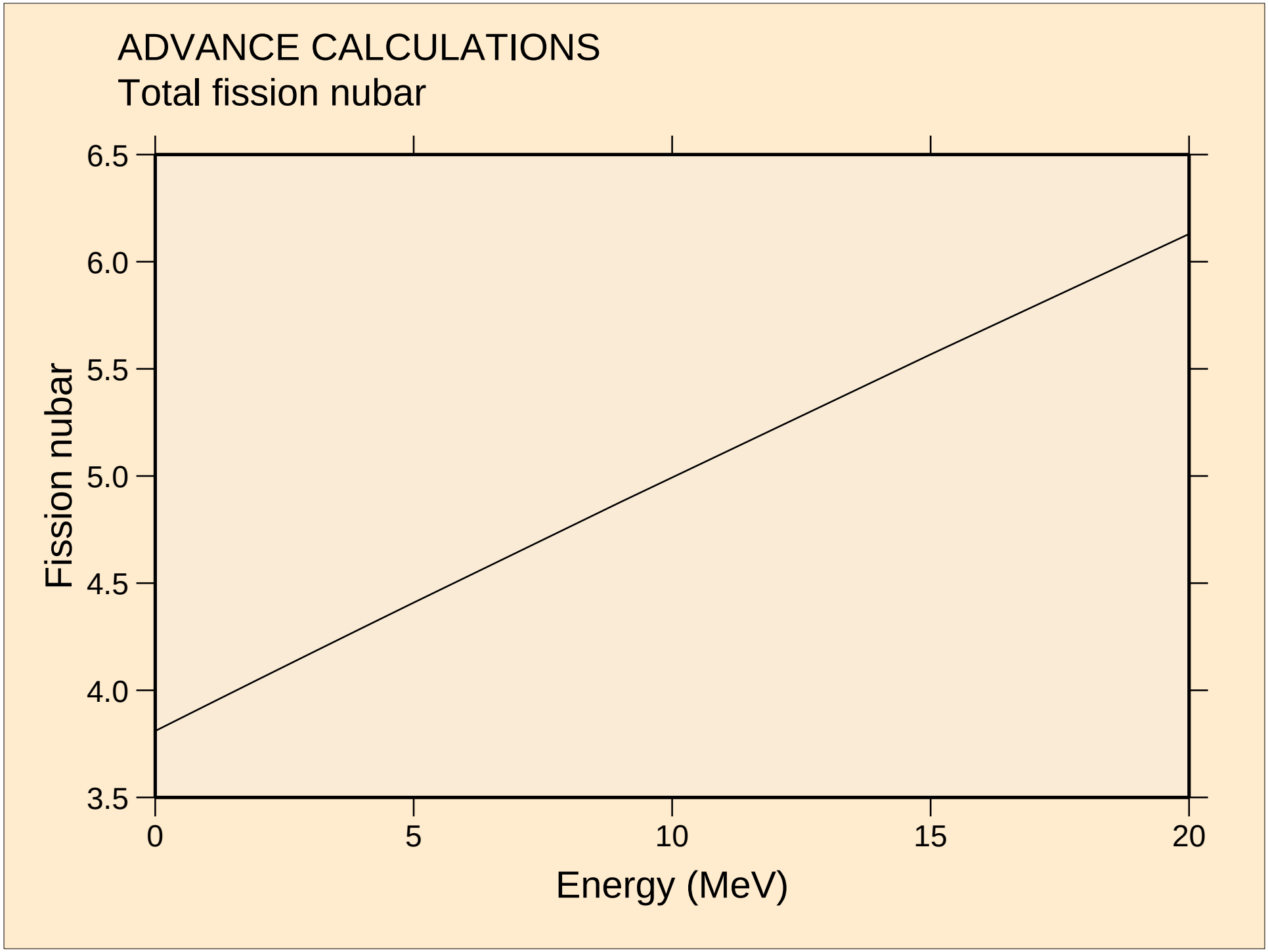


ADVANCE CALCULATIONS
angular distribution for (n,n*3)



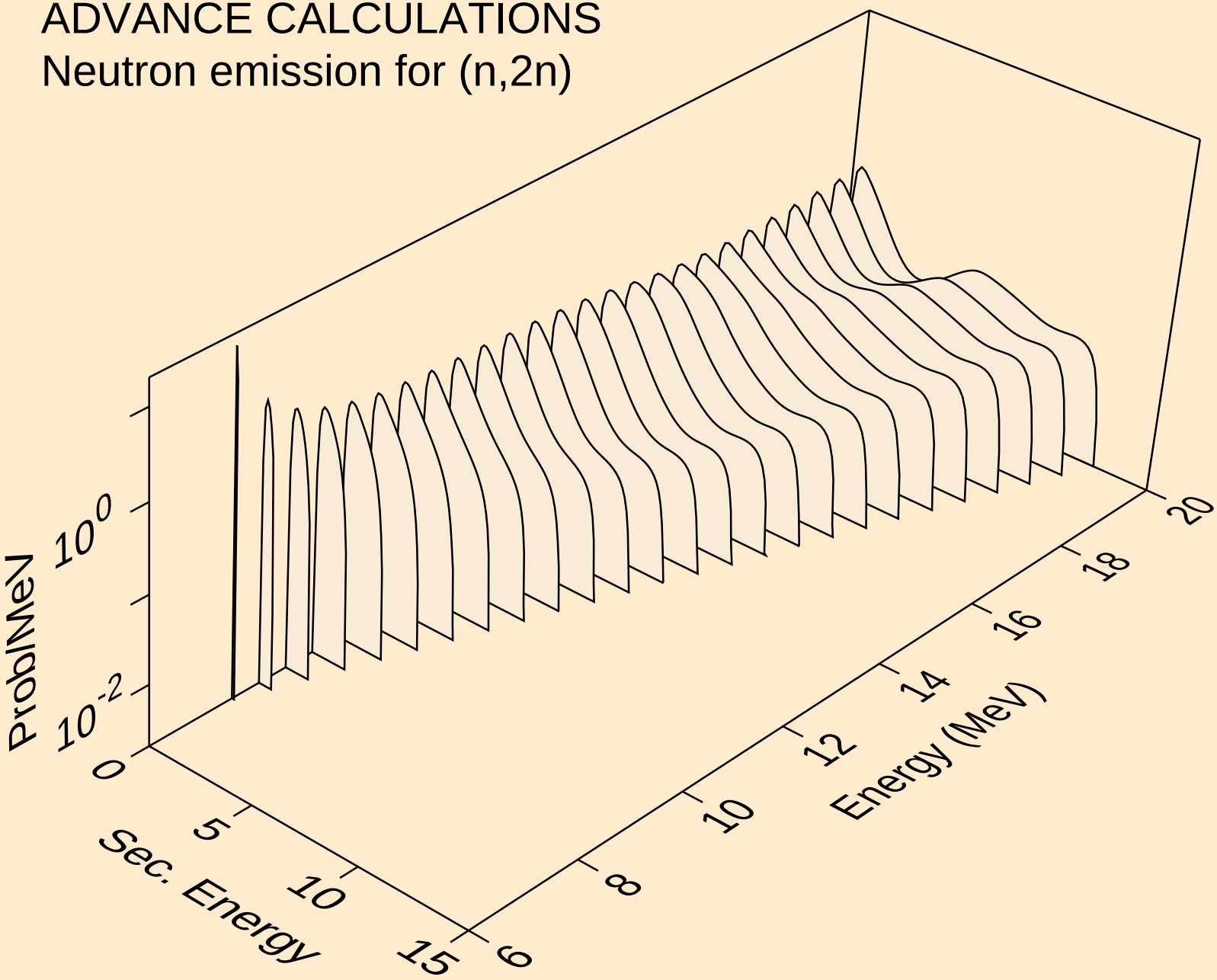
ADVANCE CALCULATIONS
angular distribution for (n,n*4)




ADVANCE CALCULATIONS
Total fission nubar
Fission nubar
6.5
6.0
5.5
5.0
4.5
4.0
3.5
0
5
10
15
20
Energy (MeV)

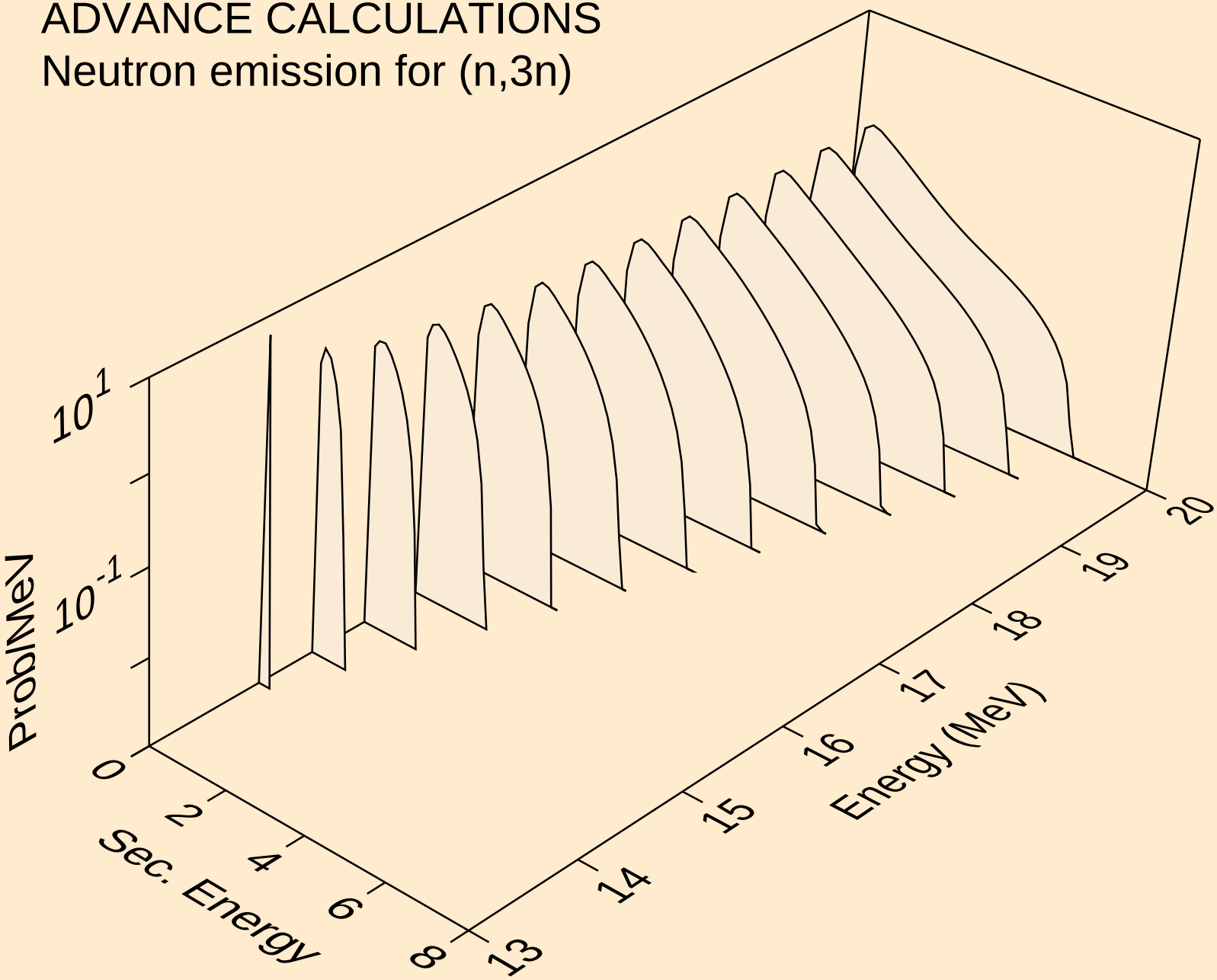
ADVANCE CALCULATIONS

Neutron emission for (n,2n)



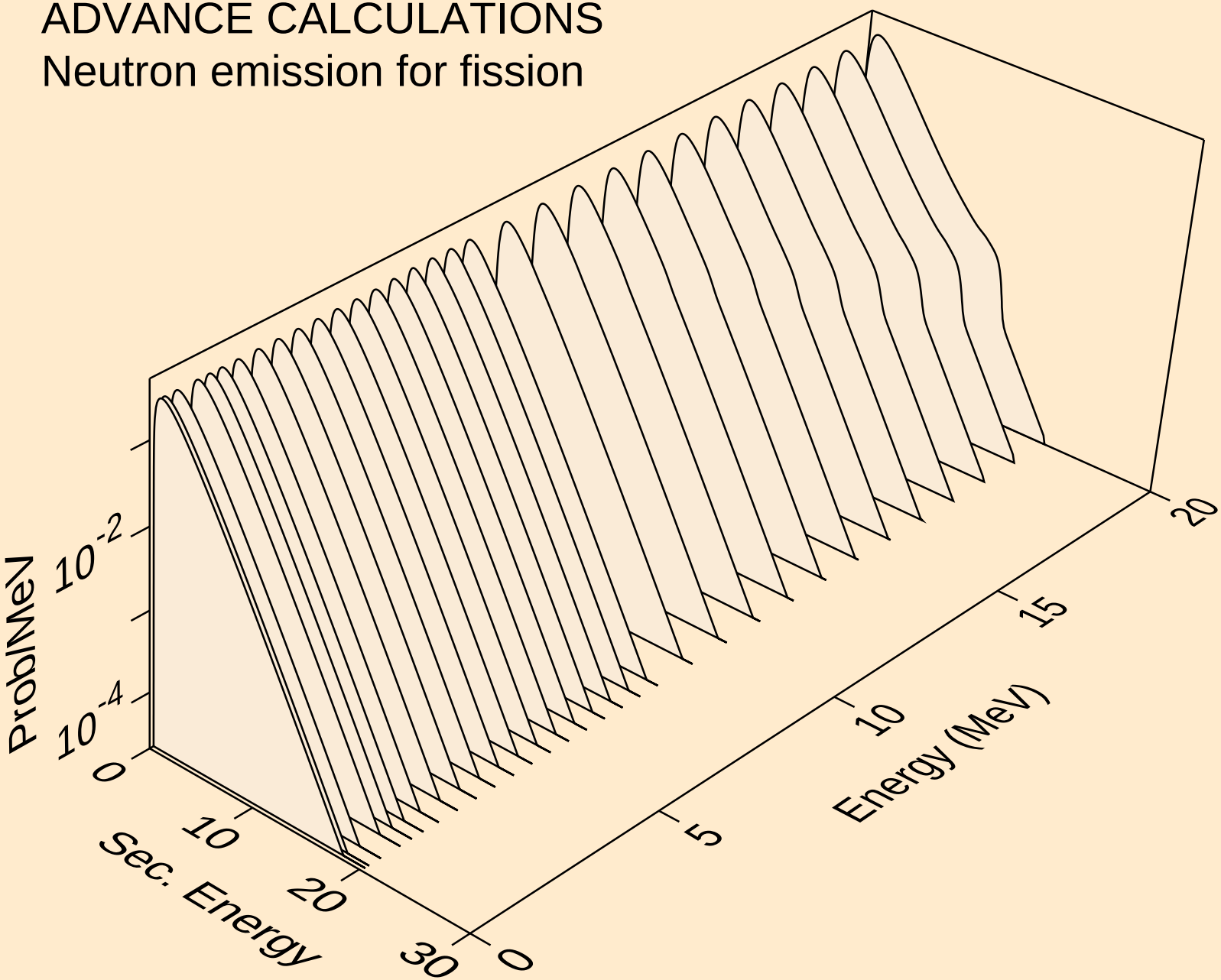
ADVANCE CALCULATIONS

Neutron emission for (n,3n)



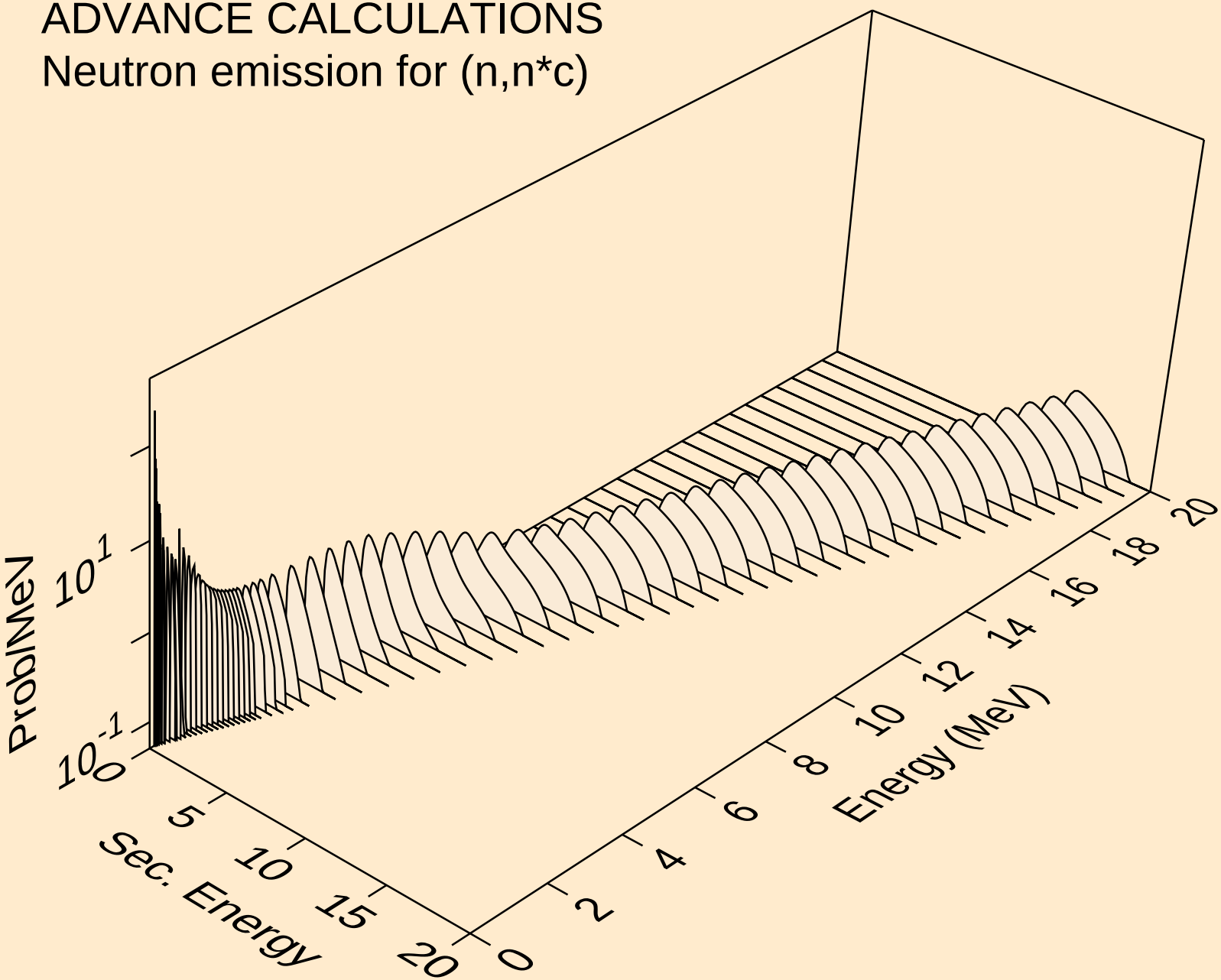
ADVANCE CALCULATIONS

Neutron emission for fission

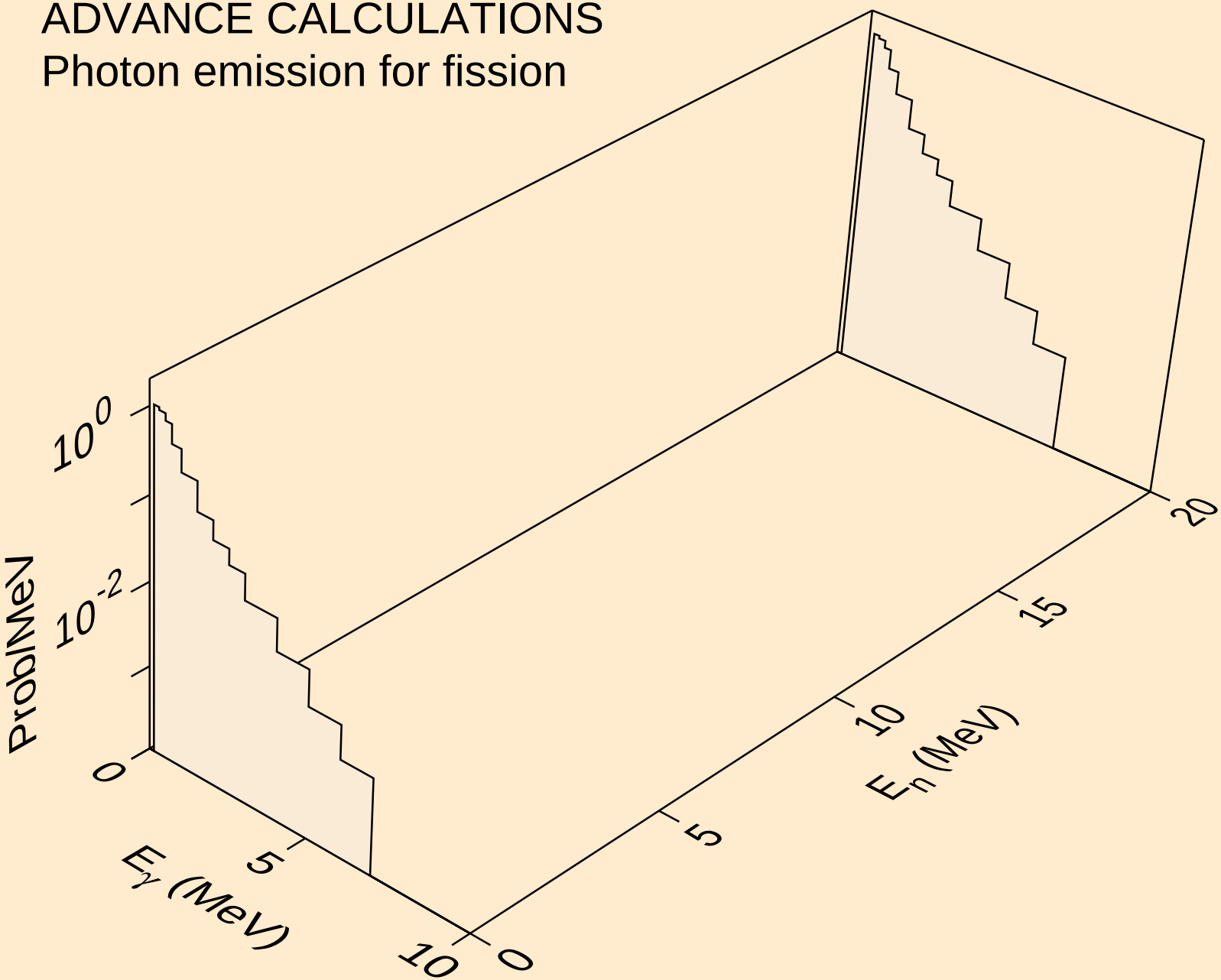


ADVANCE CALCULATIONS

Neutron emission for (n,n*c)

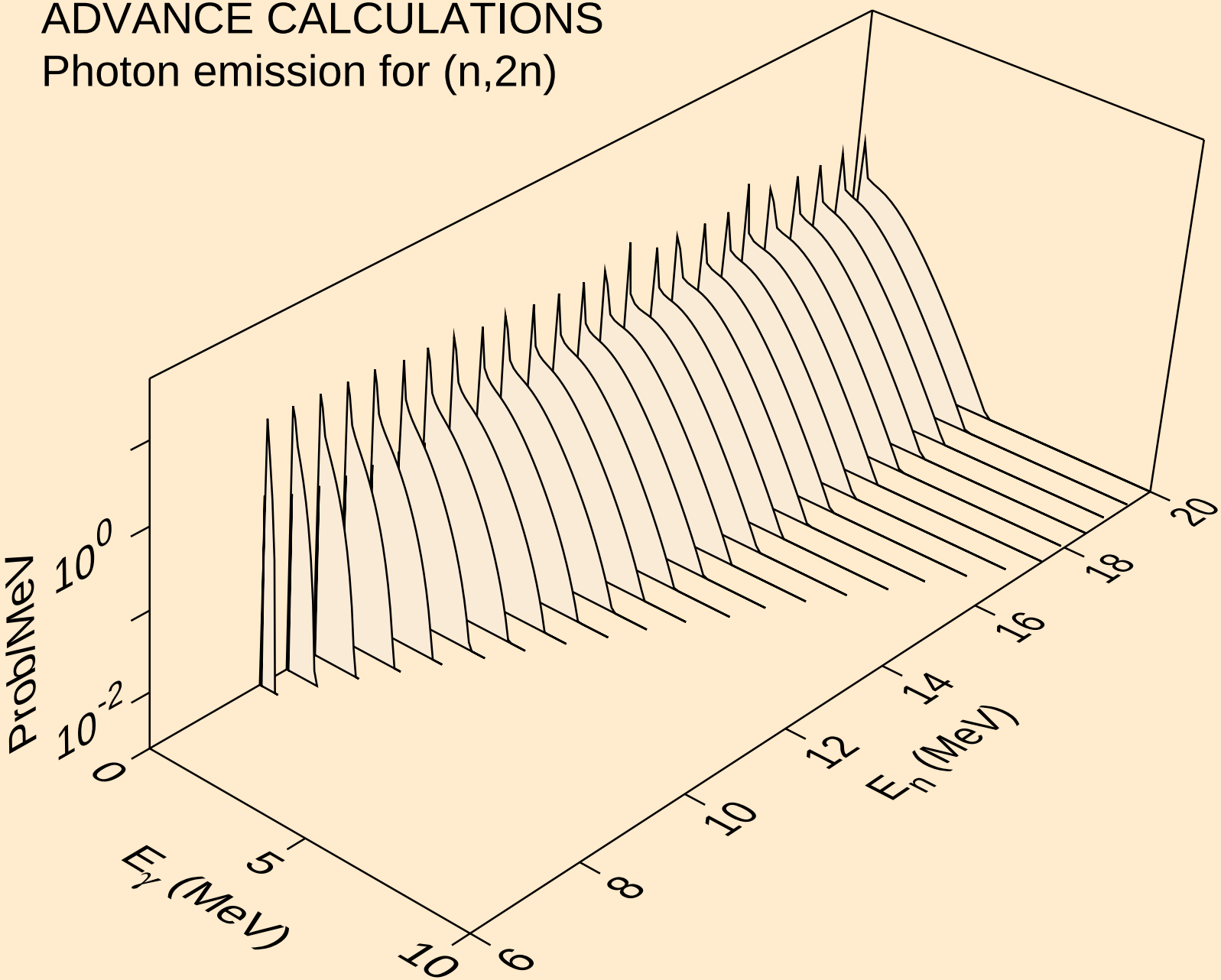


ADVANCE CALCULATIONS
Photon emission for fission



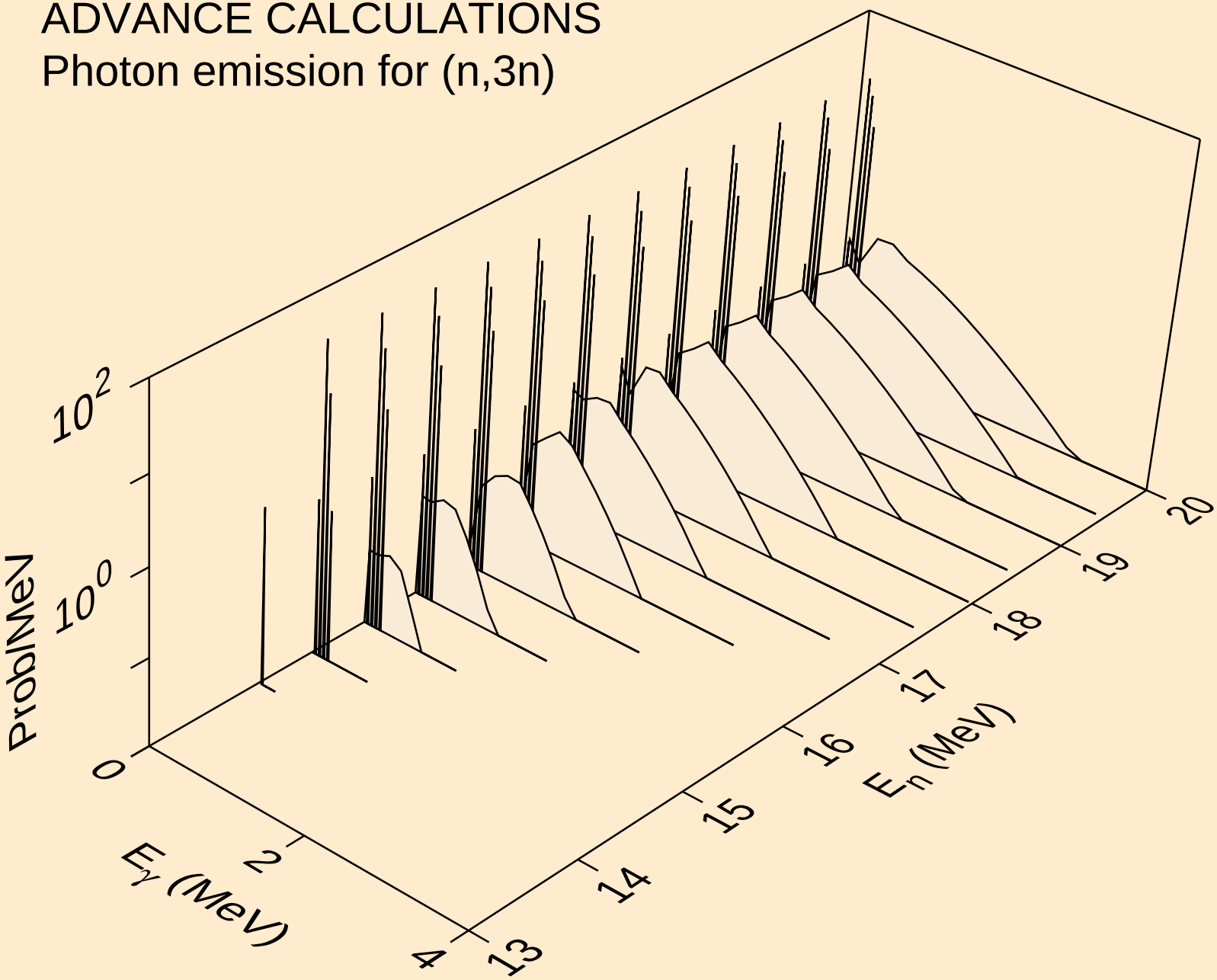
ADVANCE CALCULATIONS

Photon emission for (n,2n)



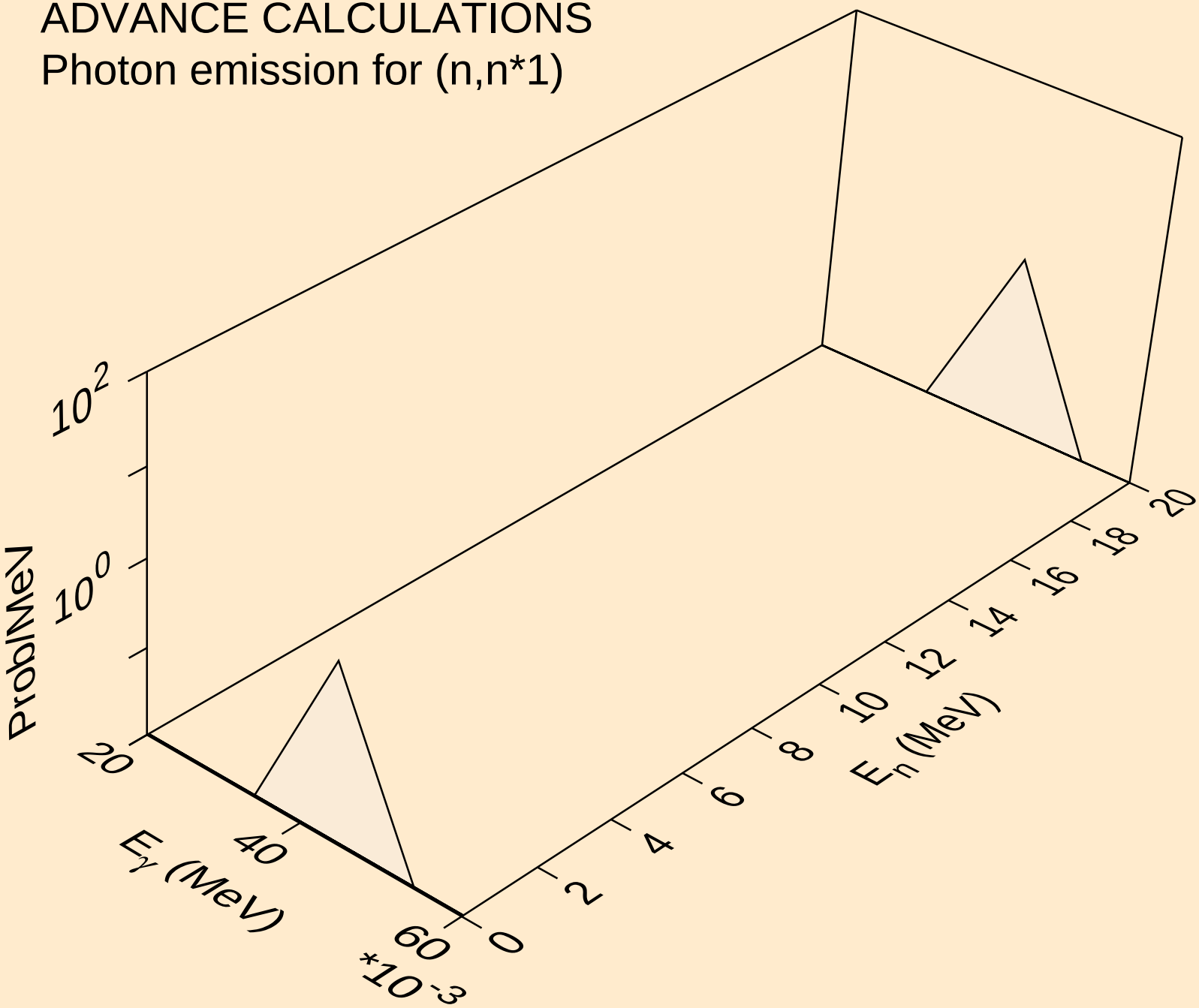
ADVANCE CALCULATIONS

Photon emission for (n,3n)



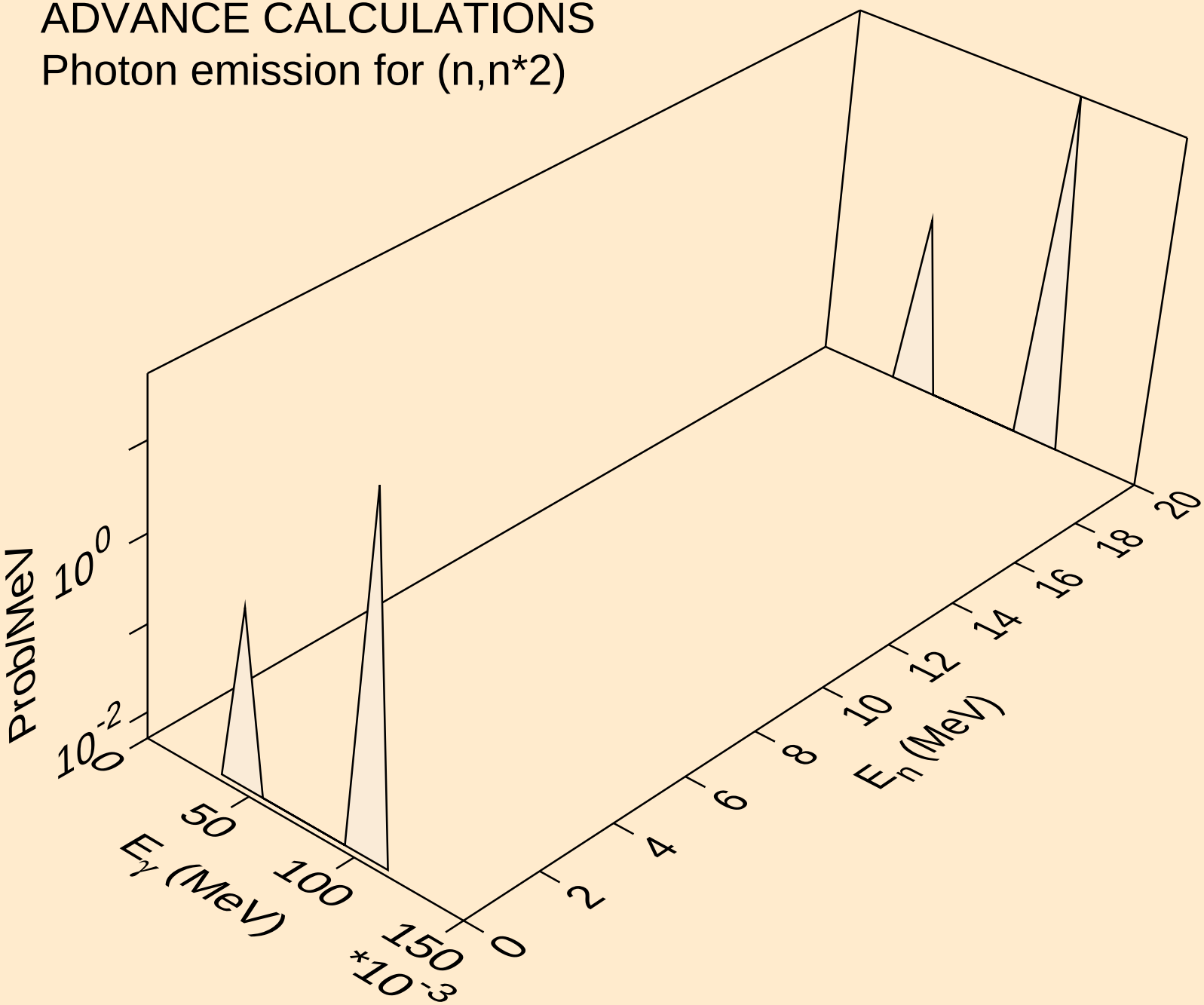
ADVANCE CALCULATIONS

Photon emission for (n,n*1)



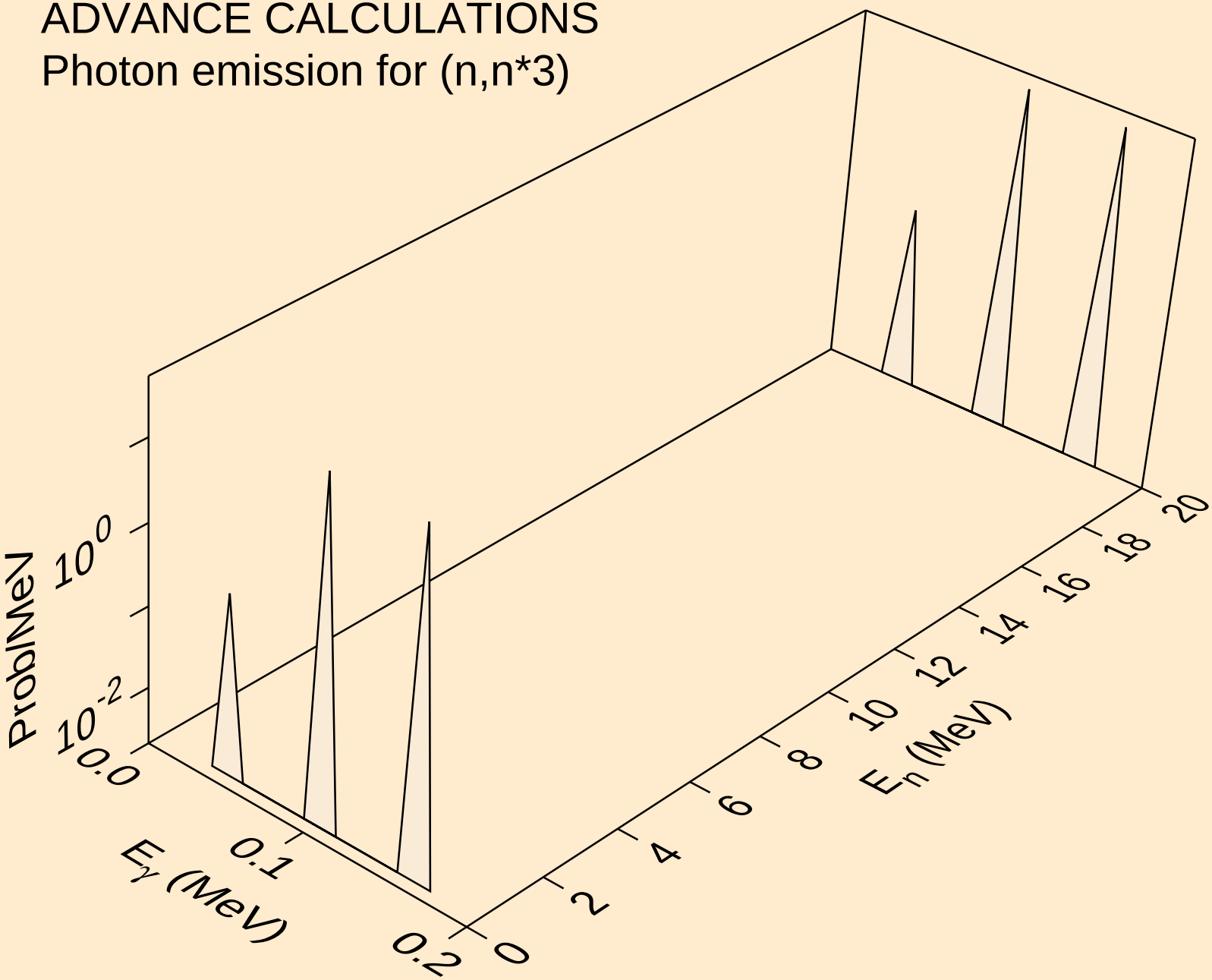
ADVANCE CALCULATIONS

Photon emission for (n,n*2)



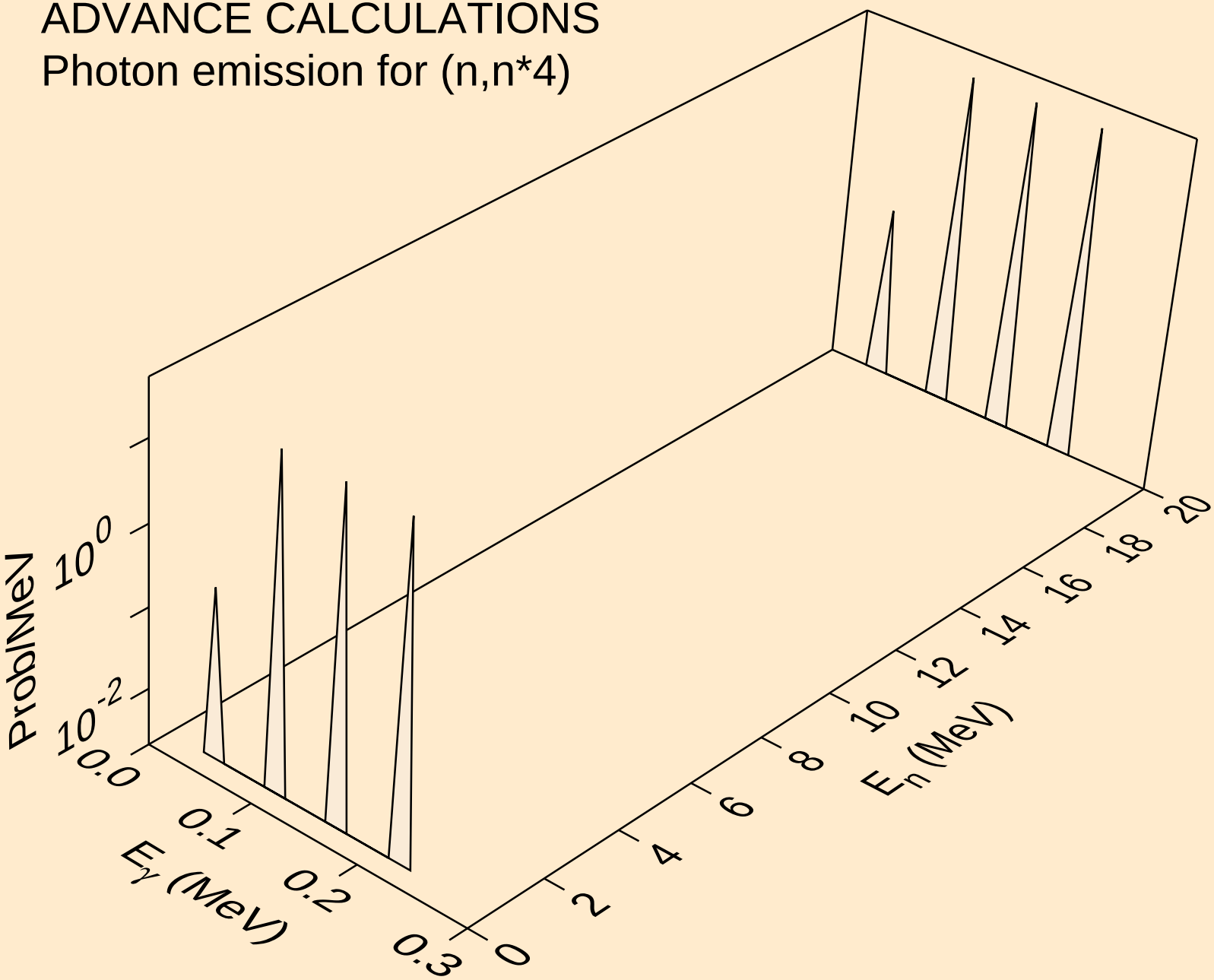
ADVANCE CALCULATIONS

Photon emission for (n,n*3)



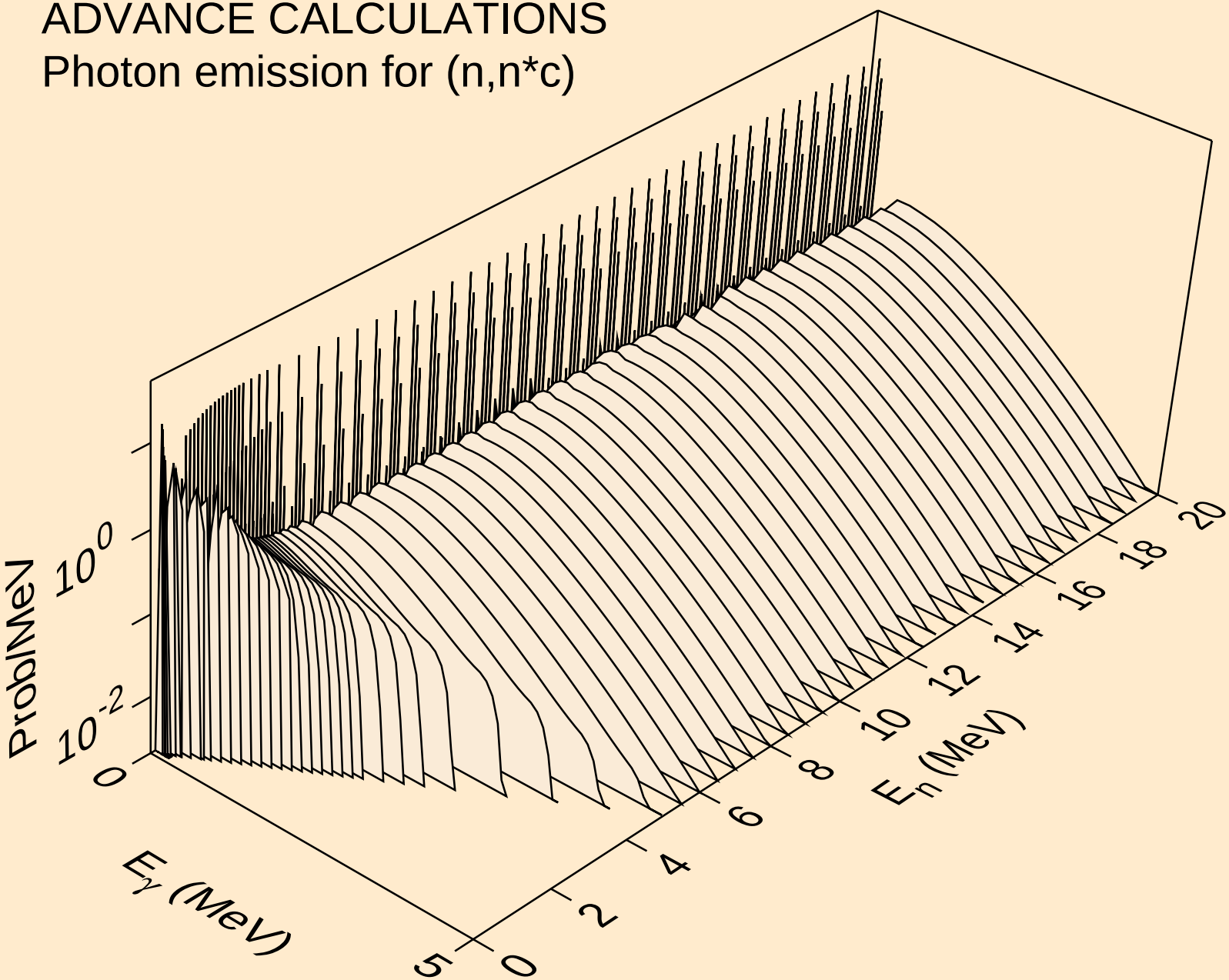
ADVANCE CALCULATIONS

Photon emission for (n,n*4)



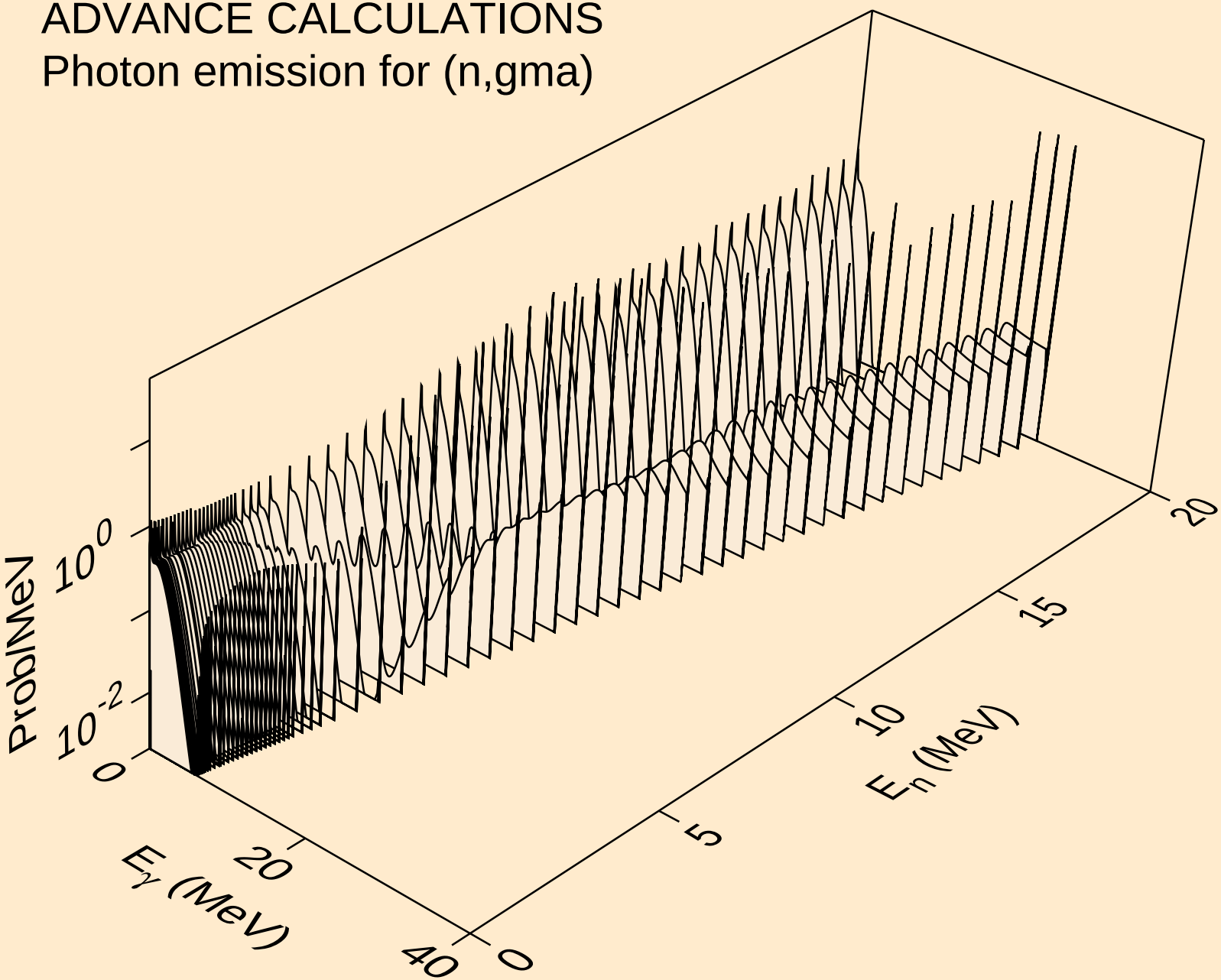
ADVANCE CALCULATIONS

Photon emission for (n,n*c)

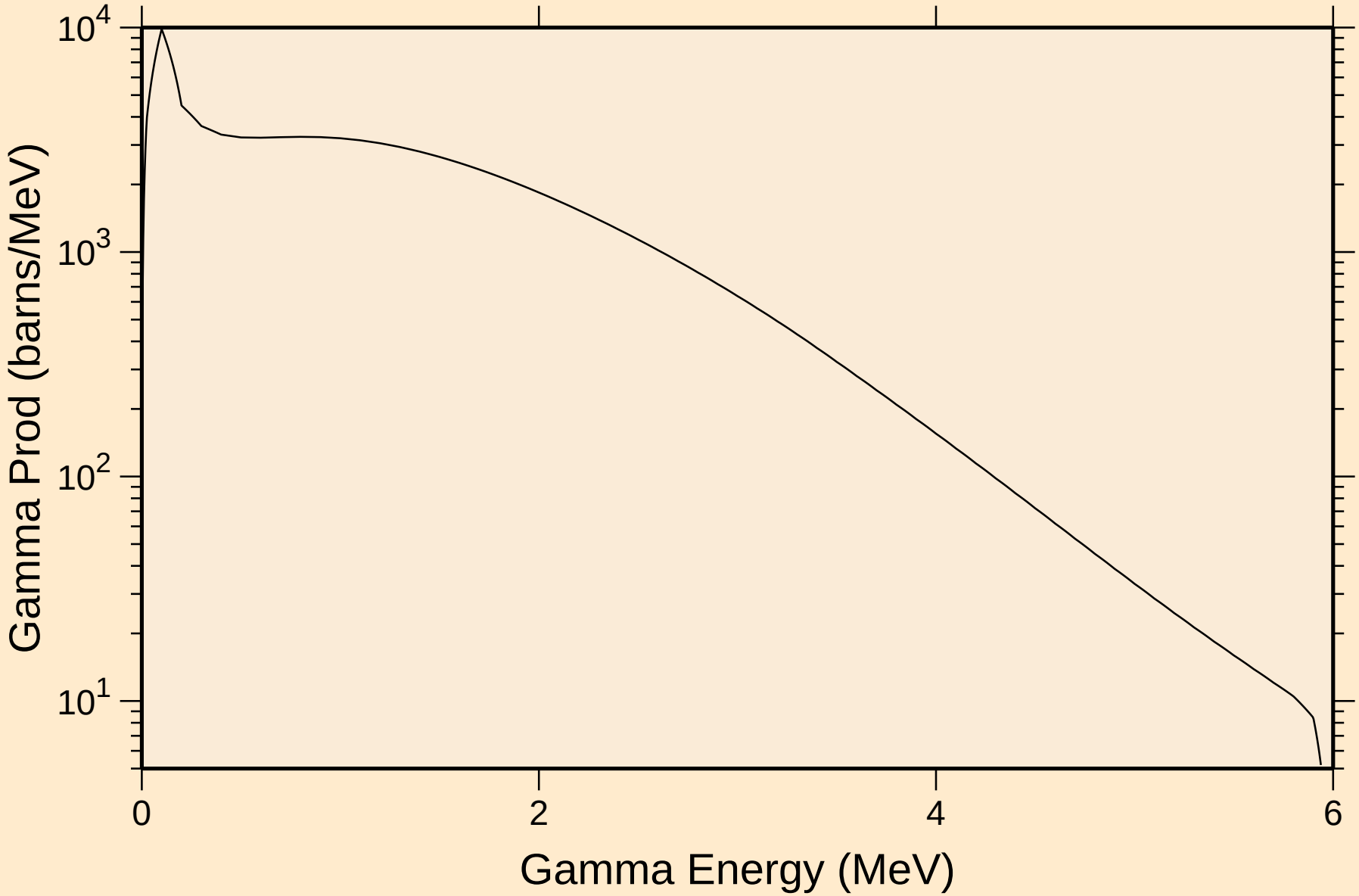


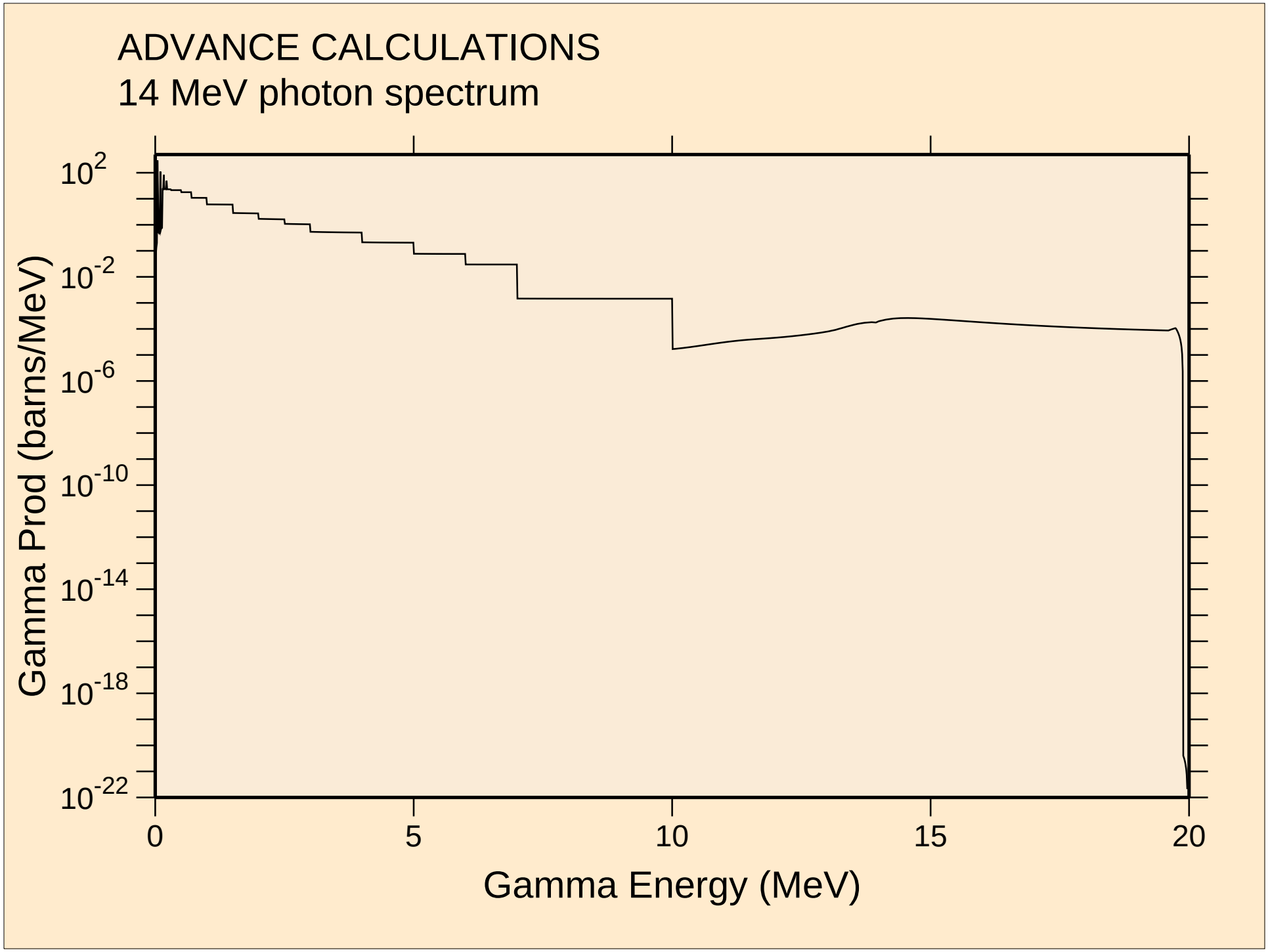
ADVANCE CALCULATIONS

Photon emission for (n,gma)



ADVANCE CALCULATIONS
thermal capture photon spectrum




ADVANCE CALCULATIONS
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^2
10^-2
10^-6
10^-10
10^-14
10^-18
10^-22
0
5
10
15
20
Gamma Energy (MeV)