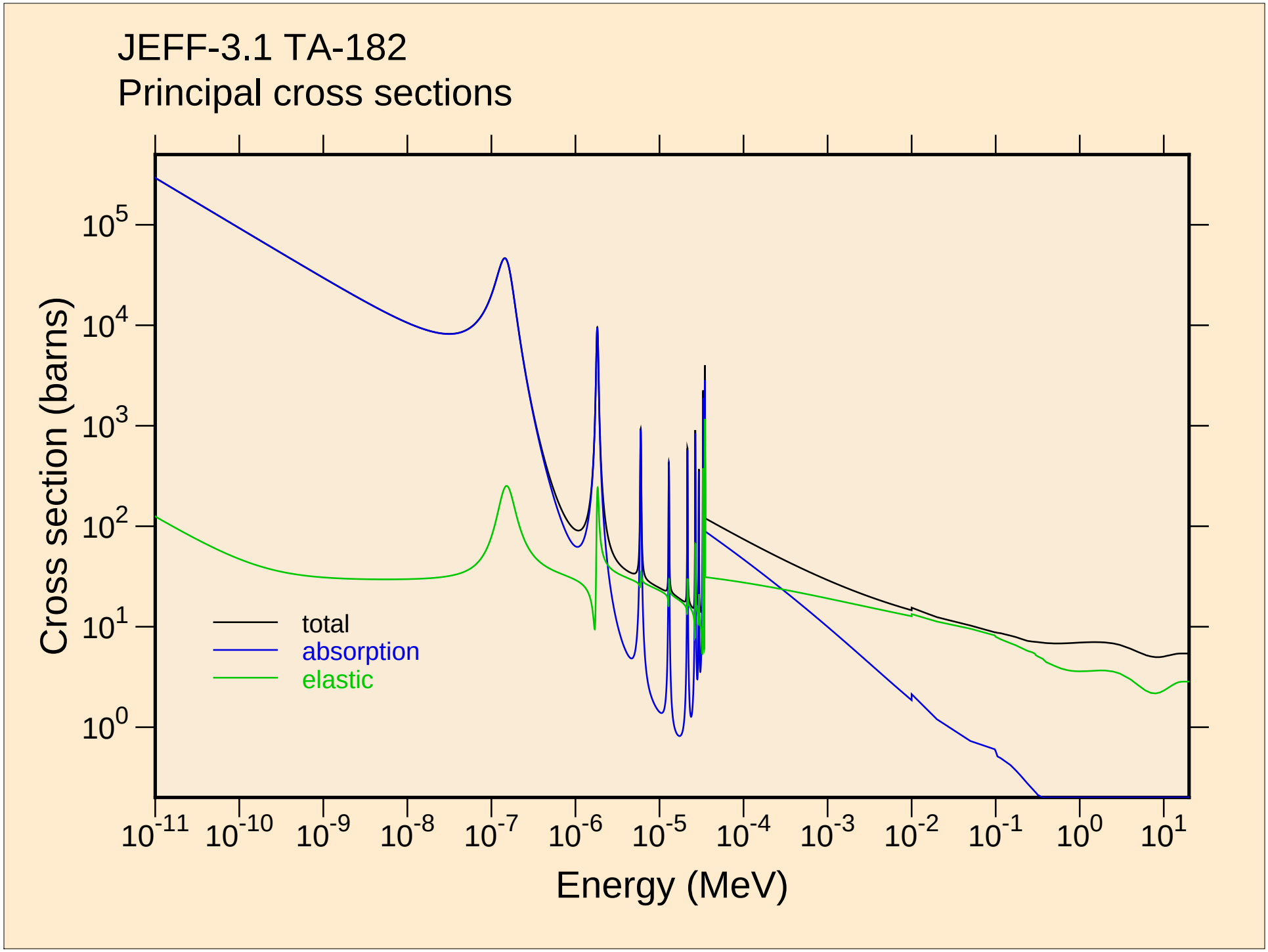
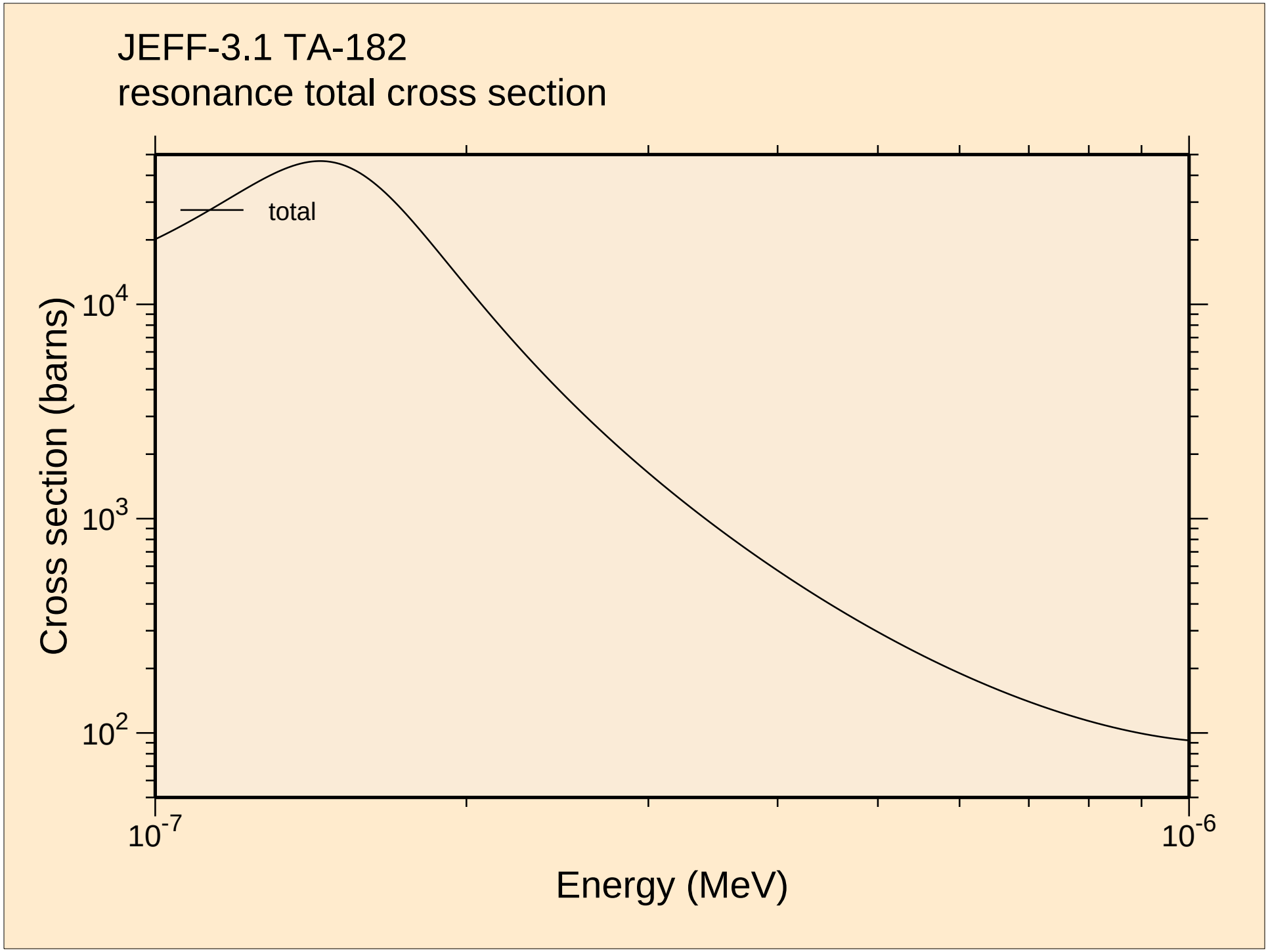
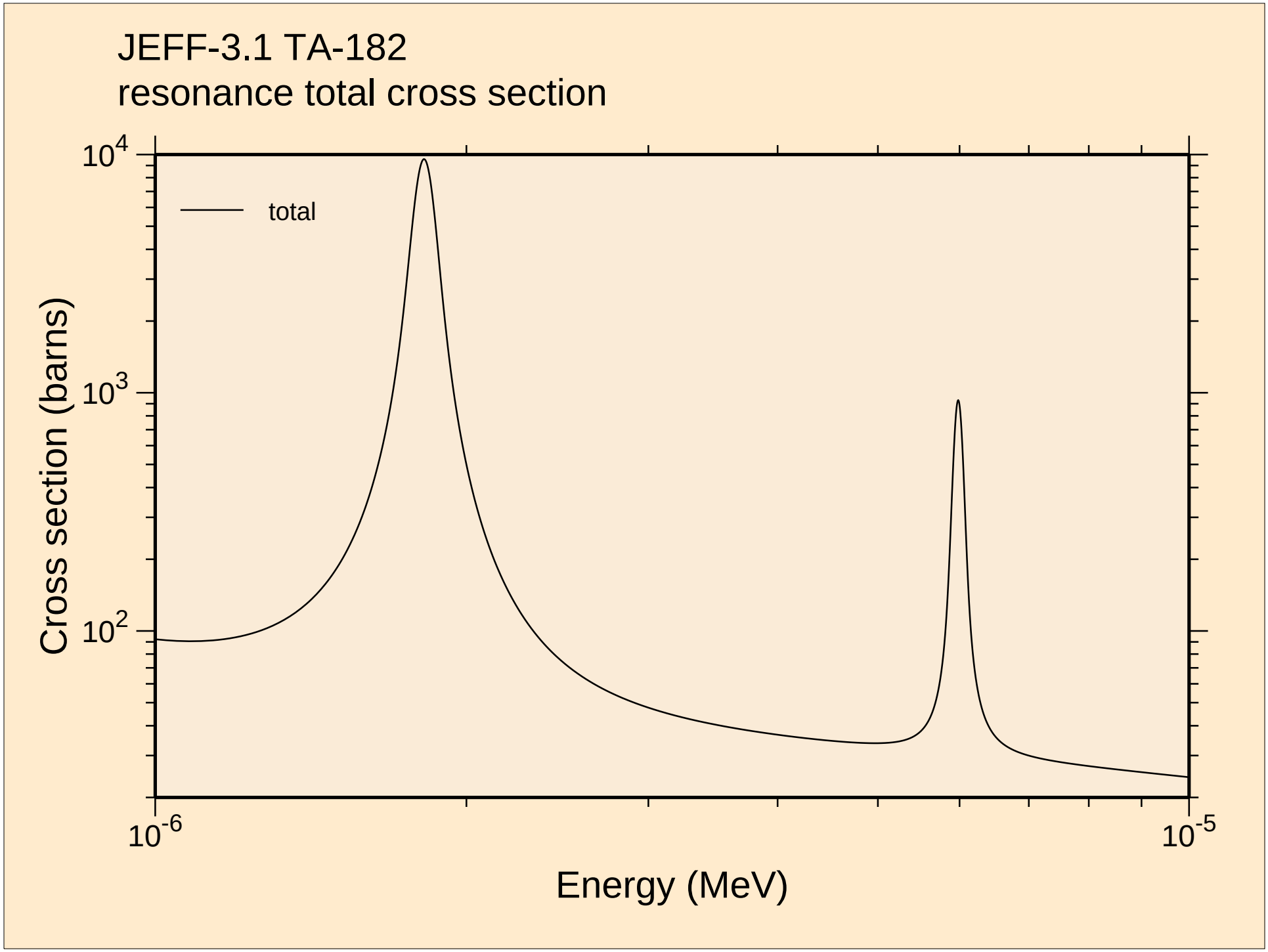
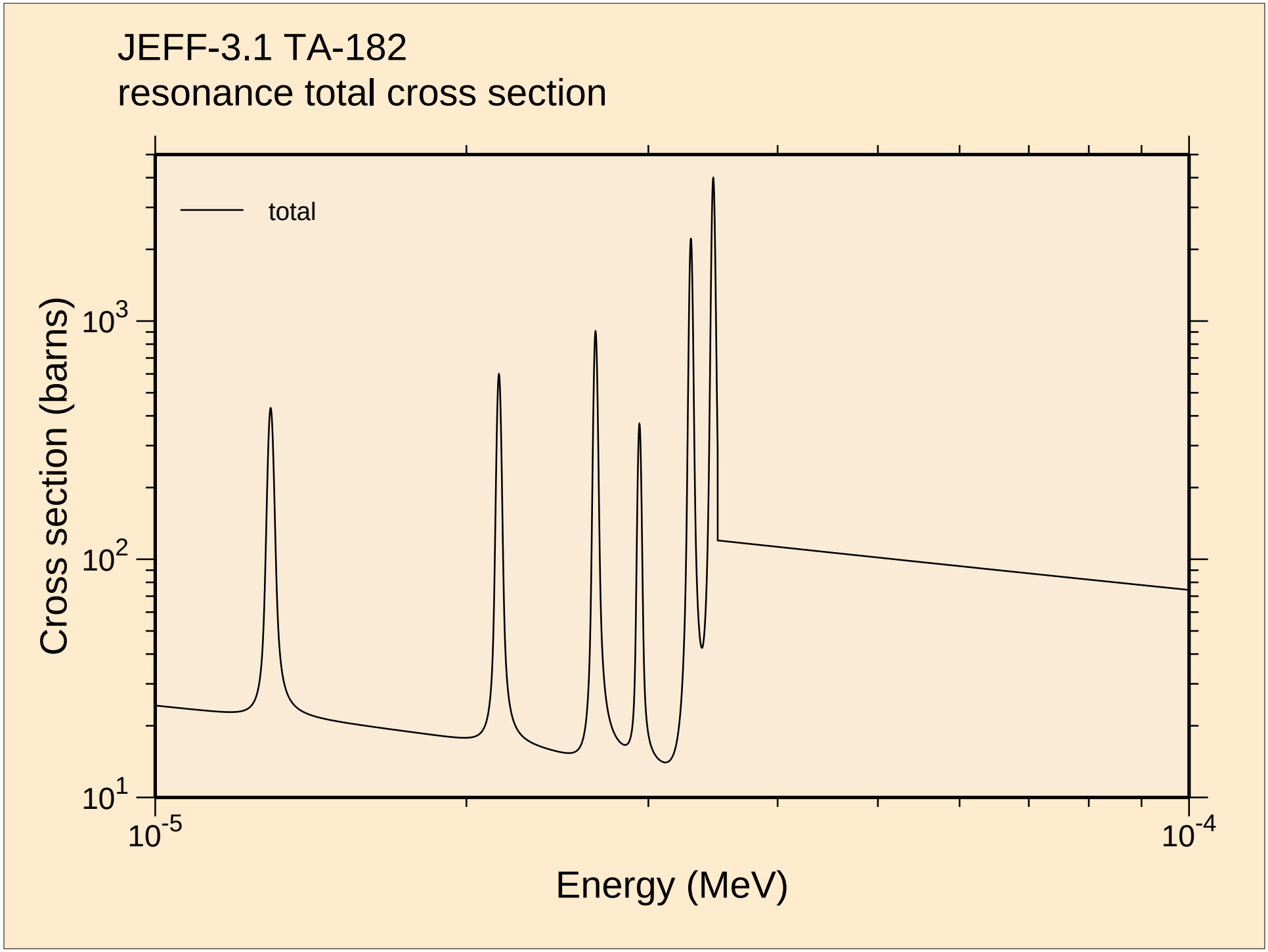
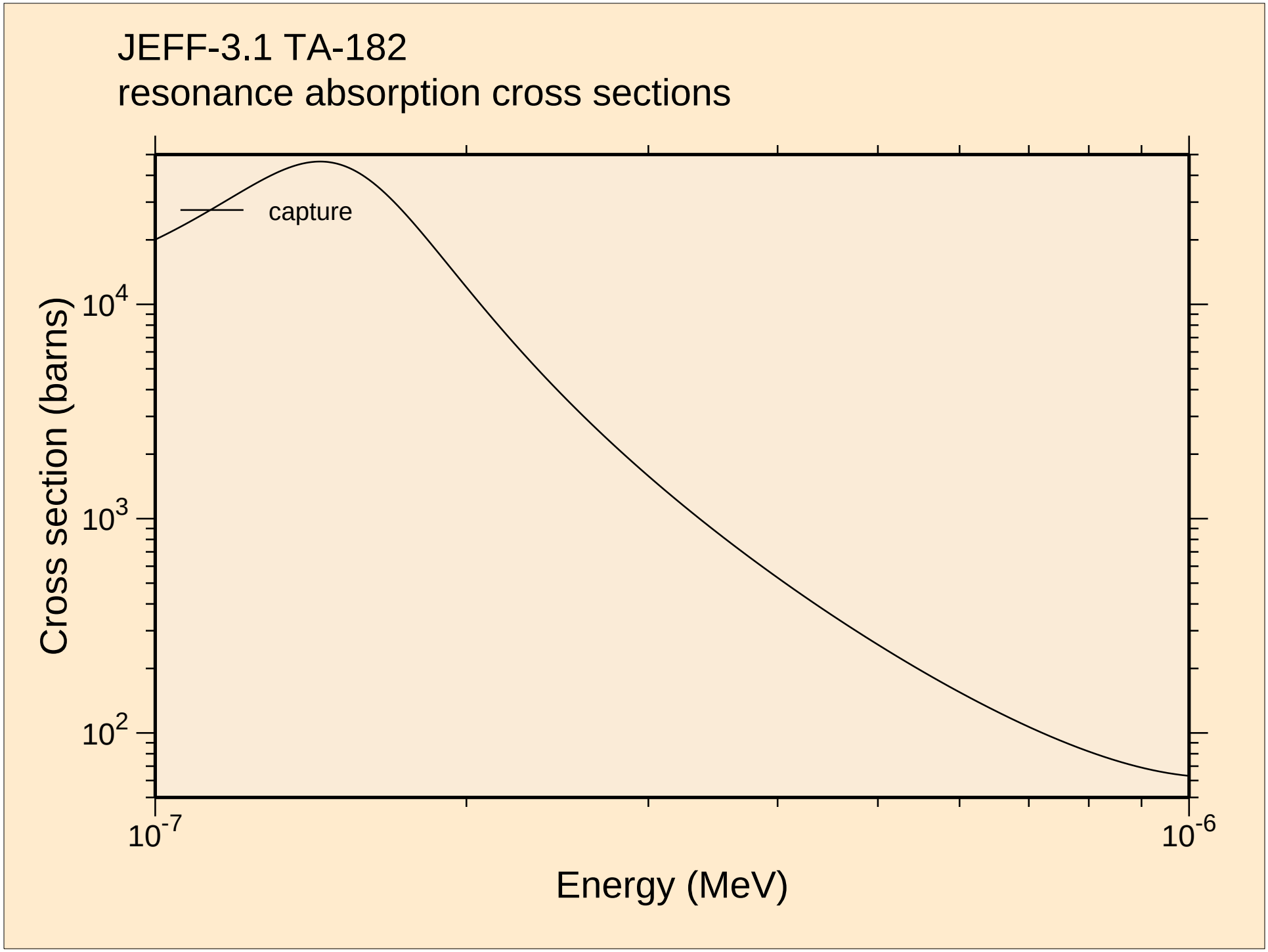
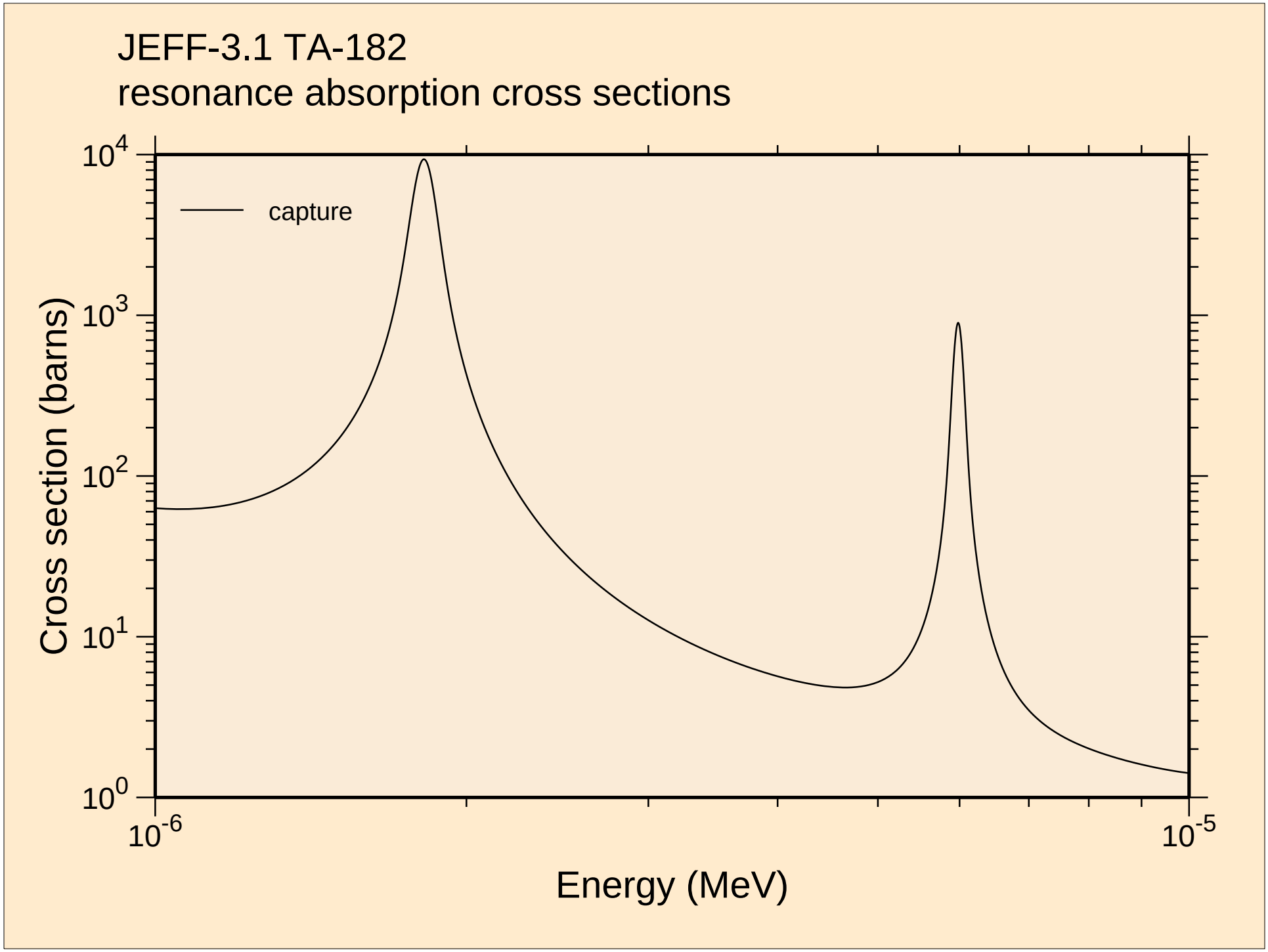

JEFF-3.1 TA-182
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
10^{5}
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-11}
10^{-10}
10^{-9}
10^{-8}
10^{-7}
10^{-6}
10^{-5}
10^{-4}
10^{-3}
10^{-2}
10^{-1}
10^{0}
10^{1}


JEFF-3.1 TA-182
resonance total cross section
total
Cross section (barns)
10^4
10^3
10^2
10^{-7}
10^{-6}
Energy (MeV)

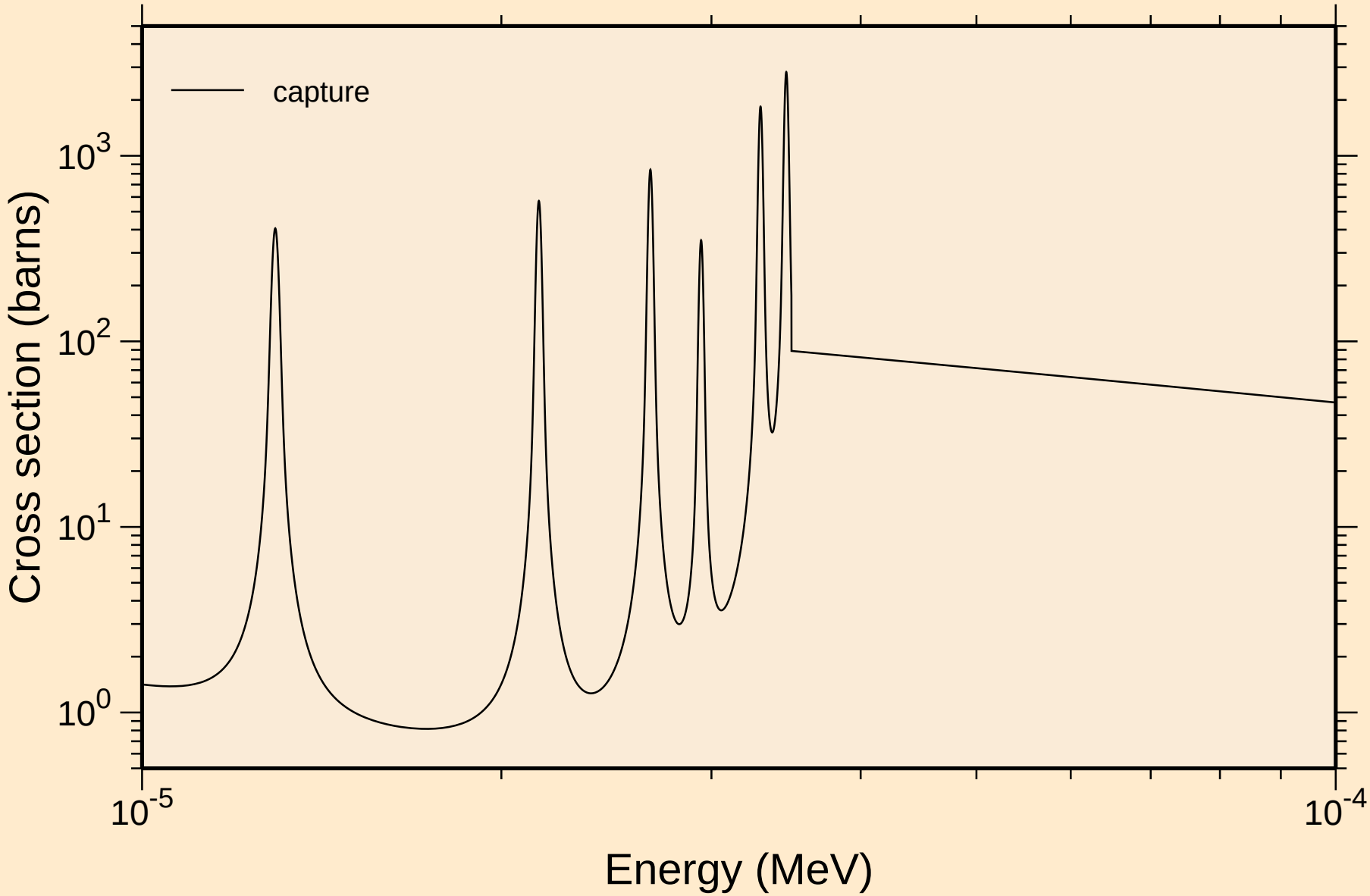

JEFF-3.1 TA-182
resonance total cross section
total
Cross section (barns)
10^4
10^3
10^2
10^{-6}
10^{-5}
Energy (MeV)

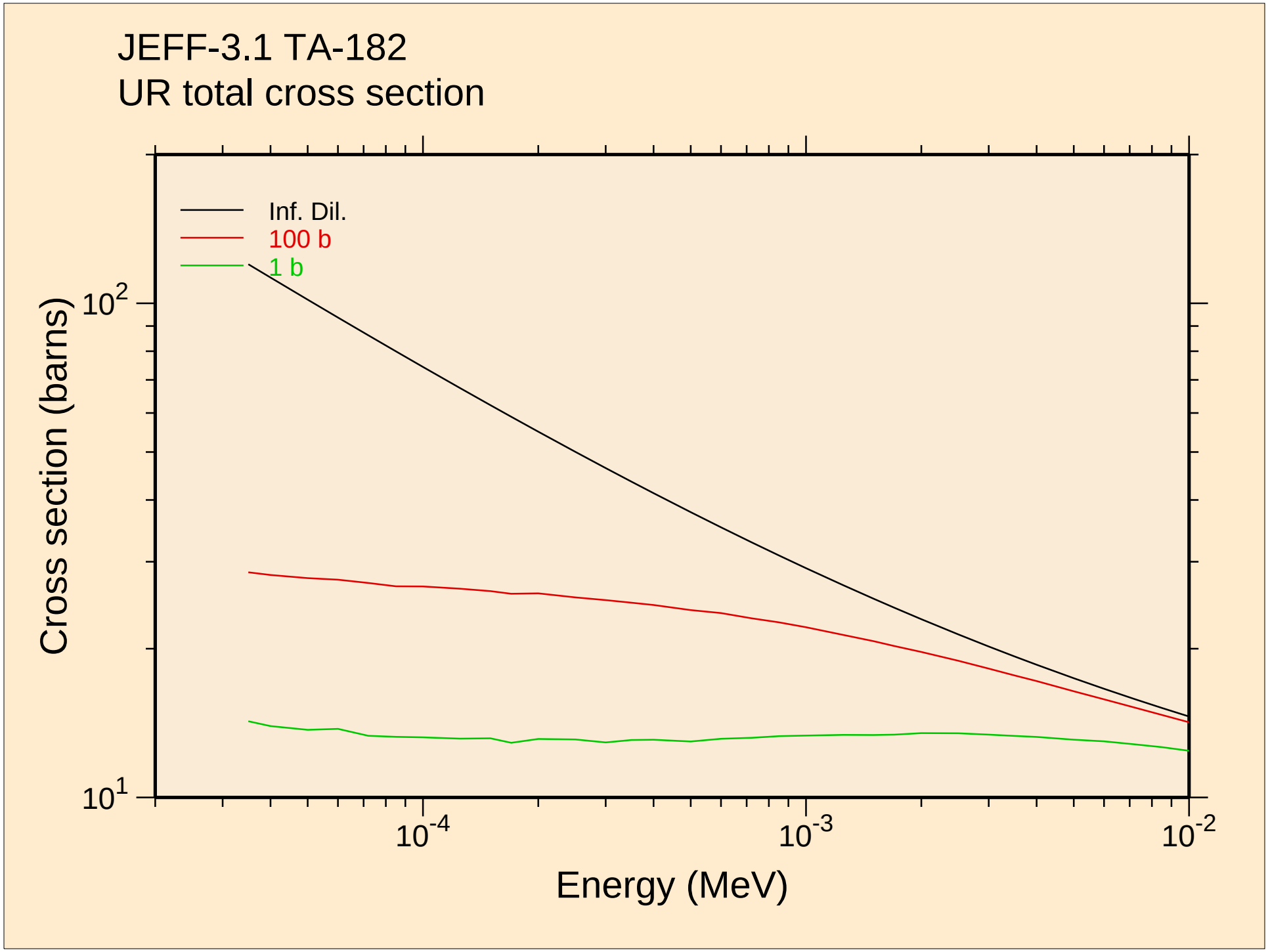

JEFF-3.1 TA-182
resonance total cross section
total
Cross section (barns)
10^3
10^2
10^1
10^{-5}
10^{-4}
Energy (MeV)

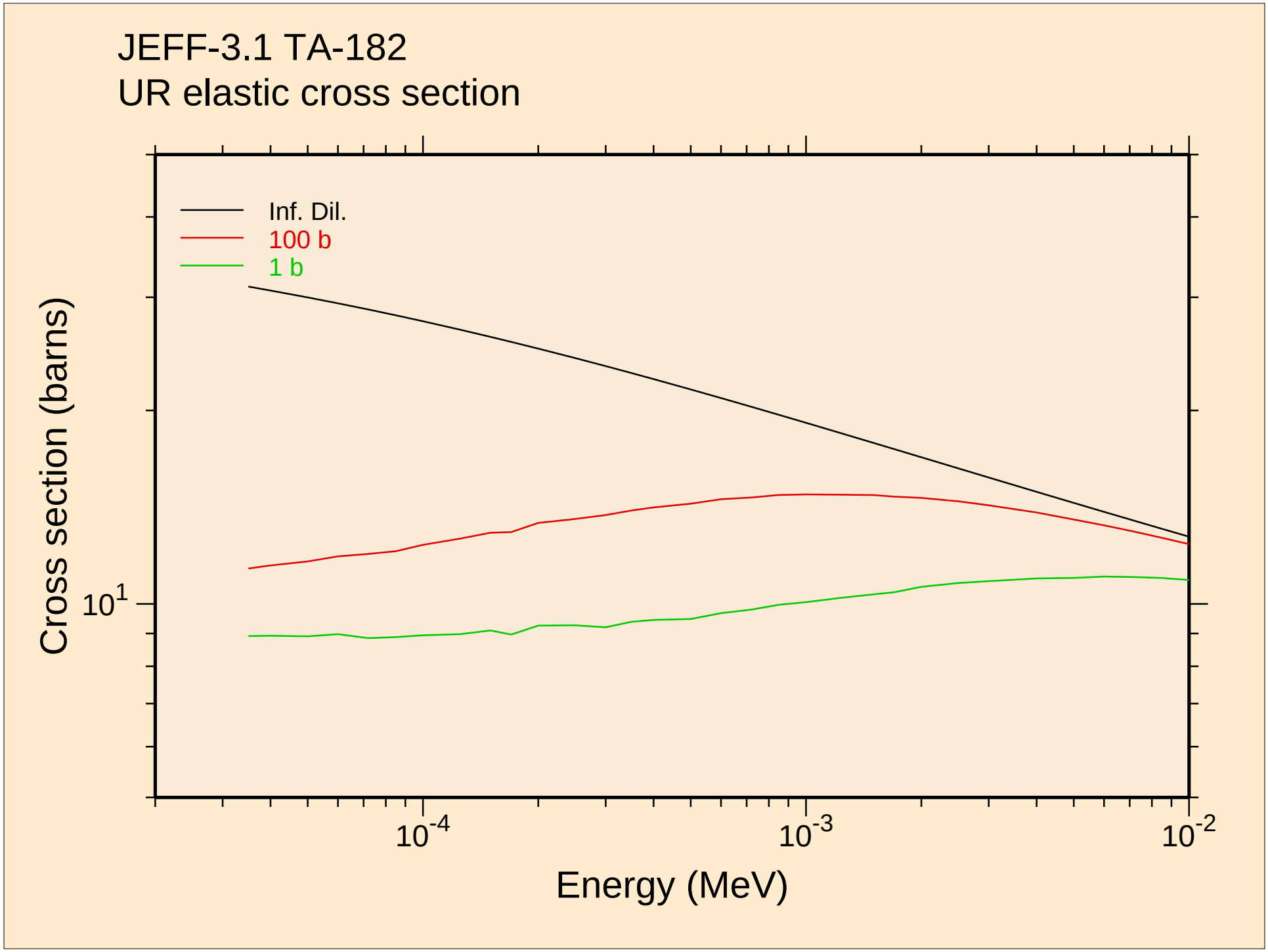

JEFF-3.1 TA-182
resonance absorption cross sections
capture
Cross section (barns)
10^4
10^3
10^2
10^{-7}
10^{-6}
Energy (MeV)

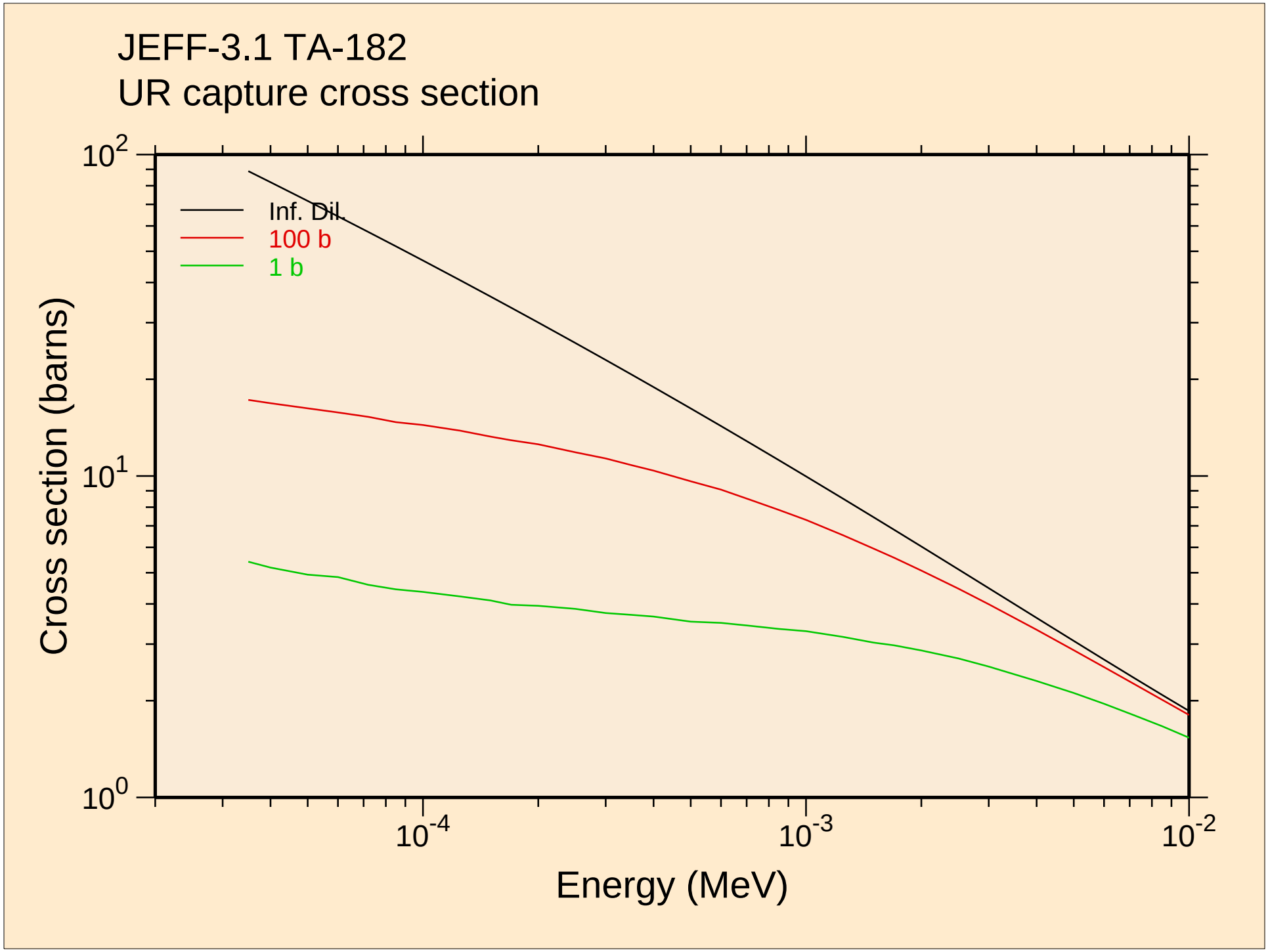

JEFF-3.1 TA-182
resonance absorption cross sections
capture
Cross section (barns)
10^4
10^3
10^2
10^1
10^0
10^{-6}
10^{-5}
Energy (MeV)

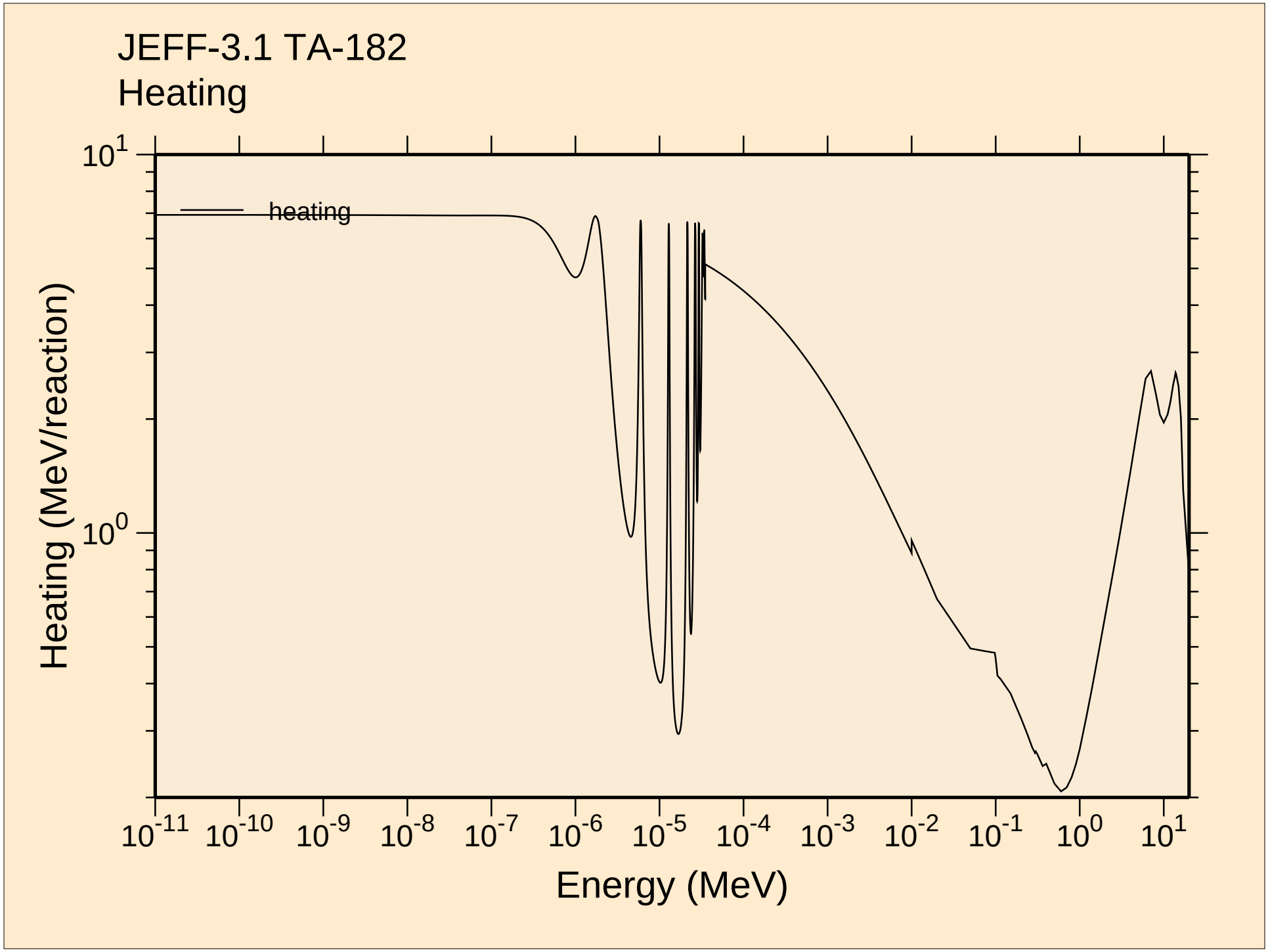
JEFF-3.1 TA-182
resonance absorption cross sections

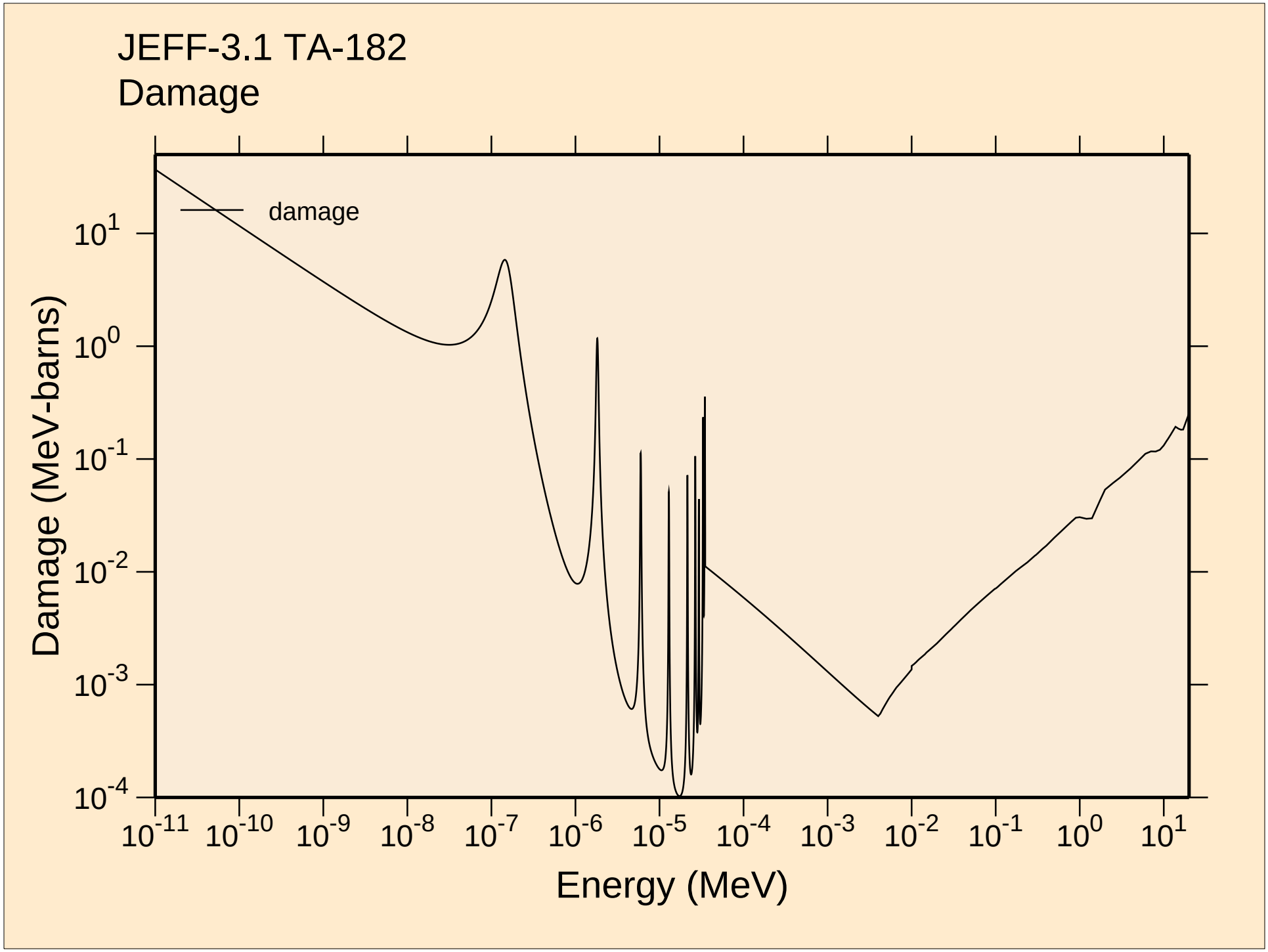


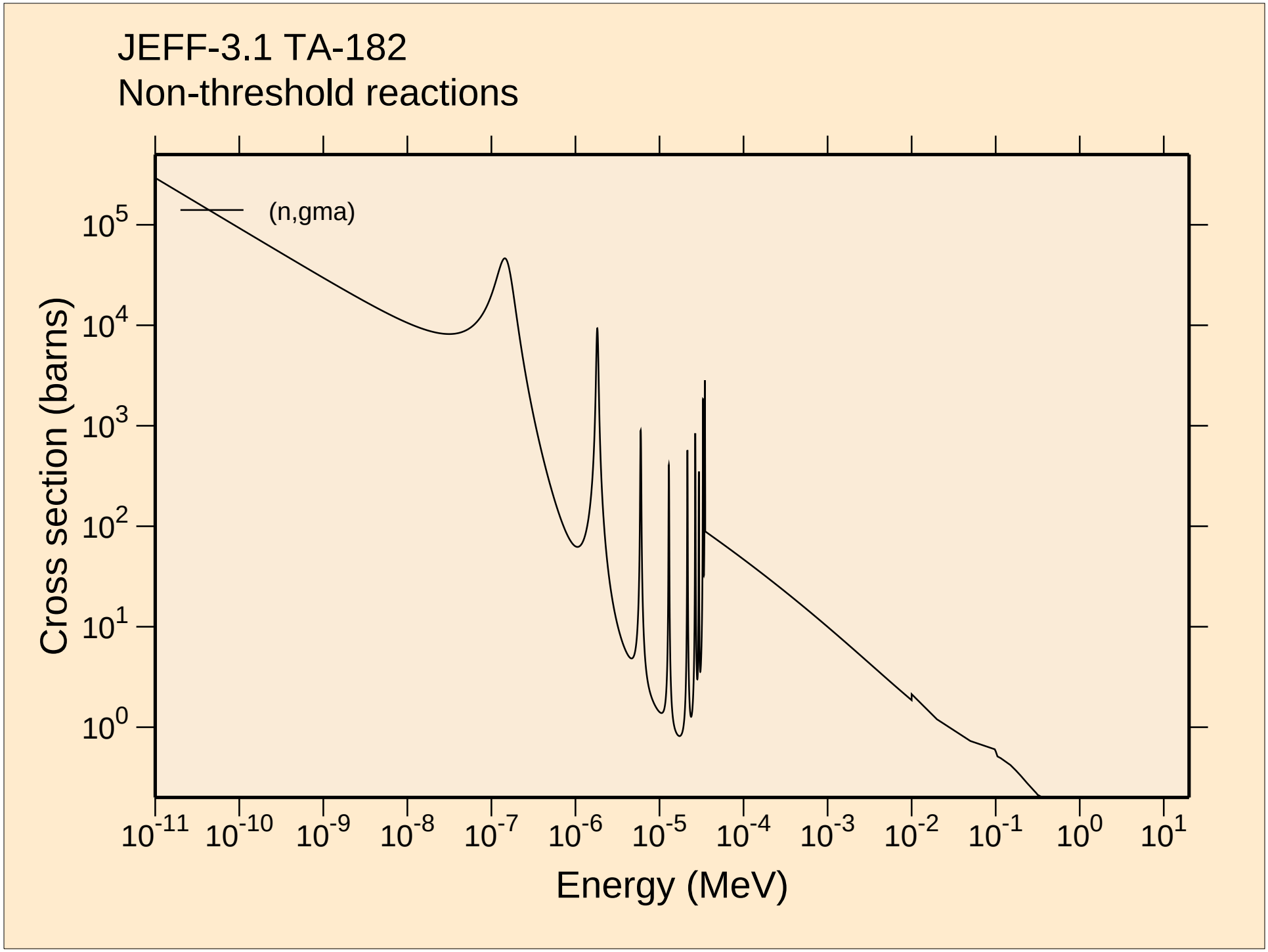

JEFF-3.1 TA-182
UR total cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^2
10^1
10^-4
10^-3
10^-2
Energy (MeV)

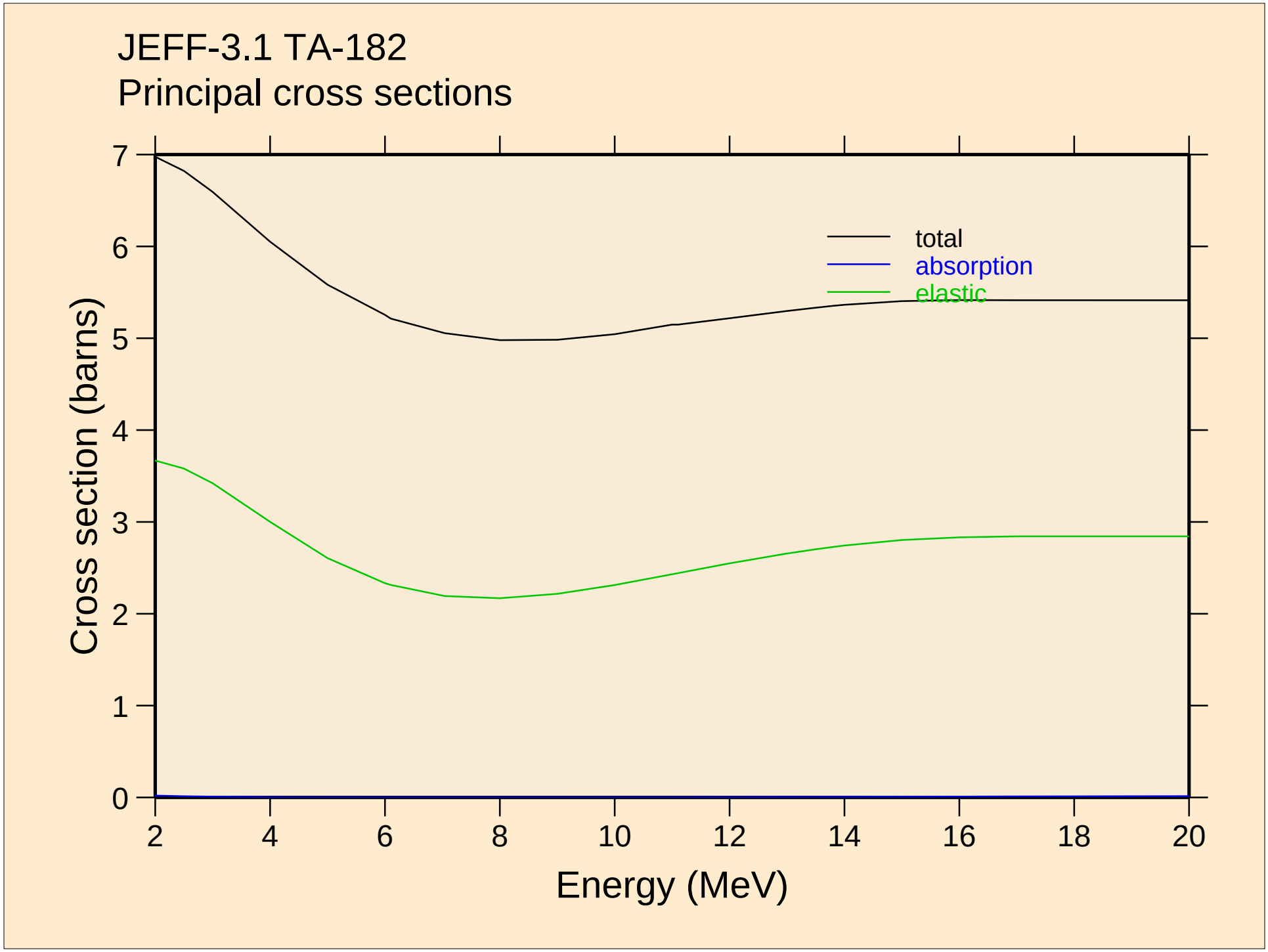

JEFF-3.1 TA-182
UR elastic cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
10^1
10^-4
10^-3
10^-2
Energy (MeV)

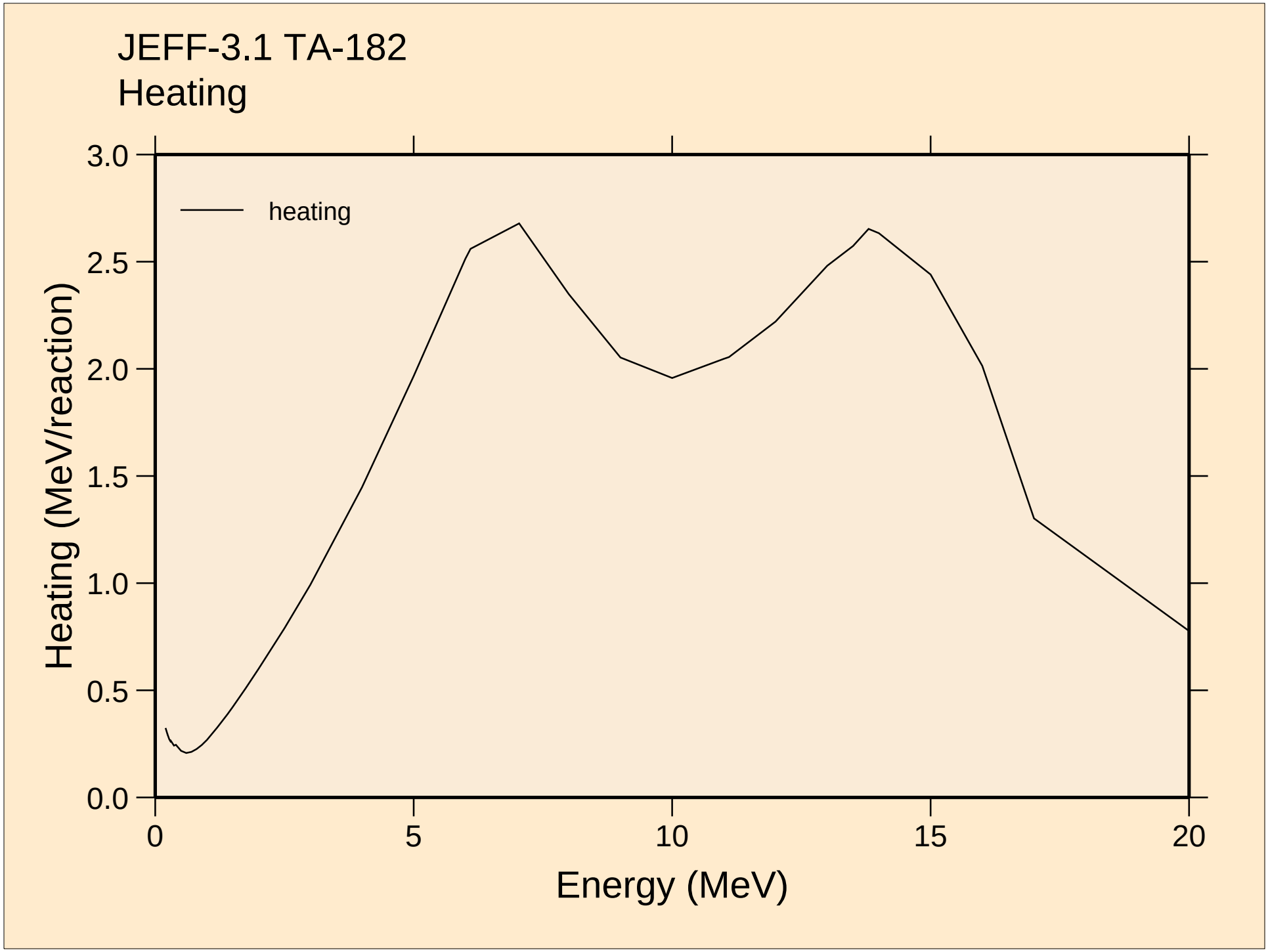

JEFF-3.1 TA-182
UR capture cross section
Inf. Dil.
100 b
1 b
Cross section (barns)
Energy (MeV)
10^2
10^1
10^0
10^-4
10^-3
10^-2

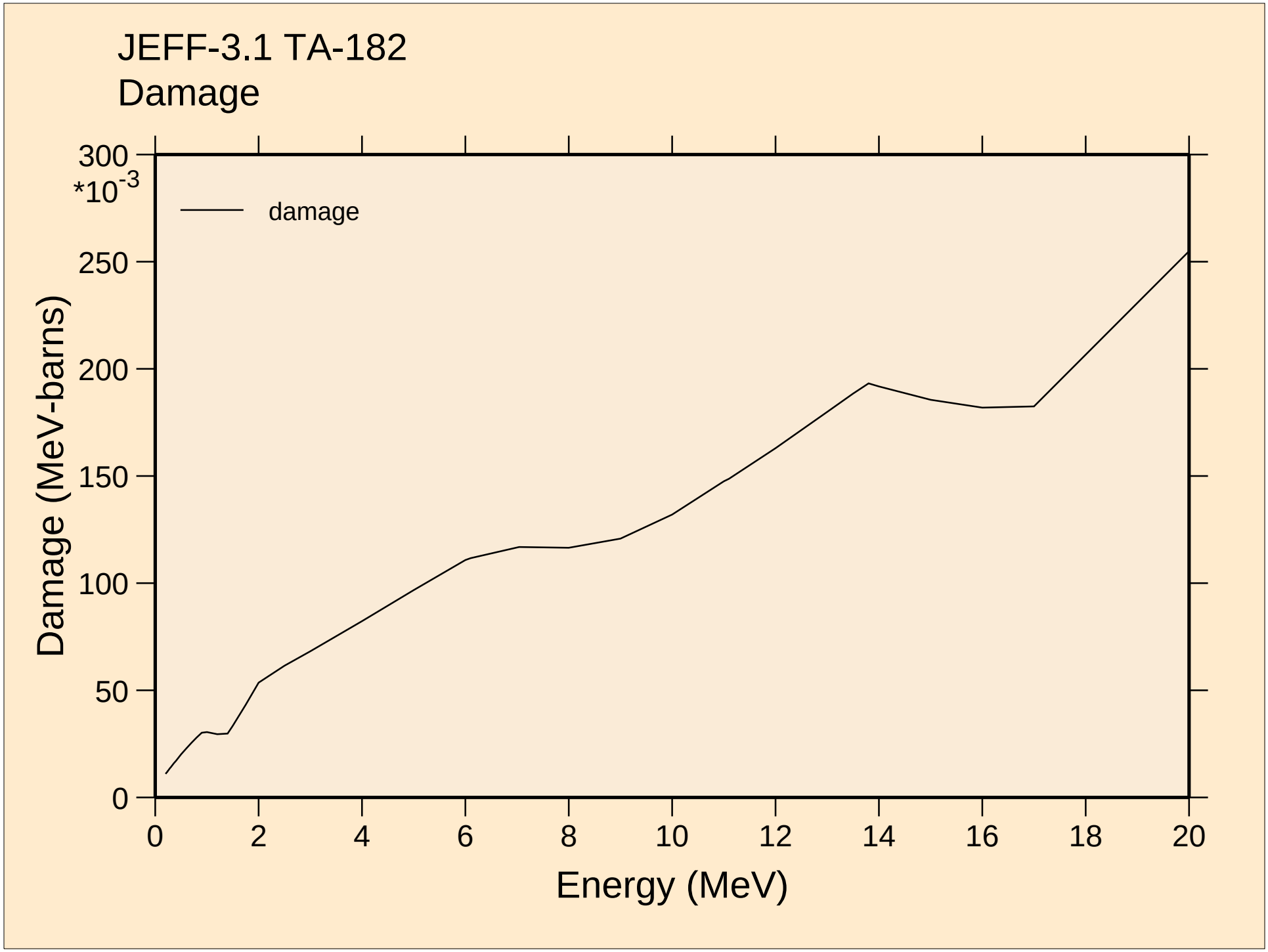

JEFF-3.1 TA-182
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^{1}
10^{0}
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}

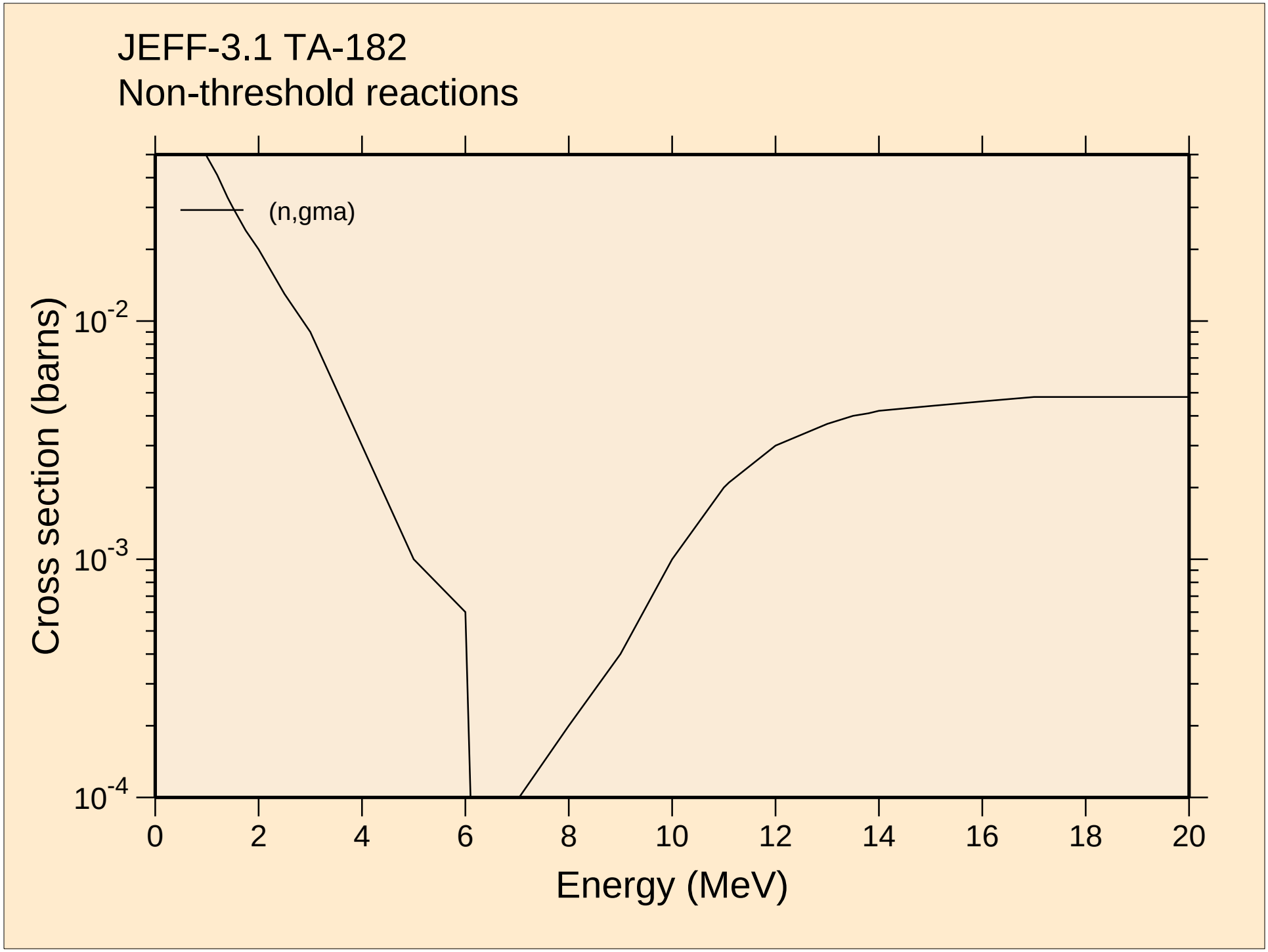

JEFF-3.1 TA-182
Damage
damage
Damage (MeV-barns)
Energy (MeV)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-10
10^-9
10^-8
10^-7
10^-6
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1

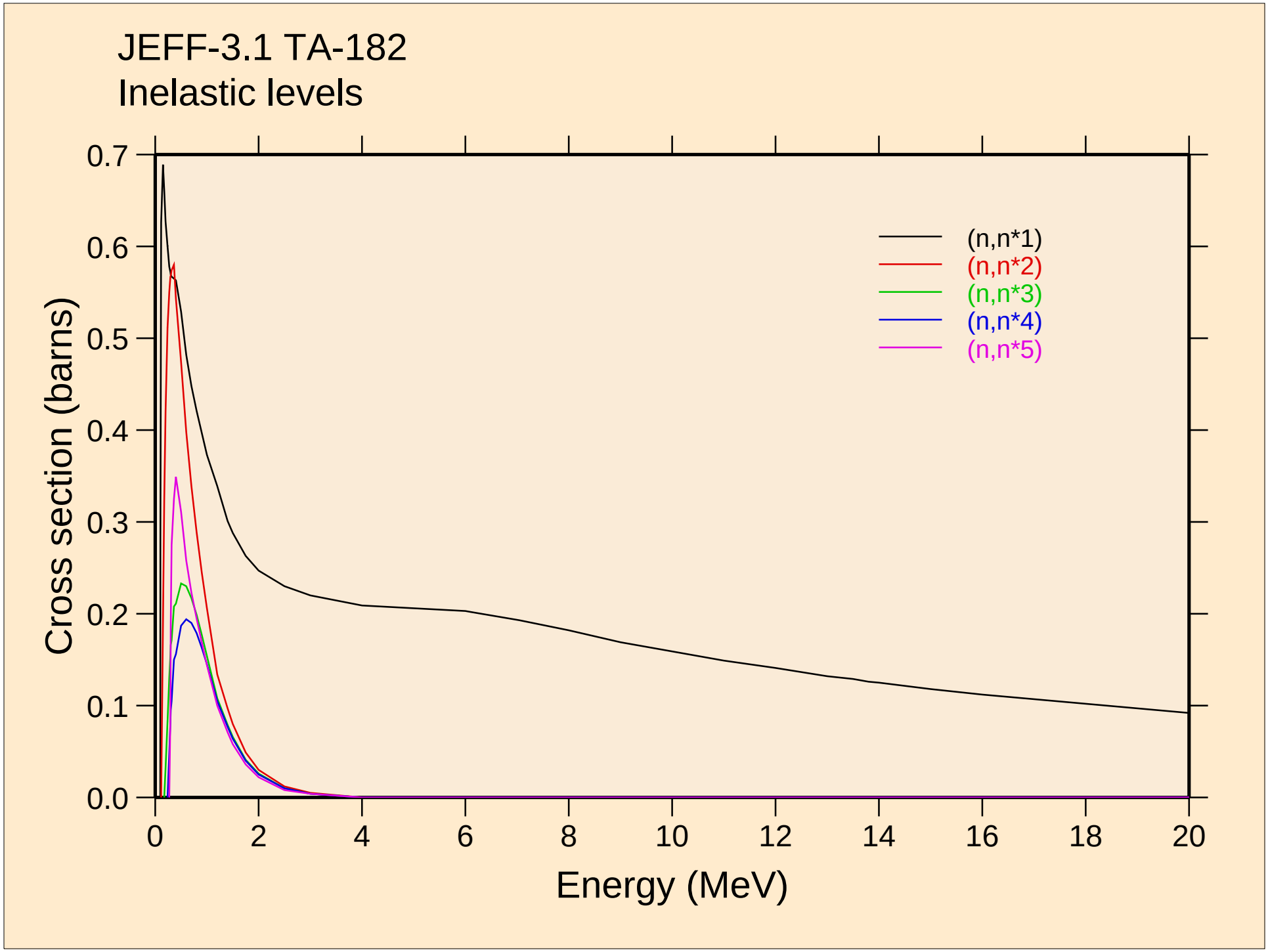

JEFF-3.1 TA-182
Non-threshold reactions
(n,gma)
Cross section (barns)
Energy (MeV)
10^{5}
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-11} 10^{-10} 10^{-9} 10^{-8} 10^{-7} 10^{-6} 10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^{0} 10^{1}

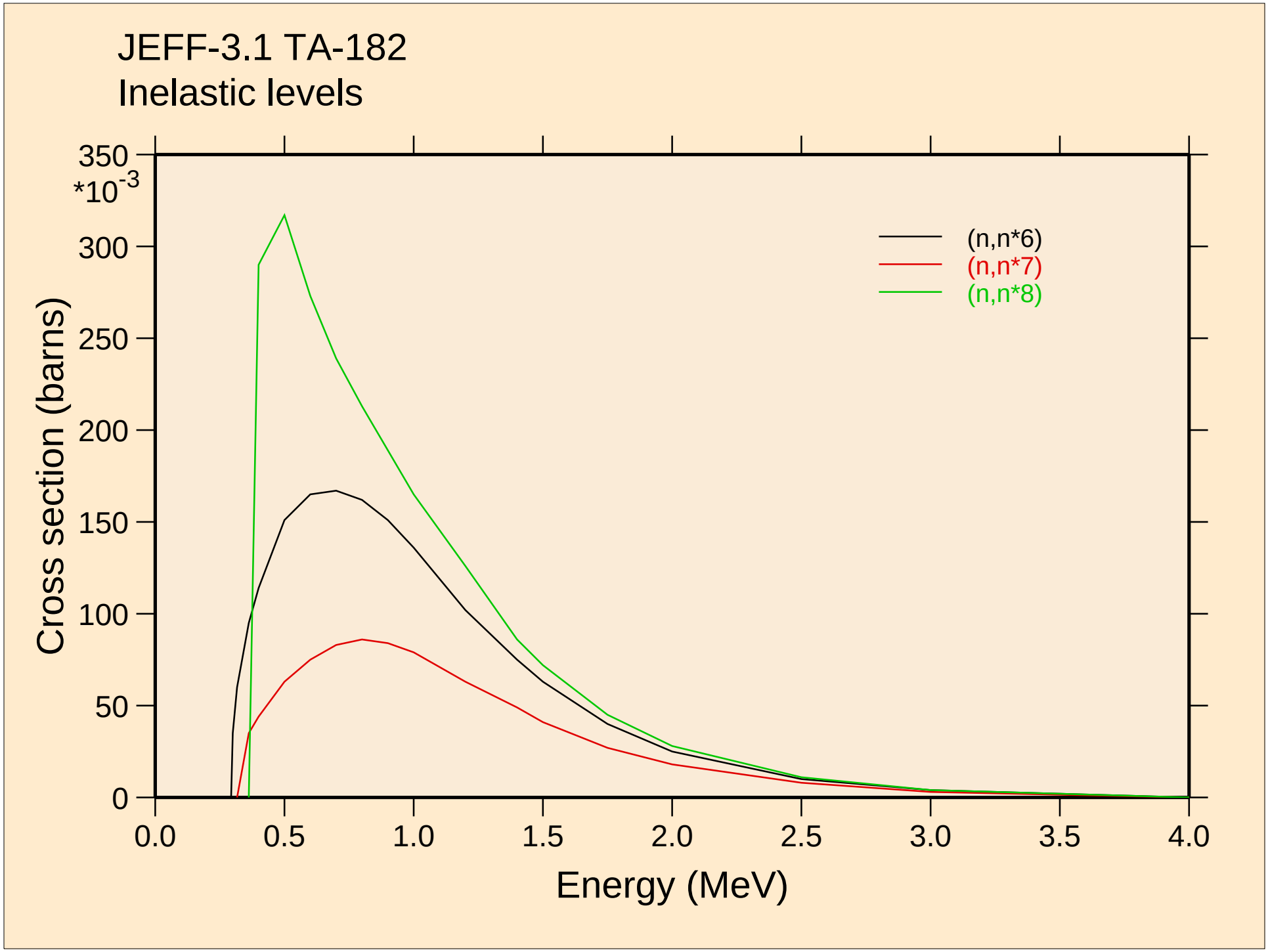

JEFF-3.1 TA-182
Principal cross sections
total
absorption
elastic
Cross section (barns)
Energy (MeV)
0
1
2
3
4
5
6
7
2
4
6
8
10
12
14
16
18
20

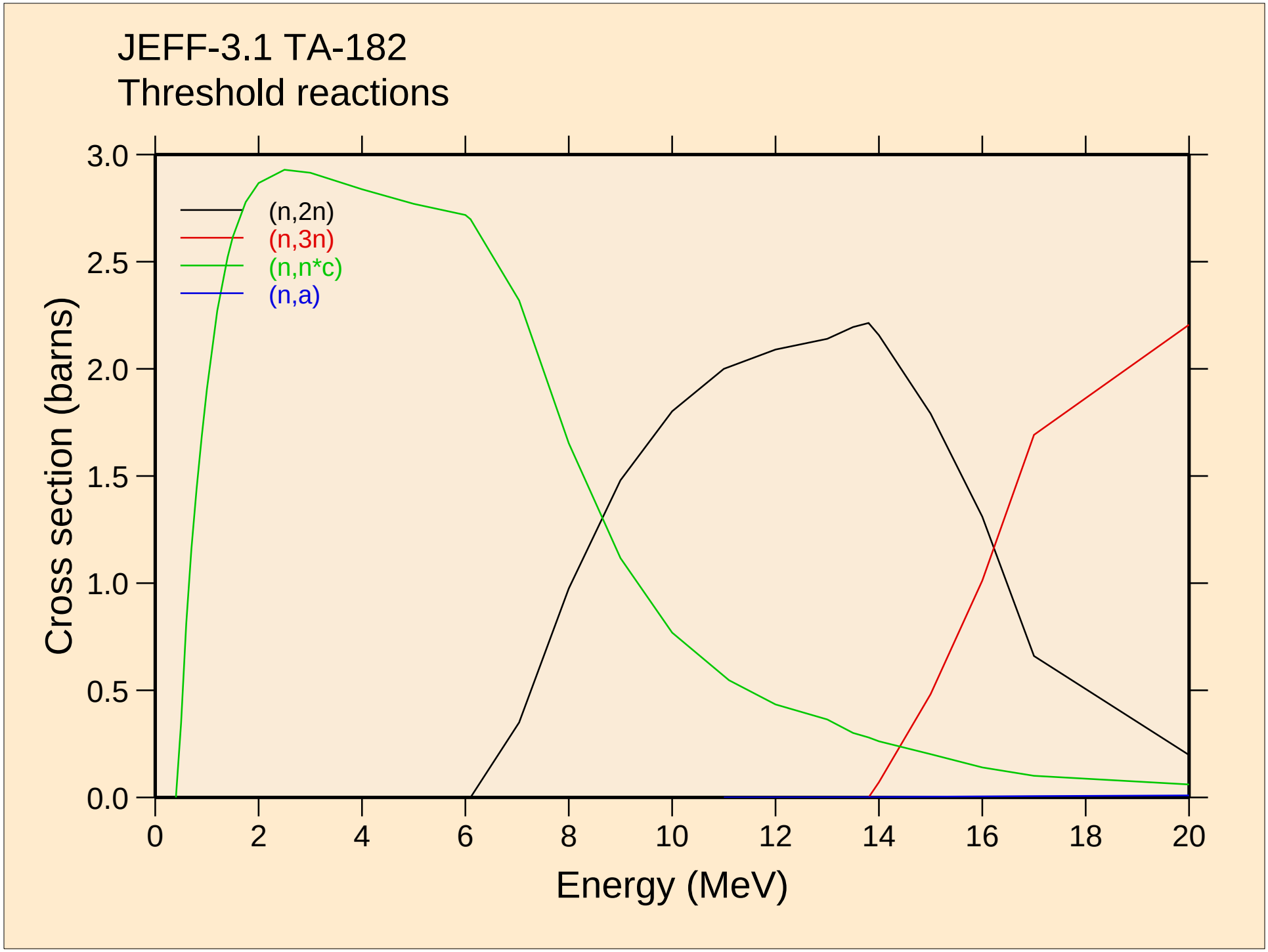

JEFF-3.1 TA-182
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
5
10
15
20

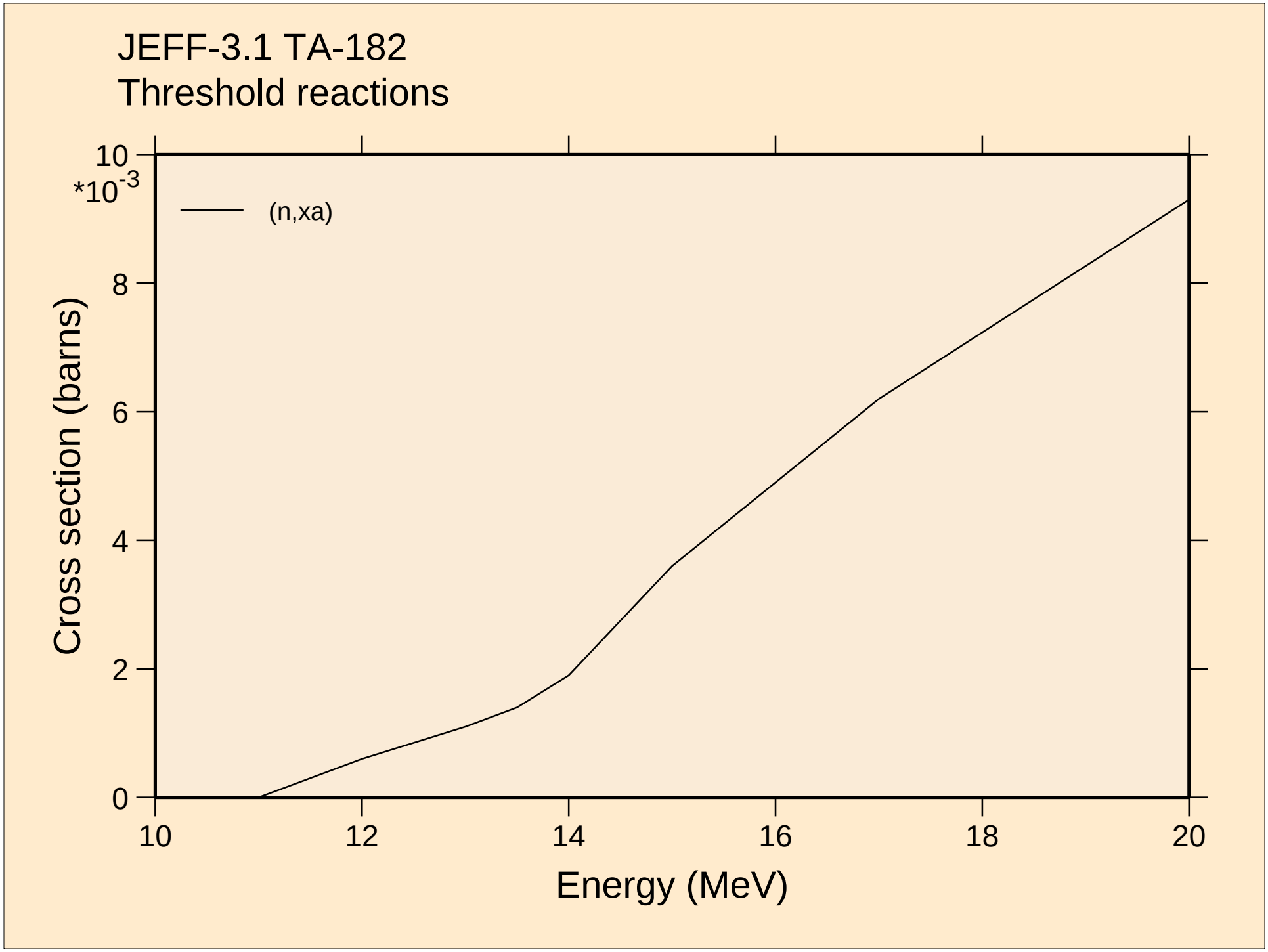

JEFF-3.1 TA-182
Damage
damage
Damage (MeV-barns)
*10-3
300
250
200
150
100
50
0
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

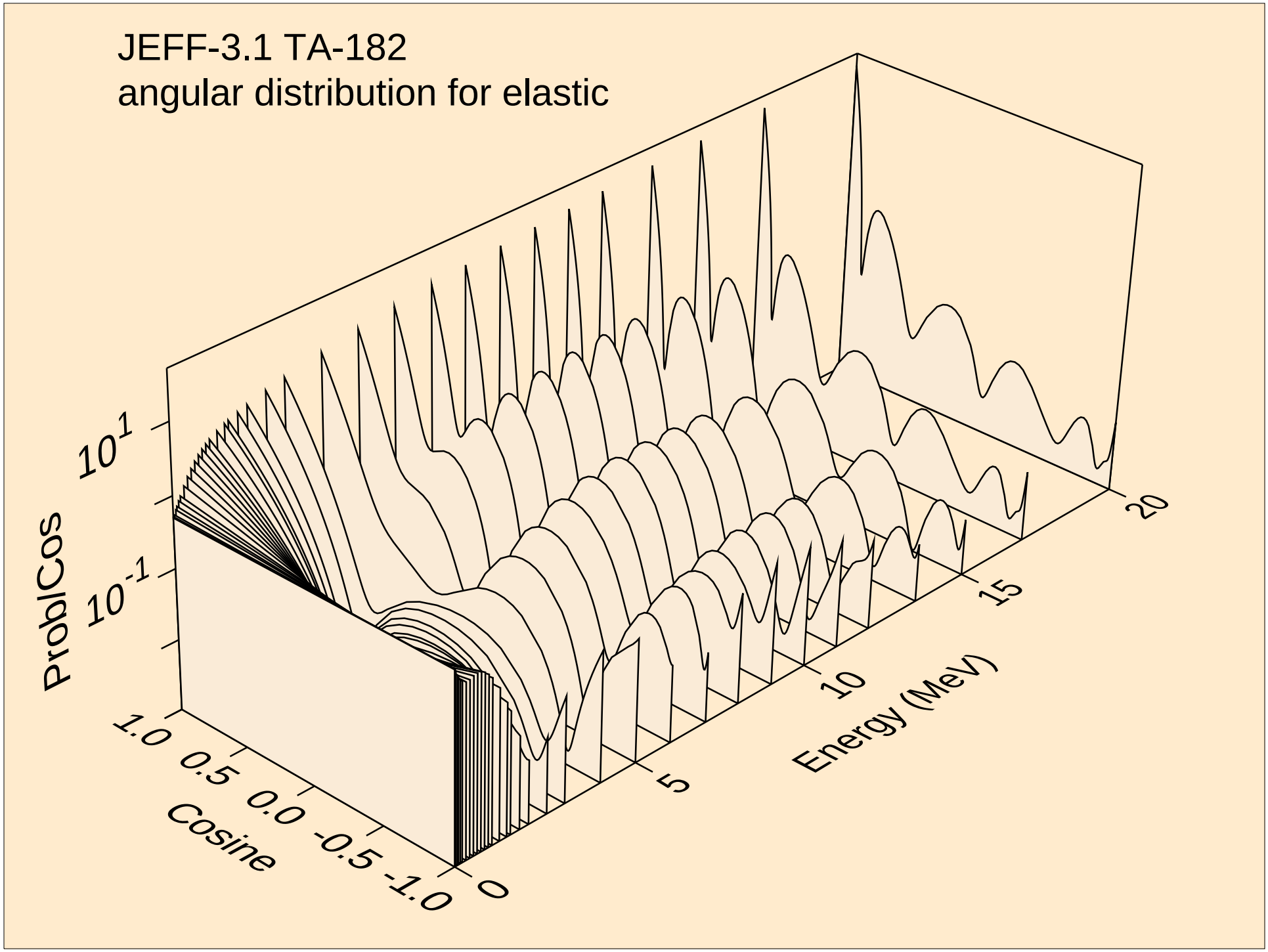

JEFF-3.1 TA-182
Non-threshold reactions
(n,gma)
Cross section (barns)
10-2
10-3
10-4
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

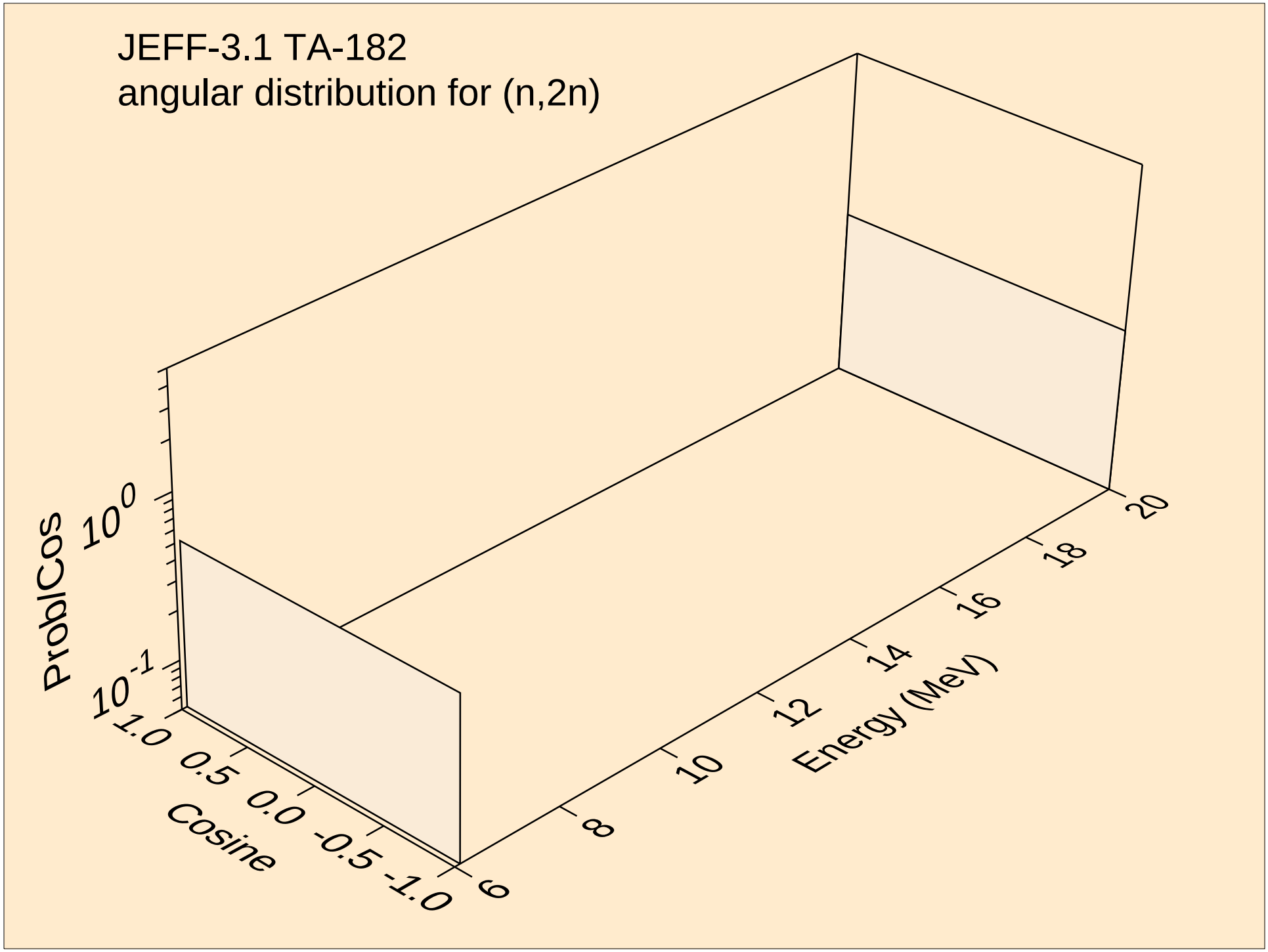

JEFF-3.1 TA-182
Inelastic levels
Cross section (barns)
Energy (MeV)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
2
4
6
8
10
12
14
16
18
20
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

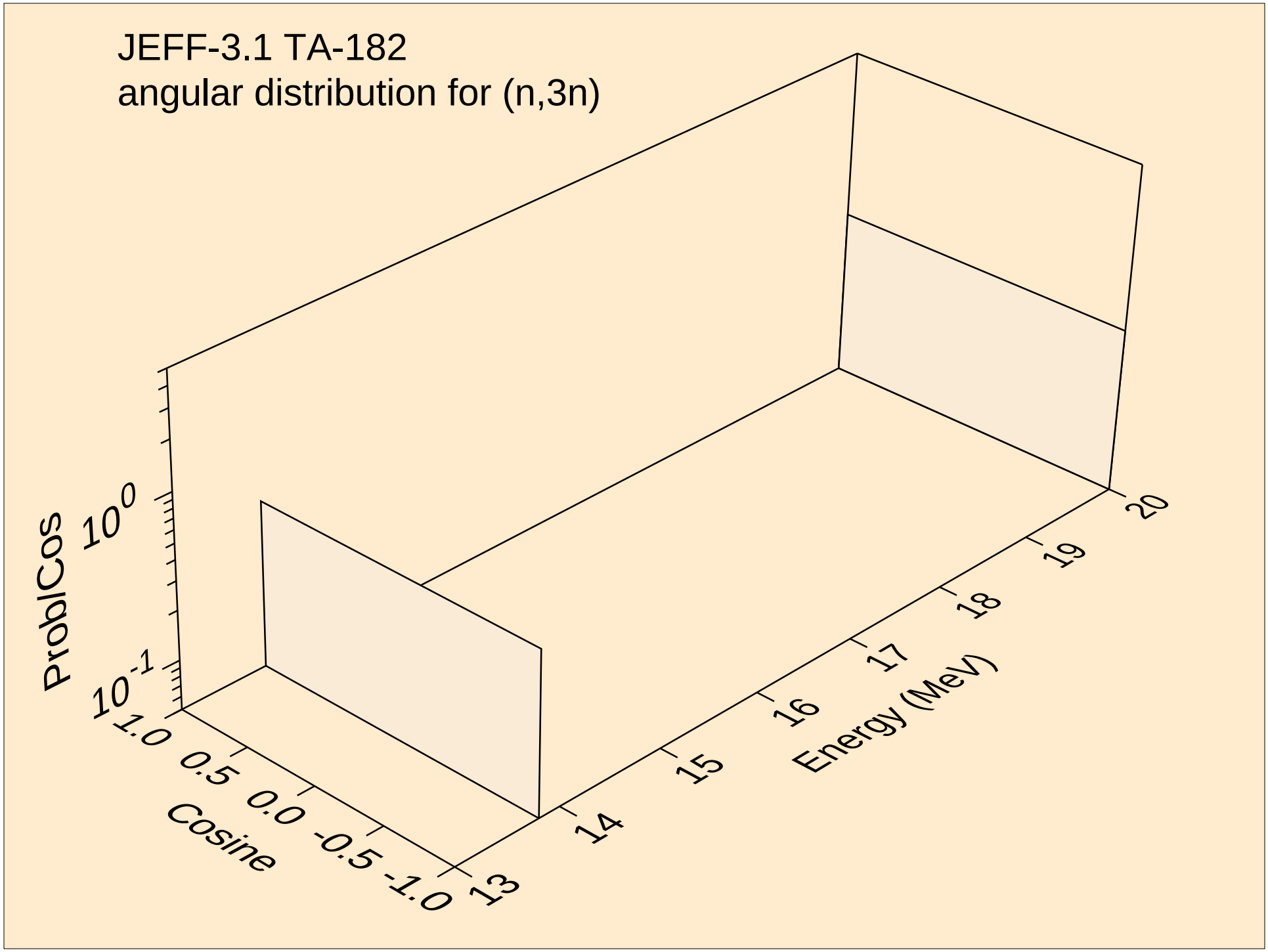

JEFF-3.1 TA-182
Inelastic levels
350
*10-3
300
250
200
150
100
50
0
Cross section (barns)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)

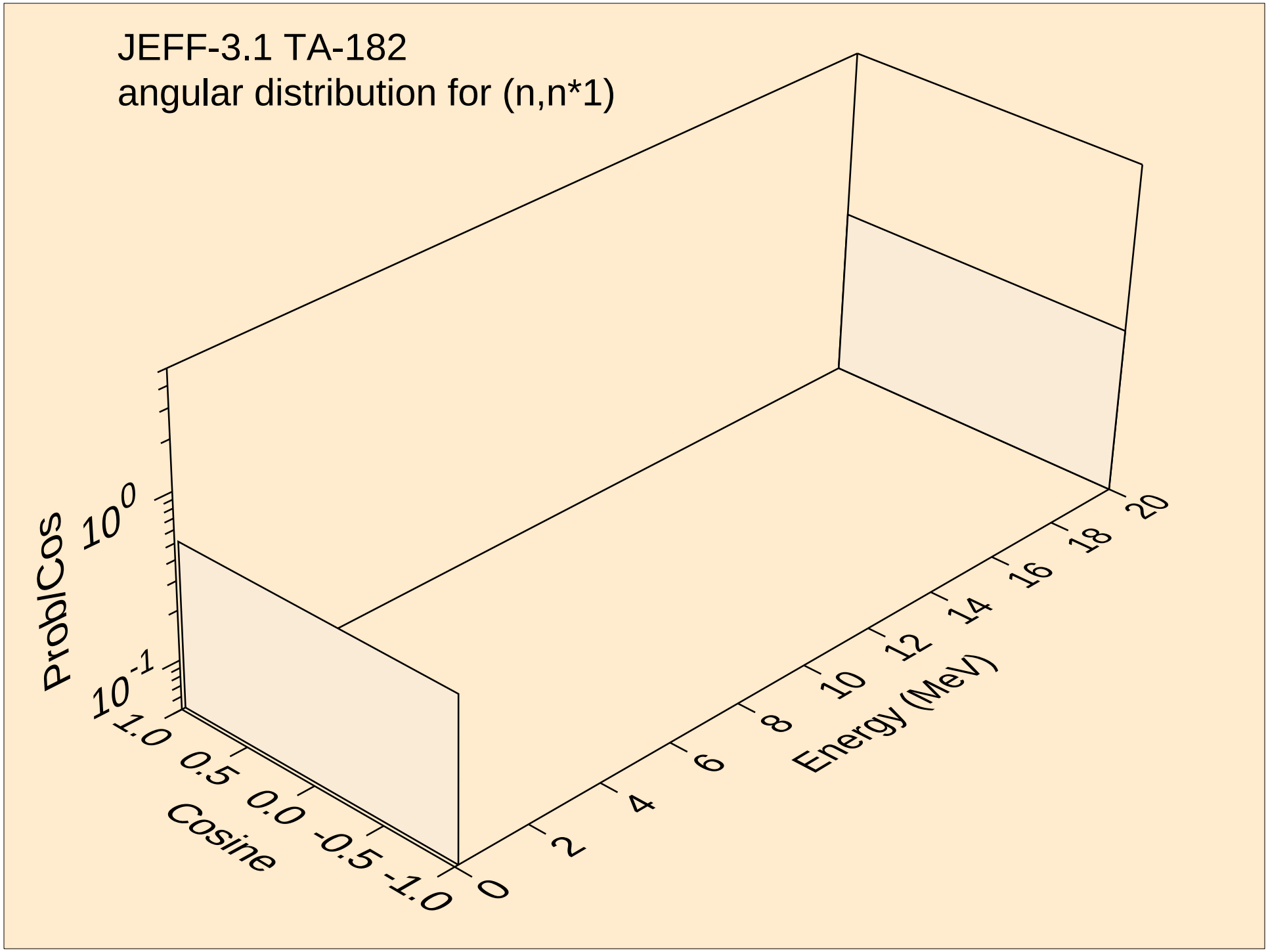

JEFF-3.1 TA-182
Threshold reactions
(n,2n)
(n,3n)
(n,n*c)
(n,a)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
2
4
6
8
10
12
14
16
18
20

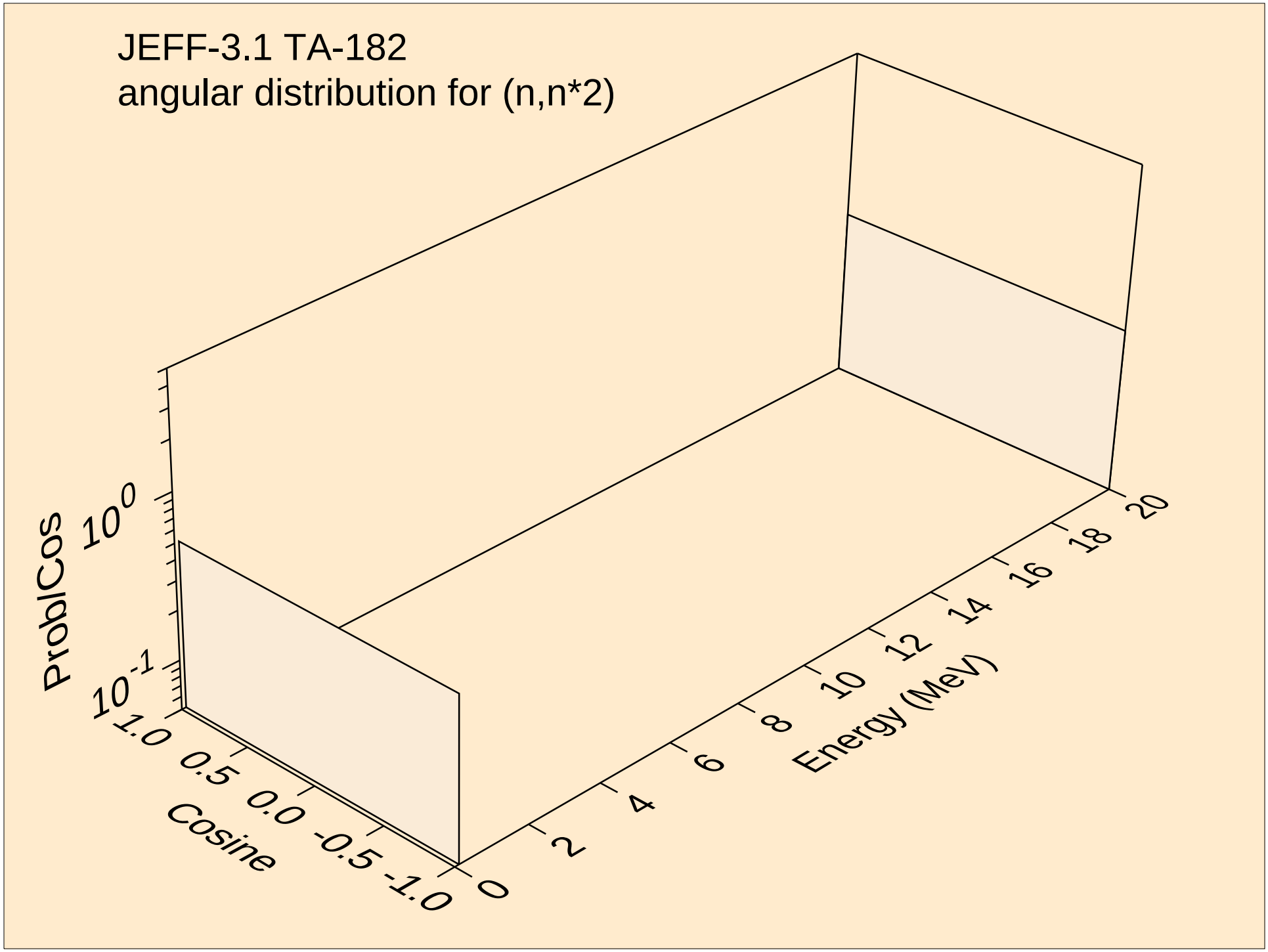

JEFF-3.1 TA-182
Threshold reactions
(n,xa)
Cross section (barns)
*10-3
10
8
6
4
2
0
10
12
14
16
18
20
Energy (MeV)

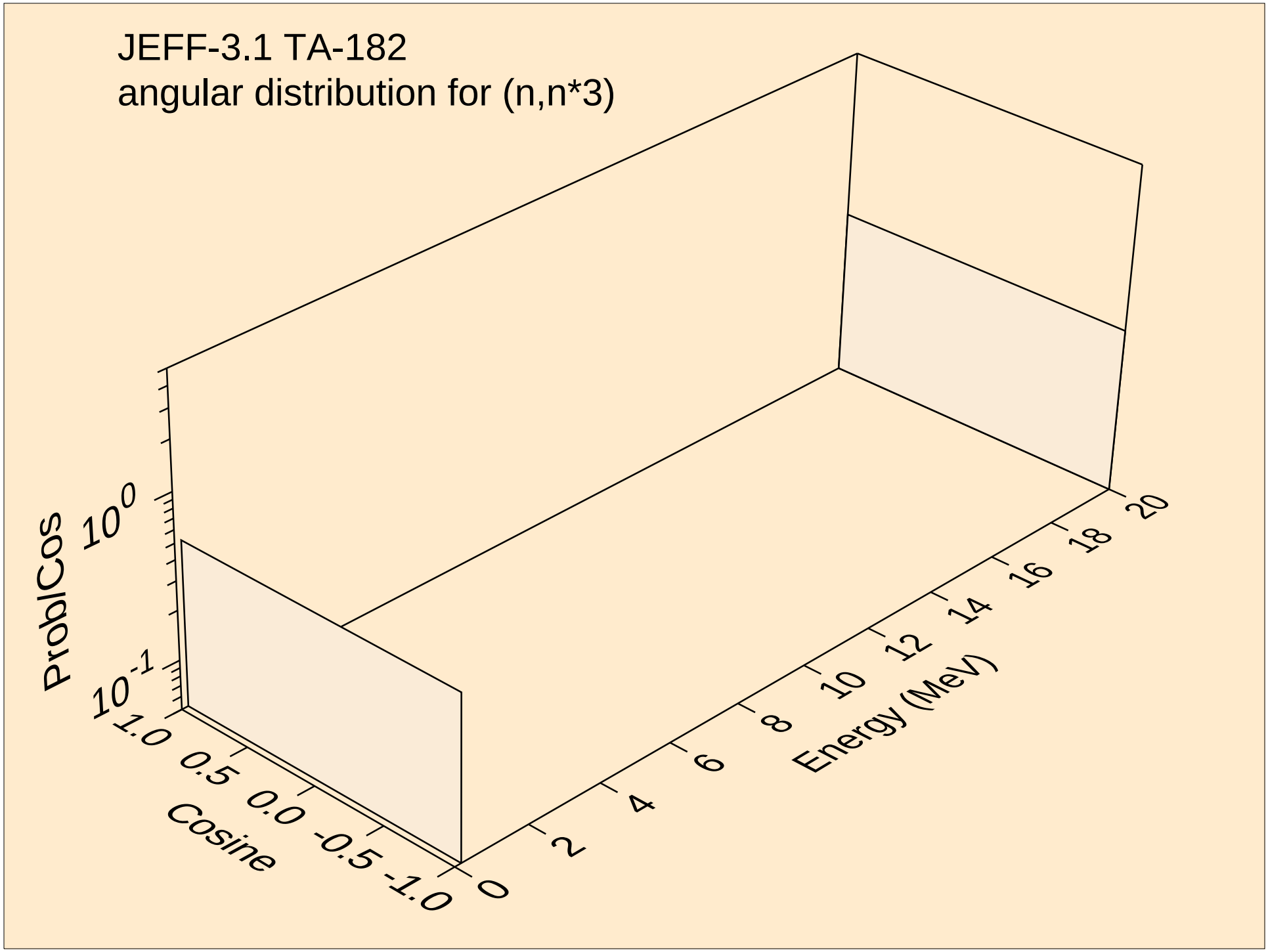

JEFF-3.1 TA-182
angular distribution for elastic
ProblCos
10^{1}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

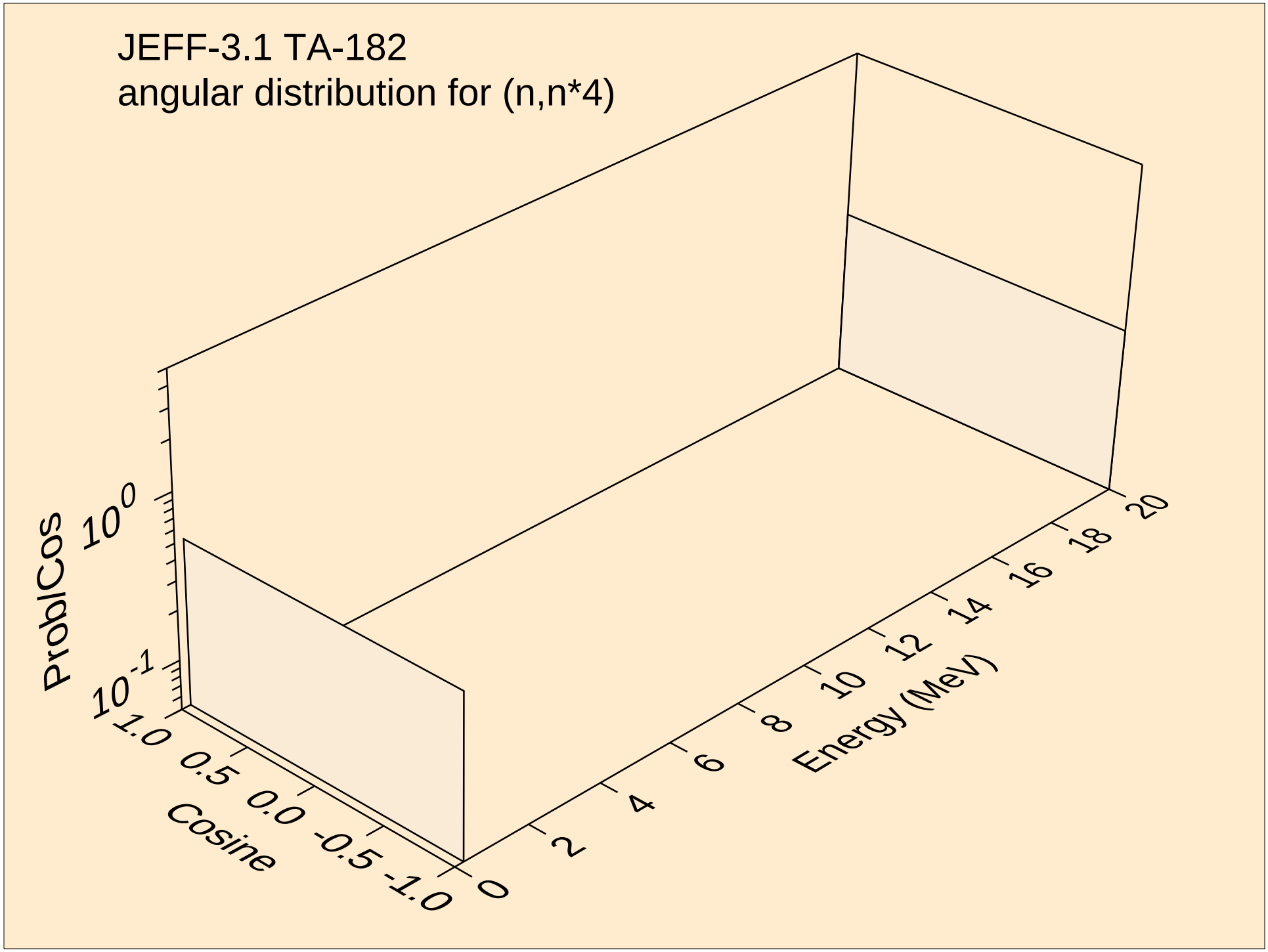

JEFF-3.1 TA-182
angular distribution for (n,2n)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
6
8
10
12
14
16
18
20
Energy (MeV)

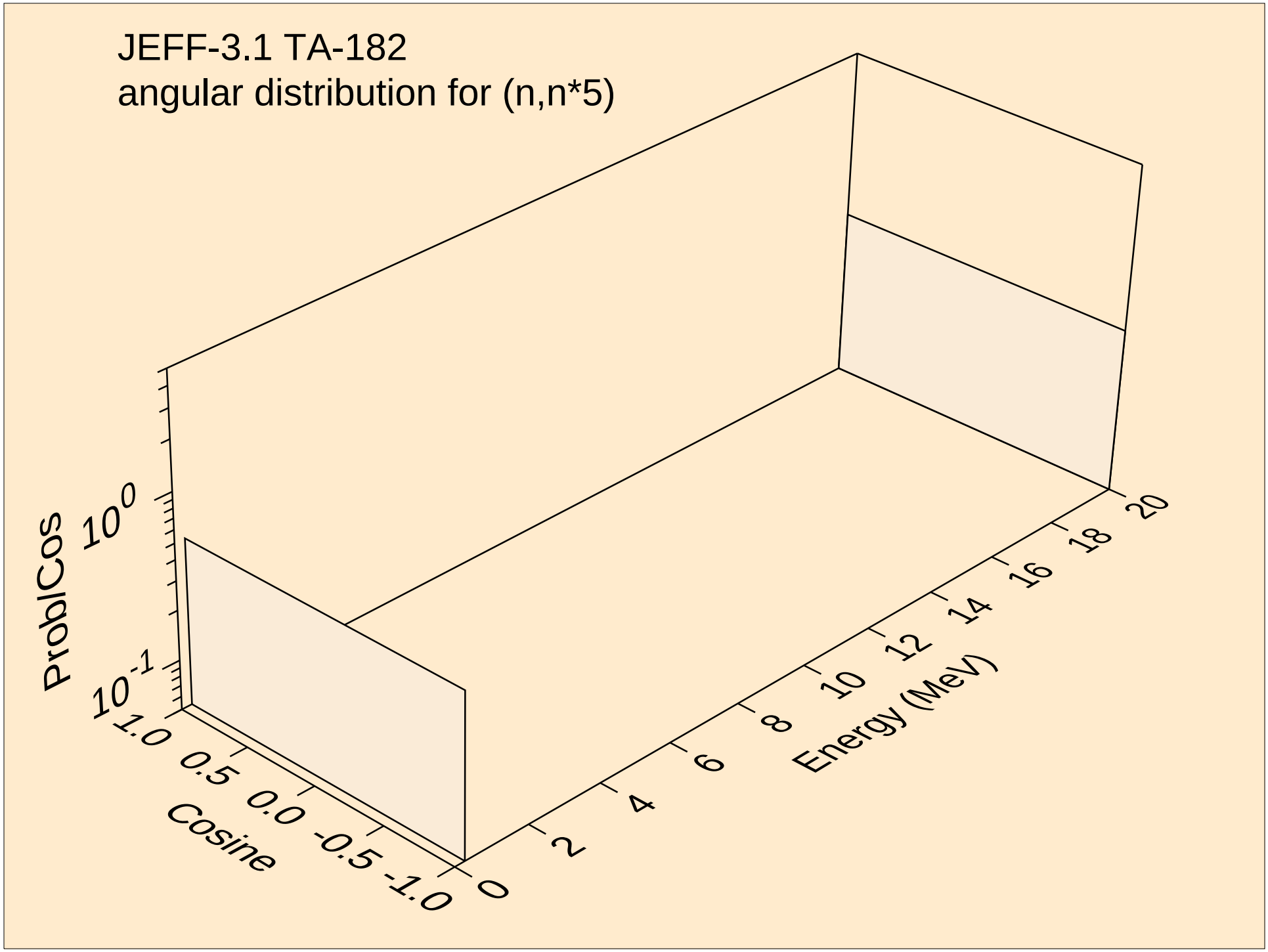

JEFF-3.1 TA-182
angular distribution for (n,3n)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
13
14
15
16
17
18
19
20
Energy (MeV)

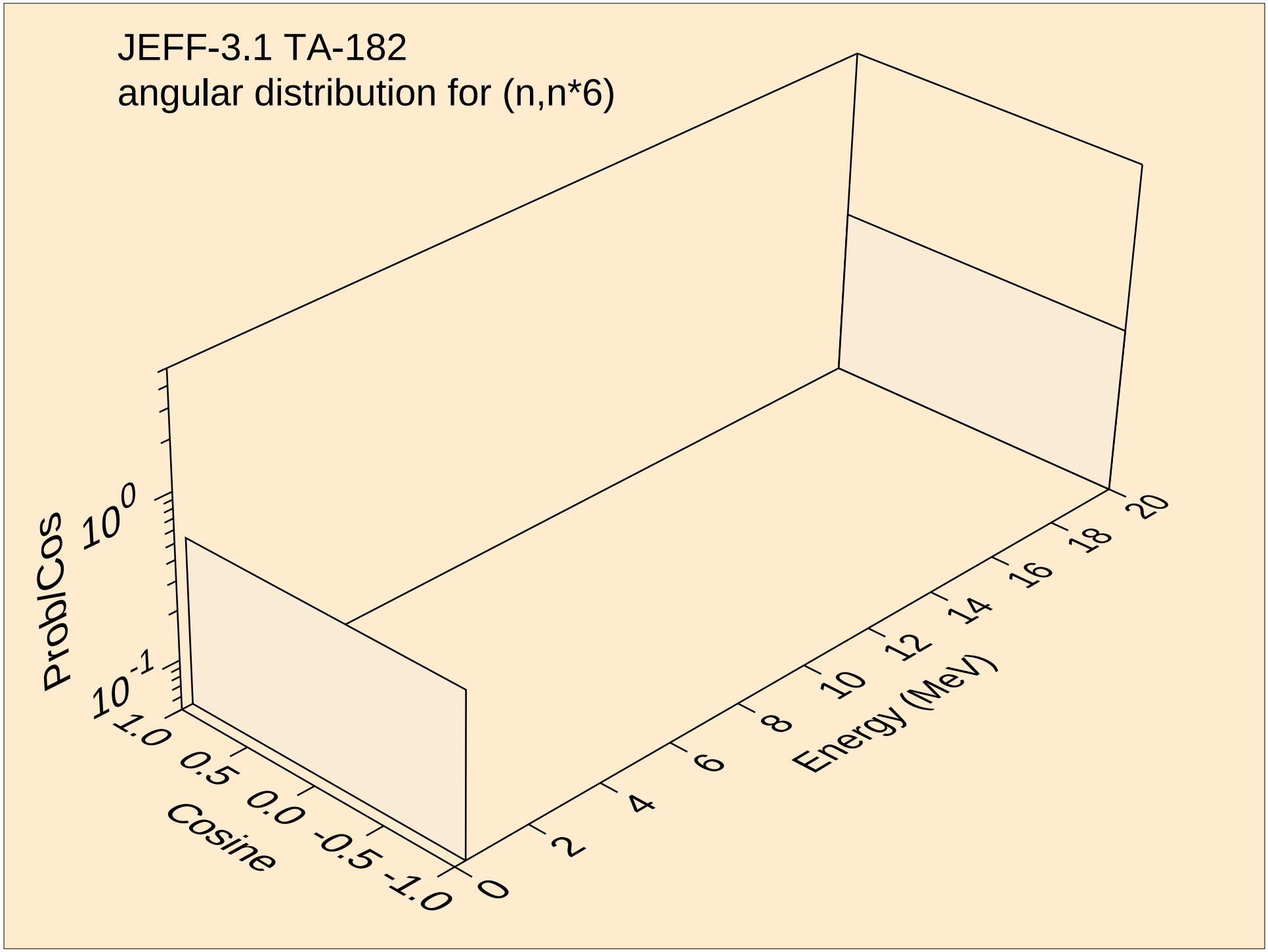

JEFF-3.1 TA-182
angular distribution for (n,n*1)
ProblCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

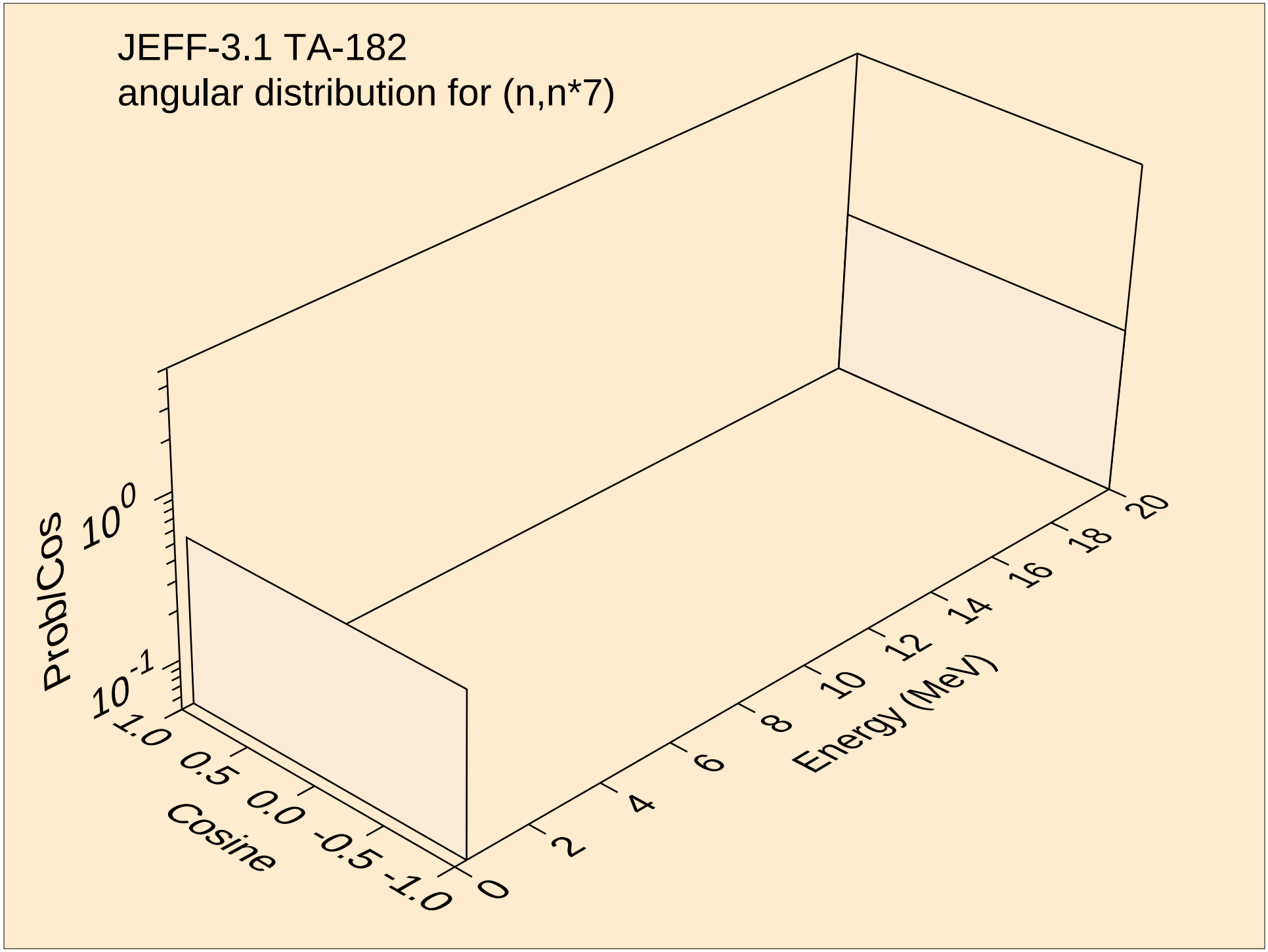

JEFF-3.1 TA-182
angular distribution for (n,n*2)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

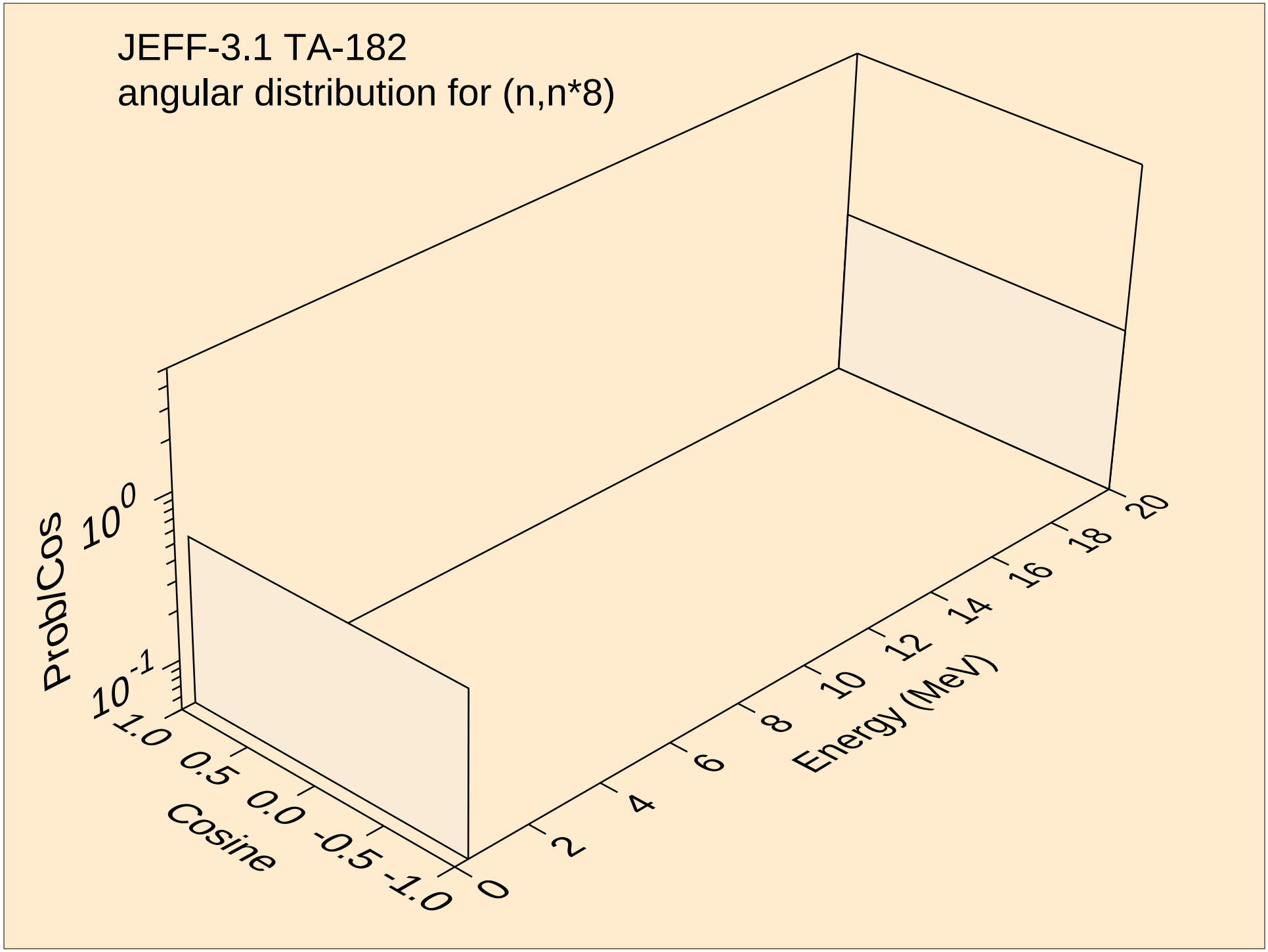

JEFF-3.1 TA-182
angular distribution for (n,n*3)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

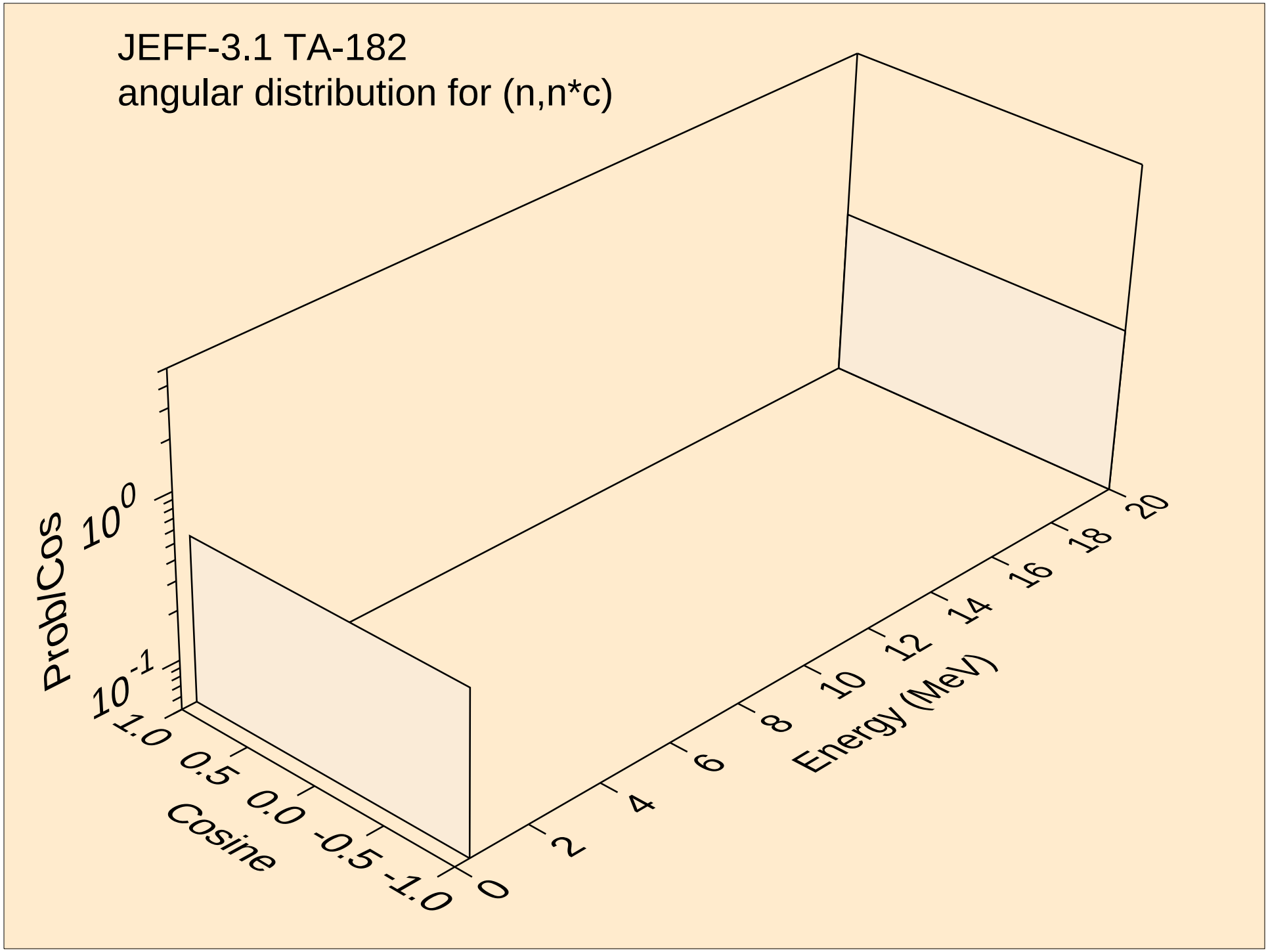

JEFF-3.1 TA-182
angular distribution for (n,n*4)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


JEFF-3.1 TA-182
angular distribution for (n,n*5)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


JEFF-3.1 TA-182
angular distribution for (n,n*6)
ProblCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


JEFF-3.1 TA-182
angular distribution for (n,n*7)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


JEFF-3.1 TA-182
angular distribution for (n,n*8)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)


JEFF-3.1 TA-182
angular distribution for (n,n*c)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)