CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Principal cross sections

- total
- absorption
- elastic
- gamma production

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Heating

heating

Heating (MeV/reaction)

Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Principal cross sections

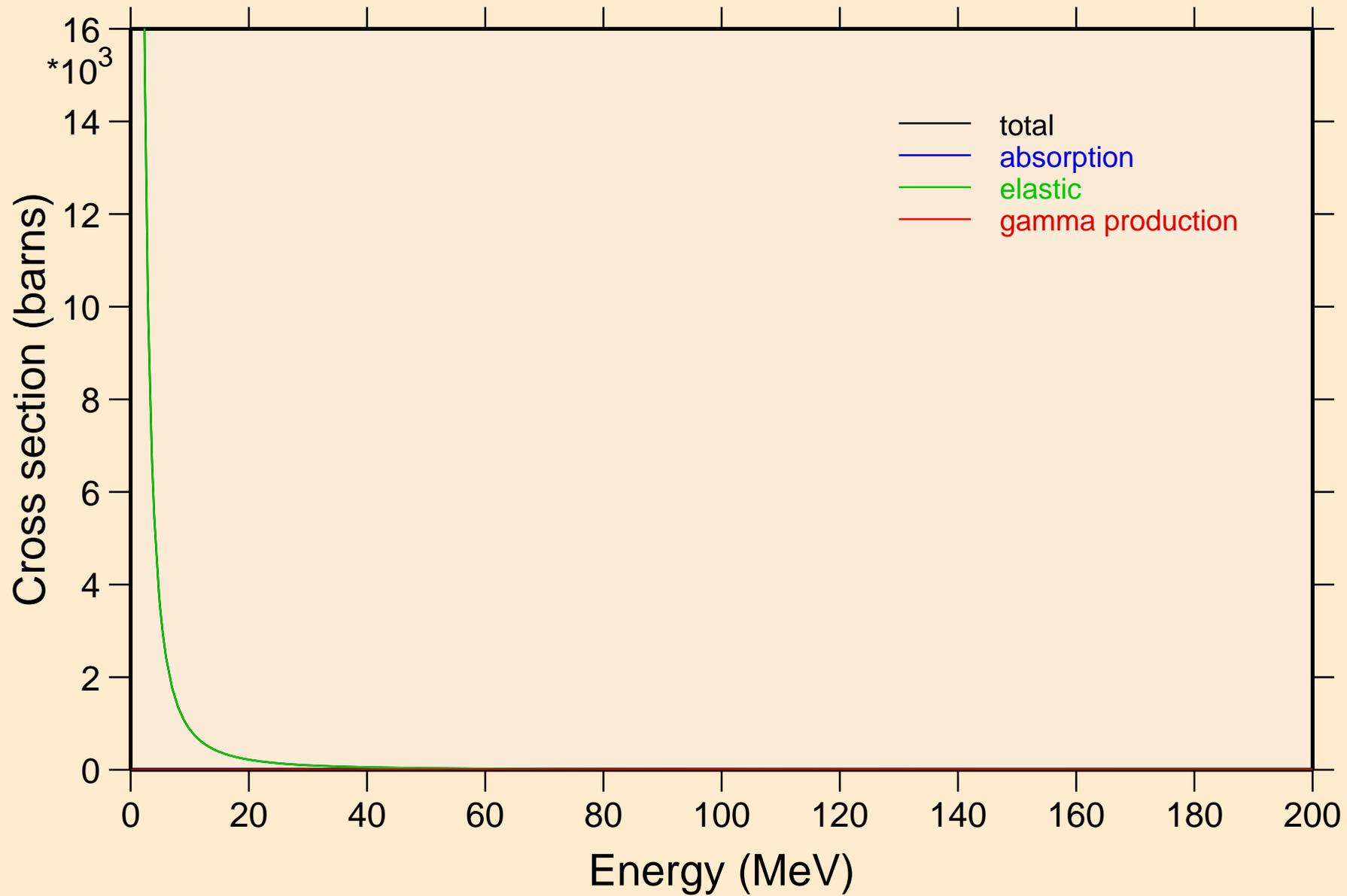- total
- absorption
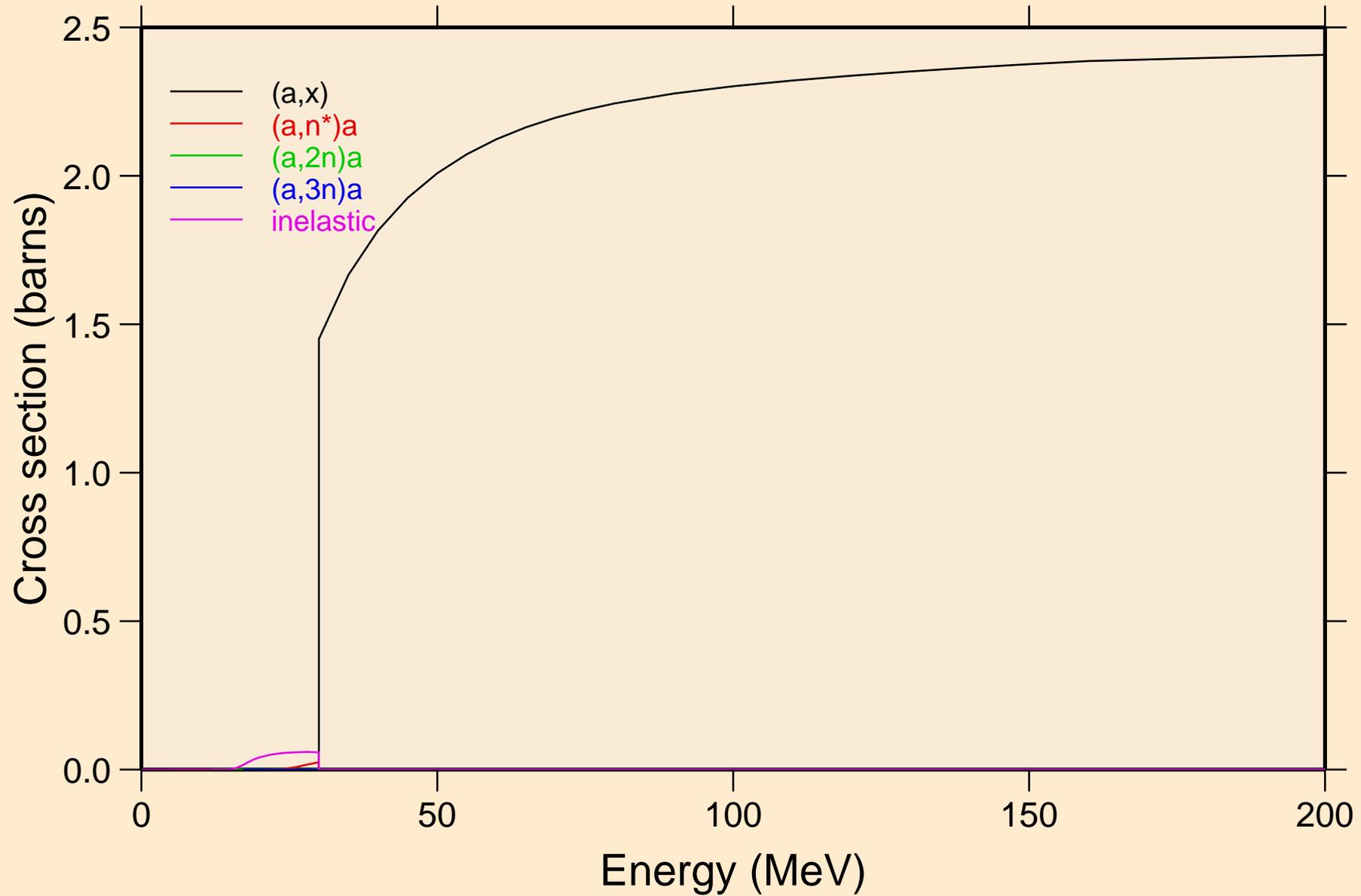- elastic
- gamma production

Cross section (barns)

Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Heating

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Threshold reactions

Legend:
- (a,x)
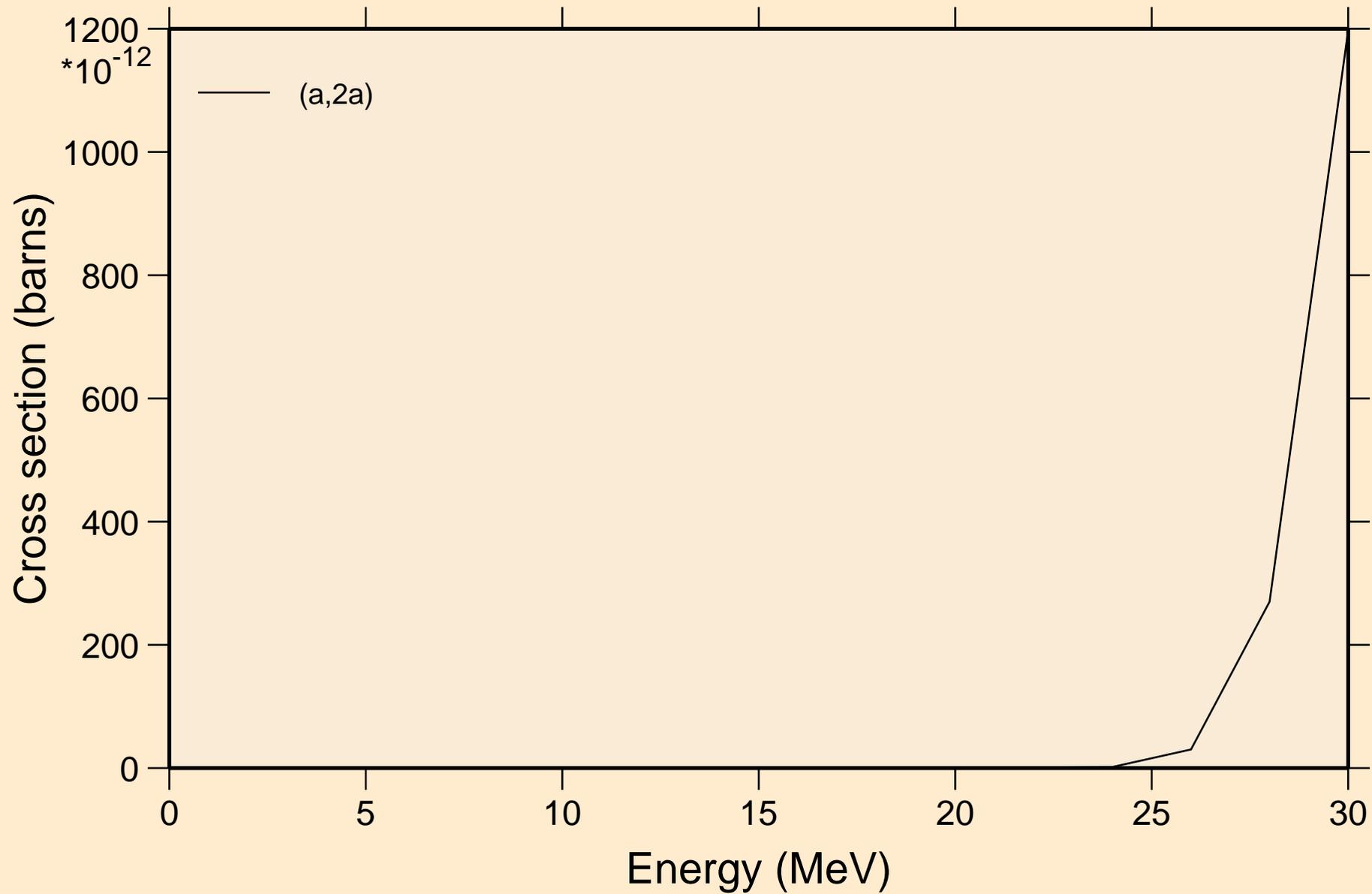- (a,n*)a
- (a,2n)a
- (a,3n)a
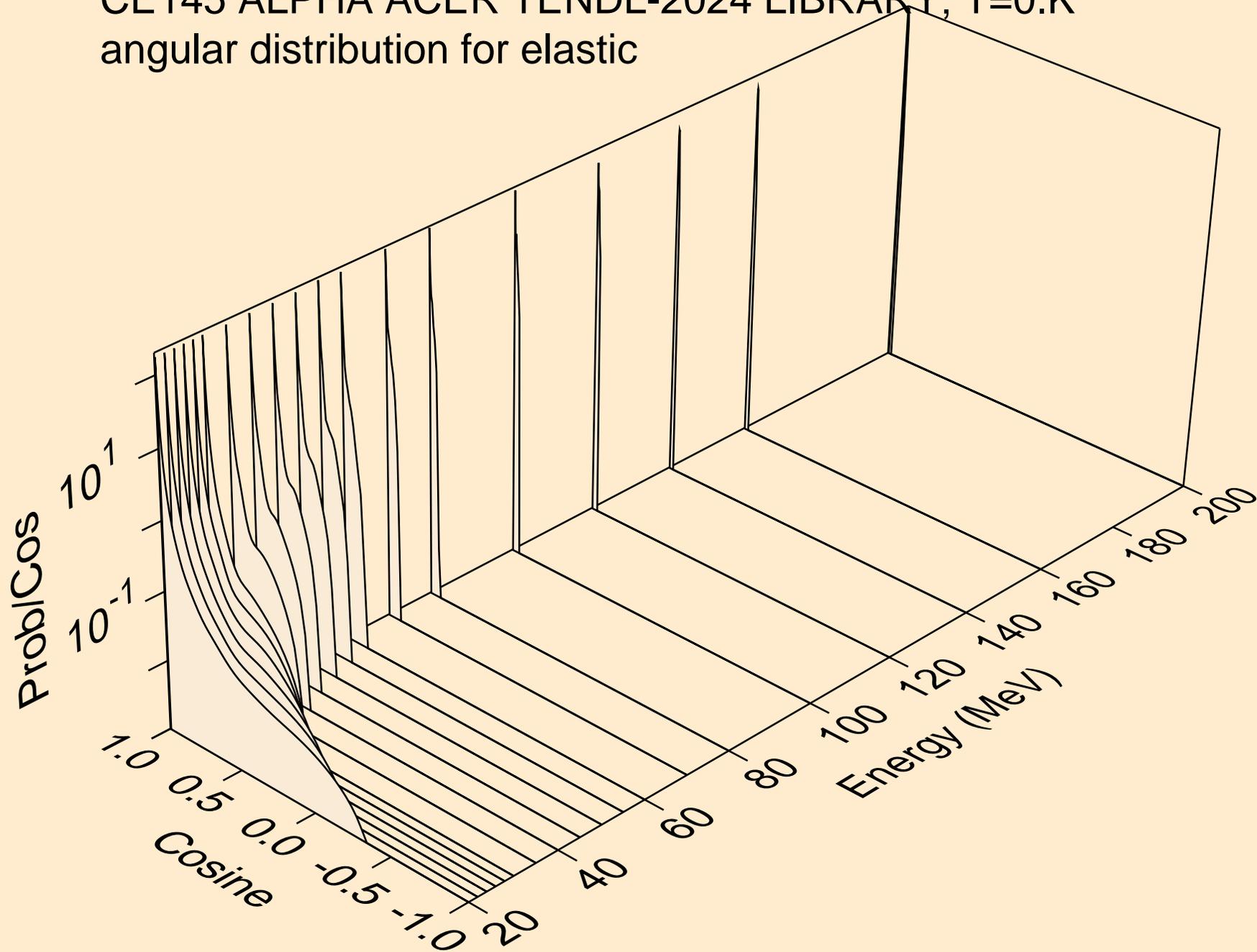- inelastic

Cross section (barns) vs Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
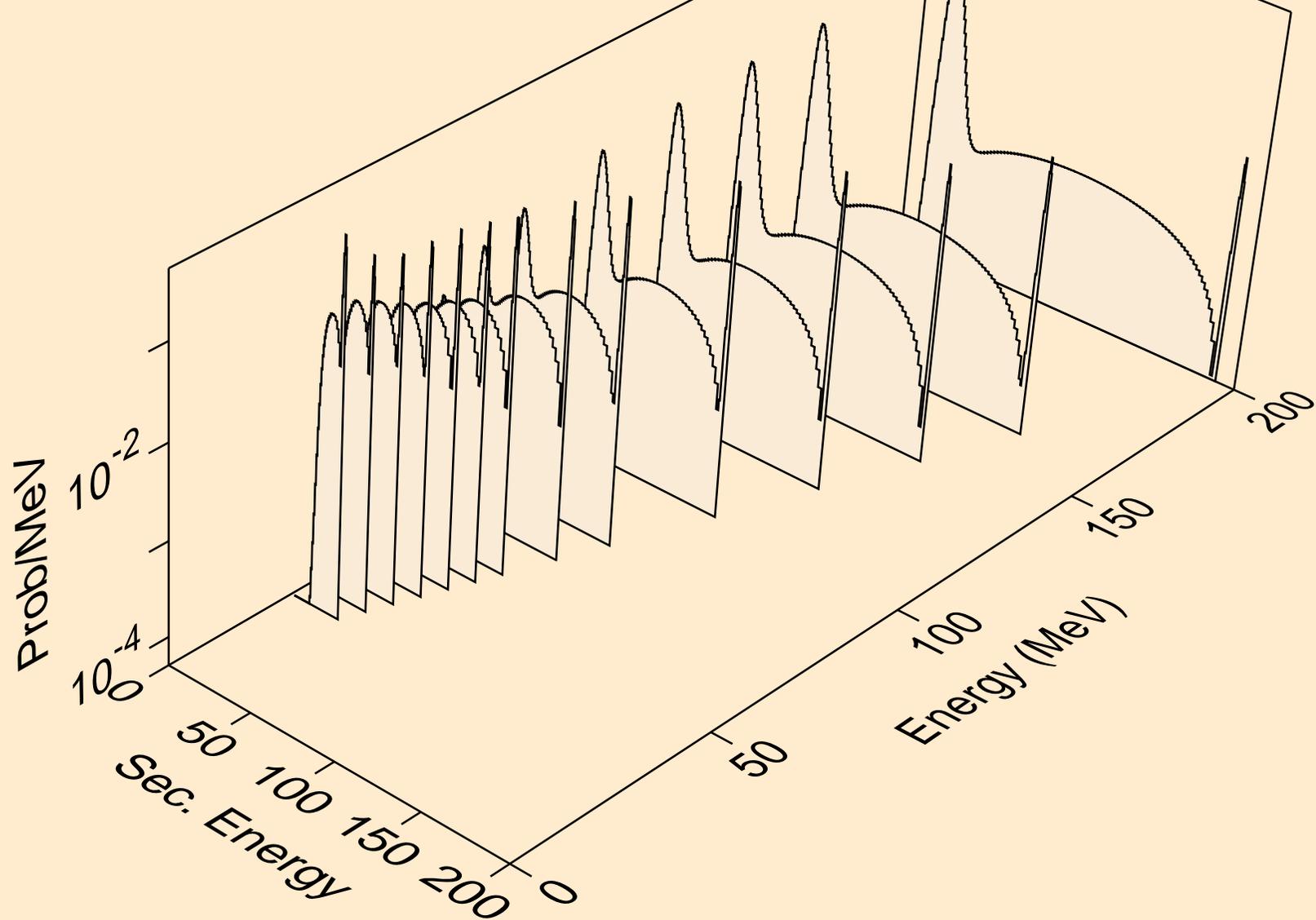Threshold reactions

(a,2a)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
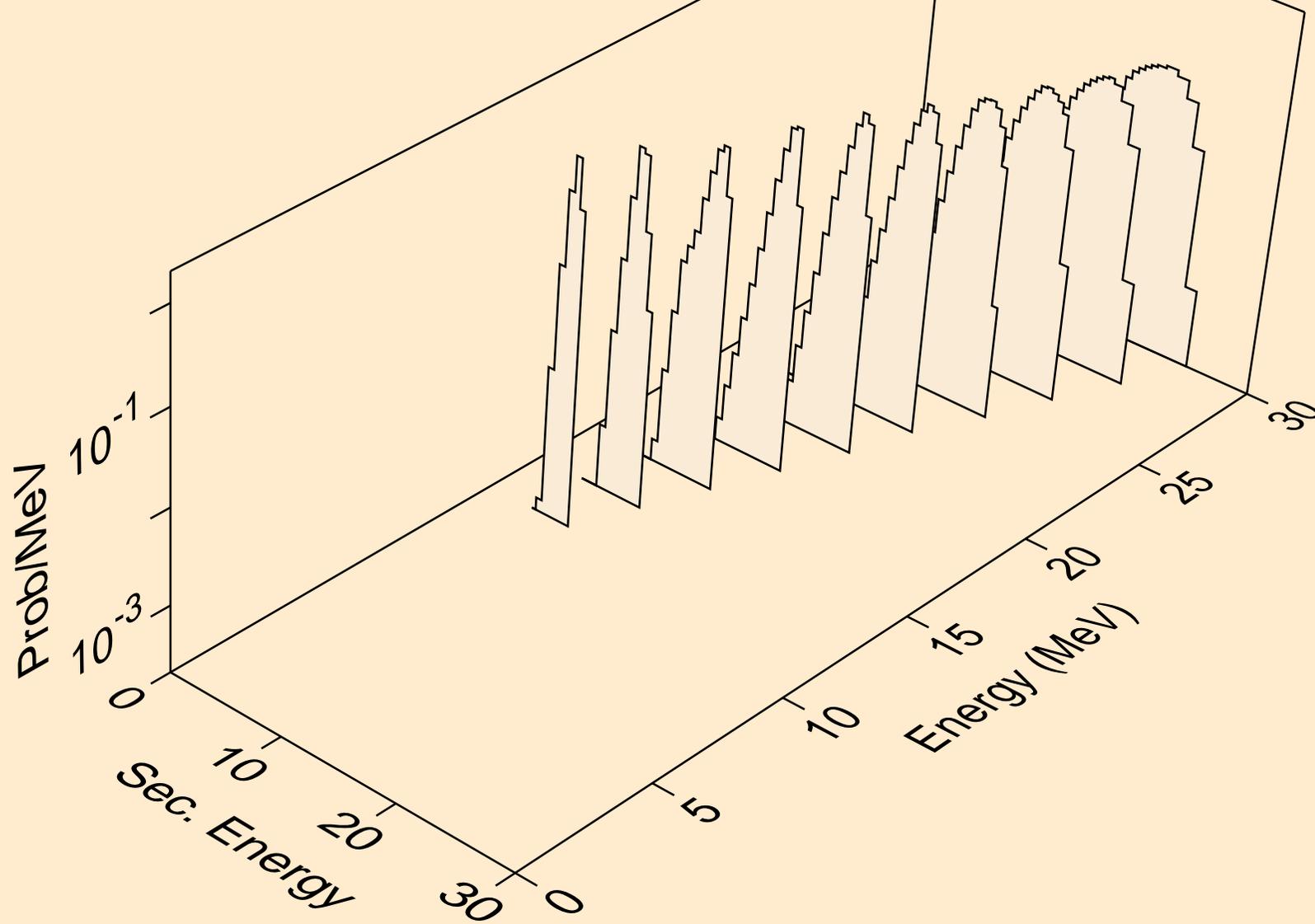angular distribution for elastic
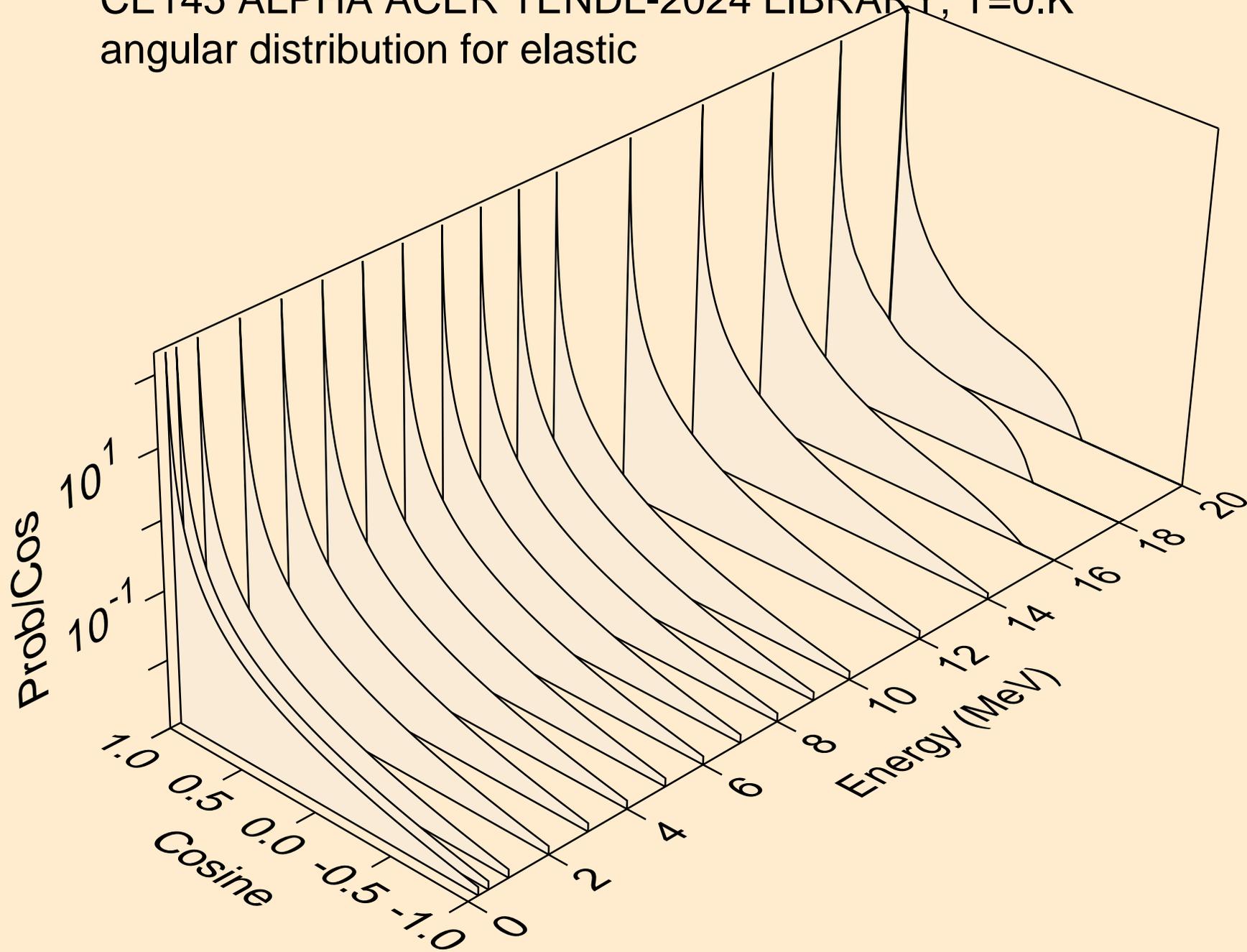
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
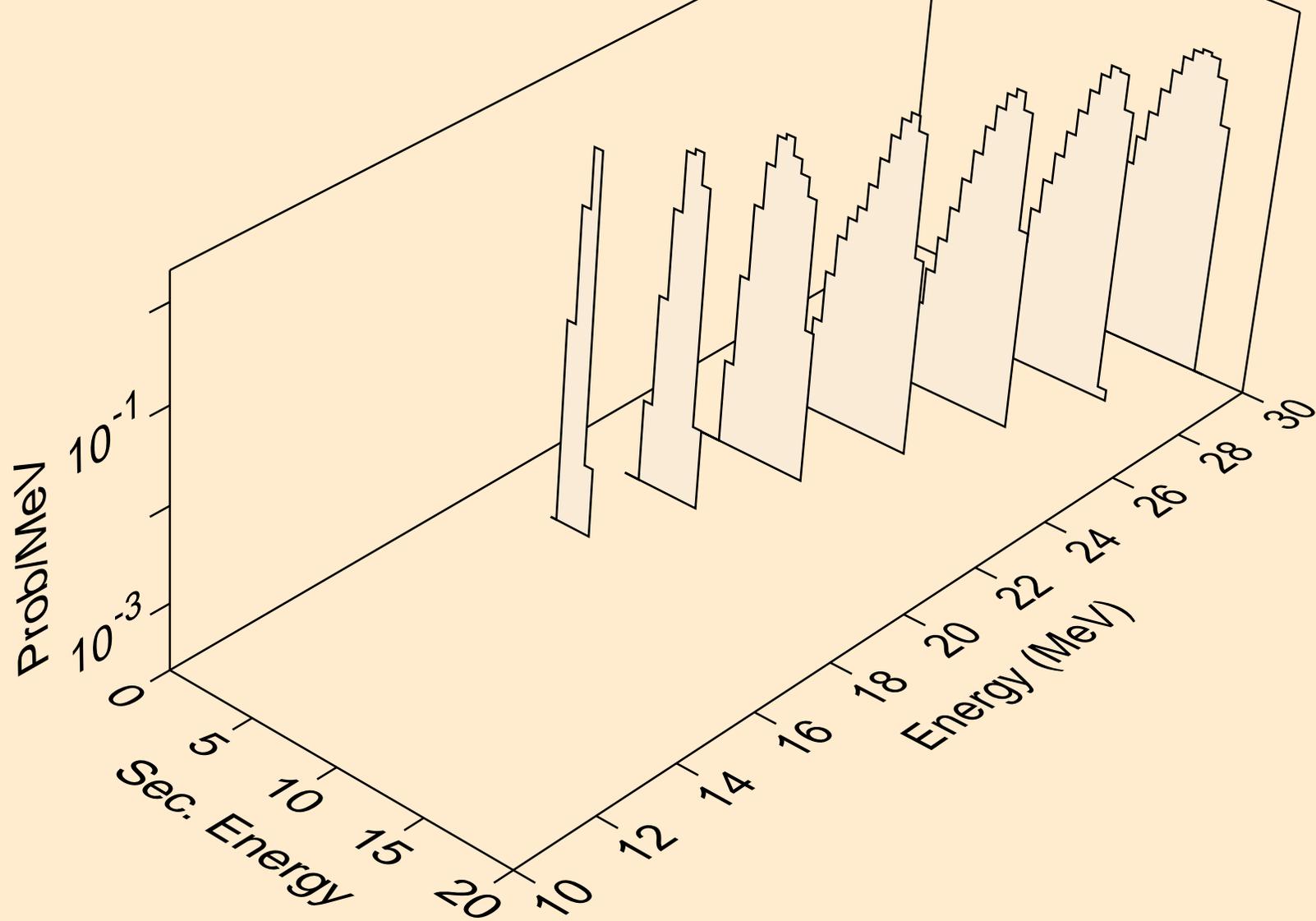angular distribution for elastic

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
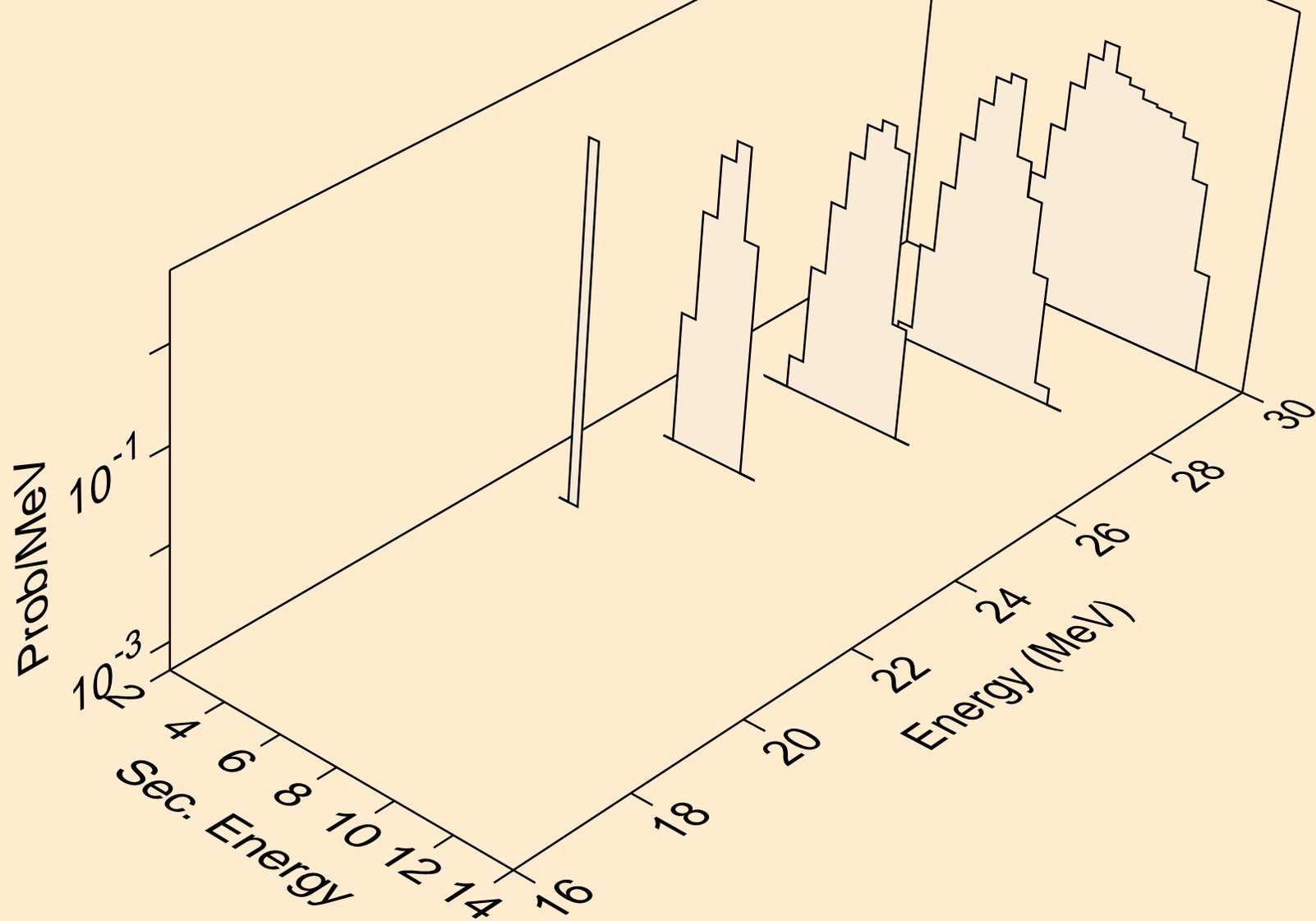Alpha emission for (a,x)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
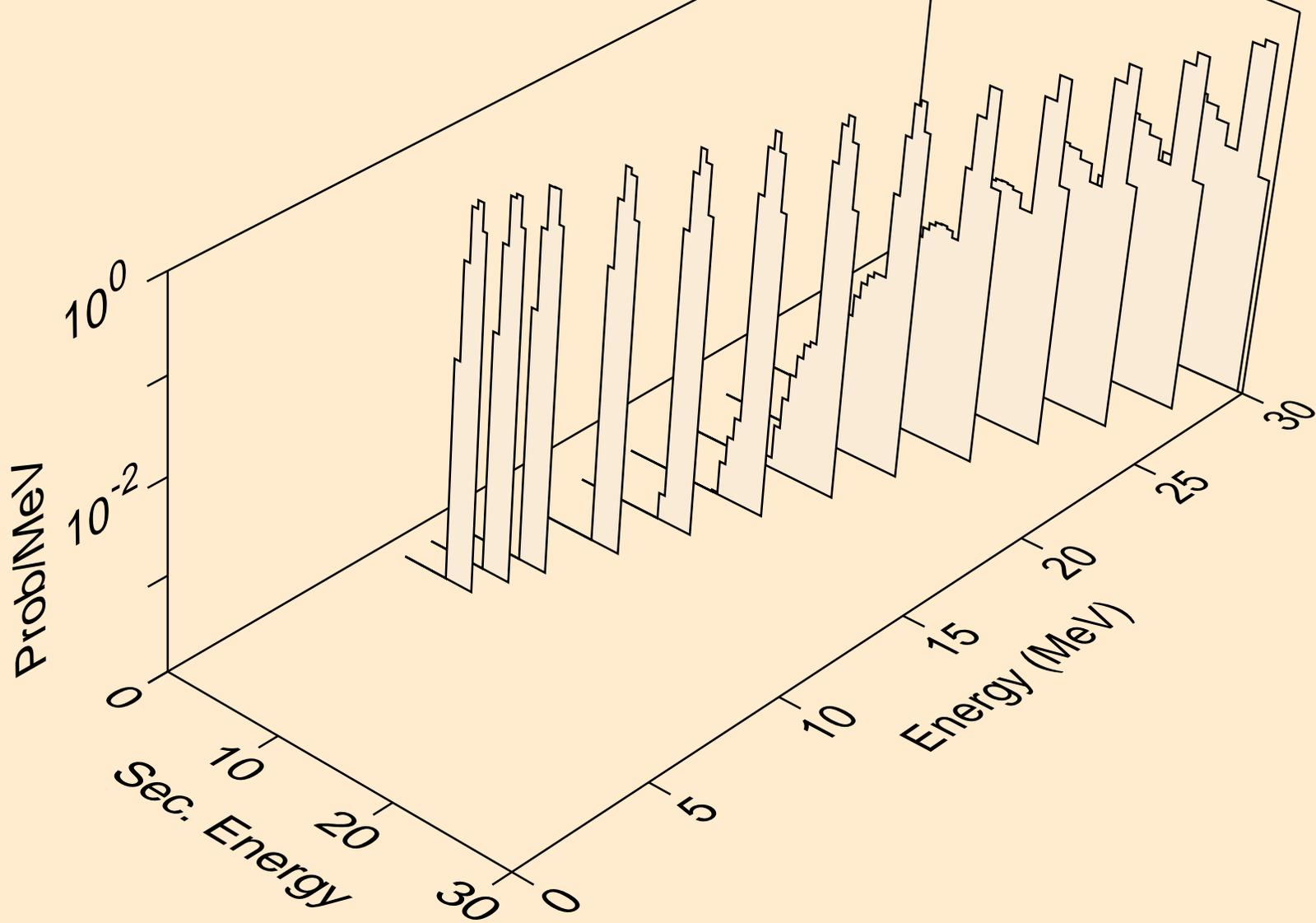Alpha emission for (a,n*)a

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
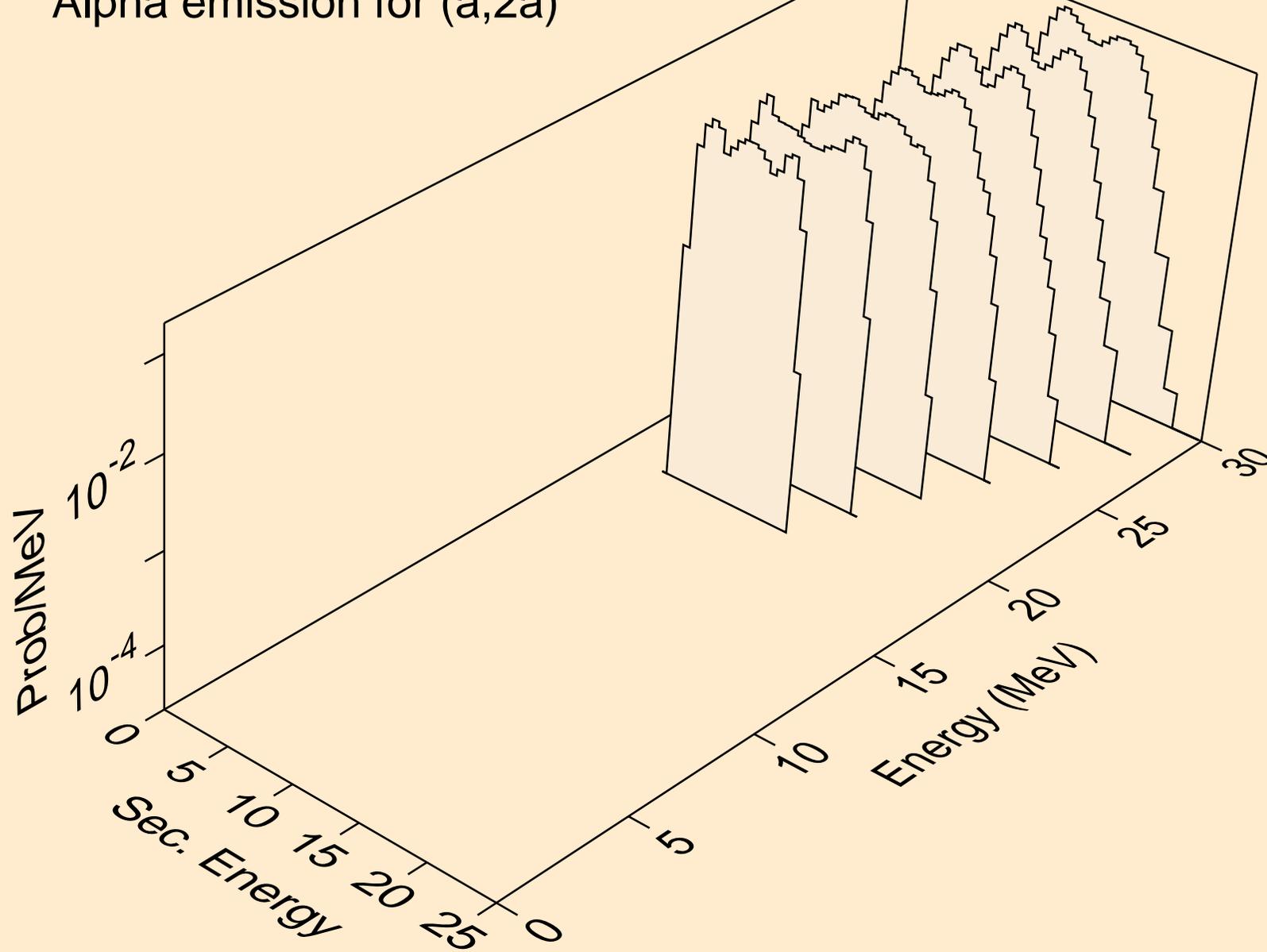Alpha emission for (a,2n)a

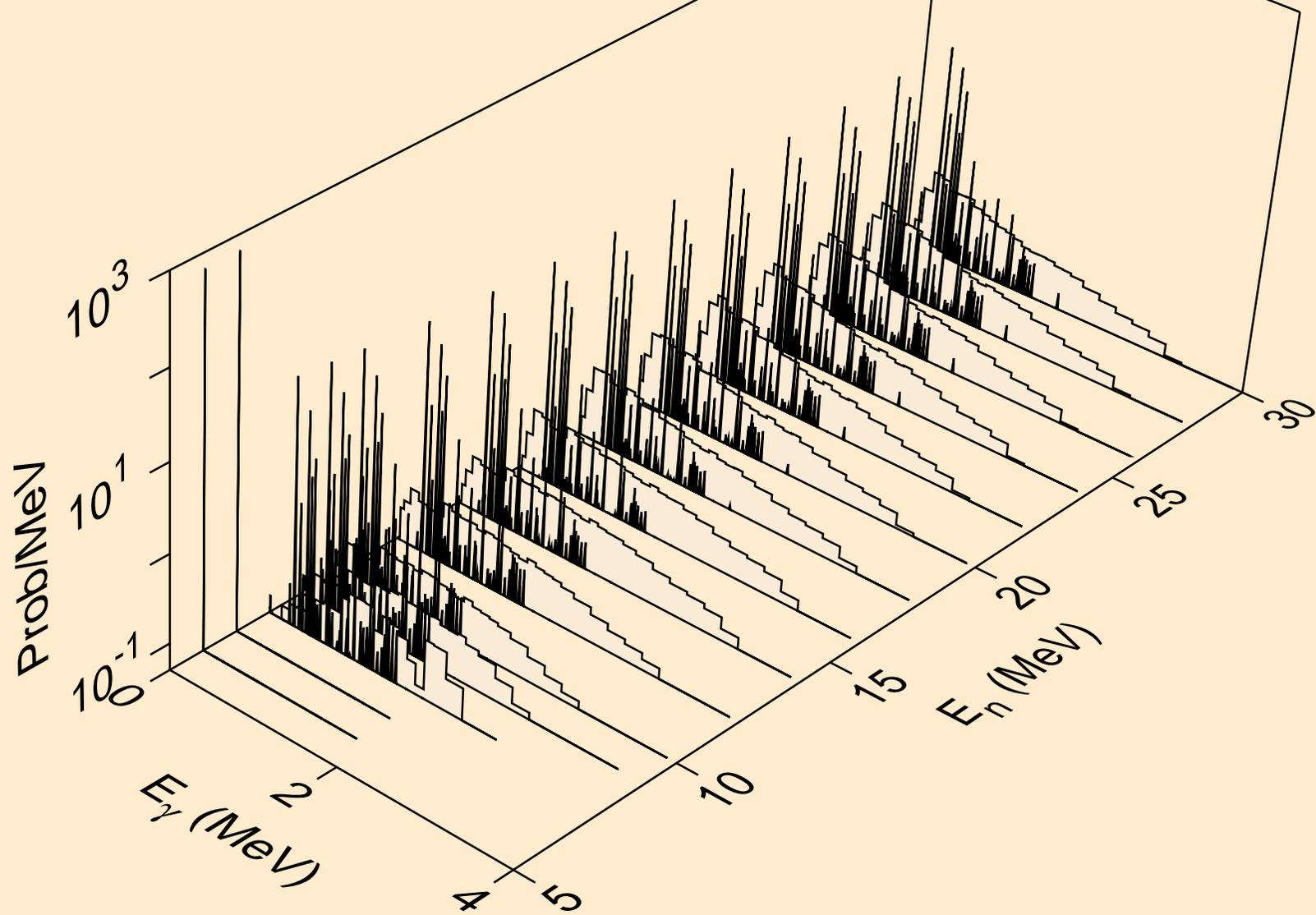CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Alpha emission for (a,3n)a

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
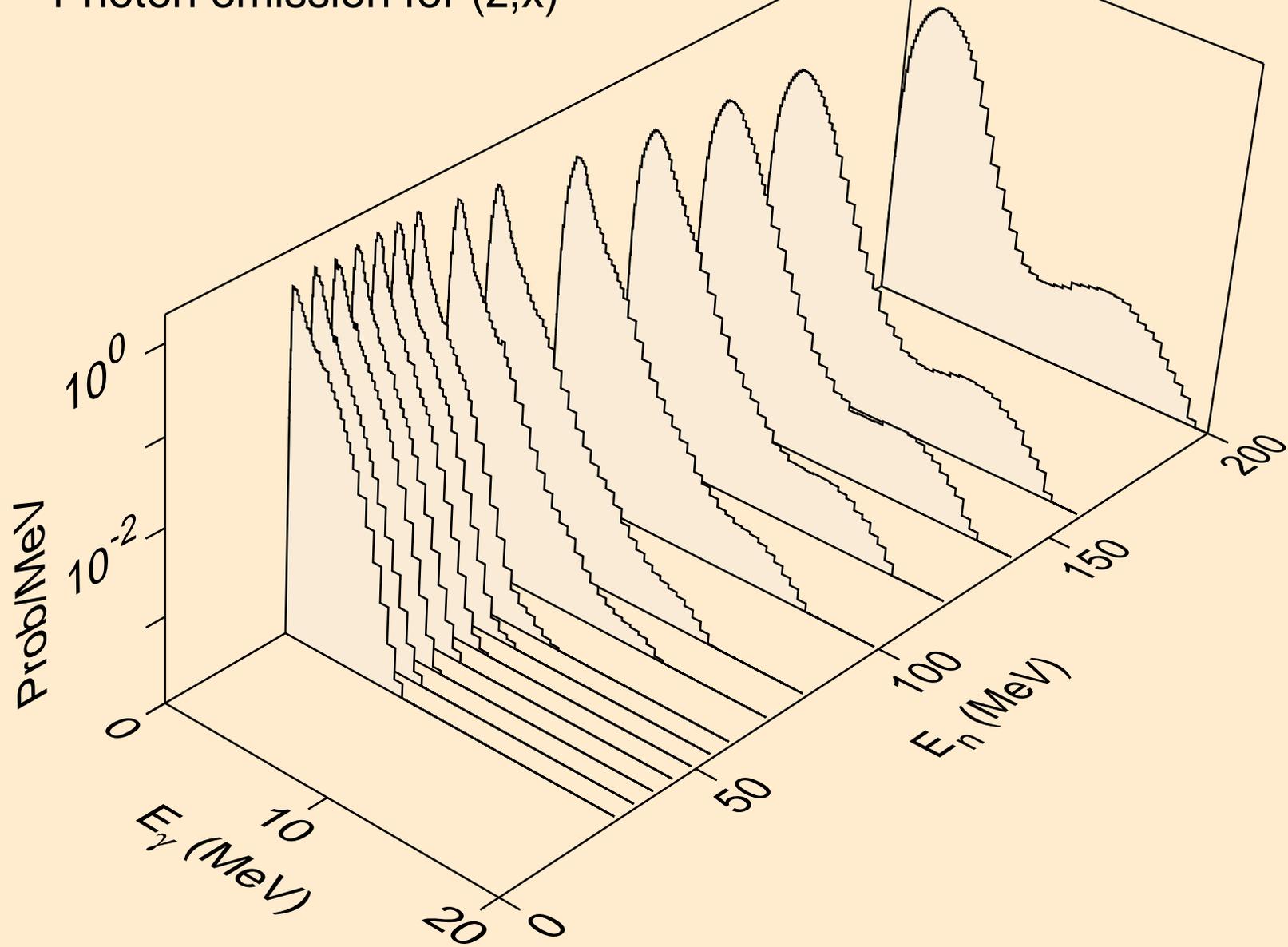Alpha emission for inelastic

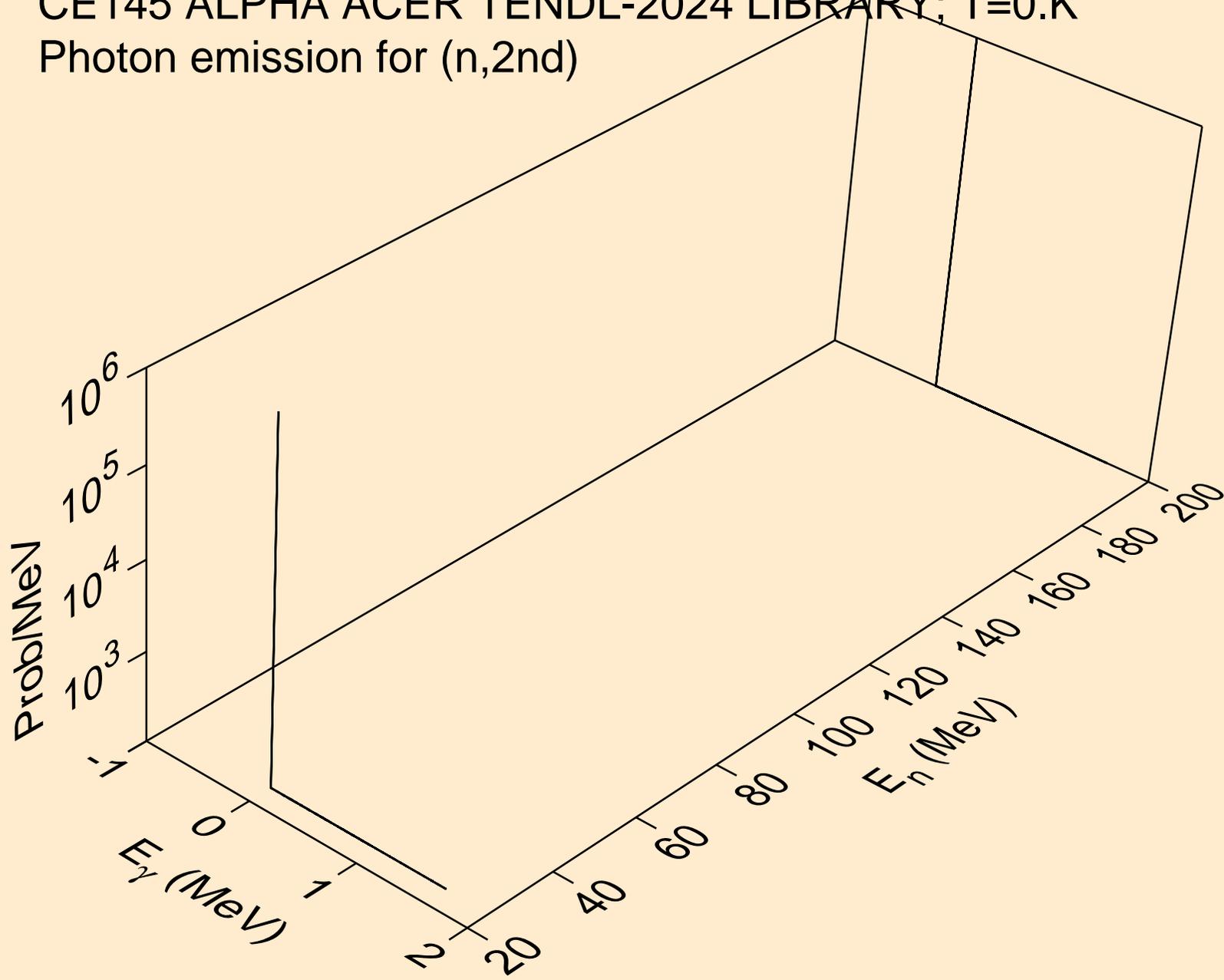CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Alpha emission for (a,2a)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
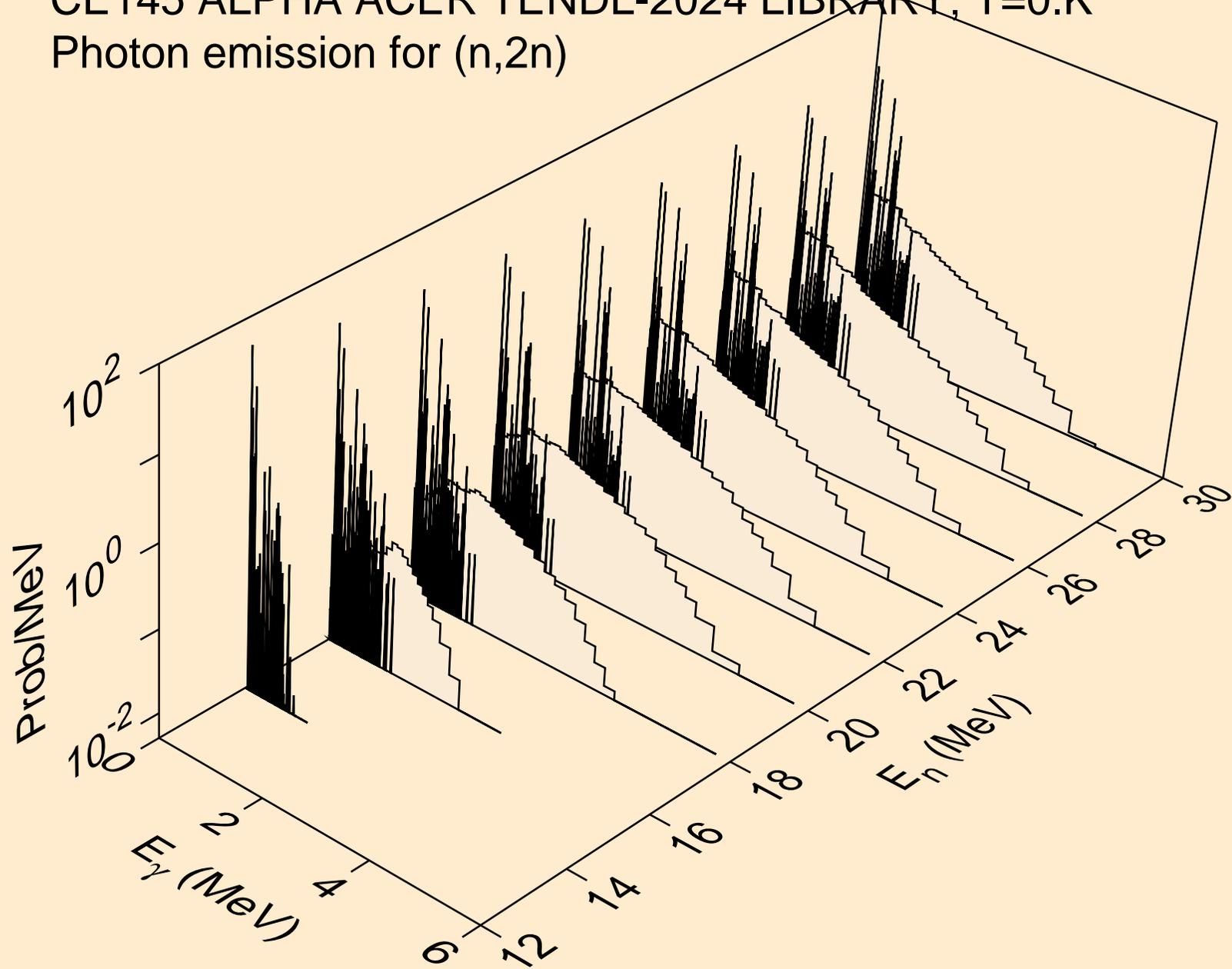Photon emission for (z,n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (z,x)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,2nd)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,2n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
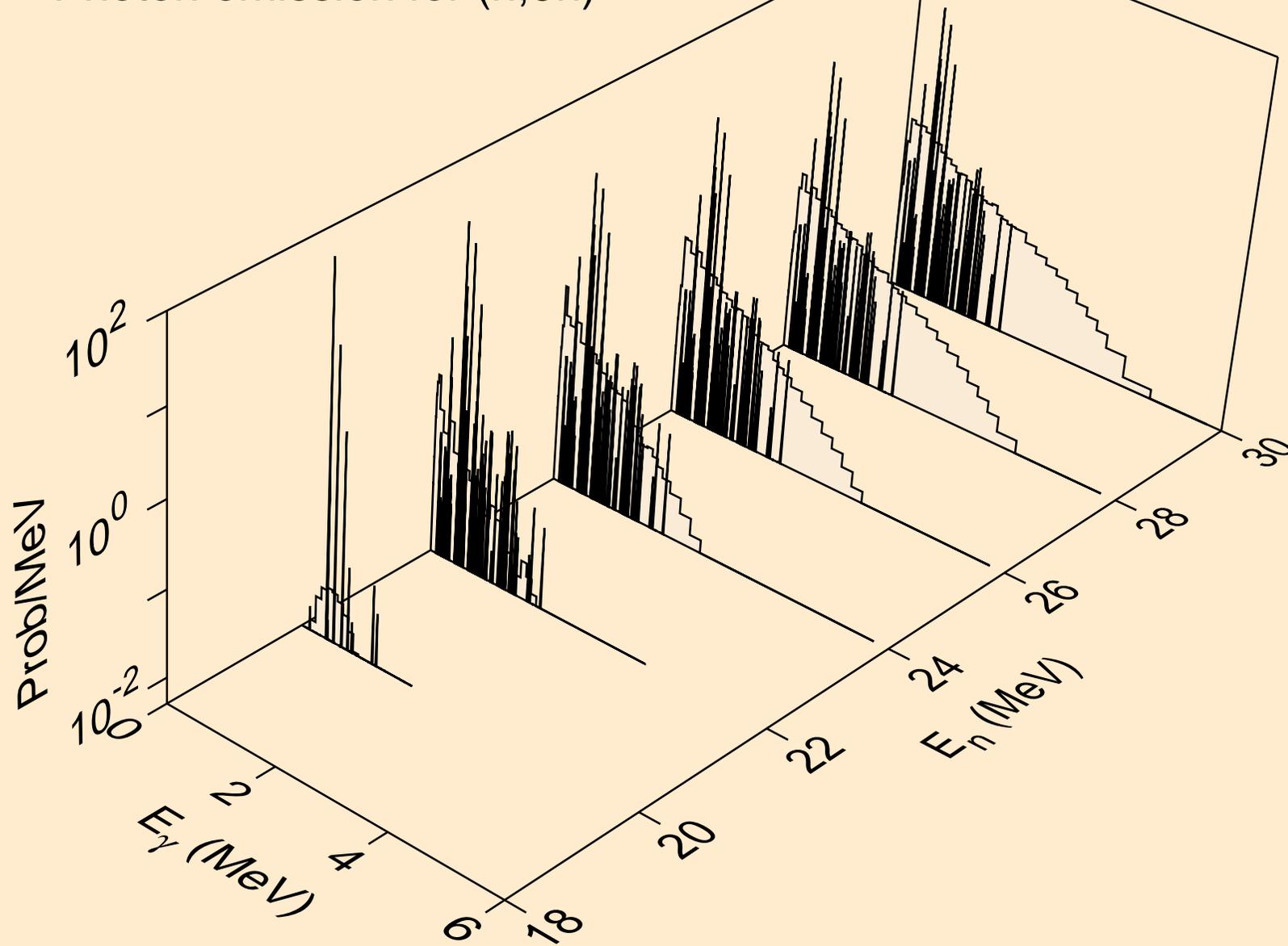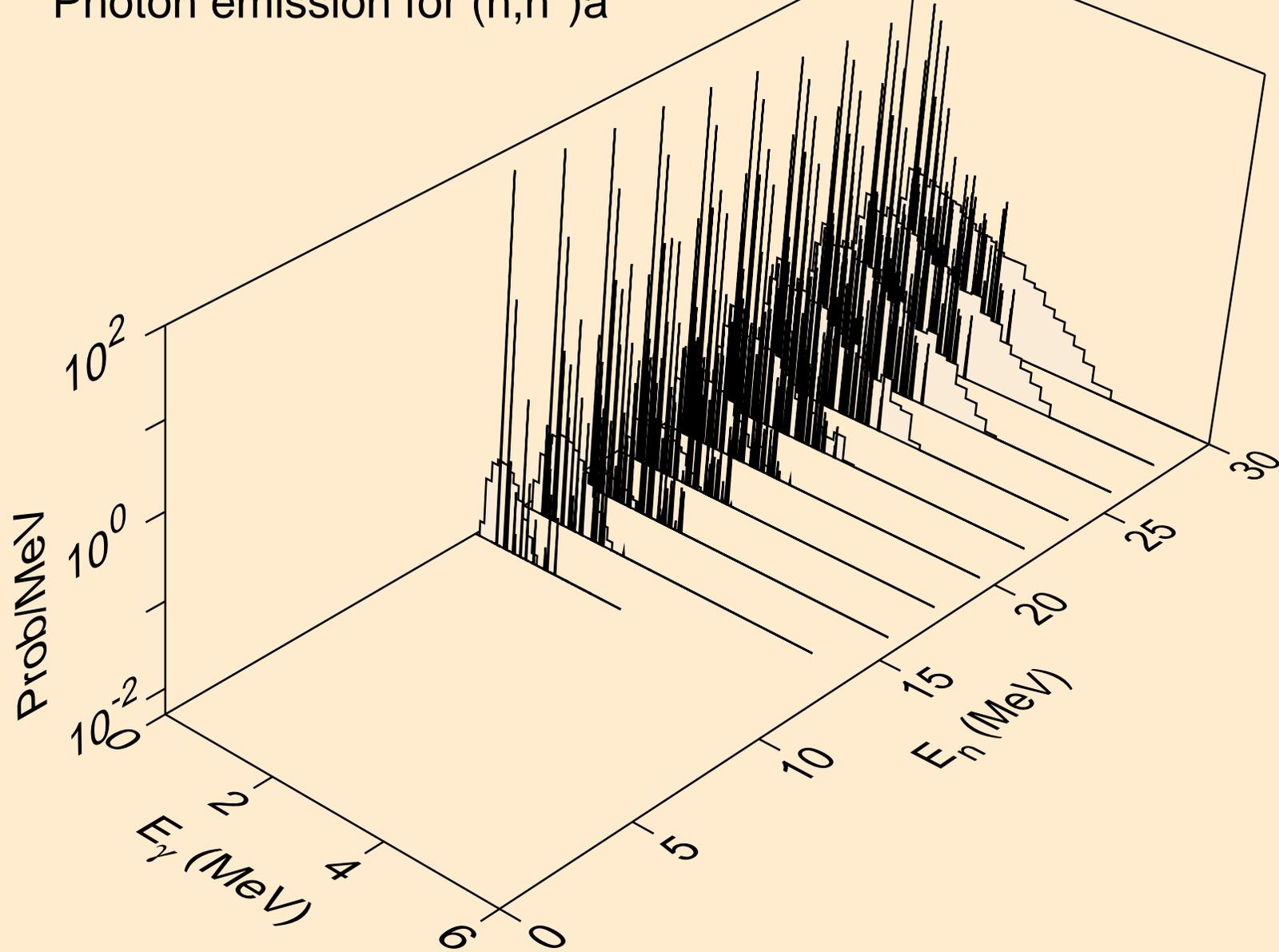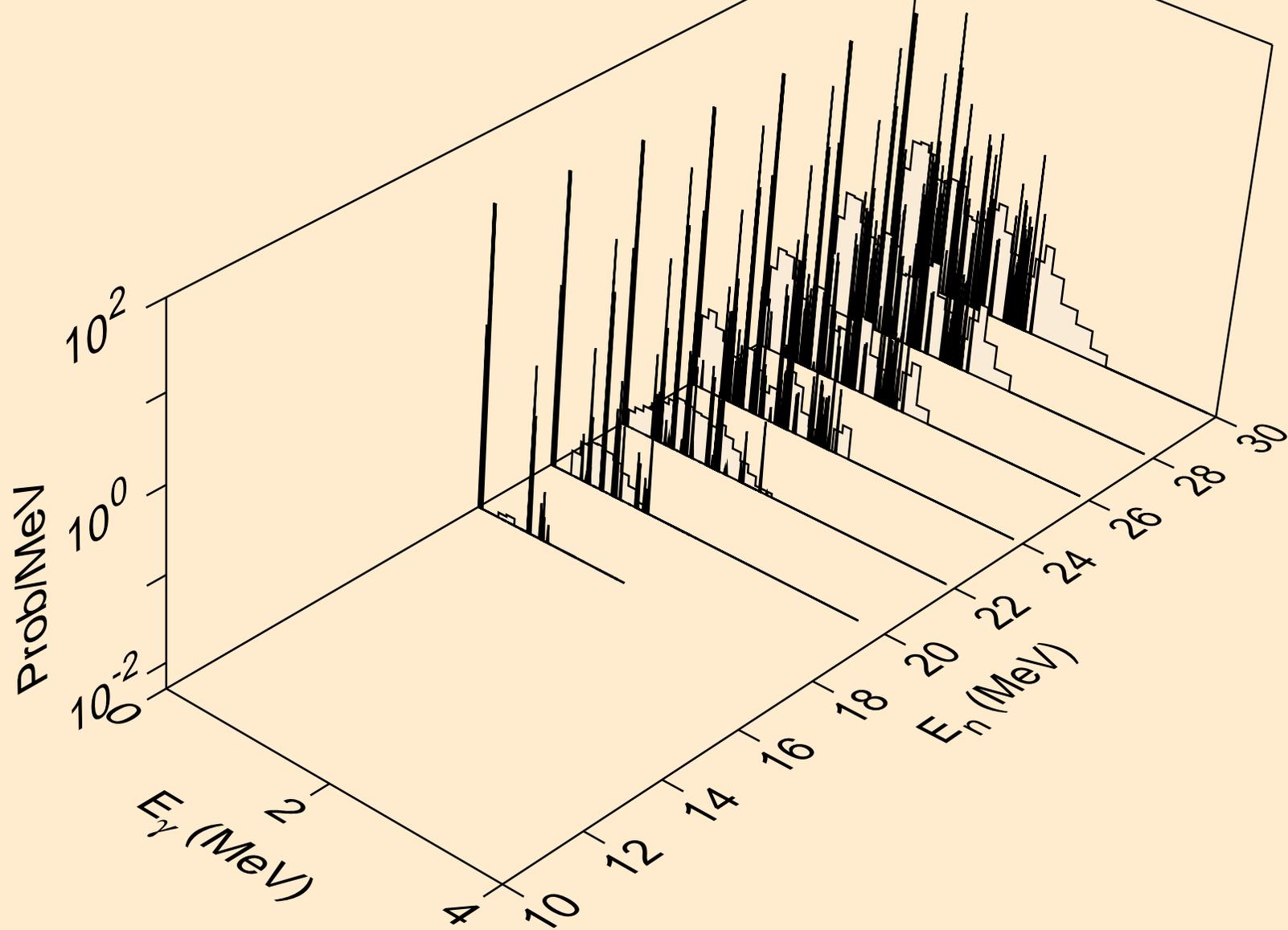Photon emission for (n,3n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,n*)a

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,2n)a

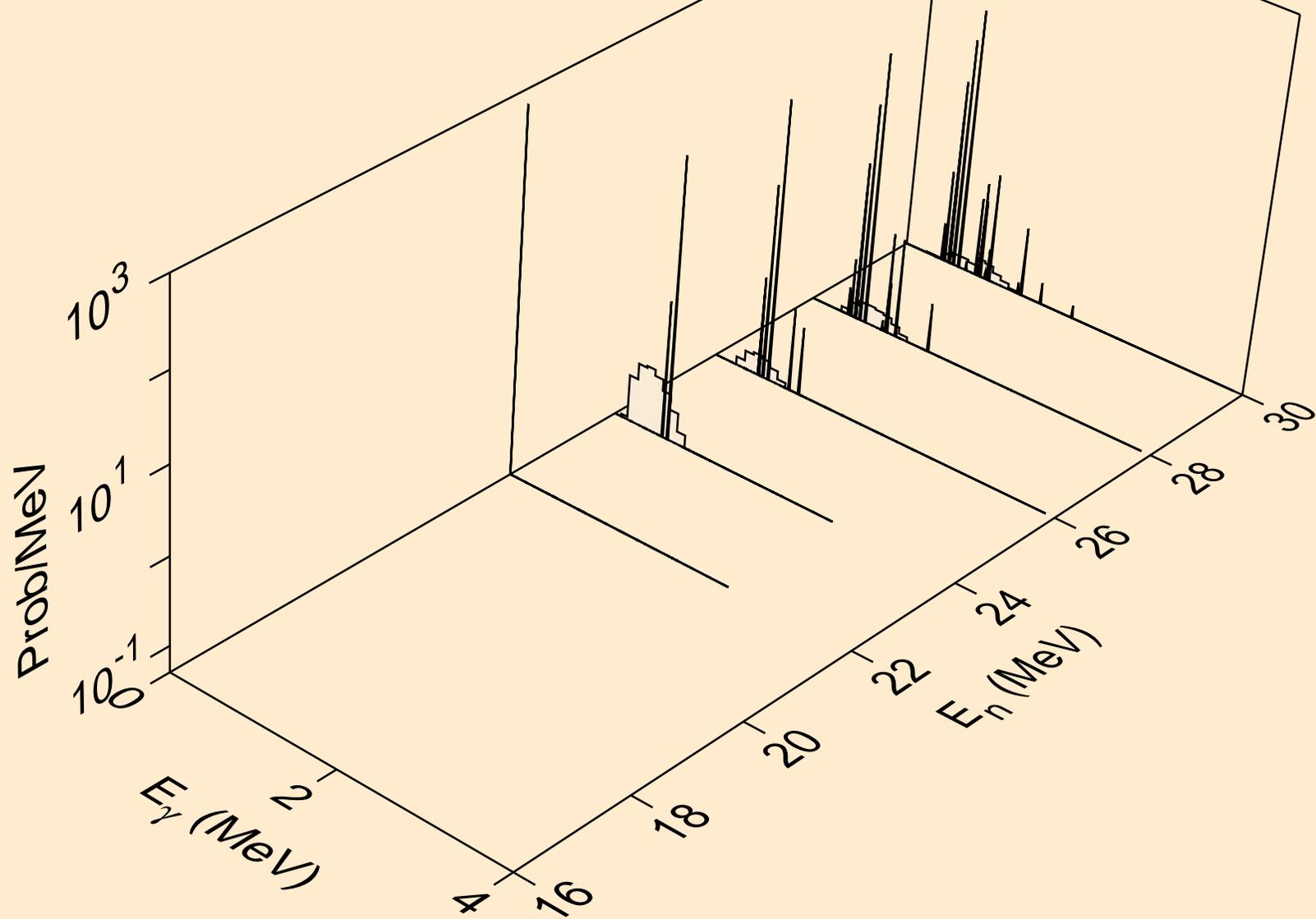CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,3n)a

ProbMeV

10^3

10^1

10^{-1}

10^0

E_γ (MeV)

2

4

16

18

20

22

24

26

28

30

E_n (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,n*)p

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,n*)d

ProbIMeV

10^0

10^{-2}

0

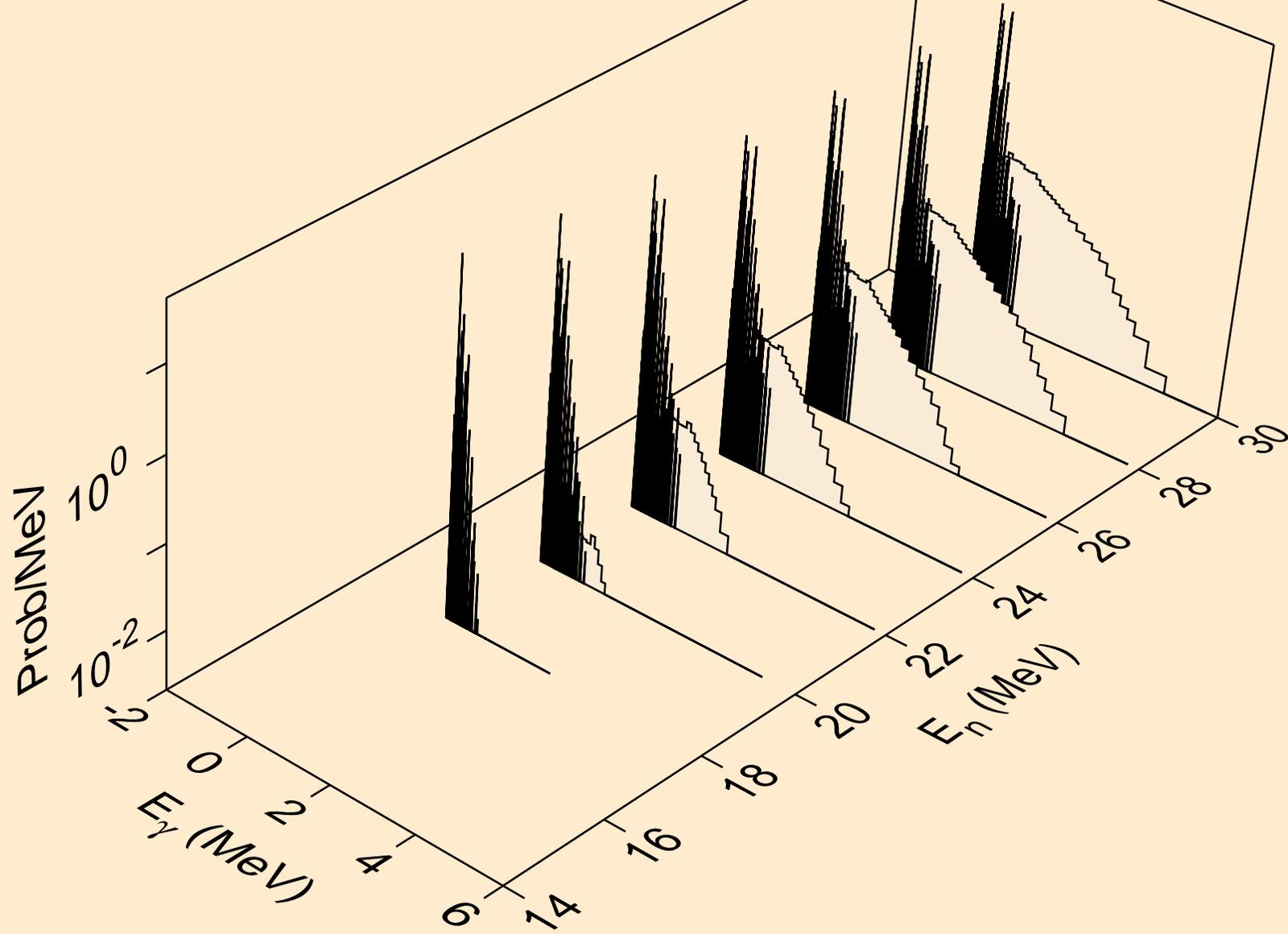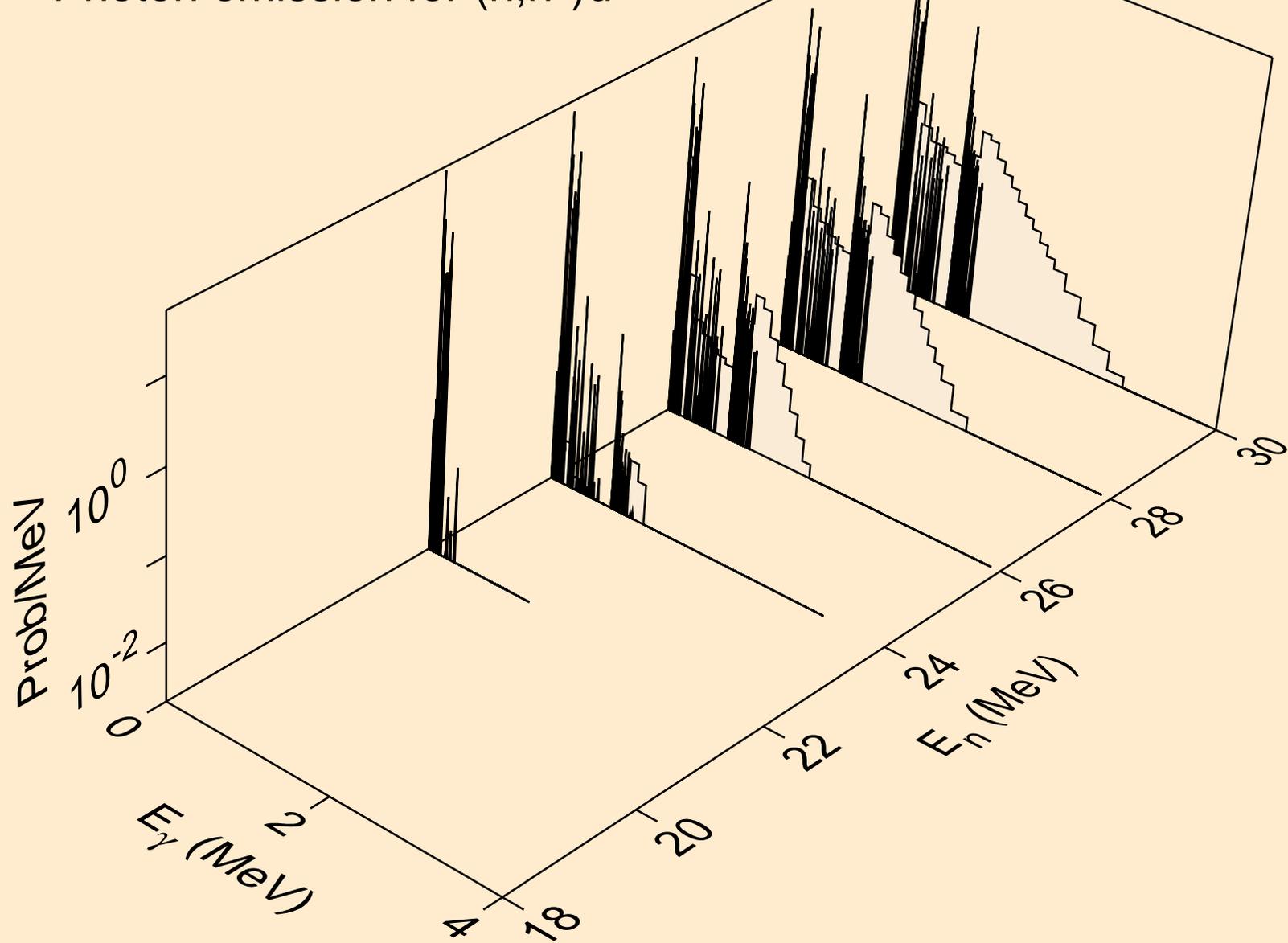E_γ (MeV)

2

4

18

20

22

24

26

28

30

E_n (MeV)
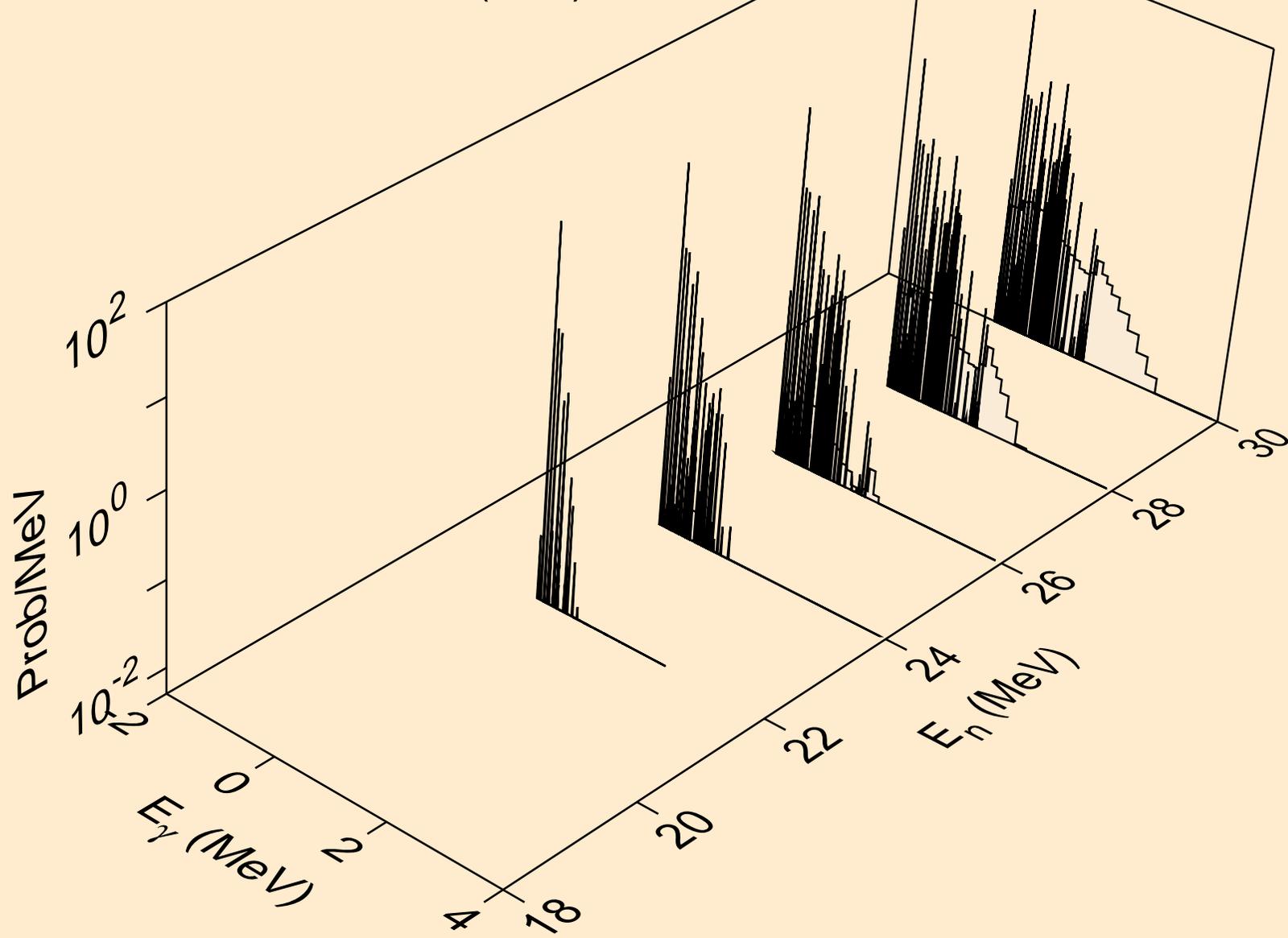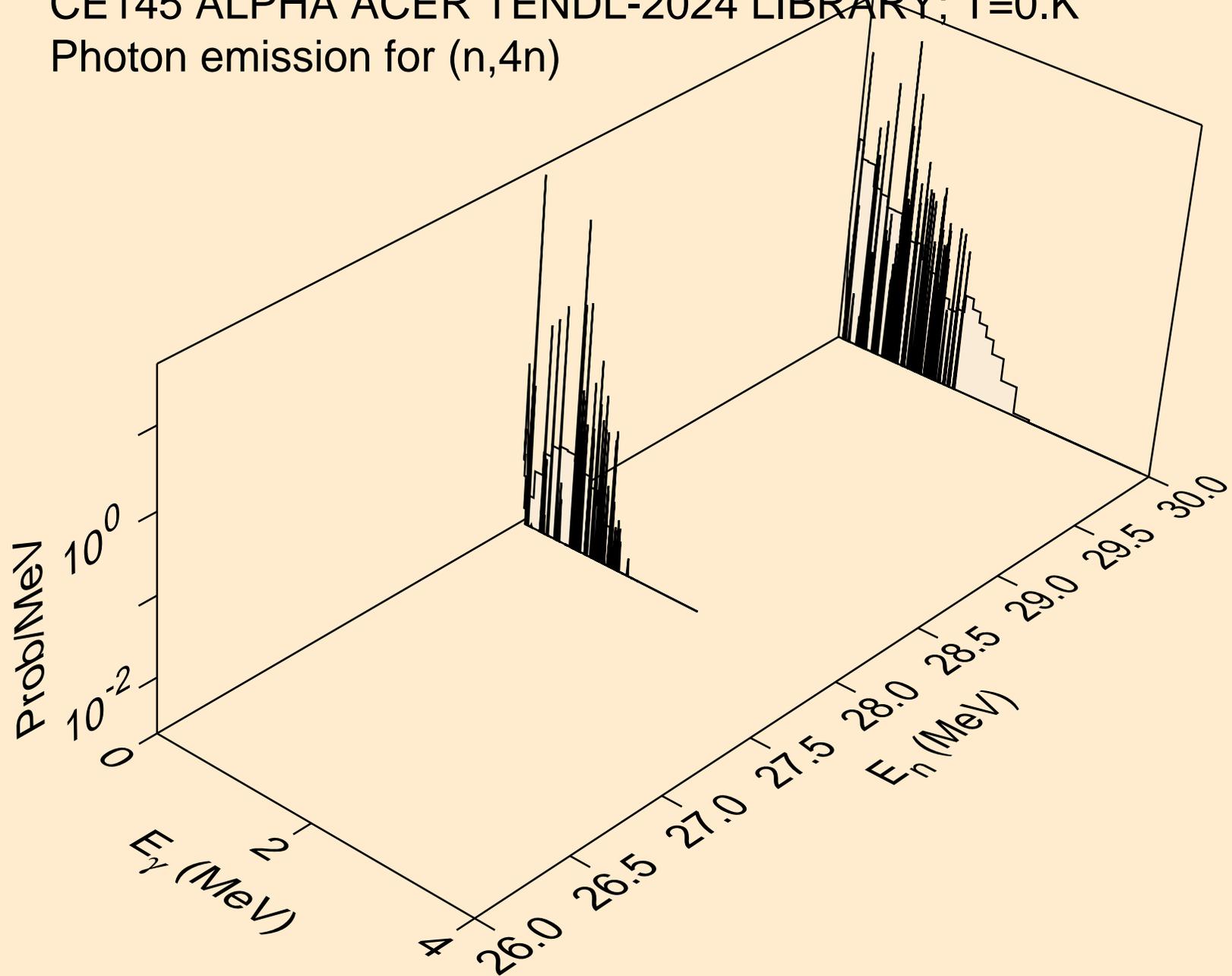
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,n*)t

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,4n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,2np)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,gma)
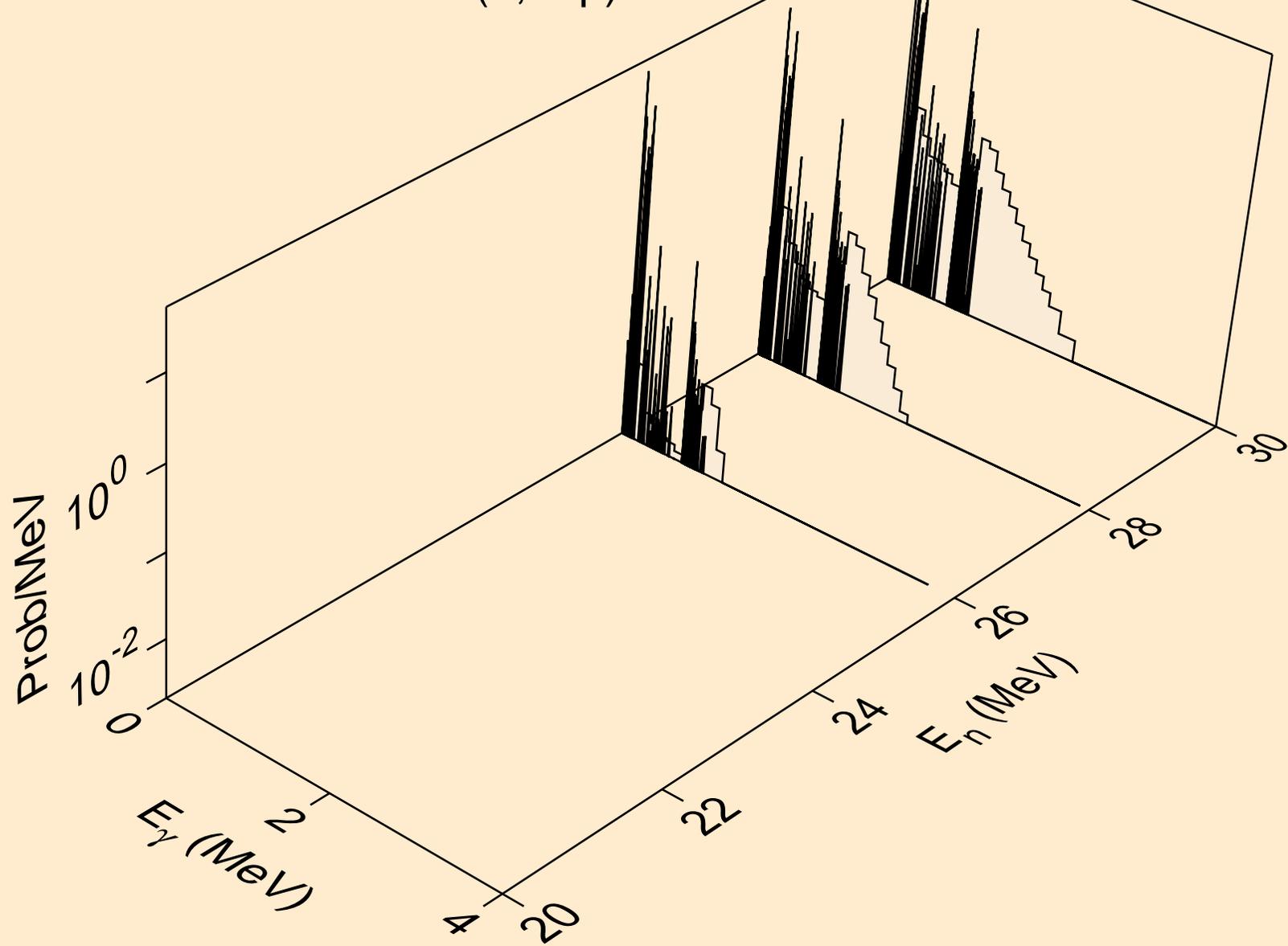
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,p)
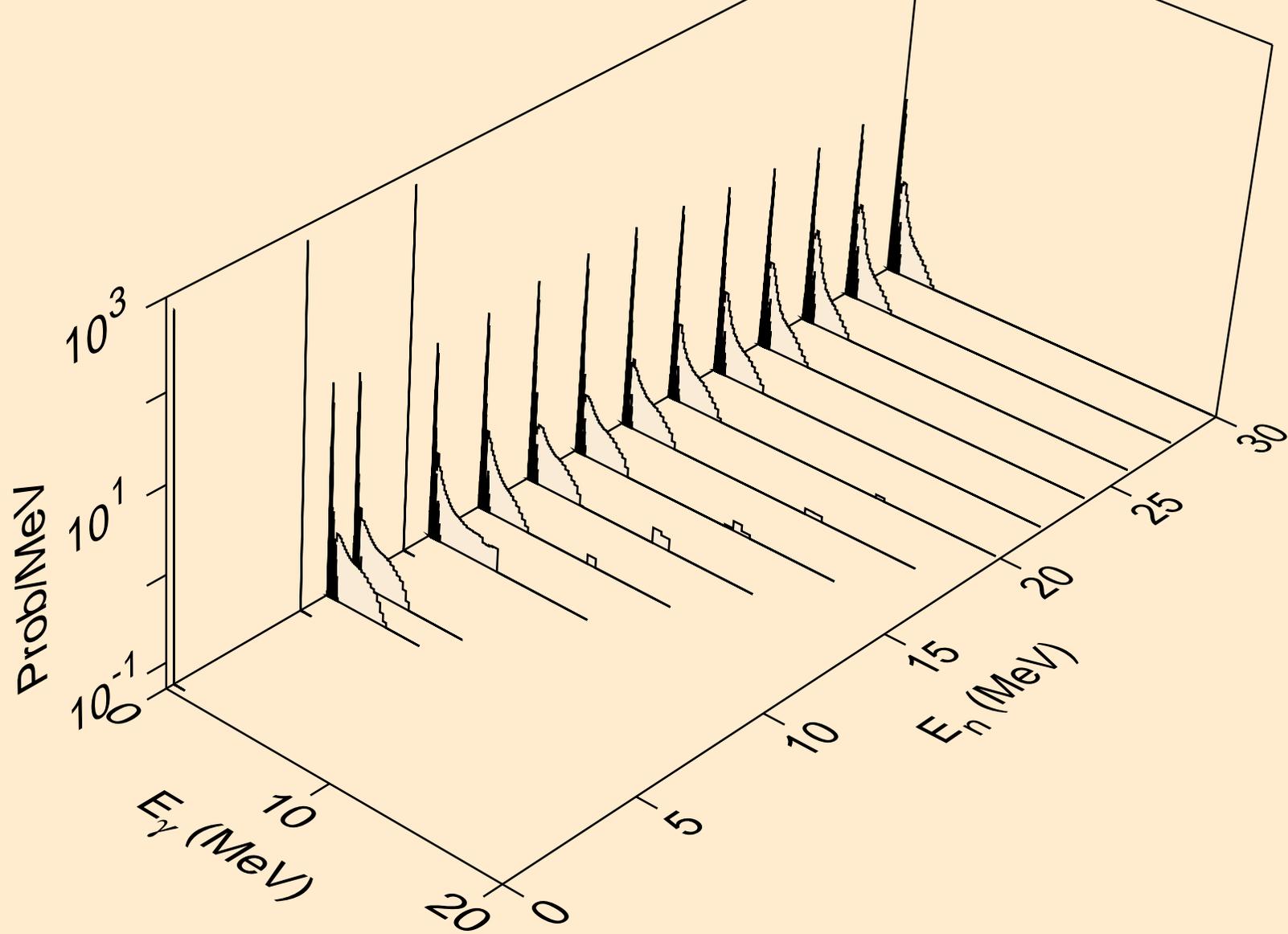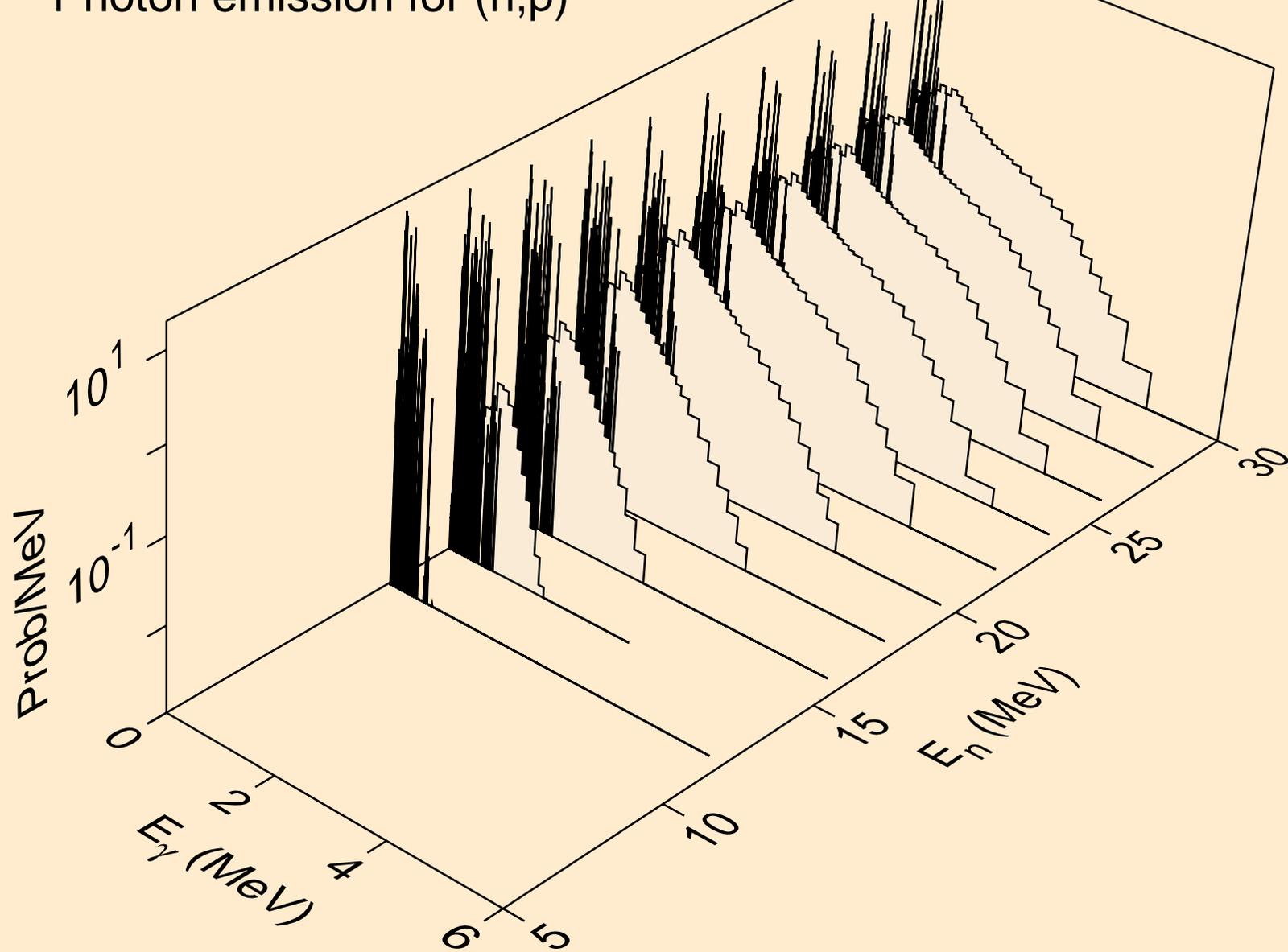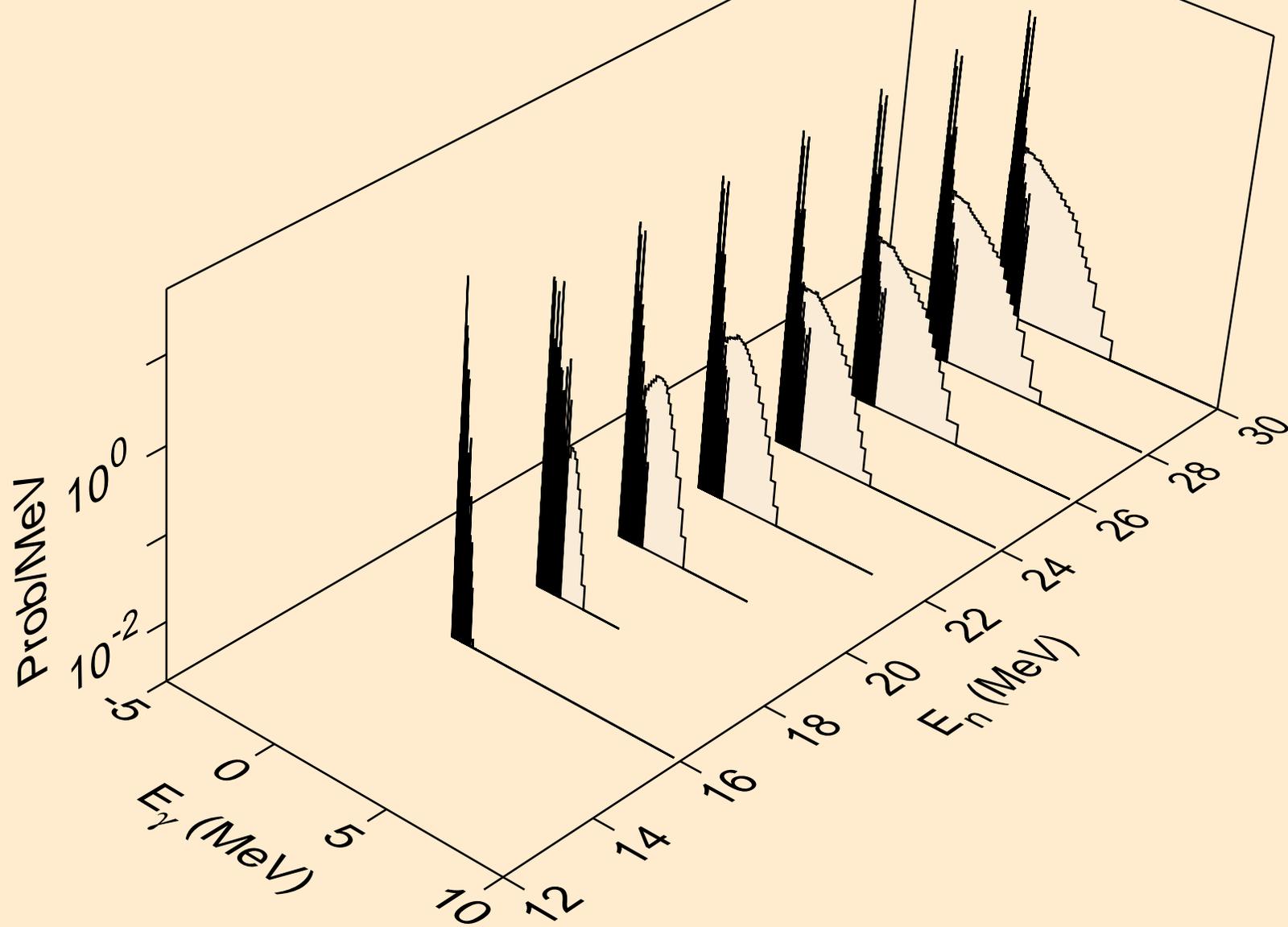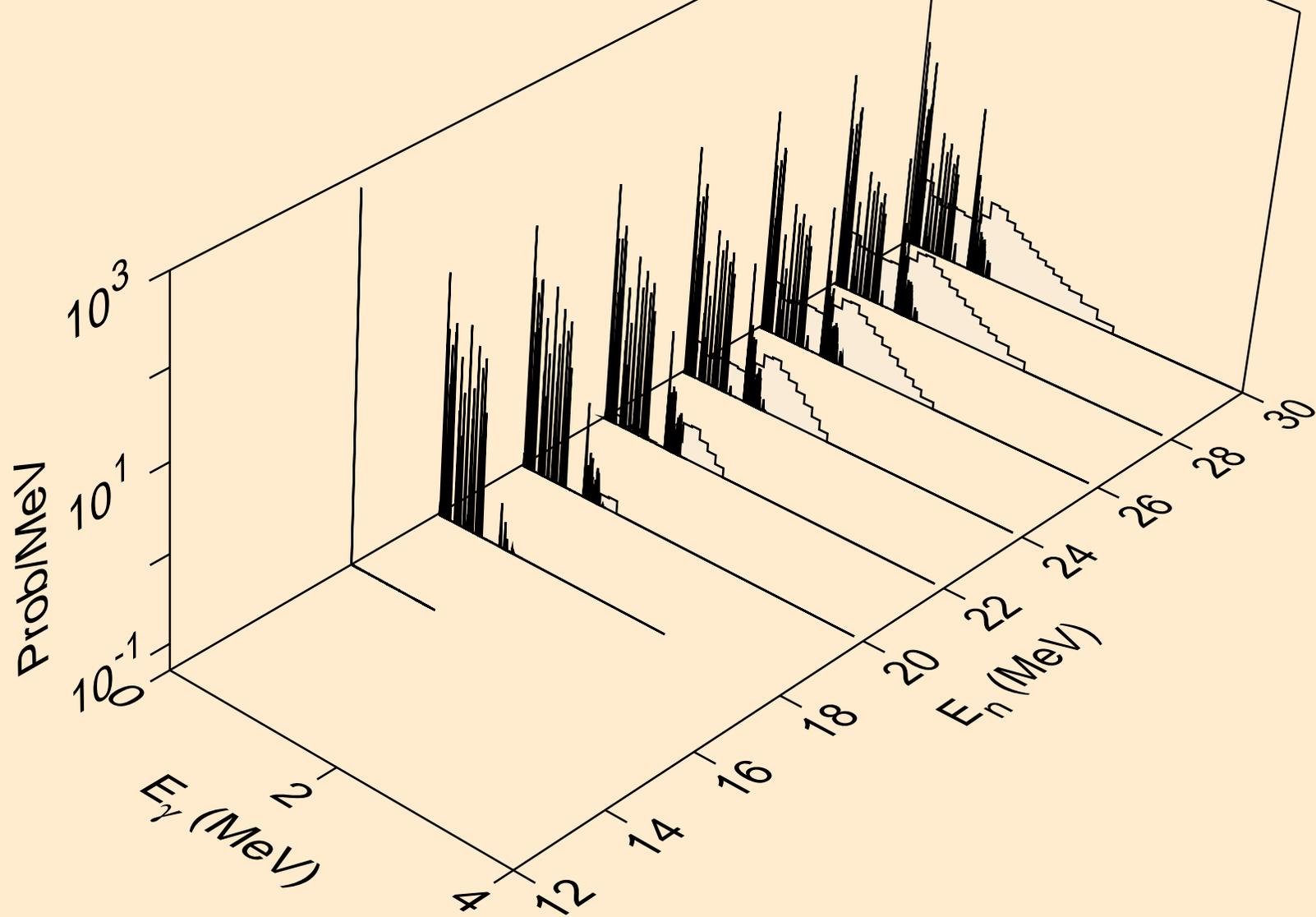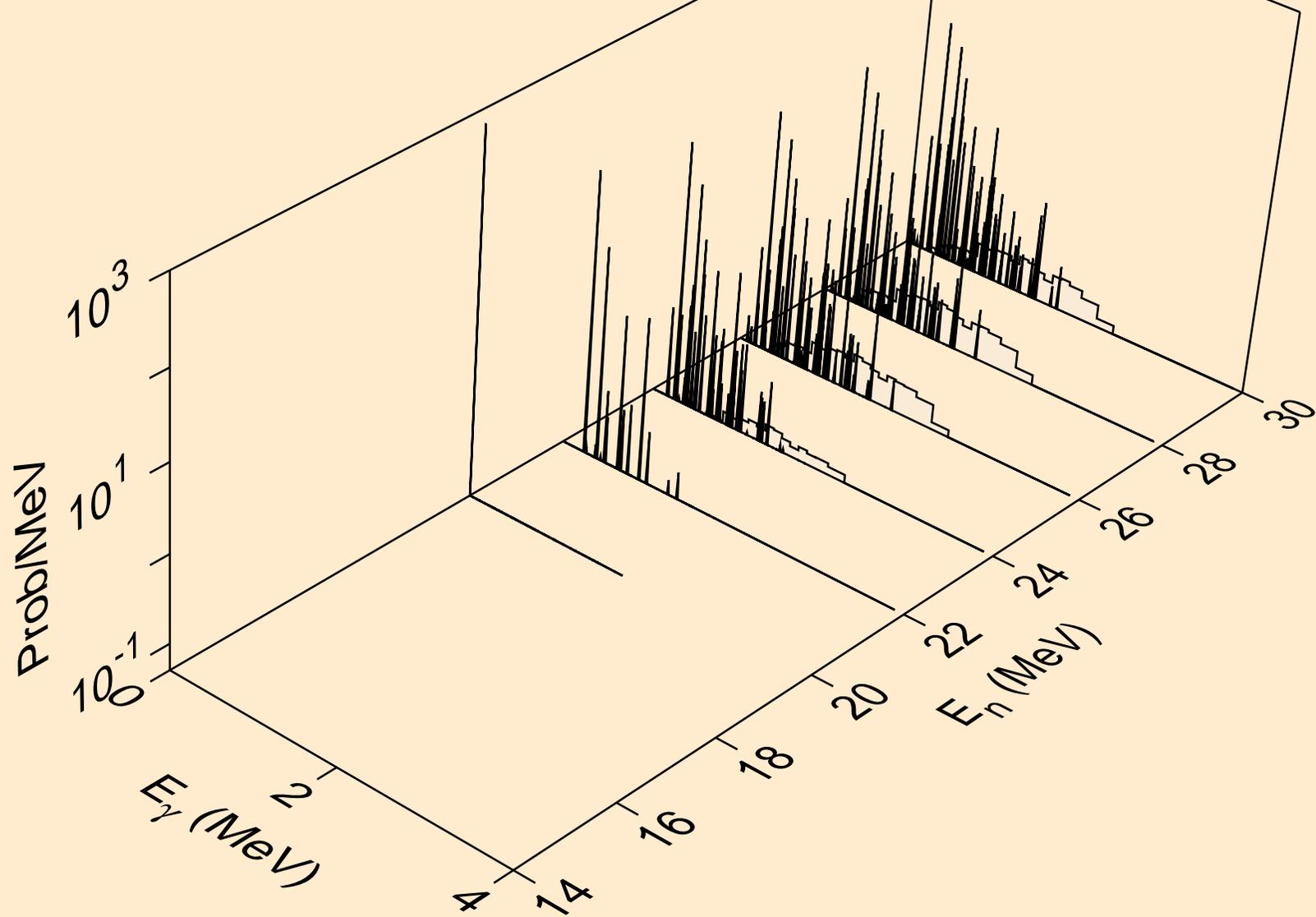
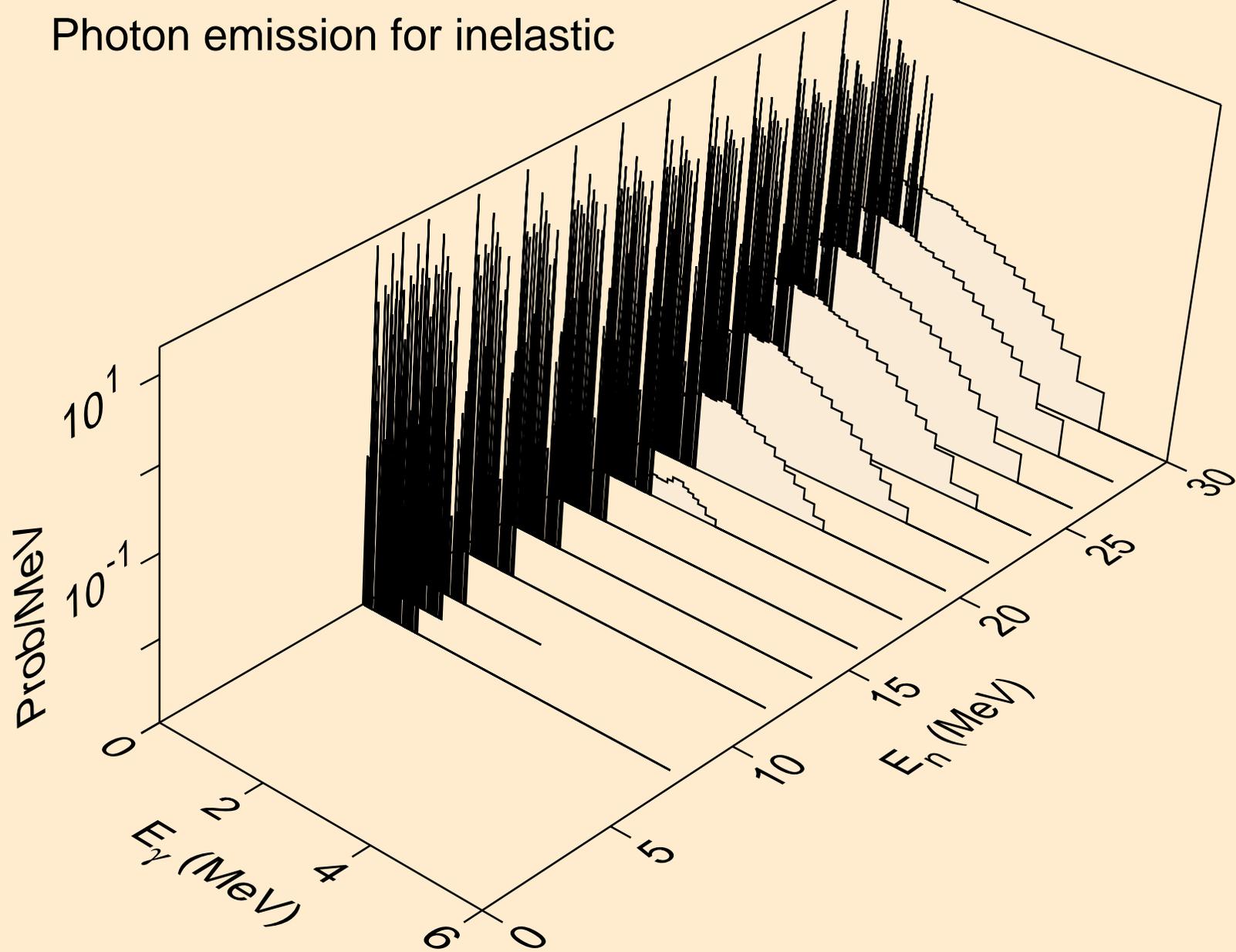CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,d)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
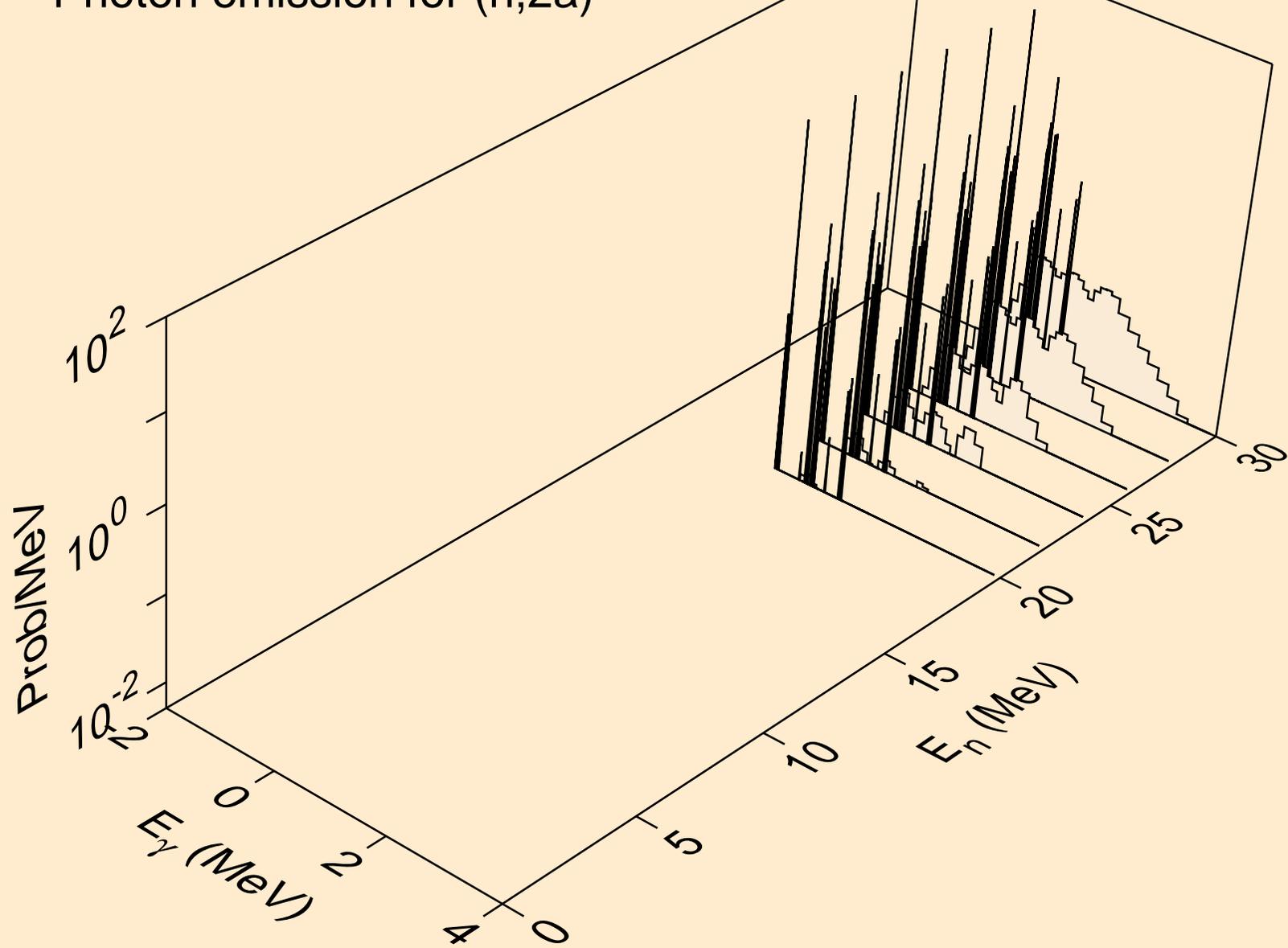Photon emission for (n,t)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
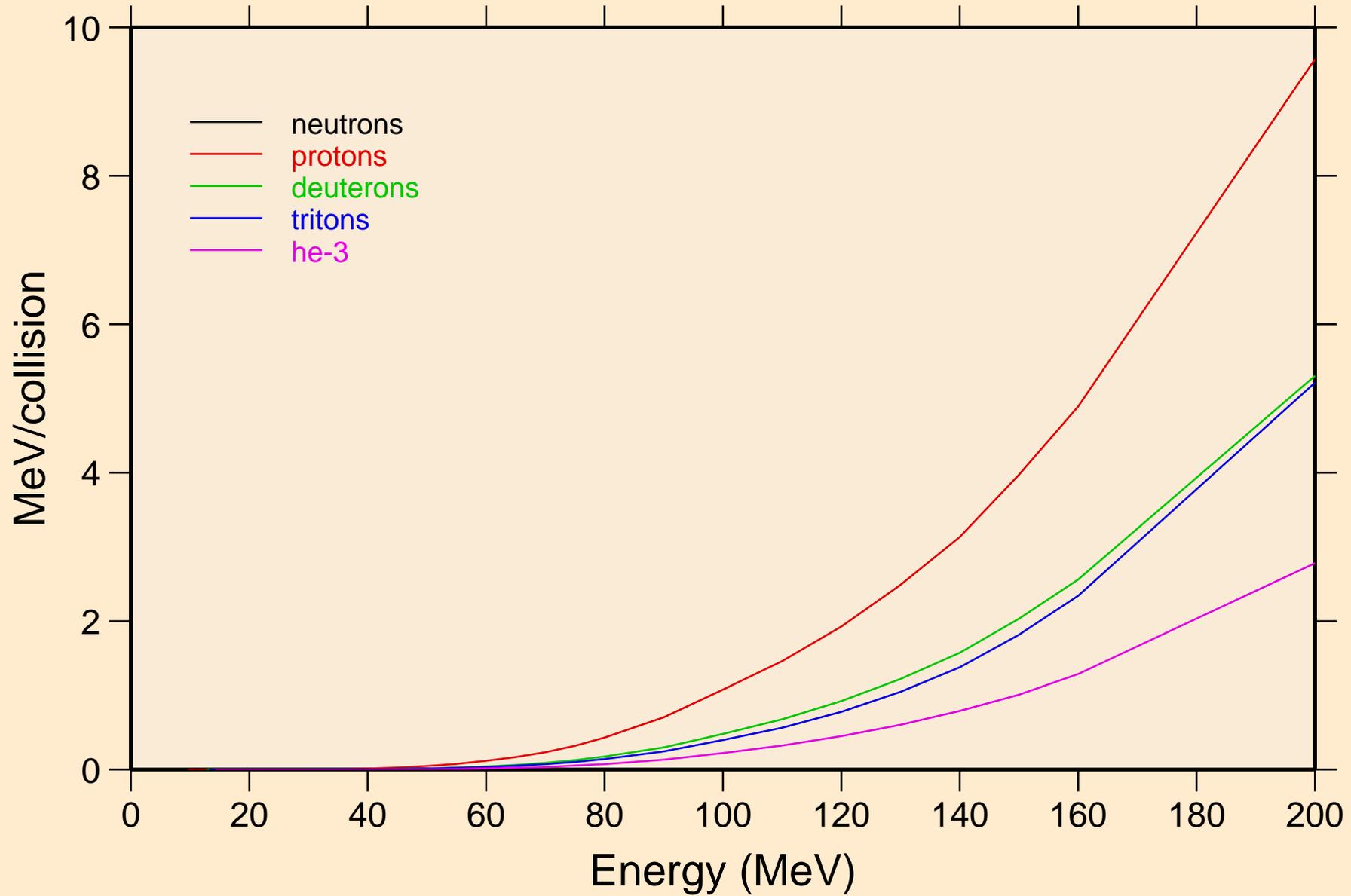Photon emission for (n,he3)

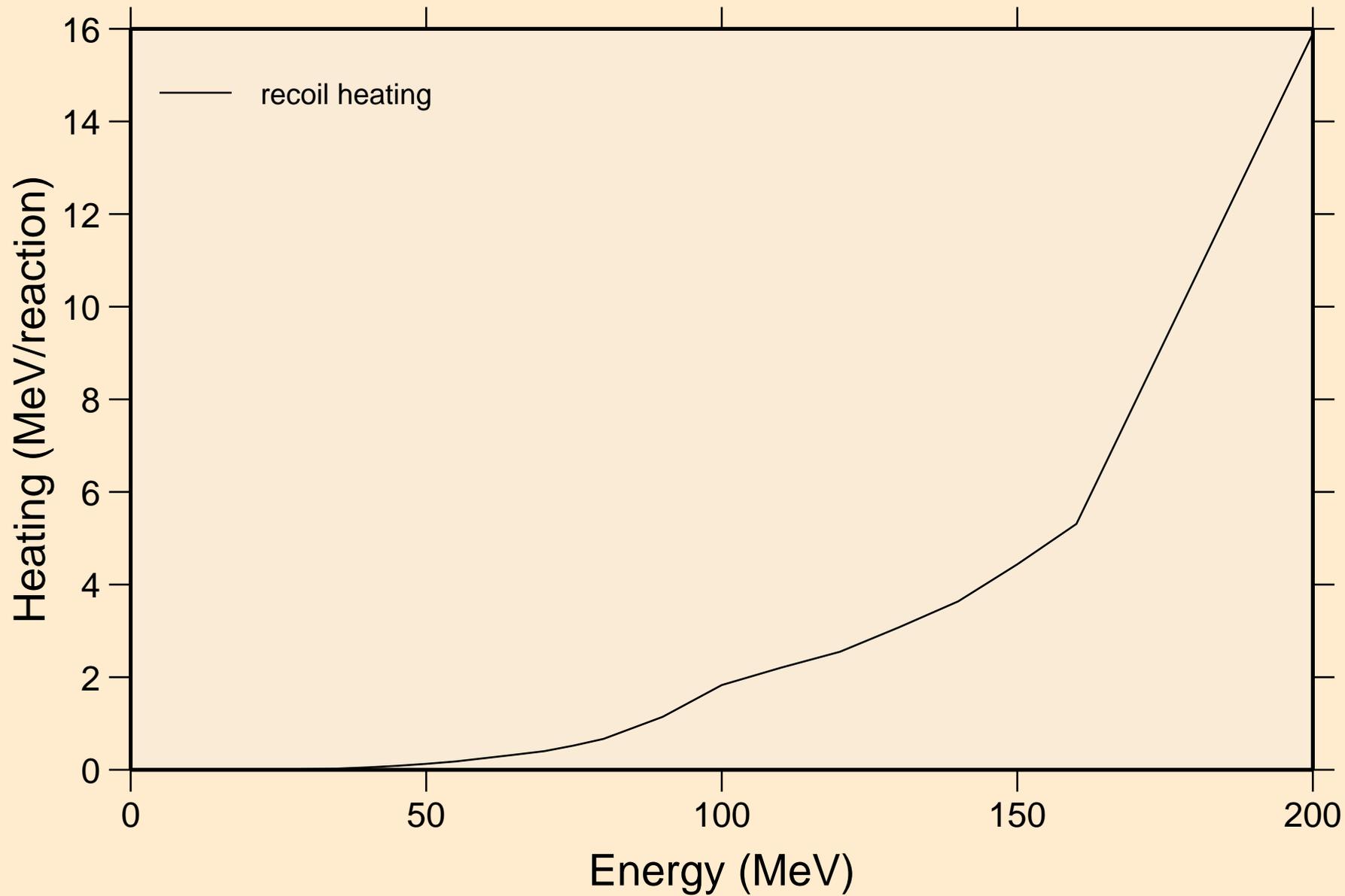CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for inelastic

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Photon emission for (n,2a)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Particle heating contributions

- neutrons
- protons
- deuterons
- tritons
- he-3

MeV/collision

Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Recoil Heating

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
Particle production cross sections
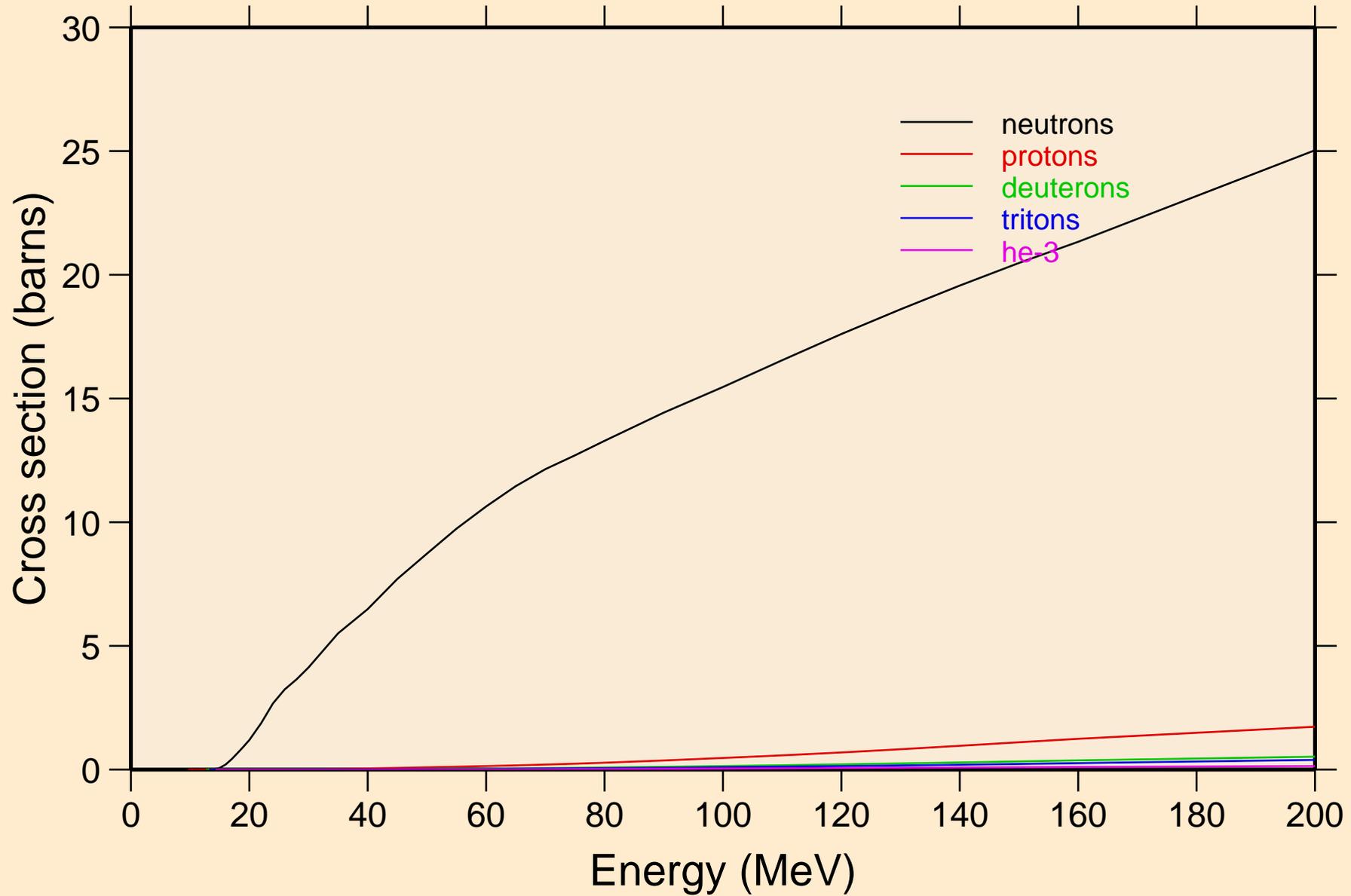
neutrons
protons
deuterons
tritons
he-3

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,n)

ProbIMeV

10^1

10^{-1}

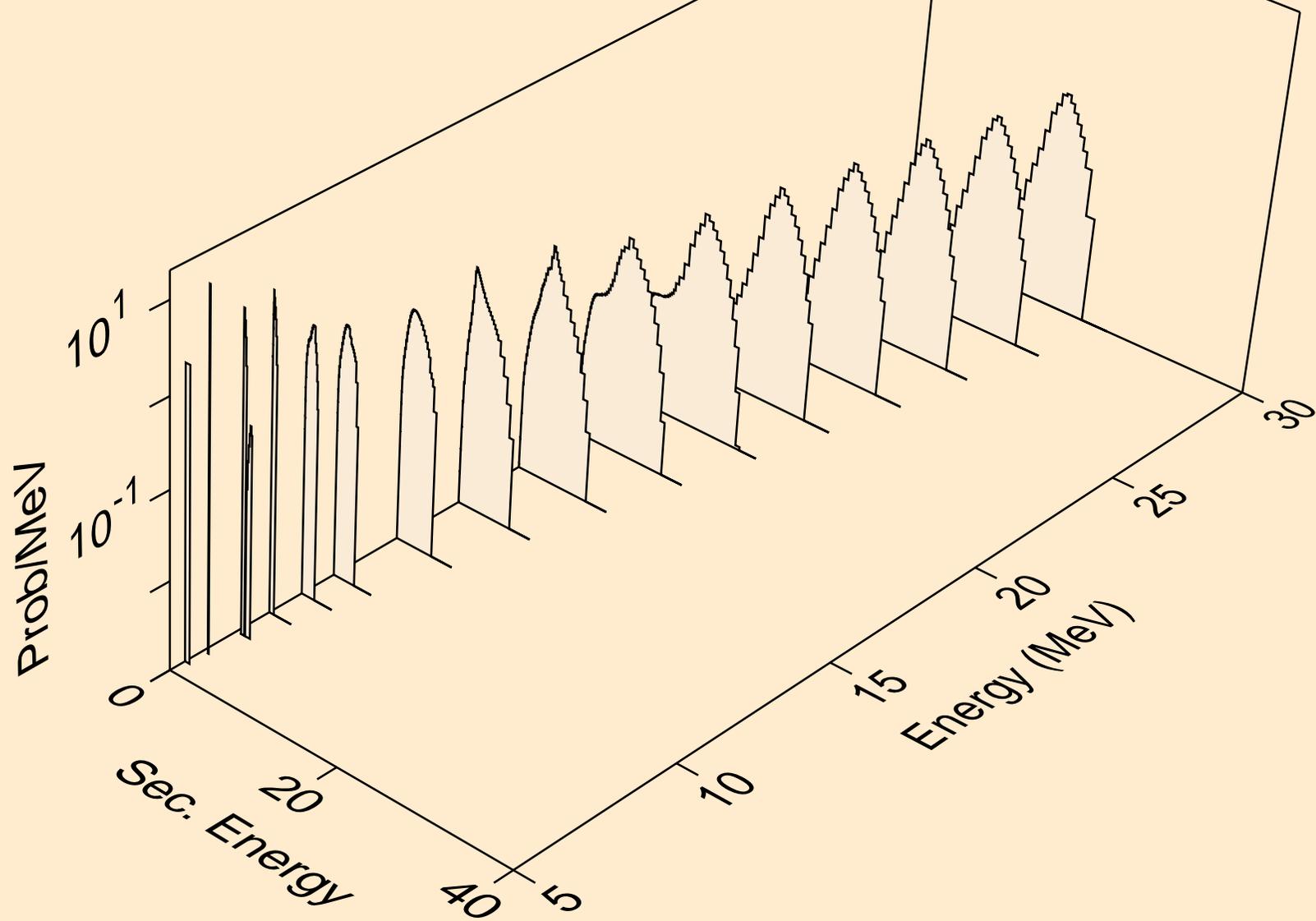Sec. Energy

Energy (MeV)

0

20

40

5

10

15

20

25

30
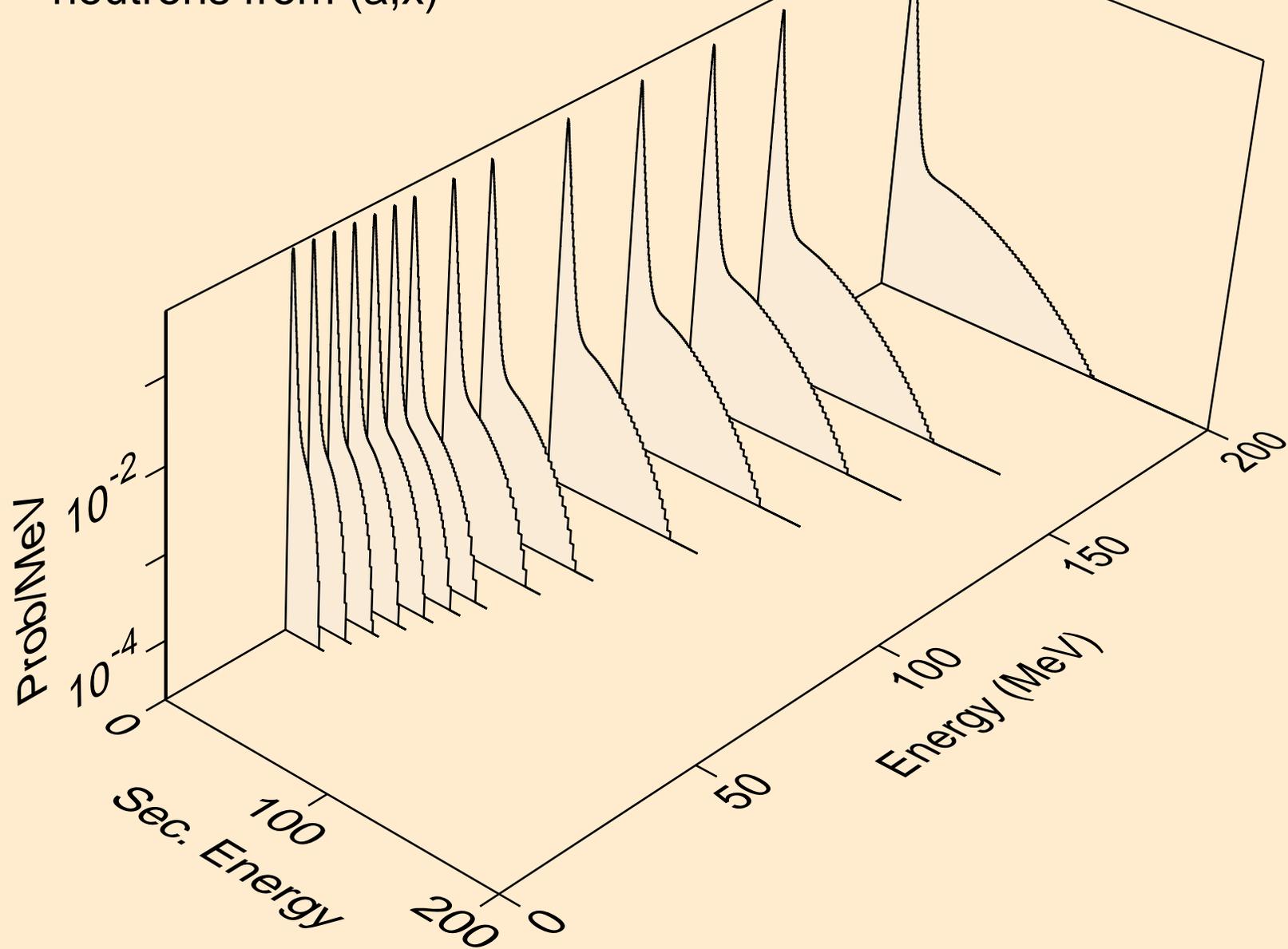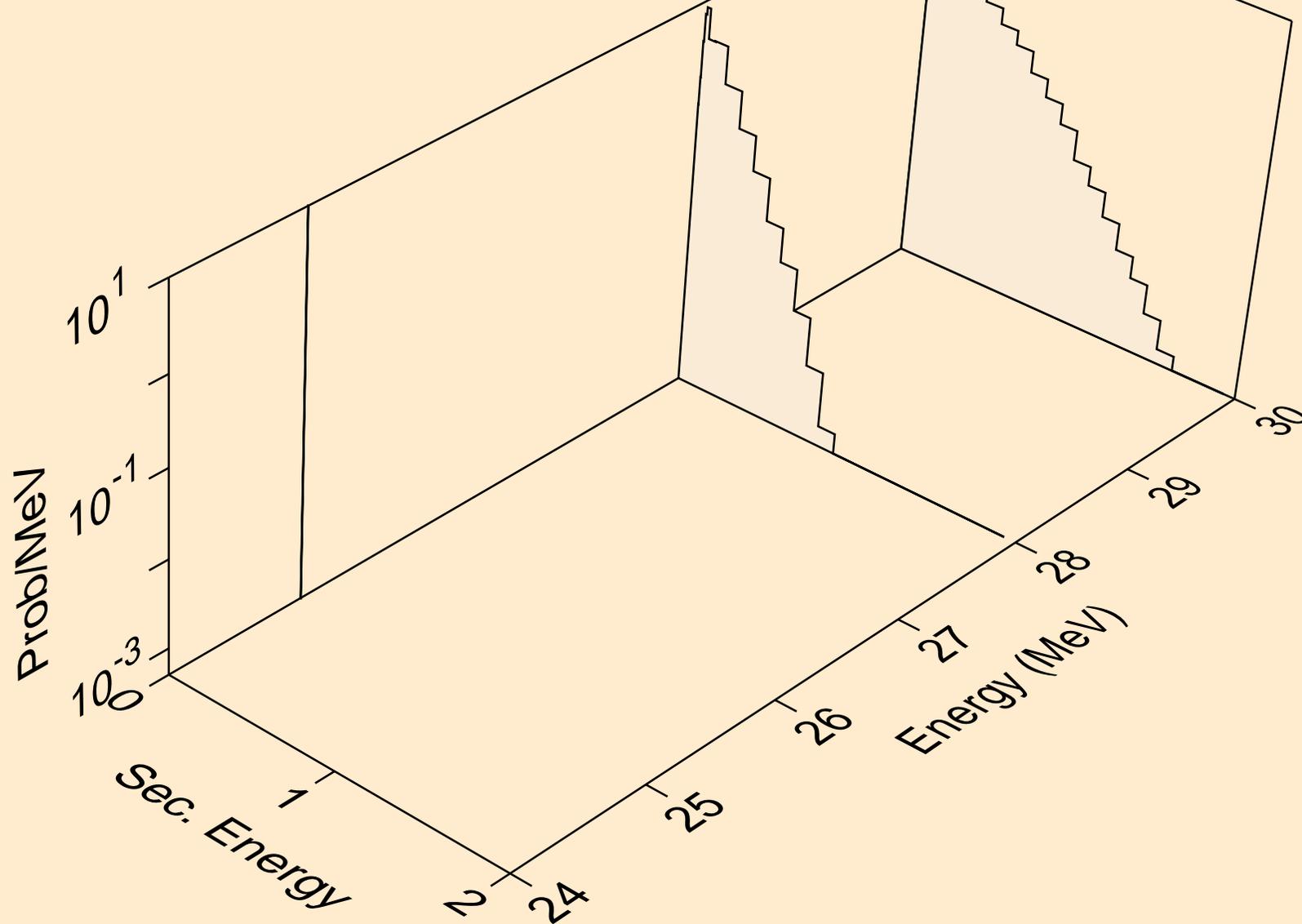
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,x)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,2nd)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,2n)

ProbMeV

10^0

10^{-2}

0

Sec. Energy

10

20

Energy (MeV)

12 14 16 18 20 22 24 26 28 30

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,3n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,n*)a

ProblMeV

10^{-1}
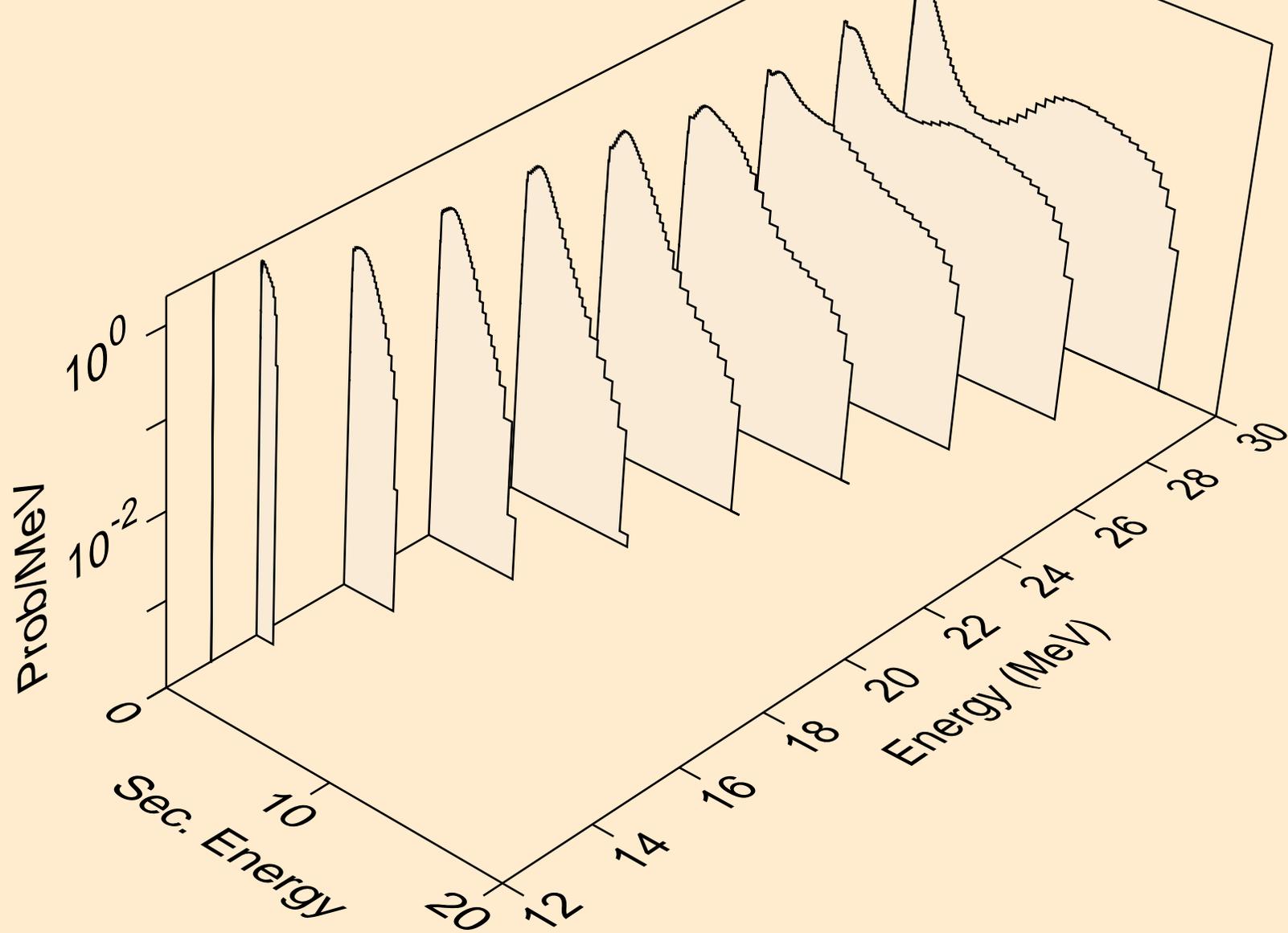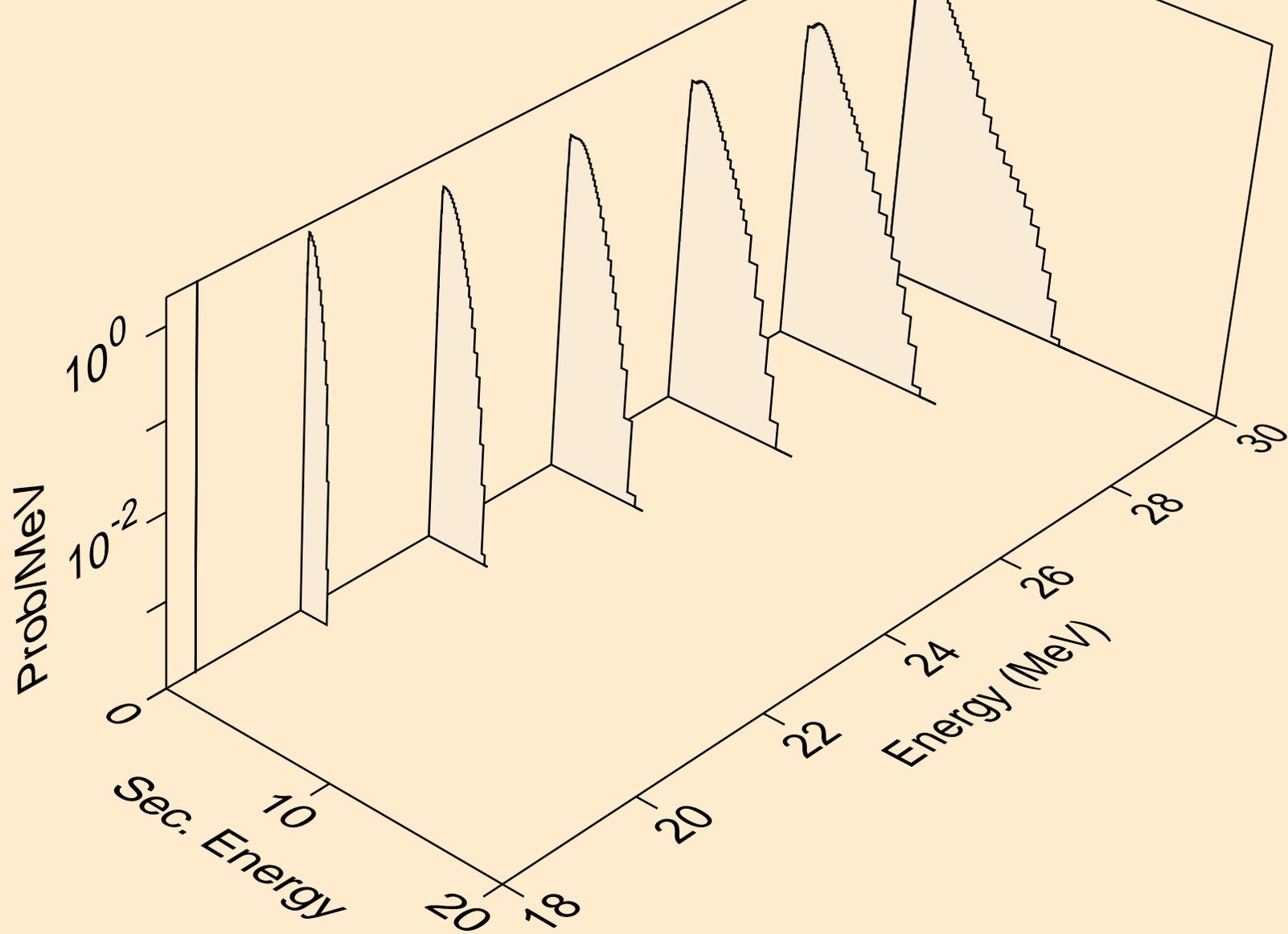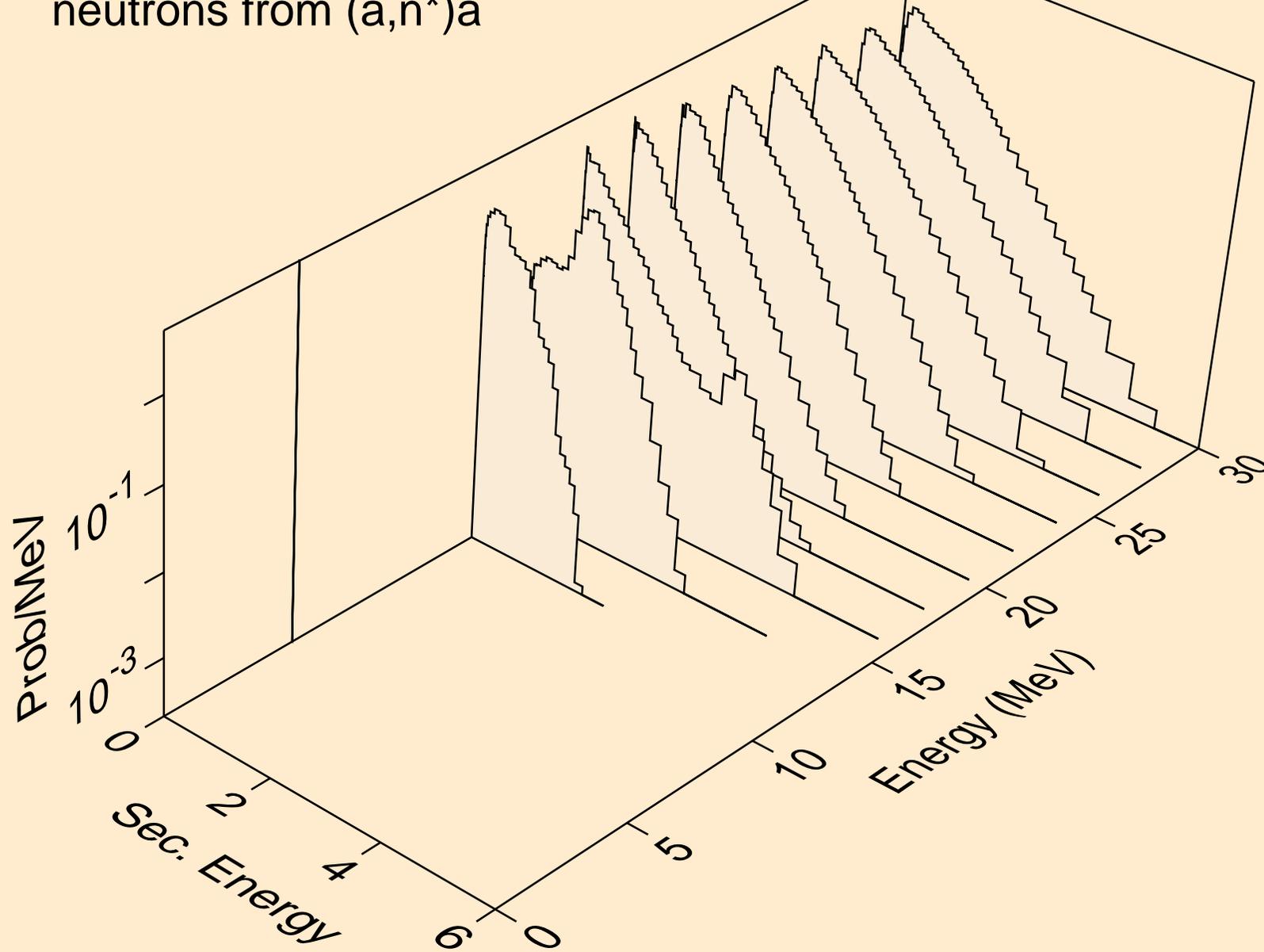
10^{-3}

Sec. Energy

Energy (MeV)

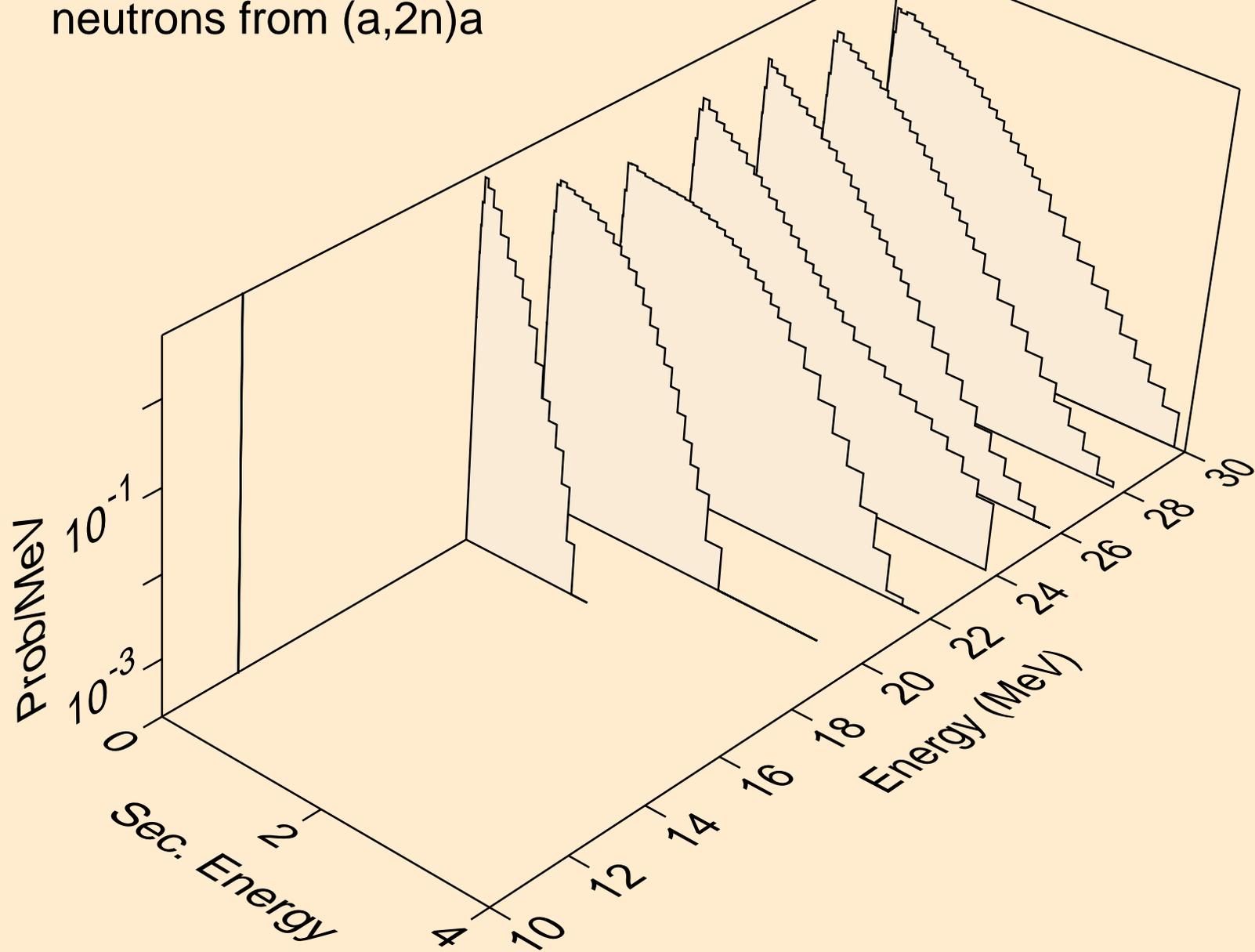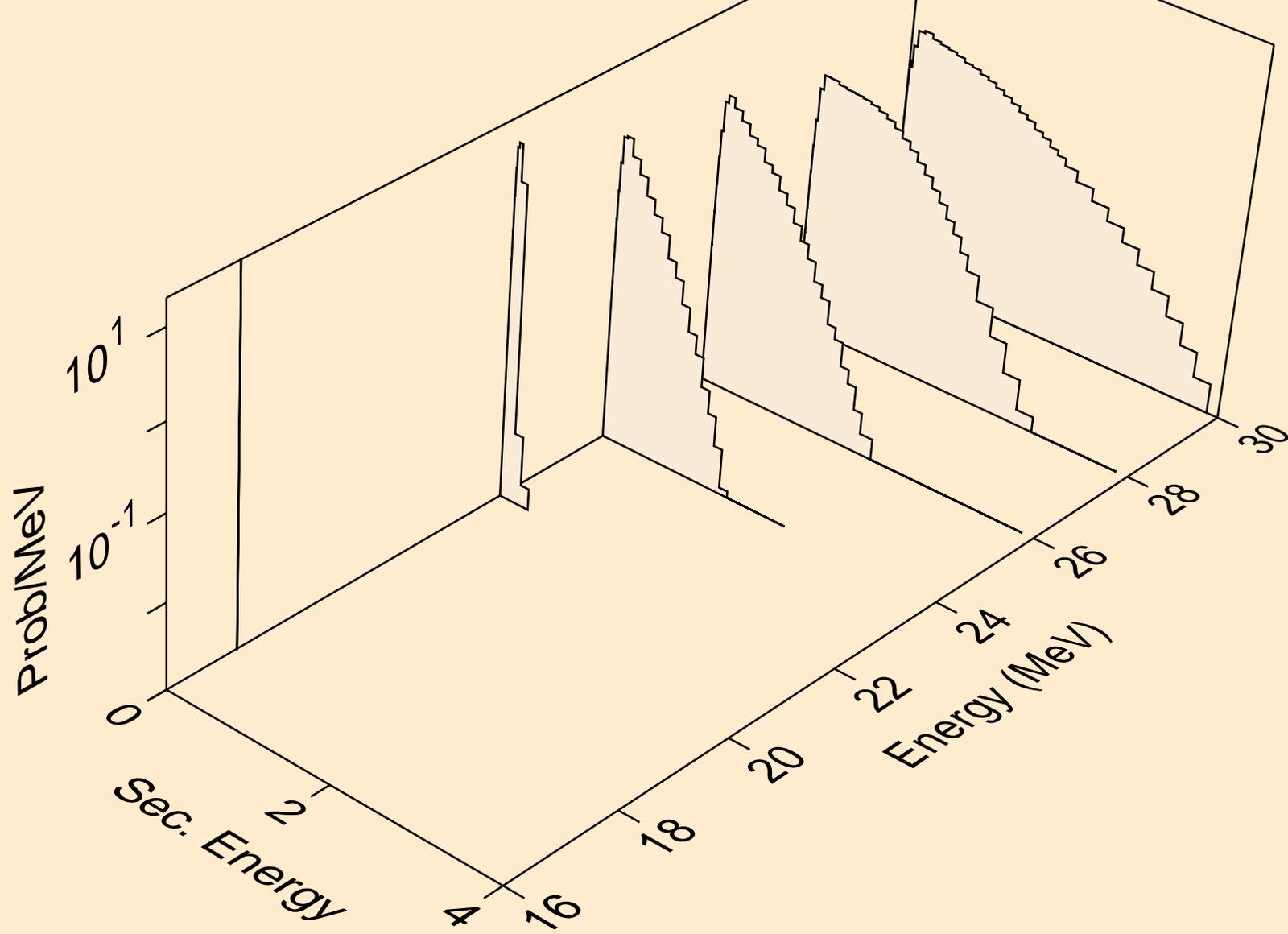CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,2n)a

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,3n)a

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
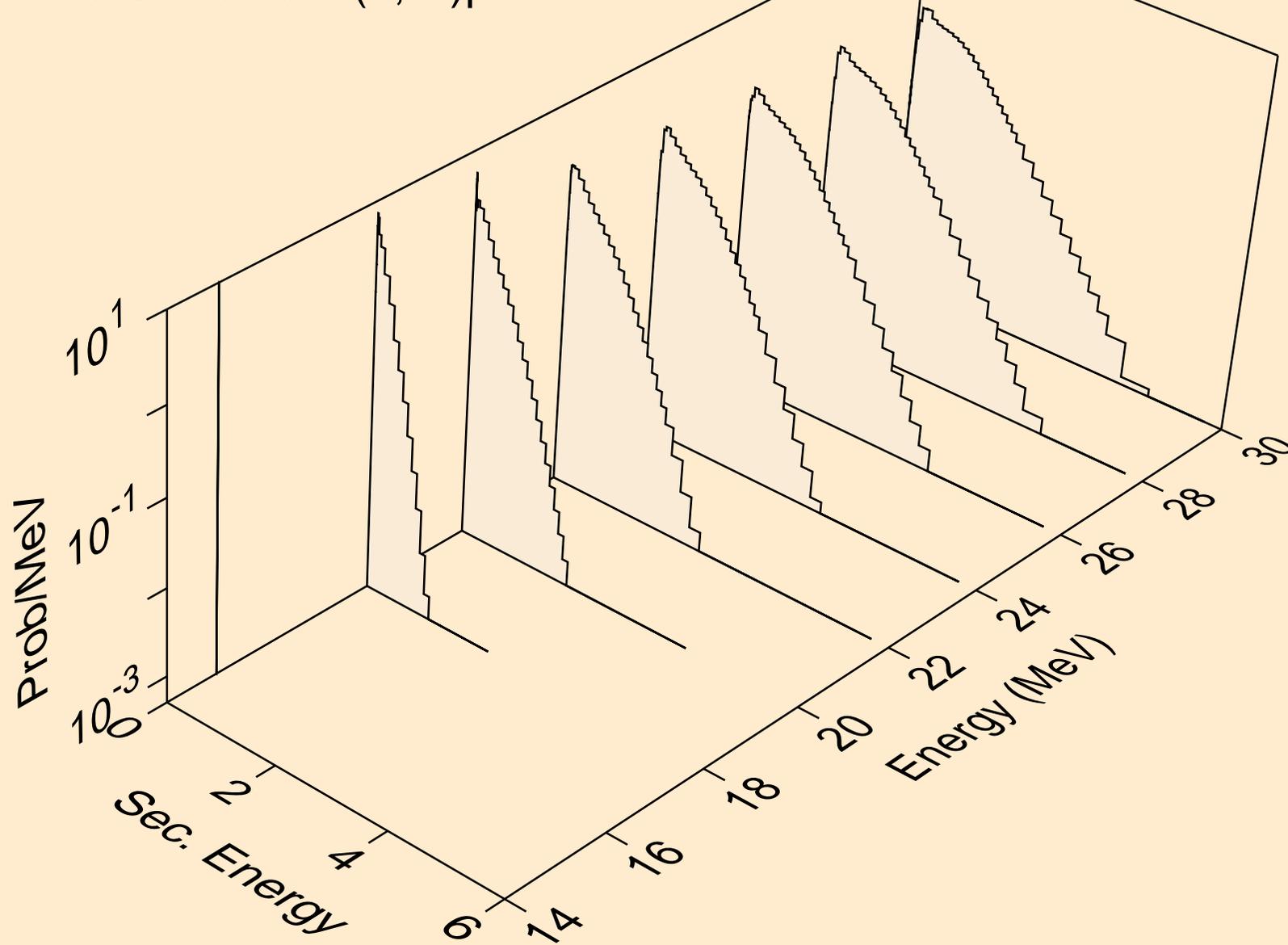neutrons from (a,n*)p

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,n*)d

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

2

4

Energy (MeV)

18

20

22

24

26

28

30

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,n*)t
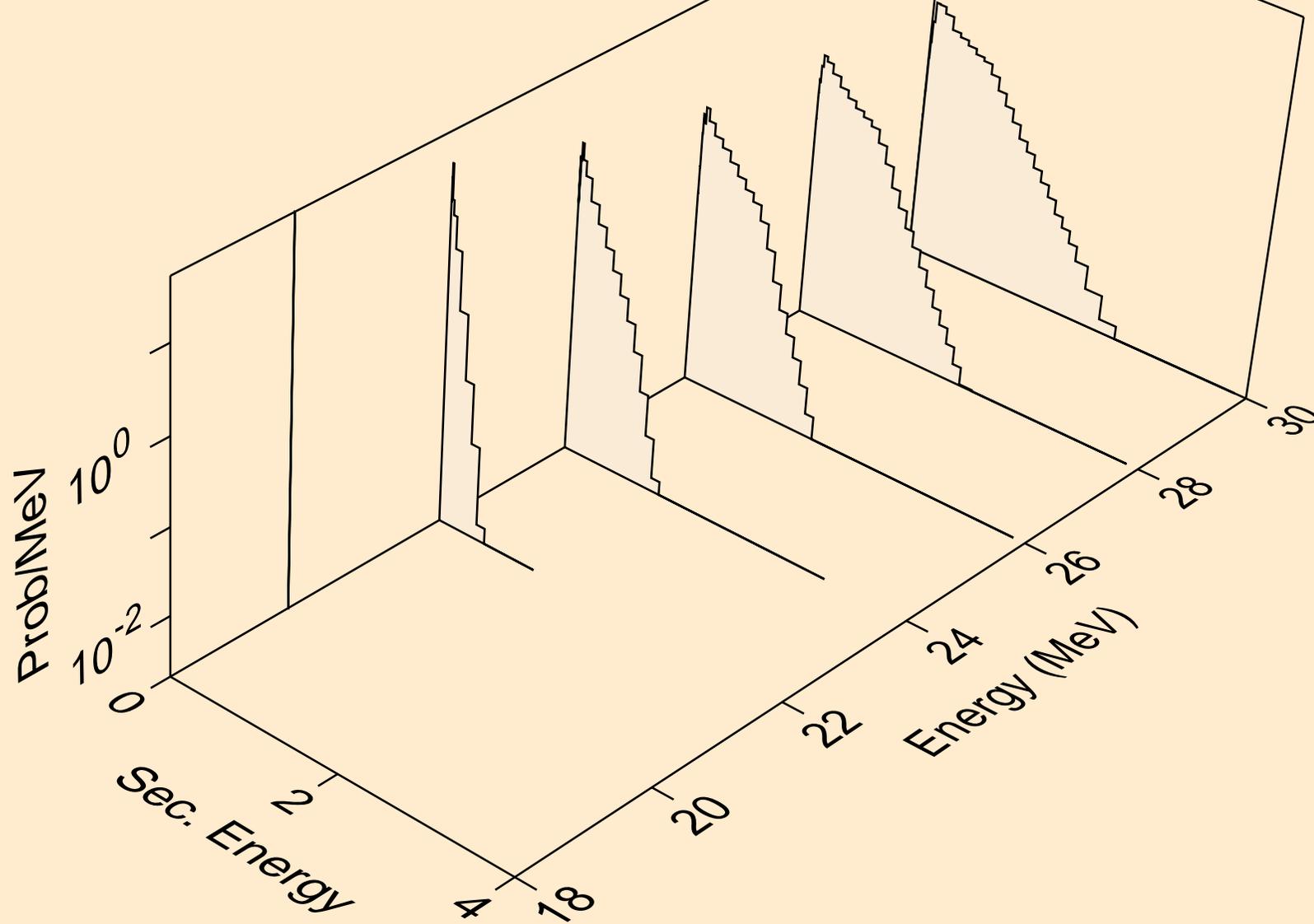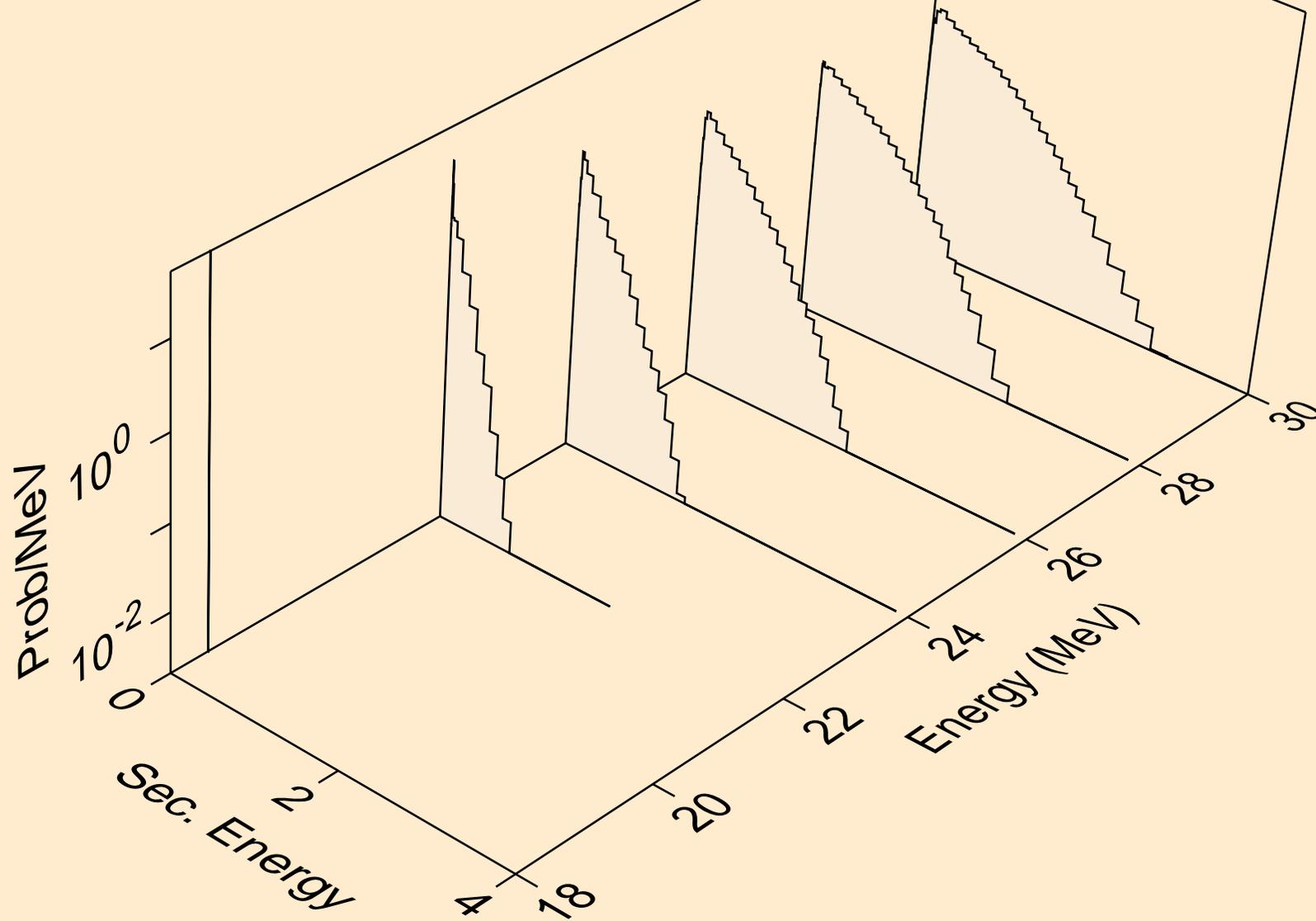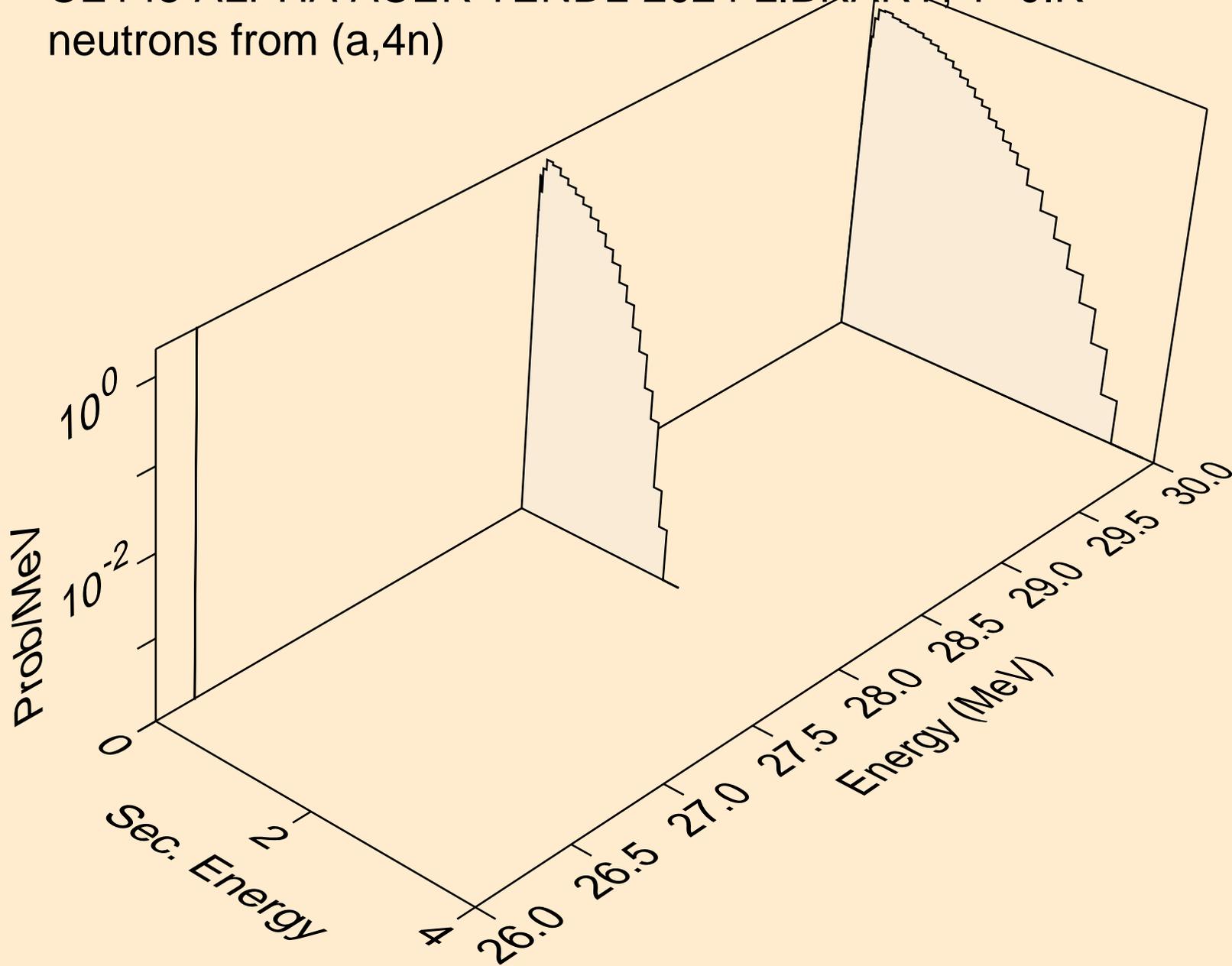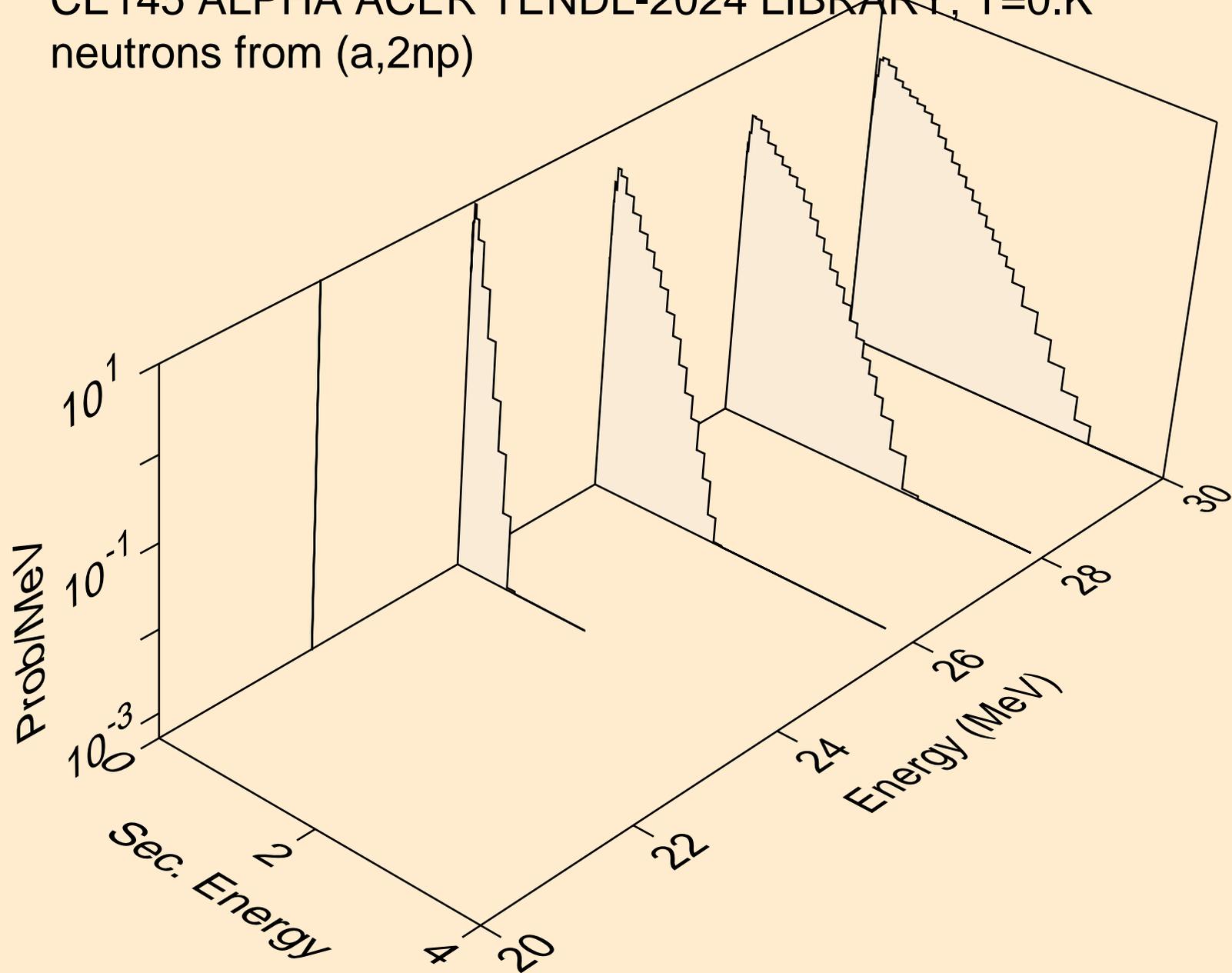
Prob/MeV

10^0

10^{-2}
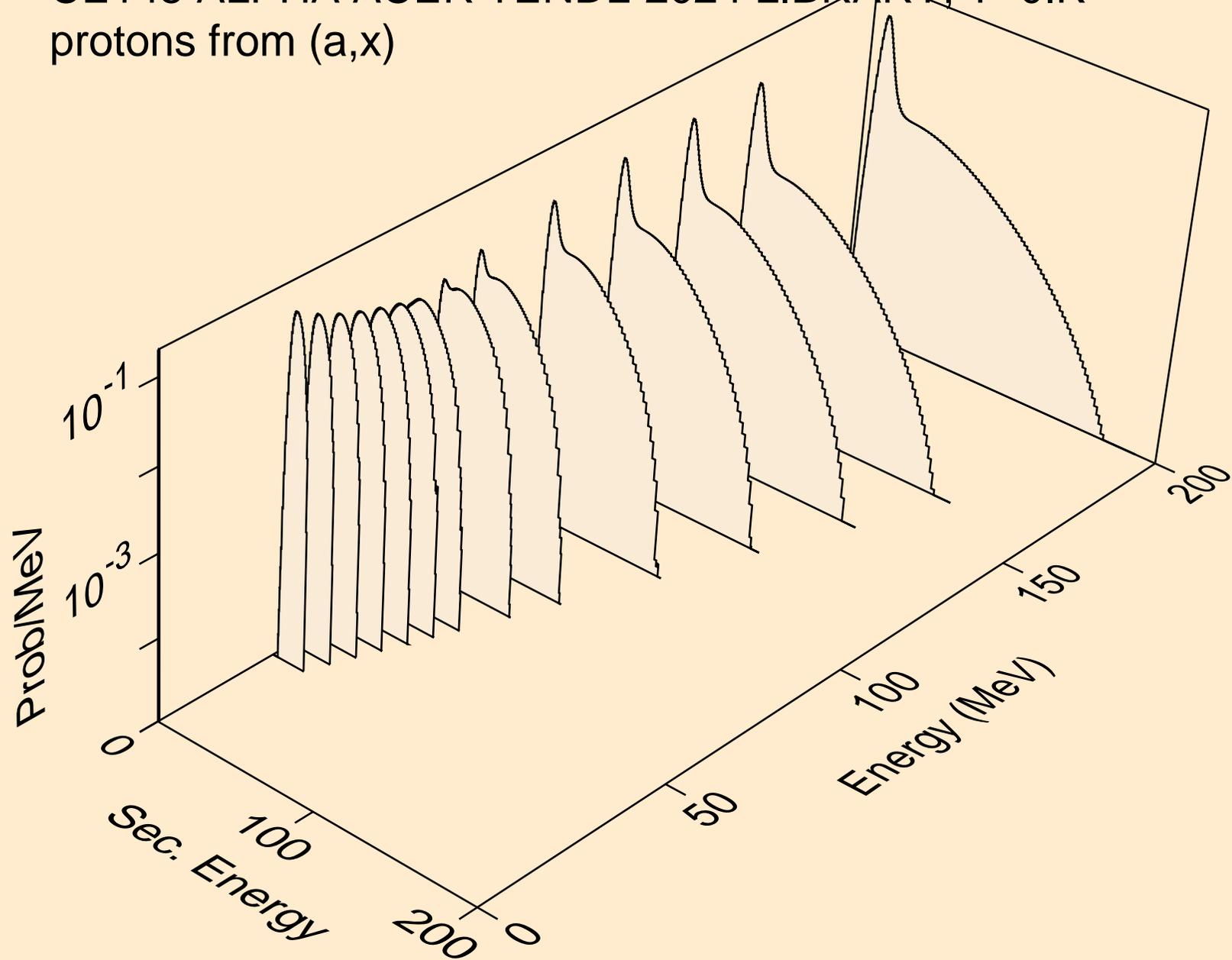
Sec. Energy

Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,4n)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
neutrons from (a,2np)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
protons from (a,x)

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy

100

200
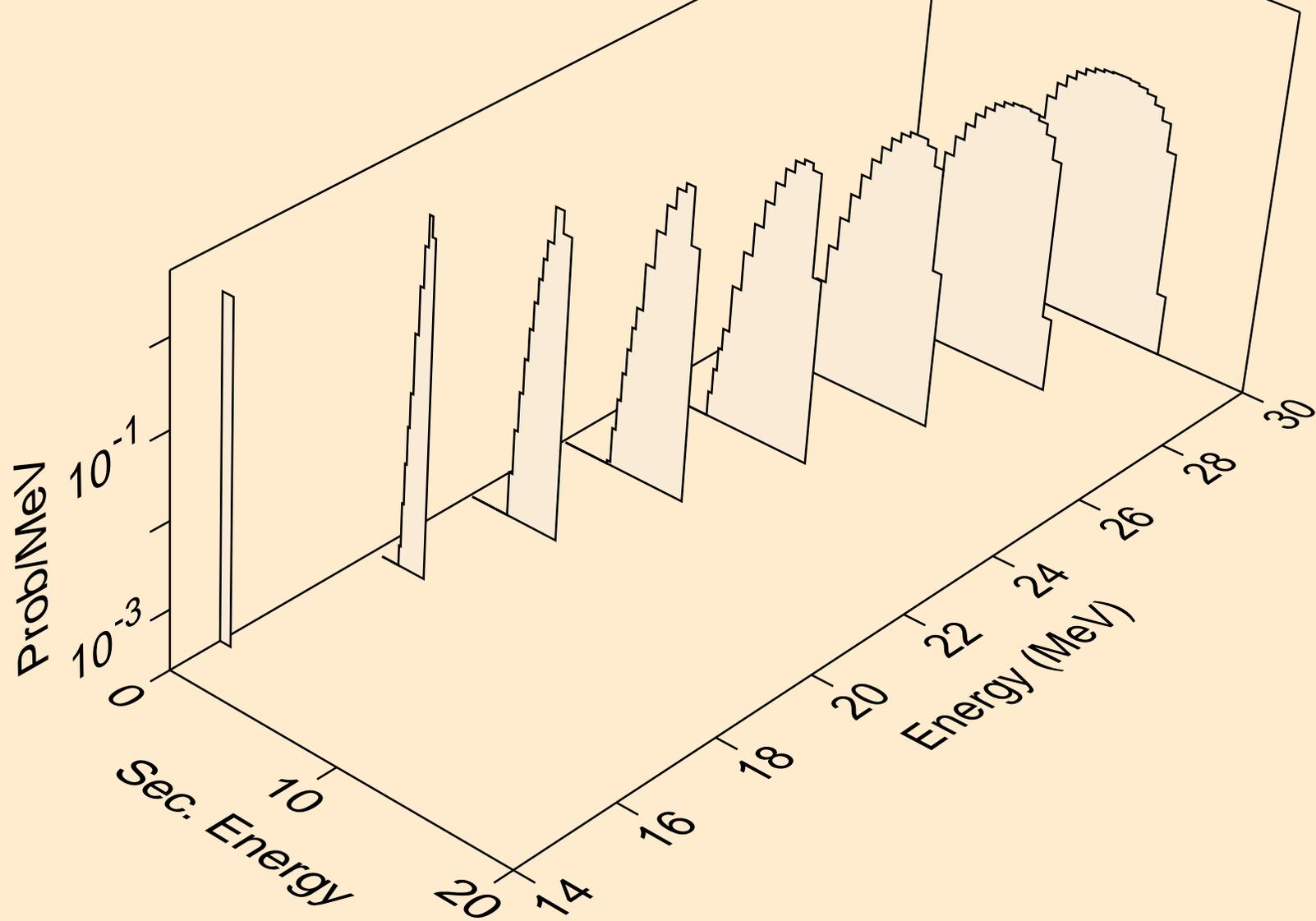
0
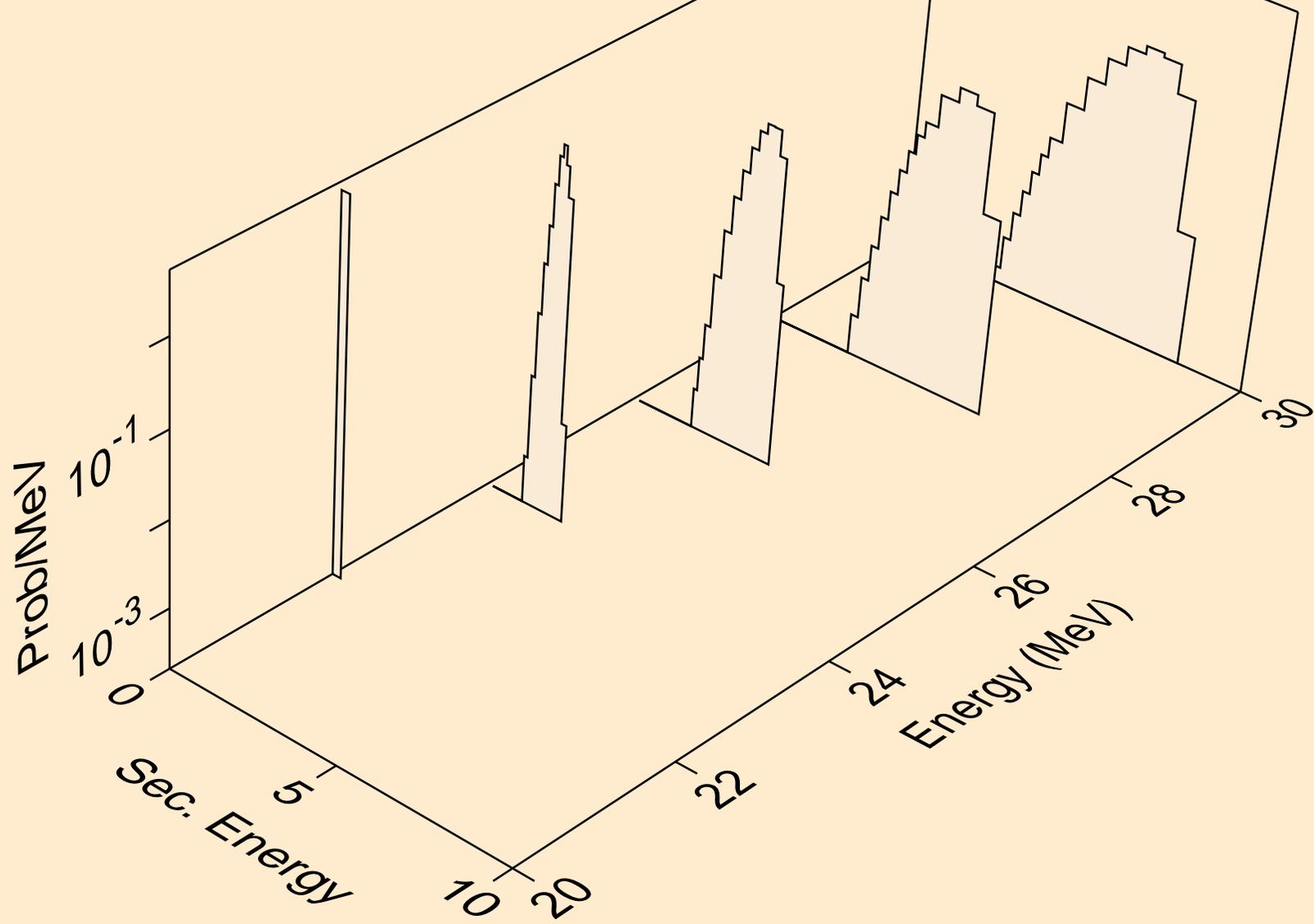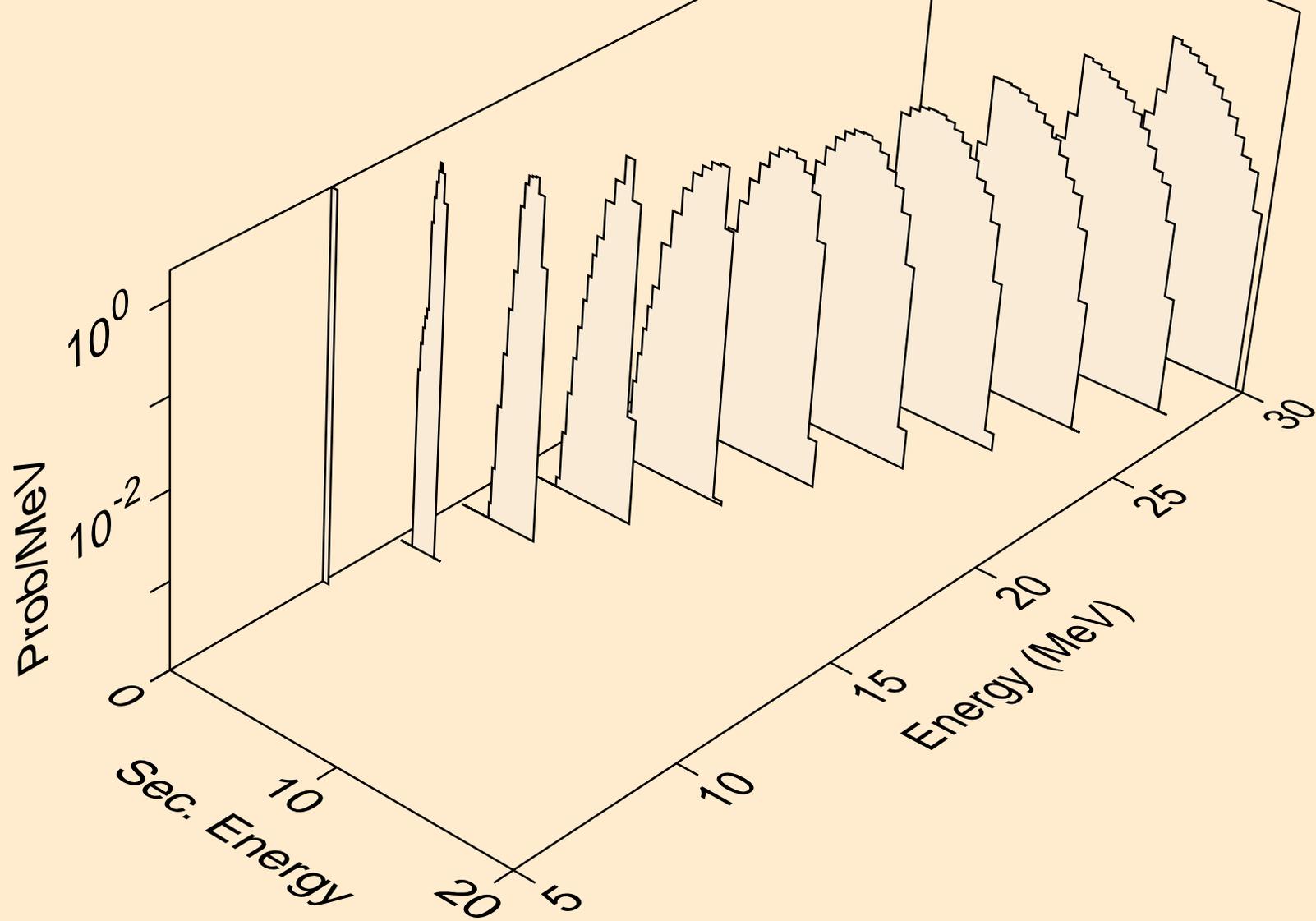
50

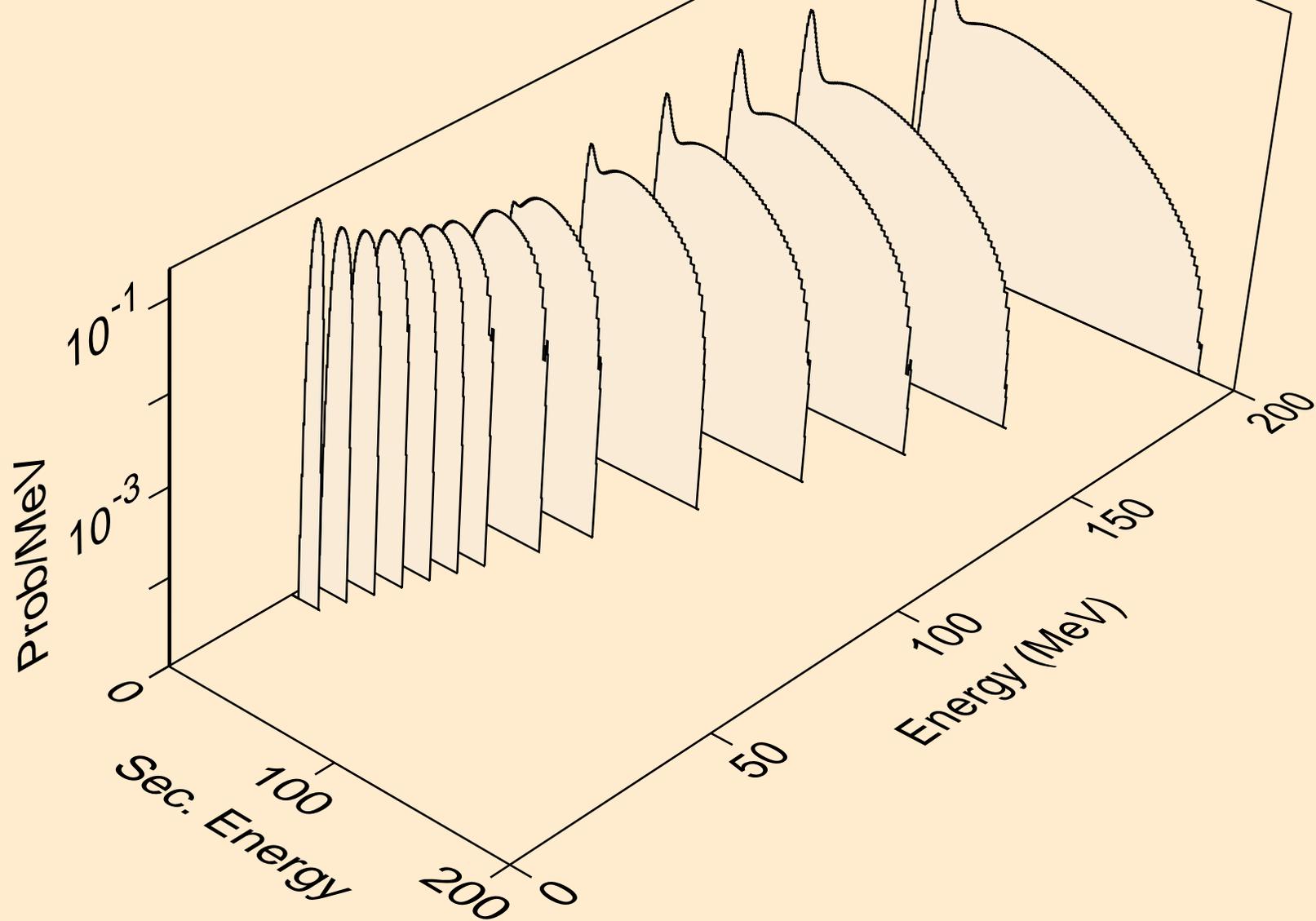100

150

200

Energy (MeV)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
protons from (a,n*)p

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
protons from (a,2np)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
protons from (a,p)

ProbMeV

10^0

10^{-2}

0

Sec. Energy

10

20

5

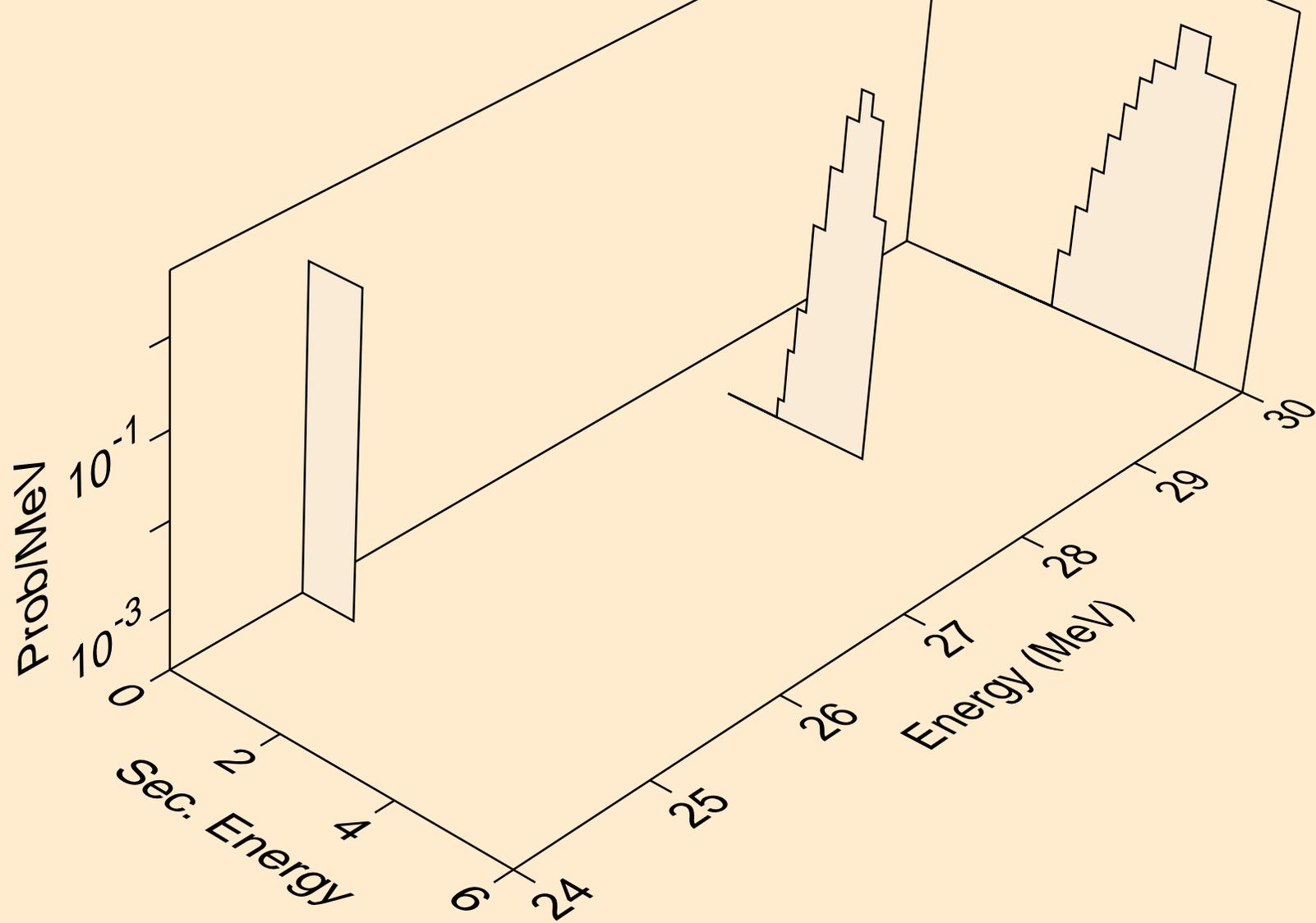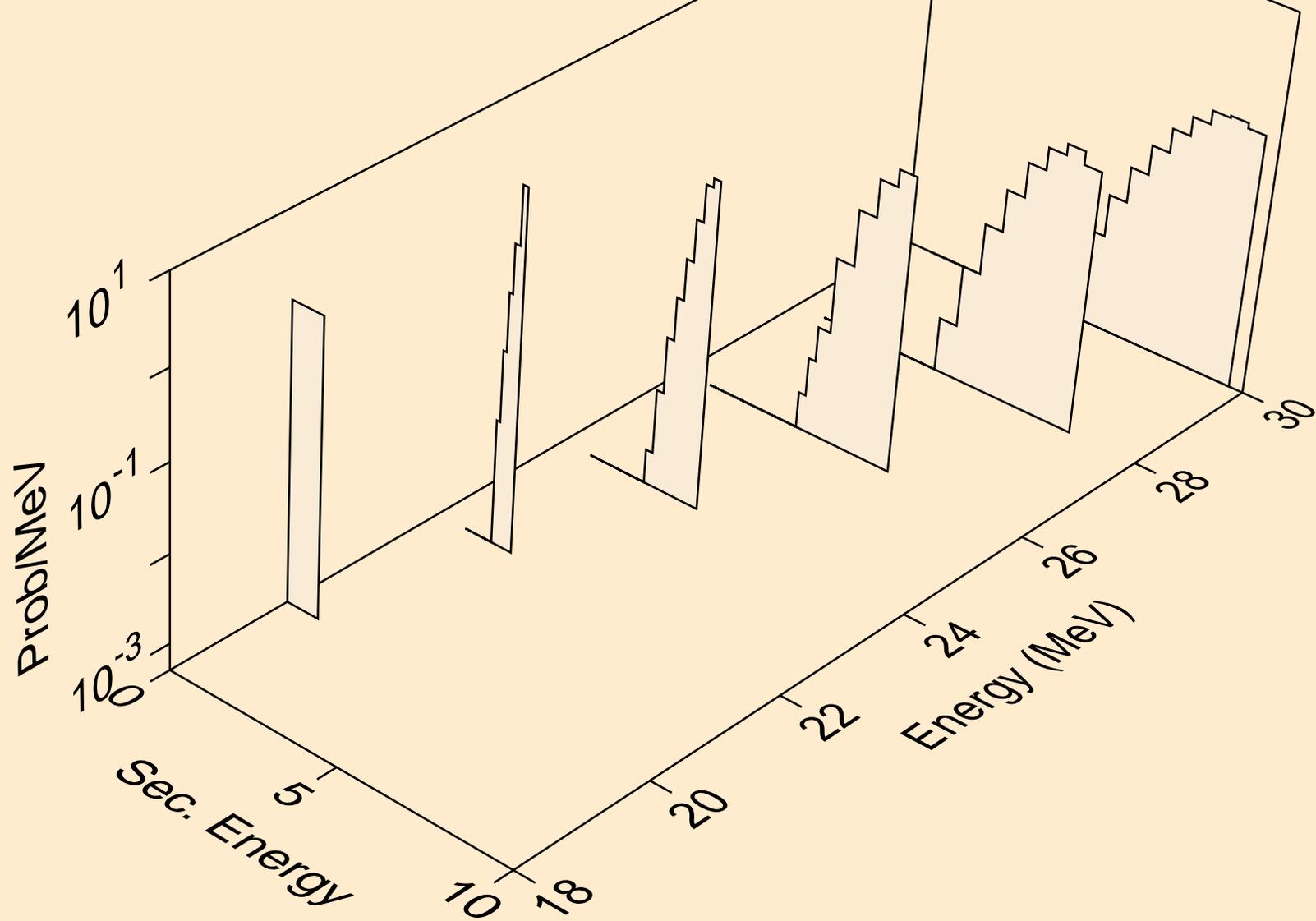10

15

20

25

30

Energy (MeV)

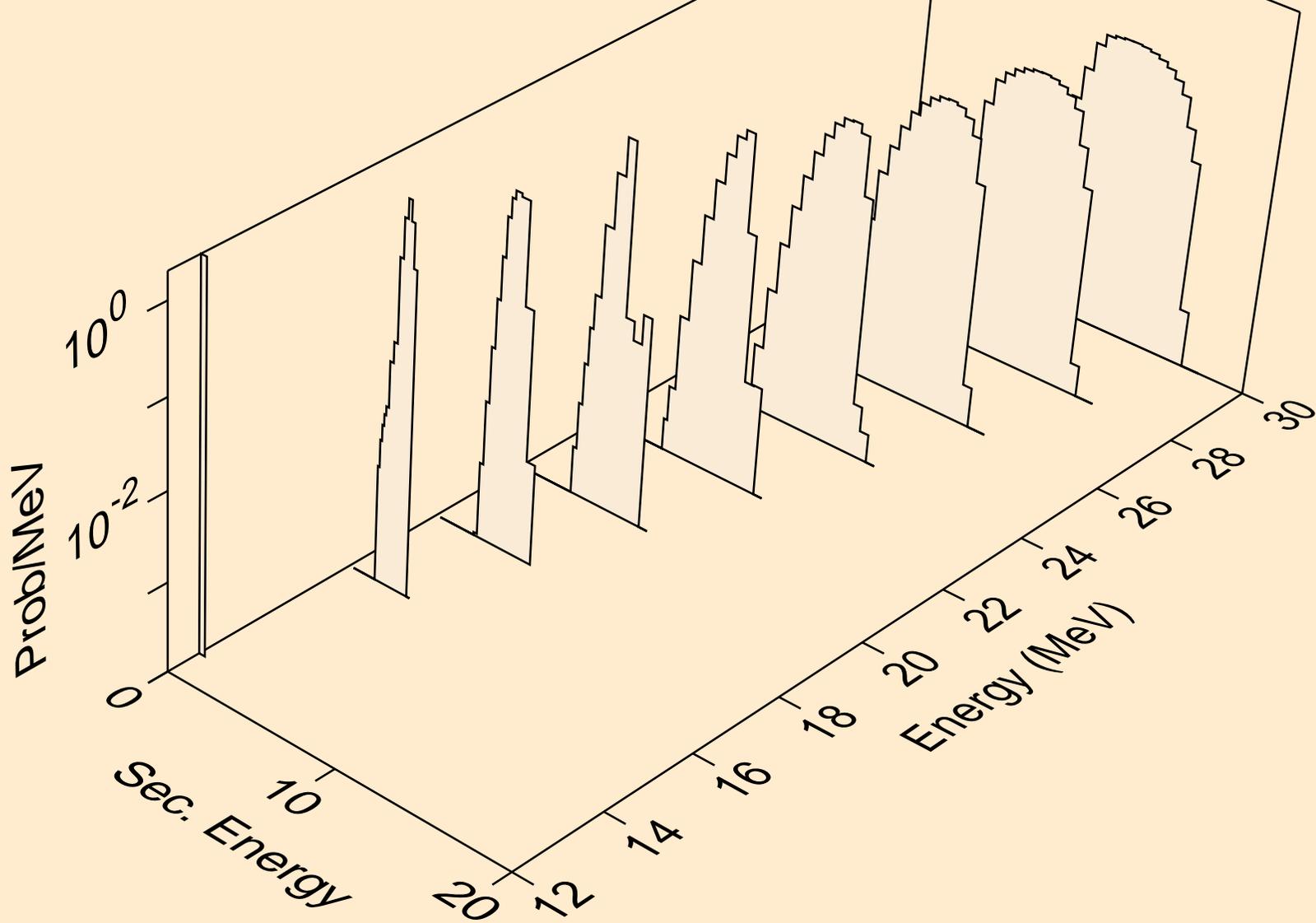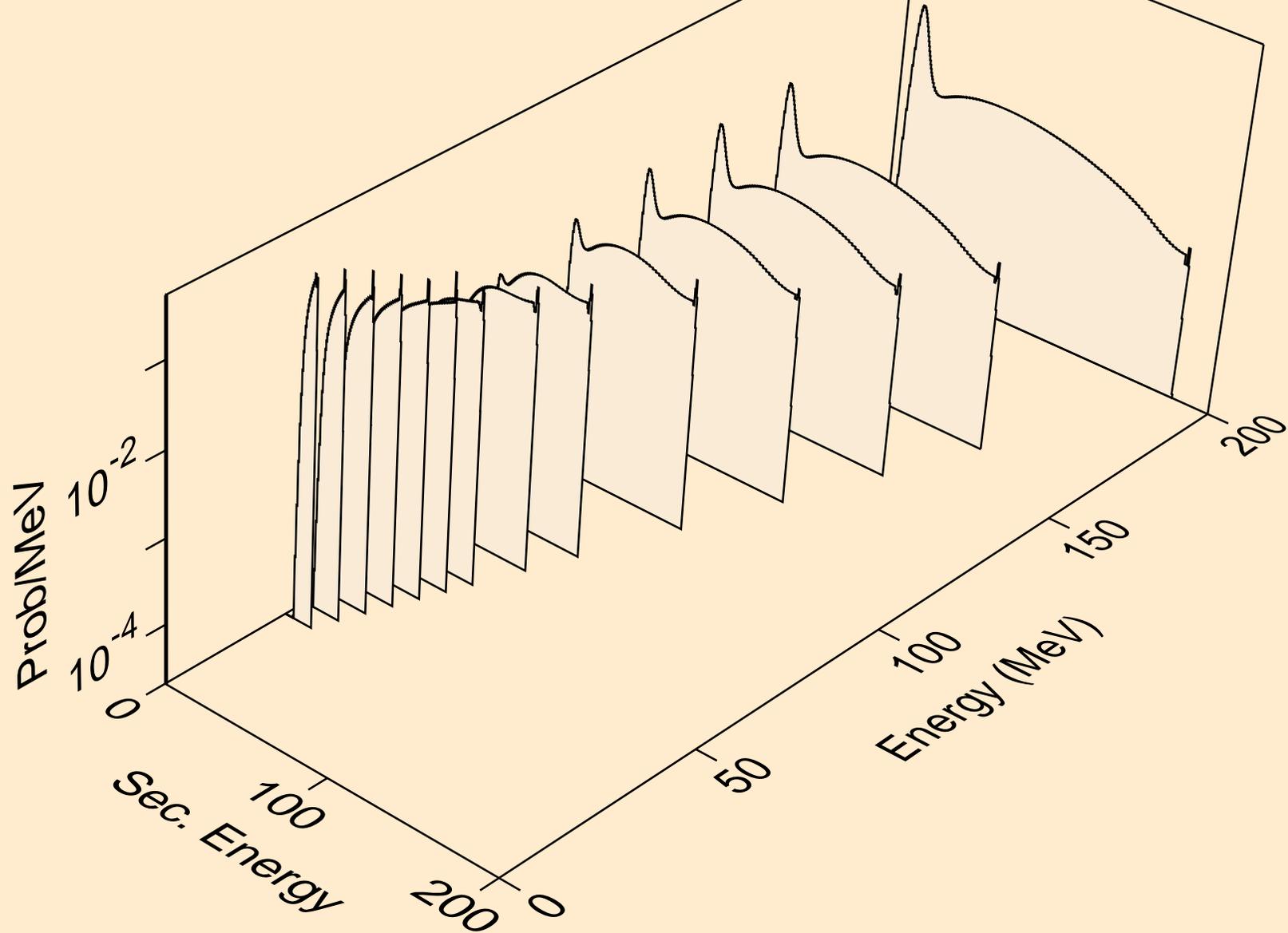CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
deuterons from (a,x)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
deuterons from (a,2nd)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
deuterons from (a,n*)d
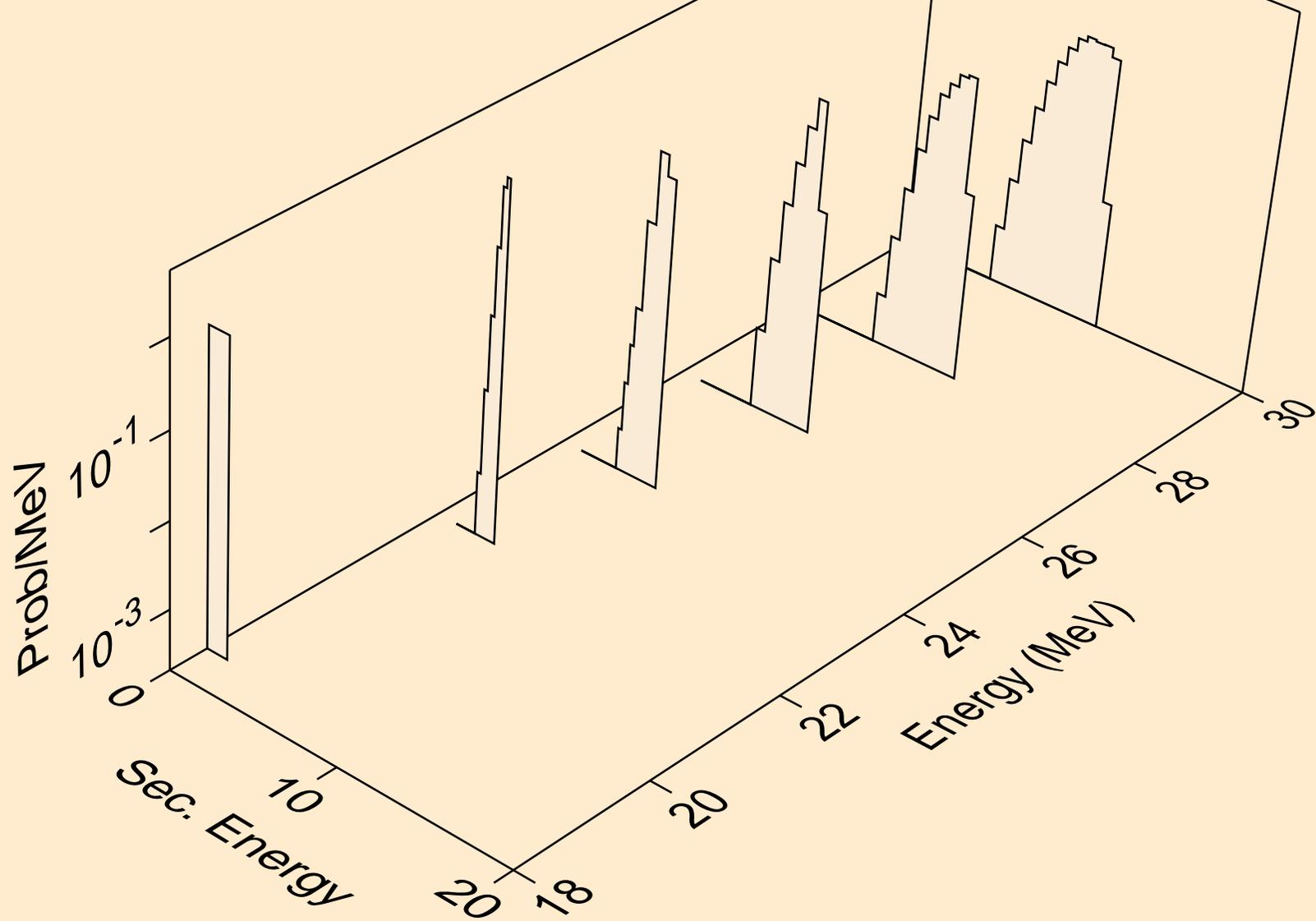
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
deuterons from (a,d)

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

10

20

Energy (MeV)

12

14

16

18

20

22

24

26

28

30
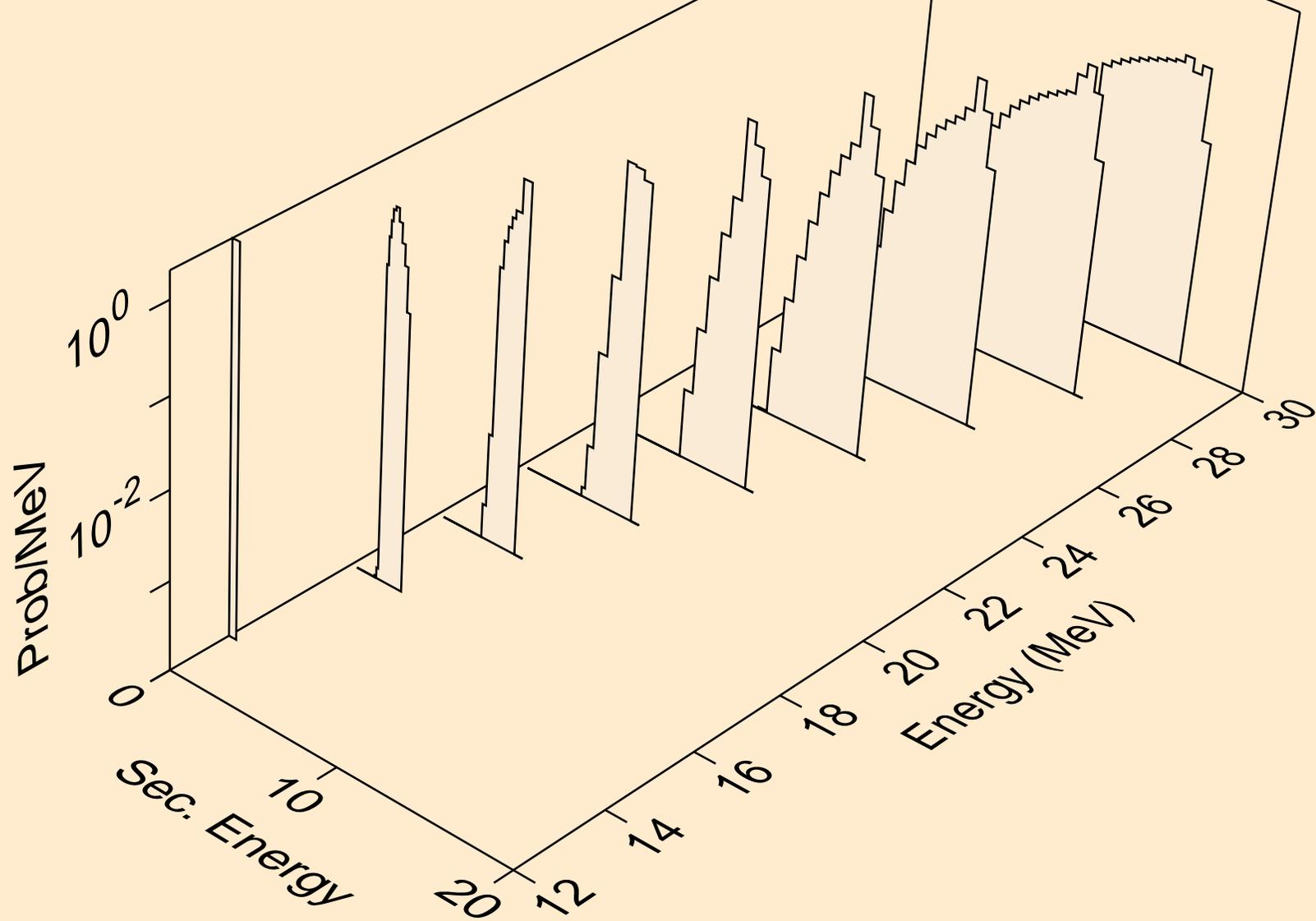
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
tritons from (a,x)
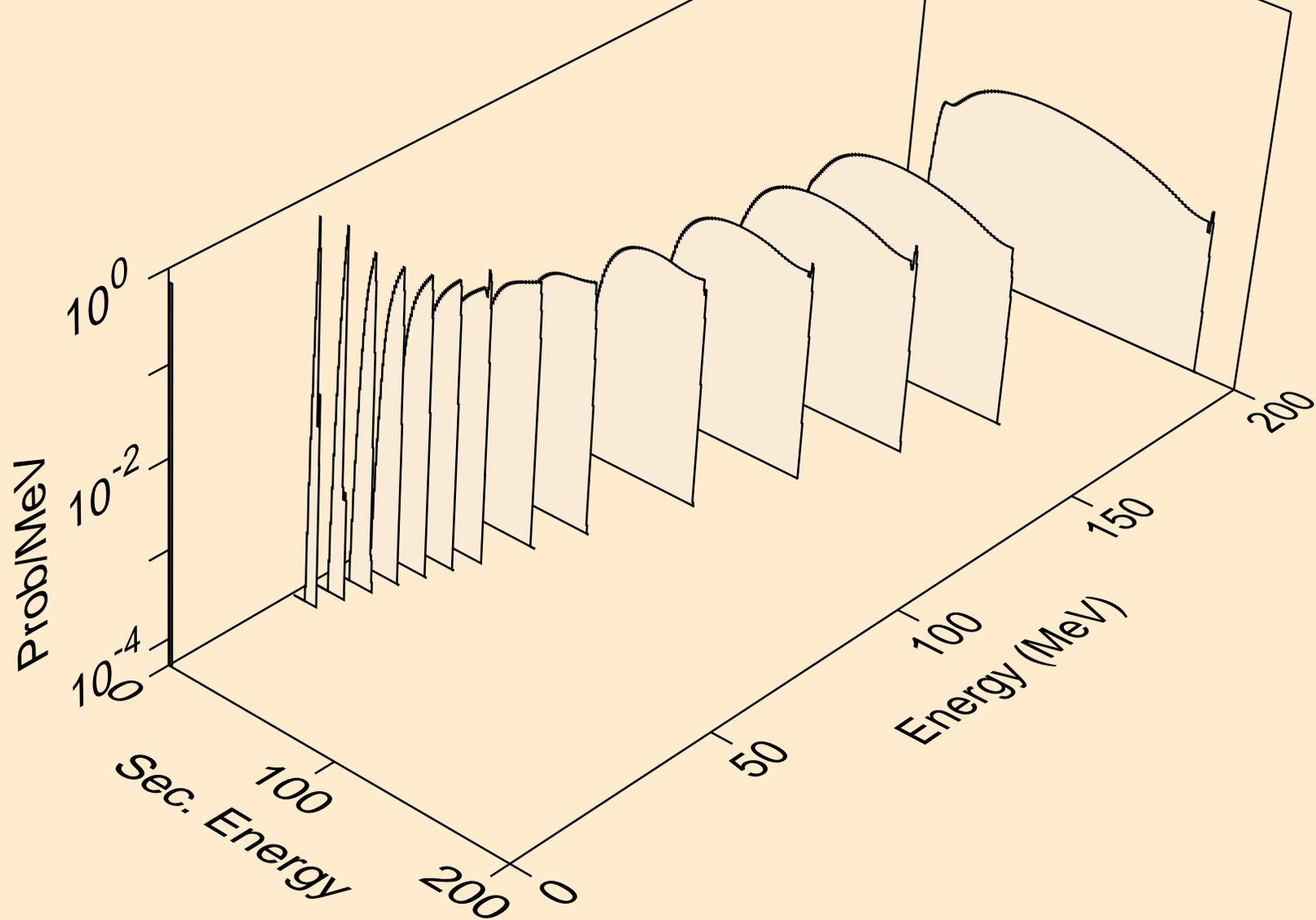
CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
tritons from (a,n*)t

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
tritons from (a,t)

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
he3s from (a,x)

Prob/MeV

10^0

10^{-2}

10^{-4}

Sec. Energy

100

200

50

100

150

200

Energy (MeV)

0

CE145 ALPHA ACER TENDL-2024 LIBRARY; T=0.K
he3s from (a,he3)