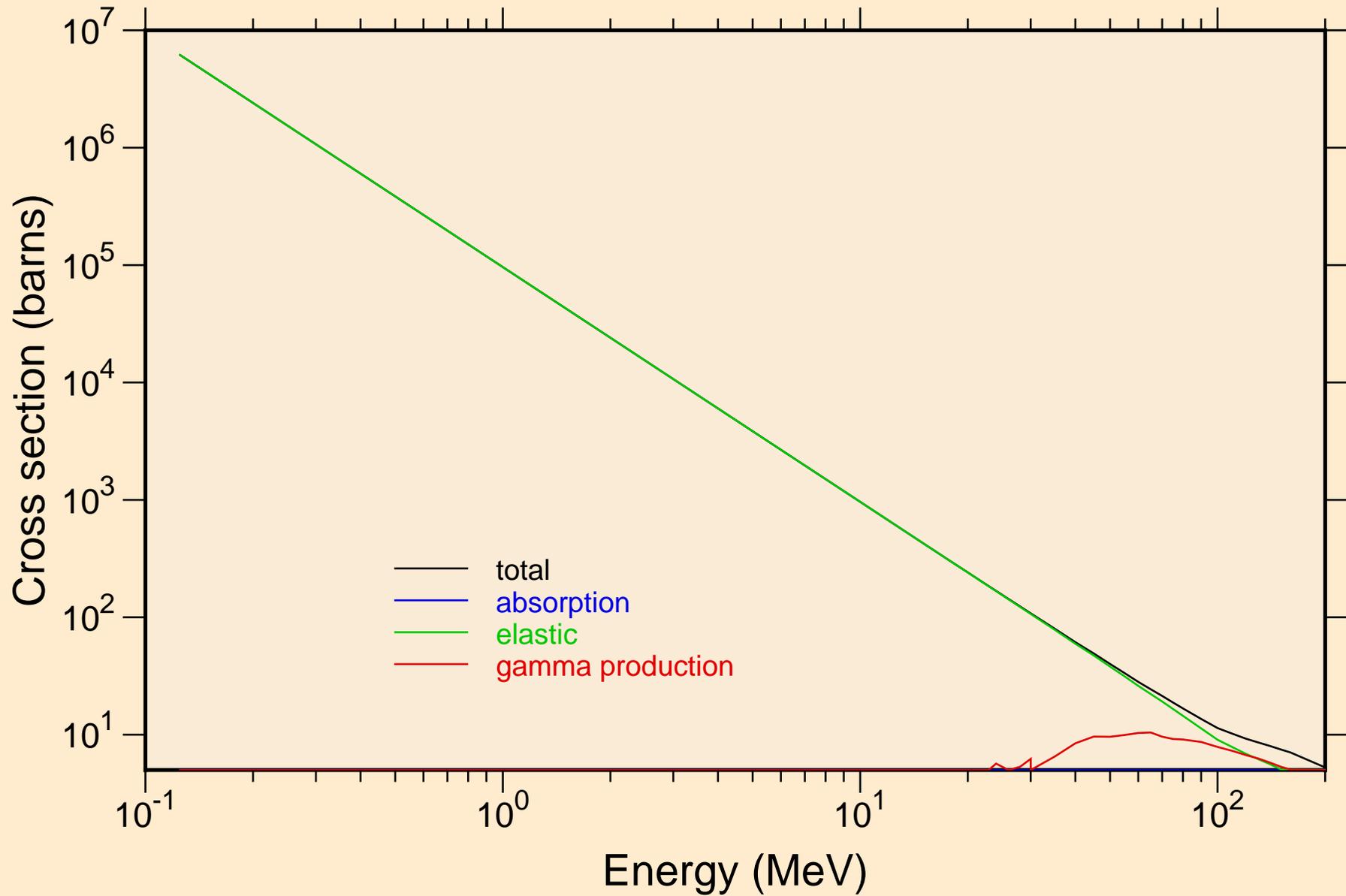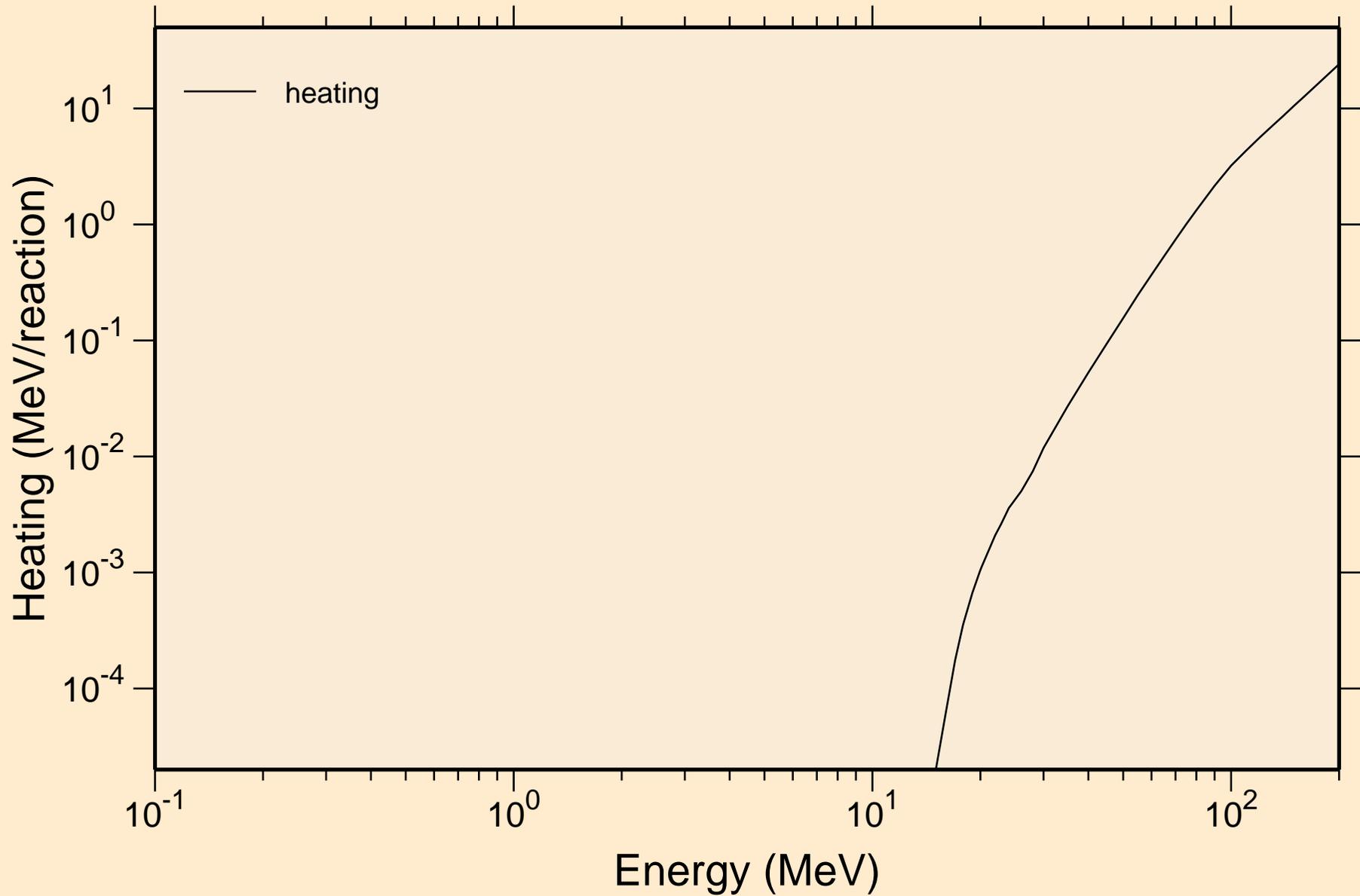PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Principal cross sections
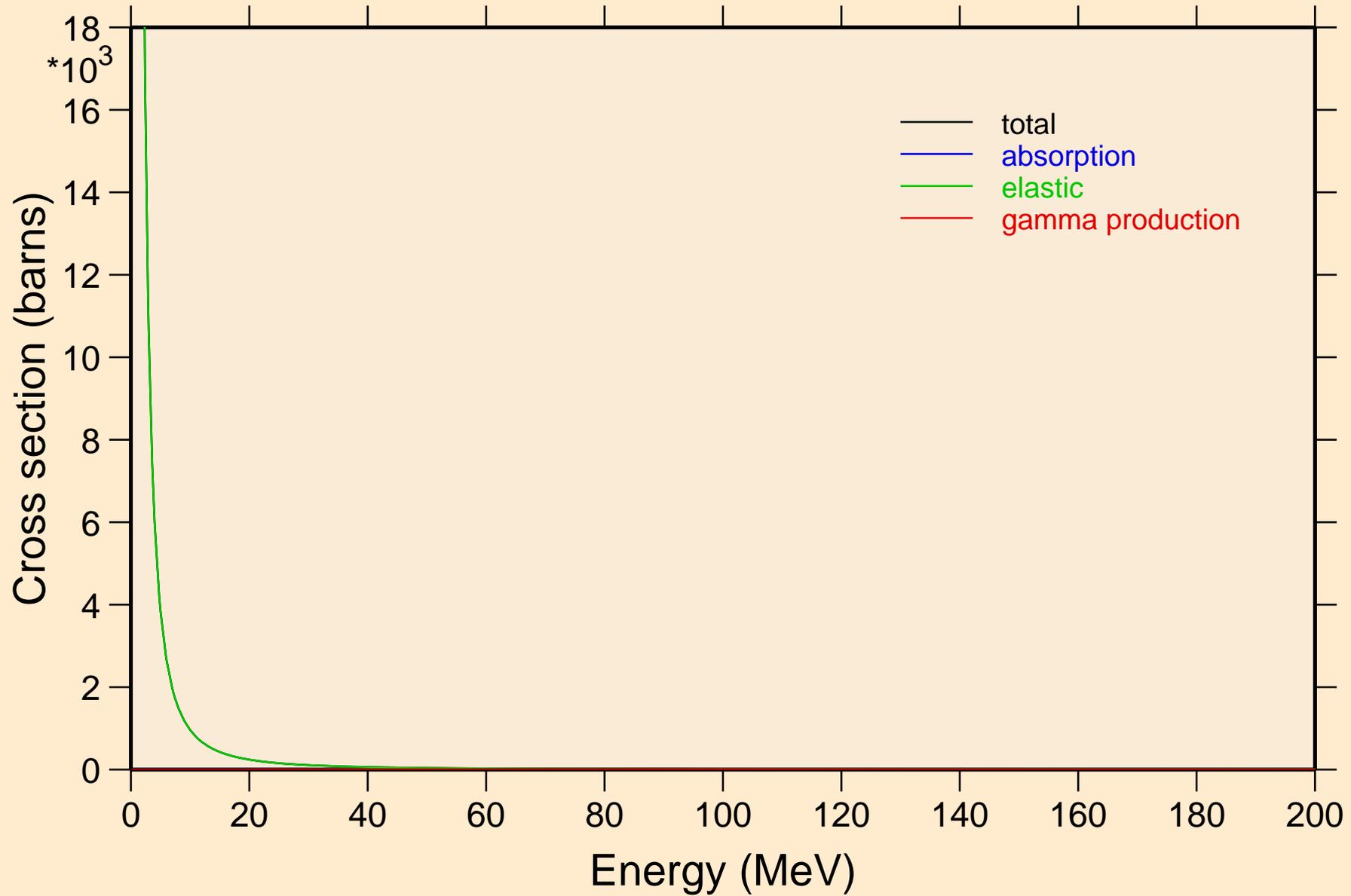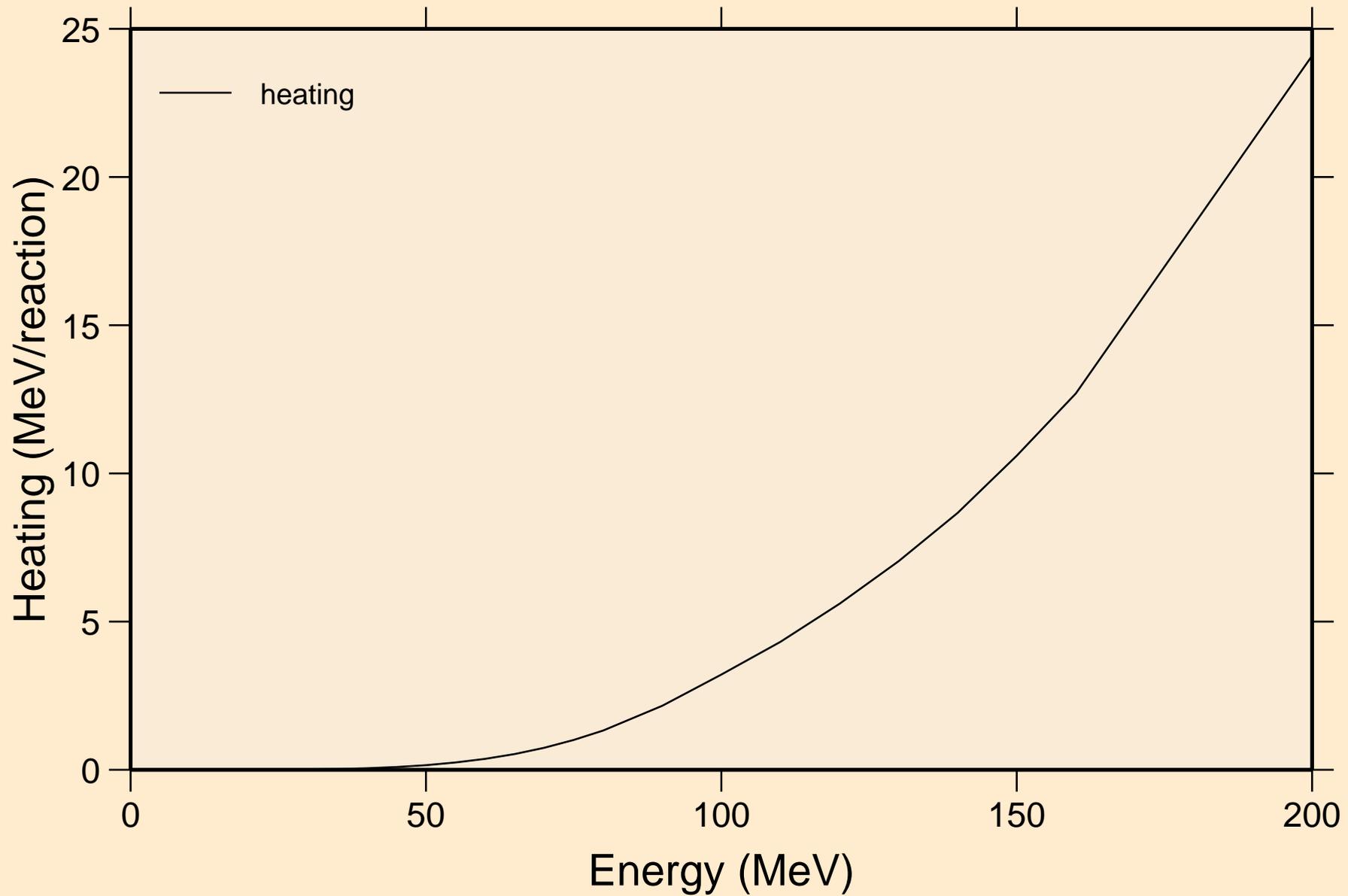
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Heating

heating

Heating (MeV/reaction)

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Principal cross sections

Legend:
- total
- absorption
- elastic
- gamma production

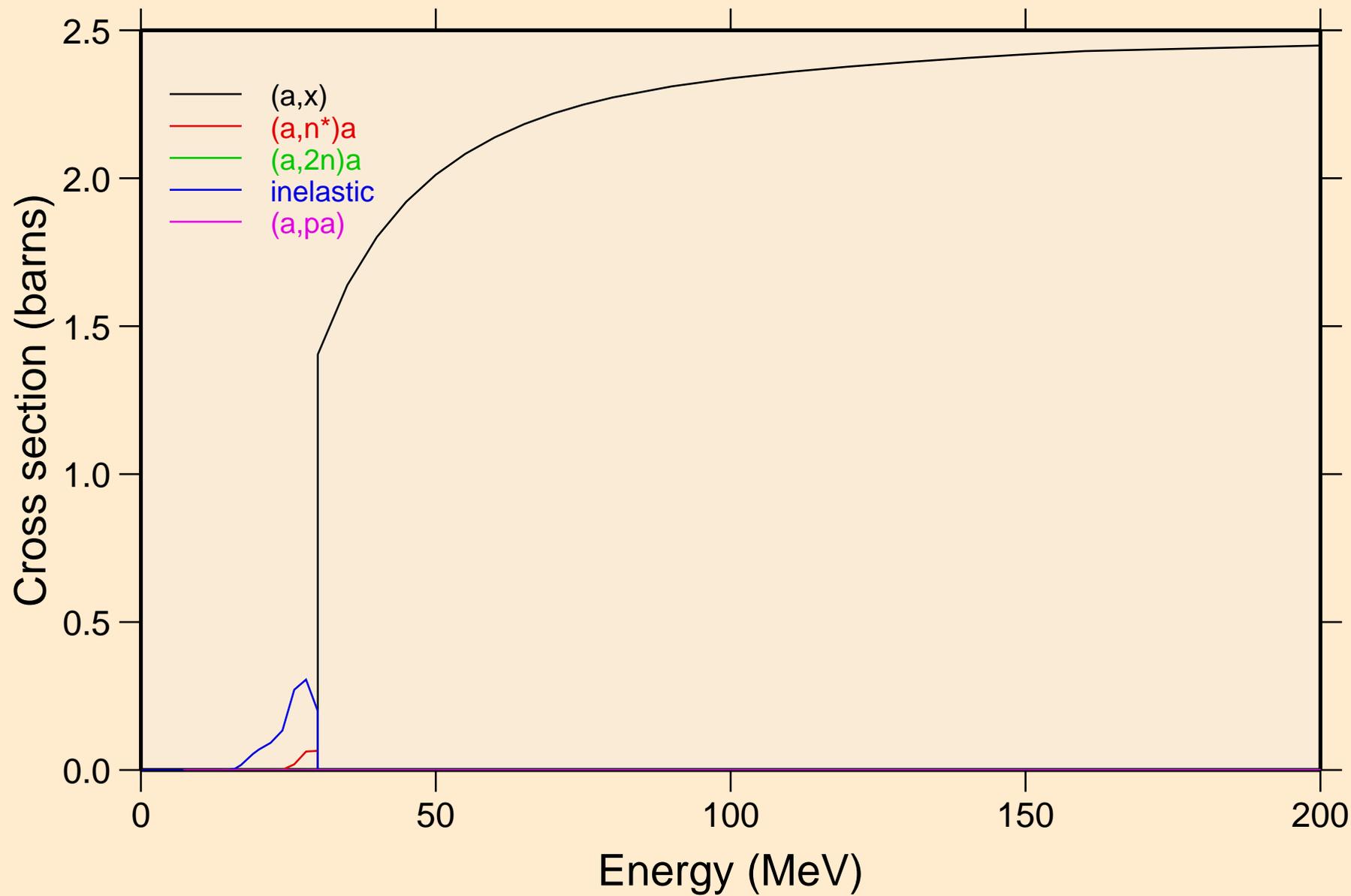Y-axis: Cross section (barns), ×10³
X-axis: Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Heating

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Threshold reactions

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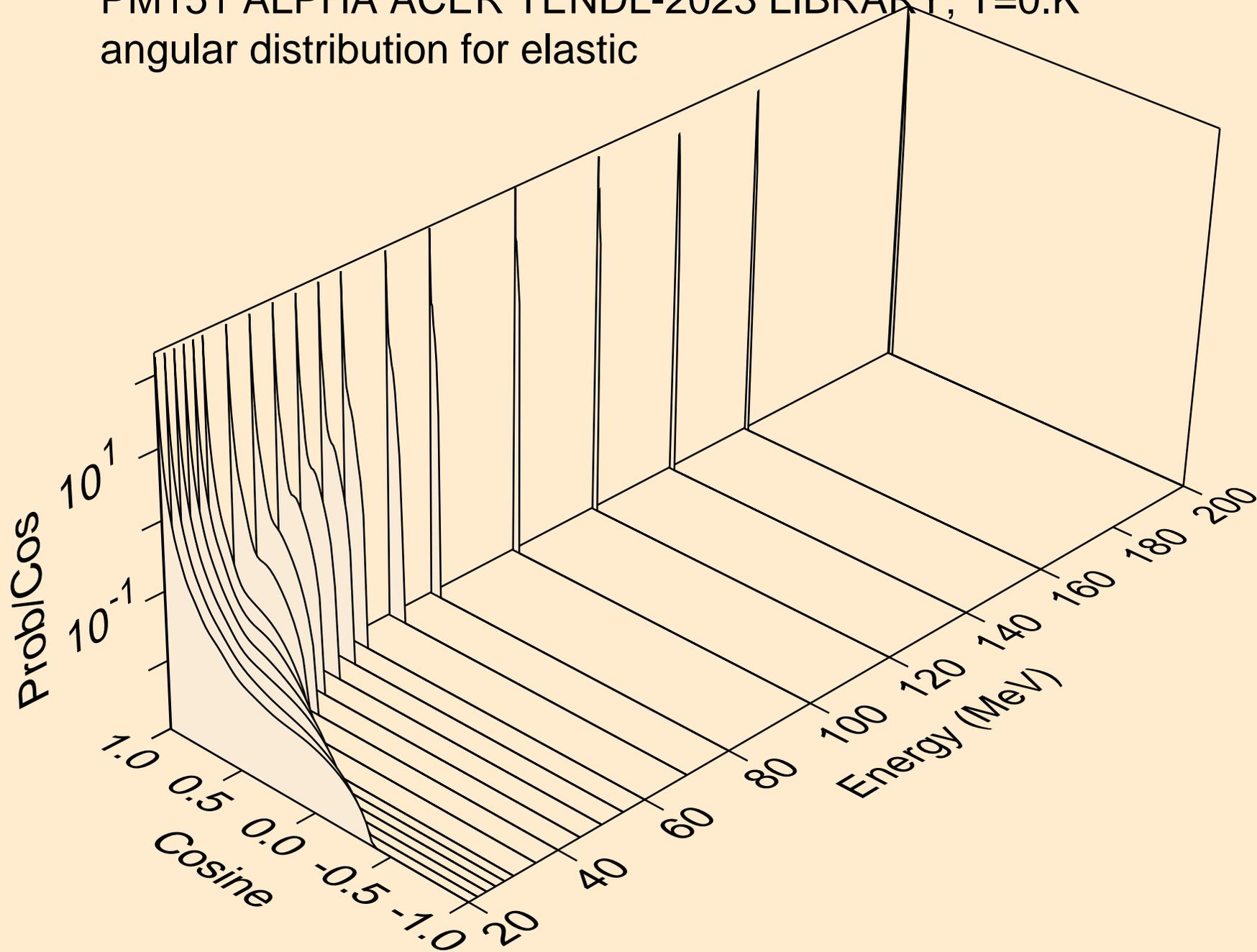- (a,pa)

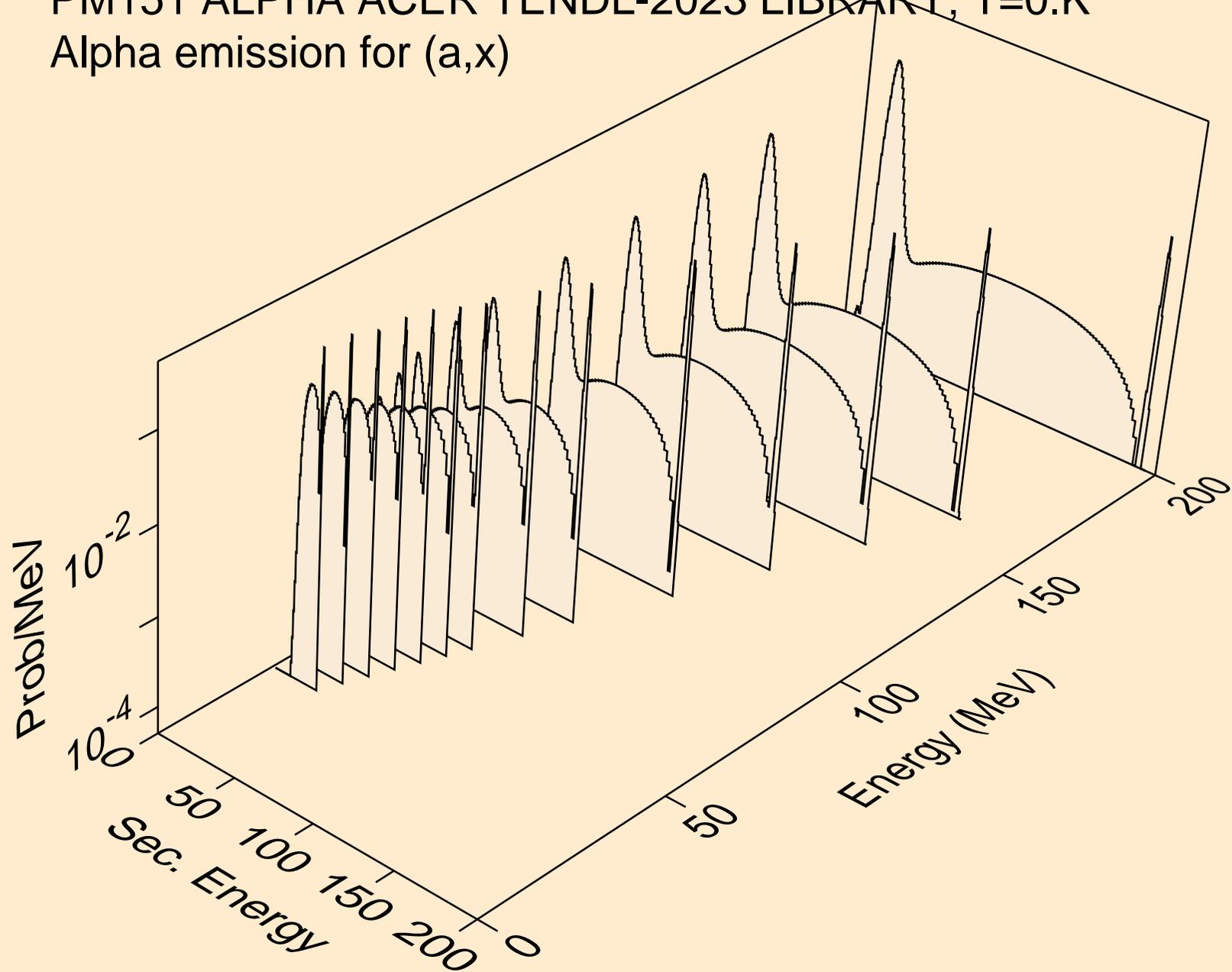Cross section (barns) vs Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
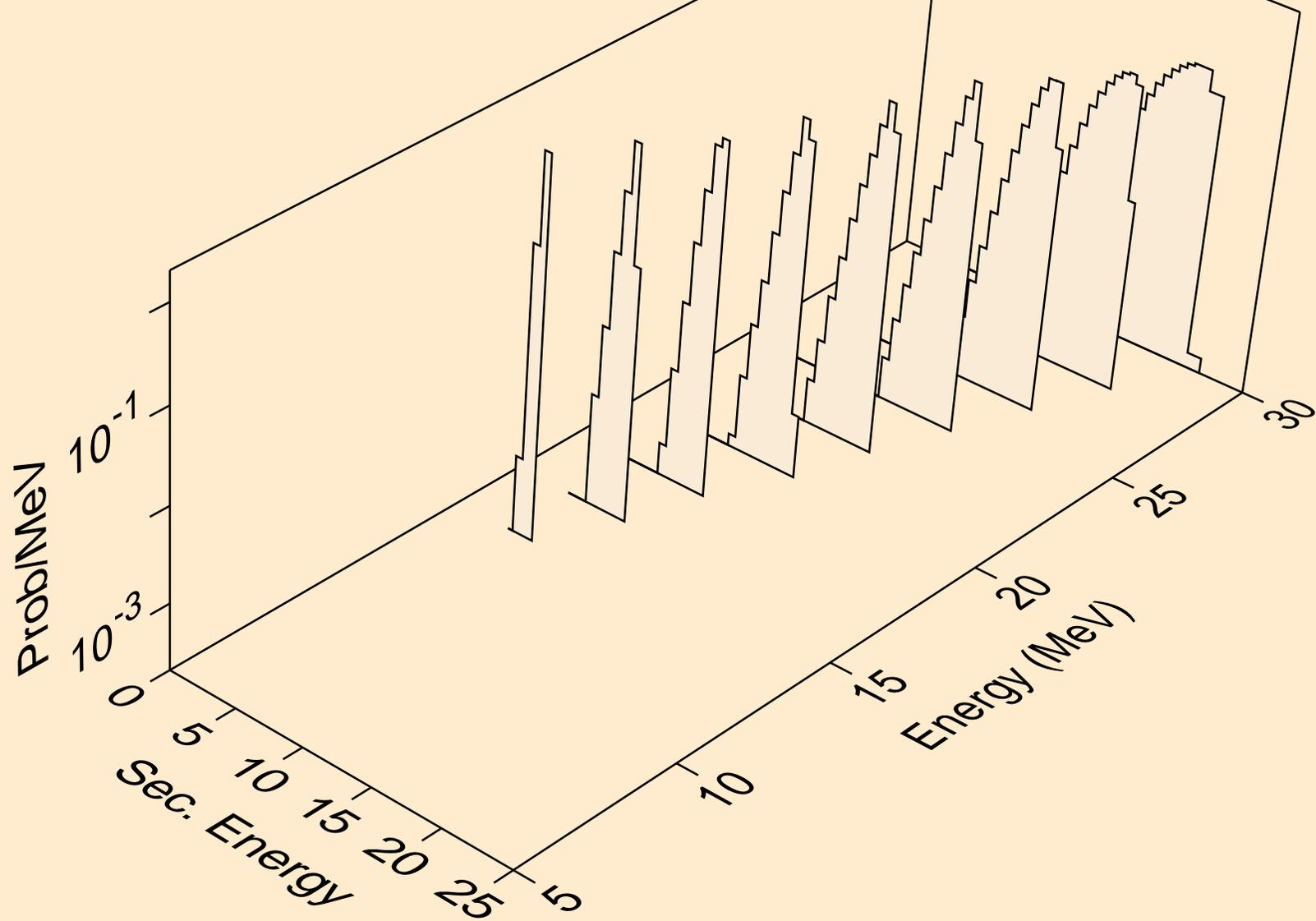angular distribution for elastic

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
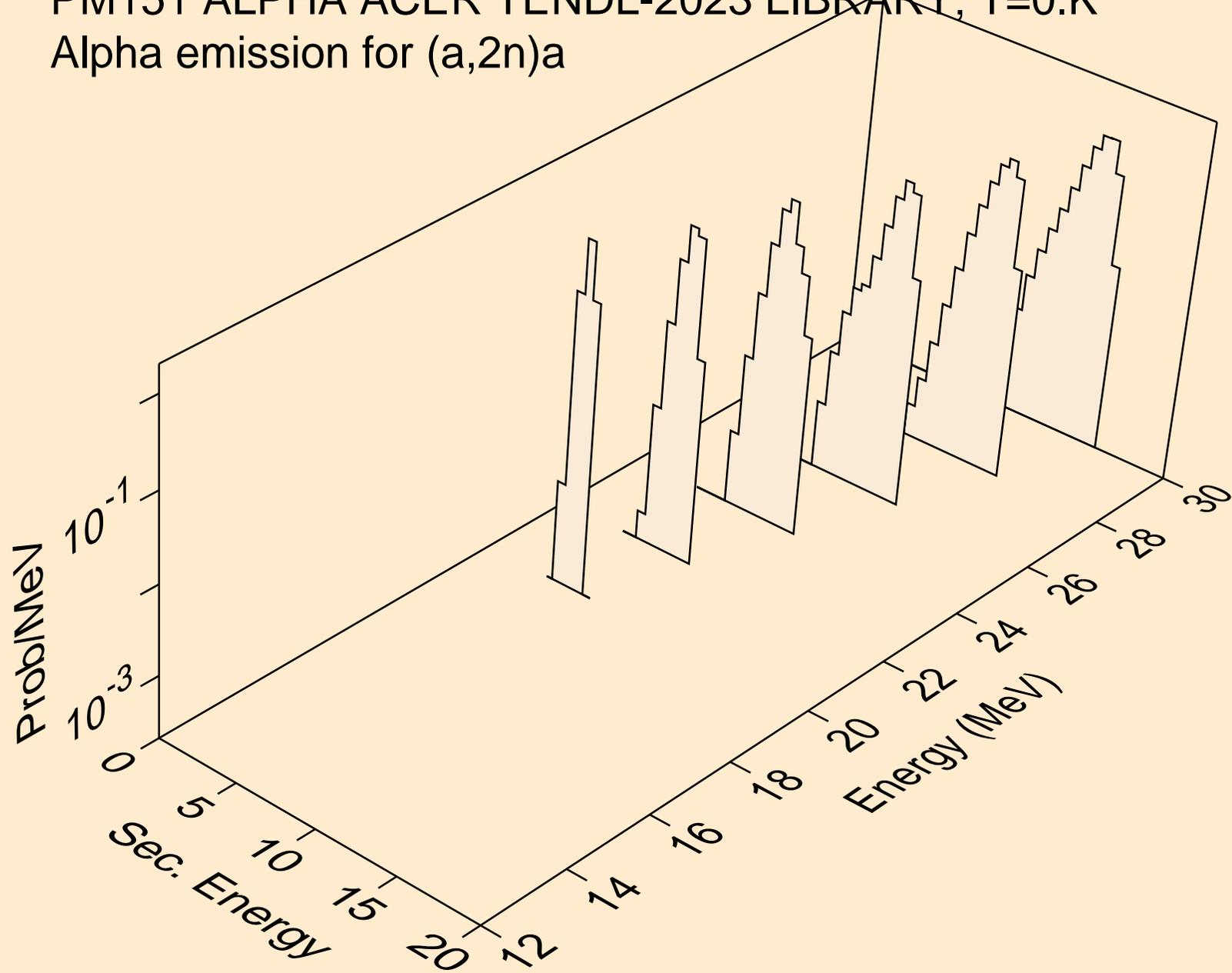angular distribution for elastic

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
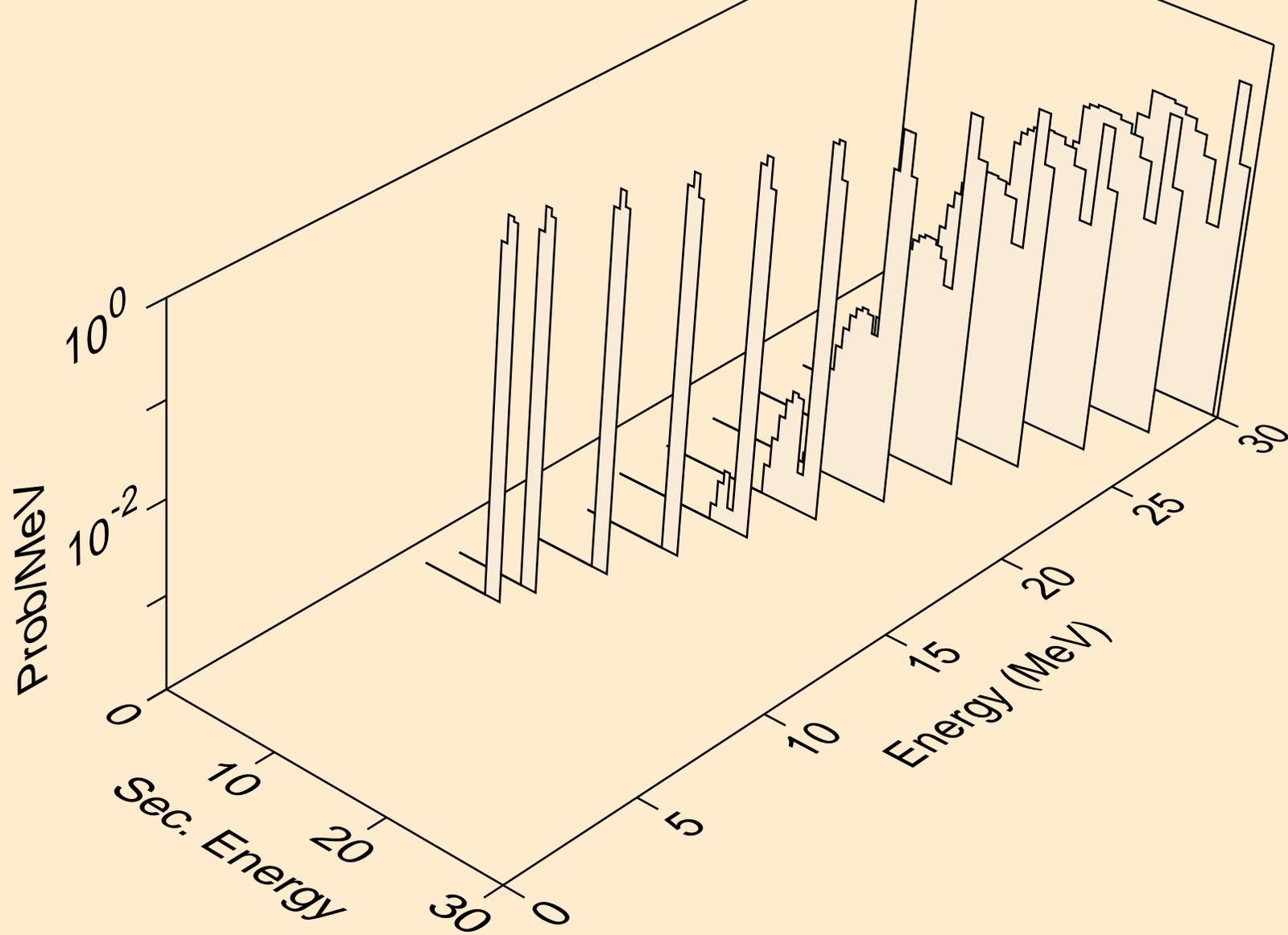Alpha emission for (a,x)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
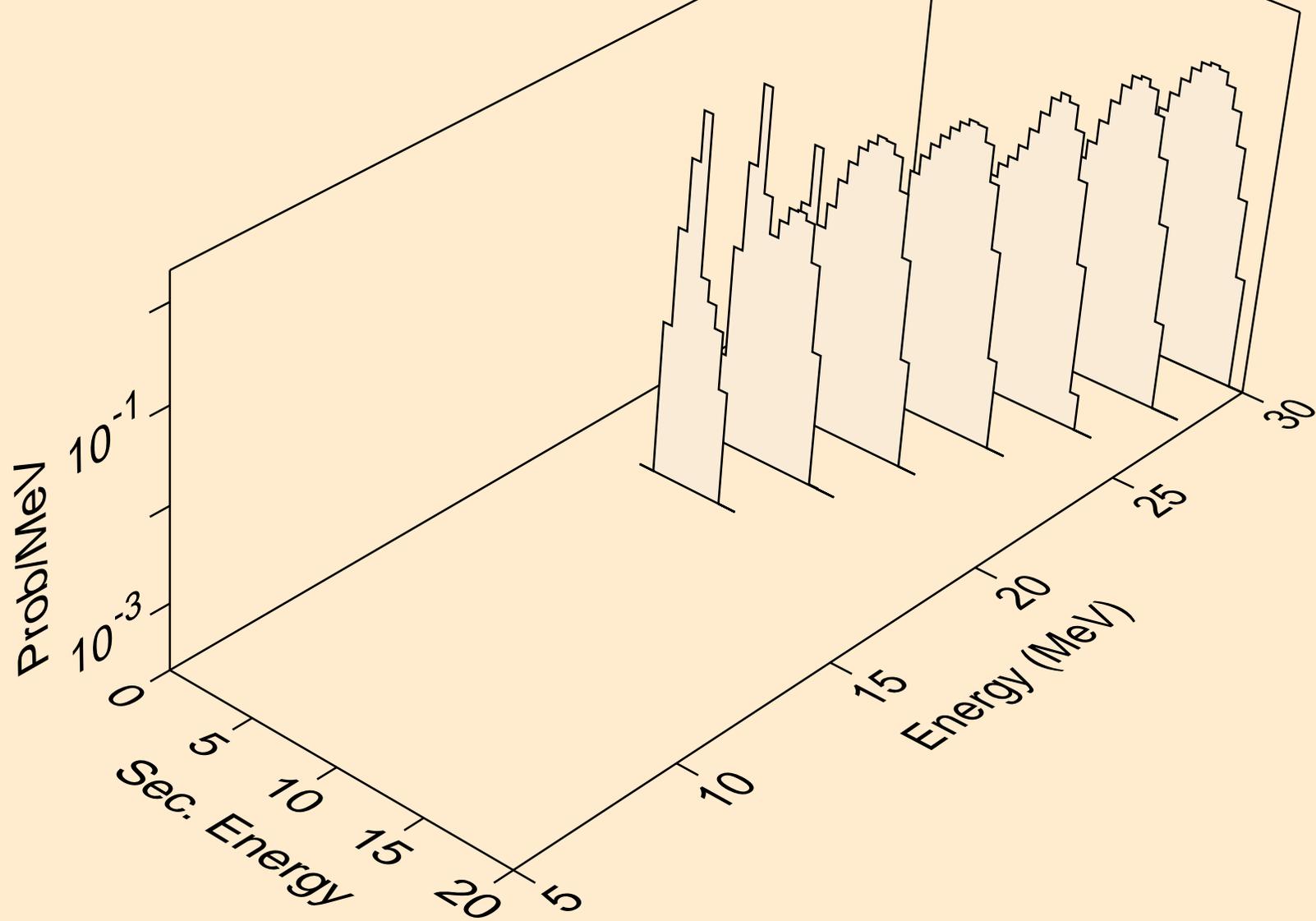Alpha emission for (a,n*)a

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
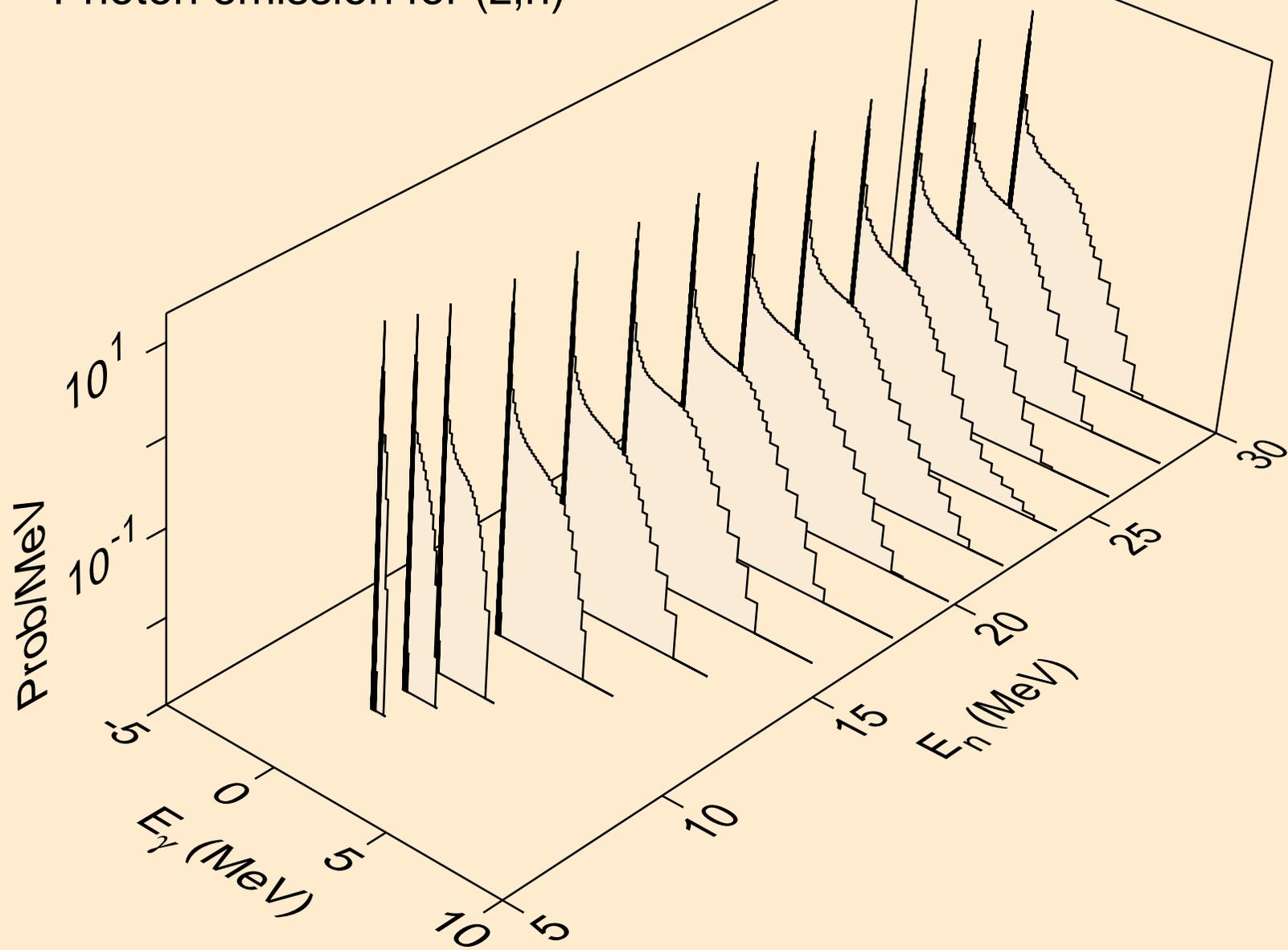Alpha emission for (a,2n)a

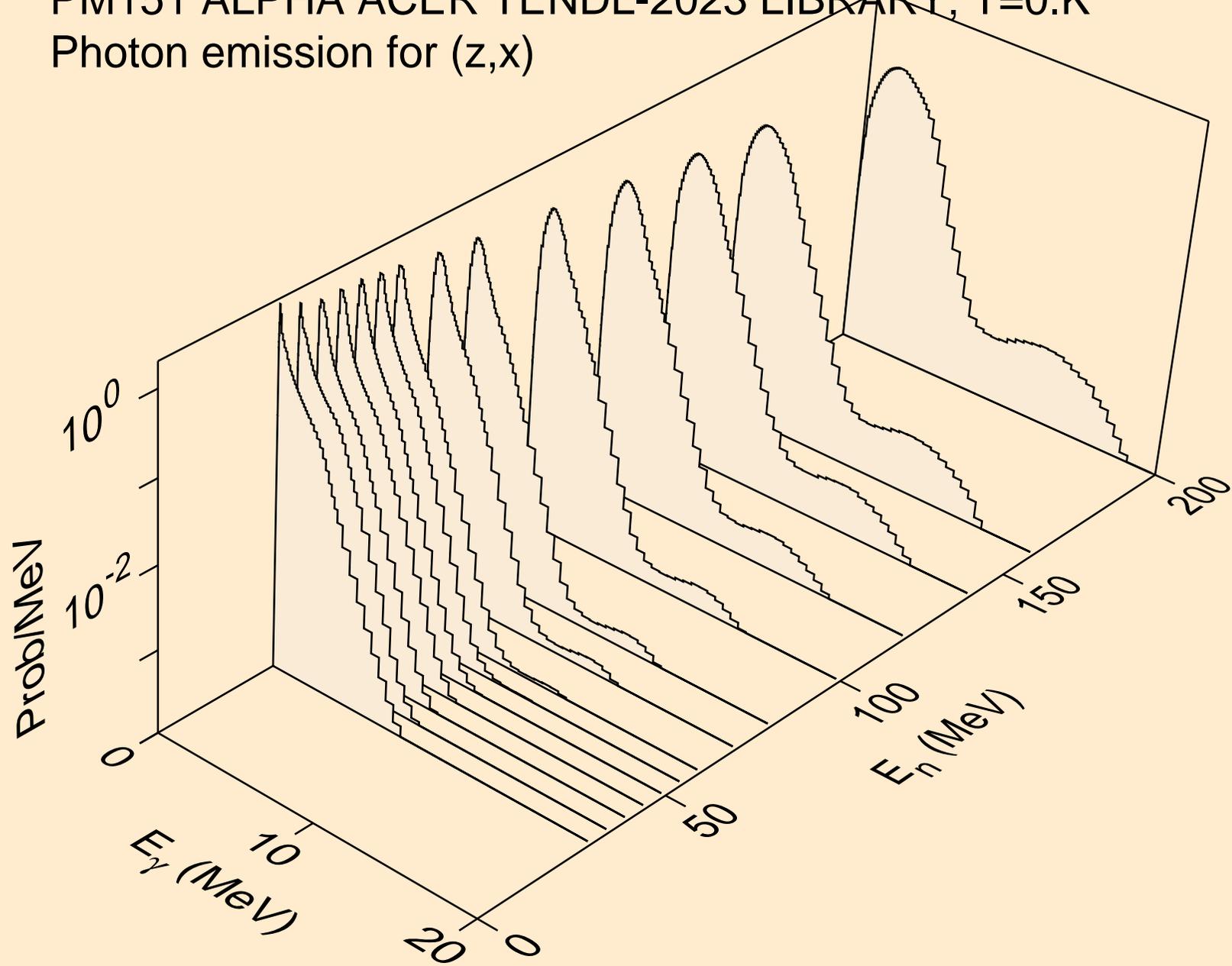PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Alpha emission for inelastic

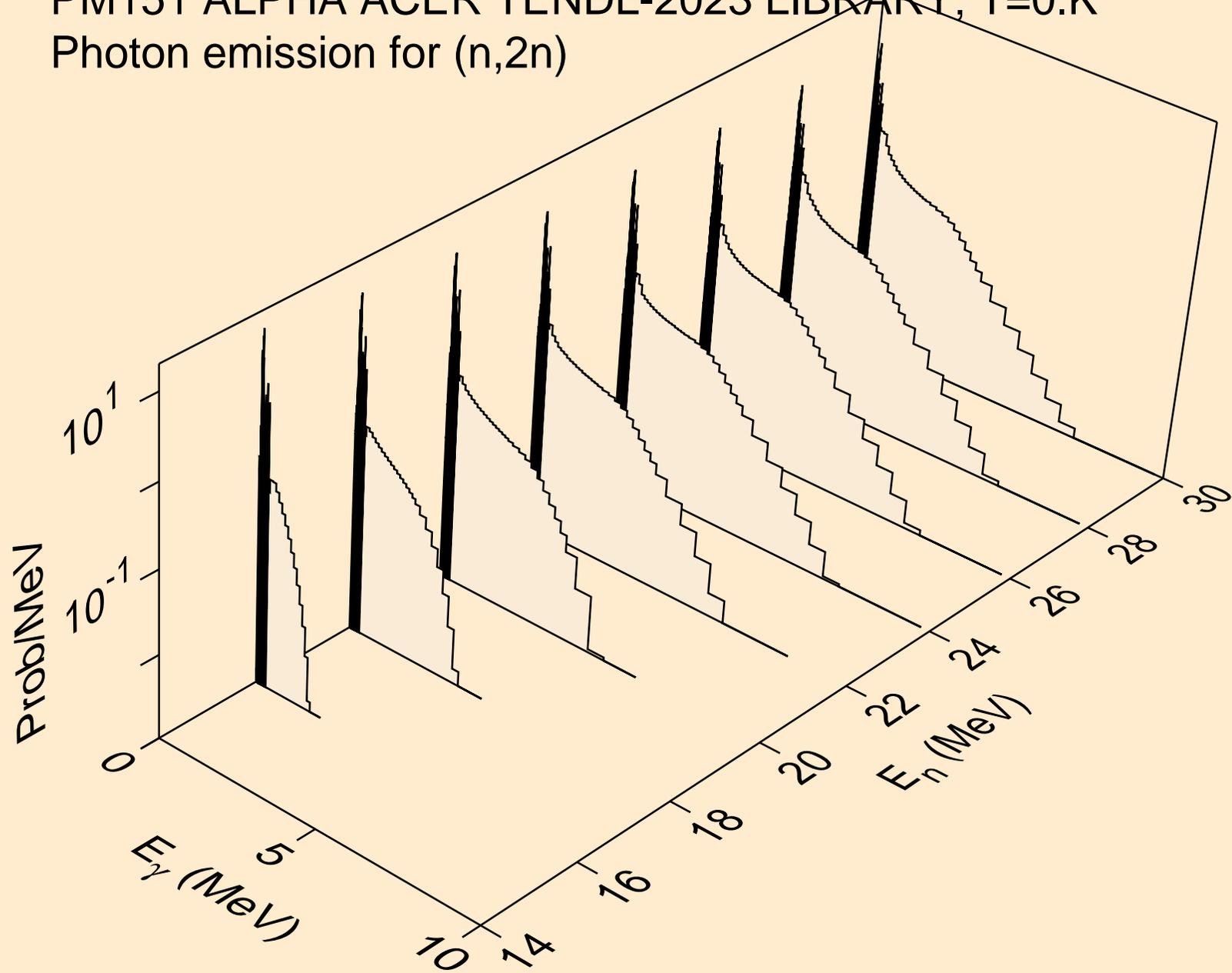PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Alpha emission for (a,pa)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
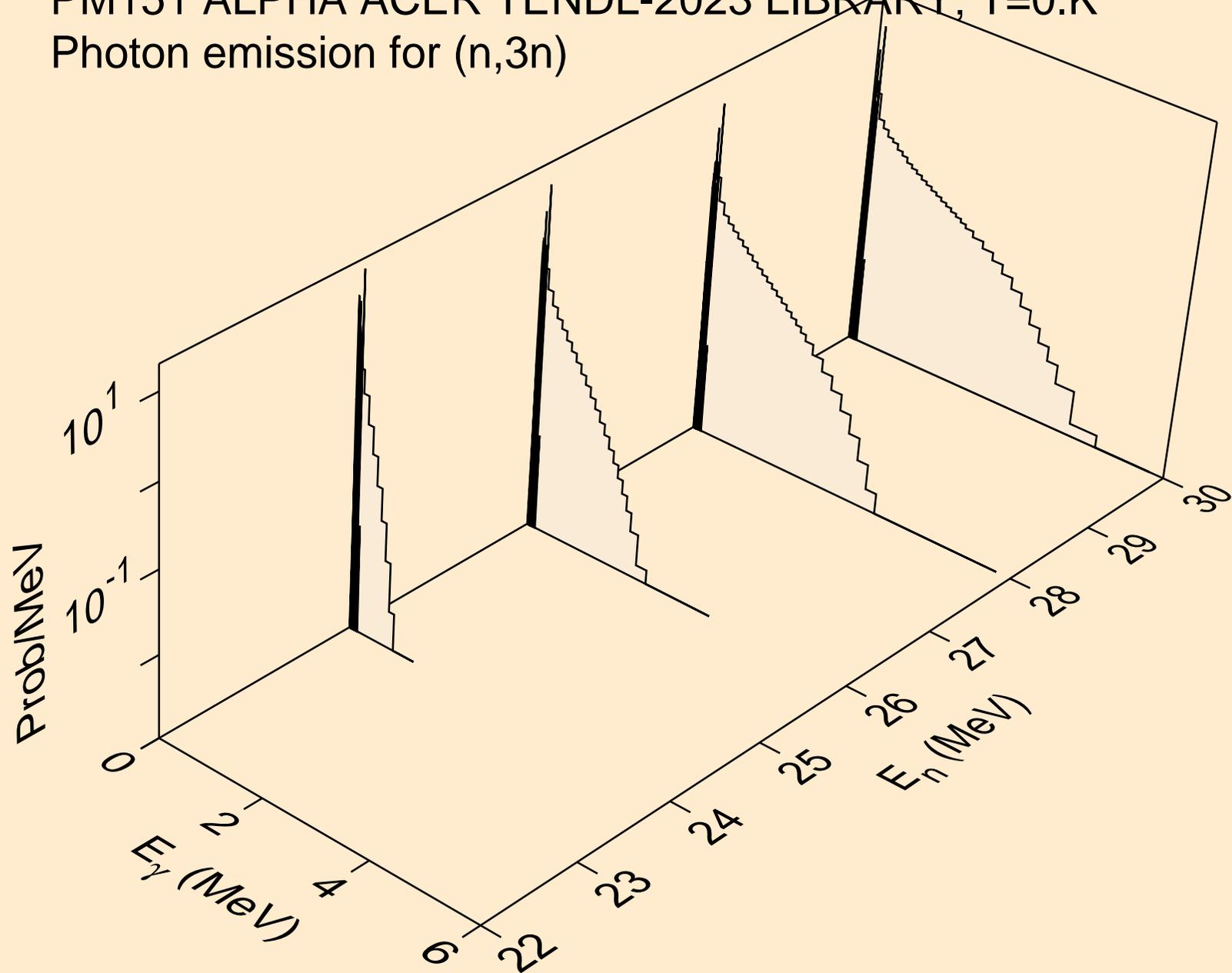Photon emission for (z,n)

ProbIMeV

10^1

10^{-1}

E_γ (MeV)

0

5

10

E_n (MeV)

5

10

15

20

25

30

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (z,x)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2n)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,3n)

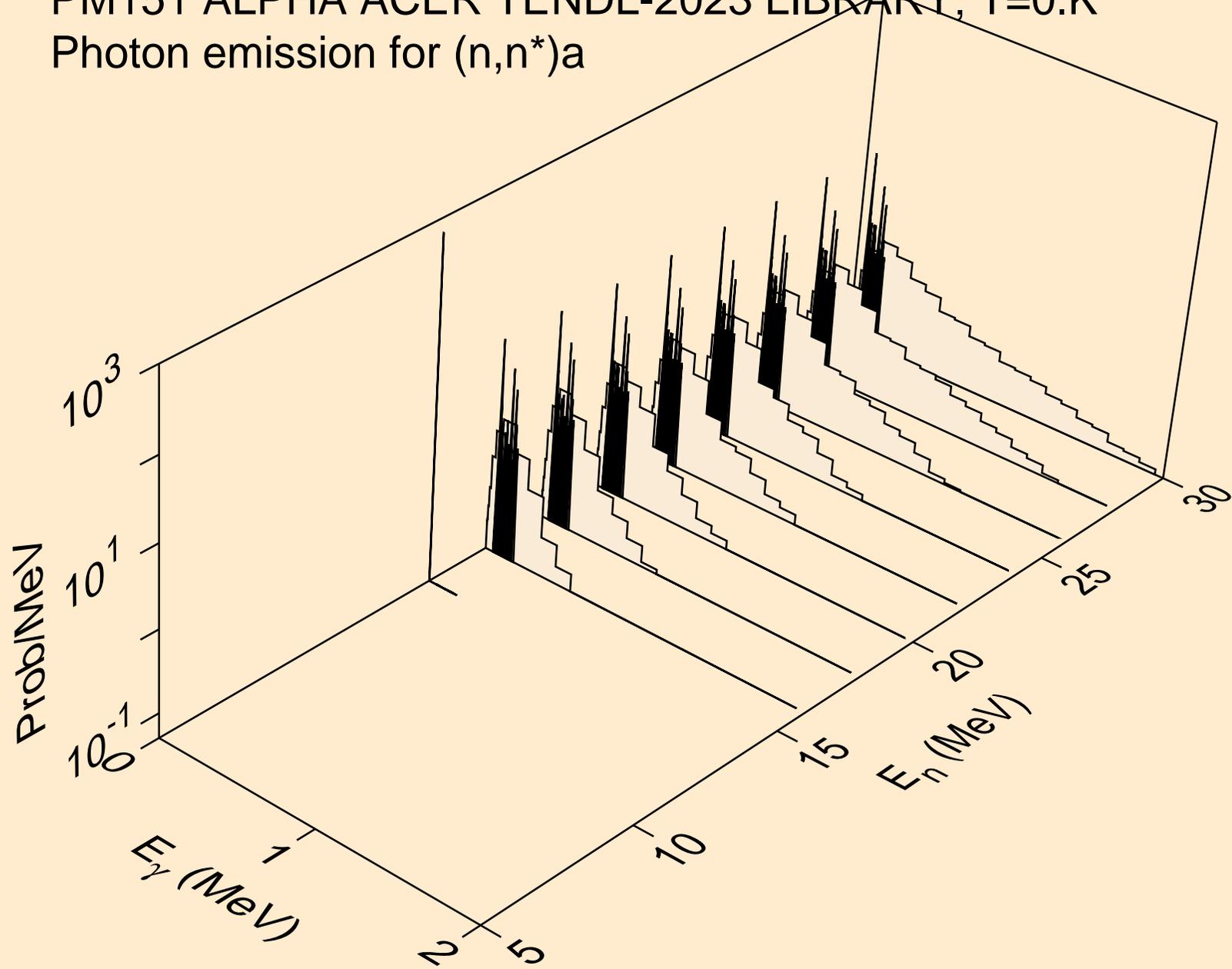PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)a

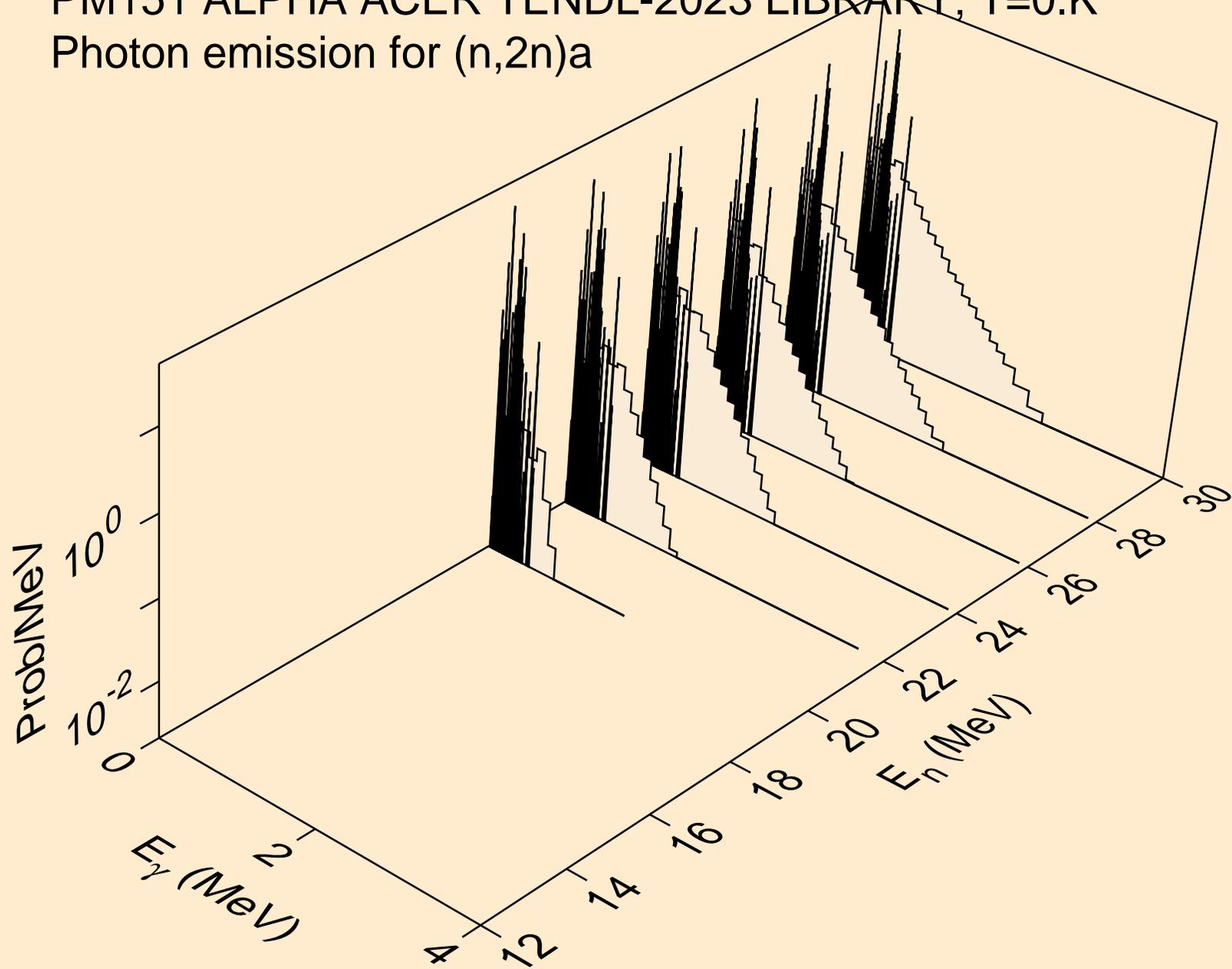PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2n)a

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)p

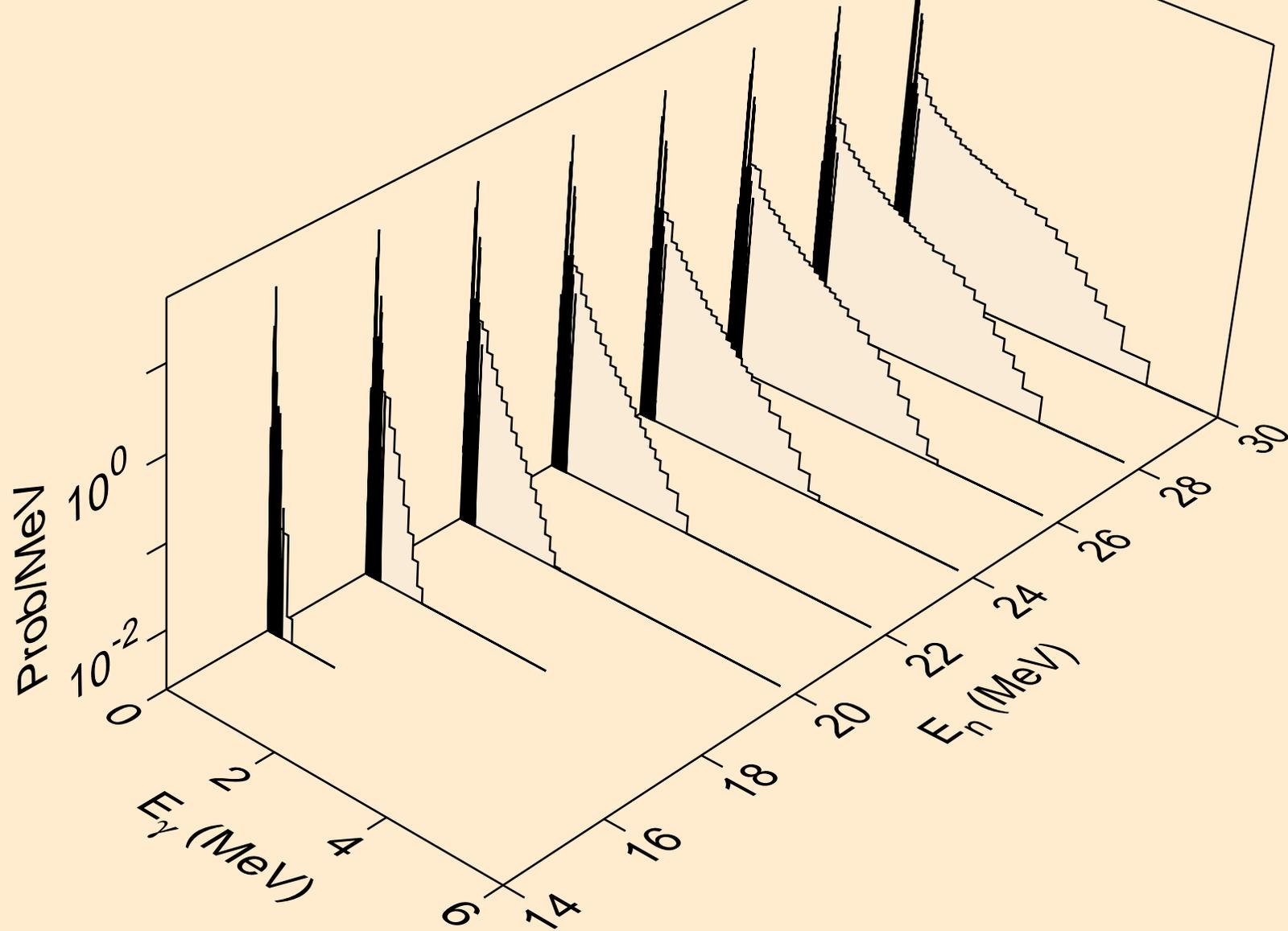PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
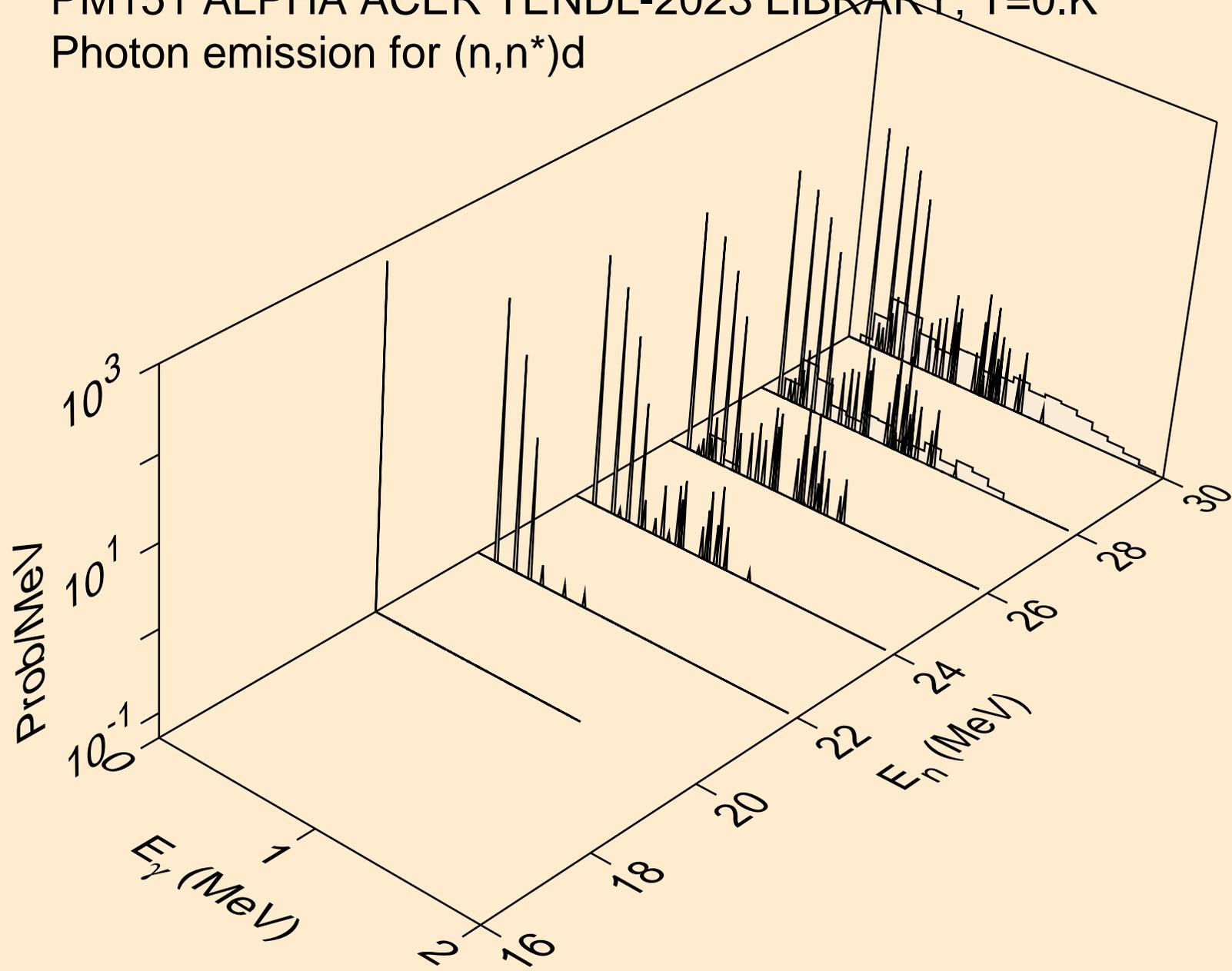Photon emission for (n,n*)d

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,n*)t

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,2np)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,gma)
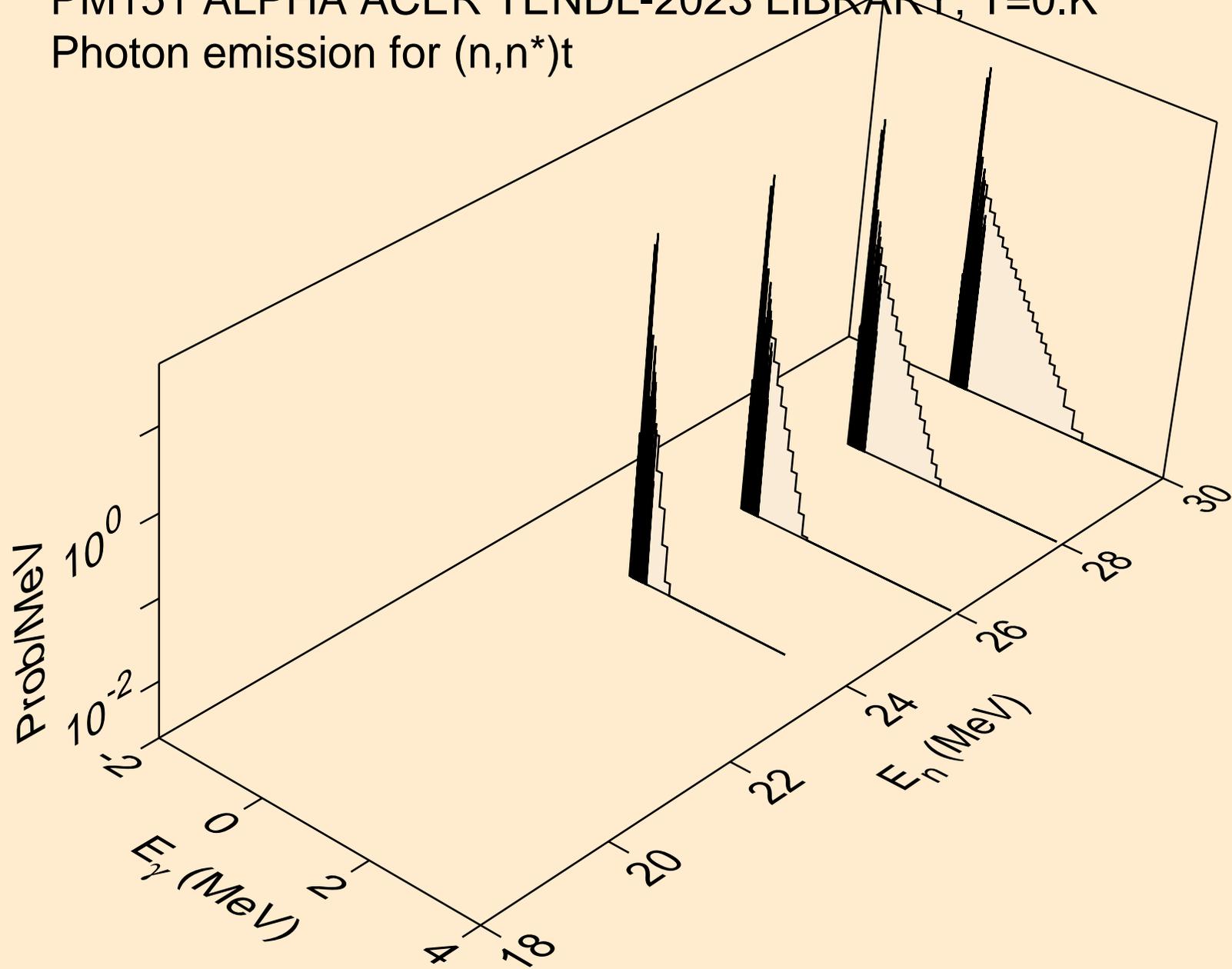
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,p)
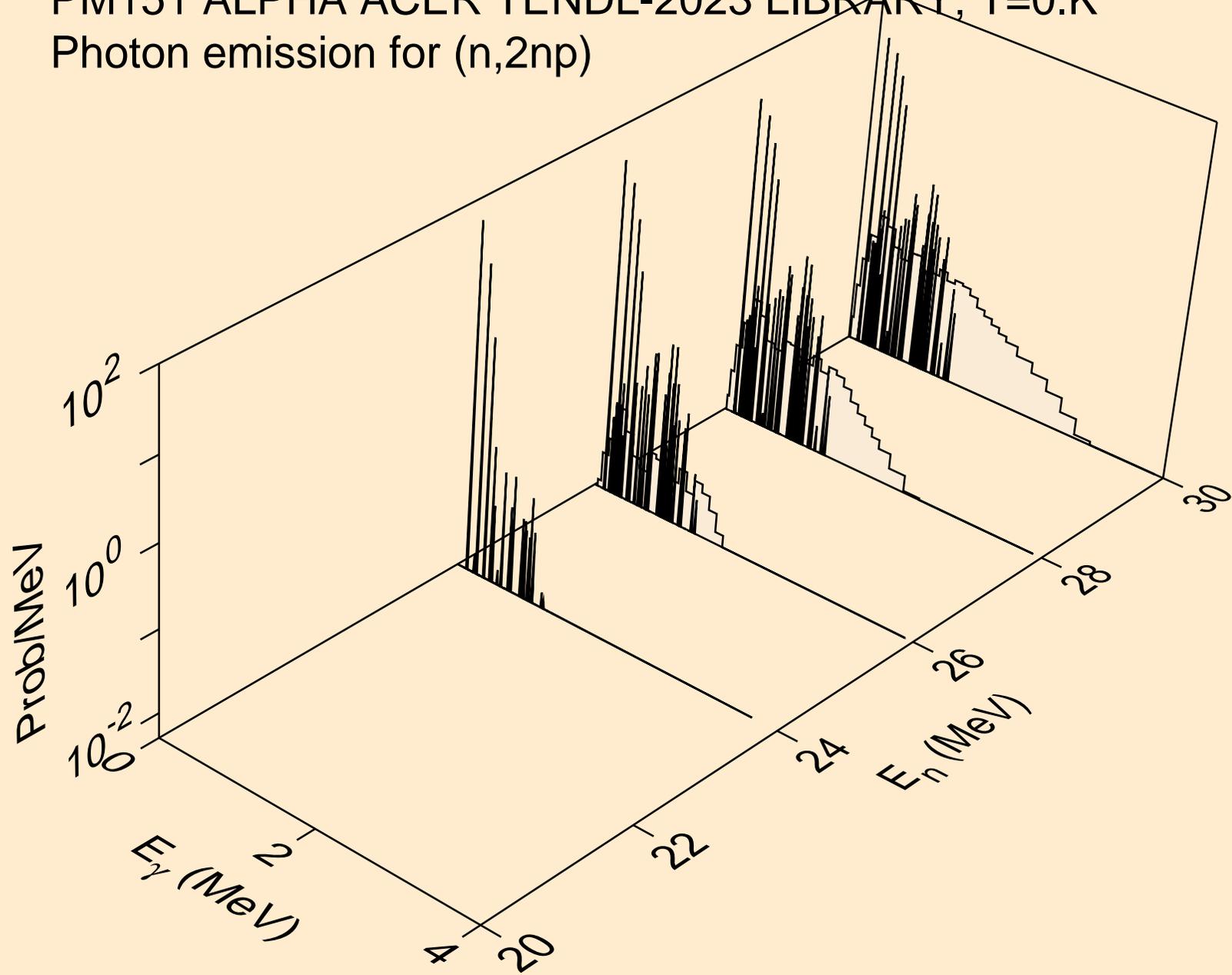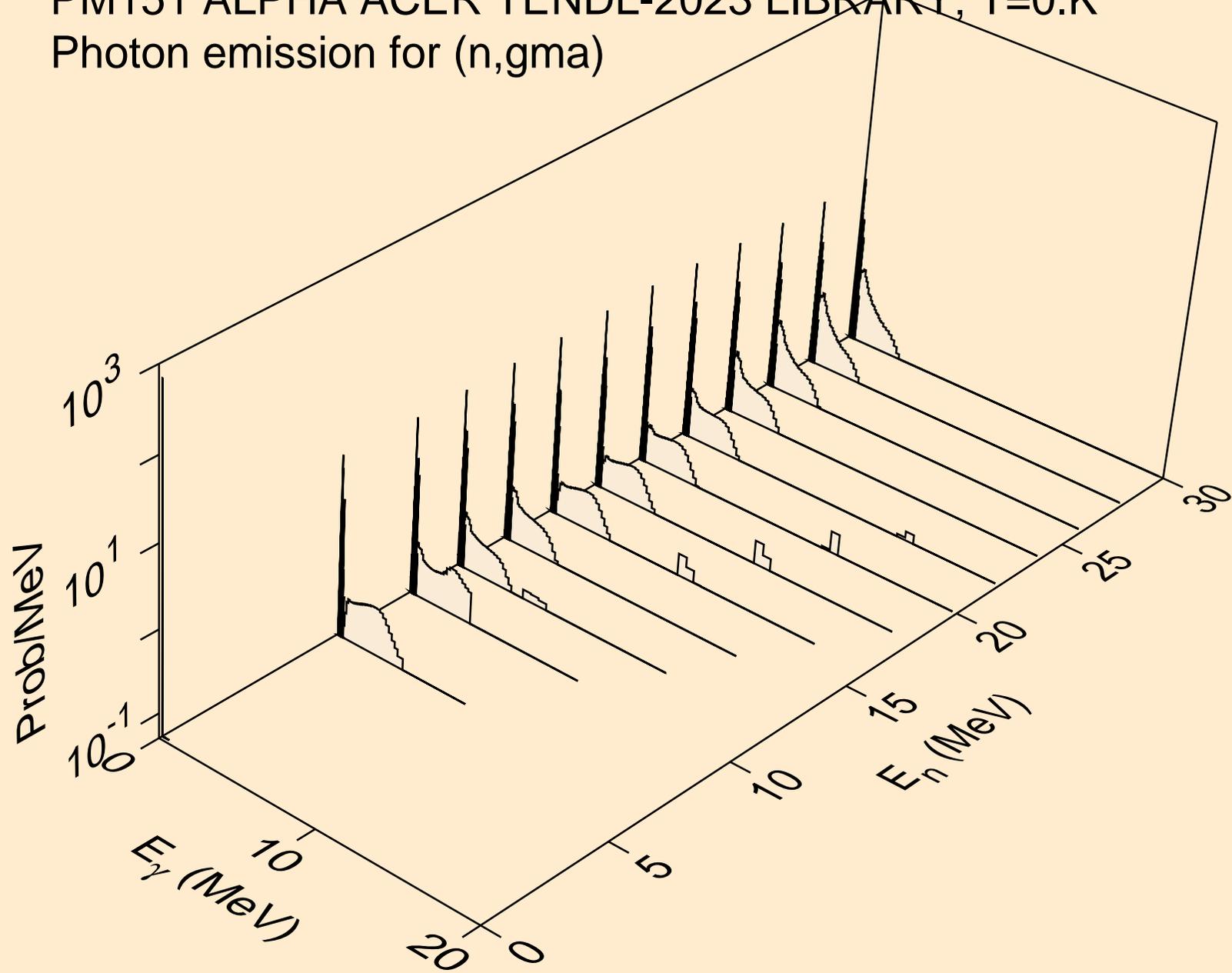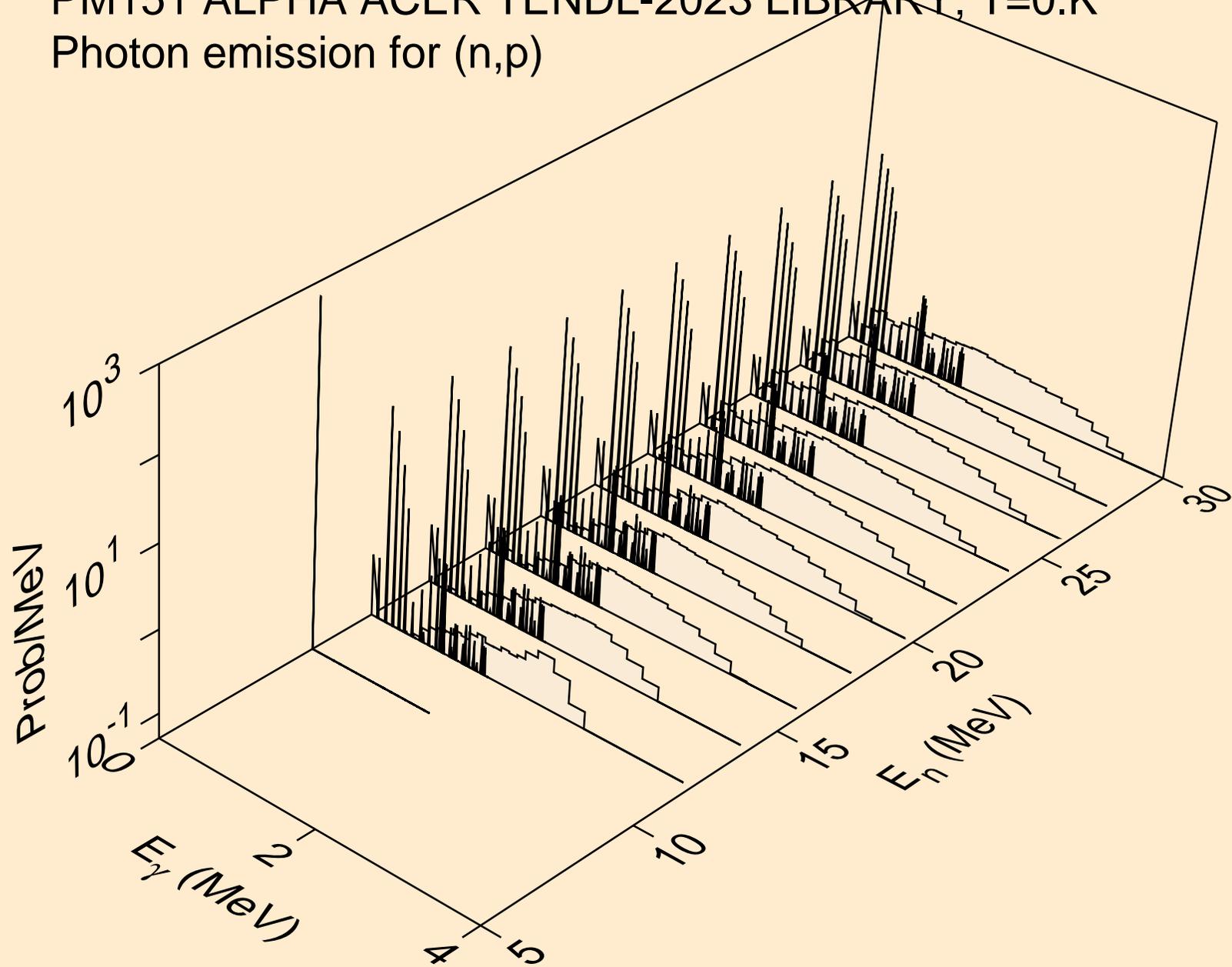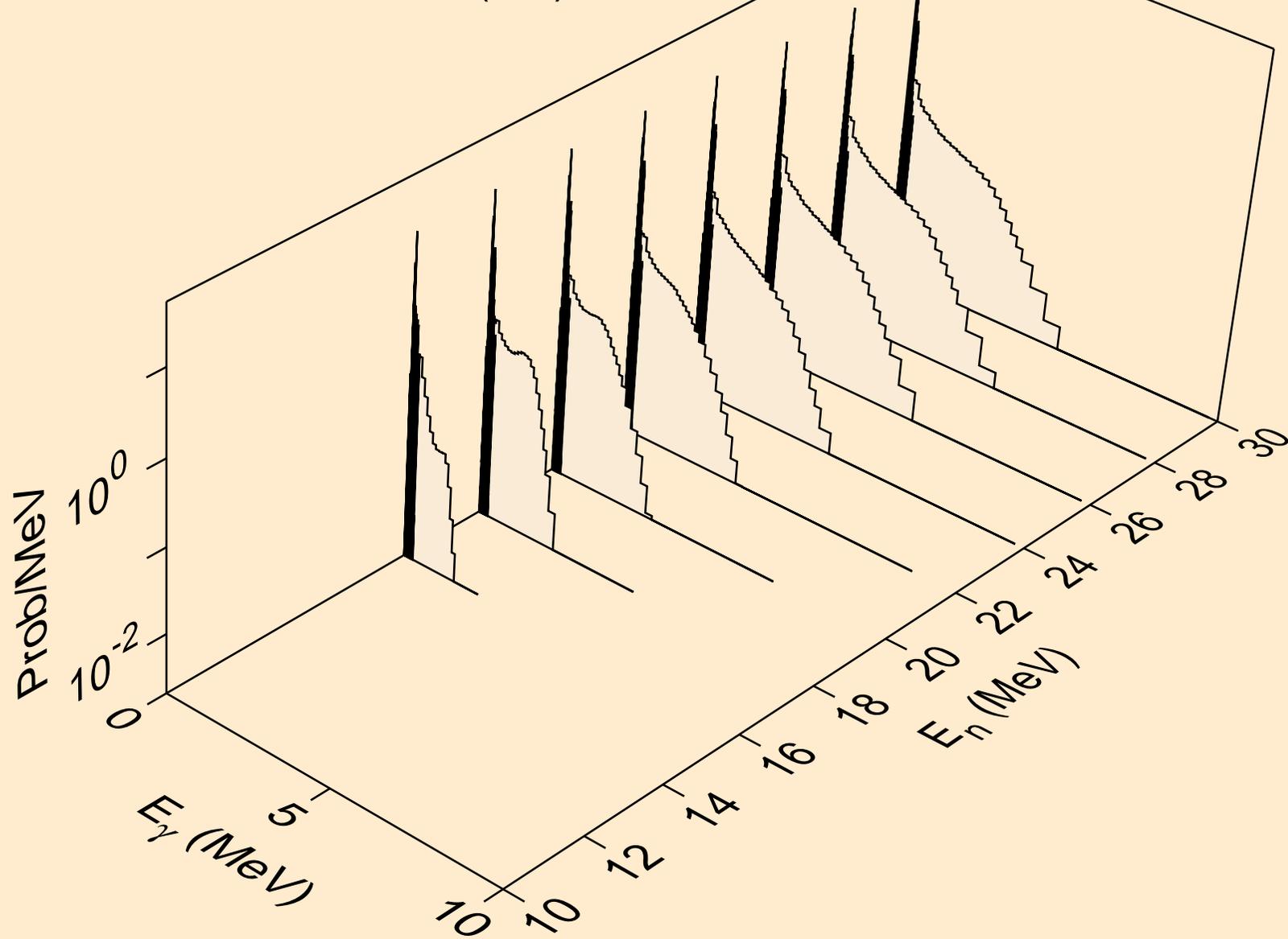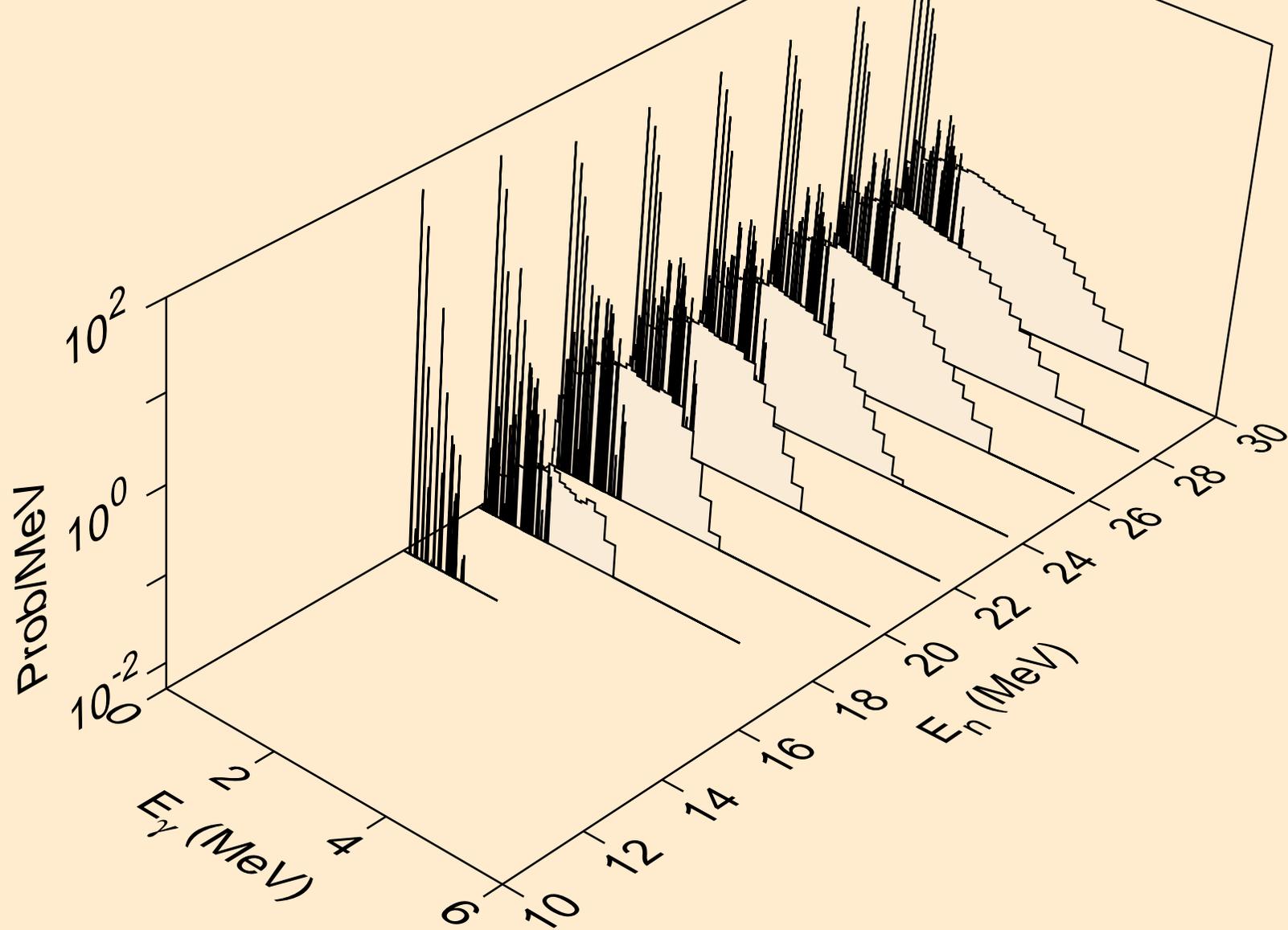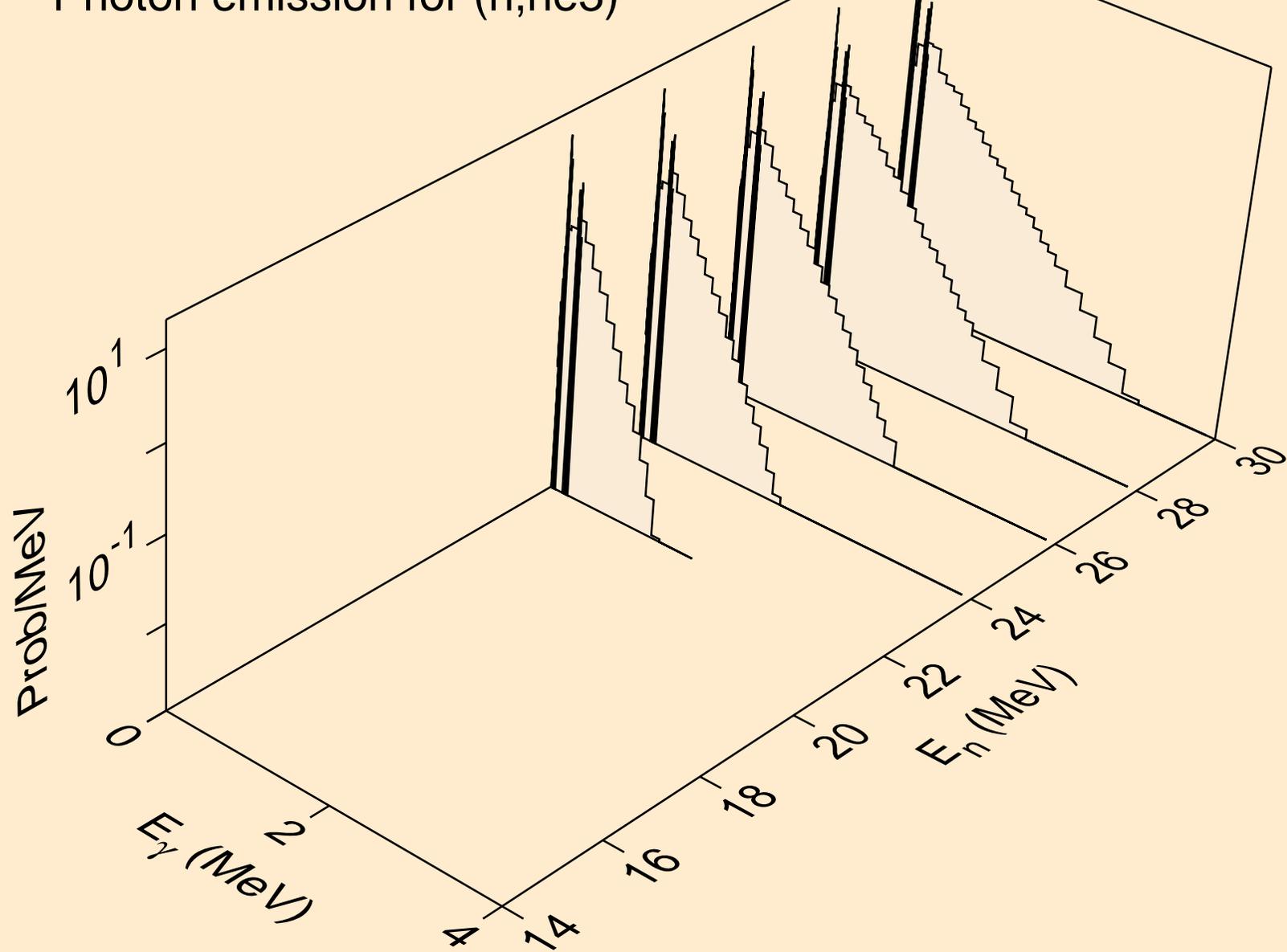
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,d)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,t)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for (n,he3)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Photon emission for inelastic
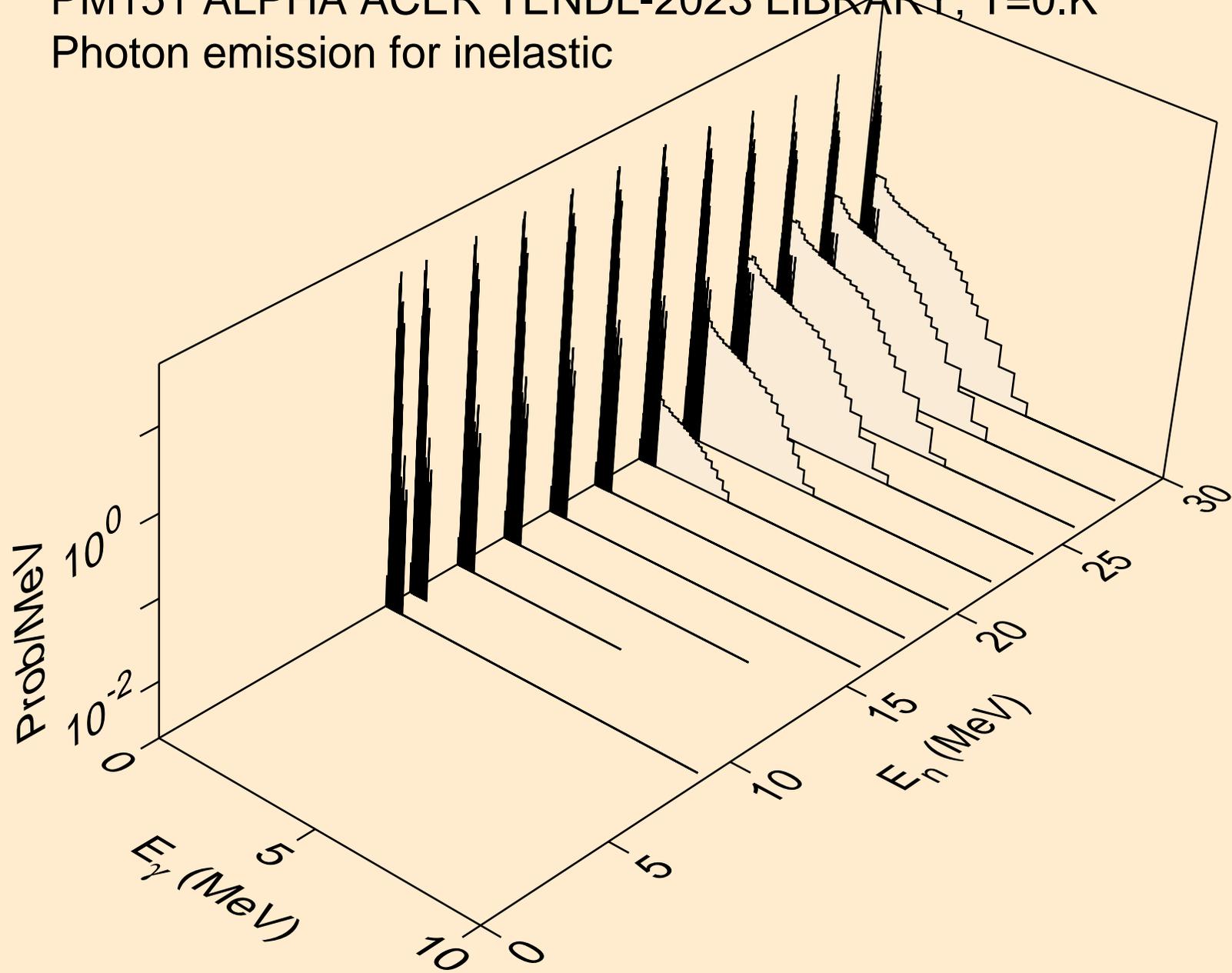
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
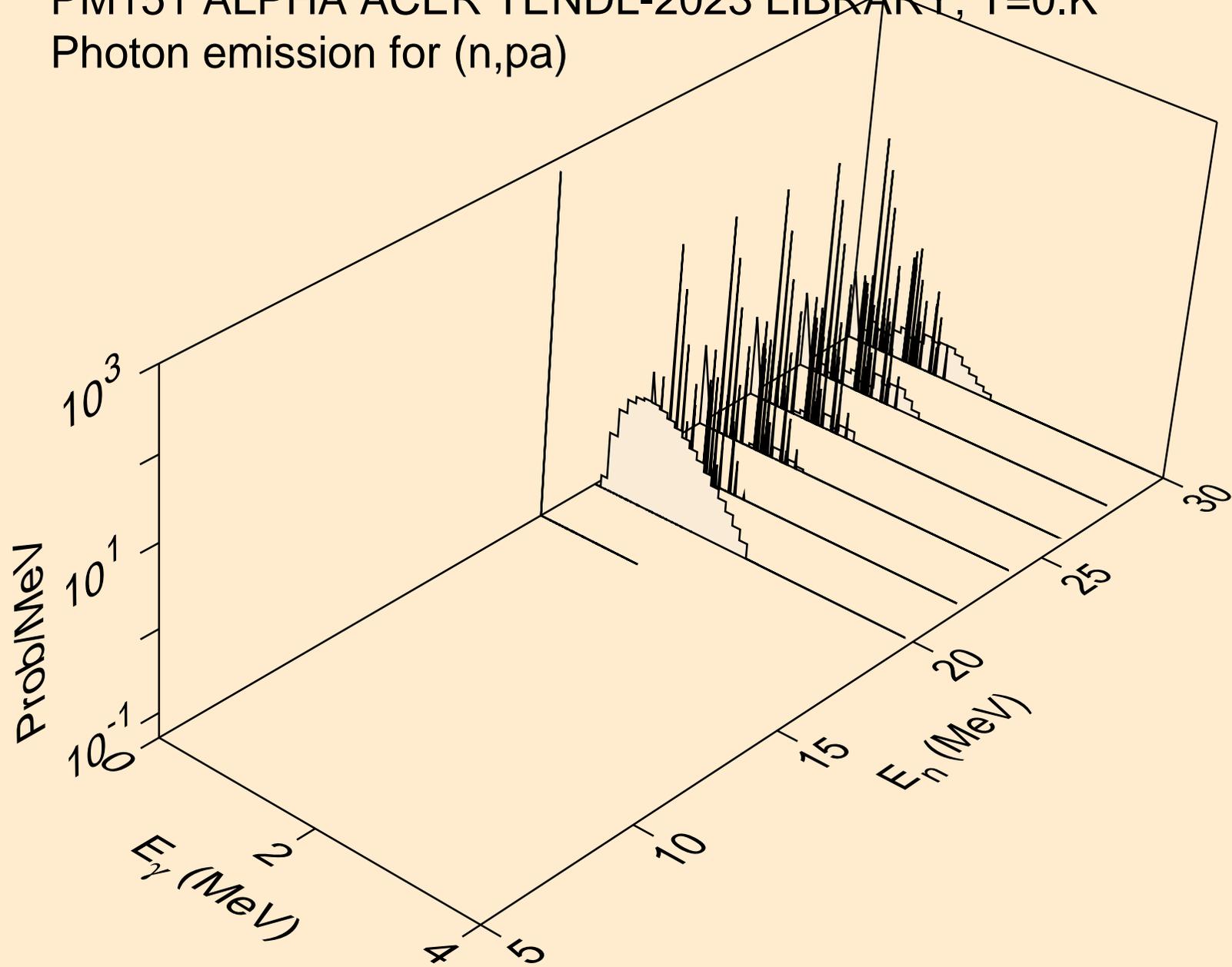Photon emission for (n,pa)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Particle heating contributions

neutrons
protons
deuterons
tritons
he-3

MeV/collision

Energy (MeV)
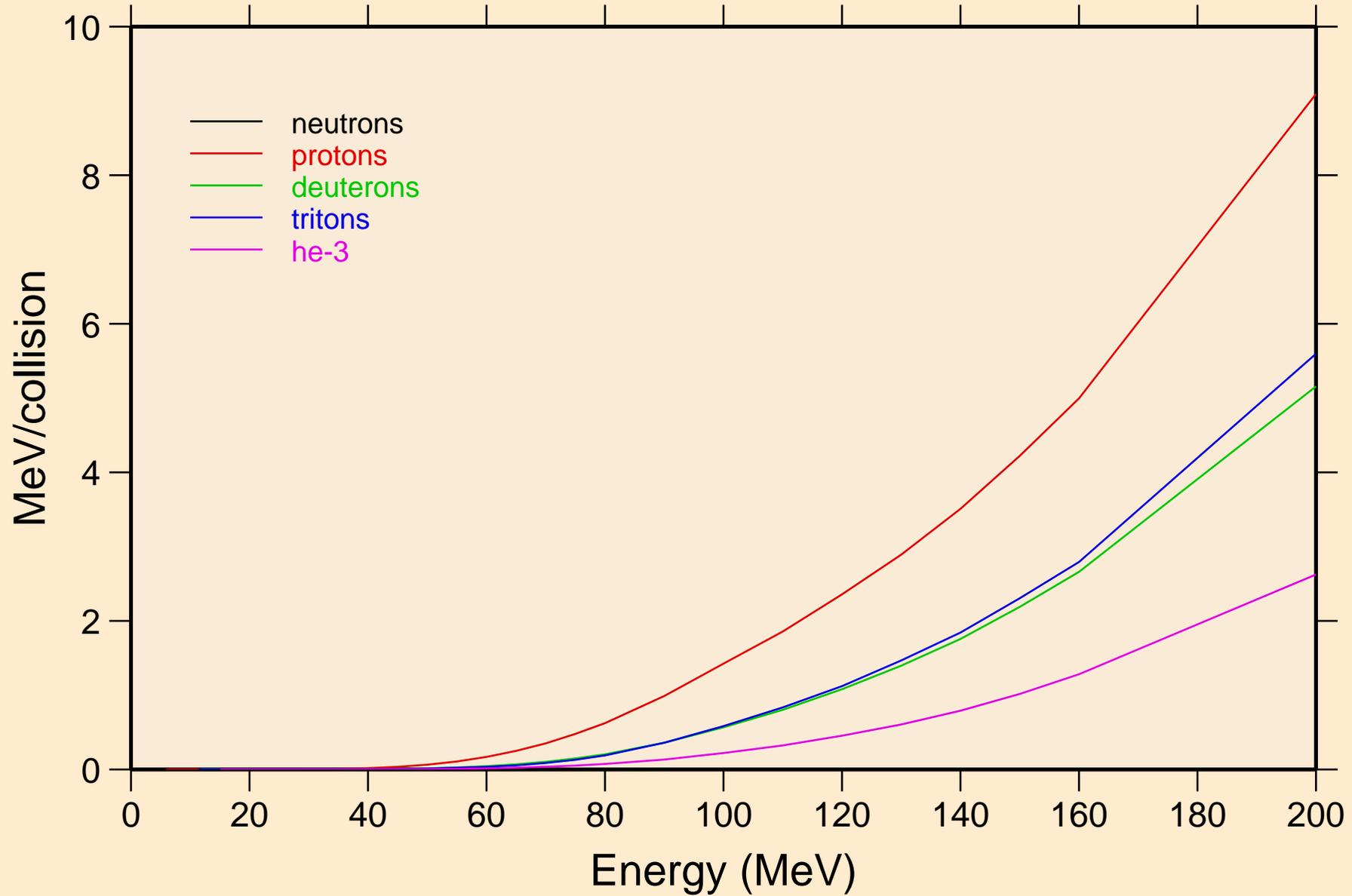
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Recoil Heating

recoil heating

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
Particle production cross sections
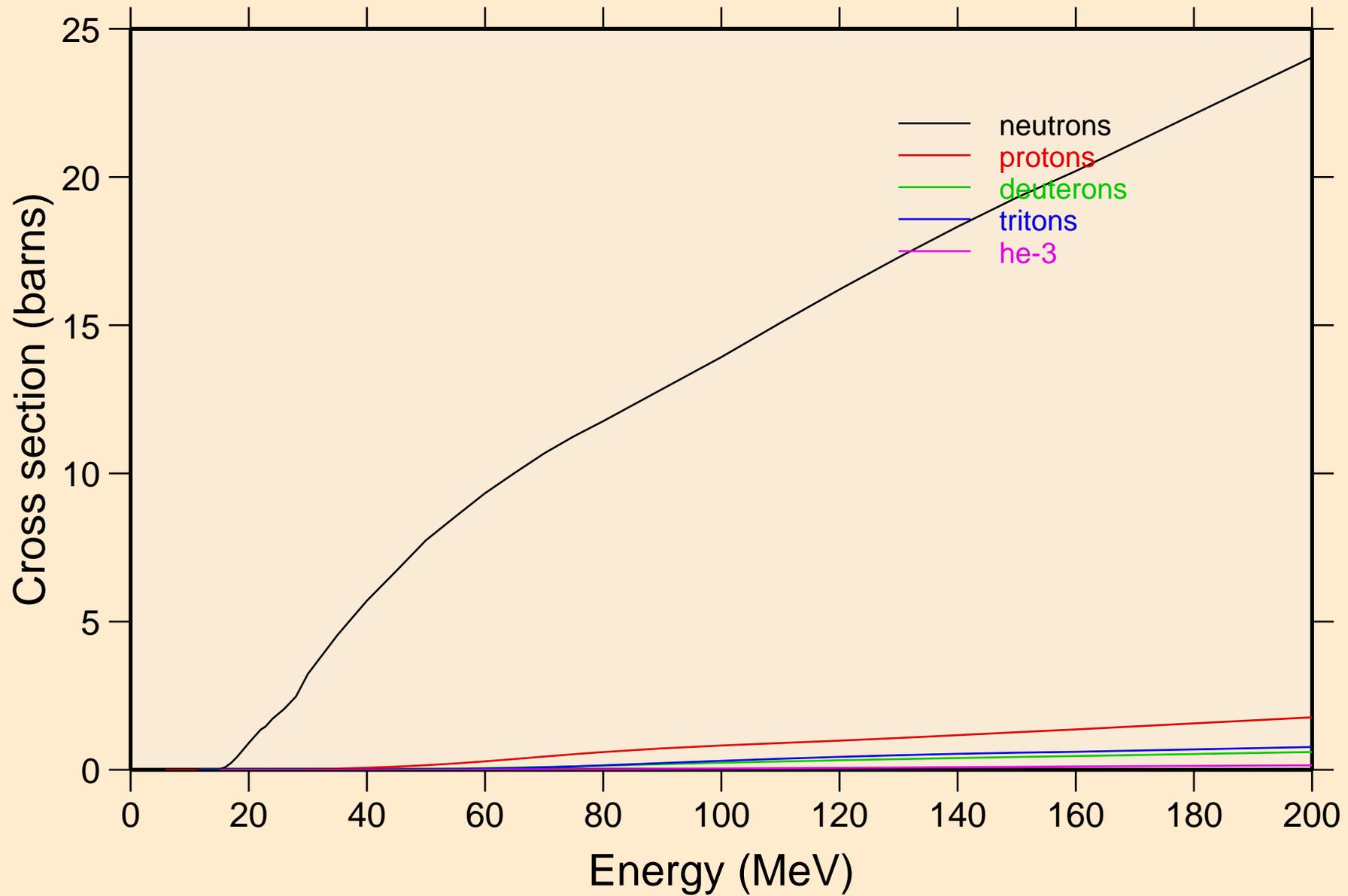
neutrons
protons
deuterons
tritons
he-3

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,n)

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy

20

40

Energy (MeV)

5

10

15

20

25

30
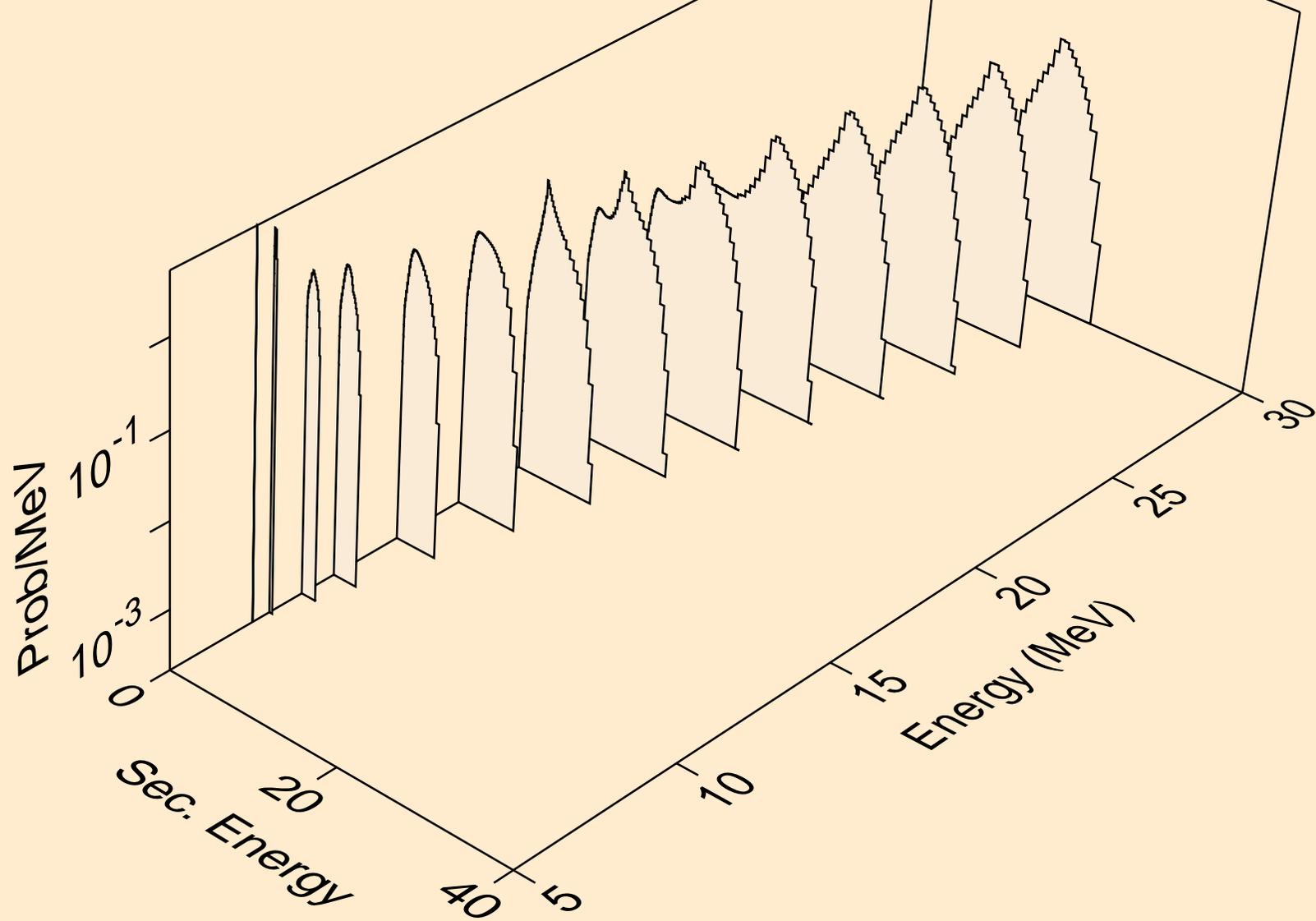
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,x)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,2n)

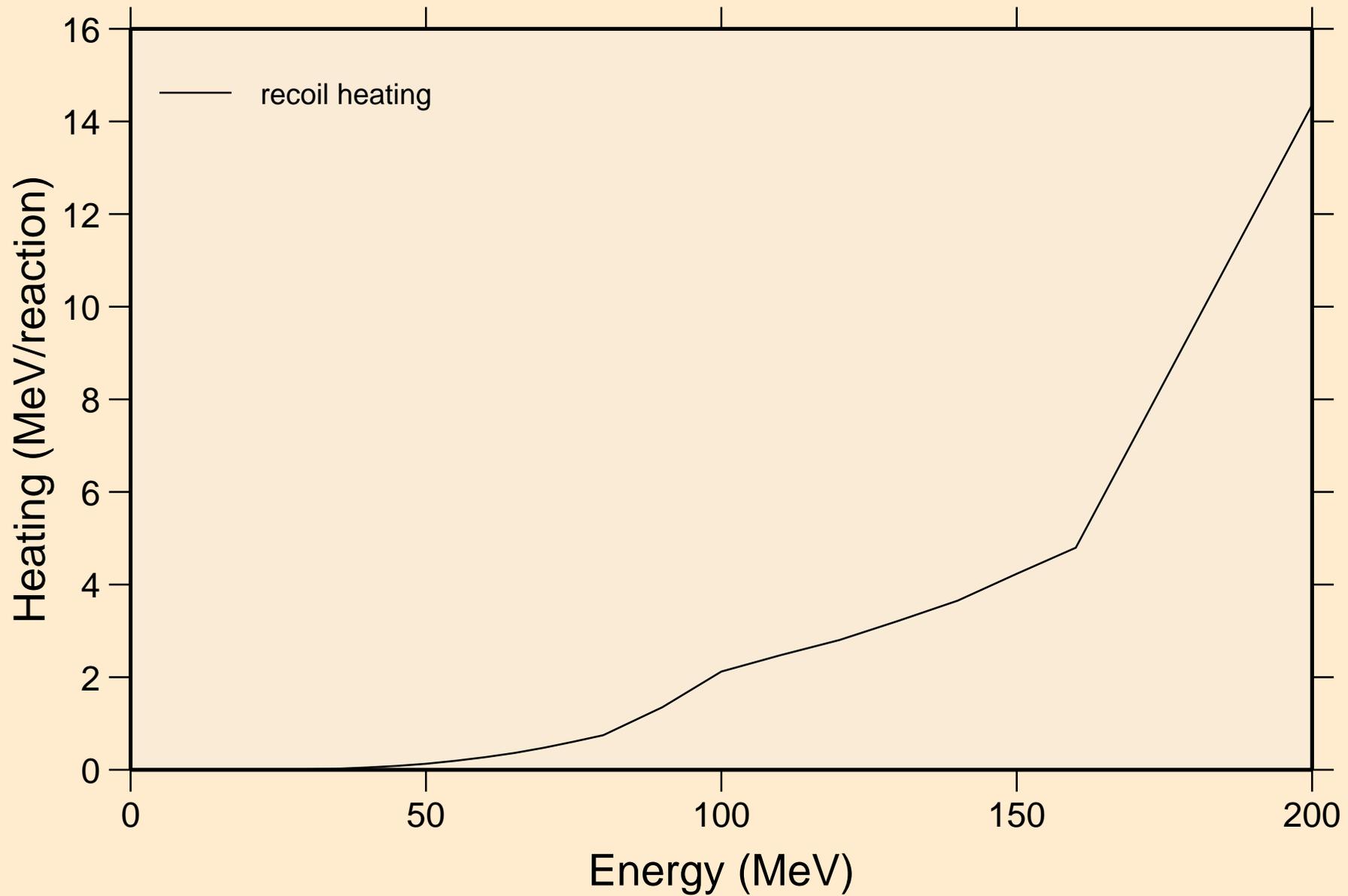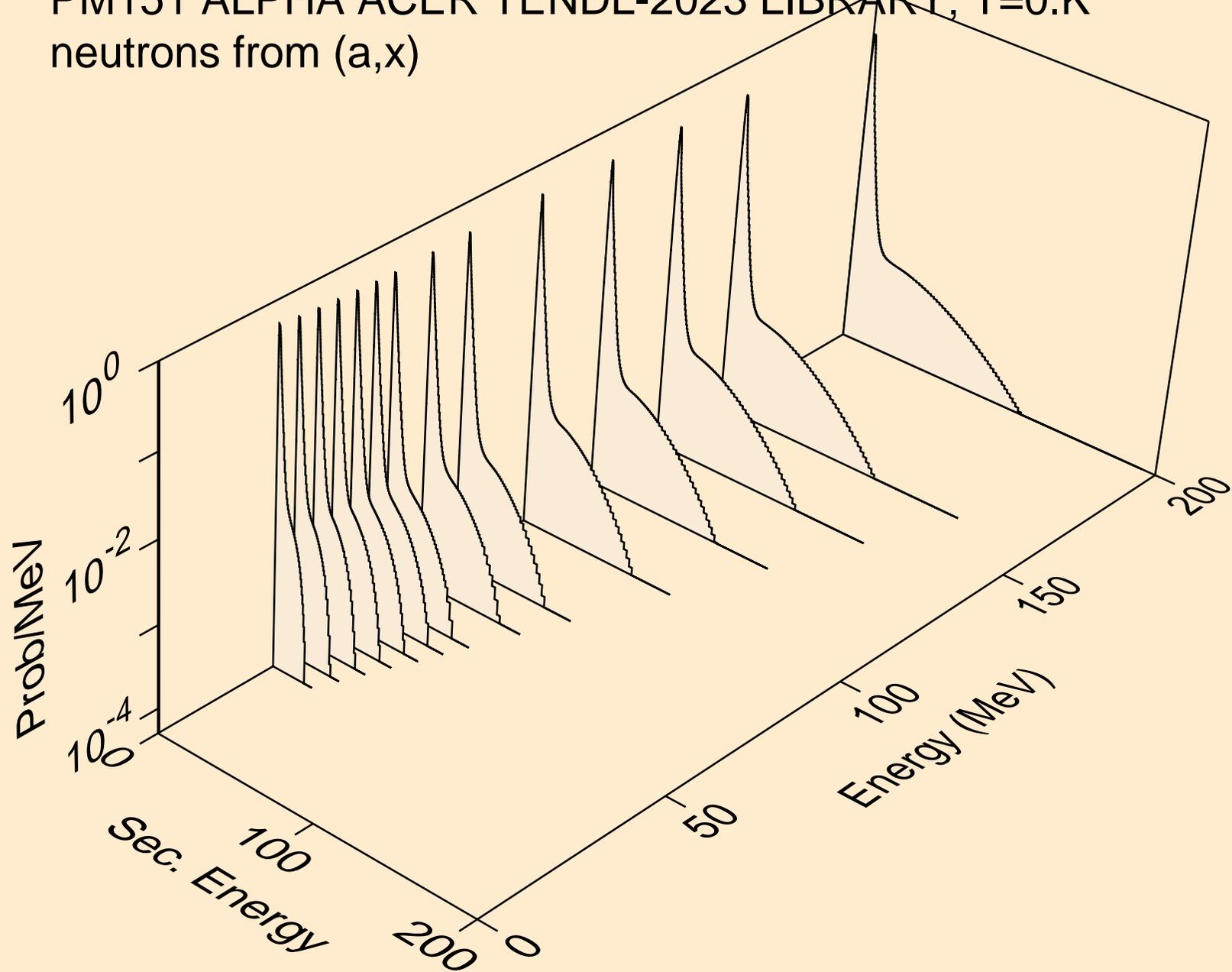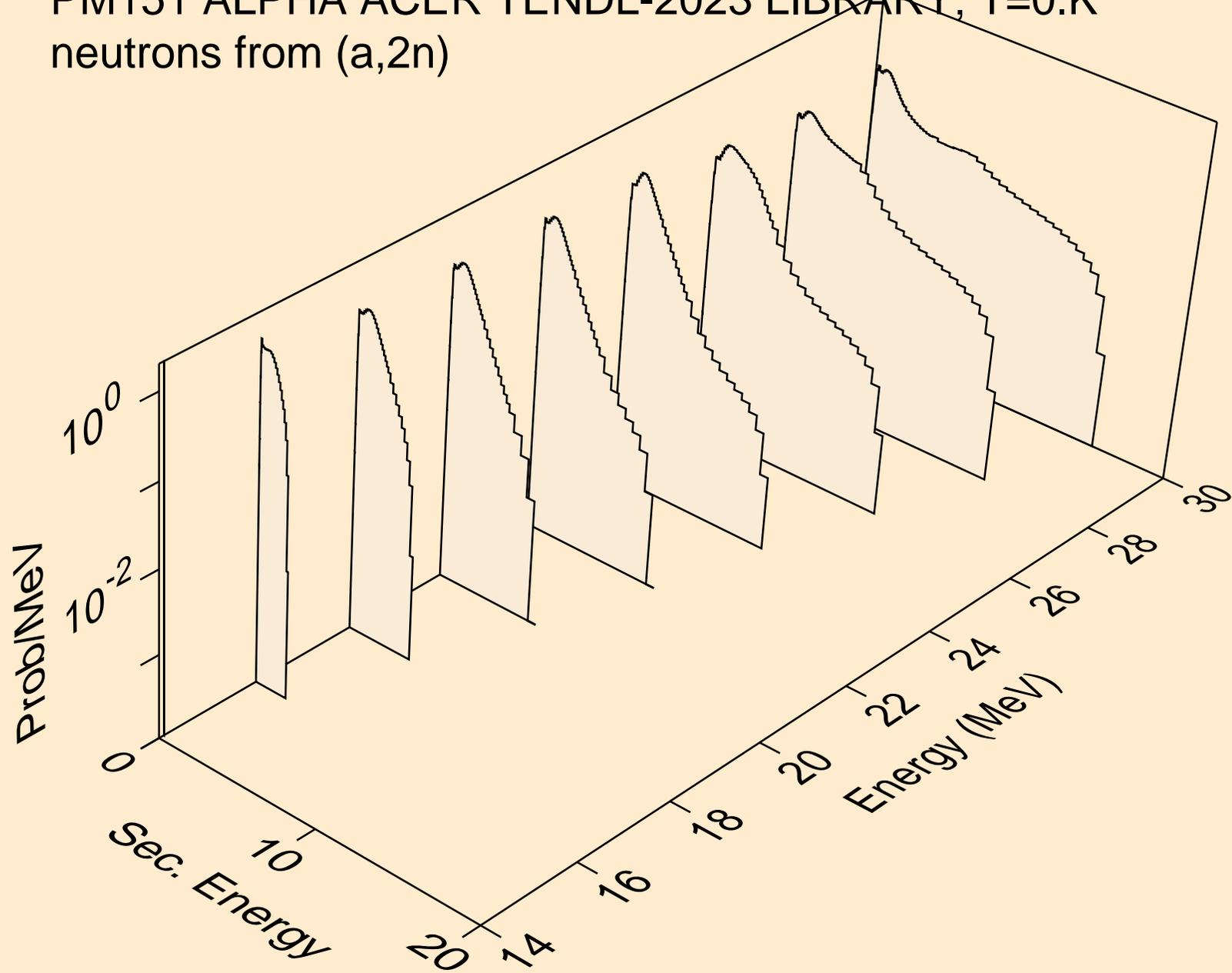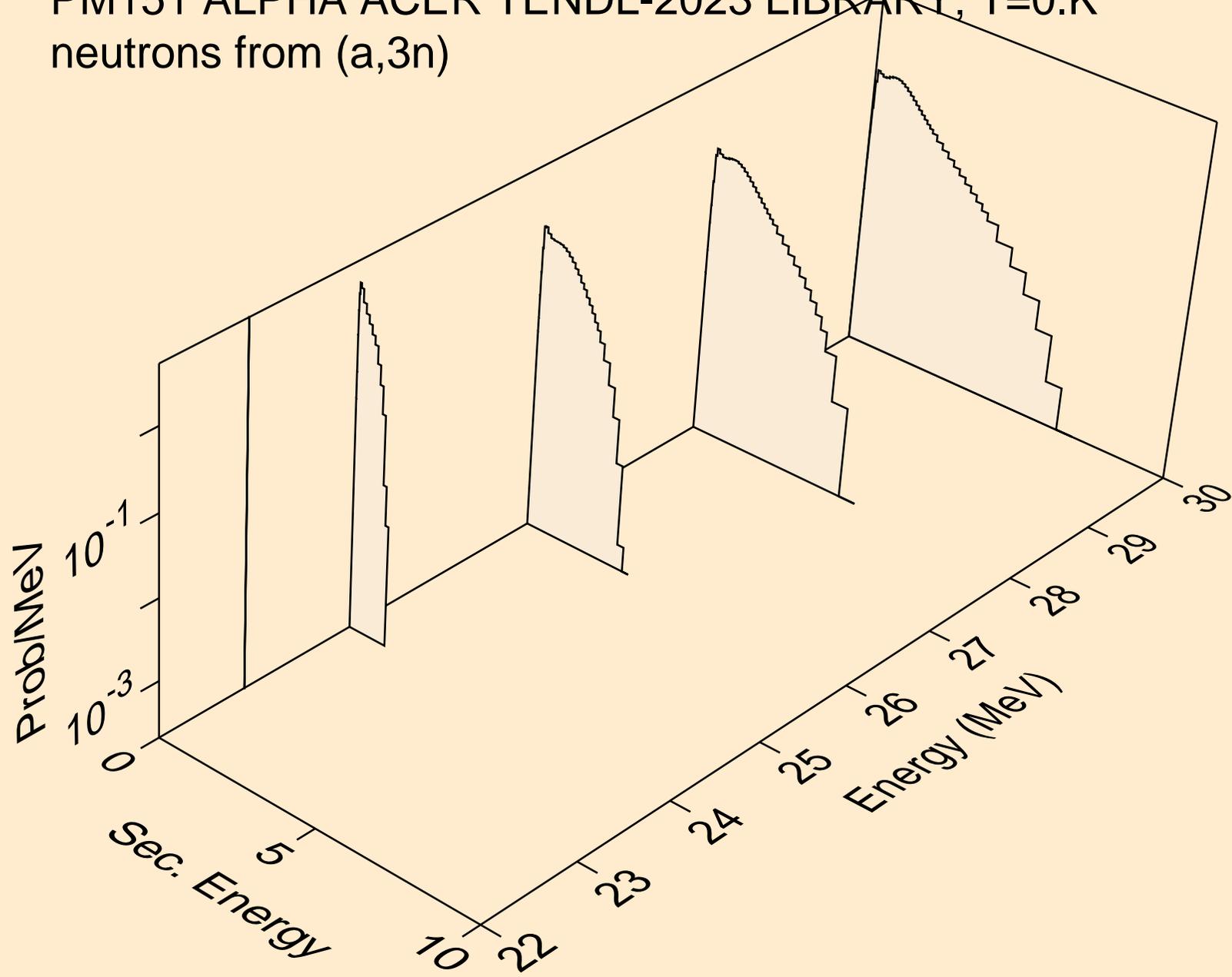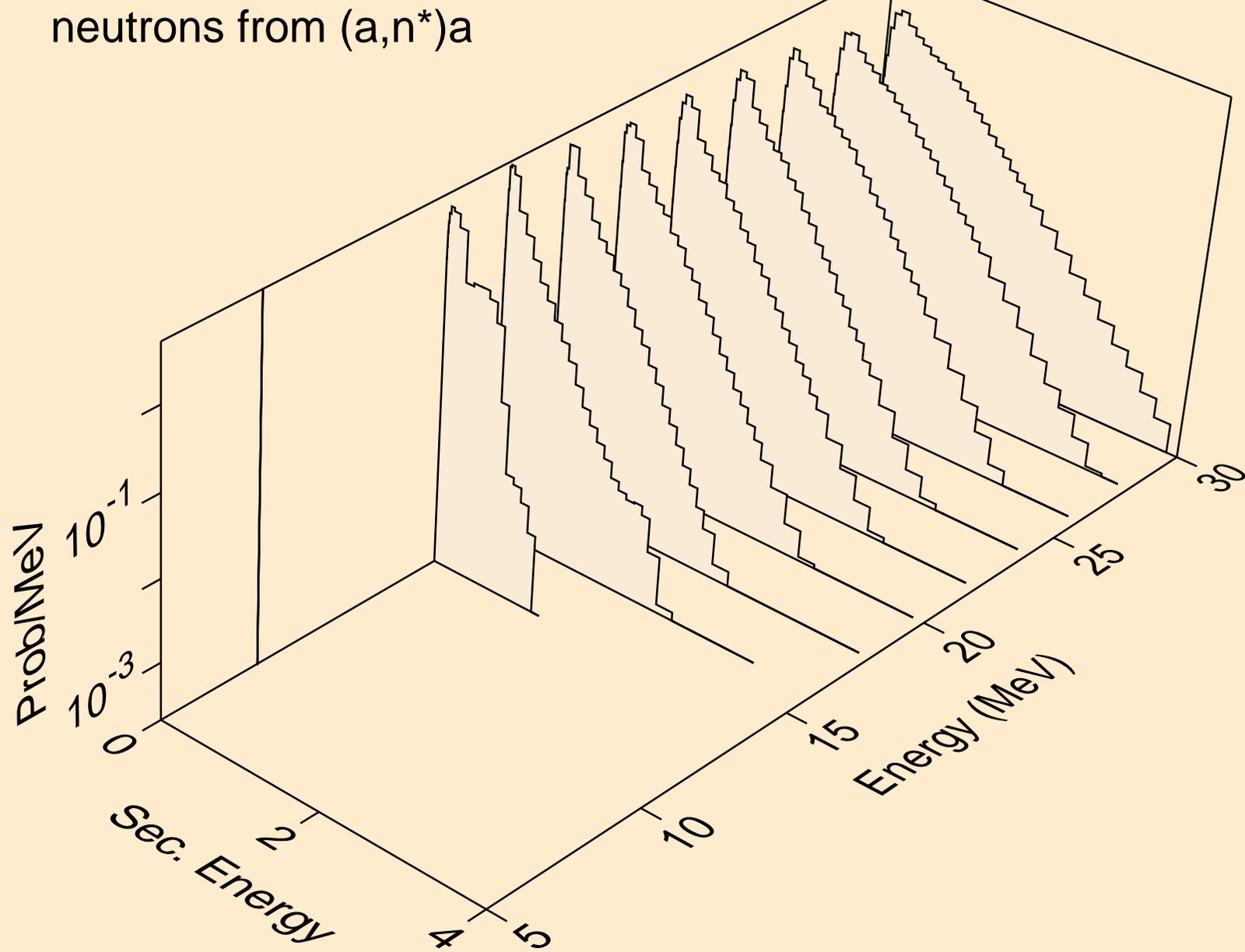PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,3n)

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy

5

10

Energy (MeV)

22 23 24 25 26 27 28 29 30

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,n*)a

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy

2

4

5

10

15

20

25

30

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,2n)a

Prob/MeV

10^{-1}

10^{-3}

Sec. Energy

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,n*)p

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

2

4

14

16

18

20

22

24

26

28

30

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,n*)d

Prob/MeV

10^2

10^0

10^{-2}

Sec. Energy

2

4

16

18

20

22

24

26

28

30

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,n*)t

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
neutrons from (a,2np)

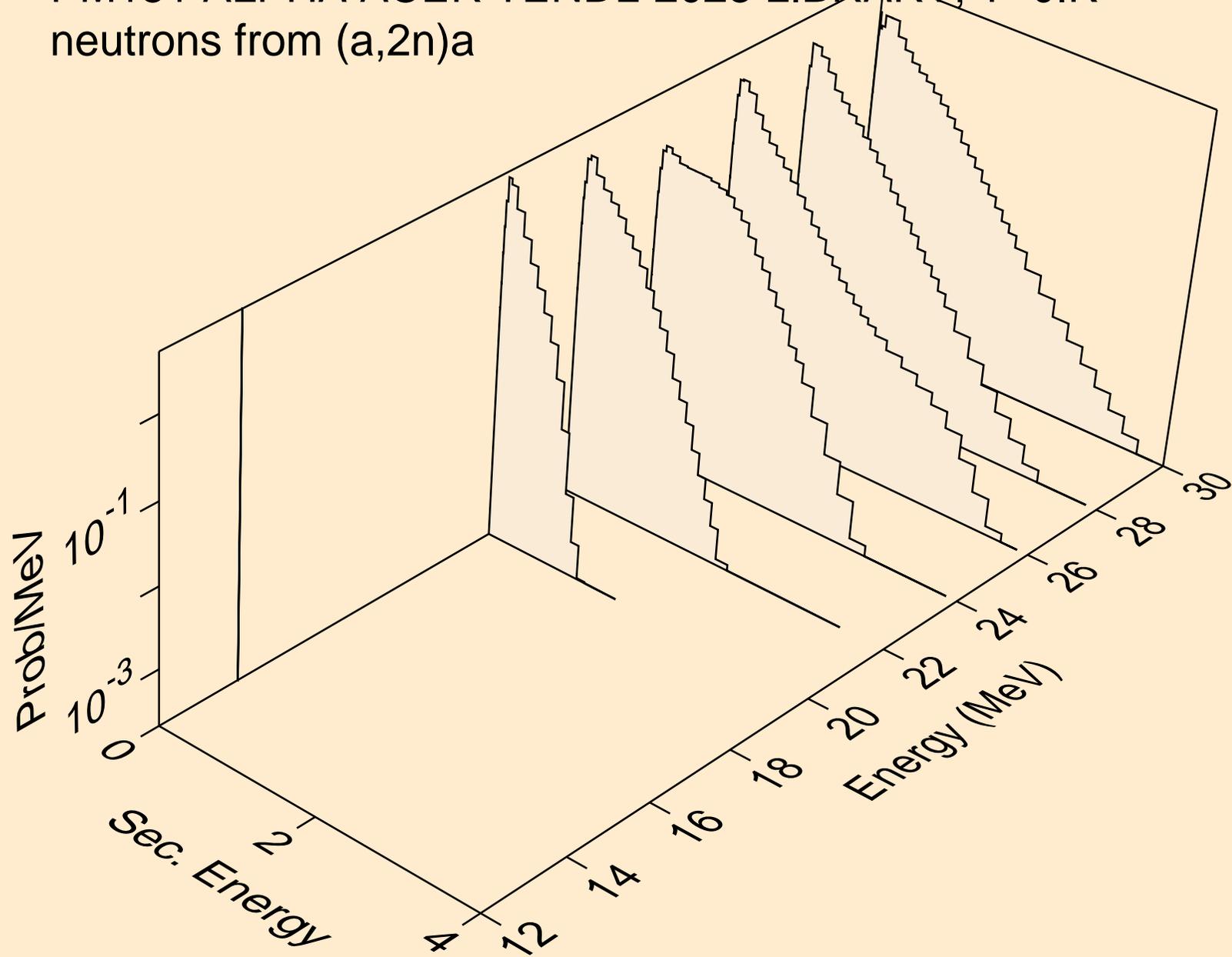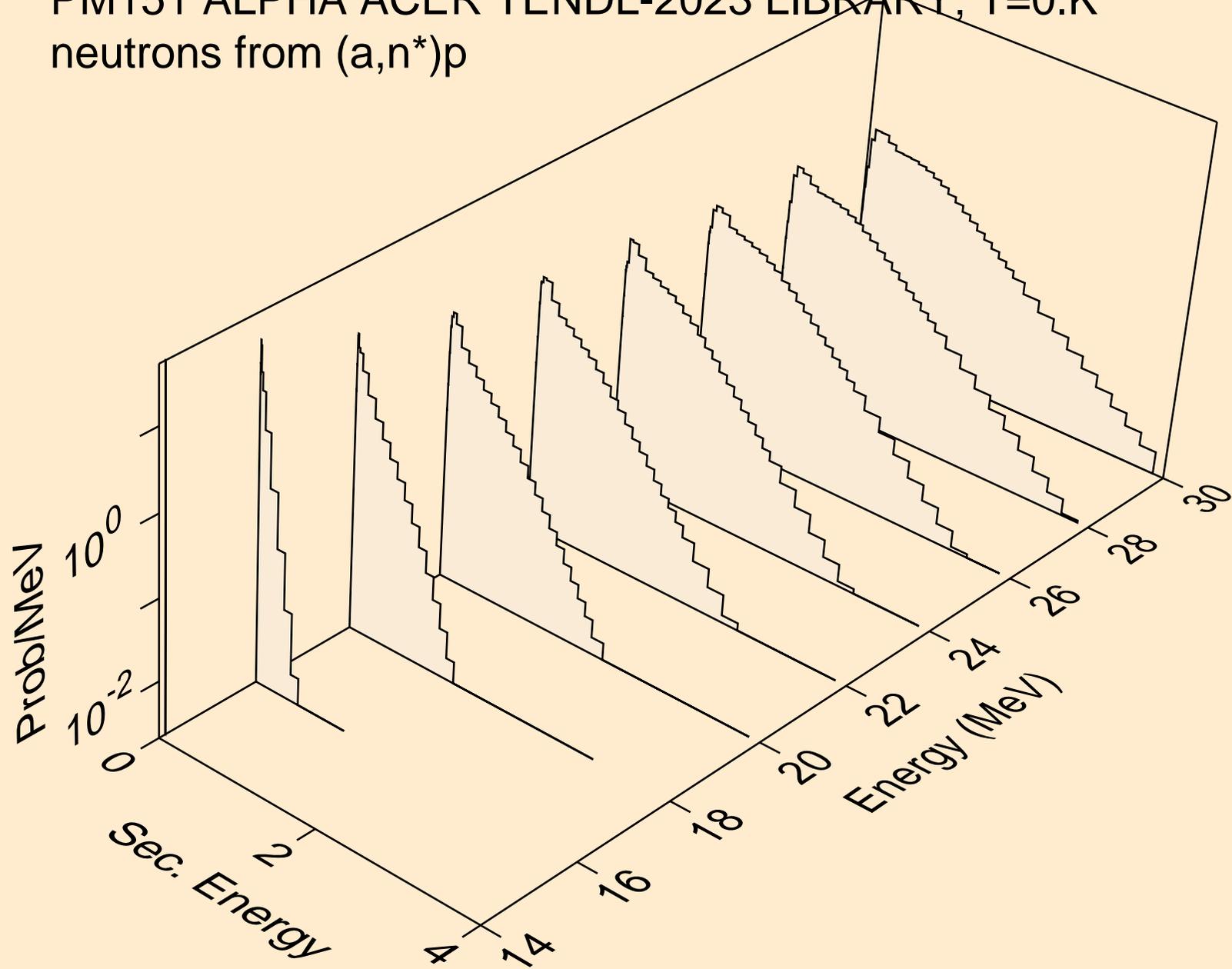Prob/MeV

10^1

10^{-1}

10^{-3}

10^0
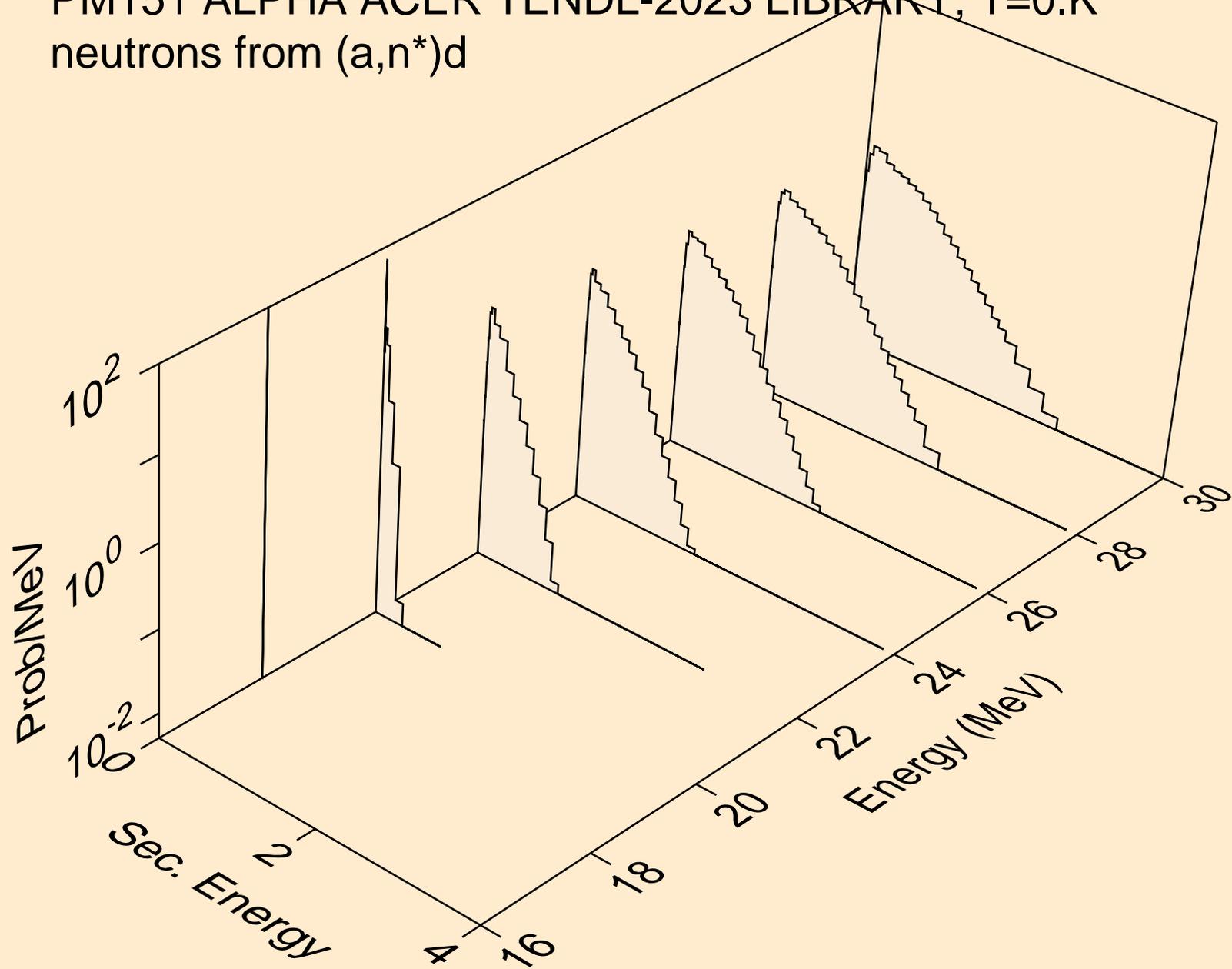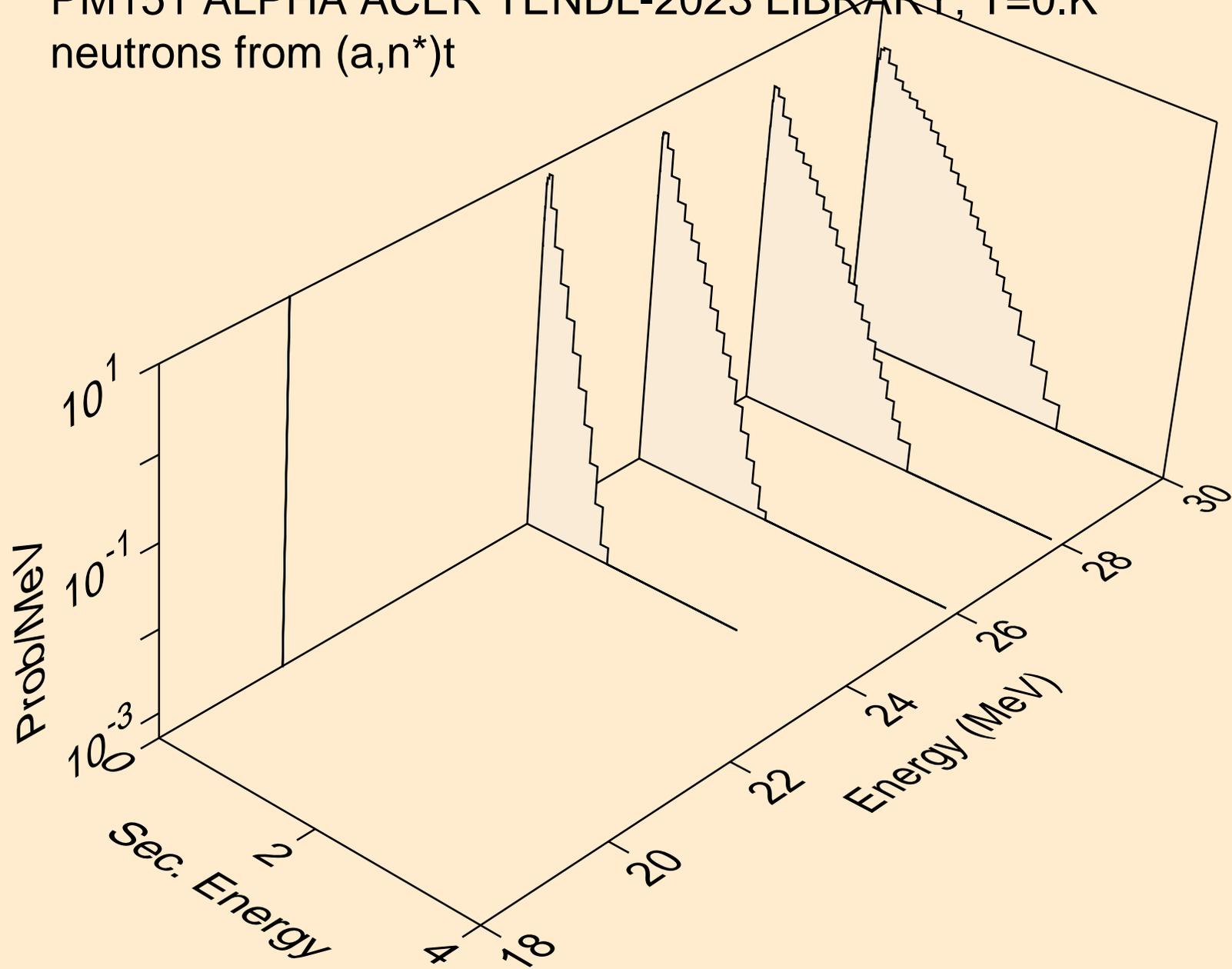
Sec. Energy

2

4

Energy (MeV)

20

22

24

26

28

30

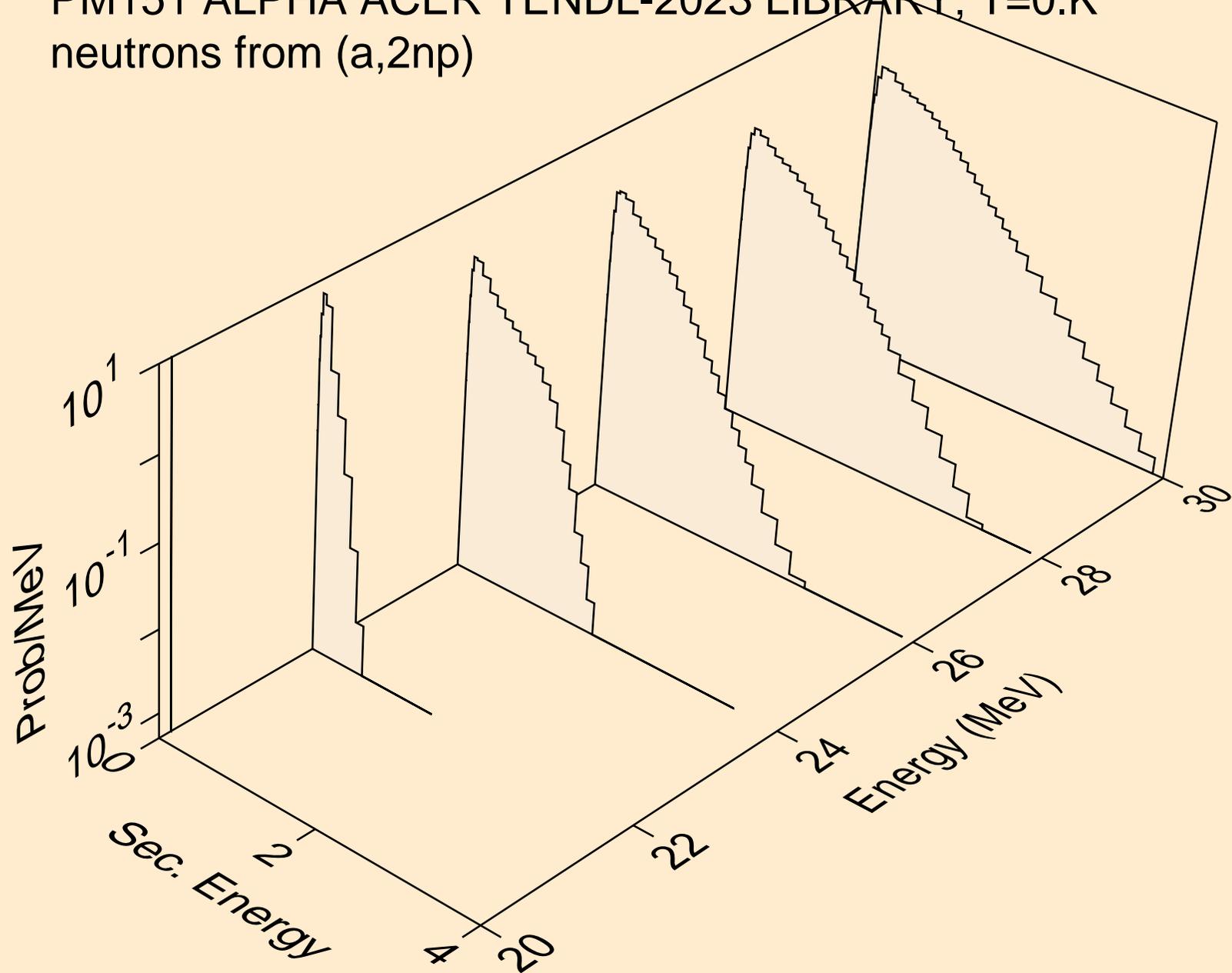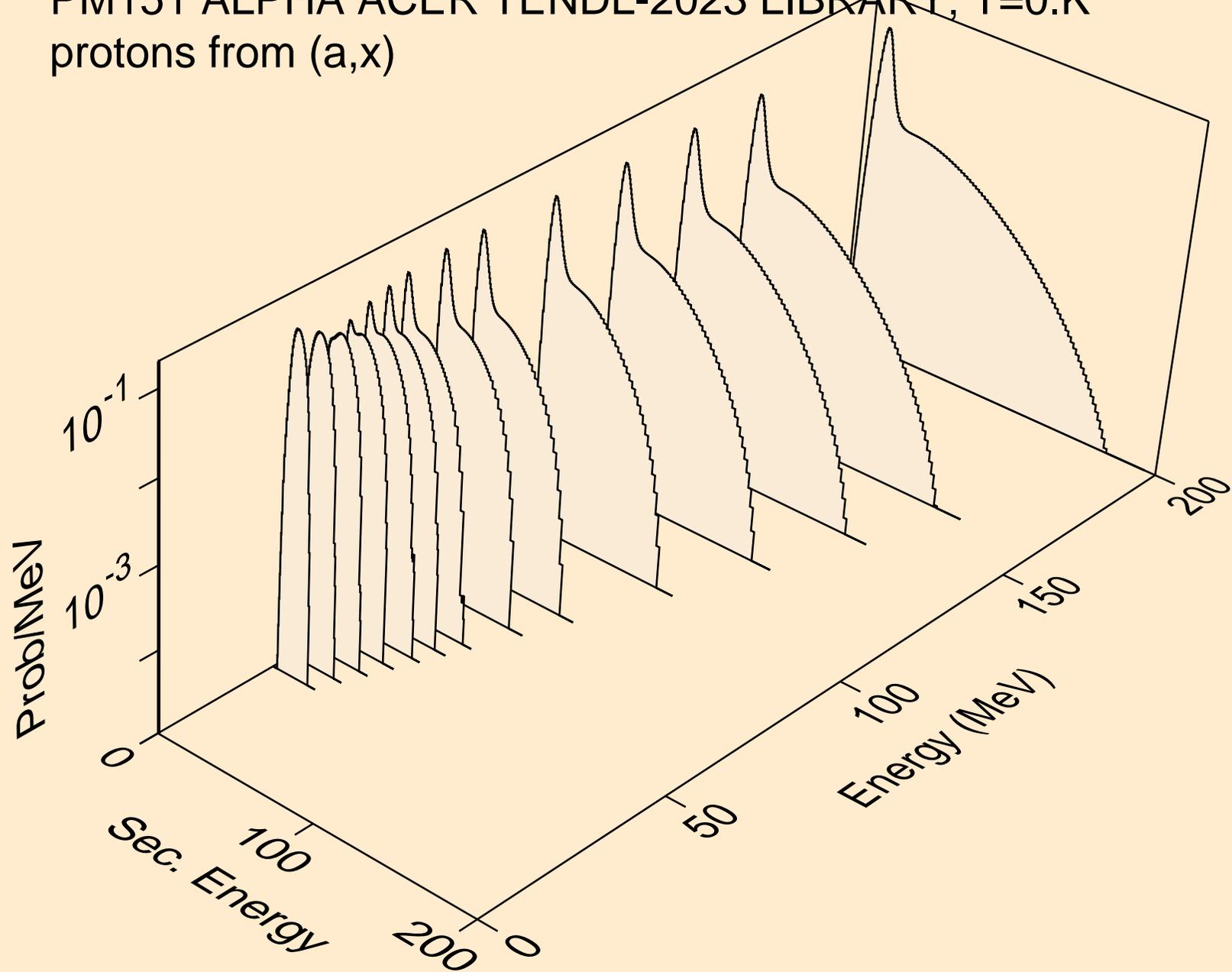PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
protons from (a,x)

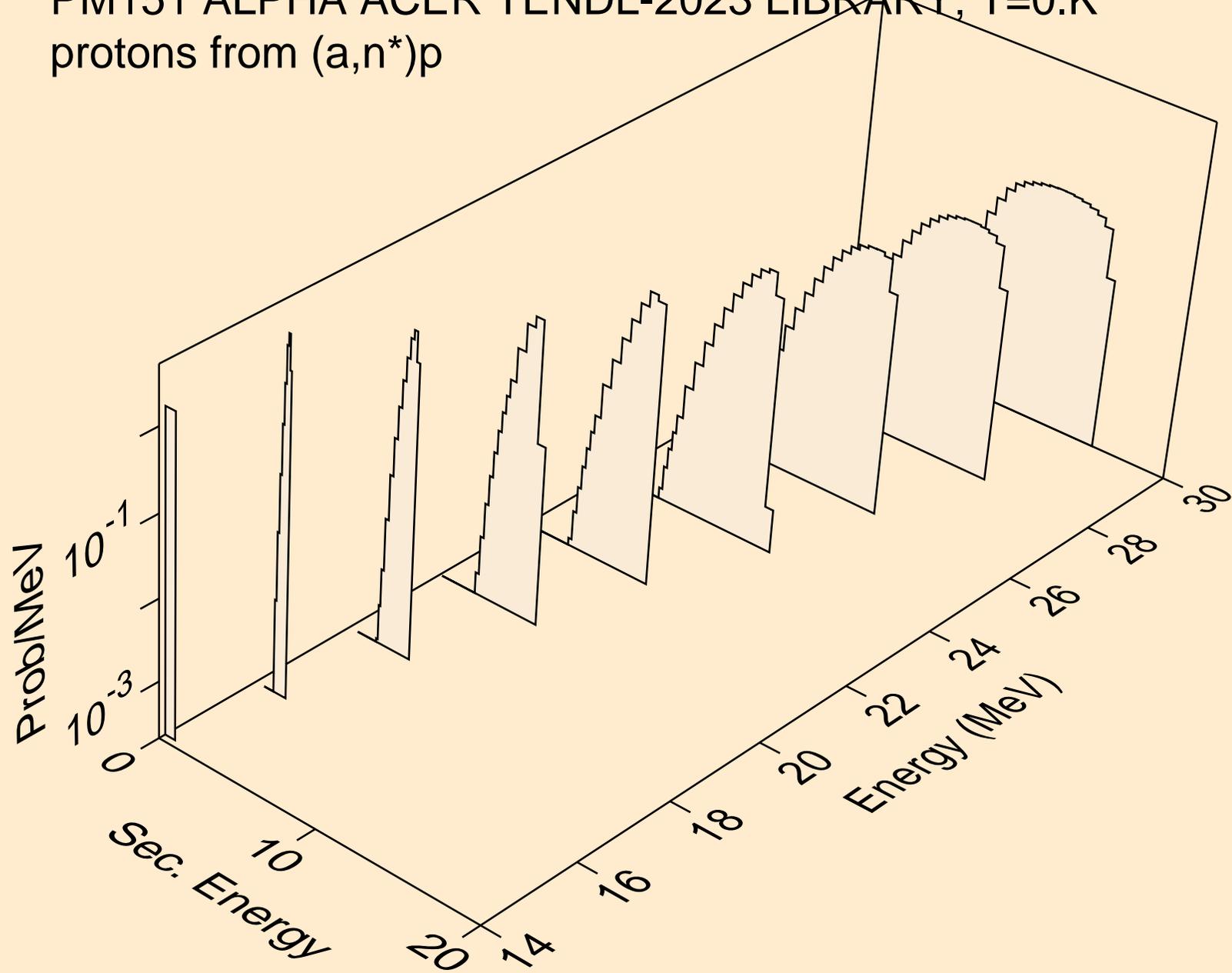PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
protons from (a,n*)p

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
protons from (a,2np)
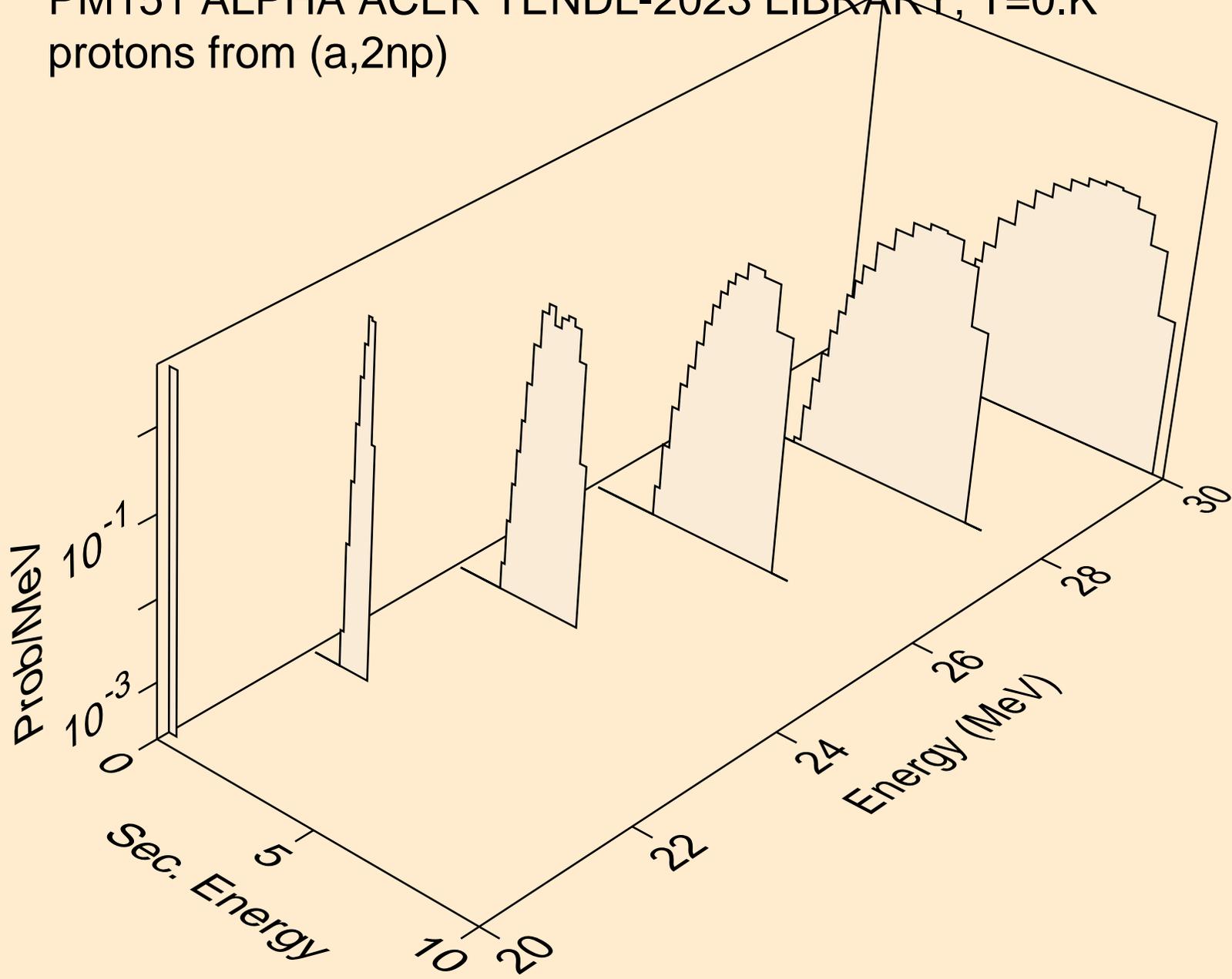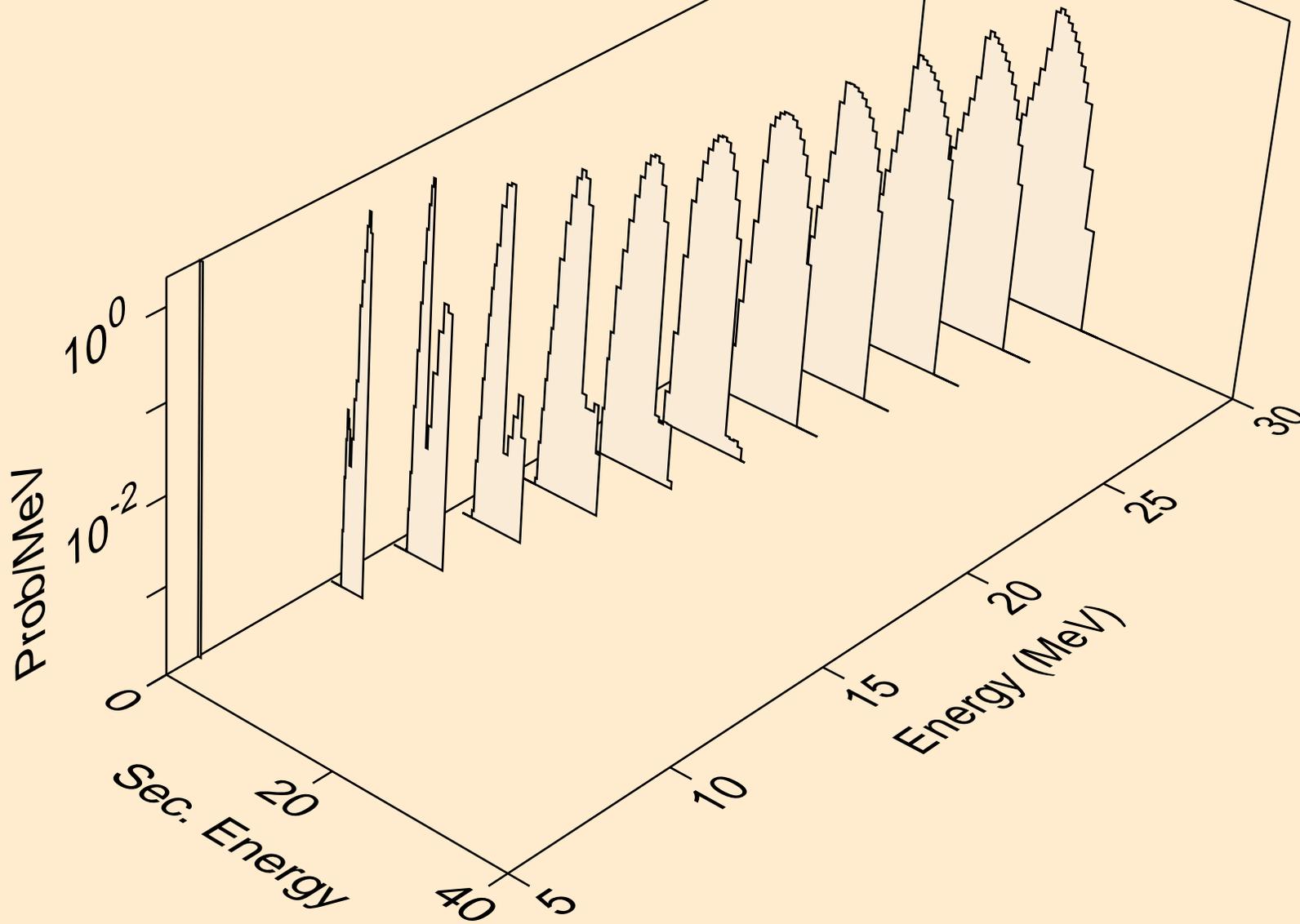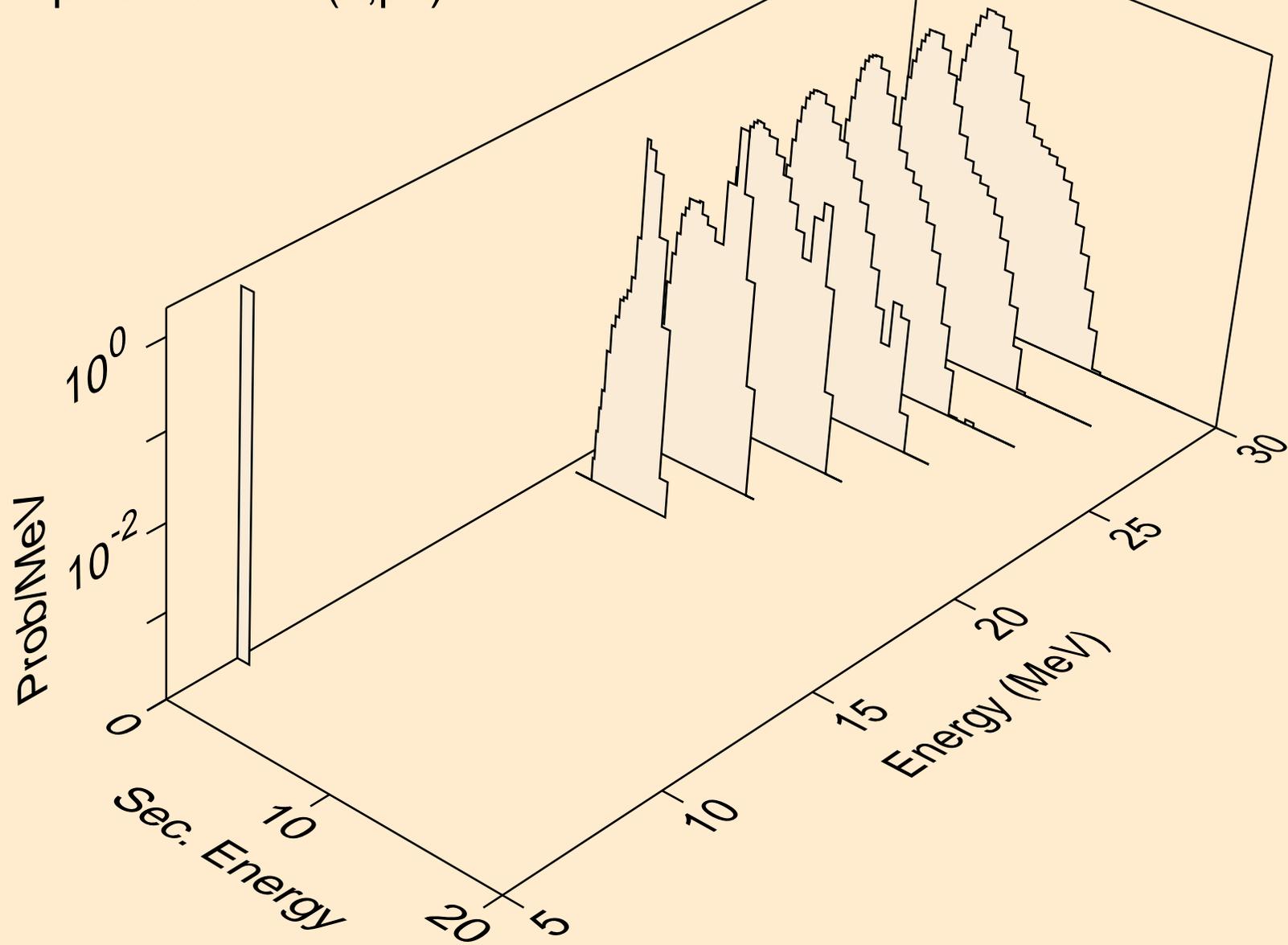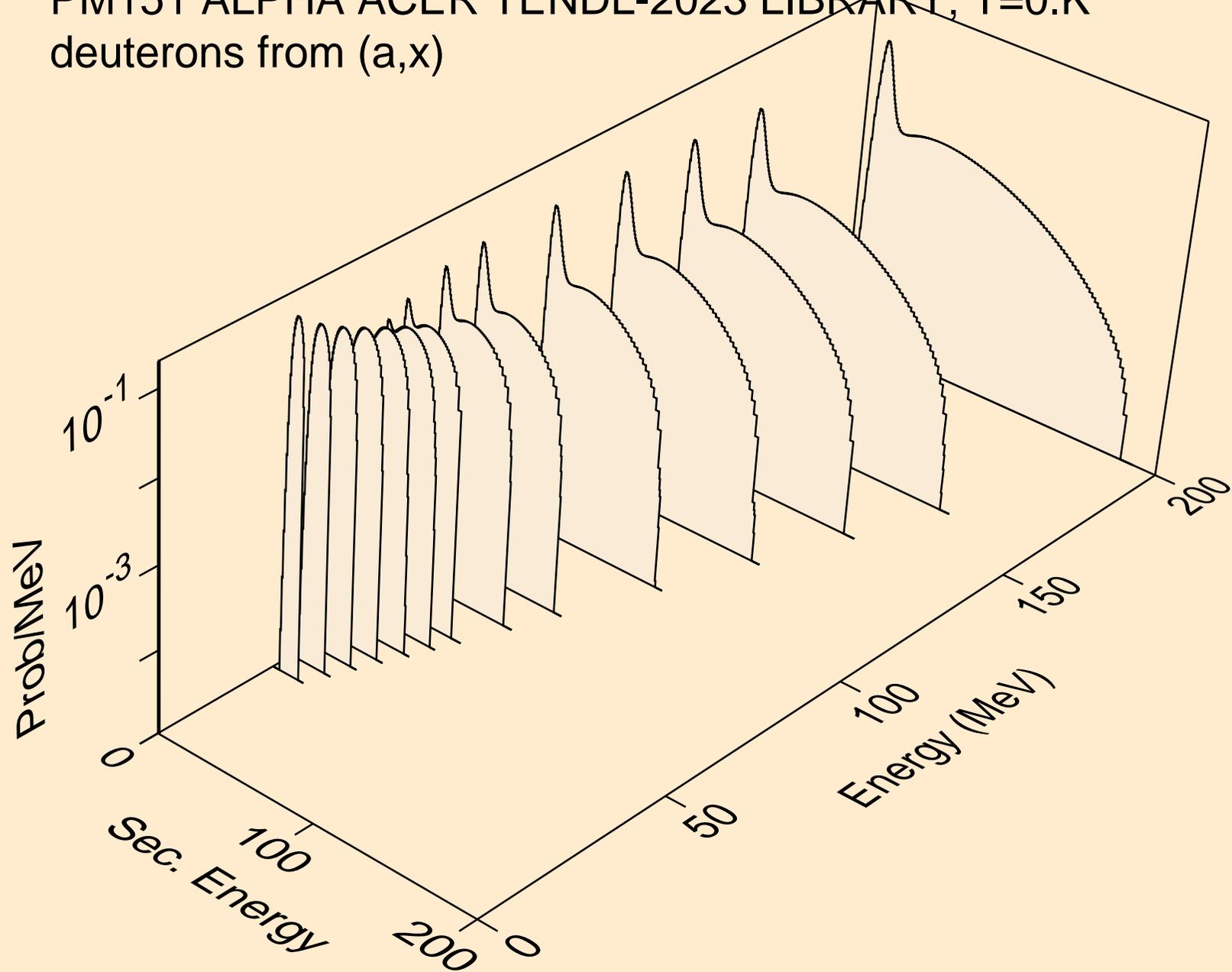
PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
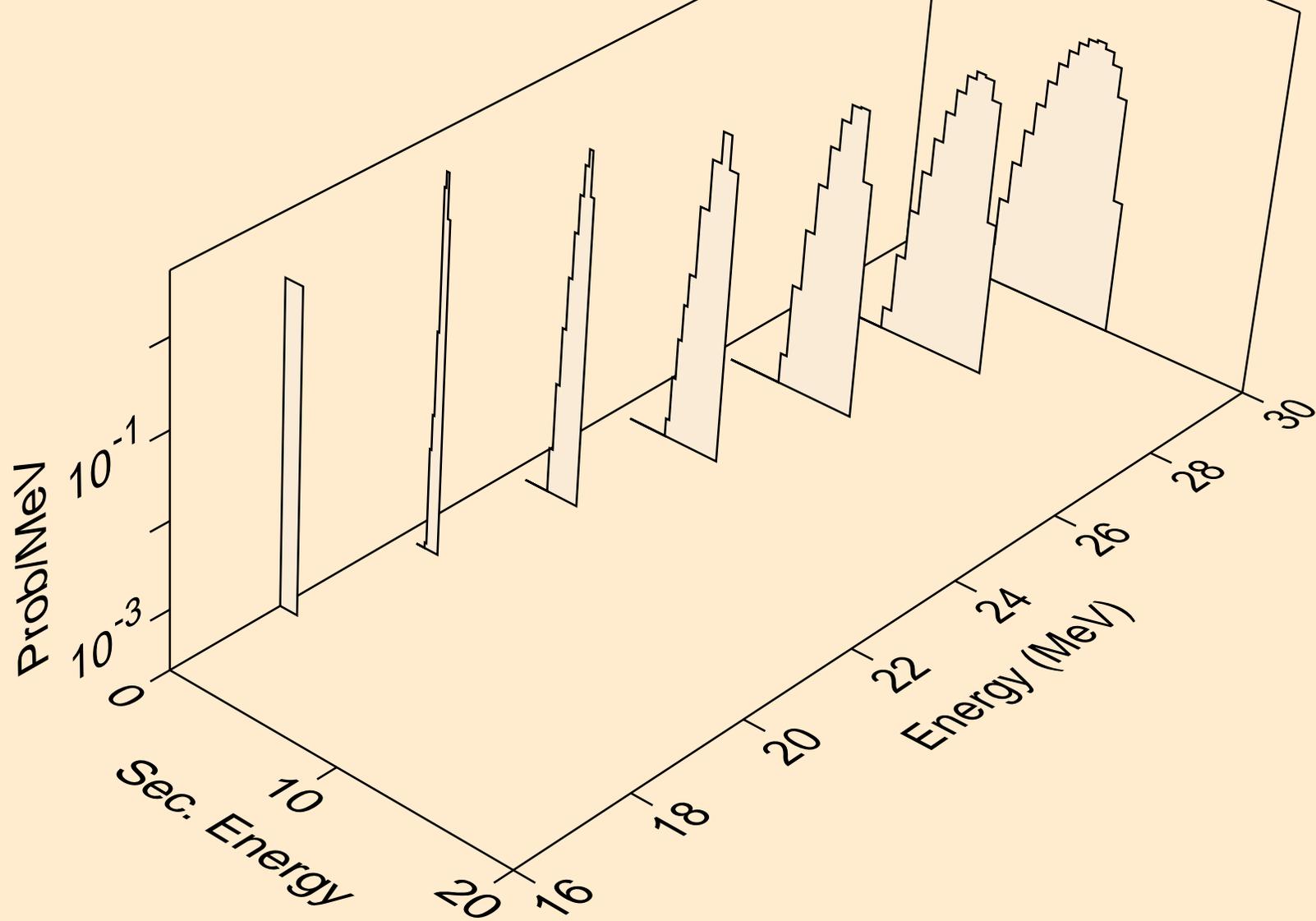protons from (a,p)

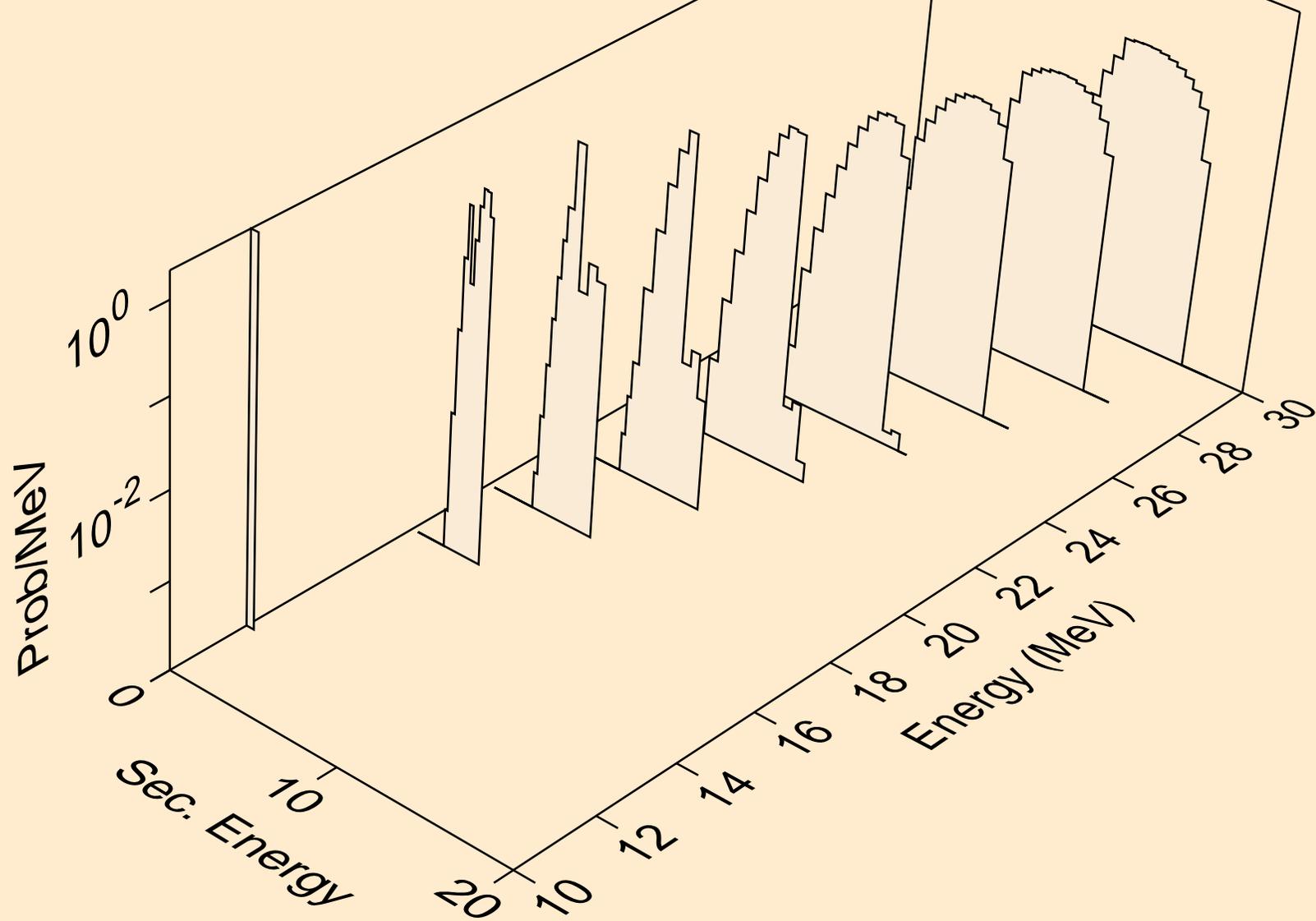PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
protons from (a,pa)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (a,x)

ProbMeV

10^{-1}

10^{-3}

0

Sec. Energy

100

200

Energy (MeV)

0

50

100

150

200

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (a,n*)d

Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy
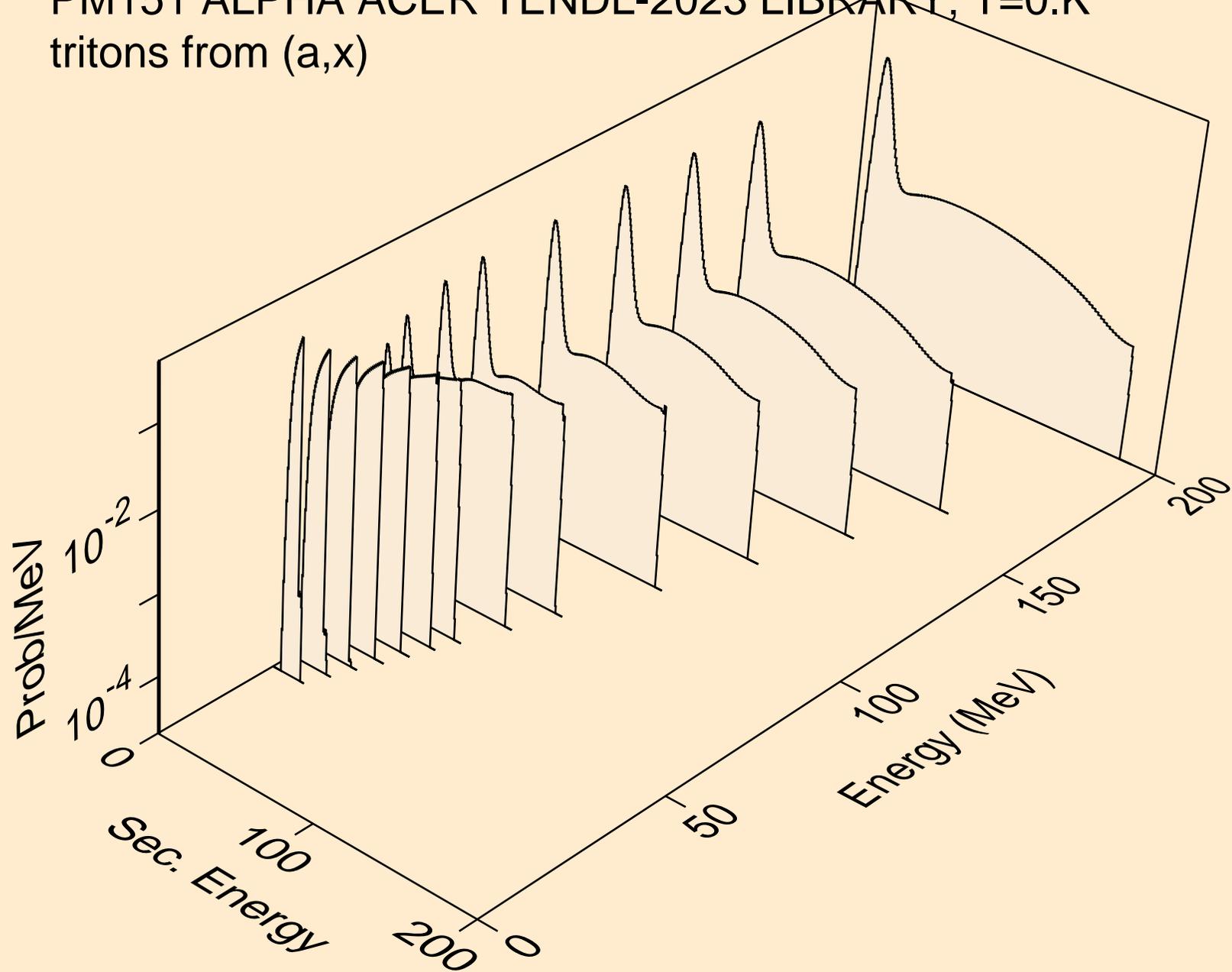
10

20

16

18

20

22
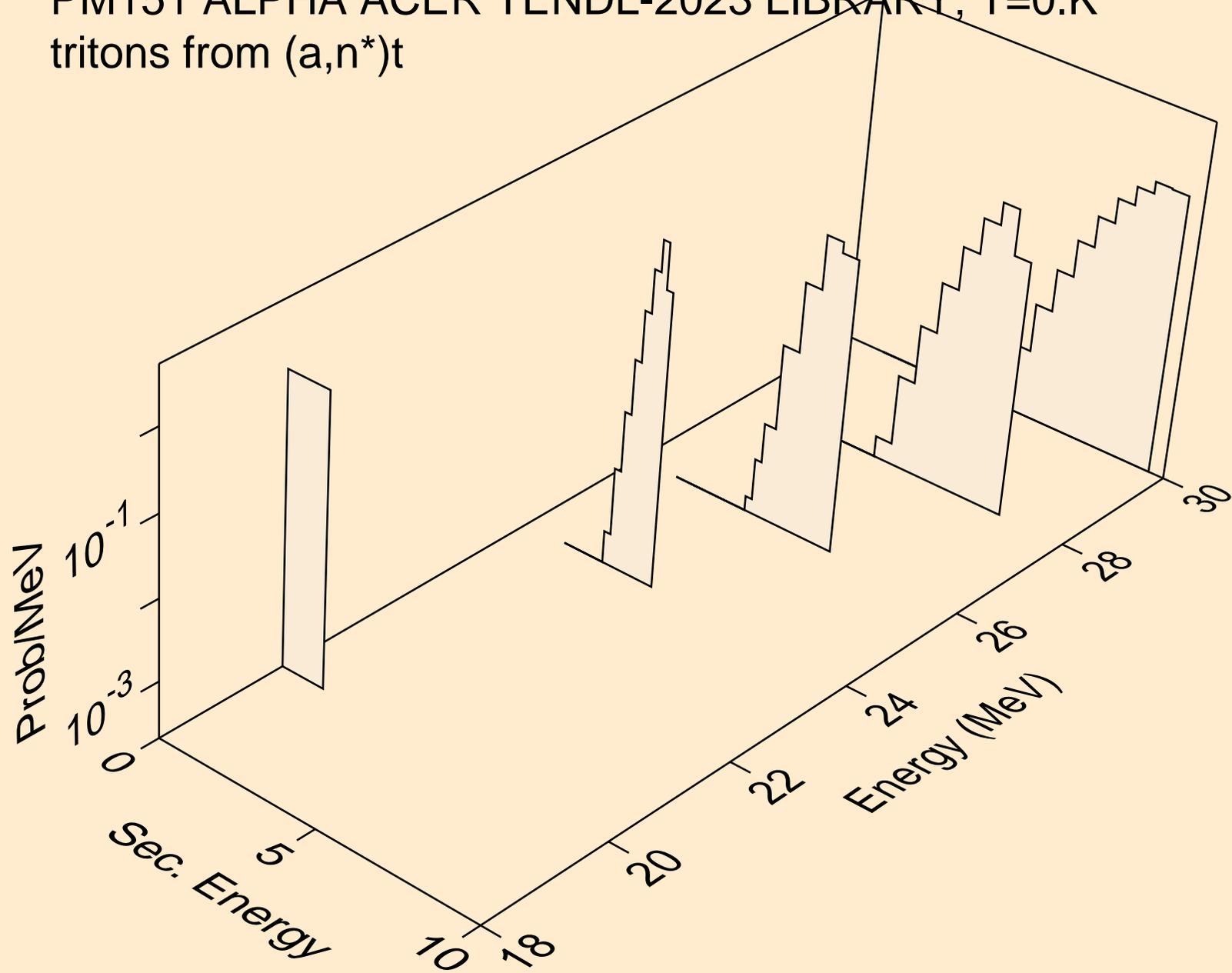
24

26

28

30

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
deuterons from (a,d)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
tritons from (a,x)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
tritons from (a,n*)t
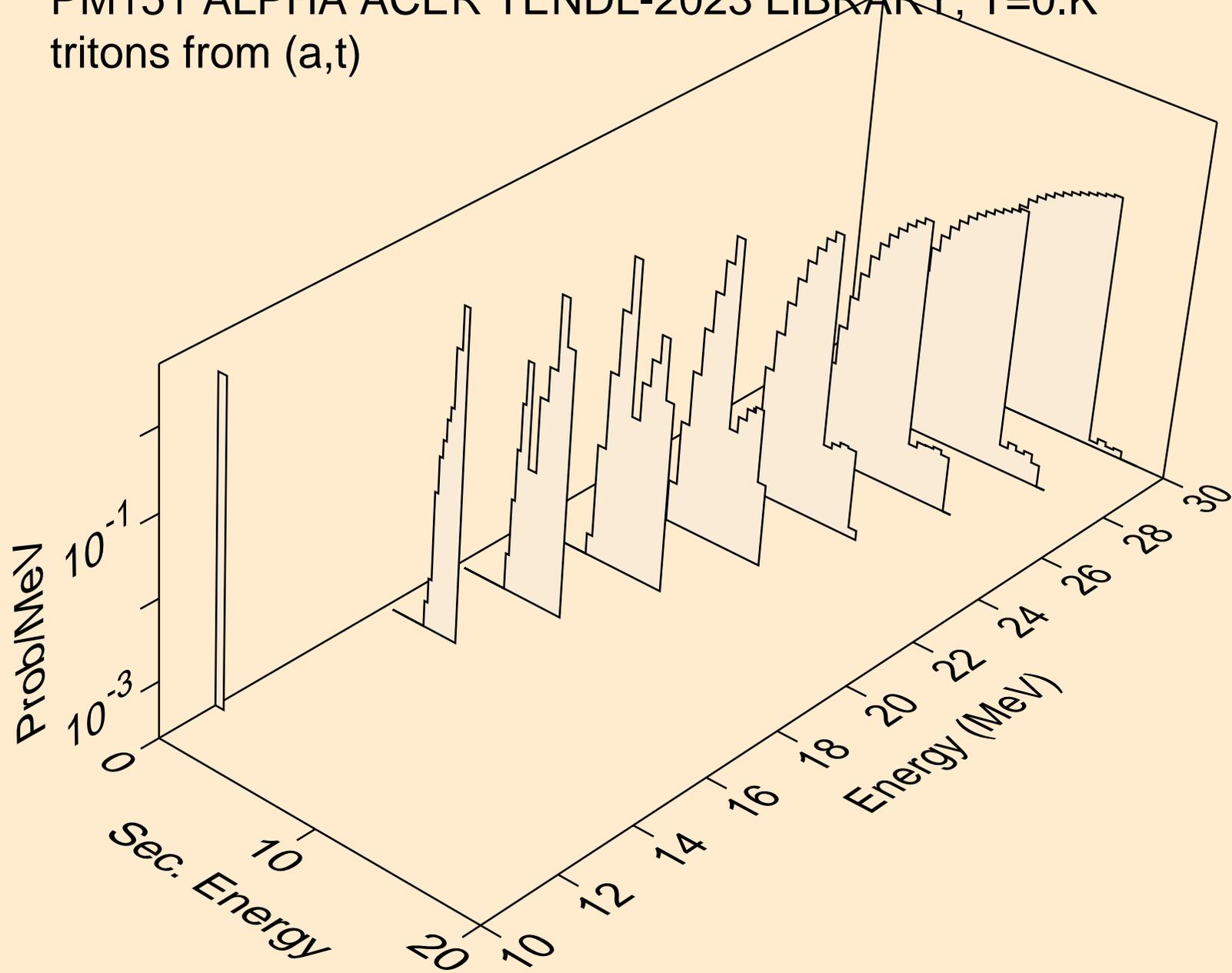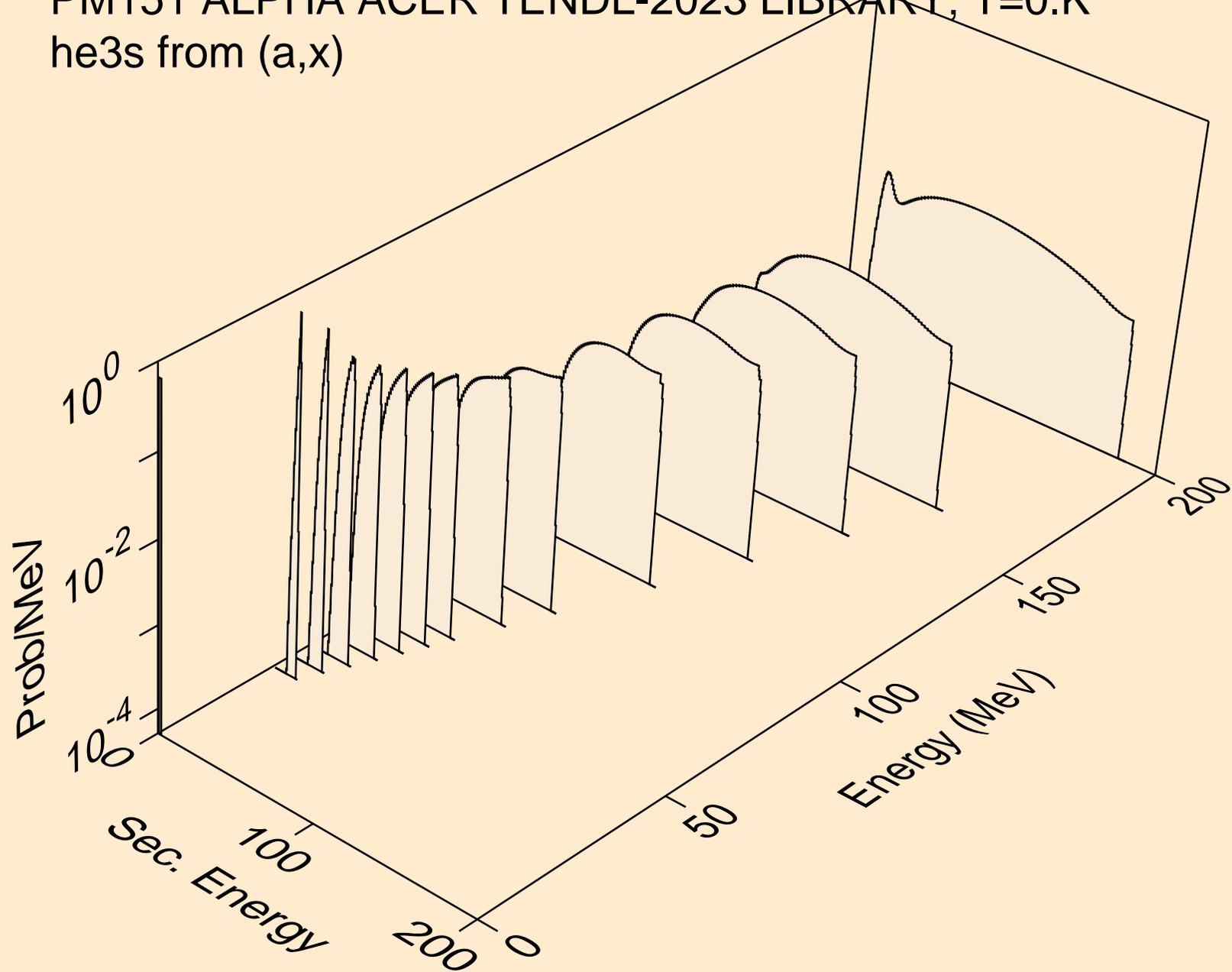
Prob/MeV

10^{-1}

10^{-3}

Sec. Energy

Energy (MeV)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
tritons from (a,t)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
he3s from (a,x)

PM151 ALPHA ACER TENDL-2023 LIBRARY; T=0.K
he3s from (a,he3)

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

10

20

14

16

18

20

22

24

26

28

30

Energy (MeV)