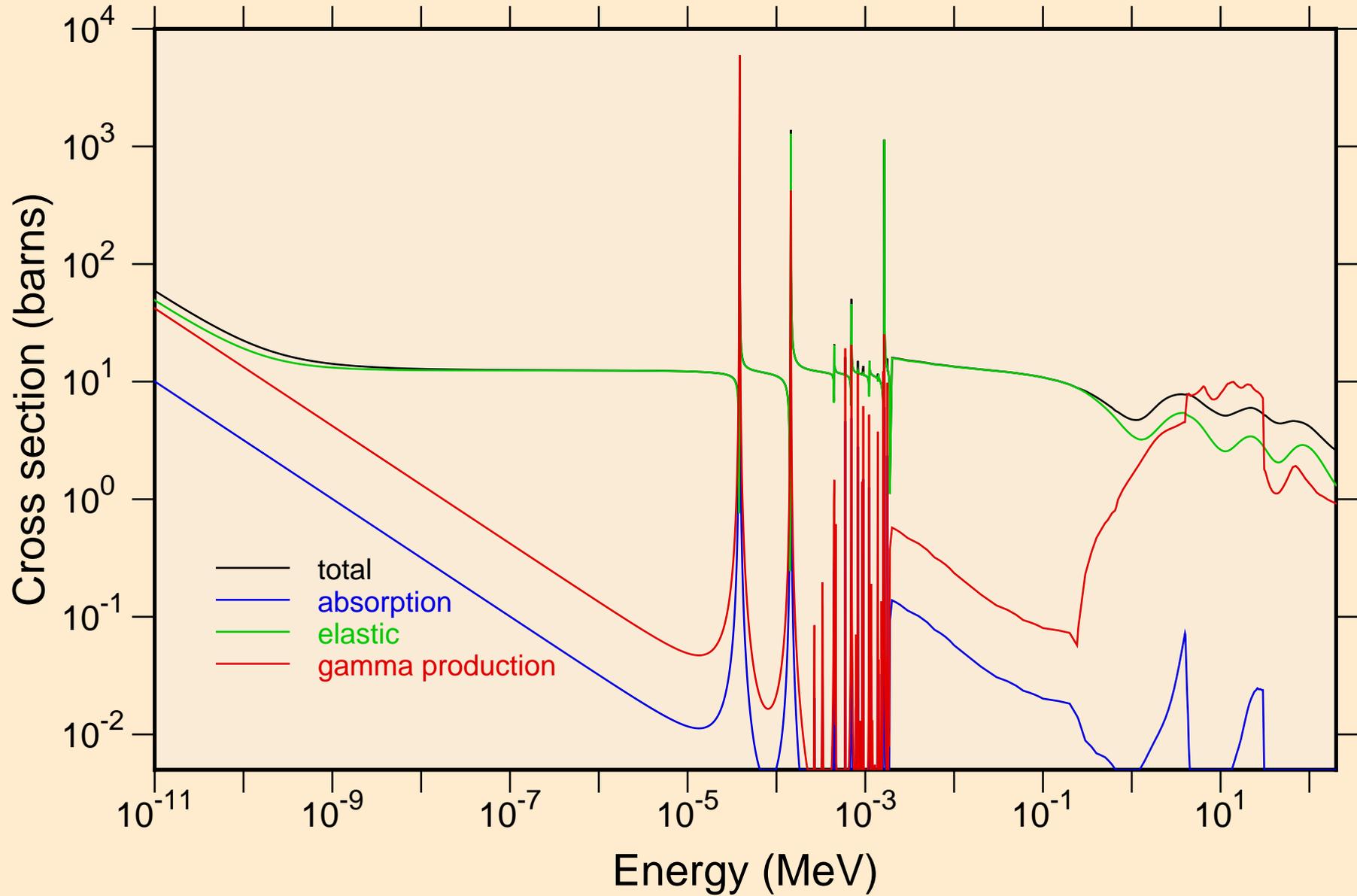RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Principal cross sections

Cross section (barns) vs Energy (MeV)

- total
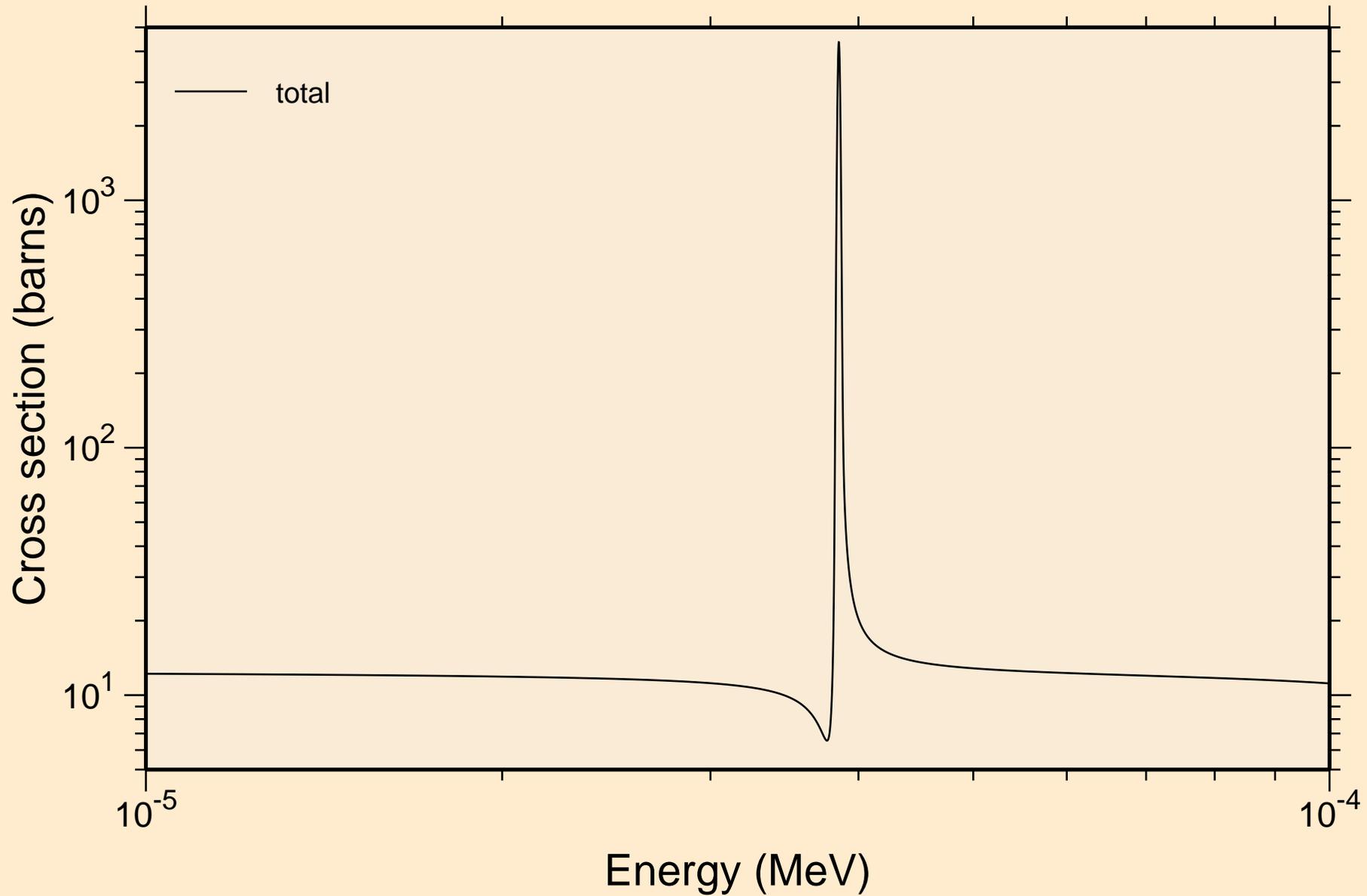- absorption
- elastic
- gamma production

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
resonance total cross section

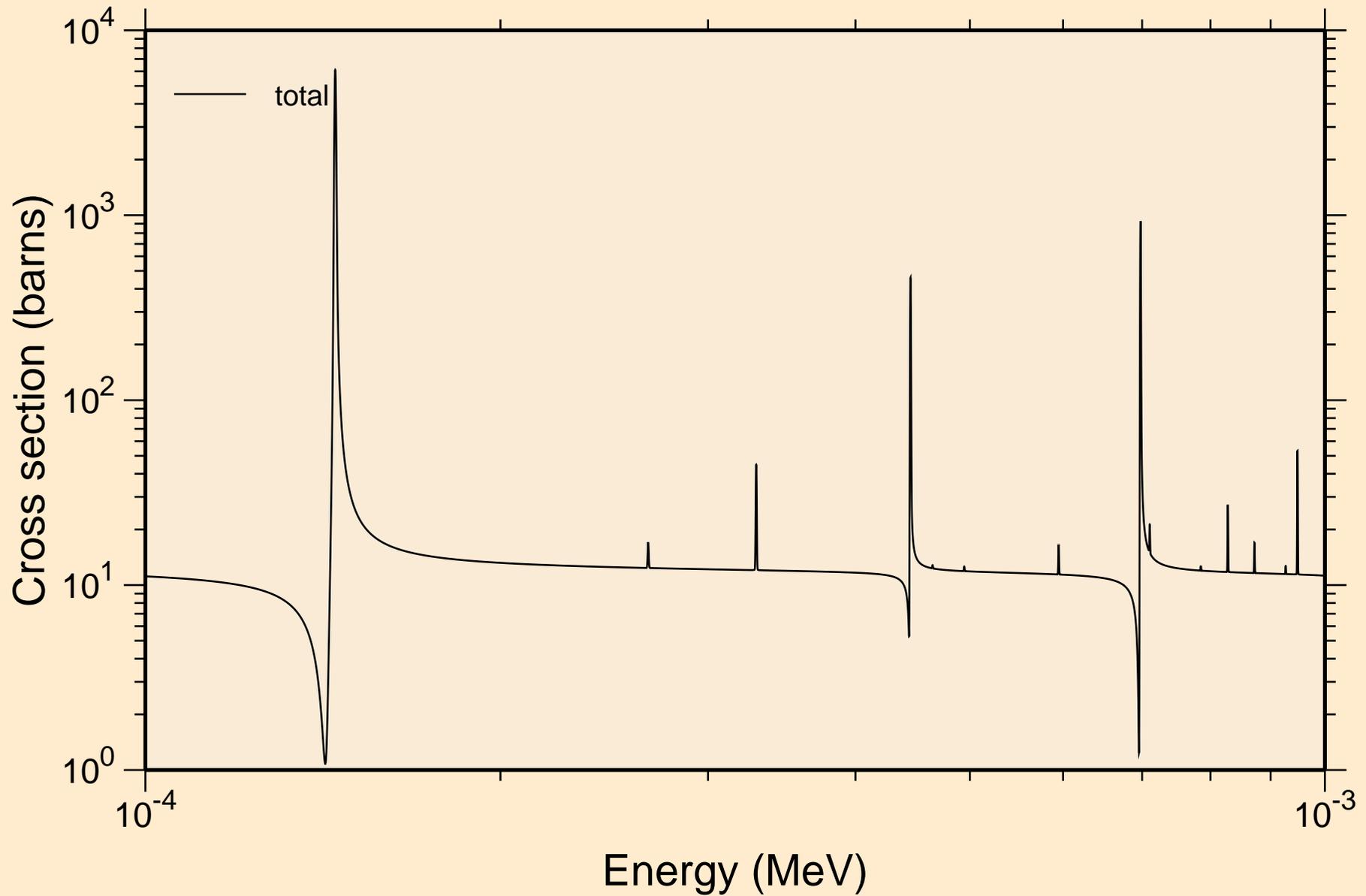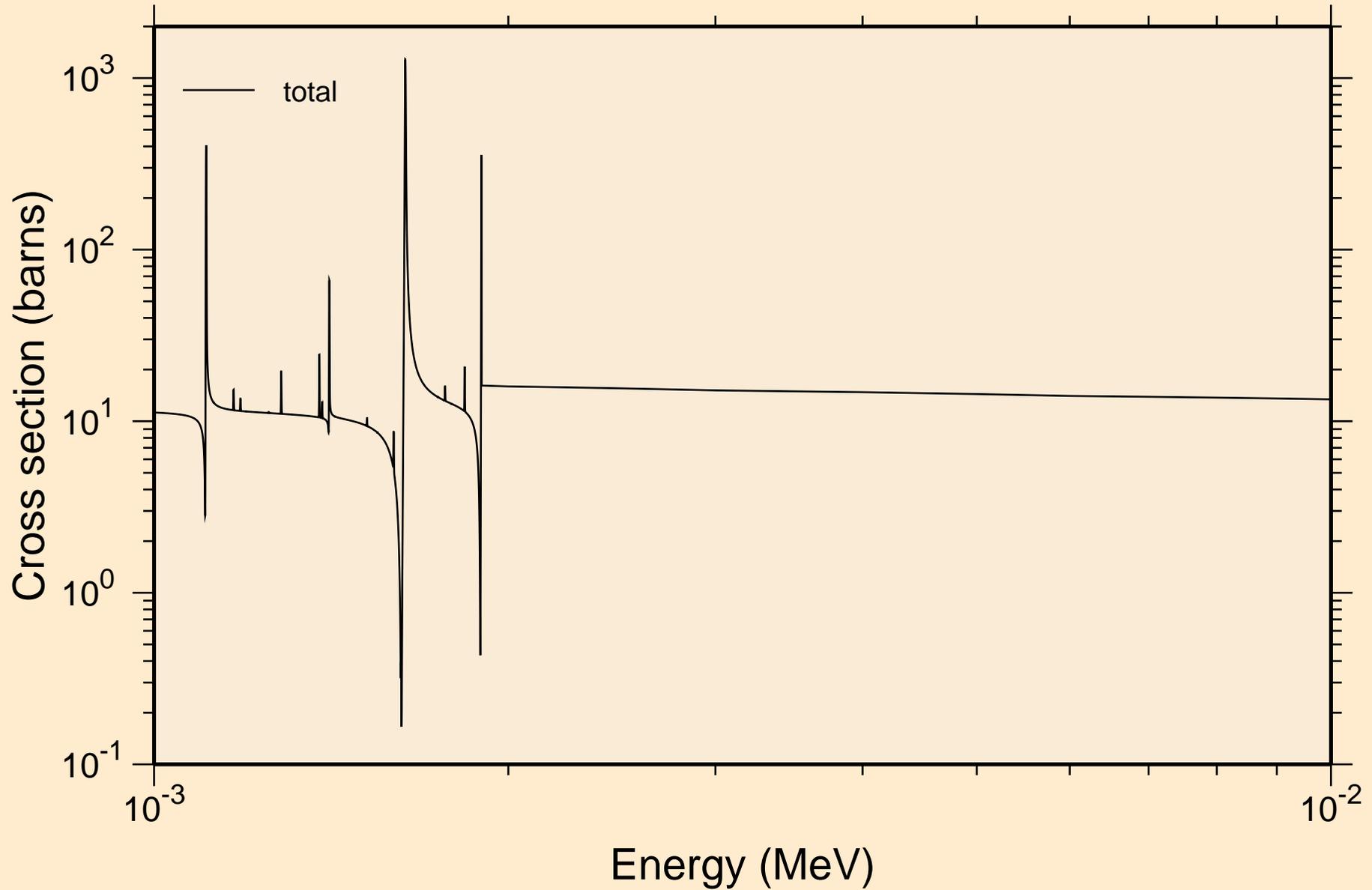RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
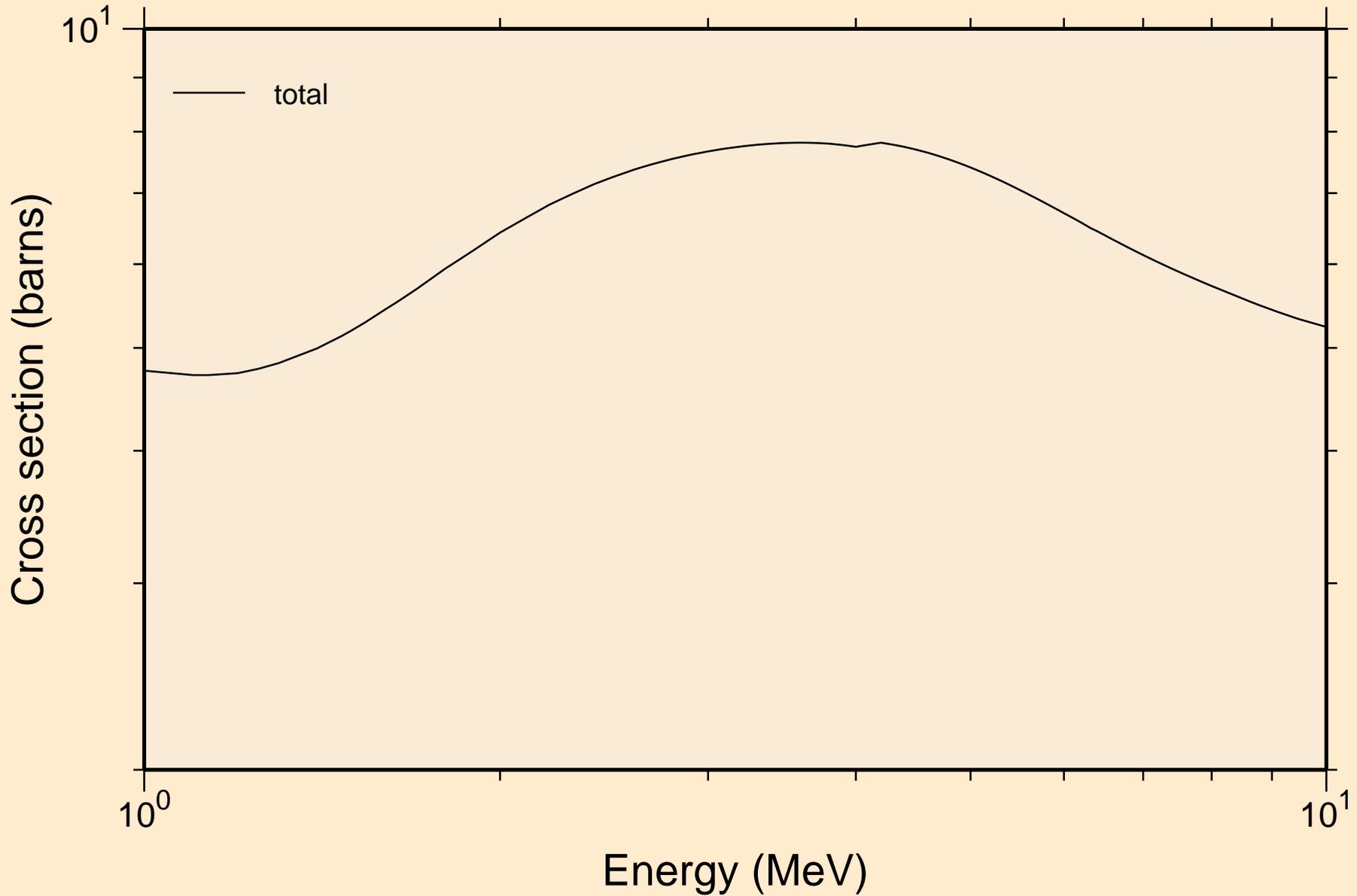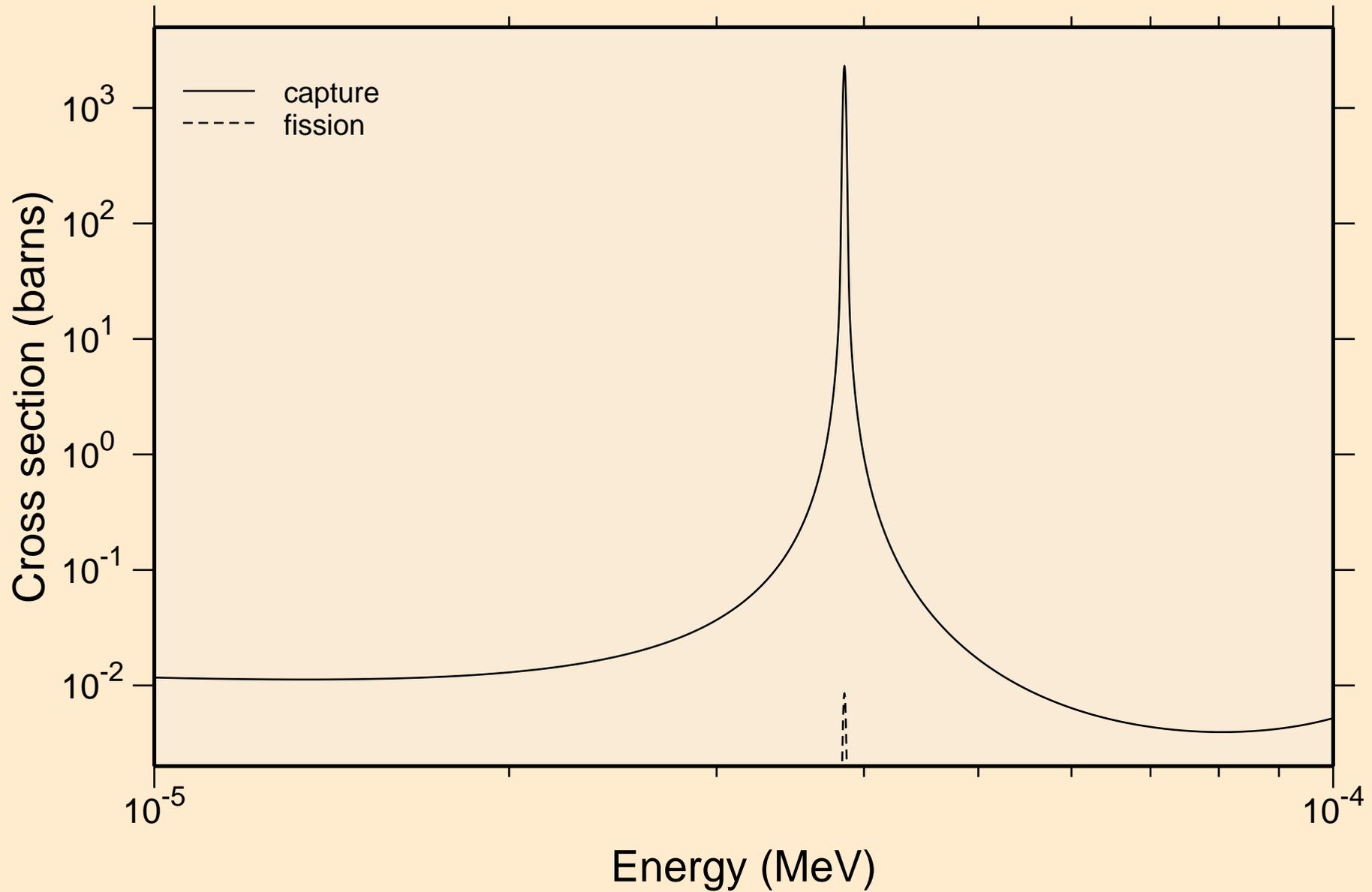resonance total cross section

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
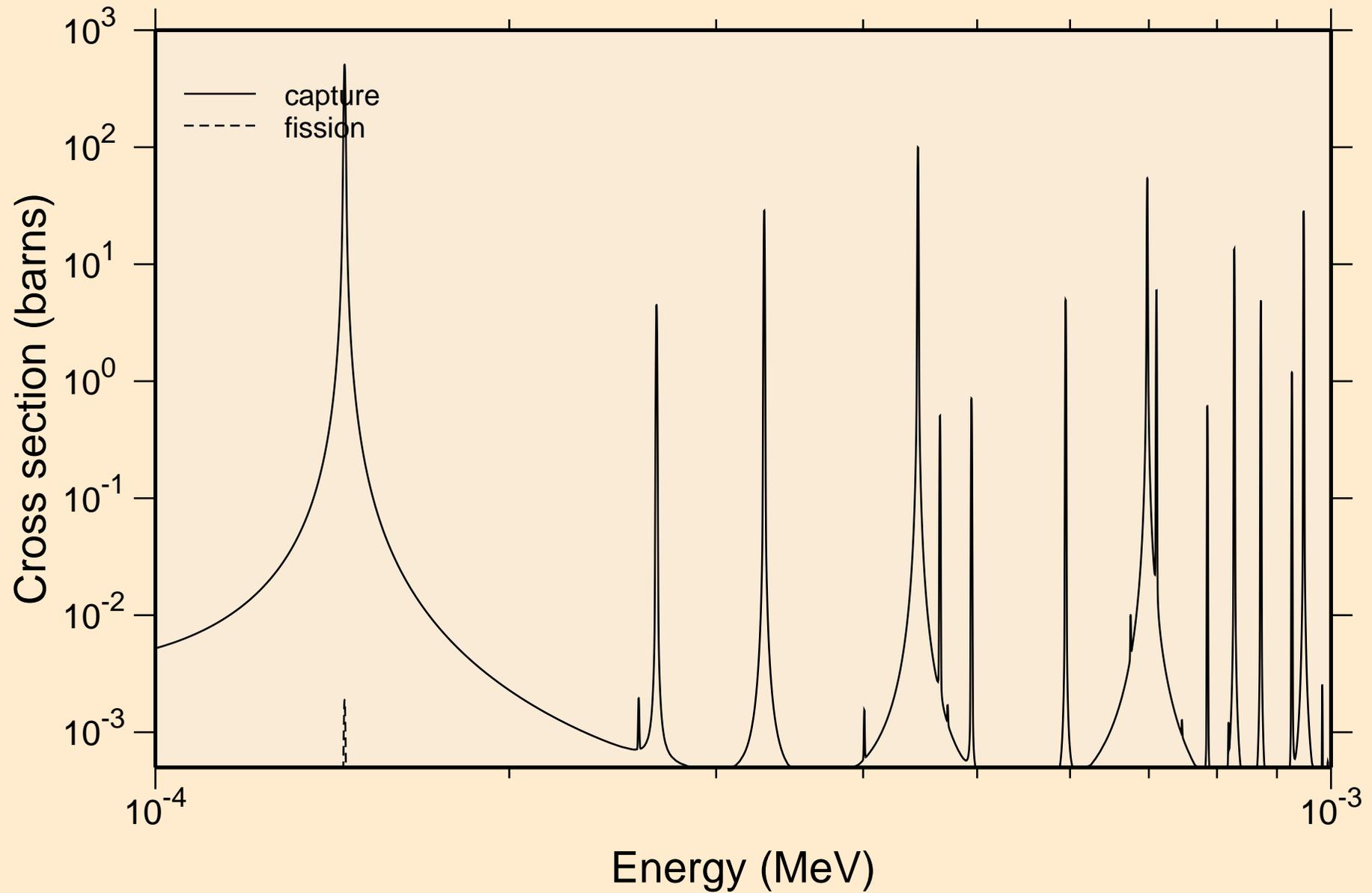resonance total cross section

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
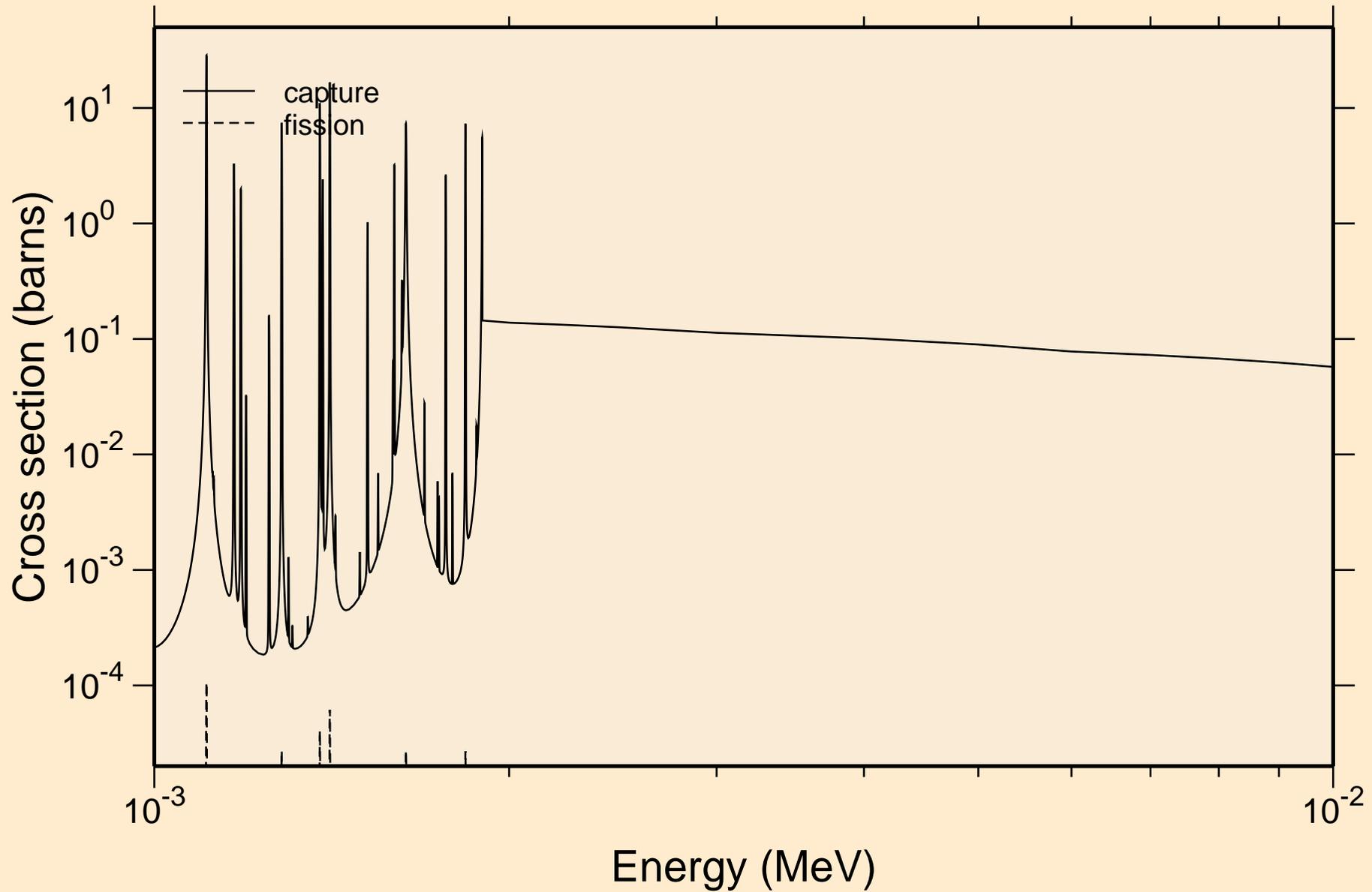resonance total cross section

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
resonance absorption cross sections

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
resonance absorption cross sections
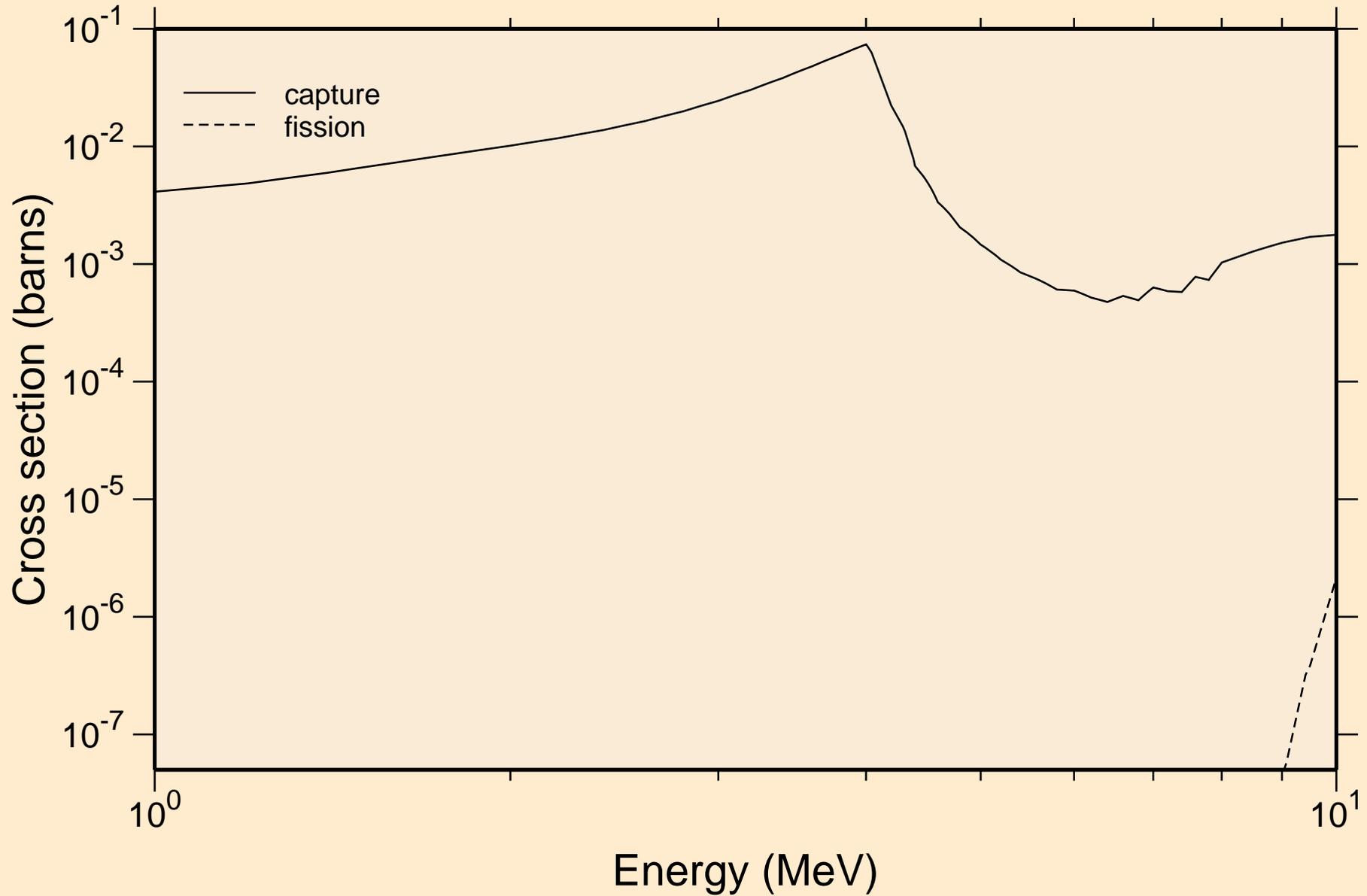
RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
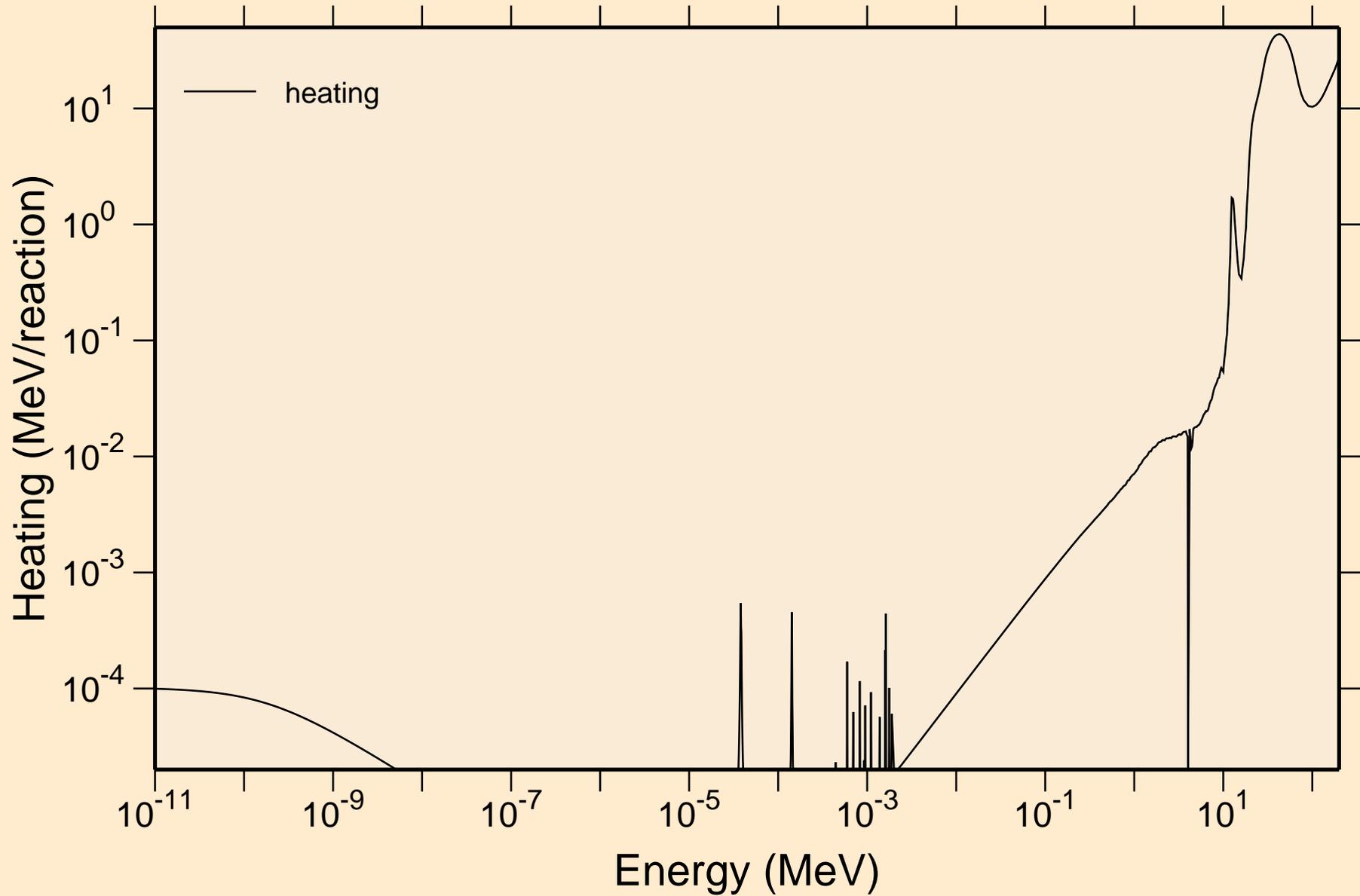resonance absorption cross sections

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
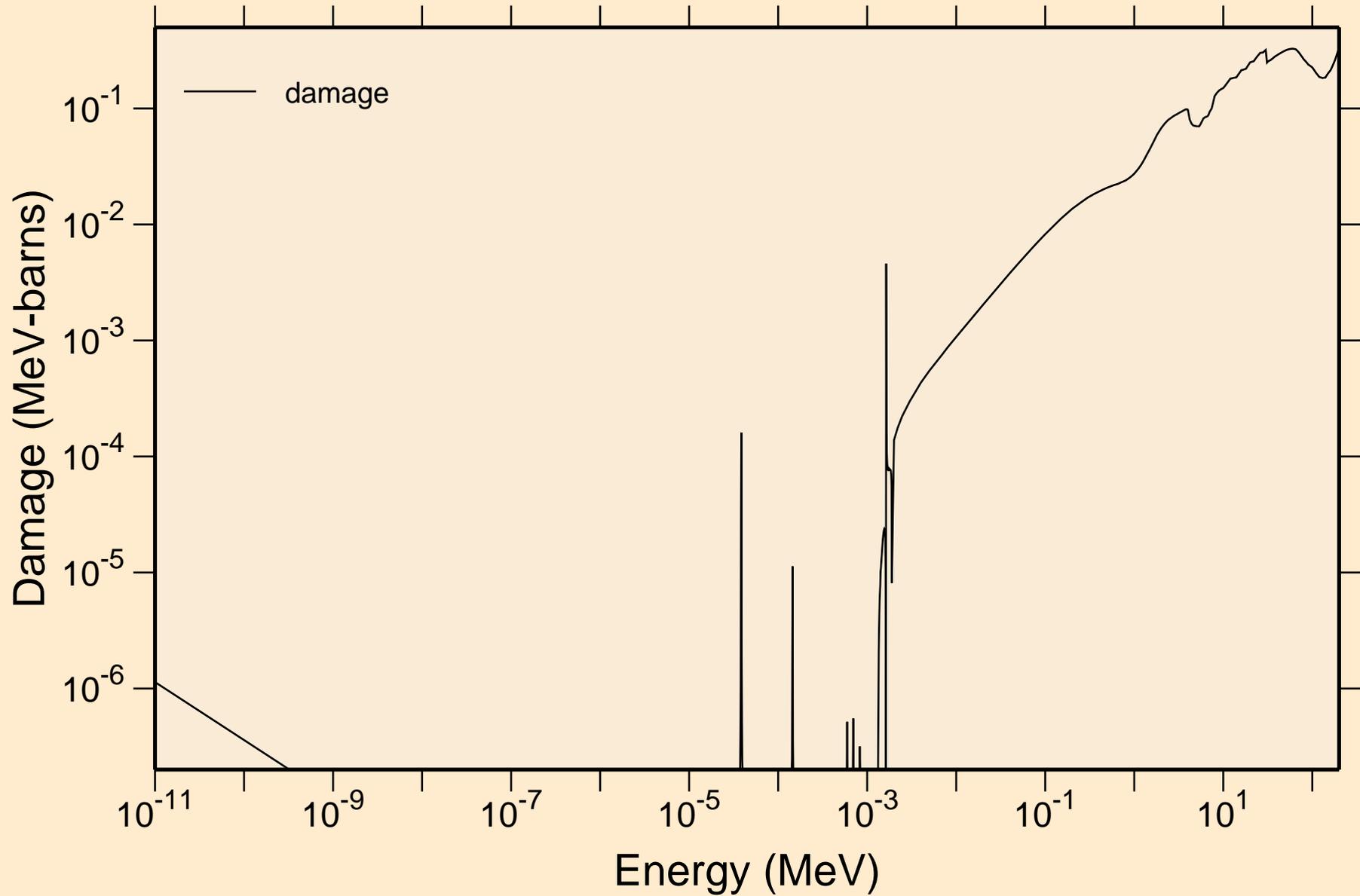resonance absorption cross sections

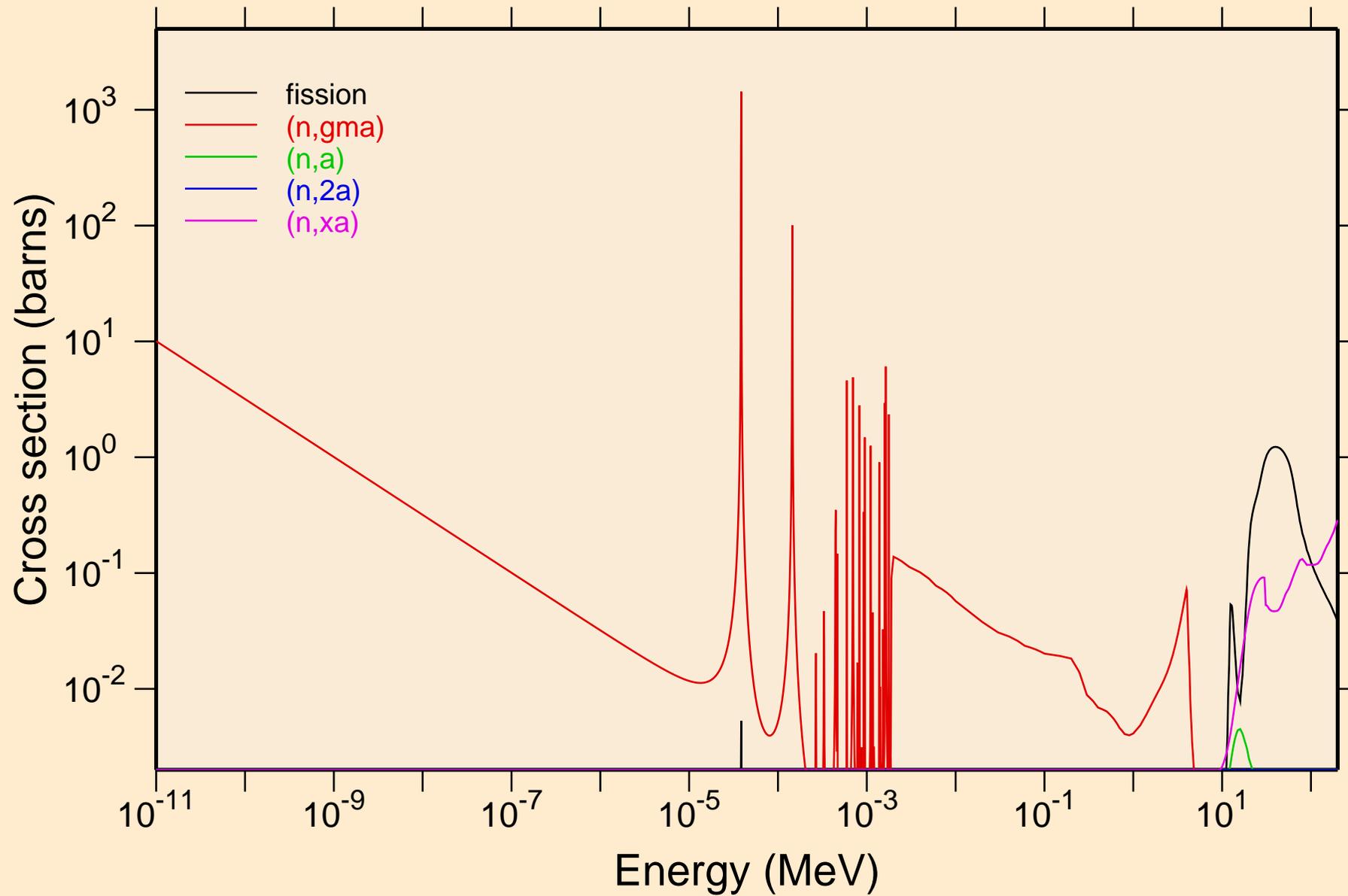RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Heating

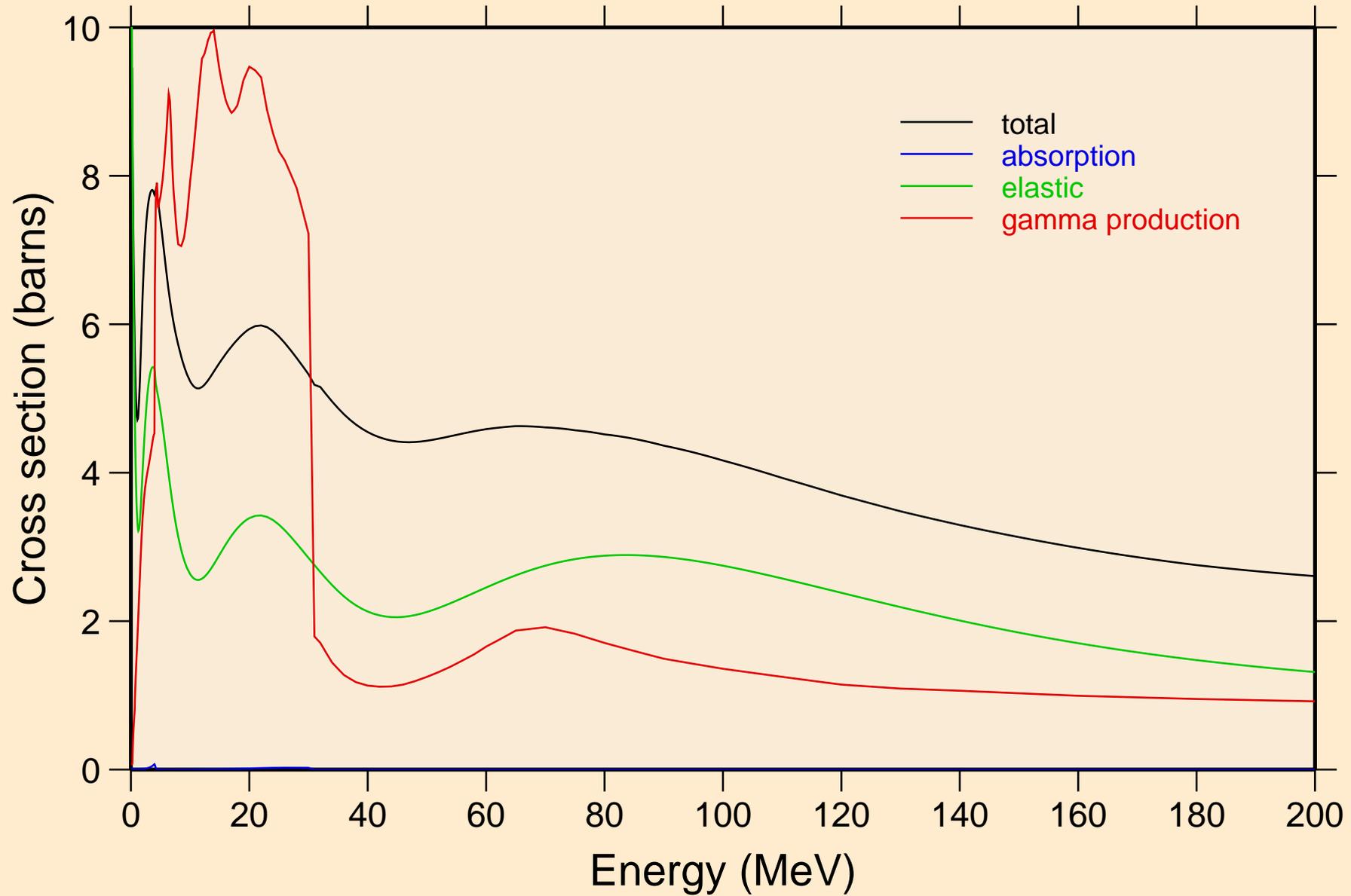RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Damage

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Non-threshold reactions

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Principal cross sections

- total
- absorption
- elastic
- gamma production

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Heating

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
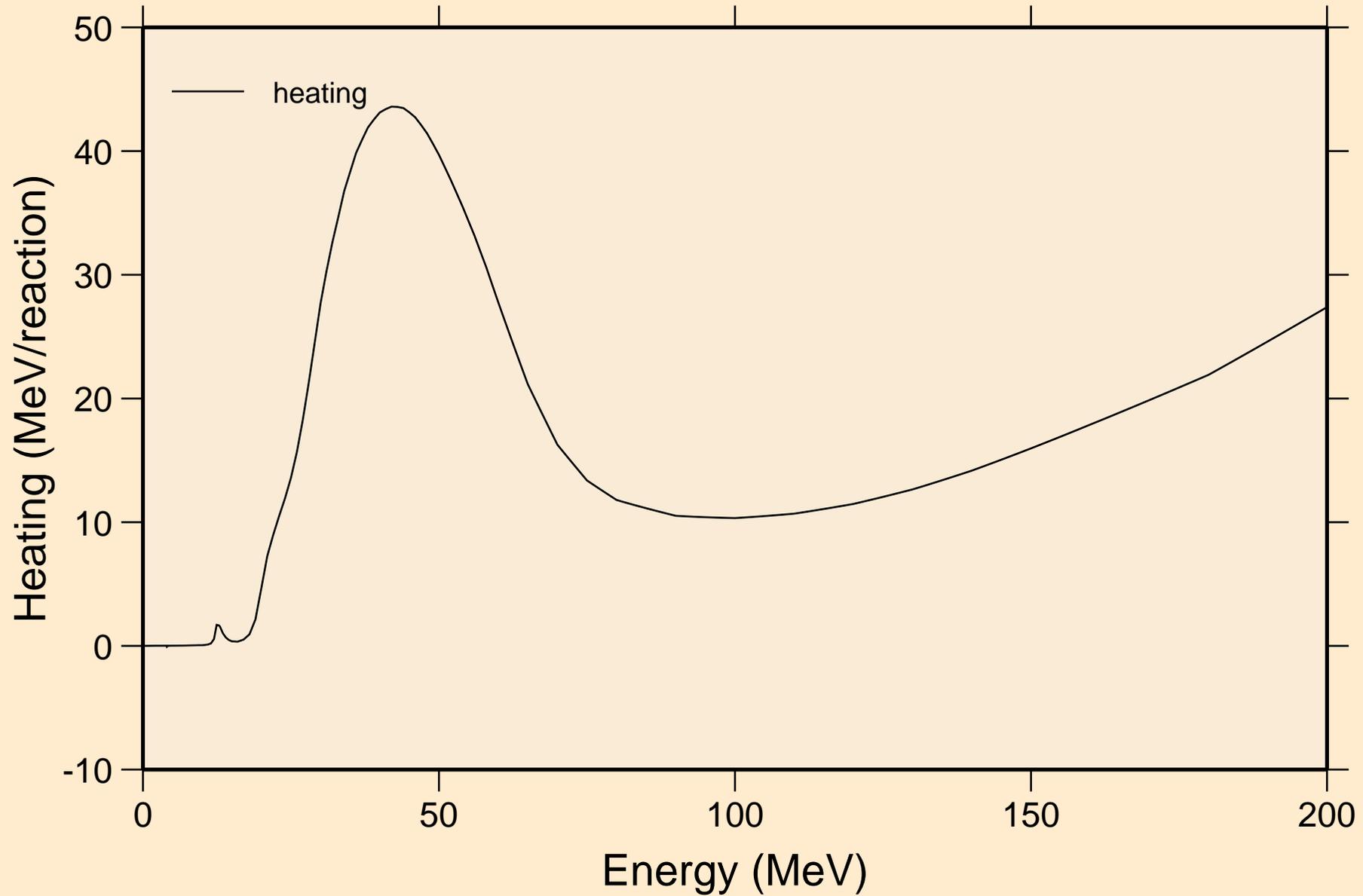Damage

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Non-threshold reactions

fission
(n,gma)
(n,a)
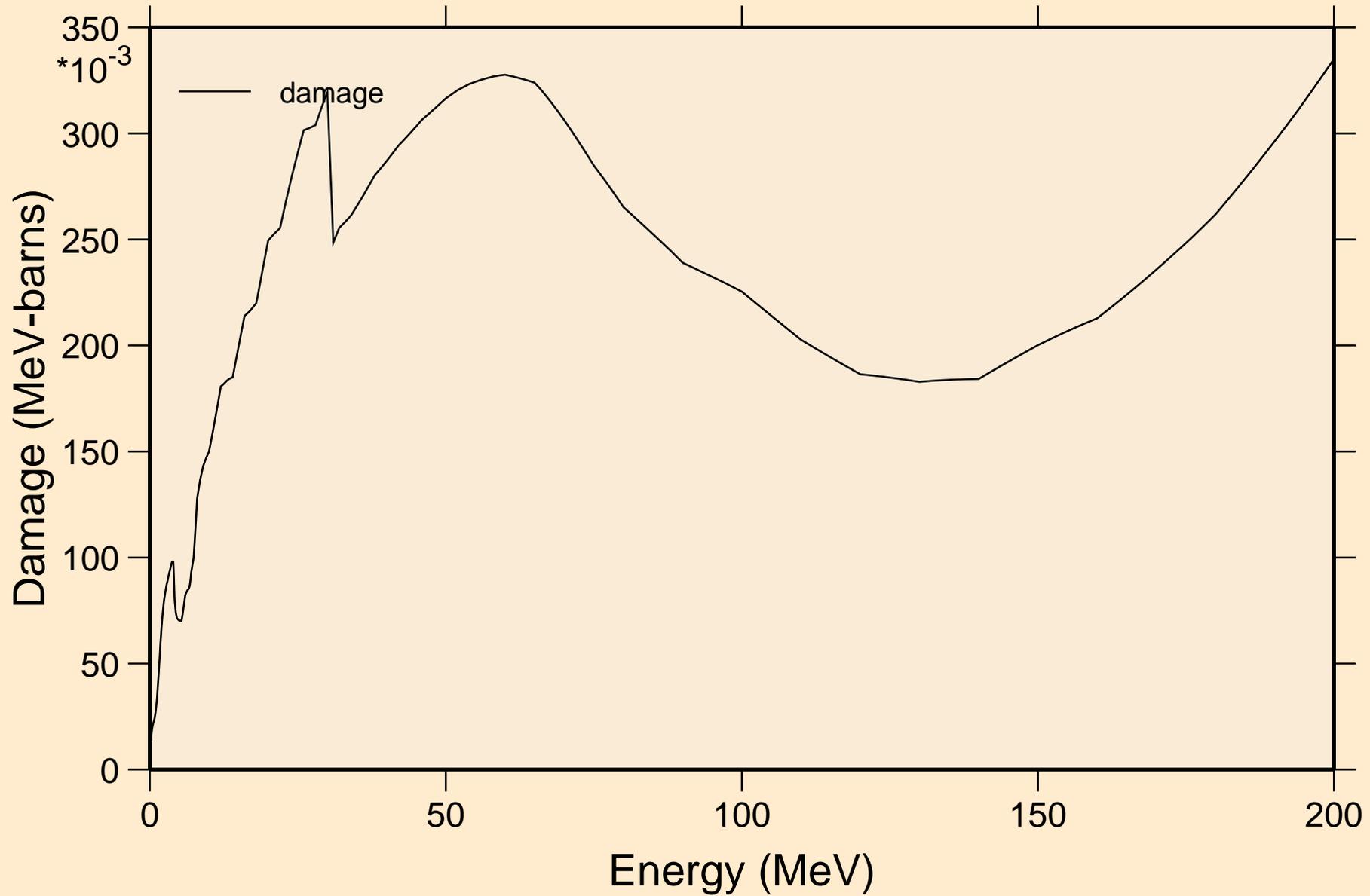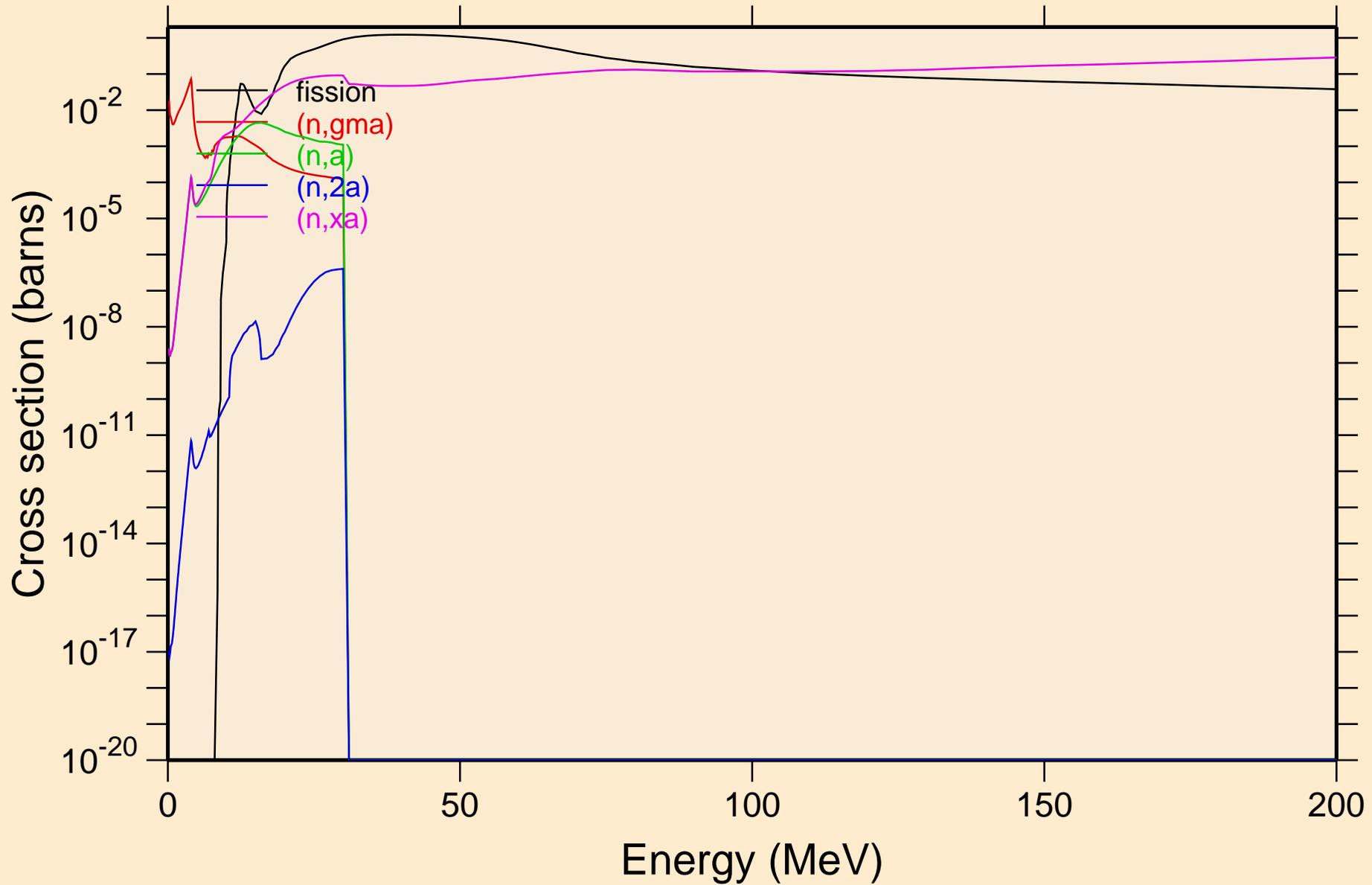(n,2a)
(n,xa)

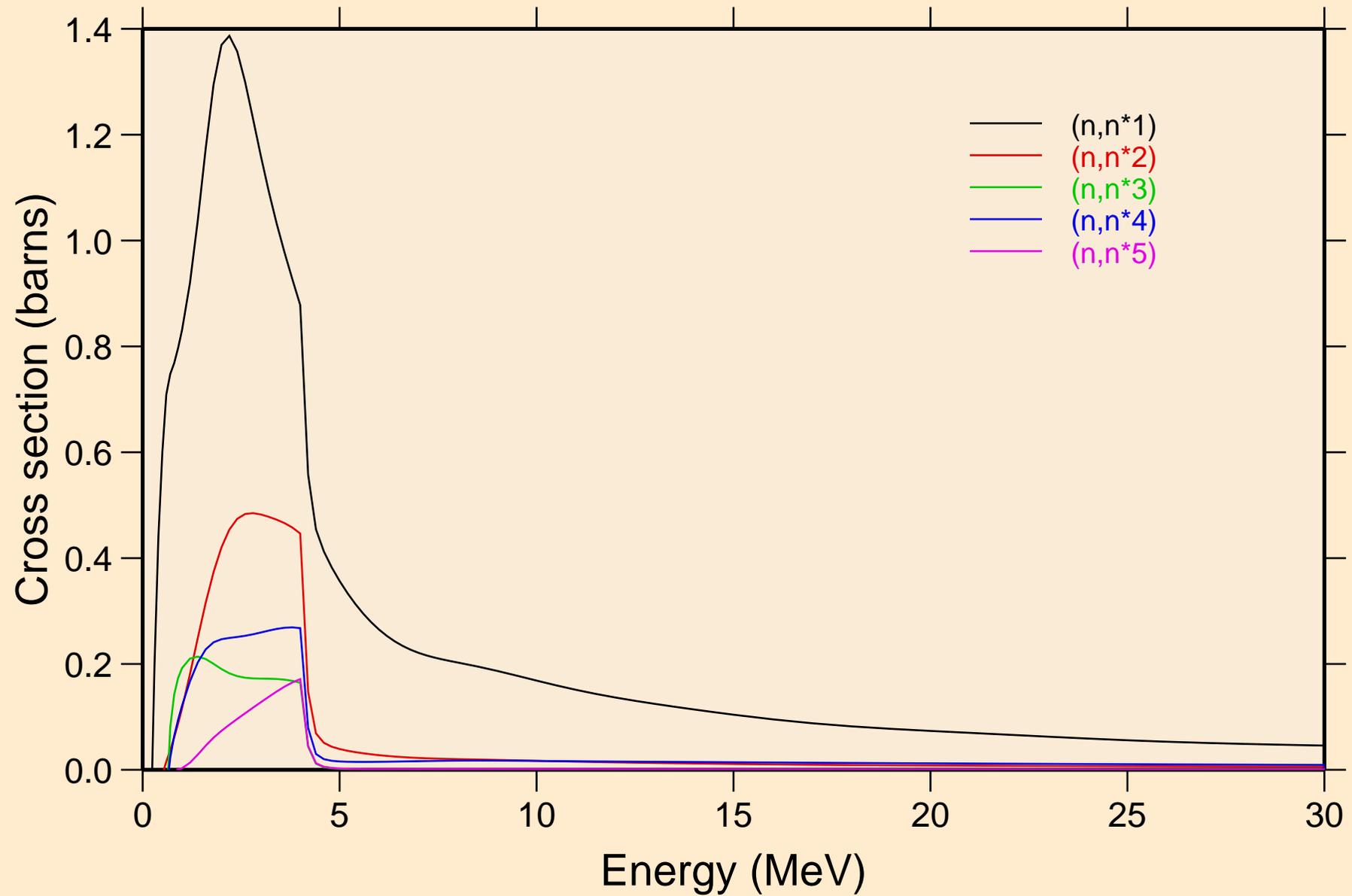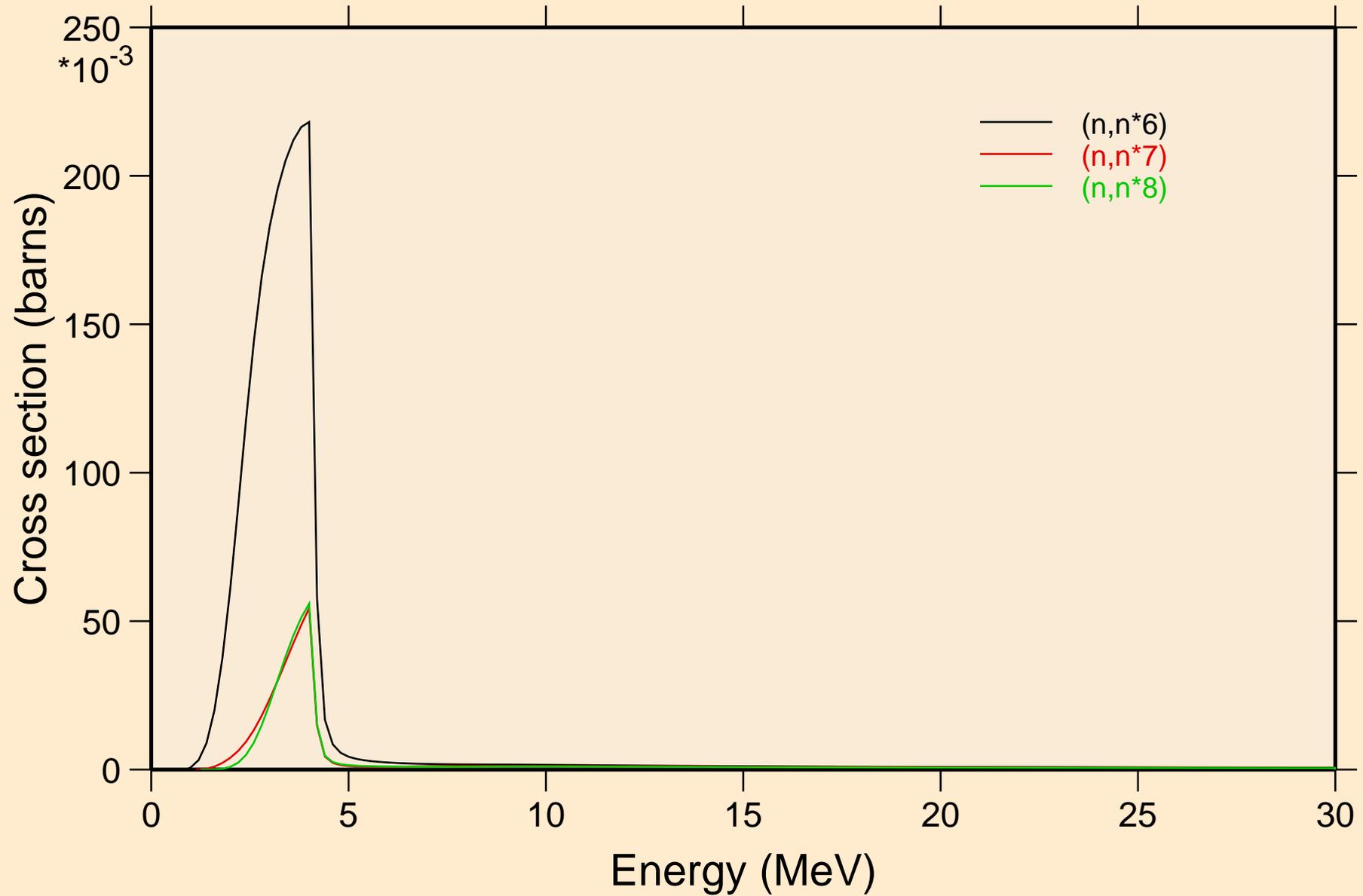RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
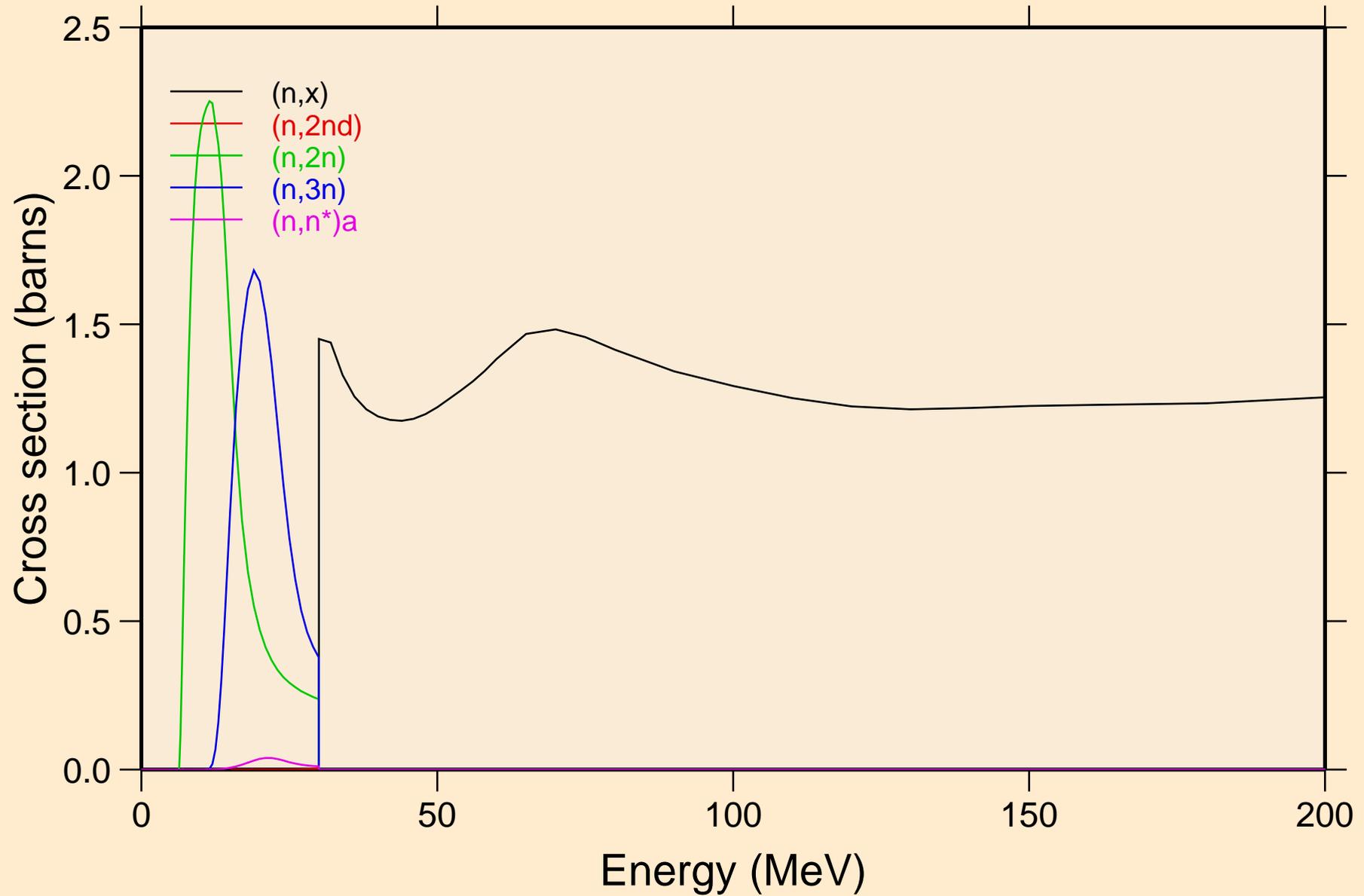Inelastic levels

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Inelastic levels

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

- (n,x)
- (n,2nd)
- (n,2n)
- (n,3n)
- (n,n*)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

— (n,2n)a
— (n,3n)a
— (n,n*)p
— (n,n*)2a
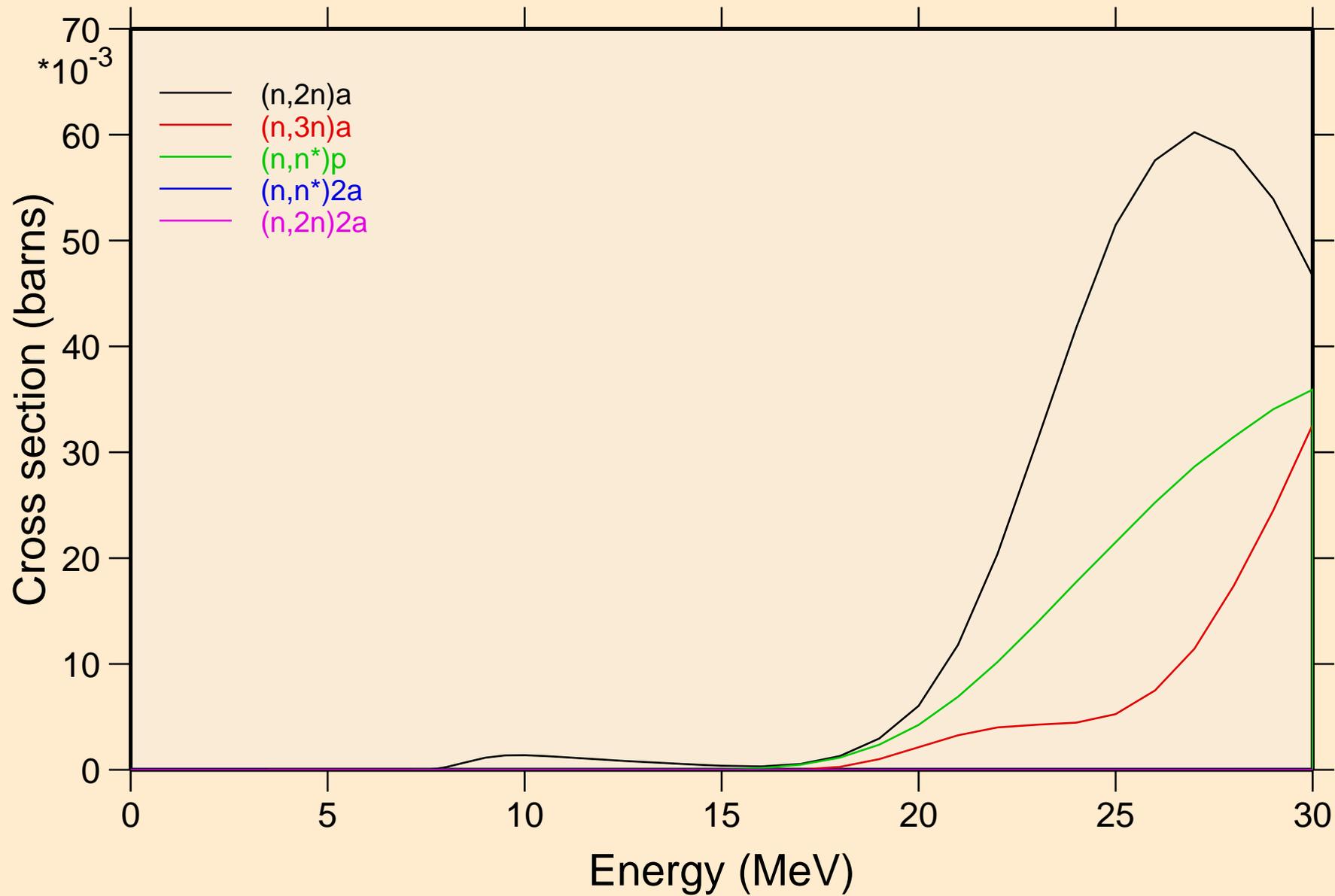— (n,2n)2a

Cross section (barns)

*10^-3

Energy (MeV)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

Legend:
- (n,3np)
- (n,n2p)
- (n,npa)
- (n,n*c)
- (n,p)

X-axis: Energy (MeV)
Y-axis: Cross section (barns)
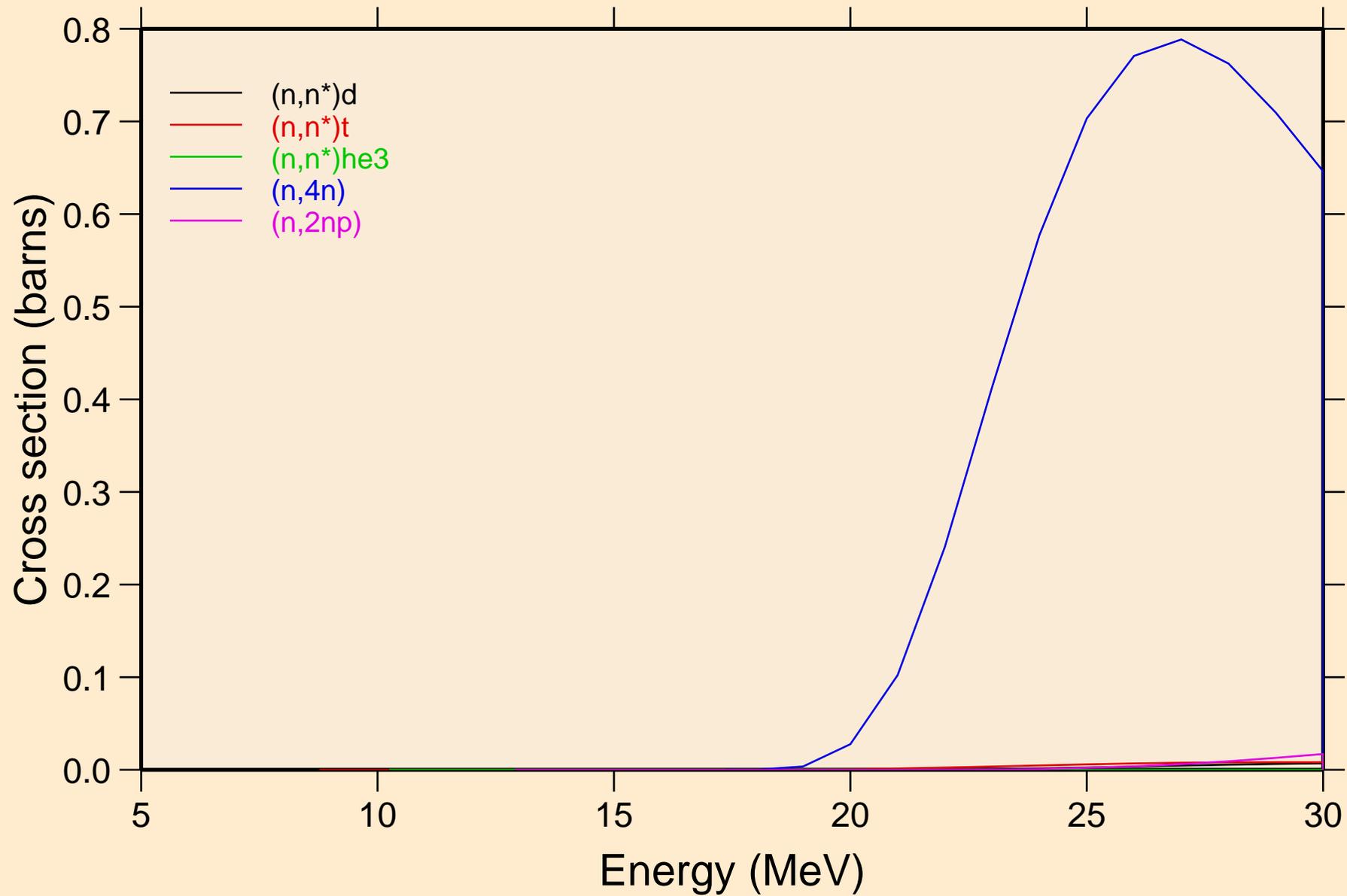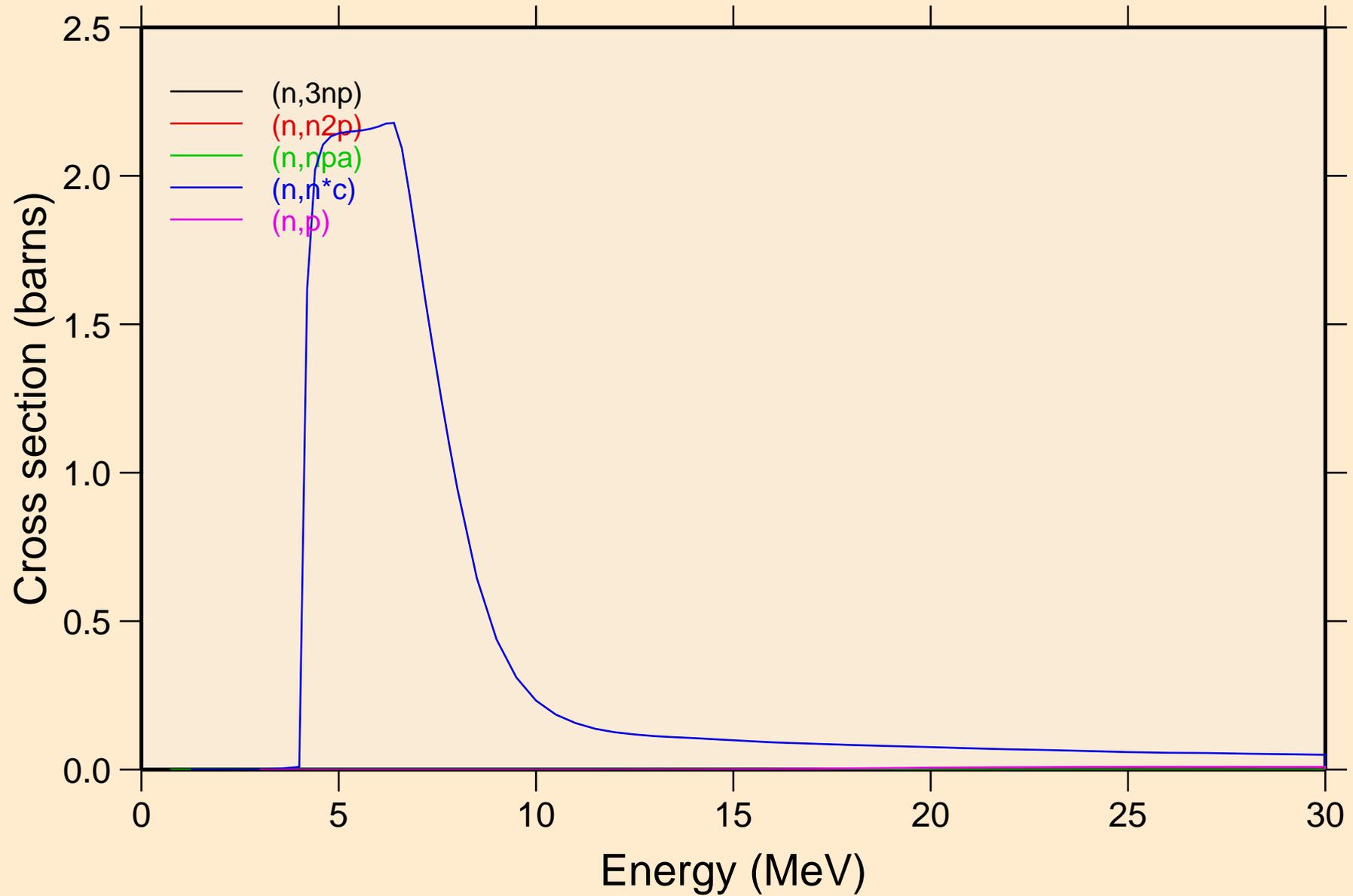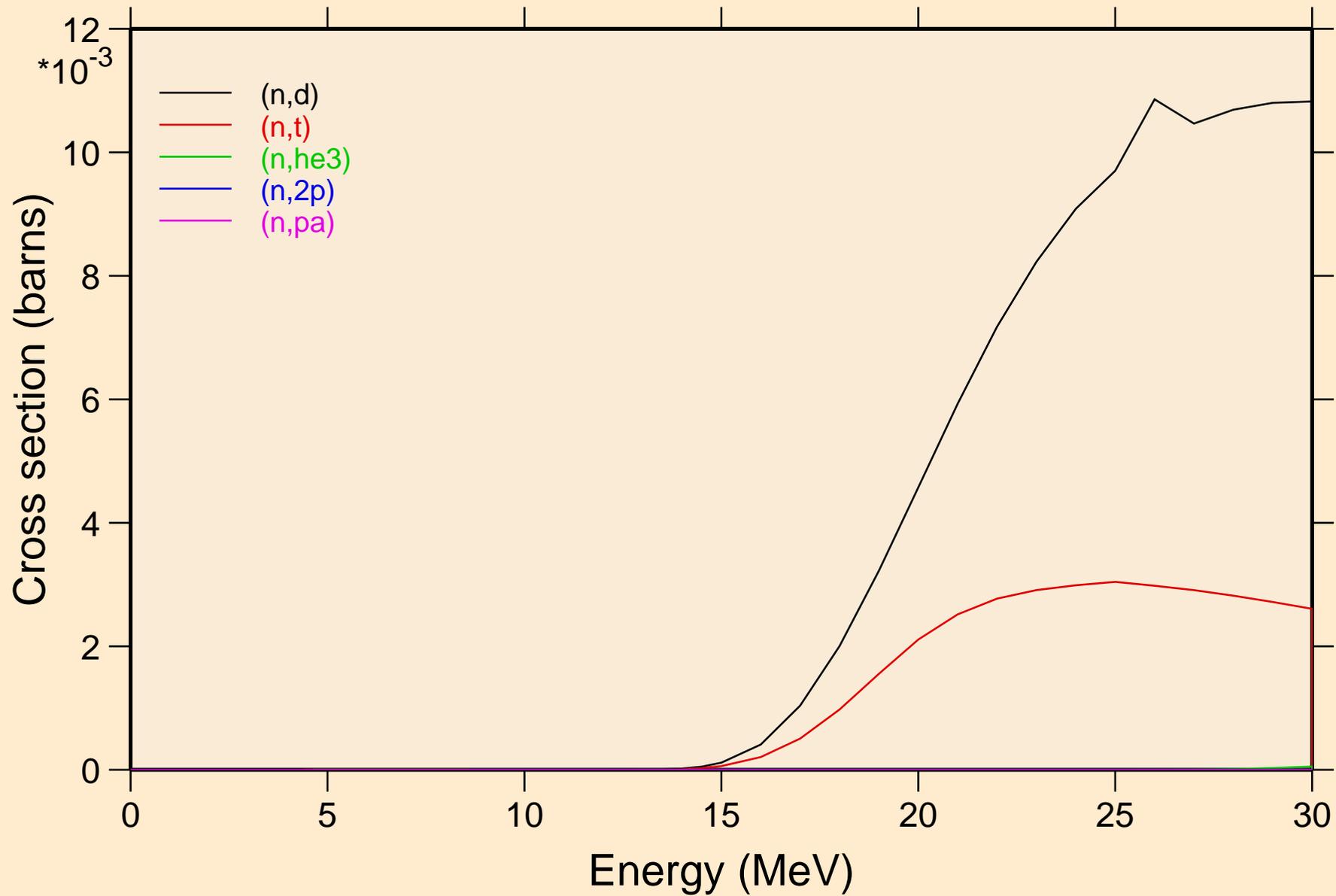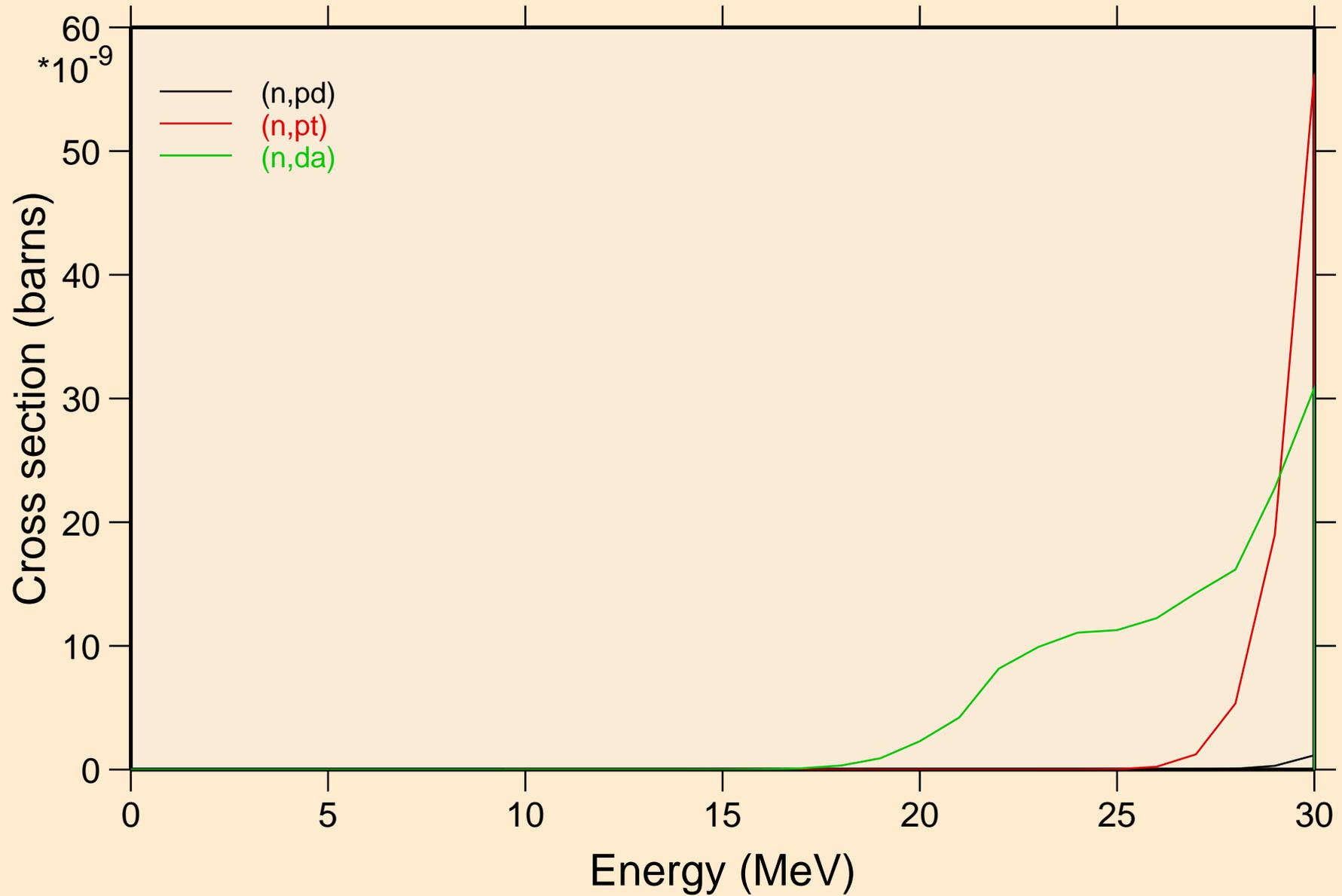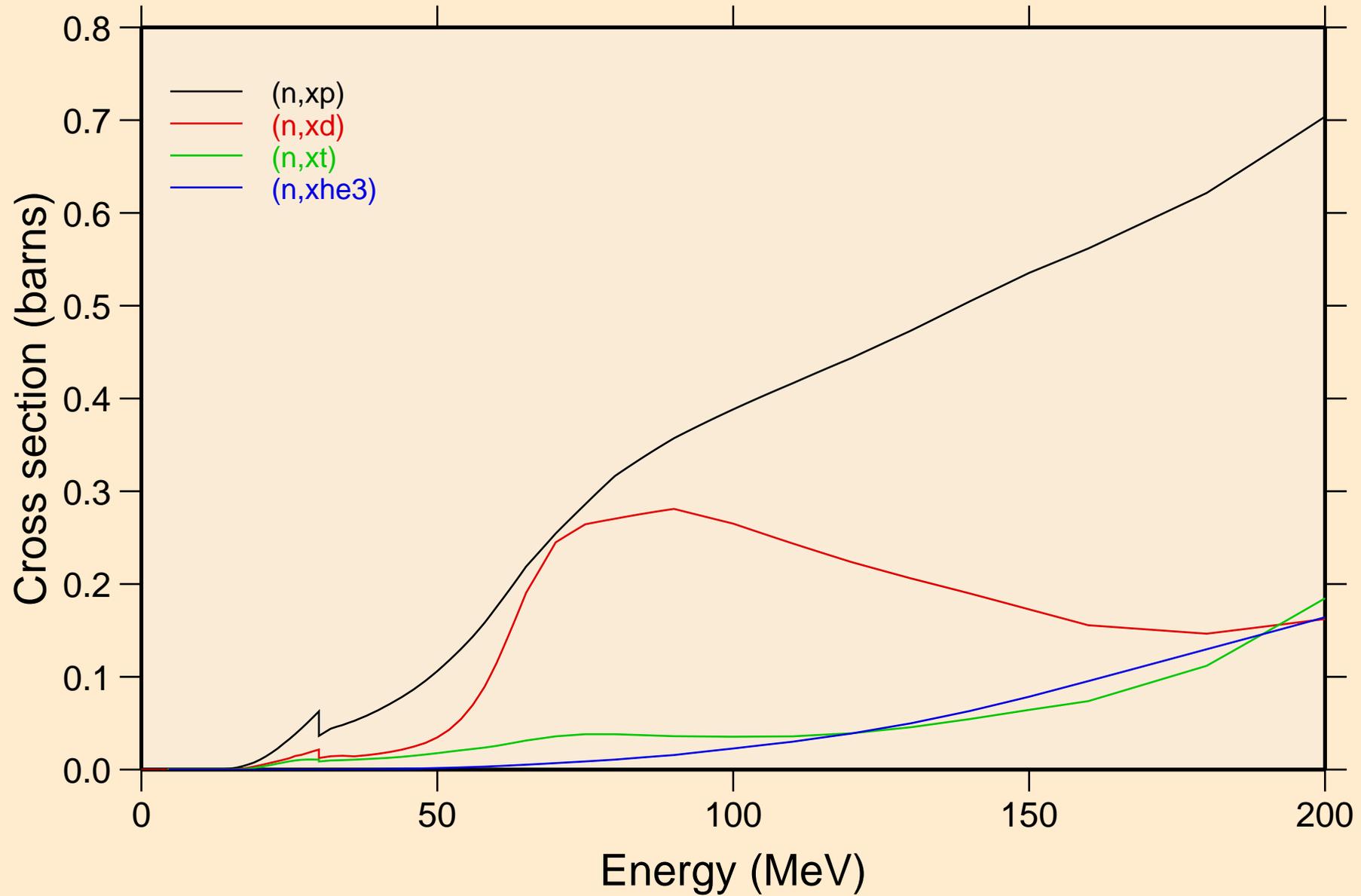
RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Threshold reactions

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
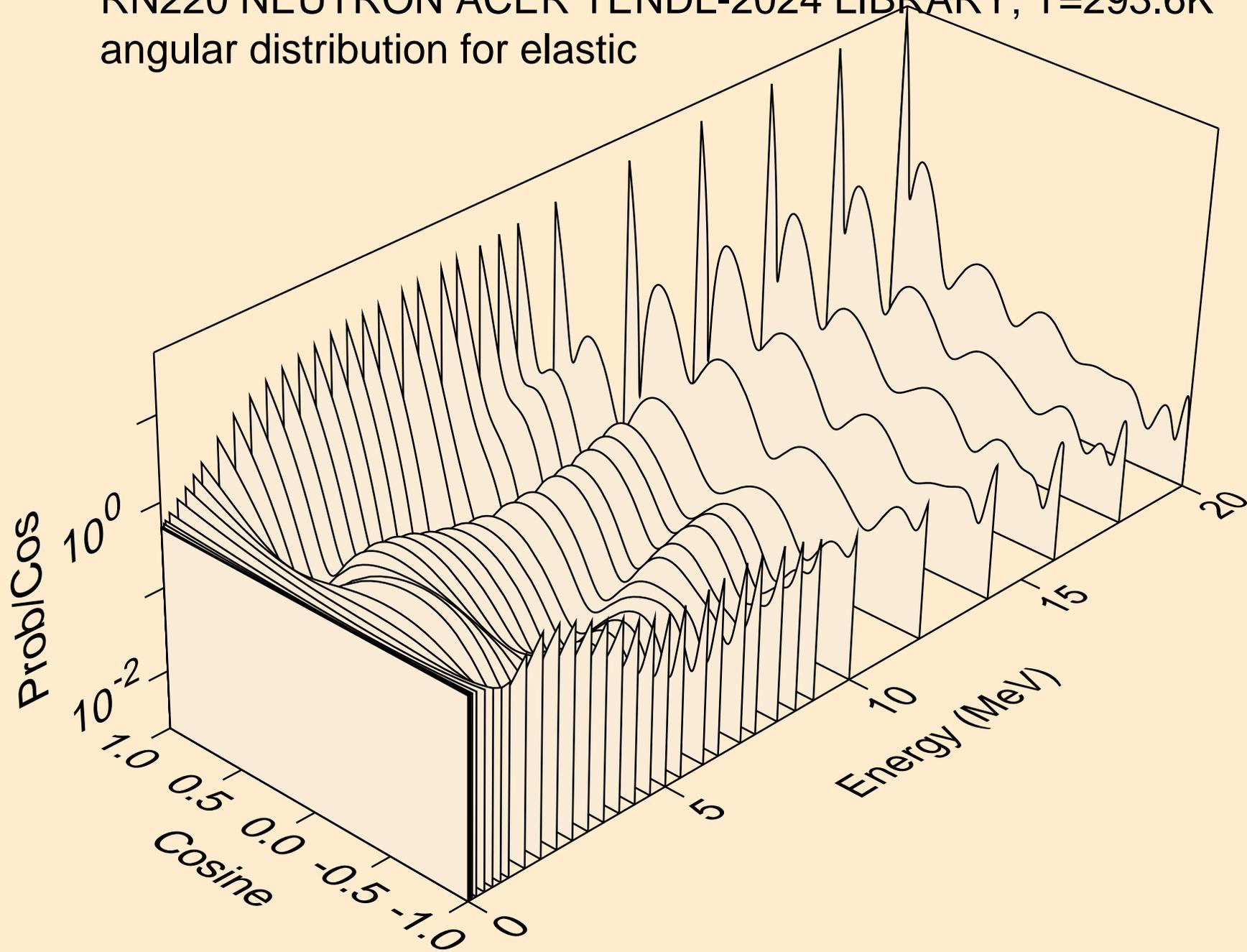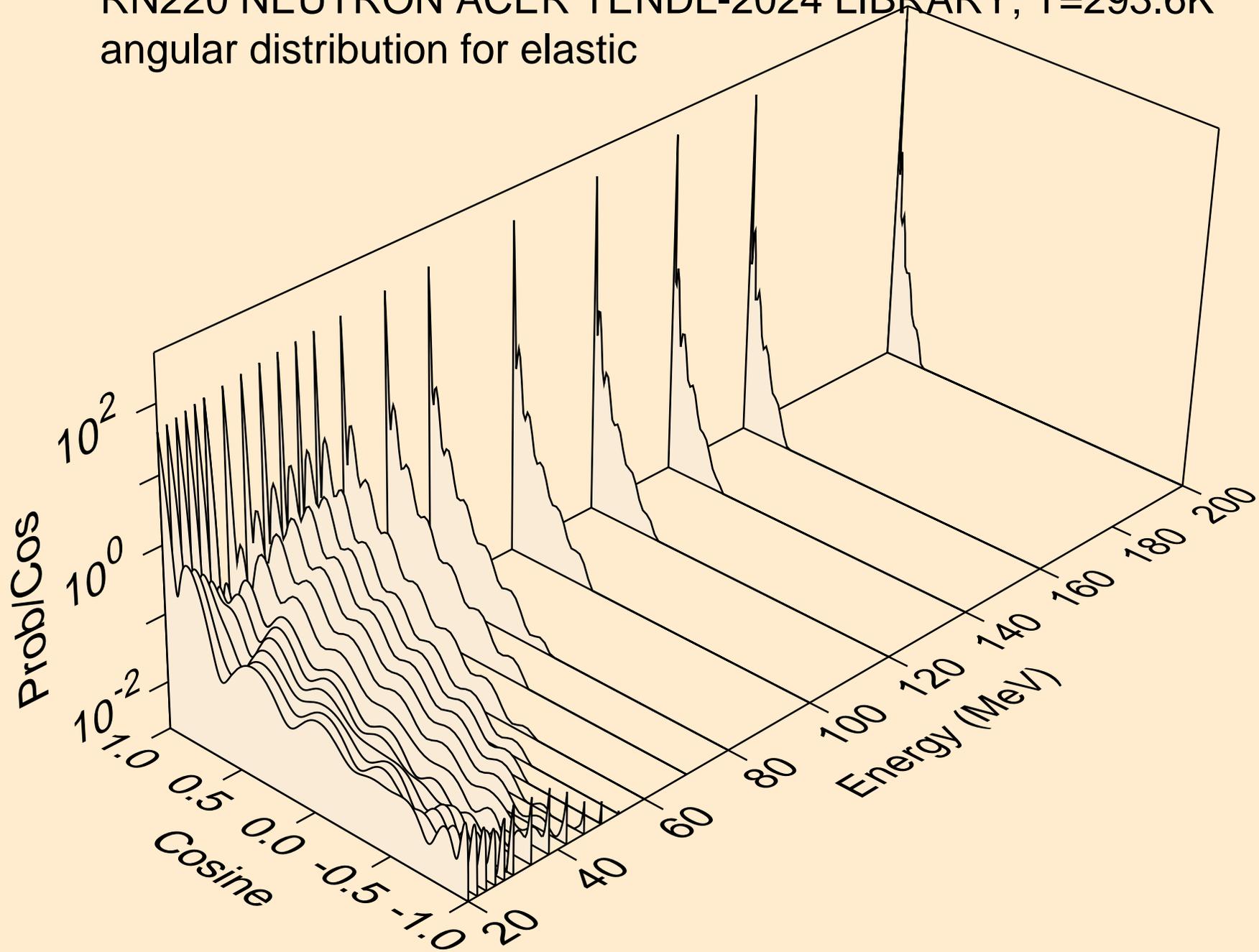Threshold reactions

Legend:
- (n,xp) — black
- (n,xd) — red
- (n,xt) — green
- (n,xhe3) — blue
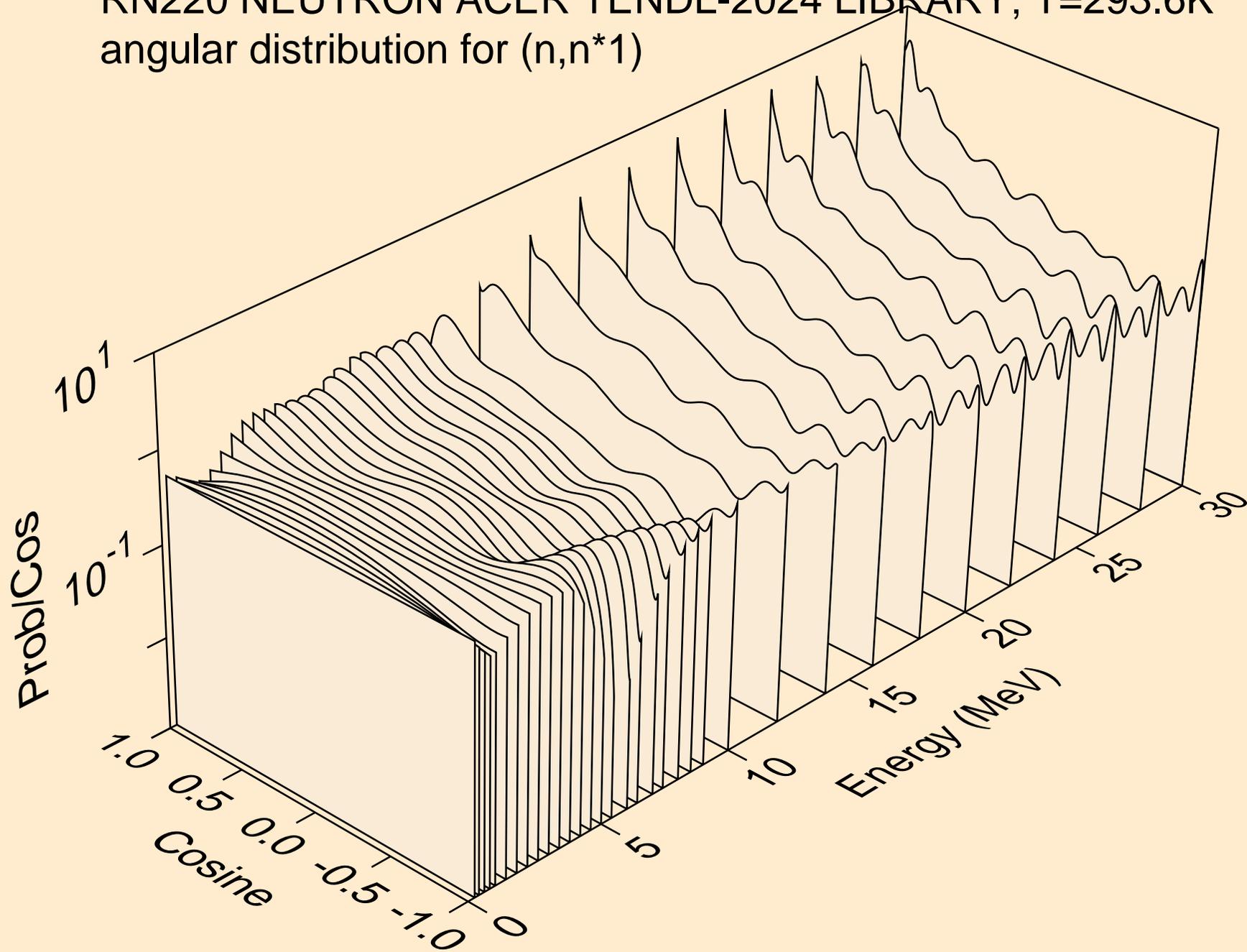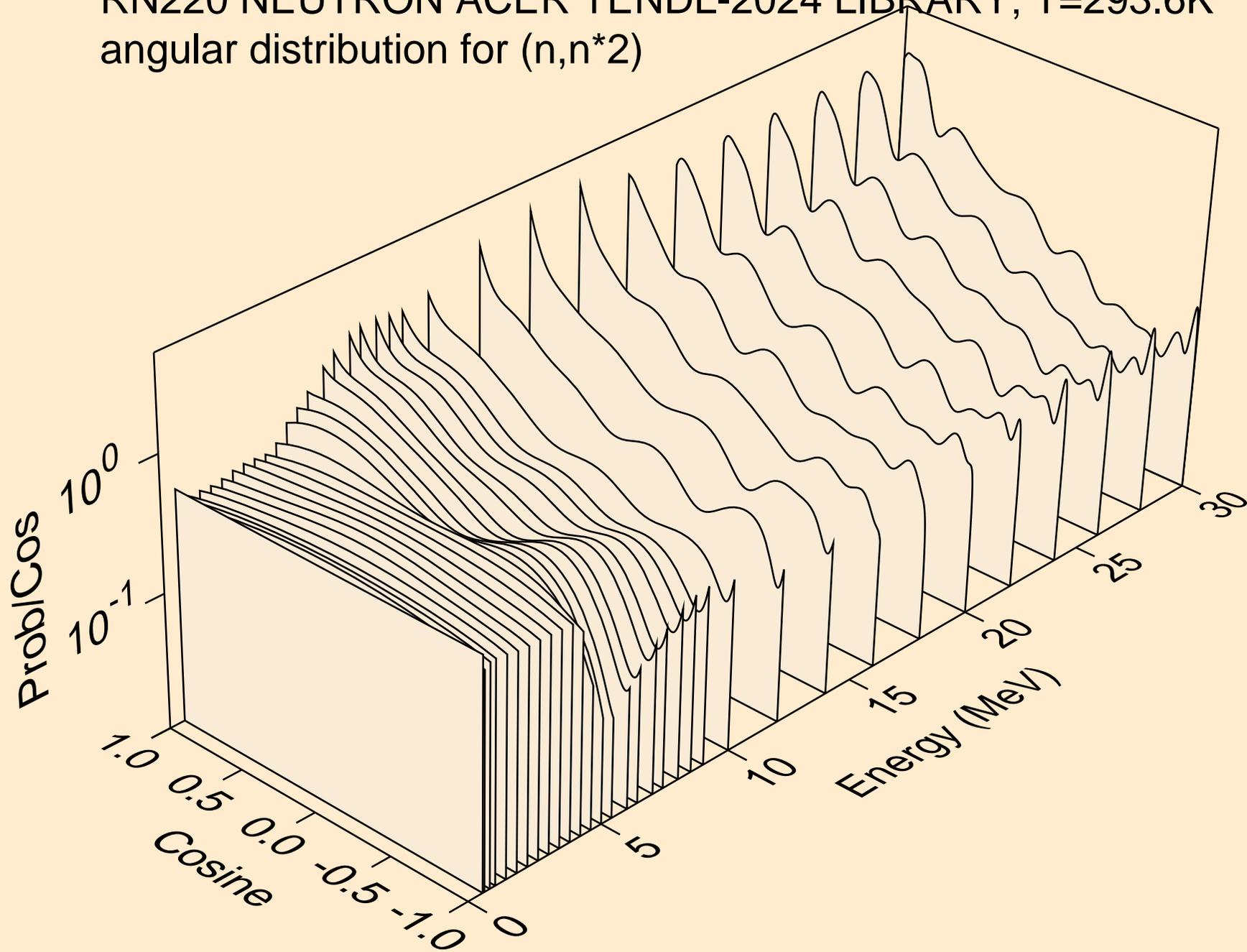
Y-axis: Cross section (barns)
X-axis: Energy (MeV)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
angular distribution for elastic

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
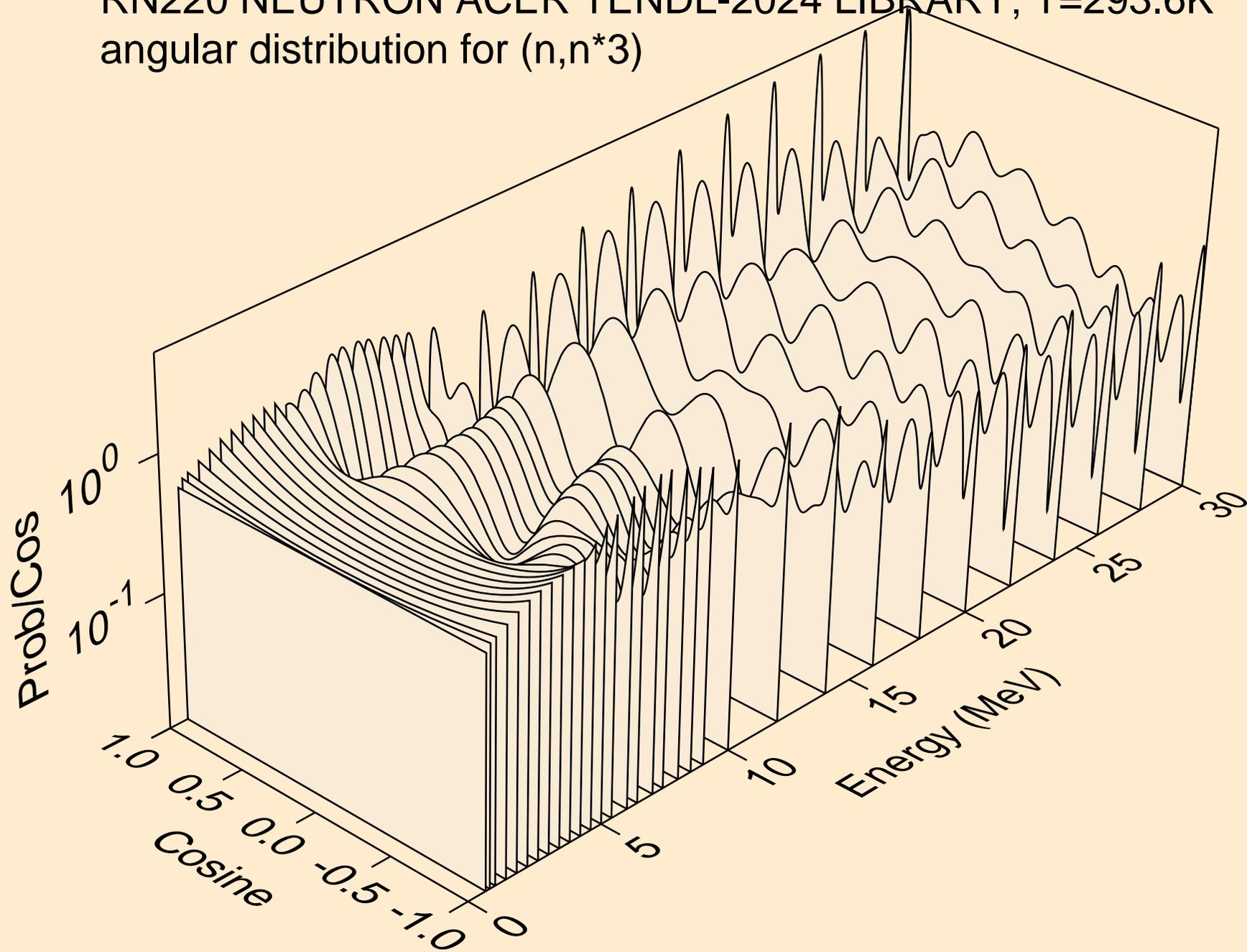angular distribution for elastic

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
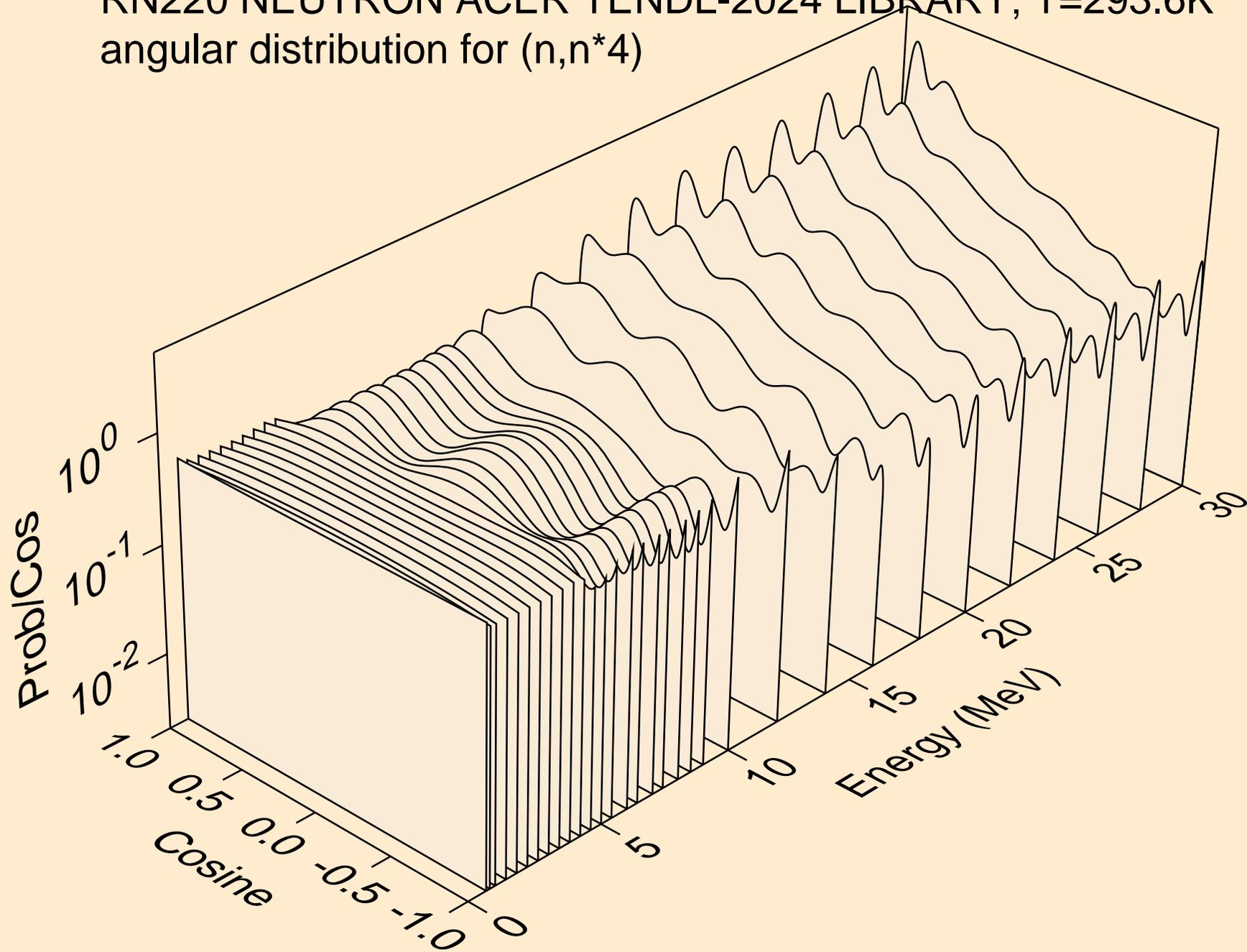angular distribution for (n,n*1)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
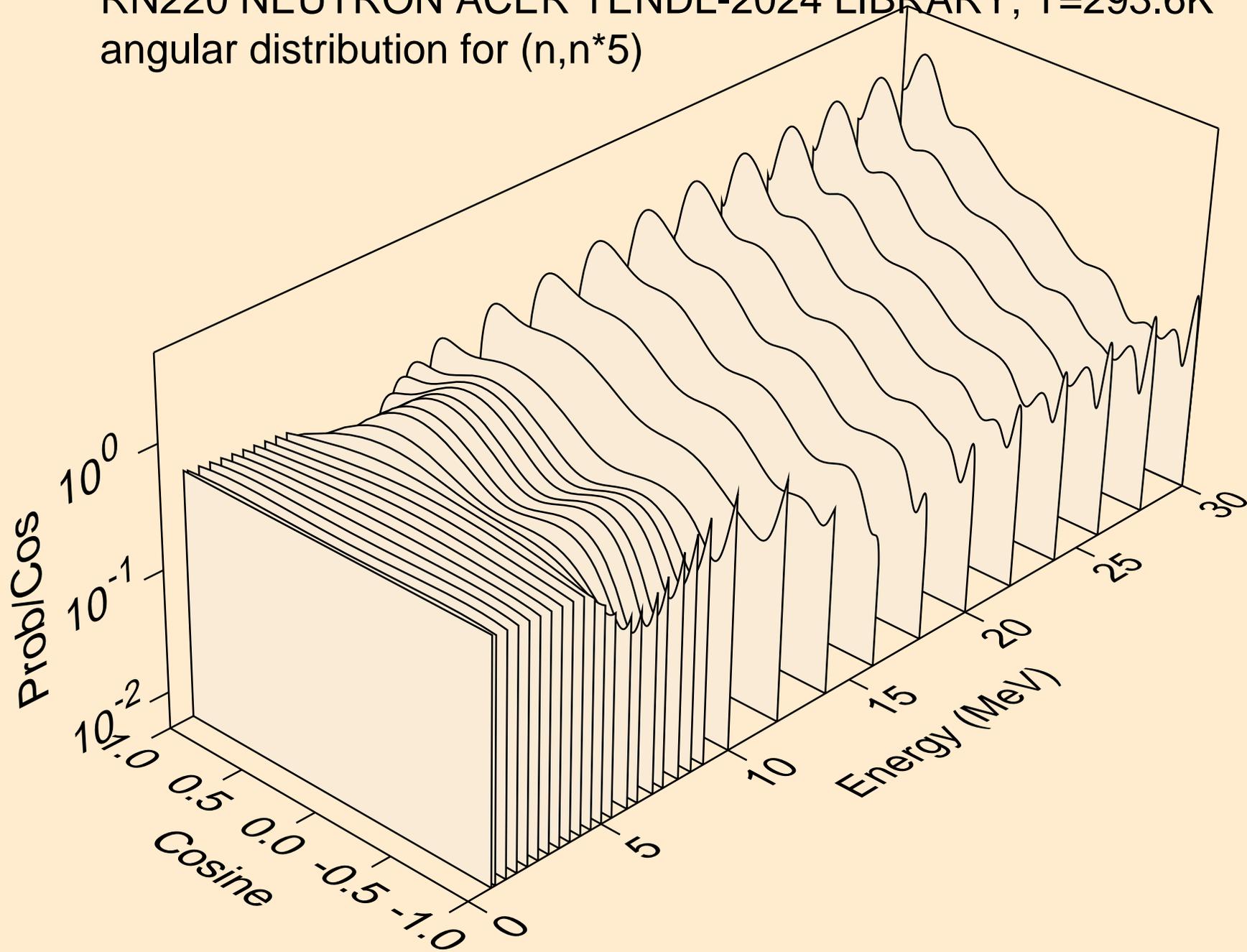angular distribution for (n,n*2)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
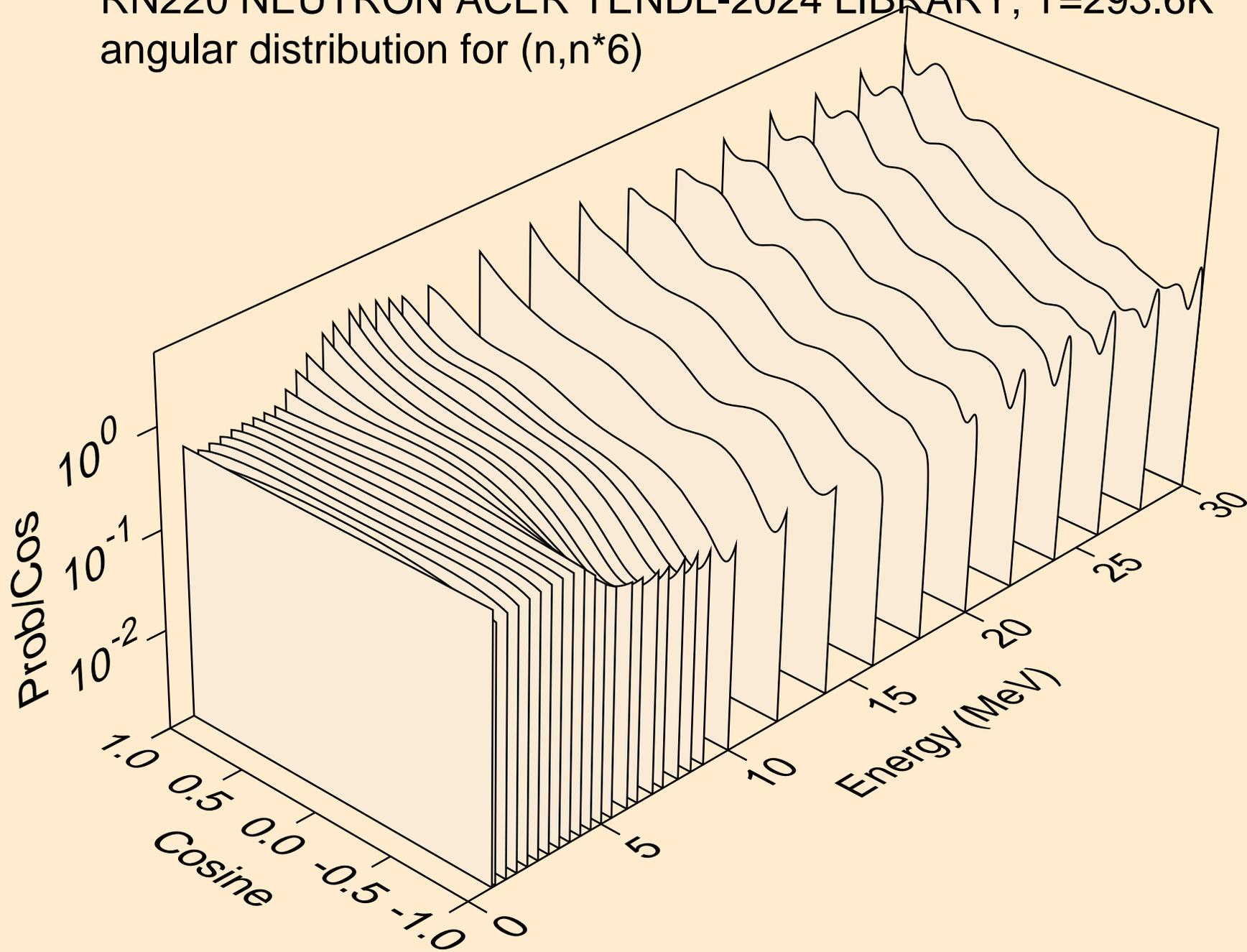angular distribution for (n,n*3)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
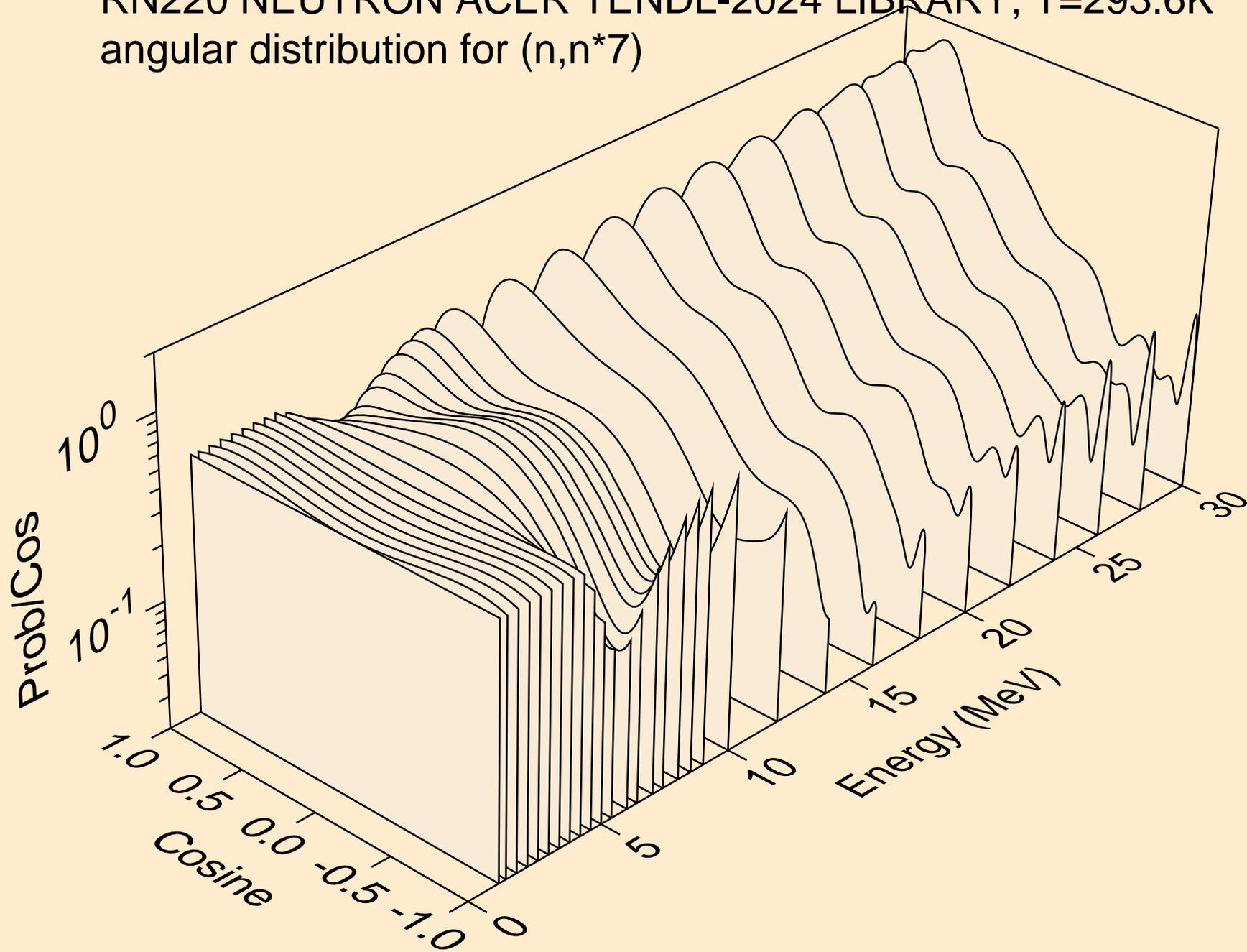angular distribution for (n,n*4)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
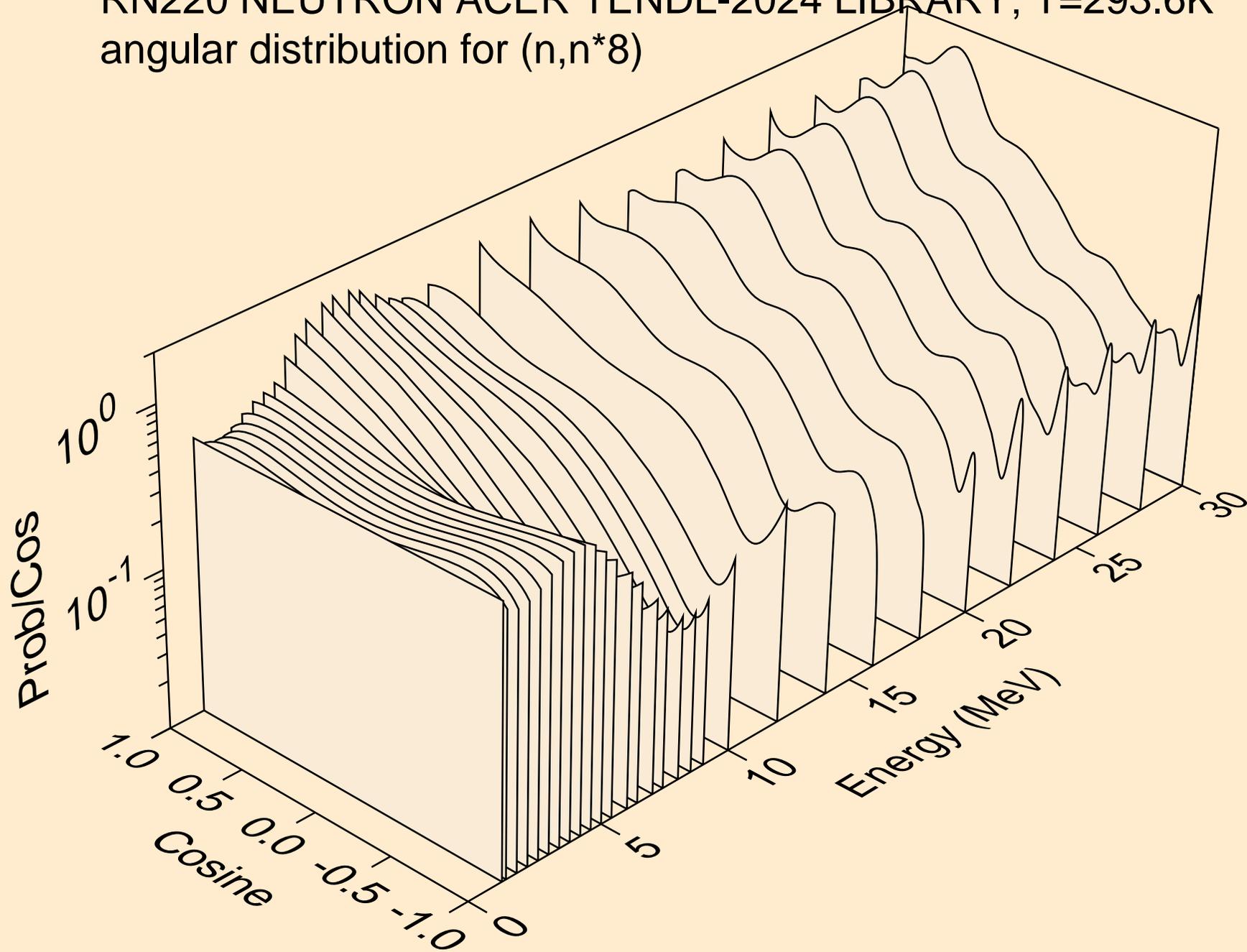angular distribution for (n,n*5)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
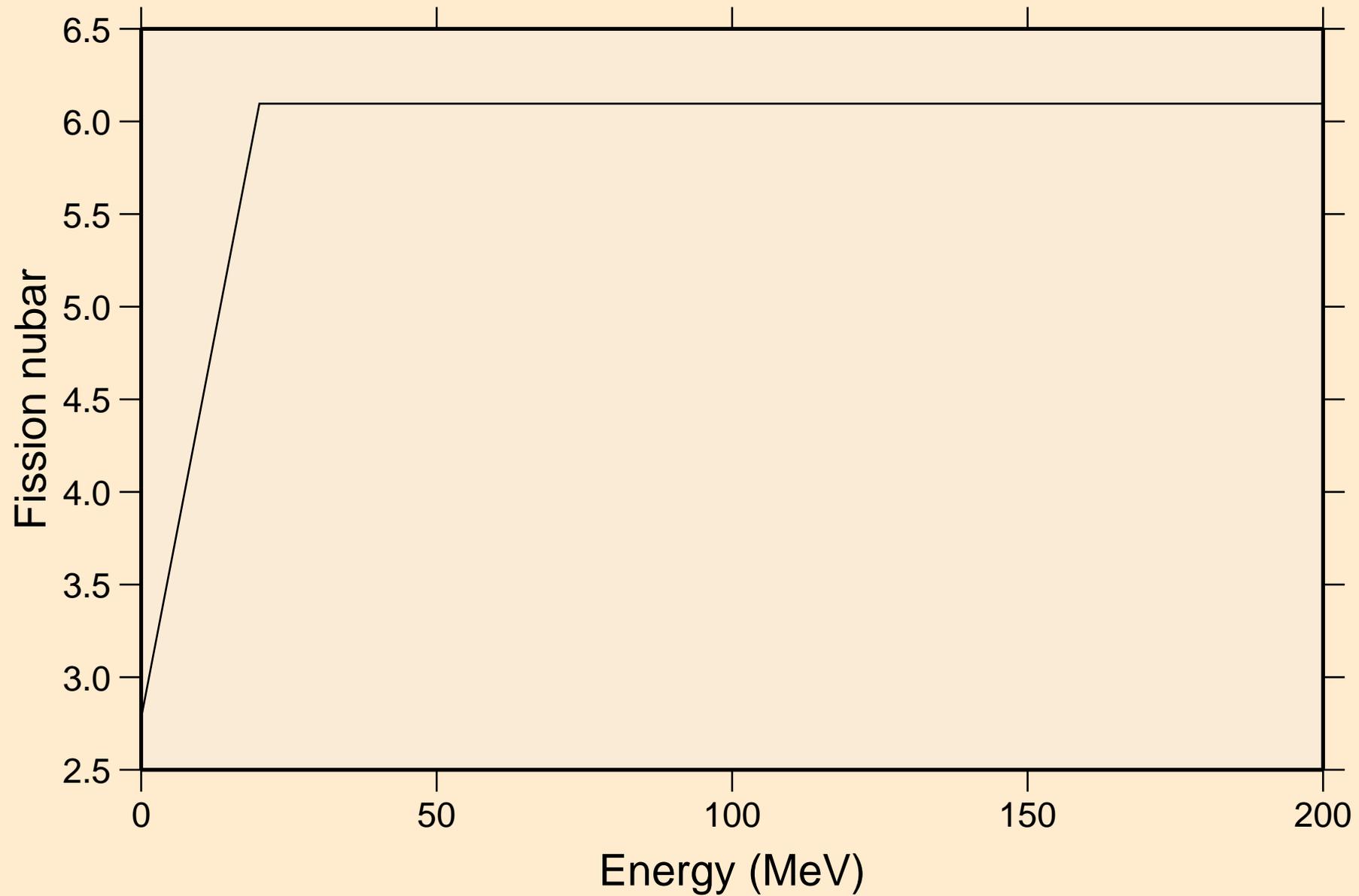angular distribution for (n,n*6)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
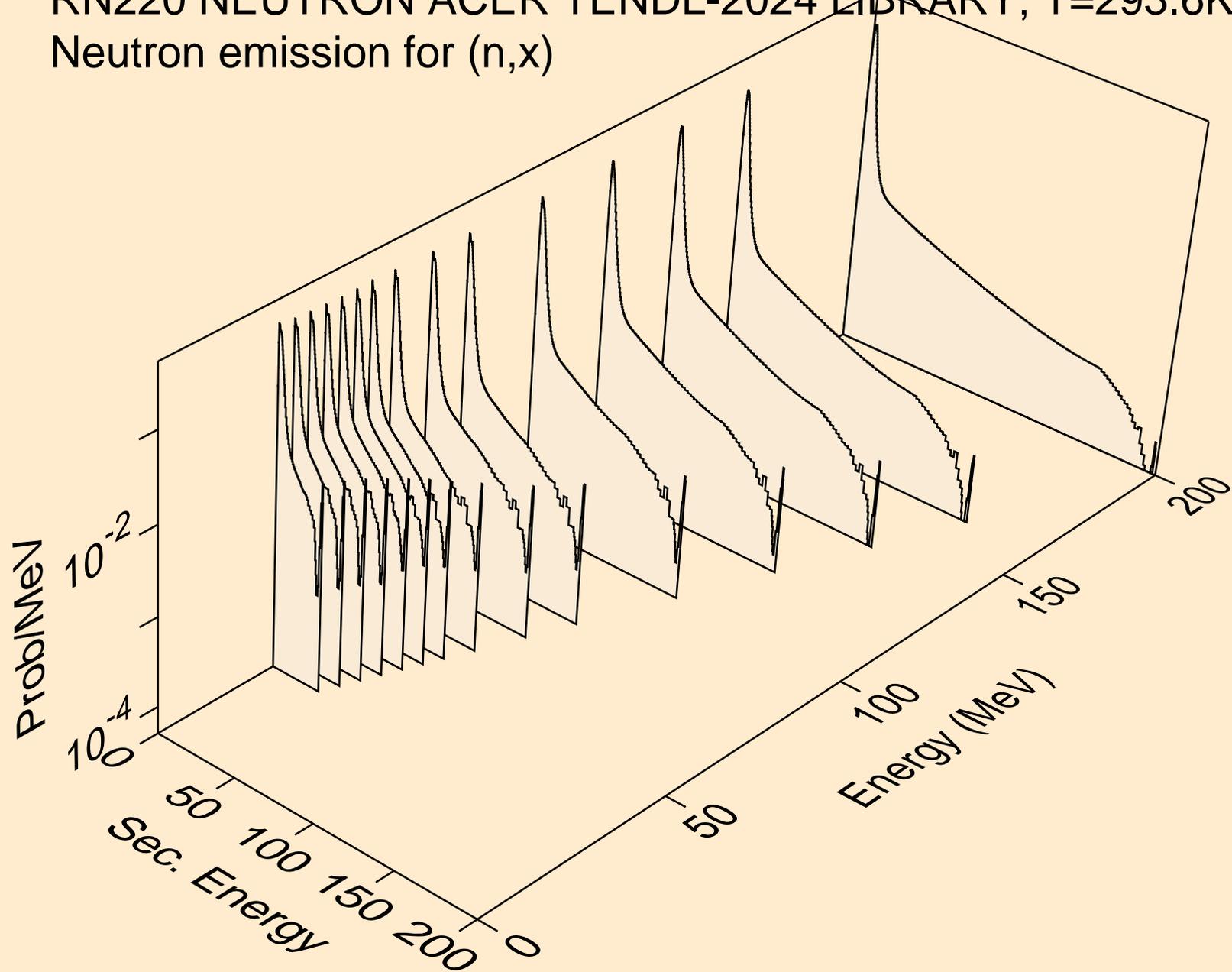angular distribution for (n,n*7)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
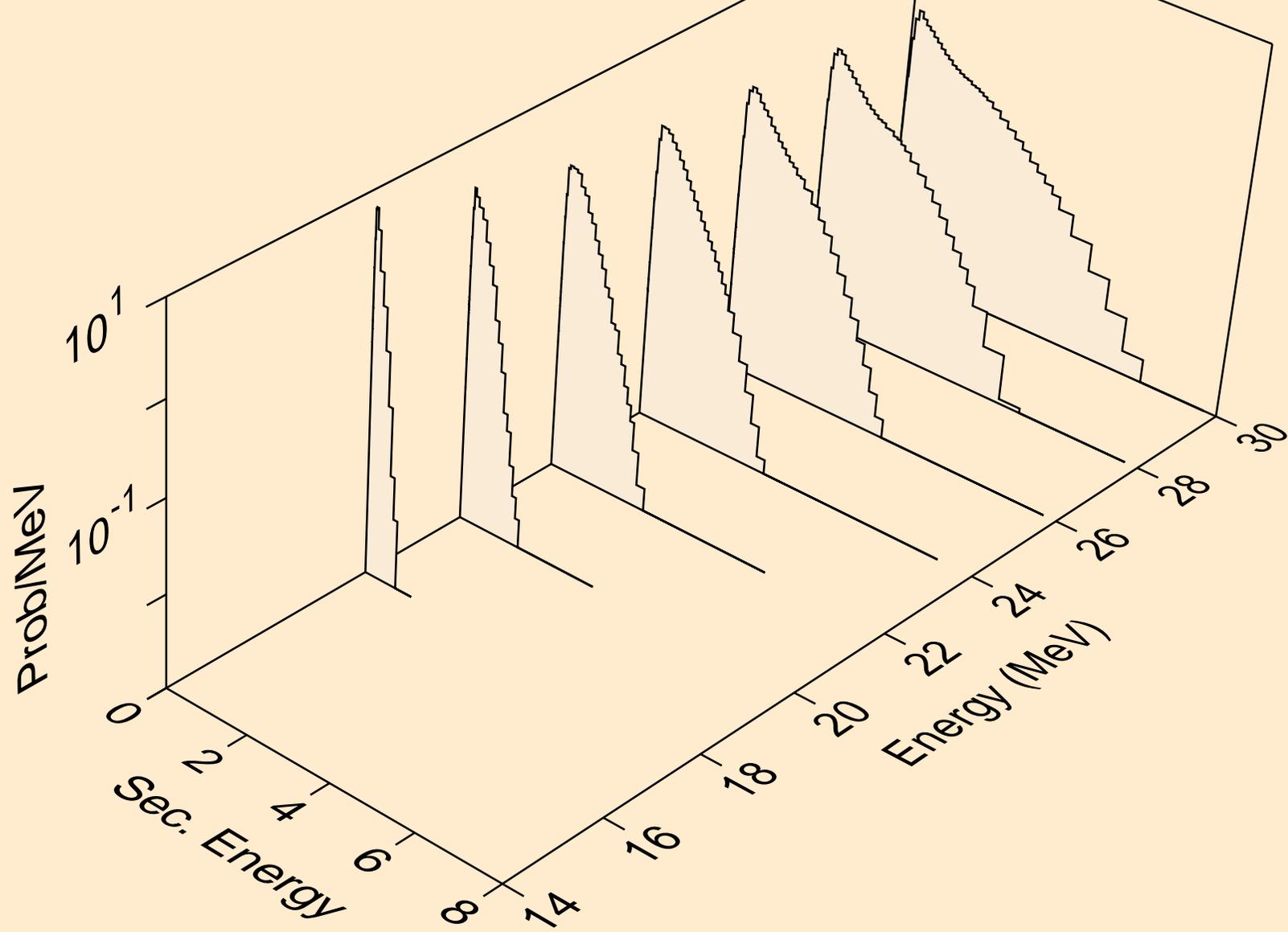angular distribution for (n,n*8)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
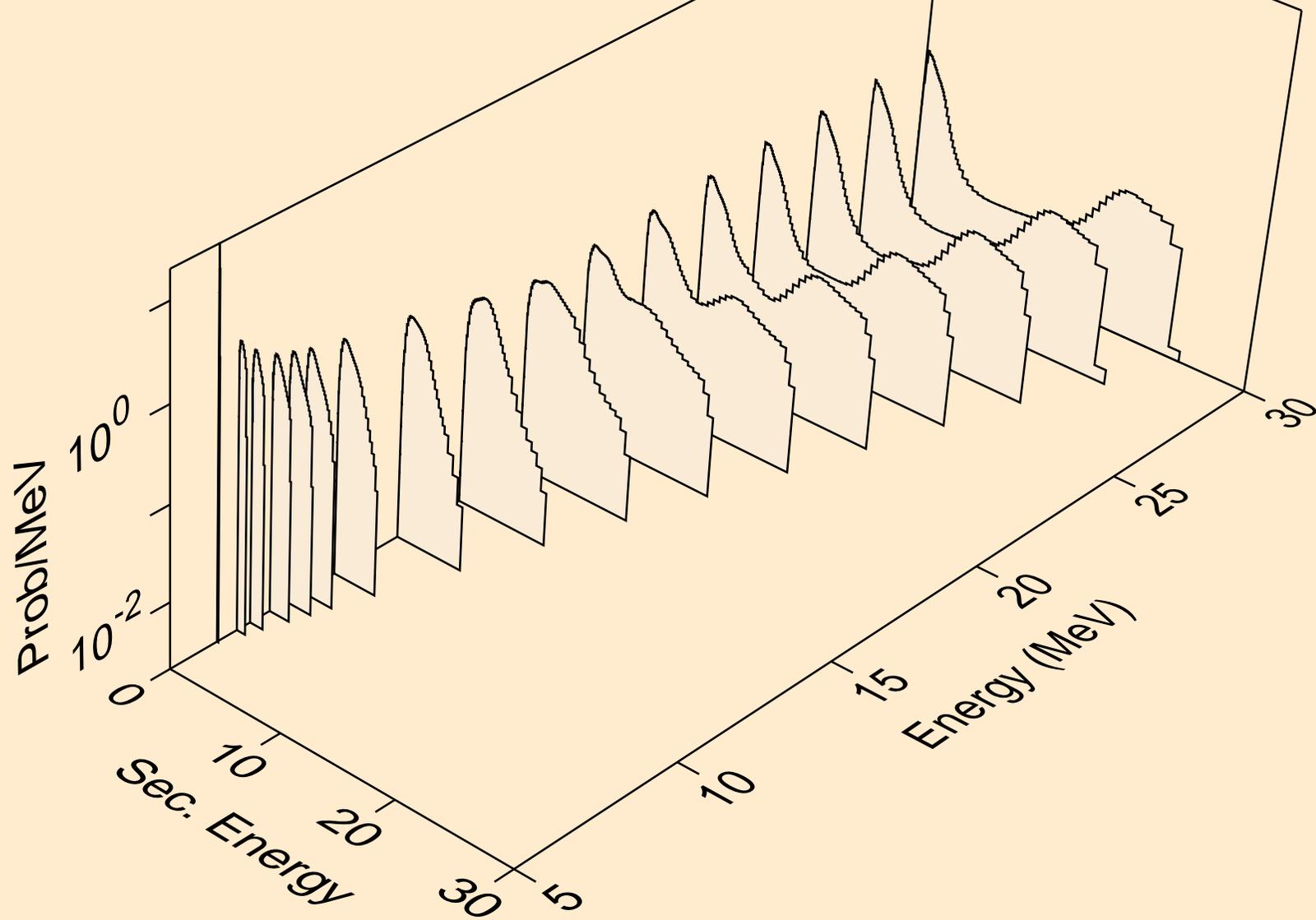Total fission nubar

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
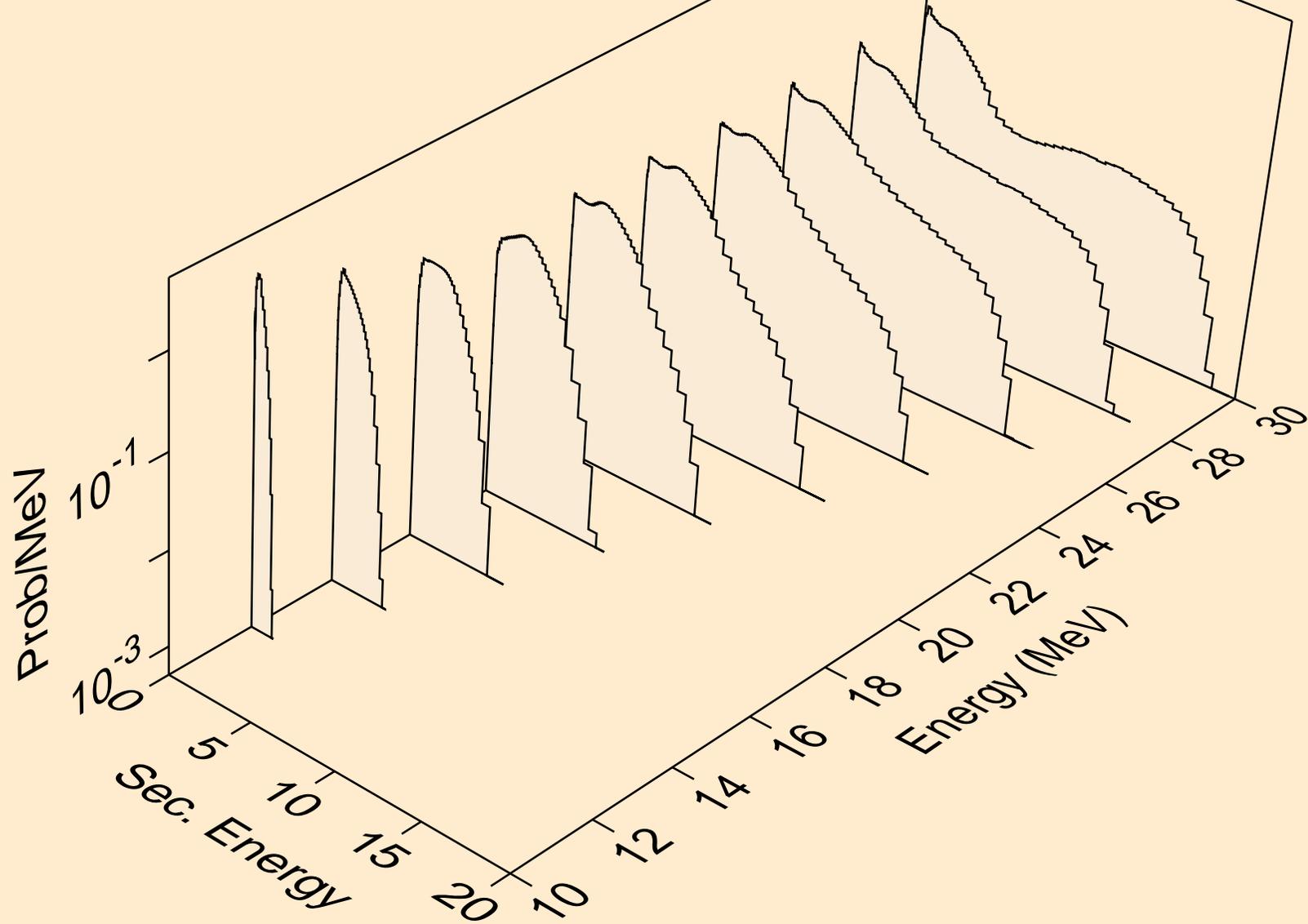Neutron emission for (n,x)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
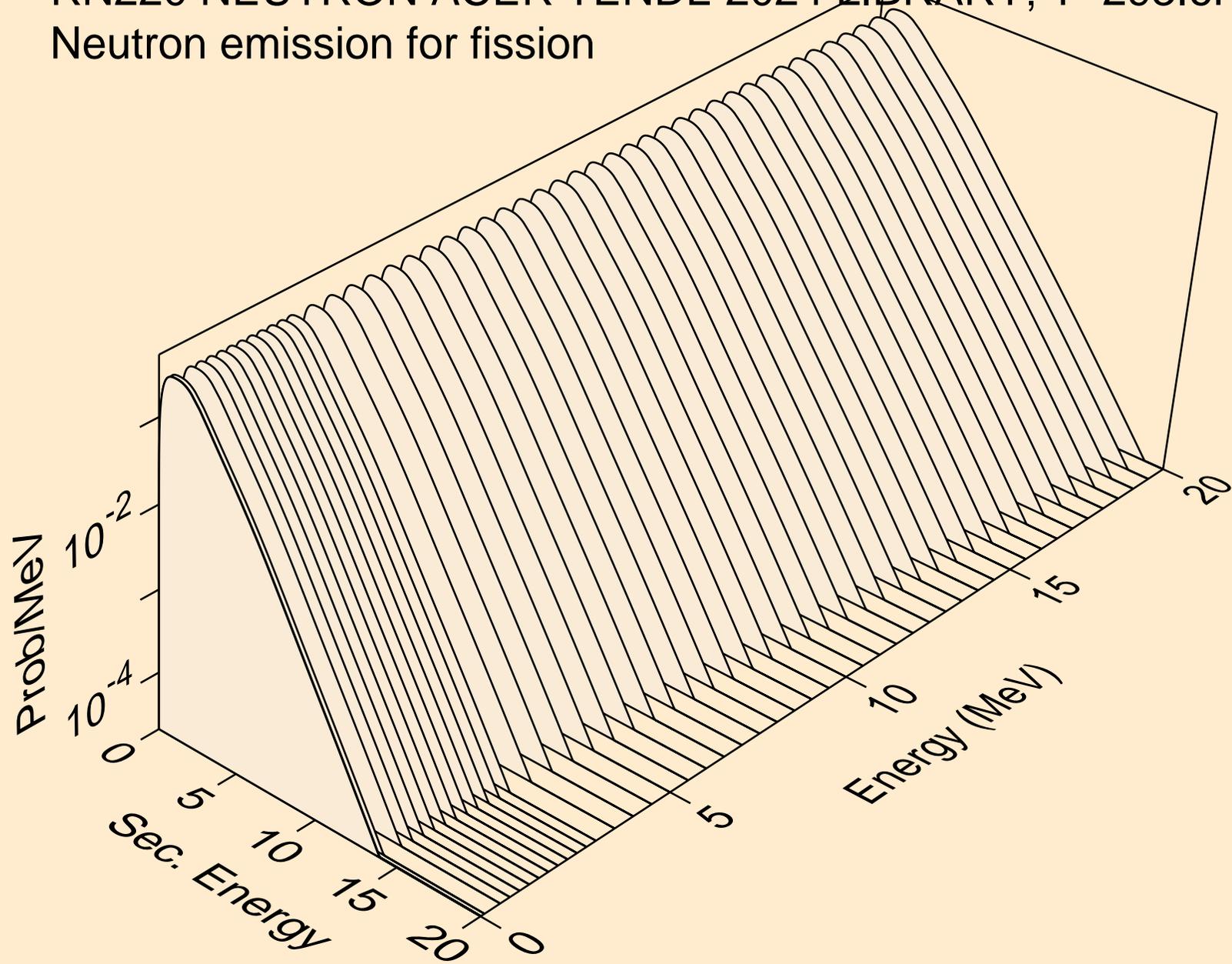Neutron emission for (n,2nd)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
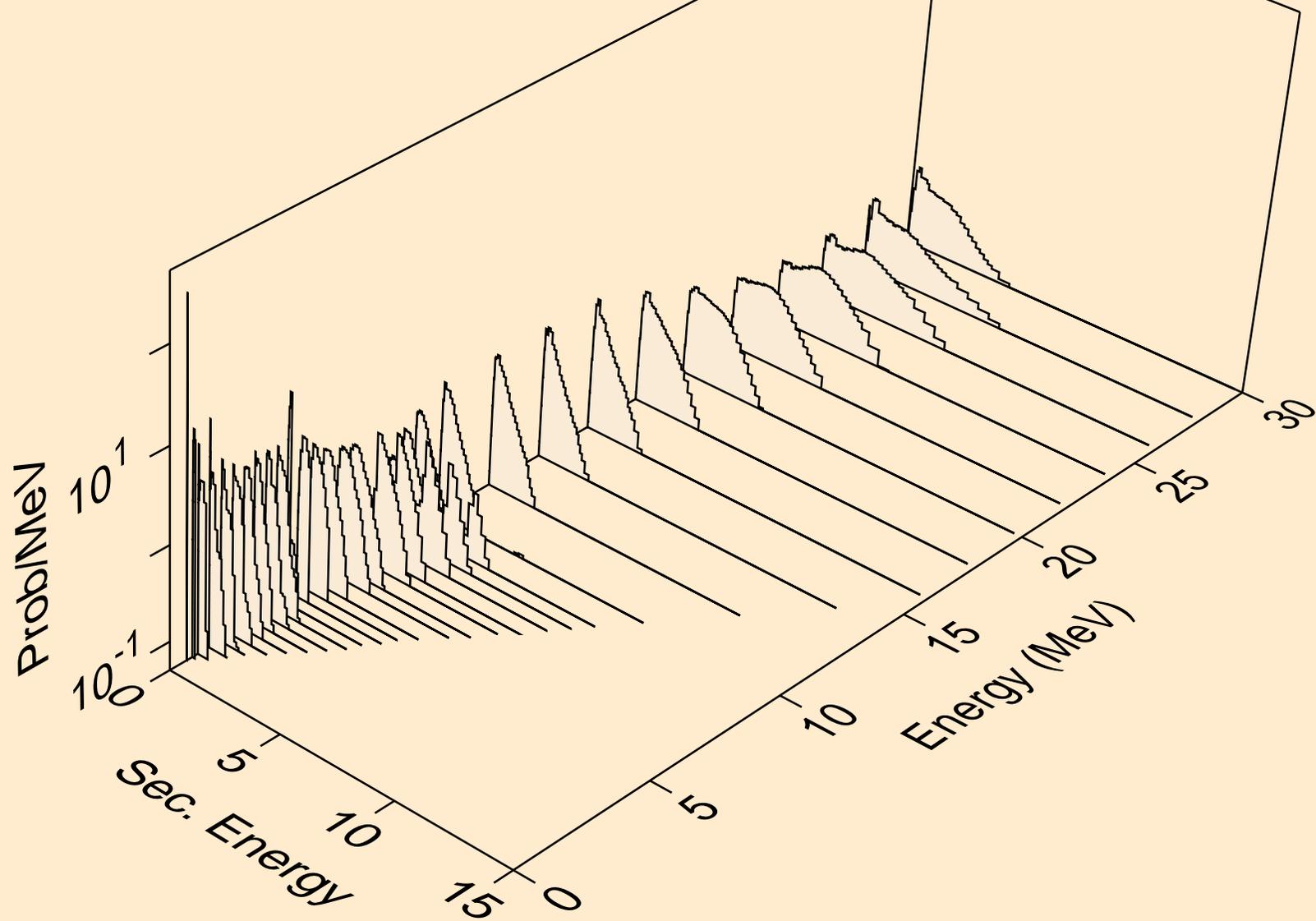Neutron emission for (n,2n)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
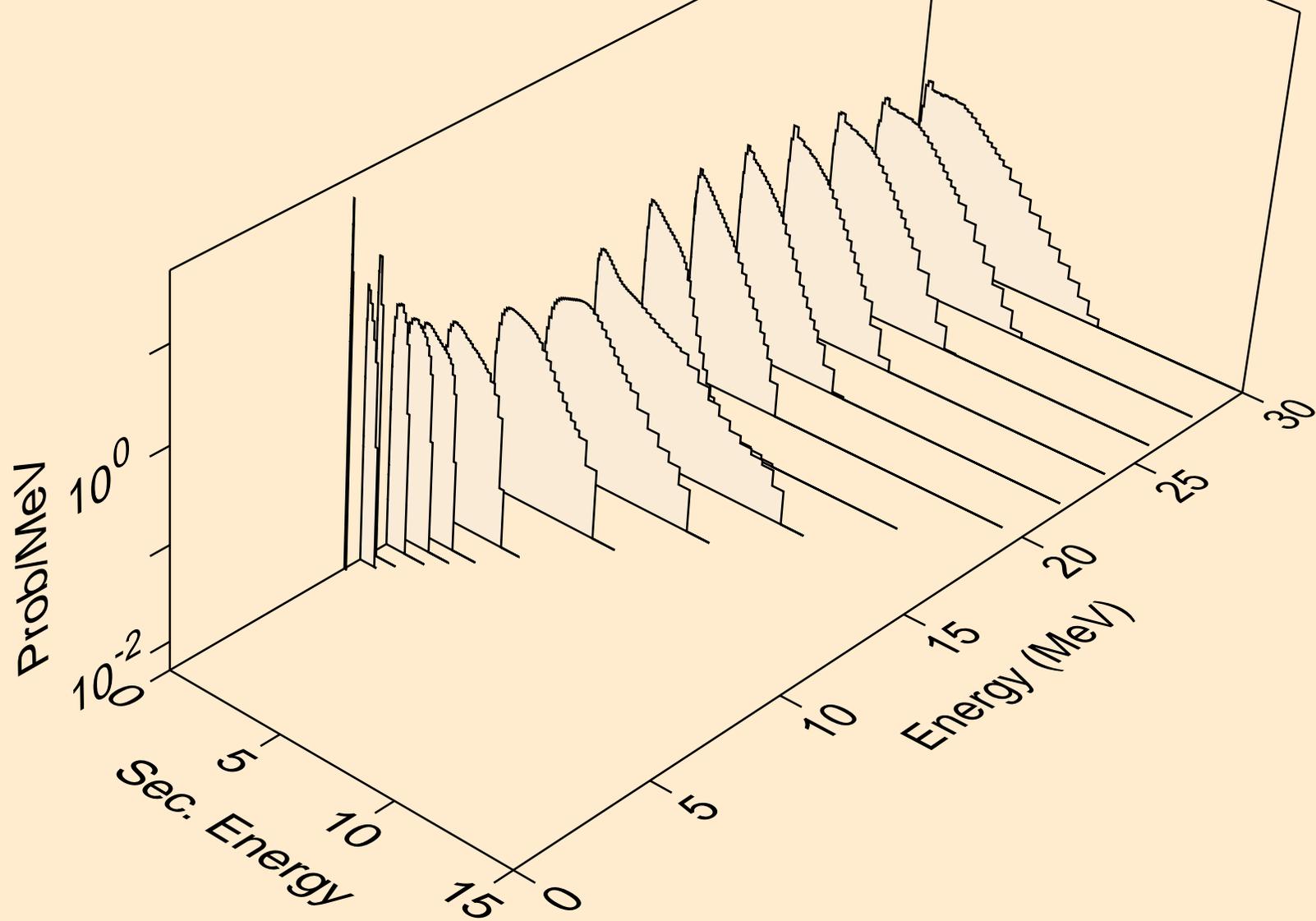Neutron emission for (n,3n)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
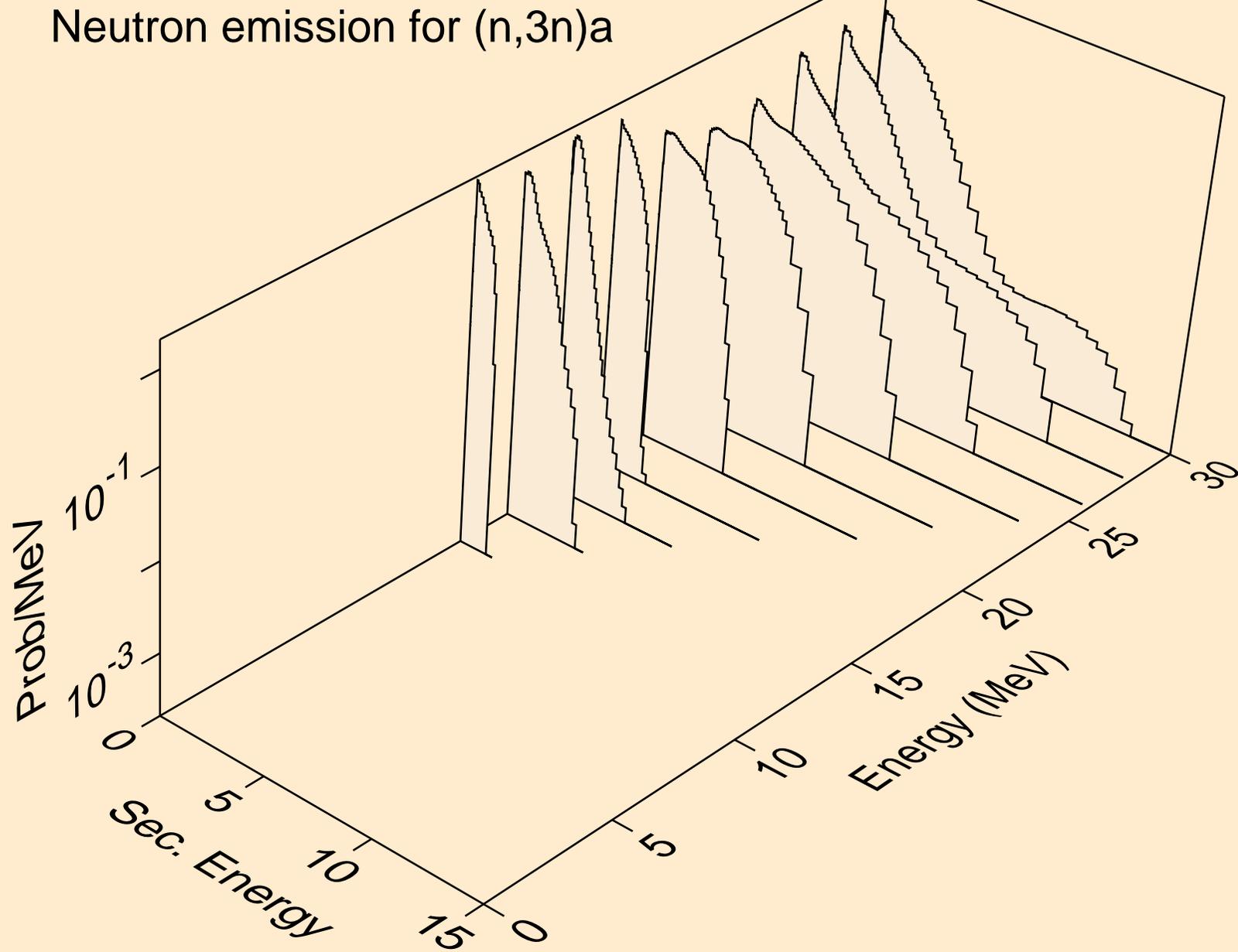Neutron emission for fission

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
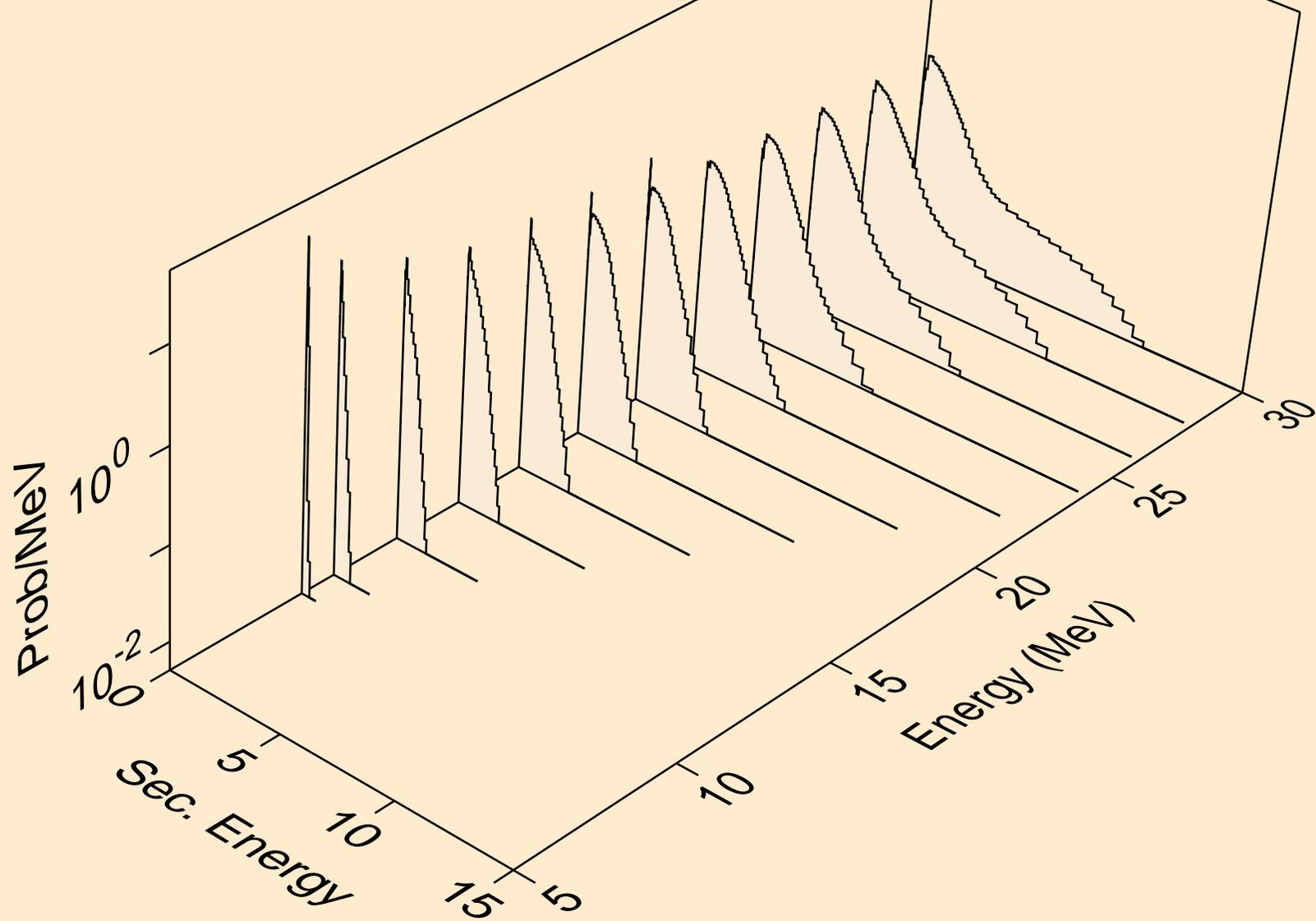Neutron emission for (n,n*)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
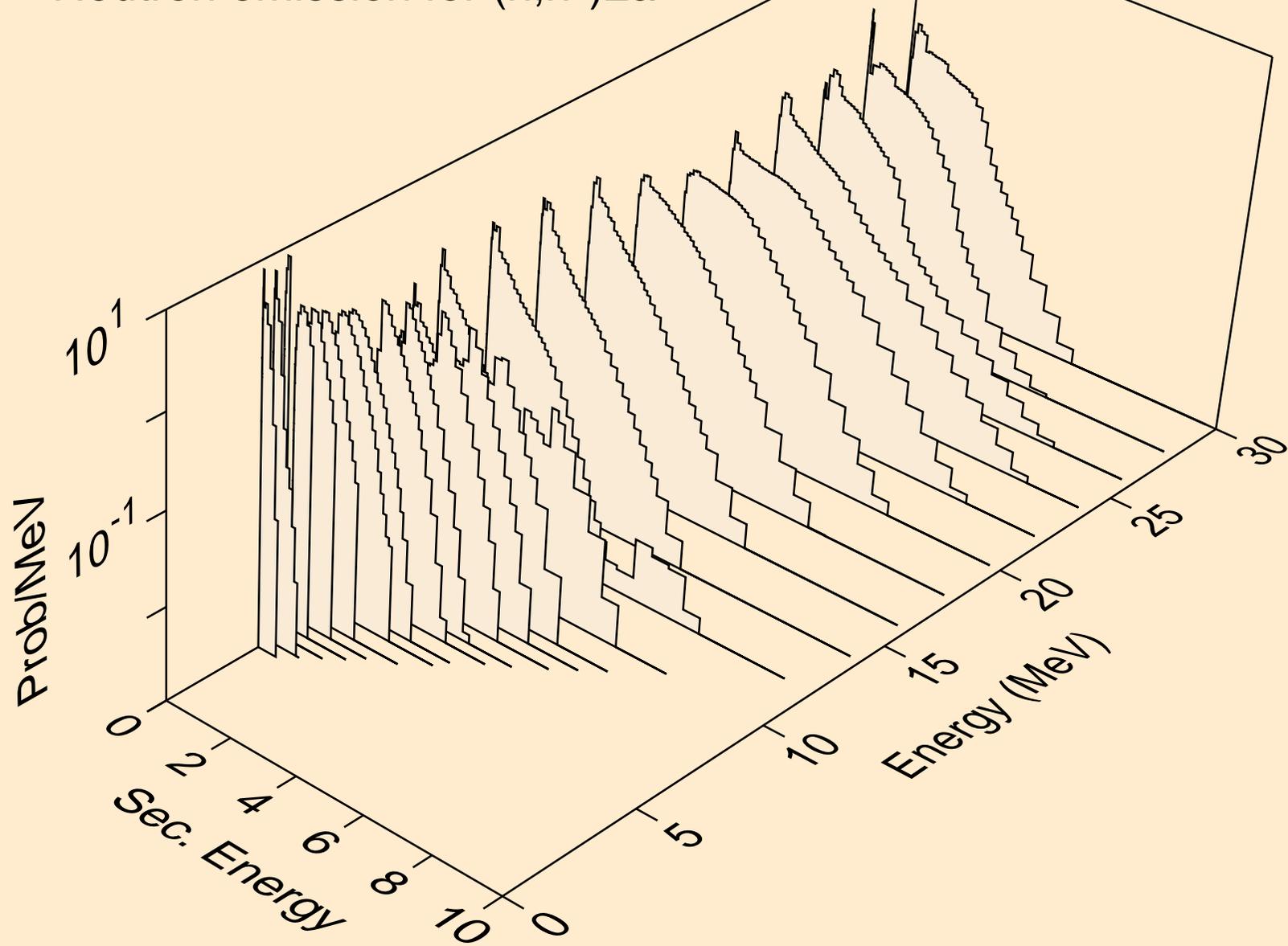Neutron emission for (n,2n)a

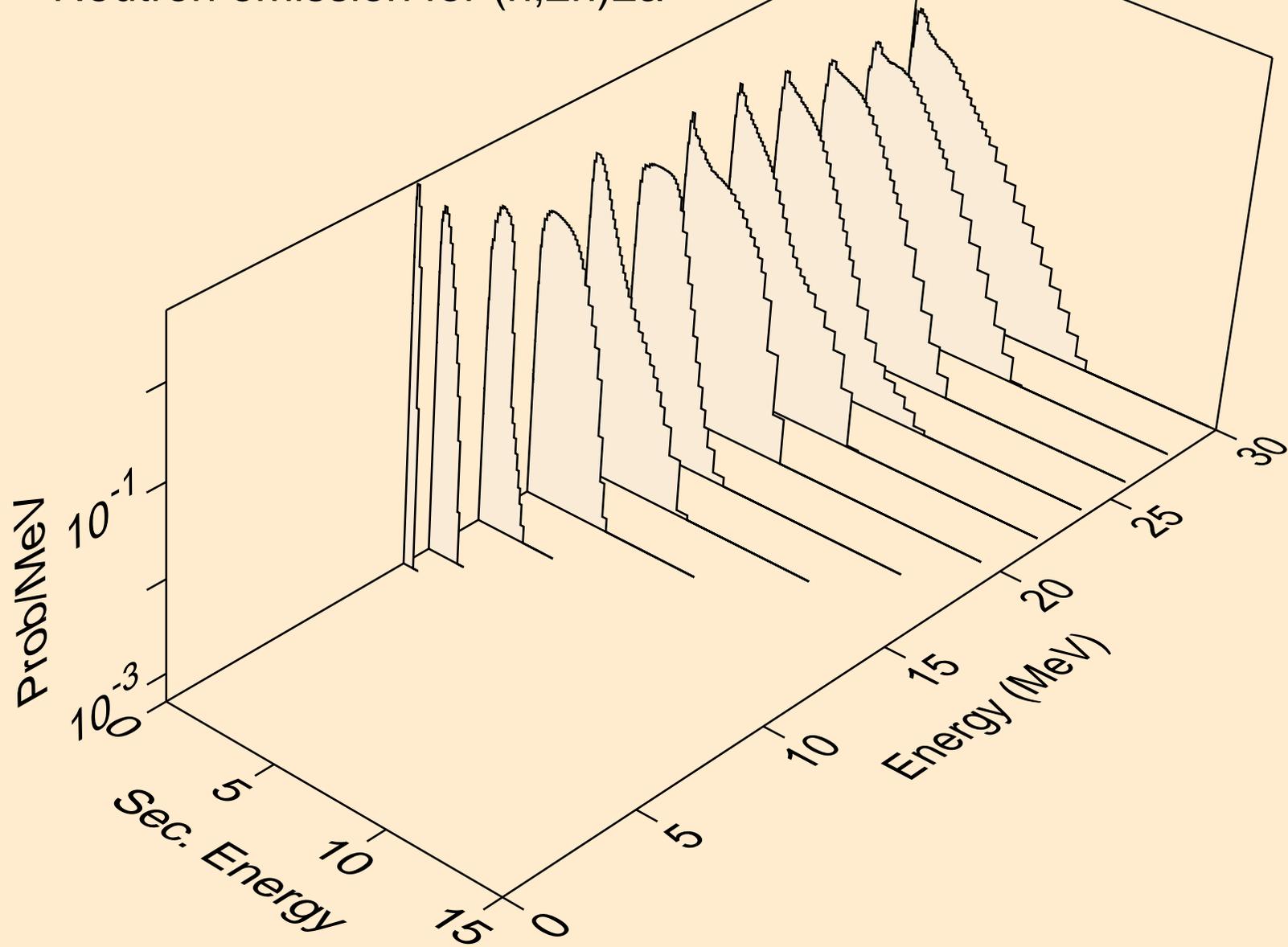RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,3n)a

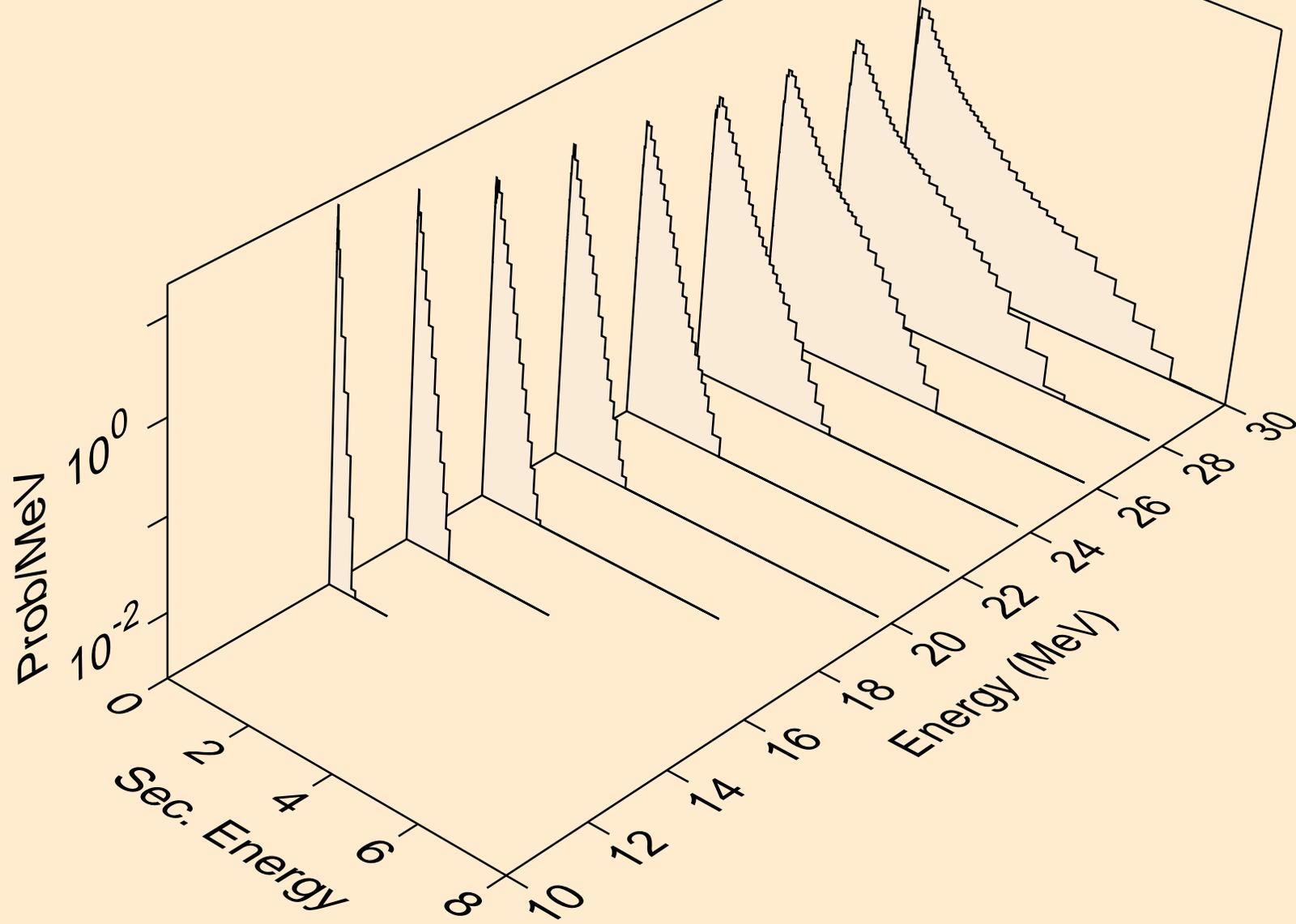RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n*)p

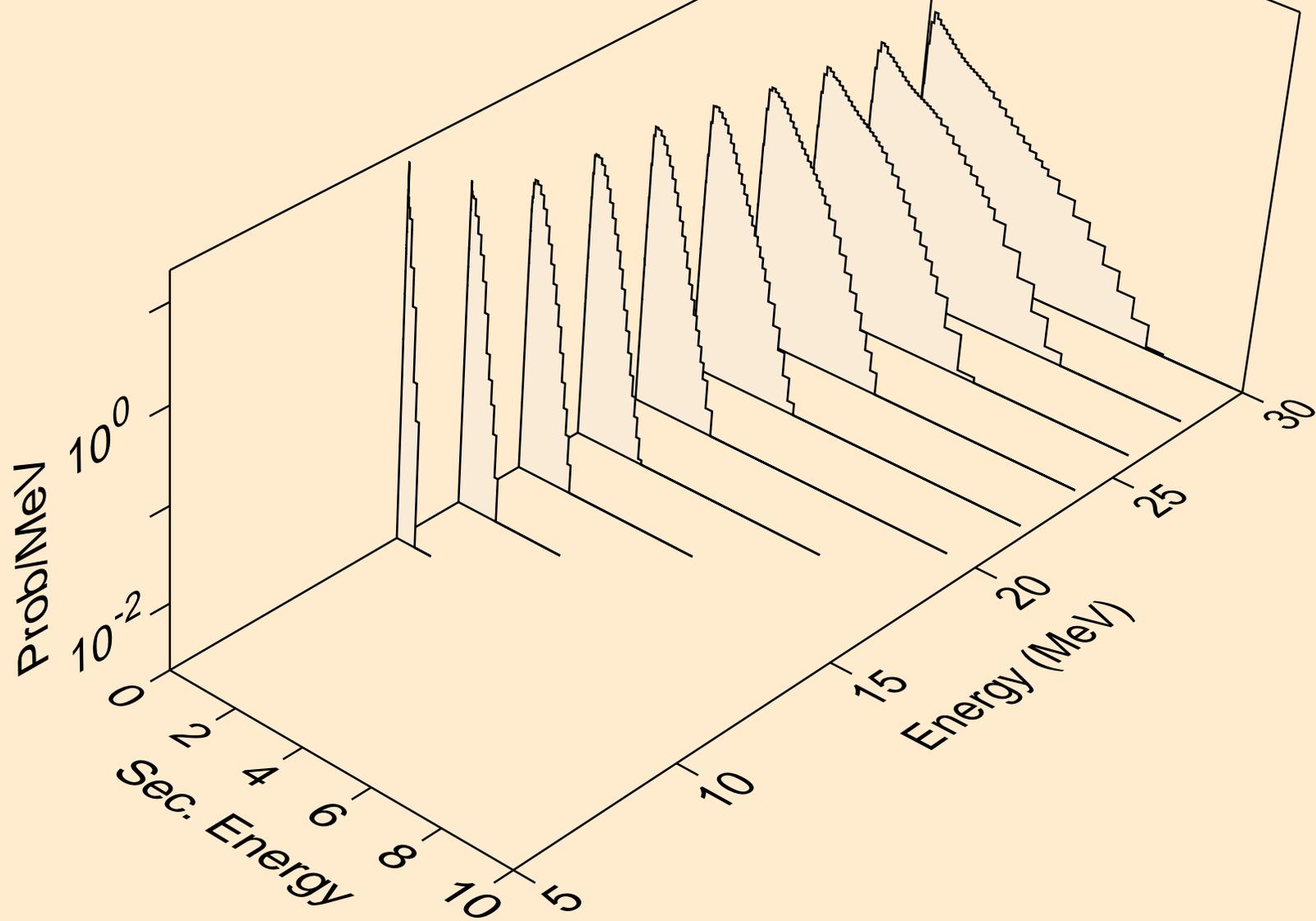RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n*)2a

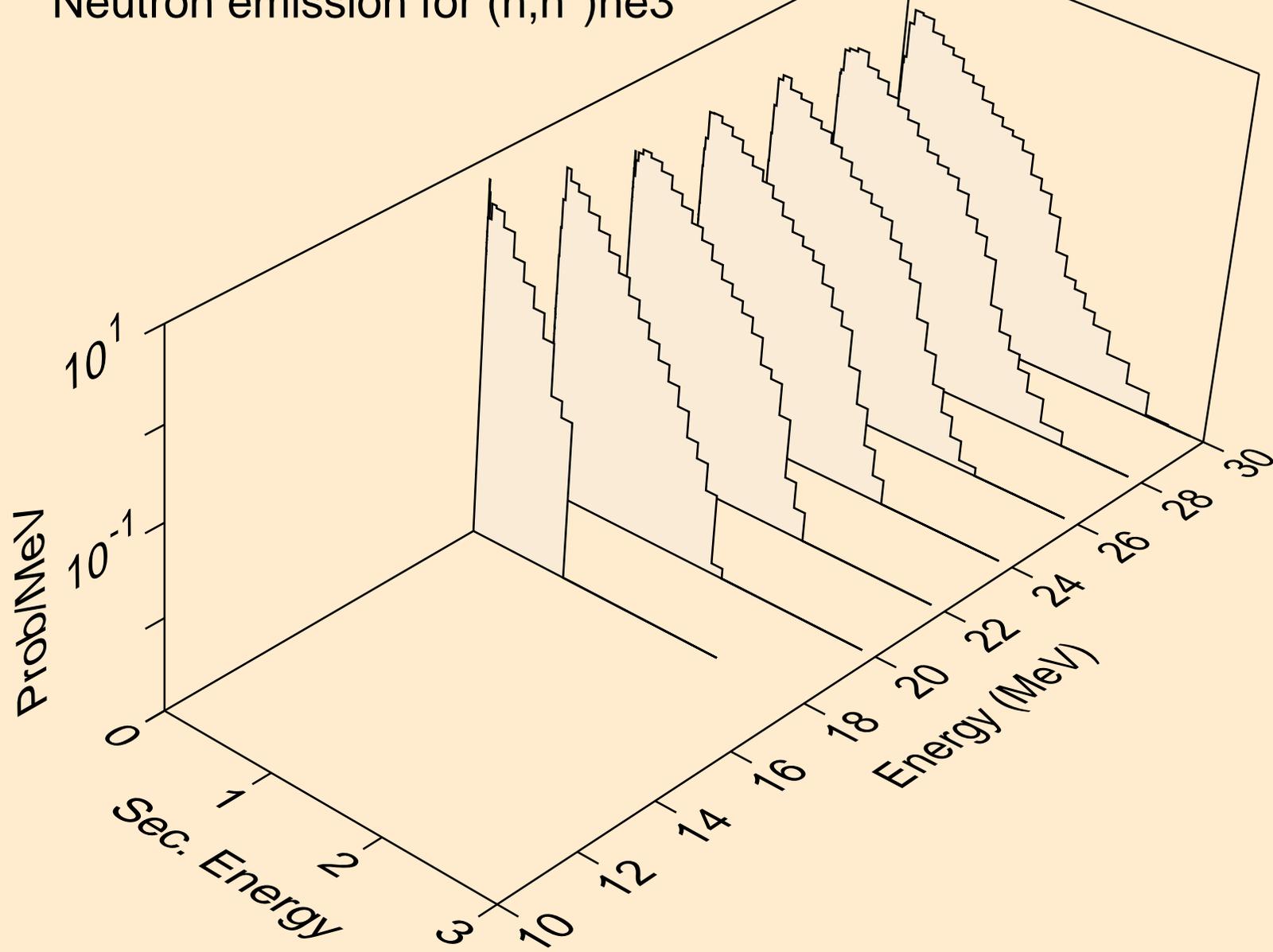RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,2n)2a

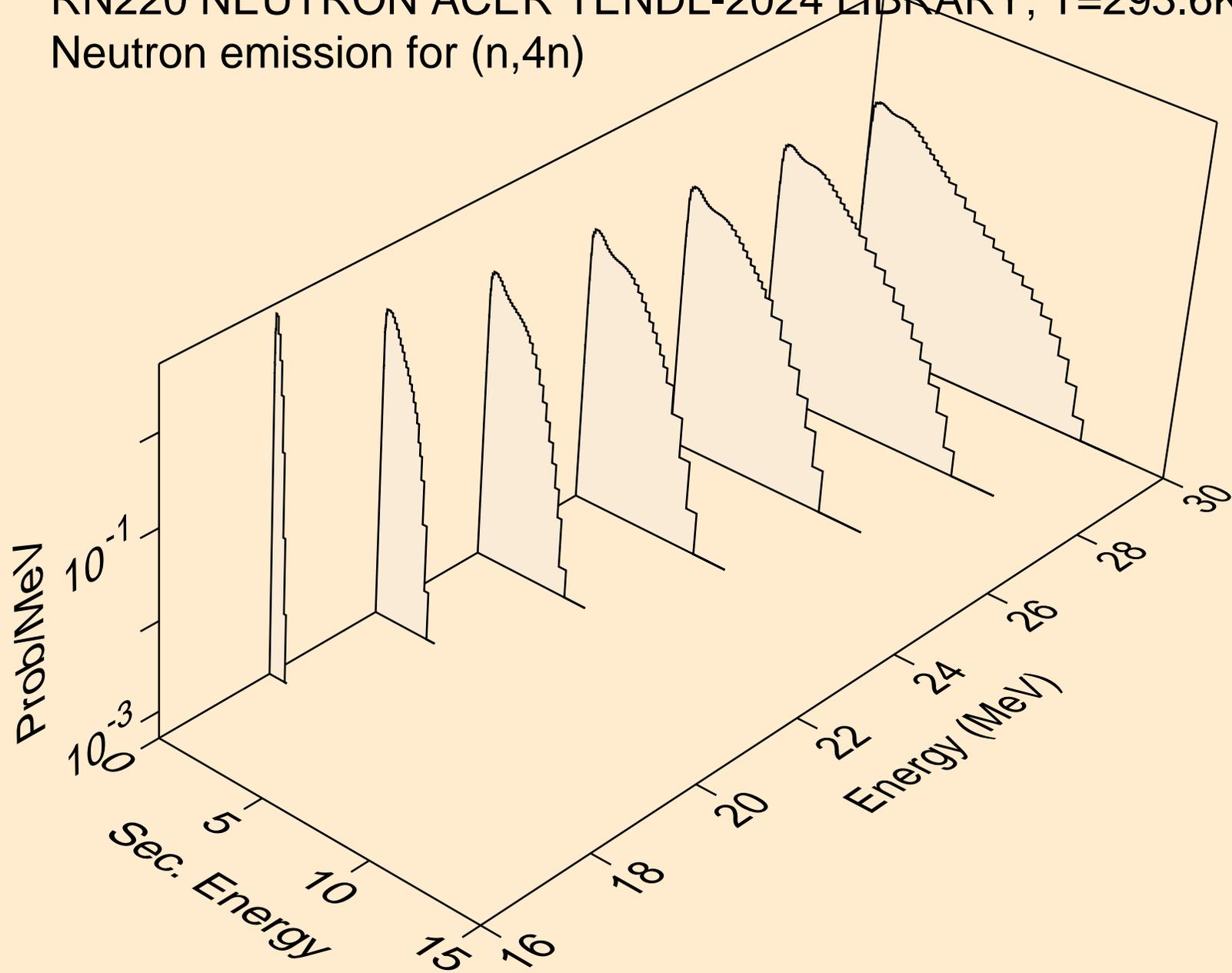RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n*)d

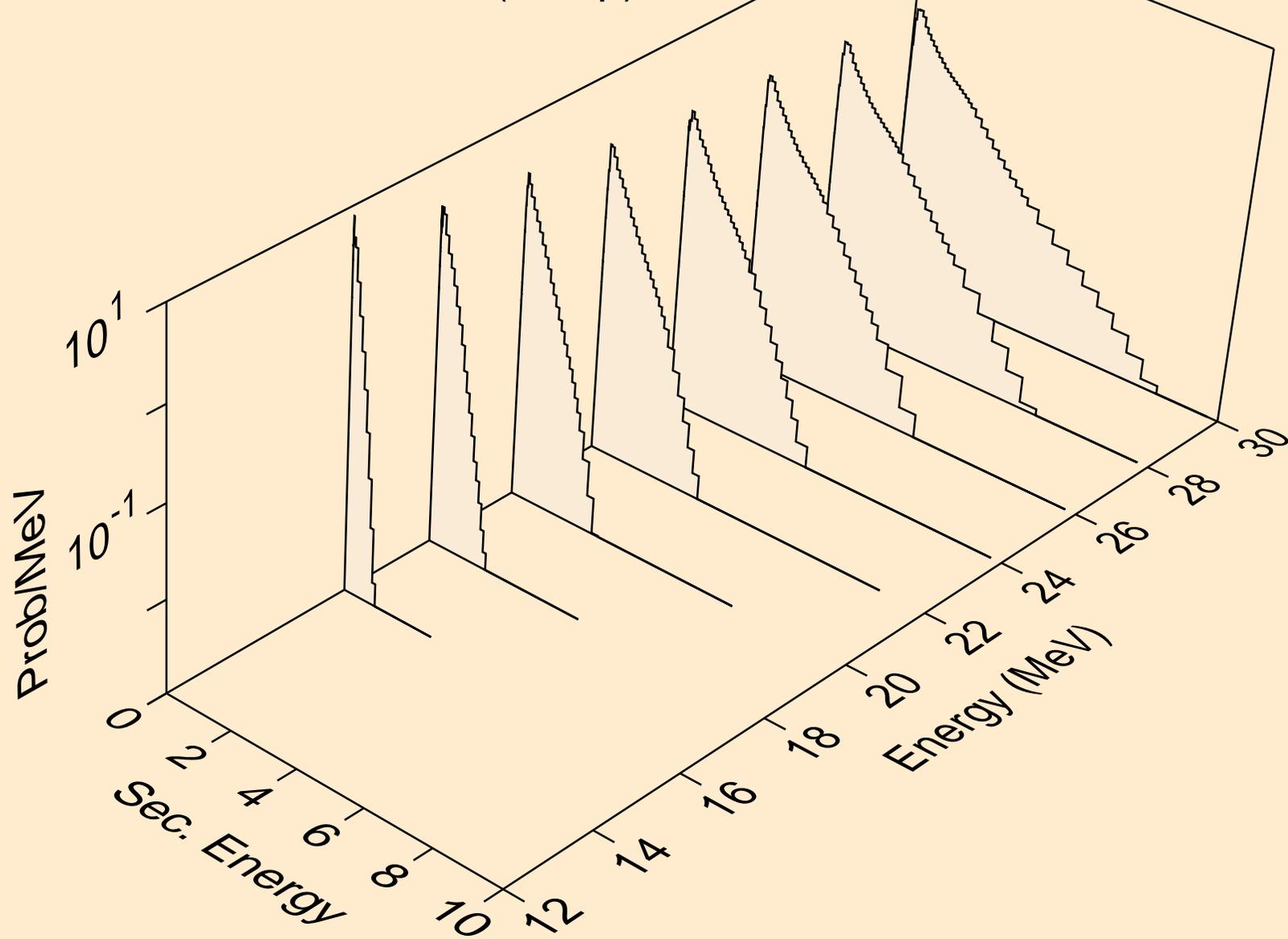RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n*)t

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
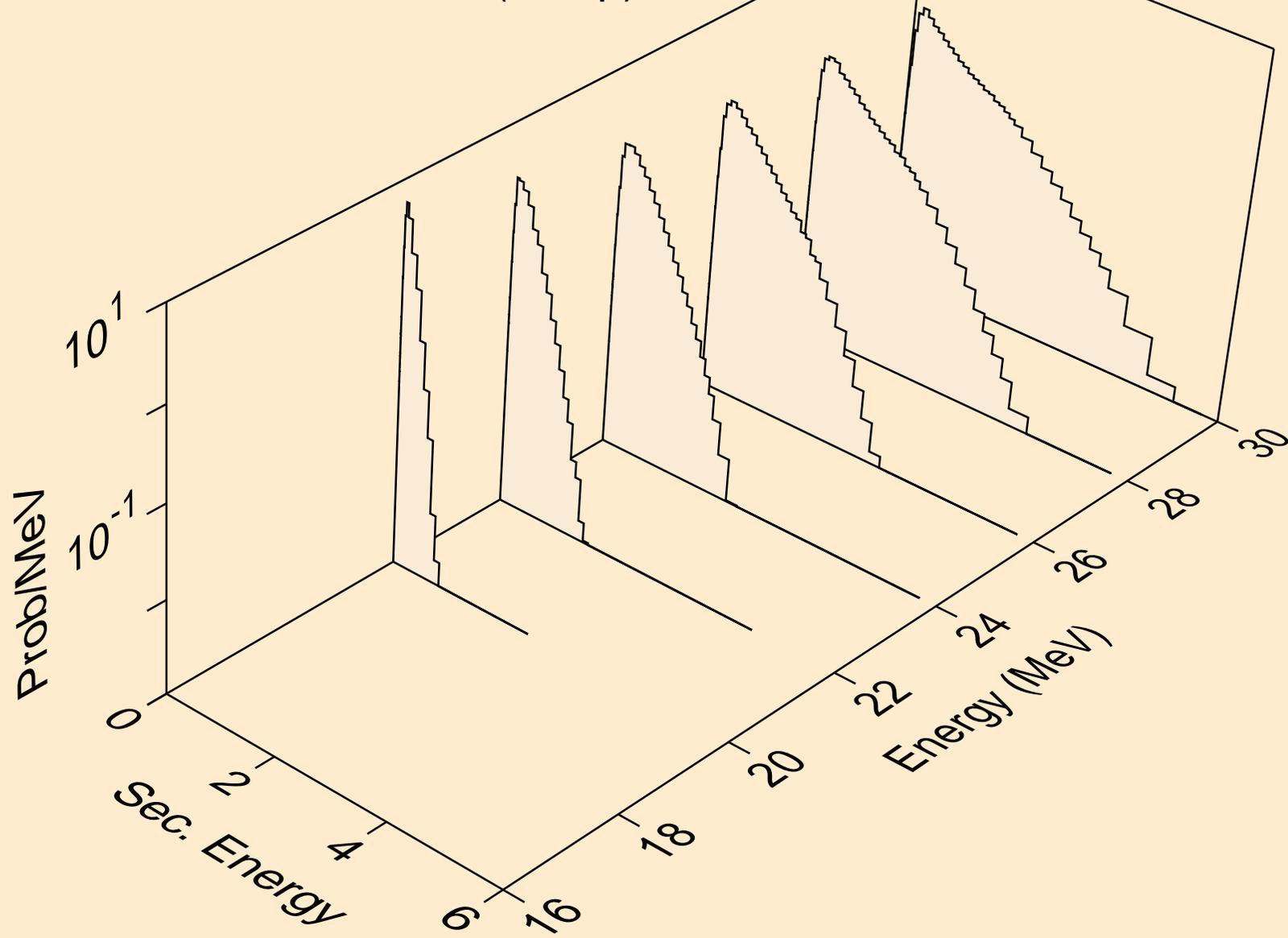Neutron emission for (n,n*)he3

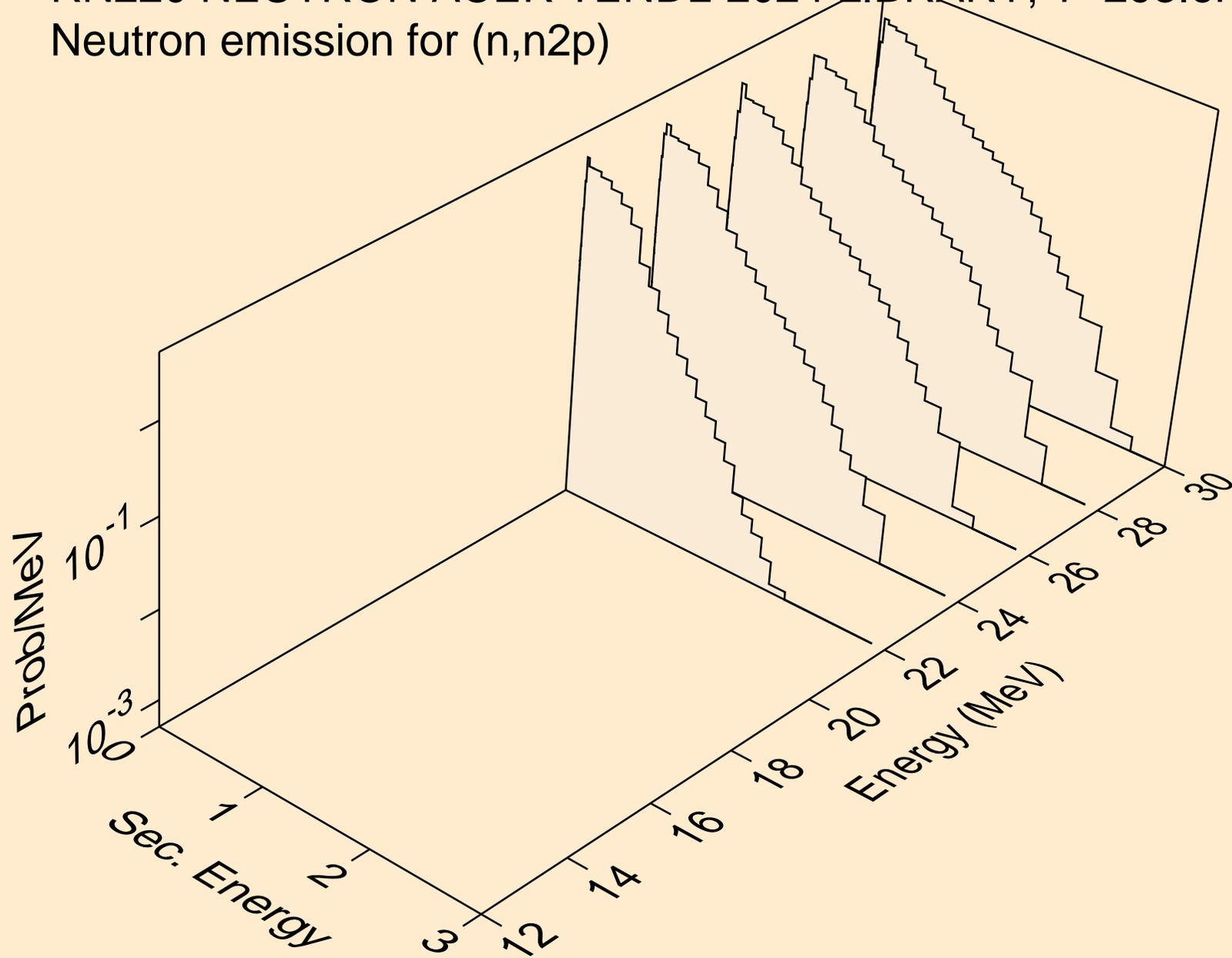RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,4n)

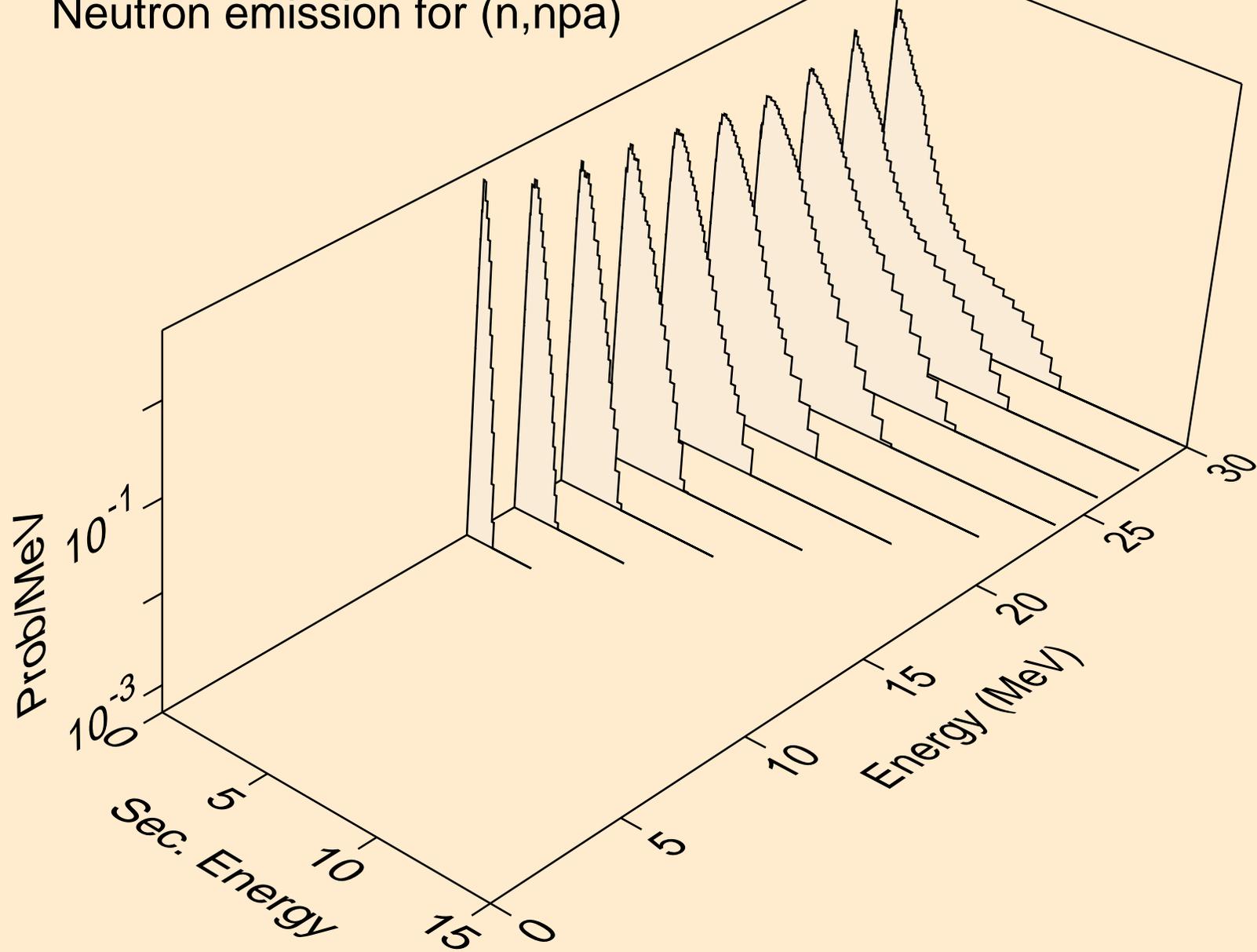RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,2np)

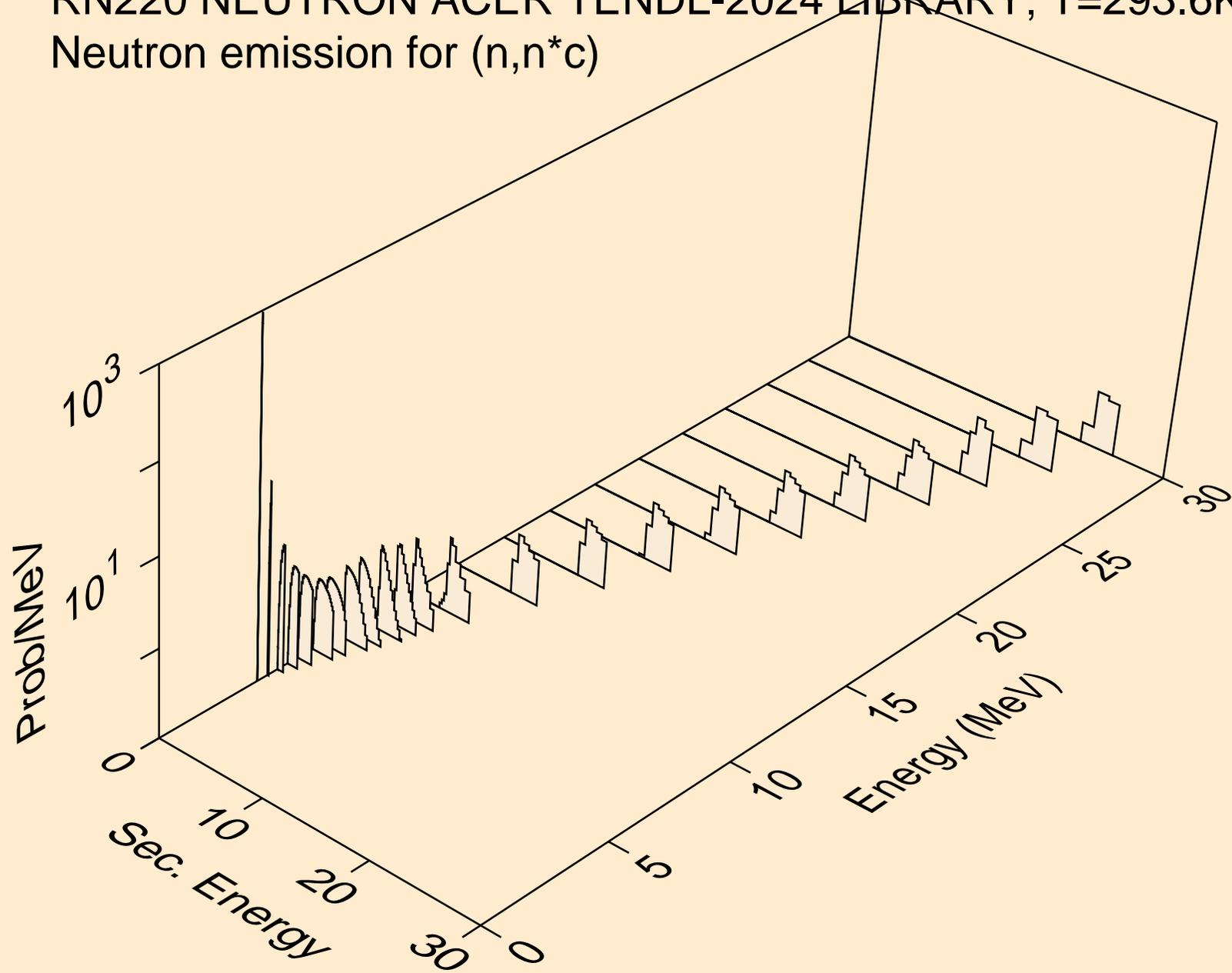RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,3np)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n2p)

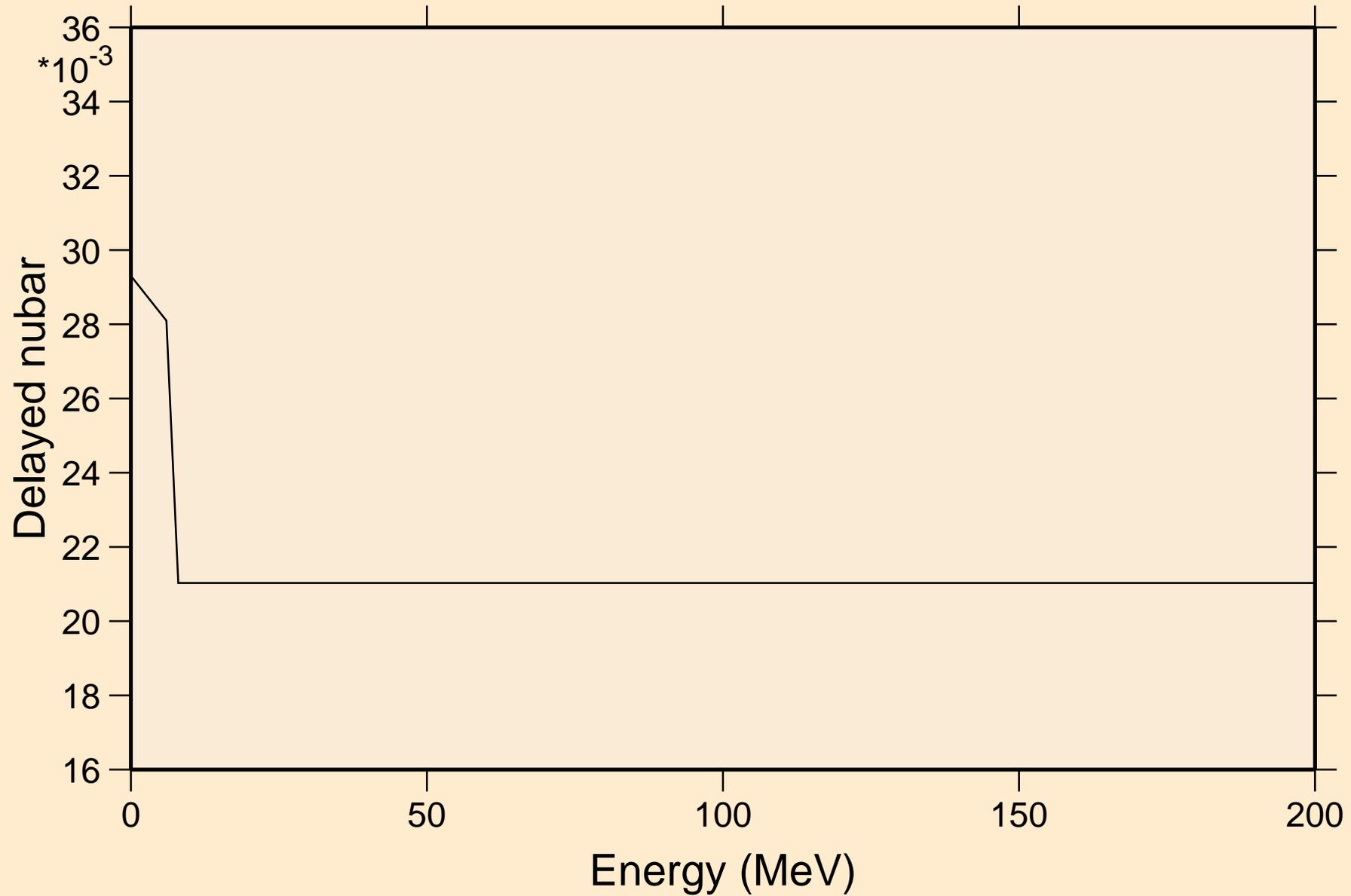RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,npa)

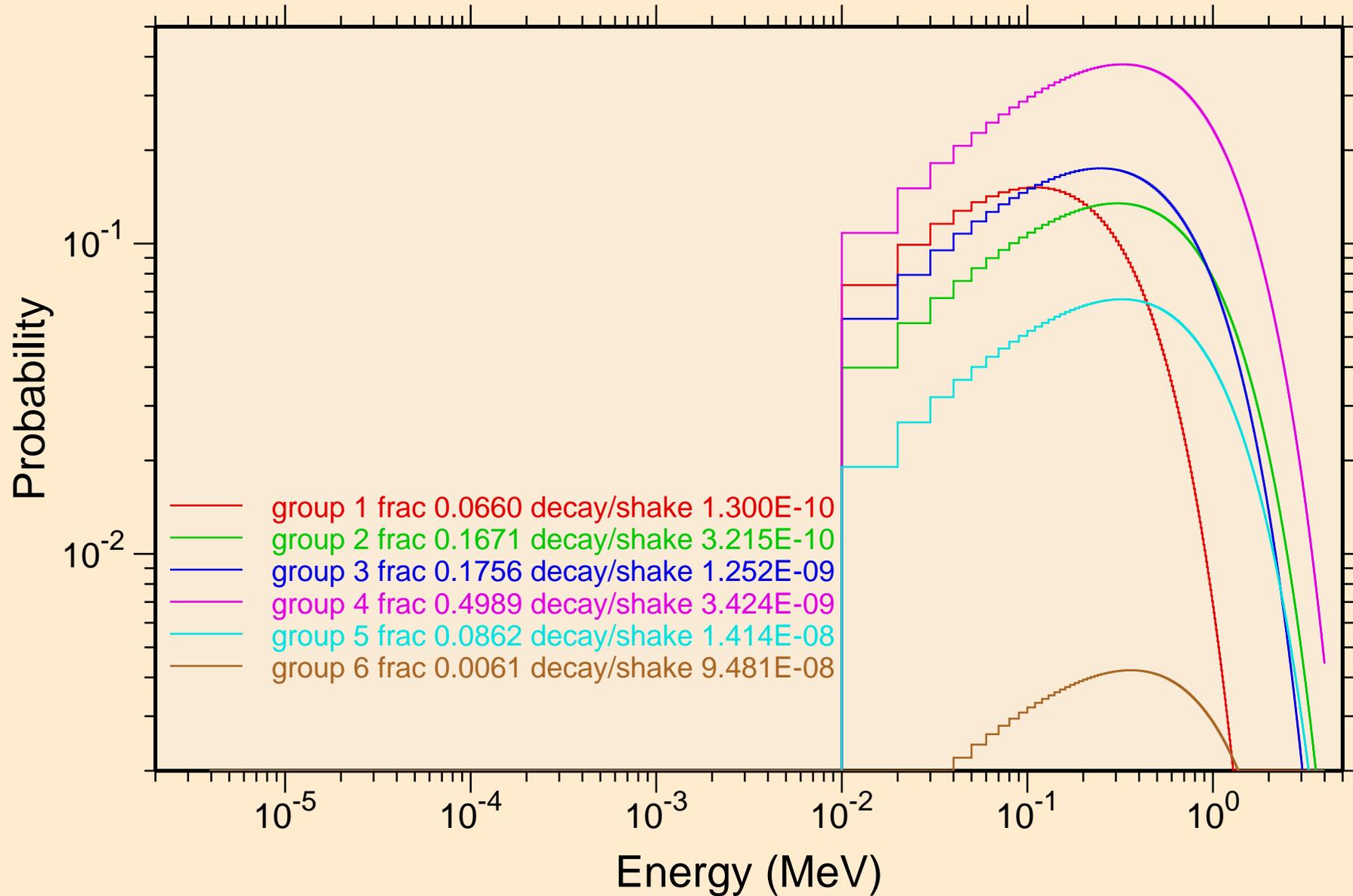RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Neutron emission for (n,n*c)

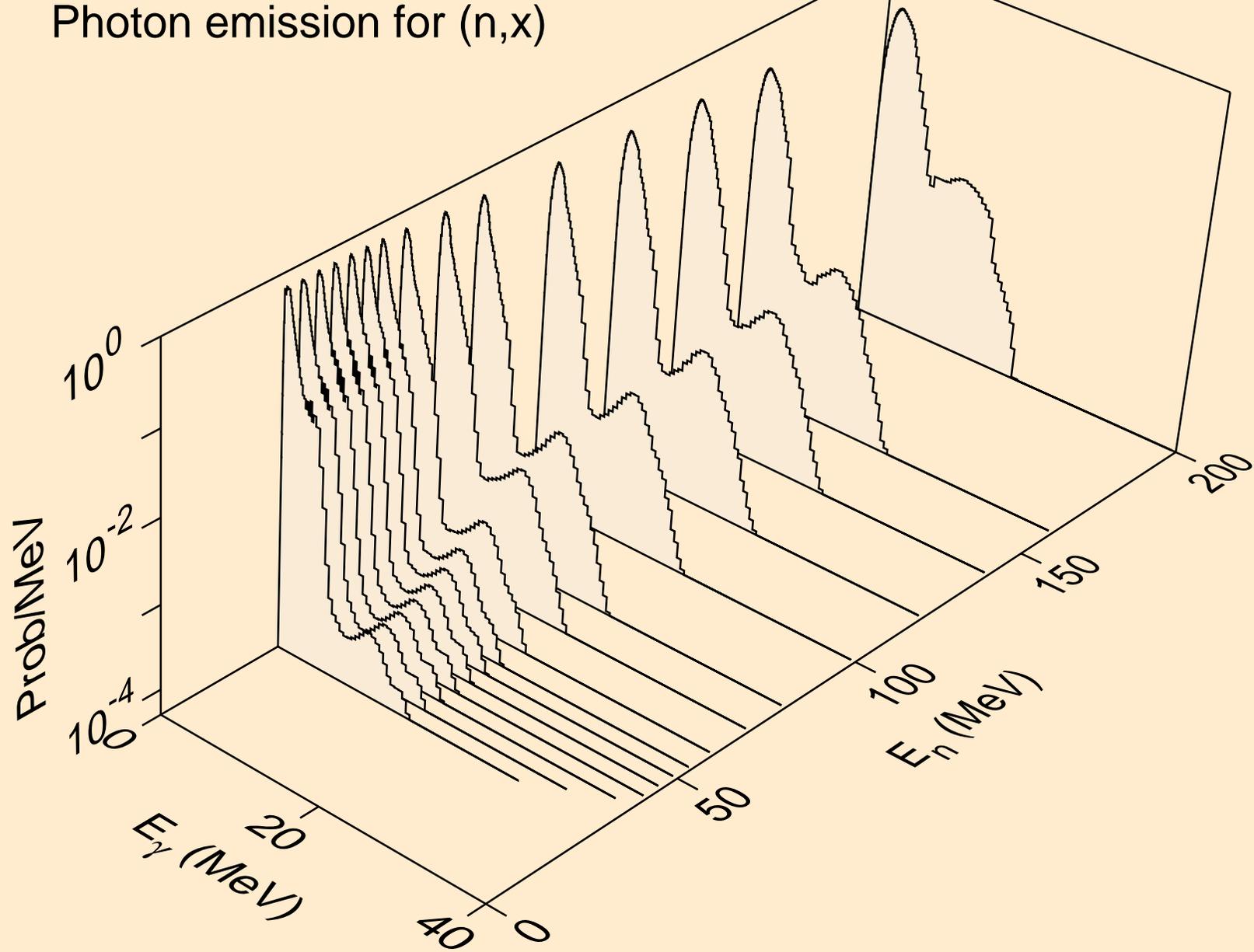RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
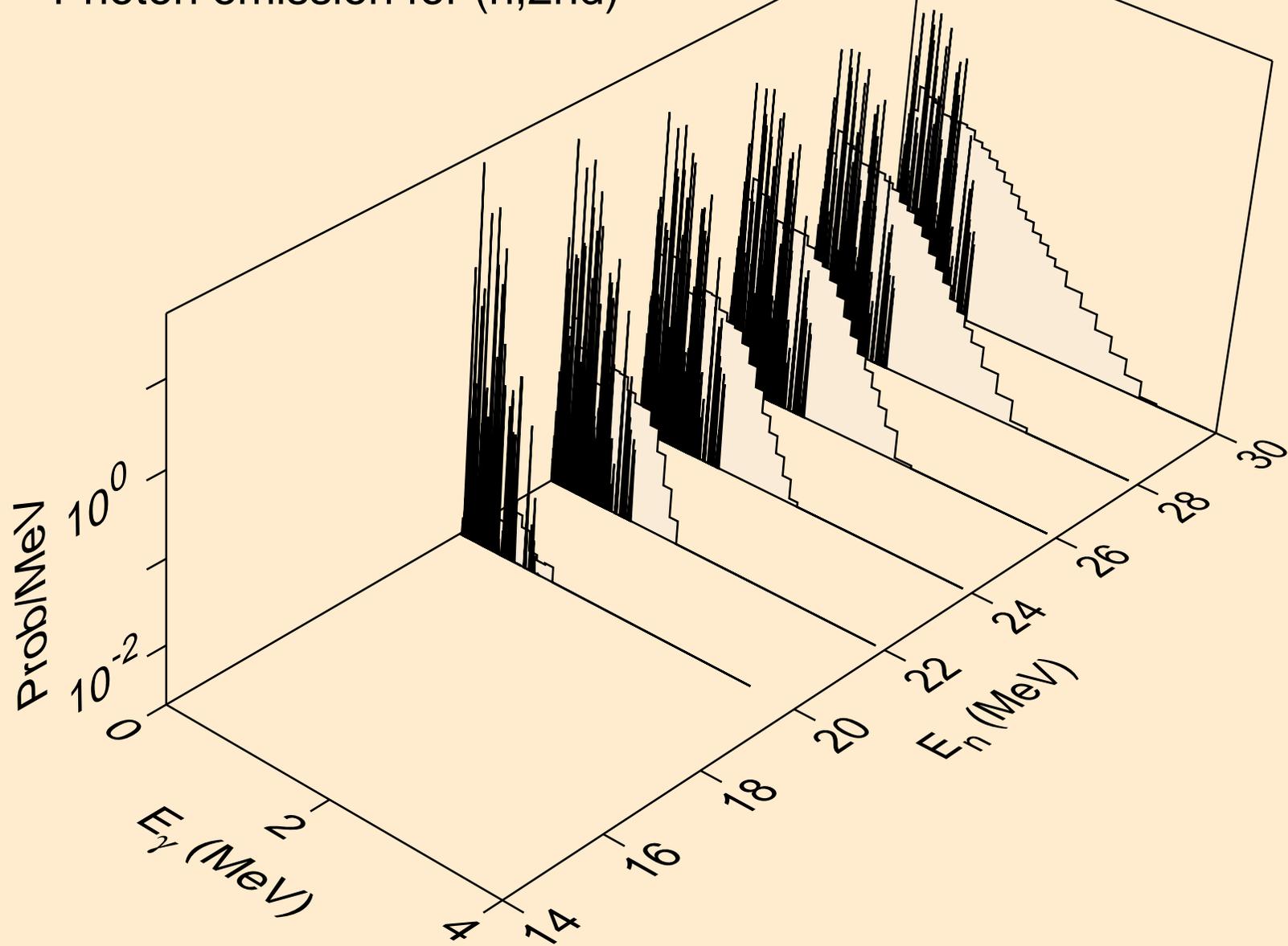Delayed nubar

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Delayed neutron spectra

group 1 frac 0.0660 decay/shake 1.300E-10
group 2 frac 0.1671 decay/shake 3.215E-10
group 3 frac 0.1756 decay/shake 1.252E-09
group 4 frac 0.4989 decay/shake 3.424E-09
group 5 frac 0.0862 decay/shake 1.414E-08
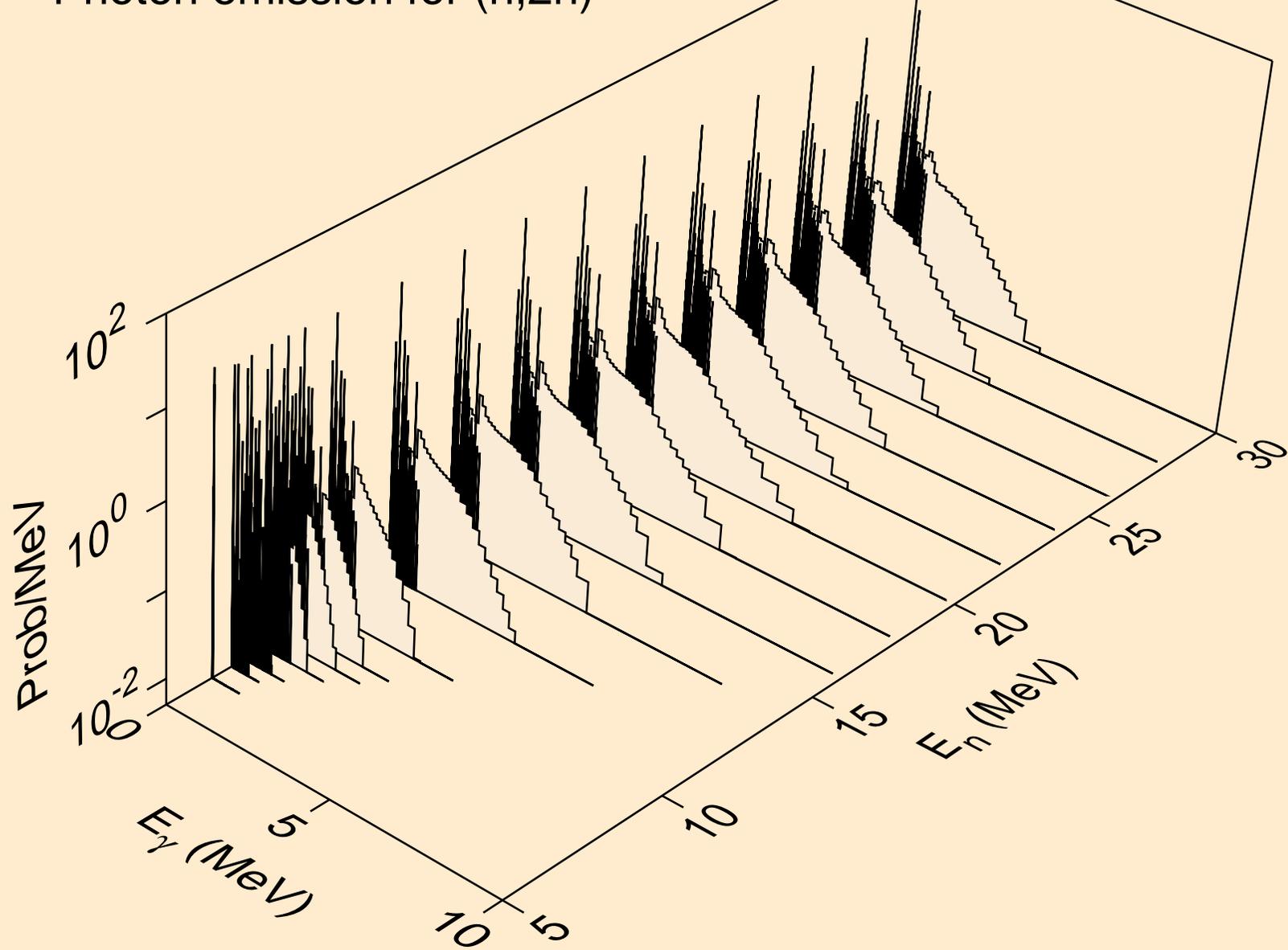group 6 frac 0.0061 decay/shake 9.481E-08

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
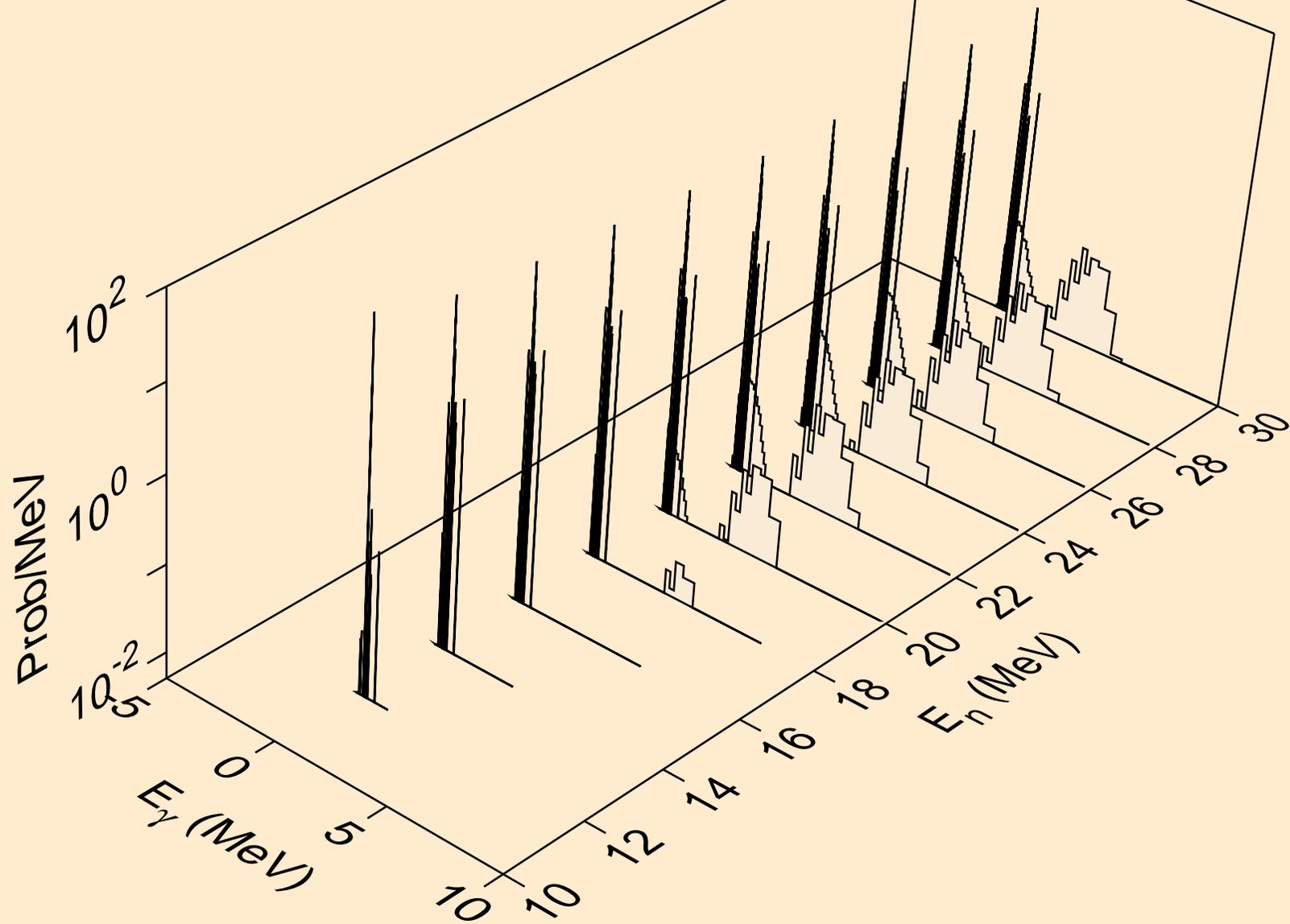Photon emission for (n,x)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
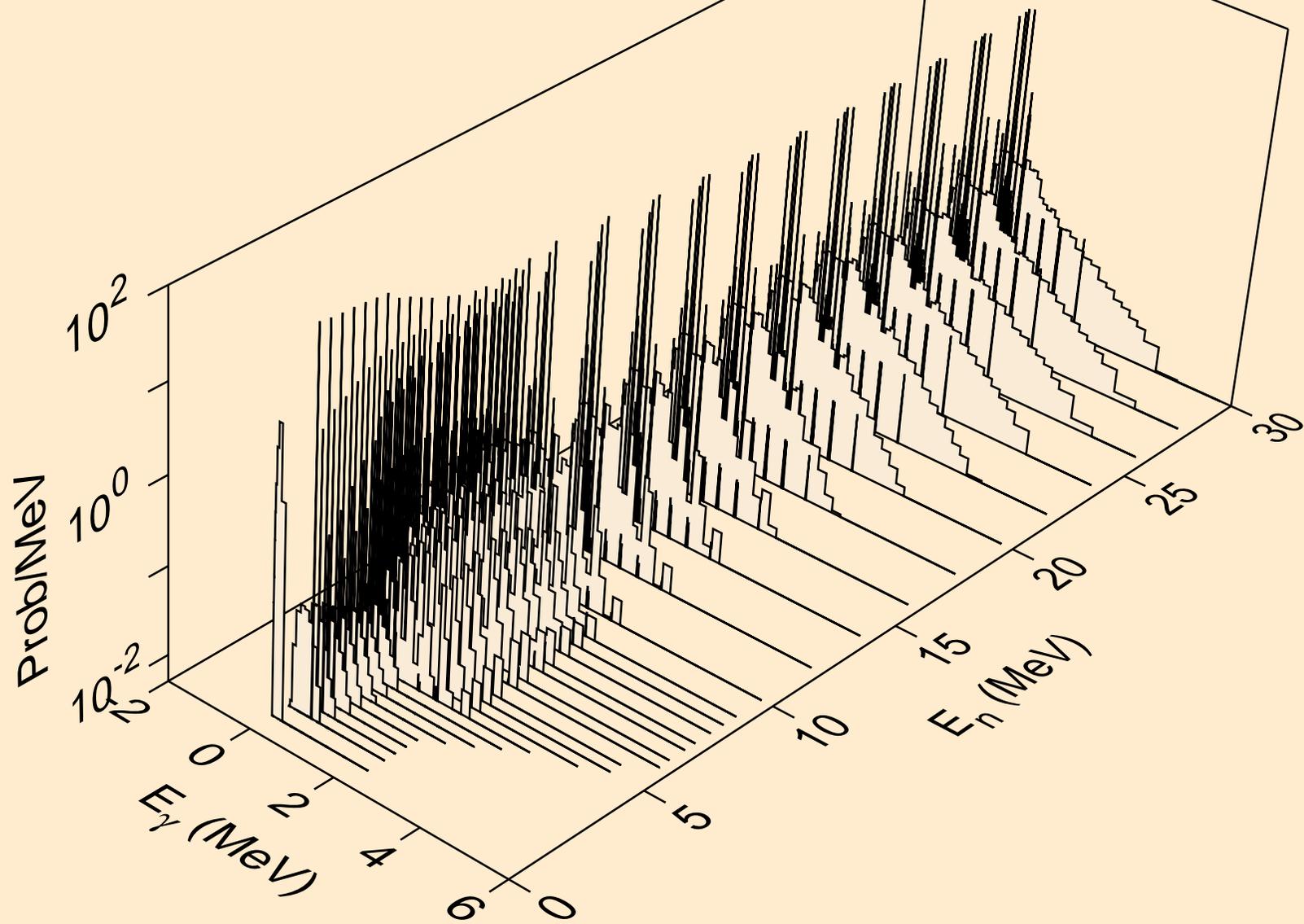Photon emission for (n,2nd)

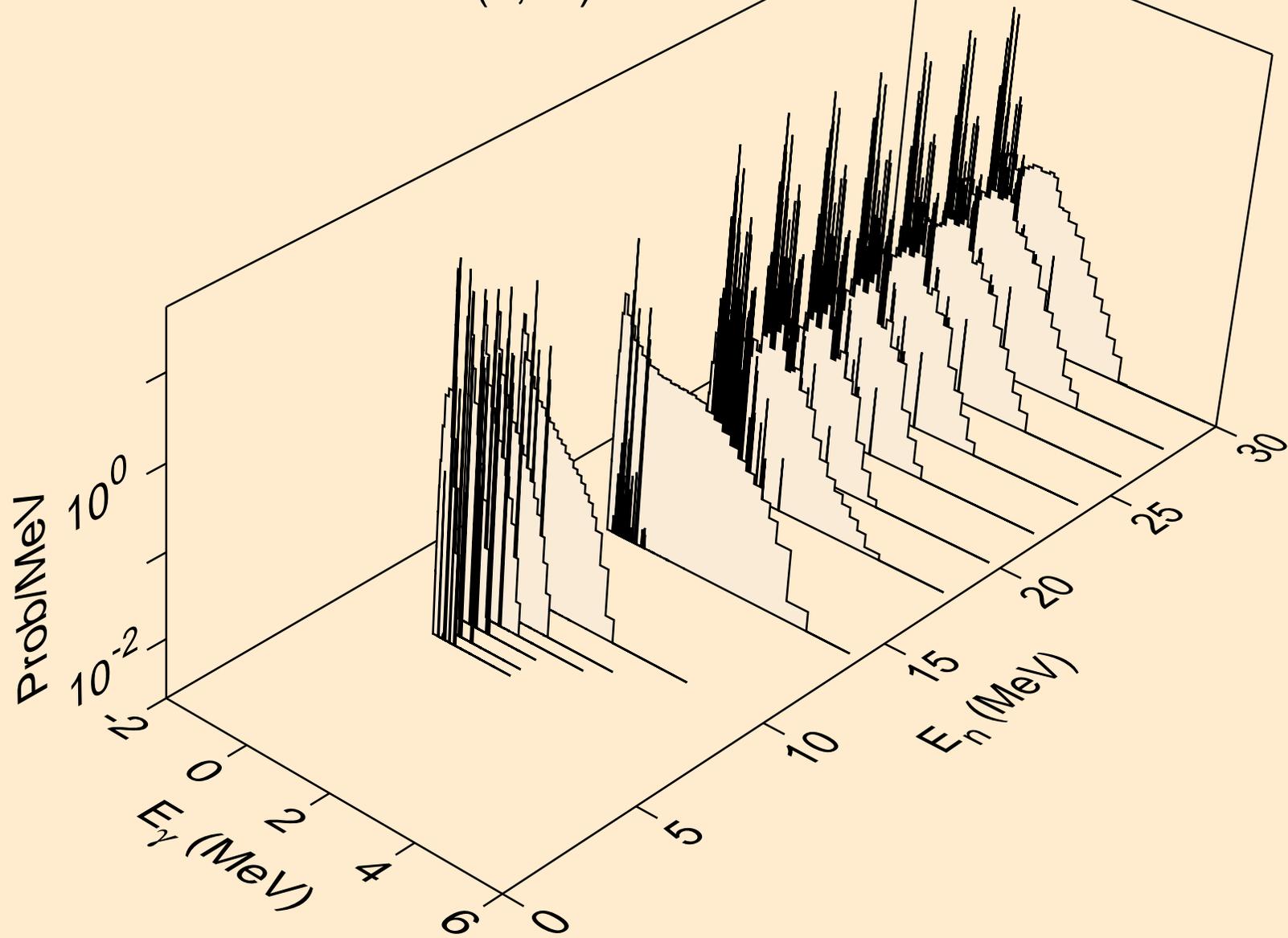RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,2n)

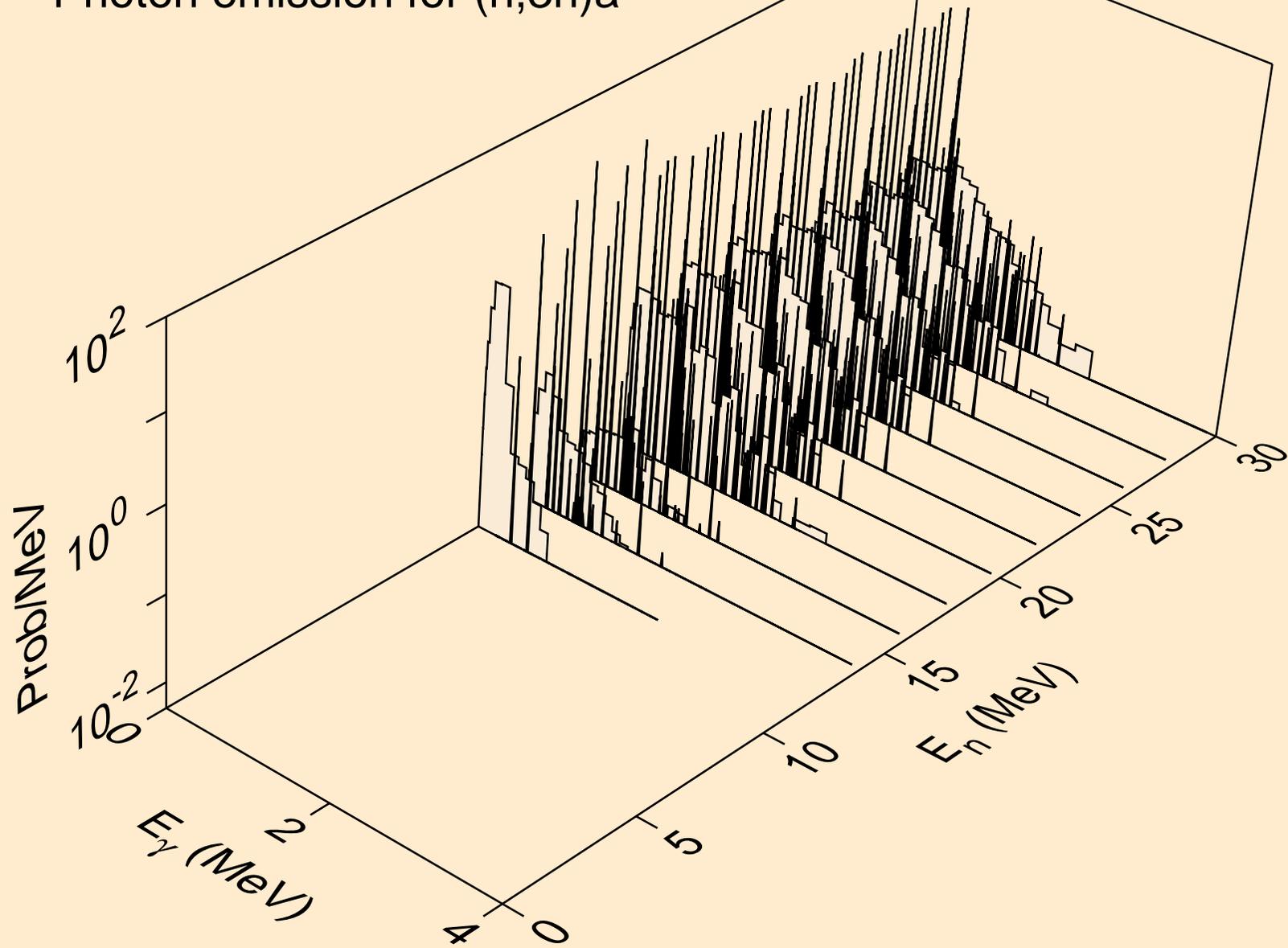RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,3n)

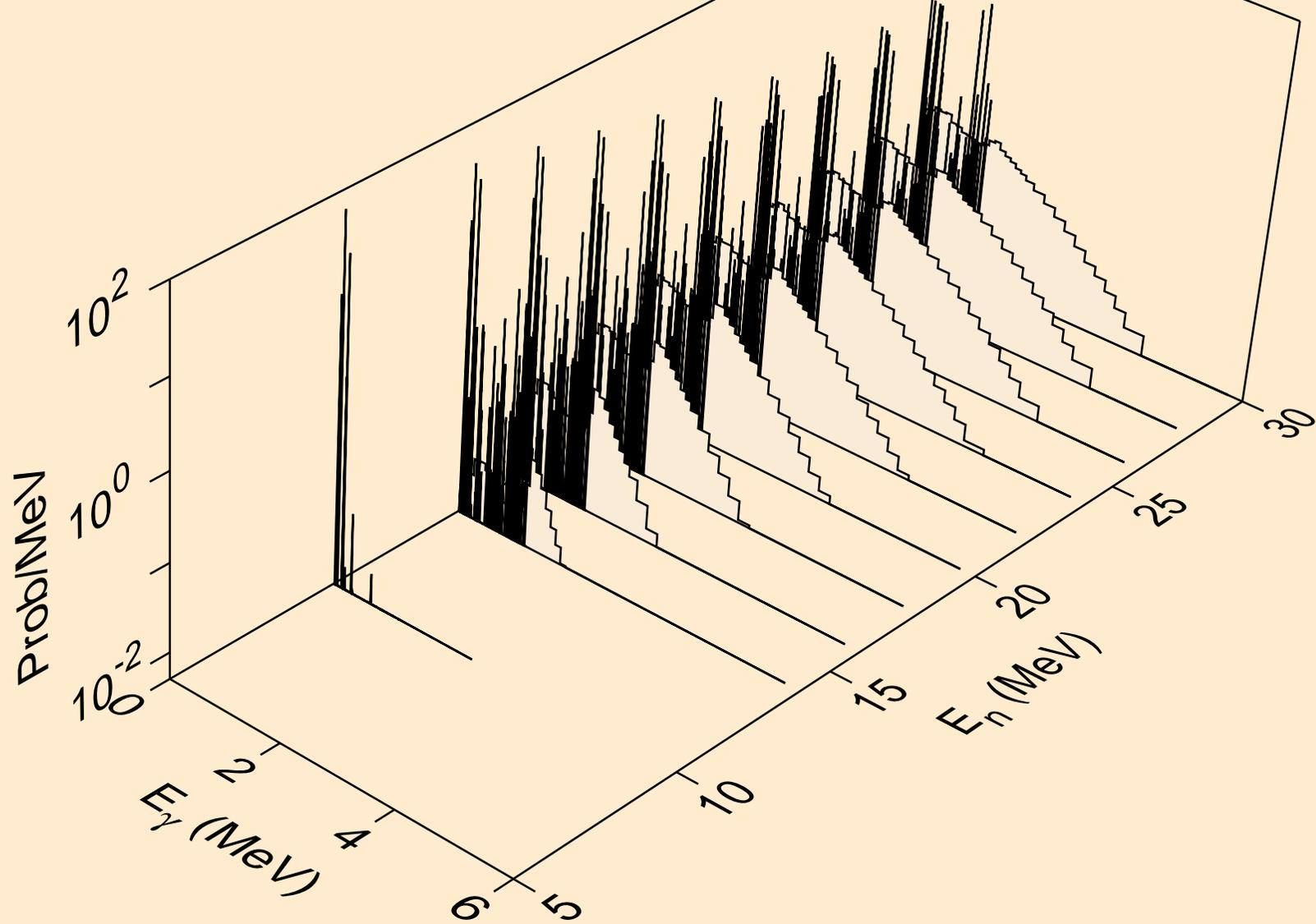RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,n*)a

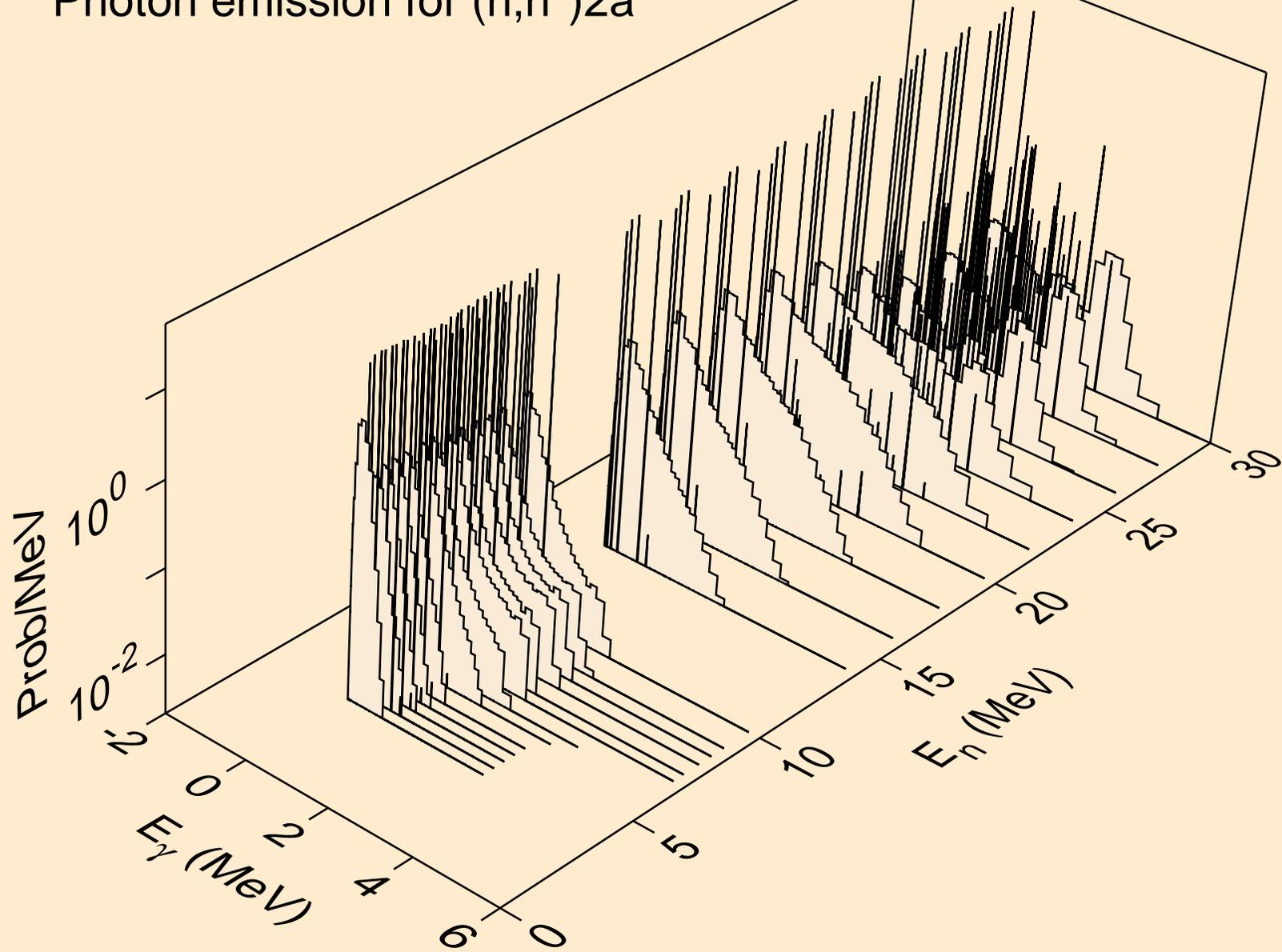RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,2n)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
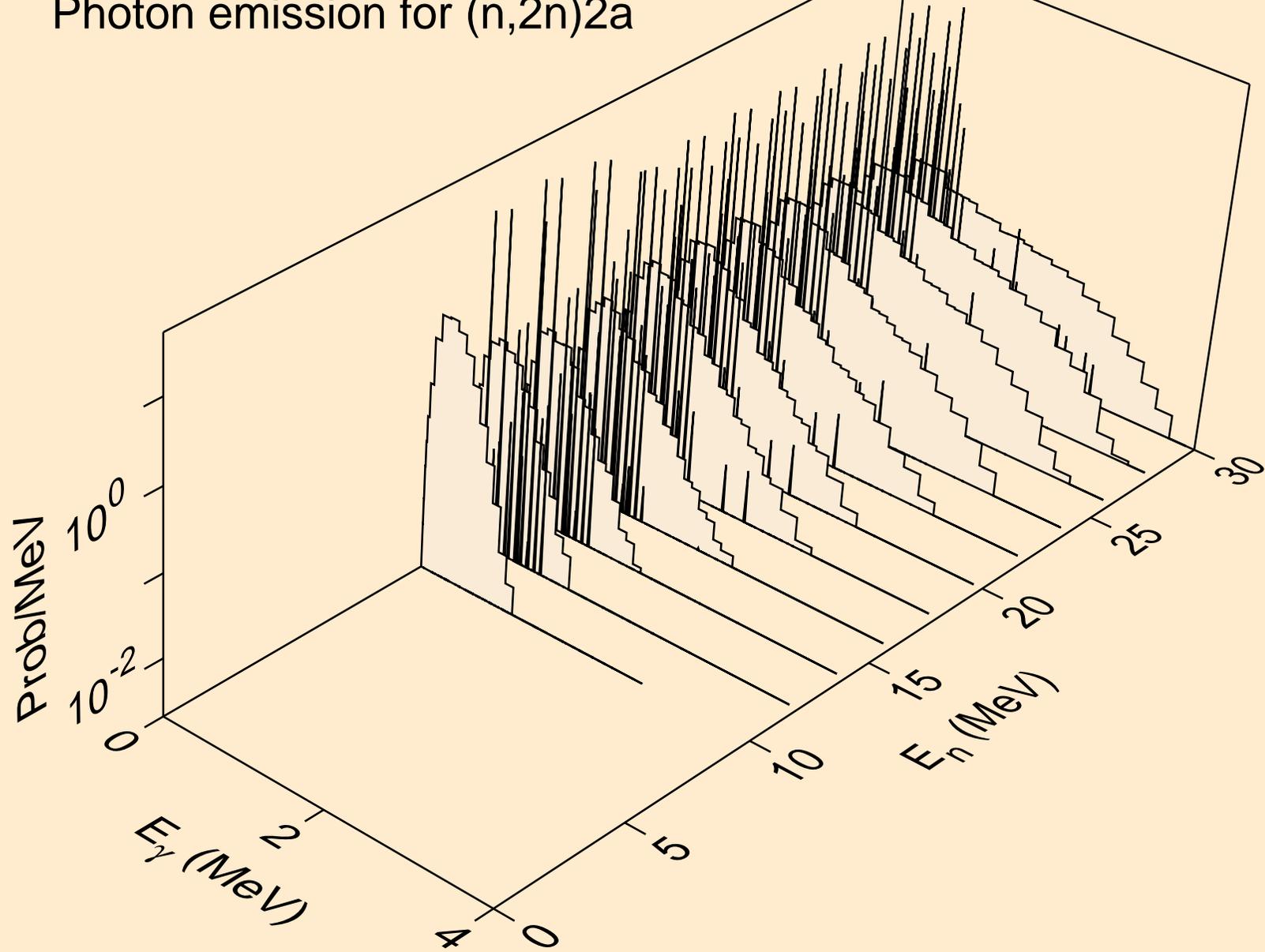Photon emission for (n,3n)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
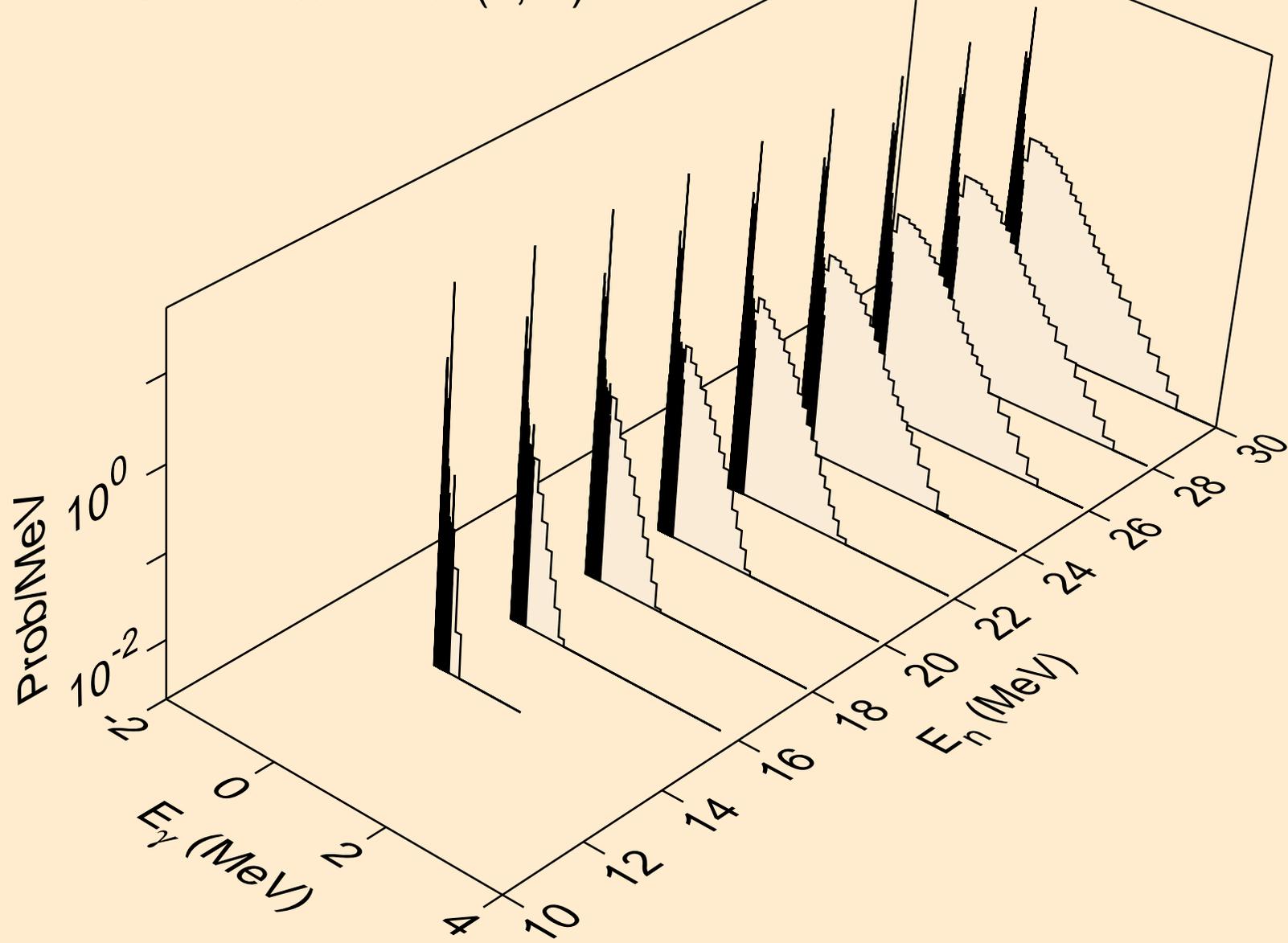Photon emission for (n,n*)p

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
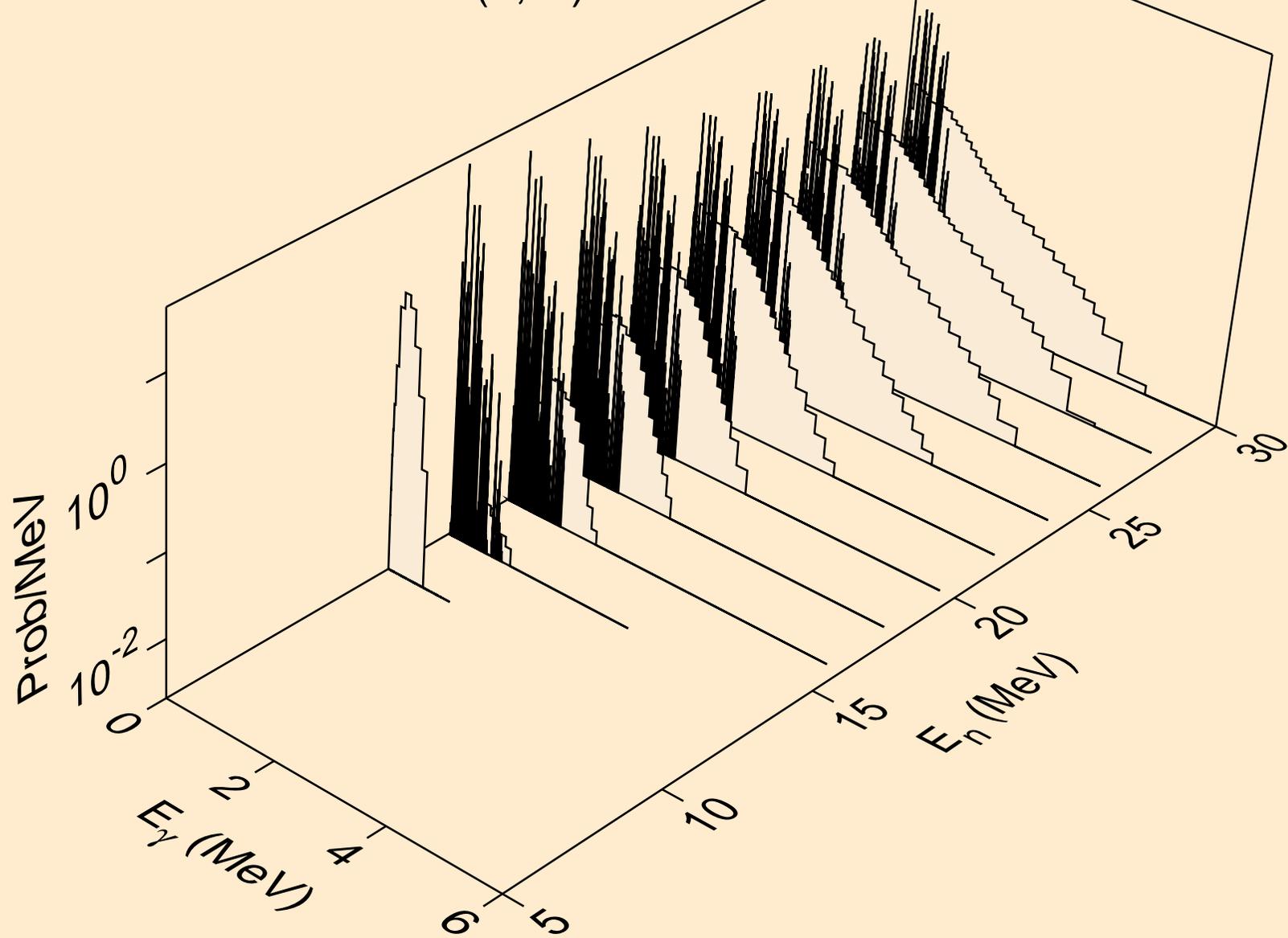Photon emission for (n,n*)2a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
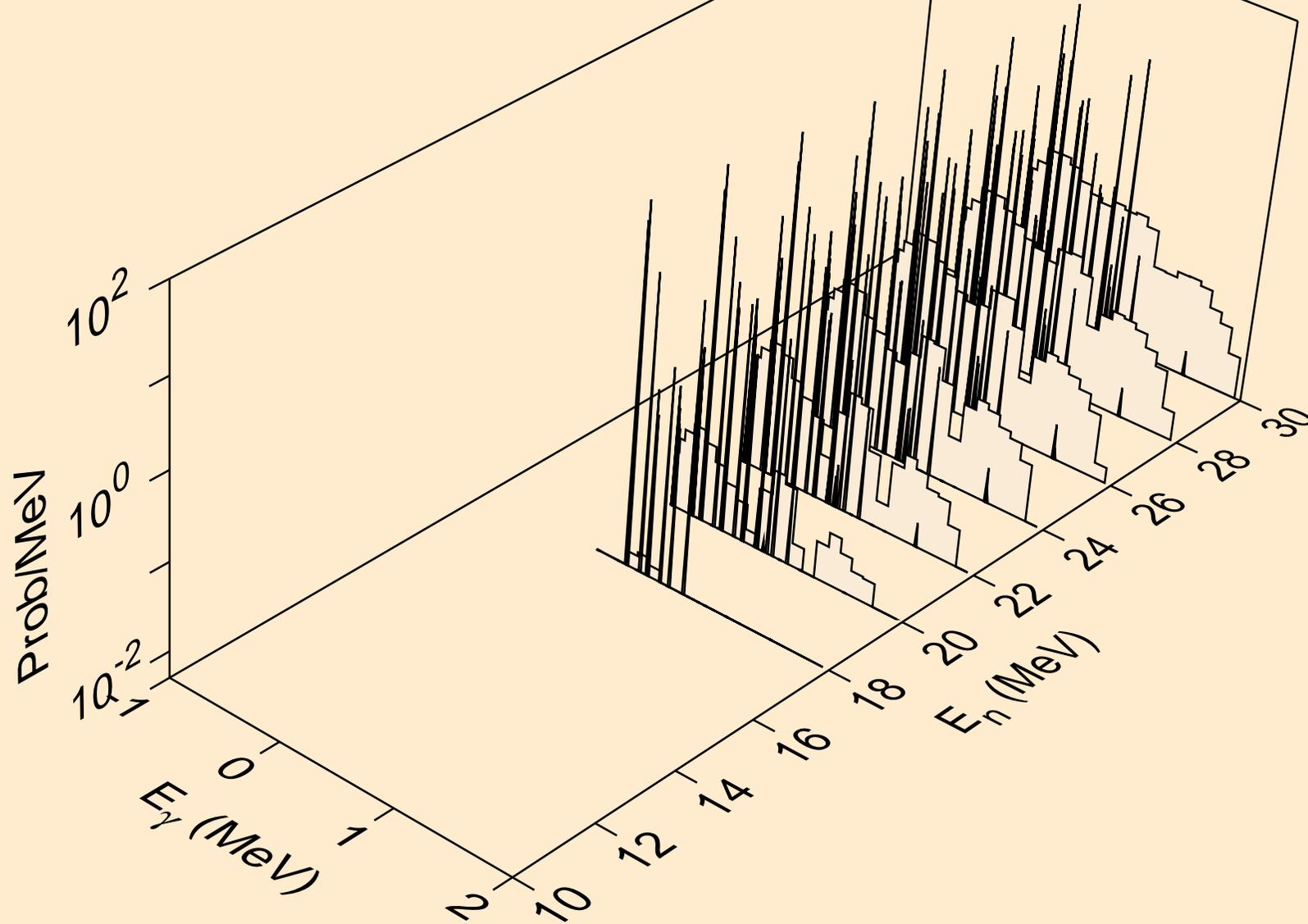Photon emission for (n,2n)2a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
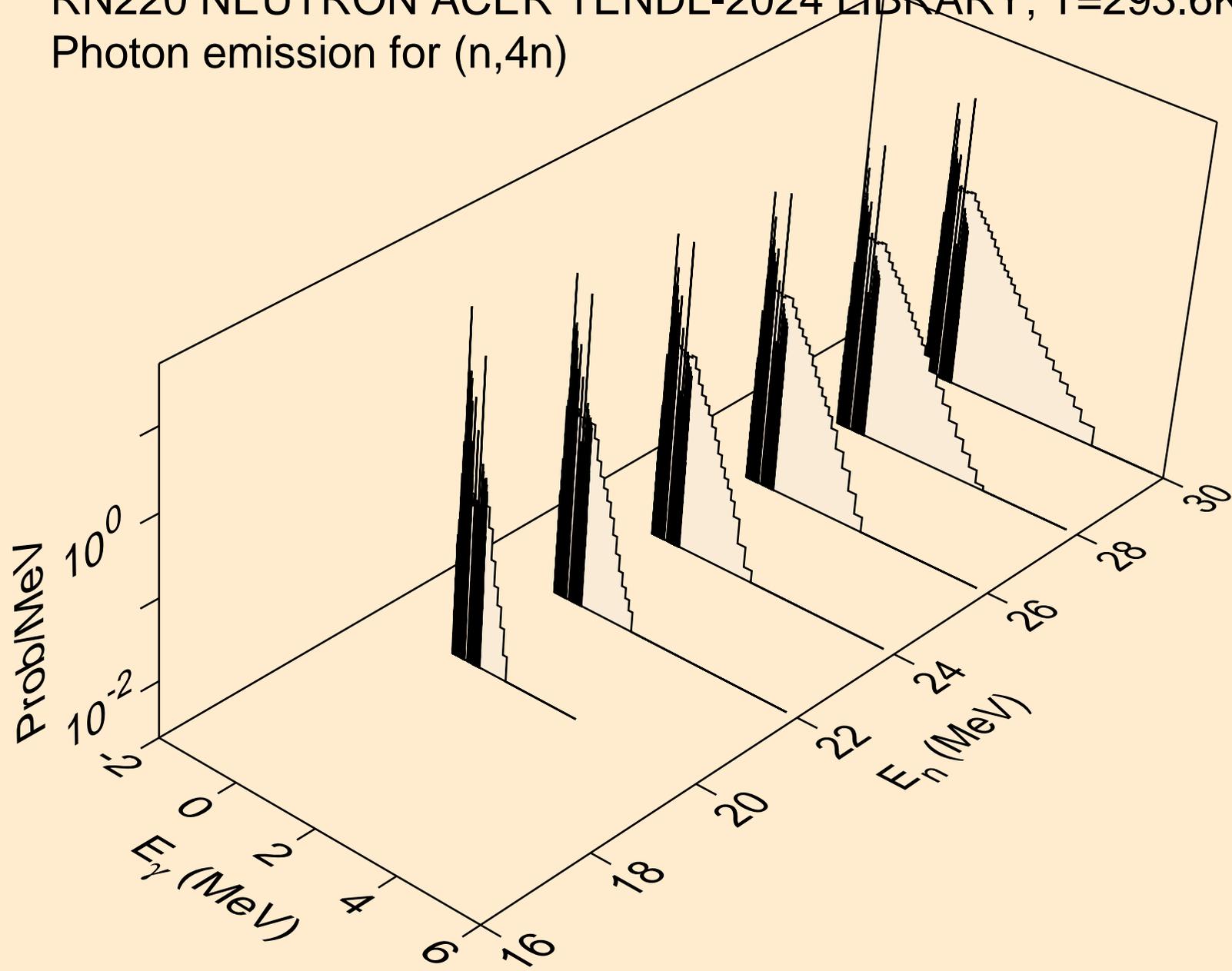Photon emission for (n,n*)d

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
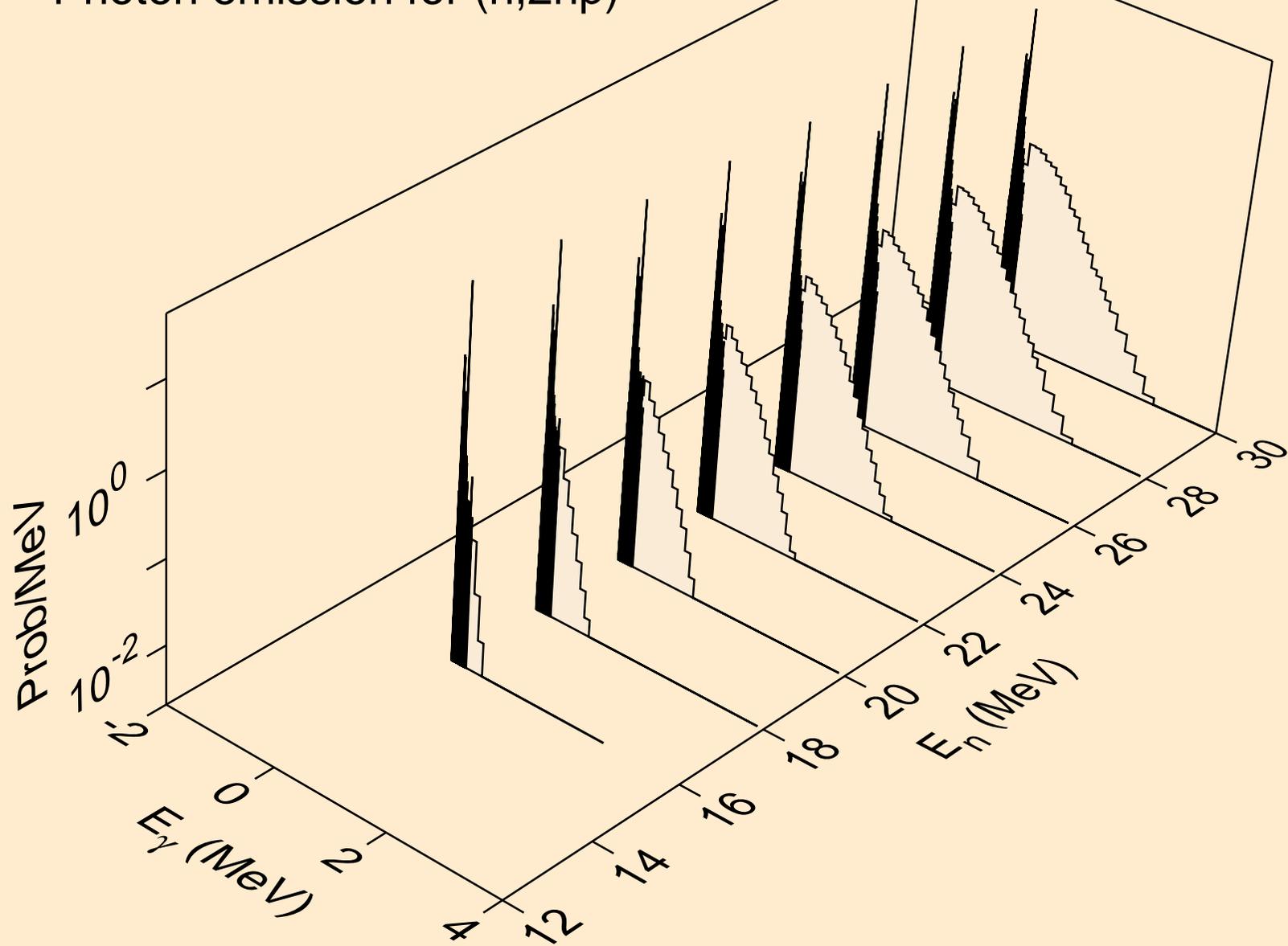Photon emission for (n,n*)t

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
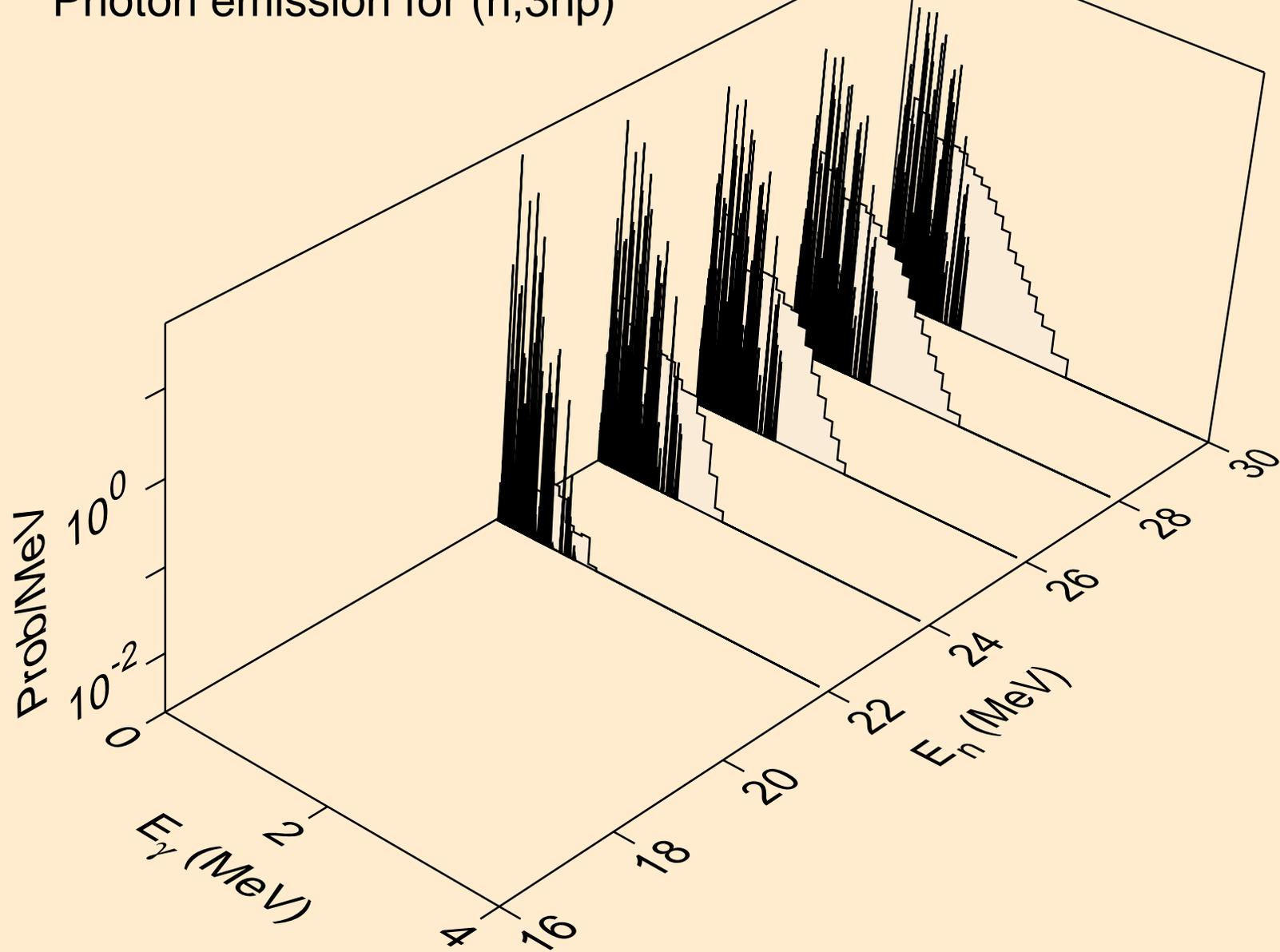Photon emission for (n,n*)he3

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
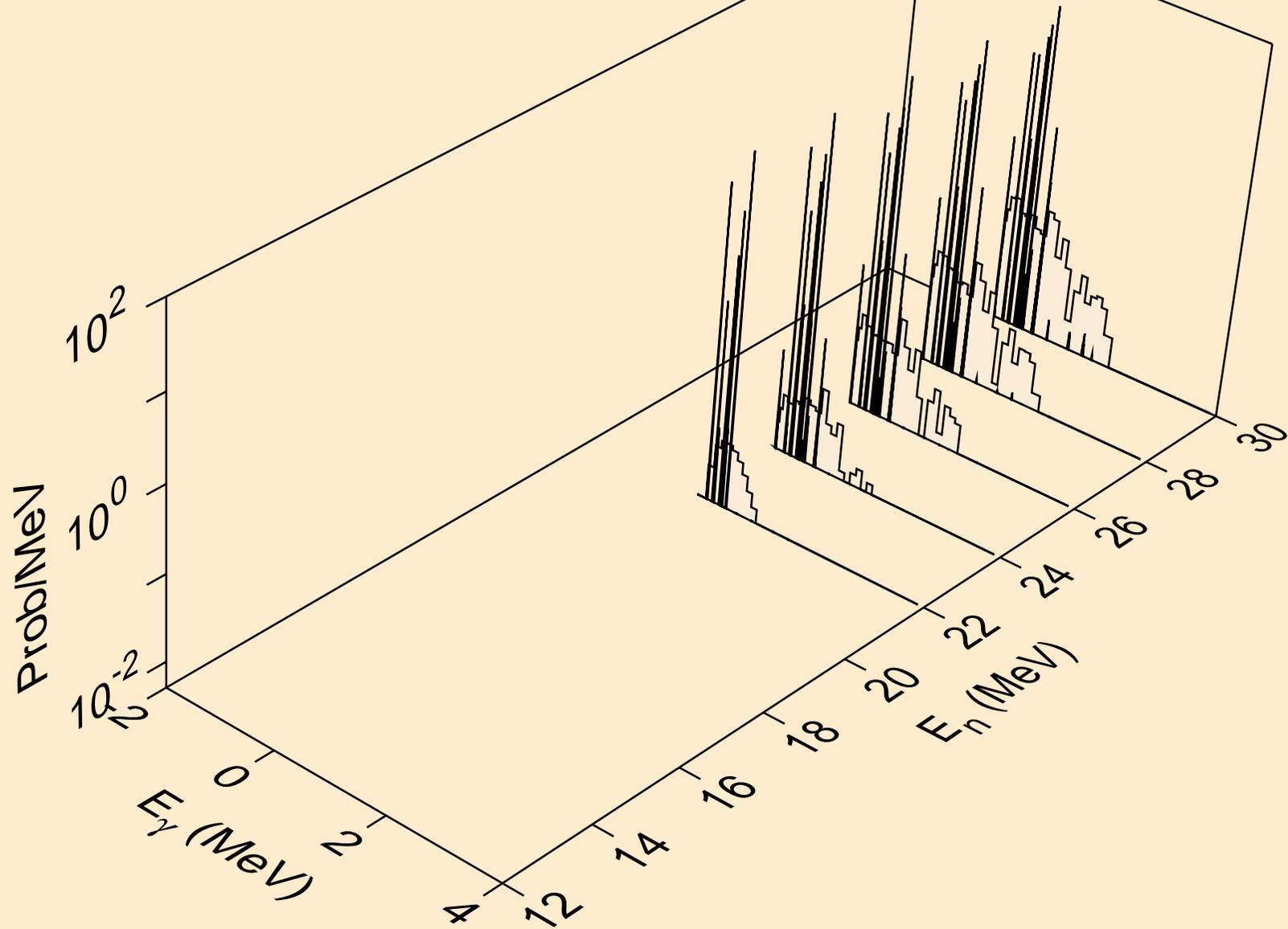Photon emission for (n,4n)

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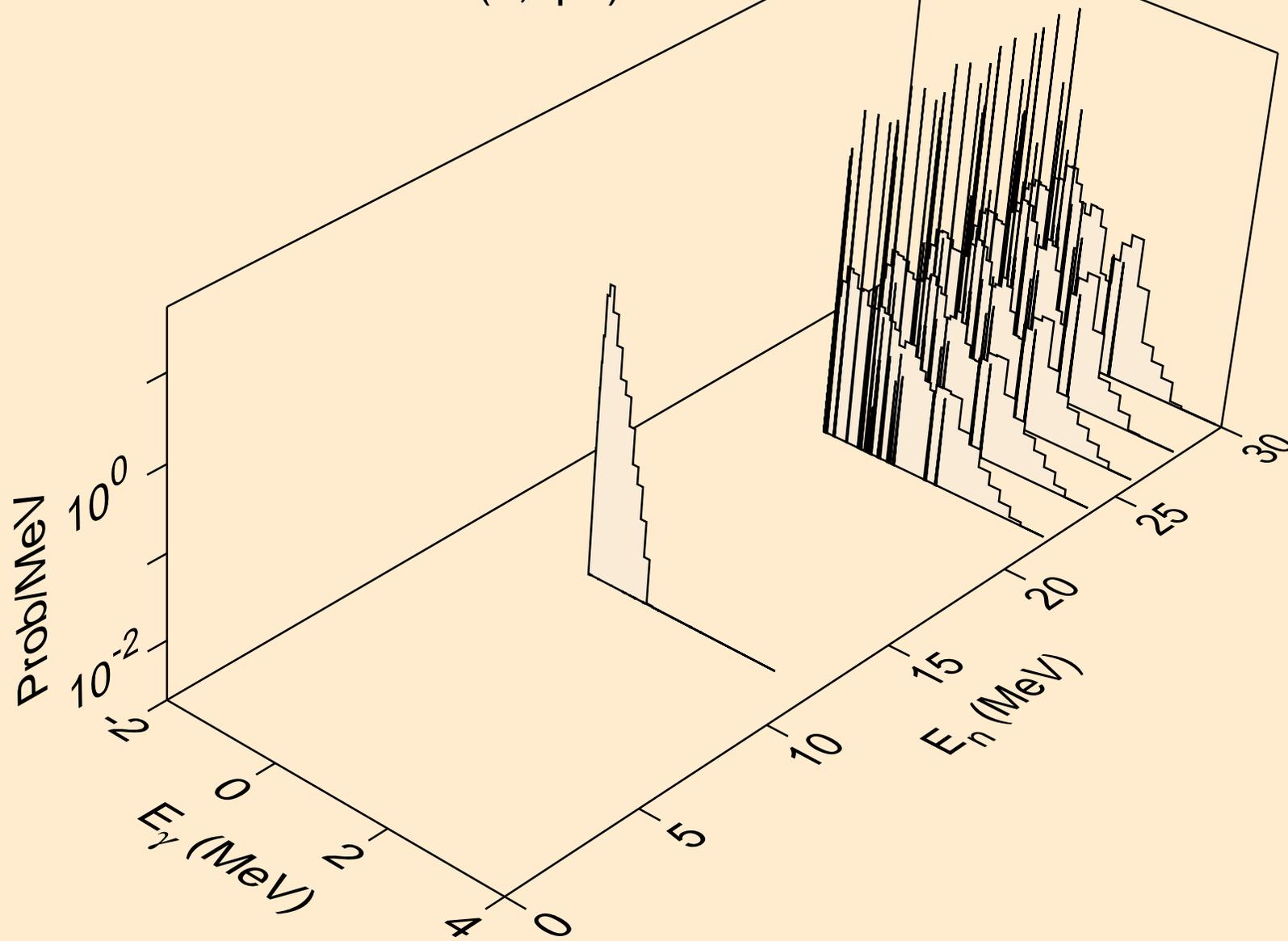Photon emission for (n,2np)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
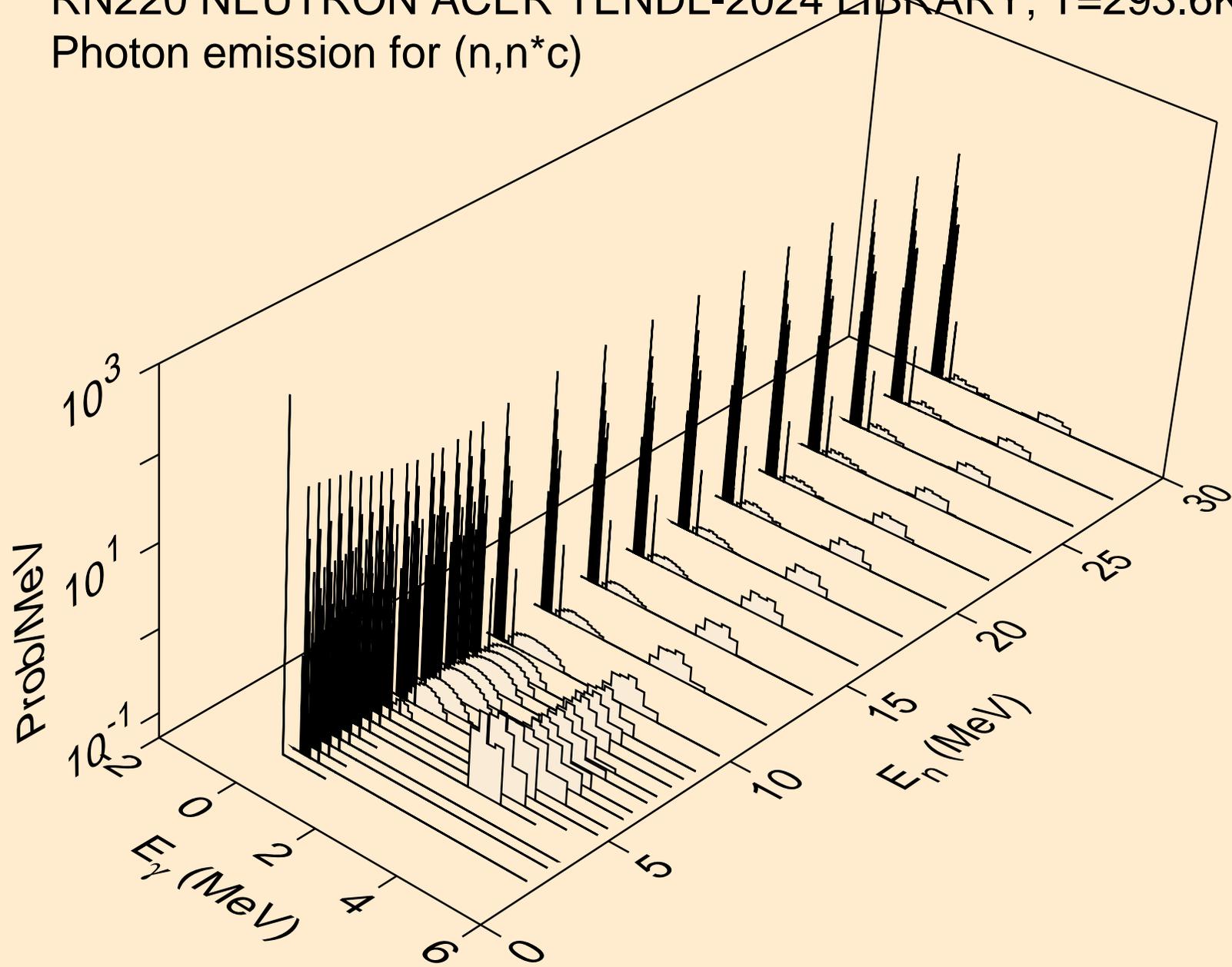Photon emission for (n,3np)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
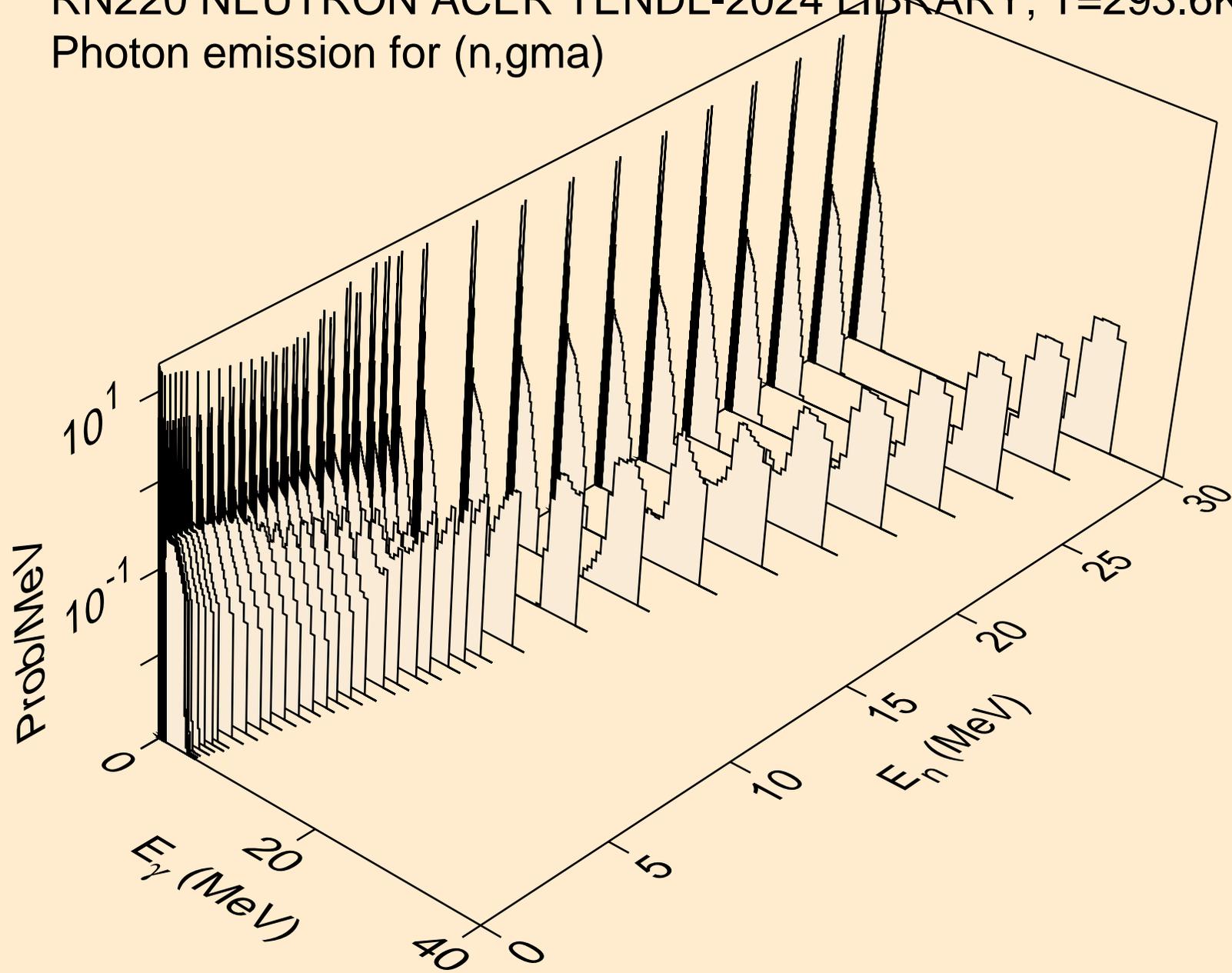Photon emission for (n,n2p)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
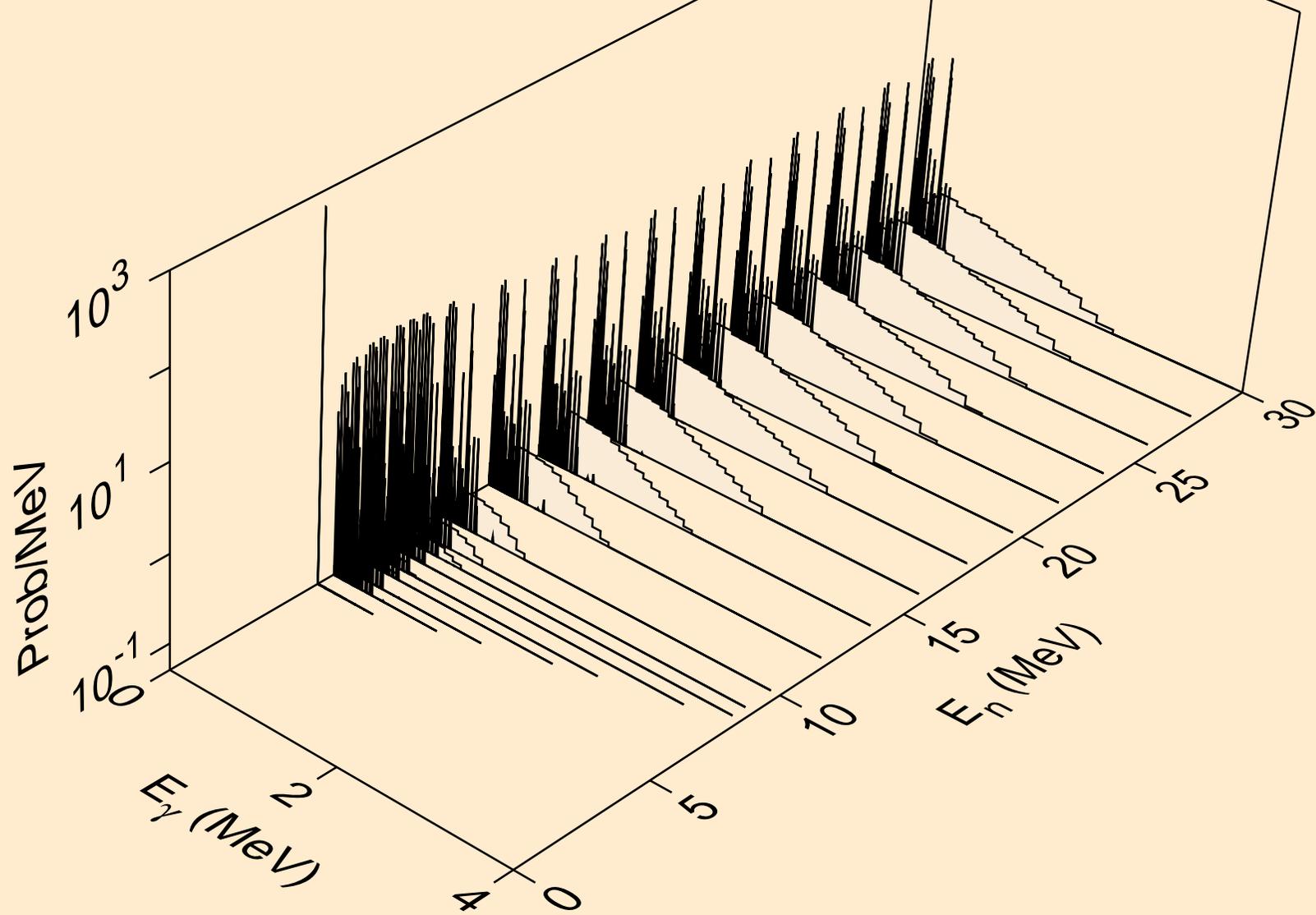Photon emission for (n,npa)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
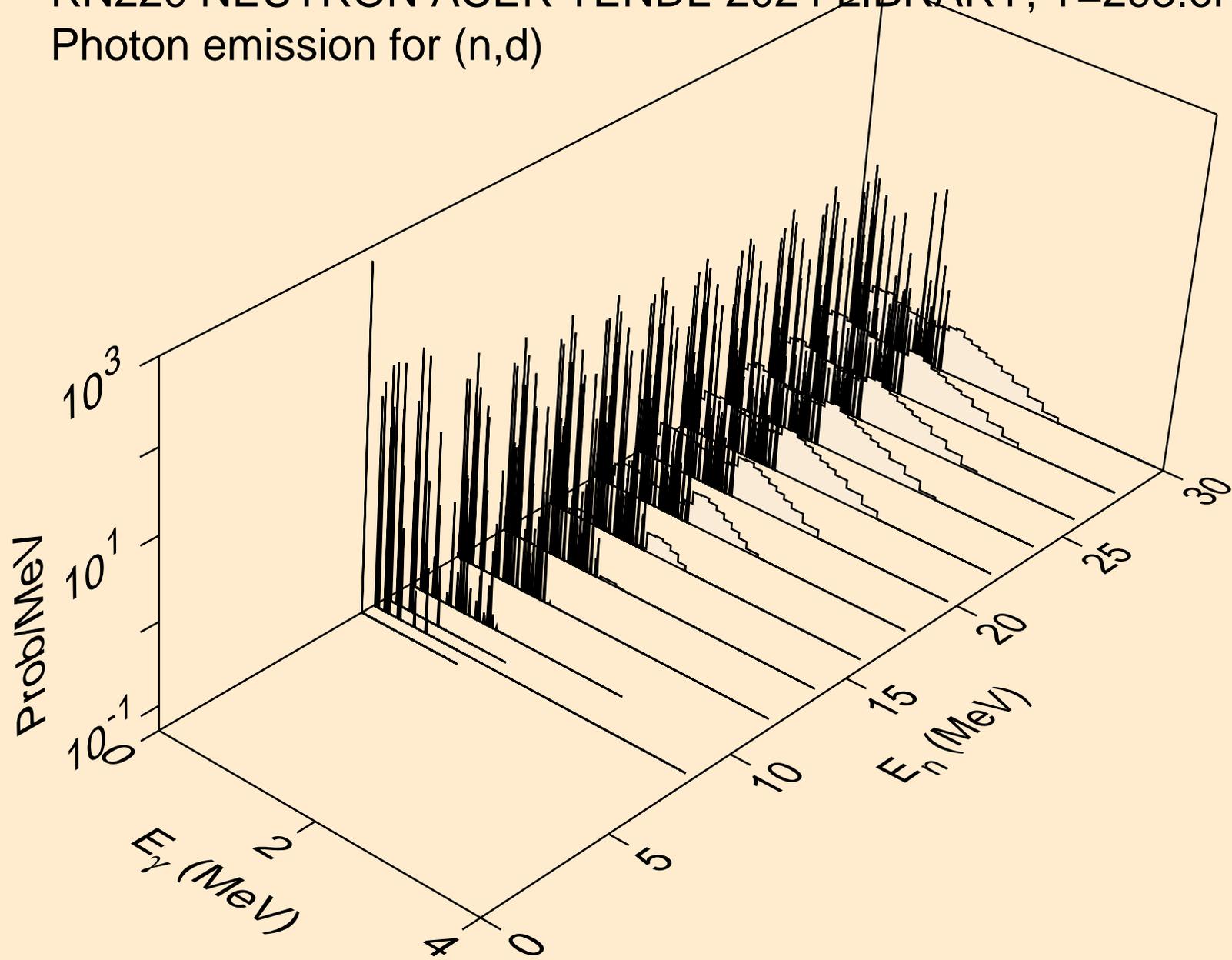Photon emission for (n,n*c)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
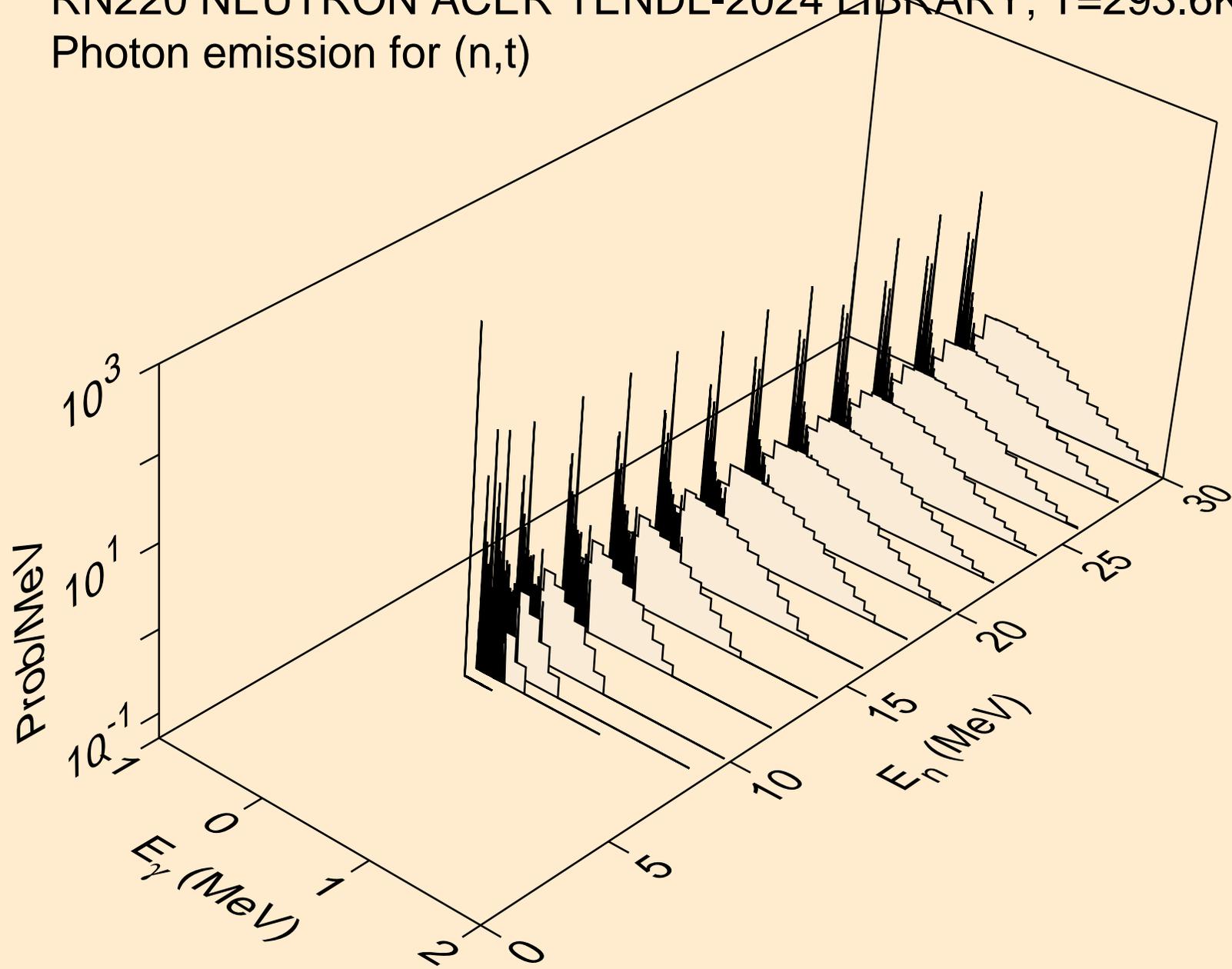Photon emission for (n,gma)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
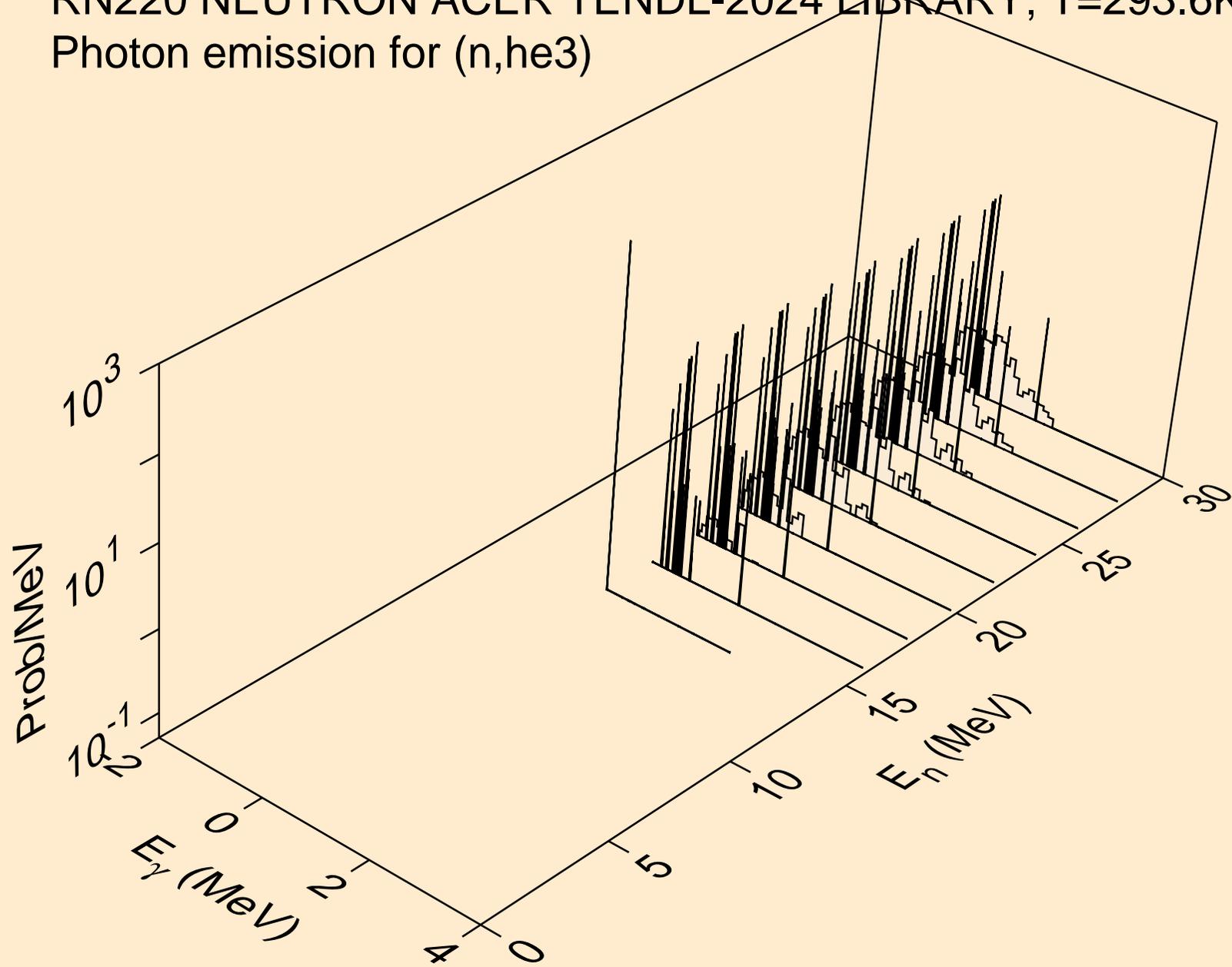Photon emission for (n,p)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
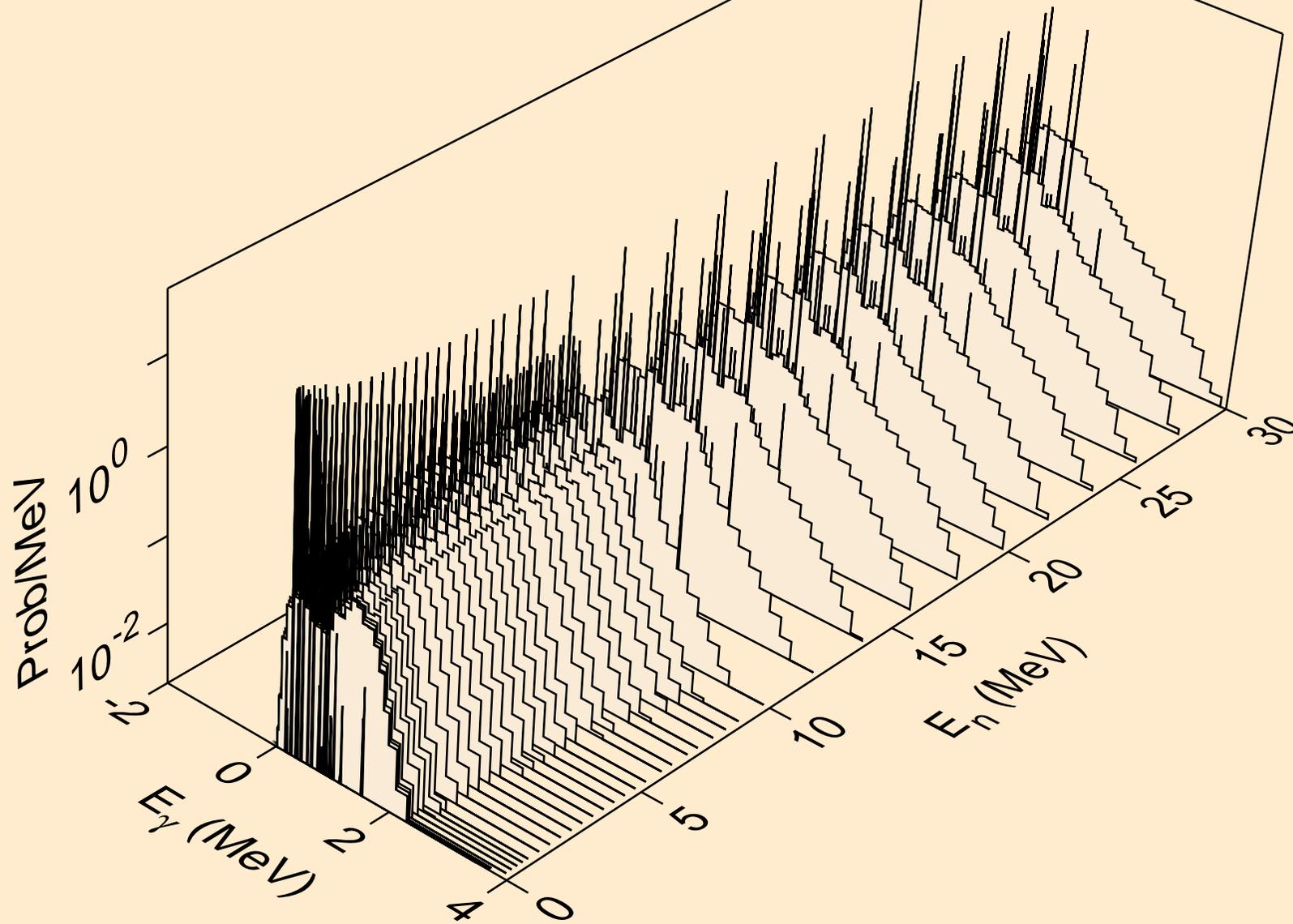Photon emission for (n,d)

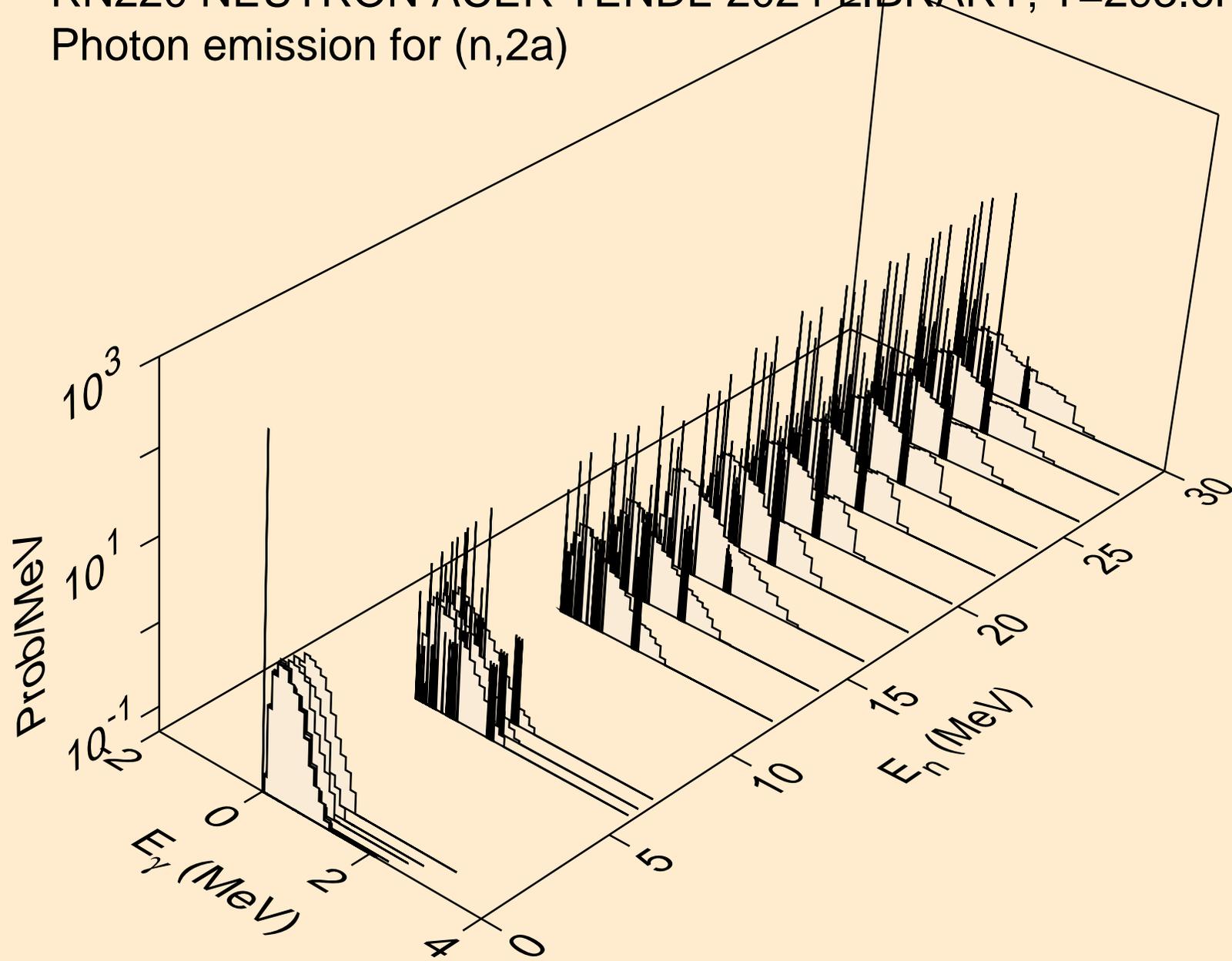RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,t)

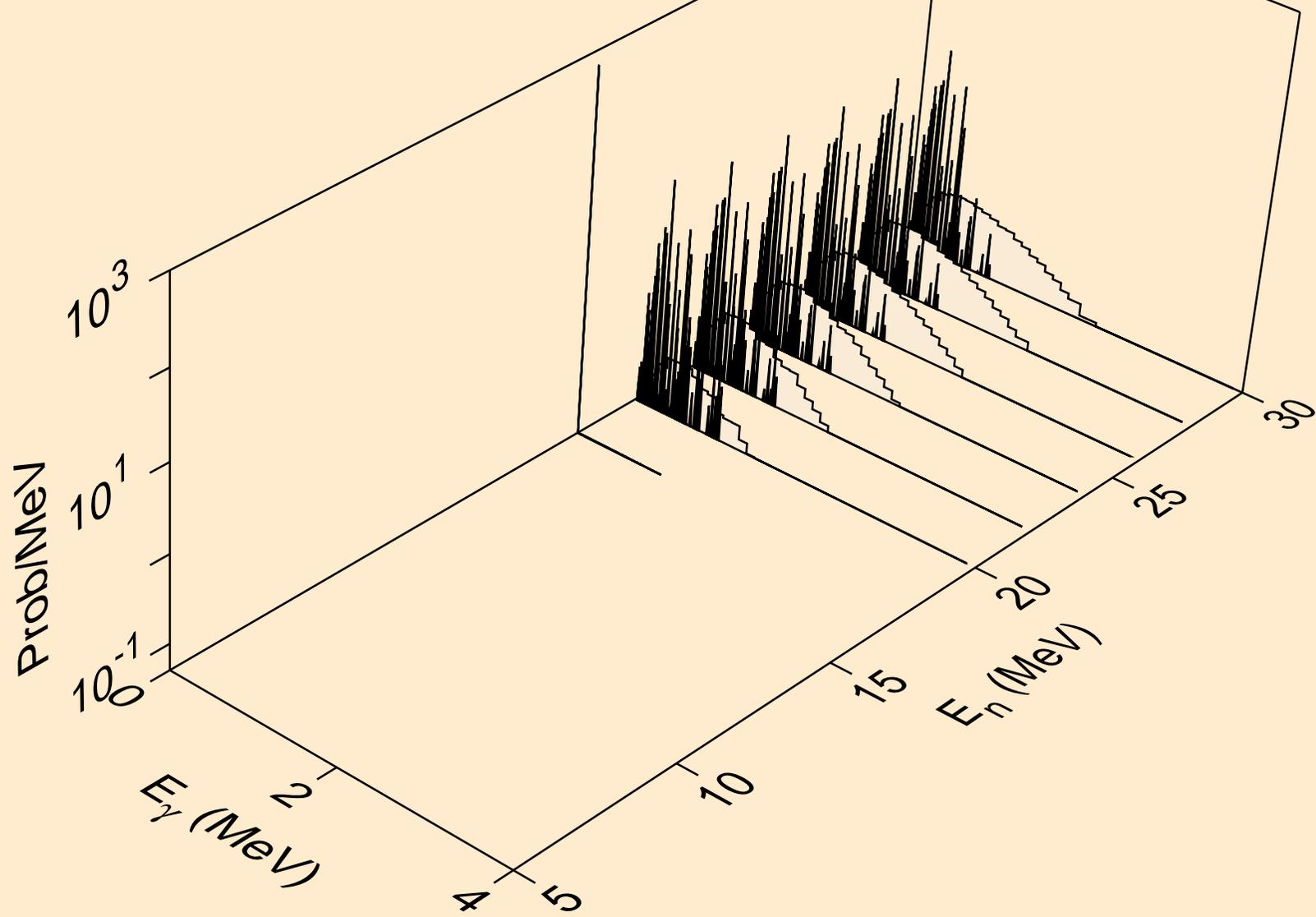RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,he3)

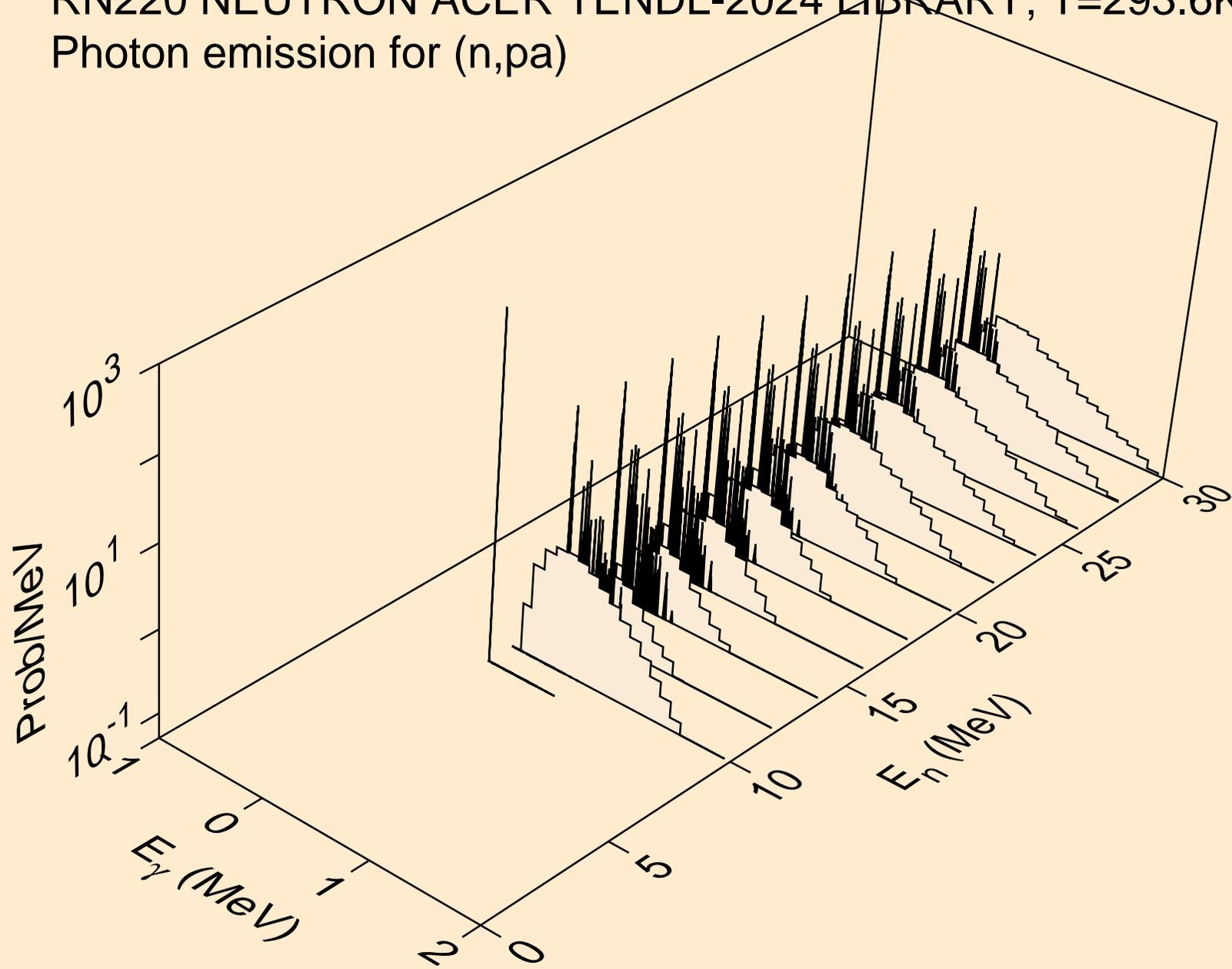RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,a)

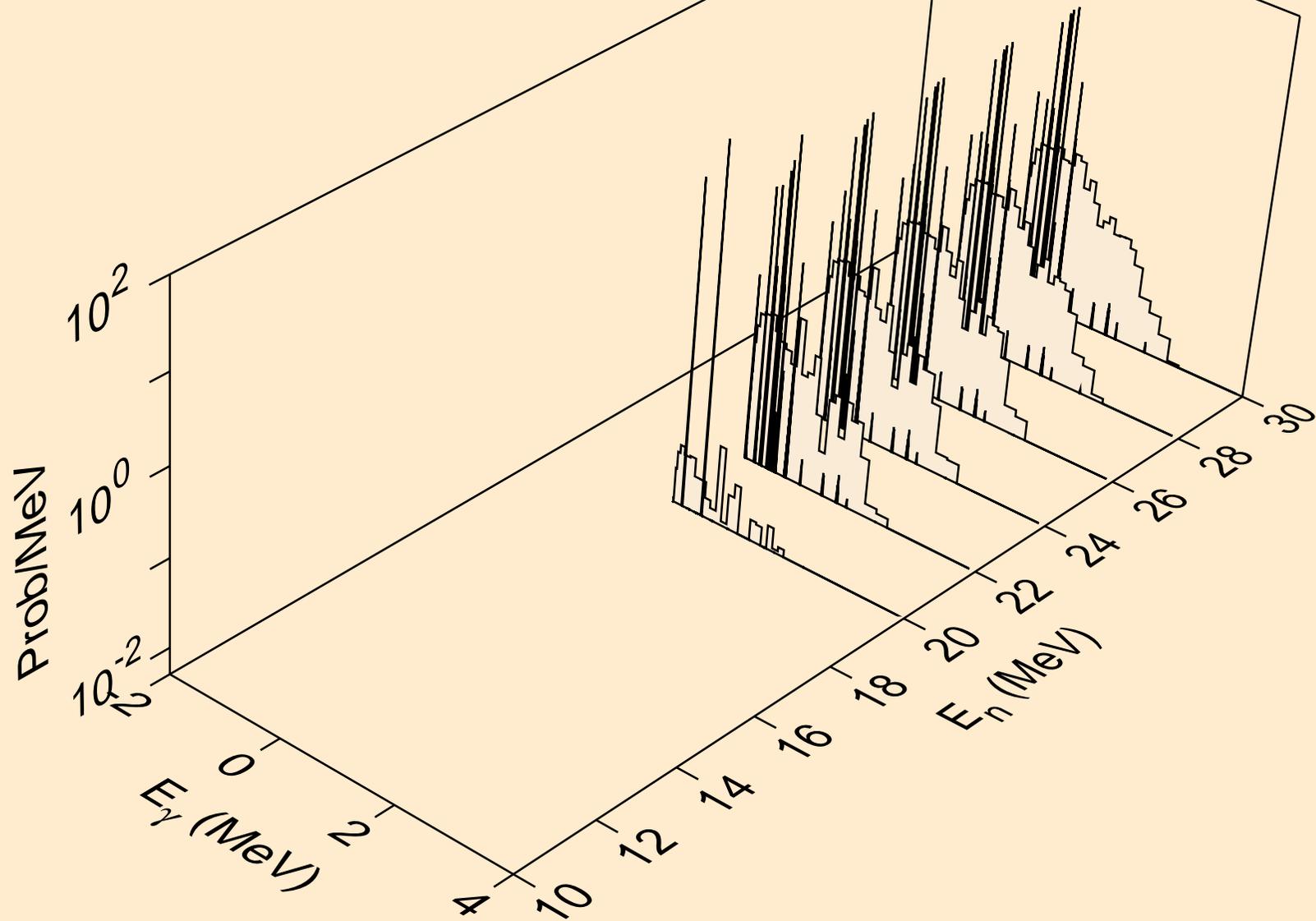RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,2a)

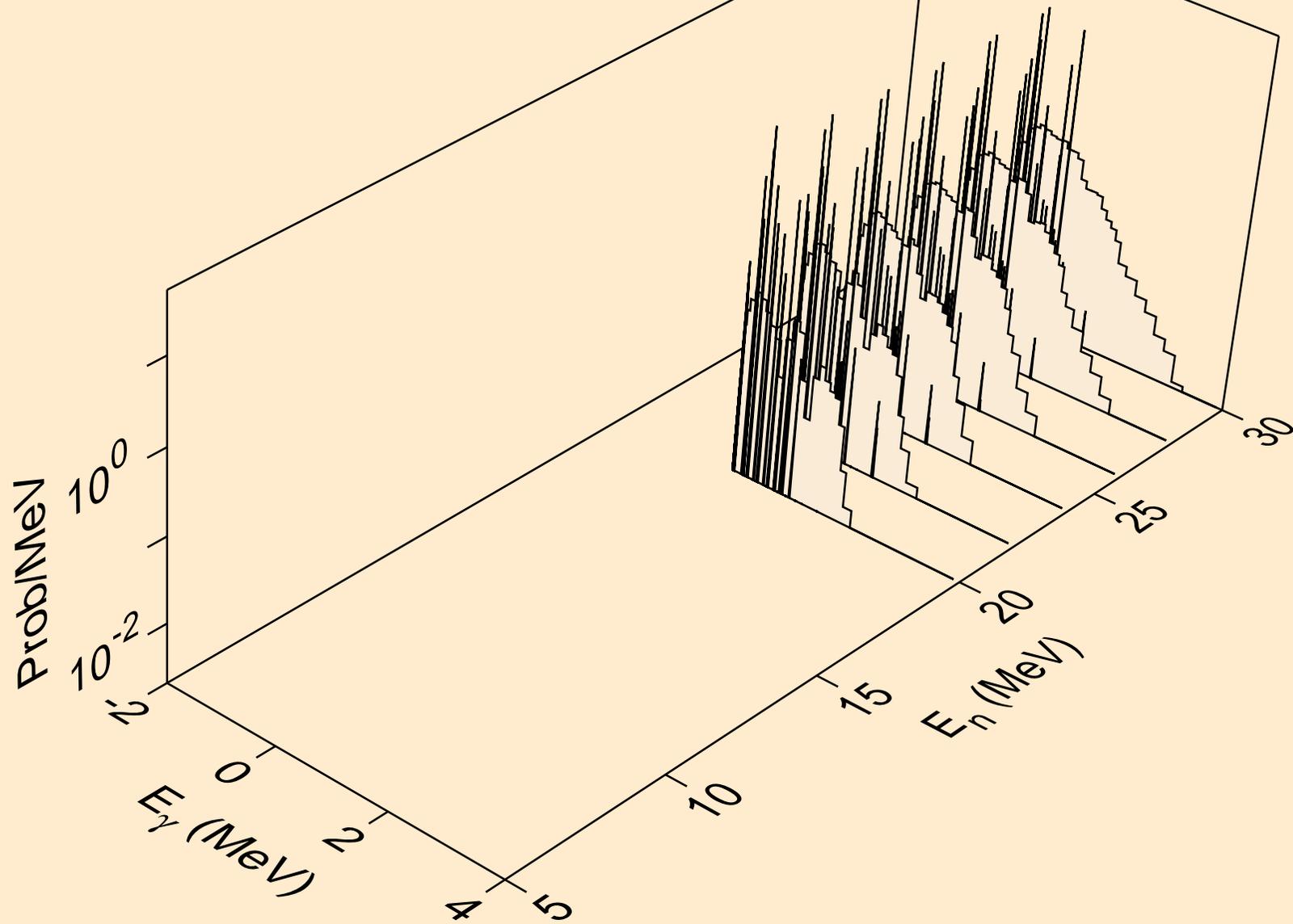RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,2p)

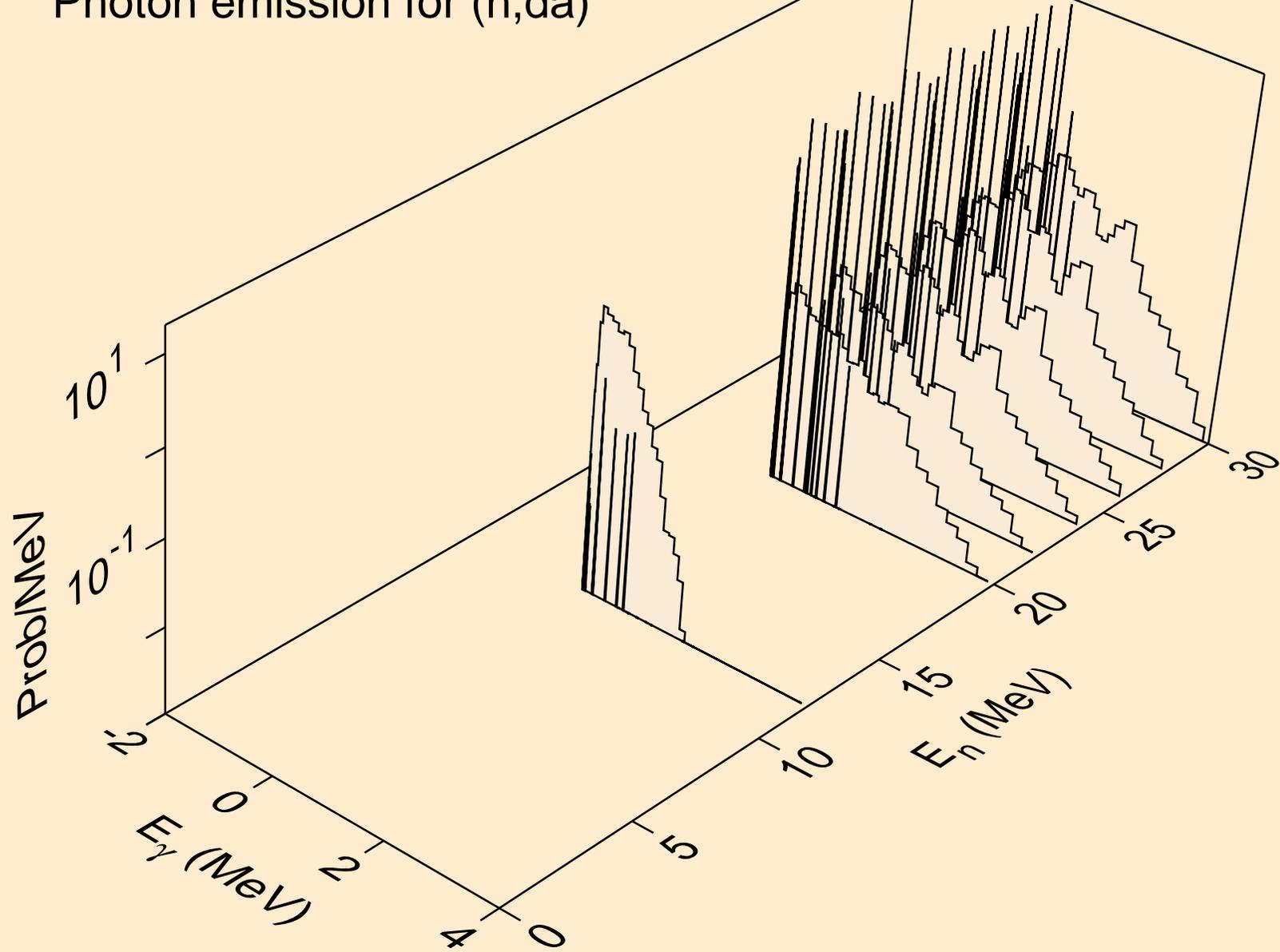RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,pa)

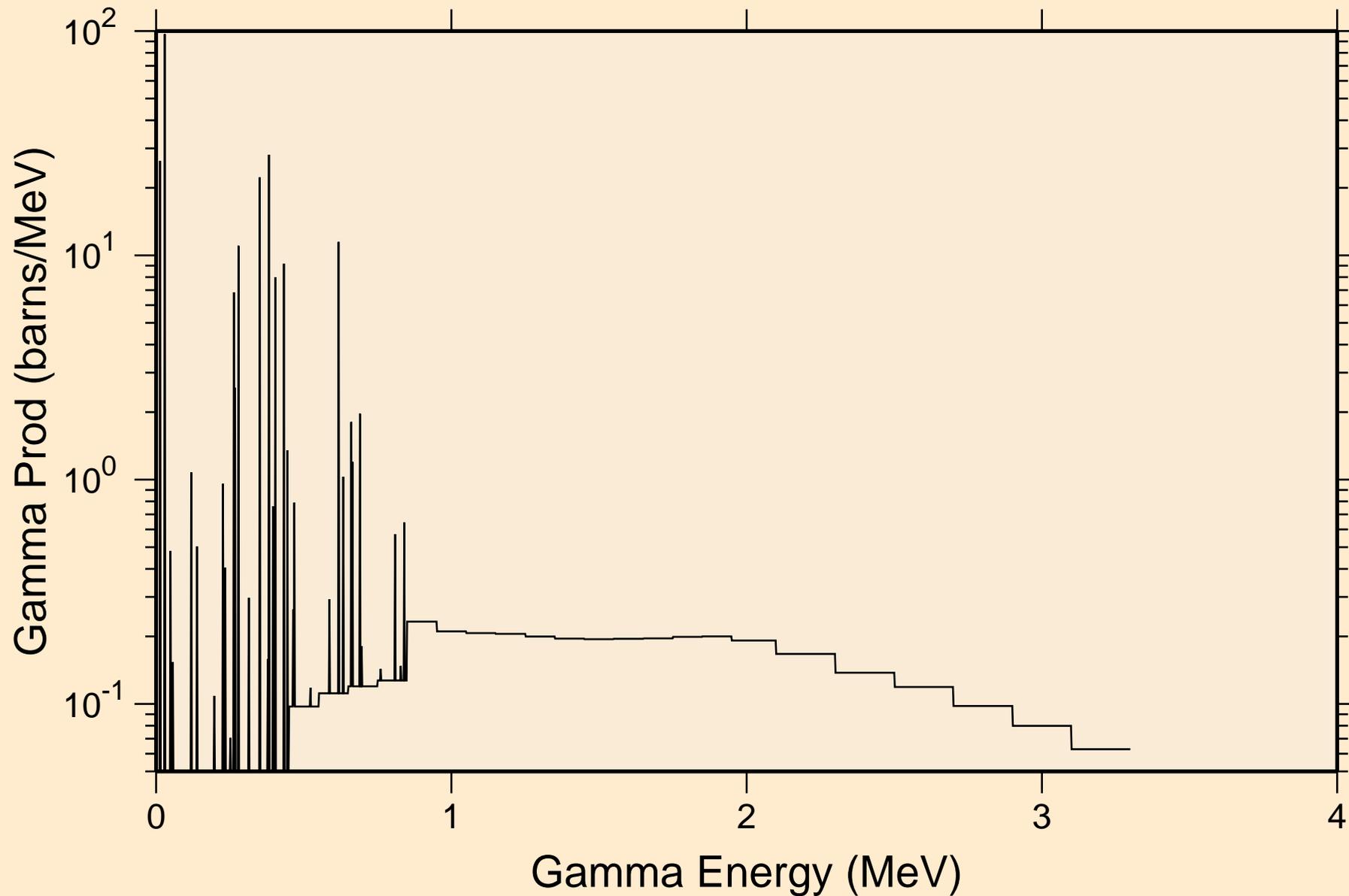RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,pd)

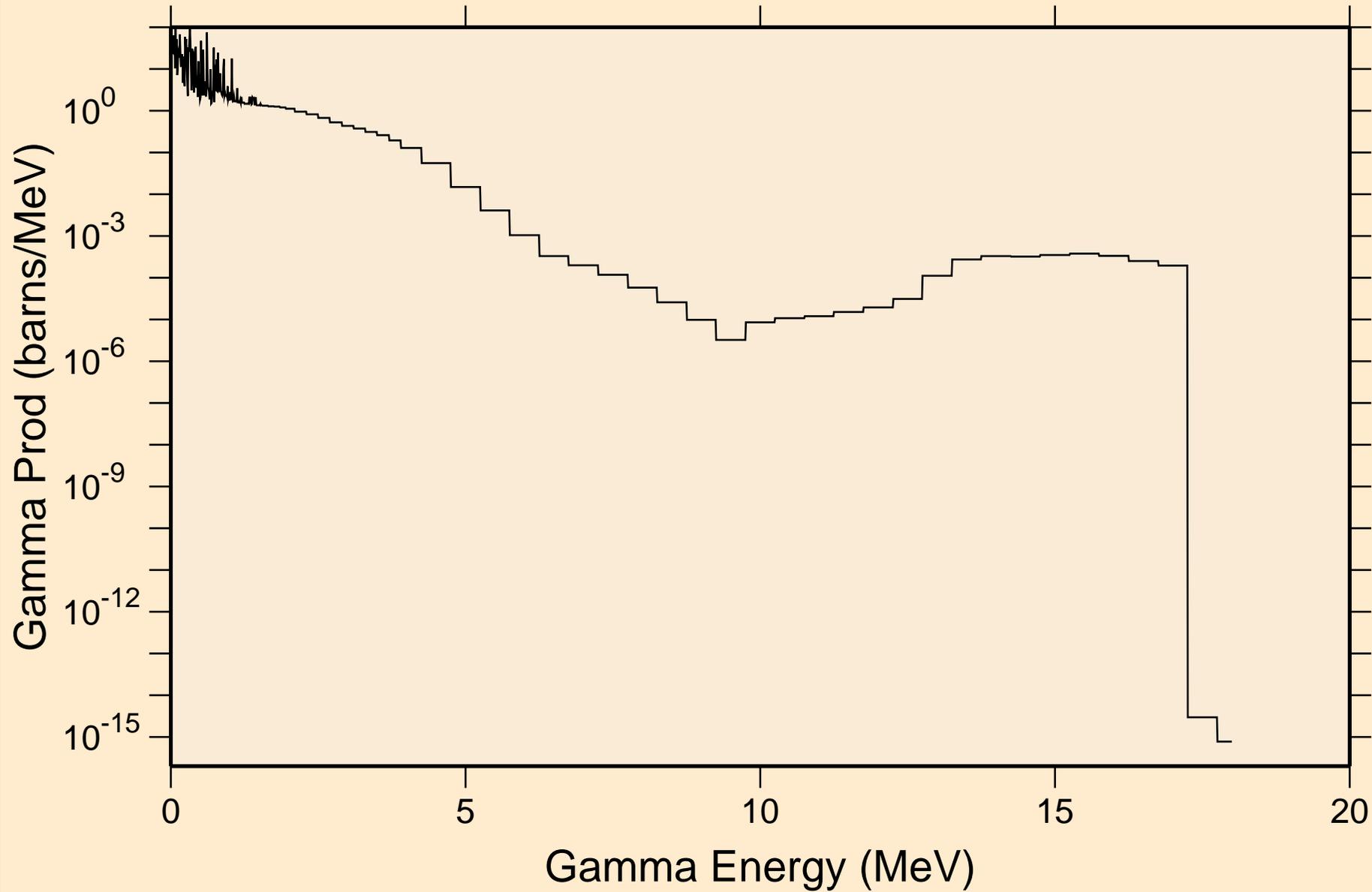RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,pt)

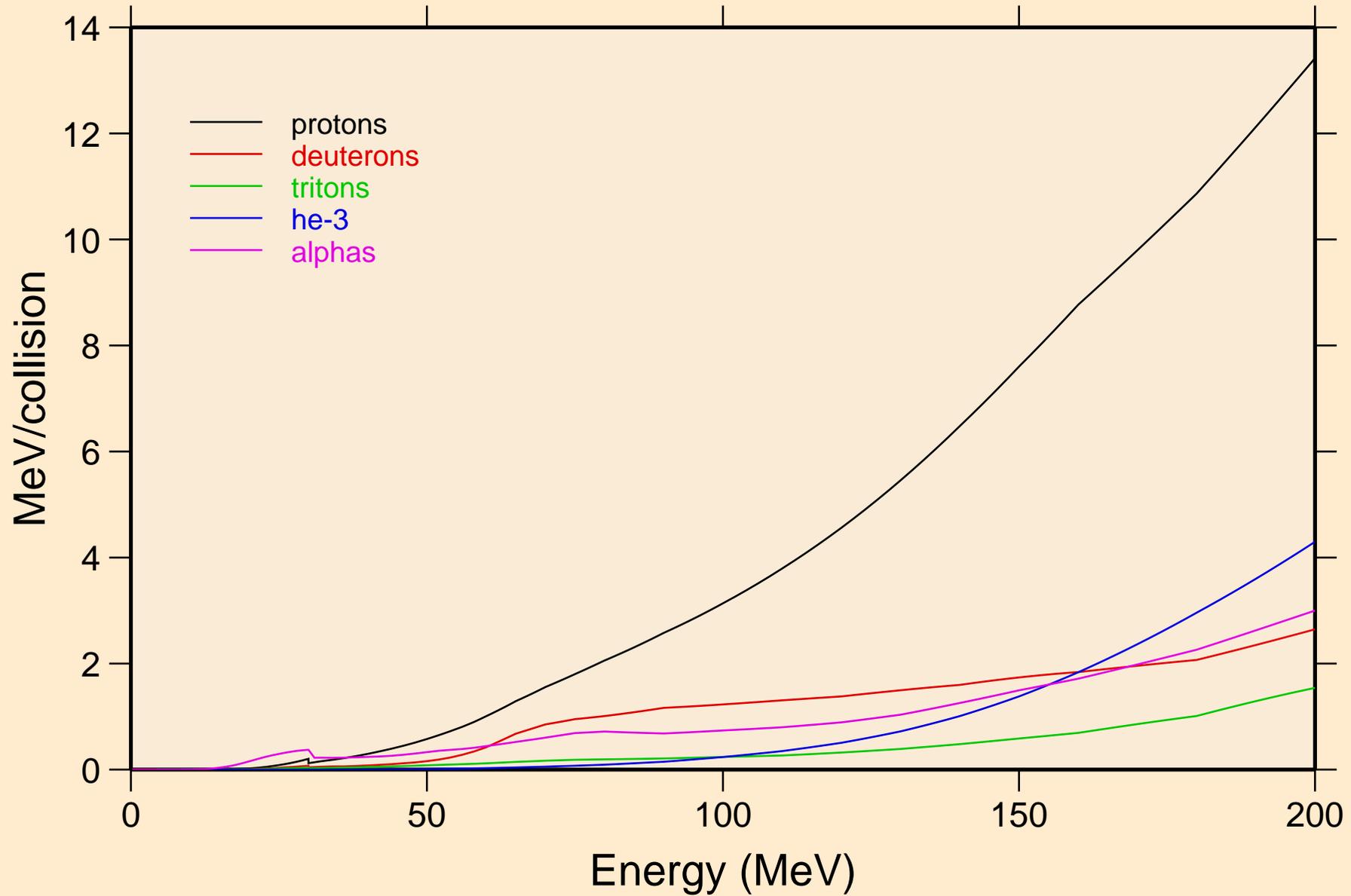RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Photon emission for (n,da)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
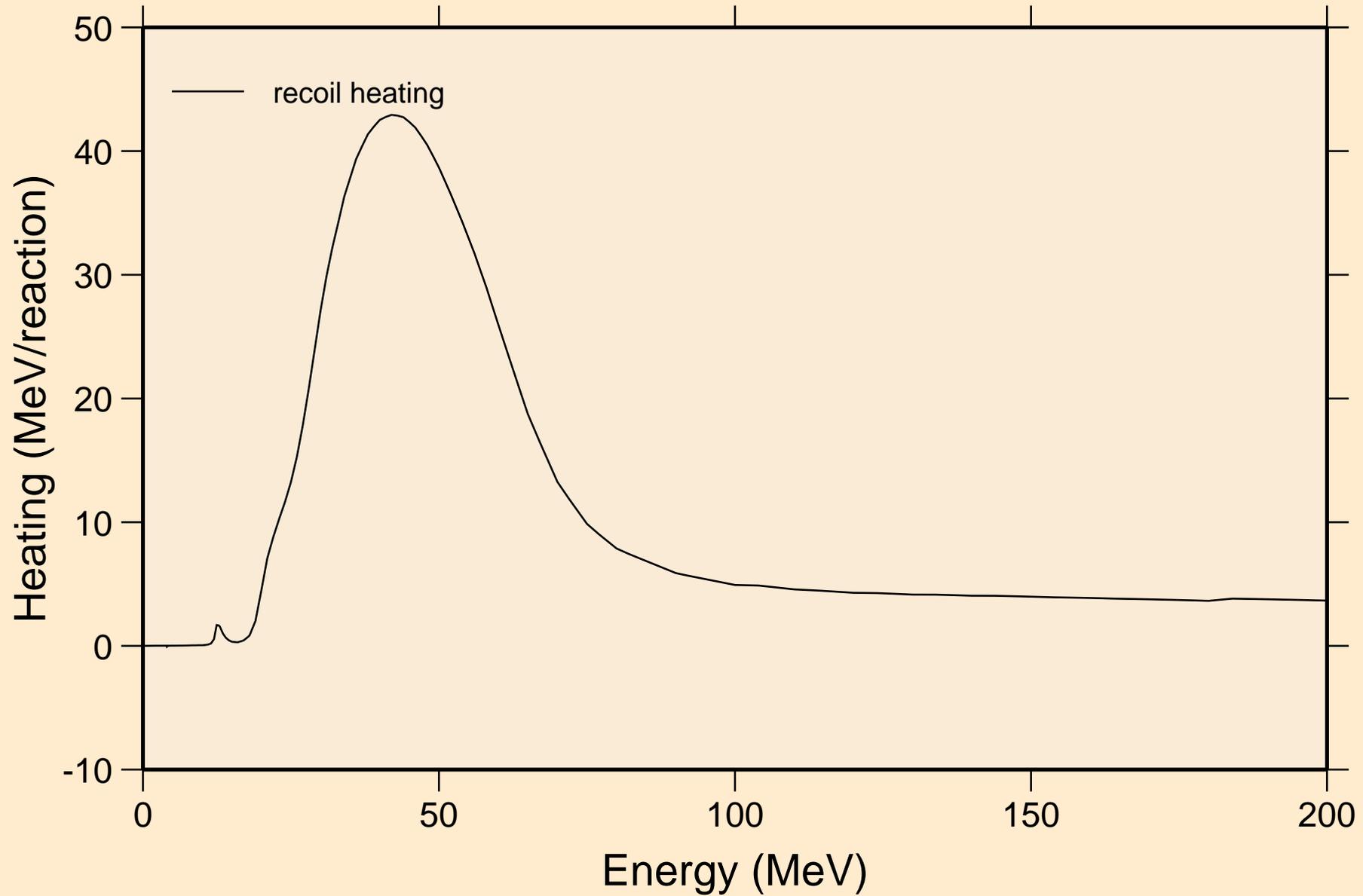thermal capture photon spectrum

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
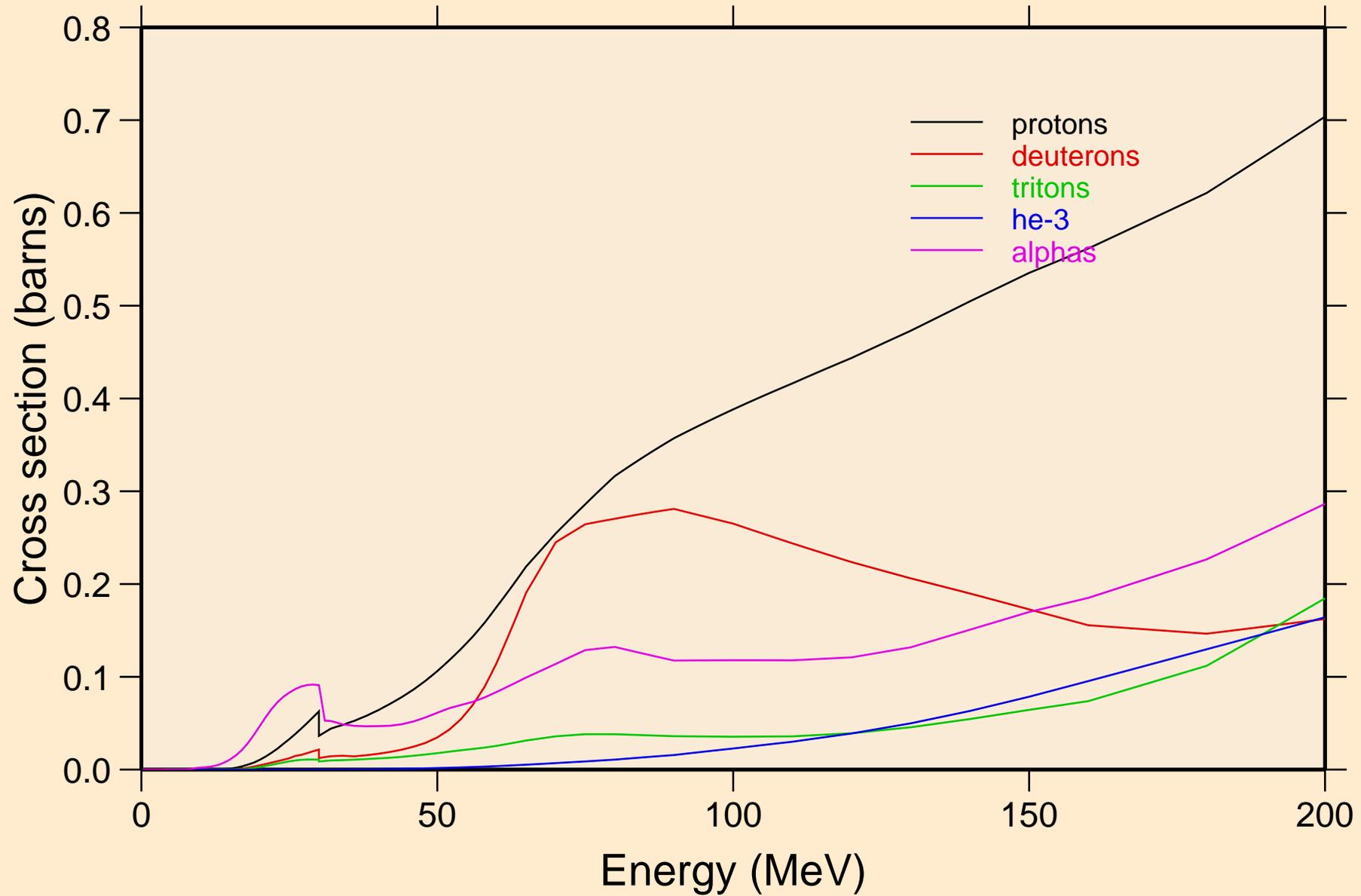14 MeV photon spectrum

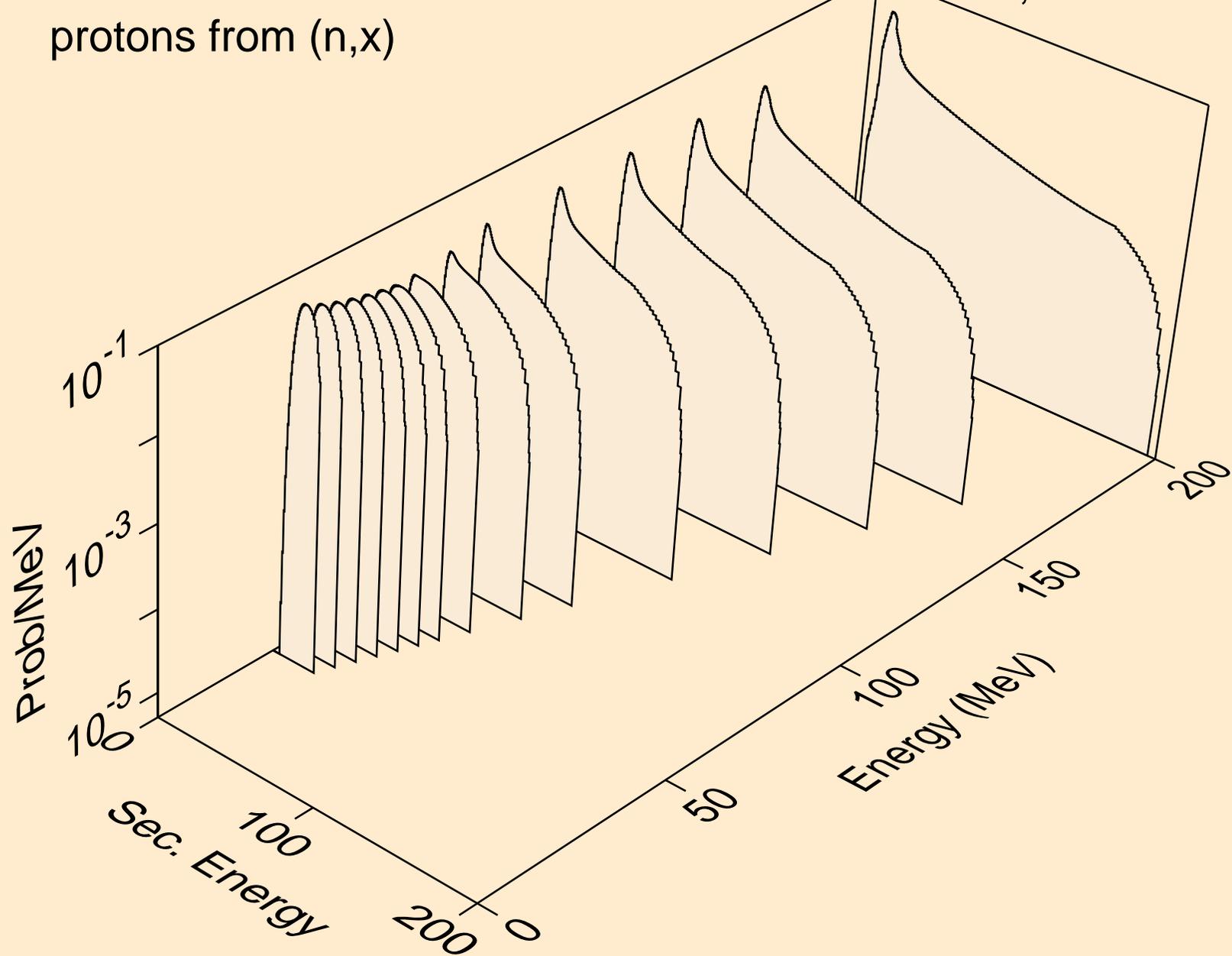RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Particle heating contributions

Legend:
- protons (black)
- deuterons (red)
- tritons (green)
- he-3 (blue)
- alphas (magenta)

X-axis: Energy (MeV)
Y-axis: MeV/collision

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Recoil Heating

recoil heating

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
Particle production cross sections

Cross section (barns) vs Energy (MeV)

- protons
- deuterons
- tritons
- he-3
- alphas
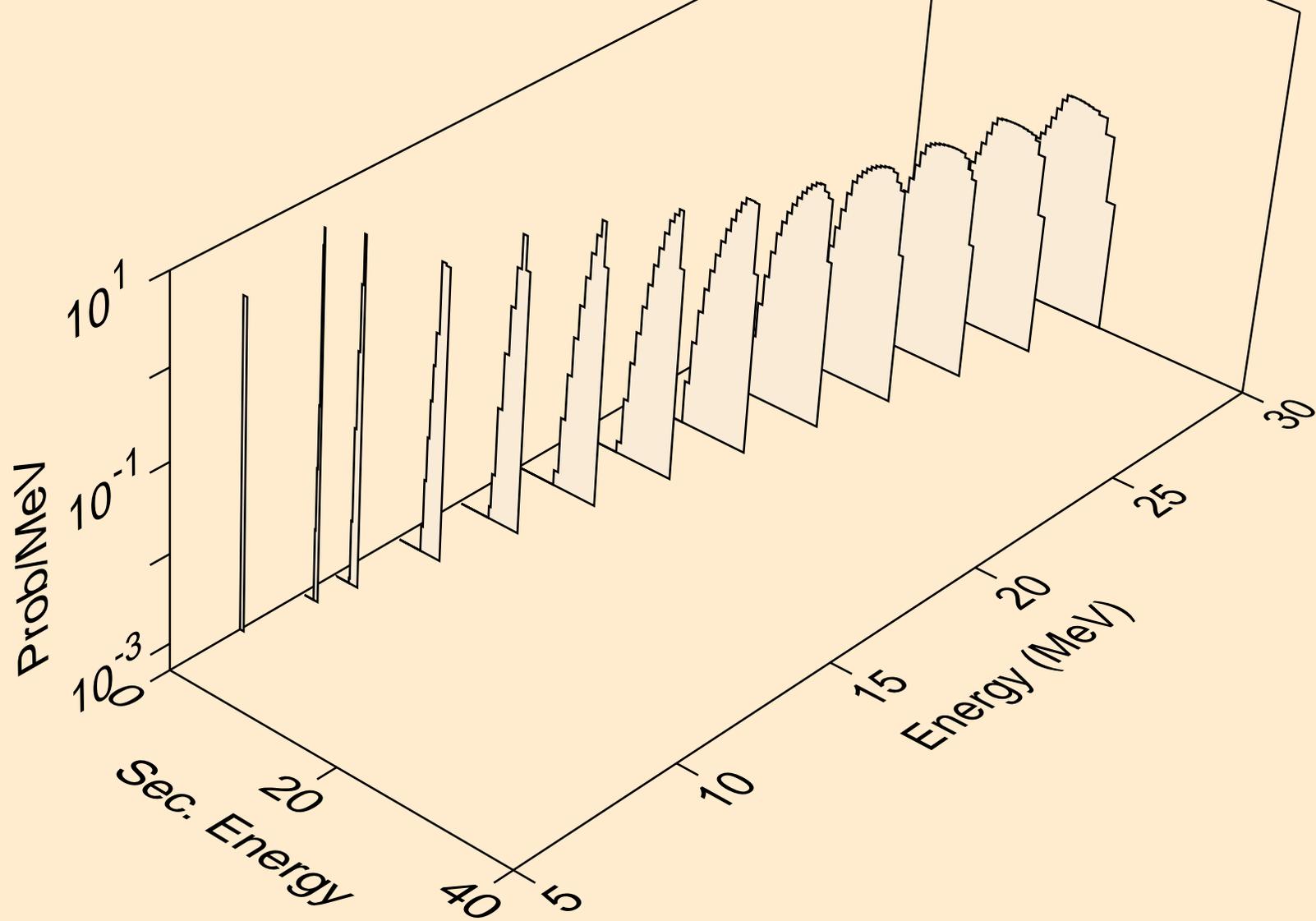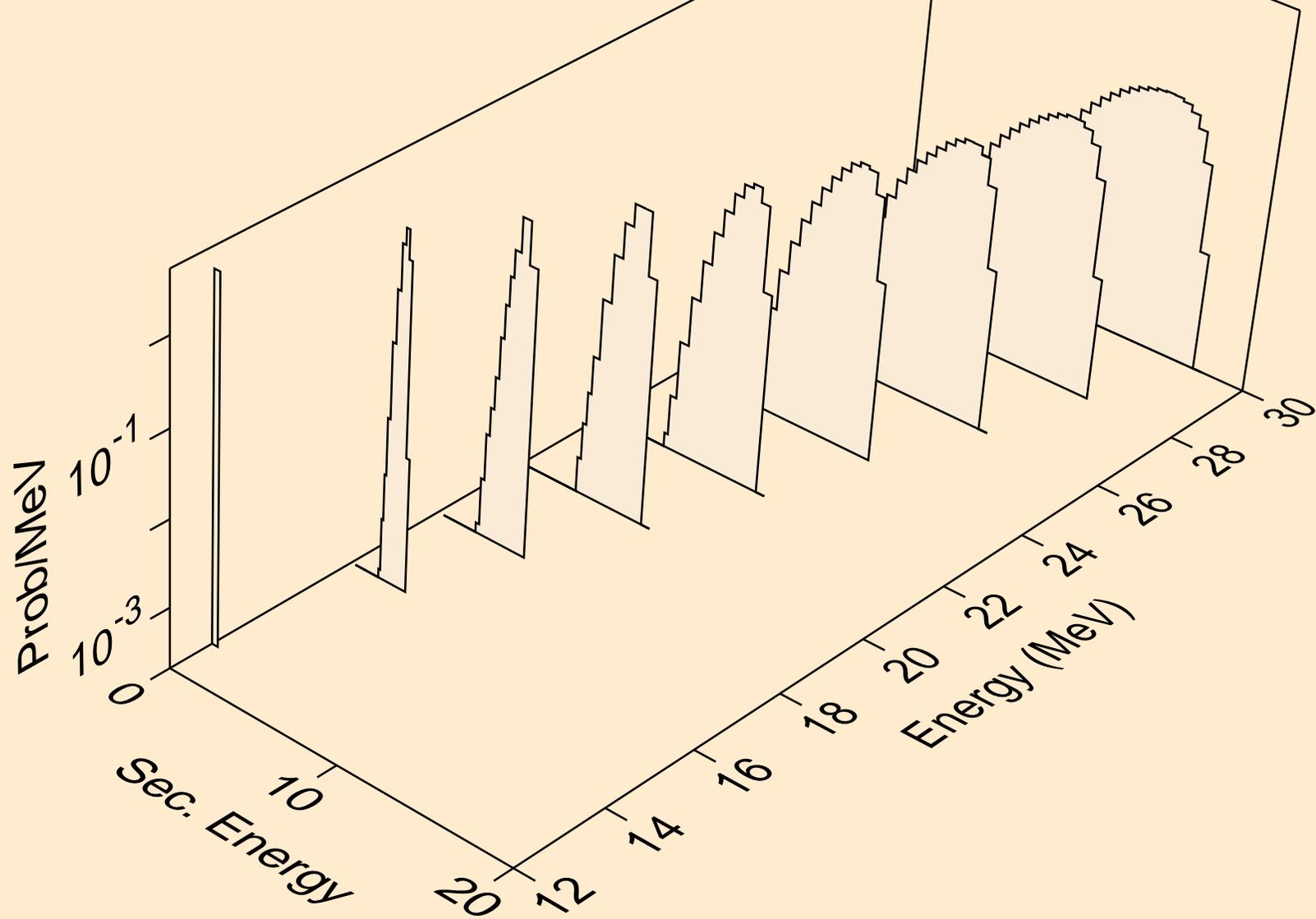
RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
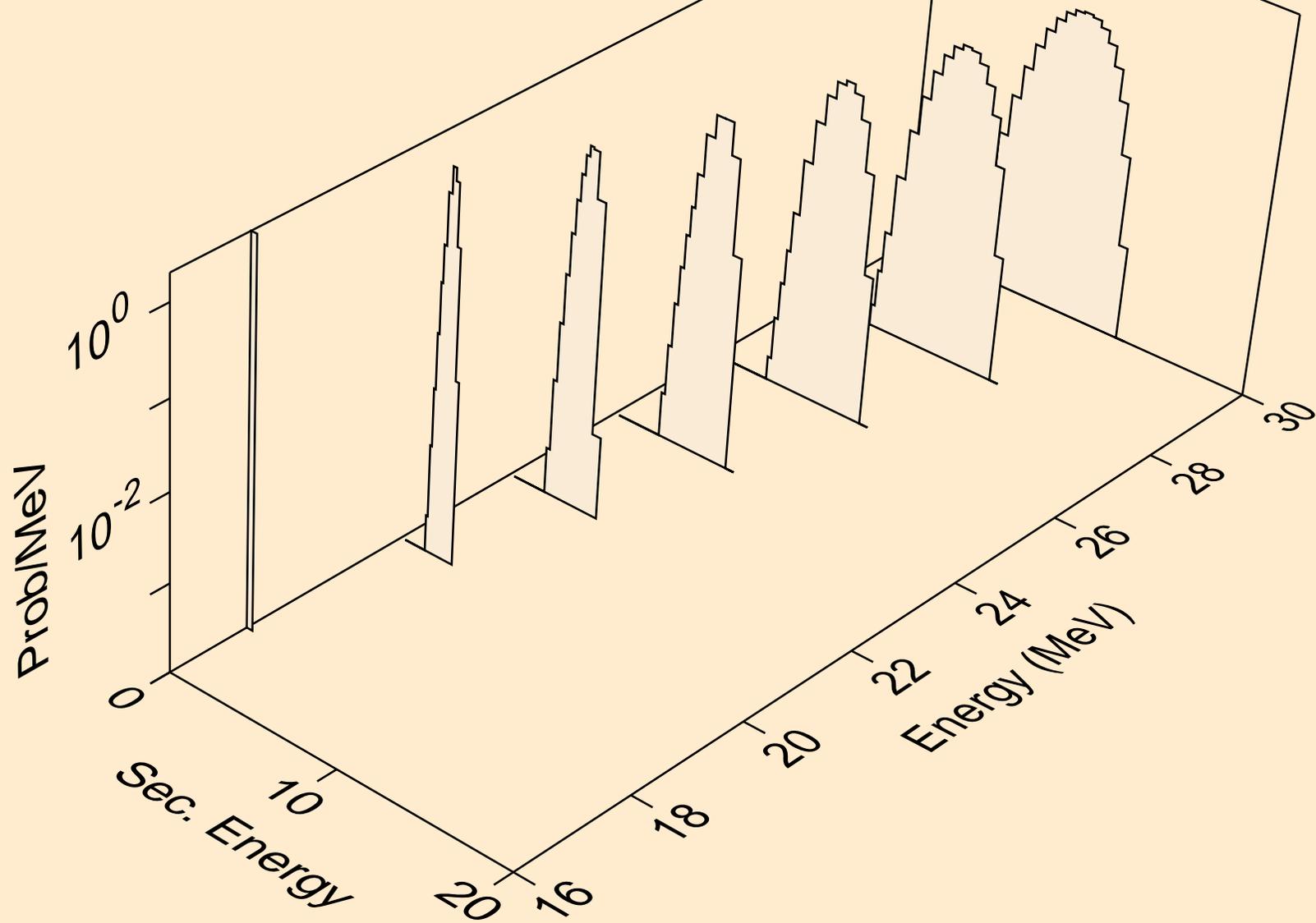protons from (n,x)

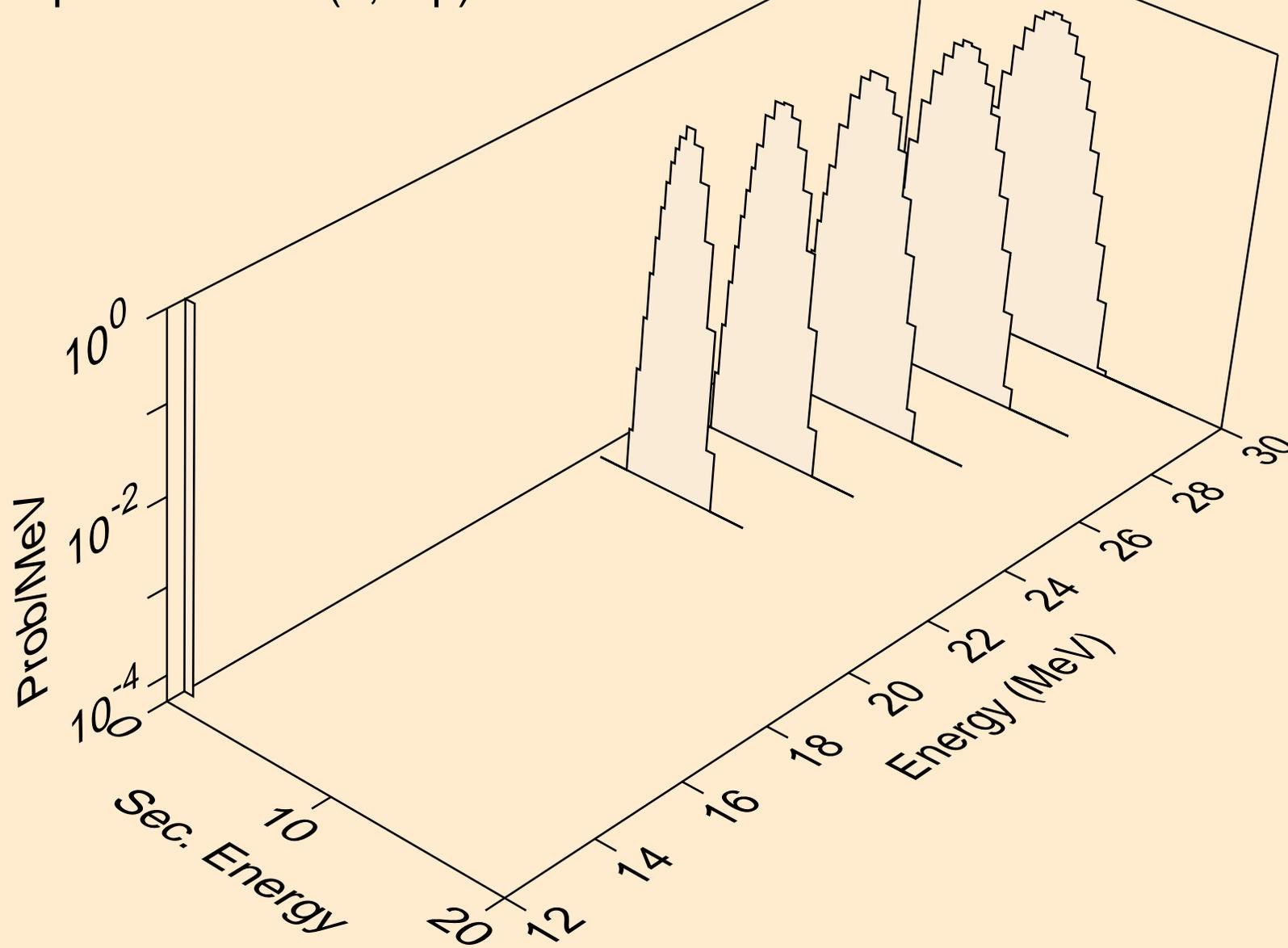RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,n*)p

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
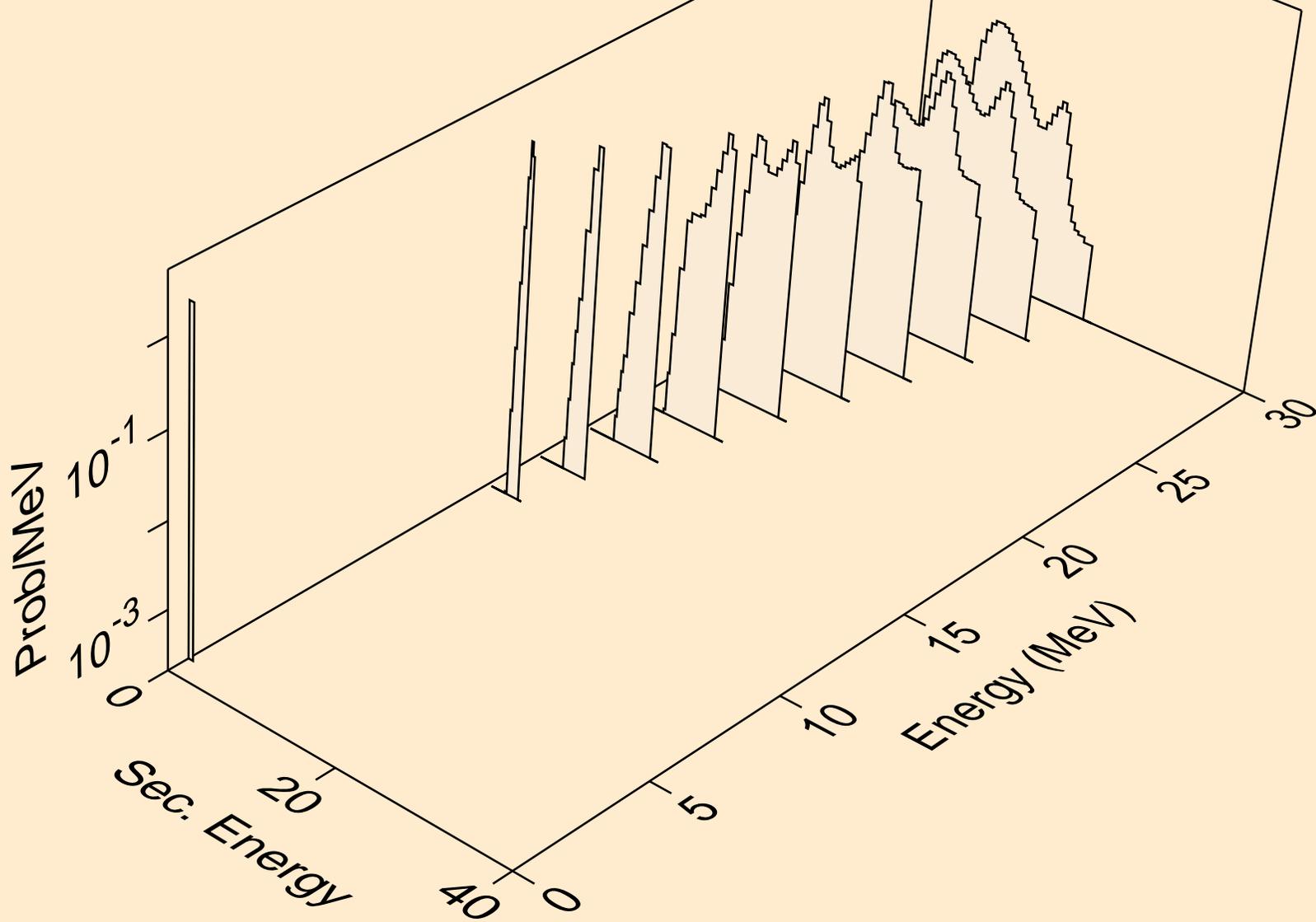protons from (n,2np)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
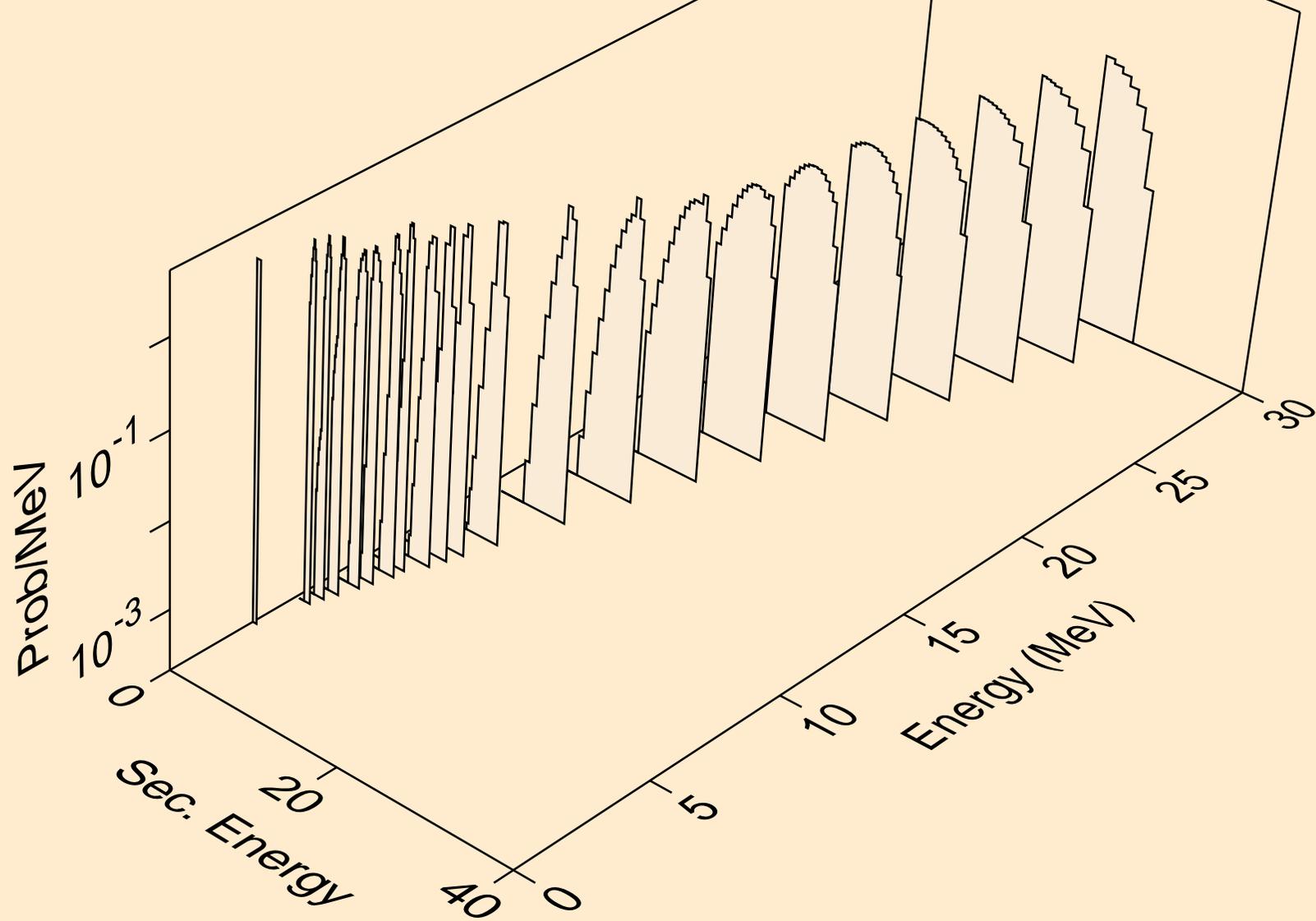protons from (n,3np)

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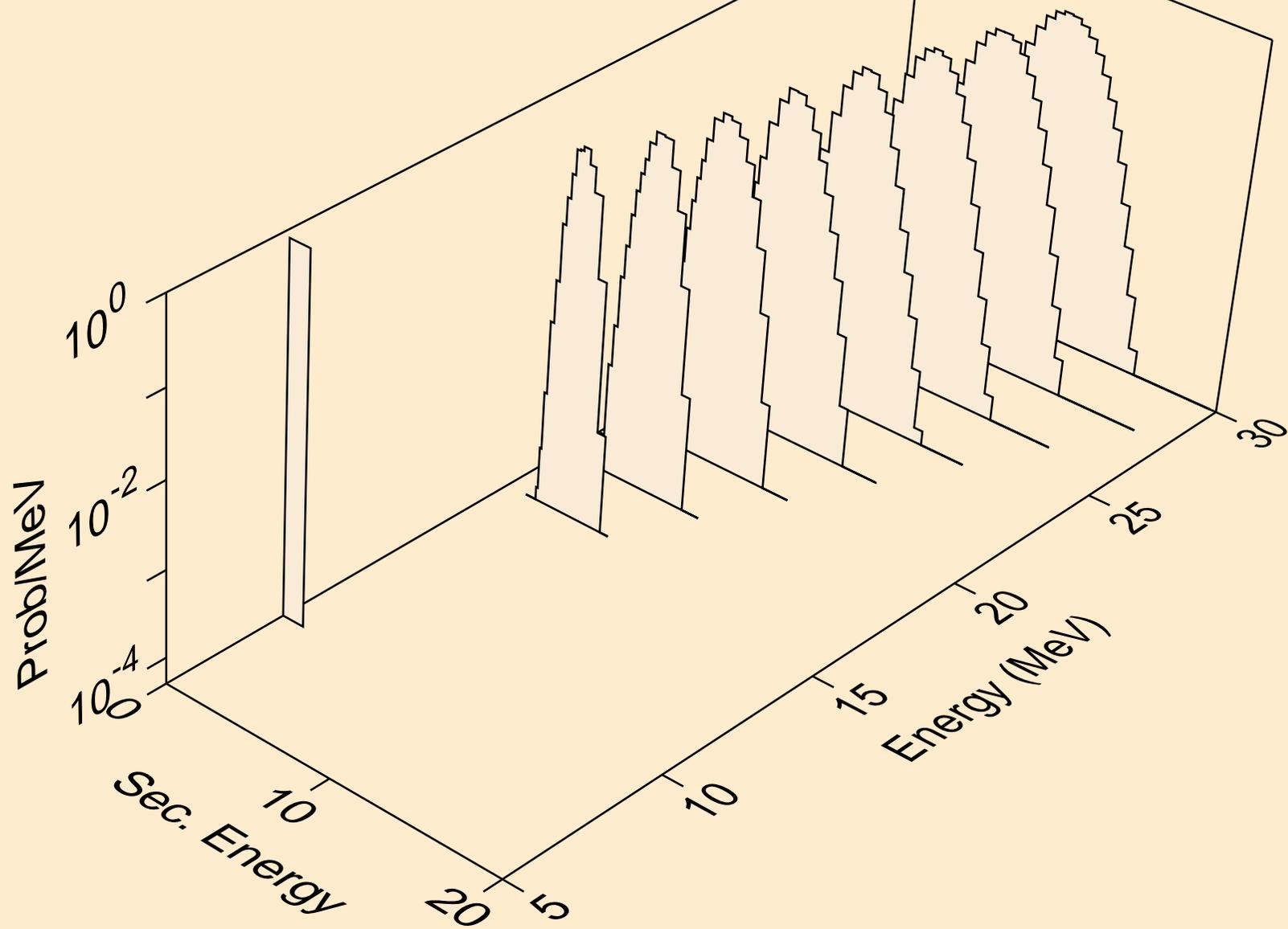protons from (n,n2p)

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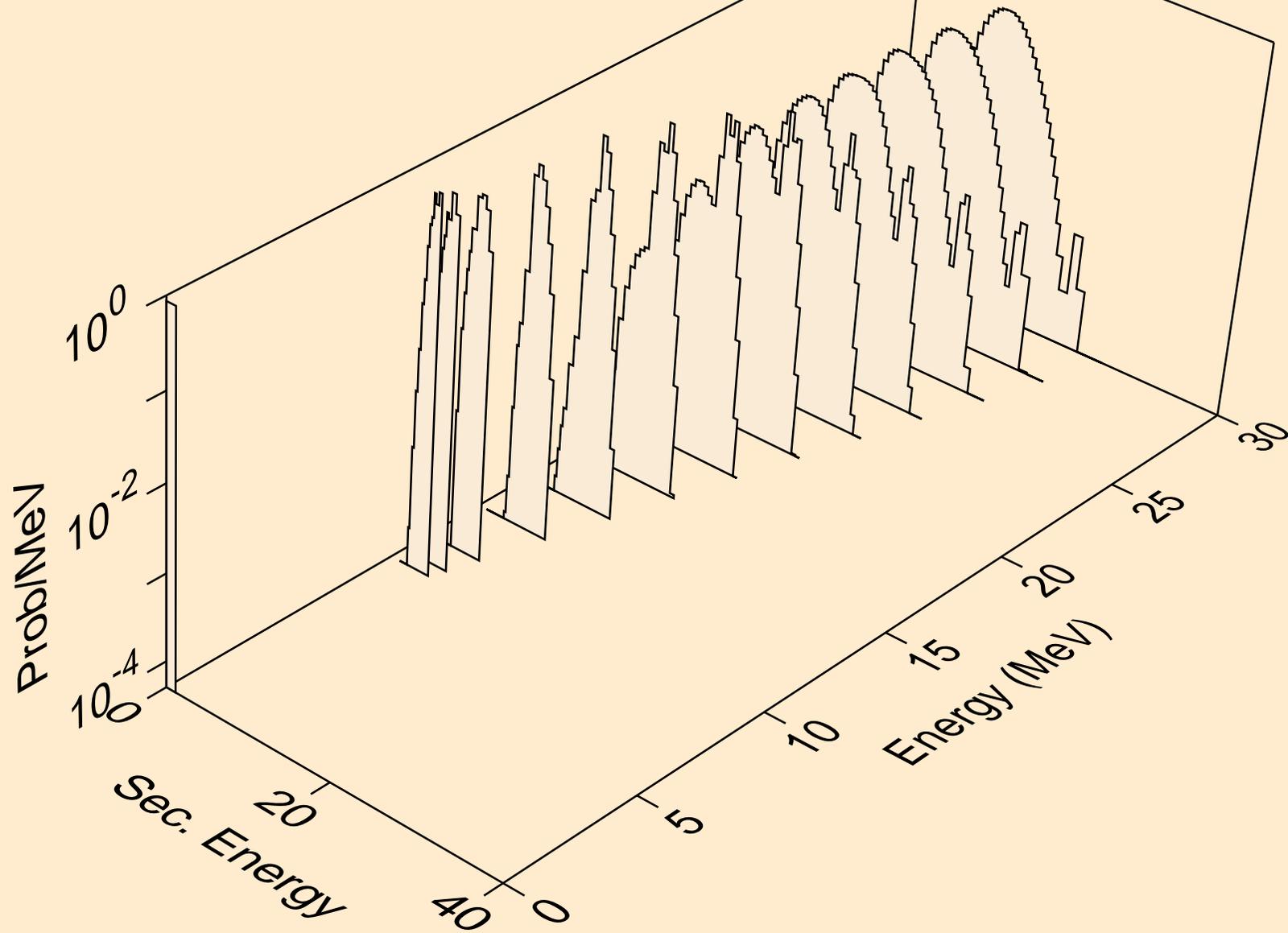protons from (n,npa)

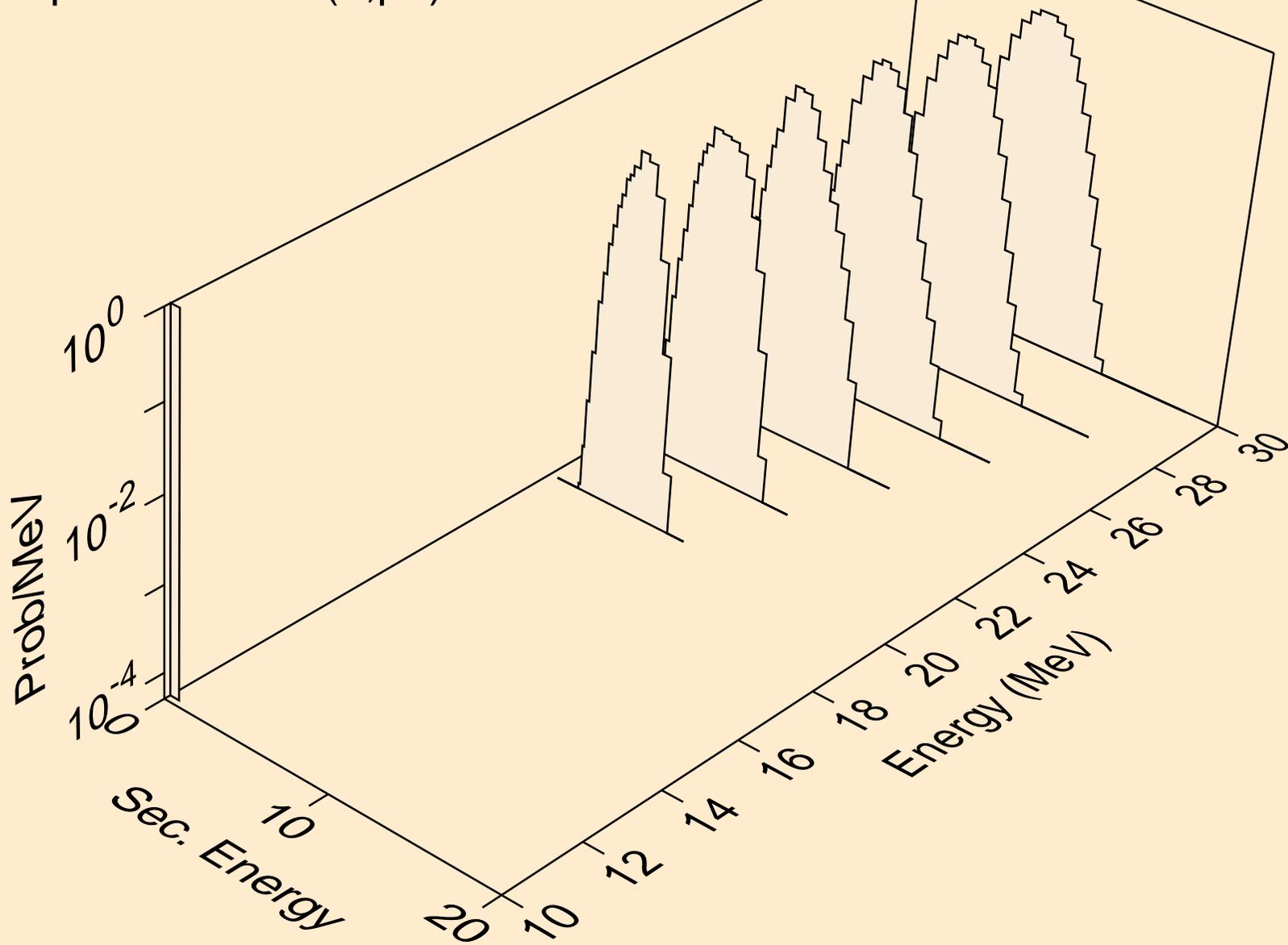RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,p)

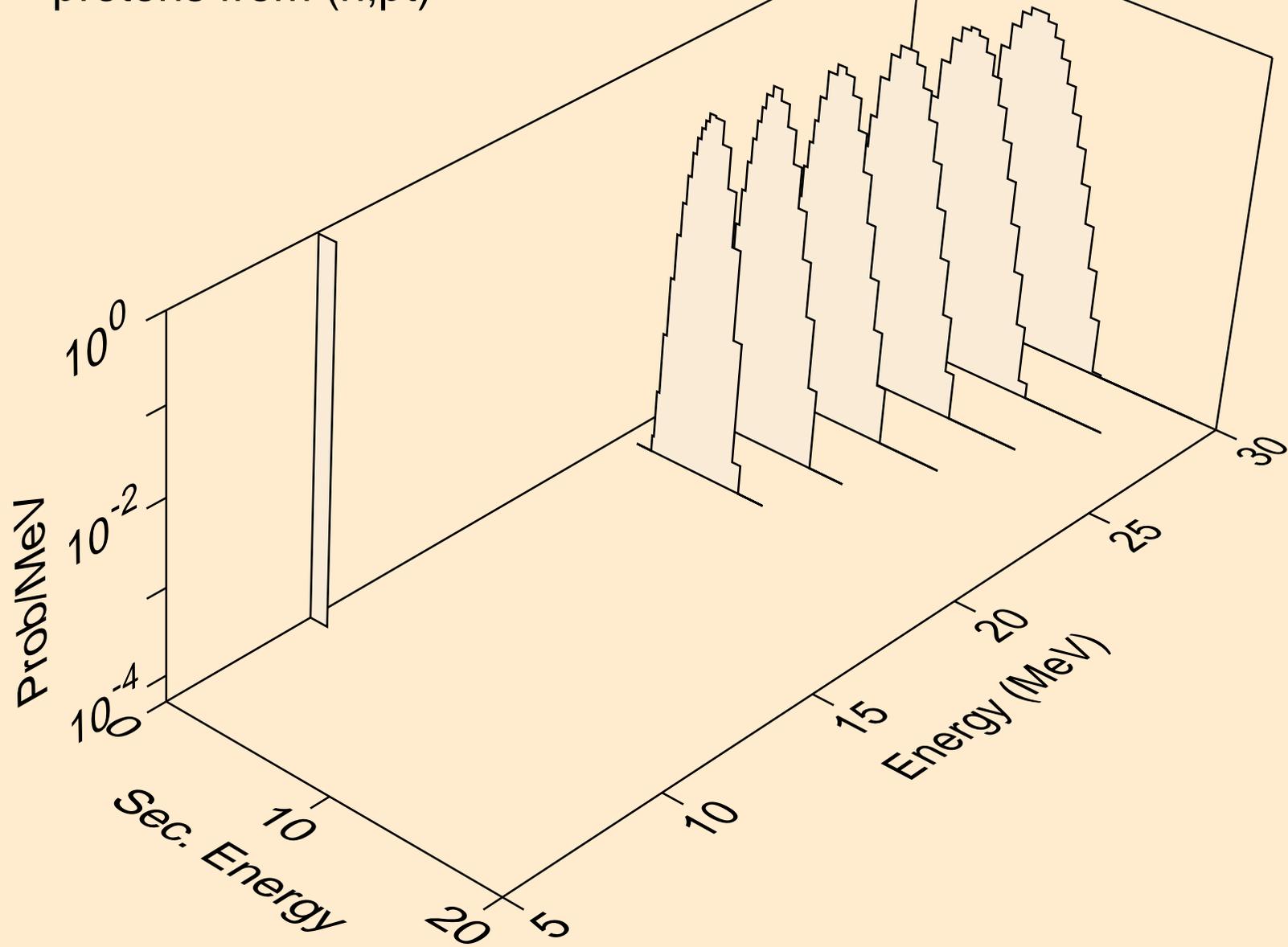RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,2p)

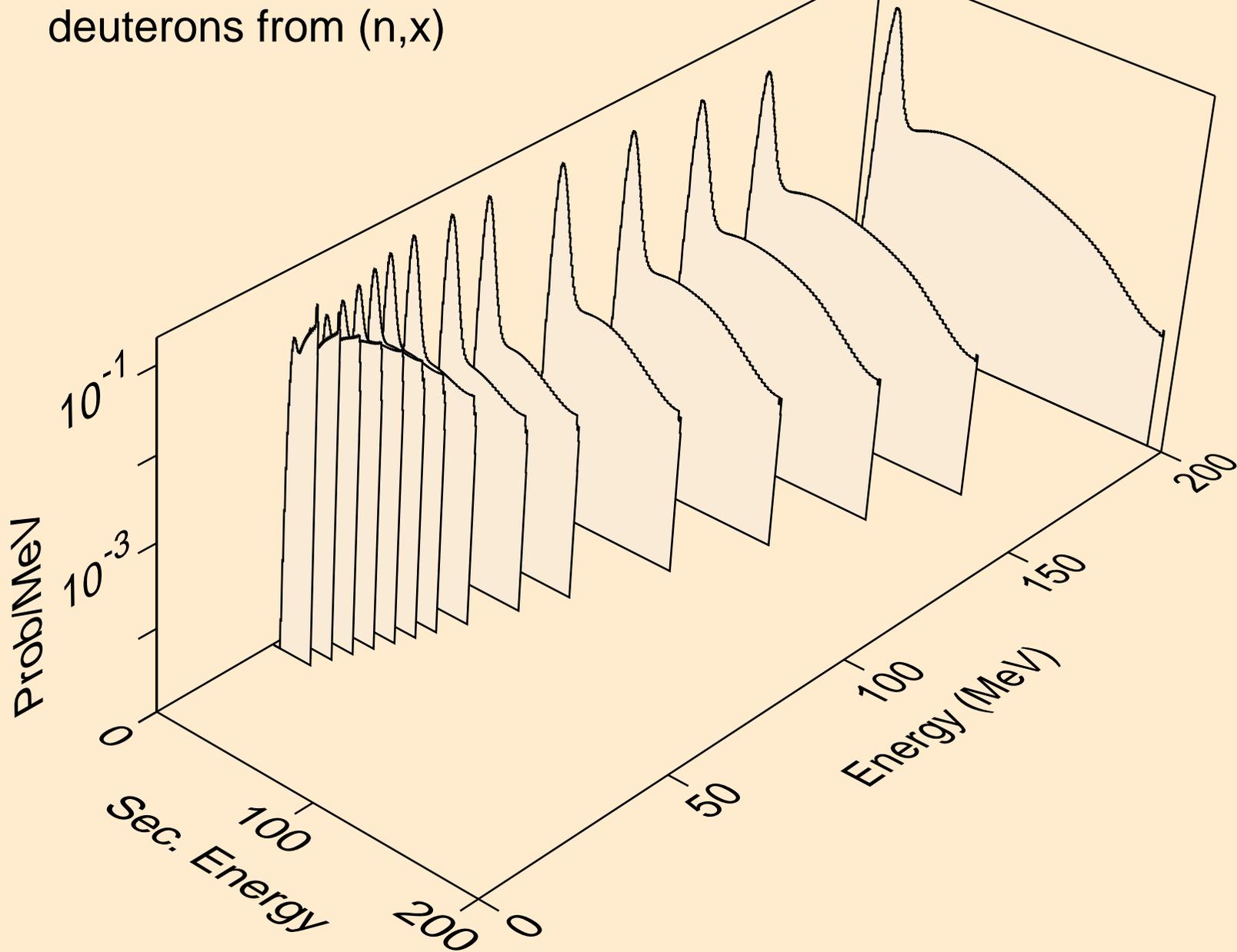RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,pa)

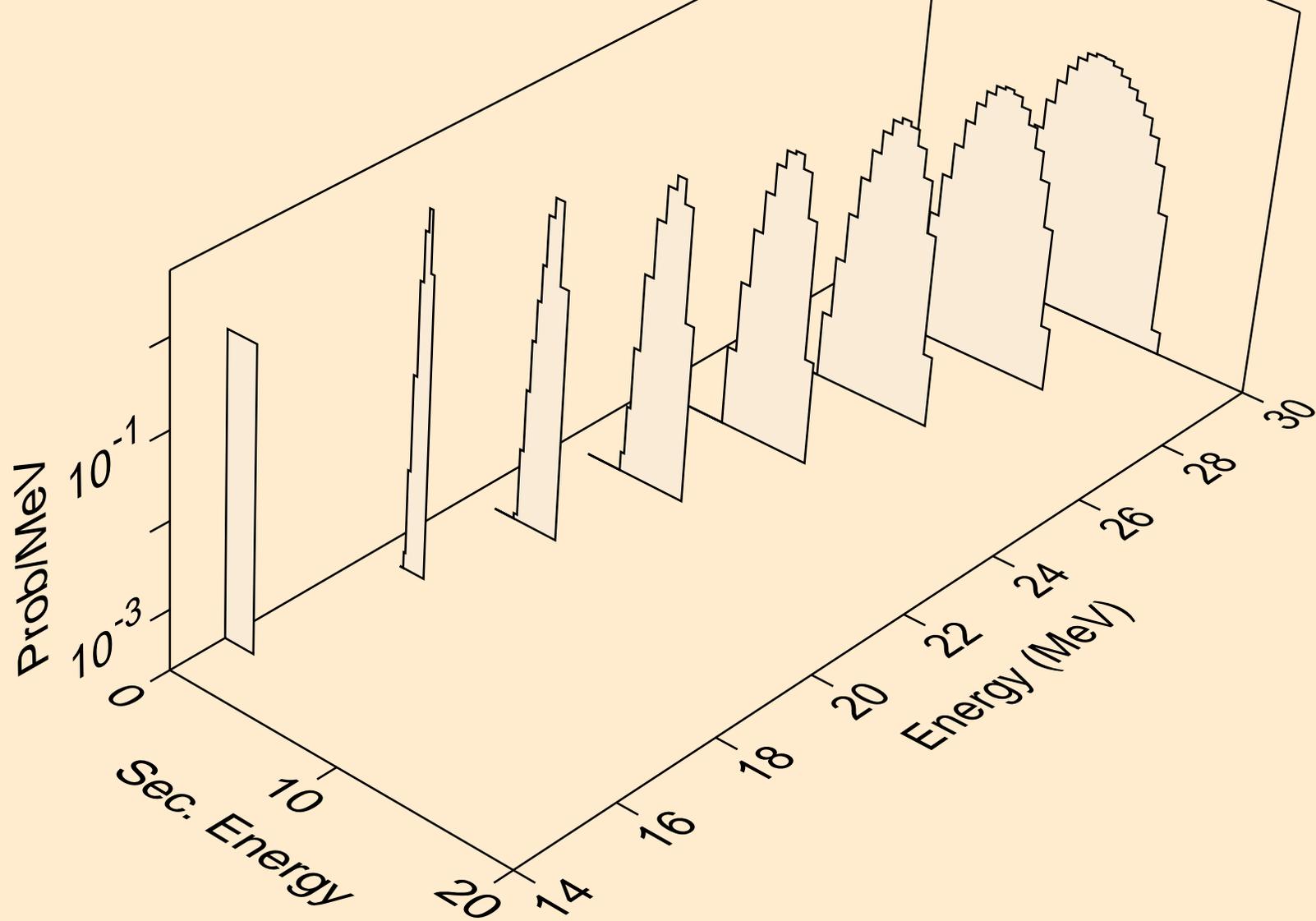RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,pd)

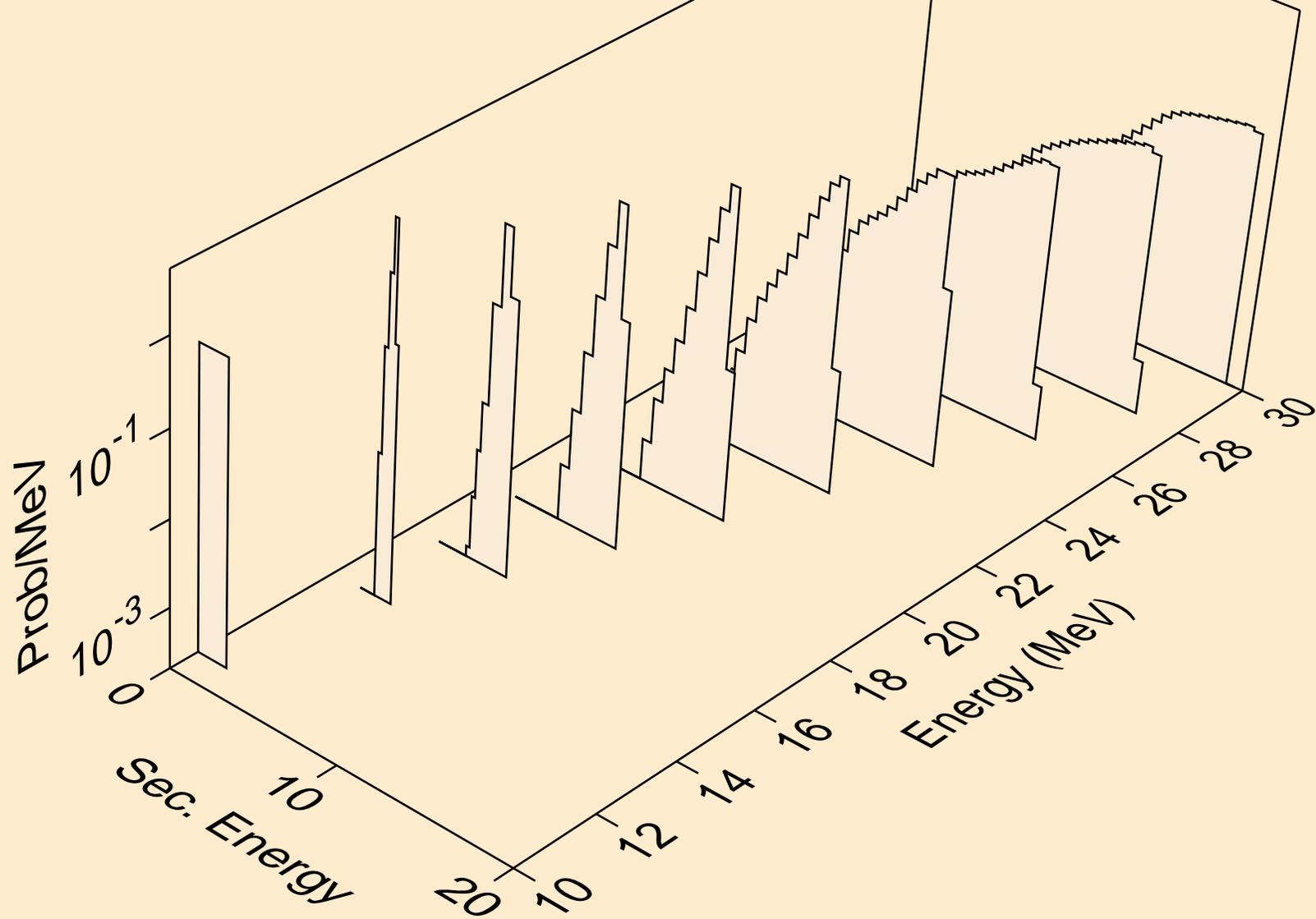RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
protons from (n,pt)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
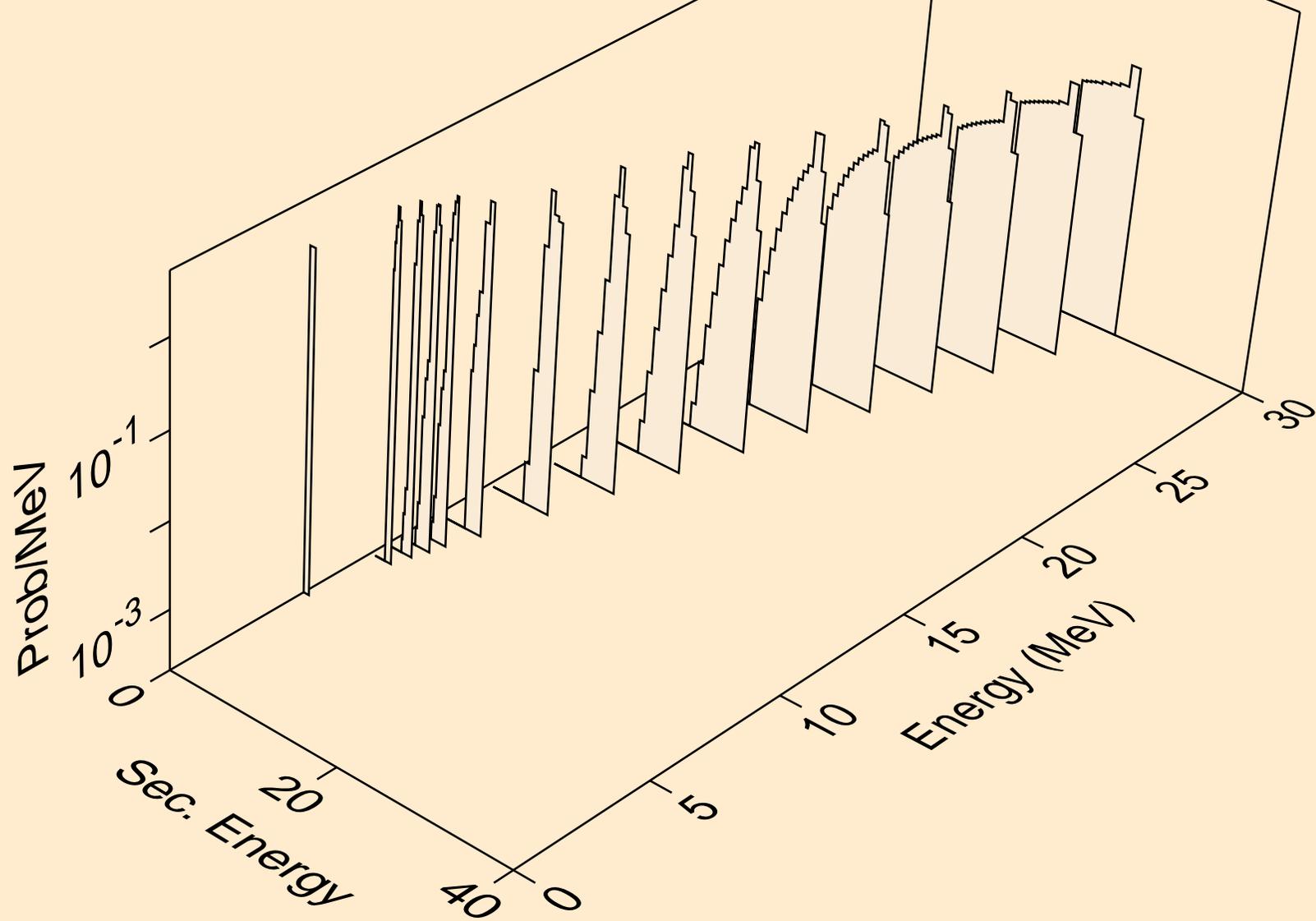deuterons from (n,x)

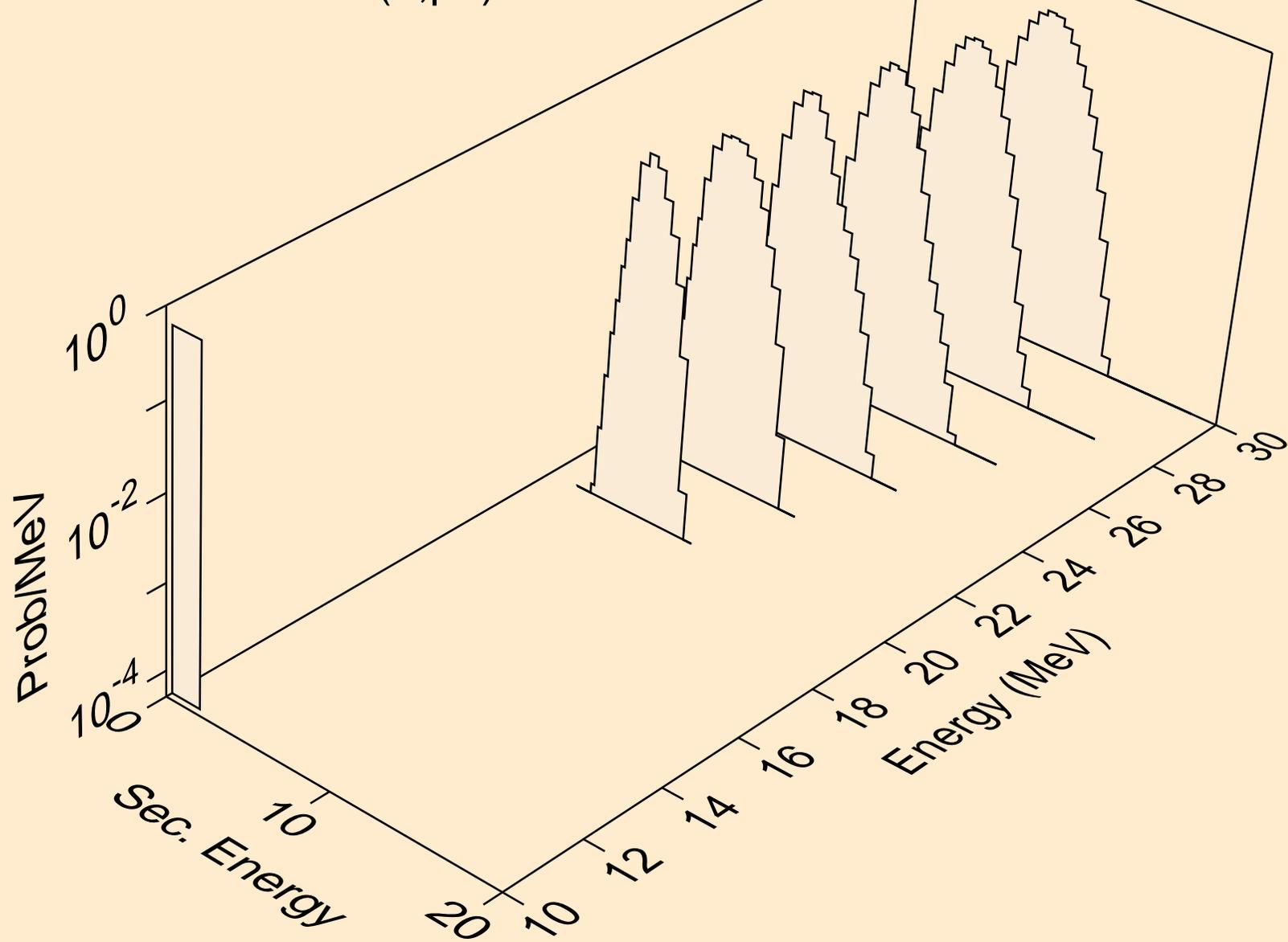RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
deuterons from (n,2nd)

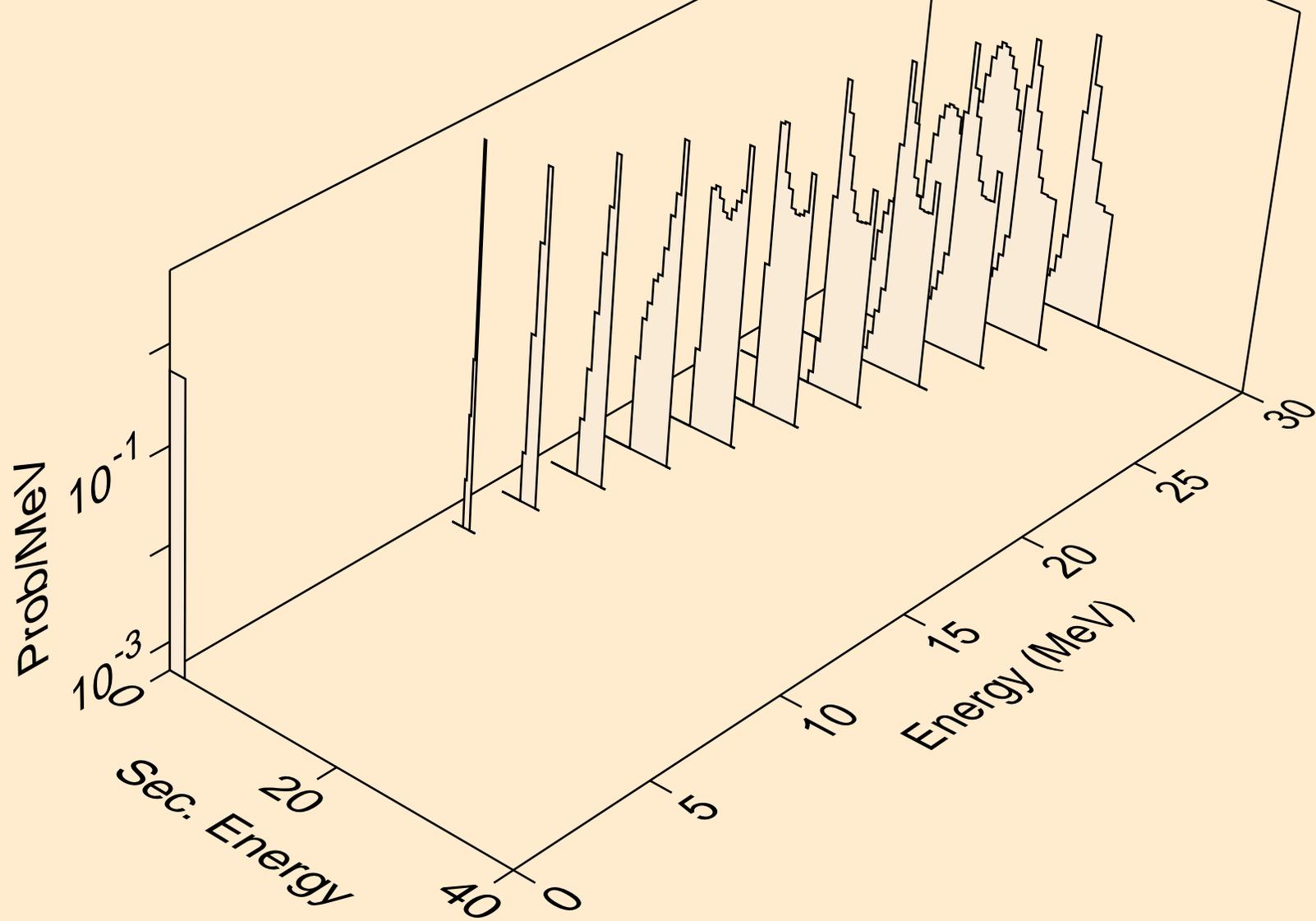RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
deuterons from (n,n*)d

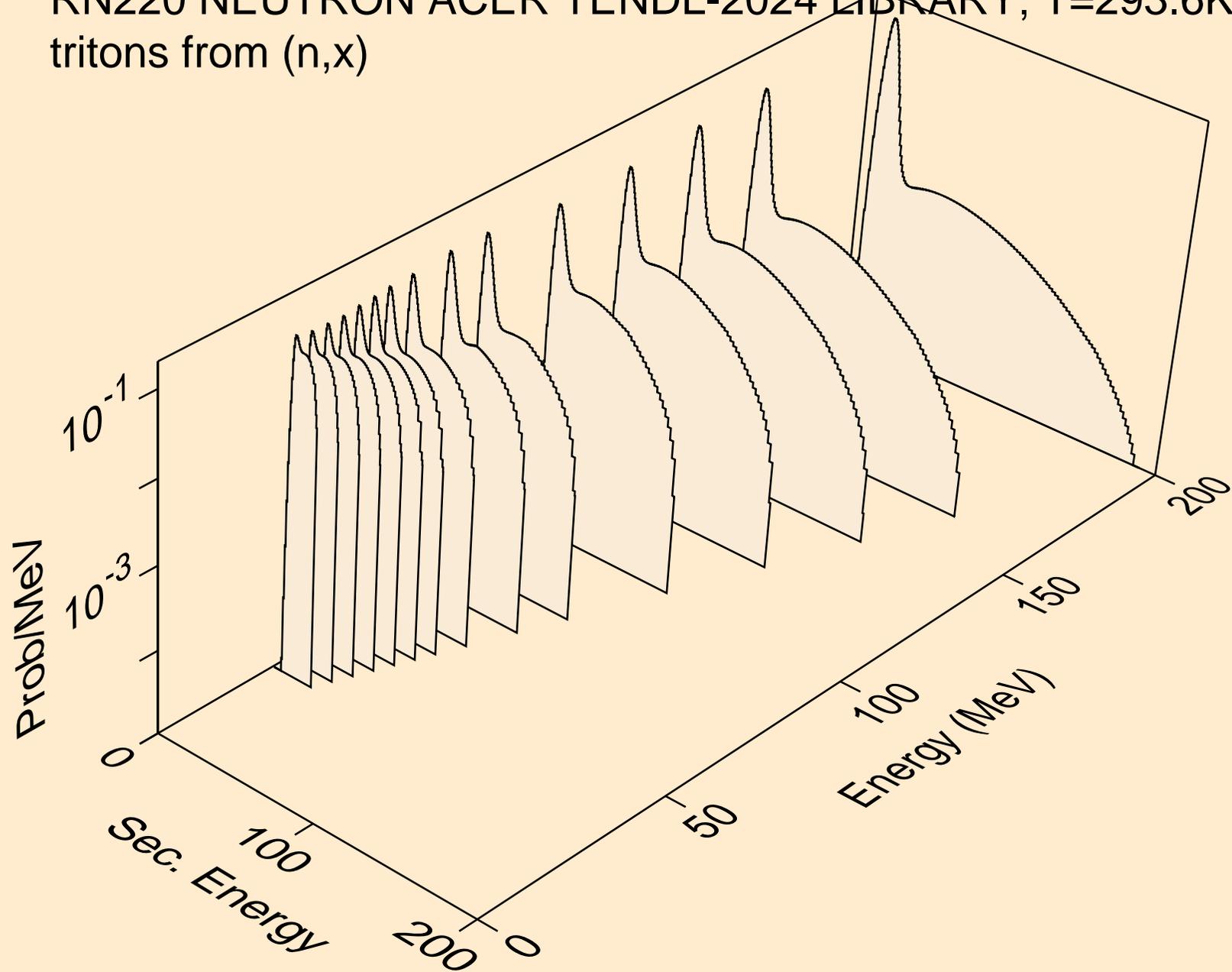RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
deuterons from (n,d)

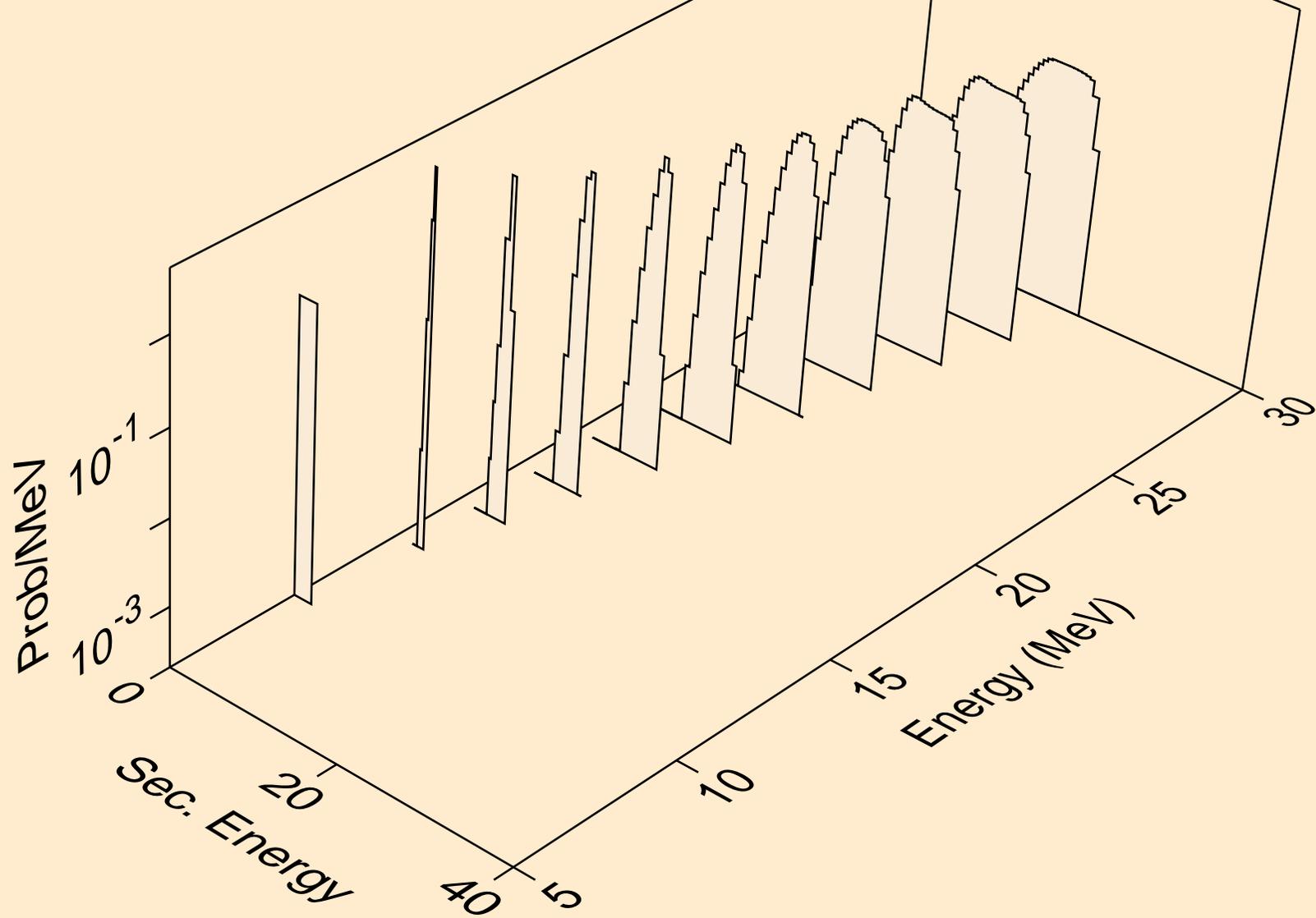RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
deuterons from (n,pd)

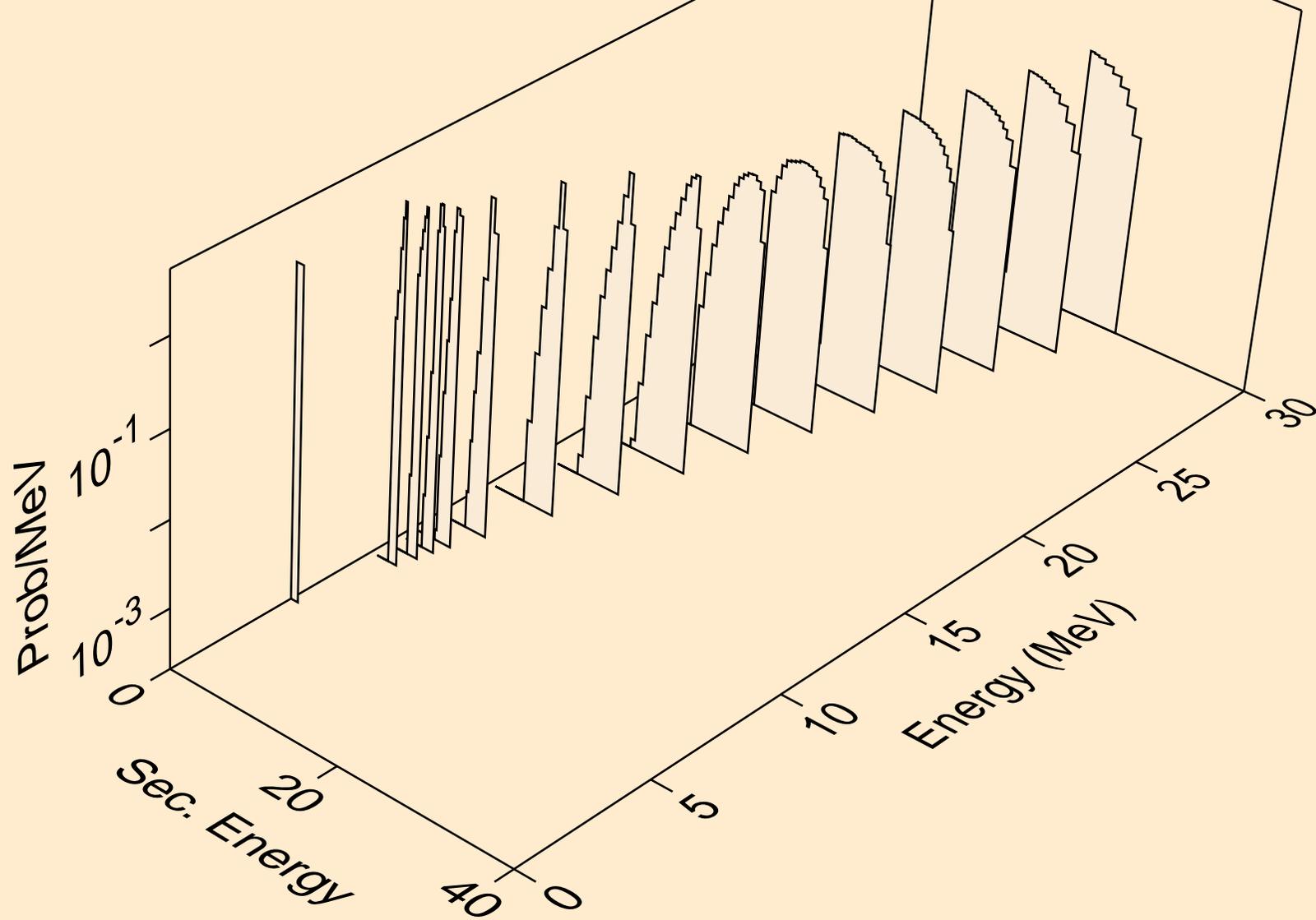RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
deuterons from (n,da)

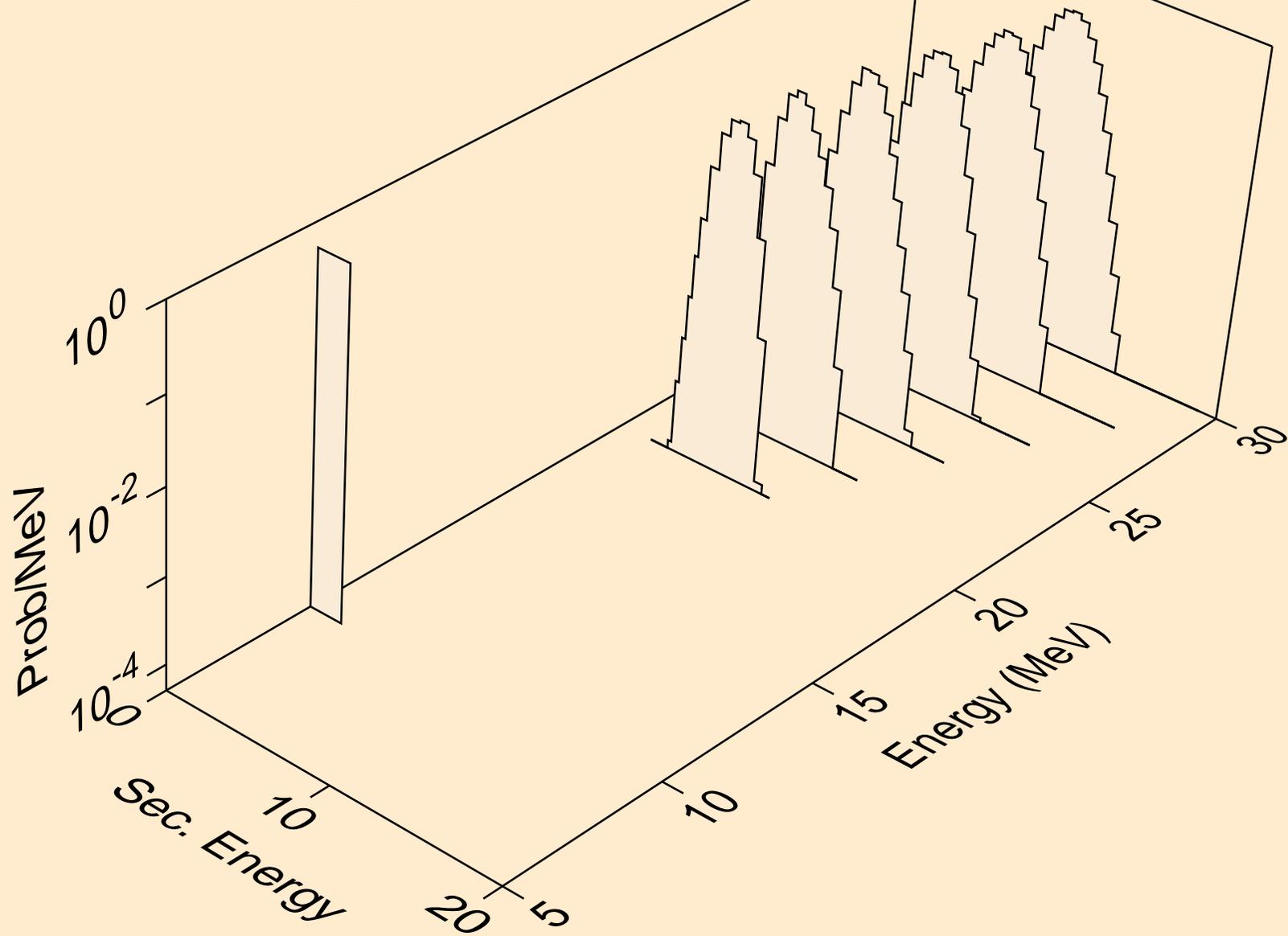RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
tritons from (n,x)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
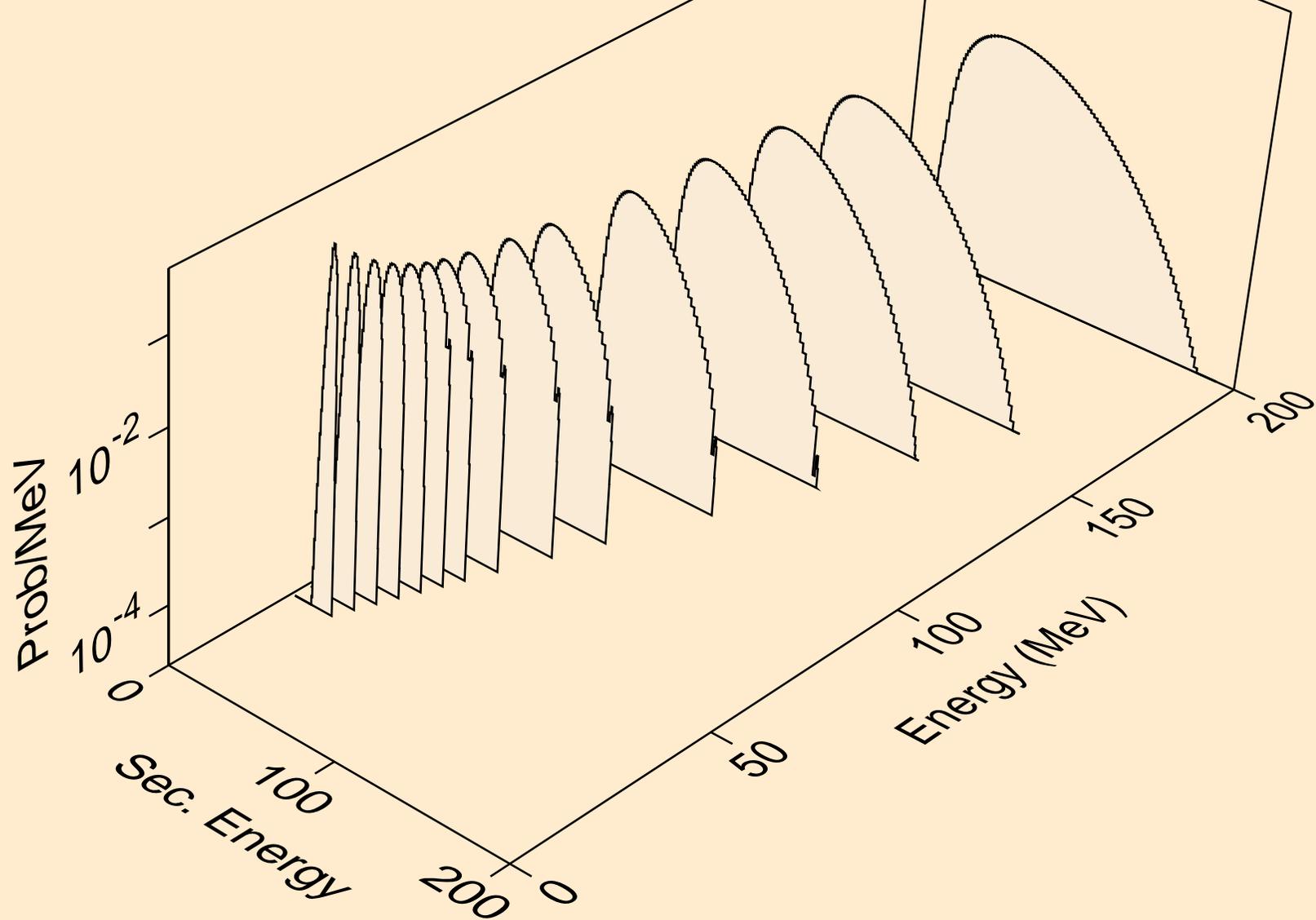tritons from (n,n*)t

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
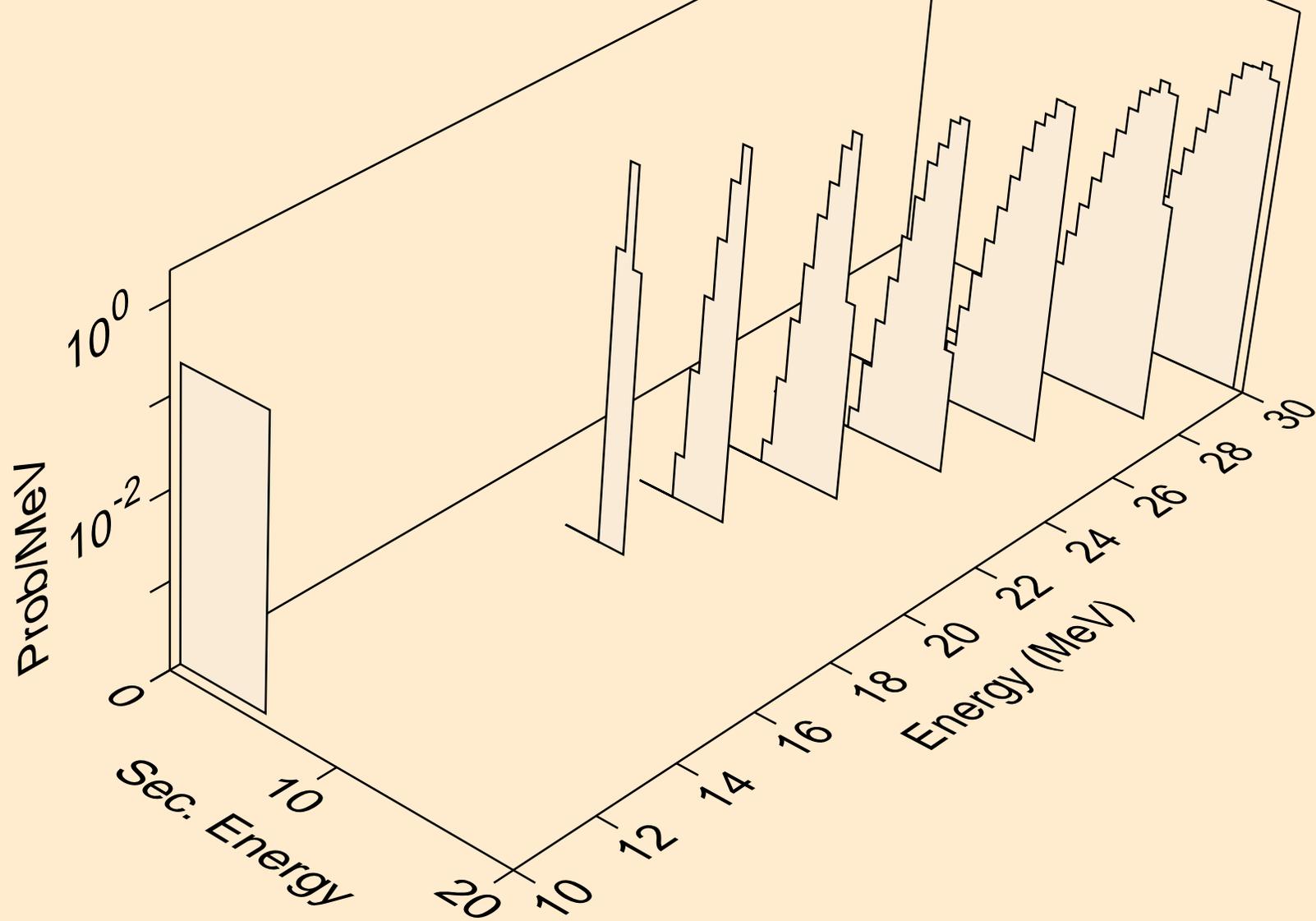tritons from (n,t)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
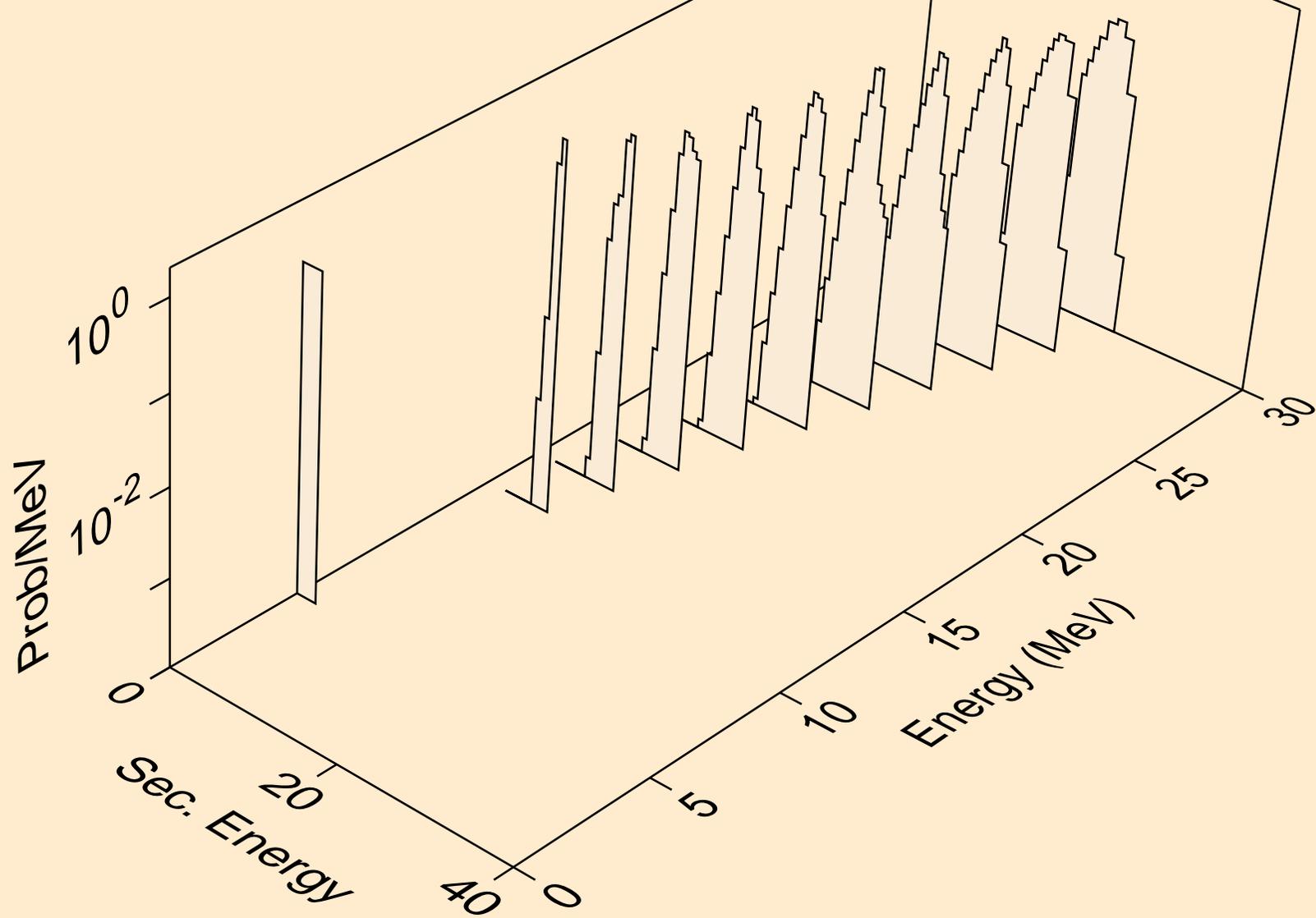tritons from (n,pt)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
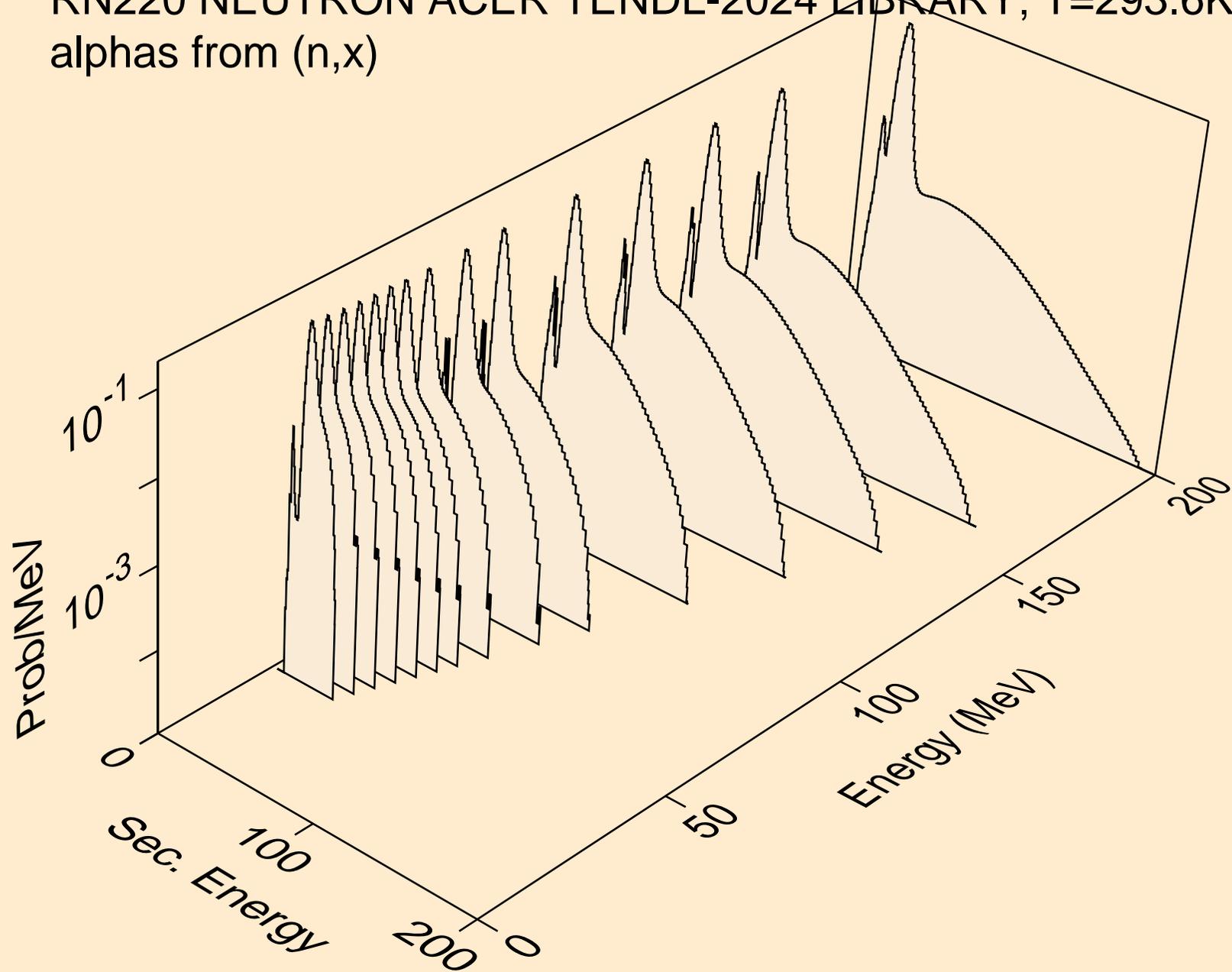he3s from (n,x)

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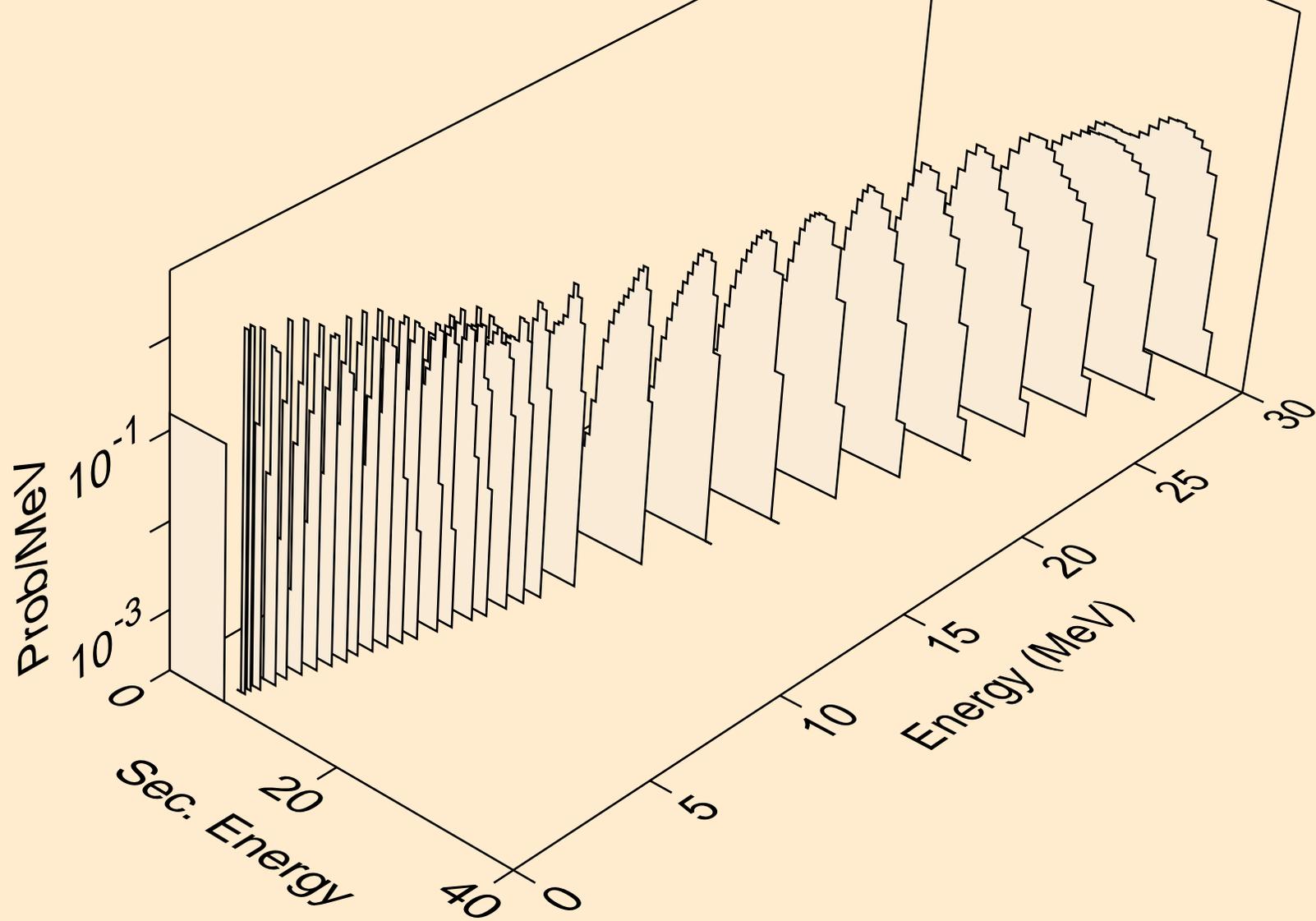he3s from (n,n*)he3

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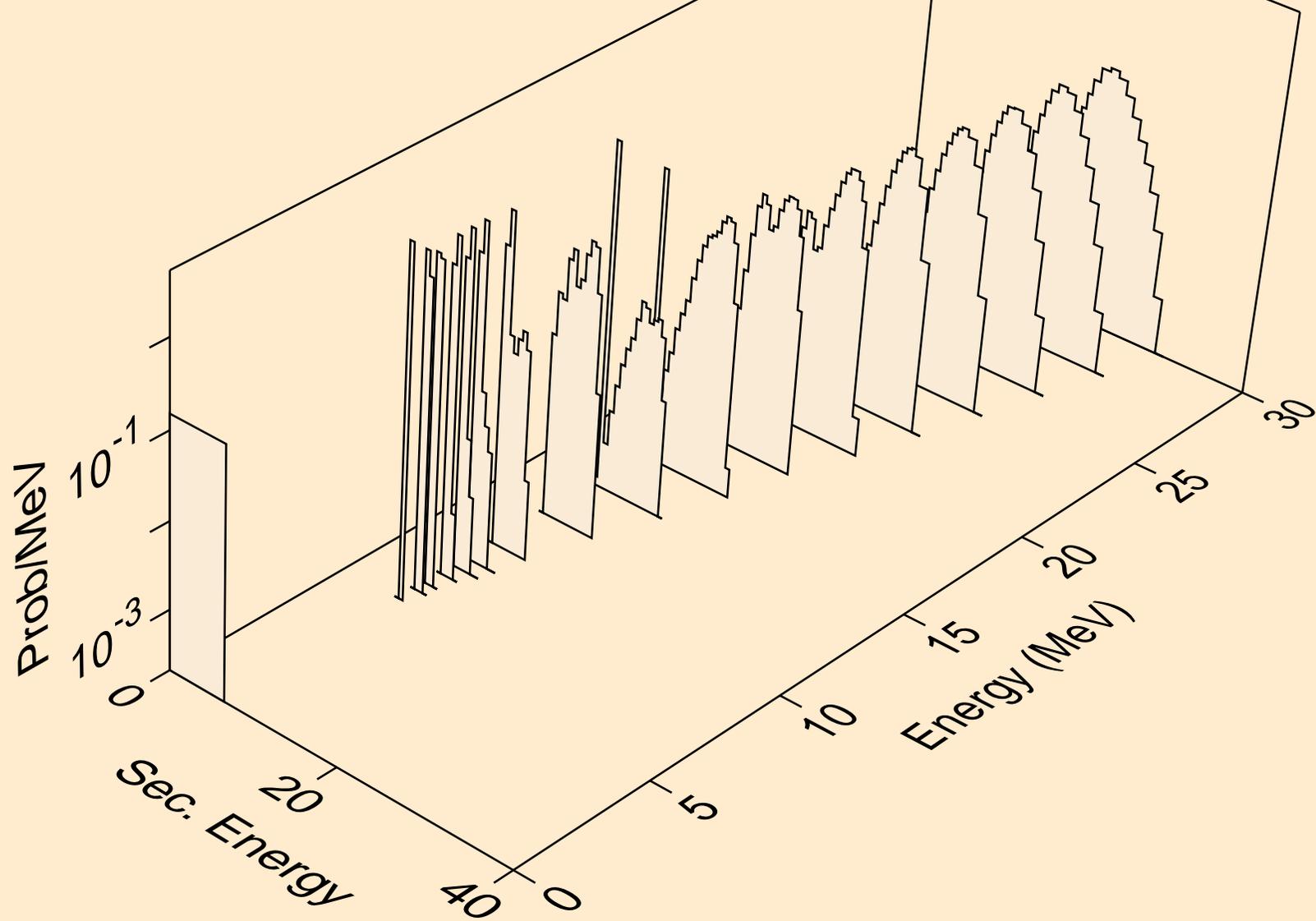he3s from (n,he3)

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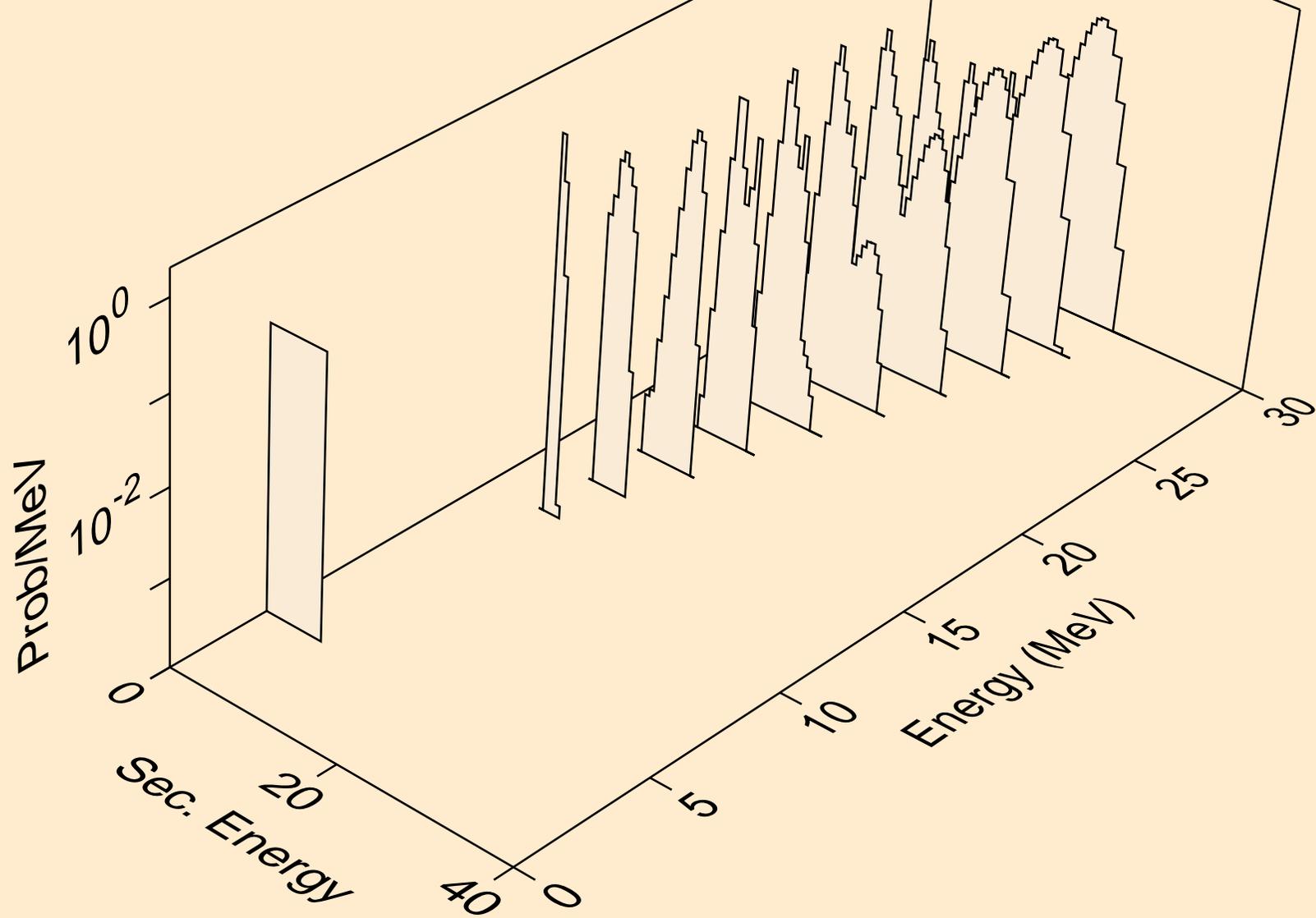alphas from (n,x)

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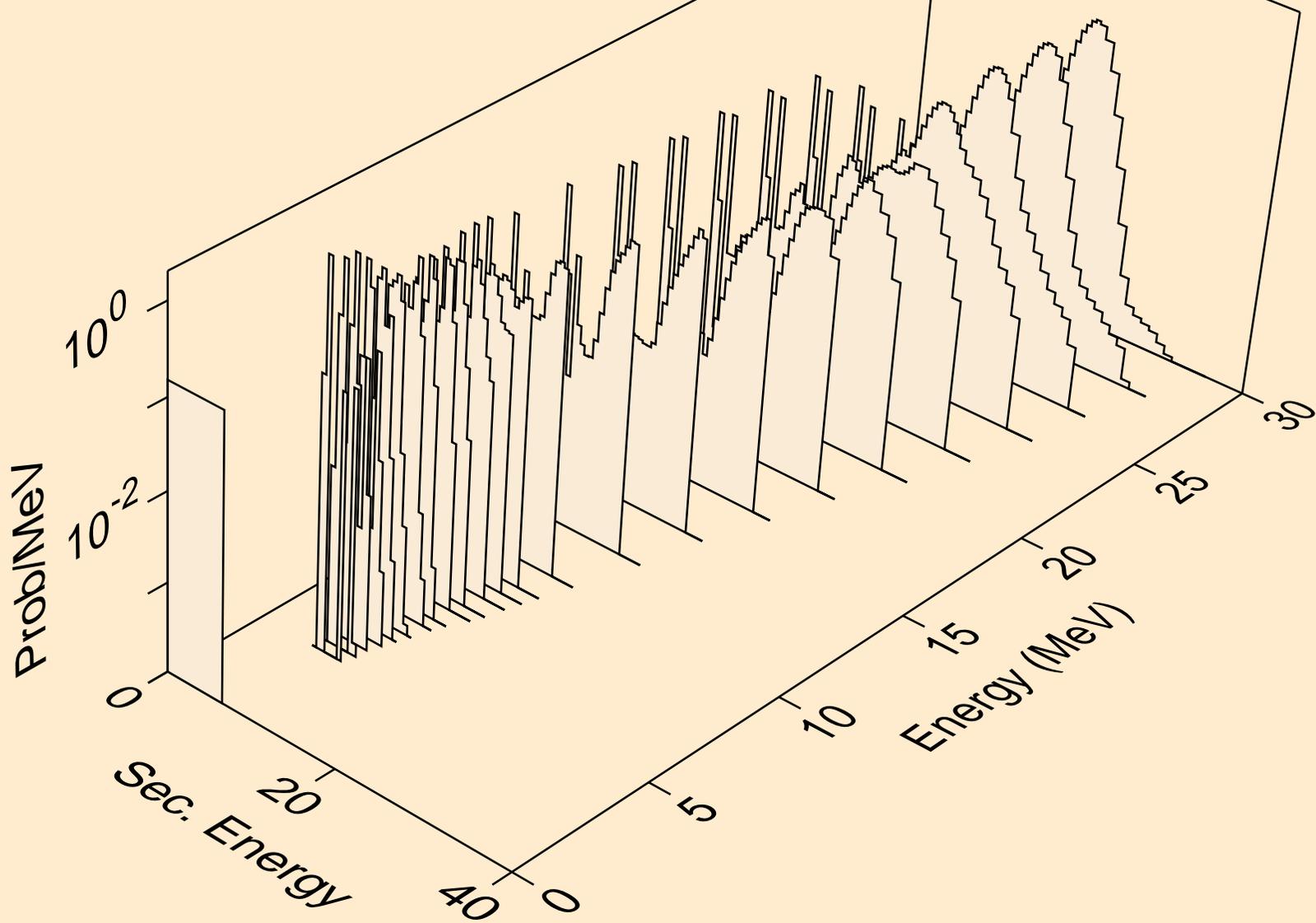alphas from (n,n*)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,2n)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,3n)a

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,n*)2a

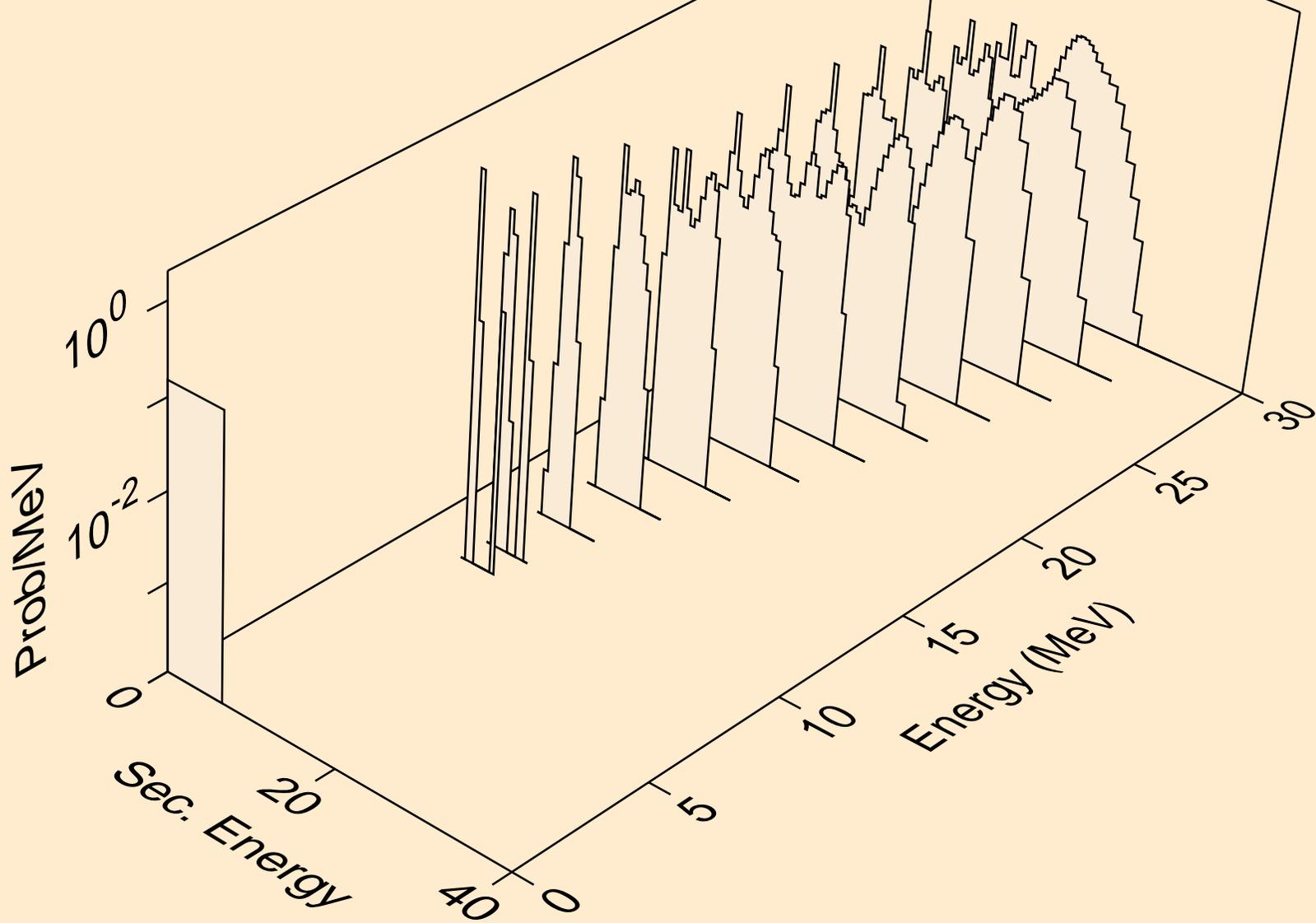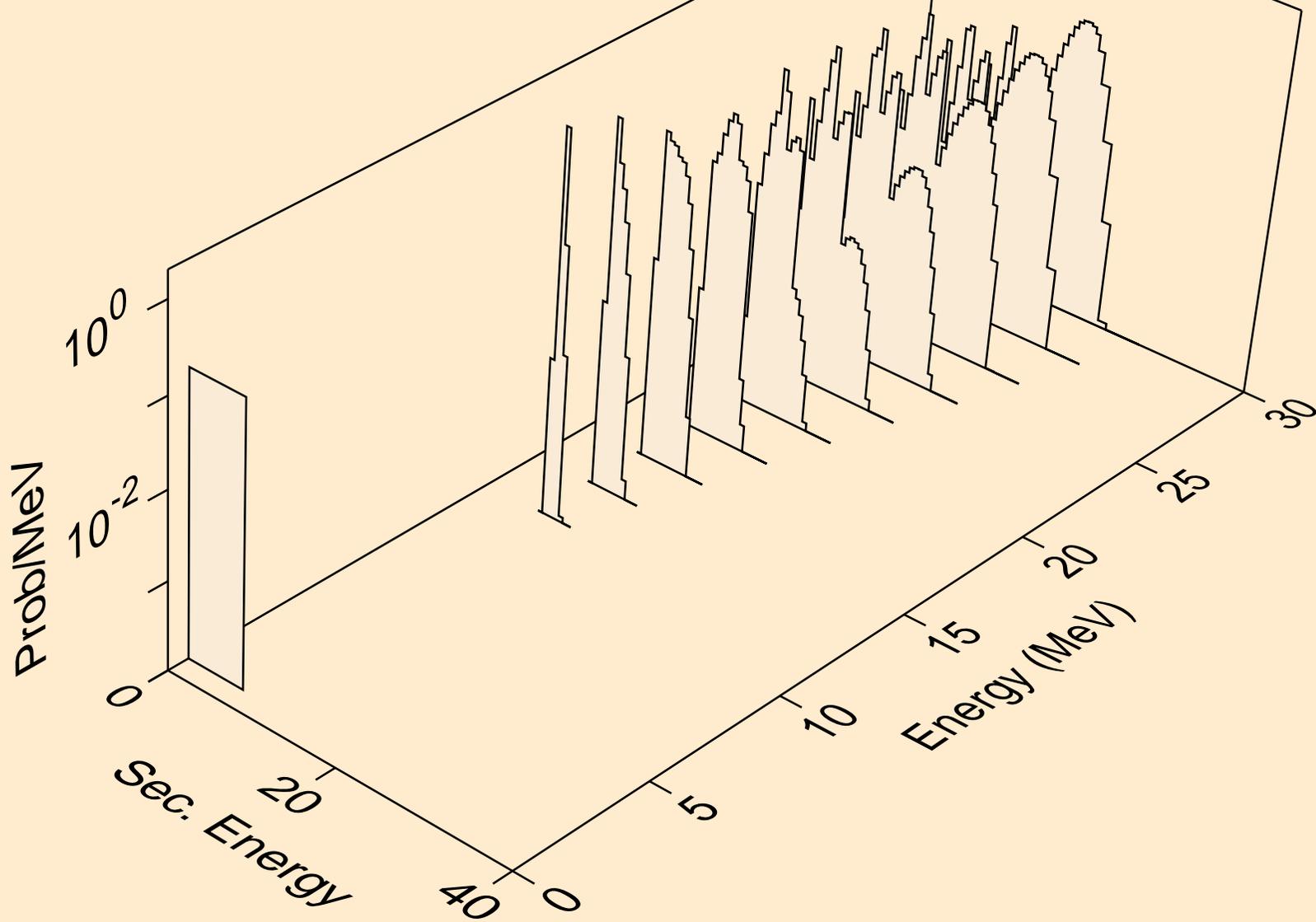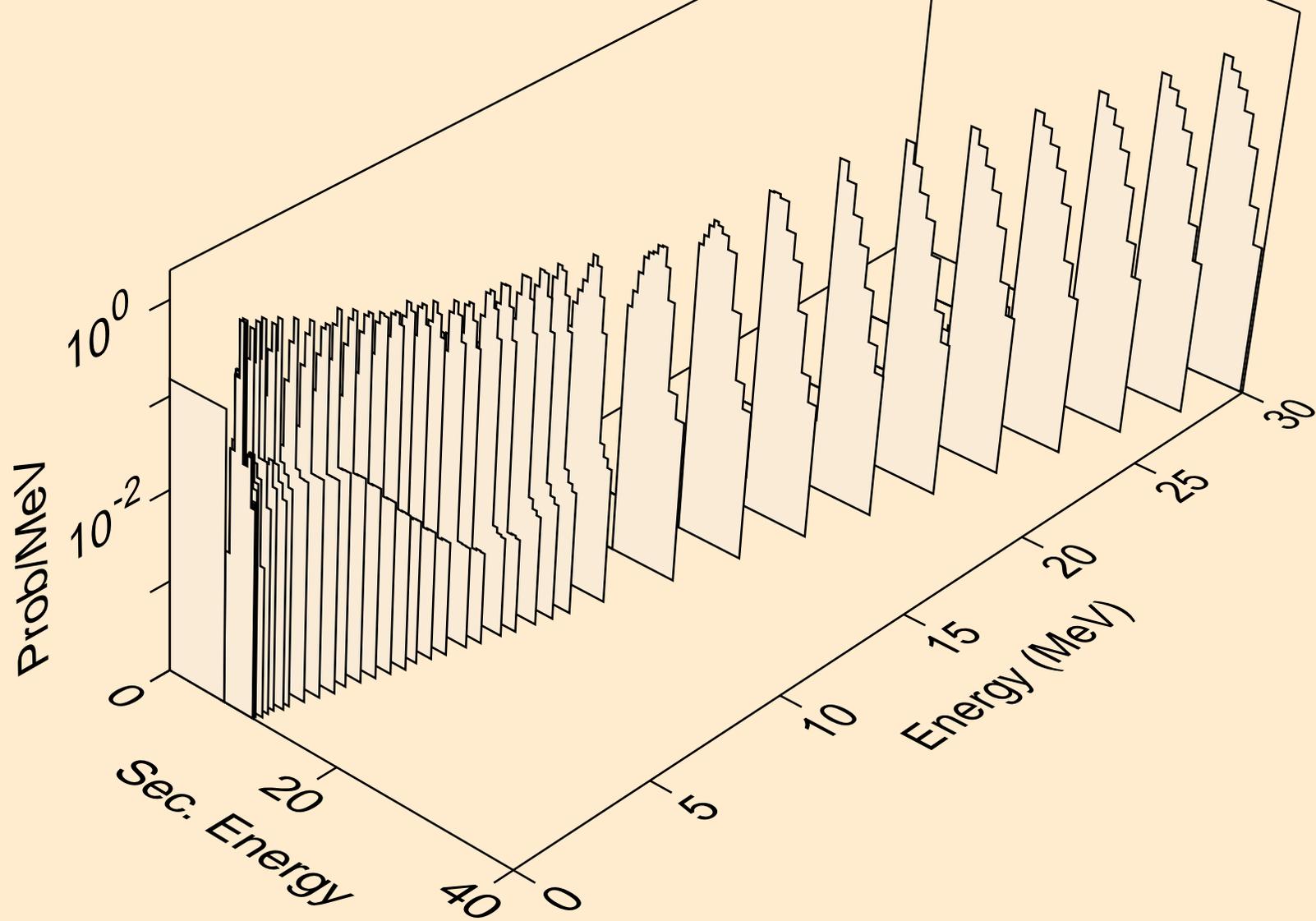RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,2n)2a

Prob/MeV
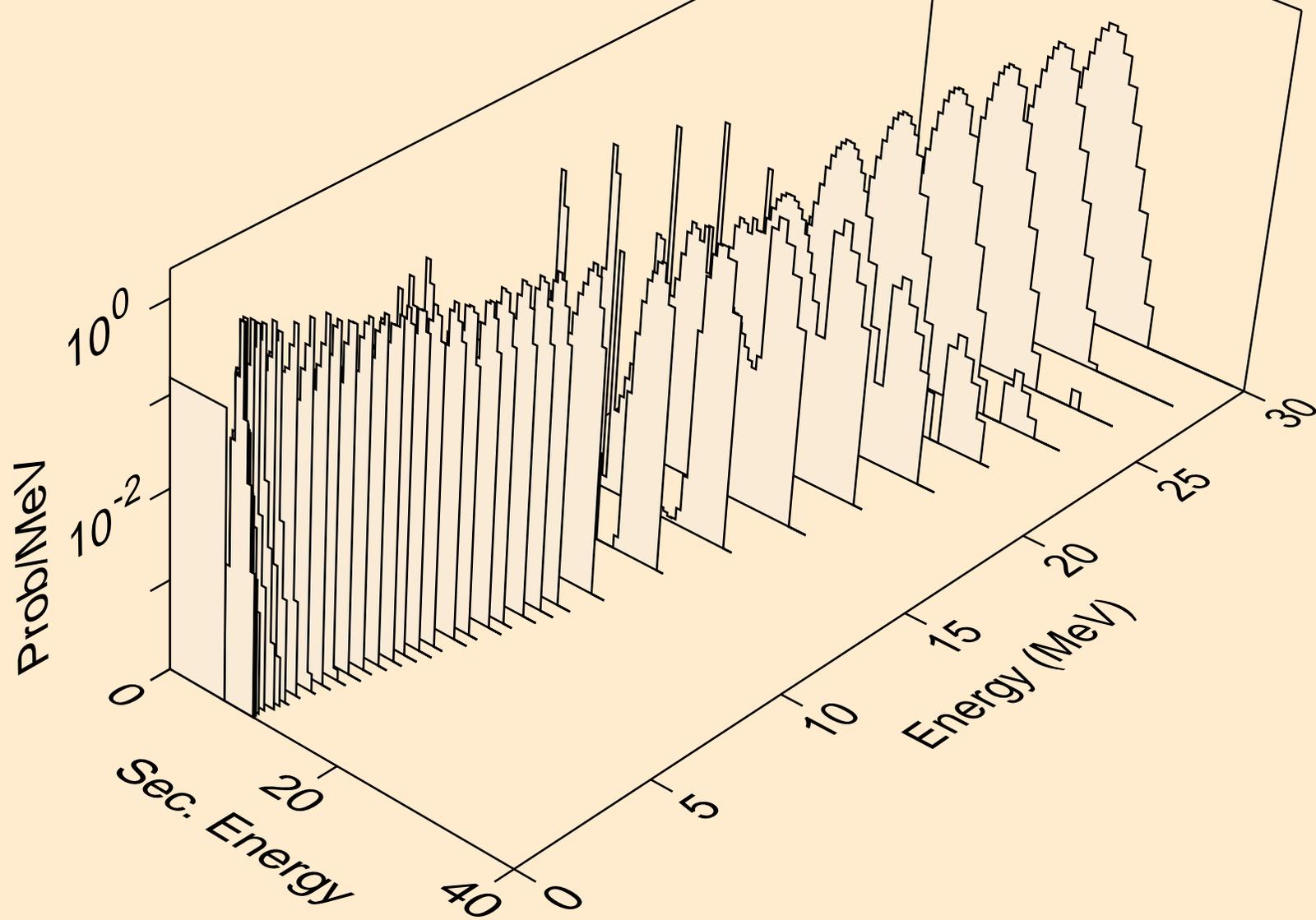
Sec. Energy

Energy (MeV)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
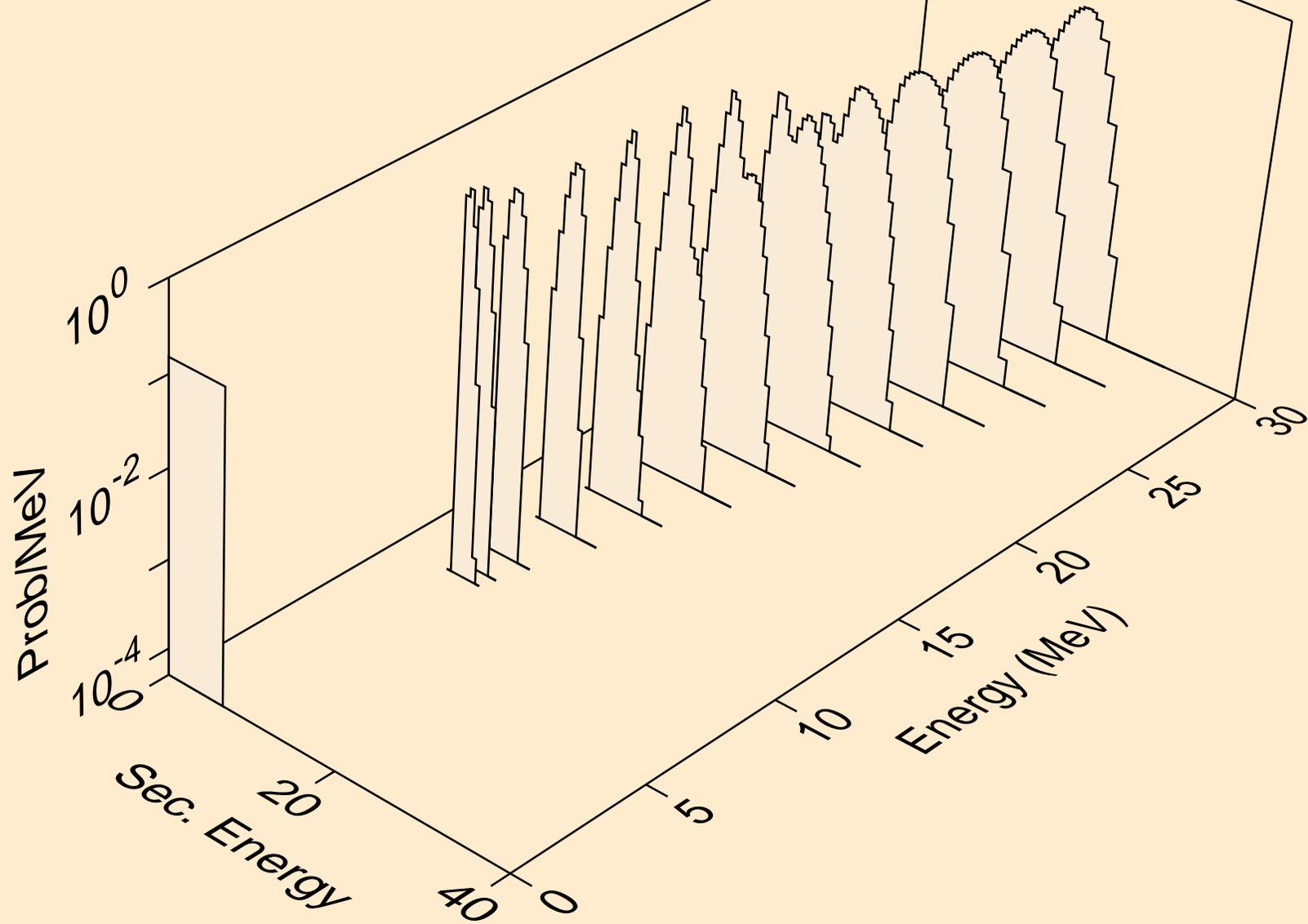alphas from (n,npa)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,a)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,2a)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,pa)

RN220 NEUTRON ACER TENDL-2024 LIBRARY; T=293.6K
alphas from (n,da)