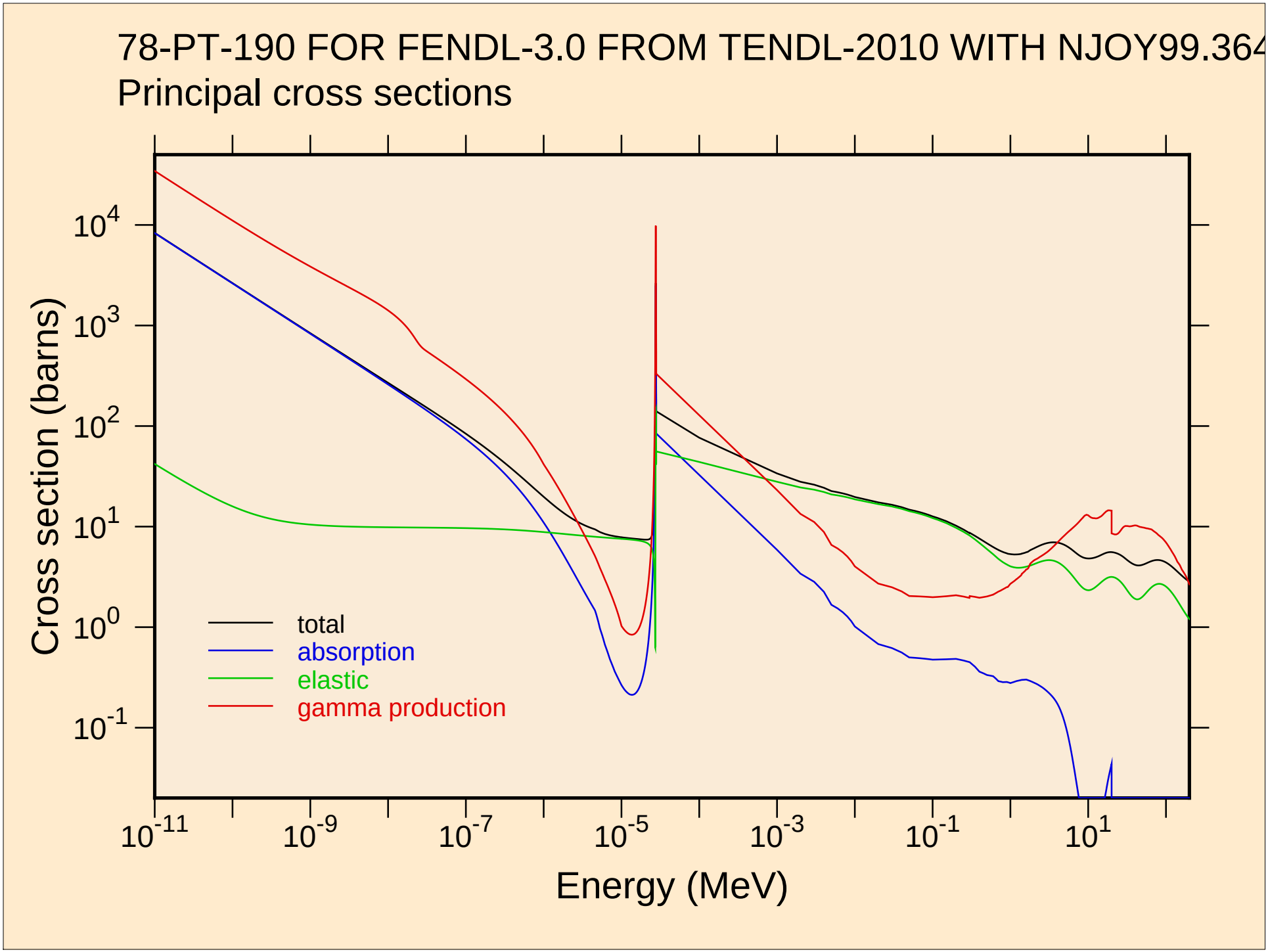
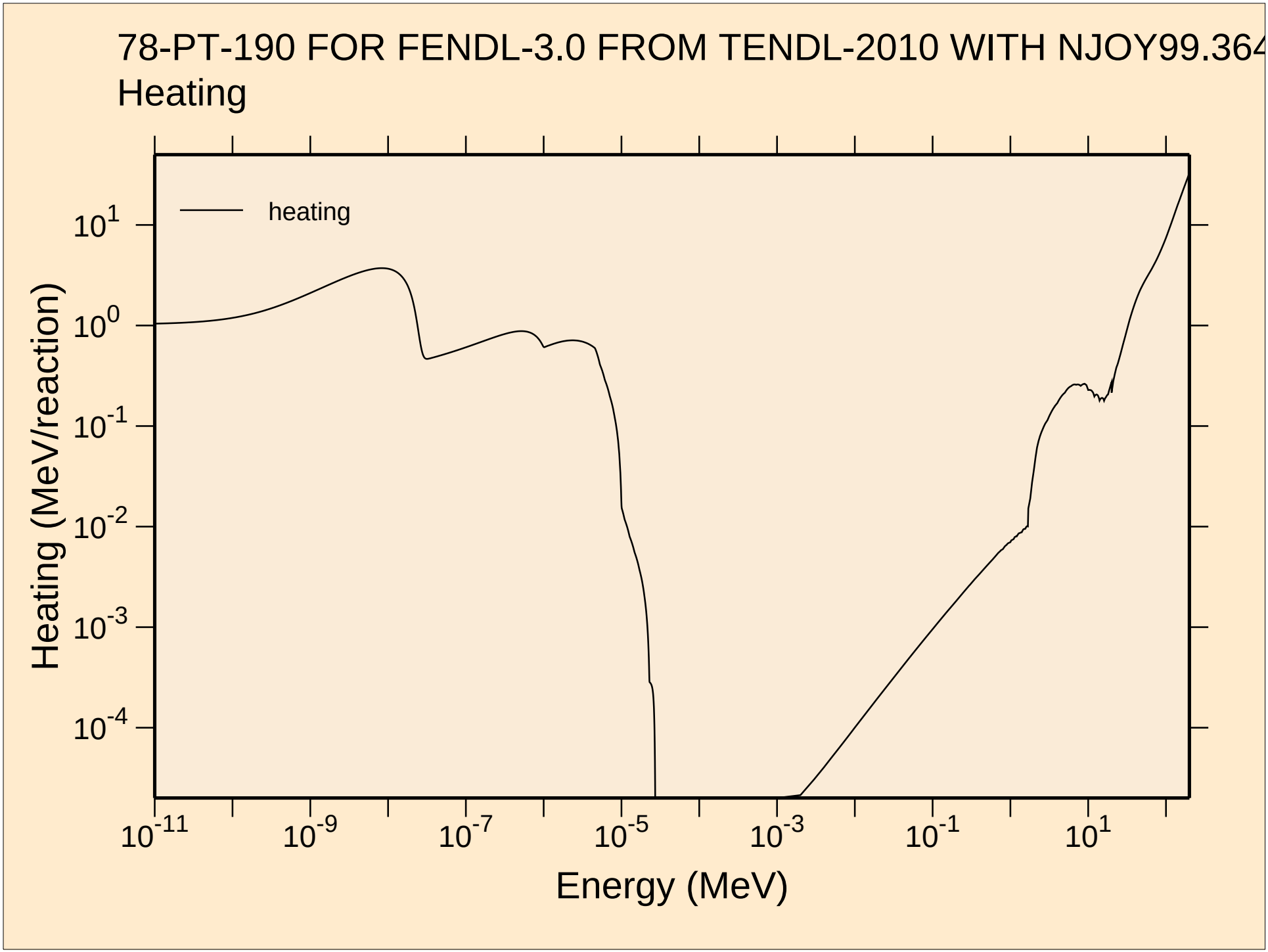
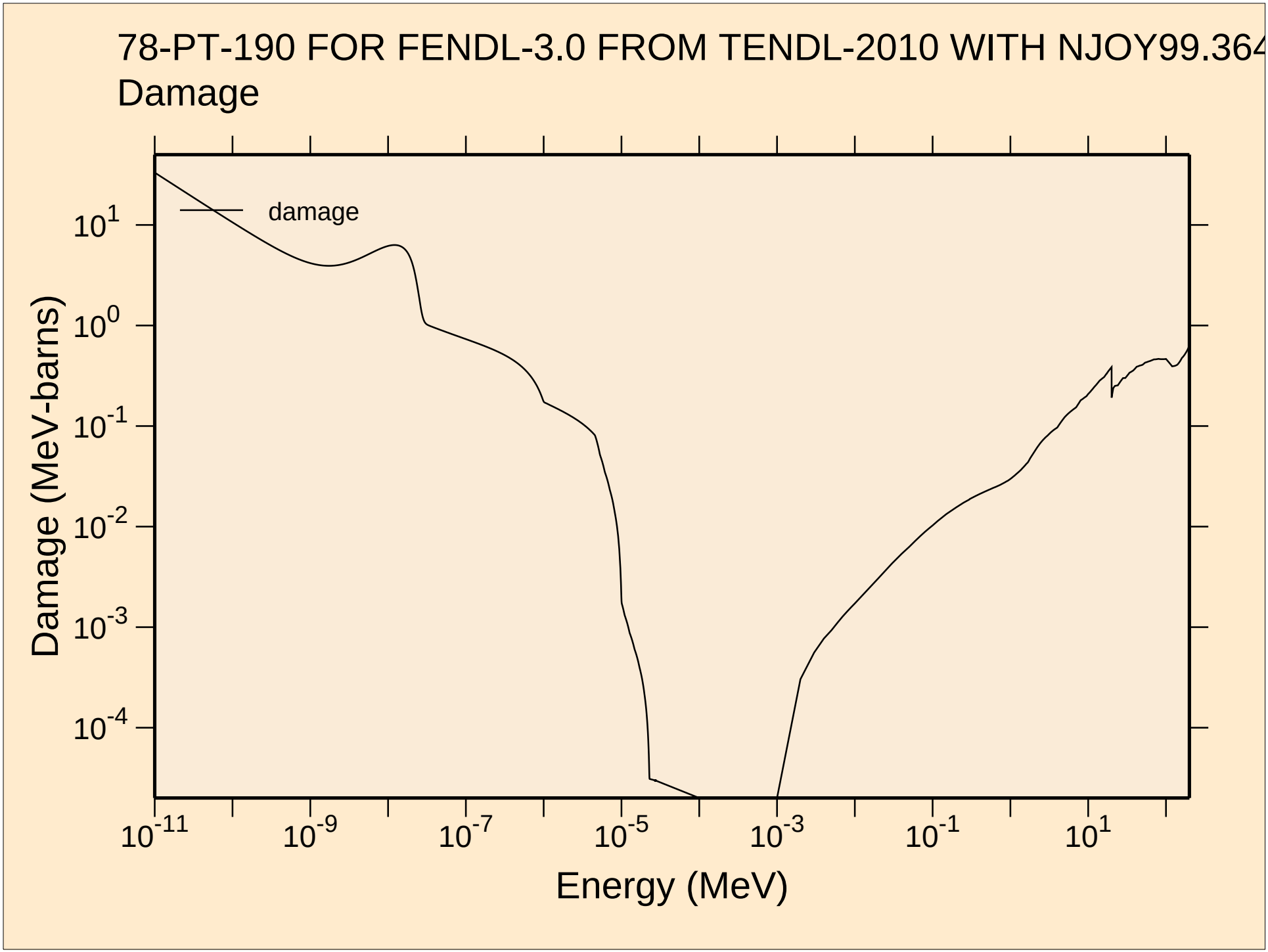
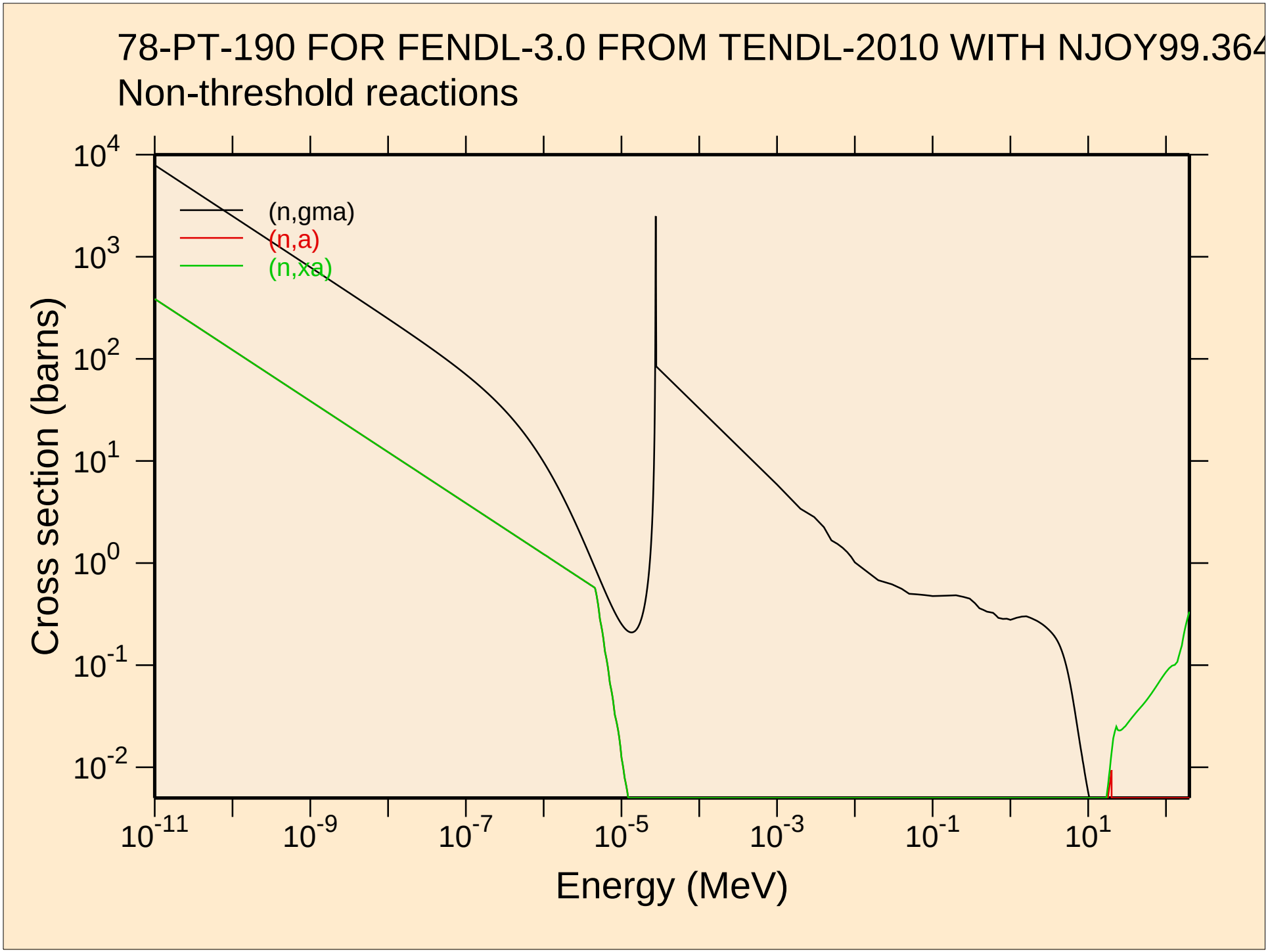
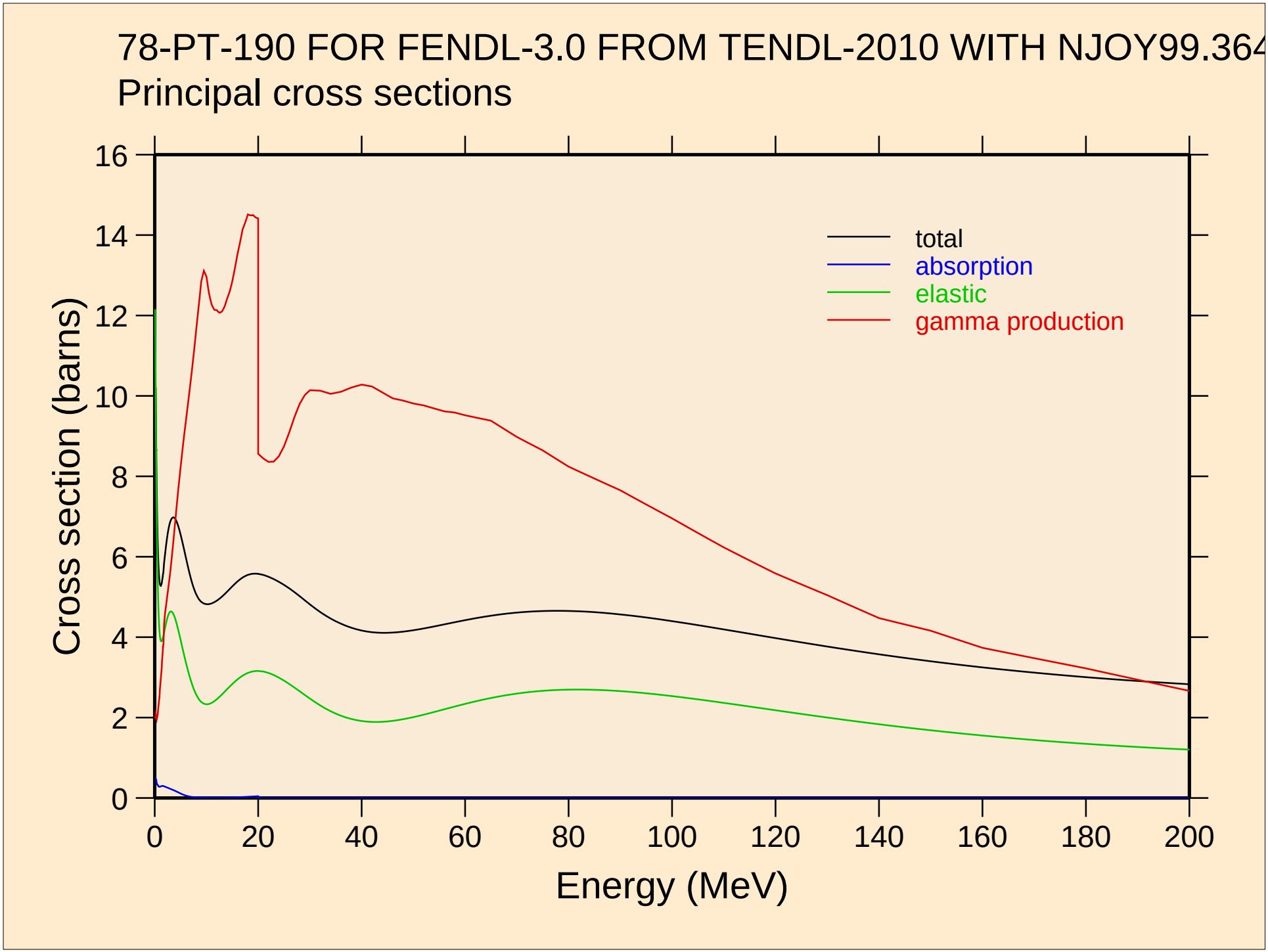
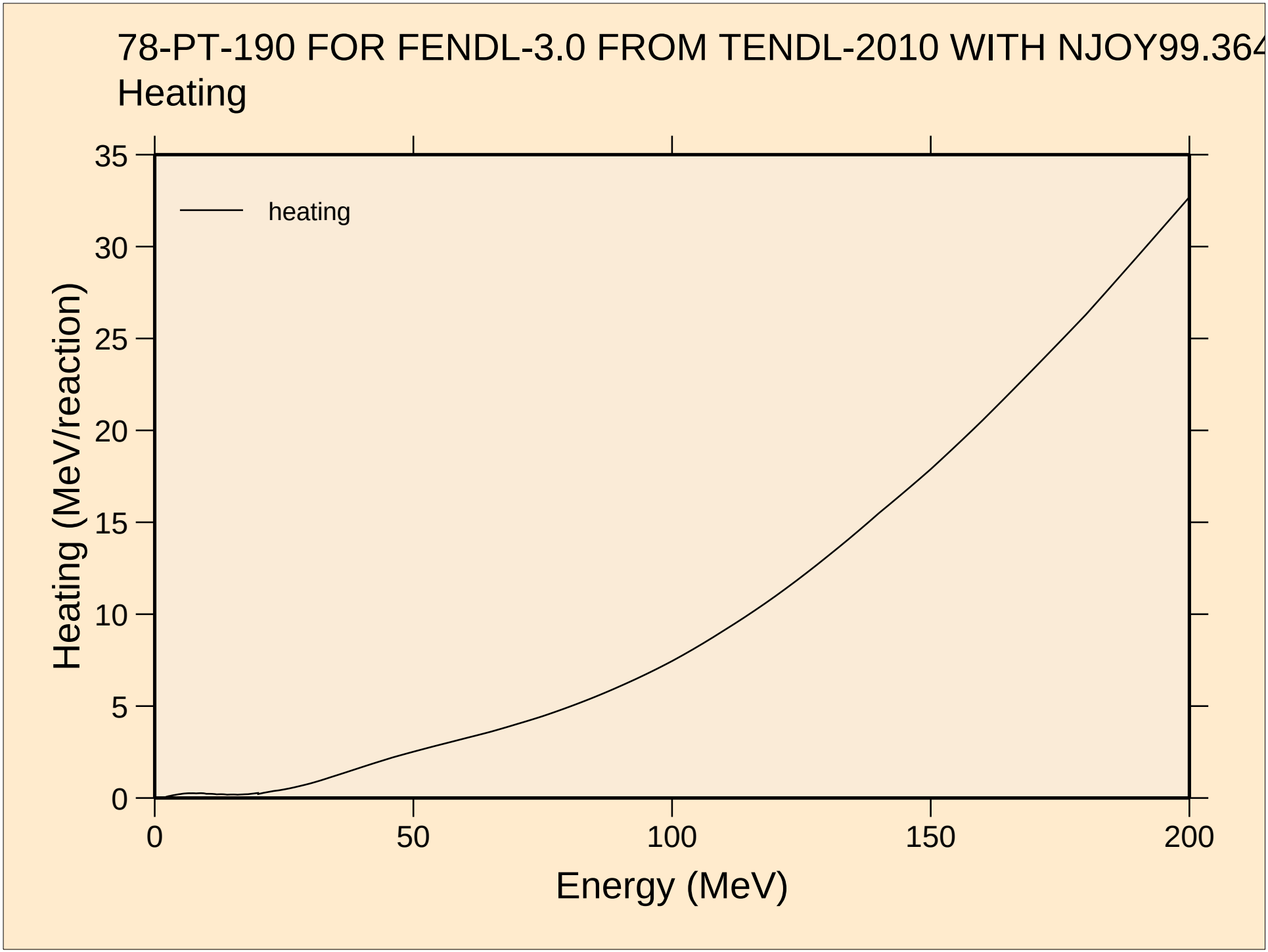

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Principal cross sections
Cross section (barns)
10^{4}
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
total
absorption
elastic
gamma production
10^{-11}
10^{-9}
10^{-7}
10^{-5}
10^{-3}
10^{-1}
10^{1}
Energy (MeV)

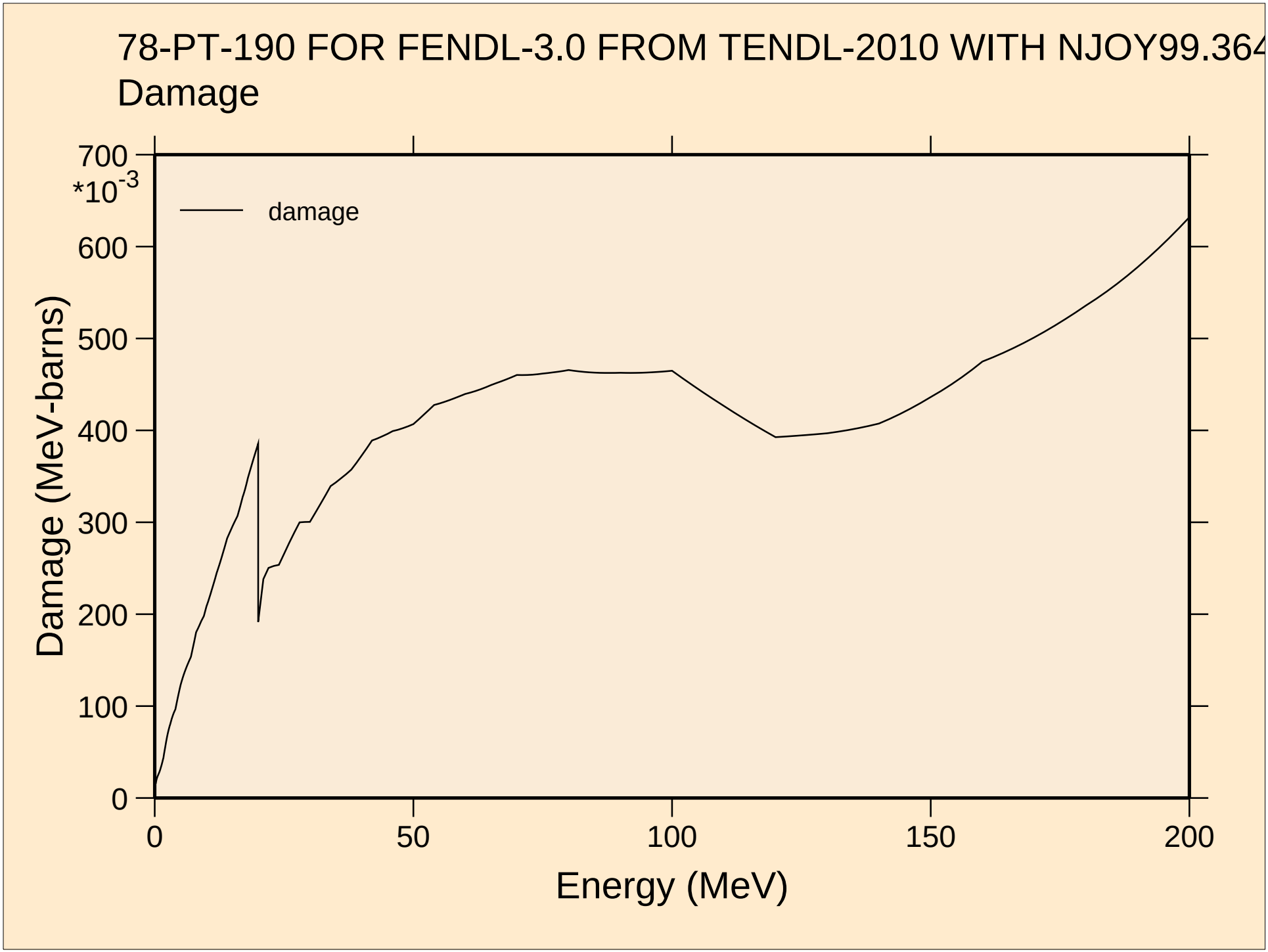

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Heating
heating
Heating (MeV/reaction)
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-11}
10^{-9}
10^{-7}
10^{-5}
10^{-3}
10^{-1}
10^{1}
Energy (MeV)

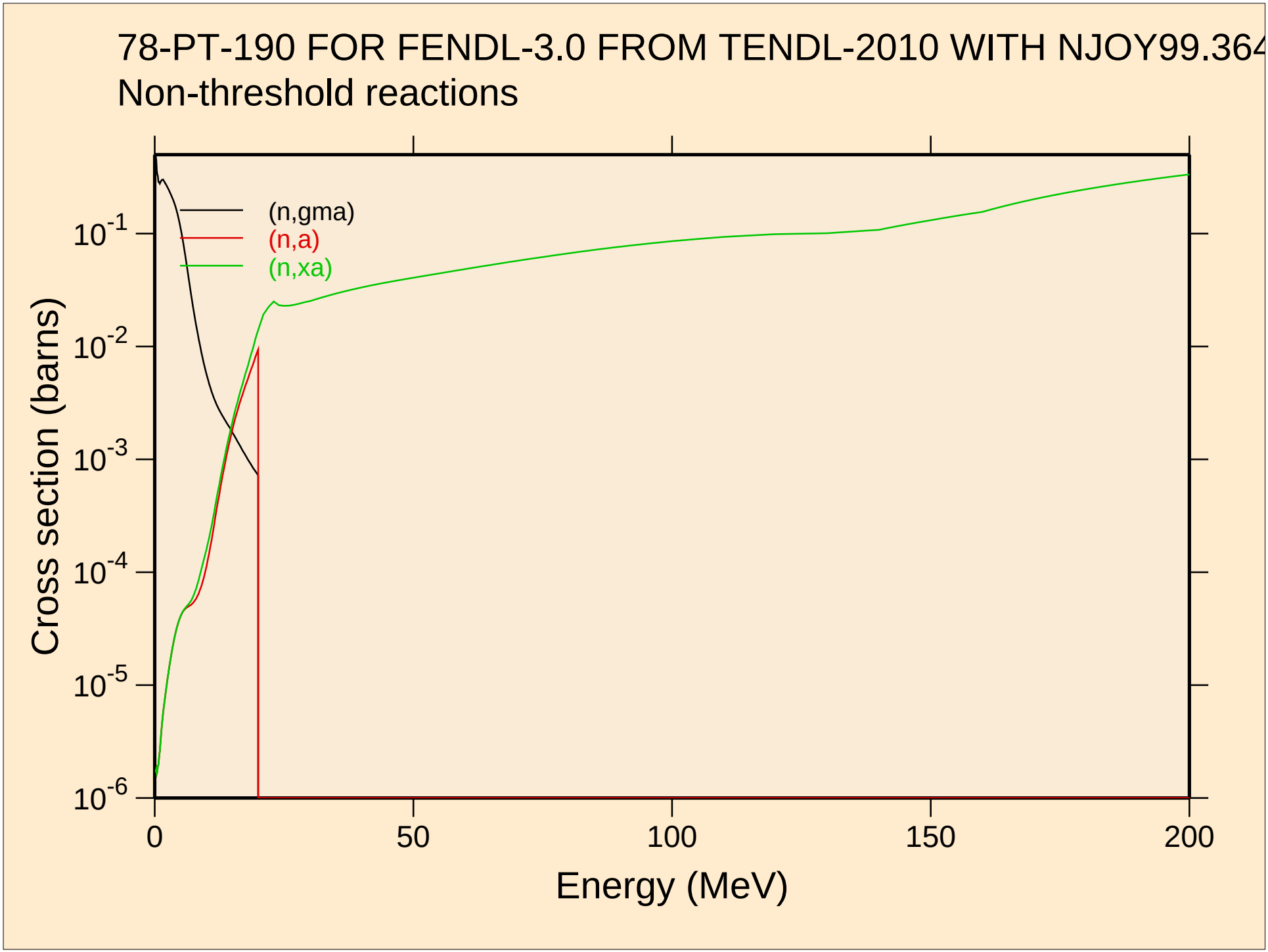

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Damage
damage
Damage (MeV-barns)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1
Energy (MeV)

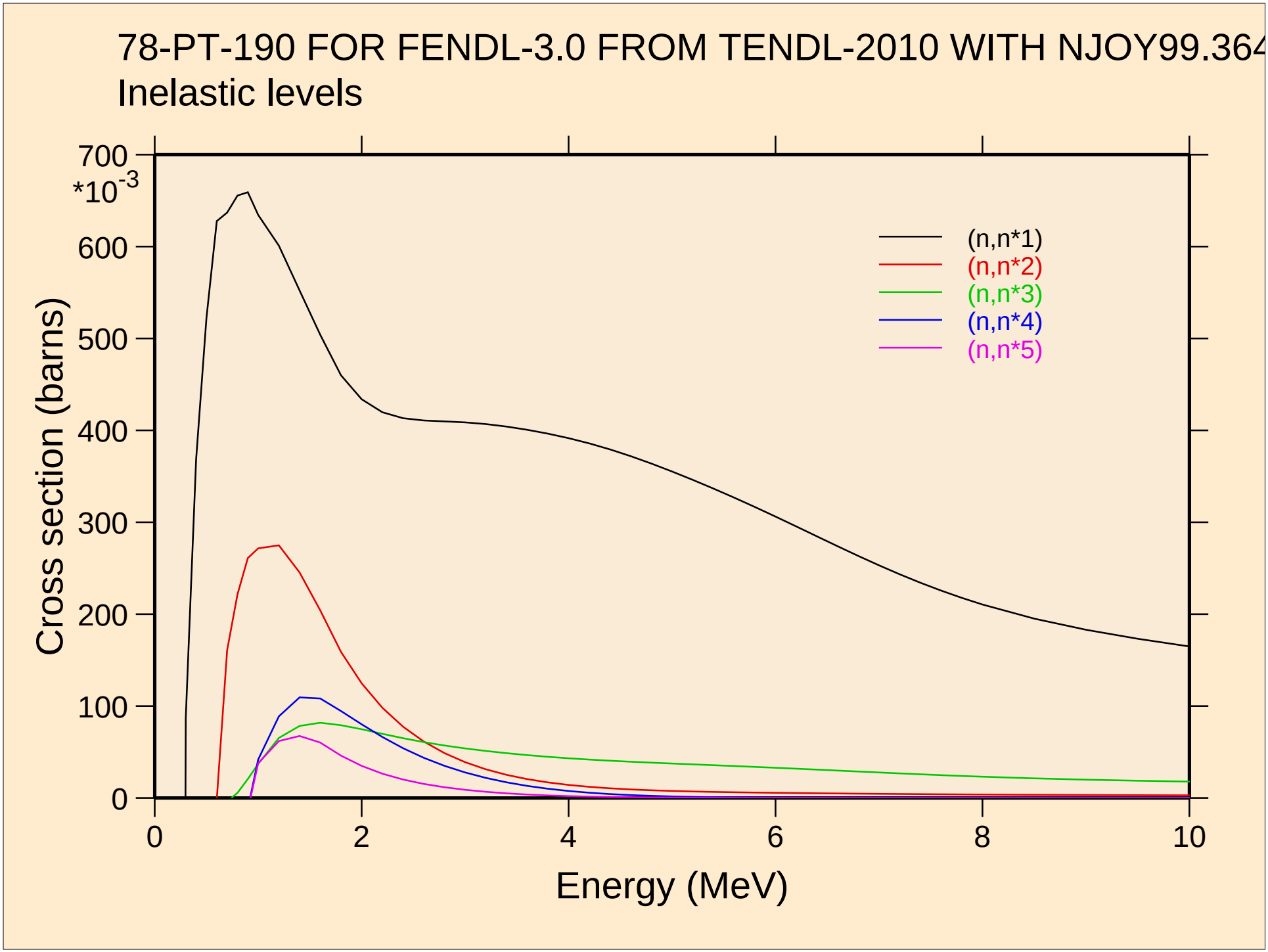

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Non-threshold reactions
(n,gma)
(n,a)
(n,xa)
Cross section (barns)
Energy (MeV)
10^4
10^3
10^2
10^1
10^0
10^-1
10^-2
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1

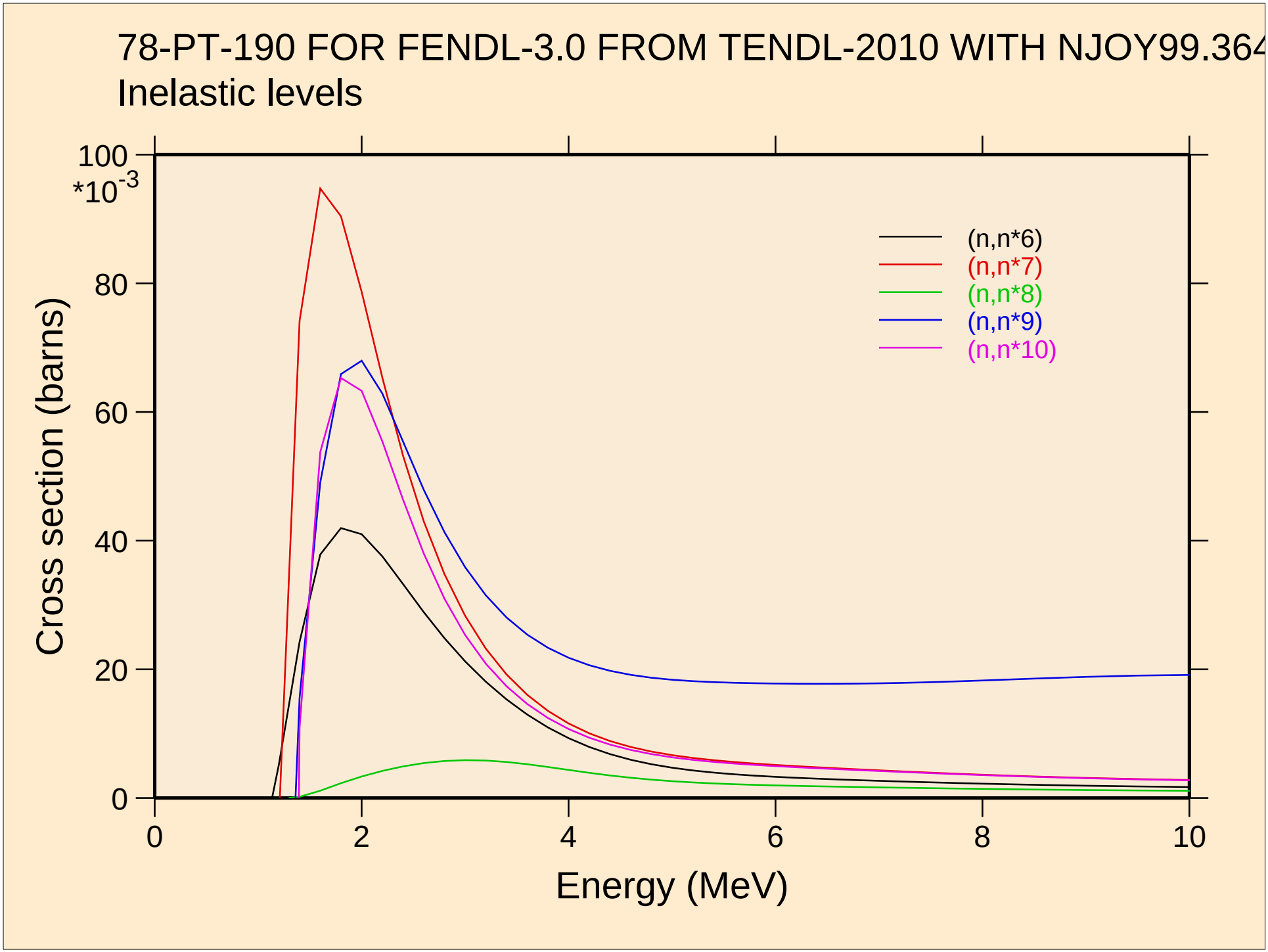

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Principal cross sections
Cross section (barns)
Energy (MeV)
0
2
4
6
8
10
12
14
16
0
20
40
60
80
100
120
140
160
180
200
total
absorption
elastic
gamma production

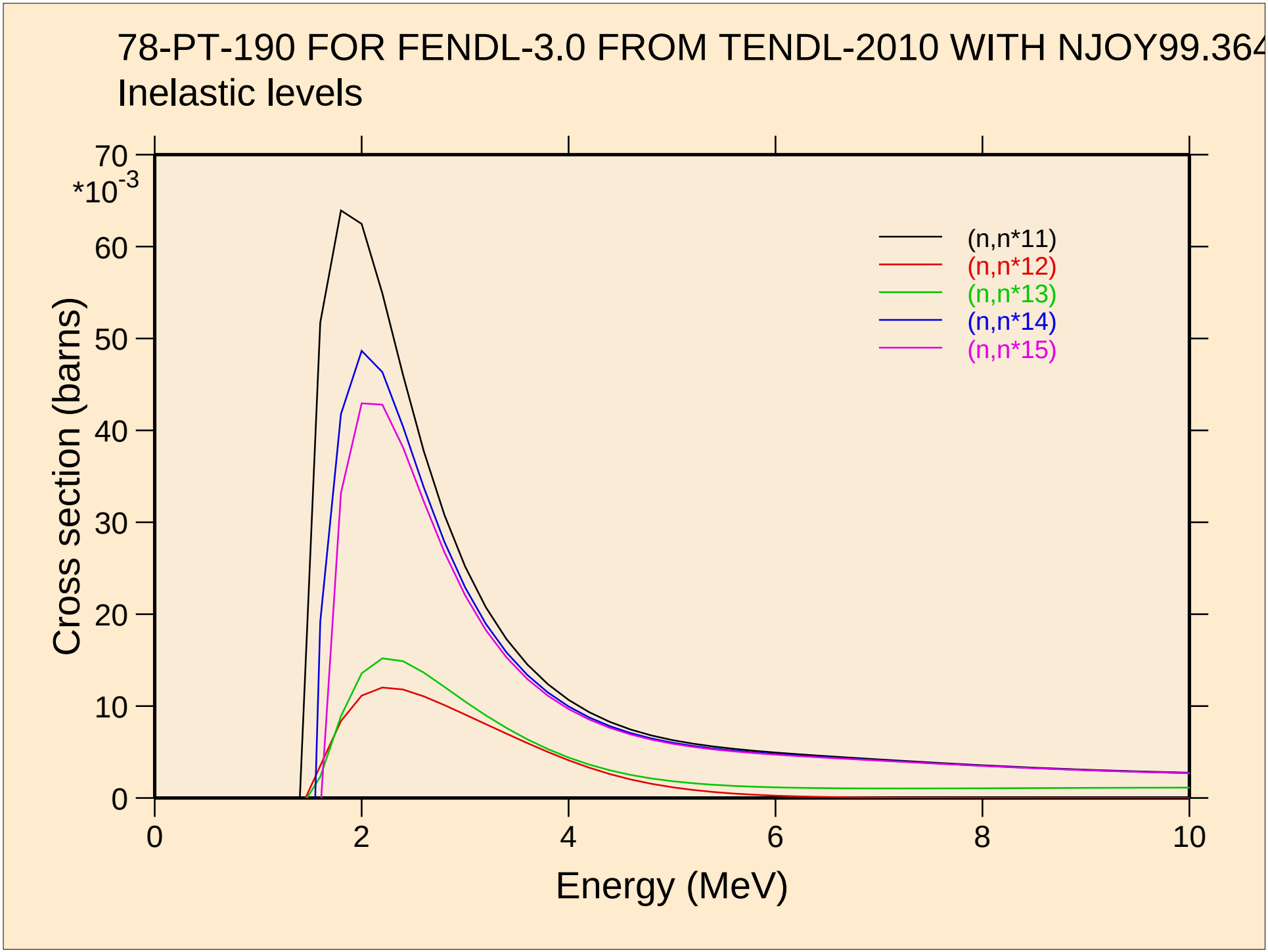

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
5
10
15
20
25
30
35
0
50
100
150
200

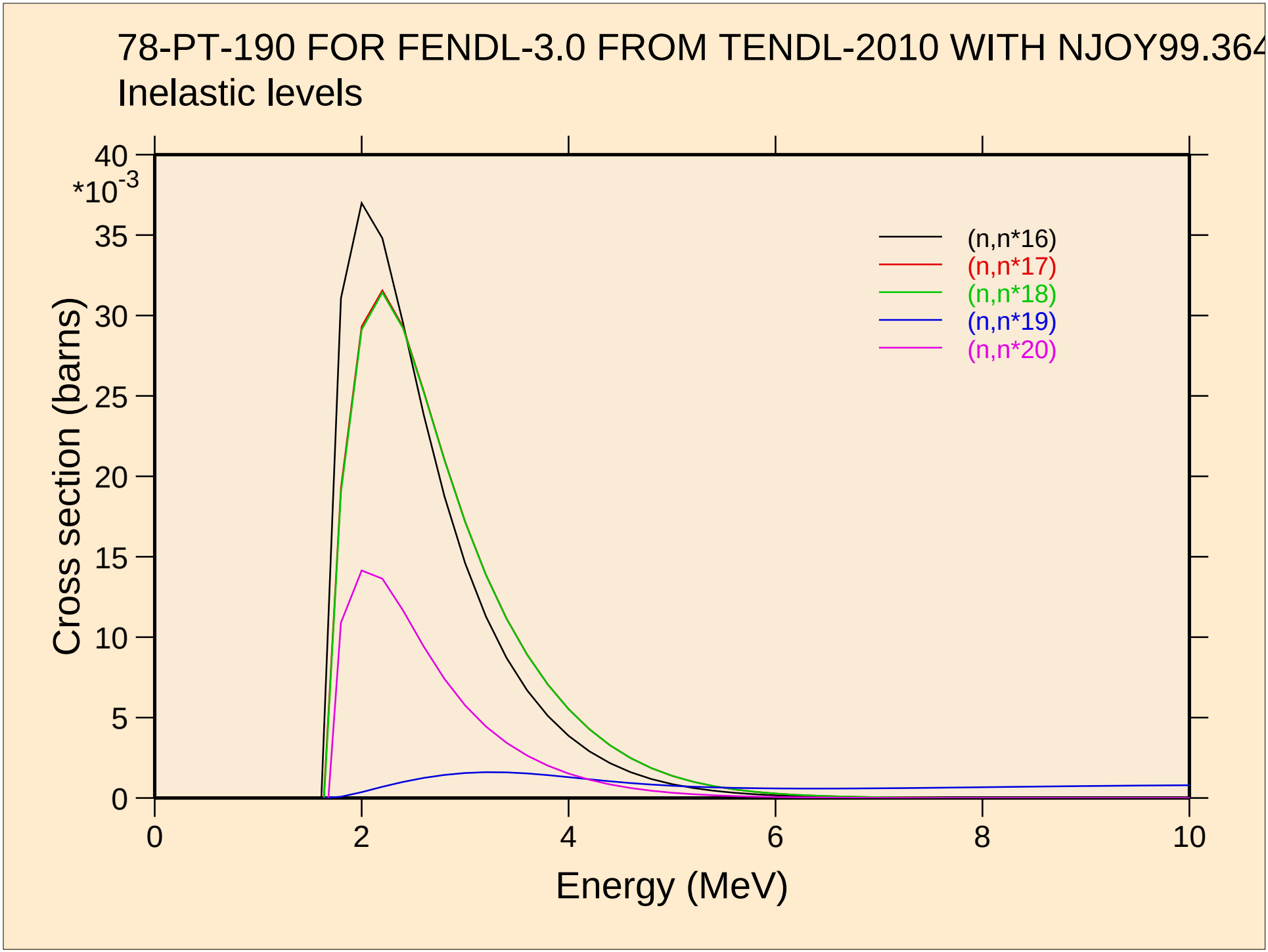

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Damage
700
*10-3
600
500
400
300
200
100
0
damage
Damage (MeV-barns)
0
50
100
150
200
Energy (MeV)

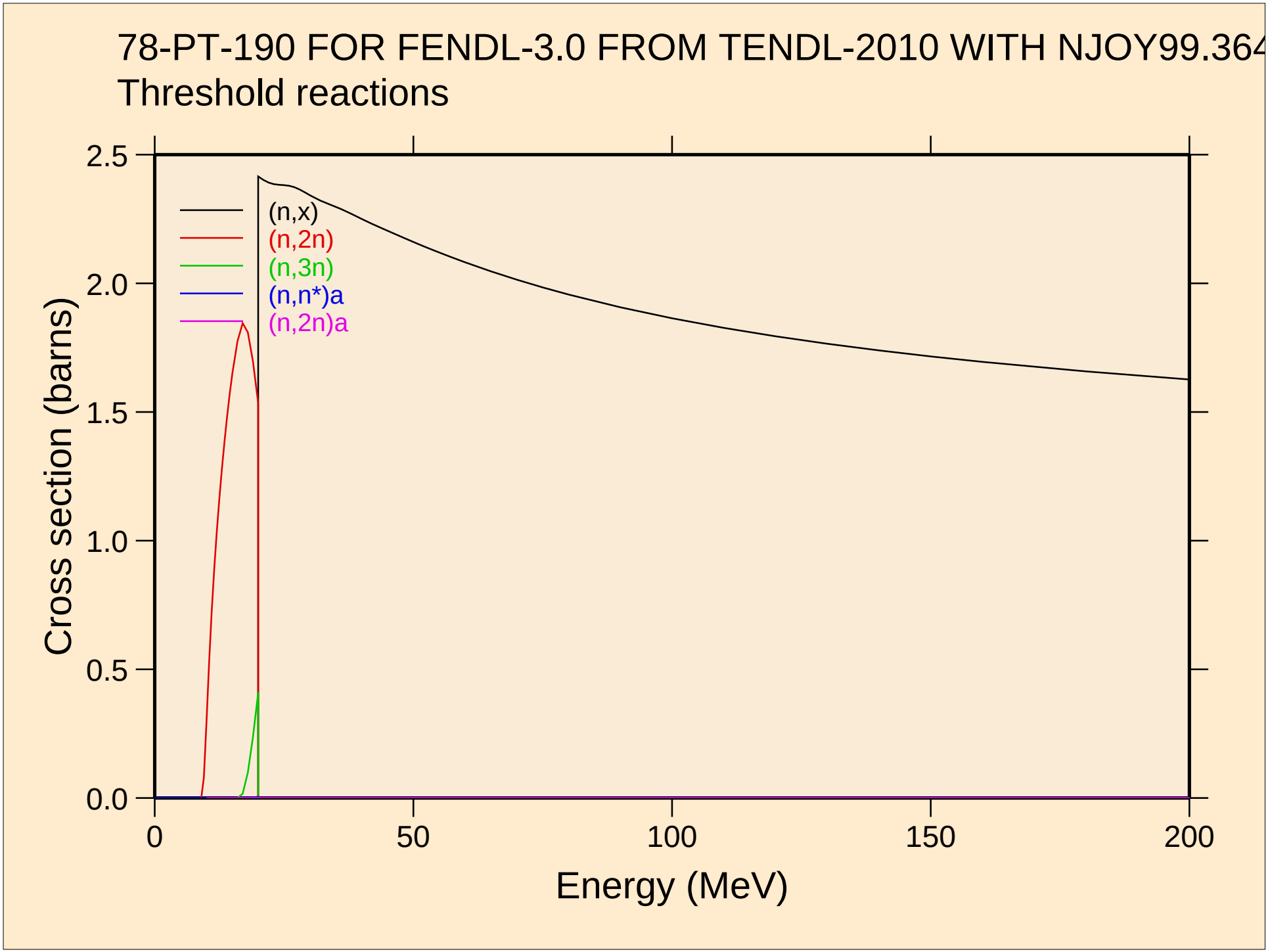

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Non-threshold reactions
(n,gma)
(n,a)
(n,xa)
Cross section (barns)
10-1
10-2
10-3
10-4
10-5
10-6
0
50
100
150
200
Energy (MeV)

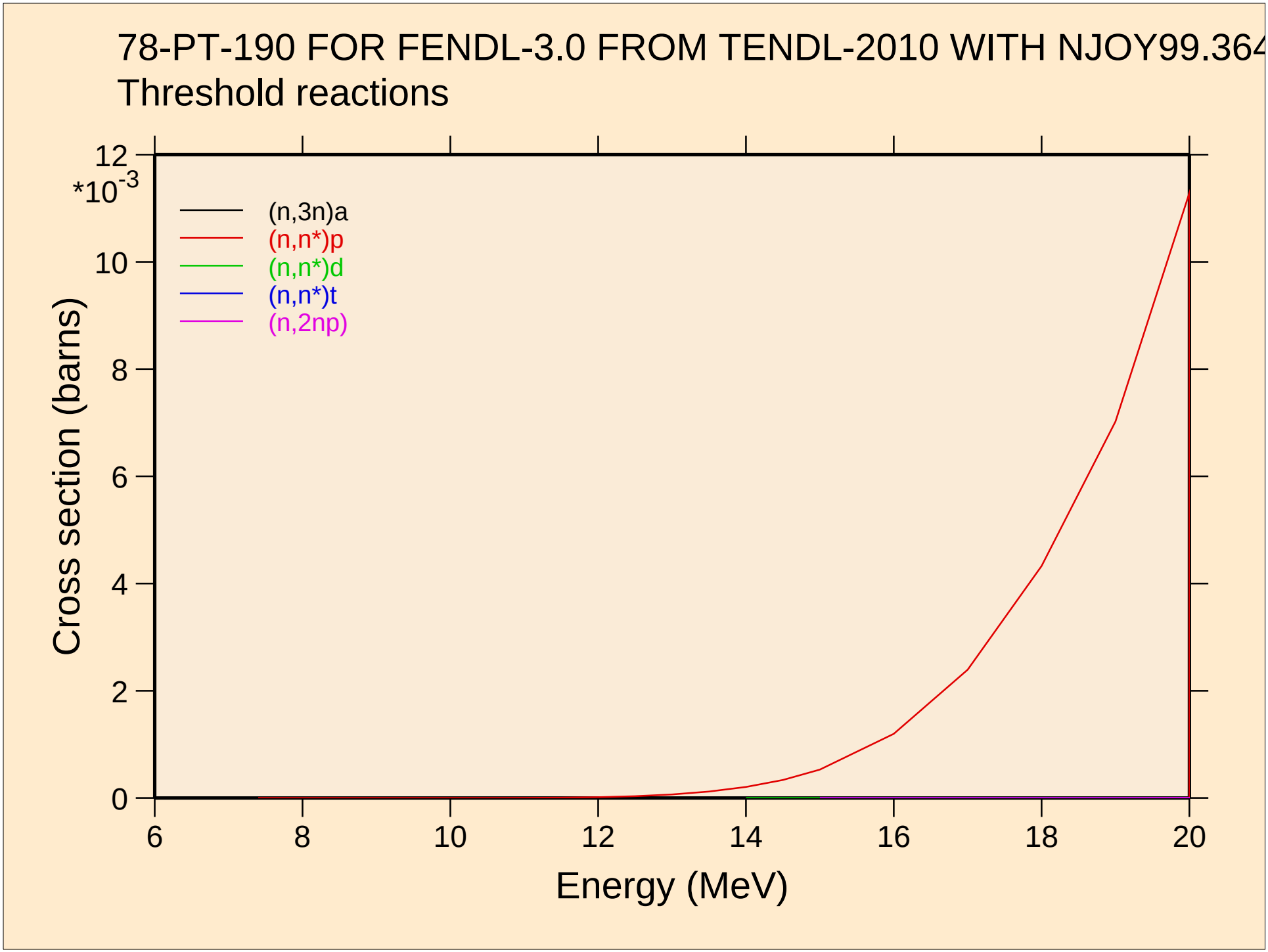

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Inelastic levels
Cross section (barns)
*10-3
700
600
500
400
300
200
100
0
0
2
4
6
8
10
Energy (MeV)
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

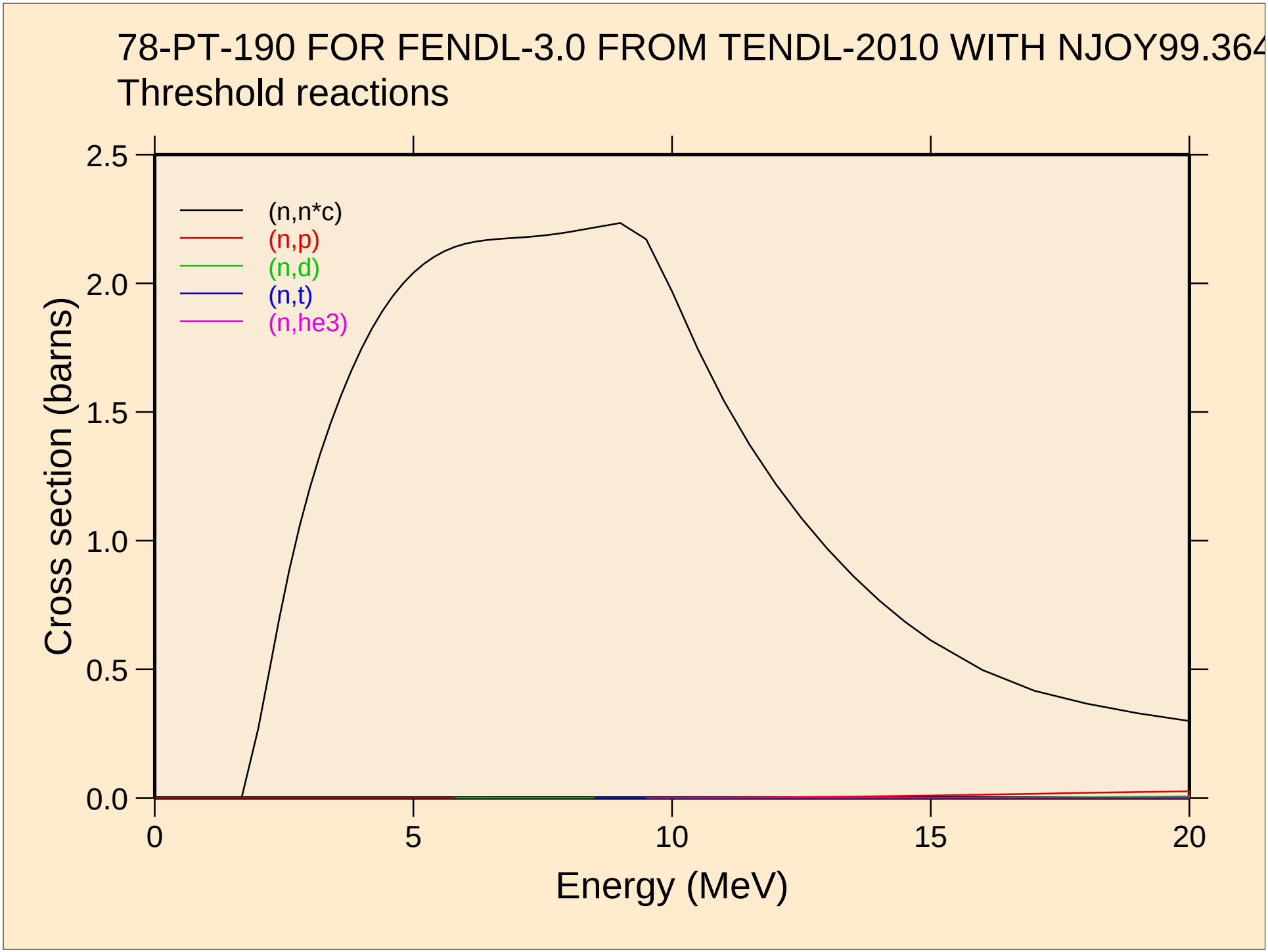

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Inelastic levels
100
*10-3
80
60
40
20
0
Cross section (barns)
0
2
4
6
8
10
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

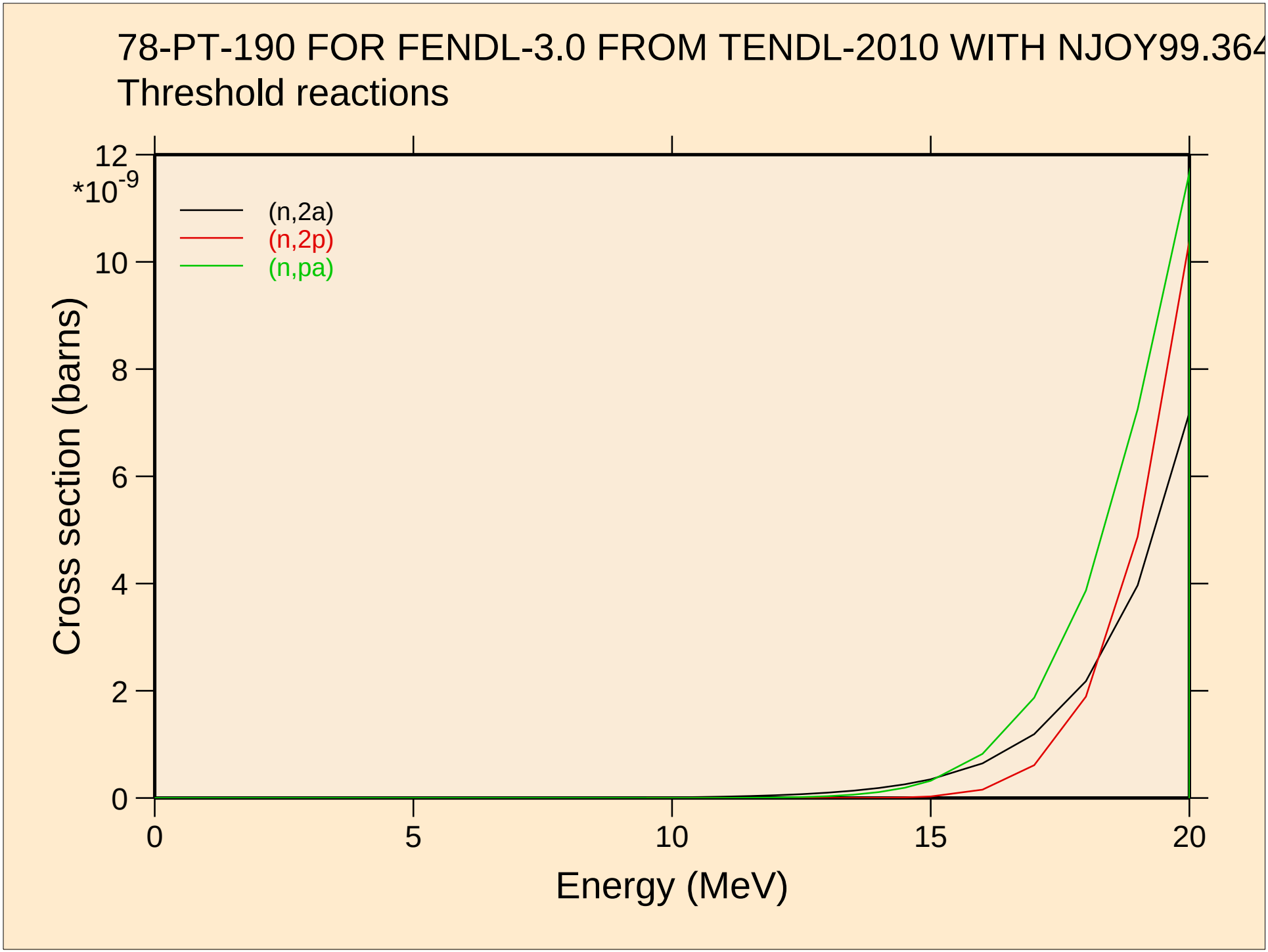

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Inelastic levels
Cross section (barns)
*10-3
70
60
50
40
30
20
10
0
0
2
4
6
8
10
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

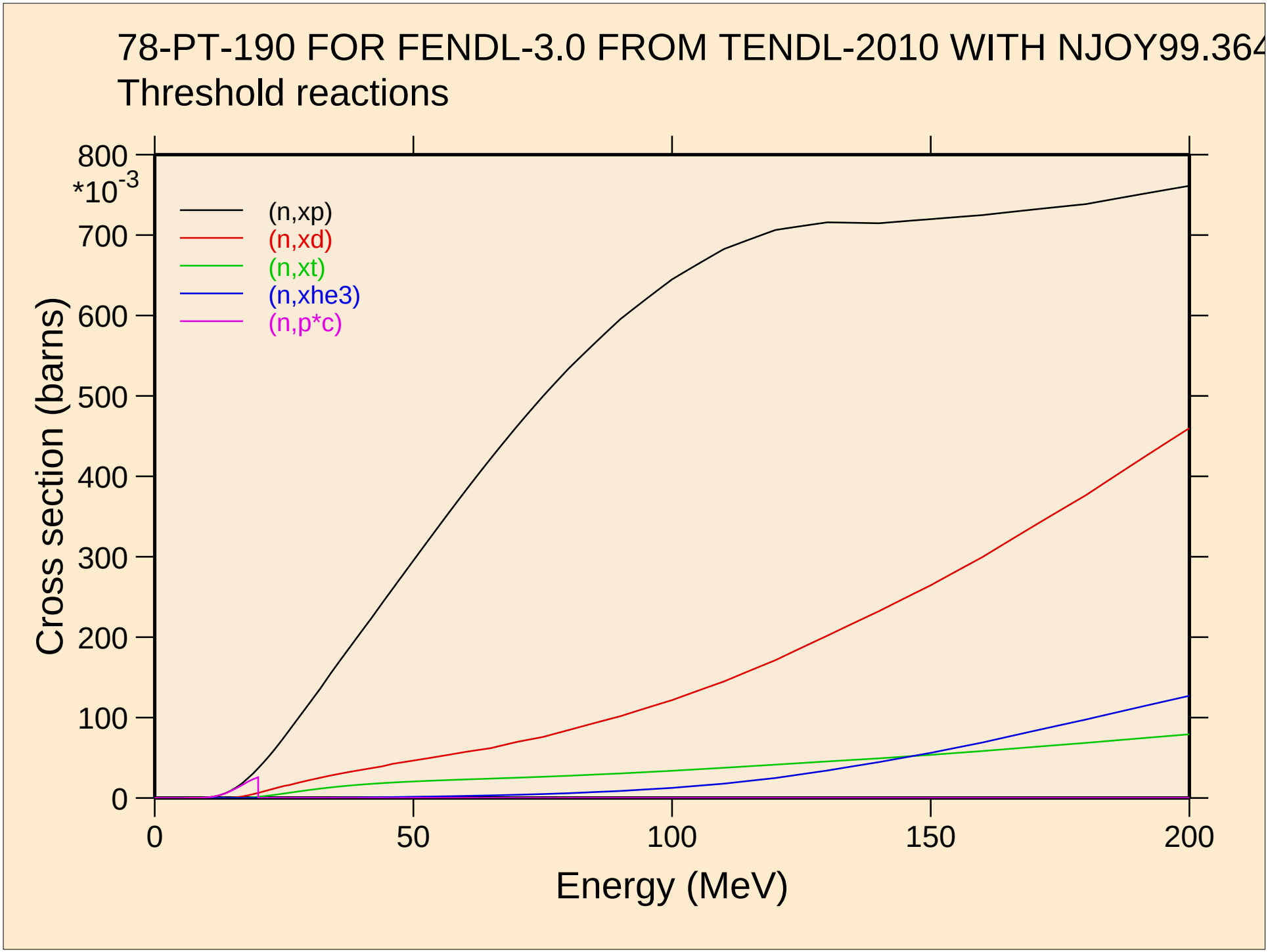

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Inelastic levels
Cross section (barns)
*10-3
40
35
30
25
20
15
10
5
0
0
2
4
6
8
10
Energy (MeV)
(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)

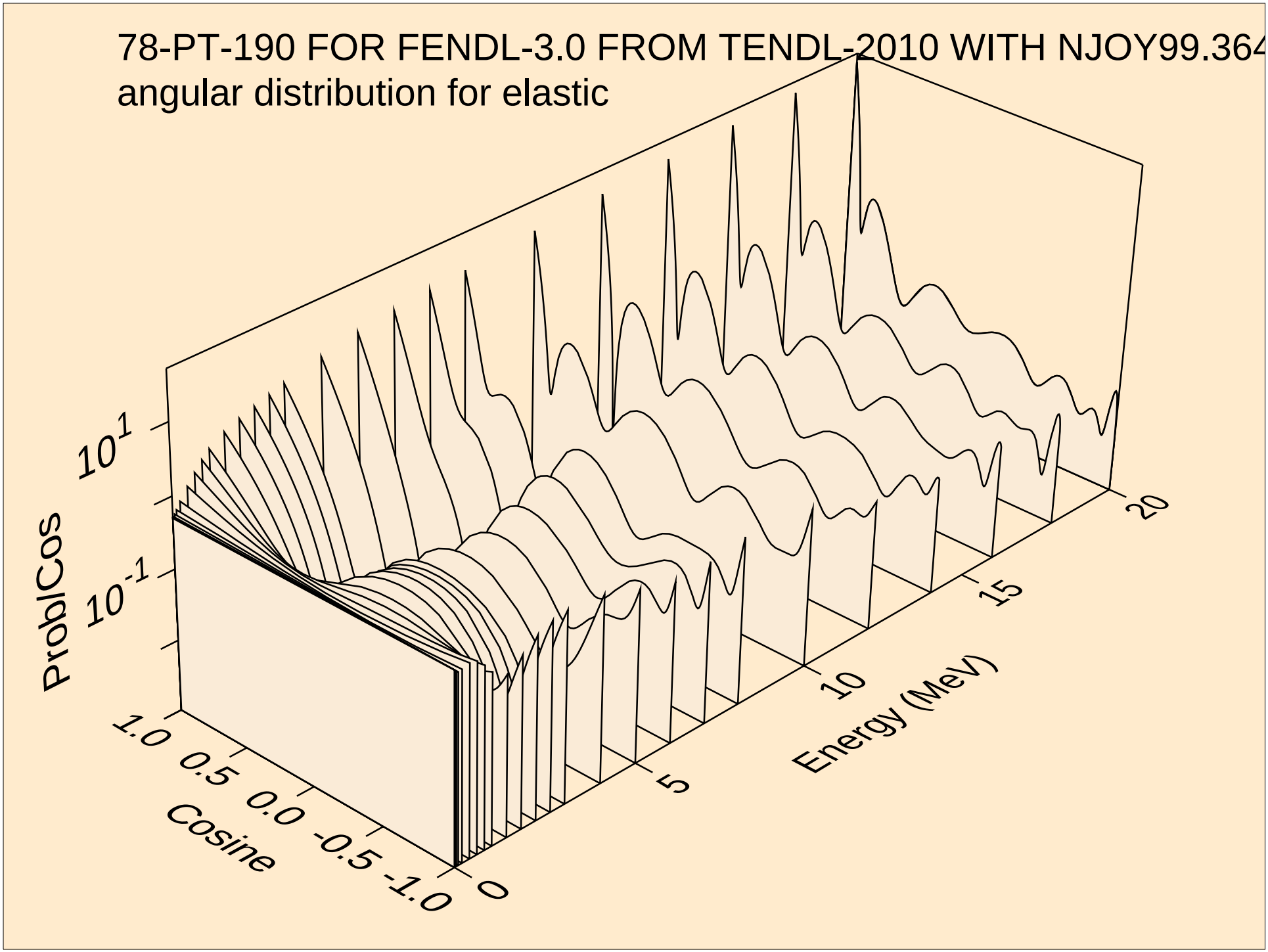

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Threshold reactions
(n,x)
(n,2n)
(n,3n)
(n,n*)a
(n,2n)a
Cross section (barns)
2.5
2.0
1.5
1.0
0.5
0.0
0
50
100
150
200
Energy (MeV)

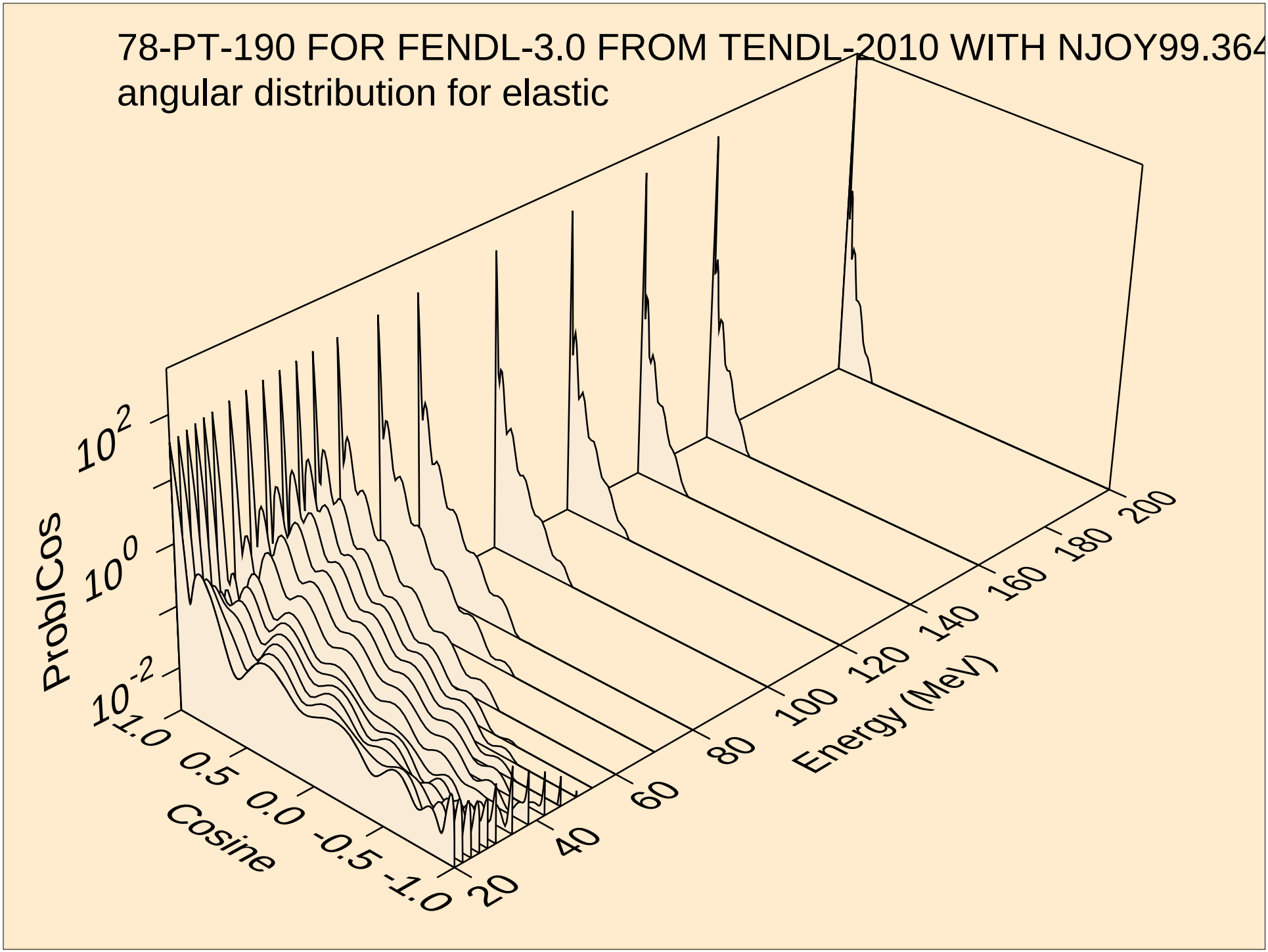

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Threshold reactions
*10-3
12
10
8
6
4
2
0
(n,3n)a
(n,n*)p
(n,n*)d
(n,n*)t
(n,2np)
Cross section (barns)
6
8
10
12
14
16
18
20
Energy (MeV)

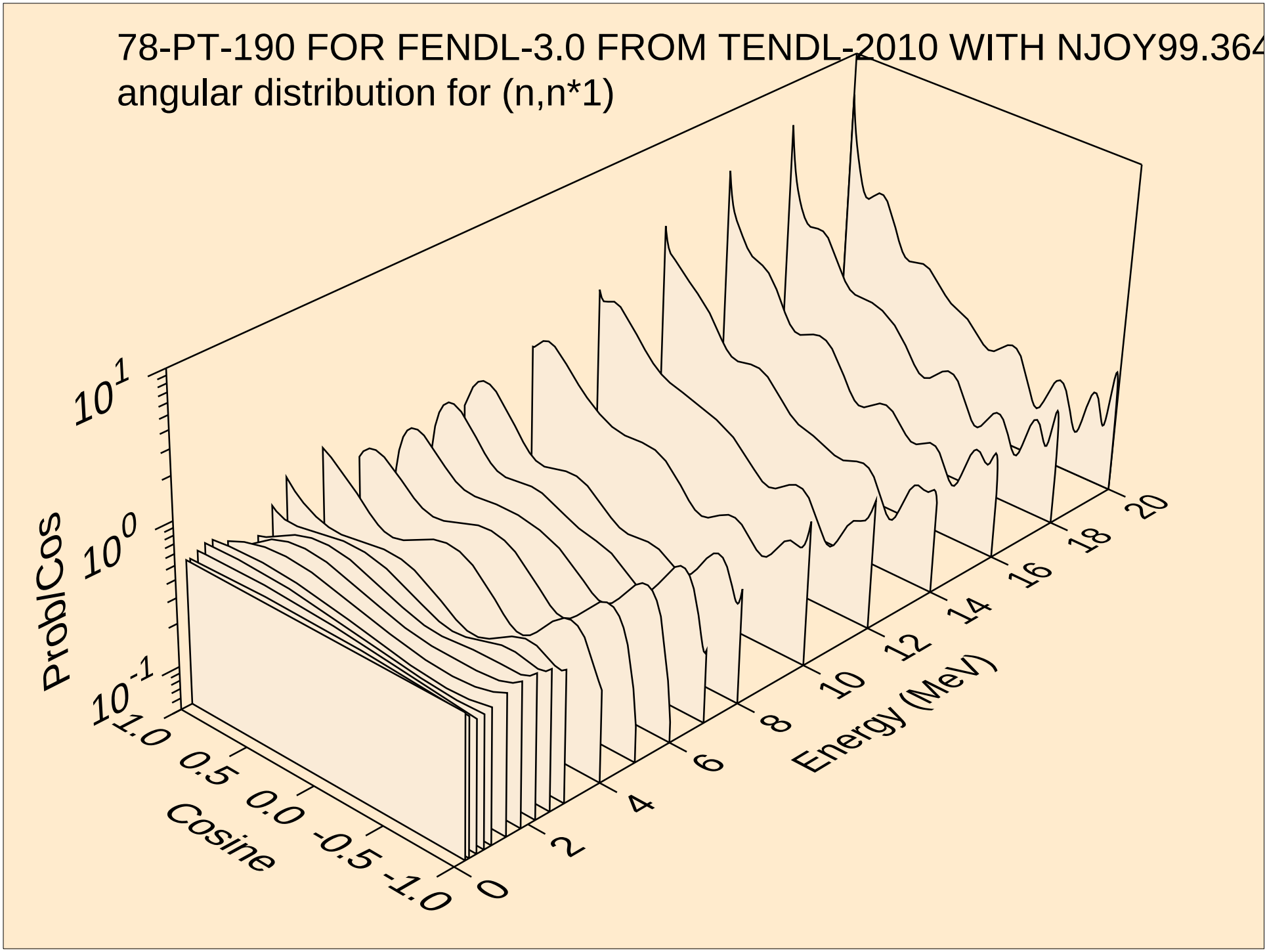

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Threshold reactions
(n,n*c)
(n,p)
(n,d)
(n,t)
(n,he3)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
5
10
15
20

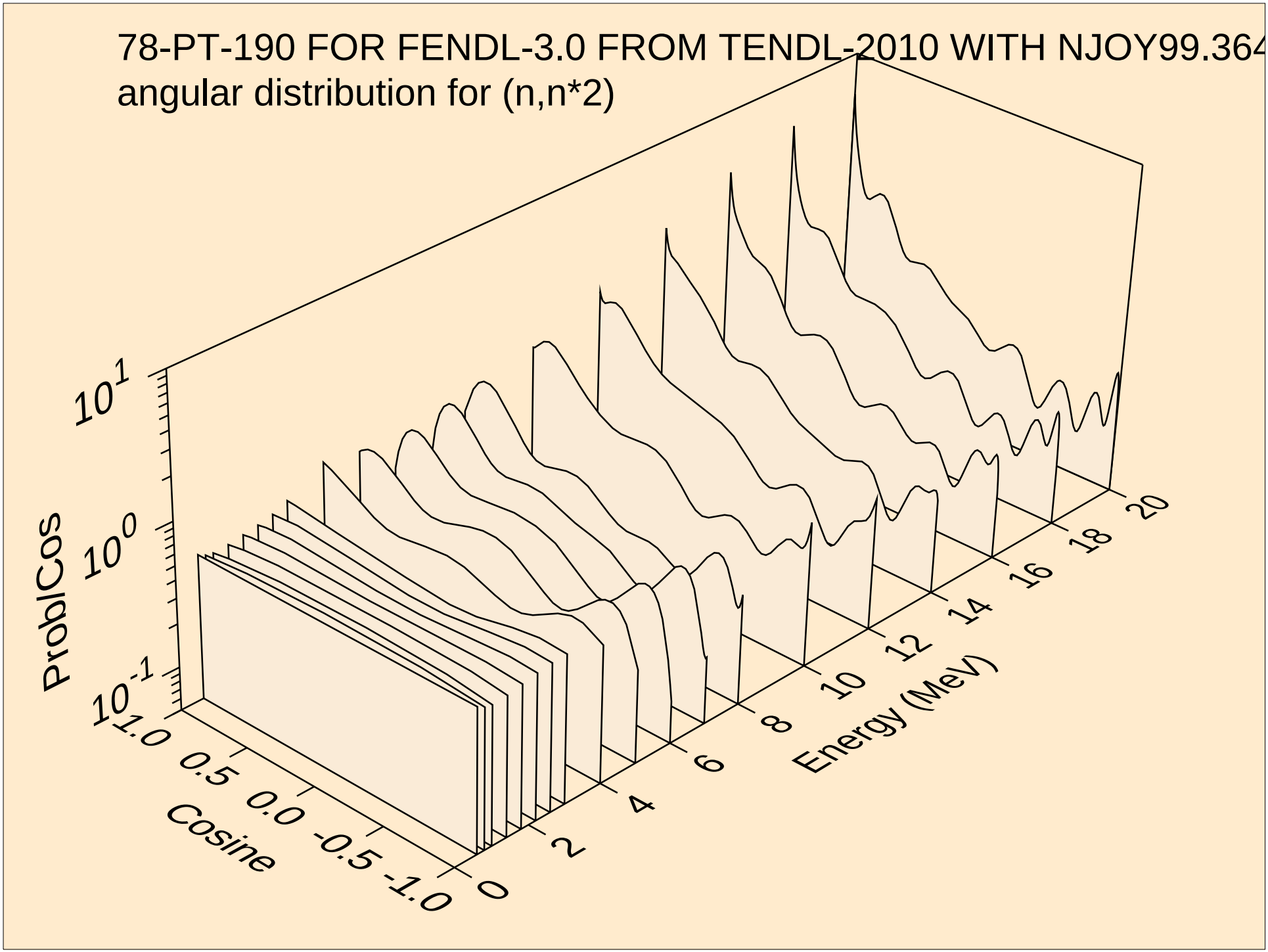

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Threshold reactions
*10-9
12
10
8
6
4
2
0
(n,2a)
(n,2p)
(n,pa)
Cross section (barns)
0
5
10
15
20
Energy (MeV)

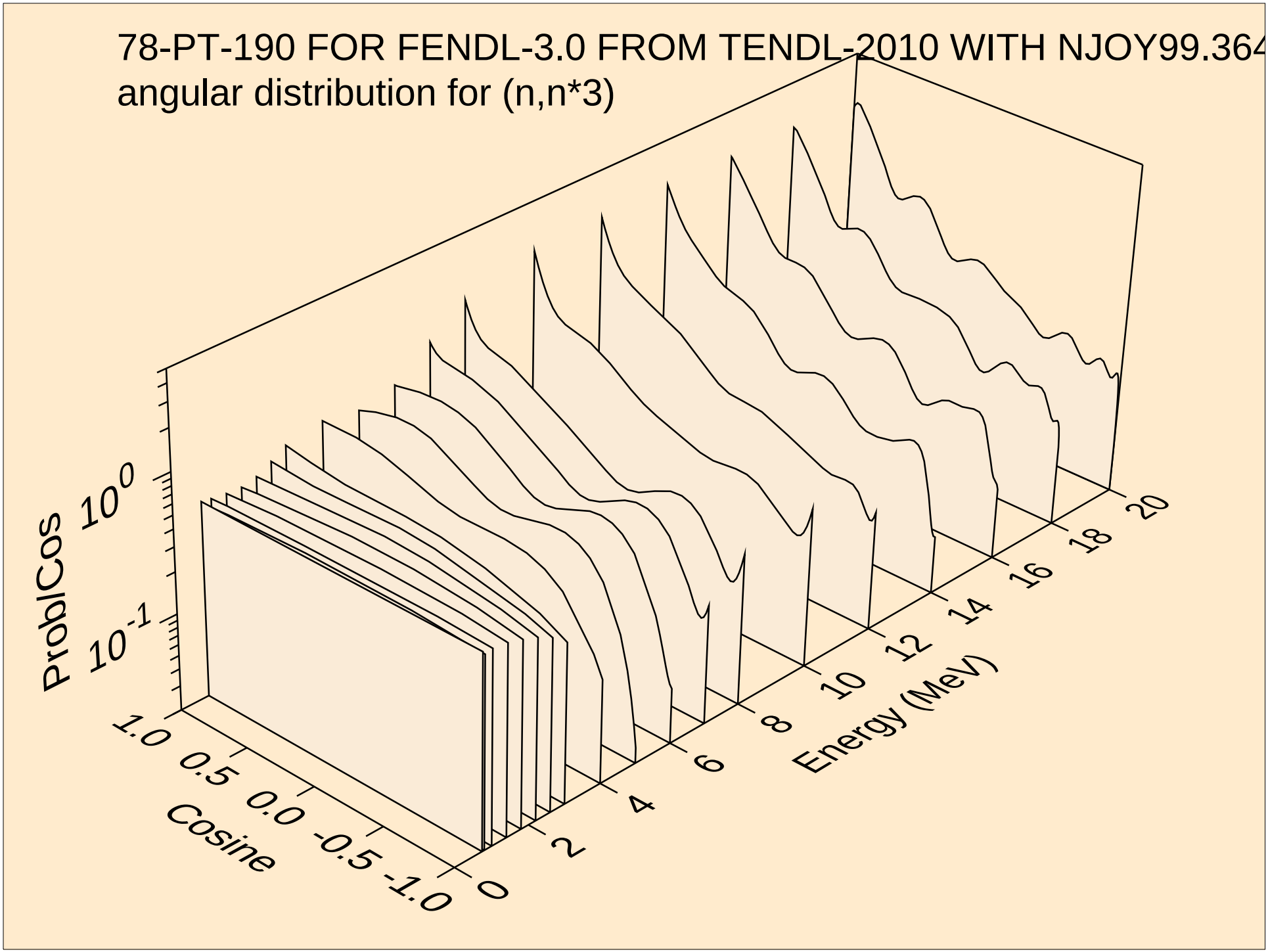

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Threshold reactions
Cross section (barns)
*10-3
800
700
600
500
400
300
200
100
0
0
50
100
150
200
Energy (MeV)
(n,xp)
(n,xd)
(n,xt)
(n,xhe3)
(n,p*c)

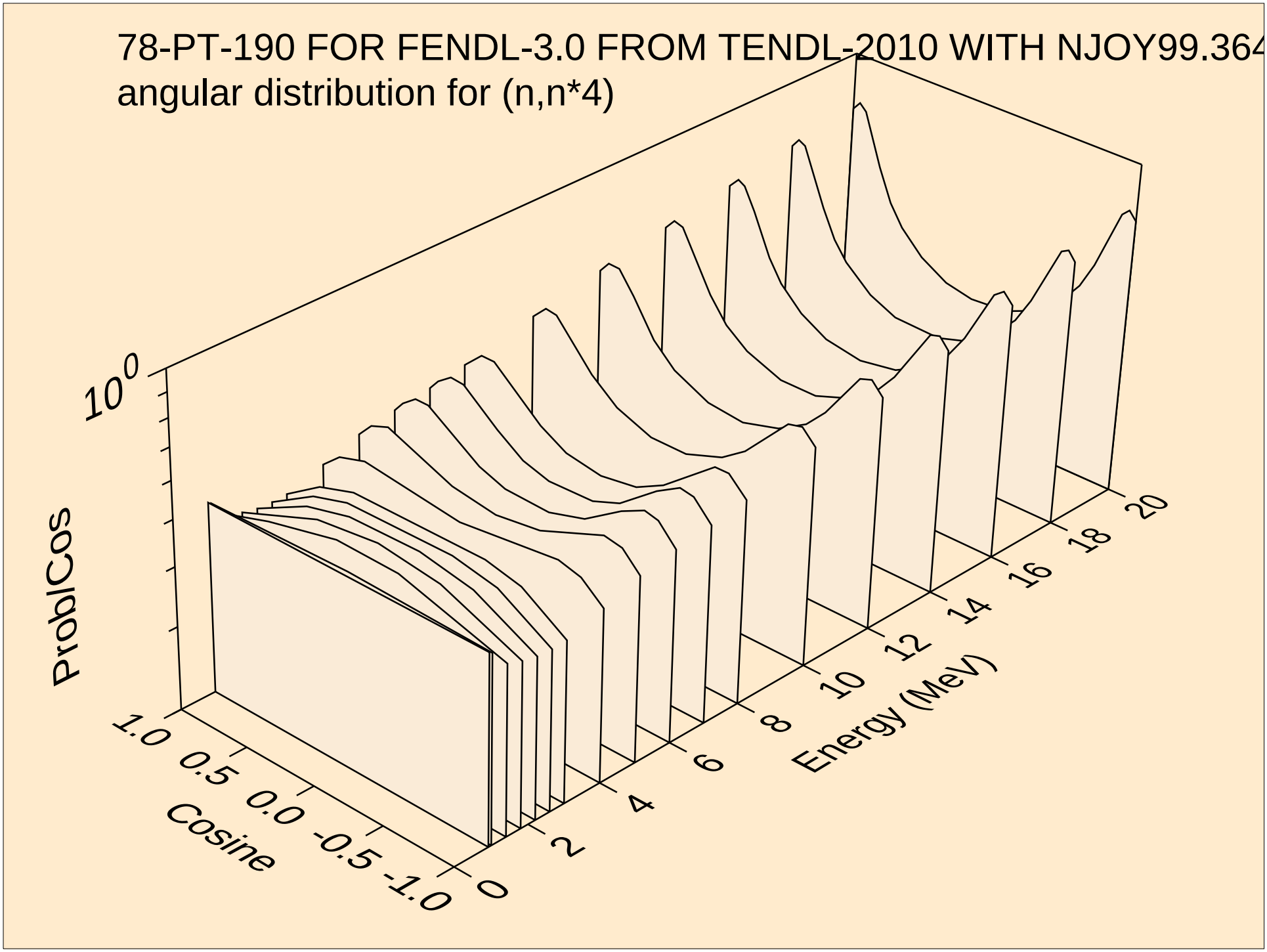

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for elastic
ProbICos
10^1
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

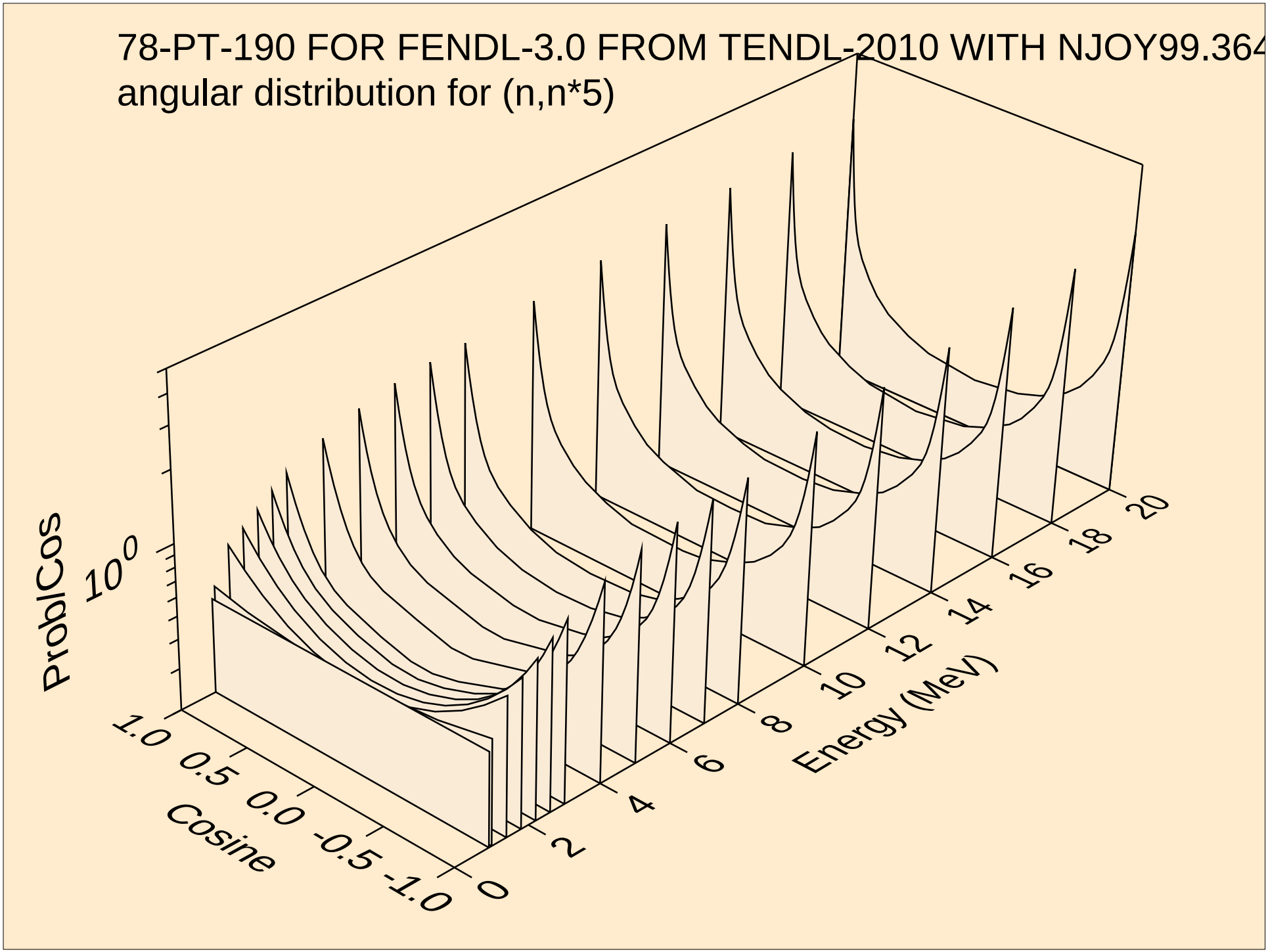

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for elastic
ProblCos
10^{2}
10^{0}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)

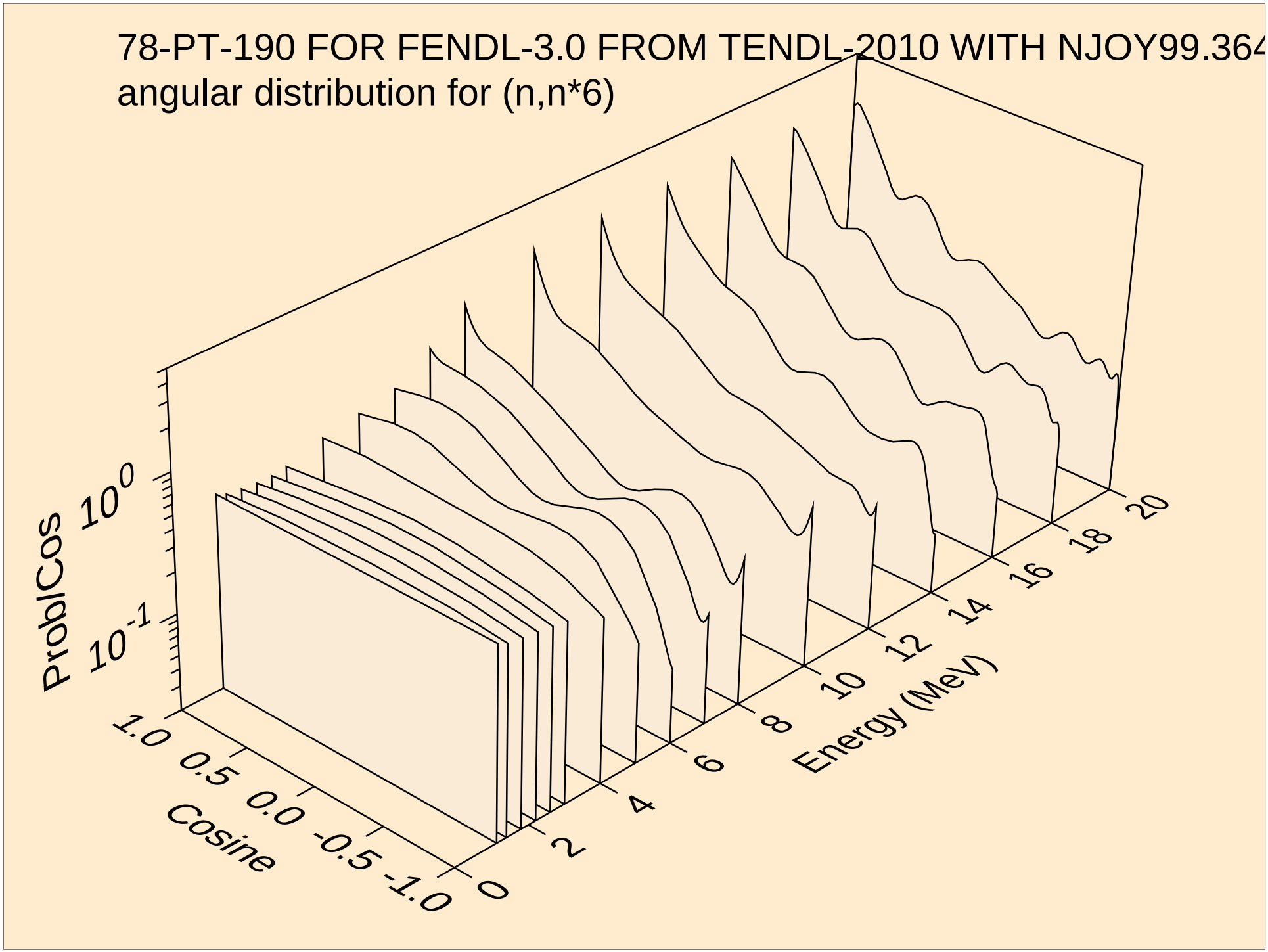

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*1)
ProbCos
10^{1}
10^{0}
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

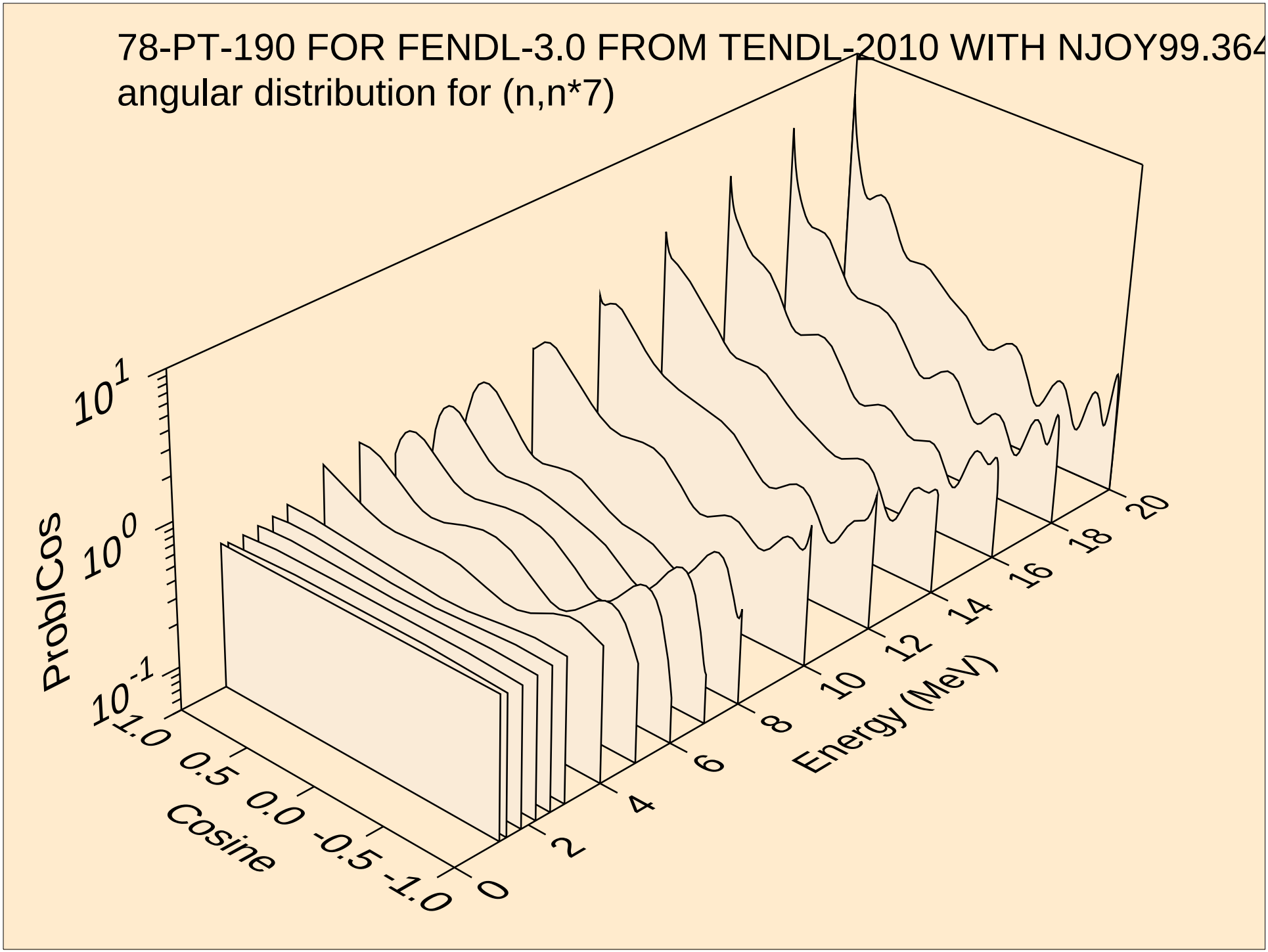

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*2)
ProbCos
10^{1}
10^{0}
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

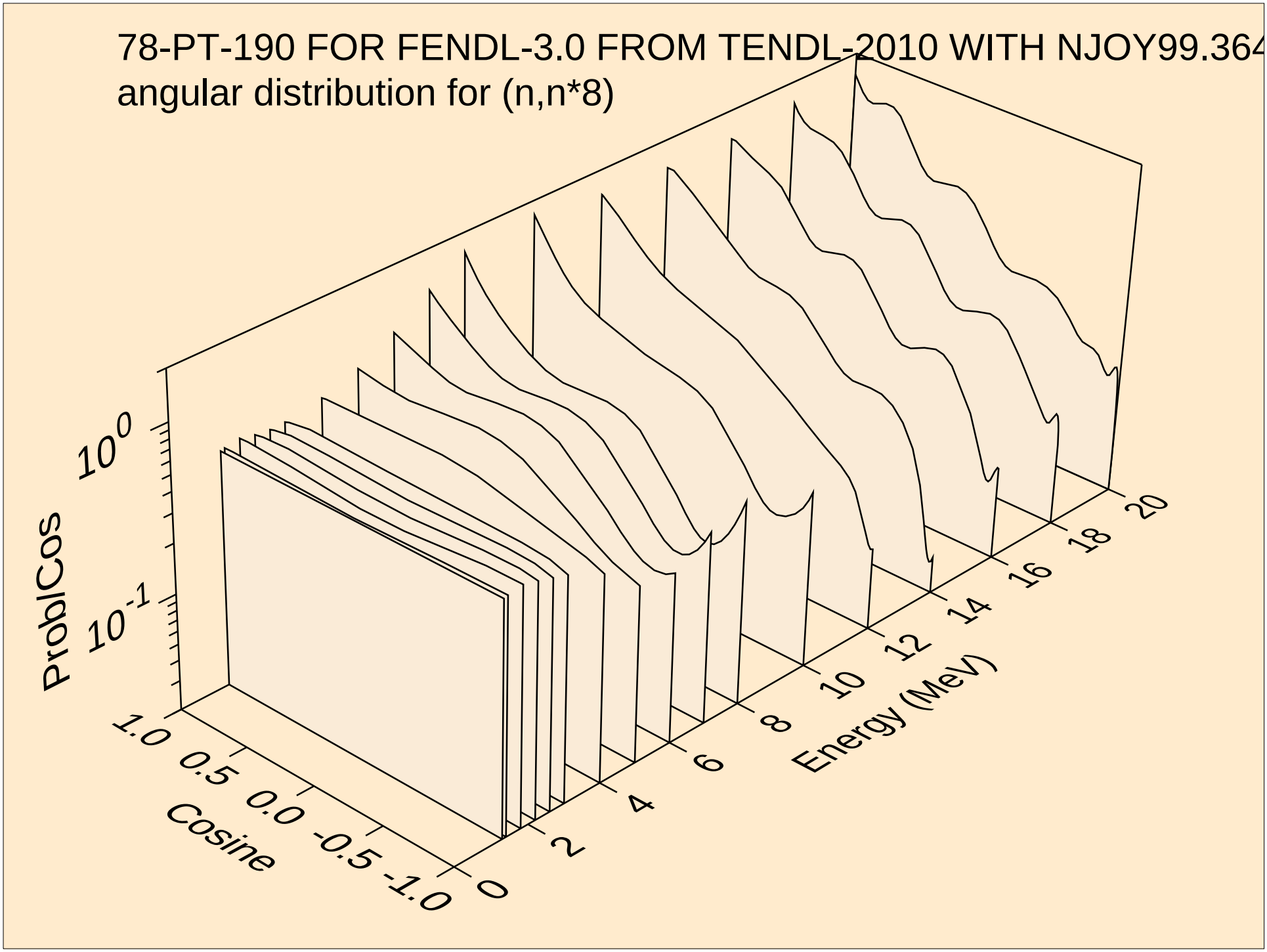

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*3)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

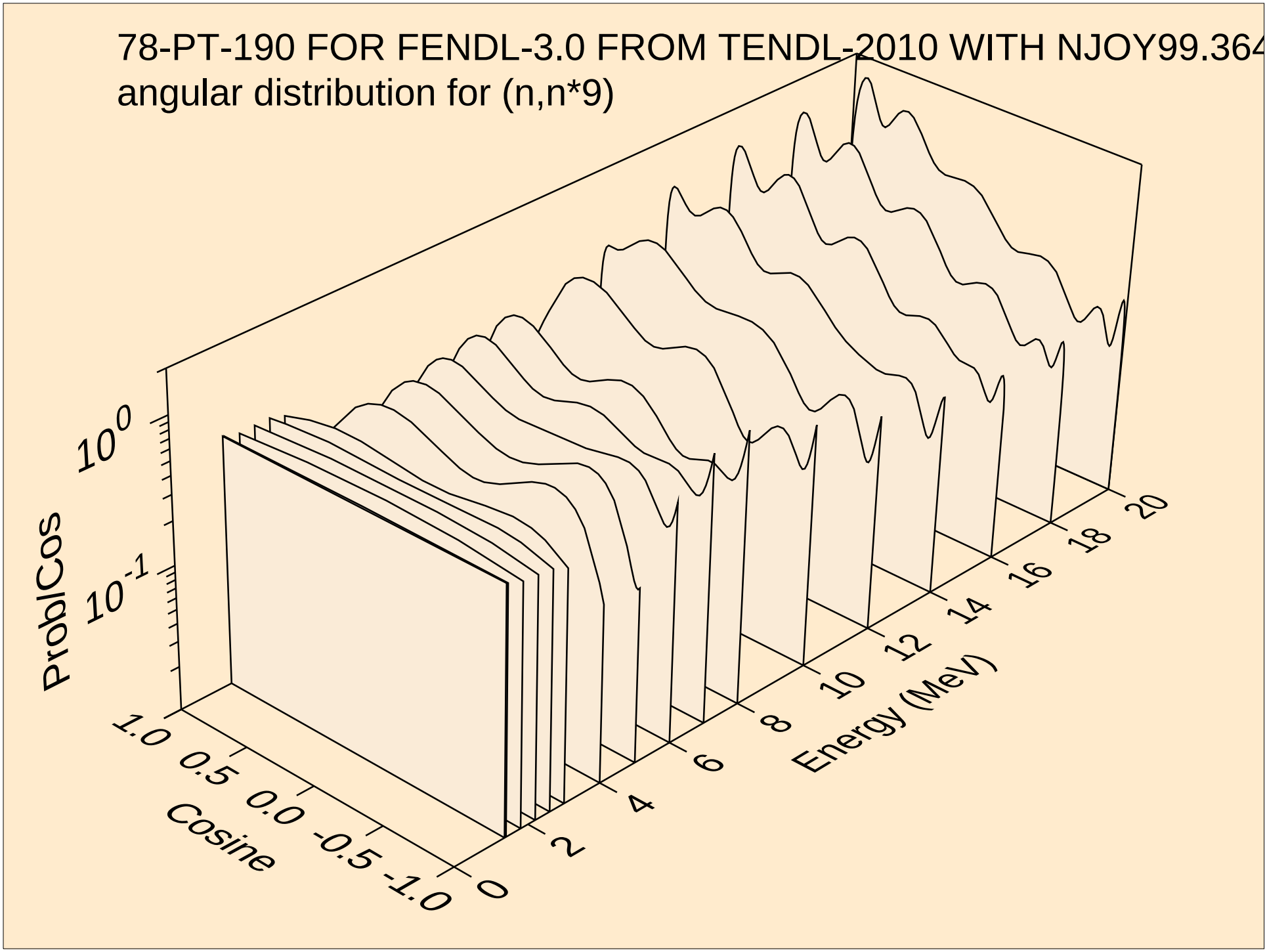

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*4)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

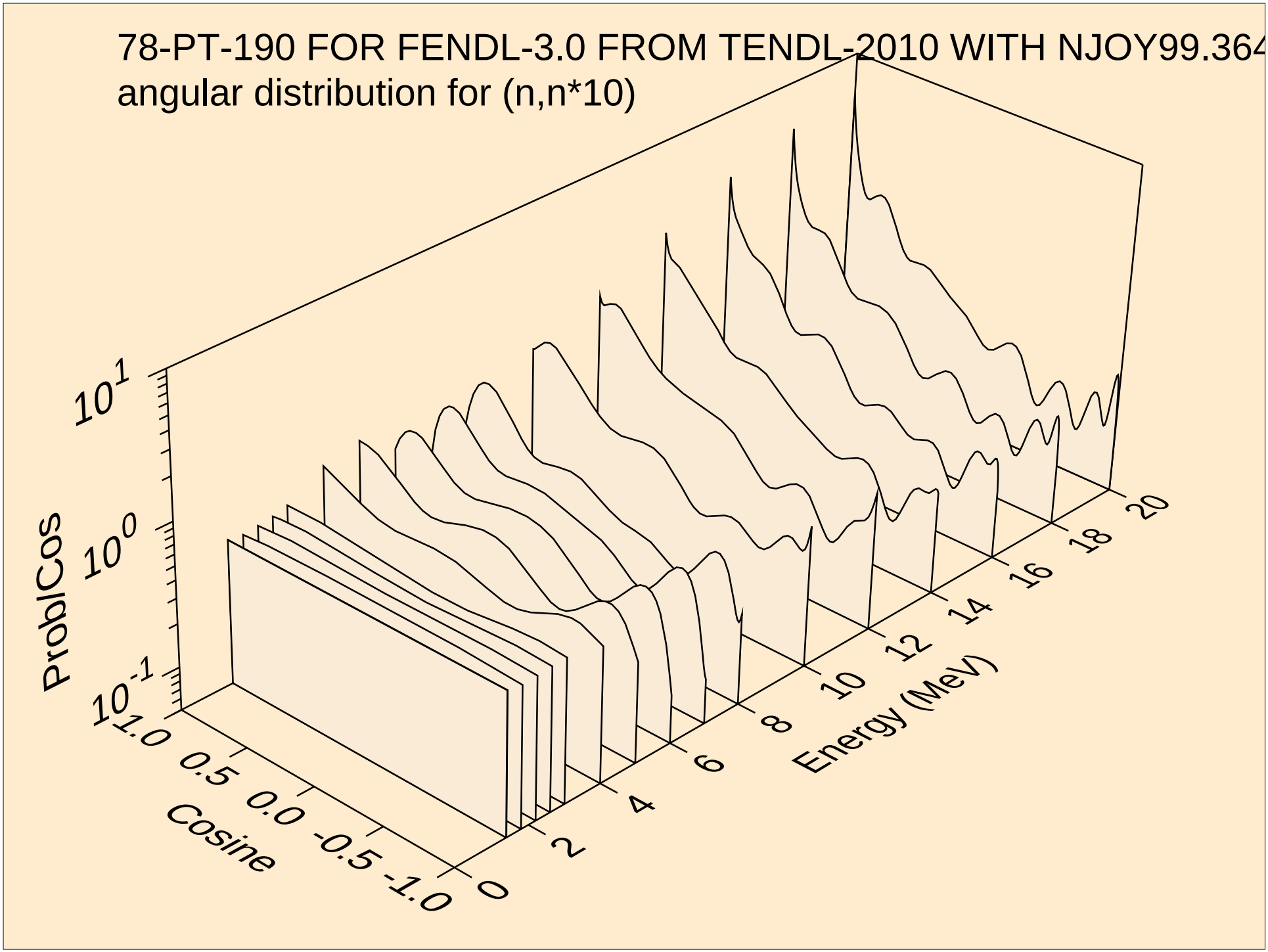

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*5)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

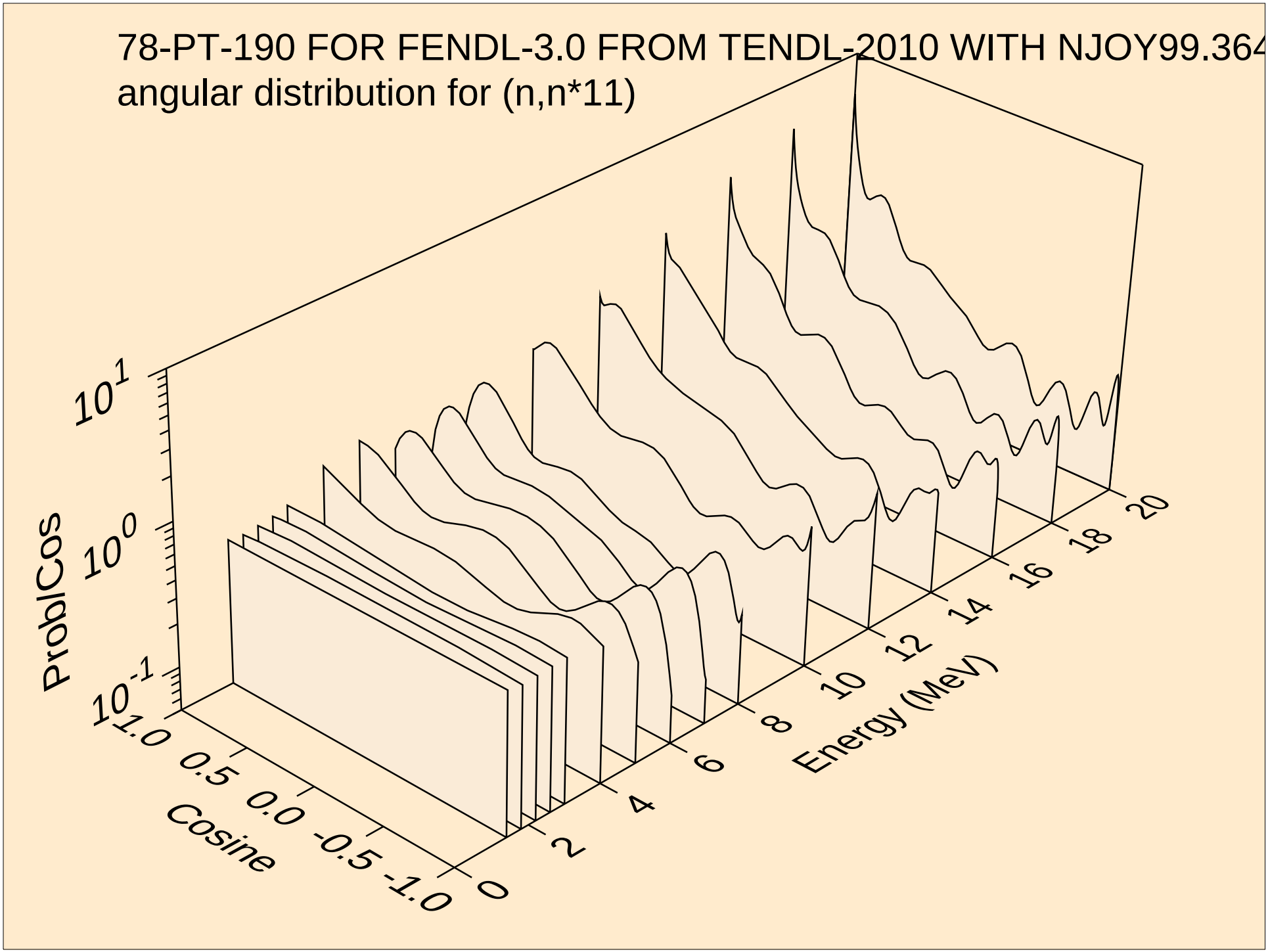

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*6)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

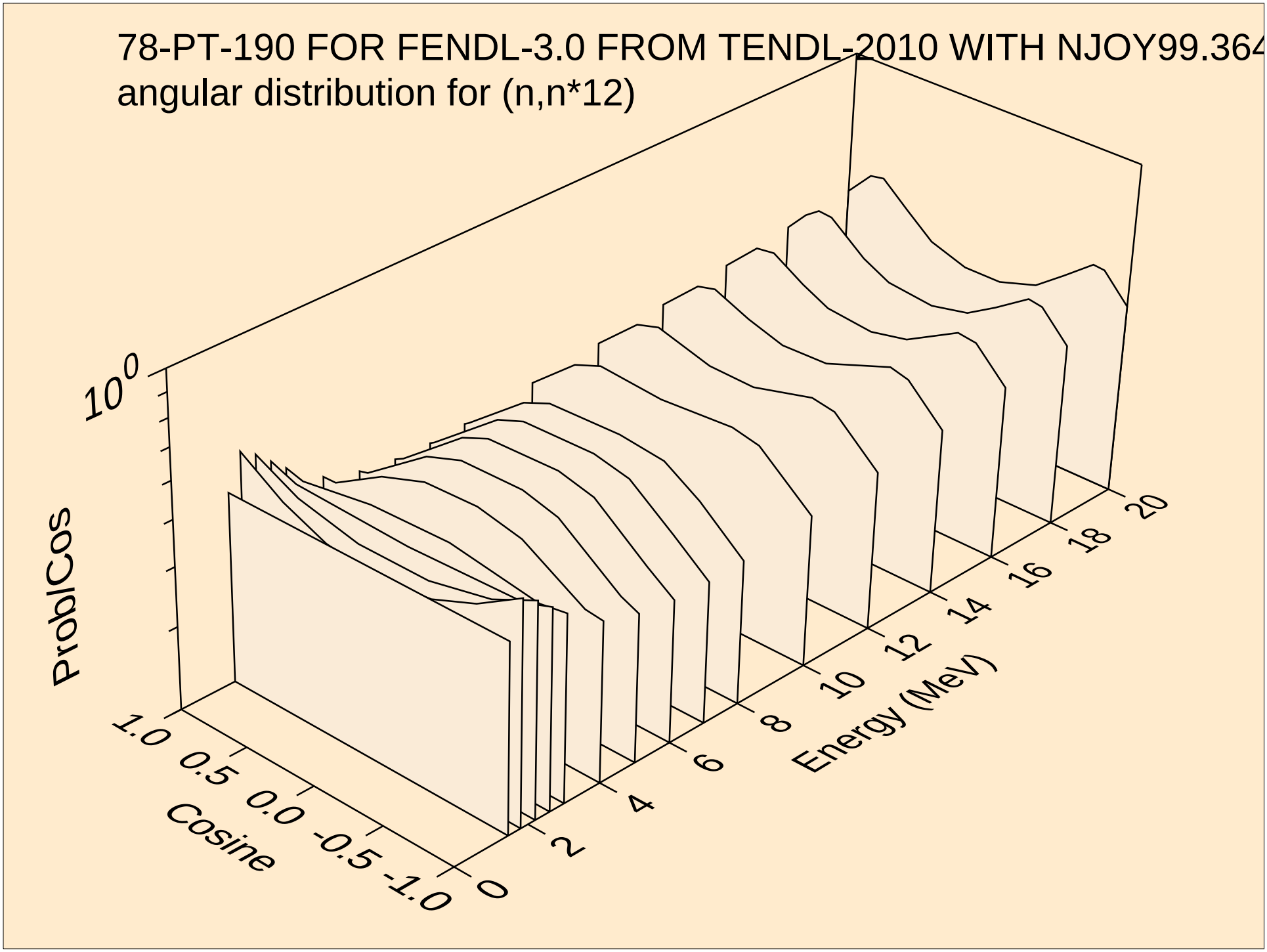

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*7)
ProbICos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

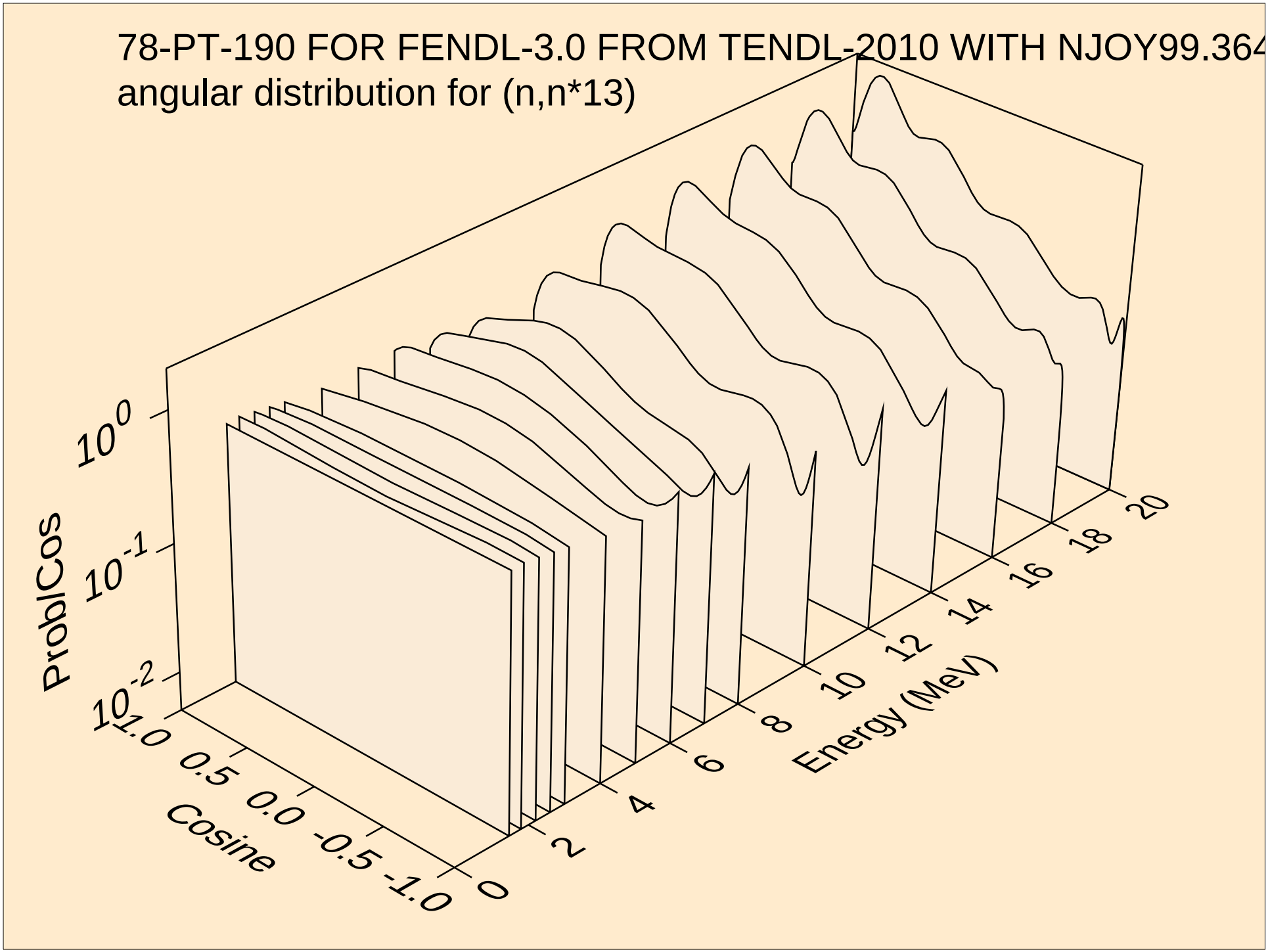

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*8)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

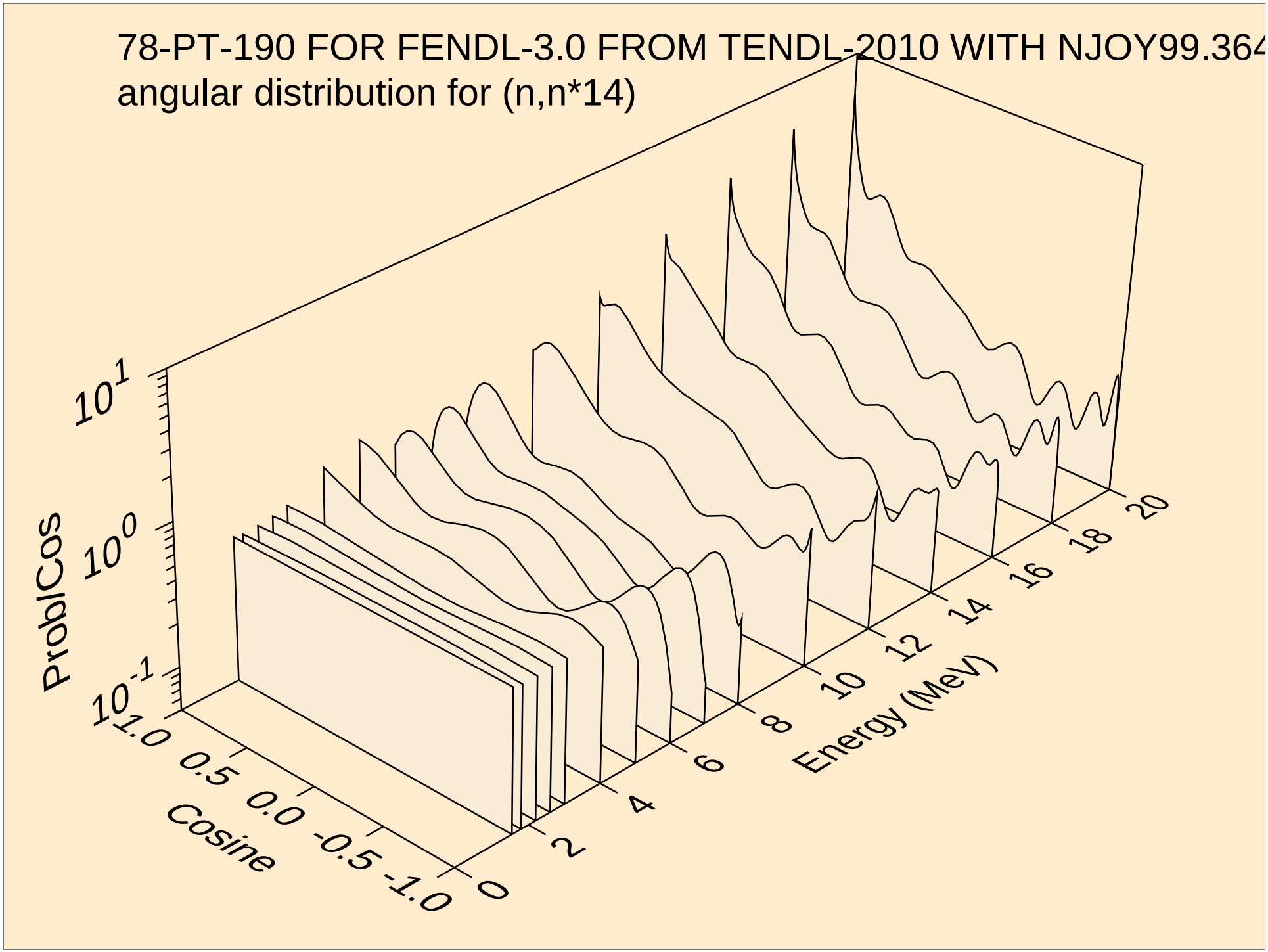

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*9)
ProbCos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

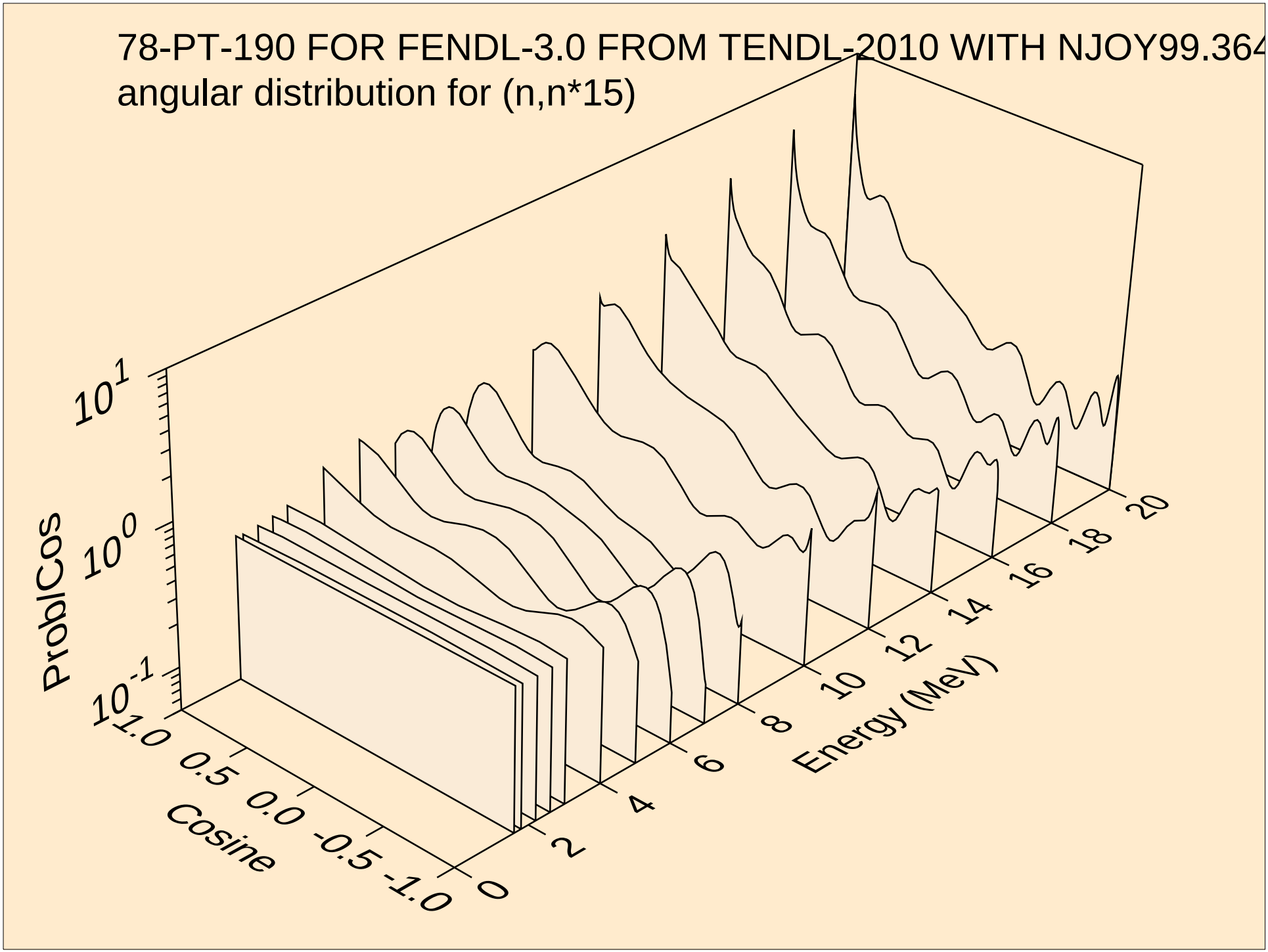

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*10)
ProbICos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

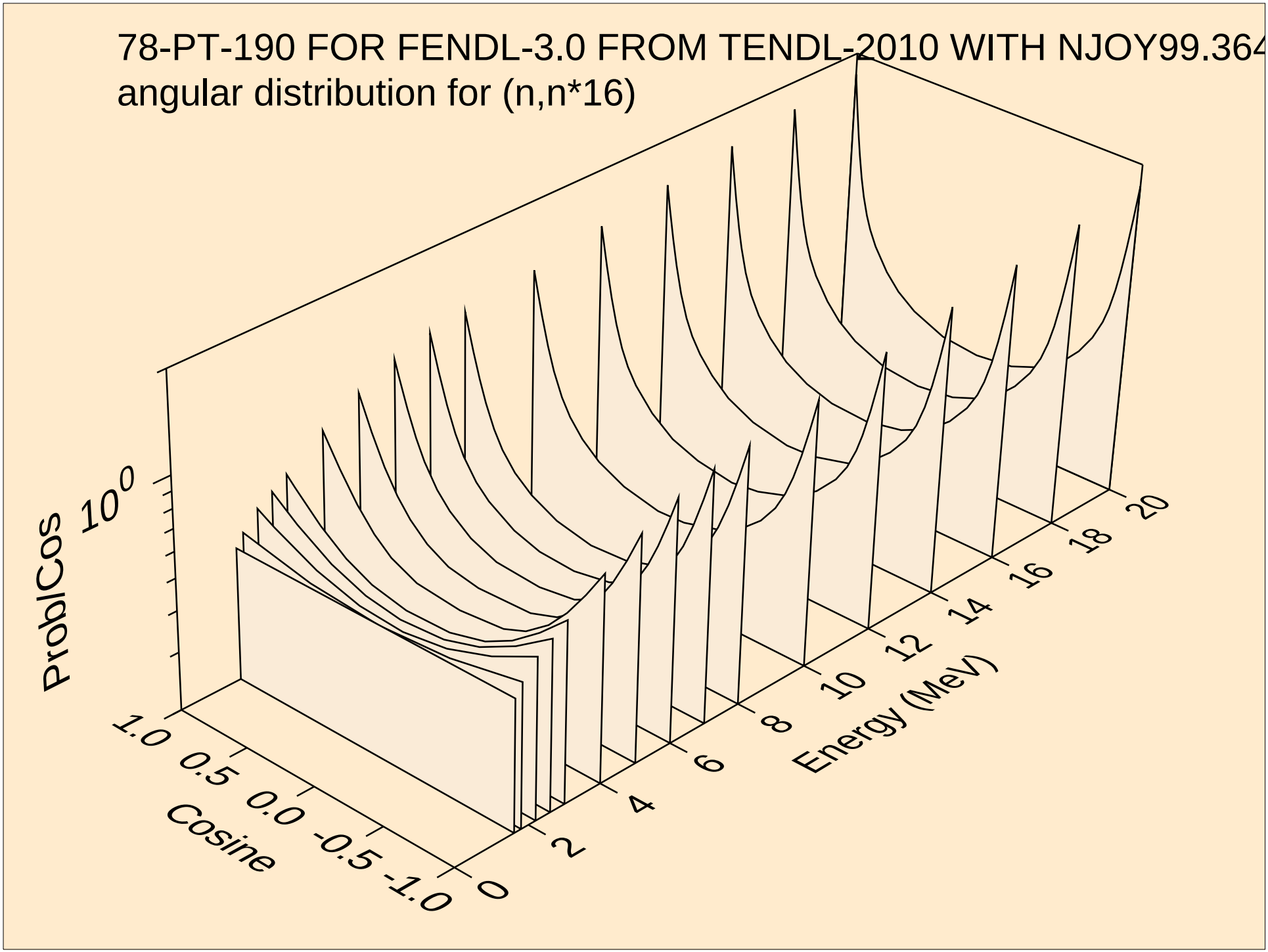

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*11)
ProbICos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

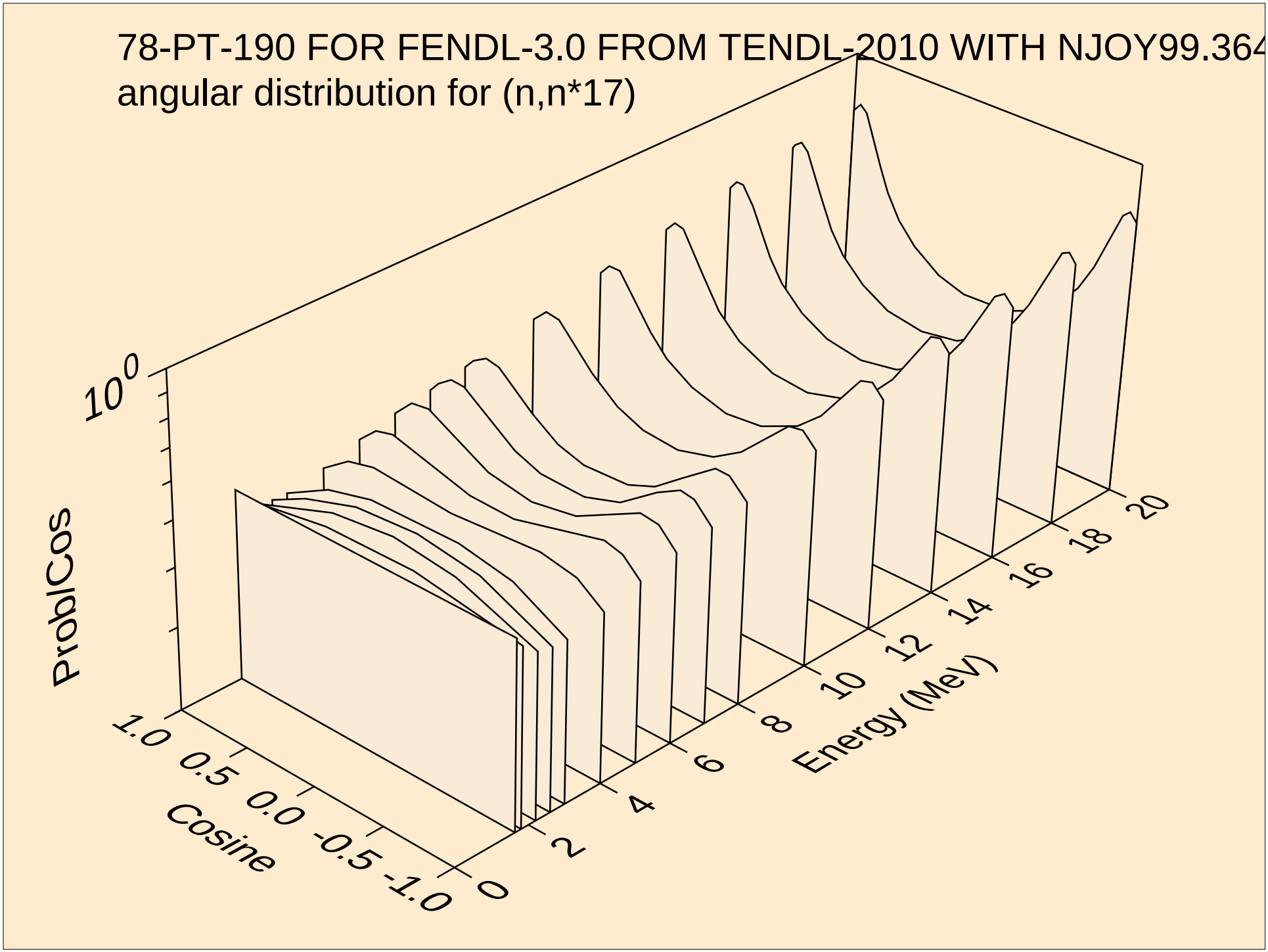

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*12)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

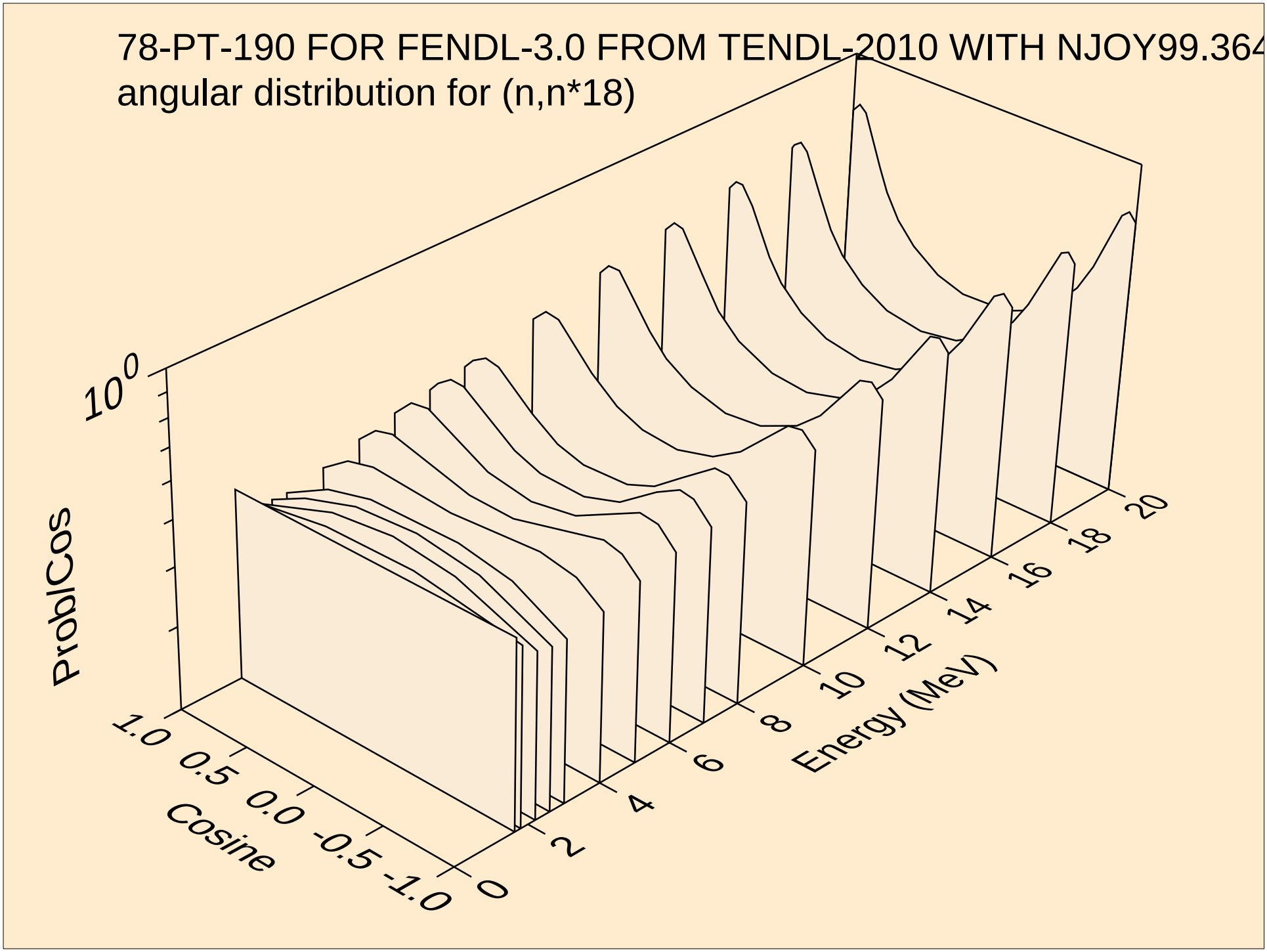

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*13)
ProbCos
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

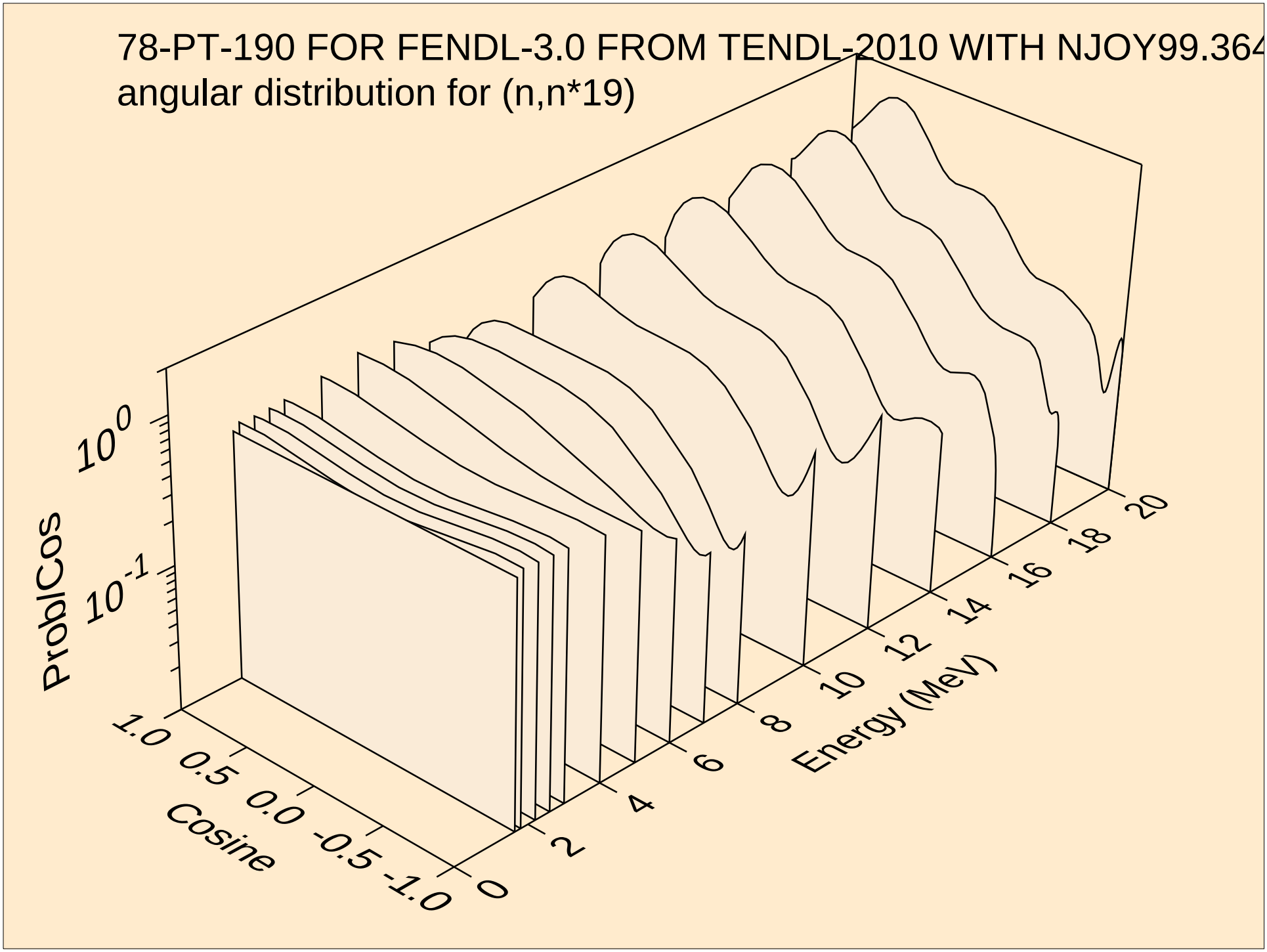

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*14)
ProbCos
10^{1}
10^{0}
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

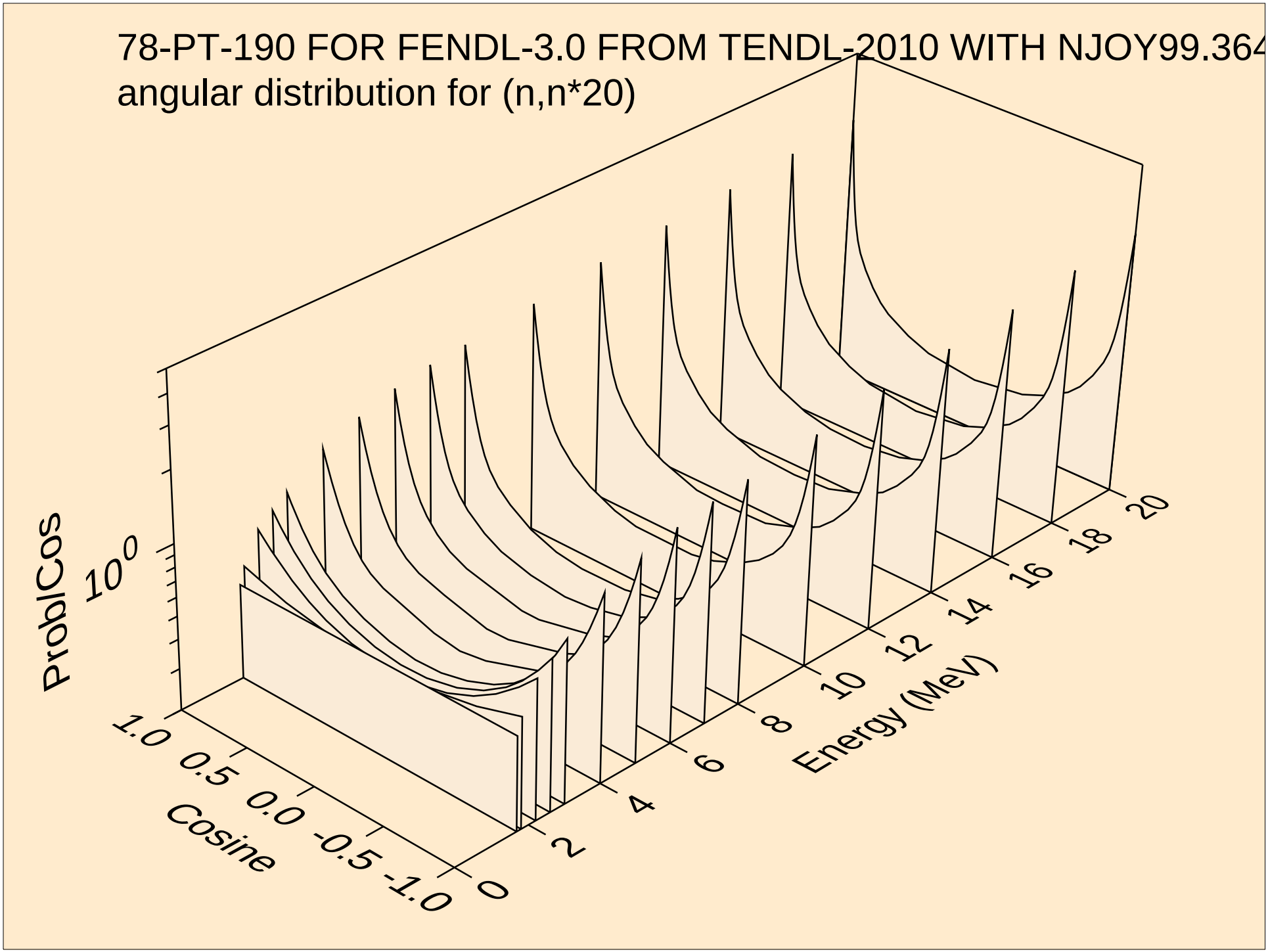

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*15)
ProbICos
10^{1}
10^{0}
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

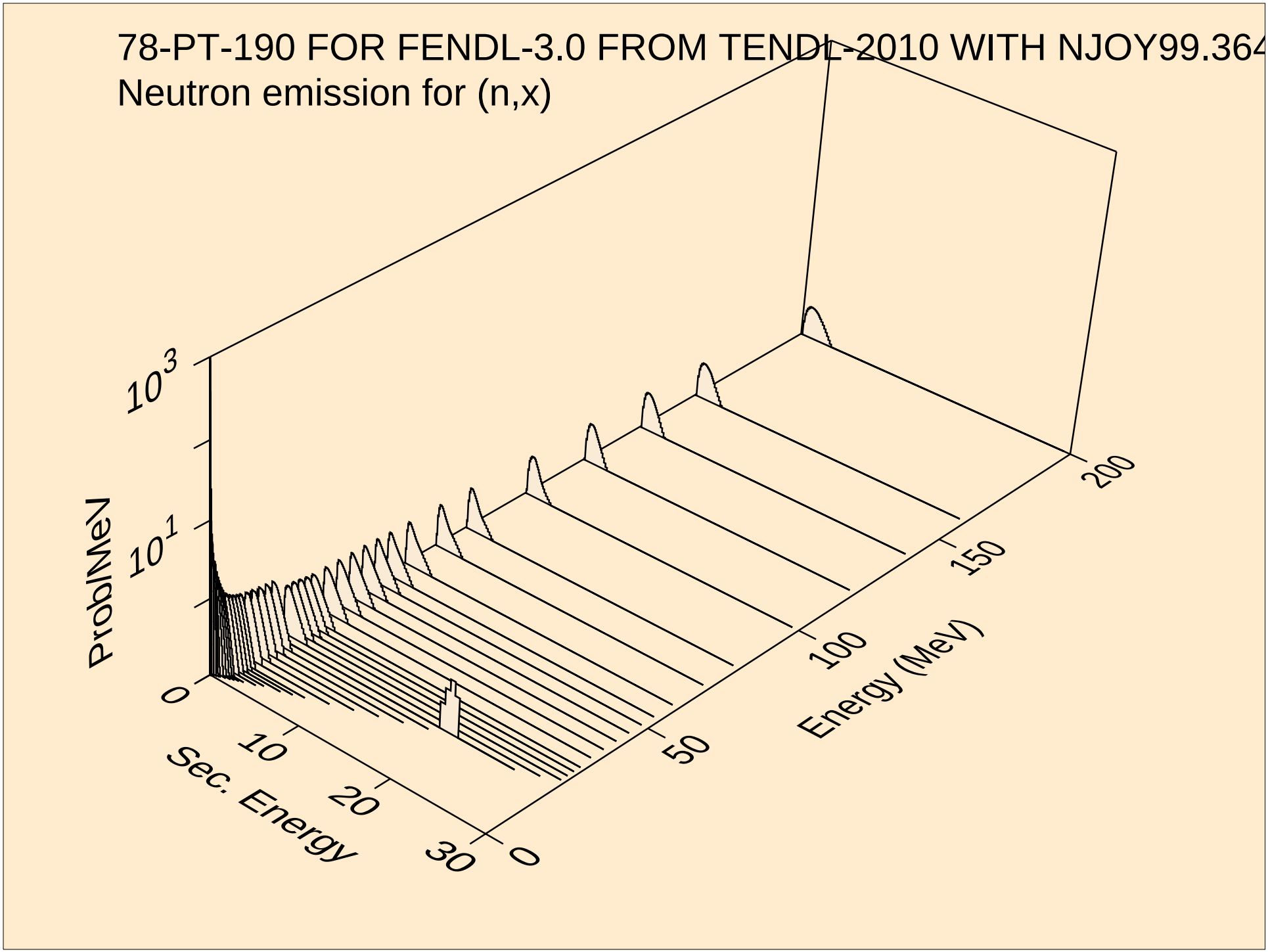

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*16)
ProblCos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

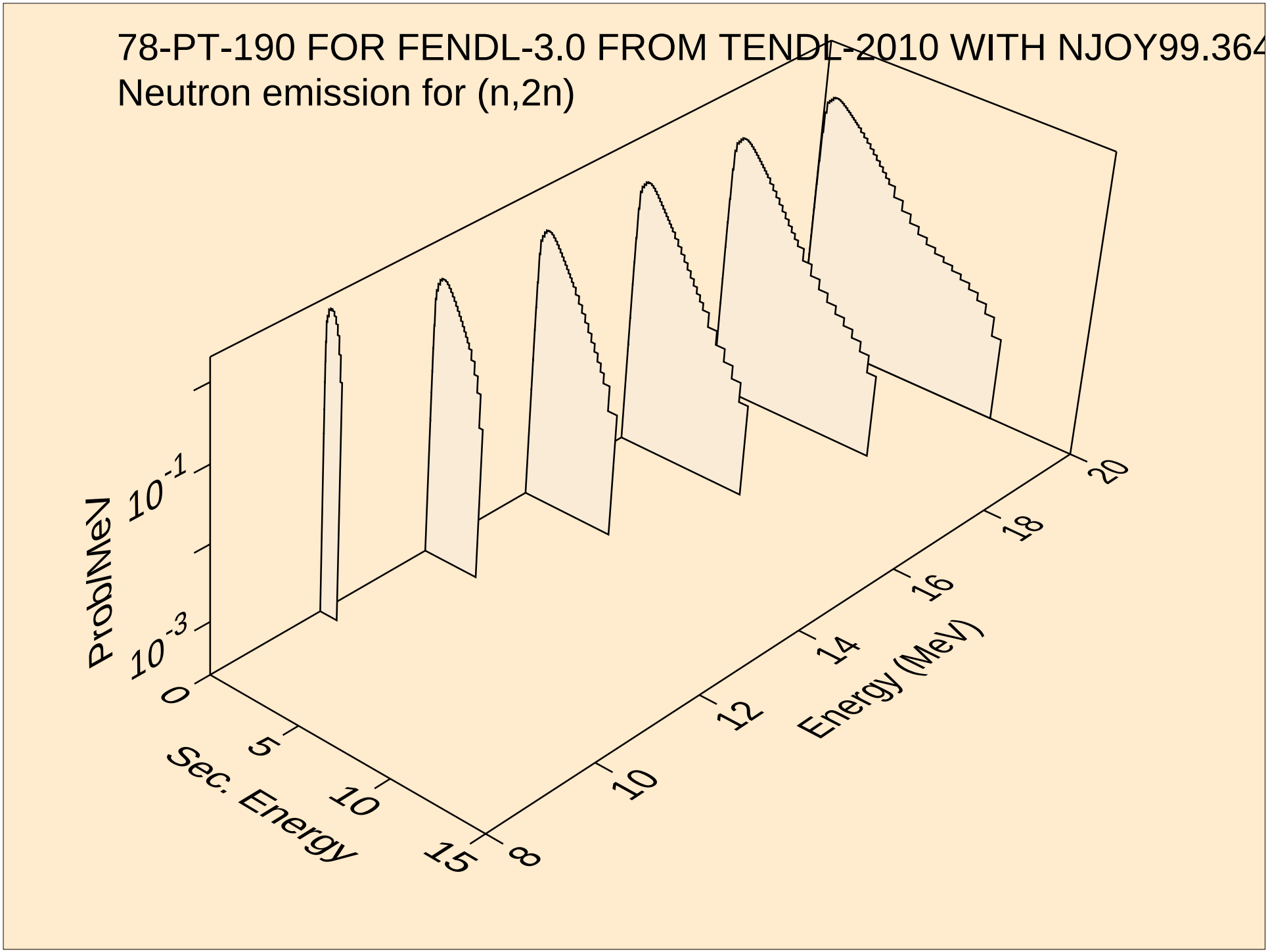

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*17)
ProbICos
10^0
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

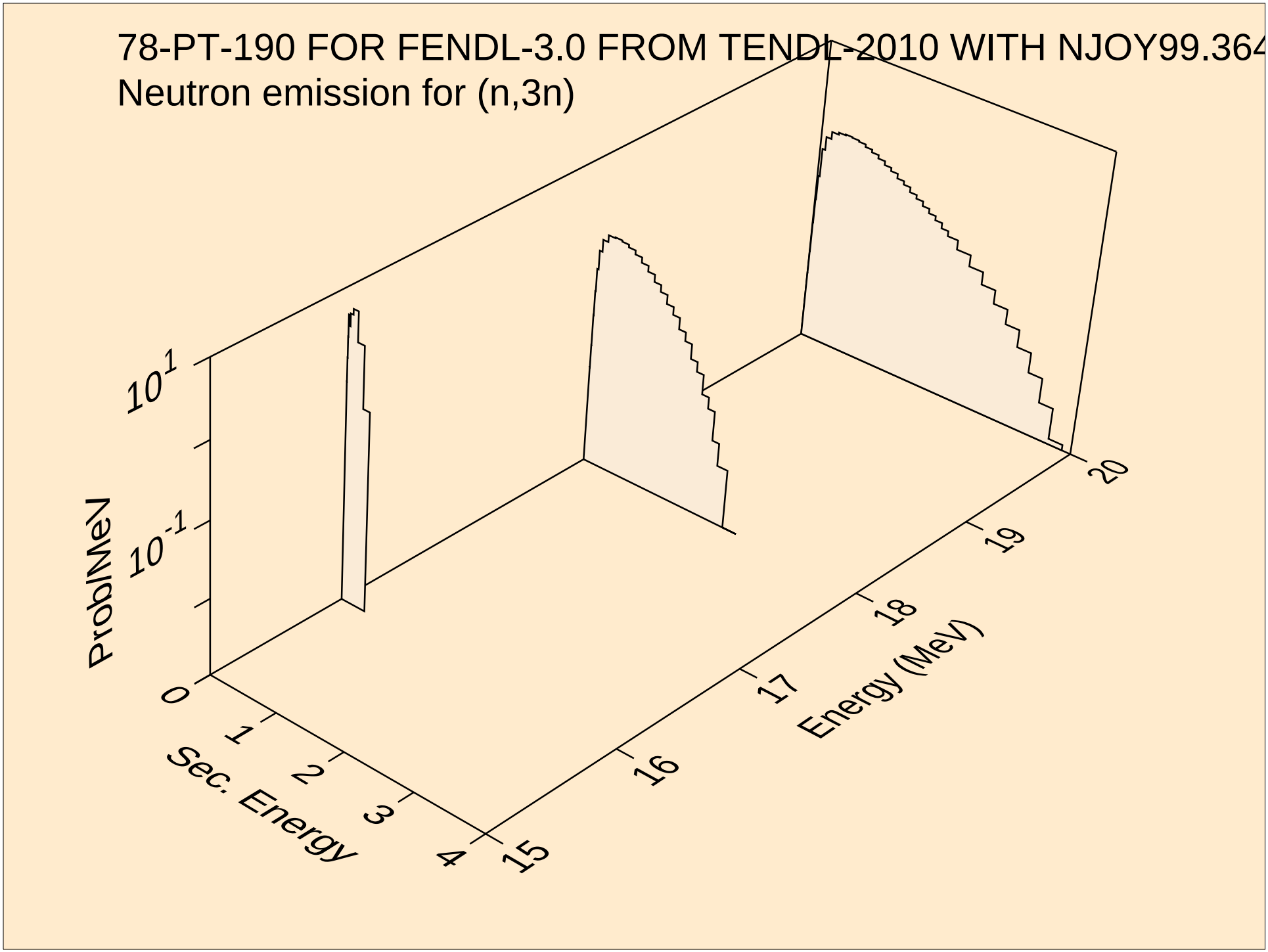

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*18)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

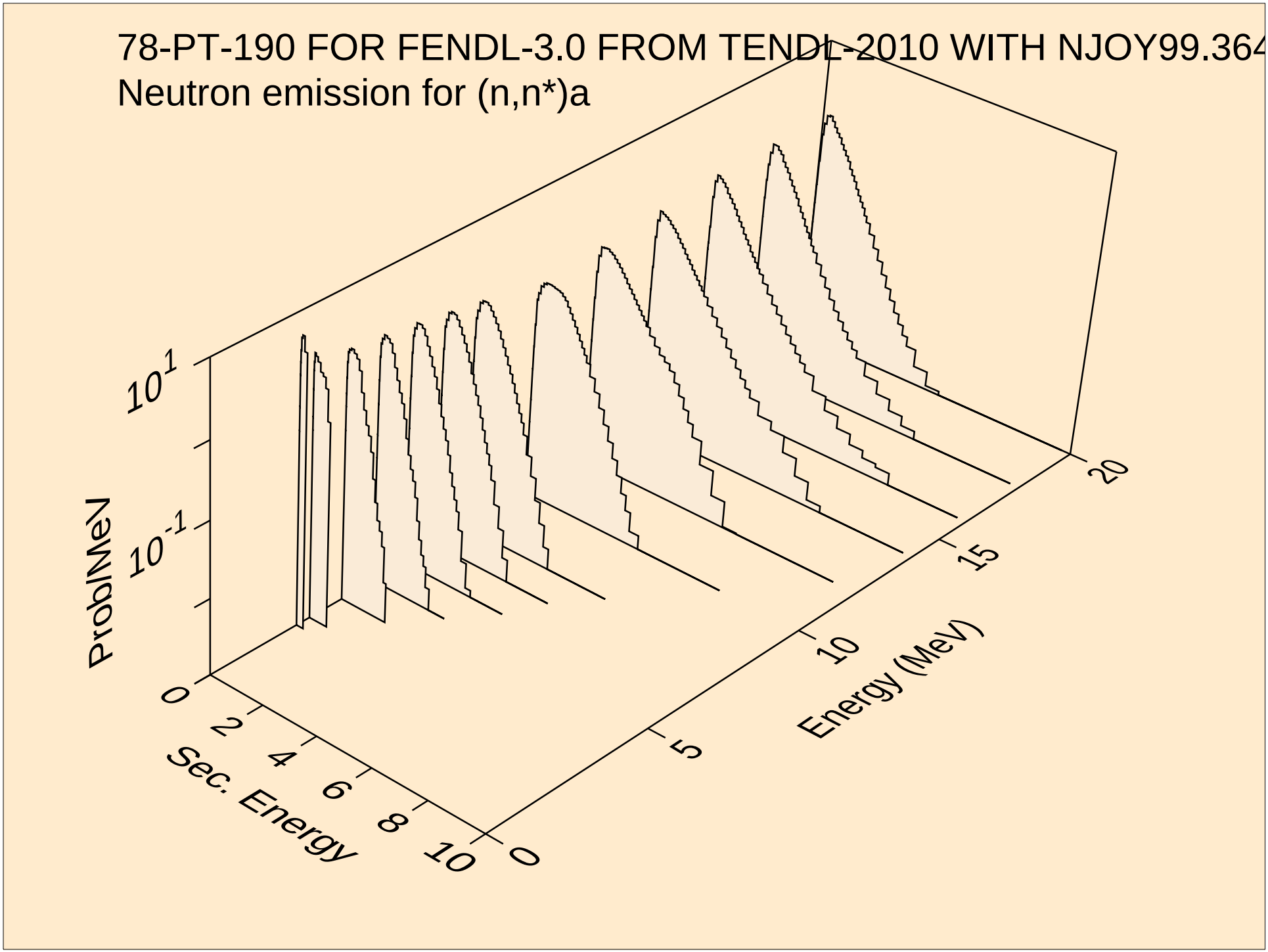

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*19)
Prob\Cos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

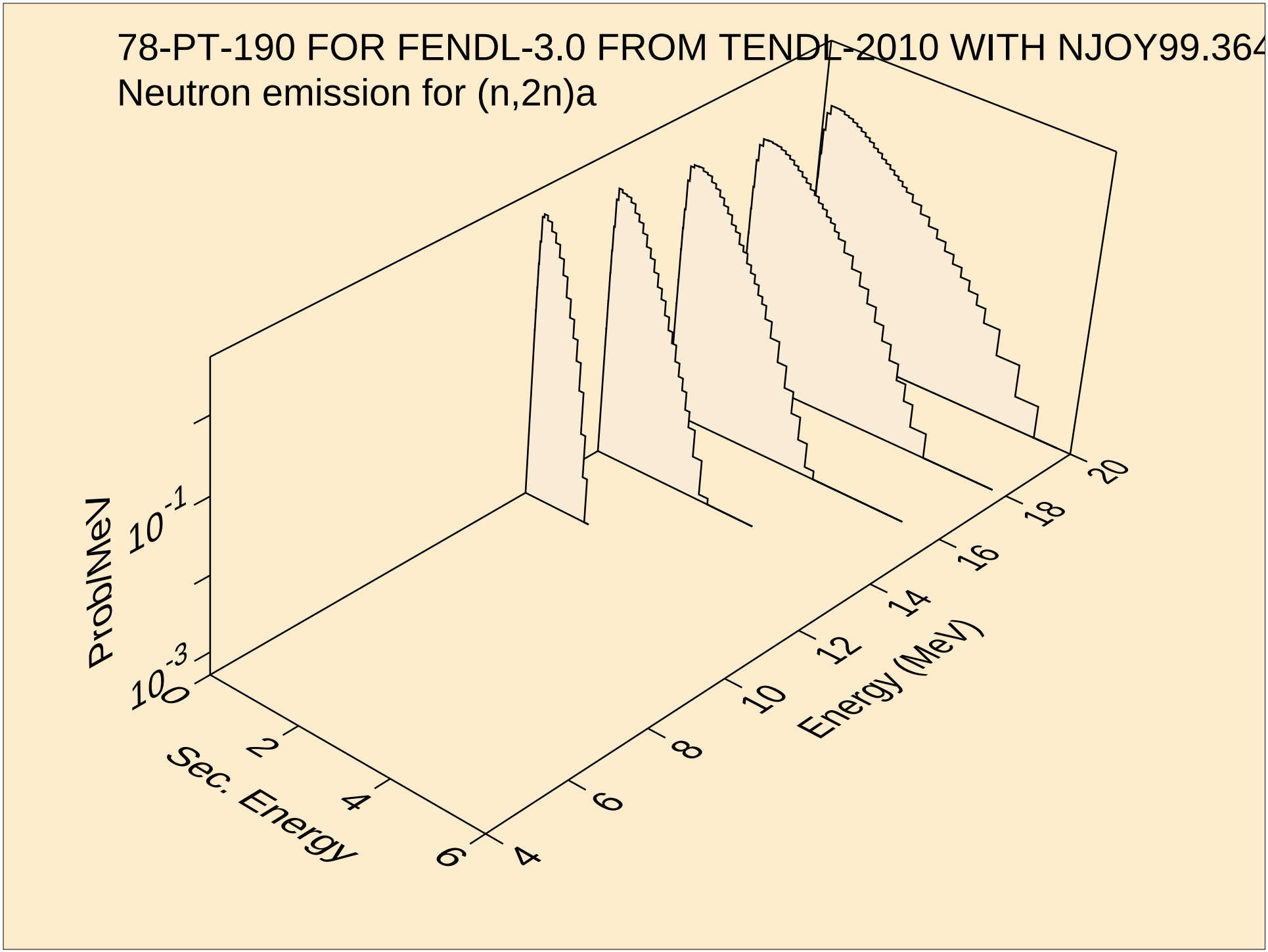

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,n*20)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

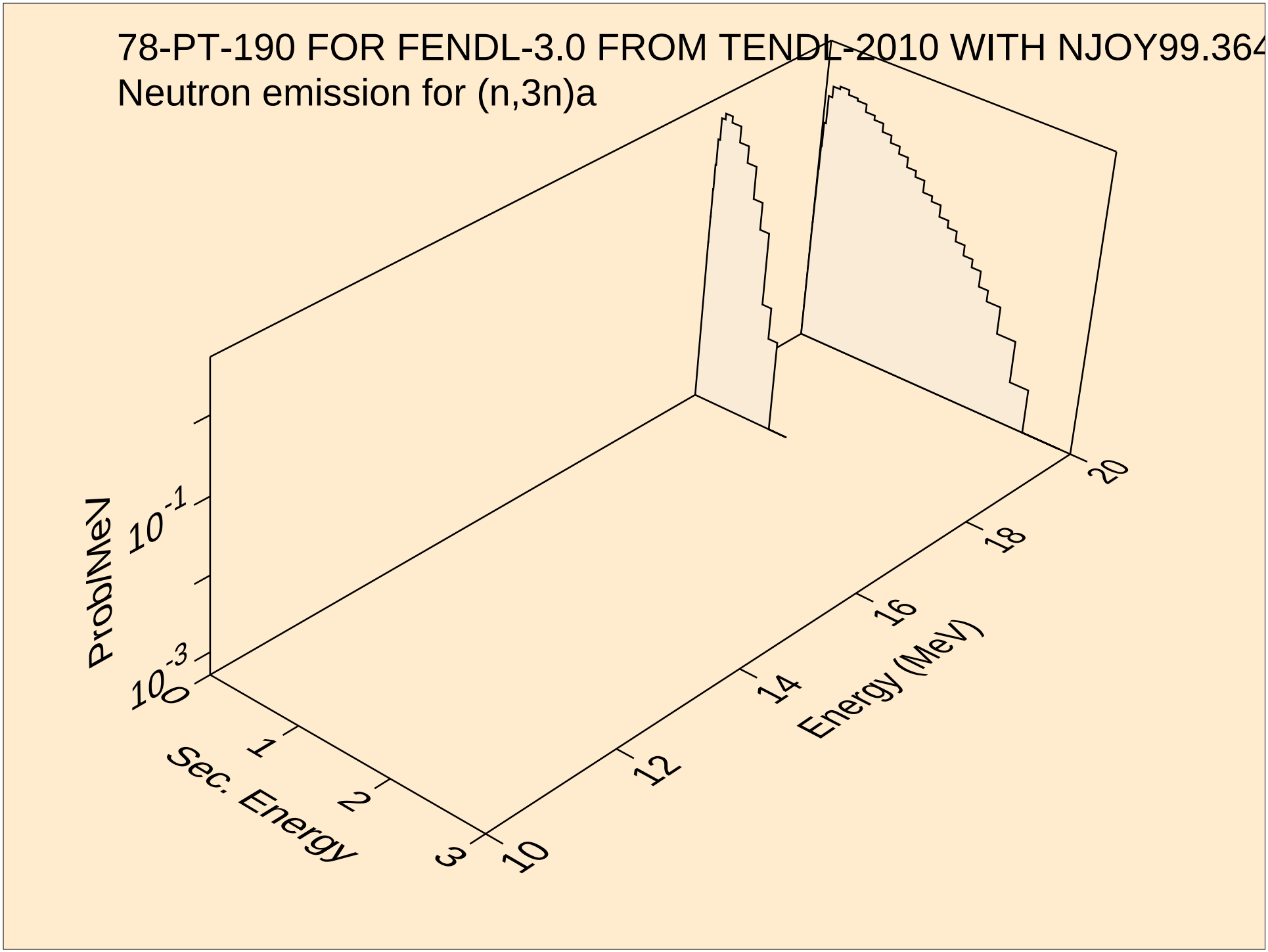

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,x)
Prob/MeV
10^3
10^1
0
10
20
30
Sec. Energy
0
50
100
150
200
Energy (MeV)

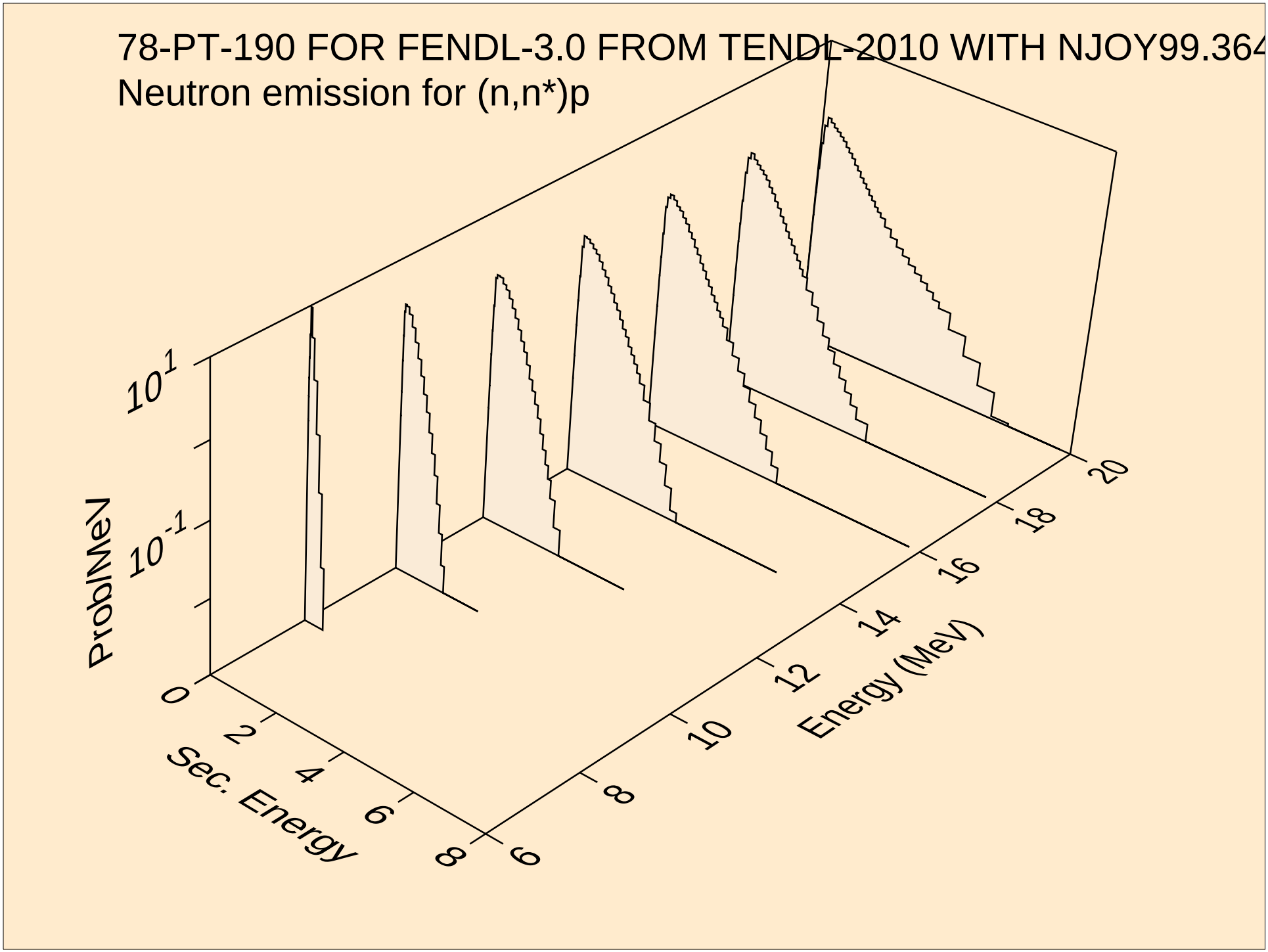

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,2n)
Prob/MeV
10-1
10-3
0
5
10
15
Sec. Energy
8
10
12
14
16
18
20
Energy (MeV)

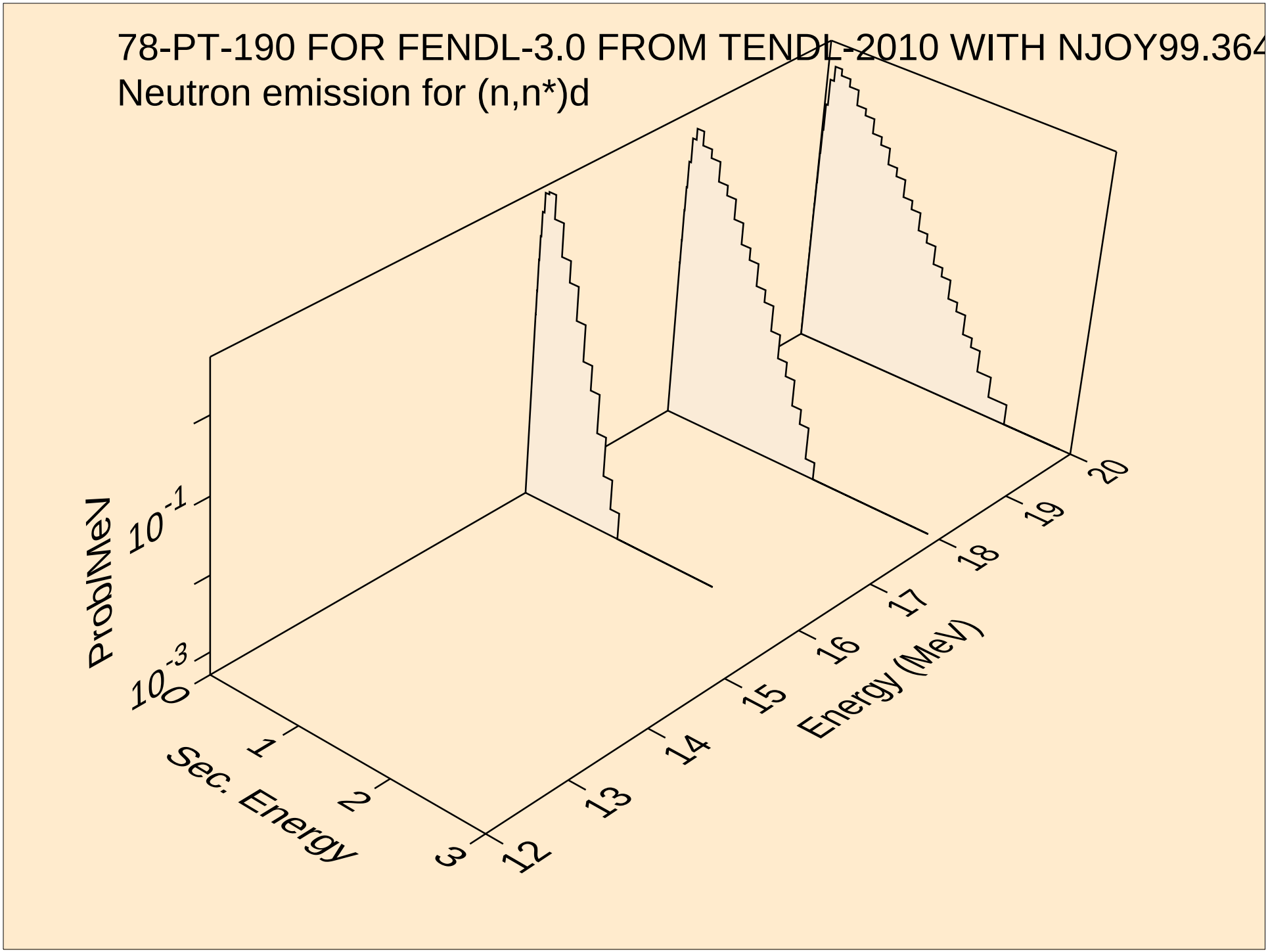

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,3n)
Prob/MeV
10^1
10^-1
0
1
2
3
4
Sec. Energy
15
16
17
18
19
20
Energy (MeV)

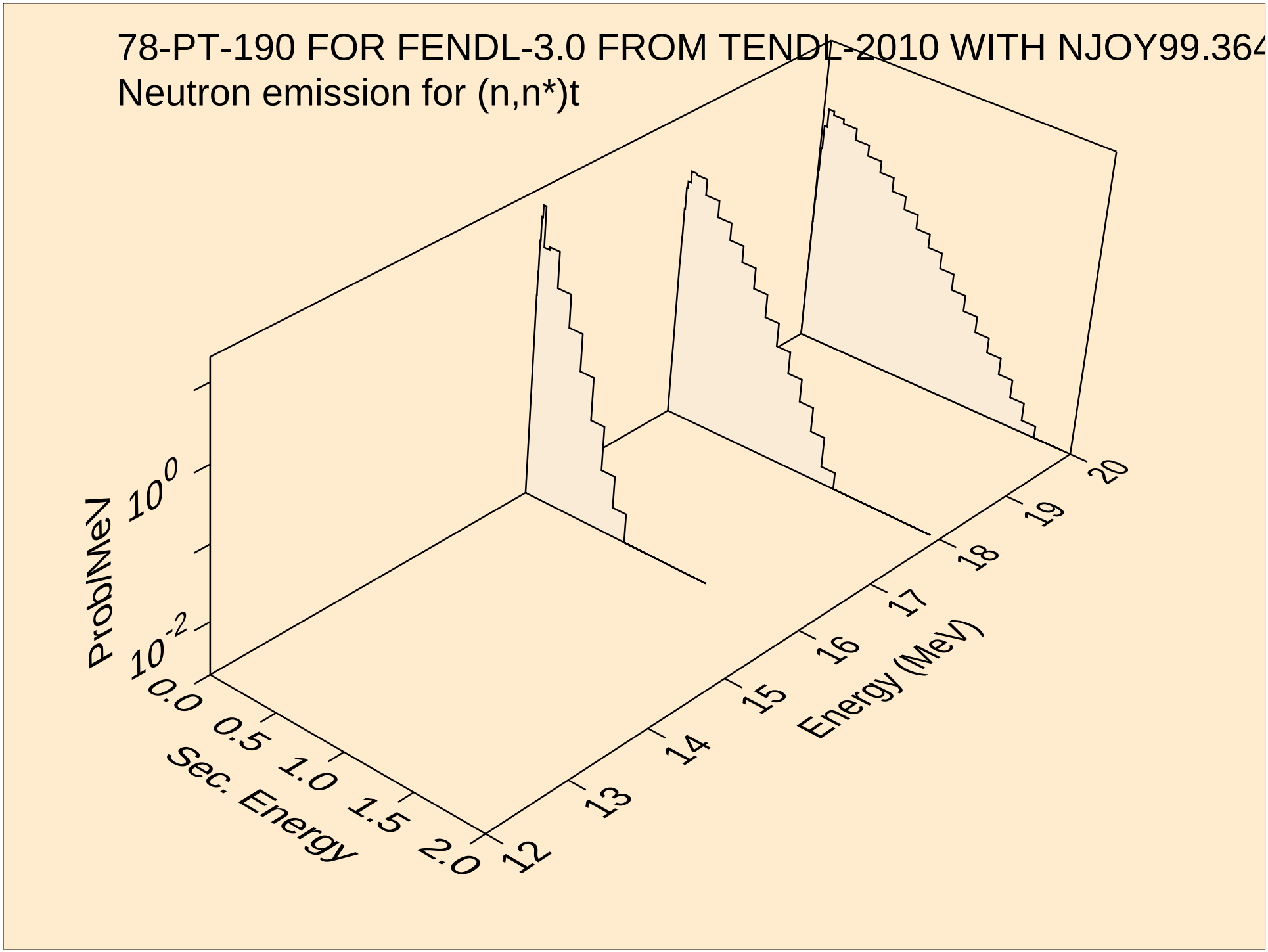

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,n*)a
Prob/MeV
10^1
10^-1
0
2
4
6
8
10
Sec. Energy
0
5
10
15
20
Energy (MeV)

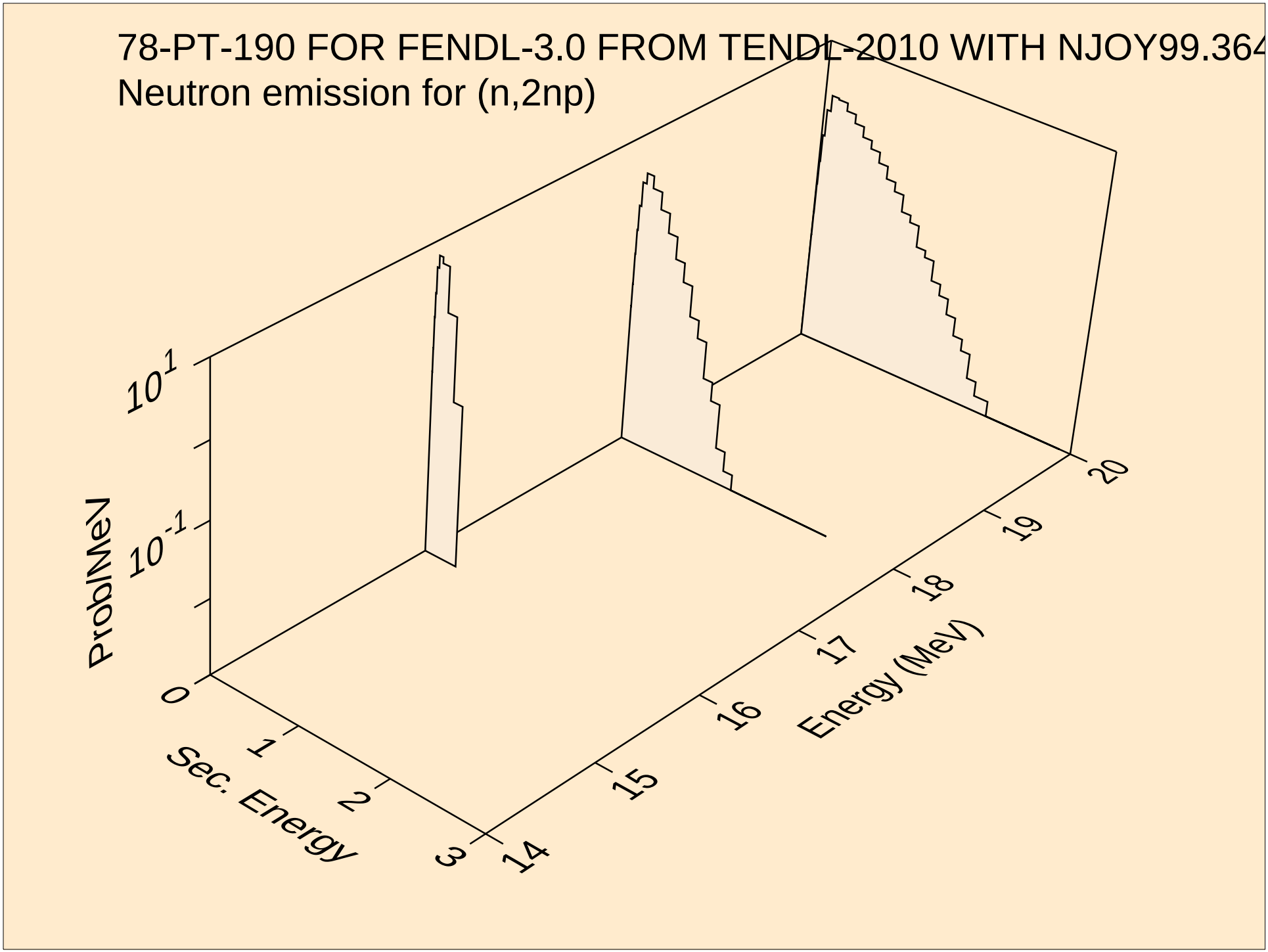

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,2n)a
Prob/MeV
10-1
10-3
0
2
4
6
Sec. Energy
4
6
8
10
12
14
16
18
20
Energy (MeV)

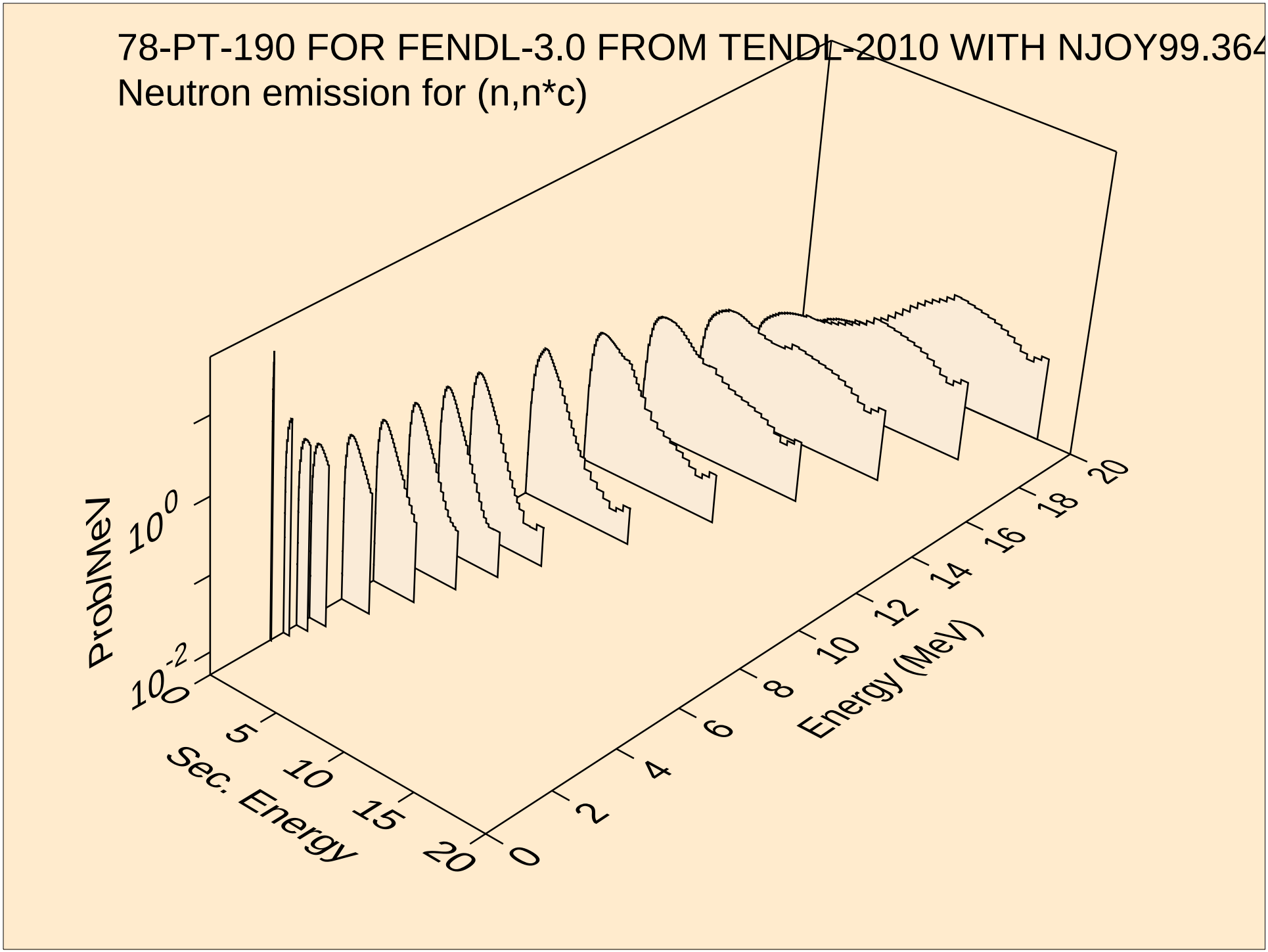

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,3n)a
Prob/MeV
10-1
10-3
0
1
2
3
Sec. Energy
10
12
14
16
18
20
Energy (MeV)

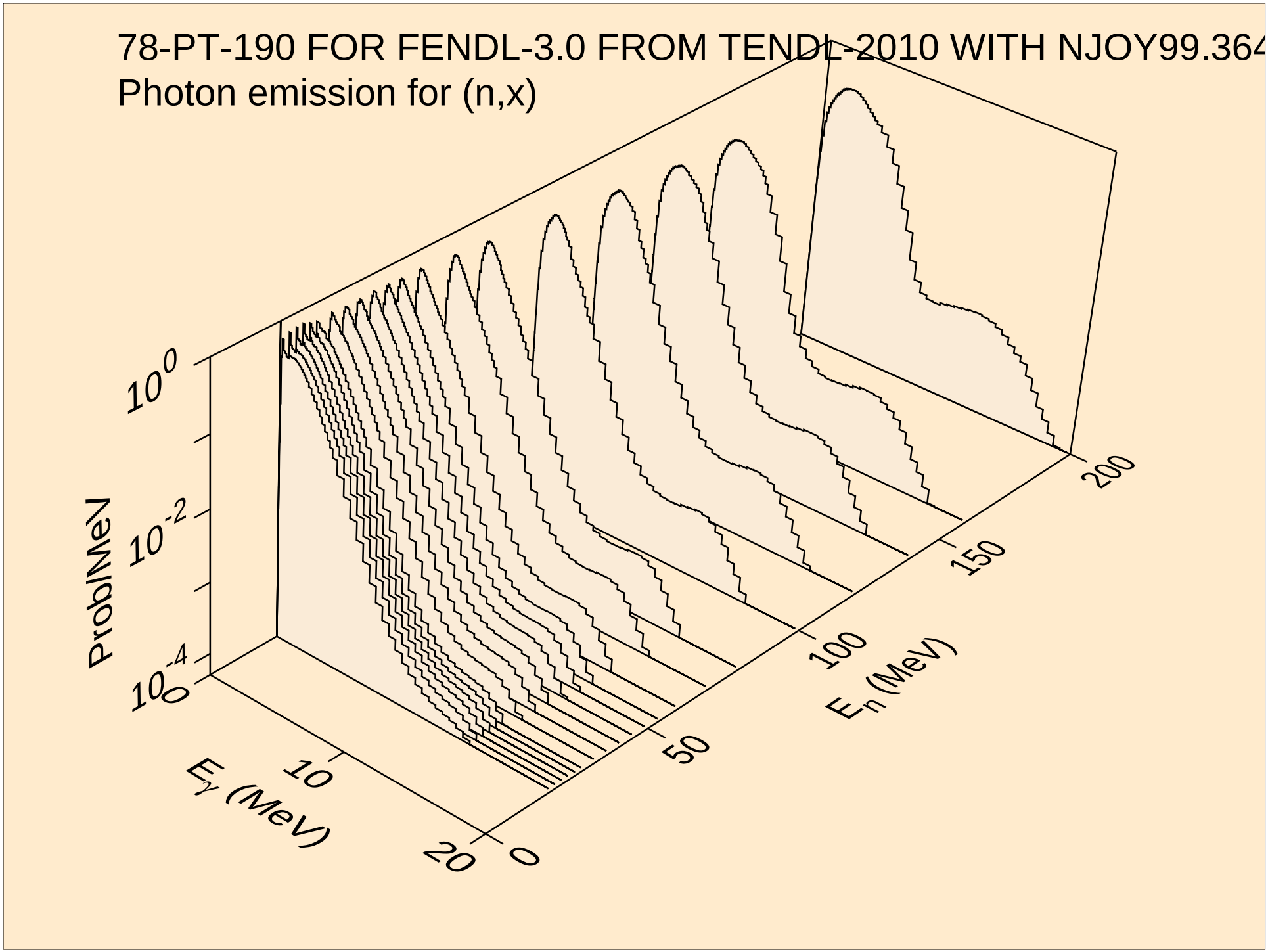

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,n*)p
Prob/MeV
10^1
10^-1
0
2
4
6
8
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

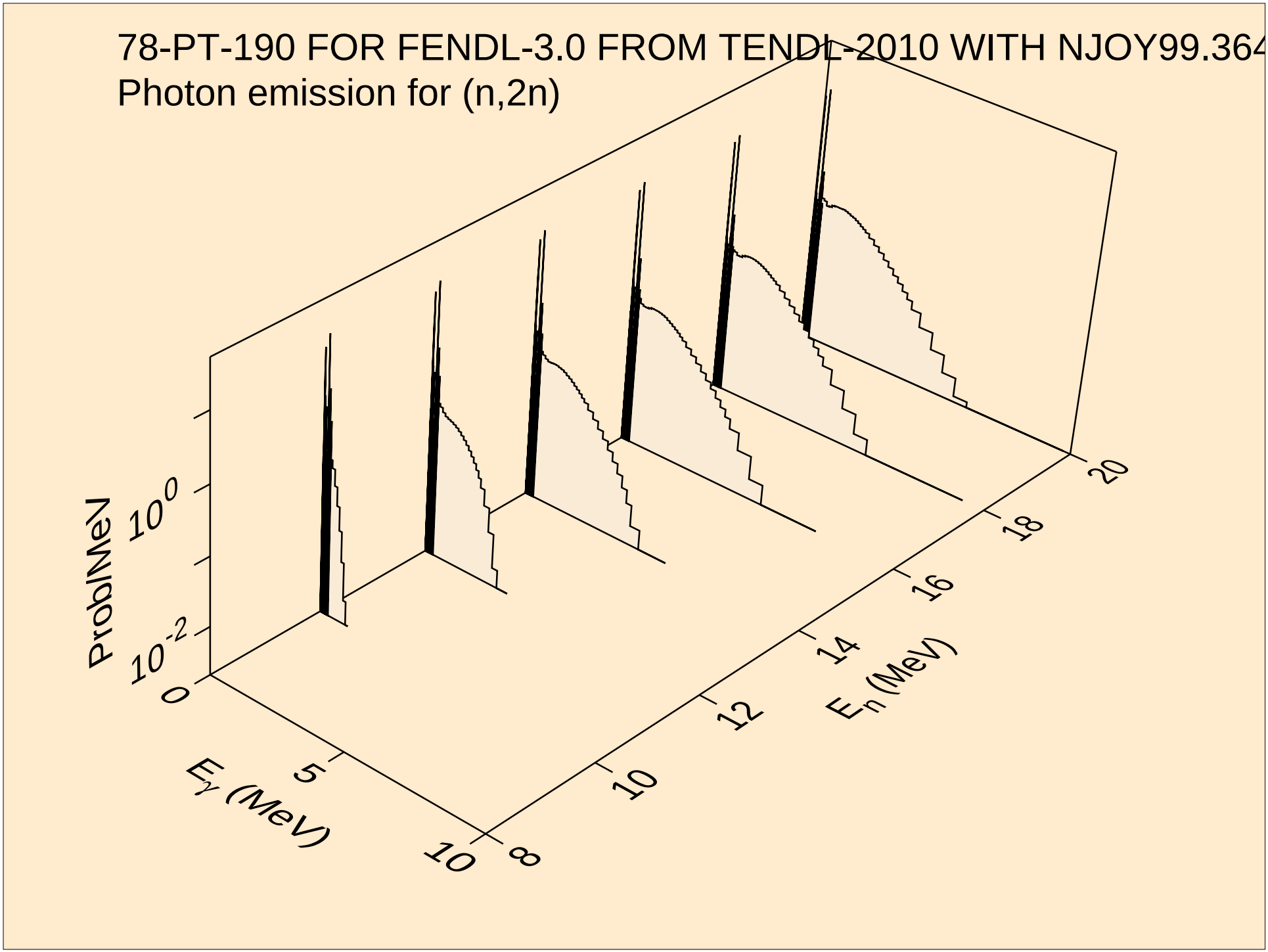

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,n*)d
Prob/MeV
10-1
10-3
0
1
2
3
Sec. Energy
12
13
14
15
16
17
18
19
20
Energy (MeV)

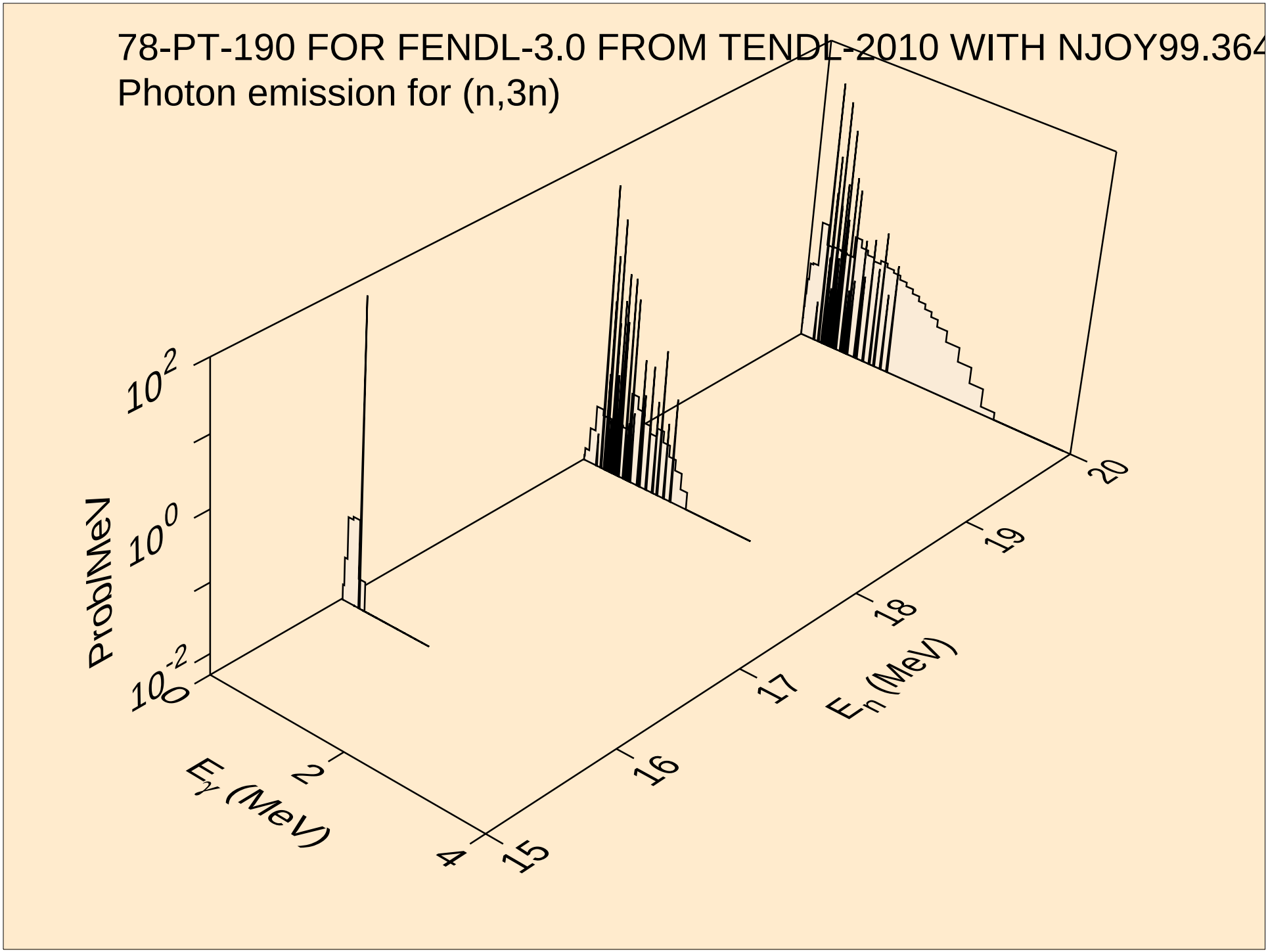

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,n*)t
Prob/MeV
10^{0}
10^{-2}
0.0
0.5
1.0
1.5
2.0
Sec. Energy
12
13
14
15
16
17
18
19
20
Energy (MeV)

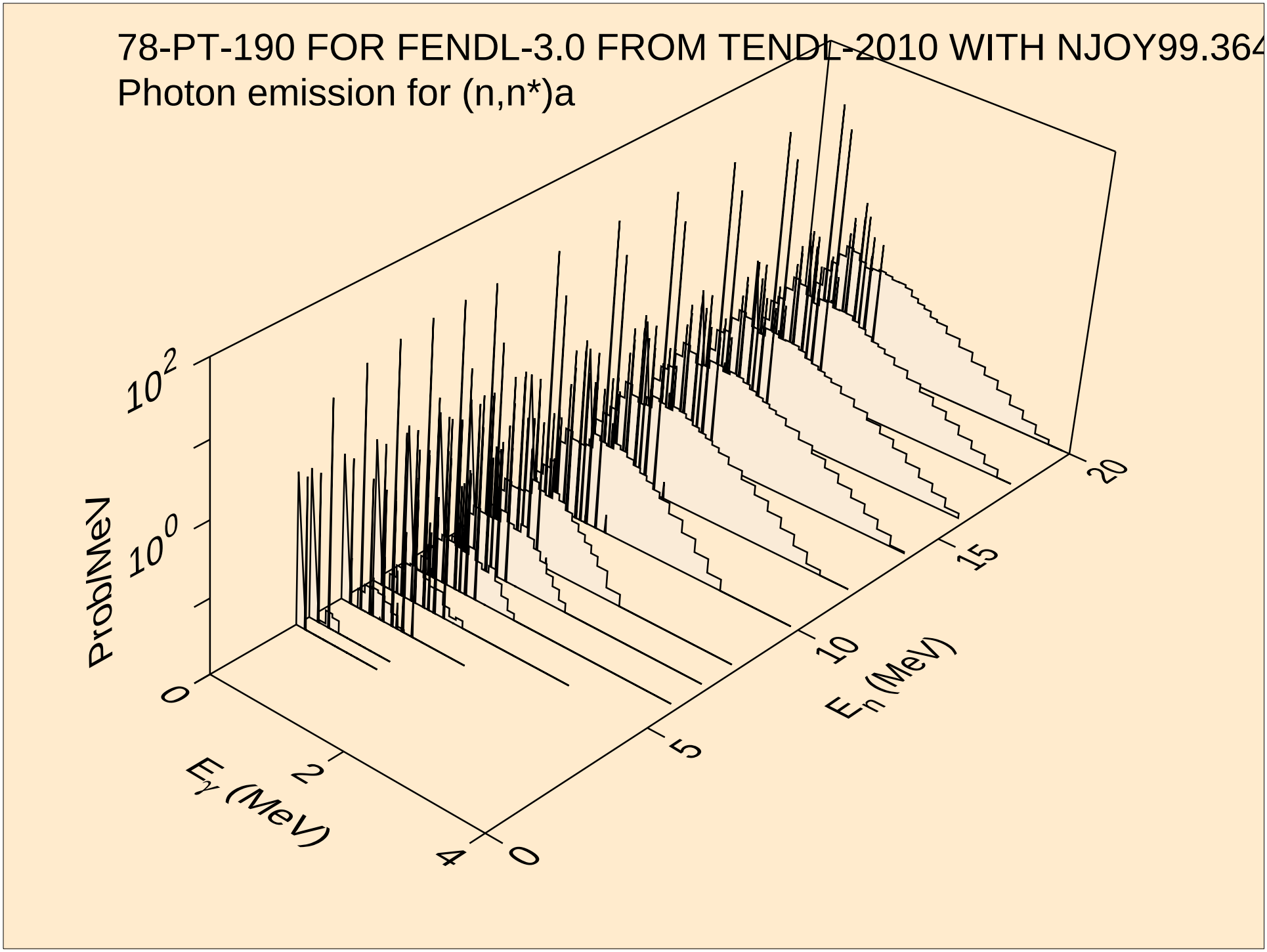

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,2np)
Prob/MeV
10^{1}
10^{-1}
0
1
2
3
Sec. Energy
14
15
16
17
18
19
20
Energy (MeV)

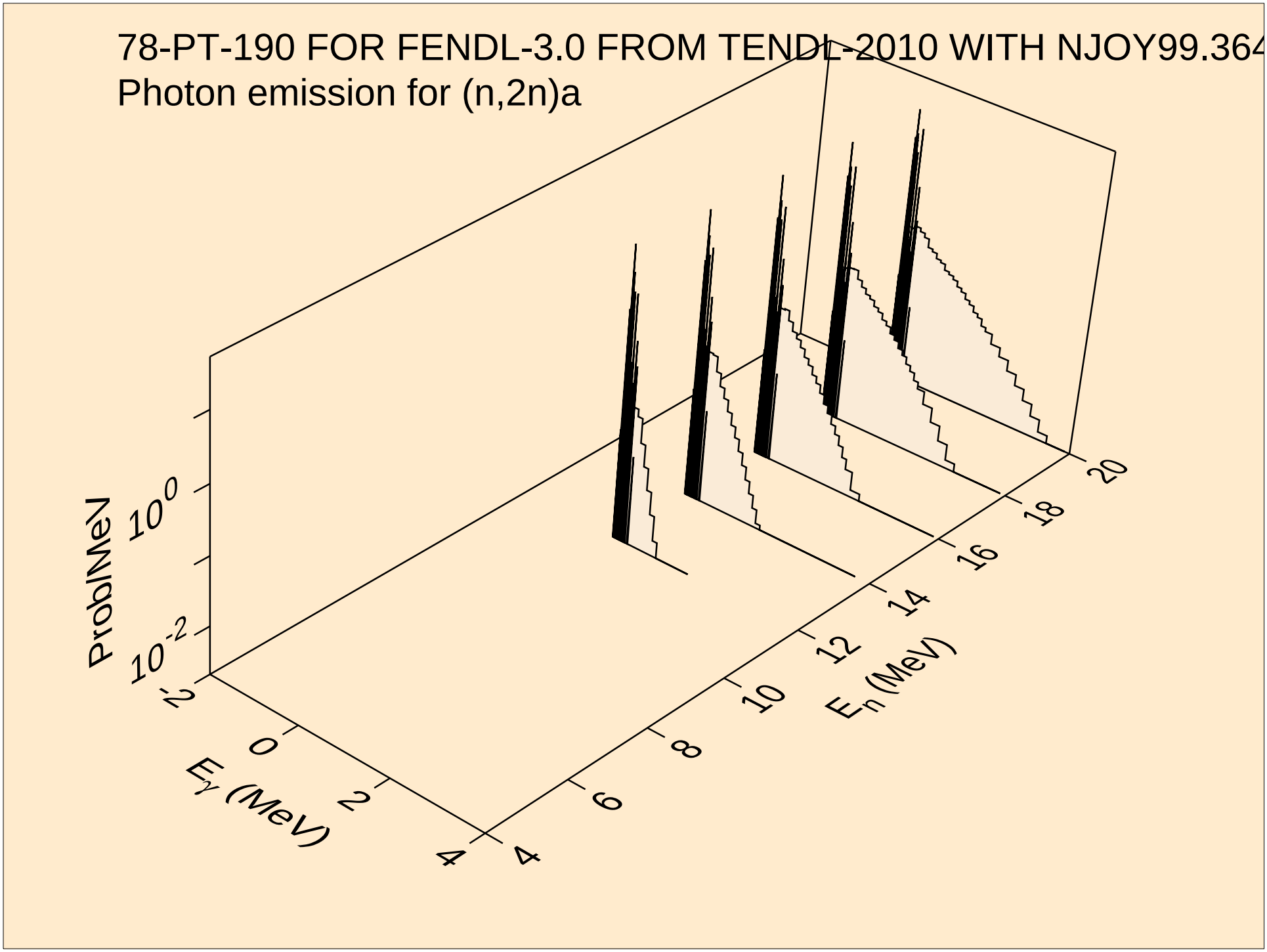

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Neutron emission for (n,n*c)
Prob/MeV
10^{0}
10^{-2}
0
5
10
15
20
Sec. Energy
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

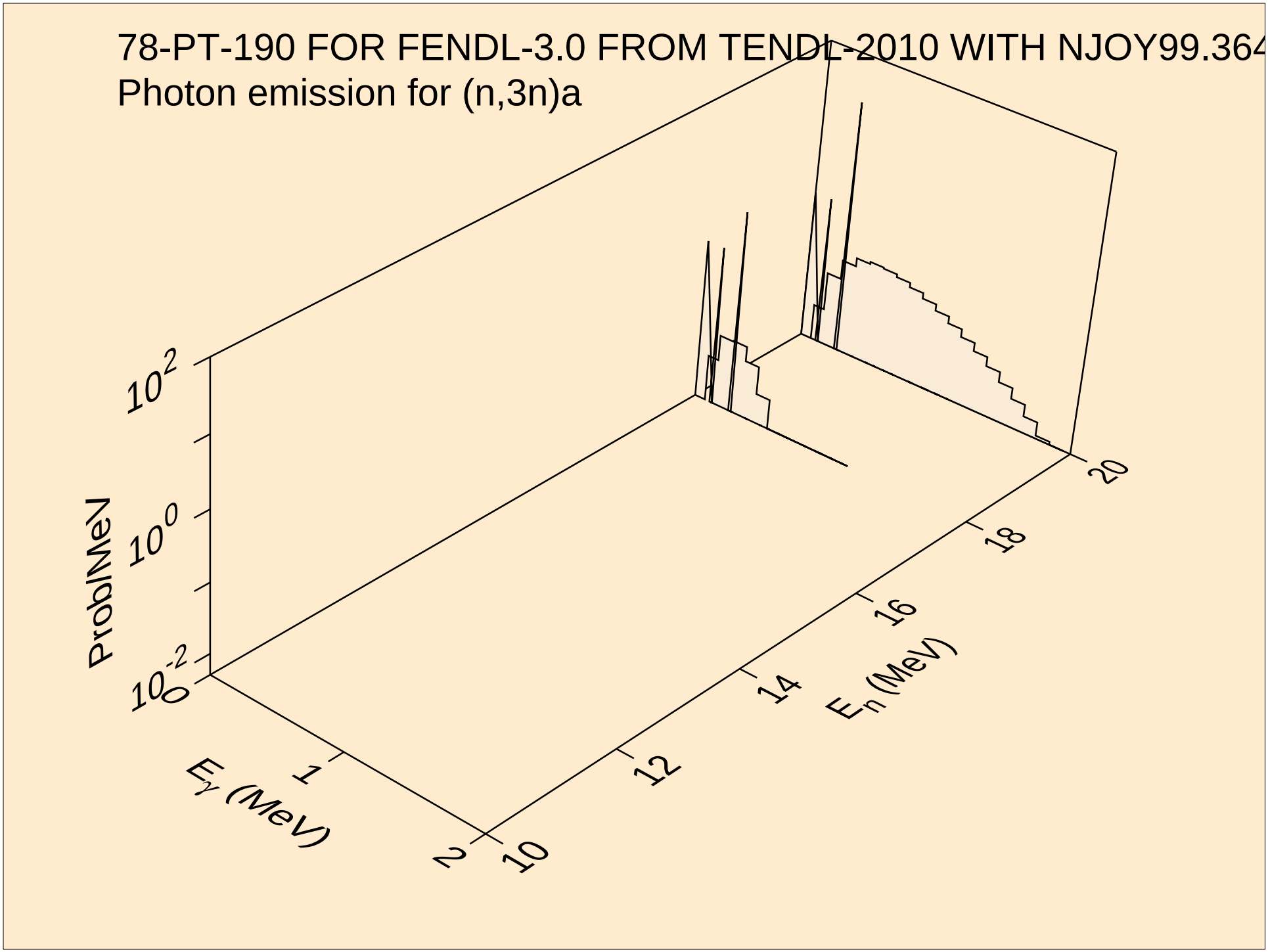

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,x)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
0
10
20
E_γ (MeV)
0
50
100
150
200
E_n (MeV)

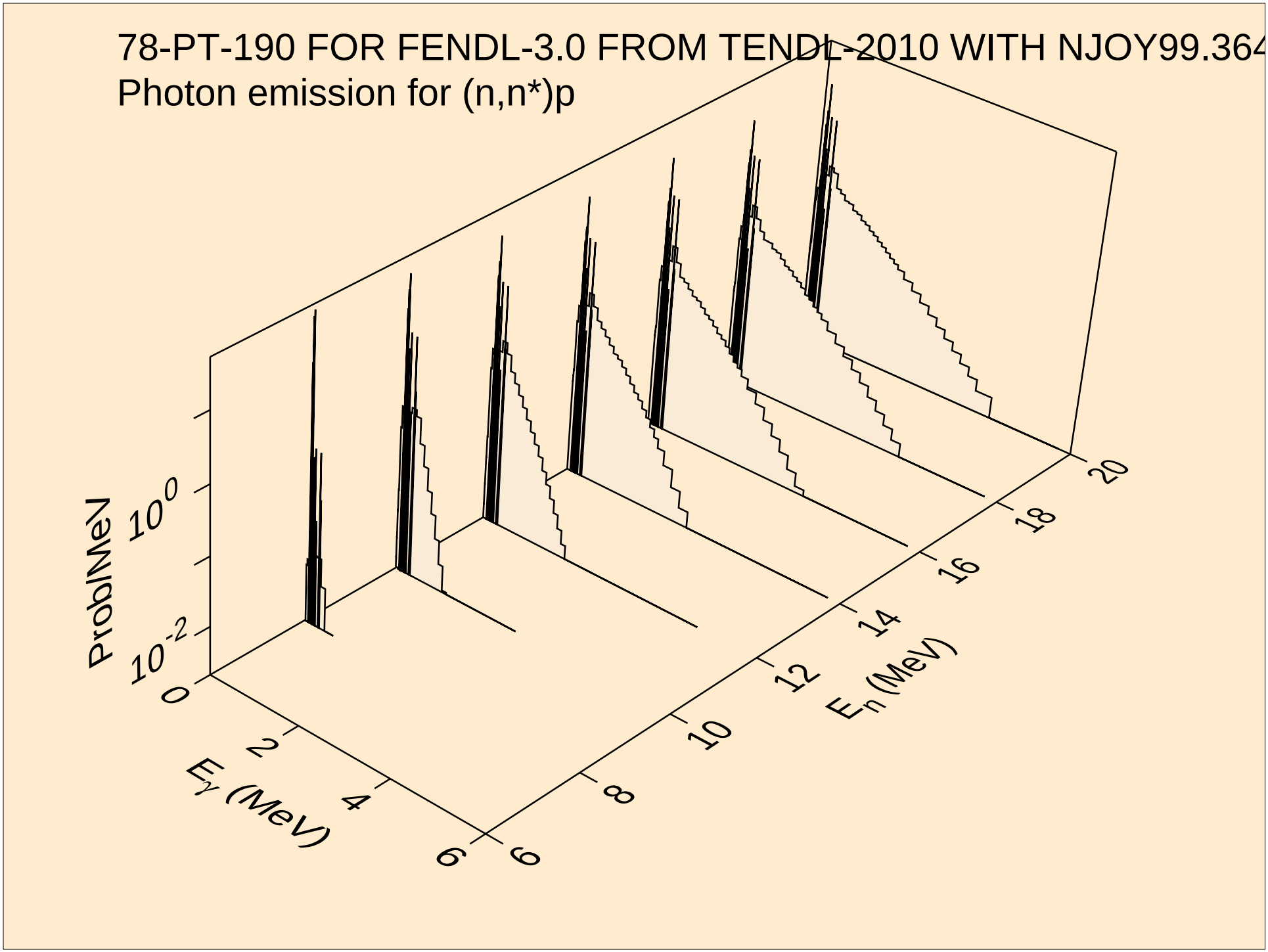

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,2n)
Prob/MeV
10^0
10^-2
0
5
10
E_γ (MeV)
8
10
12
14
16
18
20
E_n (MeV)

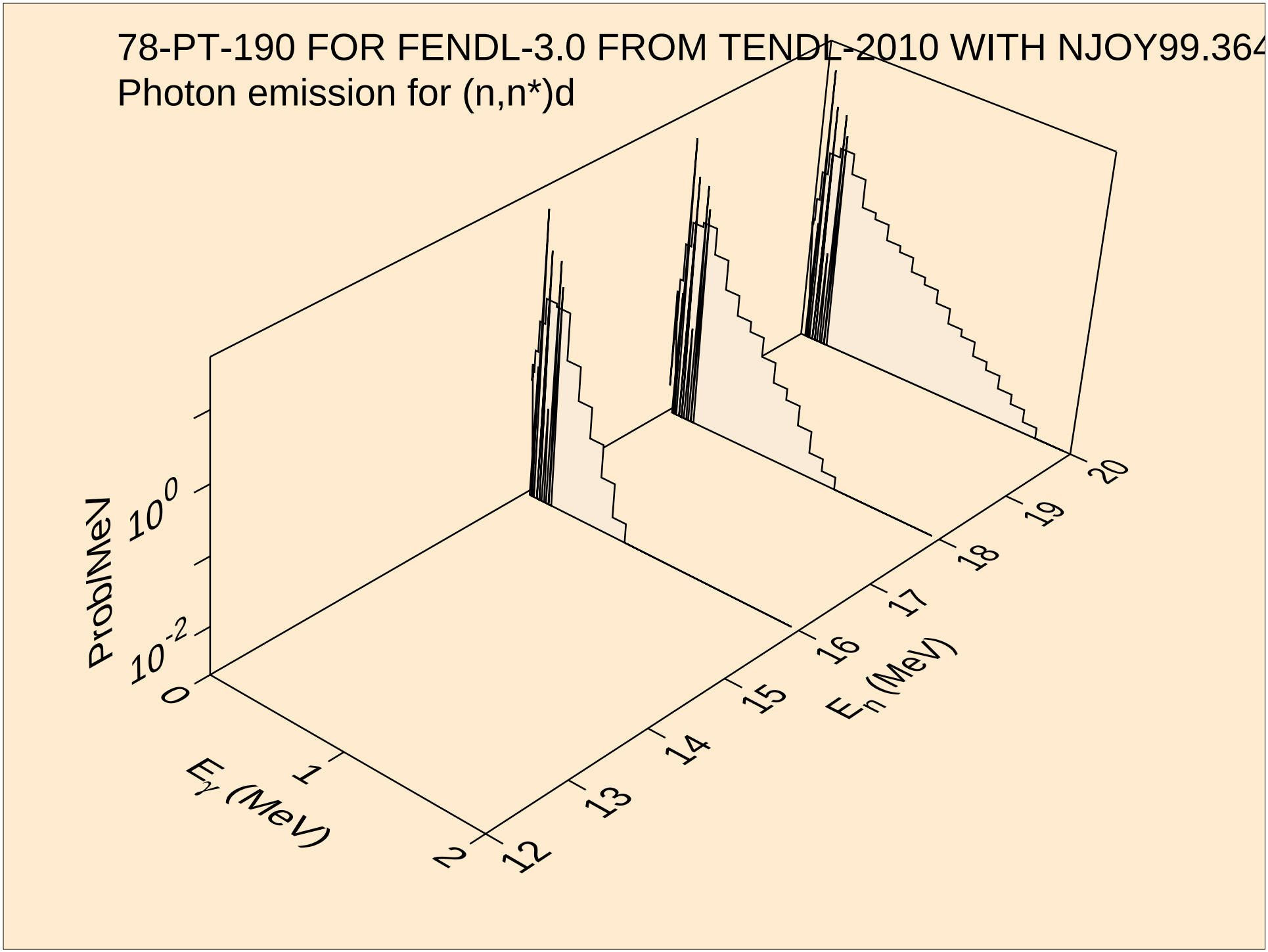

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,3n)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
15
16
17
18
19
20
E_n (MeV)

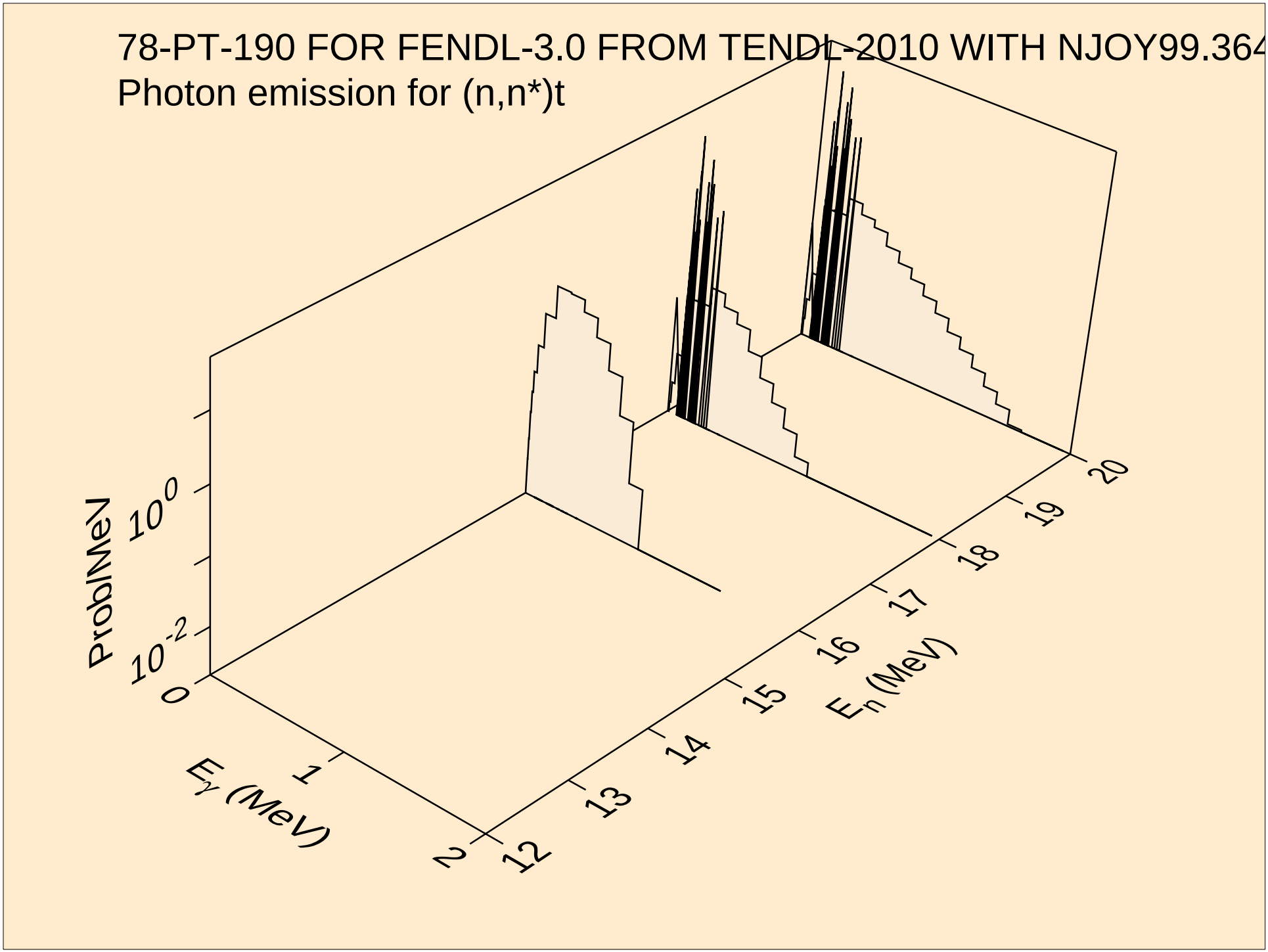

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,n*)a
Prob/MeV
10^2
10^0
0
2
4
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

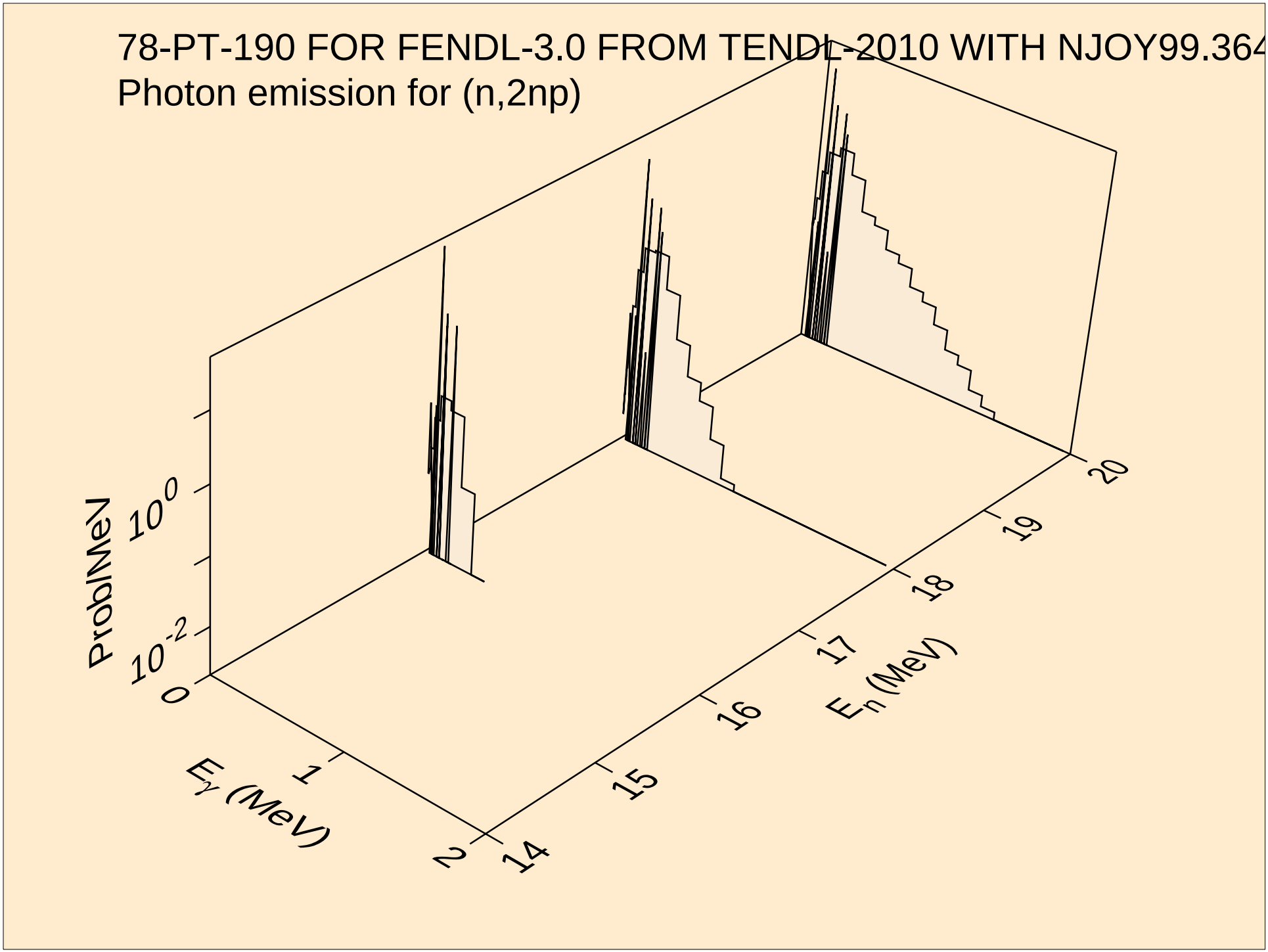

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,2n)a
Prob/MeV
10^{0}
10^{-2}
-2
0
2
4
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

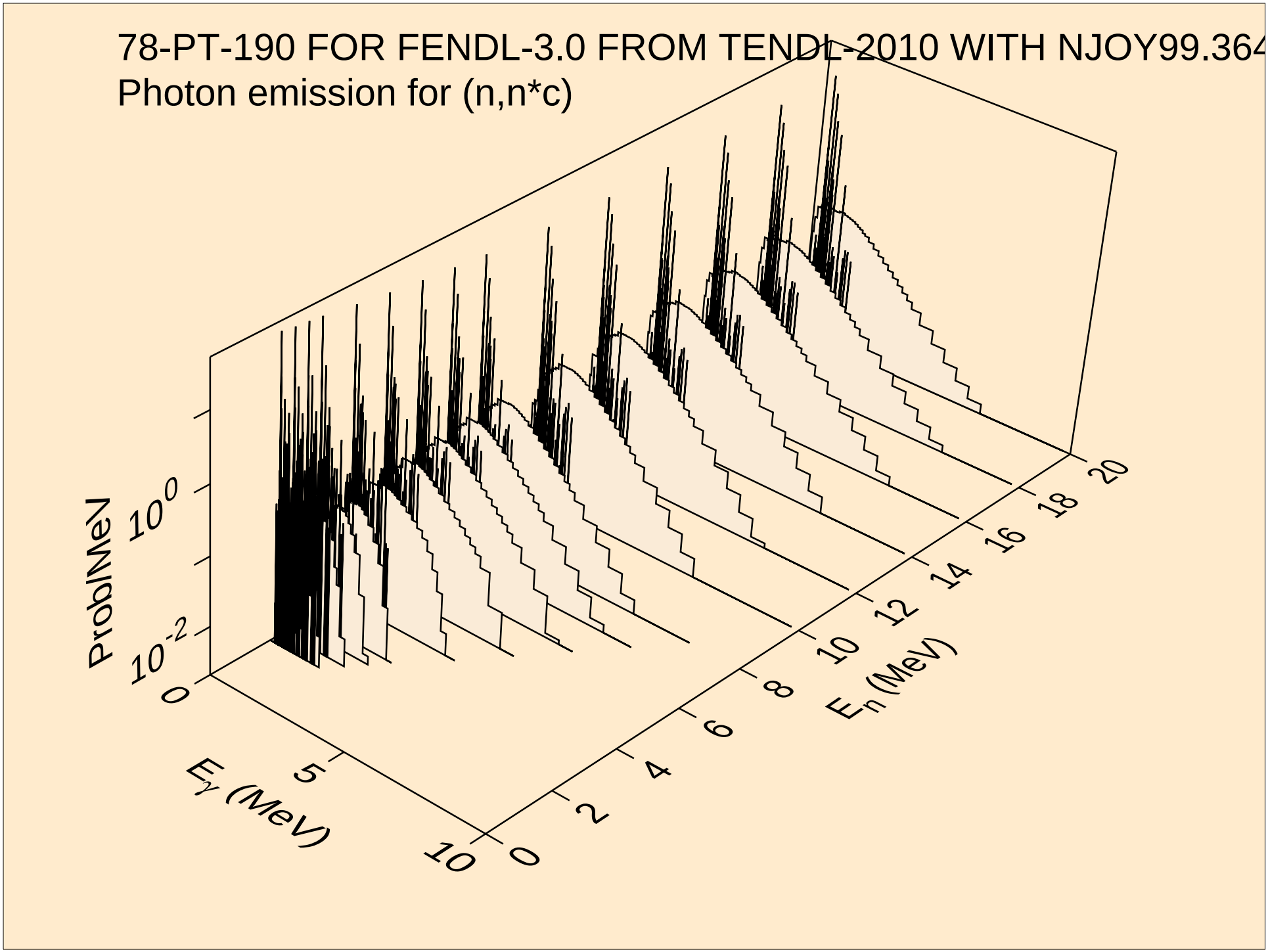

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,3n)a
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
1
2
10
12
14
16
18
20
E_n (MeV)

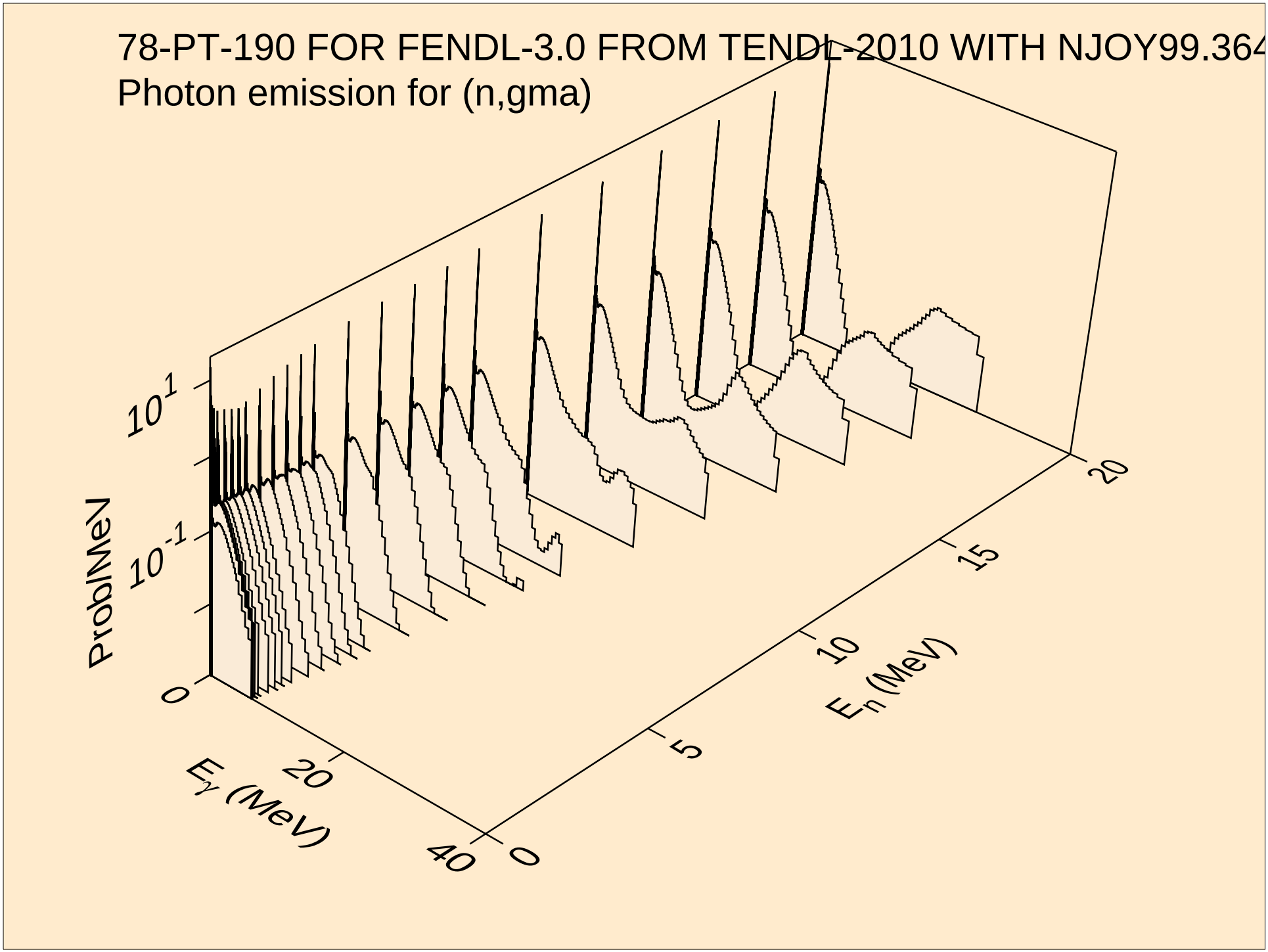

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,n*)p
Prob/MeV
10^0
10^-2
0
2
4
6
Eγ (MeV)
6
8
10
12
14
16
18
20
En (MeV)

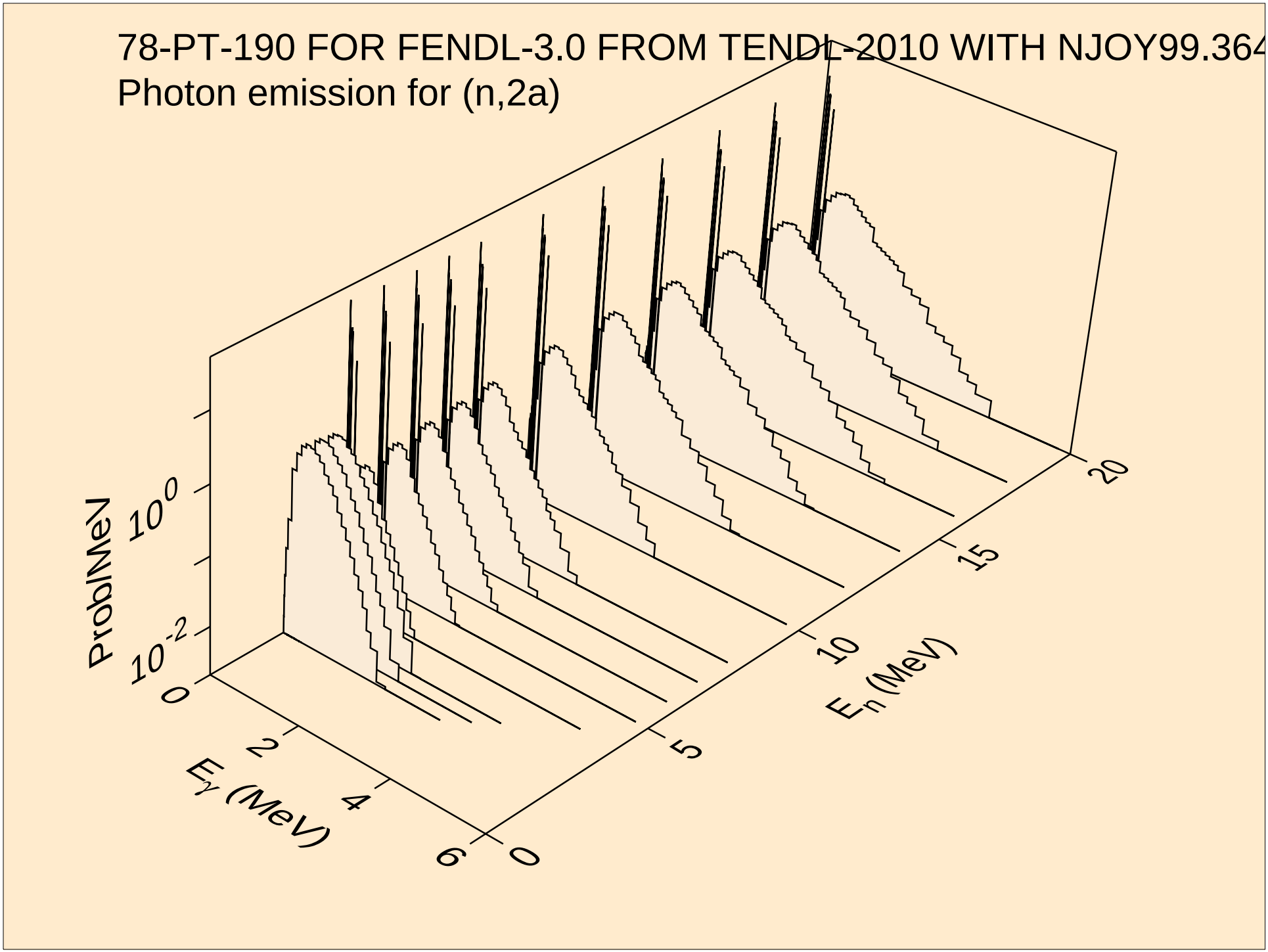

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,n*)d
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
12
13
14
15
16
17
18
19
20
En (MeV)

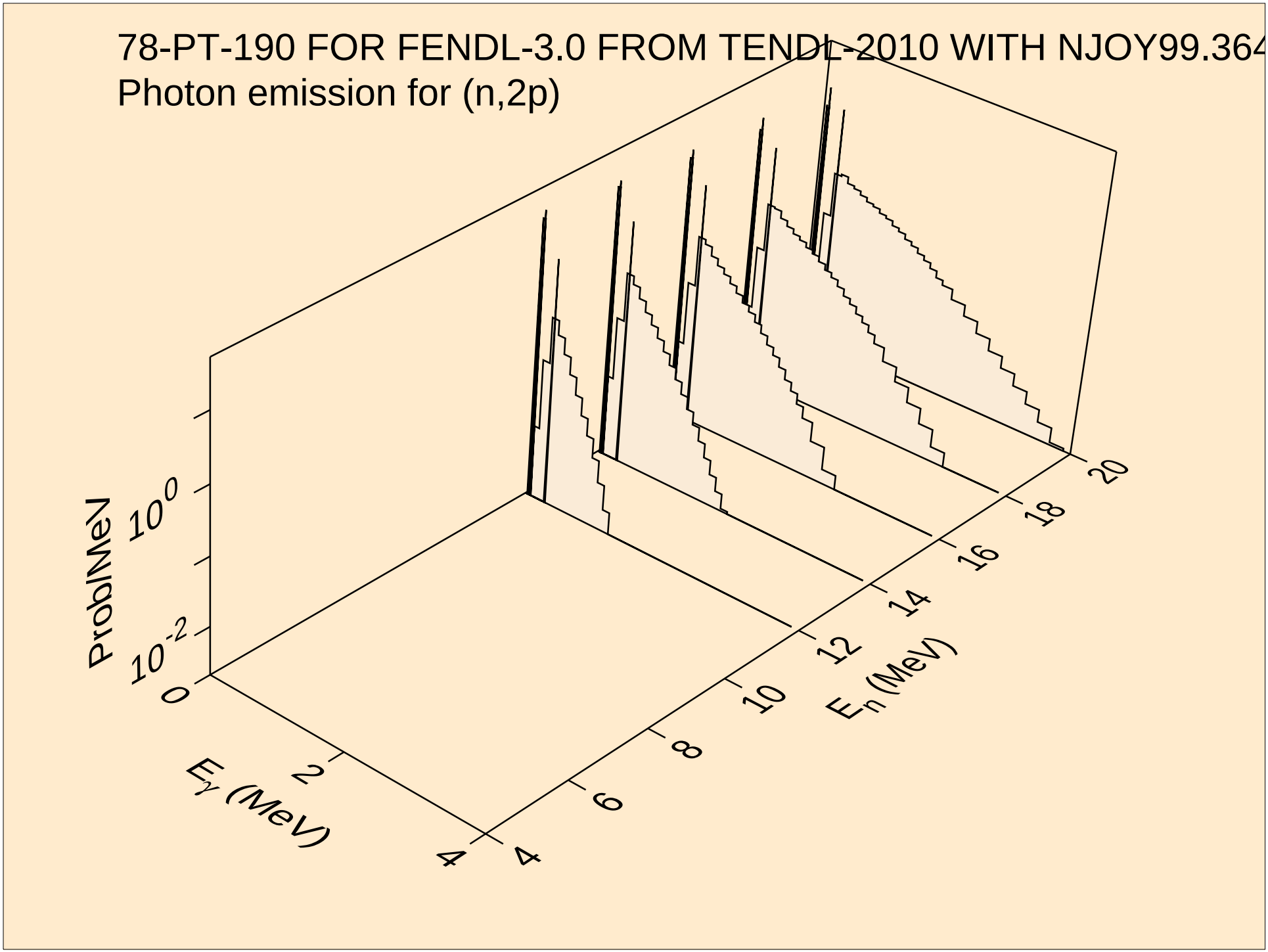

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,n*)t
Prob/MeV
10^0
10^-2
0
1
2
E_γ (MeV)
12
13
14
15
16
17
18
19
20
E_n (MeV)

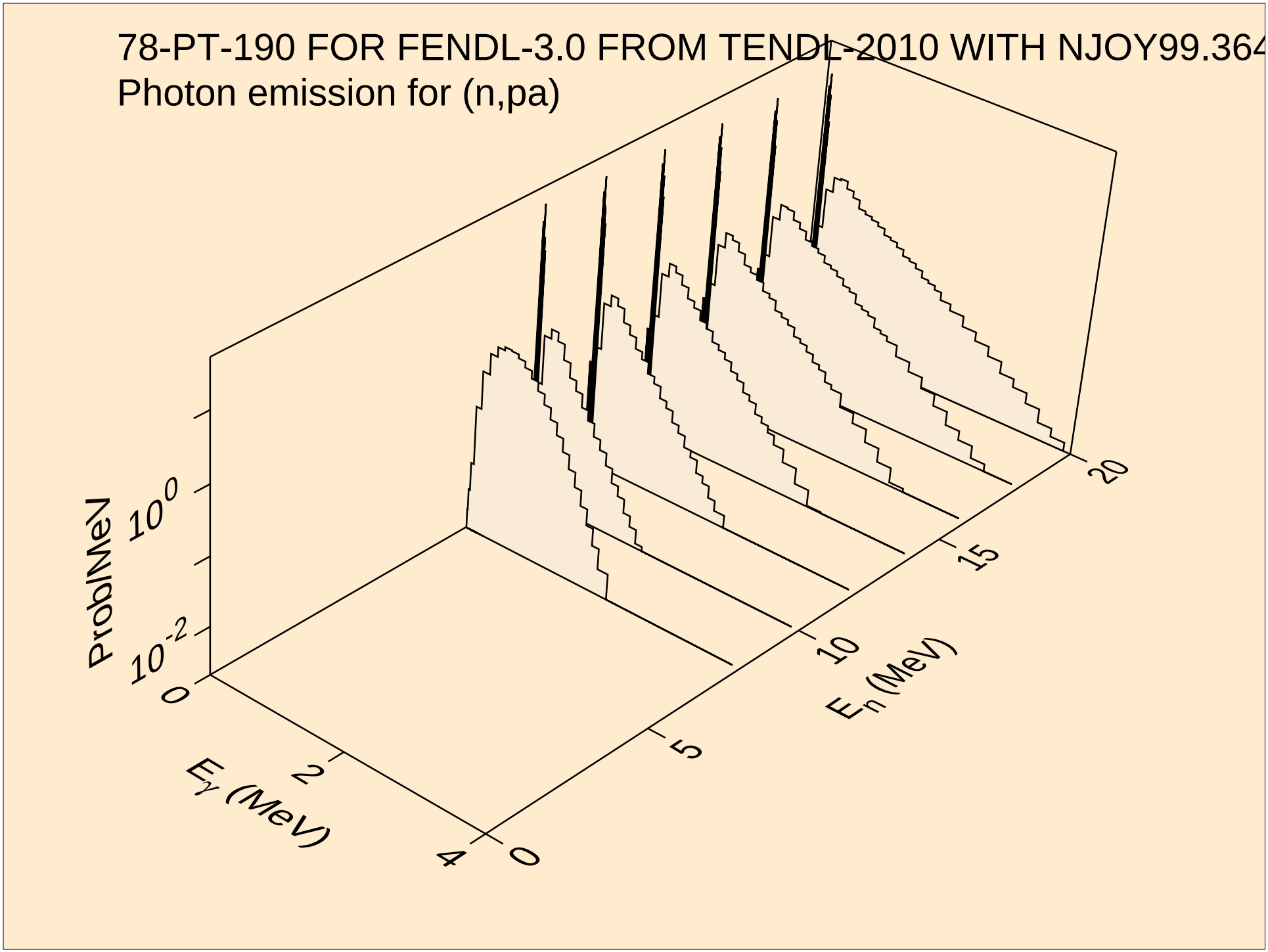

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,2np)
Prob/MeV
10^0
10^-2
0
E_γ (MeV)
1
2
14
15
16
17
18
19
20
E_n (MeV)

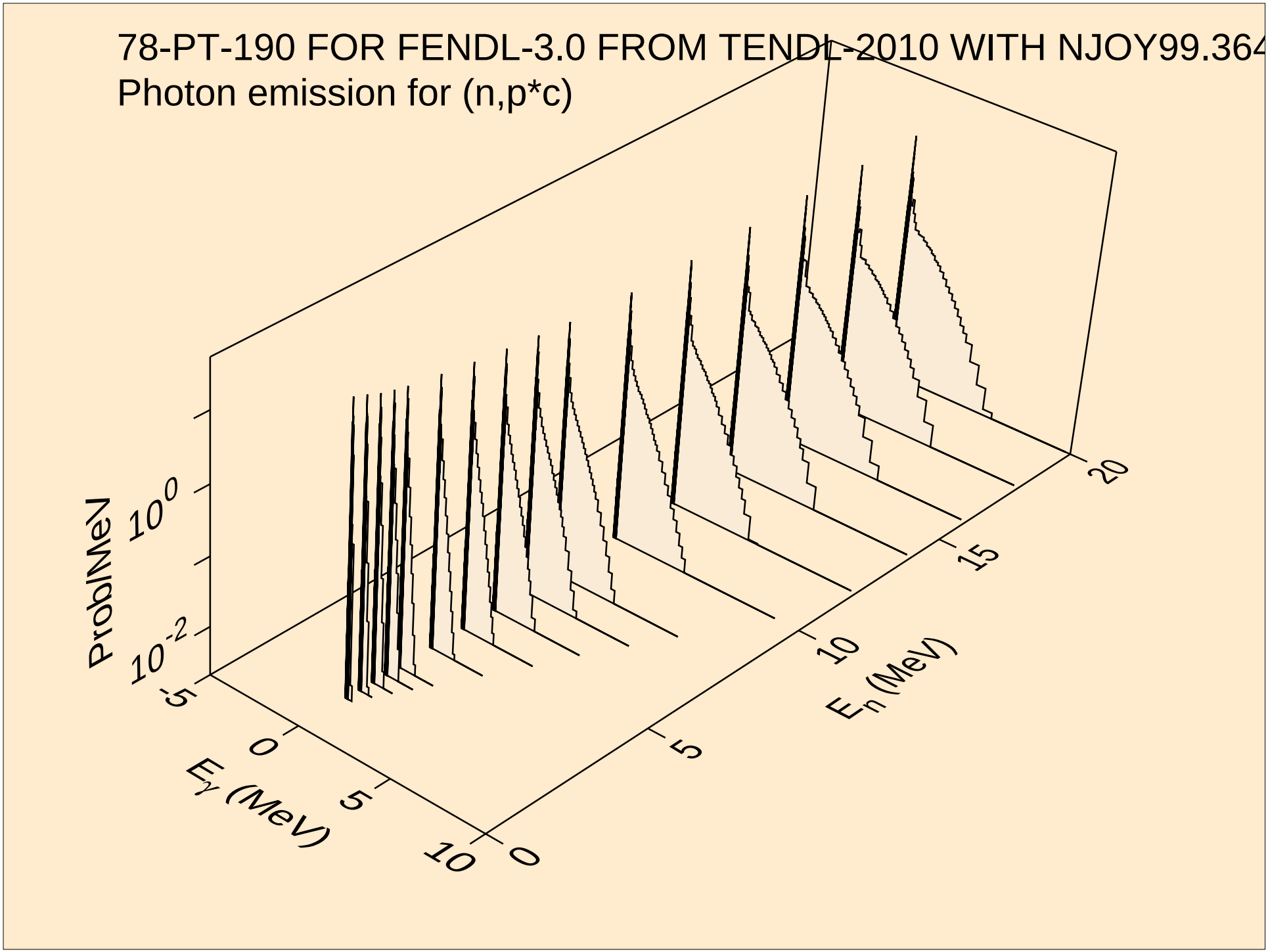

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,n*c)
Prob/MeV
10^0
10^-2
0
Eγ (MeV)
5
10
0
2
4
6
8
10
12
14
16
18
20
En (MeV)

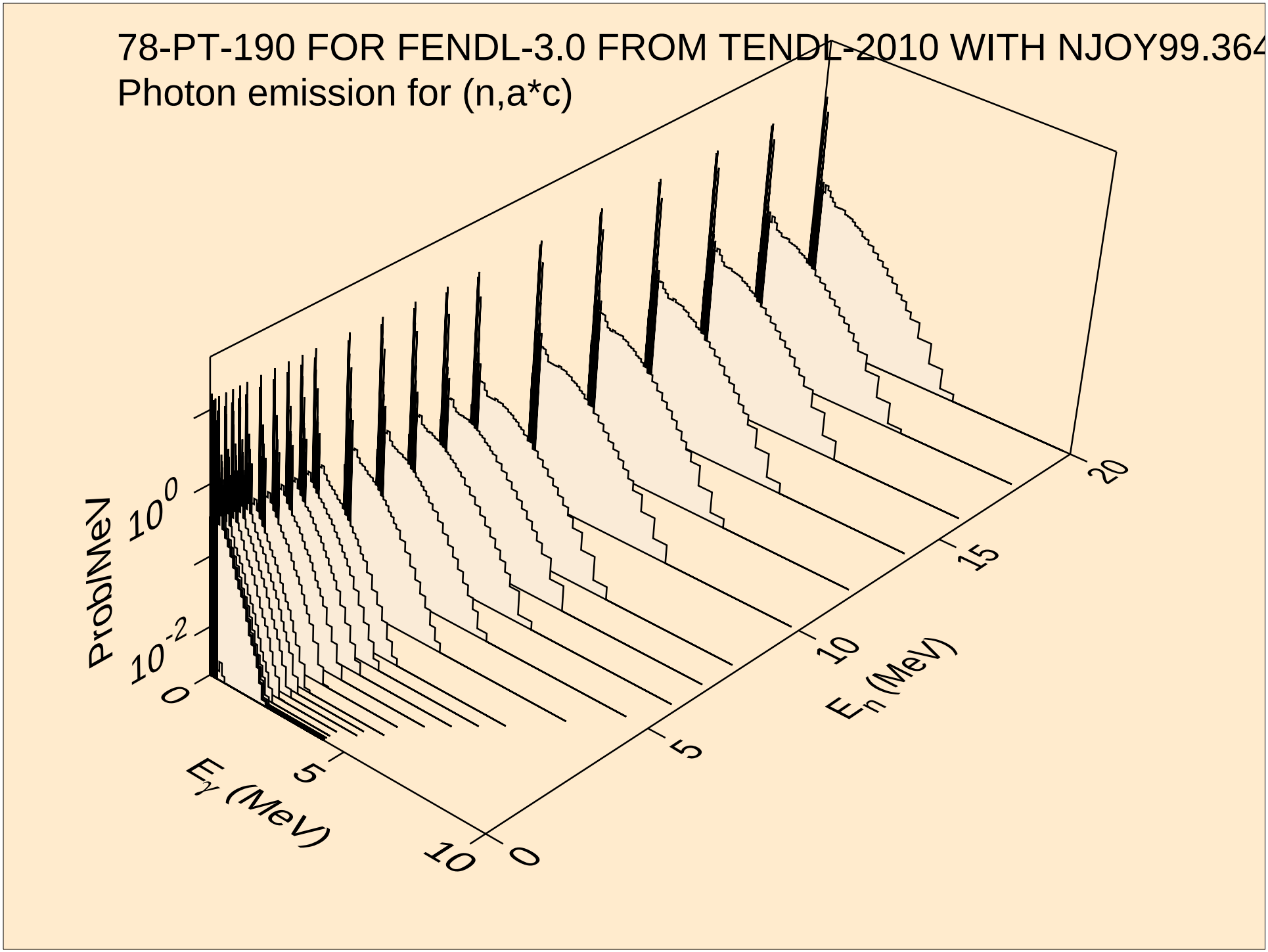

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,gma)
Prob/MeV
10^{1}
10^{-1}
0
20
40
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

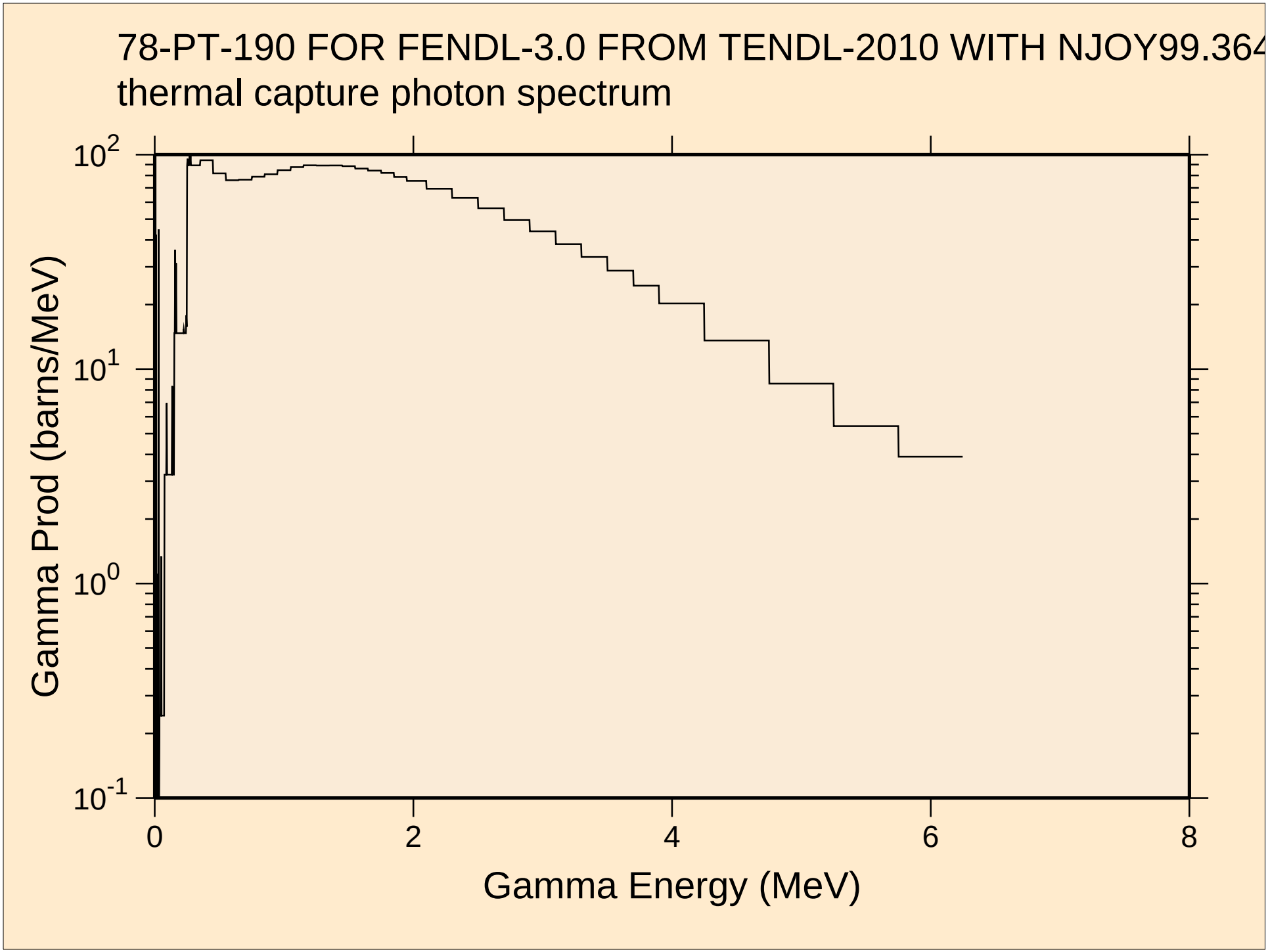

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,2a)
Prob/MeV
10^{0}
10^{-2}
0
2
4
6
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

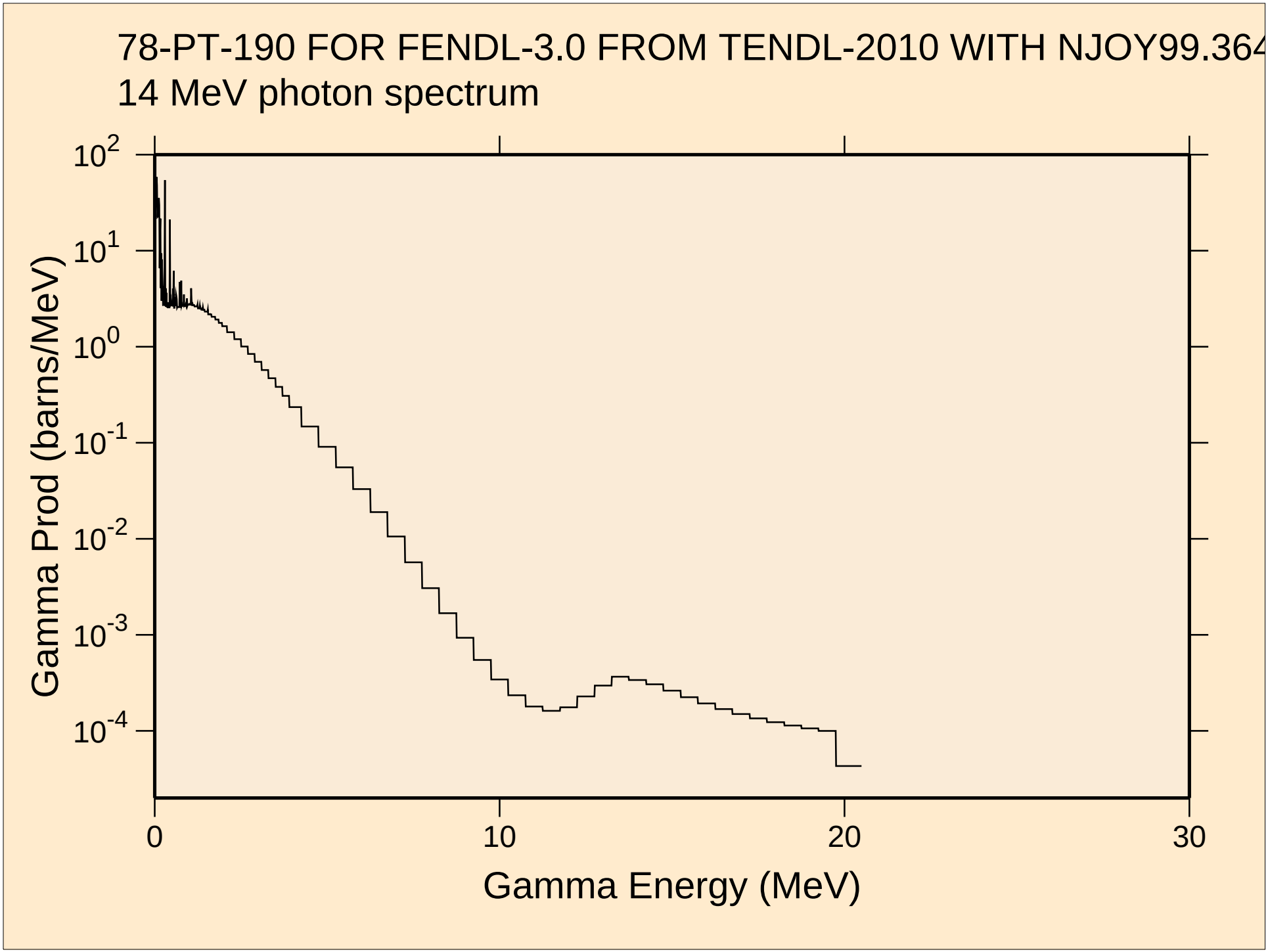

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,2p)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

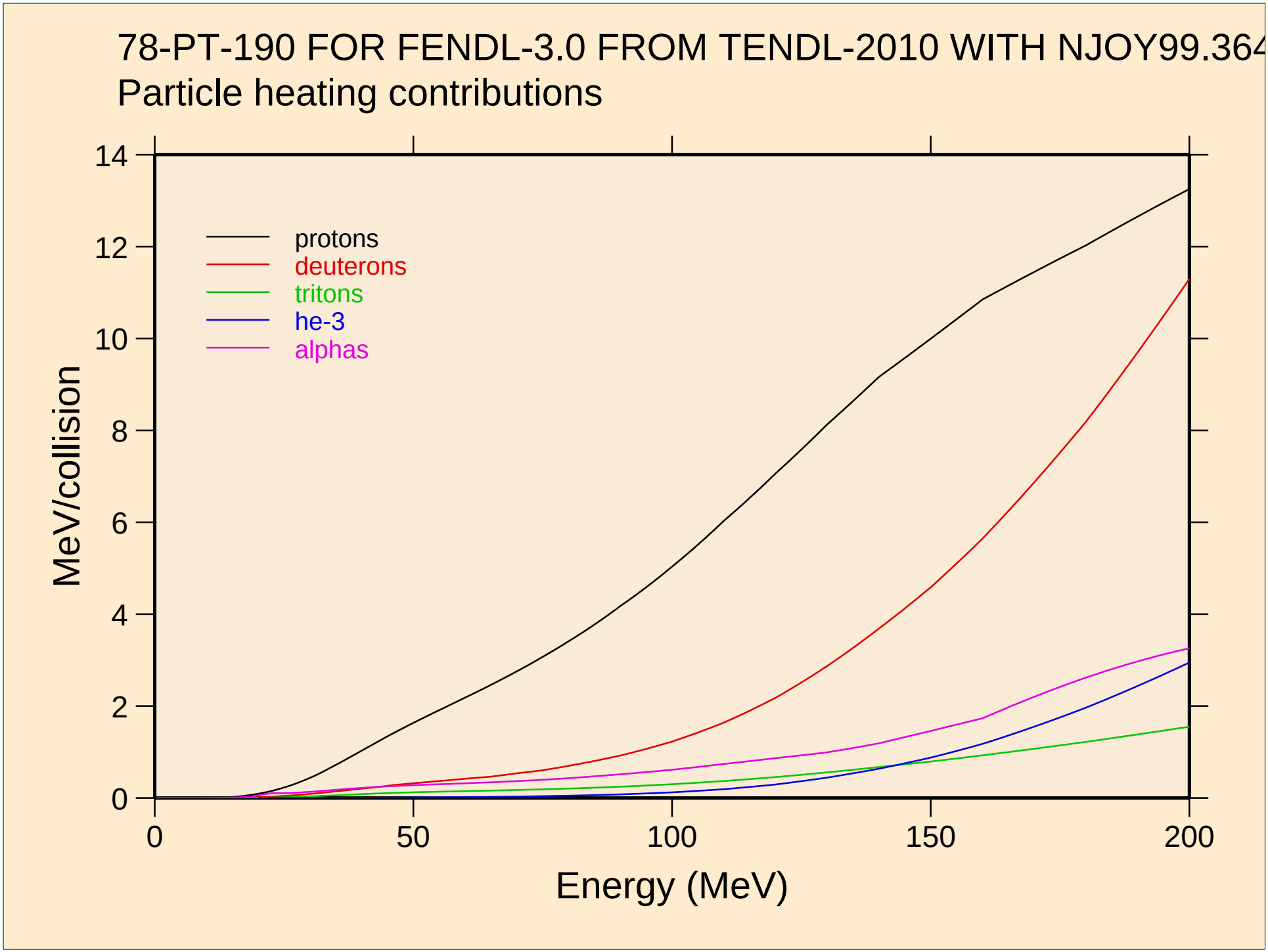

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,pa)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

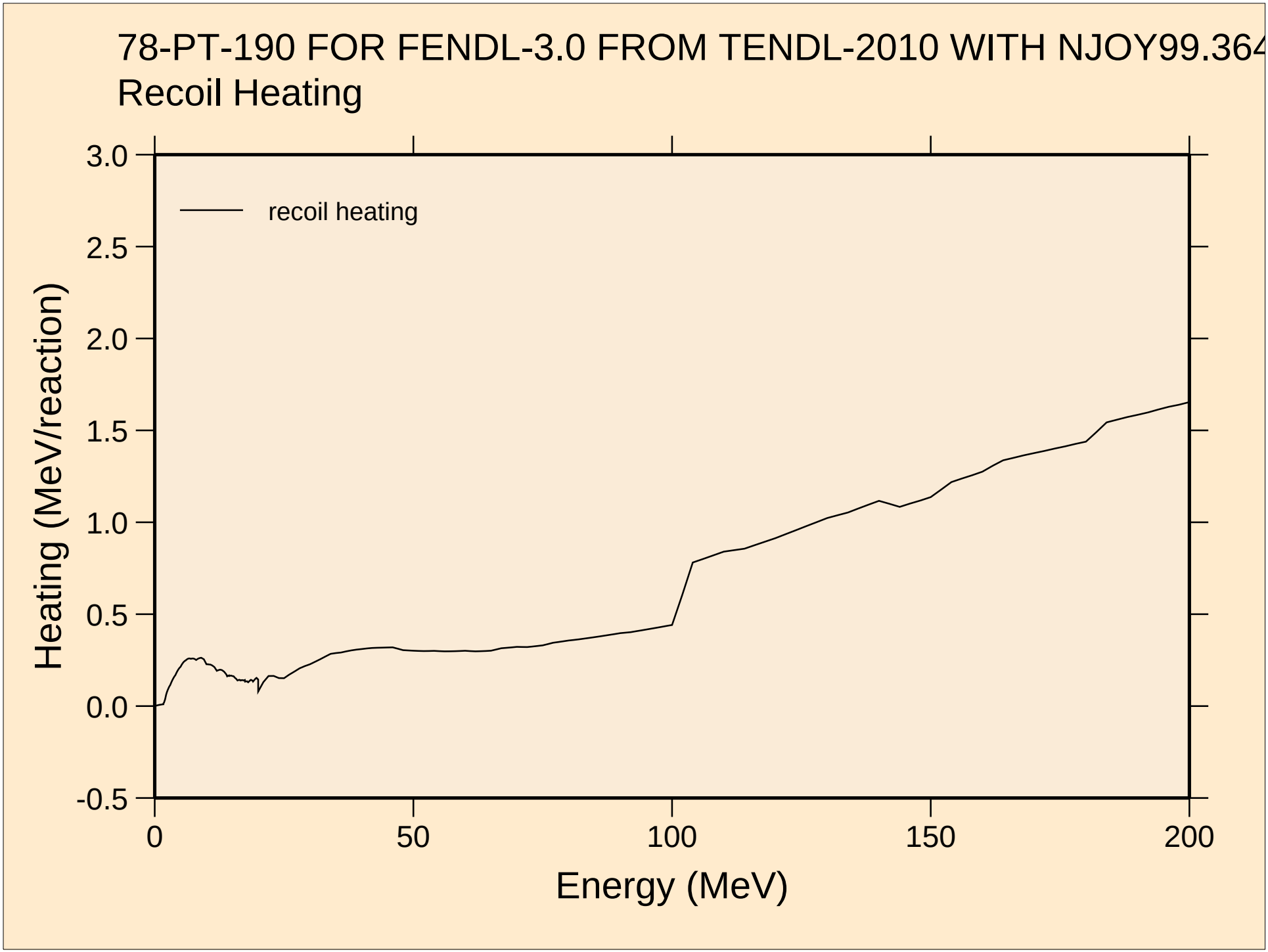

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,p*c)
Prob/MeV
10^0
10^-2
-5
0
5
10
Eγ (MeV)
0
5
10
15
20
En (MeV)

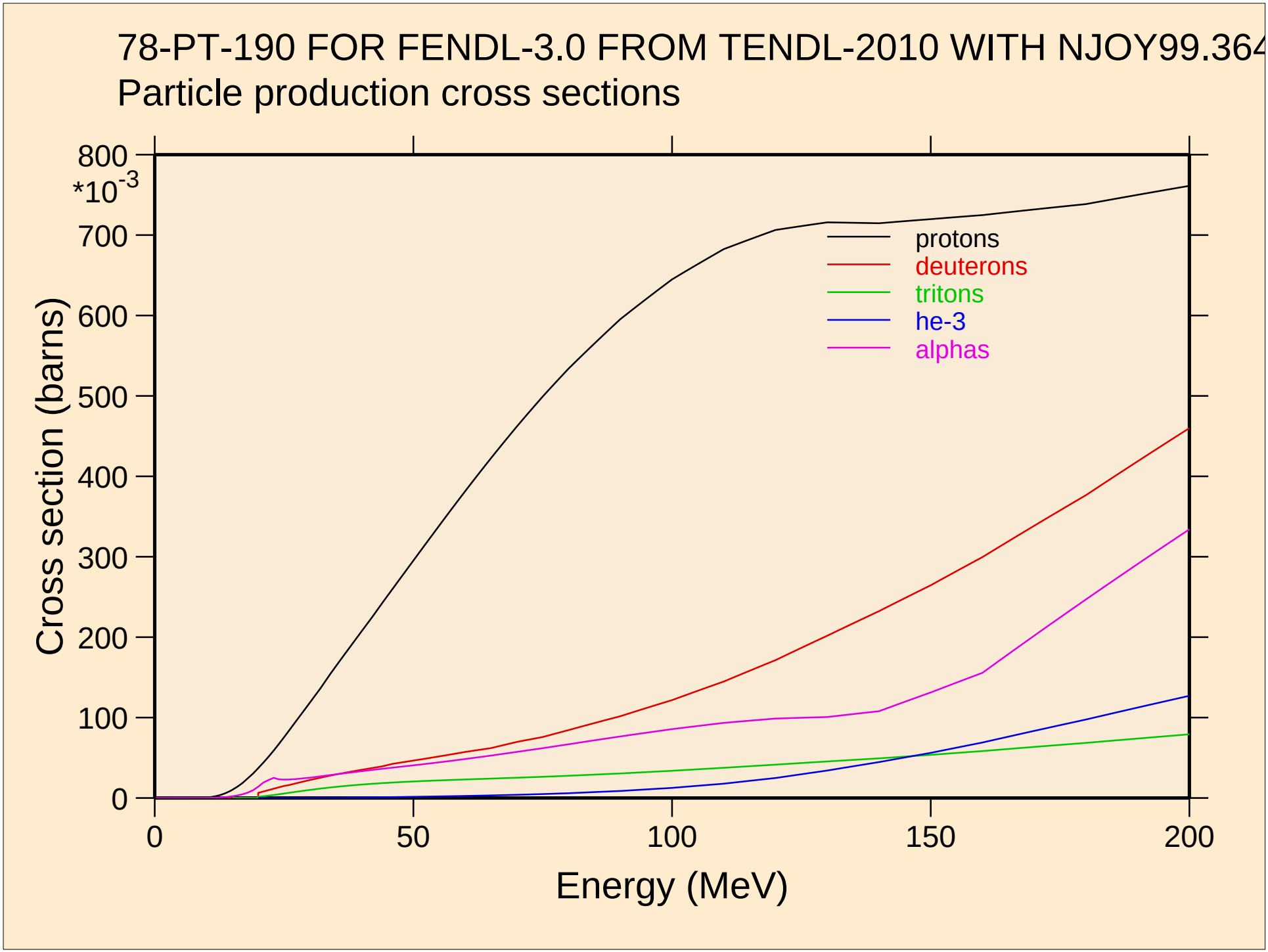

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Photon emission for (n,a*c)
Prob/MeV
10^0
10^-2
0
5
10
E_γ (MeV)
0
5
10
15
20
E_n (MeV)

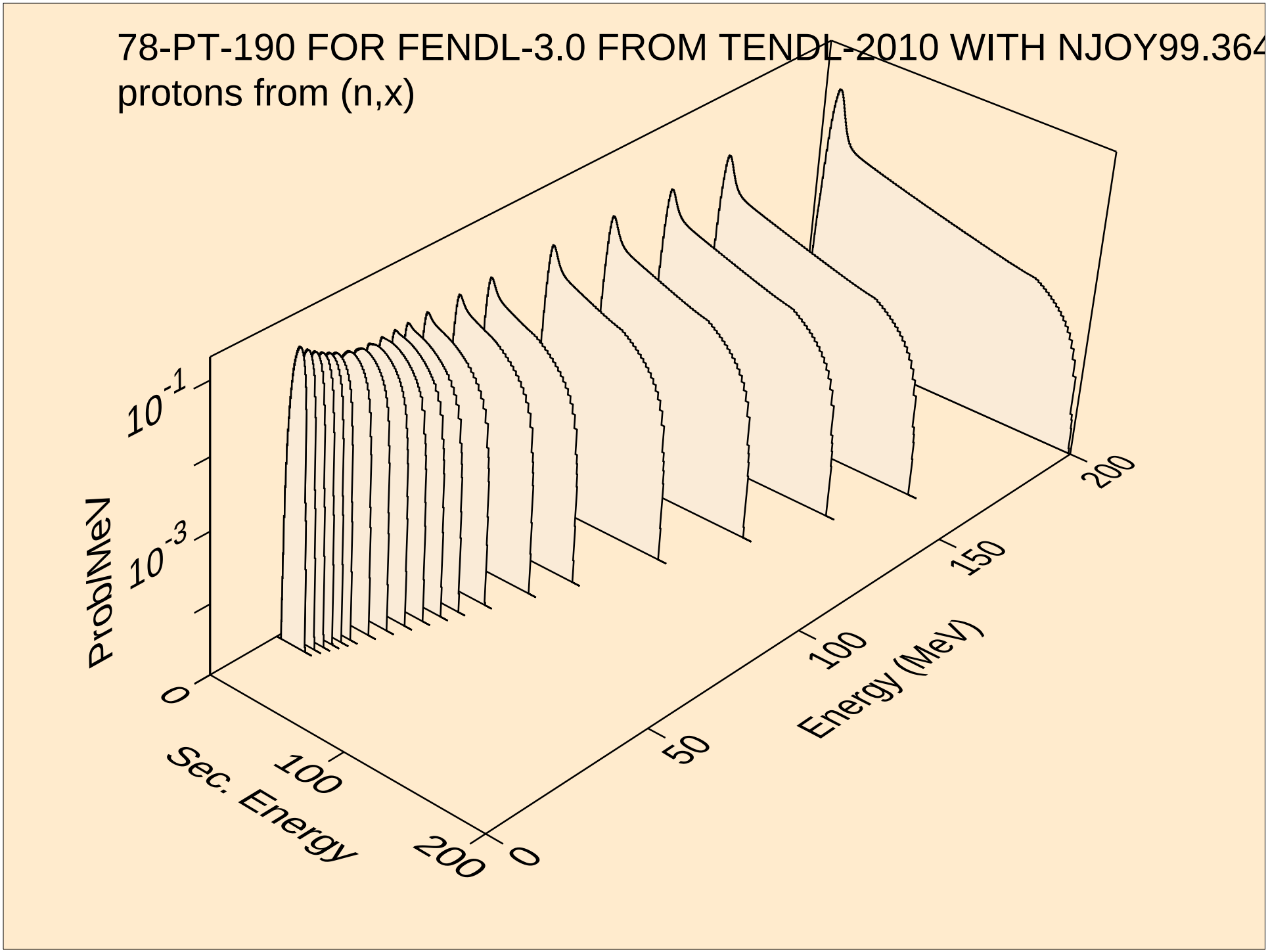

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
10^-1
0
2
4
6
8
Gamma Energy (MeV)

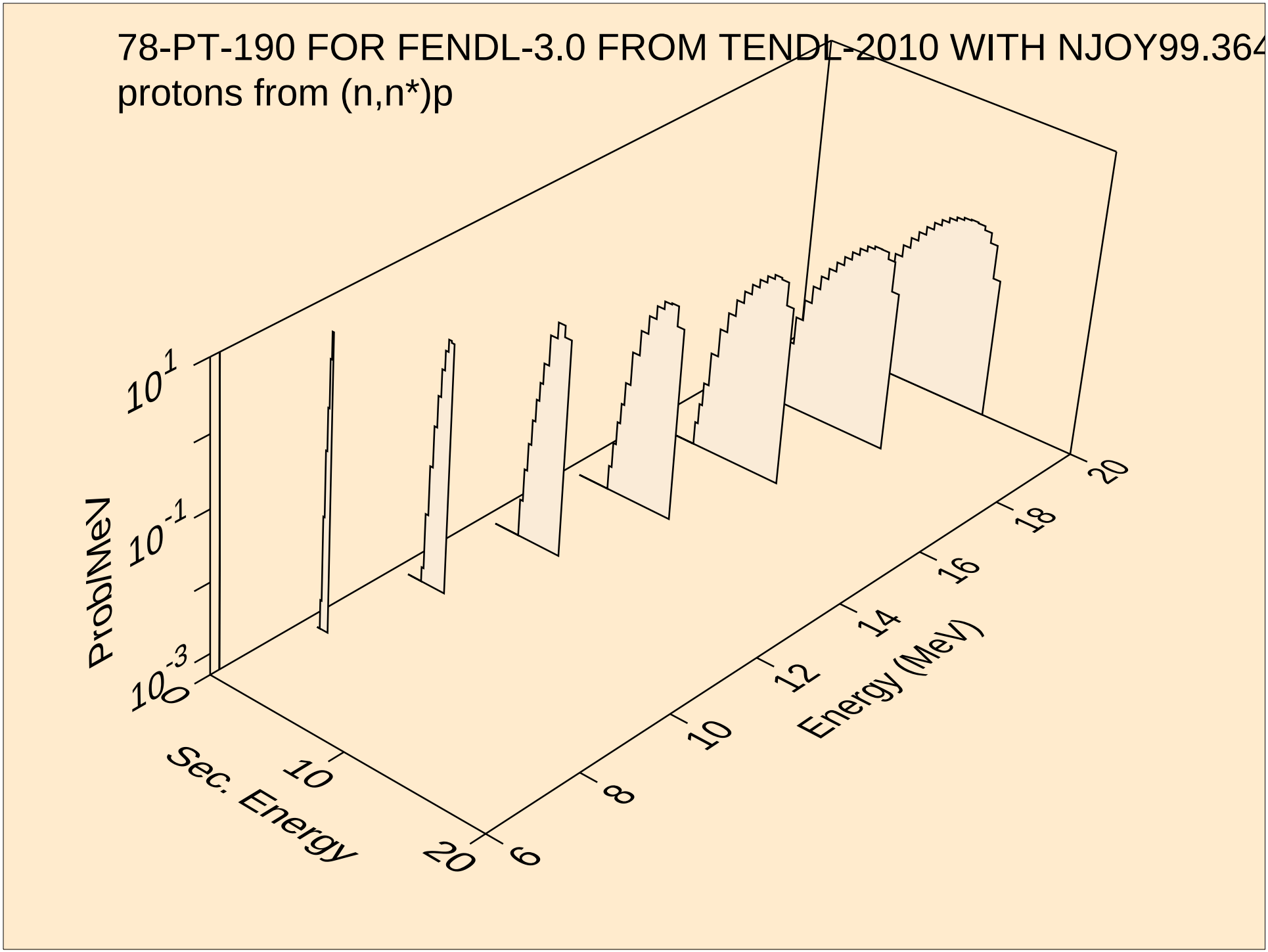

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
0
10
20
30
Gamma Energy (MeV)

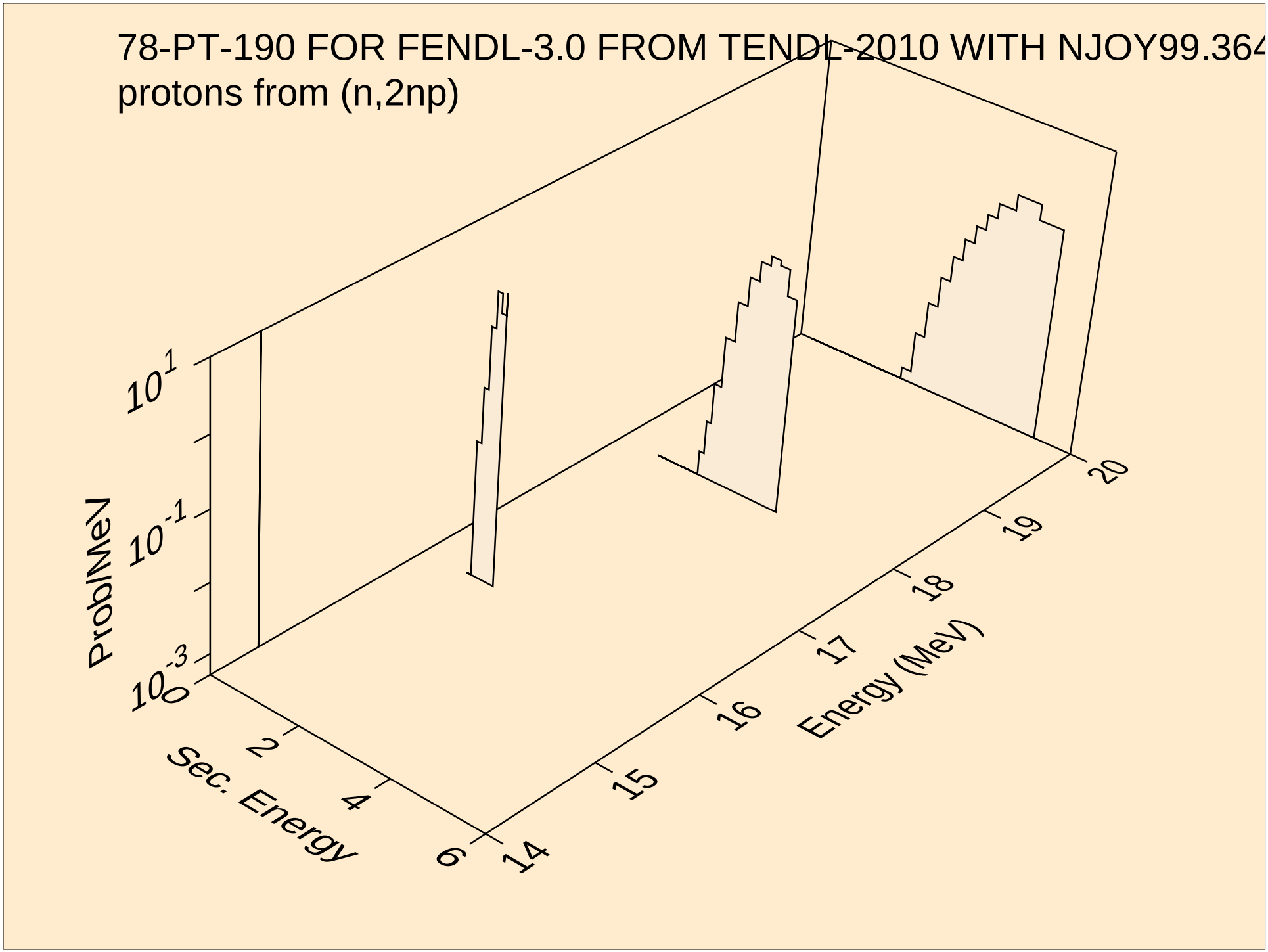

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Particle heating contributions
protons
deuterons
tritons
he-3
alphas
MeV/collision
Energy (MeV)
0
2
4
6
8
10
12
14
0
50
100
150
200

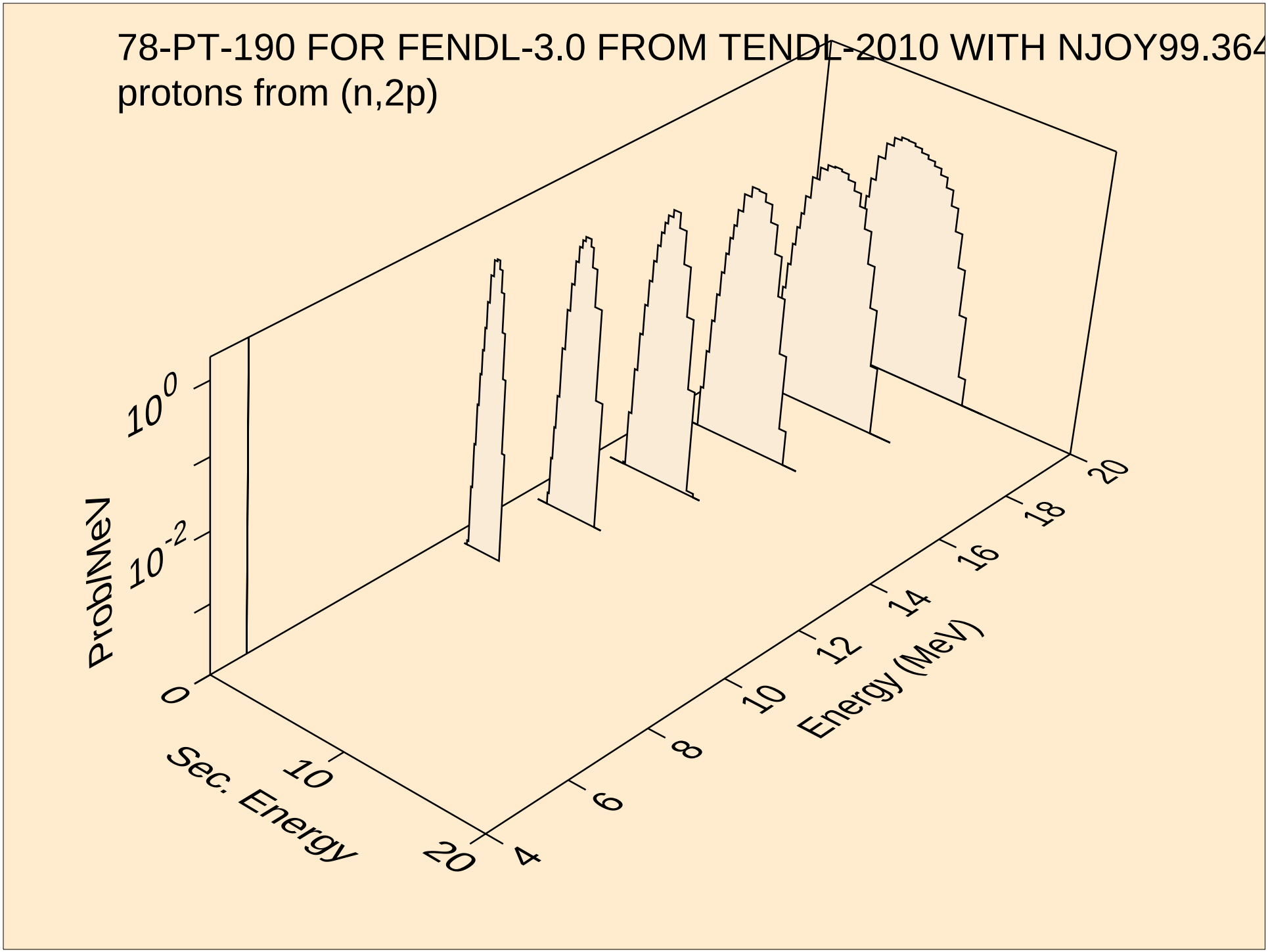

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
0
50
100
150
200

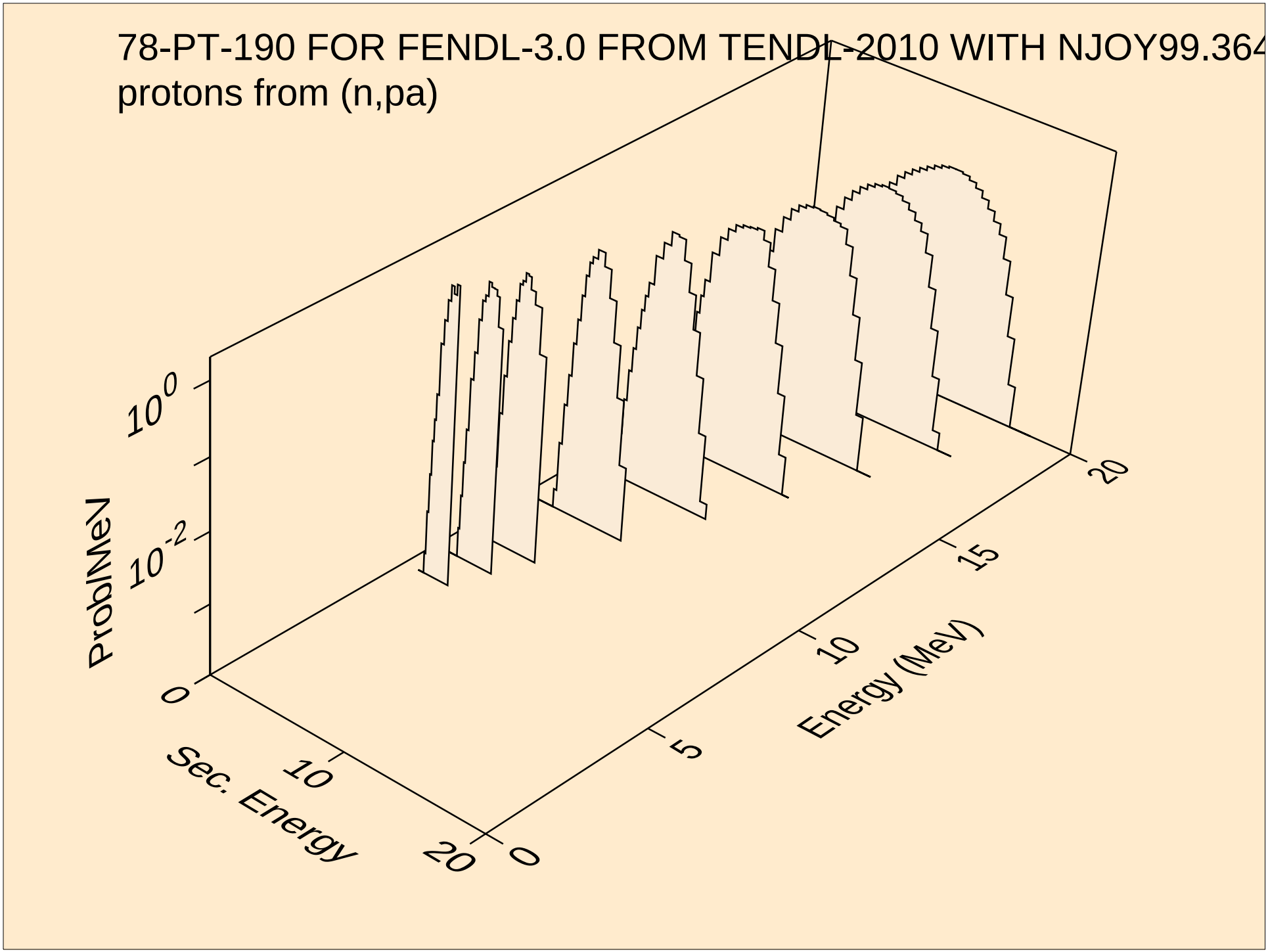

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
Particle production cross sections
Cross section (barns)
*10-3
800
700
600
500
400
300
200
100
0
0
50
100
150
200
Energy (MeV)
protons
deuterons
tritons
he-3
alphas

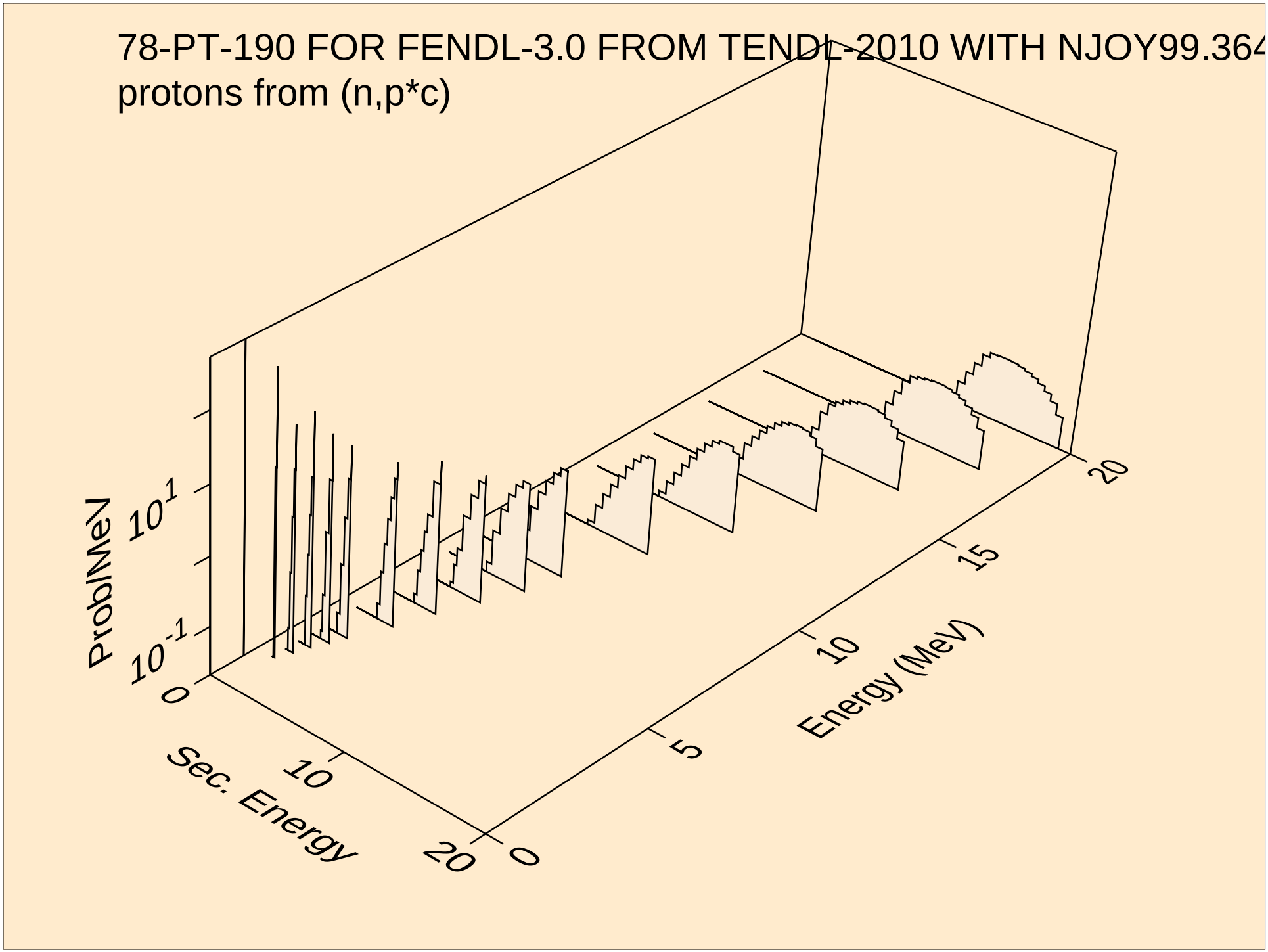

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
50
100
150
200
Energy (MeV)

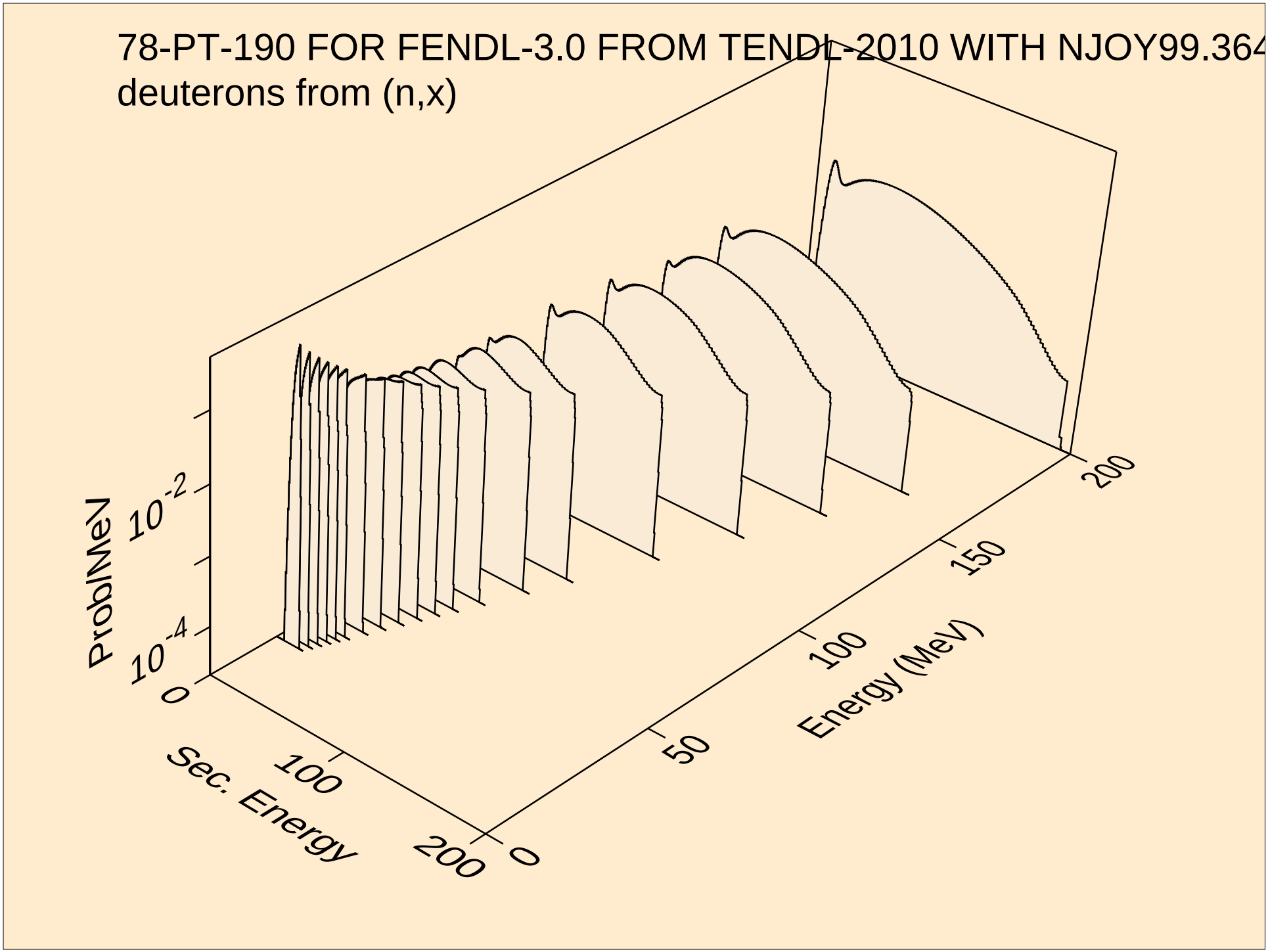

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,n*)p
Prob/MeV
10^1
10^-1
10^-3
0
10
20
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

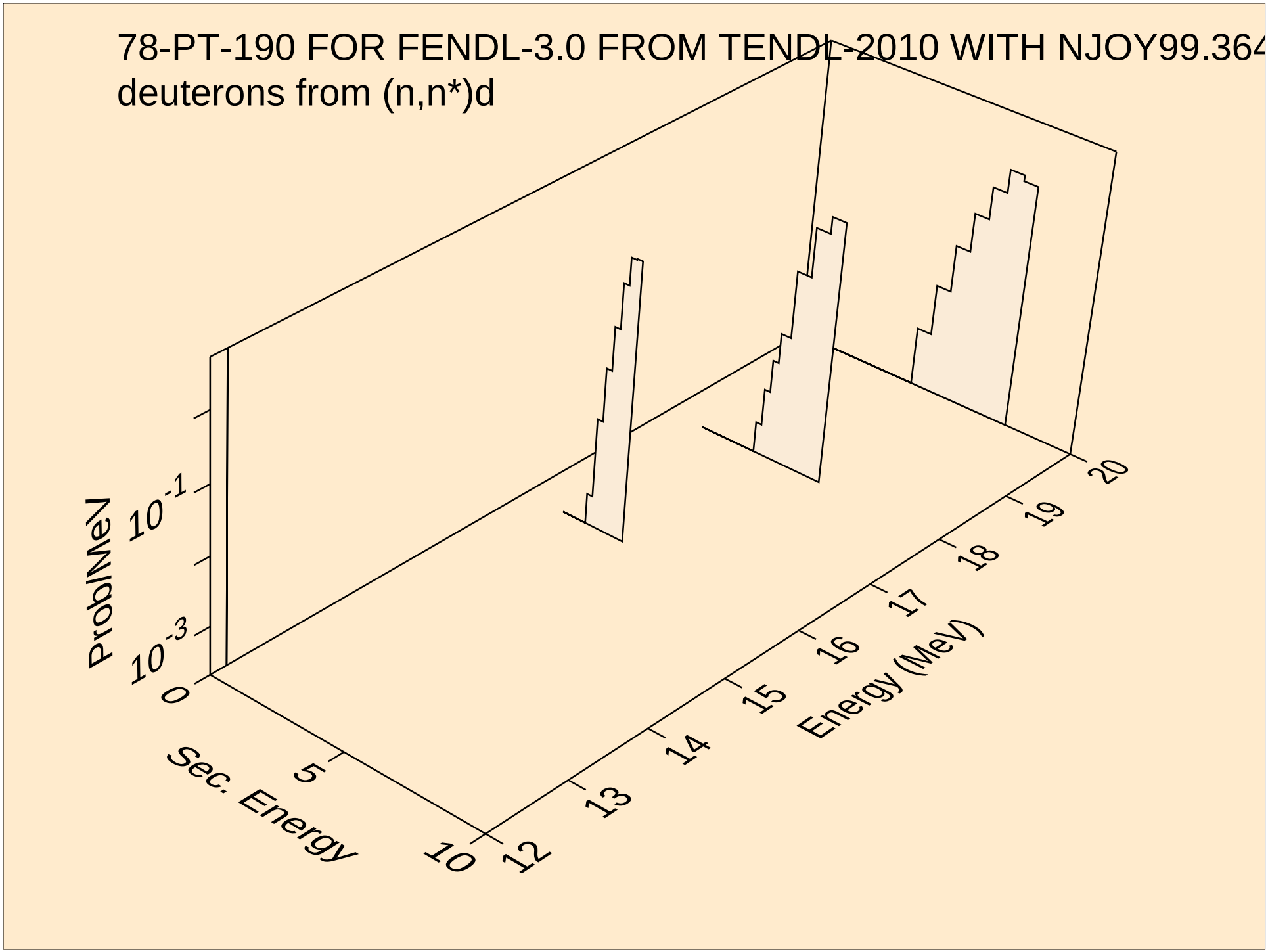

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,2np)
Prob/MeV
10^1
10^-1
10^-3
0
2
4
6
Sec. Energy
14
15
16
17
18
19
20
Energy (MeV)

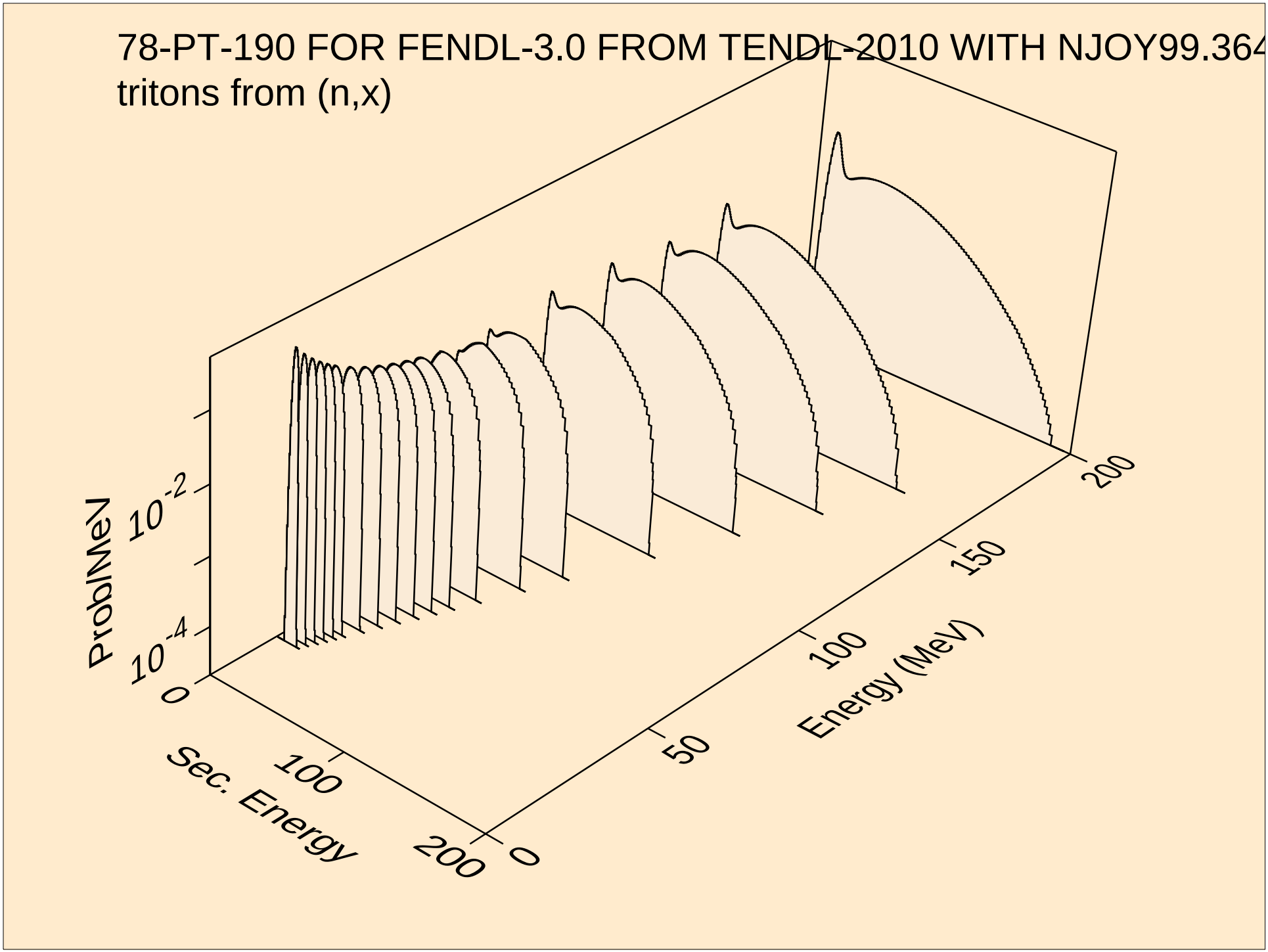

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,2p)
Prob/MeV
10^{0}
10^{-2}
0
Sec. Energy
10
20
4
6
8
10
12
14
16
18
20
Energy (MeV)

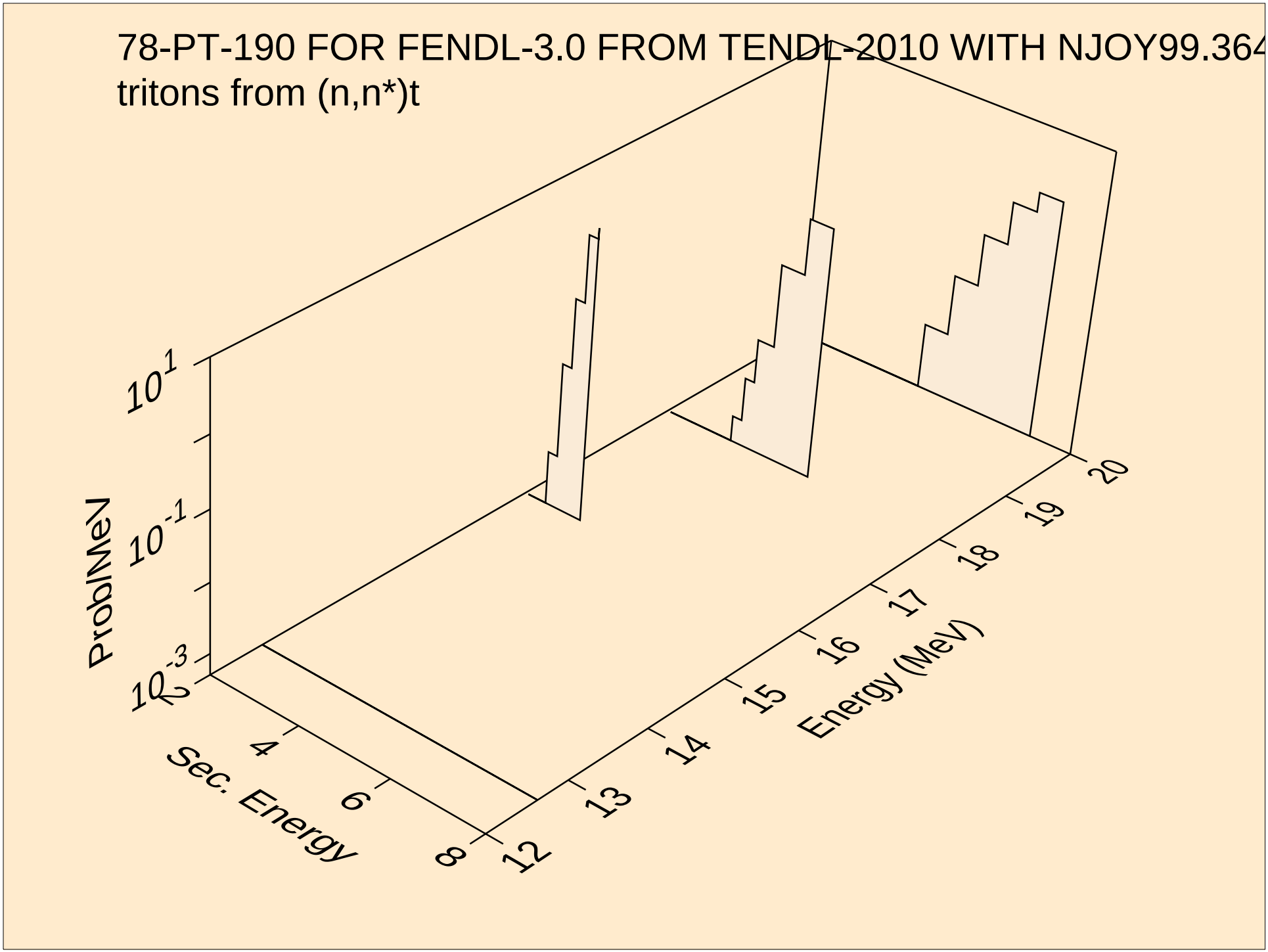

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,pa)
Prob/MeV
10^0
10^-2
0
Sec. Energy
10
20
0
5
10
15
20
Energy (MeV)

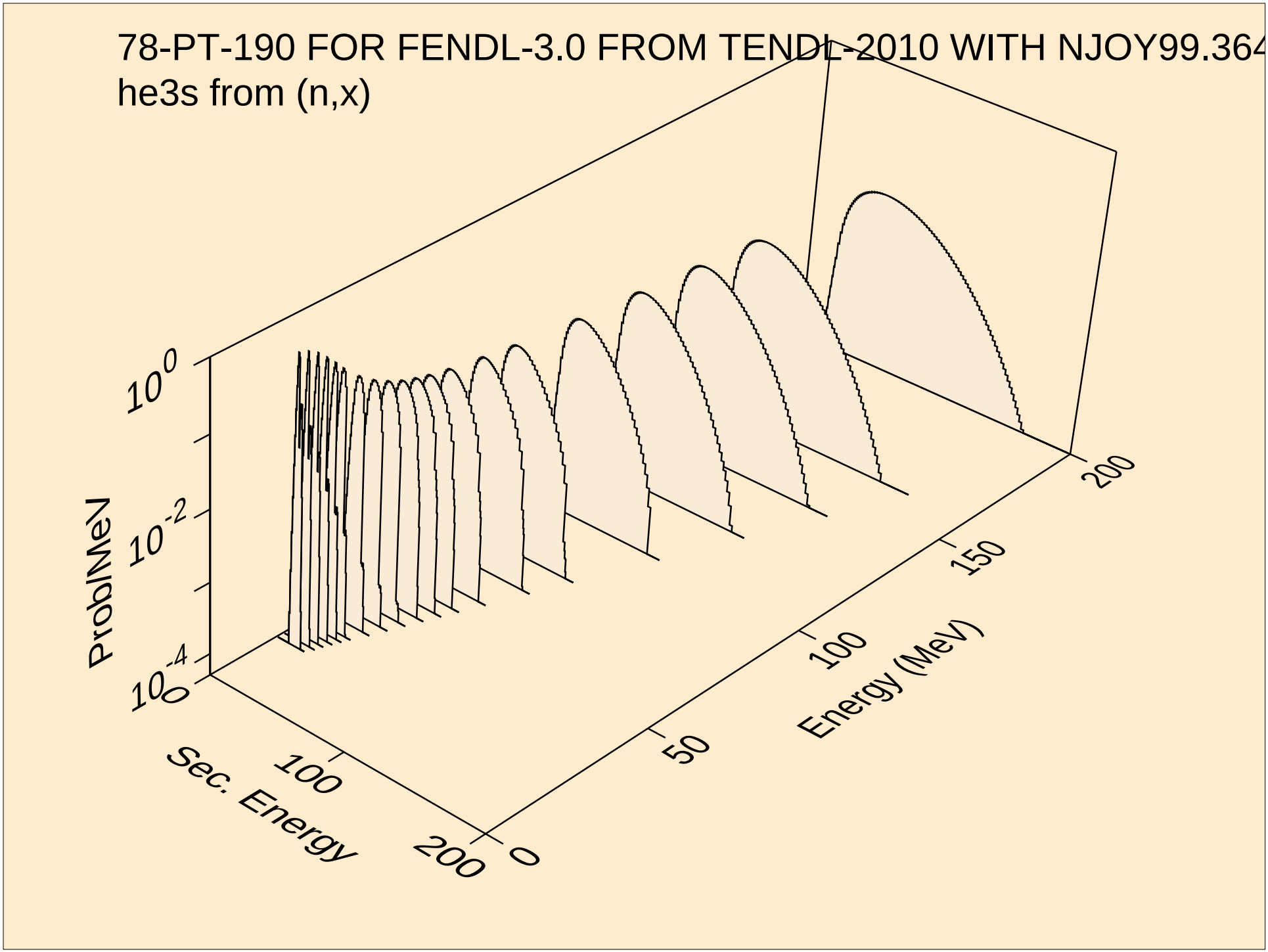

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
protons from (n,p*c)
Prob/MeV
10^1
10^-1
0
Sec. Energy
10
20
0
5
10
15
20
Energy (MeV)

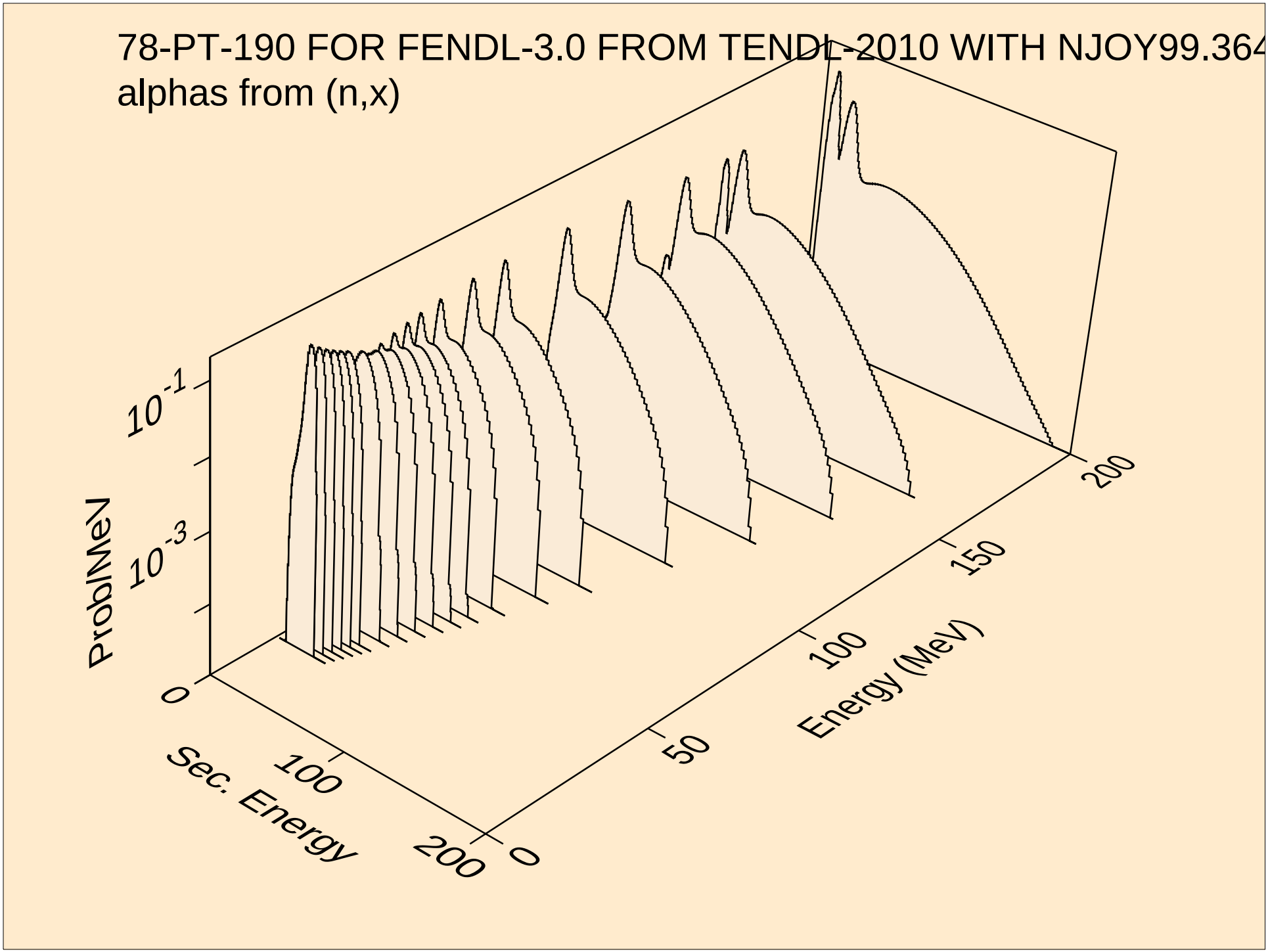

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
deuterons from (n,x)
Prob/MeV
10-2
10-4
0
100
200
Sec. Energy
0
50
100
150
200
Energy (MeV)

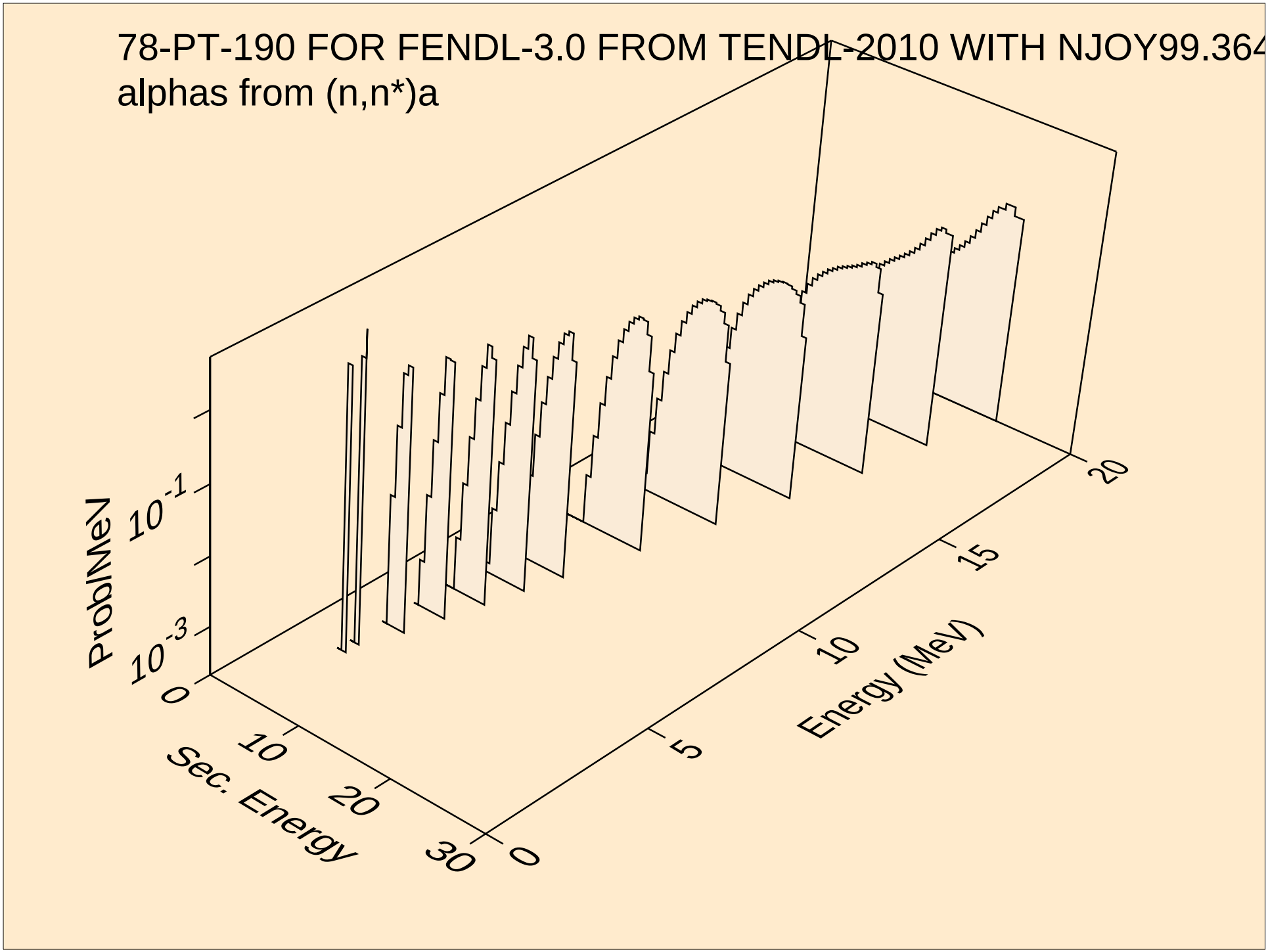

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
deuterons from (n,n*)d
Prob/MeV
10-1
10-3
0
Sec. Energy
5
10
12
13
14
15
16
17
18
19
20
Energy (MeV)

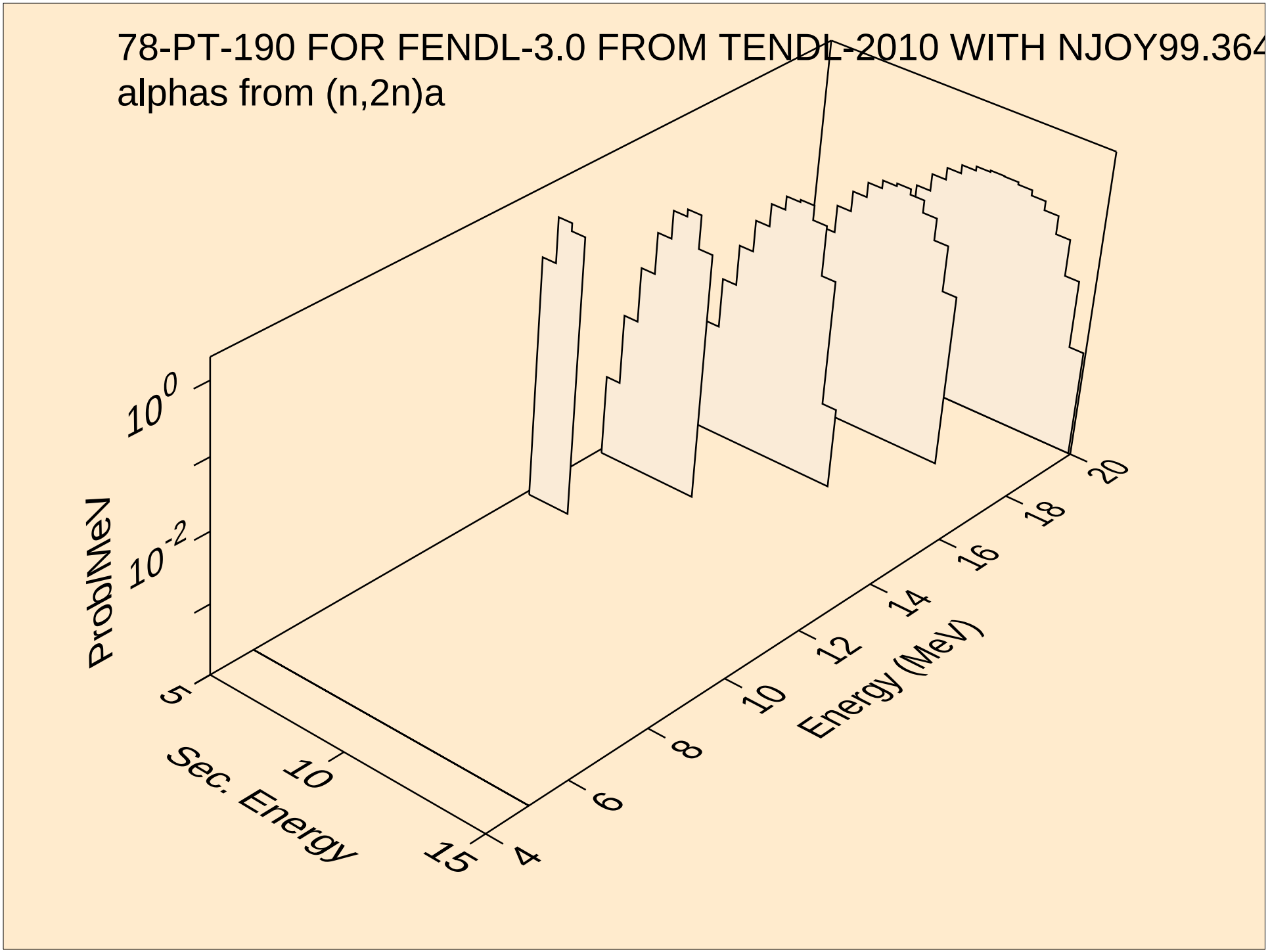

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
tritons from (n,x)
Prob/MeV
10-2
10-4
0
100
Sec. Energy
200
0
50
100
150
200
Energy (MeV)

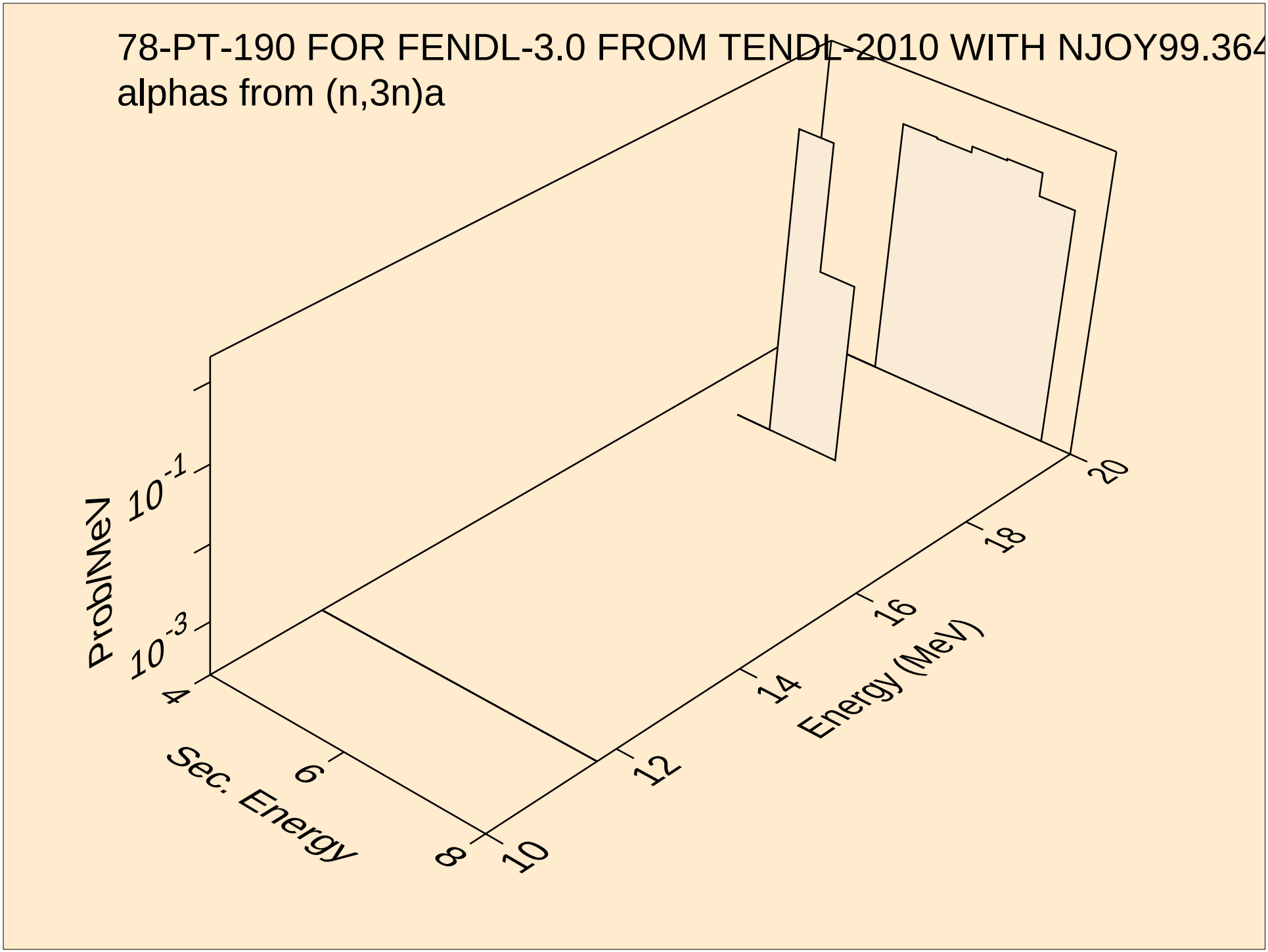

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
tritons from (n,n*)t
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
4
6
8
Energy (MeV)
12
13
14
15
16
17
18
19
20

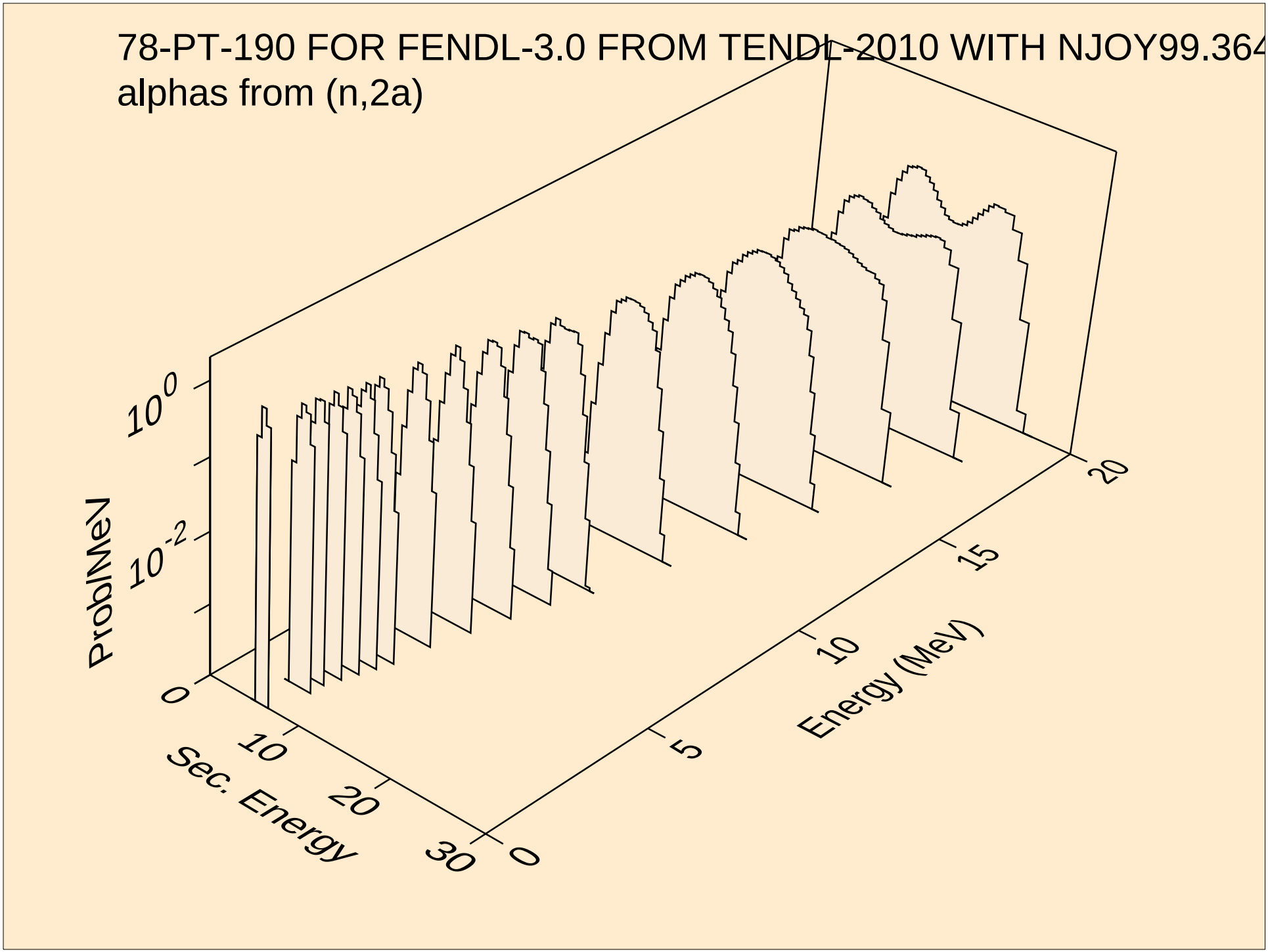

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
he3s from (n,x)
Prob/MeV
10^0
10^-2
10^-4
0
100
200
Sec. Energy
0
50
100
150
200
Energy (MeV)

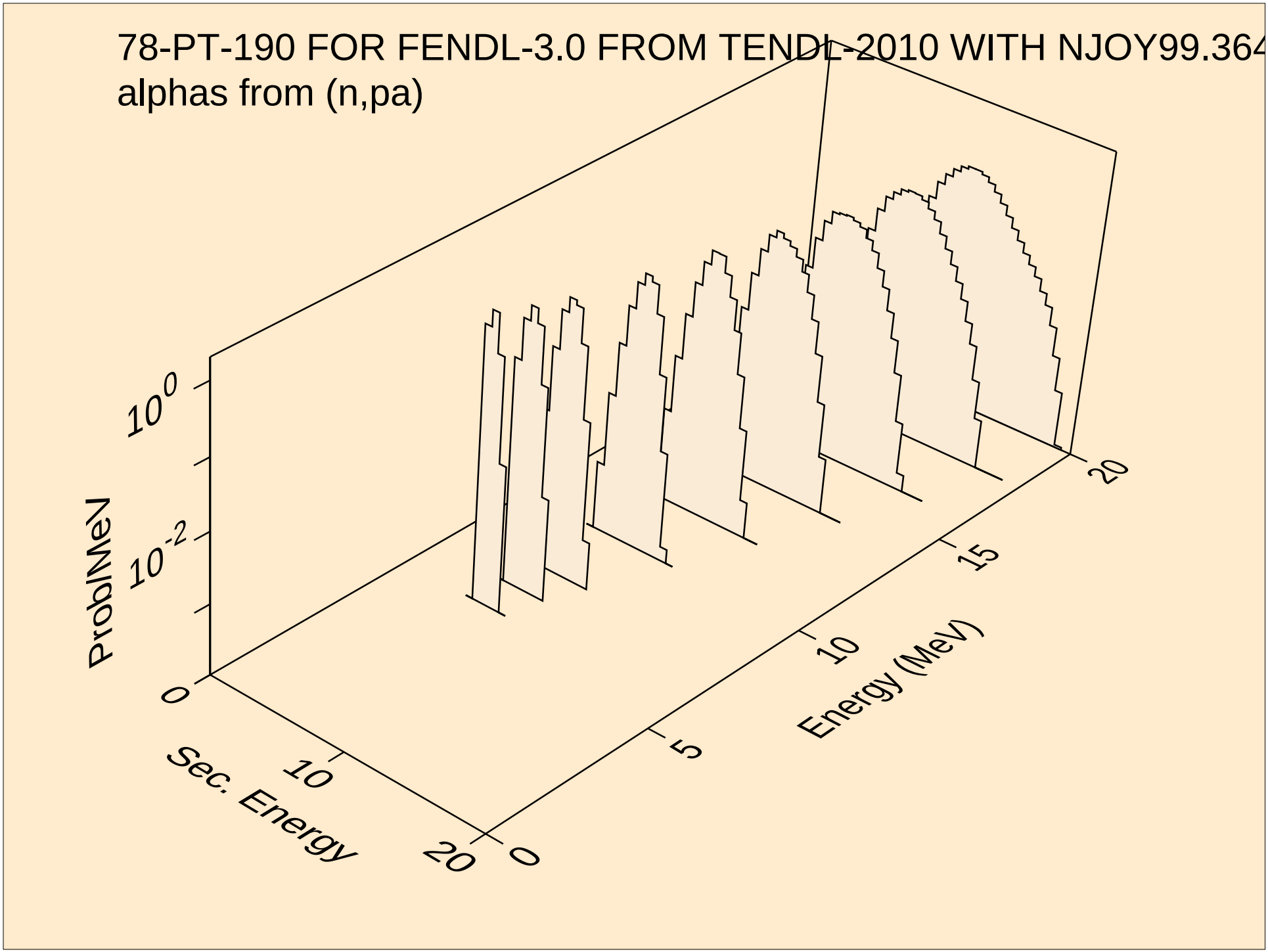

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
50
100
150
200
Energy (MeV)

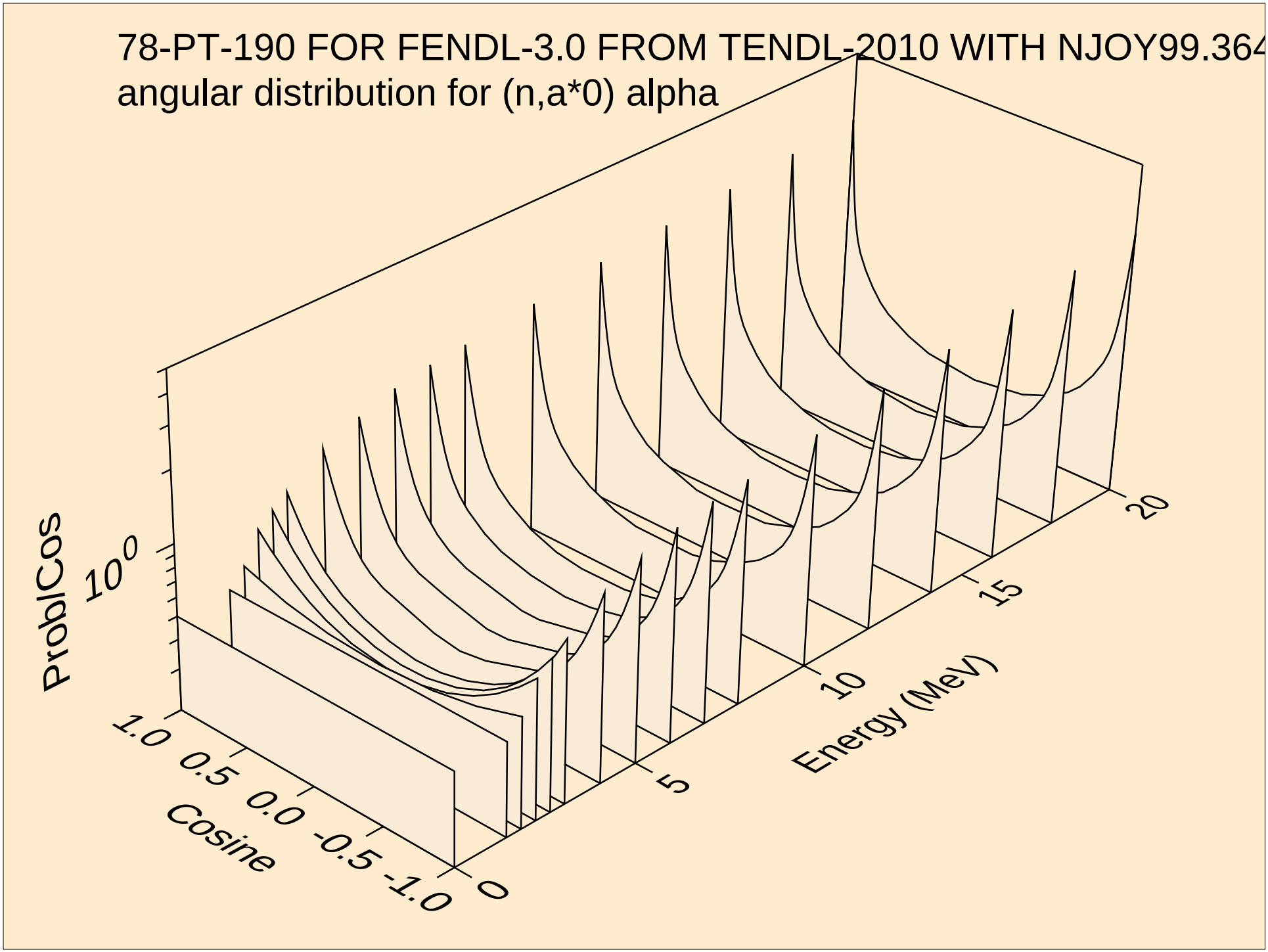

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,n*)a
Prob/MeV
10-1
10-3
0
10
20
30
Sec. Energy
0
5
10
15
20
Energy (MeV)

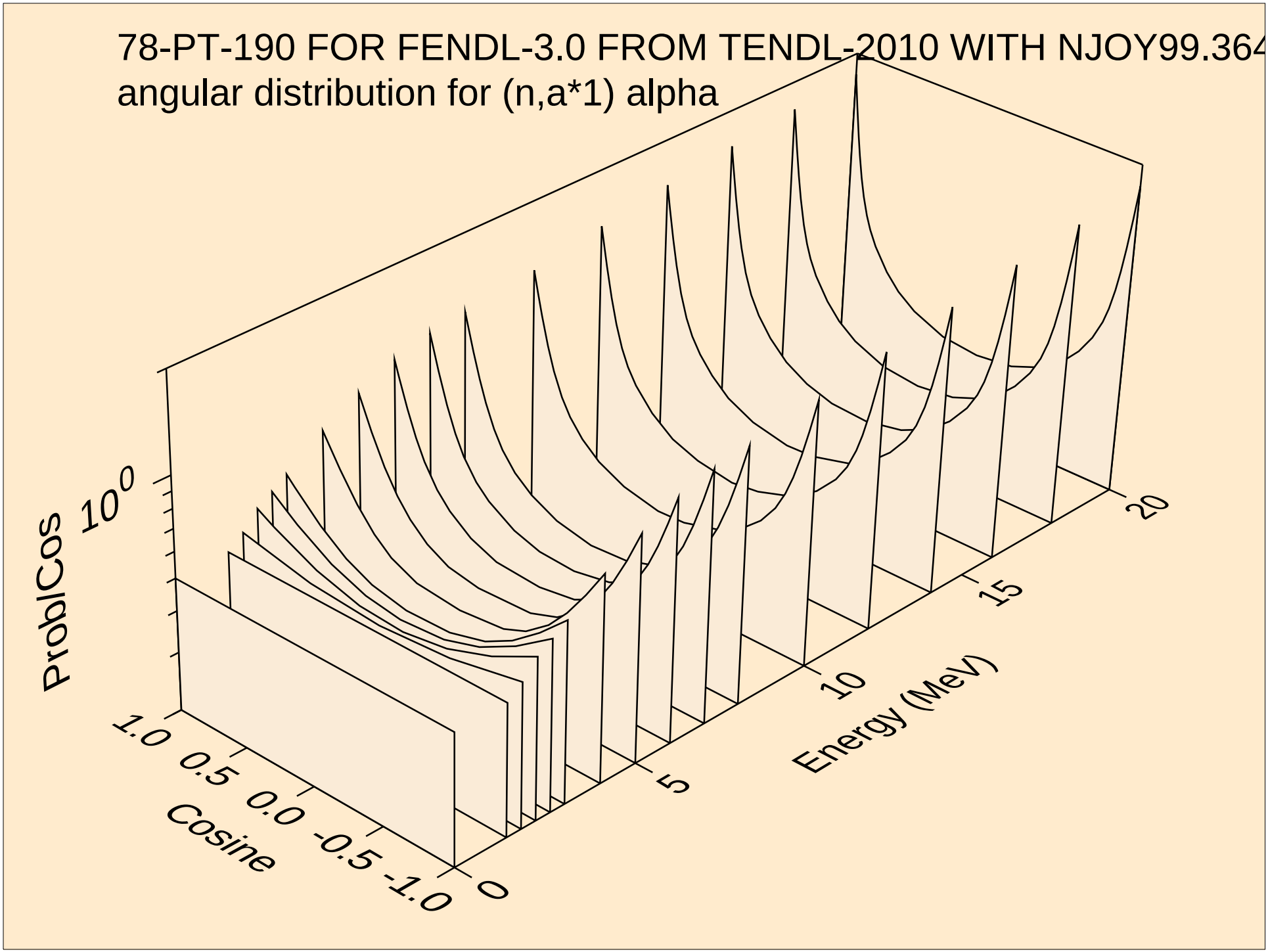

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,2n)a
Prob/MeV
10^{0}
10^{-2}
Sec. Energy
5
10
15
Energy (MeV)
4
6
8
10
12
14
16
18
20

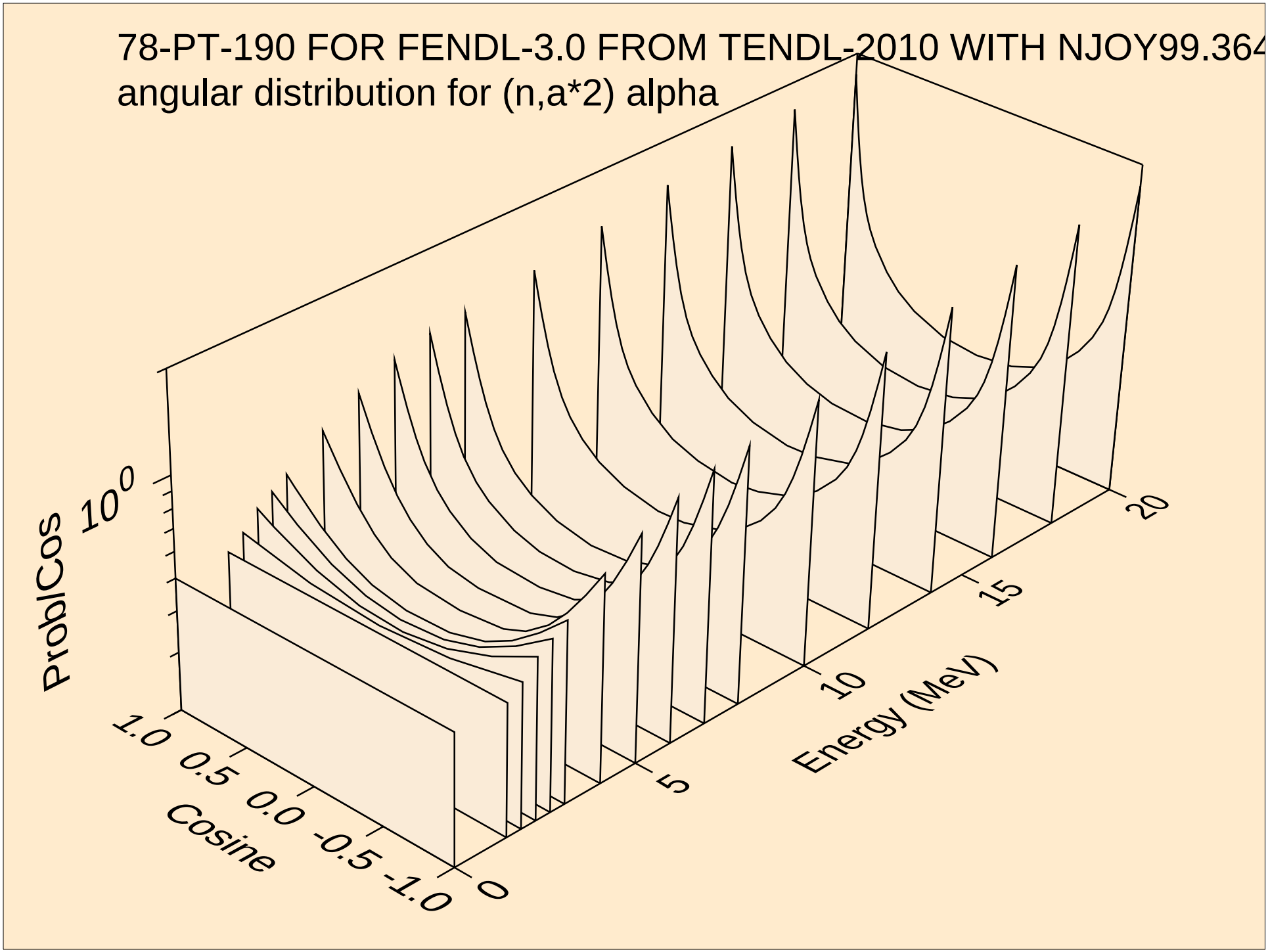

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,3n)a
Prob/MeV
10-1
10-3
4
6
8
10
Sec. Energy
12
14
16
18
20
Energy (MeV)

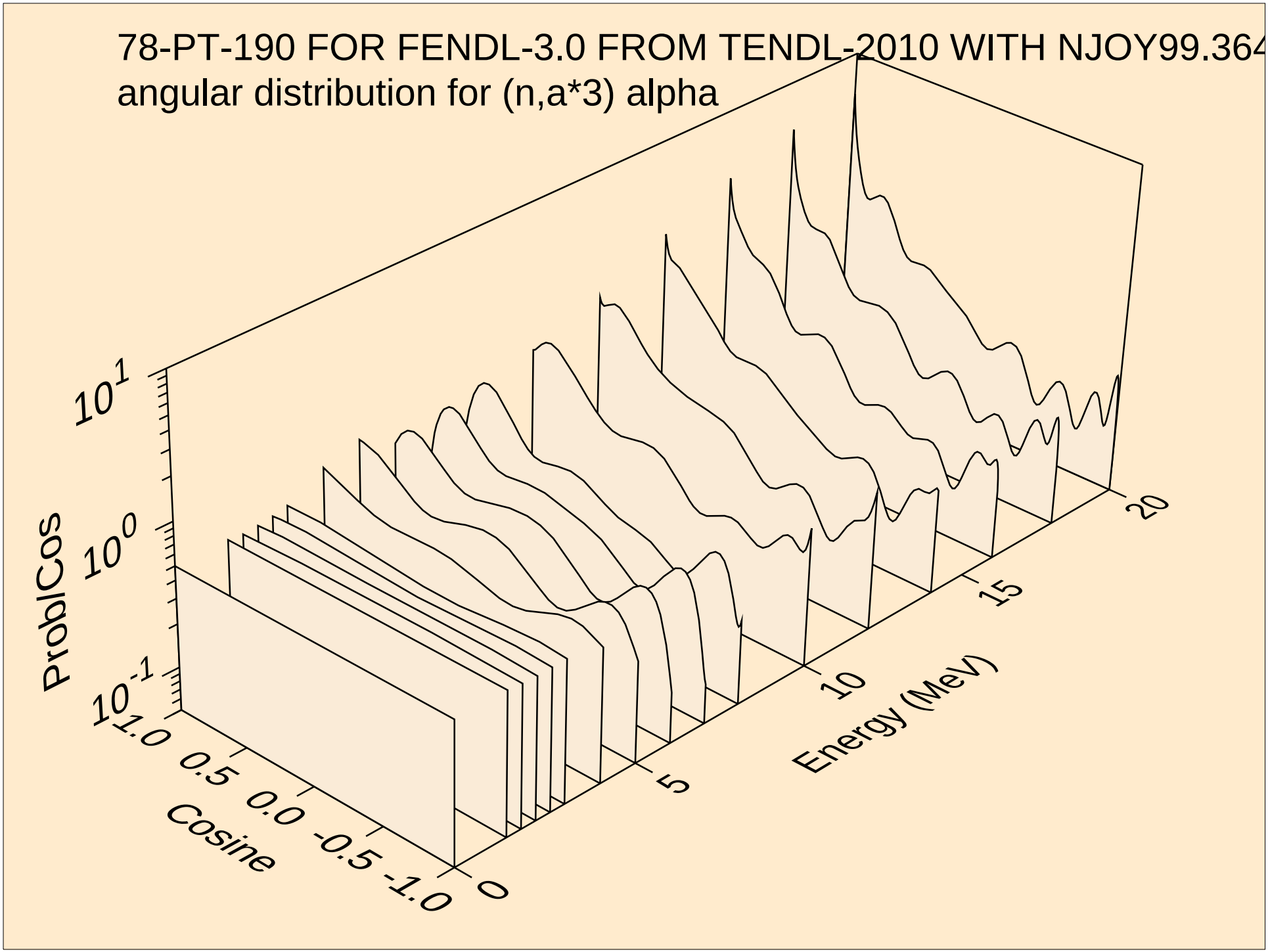

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,2a)
Prob/MeV
10^0
10^-2
0
Sec. Energy
10
20
30
0
5
10
15
20
Energy (MeV)

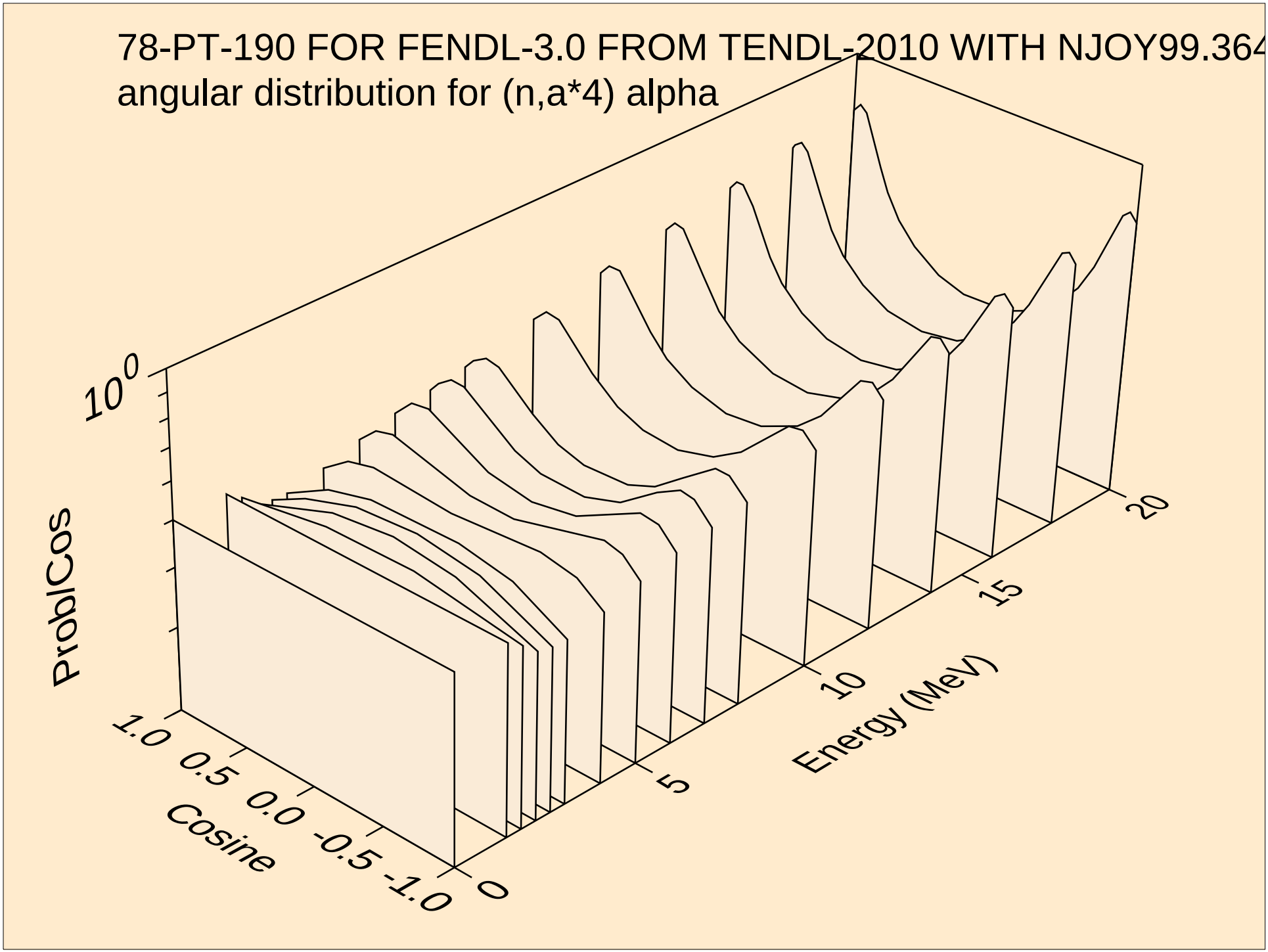

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,pa)
Prob/MeV
10^{0}
10^{-2}
0
Sec. Energy
10
20
0
5
10
15
20
Energy (MeV)

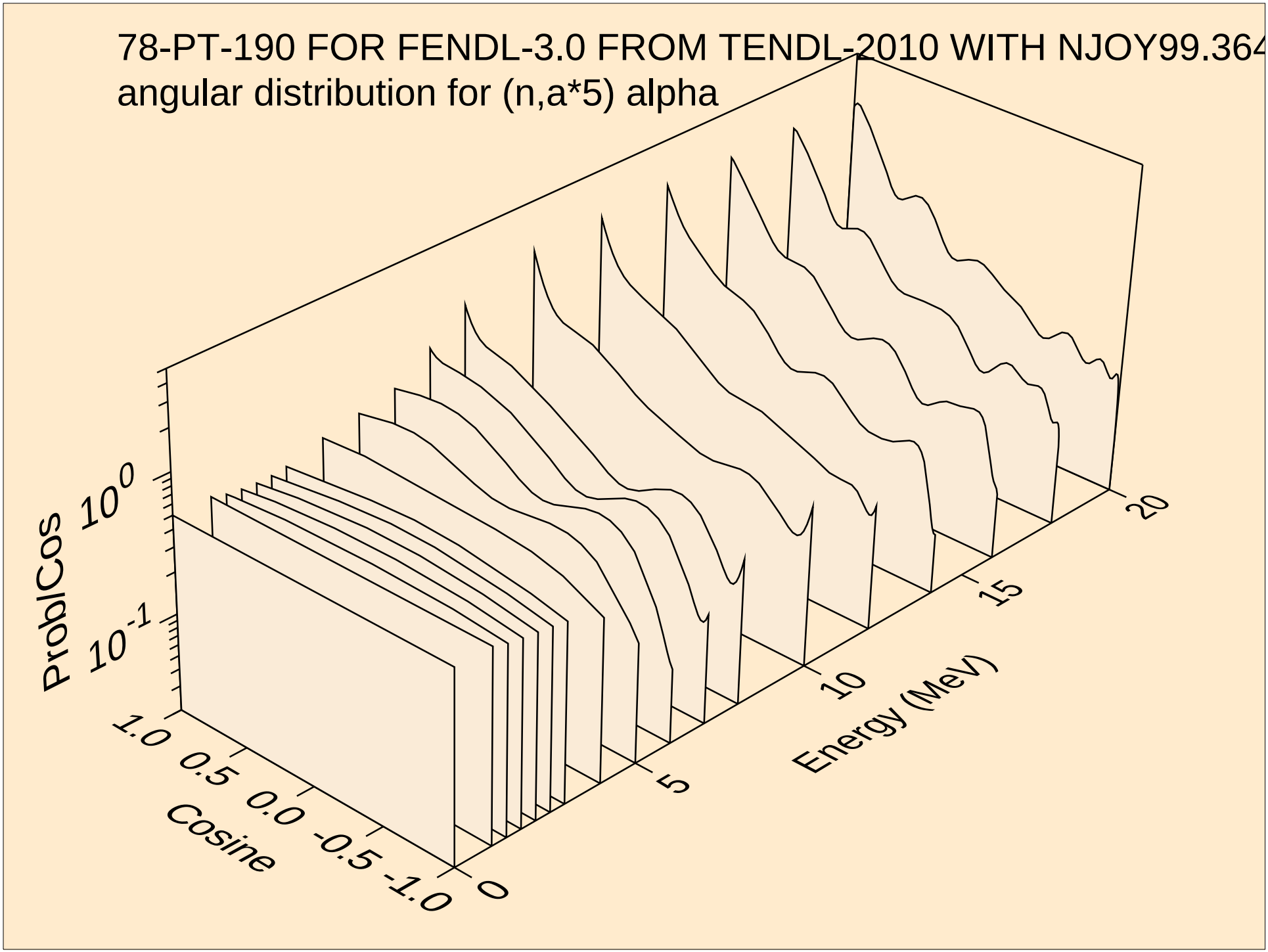

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*0) alpha
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

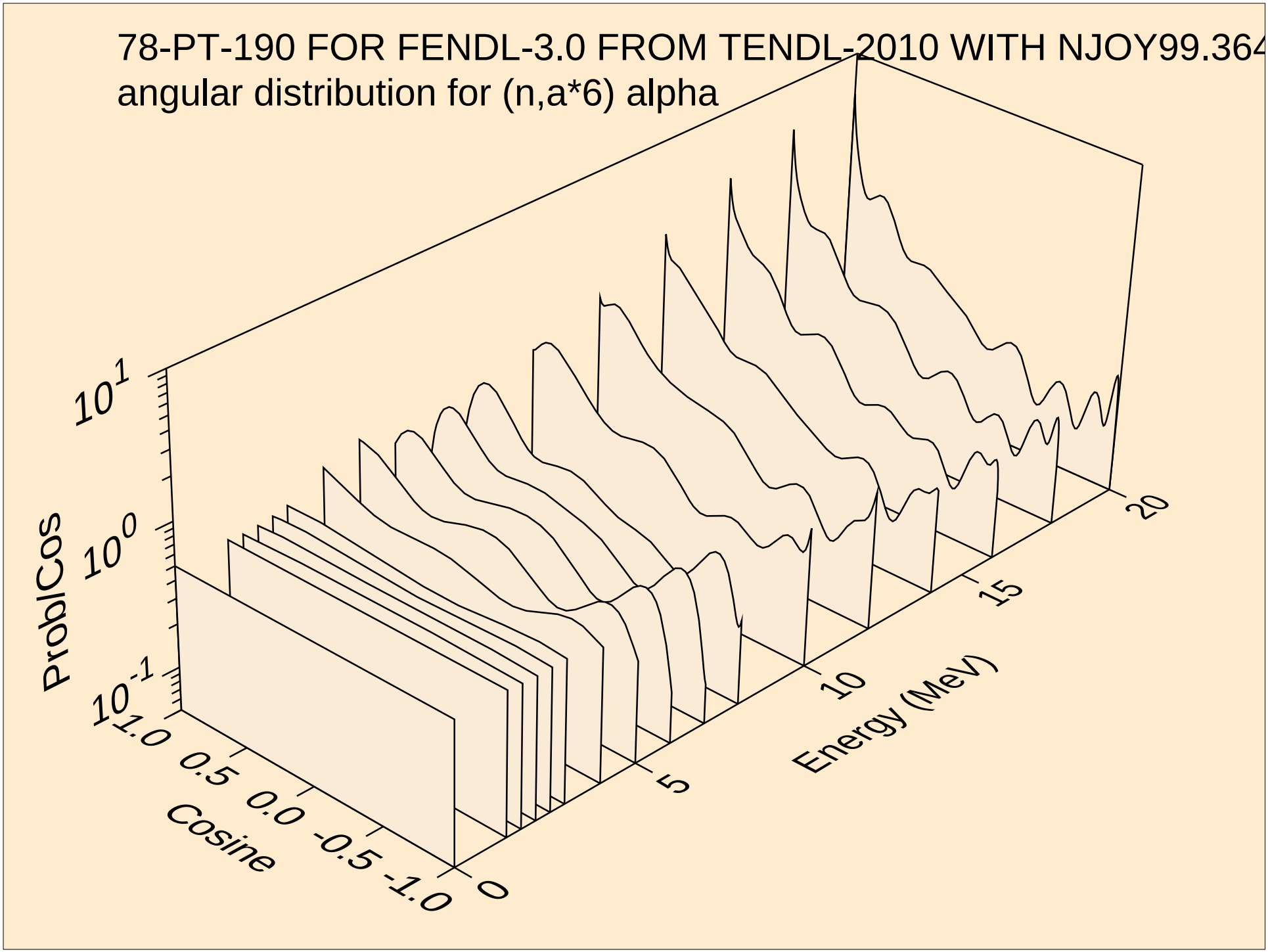

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*1) alpha
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

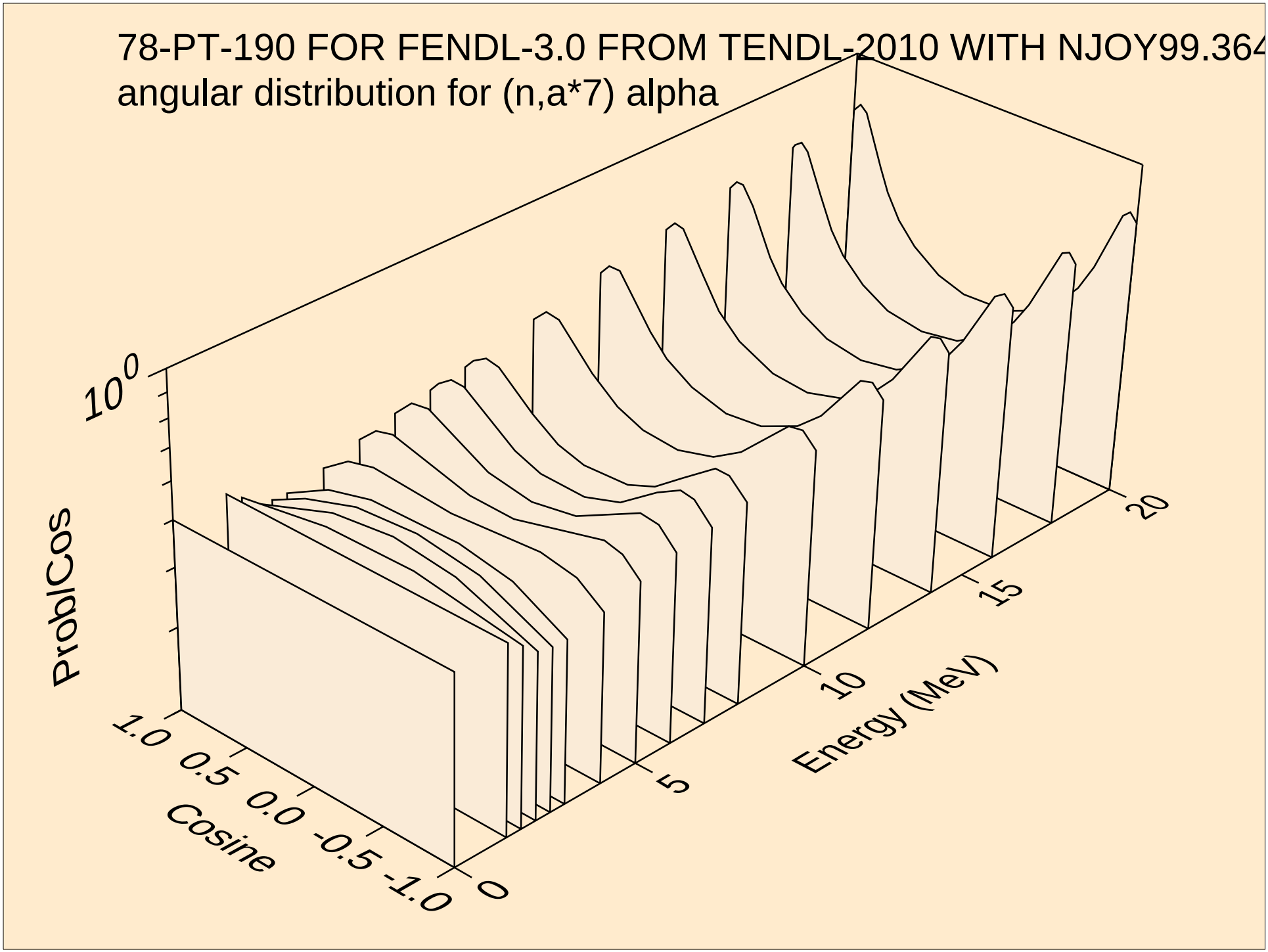

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*2) alpha
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

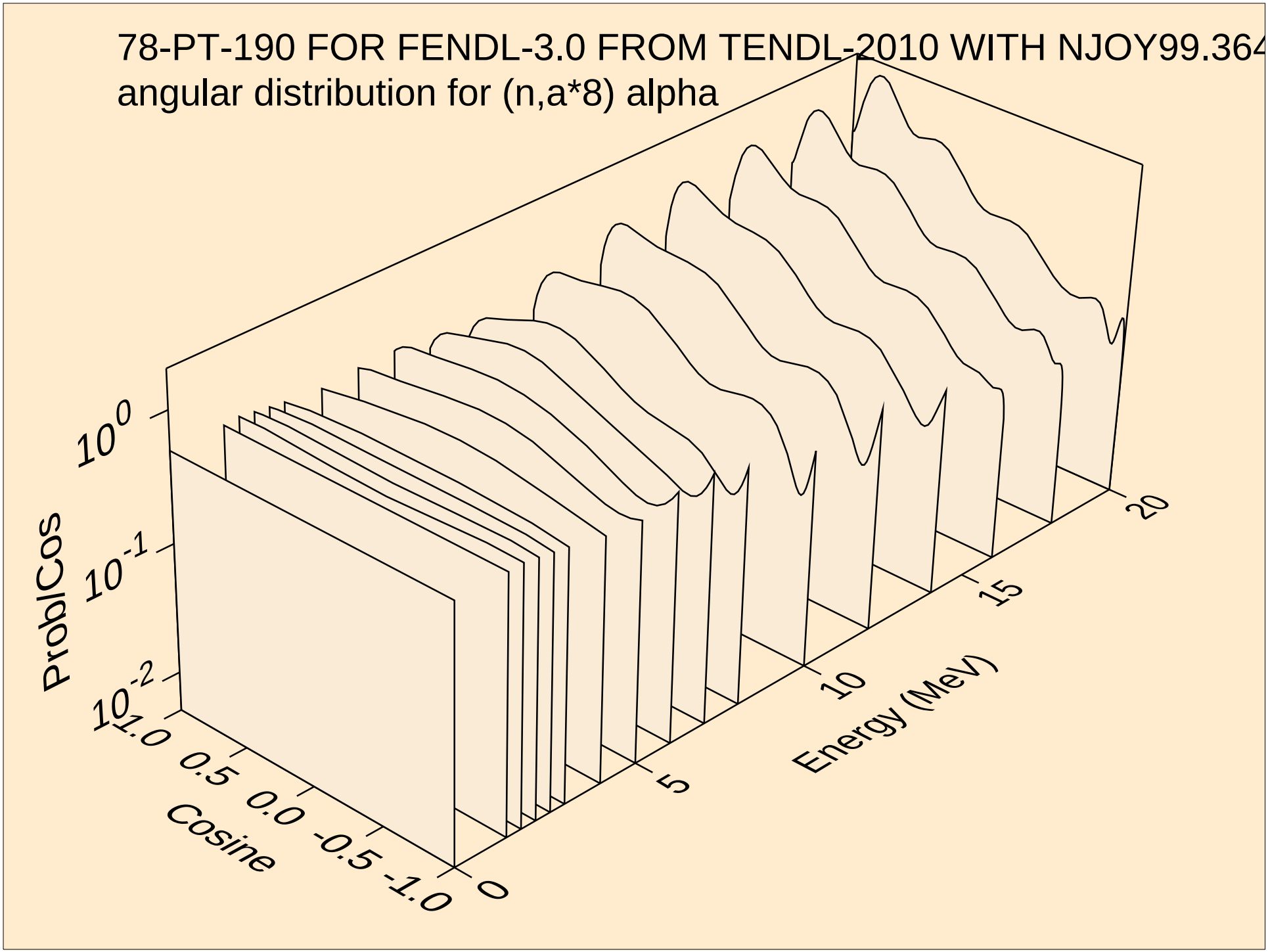

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*3) alpha
ProbCos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

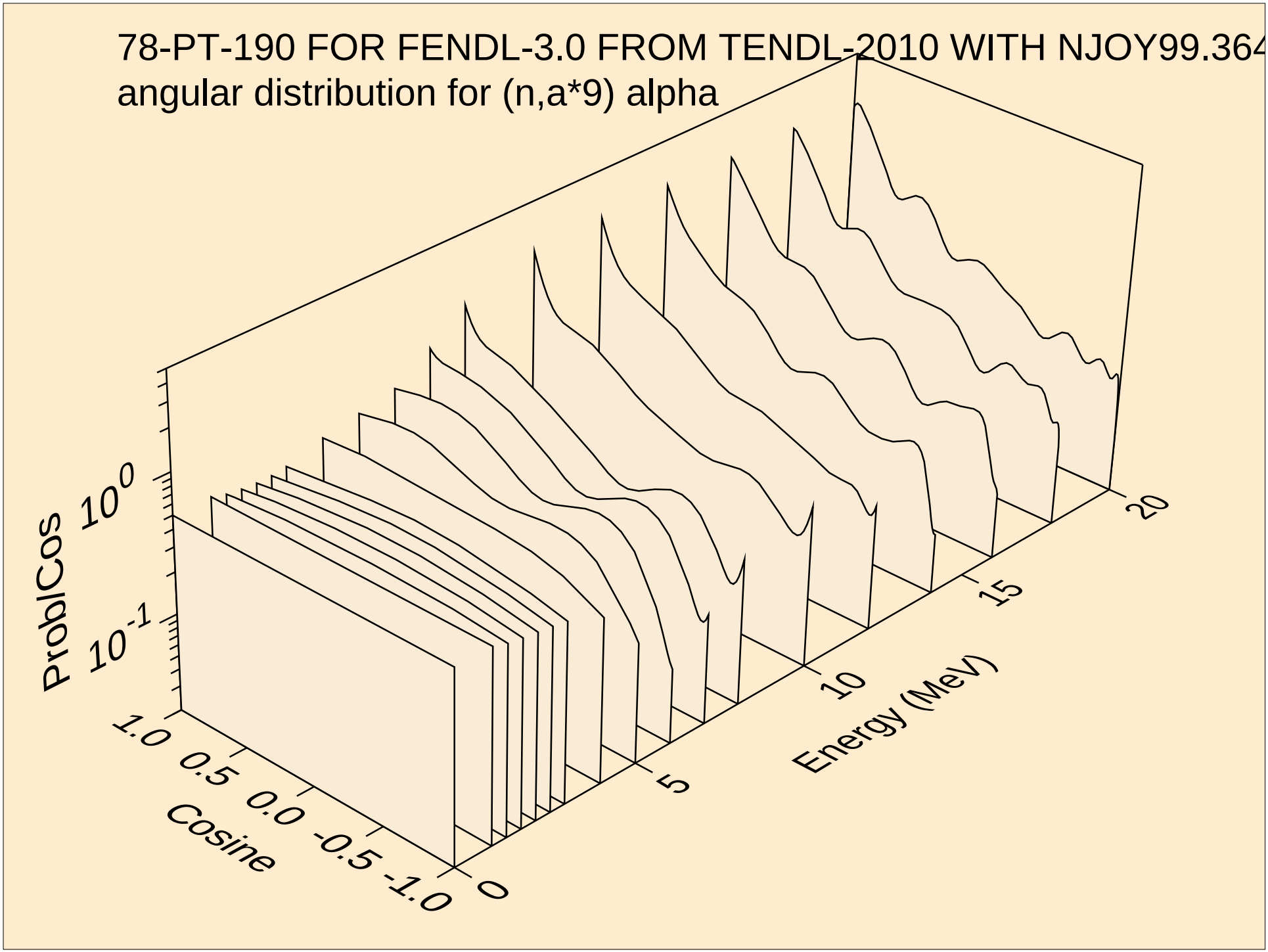

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*4) alpha
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

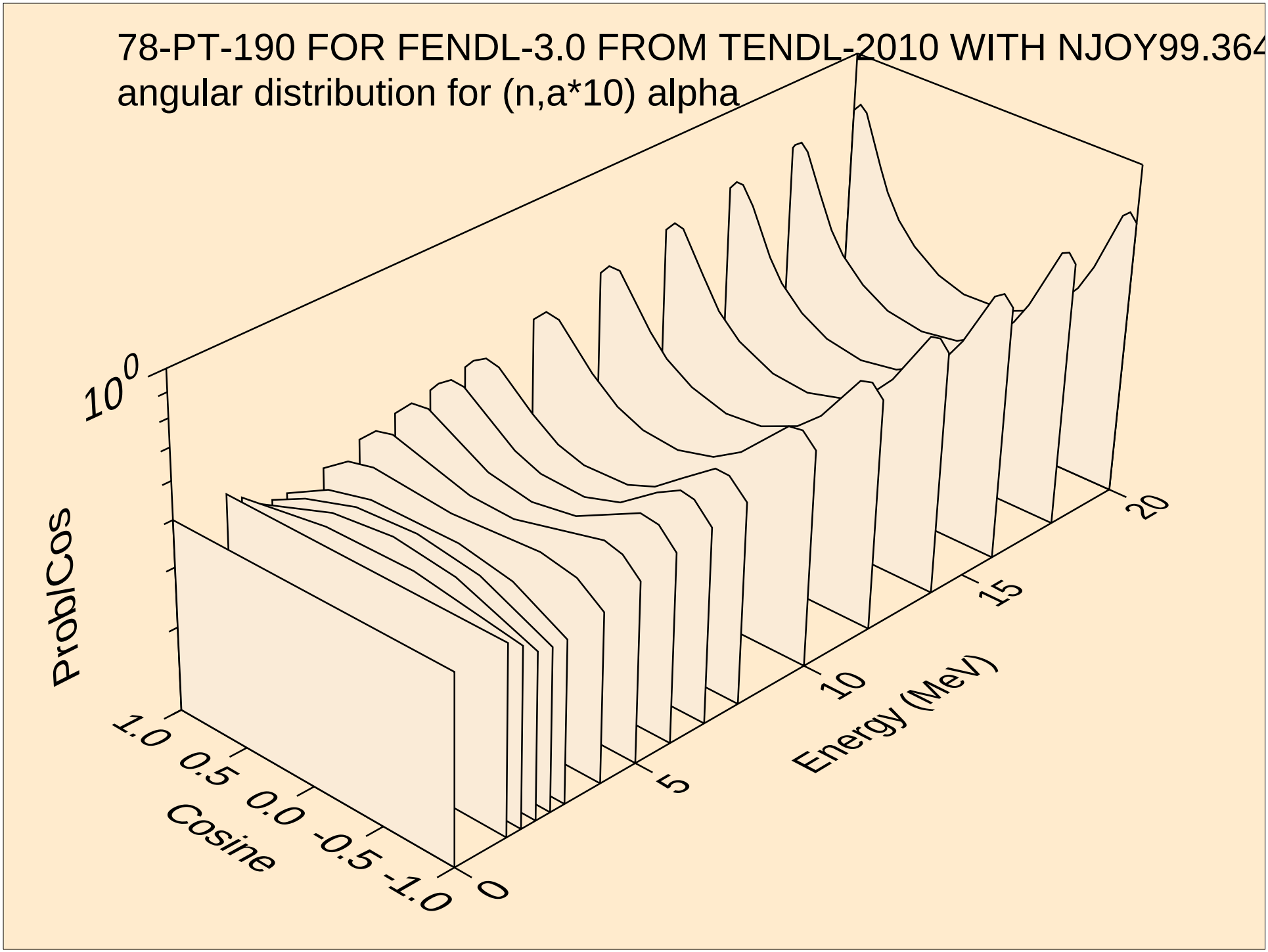

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*5) alpha
ProbICos
10^0
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

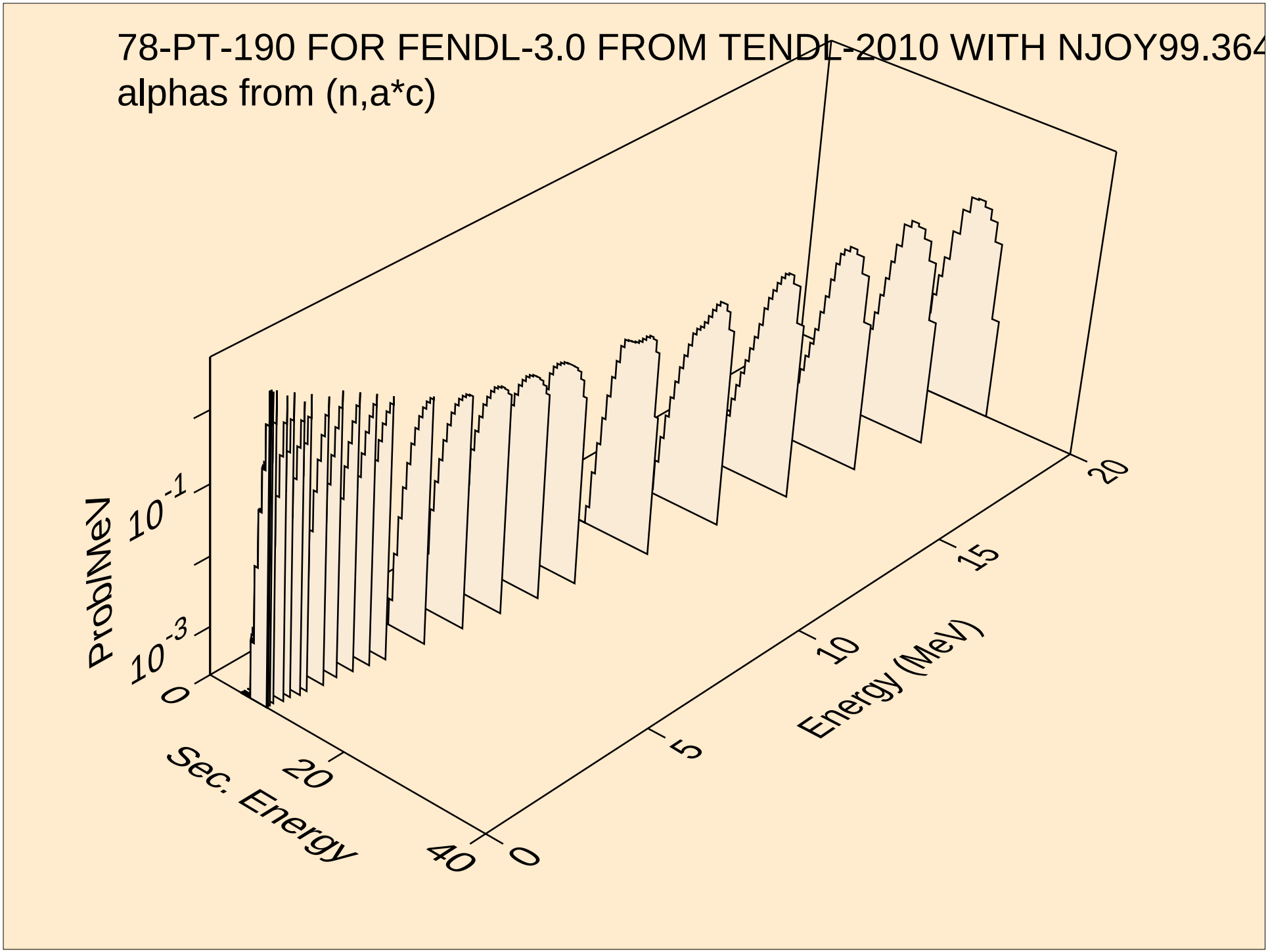

78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*6) alpha
ProbCos
10^{1}
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)


78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*7) alpha
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)


78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*8) alpha
ProbCos
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)


78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*9) alpha
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)


78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
angular distribution for (n,a*10) alpha
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)


78-PT-190 FOR FENDL-3.0 FROM TENDL-2010 WITH NJOY99.364
alphas from (n,a*c)
Prob/MeV
10-1
10-3
0
Sec. Energy
20
40
0
5
10
15
20
Energy (MeV)