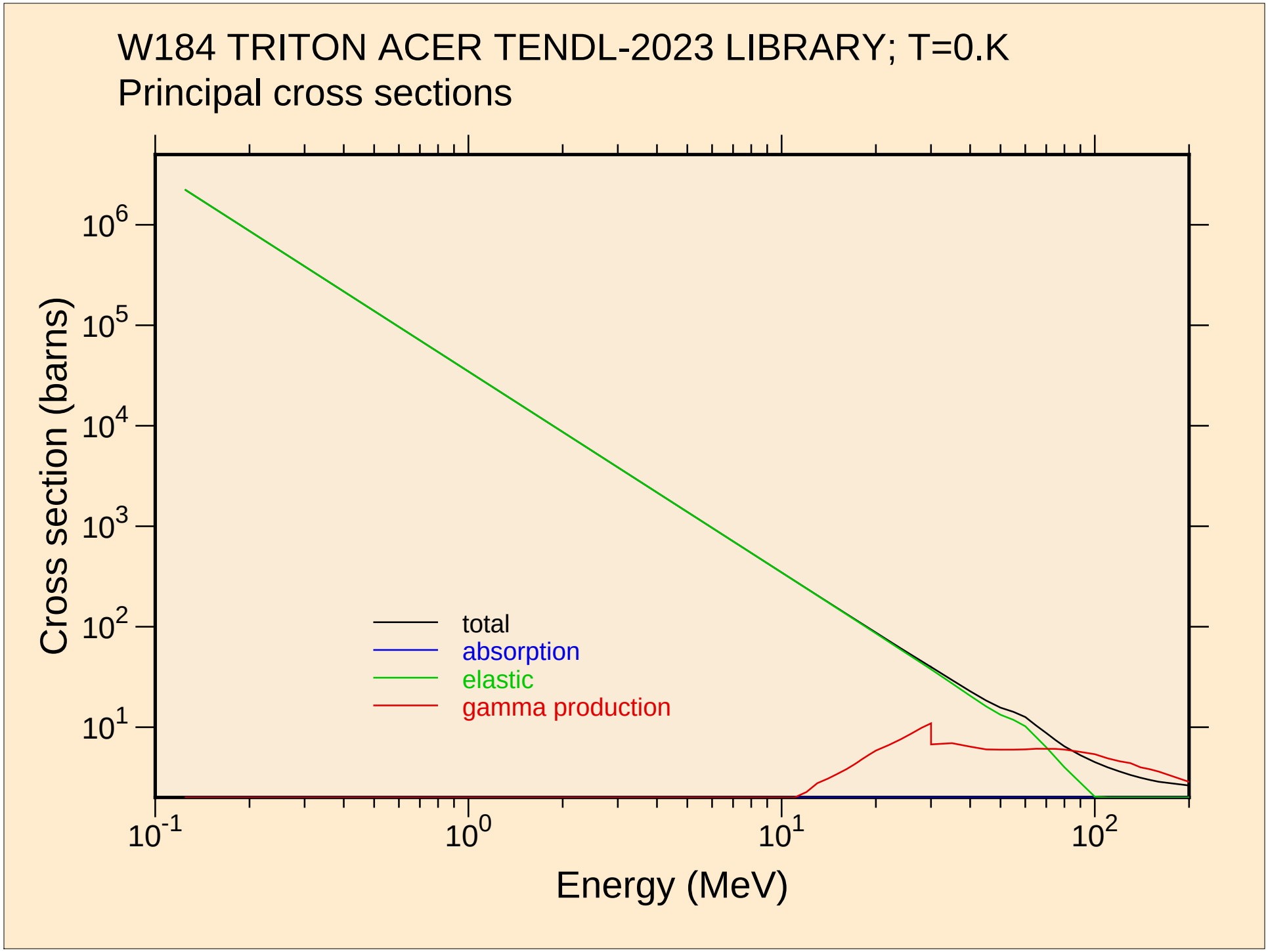
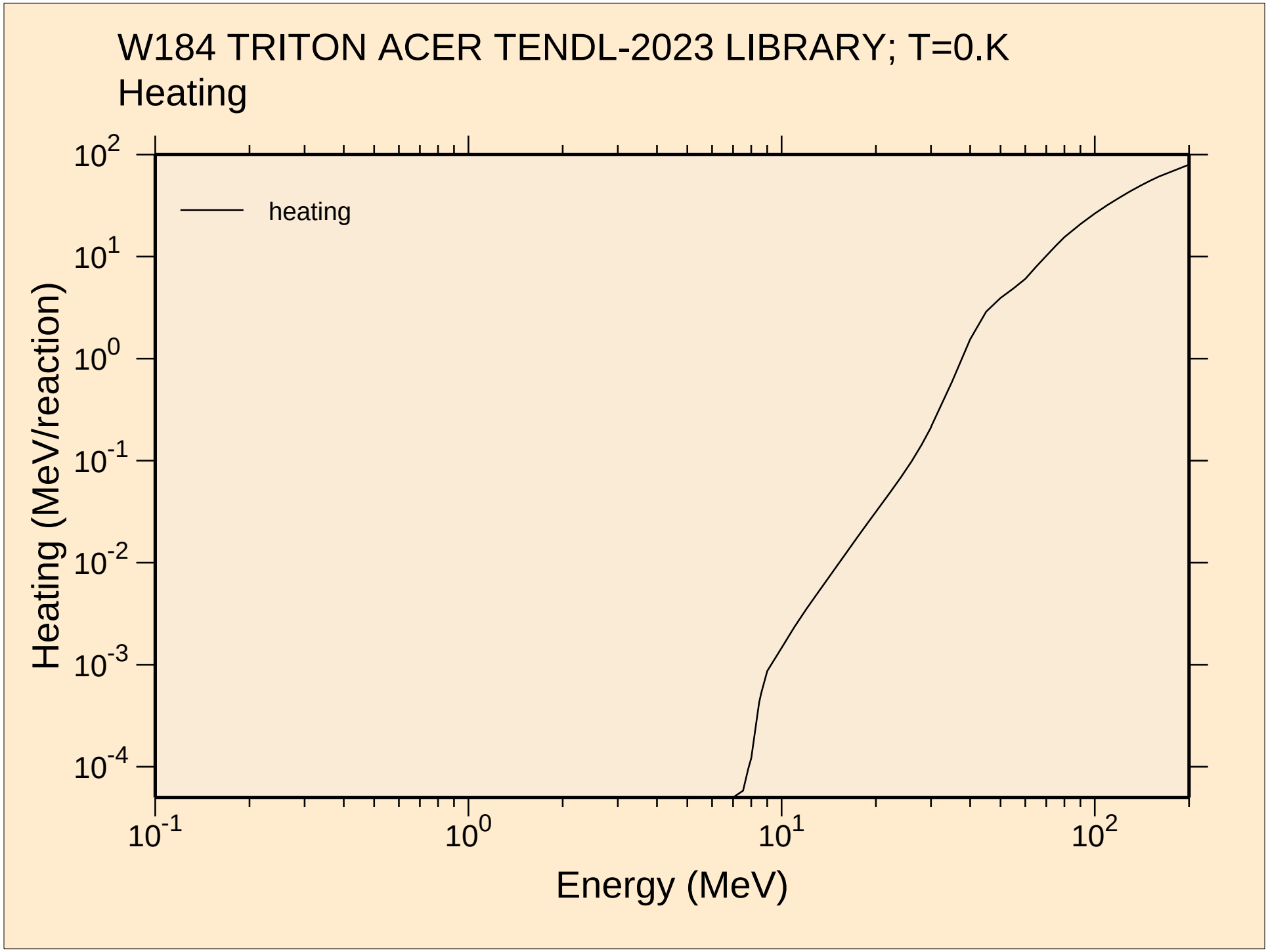
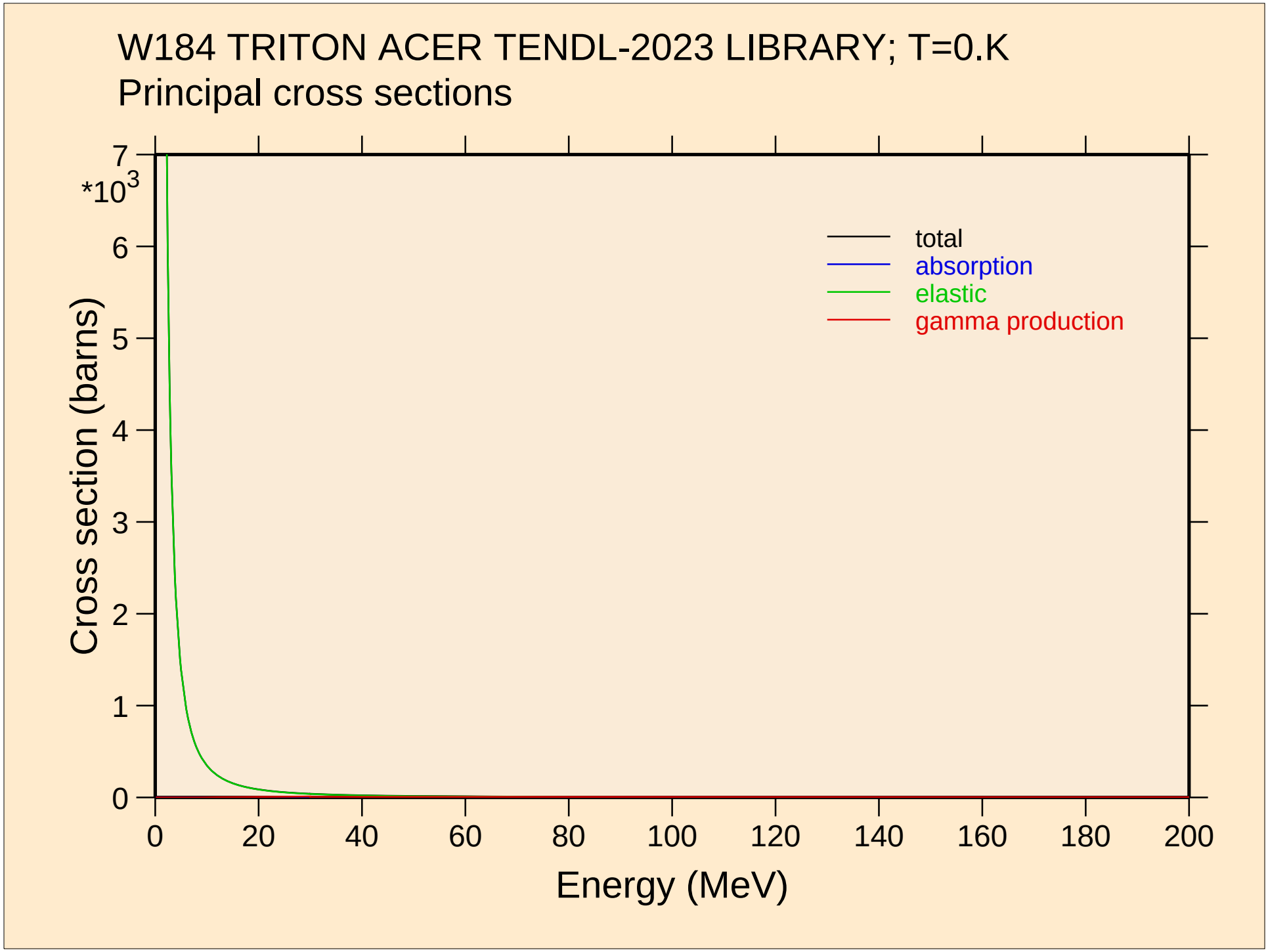
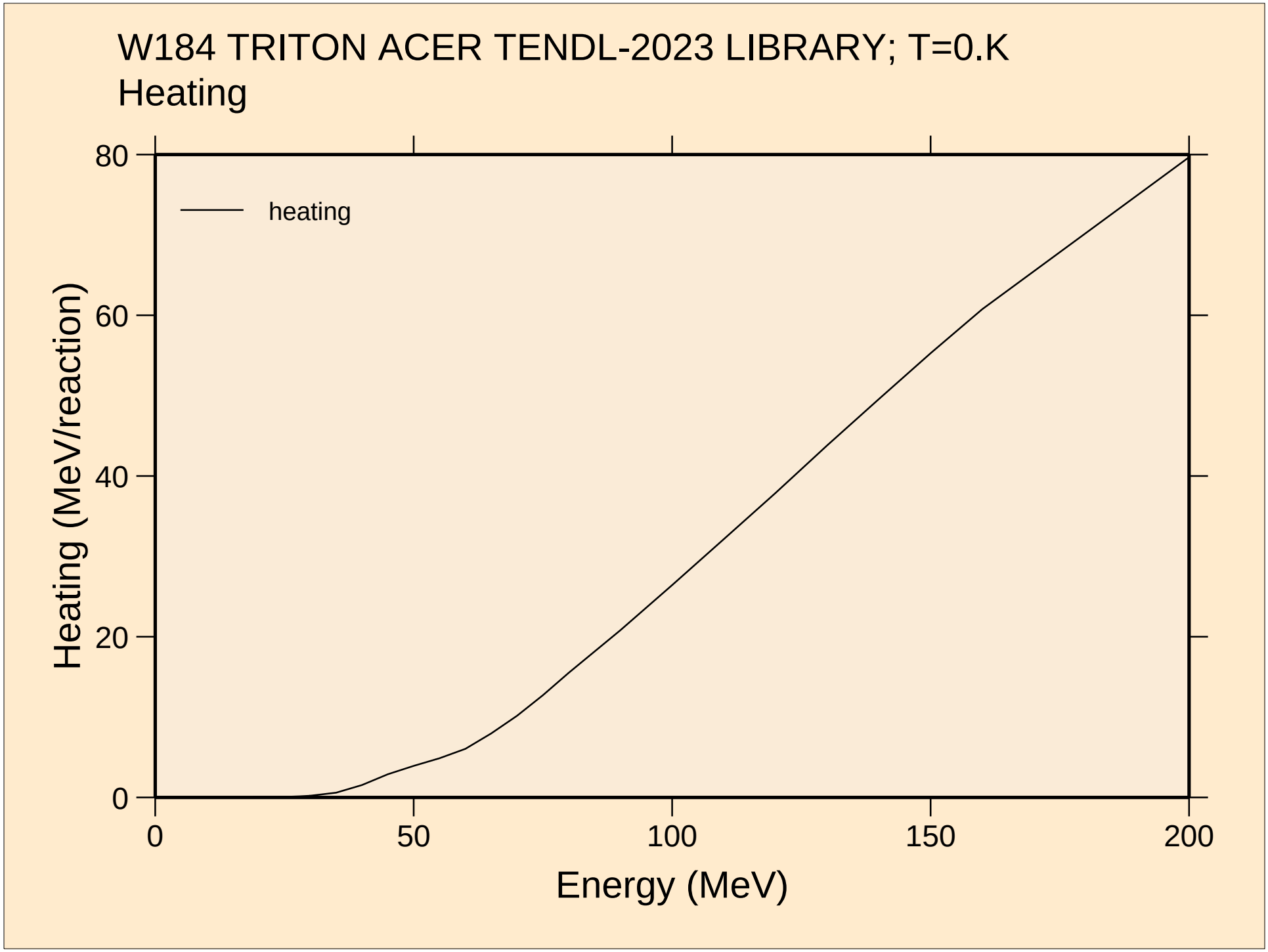
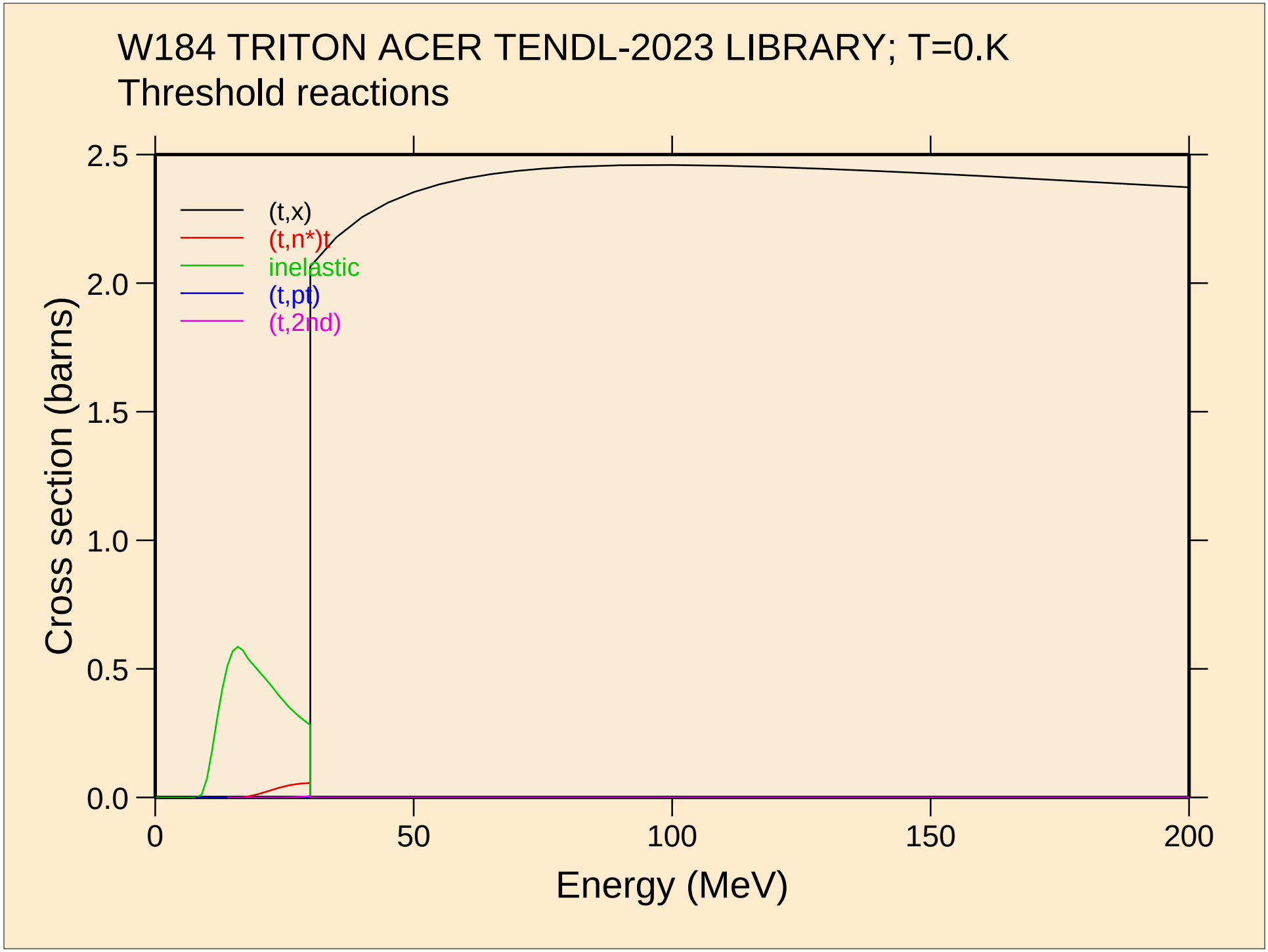
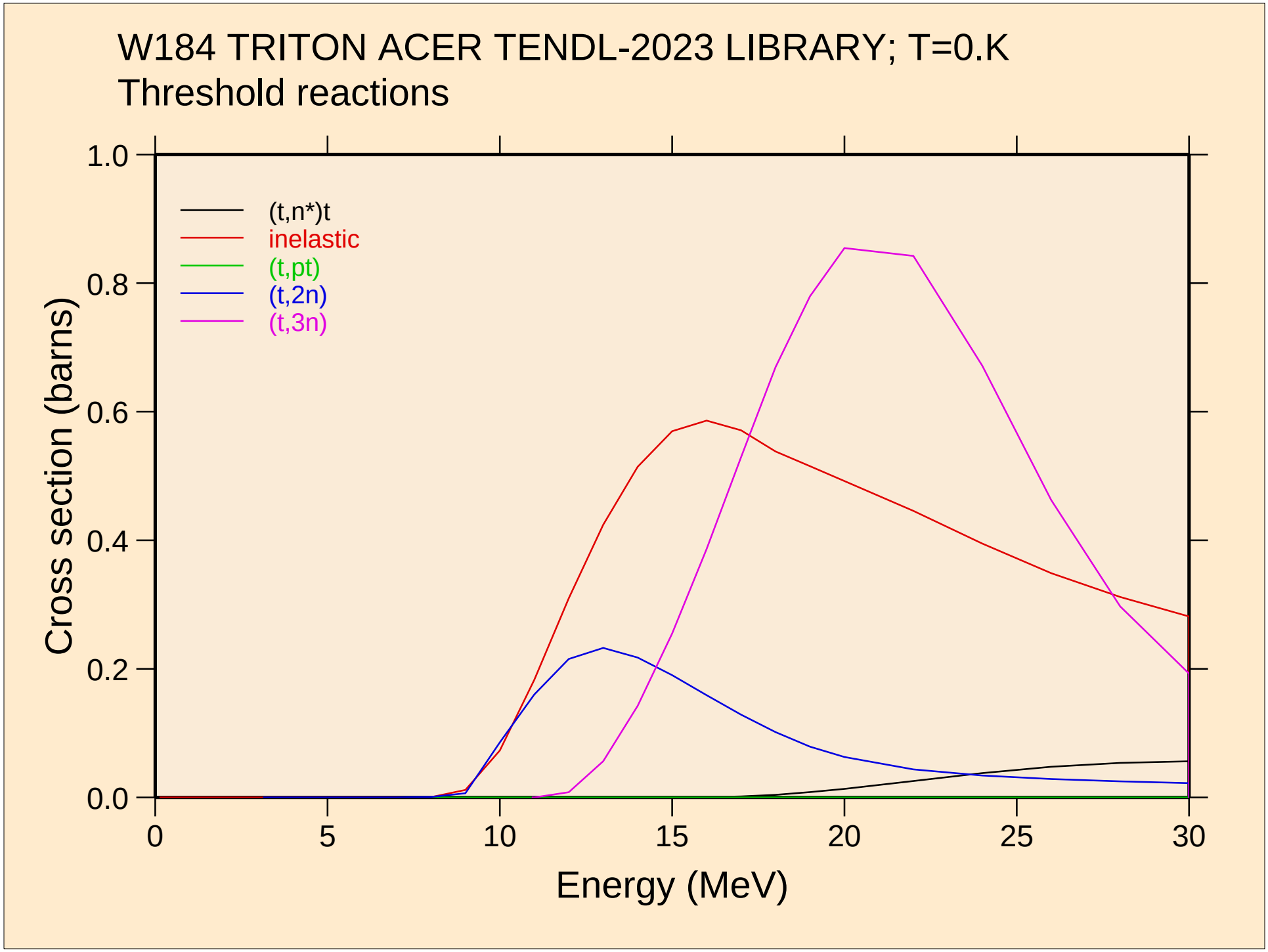

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Principal cross sections
Cross section (barns)
Energy (MeV)
total
absorption
elastic
gamma production

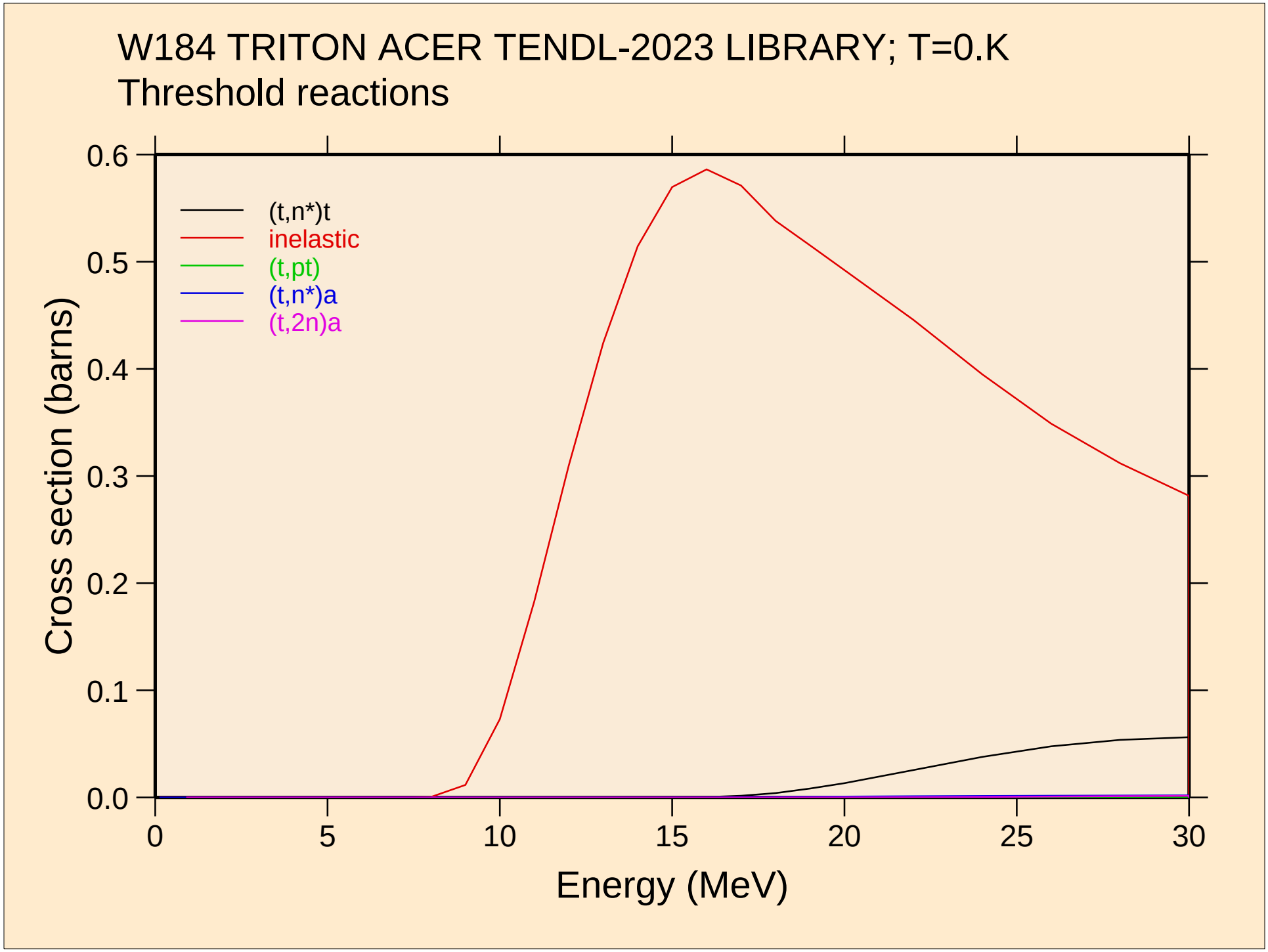

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-1}
10^{0}
10^{1}
10^{2}

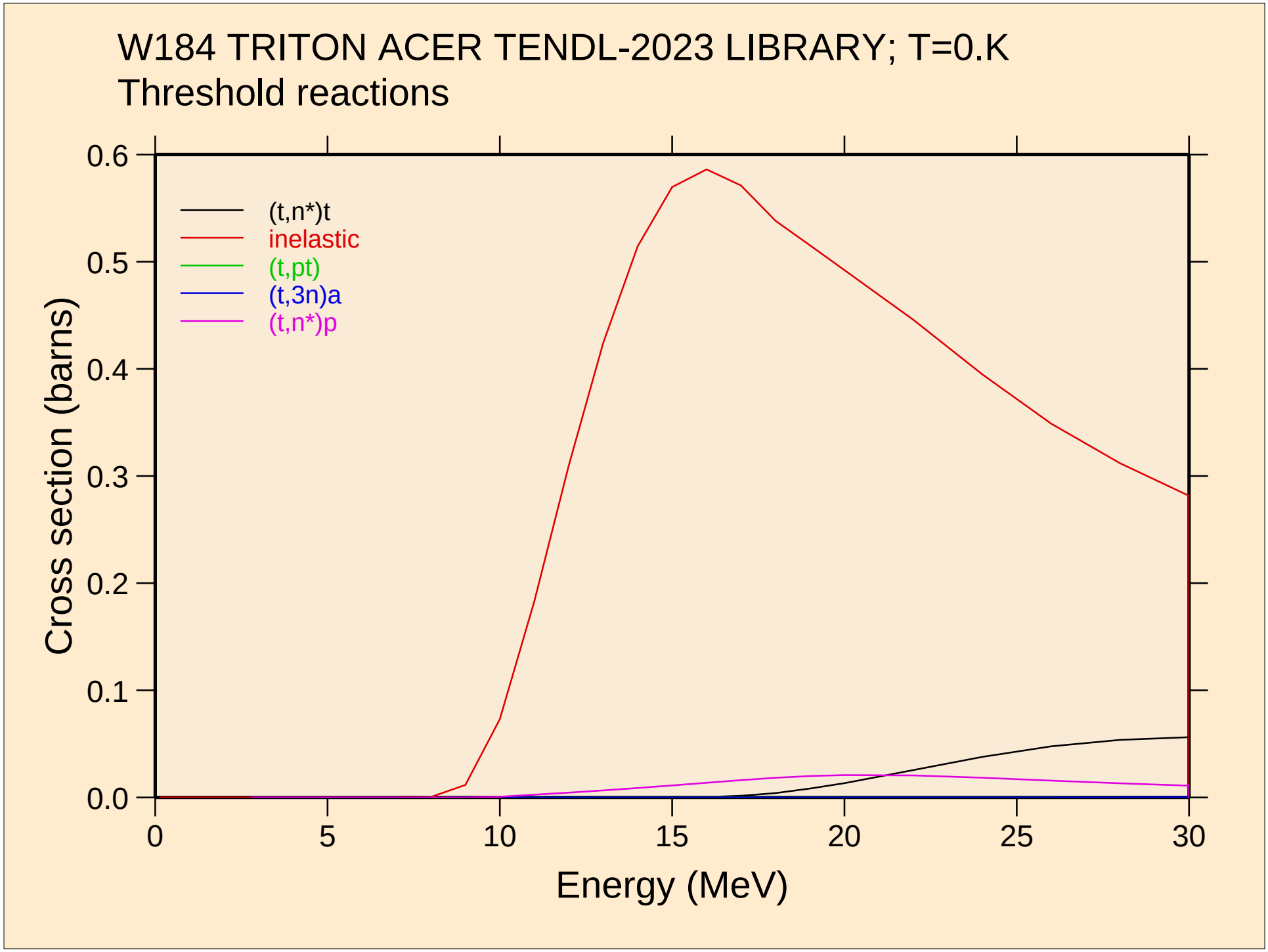

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Principal cross sections
Cross section (barns)
*10^3
7
6
5
4
3
2
1
0
0
20
40
60
80
100
120
140
160
180
200
Energy (MeV)
total
absorption
elastic
gamma production

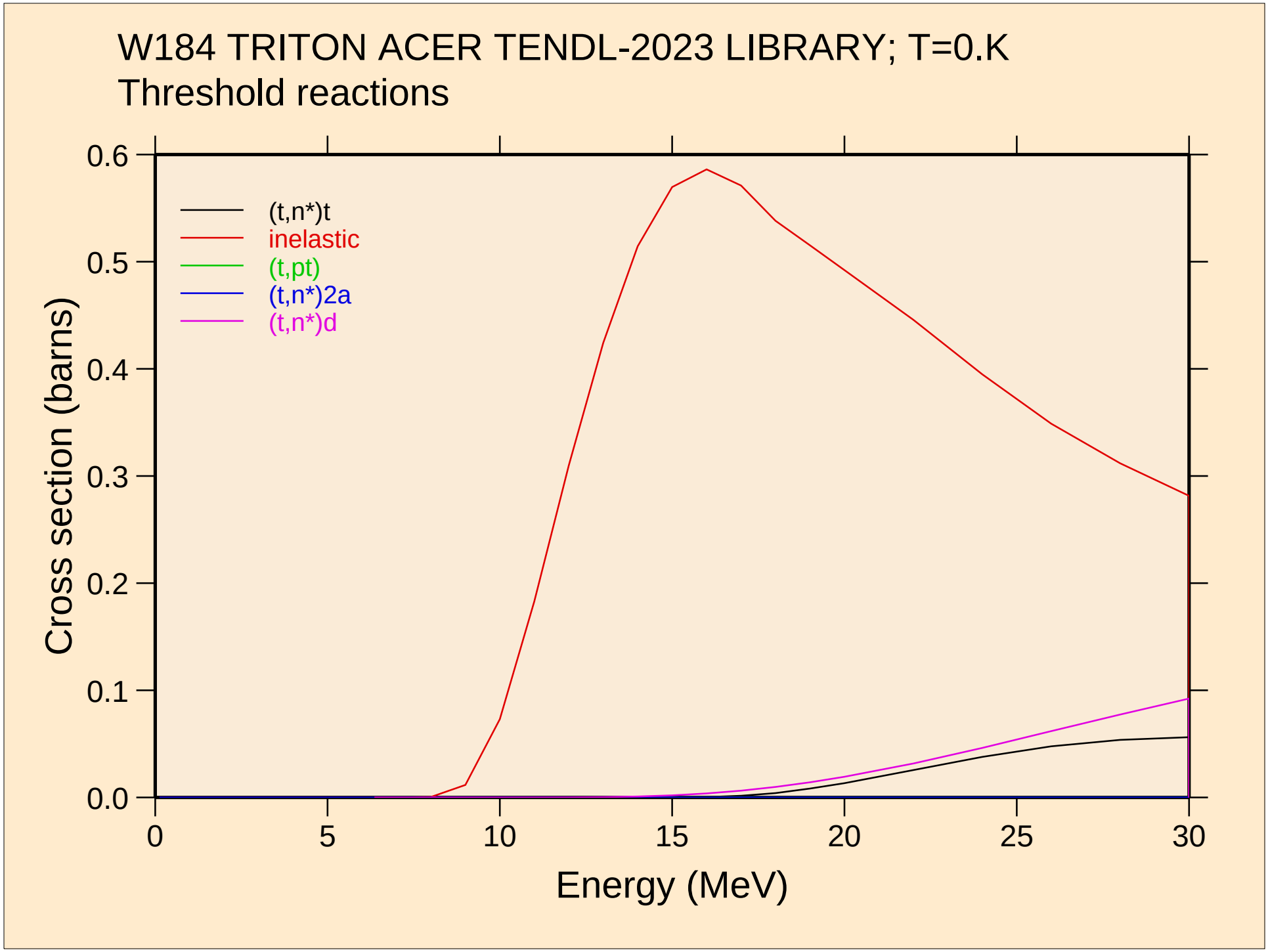

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Heating
heating
Heating (MeV/reaction)
Energy (MeV)
0
20
40
60
80
0
50
100
150
200

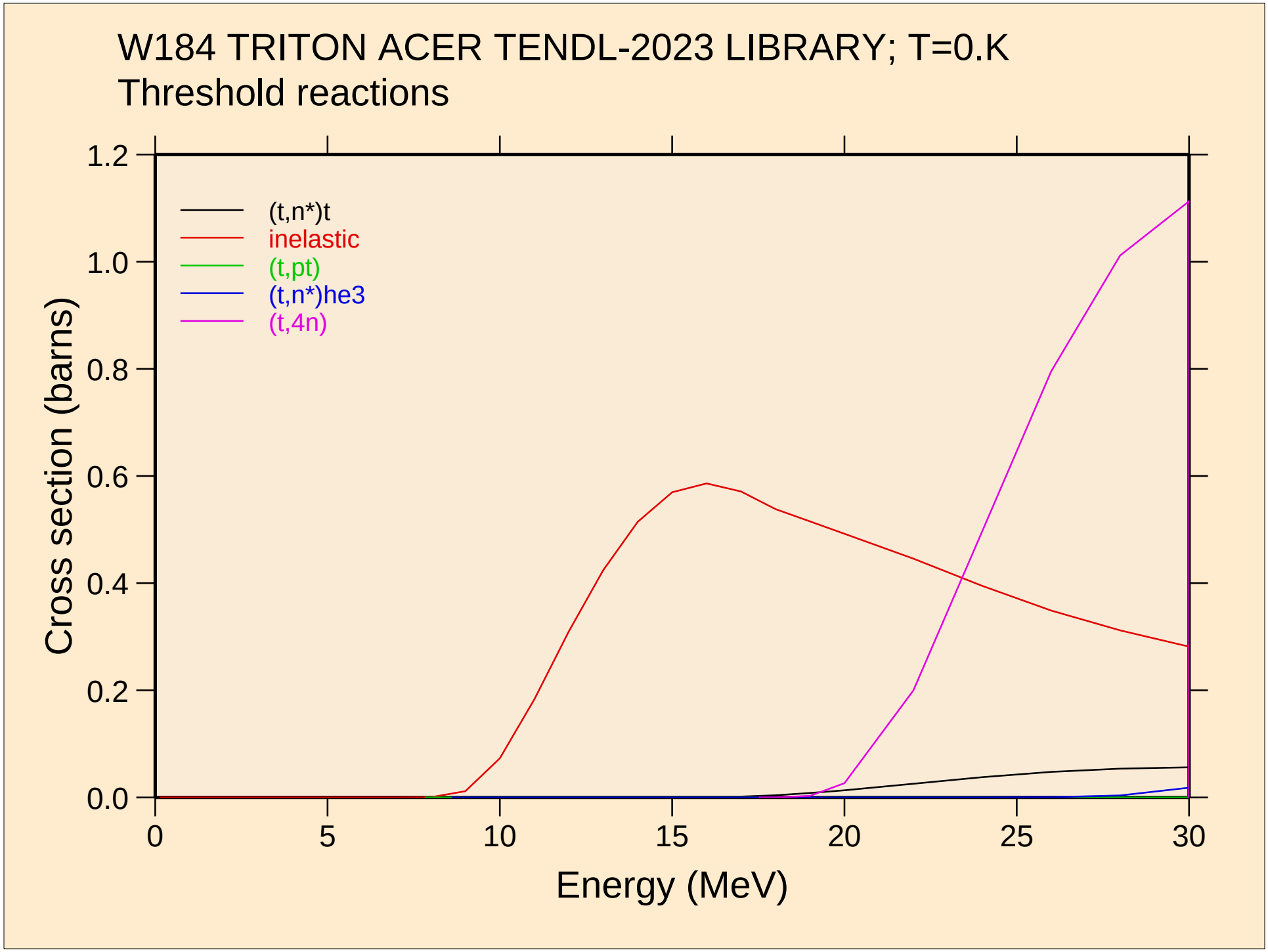

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,x)
(t,n*)t
inelastic
(t,pt)
(t,2nd)
Cross section (barns)
Energy (MeV)
0.0
0.5
1.0
1.5
2.0
2.5
0
50
100
150
200

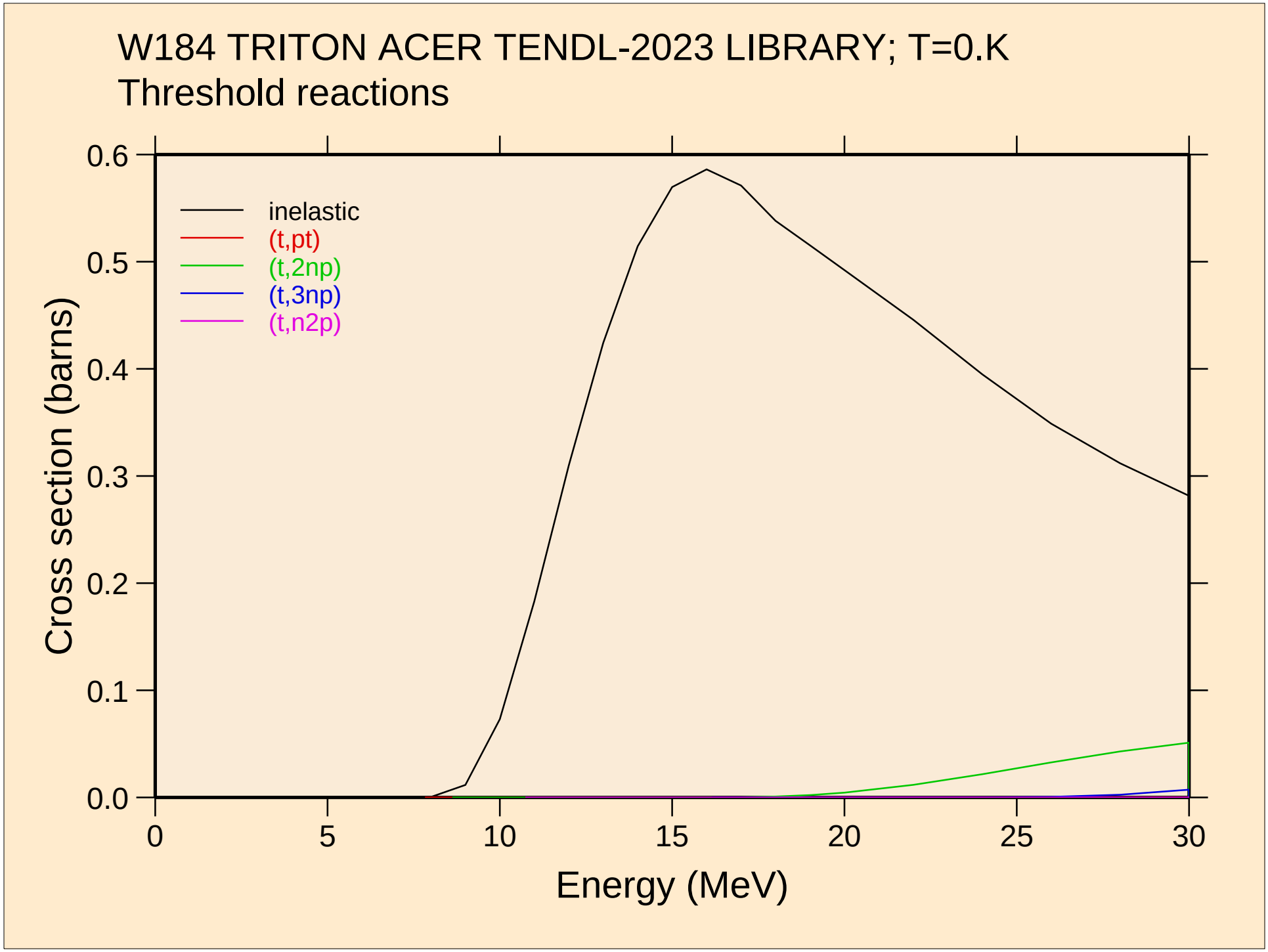

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,n*)t
inelastic
(t,pt)
(t,2n)
(t,3n)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
0
5
10
15
20
25
30

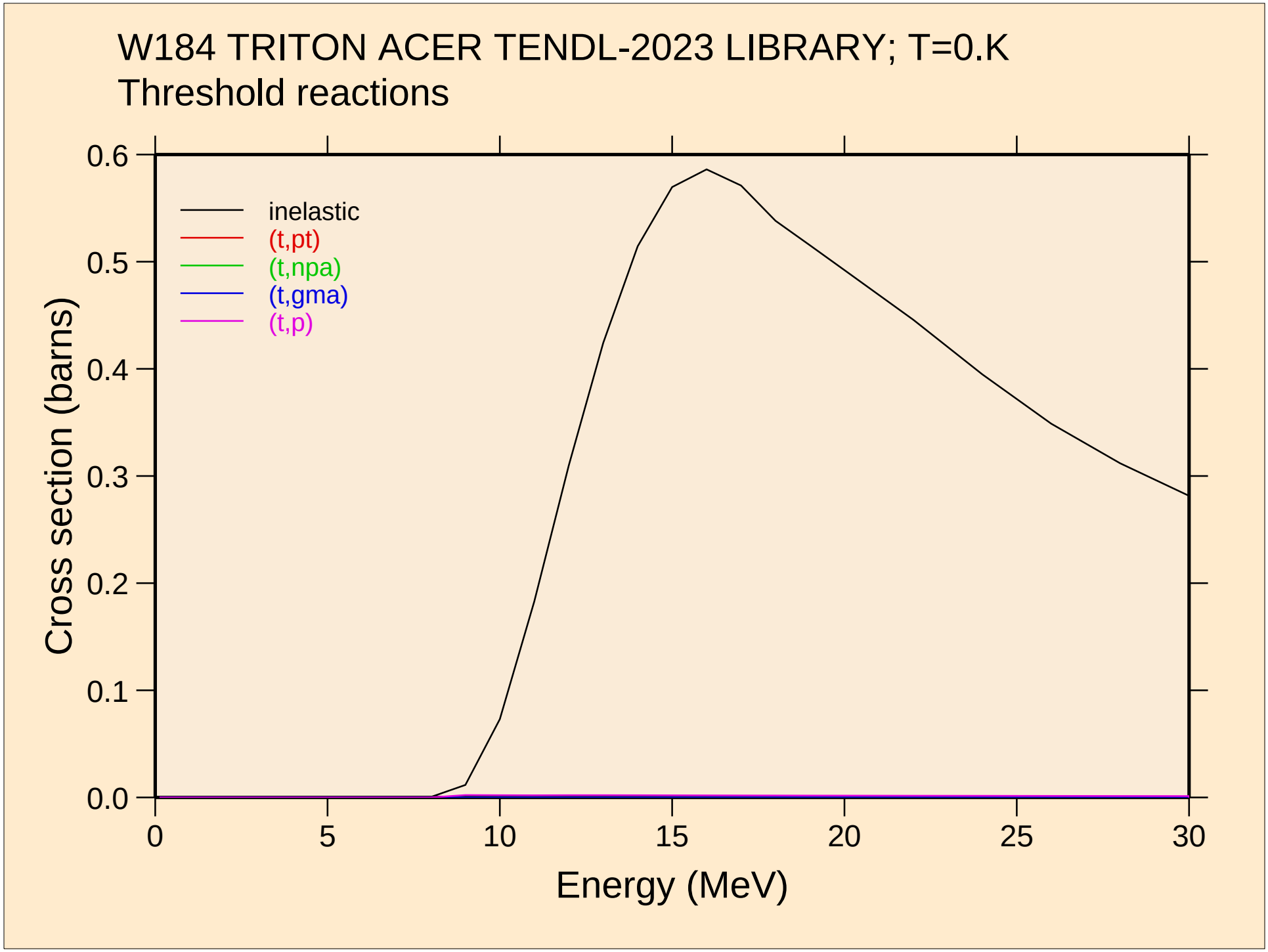

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,n*)t
inelastic
(t,pt)
(t,n*)a
(t,2n)a
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

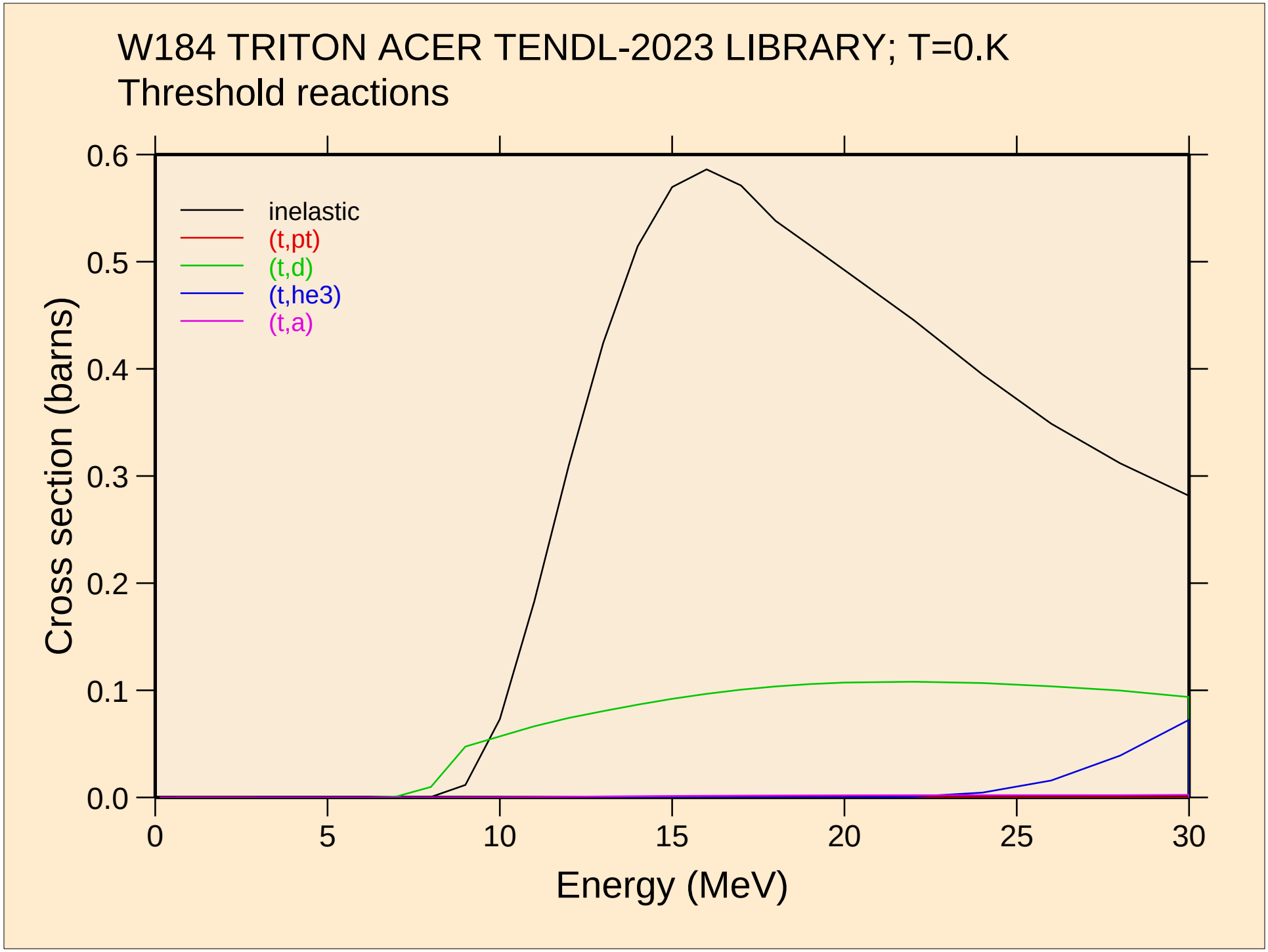

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,n*)t
inelastic
(t,pt)
(t,3n)a
(t,n*)p
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

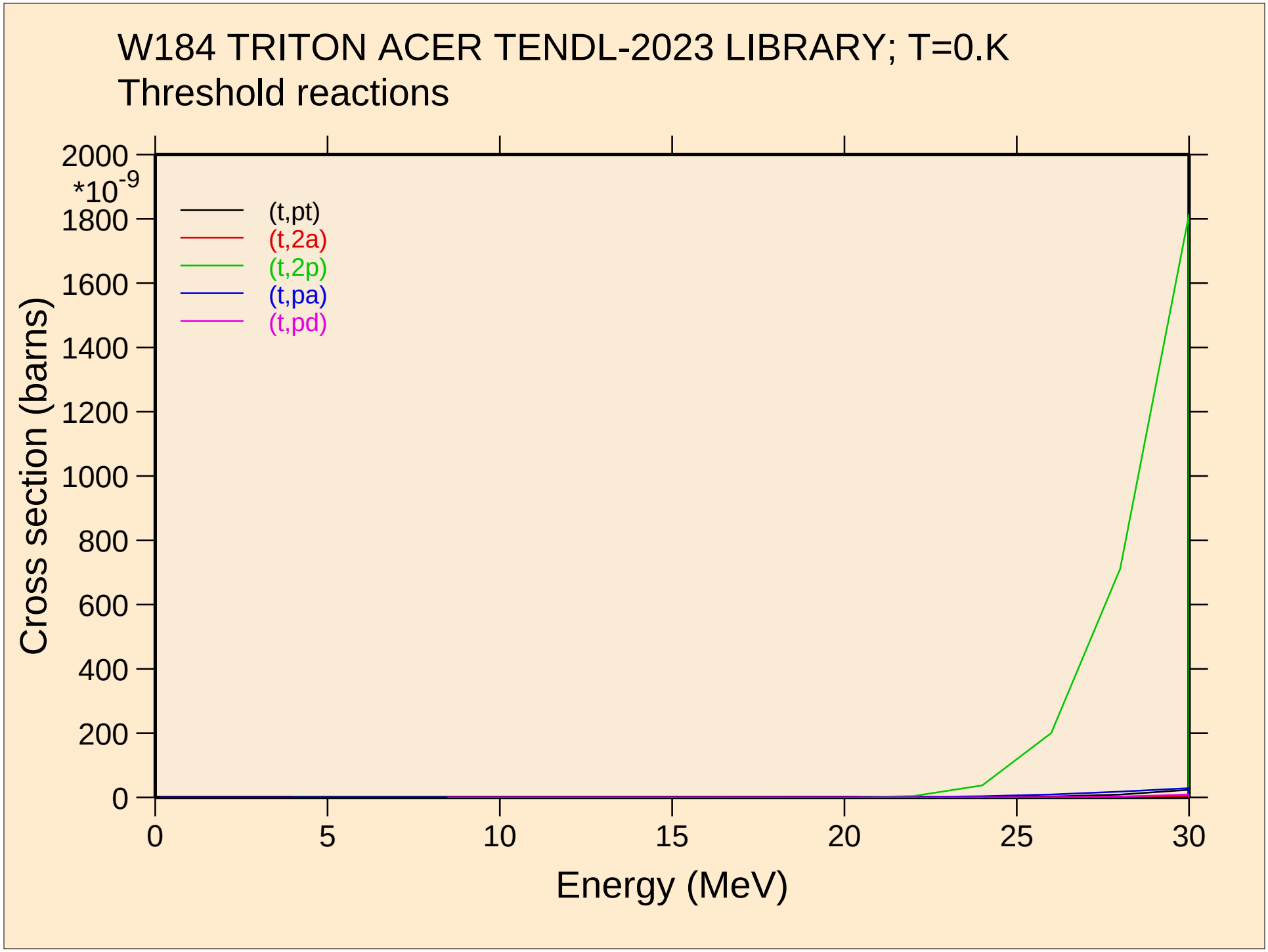

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,n*)t
inelastic
(t,pt)
(t,n*)2a
(t,n*)d
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

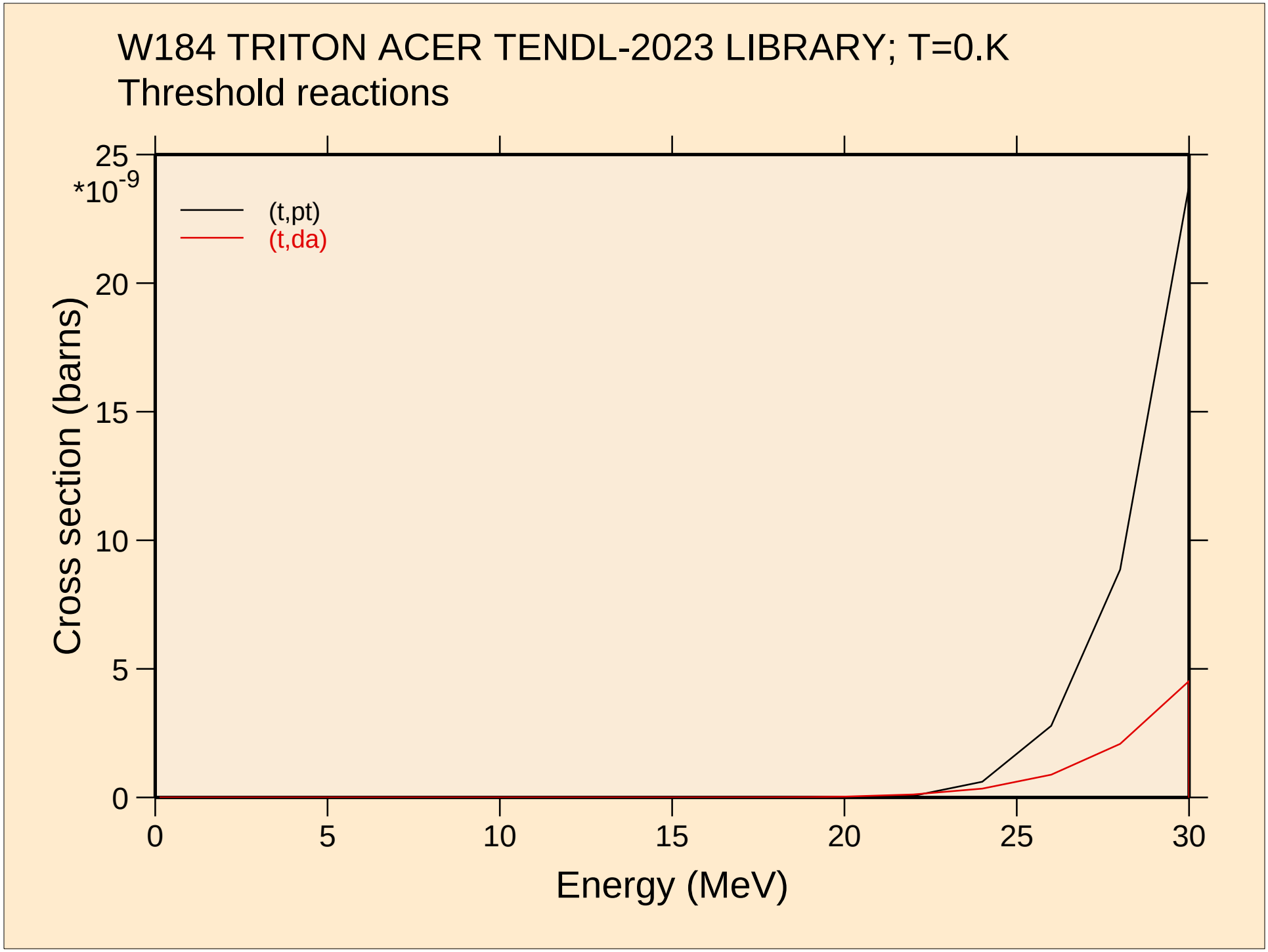

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,n*)t
inelastic
(t,pt)
(t,n*)he3
(t,4n)
Cross section (barns)
Energy (MeV)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
0
5
10
15
20
25
30

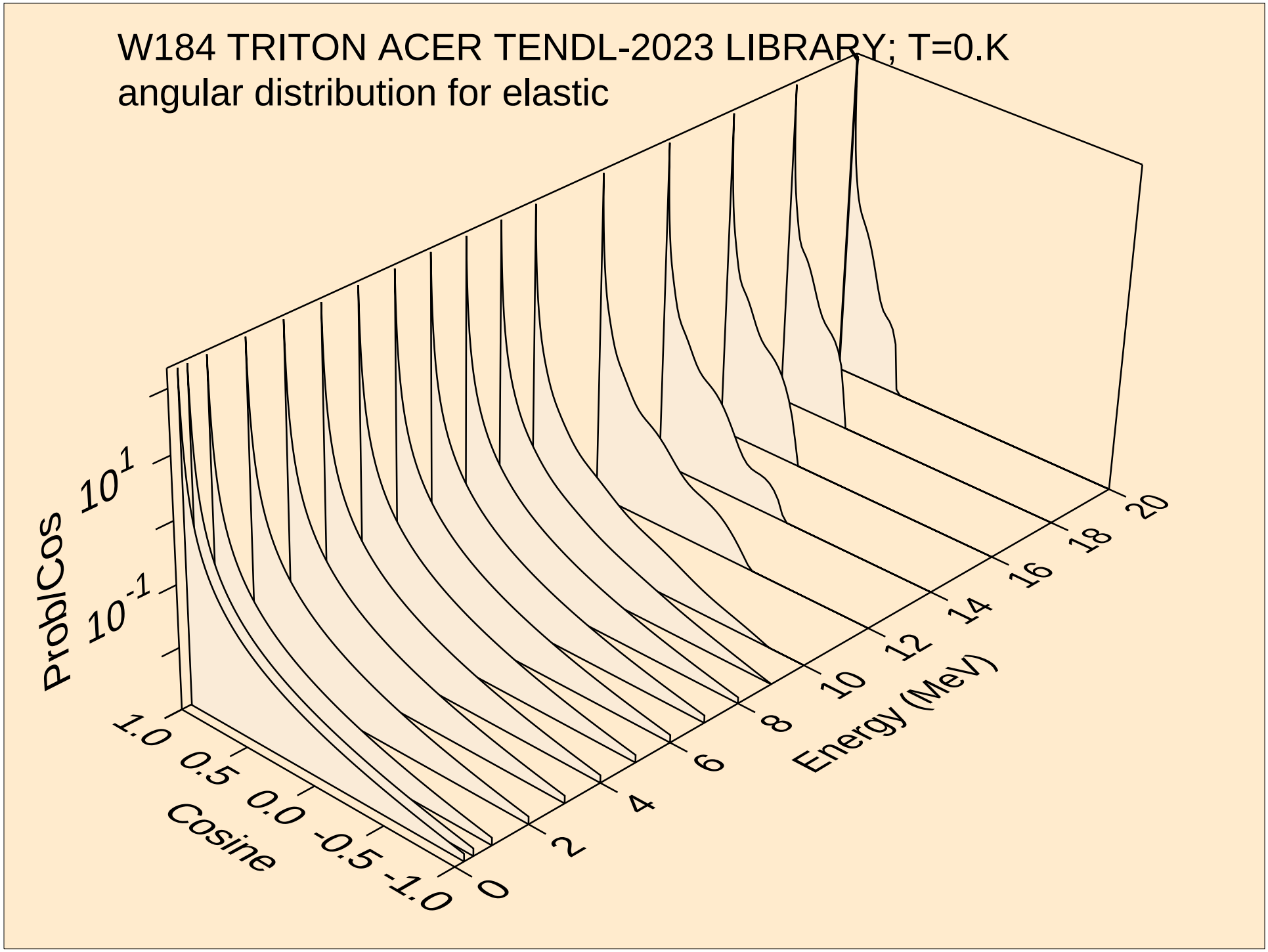

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
inelastic
(t,pt)
(t,2np)
(t,3np)
(t,n2p)
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

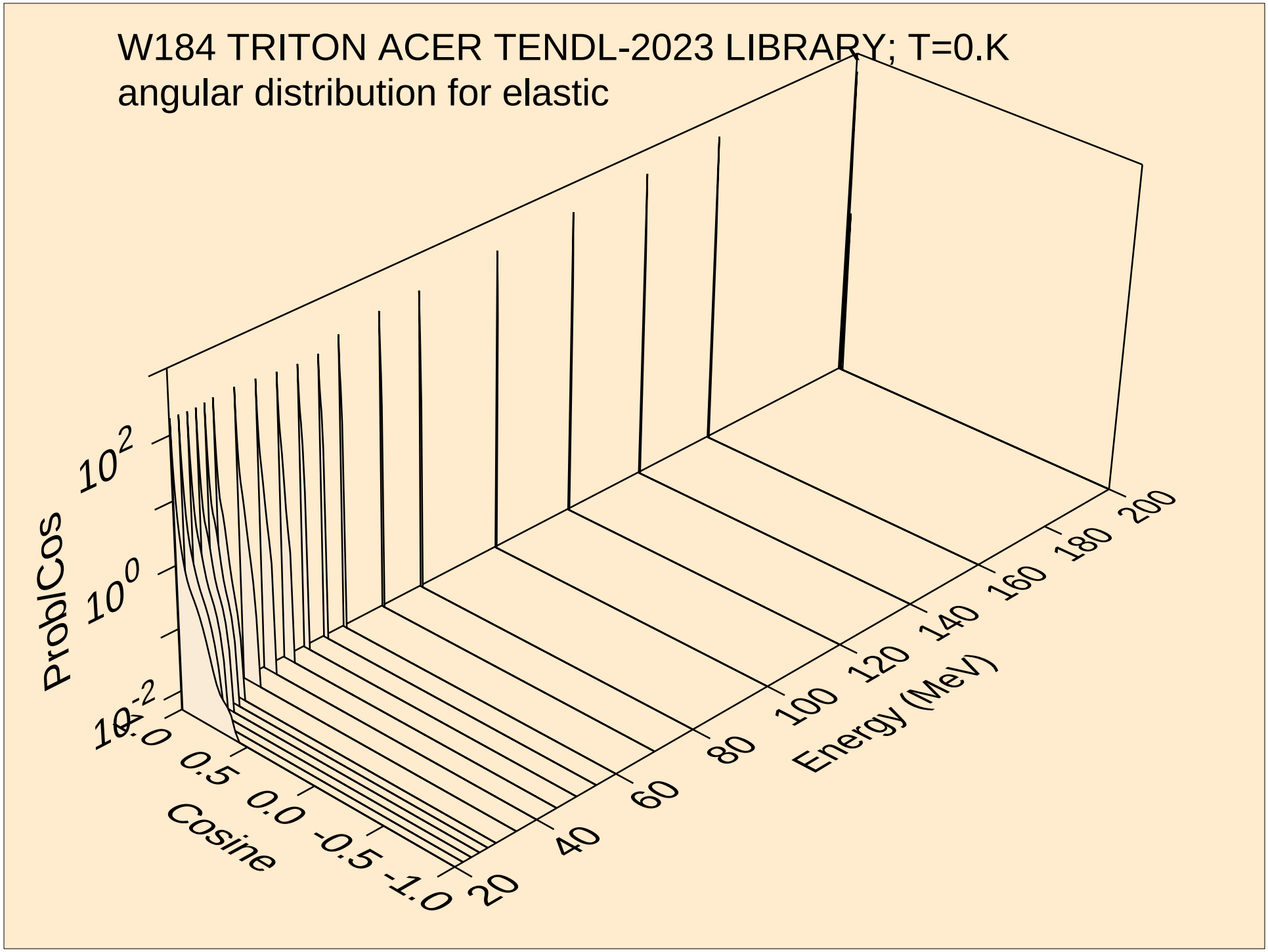

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
inelastic
(t,pt)
(t,npa)
(t,gma)
(t,p)
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

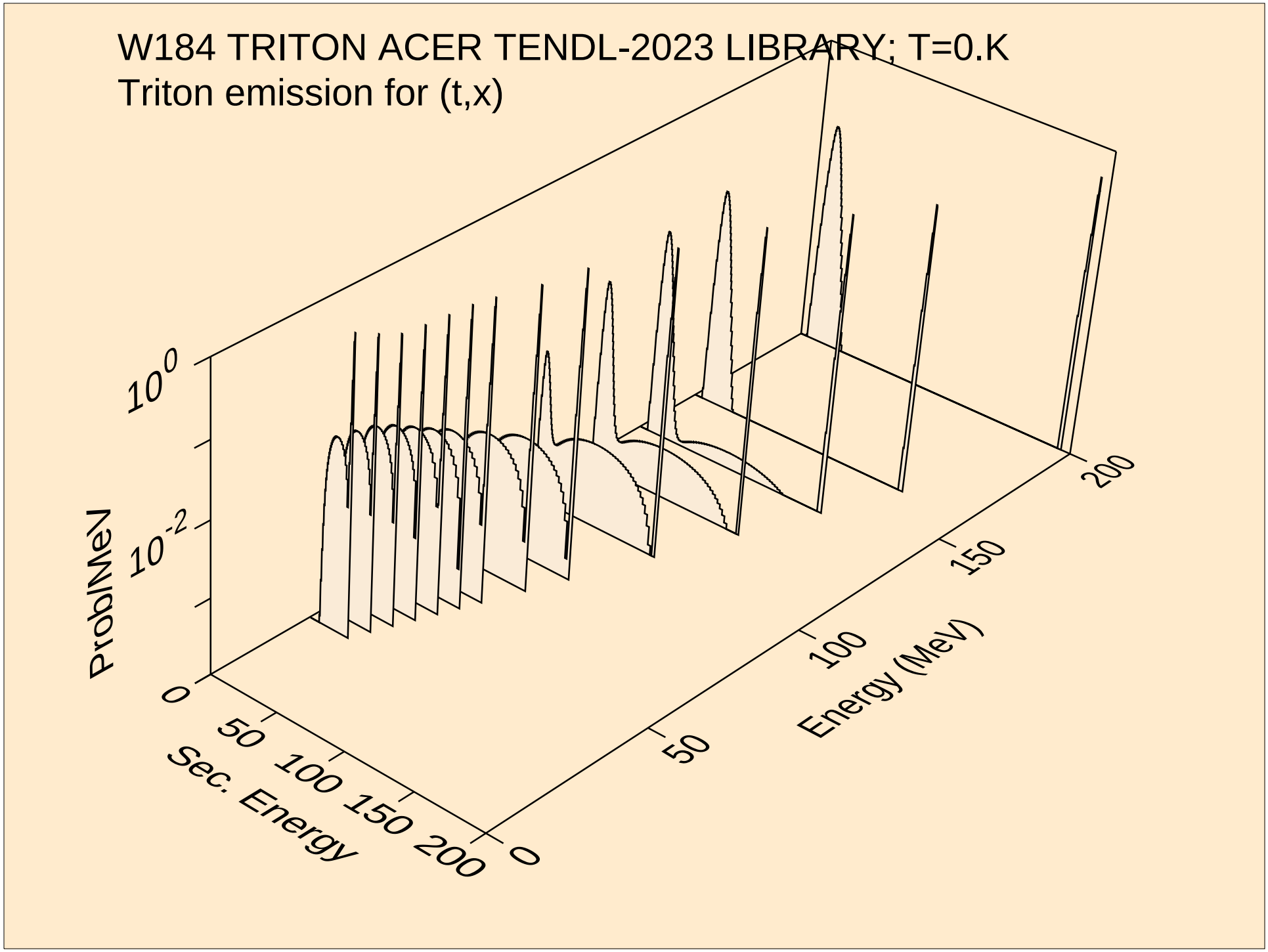

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
inelastic
(t,pt)
(t,d)
(t,he3)
(t,a)
Cross section (barns)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
5
10
15
20
25
30
Energy (MeV)

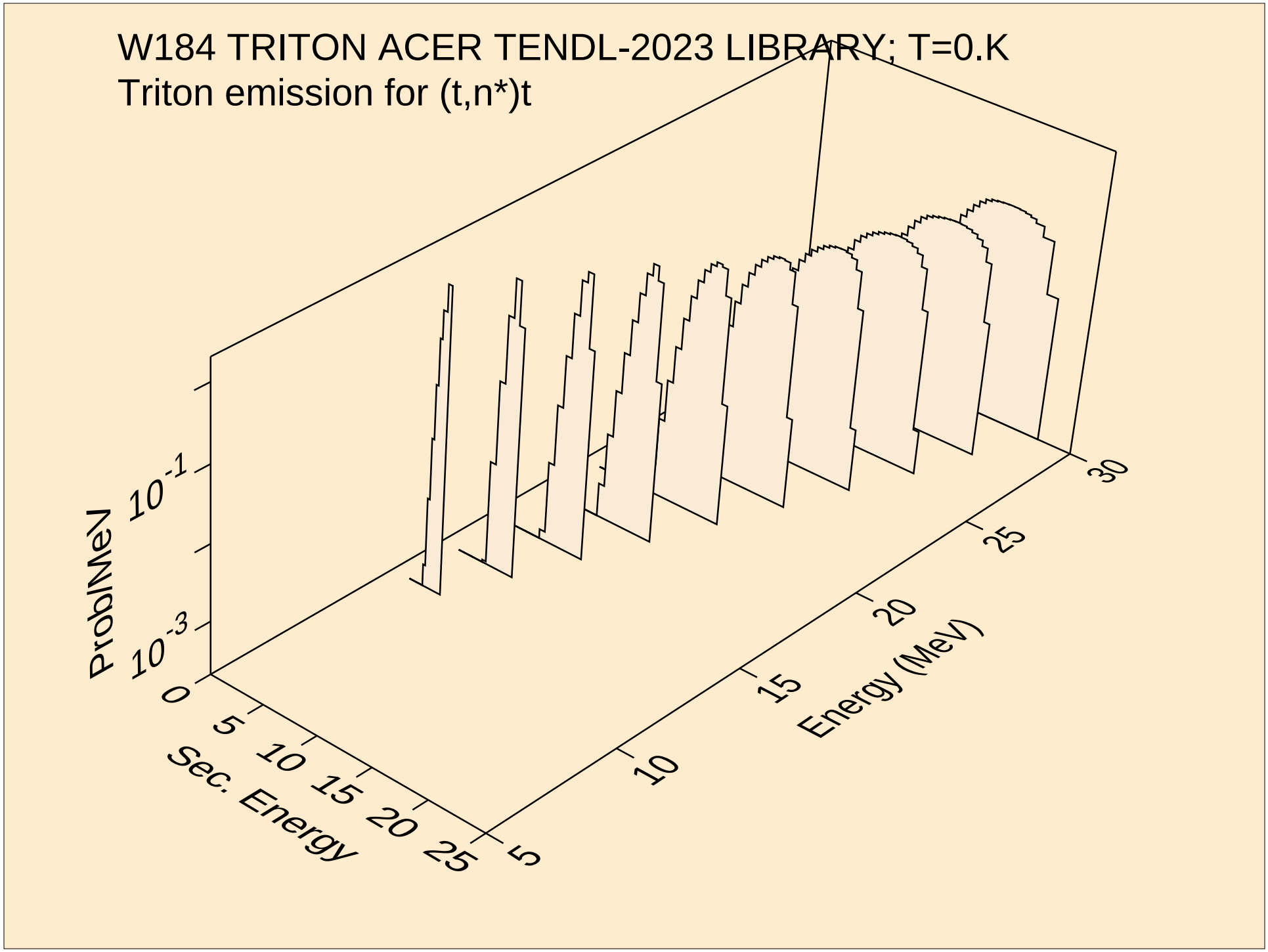

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
(t,pt)
(t,2a)
(t,2p)
(t,pa)
(t,pd)
*10-9
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Cross section (barns)
0
5
10
15
20
25
30
Energy (MeV)

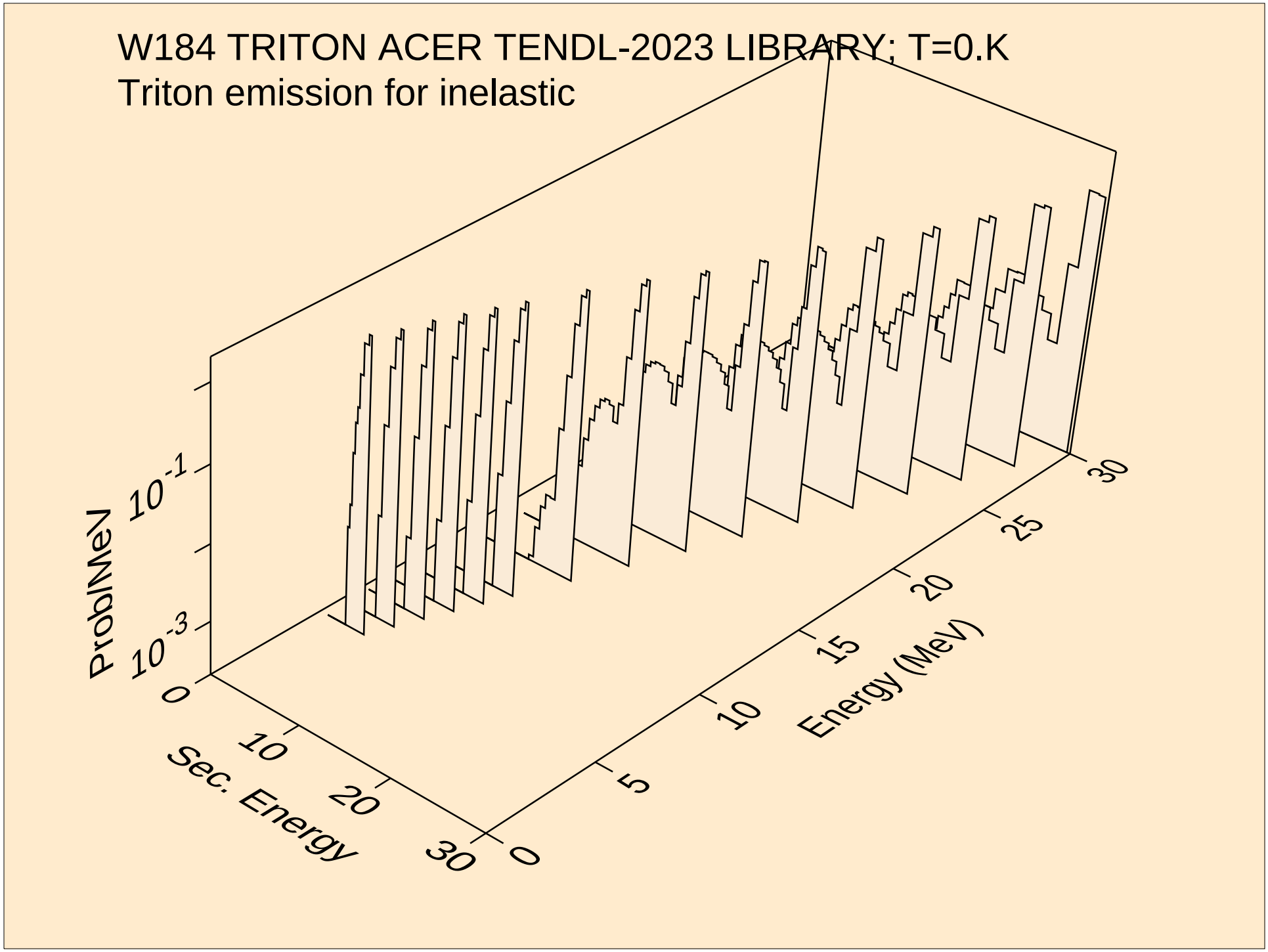

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions
*10^-9
(t,pt)
(t,da)
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
30

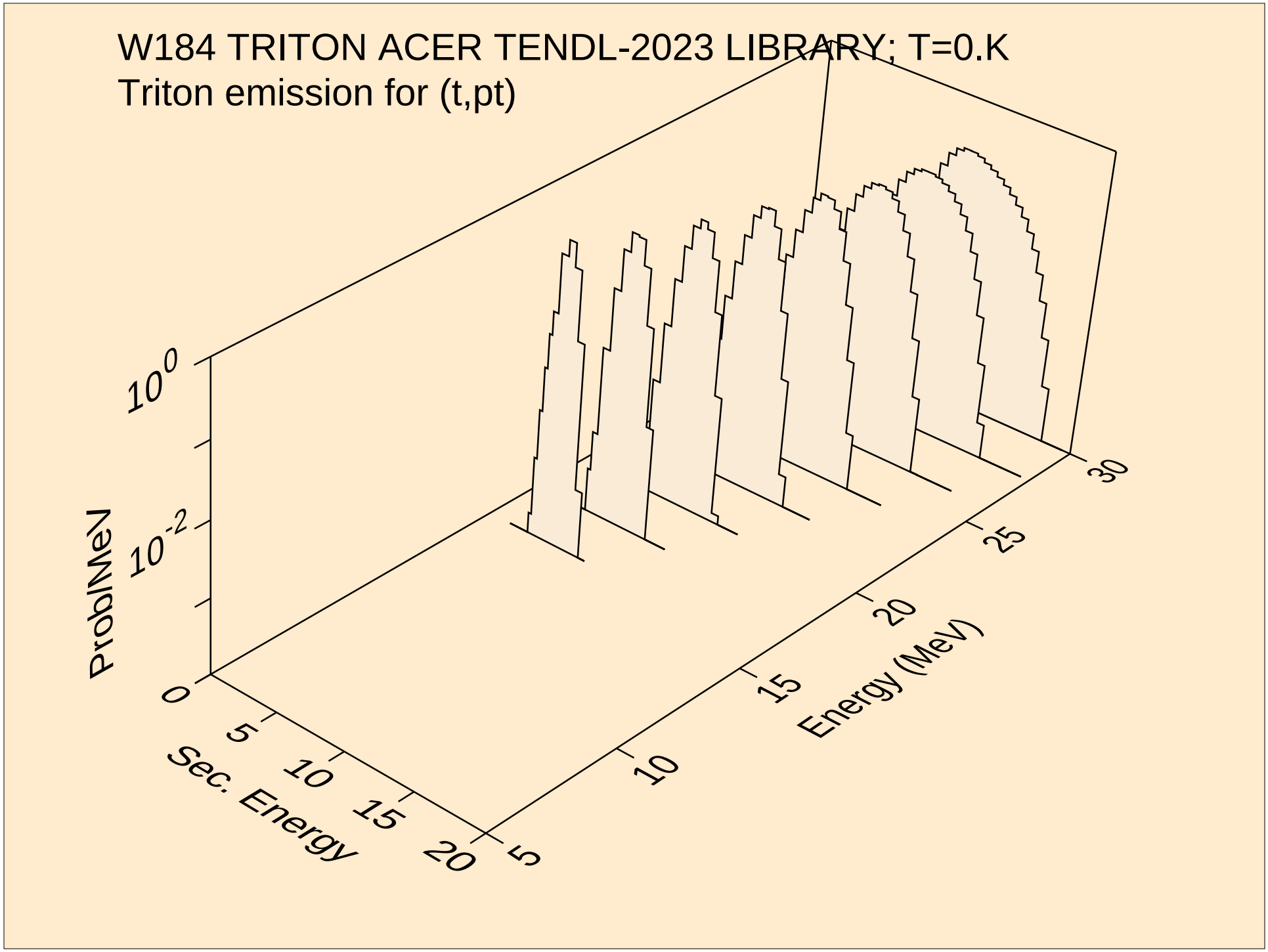

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
angular distribution for elastic
ProbCos
10^{1}
10^{-1}
Cosine
1.0
0.5
0.0
-0.5
-1.0
Energy (MeV)
0
2
4
6
8
10
12
14
16
18
20

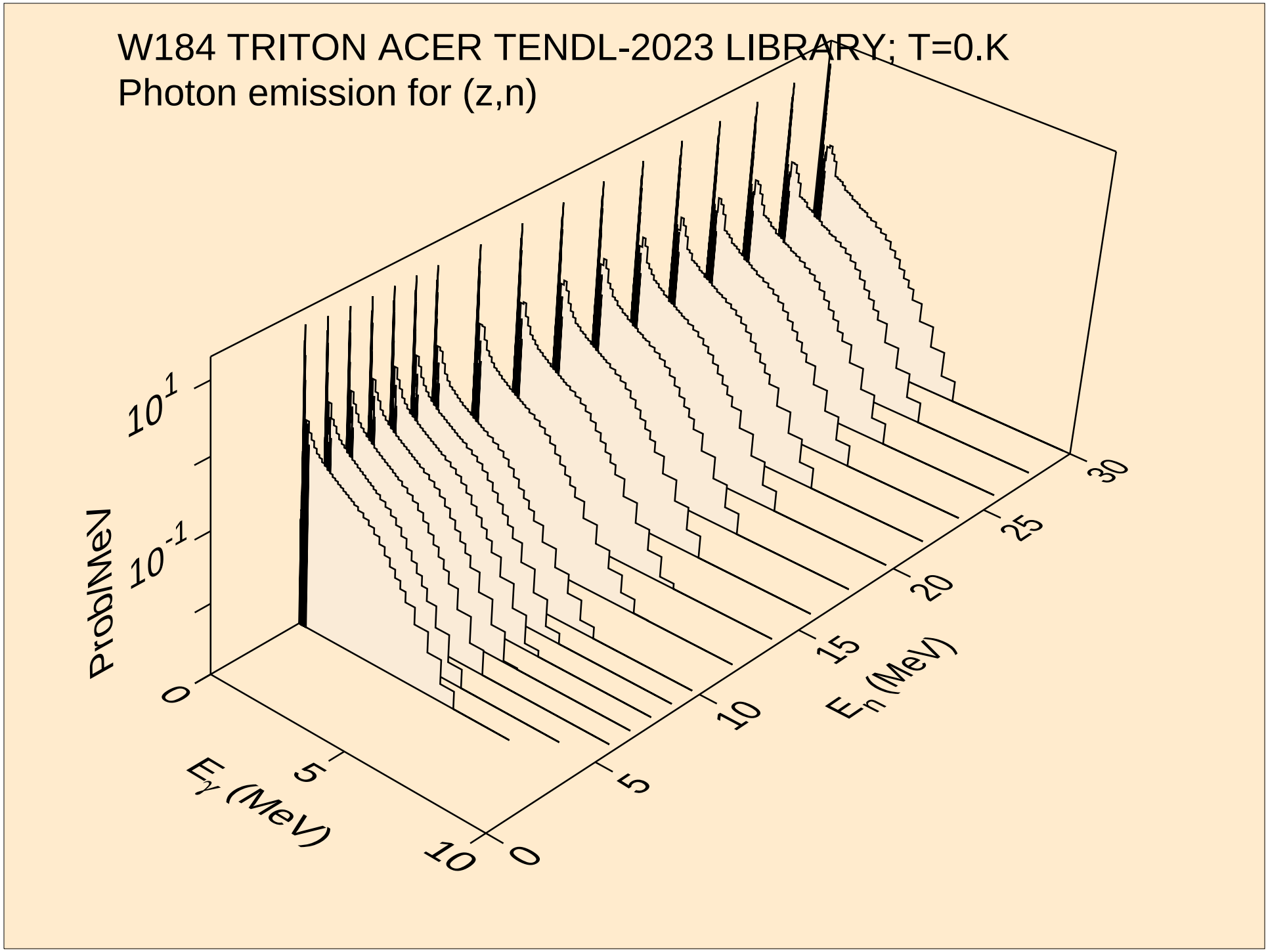

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
angular distribution for elastic
ProblCos
10^2
10^0
10^{-2}
1.0
0.5
0.0
-0.5
-1.0
Cosine
20
40
60
80
100
120
140
160
180
200
Energy (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Triton emission for (t,x)
Prob/MeV
10^0
10^{-2}
0
50
100
150
200
Sec. Energy
0
50
100
150
200
Energy (MeV)

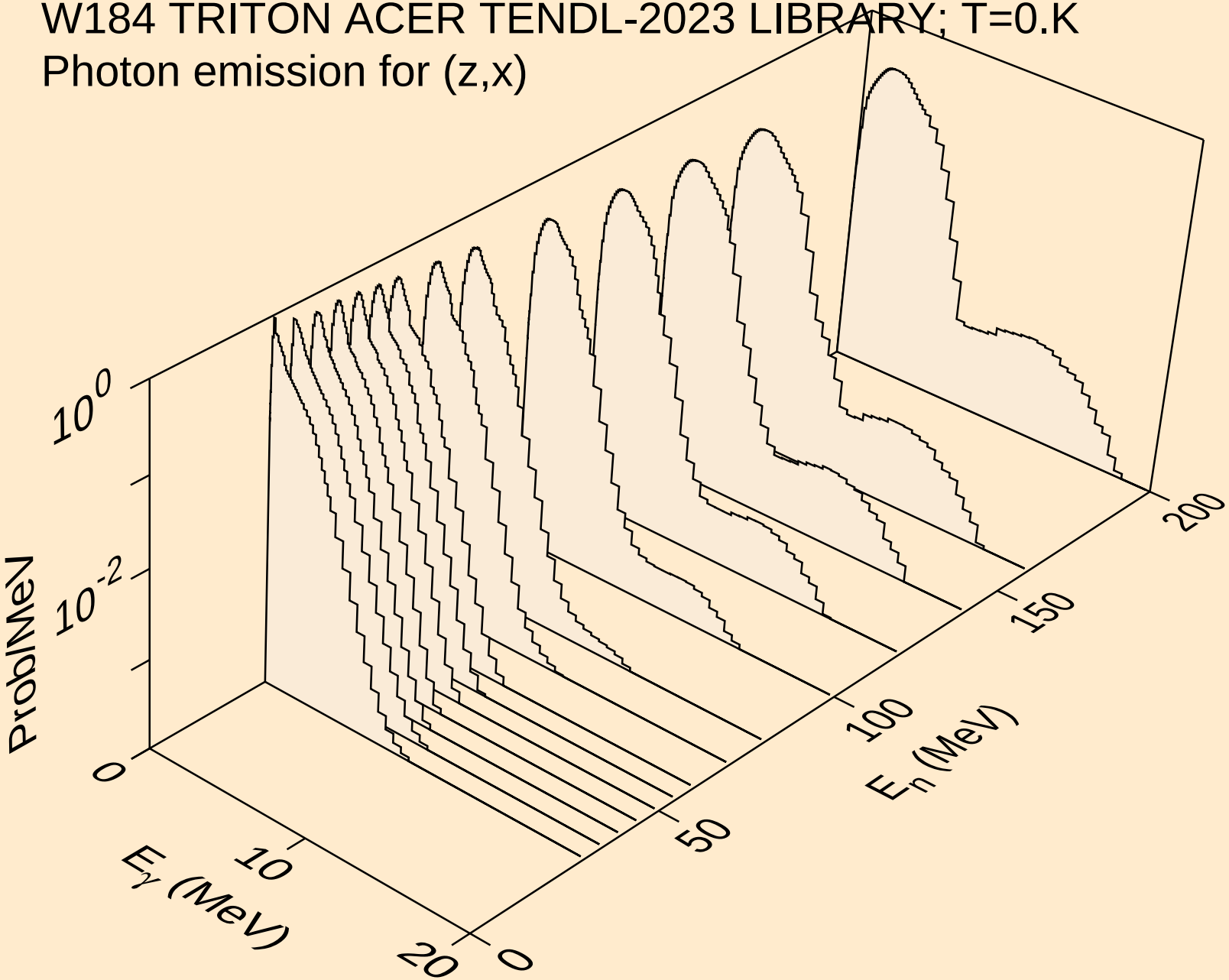

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Triton emission for (t,n*)t
Prob/MeV
10-1
10-3
0
5
10
15
20
25
Sec. Energy
5
10
15
20
25
30
Energy (MeV)

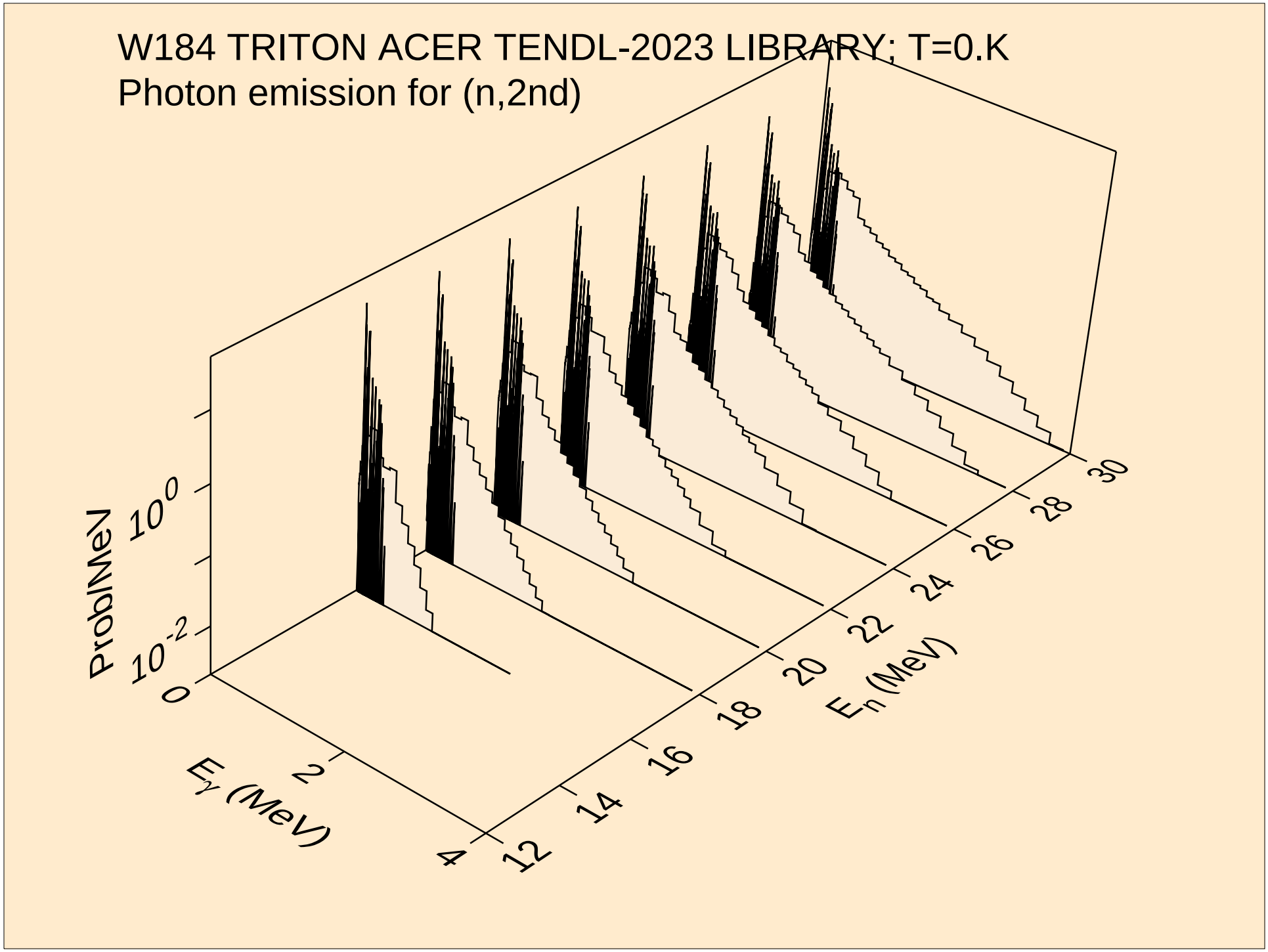

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Triton emission for inelastic
Prob/MeV
10-1
10-3
0
10
20
30
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

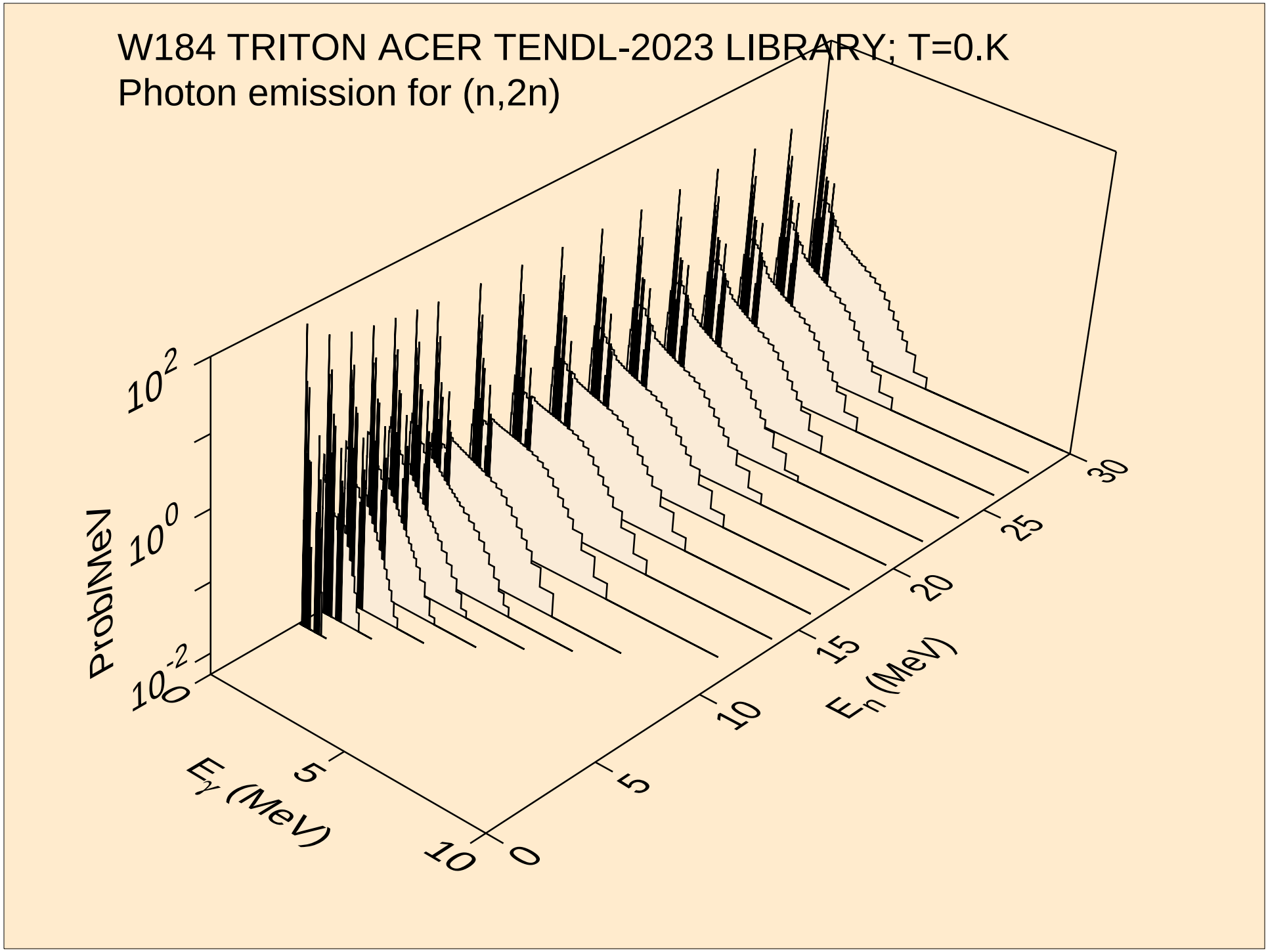

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Triton emission for (t,pt)
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
5
10
15
20
Energy (MeV)
5
10
15
20
25
30

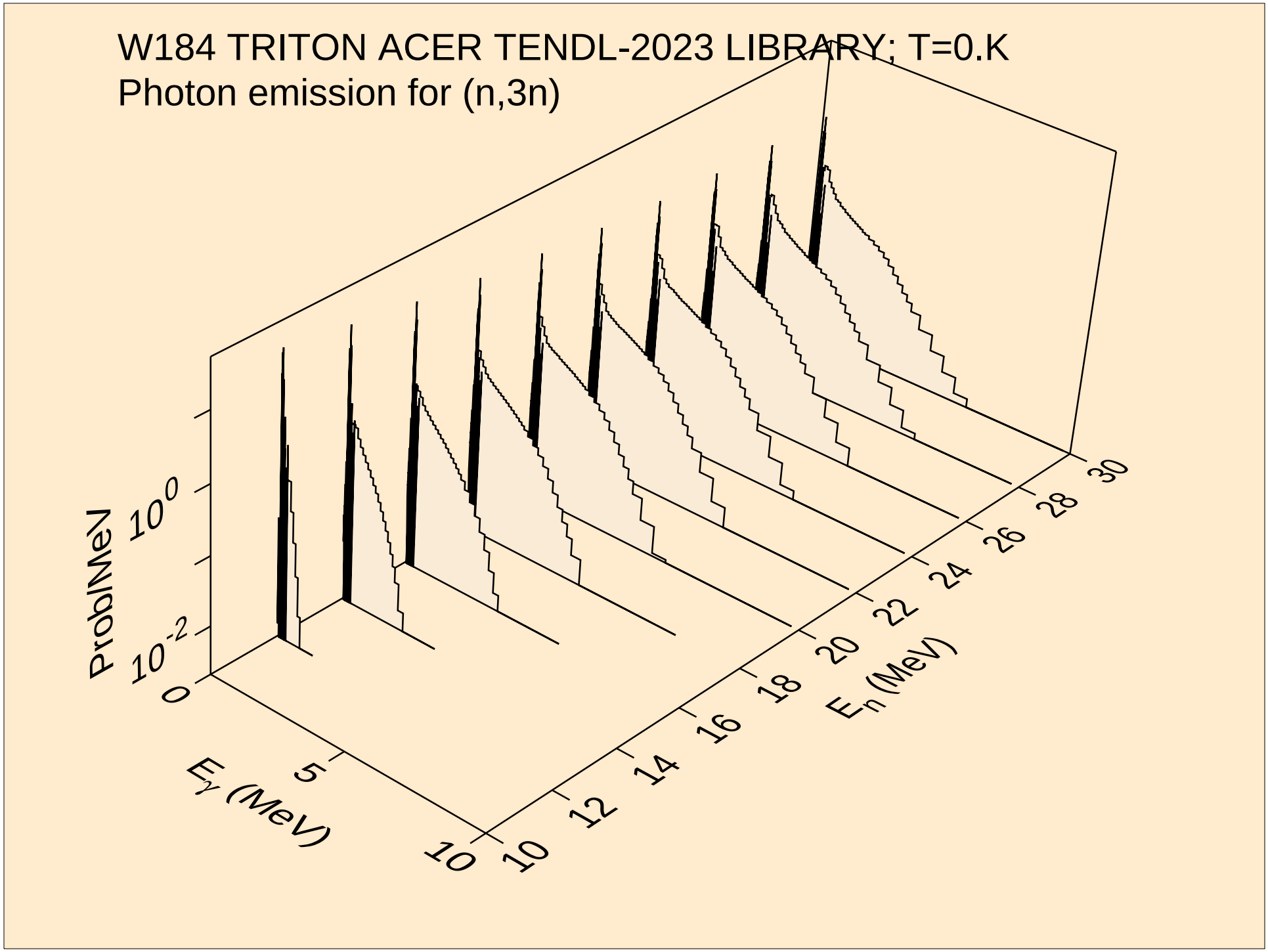

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (z,n)
Prob/MeV
10^{1}
10^{-1}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

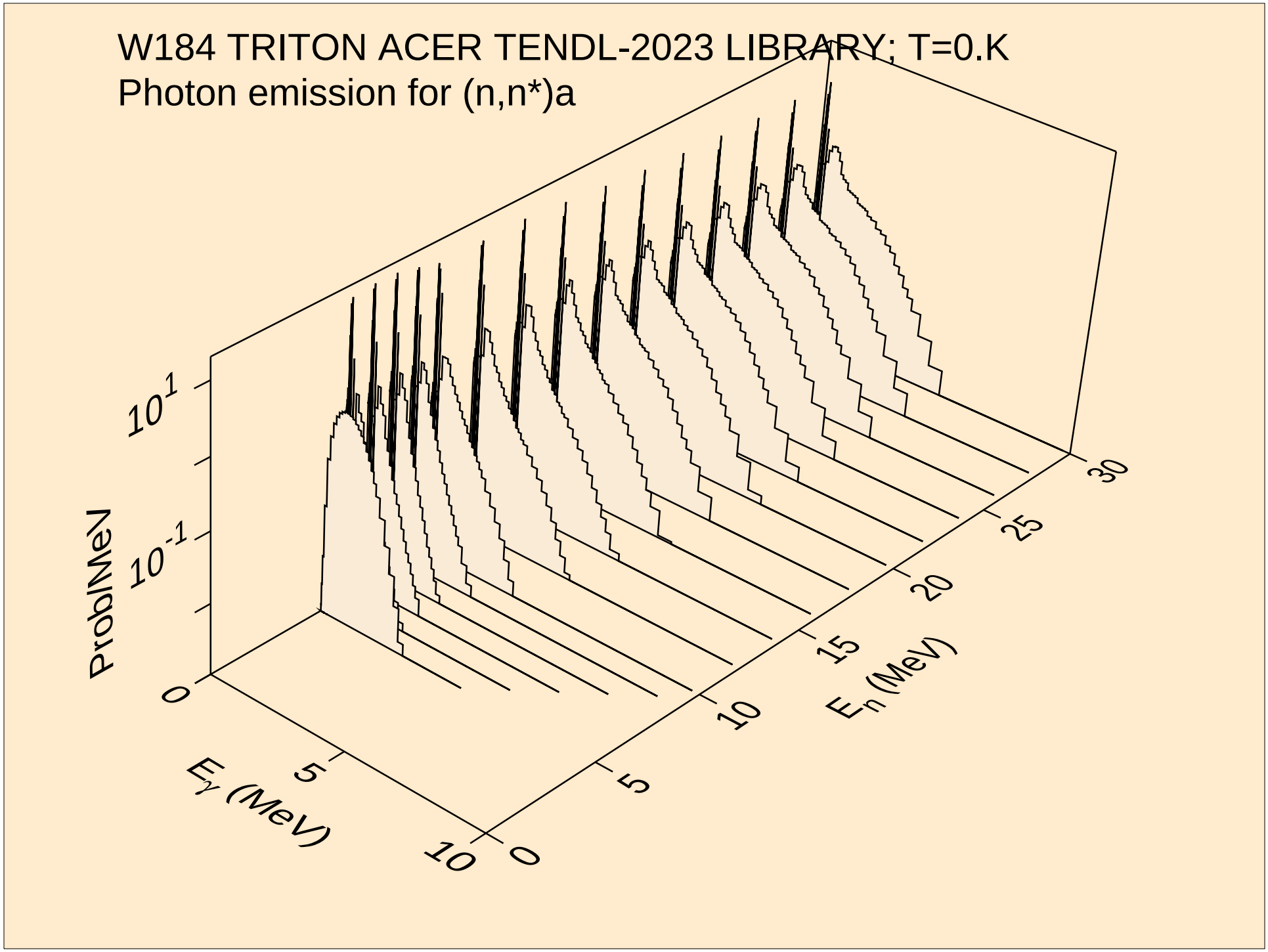
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (z,x)

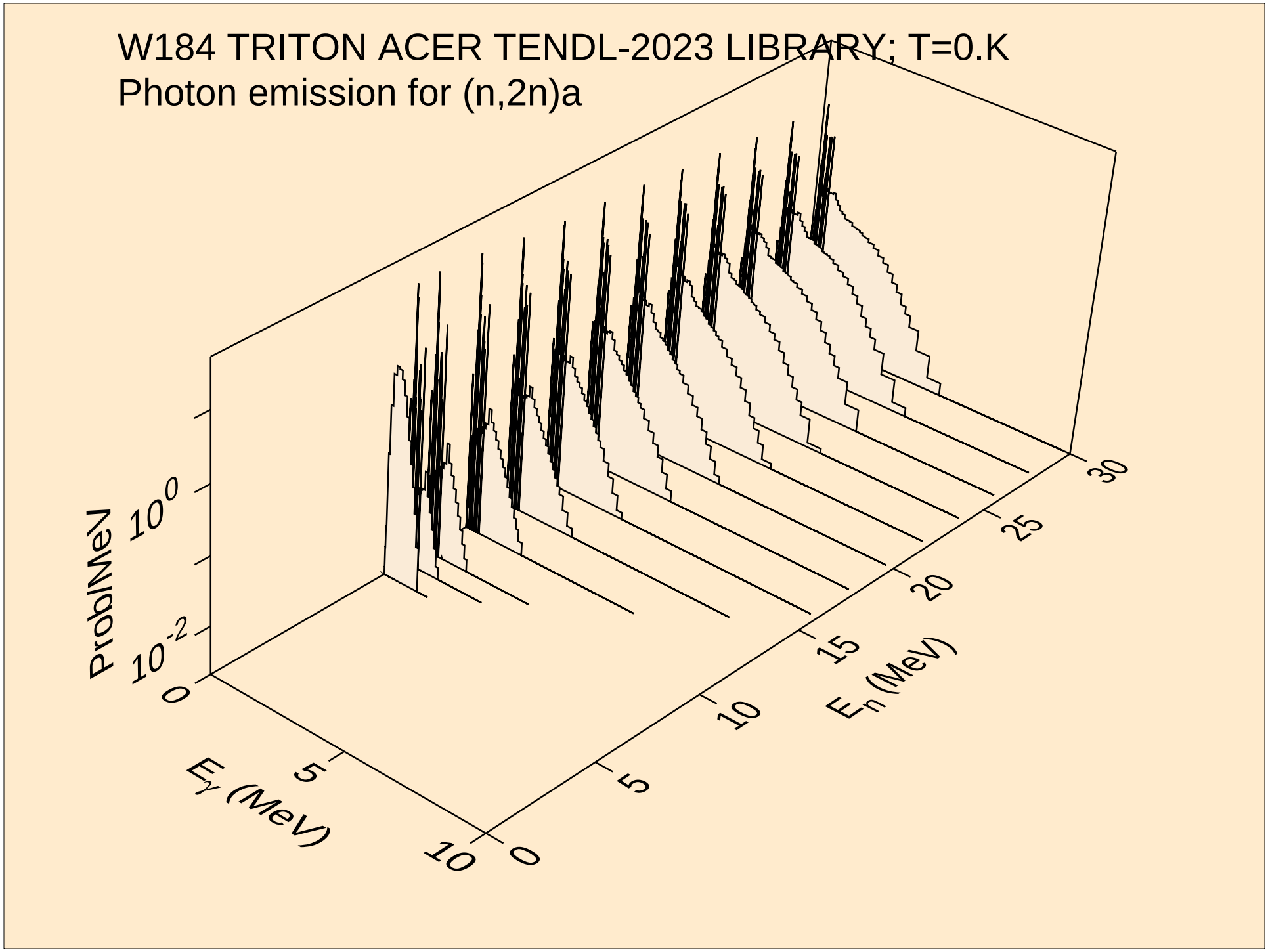


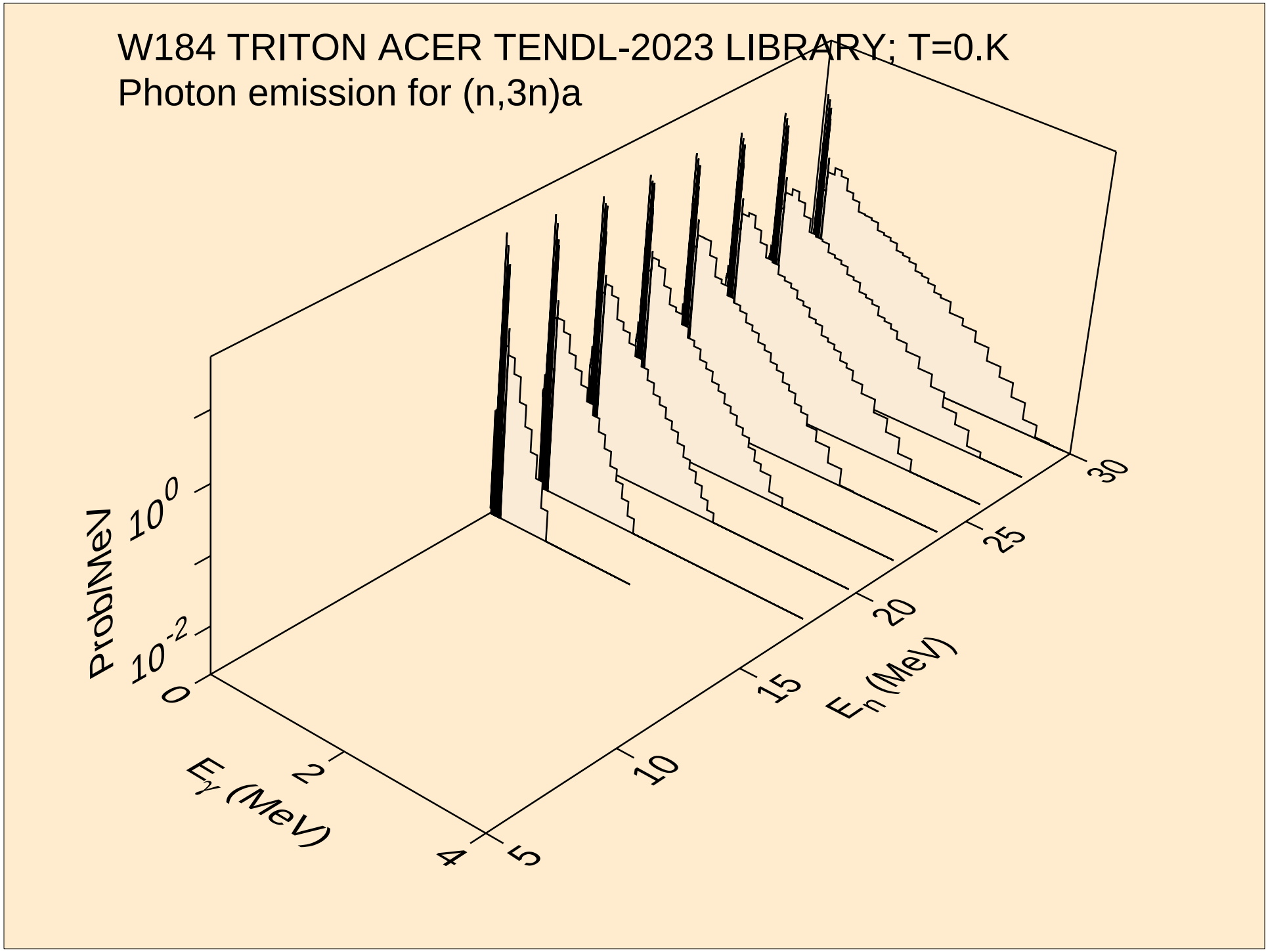

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2nd)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
12
14
16
18
20
22
24
26
28
30
E_n (MeV)

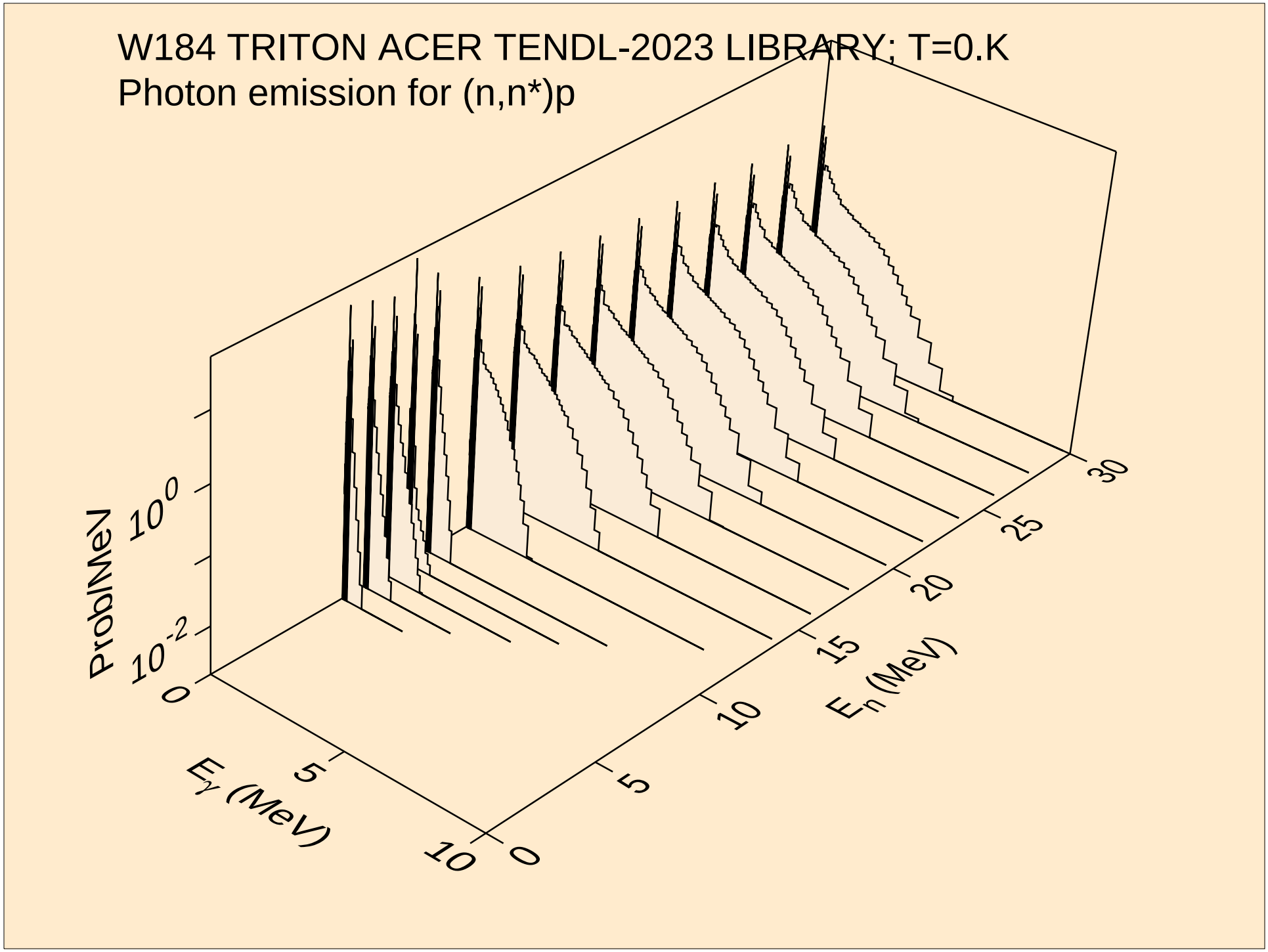

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2n)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
5
10
E_n (MeV)
0
5
10
15
20
25
30


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,3n)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
10
12
14
16
18
20
22
24
26
28
30
E_n (MeV)

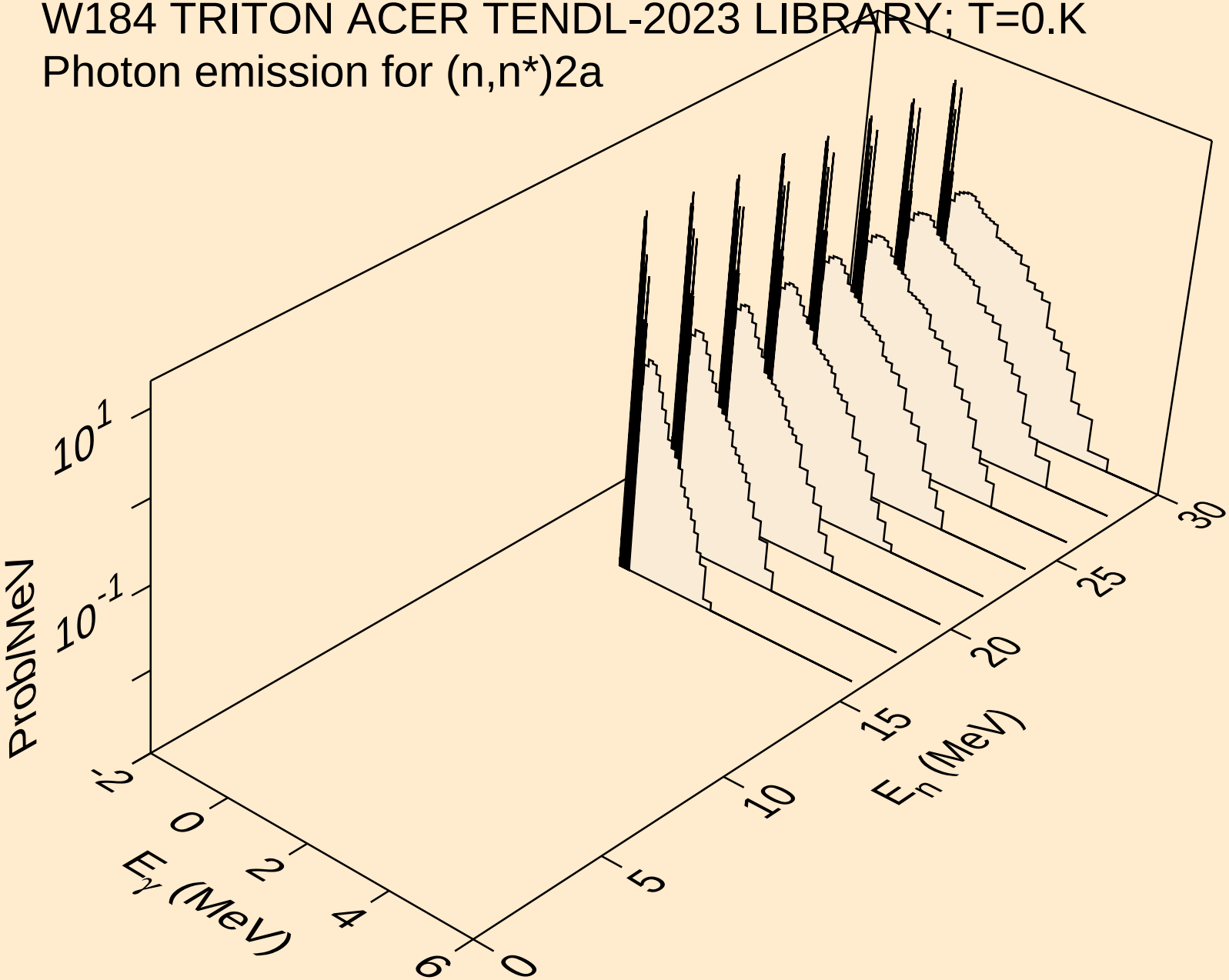

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)a
Prob/MeV
10^{1}
10^{-1}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

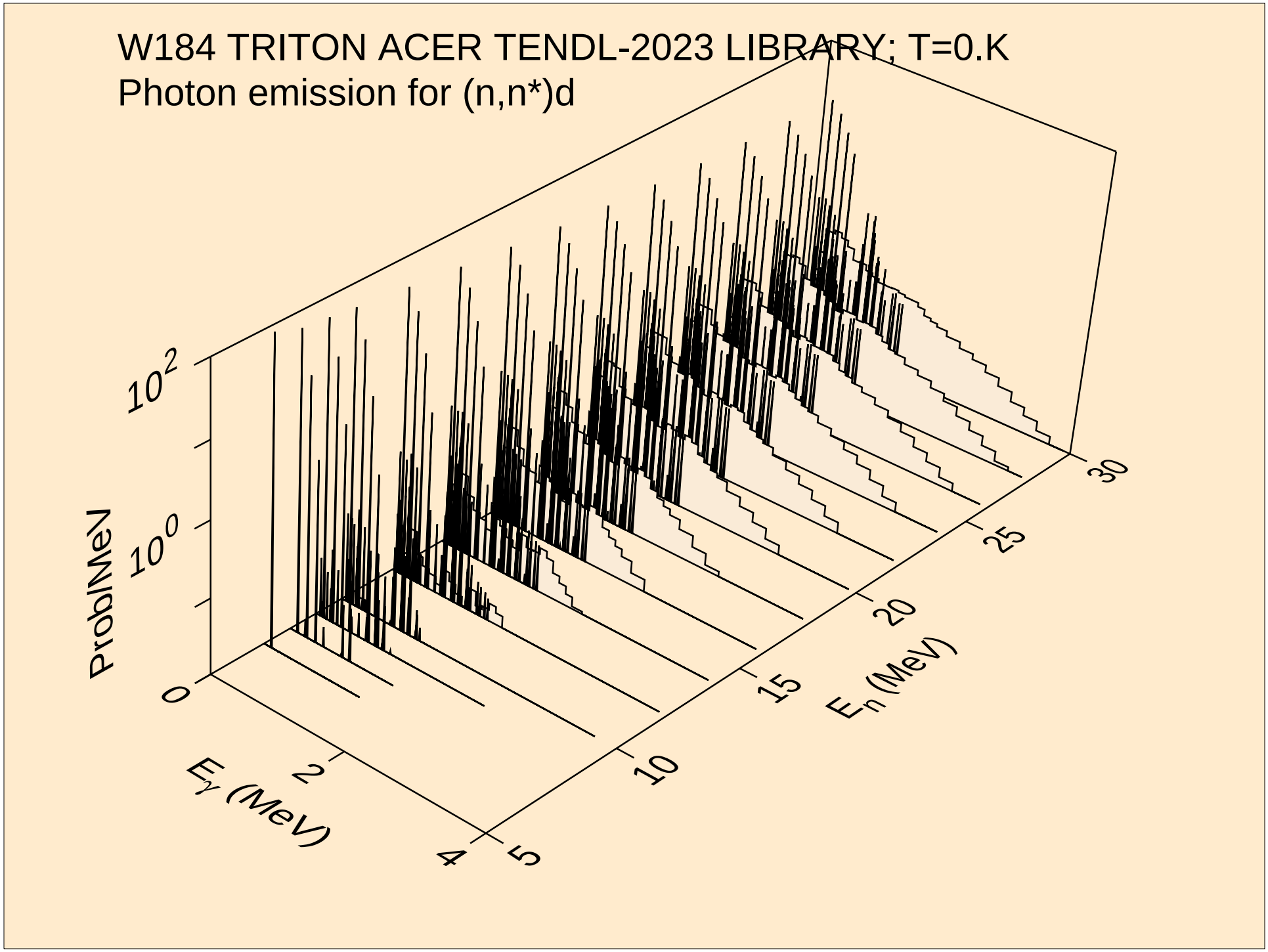

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2n)a
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

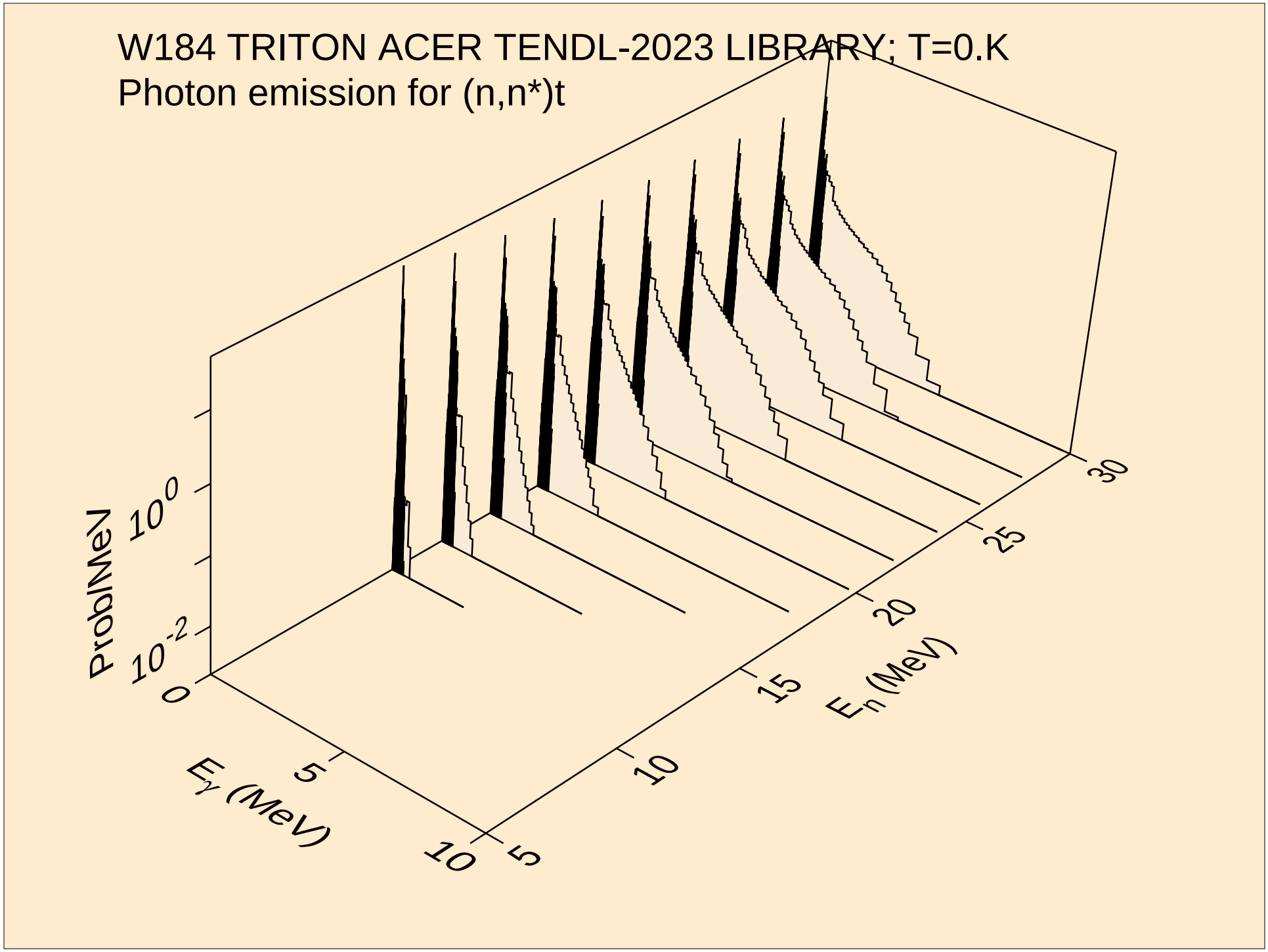

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,3n)a
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

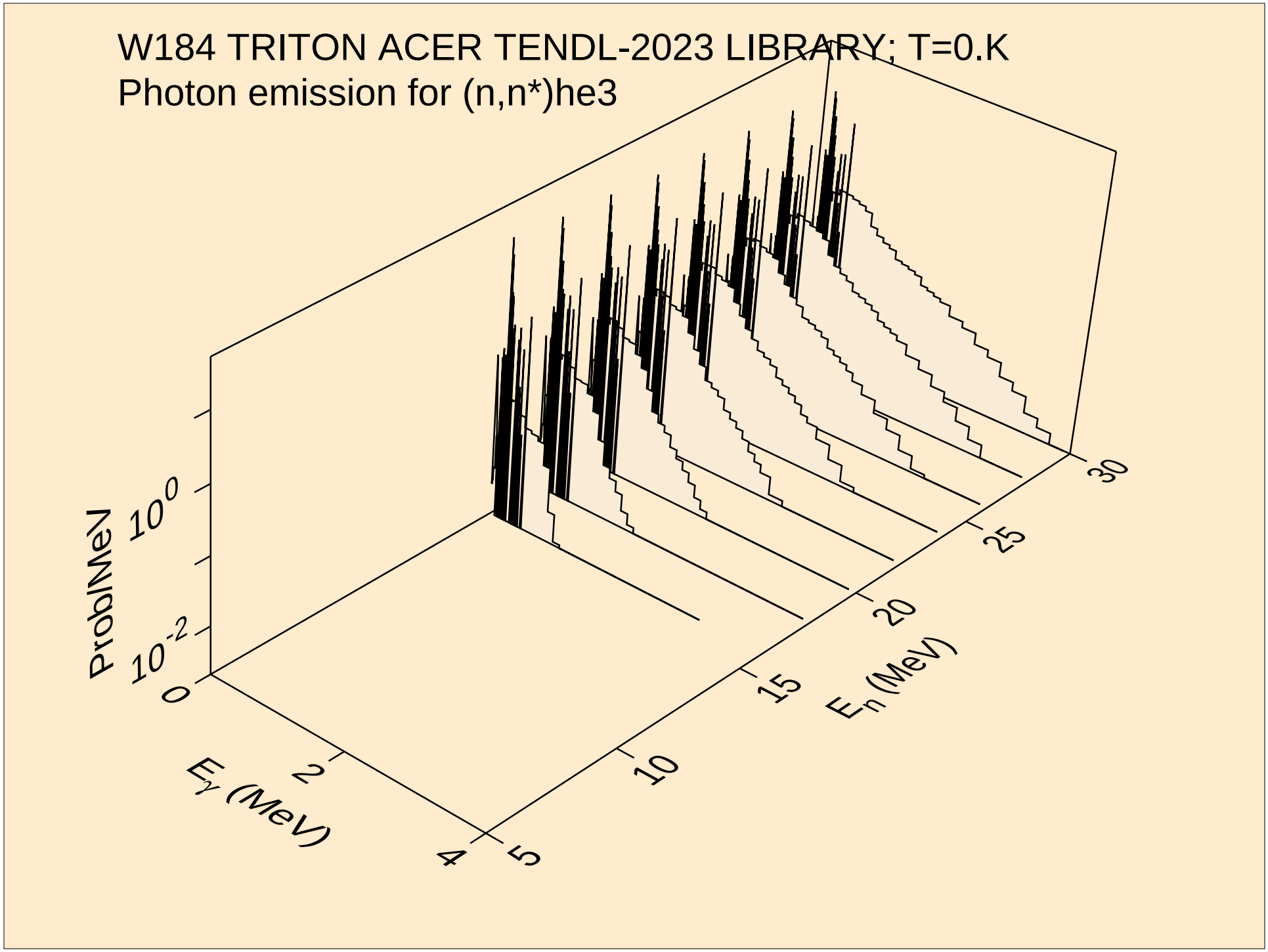

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)p
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

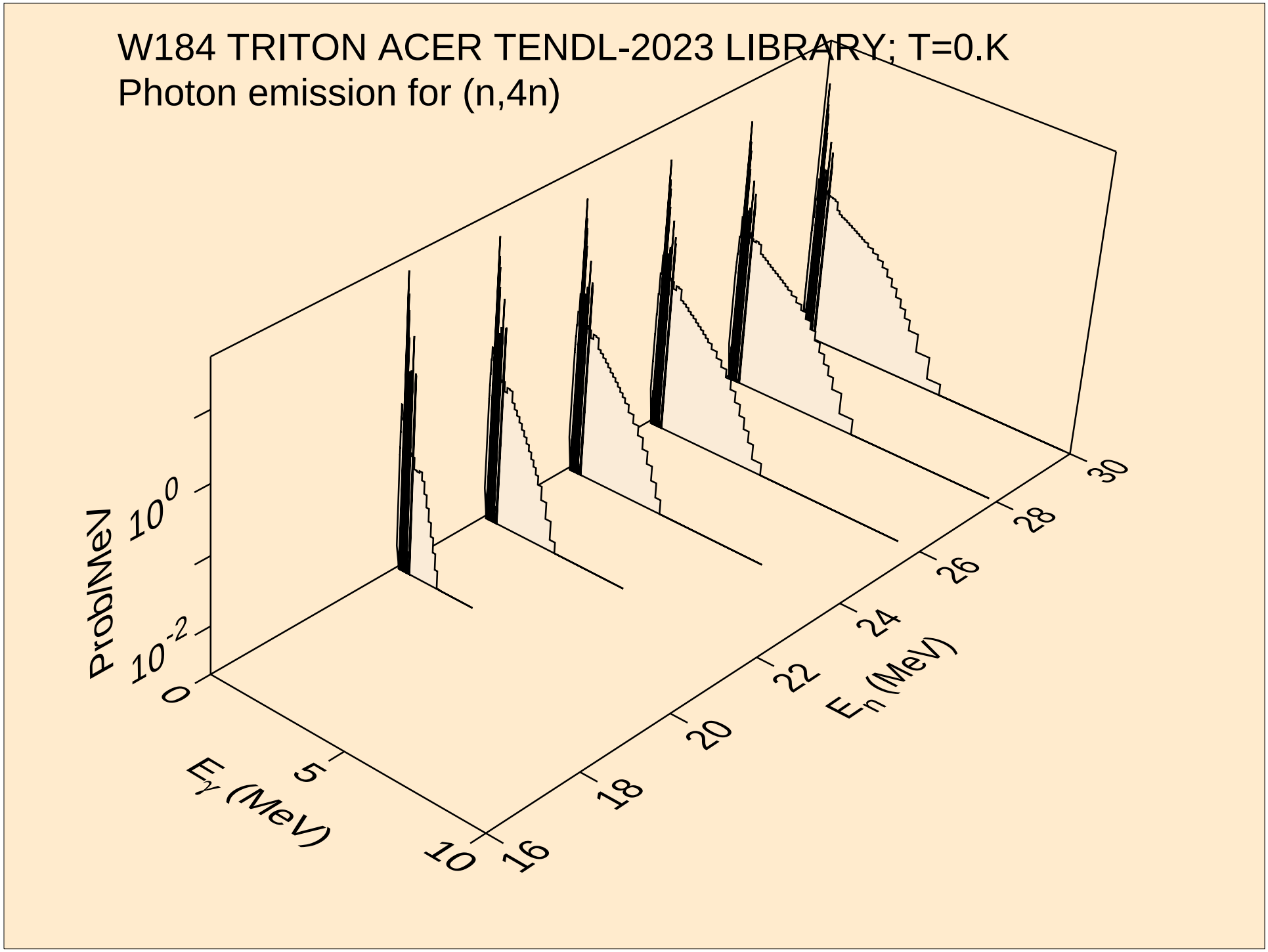
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)2a

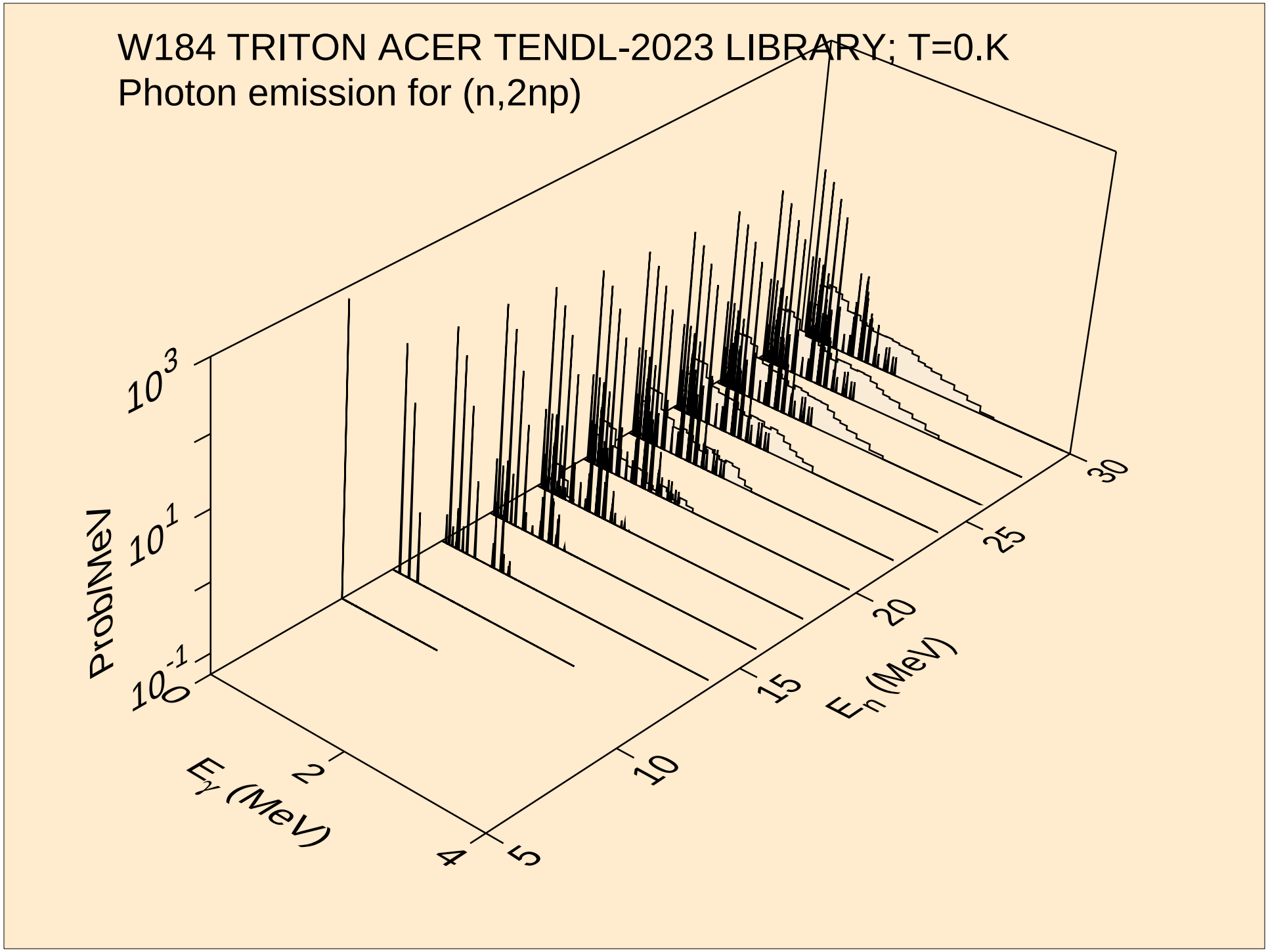


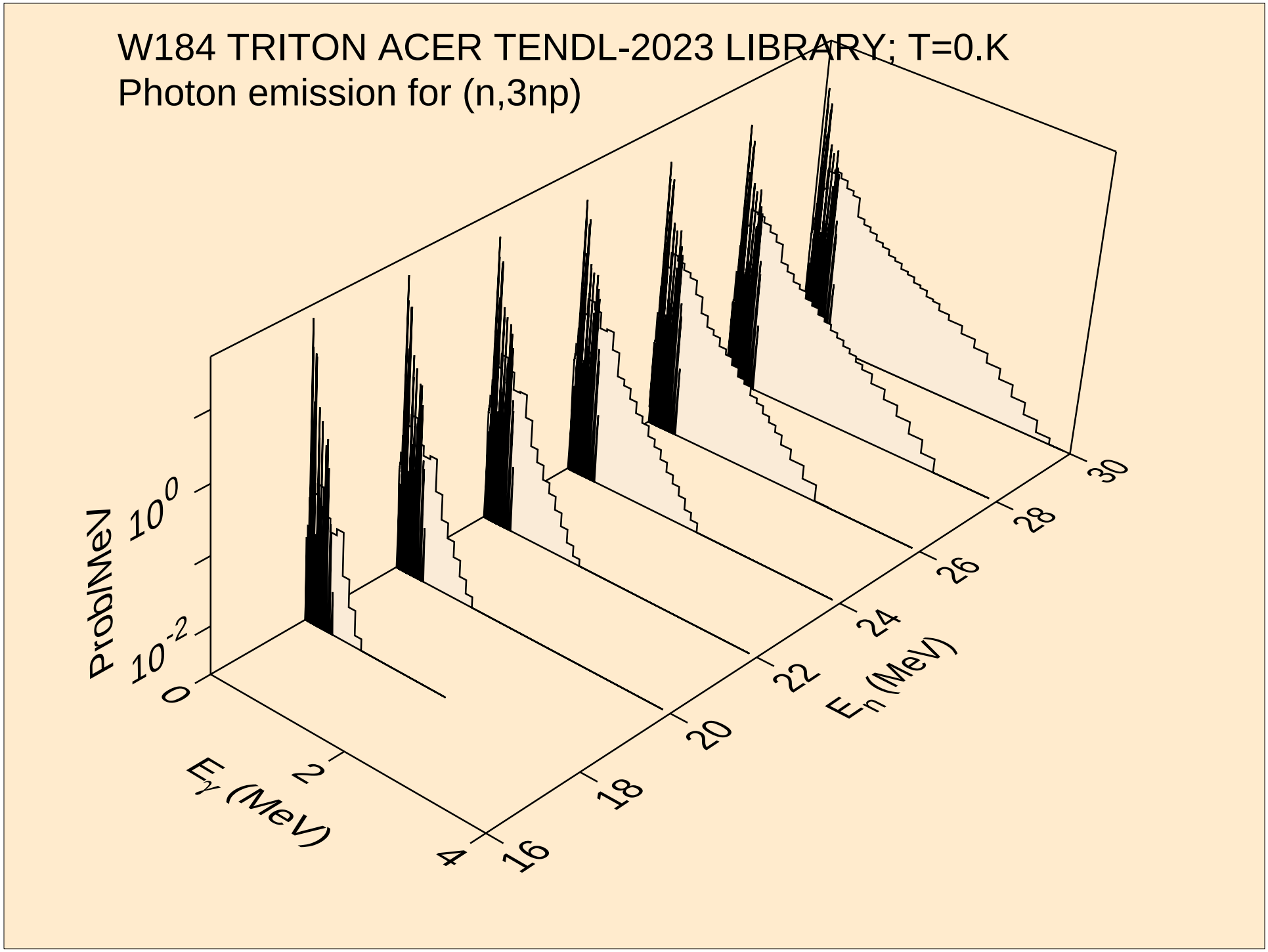

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)d
Prob/MeV
10^2
10^0
0
2
4
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

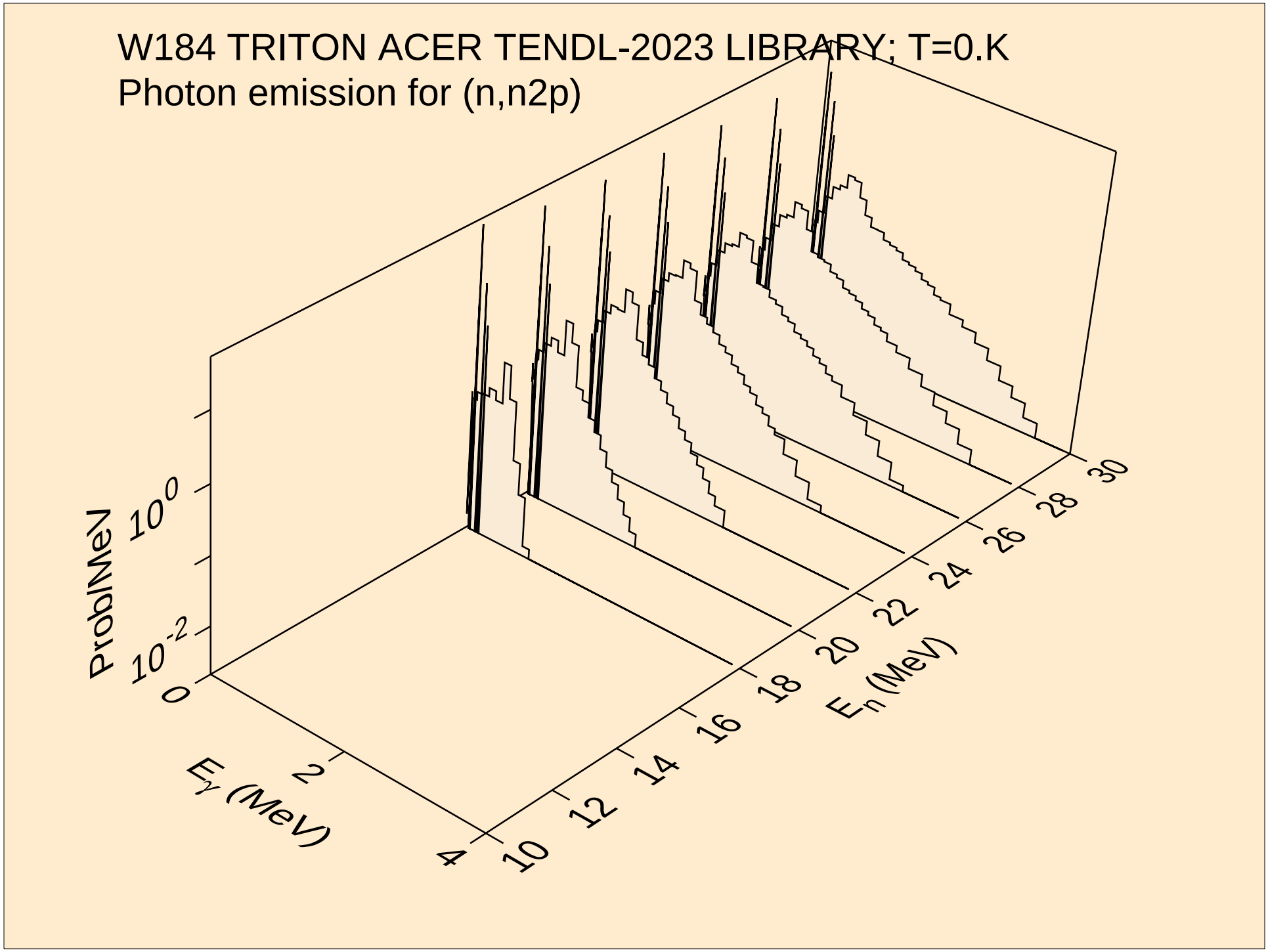

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)t
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

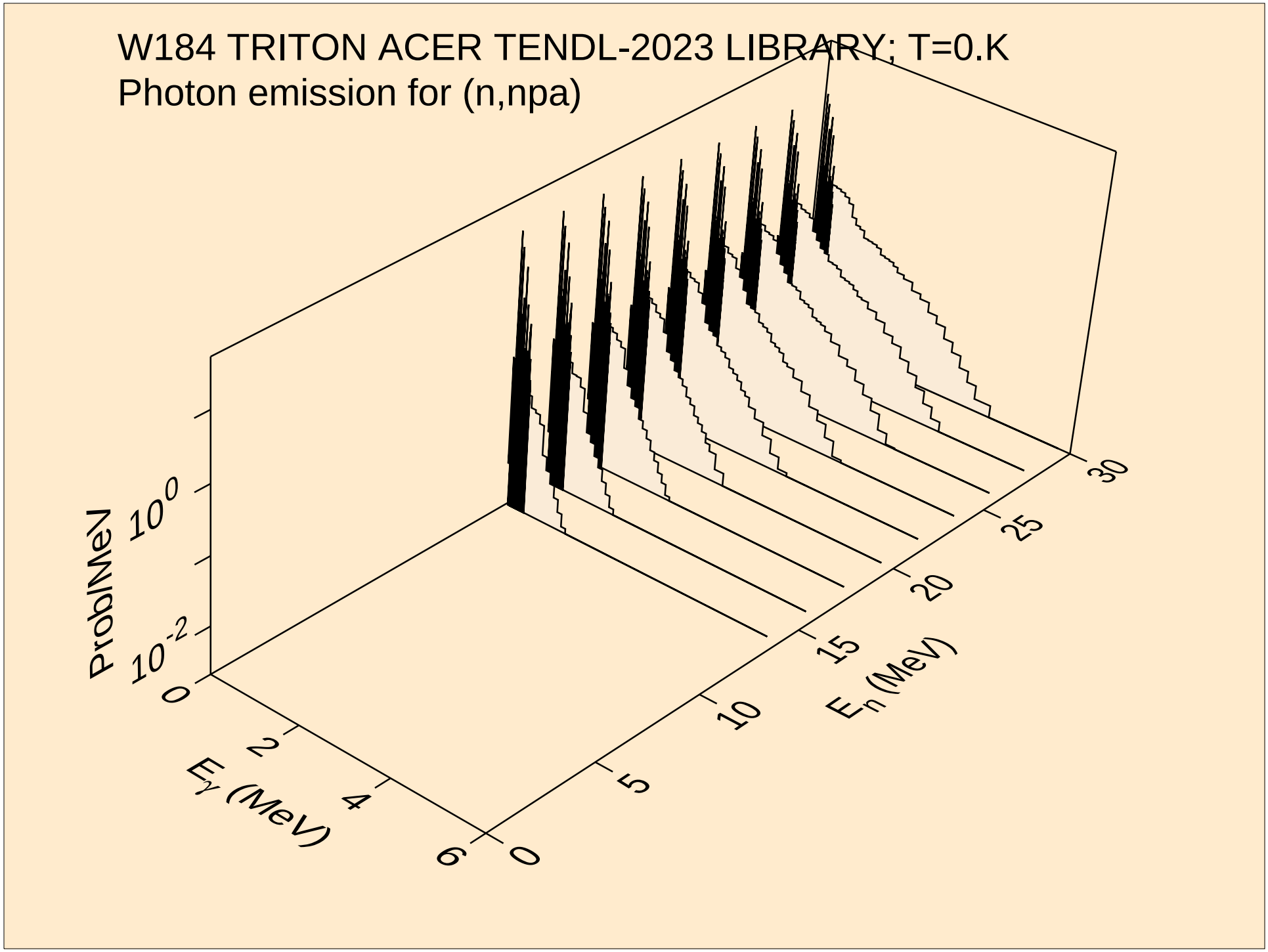

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)he3
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

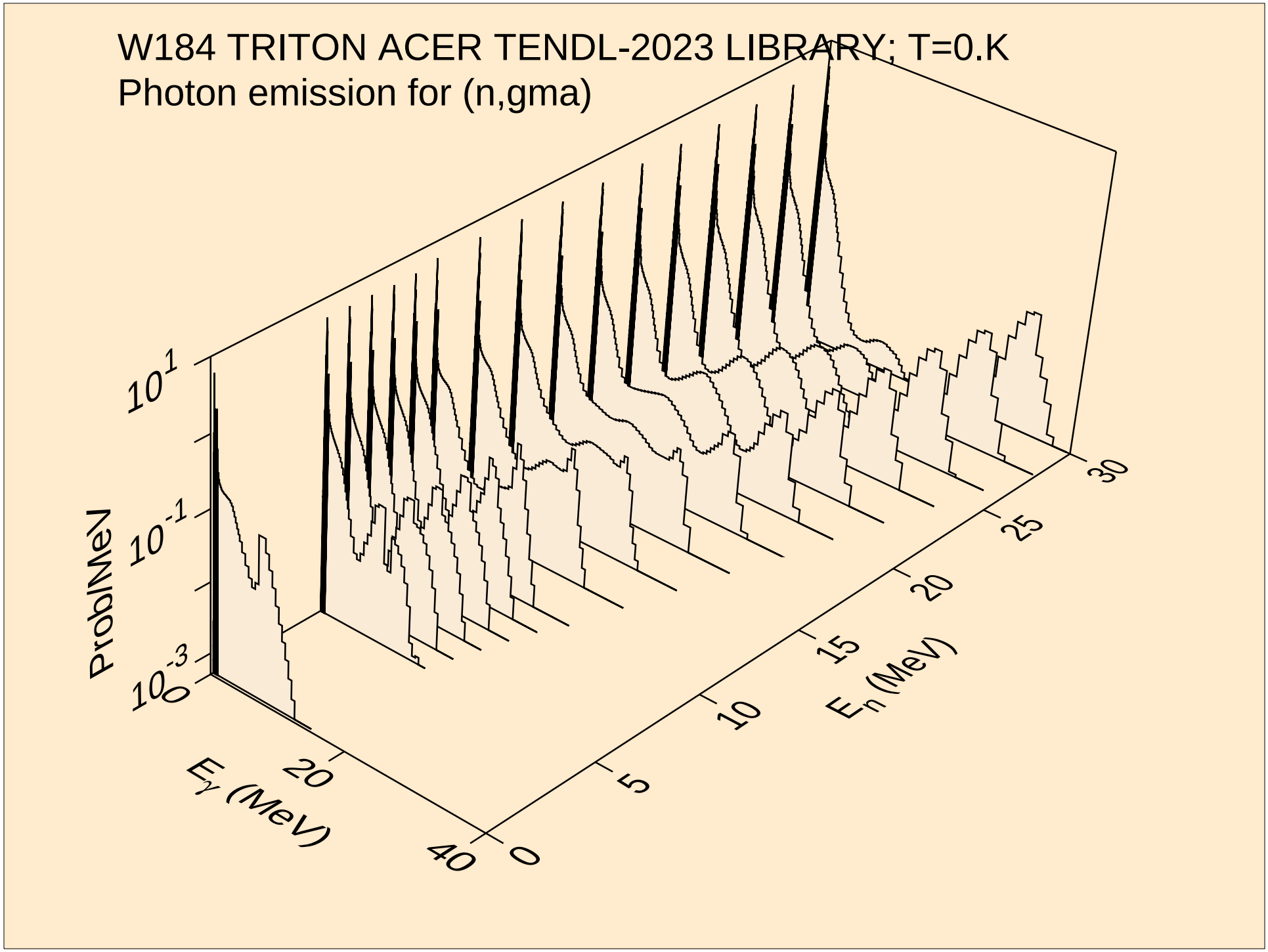

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,4n)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
16
18
20
22
24
26
28
30
E_n (MeV)

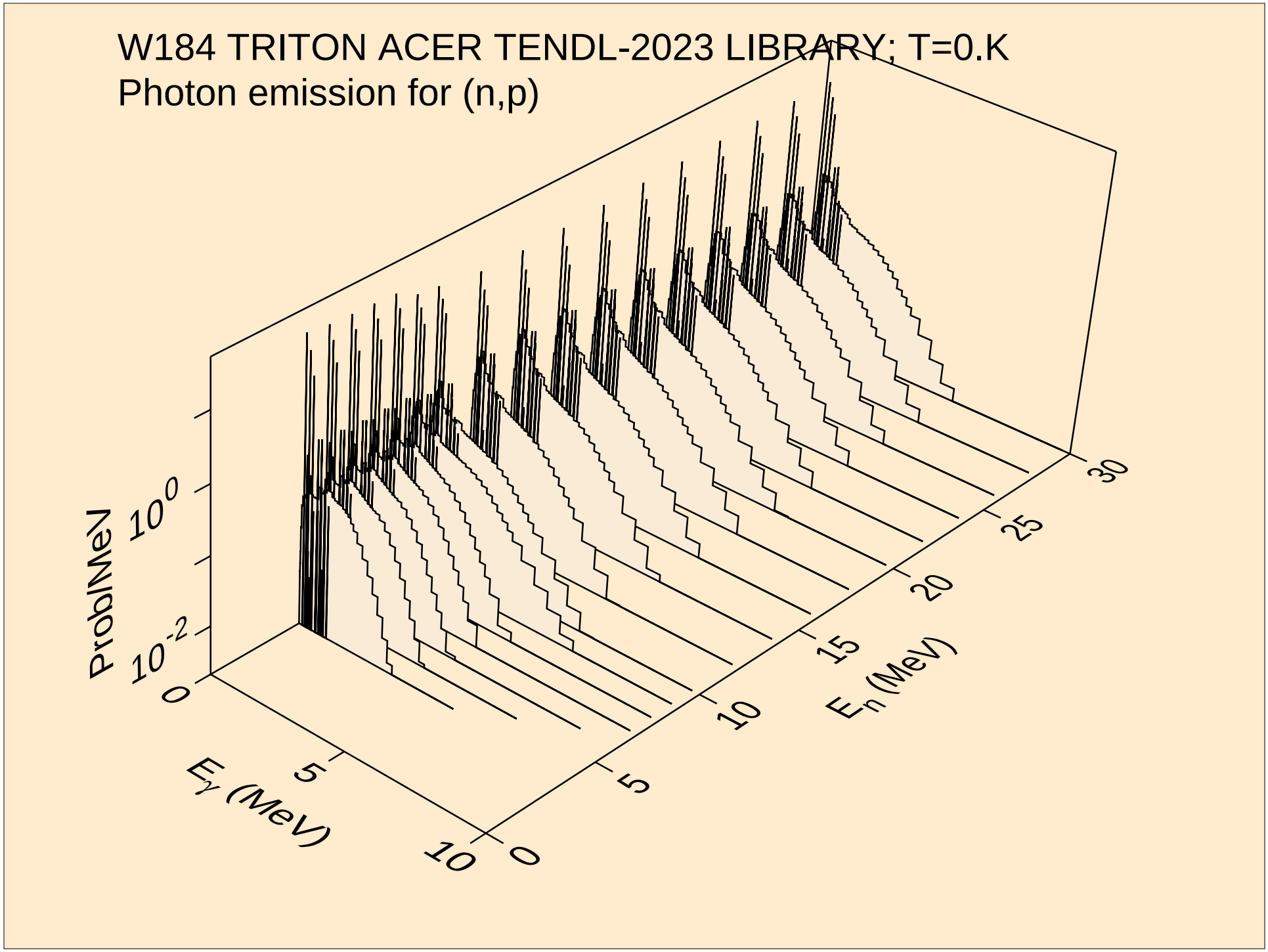

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2np)
Prob/MeV
10^3
10^1
10^{-1}
0
2
4
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

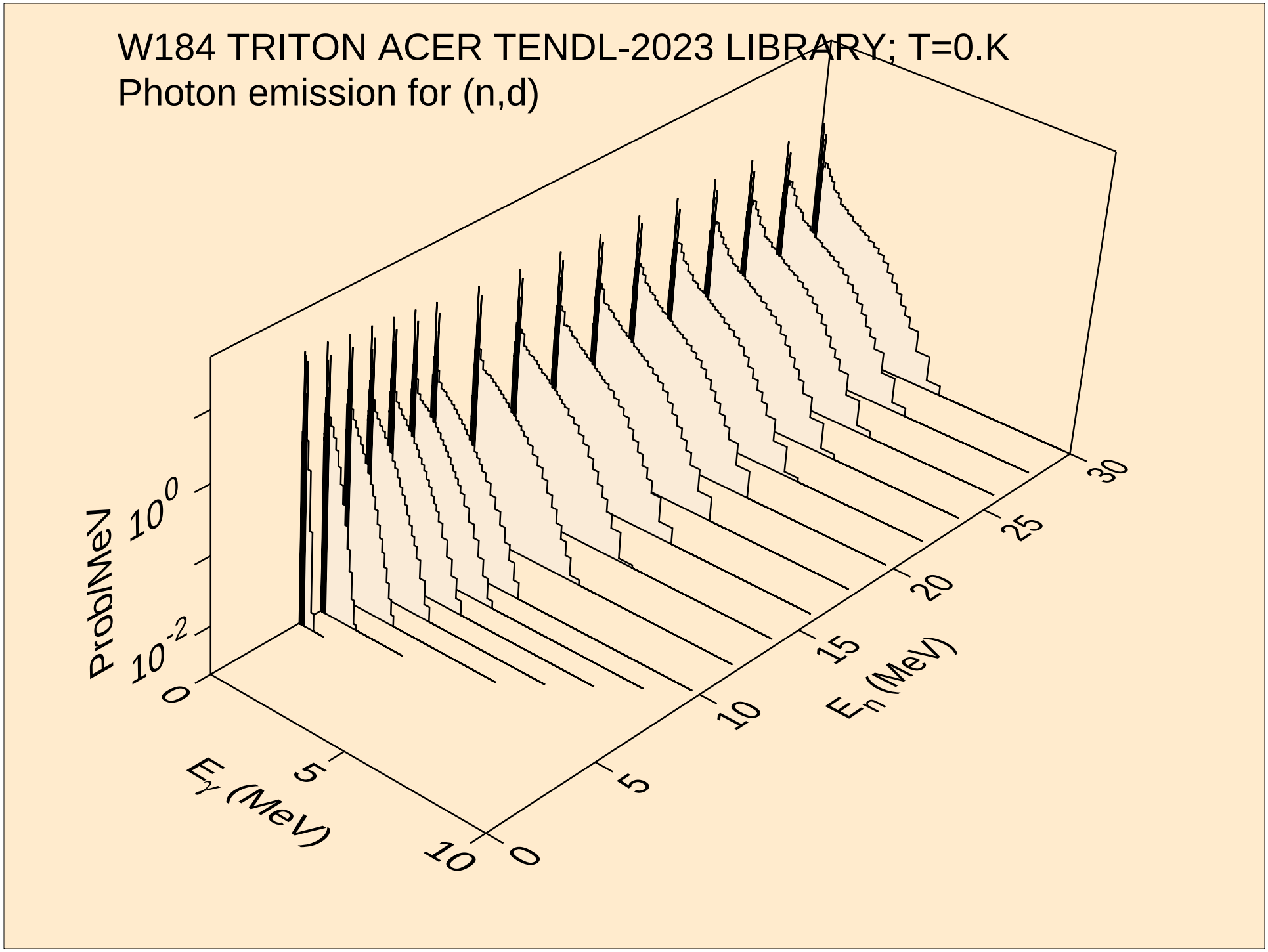

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,3np)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
16
18
20
22
24
26
28
30
E_n (MeV)

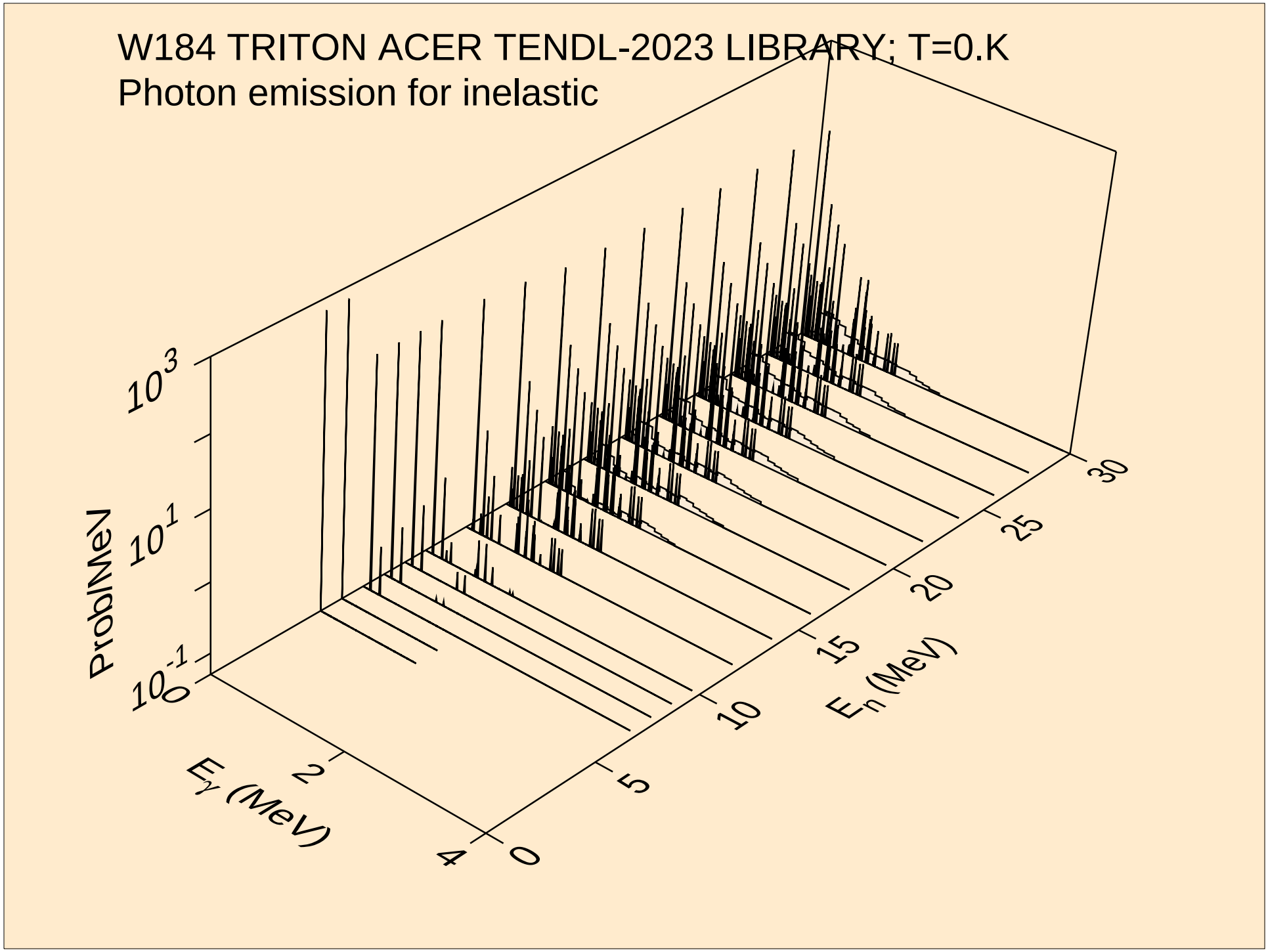

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n2p)
Prob/MeV
10^0
10^{-2}
0
2
4
E_γ (MeV)
10
12
14
16
18
20
22
24
26
28
30
E_n (MeV)

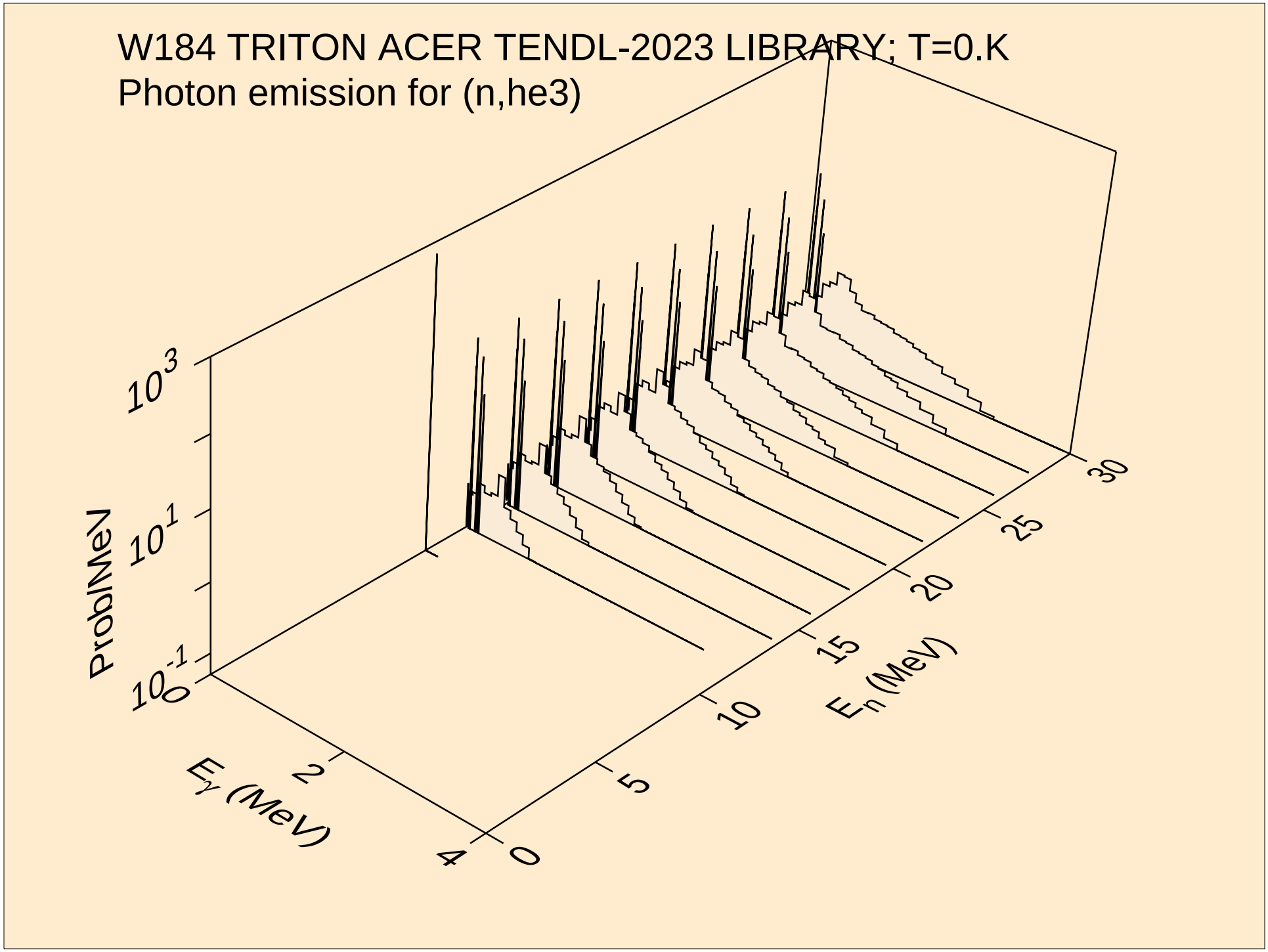

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,npa)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,gma)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
E_γ (MeV)
0
20
40
E_n (MeV)
0
5
10
15
20
25
30

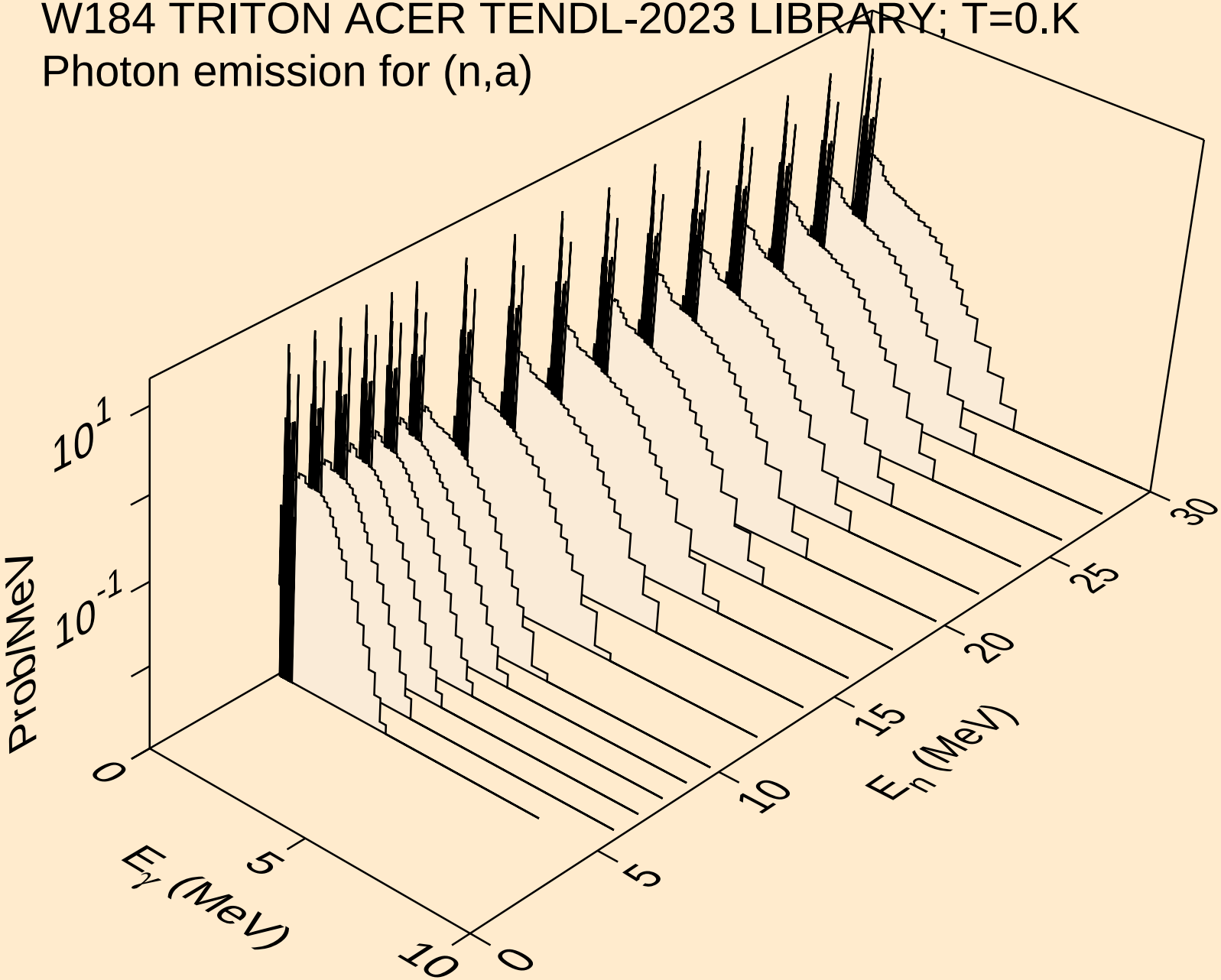

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,p)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

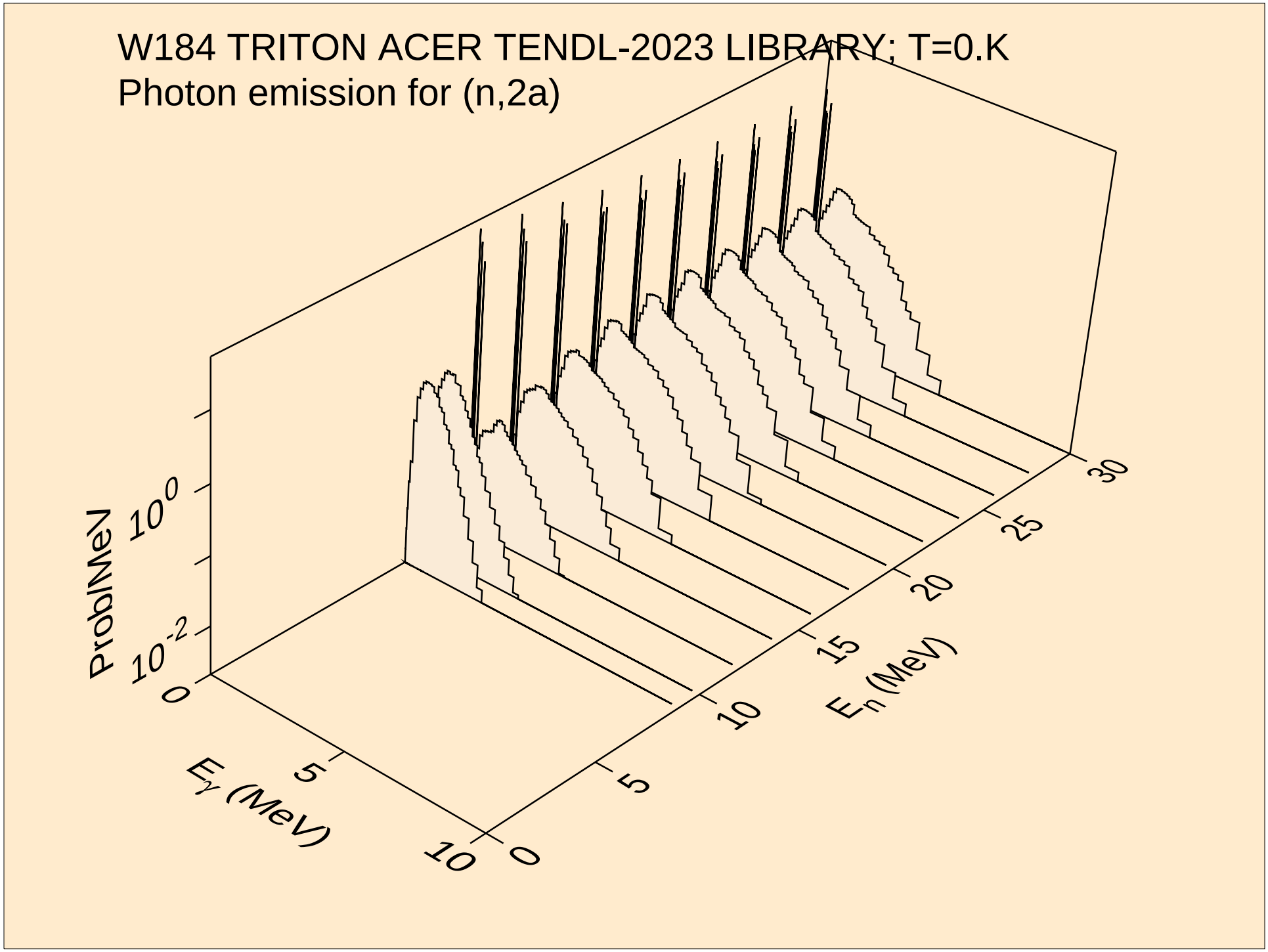

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,d)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)

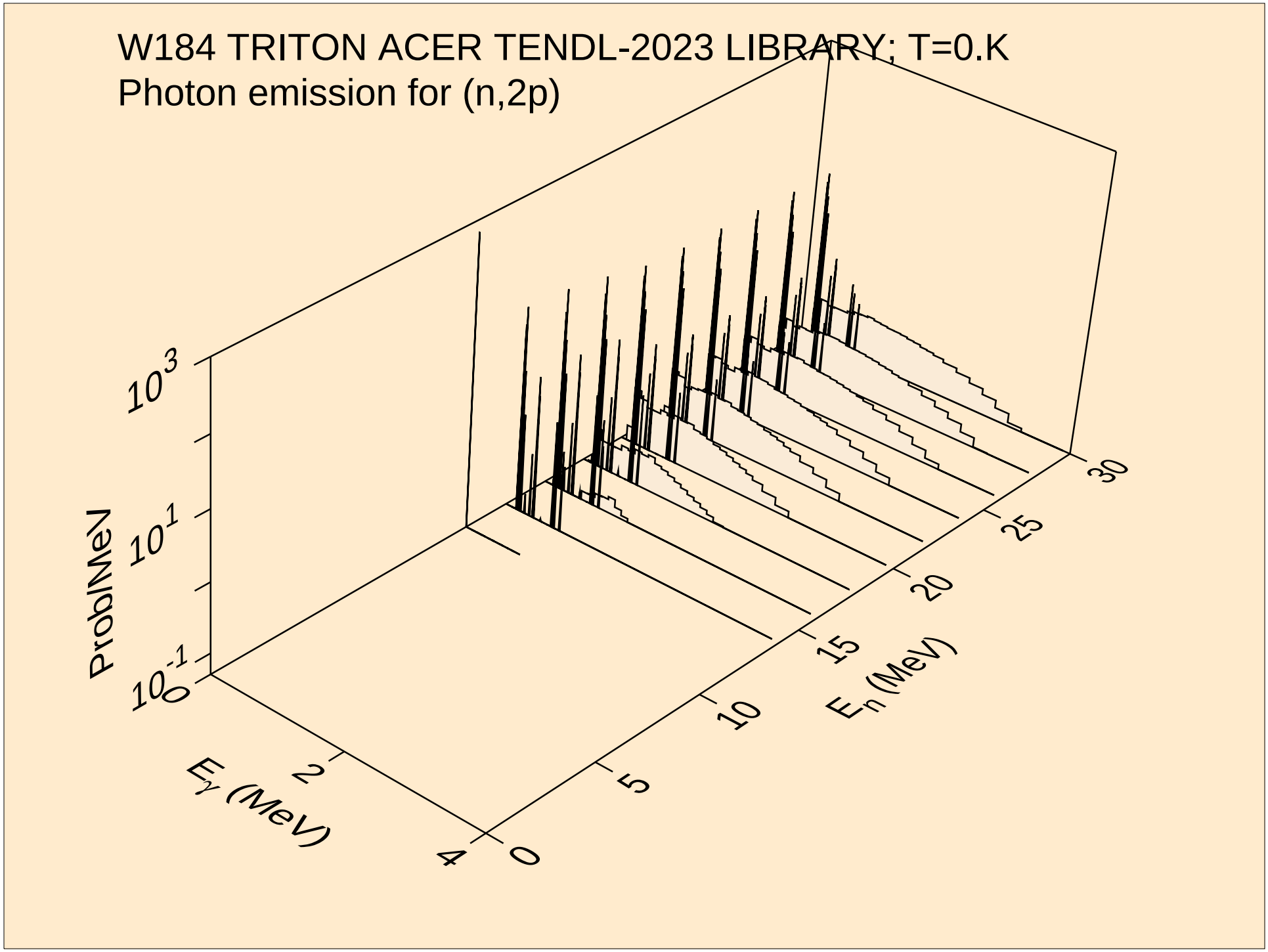

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for inelastic
Prob/MeV
10^{3}
10^{1}
10^{-1}
E_γ (MeV)
0
2
4
E_n (MeV)
0
5
10
15
20
25
30

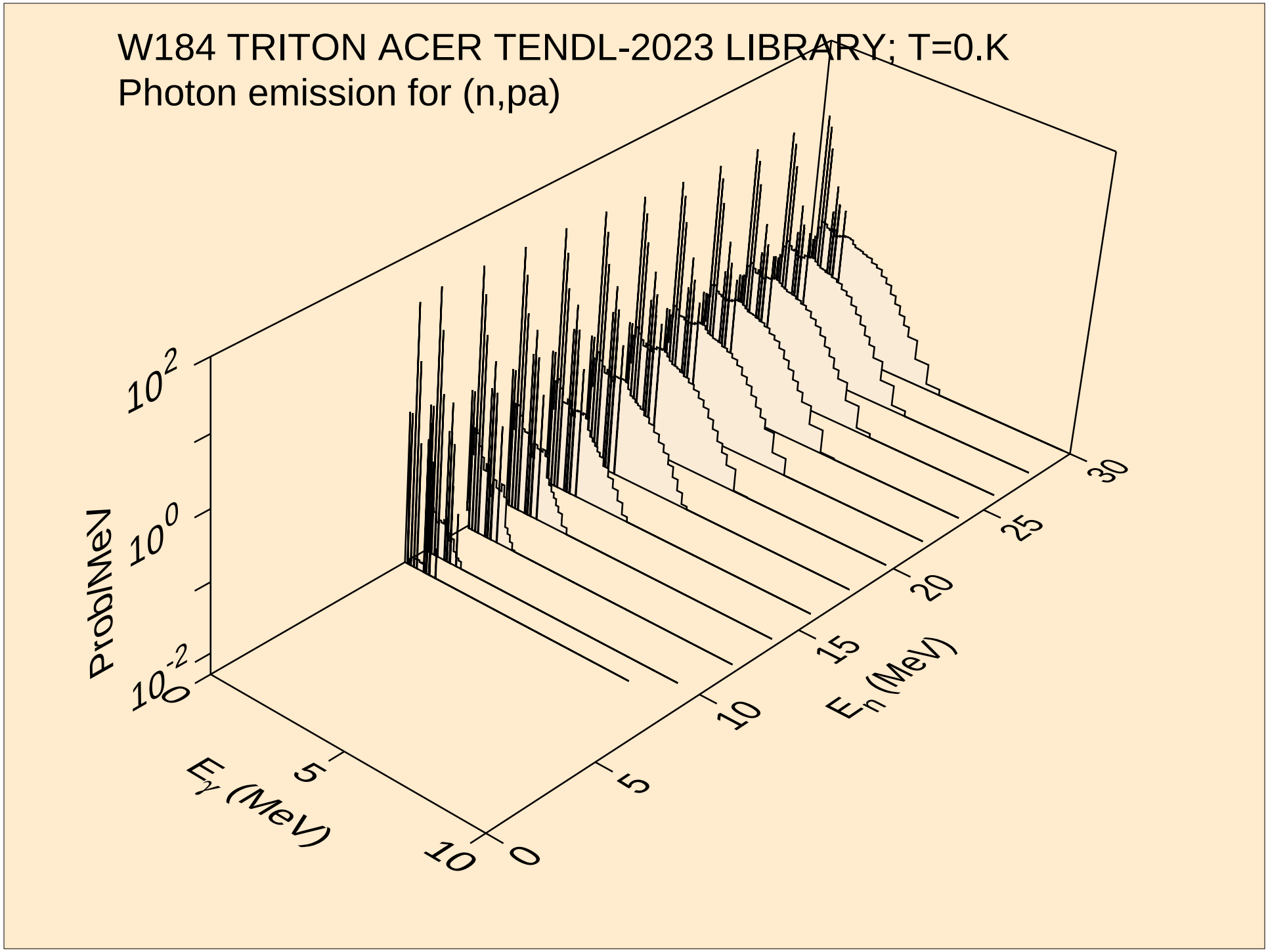

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,he3)
Prob/MeV
10^{3}
10^{1}
10^{-1}
E_γ (MeV)
0
2
4
E_n (MeV)
0
5
10
15
20
25
30

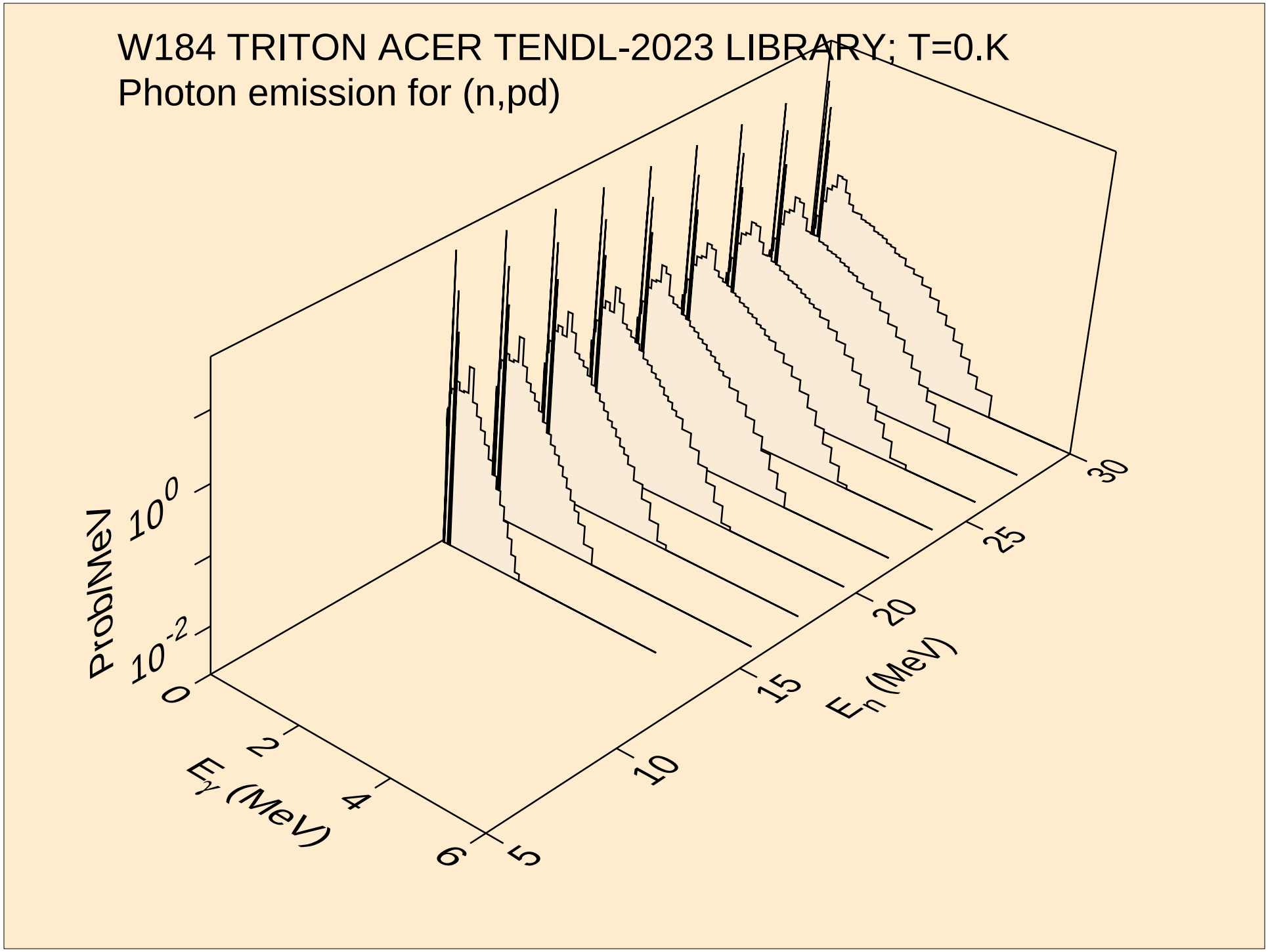
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,a)

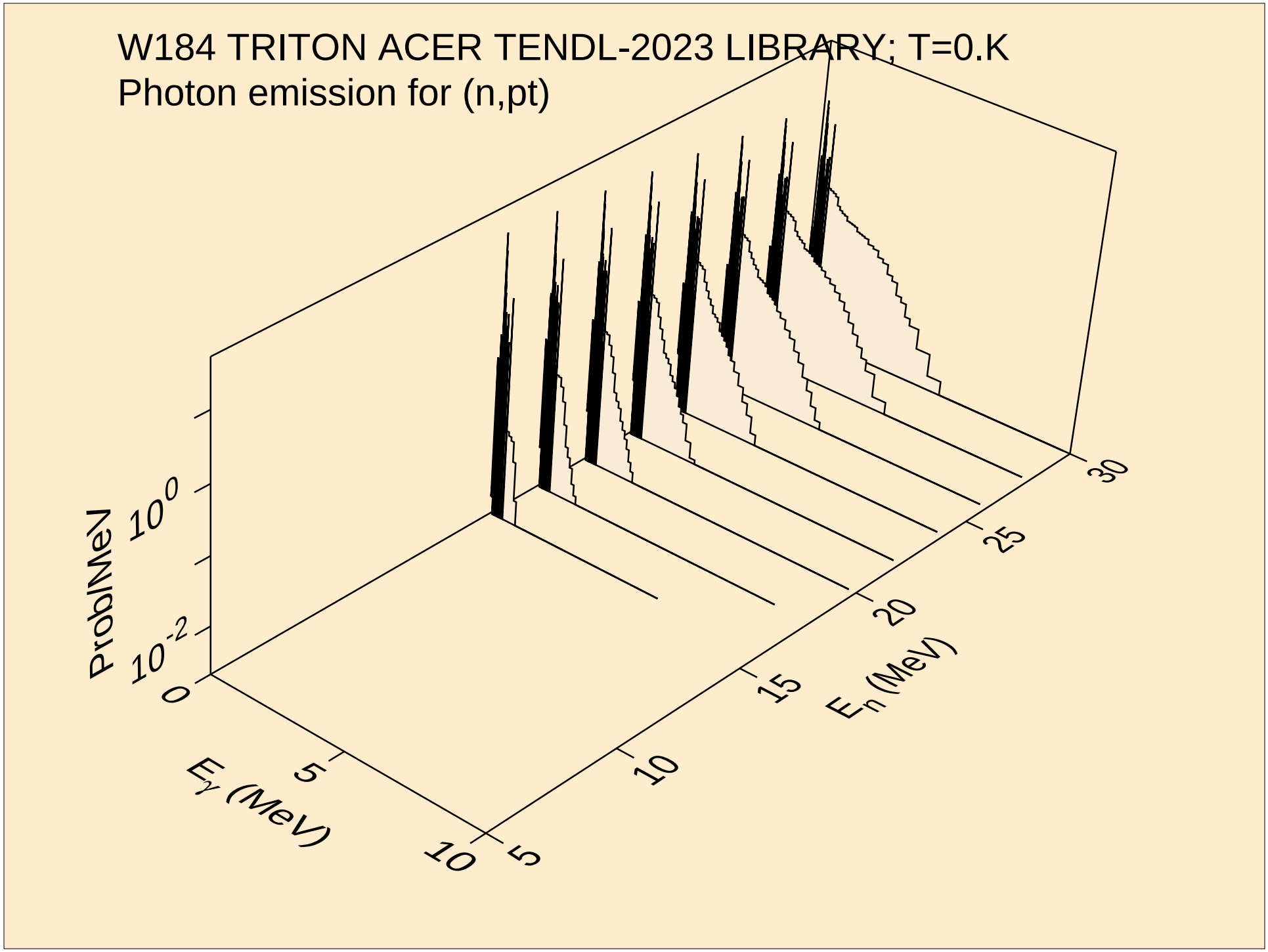


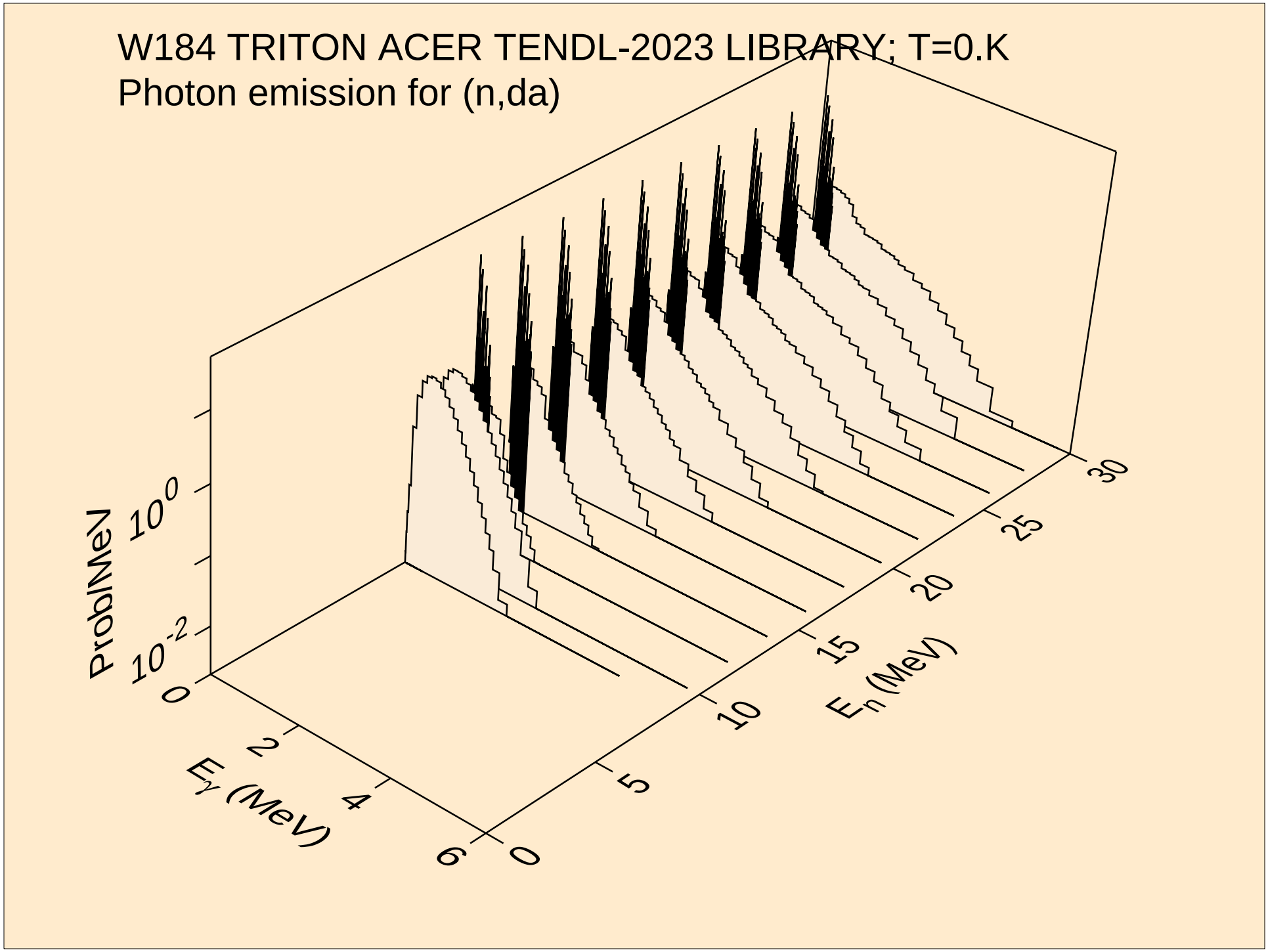

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2a)
Prob/MeV
10^0
10^{-2}
0
E_γ (MeV)
5
10
0
5
10
15
20
25
30
E_n (MeV)

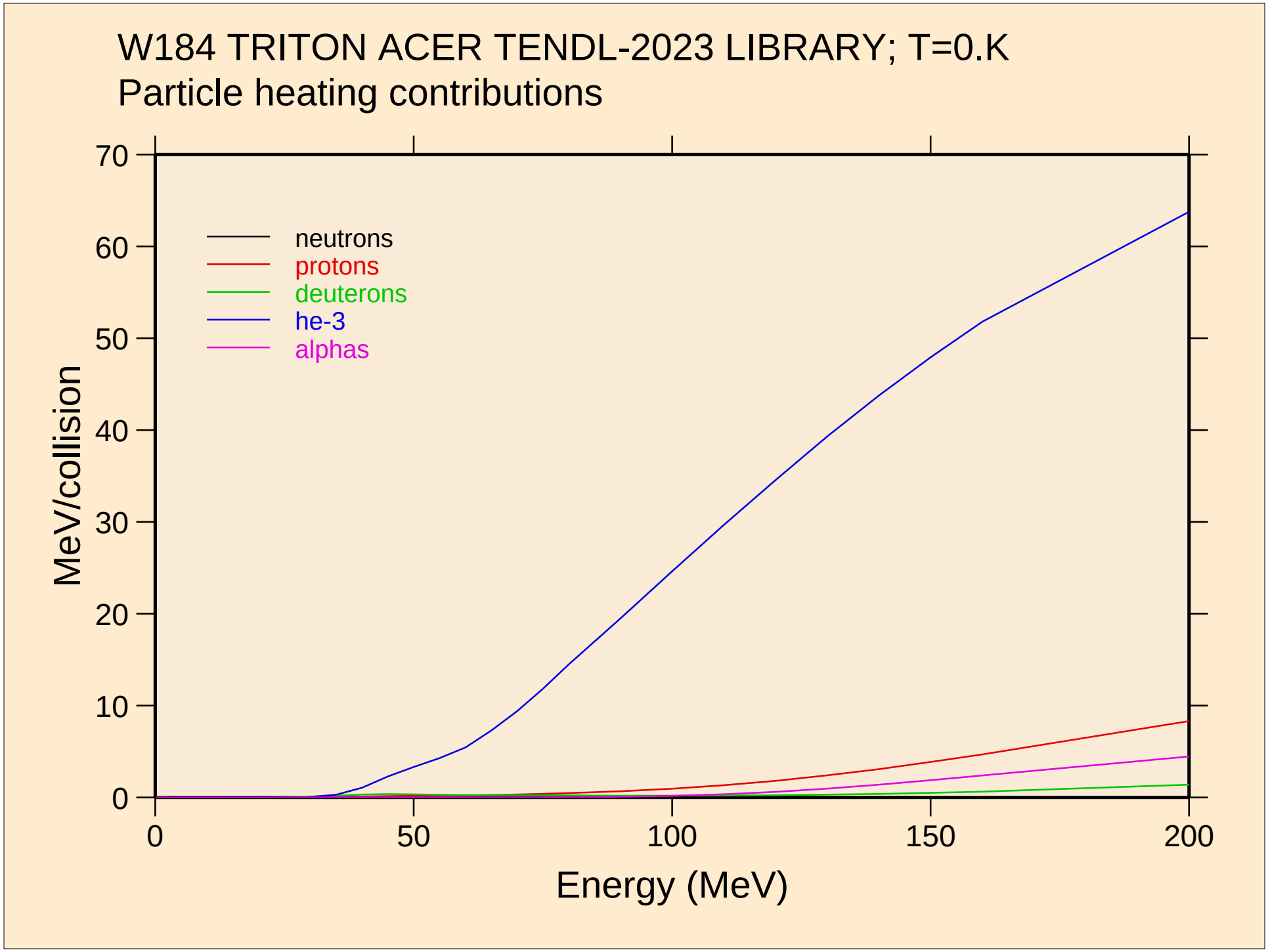

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2p)
Prob/MeV
10^{3}
10^{1}
10^{-1}
E_γ (MeV)
0
2
4
E_n (MeV)
0
5
10
15
20
25
30

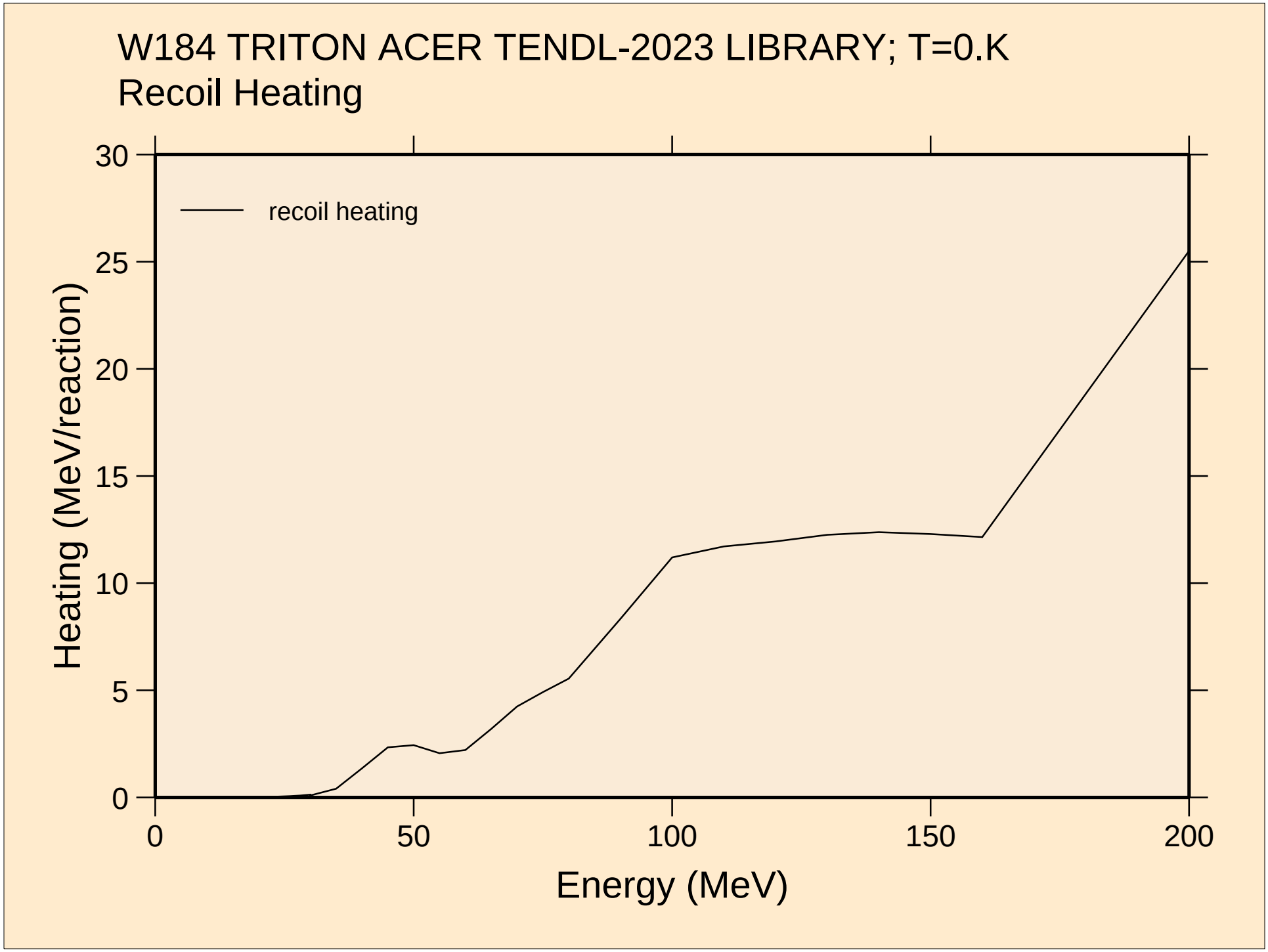

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,pa)
Prob/MeV
10^{2}
10^{0}
10^{-2}
E_γ (MeV)
0
5
10
E_n (MeV)
0
5
10
15
20
25
30

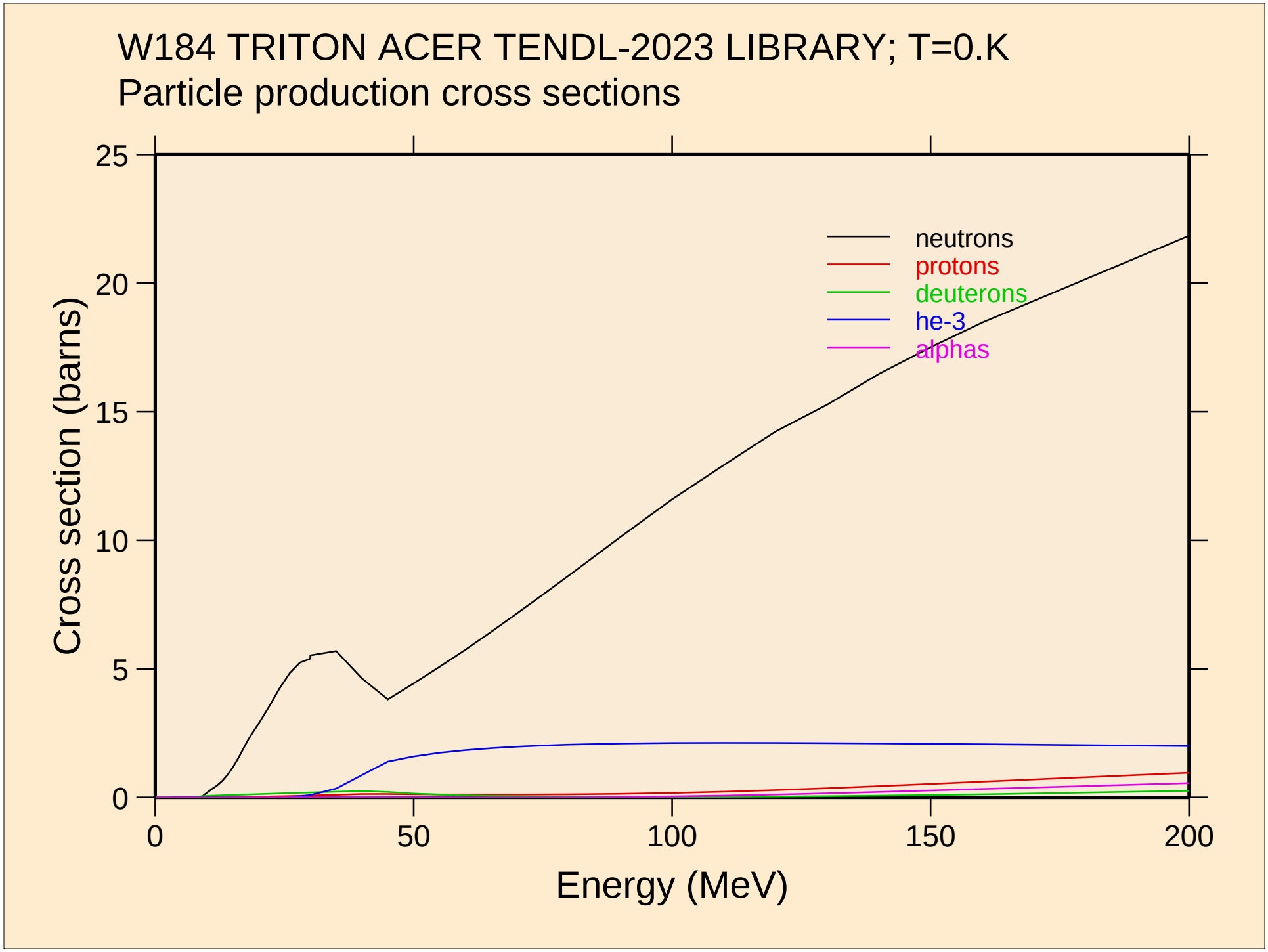

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,pd)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,pt)
Prob/MeV
10^0
10^{-2}
0
5
10
E_γ (MeV)
5
10
15
20
25
30
E_n (MeV)

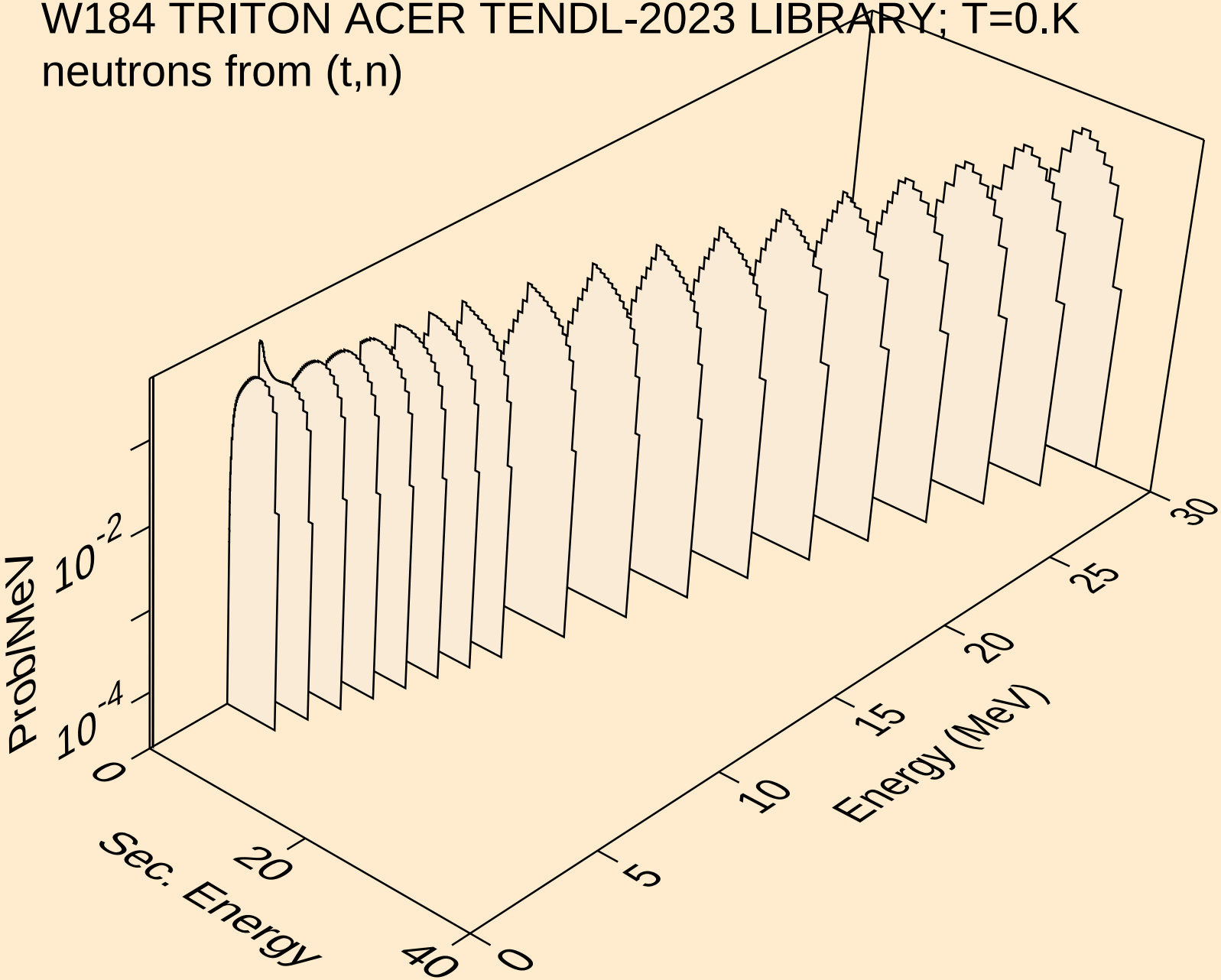

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,da)
Prob/MeV
10^0
10^{-2}
0
2
4
6
E_γ (MeV)
0
5
10
15
20
25
30
E_n (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Particle heating contributions
neutrons
protons
deuterons
he-3
alphas
MeV/collision
Energy (MeV)
0
10
20
30
40
50
60
70
0
50
100
150
200

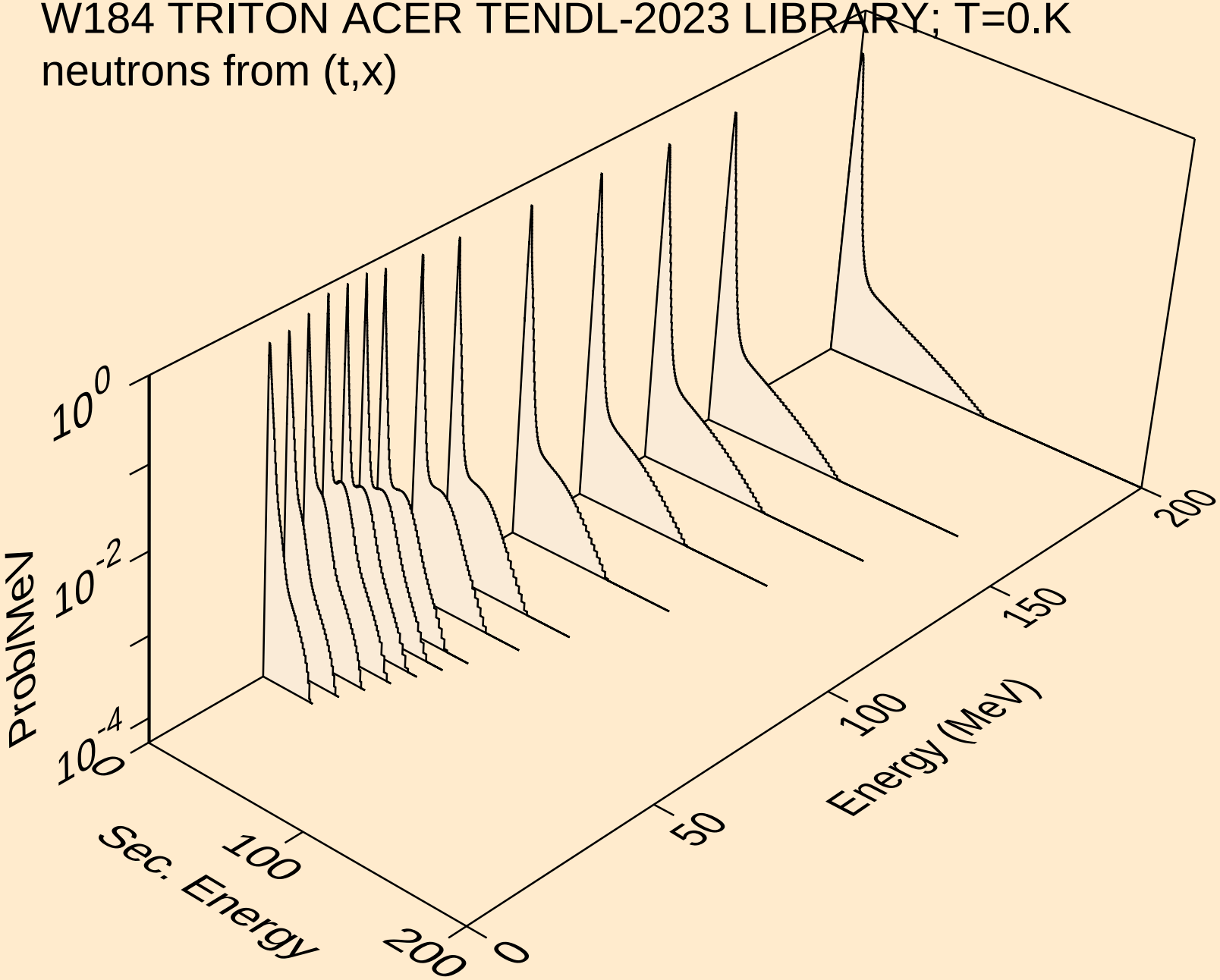

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Recoil Heating
recoil heating
Heating (MeV/reaction)
Energy (MeV)
0
5
10
15
20
25
30
0
50
100
150
200

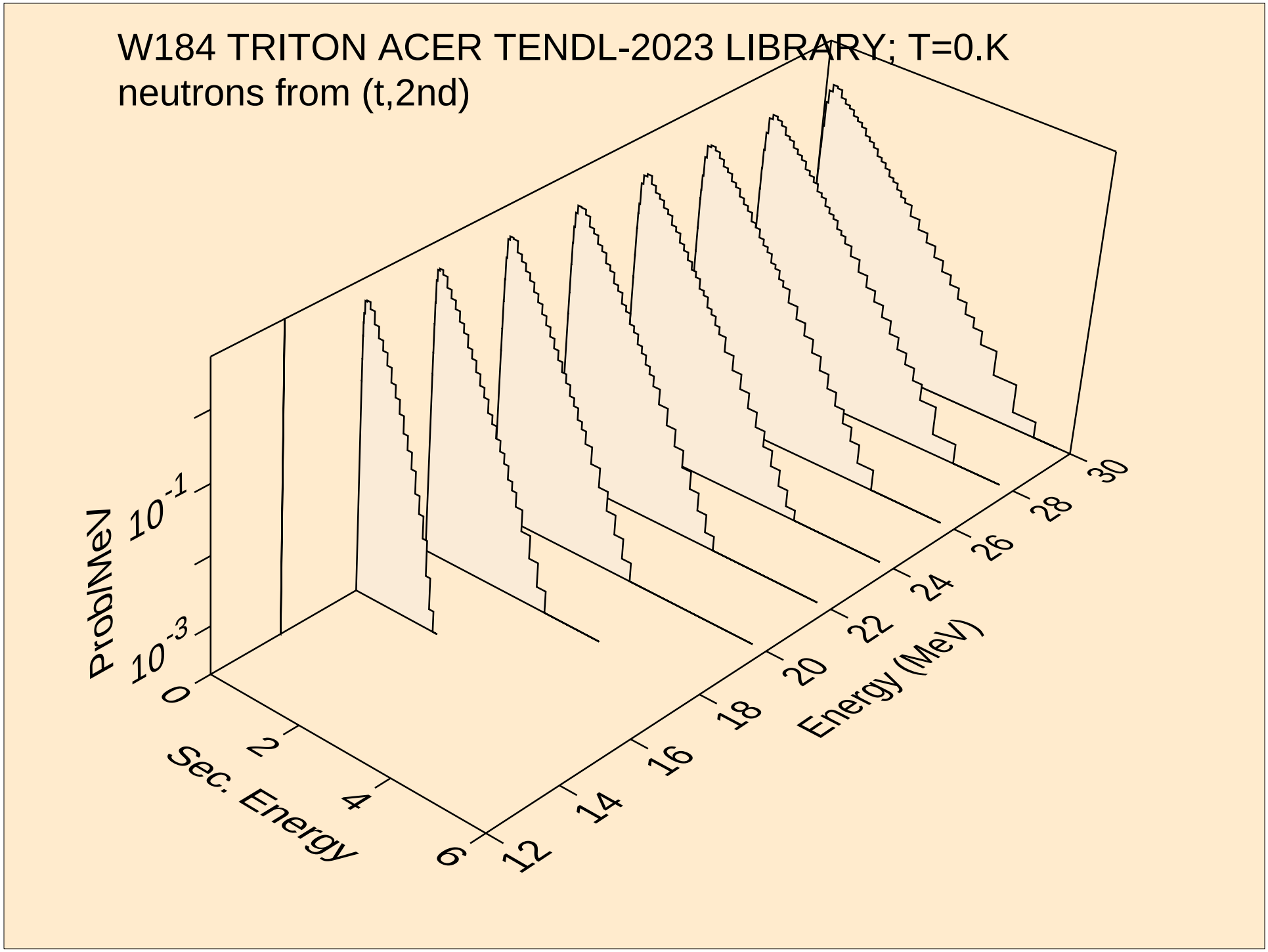

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
Particle production cross sections
neutrons
protons
deuterons
he-3
alphas
Cross section (barns)
Energy (MeV)
0
5
10
15
20
25
0
50
100
150
200

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n)

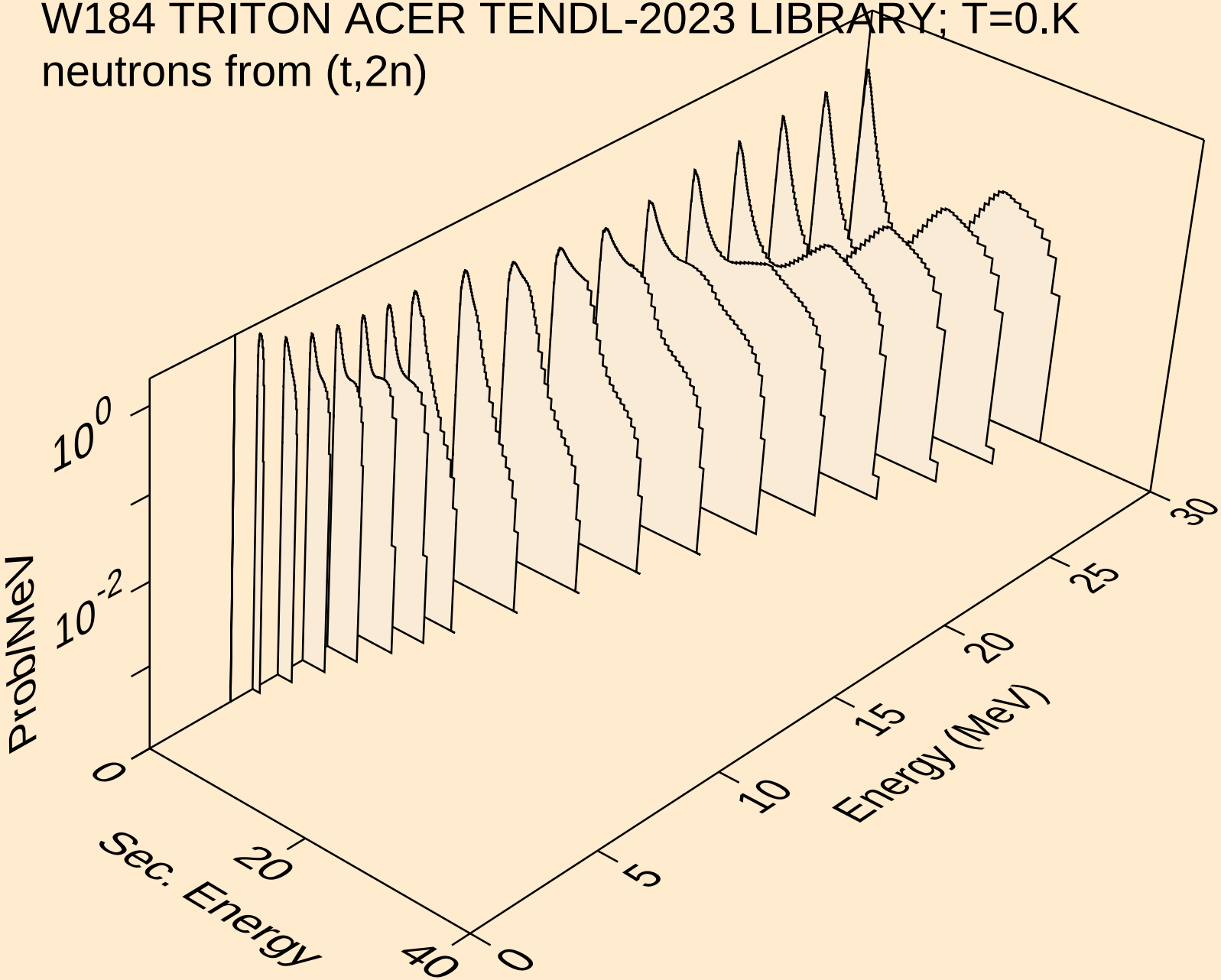


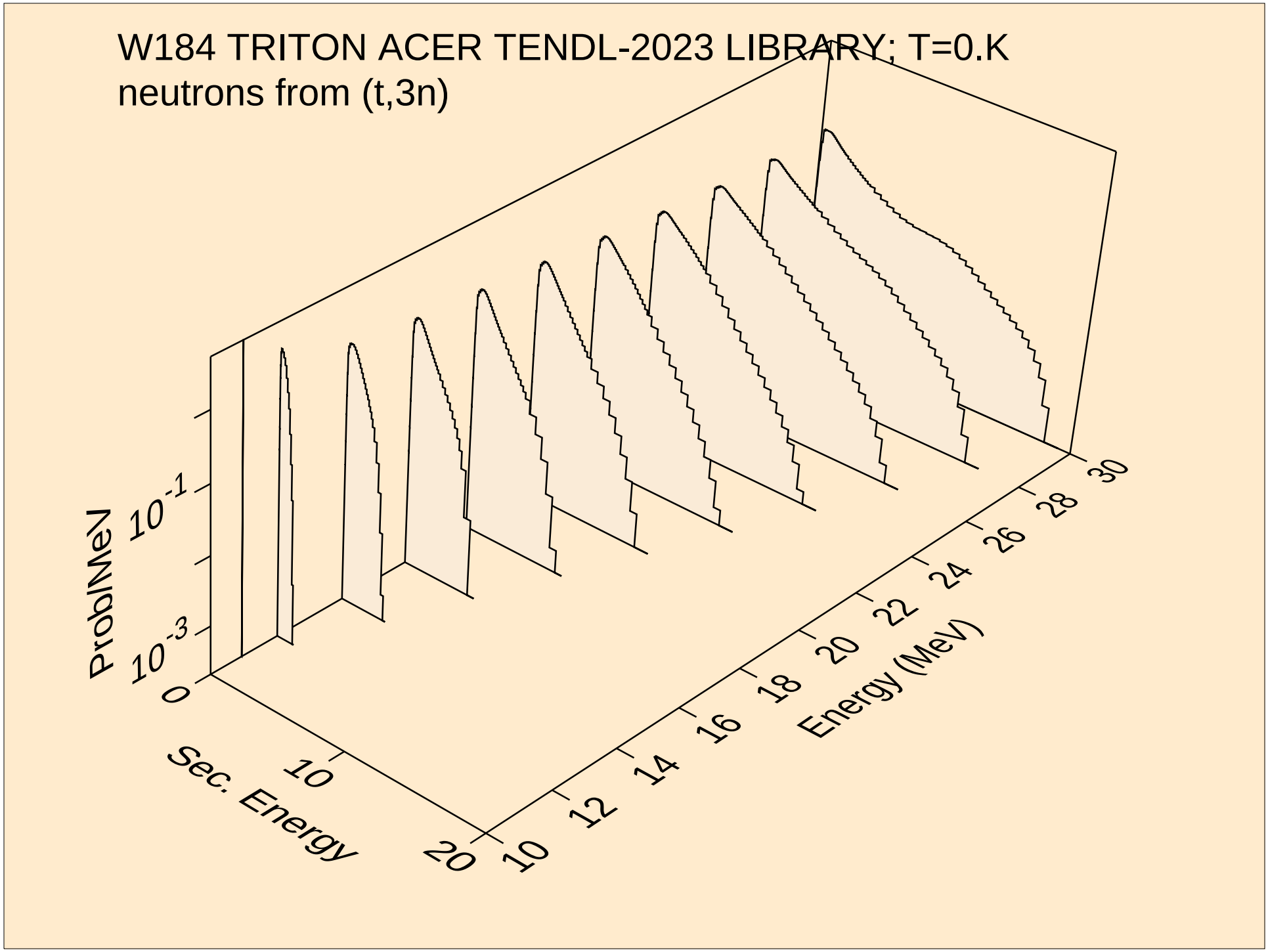
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,x)

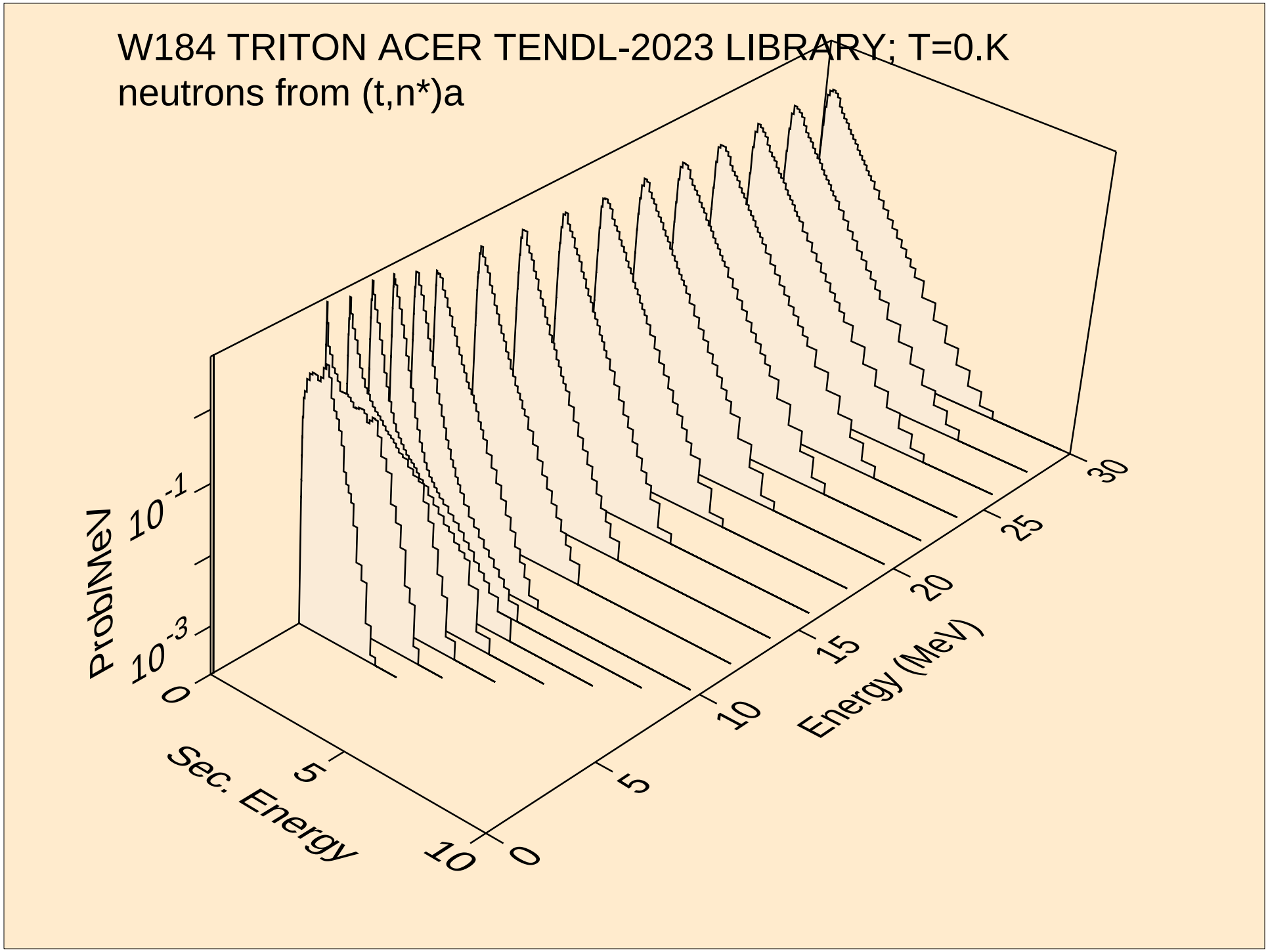



W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,2nd)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
2
4
6
Energy (MeV)
12
14
16
18
20
22
24
26
28
30

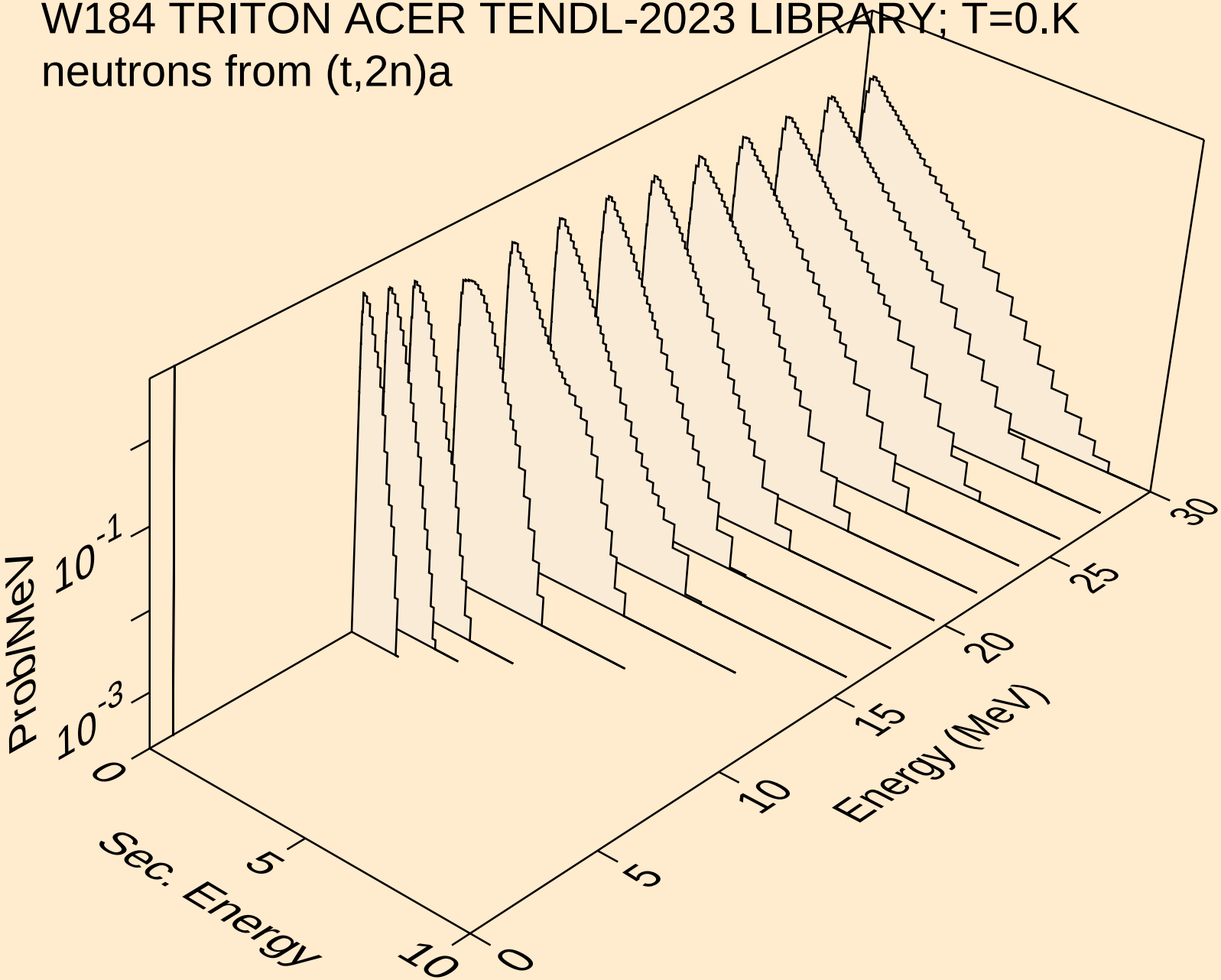
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,2n)

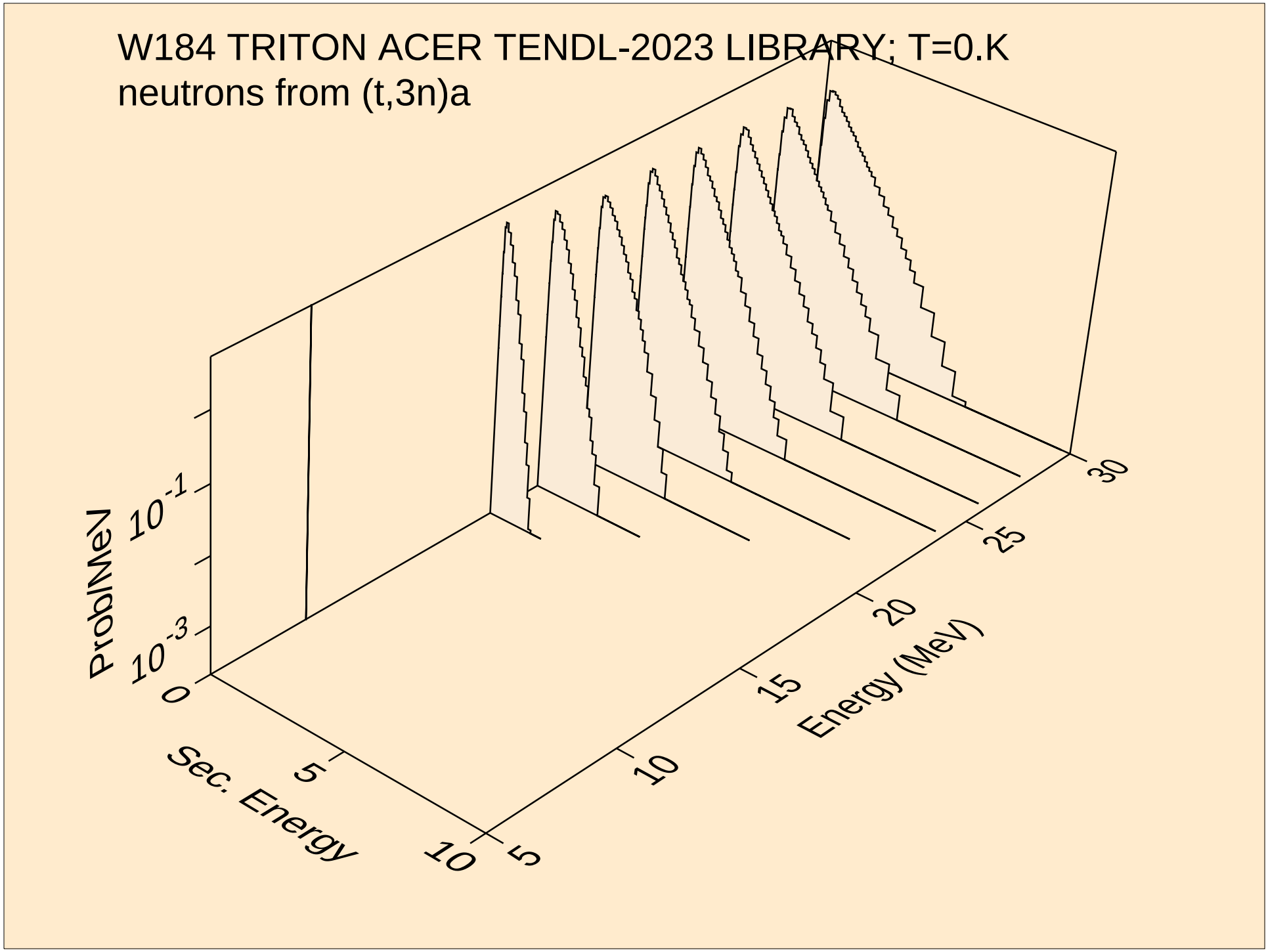



W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,3n)
Prob/MeV
10^{-1}
10^{-3}
0
Sec. Energy
10
20
10
12
14
16
18
20
22
24
26
28
30
Energy (MeV)

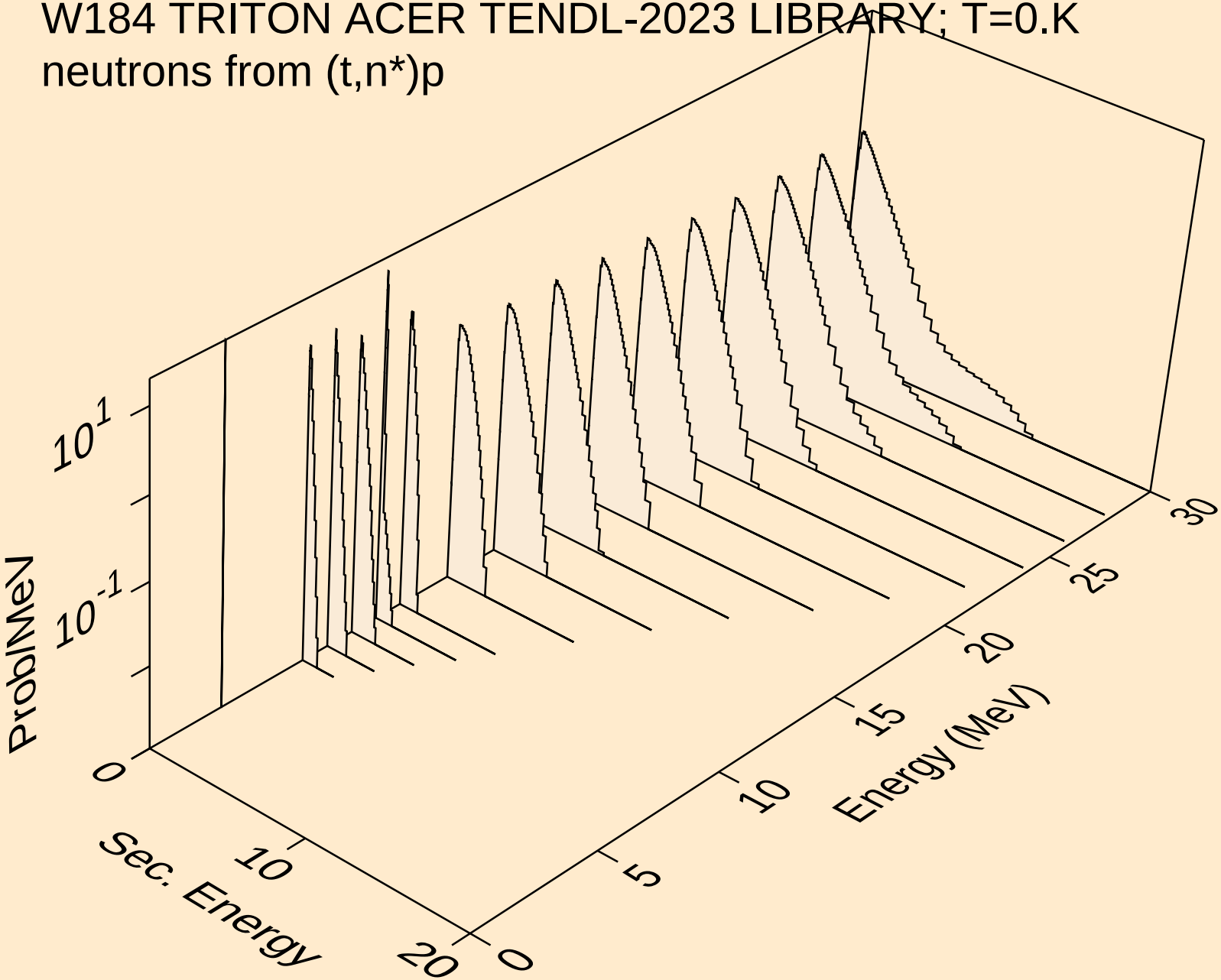

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)a
Prob/MeV
10-1
10-3
0
Sec. Energy
5
10
0
5
10
15
20
25
30
Energy (MeV)

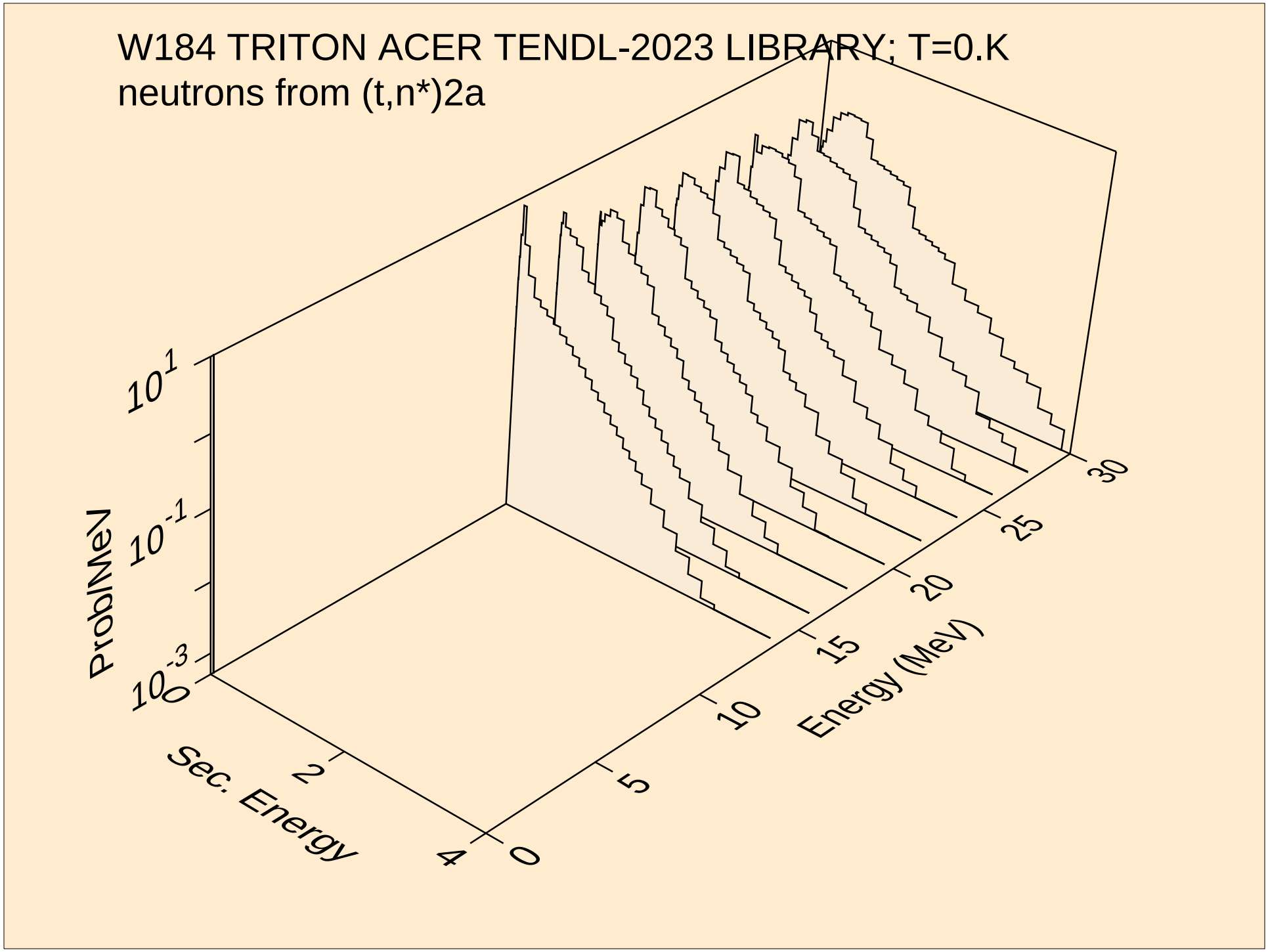
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,2n)a

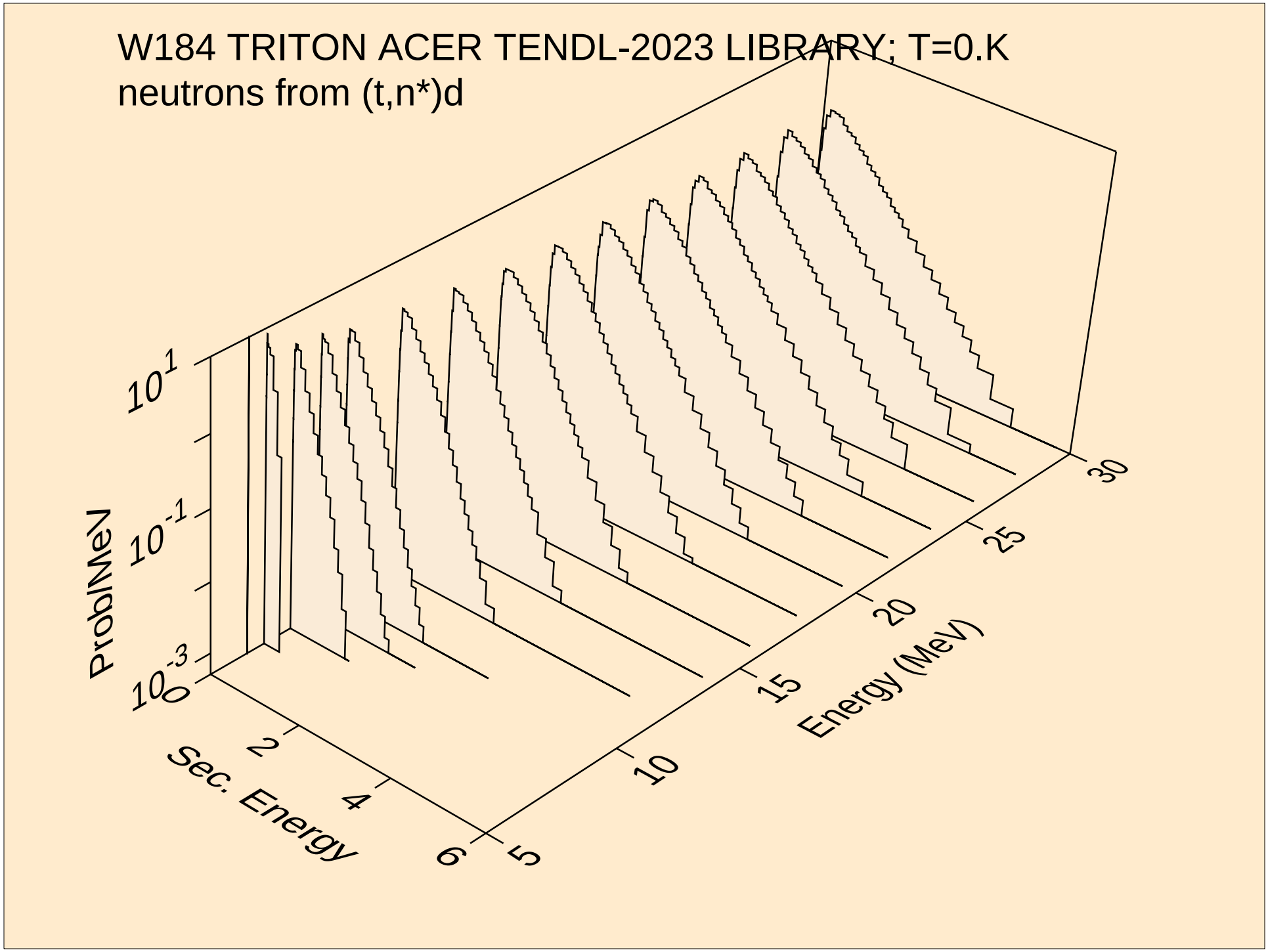


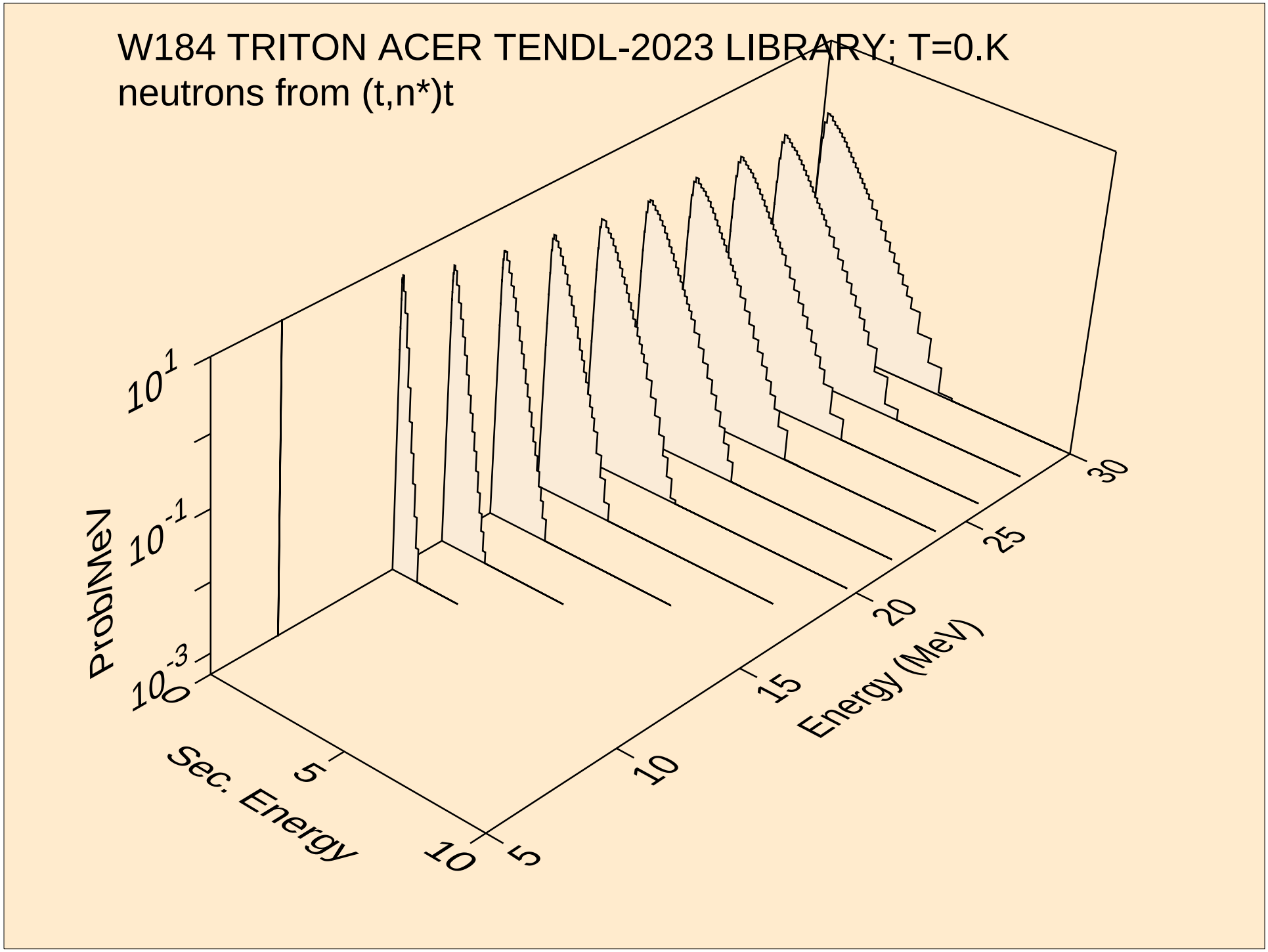

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,3n)a
Prob/MeV
10^-1
10^-3
0
Sec. Energy
5
10
5
10
15
20
25
30
Energy (MeV)

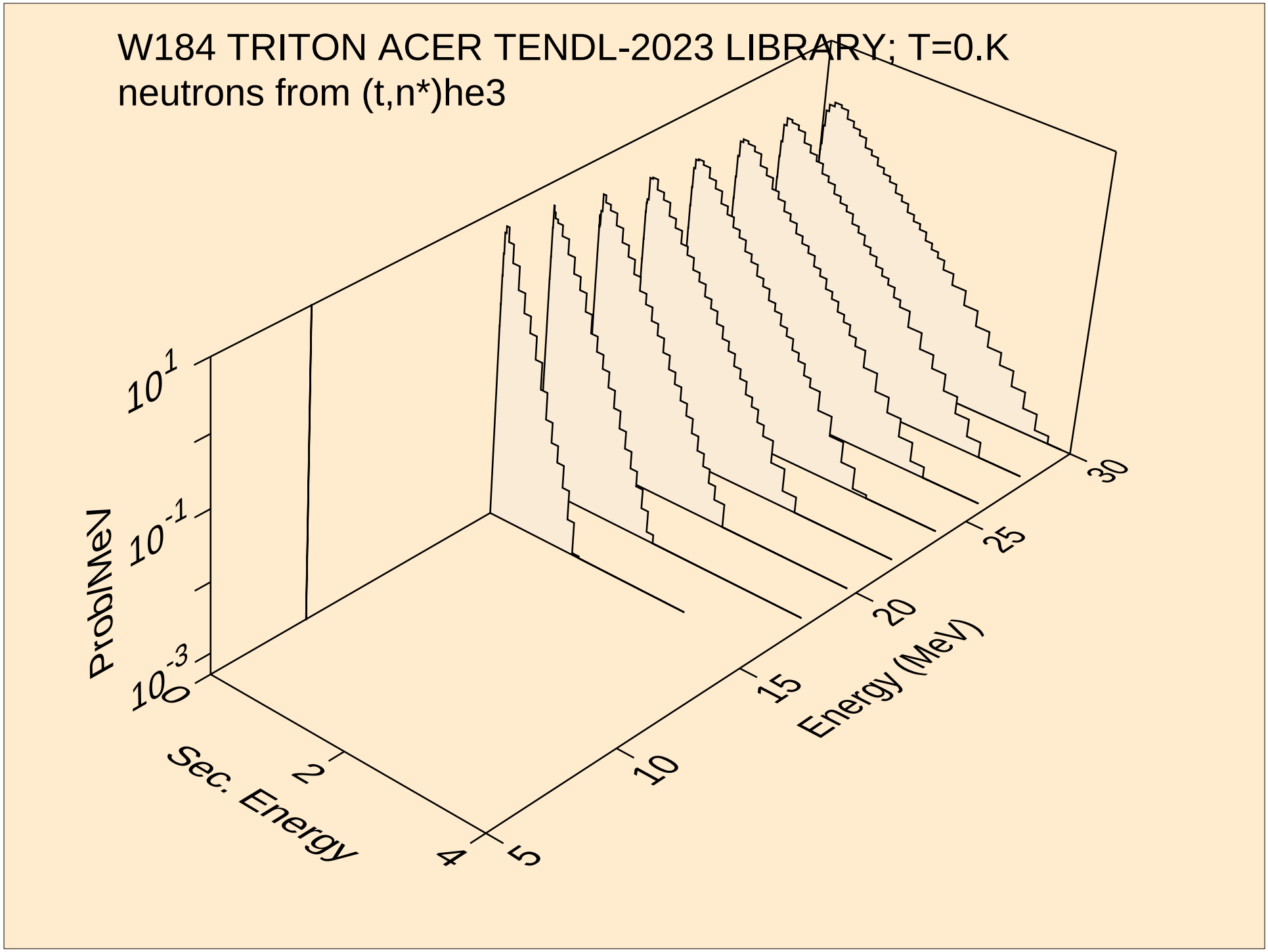
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)p

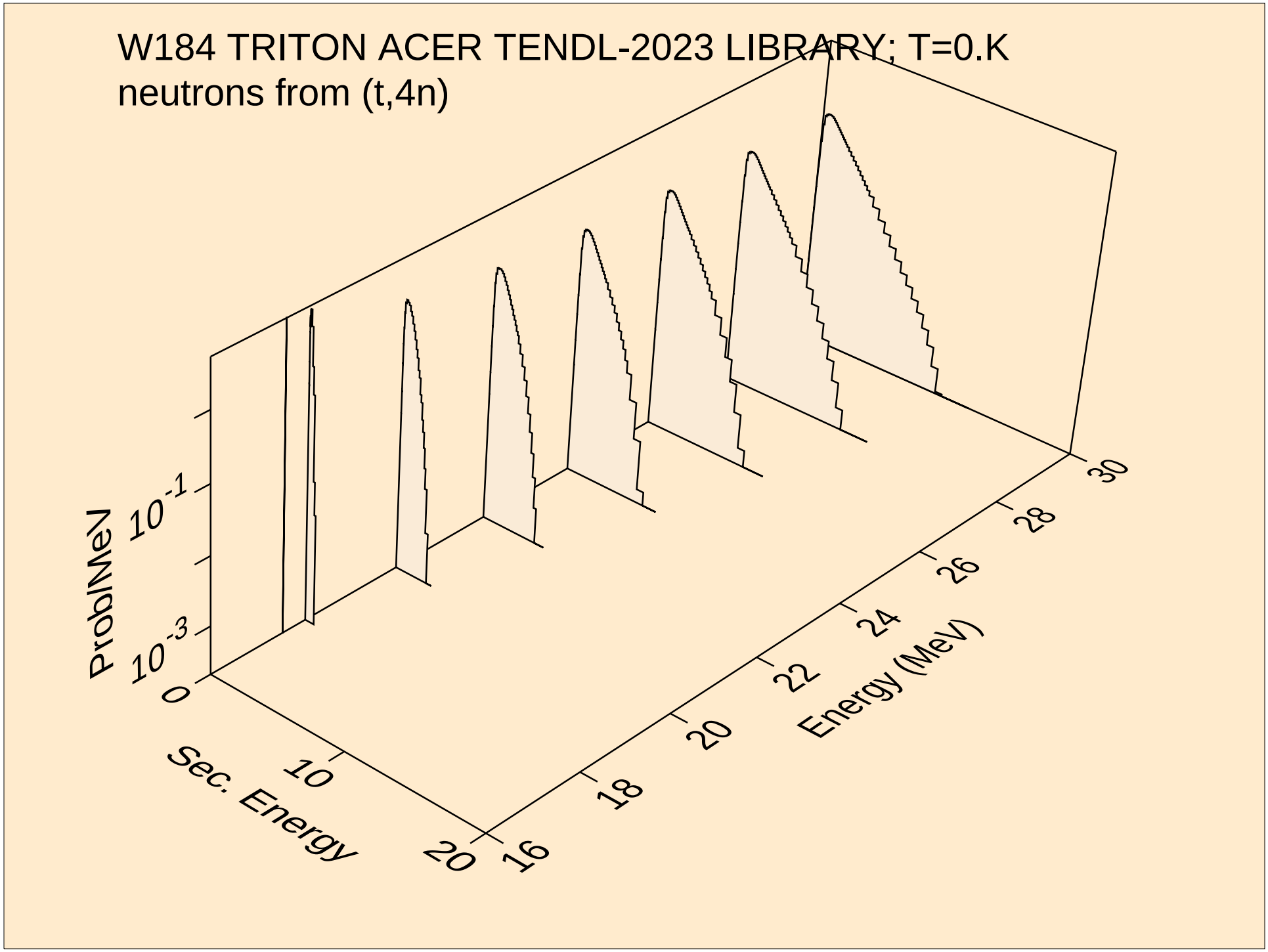


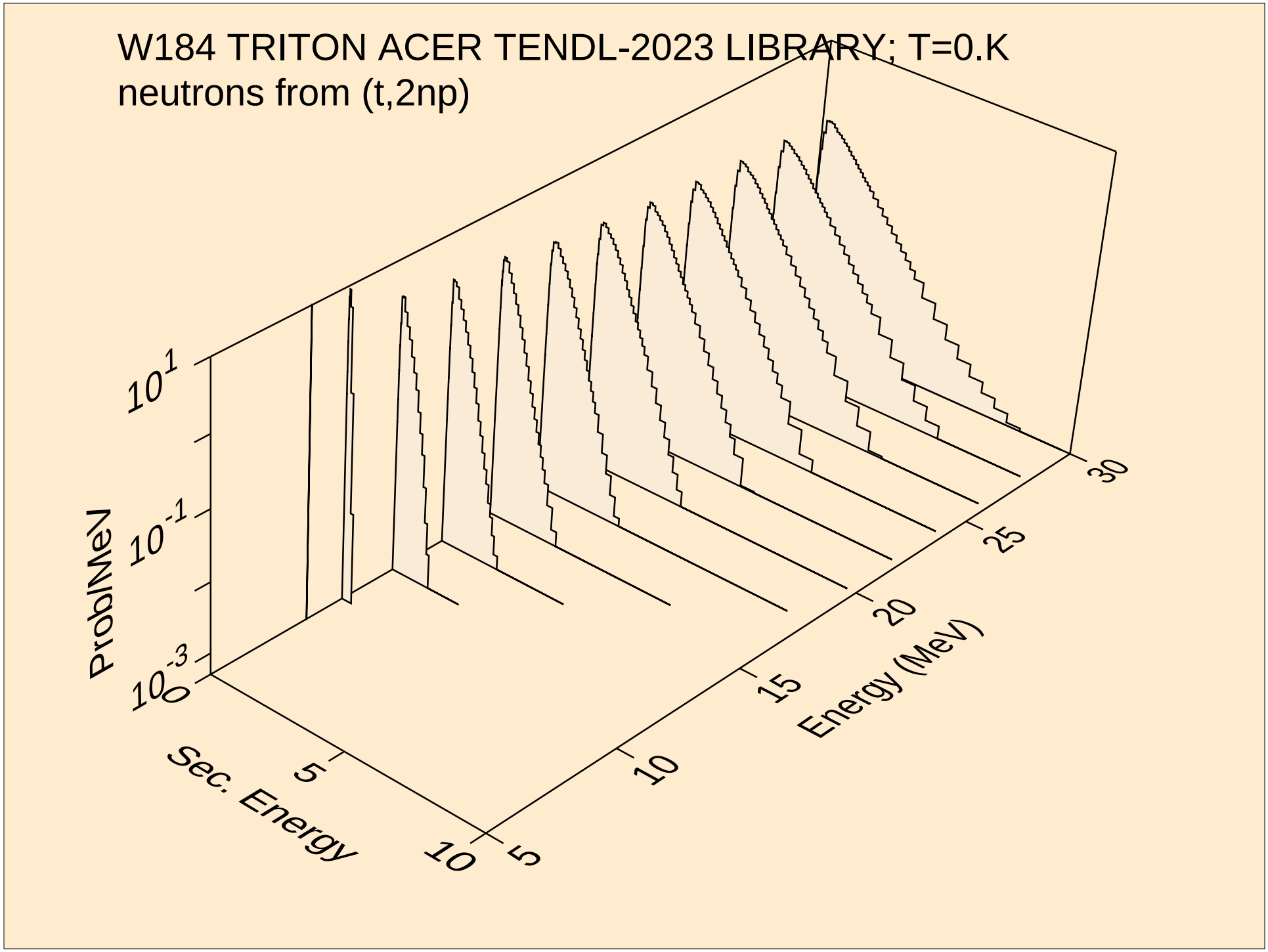

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)2a
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
0
2
4
Energy (MeV)
0
5
10
15
20
25
30

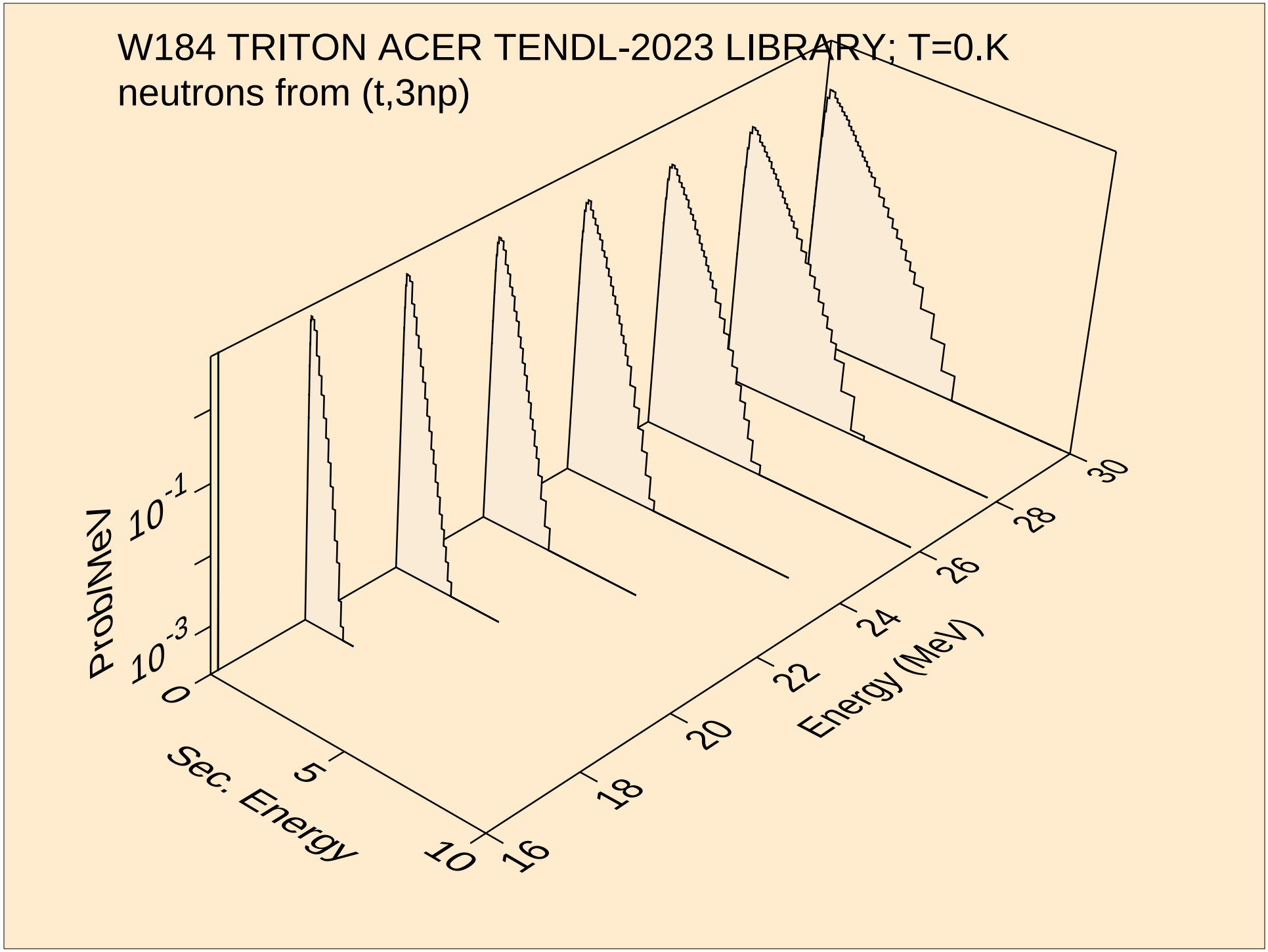

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)d
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
0
2
4
6
Energy (MeV)
5
10
15
20
25
30

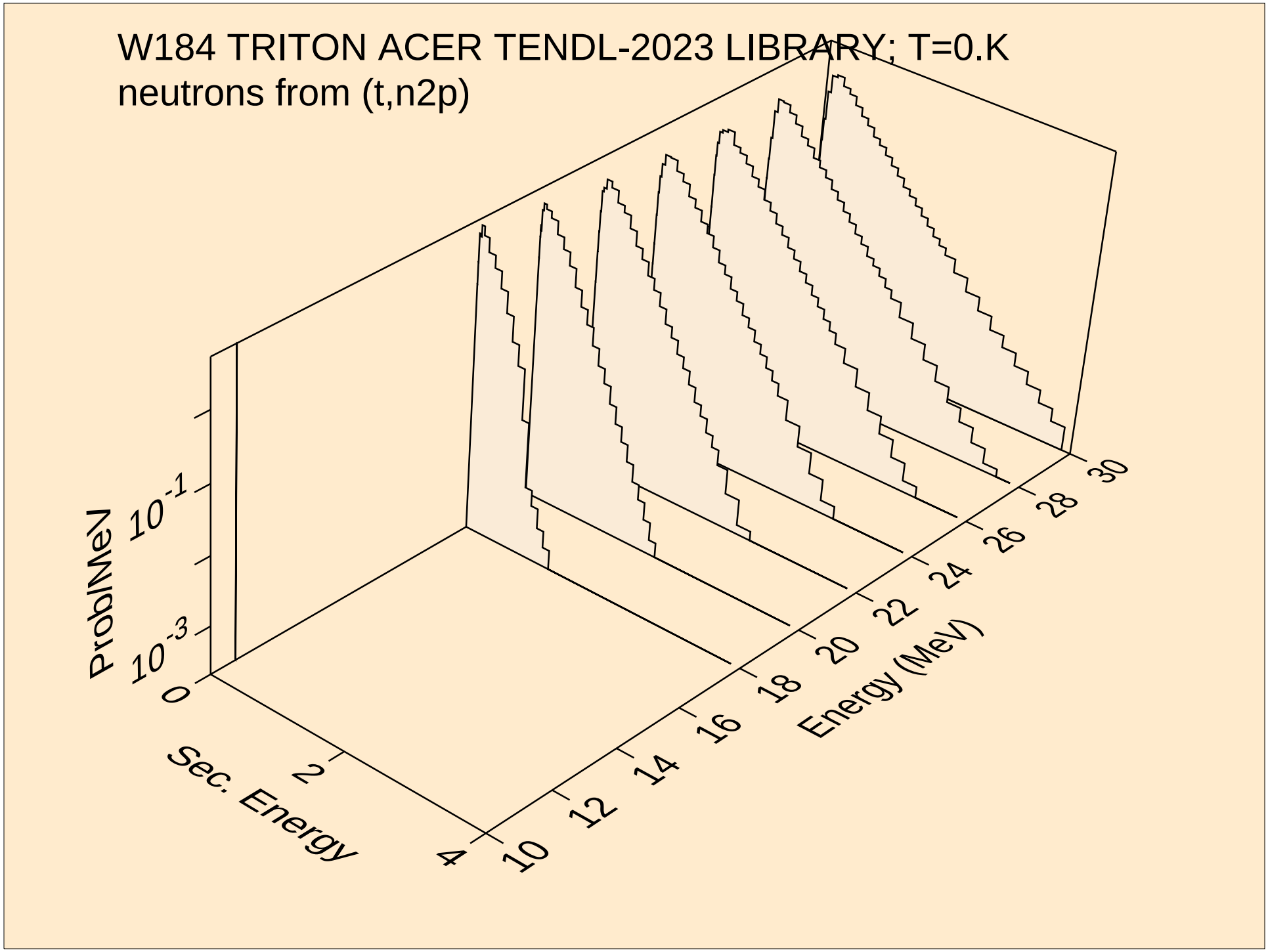

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)t
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
0
5
10
Energy (MeV)
5
10
15
20
25
30

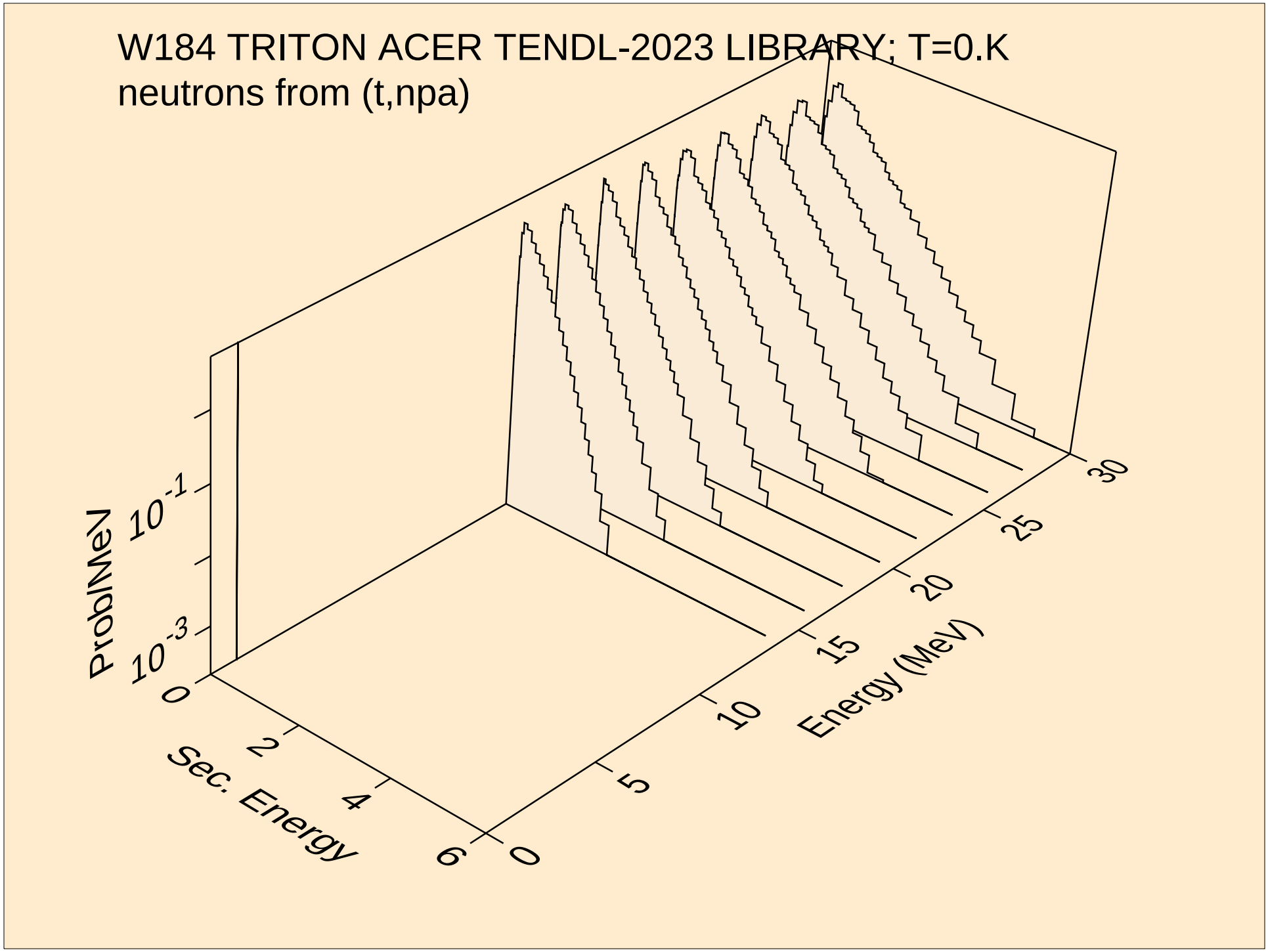

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n*)he3
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
0
2
4
5
10
15
20
25
30
Energy (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,4n)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
10
20
16
18
20
22
24
26
28
30
Energy (MeV)

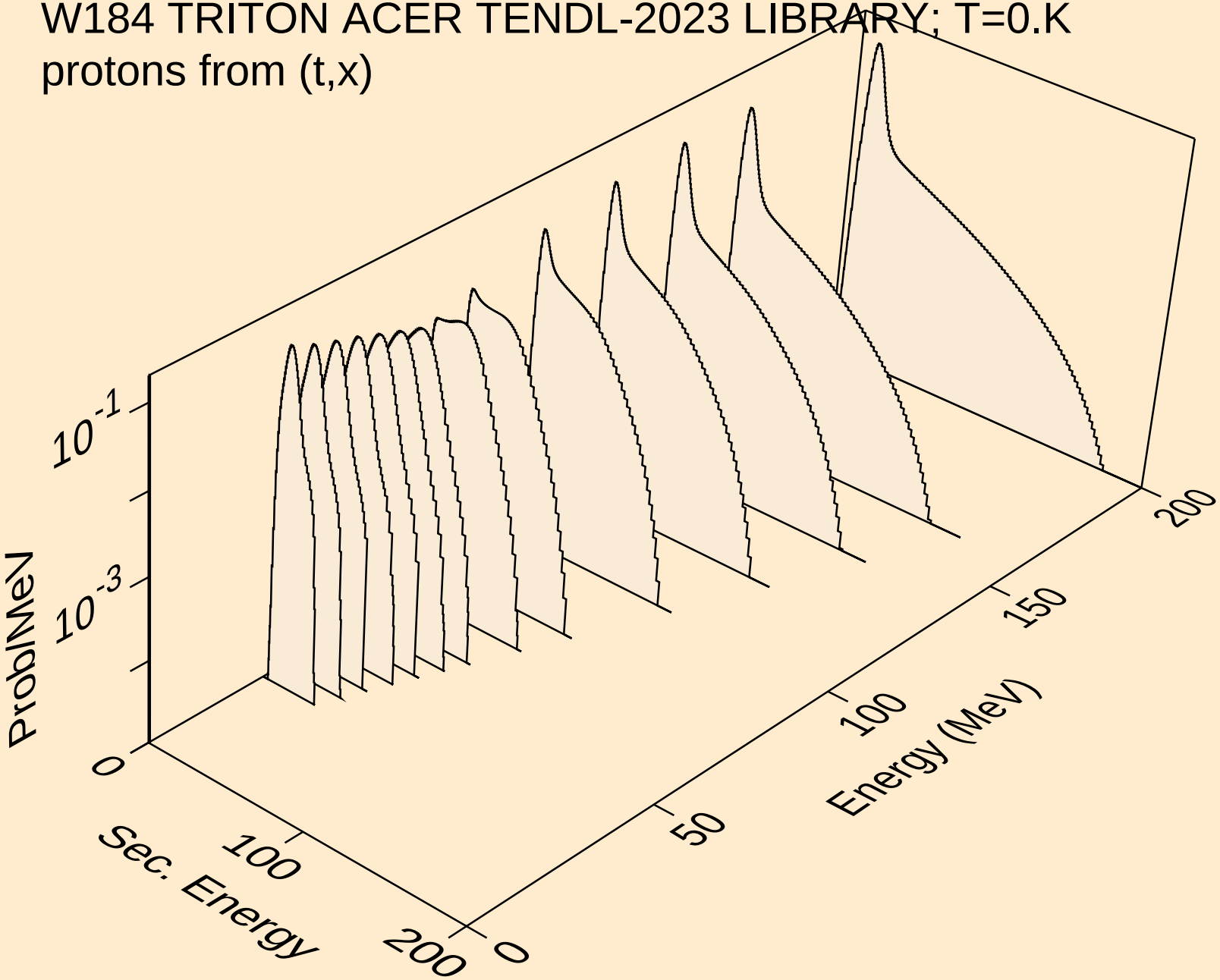

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,2np)
Prob/MeV
10^{1}
10^{-1}
10^{-3}
Sec. Energy
0
5
10
Energy (MeV)
5
10
15
20
25
30

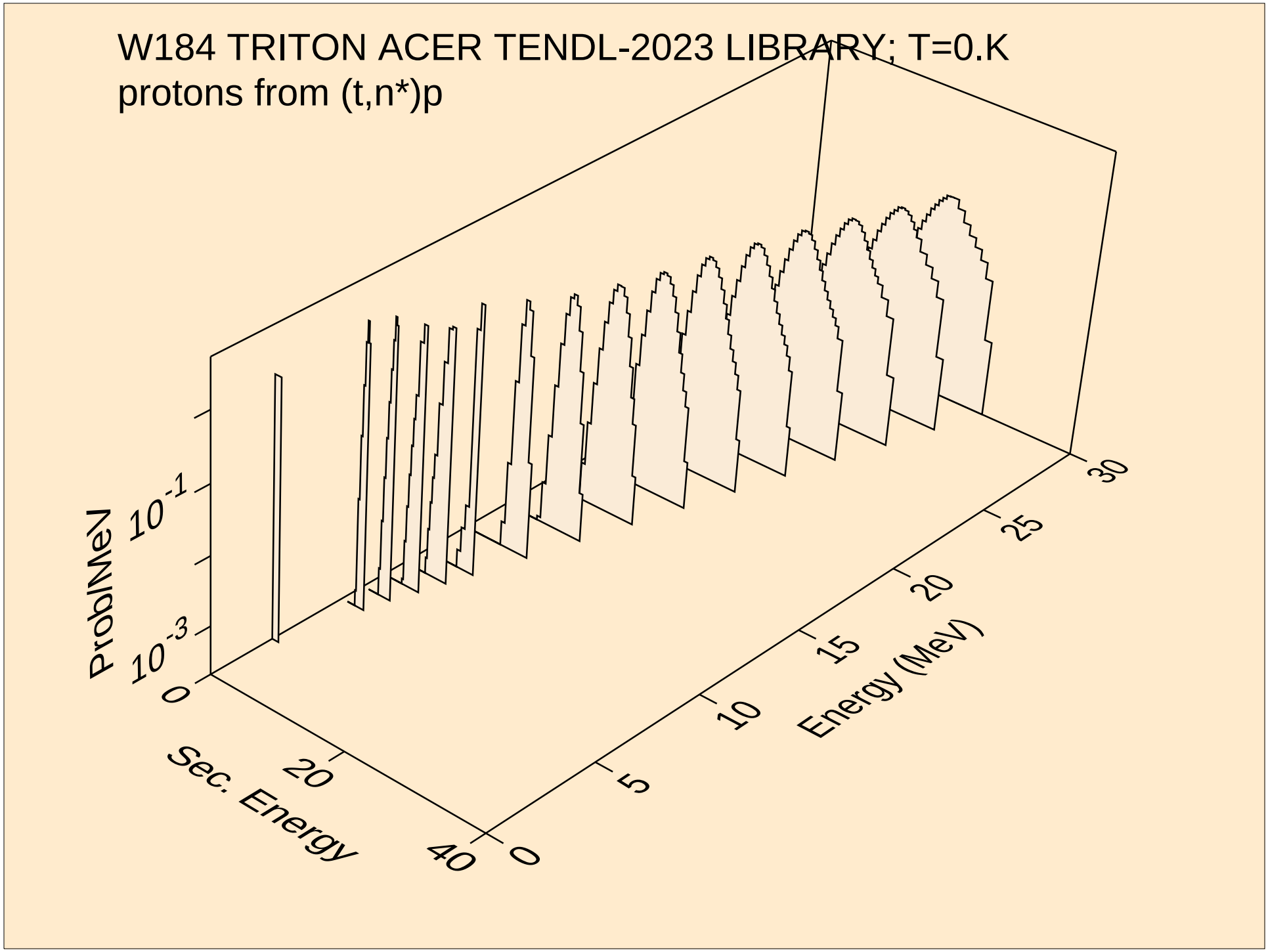

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,3np)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
5
10
16
18
20
22
24
26
28
30
Energy (MeV)

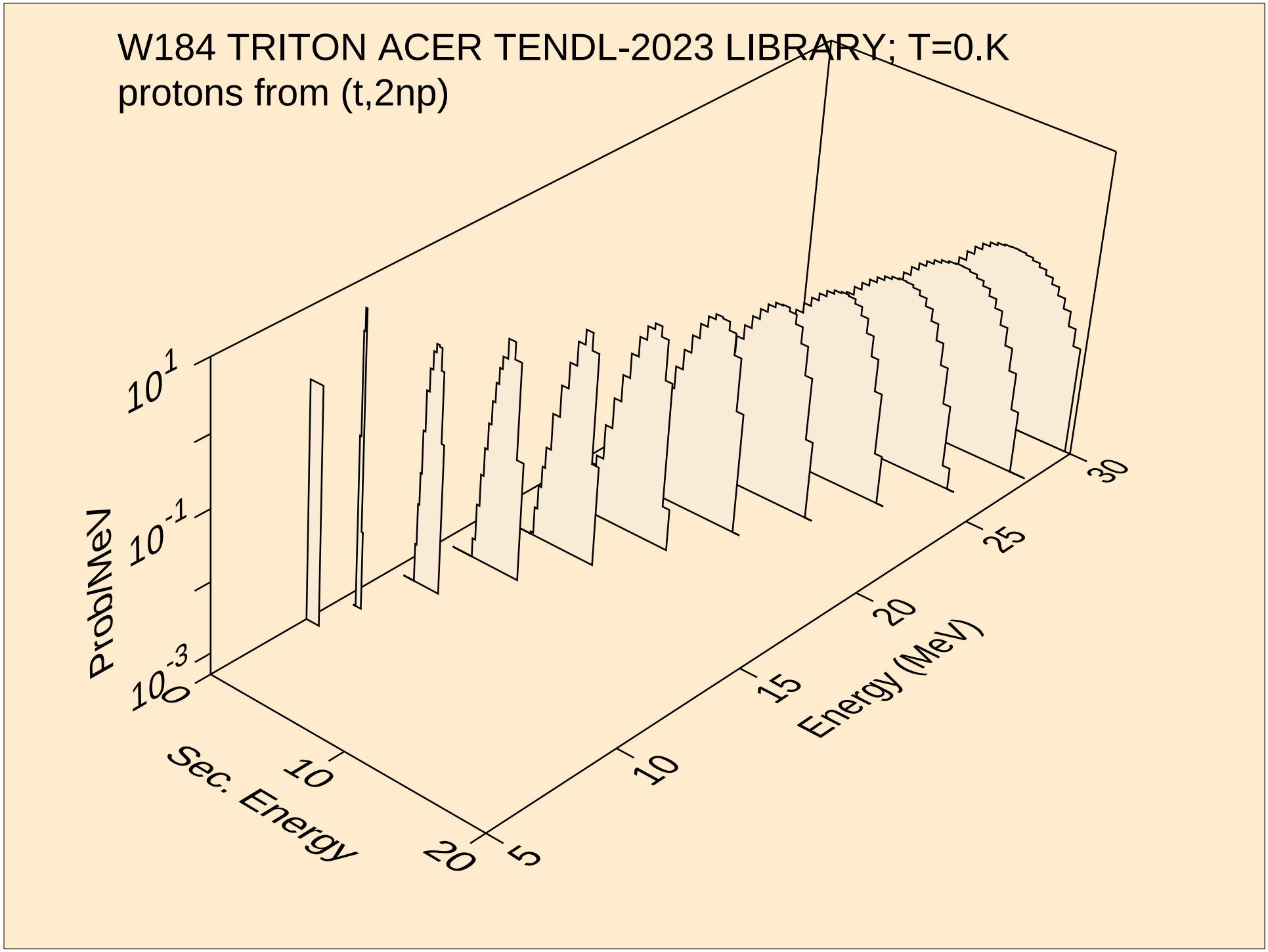

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,n2p)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
2
4
10
12
14
16
18
20
22
24
26
28
30
Energy (MeV)

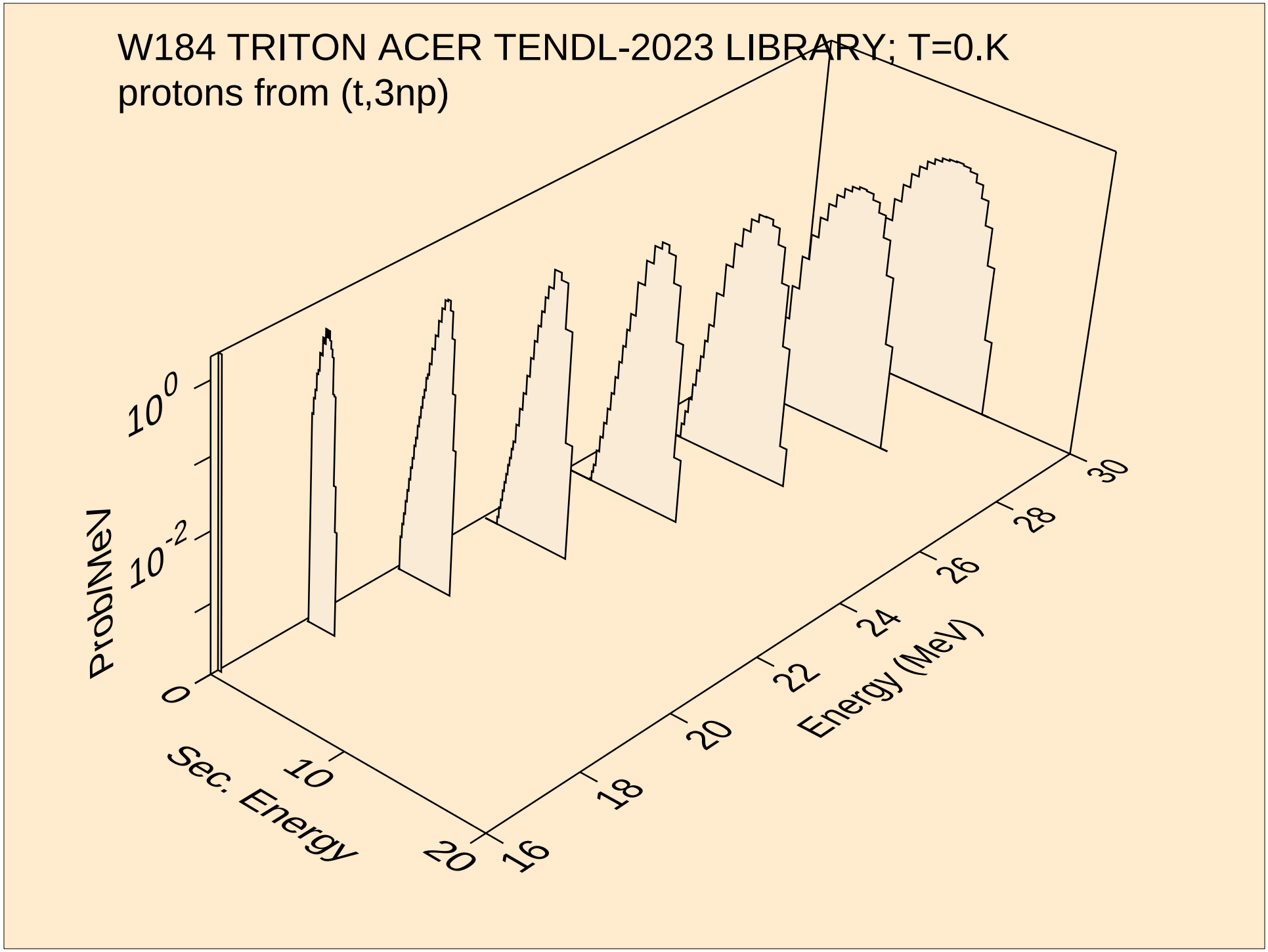

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (t,npa)
Prob/MeV
10^-1
10^-3
0
2
4
6
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

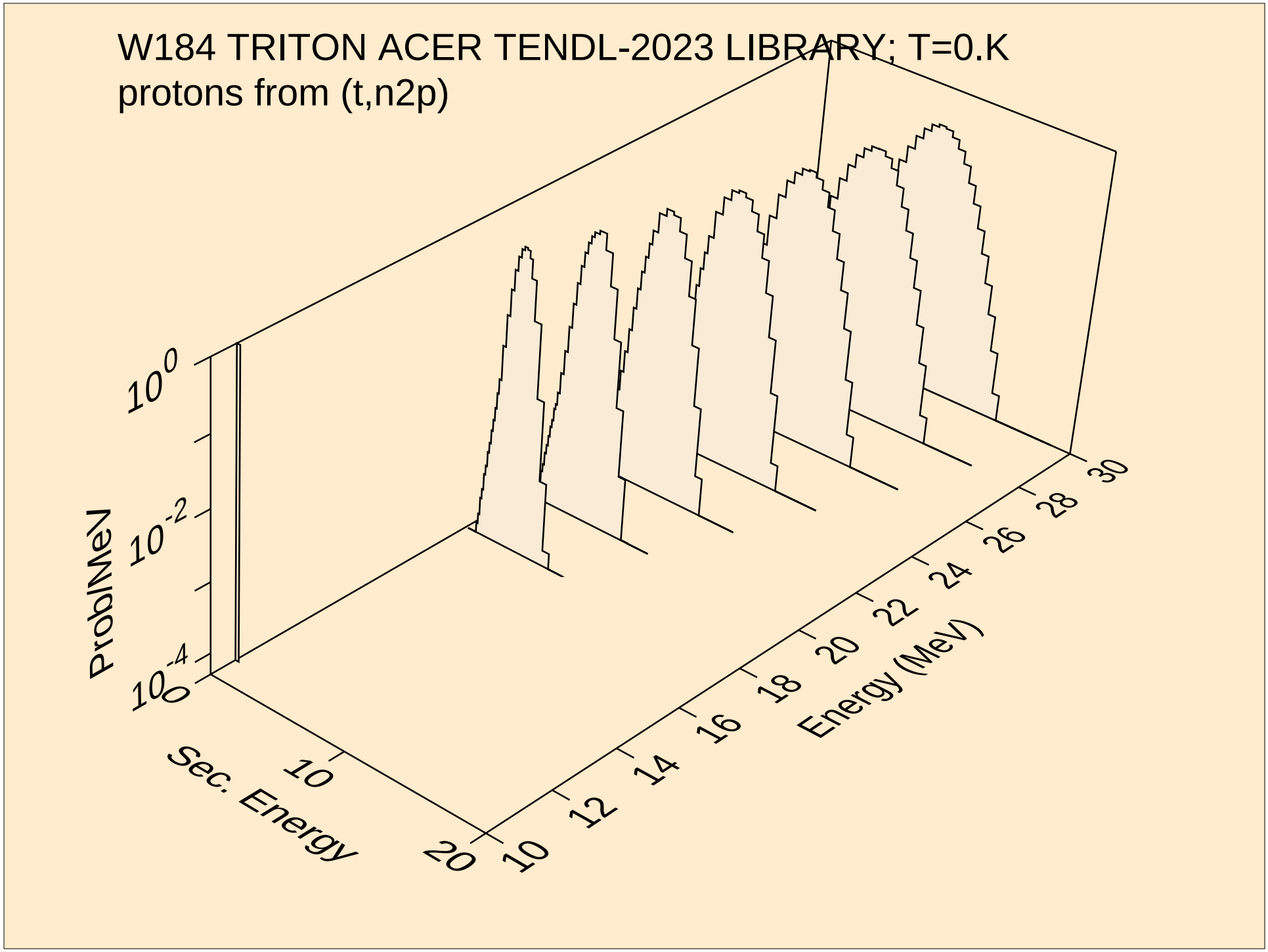
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,x)

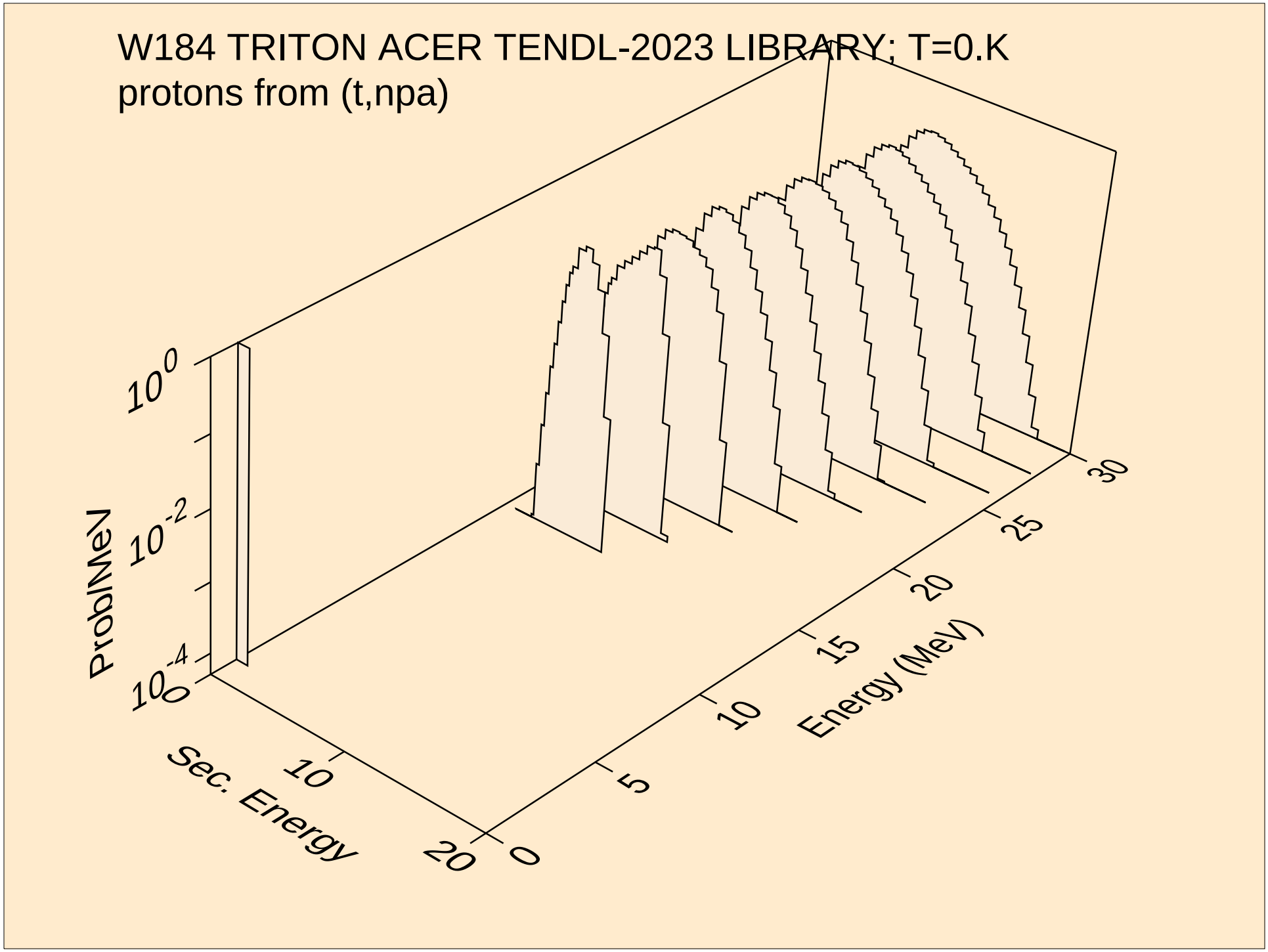


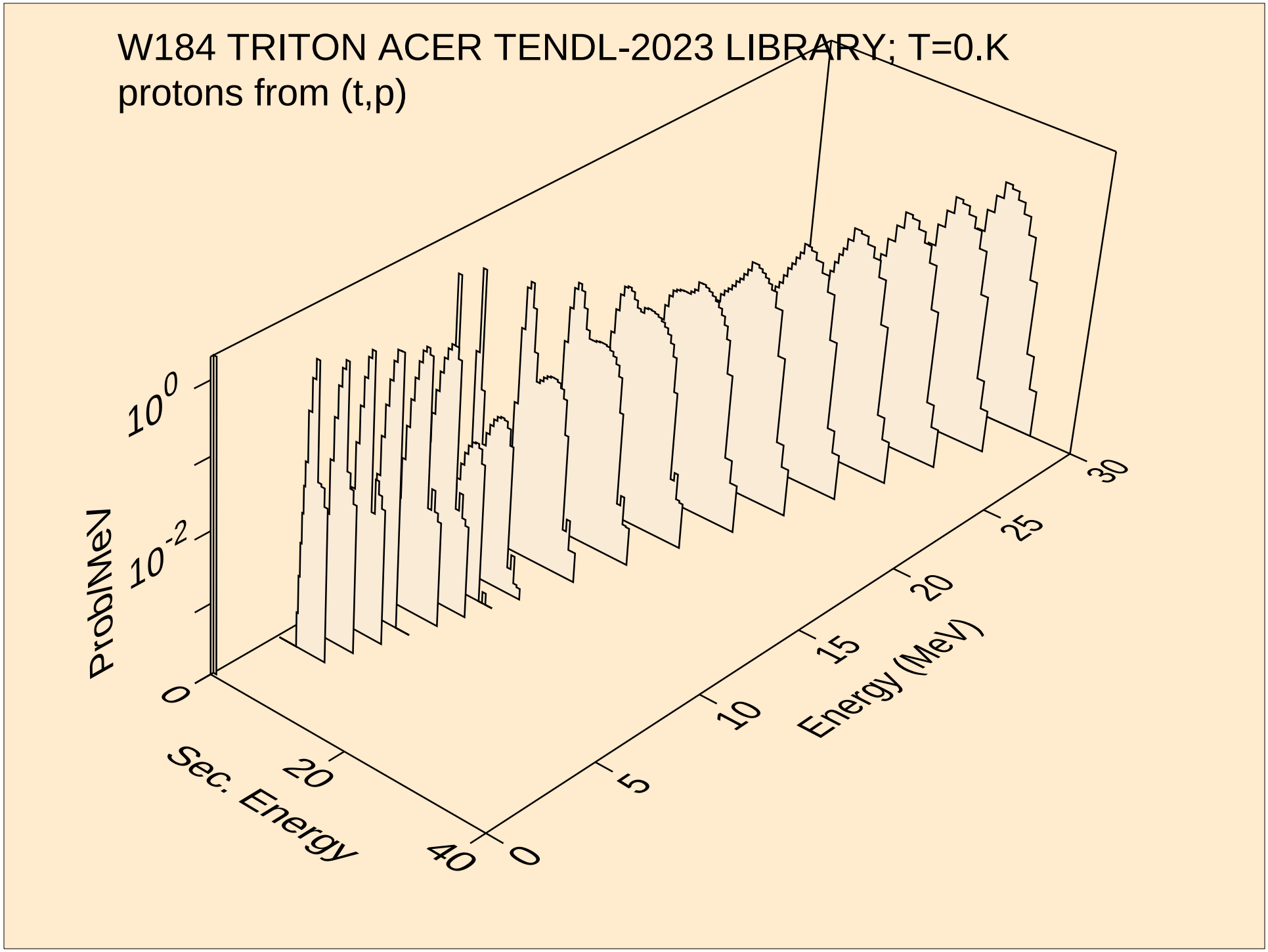

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,n*)p
Prob/MeV
10^-1
10^-3
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

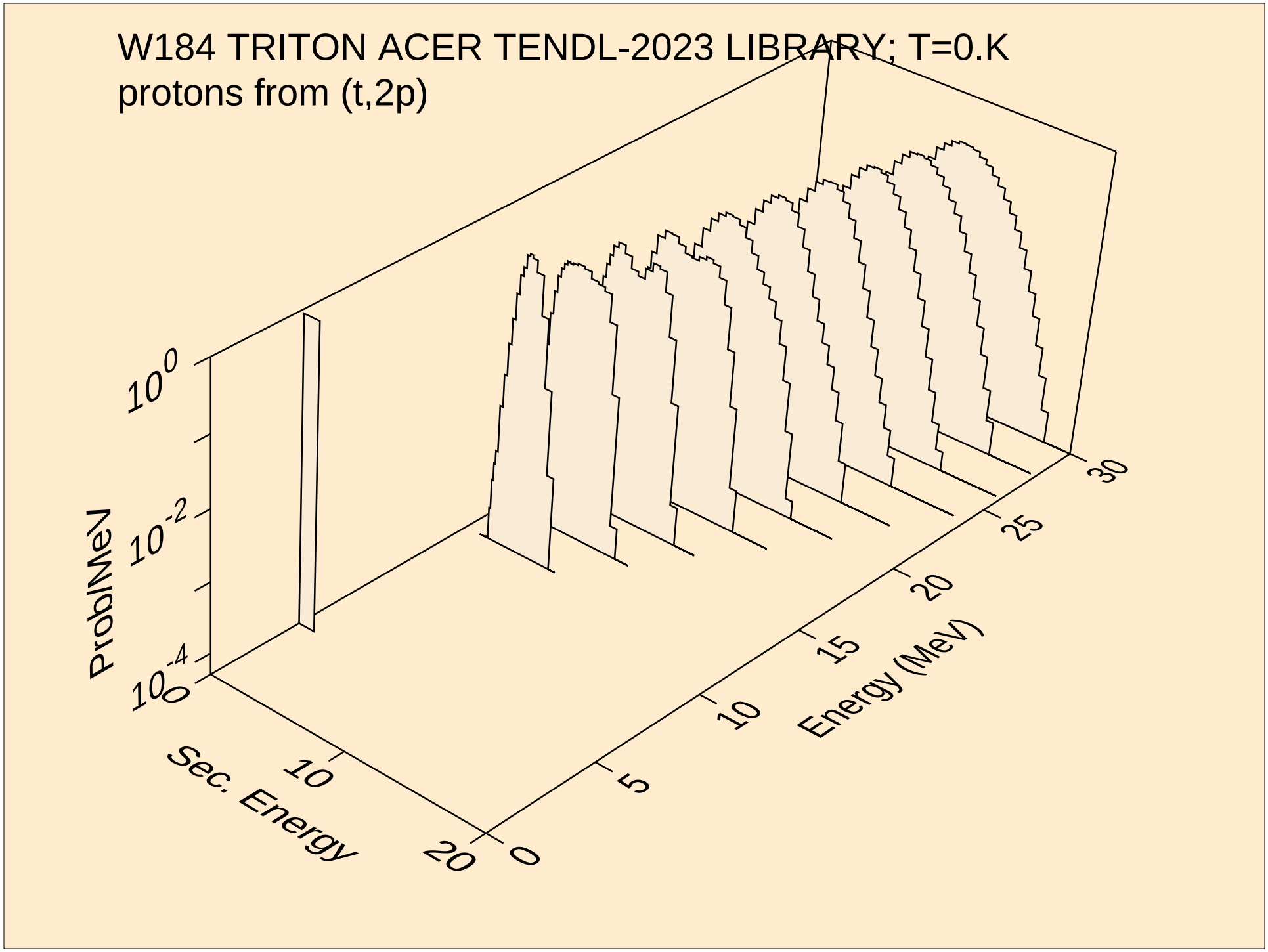

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,2np)
Prob/MeV
10^1
10^-1
10^-3
Sec. Energy
0
10
20
Energy (MeV)
5
10
15
20
25
30

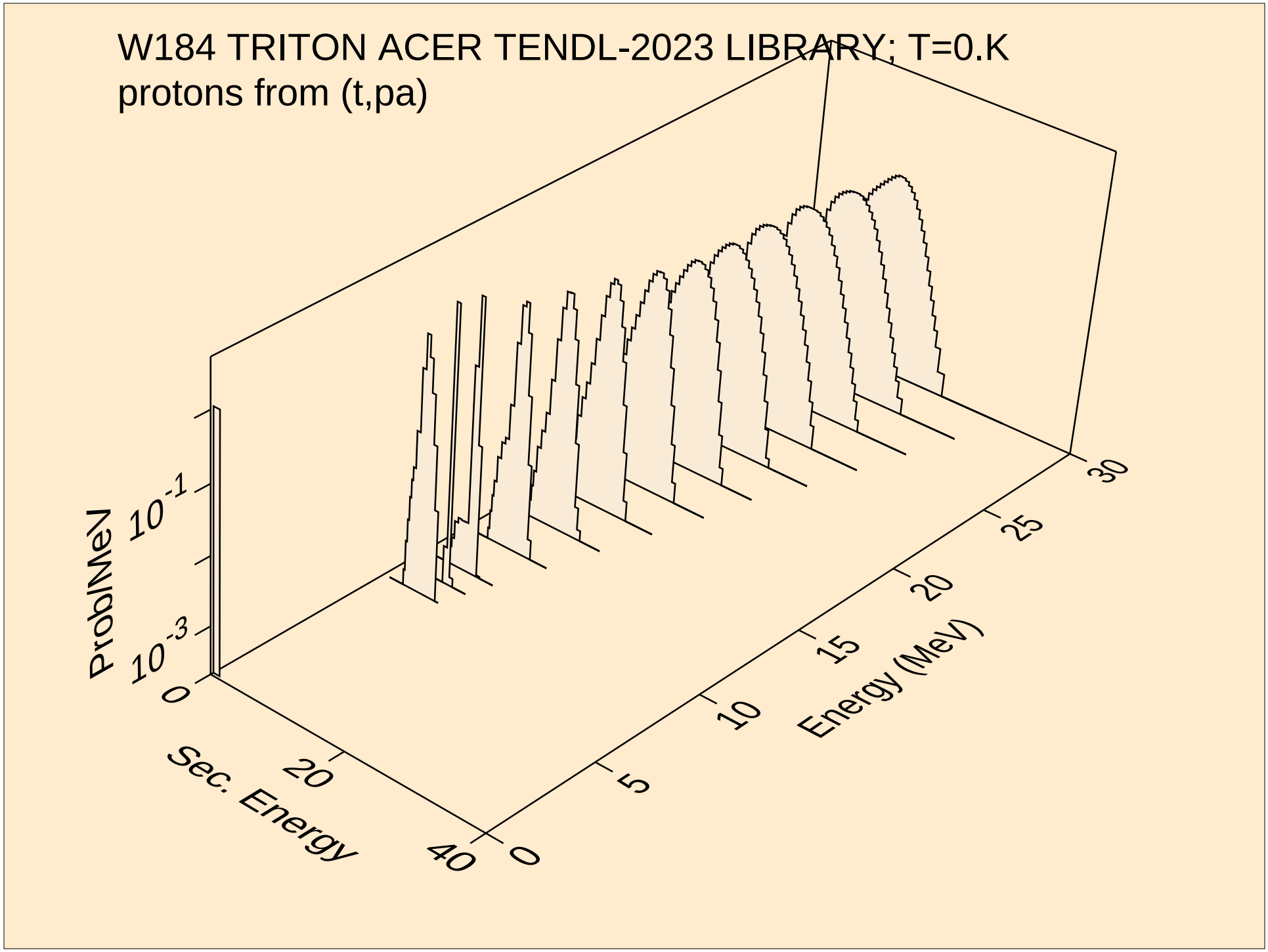

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,3np)
Prob/MeV
10^0
10^{-2}
0
10
20
Sec. Energy
16
18
20
22
24
26
28
30
Energy (MeV)

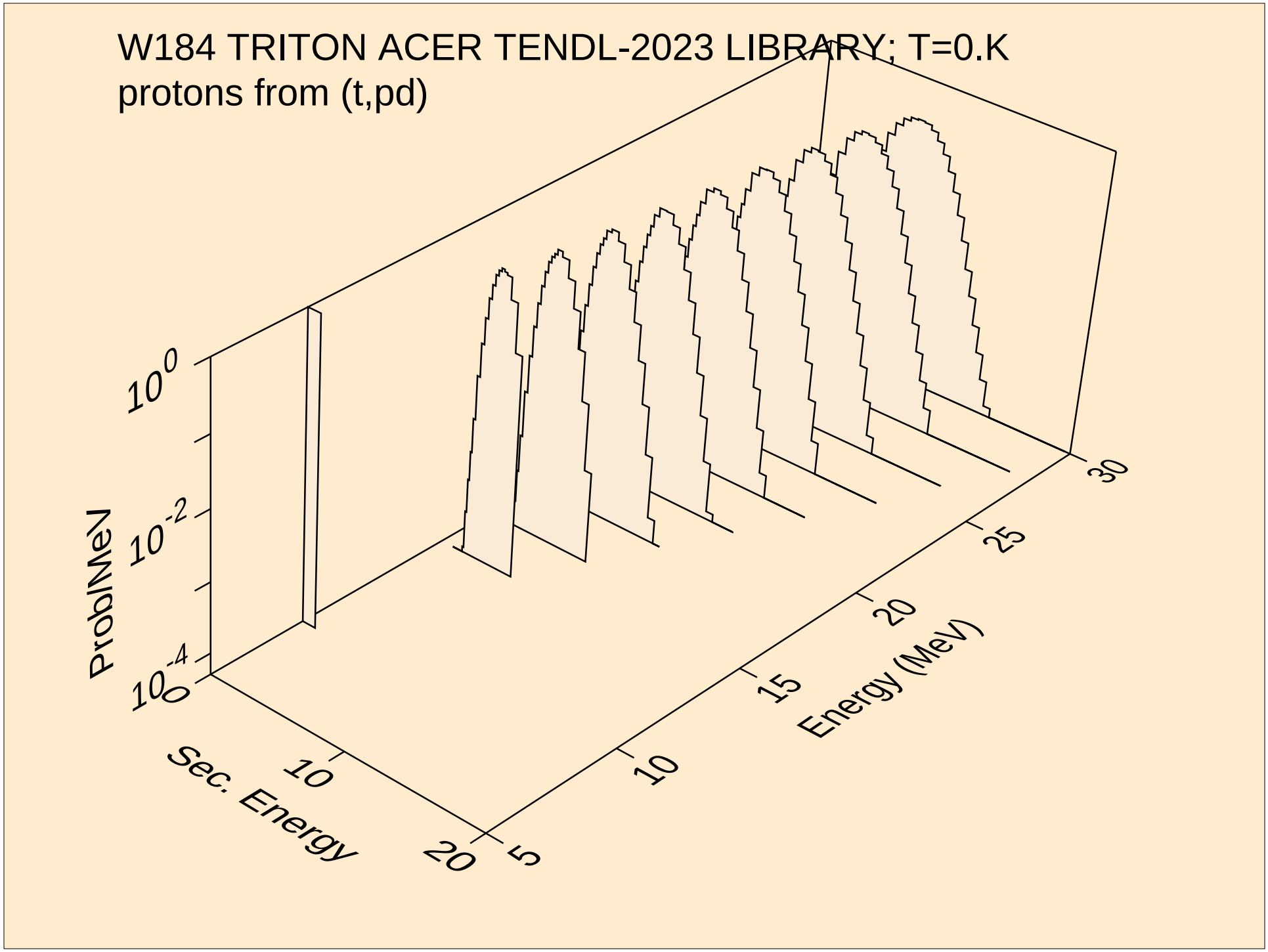

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,n2p)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
10
12
14
16
18
20
22
24
26
28
30

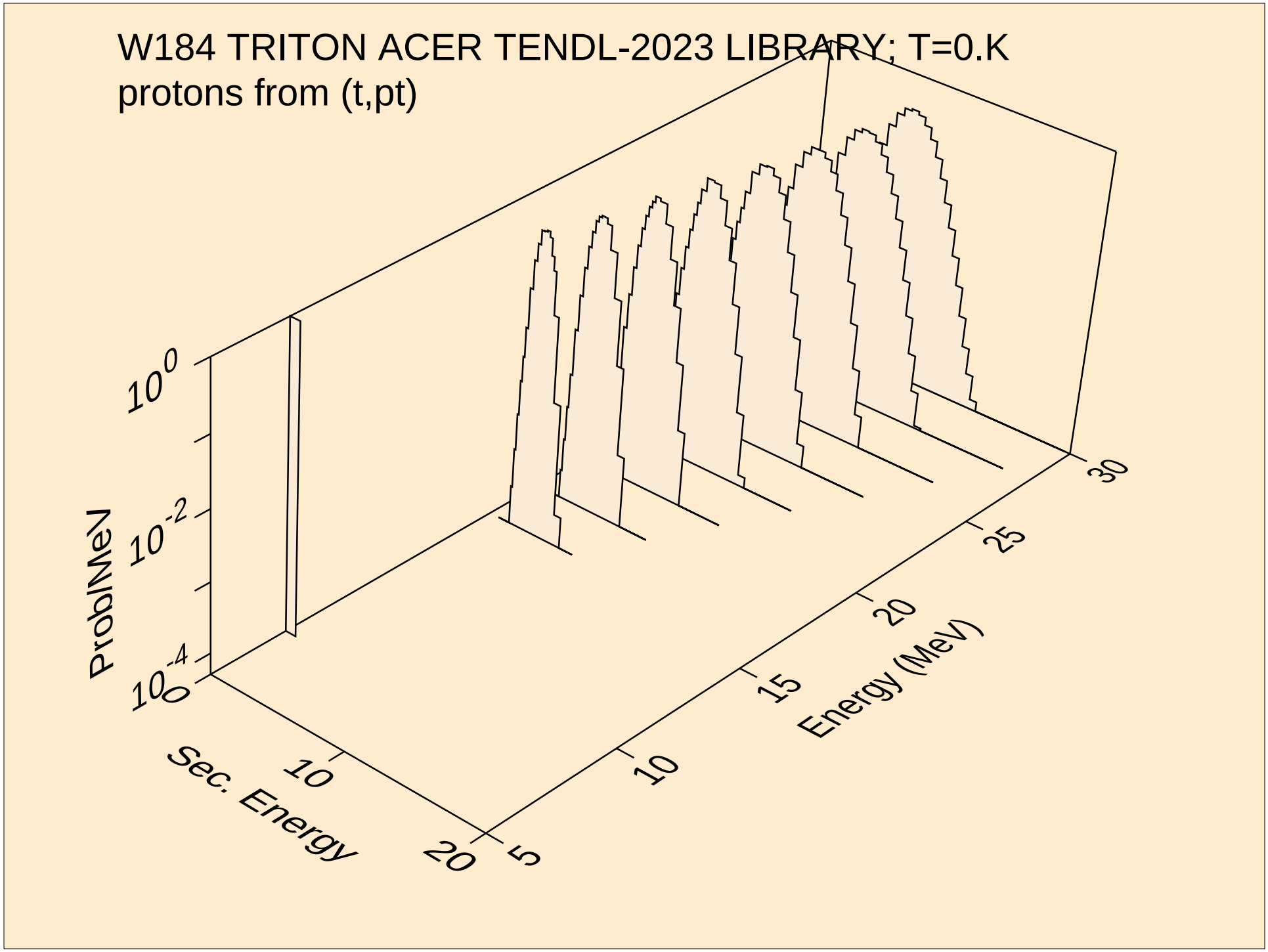

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,npa)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
0
5
10
15
20
25
30


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,p)
Prob/MeV
10^0
10^{-2}
0
20
40
Sec. Energy
0
5
10
15
20
25
30
Energy (MeV)

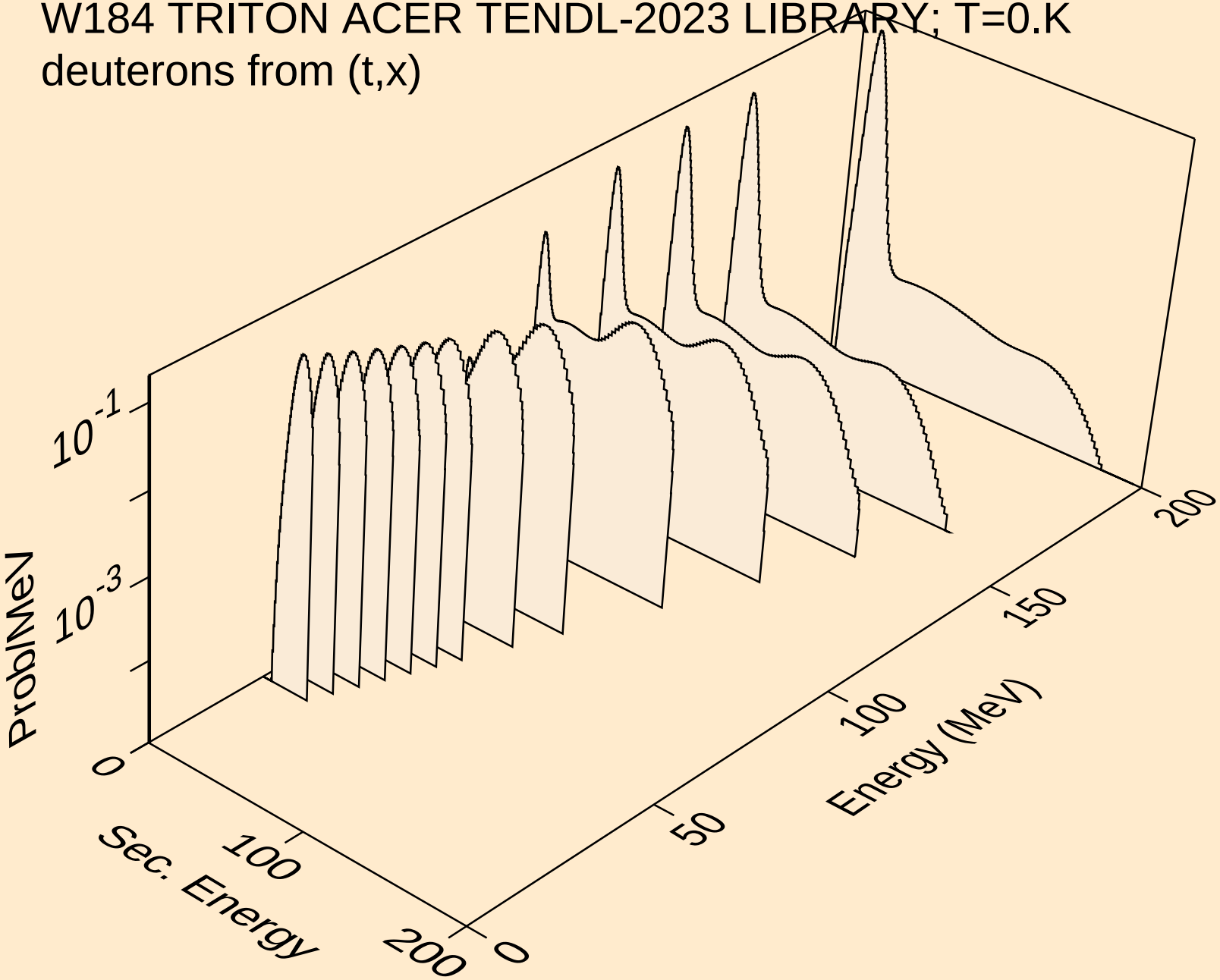

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,2p)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
0
5
10
15
20
25
30

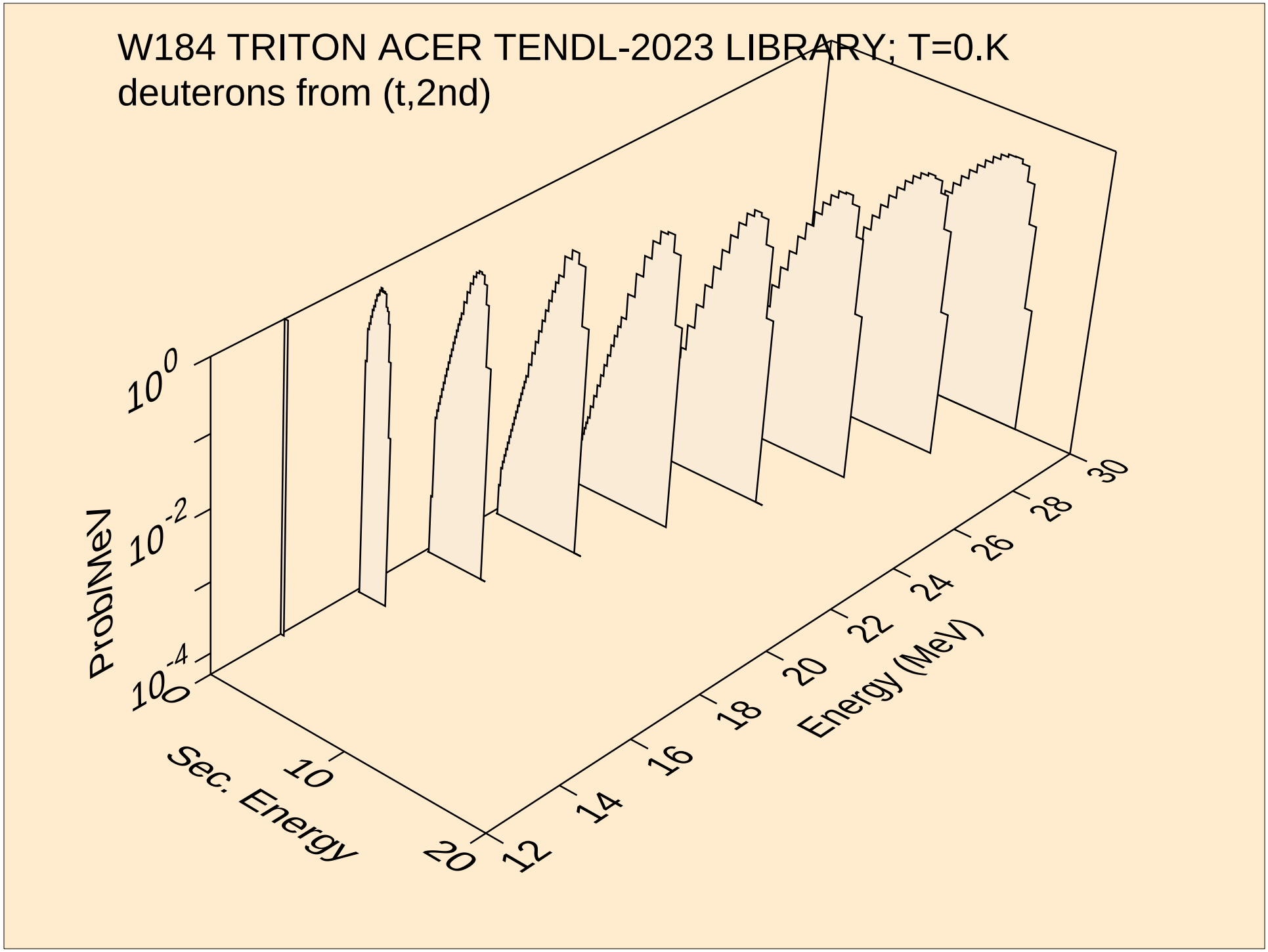

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,pa)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

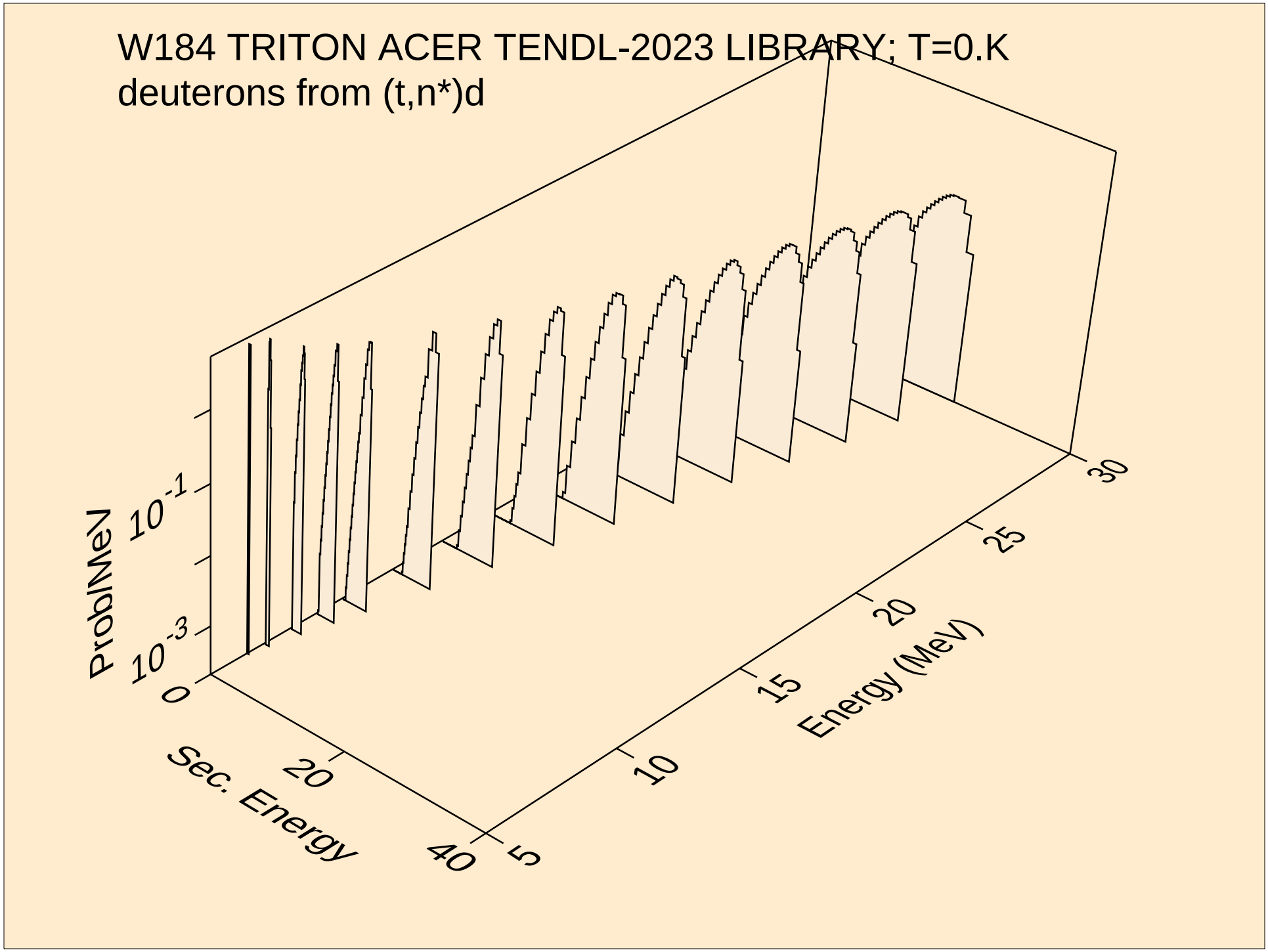

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,pd)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
5
10
15
20
25
30

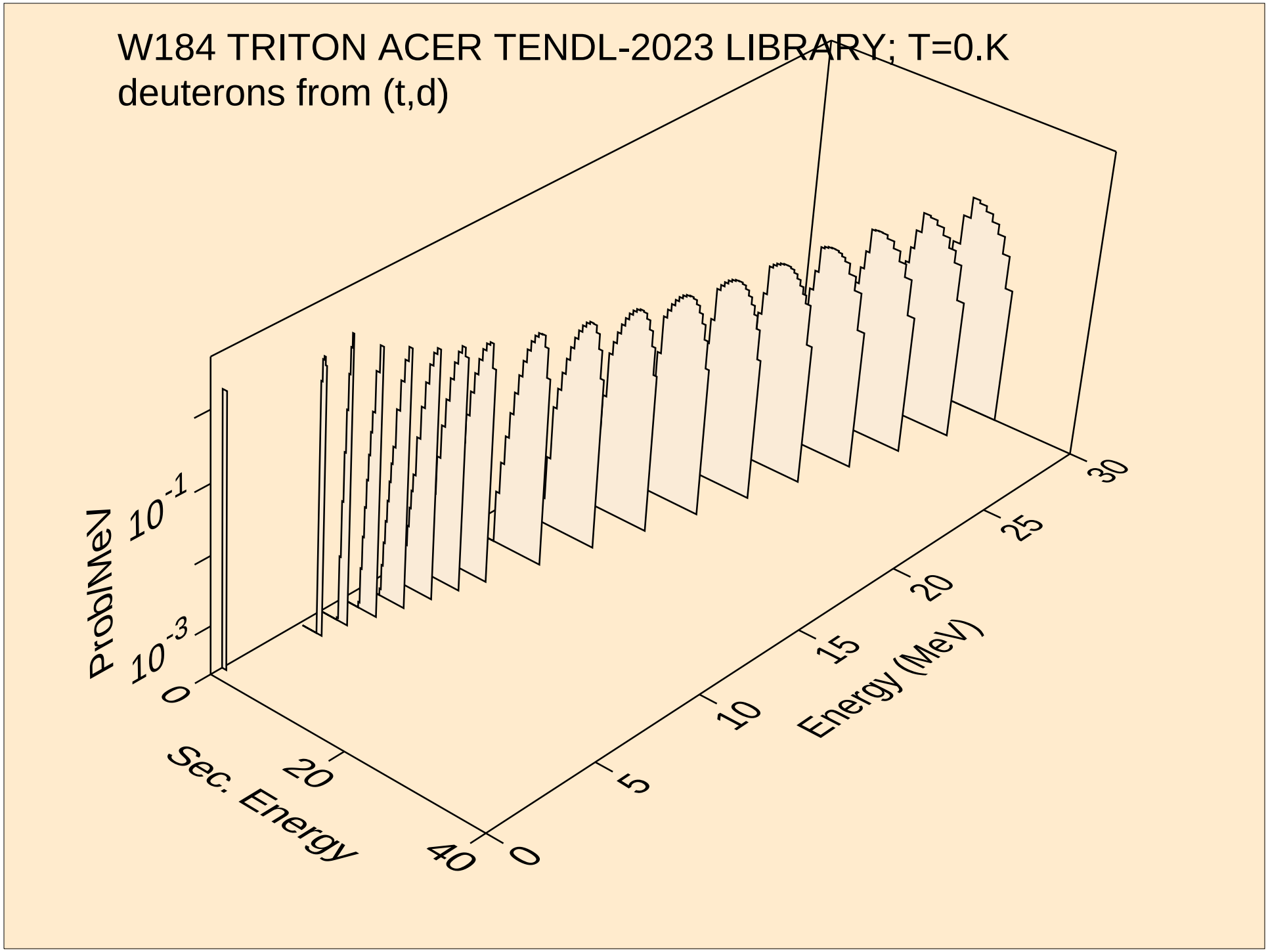

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
protons from (t,pt)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
5
10
15
20
25
30

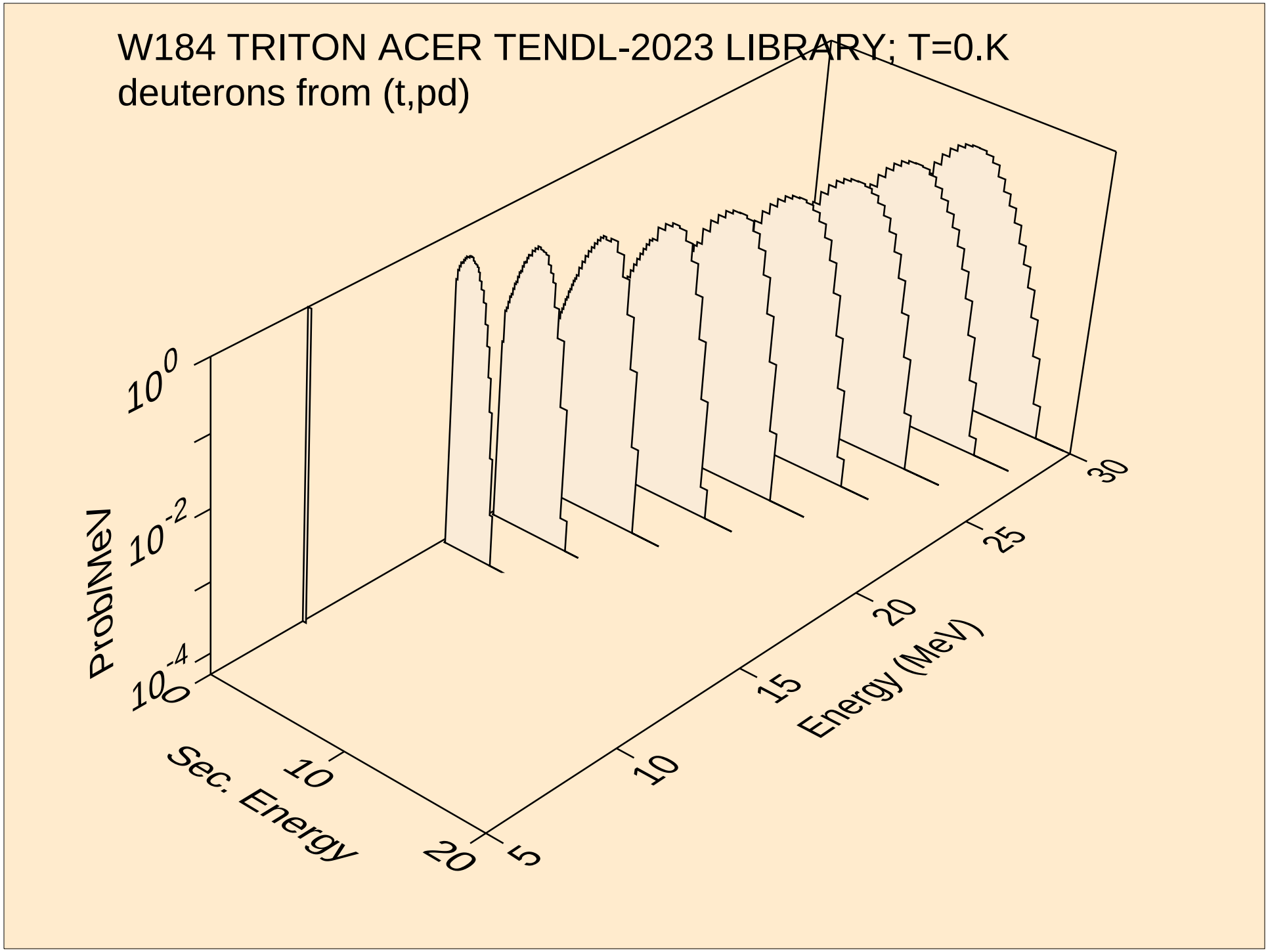
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,x)

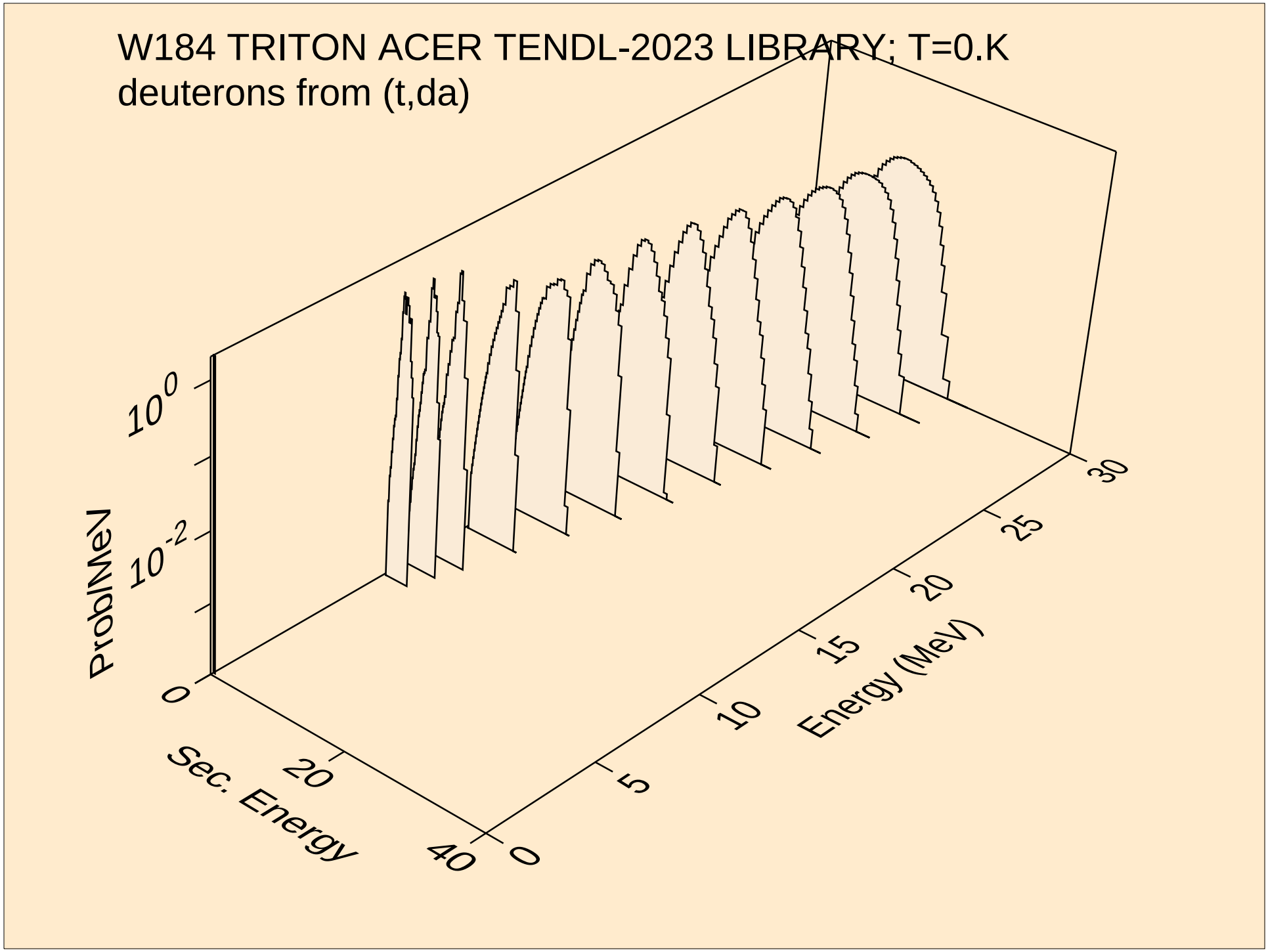



W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,2nd)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
12
14
16
18
20
22
24
26
28
30

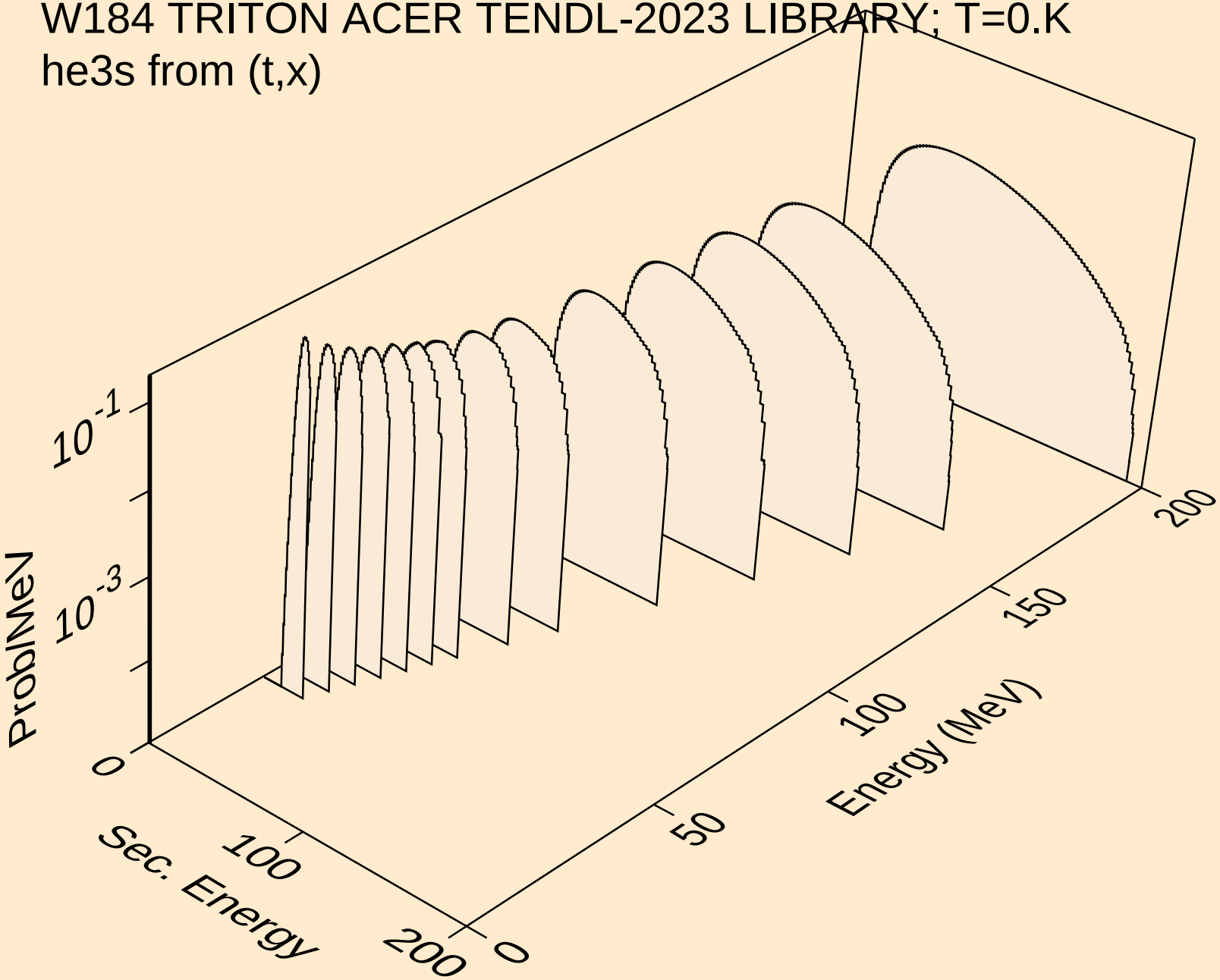

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,n*)d
Prob/MeV
10^-1
10^-3
0
Sec. Energy
20
40
5
10
15
20
25
30
Energy (MeV)

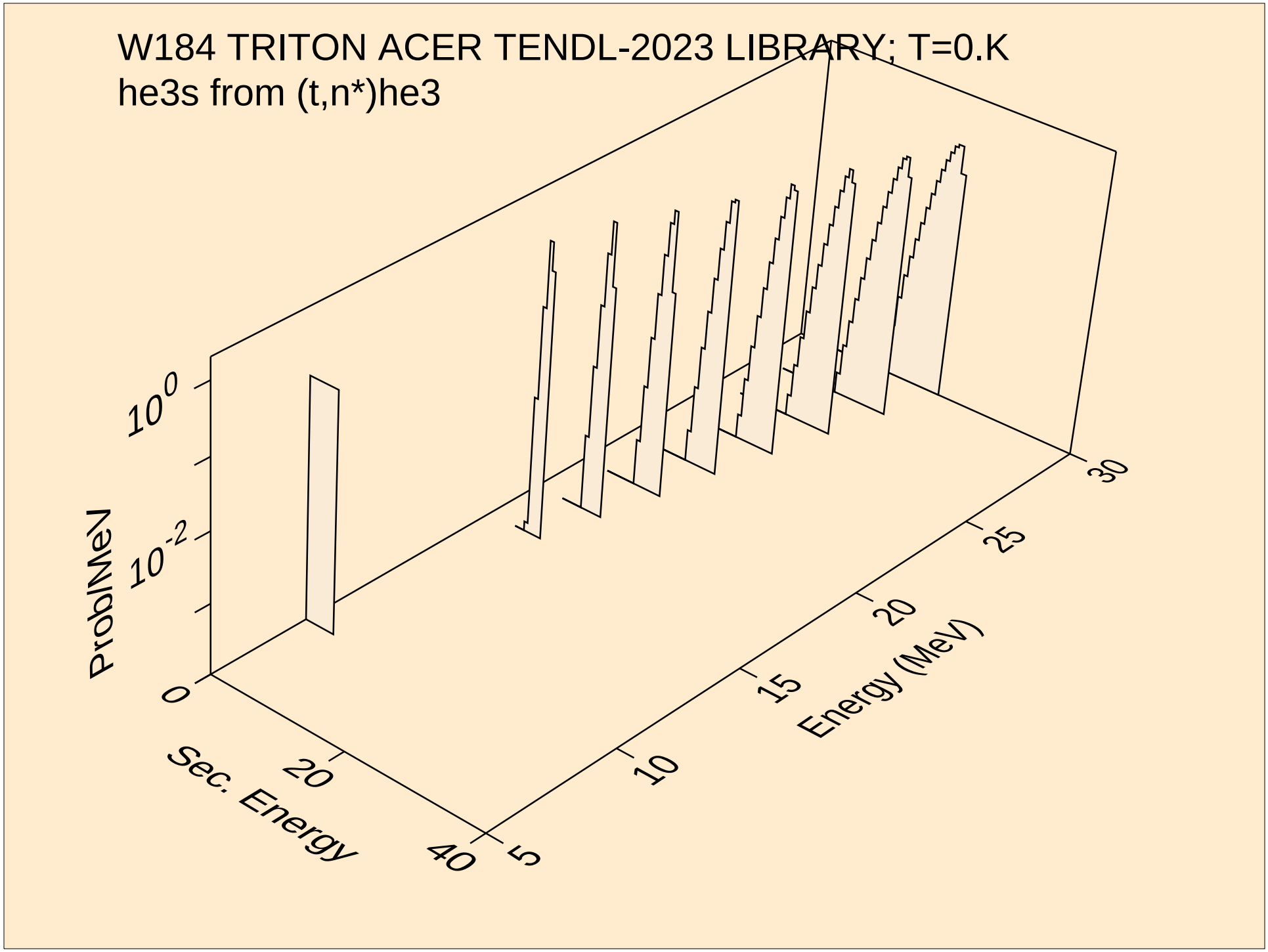

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,d)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

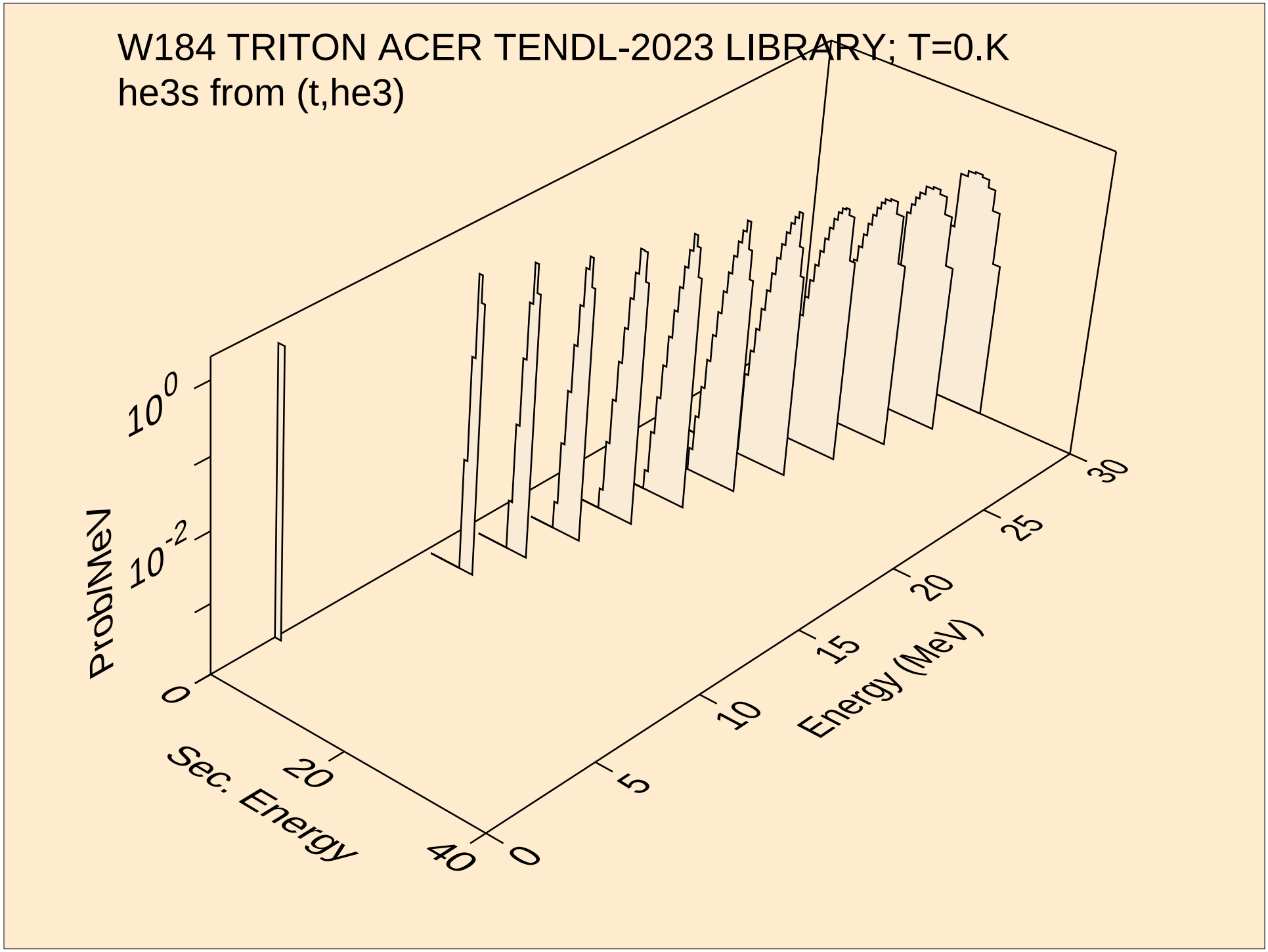

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,pd)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
10
20
Energy (MeV)
5
10
15
20
25
30

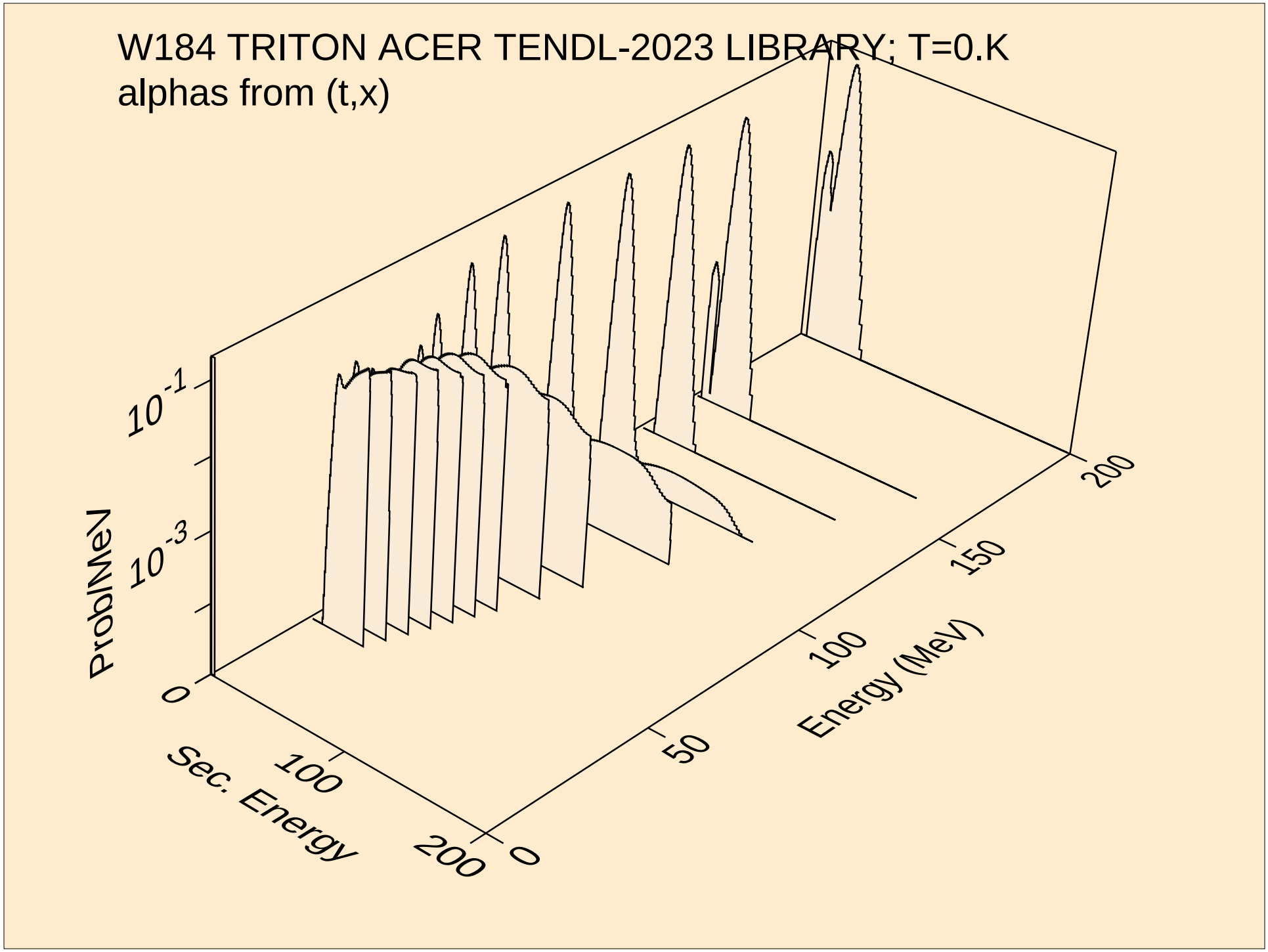

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (t,da)
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

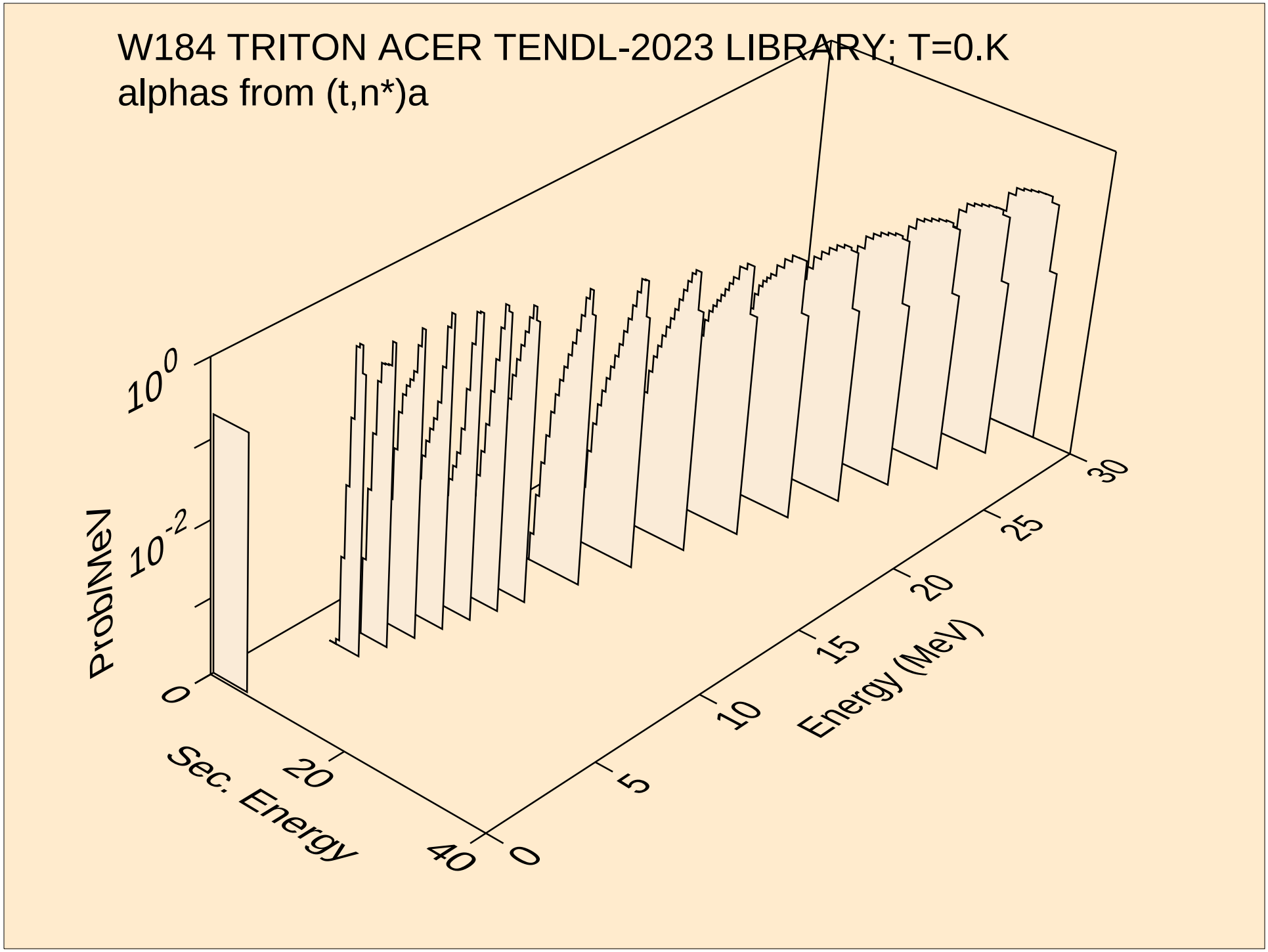
W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
he3s from (t,x)

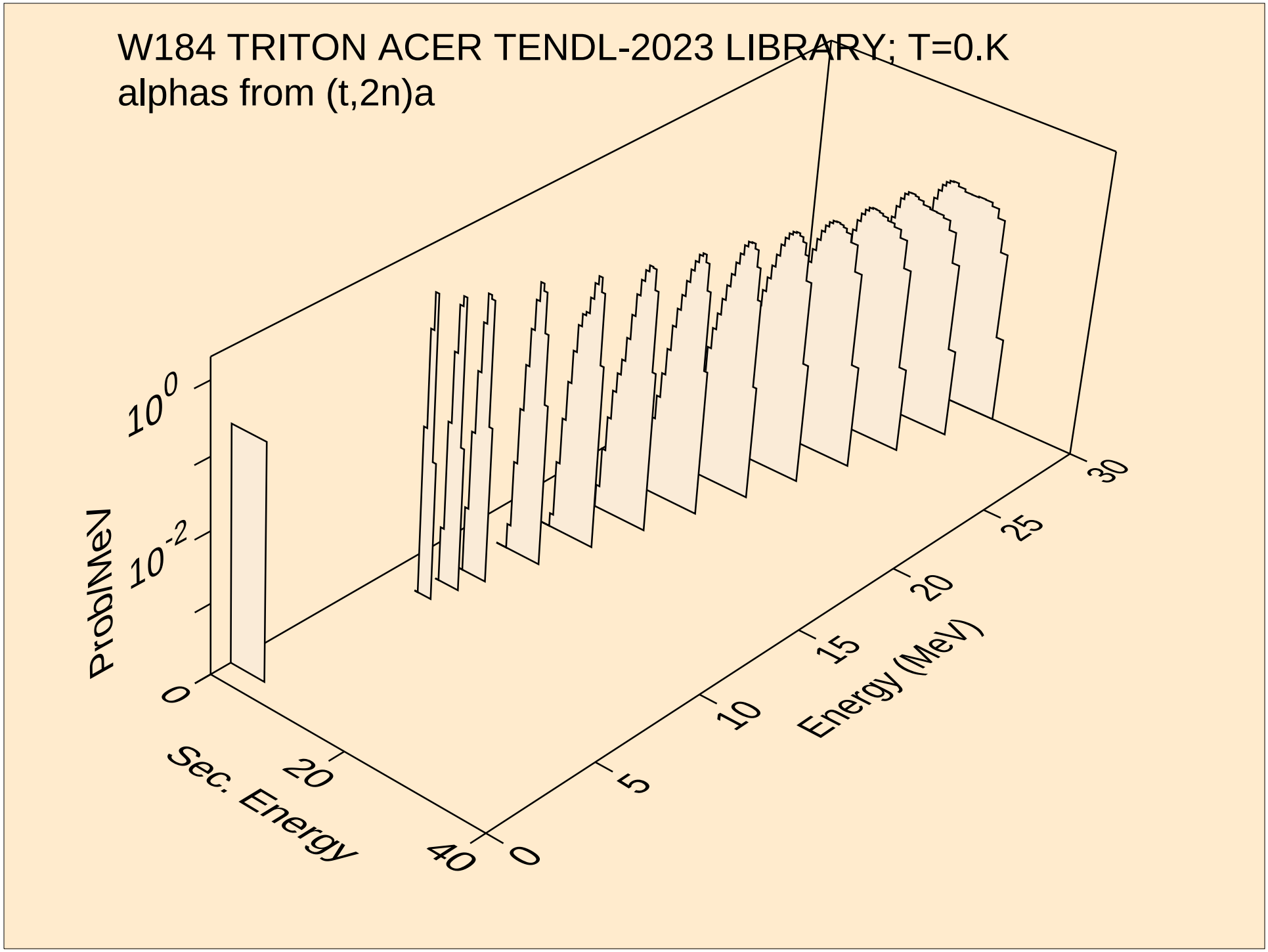


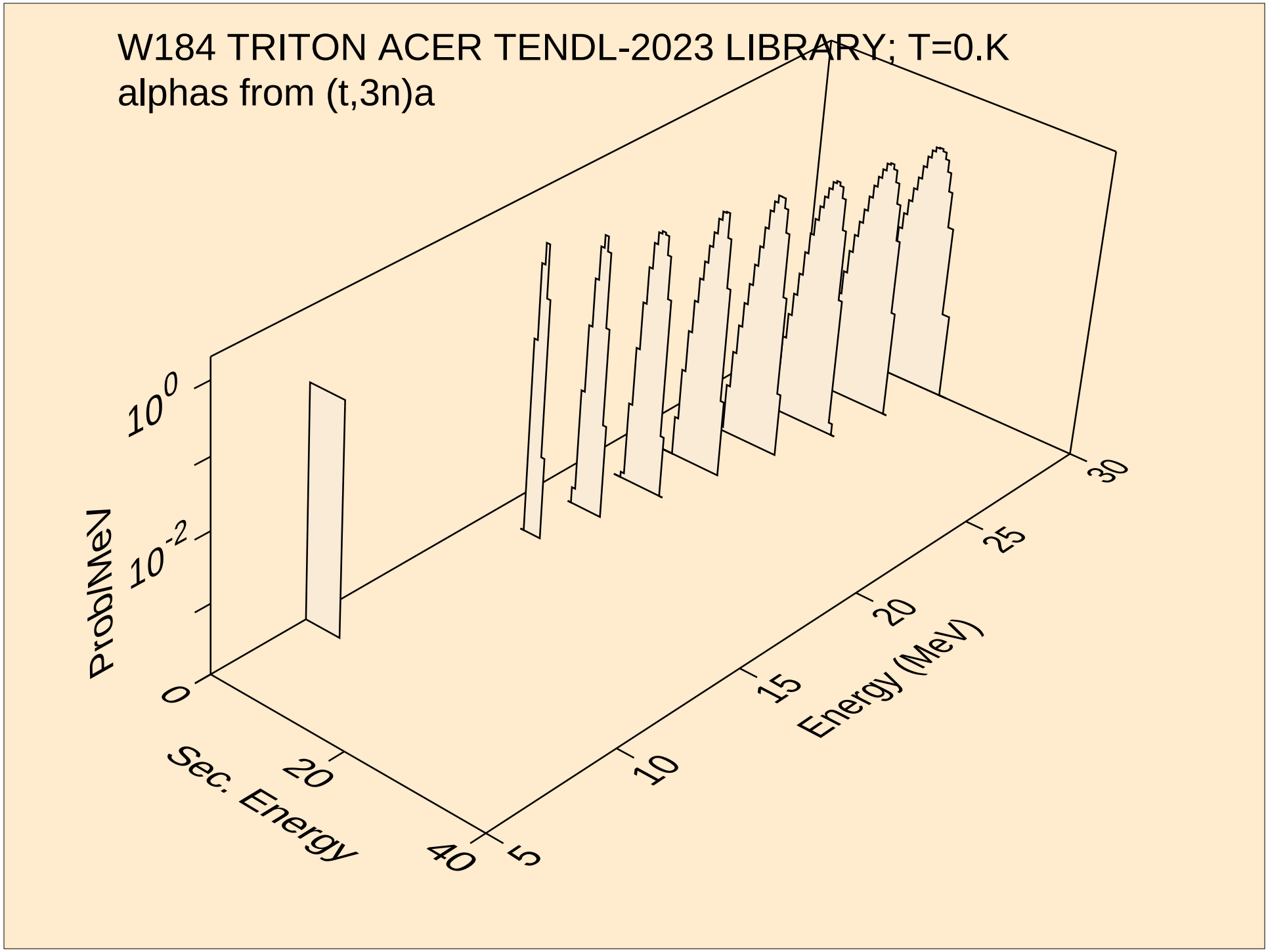

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
he3s from (t,n*)he3
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
Energy (MeV)
5
10
15
20
25
30

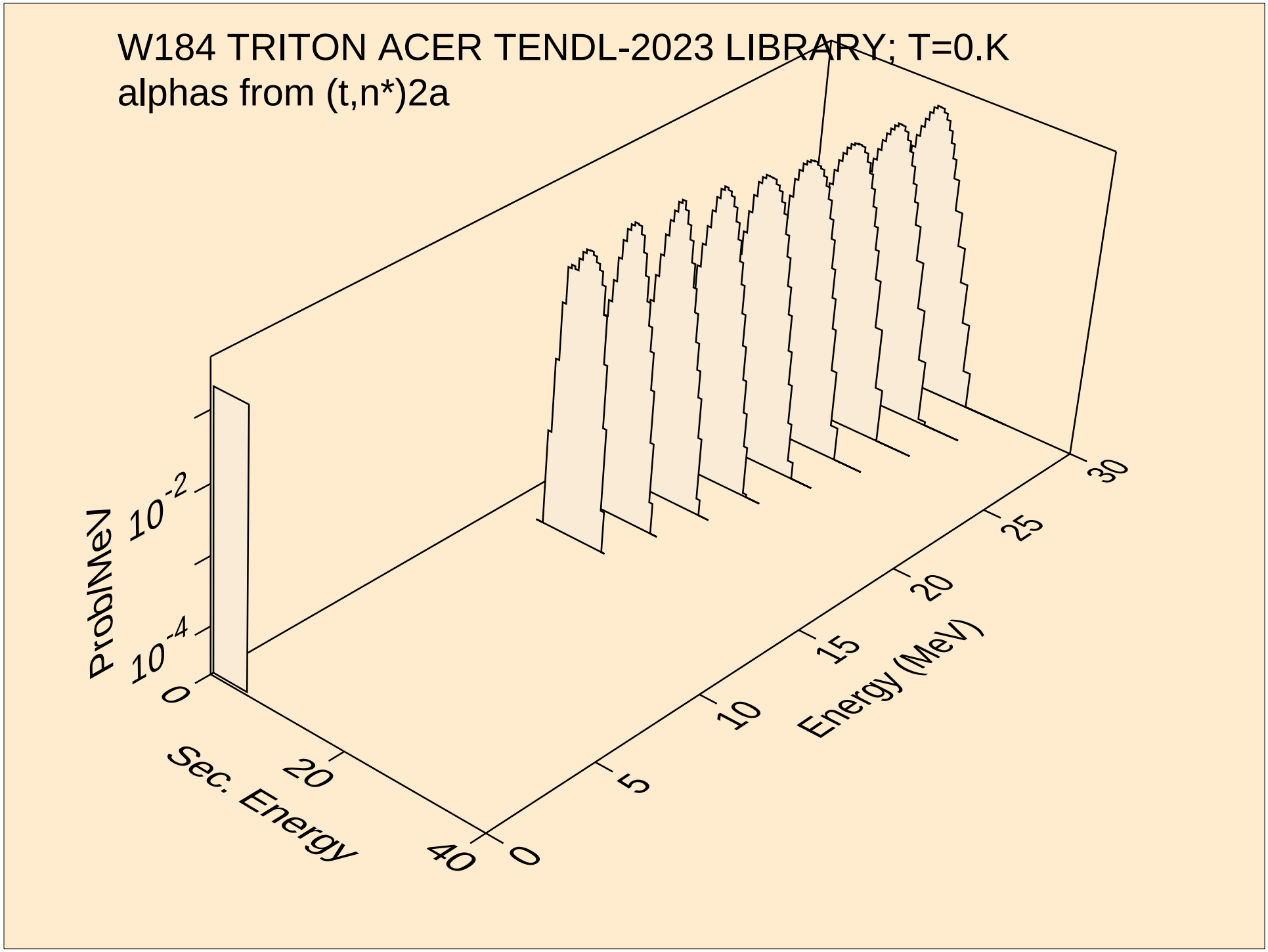

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
he3s from (t,he3)
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

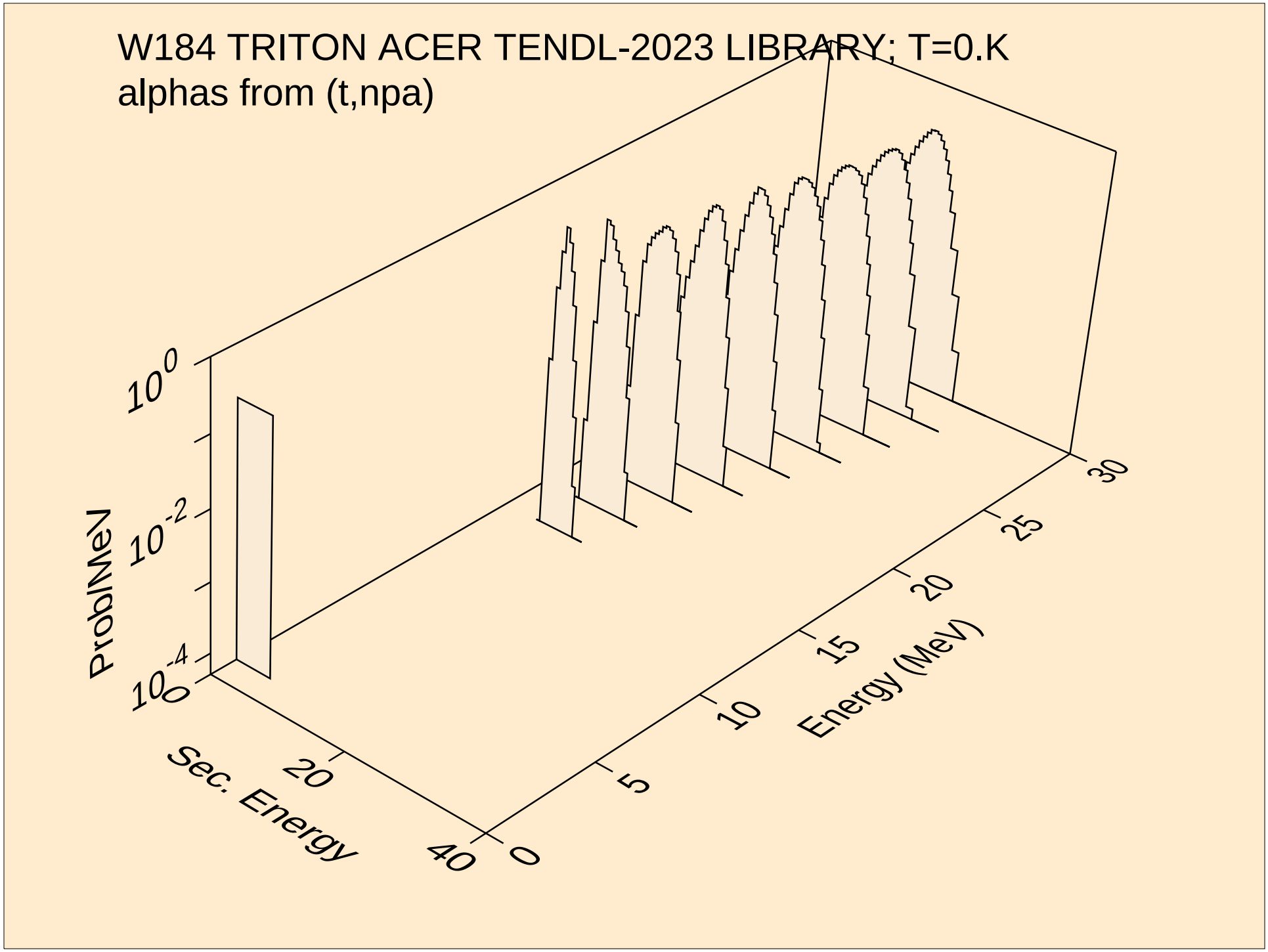

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,x)
Prob/MeV
10^-1
10^-3
0
Sec. Energy
100
200
0
50
100
150
200
Energy (MeV)

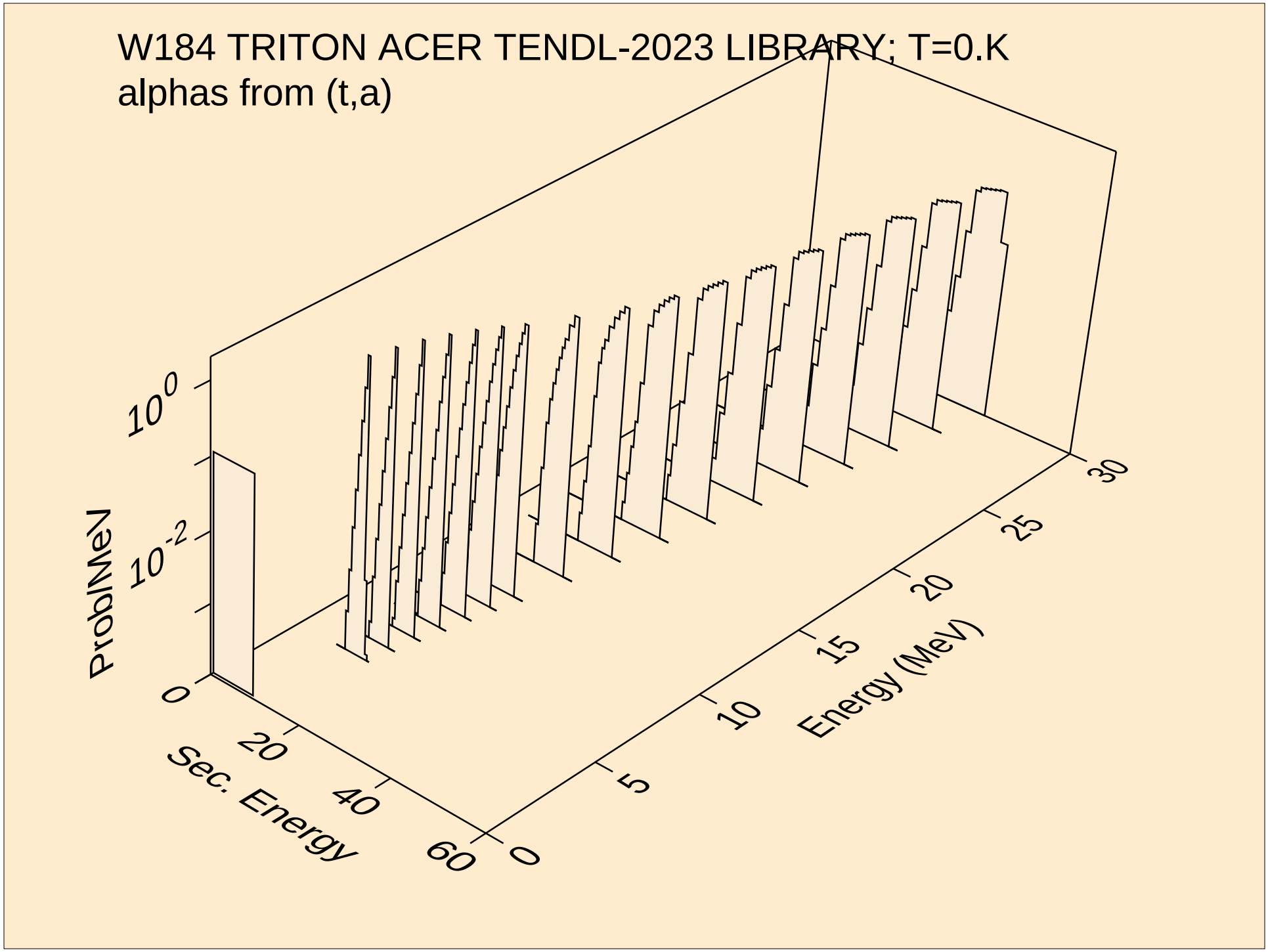

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,n*)a
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

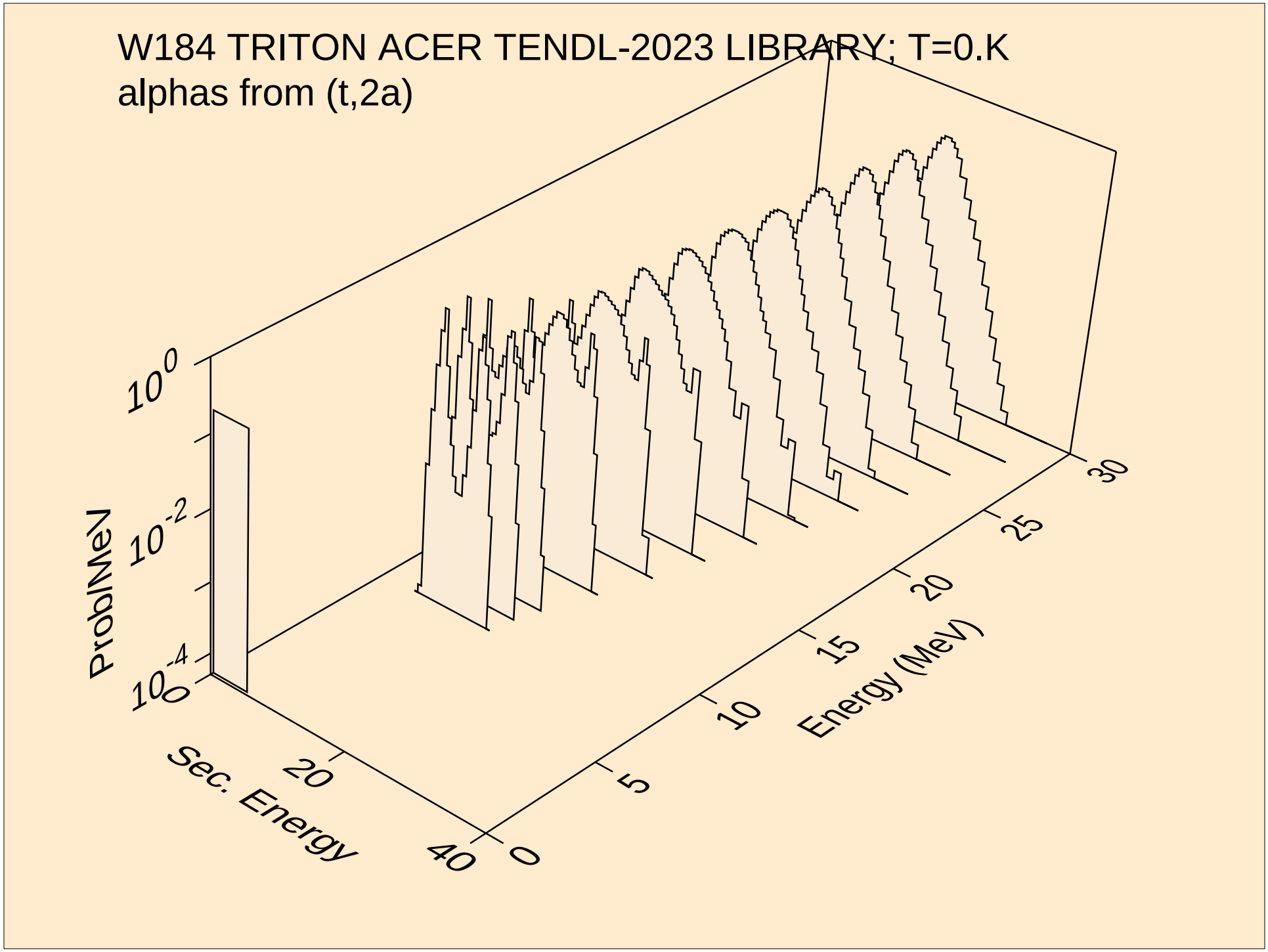

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,2n)a
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)

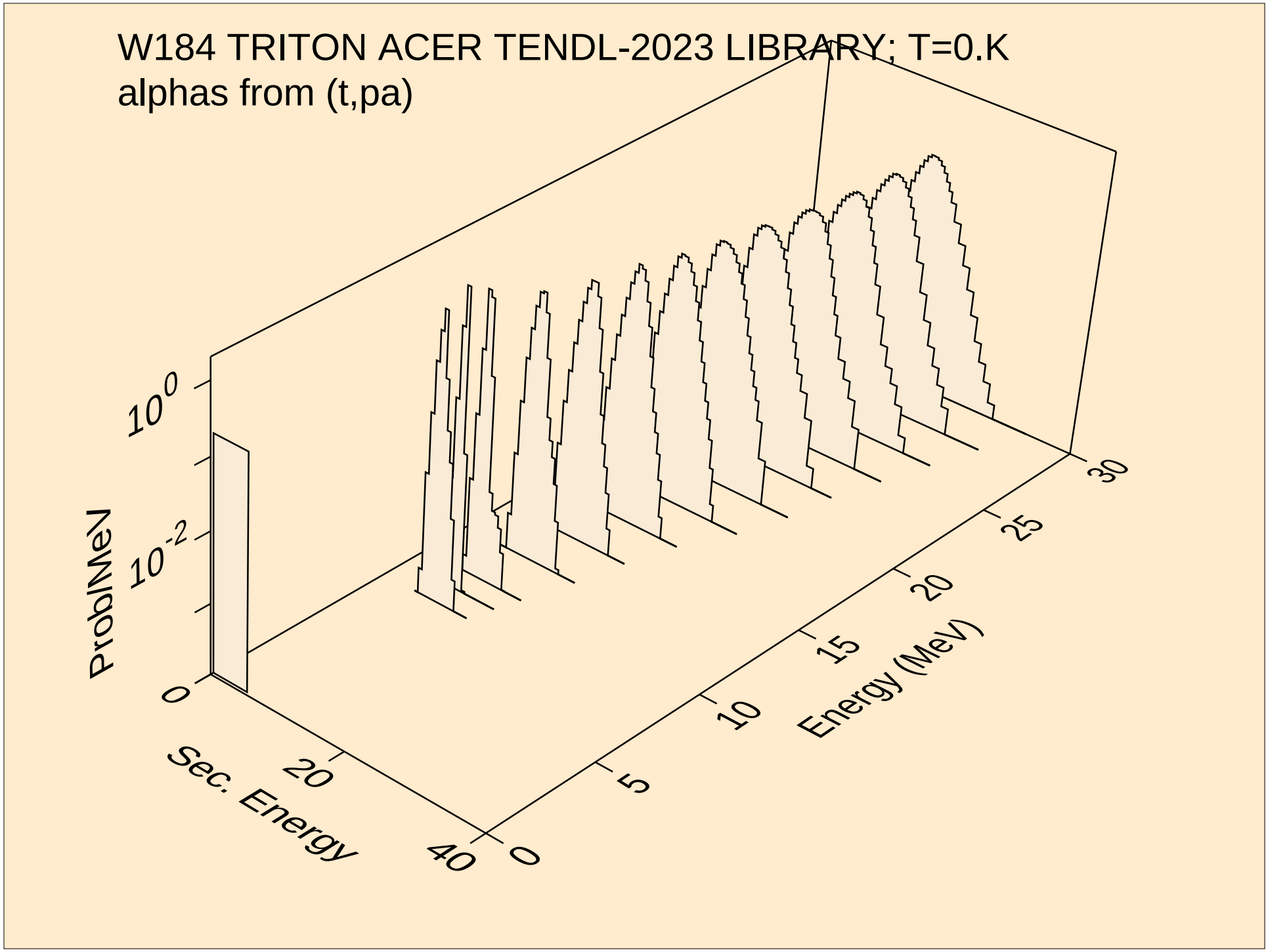

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,3n)a
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
5
10
15
20
25
30
Energy (MeV)

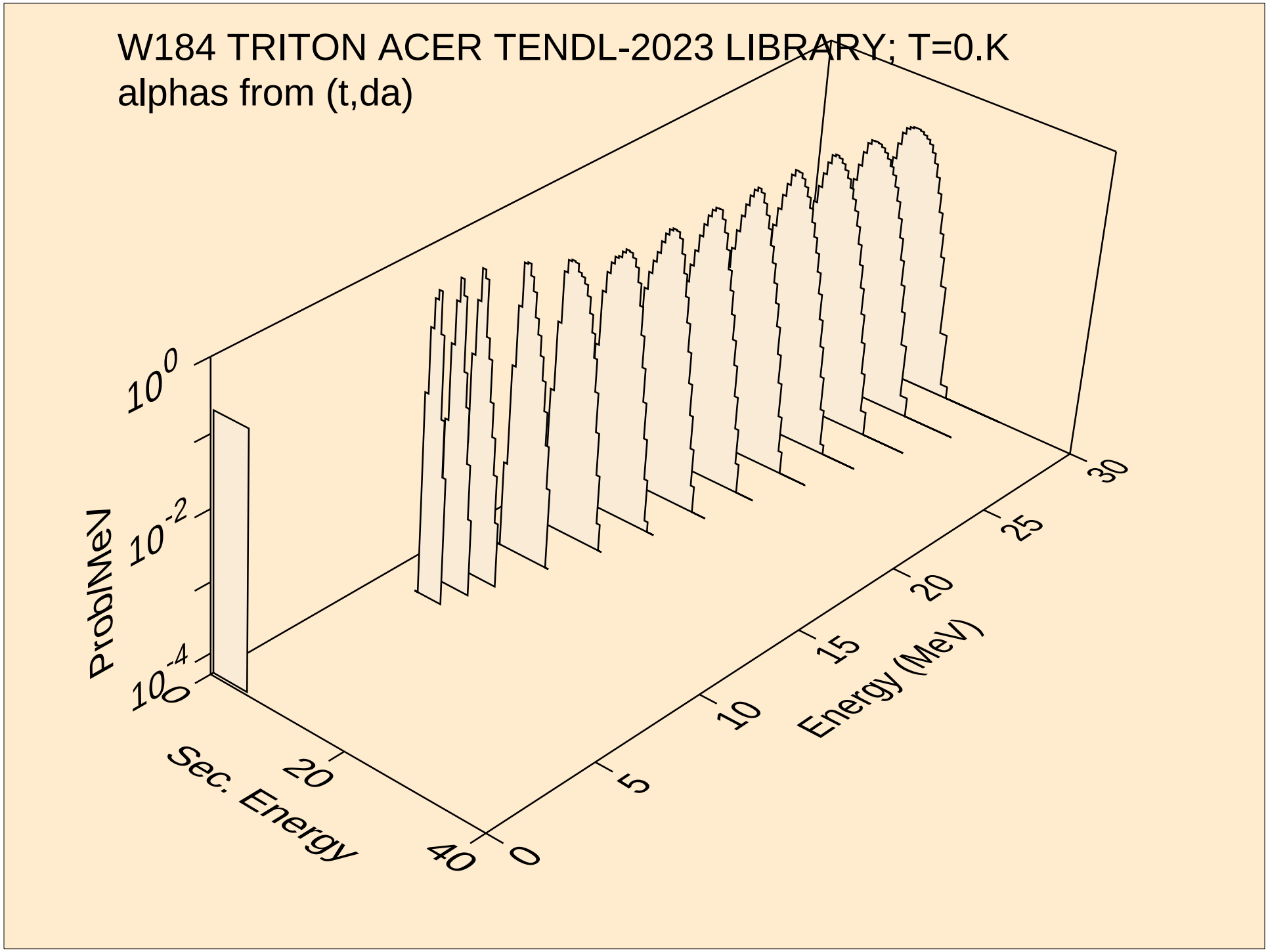

W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,n*)2a
Prob/MeV
10-2
10-4
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,npa)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
20
40
Energy (MeV)
0
5
10
15
20
25
30


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,a)
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
60
0
5
10
15
20
25
30
Energy (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,2a)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
20
40
Energy (MeV)
0
5
10
15
20
25
30


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,pa)
Prob/MeV
10^0
10^{-2}
0
Sec. Energy
20
40
0
5
10
15
20
25
30
Energy (MeV)


W184 TRITON ACER TENDL-2023 LIBRARY; T=0.K
alphas from (t,da)
Prob/MeV
10^{0}
10^{-2}
10^{-4}
Sec. Energy
0
20
40
Energy (MeV)
0
5
10
15
20
25
30