PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Principal cross sections

Cross section (barns)

Energy (MeV)

- total
- absorption
- elastic
- gamma production

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Heating

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
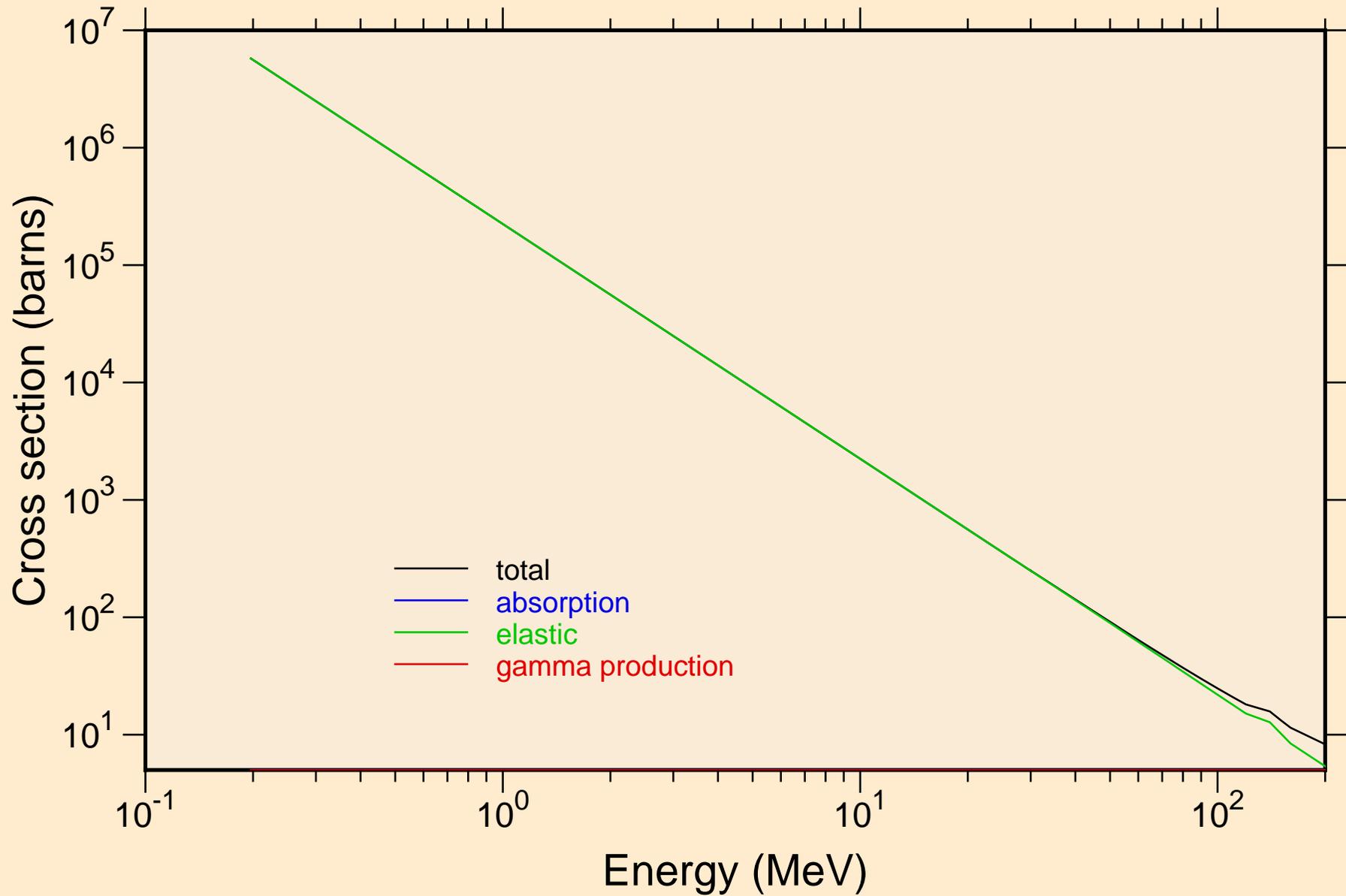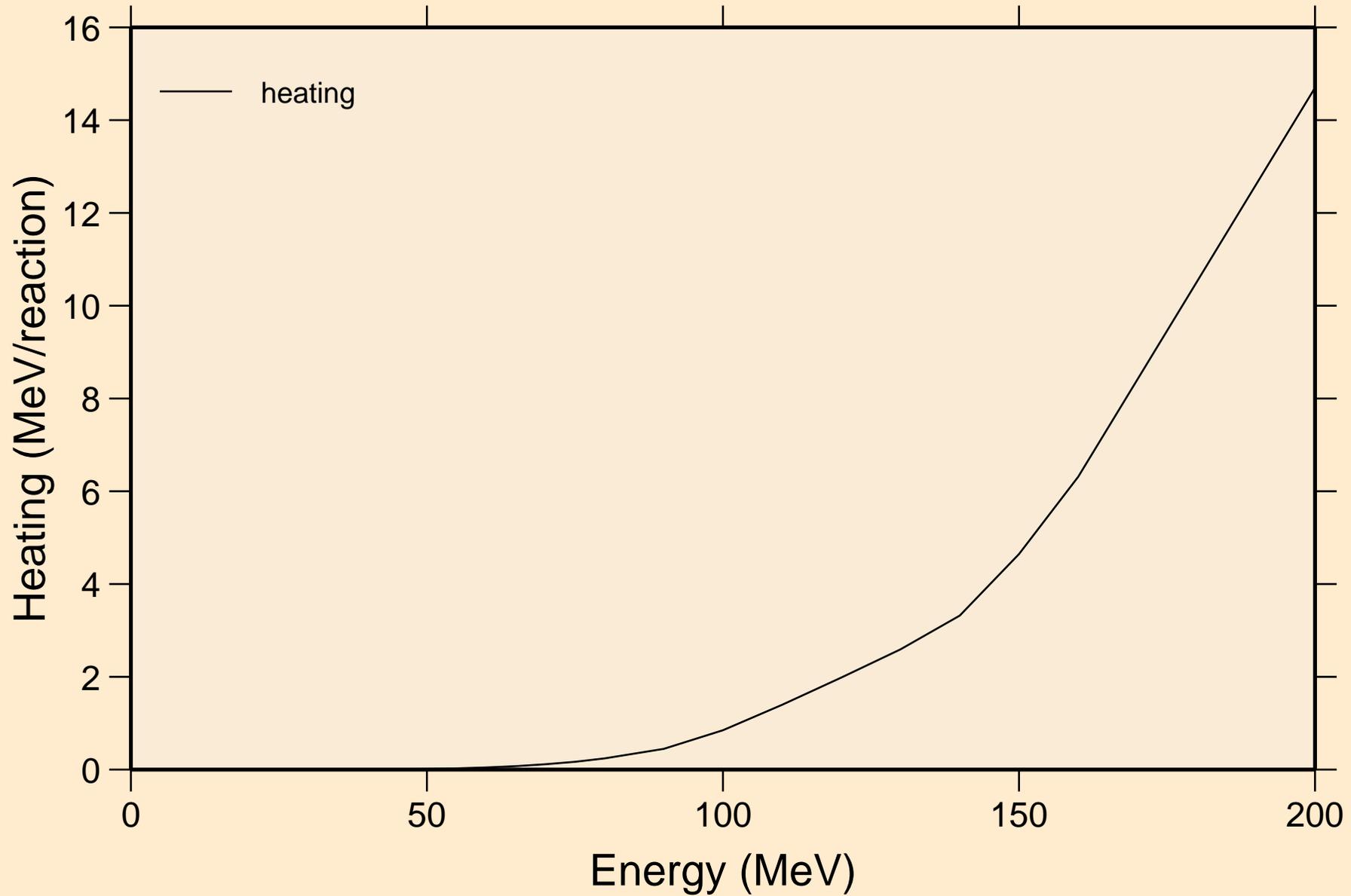Principal cross sections

Legend:
- total
- absorption
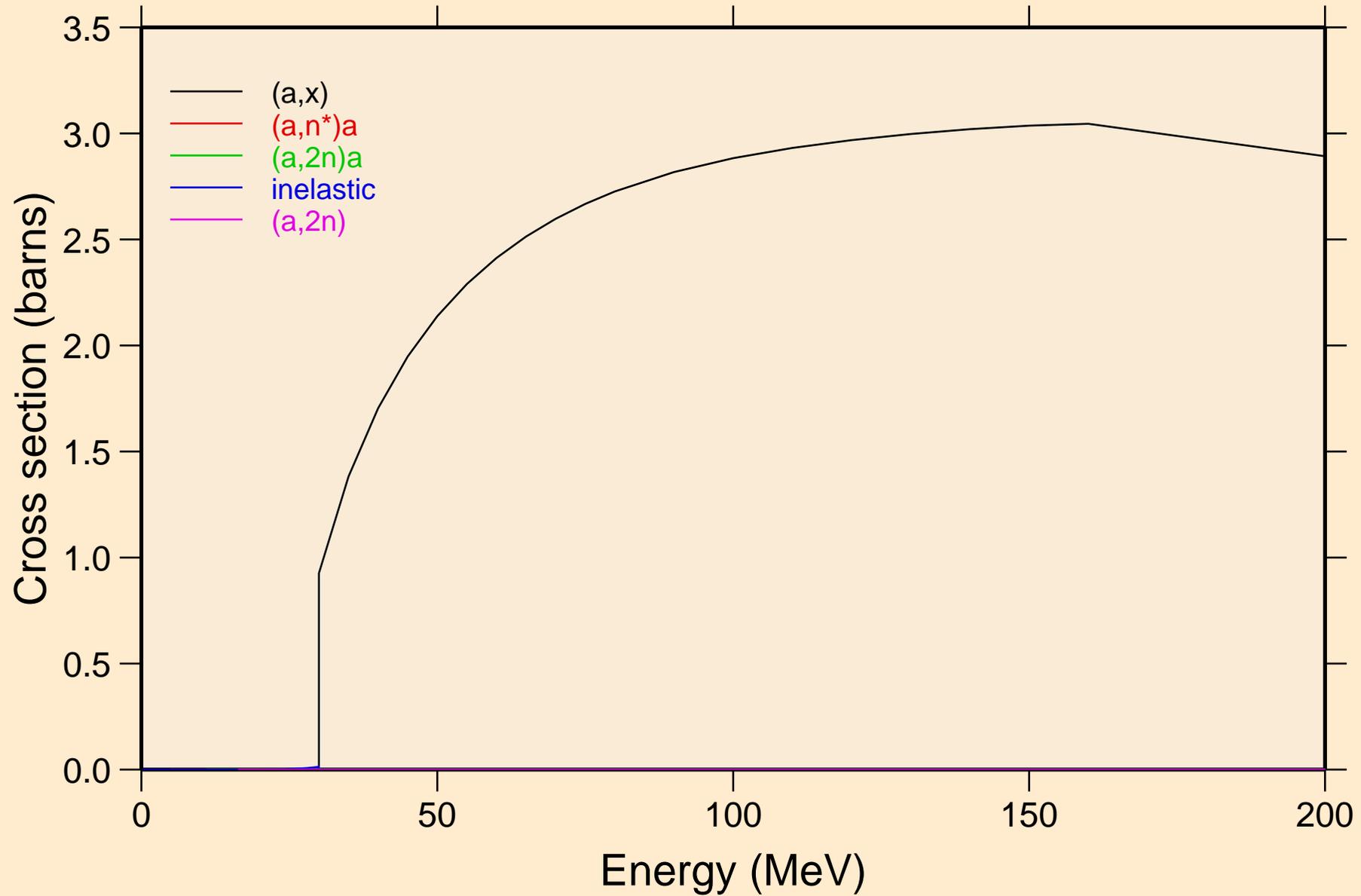- elastic
- gamma production

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Heating

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Threshold reactions

Legend:
- (a,x) — black
- (a,n*)a — red
- (a,2n)a — green
- inelastic — blue
- (a,2n) — magenta

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

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Threshold reactions

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Threshold reactions

Legend:
- inelastic
- (a,n*)t
- (a,4n)
- (a,p)
- (a,d)
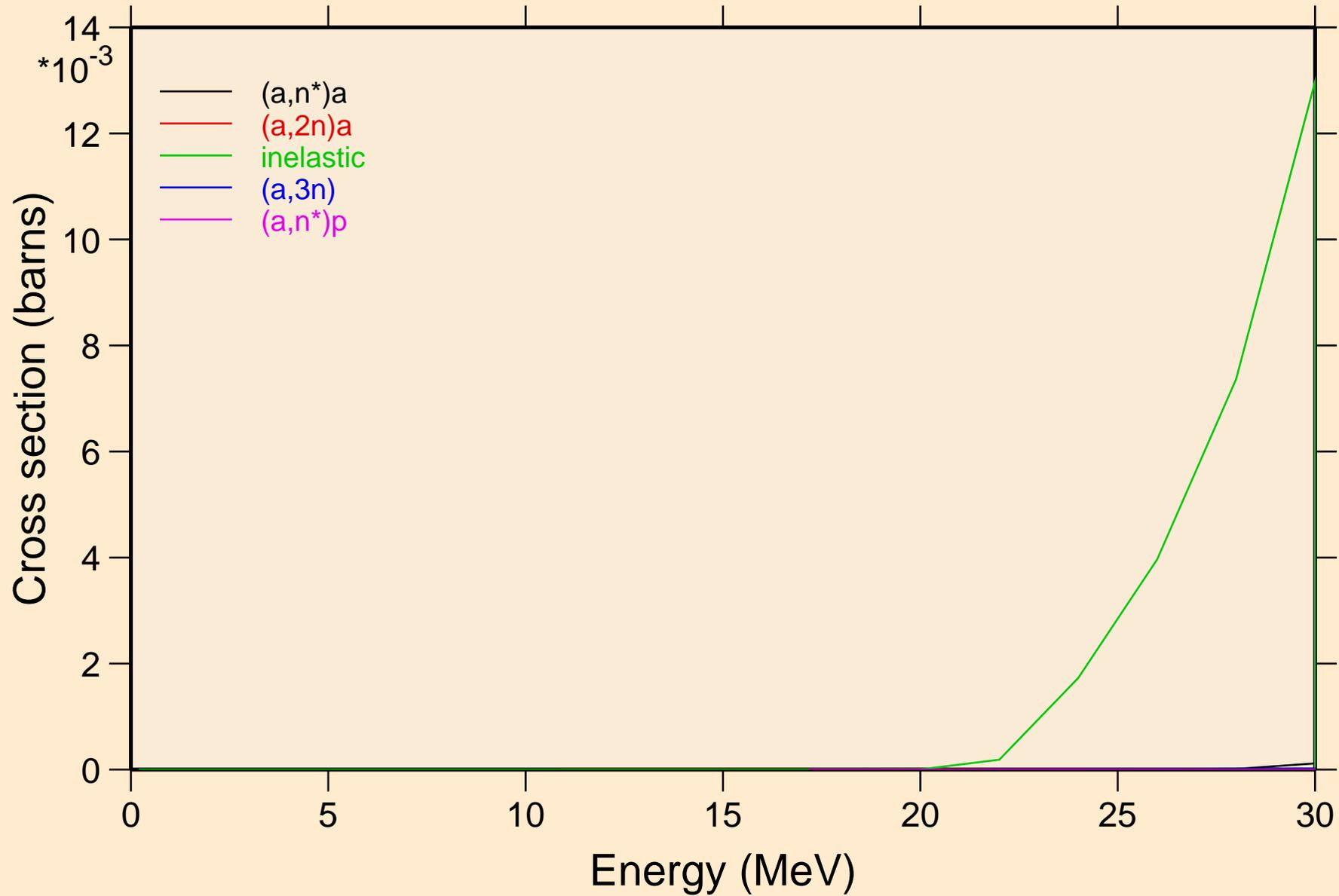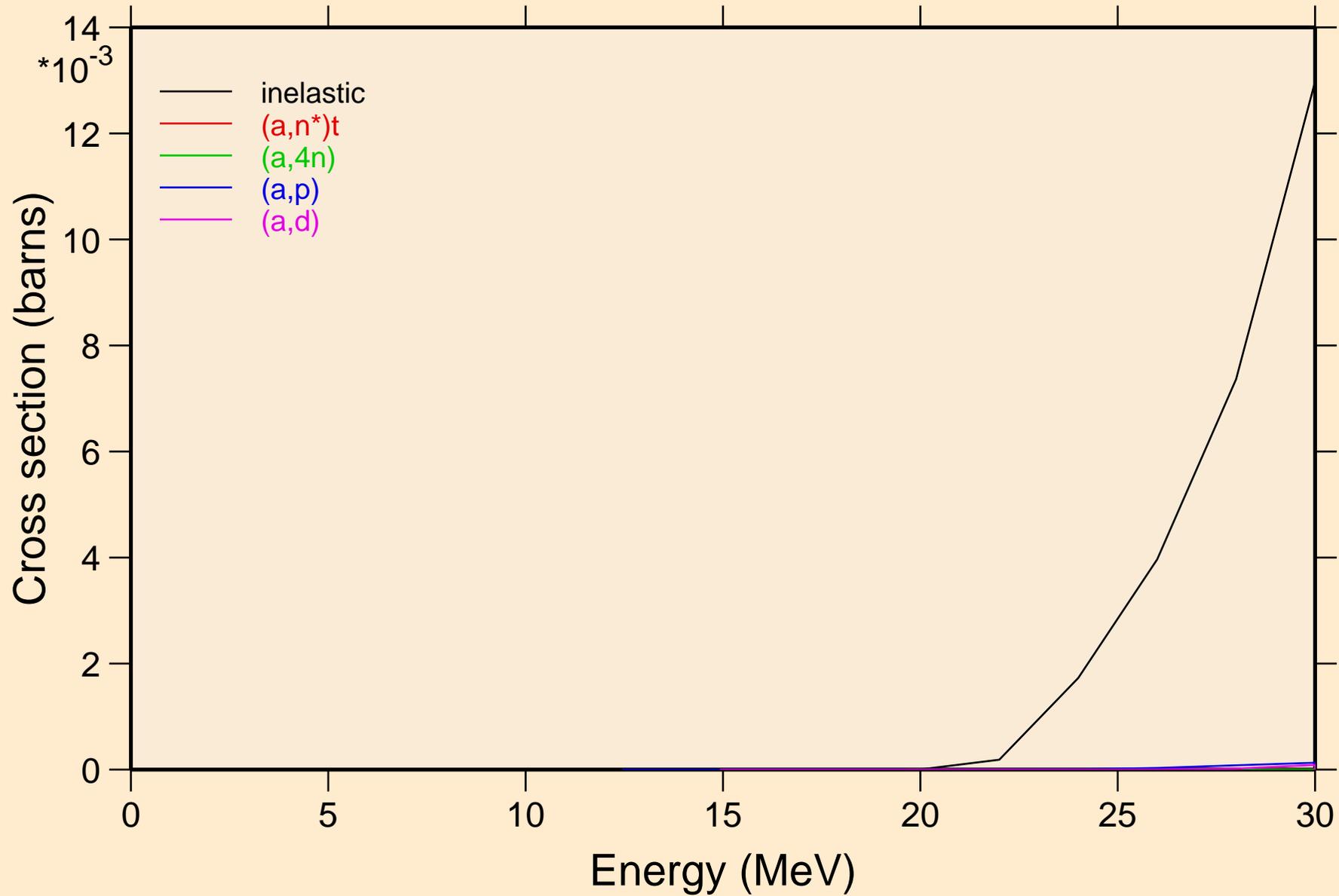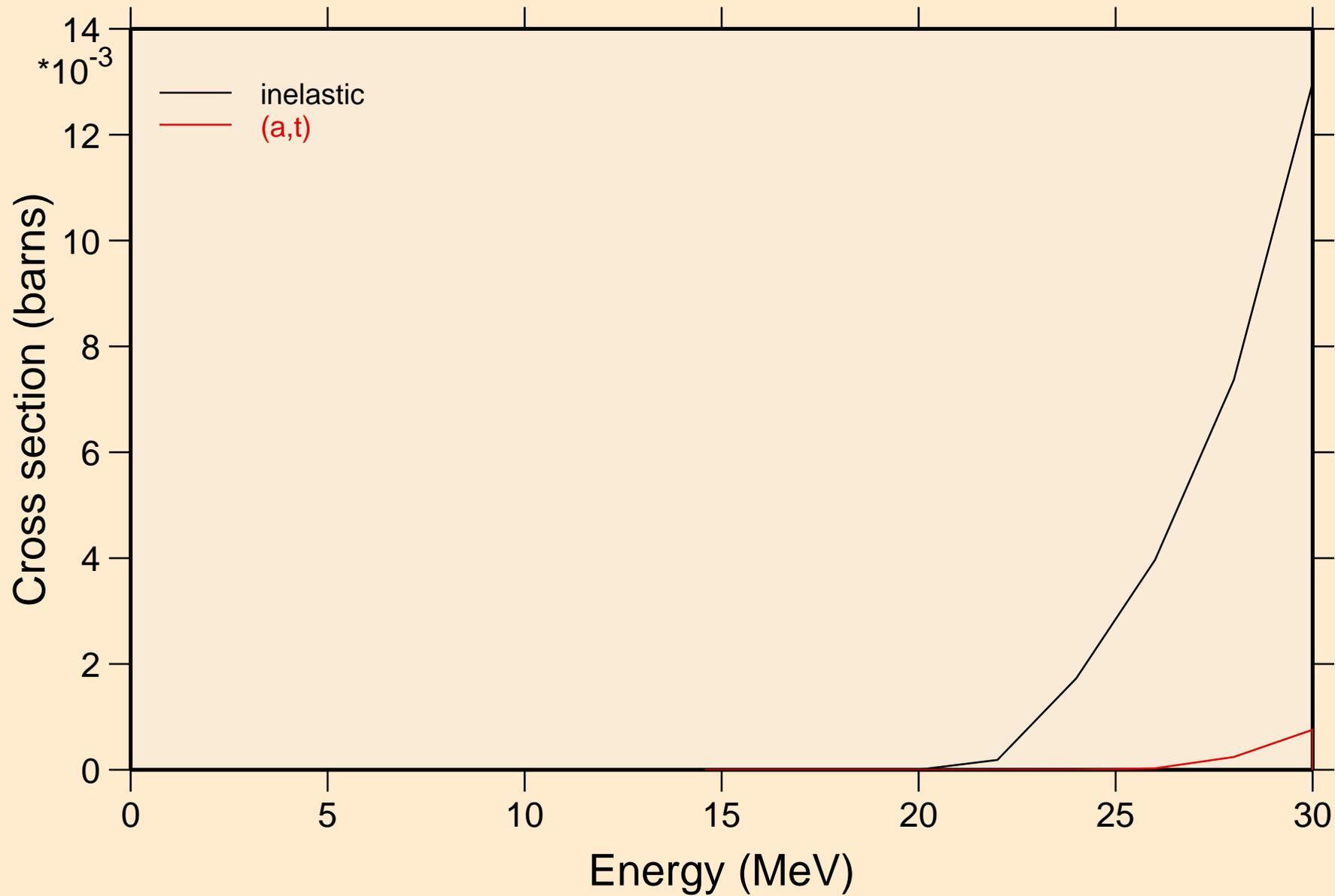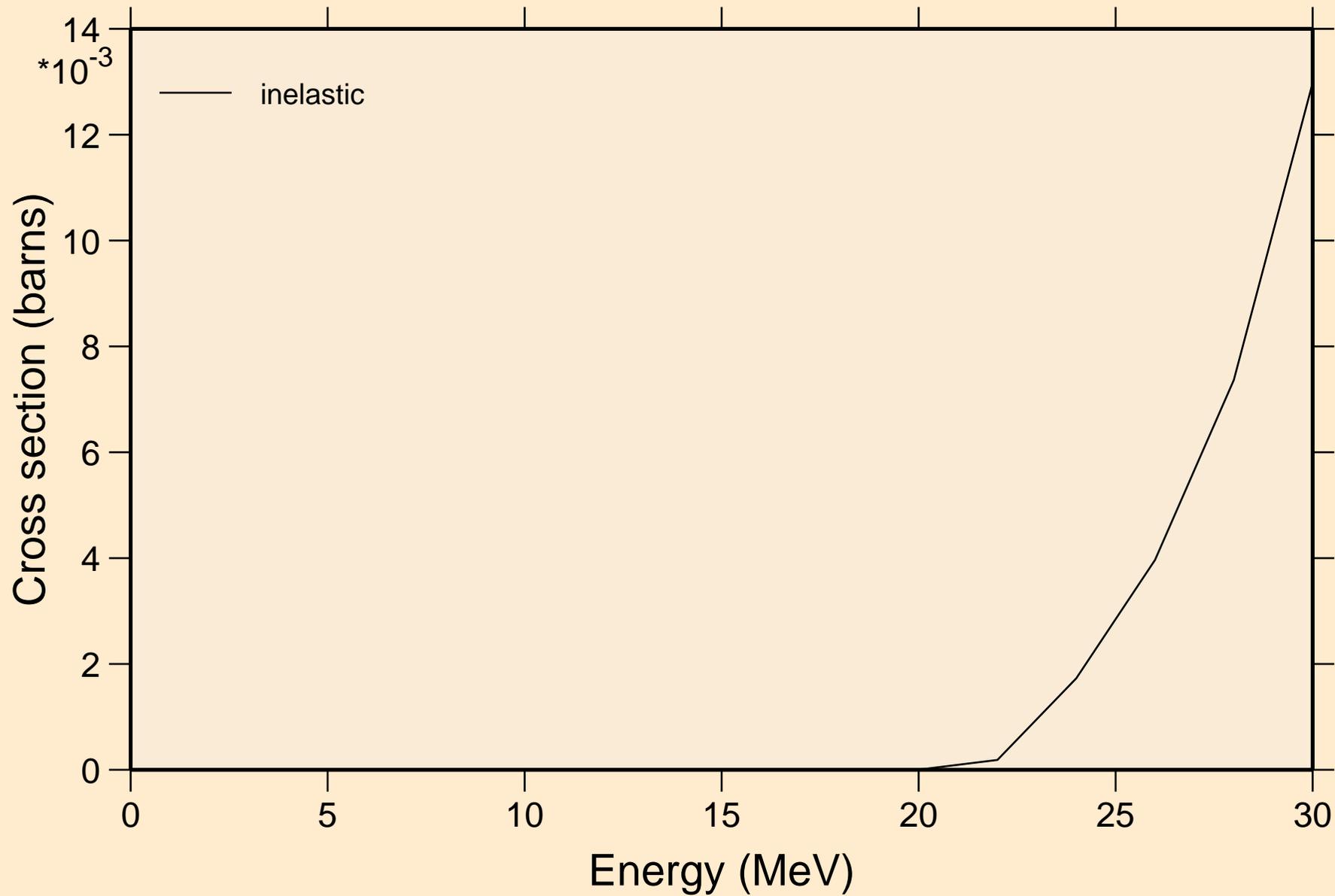
Y-axis: Cross section (barns), *10⁻³
X-axis: Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Threshold reactions

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Threshold reactions

inelastic

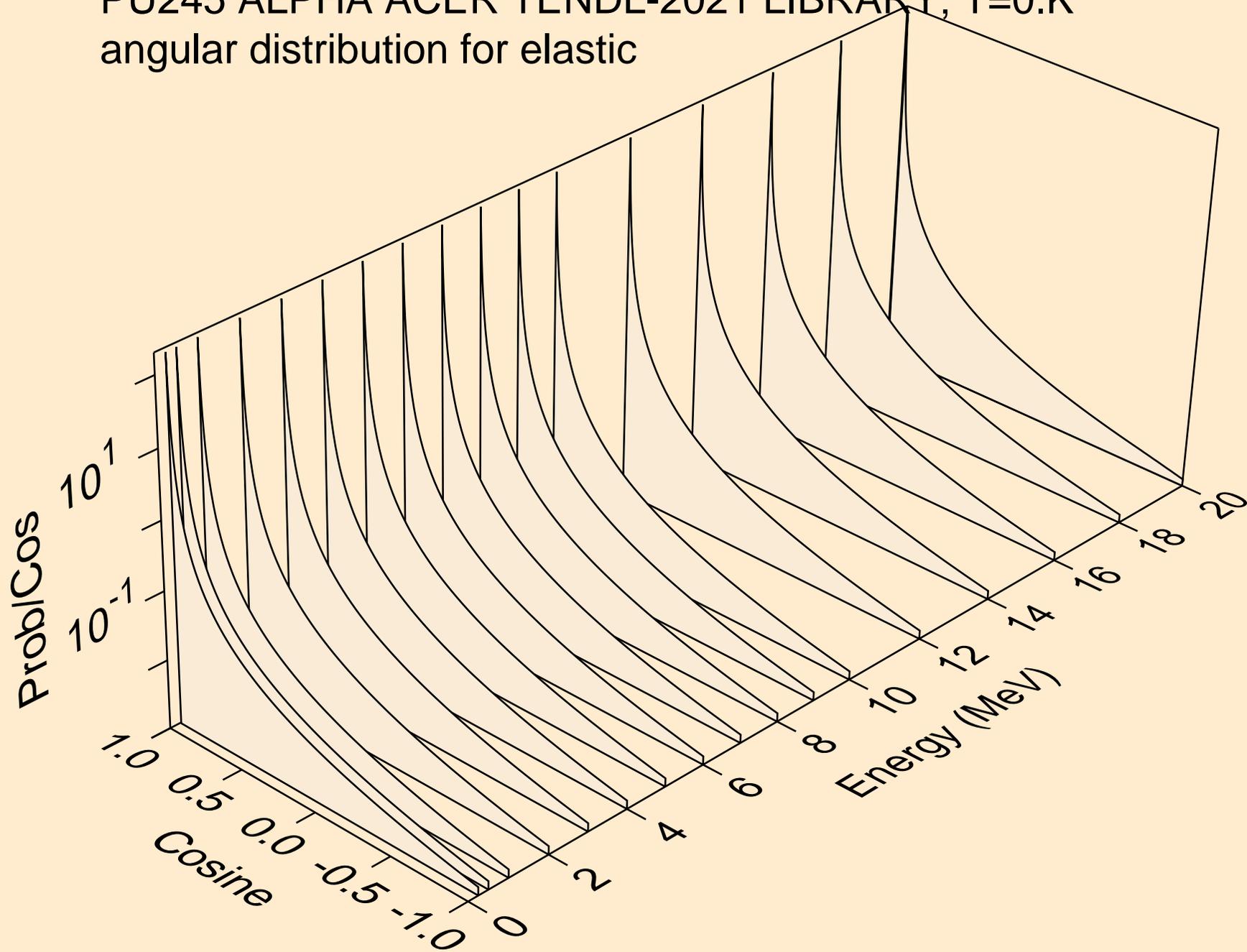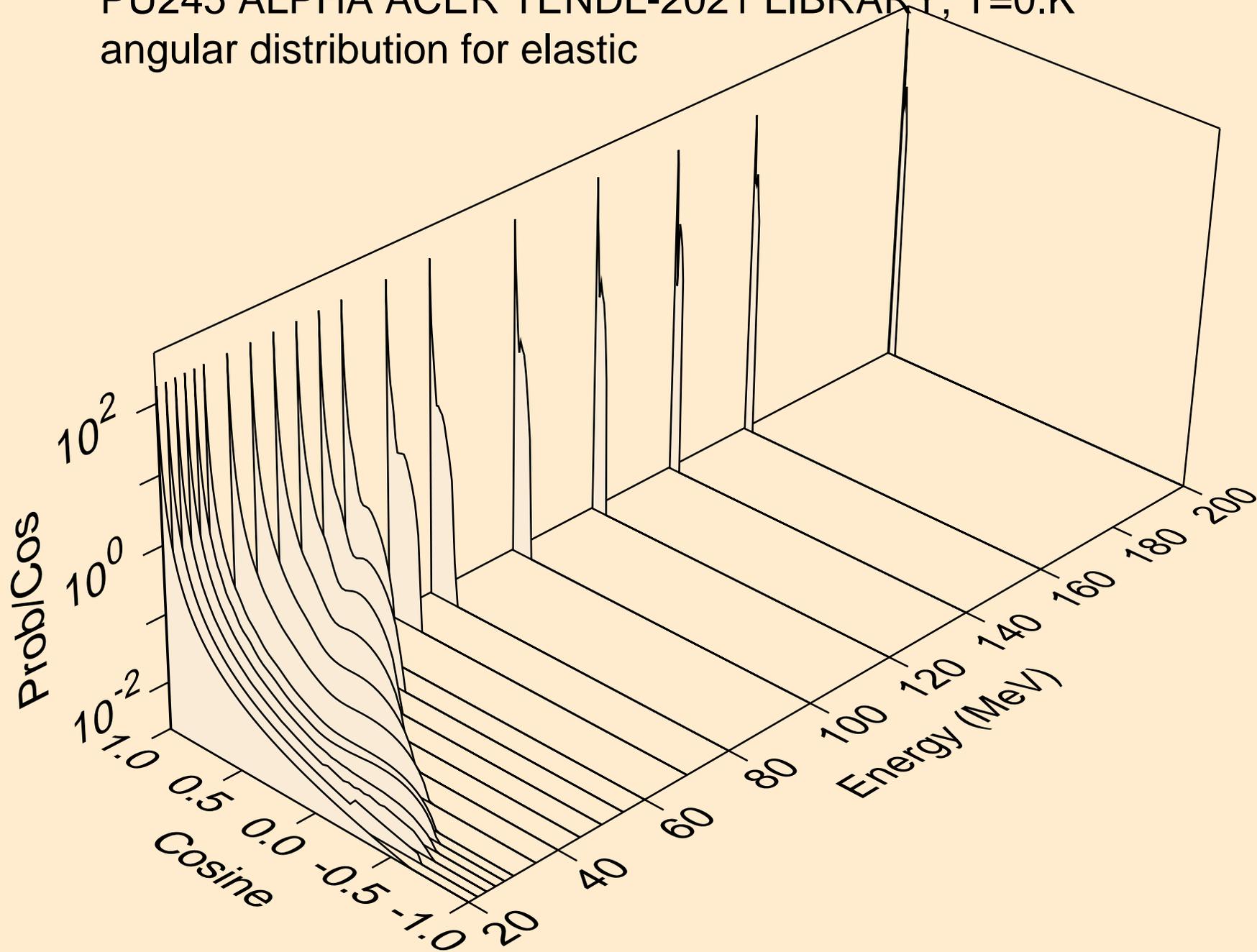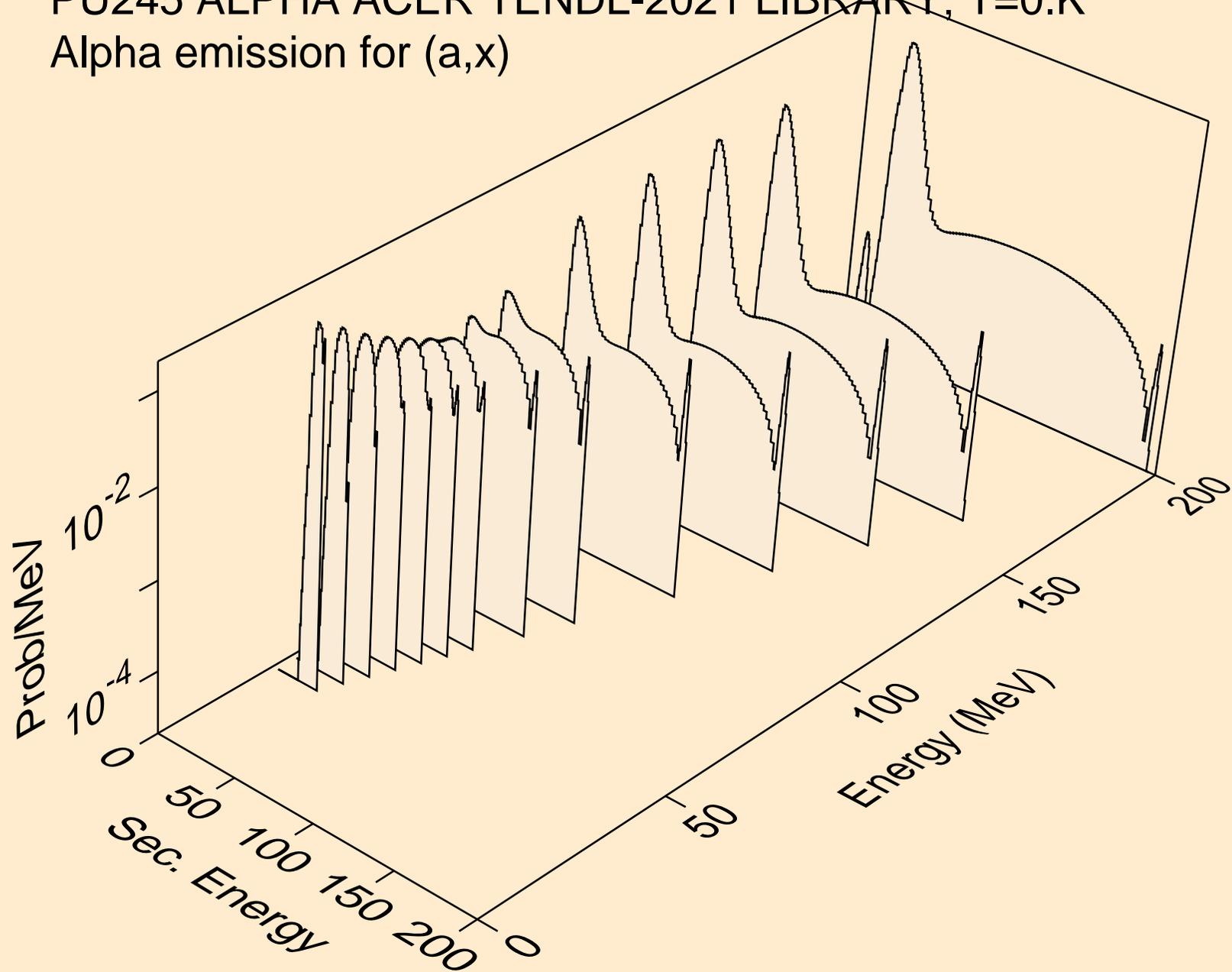Cross section (barns)

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
angular distribution for elastic

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
angular distribution for elastic

ProbICos

10^2

10^0

10^{-2}

Cosine

1.0 0.5 0.0 -0.5 -1.0
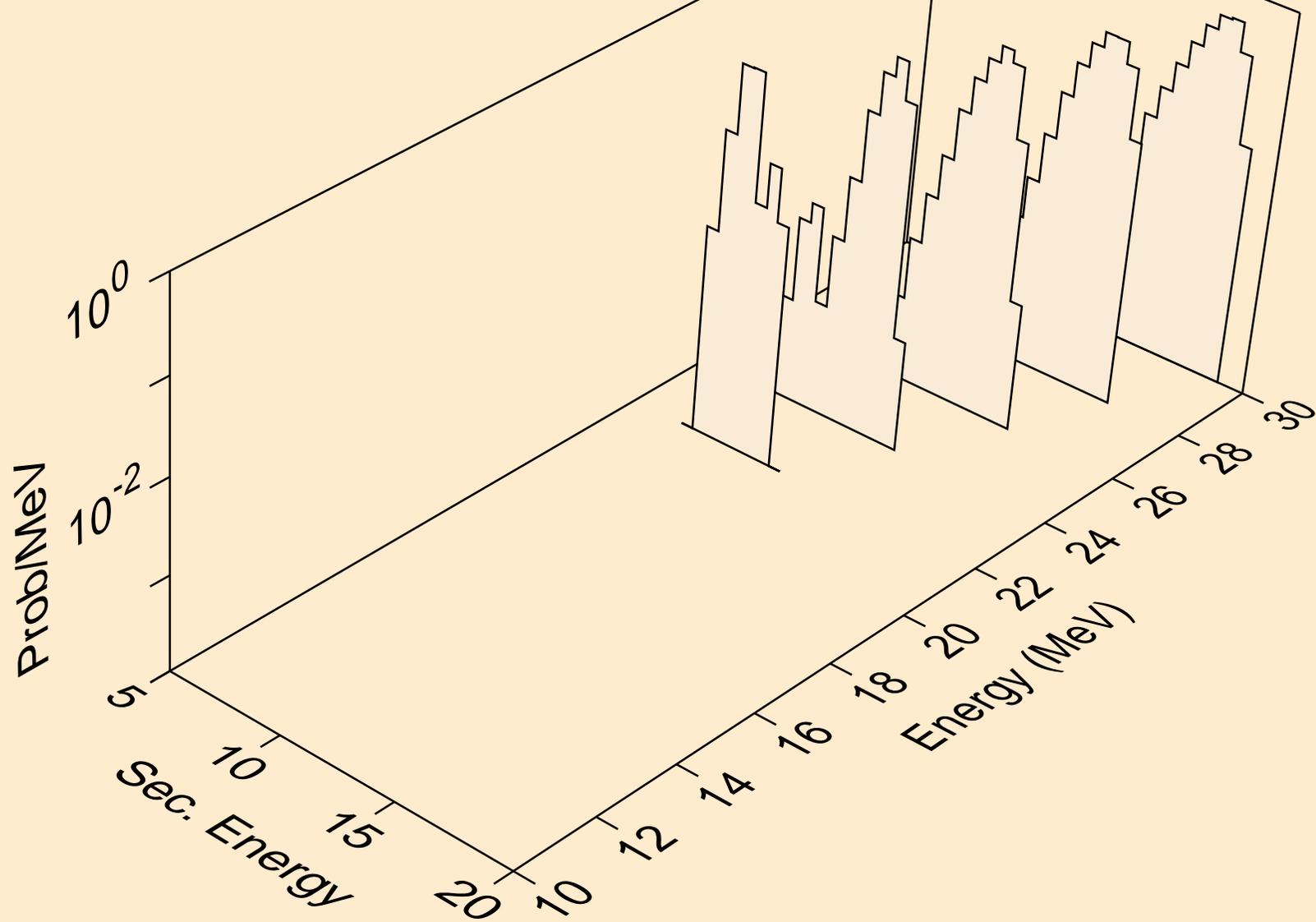
20 40 60 80 100 120 140 160 180 200

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
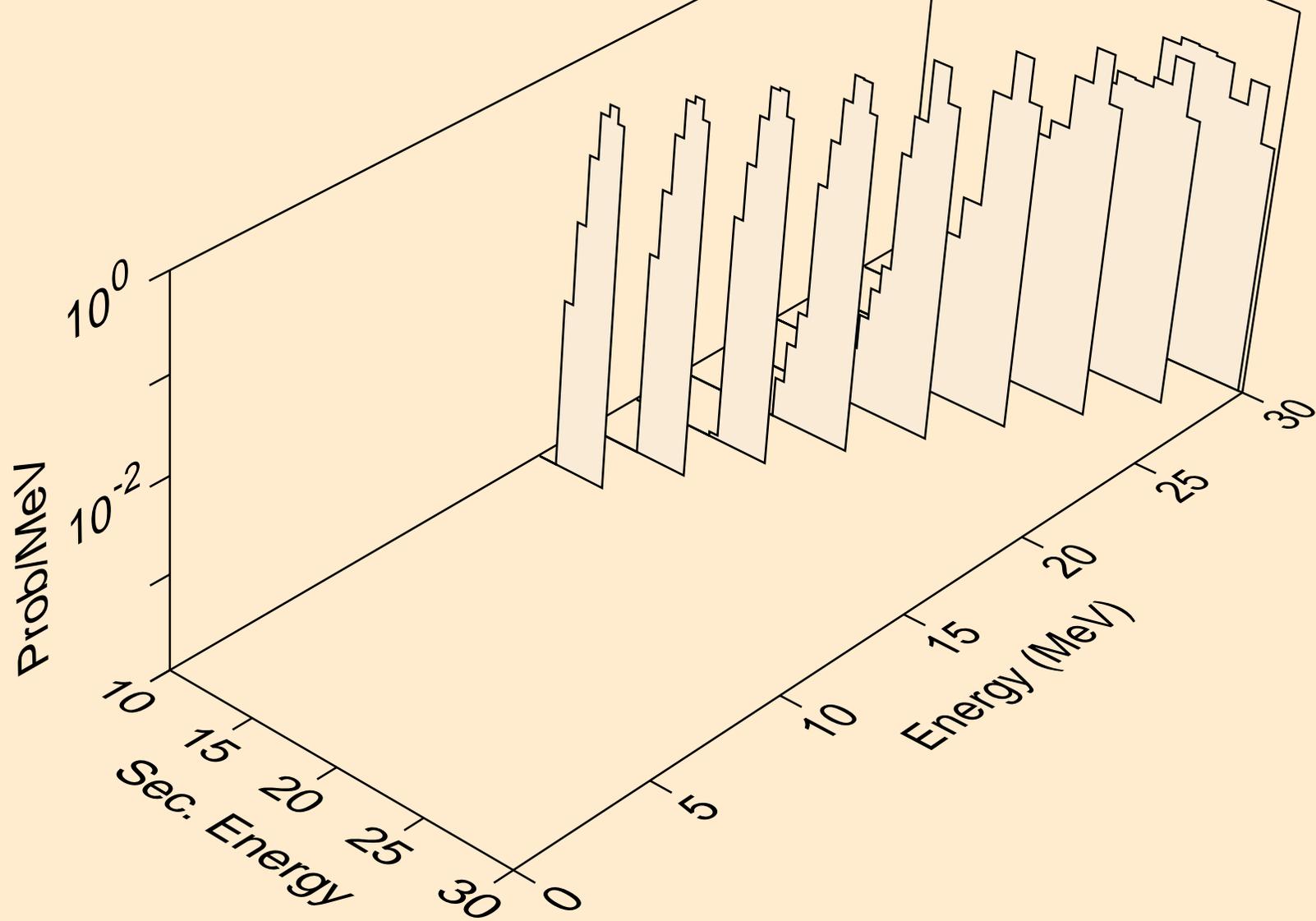Alpha emission for (a,x)

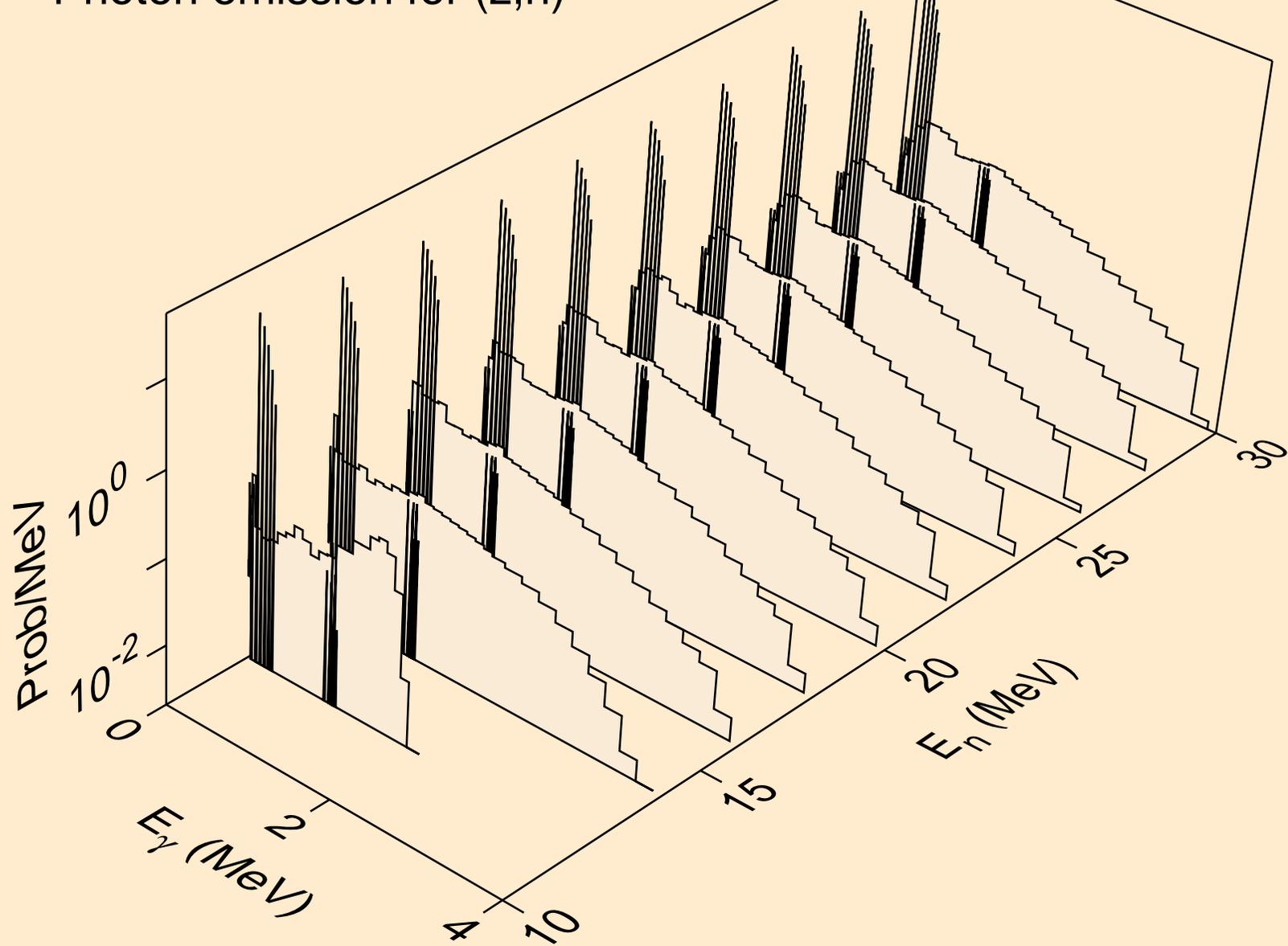PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Alpha emission for (a,n*)a
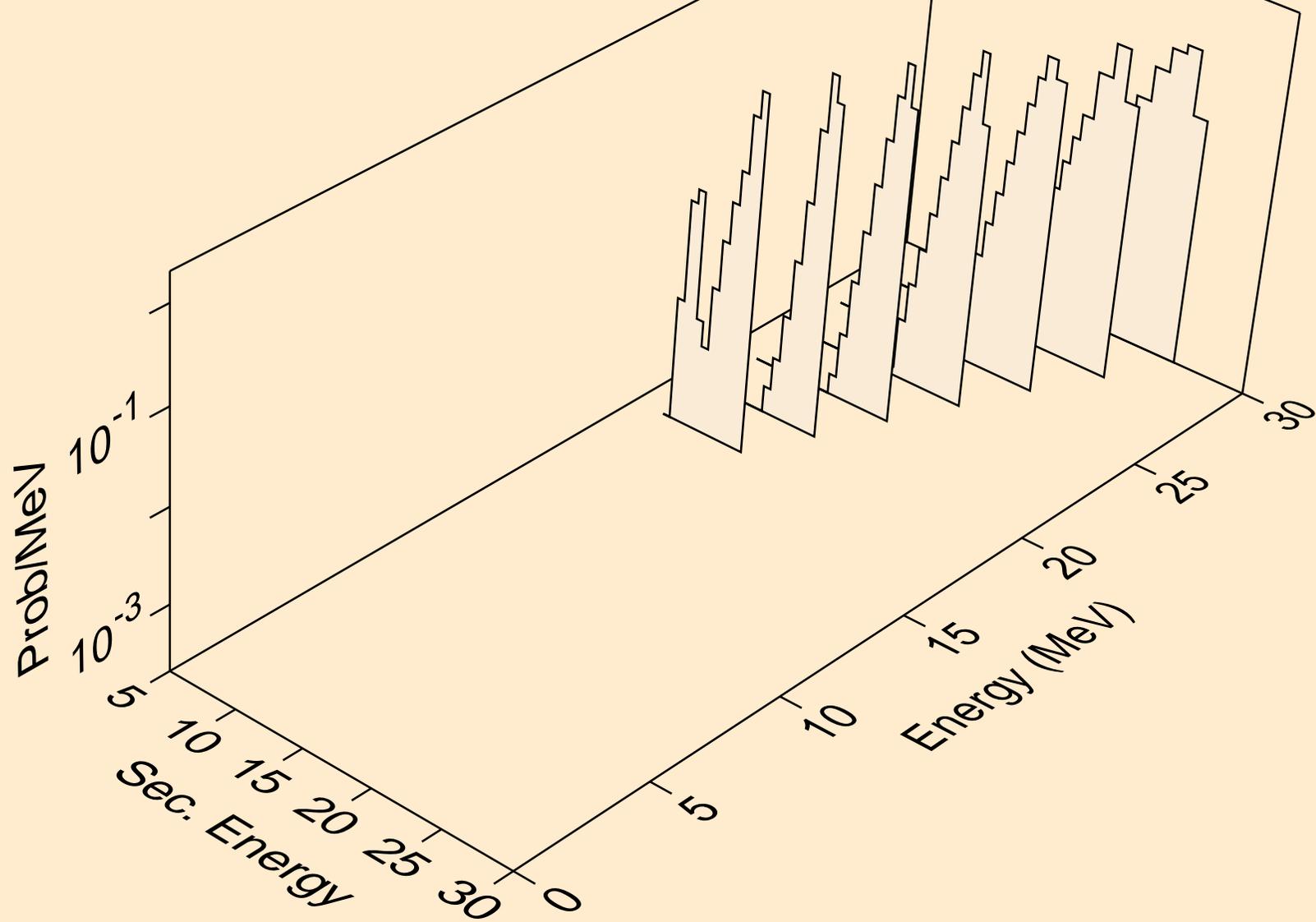
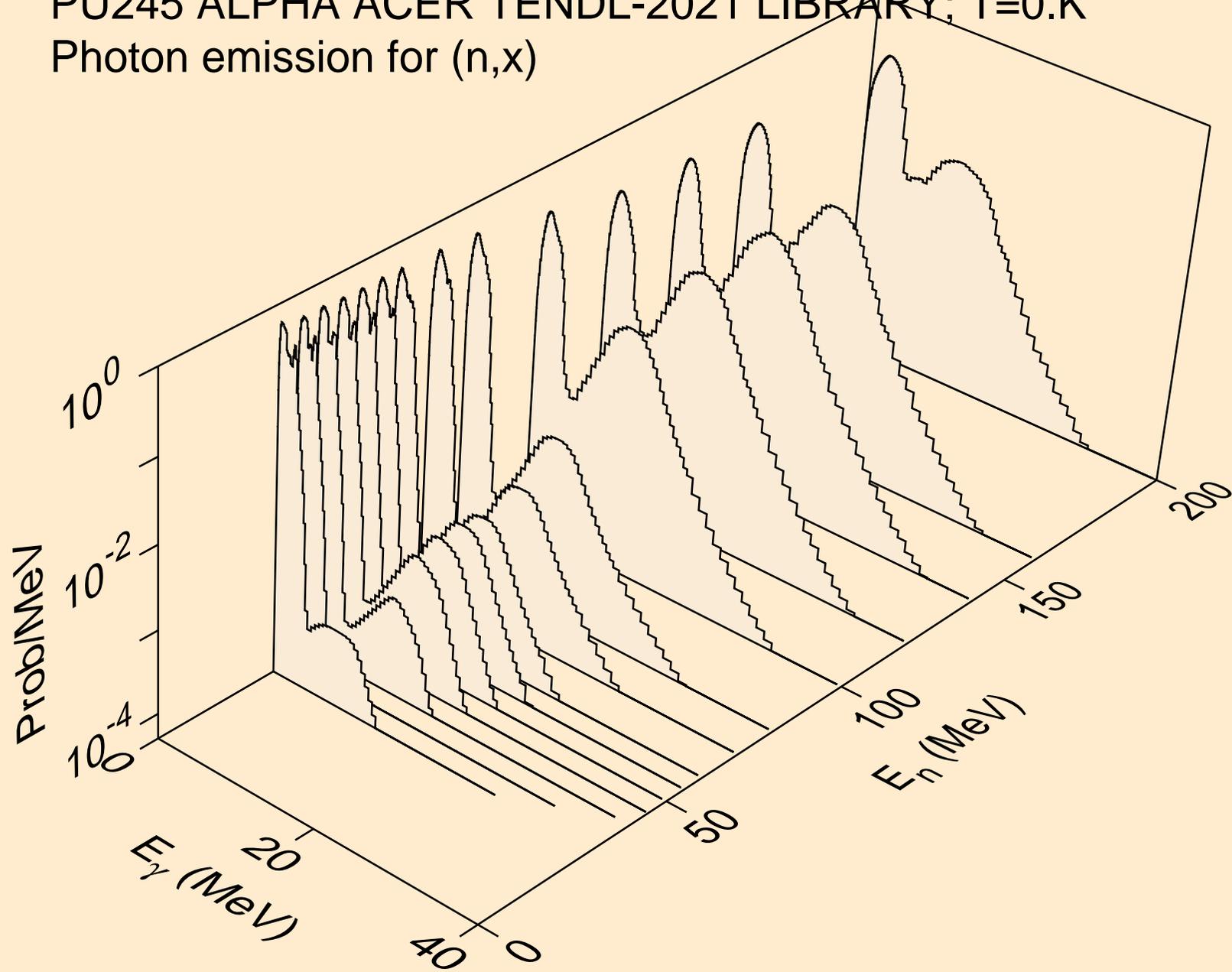PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Alpha emission for (a,2n)a

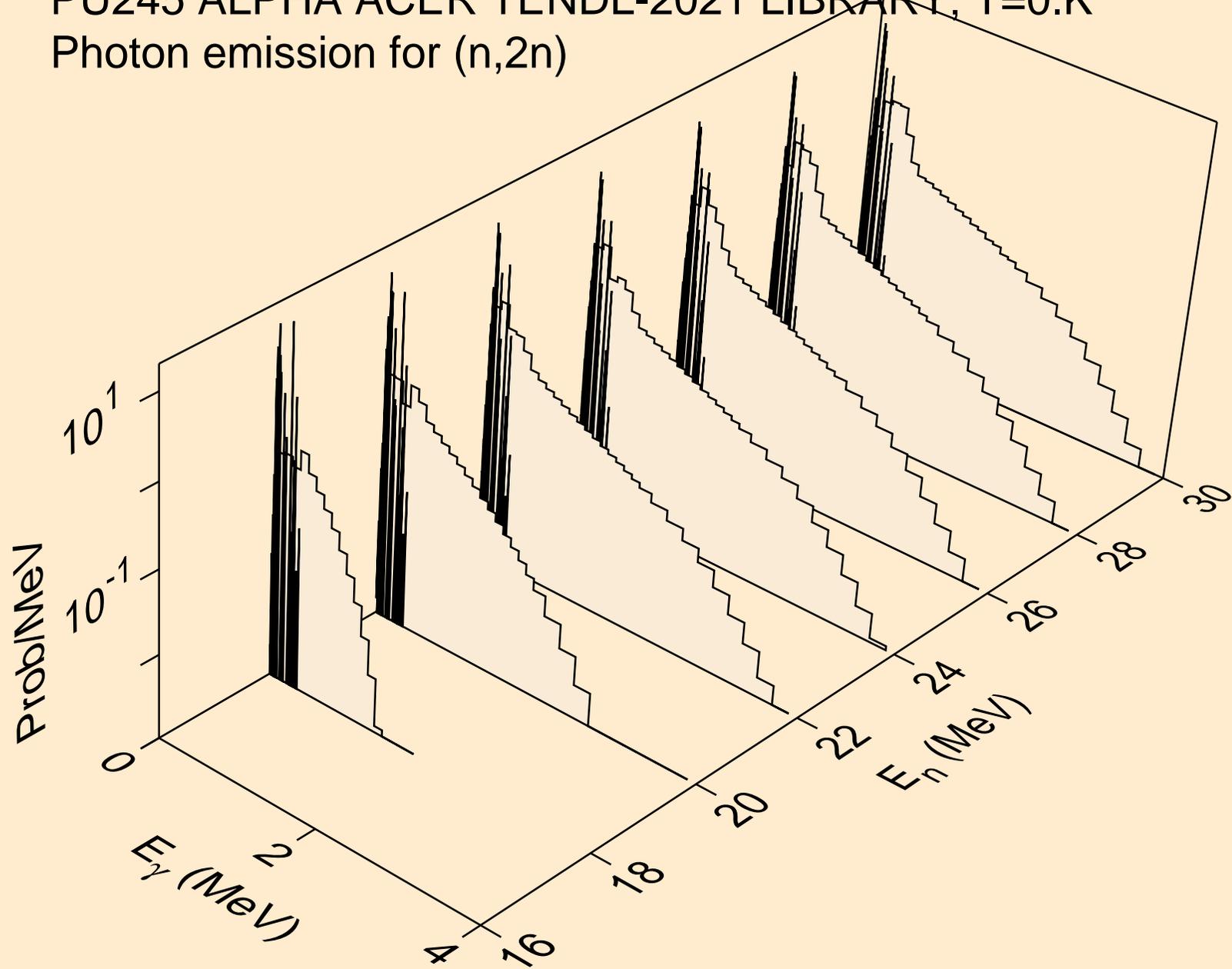PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Alpha emission for inelastic

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
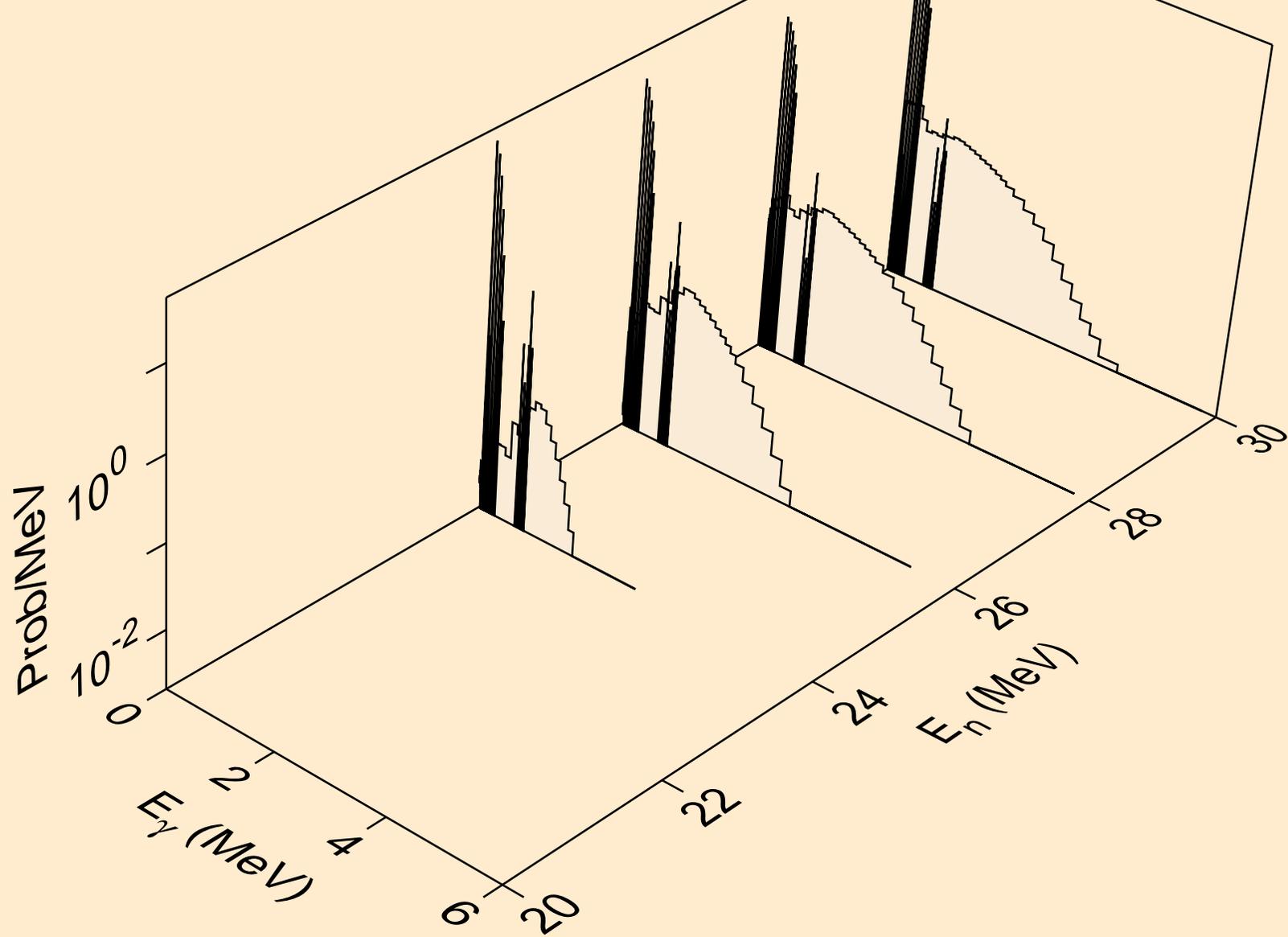Photon emission for (z,n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
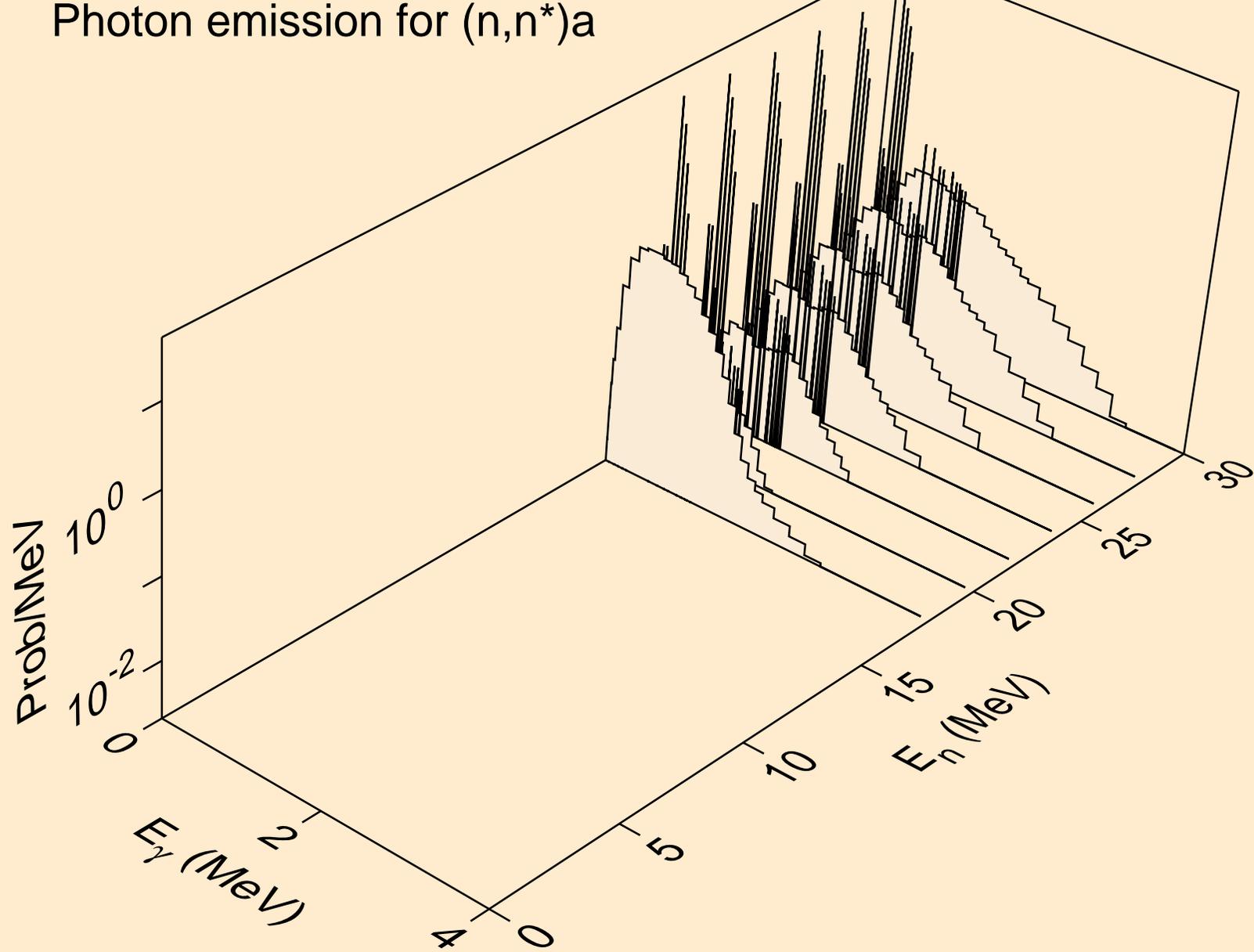Photon emission for (n,x)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
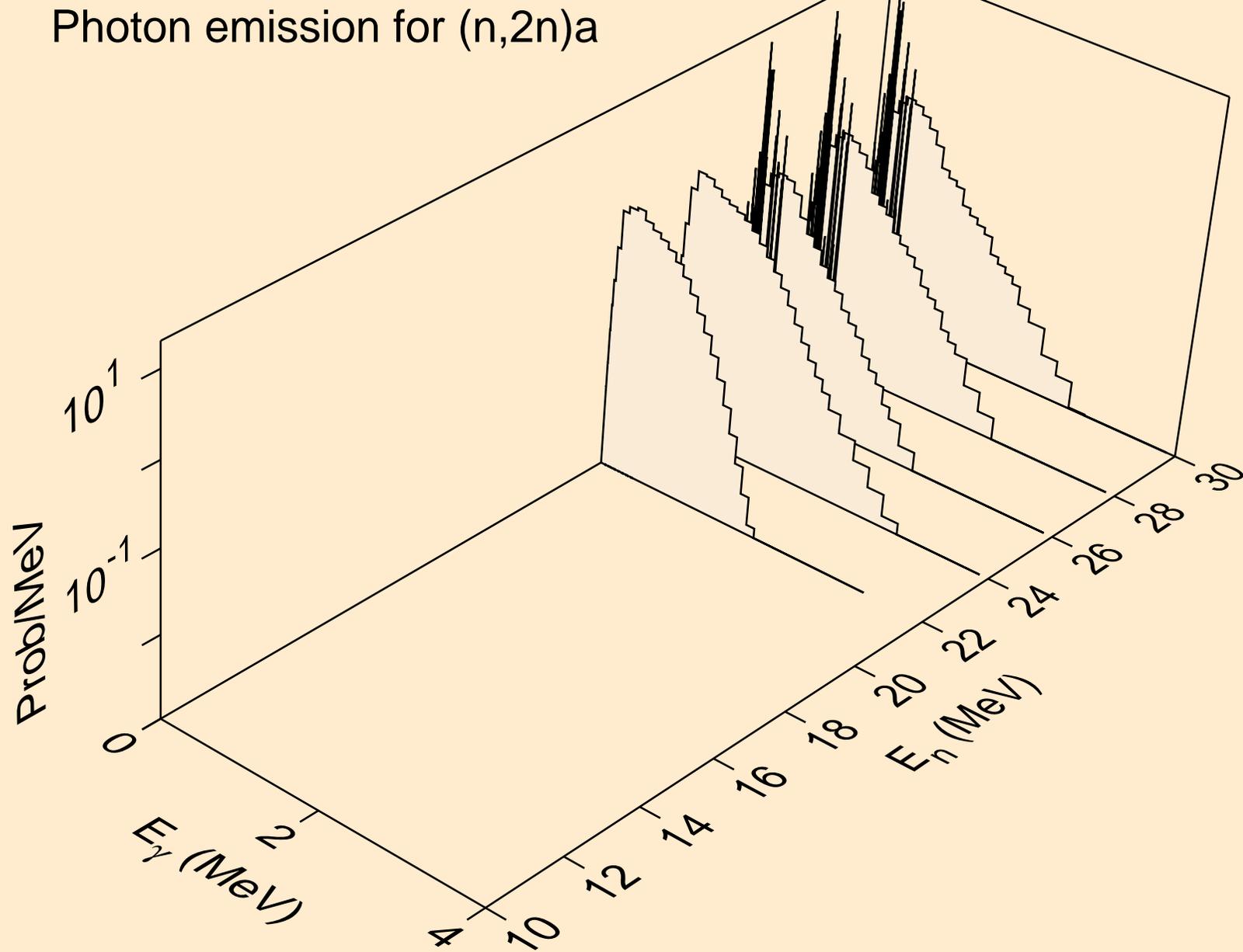Photon emission for (n,2n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,3n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,n*)a

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,2n)a

Prob/MeV
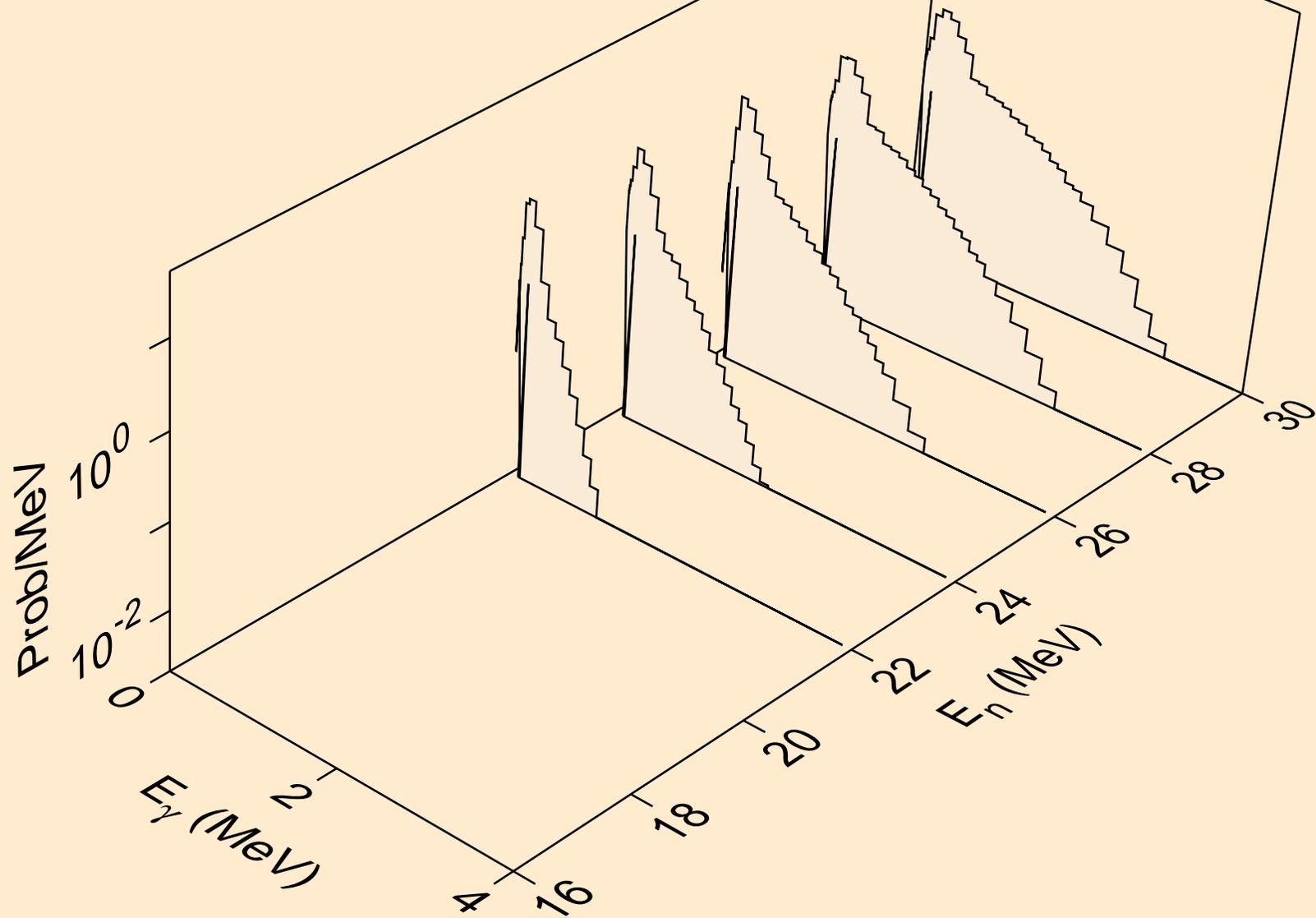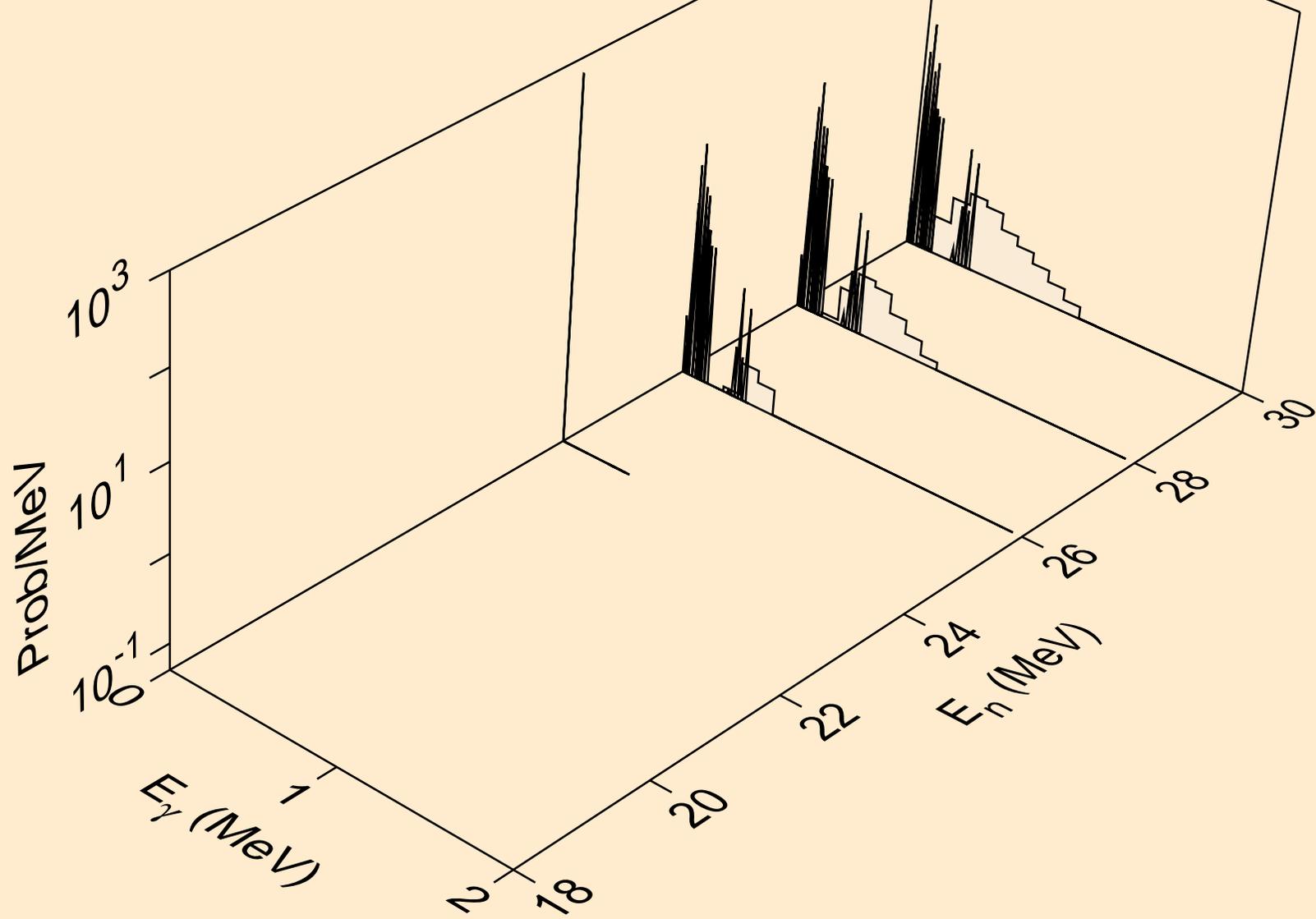
E_γ (MeV)

E_n (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,n*)p

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,n*)t
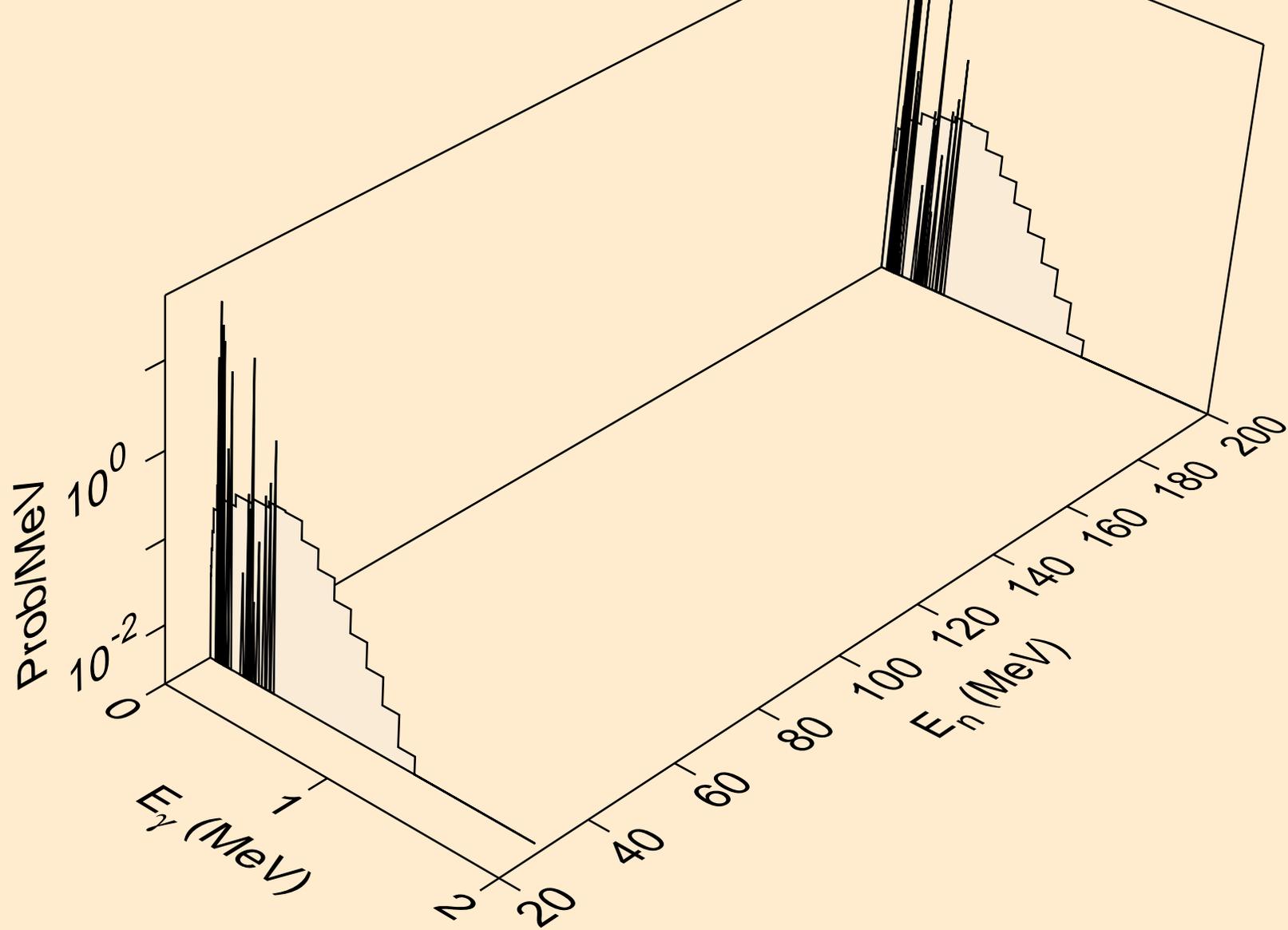
PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,4n)

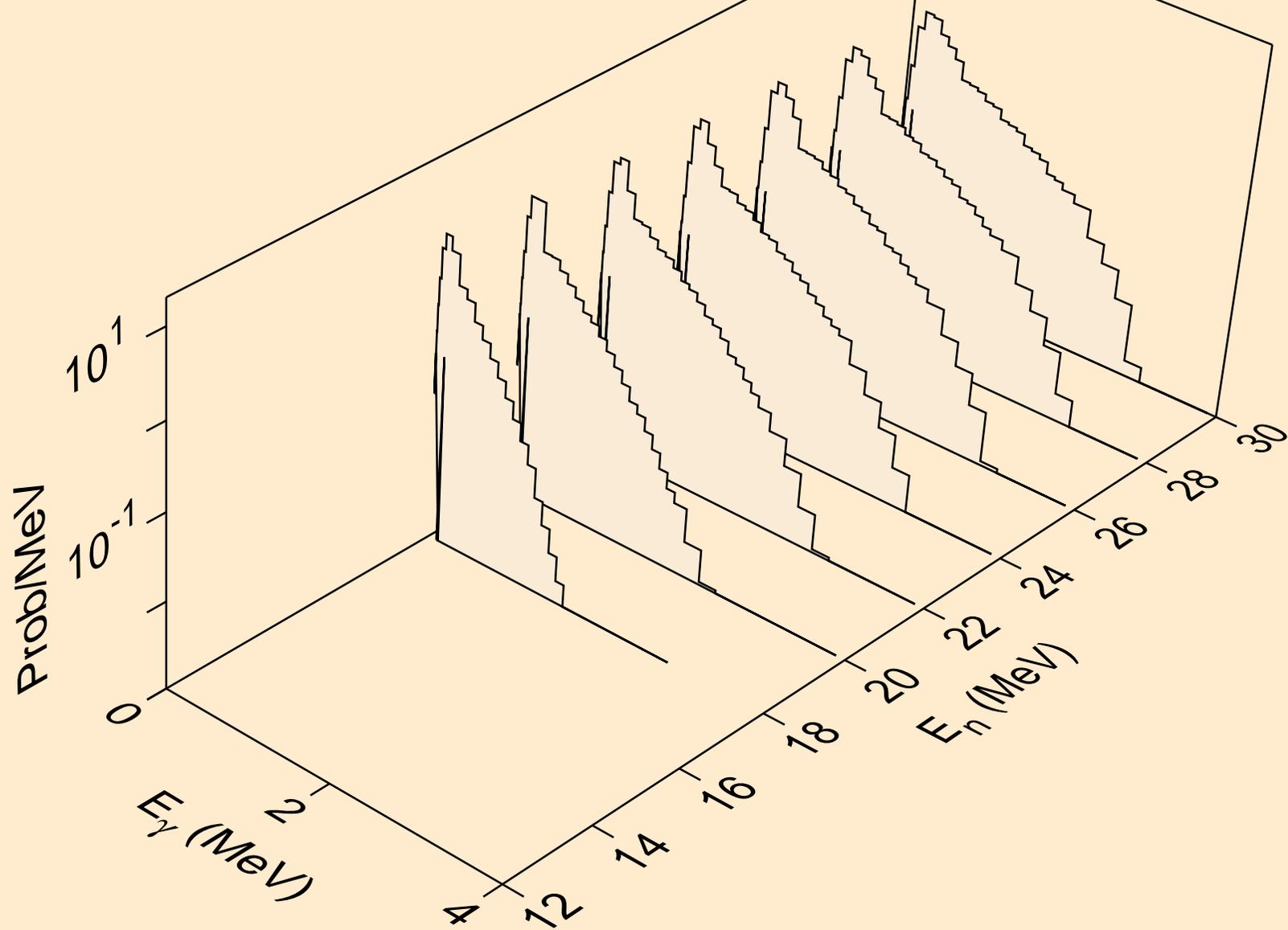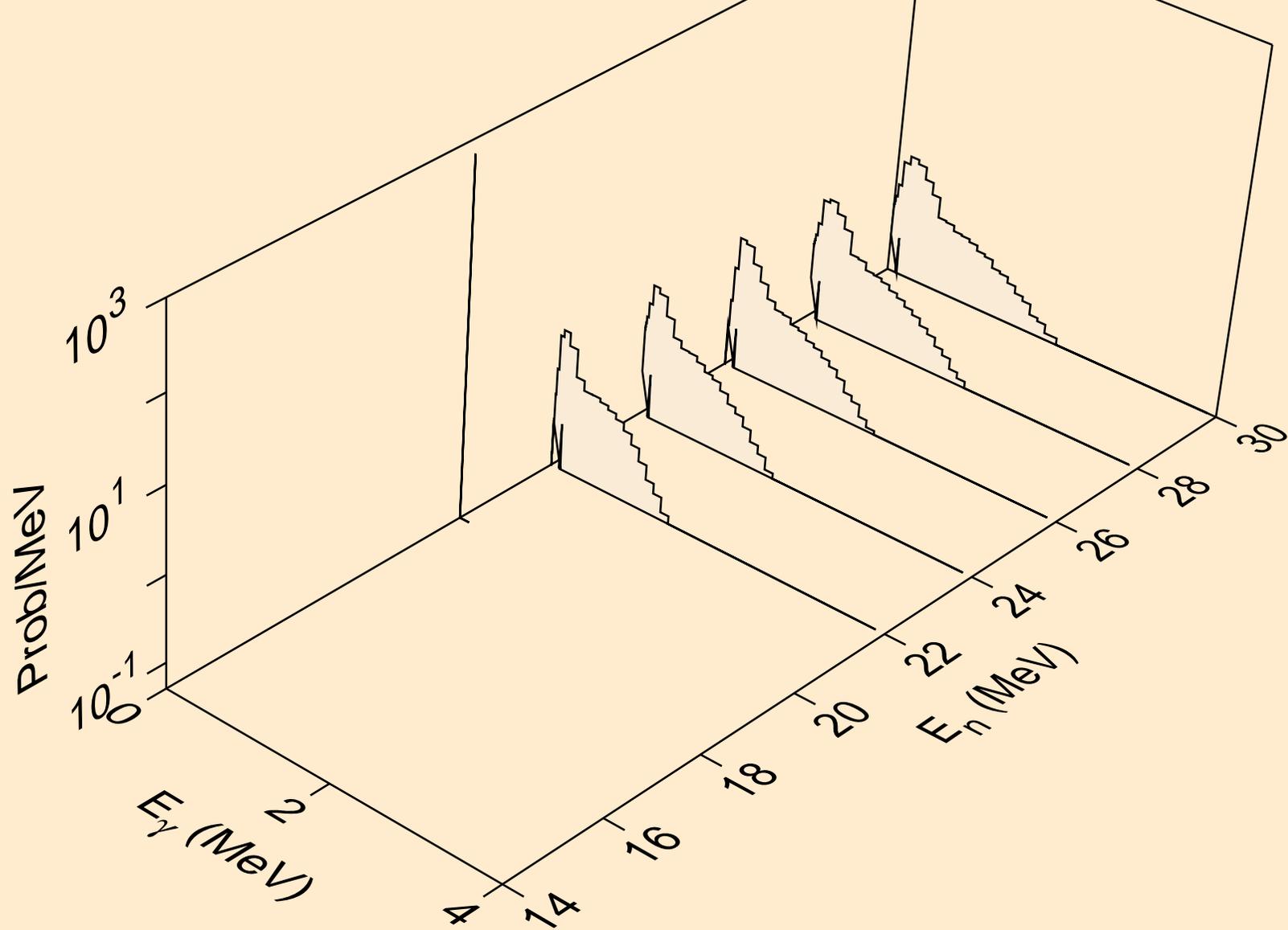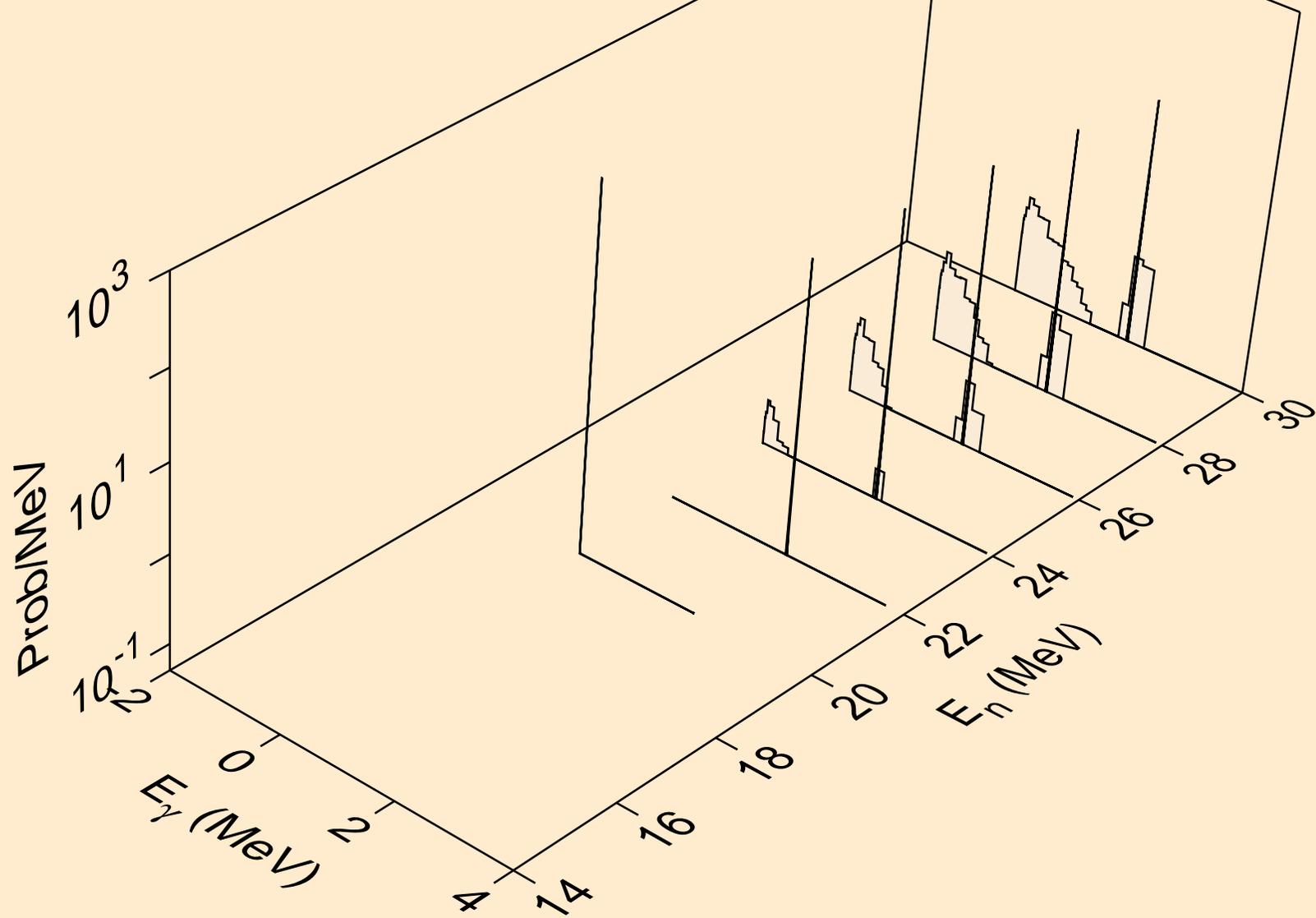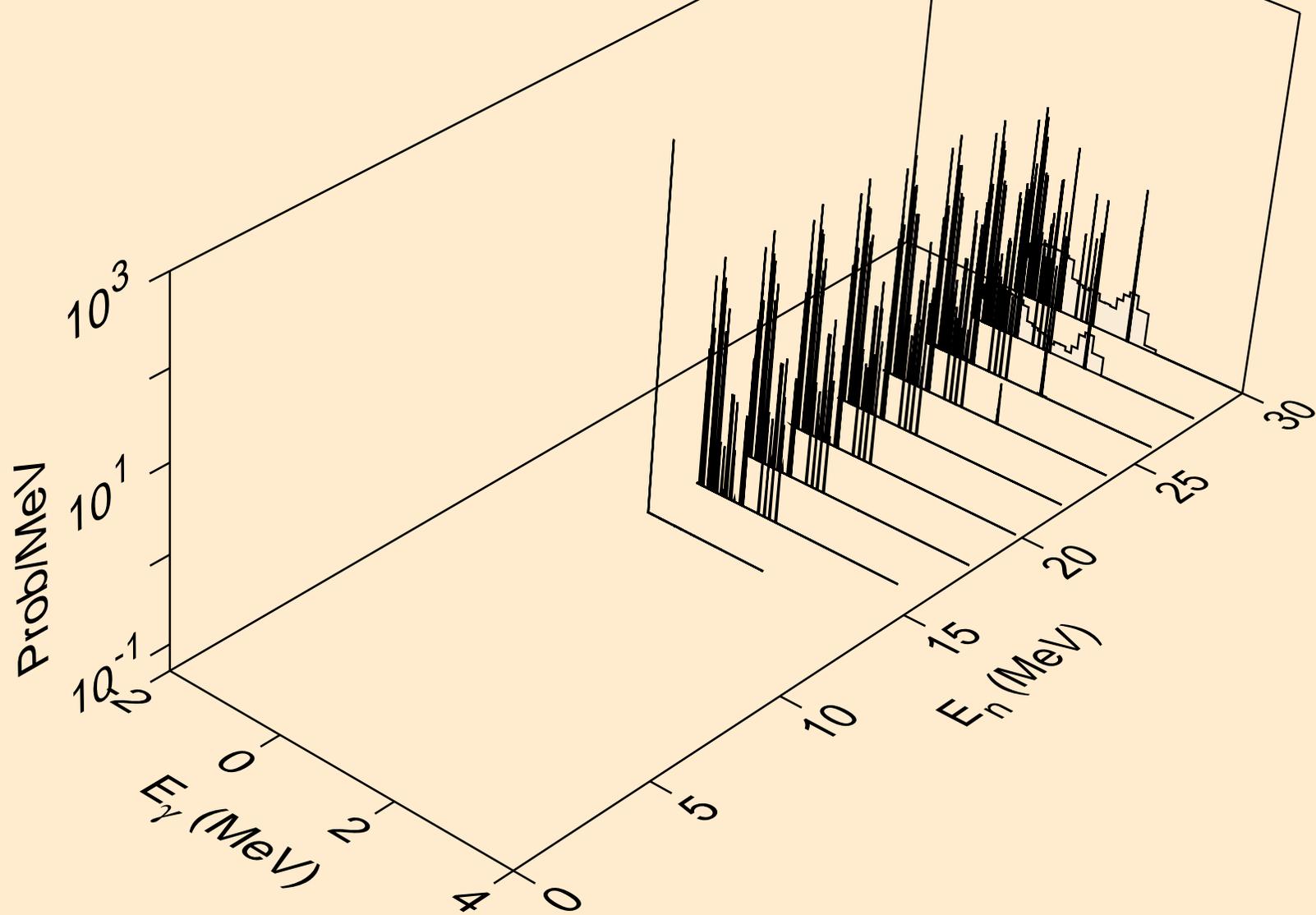PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for (n,p)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
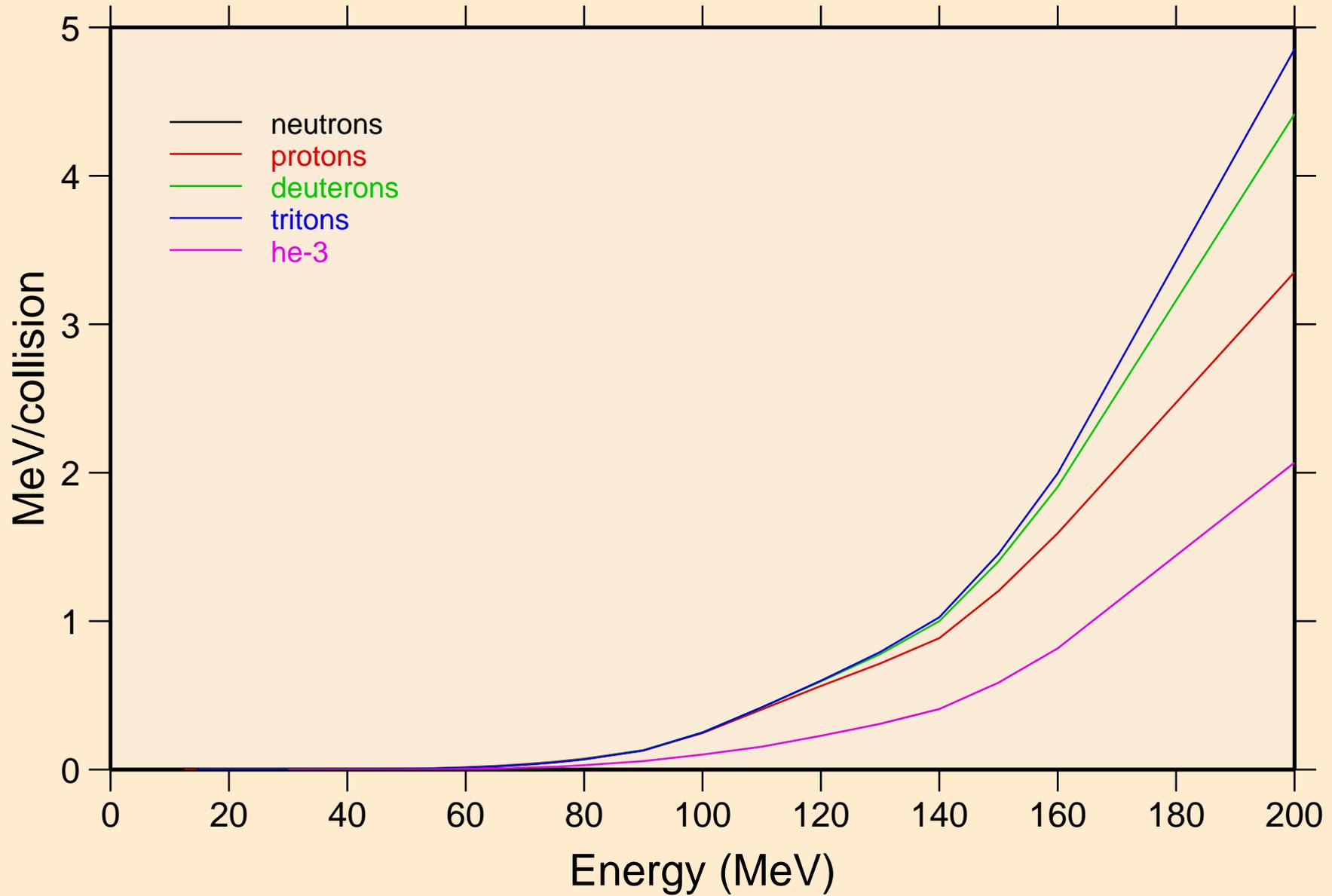Photon emission for (n,d)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
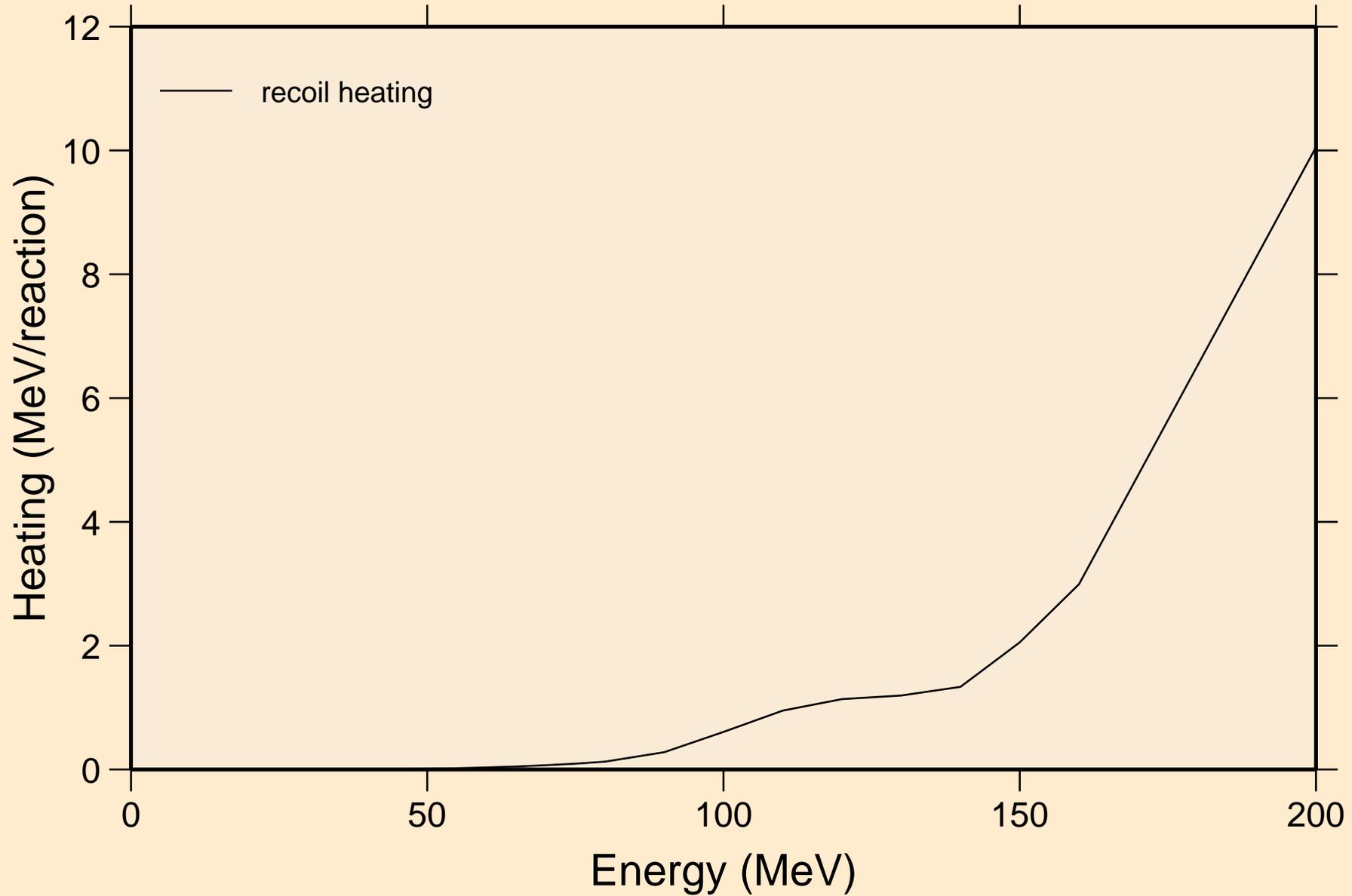Photon emission for (n,t)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Photon emission for inelastic

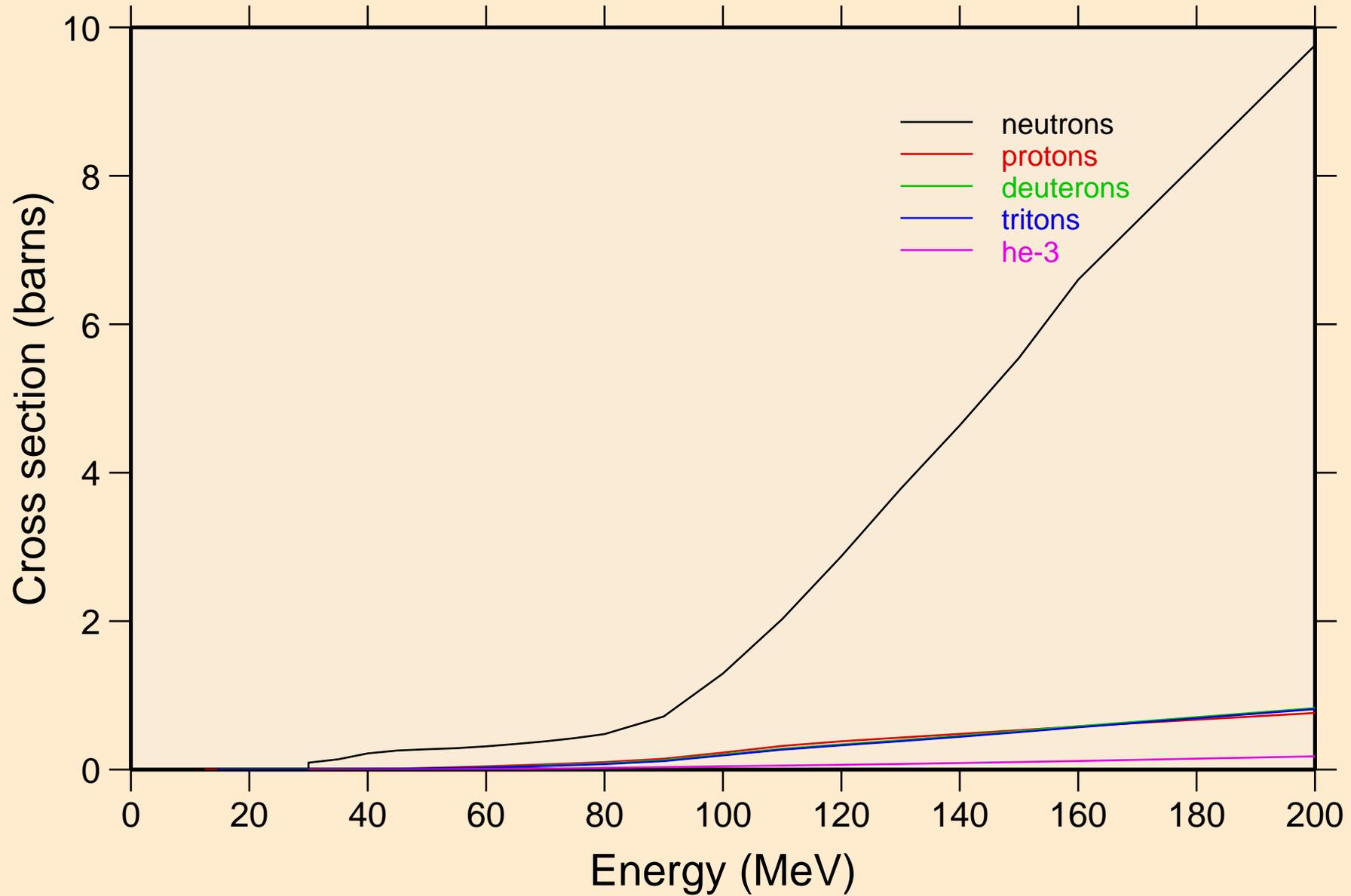PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Particle heating contributions

neutrons
protons
deuterons
tritons
he-3

MeV/collision

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Recoil Heating

recoil heating

Heating (MeV/reaction)

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
Particle production cross sections

neutrons
protons
deuterons
tritons
he-3
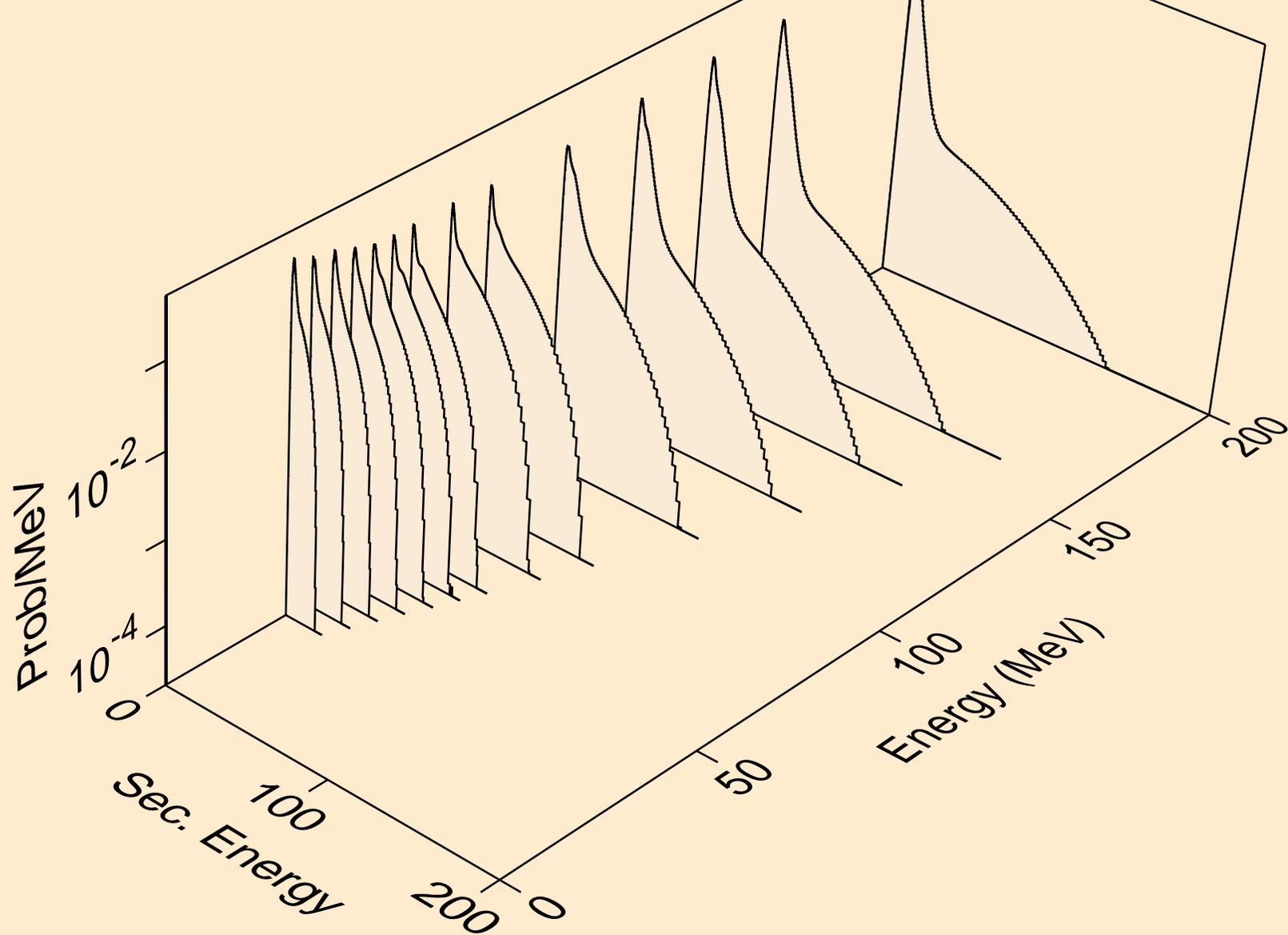
PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,n)
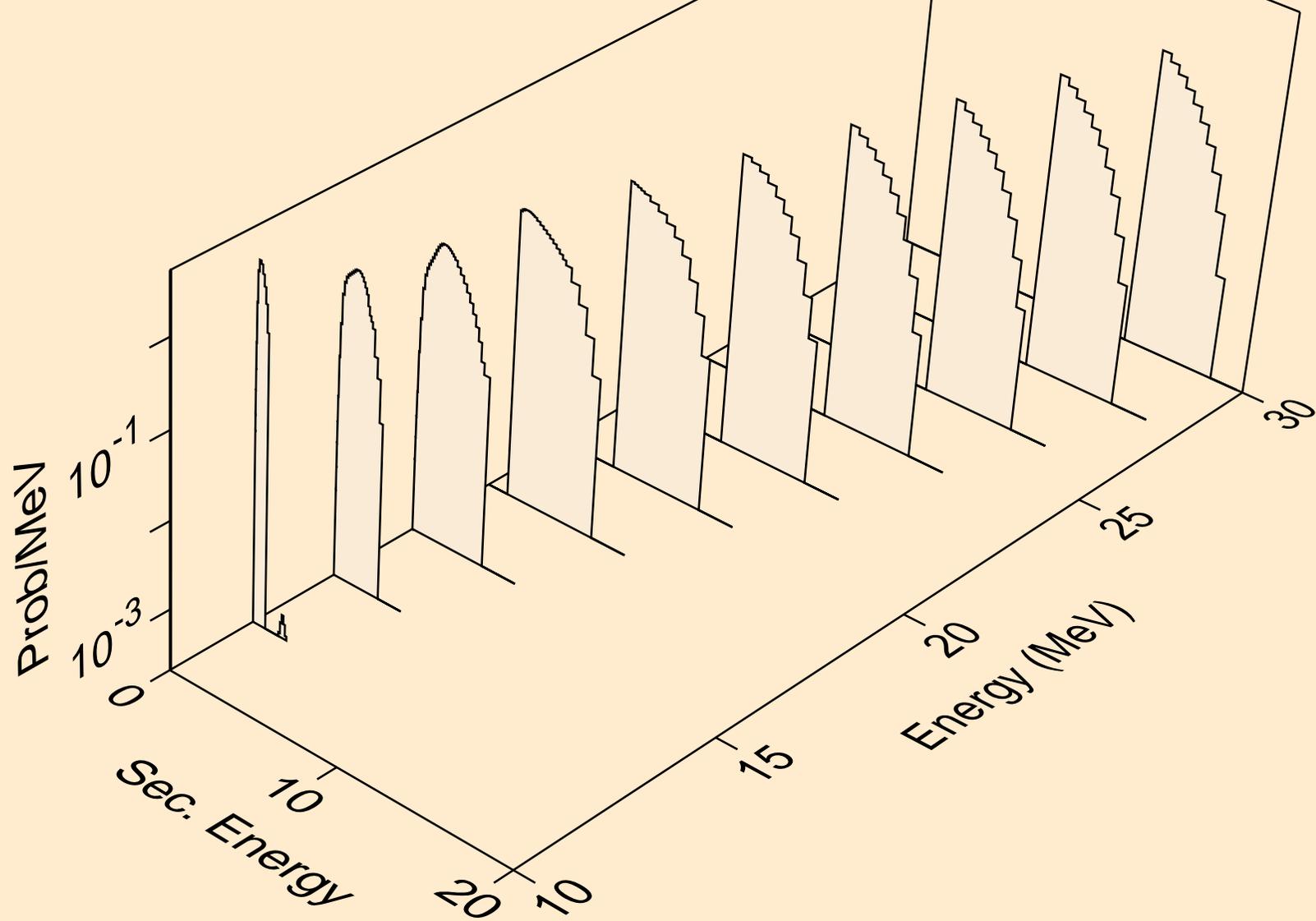
PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,x)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,2n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,3n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,n*)a

Prob/MeV
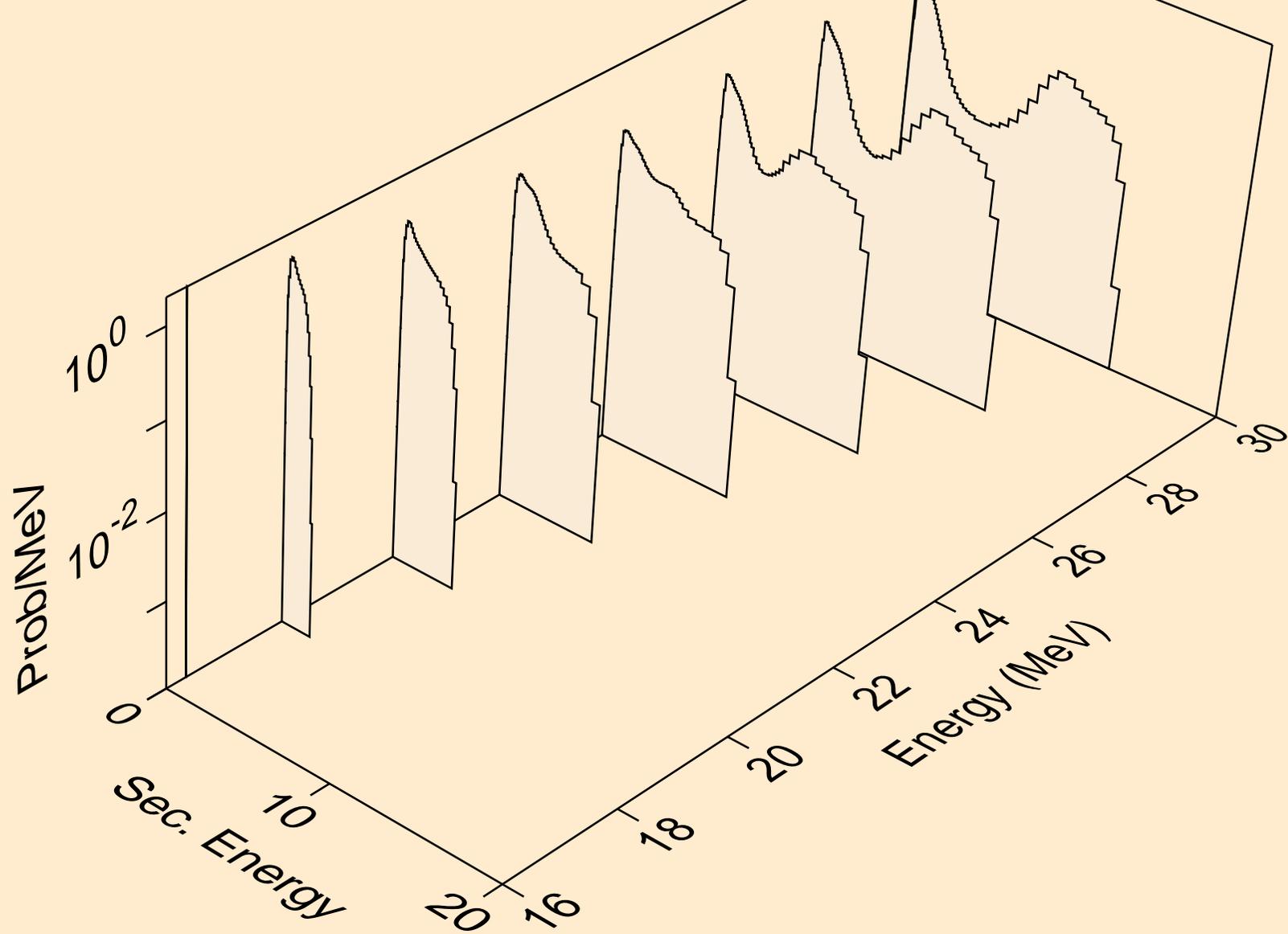
10^{-1}
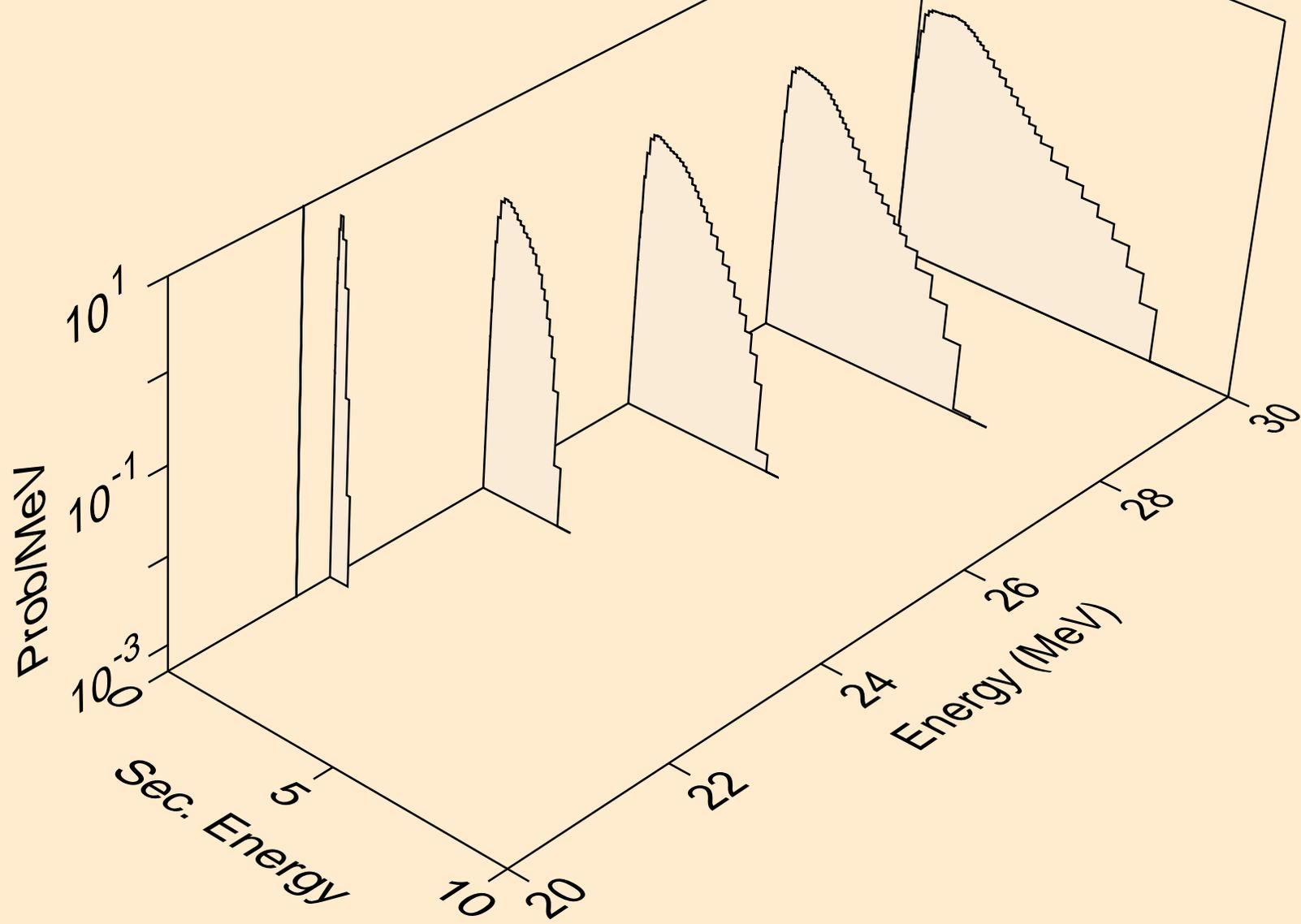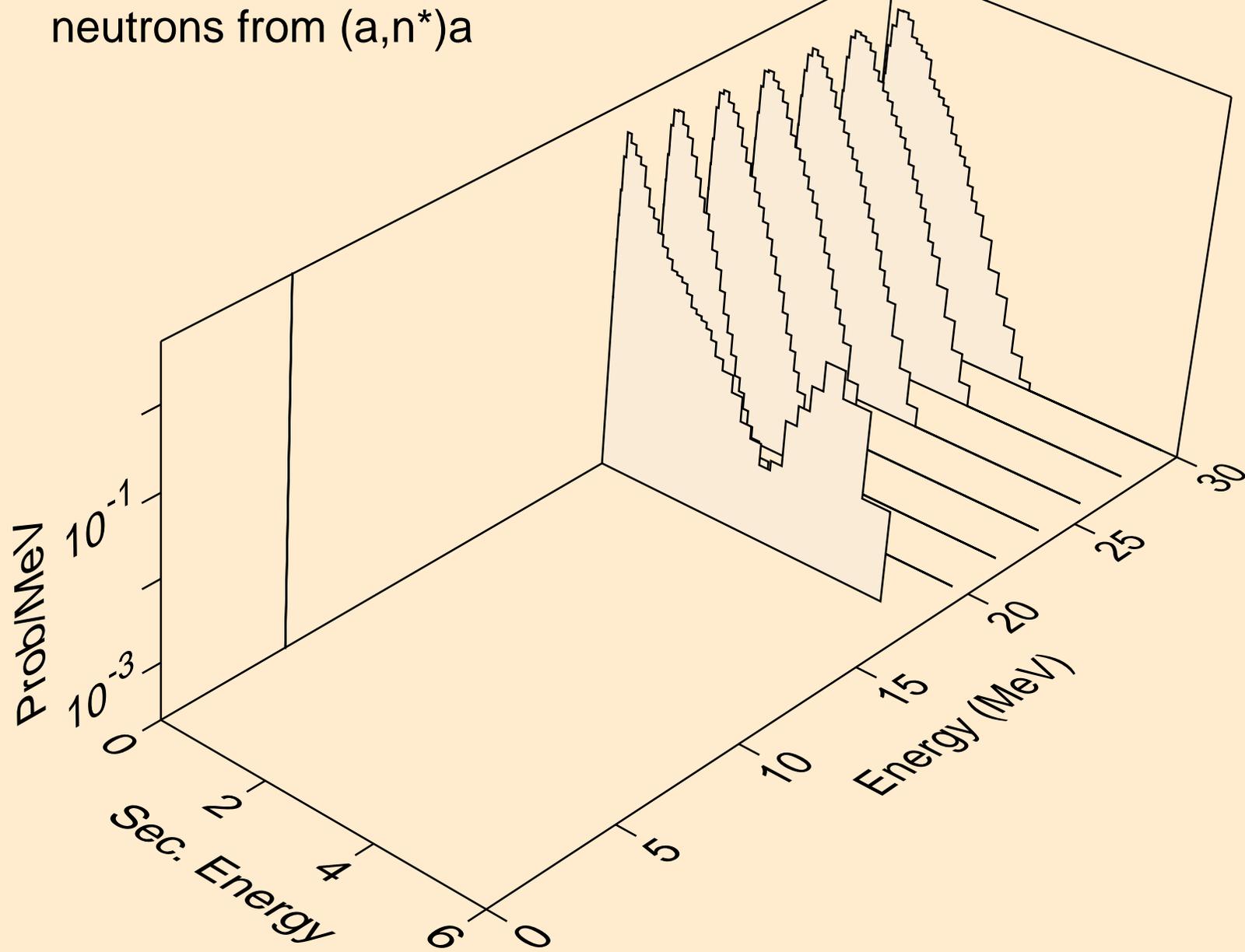
10^{-3}
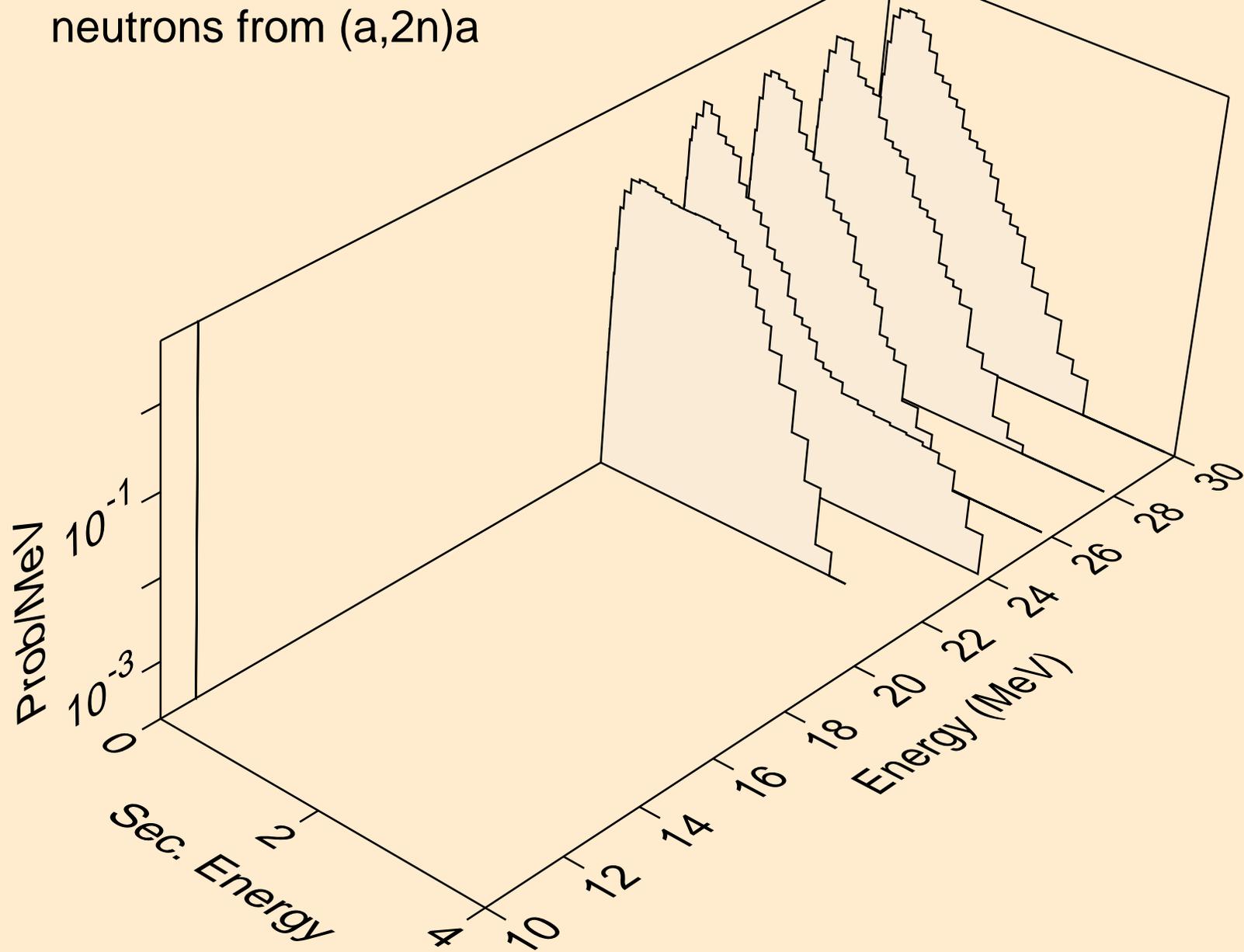
Sec. Energy

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,2n)a

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,n*)p

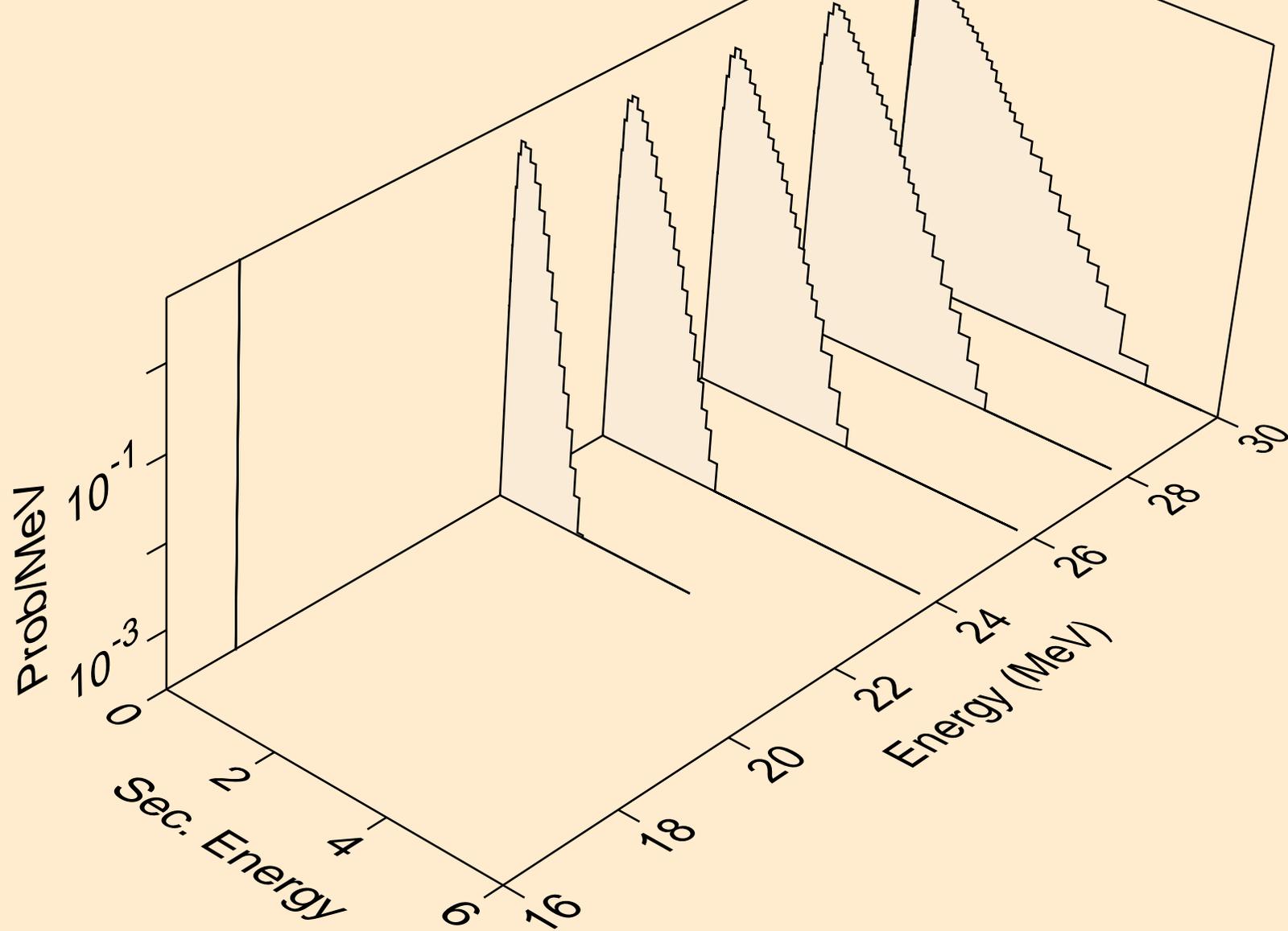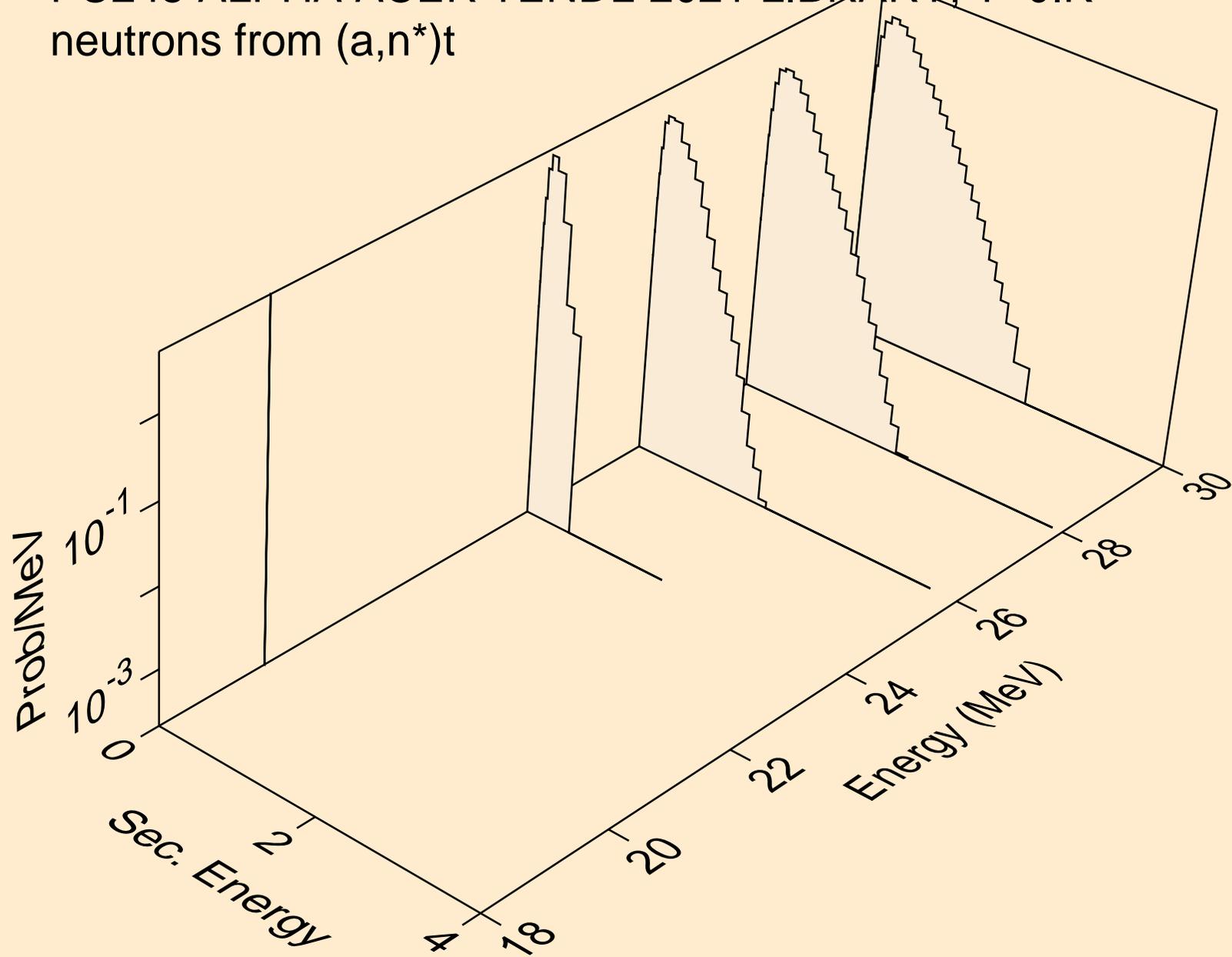PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
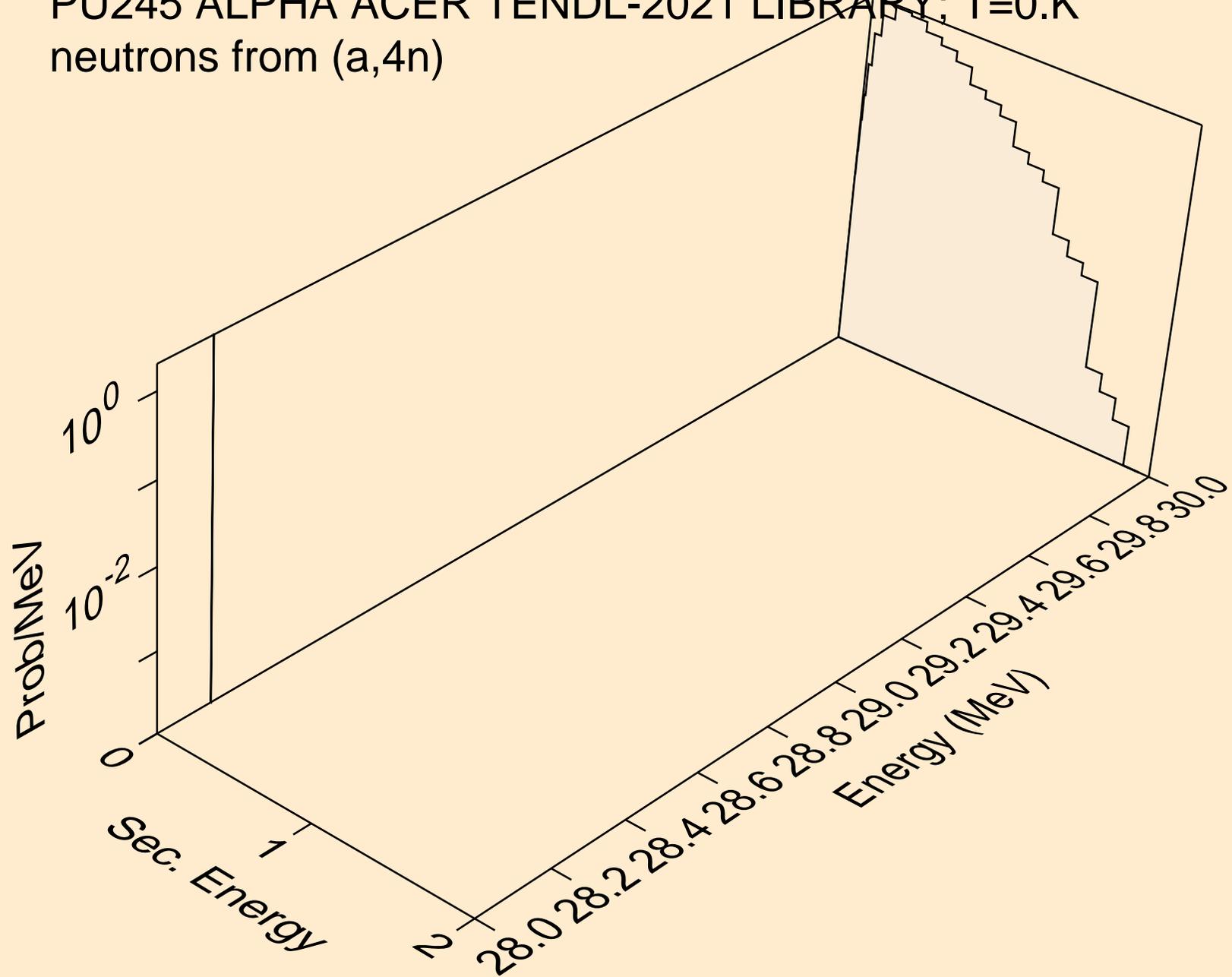neutrons from (a,n*)t
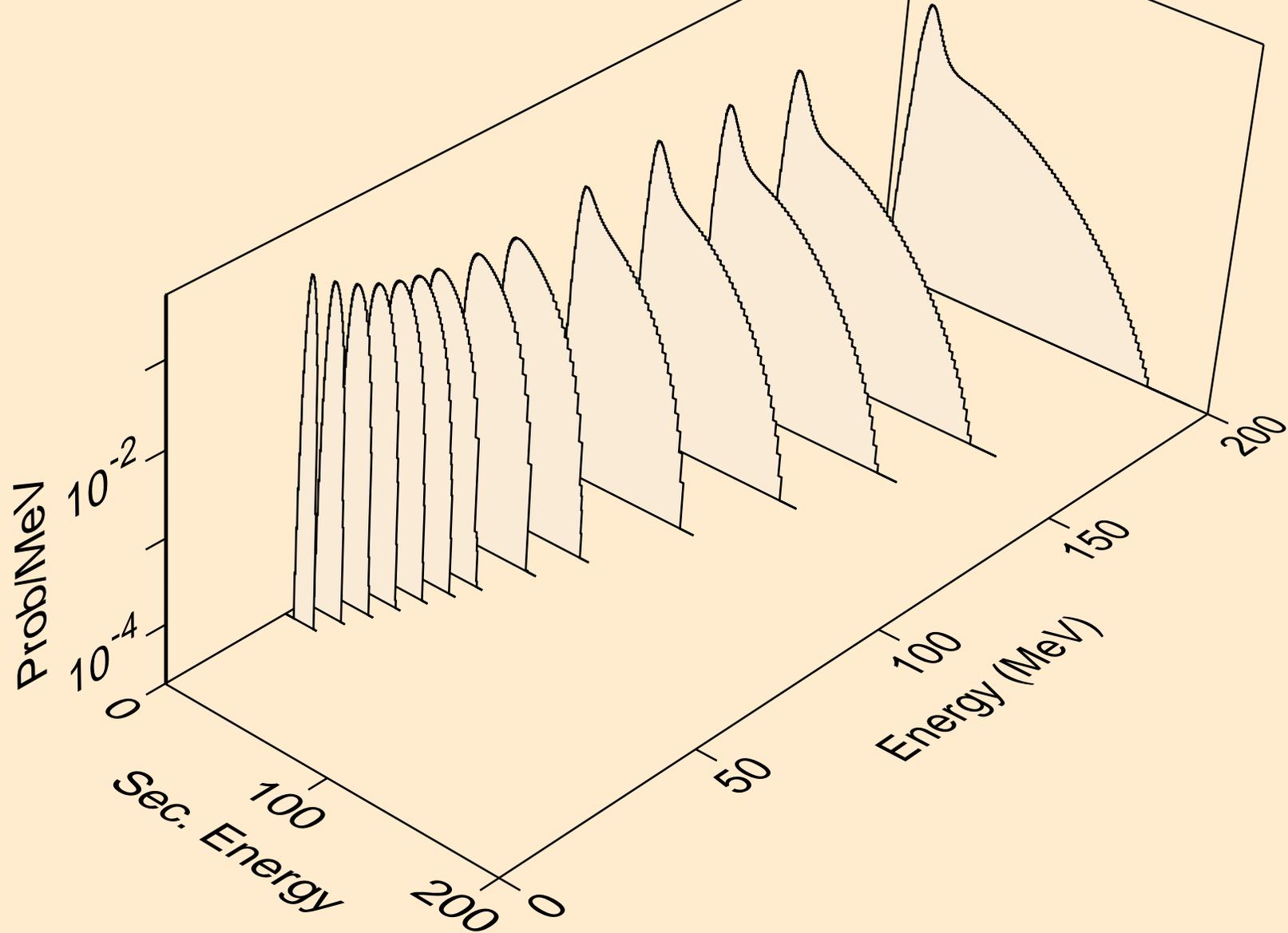
Prob/MeV

10^{-1}

10^{-3}

0

Sec. Energy

2

4

18

20

22

24

26

28

30

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
neutrons from (a,4n)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
protons from (a,x)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
protons from (a,n*)p

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
protons from (a,p)

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

10

20

Energy (MeV)

12 14 16 18 20 22 24 26 28 30

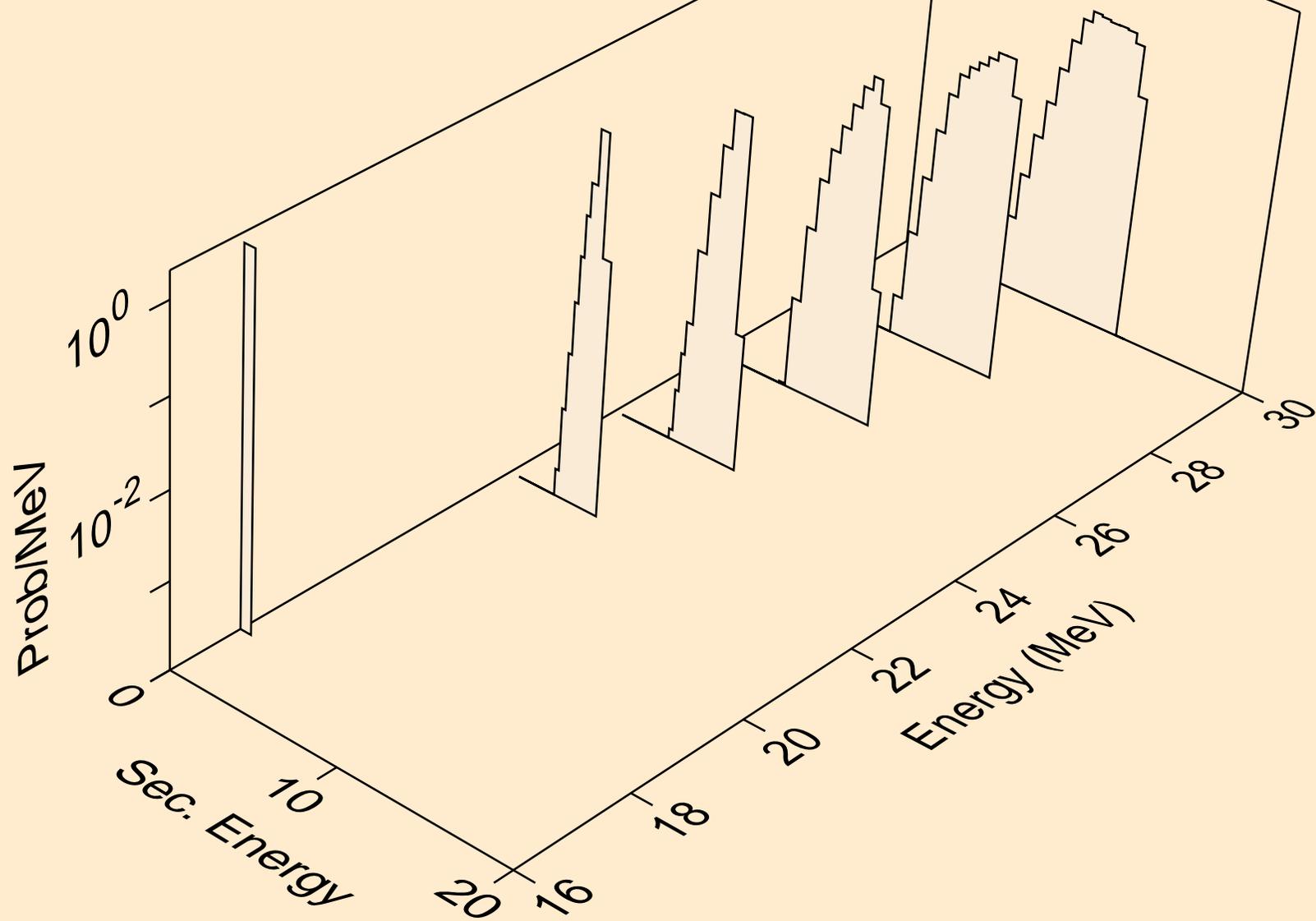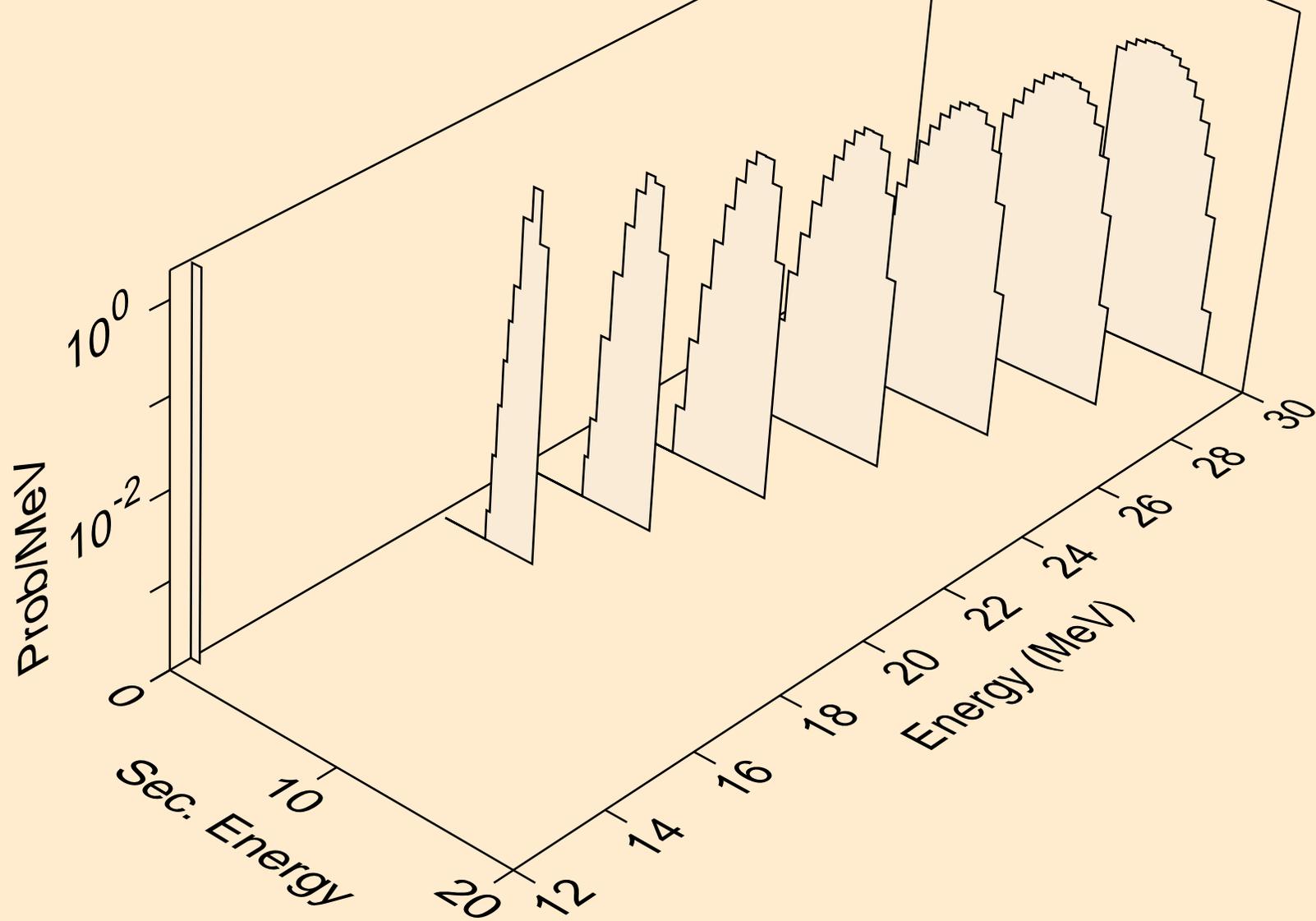PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
deuterons from (a,x)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
deuterons from (a,d)

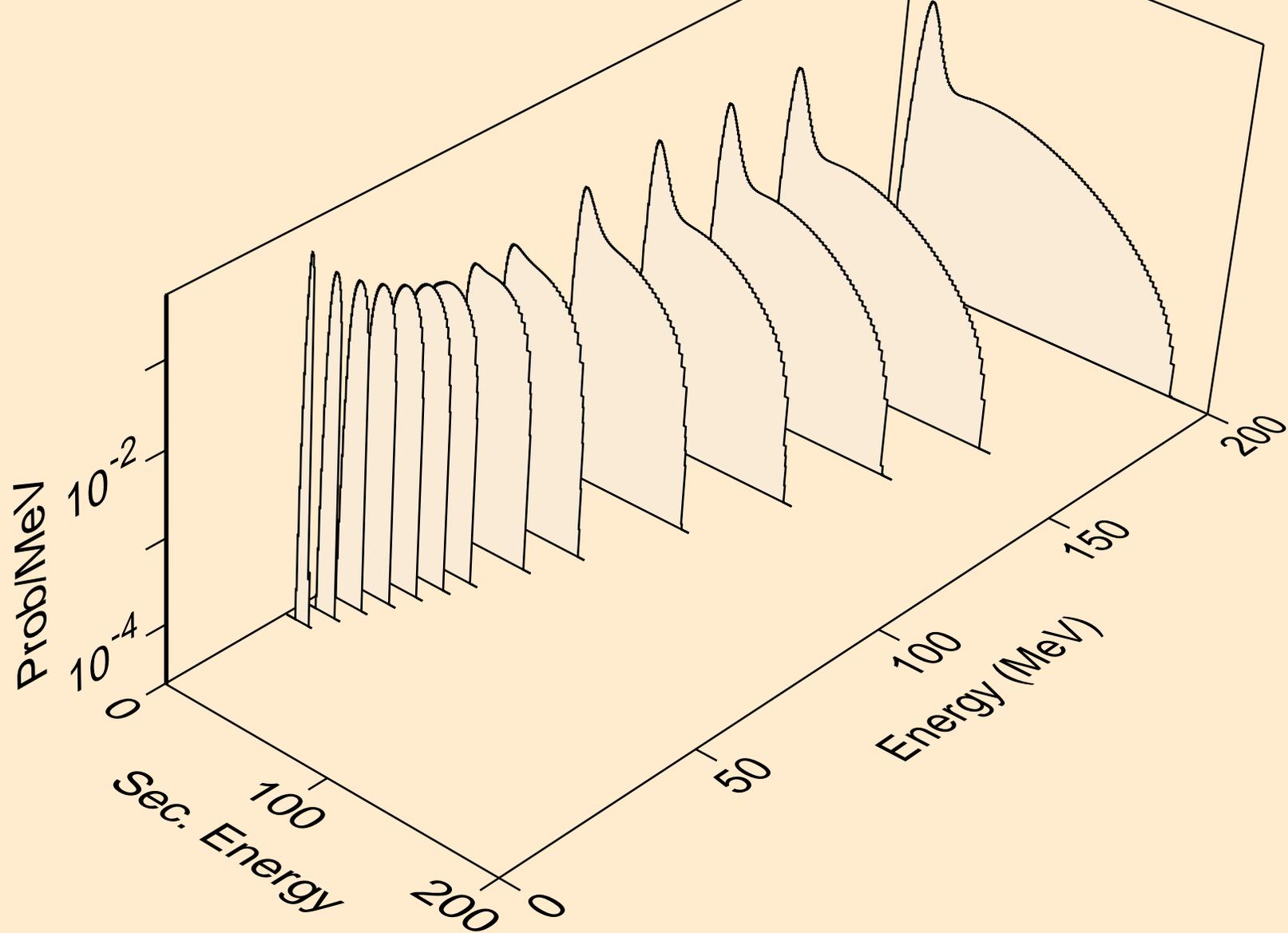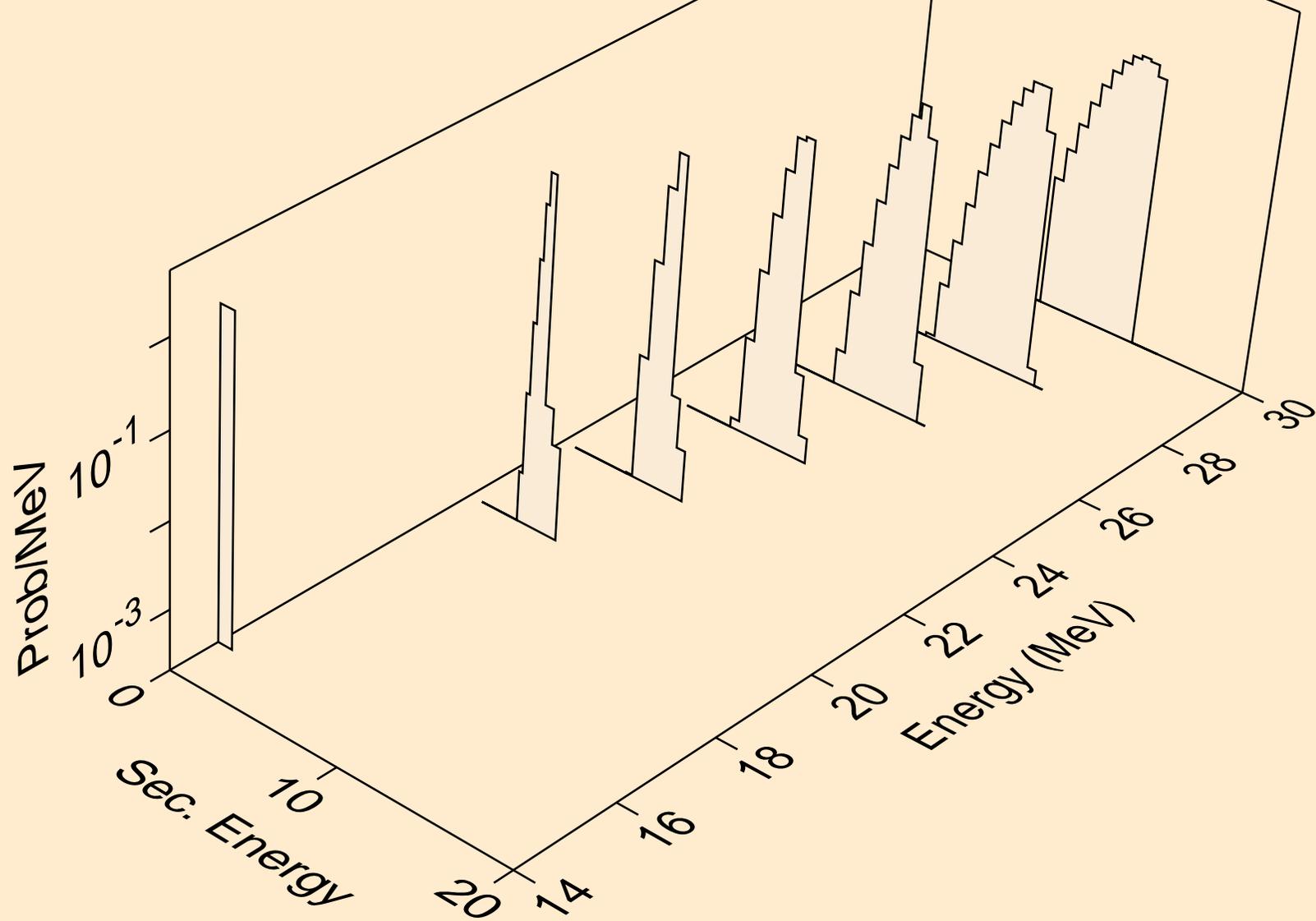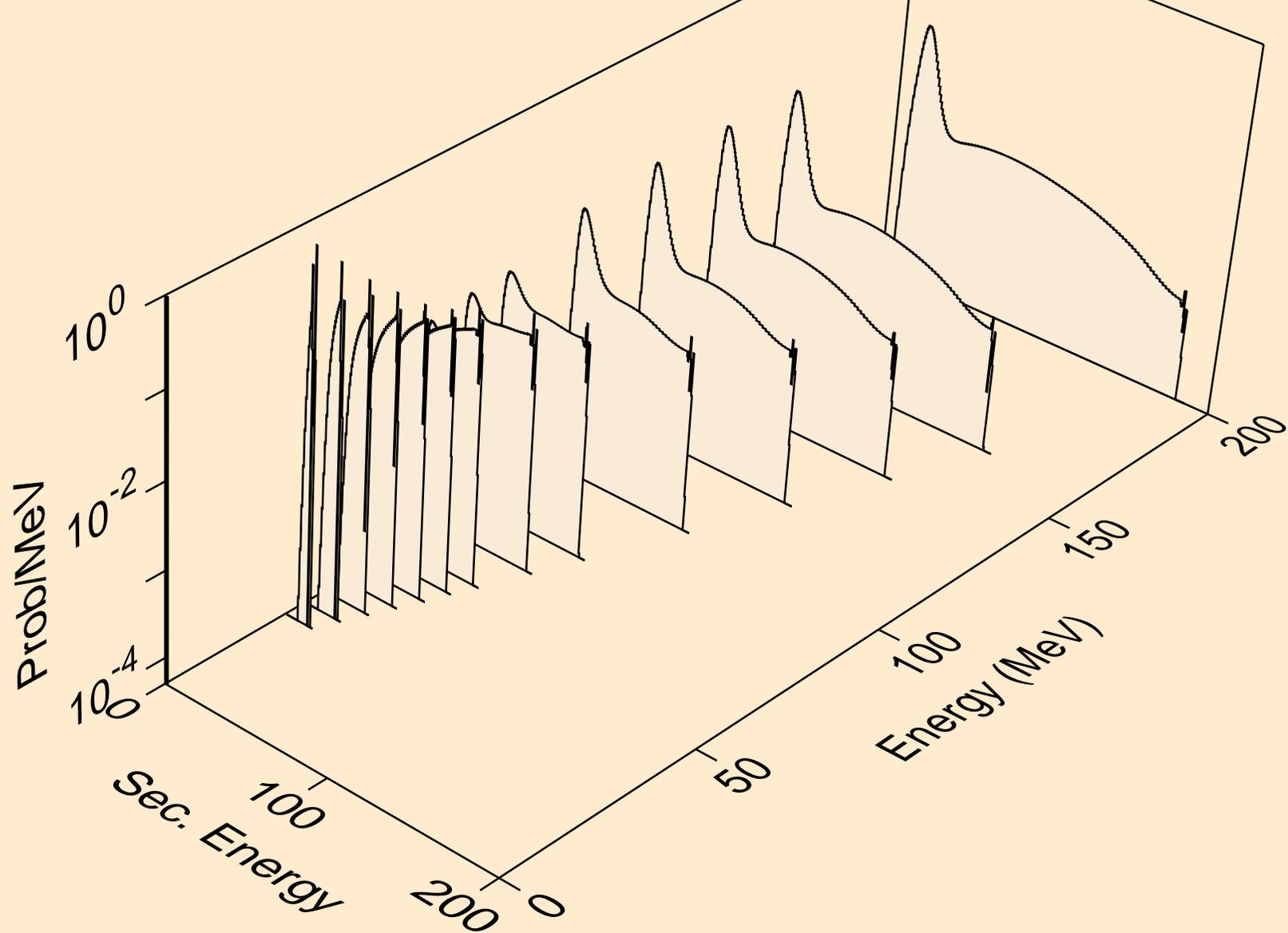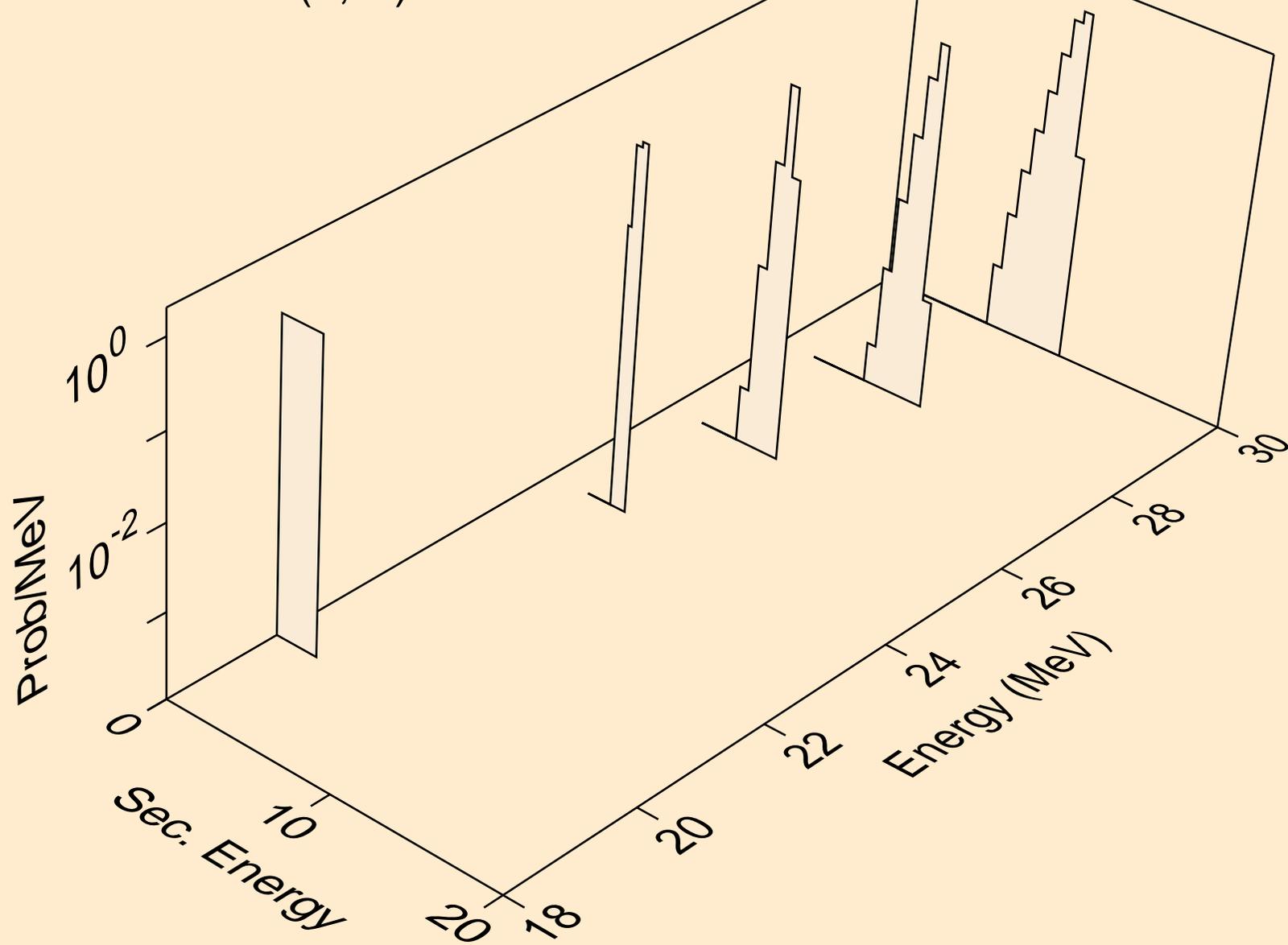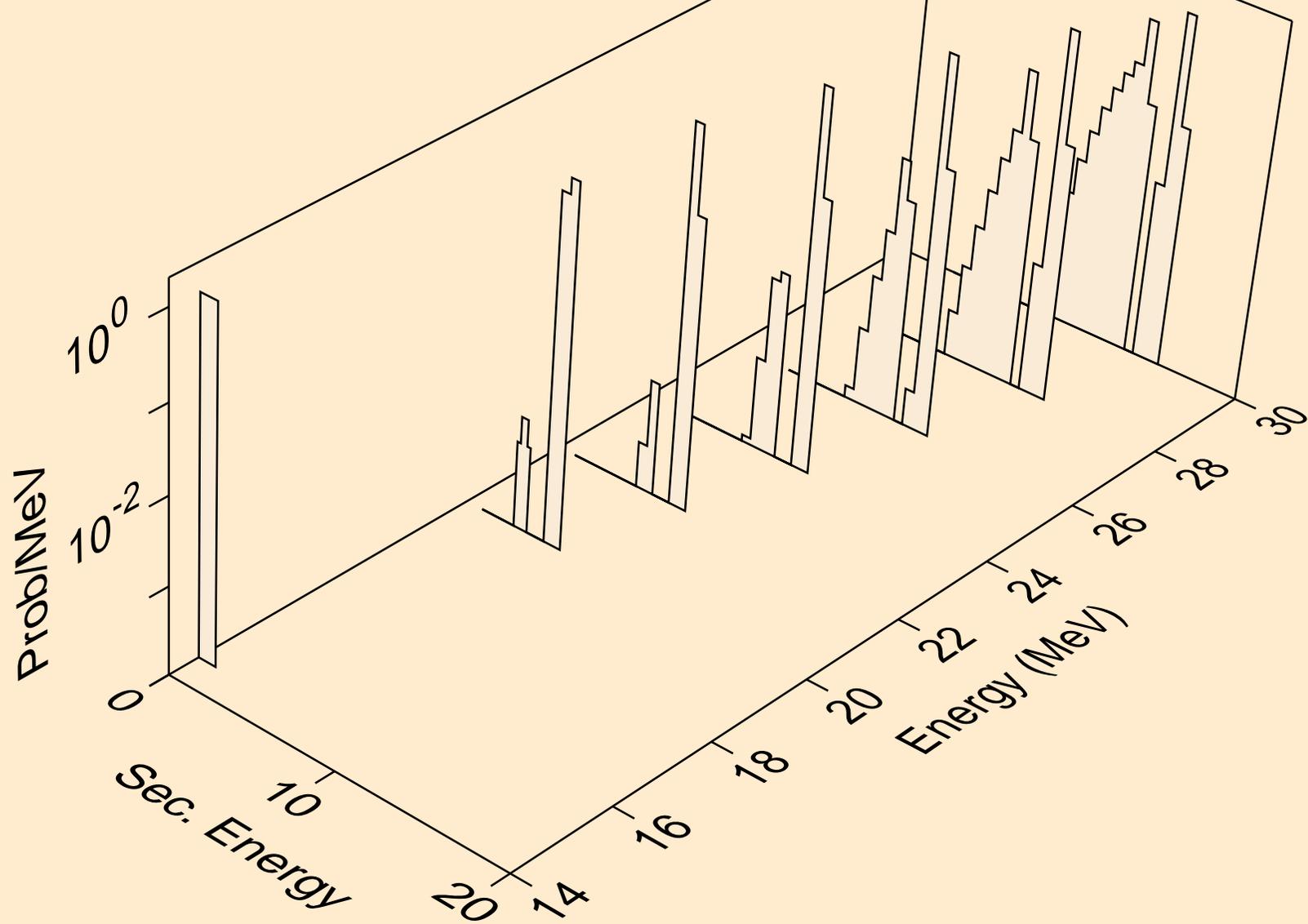PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
tritons from (a,x)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
tritons from (a,n*)t

Prob/MeV

10^0

10^{-2}

0

Sec. Energy

10

20

18

20

22

24

26

28

30

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
tritons from (a,t)

Prob/MeV

10^0

10^{-2}

Sec. Energy

Energy (MeV)

PU245 ALPHA ACER TENDL-2021 LIBRARY; T=0.K
he3s from (a,x)

ProbIMeV

10^0

10^{-2}

Sec. Energy

Energy (MeV)

0

100

200

0

50

100

150

200