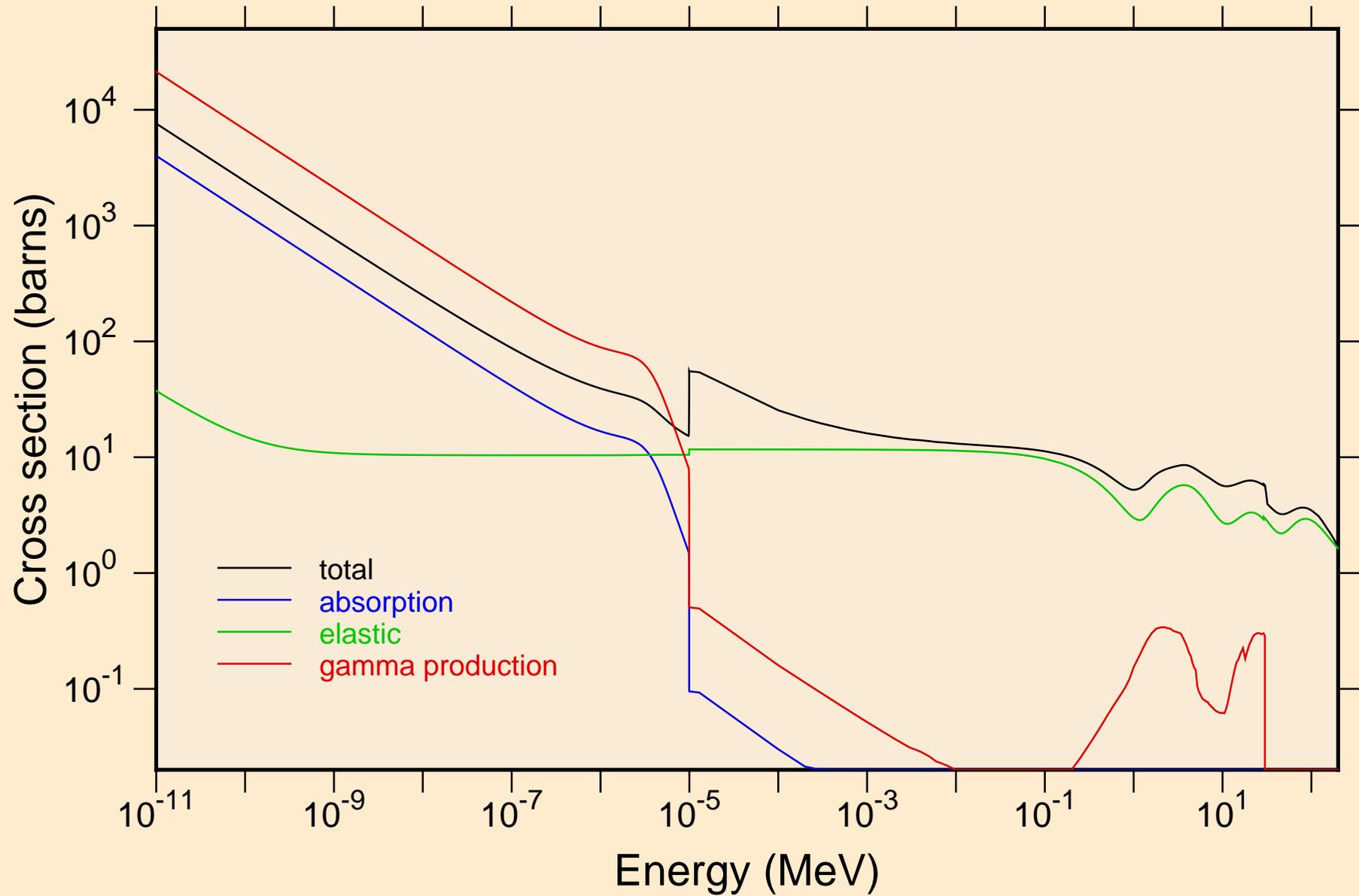DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Principal cross sections

Cross section (barns) vs Energy (MeV)

- total
- absorption
- elastic
- gamma production

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Heating

heating

Heating (MeV/reaction)

Energy (MeV)
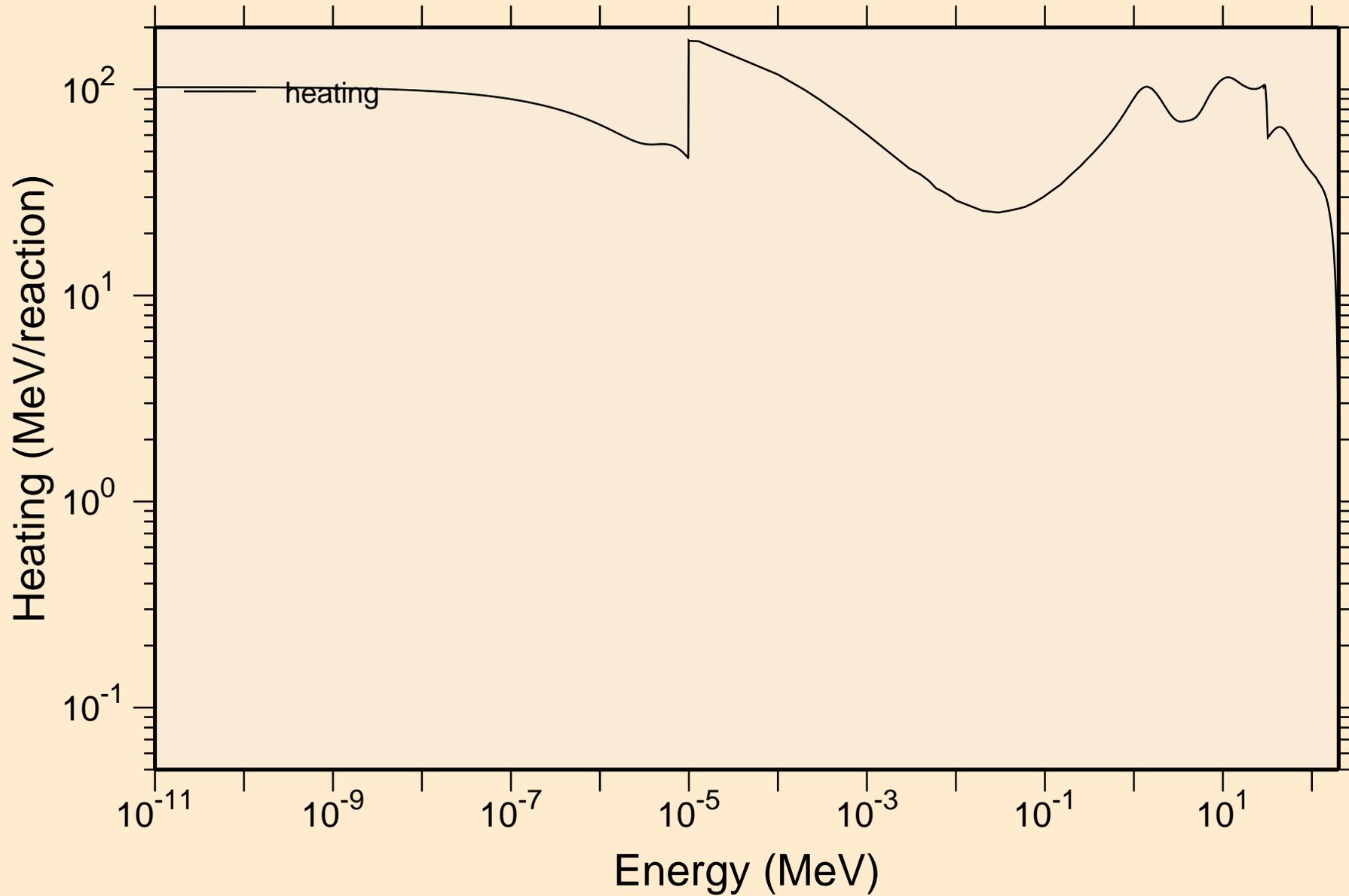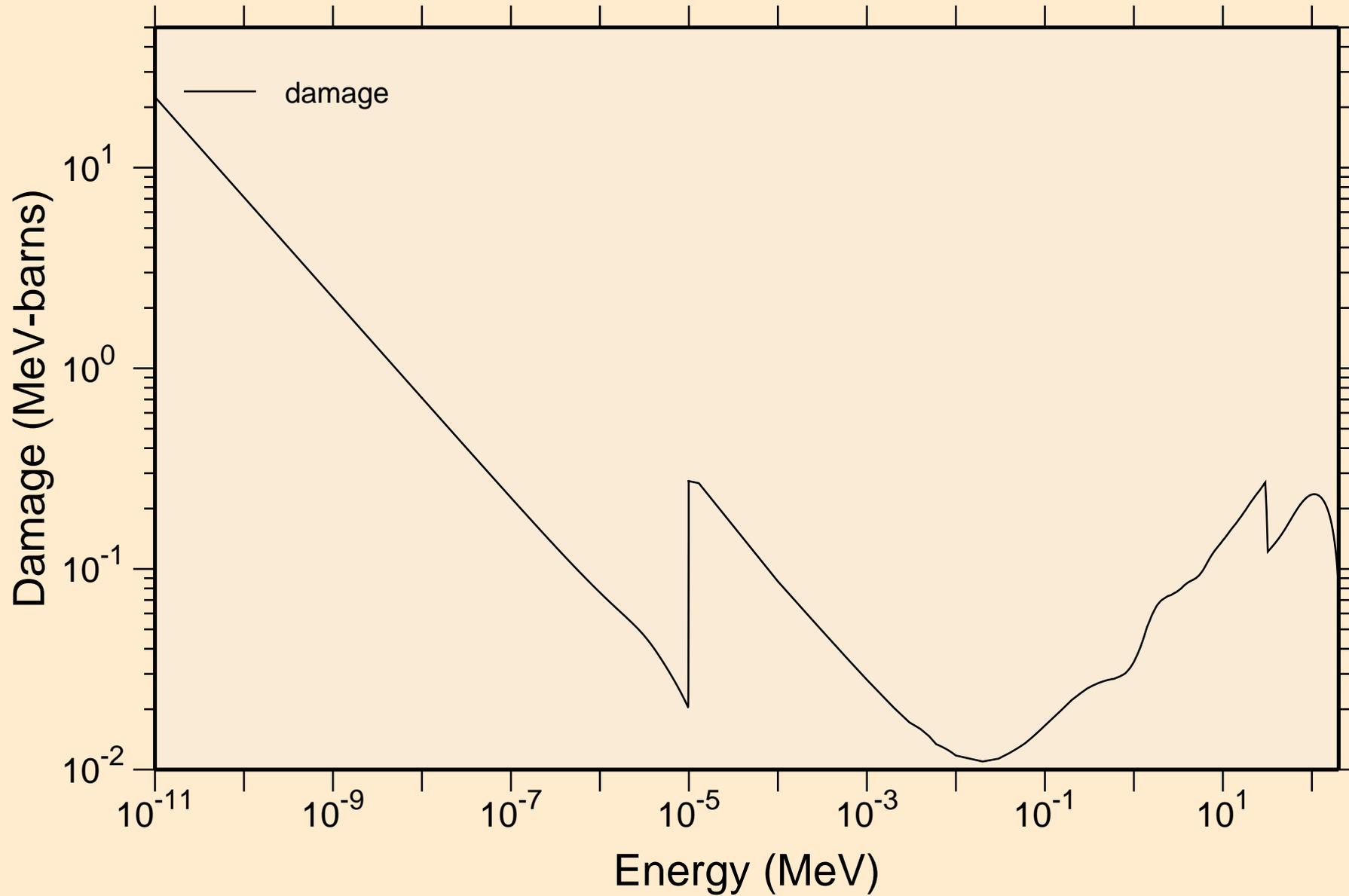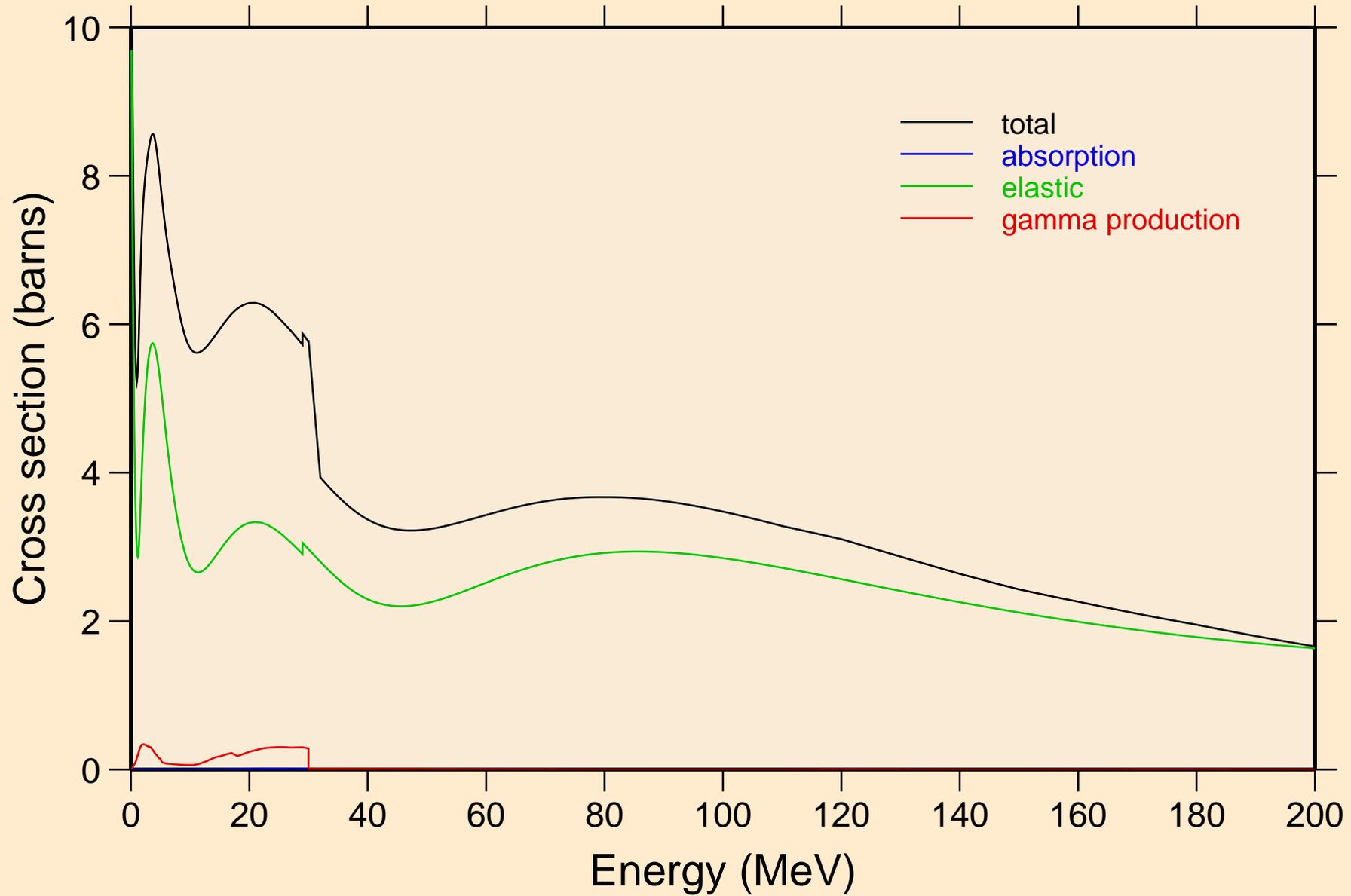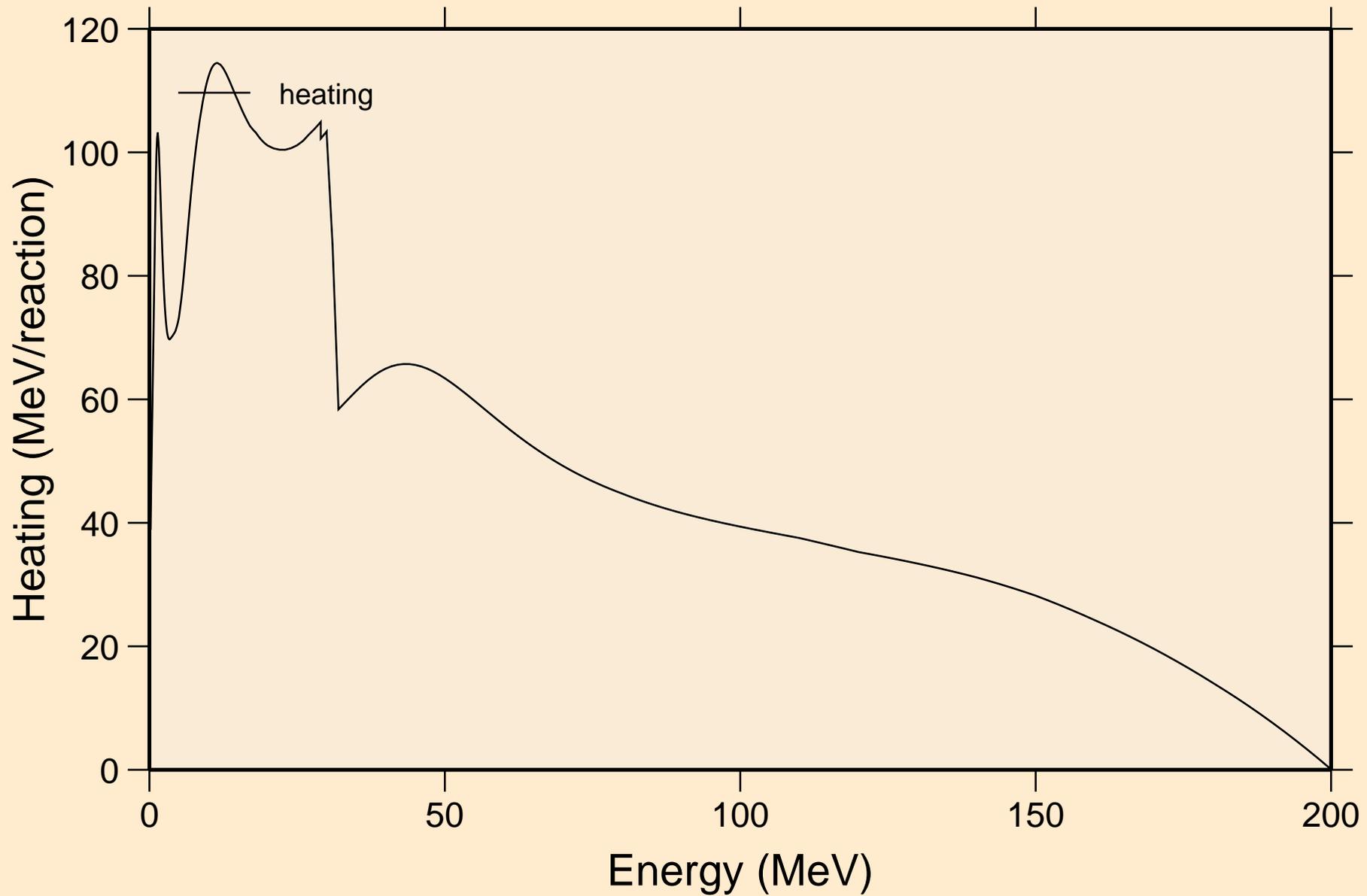
DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Damage

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Non-threshold reactions

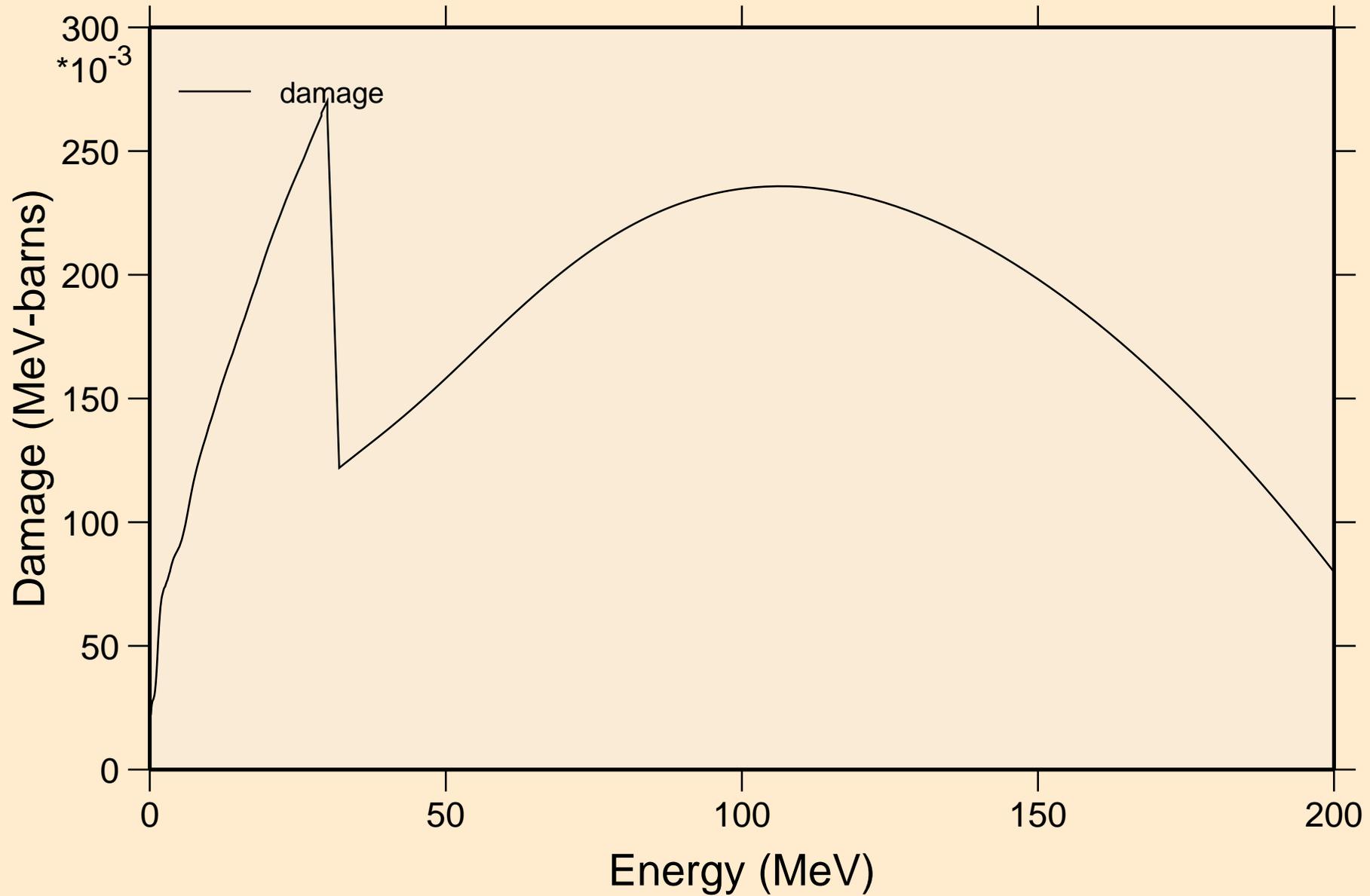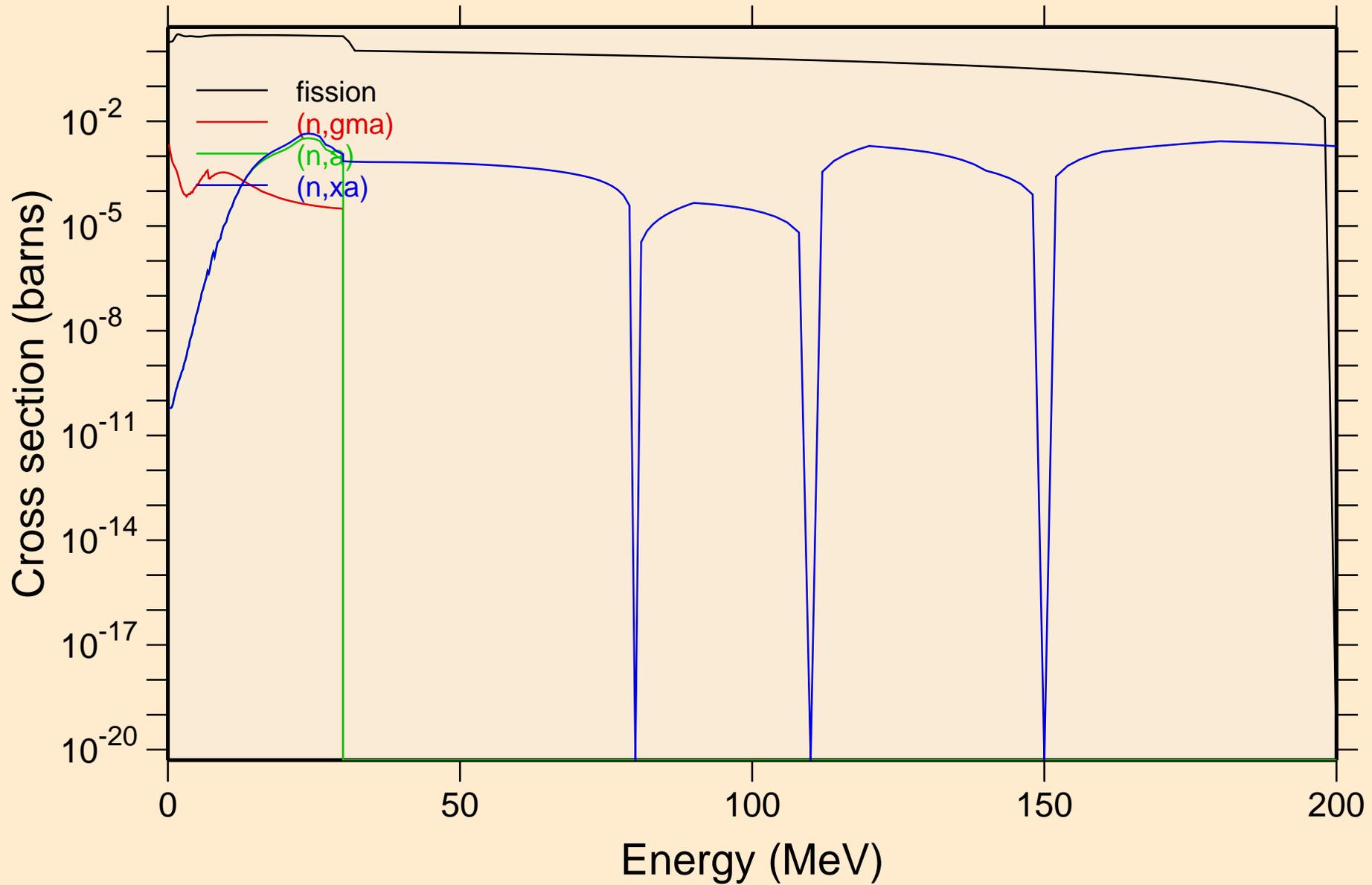DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Principal cross sections

Legend:
- total
- absorption
- elastic
- gamma production

Cross section (barns) vs Energy (MeV)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Heating

heating

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
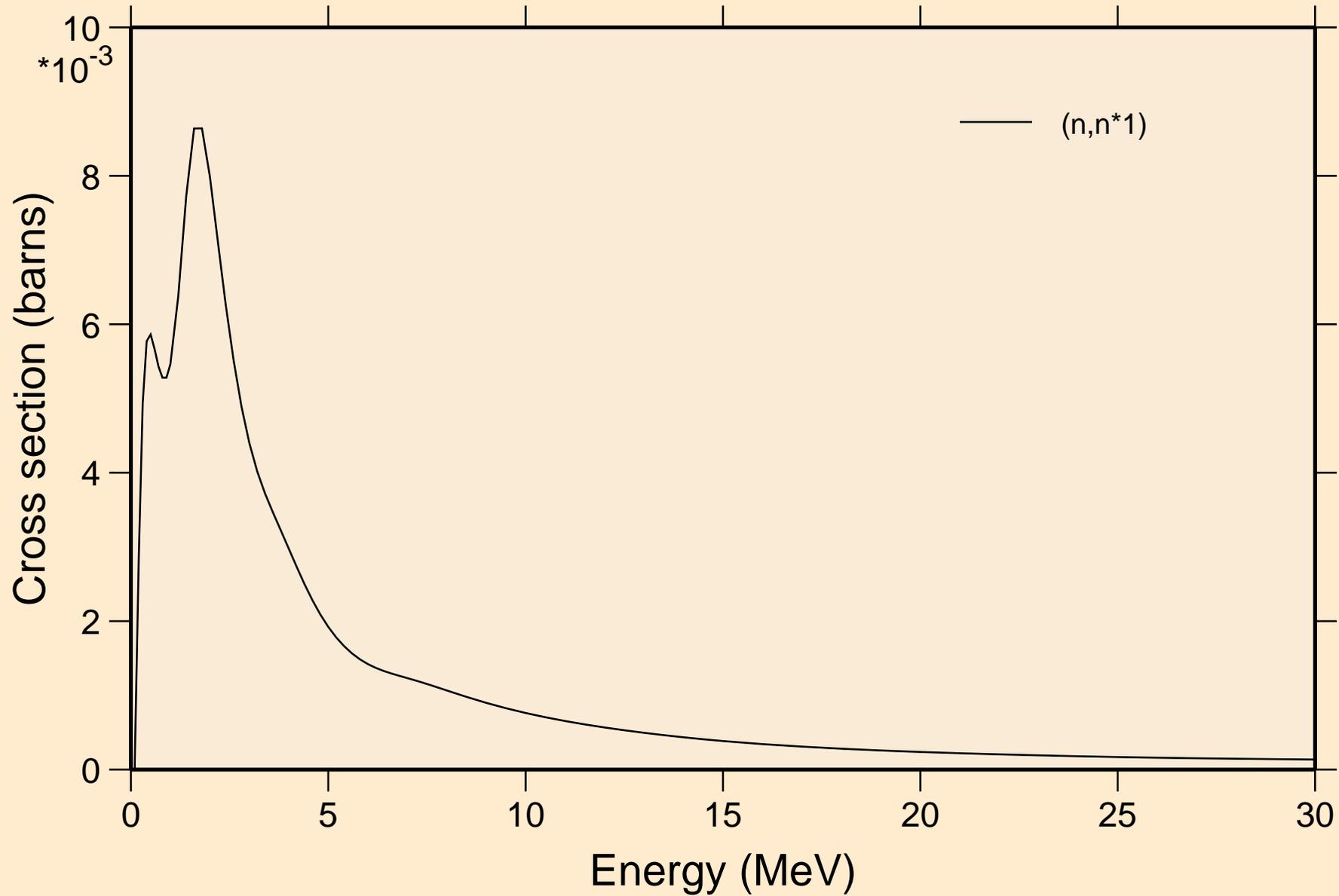Damage

damage

Damage (MeV-barns)

Energy (MeV)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Non-threshold reactions

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
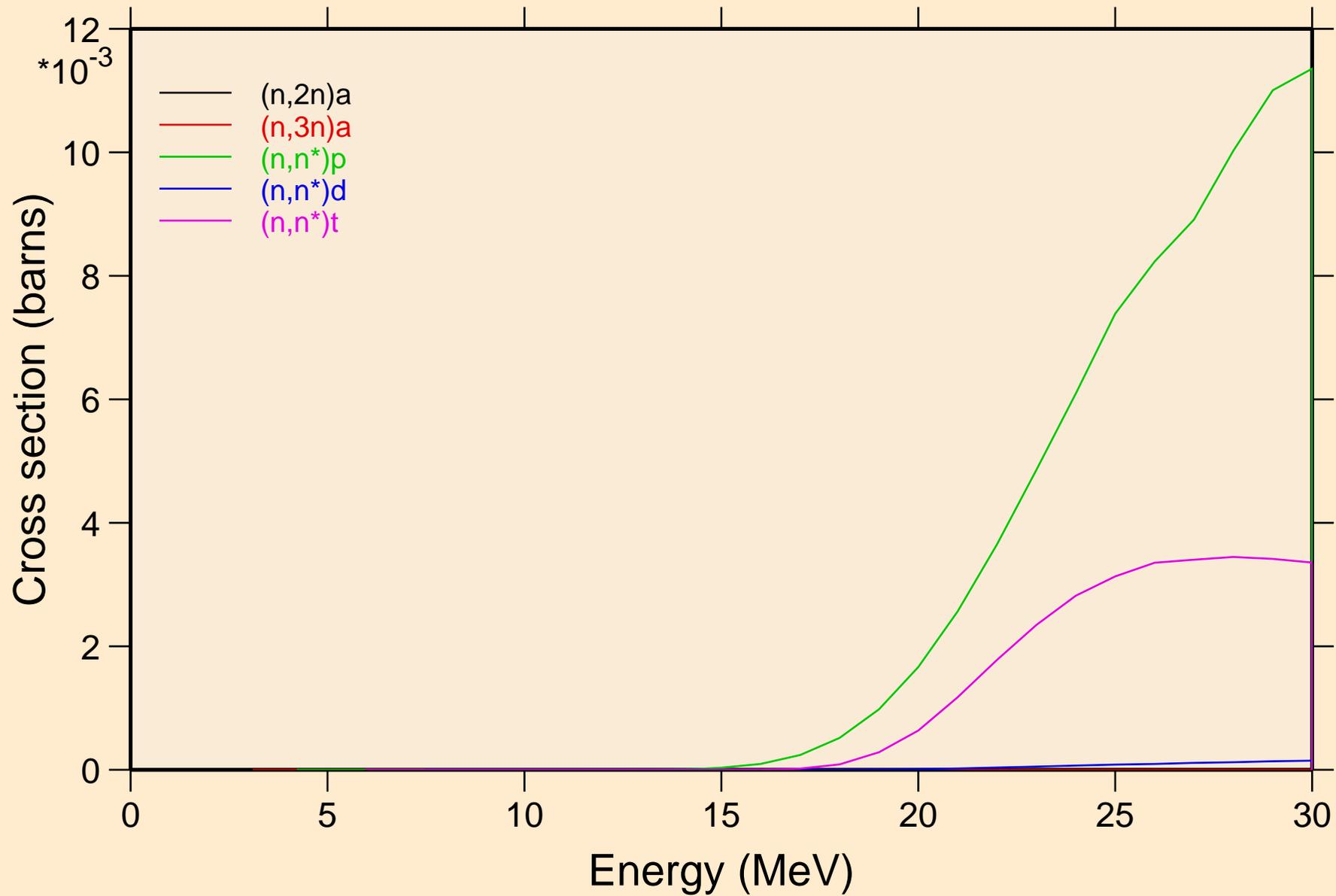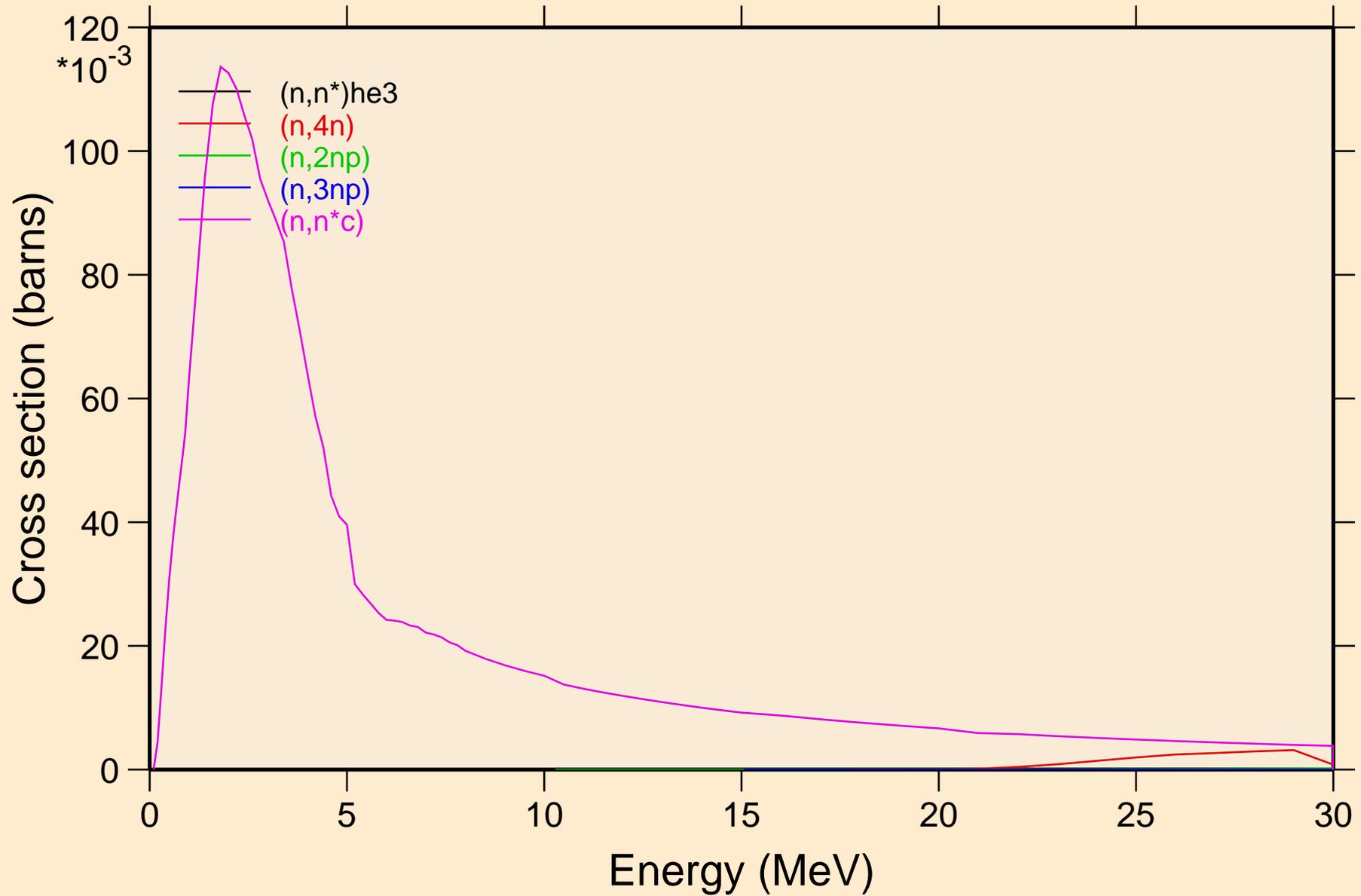Inelastic levels
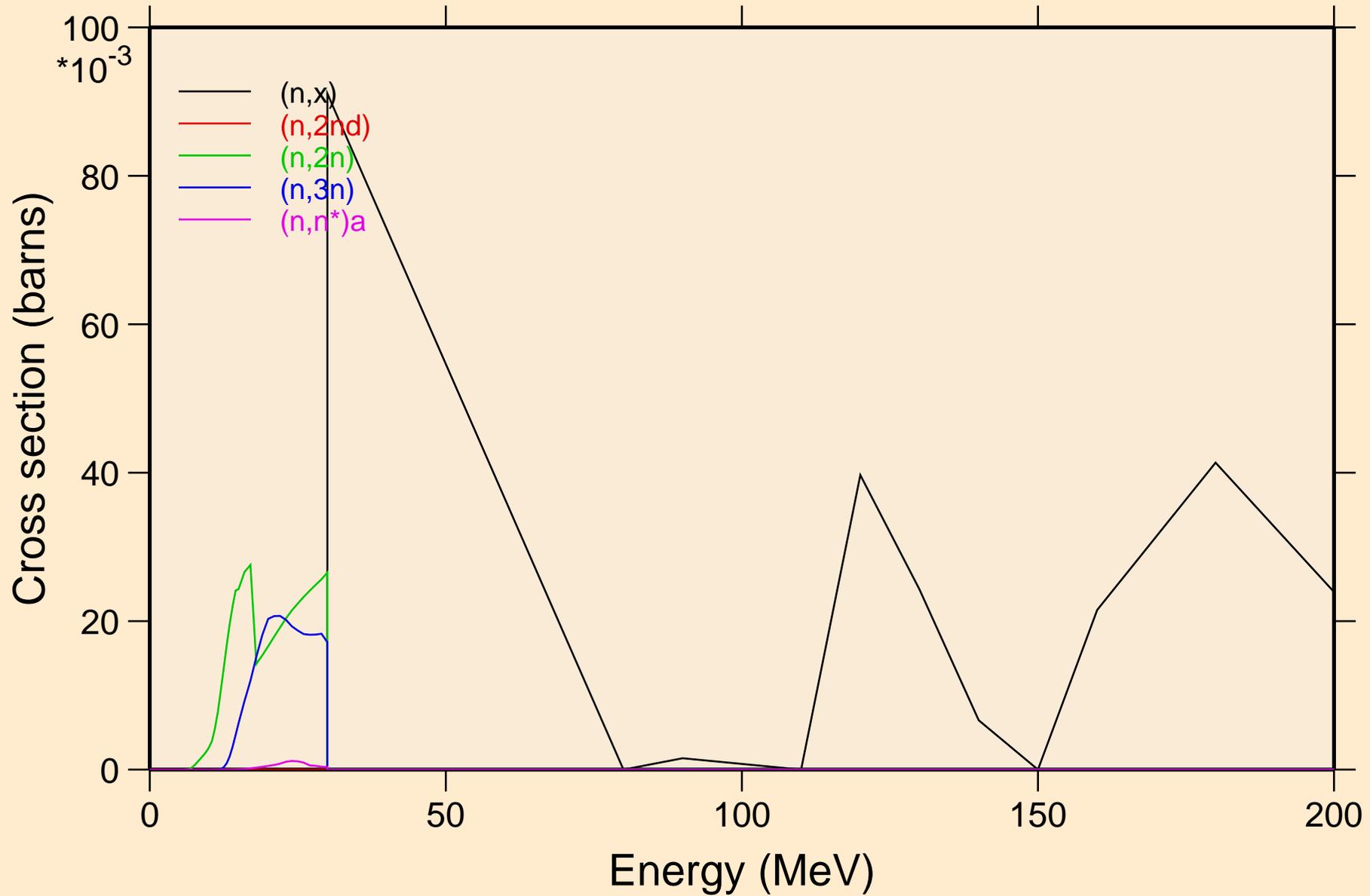
(n,n*1)

Cross section (barns)
*10^{-3}

Energy (MeV)

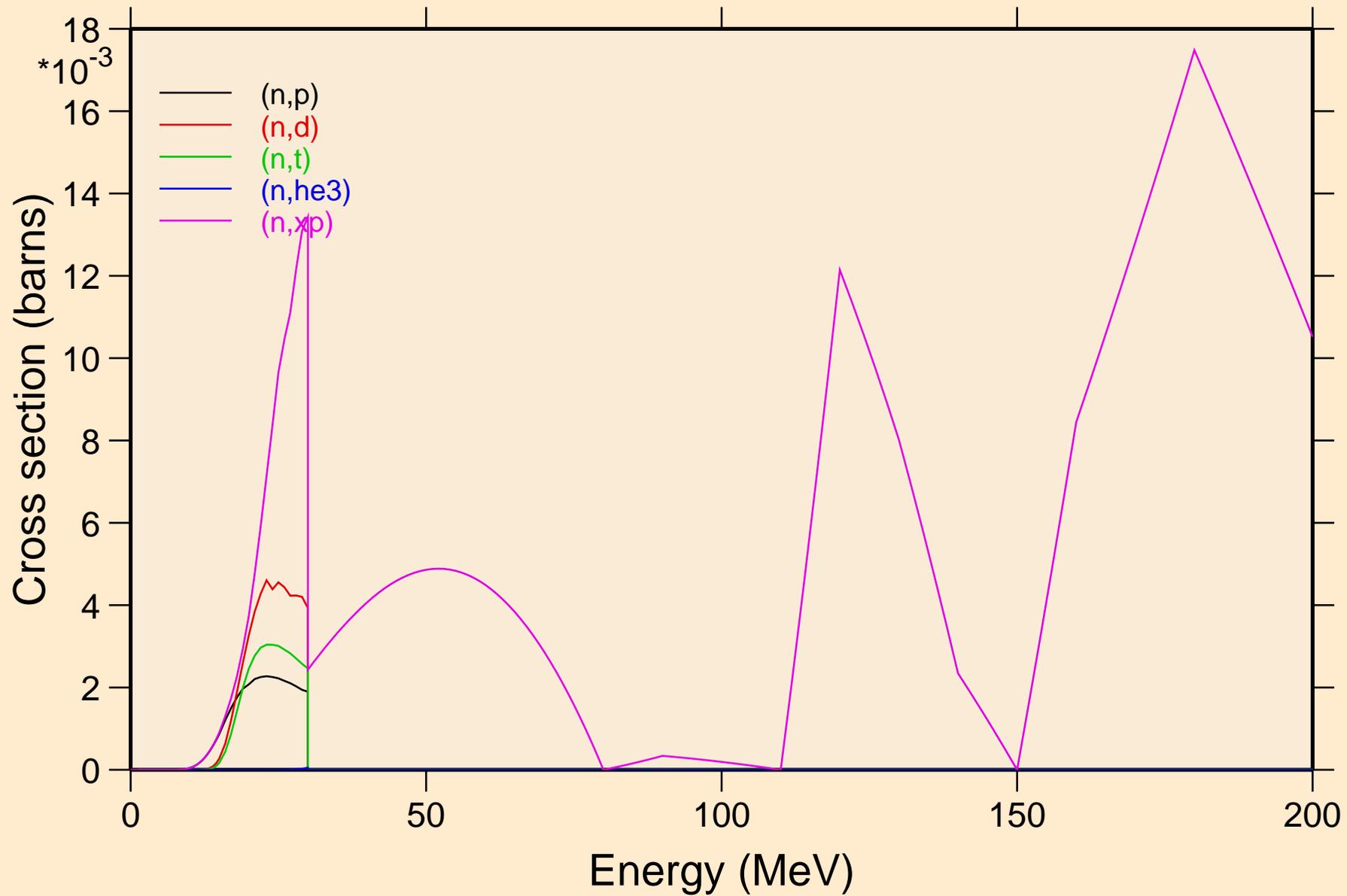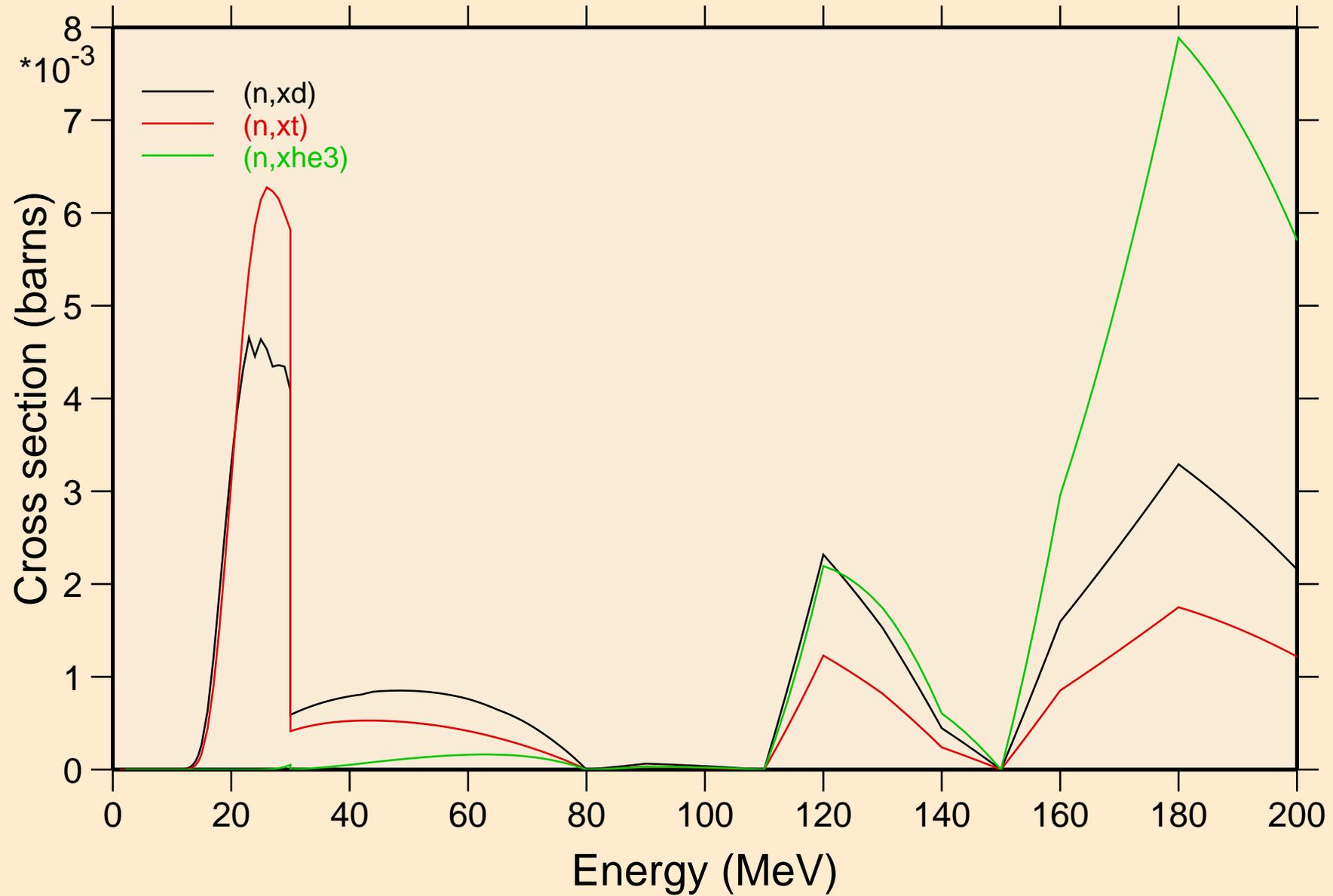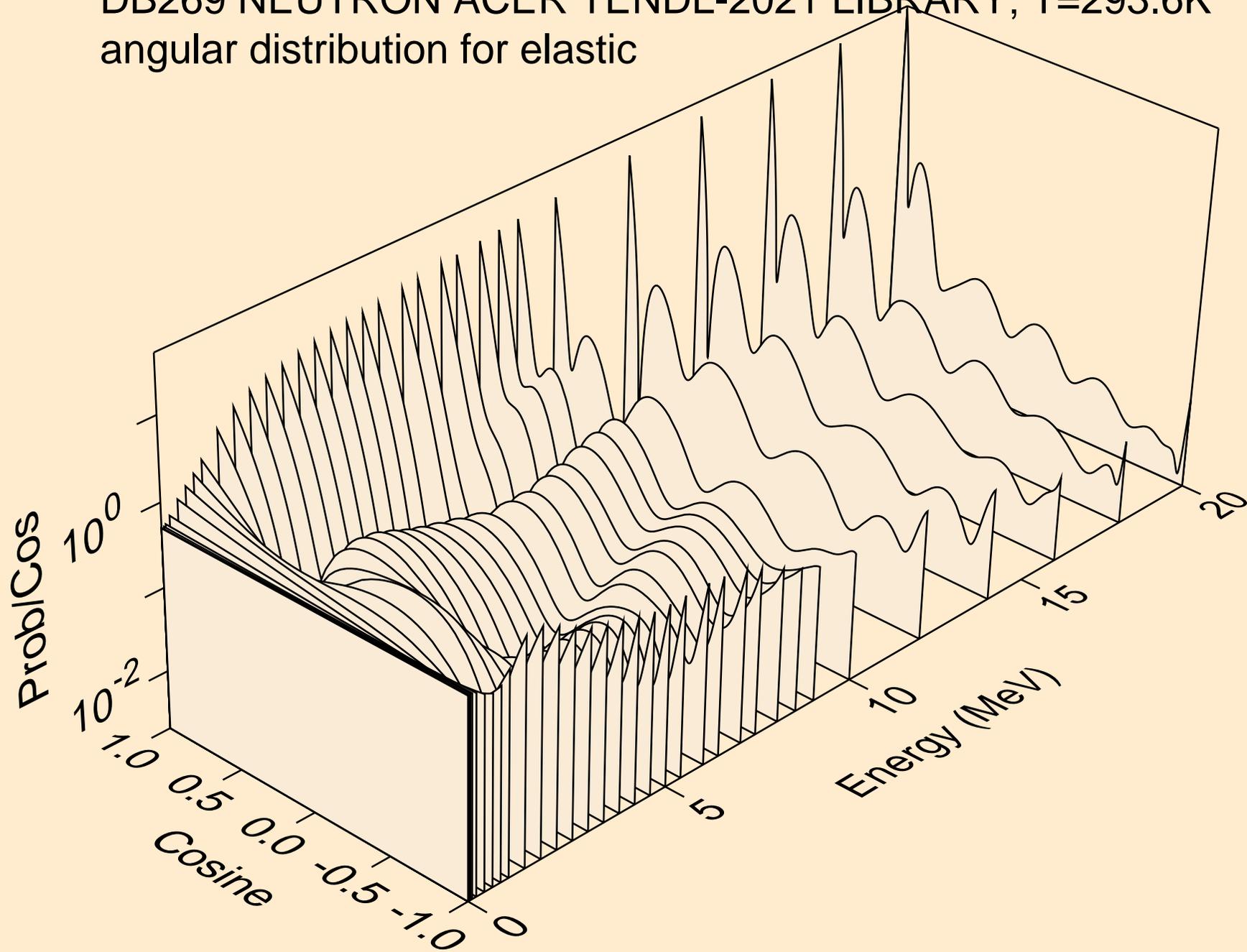DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Threshold reactions

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Threshold reactions

Cross section (barns)

*10^{-3}

- (n,2n)a
- (n,3n)a
- (n,n*)p
- (n,n*)d
- (n,n*)t

Energy (MeV)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Threshold reactions

Legend:
- (n,n*)he3
- (n,4n)
- (n,2np)
- (n,3np)
- (n,n*c)

X-axis: Energy (MeV)
Y-axis: Cross section (barns) *10⁻³

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Threshold reactions

Legend:
- (n,p)
- (n,d)
- (n,t)
- (n,he3)
- (n,xp)

X-axis: Energy (MeV)
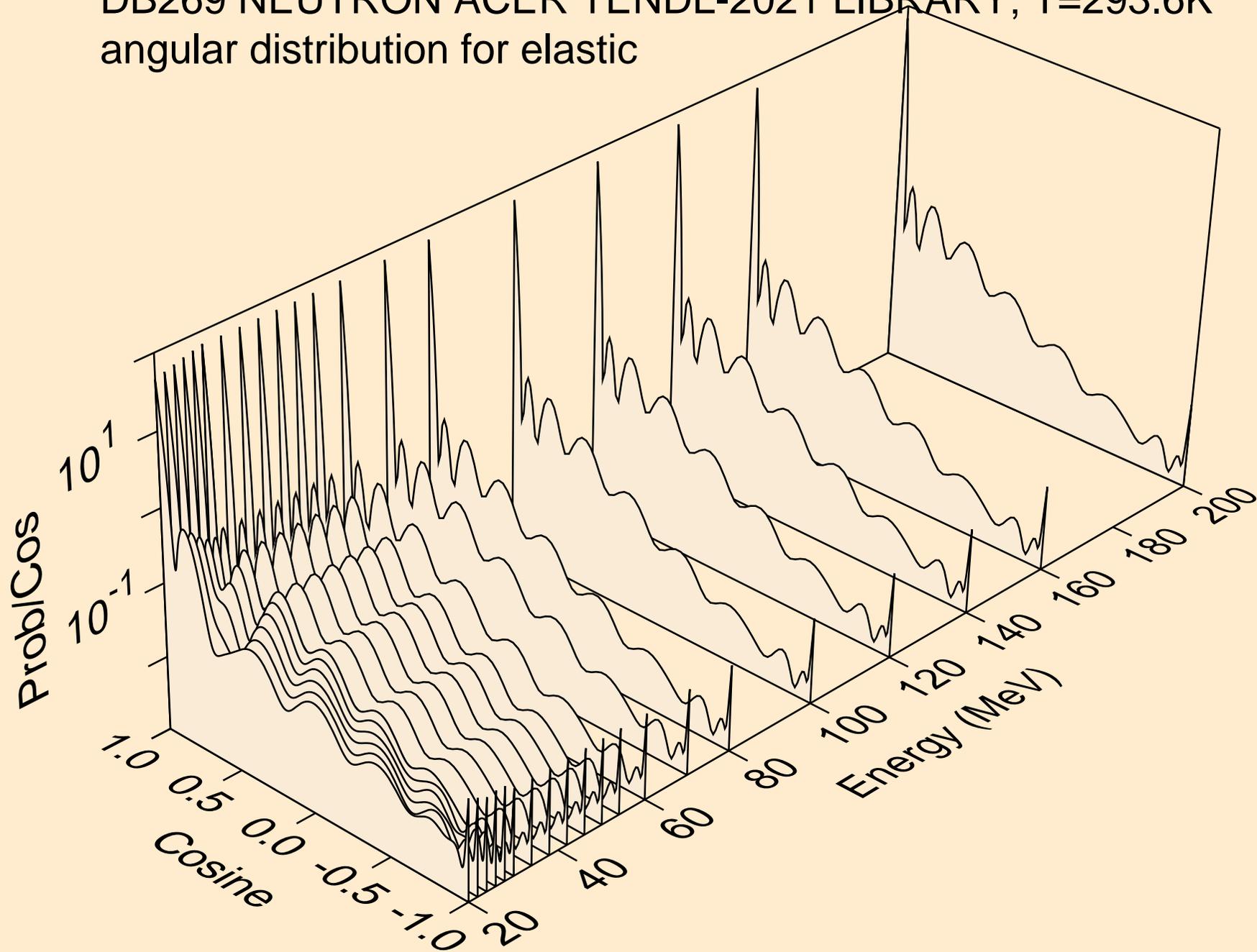Y-axis: Cross section (barns), *10⁻³

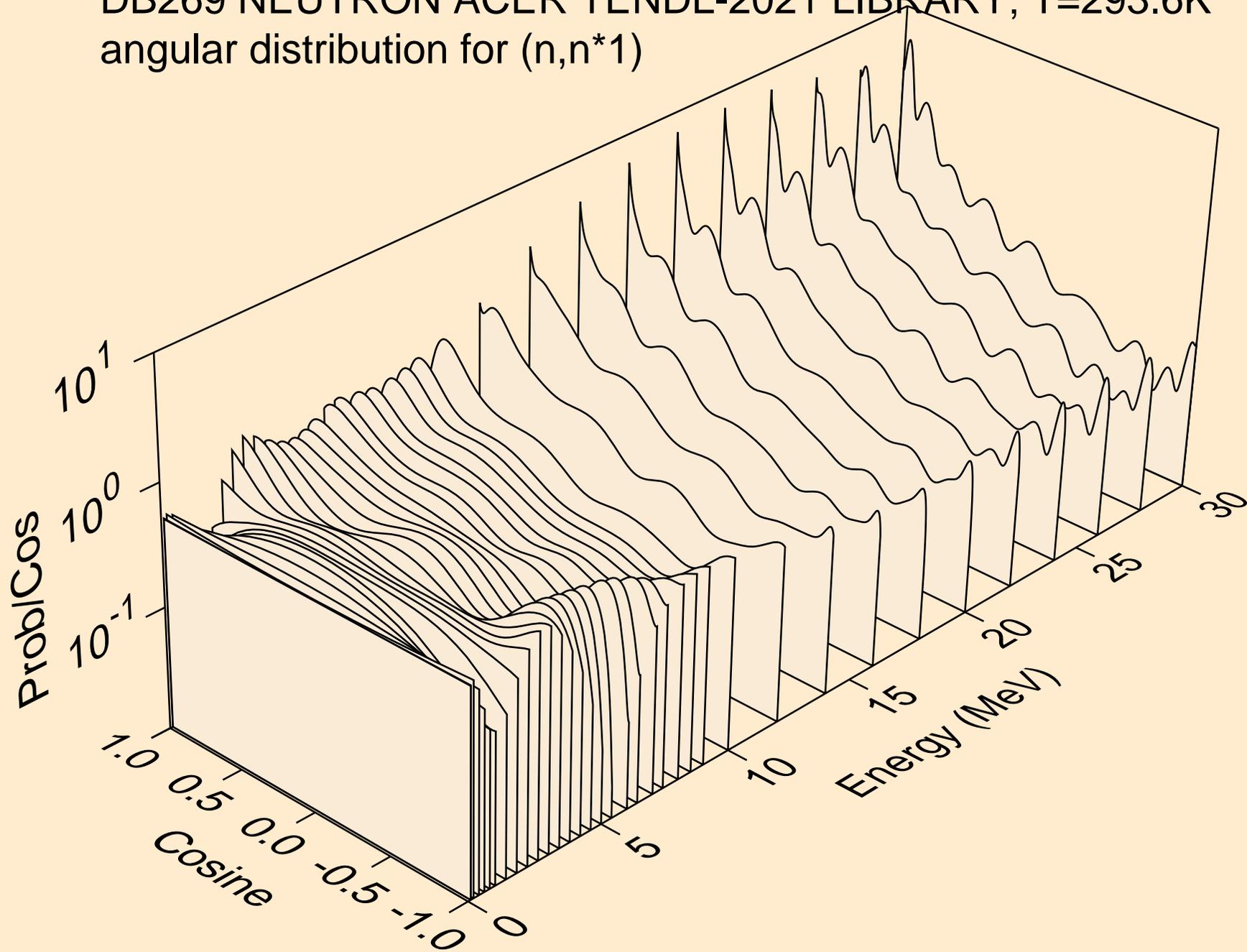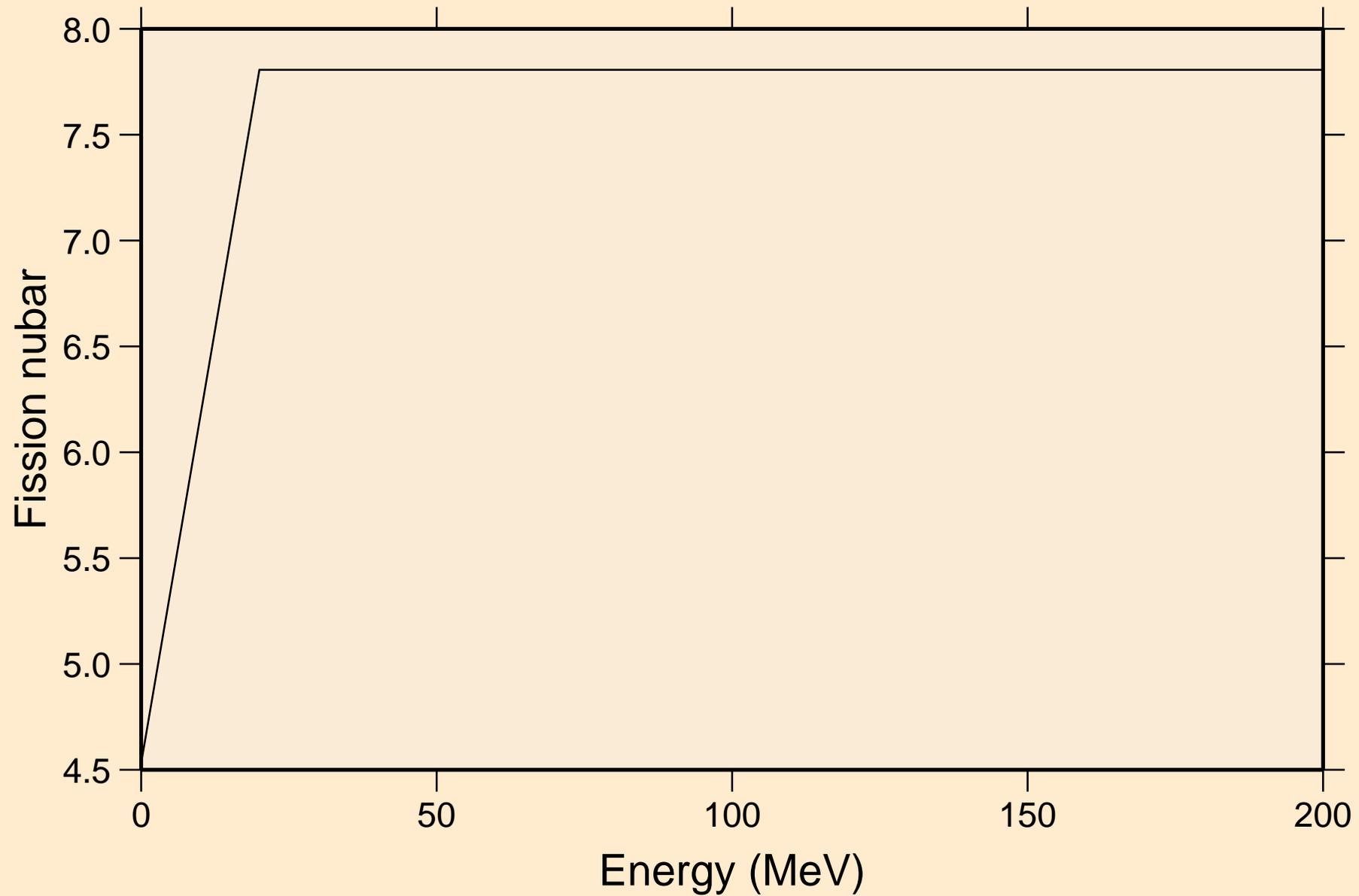DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Threshold reactions

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
angular distribution for elastic

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
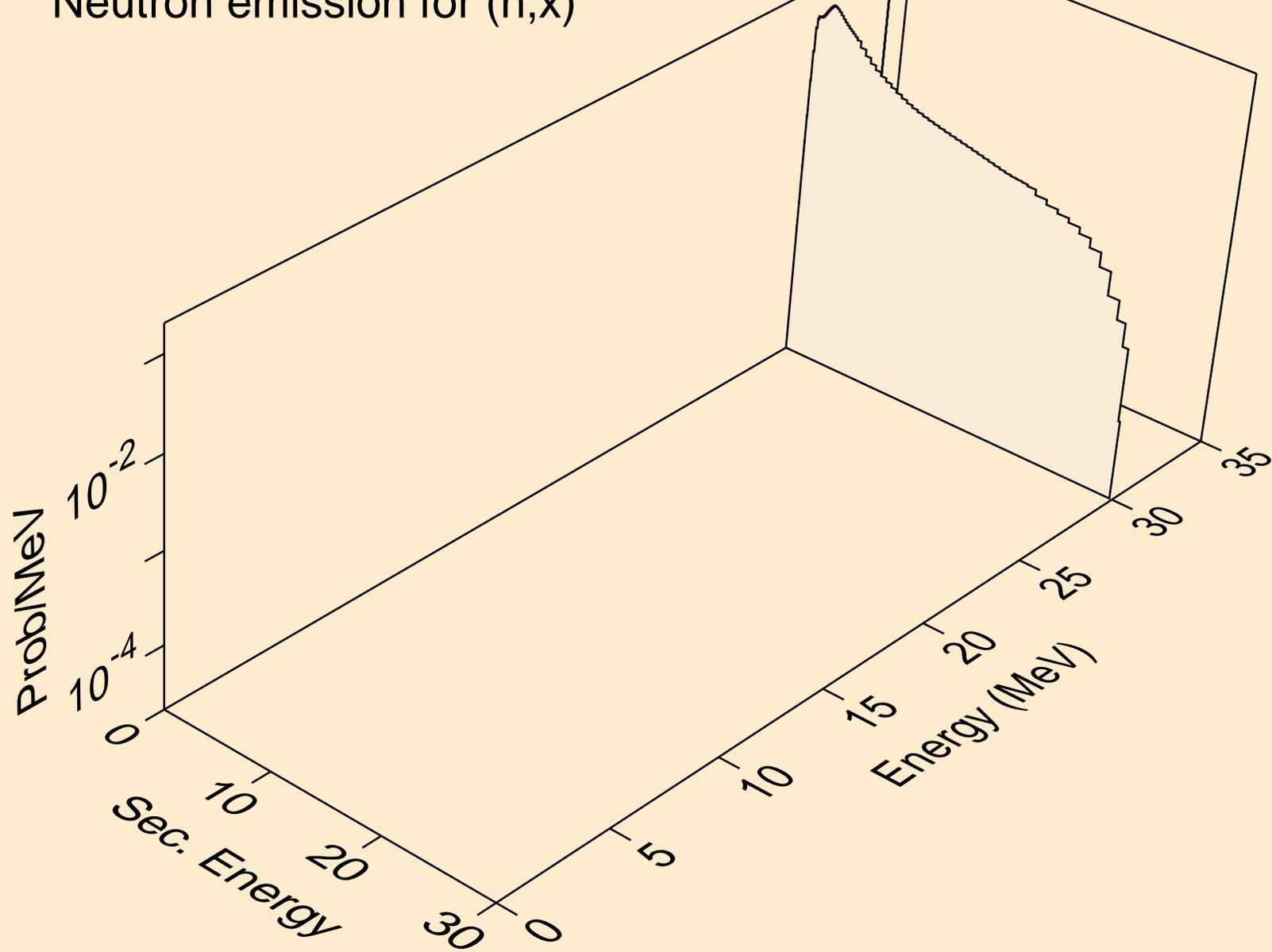angular distribution for elastic

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
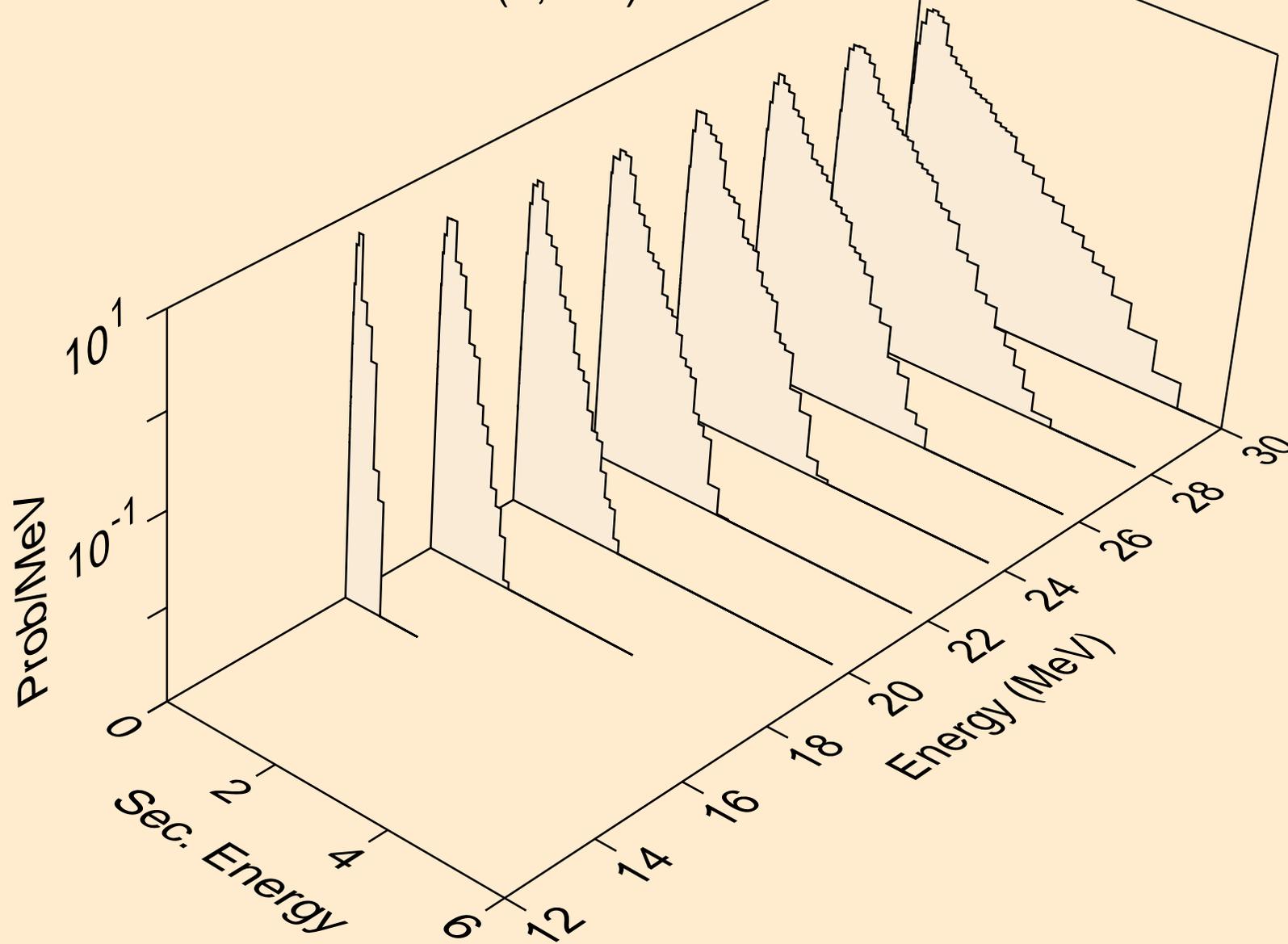angular distribution for (n,n*1)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
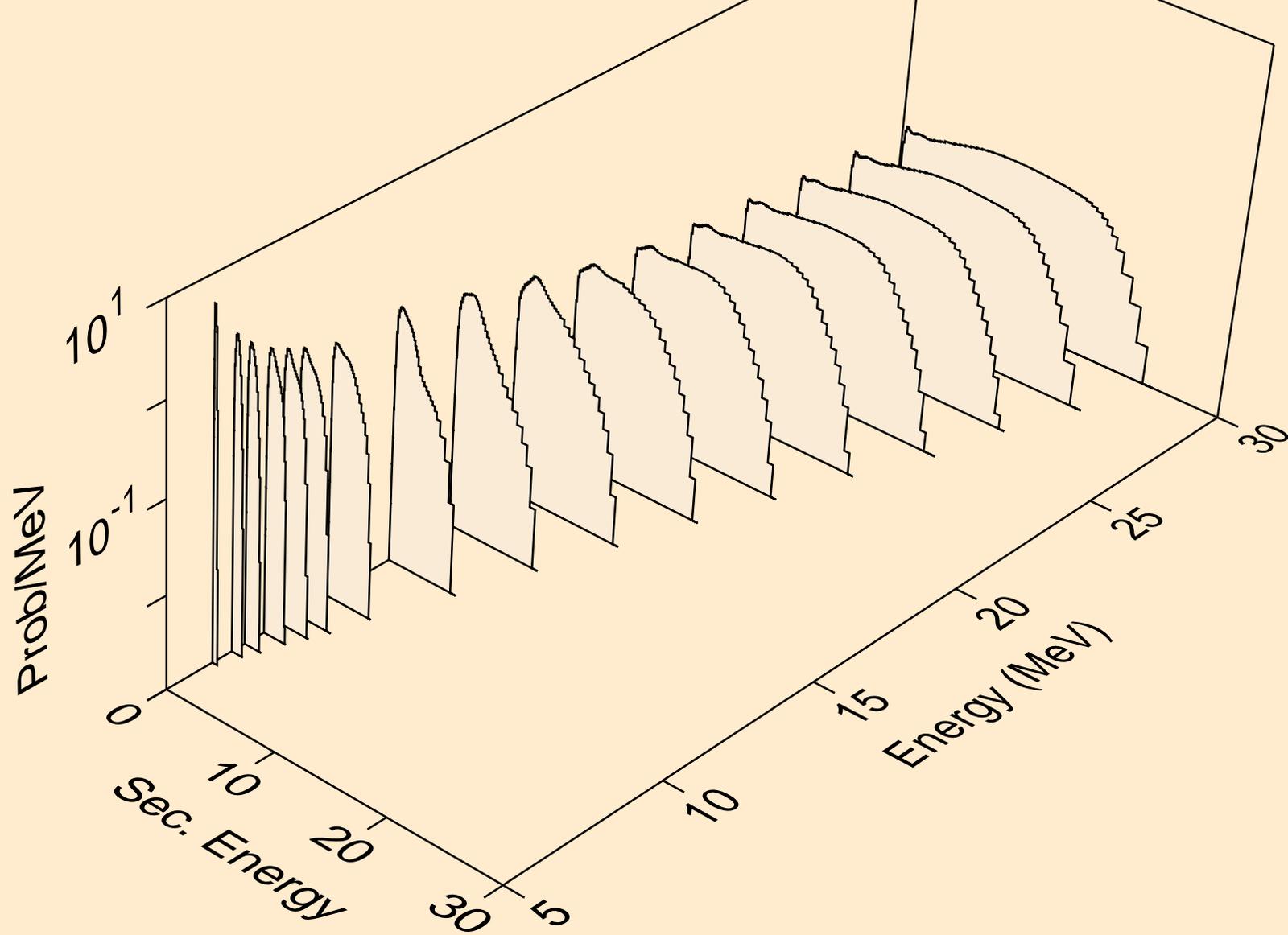Total fission nubar

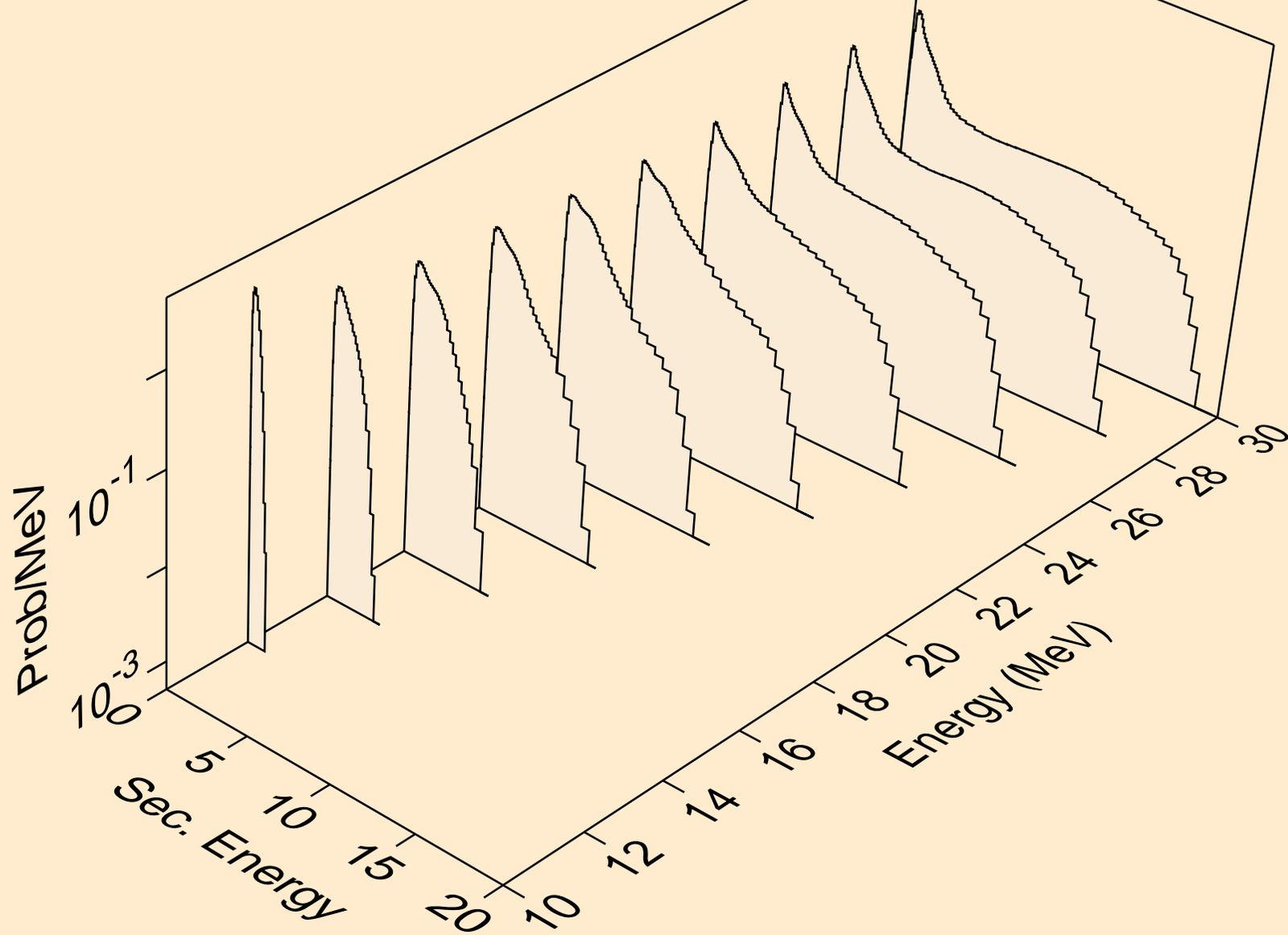DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,x)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
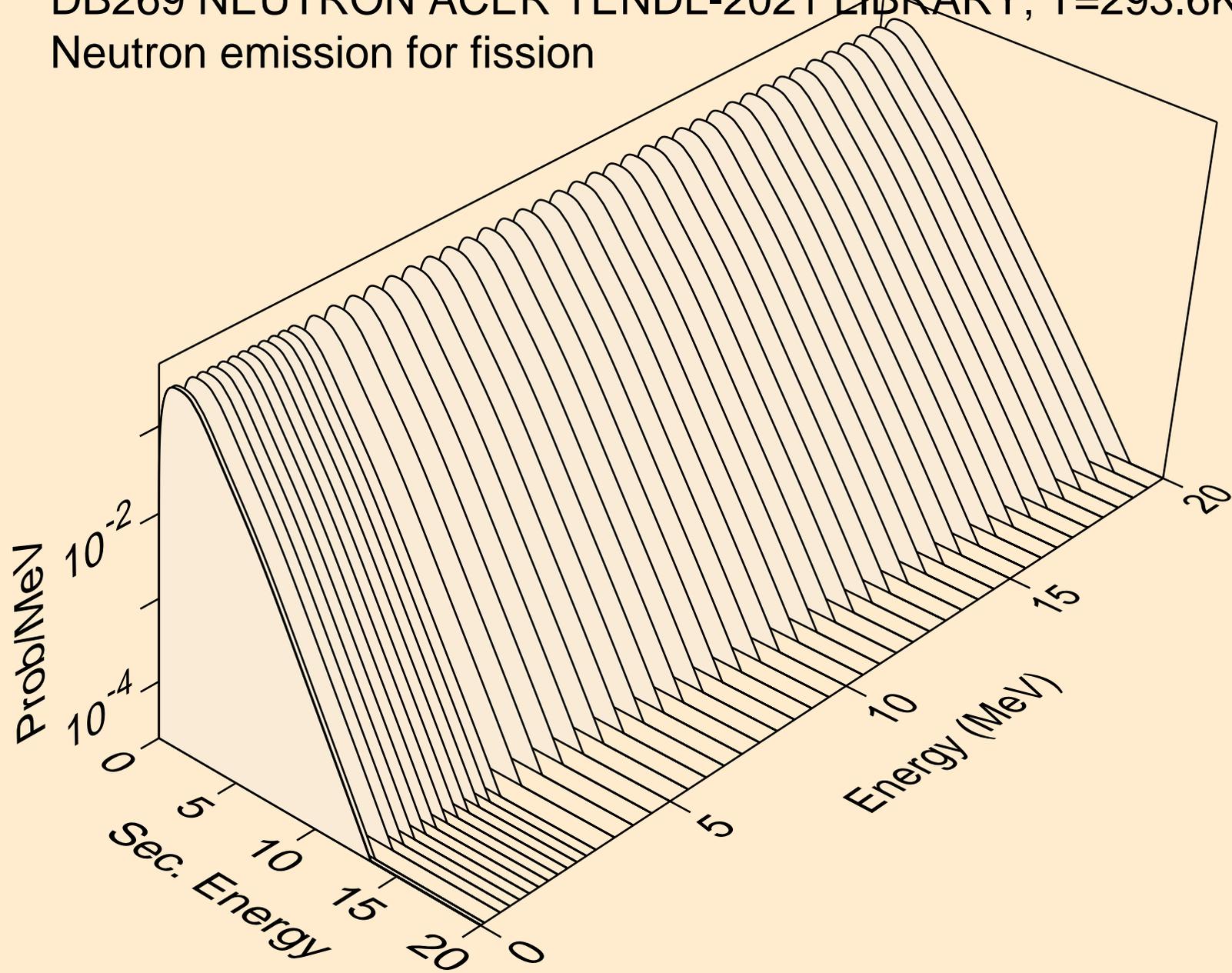Neutron emission for (n,2nd)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
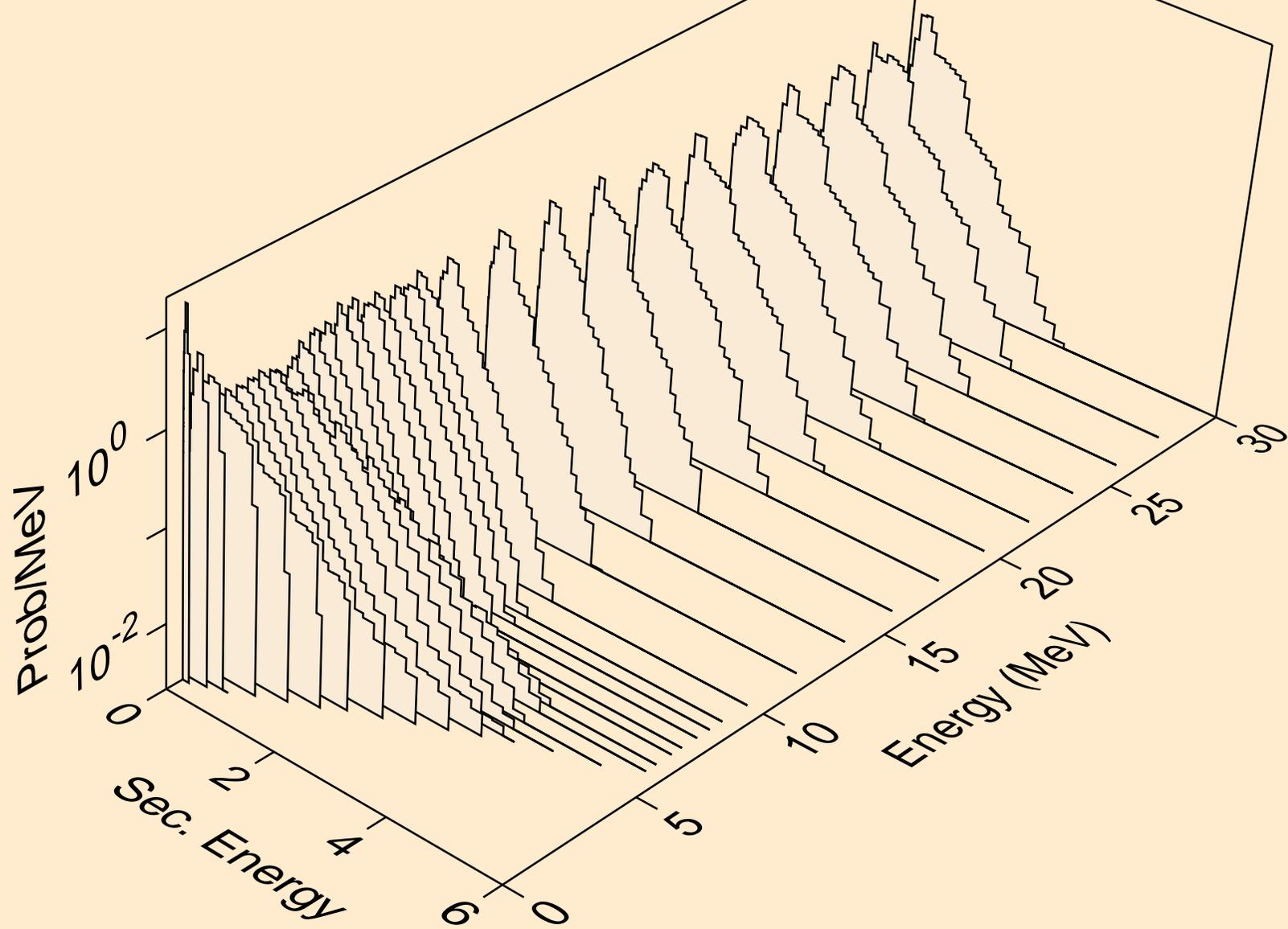Neutron emission for (n,2n)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
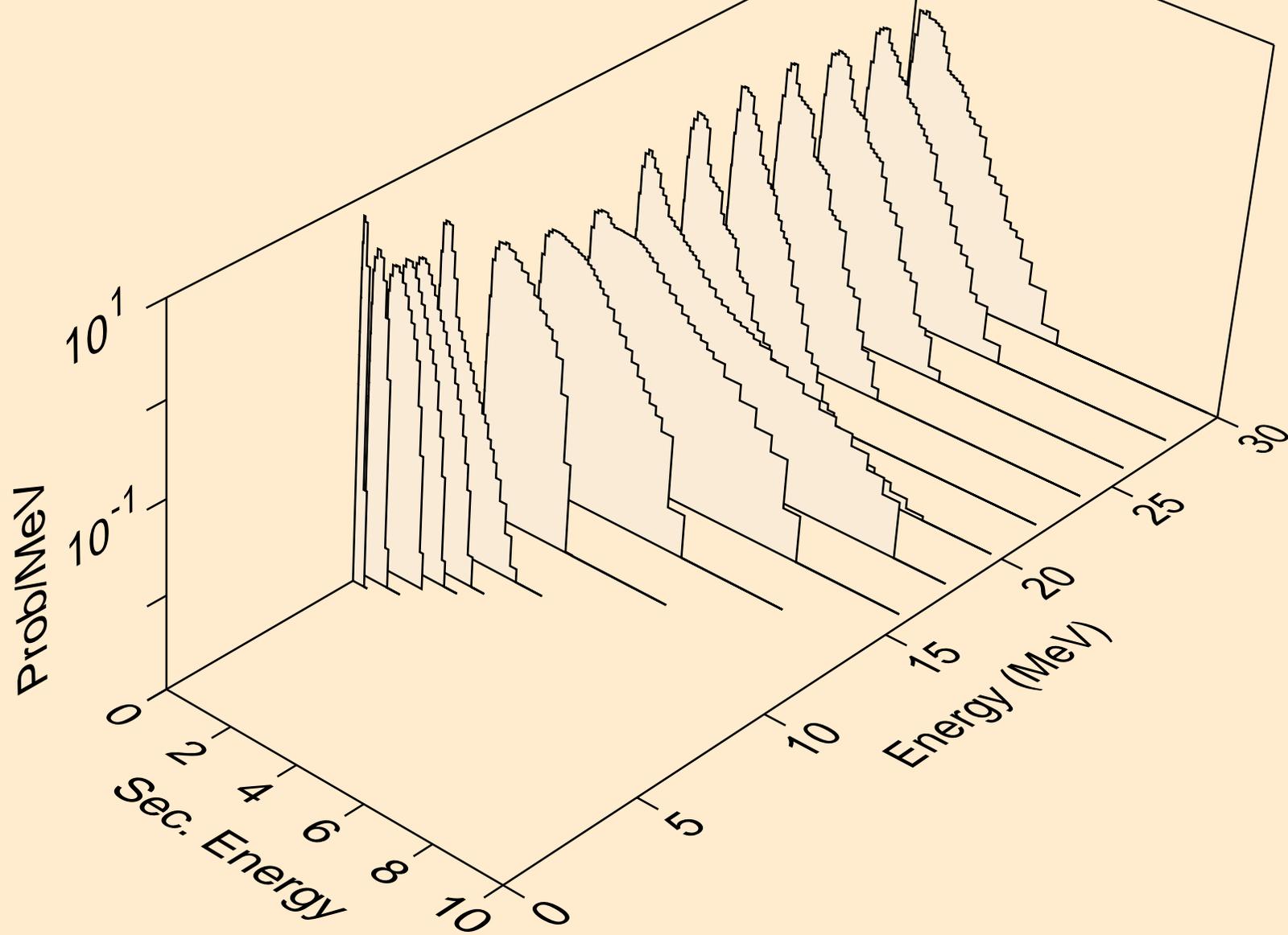Neutron emission for (n,3n)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
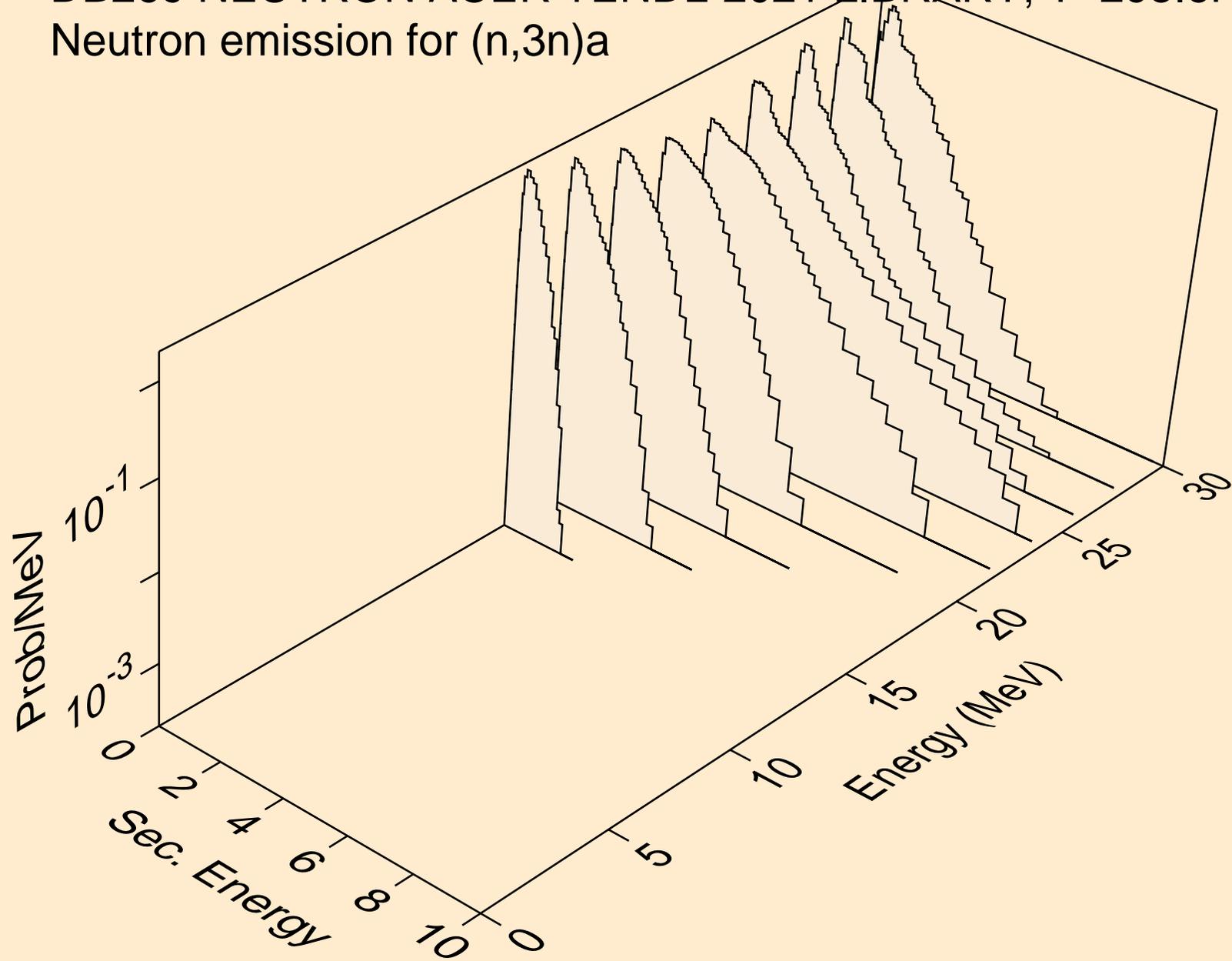Neutron emission for fission

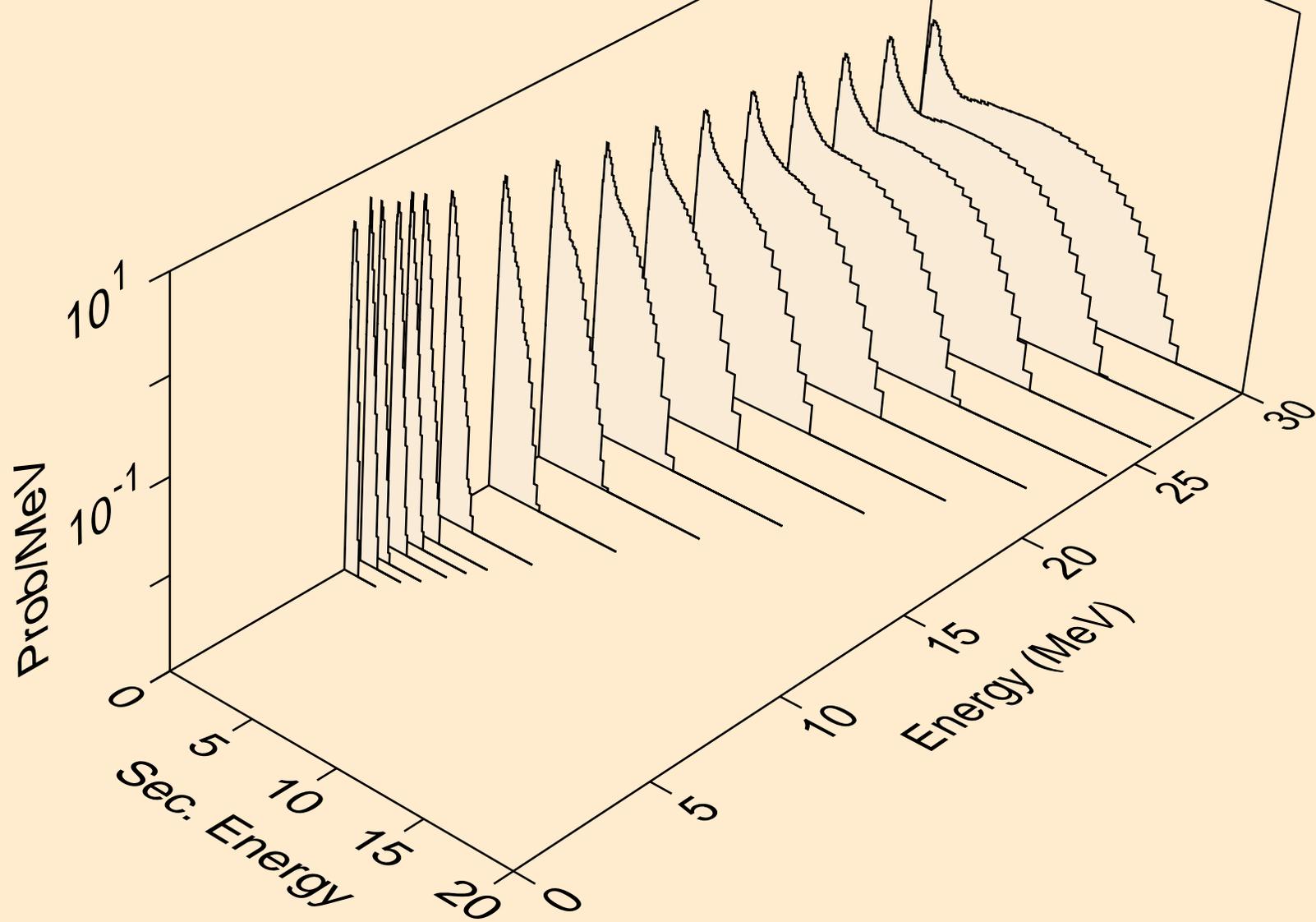DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,n*)a

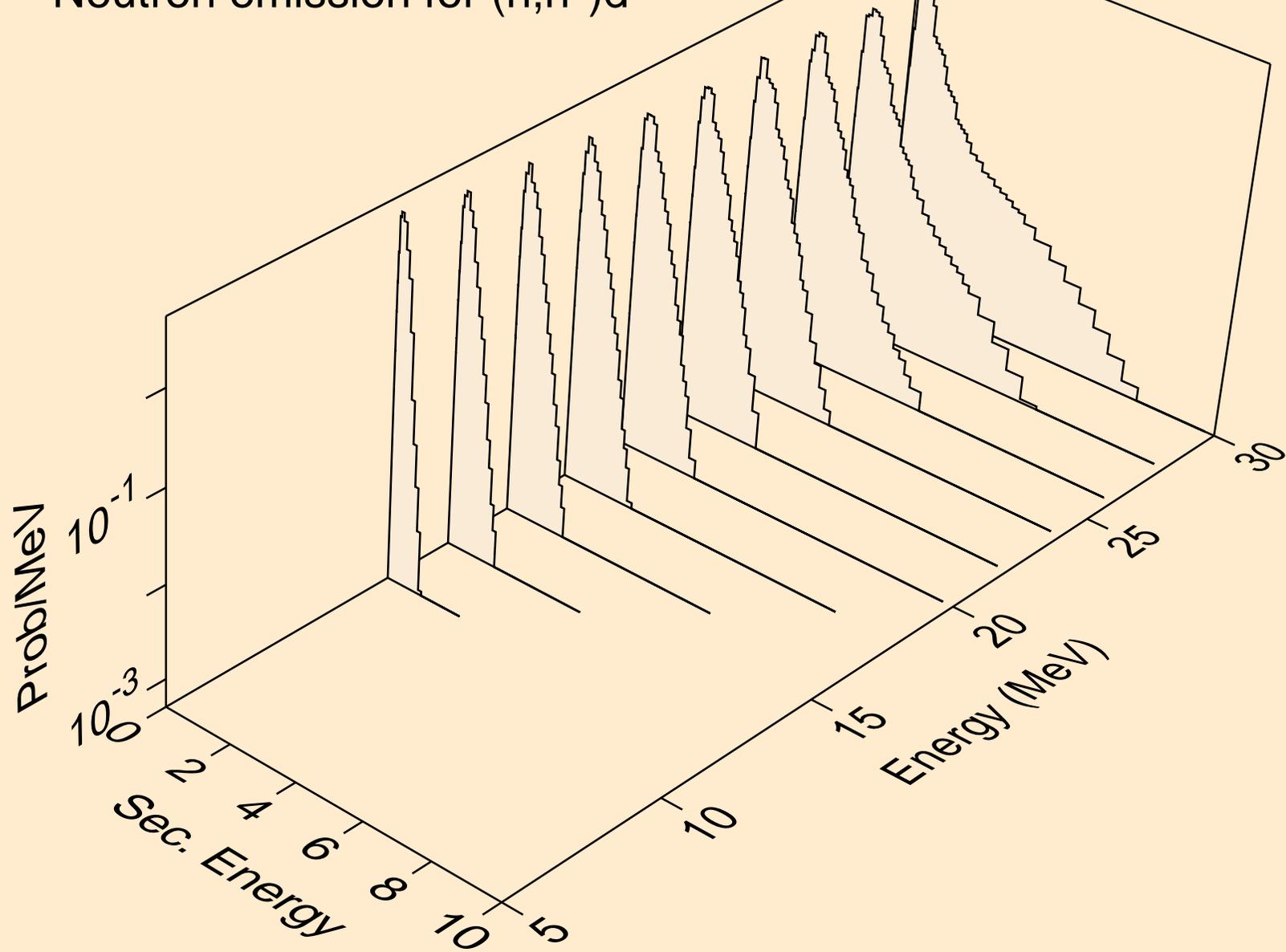DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,2n)a

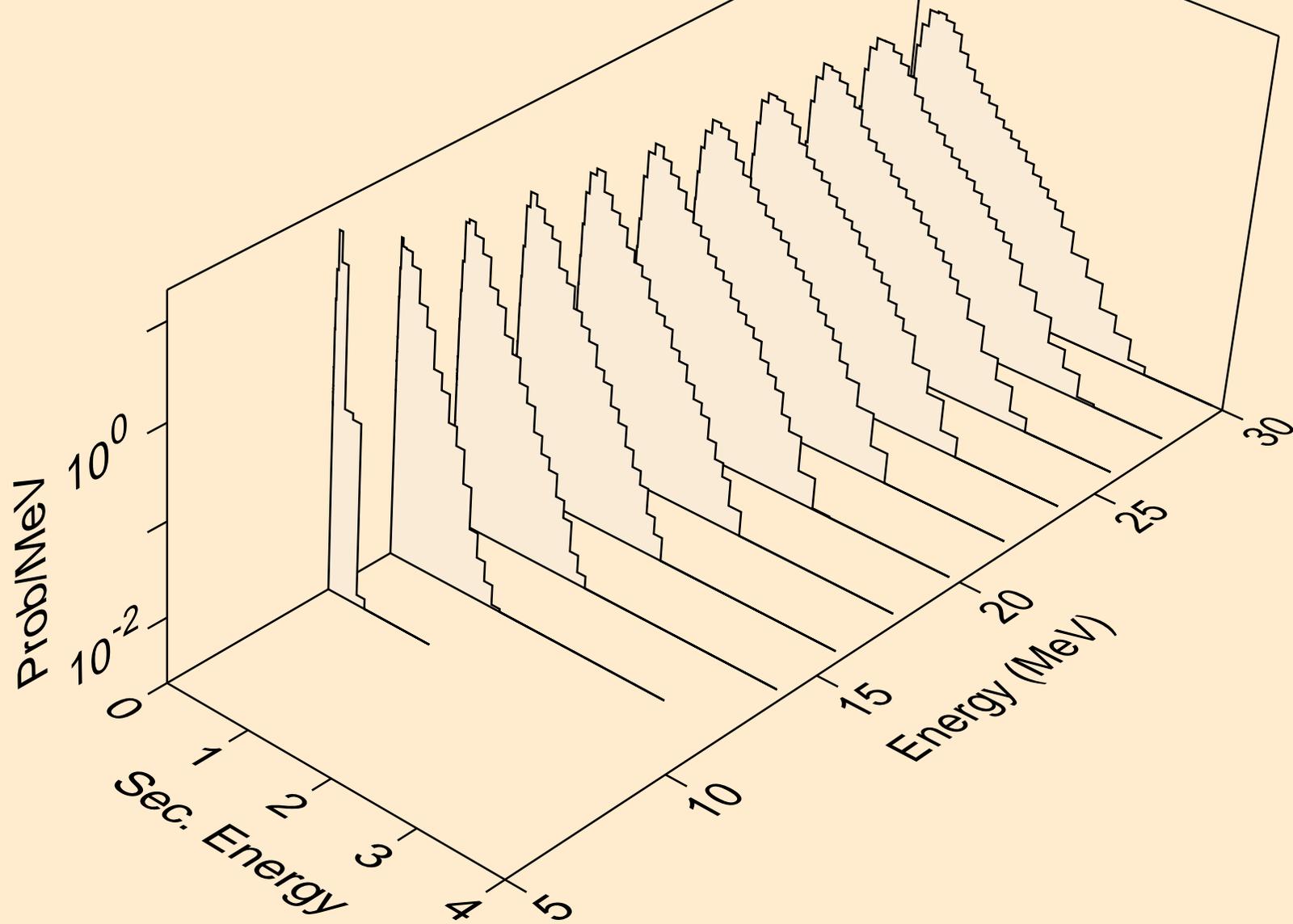DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,3n)a

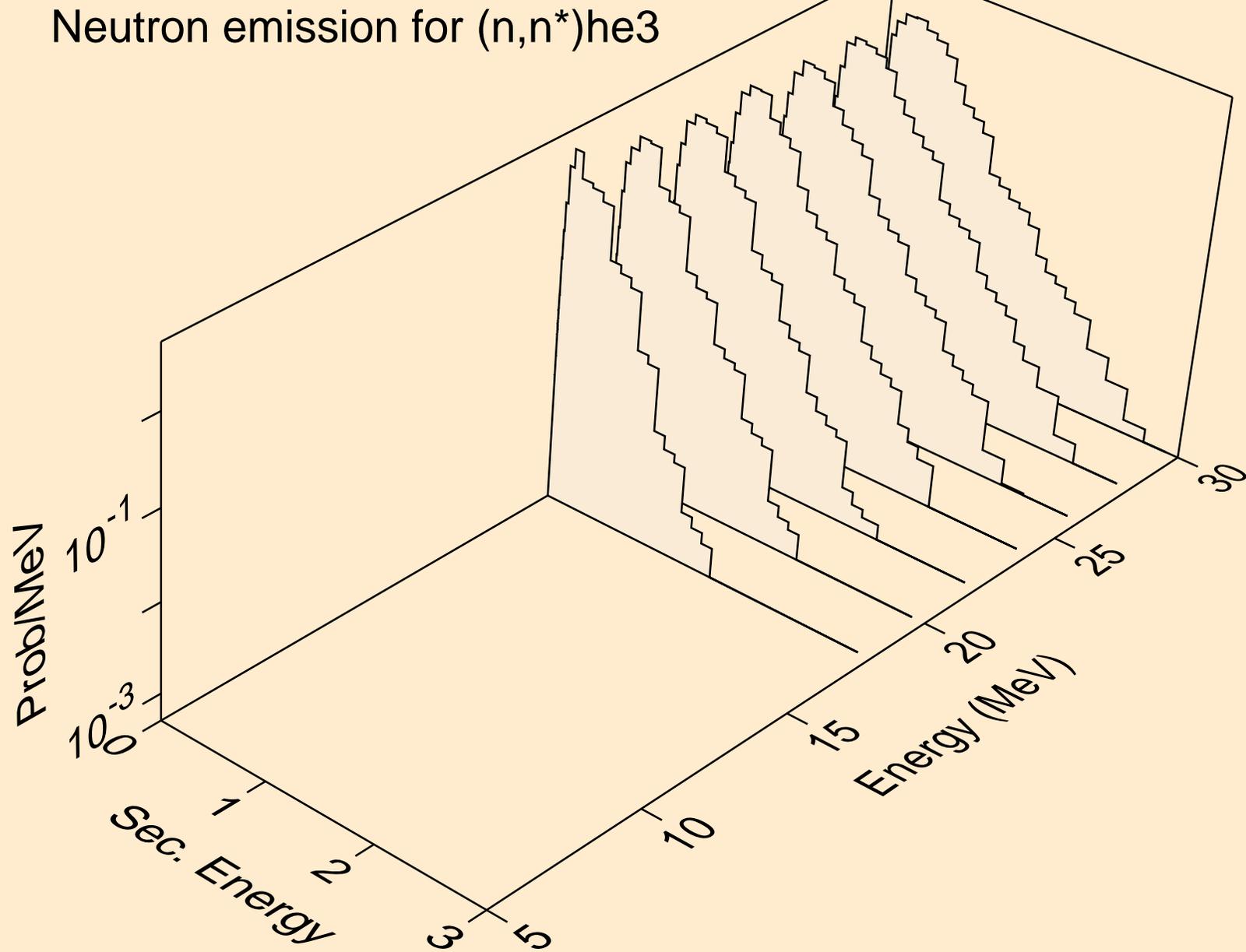DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,n*)p

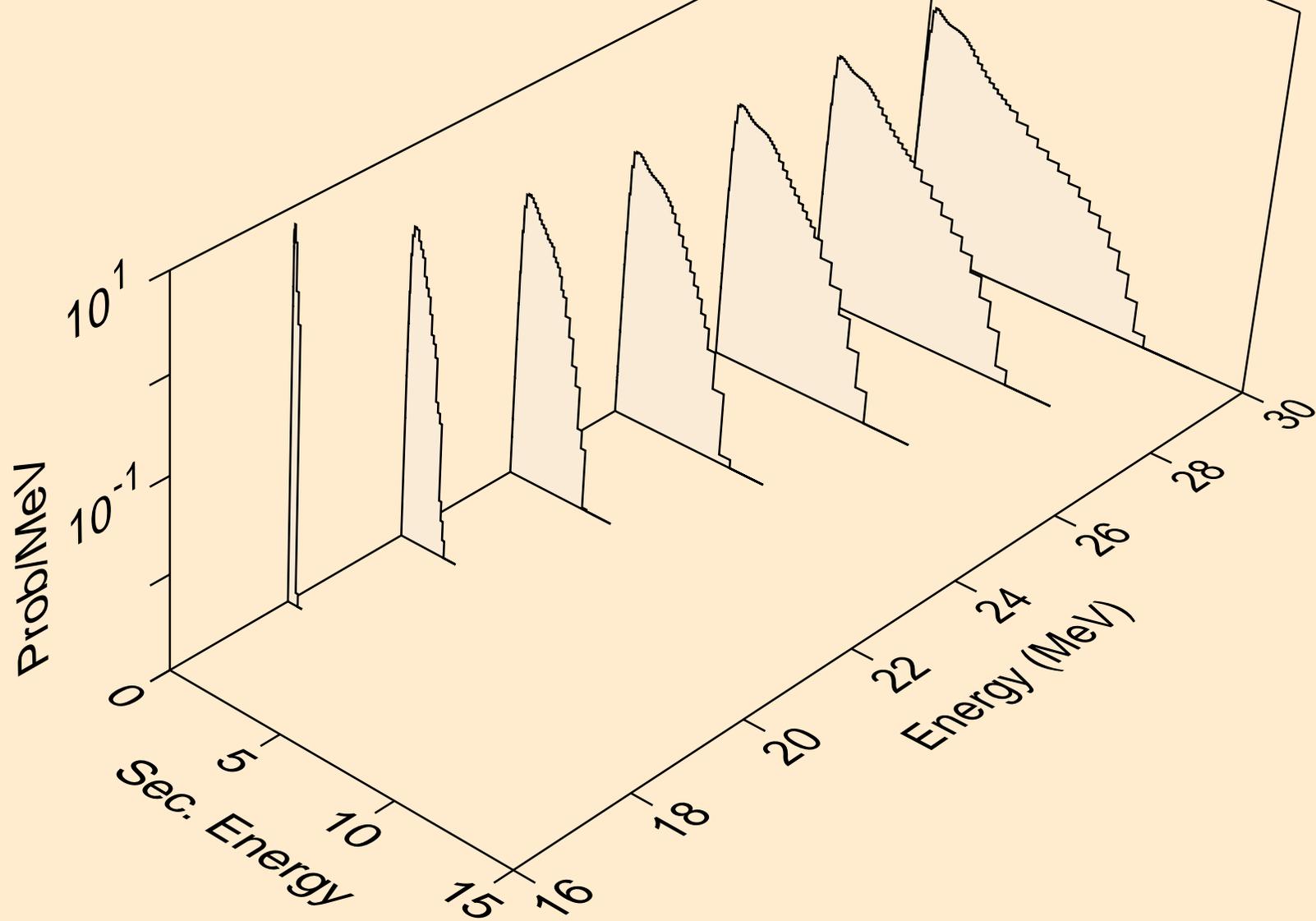DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,n*)d

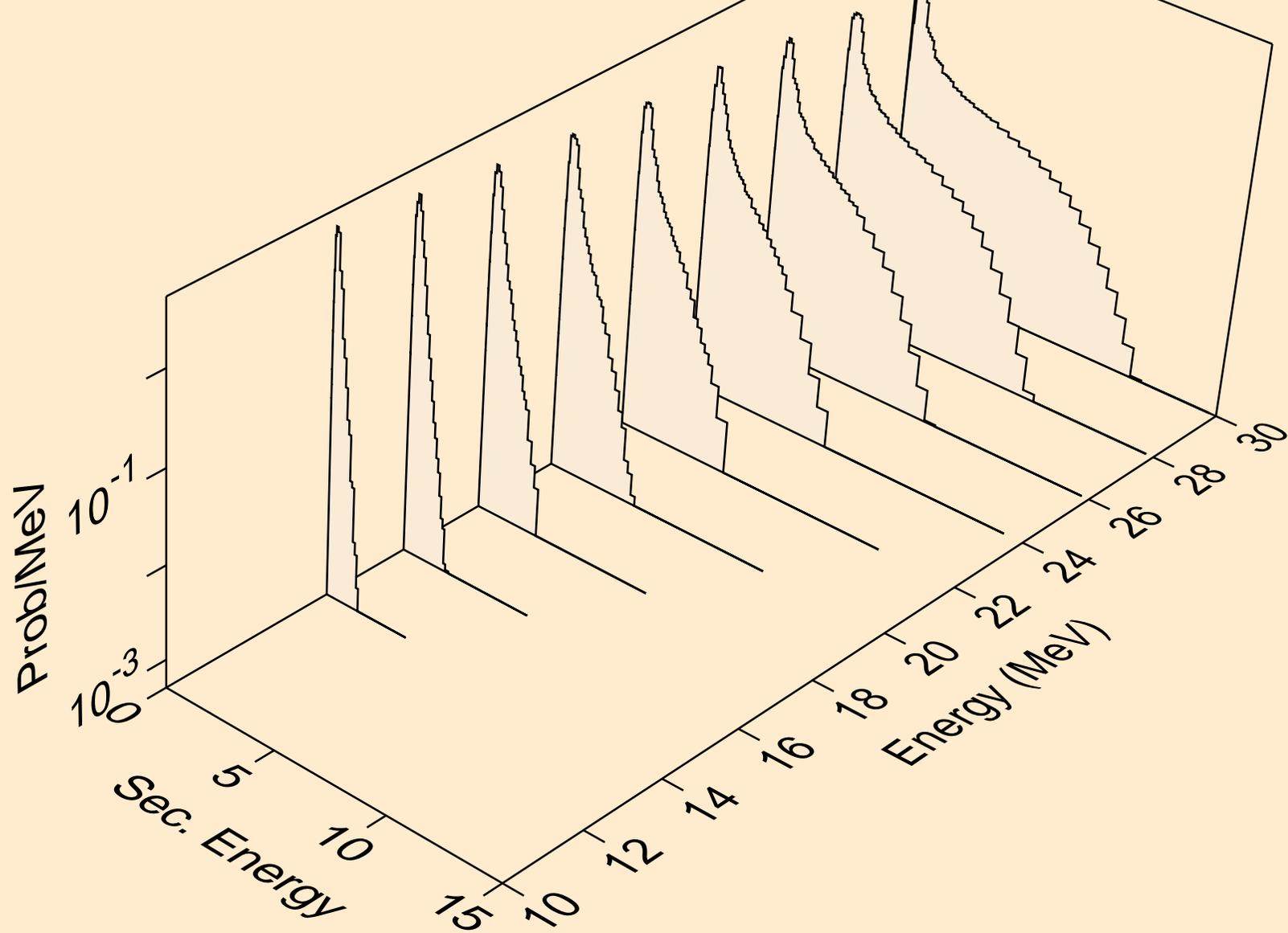DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,n*)t

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
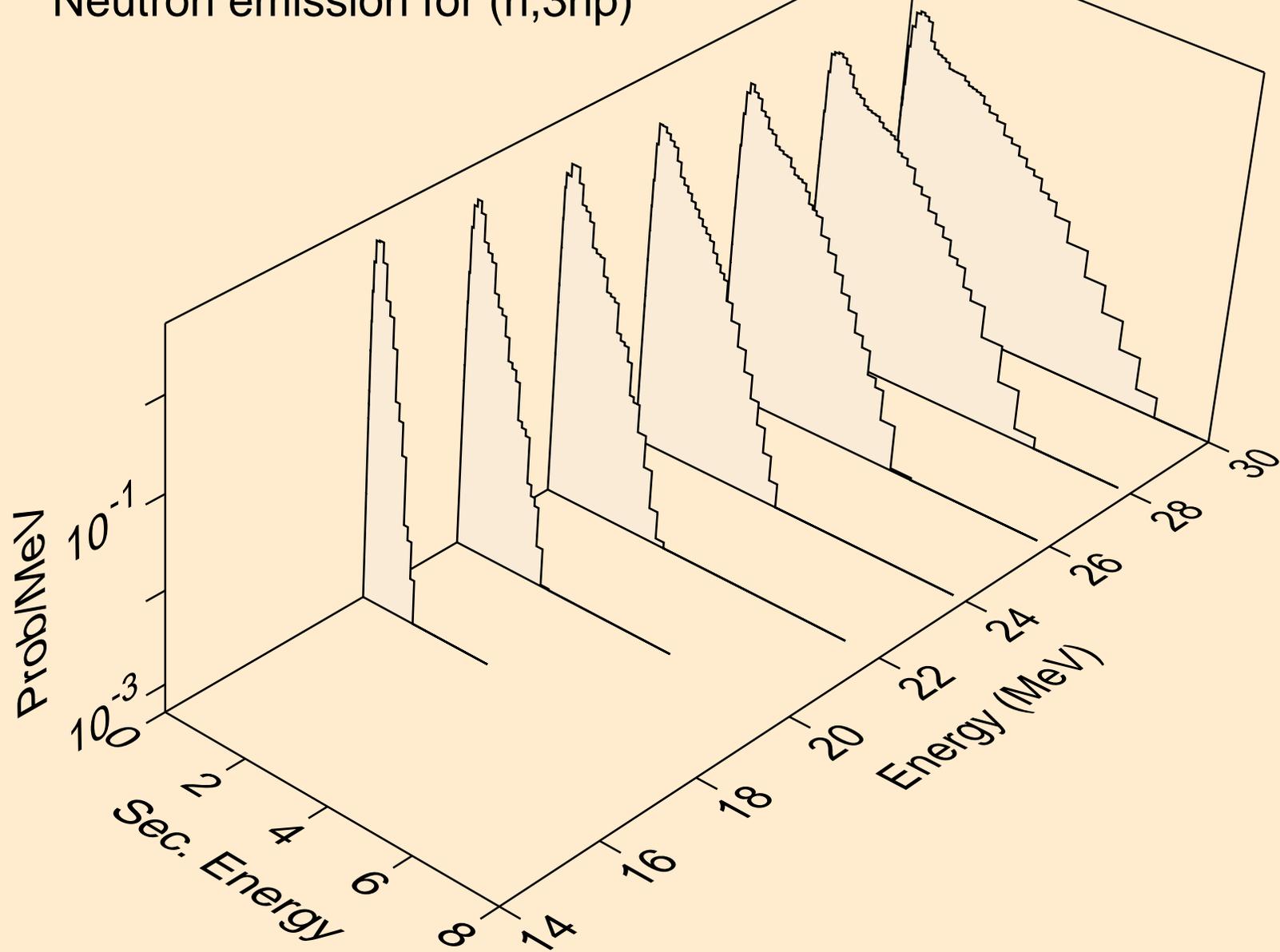Neutron emission for (n,n*)he3

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
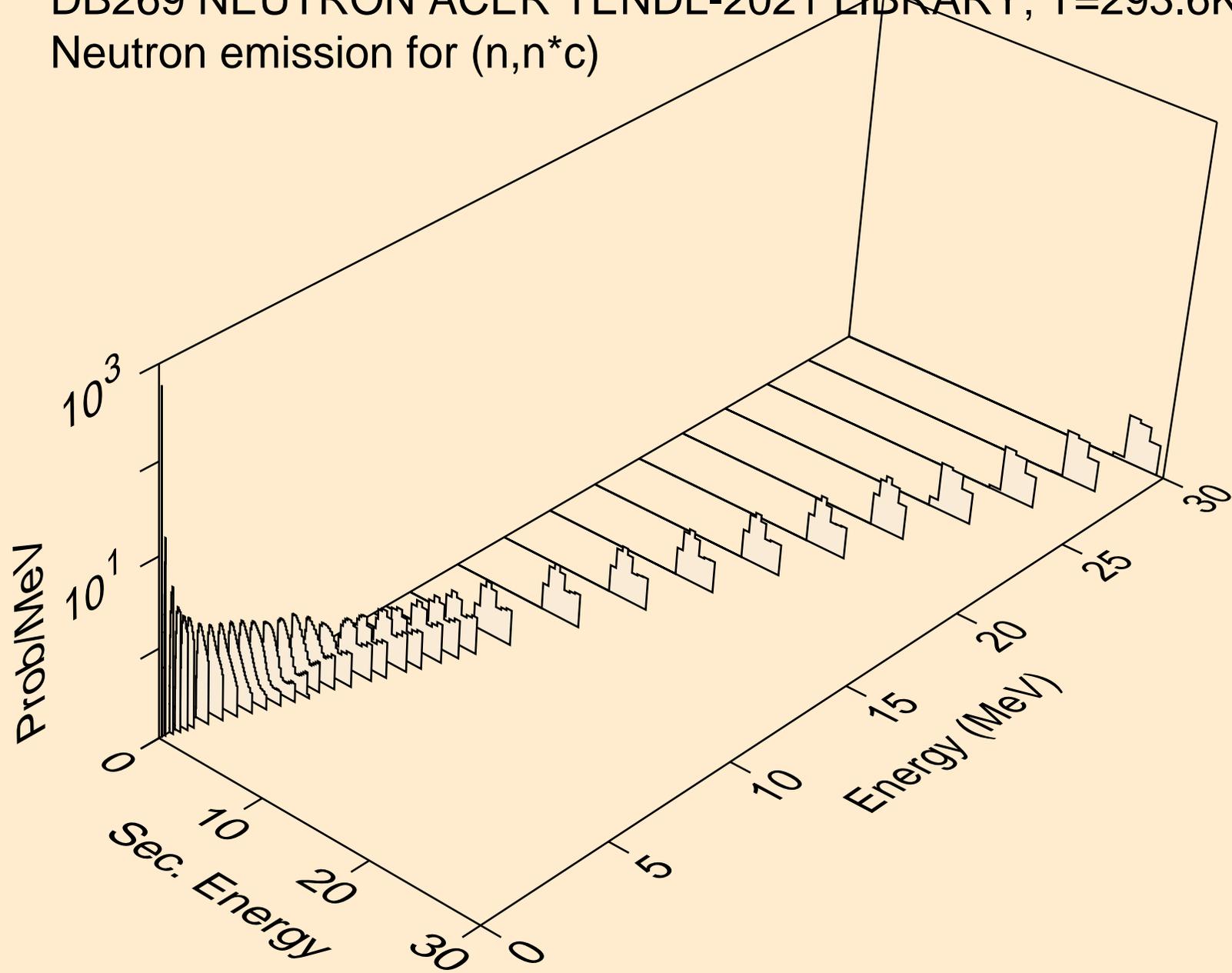Neutron emission for (n,4n)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,2np)

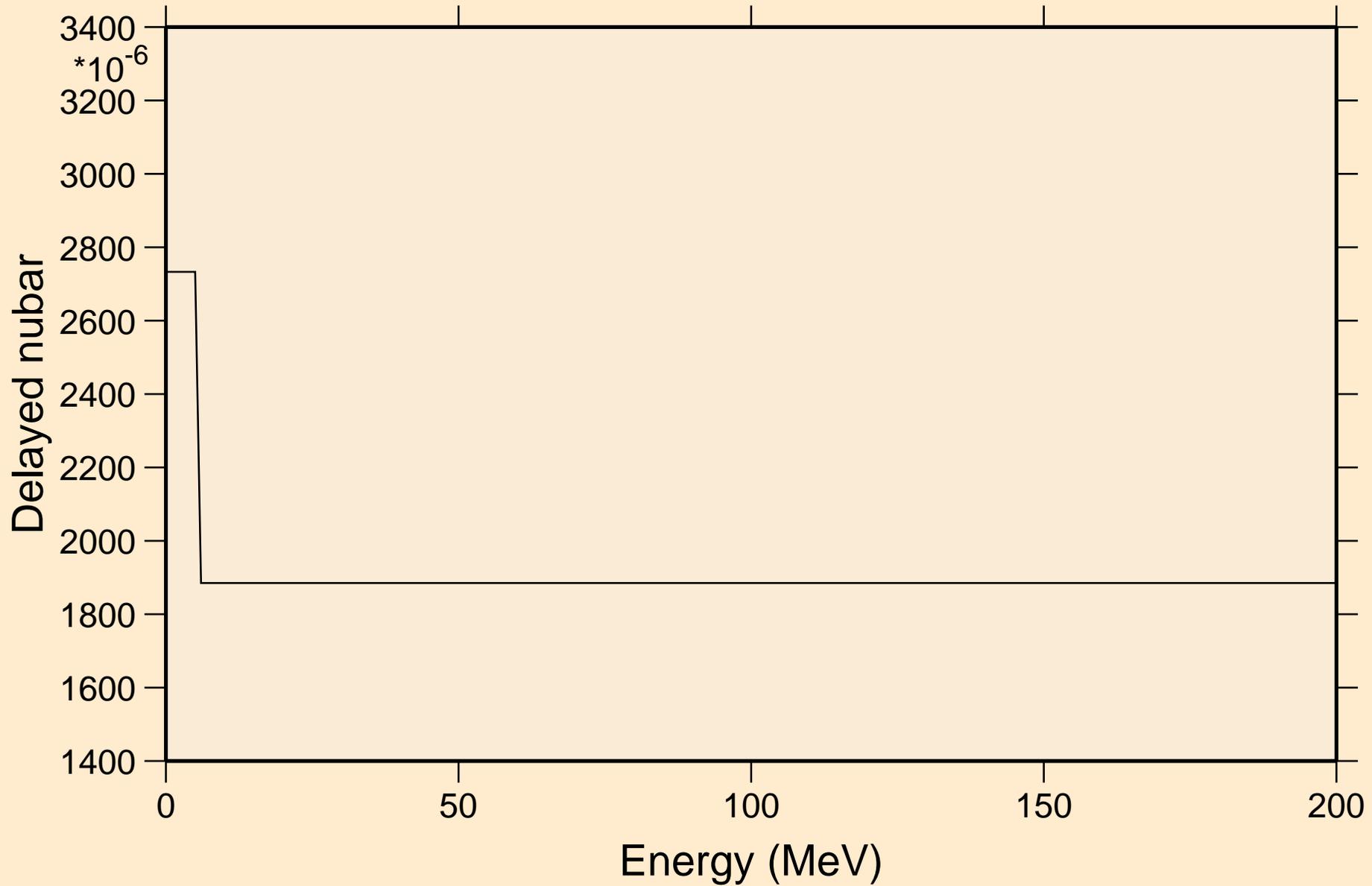DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,3np)

Prob/MeV

10^{-1}

10^{-3}

10^0

Sec. Energy

2

4

6

8

Energy (MeV)

14

16

18

20

22

24

26

28

30

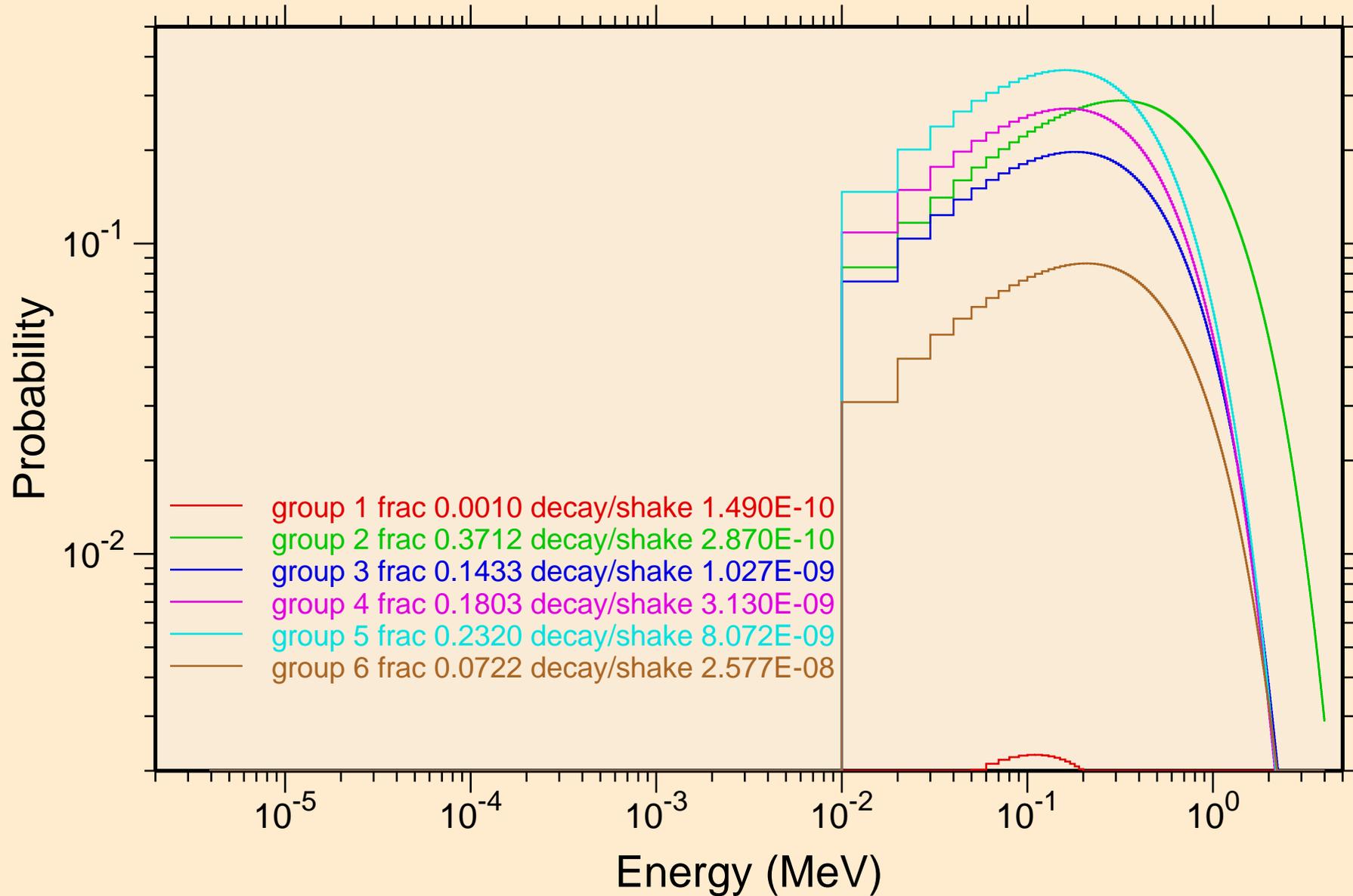DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Neutron emission for (n,n*c)

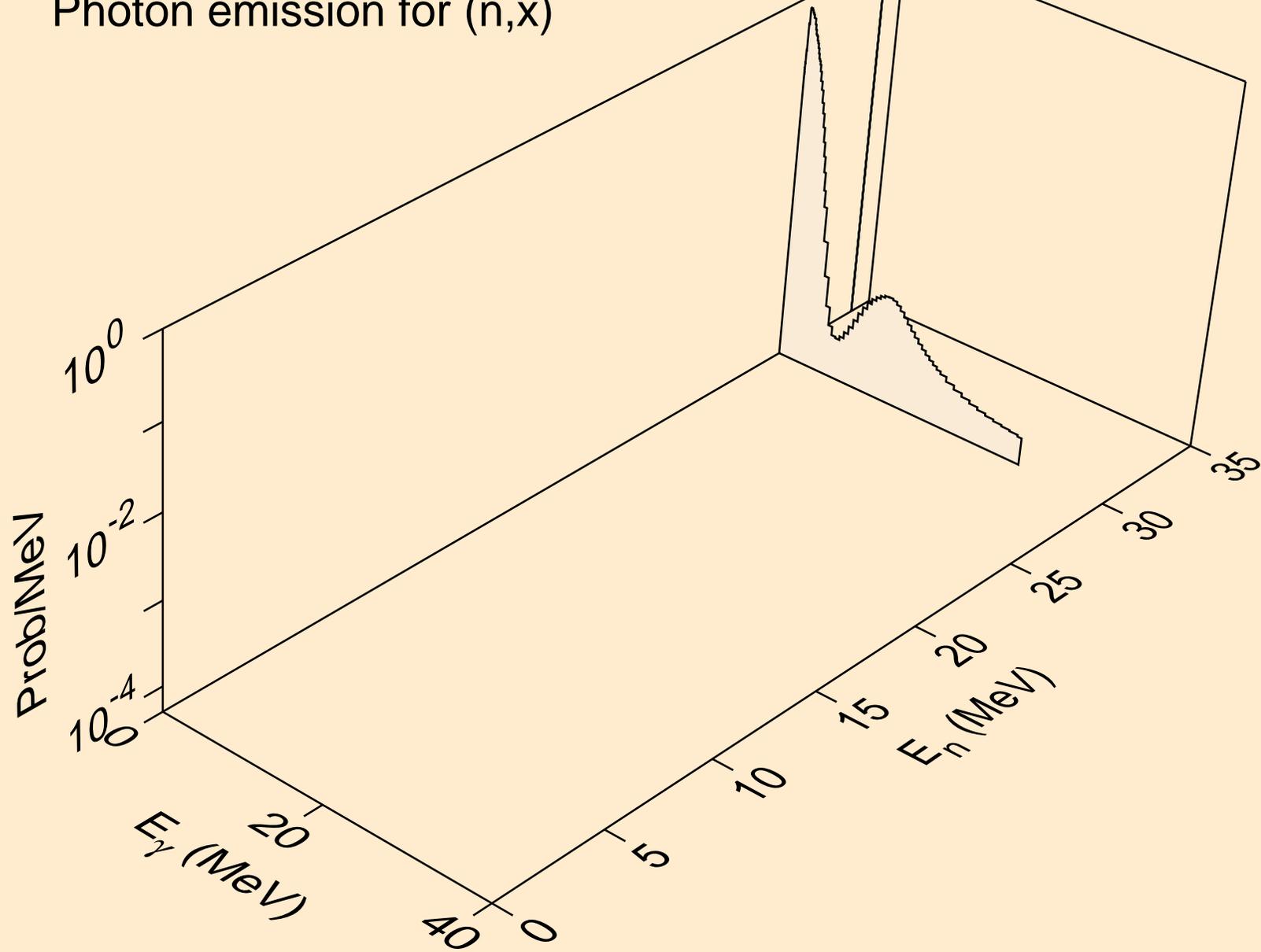DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
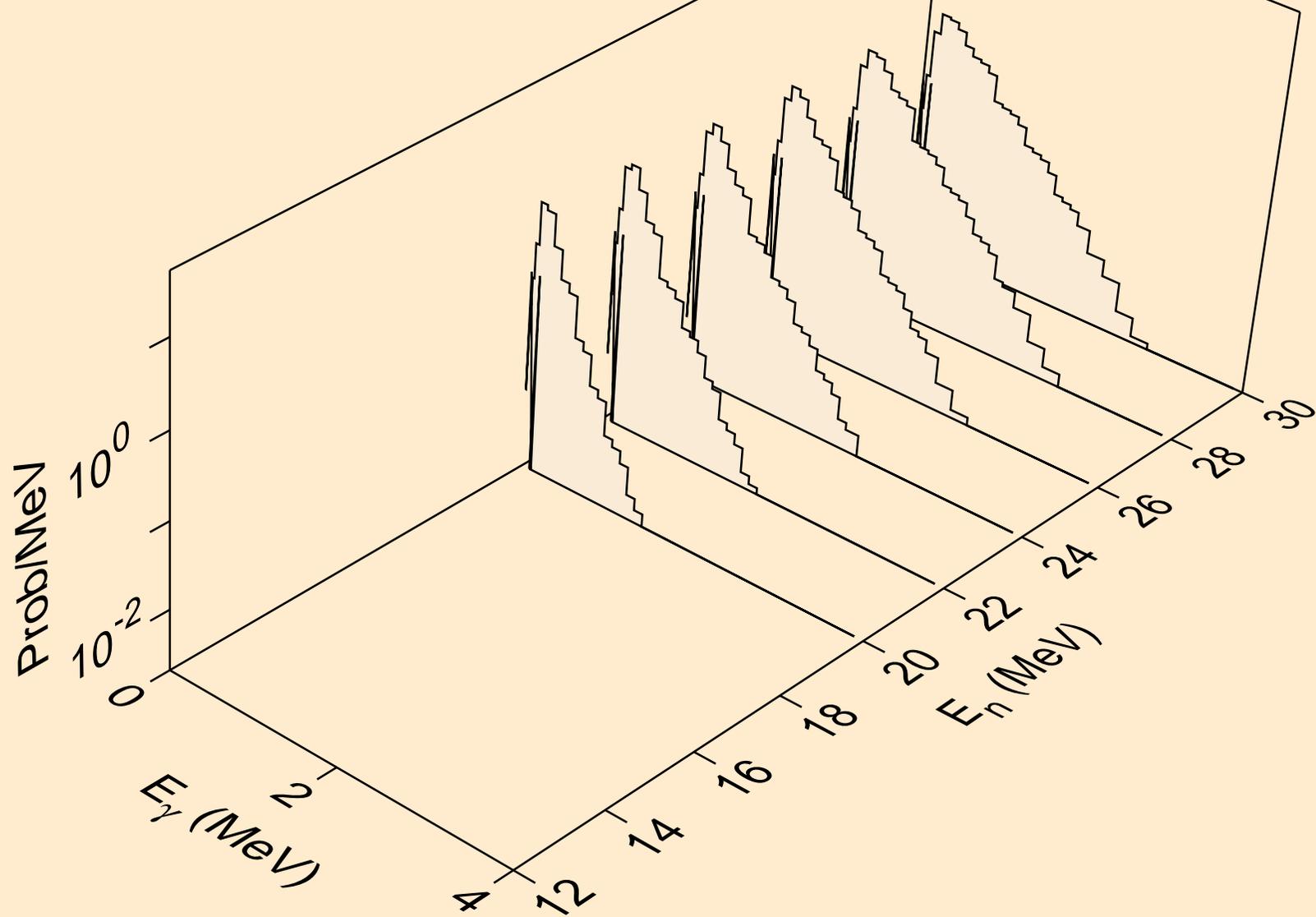Delayed nubar

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Delayed neutron spectra

group 1 frac 0.0010 decay/shake 1.490E-10
group 2 frac 0.3712 decay/shake 2.870E-10
group 3 frac 0.1433 decay/shake 1.027E-09
group 4 frac 0.1803 decay/shake 3.130E-09
group 5 frac 0.2320 decay/shake 8.072E-09
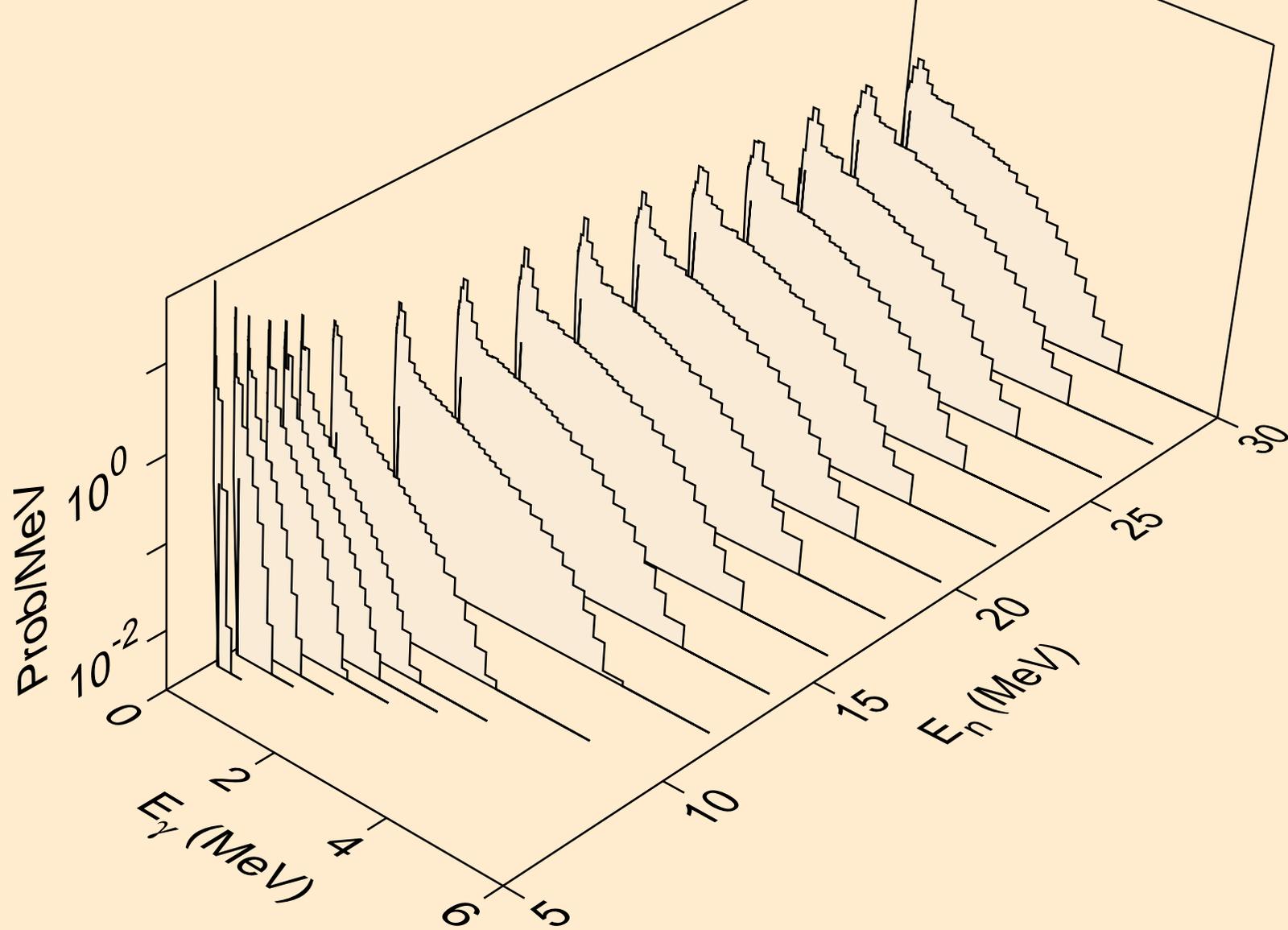group 6 frac 0.0722 decay/shake 2.577E-08

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
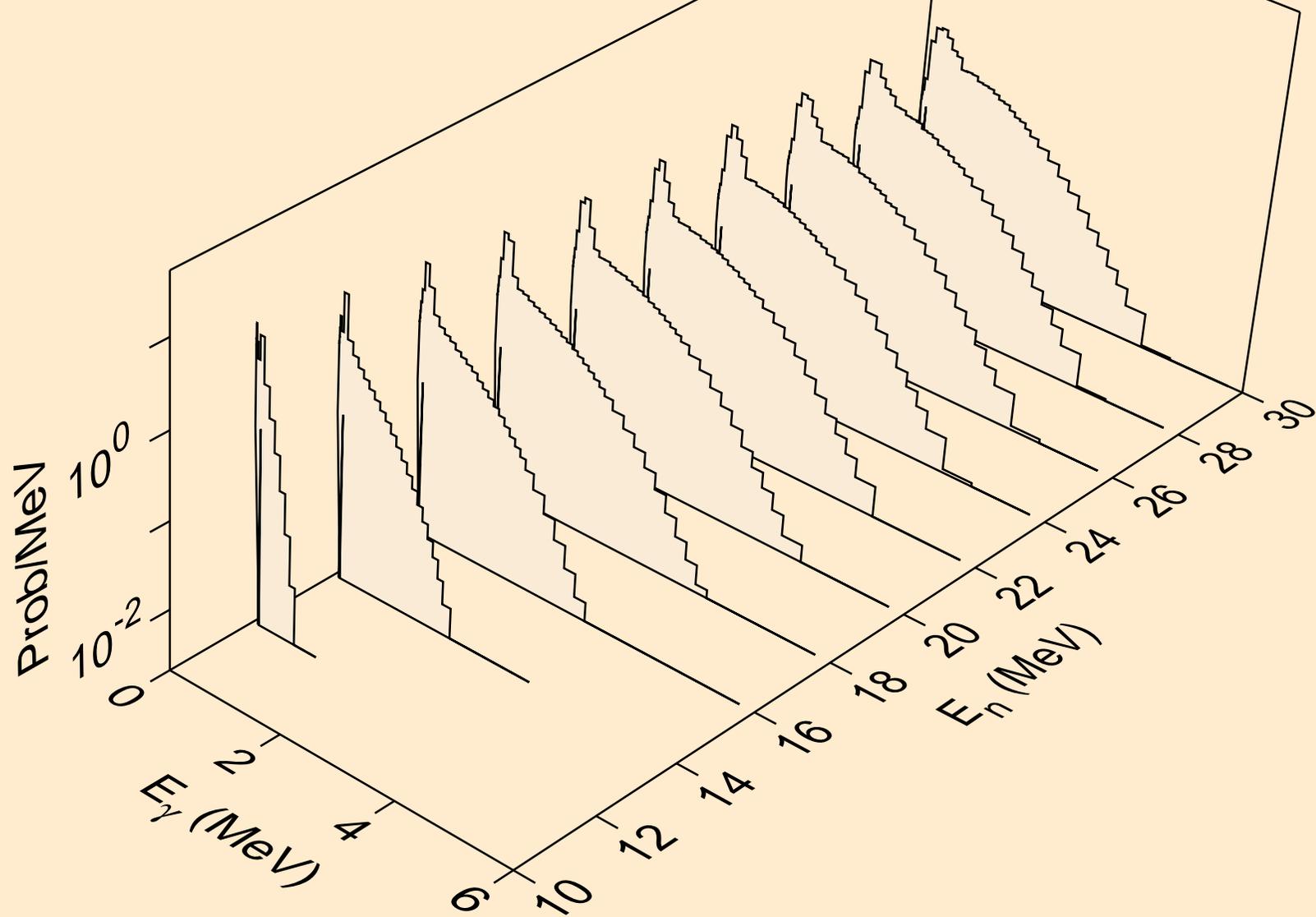Photon emission for (n,x)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
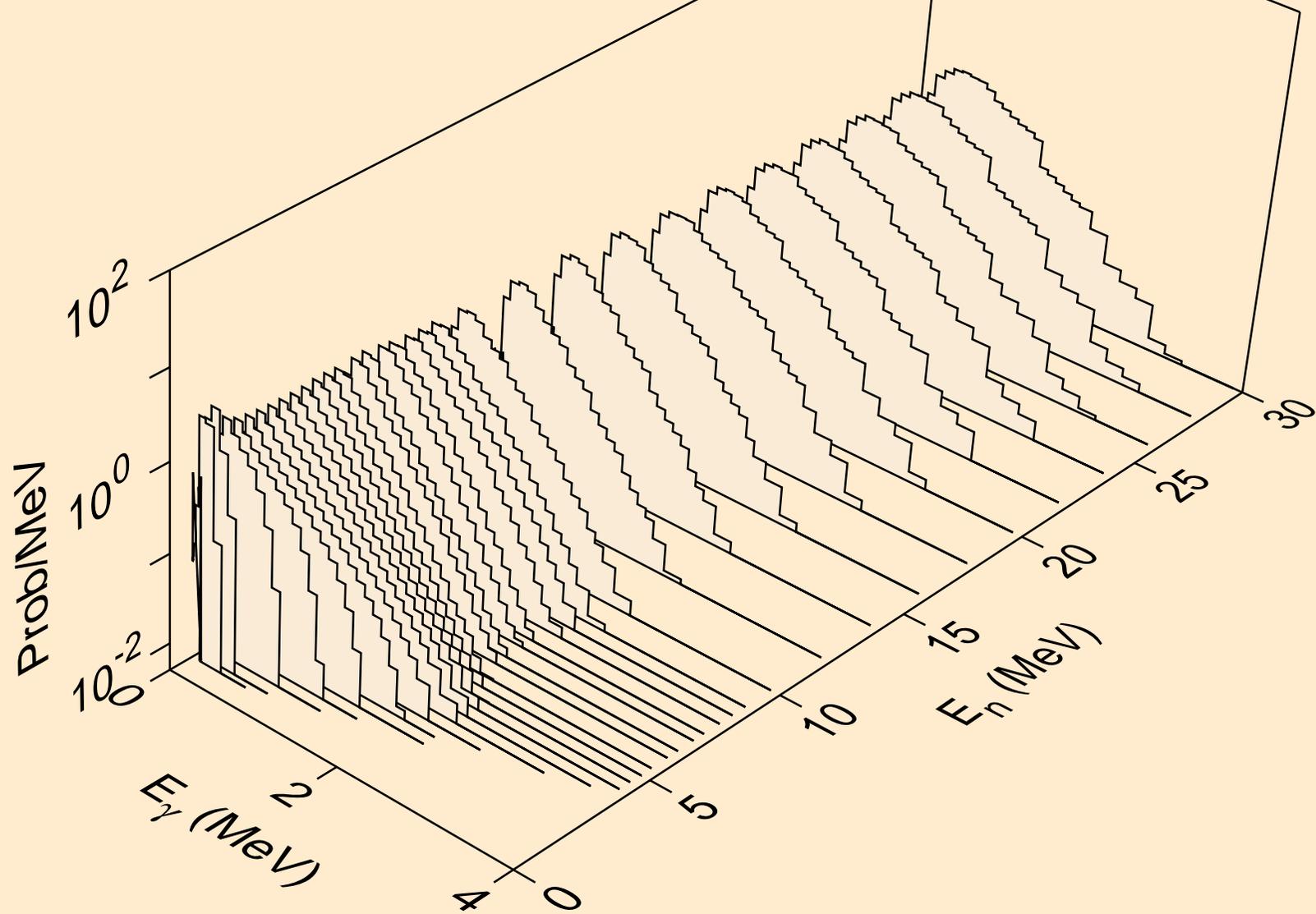Photon emission for (n,2nd)

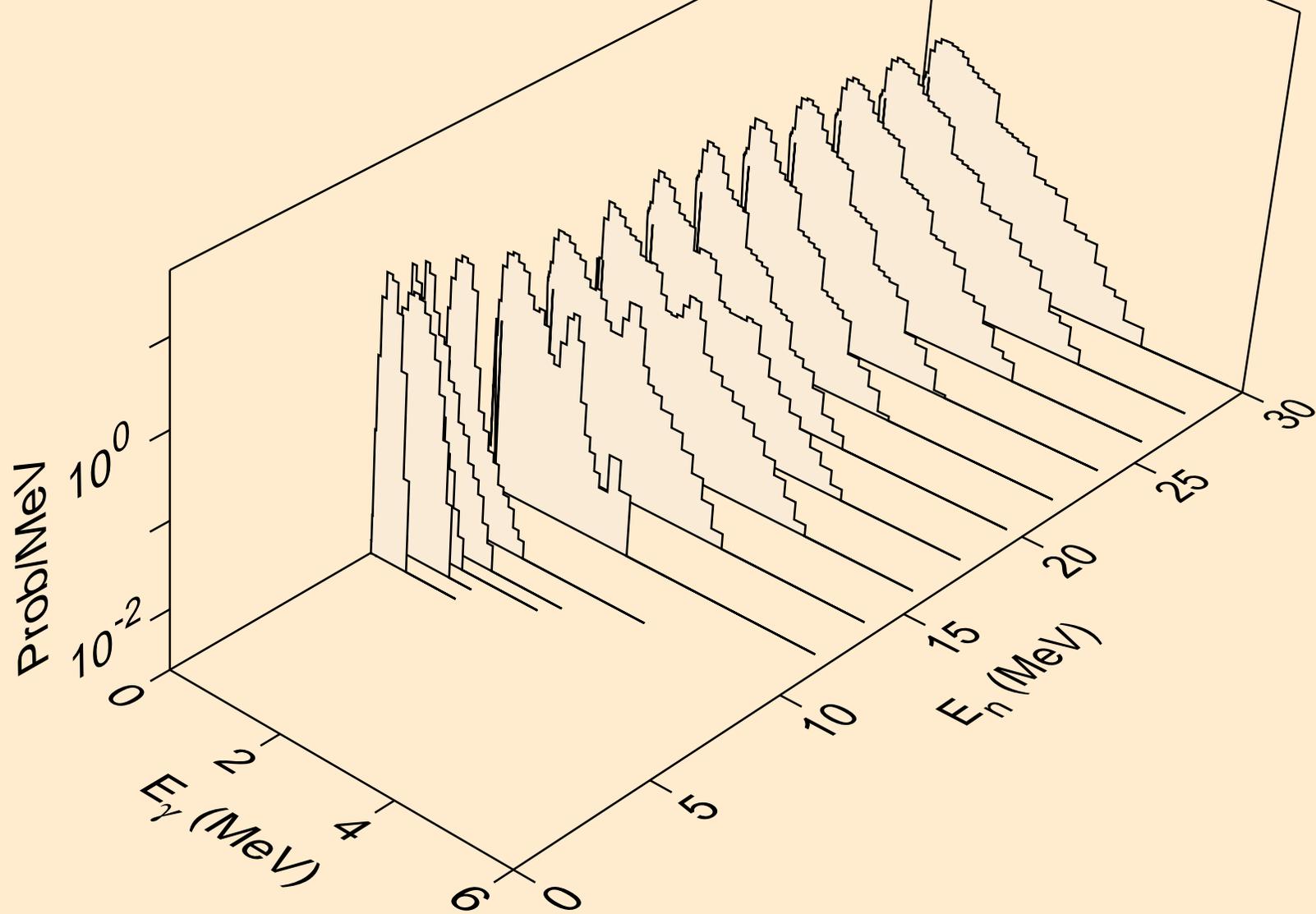DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,2n)

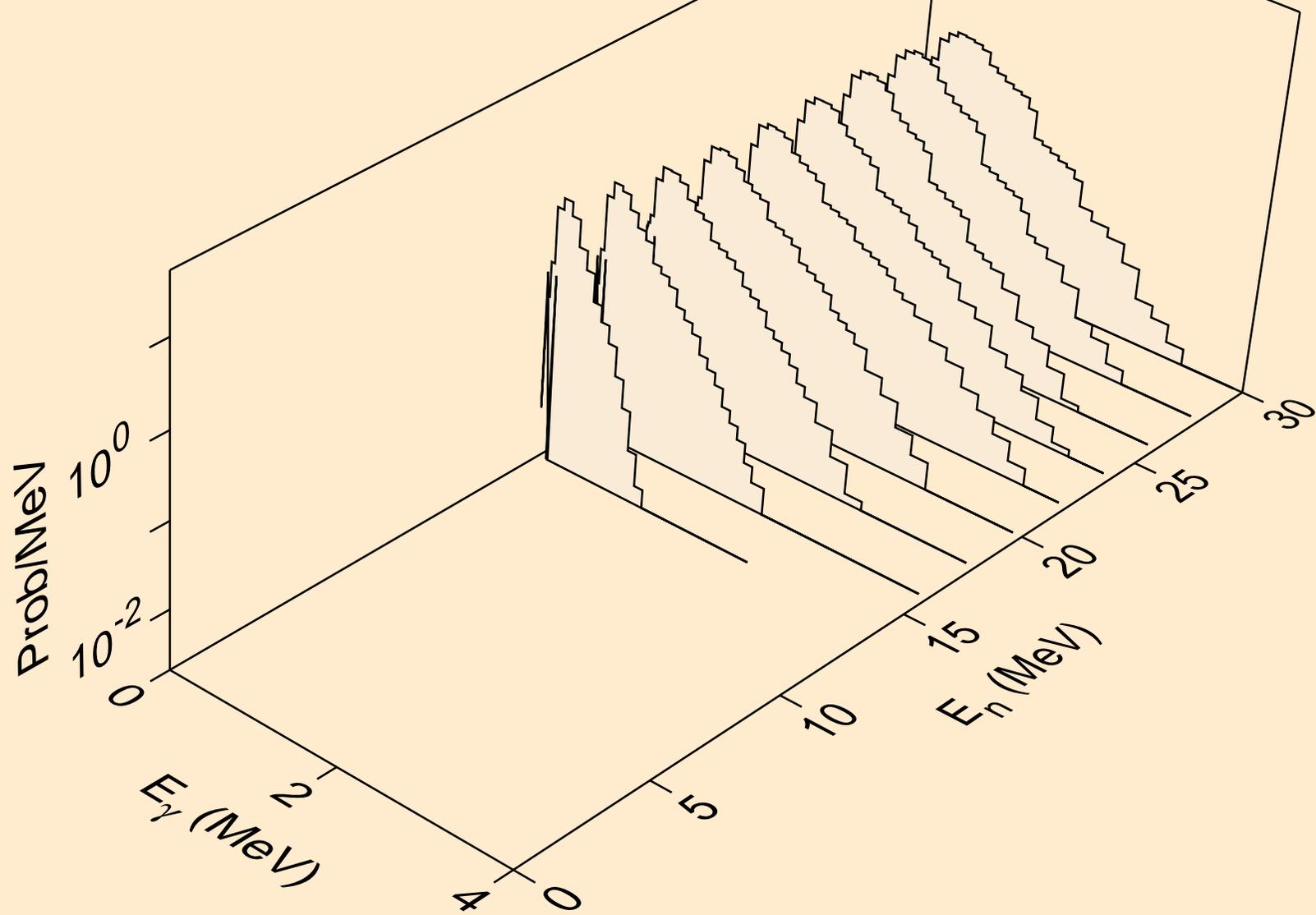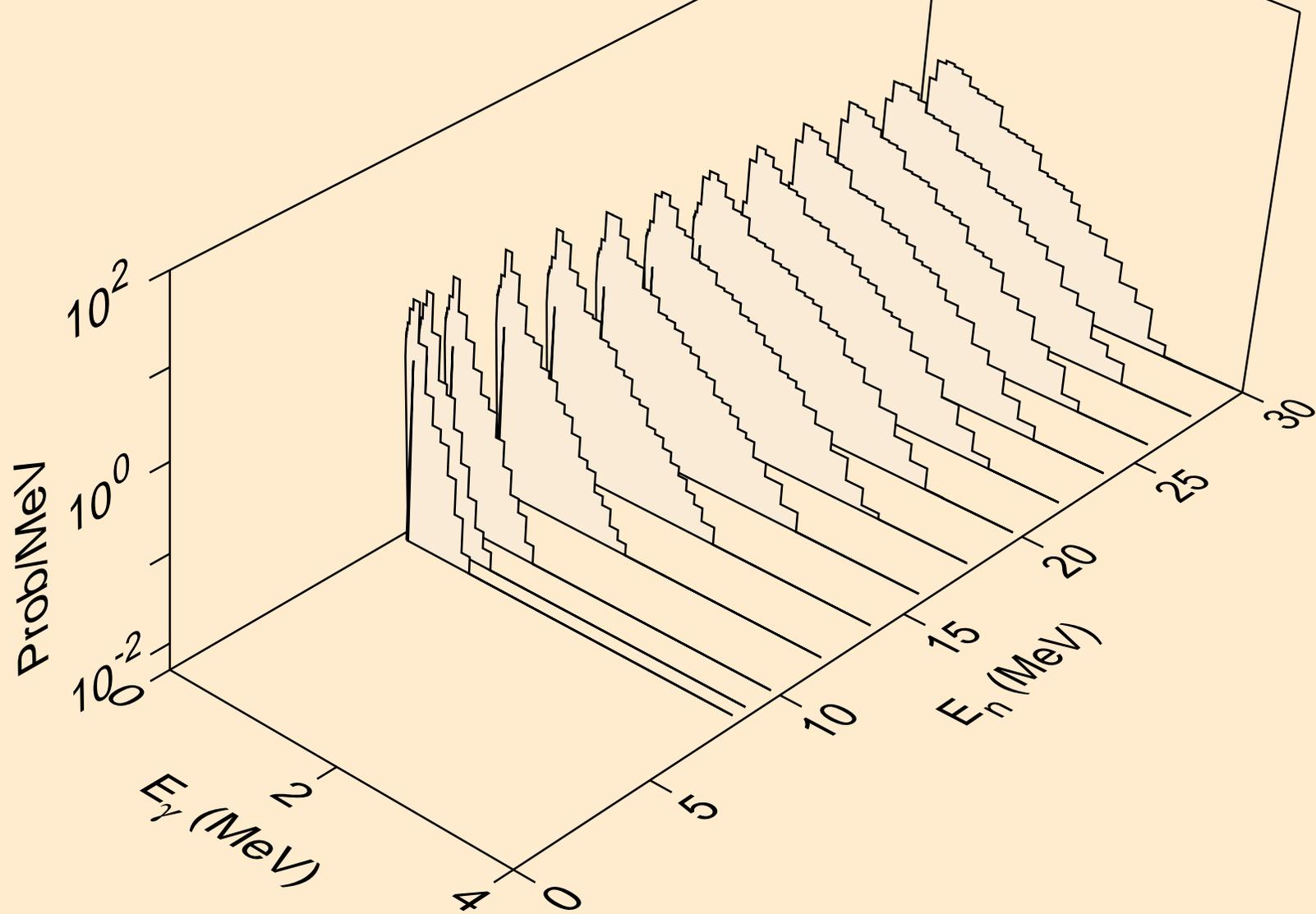DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,3n)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*)a

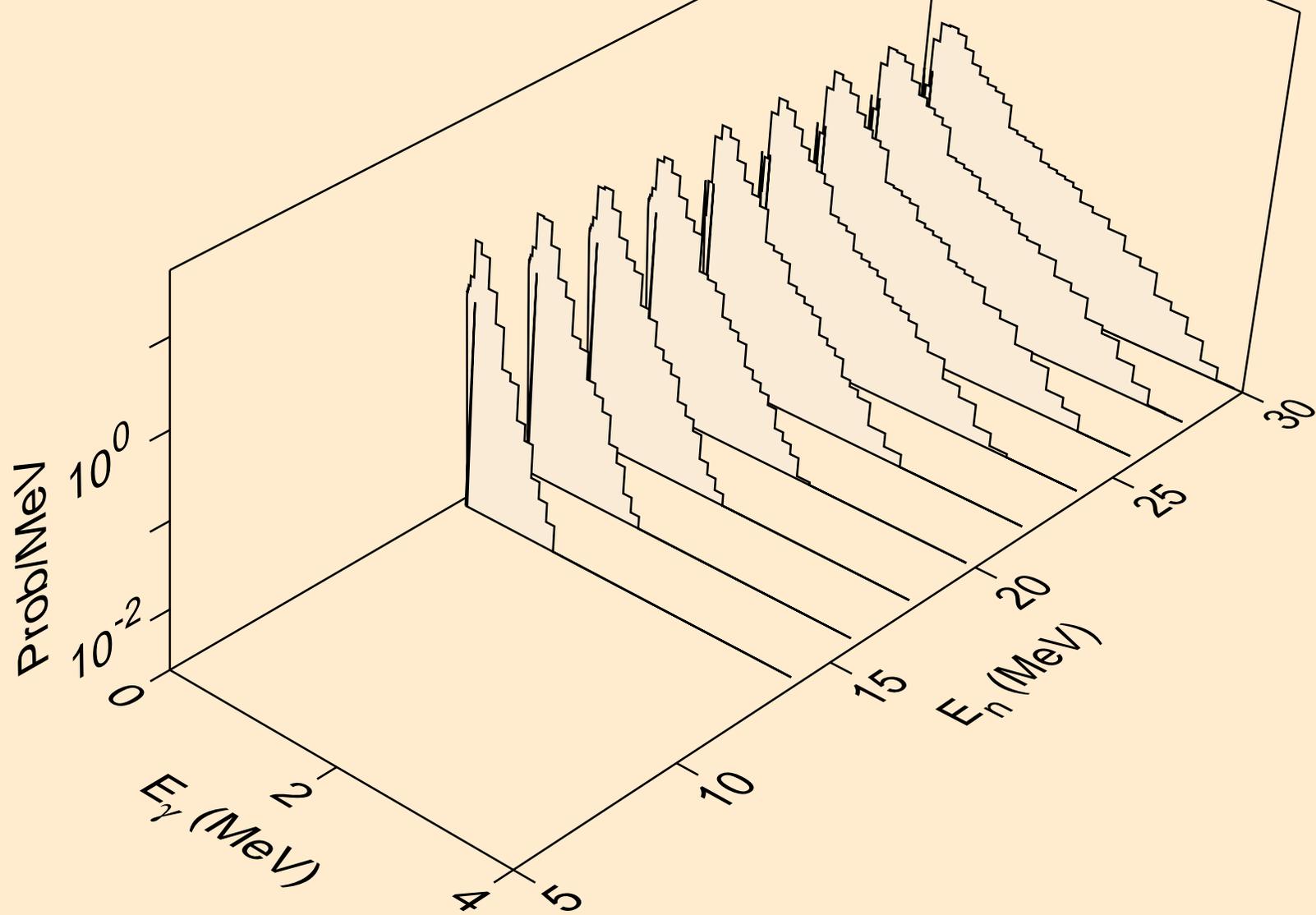DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,2n)a

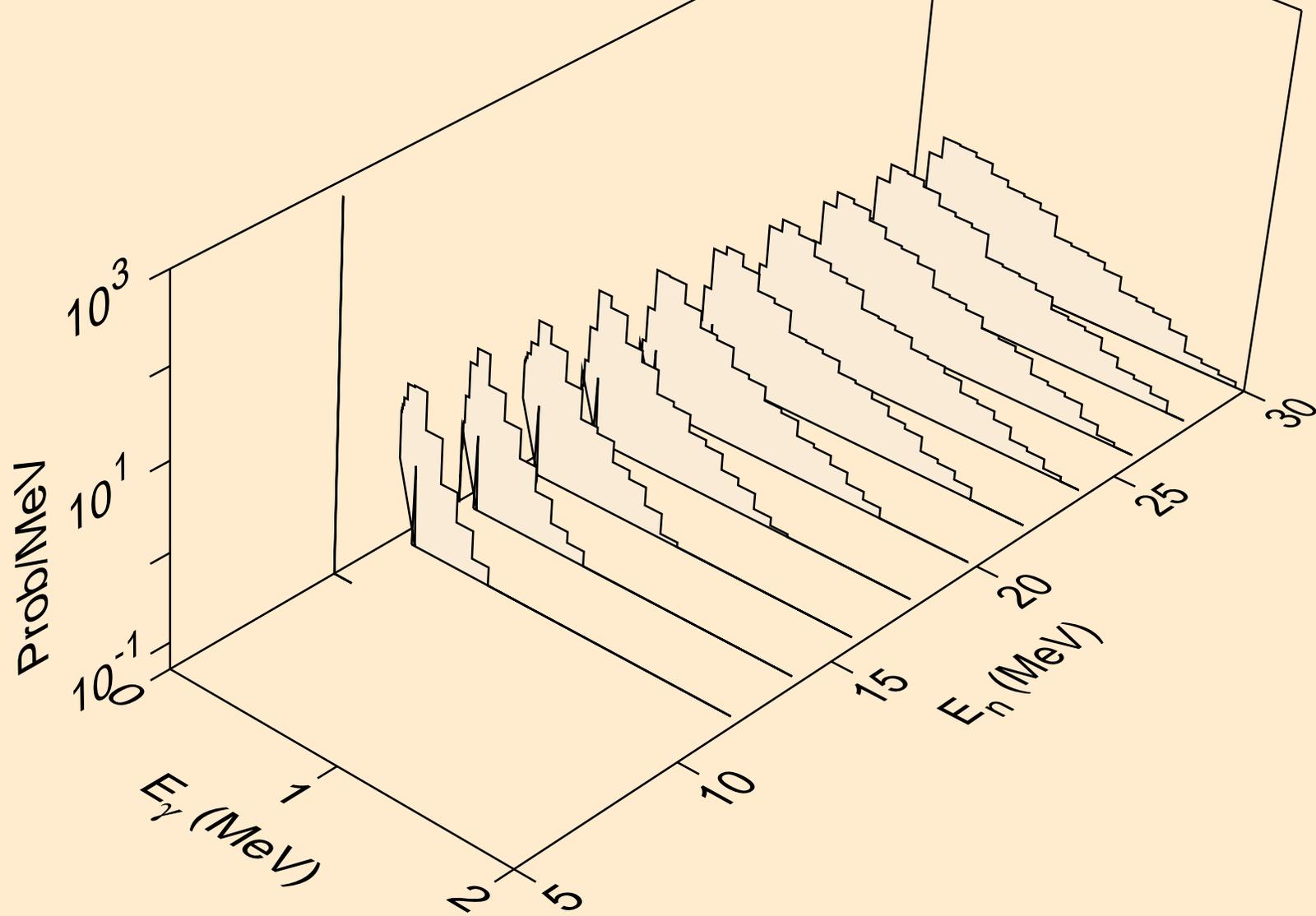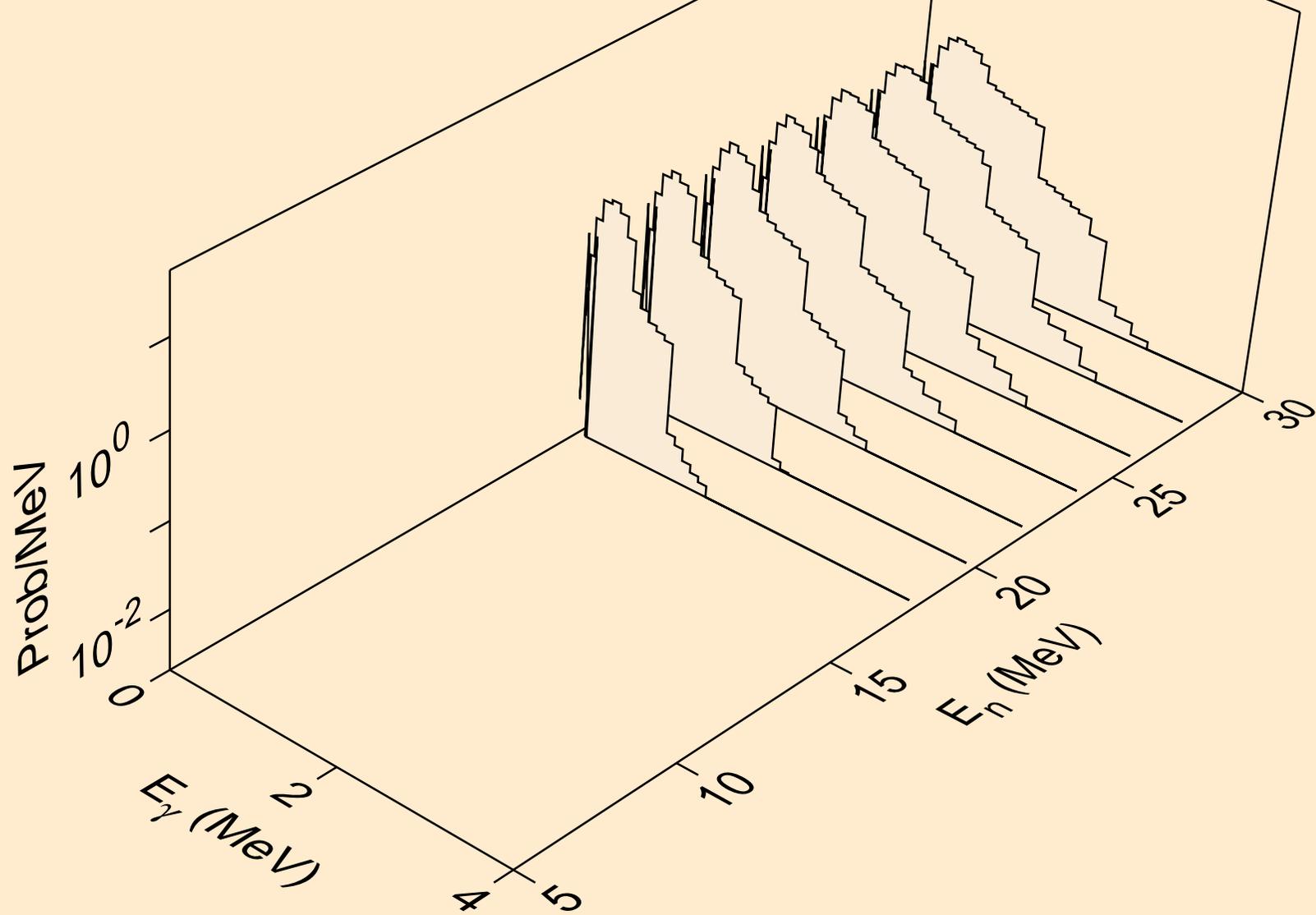DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,3n)a

Prob/MeV

10^0

10^{-2}

E_γ (MeV)

E_n (MeV)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*)p

Prob/MeV

10^2

10^0

10^{-2}

E_γ (MeV)

2

4

0

5

10

15

20

25

30

E_n (MeV)

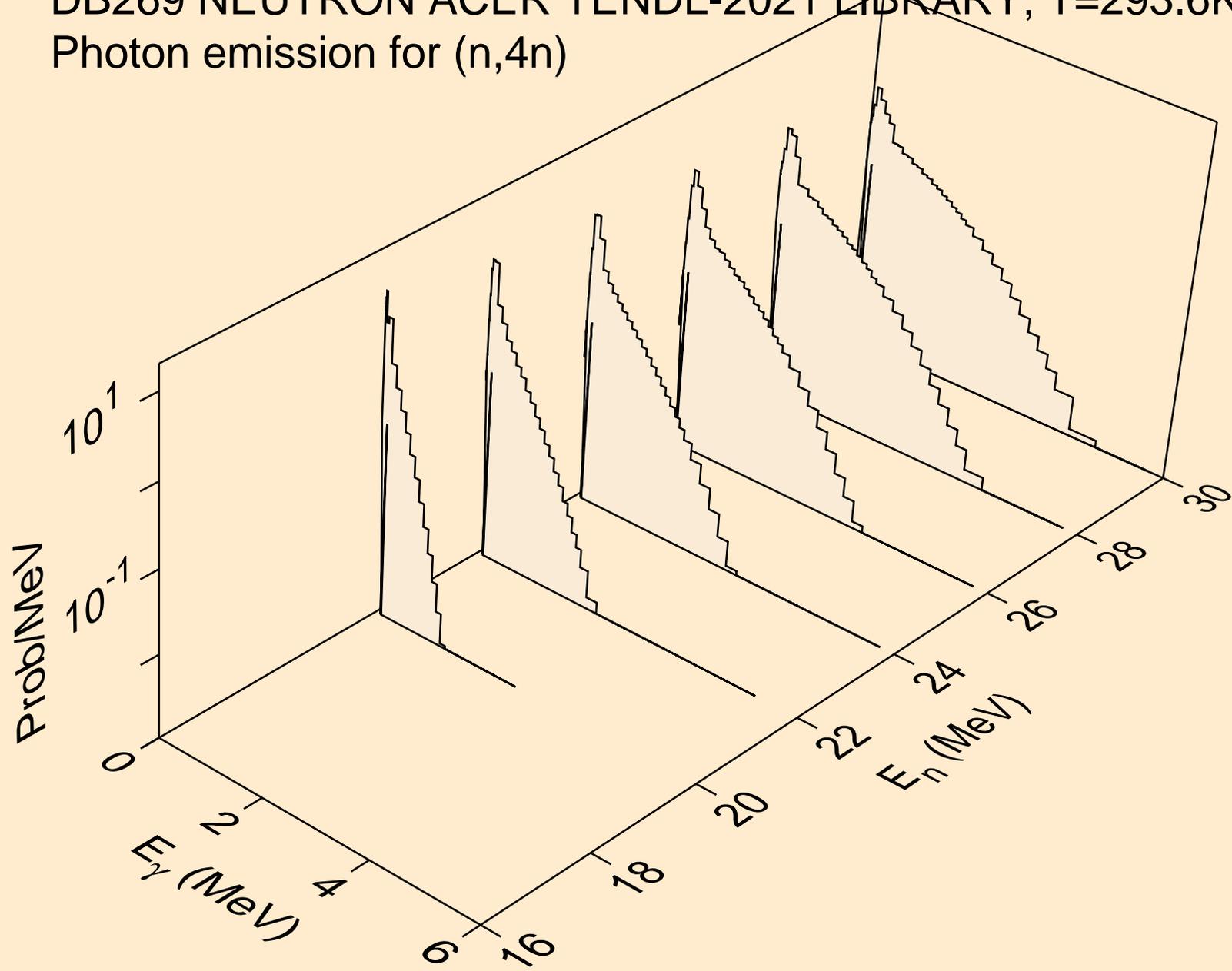DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*)d

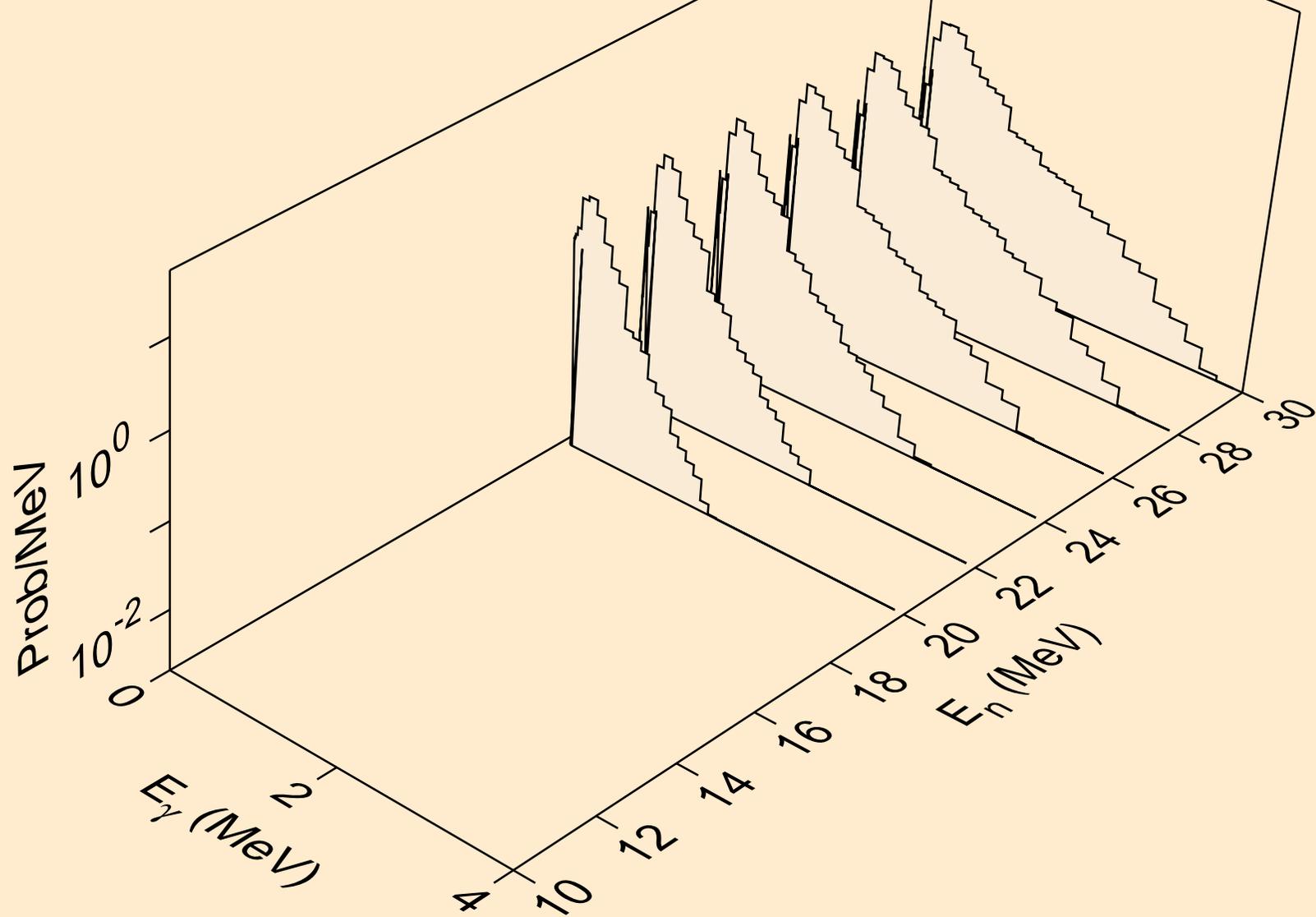DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*)t

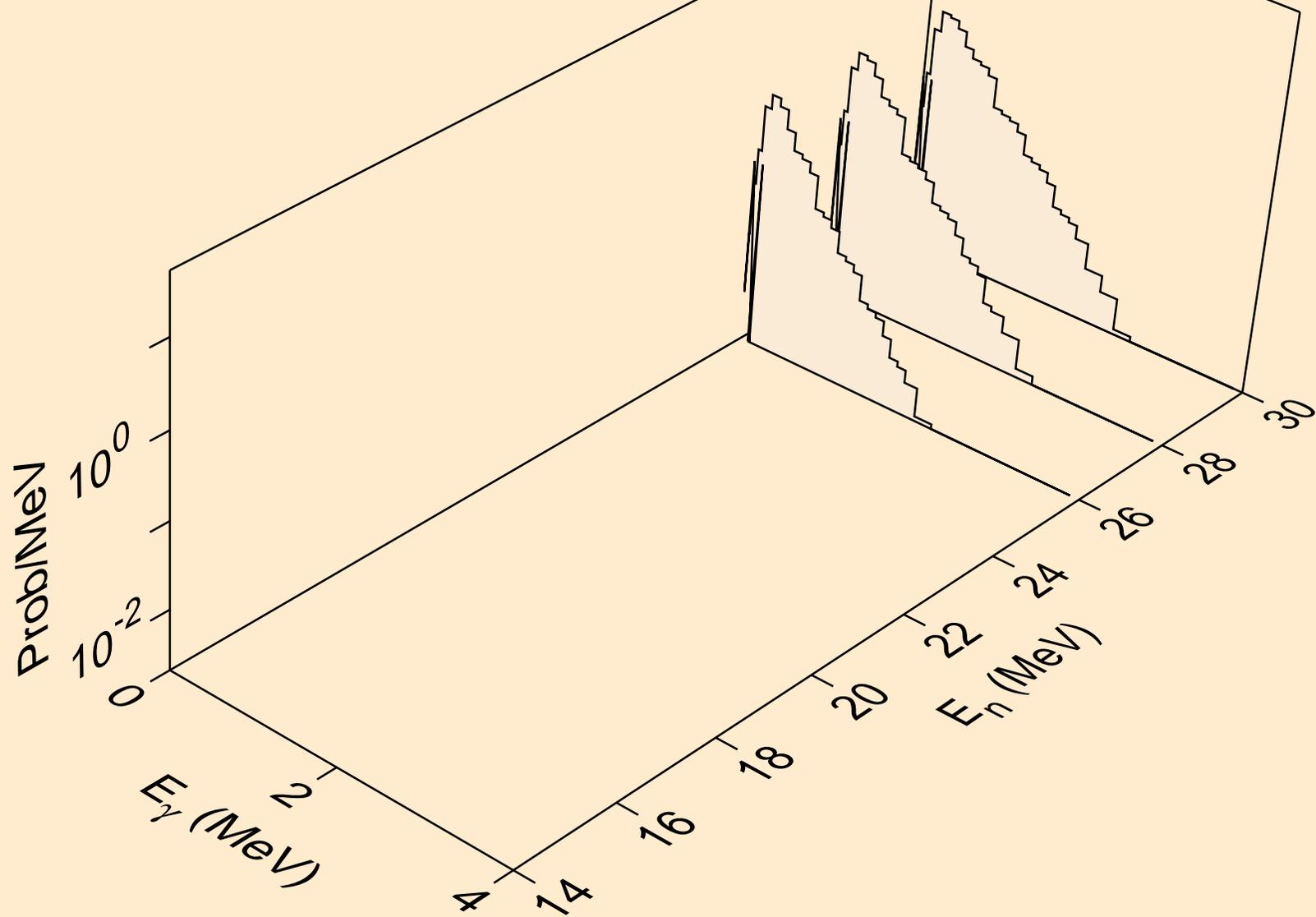DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*)he3

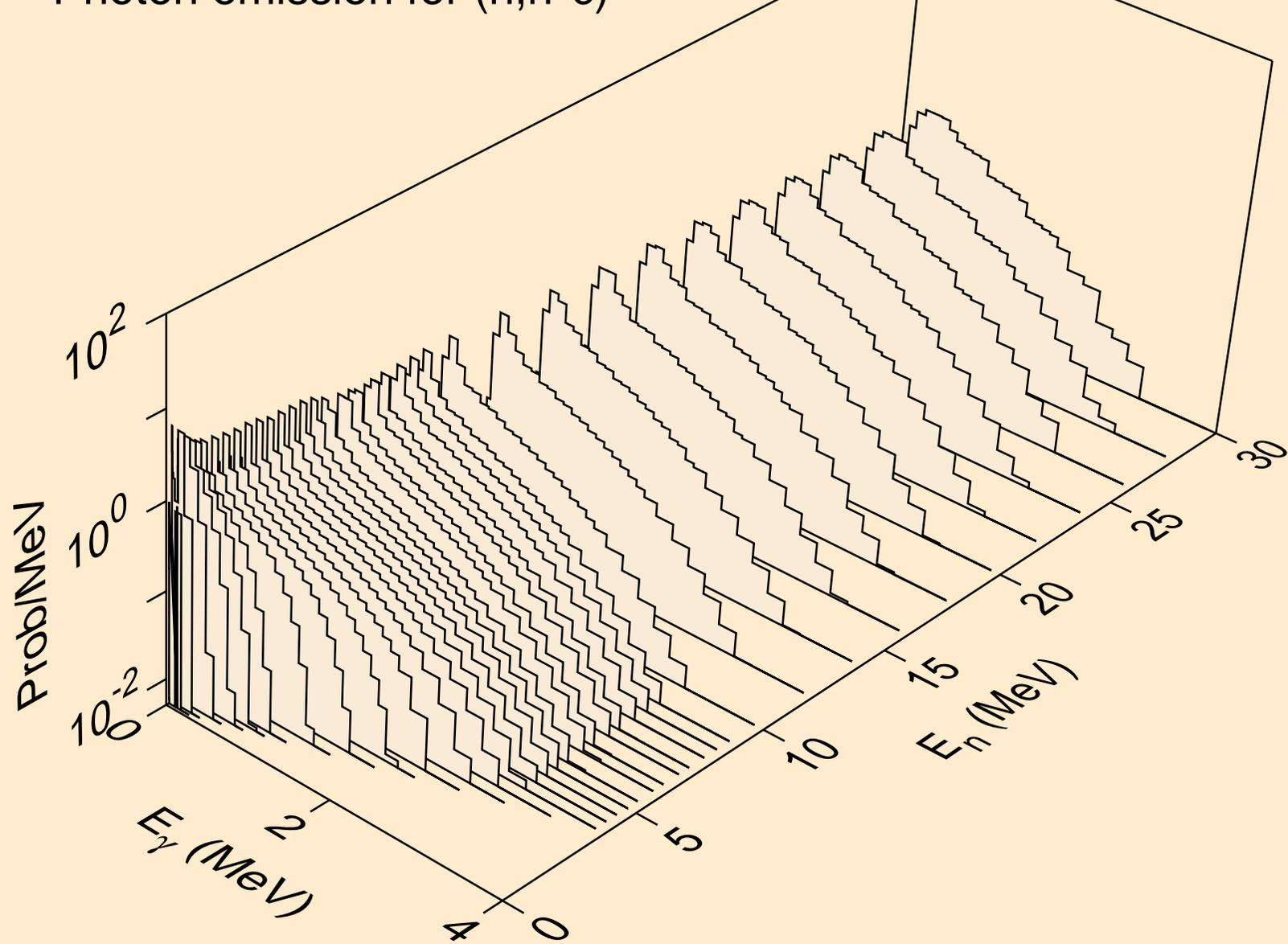DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,4n)

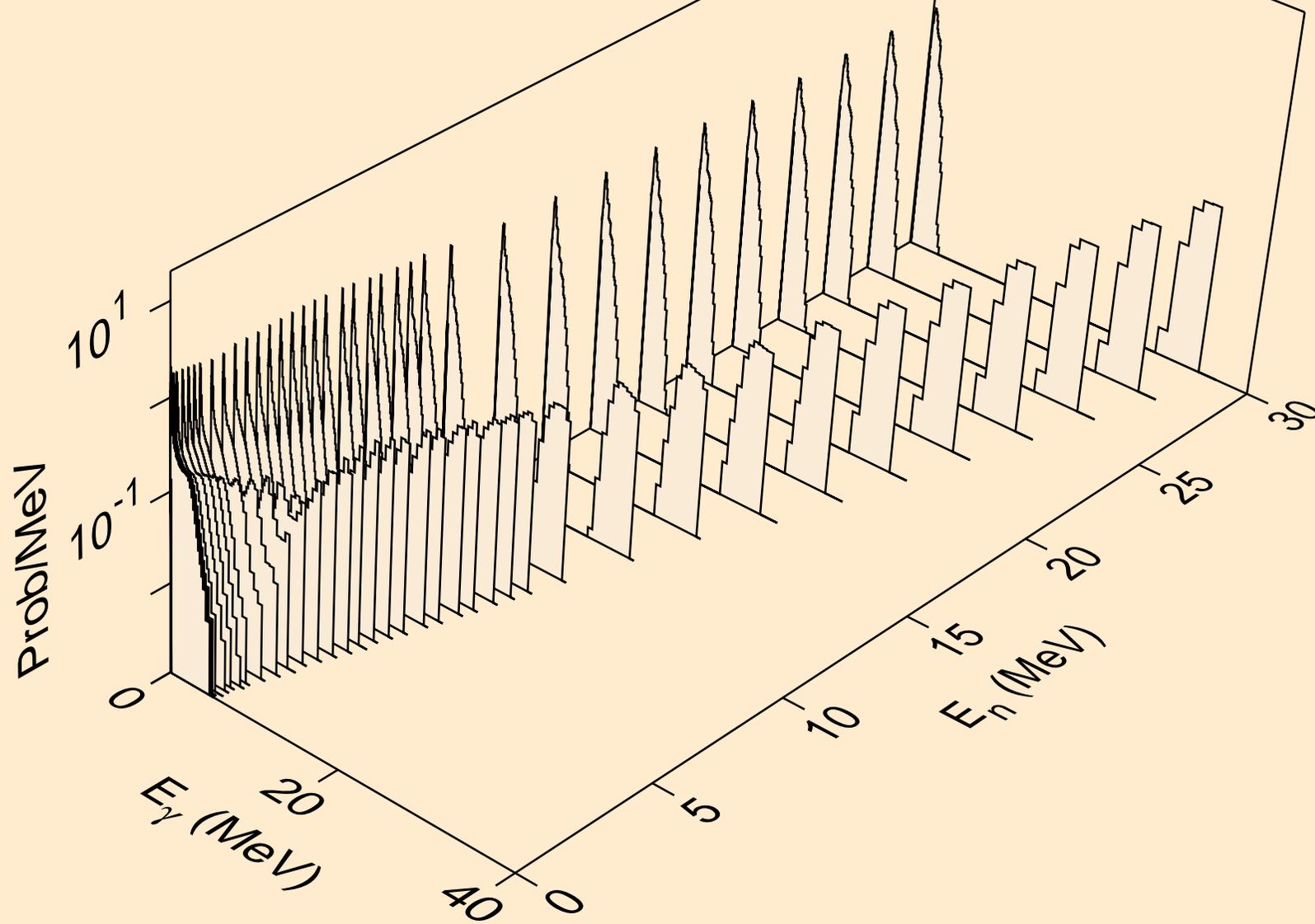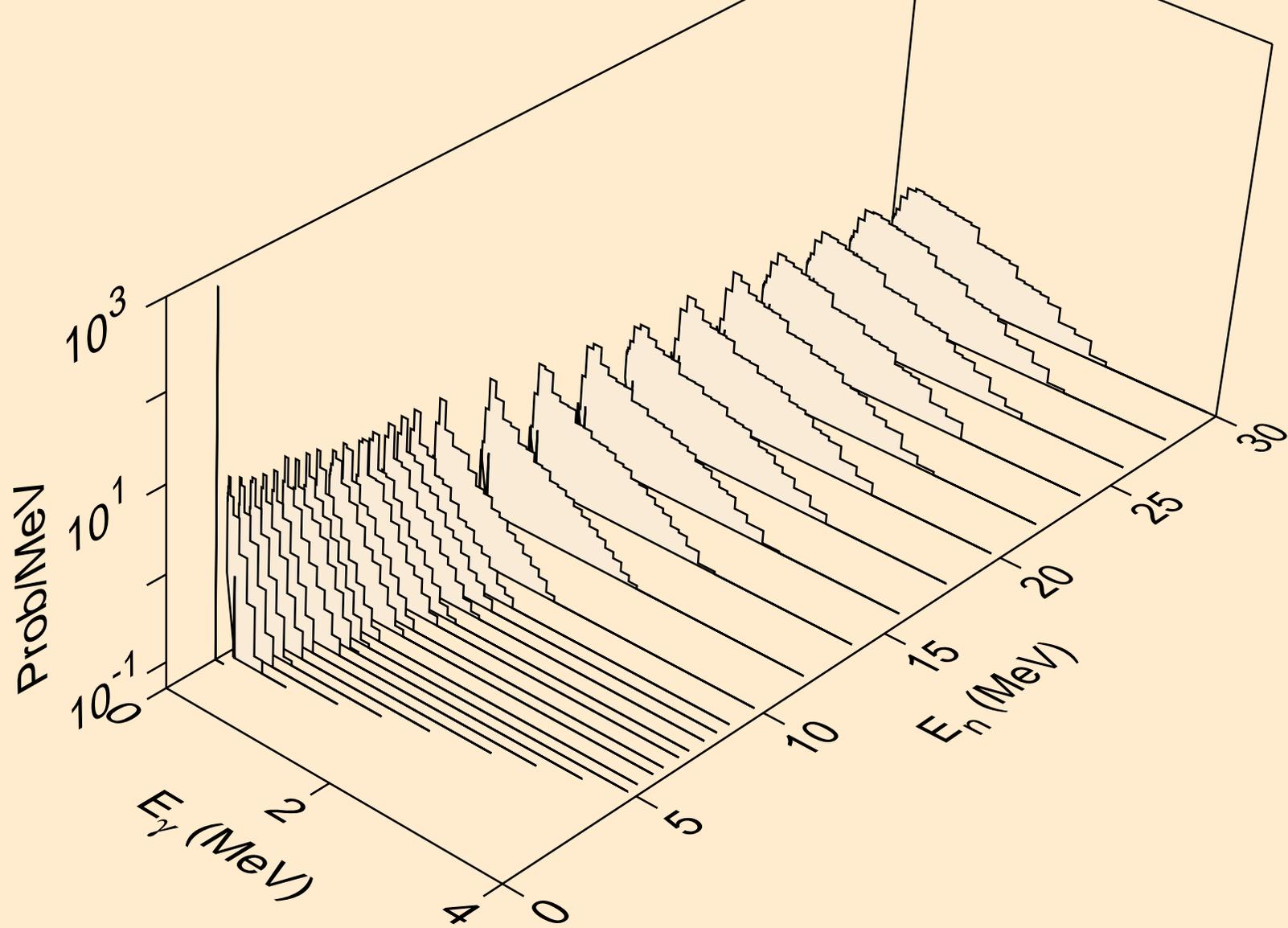DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,2np)

Prob/MeV

10^0

10^{-2}

0

E_γ (MeV)

2

4

E_n (MeV)

10 12 14 16 18 20 22 24 26 28 30

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,3np)

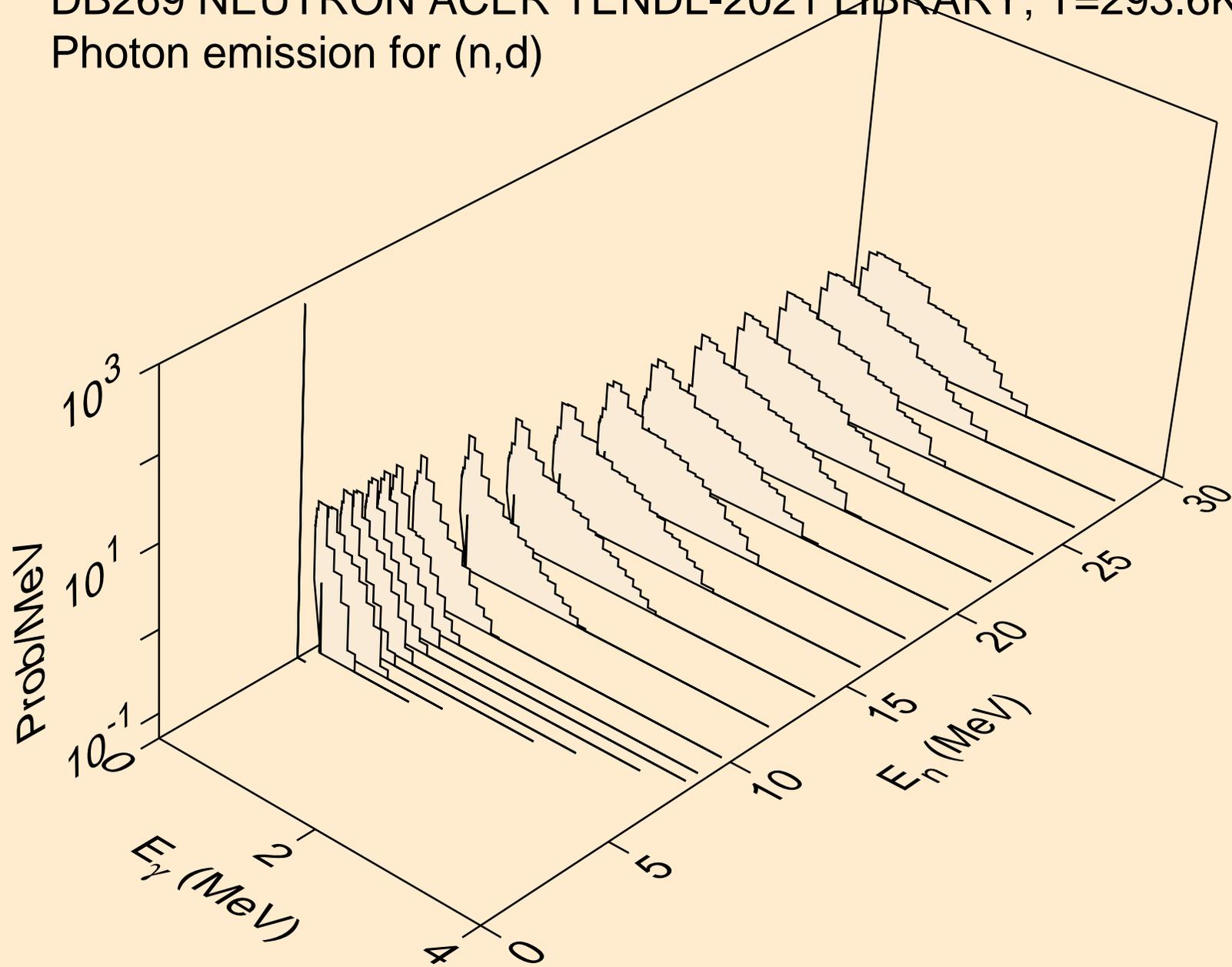DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,n*c)

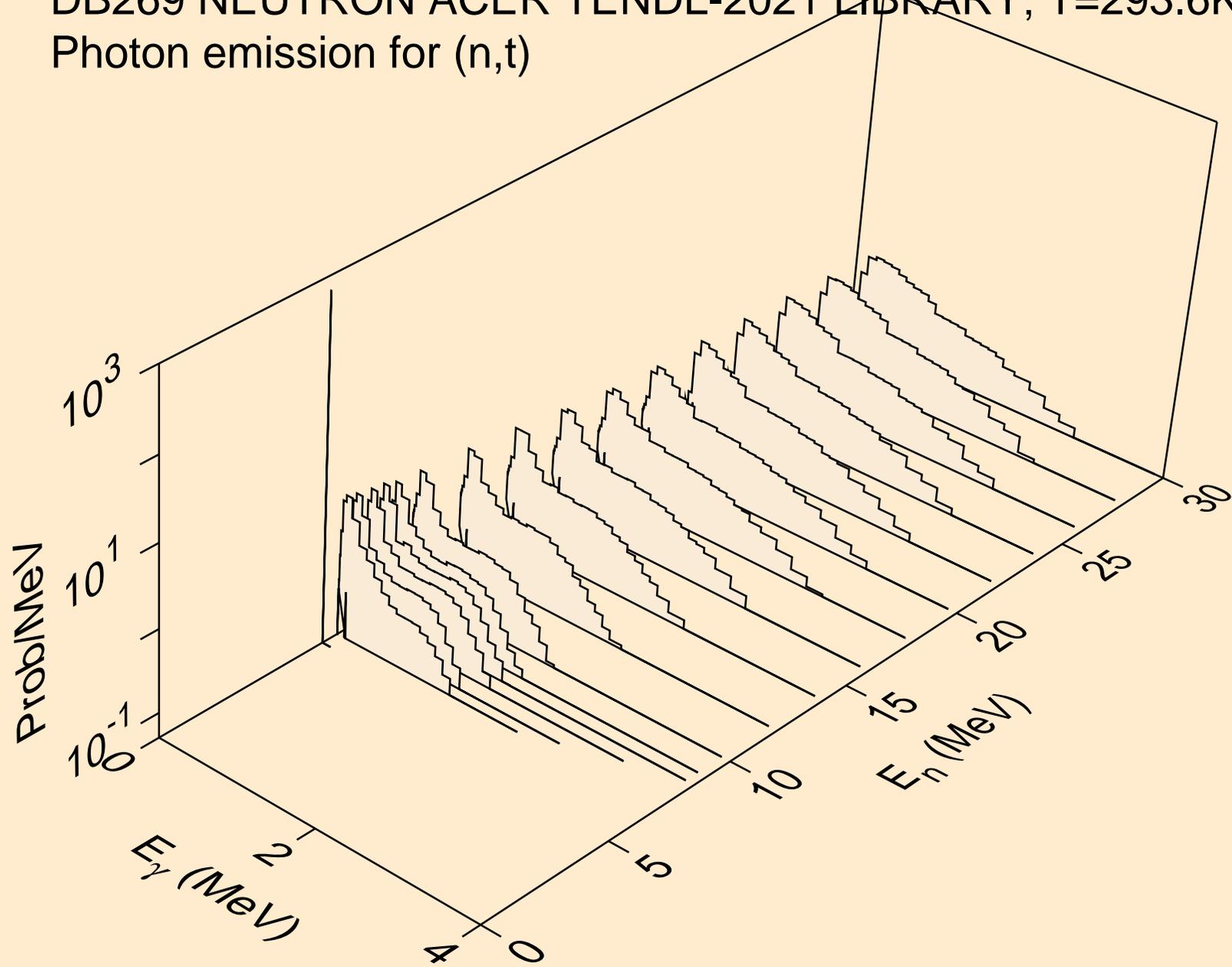DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,gma)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
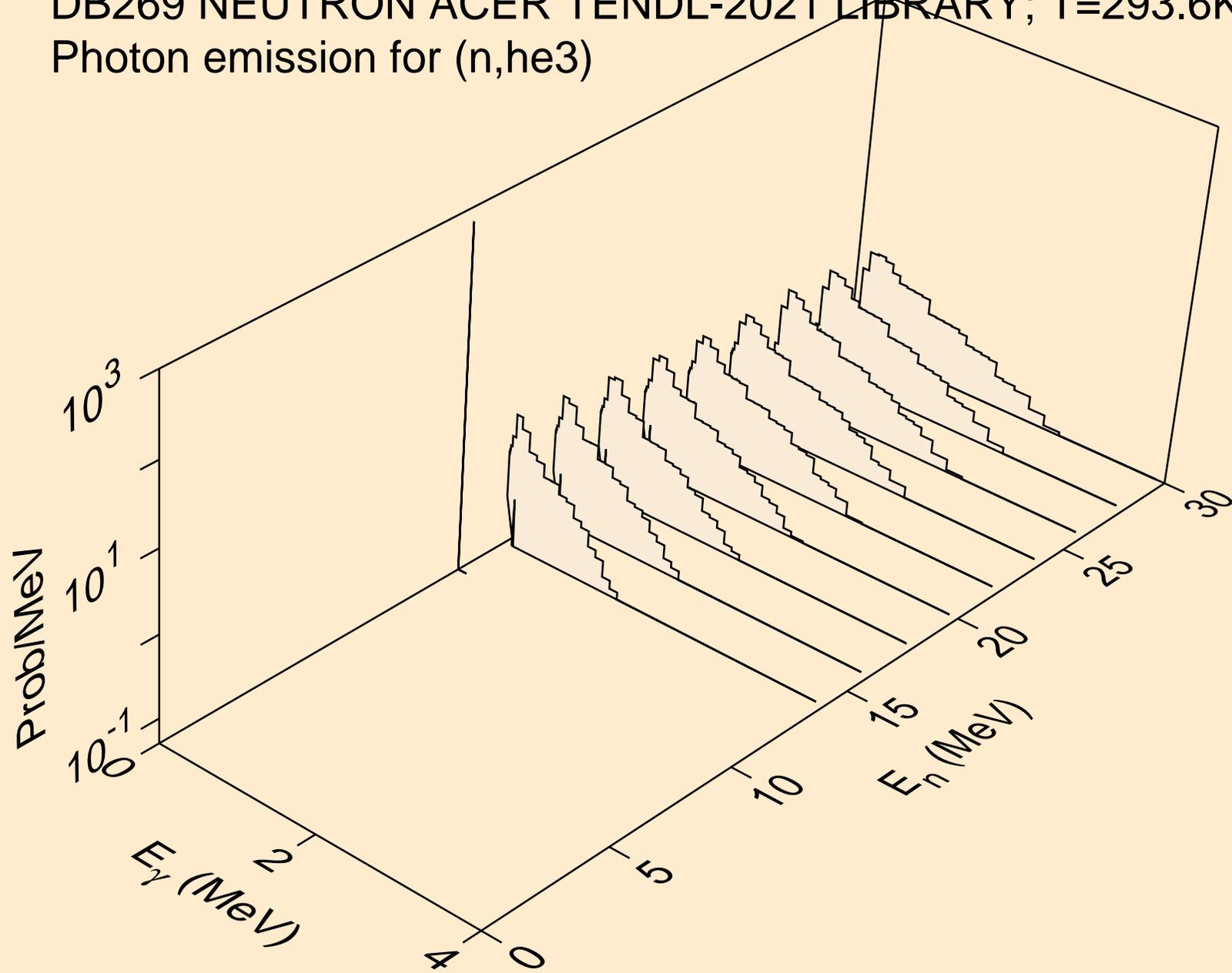Photon emission for (n,p)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
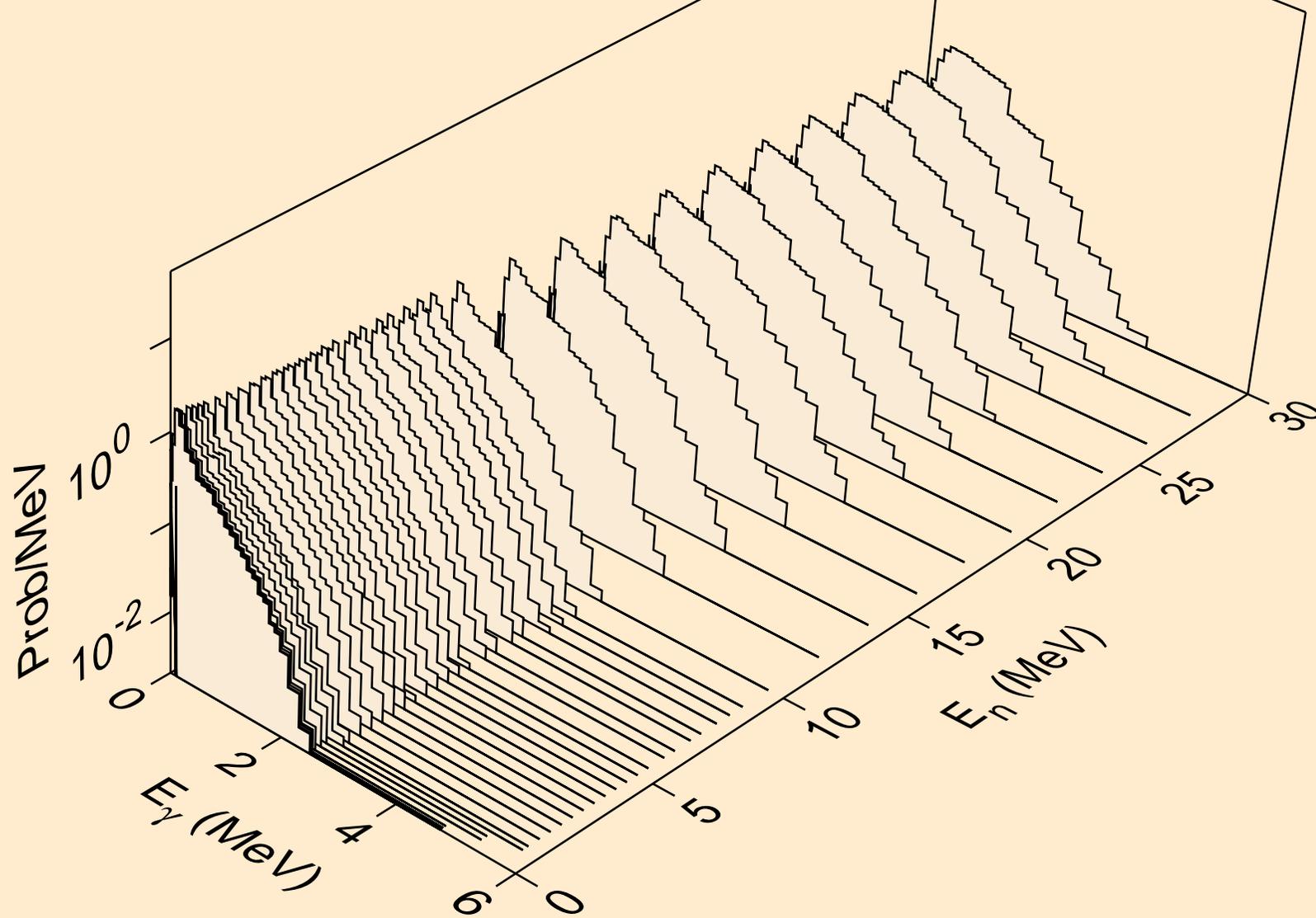Photon emission for (n,d)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
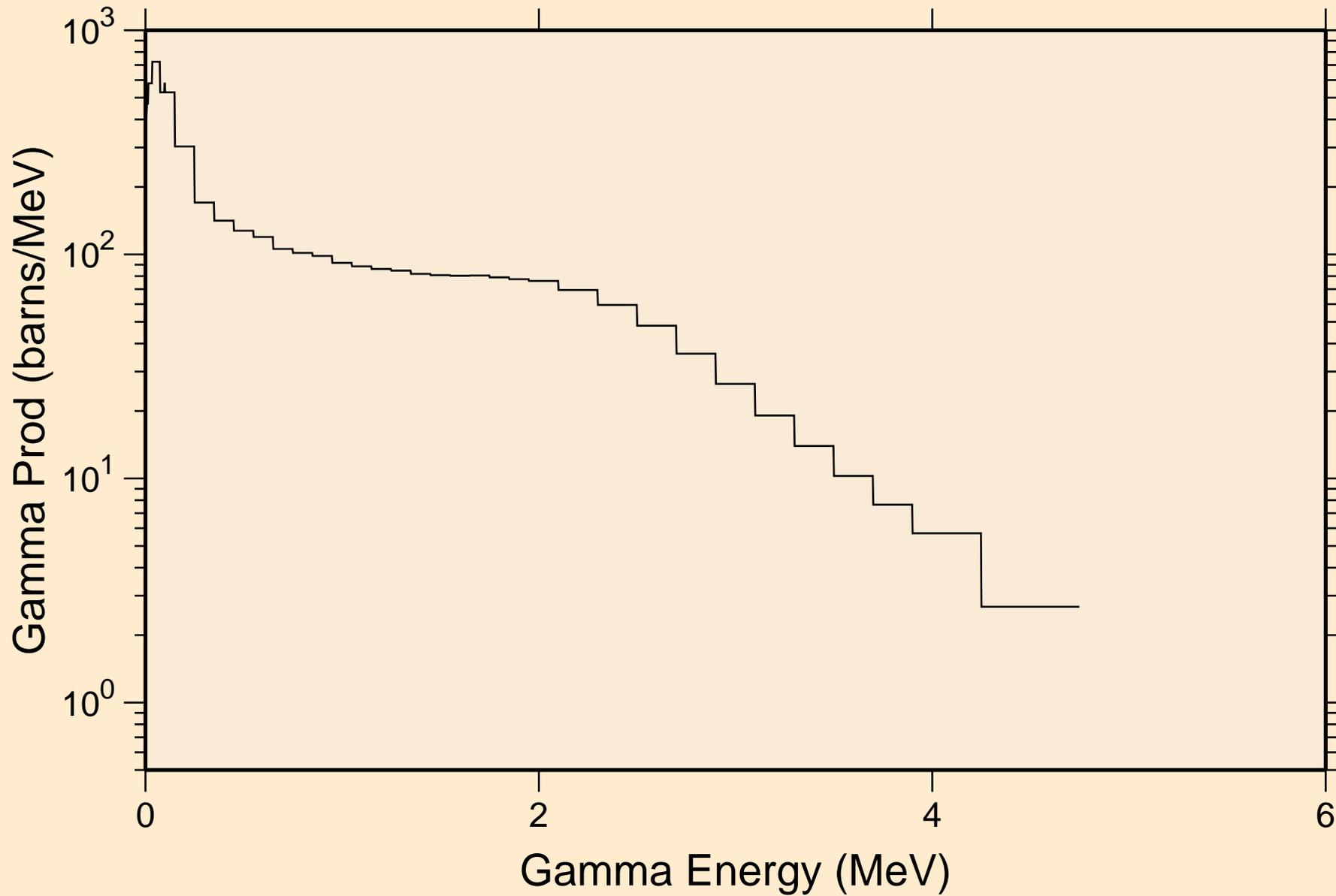Photon emission for (n,t)

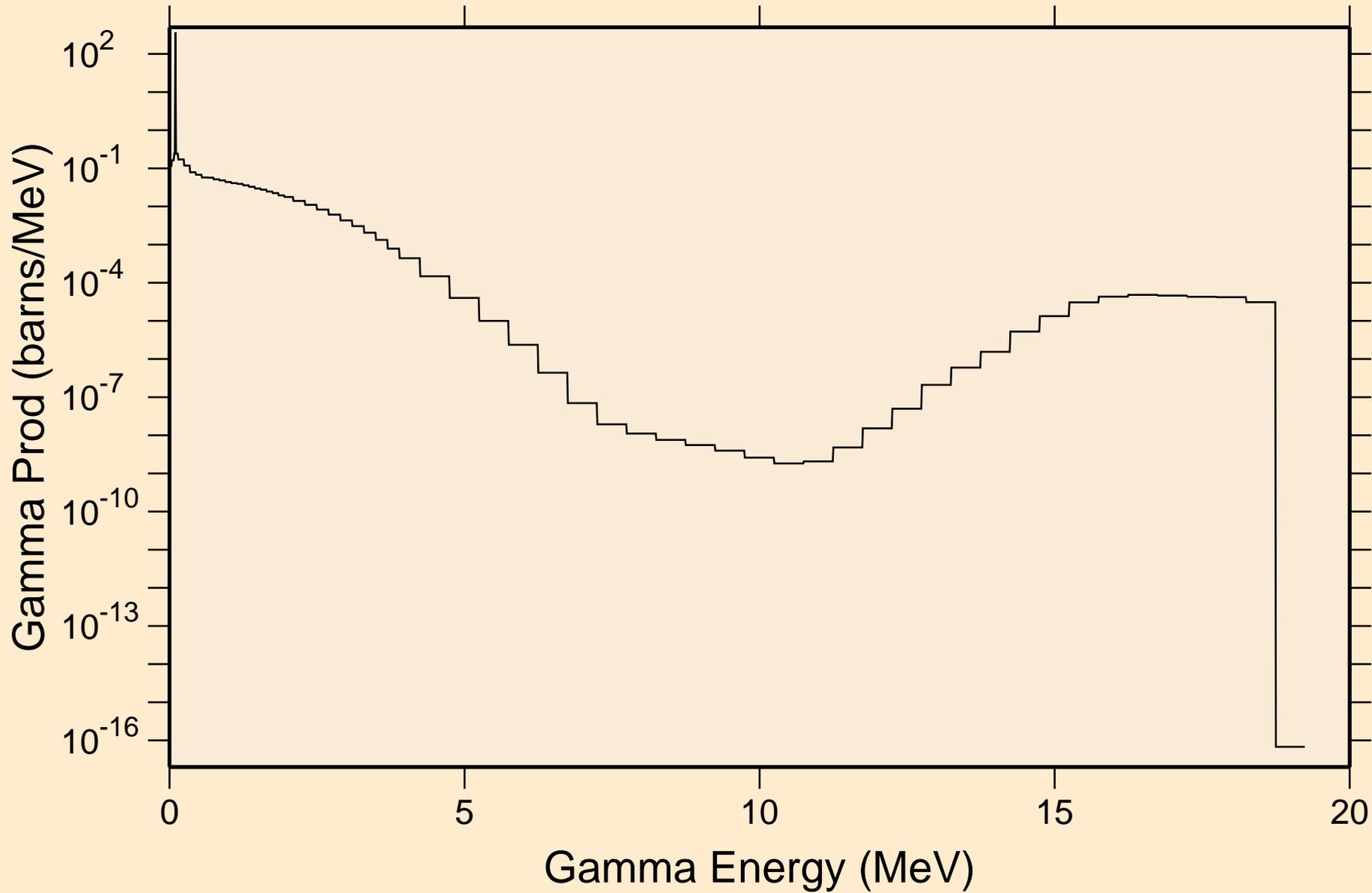DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,he3)

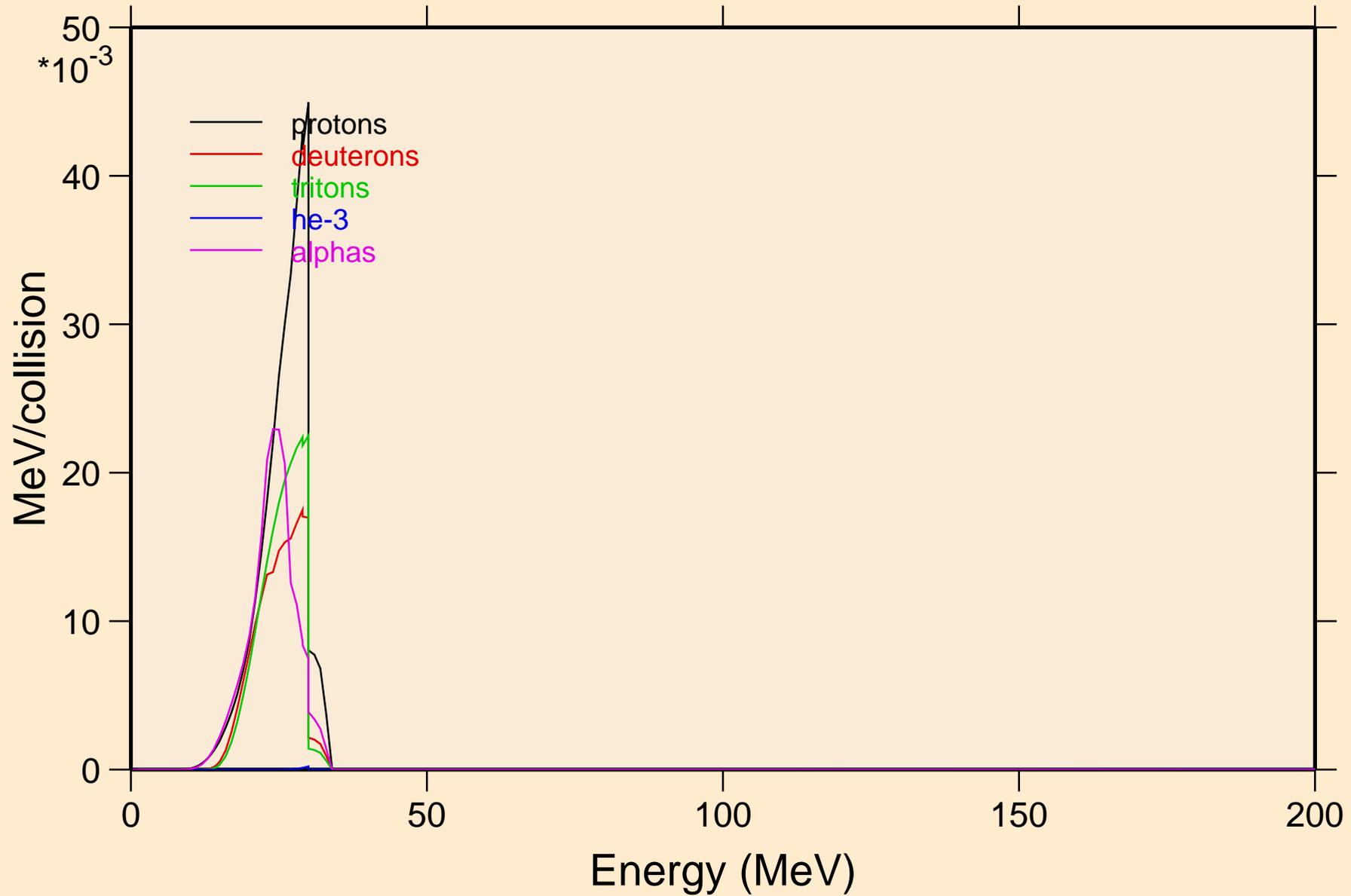DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
Photon emission for (n,a)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
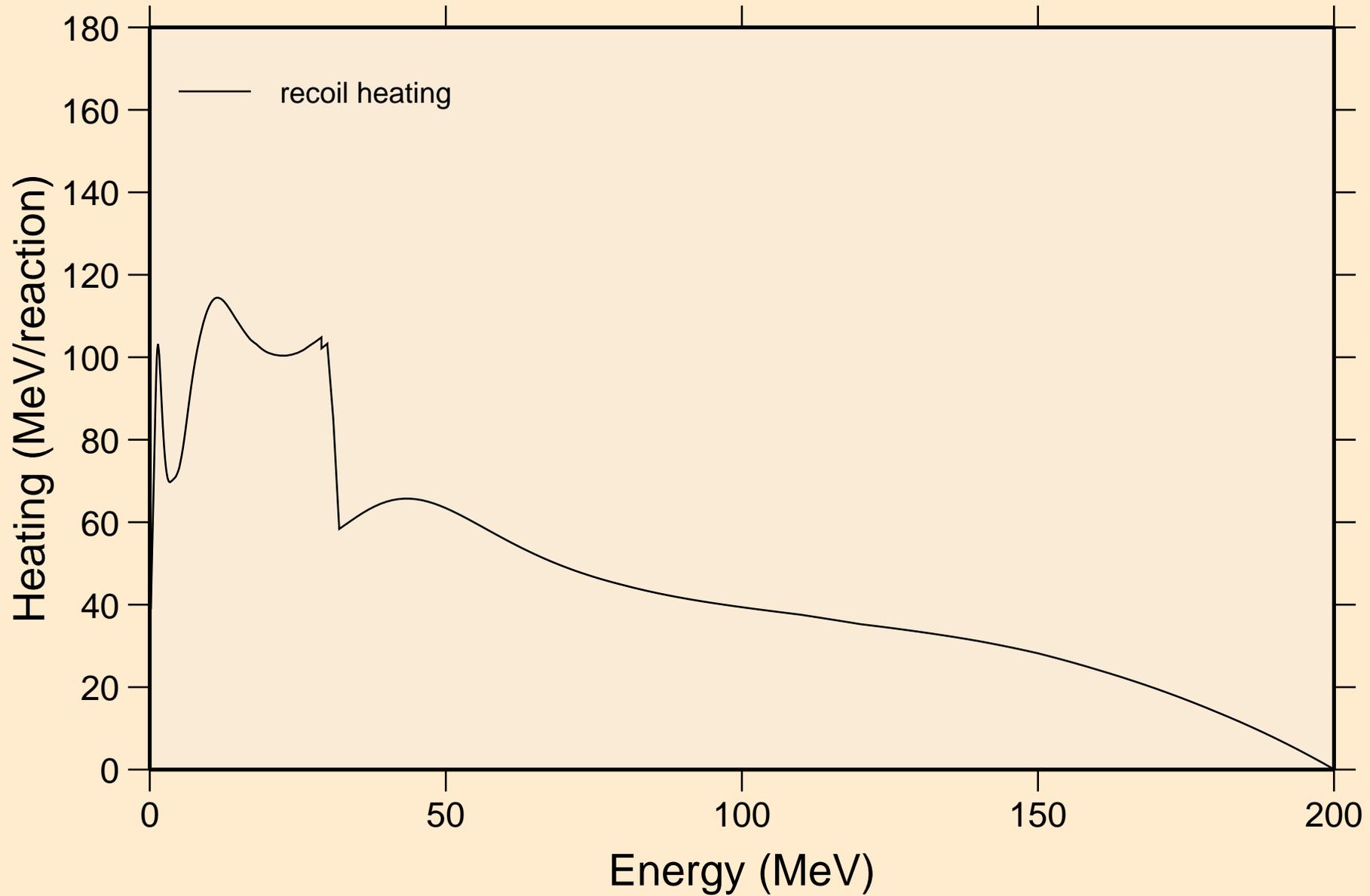thermal capture photon spectrum

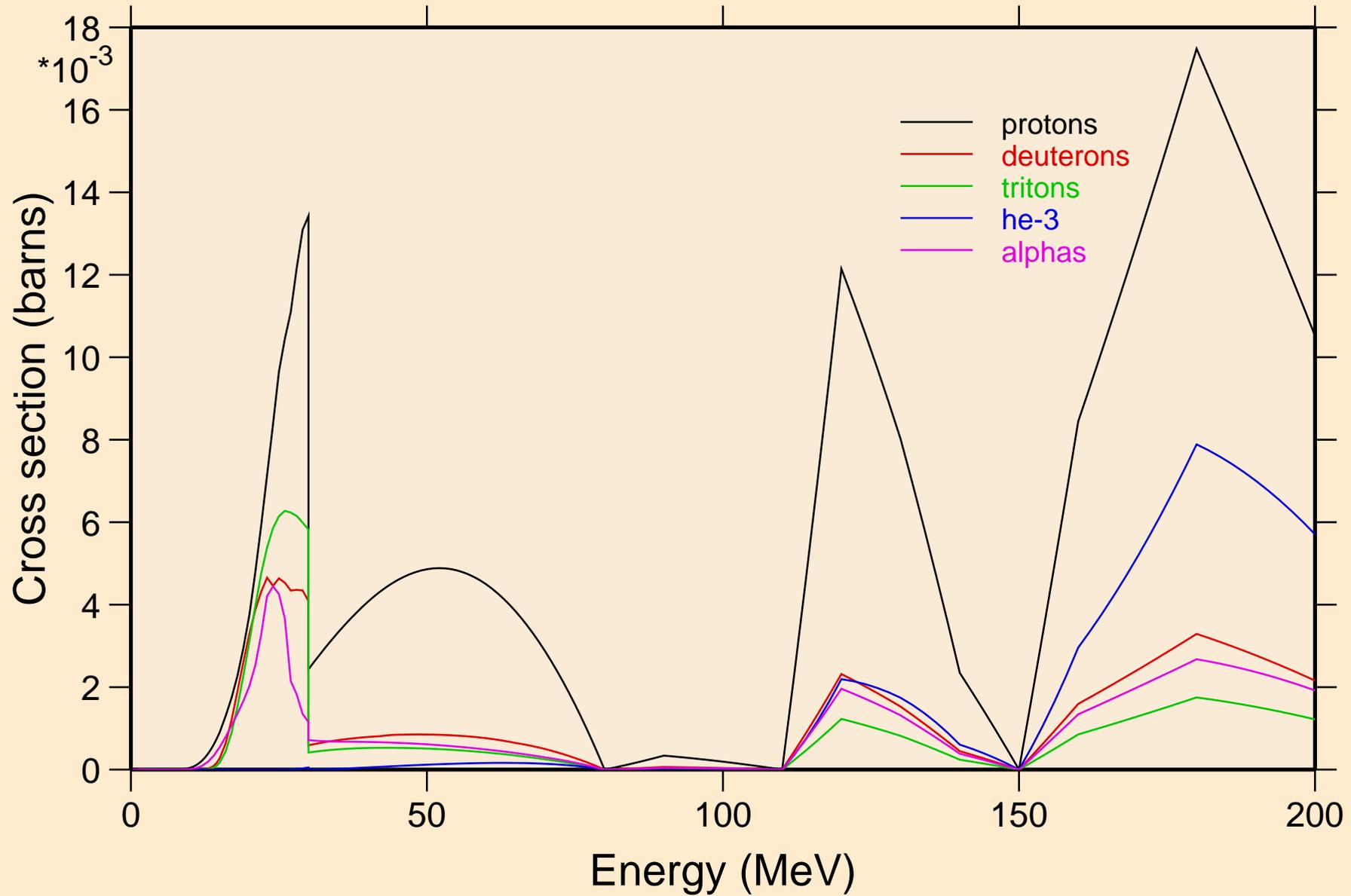DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
14 MeV photon spectrum

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
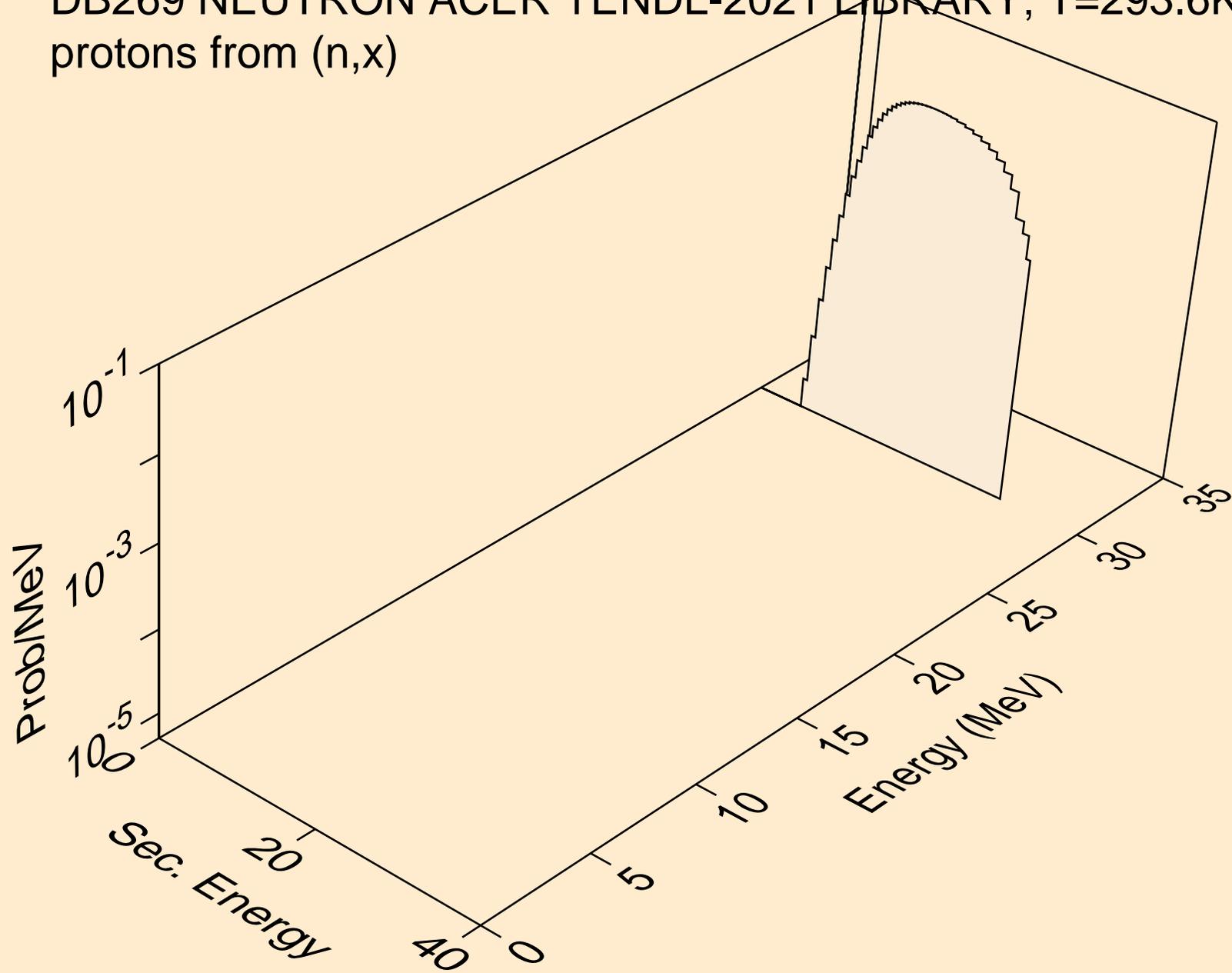Particle heating contributions

protons
deuterons
tritons
he-3
alphas

MeV/collision

*10⁻³

Energy (MeV)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
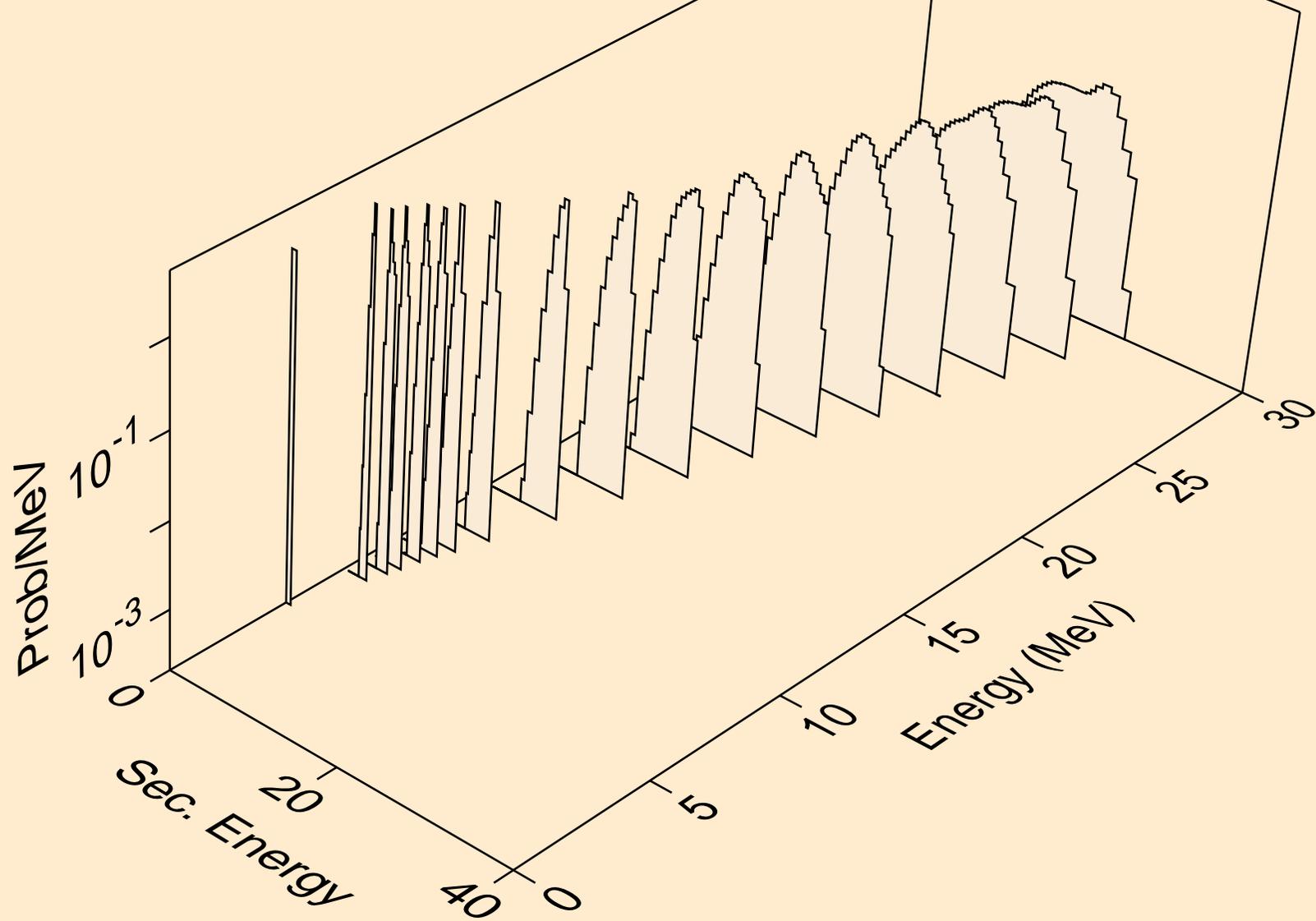Recoil Heating

recoil heating

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
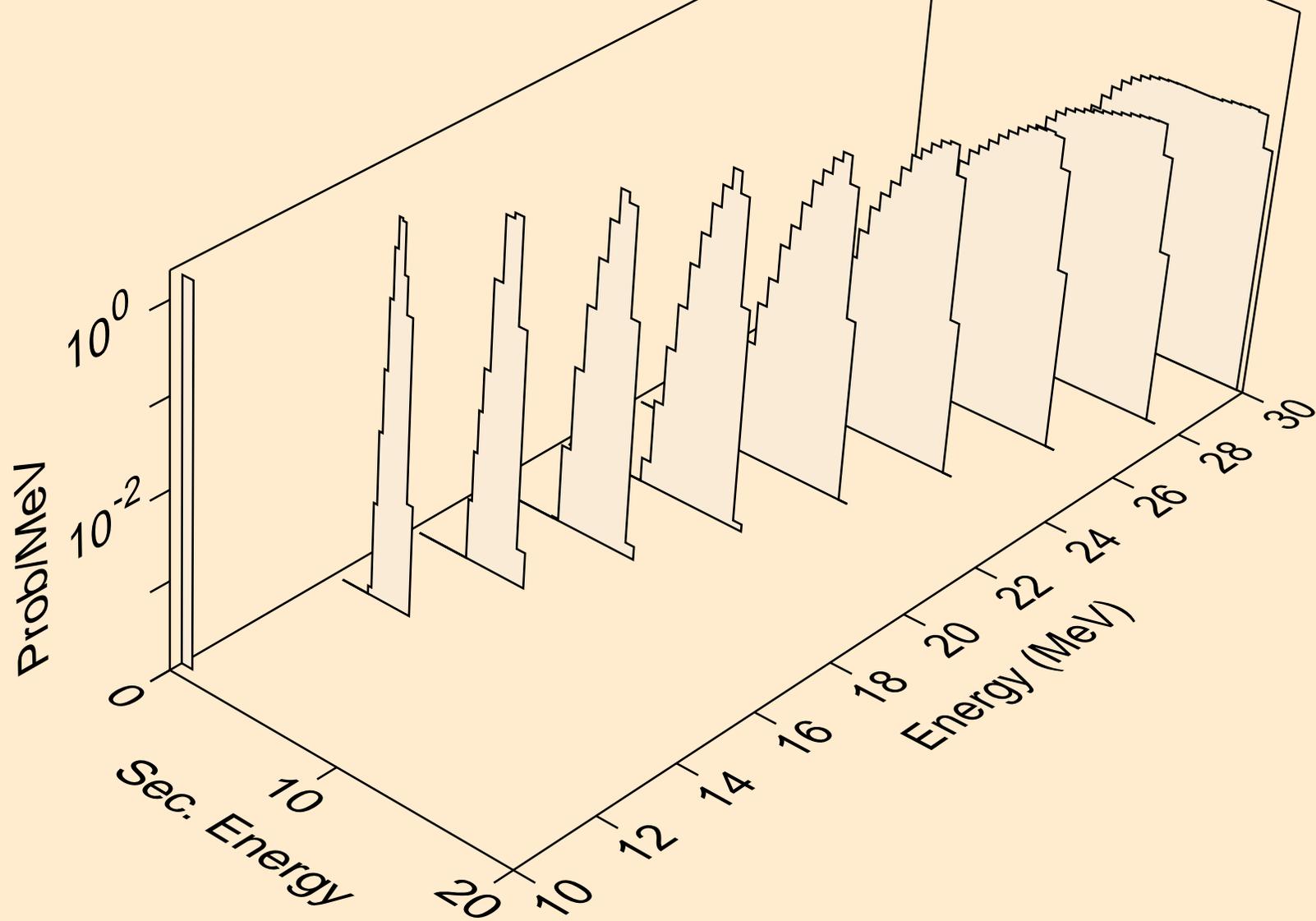Particle production cross sections

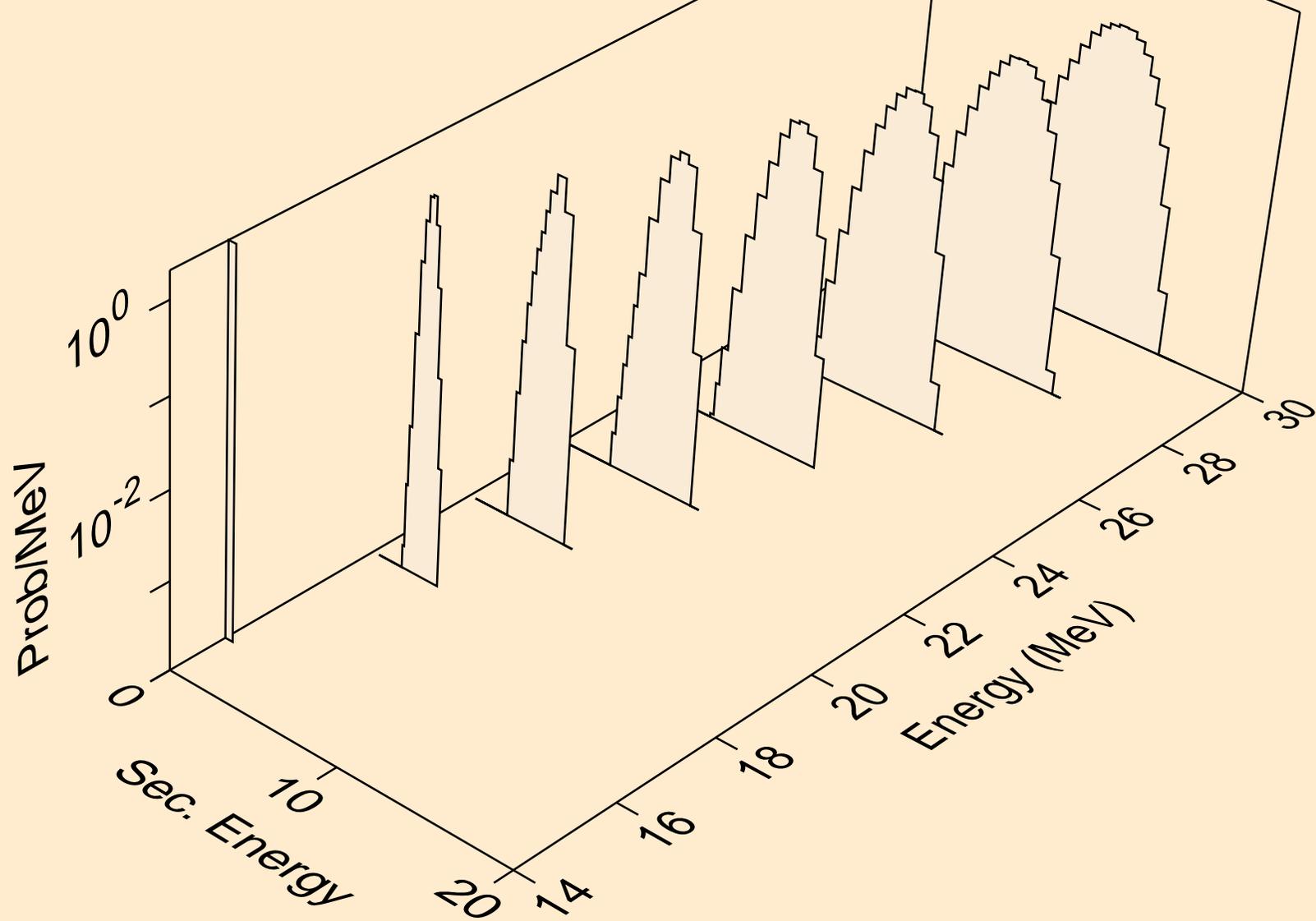DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
protons from (n,x)

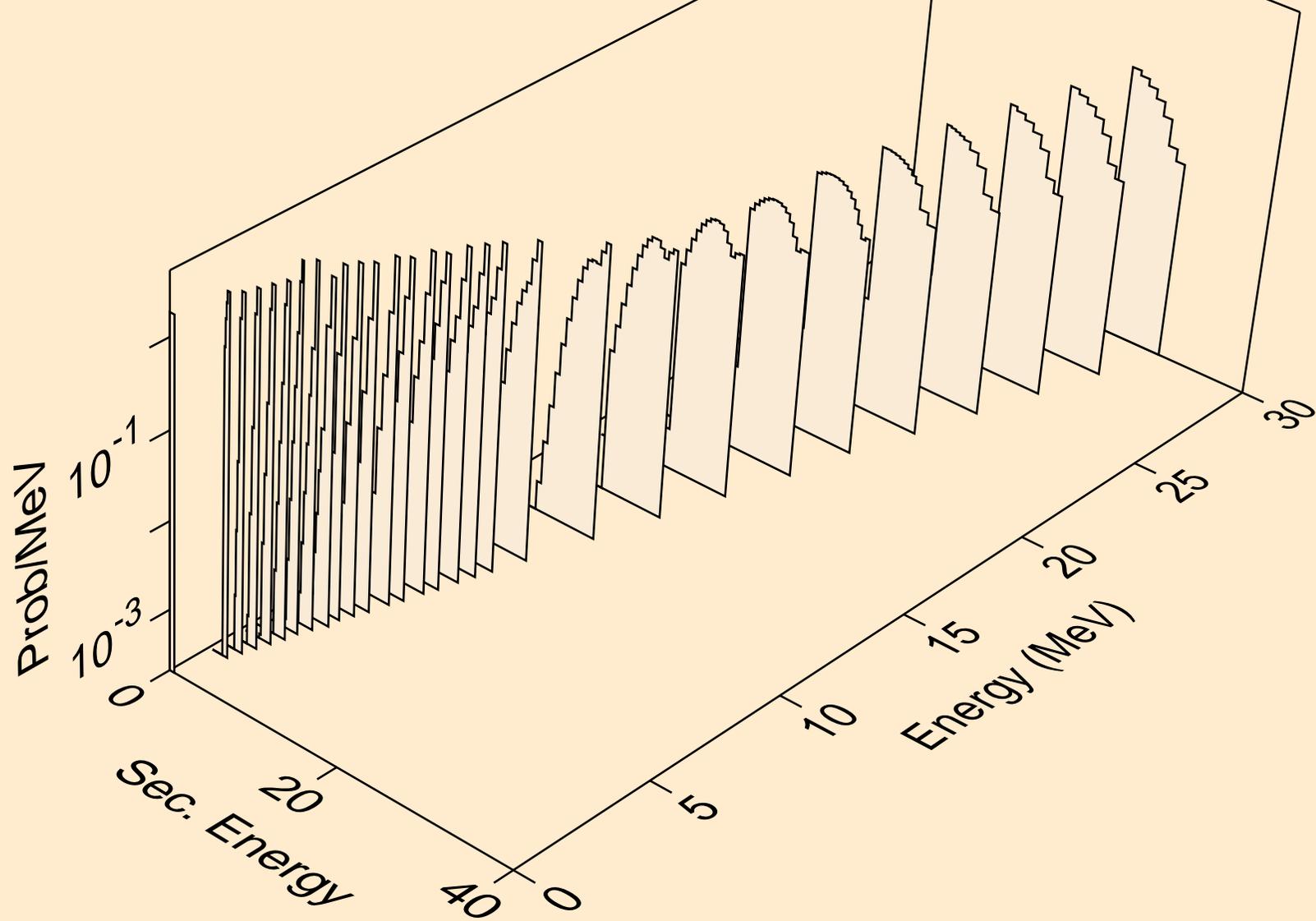DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
protons from (n,n*)p

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
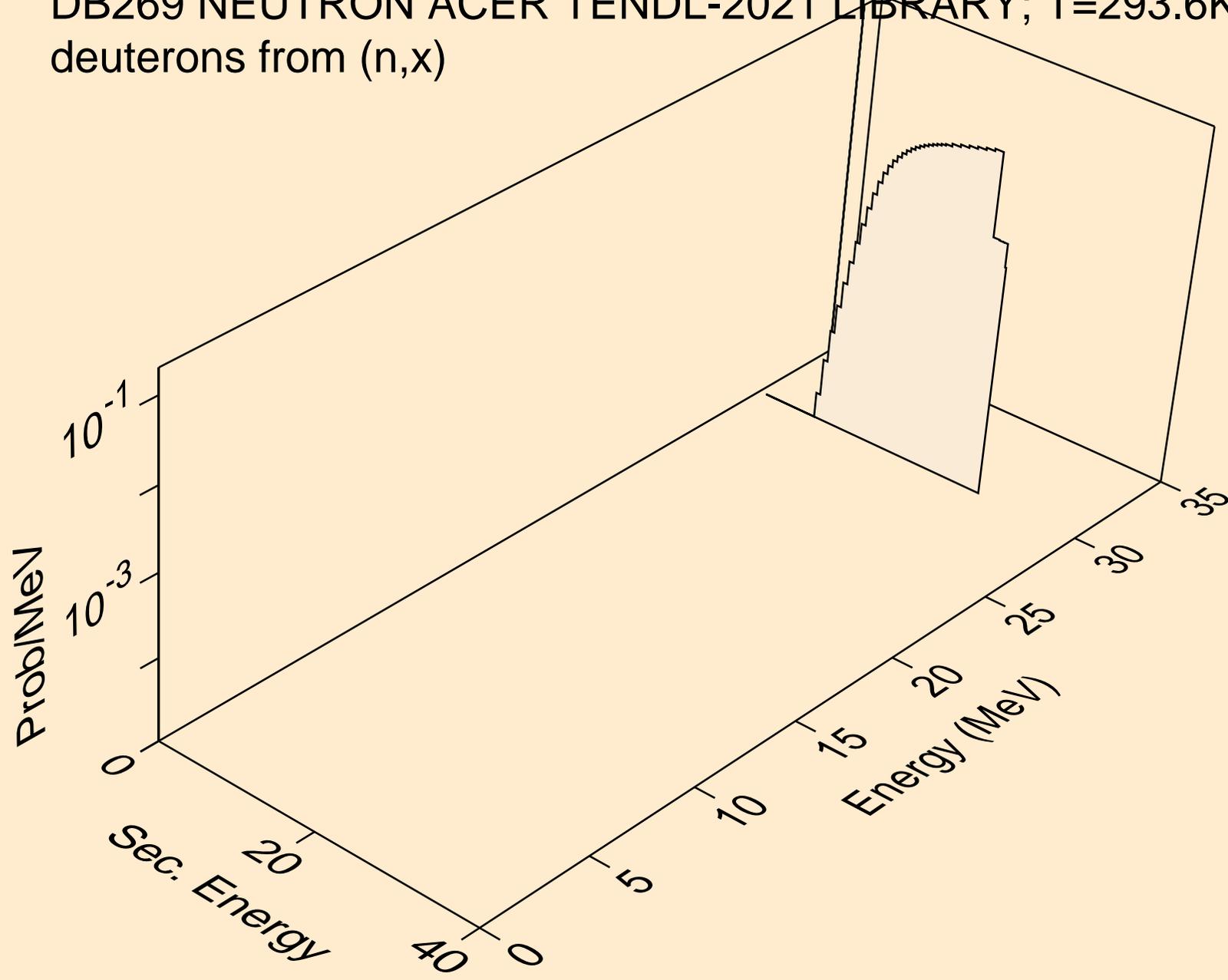protons from (n,2np)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
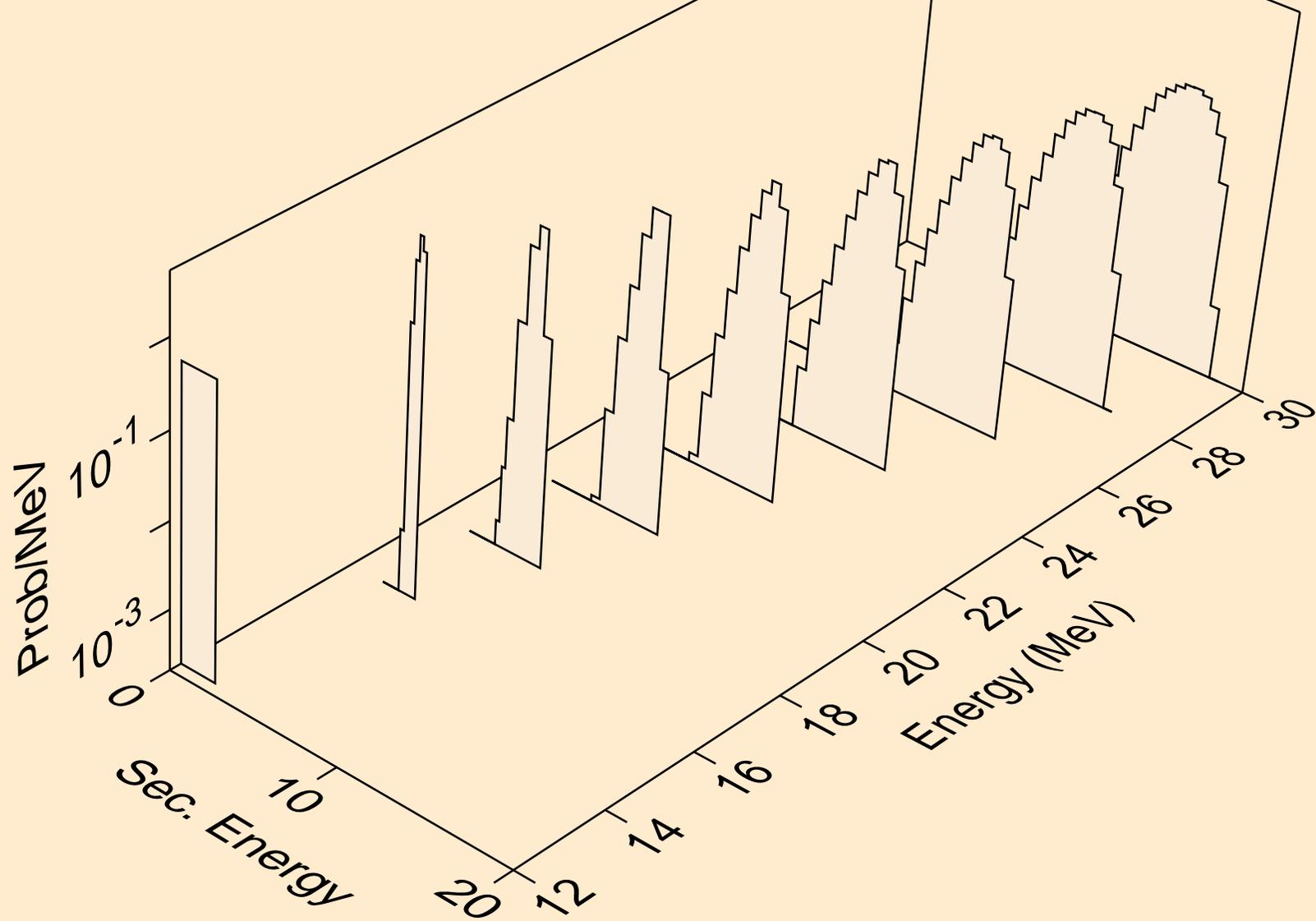protons from (n,3np)

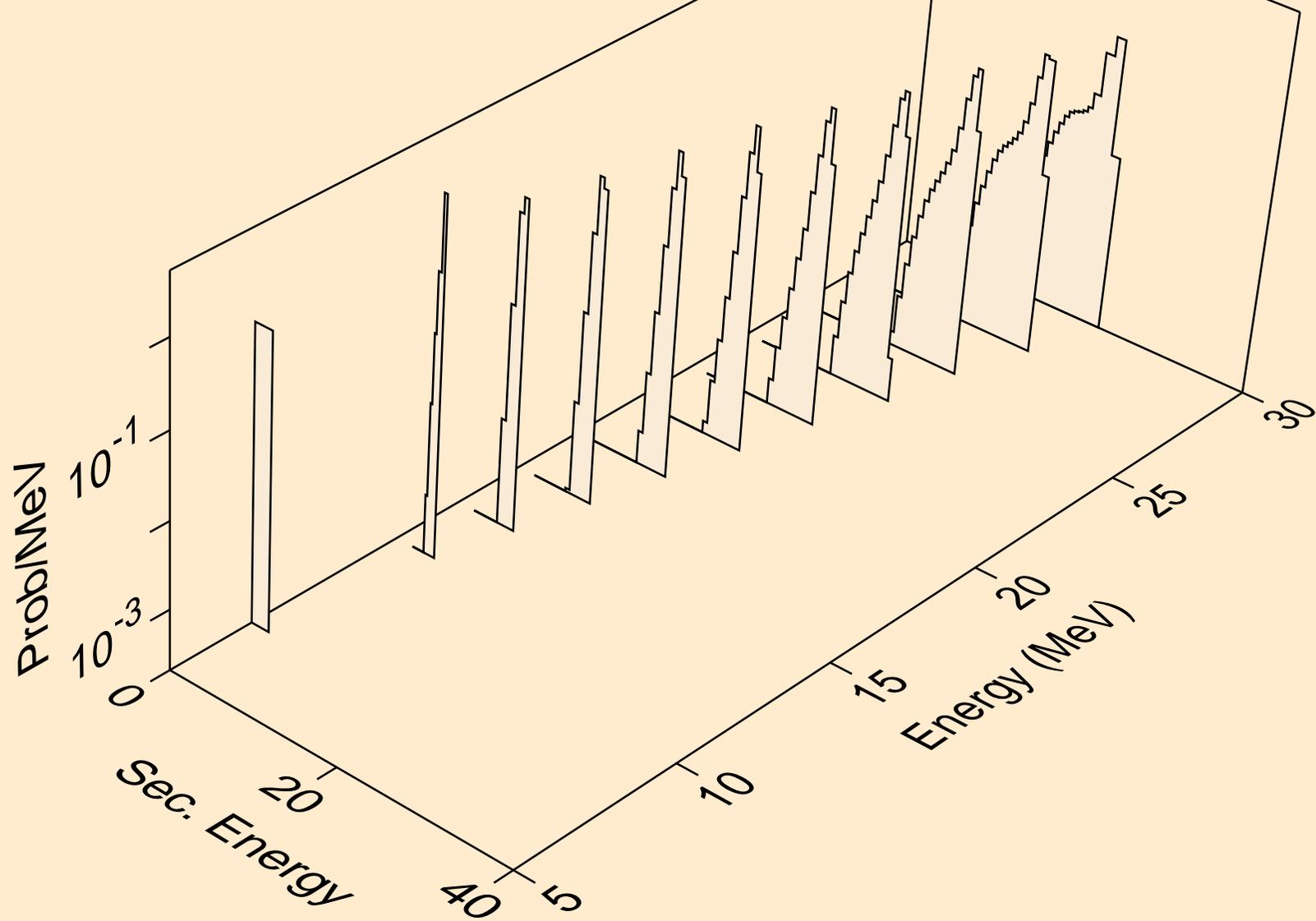DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
protons from (n,p)

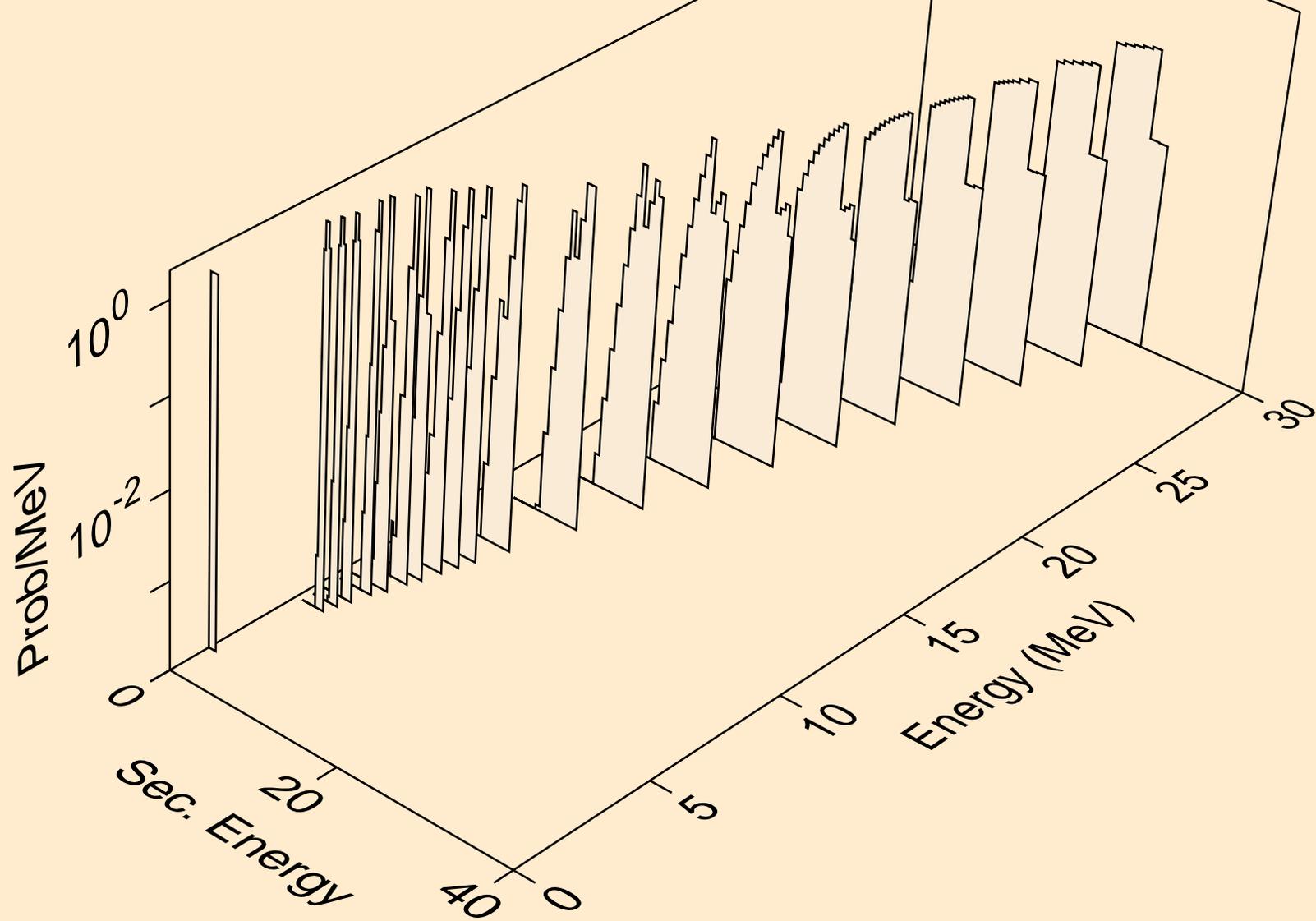DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
deuterons from (n,x)

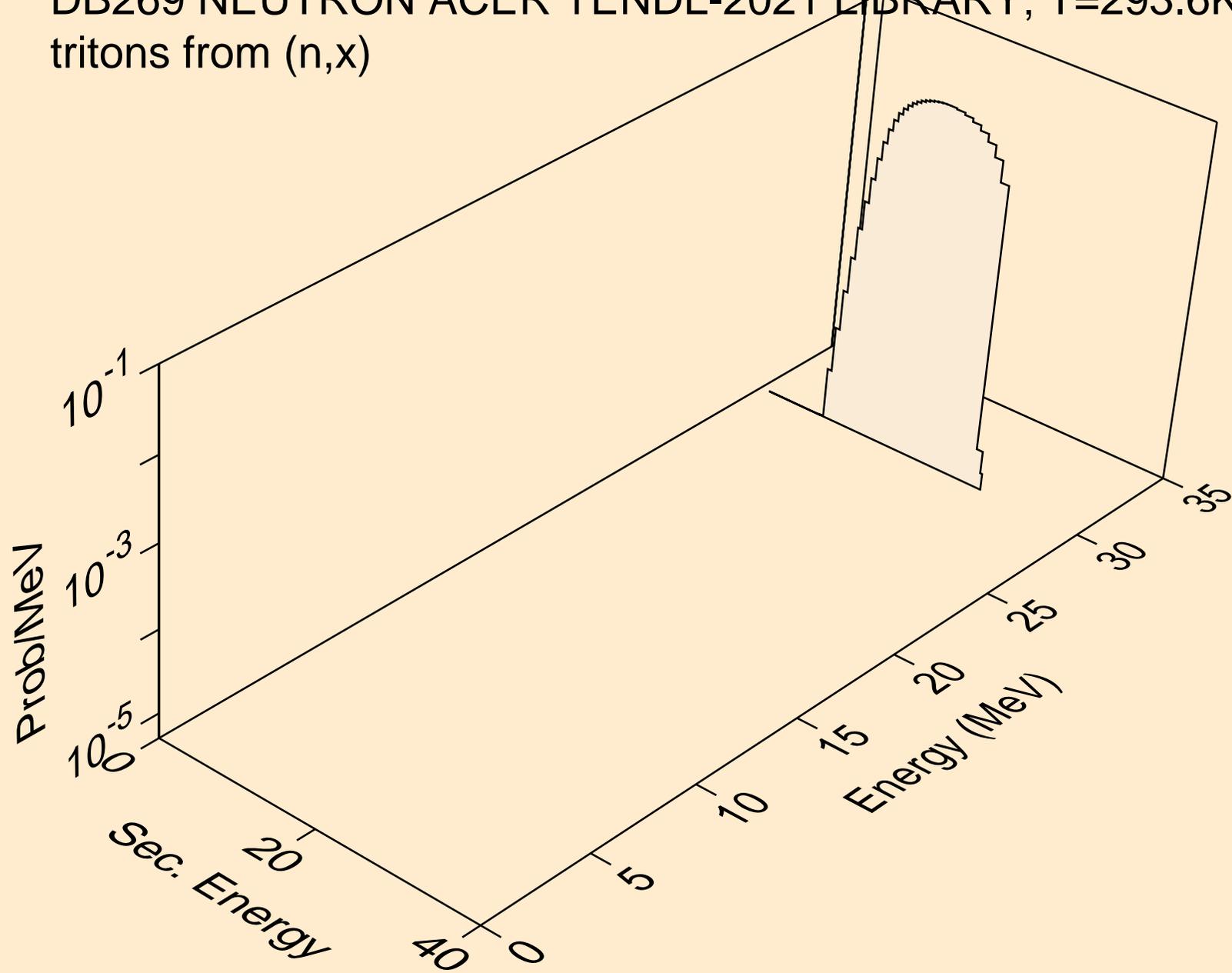DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
deuterons from (n,2nd)

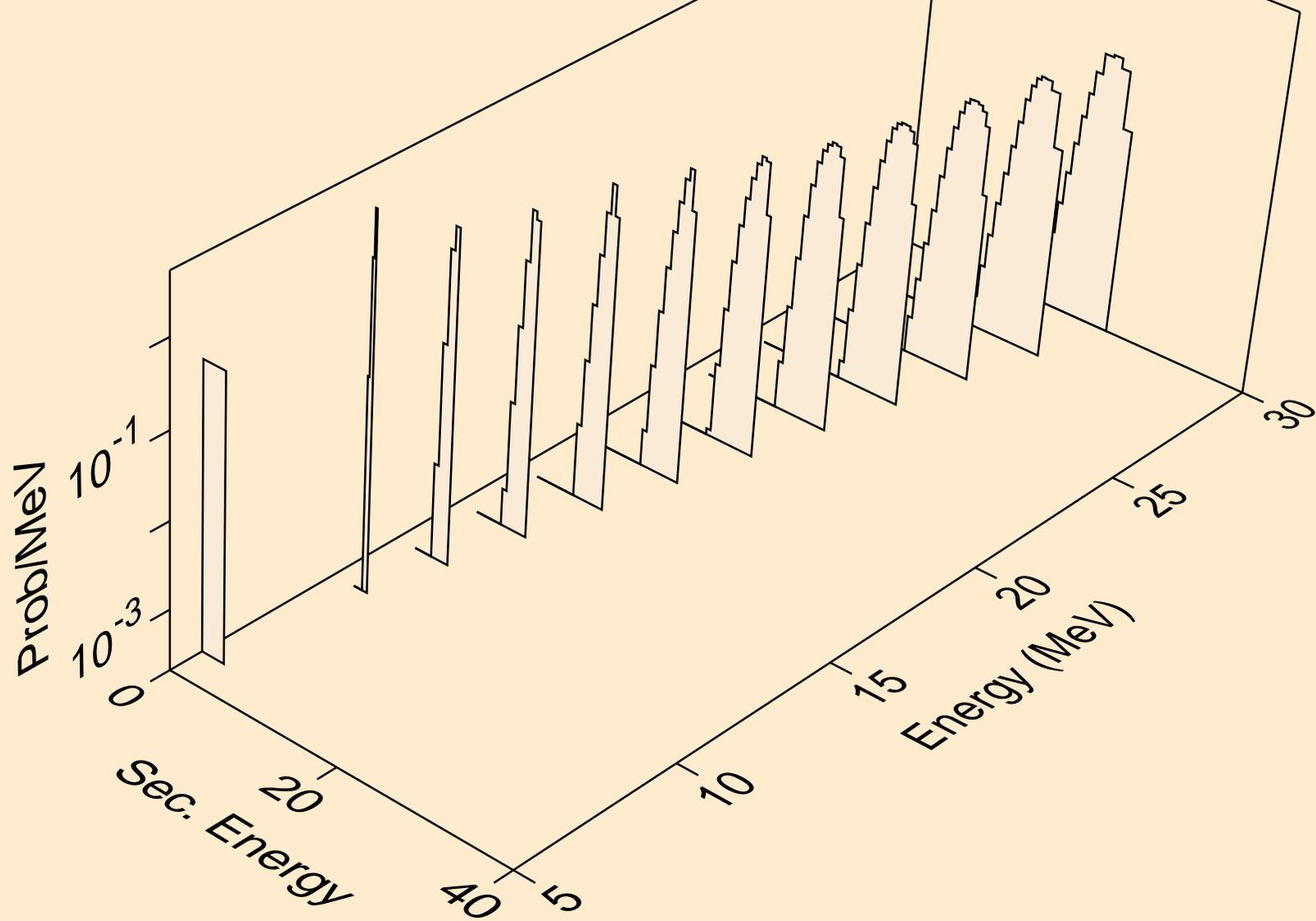DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
deuterons from (n,n*)d

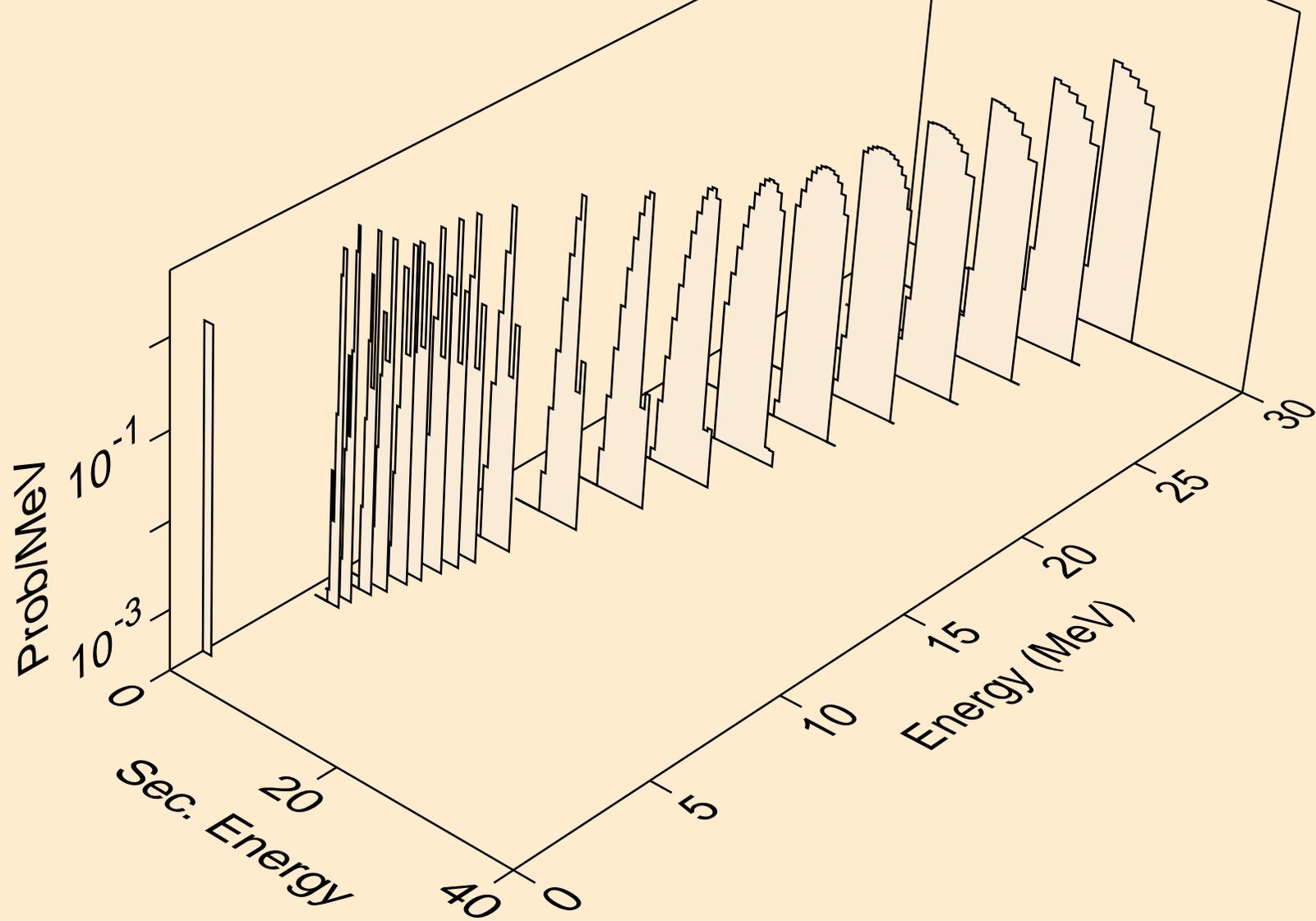DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
deuterons from (n,d)

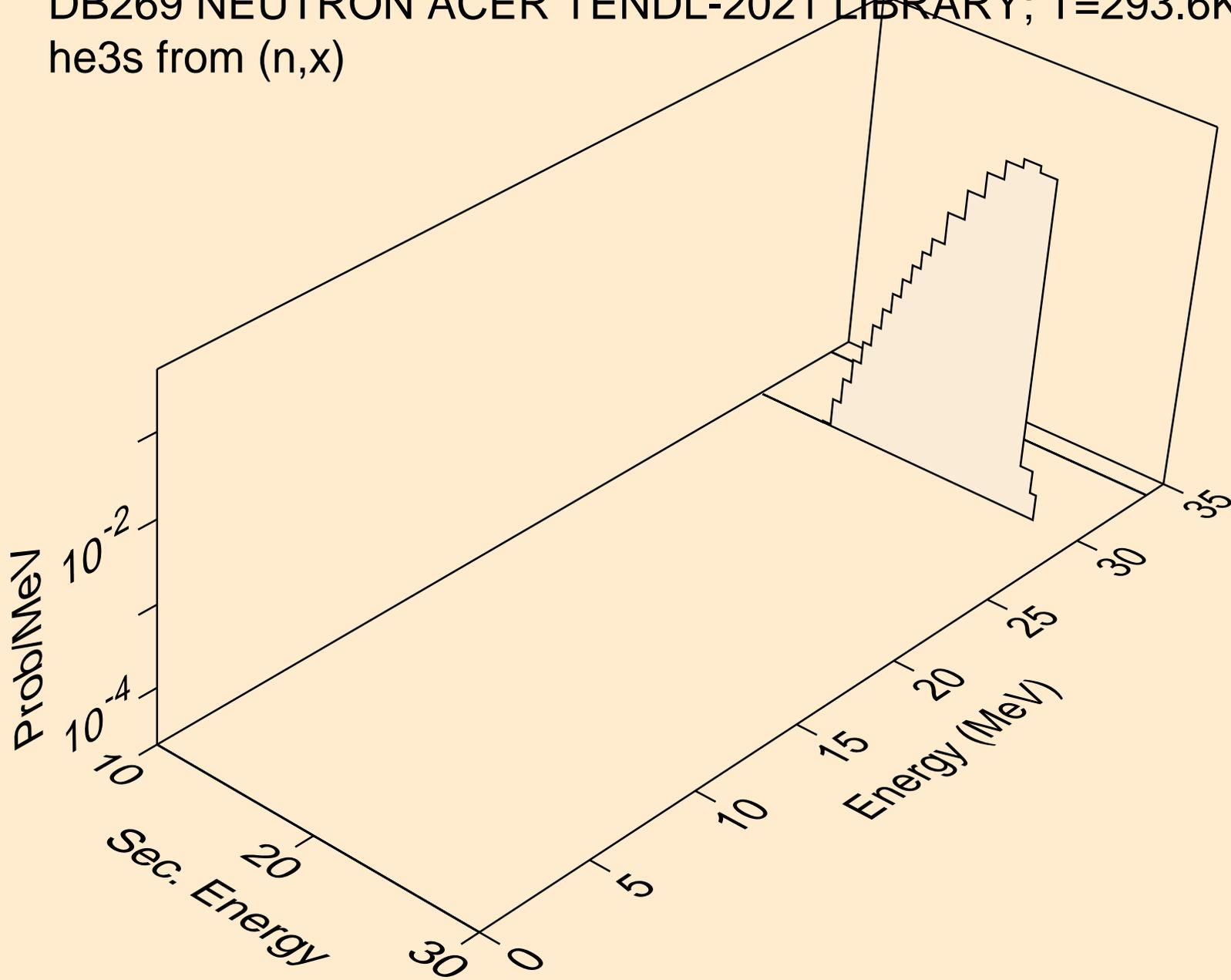DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
tritons from (n,x)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
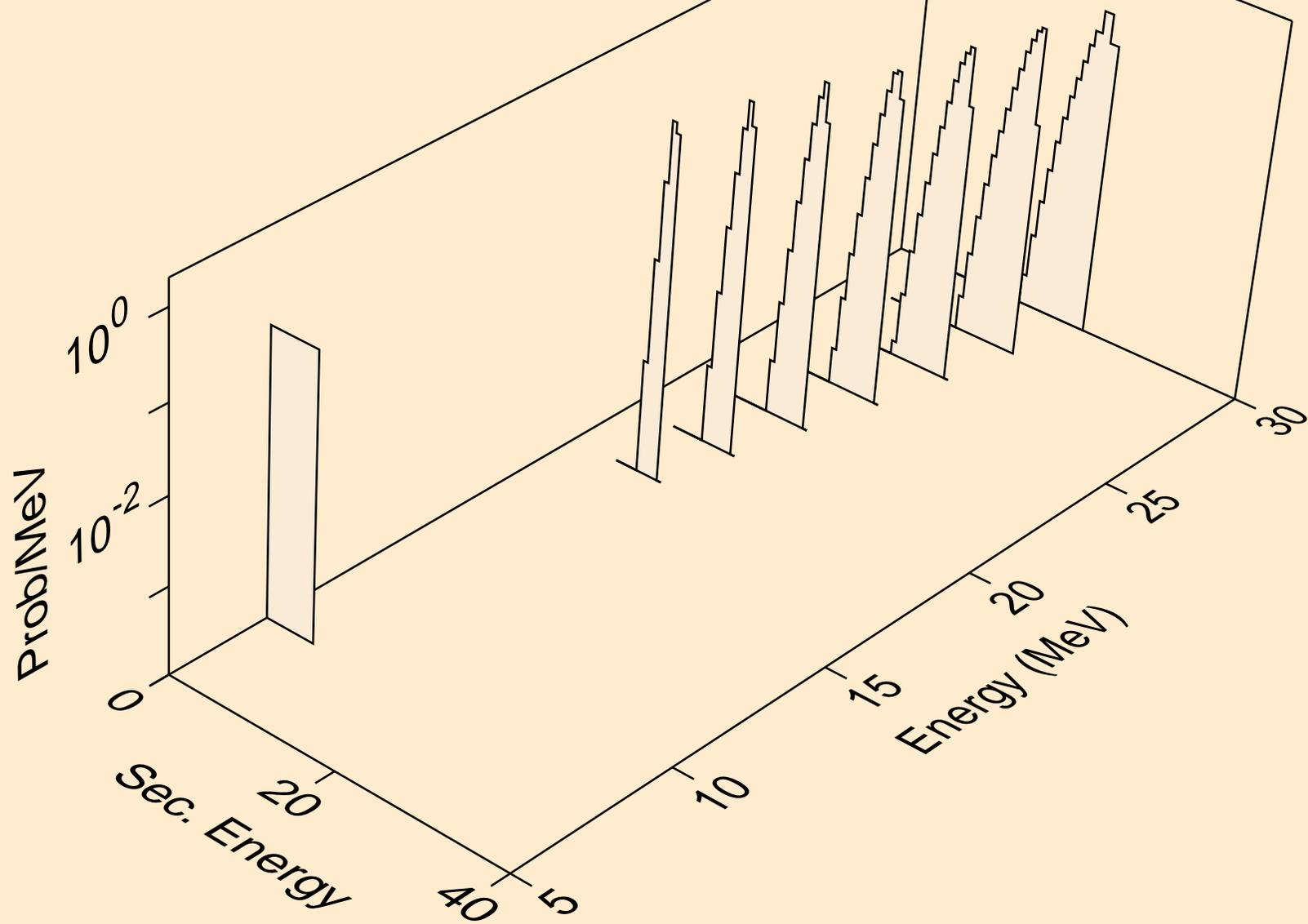tritons from (n,n*)t

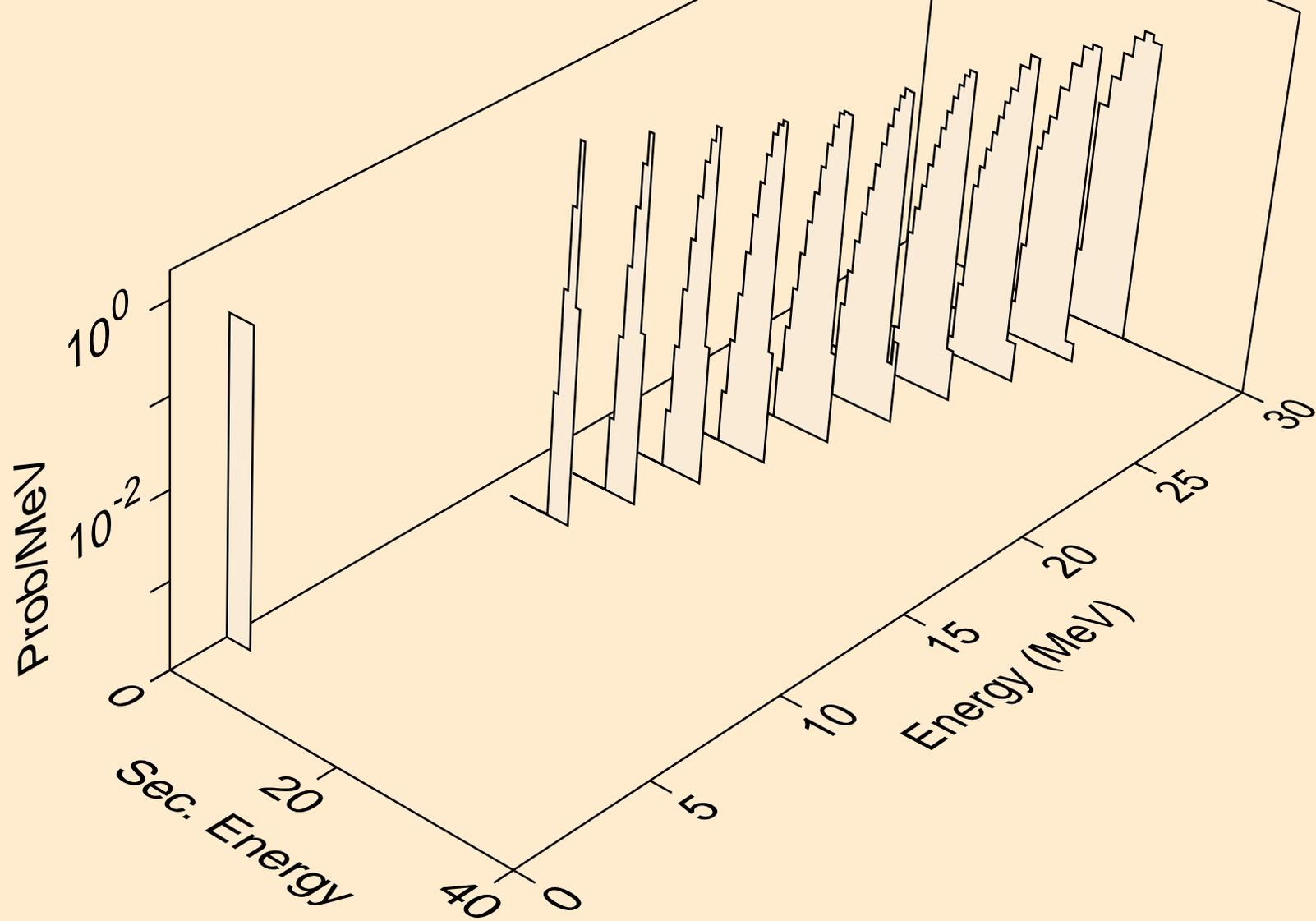DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
tritons from (n,t)

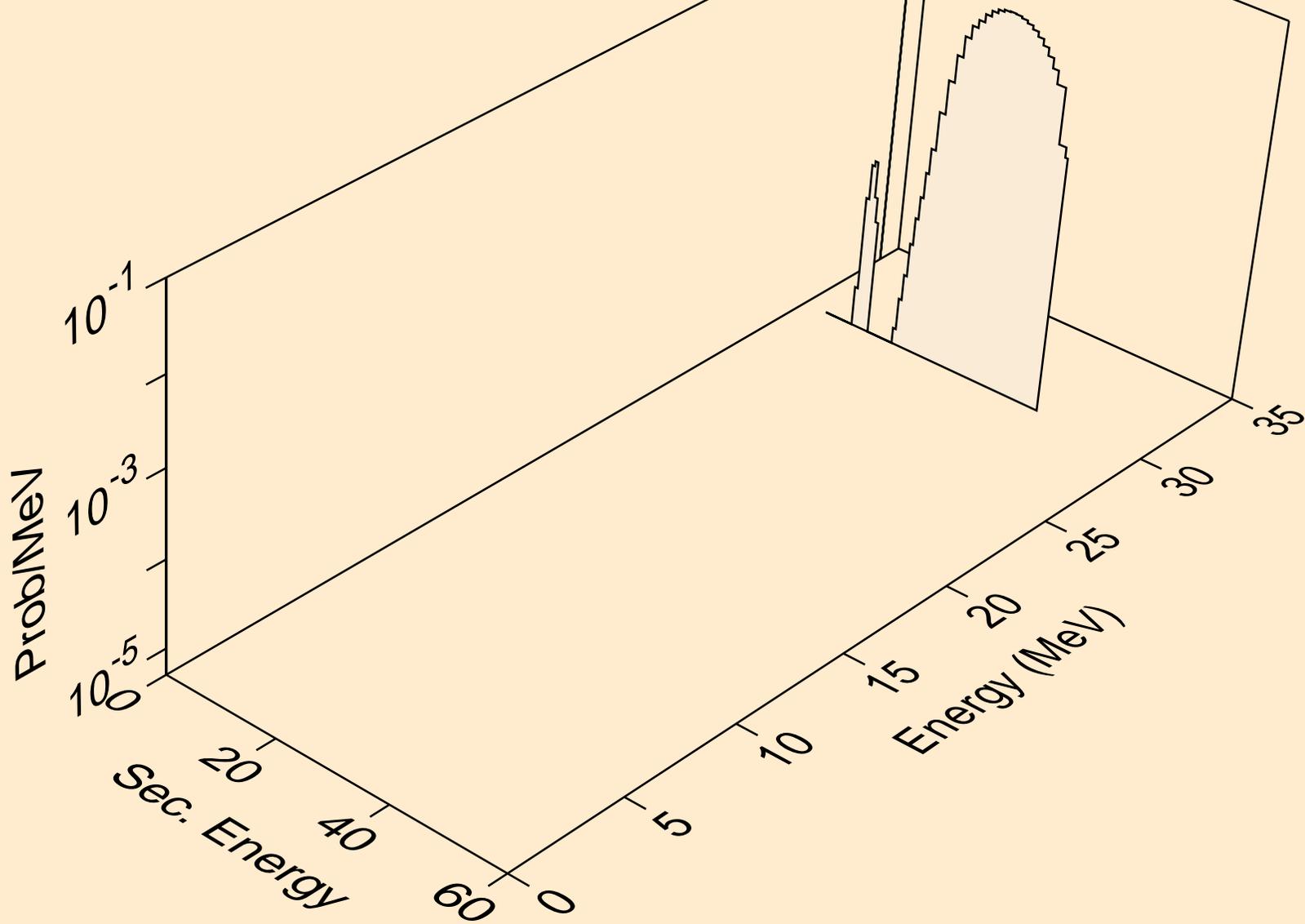DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
he3s from (n,x)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
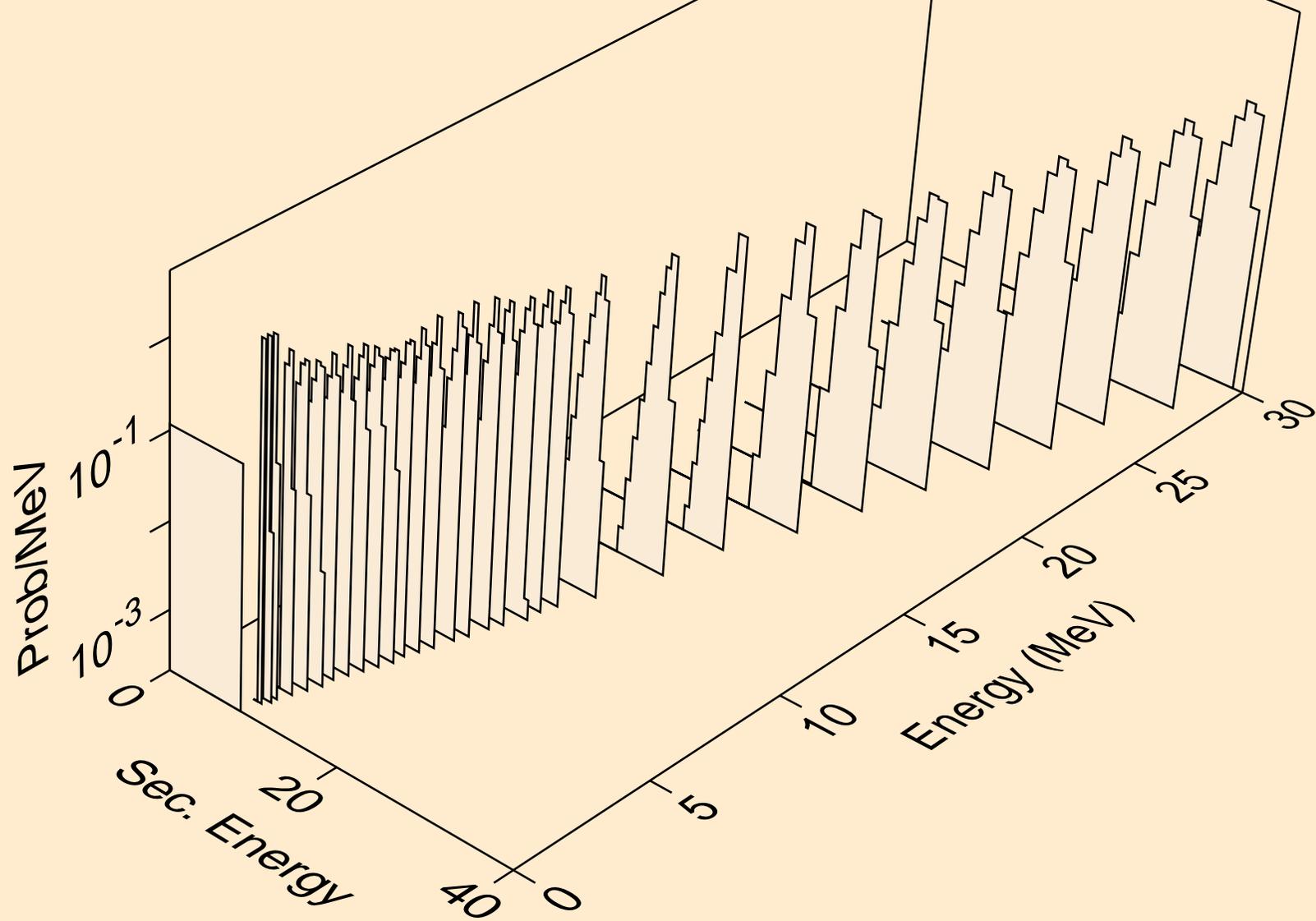he3s from (n,n*)he3

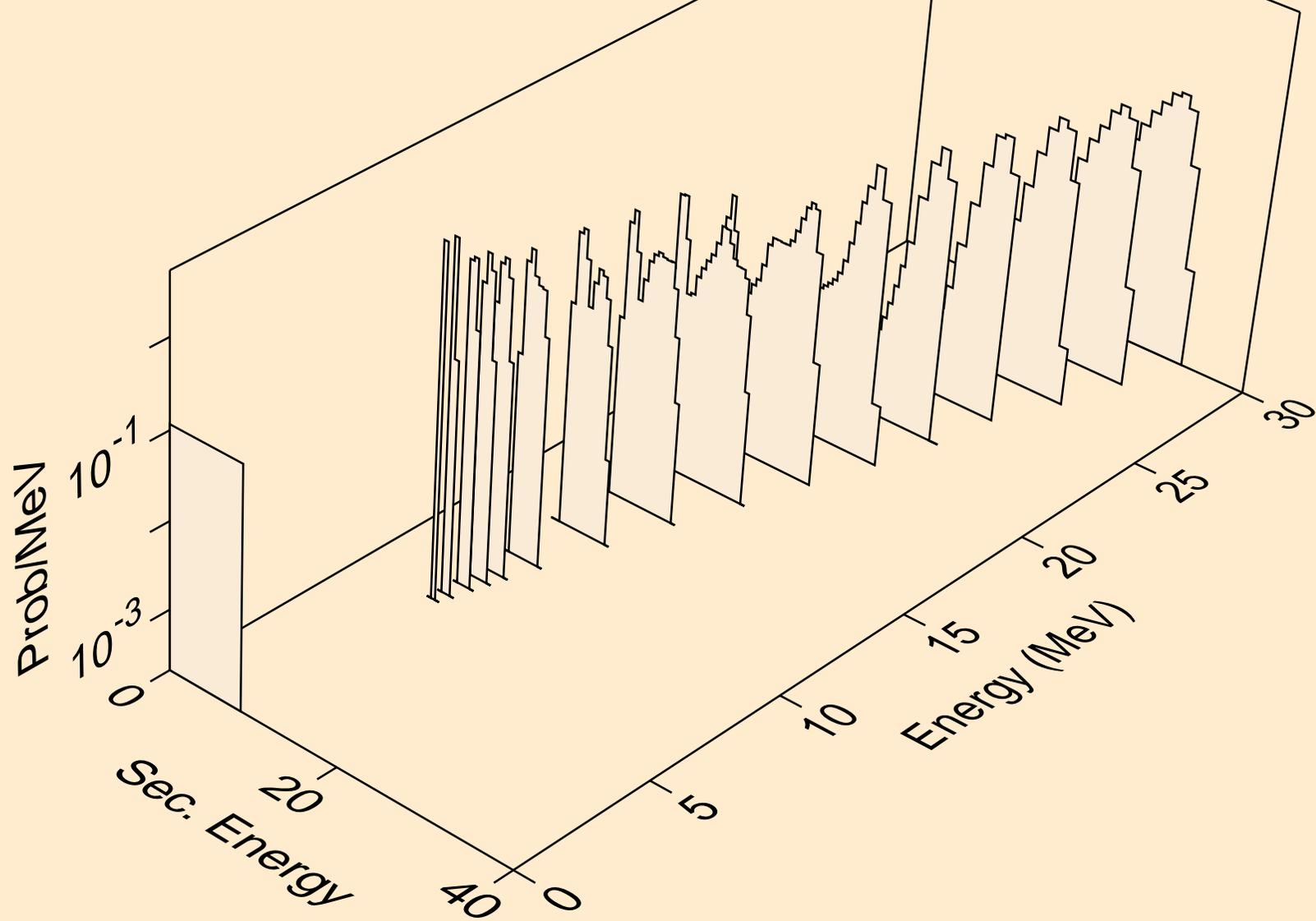DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
he3s from (n,he3)

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
alphas from (n,x)

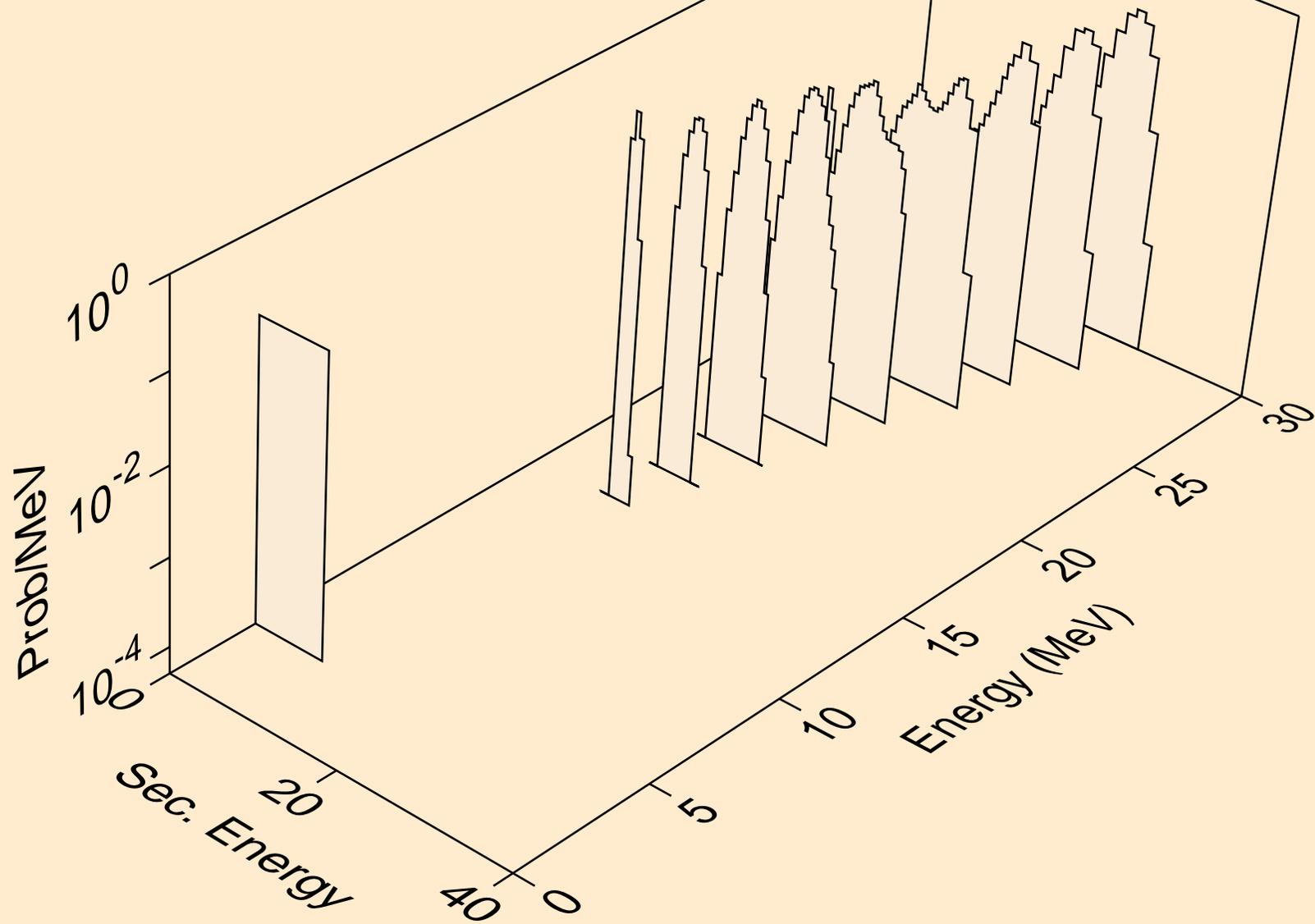DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
alphas from (n,n*)a

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
alphas from (n,2n)a

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
alphas from (n,3n)a

DB269 NEUTRON ACER TENDL-2021 LIBRARY; T=293.6K
alphas from (n,a)