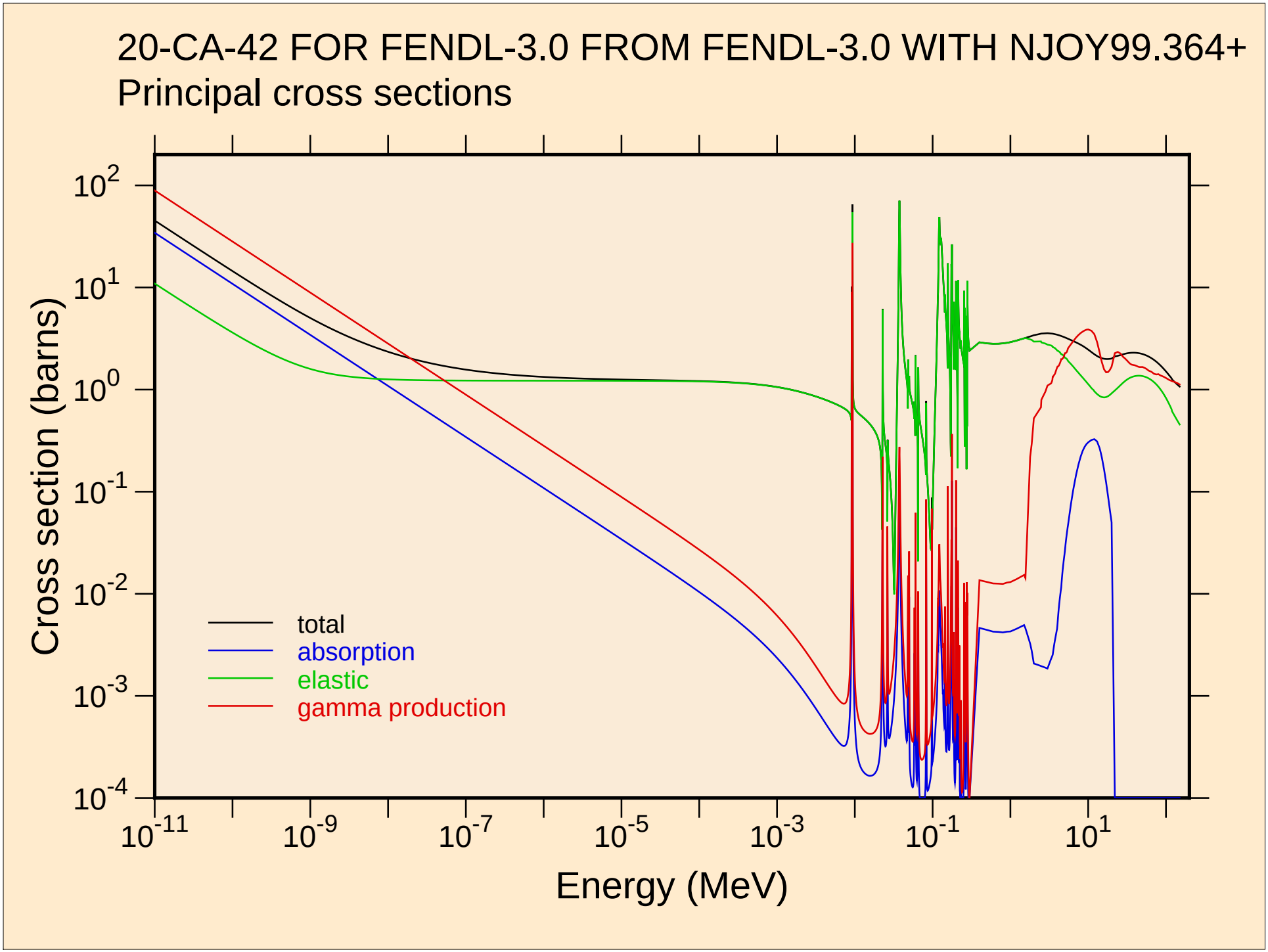
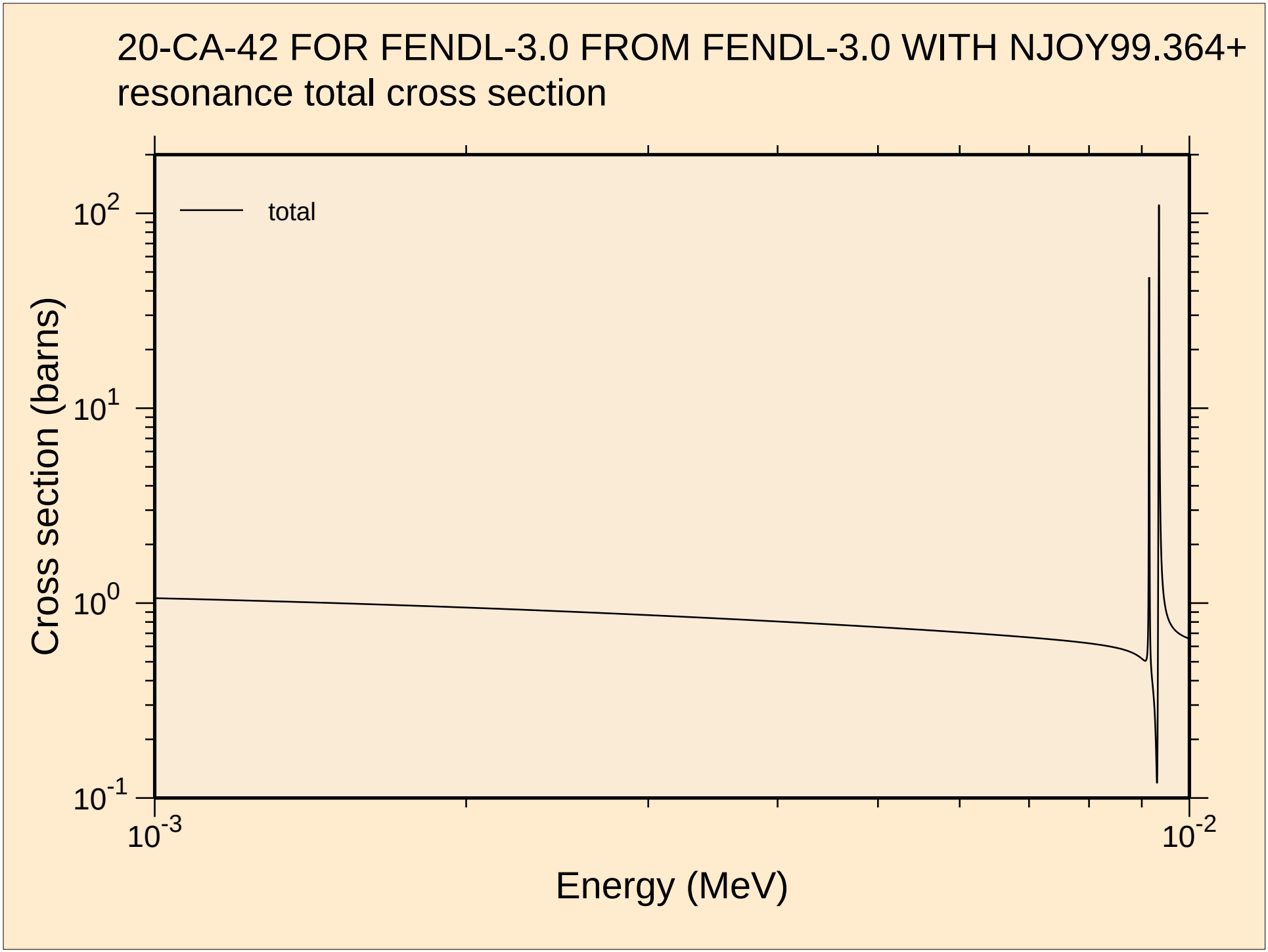
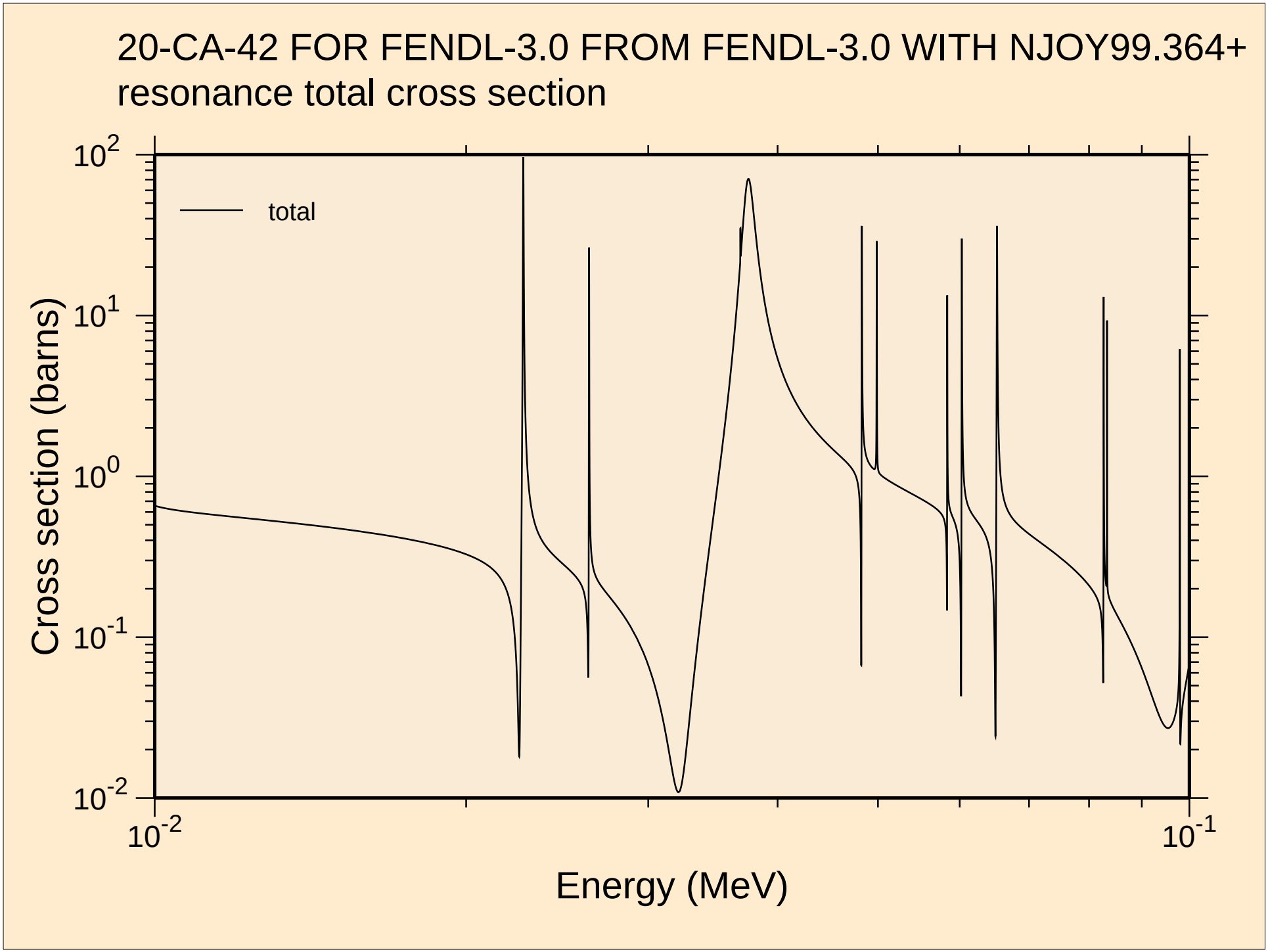
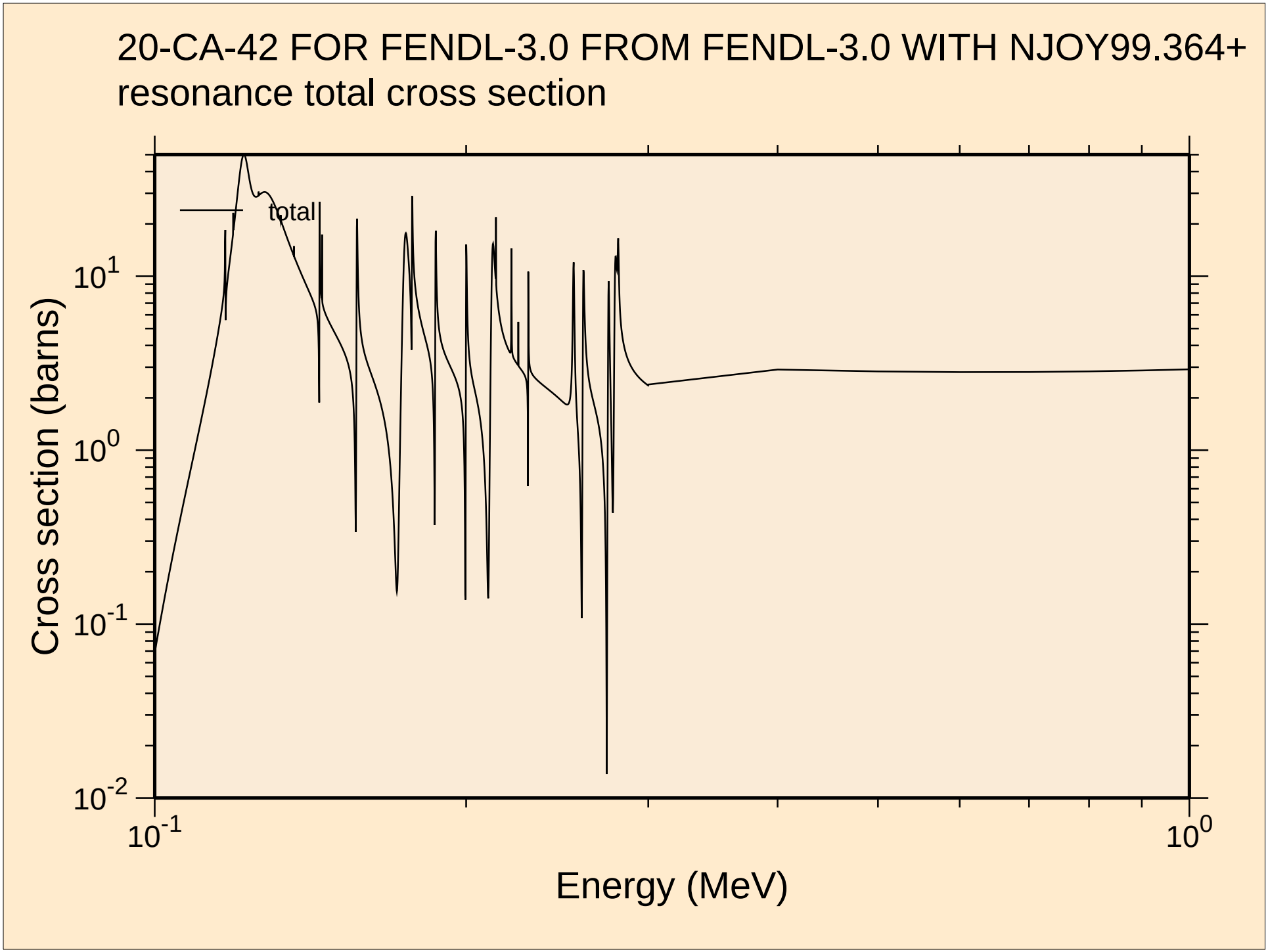
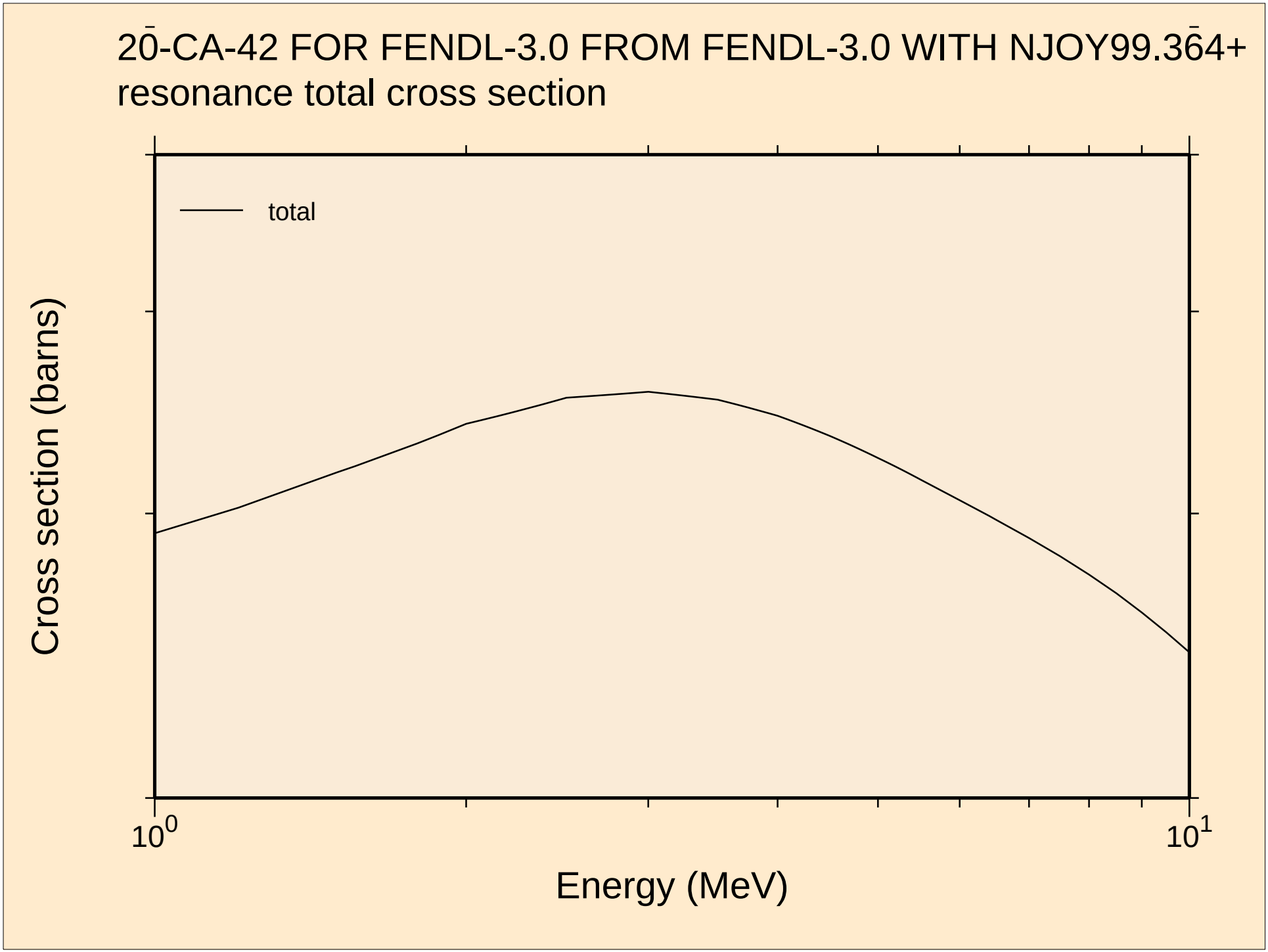
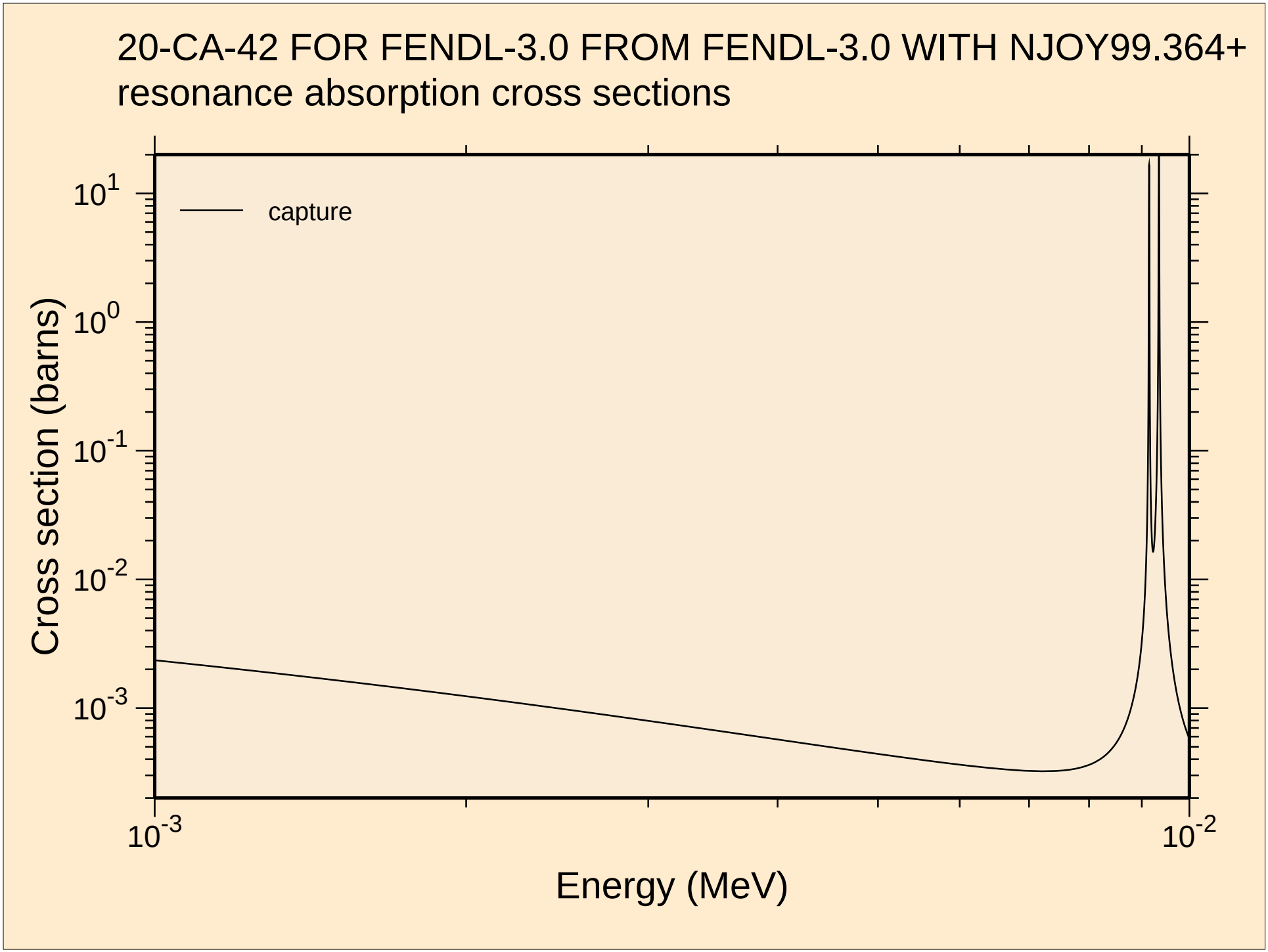

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

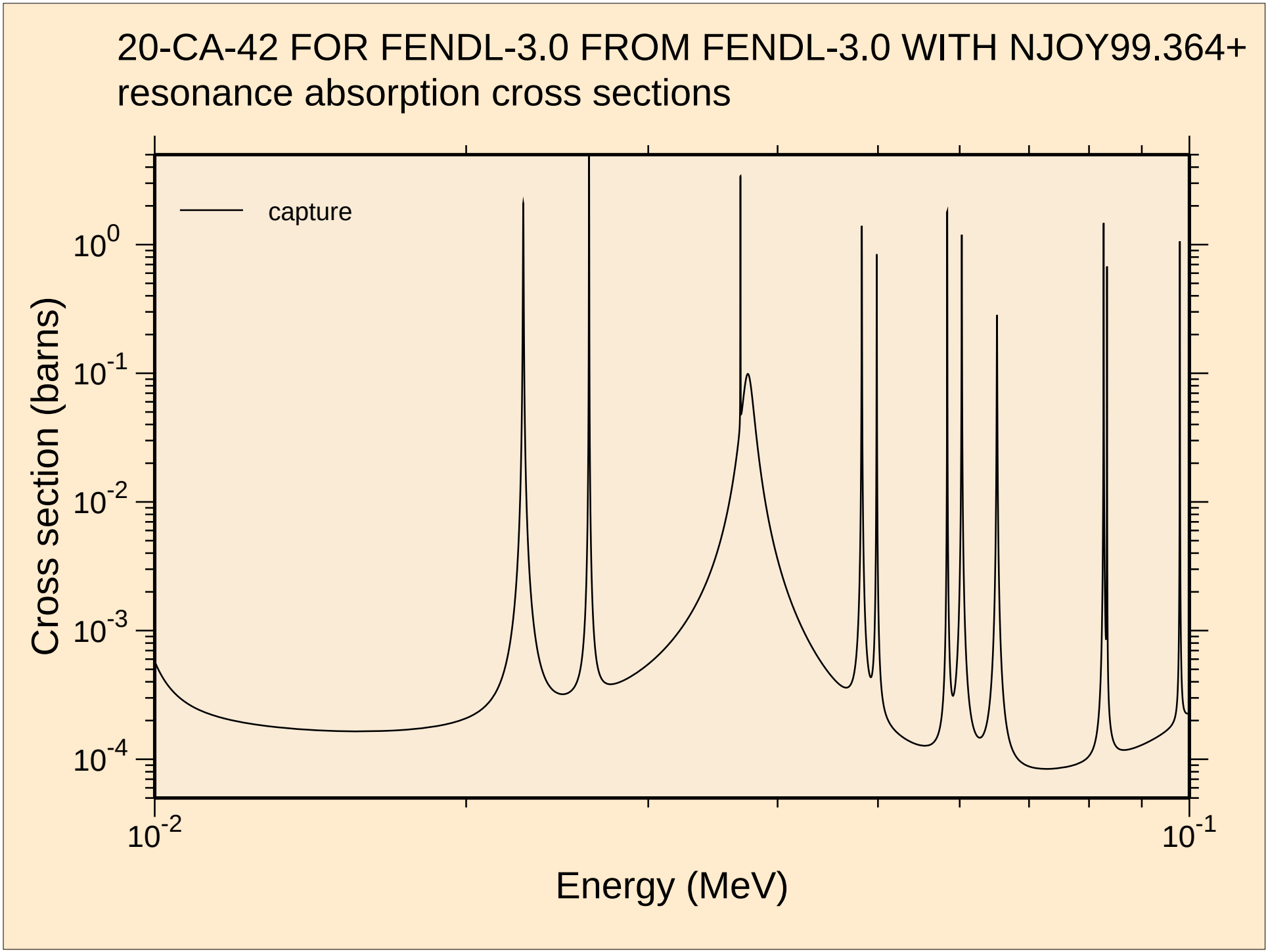

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance total cross section
total
Cross section (barns)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-3}
10^{-2}
Energy (MeV)

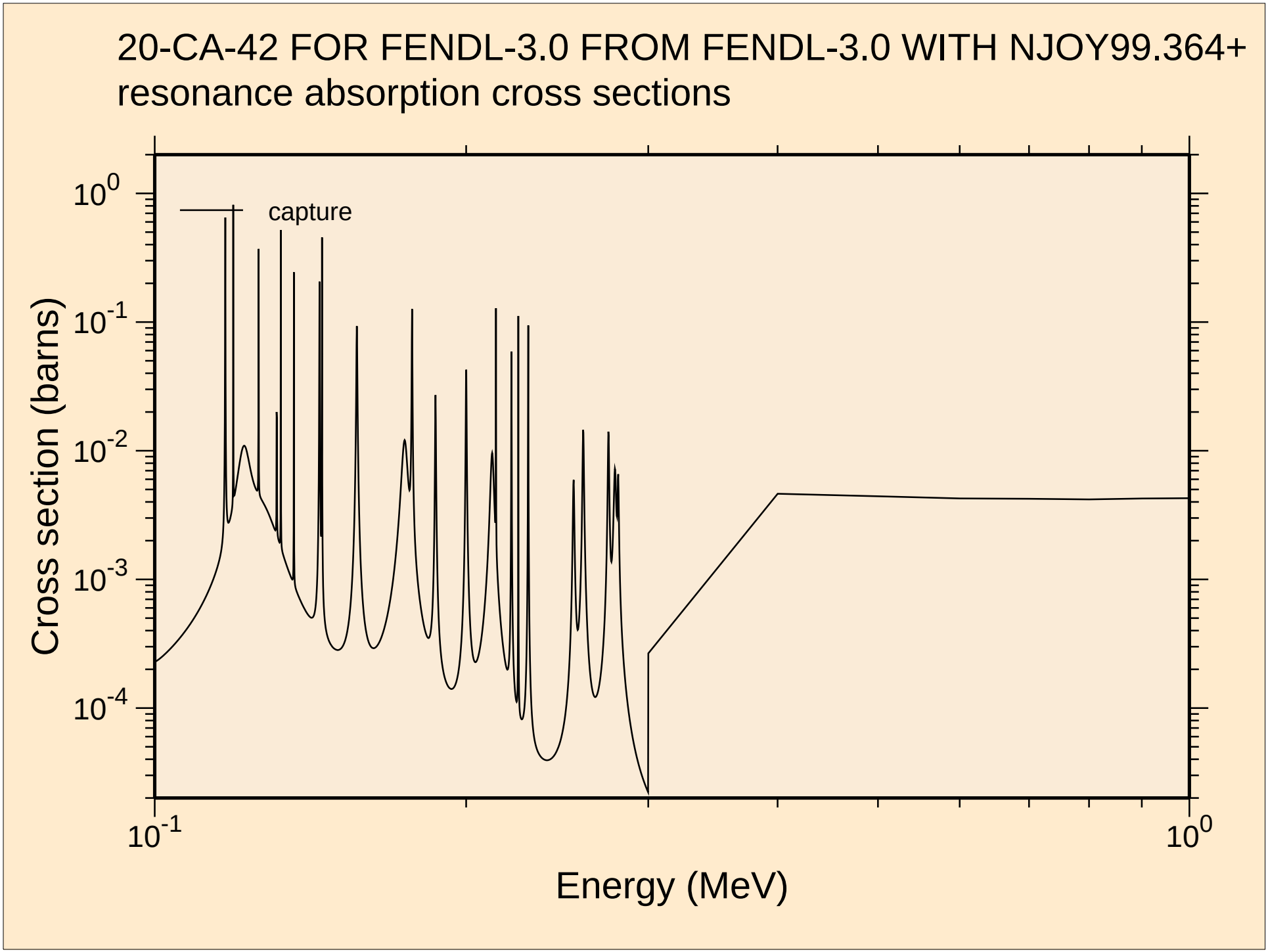

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance total cross section
total
Cross section (barns)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-2}
10^{-1}
Energy (MeV)

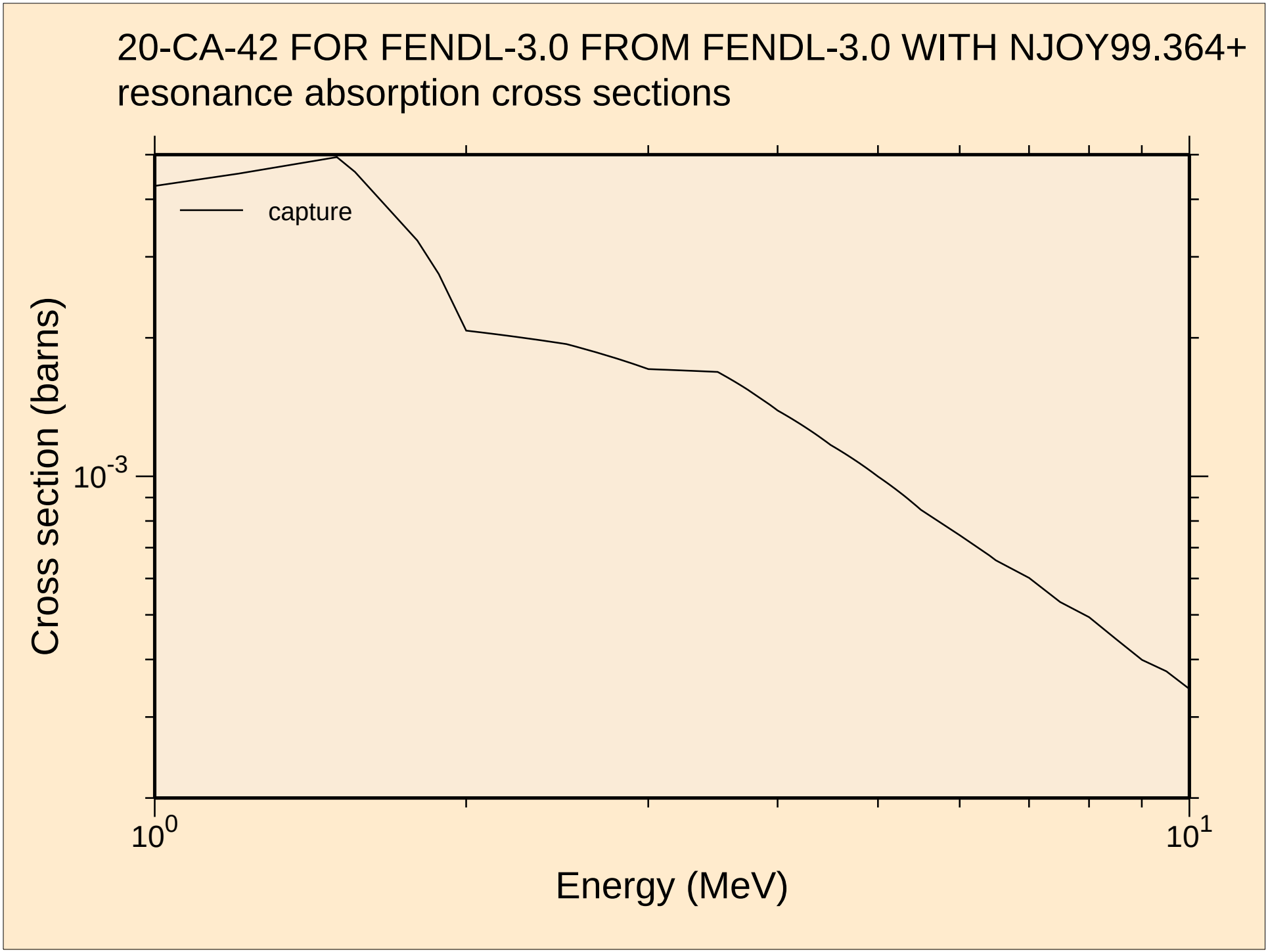

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance total cross section
total
Cross section (barns)
10^1
10^0
10^-1
10^-2
10^-1
10^0
Energy (MeV)

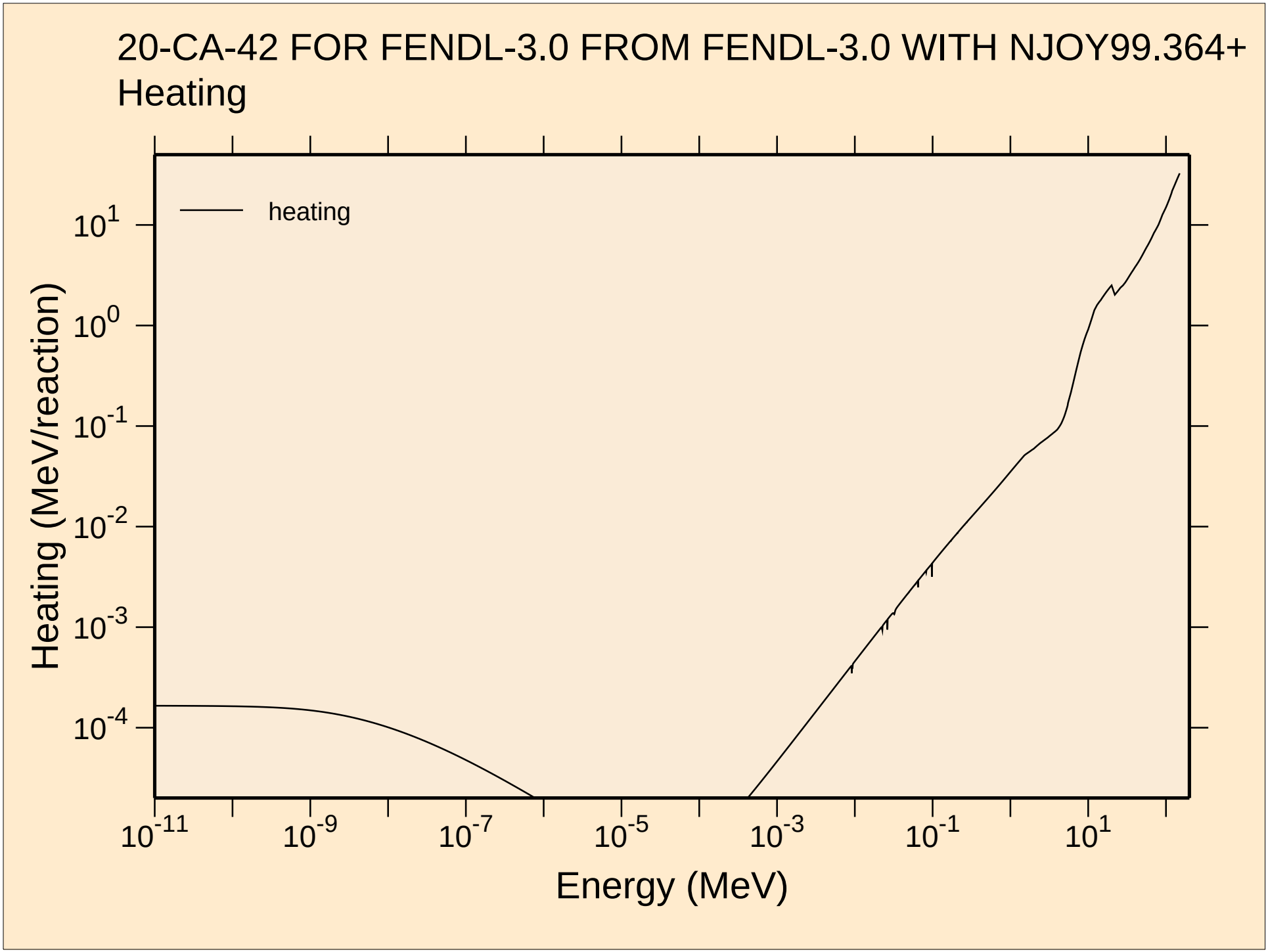

20̄-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.36̄4+
resonance total cross section
total
Cross section (barns)
10^0
10^1
Energy (MeV)

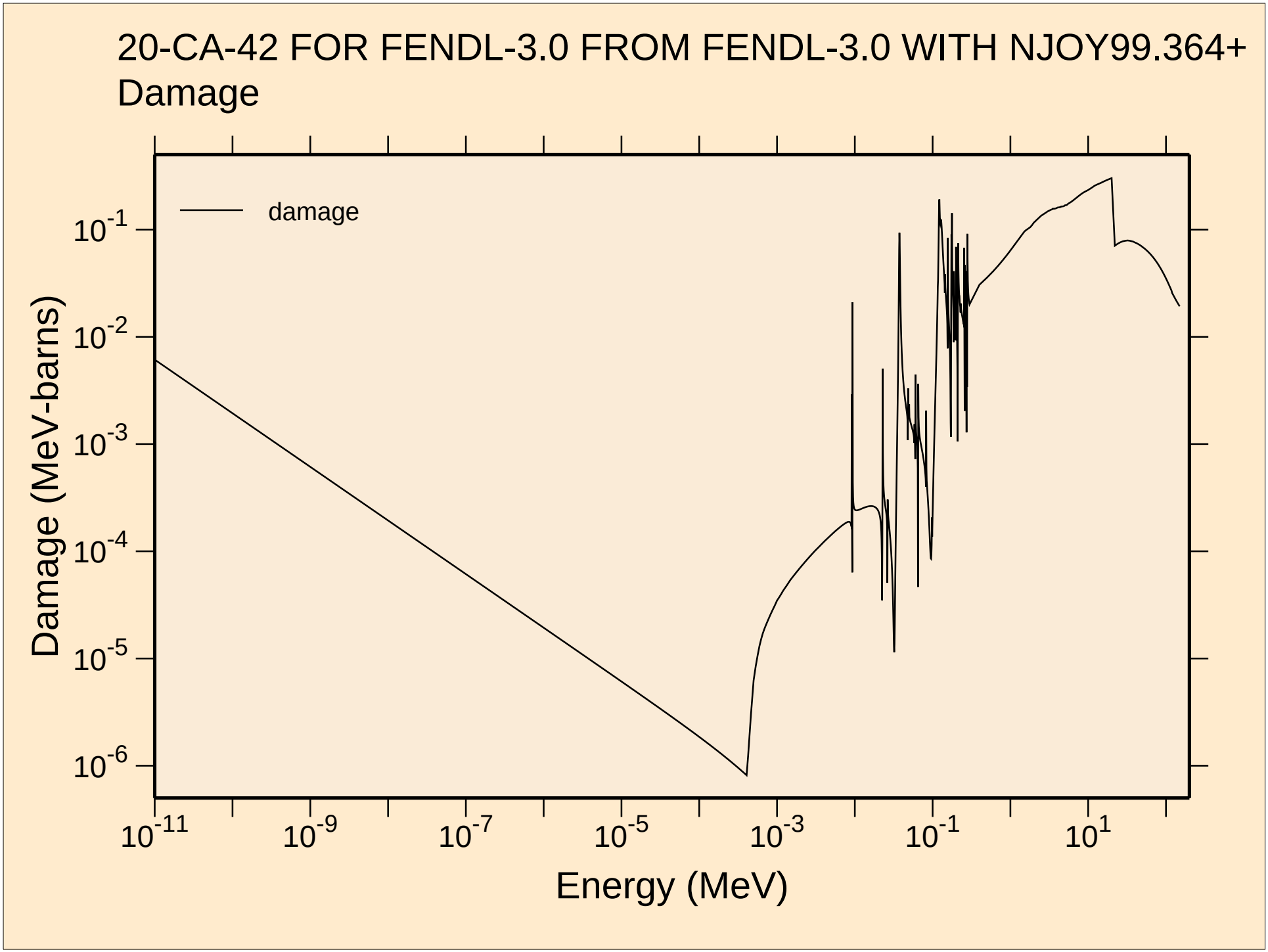

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance absorption cross sections
capture
Cross section (barns)
10^1
10^0
10^-1
10^-2
10^-3
10^-3
10^-2
Energy (MeV)

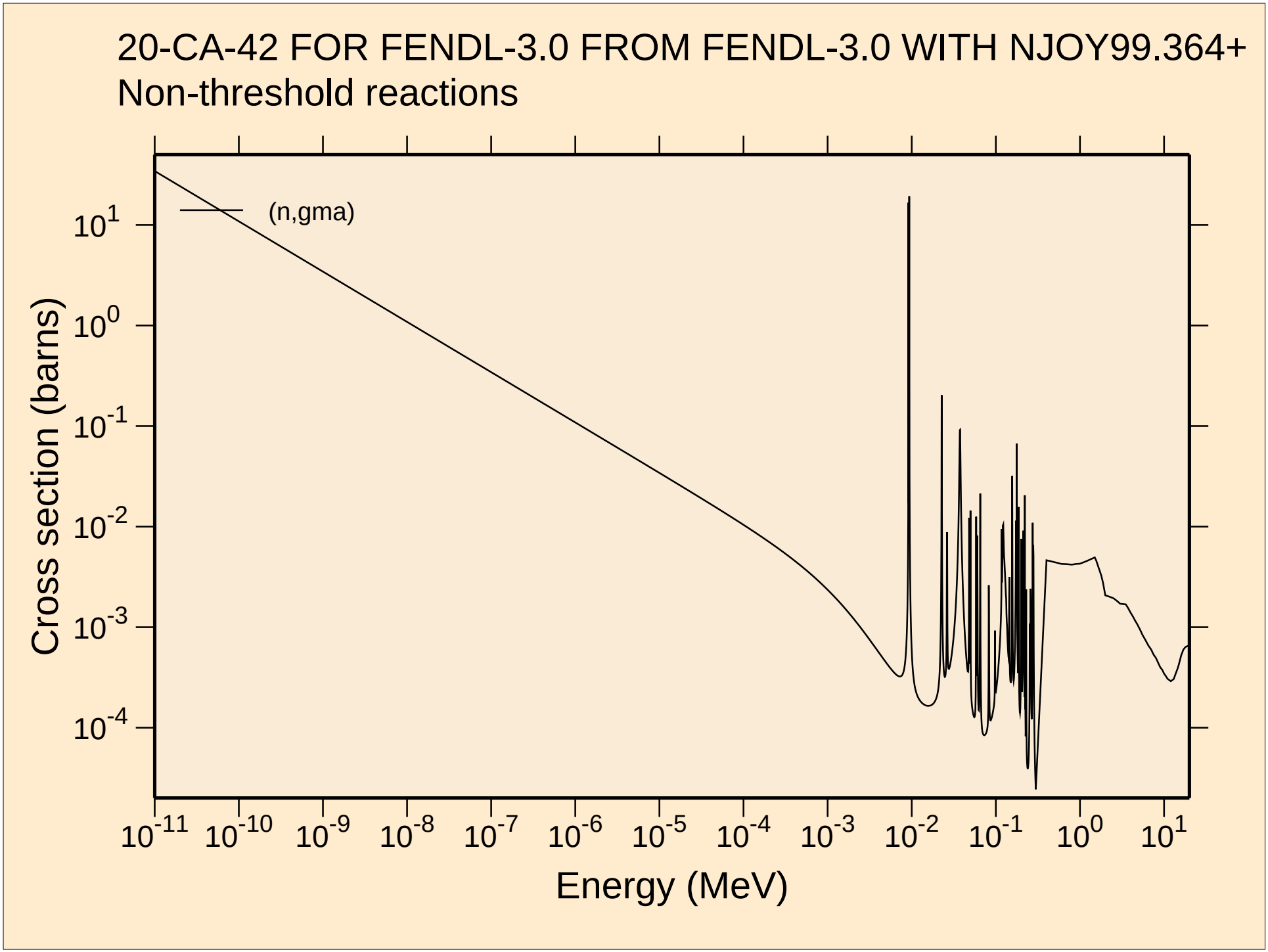

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance absorption cross sections
capture
Cross section (barns)
10^0
10^-1
10^-2
10^-3
10^-4
10^-2
10^-1
Energy (MeV)

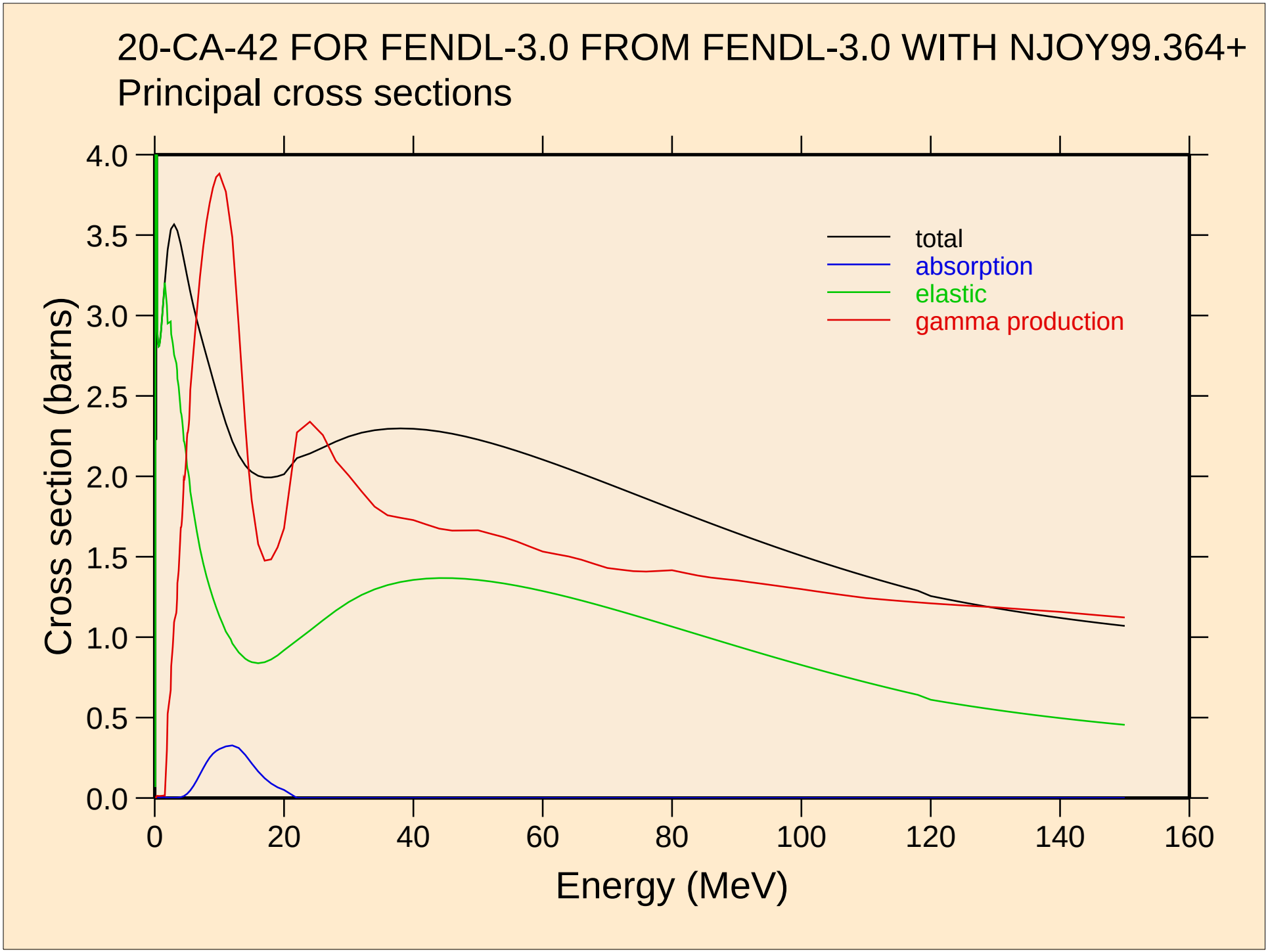

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance absorption cross sections
capture
Cross section (barns)
10^0
10^-1
10^-2
10^-3
10^-4
10^-1
10^0
Energy (MeV)

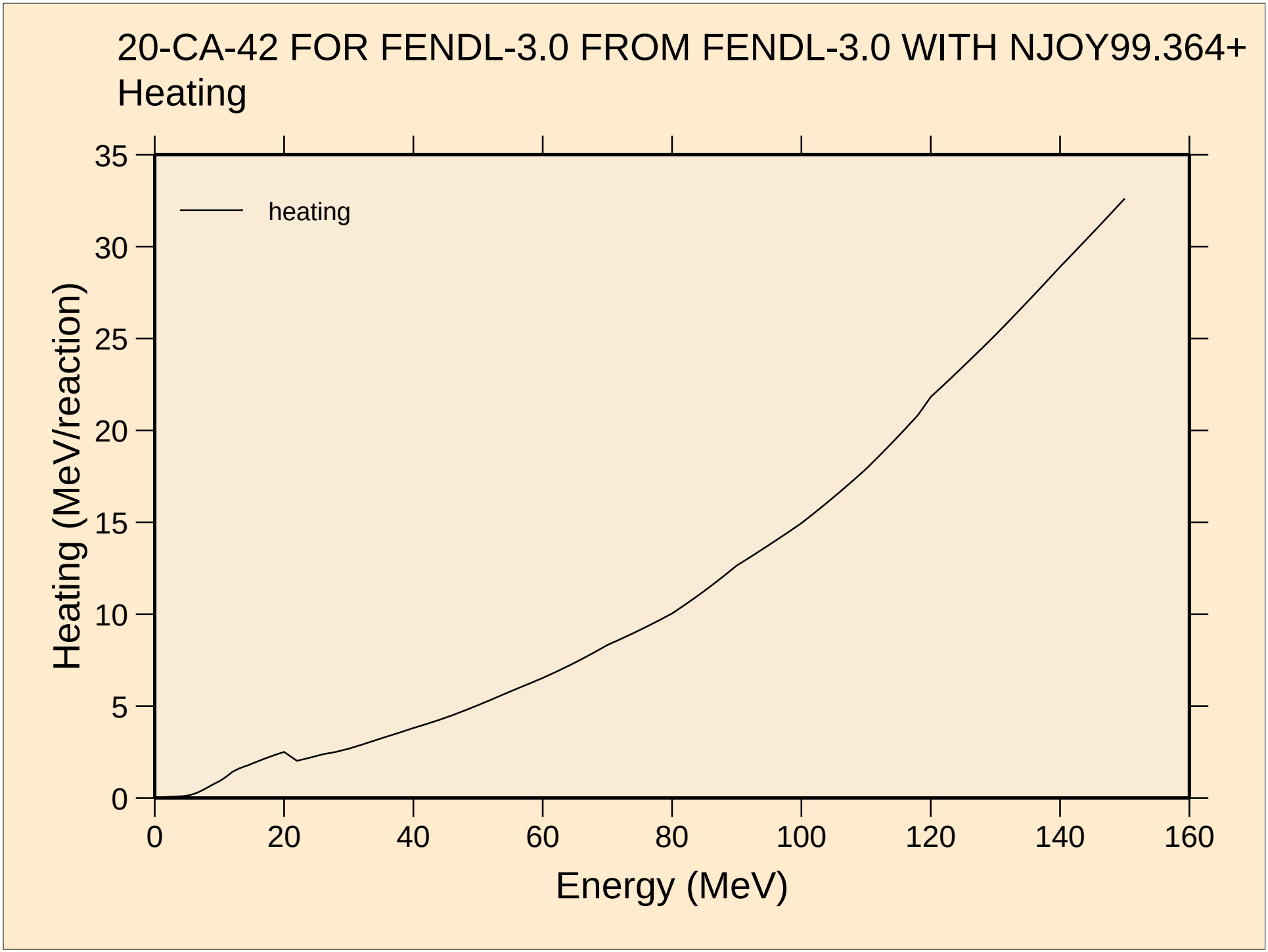

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
resonance absorption cross sections
capture
Cross section (barns)
10-3
100
101
Energy (MeV)

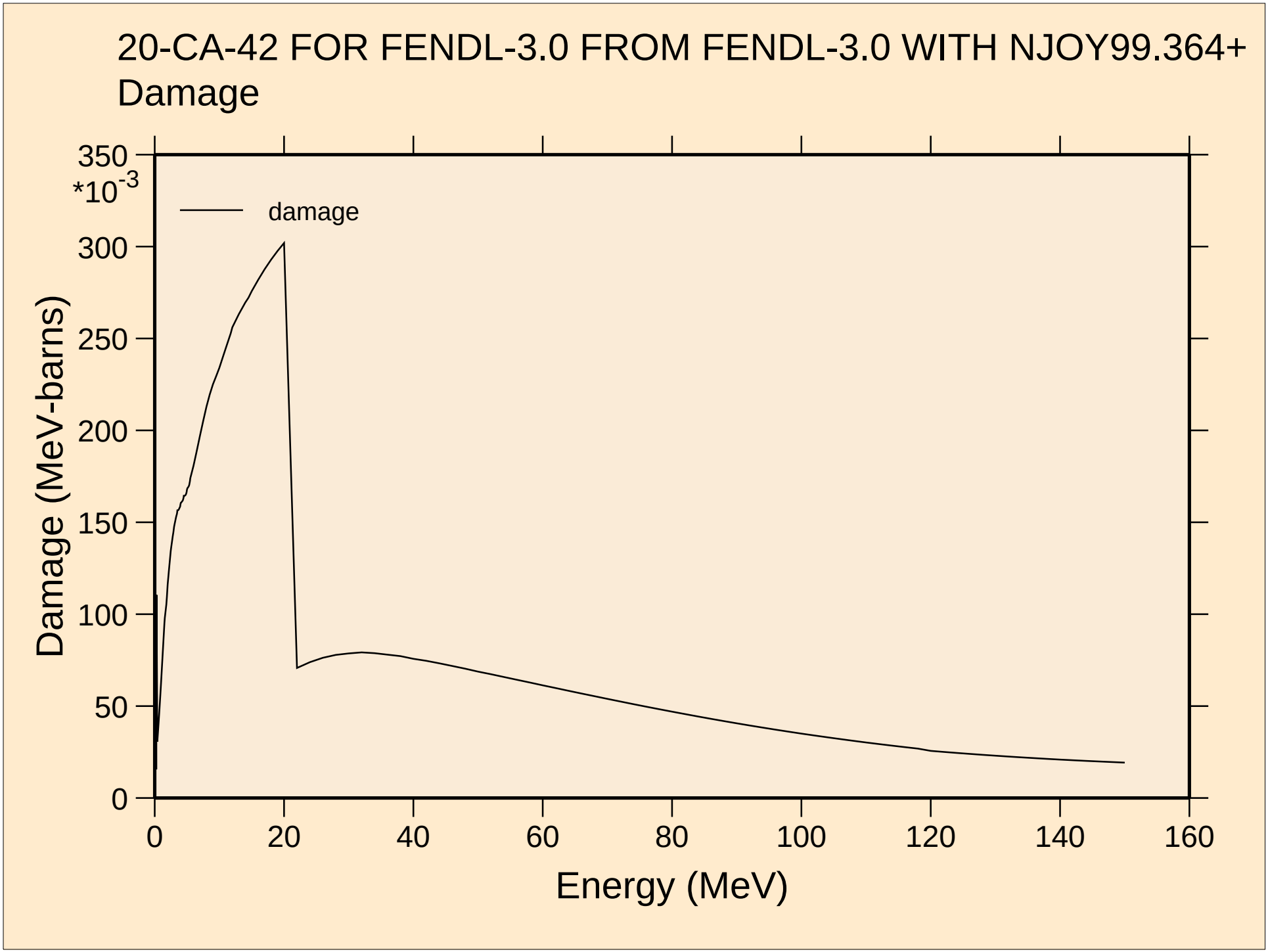

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-11
10^-9
10^-7
10^-5
10^-3
10^-1
10^1
Energy (MeV)

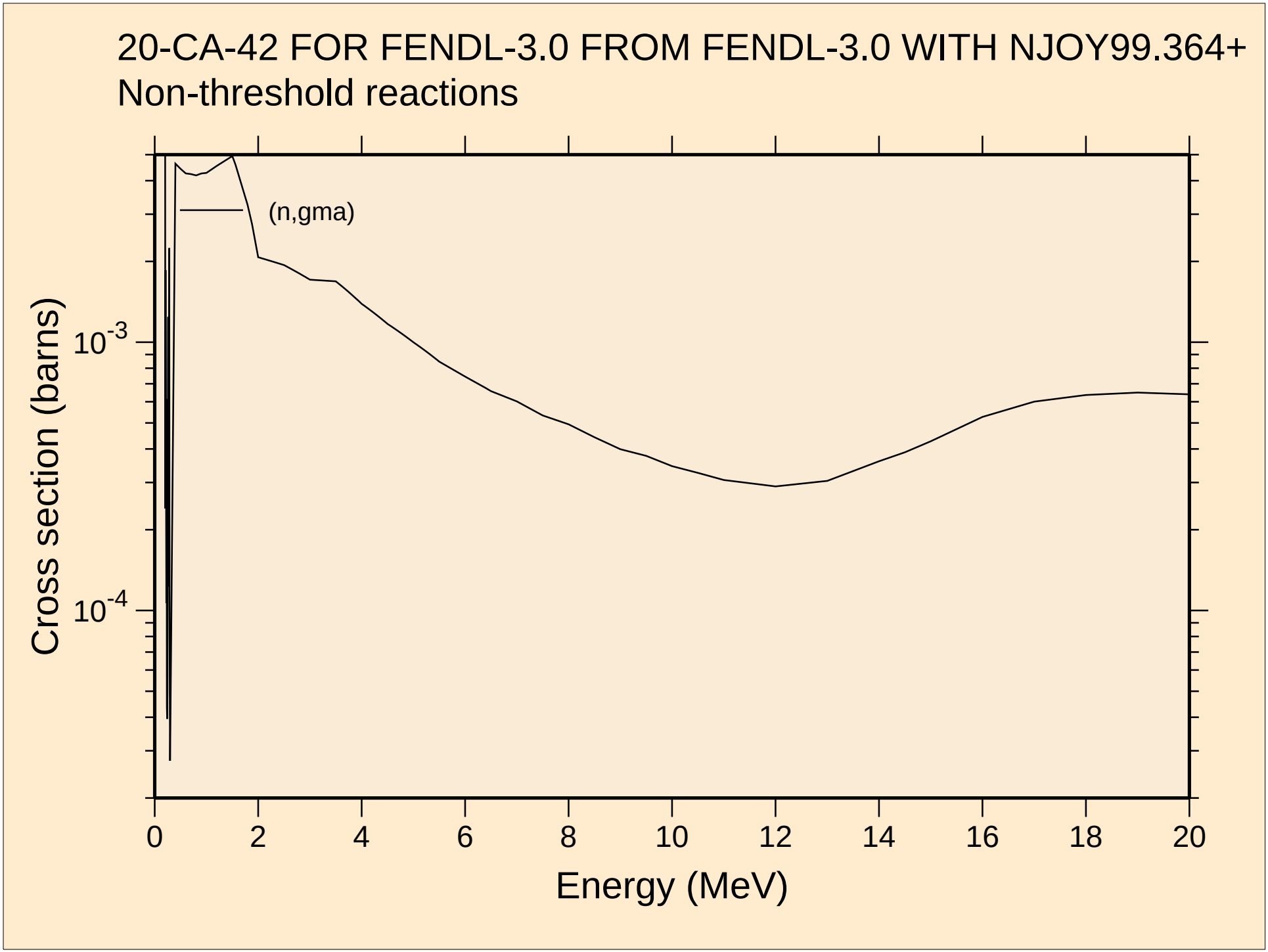

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Damage
damage
Damage (MeV-barns)
10-1
10-2
10-3
10-4
10-5
10-6
10-11
10-9
10-7
10-5
10-3
10-1
101
Energy (MeV)

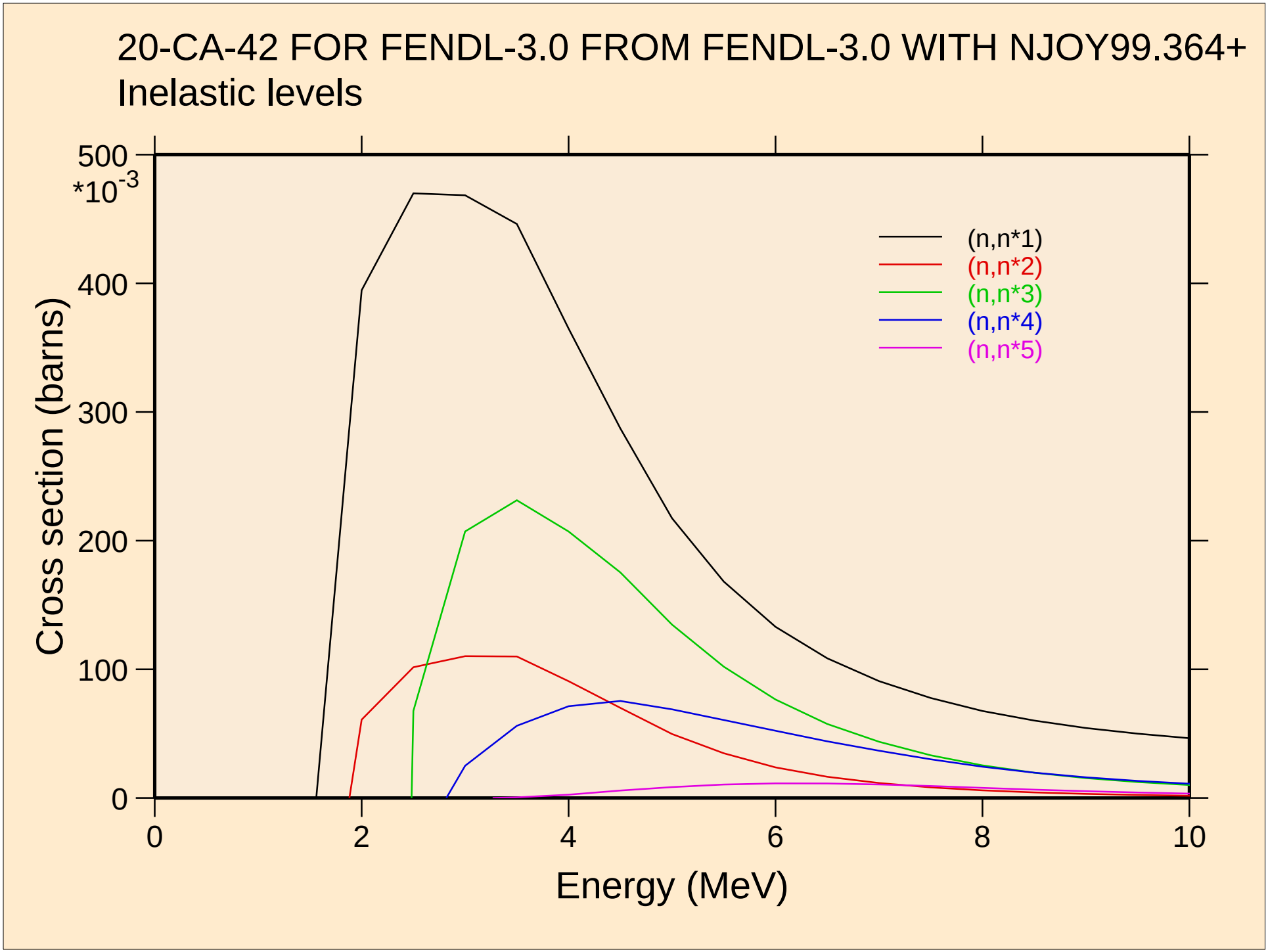

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Non-threshold reactions
(n,gma)
Cross section (barns)
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-11 10^-10 10^-9 10^-8 10^-7 10^-6 10^-5 10^-4 10^-3 10^-2 10^-1 10^0 10^1
Energy (MeV)

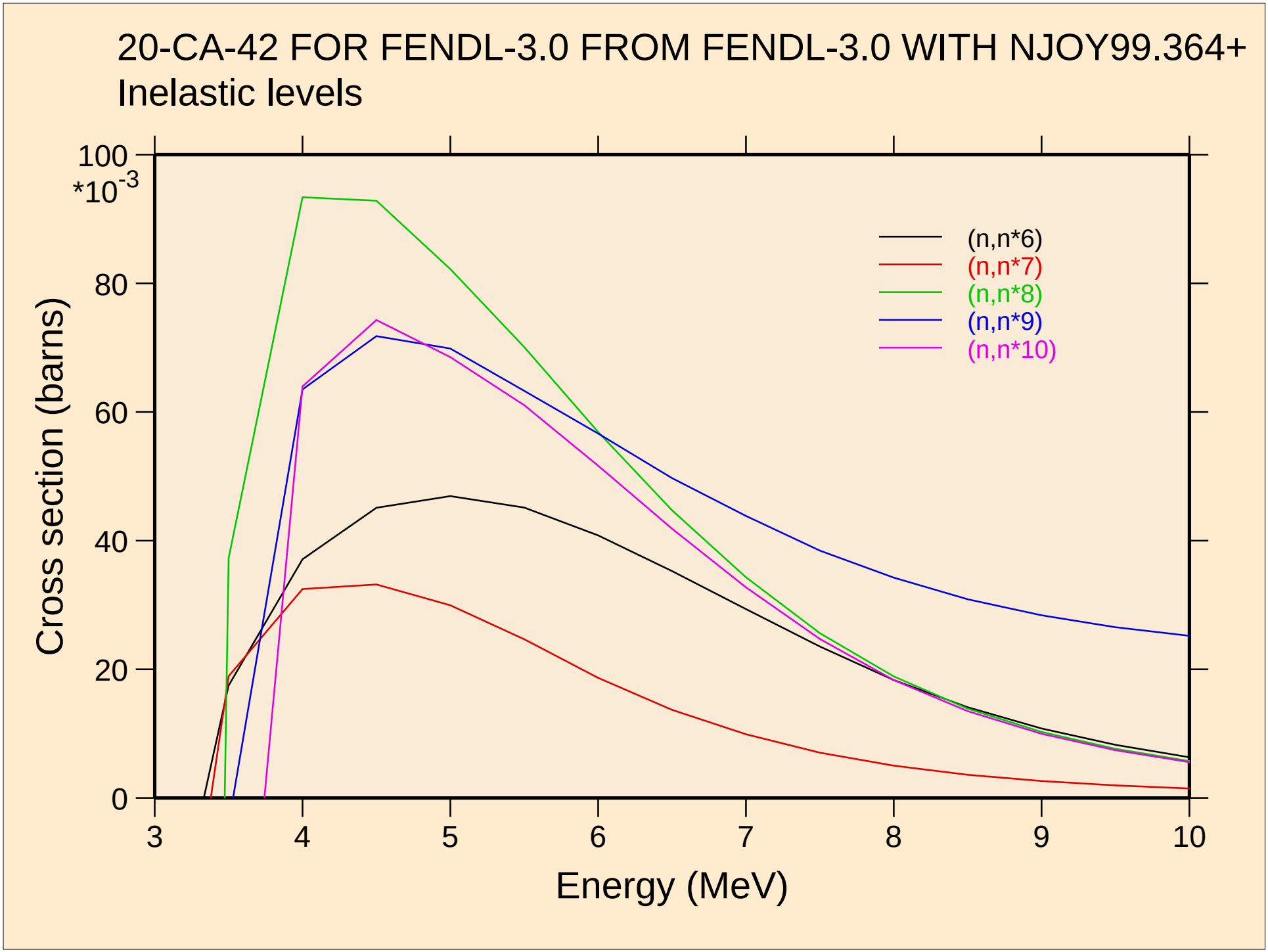

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Principal cross sections
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
20
40
60
80
100
120
140
160
total
absorption
elastic
gamma production

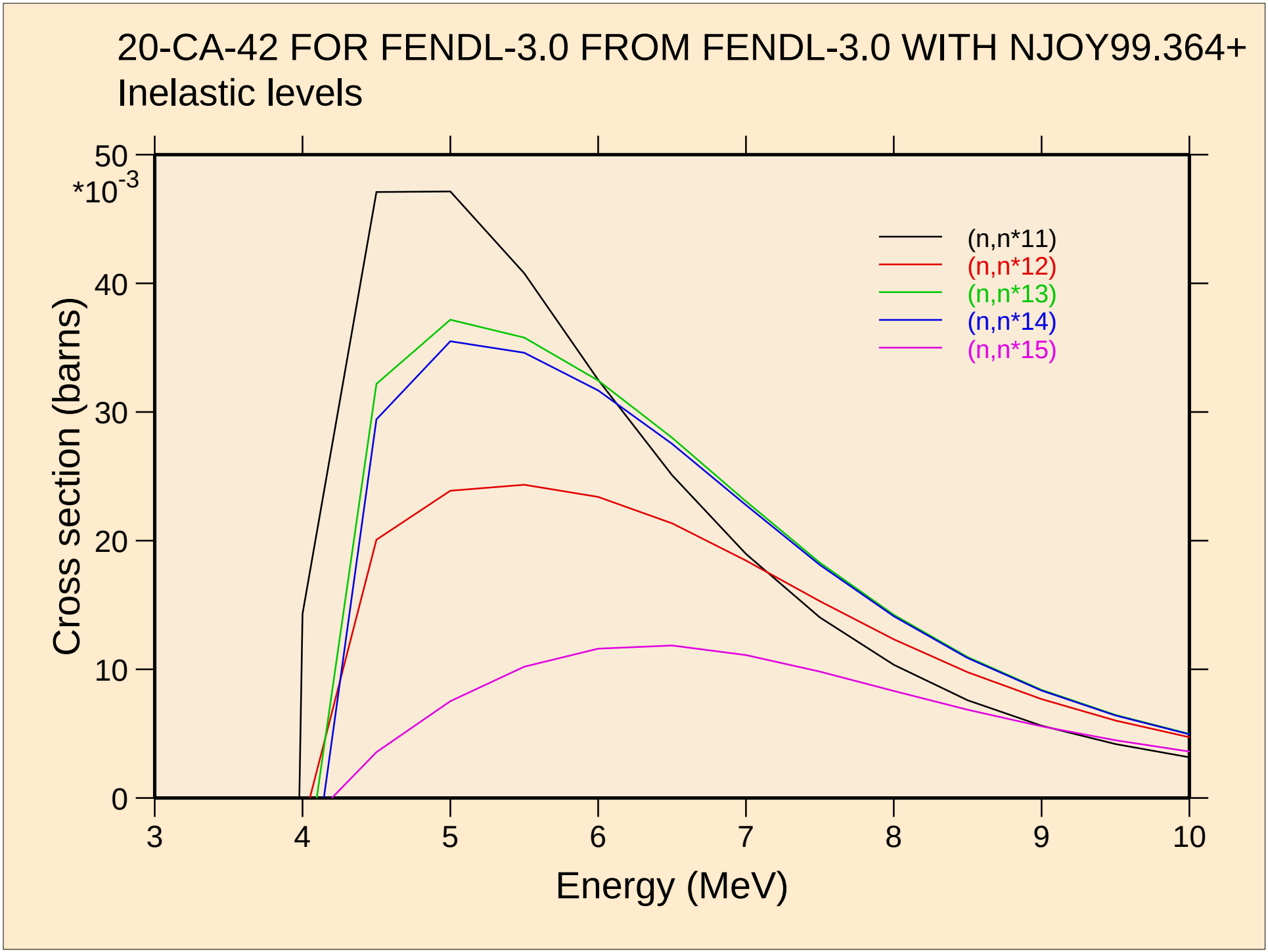

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
5
10
15
20
25
30
35
0
20
40
60
80
100
120
140
160

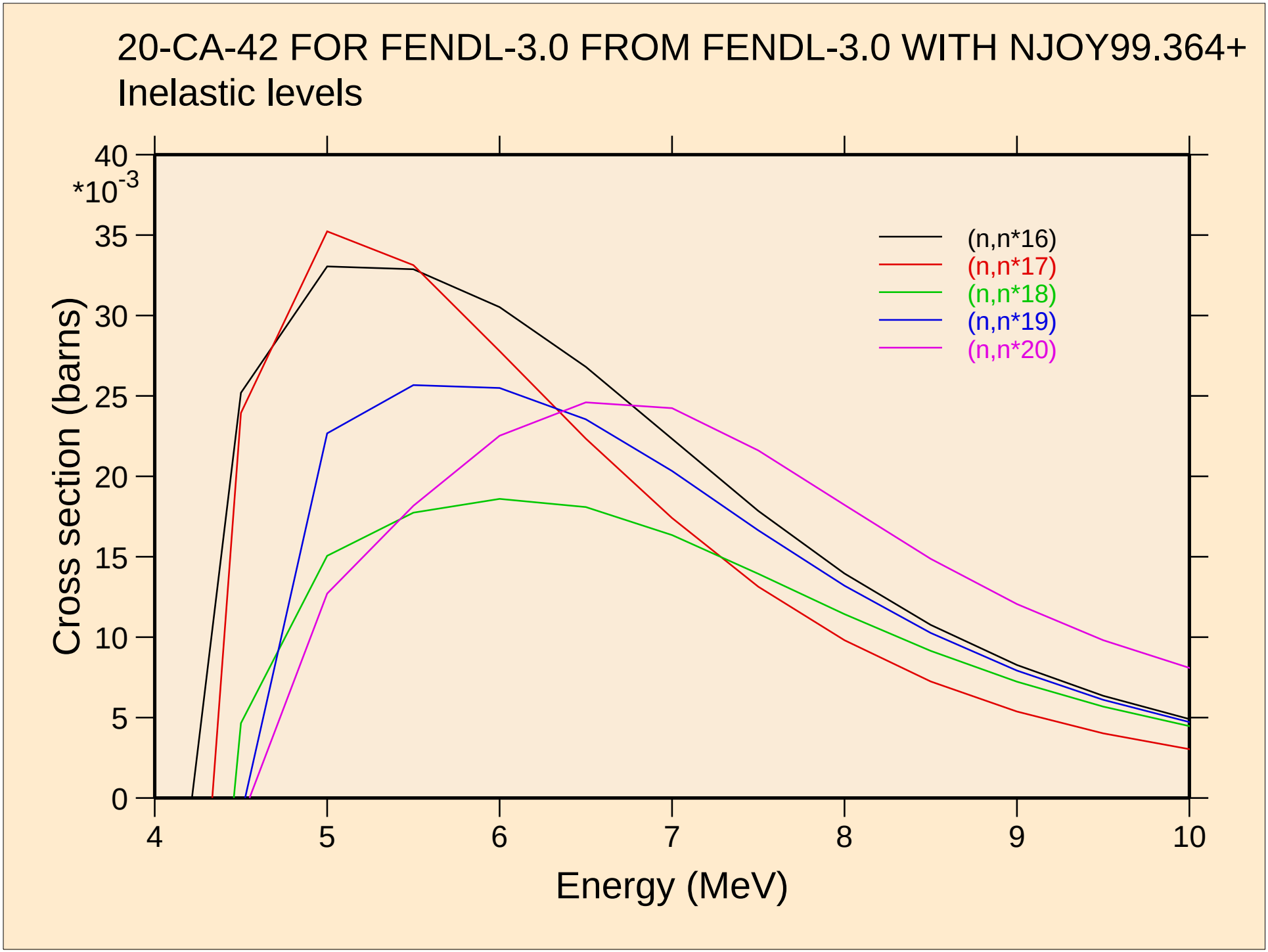

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Damage
350
*10-3
300
250
200
150
100
50
0
damage
Damage (MeV-barns)
0
20
40
60
80
100
120
140
160
Energy (MeV)

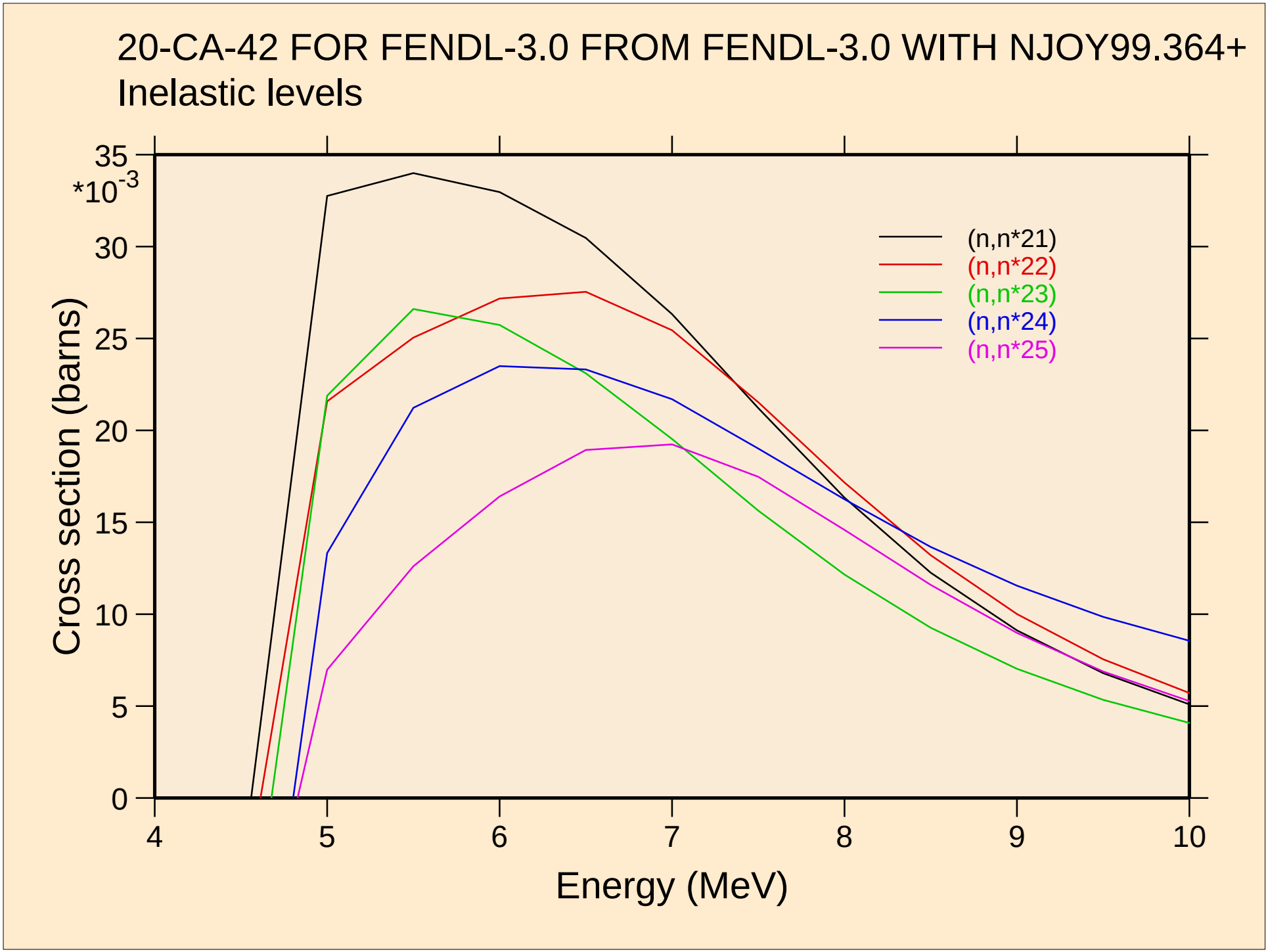

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Non-threshold reactions
(n,gma)
Cross section (barns)
10-3
10-4
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

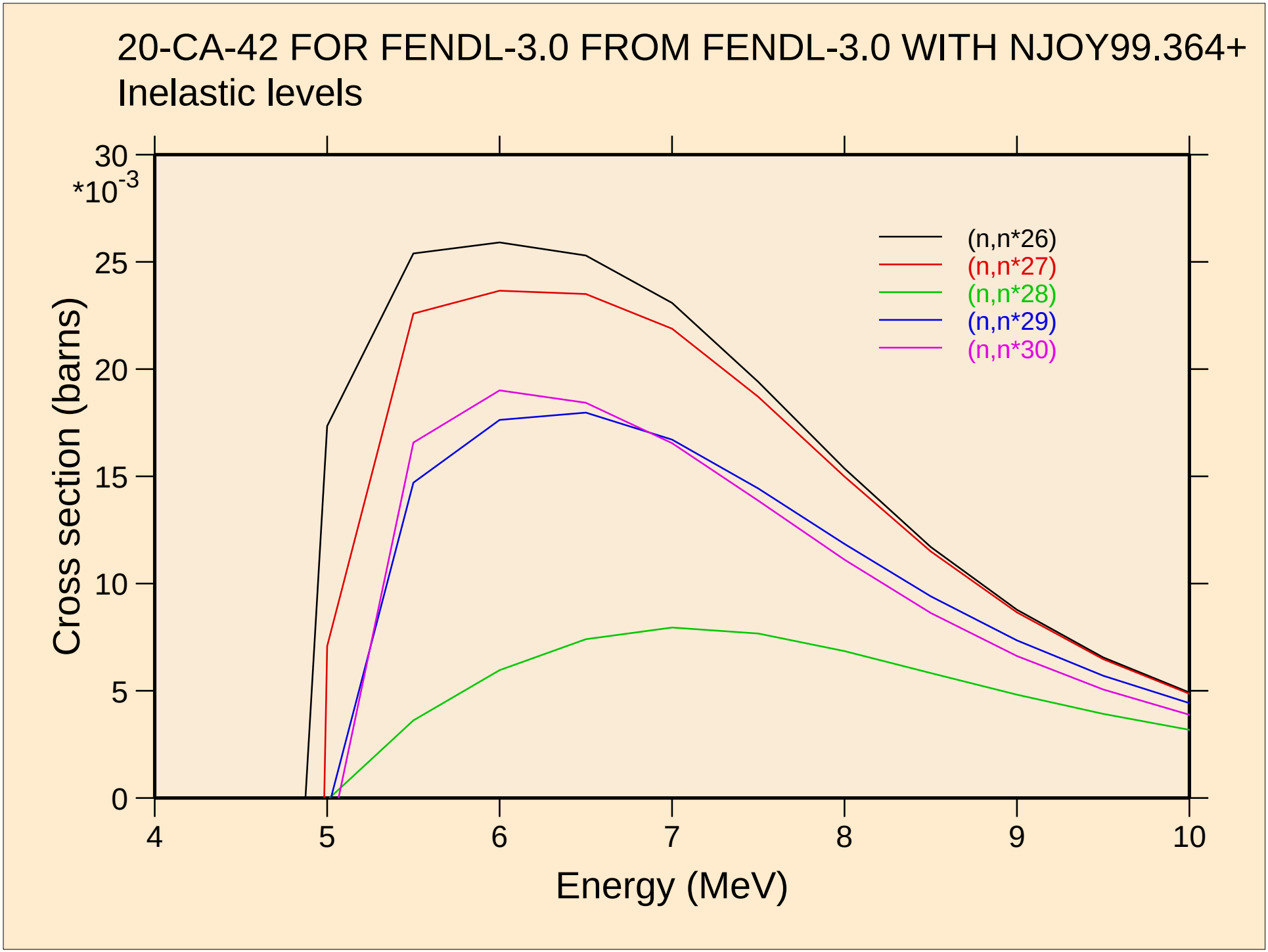

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
500
400
300
200
100
0
0
2
4
6
8
10
Energy (MeV)
(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

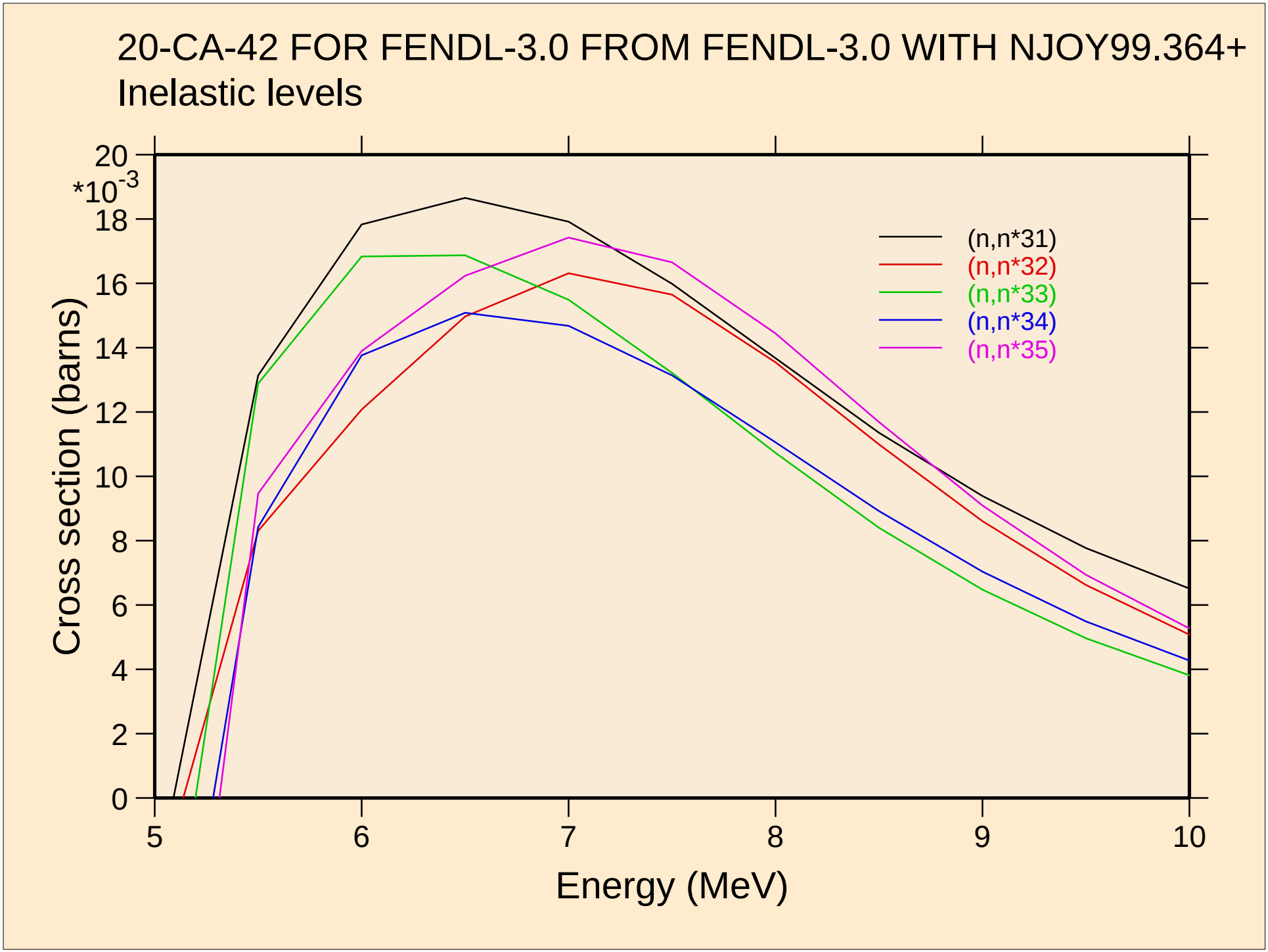

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
100
*10-3
80
60
40
20
0
3
4
5
6
7
8
9
10
Energy (MeV)
(n,n*6)
(n,n*7)
(n,n*8)
(n,n*9)
(n,n*10)

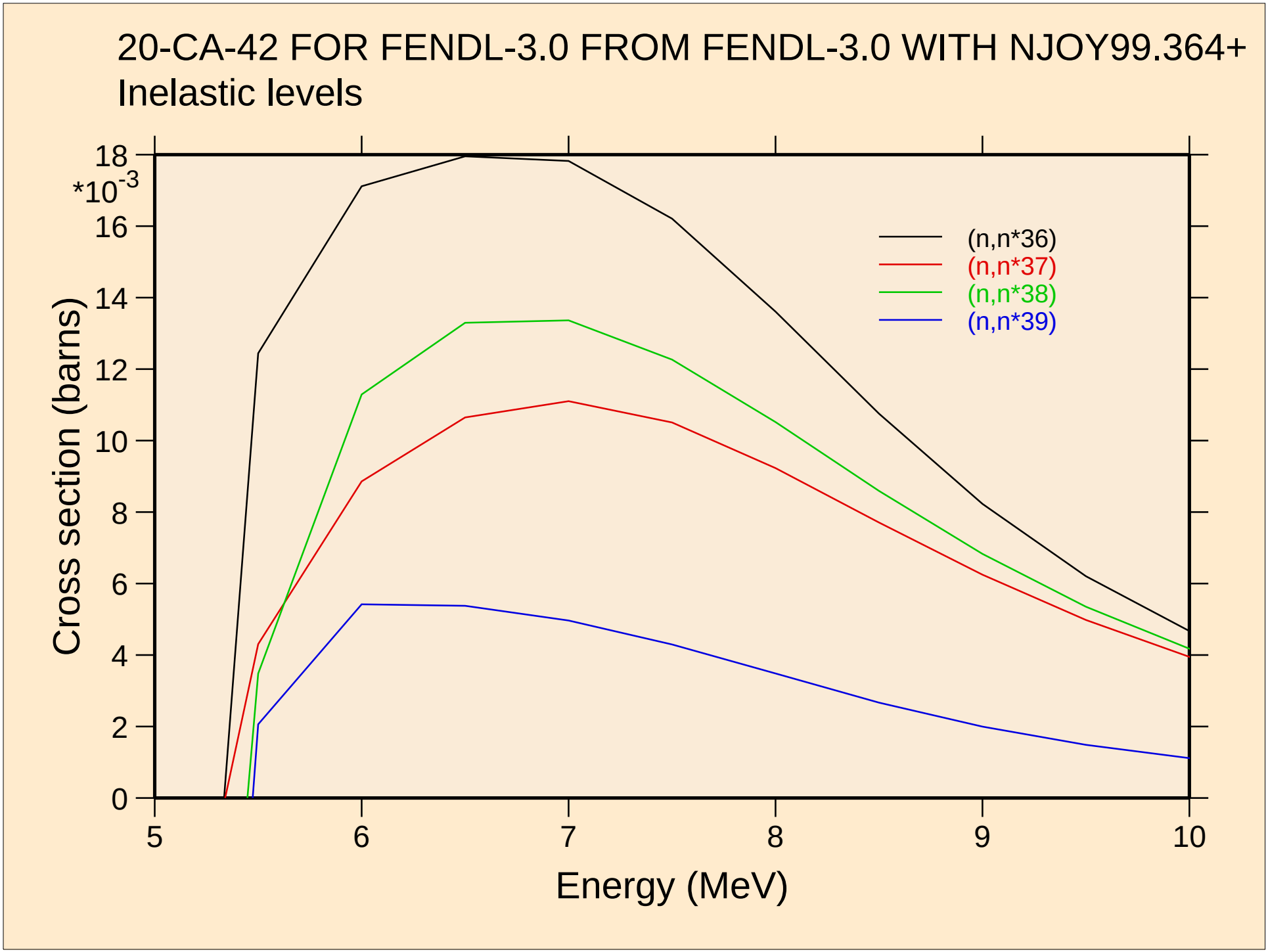

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
50
40
30
20
10
0
3
4
5
6
7
8
9
10
Energy (MeV)
(n,n*11)
(n,n*12)
(n,n*13)
(n,n*14)
(n,n*15)

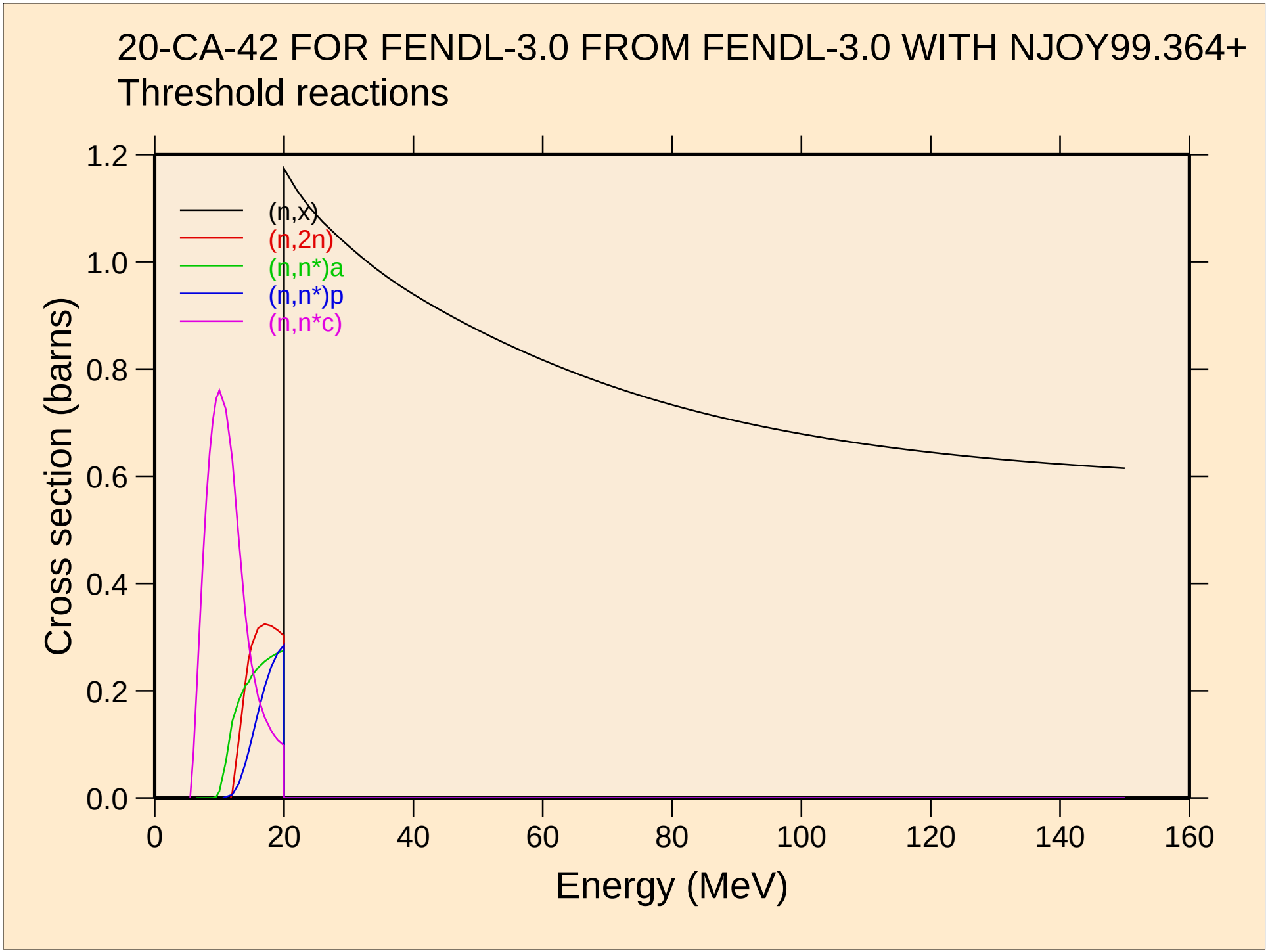

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
40
35
30
25
20
15
10
5
0
4
5
6
7
8
9
10
Energy (MeV)
(n,n*16)
(n,n*17)
(n,n*18)
(n,n*19)
(n,n*20)

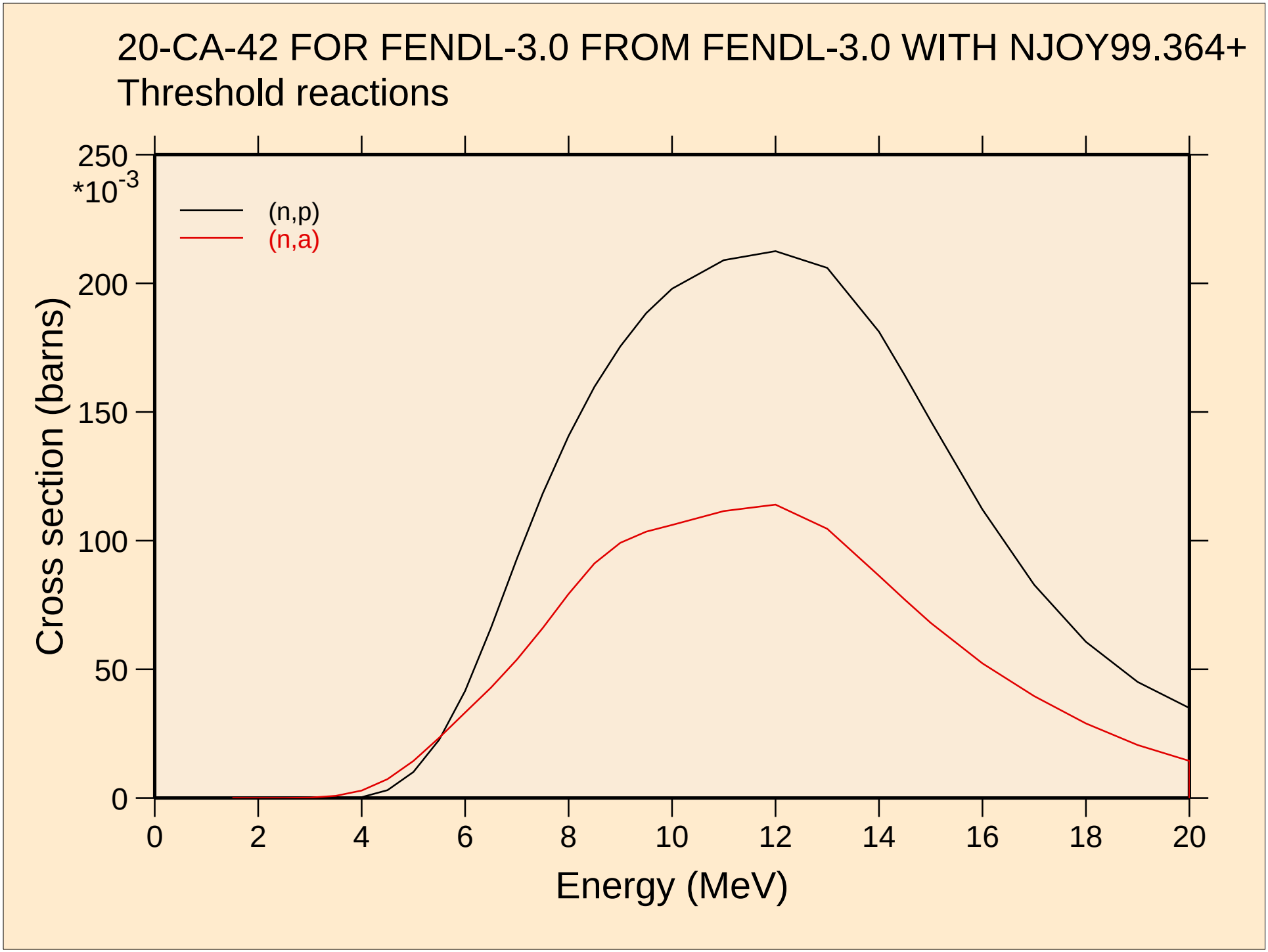

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
35
30
25
20
15
10
5
0
4
5
6
7
8
9
10
Energy (MeV)
(n,n*21)
(n,n*22)
(n,n*23)
(n,n*24)
(n,n*25)

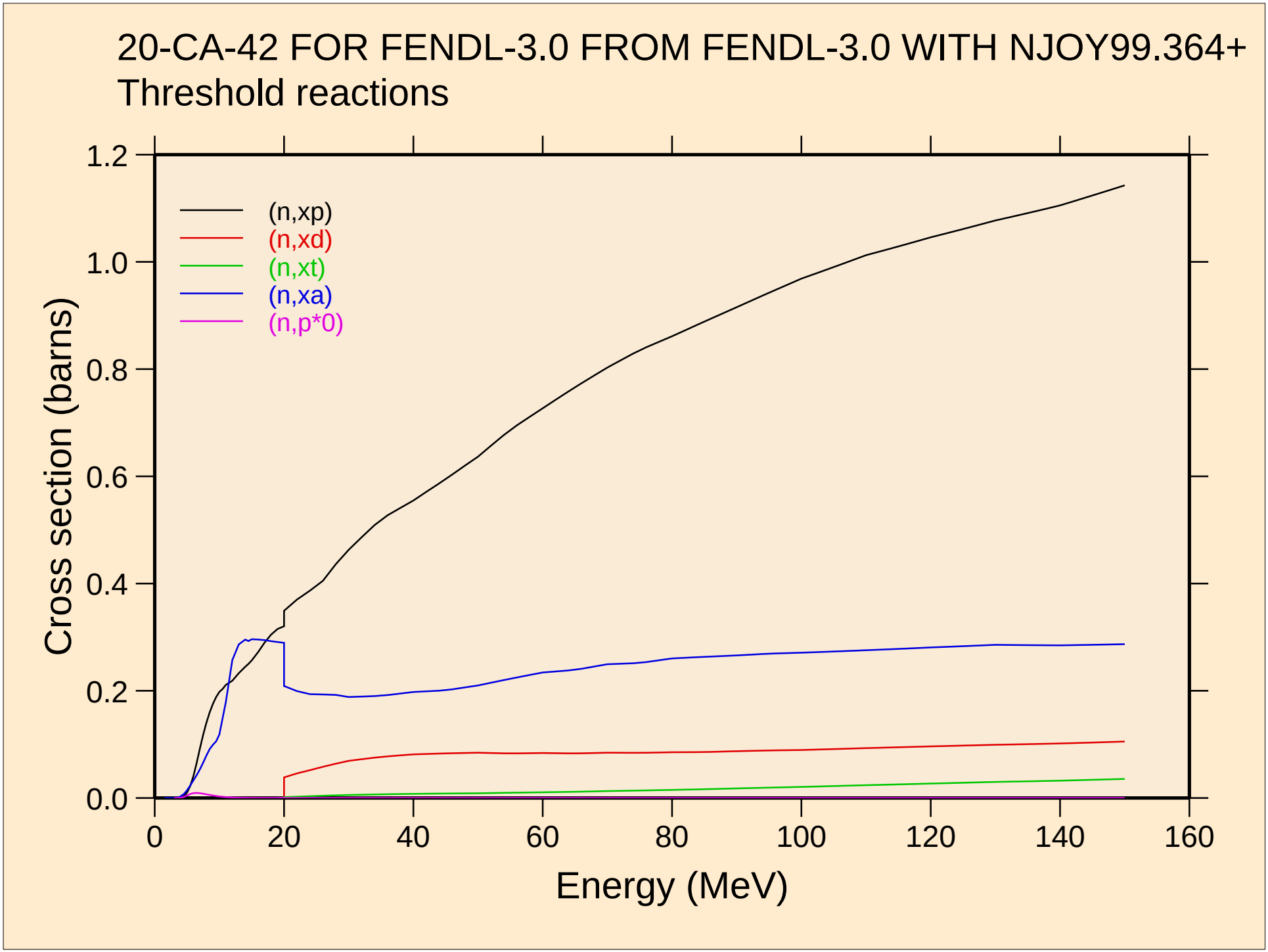

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
30
25
20
15
10
5
0
4
5
6
7
8
9
10
Energy (MeV)
(n,n*26)
(n,n*27)
(n,n*28)
(n,n*29)
(n,n*30)

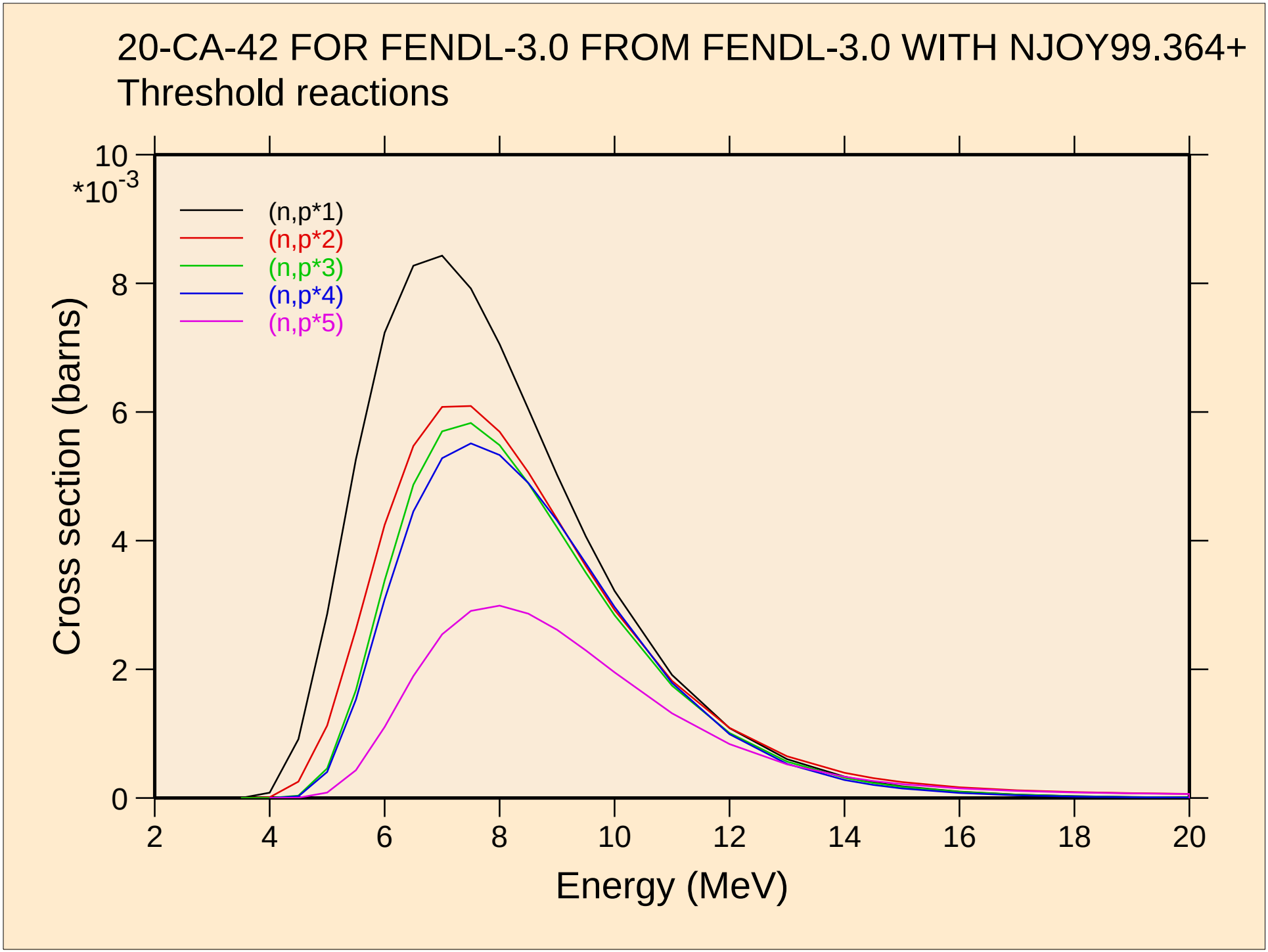

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
20
18
16
14
12
10
8
6
4
2
0
5
6
7
8
9
10
Energy (MeV)
(n,n*31)
(n,n*32)
(n,n*33)
(n,n*34)
(n,n*35)

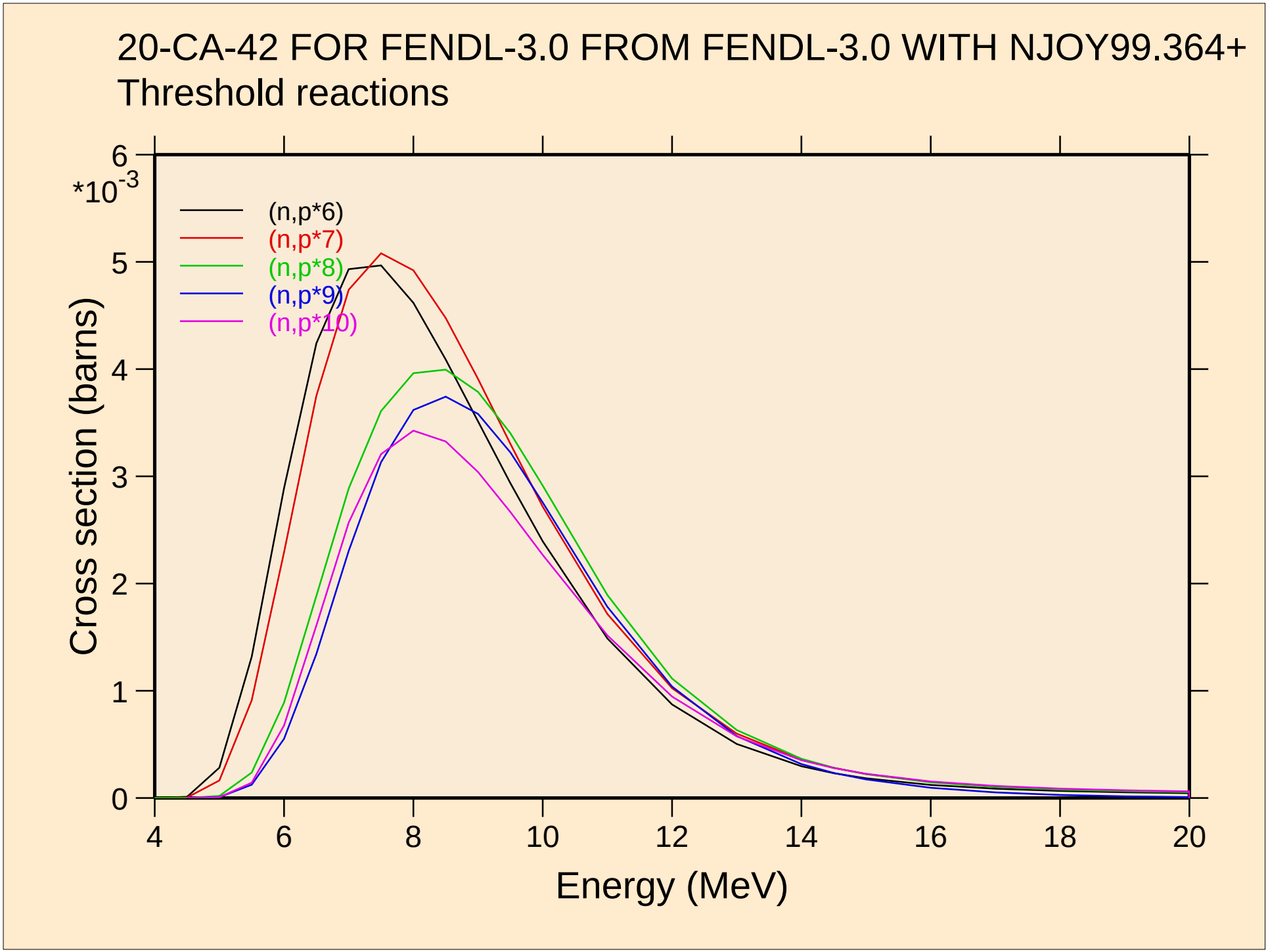

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Inelastic levels
Cross section (barns)
*10-3
18
16
14
12
10
8
6
4
2
0
5
6
7
8
9
10
Energy (MeV)
(n,n*36)
(n,n*37)
(n,n*38)
(n,n*39)

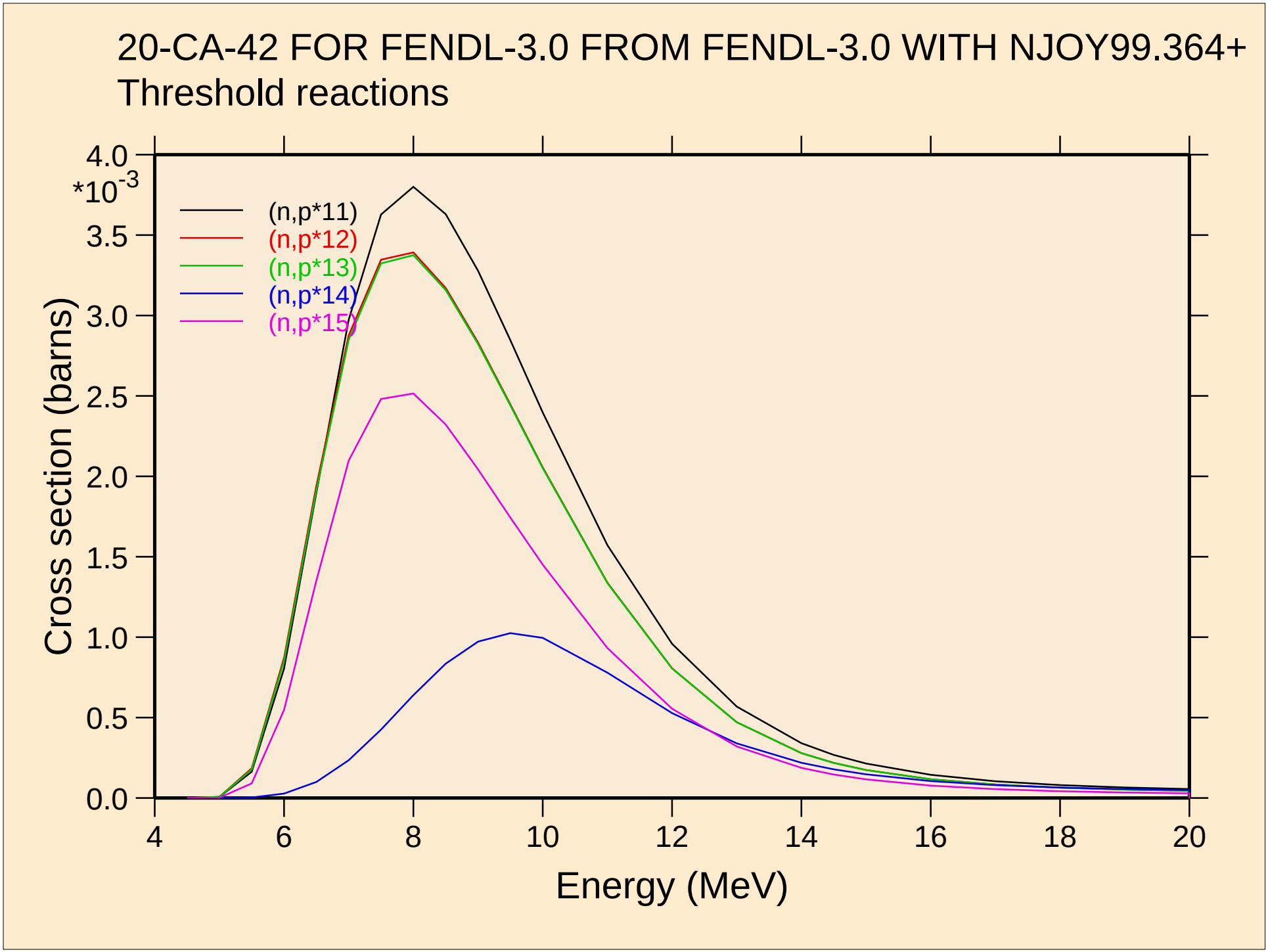

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
(n,x)
(n,2n)
(n,n*)a
(n,n*)p
(n,n*c)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
20
40
60
80
100
120
140
160

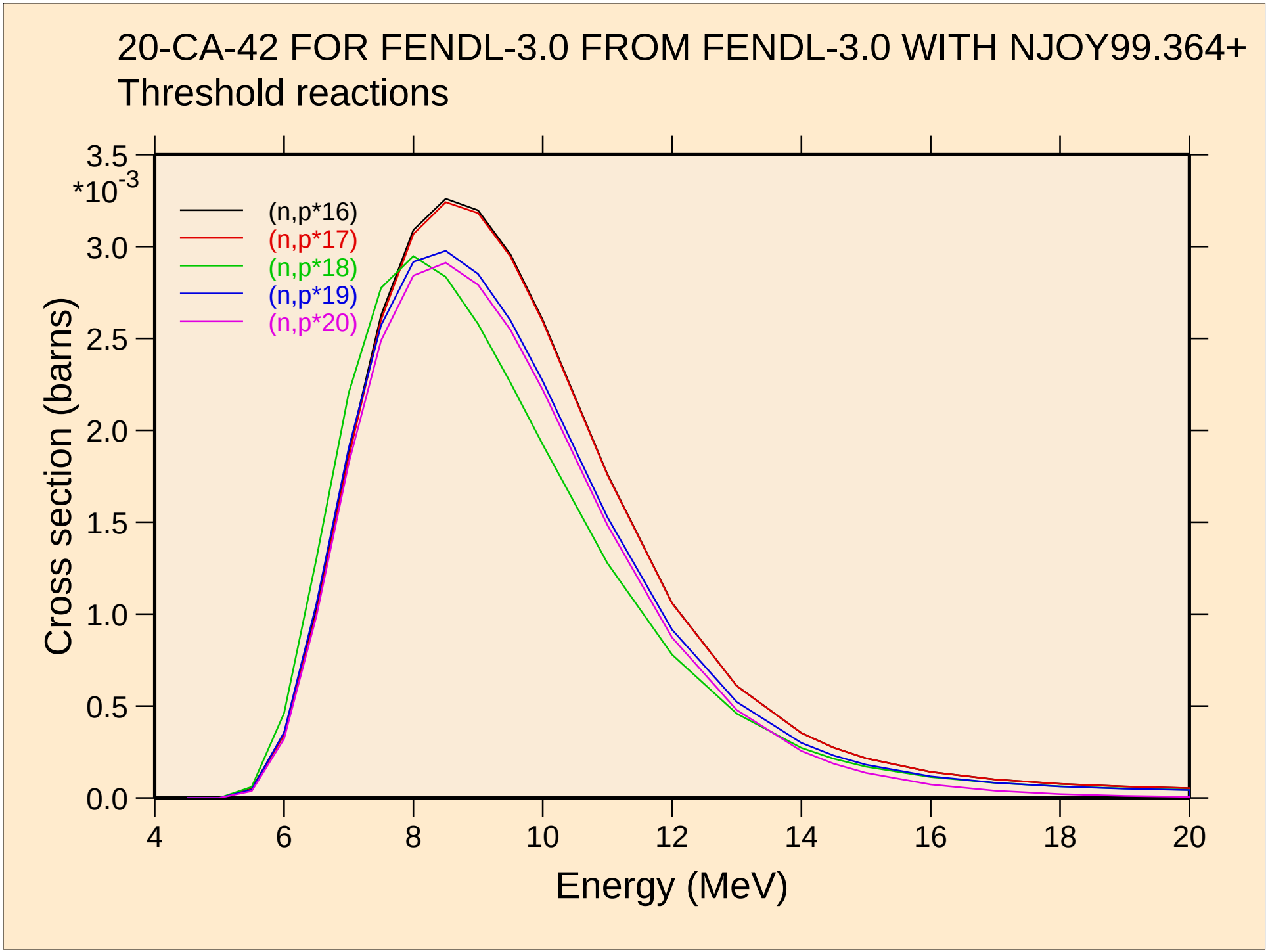

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
250
*10-3
200
150
100
50
0
(n,p)
(n,a)
Cross section (barns)
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

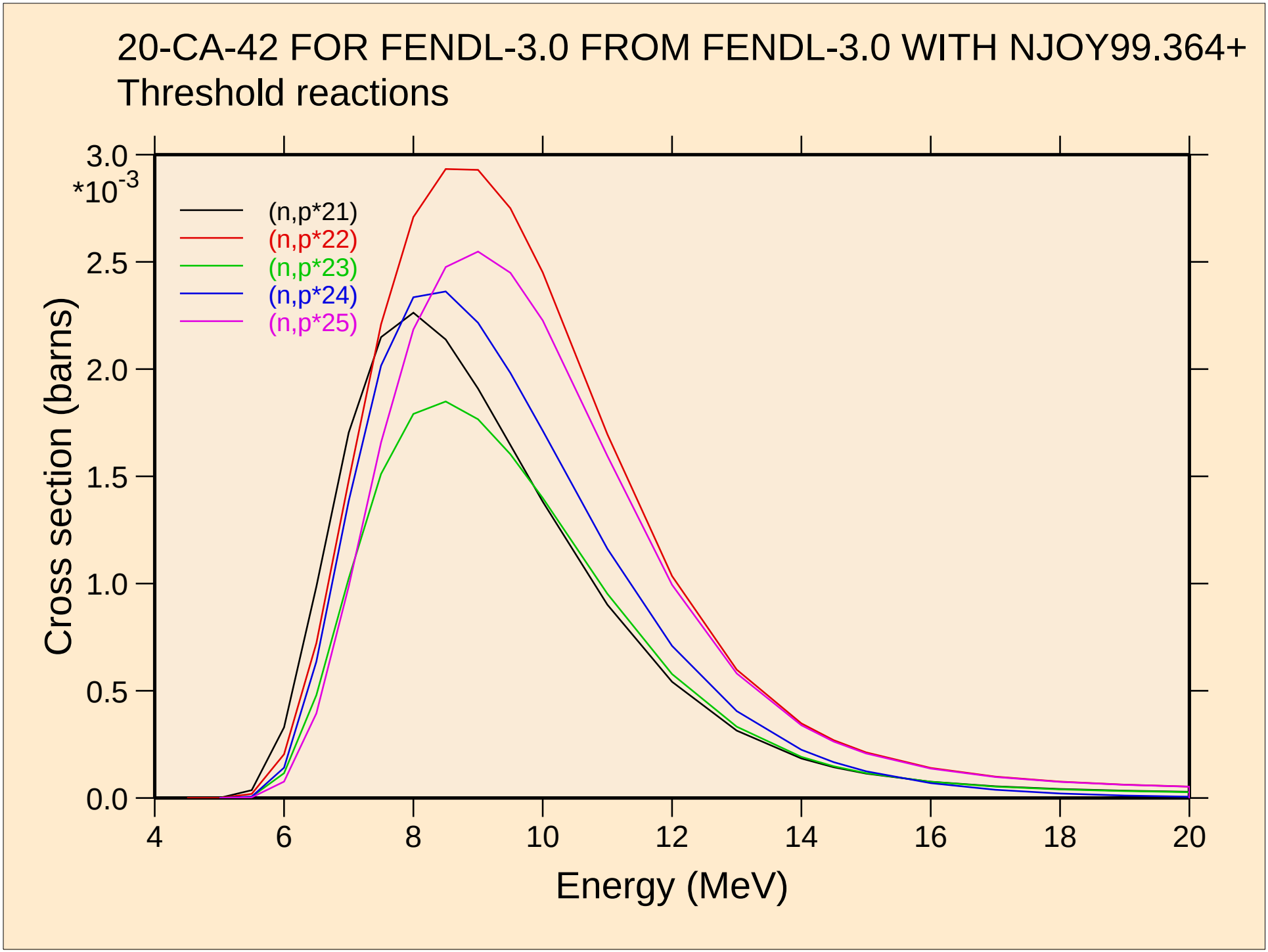

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
(n,xp)
(n,xd)
(n,xt)
(n,xa)
(n,p*0)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
20
40
60
80
100
120
140
160

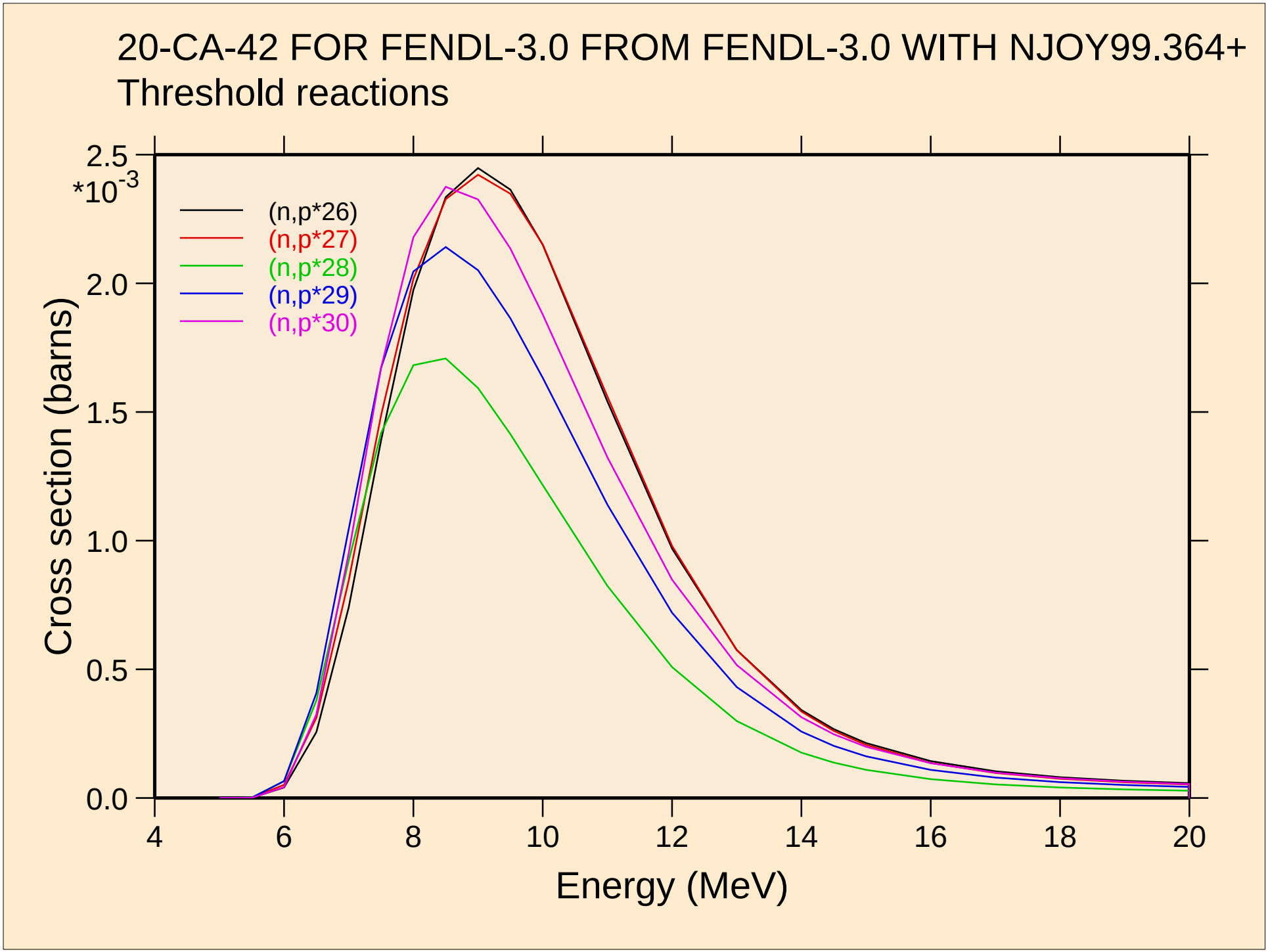

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
10
*10-3
8
6
4
2
0
Cross section (barns)
(n,p*1)
(n,p*2)
(n,p*3)
(n,p*4)
(n,p*5)
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

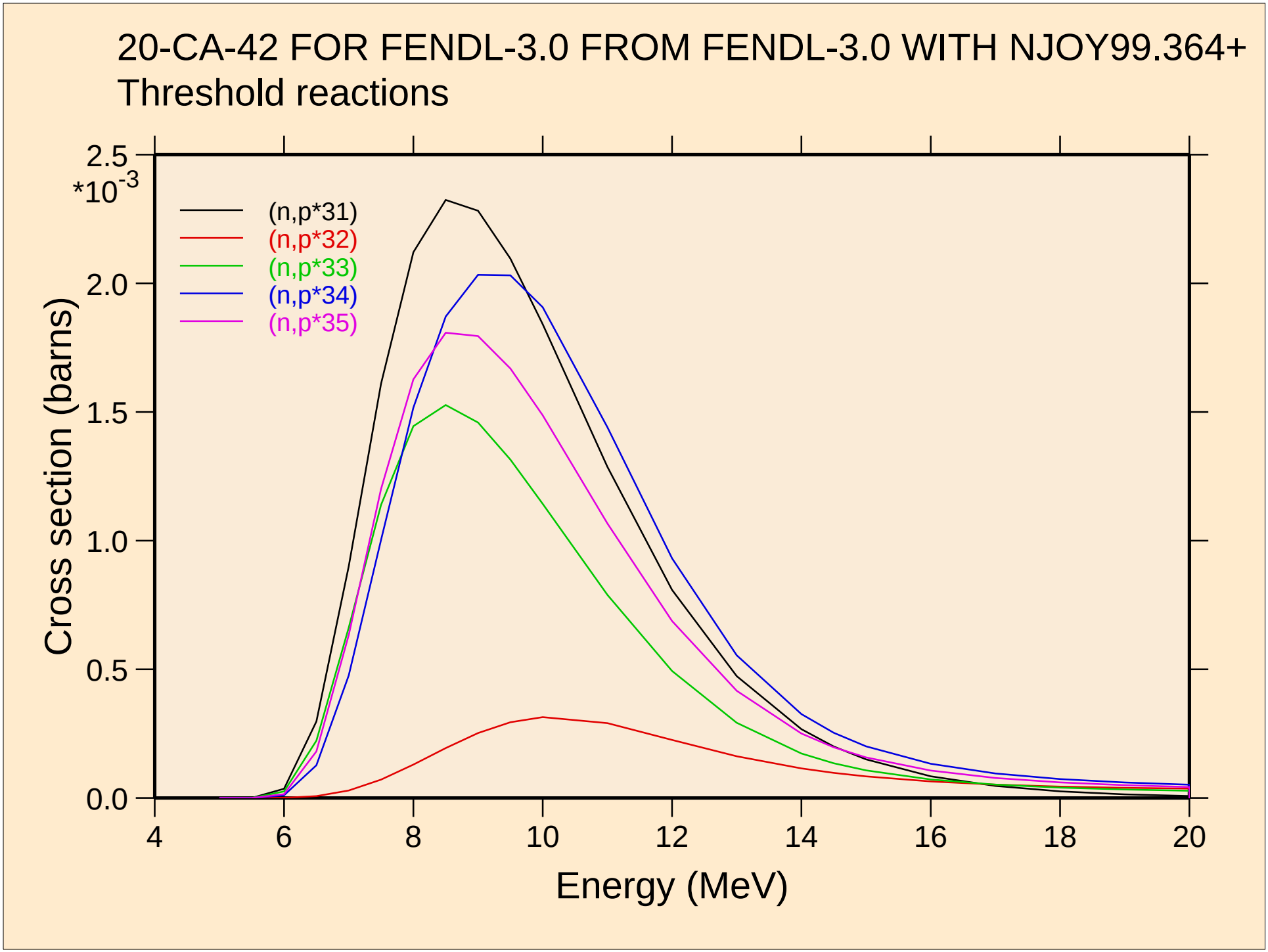

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
*10-3
Cross section (barns)
Energy (MeV)
(n,p*6)
(n,p*7)
(n,p*8)
(n,p*9)
(n,p*10)
0
1
2
3
4
5
6
4
6
8
10
12
14
16
18
20

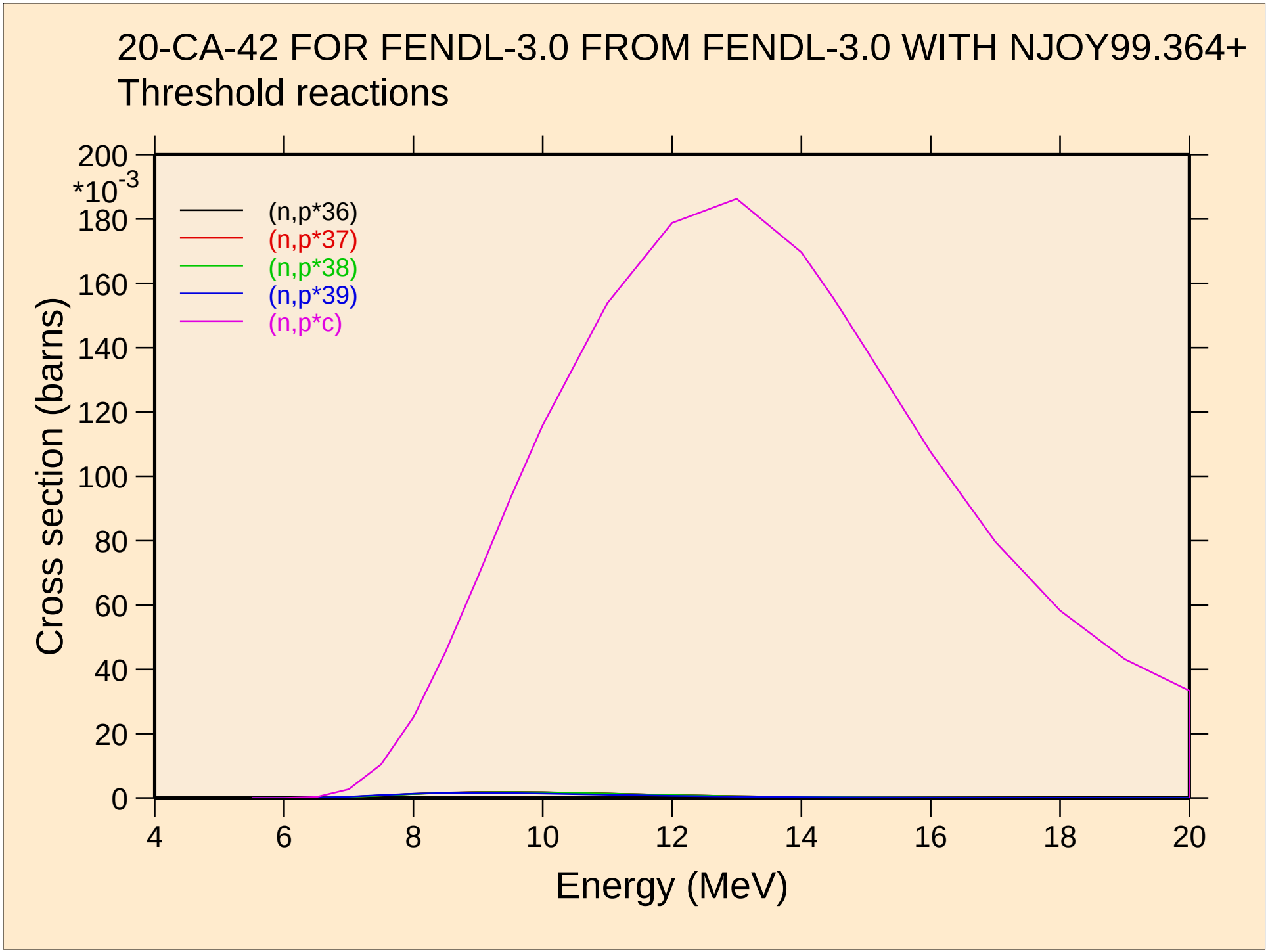

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
(n,p*11)
(n,p*12)
(n,p*13)
(n,p*14)
(n,p*15)
4
6
8
10
12
14
16
18
20
Energy (MeV)

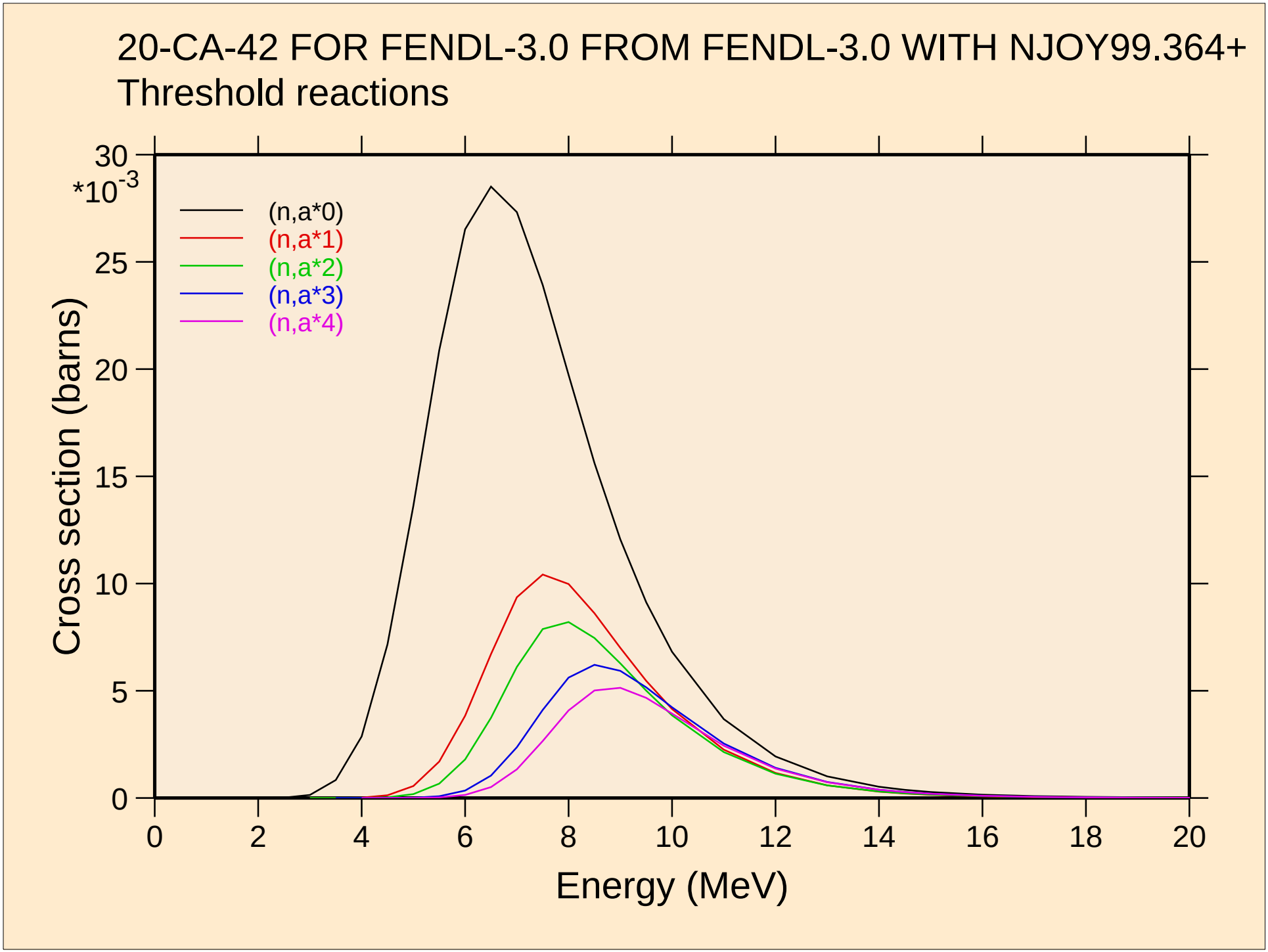

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
(n,p*16)
(n,p*17)
(n,p*18)
(n,p*19)
(n,p*20)
4
6
8
10
12
14
16
18
20
Energy (MeV)

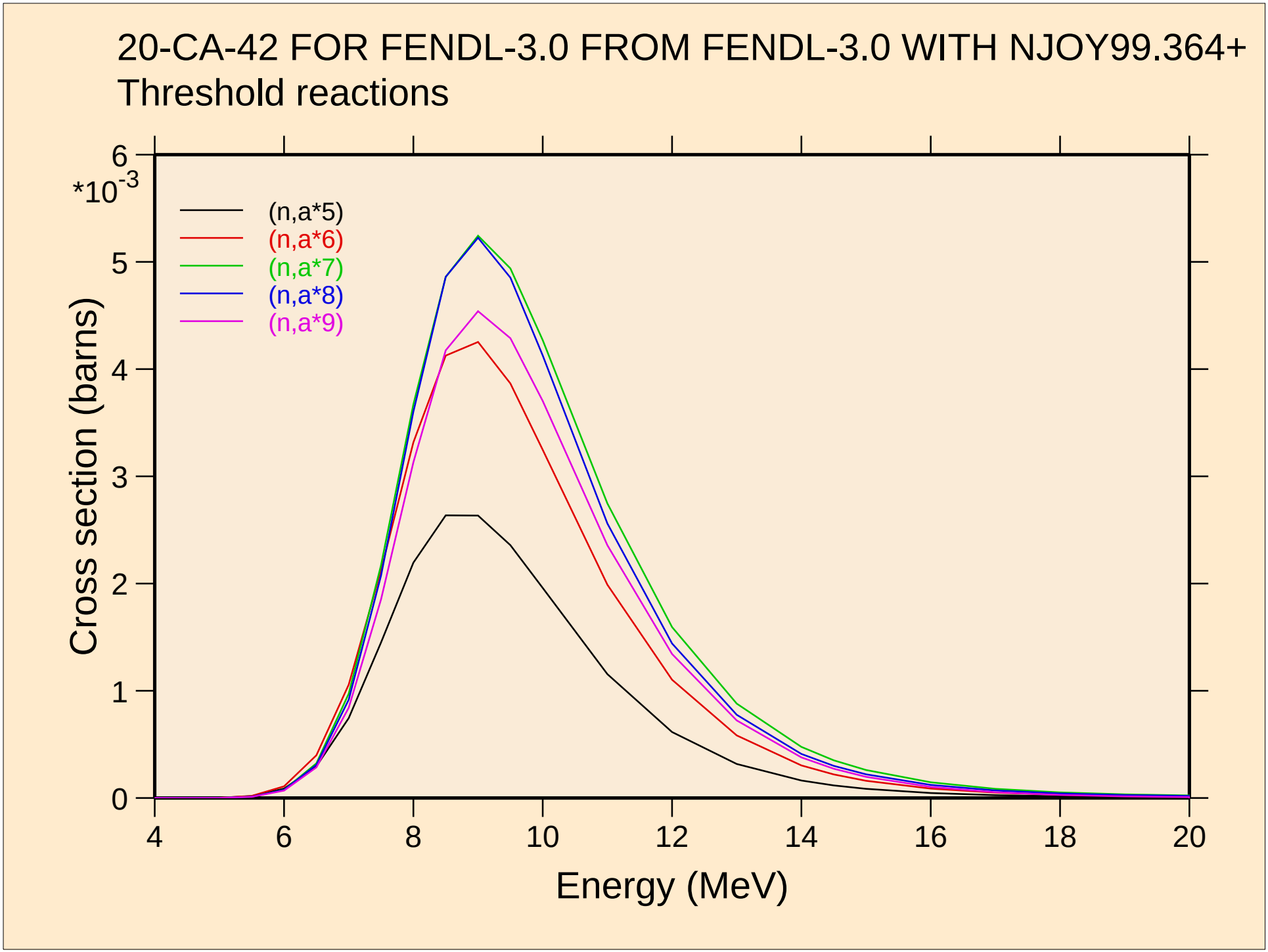

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
3.0
2.5
2.0
1.5
1.0
0.5
0.0
(n,p*21)
(n,p*22)
(n,p*23)
(n,p*24)
(n,p*25)
4
6
8
10
12
14
16
18
20
Energy (MeV)

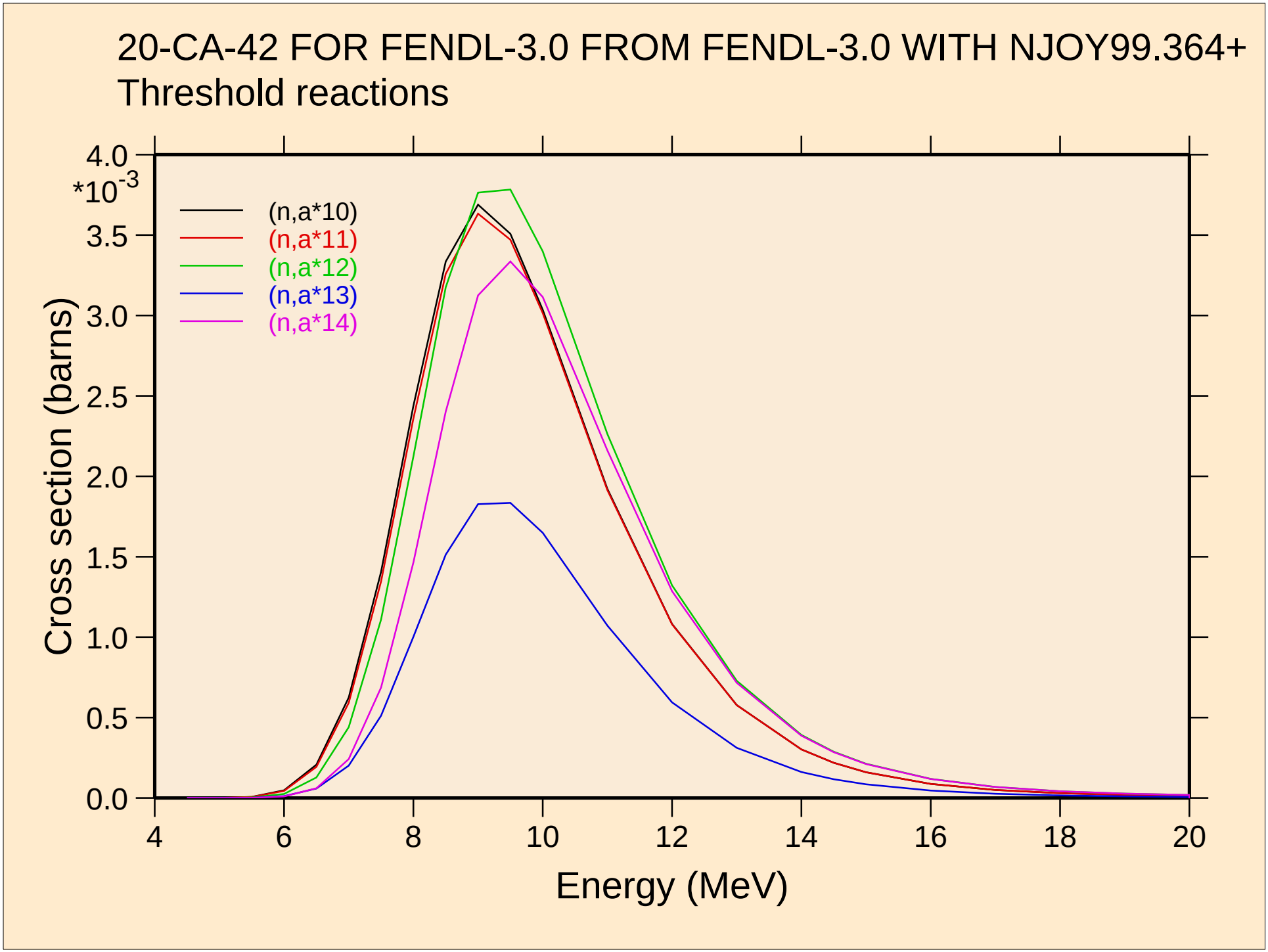

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
2.5
2.0
1.5
1.0
0.5
0.0
(n,p*26)
(n,p*27)
(n,p*28)
(n,p*29)
(n,p*30)
4
6
8
10
12
14
16
18
20
Energy (MeV)

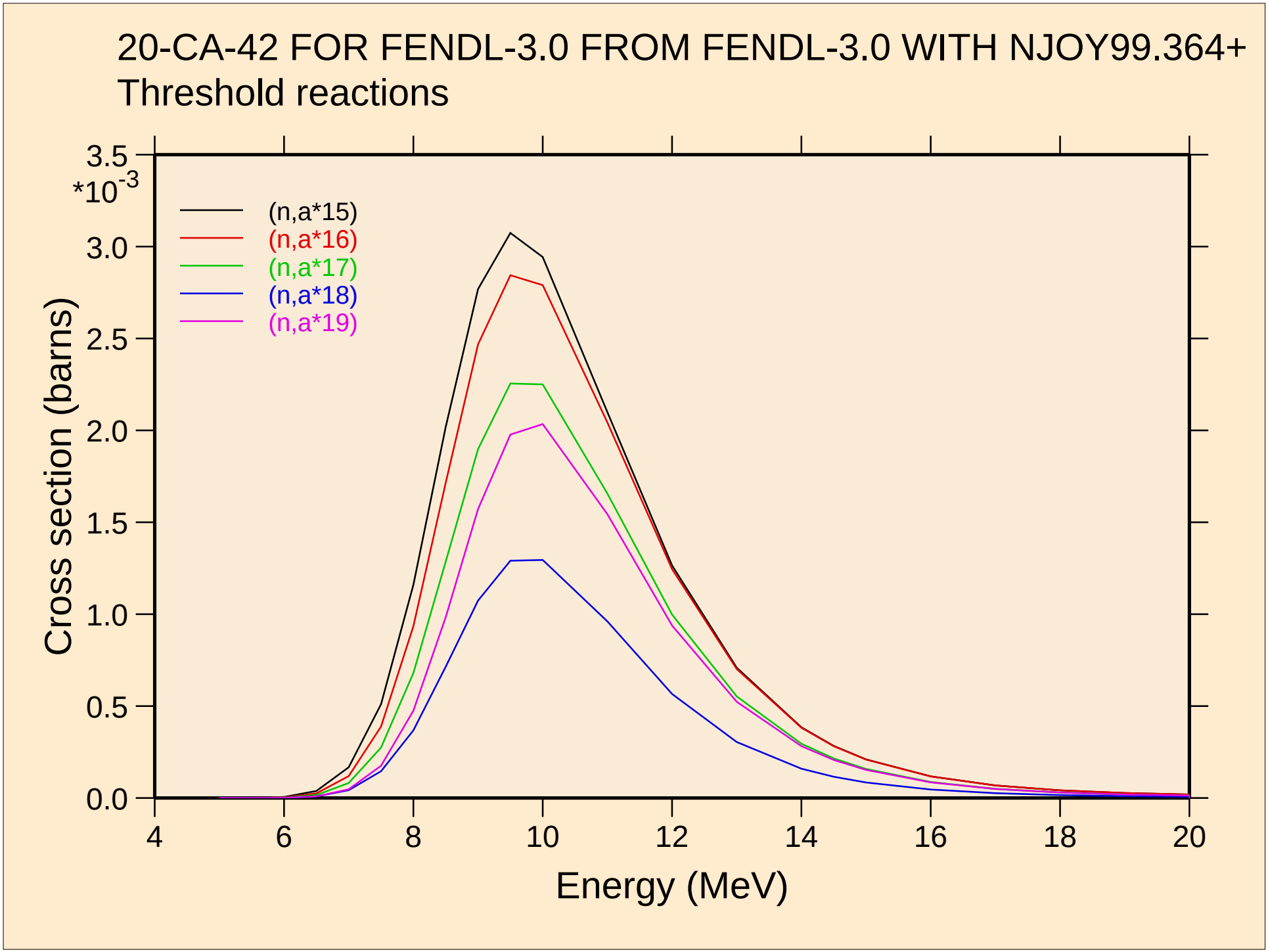

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
2.5
2.0
1.5
1.0
0.5
0.0
(n,p*31)
(n,p*32)
(n,p*33)
(n,p*34)
(n,p*35)
4
6
8
10
12
14
16
18
20
Energy (MeV)

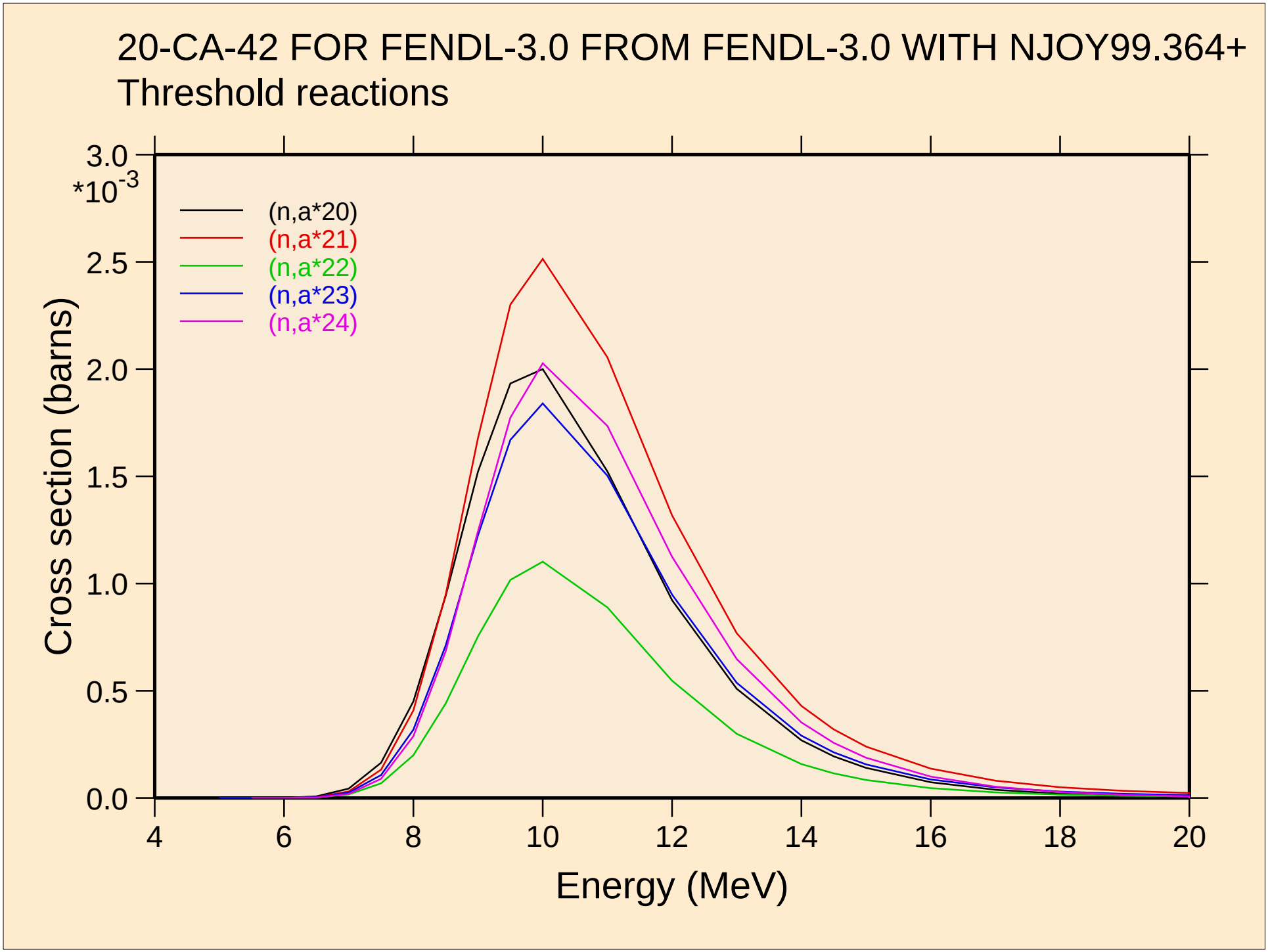

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
200
180
160
140
120
100
80
60
40
20
0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,p*36)
(n,p*37)
(n,p*38)
(n,p*39)
(n,p*c)

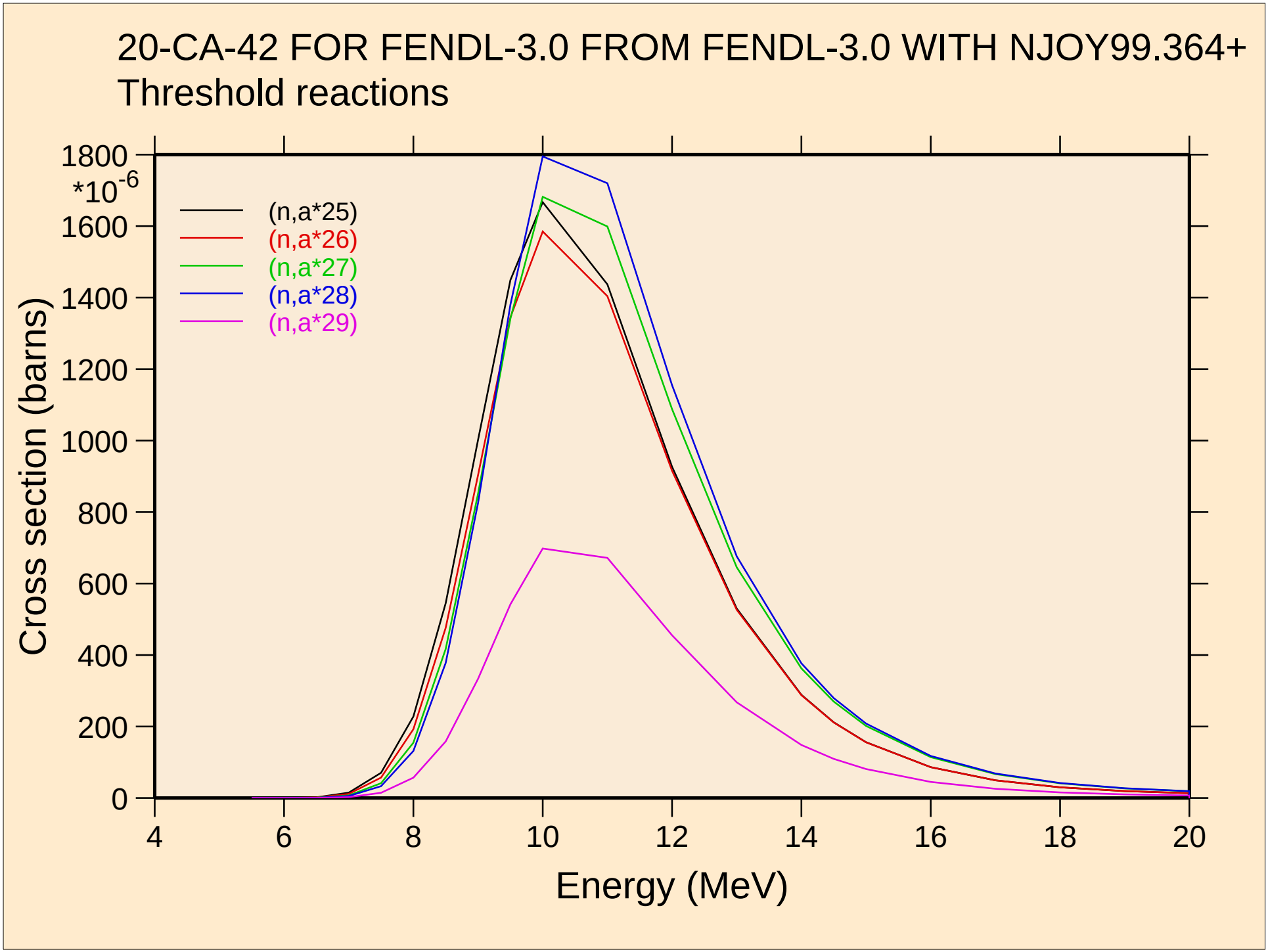

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
*10-3
Cross section (barns)
Energy (MeV)
(n,a*0)
(n,a*1)
(n,a*2)
(n,a*3)
(n,a*4)
0
5
10
15
20
25
30
0
2
4
6
8
10
12
14
16
18
20

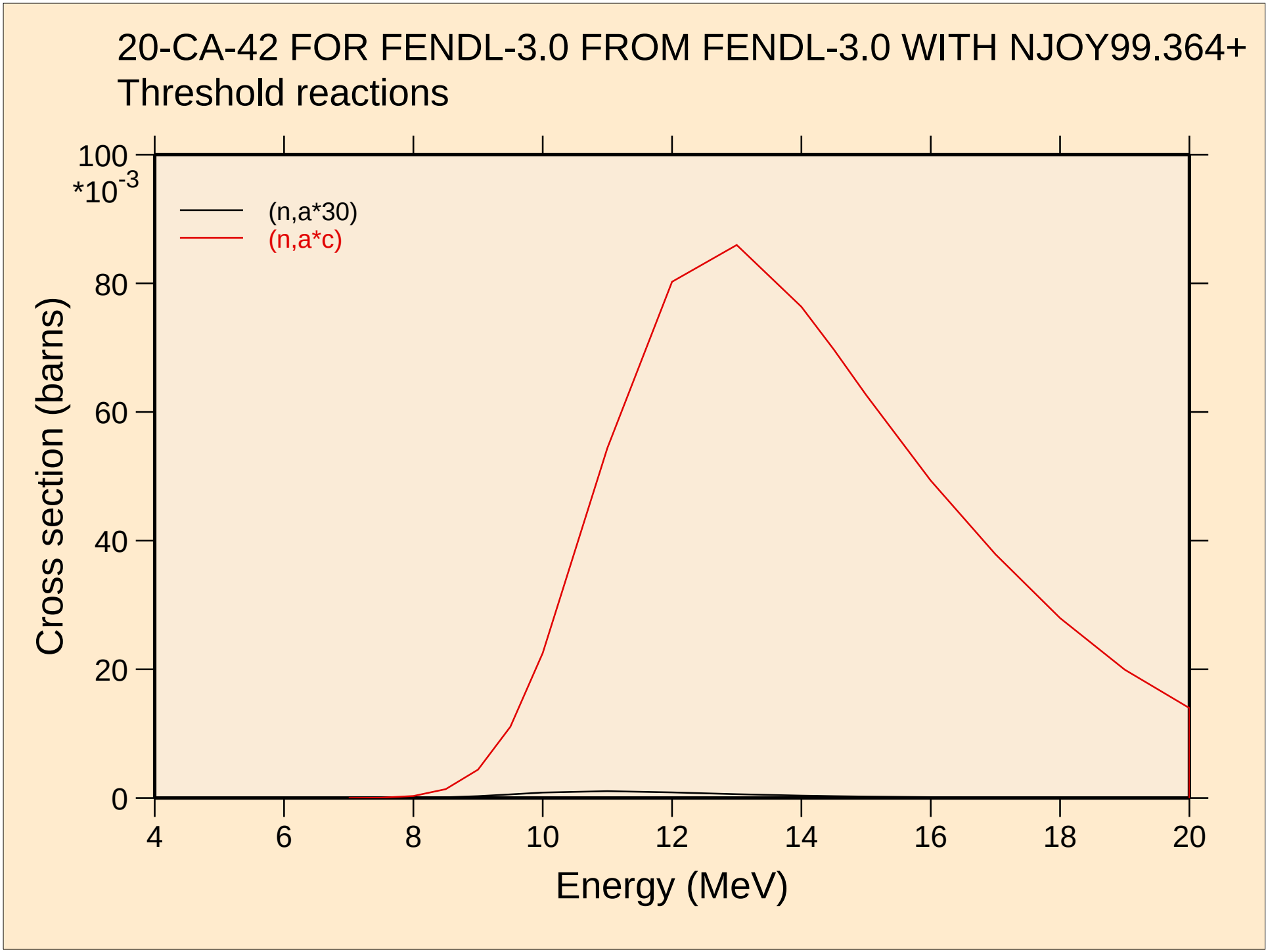

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
*10-3
Cross section (barns)
Energy (MeV)
(n,a*5)
(n,a*6)
(n,a*7)
(n,a*8)
(n,a*9)
0
1
2
3
4
5
6
4
6
8
10
12
14
16
18
20

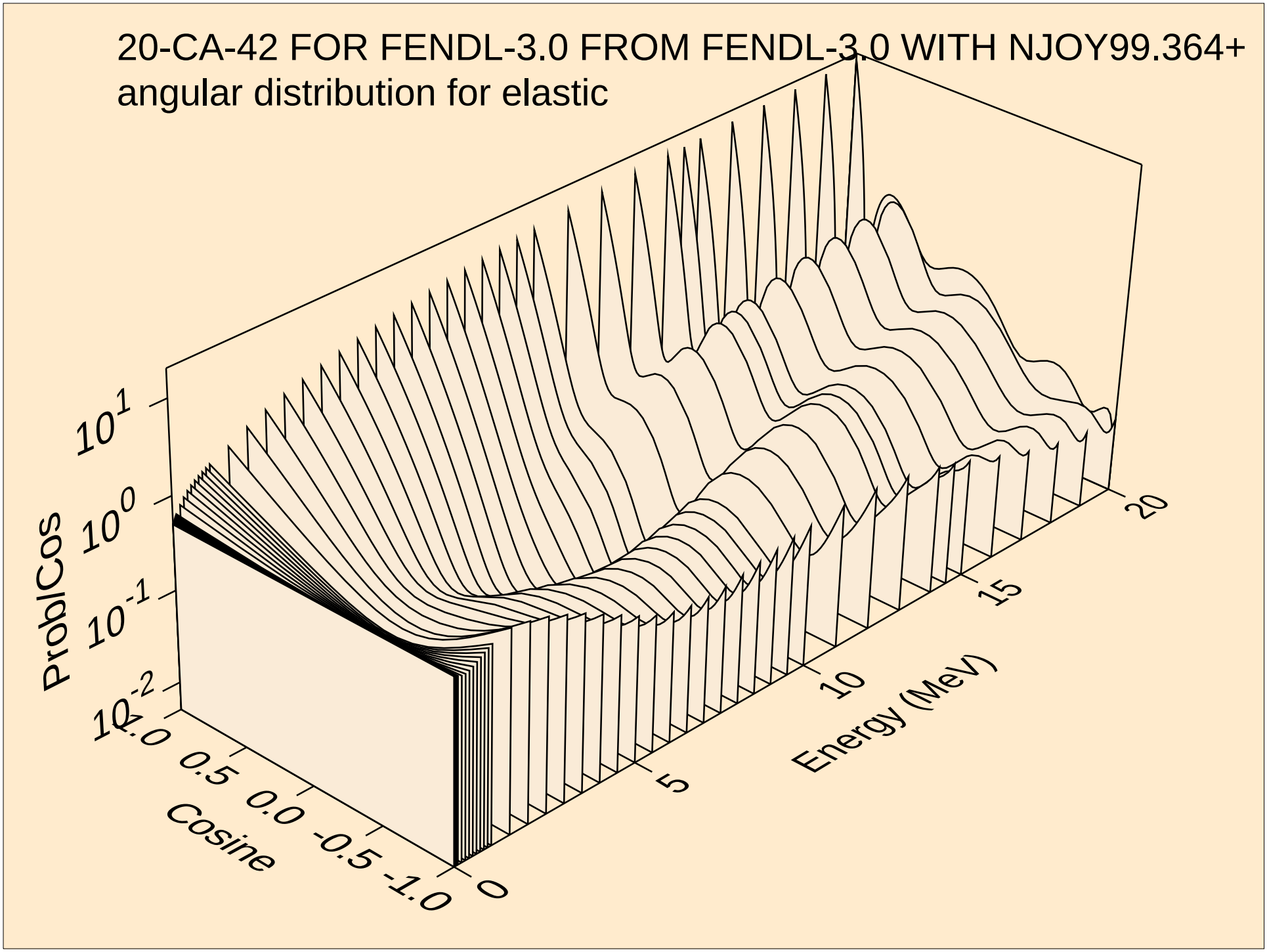

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,a*10)
(n,a*11)
(n,a*12)
(n,a*13)
(n,a*14)

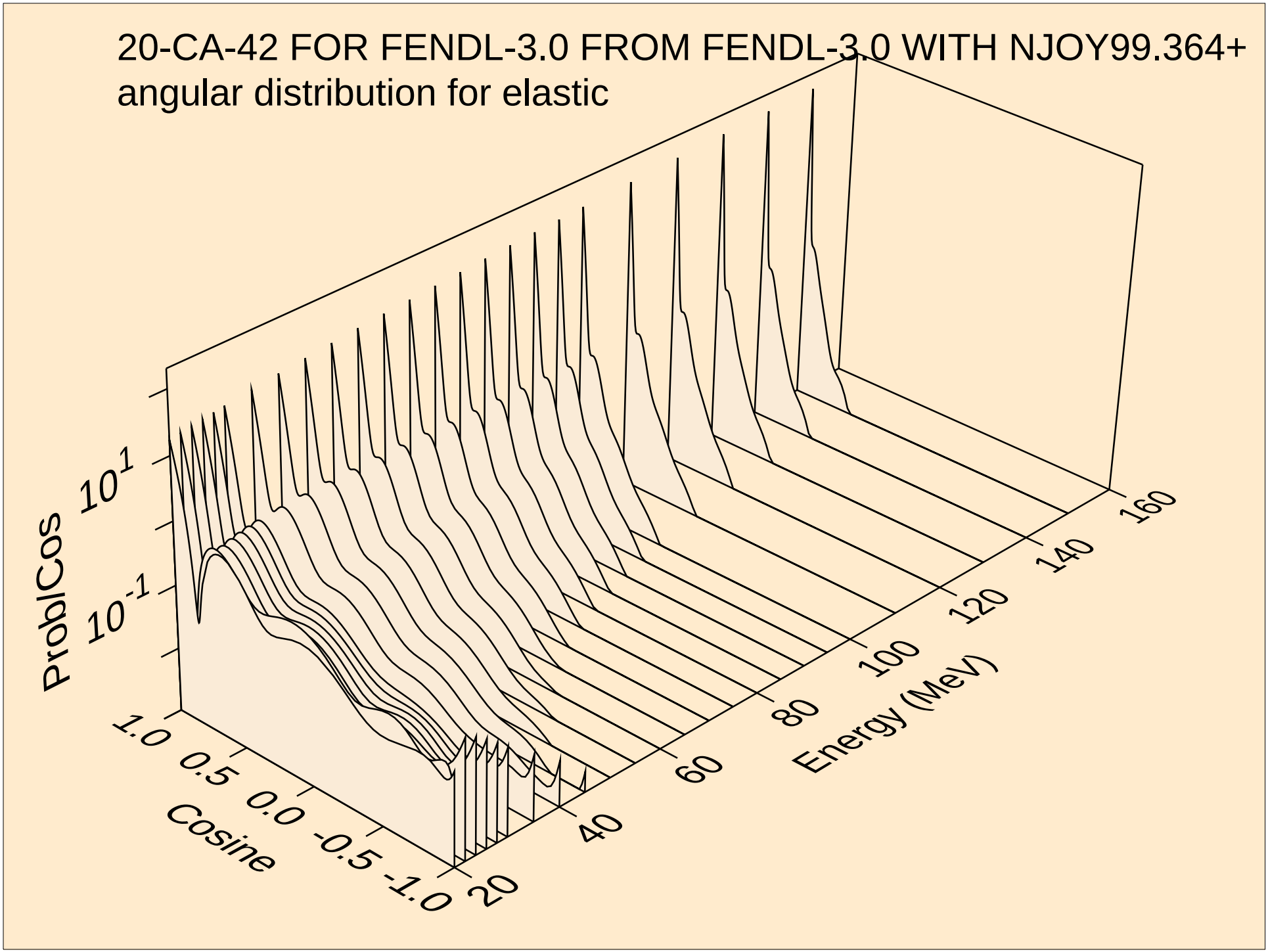

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-3
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
(n,a*15)
(n,a*16)
(n,a*17)
(n,a*18)
(n,a*19)
4
6
8
10
12
14
16
18
20
Energy (MeV)

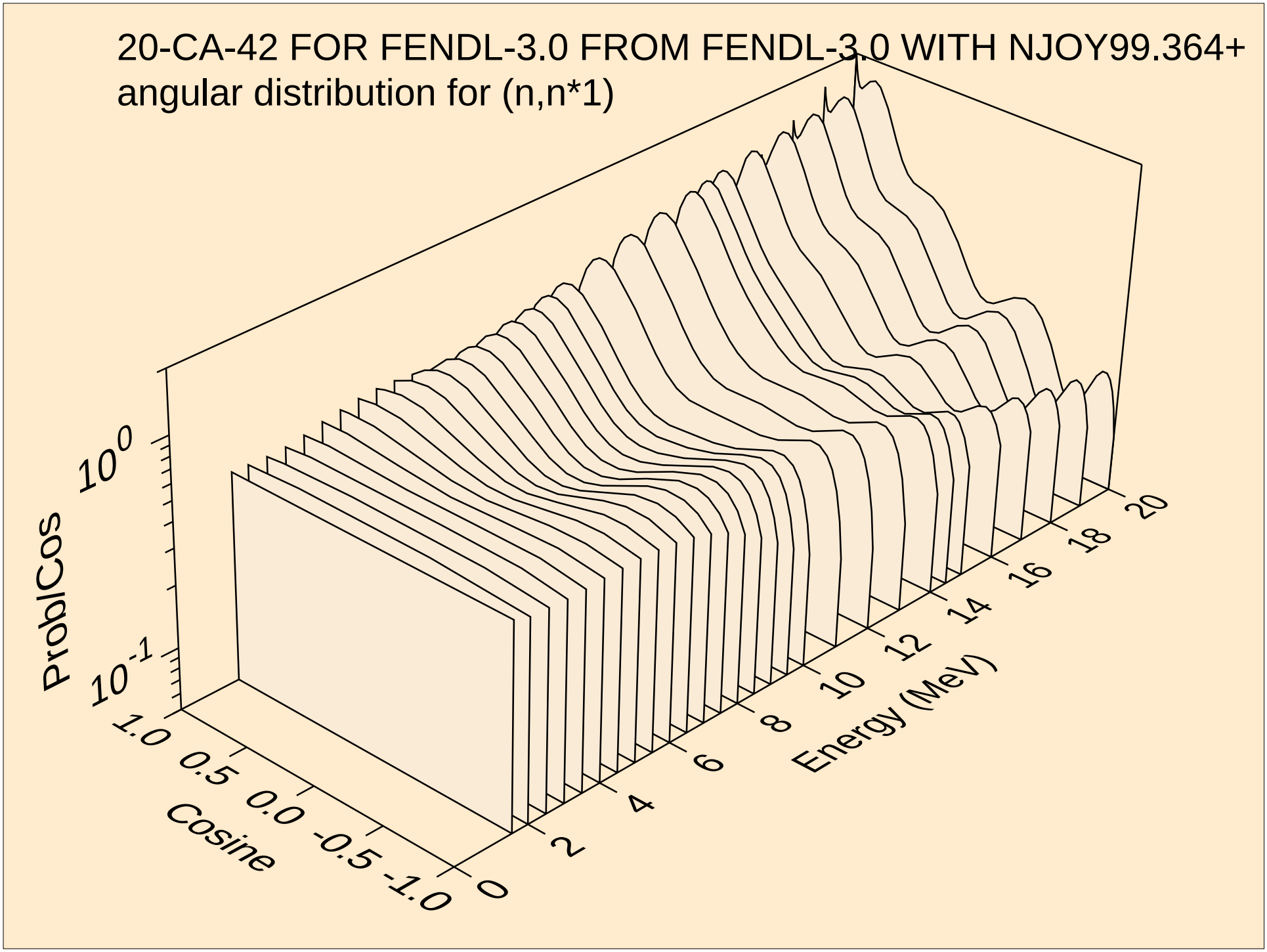

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
3.0
*10-3
2.5
2.0
1.5
1.0
0.5
0.0
Cross section (barns)
(n,a*20)
(n,a*21)
(n,a*22)
(n,a*23)
(n,a*24)
4
6
8
10
12
14
16
18
20
Energy (MeV)

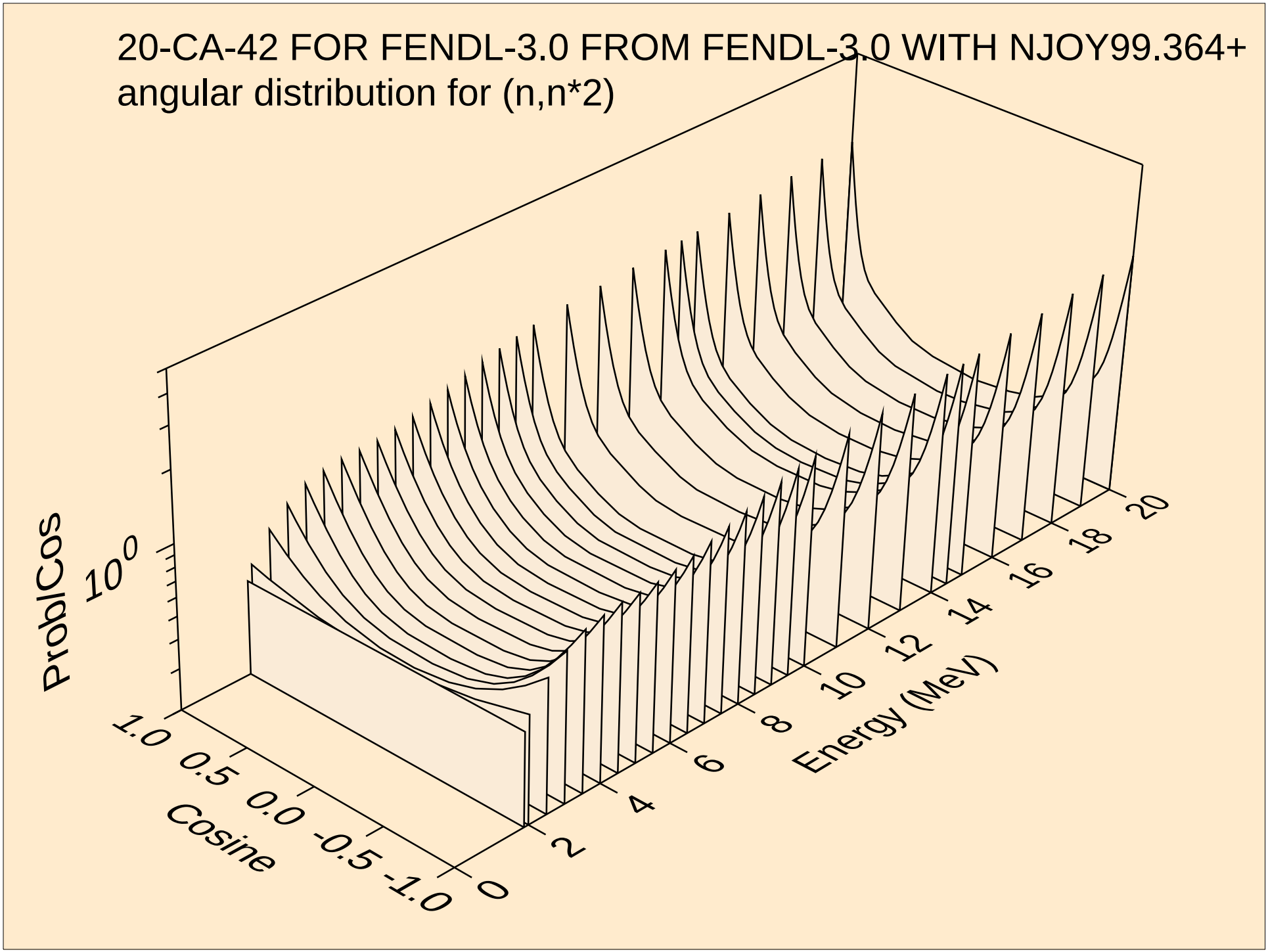

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
Cross section (barns)
*10-6
1800
1600
1400
1200
1000
800
600
400
200
0
4
6
8
10
12
14
16
18
20
Energy (MeV)
(n,a*25)
(n,a*26)
(n,a*27)
(n,a*28)
(n,a*29)

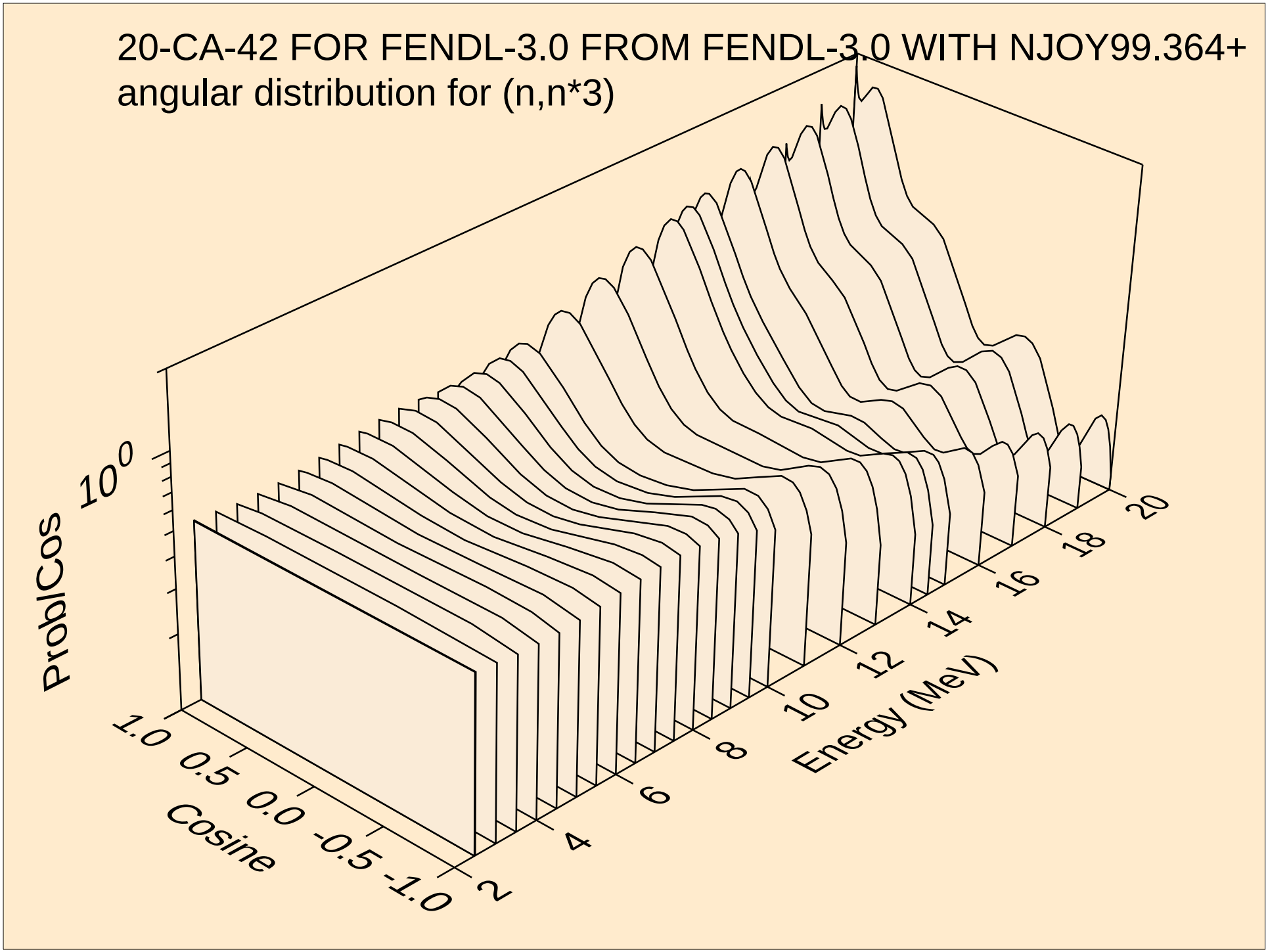

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Threshold reactions
100
*10-3
80
60
40
20
0
(n,a*30)
(n,a*c)
Cross section (barns)
4
6
8
10
12
14
16
18
20
Energy (MeV)

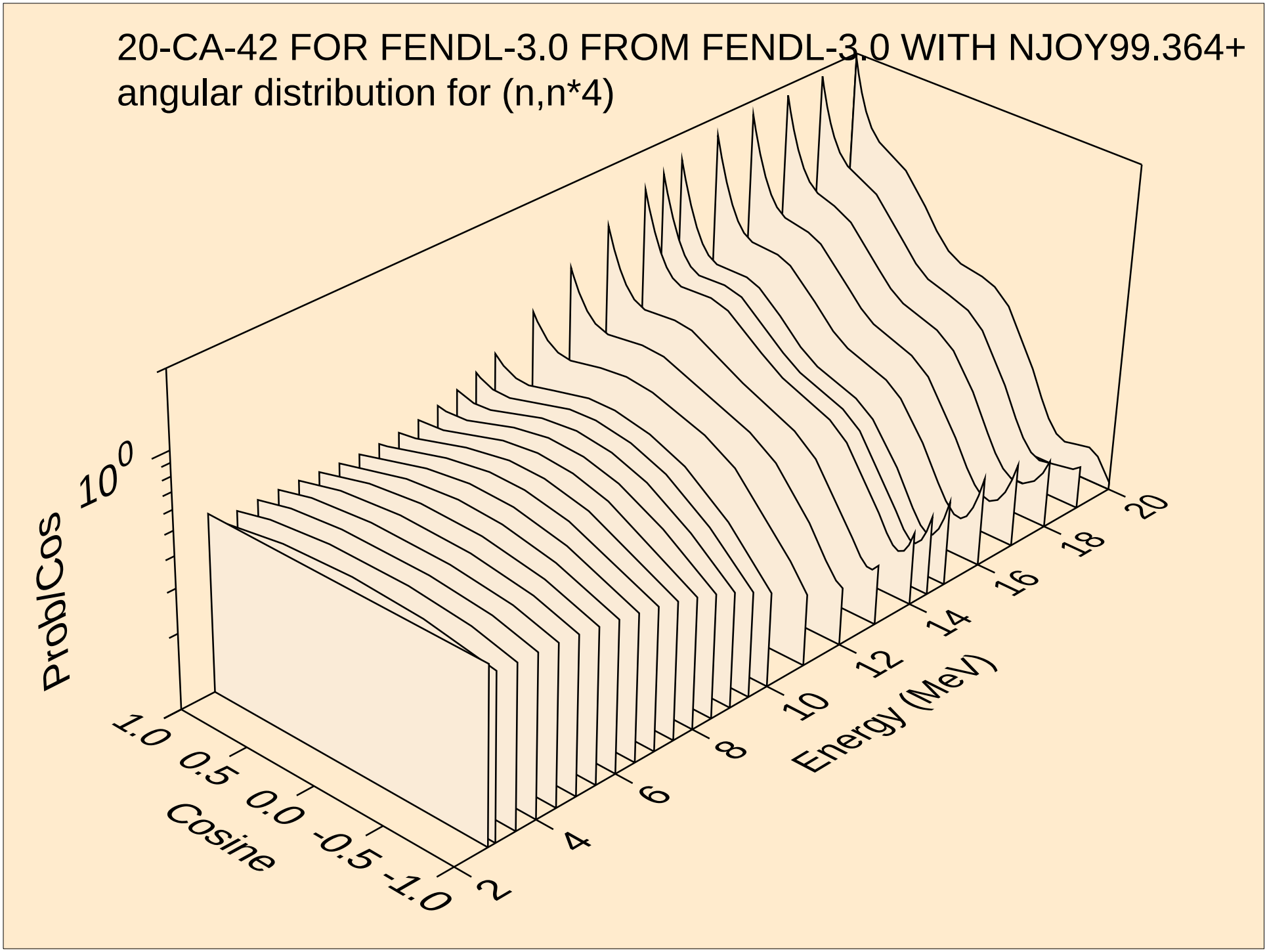

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^{1}
10^{0}
10^{-1}
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
5
10
15
20
Energy (MeV)

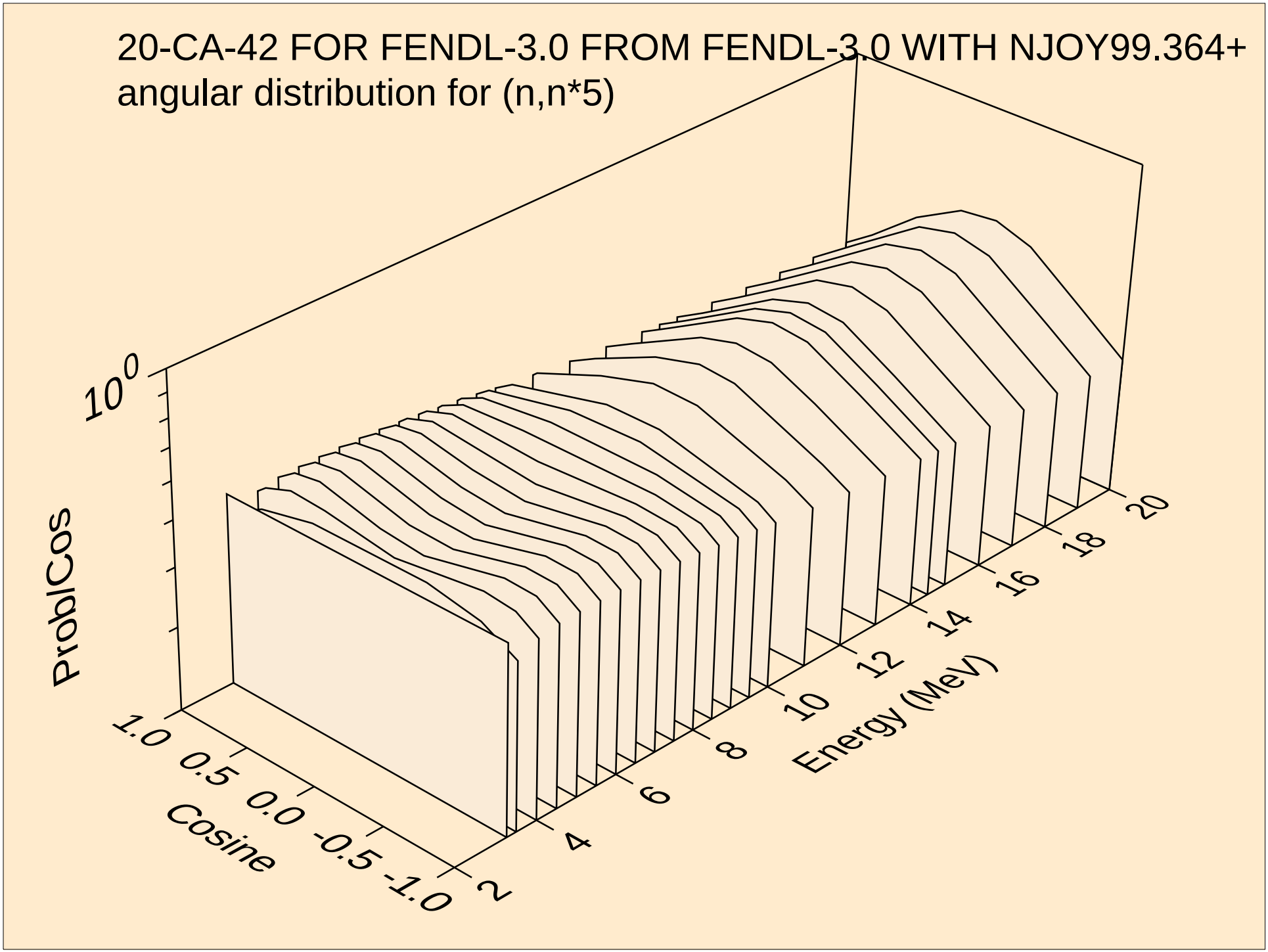

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for elastic
ProbICos
10^1
10^-1
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
Energy (MeV)

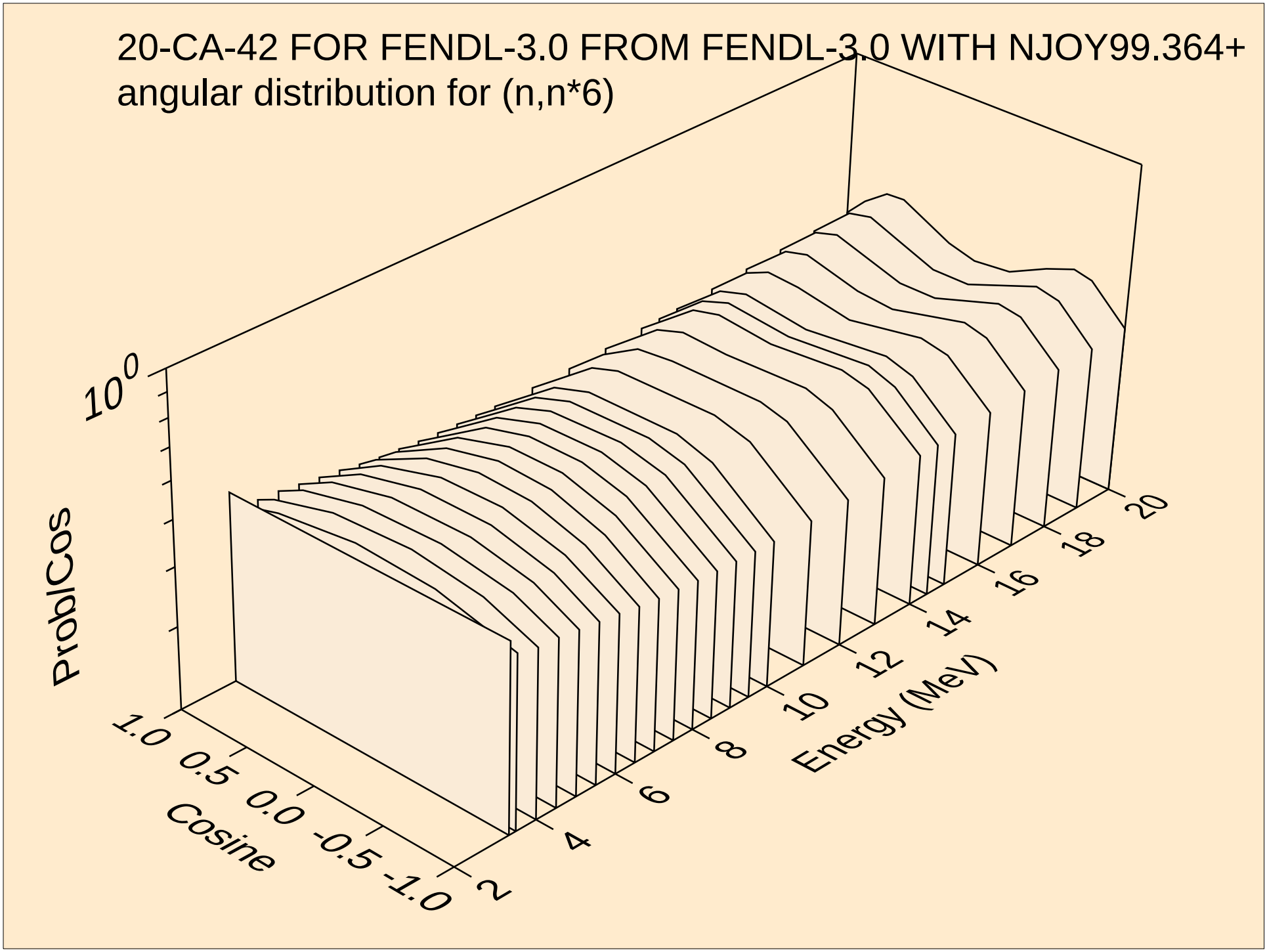

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*1)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

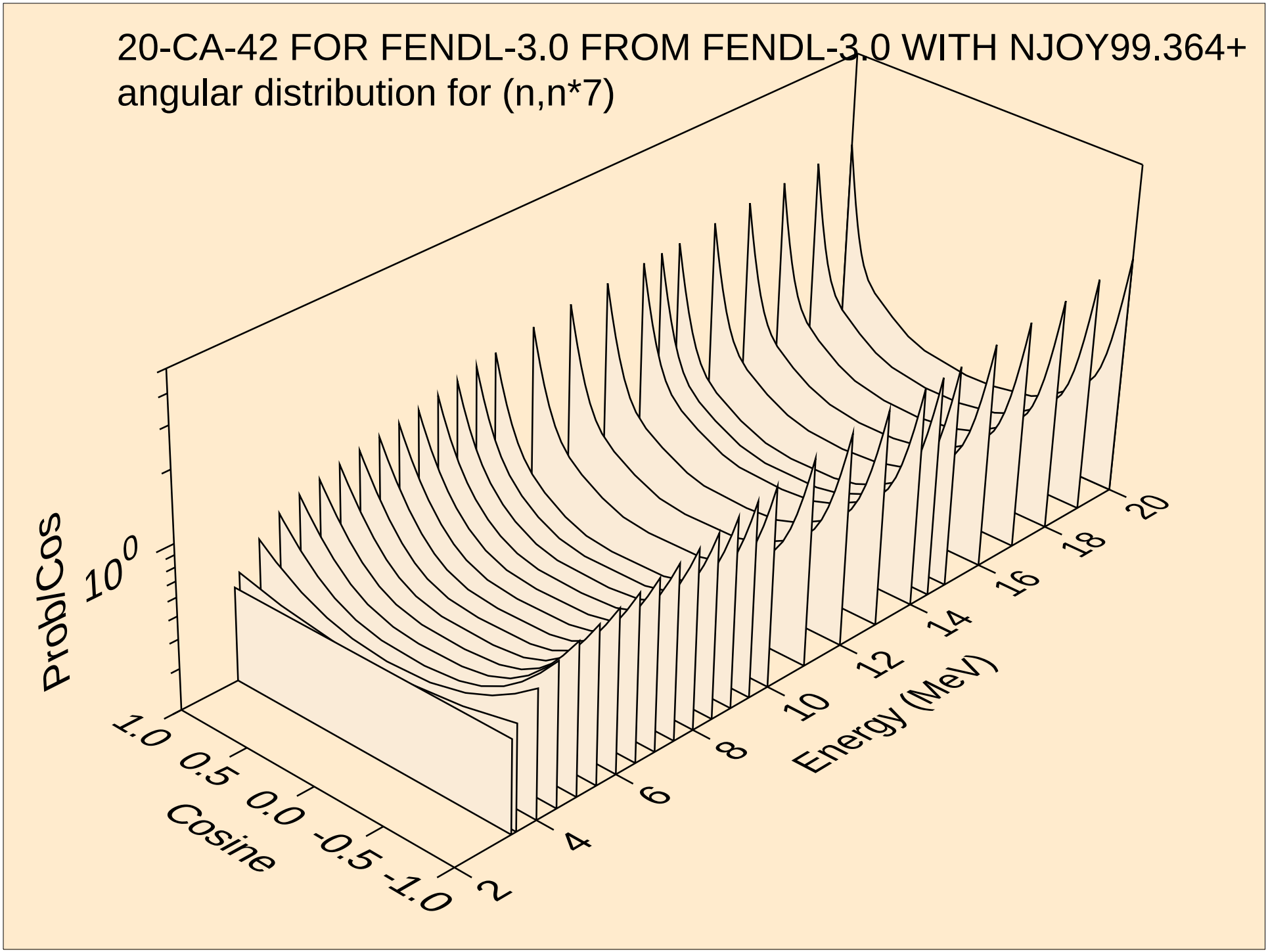

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*2)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
0
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

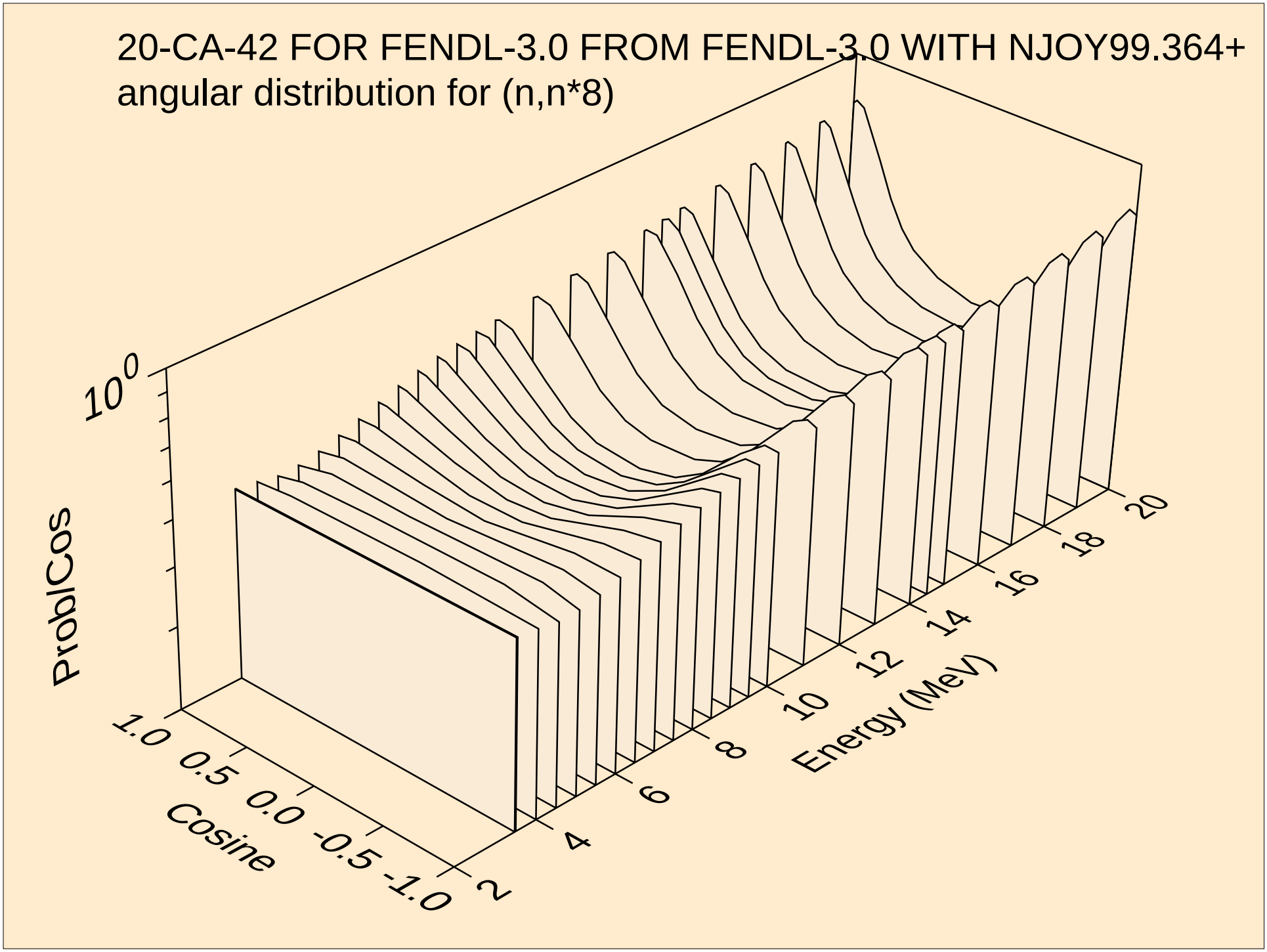

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*3)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

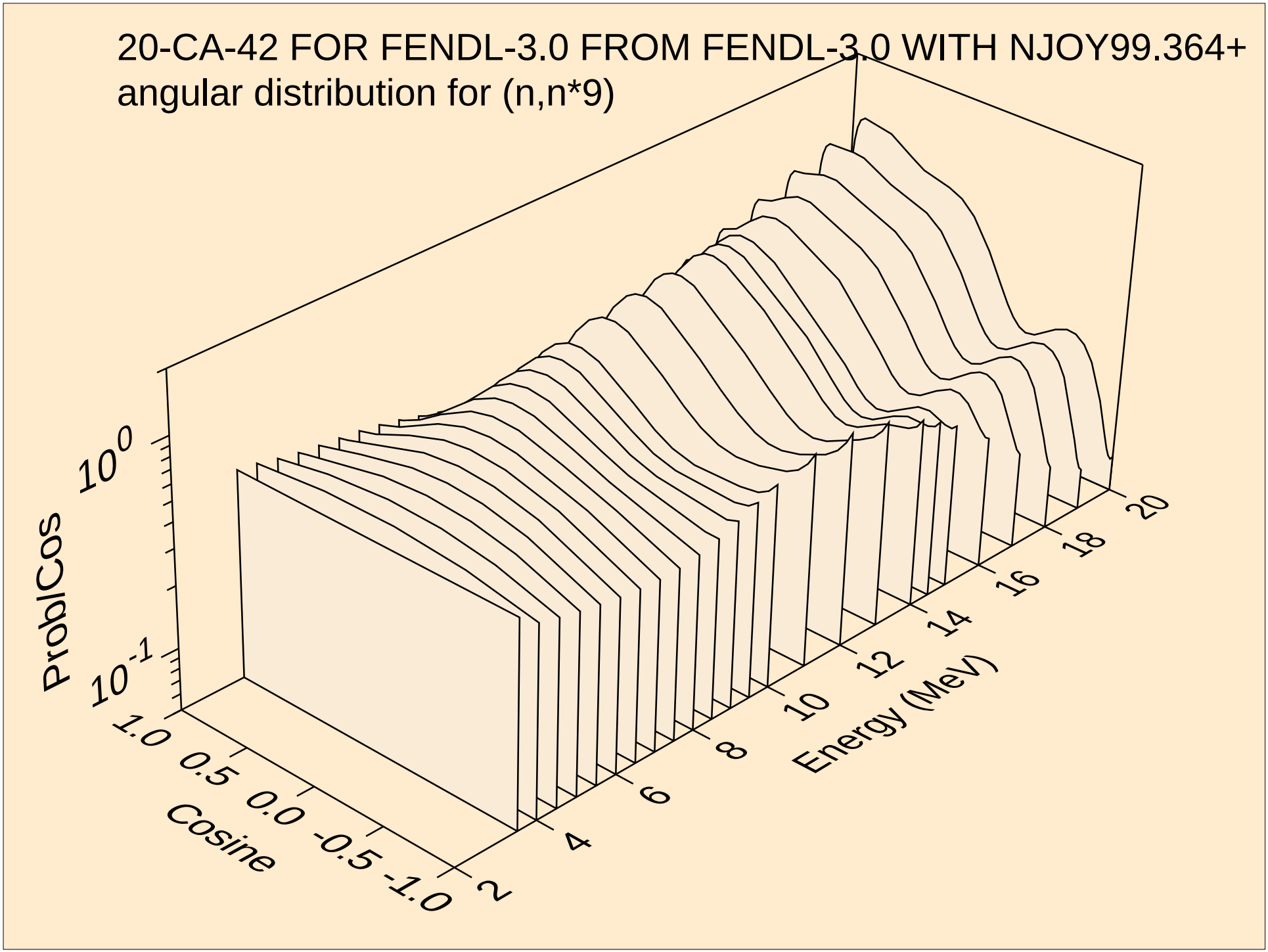

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*4)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

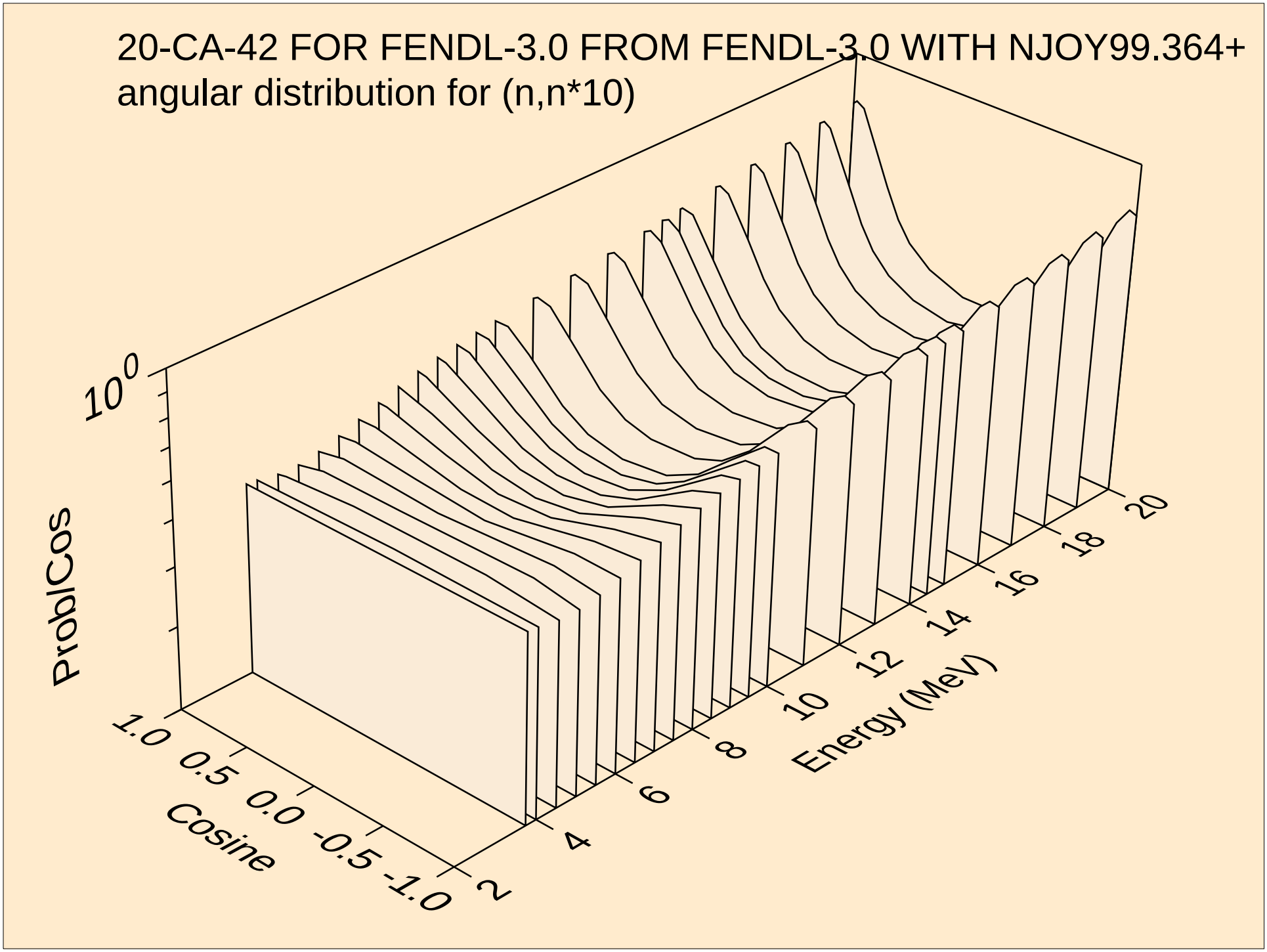

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*5)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

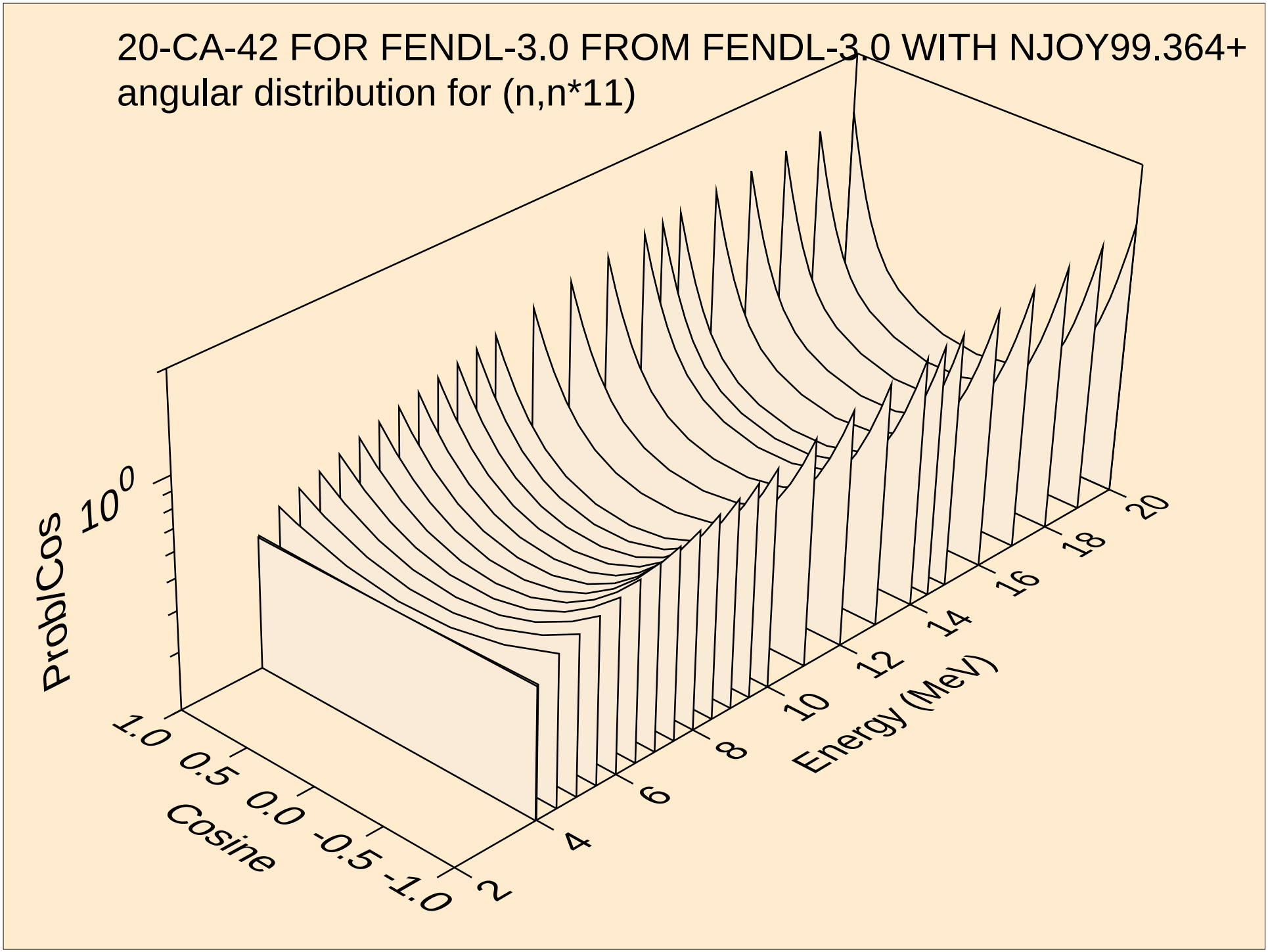

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*6)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

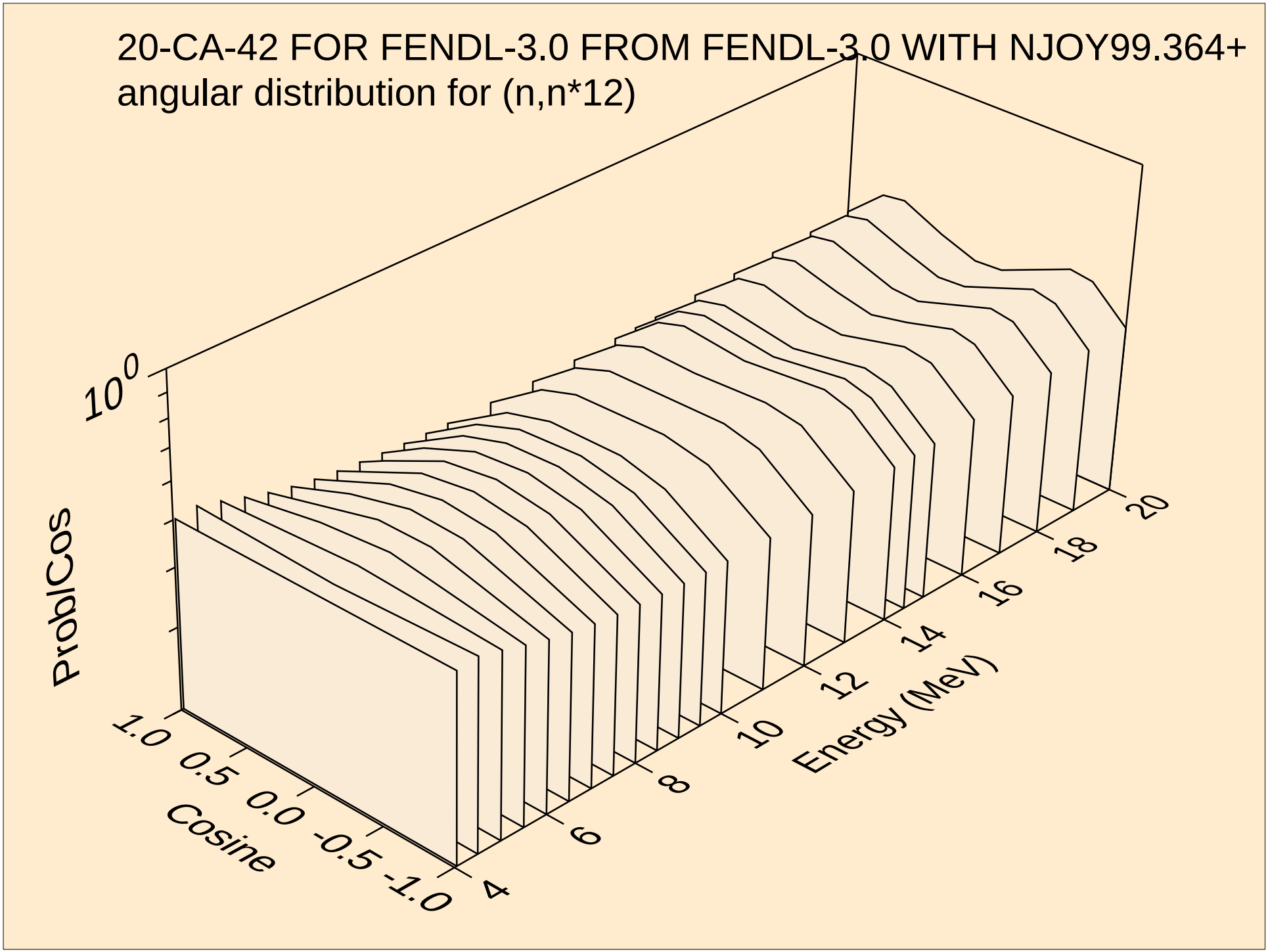

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*7)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

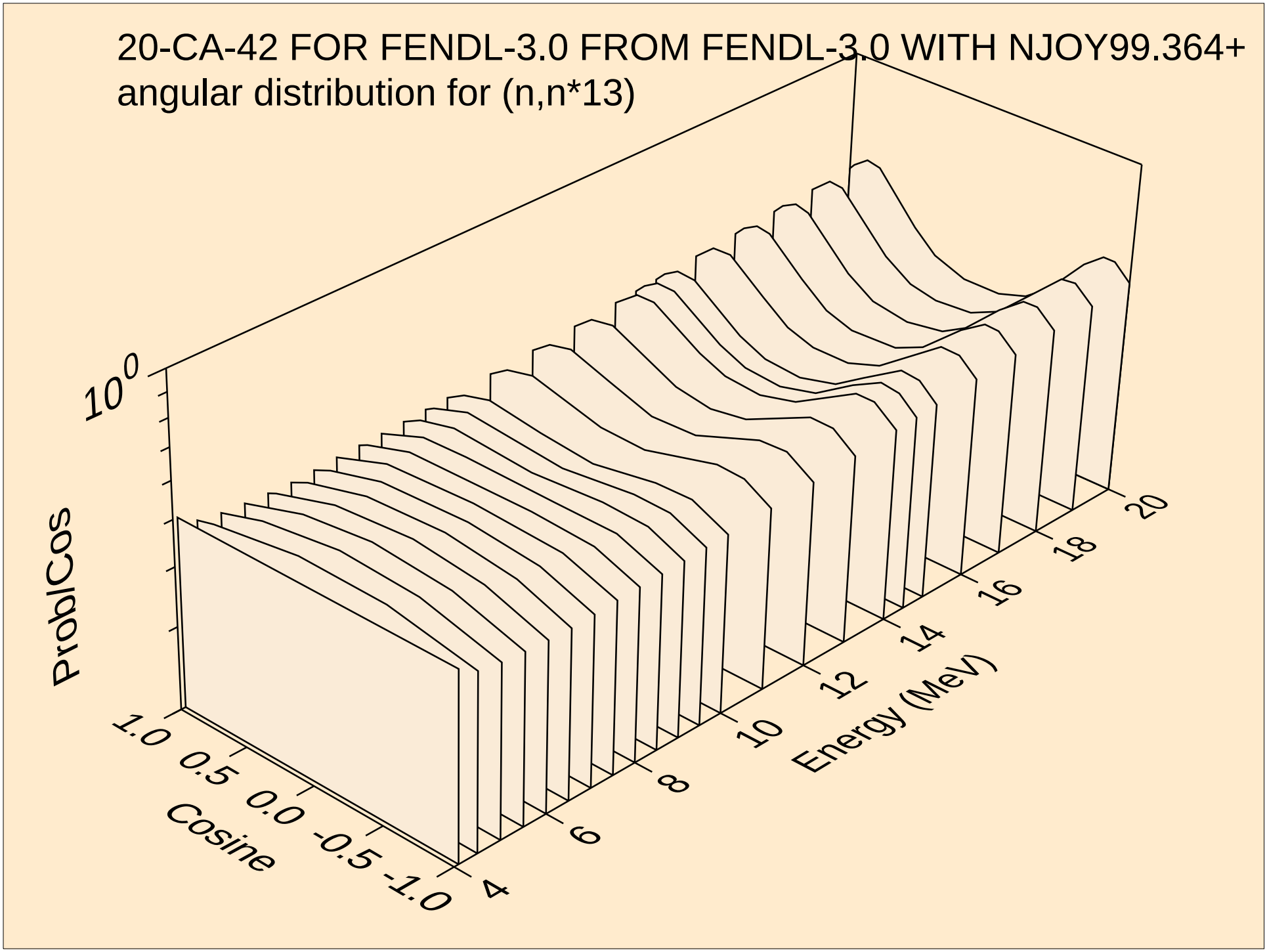

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*8)
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

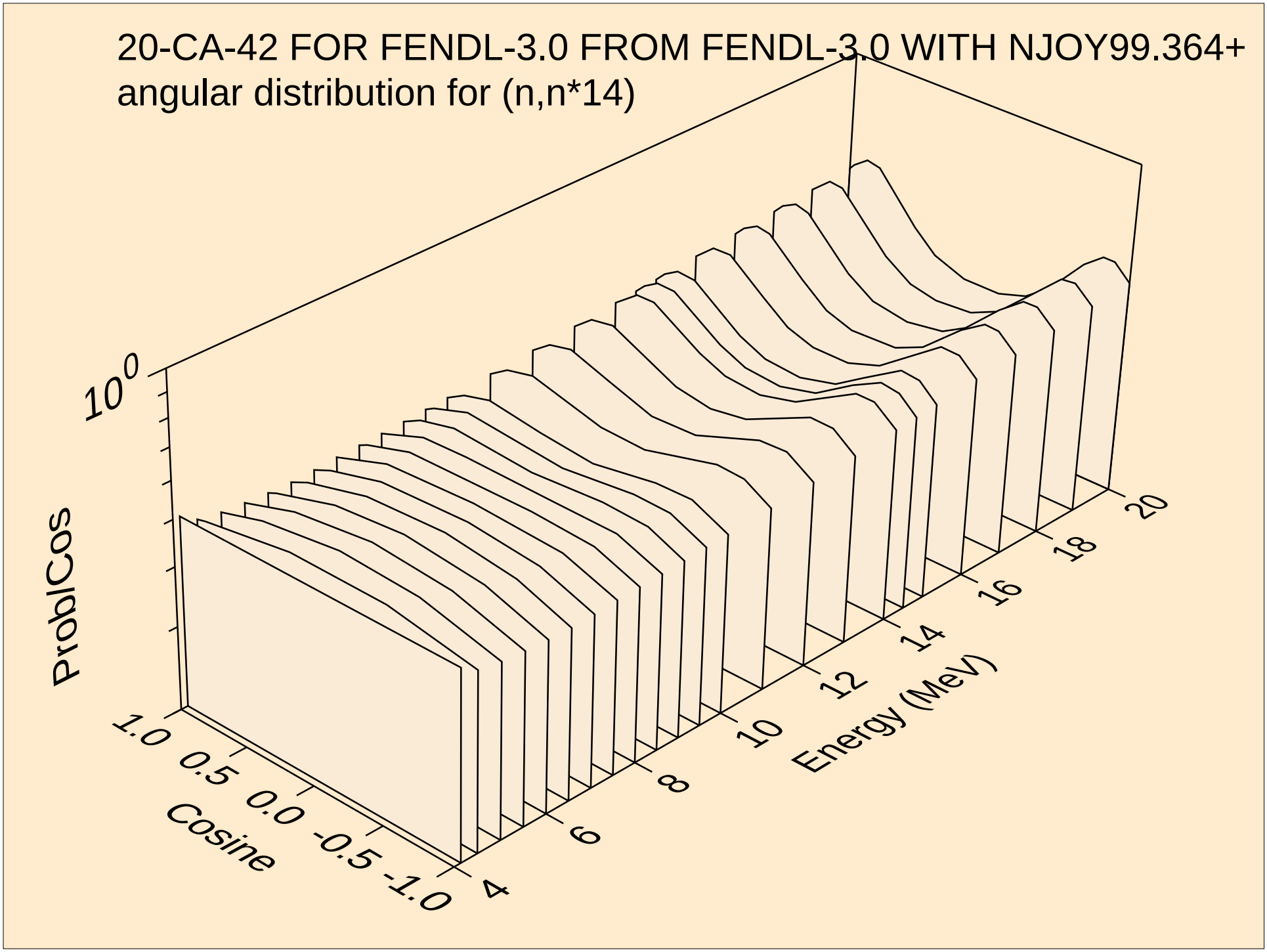

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*9)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

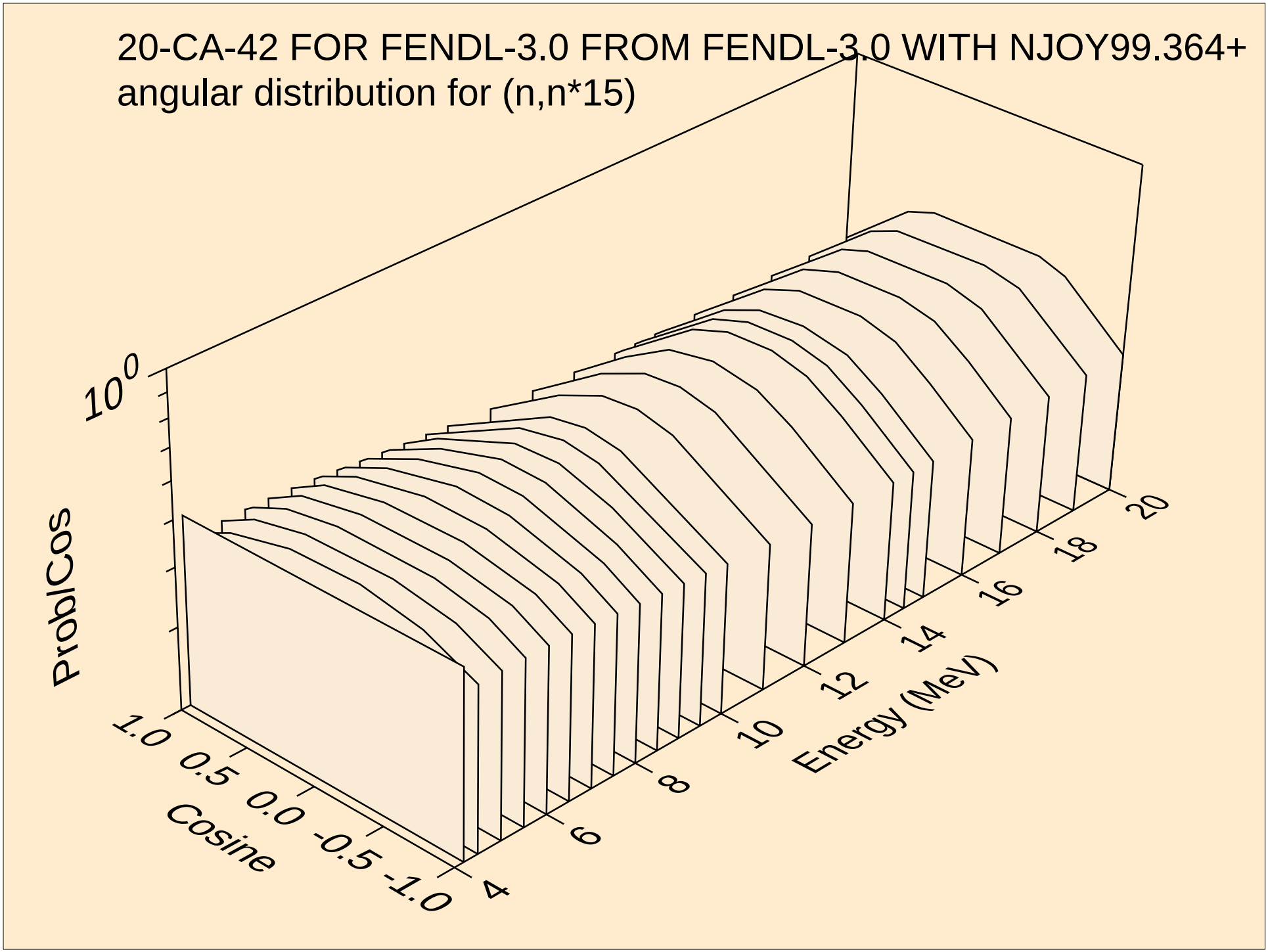

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*10)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

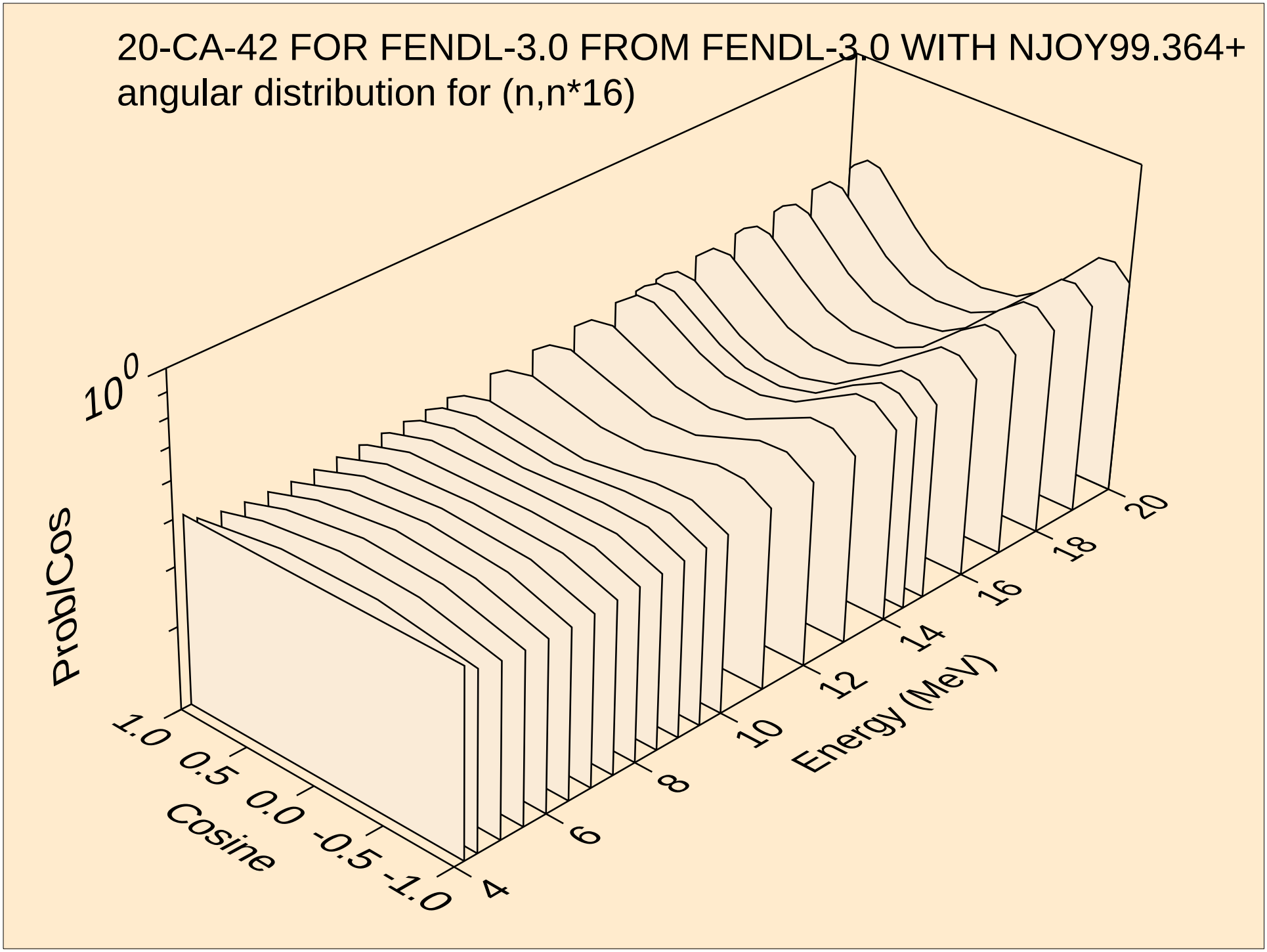

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*11)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

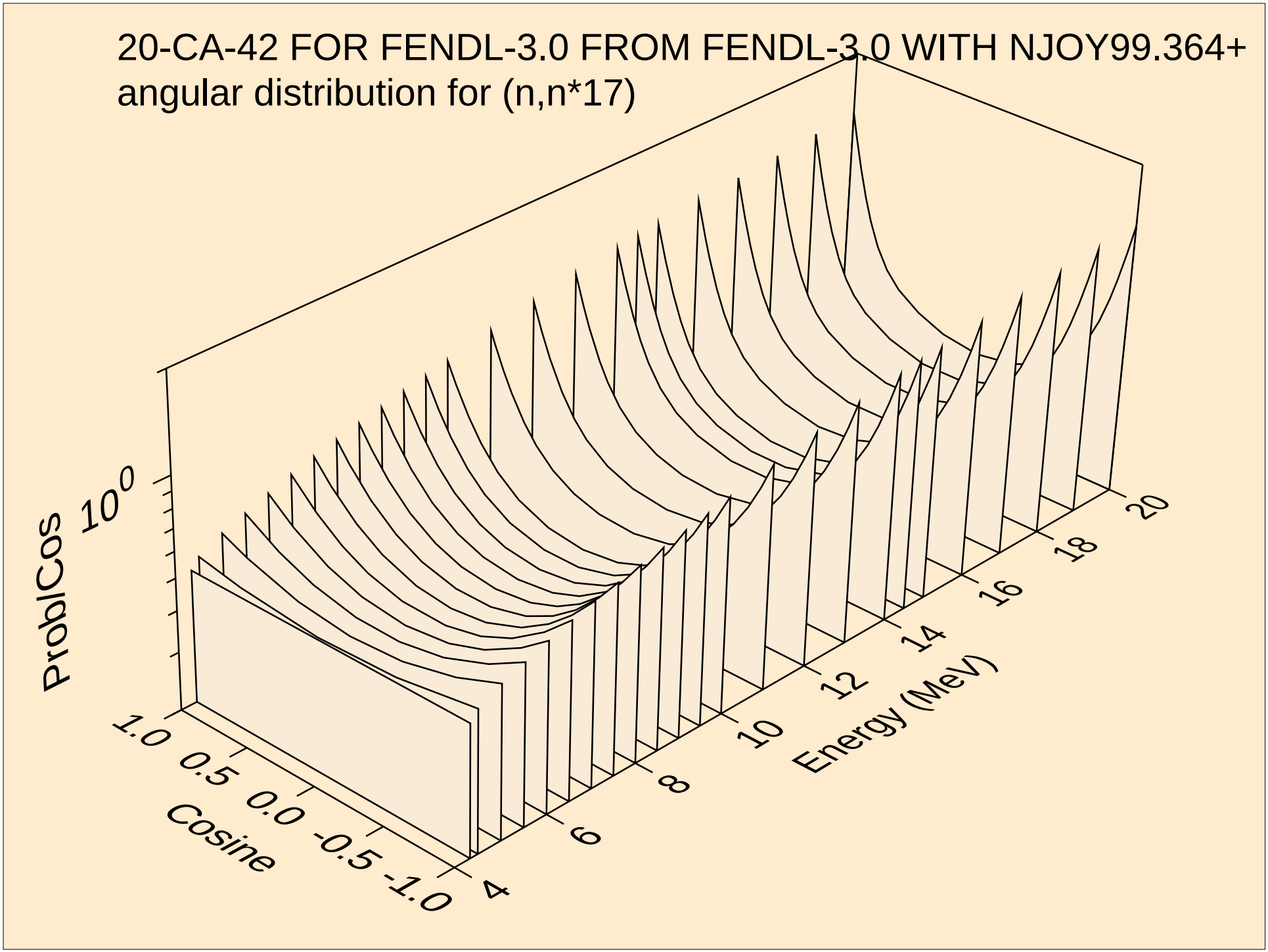

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*12)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

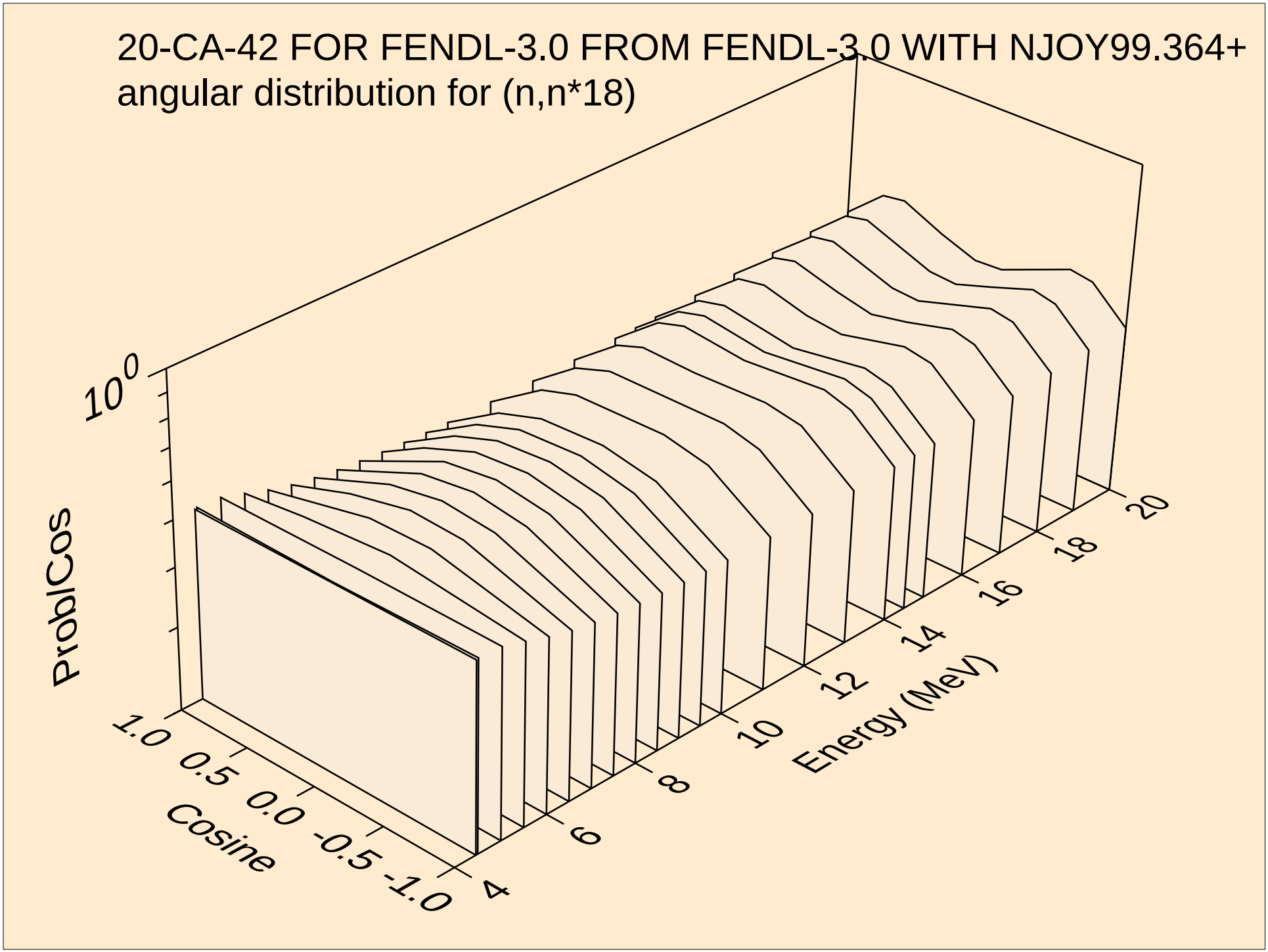

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*13)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

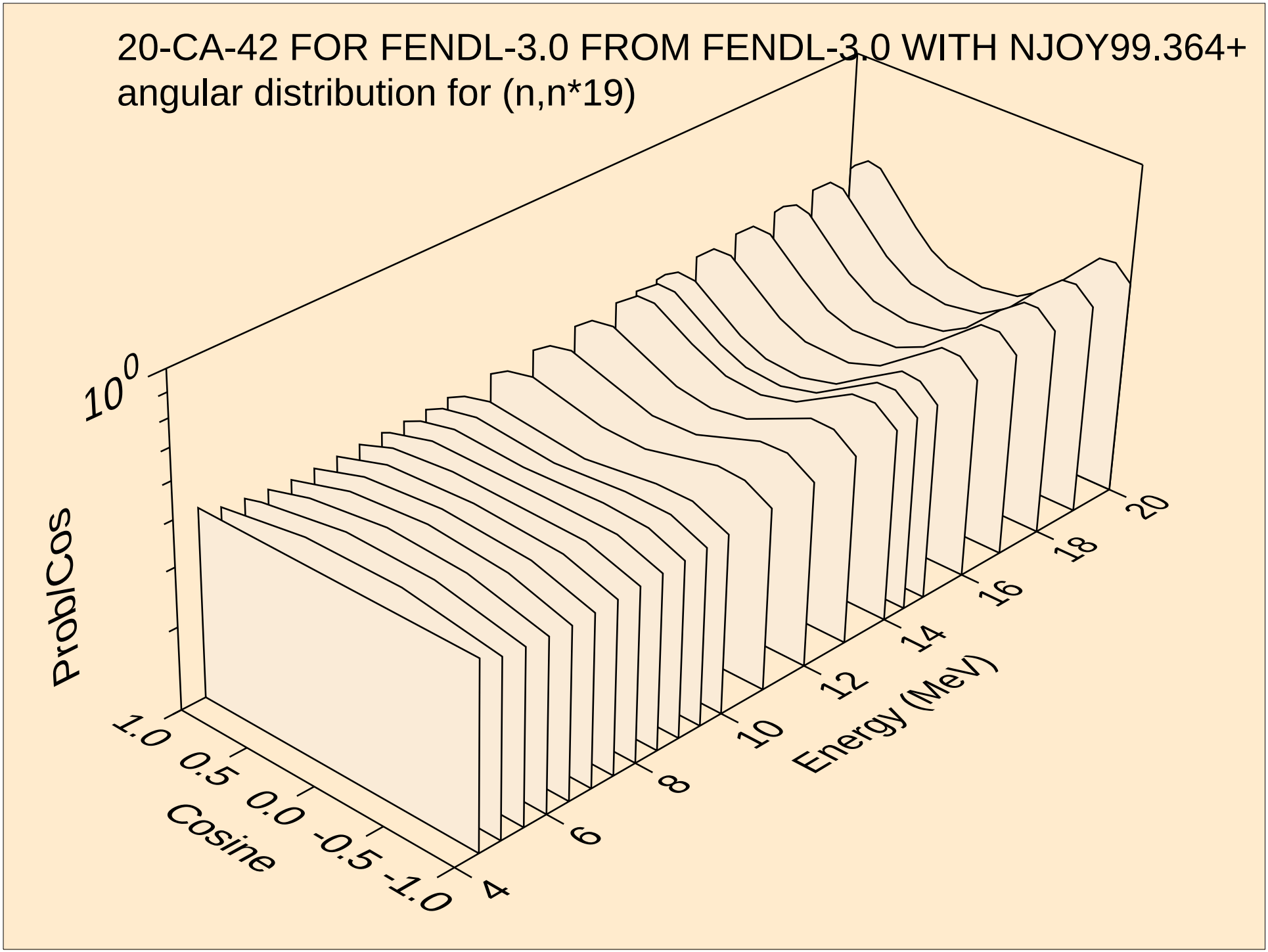

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*14)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

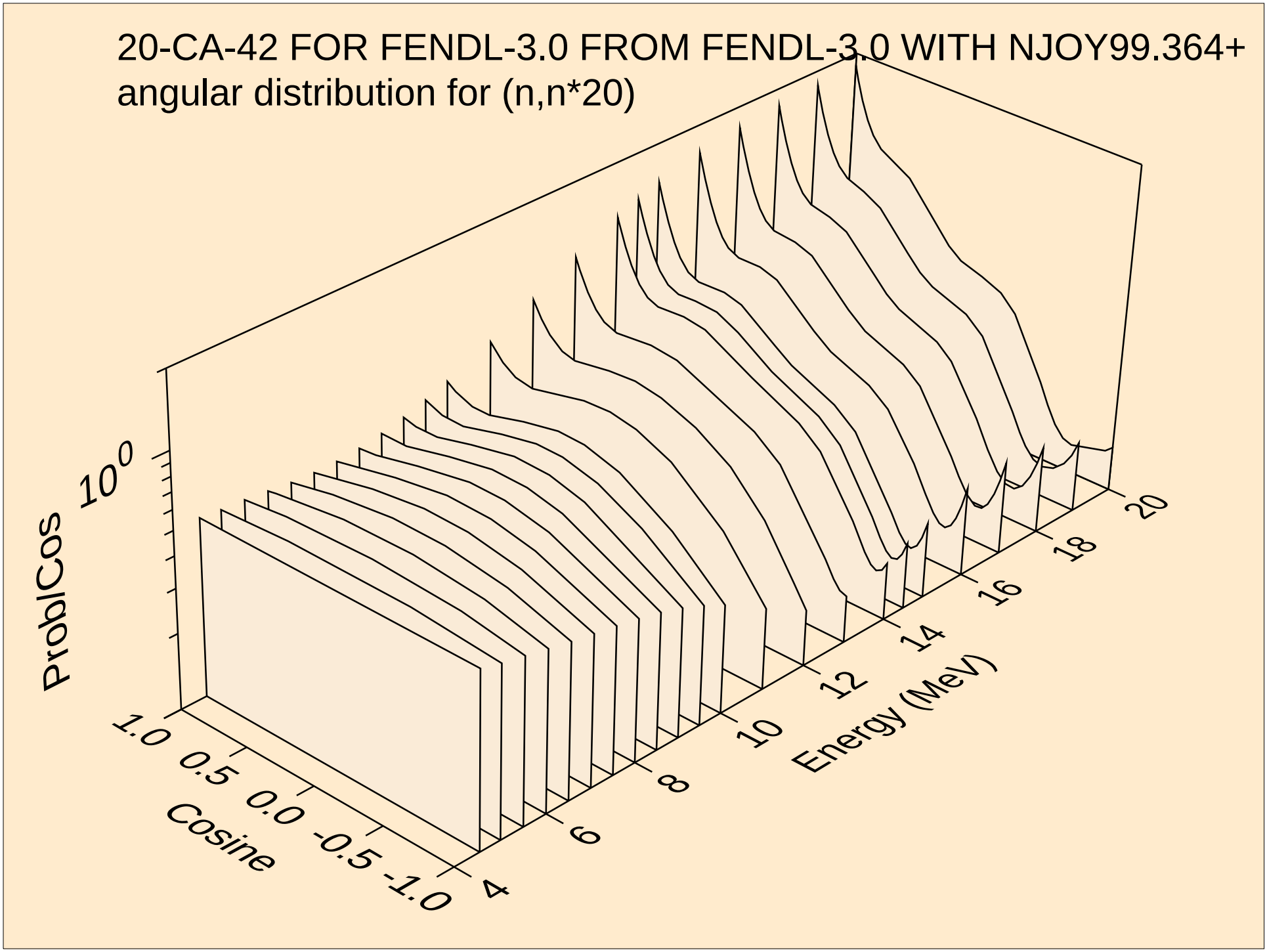

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*15)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

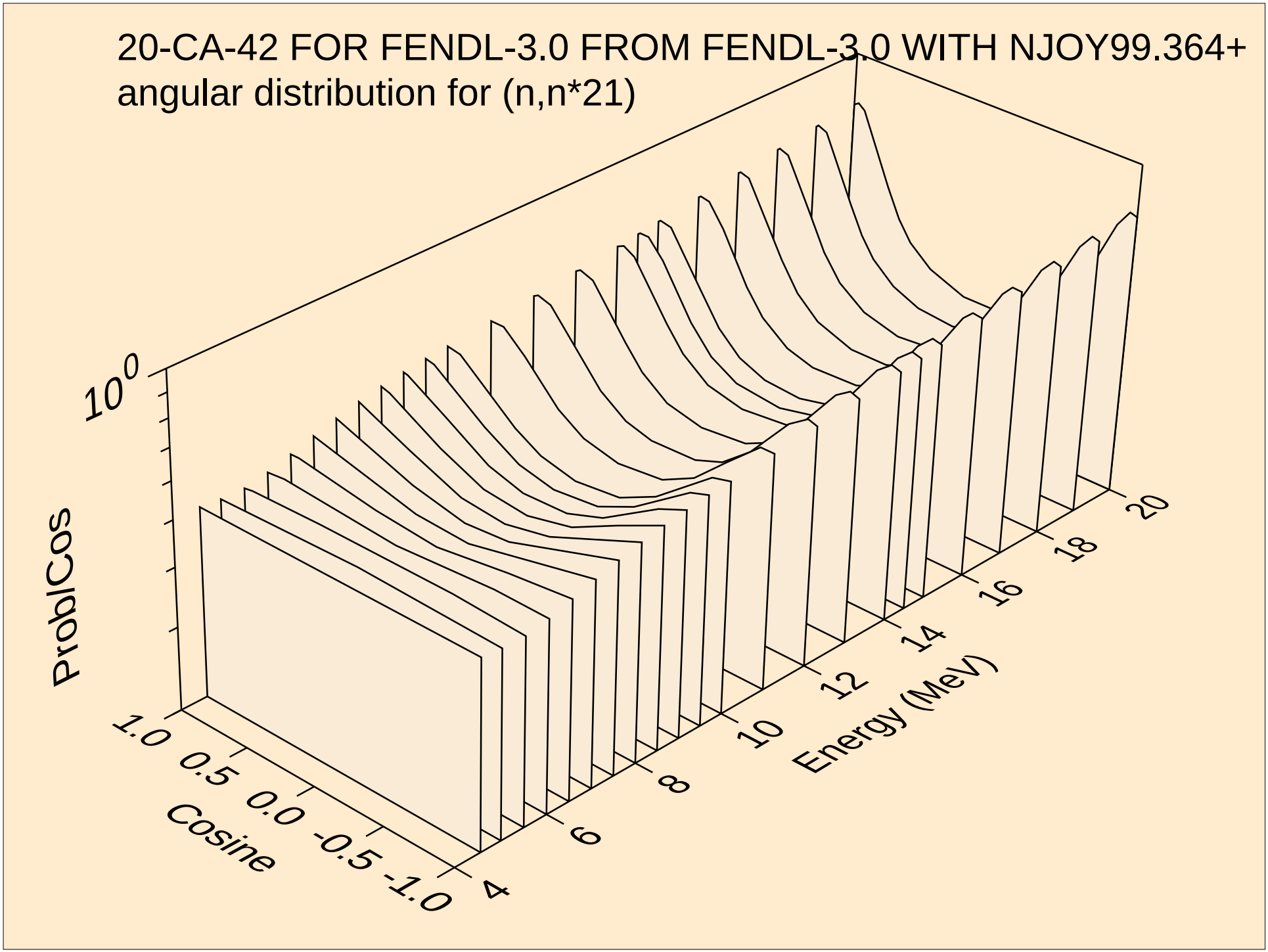

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*16)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

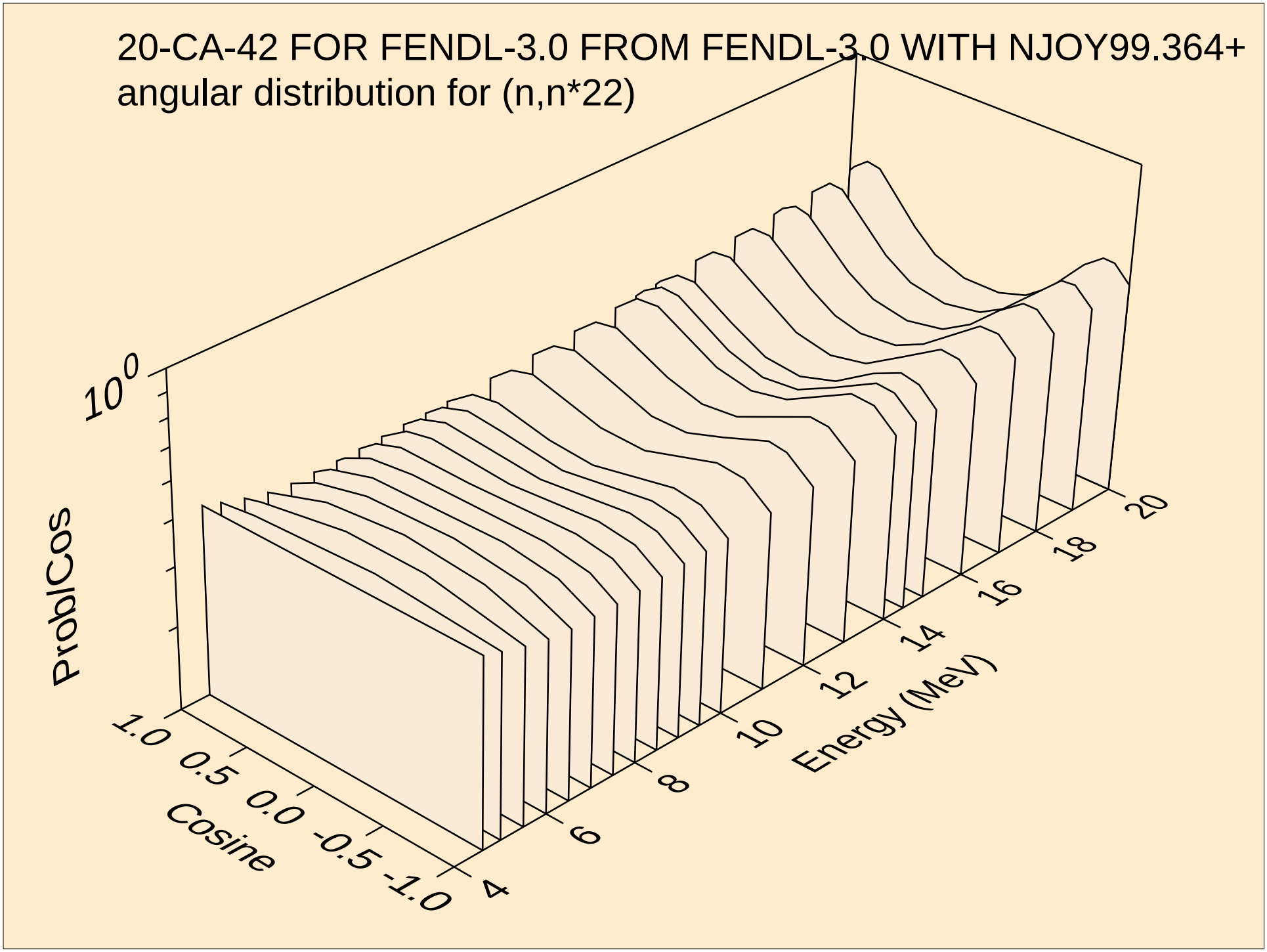

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*17)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

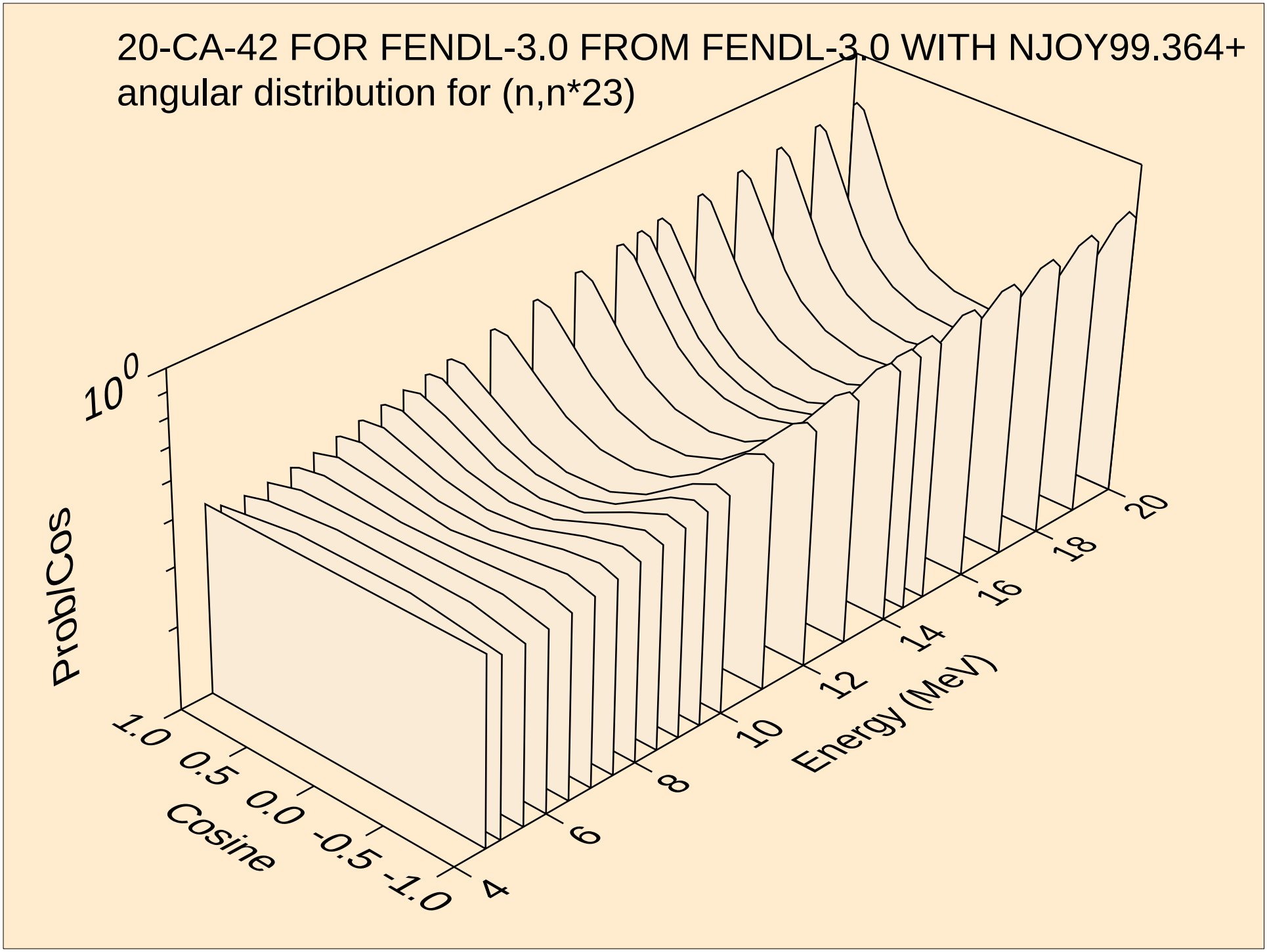

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*18)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

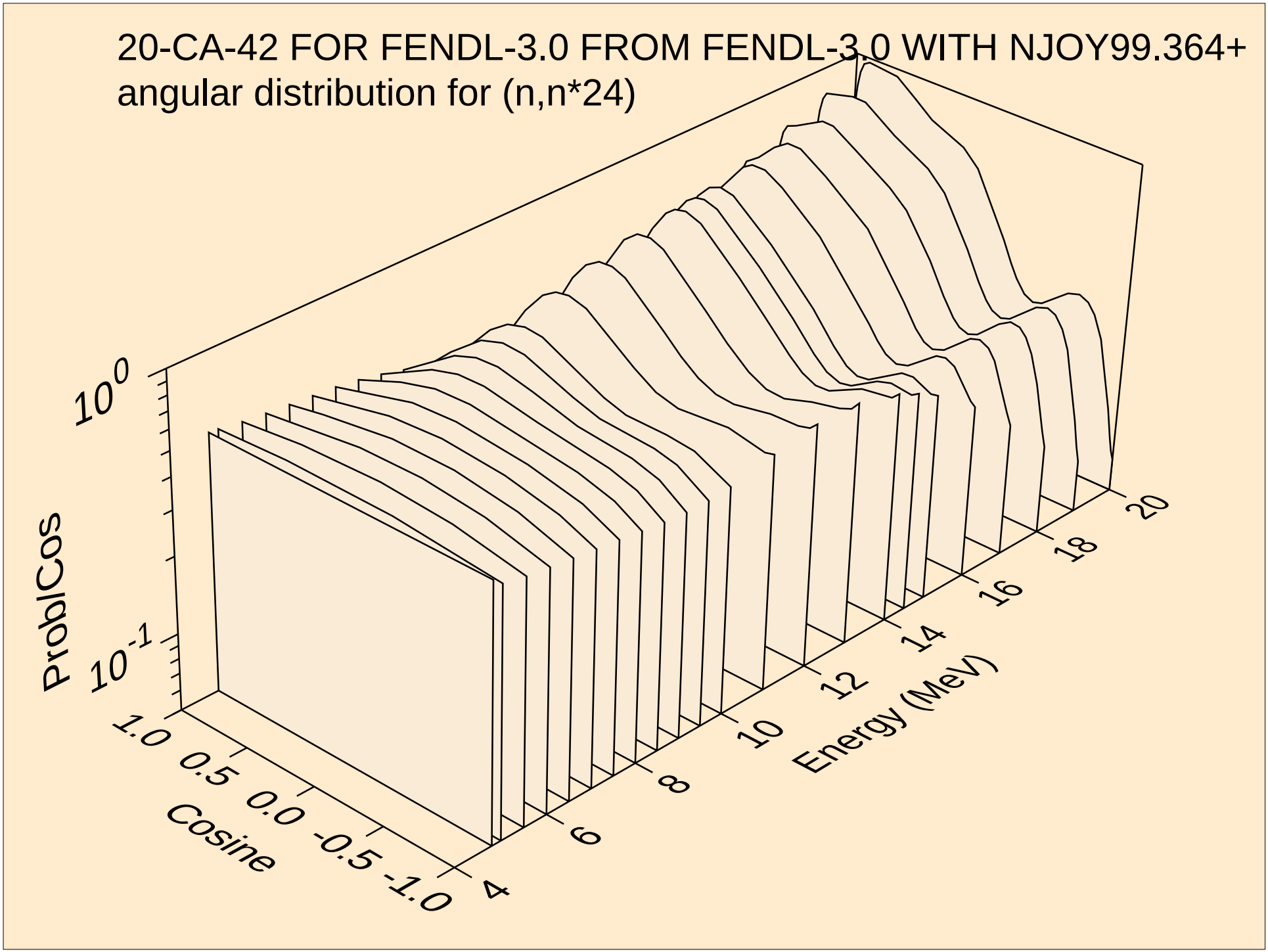

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*19)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

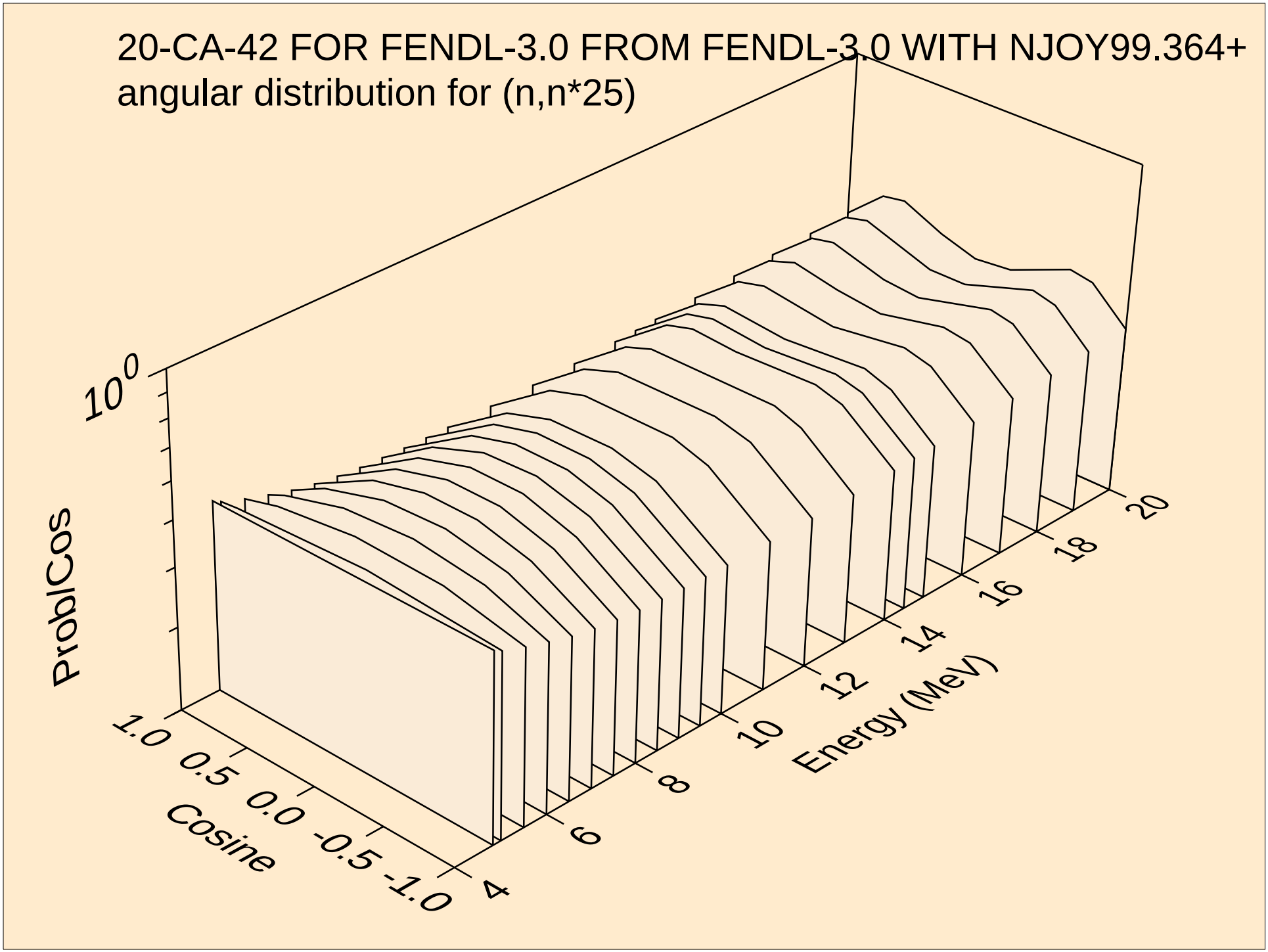

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*20)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

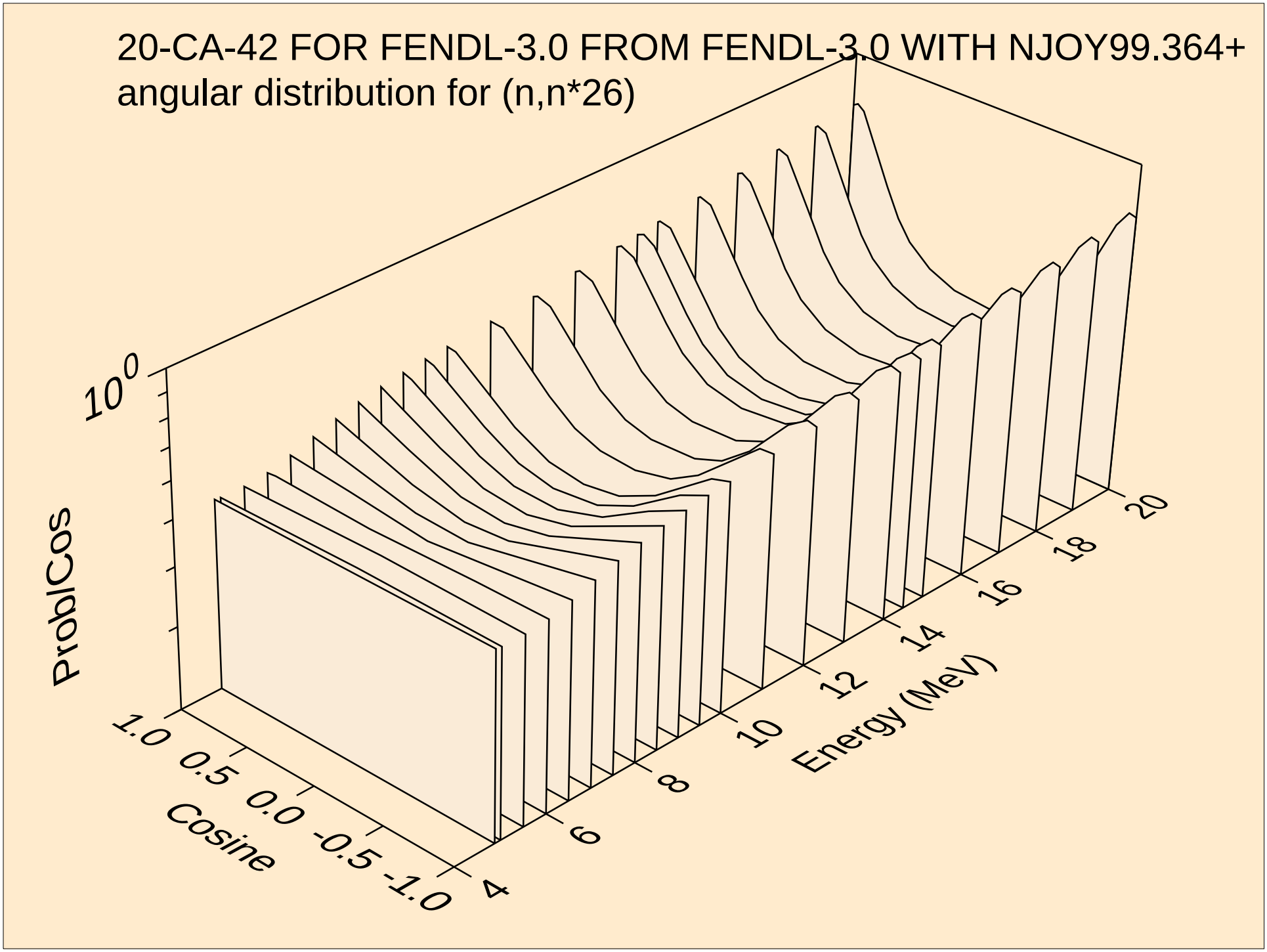

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*21)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

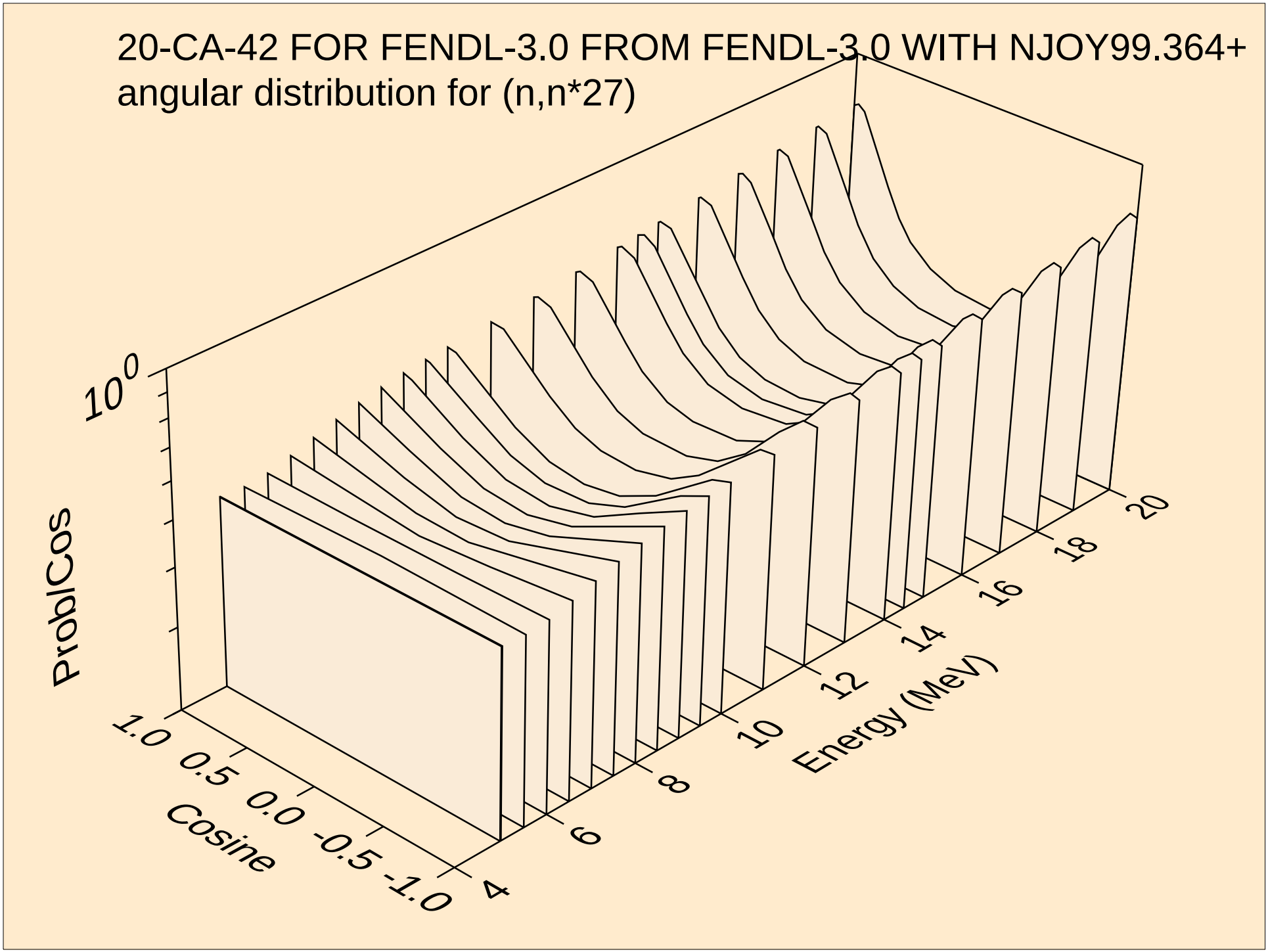

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*22)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

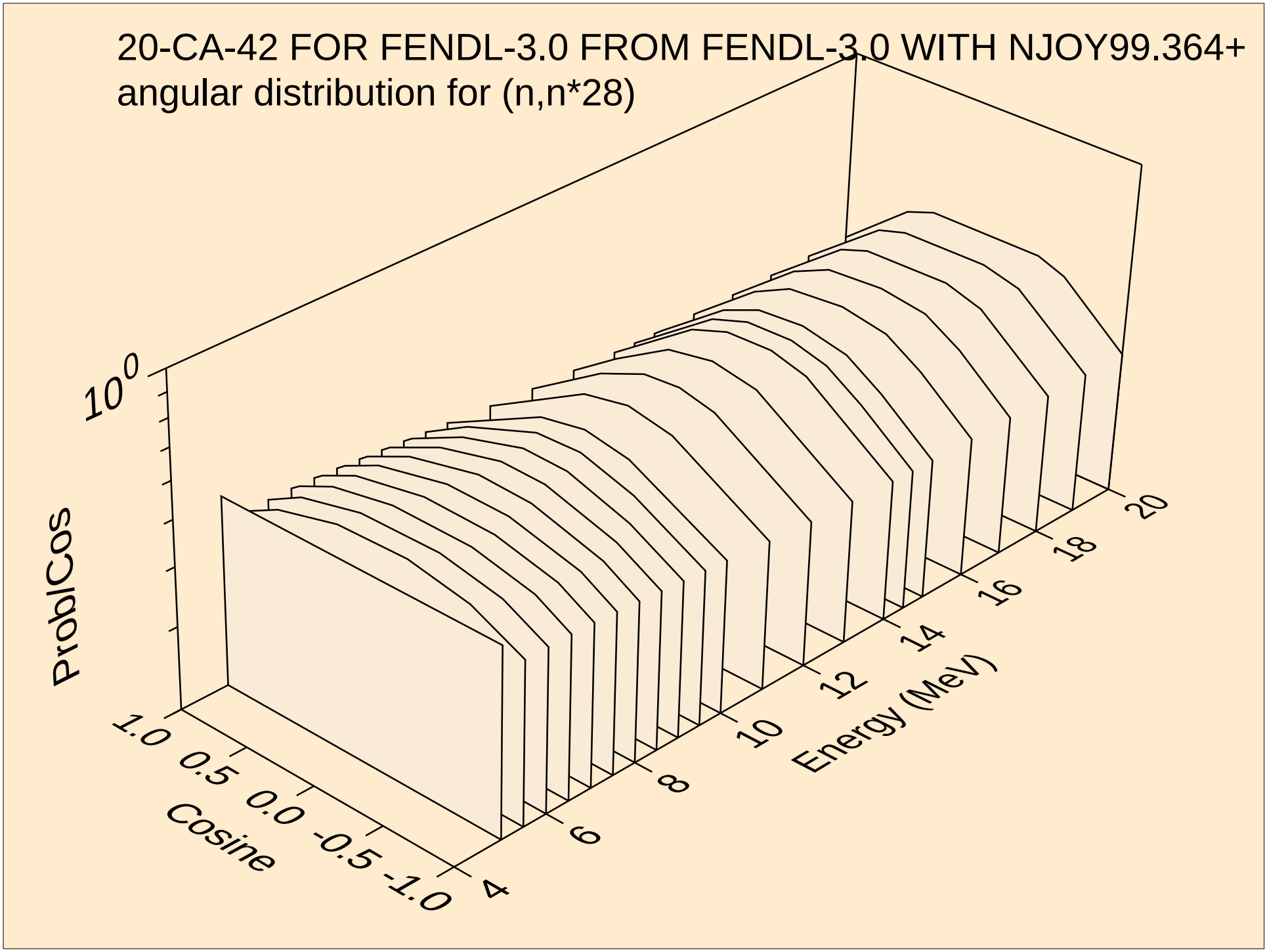

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*23)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

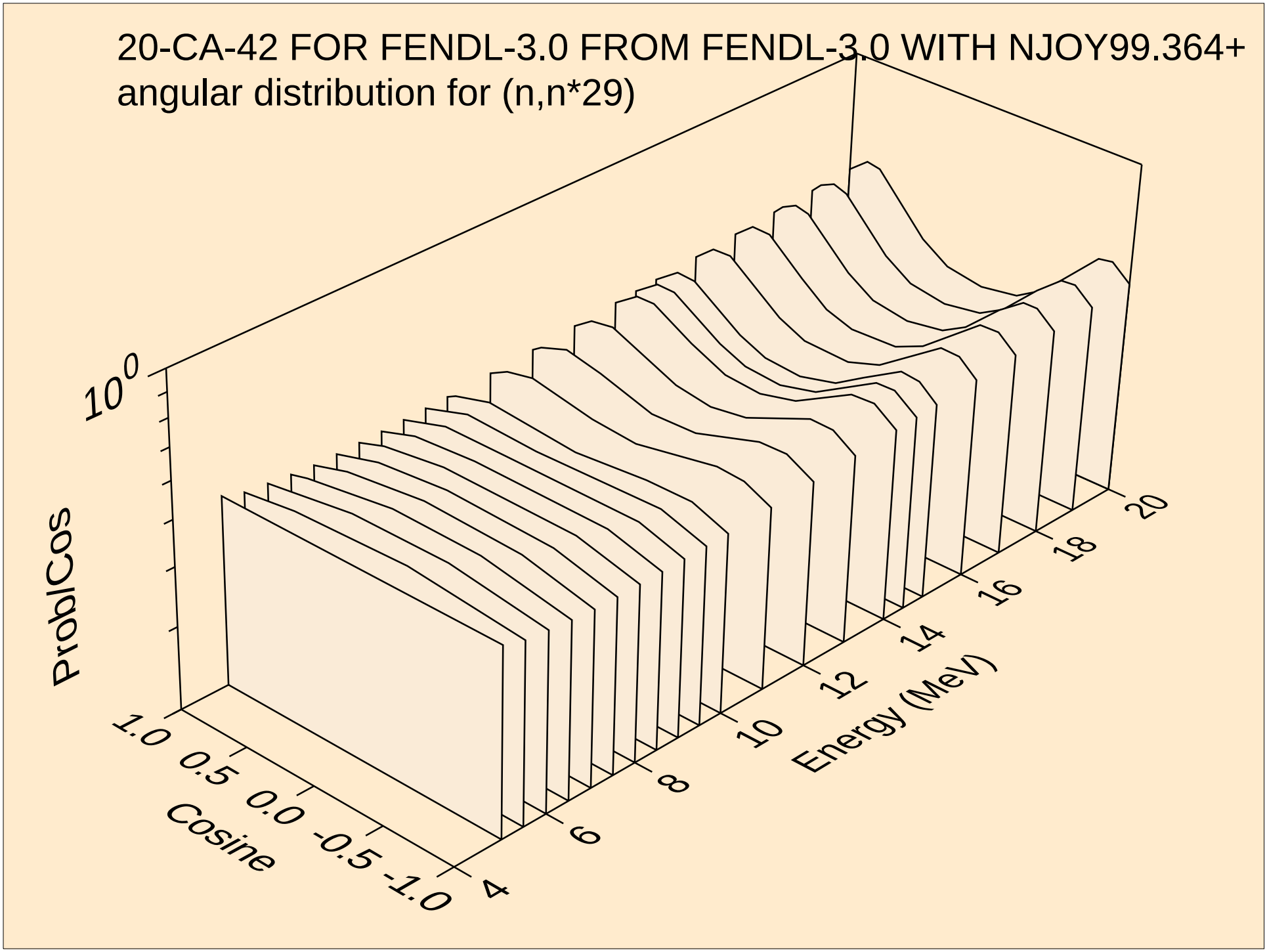

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*24)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

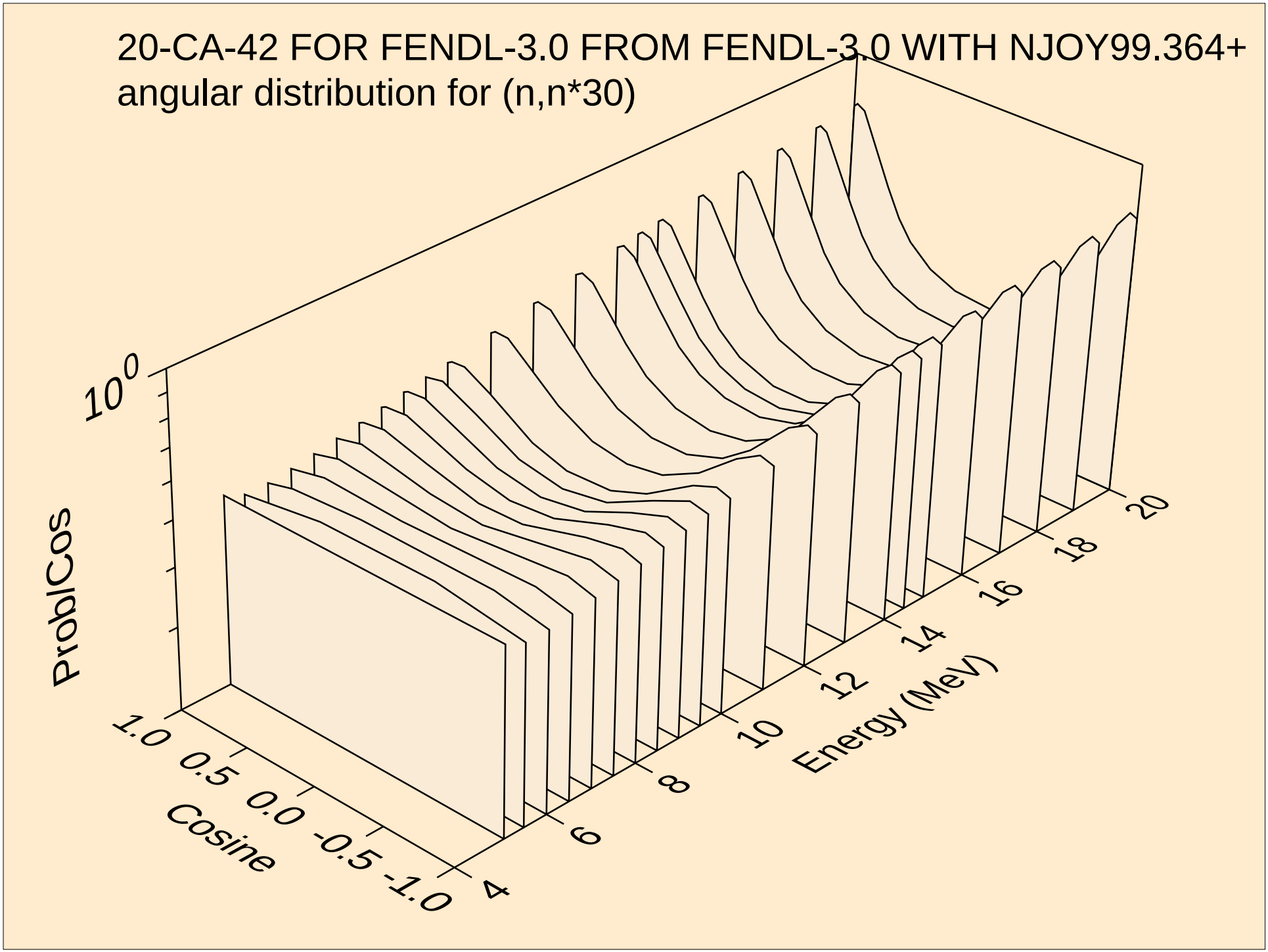

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*25)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

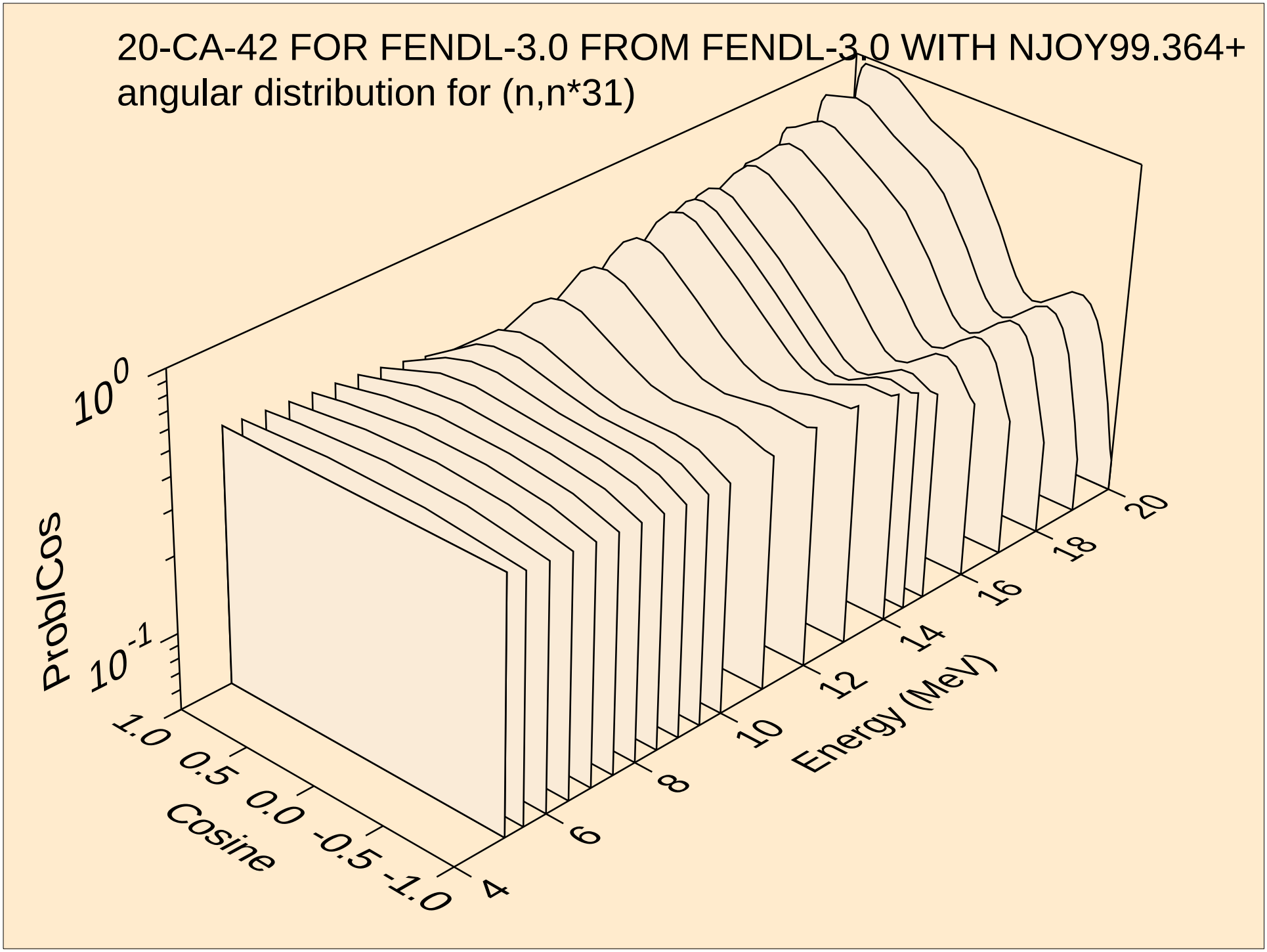

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*26)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

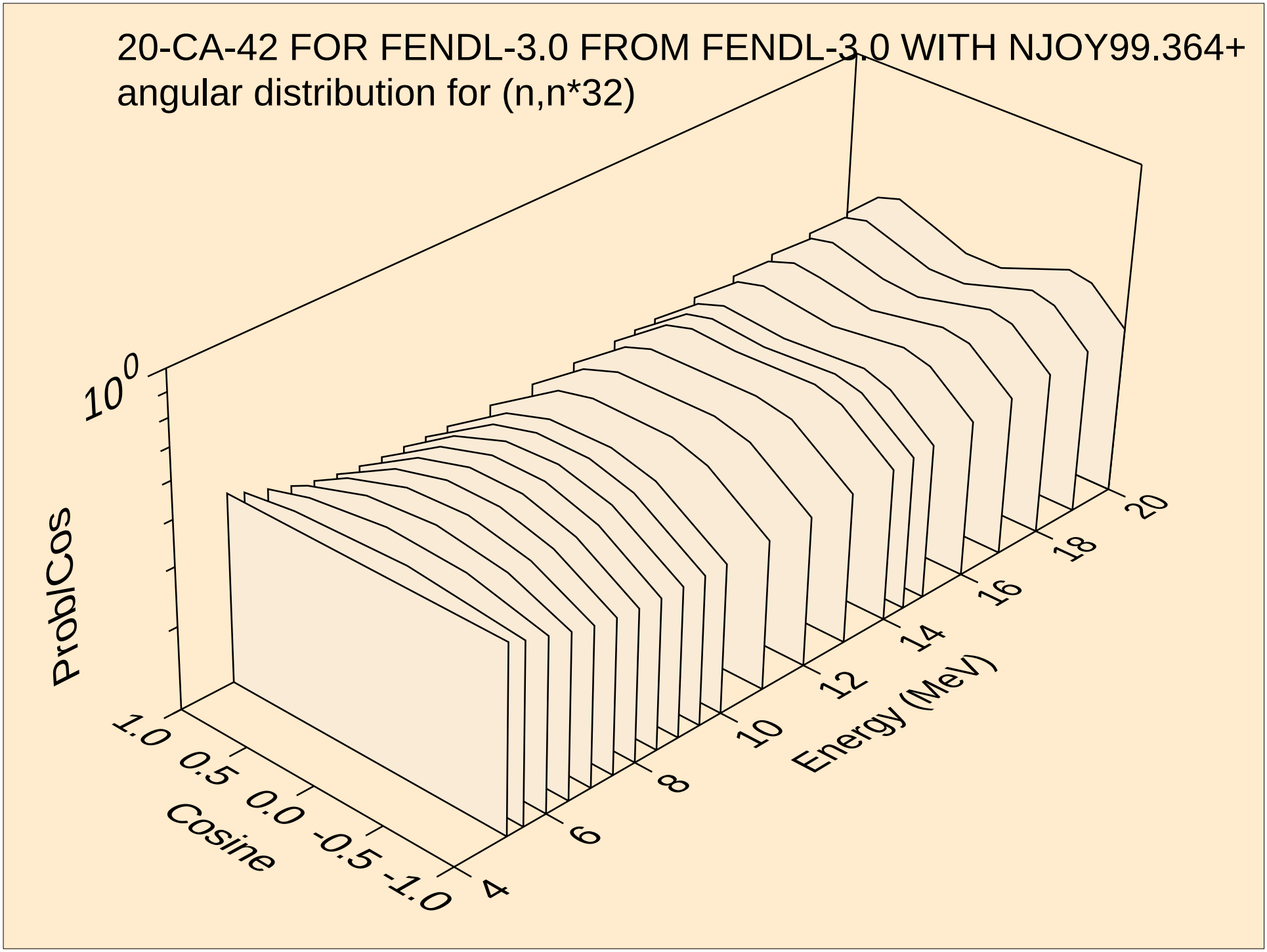

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*27)
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

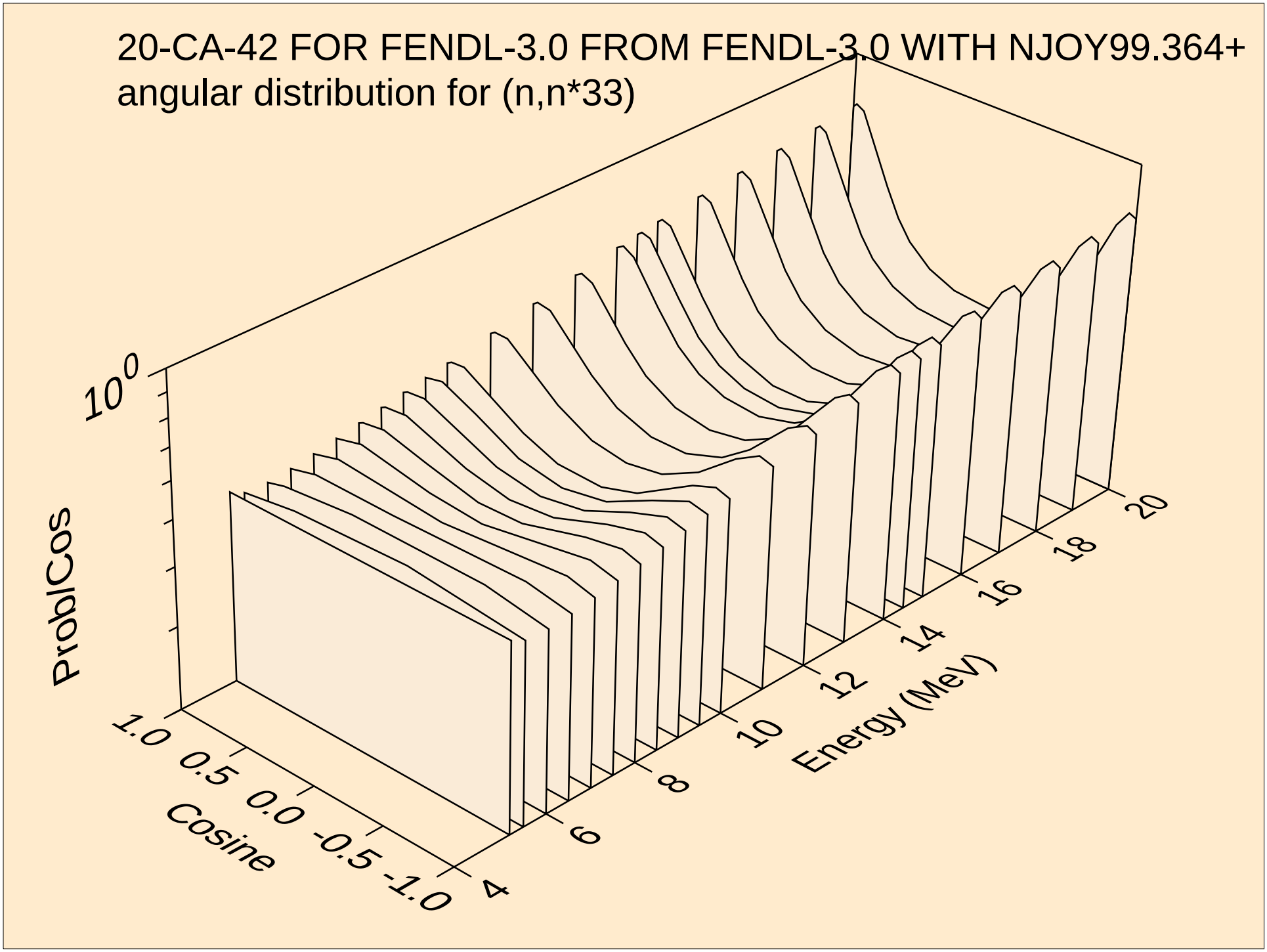

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*28)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

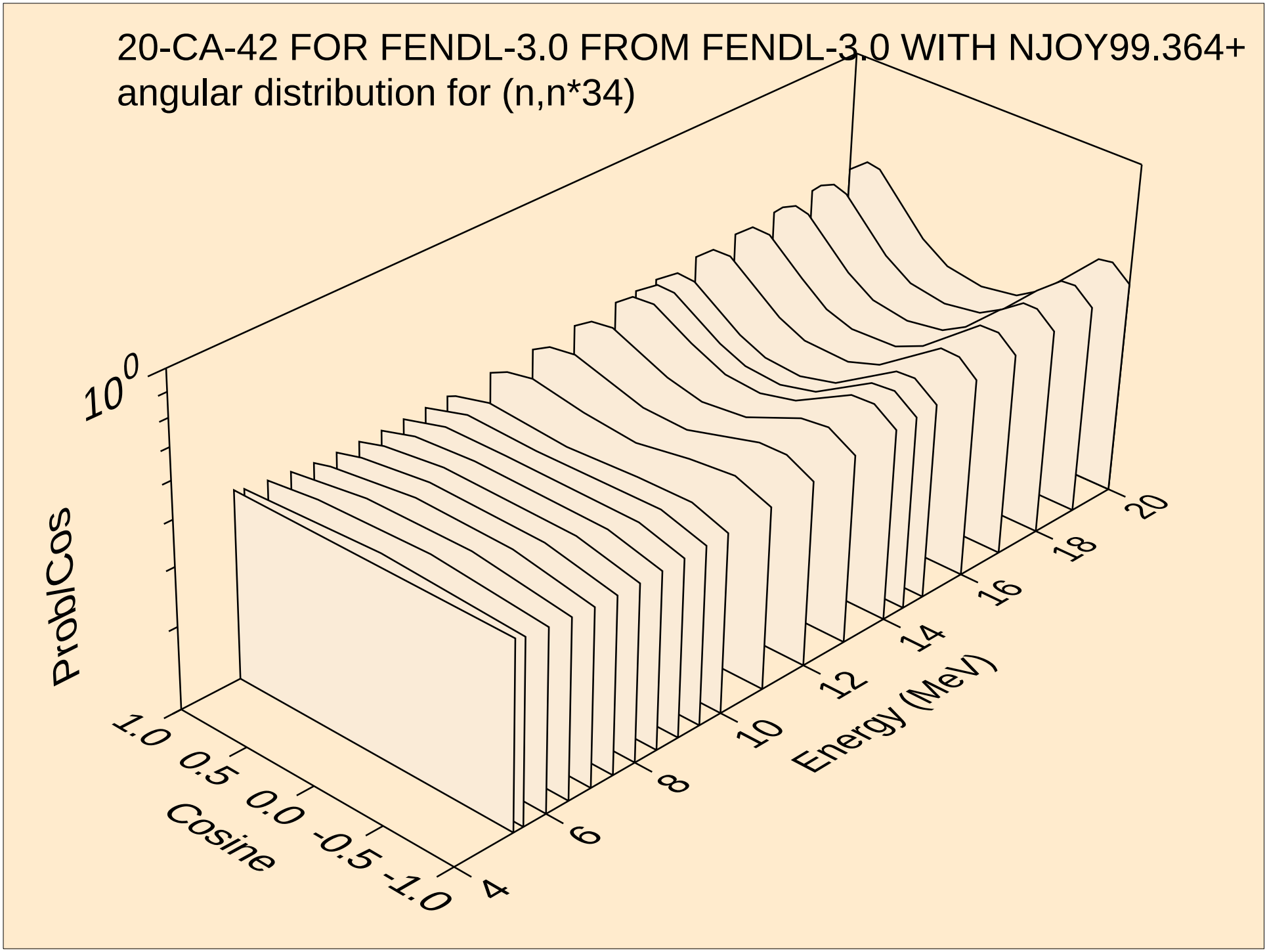

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*29)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

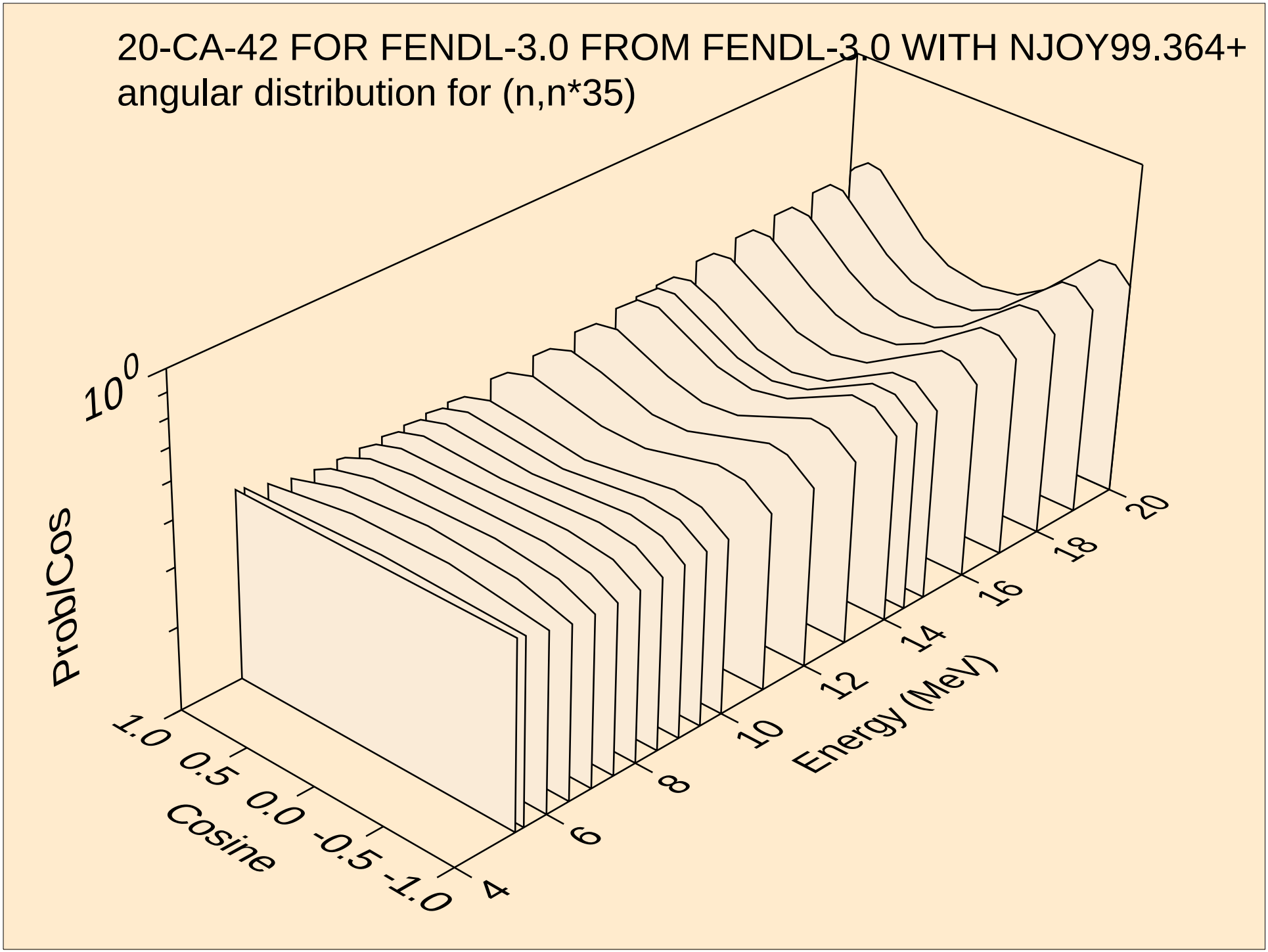

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*30)
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

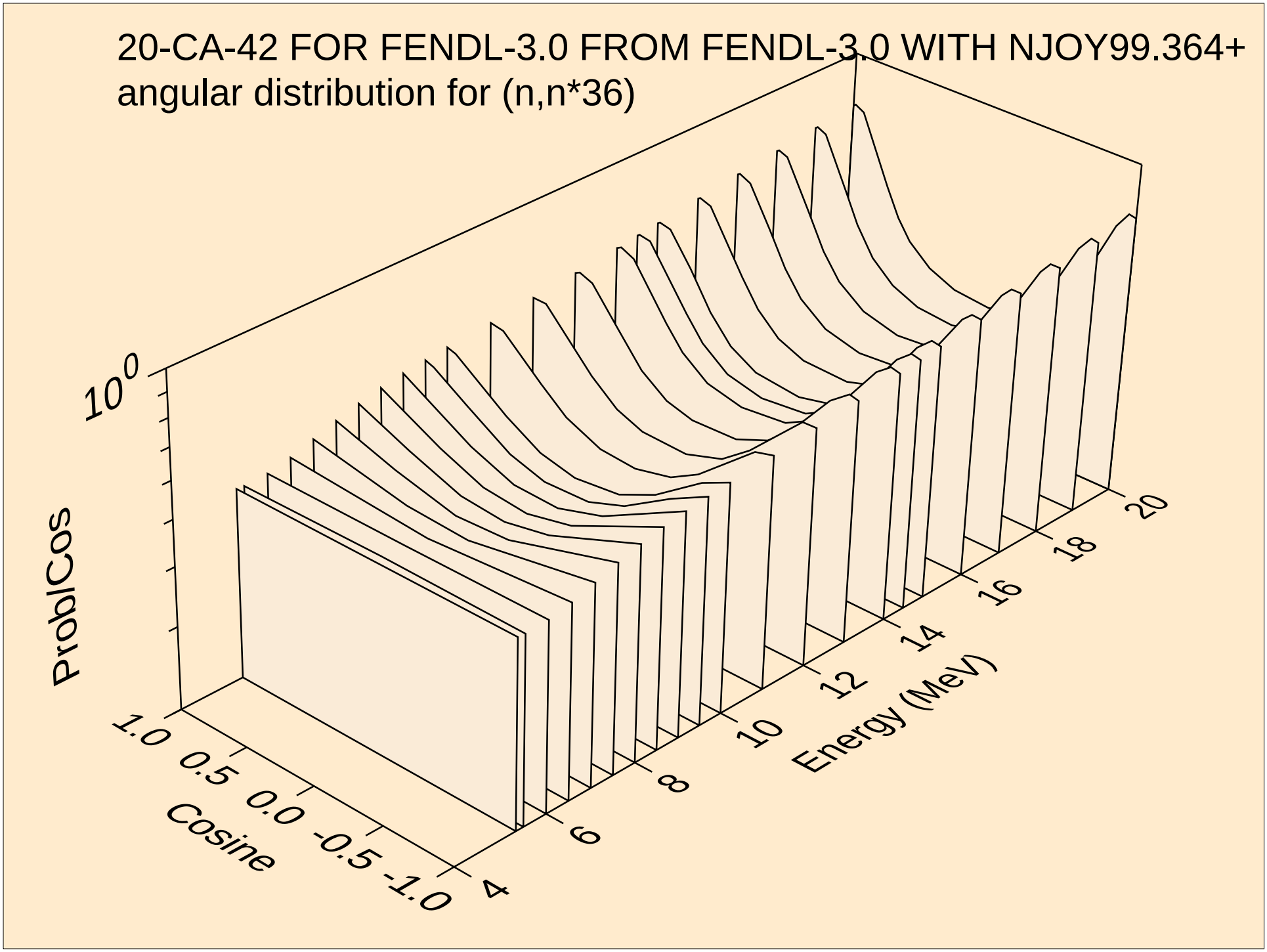

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*31)
ProbICos
10^{0}
10^{-1}
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

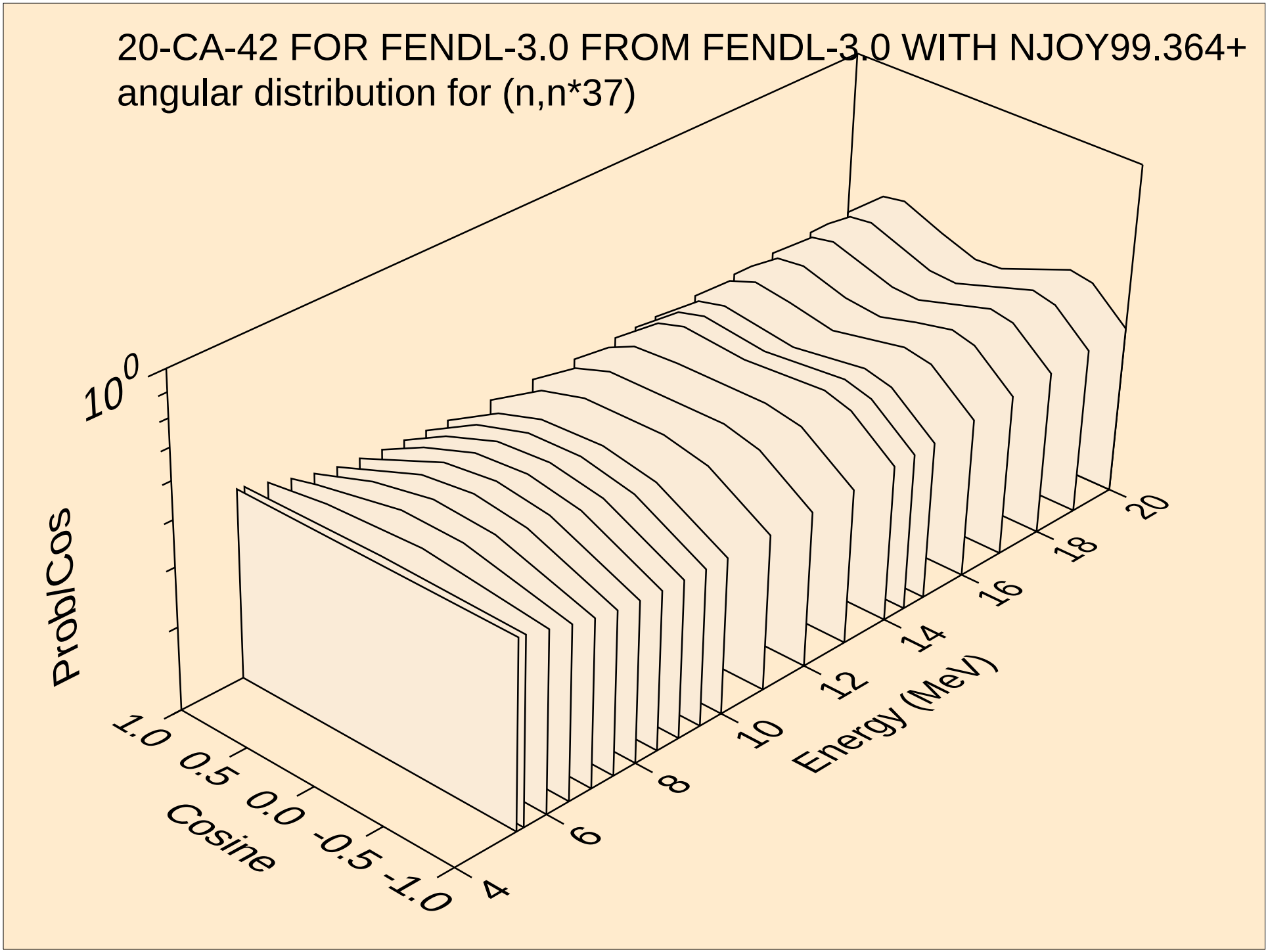

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*32)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

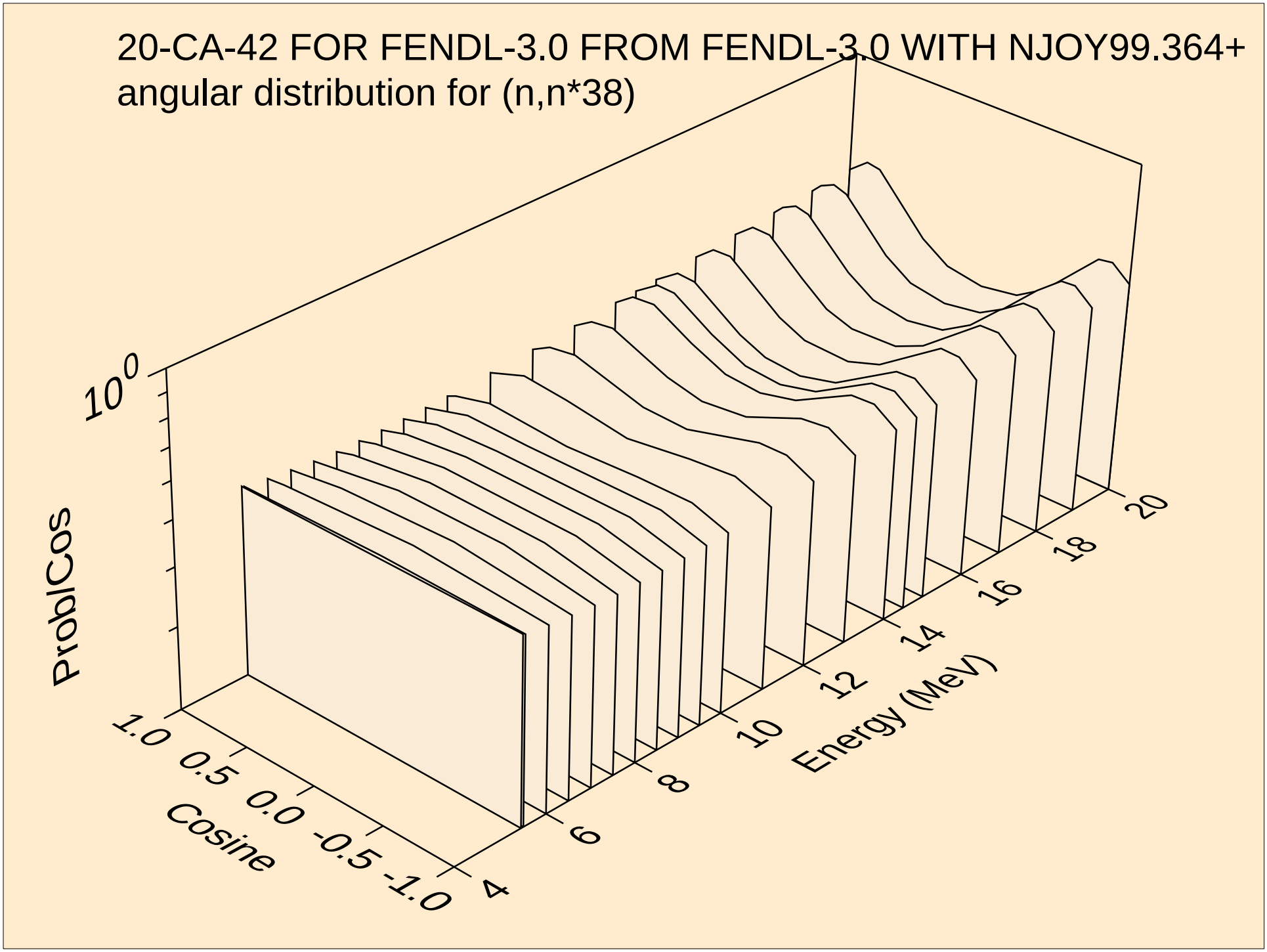

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*33)
10^0
Prob\Cos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

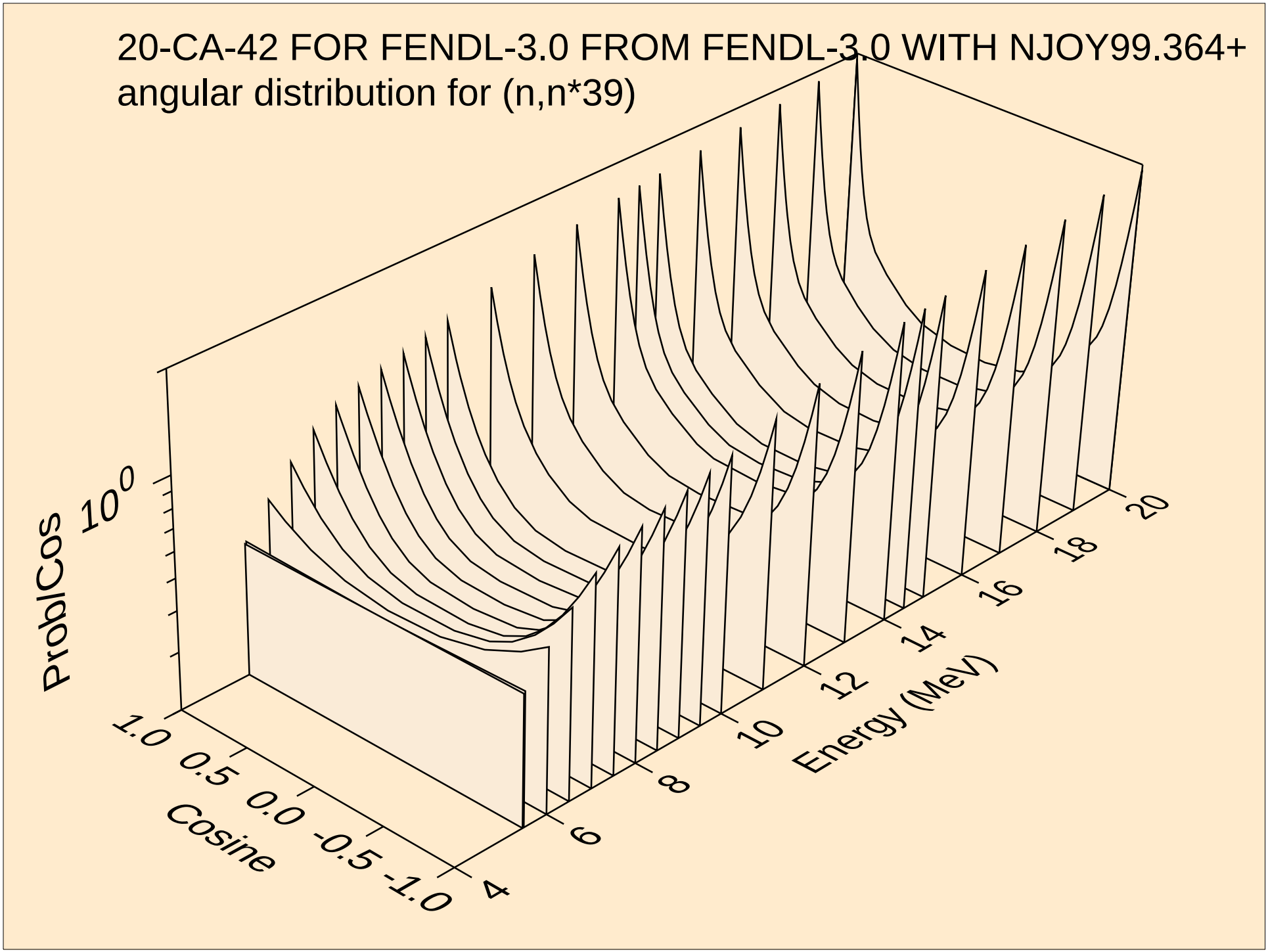

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*34)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

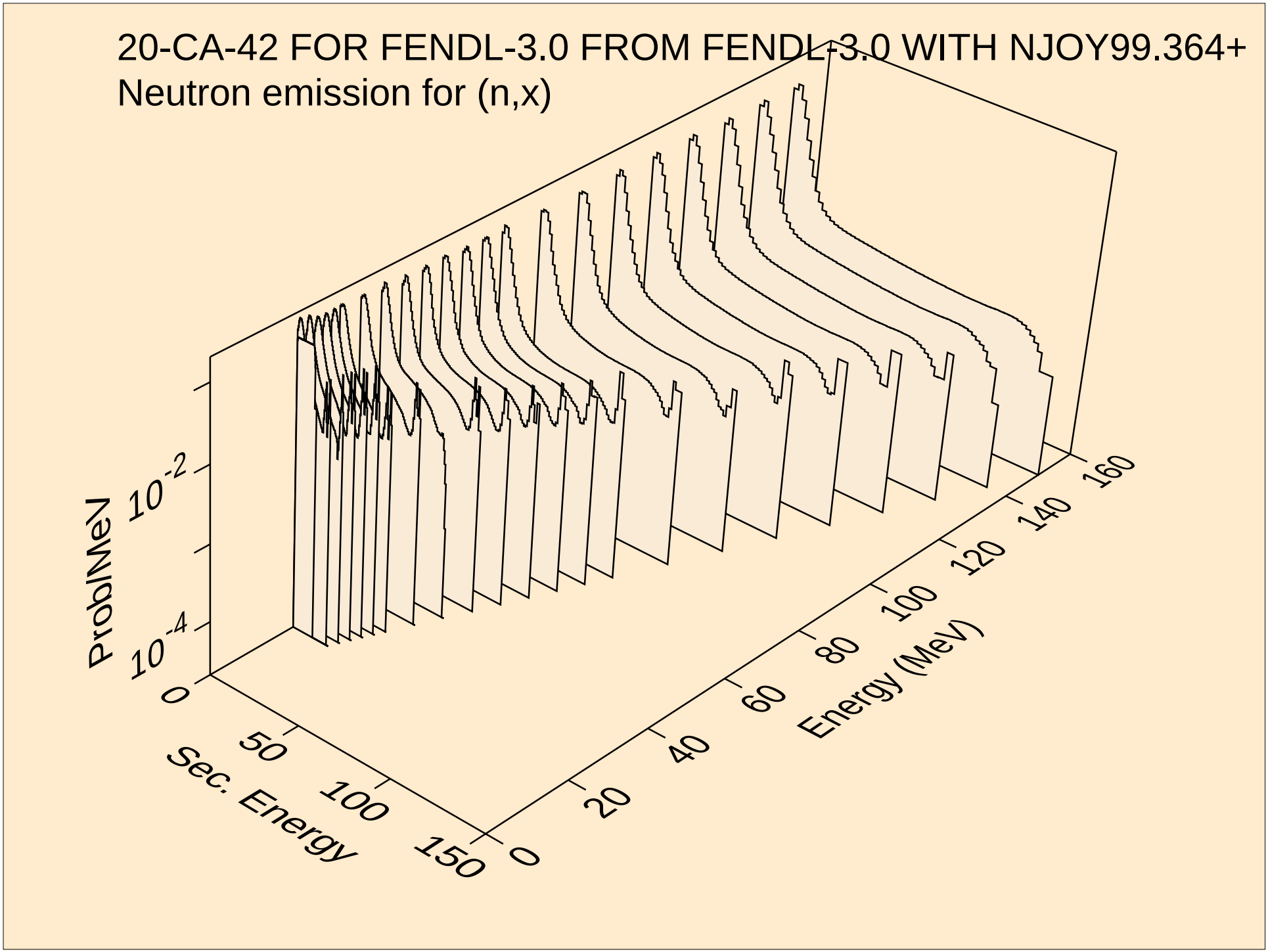

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*35)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

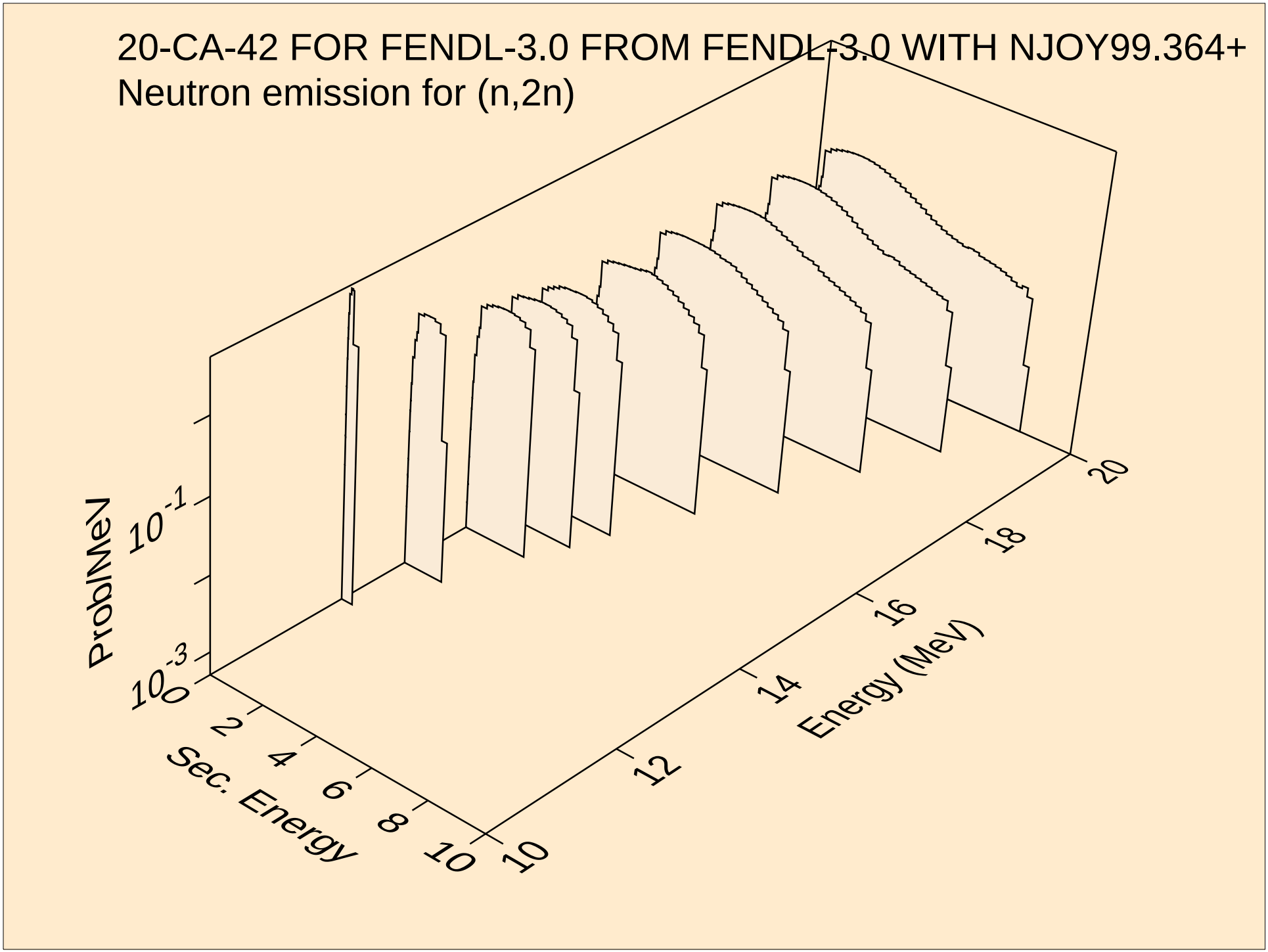

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*36)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

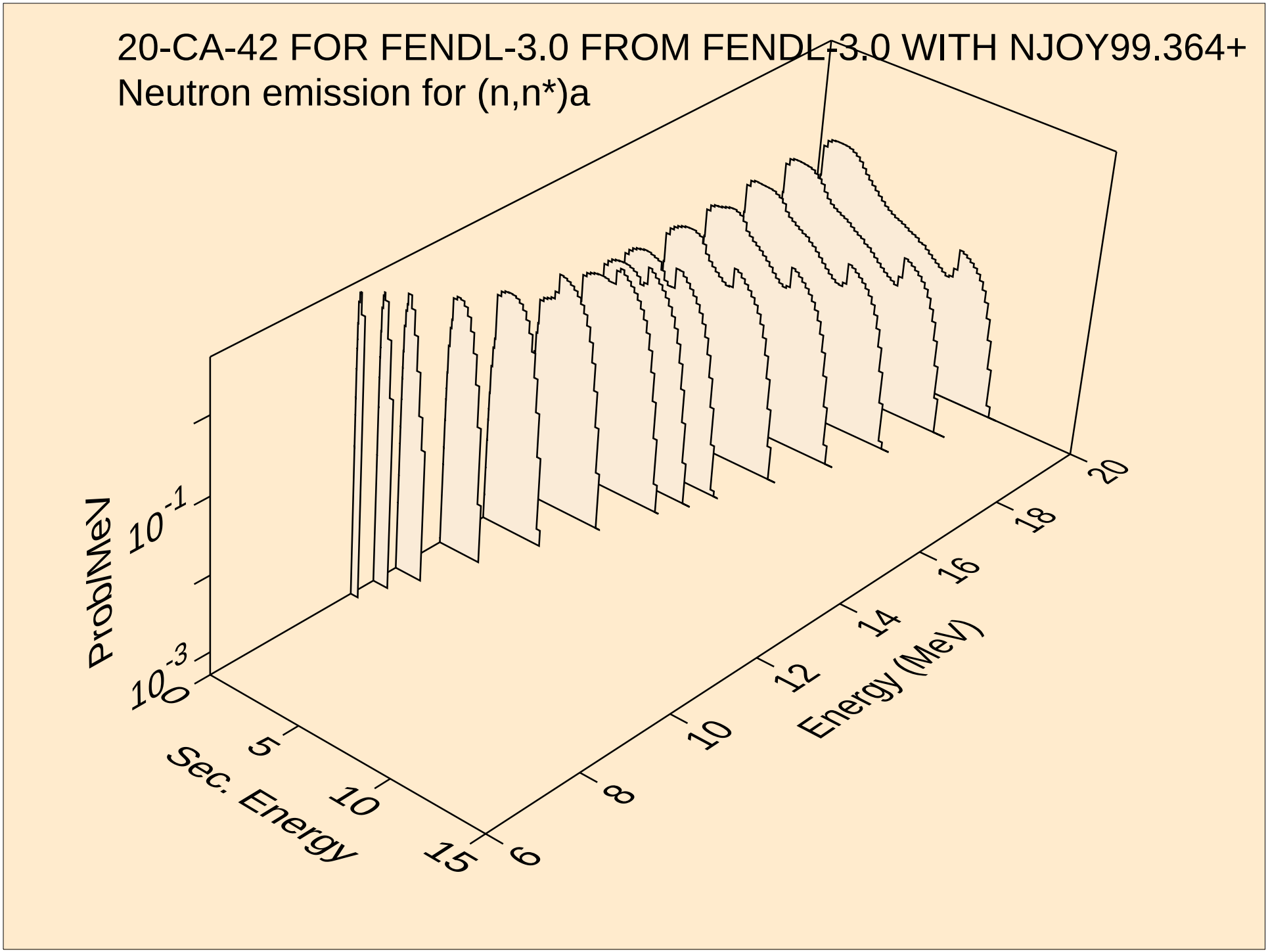

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*37)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

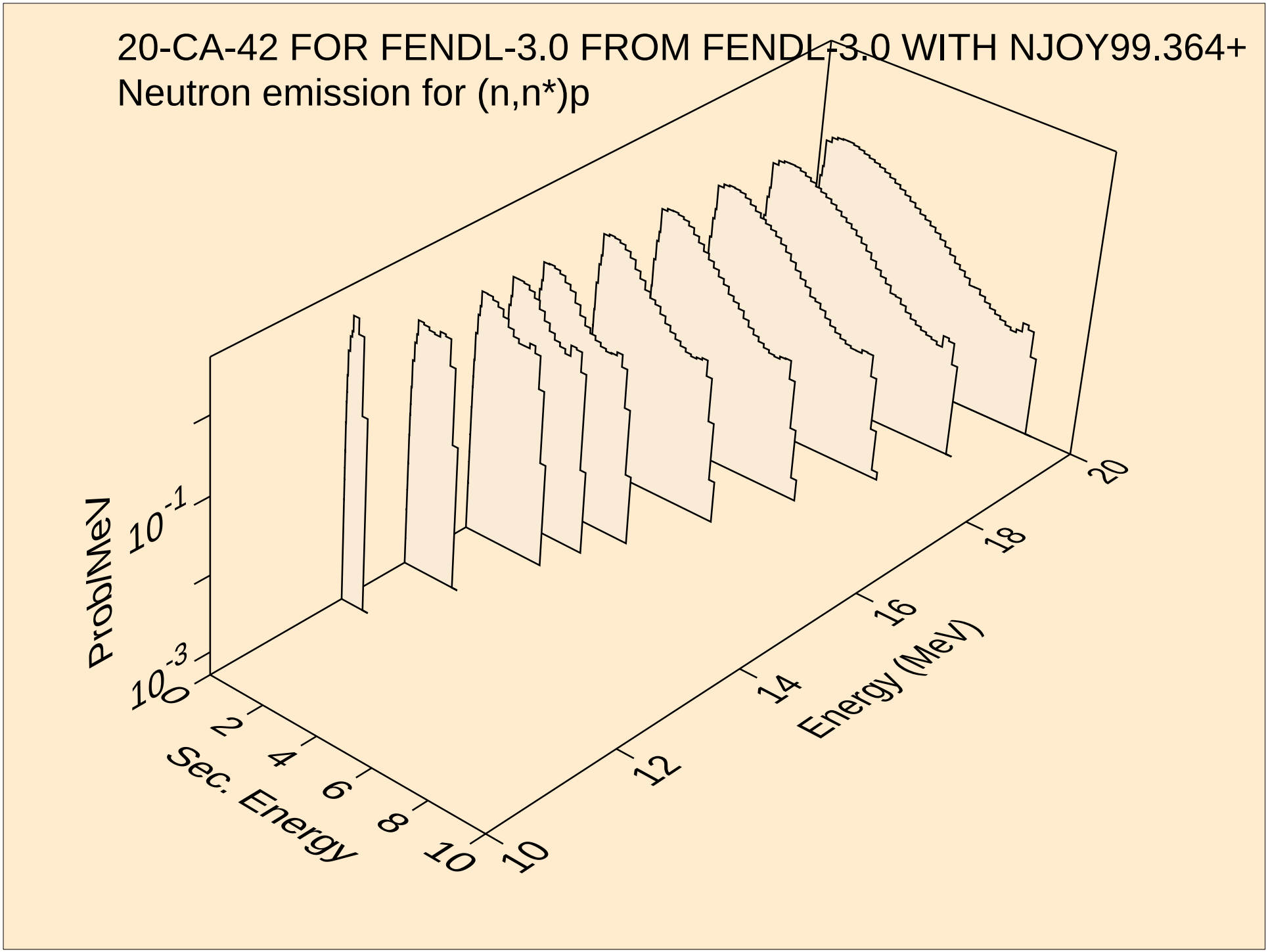

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*38)
10^0
ProbICos
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

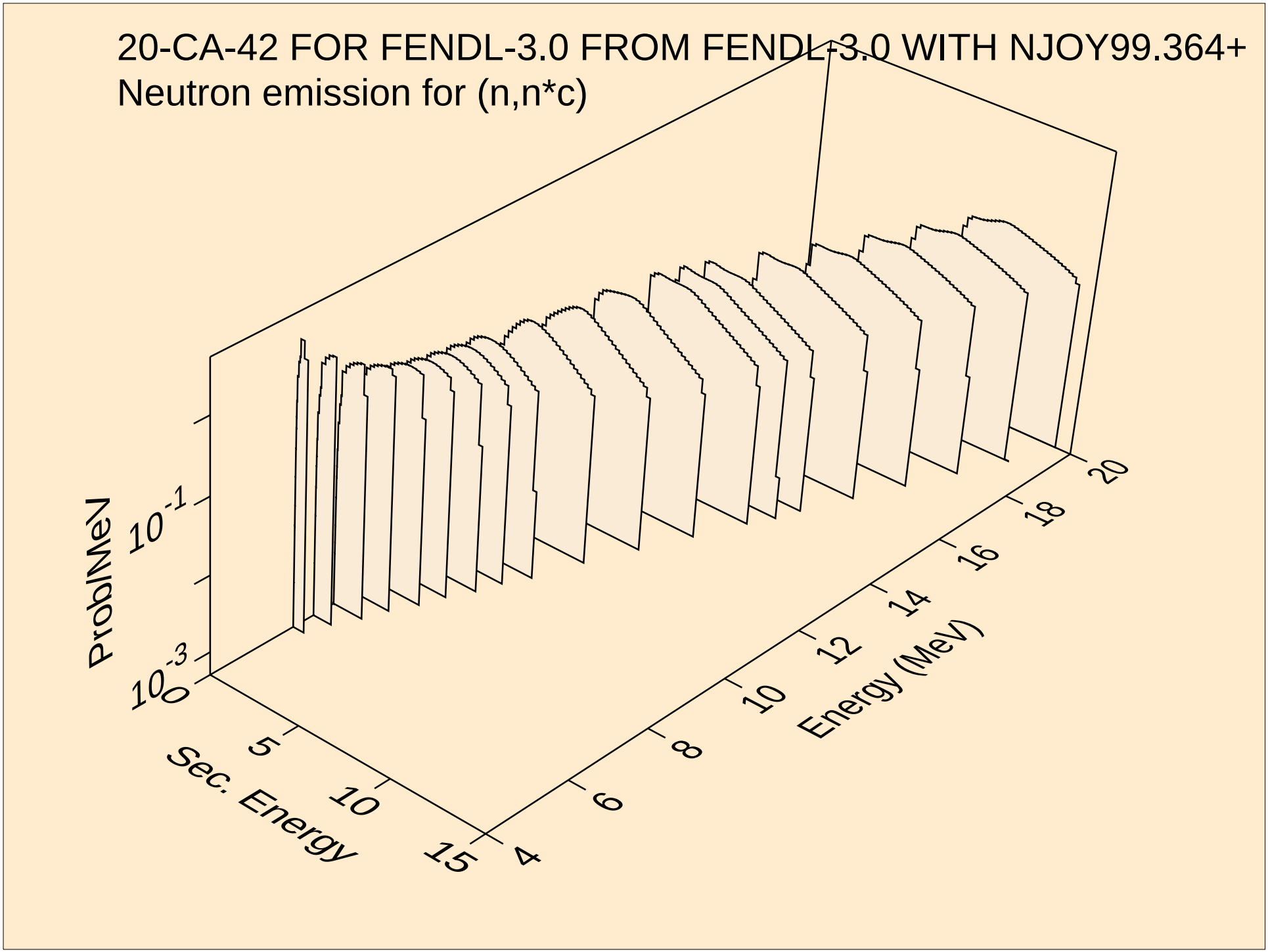

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
angular distribution for (n,n*39)
ProbICos
10^0
1.0
0.5
0.0
-0.5
-1.0
Cosine
4
6
8
10
12
14
16
18
20
Energy (MeV)

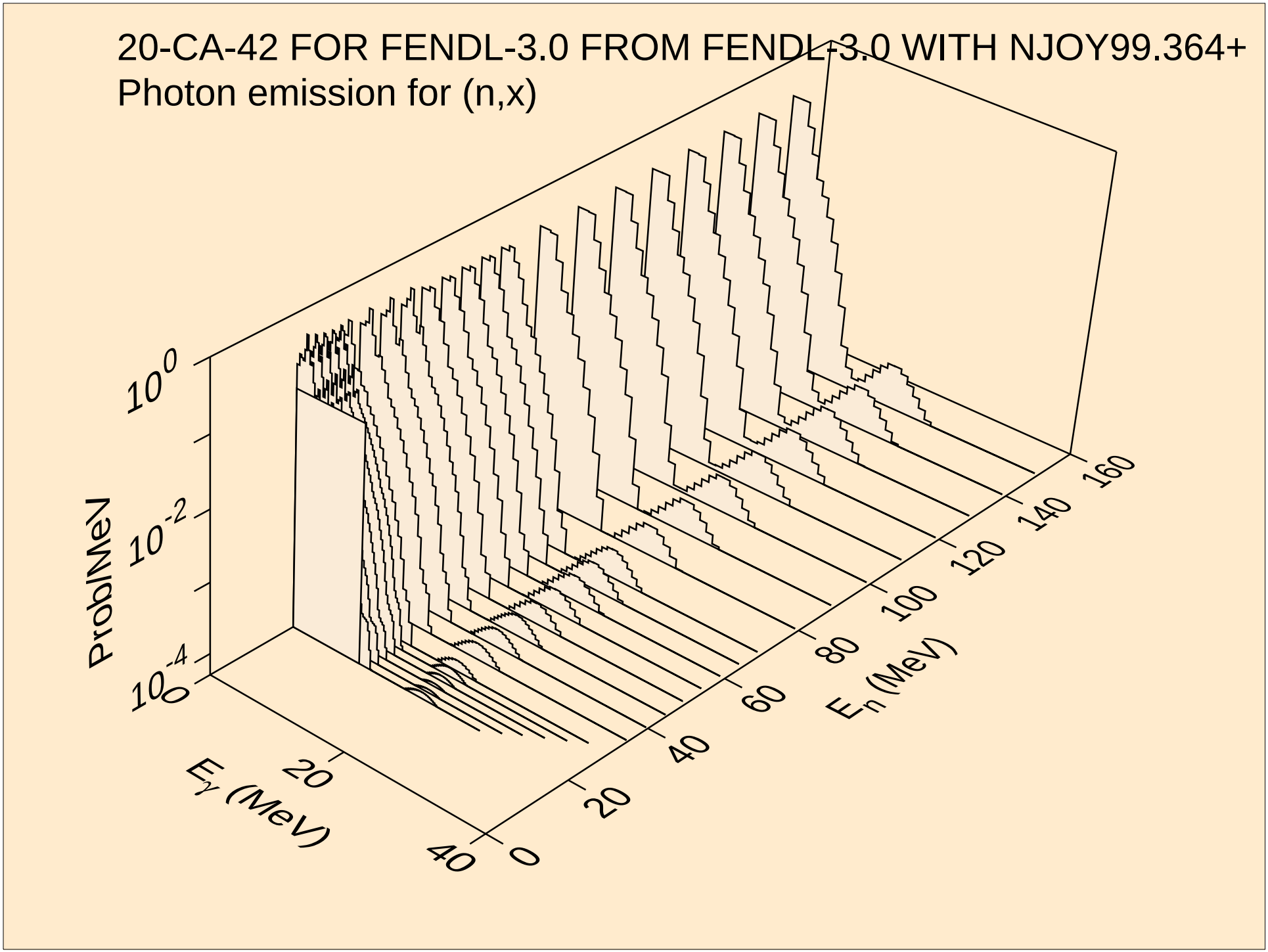

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Neutron emission for (n,x)
Prob/MeV
10-2
10-4
0
50
100
150
Sec. Energy
0
20
40
60
80
100
120
140
160
Energy (MeV)

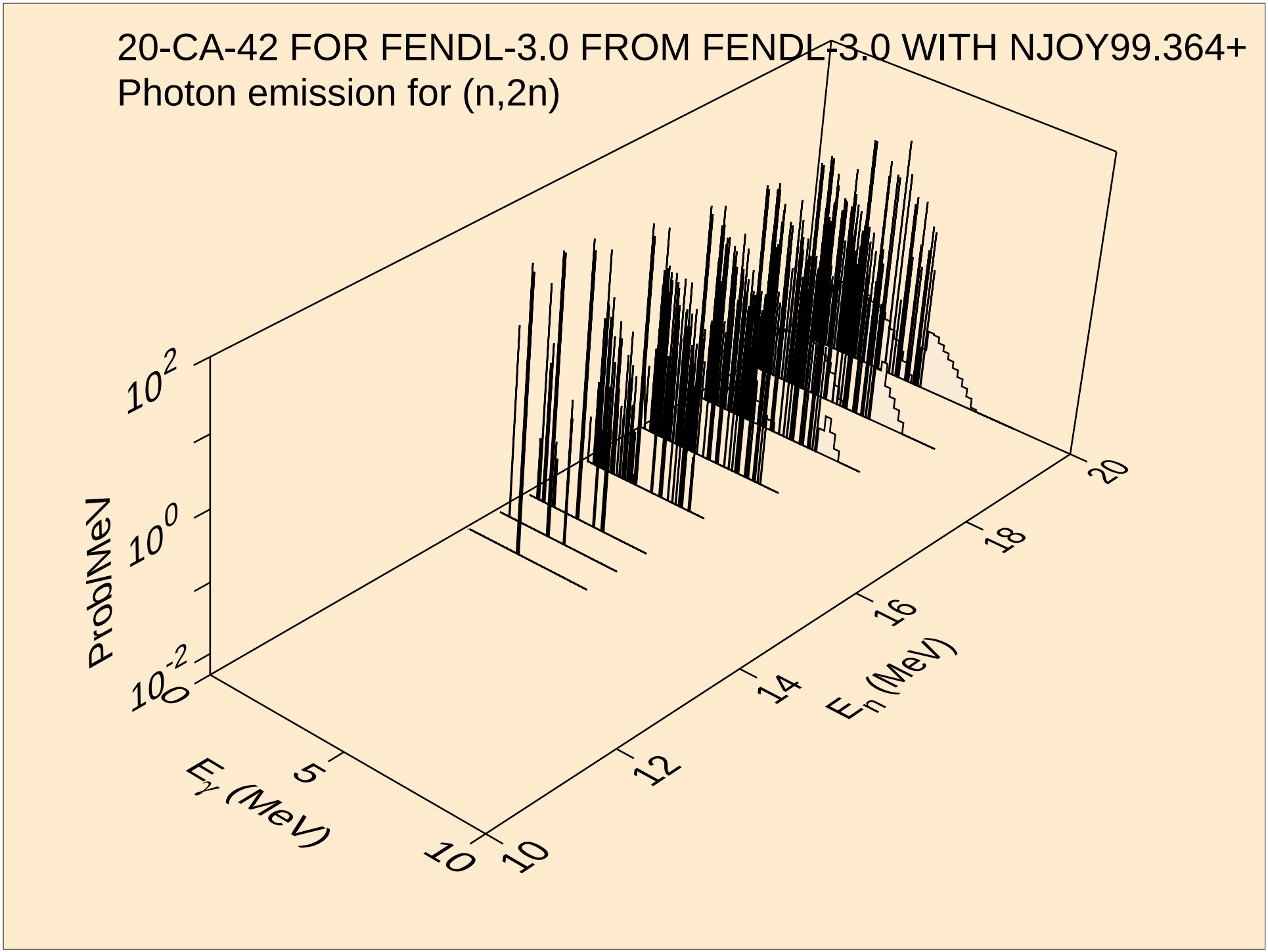

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Neutron emission for (n,2n)
Prob/MeV
10-1
10-3
0
2
4
6
8
10
Sec. Energy
10
12
14
16
18
20
Energy (MeV)

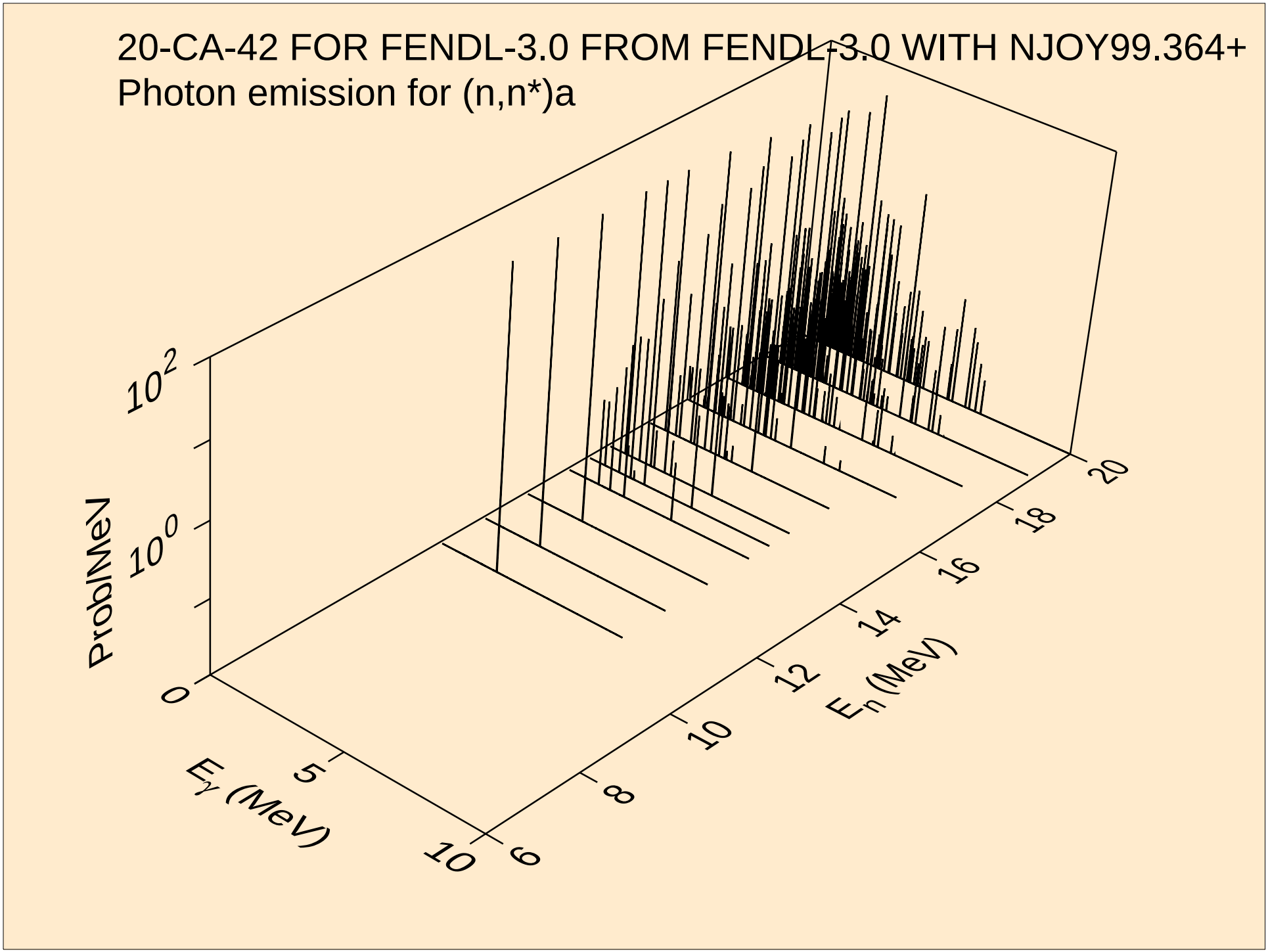

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Neutron emission for (n,n*)a
Prob/MeV
10-1
10-3
0
5
10
15
Sec. Energy
6
8
10
12
14
16
18
20
Energy (MeV)

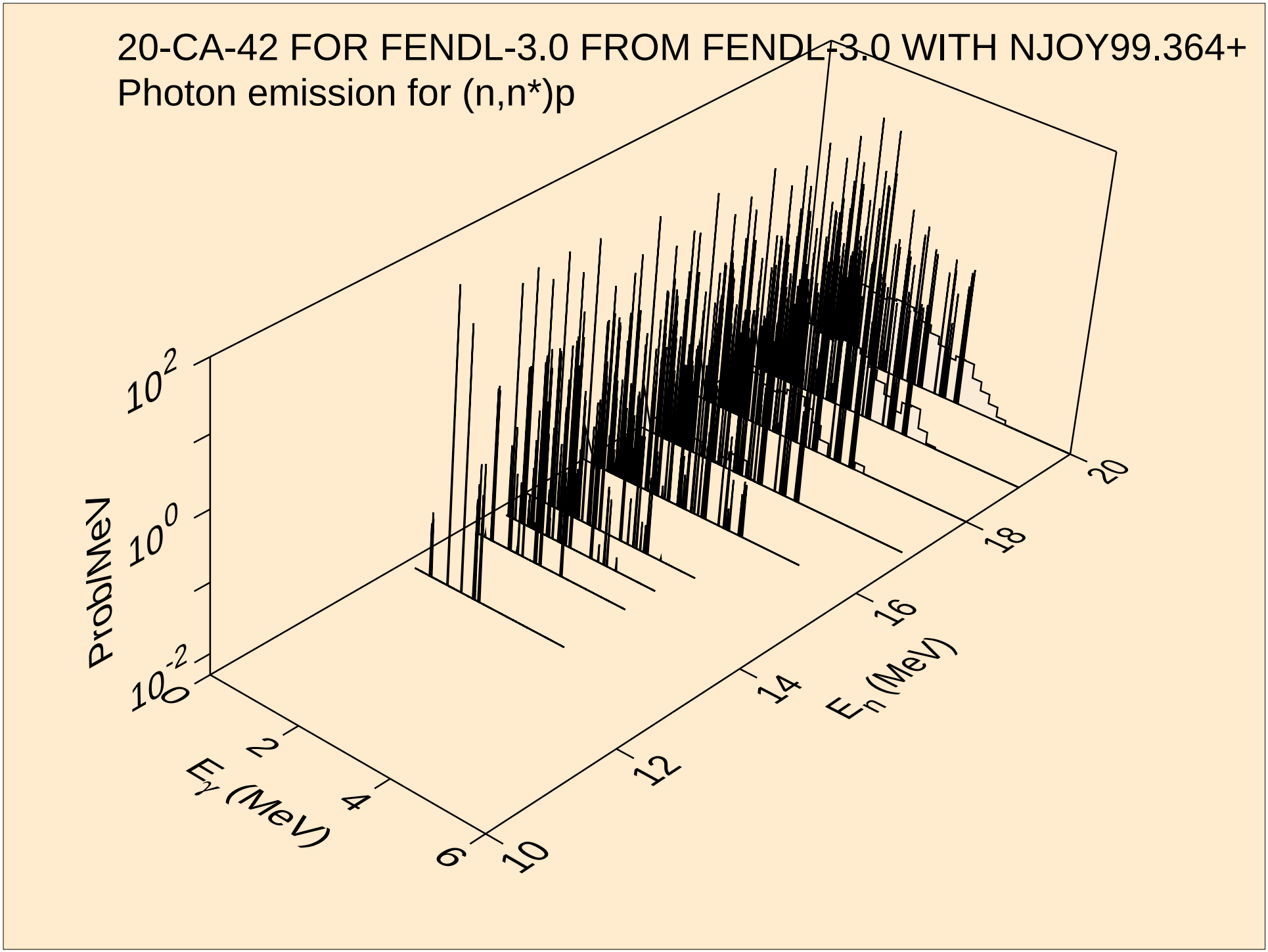

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Neutron emission for (n,n*)p
Prob/MeV
10-1
10-3
0
2
4
6
8
10
Sec. Energy
10
12
14
16
18
20
Energy (MeV)

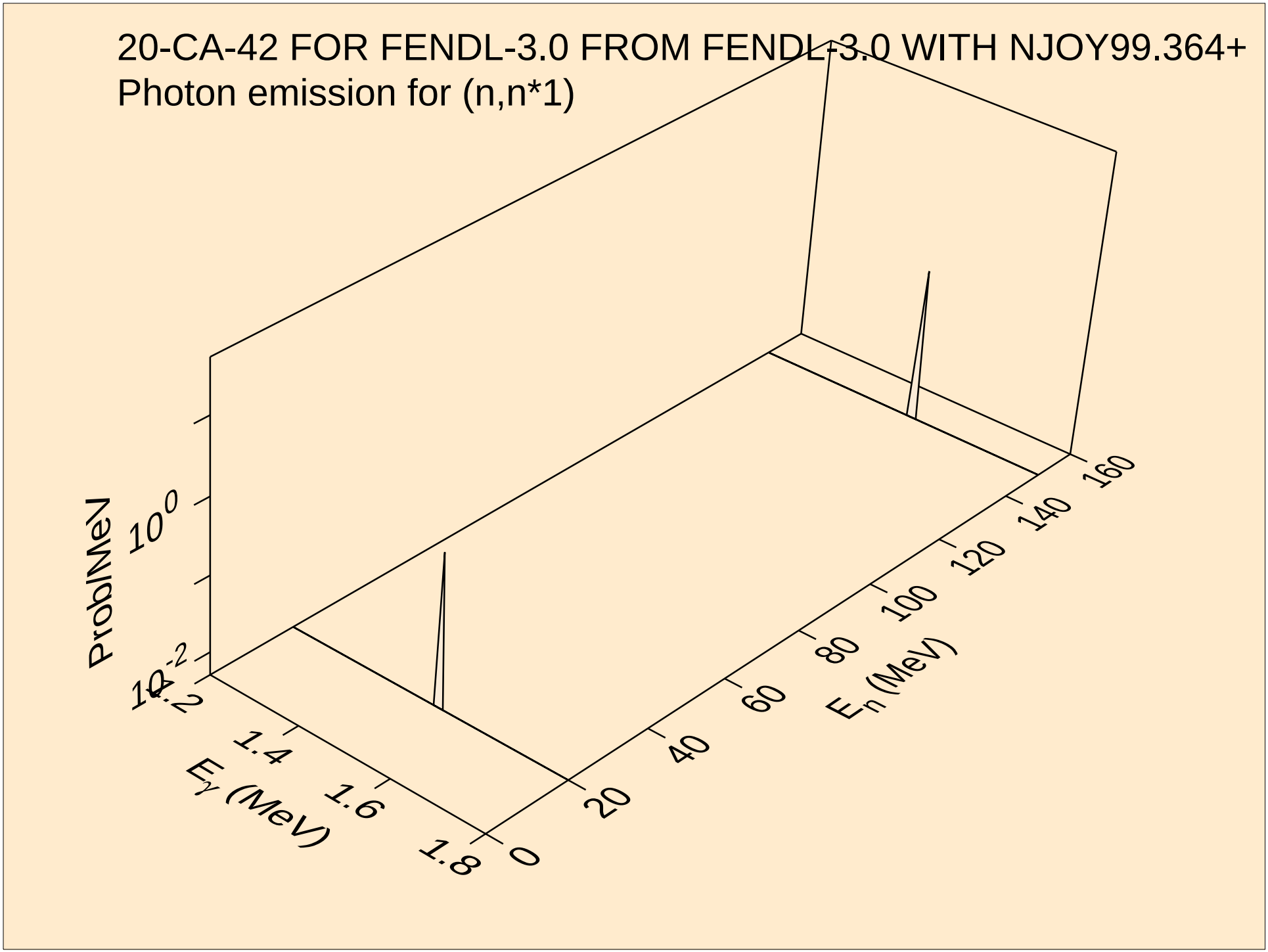

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Neutron emission for (n,n*c)
Prob/MeV
10-1
10-3
0
5
10
15
Sec. Energy
4
6
8
10
12
14
16
18
20
Energy (MeV)

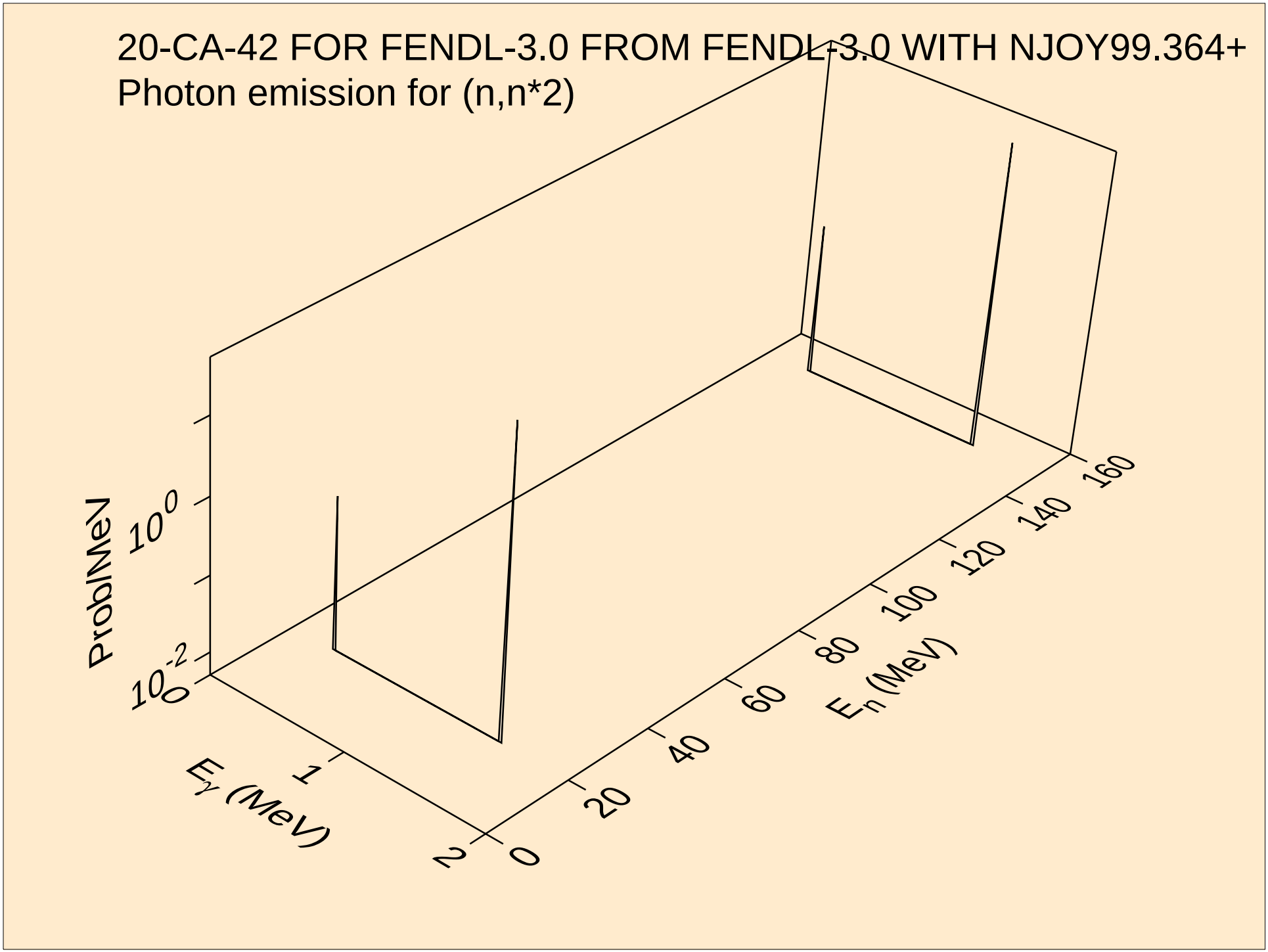

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,x)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
E_γ (MeV)
0
20
40
E_n (MeV)
0
20
40
60
80
100
120
140
160

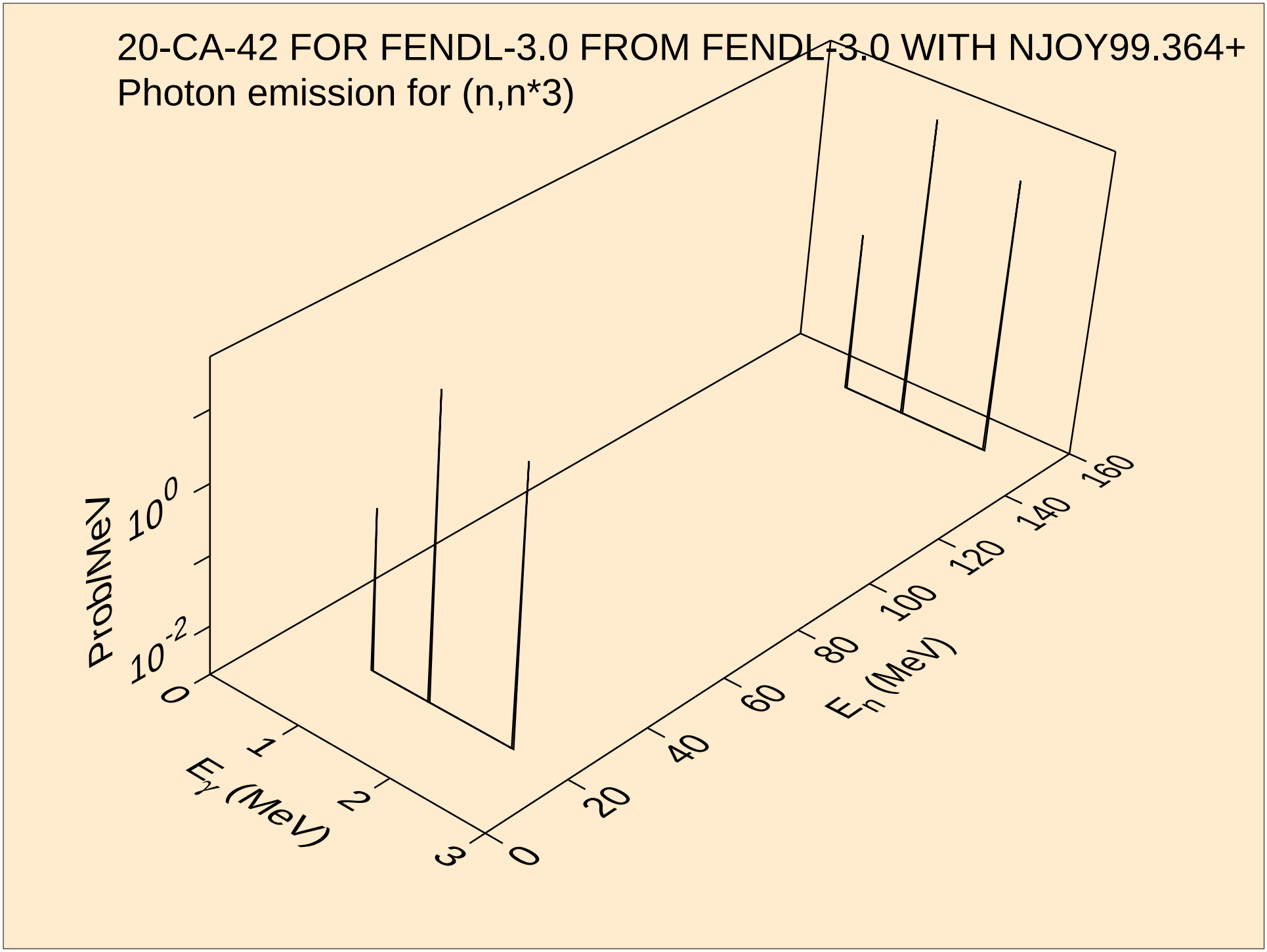

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,2n)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
5
10
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

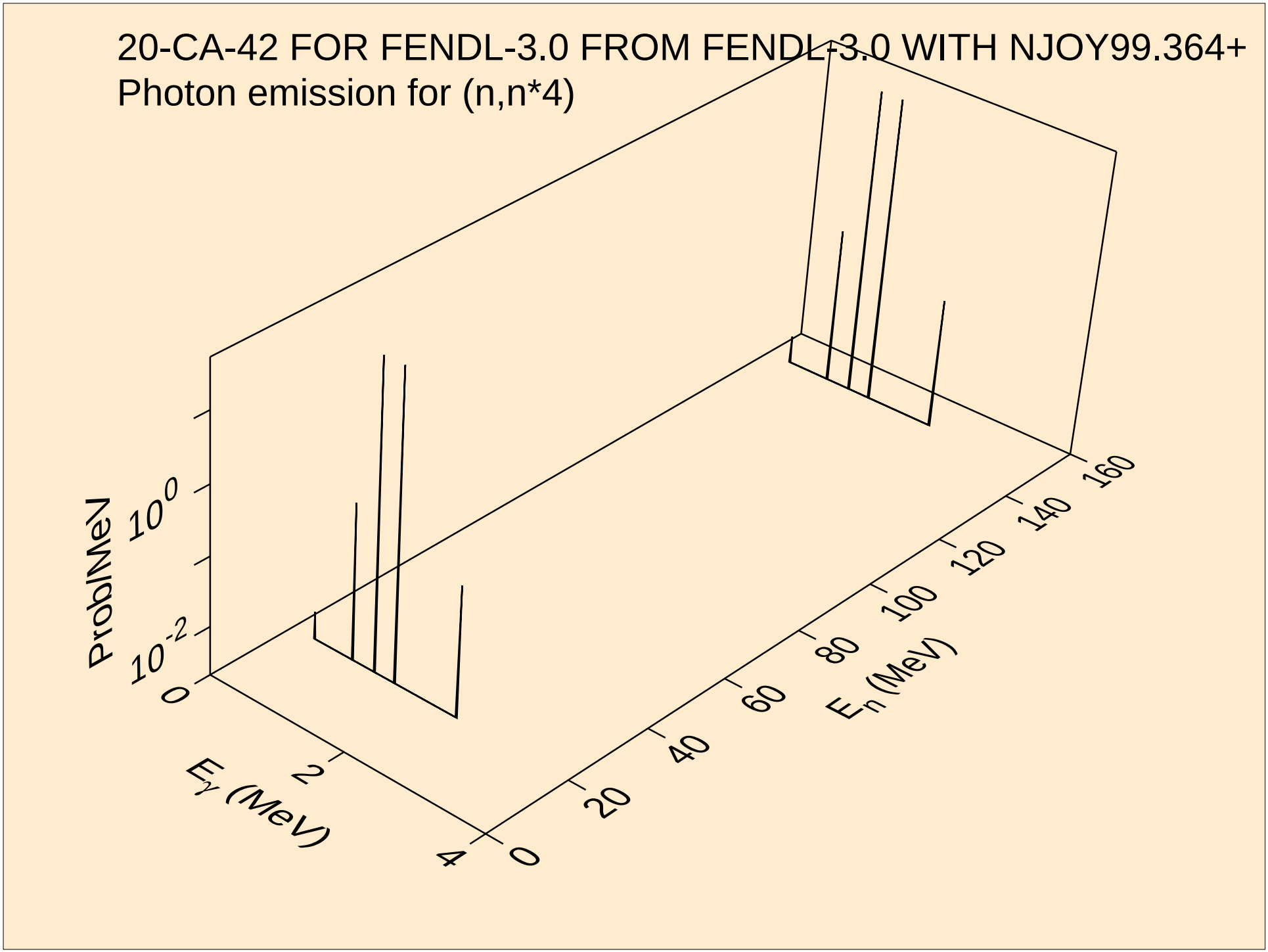

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*)a
Prob/MeV
10^2
10^0
0
E_γ (MeV)
5
10
6
8
10
12
14
16
18
20
E_n (MeV)

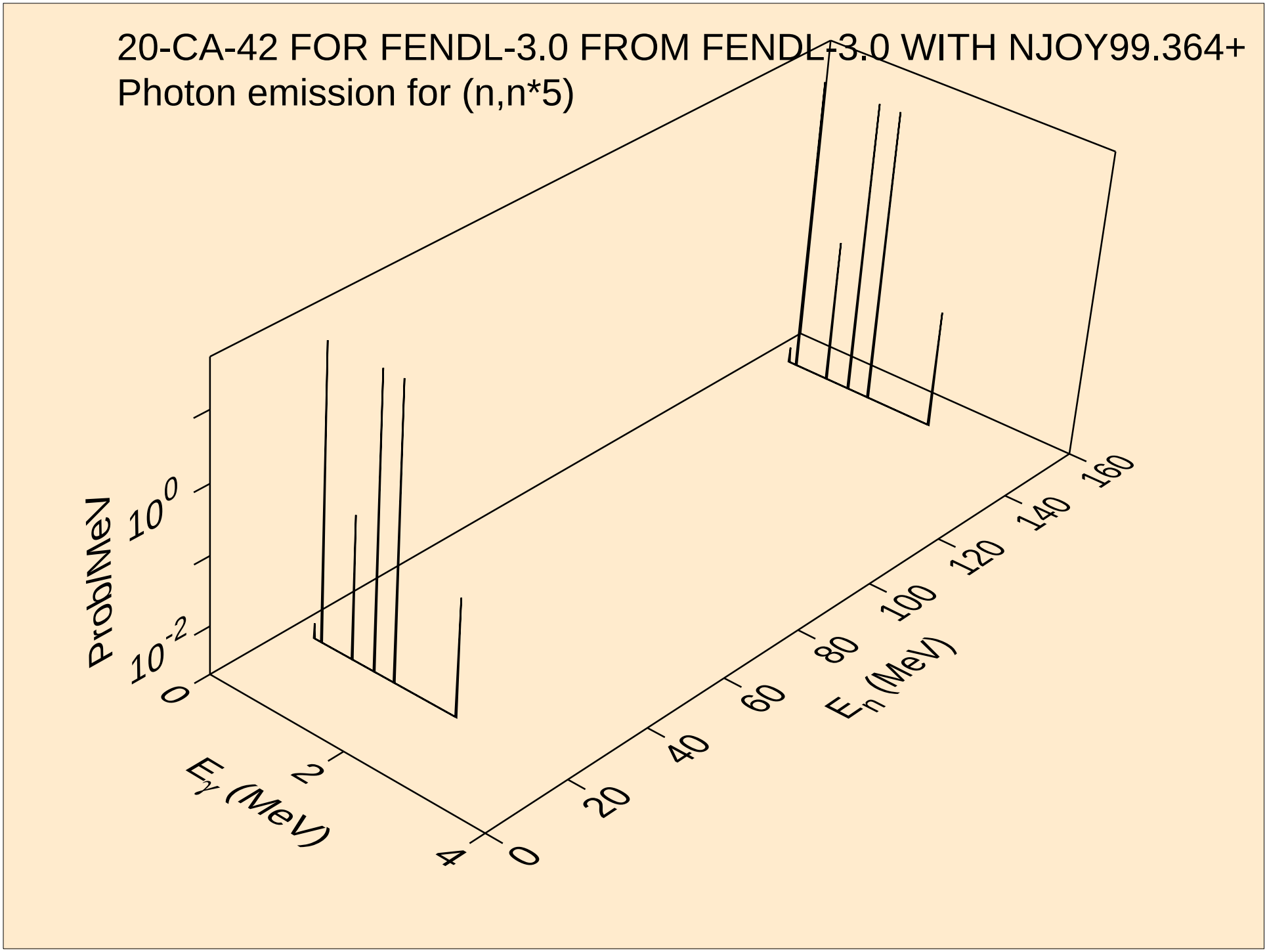

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*)p
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
2
4
6
E_γ (MeV)
10
12
14
16
18
20
E_n (MeV)

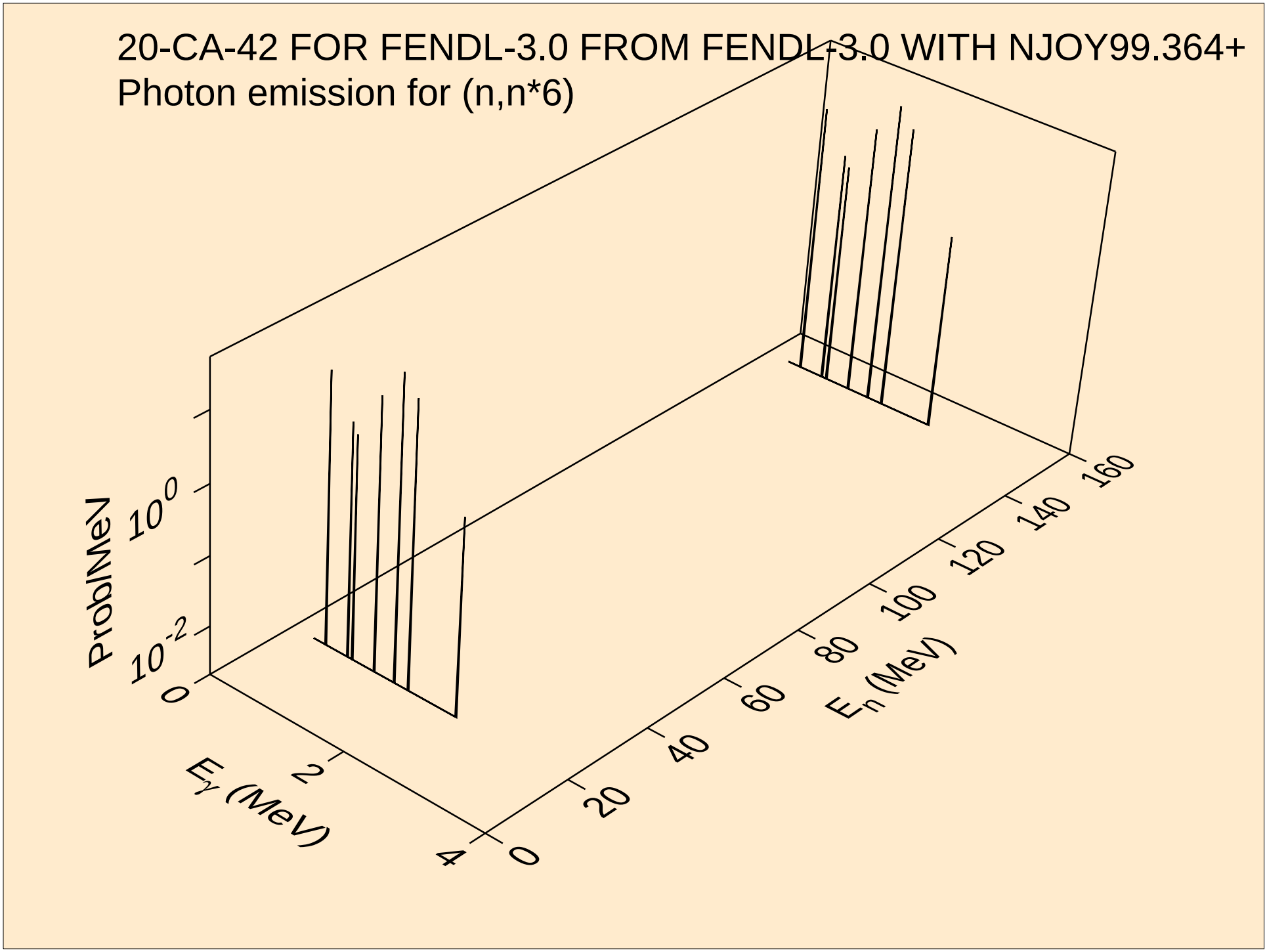

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*1)
Prob/MeV
10^{0}
10^{-2}
1.2
1.4
1.6
1.8
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

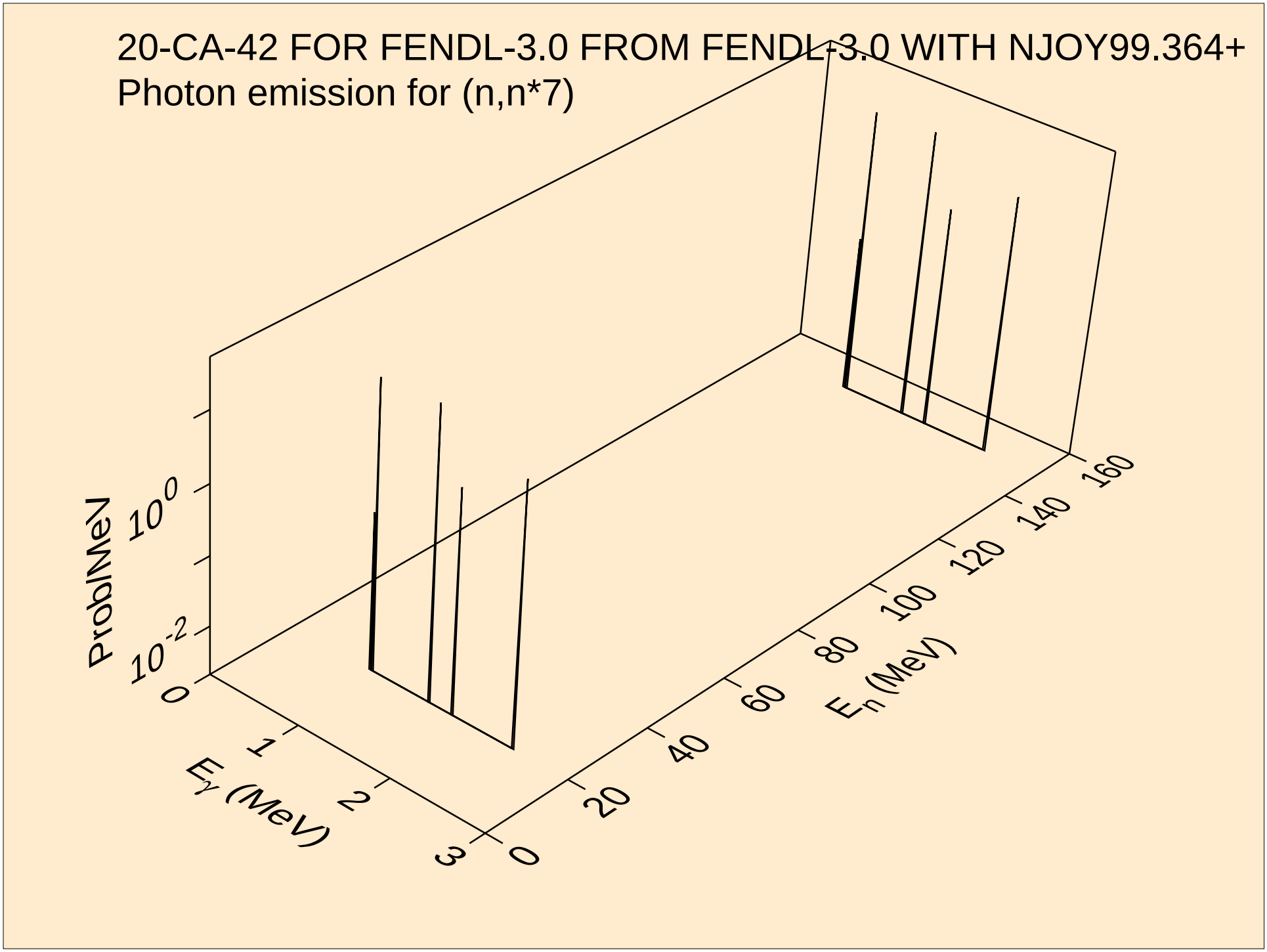

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*2)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

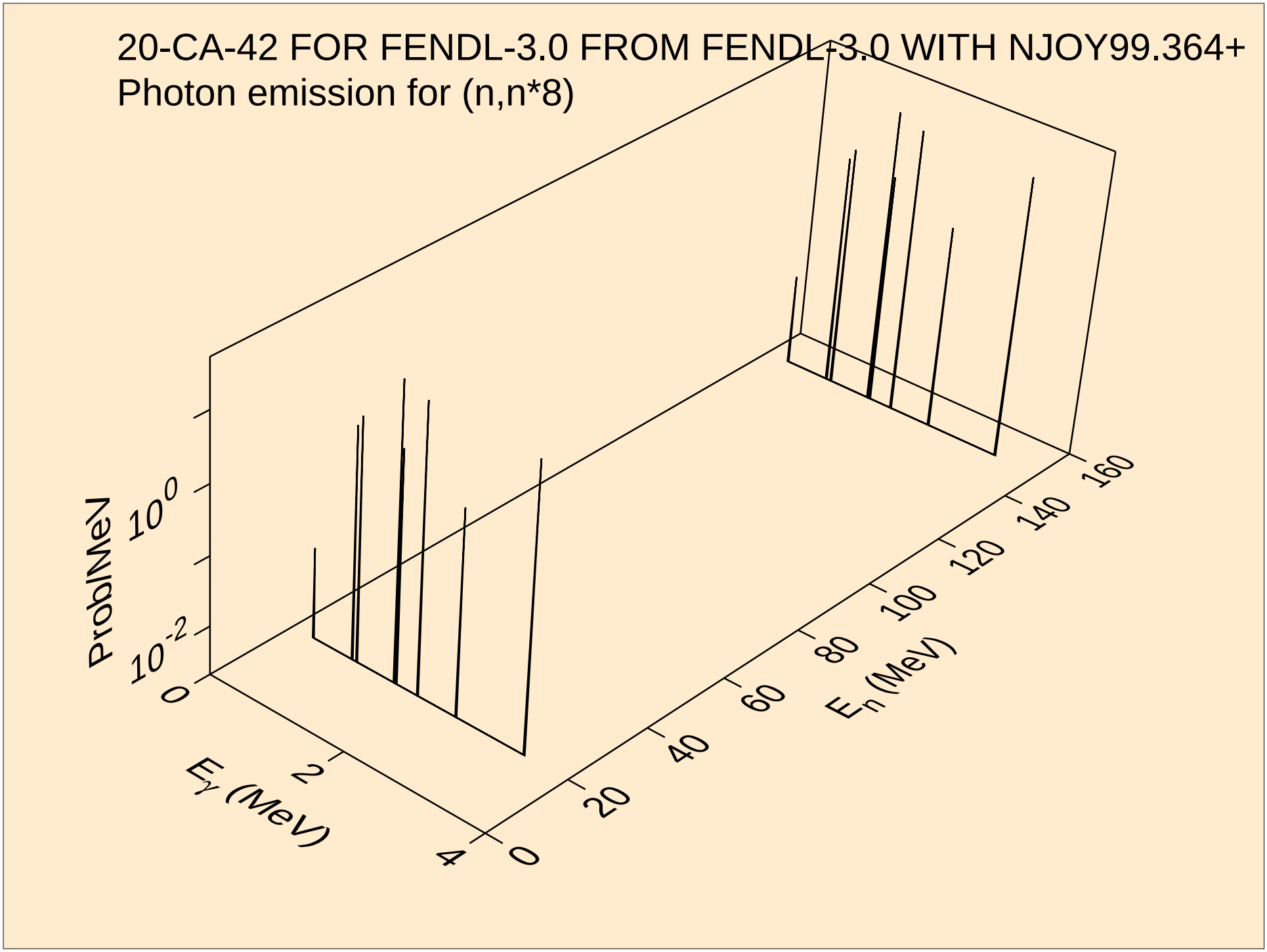

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*3)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

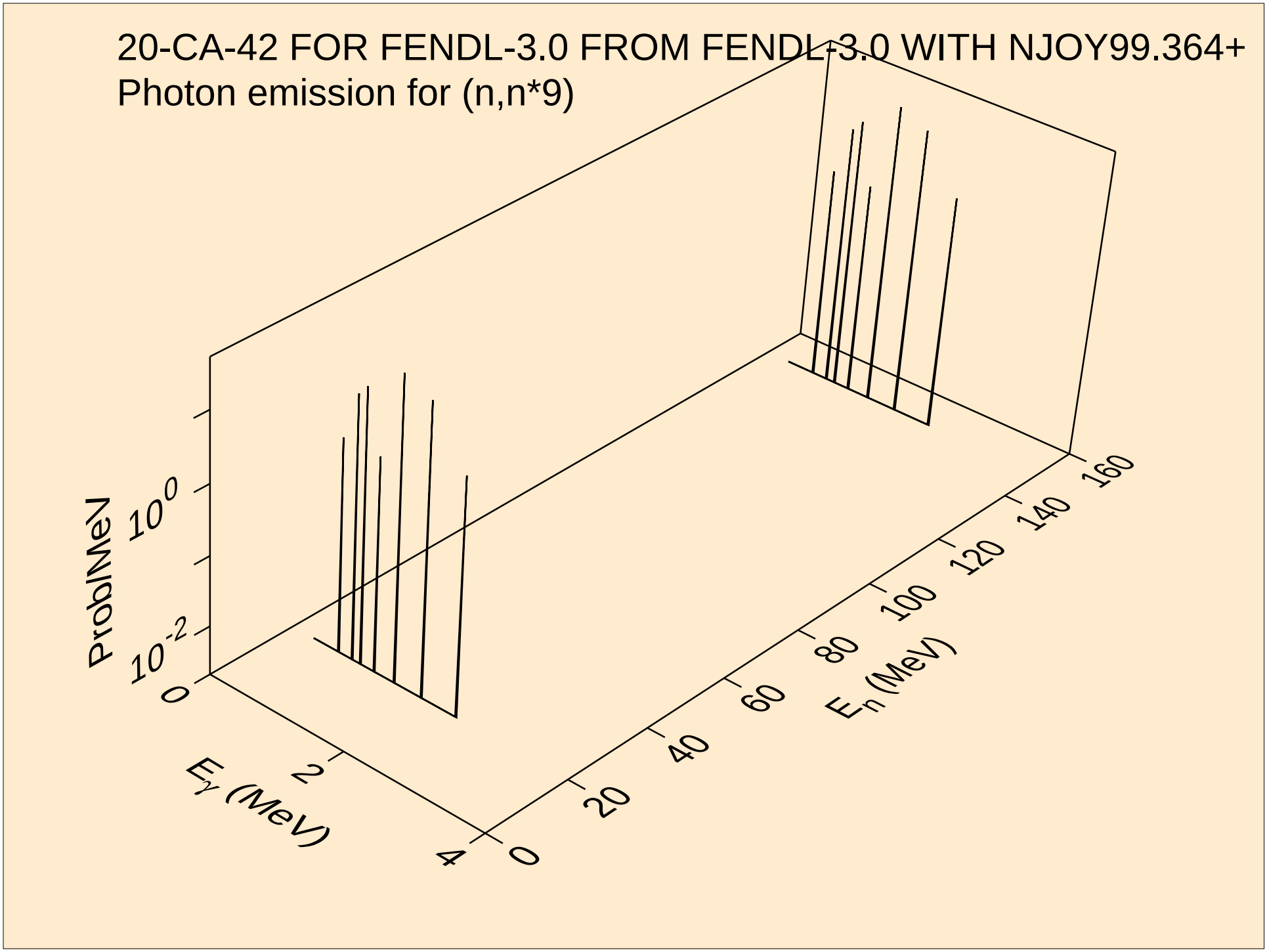

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*4)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

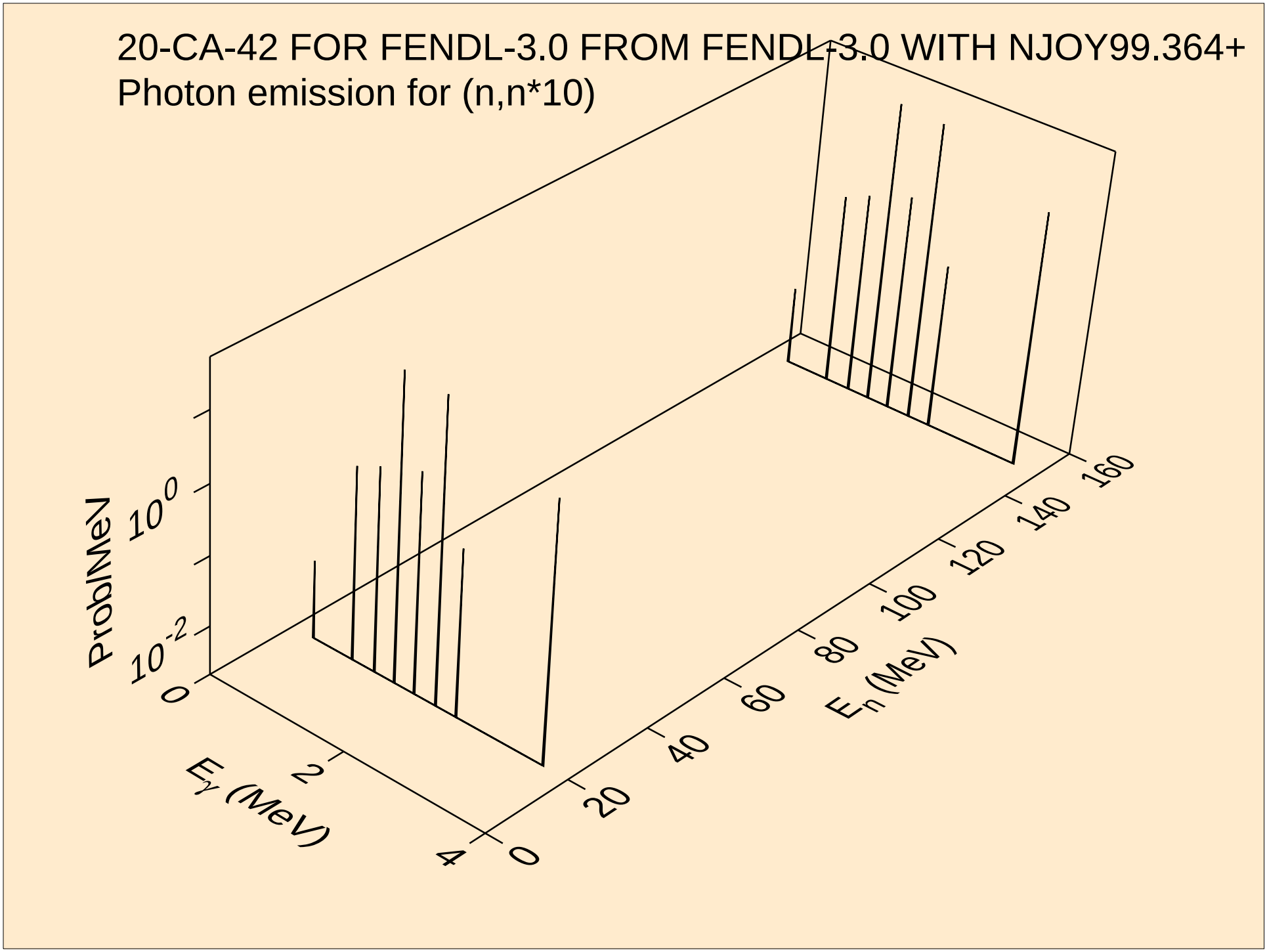

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*5)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

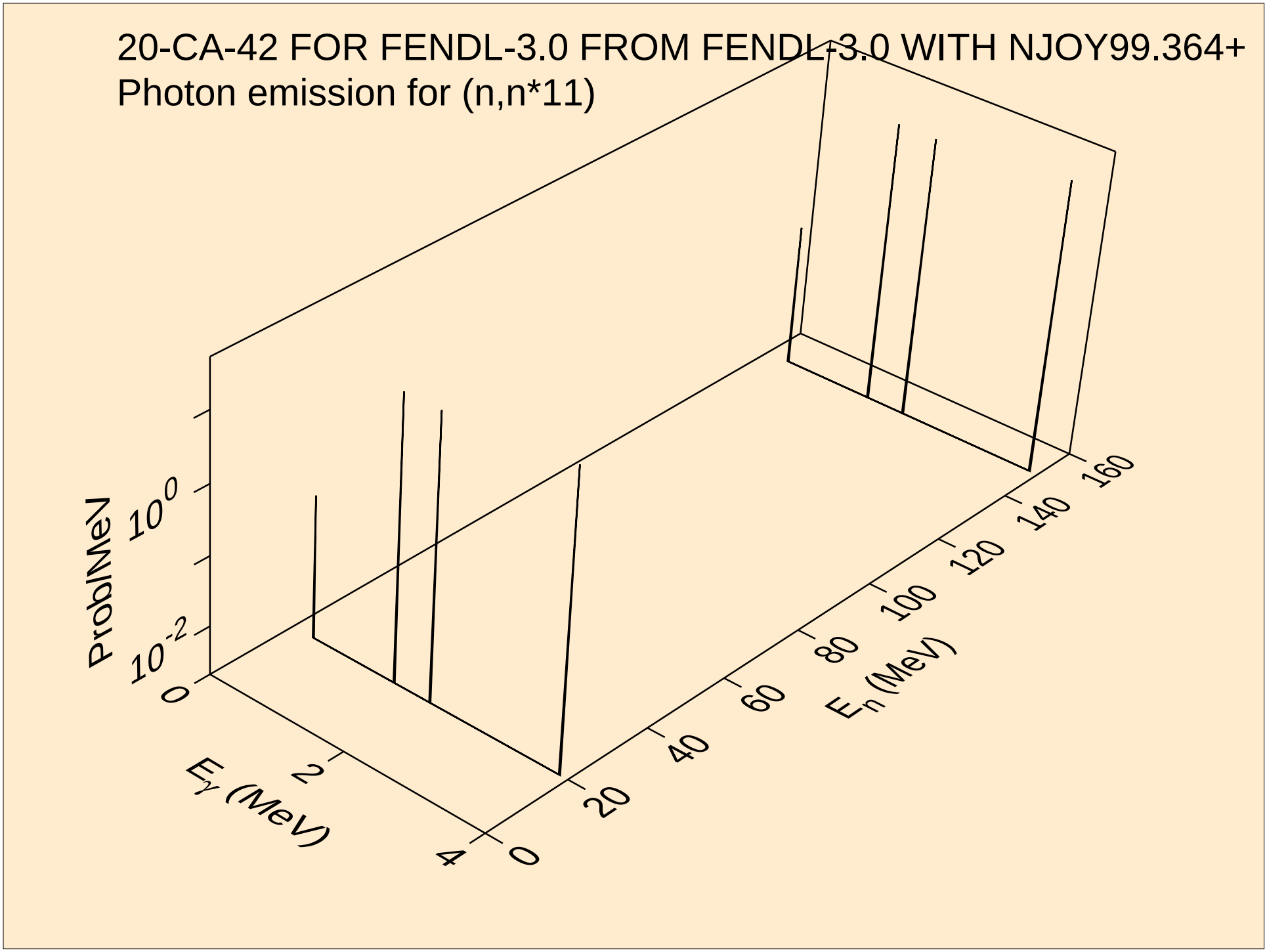

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*6)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

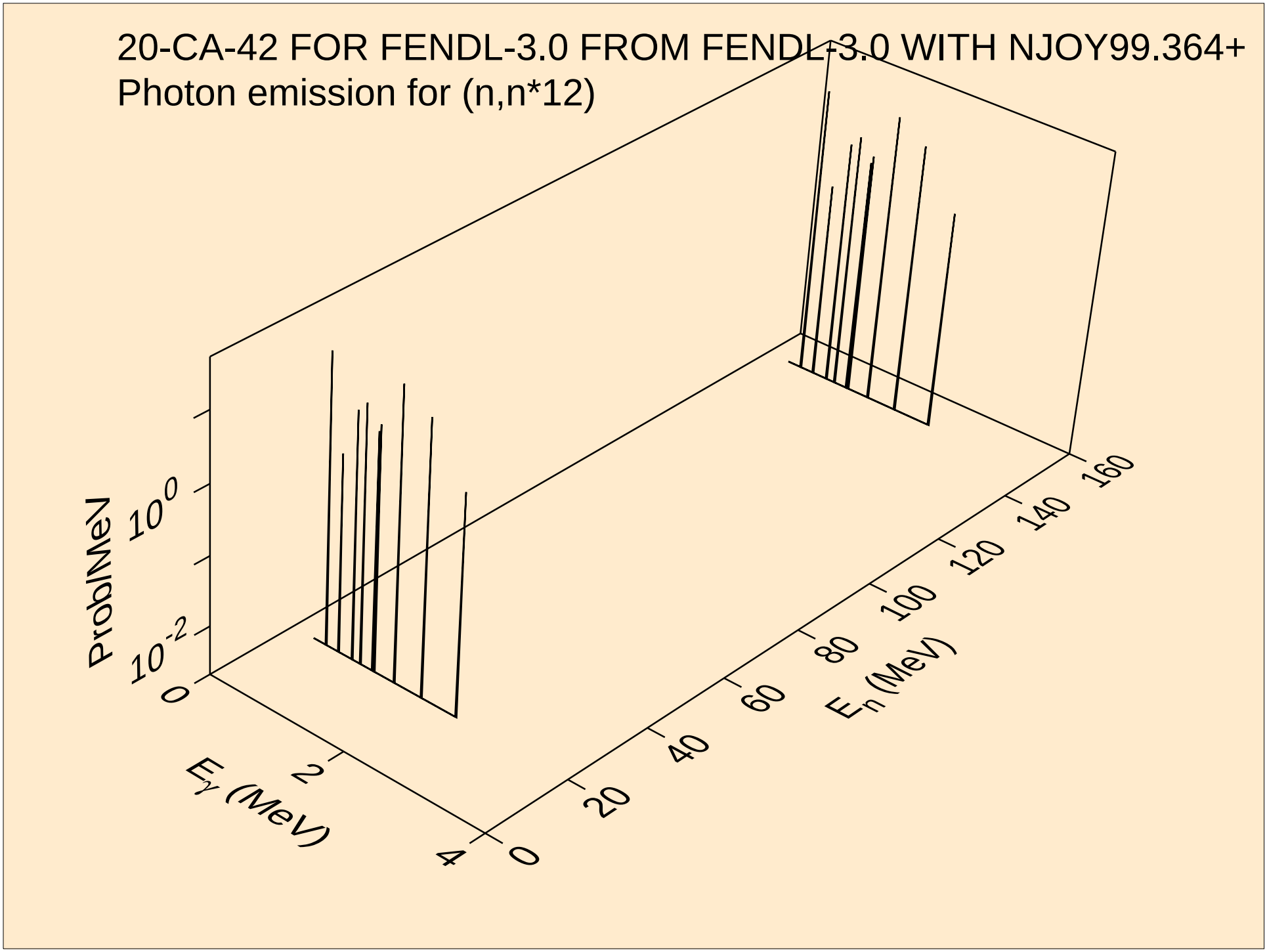

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*7)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

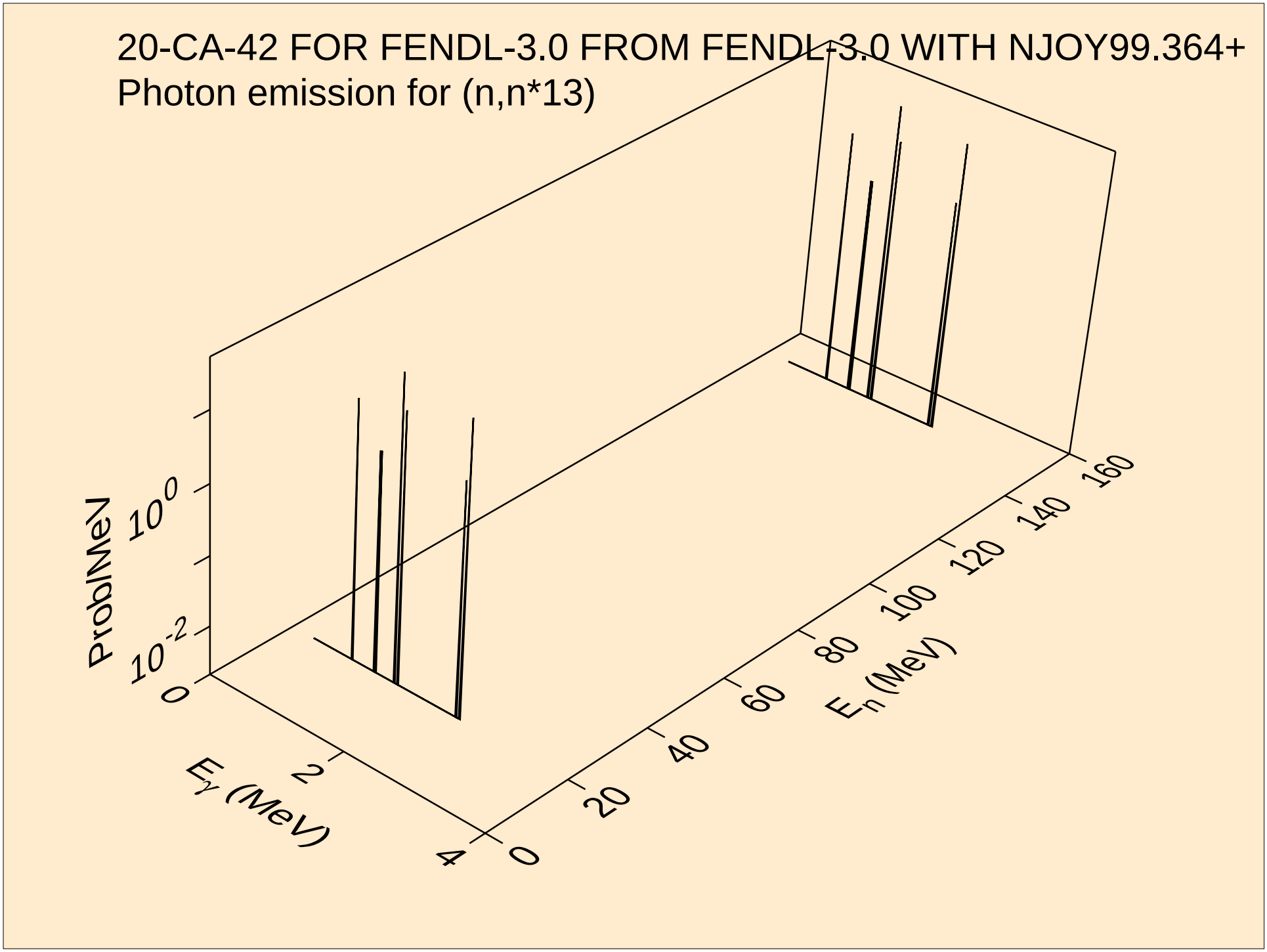

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*8)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

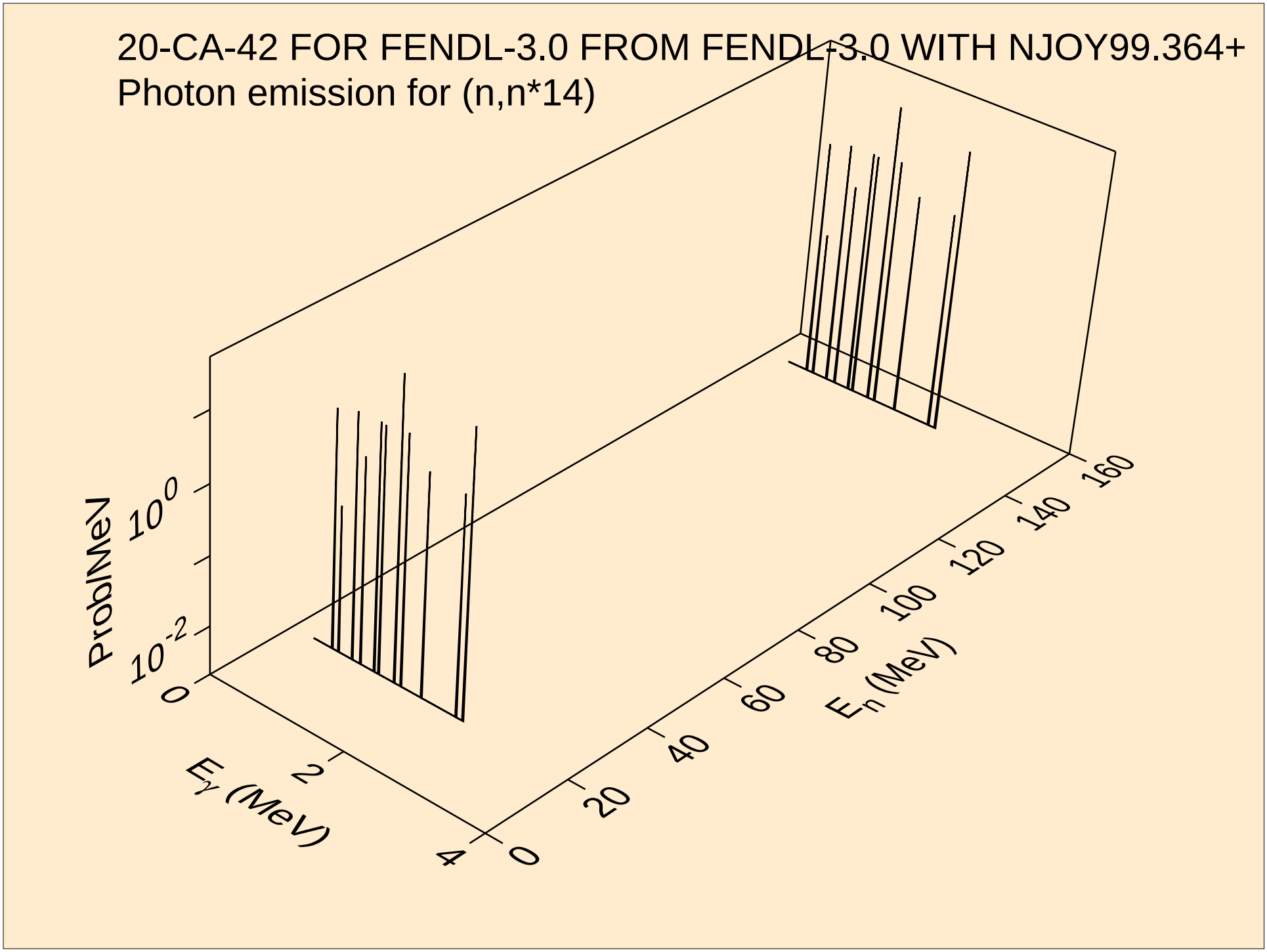

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*9)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

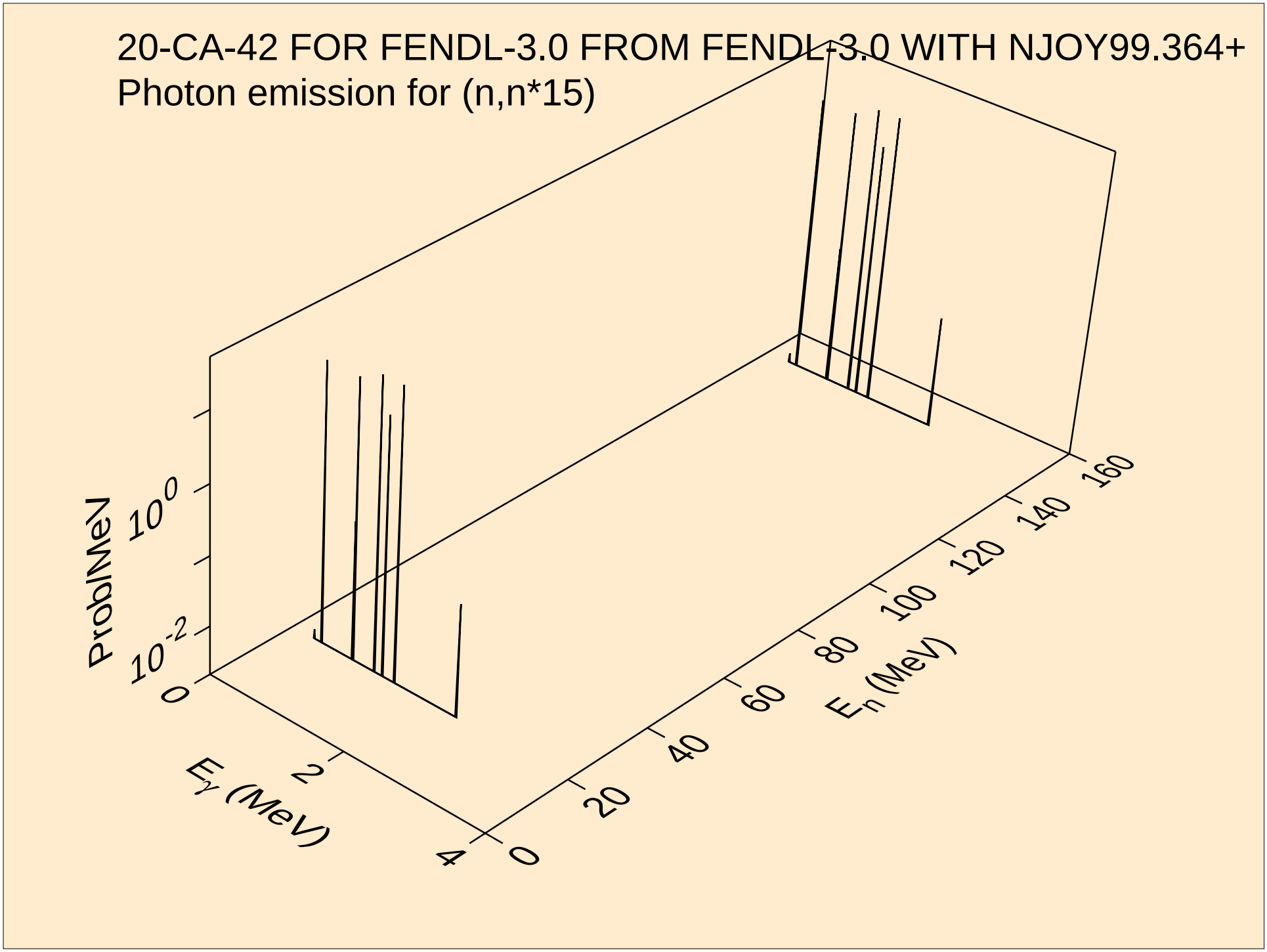

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*10)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

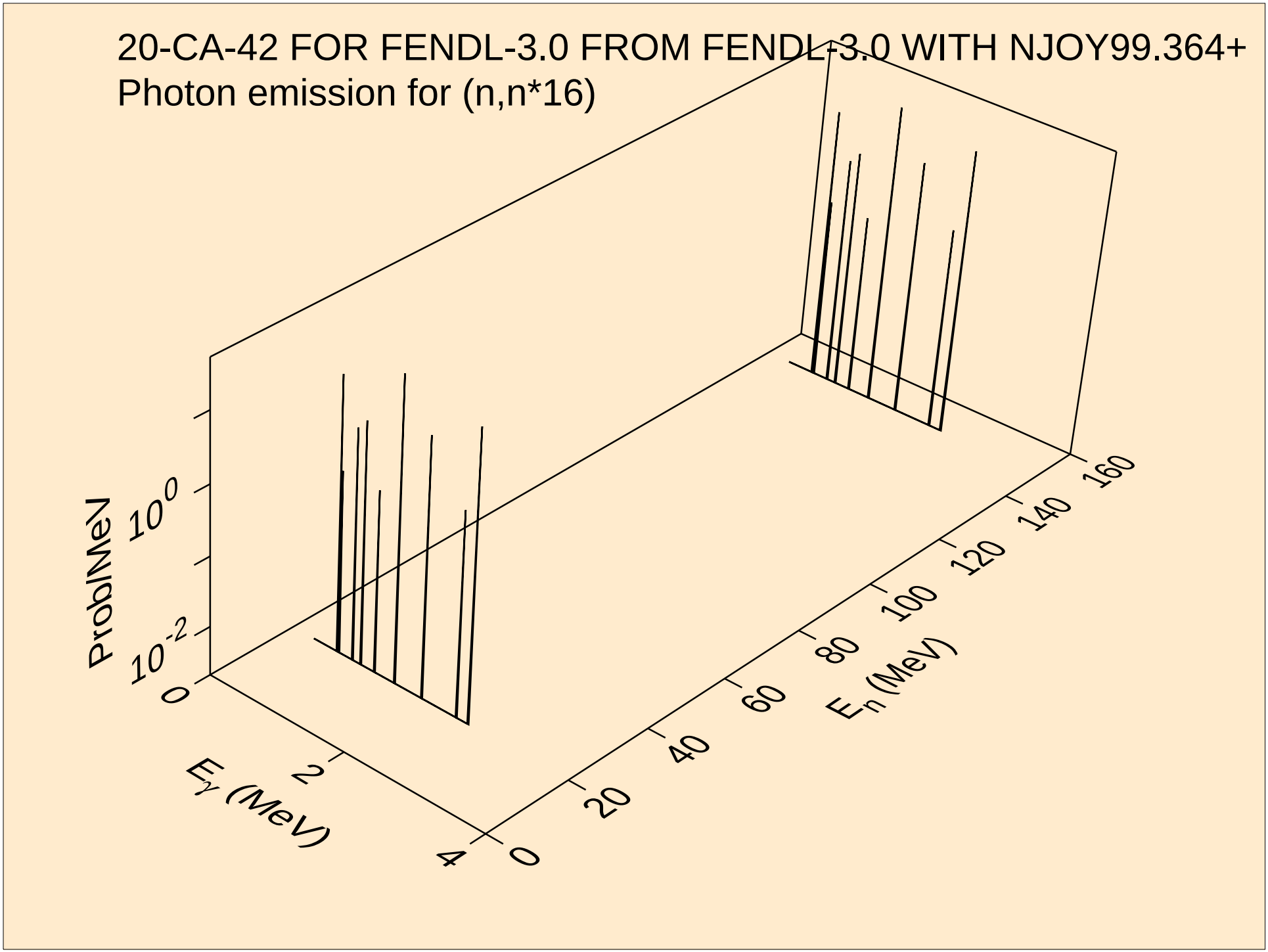

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*11)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

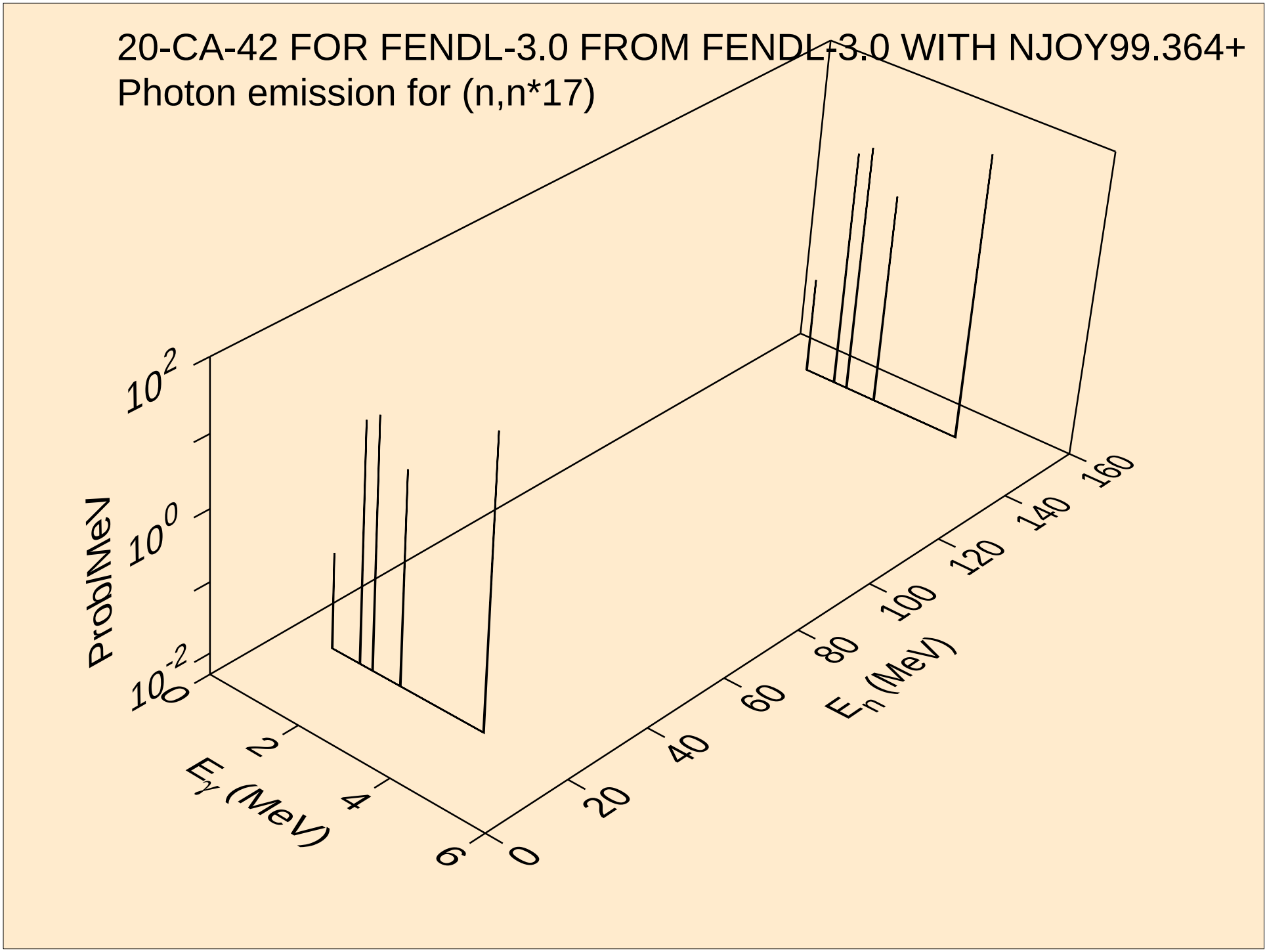

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*12)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

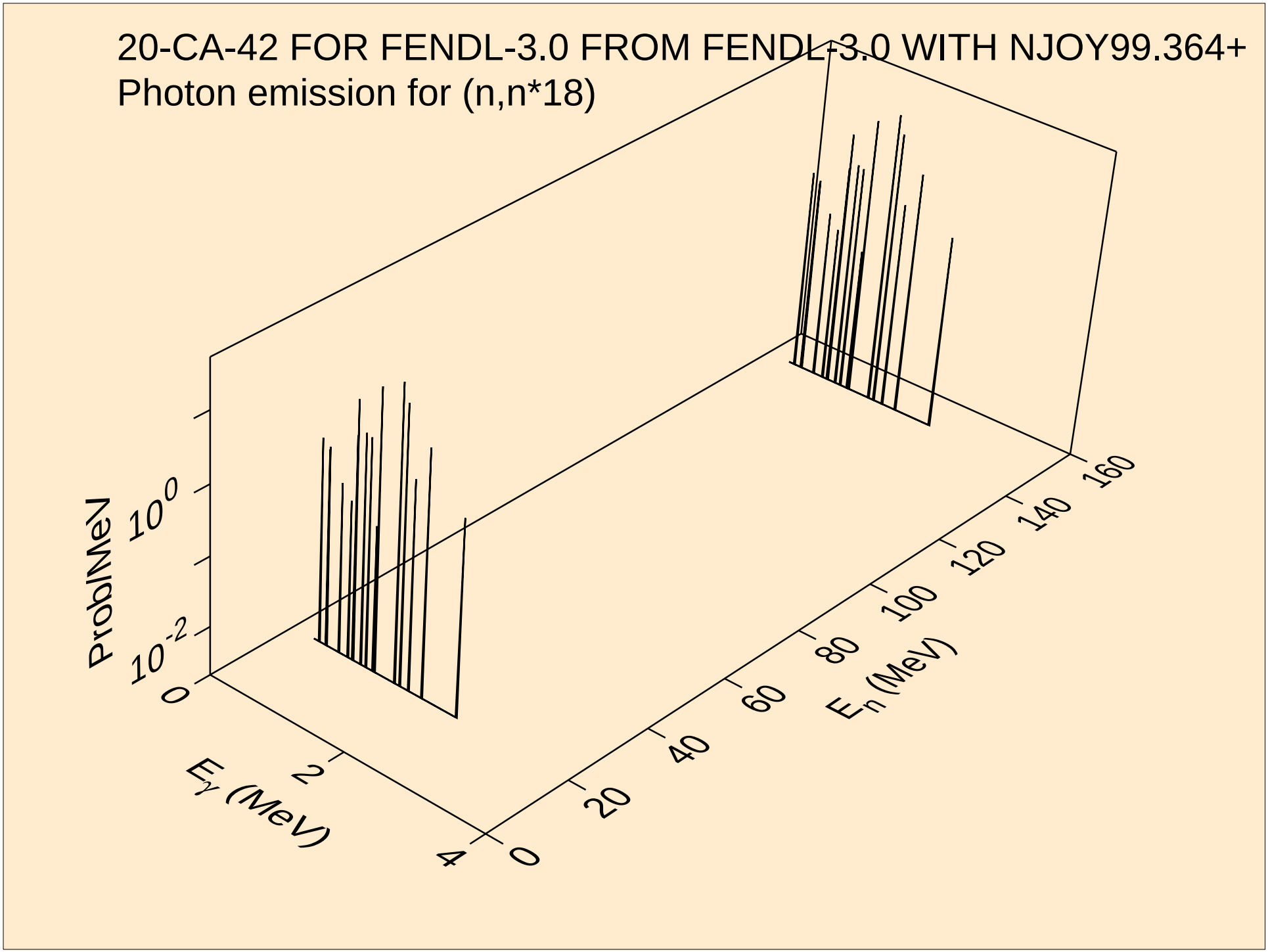

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*13)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

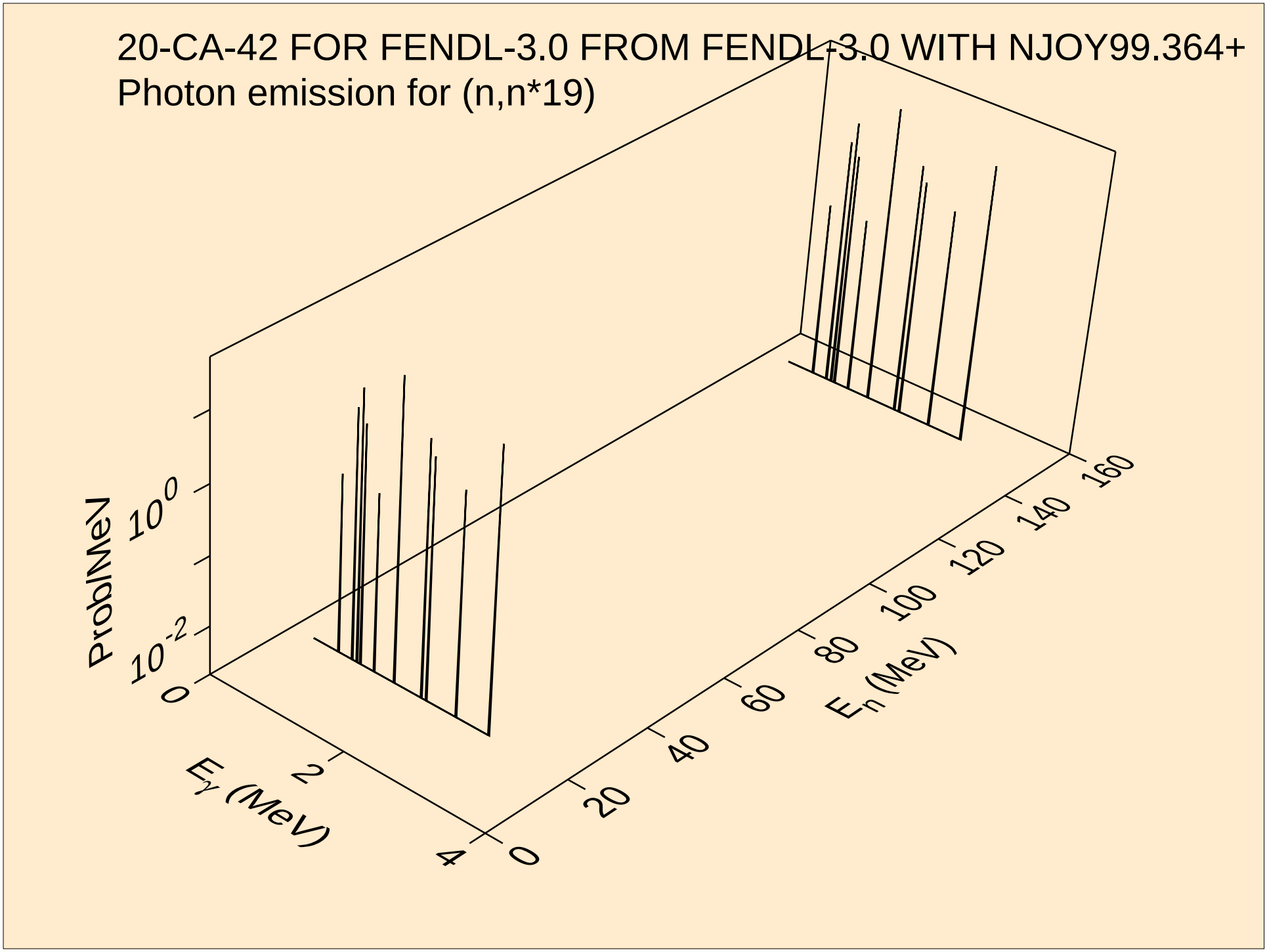

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*14)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

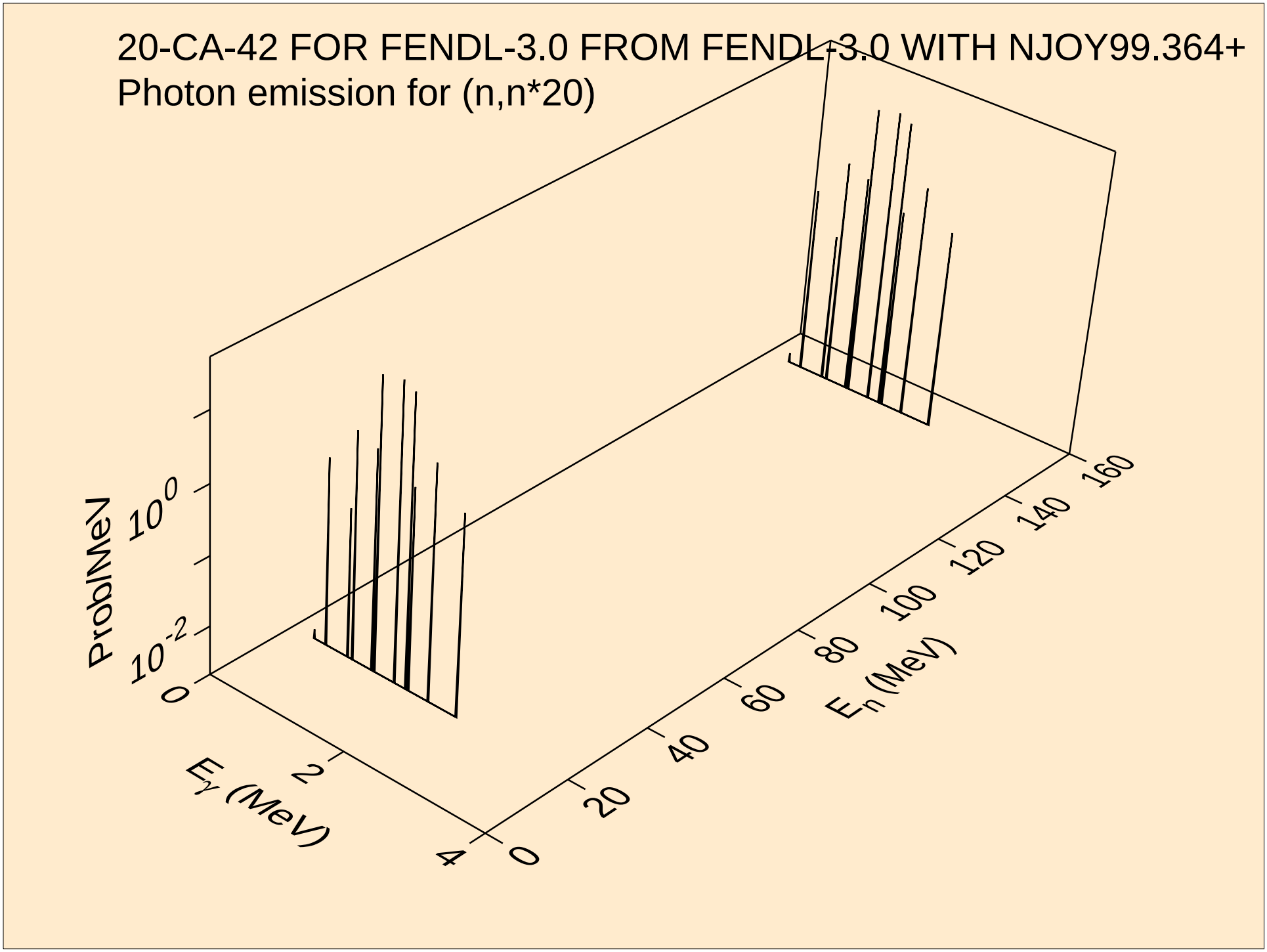

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*15)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

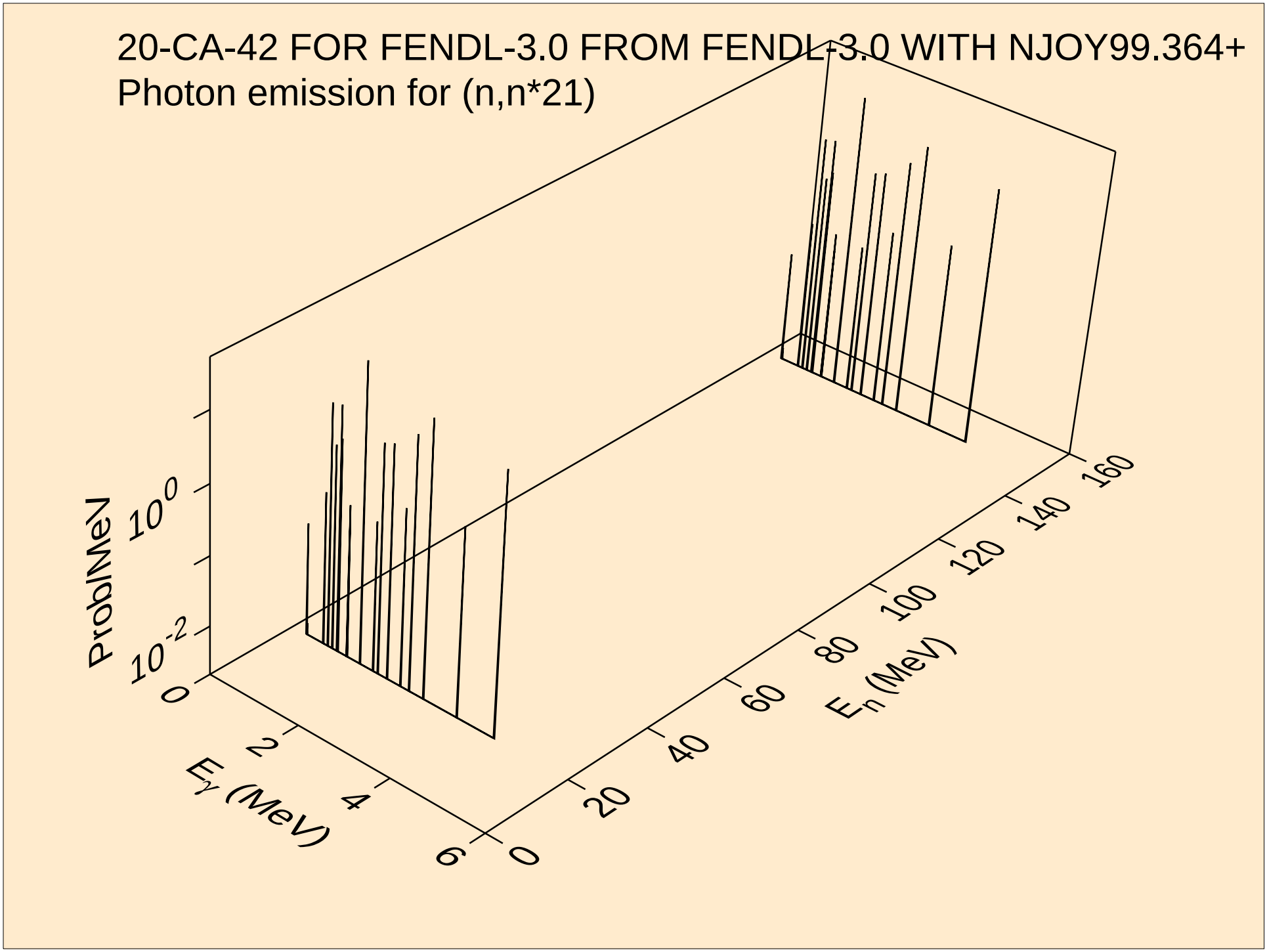

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*16)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

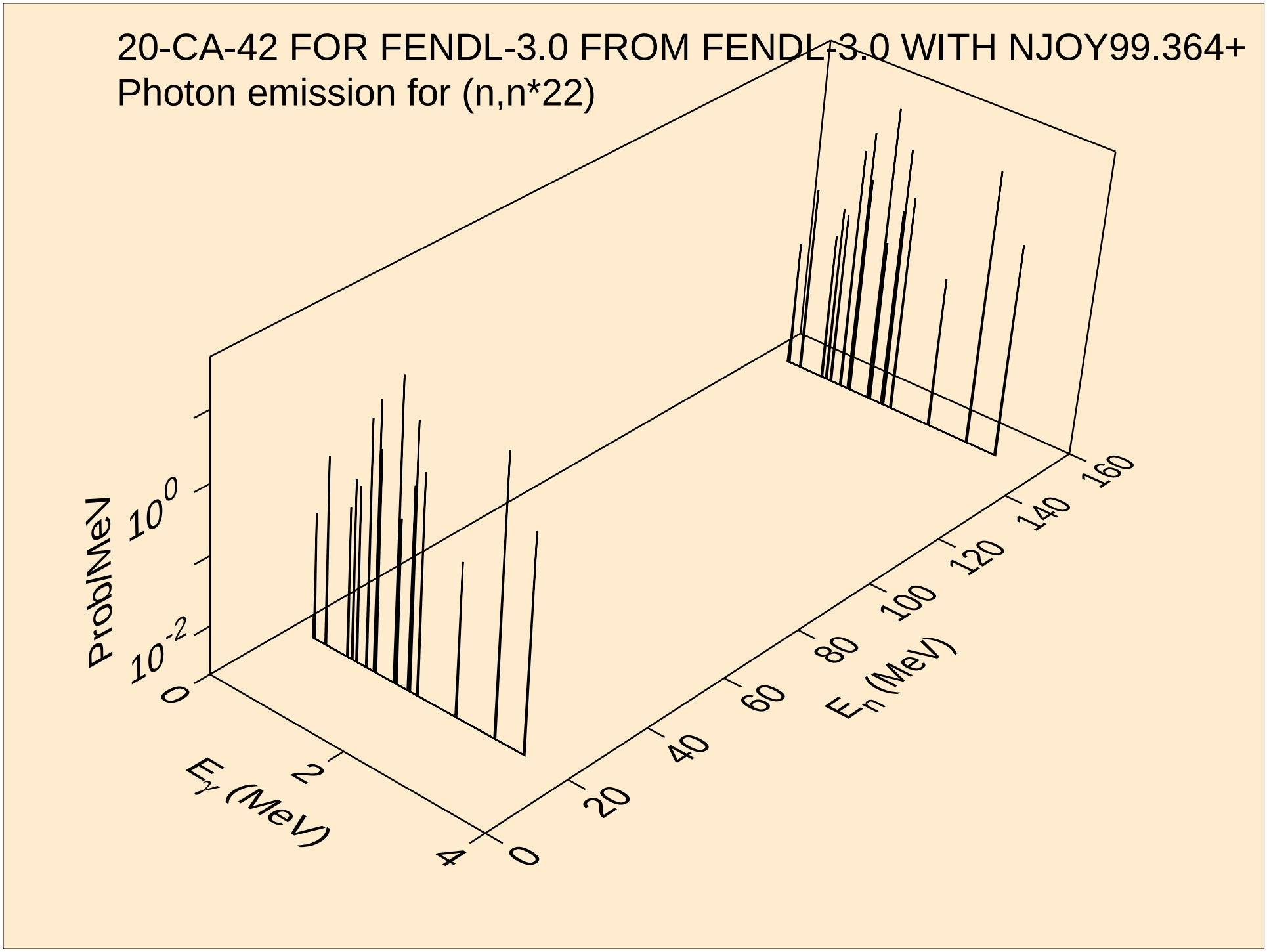

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*17)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
6
E_n (MeV)
0
20
40
60
80
100
120
140
160

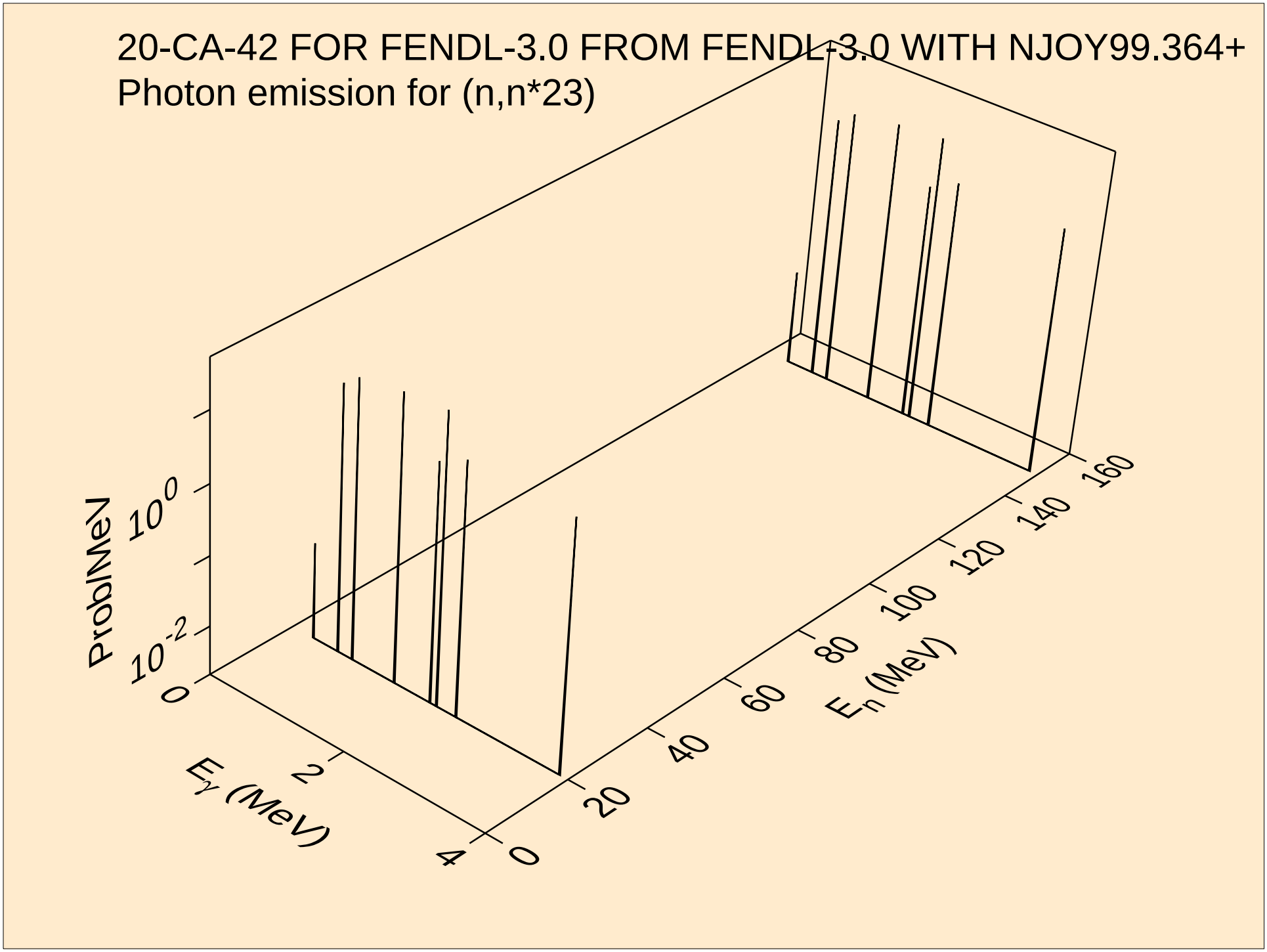

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*18)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

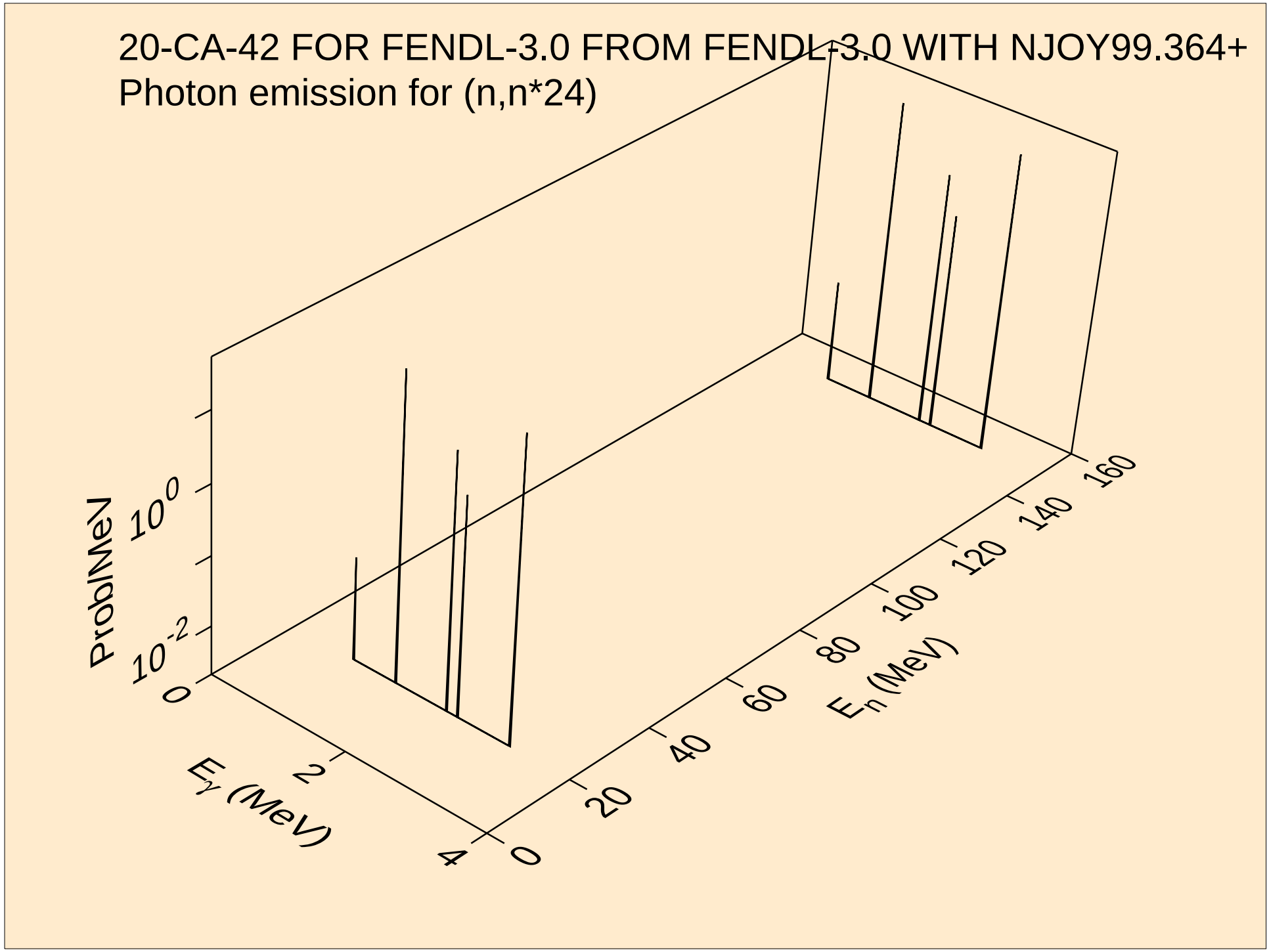

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*19)
Prob/MeV
10^0
10^-2
0
2
4
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

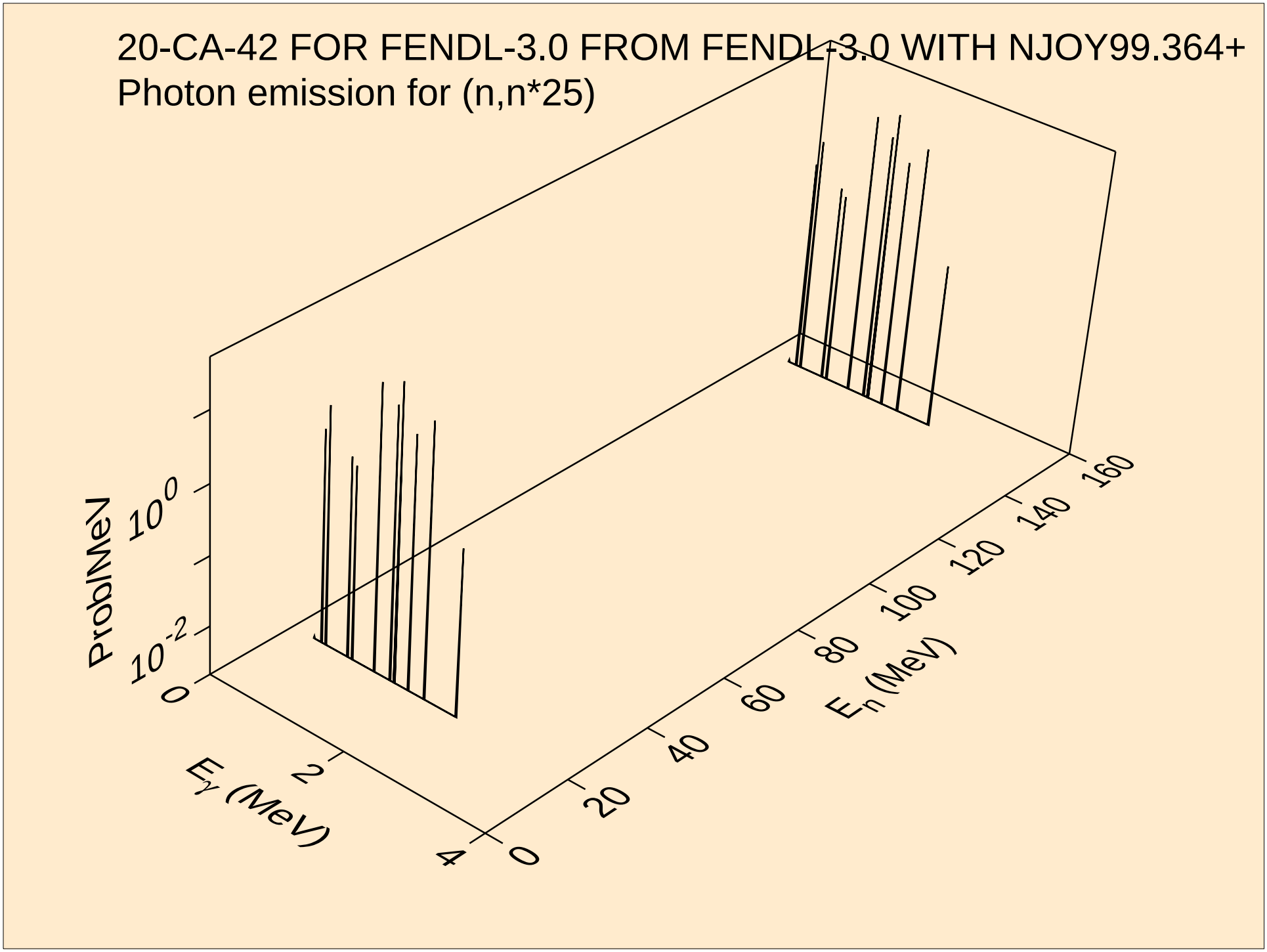

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*20)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

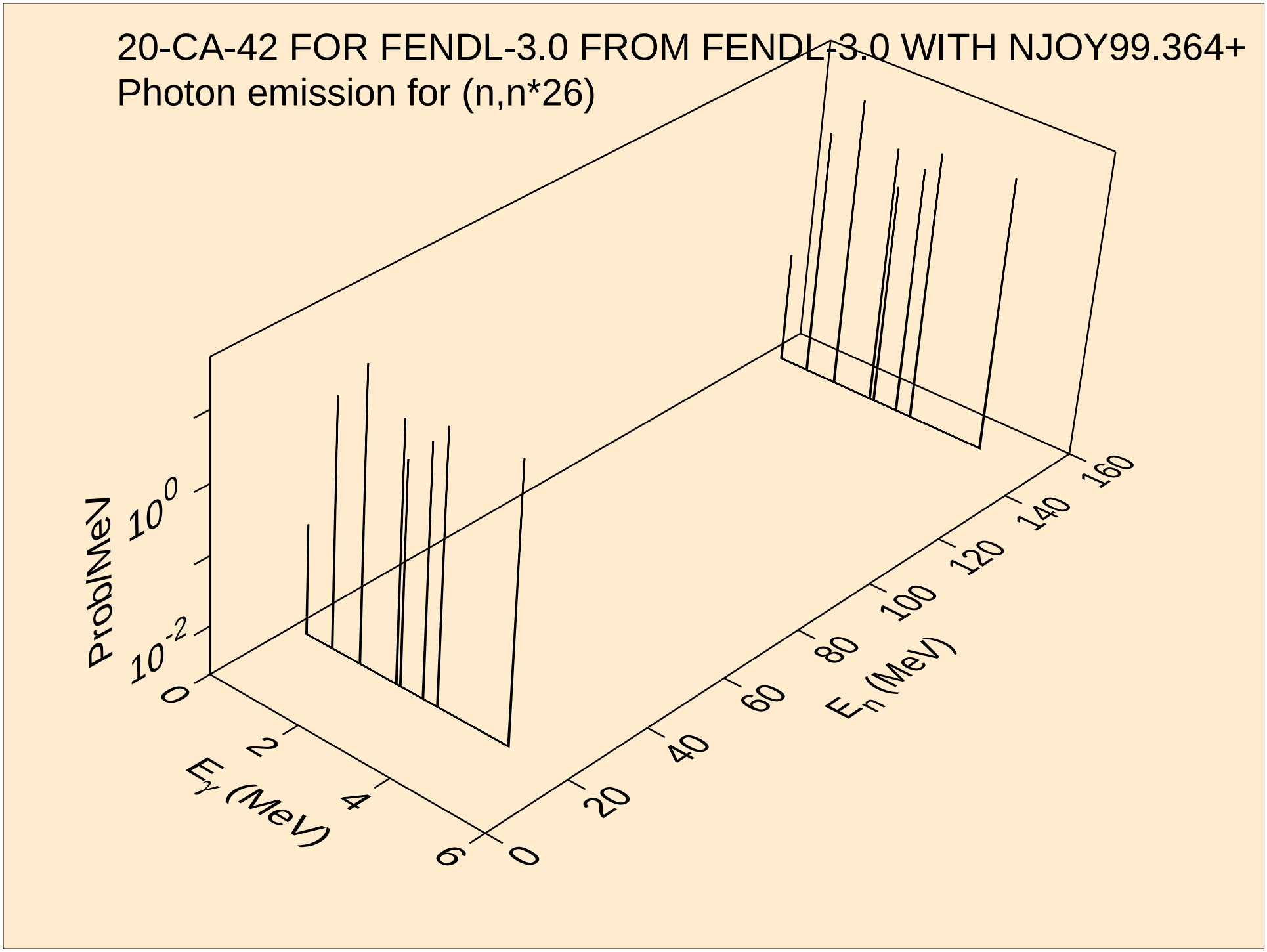

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*21)
Prob/MeV
10^0
10^-2
0
2
4
6
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

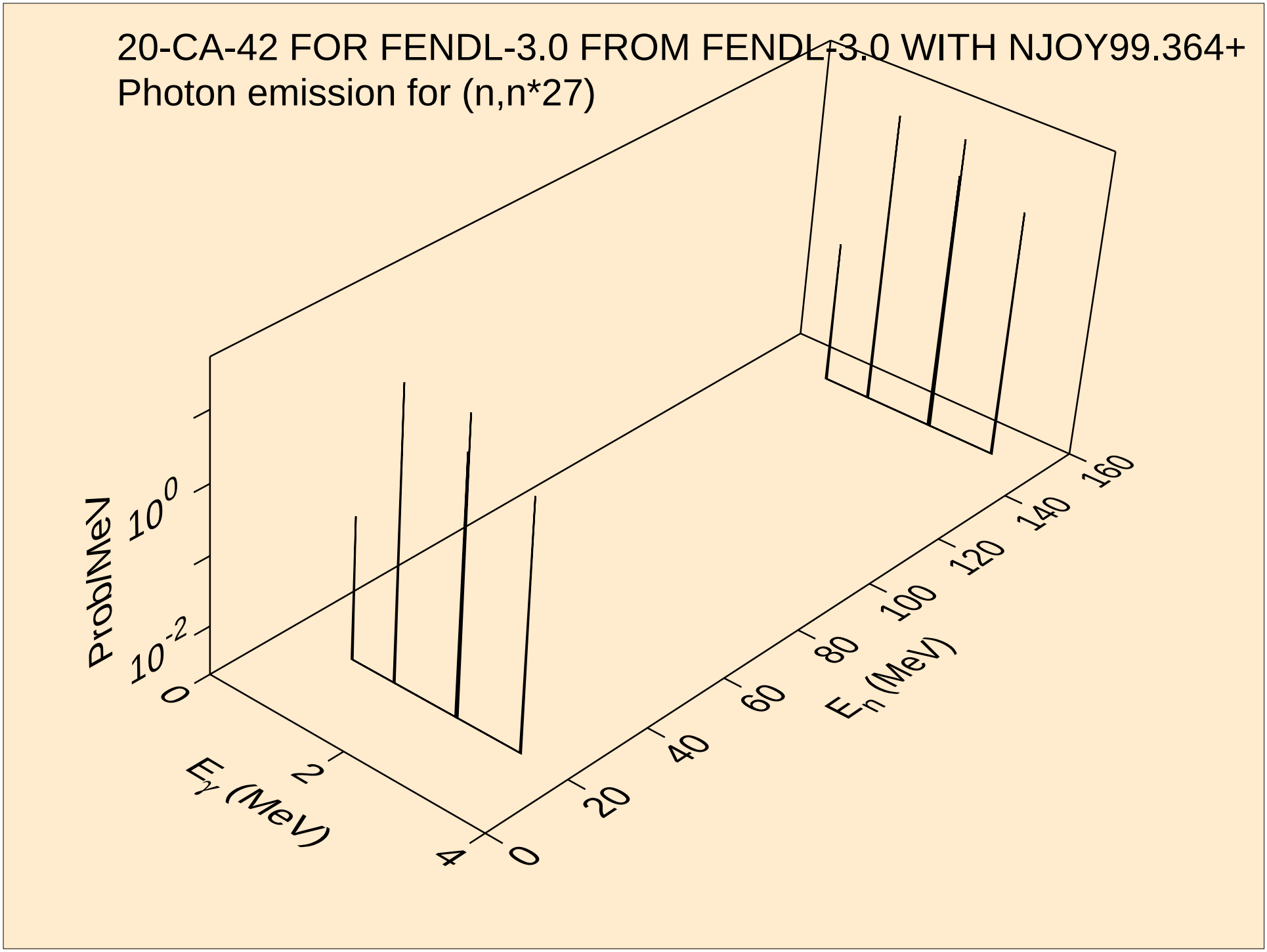

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*22)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

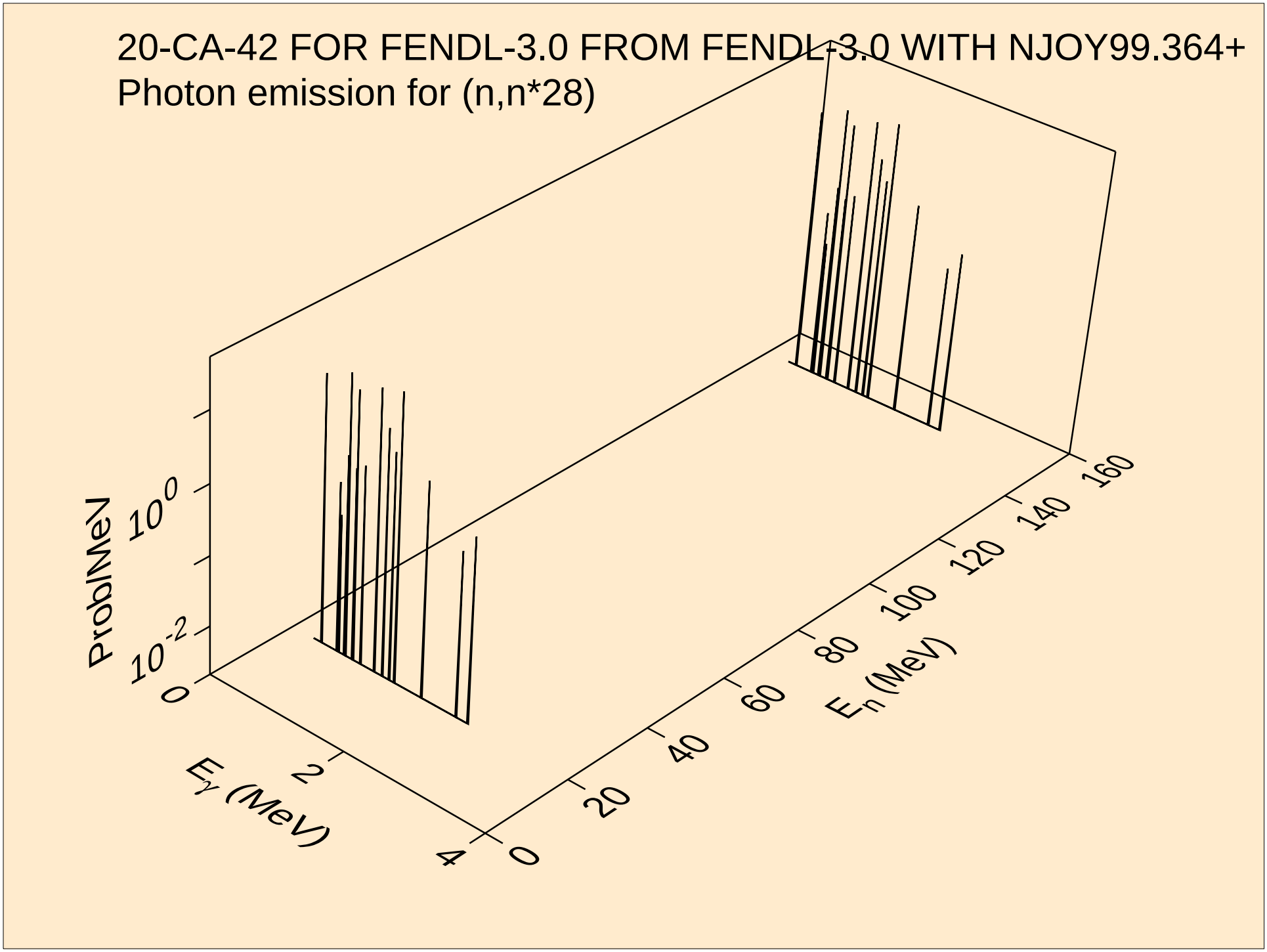

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*23)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

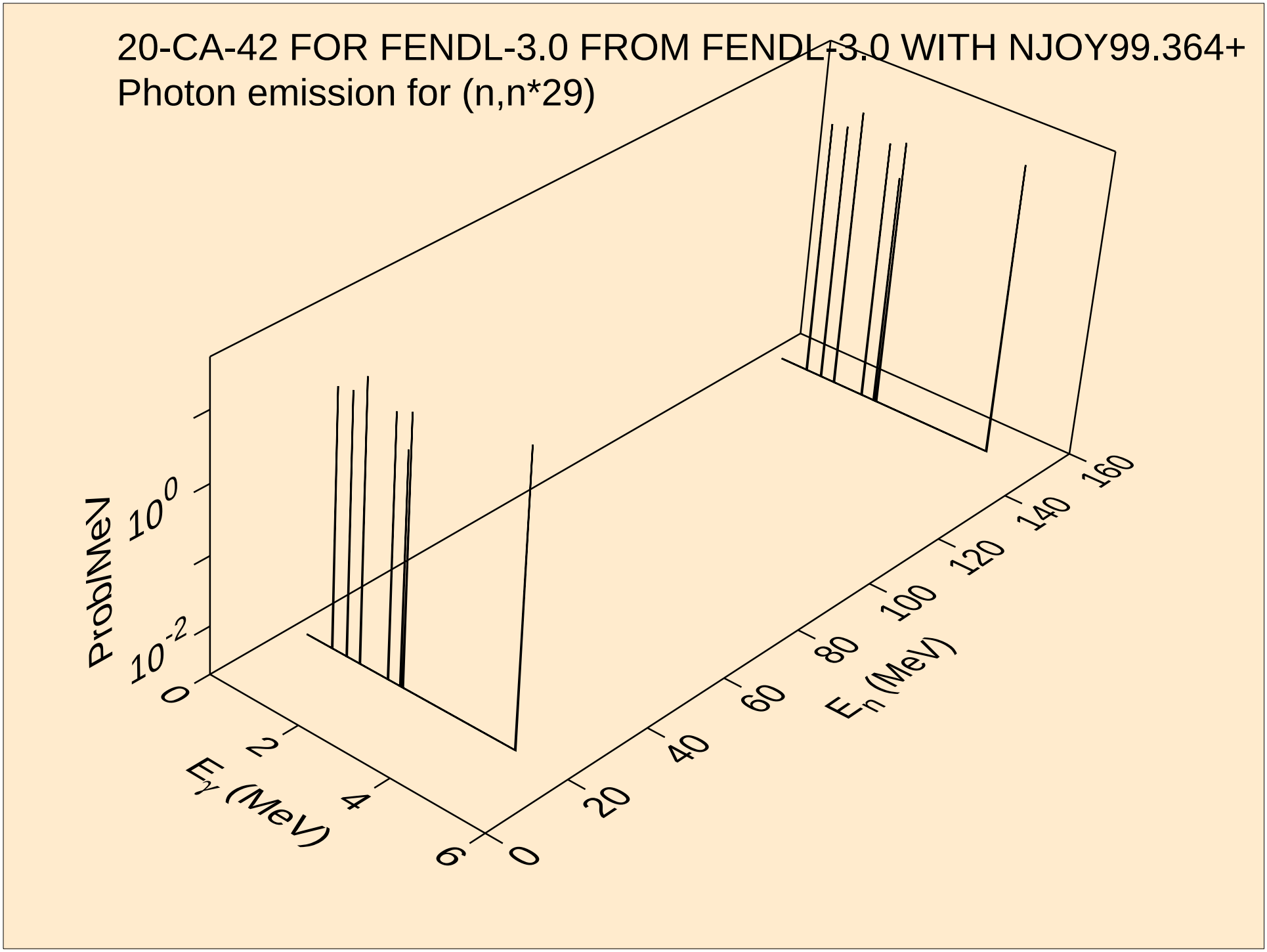

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*24)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

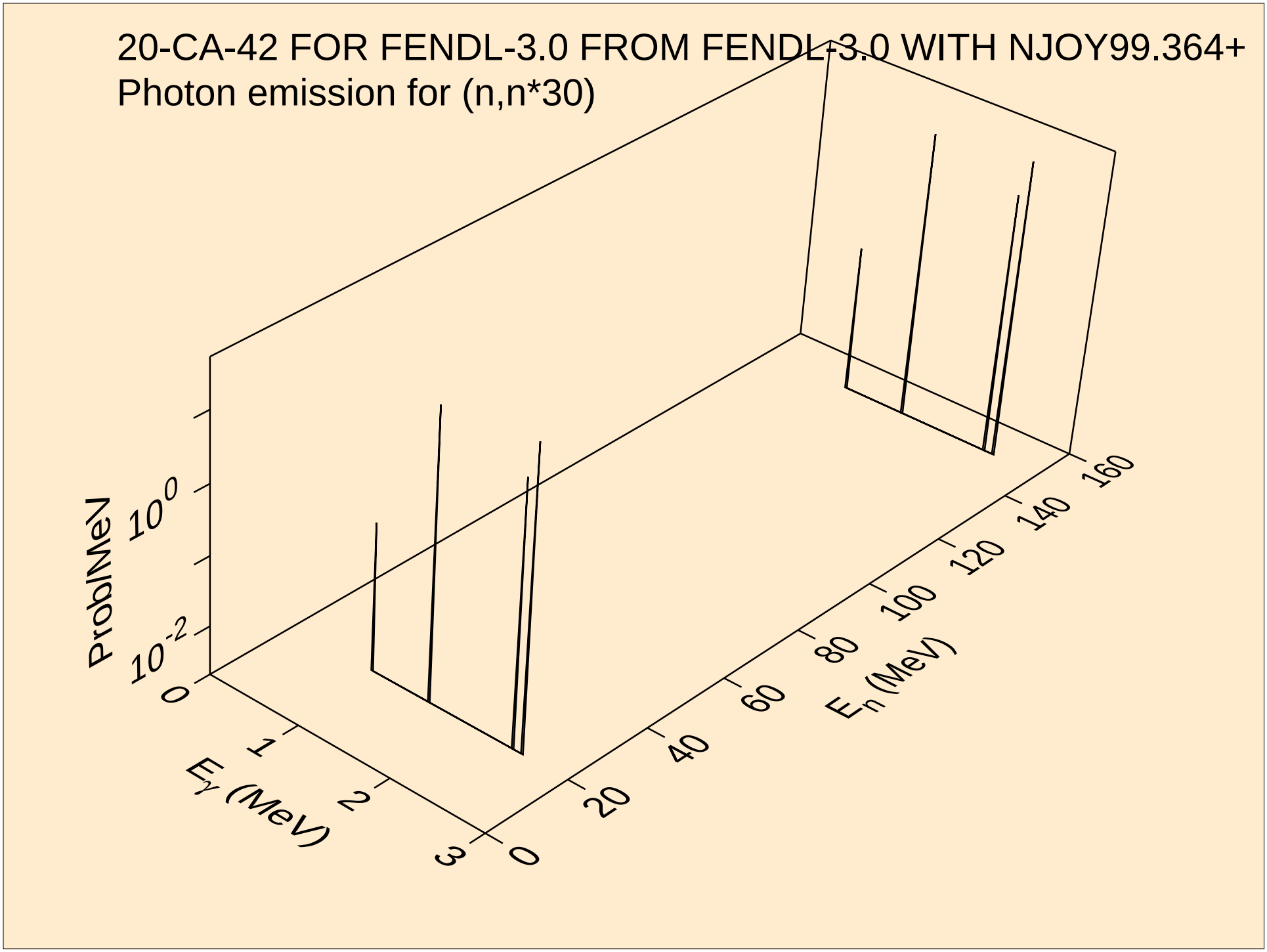

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*25)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

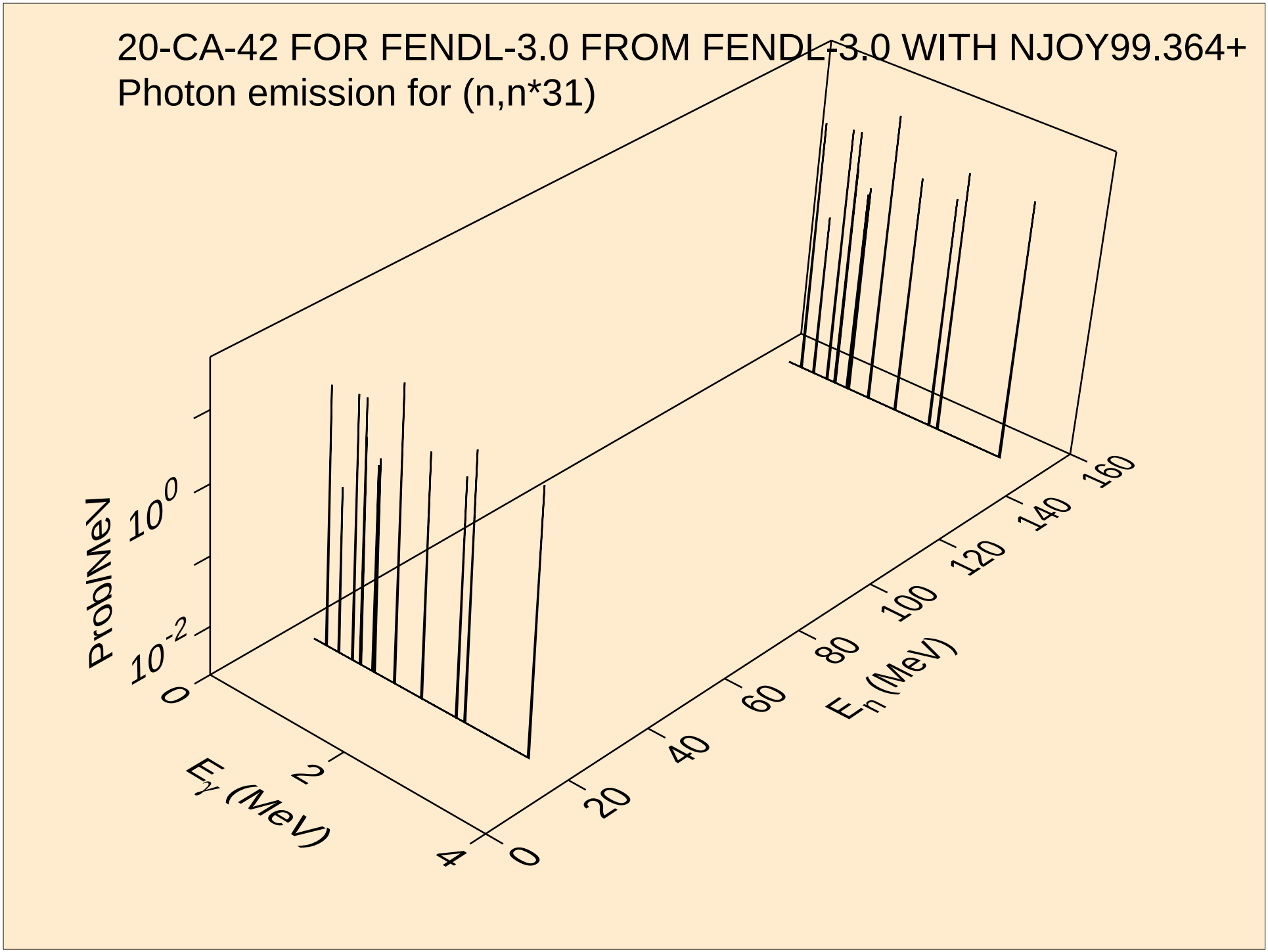

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*26)
Prob/MeV
10^0
10^-2
0
2
4
6
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

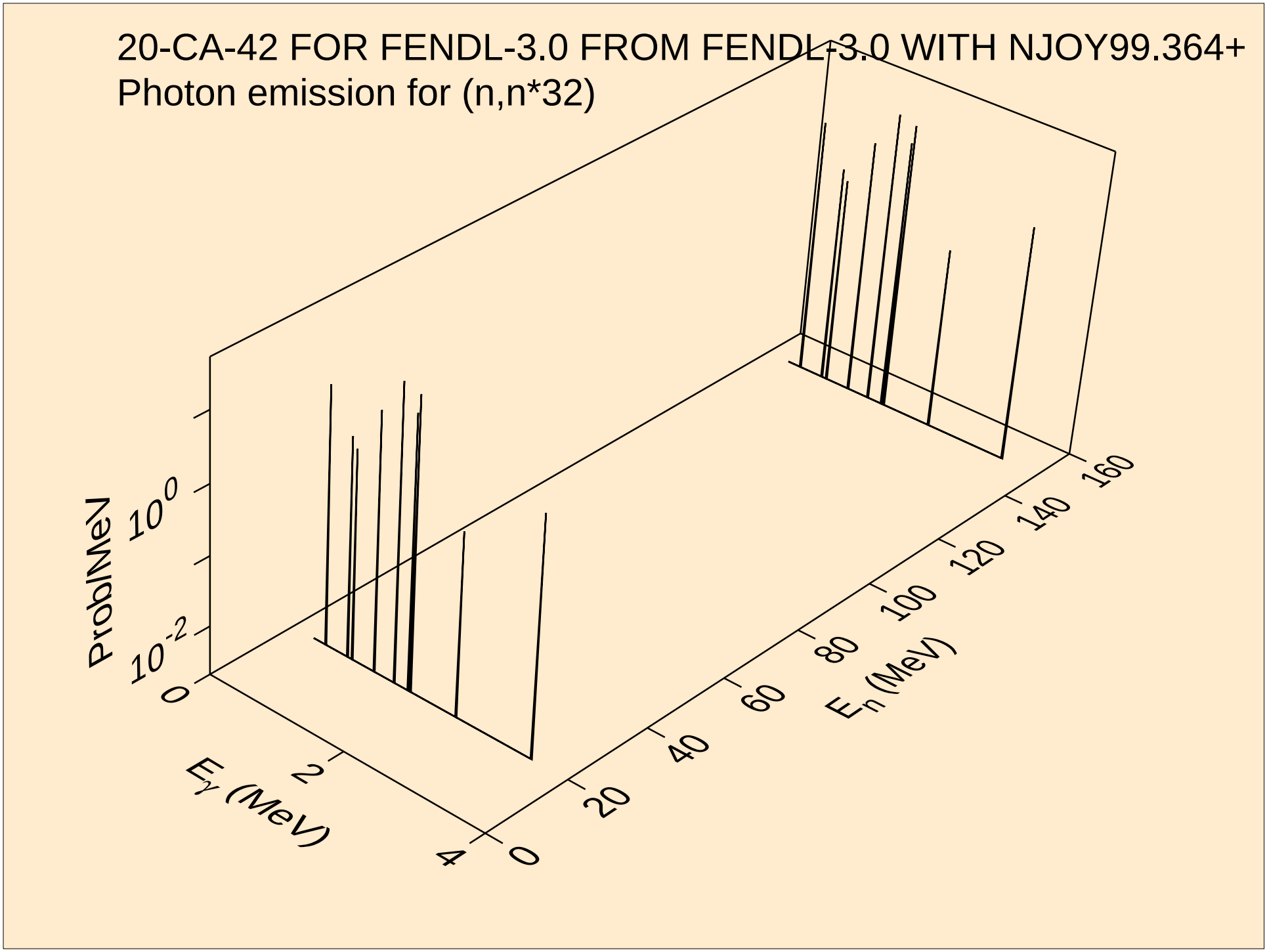

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*27)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

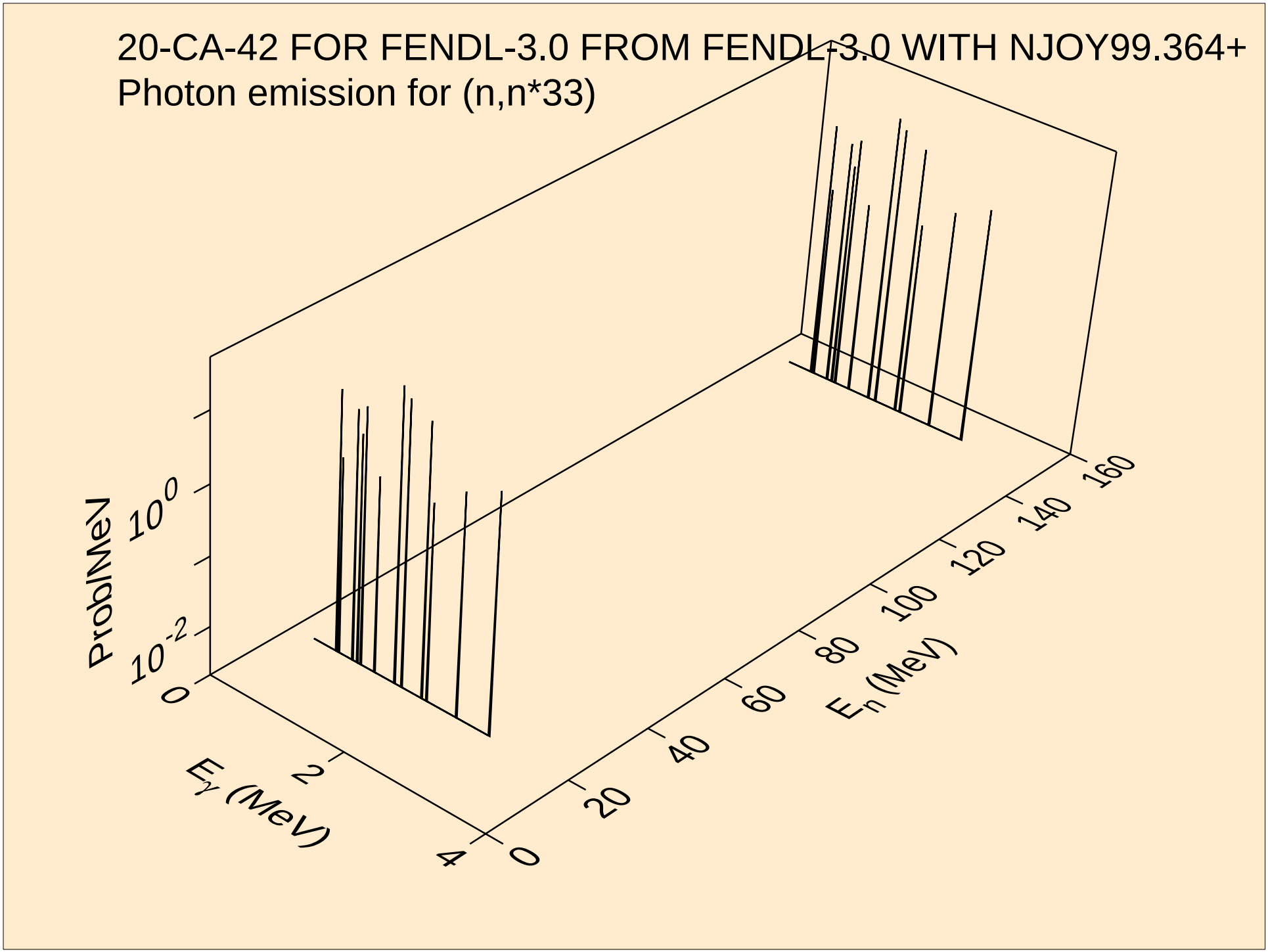

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*28)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

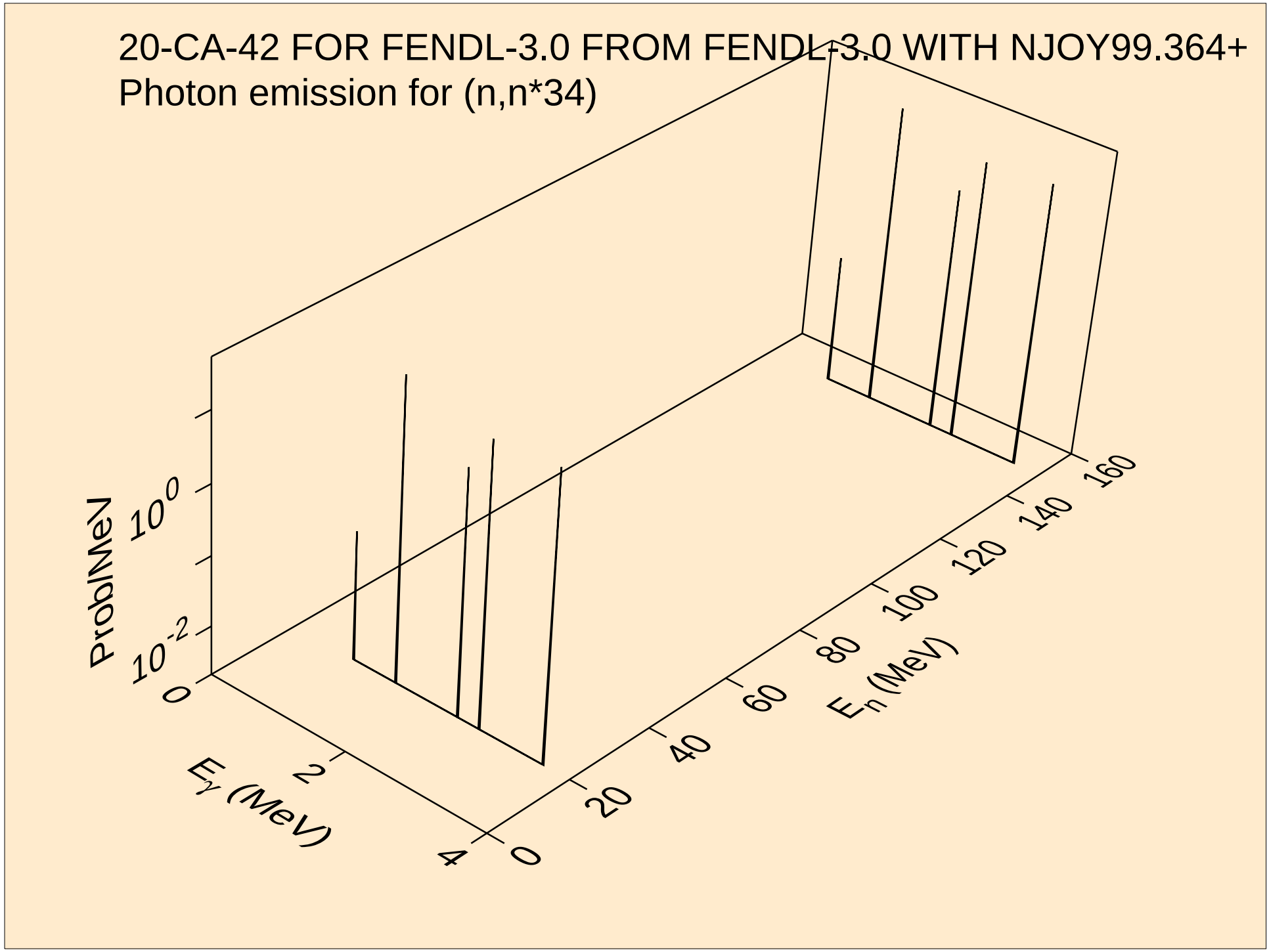

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*29)
Prob/MeV
10^{0}
10^{-2}
0
2
4
6
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

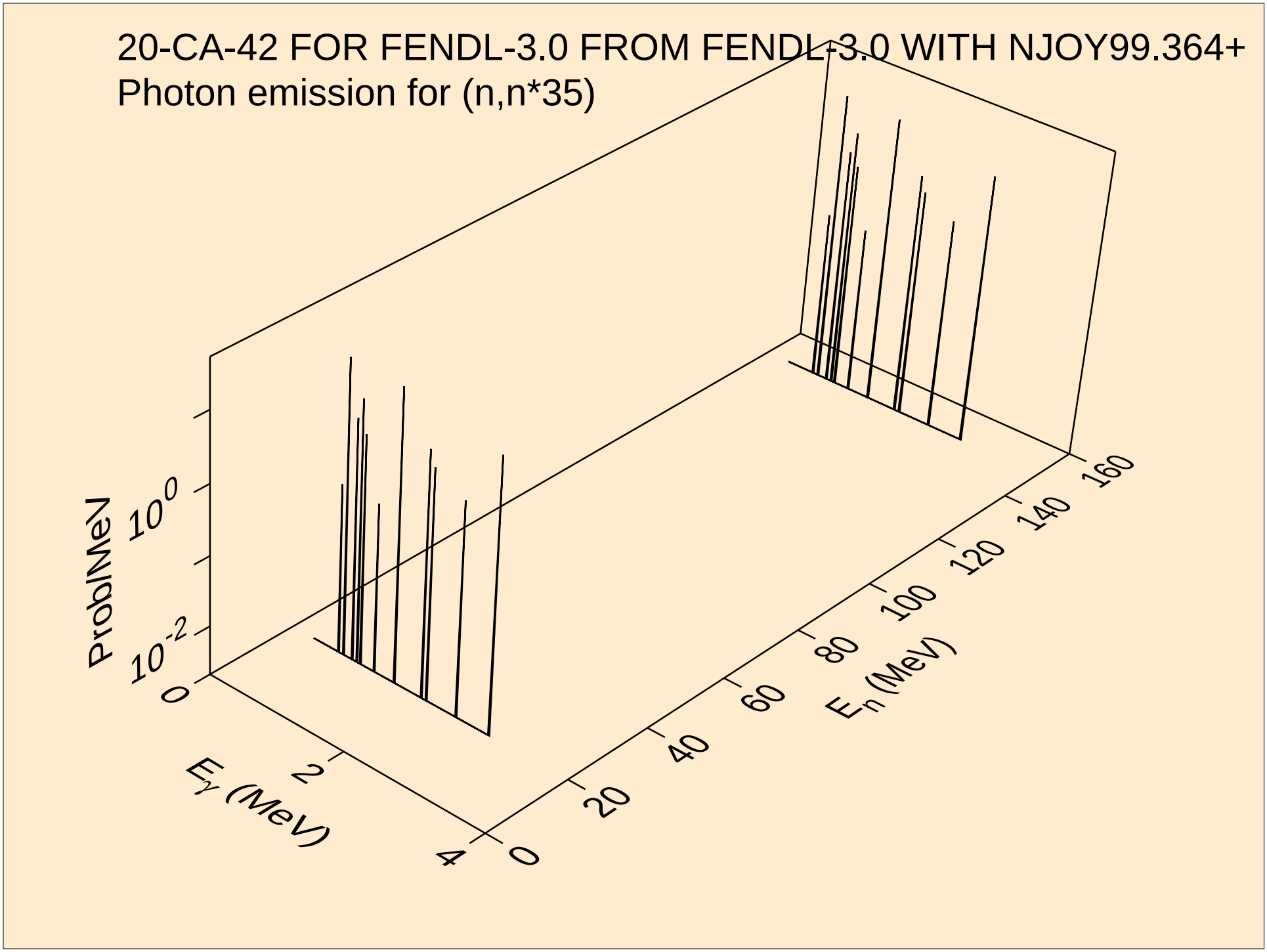

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*30)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

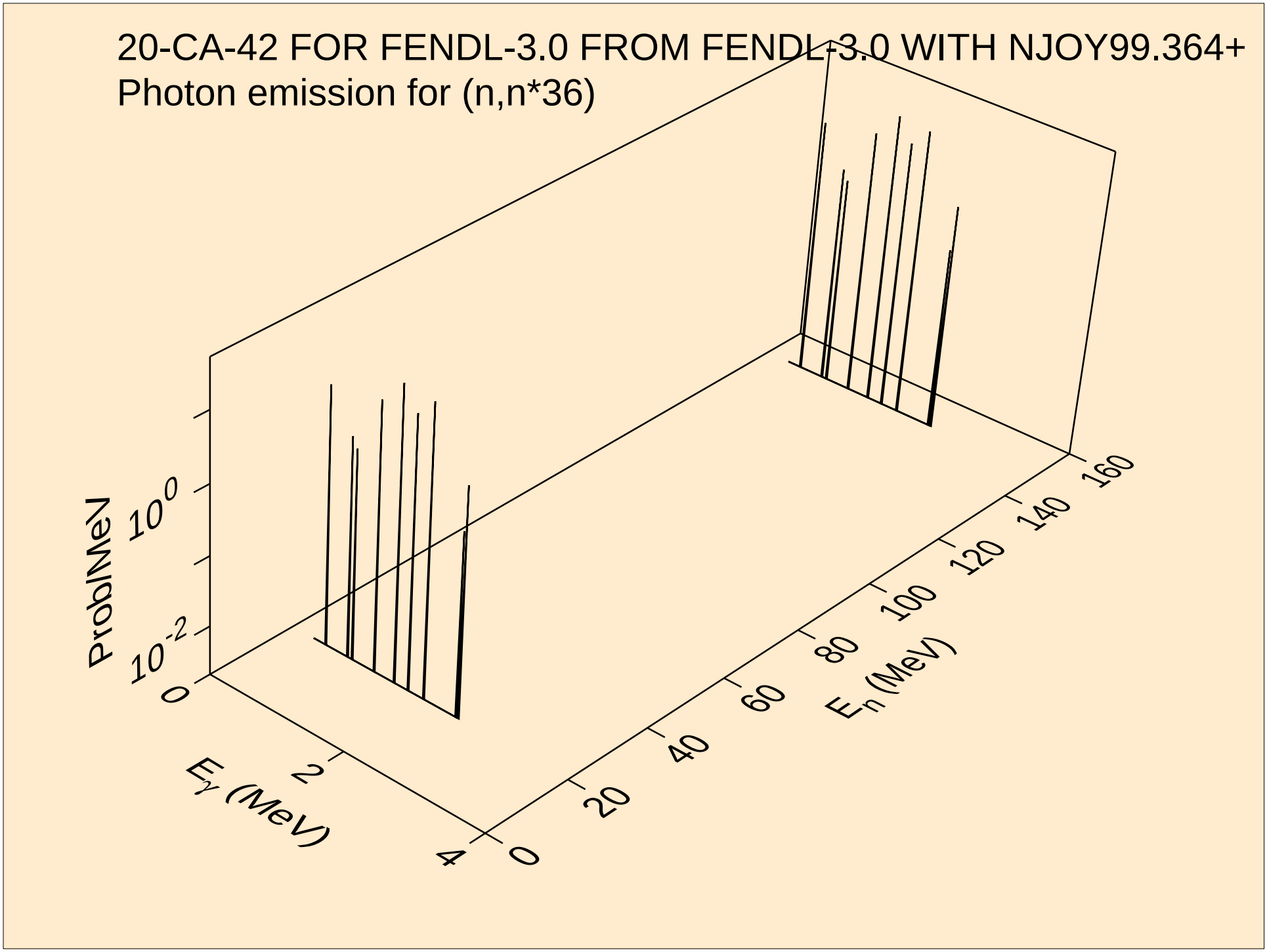

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*31)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

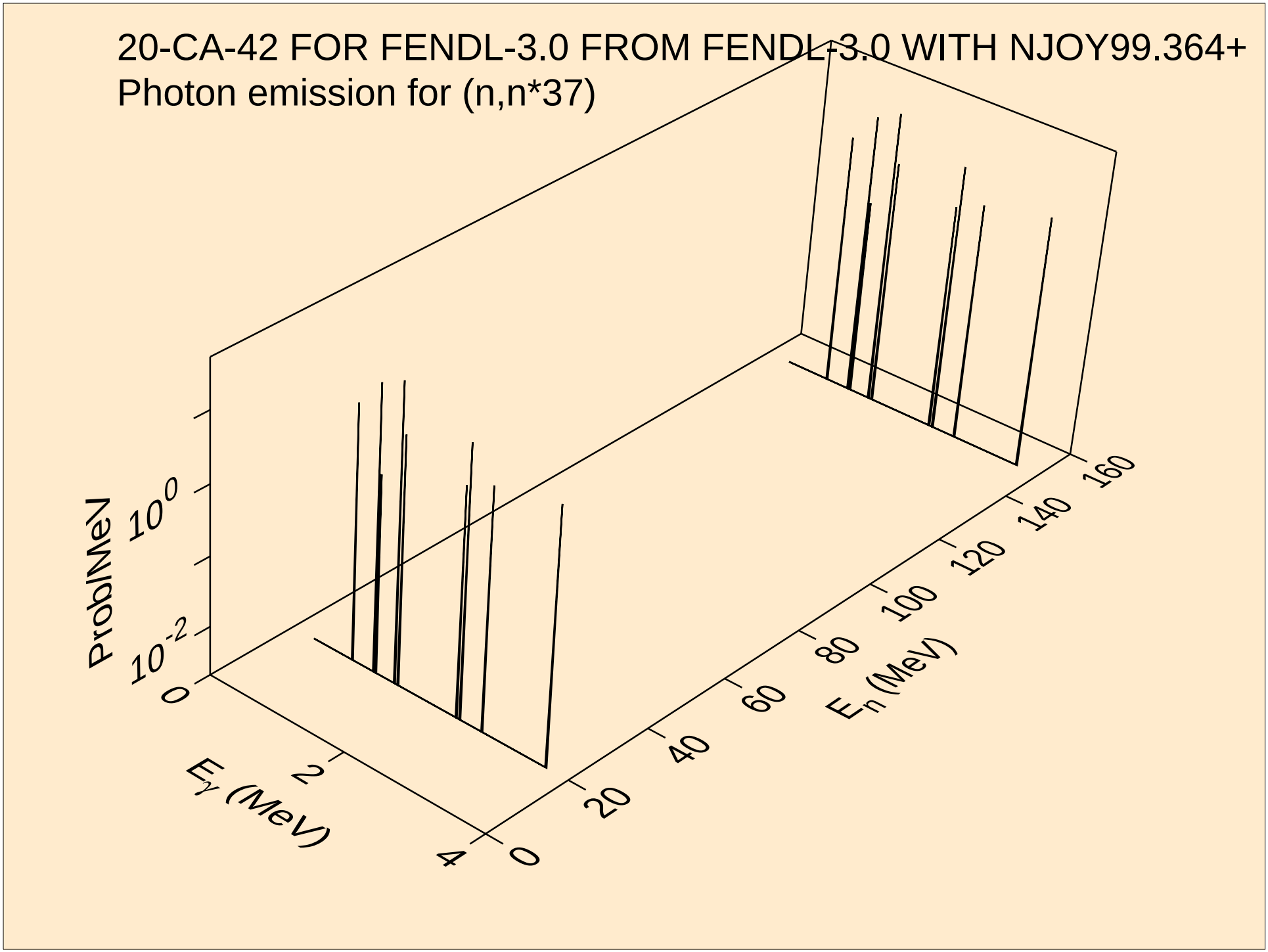

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*32)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

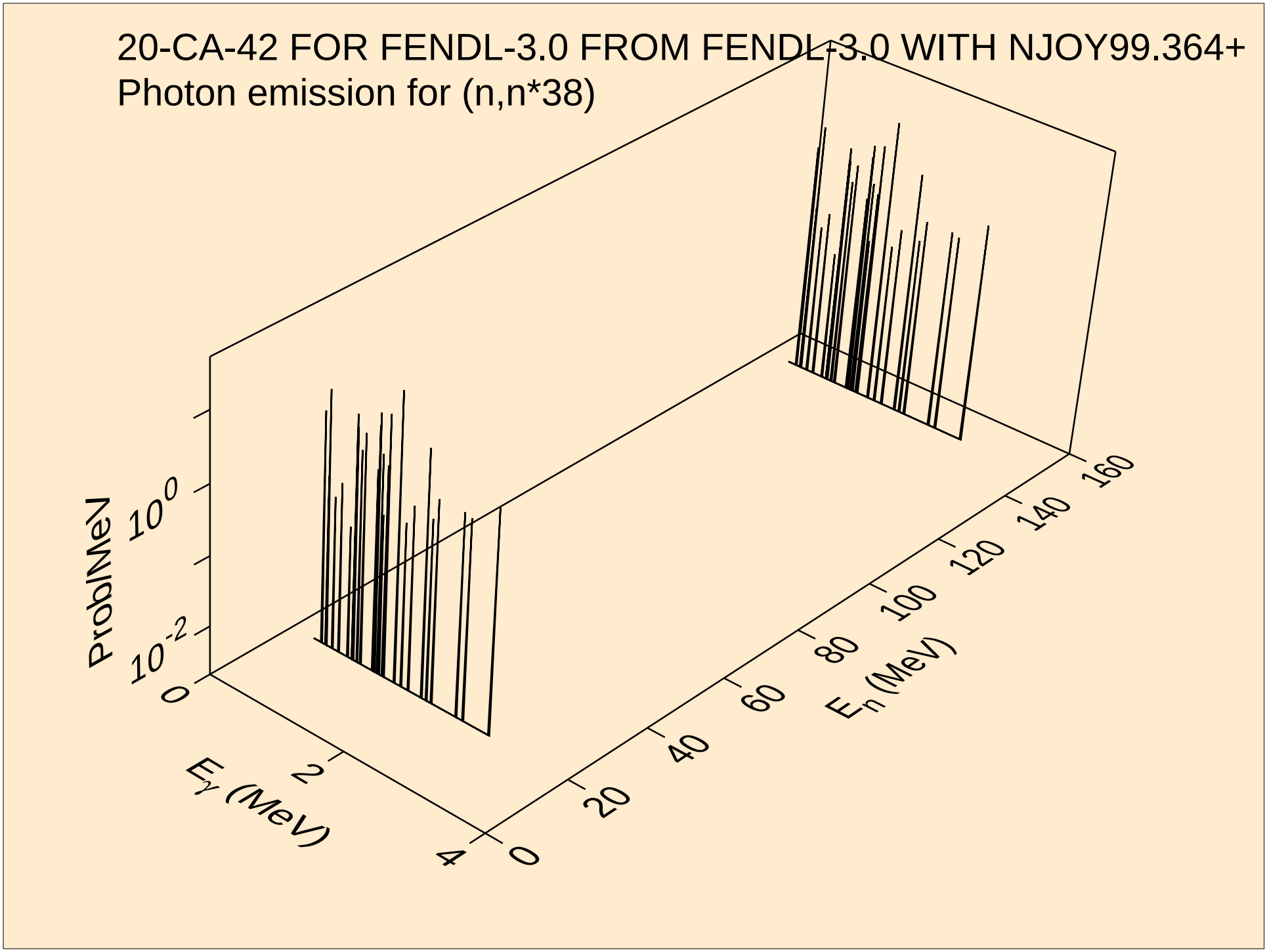

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*33)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

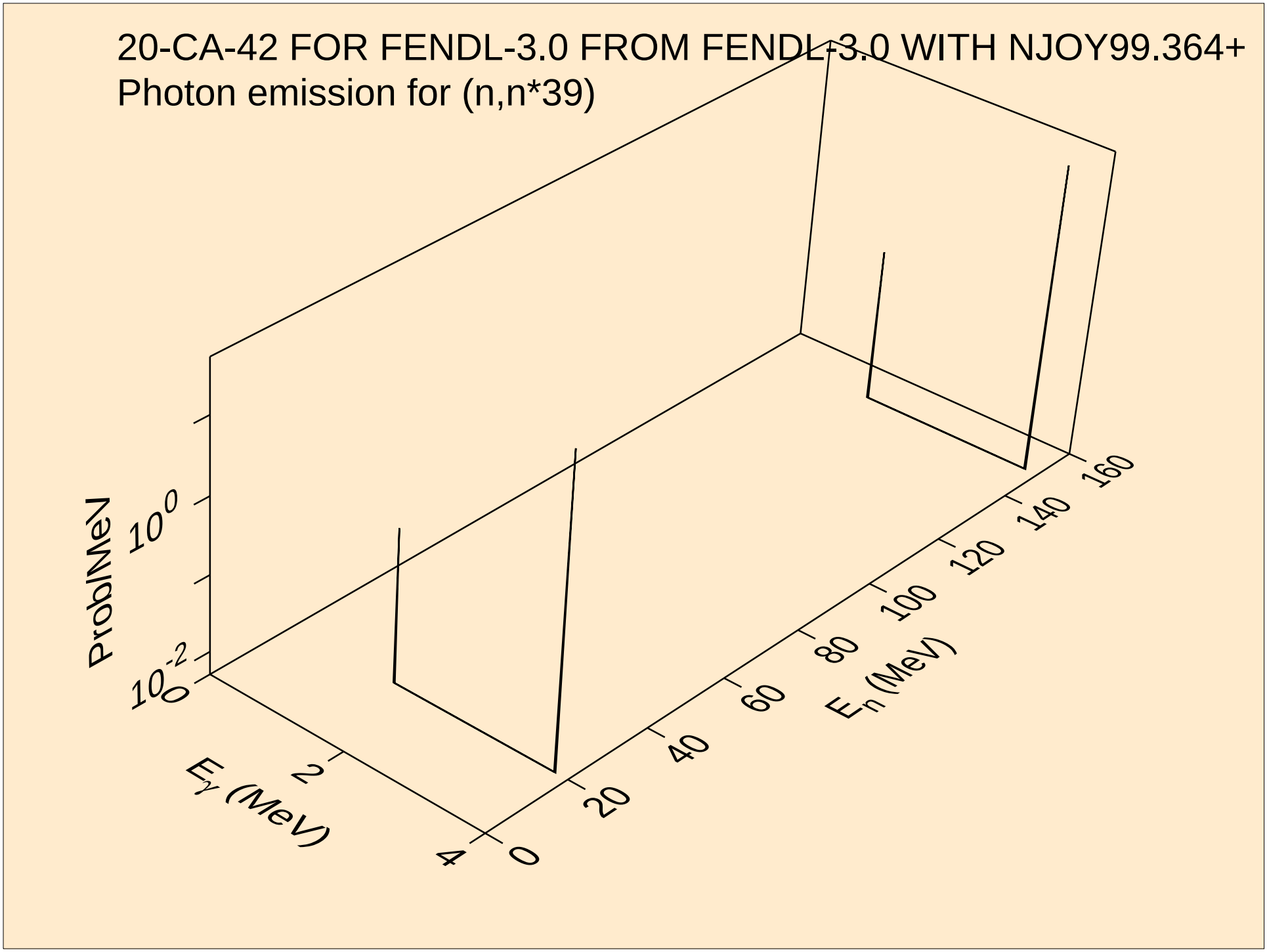

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*34)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

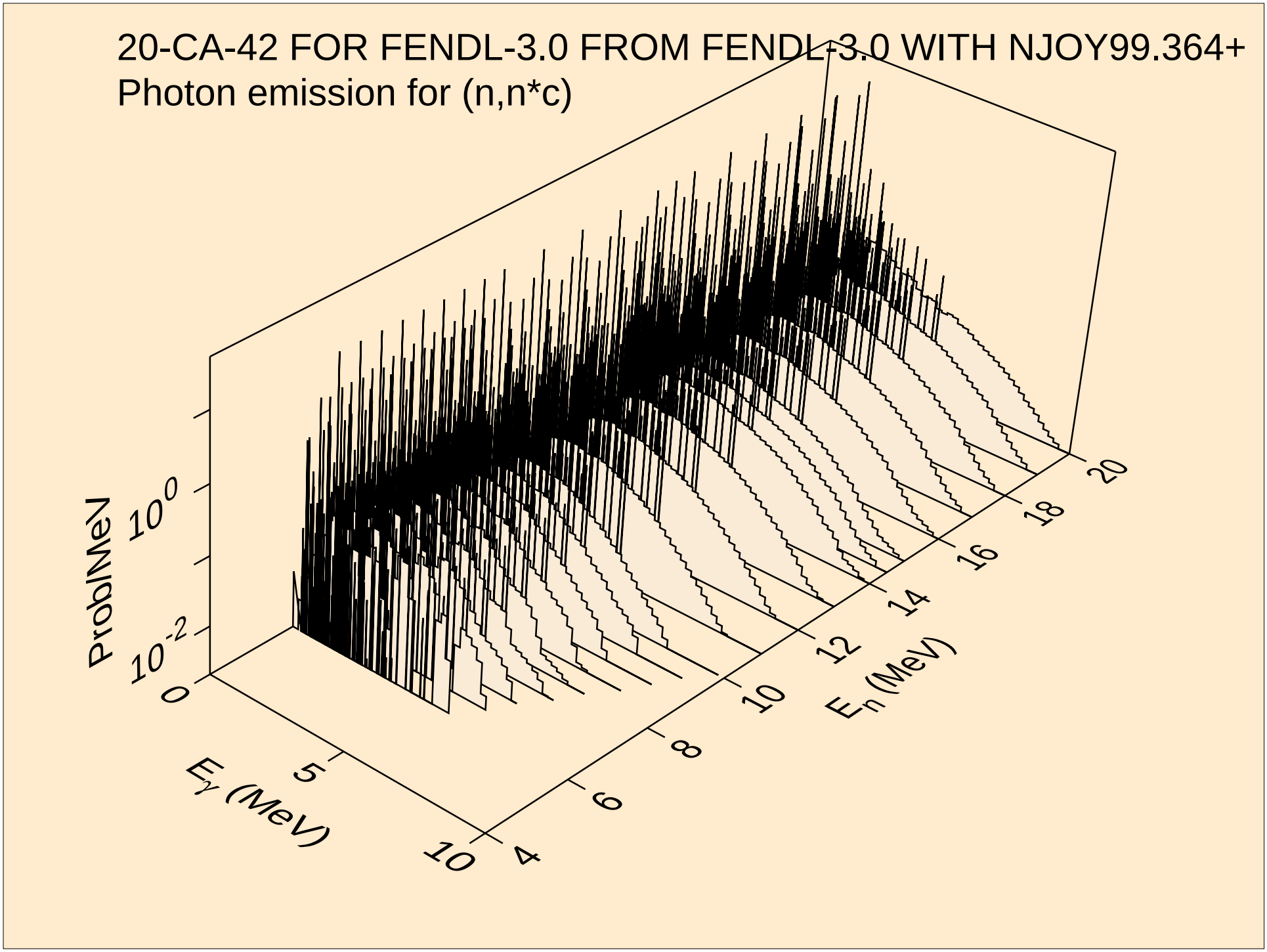

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*35)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

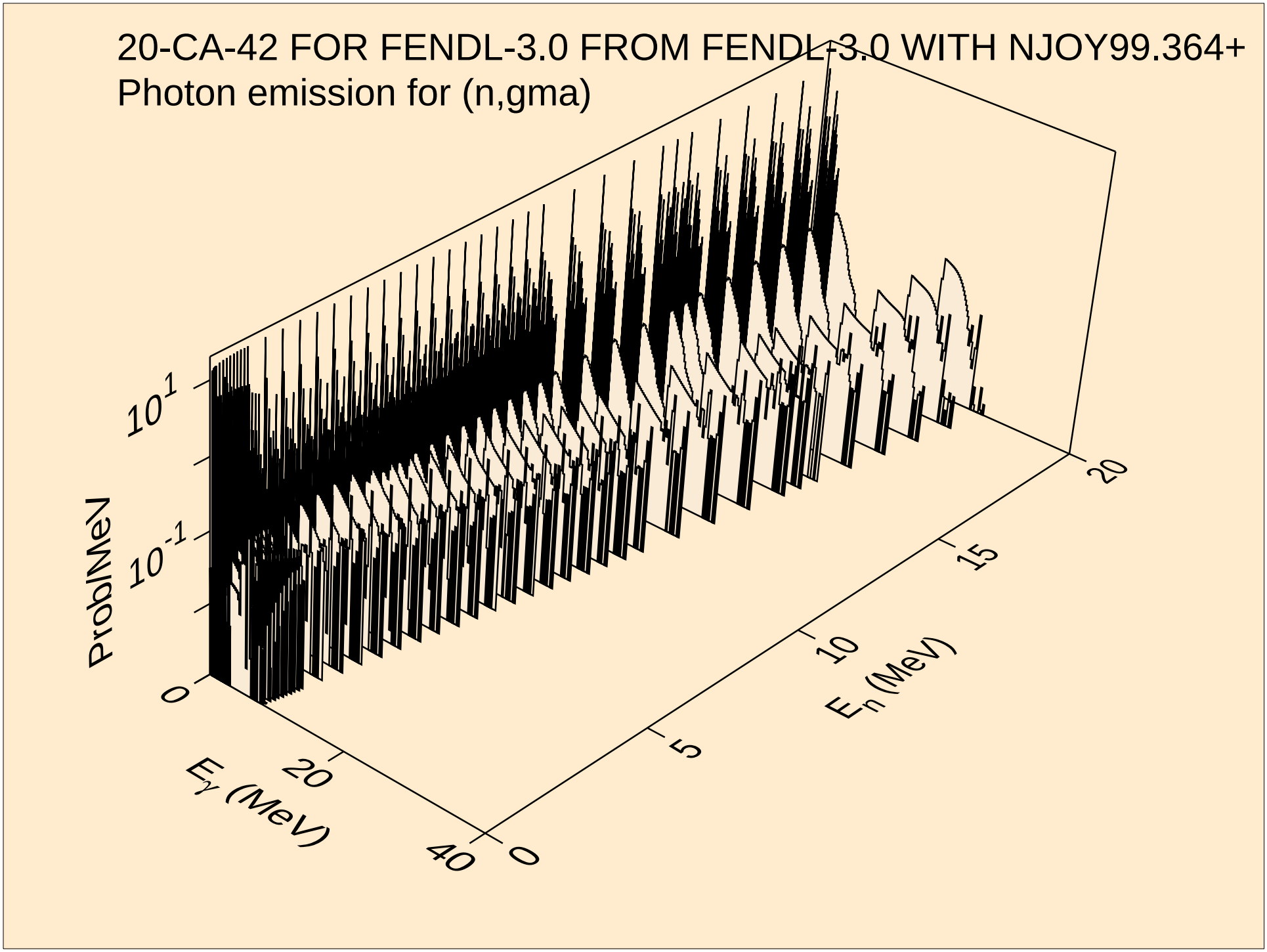

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*36)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

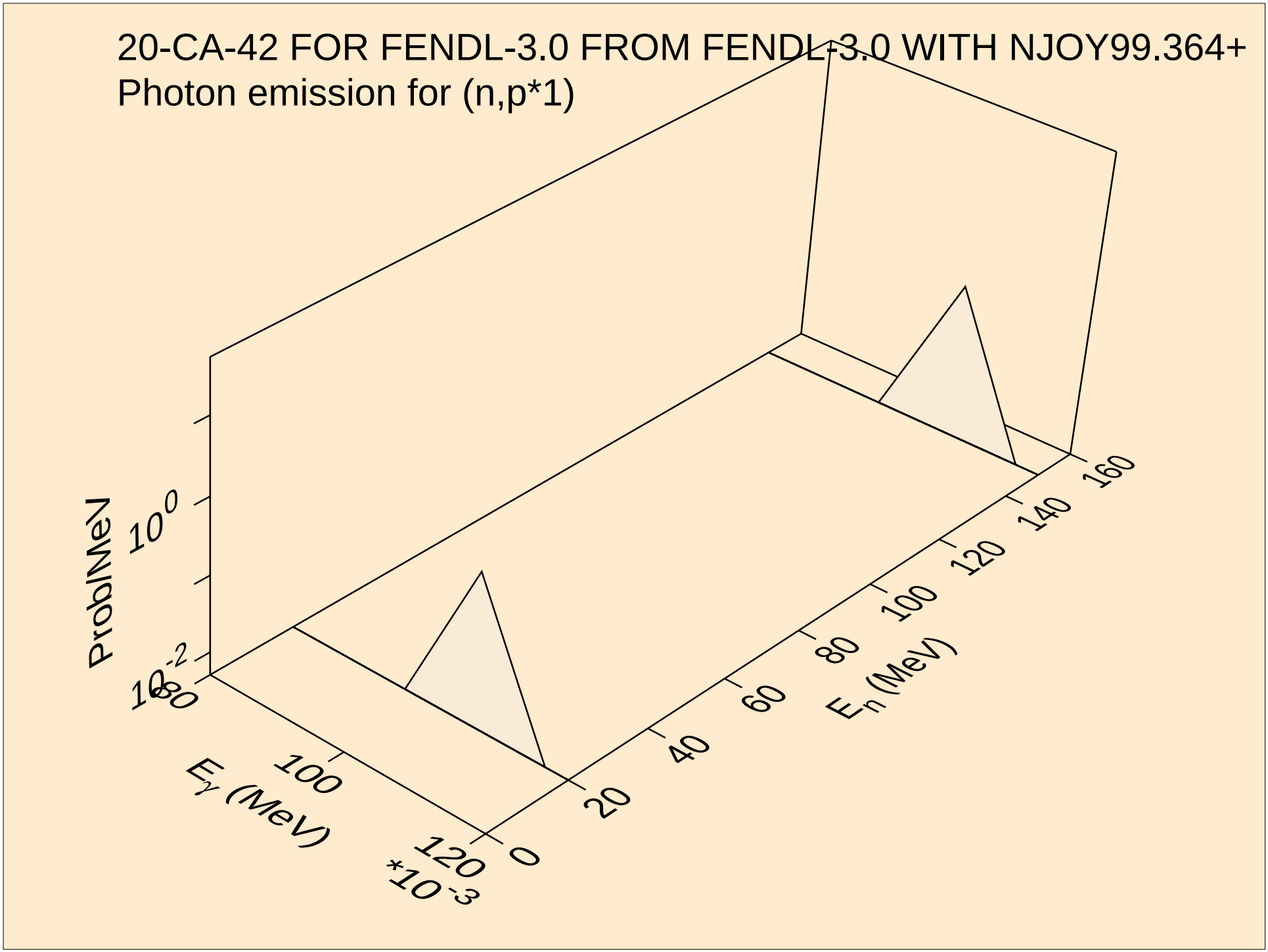

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*37)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

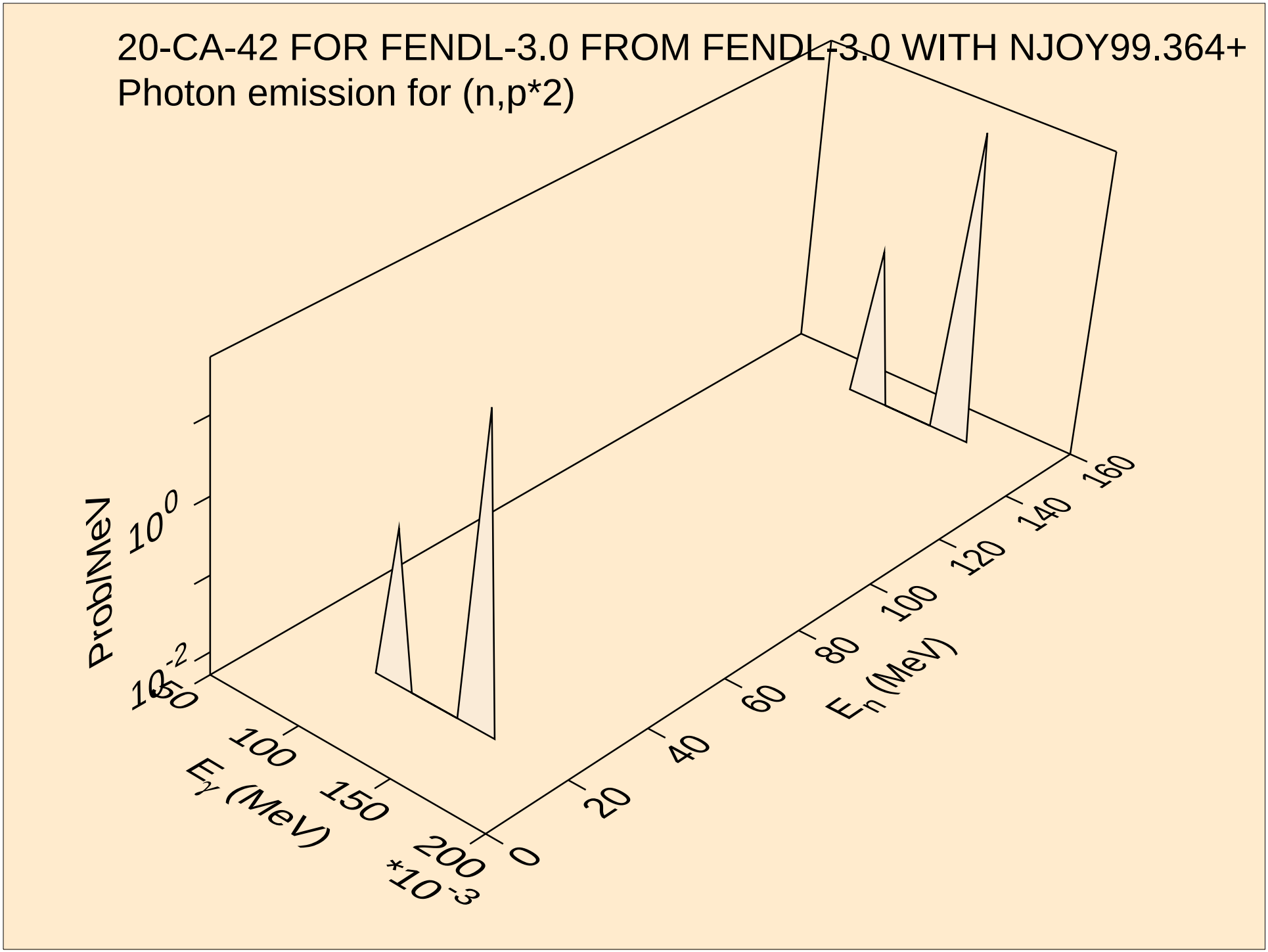

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*38)
Prob/MeV
10^0
10^-2
0
2
4
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

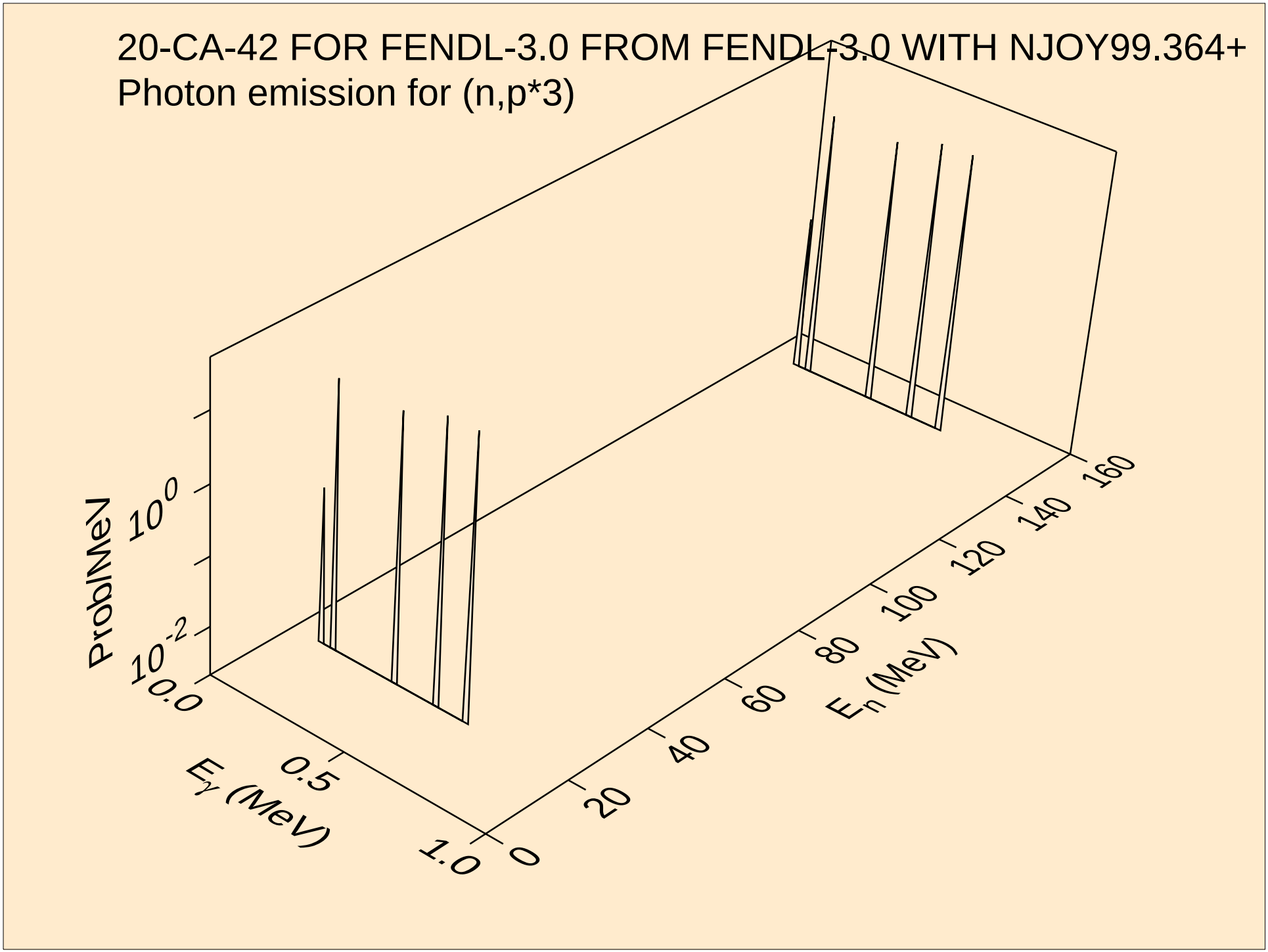

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*39)
Prob/MeV
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

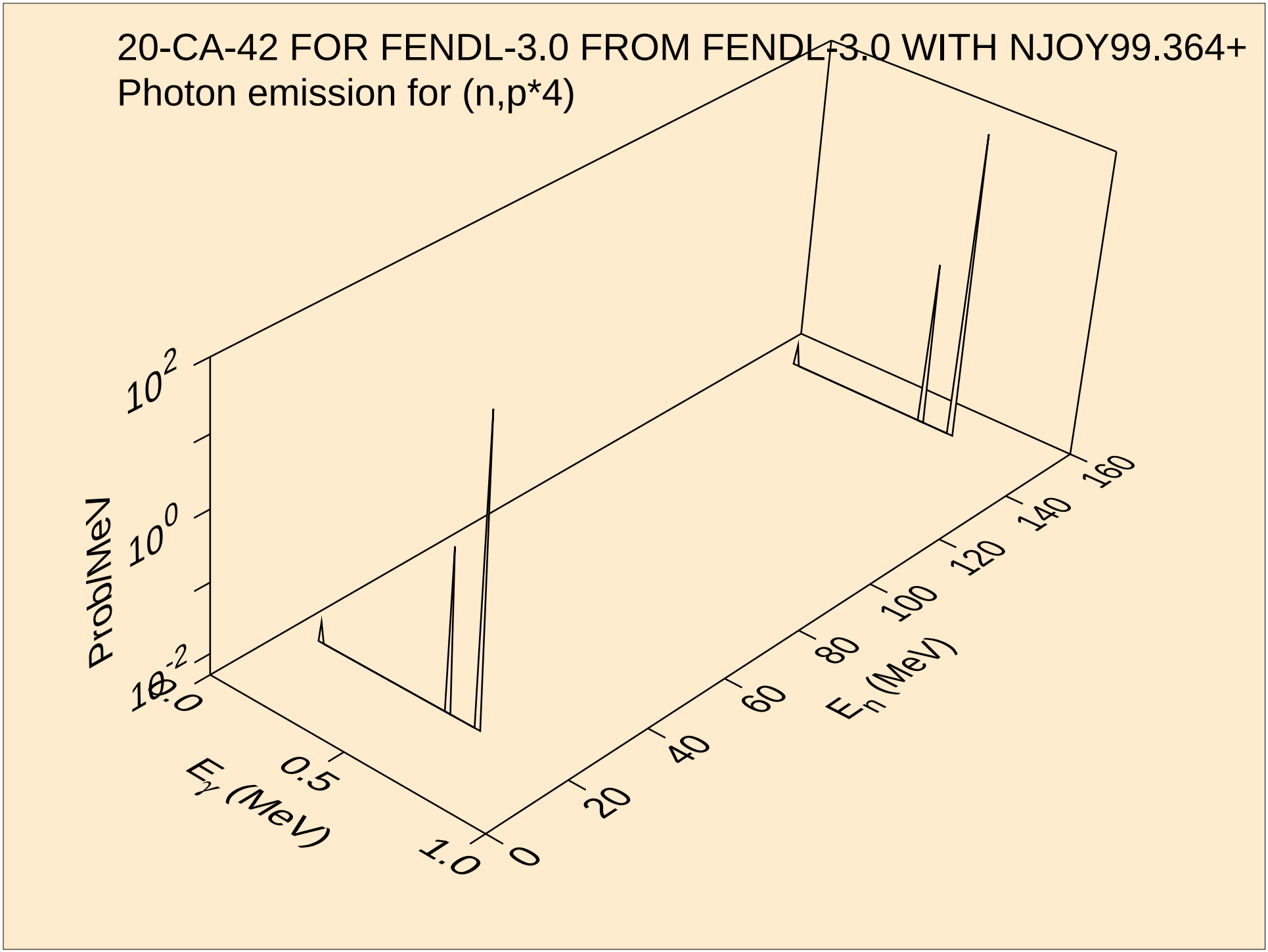

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,n*c)
Prob/MeV
10^{0}
10^{-2}
0
E_γ (MeV)
5
10
4
6
8
10
12
14
16
18
20
E_n (MeV)

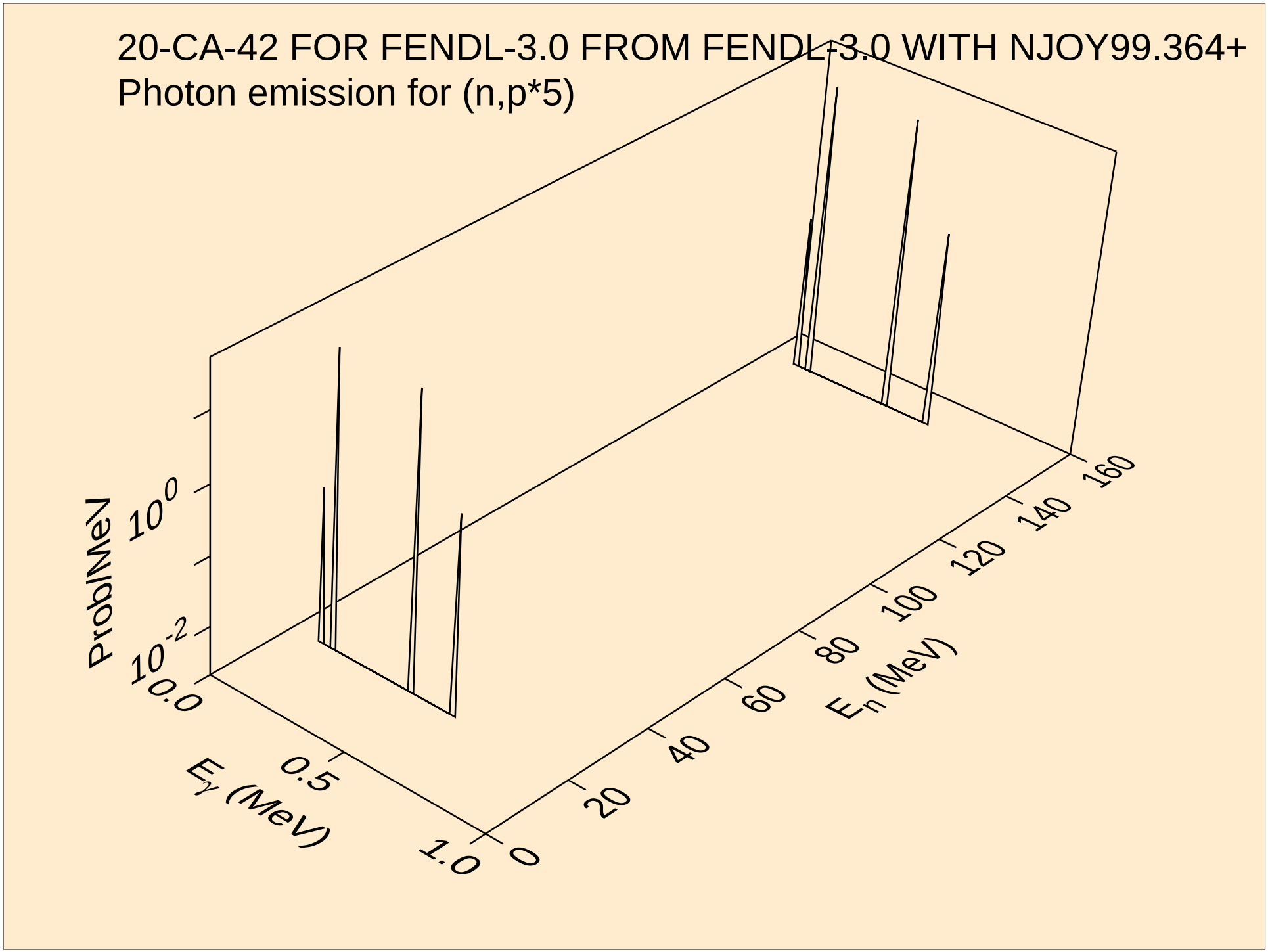

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,gma)
Prob/MeV
10^{1}
10^{-1}
0
E_γ (MeV)
20
40
0
5
10
15
20
E_n (MeV)

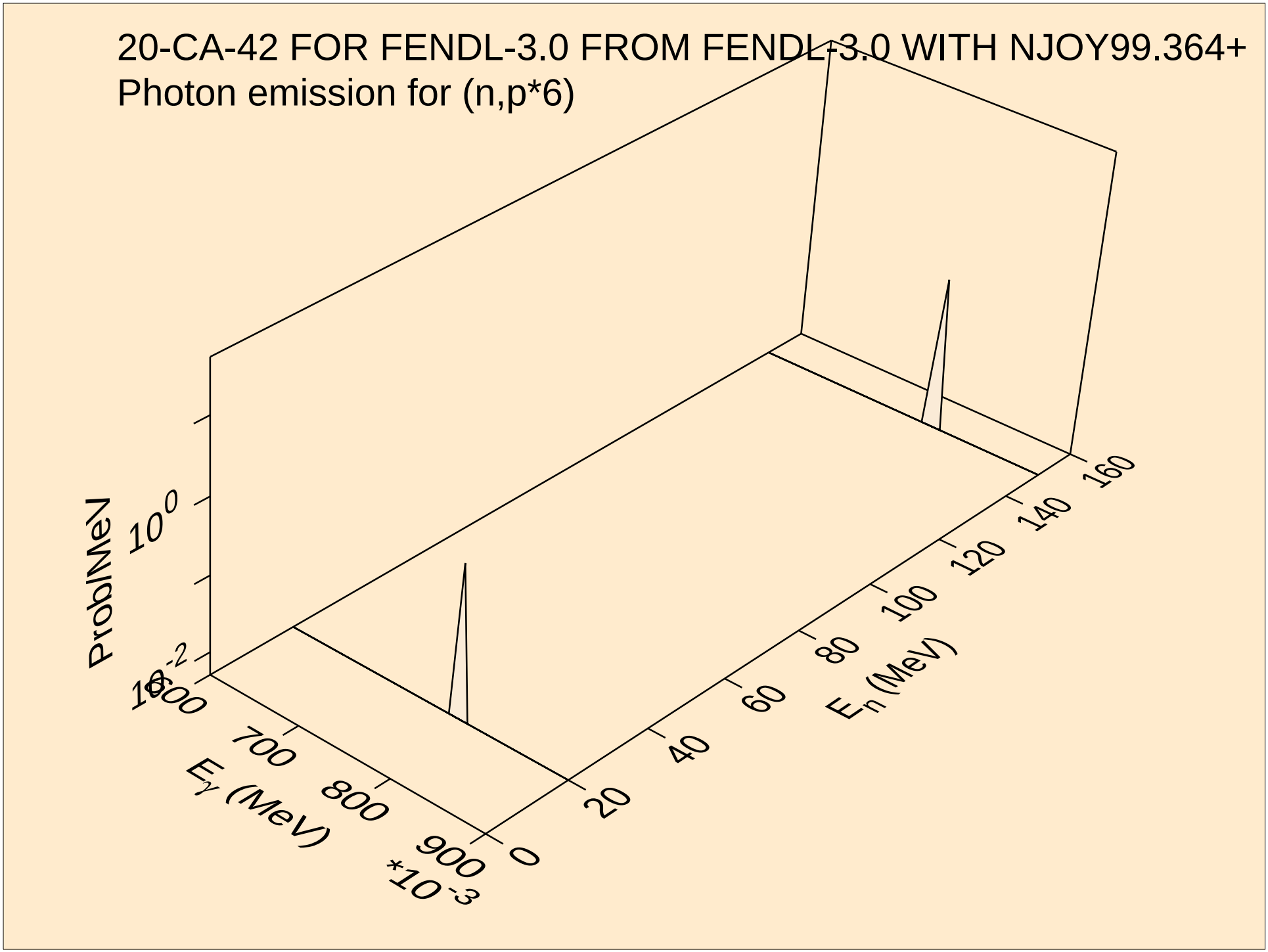

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*1)
Prob/MeV
10^{0}
10^{-2}
80
100
120
$*10^{-3}$
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

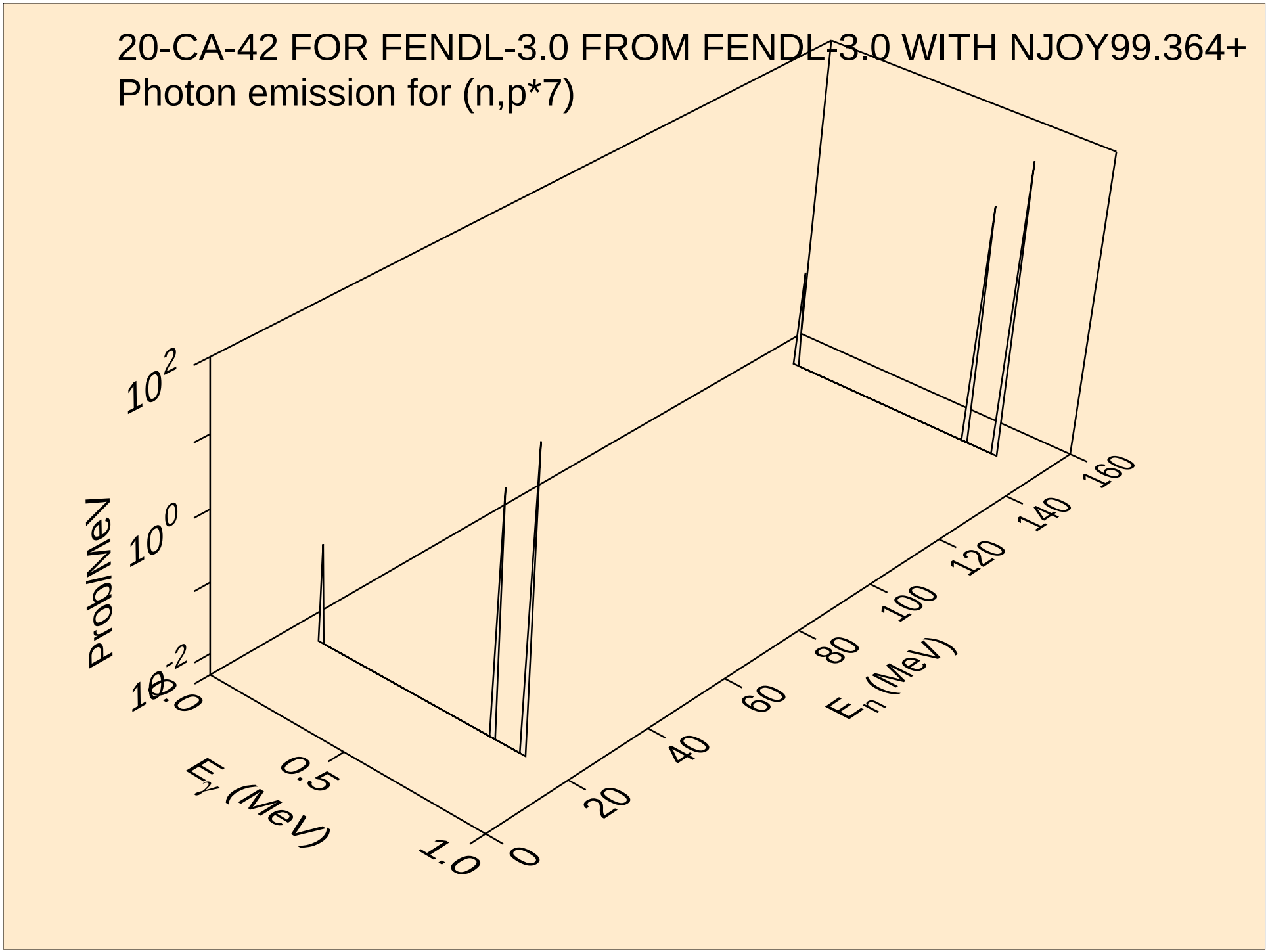

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*2)
Prob/MeV
10^0
10^-2
50
100
150
200
0
*10^-3
Eγ (MeV)
20
40
60
80
100
120
140
160
En (MeV)

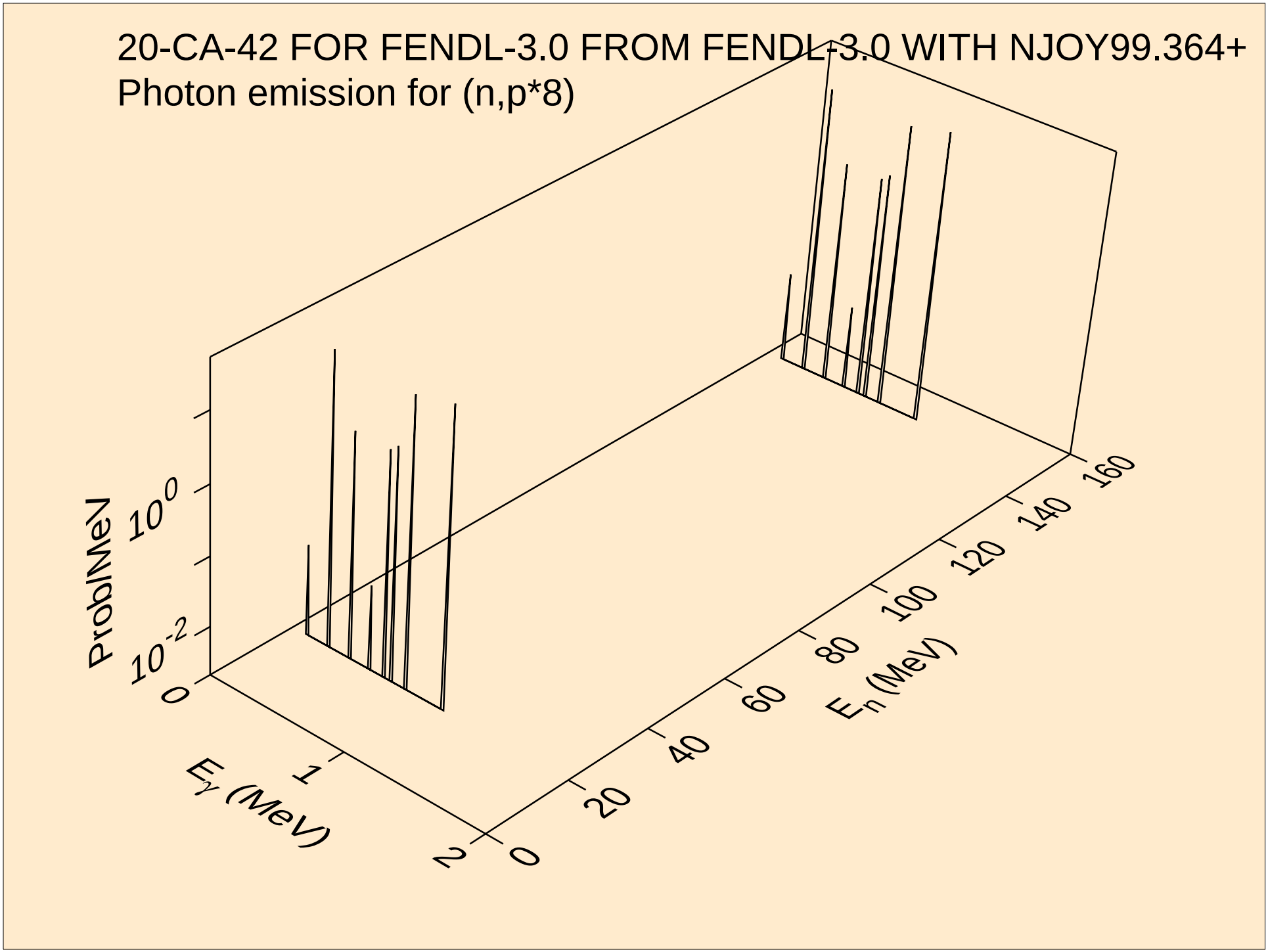

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*3)
Prob/MeV
10^{0}
10^{-2}
0.0
0.5
1.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

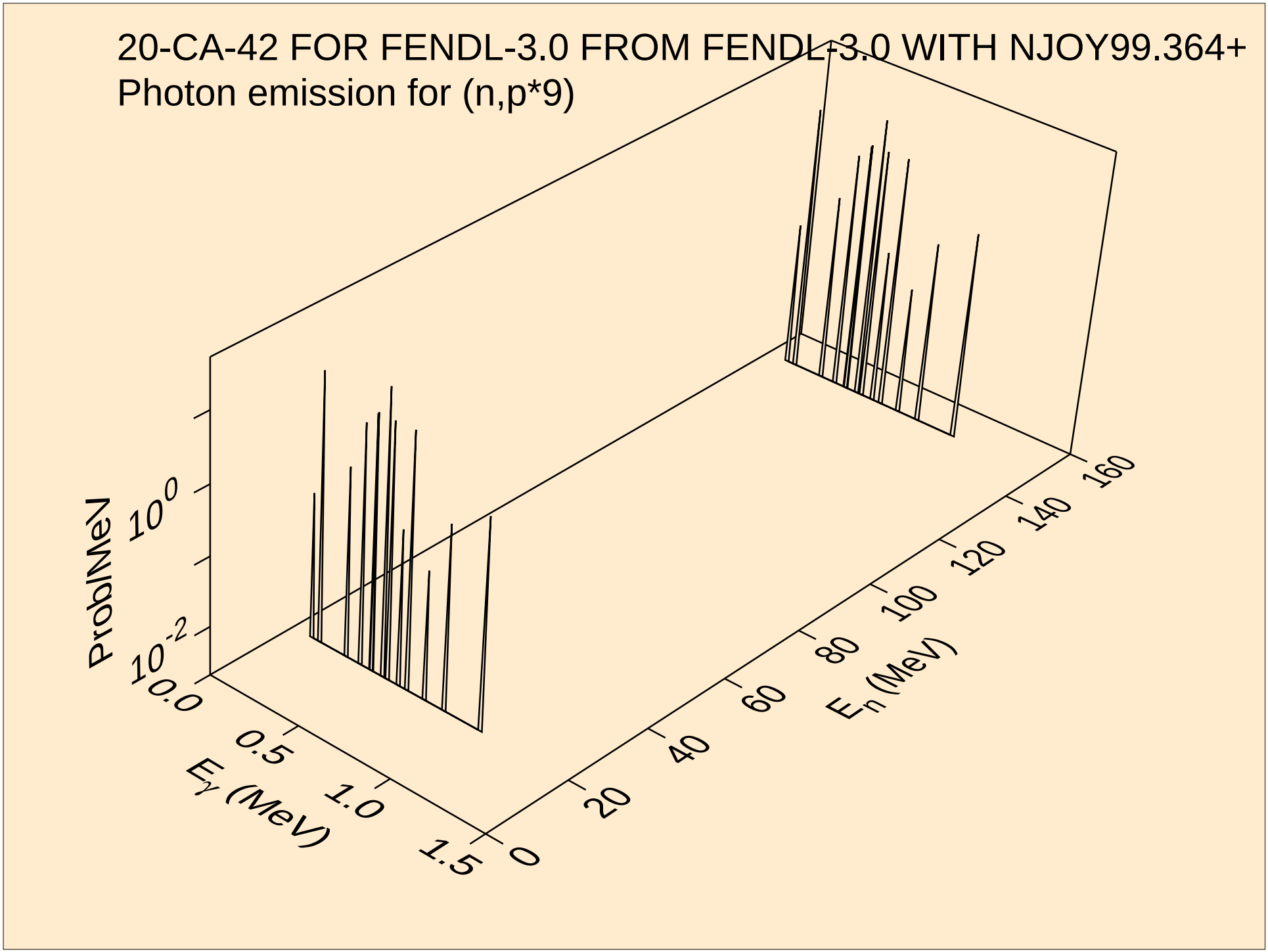

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*4)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0.0
0.5
1.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

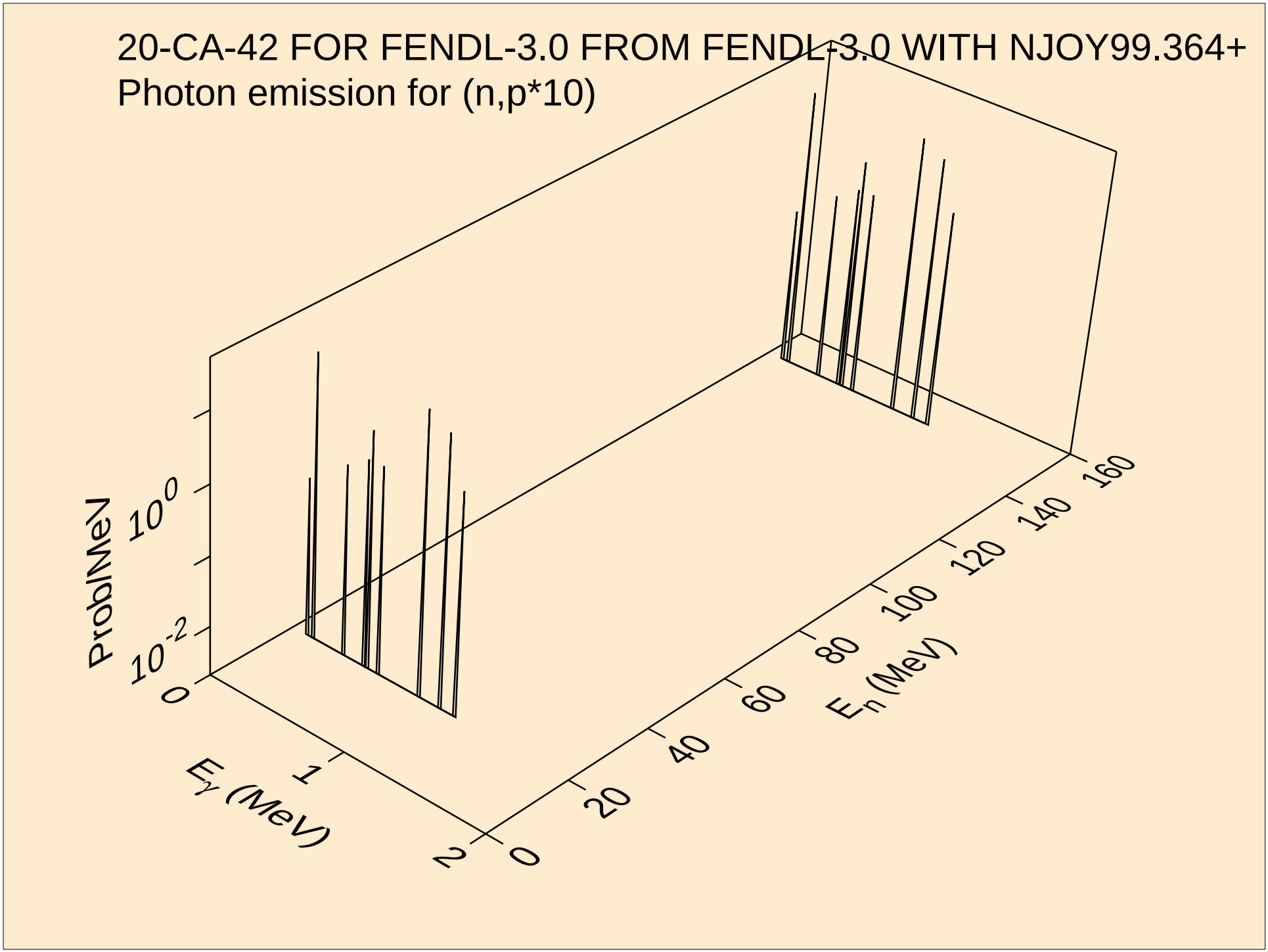

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*5)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

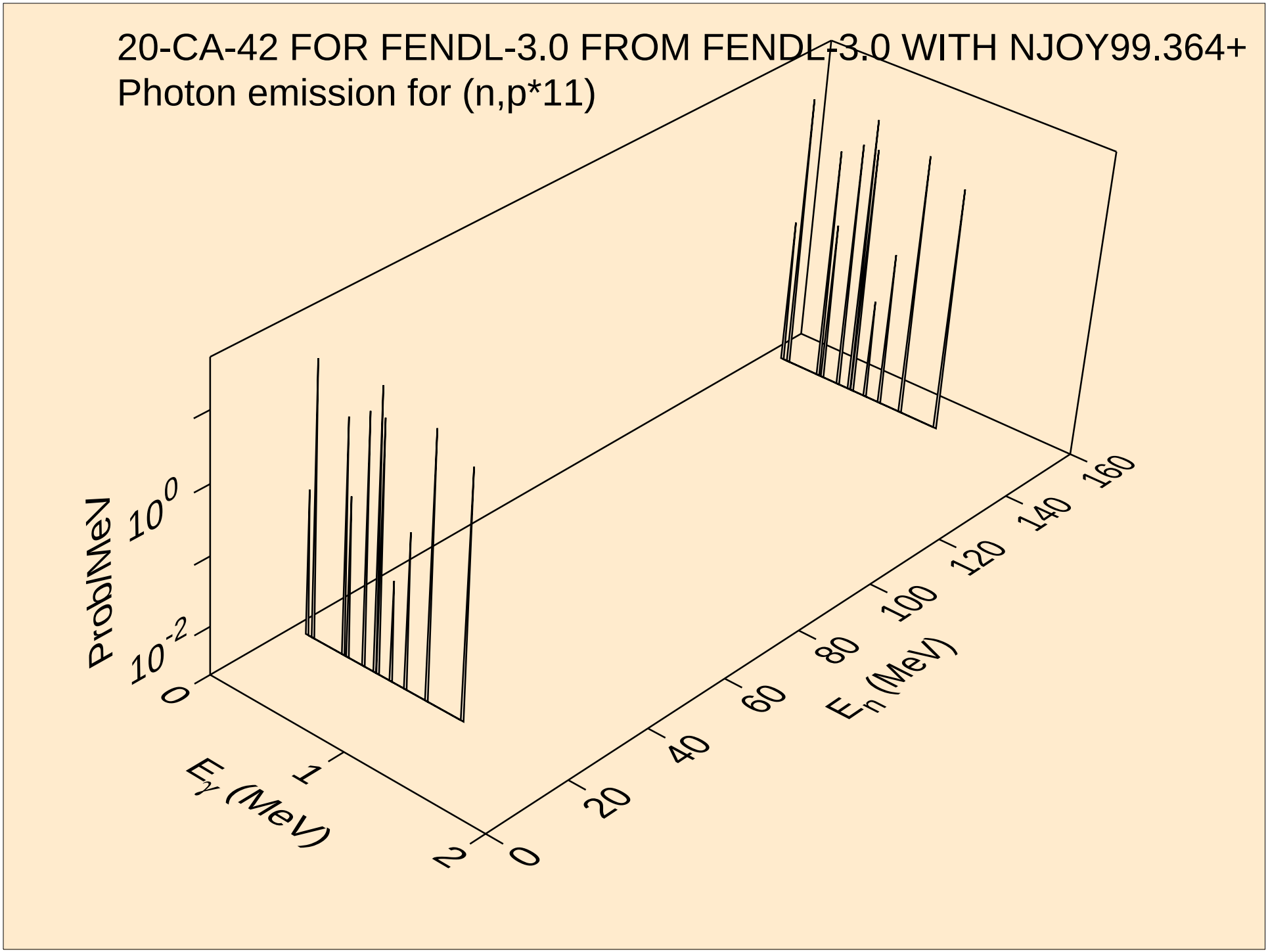

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*6)
Prob/MeV
10^0
10^-2
600
700
800
900
0
*10^-3
Eγ (MeV)
20
40
60
80
100
120
140
160
En (MeV)

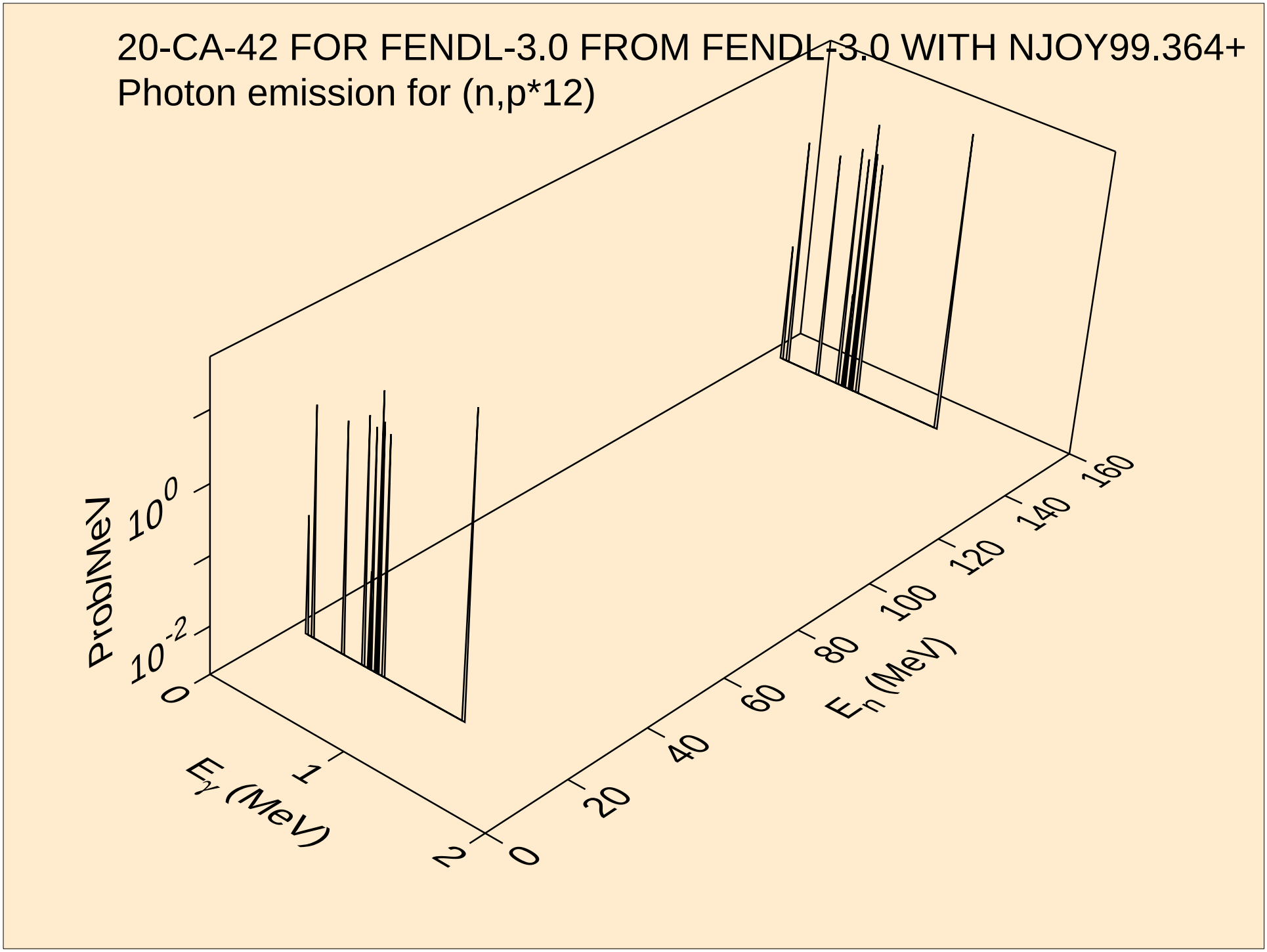

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*7)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0.0
0.5
1.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

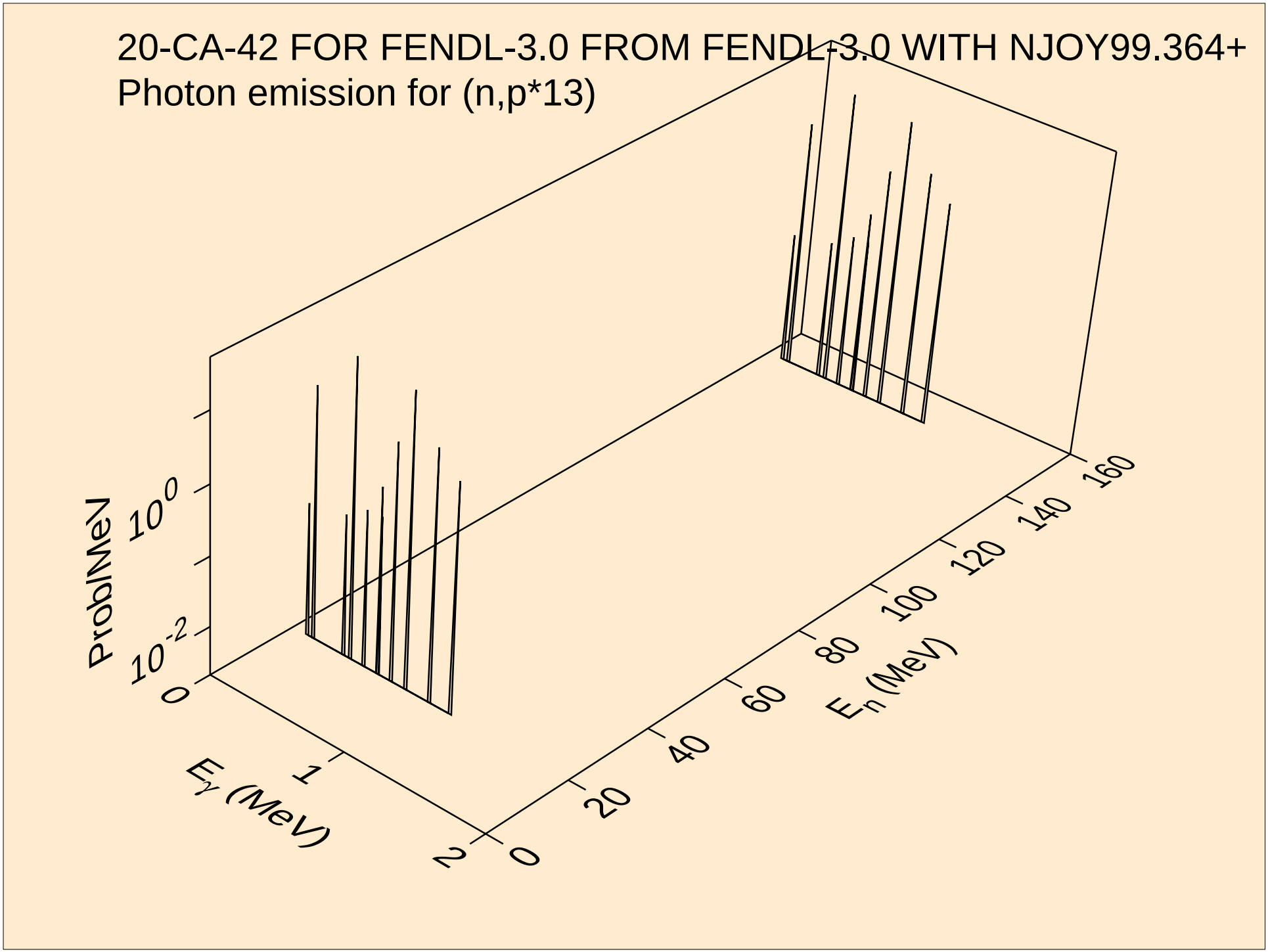

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*8)
Prob/MeV
10^0
10^-2
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

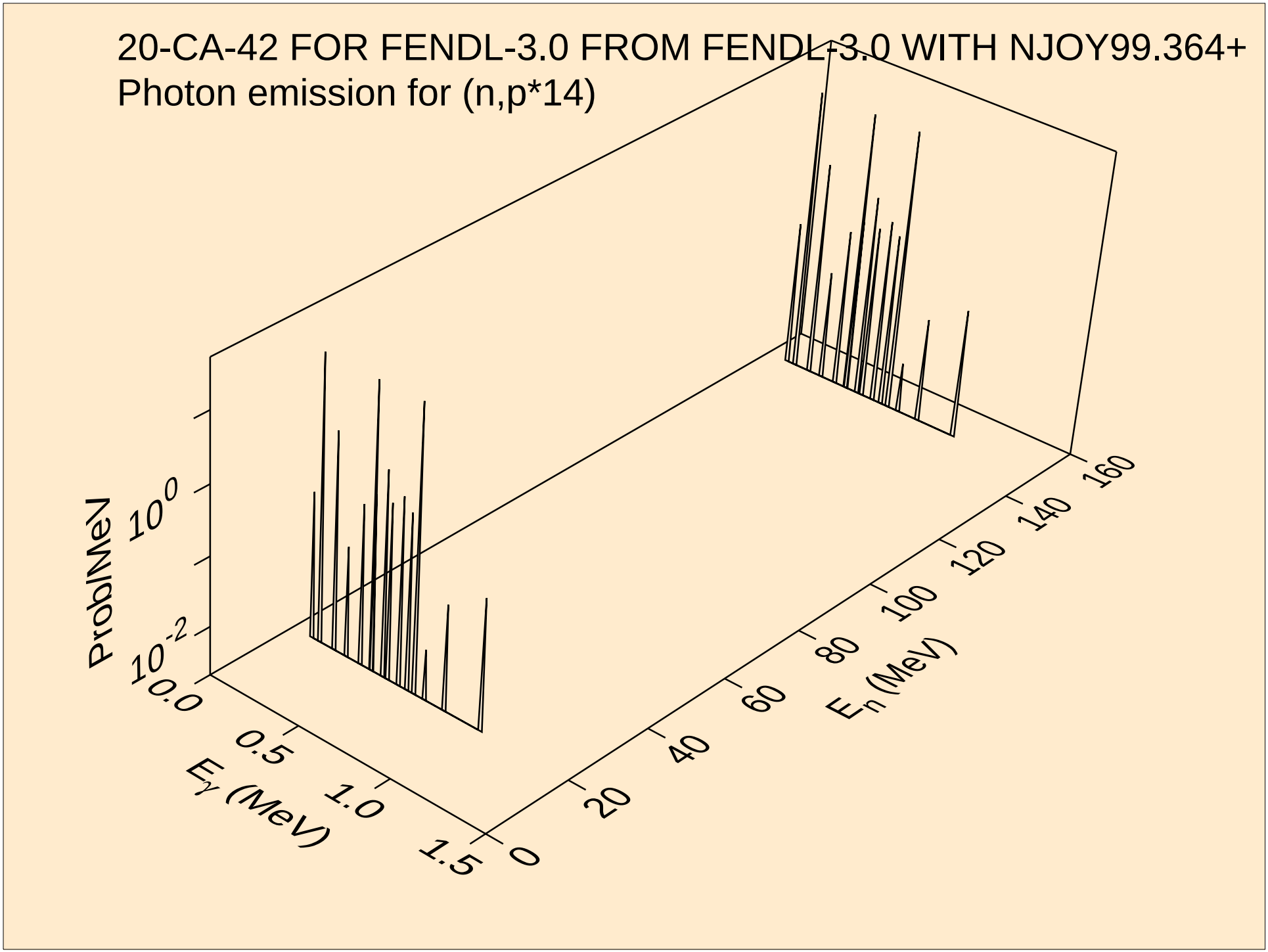

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*9)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
1.5
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

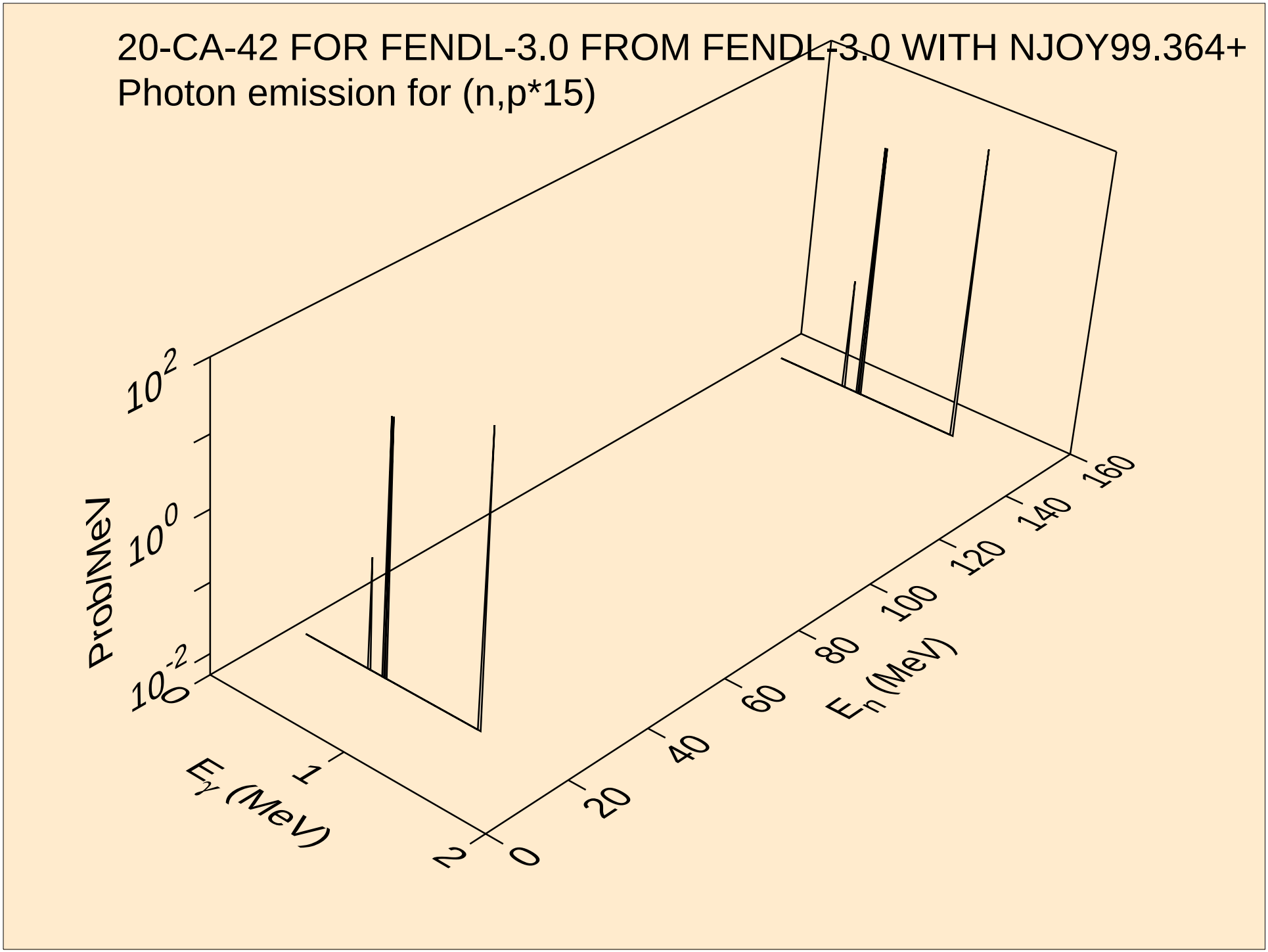

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*10)
Prob/MeV
10^0
10^-2
0
E_γ (MeV)
1
2
0
20
40
60
80
100
120
140
160
E_n (MeV)

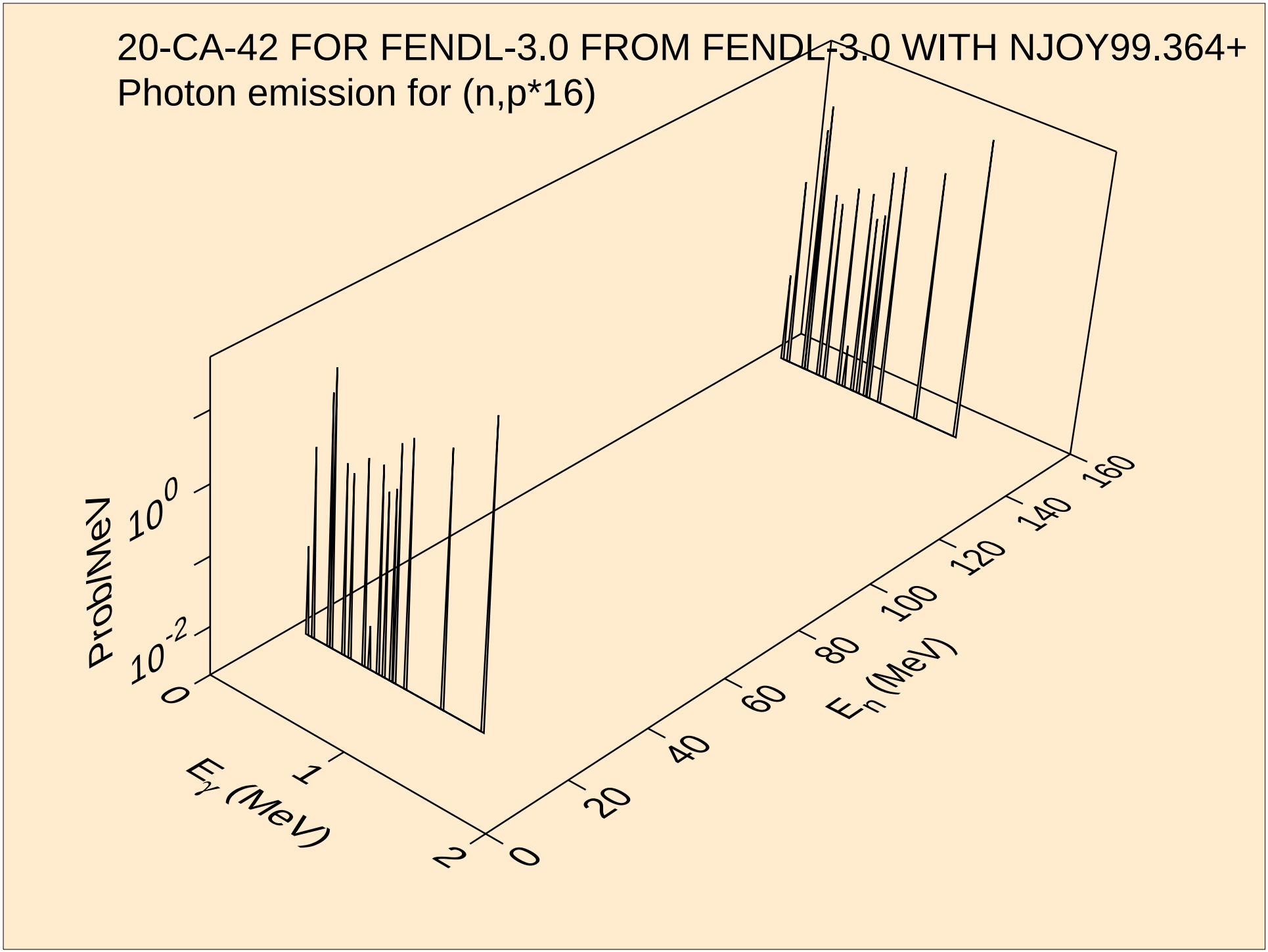

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*11)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

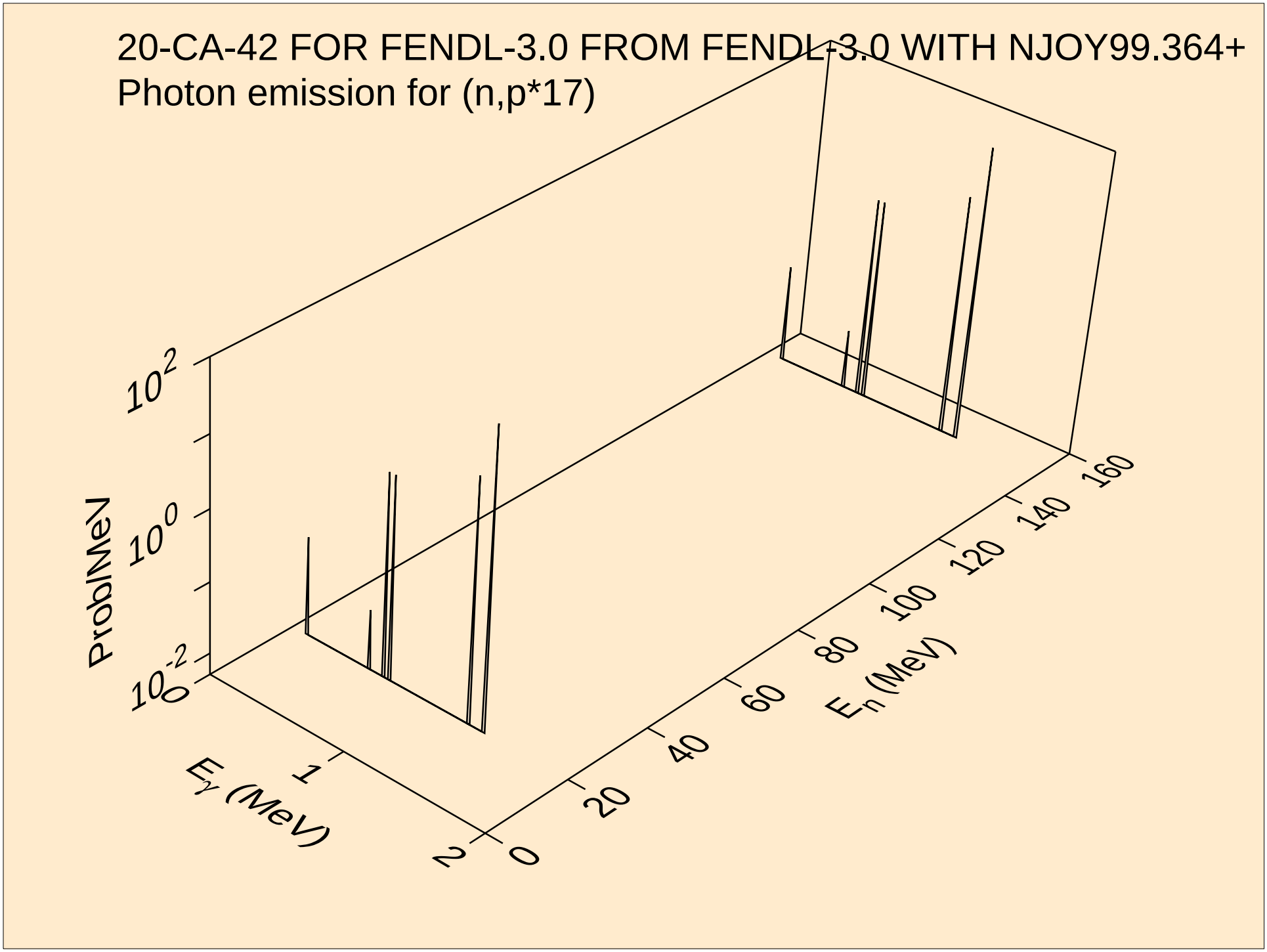

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*12)
Prob/MeV
10^0
10^-2
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

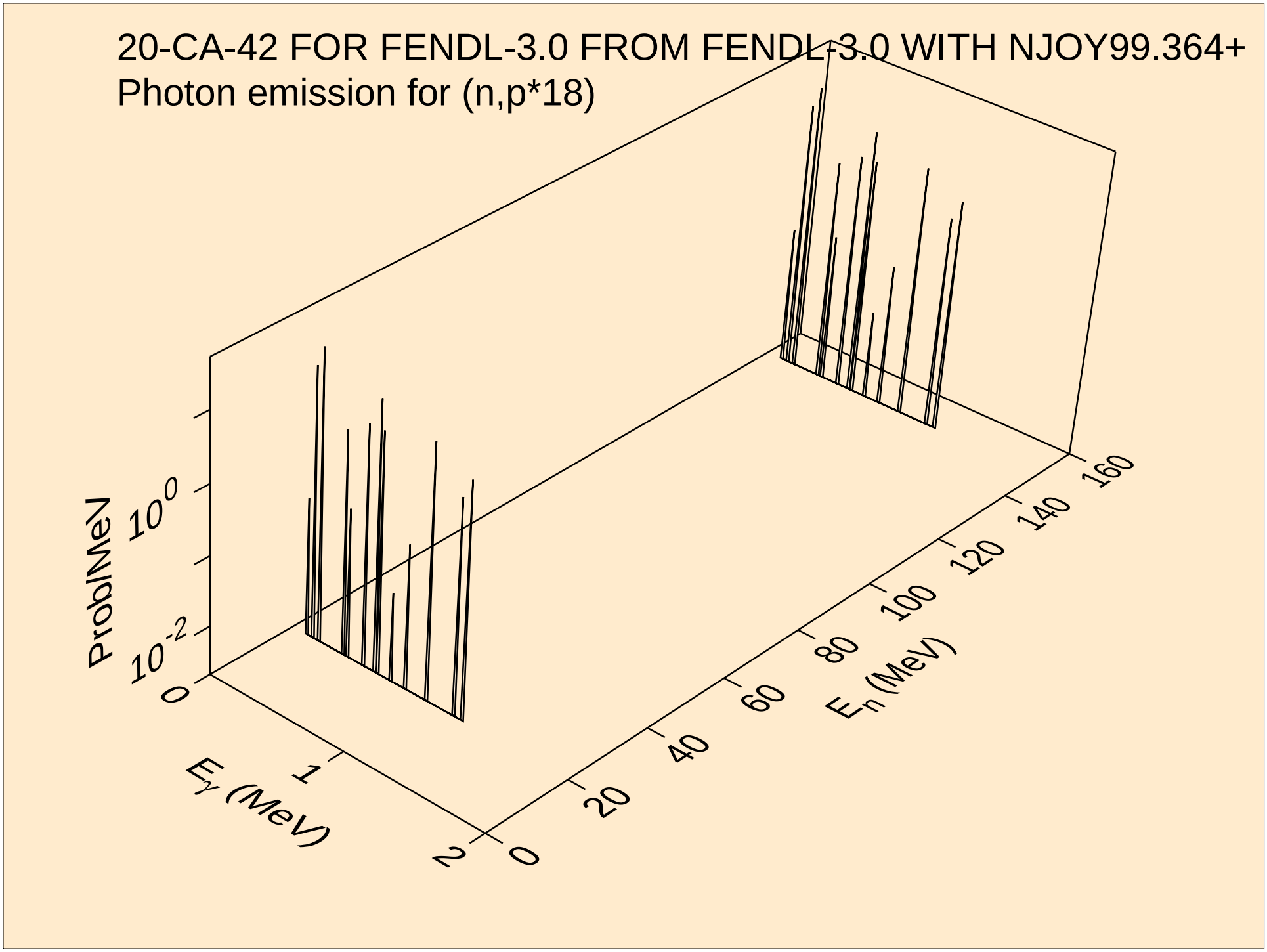

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*13)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

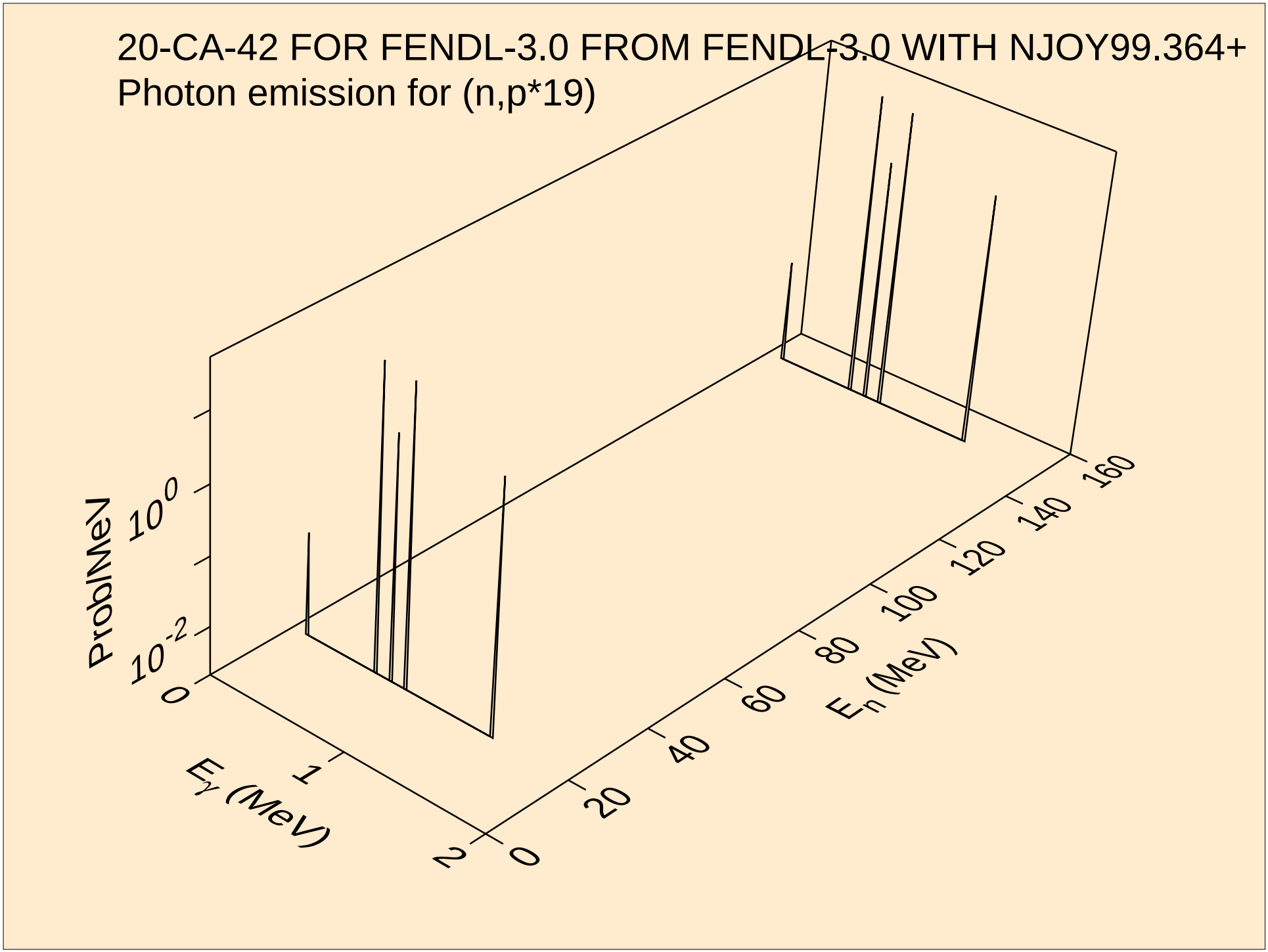

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*14)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
1.5
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

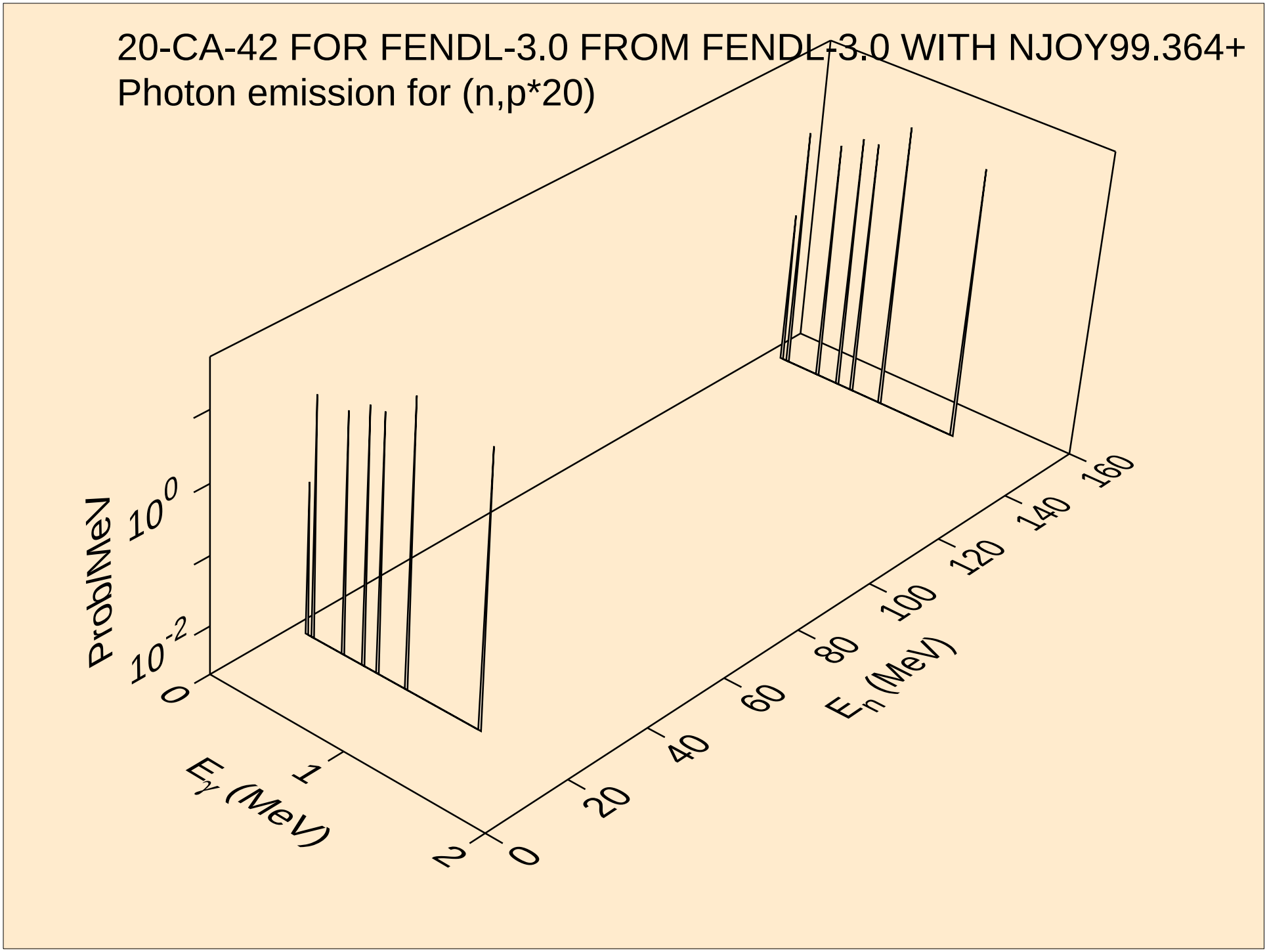

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*15)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
1
2
E_n (MeV)
0
20
40
60
80
100
120
140
160

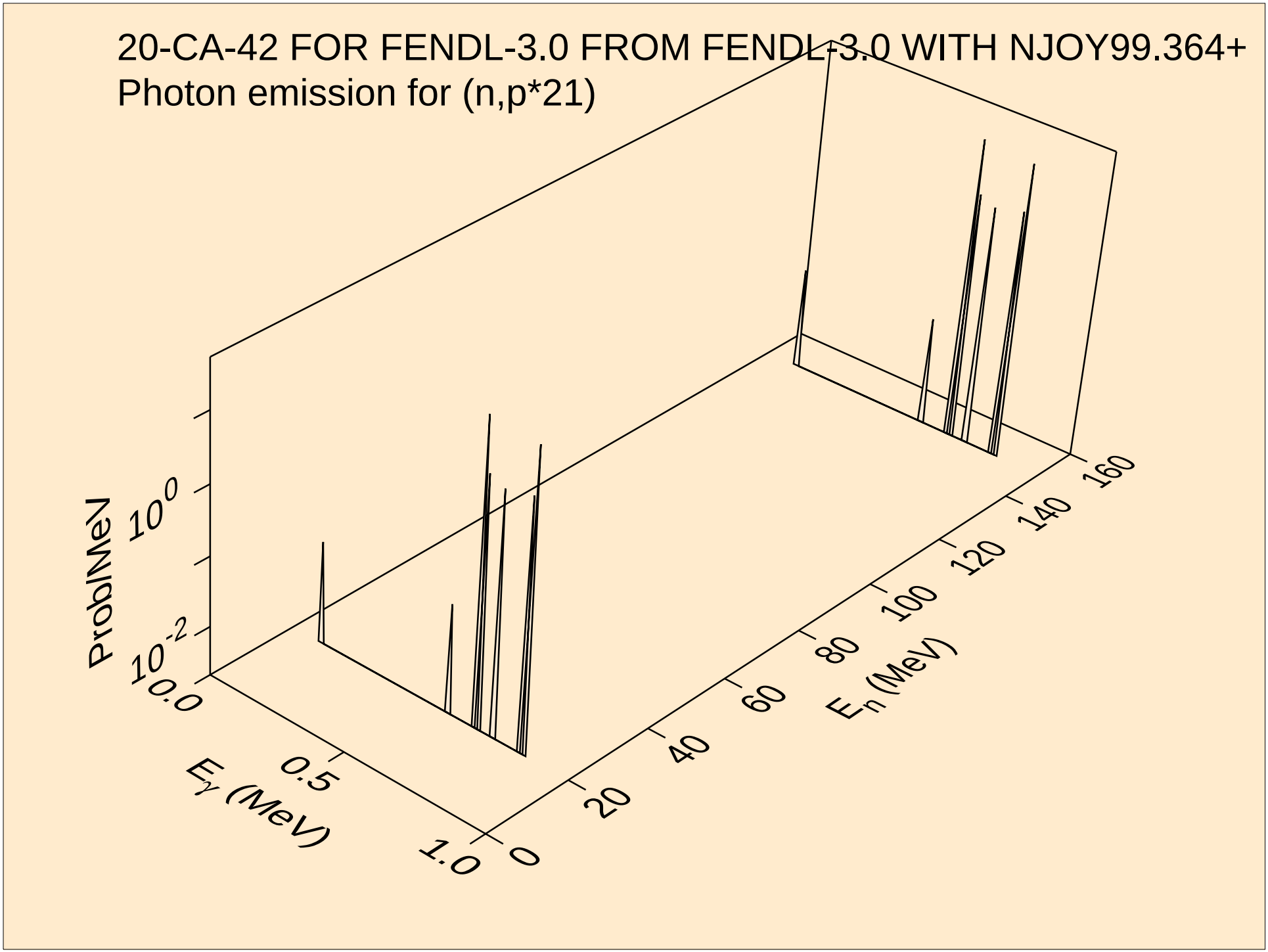

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*16)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

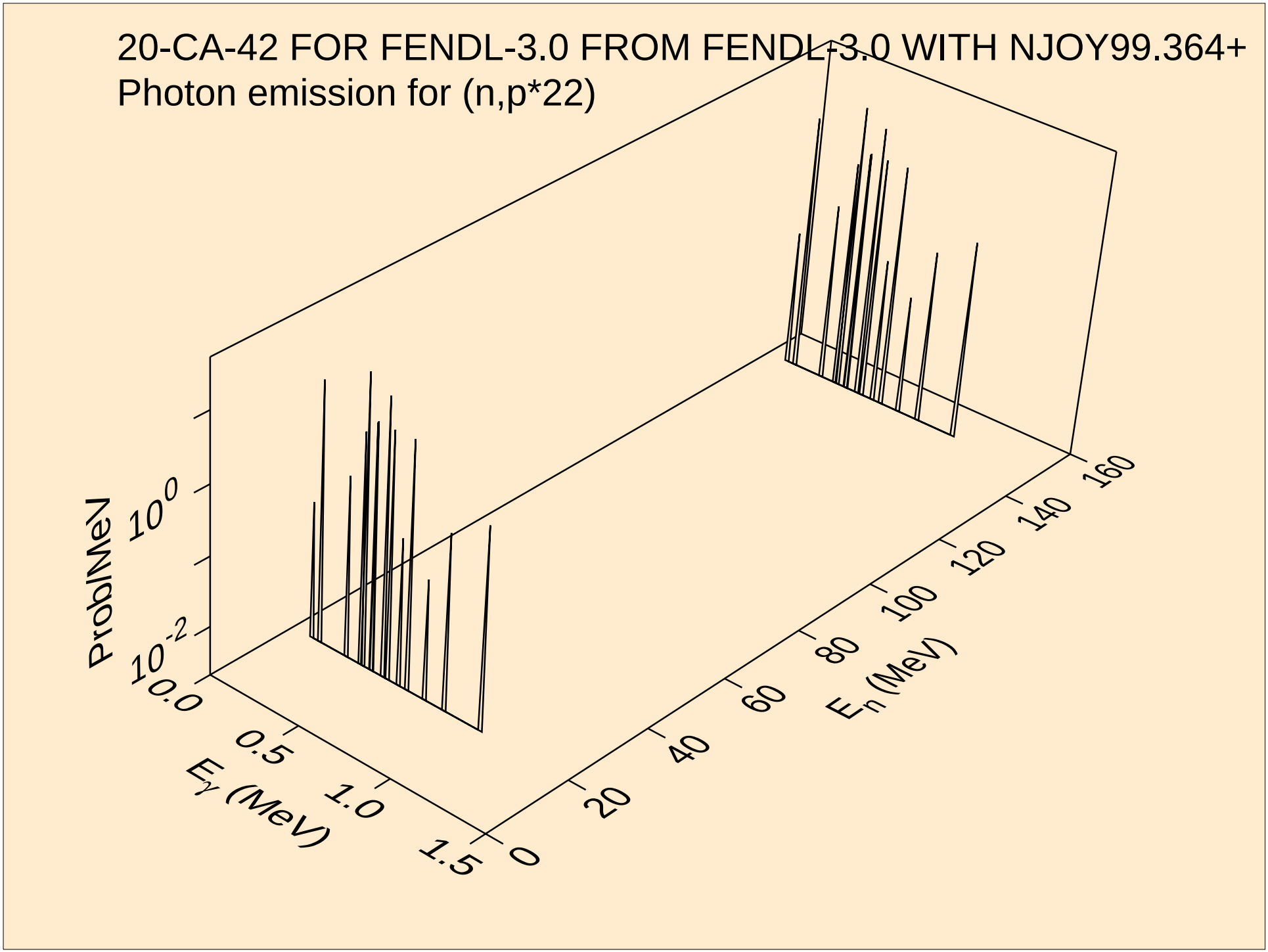

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*17)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
1
2
E_n (MeV)
0
20
40
60
80
100
120
140
160

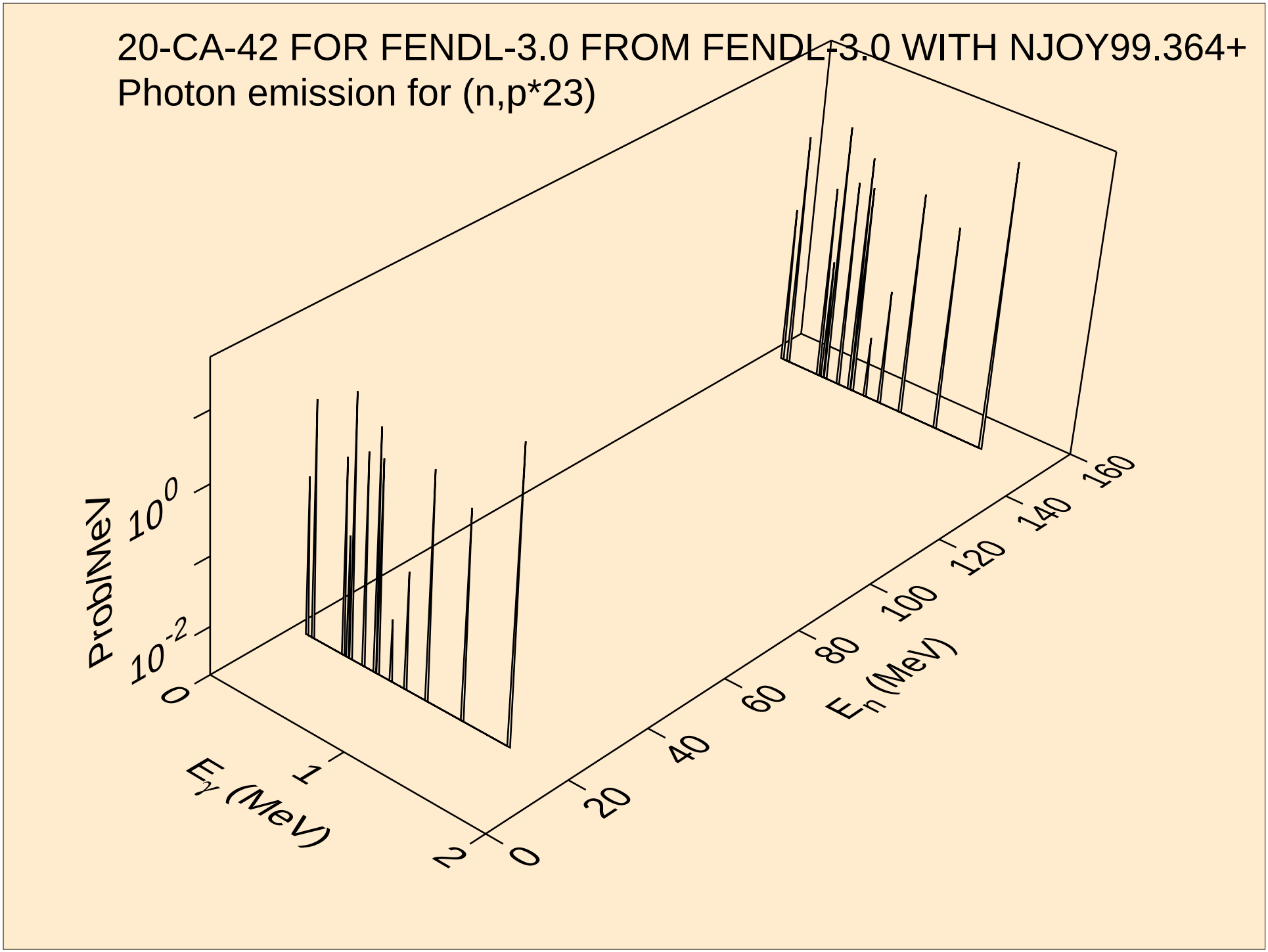

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*18)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

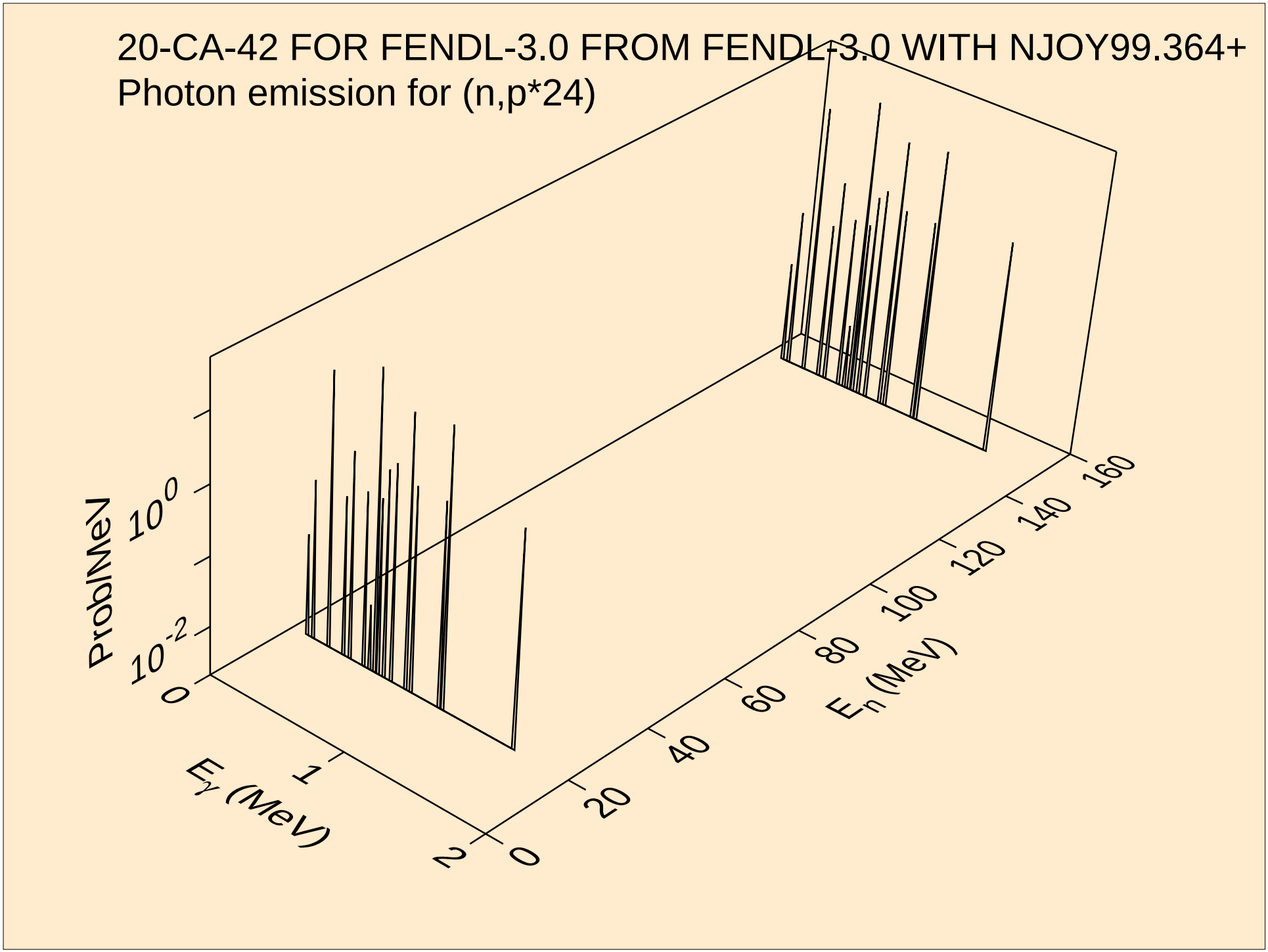

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*19)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

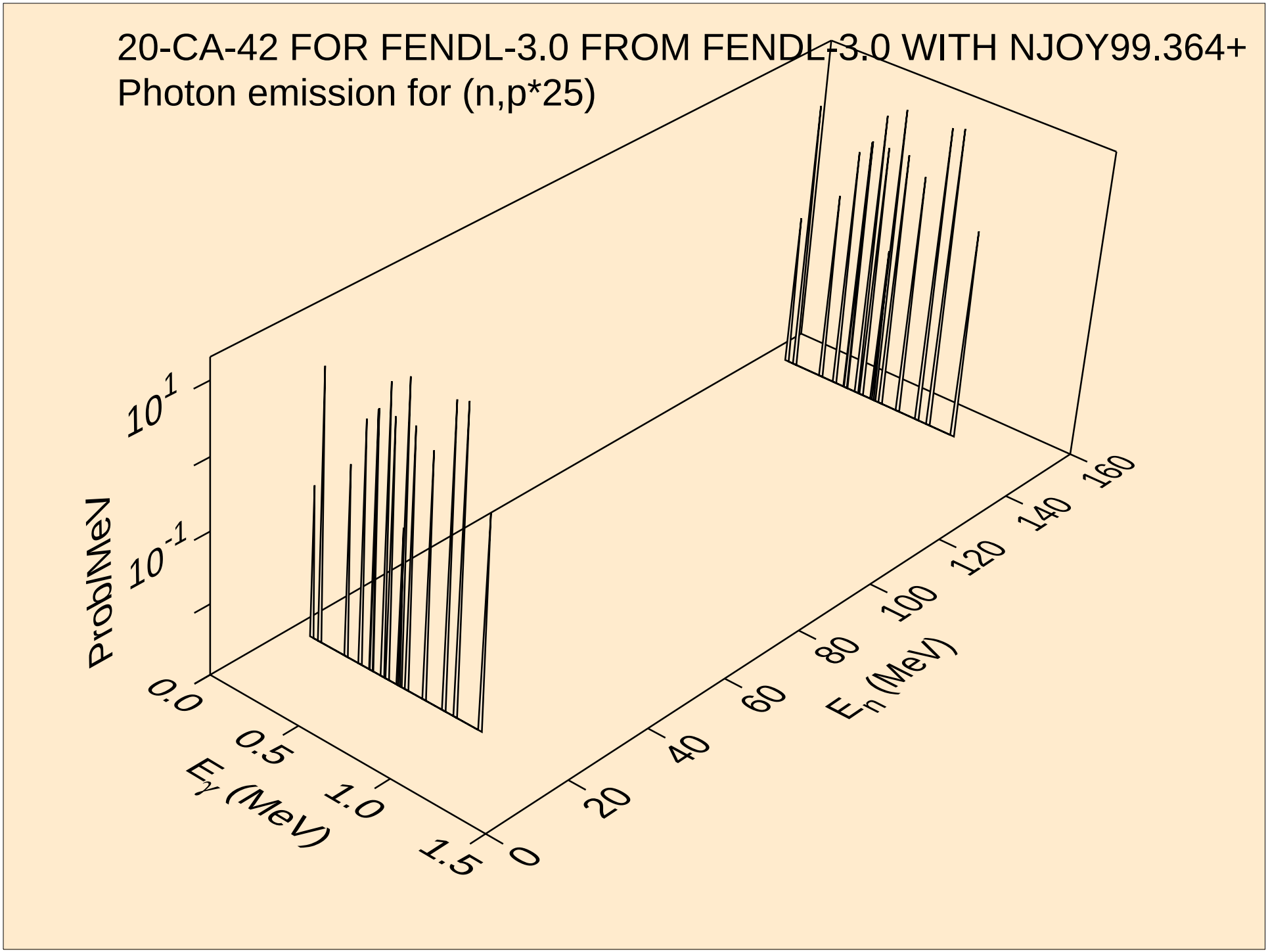

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*20)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

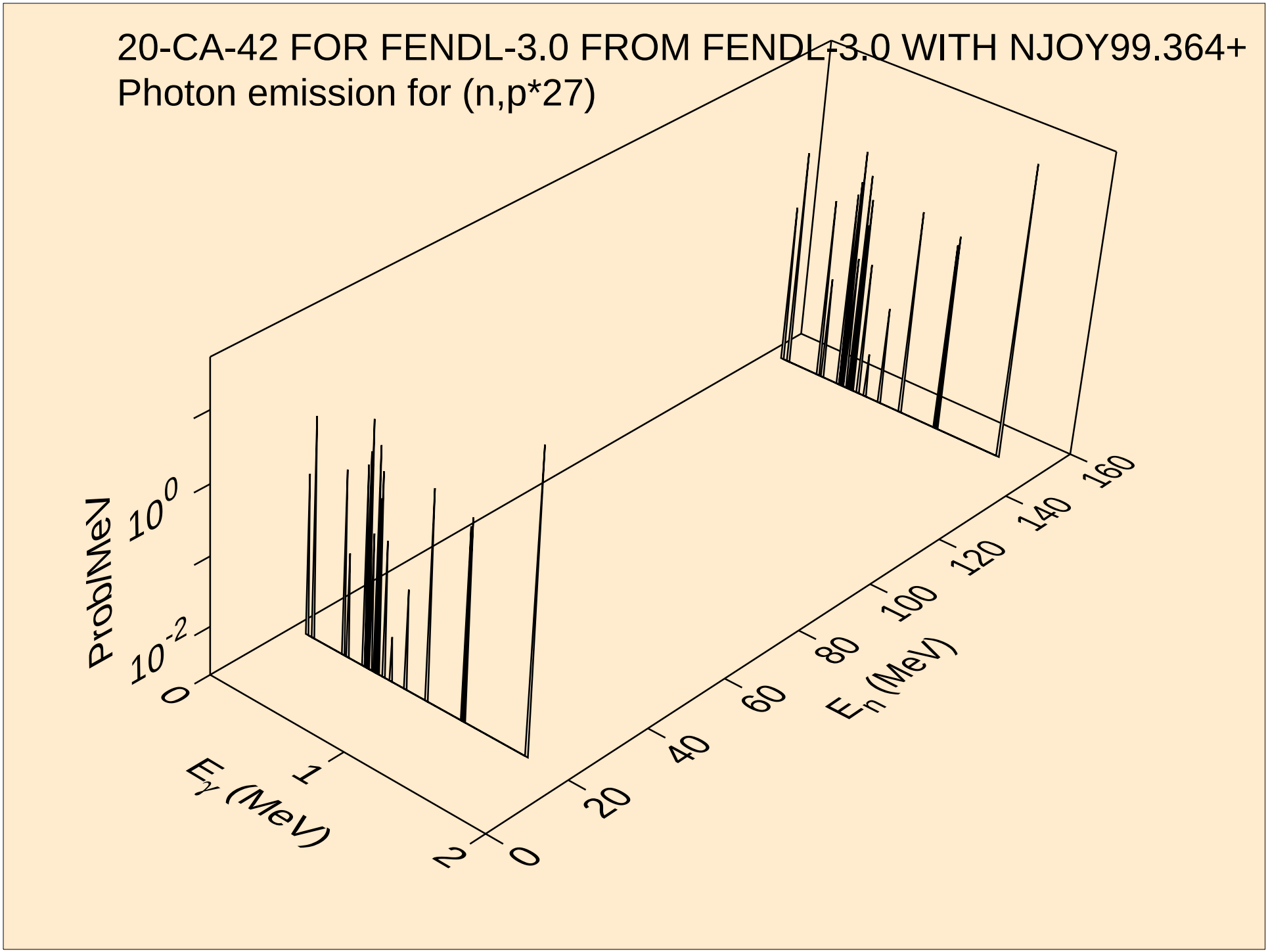

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*21)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

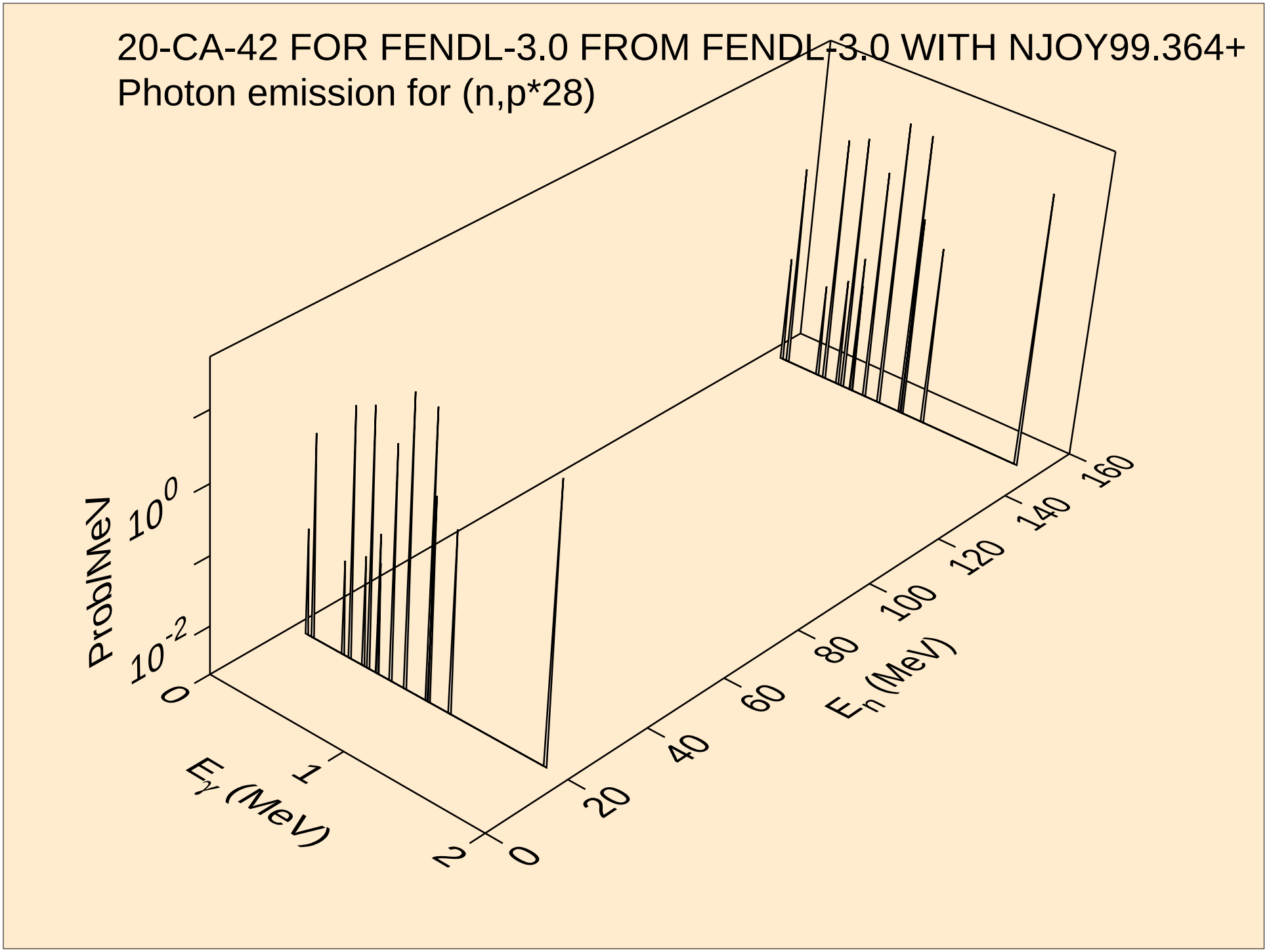

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*22)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
1.5
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

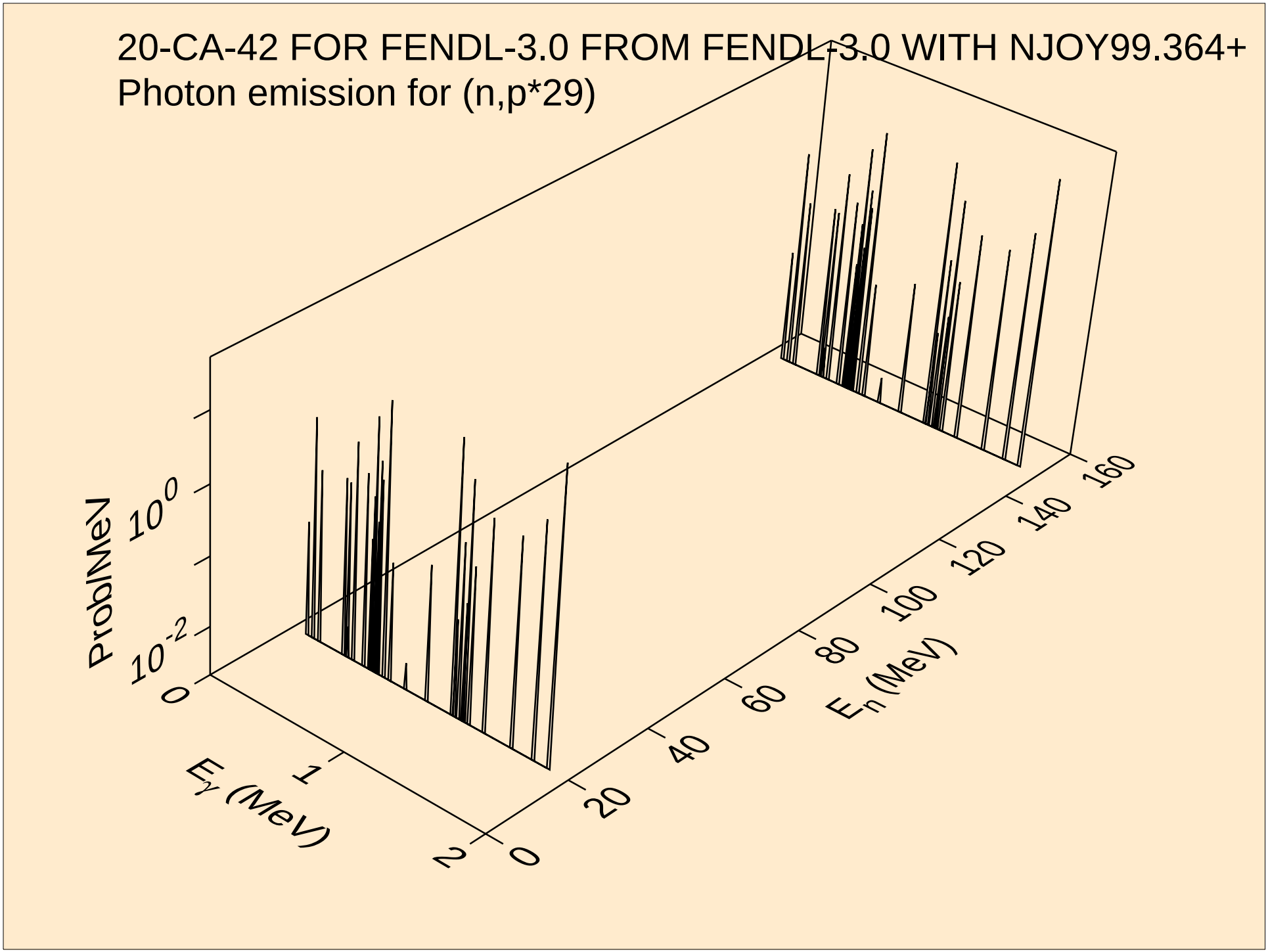

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*23)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

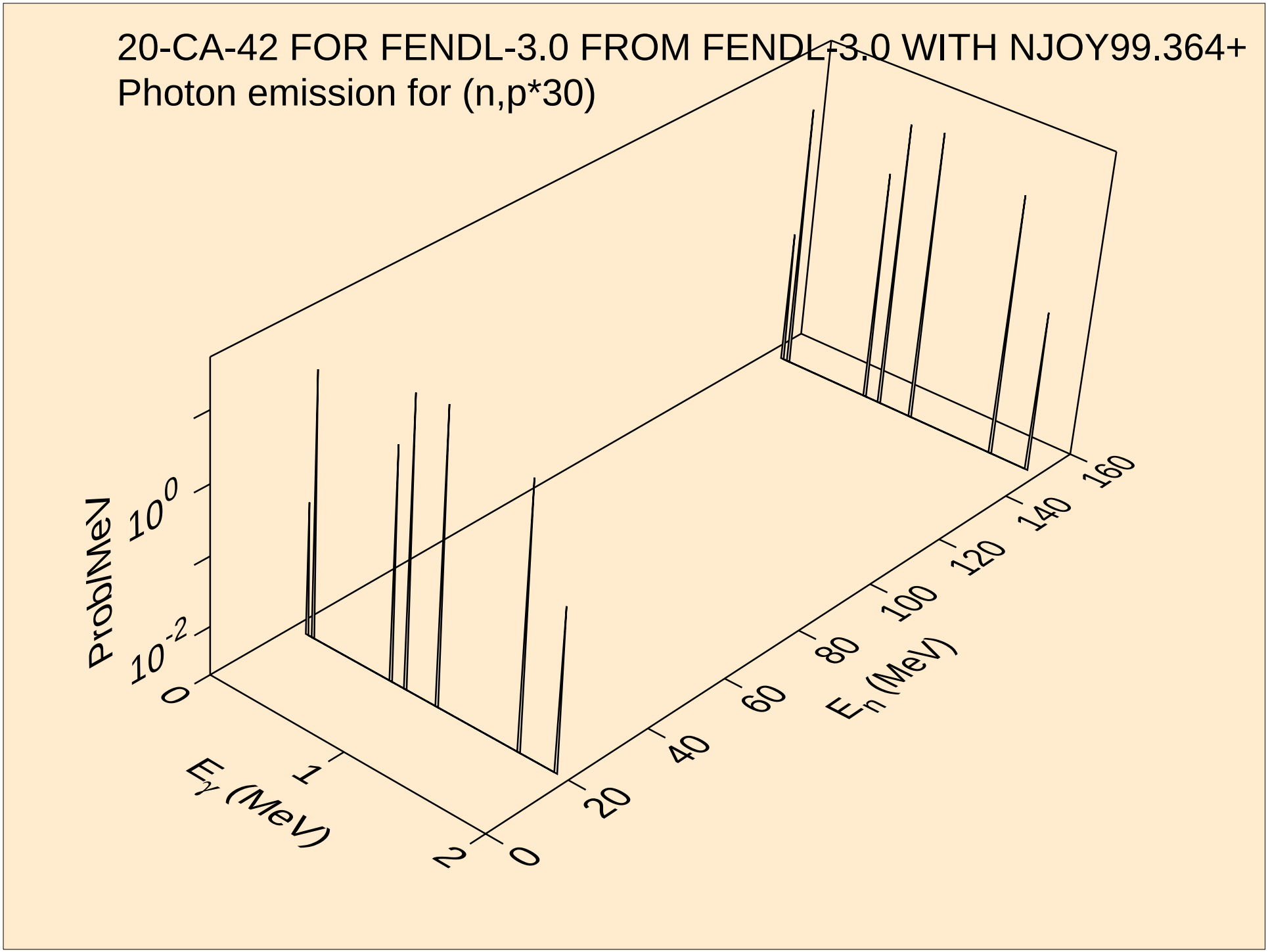

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*24)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

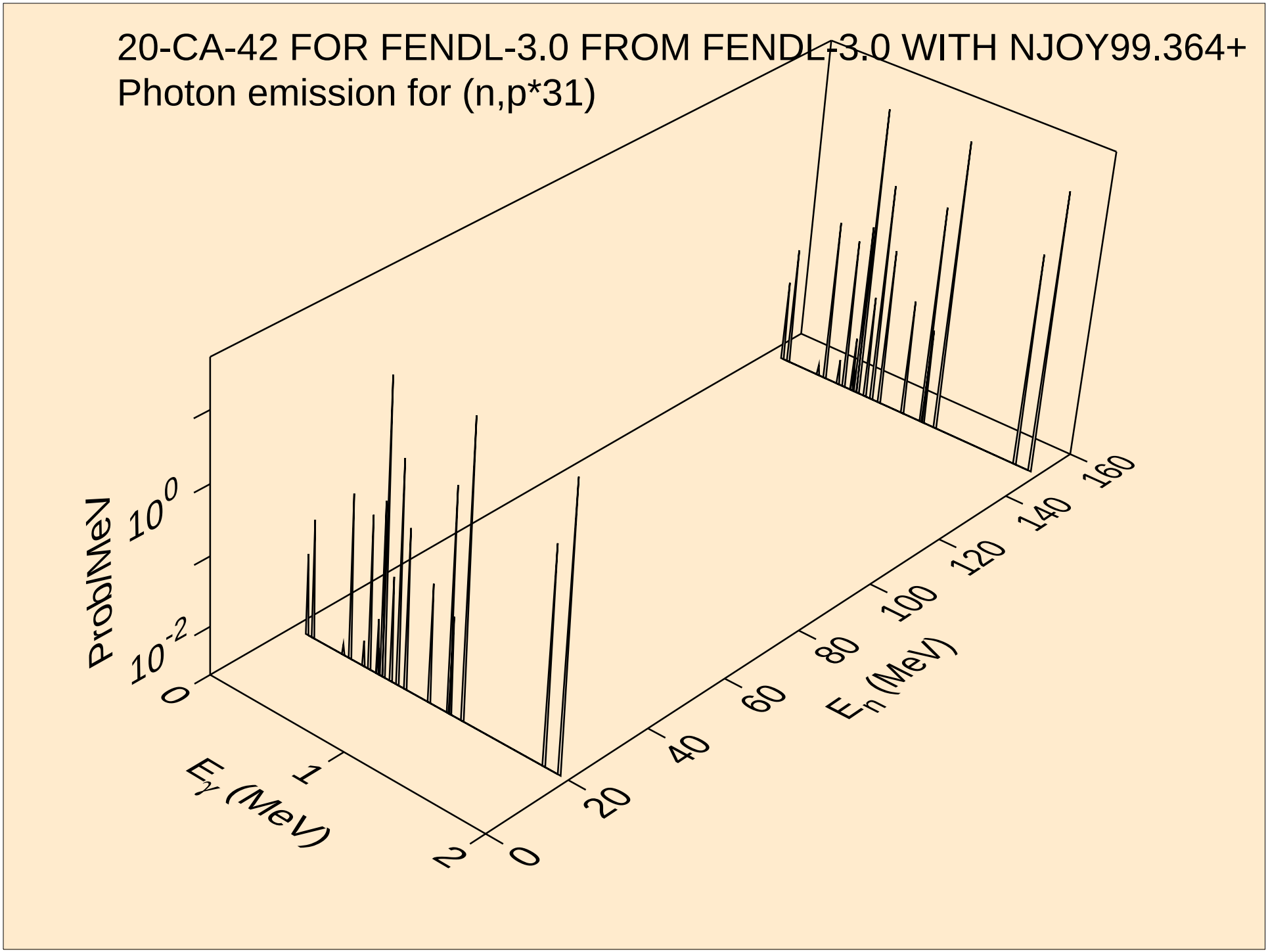

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*25)
Prob/MeV
10^{1}
10^{-1}
0.0
0.5
1.0
1.5
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

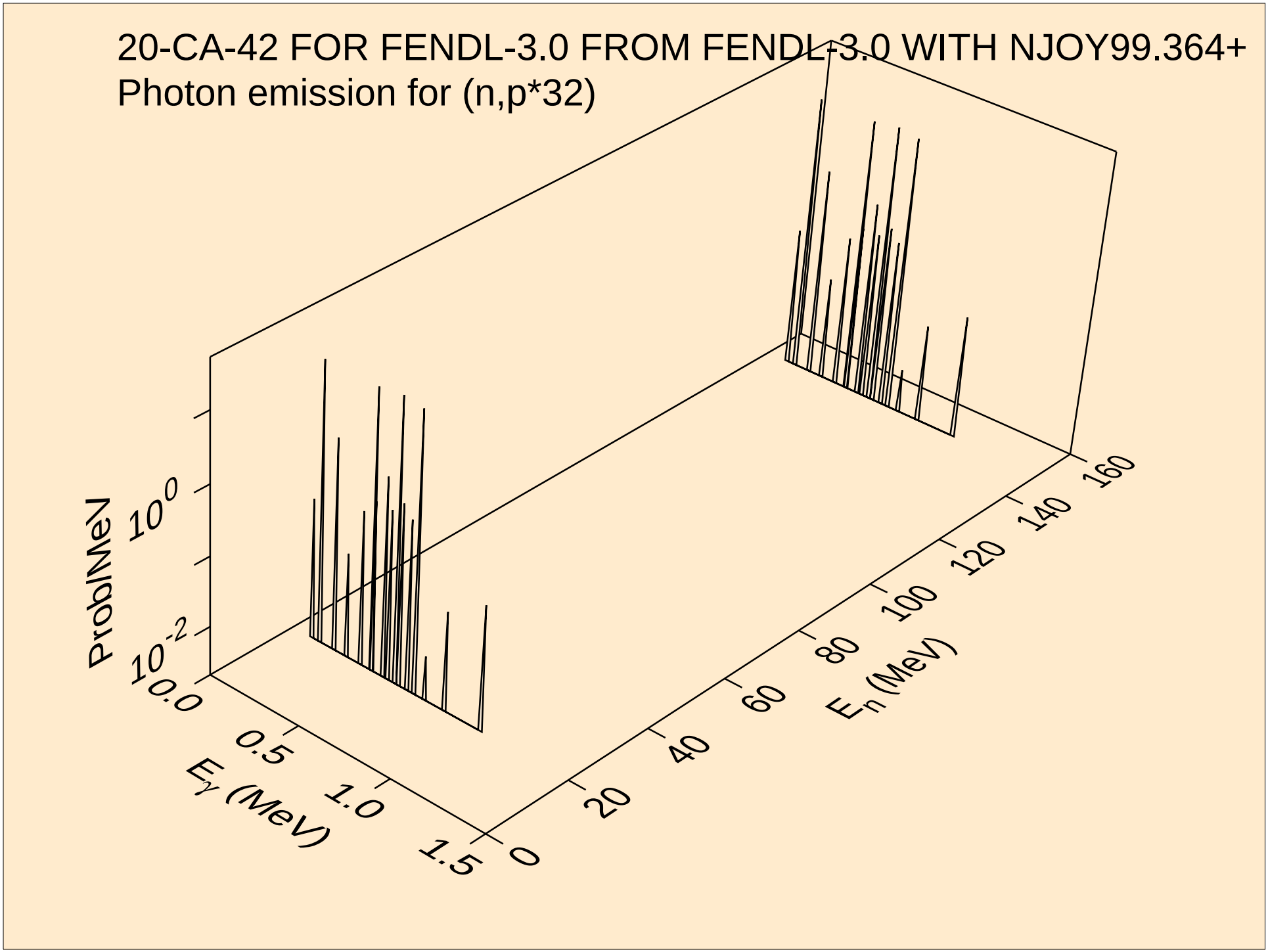

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*27)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

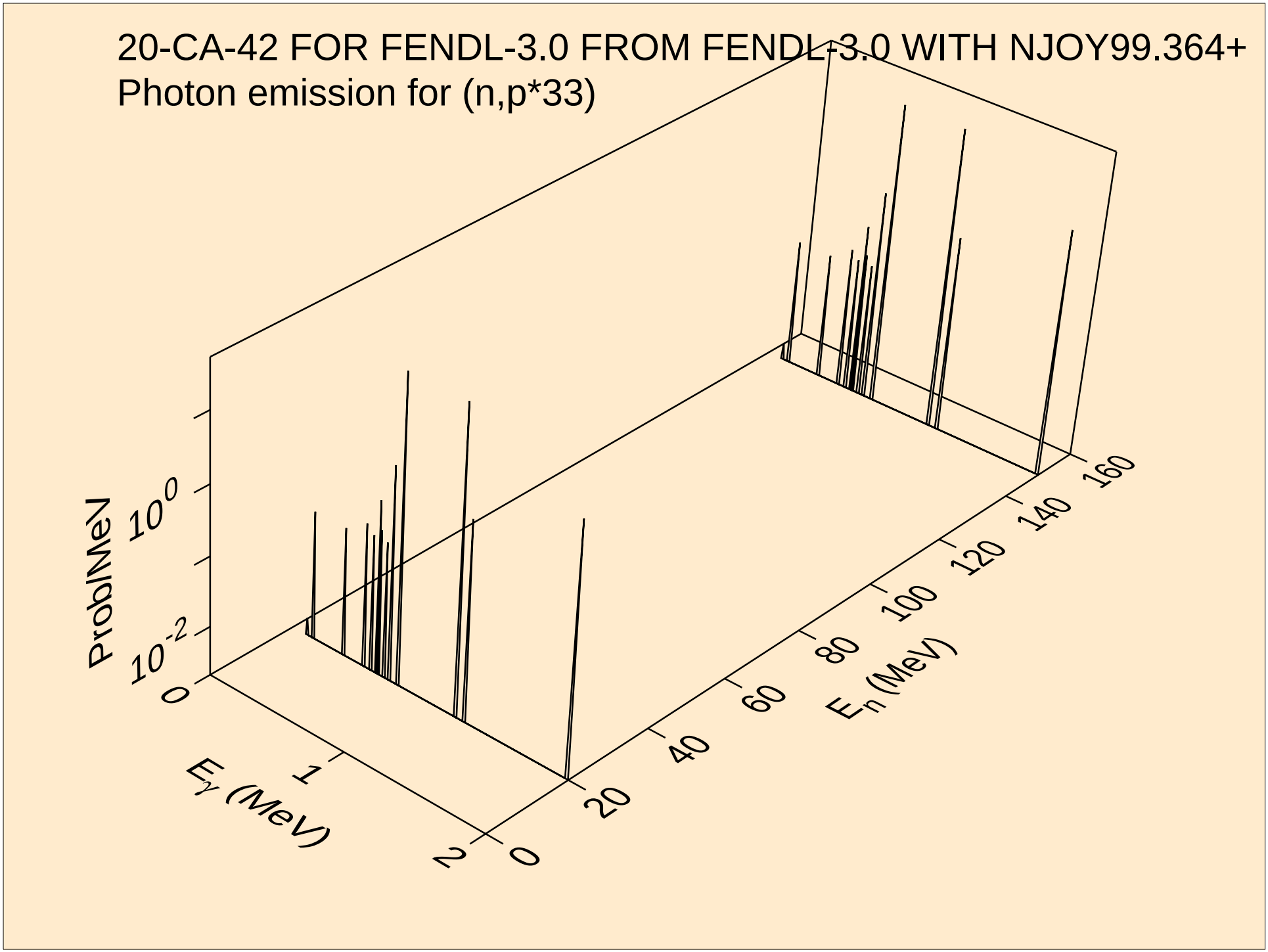

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*28)
Prob/MeV
10^0
10^-2
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

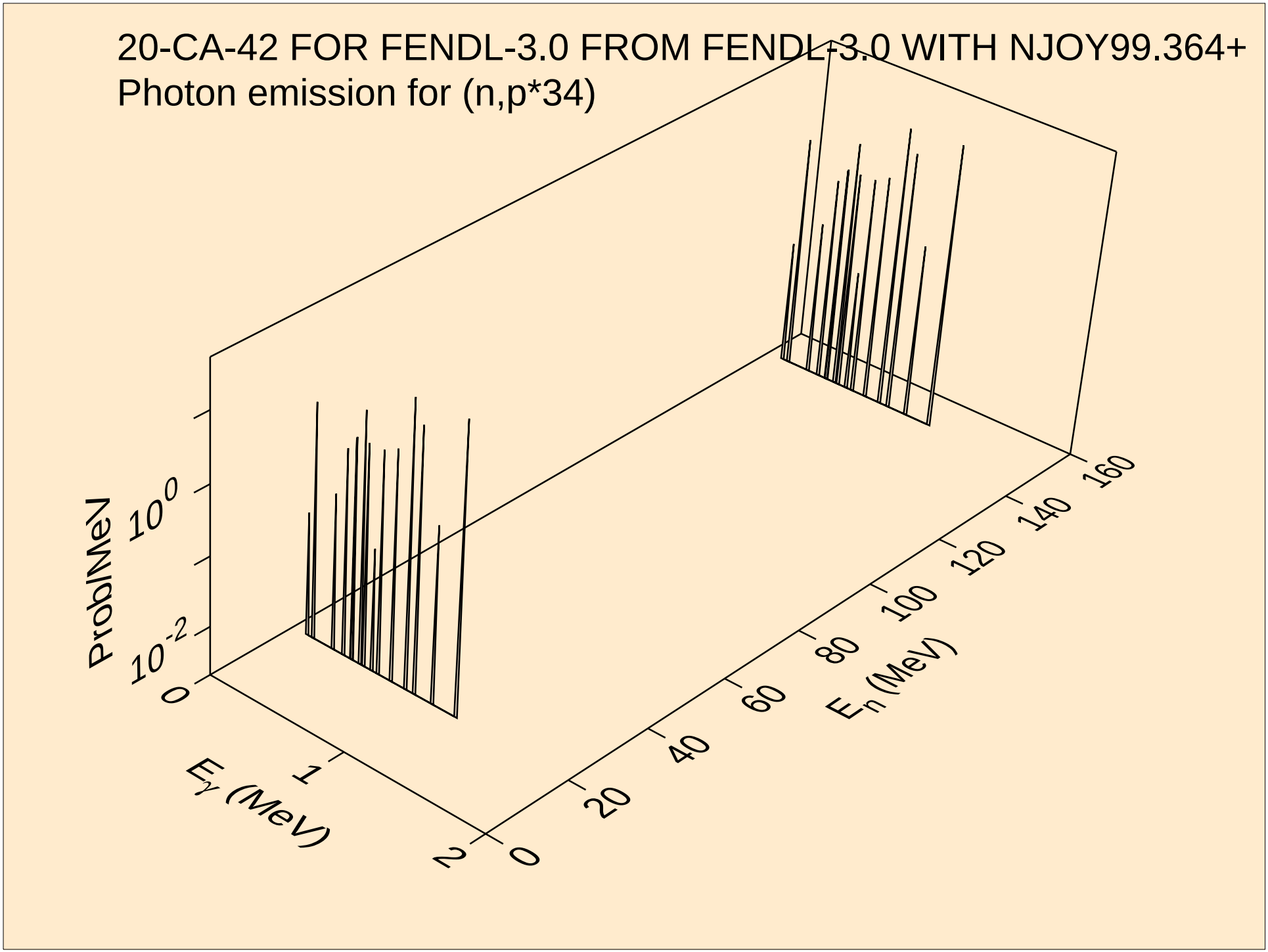

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*29)
Prob/MeV
10^0
10^-2
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

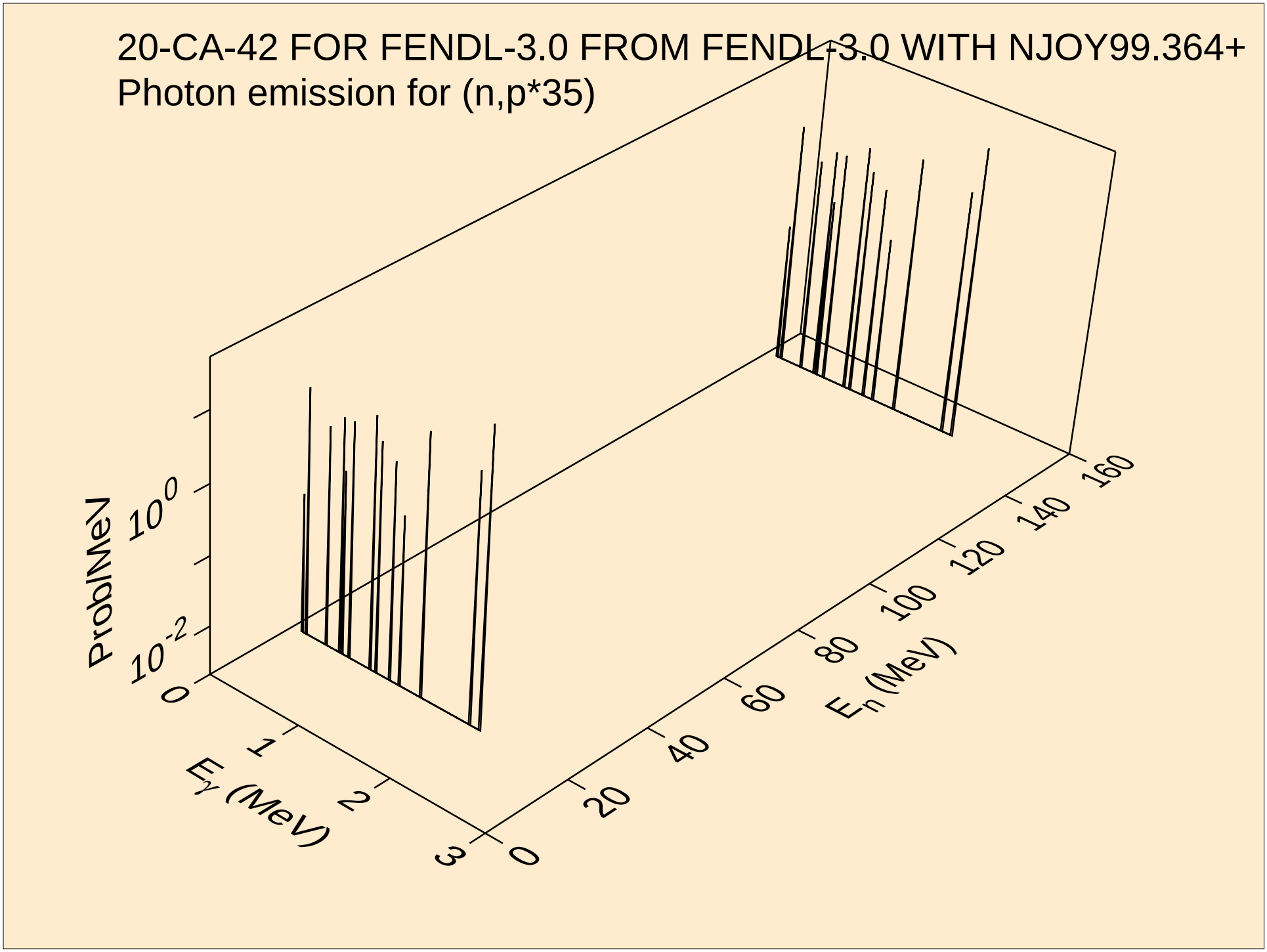

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*30)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

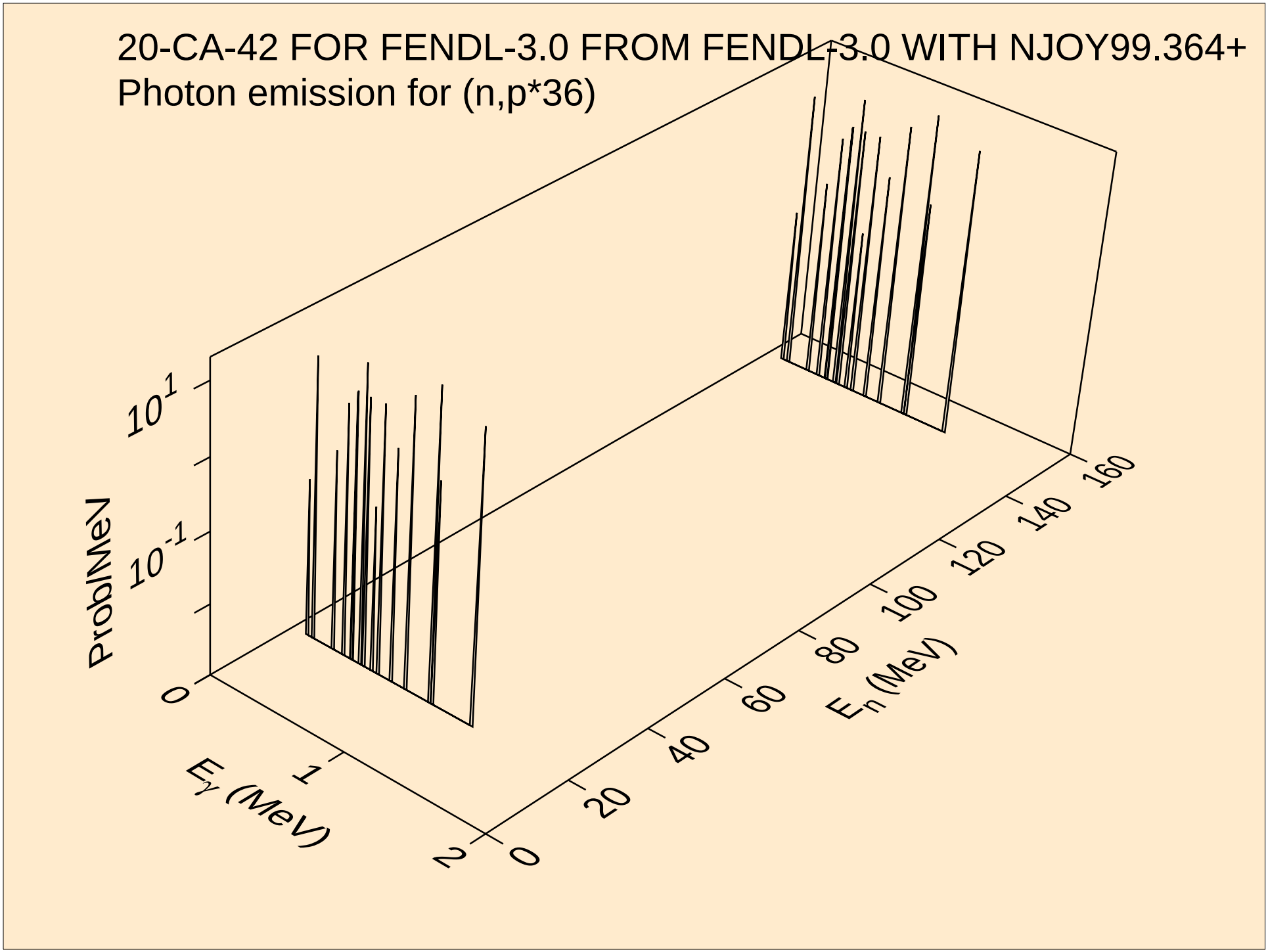

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*31)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

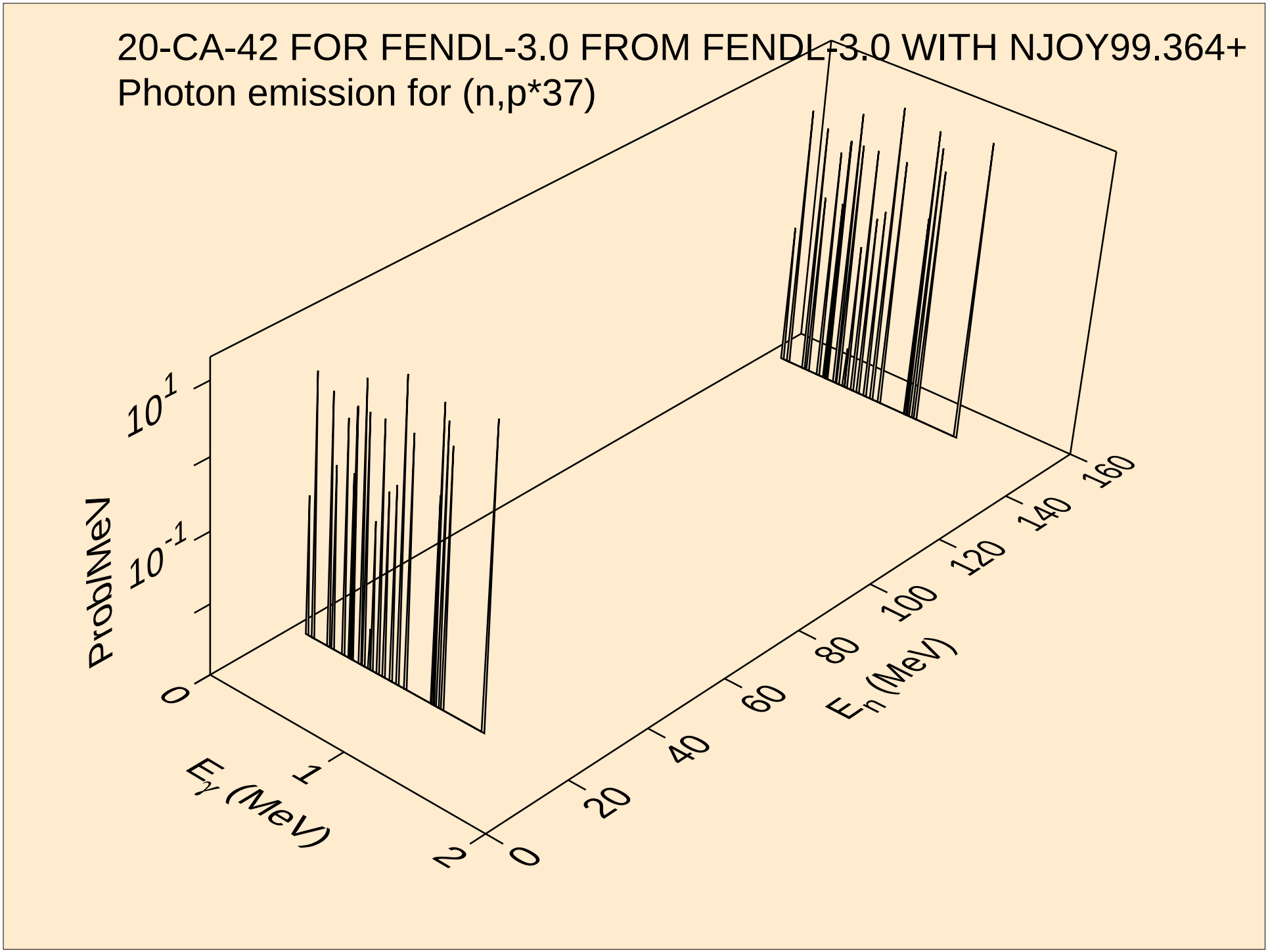

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*32)
Prob/MeV
10^0
10^-2
0.0
0.5
1.0
1.5
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

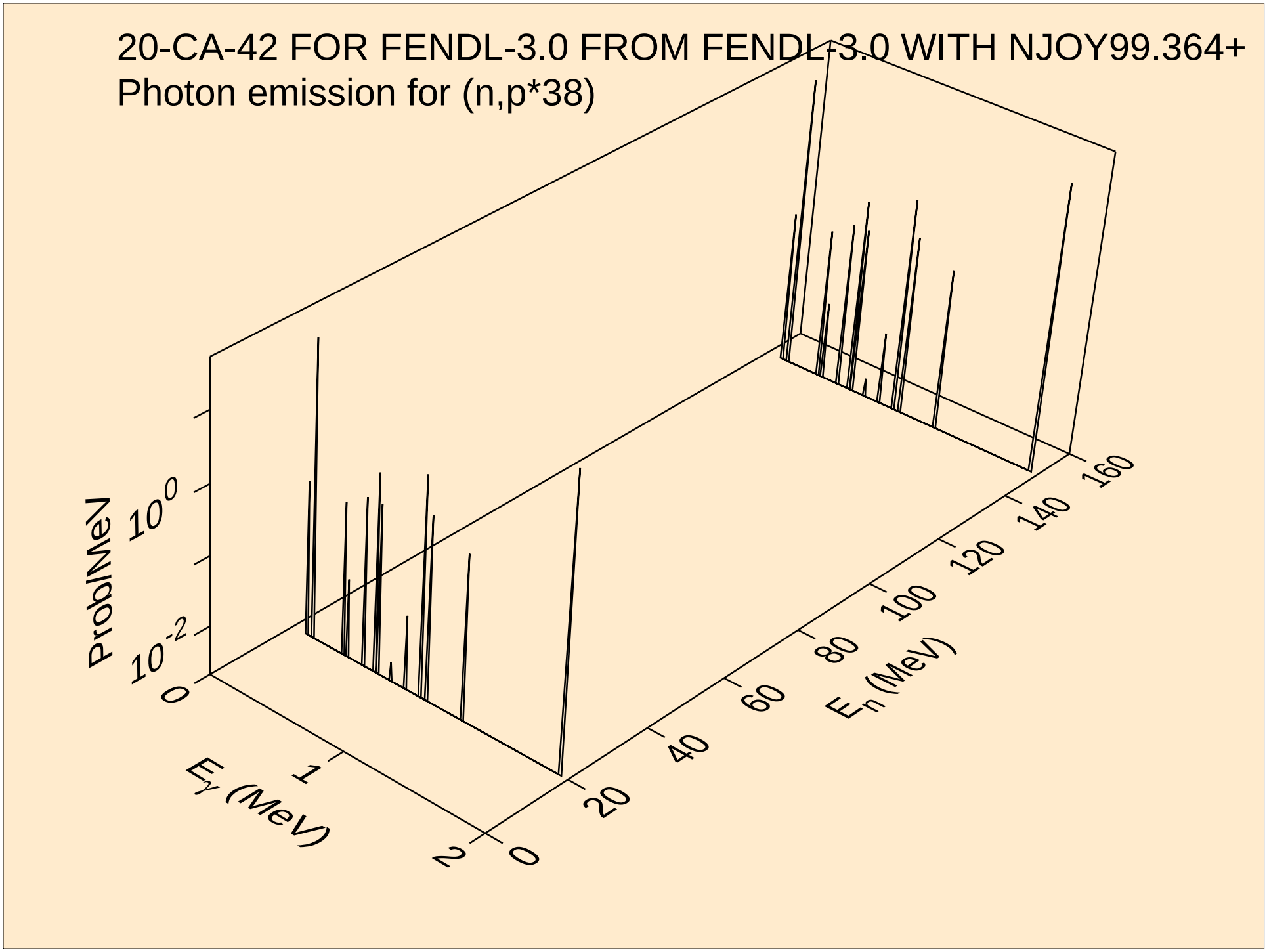

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*33)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

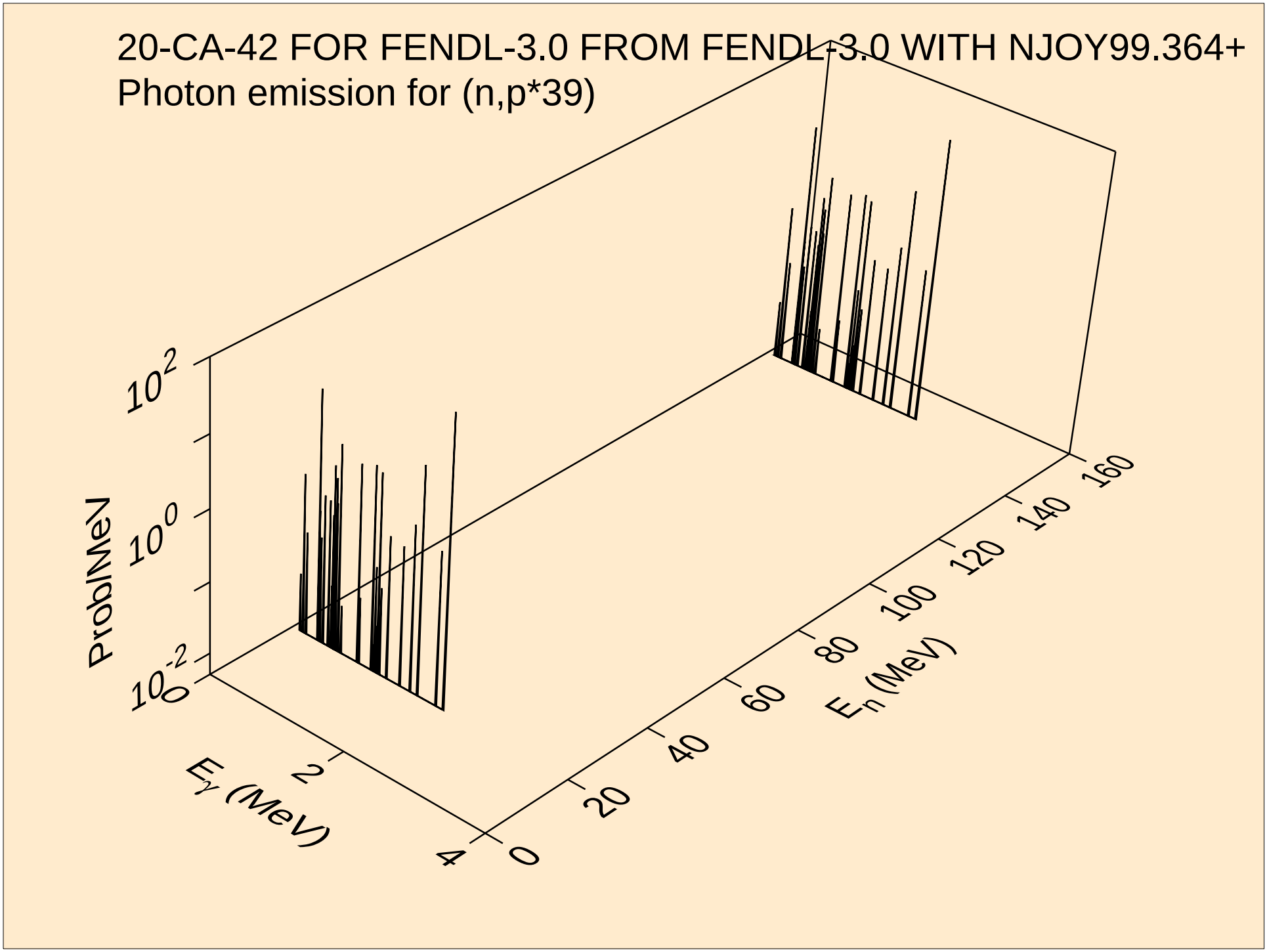

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*34)
Prob/MeV
10^0
10^-2
0
E_γ (MeV)
1
2
0
20
40
60
80
100
120
140
160
E_n (MeV)

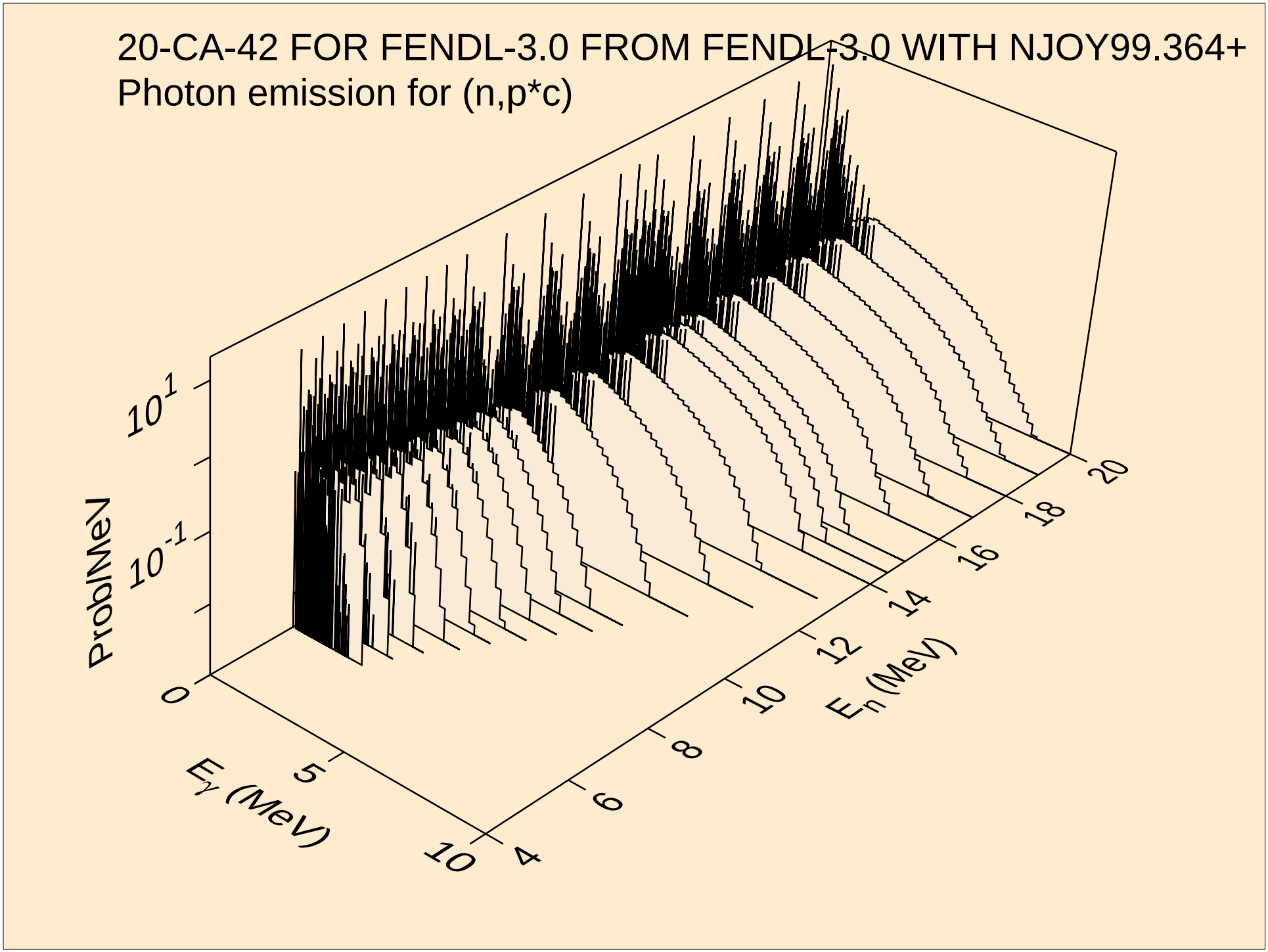

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*35)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

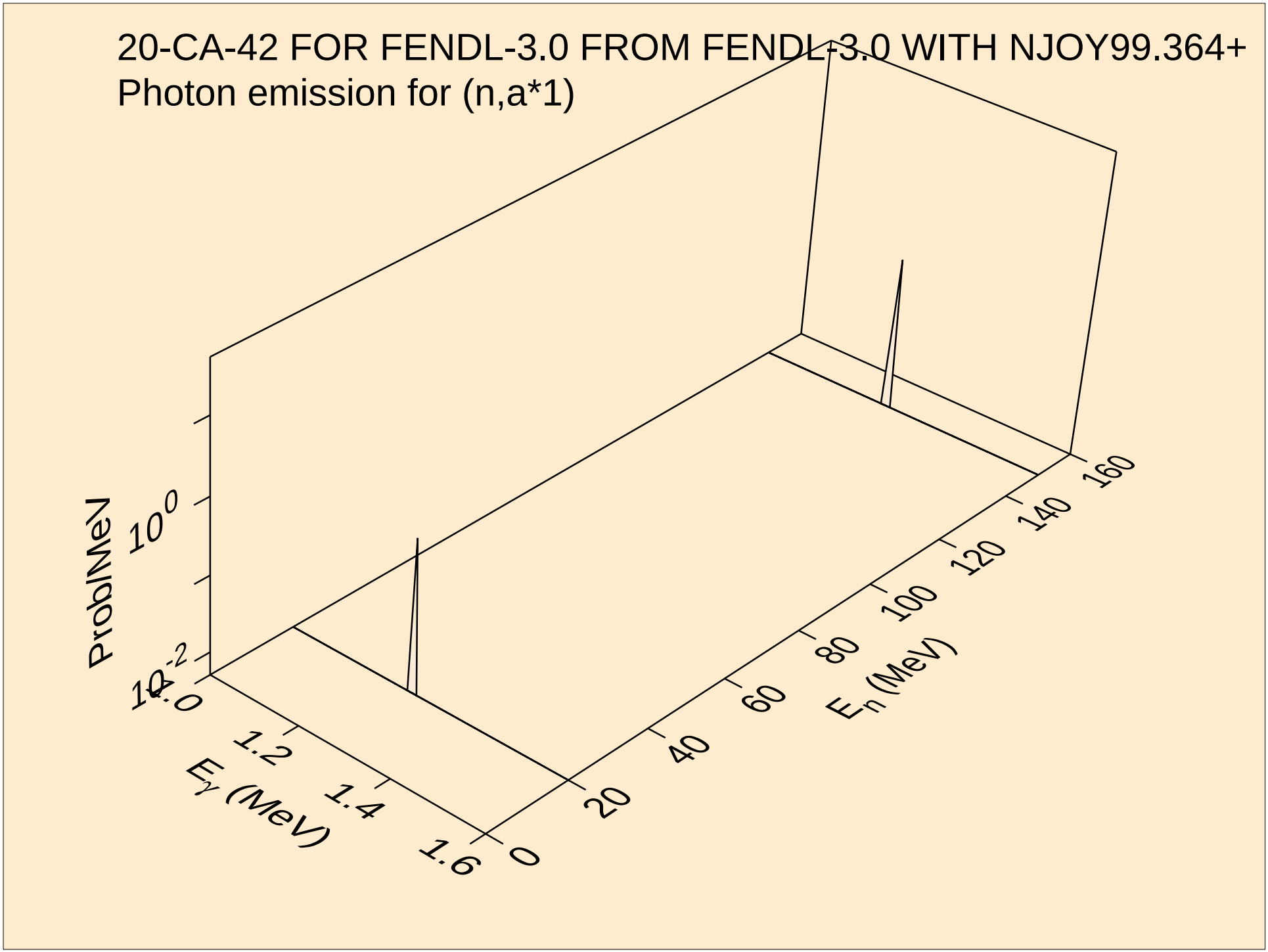

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*36)
Prob/MeV
10^{1}
10^{-1}
0
E_γ (MeV)
1
2
0
20
40
60
80
100
120
140
160
E_n (MeV)

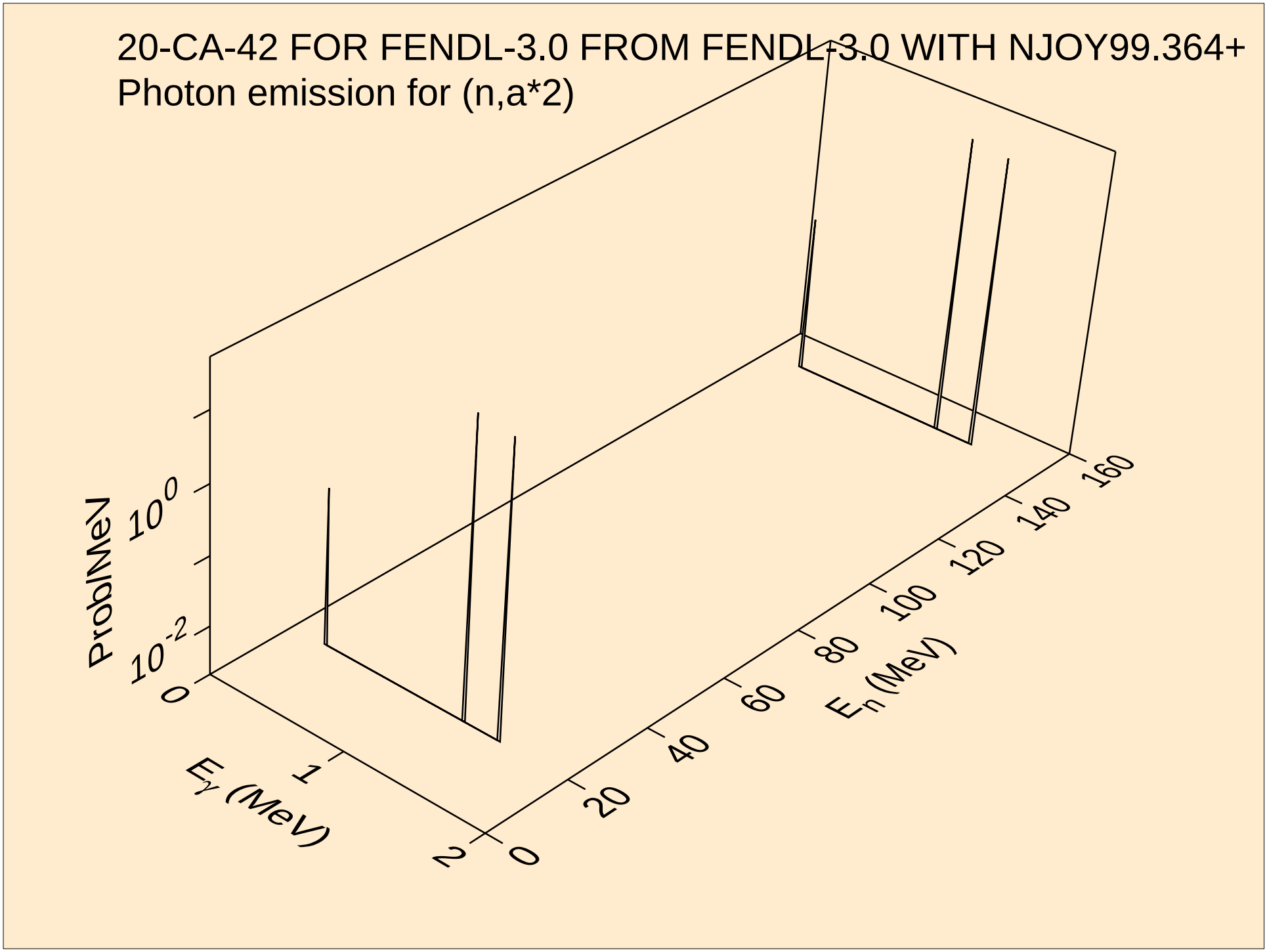

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*37)
Prob/MeV
10^{1}
10^{-1}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

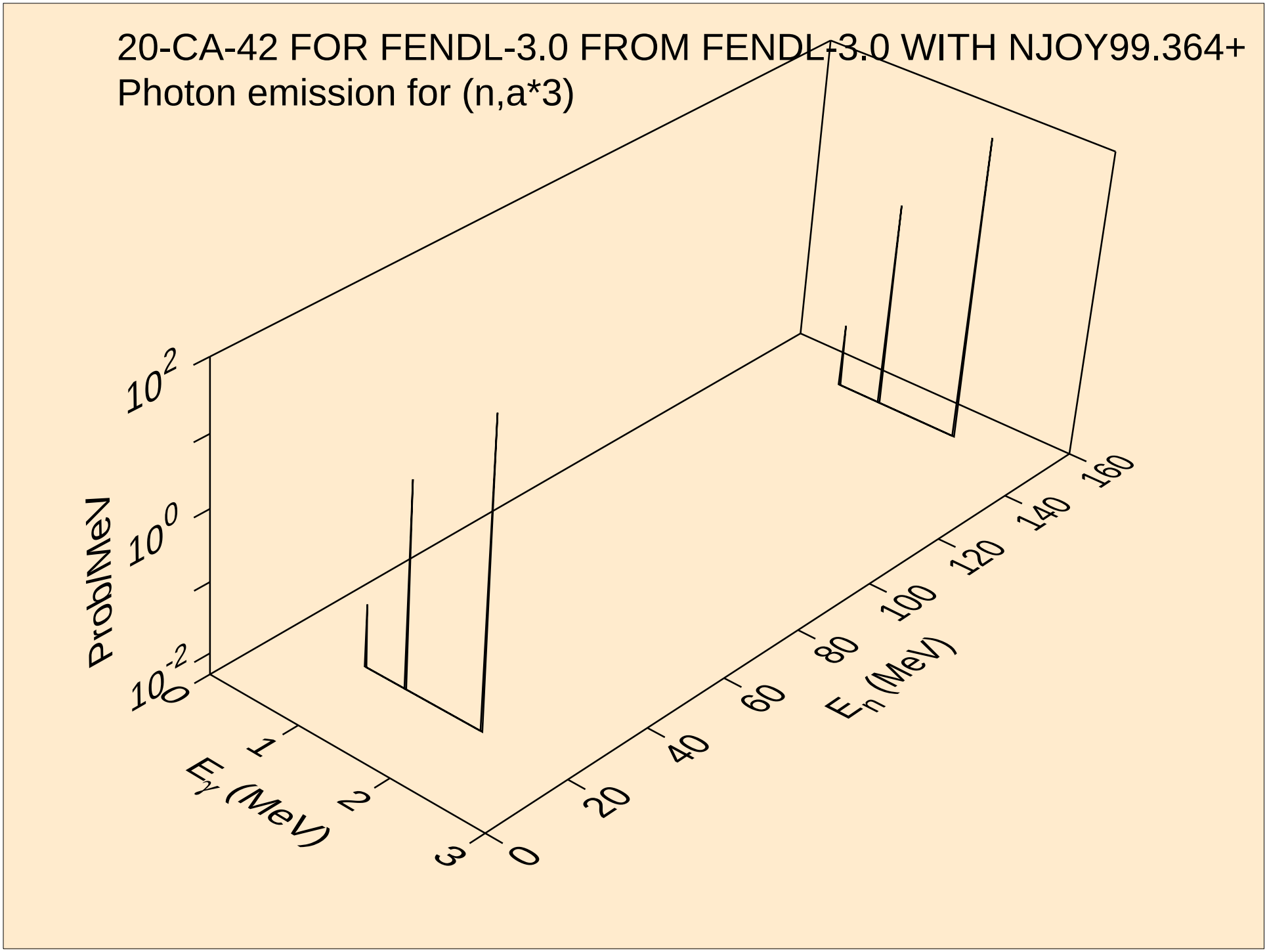

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*38)
Prob/MeV
10^0
10^-2
0
1
2
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

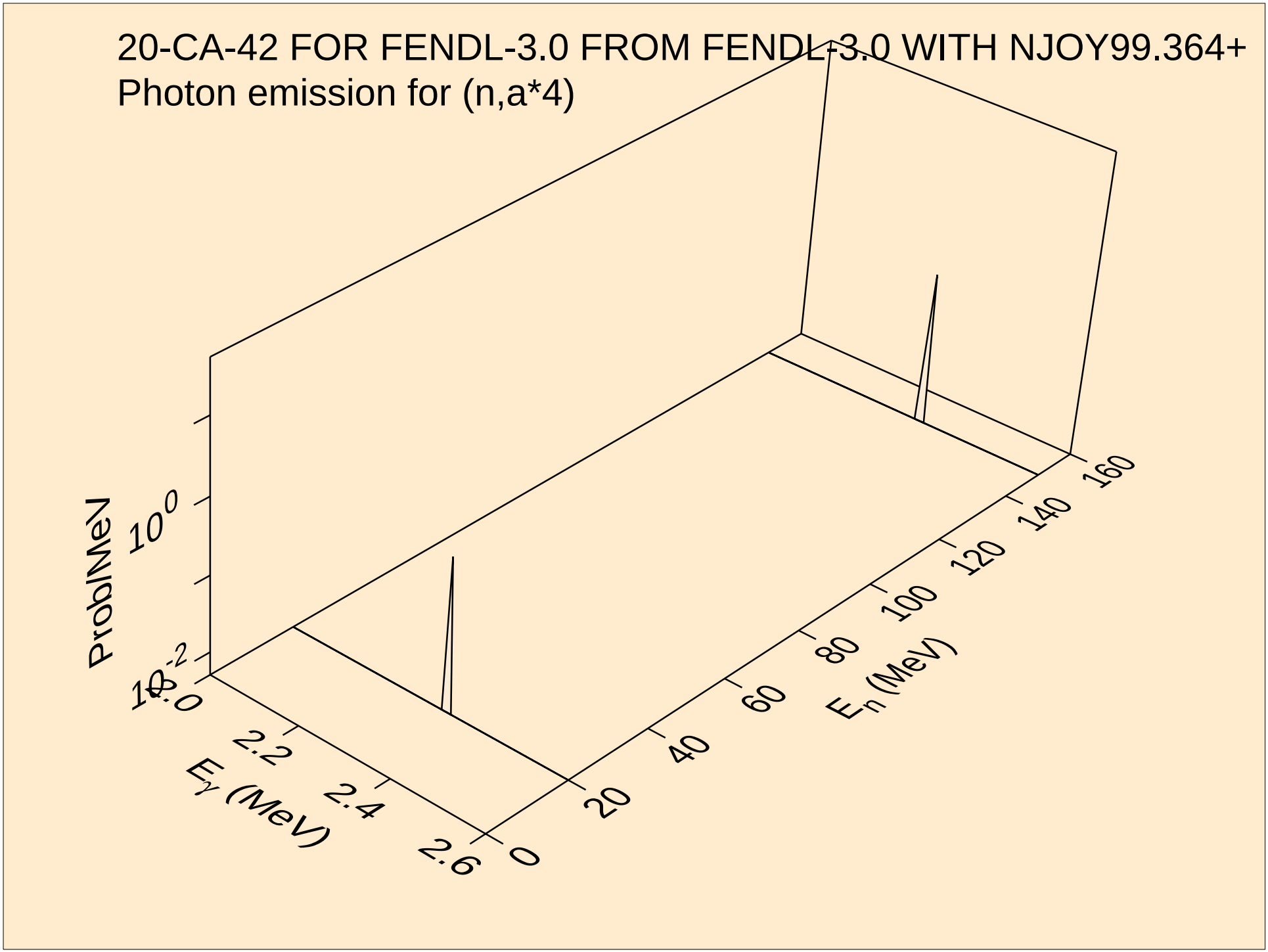

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*39)
Prob/MeV
10^{2}
10^{0}
10^{-2}
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

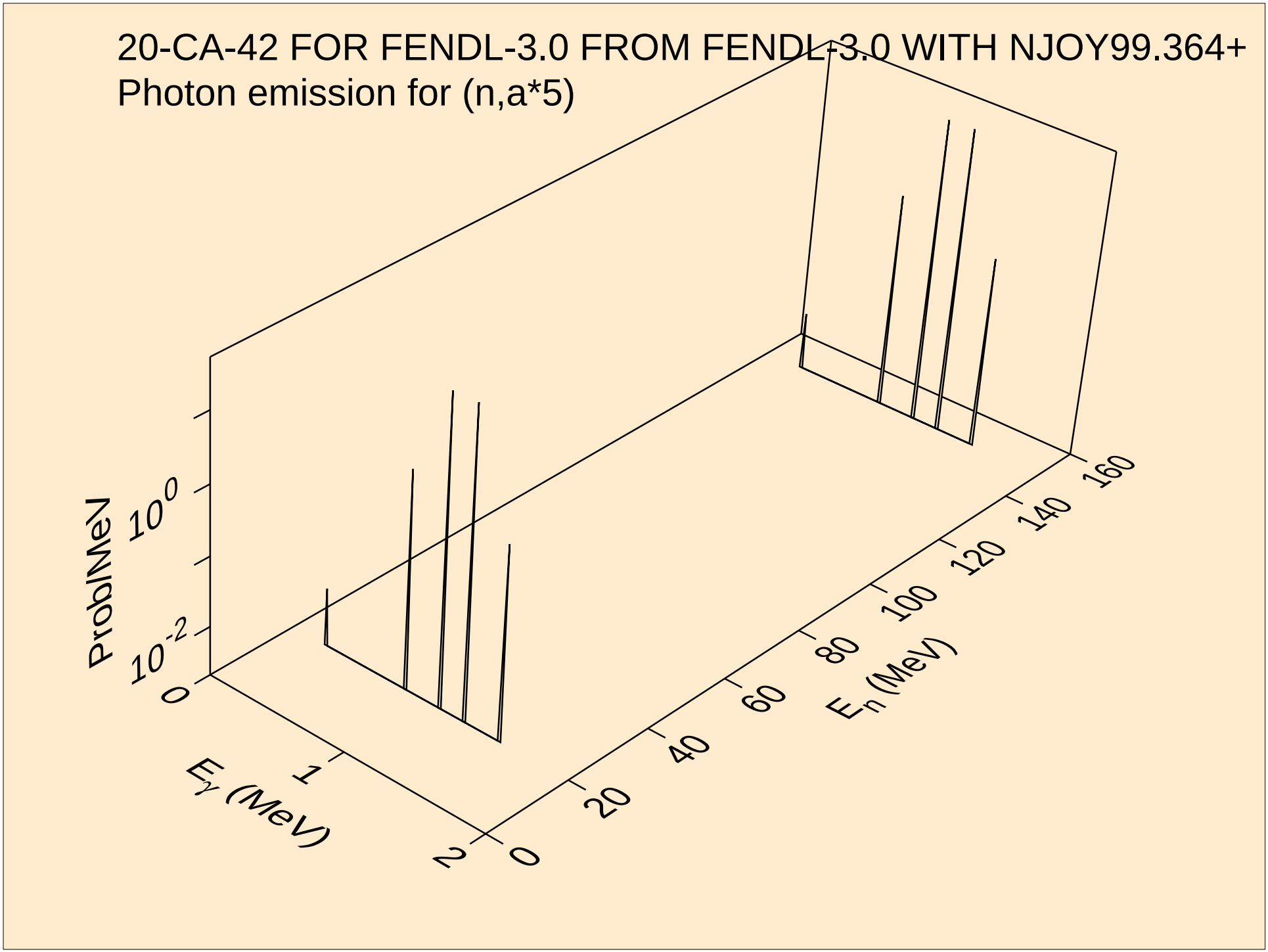

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,p*c)
Prob/MeV
10^{1}
10^{-1}
0
5
10
E_γ (MeV)
4
6
8
10
12
14
16
18
20
E_n (MeV)

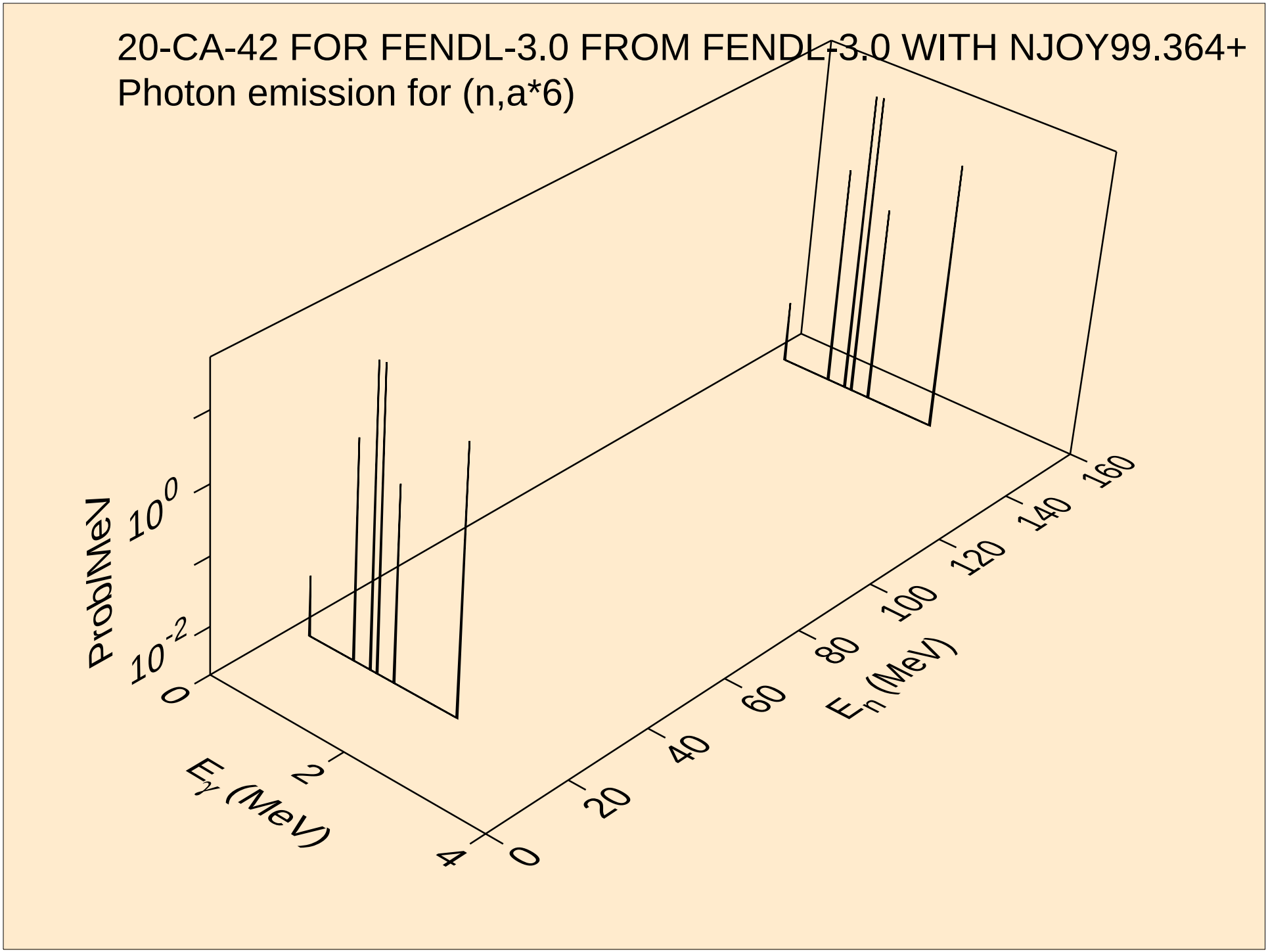

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*1)
Prob/MeV
10^{0}
10^{-2}
1.0
1.2
1.4
1.6
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

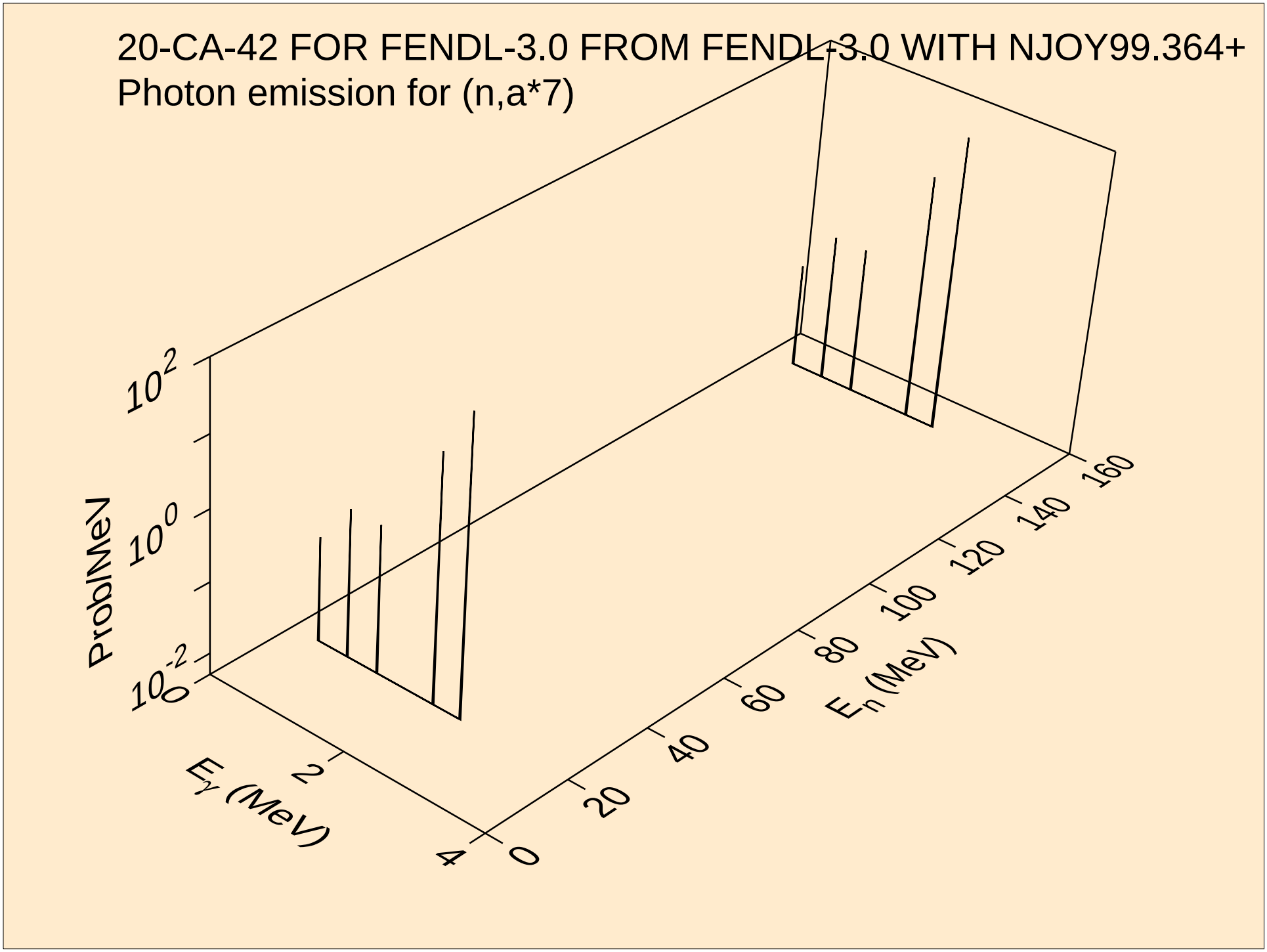

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*2)
Prob/MeV
10^0
10^-2
0
E_γ (MeV)
1
2
0
20
40
60
80
100
120
140
160
E_n (MeV)

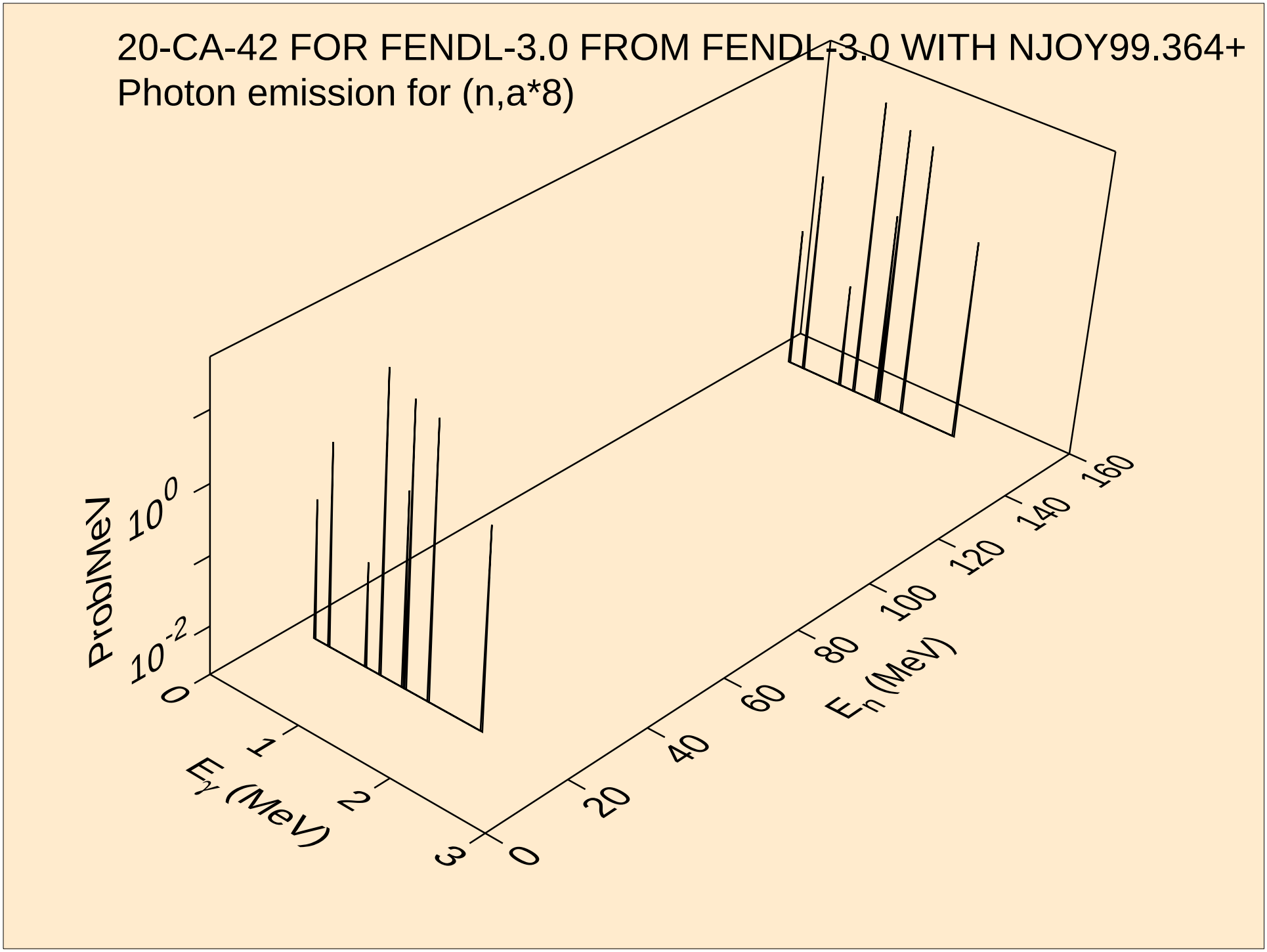

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*3)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
1
2
3
E_n (MeV)
0
20
40
60
80
100
120
140
160

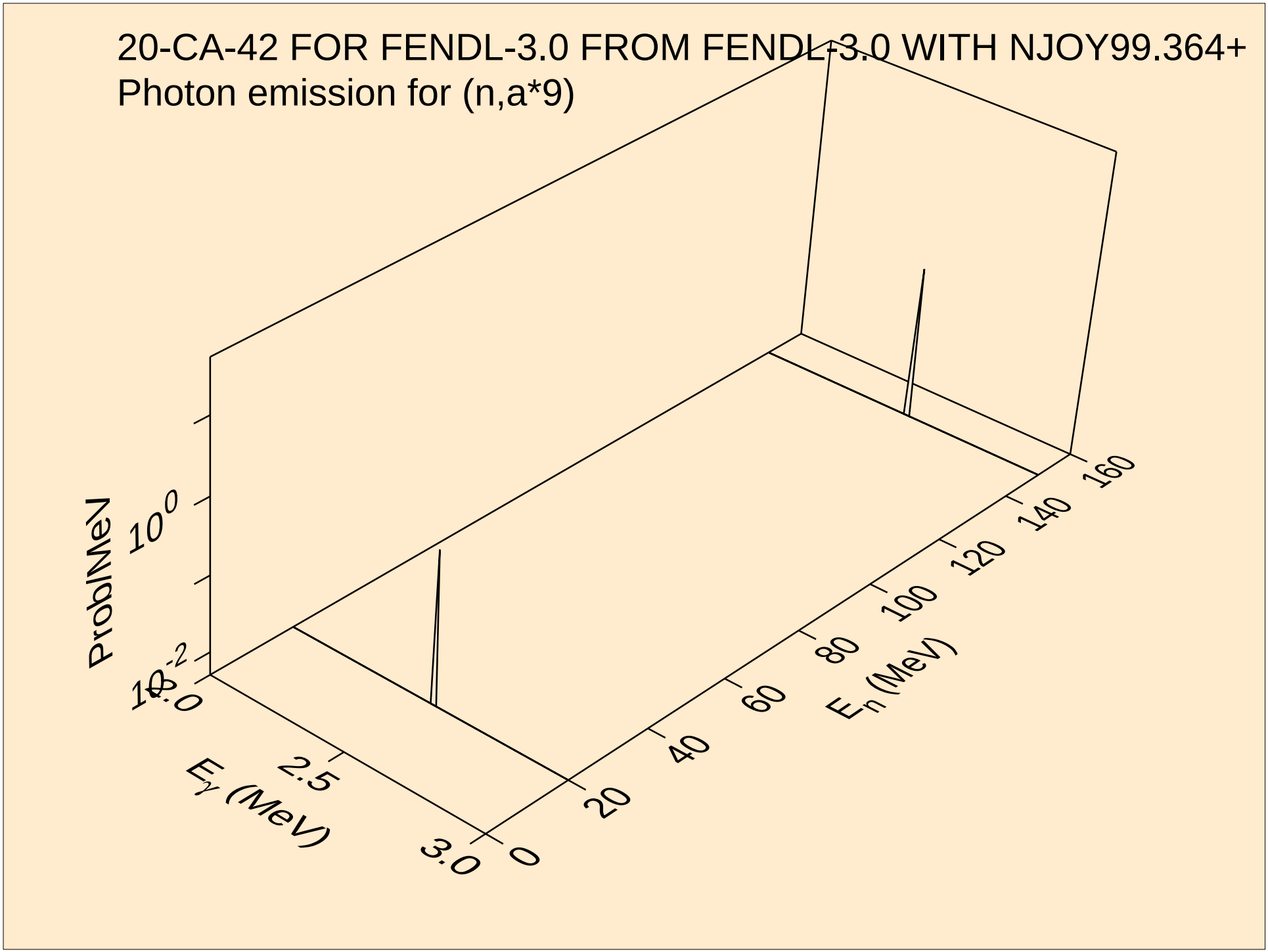

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*4)
Prob/MeV
10^{0}
10^{-2}
E_γ (MeV)
2.0
2.2
2.4
2.6
E_n (MeV)
0
20
40
60
80
100
120
140
160

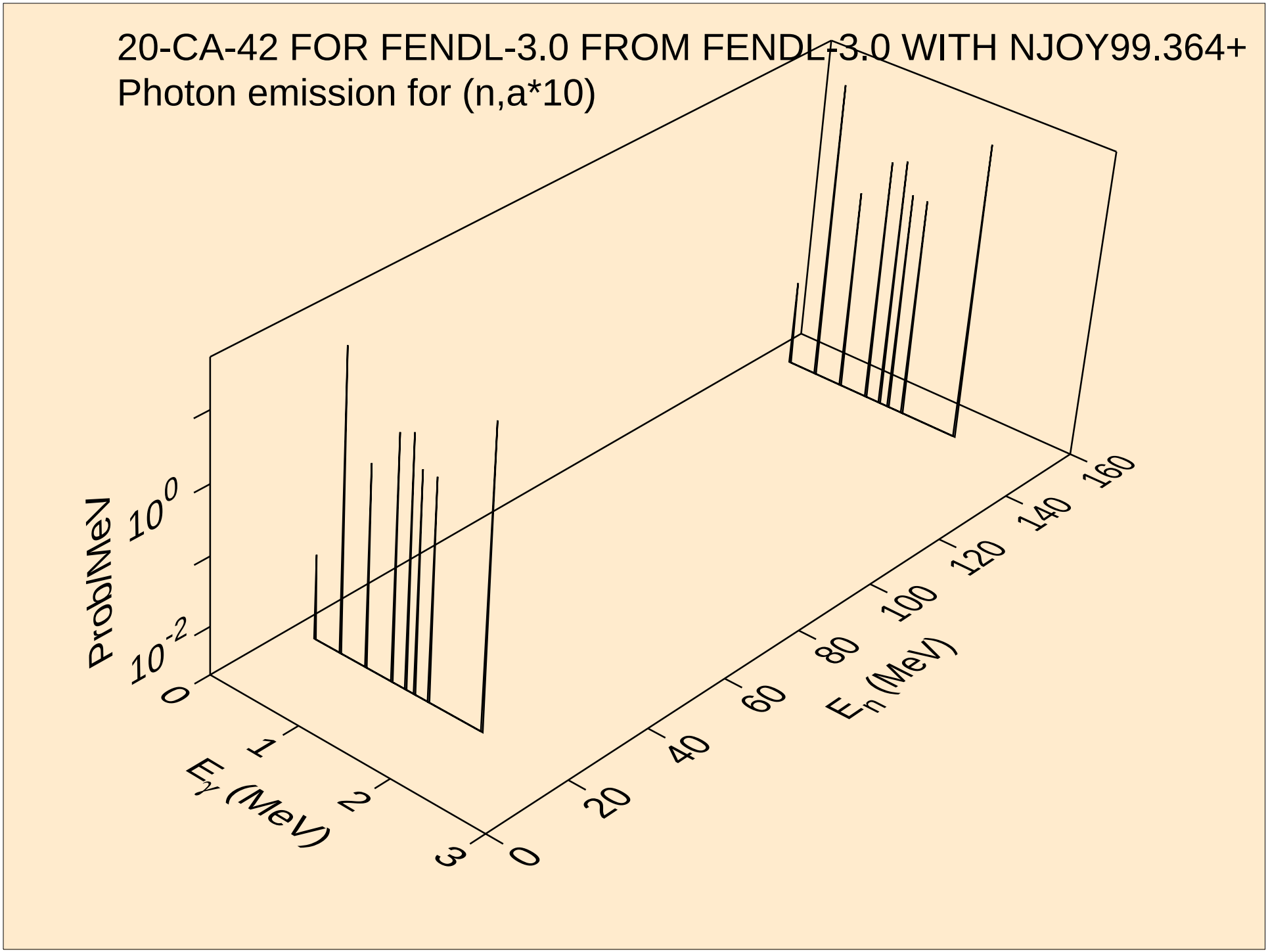

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*5)
Prob/MeV
10^{0}
10^{-2}
0
1
2
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

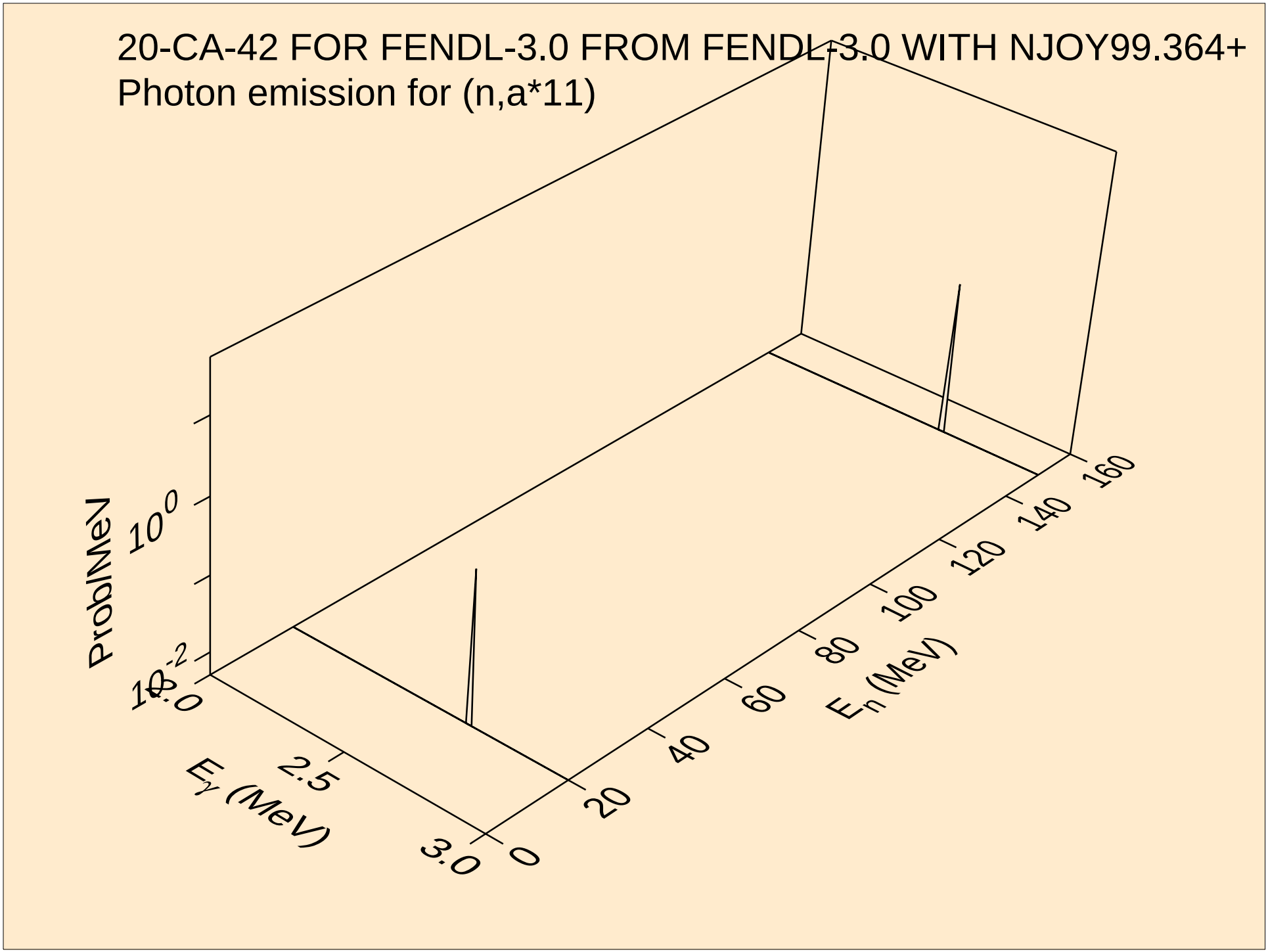

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*6)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

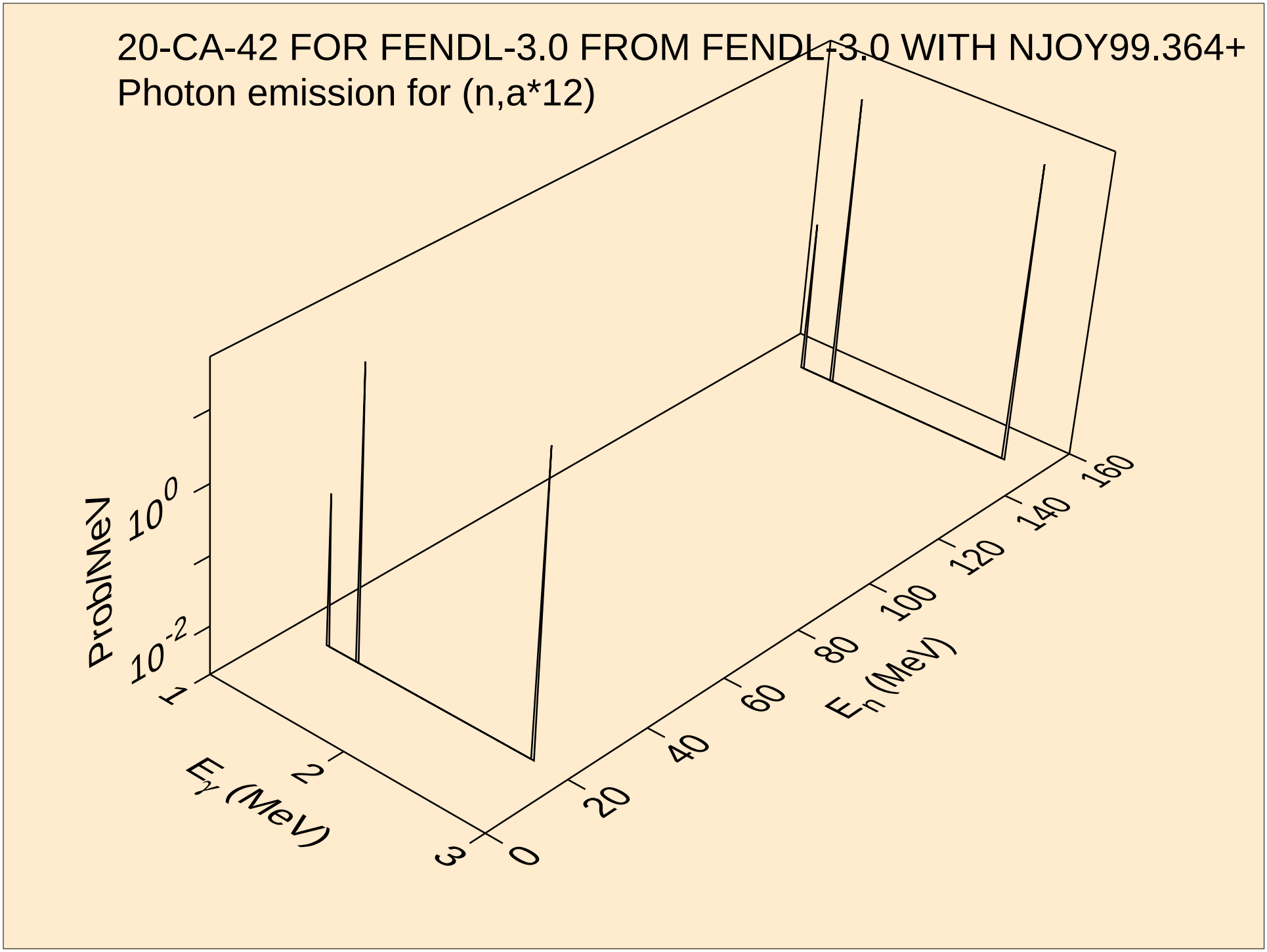

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*7)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
0
20
40
60
80
100
120
140
160

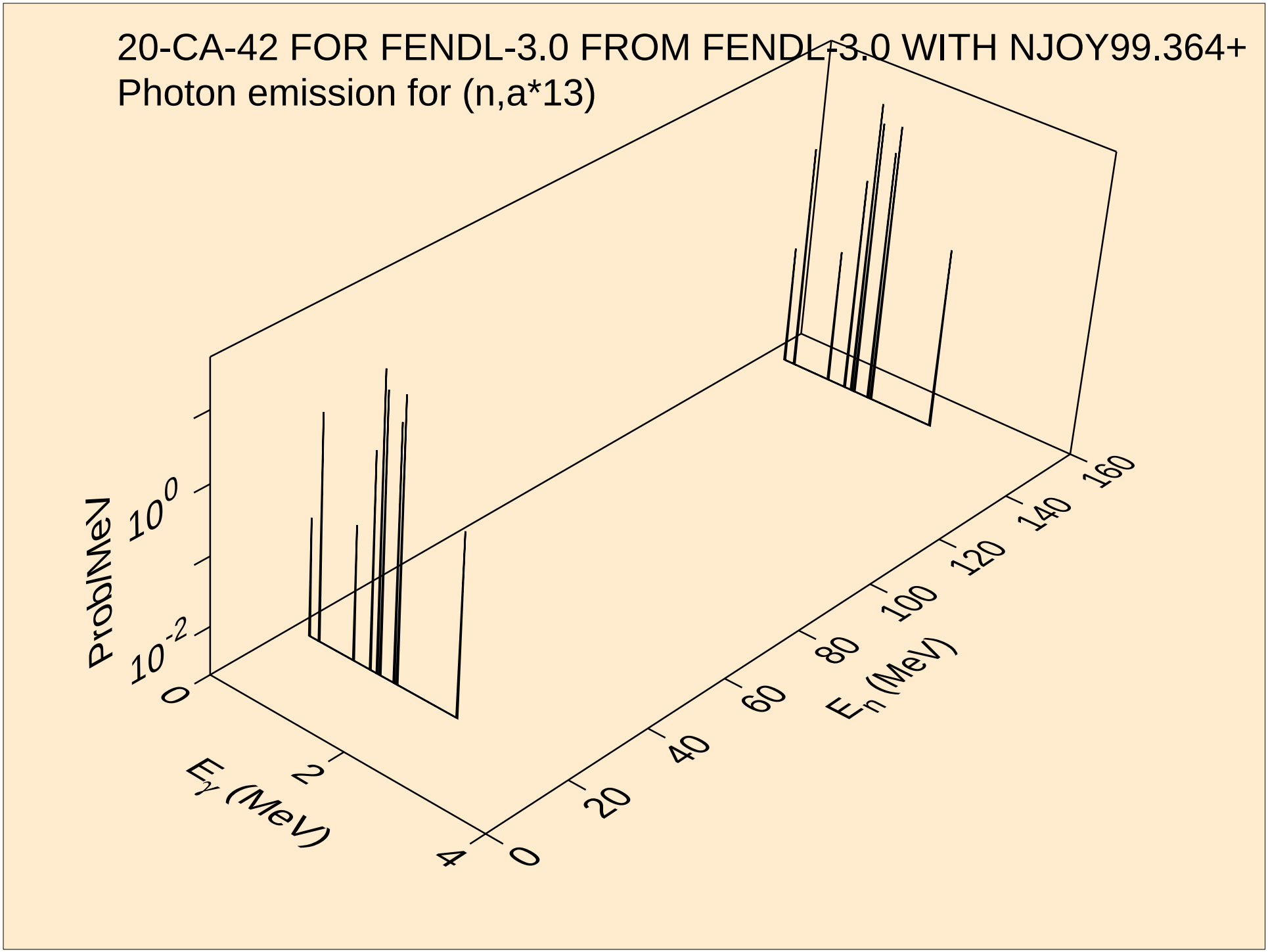

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*8)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

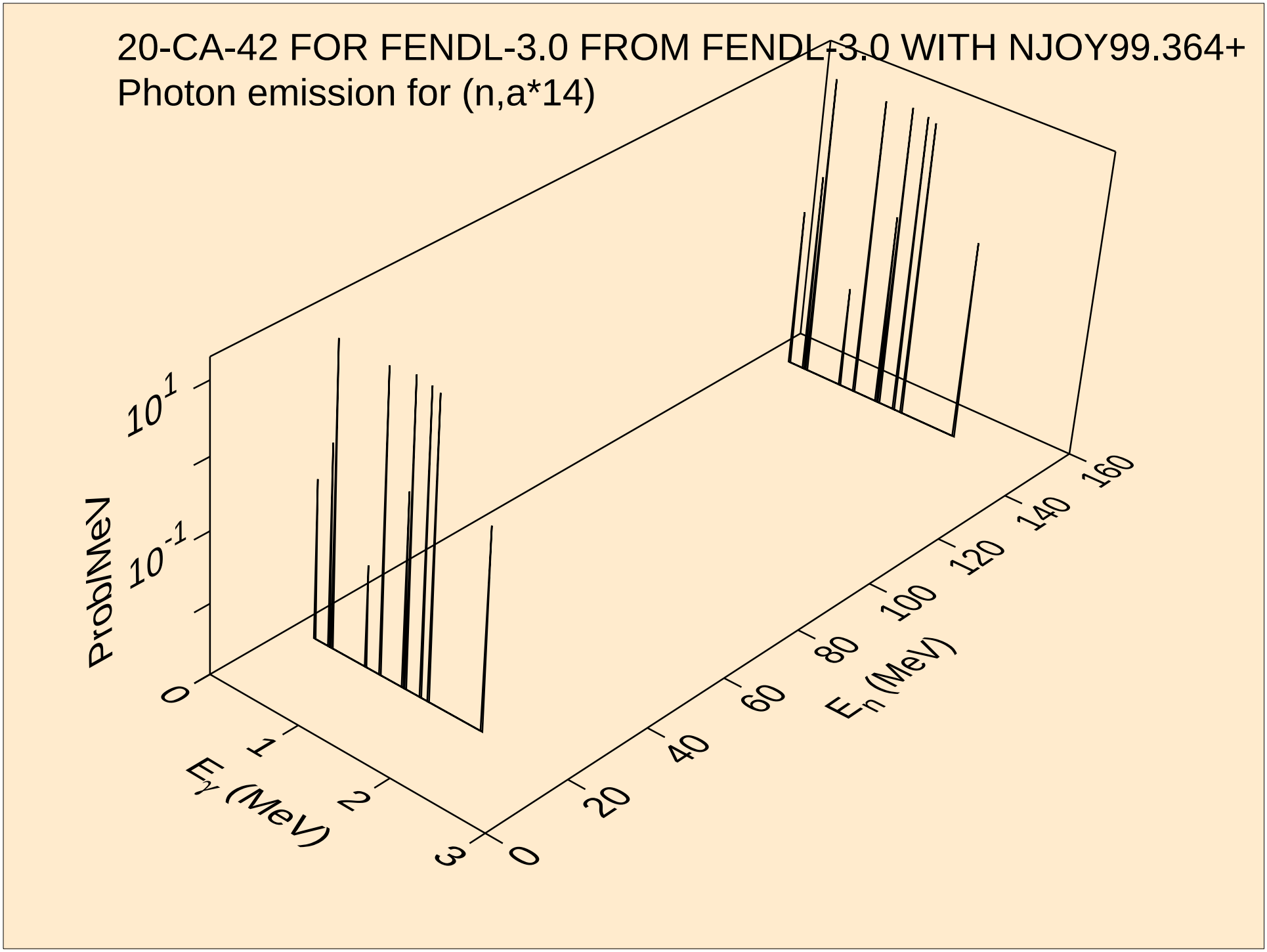

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*9)
Prob/MeV
10^{0}
10^{-2}
0.0
2.5
3.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

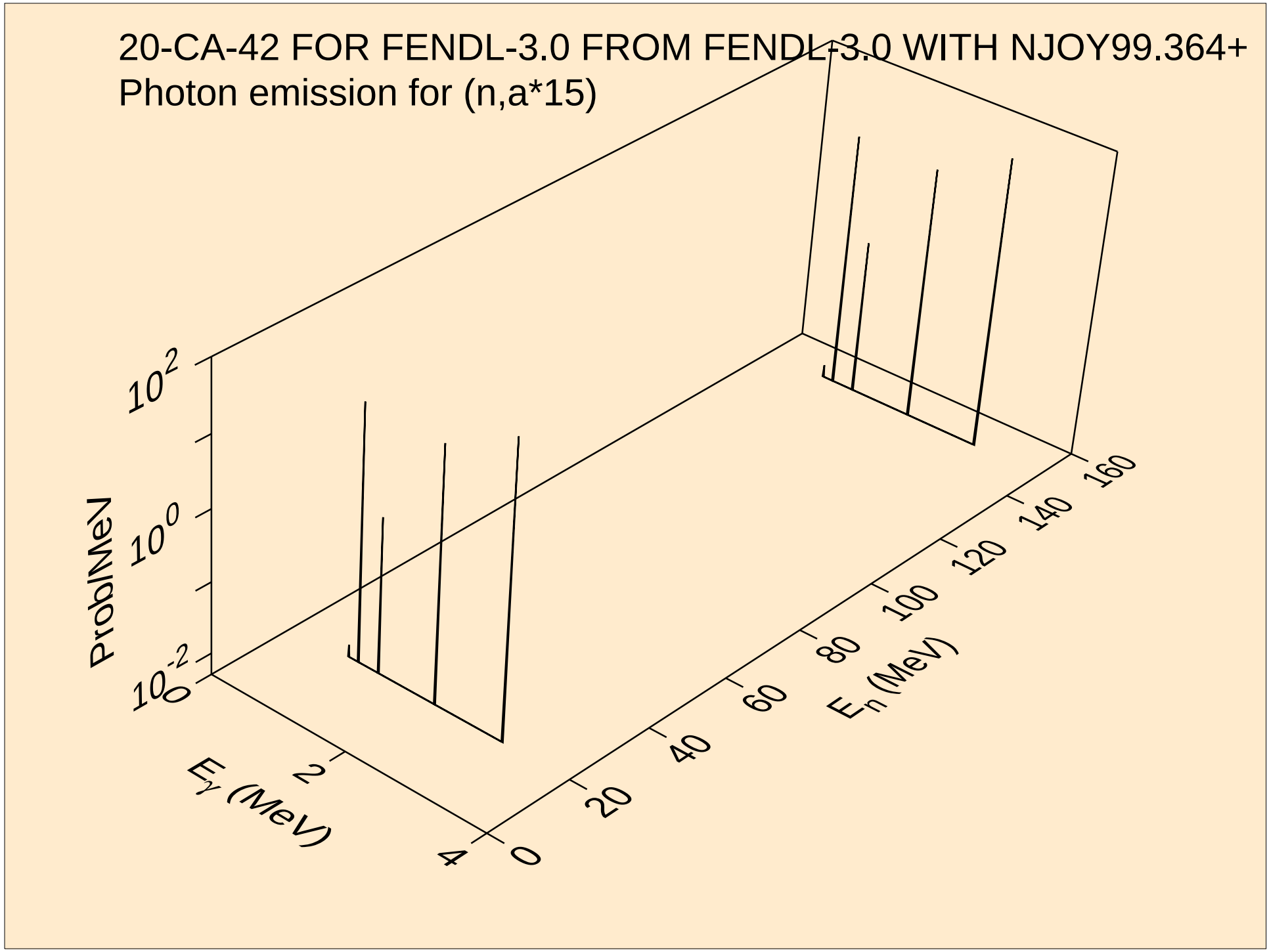

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*10)
Prob/MeV
10^0
10^-2
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

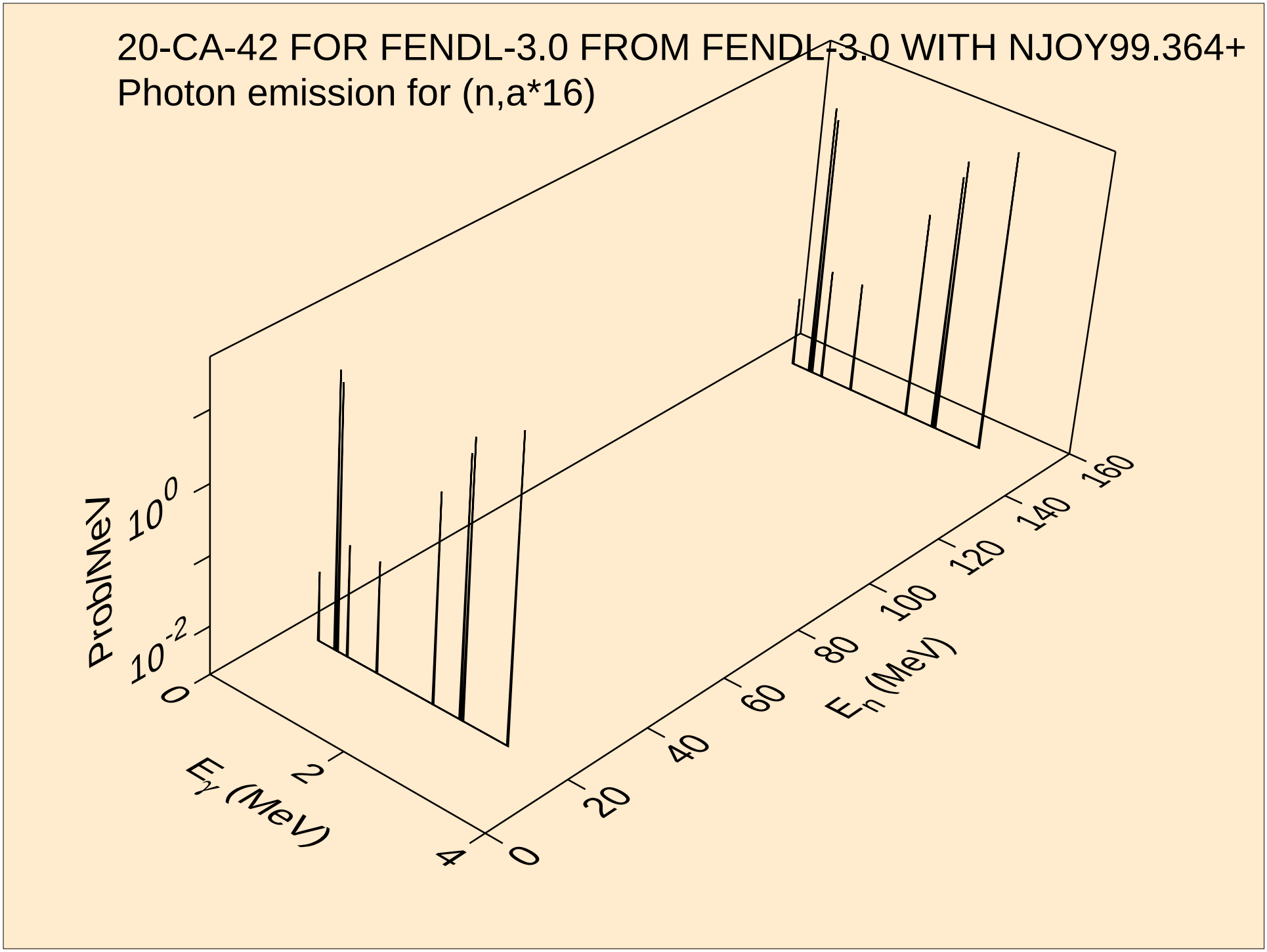

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*11)
Prob/MeV
10^{0}
10^{-2}
0.0
2.5
3.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

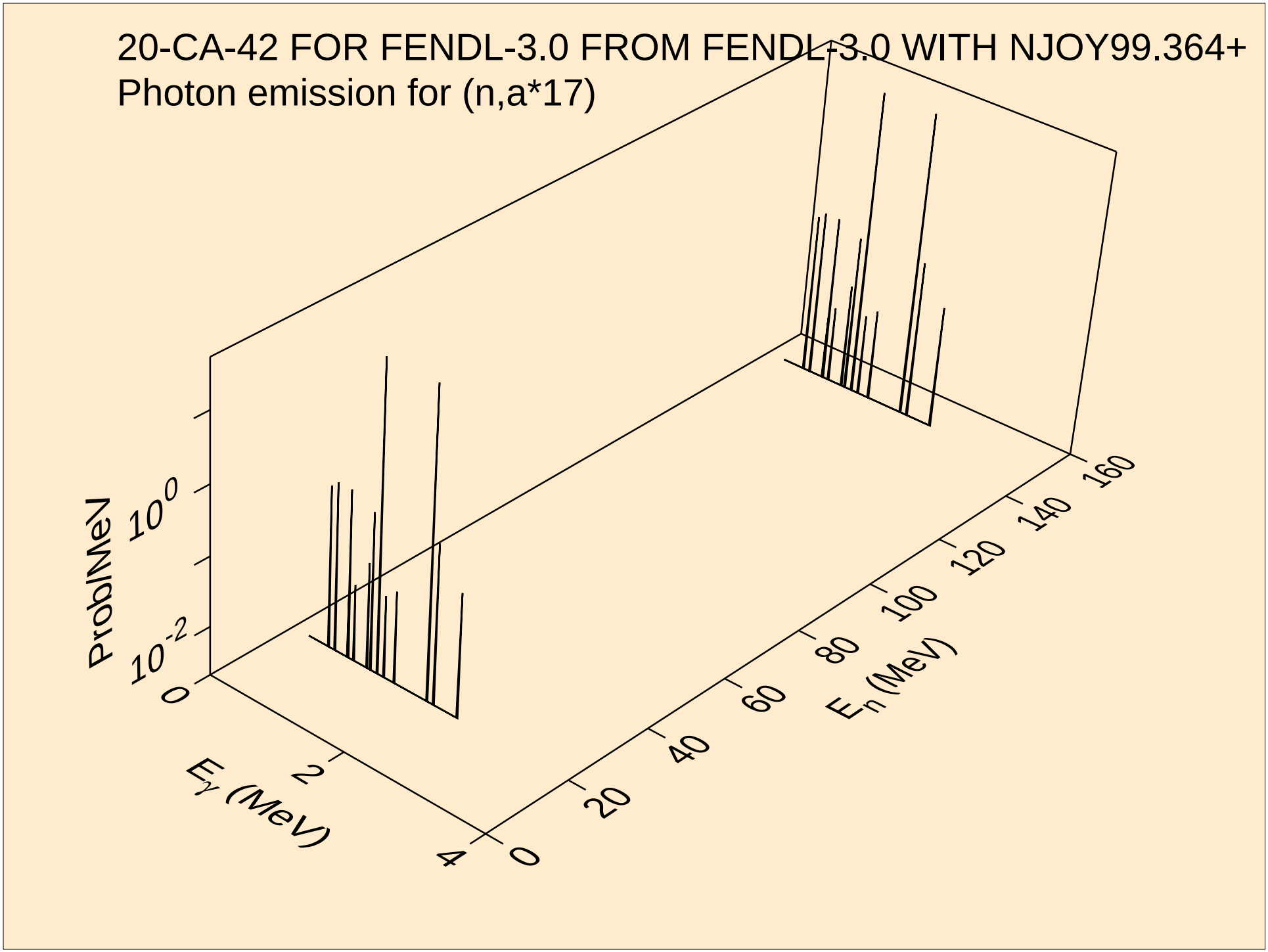

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*12)
Prob/MeV
10^0
10^-2
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

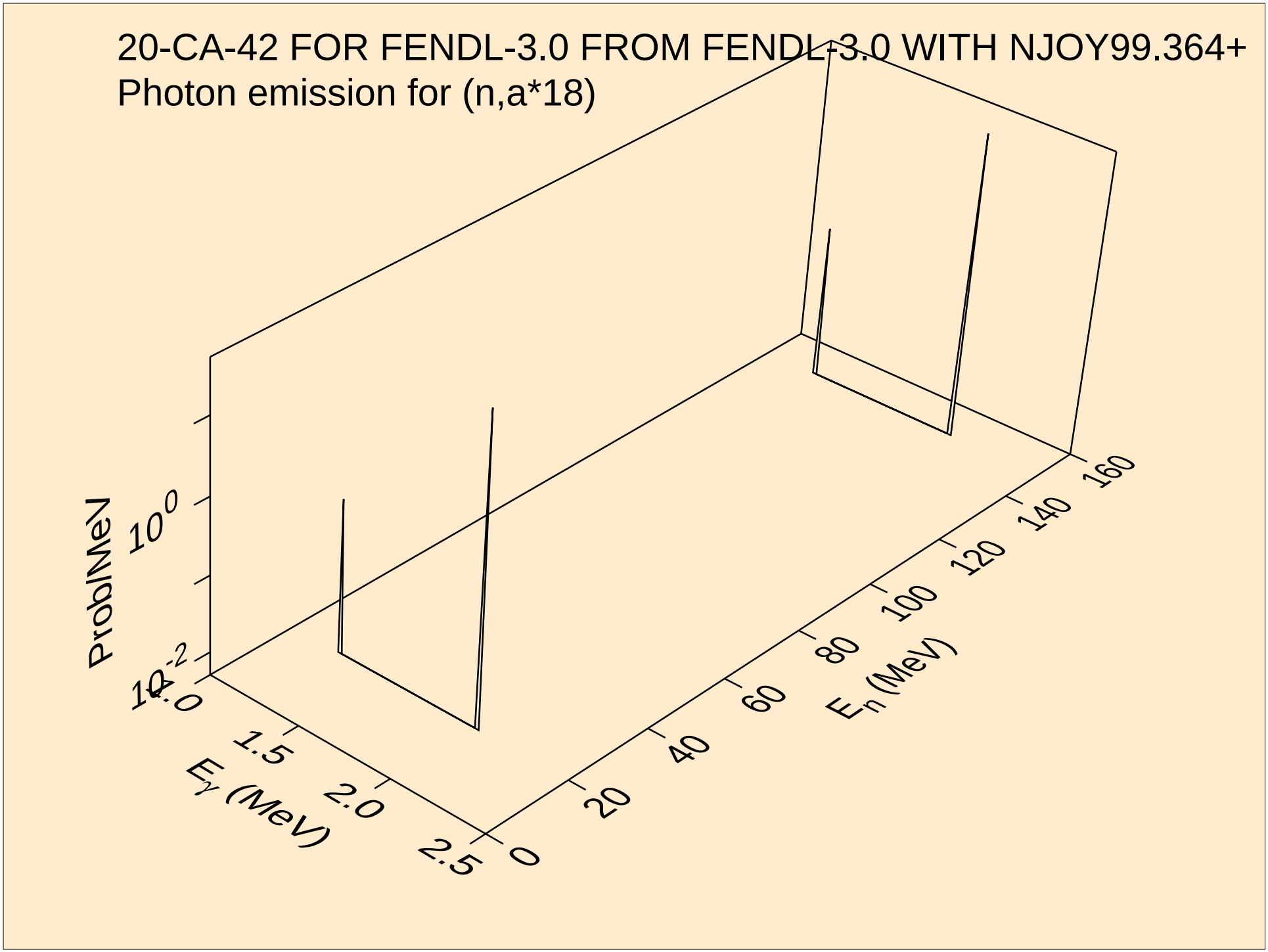

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*13)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

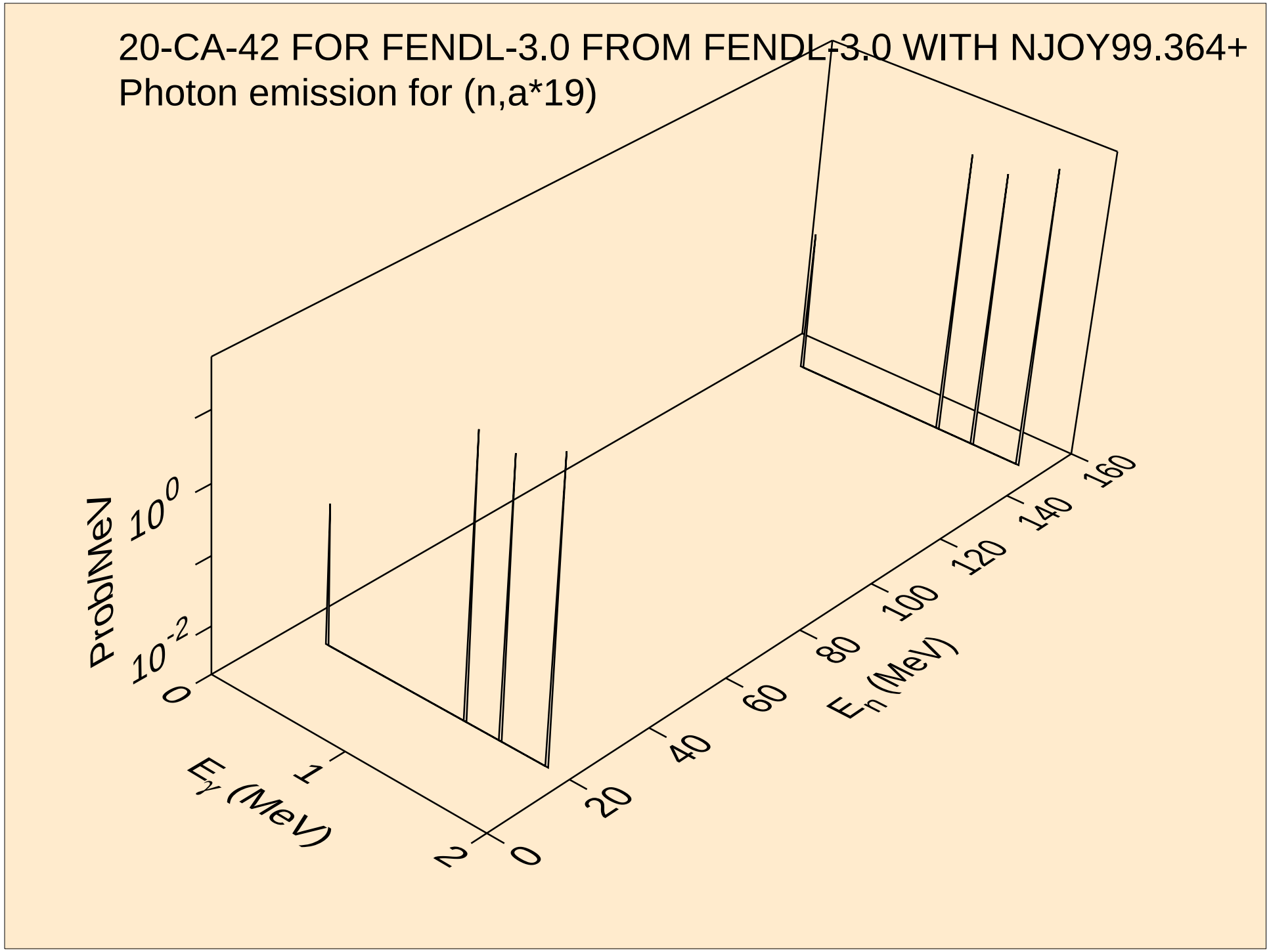

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*14)
Prob/MeV
10^{1}
10^{-1}
0
1
2
3
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

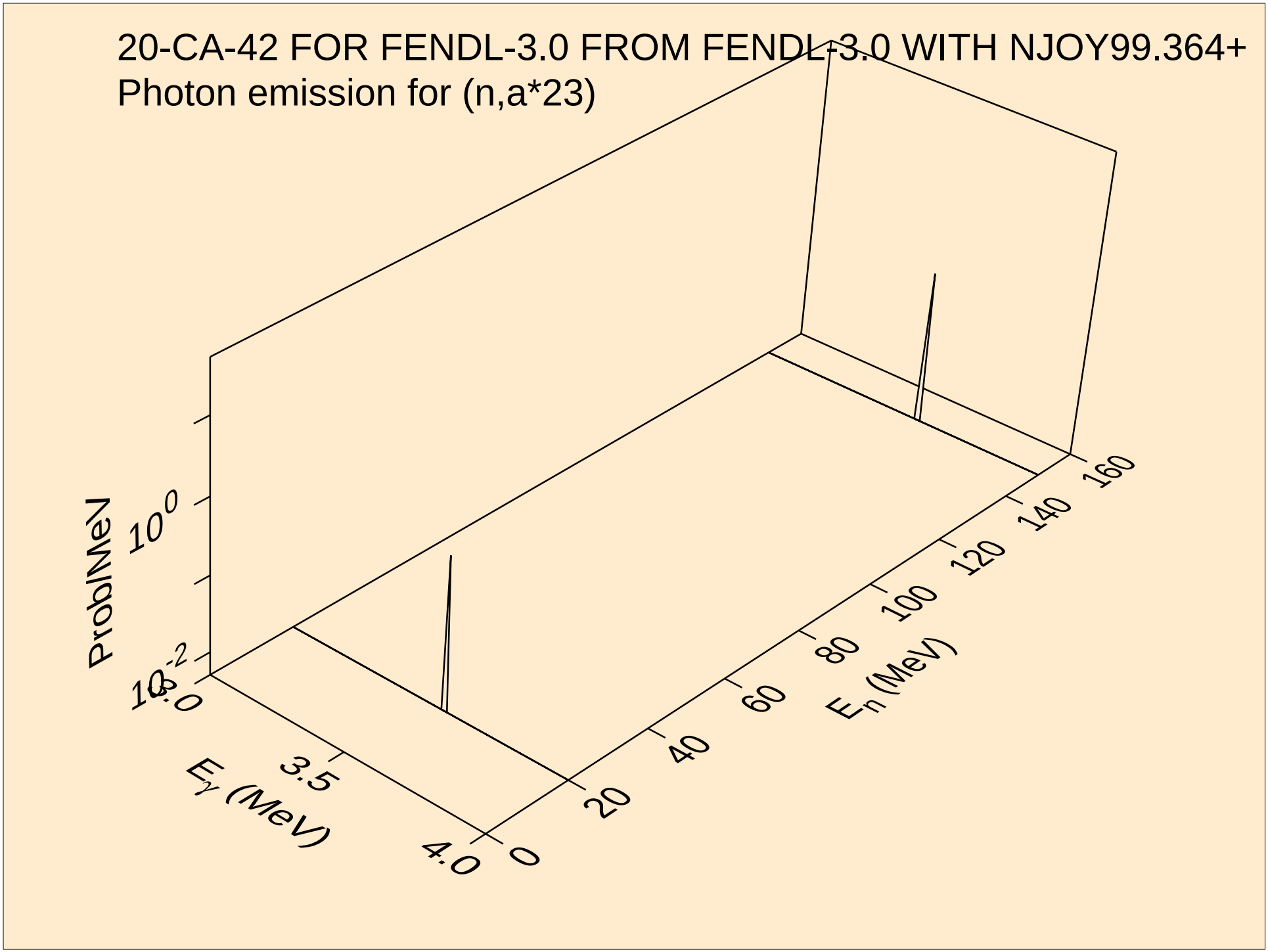

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*15)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
2
4
E_n (MeV)
0
20
40
60
80
100
120
140
160

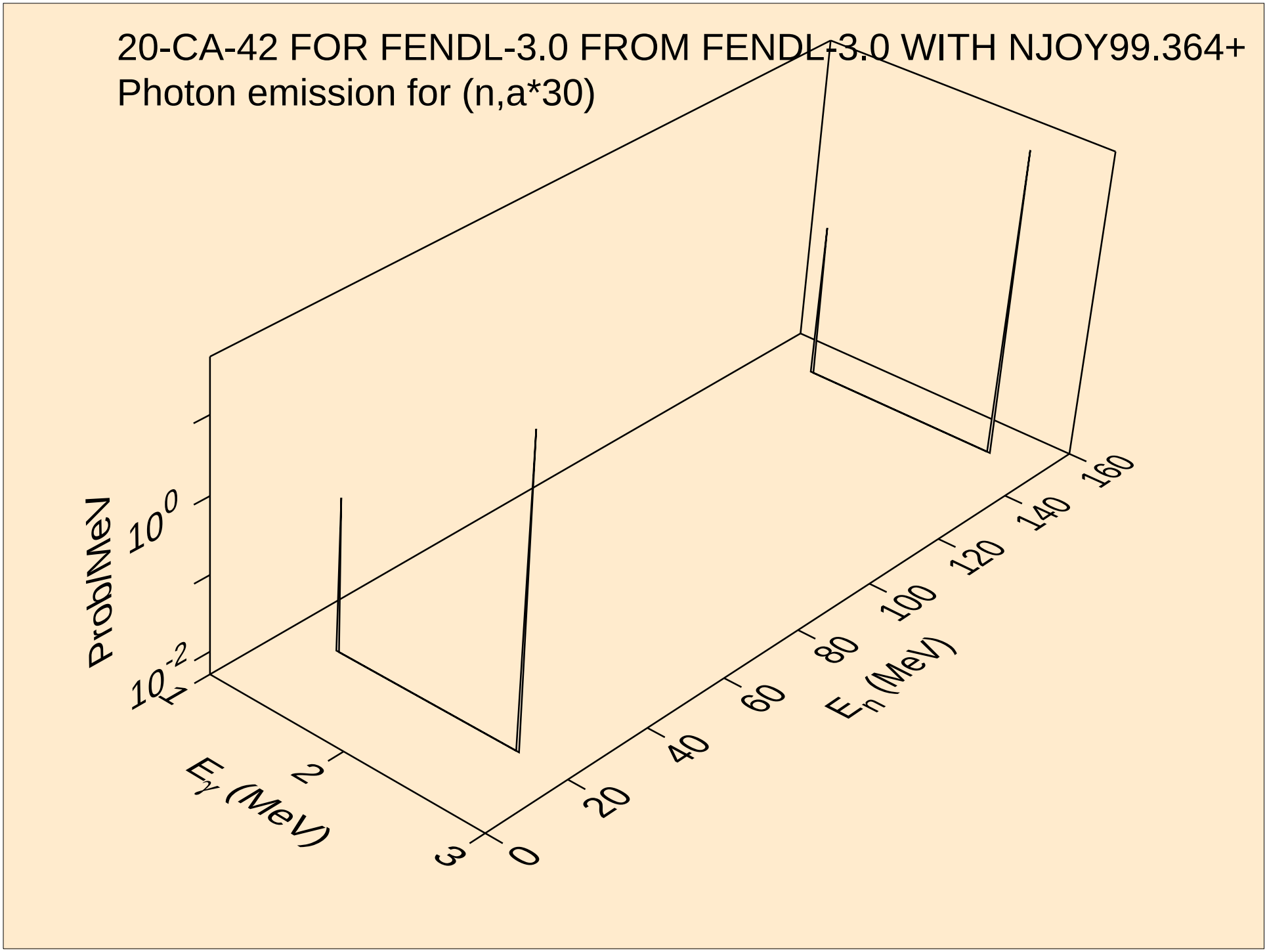

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*16)
Prob/MeV
10^0
10^-2
0
2
4
Eγ (MeV)
0
20
40
60
80
100
120
140
160
En (MeV)

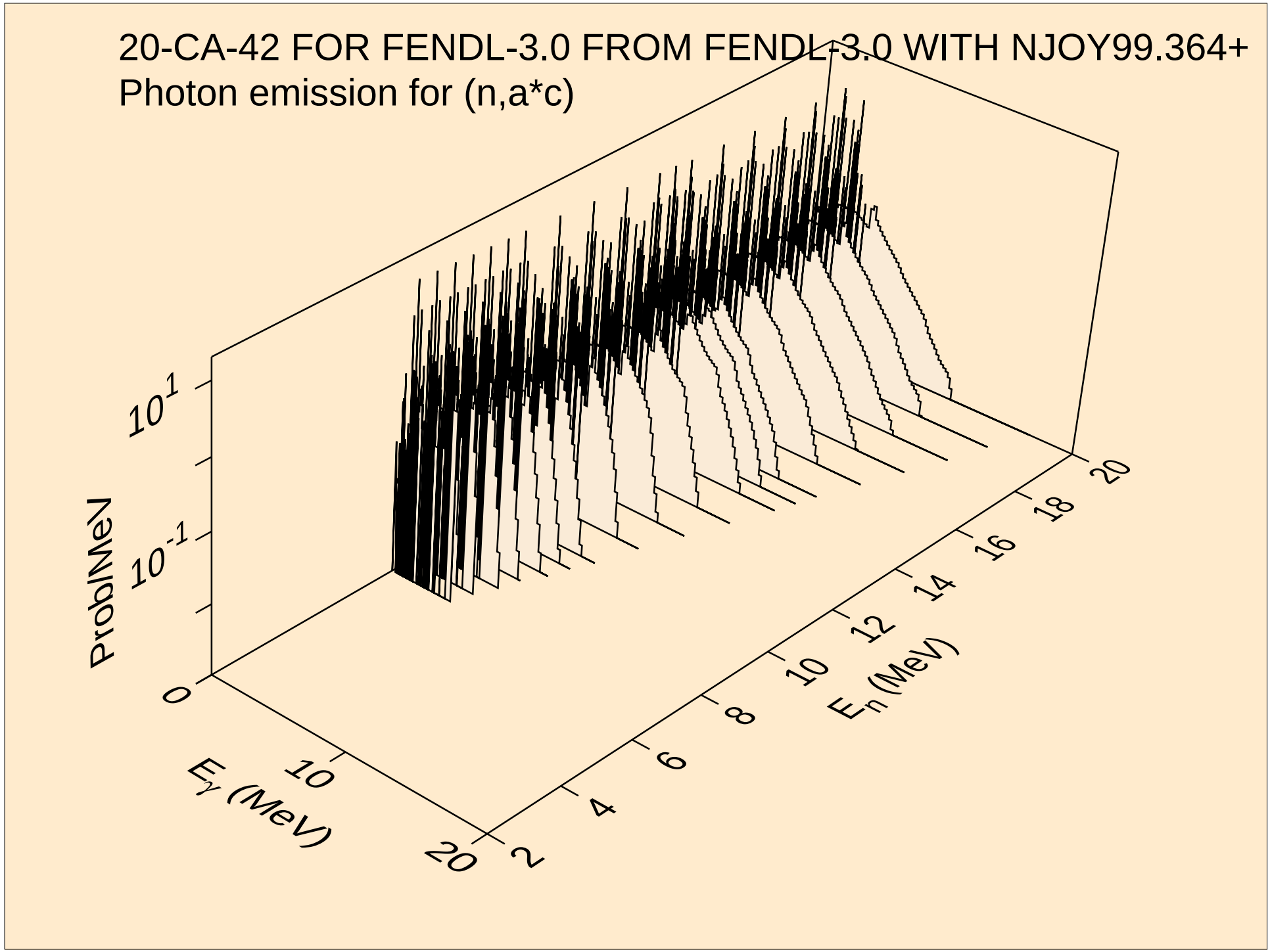

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*17)
Prob/MeV
10^0
10^-2
0
2
4
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

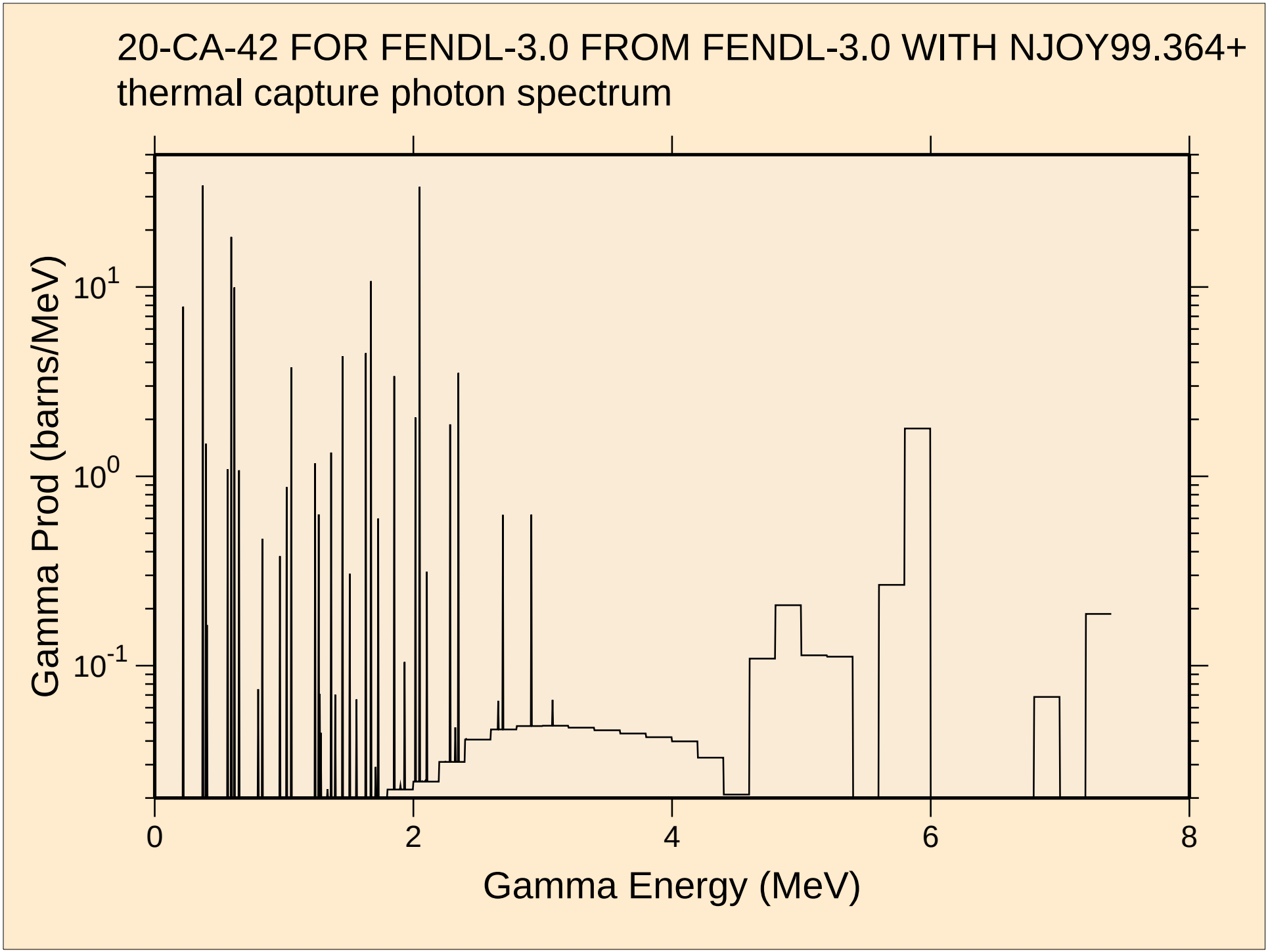

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*18)
Prob/MeV
10^{0}
10^{-2}
0.0
1.5
2.0
2.5
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

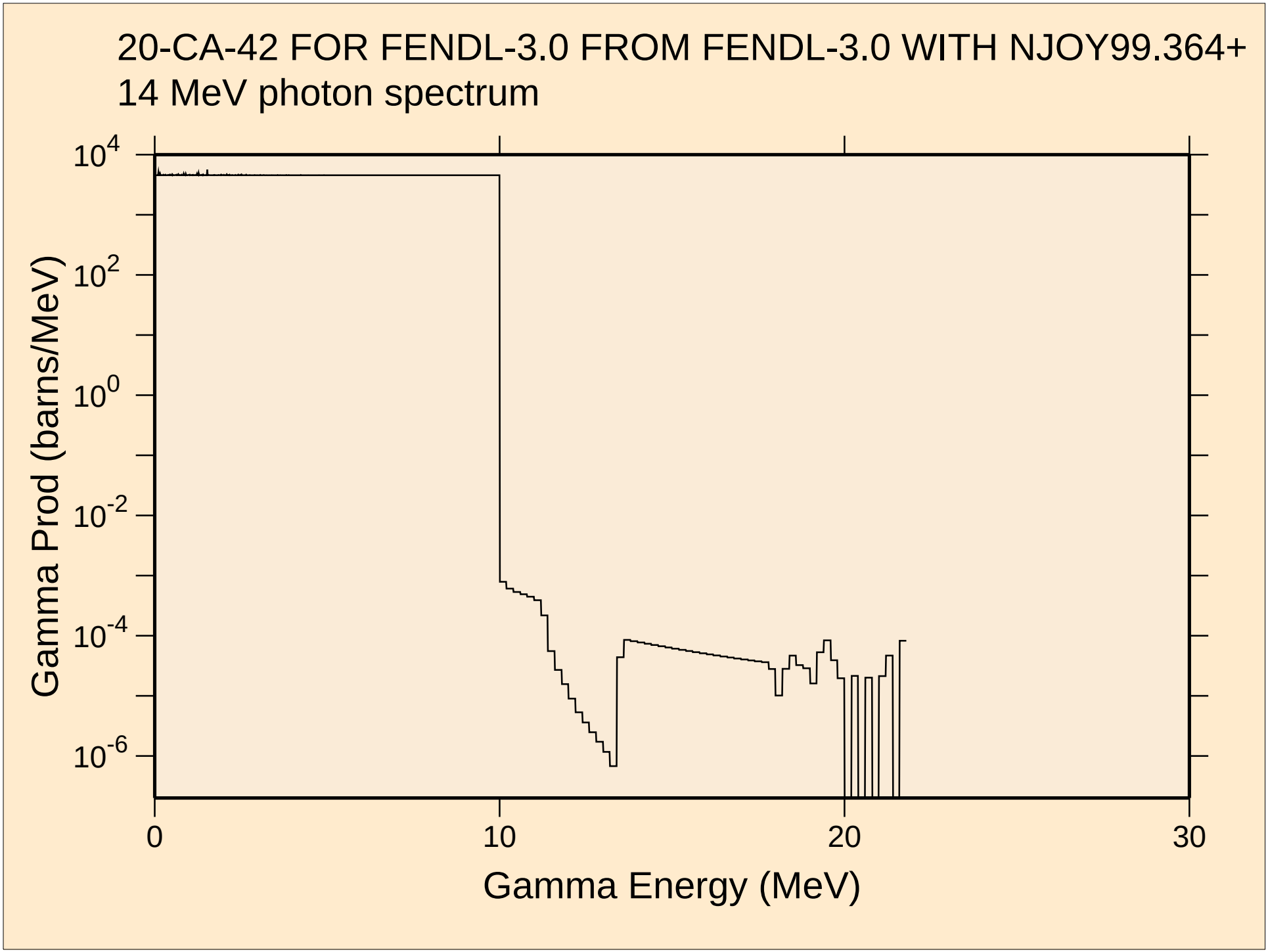

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*19)
Prob/MeV
10^0
10^-2
0
E_γ (MeV)
1
2
0
20
40
60
80
100
120
140
160
E_n (MeV)

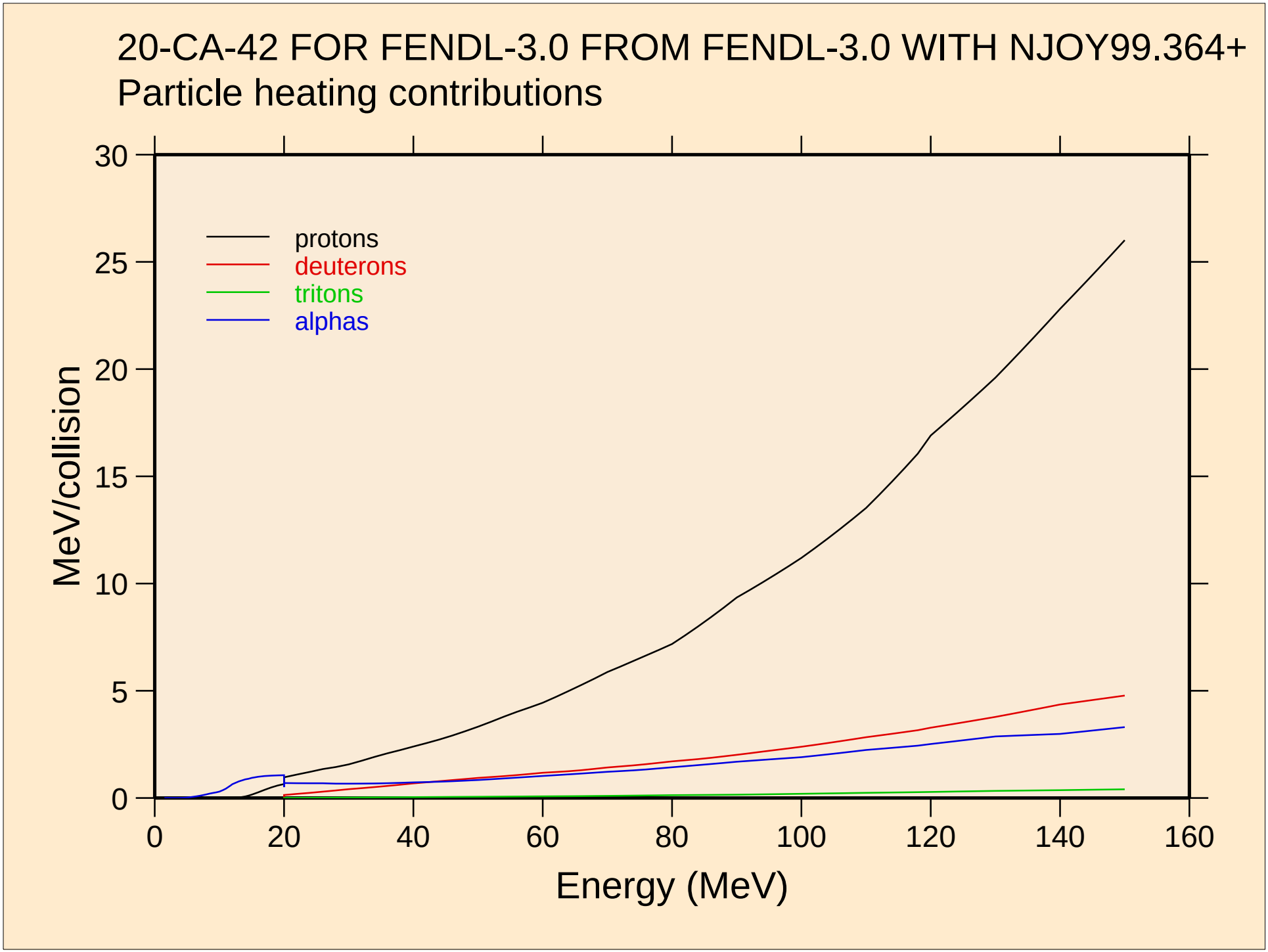

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*23)
Prob/MeV
10^{0}
10^{-2}
0.0
3.5
4.0
E_γ (MeV)
0
20
40
60
80
100
120
140
160
E_n (MeV)

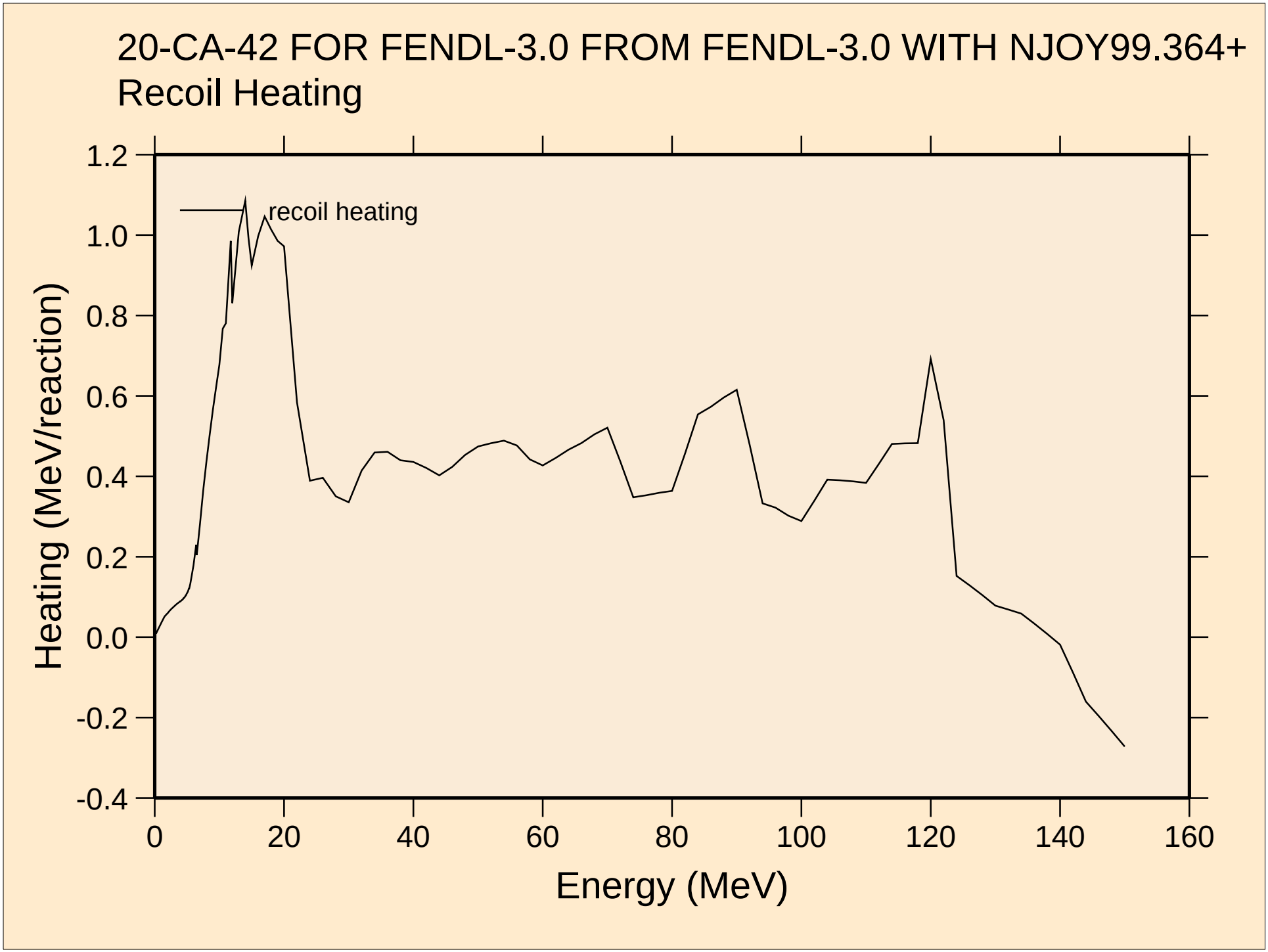

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*30)
Prob/MeV
10^{0}
10^{-2}
E_γ (MeV)
0
2
3
E_n (MeV)
0
20
40
60
80
100
120
140
160

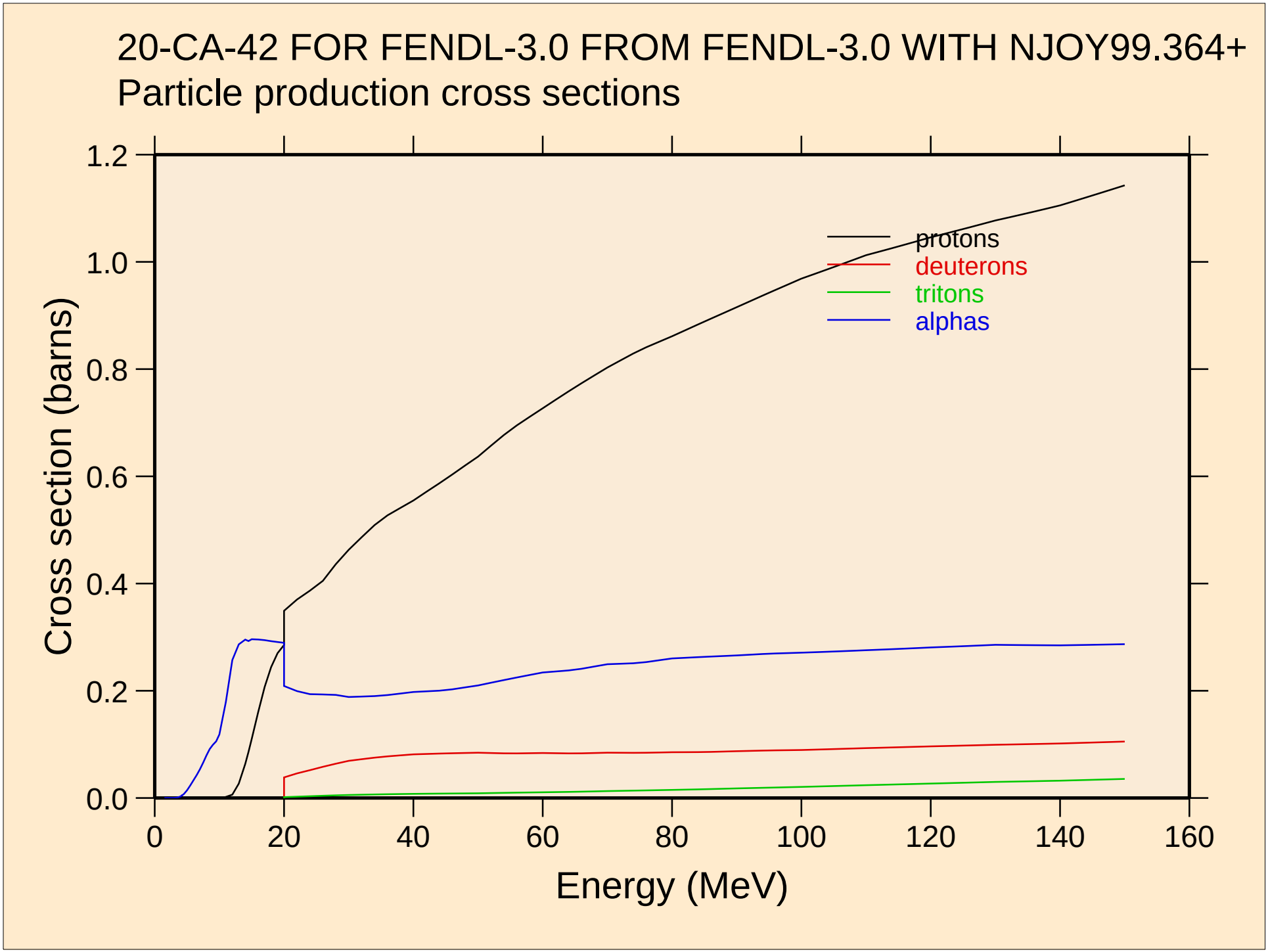

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Photon emission for (n,a*c)
Prob/MeV
10^{1}
10^{-1}
0
10
20
E_γ (MeV)
2
4
6
8
10
12
14
16
18
20
E_n (MeV)

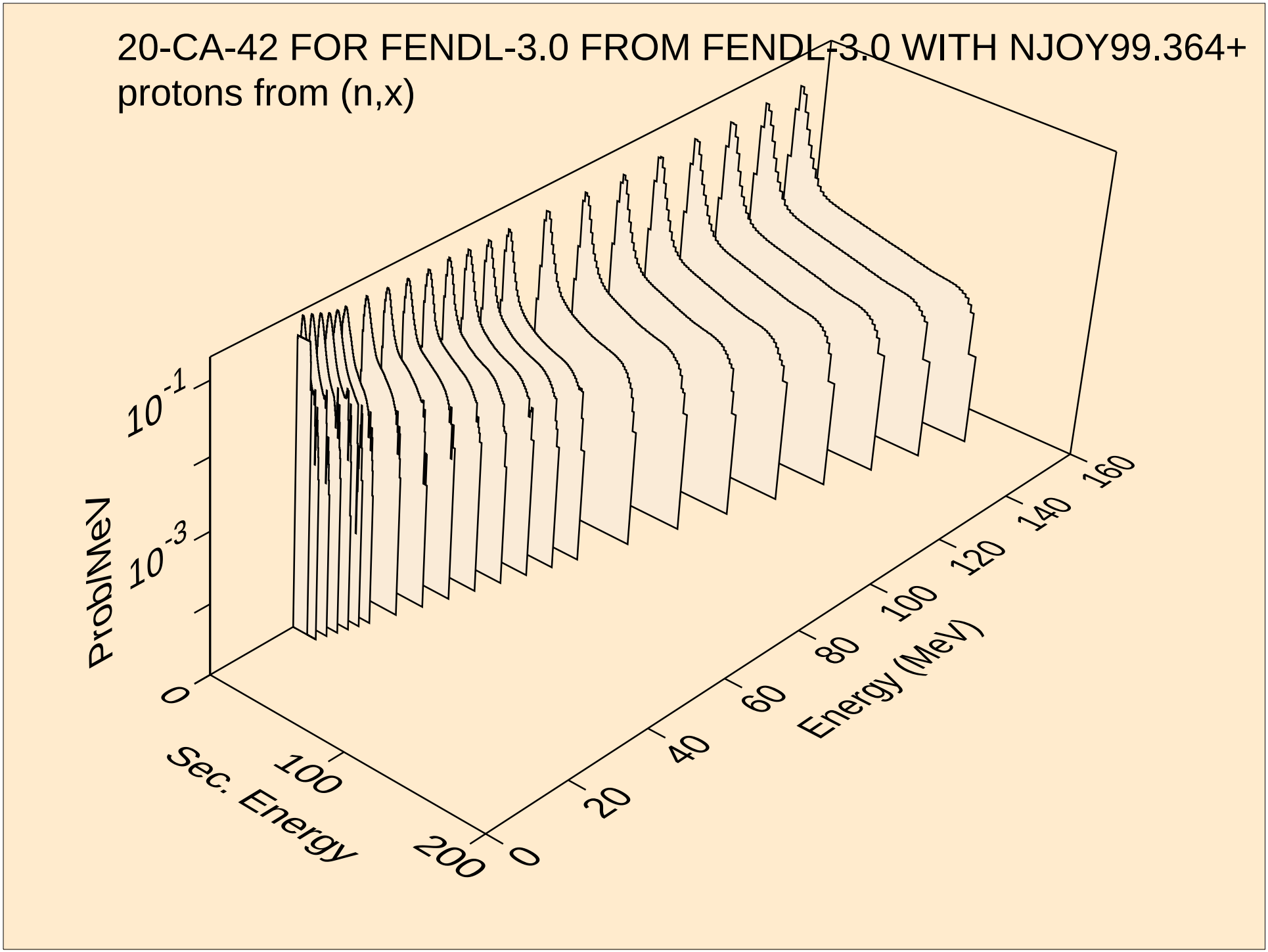

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
thermal capture photon spectrum
Gamma Prod (barns/MeV)
10^1
10^0
10^-1
0
2
4
6
8
Gamma Energy (MeV)

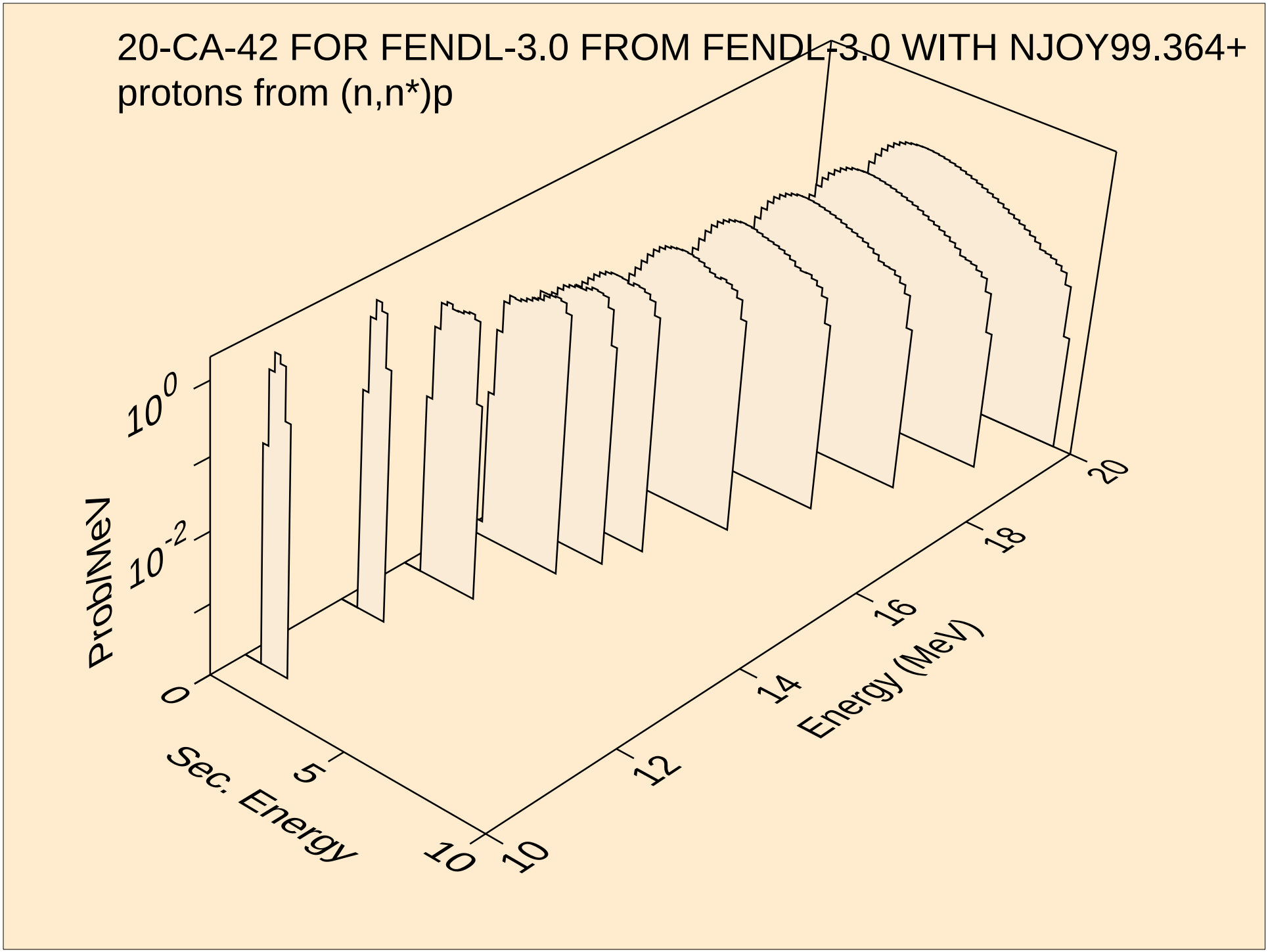

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
14 MeV photon spectrum
Gamma Prod (barns/MeV)
10^4
10^2
10^0
10^-2
10^-4
10^-6
0
10
20
30
Gamma Energy (MeV)

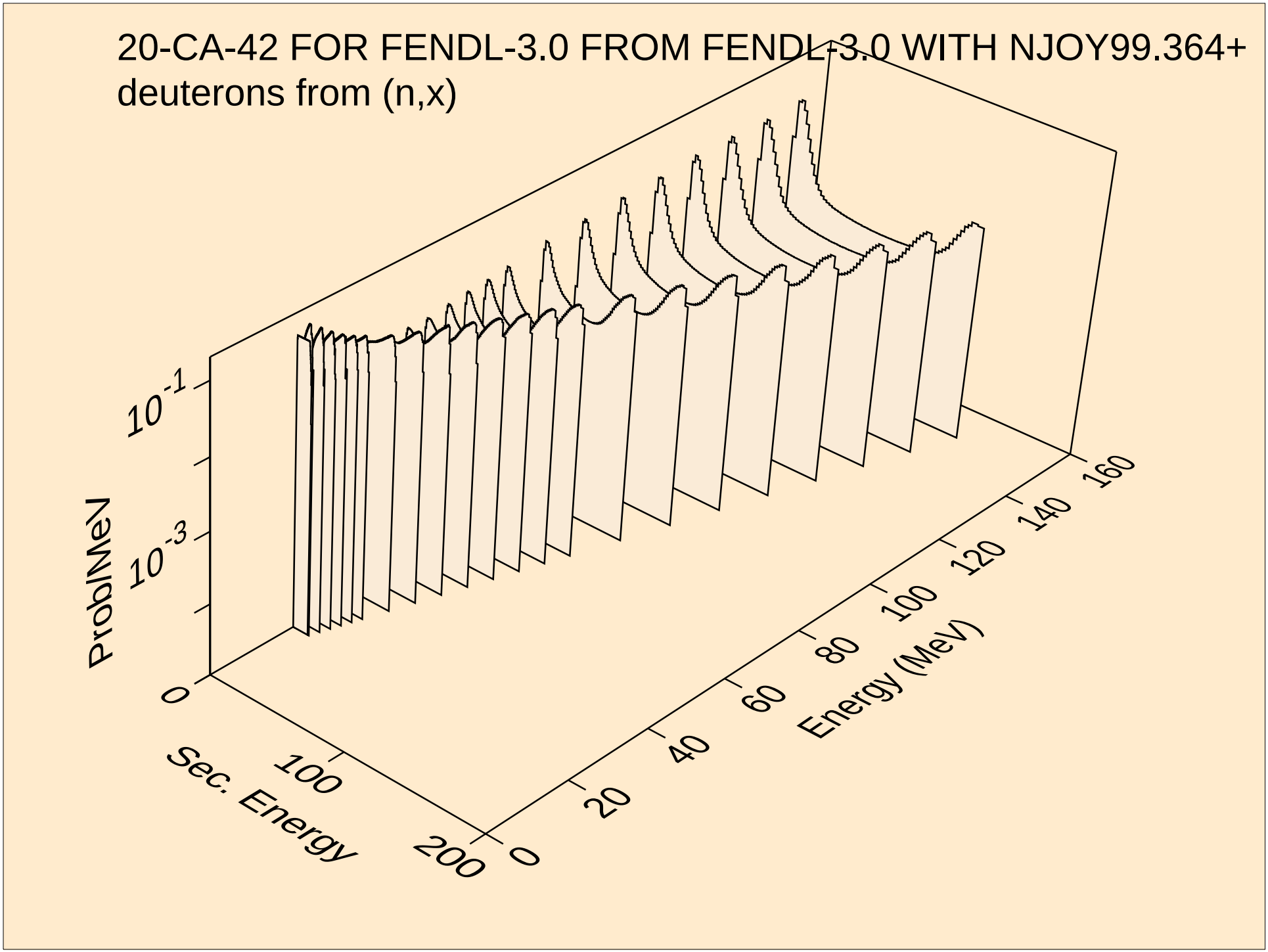

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Particle heating contributions
protons
deuterons
tritons
alphas
MeV/collision
Energy (MeV)
0
5
10
15
20
25
30
0
20
40
60
80
100
120
140
160

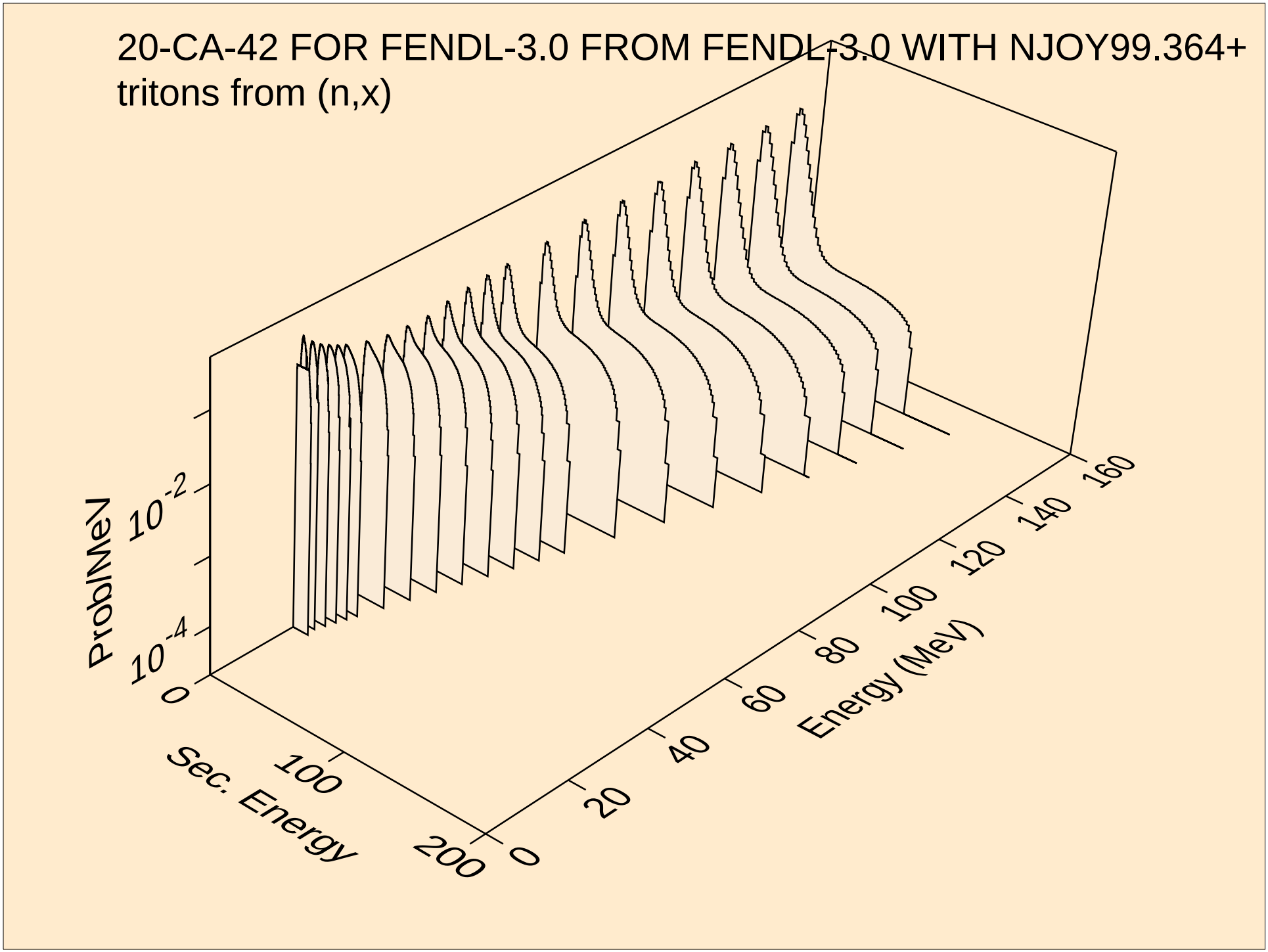

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
0
20
40
60
80
100
120
140
160

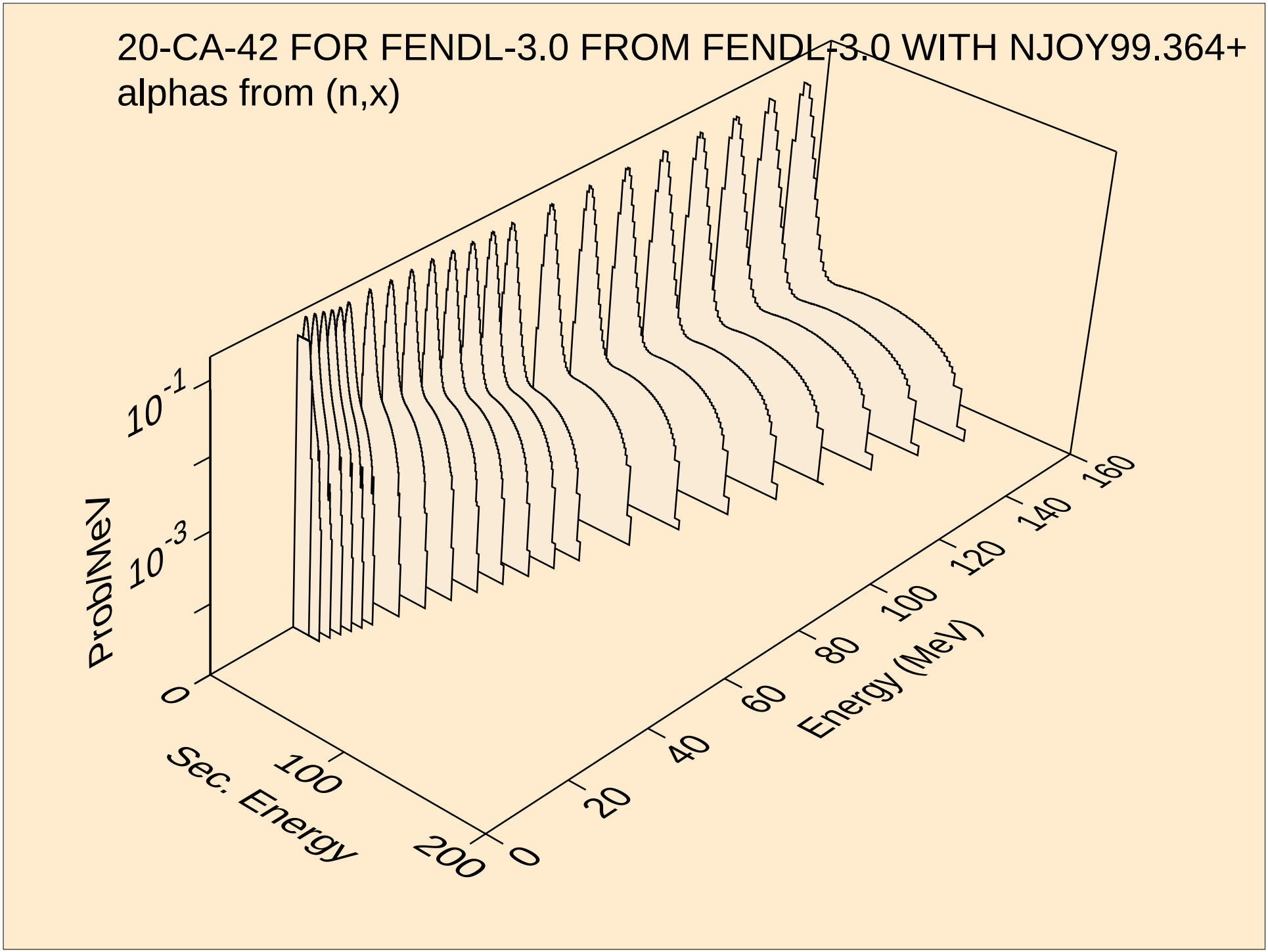

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
Particle production cross sections
Cross section (barns)
Energy (MeV)
protons
deuterons
tritons
alphas
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
20
40
60
80
100
120
140
160

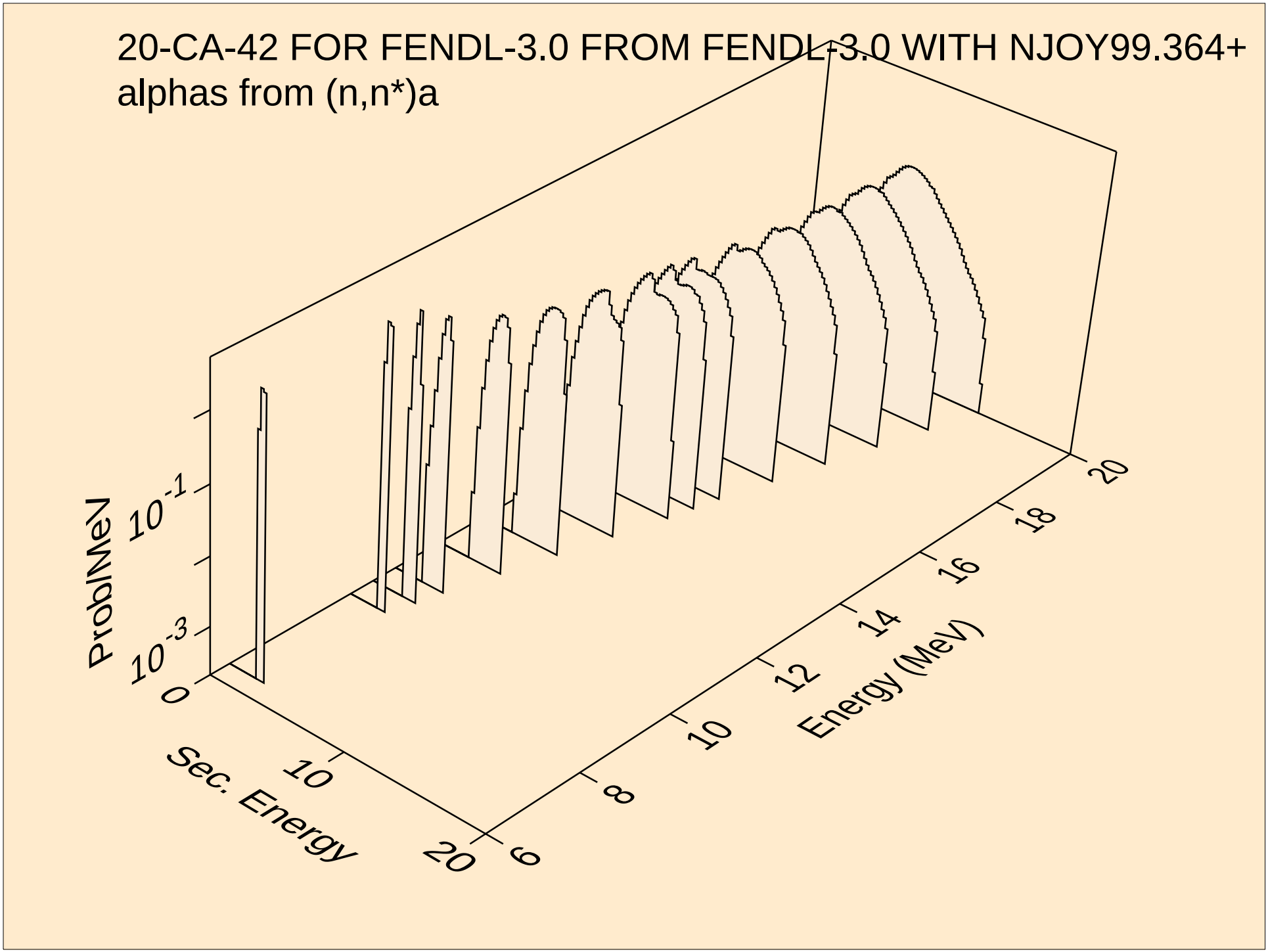

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
protons from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
Energy (MeV)

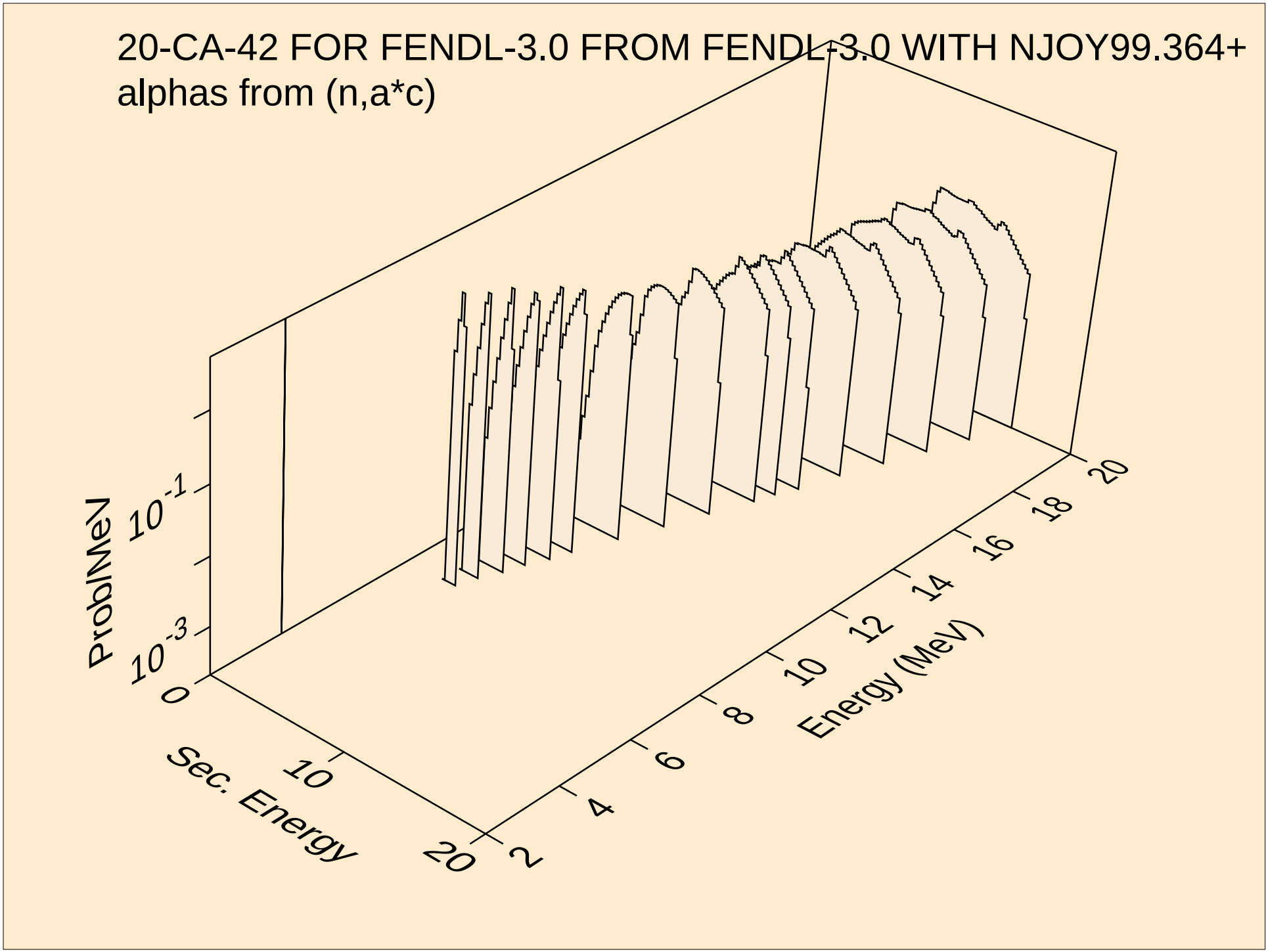

20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
protons from (n,n*)p
Prob/MeV
10^{0}
10^{-2}
0
Sec. Energy
5
10
10
12
14
Energy (MeV)
16
18
20


20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
deuterons from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
Energy (MeV)


20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
tritons from (n,x)
Prob/MeV
10-2
10-4
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
Energy (MeV)


20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
alphas from (n,x)
Prob/MeV
10-1
10-3
0
Sec. Energy
100
200
0
20
40
60
80
100
120
140
160
Energy (MeV)


20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
alphas from (n,n*)a
Prob/MeV
10-1
10-3
0
Sec. Energy
10
20
6
8
10
12
14
16
18
20
Energy (MeV)


20-CA-42 FOR FENDL-3.0 FROM FENDL-3.0 WITH NJOY99.364+
alphas from (n,a*c)
Prob/MeV
10-1
10-3
0
Sec. Energy
10
20
2
4
6
8
10
12
14
16
18
20
Energy (MeV)