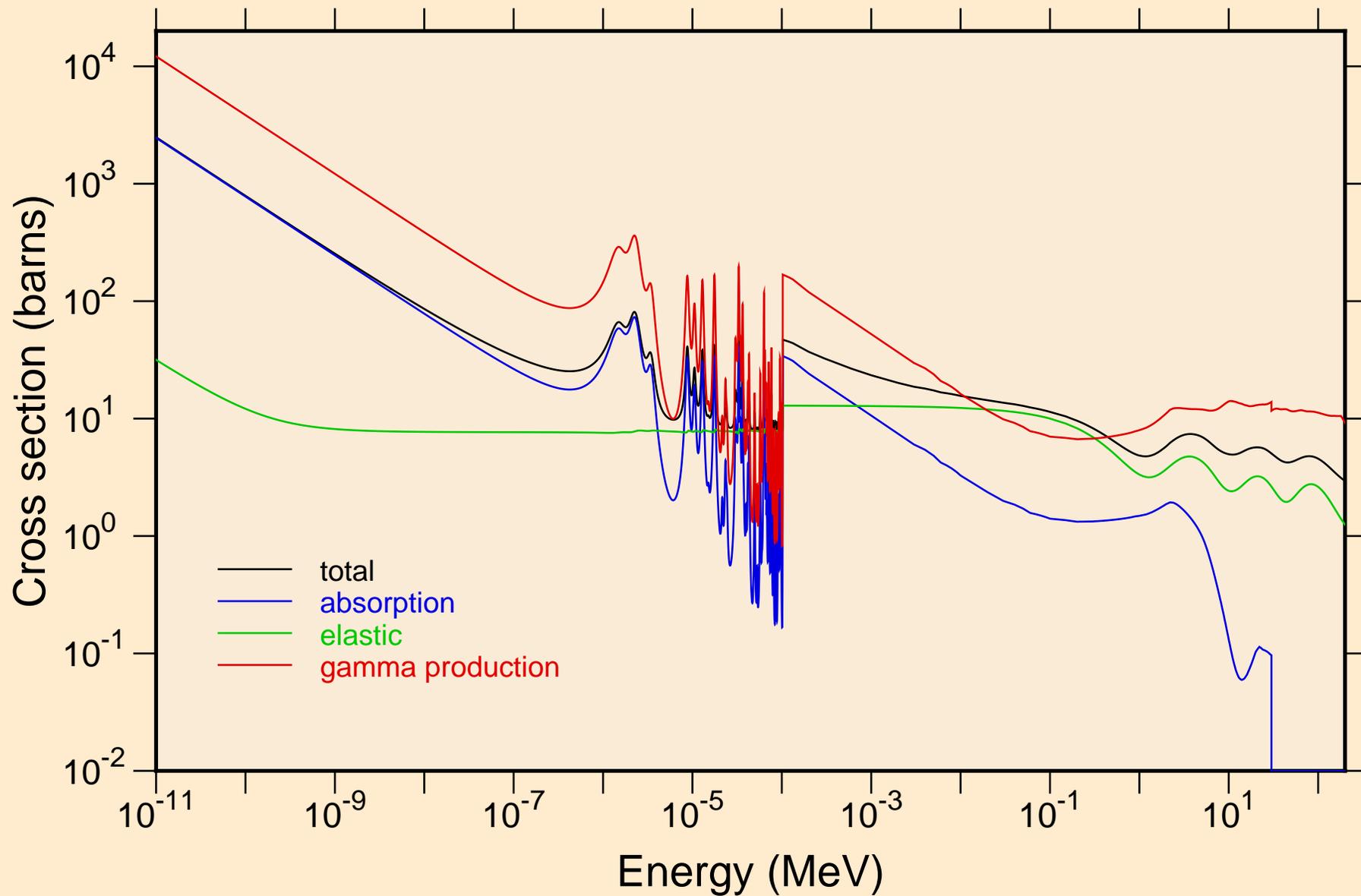BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Principal cross sections

Cross section (barns) vs Energy (MeV)

- total
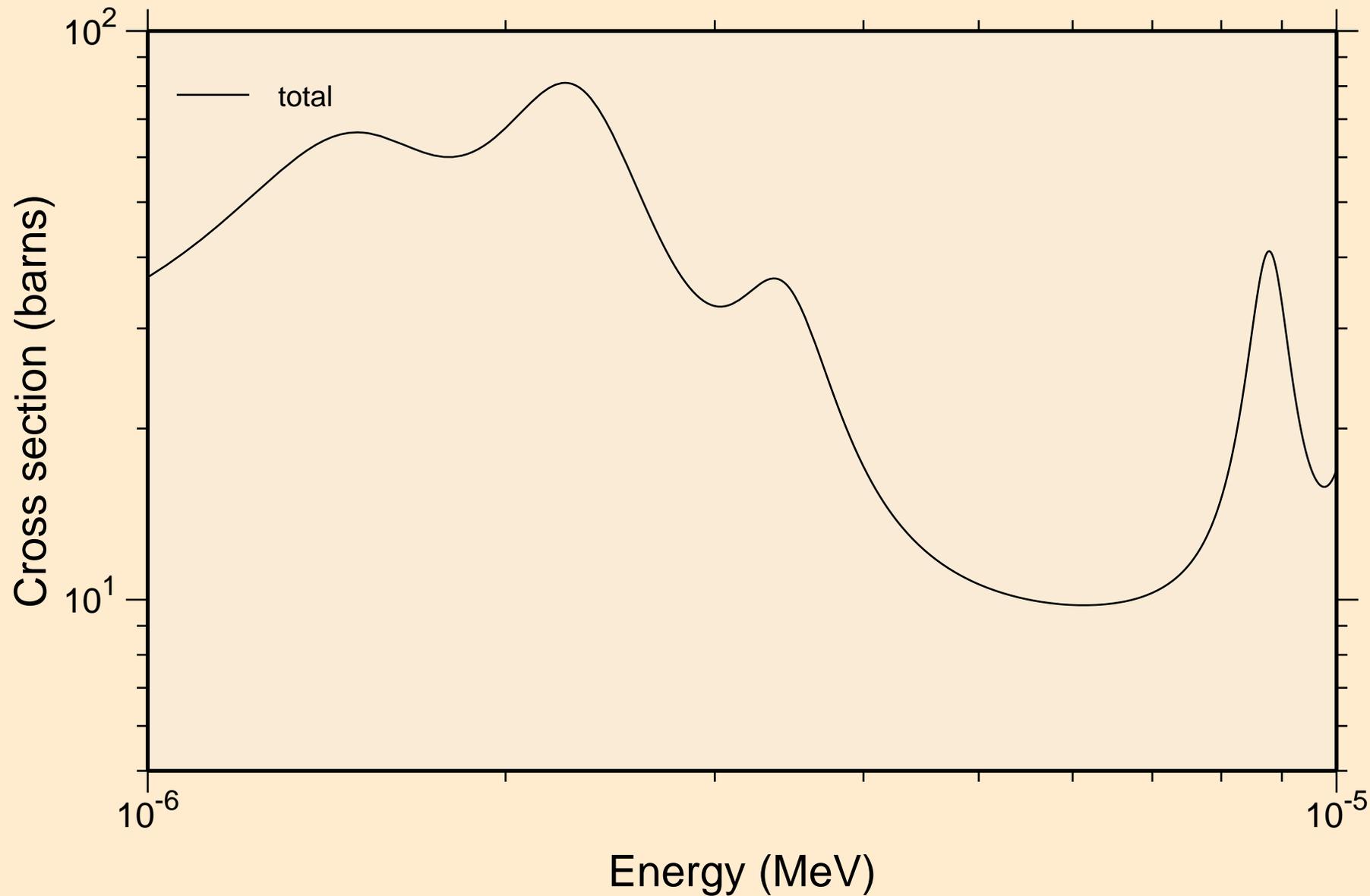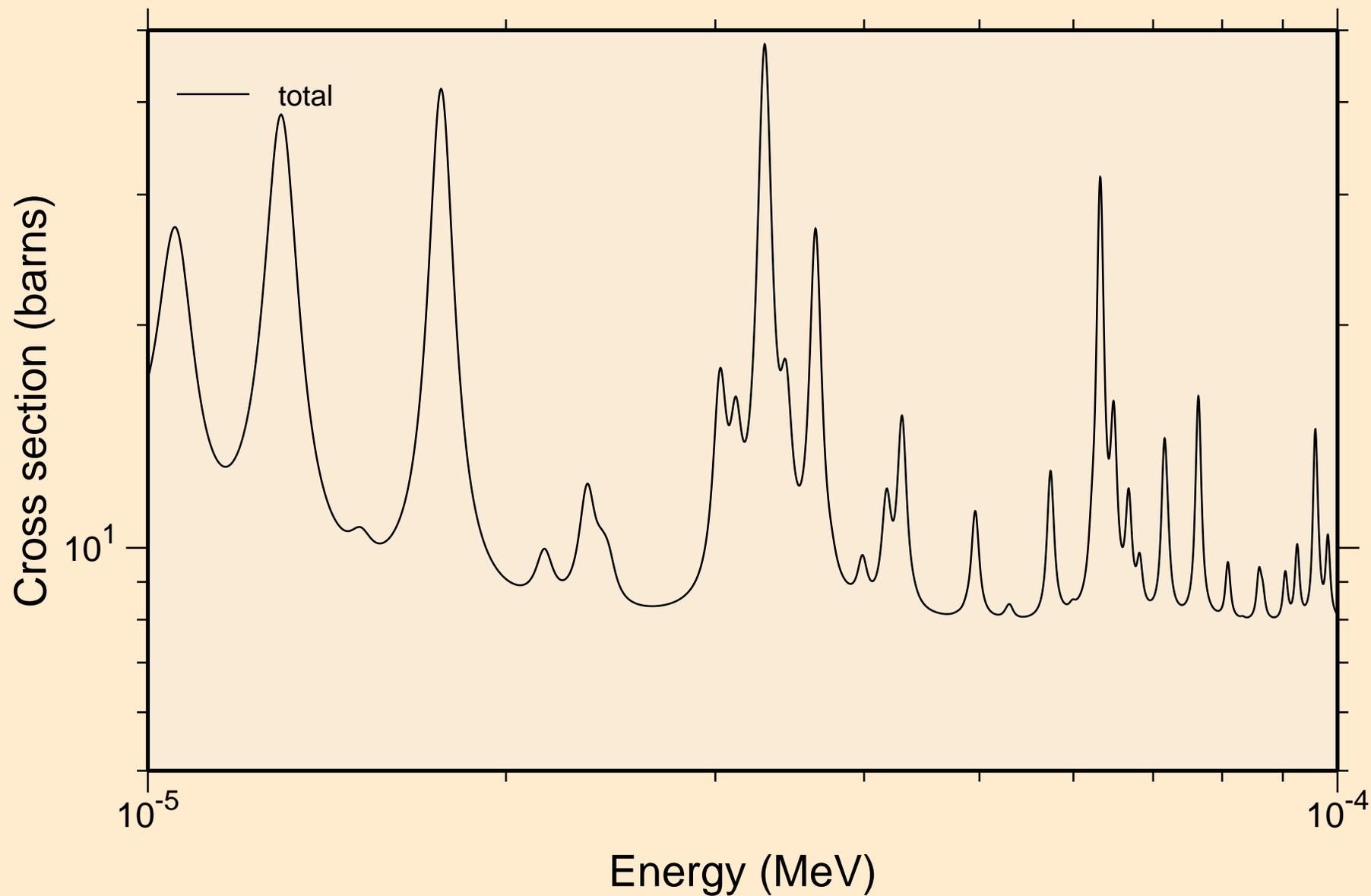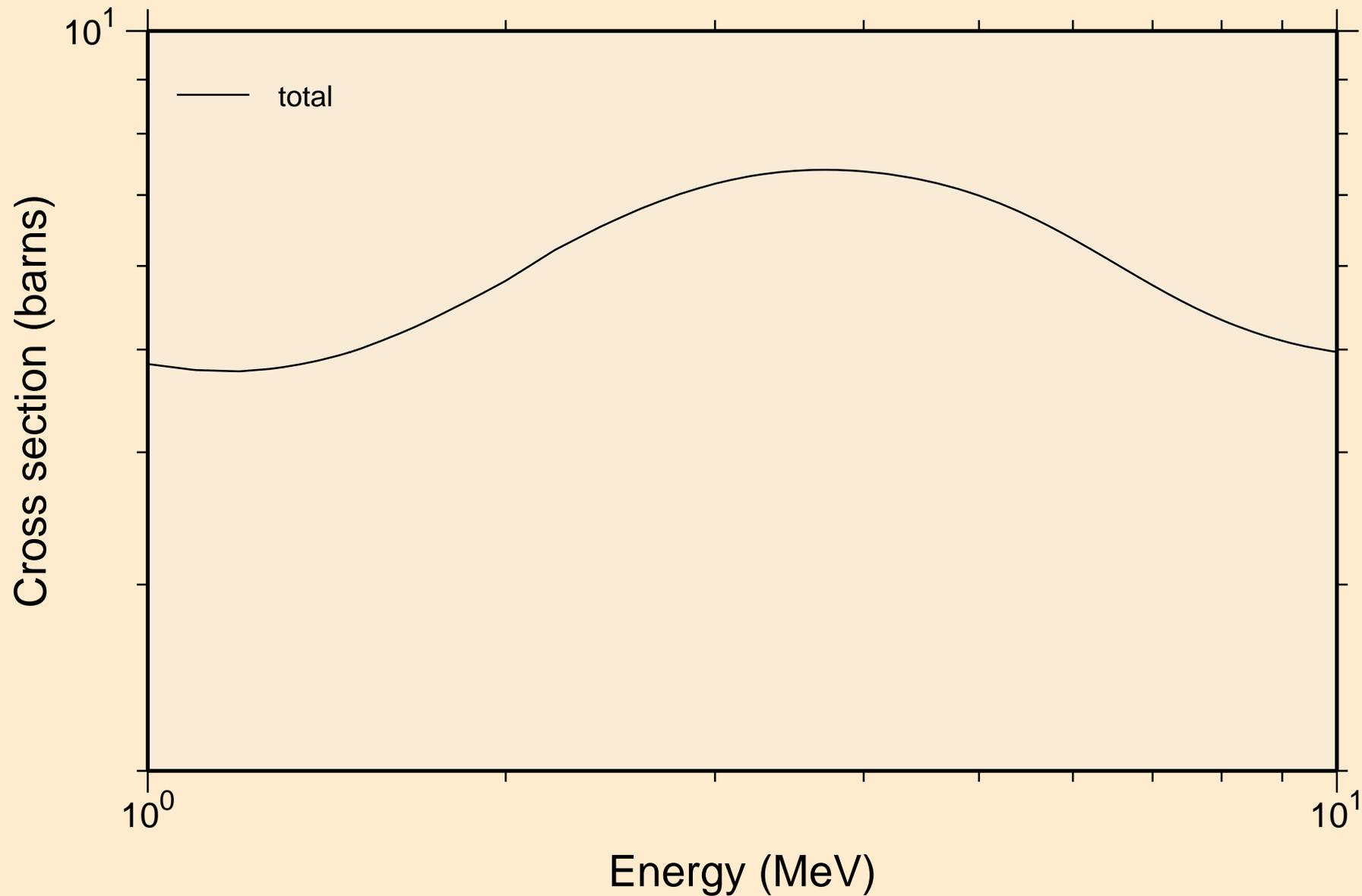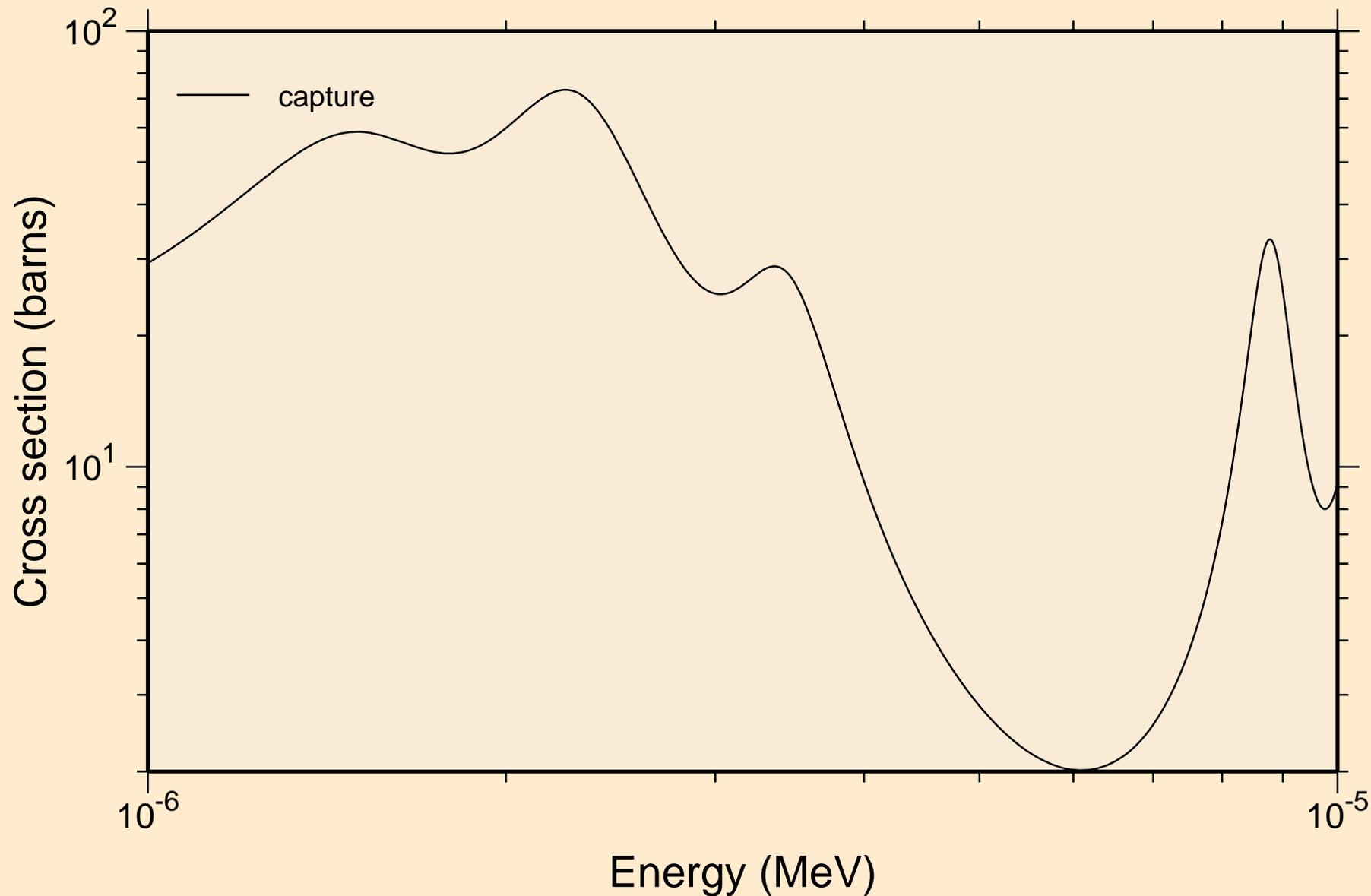- absorption
- elastic
- gamma production

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
resonance total cross section

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
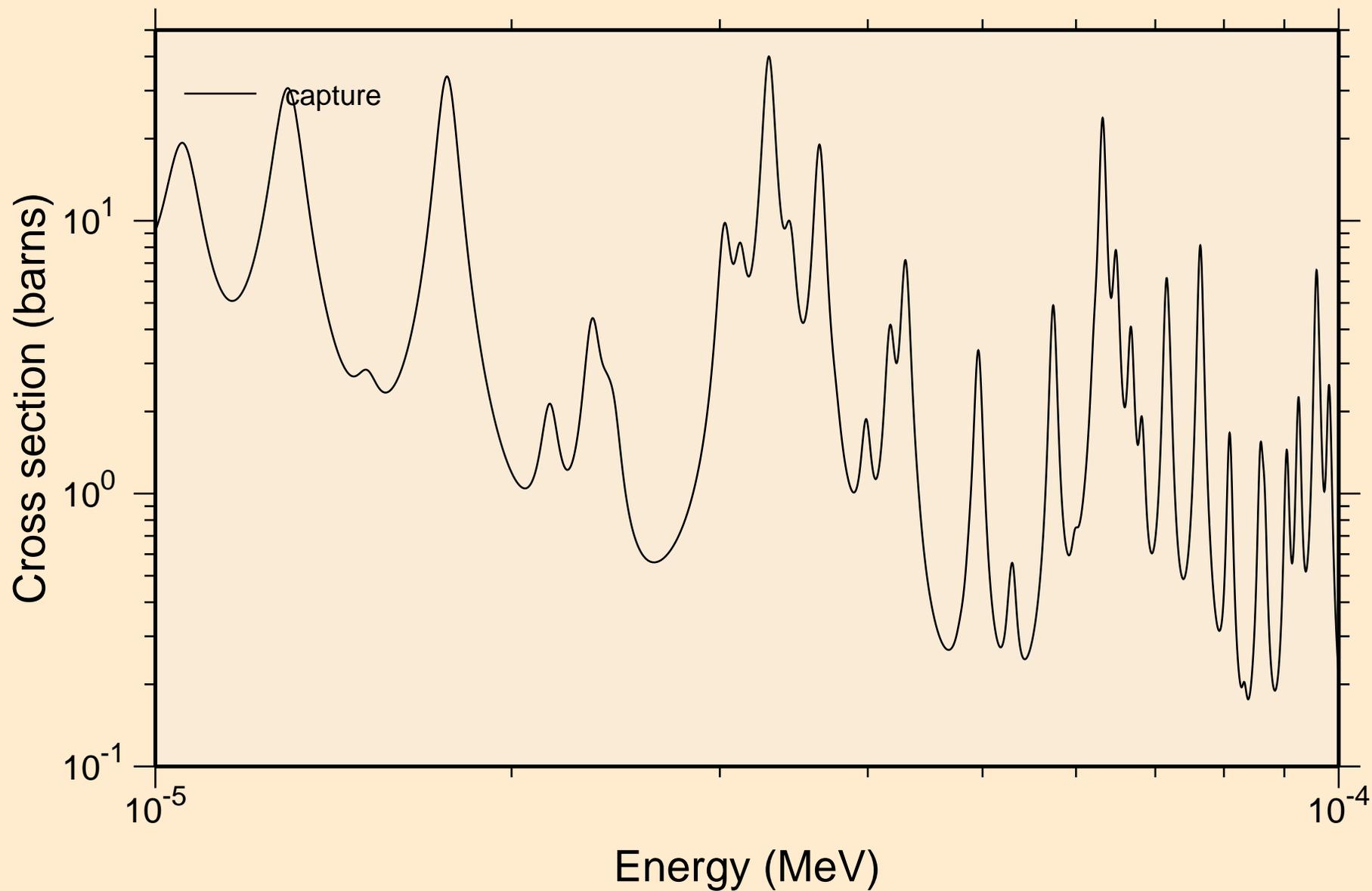resonance total cross section

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
resonance total cross section

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
resonance absorption cross sections
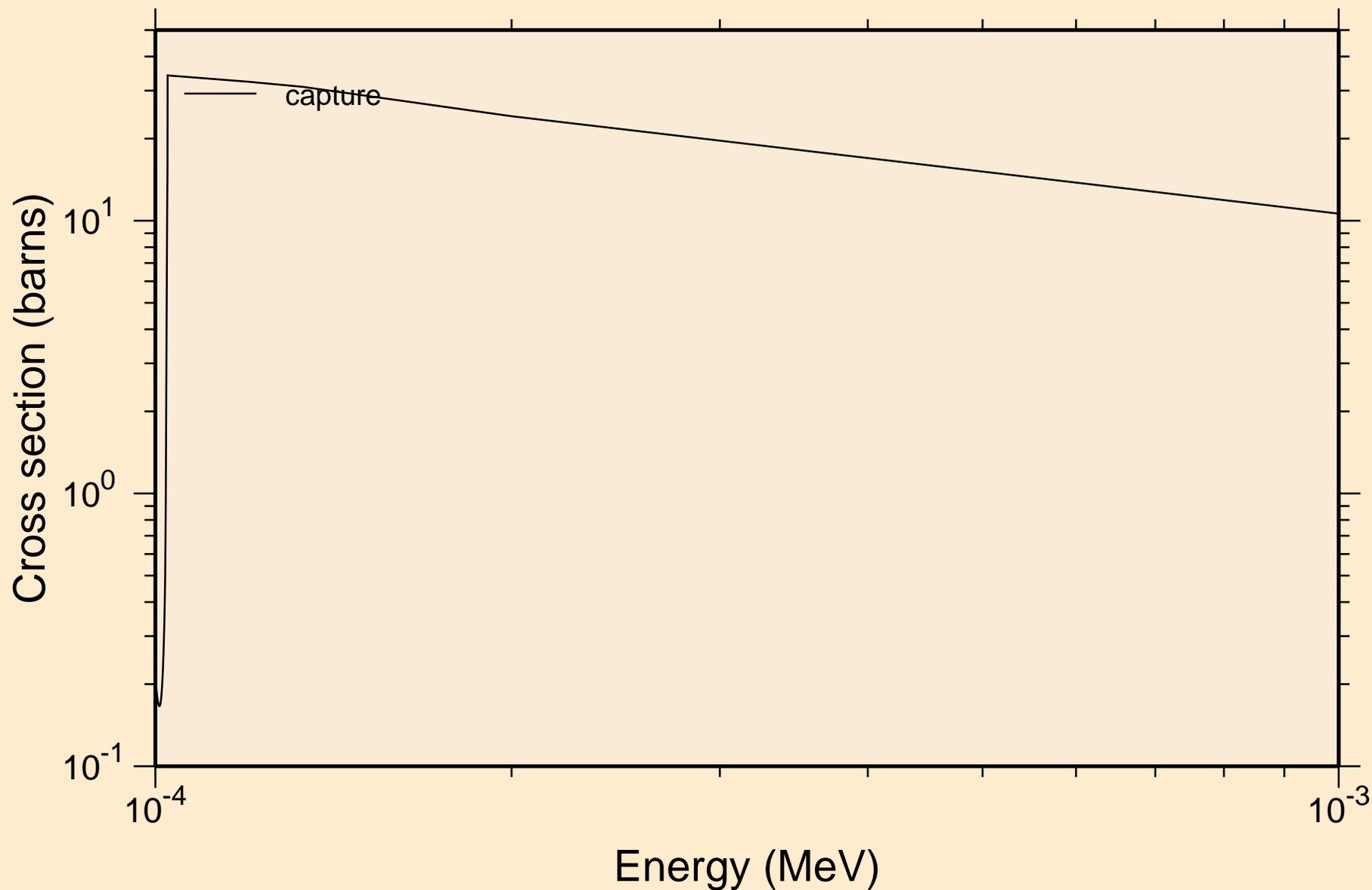
capture
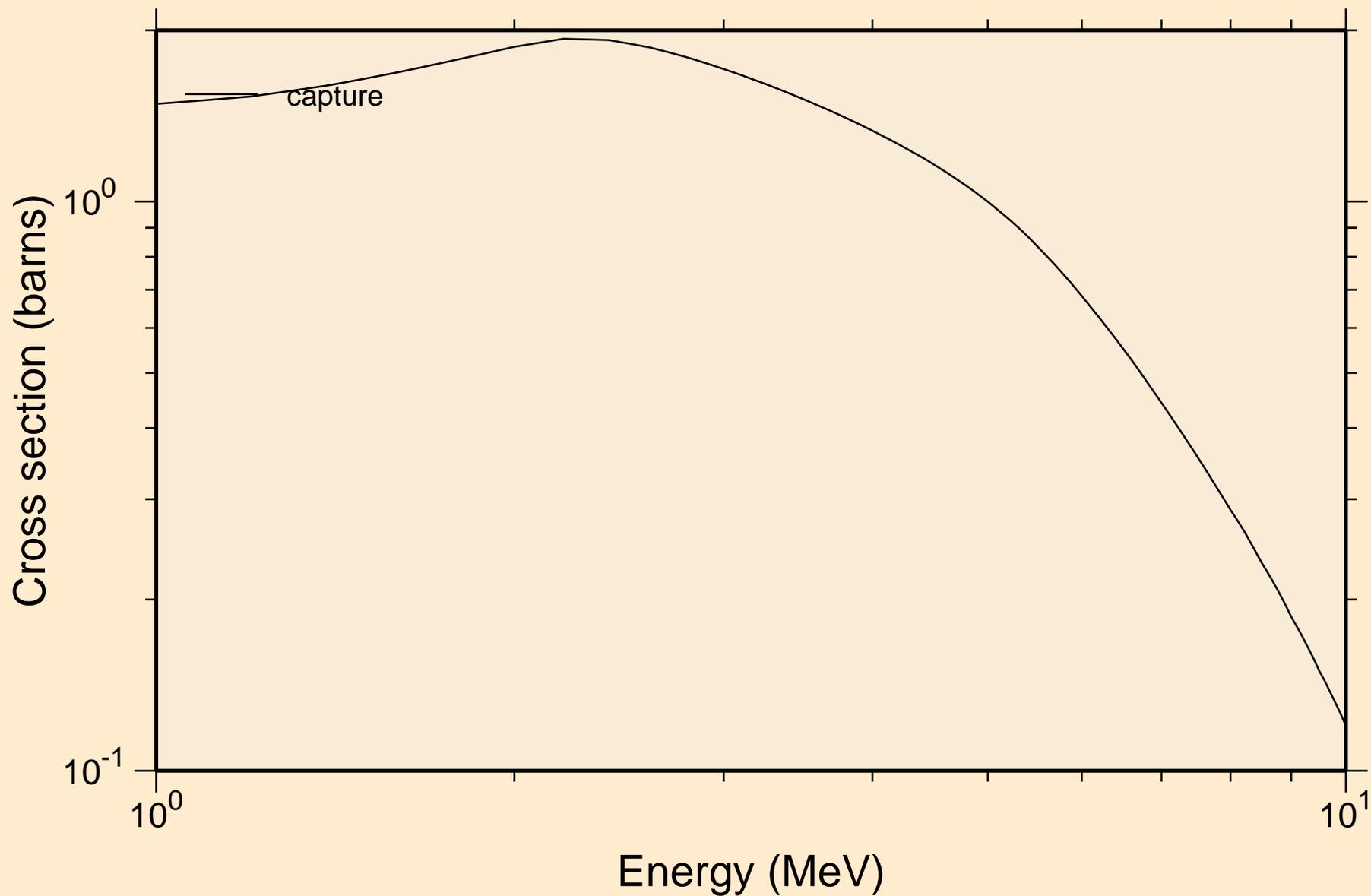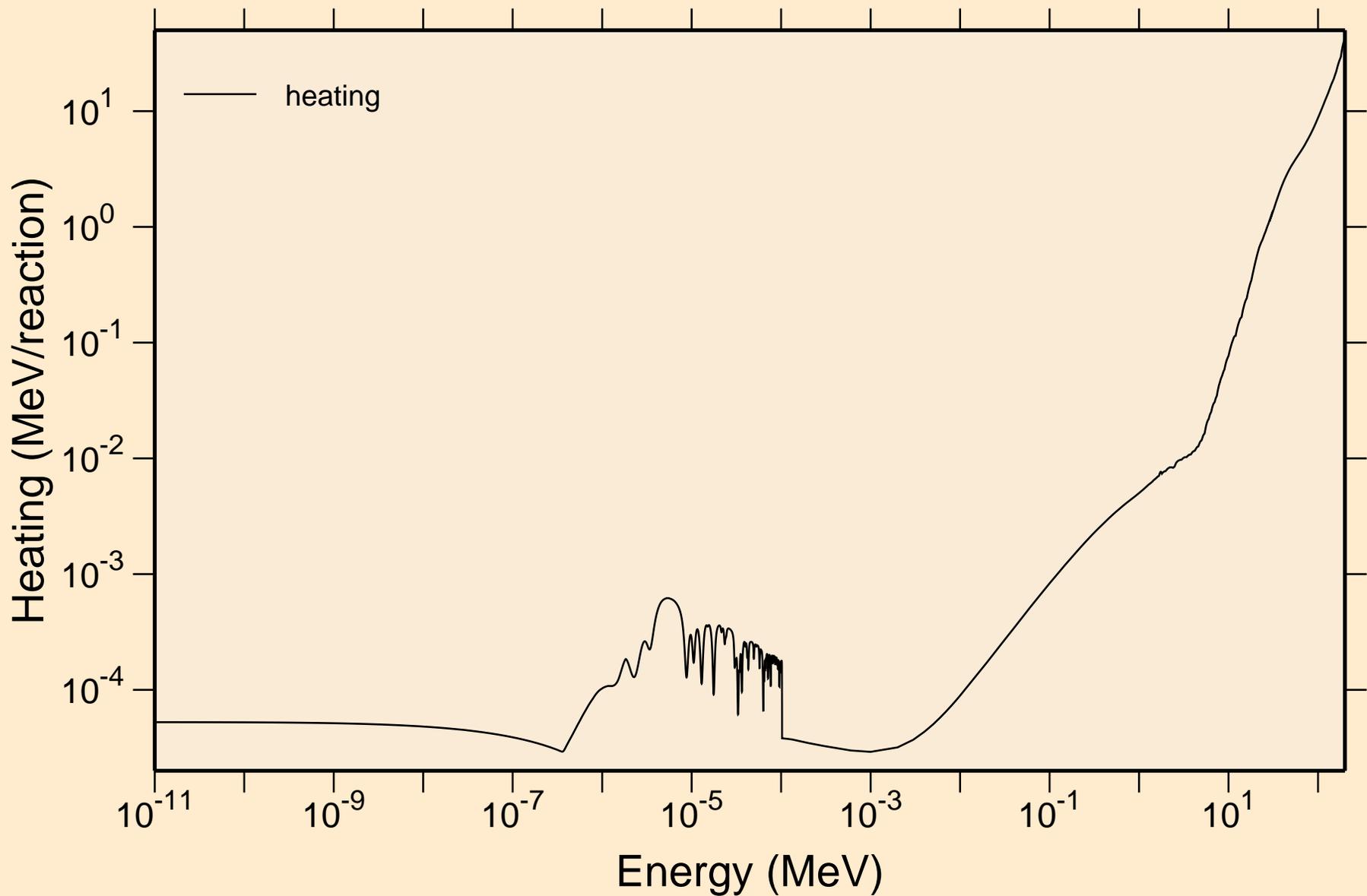
Cross section (barns)

Energy (MeV)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
resonance absorption cross sections

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
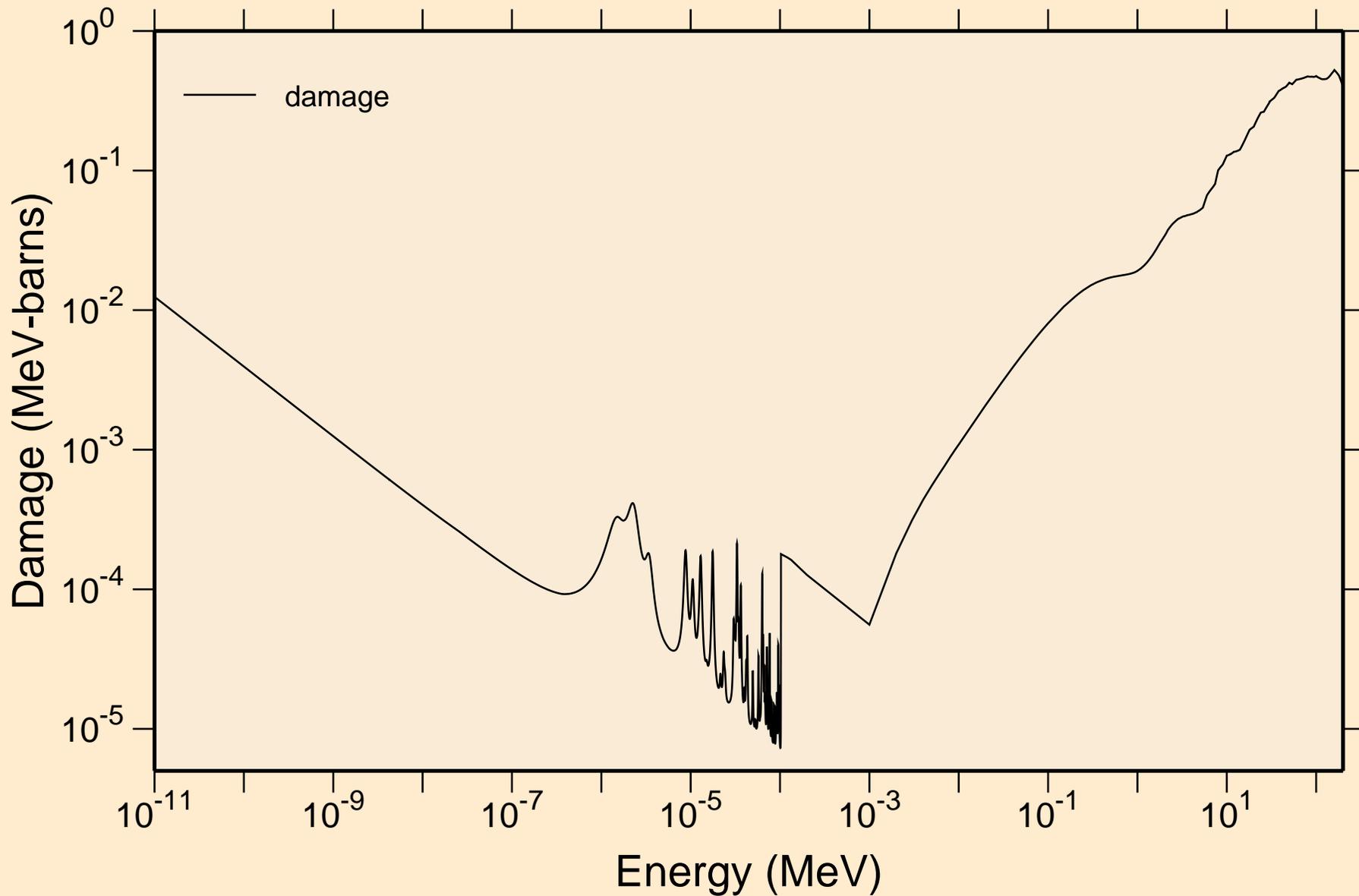resonance absorption cross sections

capture

Cross section (barns)

Energy (MeV)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
resonance absorption cross sections

capture

Cross section (barns)

$10^0$

$10^{-1}$

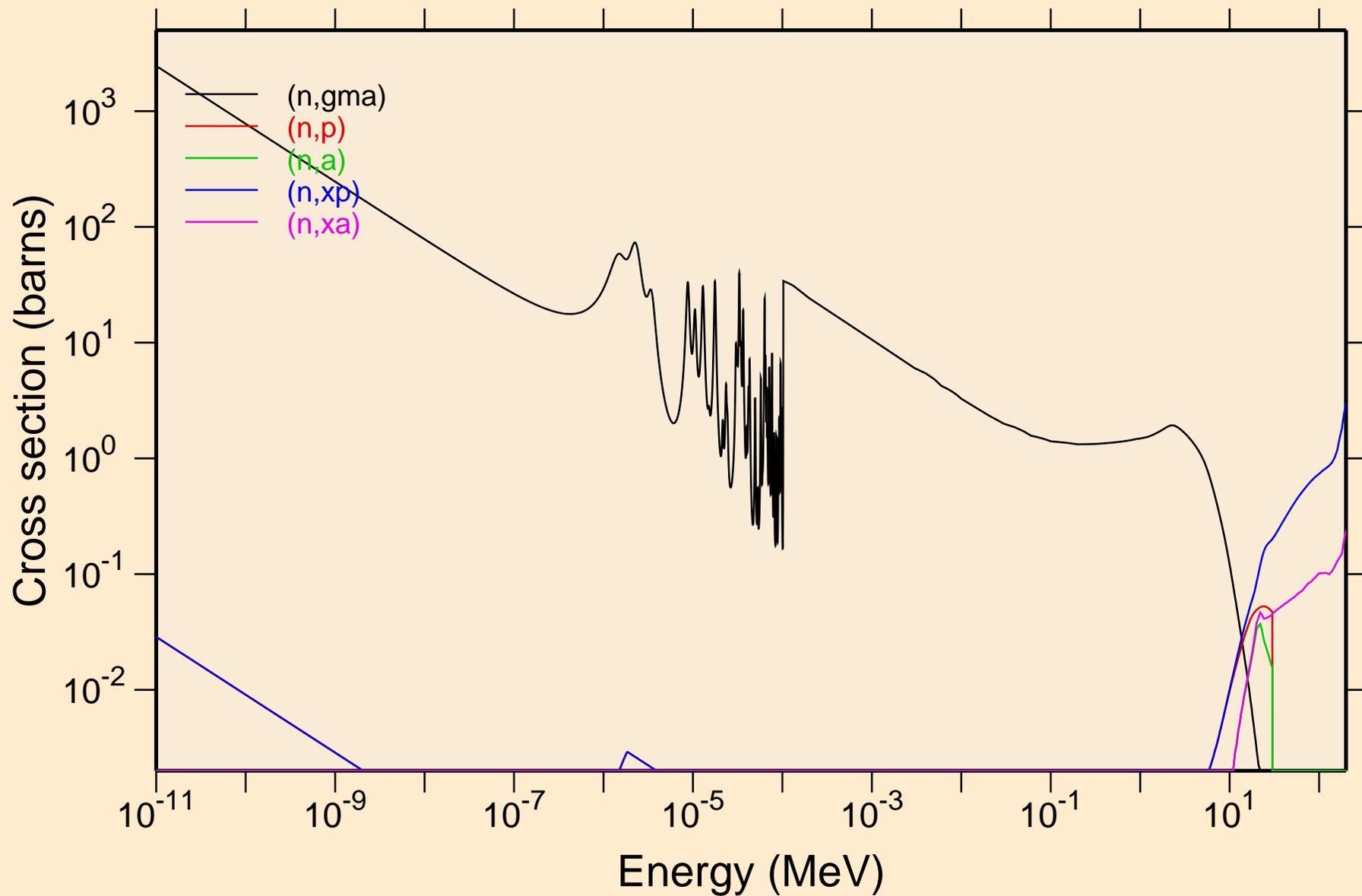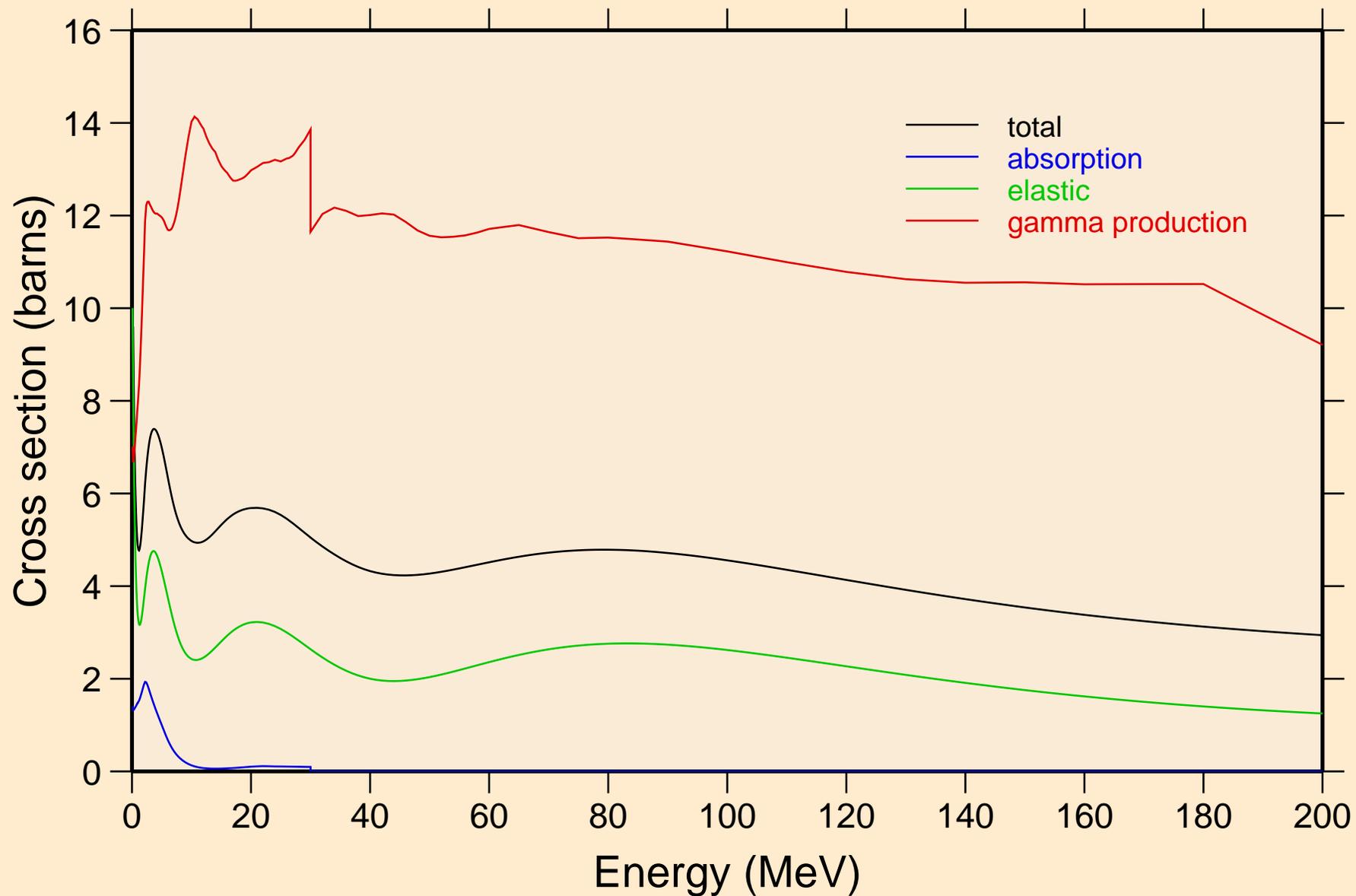$10^0$      $10^1$

Energy (MeV)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Heating
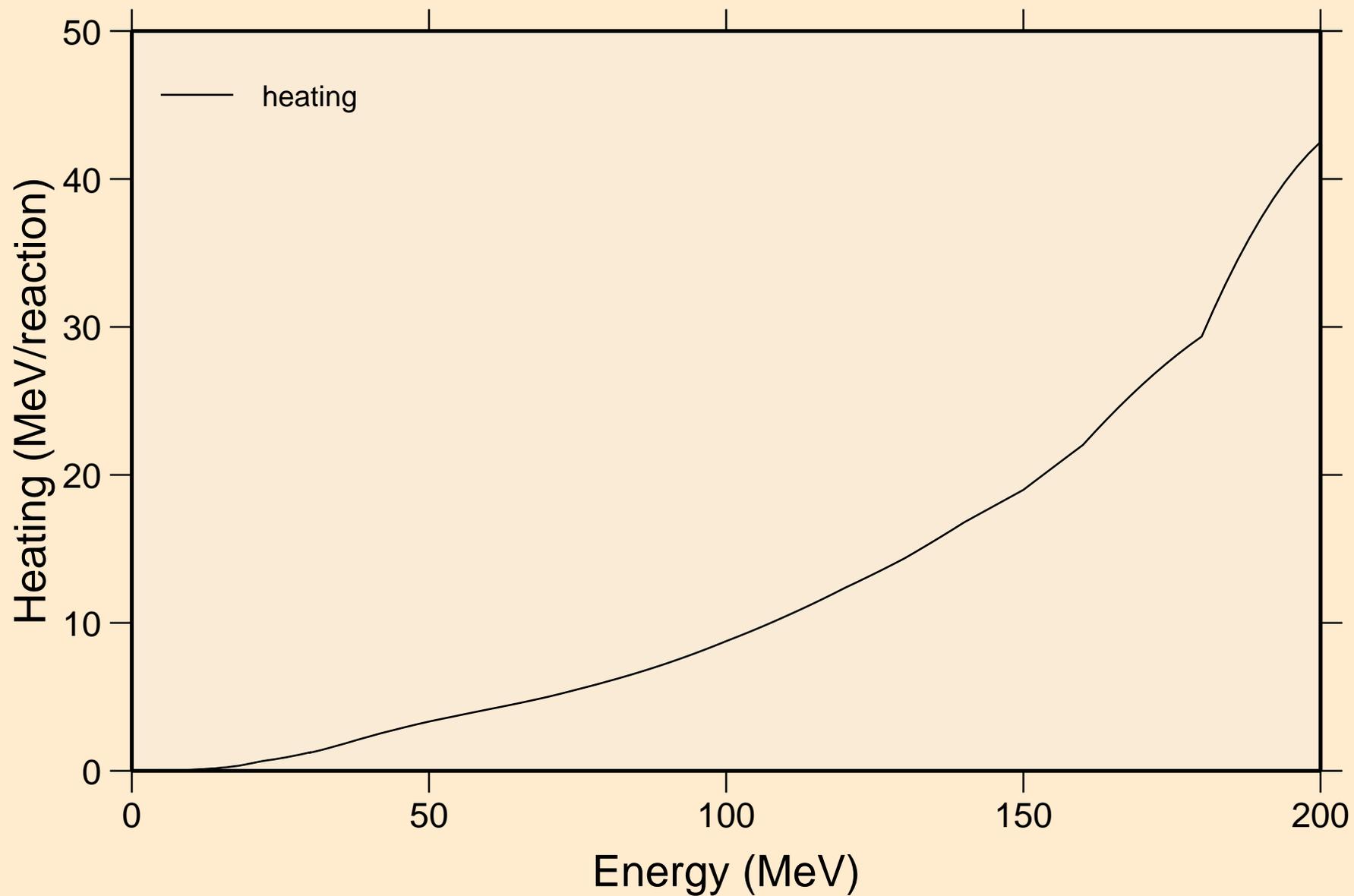
BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Damage

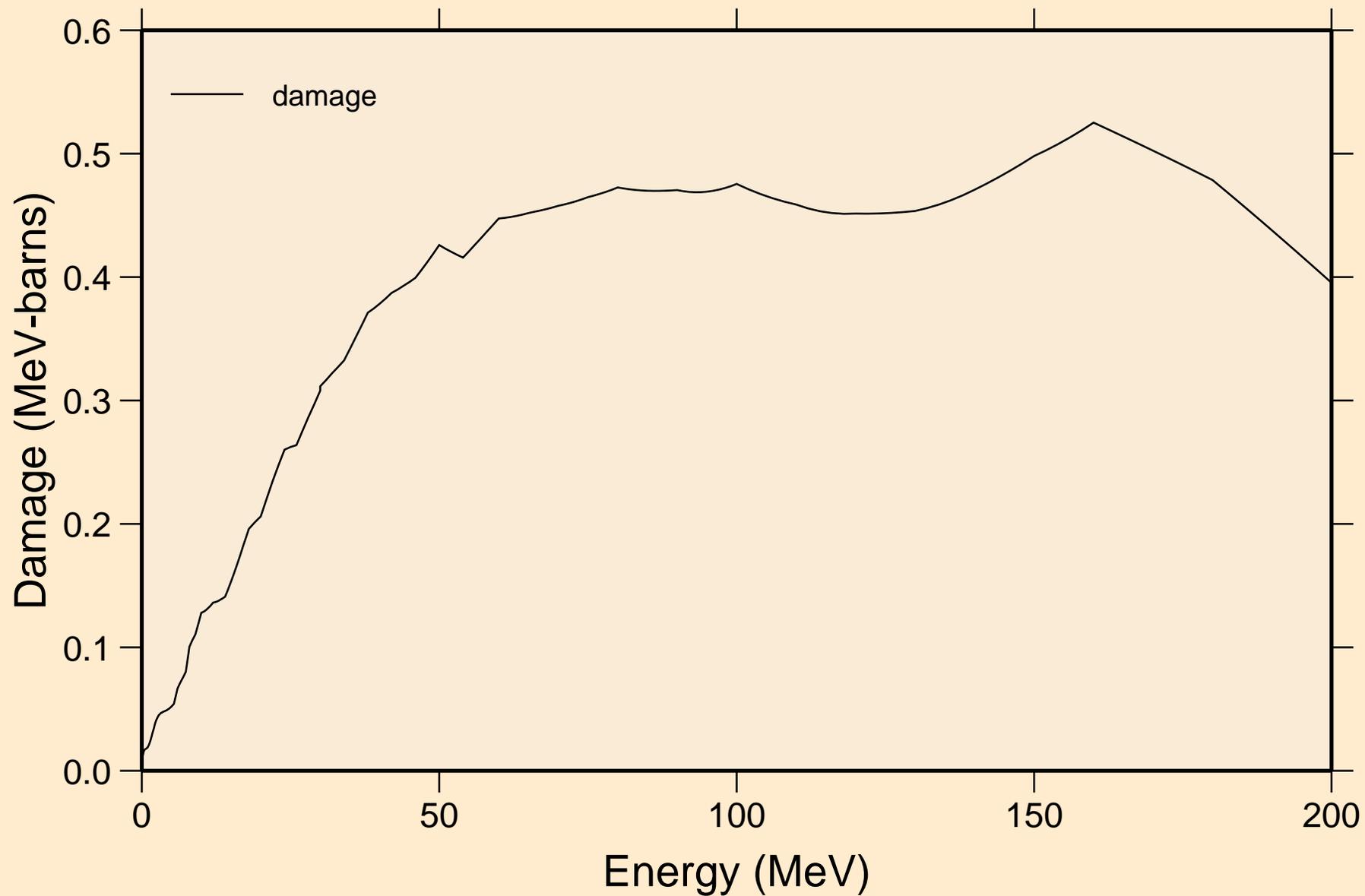BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Non-threshold reactions

Cross section (barns) vs Energy (MeV)

- (n,gma)
- (n,p)
- (n,a)
- (n,xp)
- (n,xa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Principal cross sections
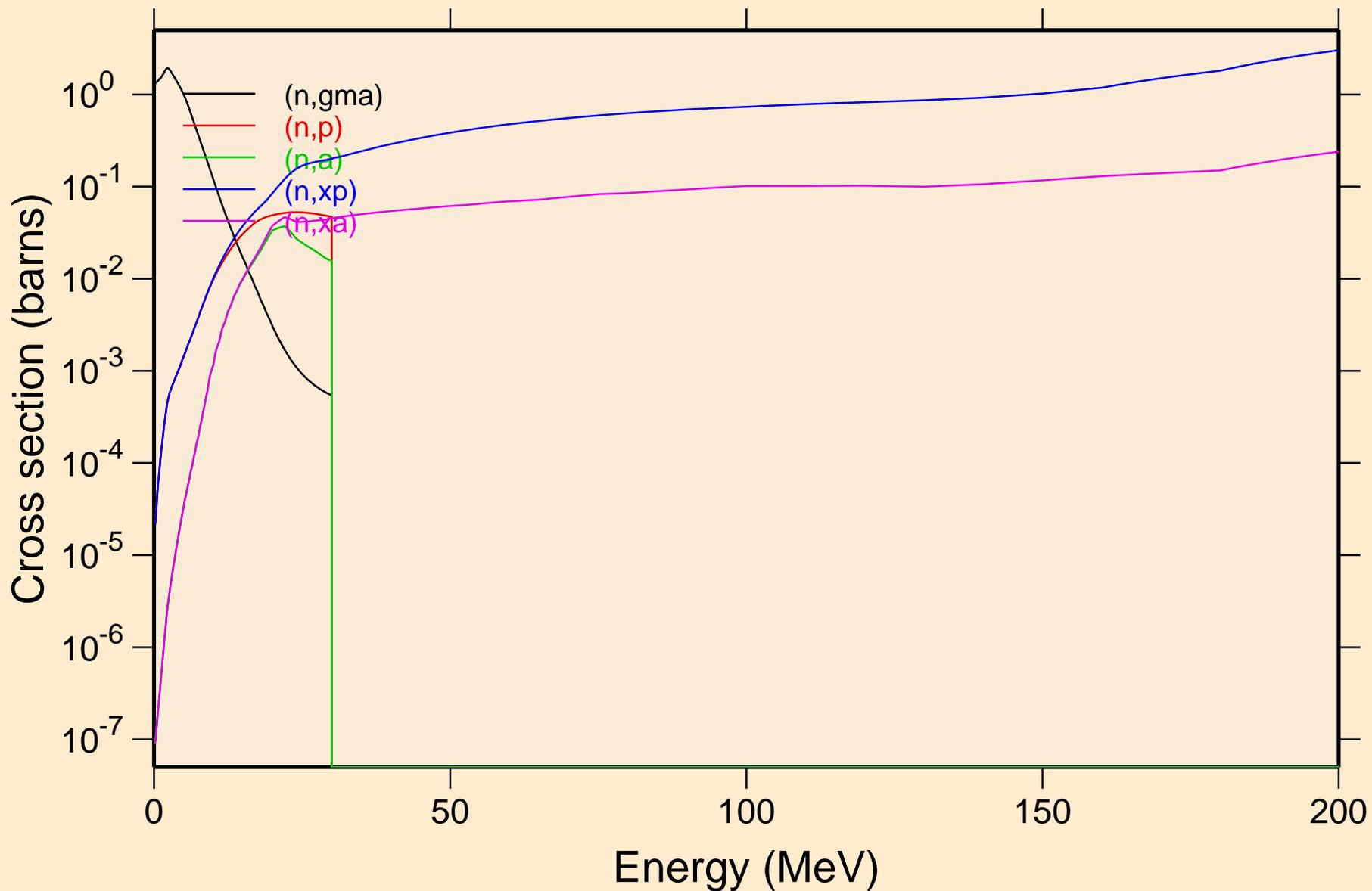
- total
- absorption
- elastic
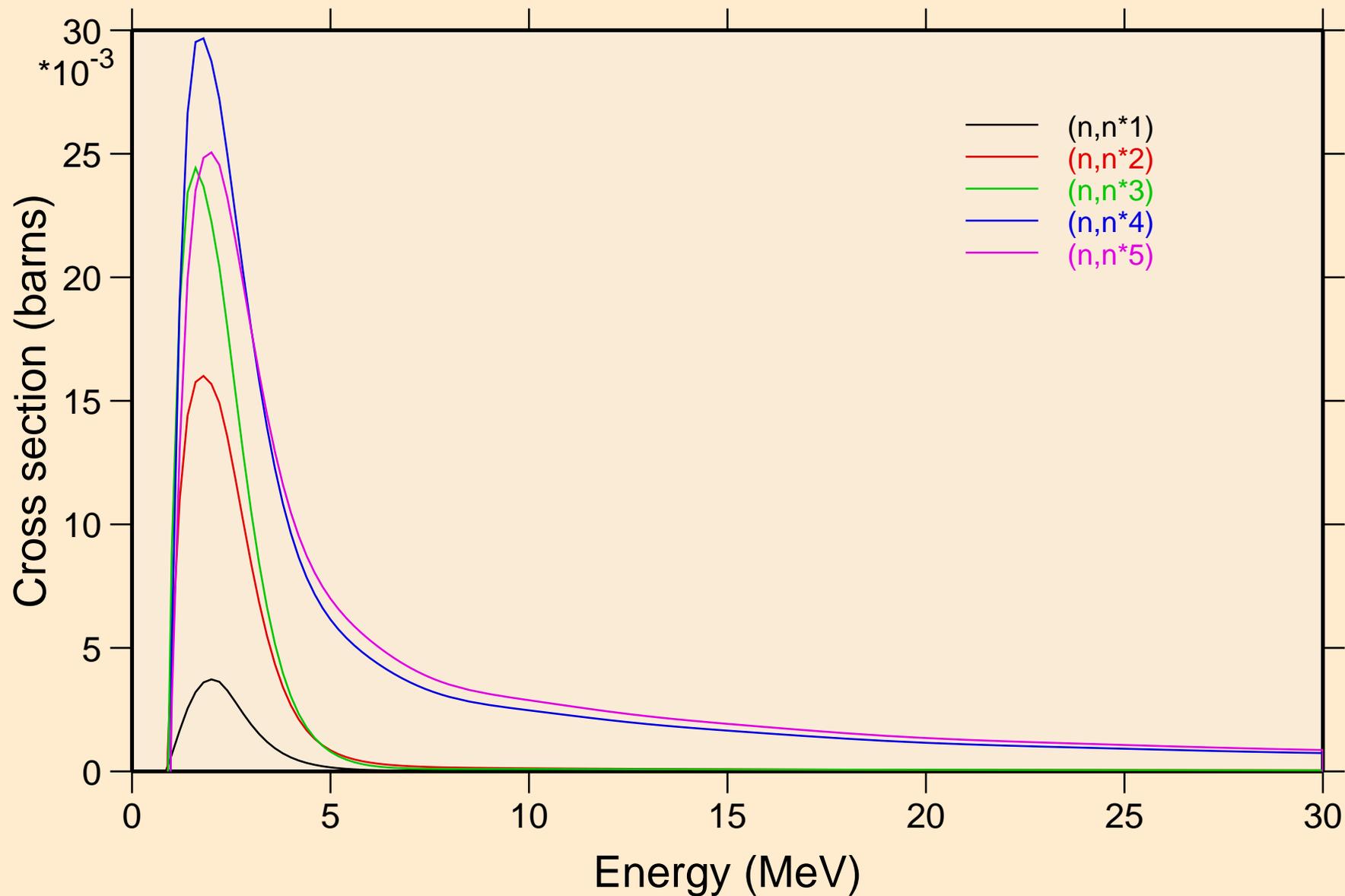- gamma production

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Heating

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Damage

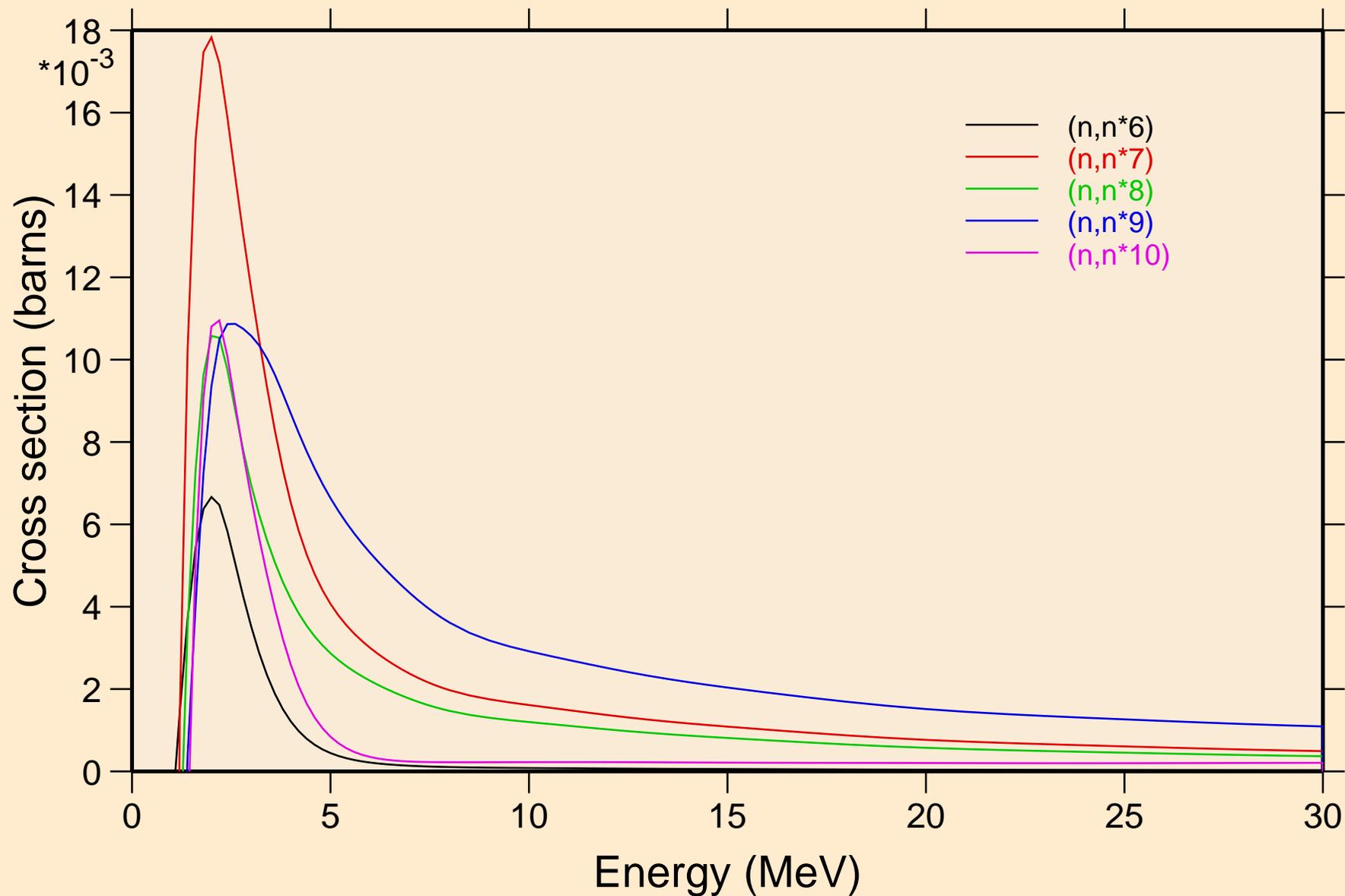BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Non-threshold reactions

- (n,gma)
- (n,p)
- (n,a)
- (n,xp)
- (n,xa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
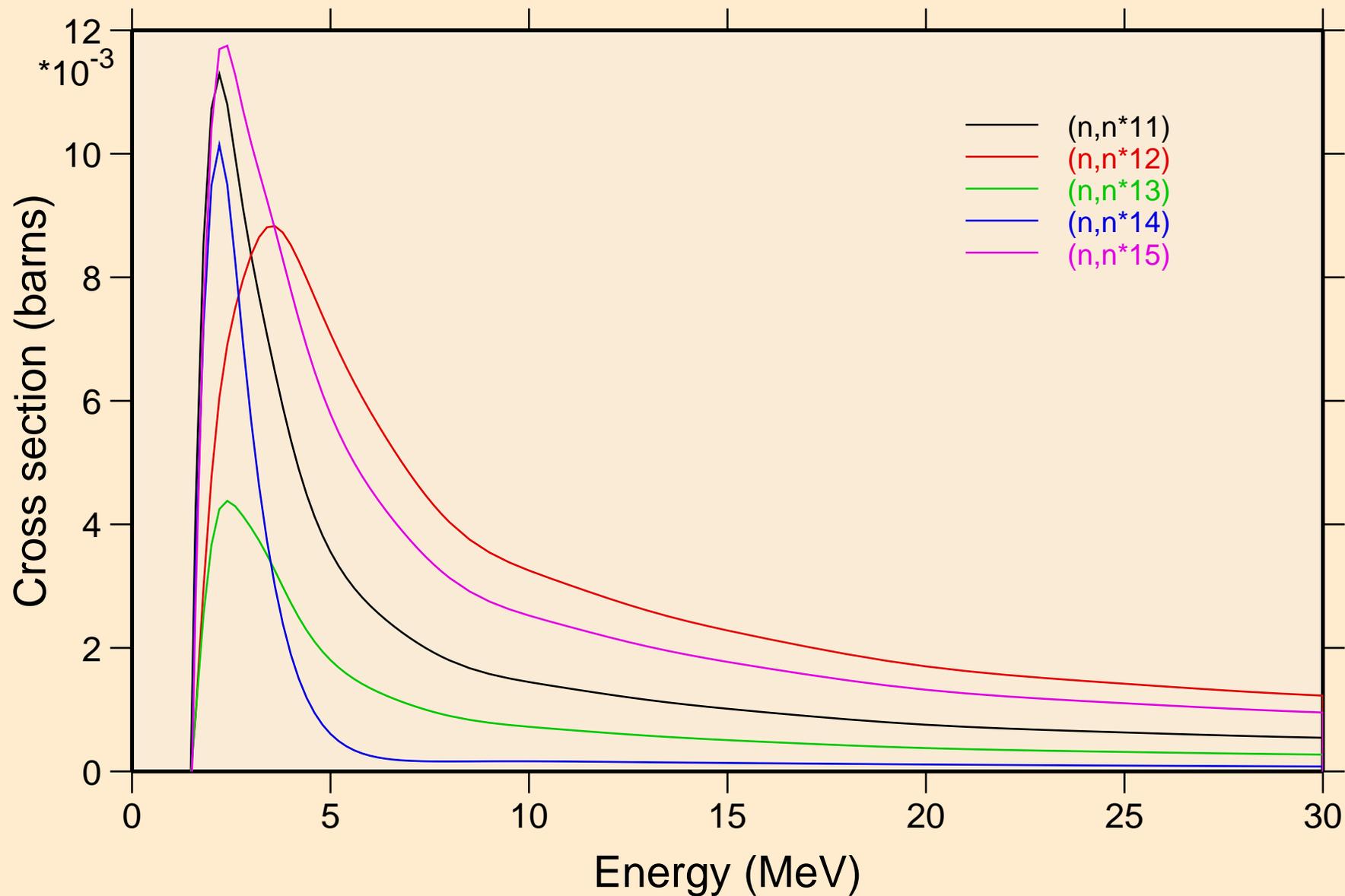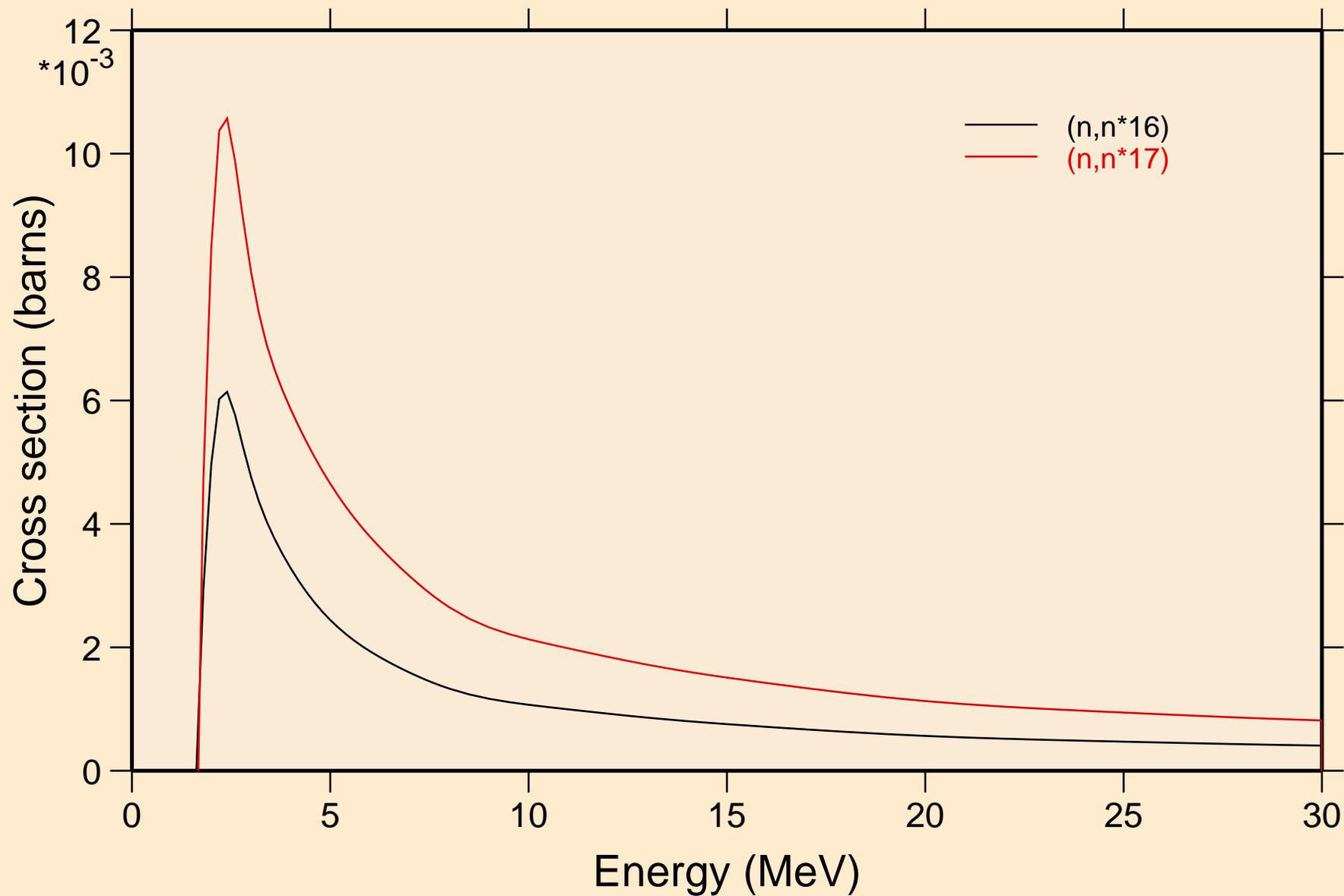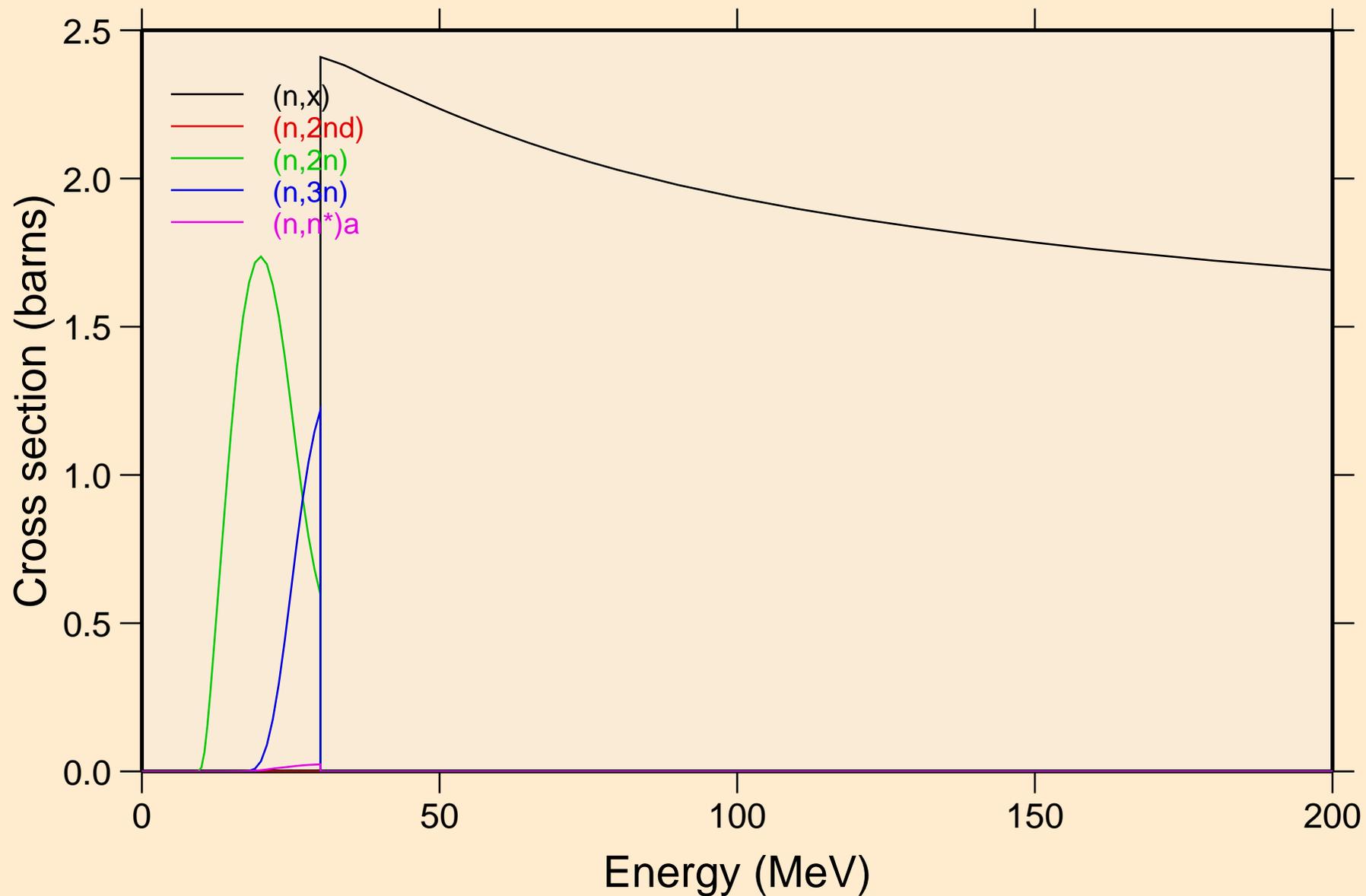Inelastic levels

(n,n*1)
(n,n*2)
(n,n*3)
(n,n*4)
(n,n*5)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Inelastic levels

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Inelastic levels

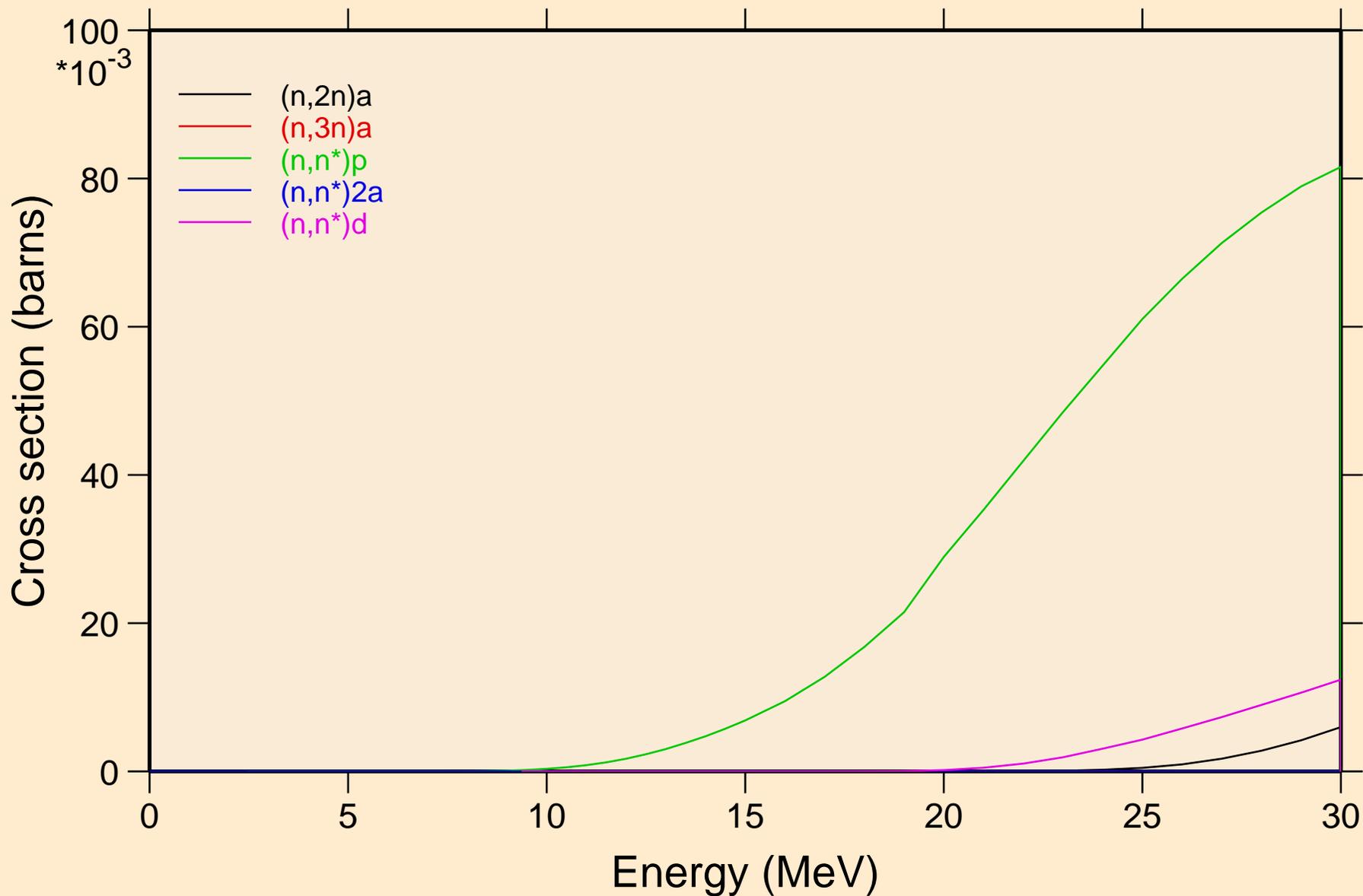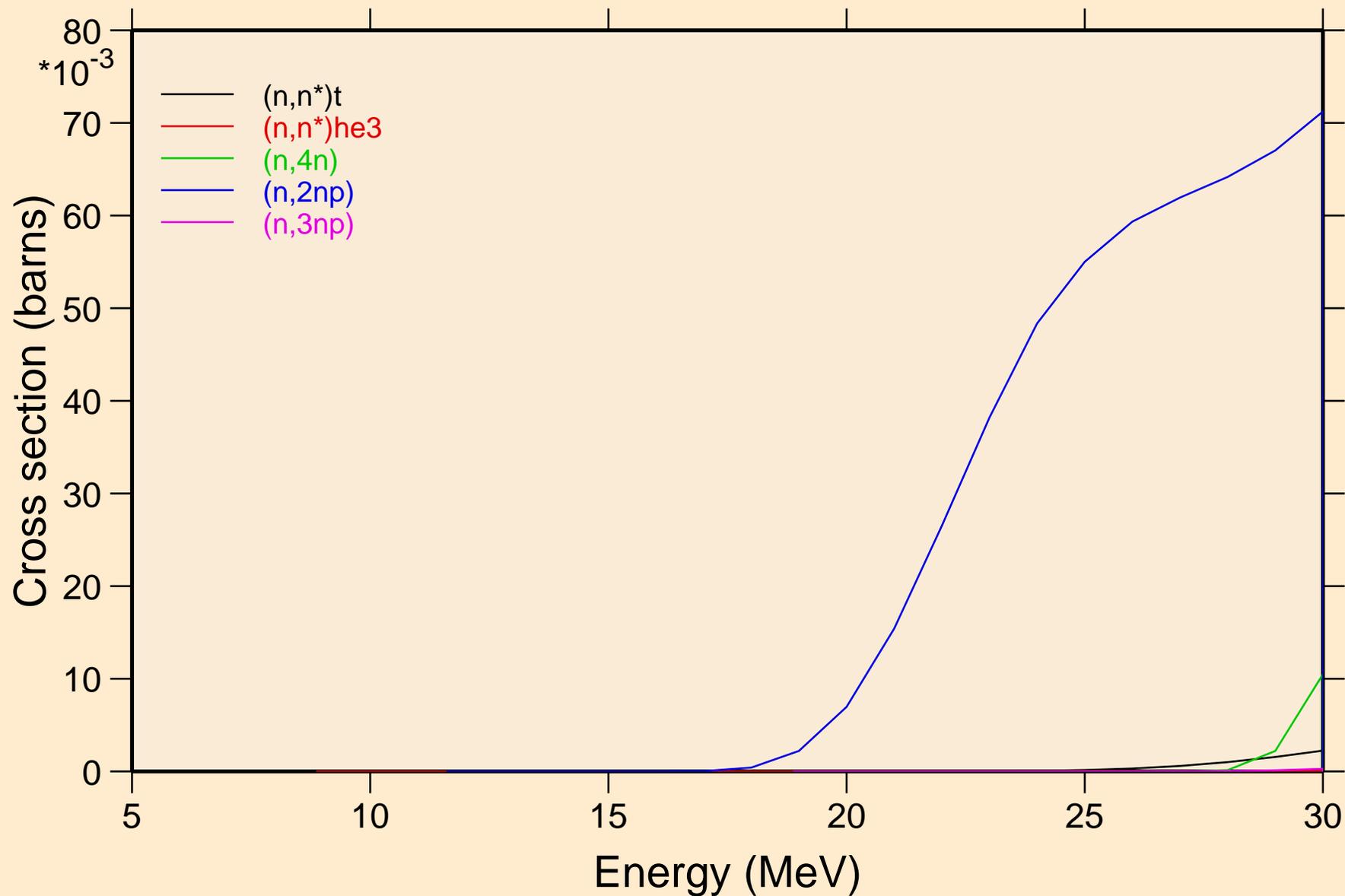BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Inelastic levels

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
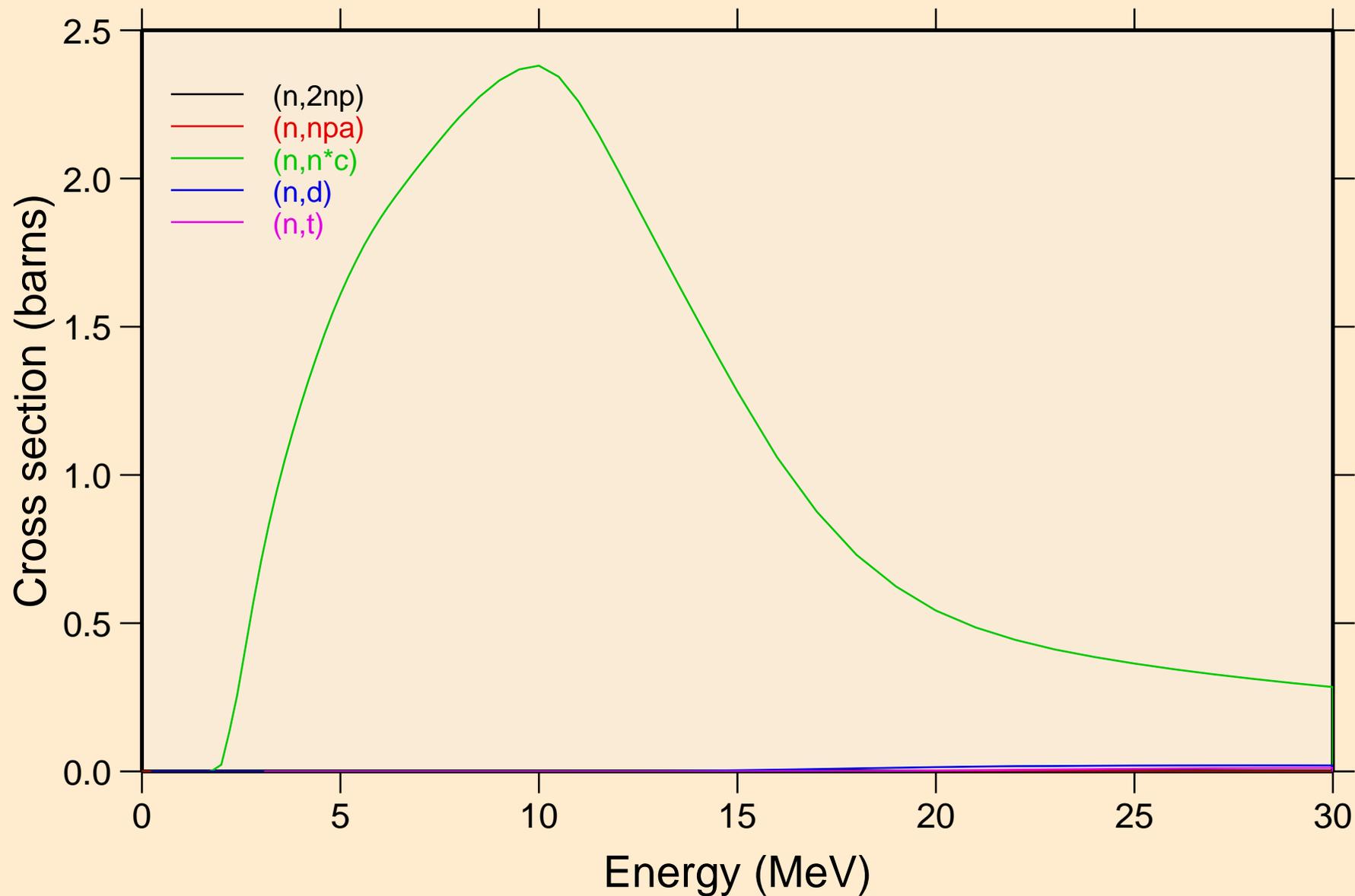Threshold reactions
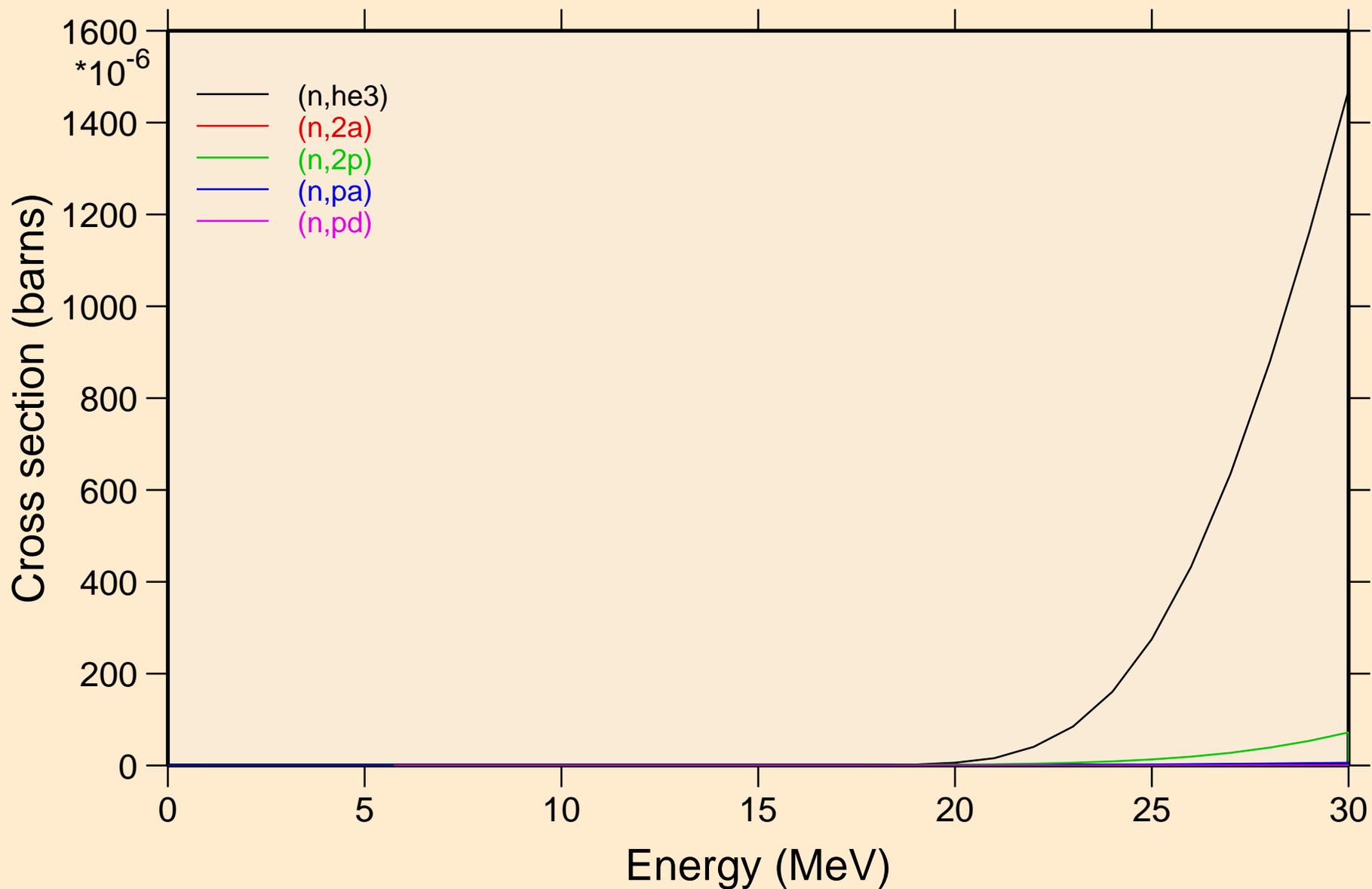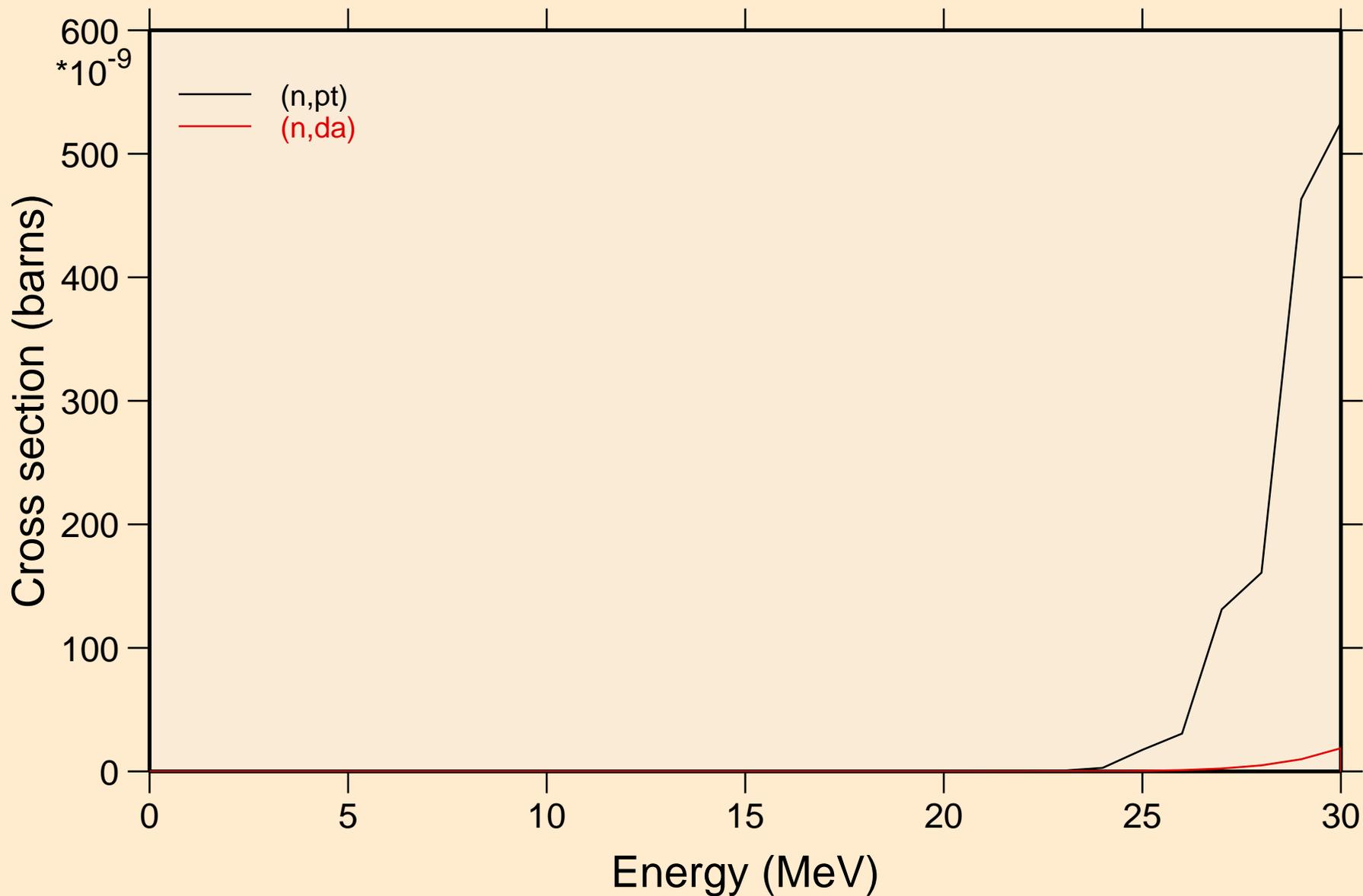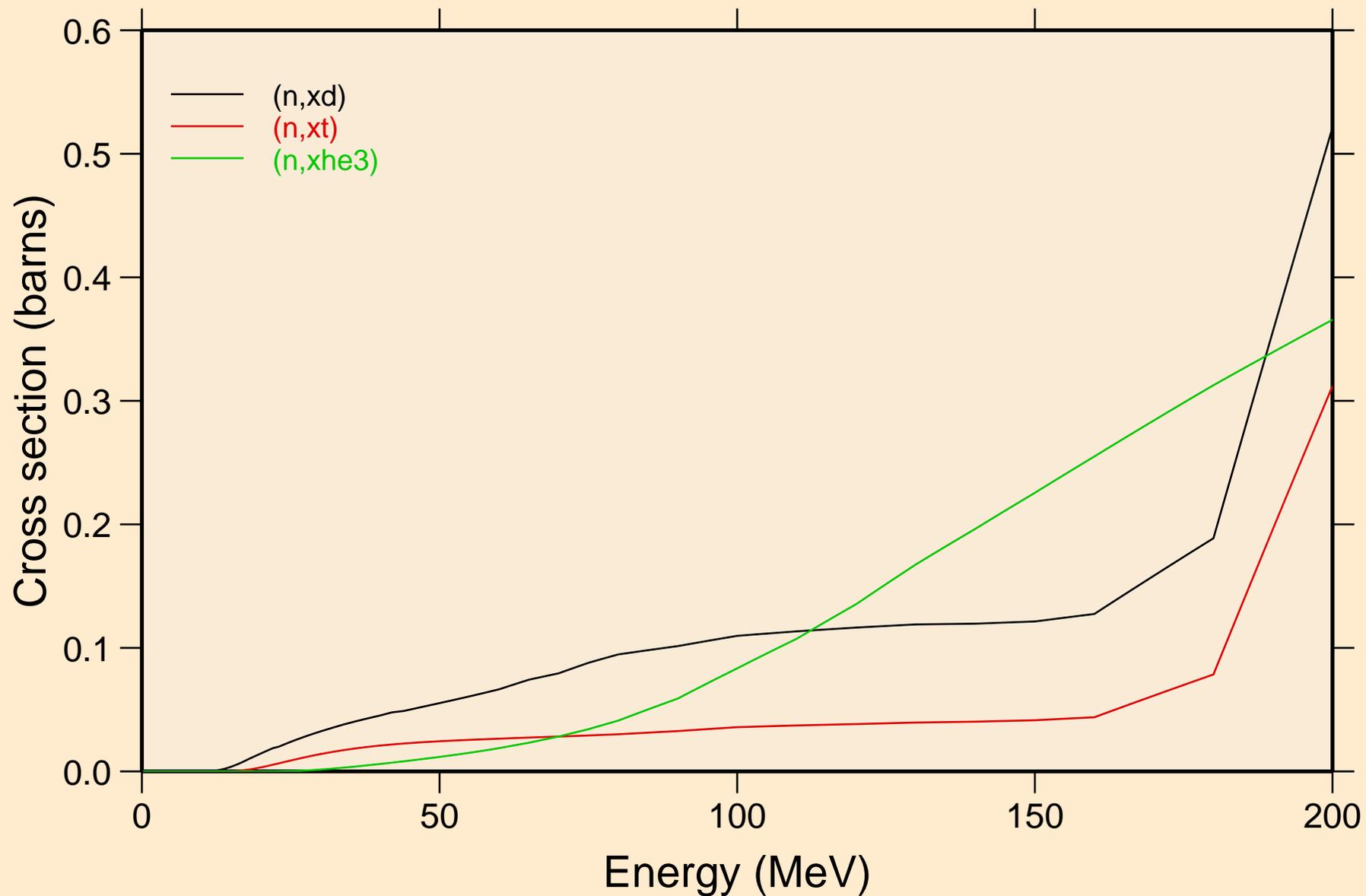
Legend:
- (n,x)
- (n,2nd)
- (n,2n)
- (n,3n)
- (n,n*)a

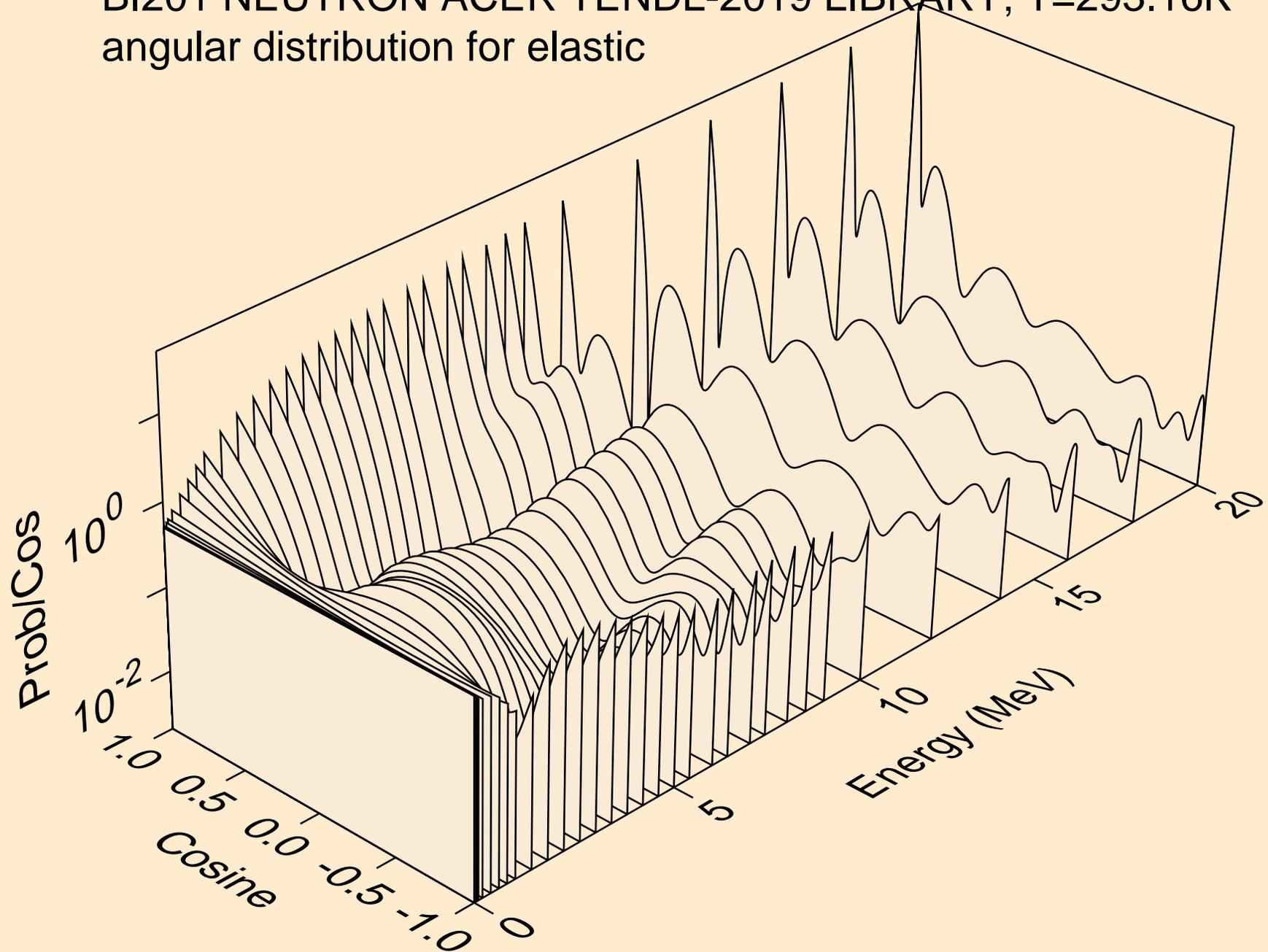BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

Cross section (barns)

$*10^{-3}$

Energy (MeV)

- (n,n*)t
- (n,n*)he3
- (n,4n)
- (n,2np)
- (n,3np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

Legend:
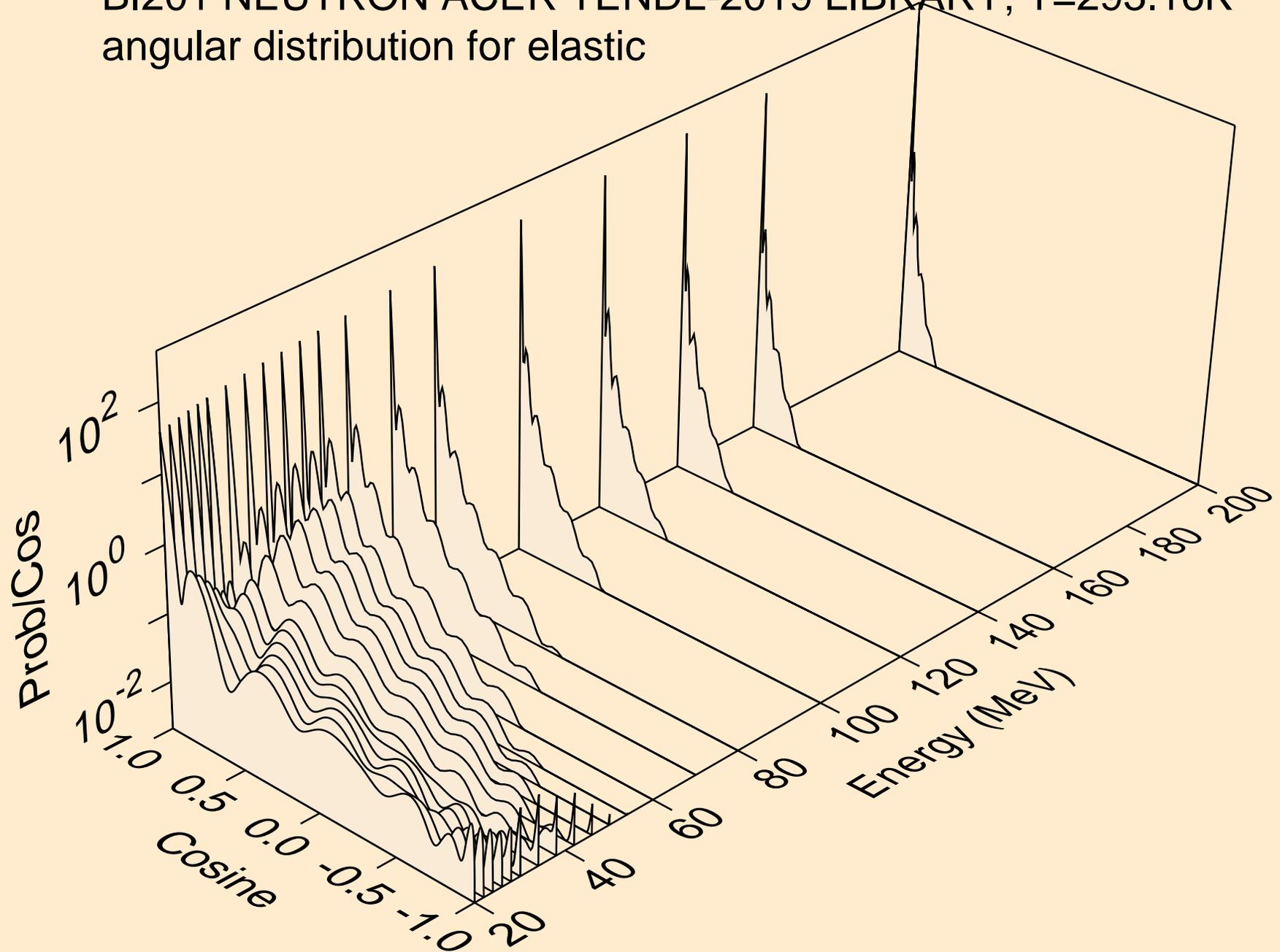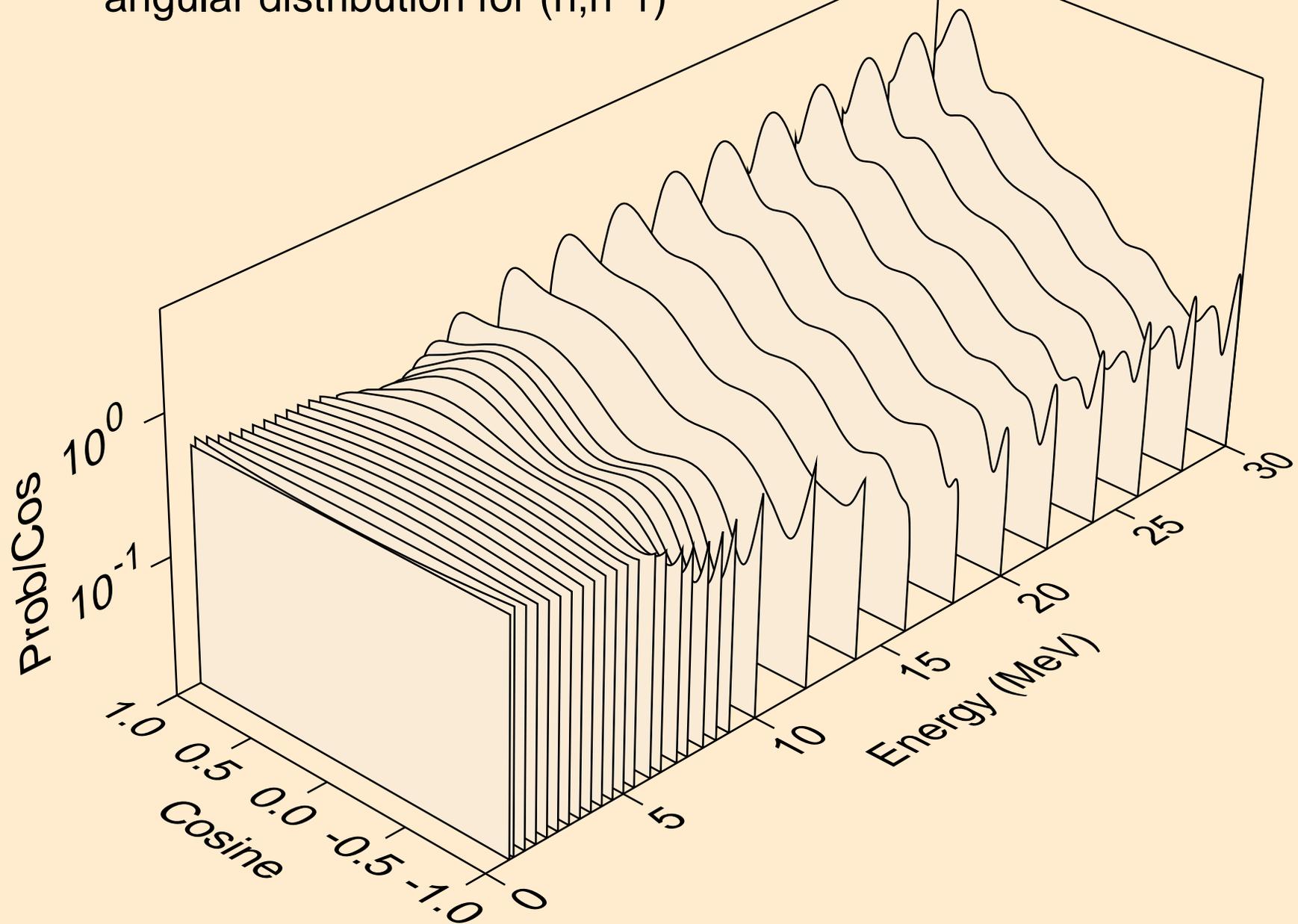- (n,he3) — black
- (n,2a) — red
- (n,2p) — green
- (n,pa) — blue
- (n,pd) — magenta

Y-axis: Cross section (barns), ×10⁻⁶, range 0 to 1600

X-axis: Energy (MeV), range 0 to 30

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

— (n,pt)
— (n,da)

Cross section (barns)

600 *10^{-9}
500
400
300
200
100
0

Energy (MeV)
0    5    10    15    20    25    30

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Threshold reactions

Legend:
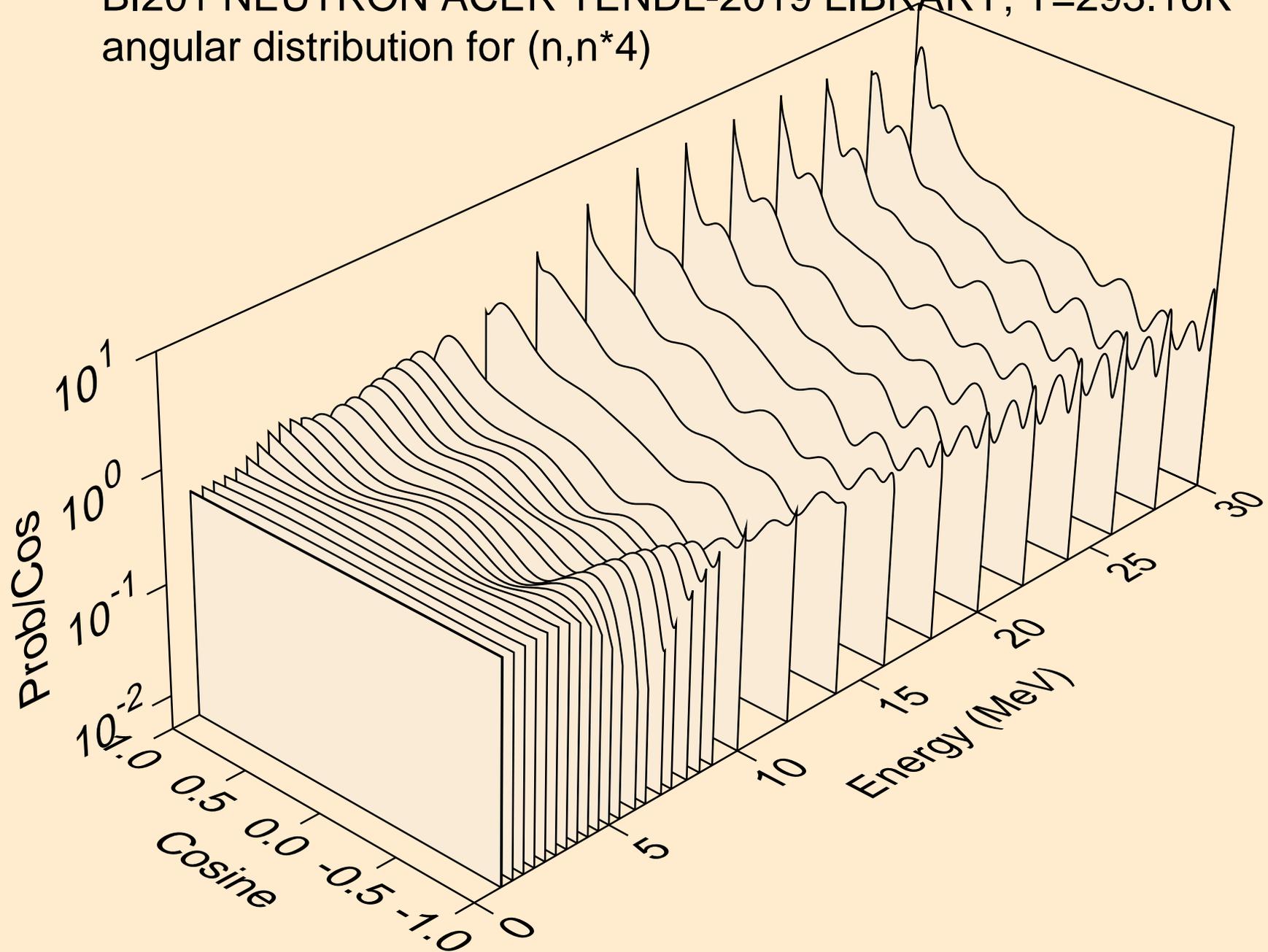- (n,xd)
- (n,xt)
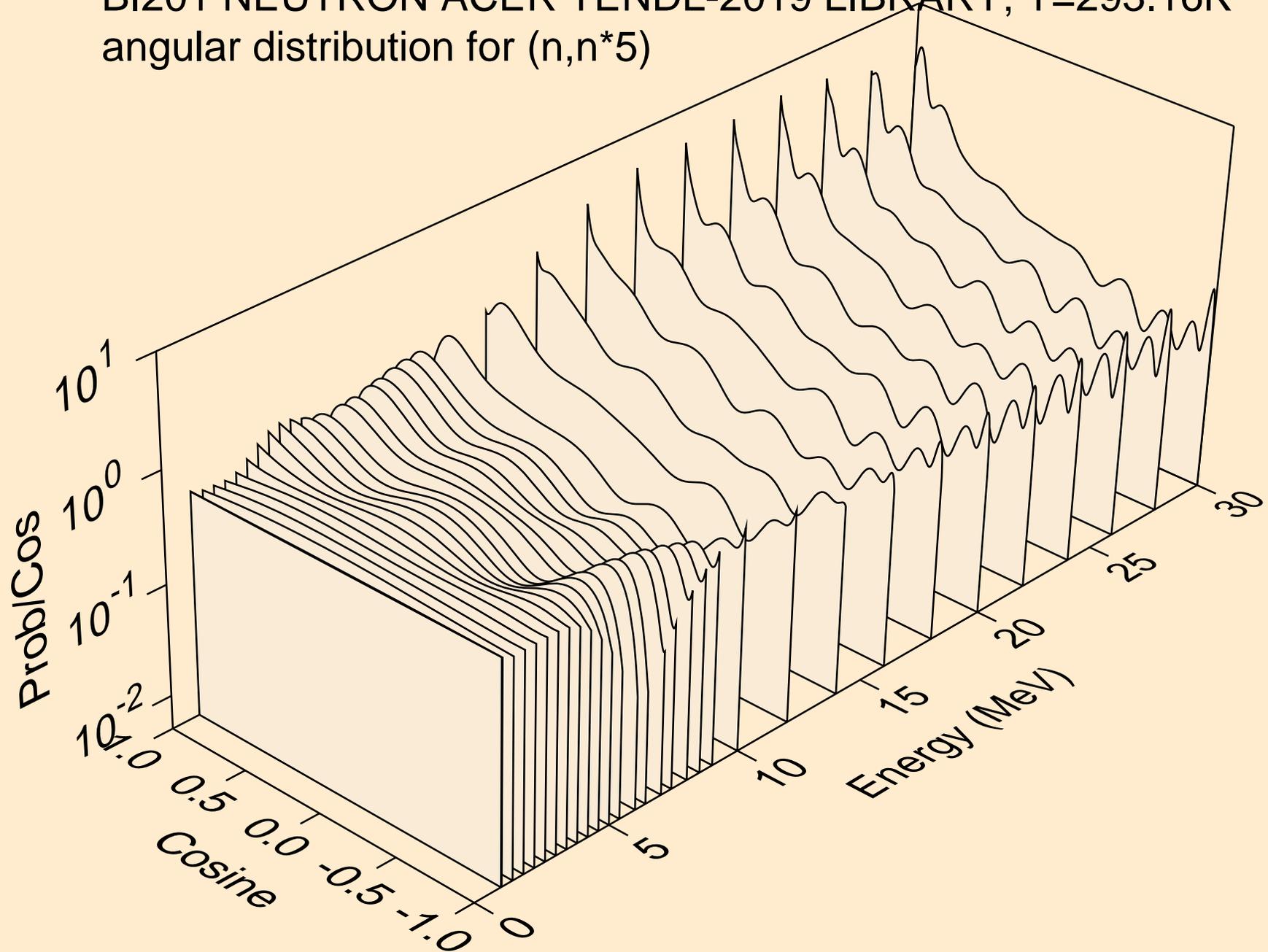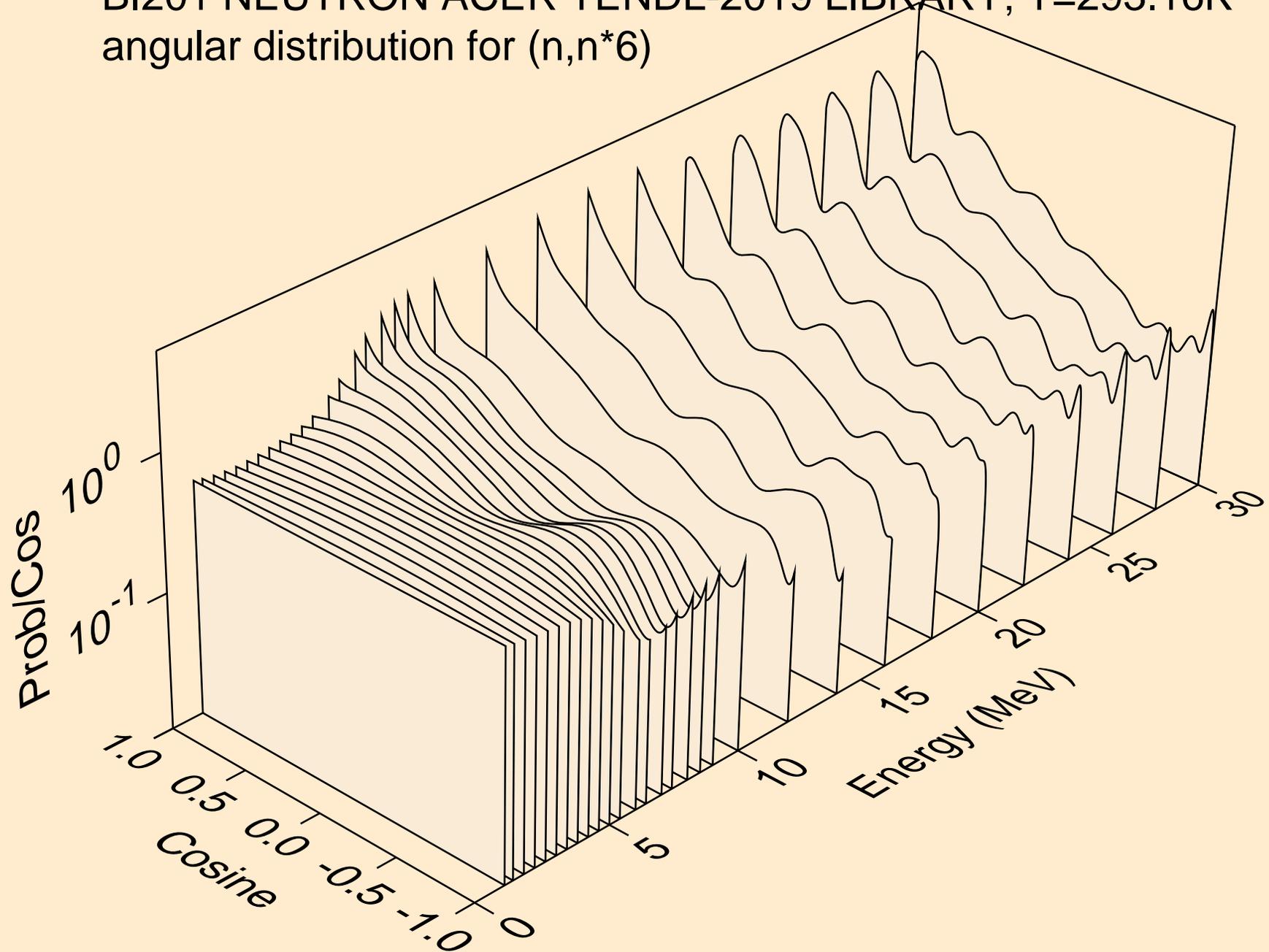- (n,xhe3)

Cross section (barns) vs Energy (MeV)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for elastic

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
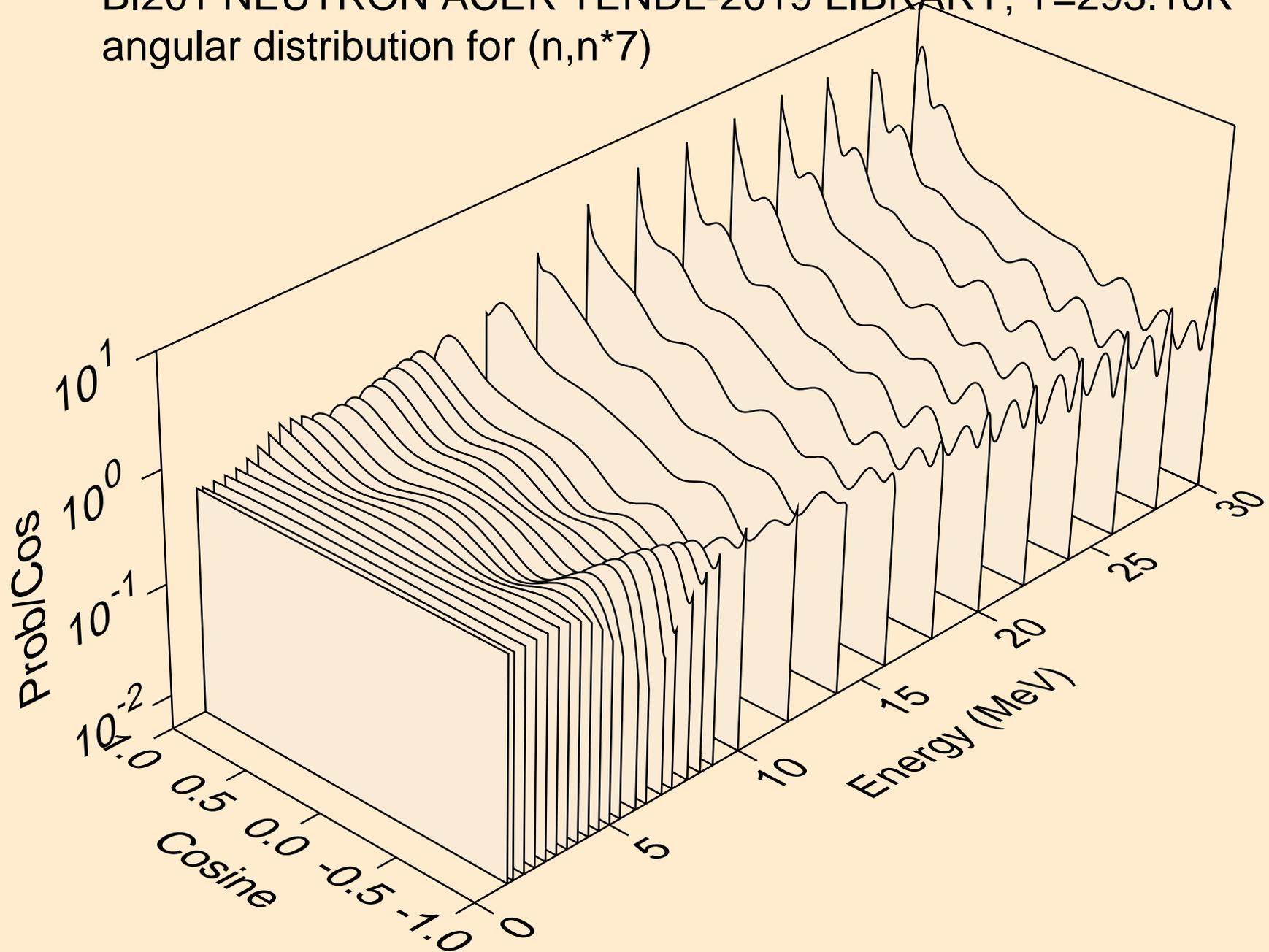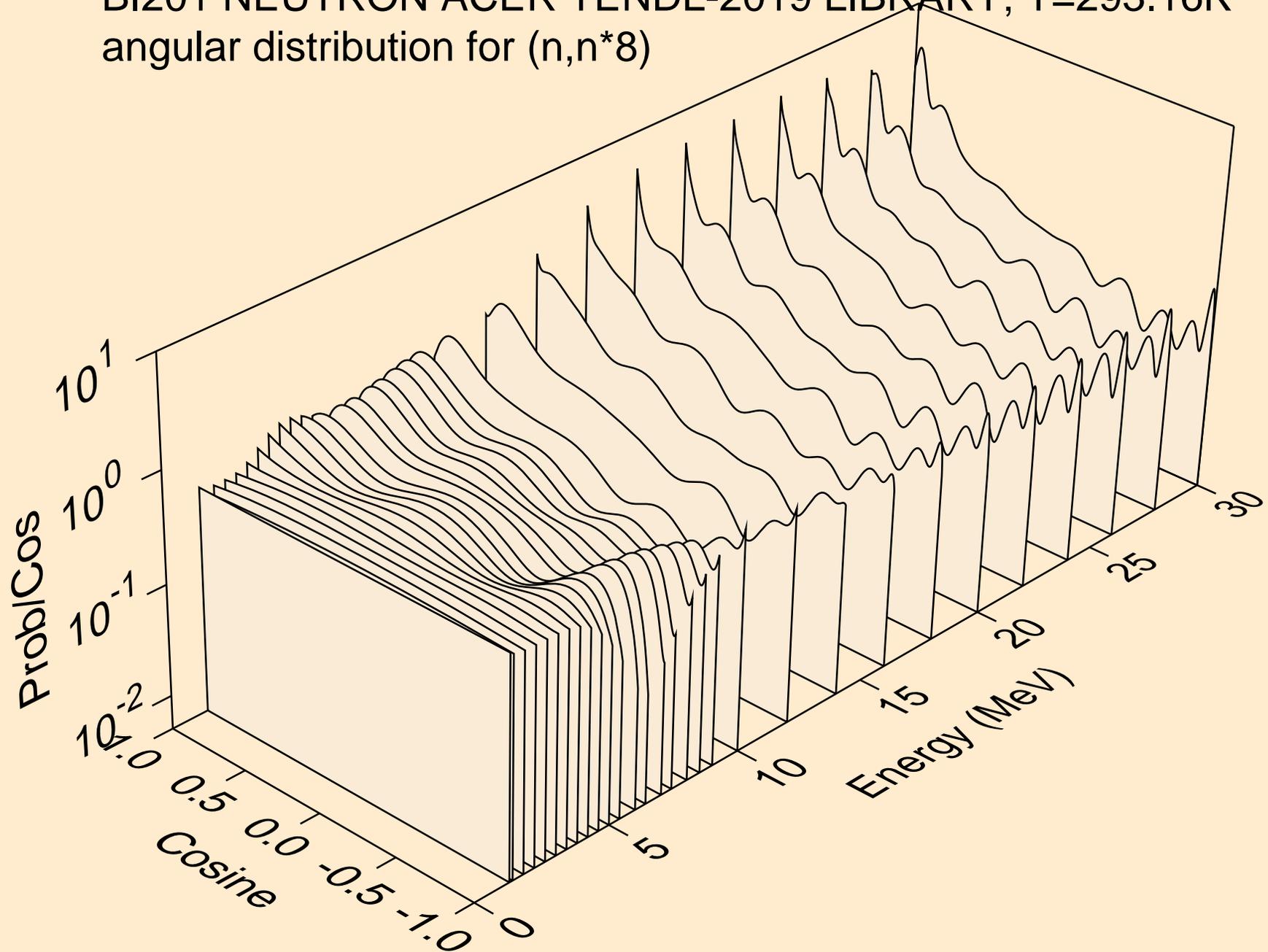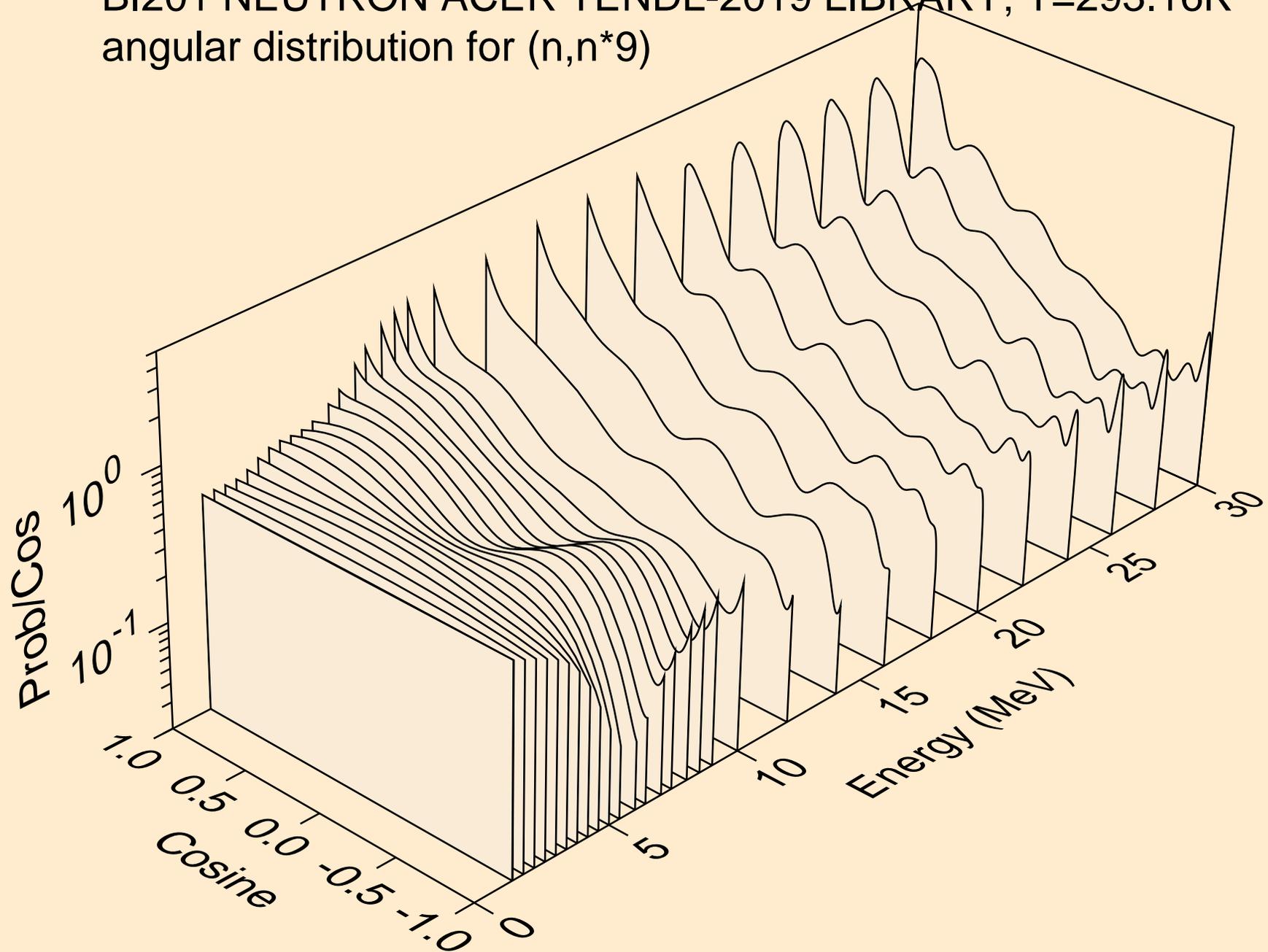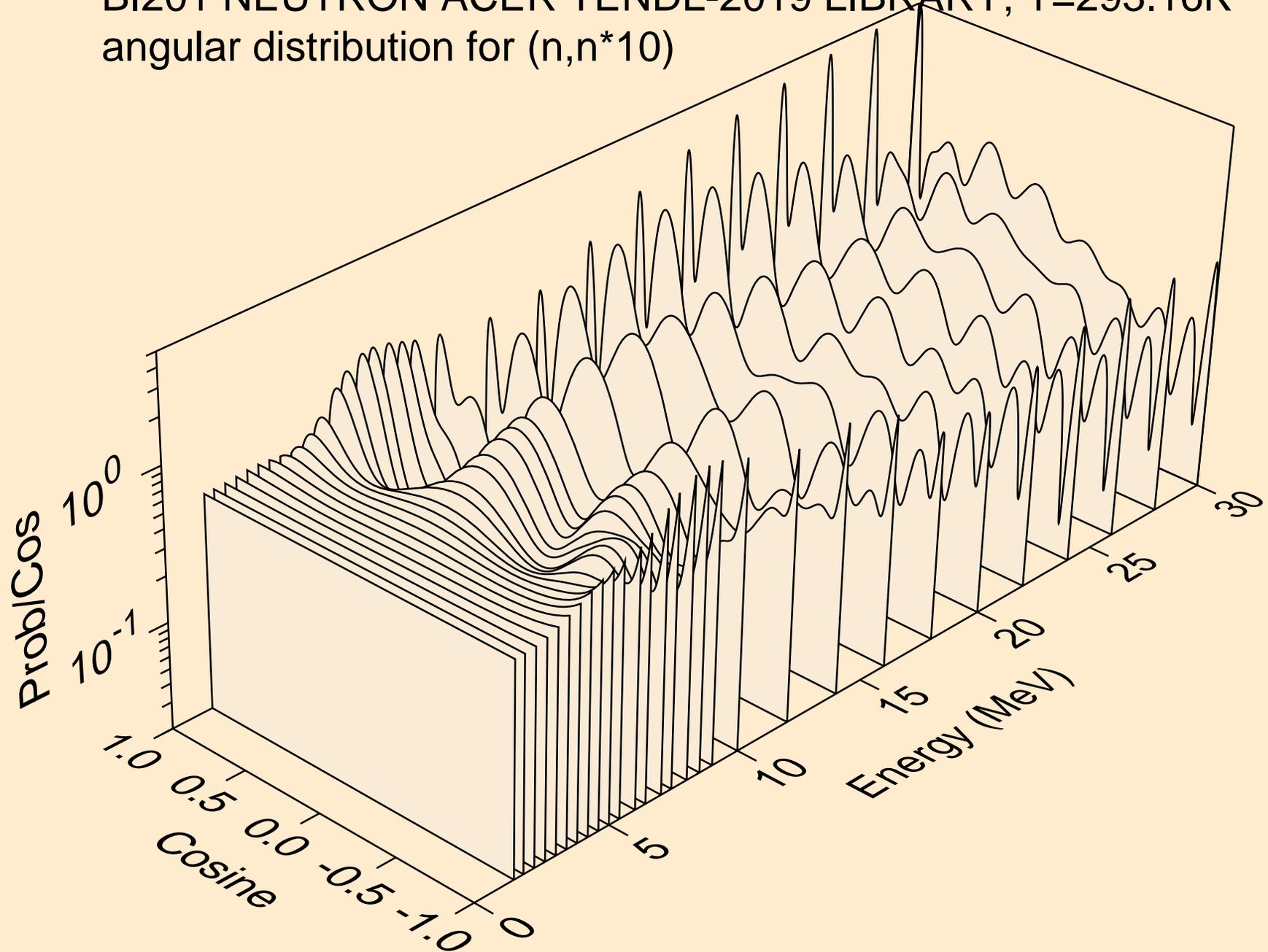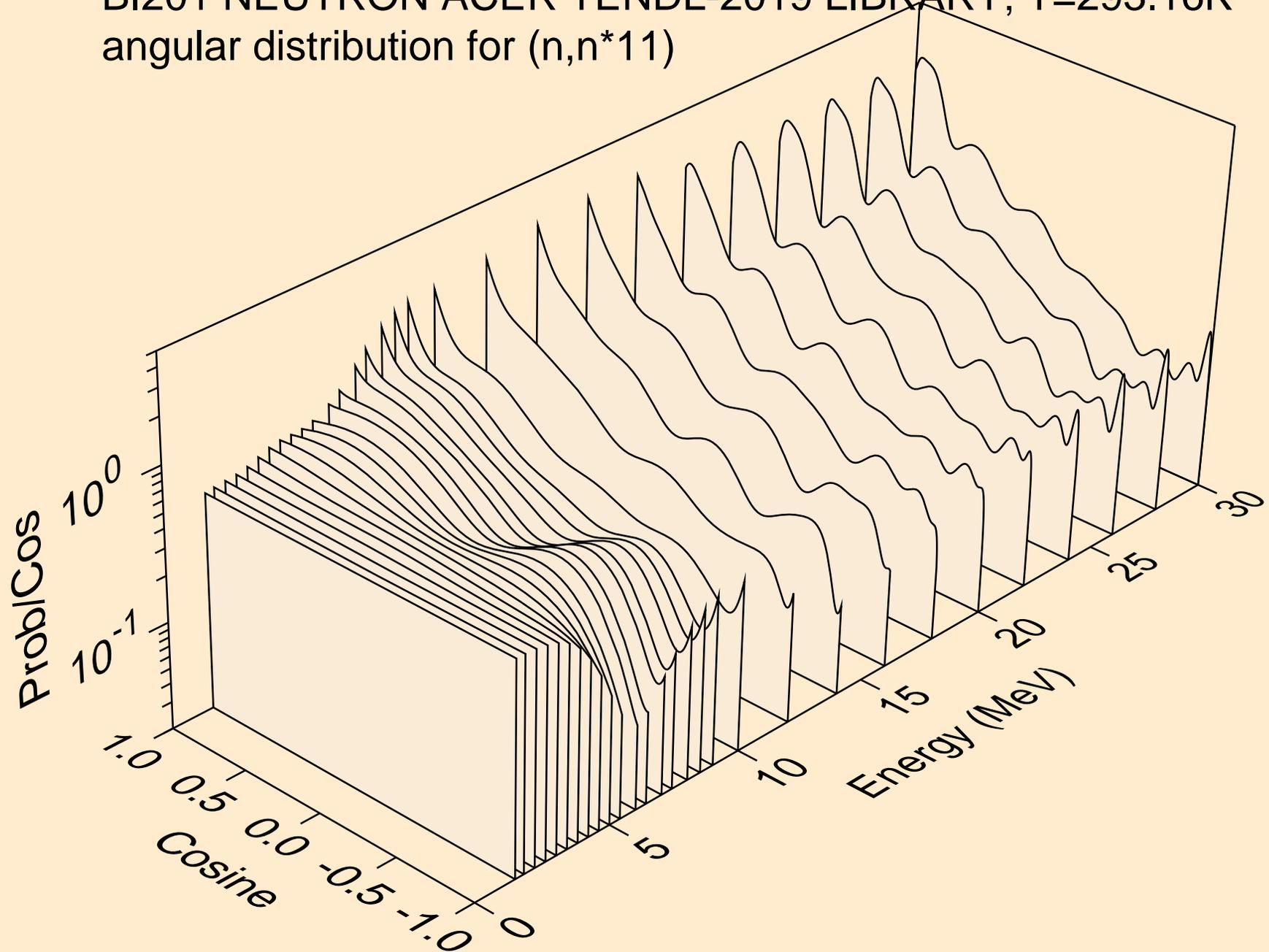angular distribution for elastic

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*1)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*2)
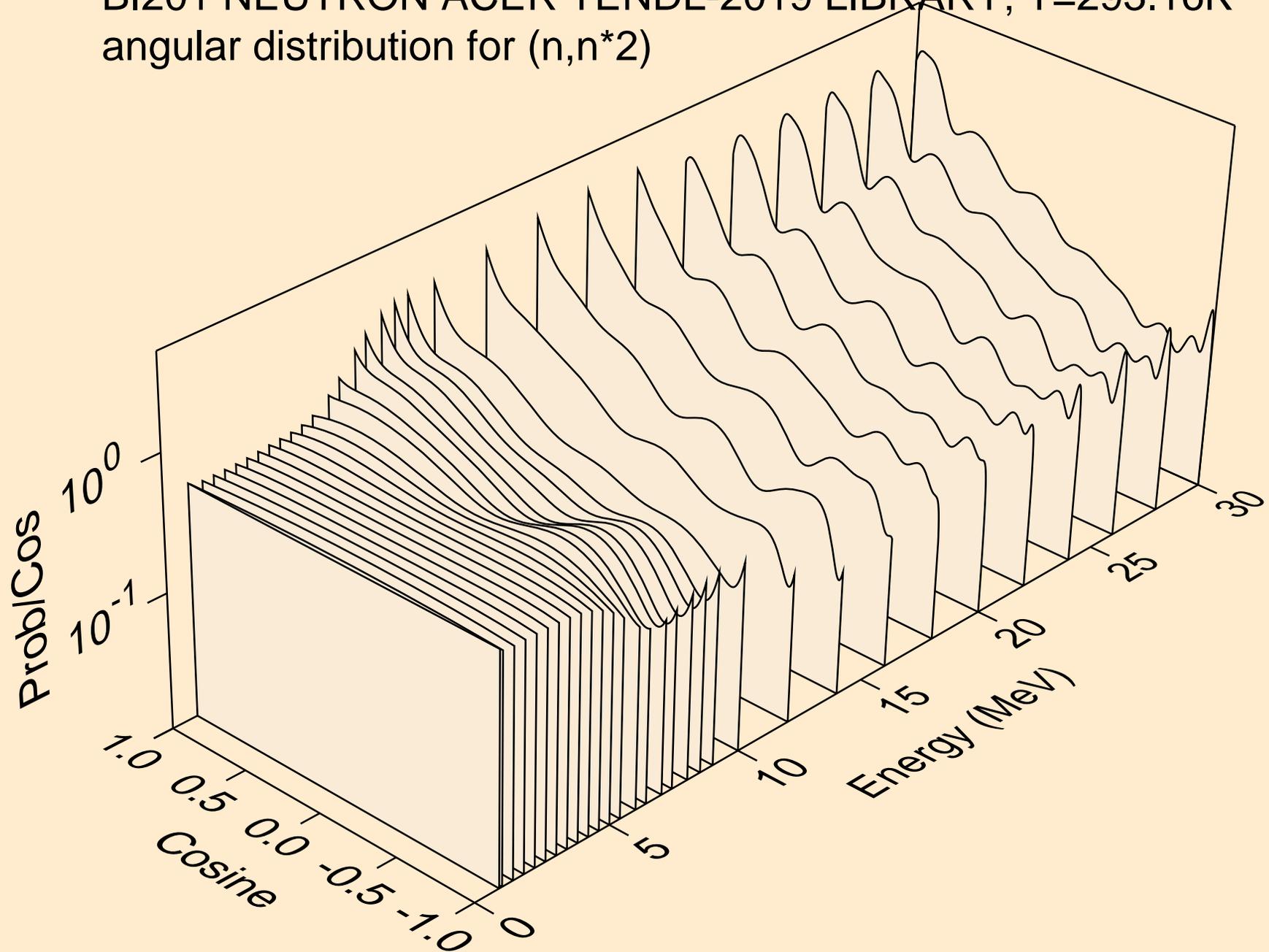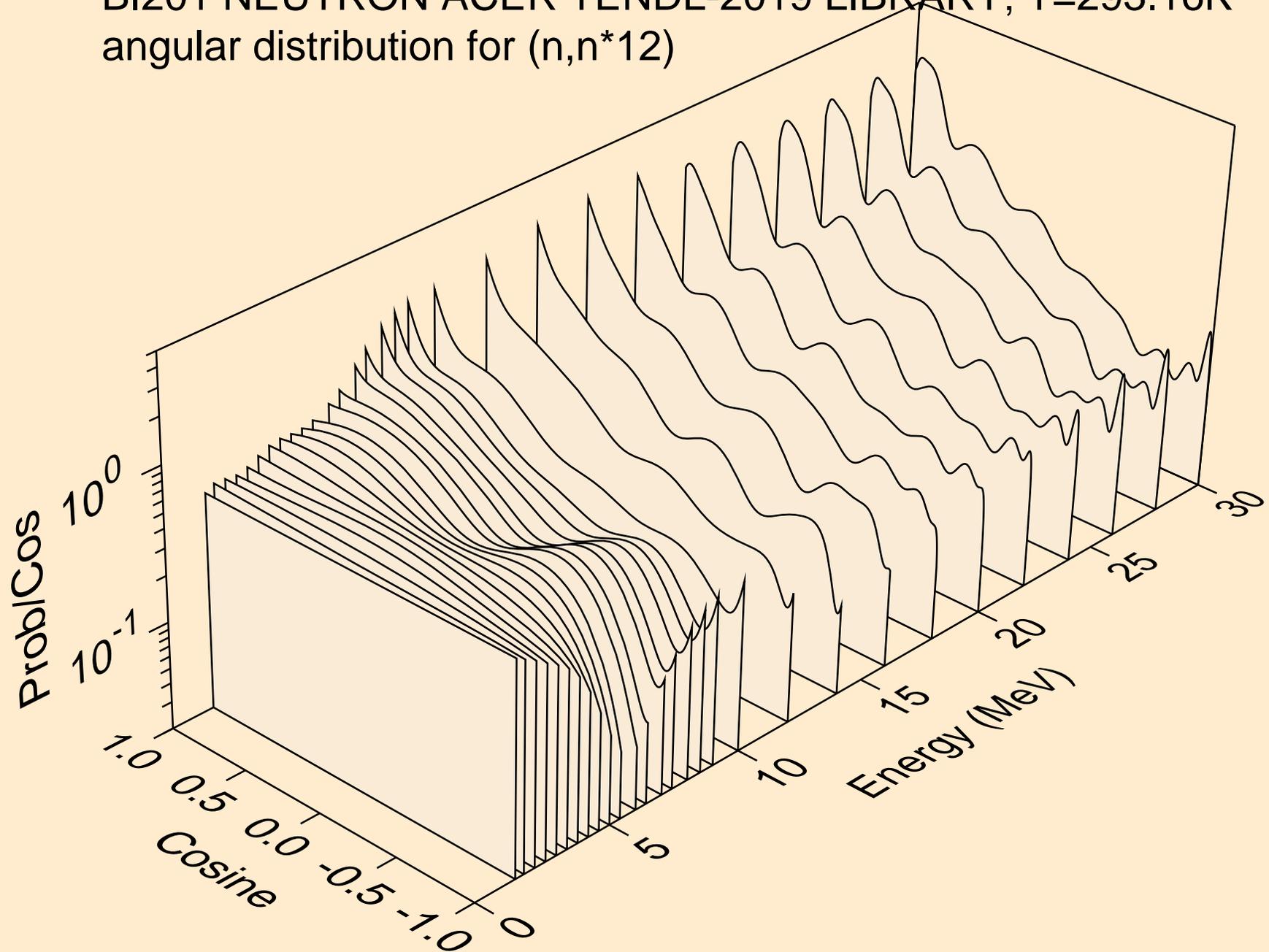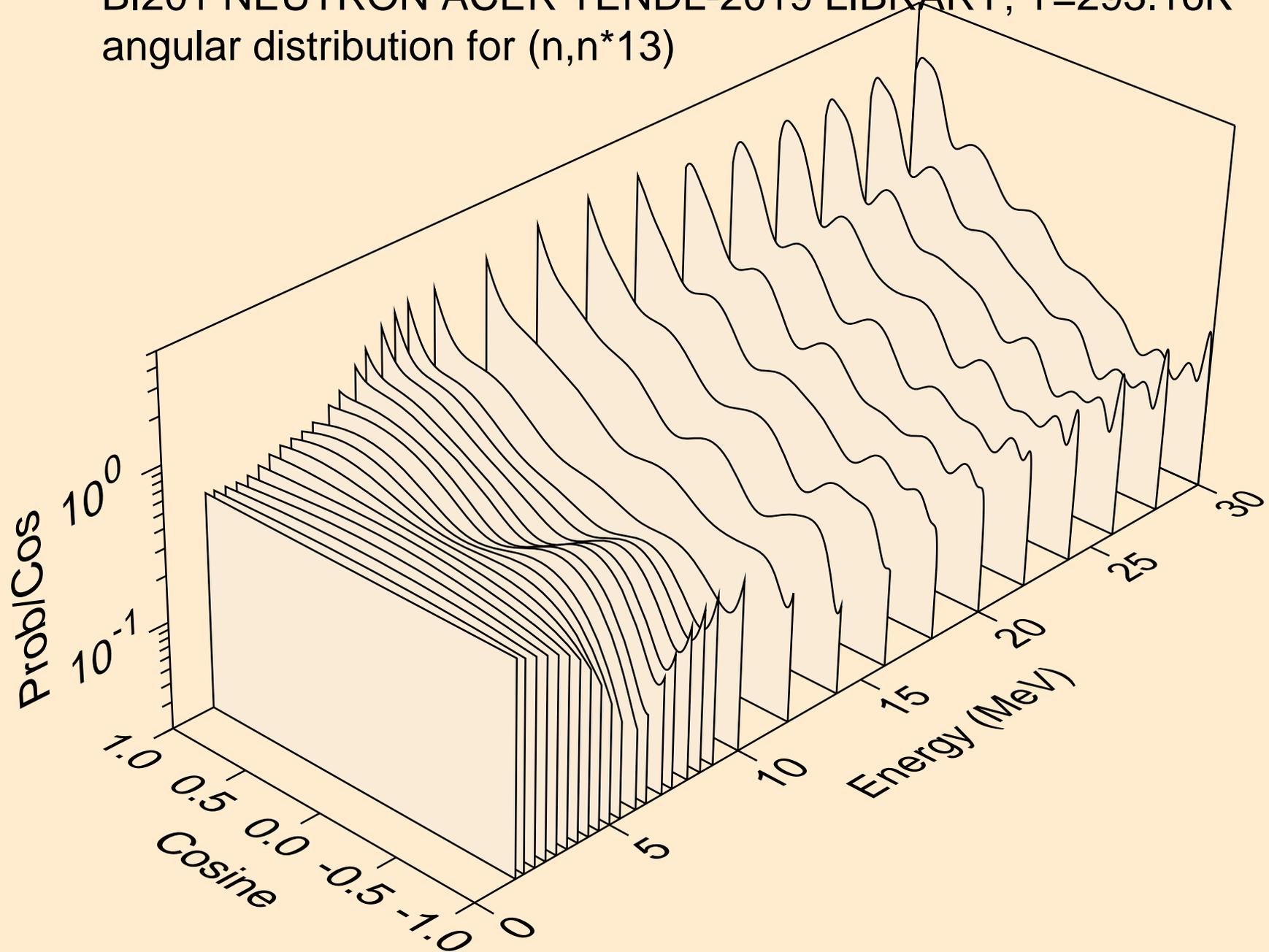
BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*3)
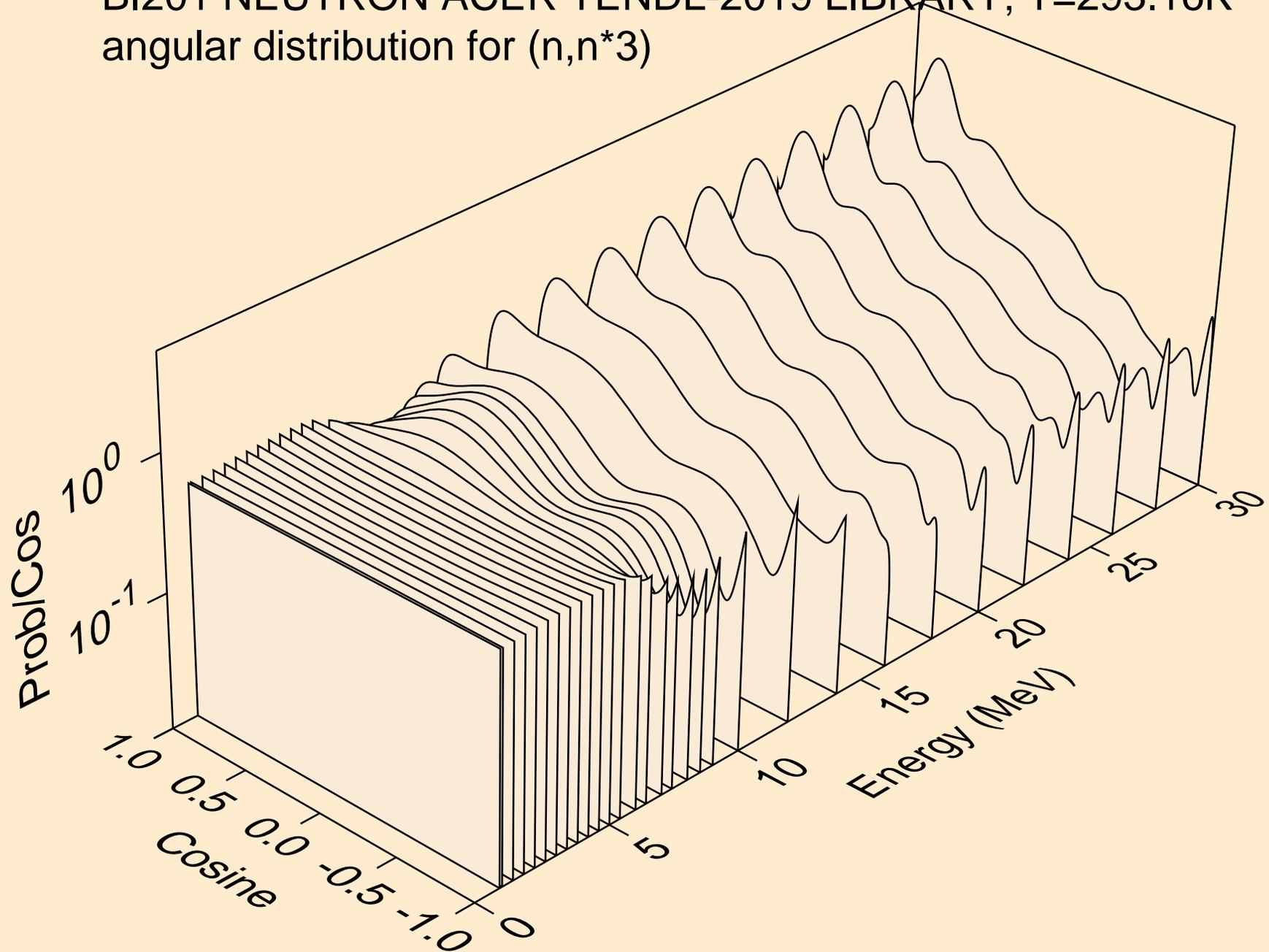
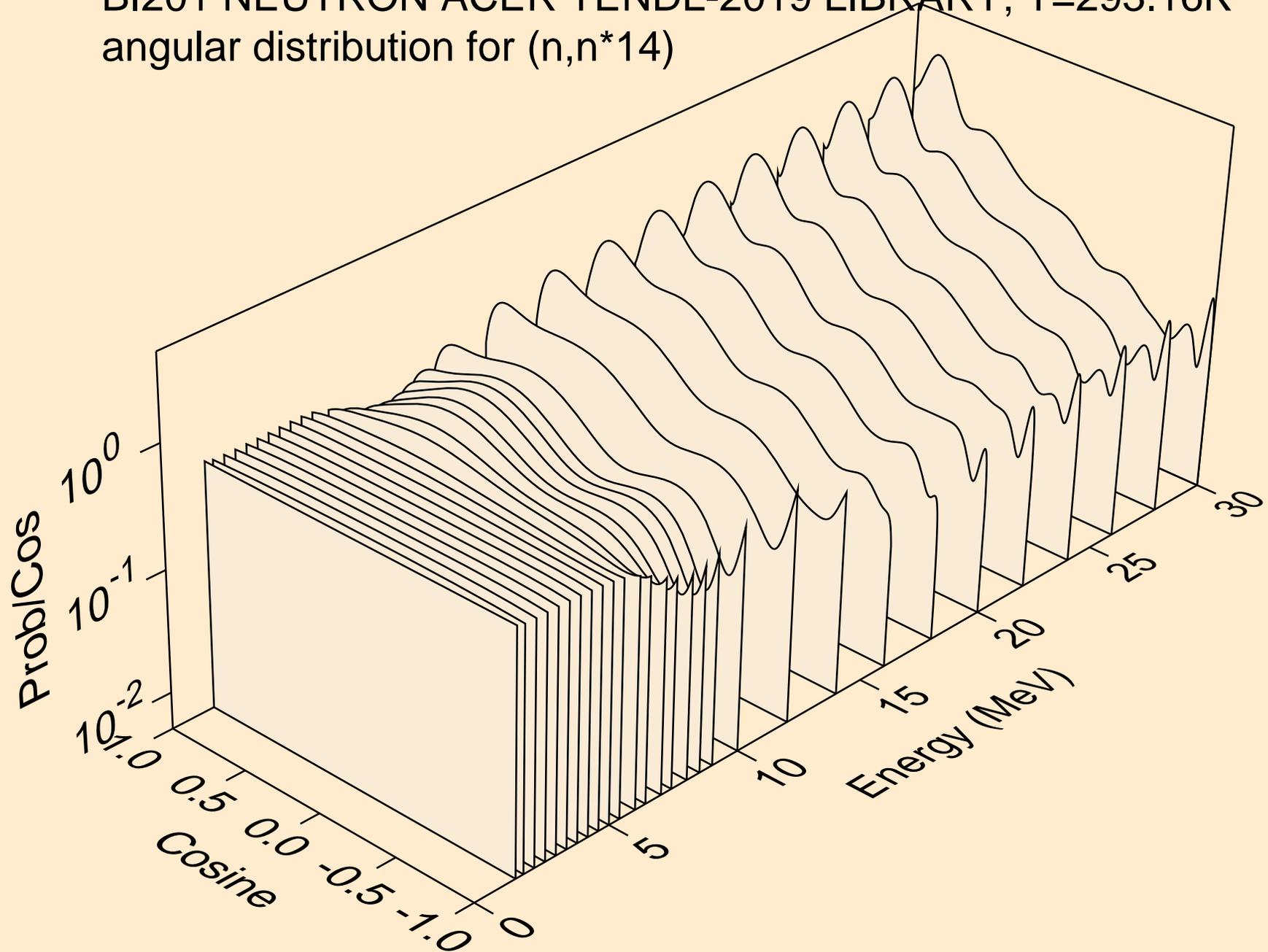BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*4)

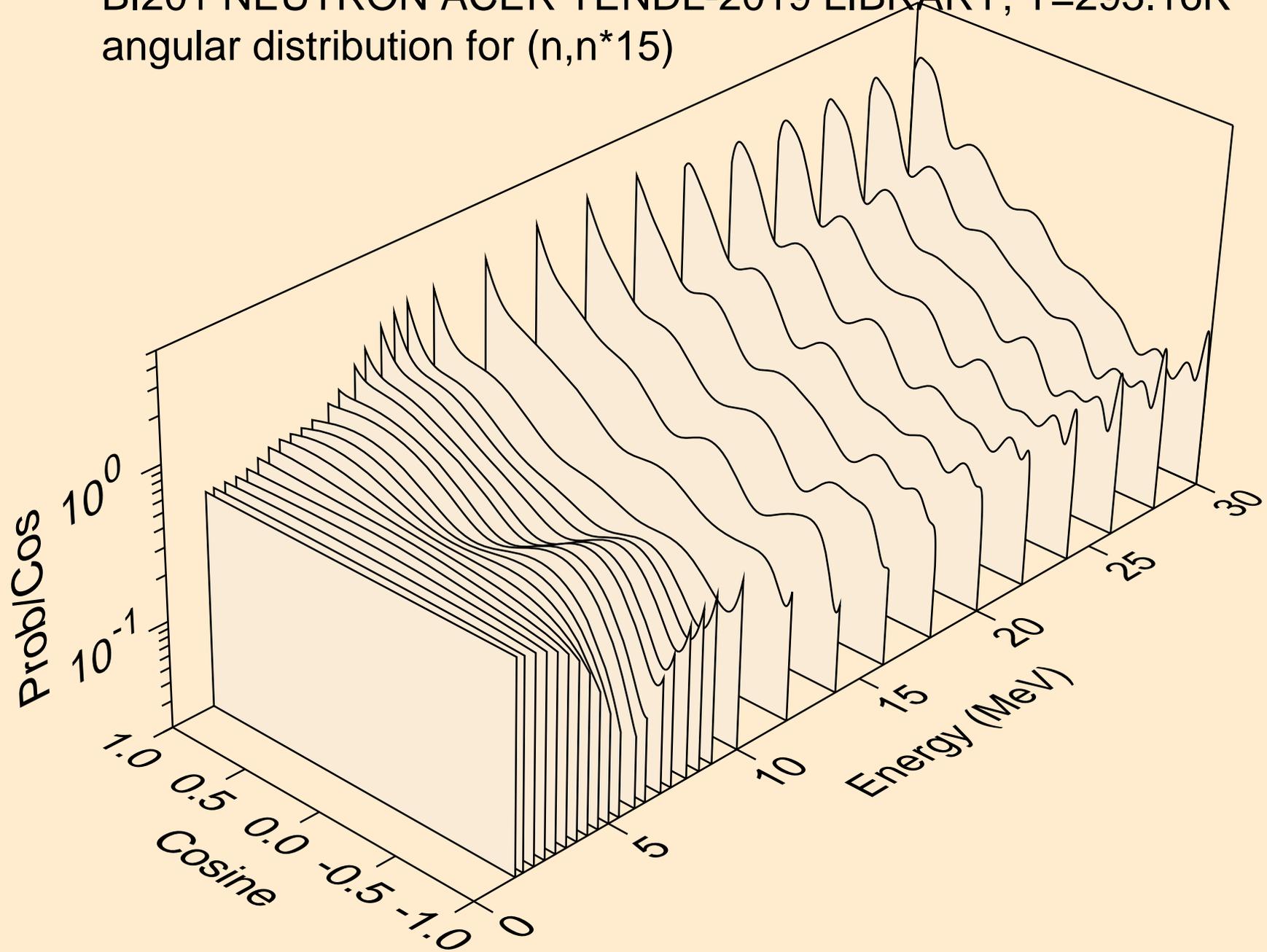BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*5)

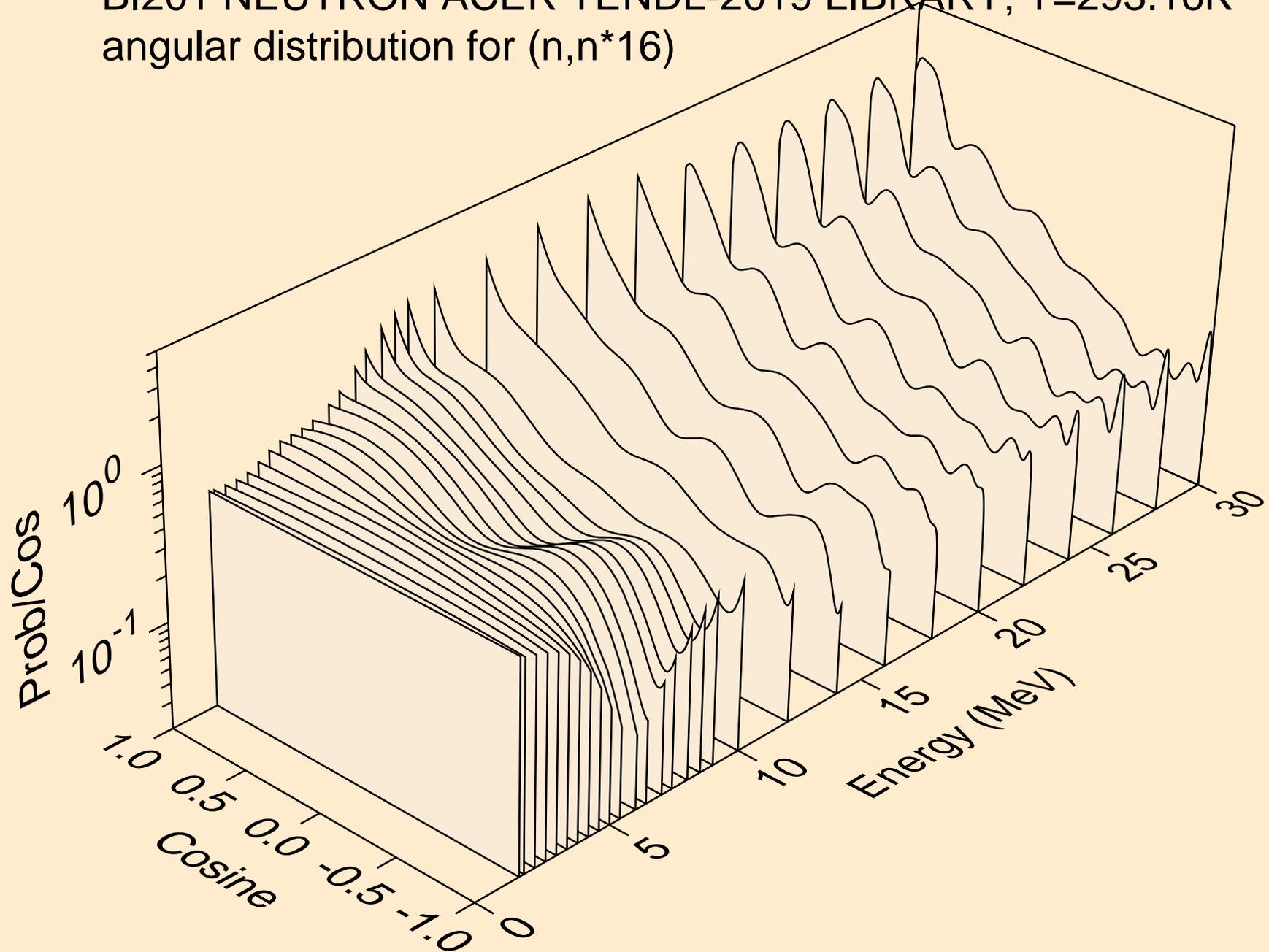BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*6)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*7)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*8)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
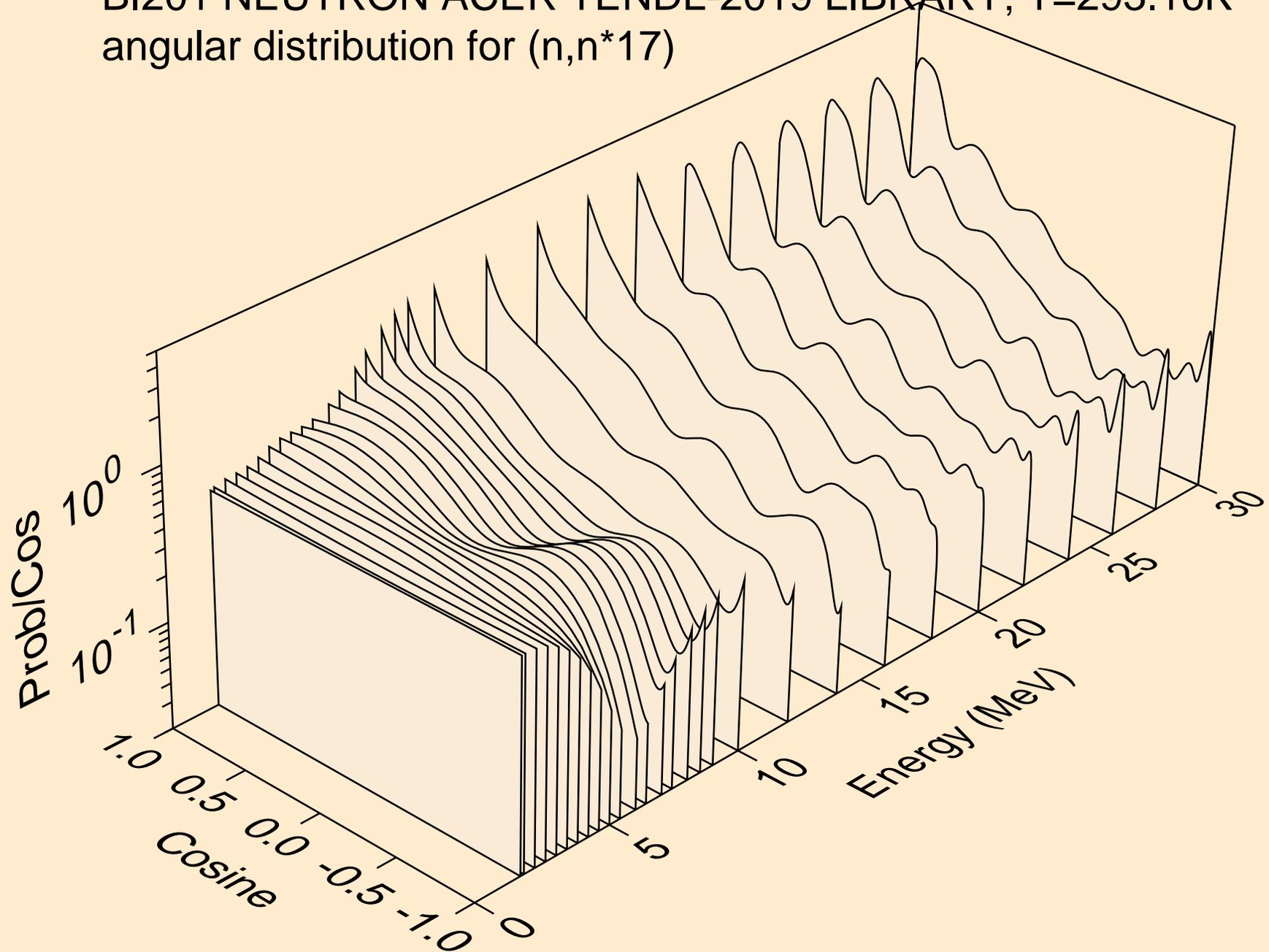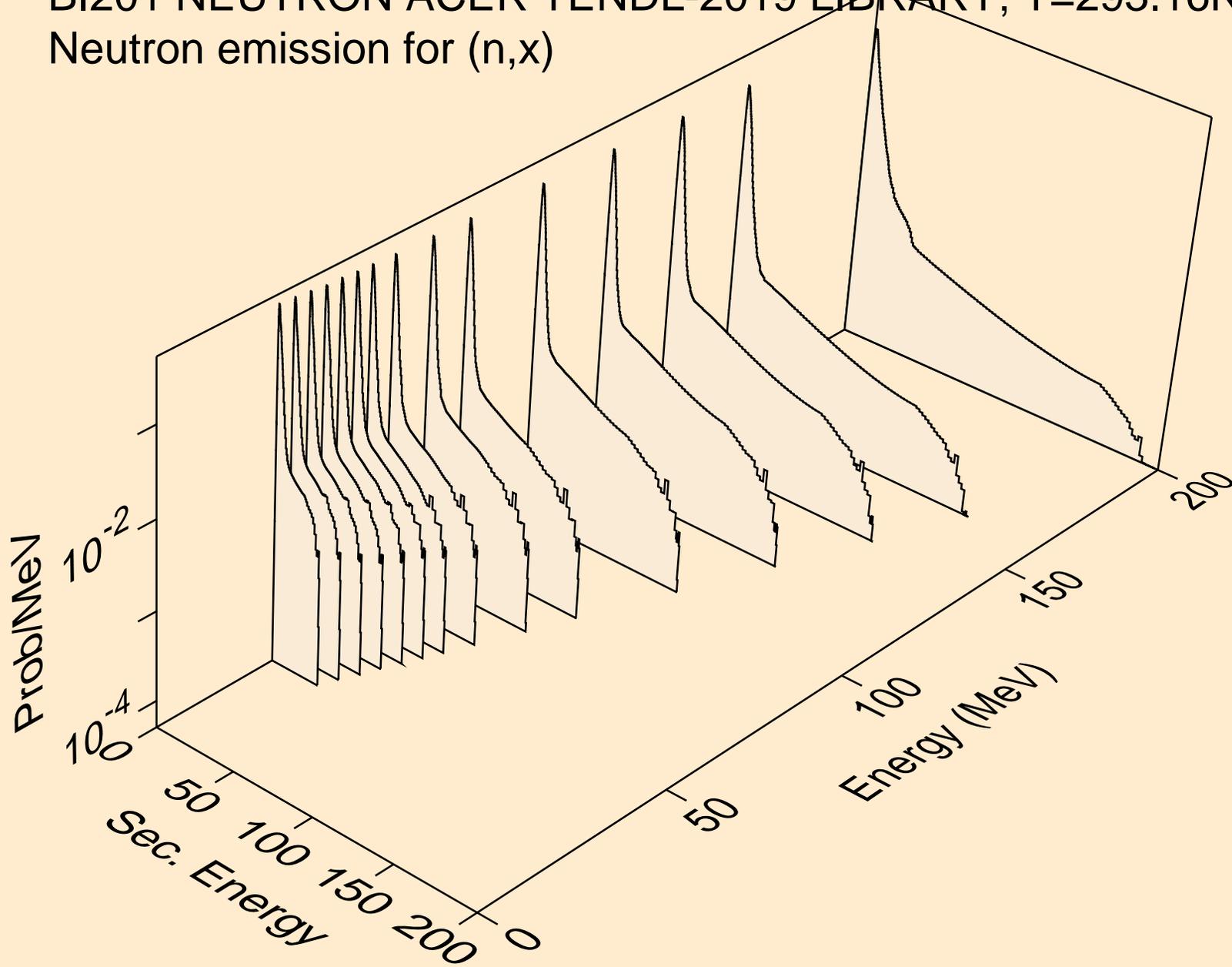angular distribution for (n,n*9)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*10)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
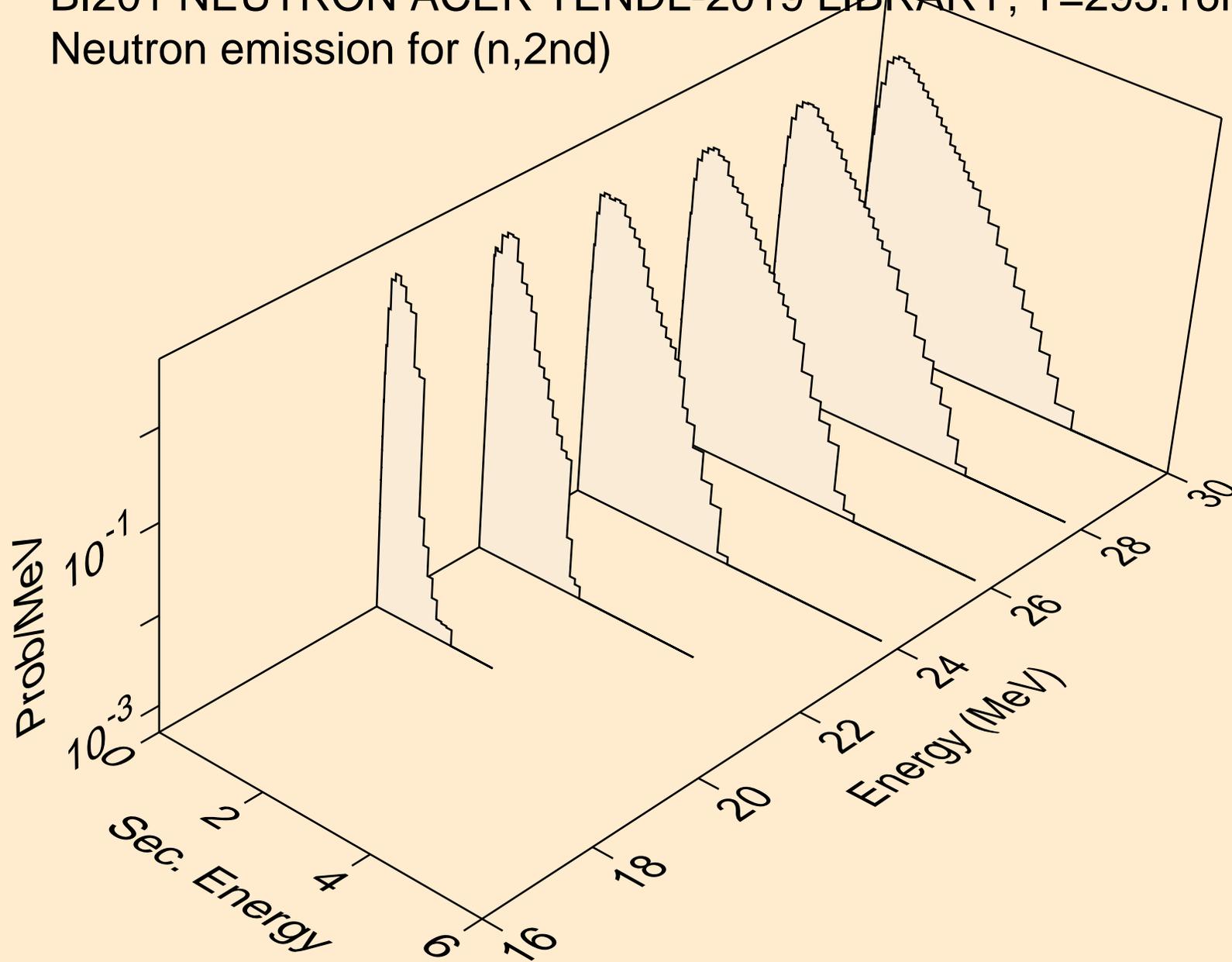angular distribution for (n,n*11)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*12)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*13)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
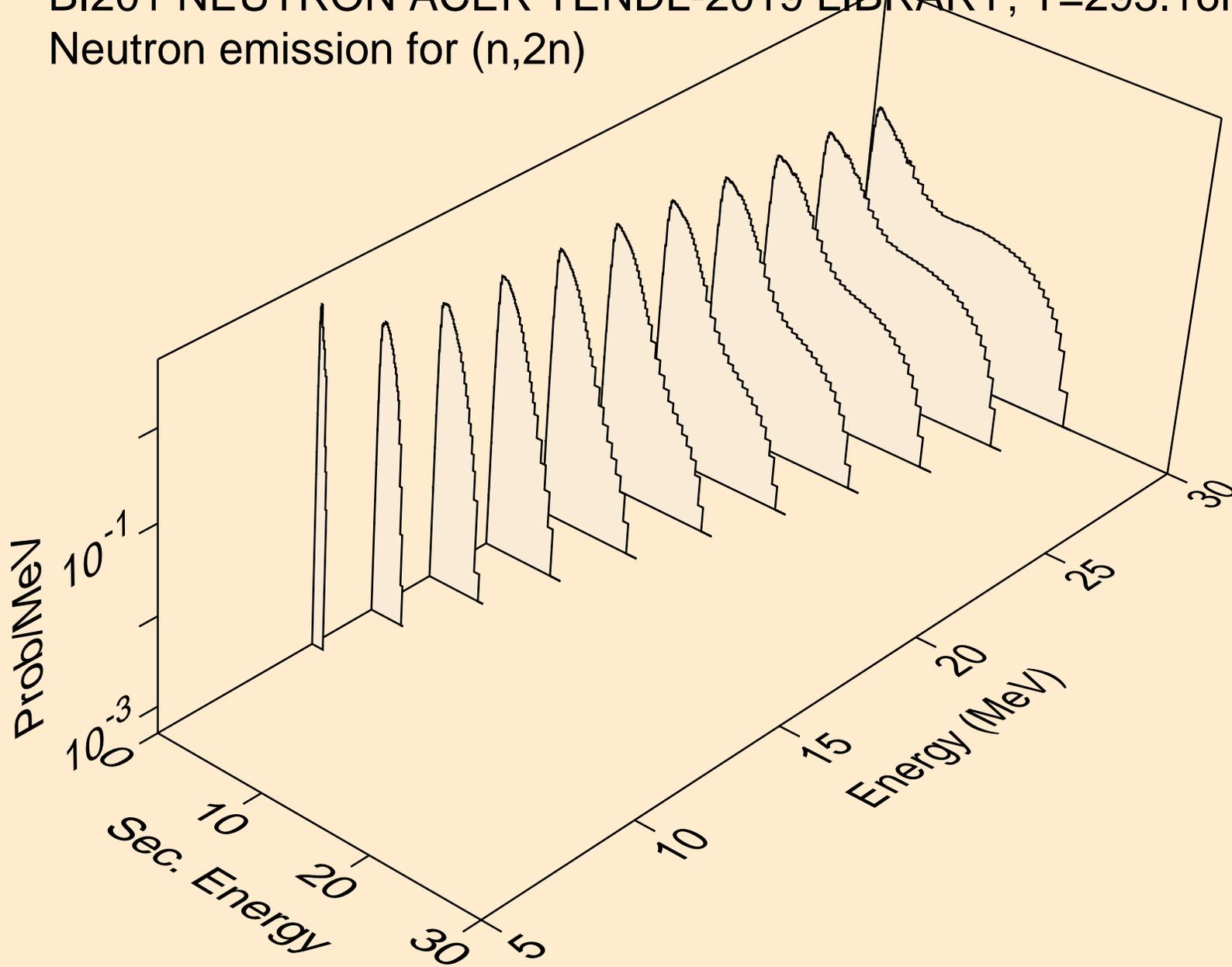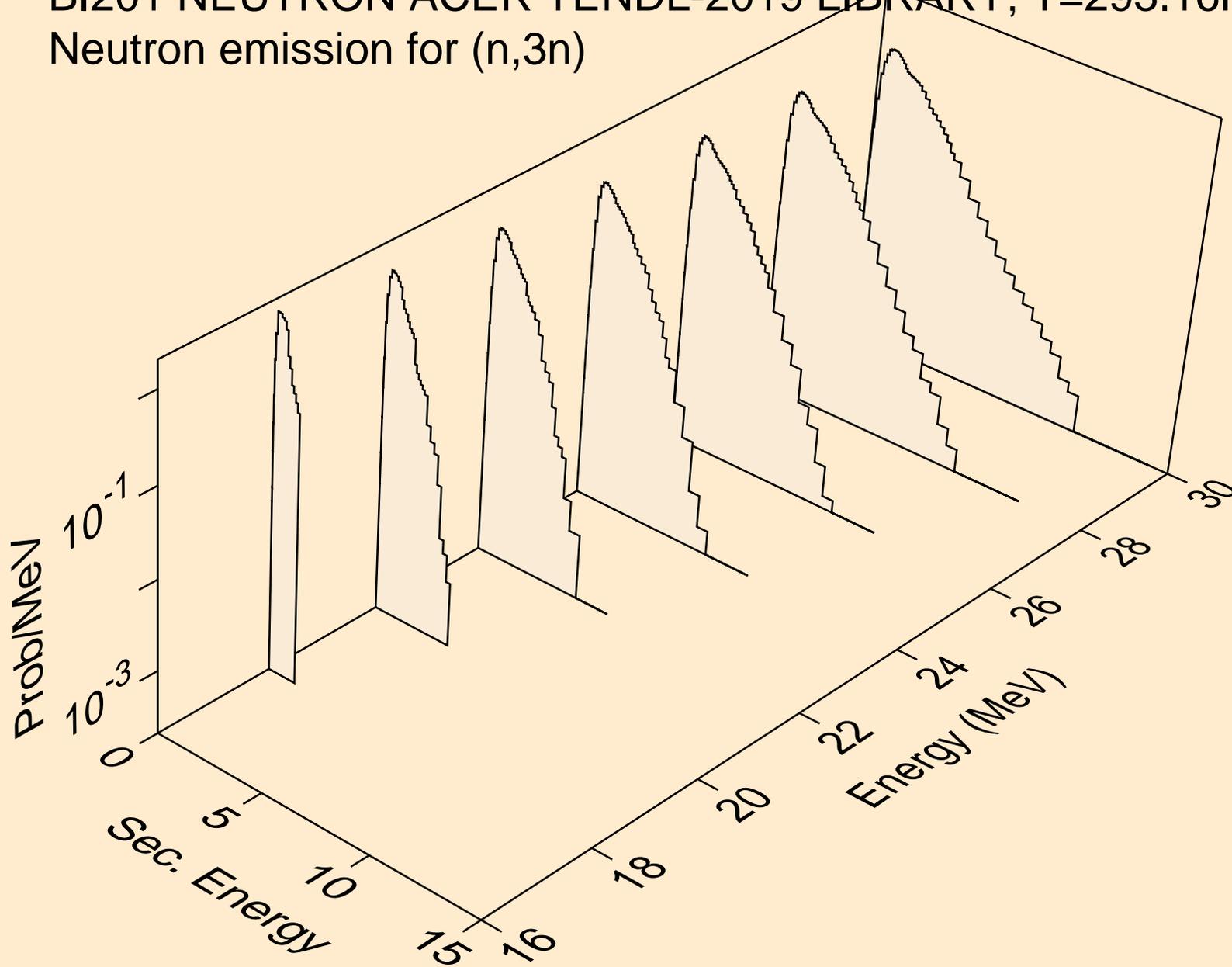angular distribution for (n,n*14)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
angular distribution for (n,n*15)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
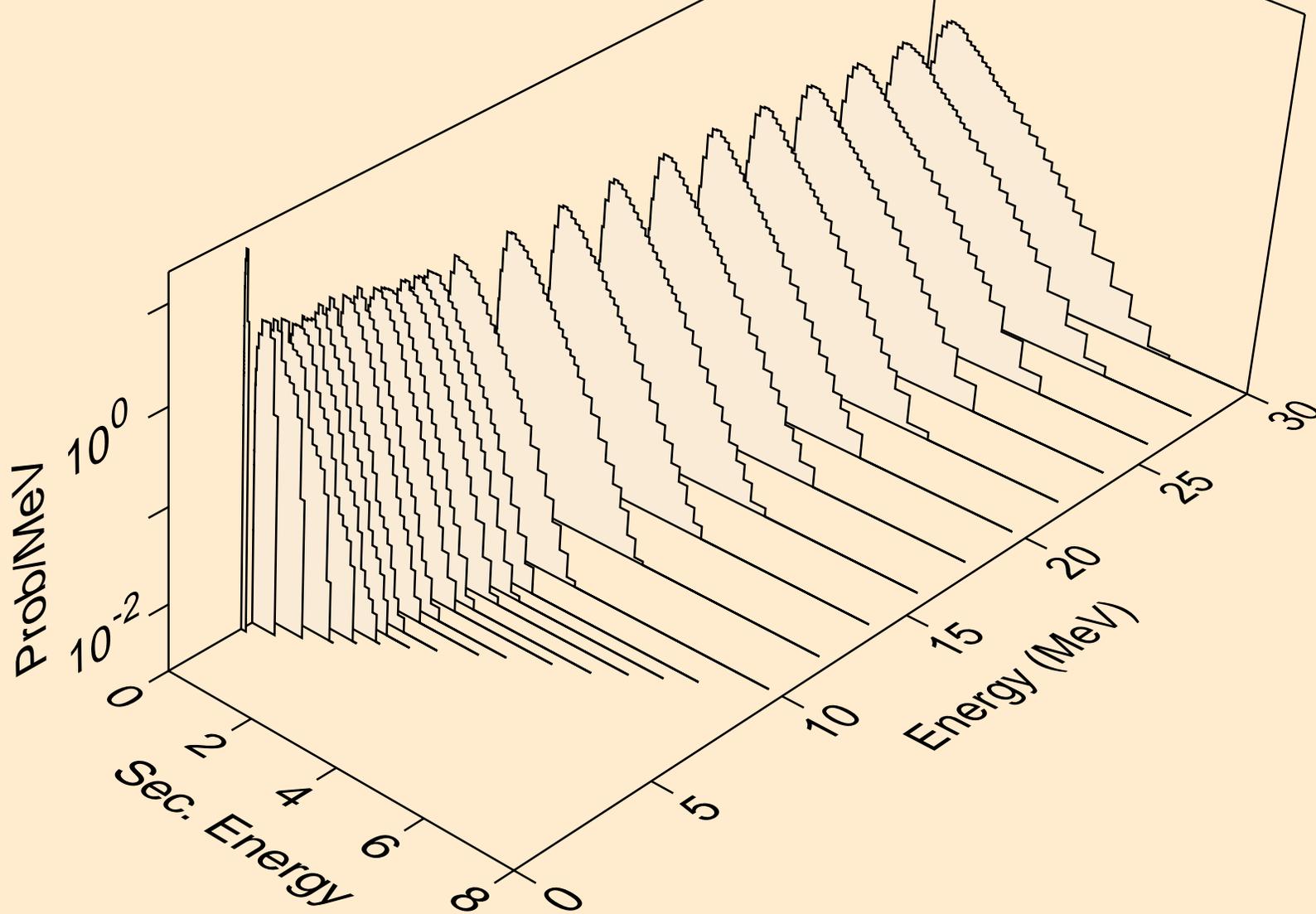angular distribution for (n,n*16)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
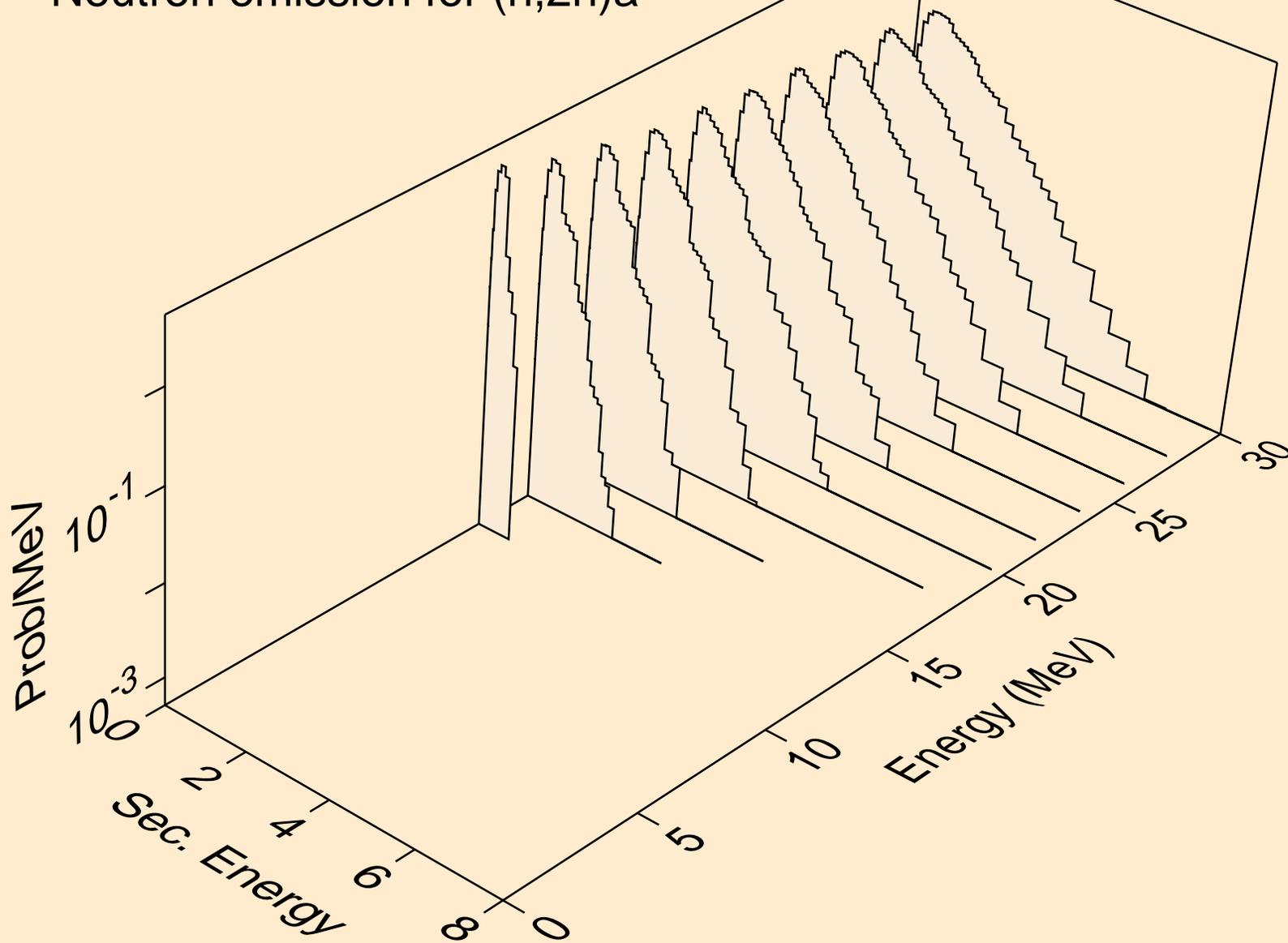angular distribution for (n,n*17)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
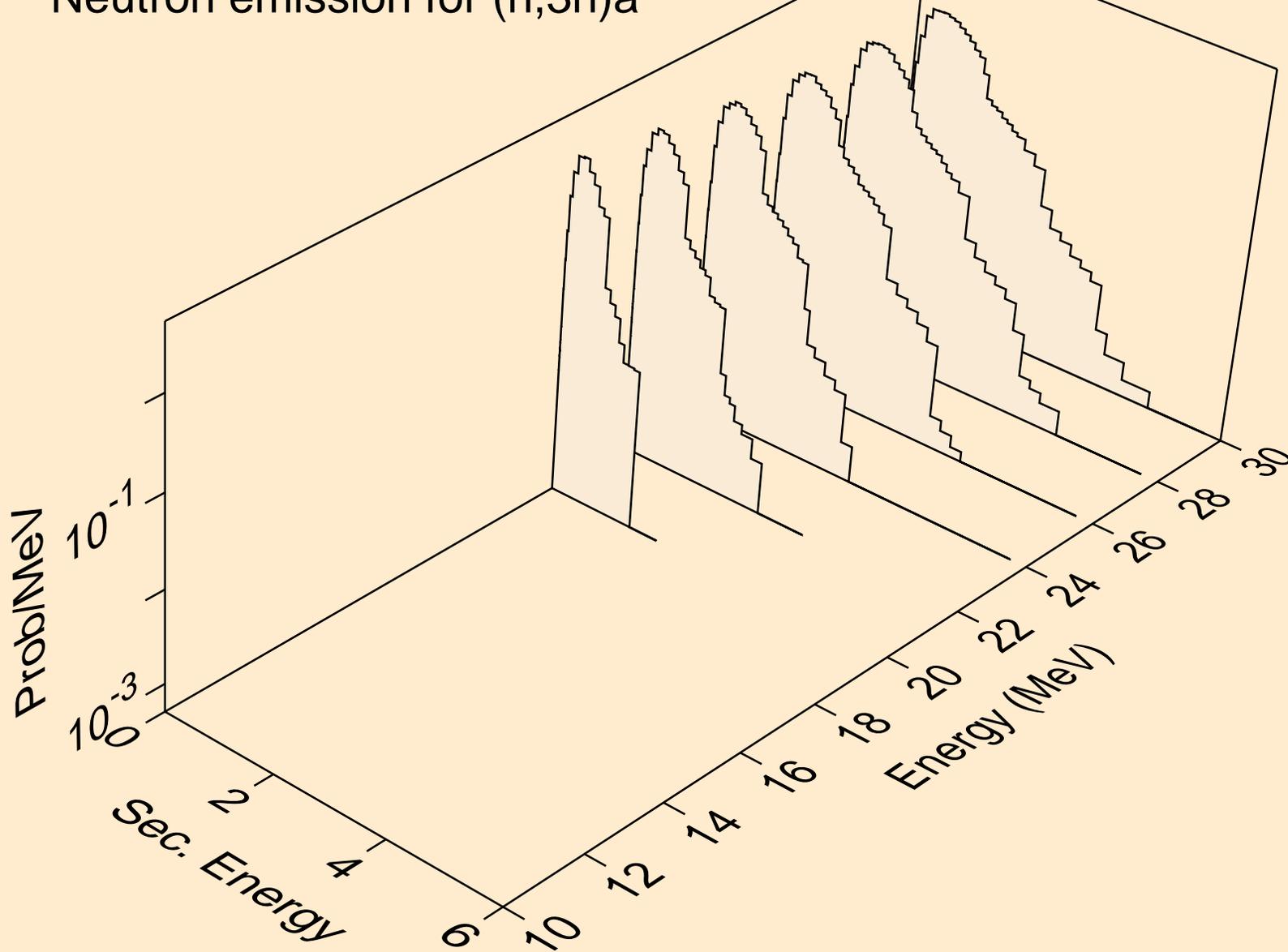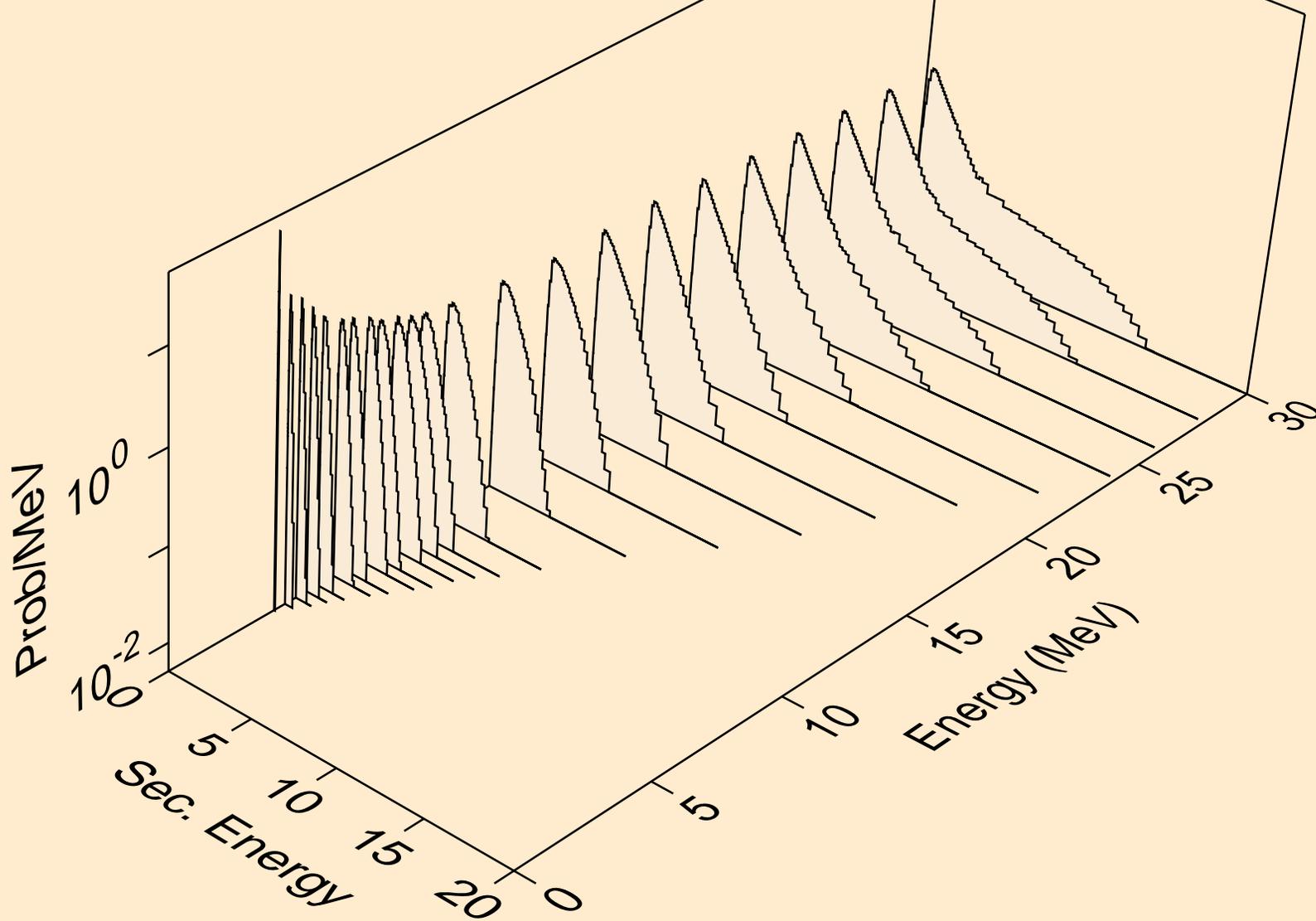Neutron emission for (n,x)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,2nd)

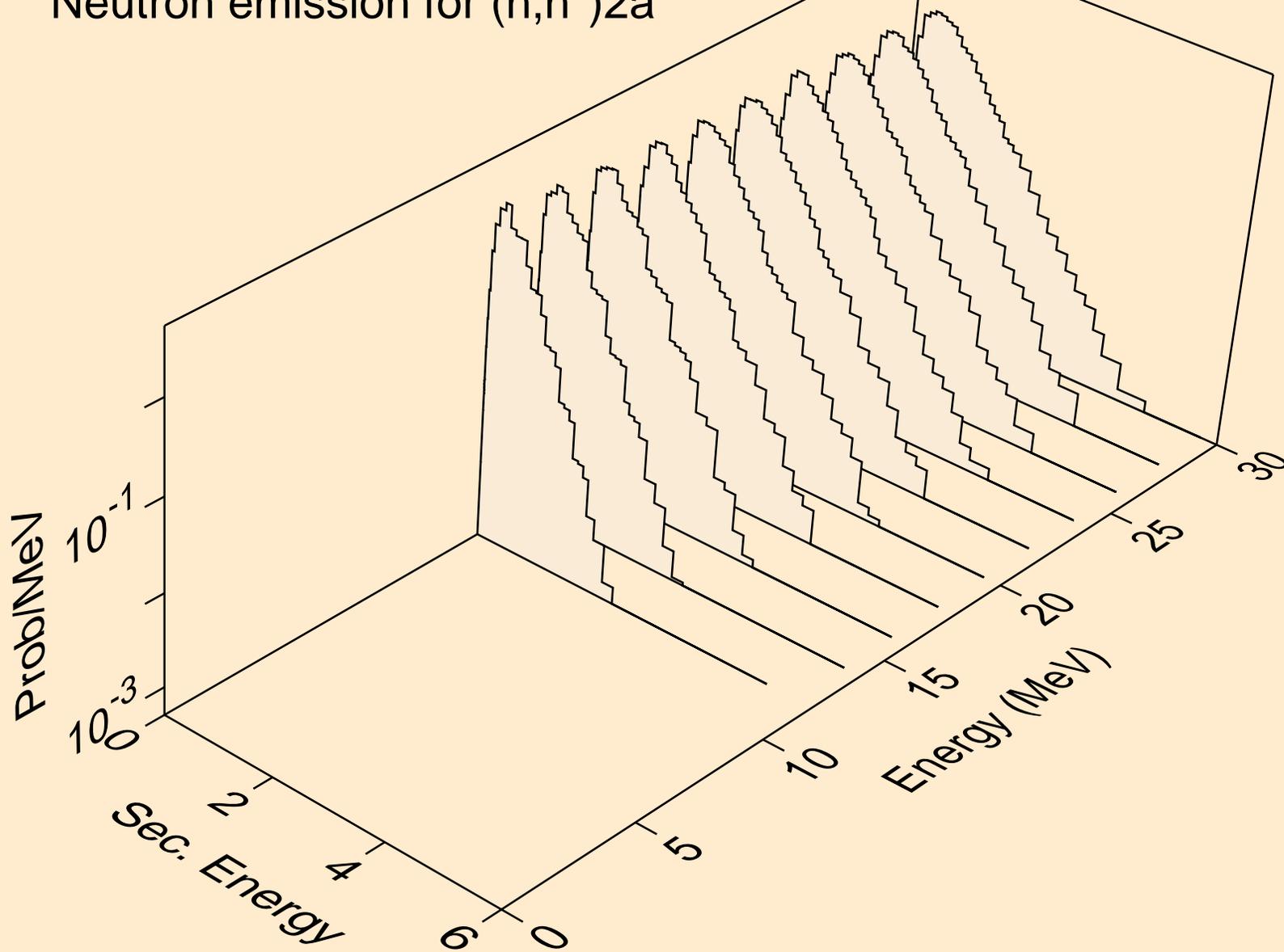BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,2n)

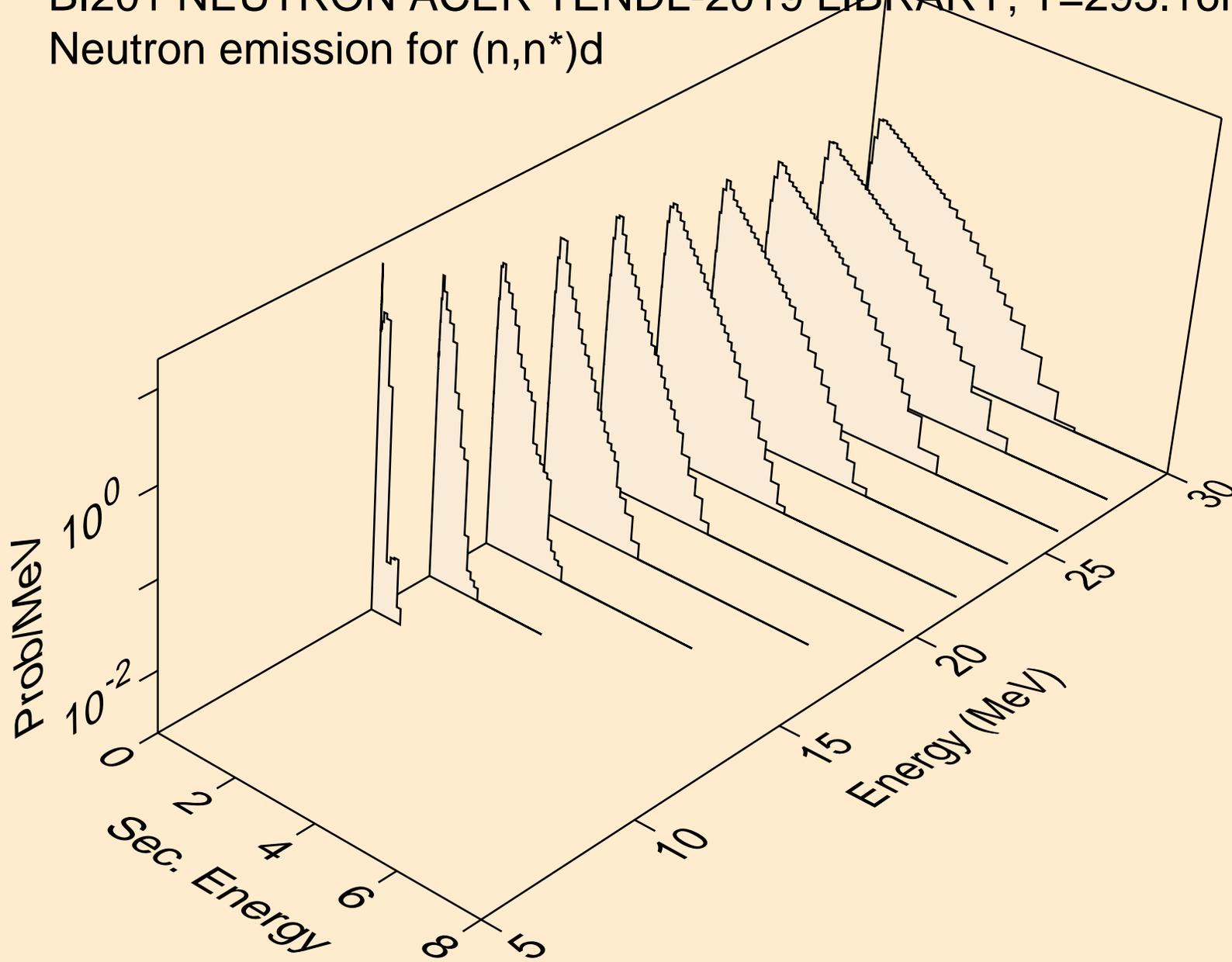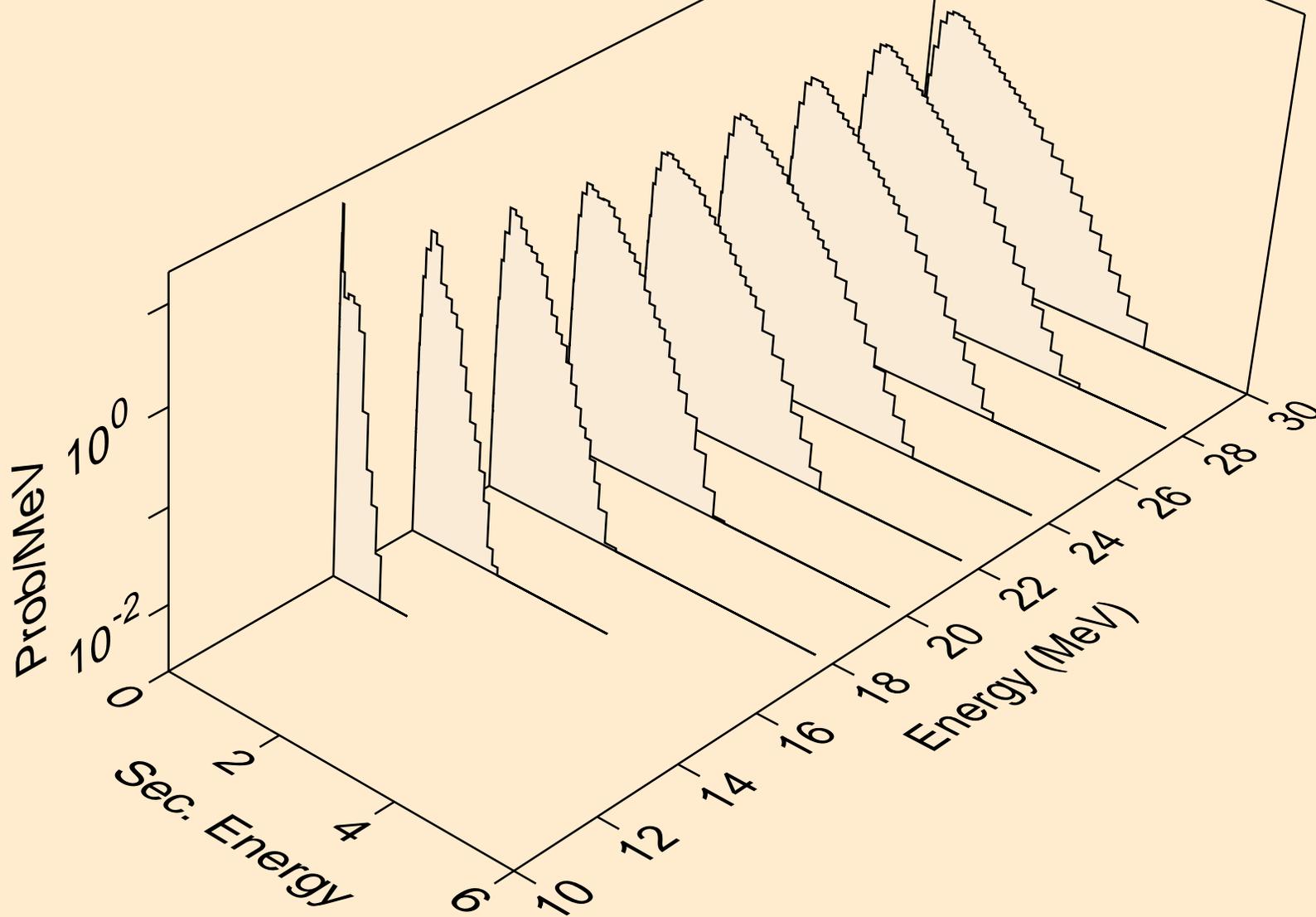BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
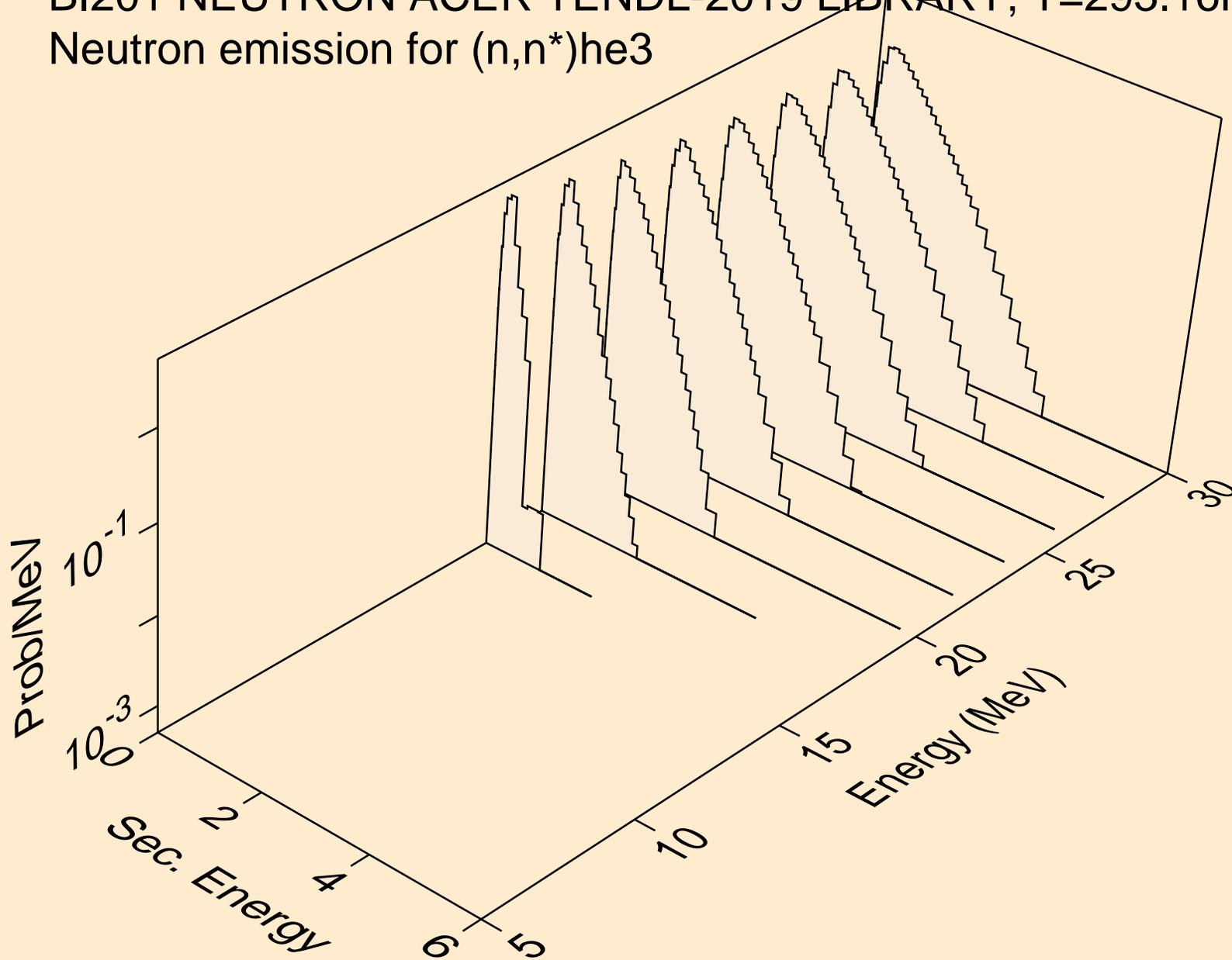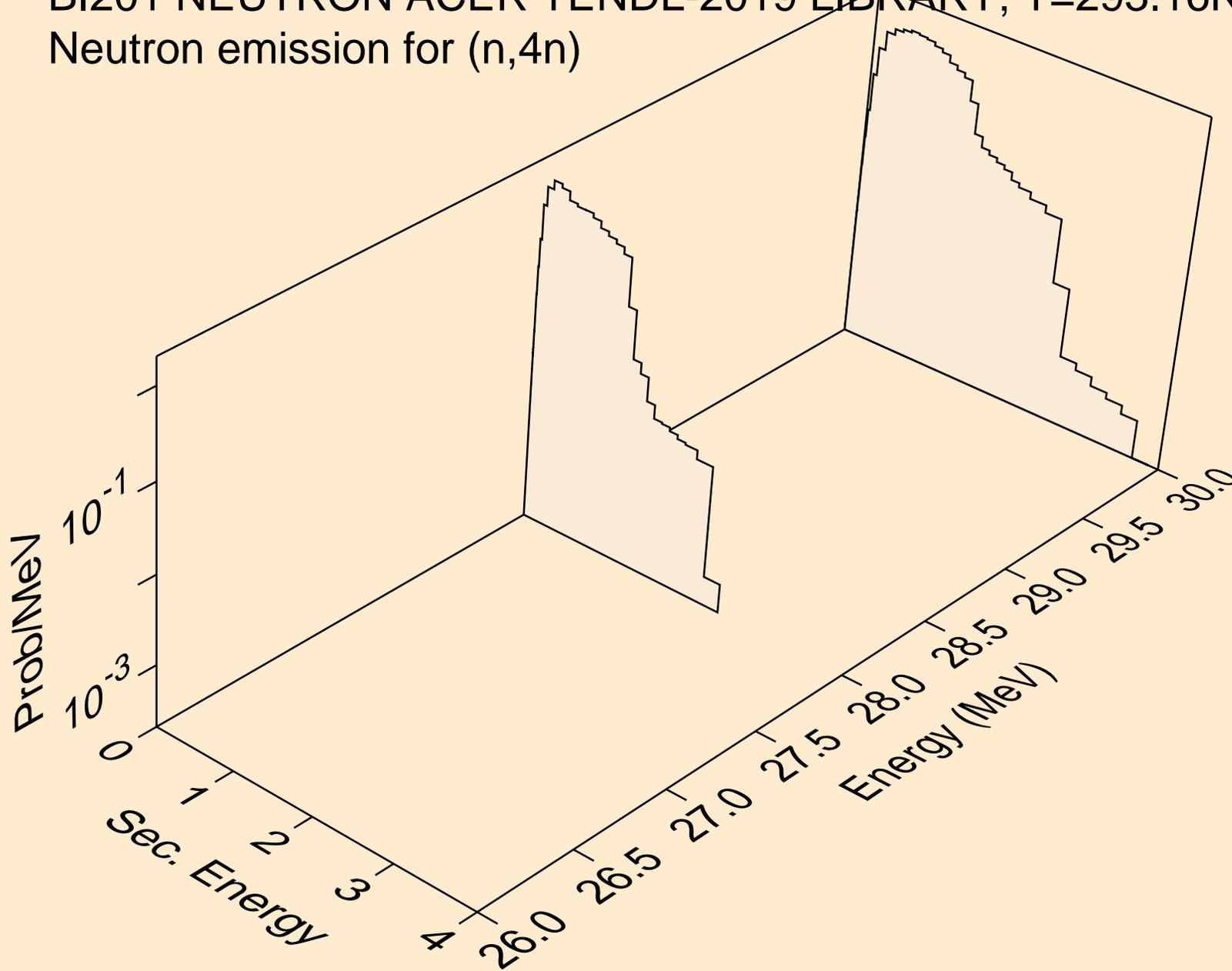Neutron emission for (n,3n)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,n*)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,2n)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,3n)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,n*)p

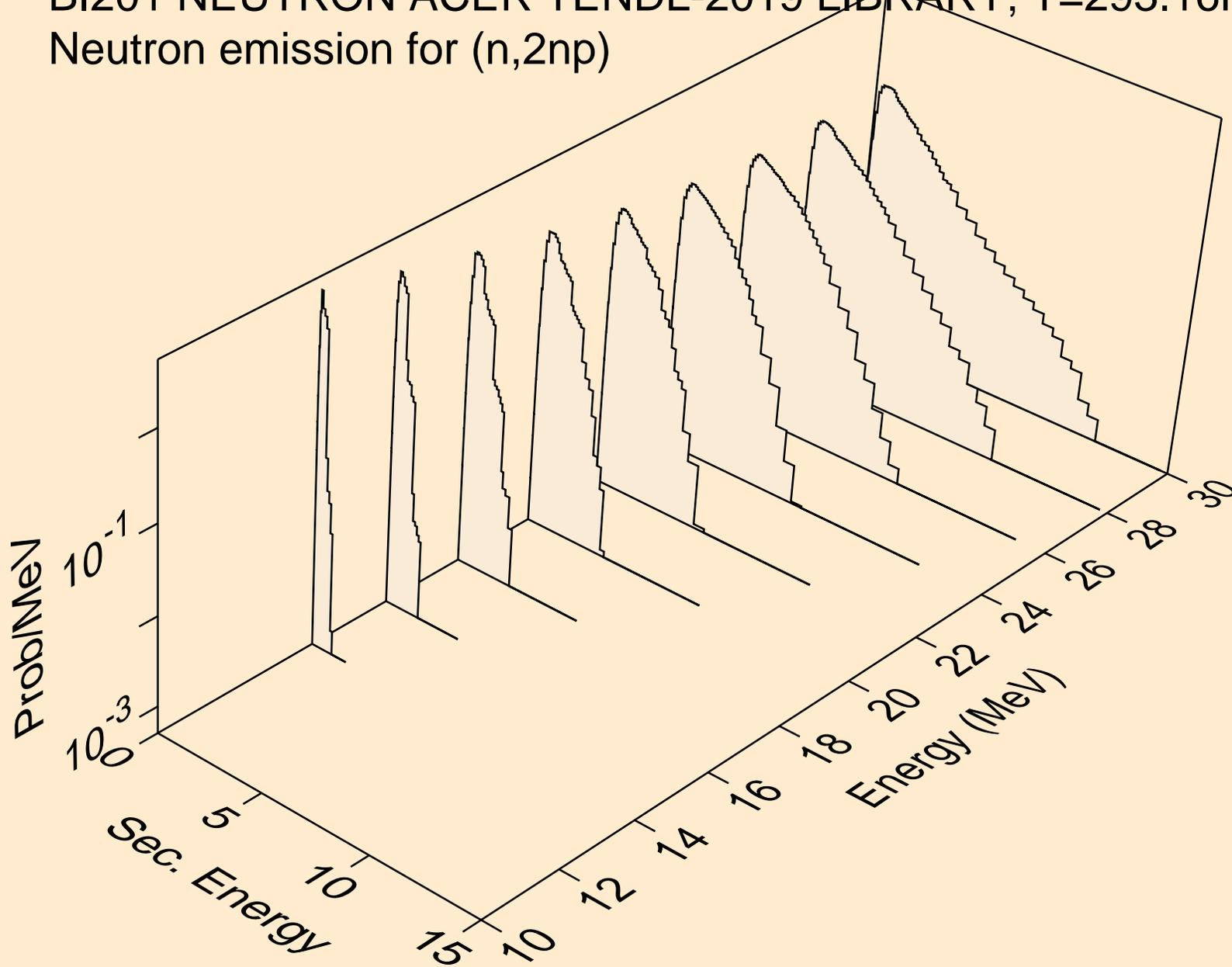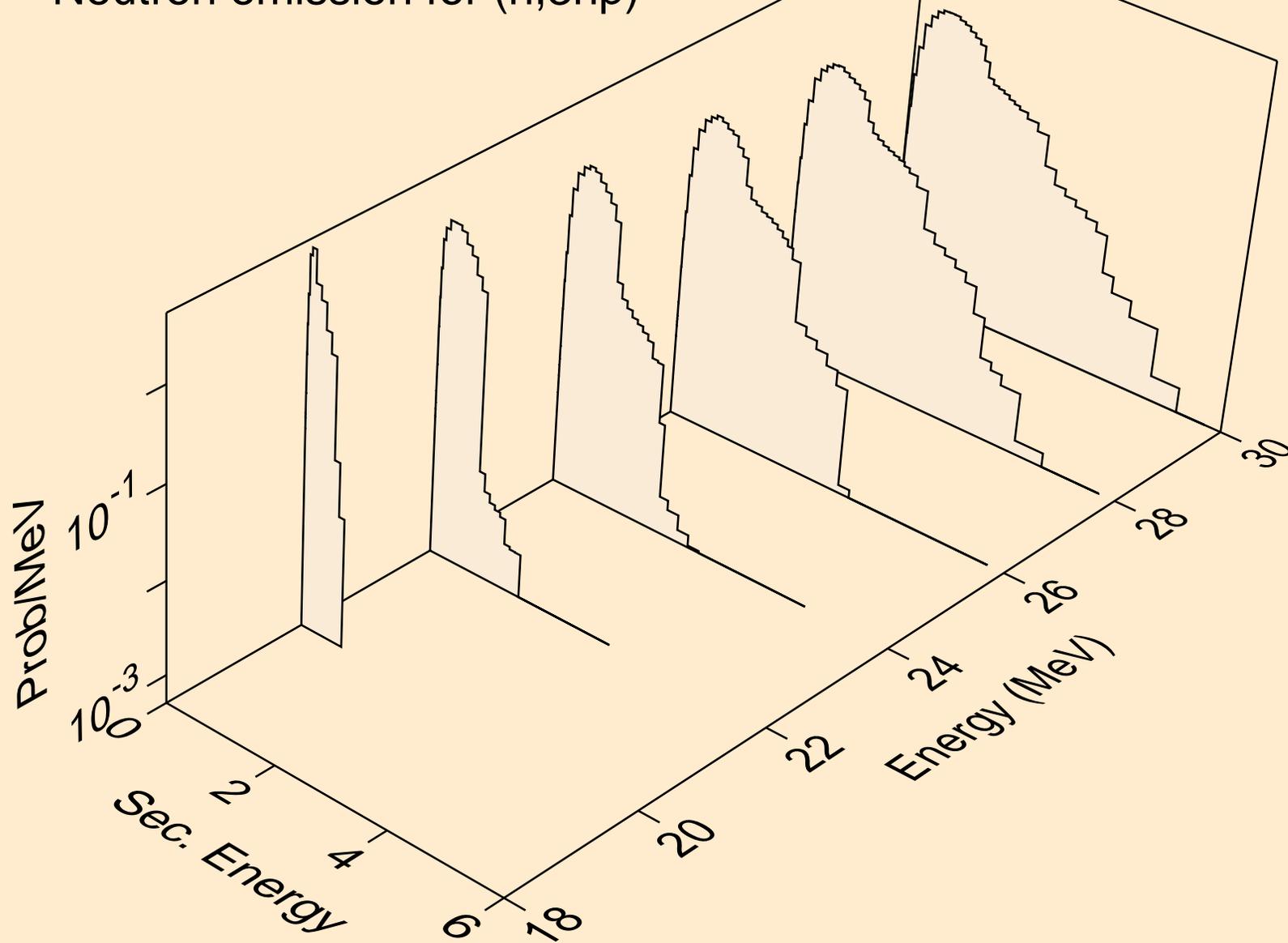BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
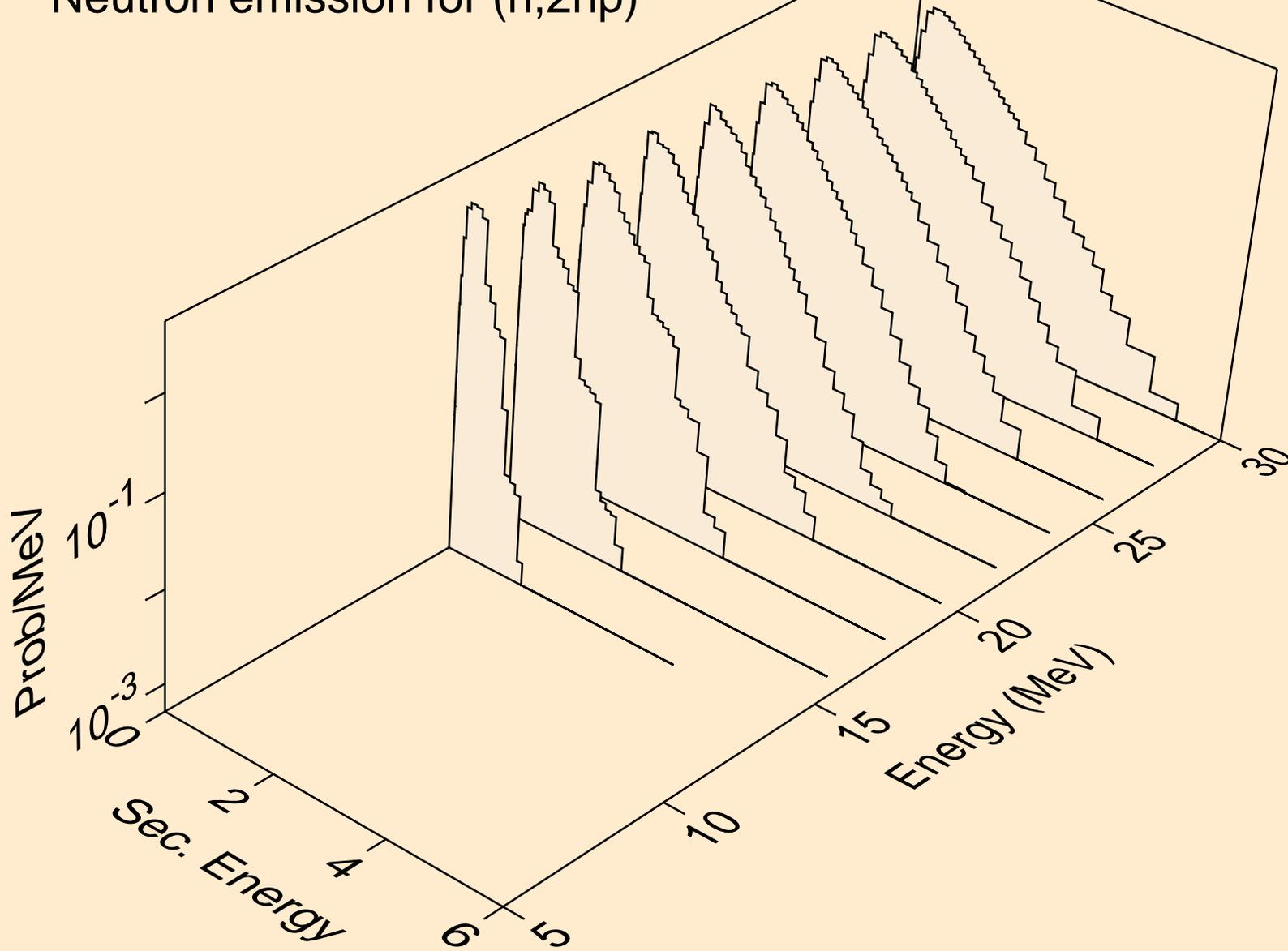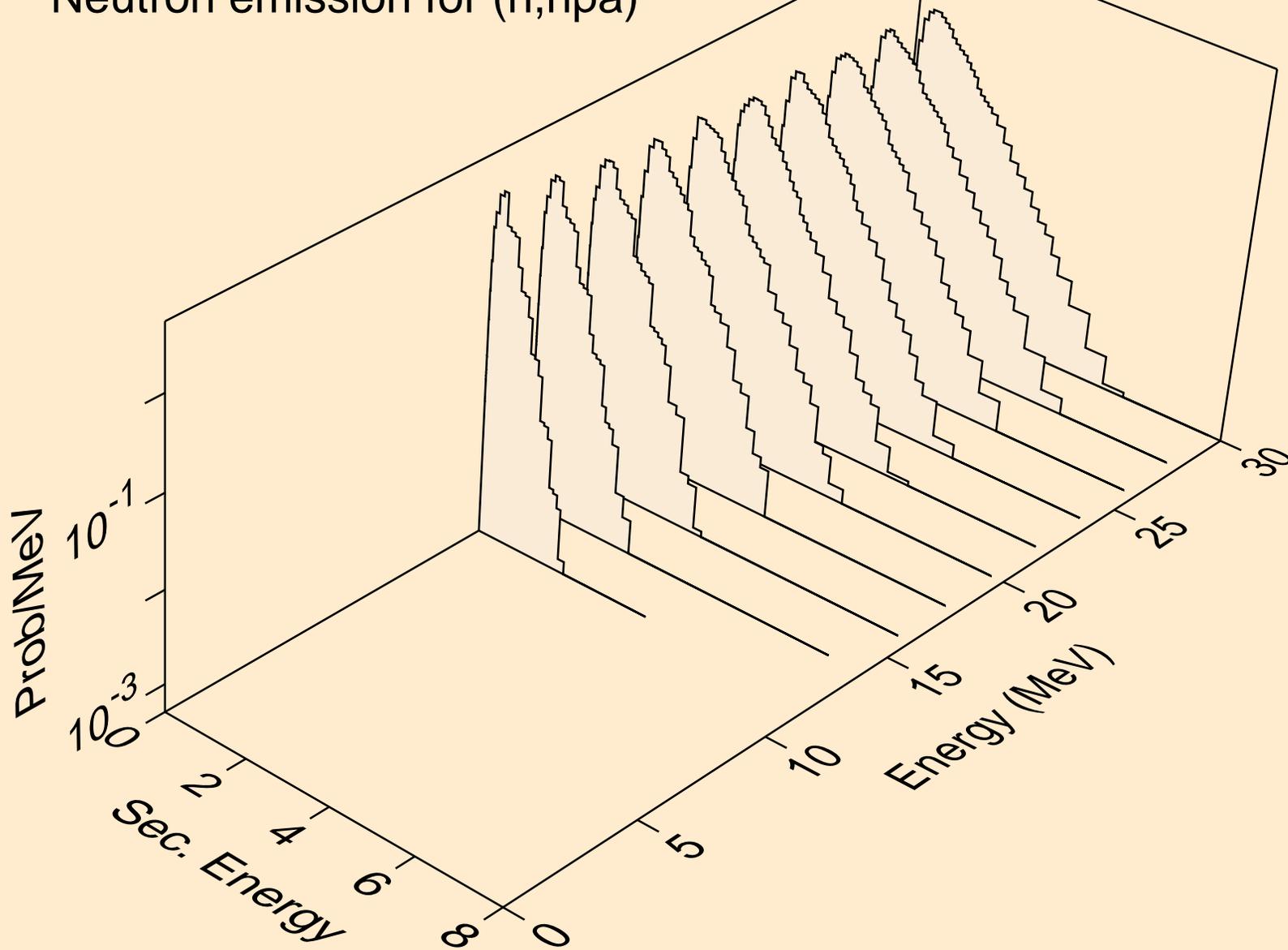Neutron emission for (n,n*)2a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
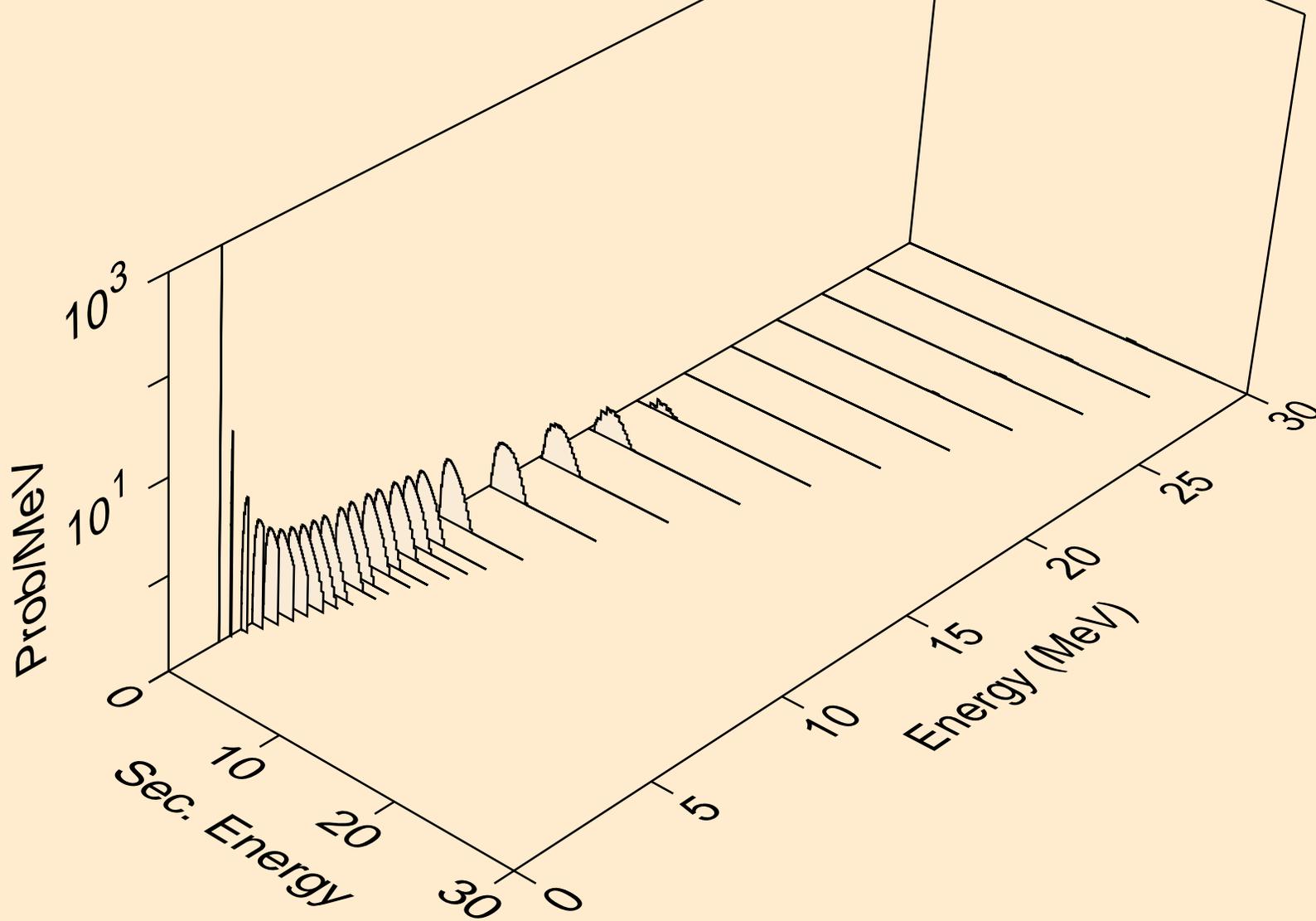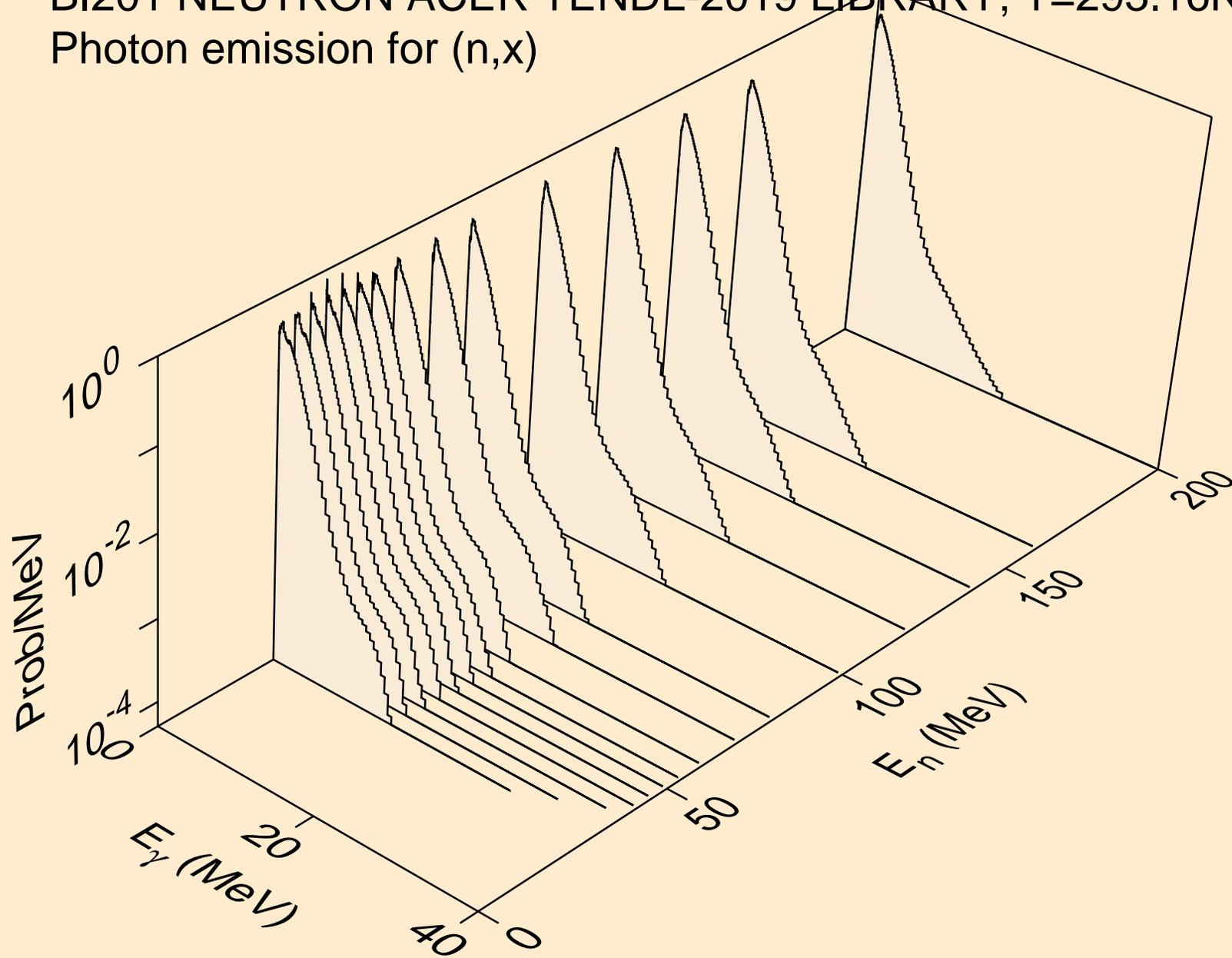Neutron emission for (n,n*)d

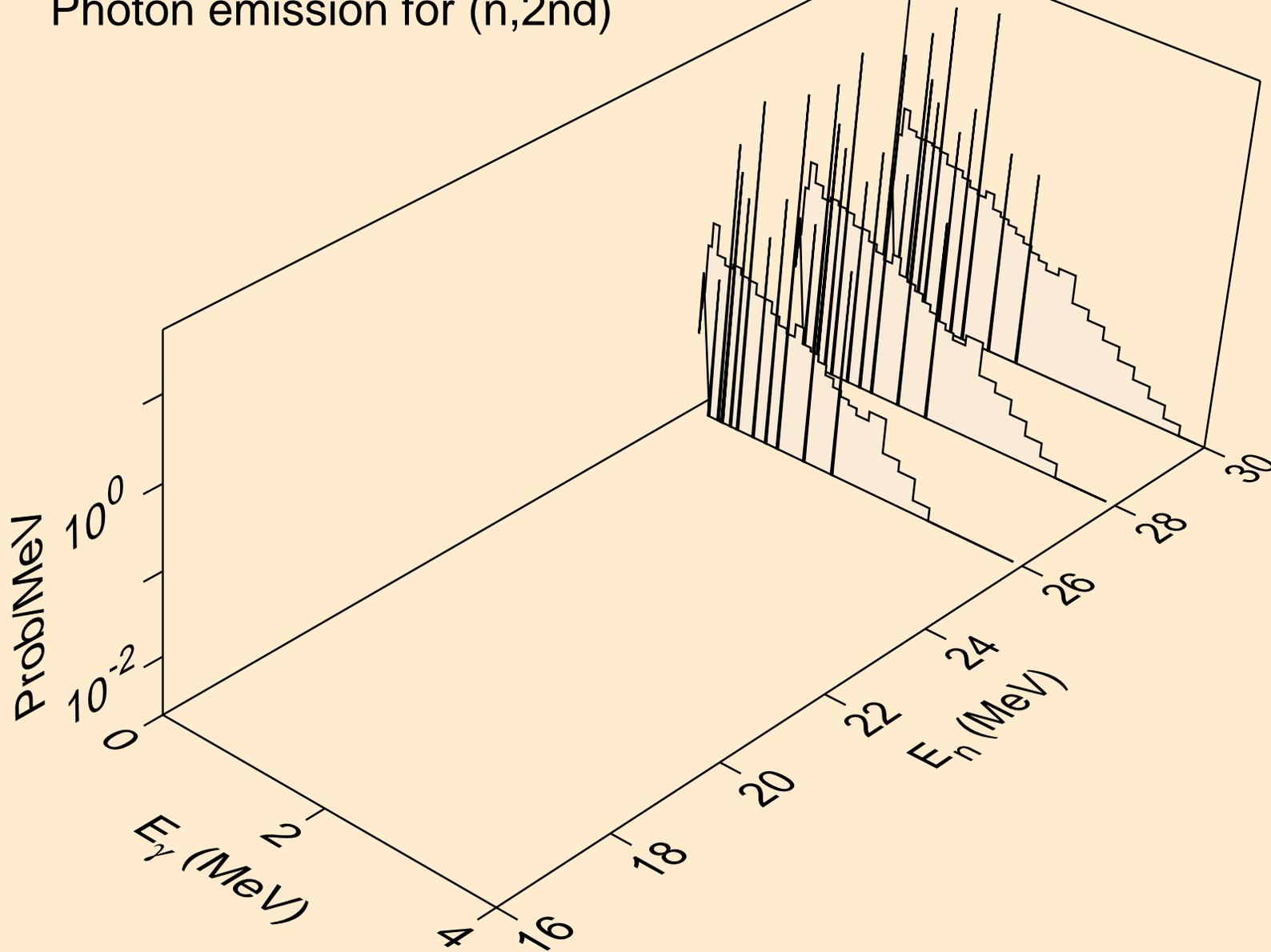BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,n*)t

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,n*)he3

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,4n)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,2np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
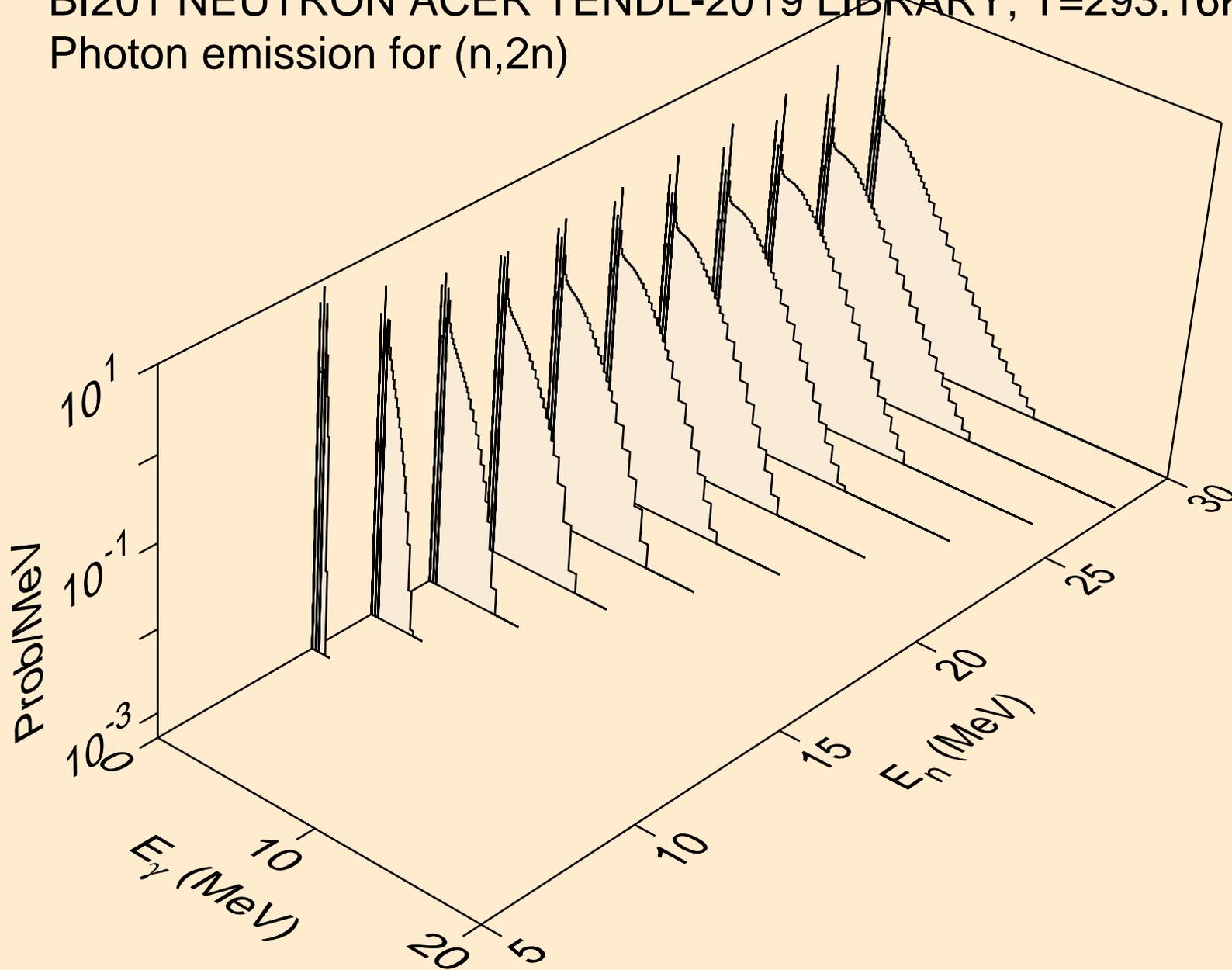Neutron emission for (n,3np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,2np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,npa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Neutron emission for (n,n*c)

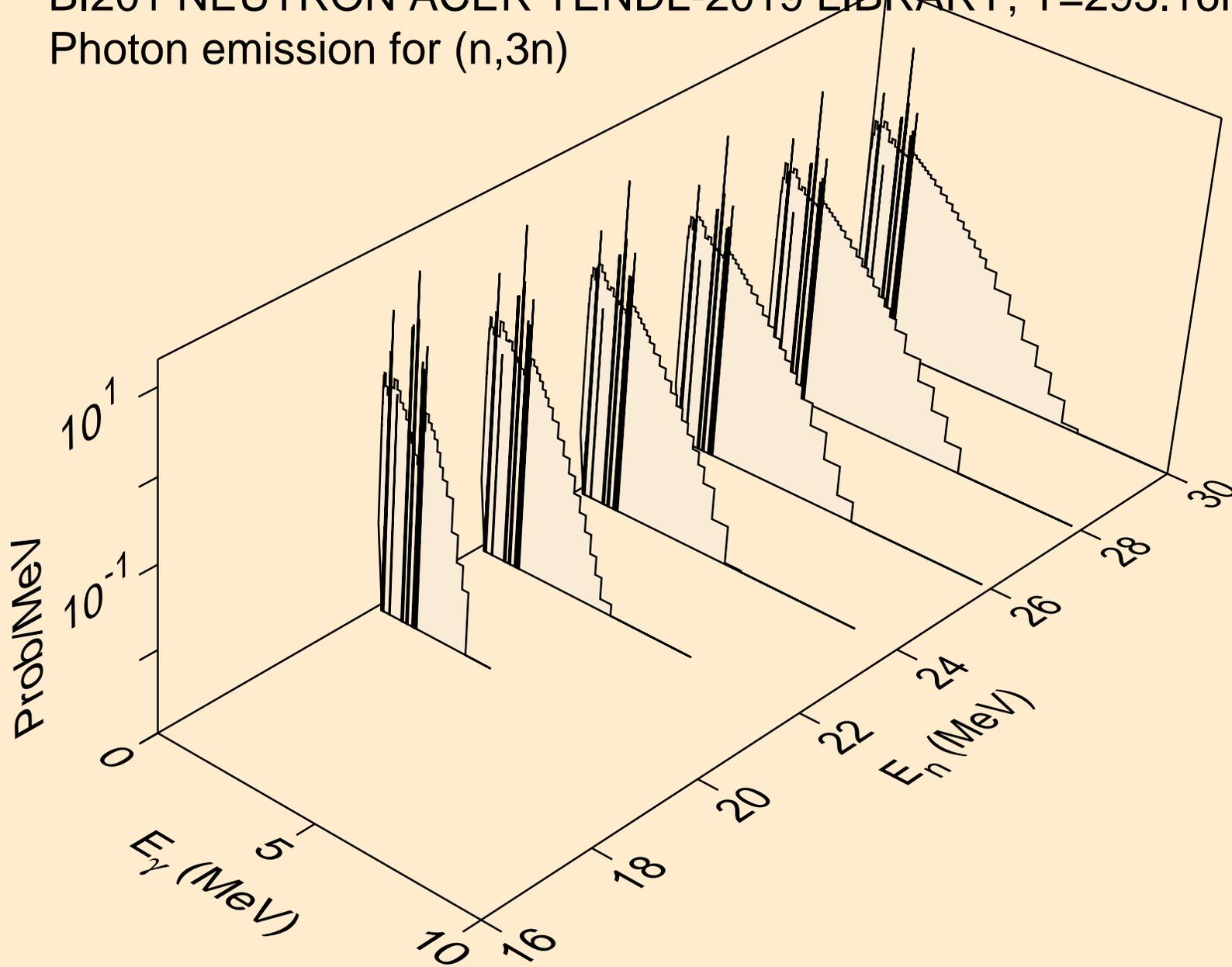BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,x)

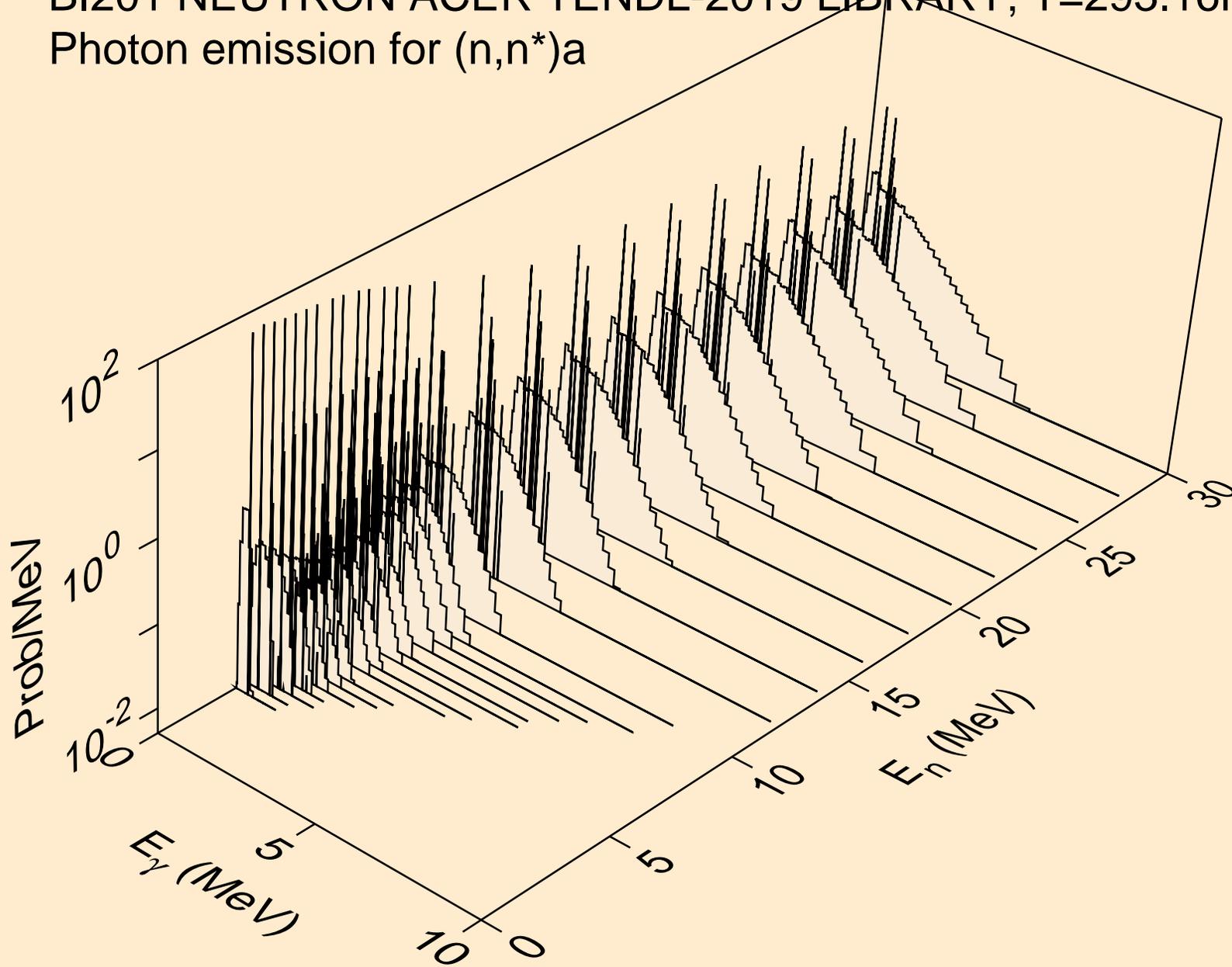BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,2nd)

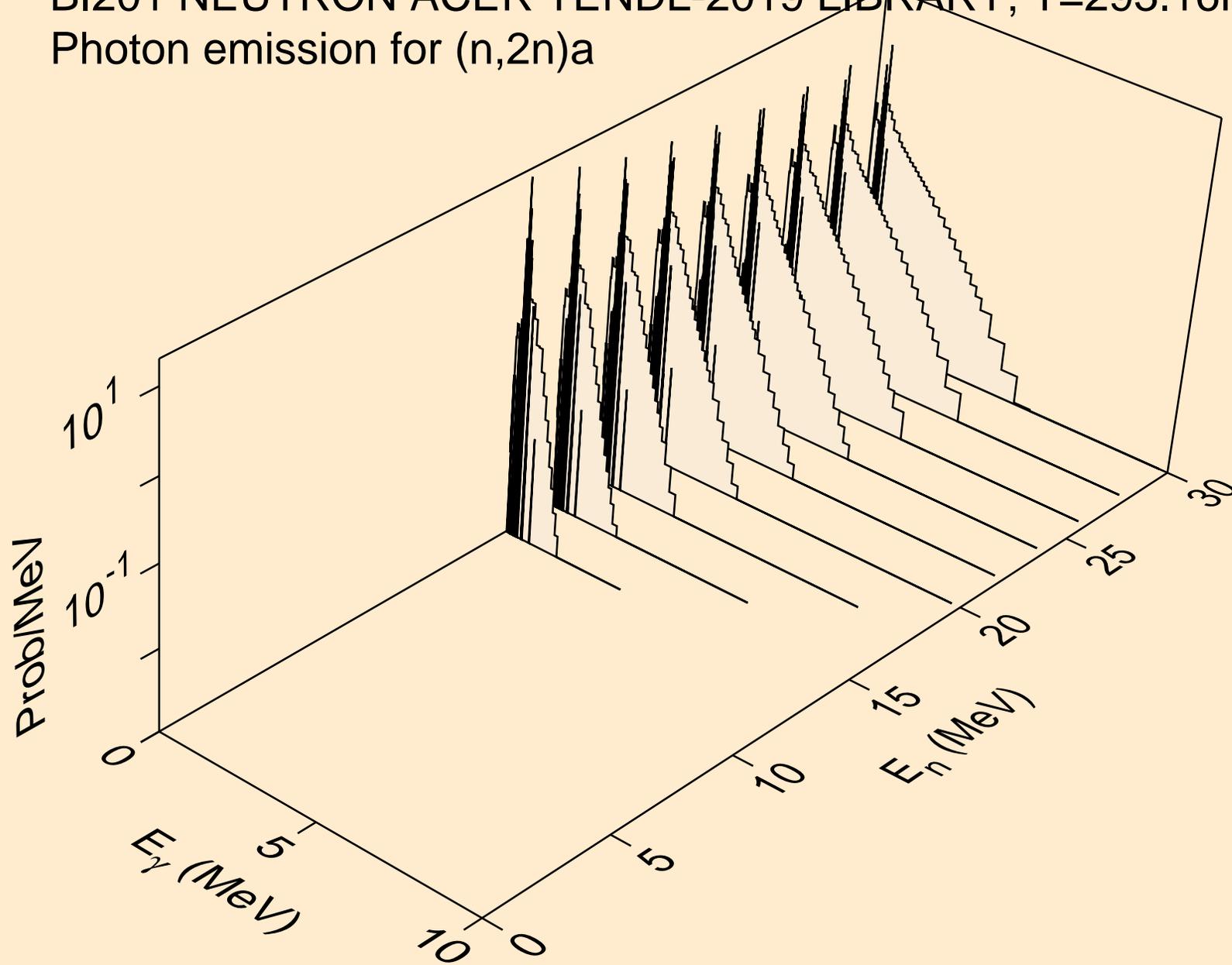BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,2n)

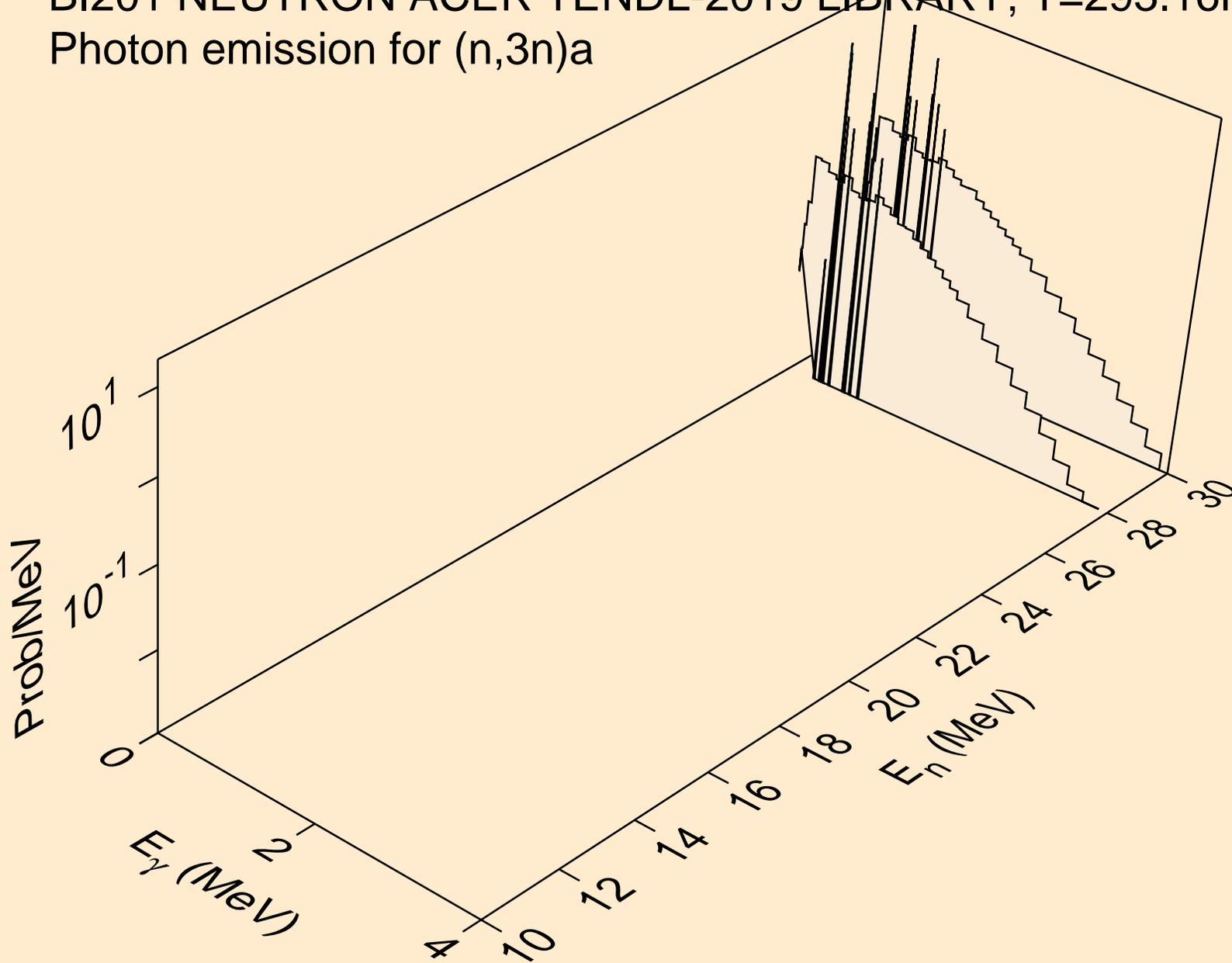BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,3n)

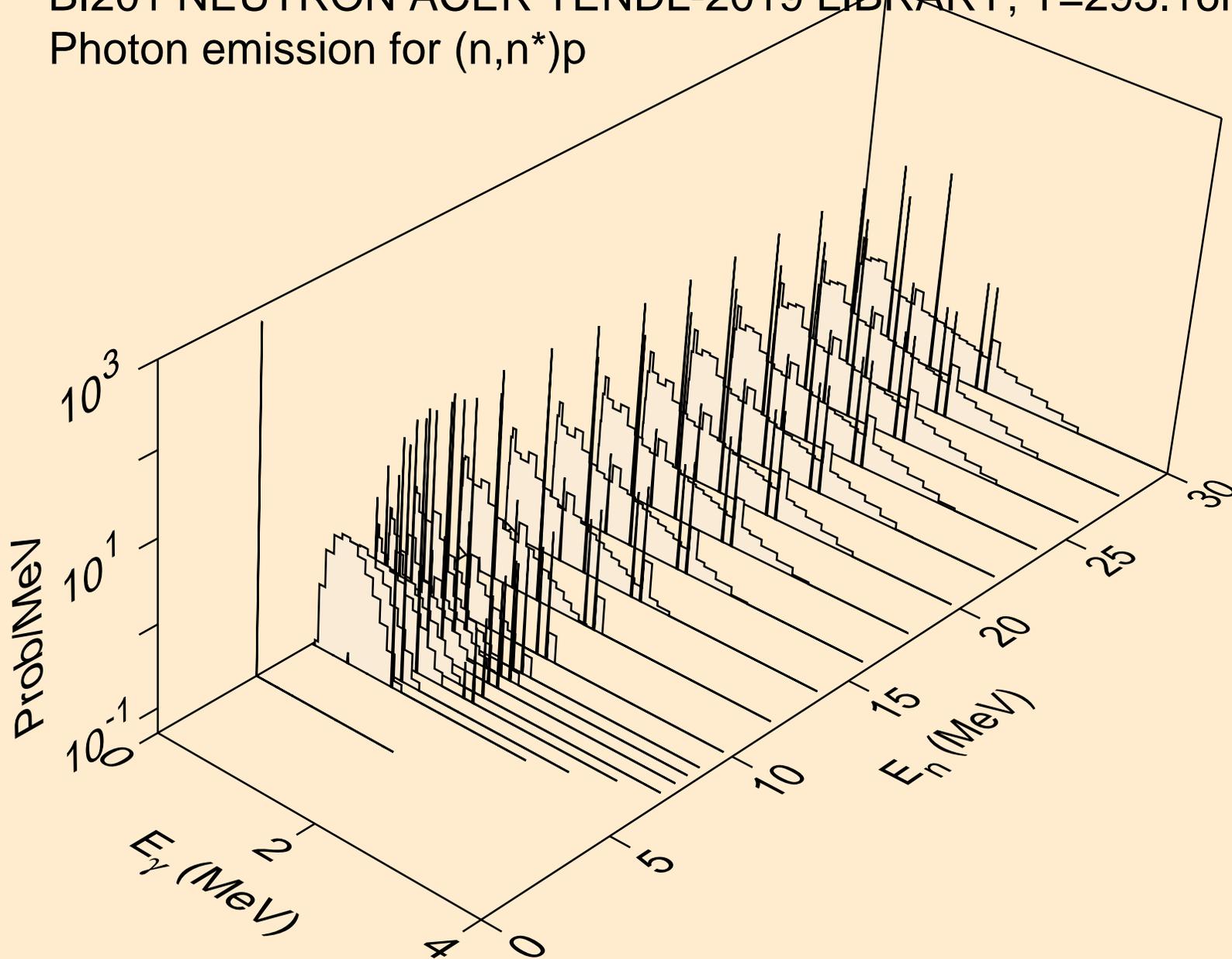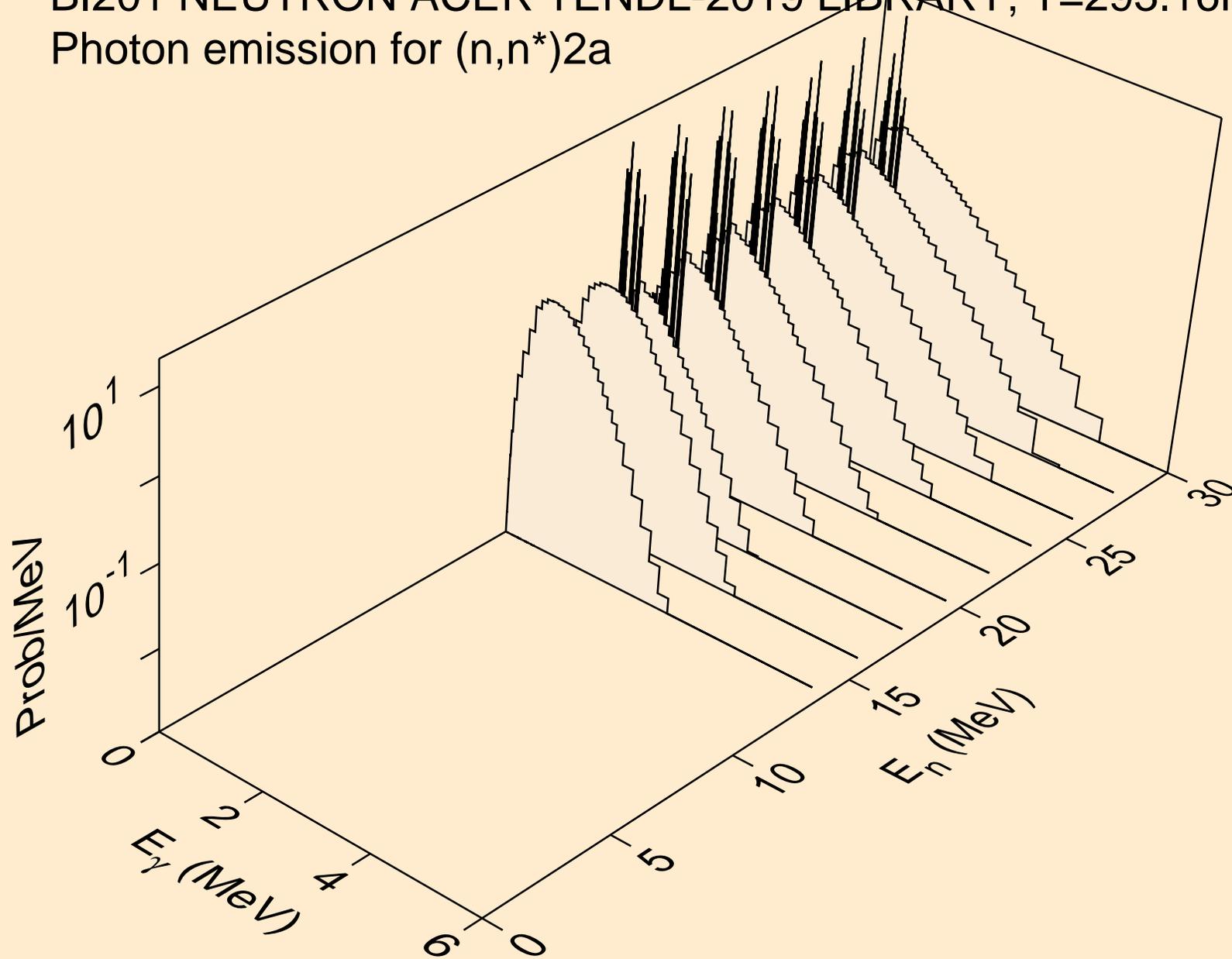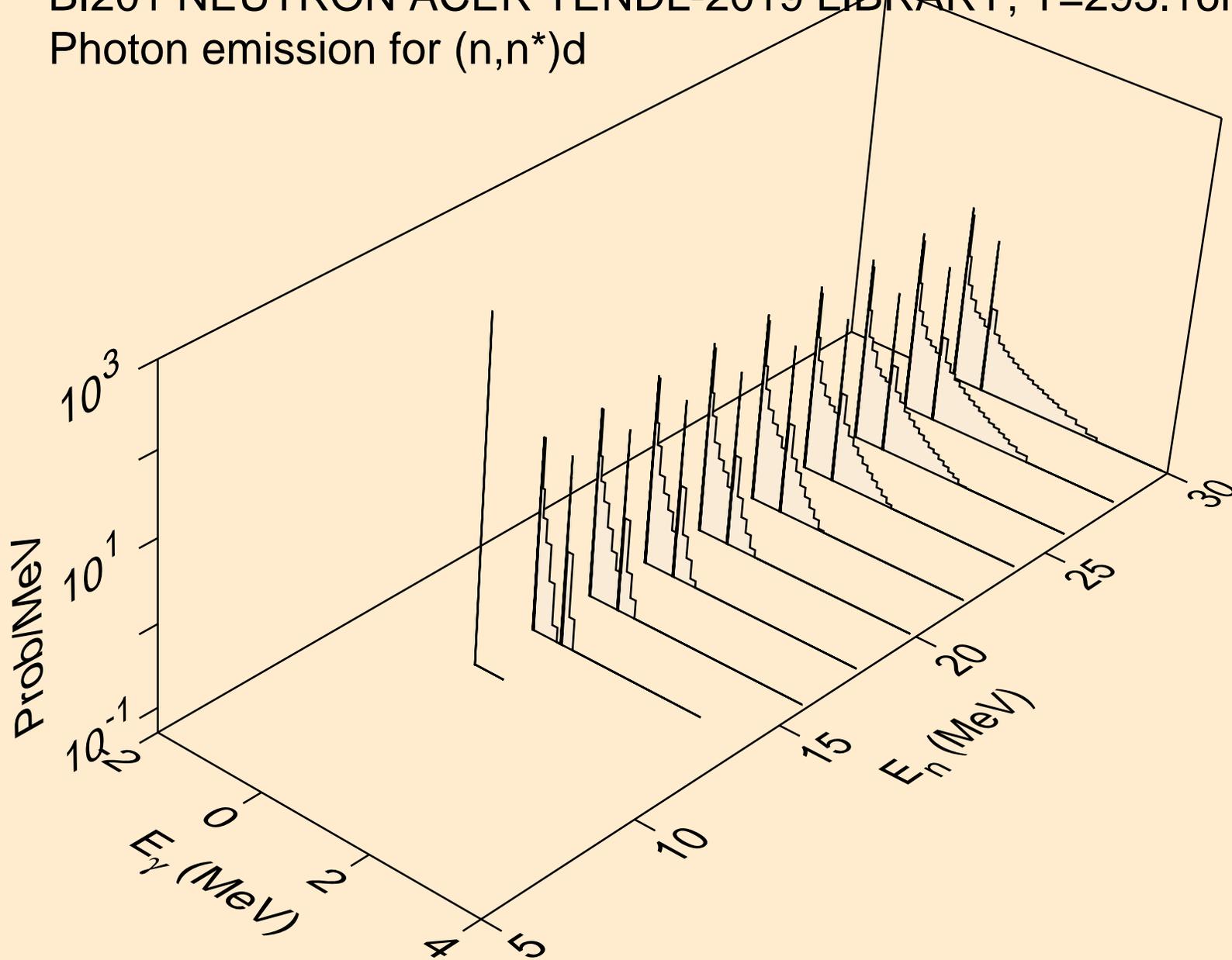BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,n*)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,2n)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,3n)a

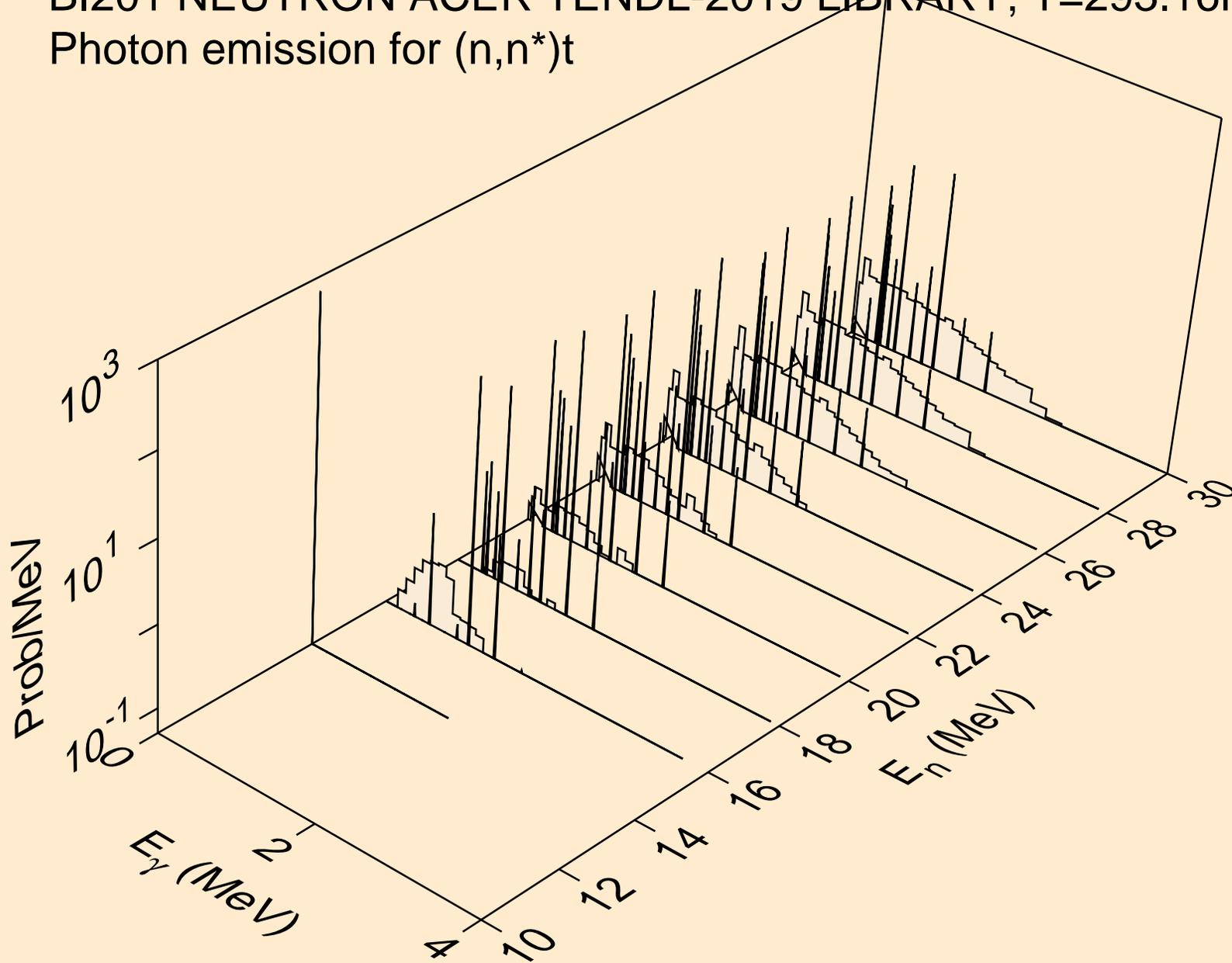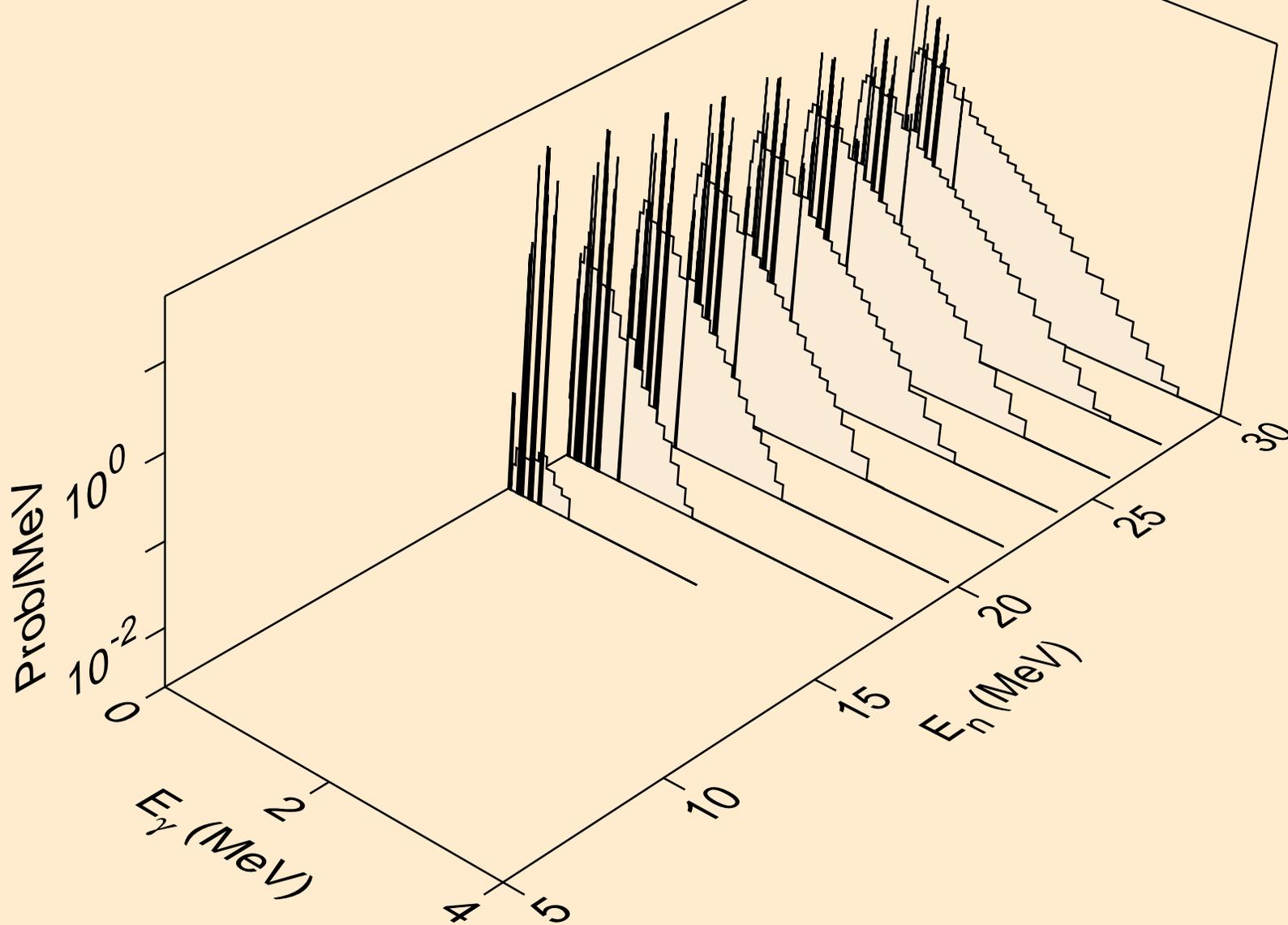BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,n*)p

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,n*)2a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
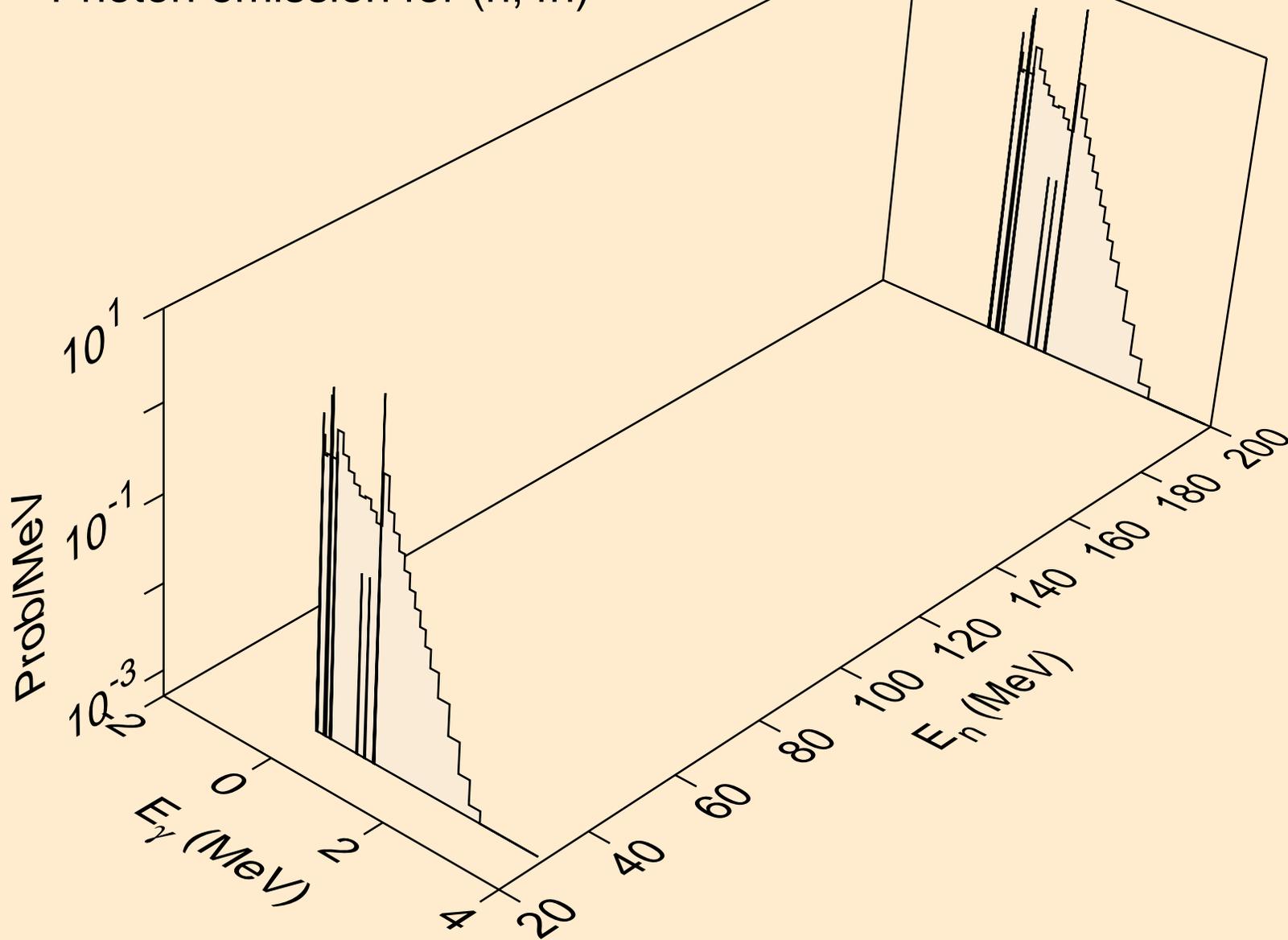Photon emission for (n,n*)d

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
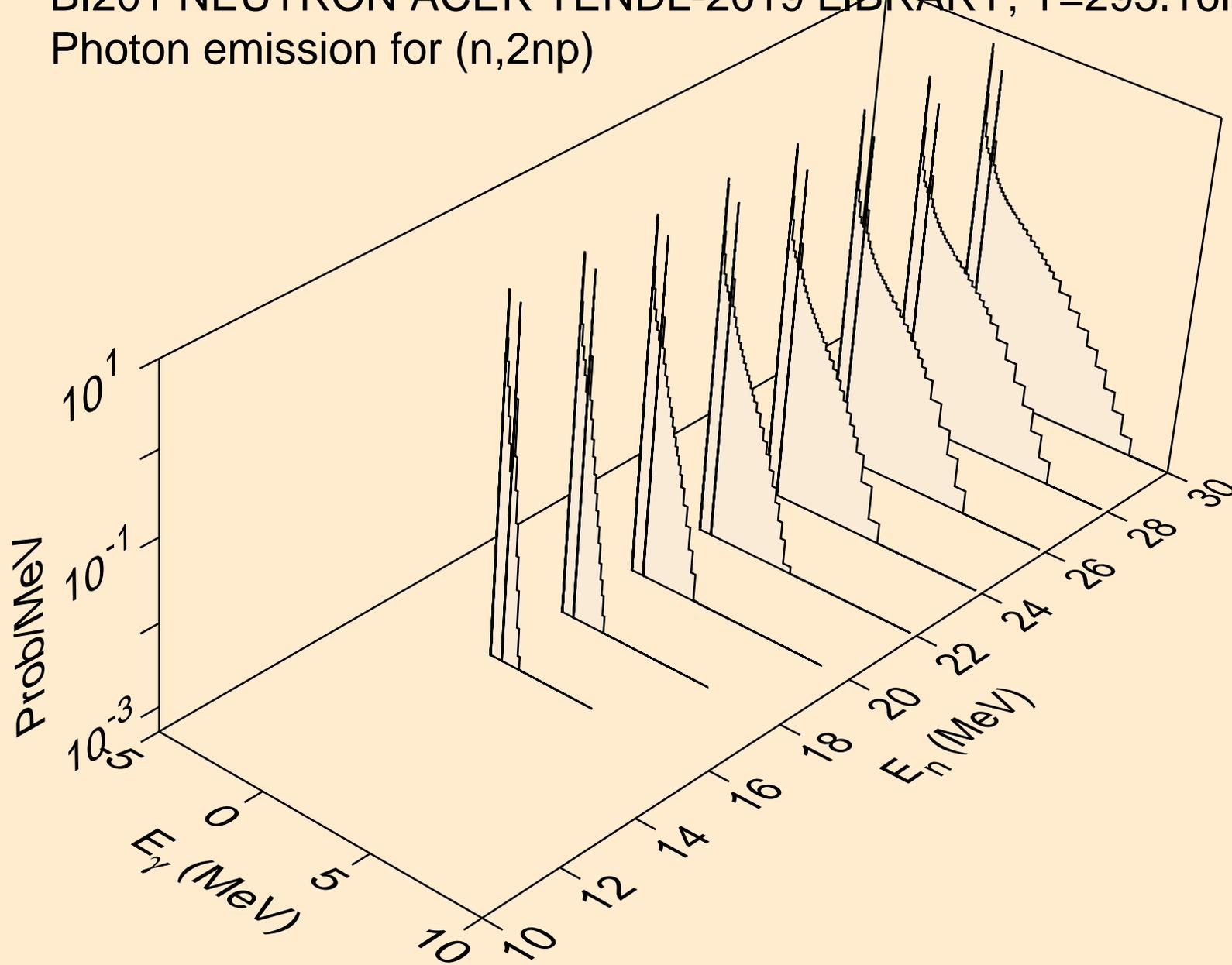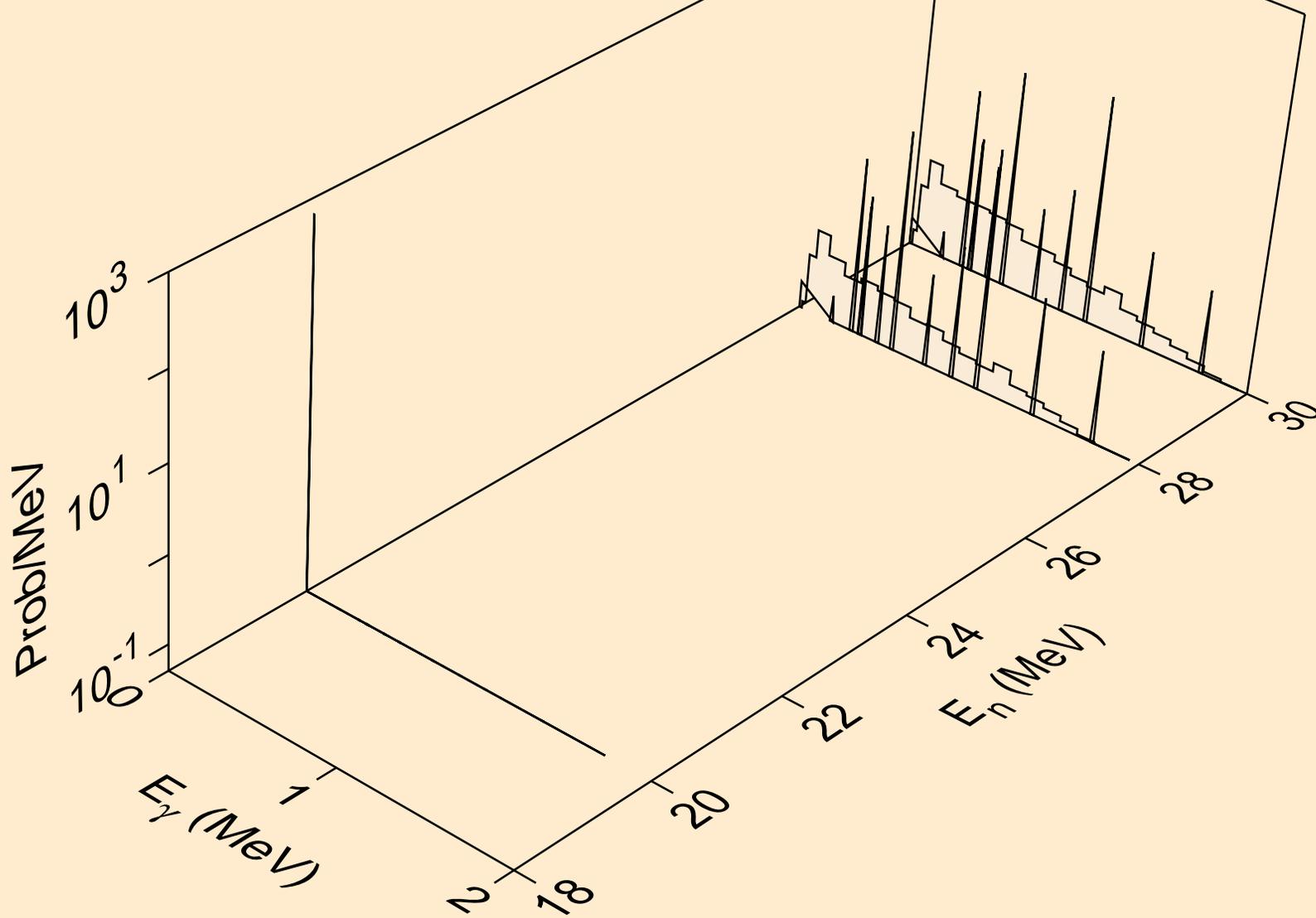Photon emission for (n,n*)t

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,n*)he3

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
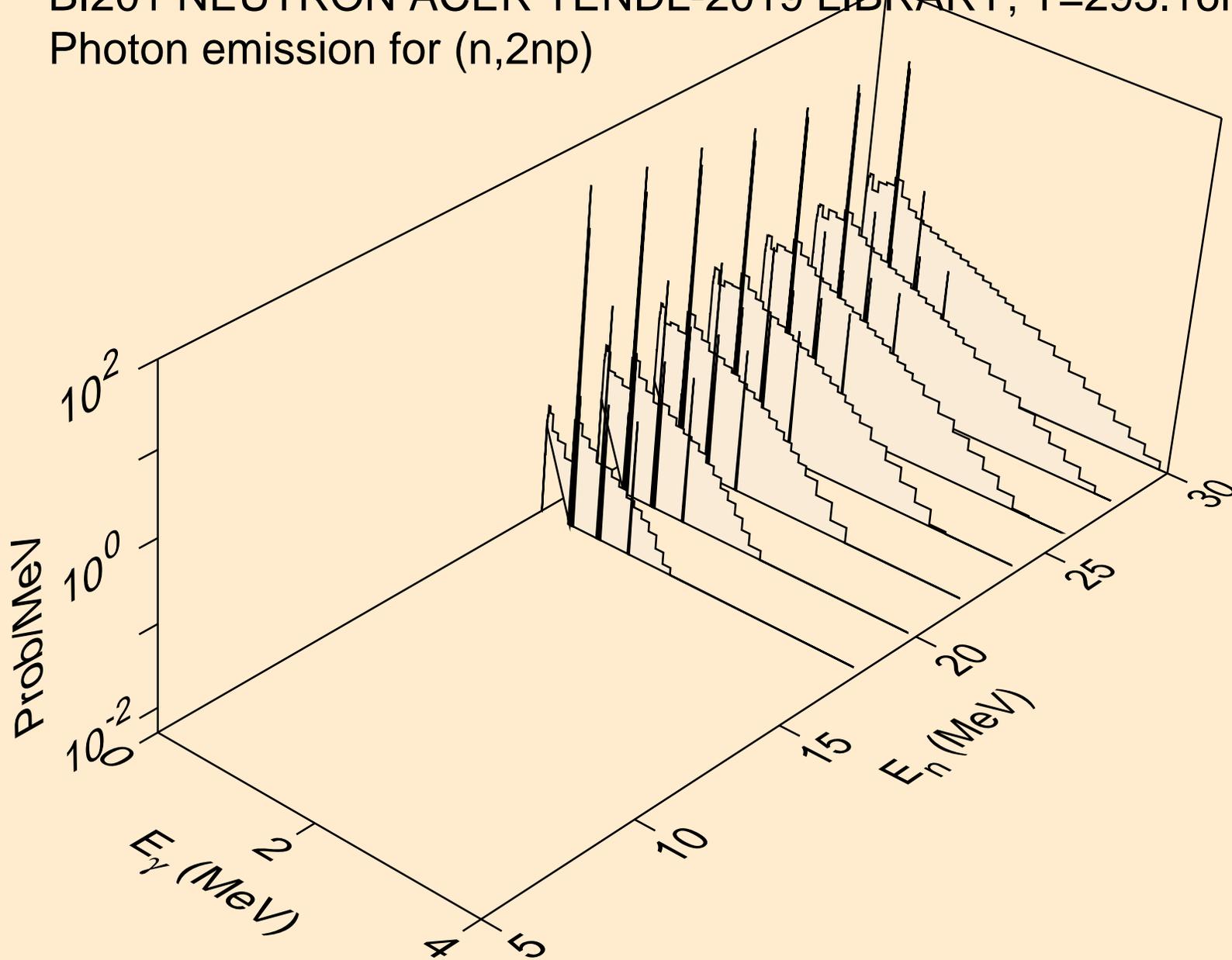Photon emission for (n,4n)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
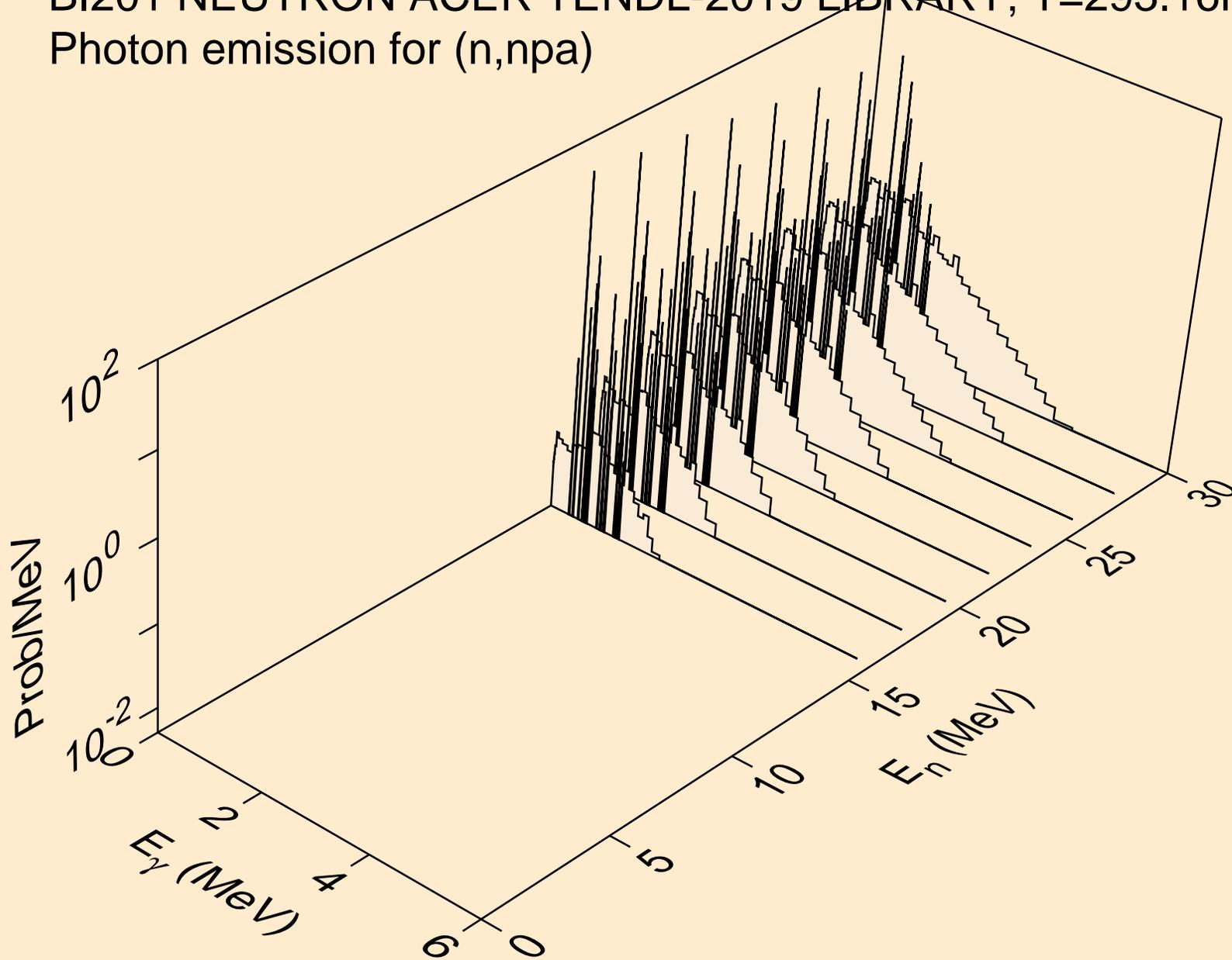Photon emission for (n,2np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
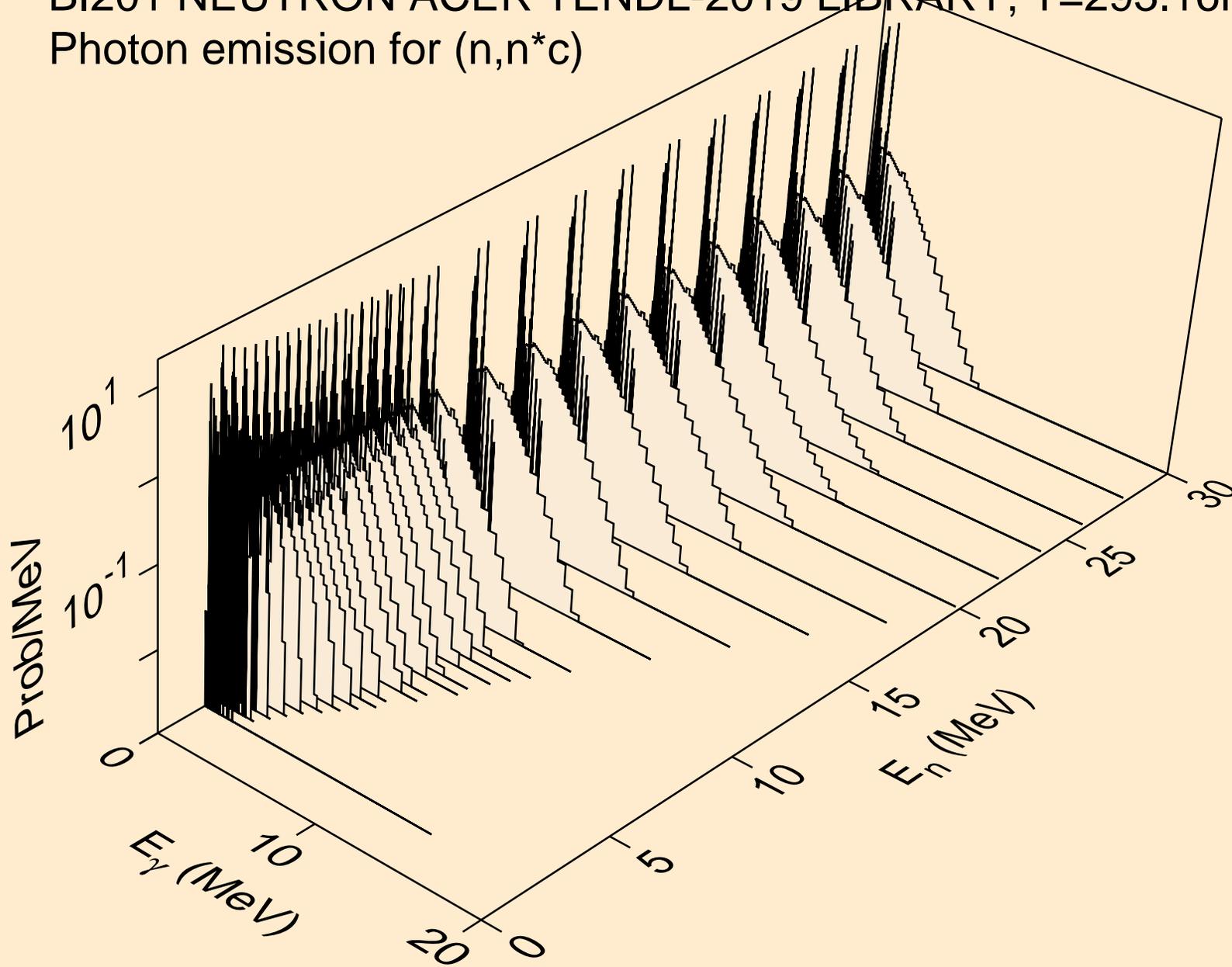Photon emission for (n,3np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
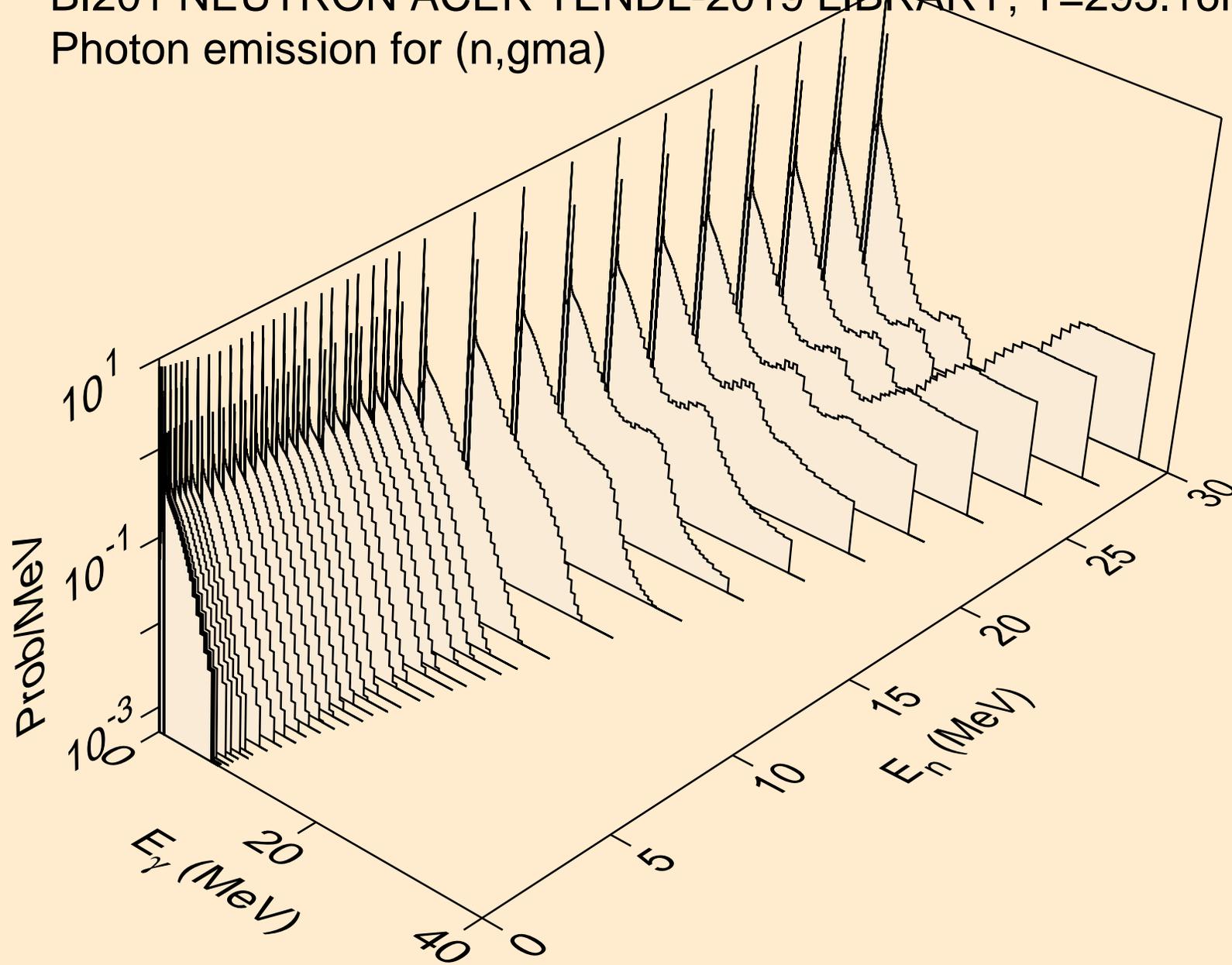Photon emission for (n,2np)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
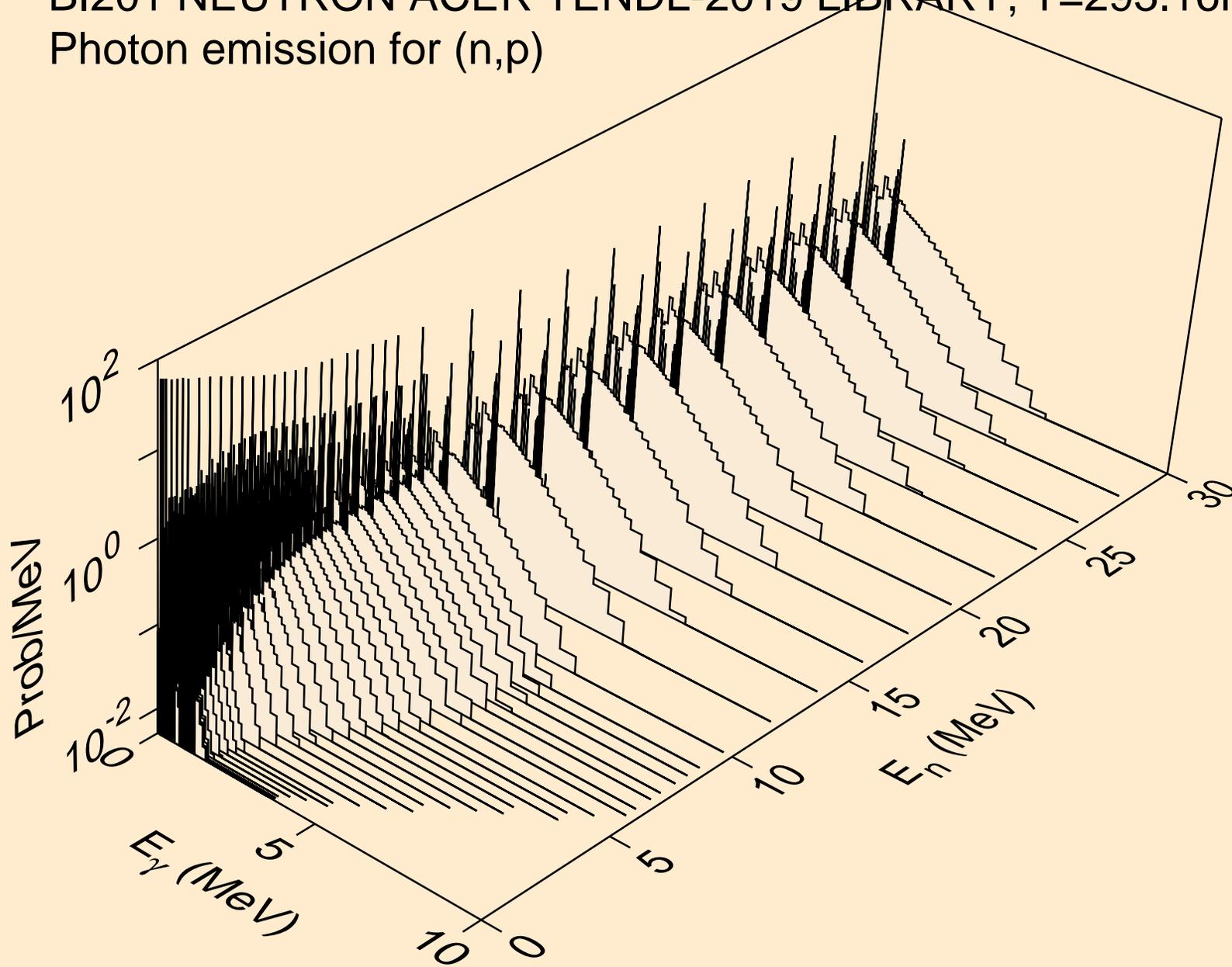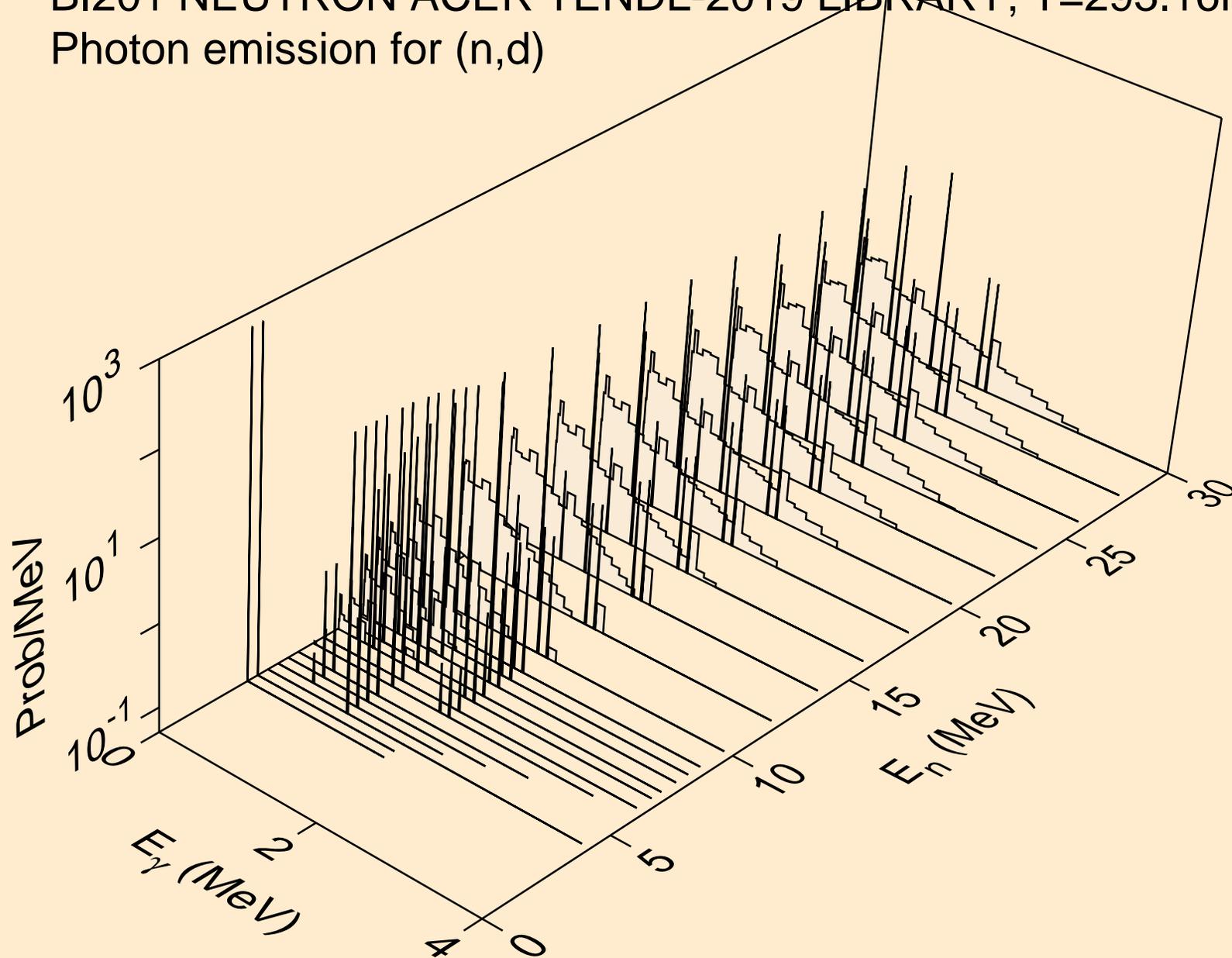Photon emission for (n,npa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,n*c)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
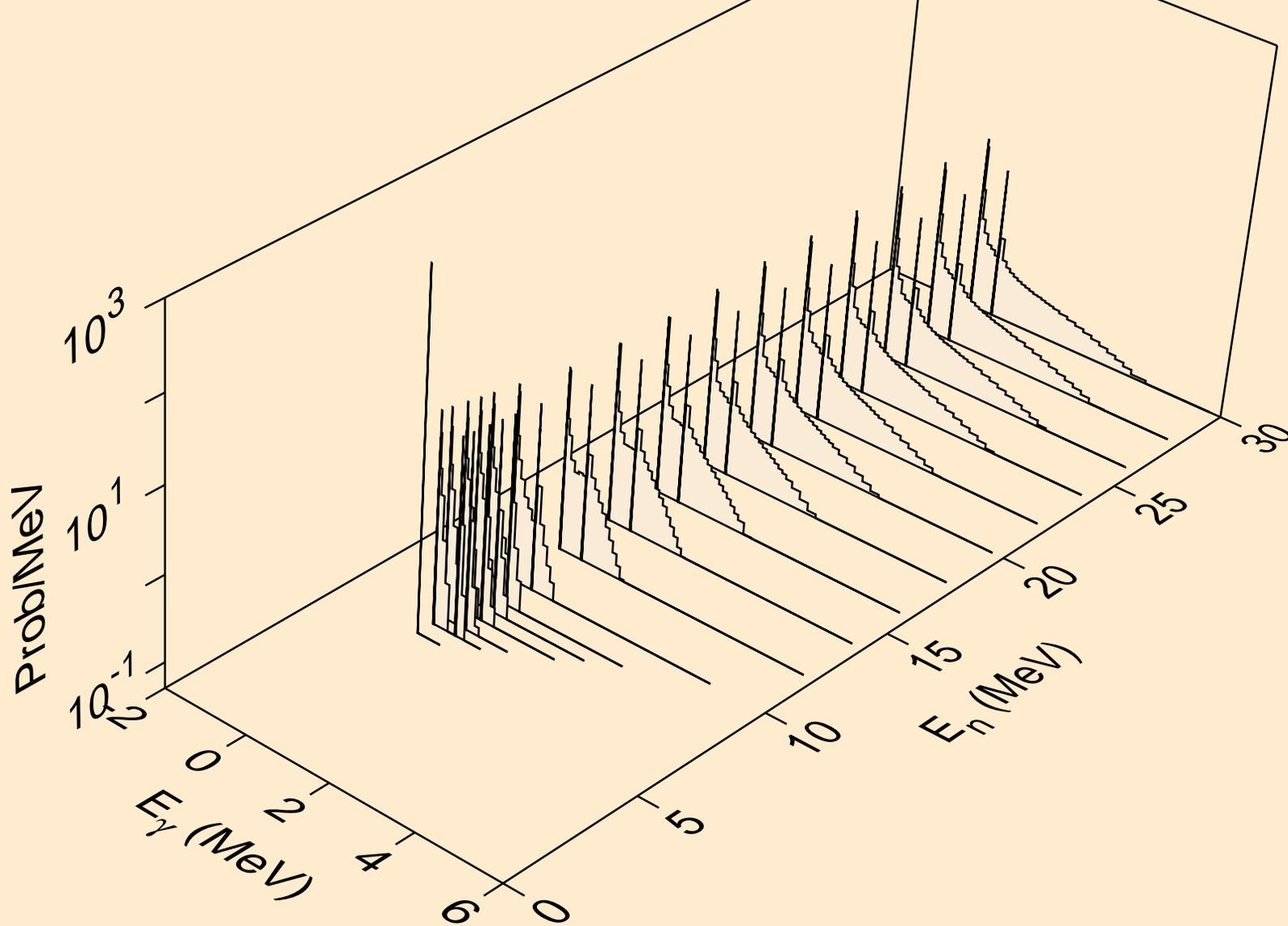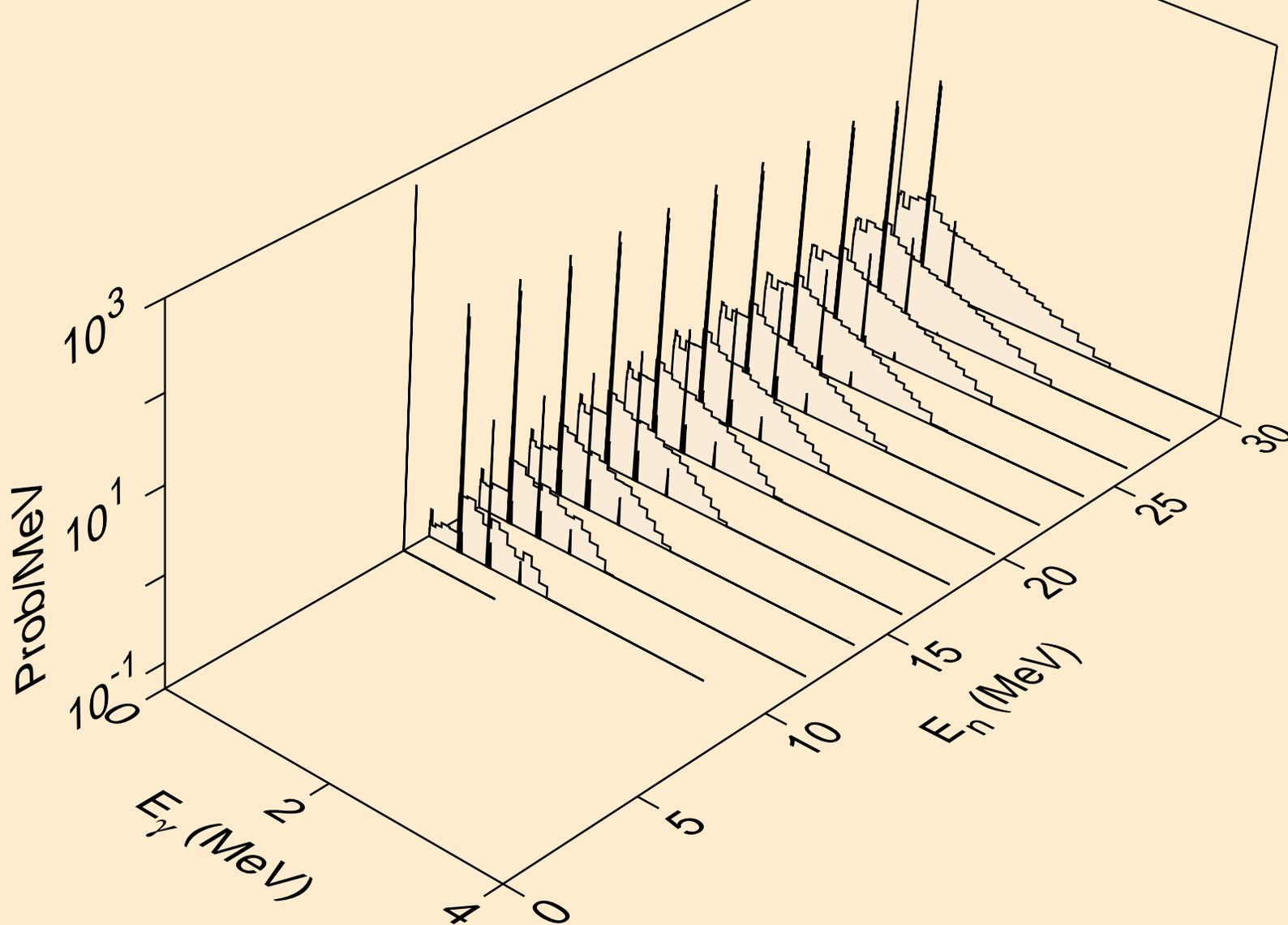Photon emission for (n,gma)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,p)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
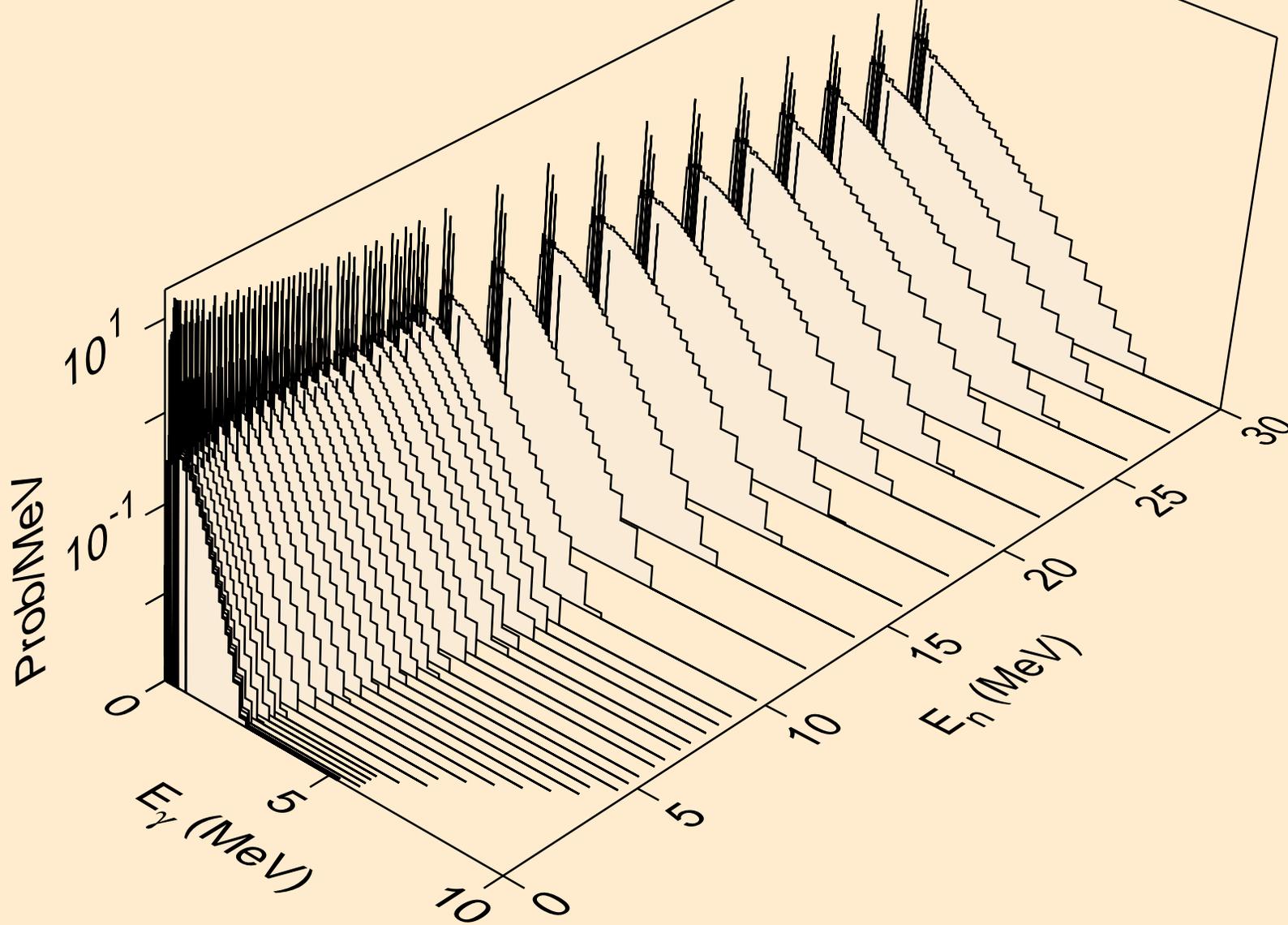Photon emission for (n,d)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
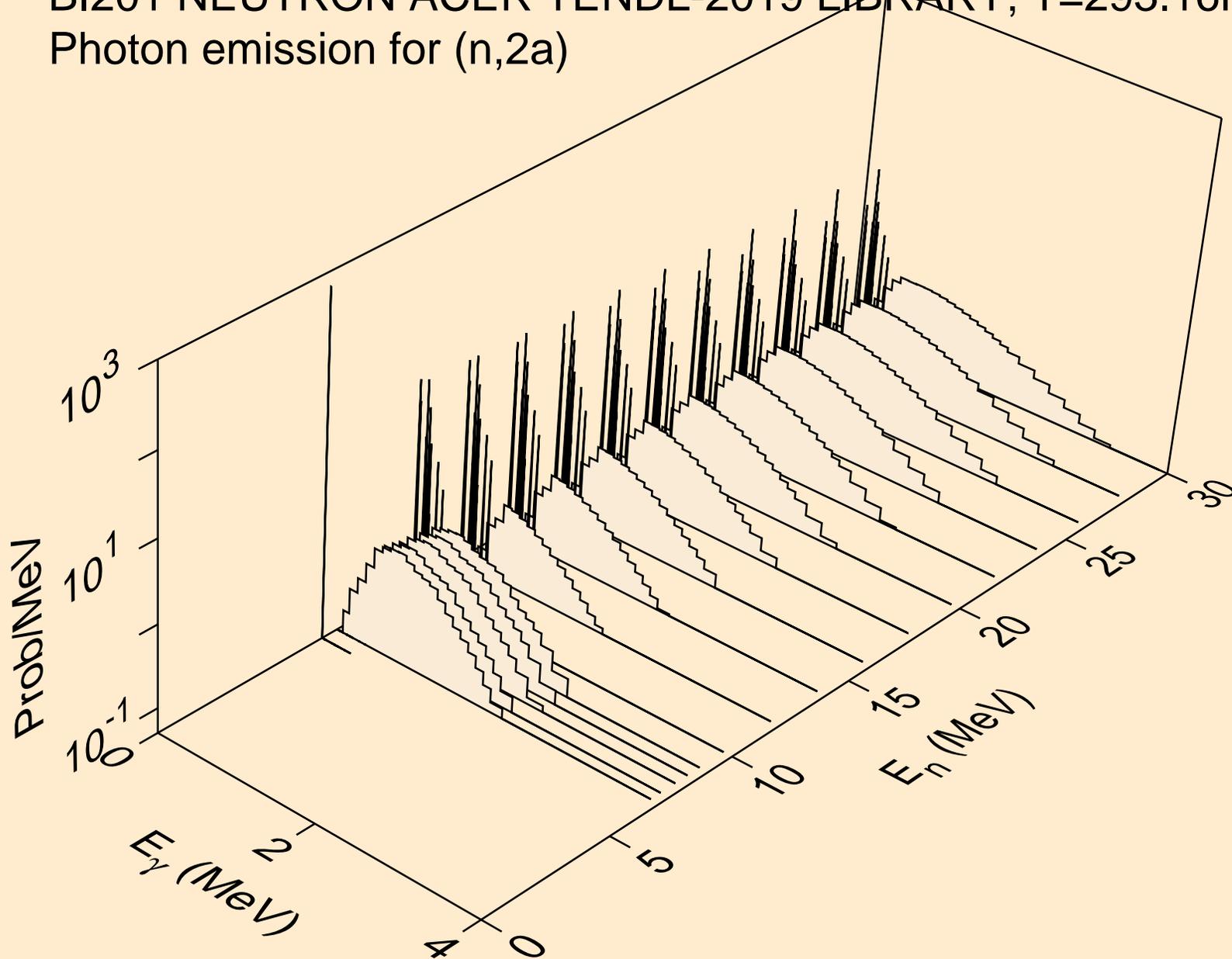Photon emission for (n,t)

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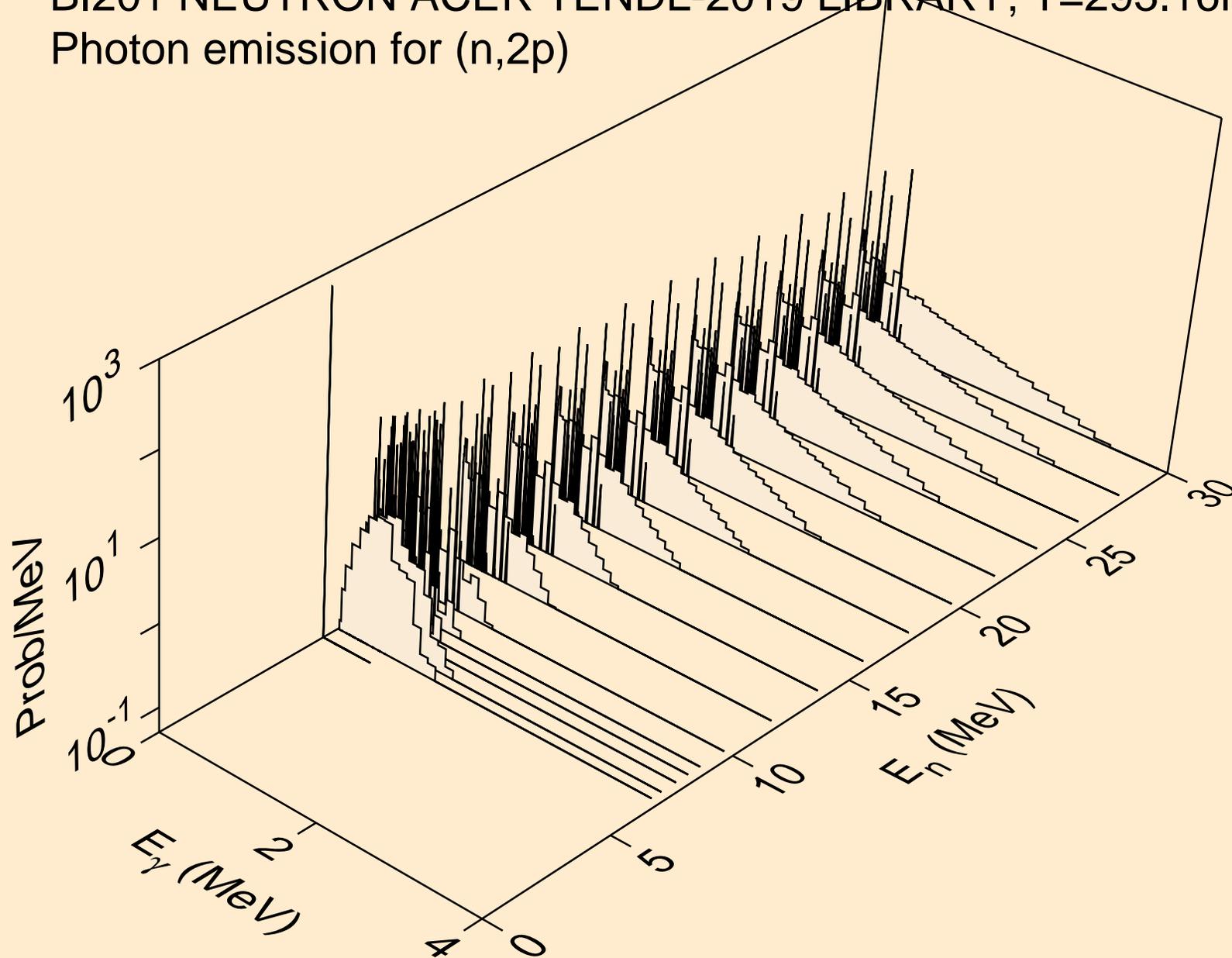Photon emission for (n,he3)

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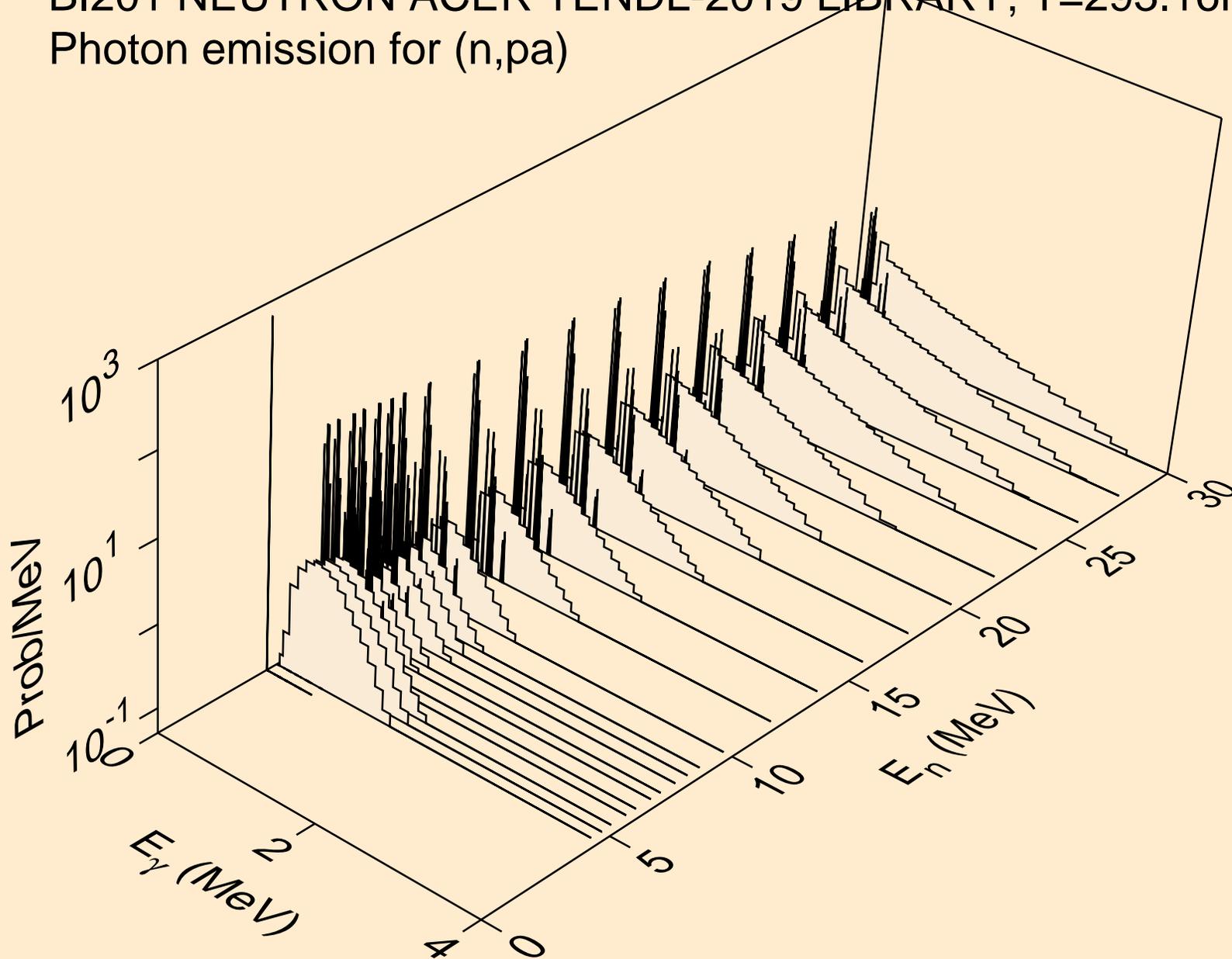Photon emission for (n,a)

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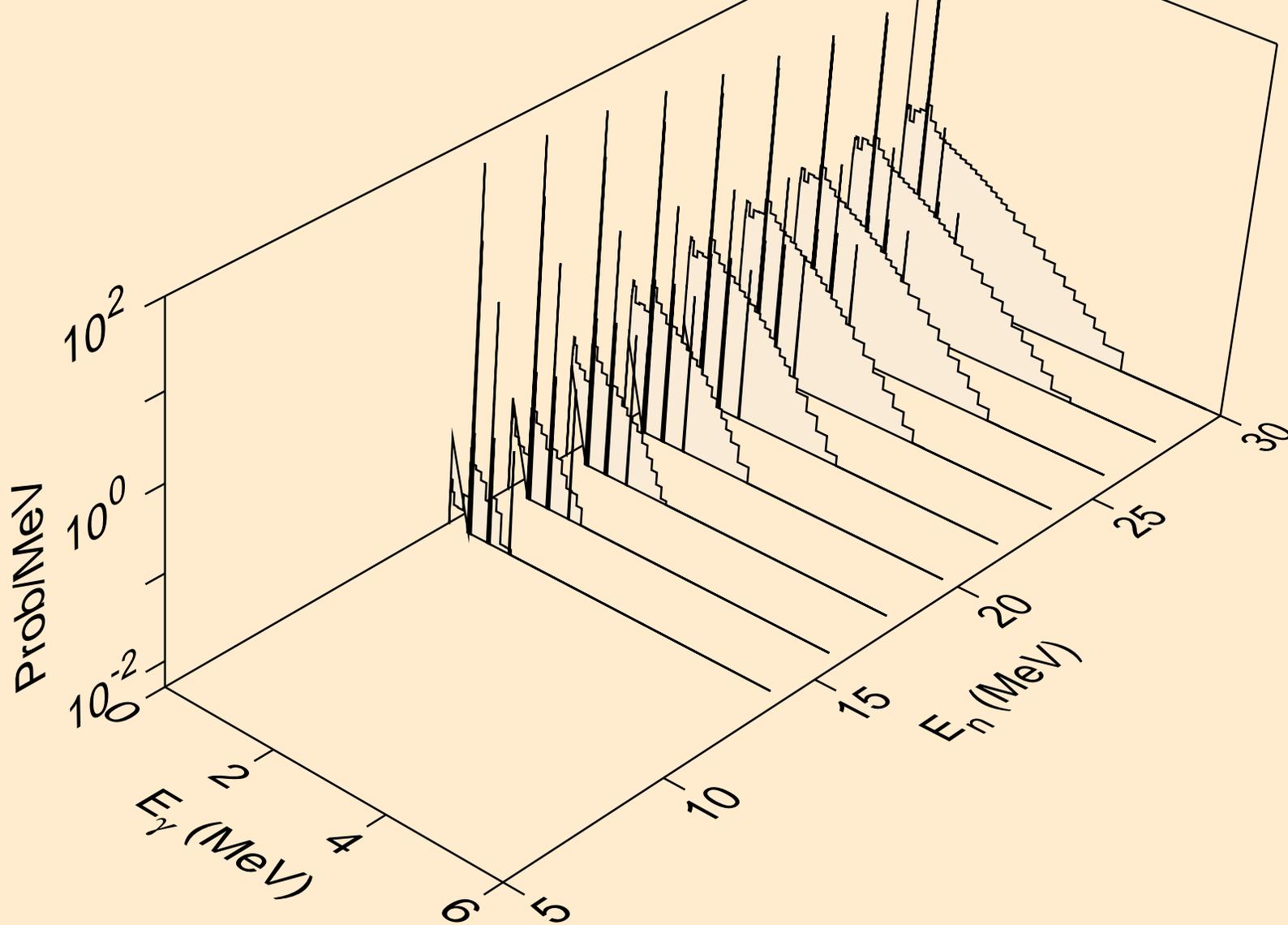Photon emission for (n,2a)

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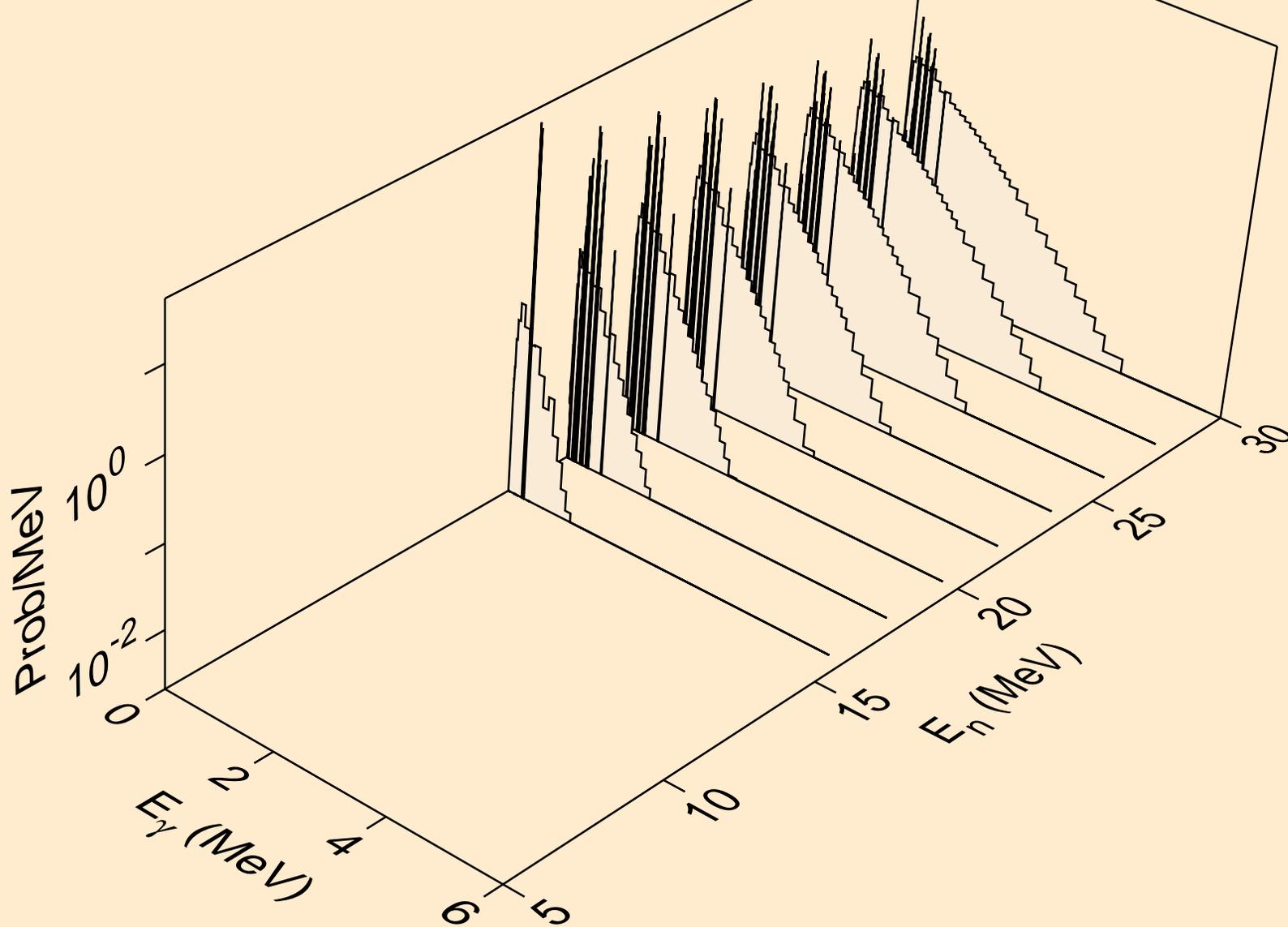Photon emission for (n,2p)

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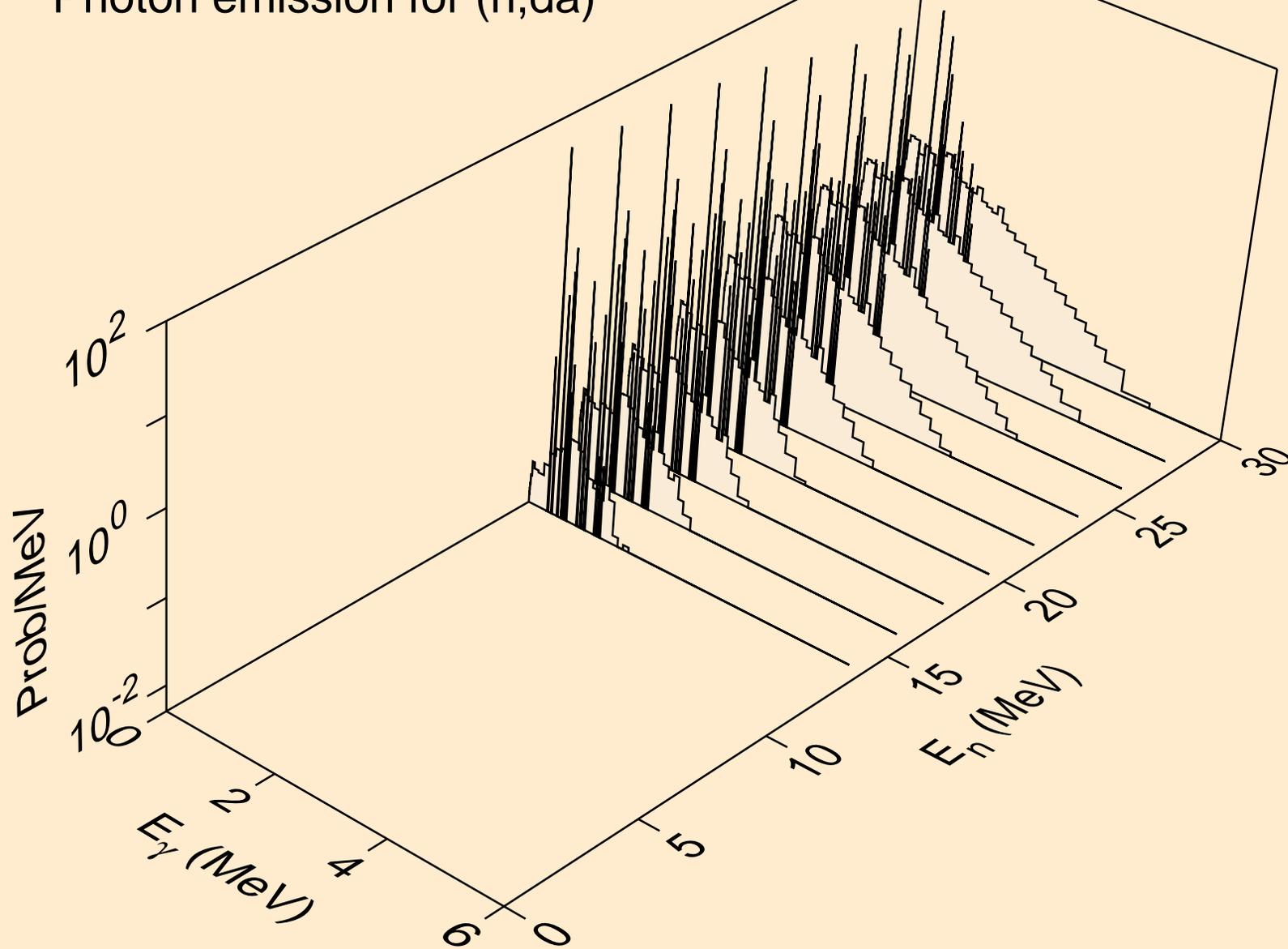Photon emission for (n,pa)

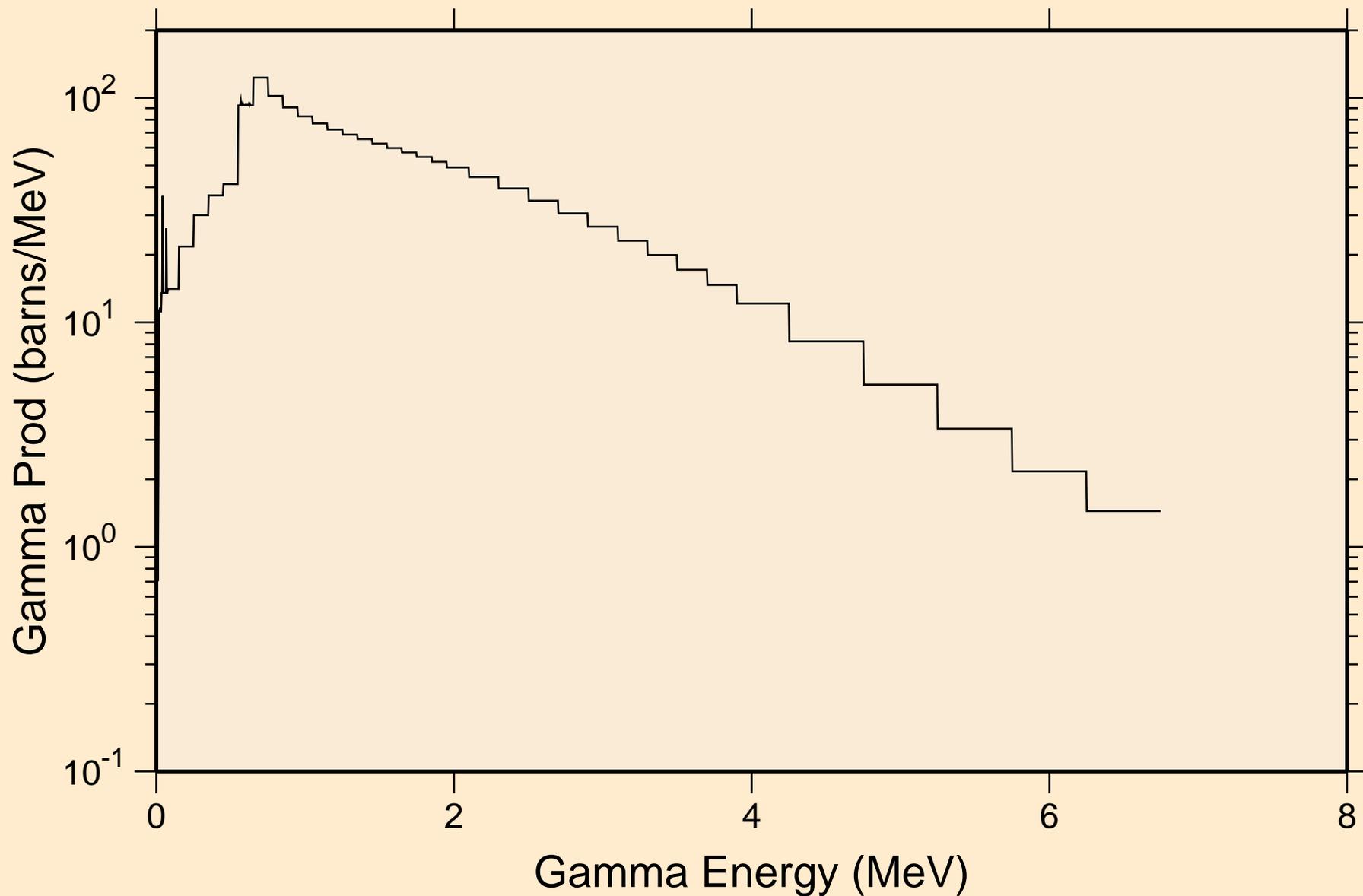BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Photon emission for (n,pd)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
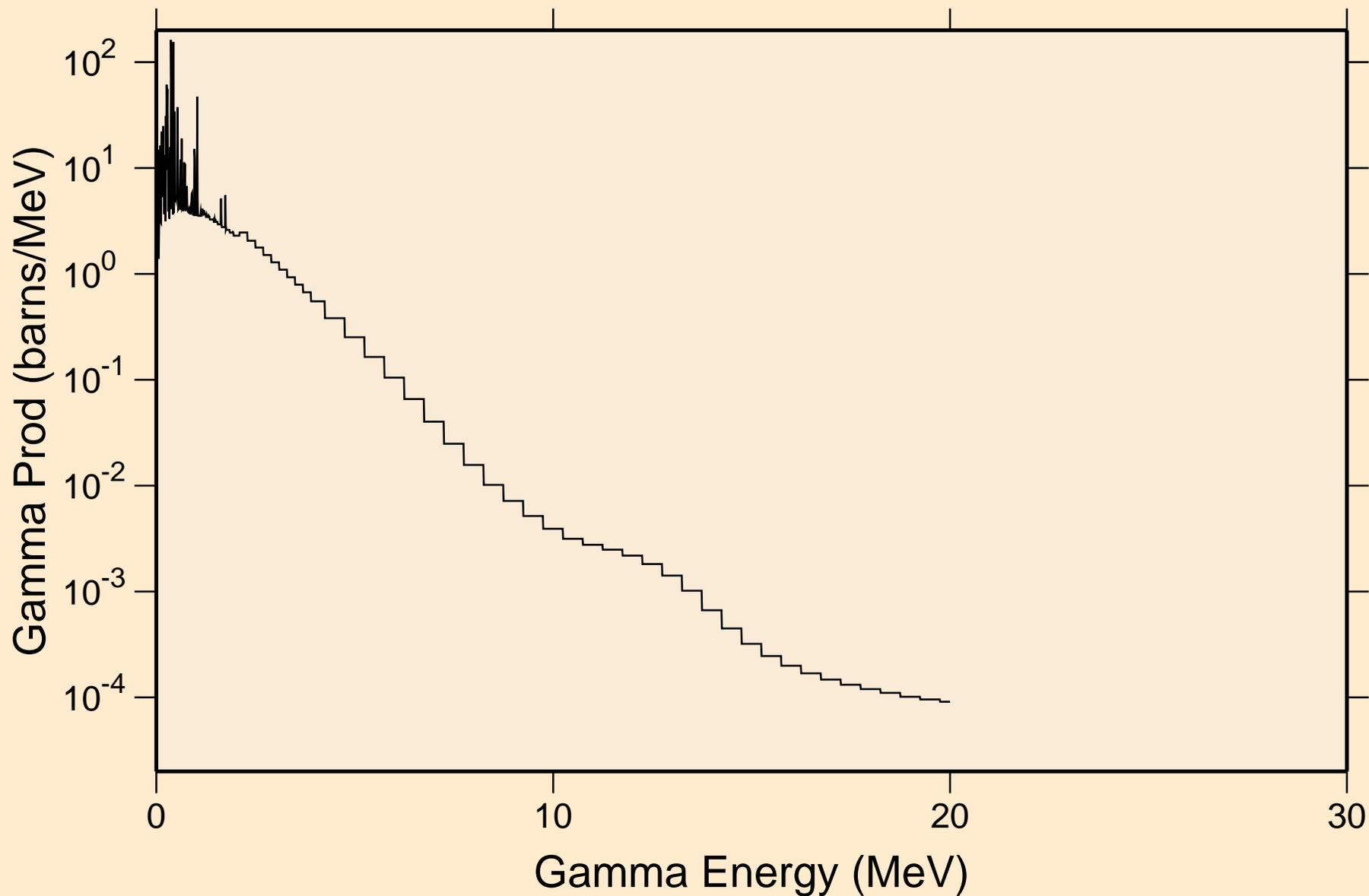Photon emission for (n,pt)

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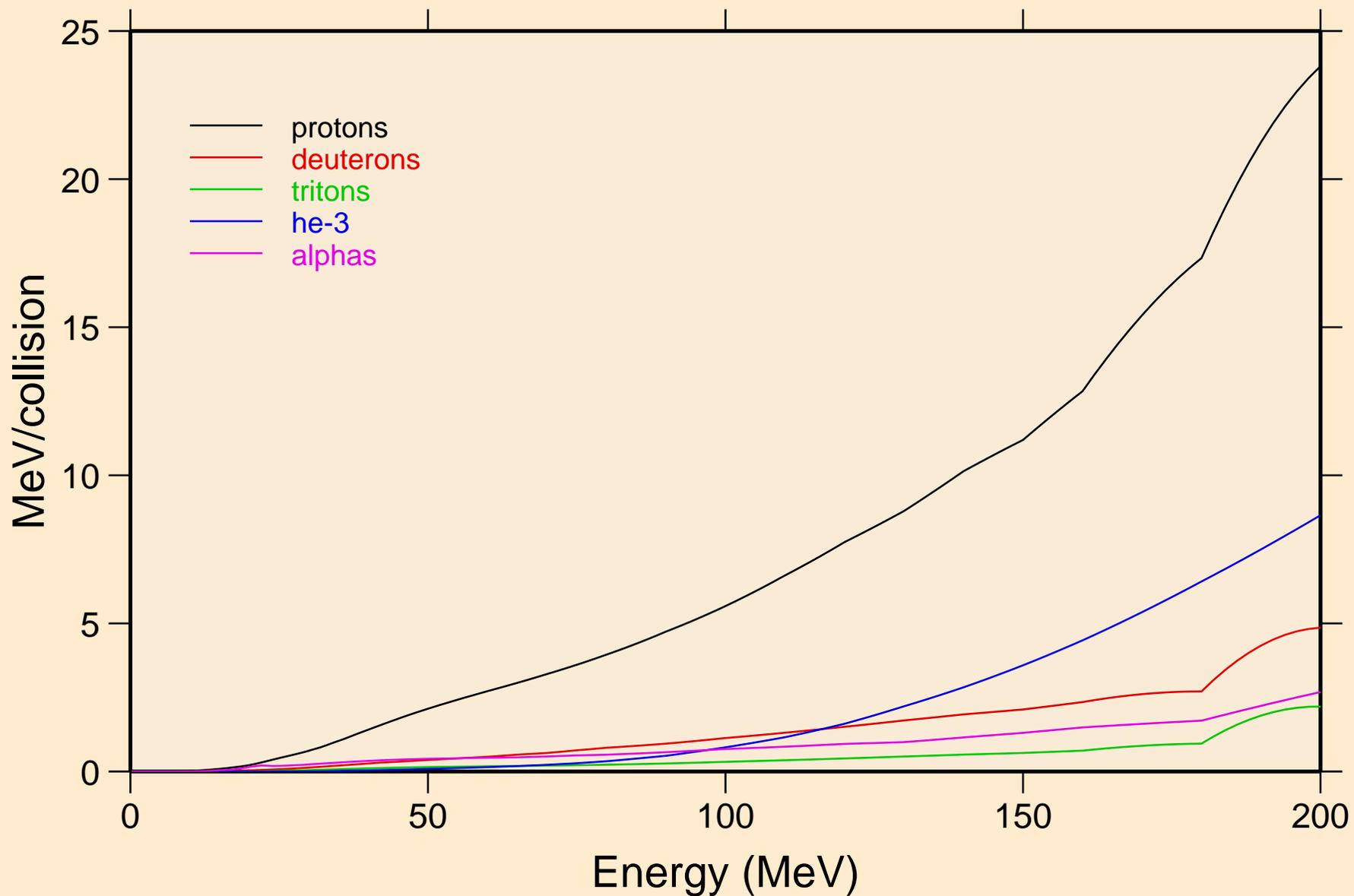Photon emission for (n,da)

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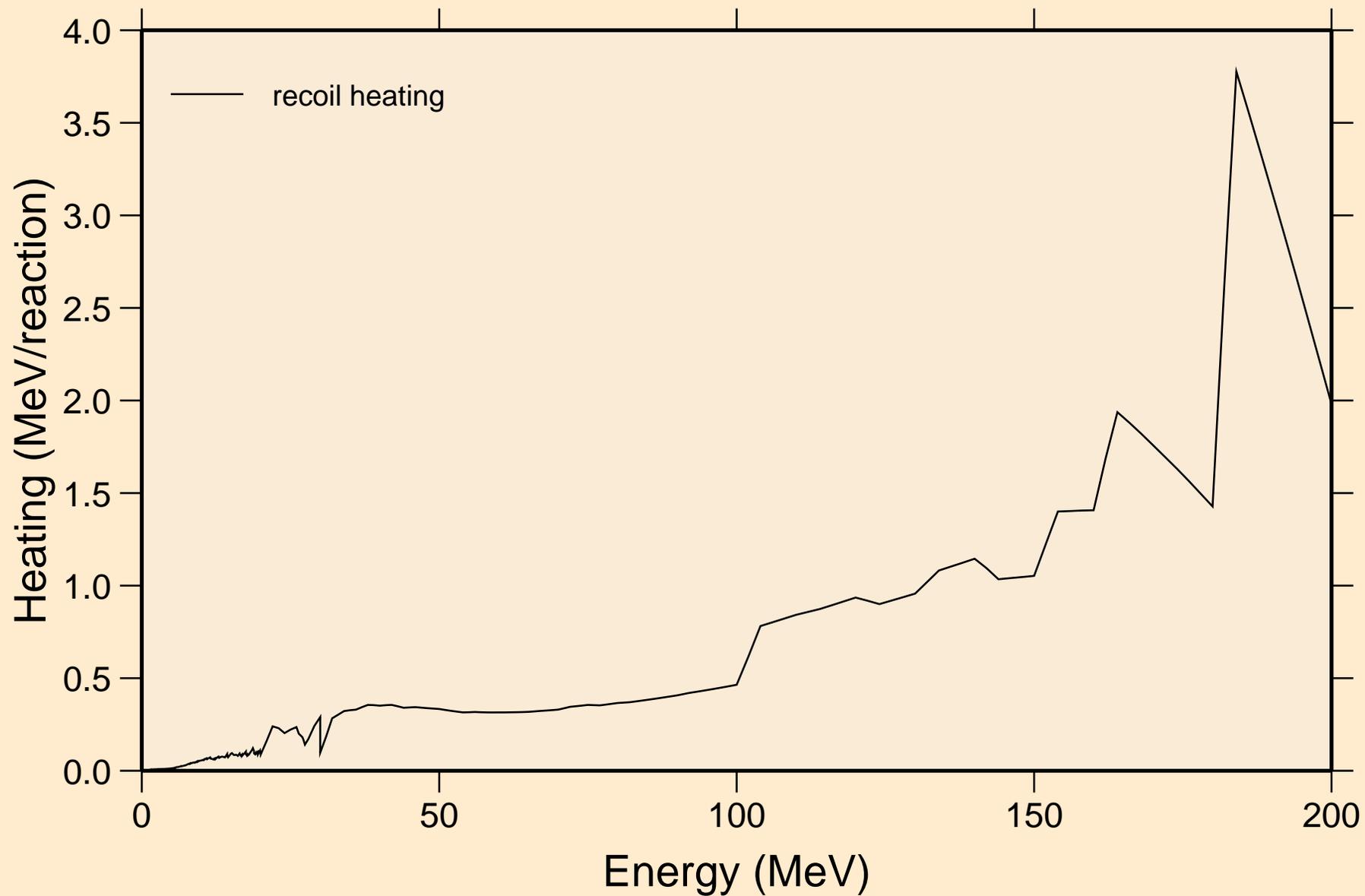thermal capture photon spectrum

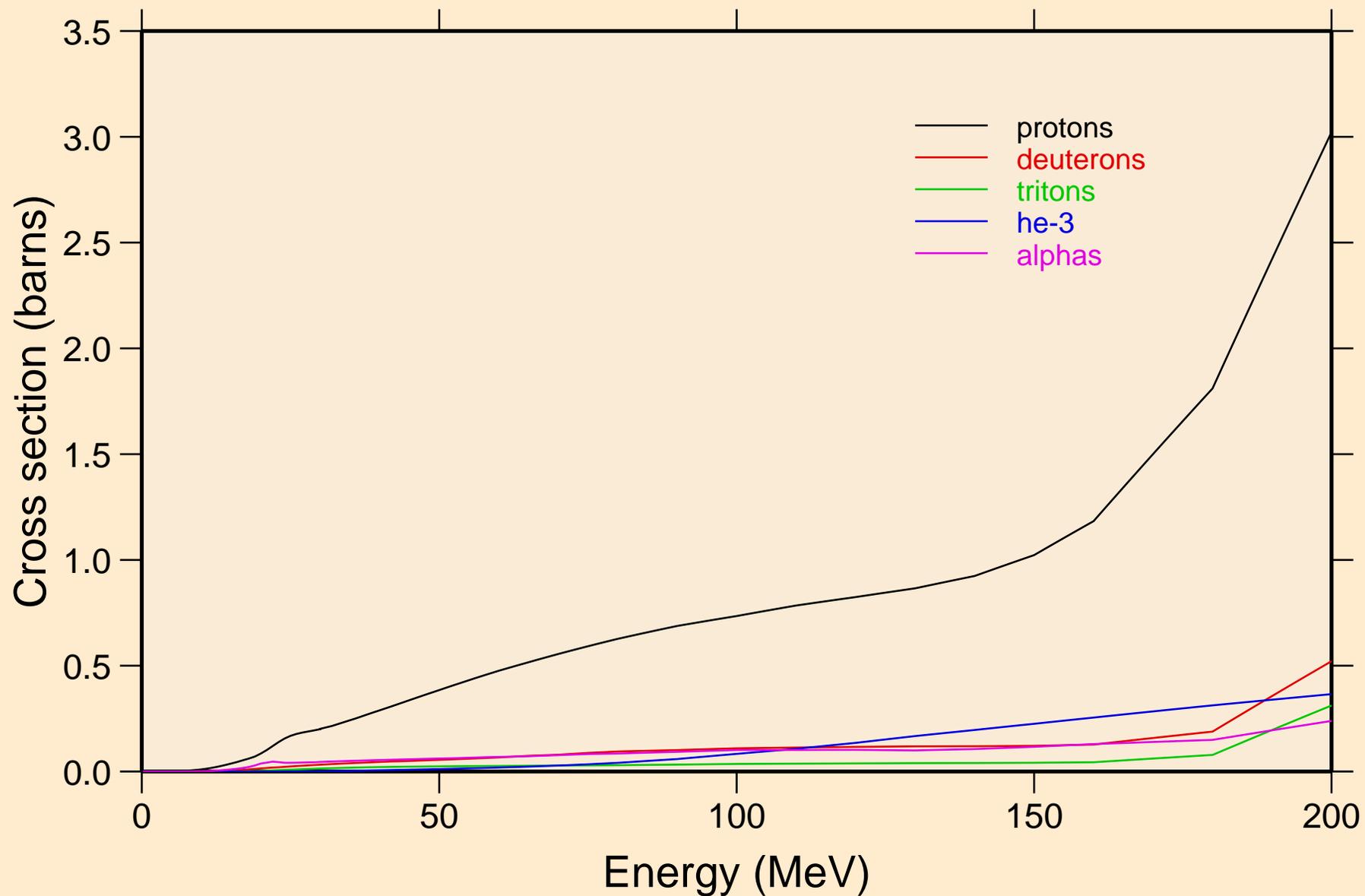BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
14 MeV photon spectrum

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
Particle heating contributions
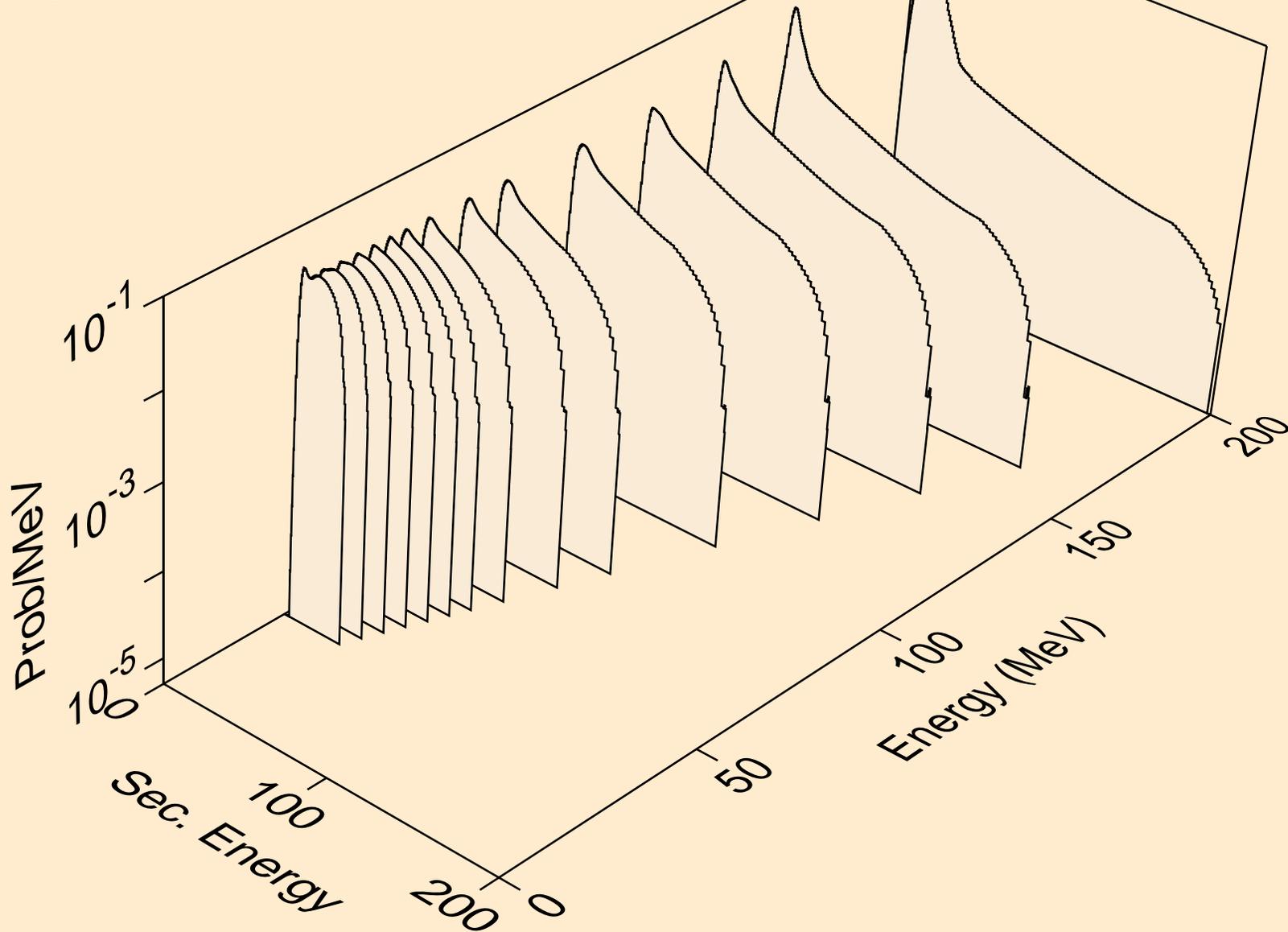
- protons
- deuterons
- tritons
- he-3
- alphas

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
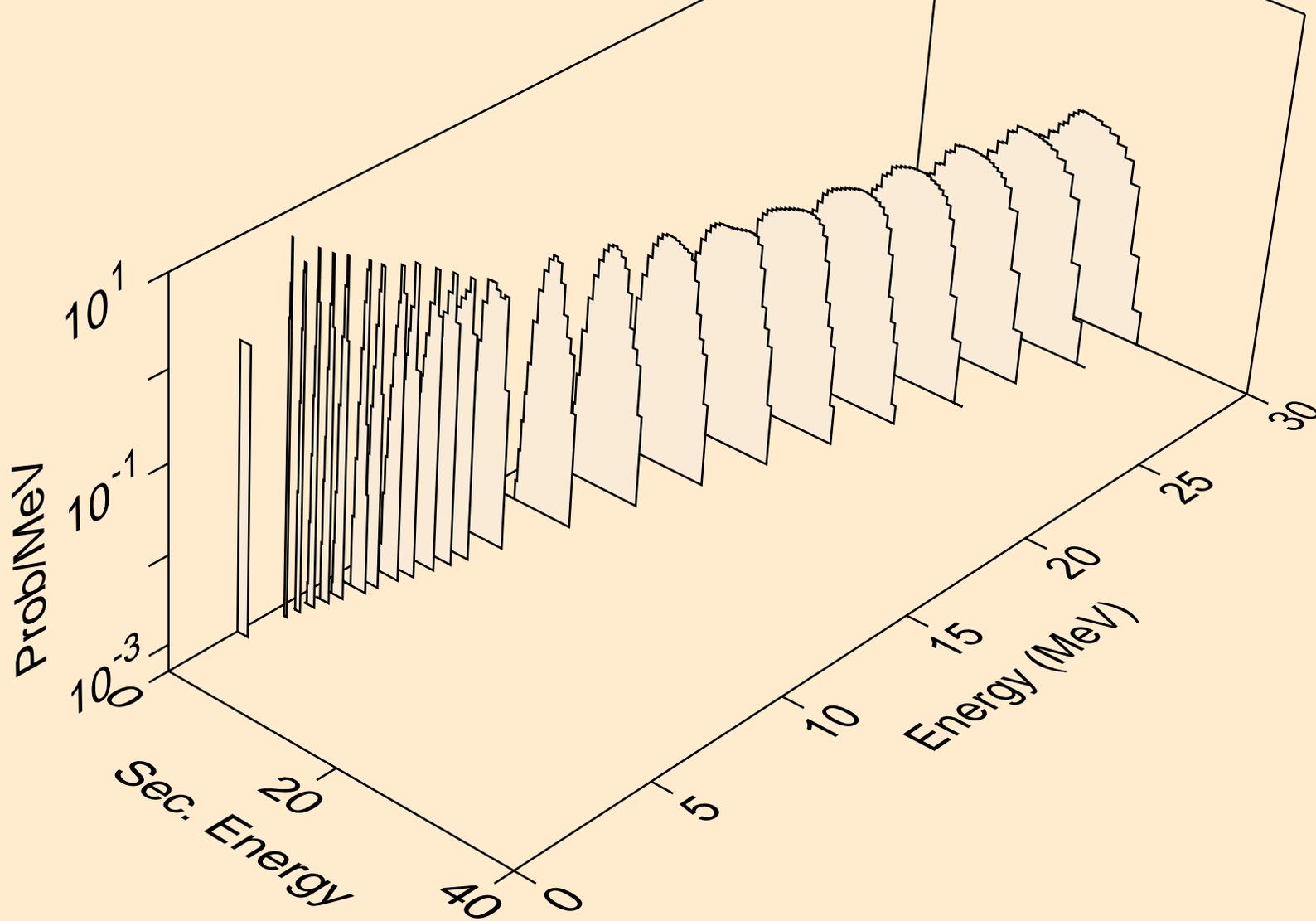Recoil Heating

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
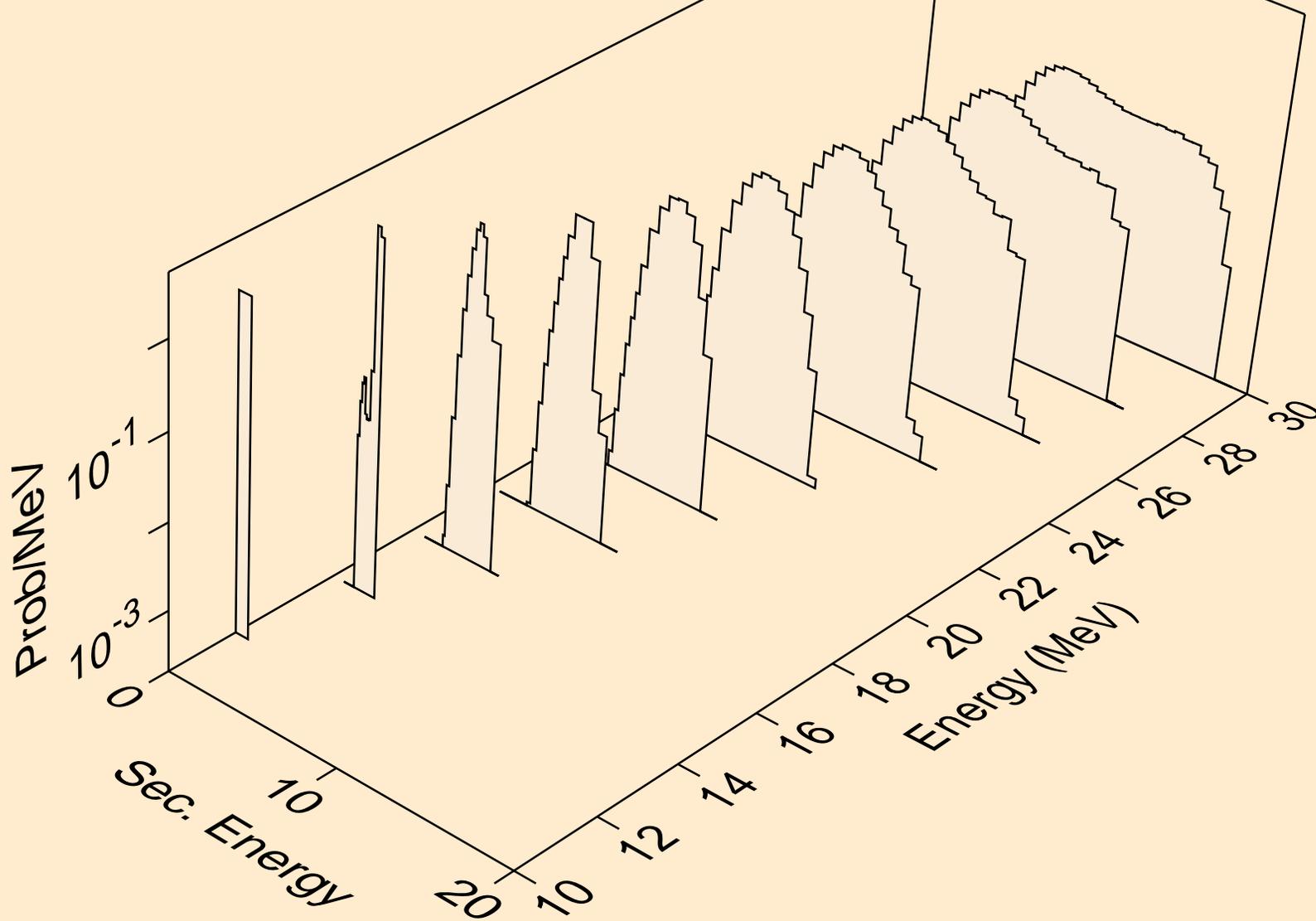Particle production cross sections

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
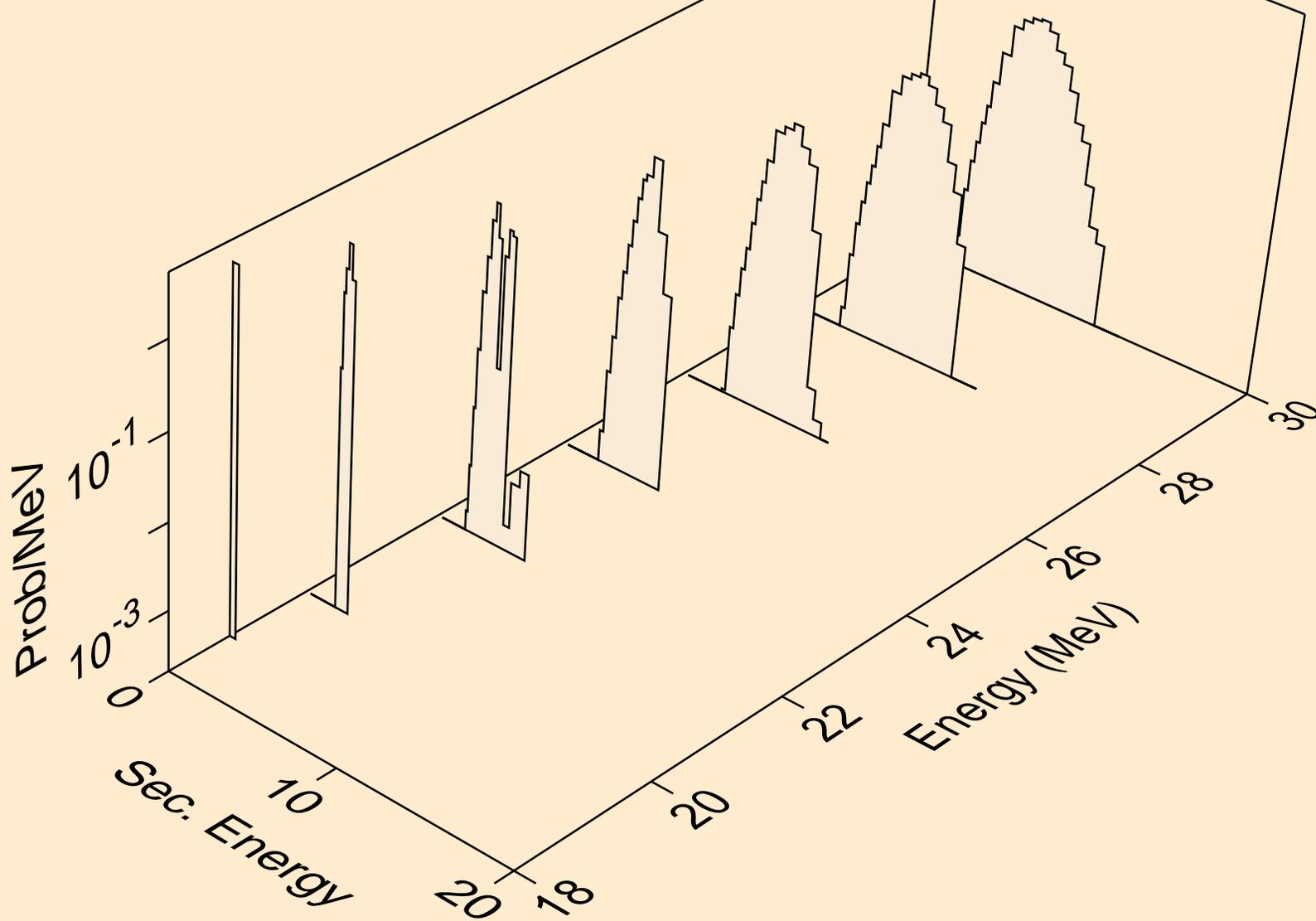protons from (n,x)

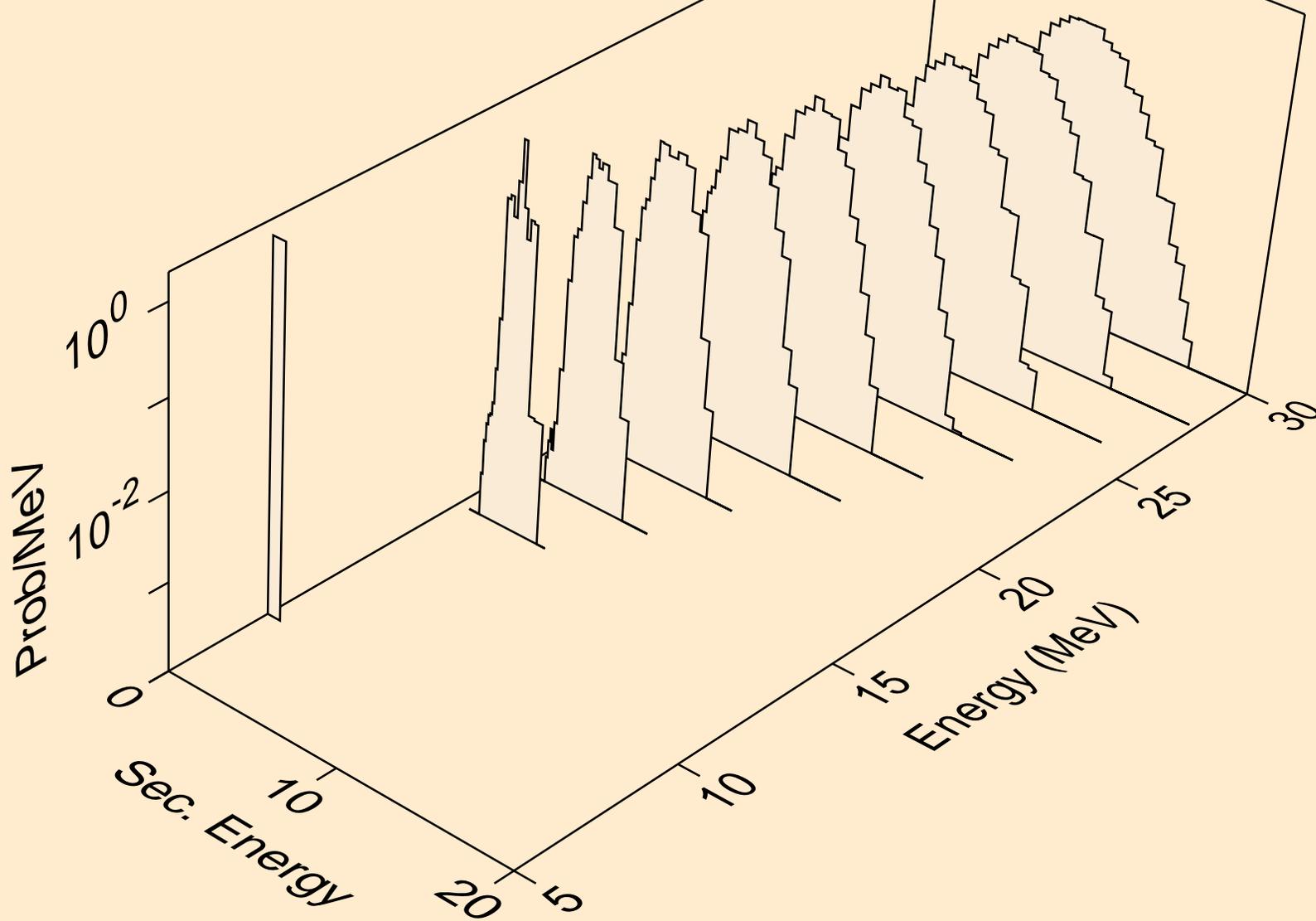BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
protons from (n,n*)p

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
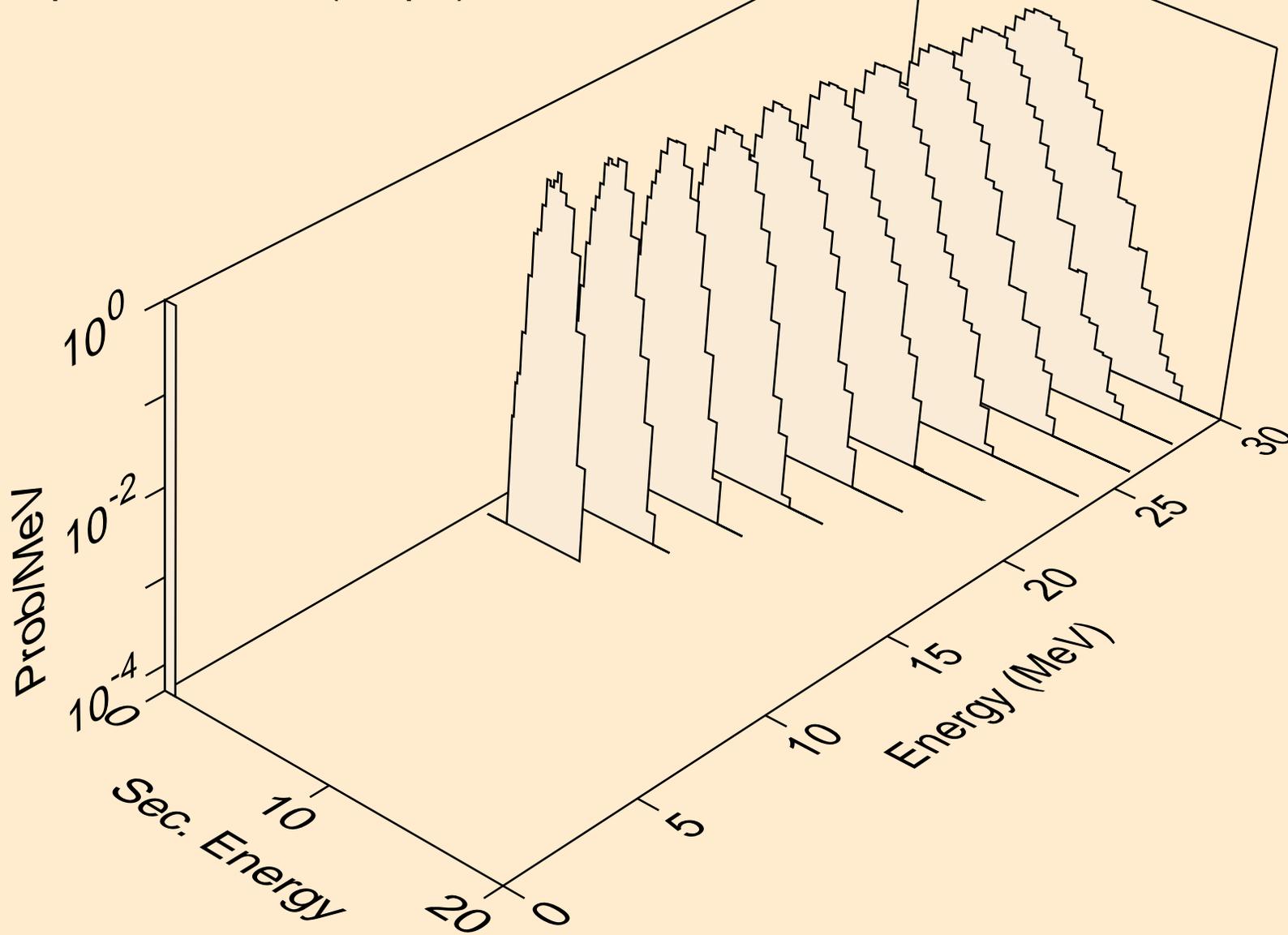protons from (n,2np)

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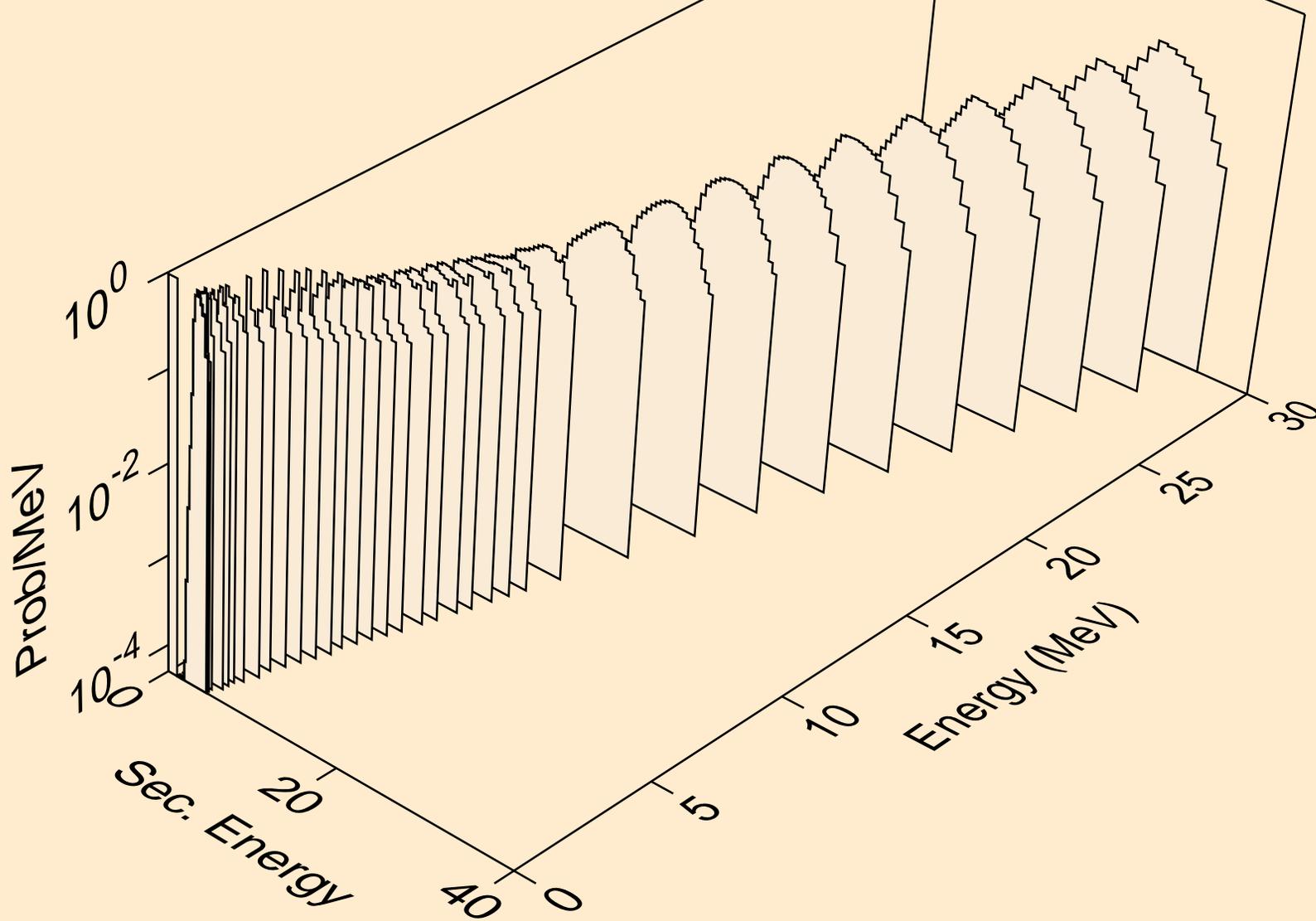protons from (n,3np)

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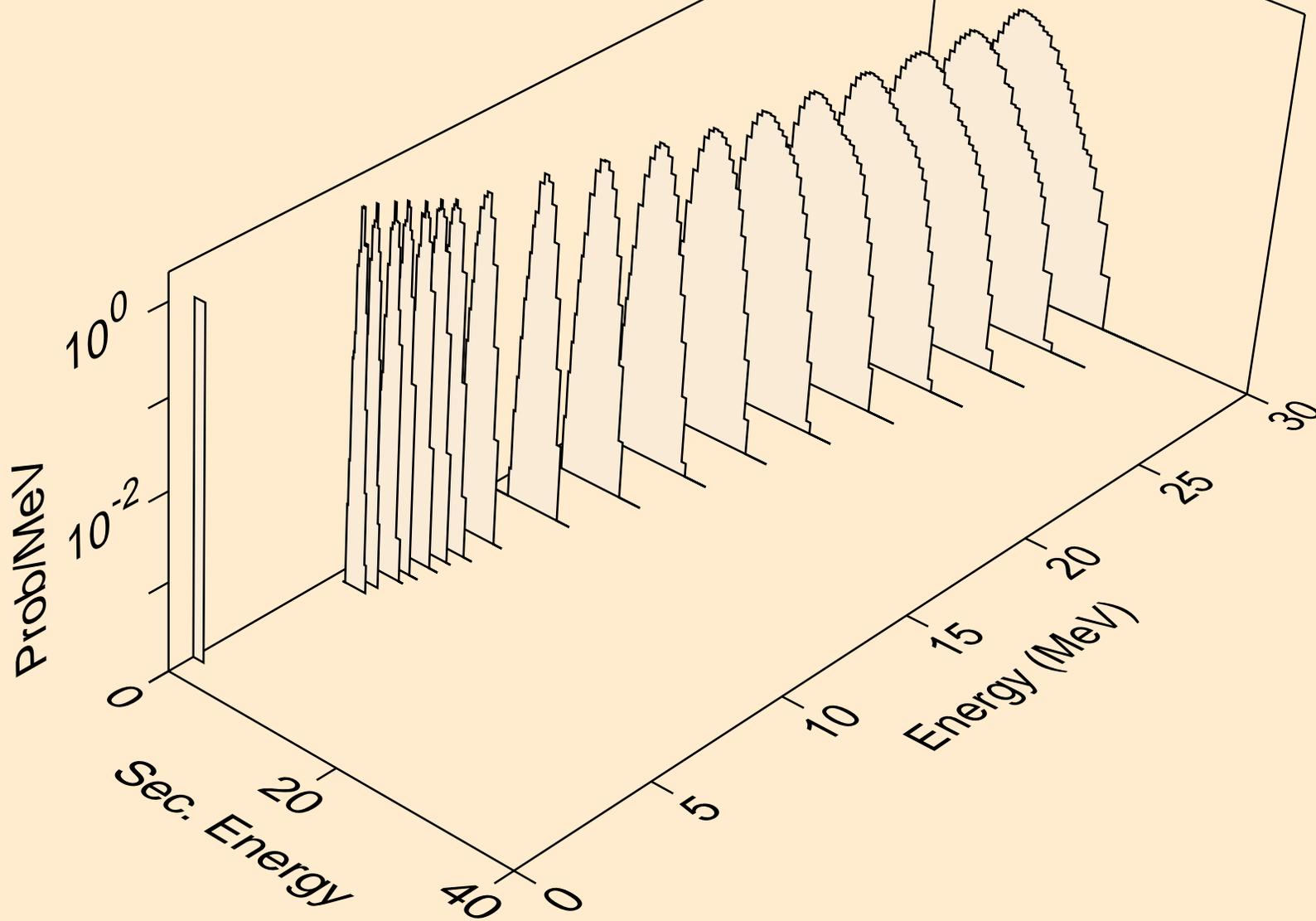protons from (n,2np)

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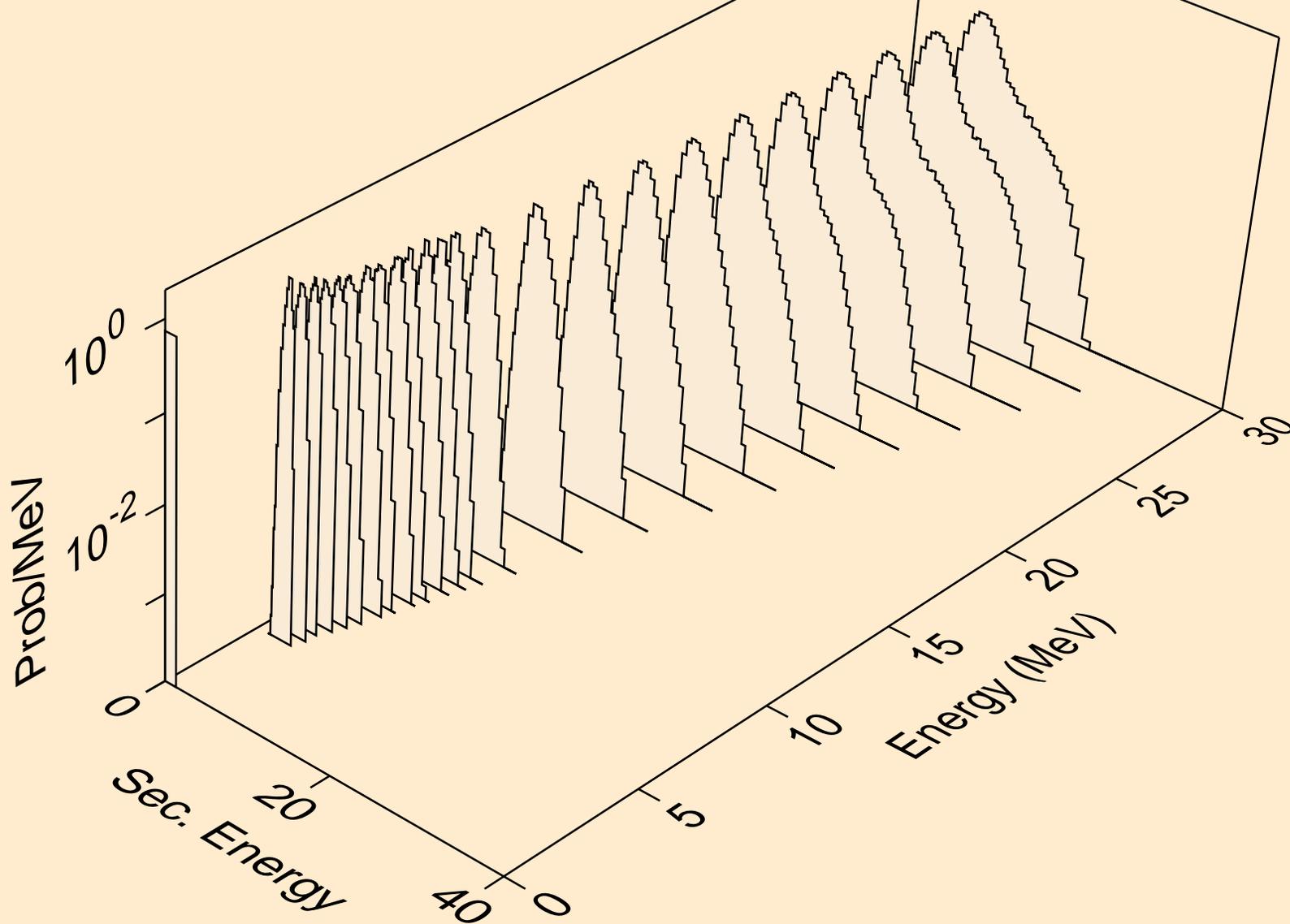protons from (n,npa)

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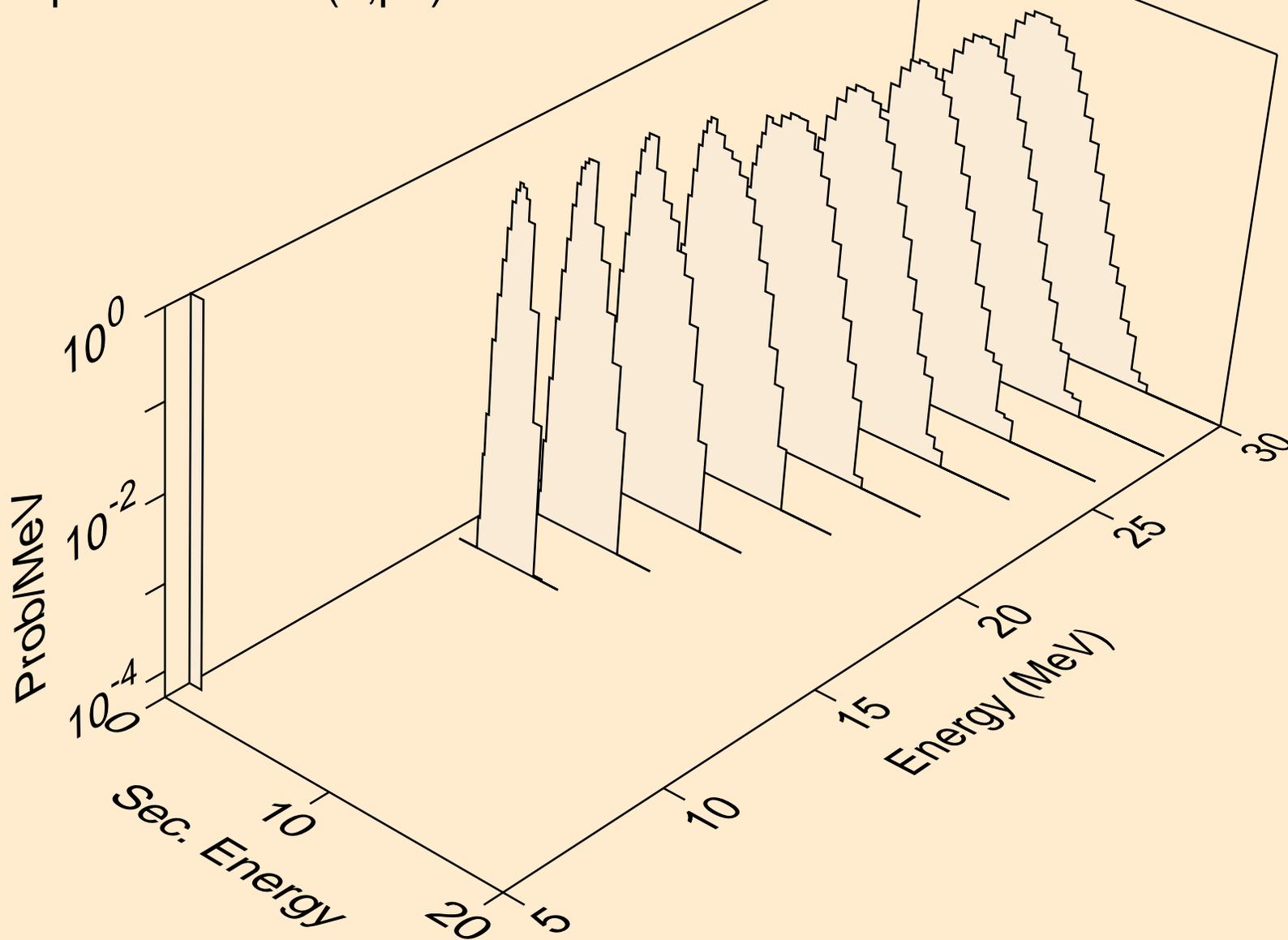protons from (n,p)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
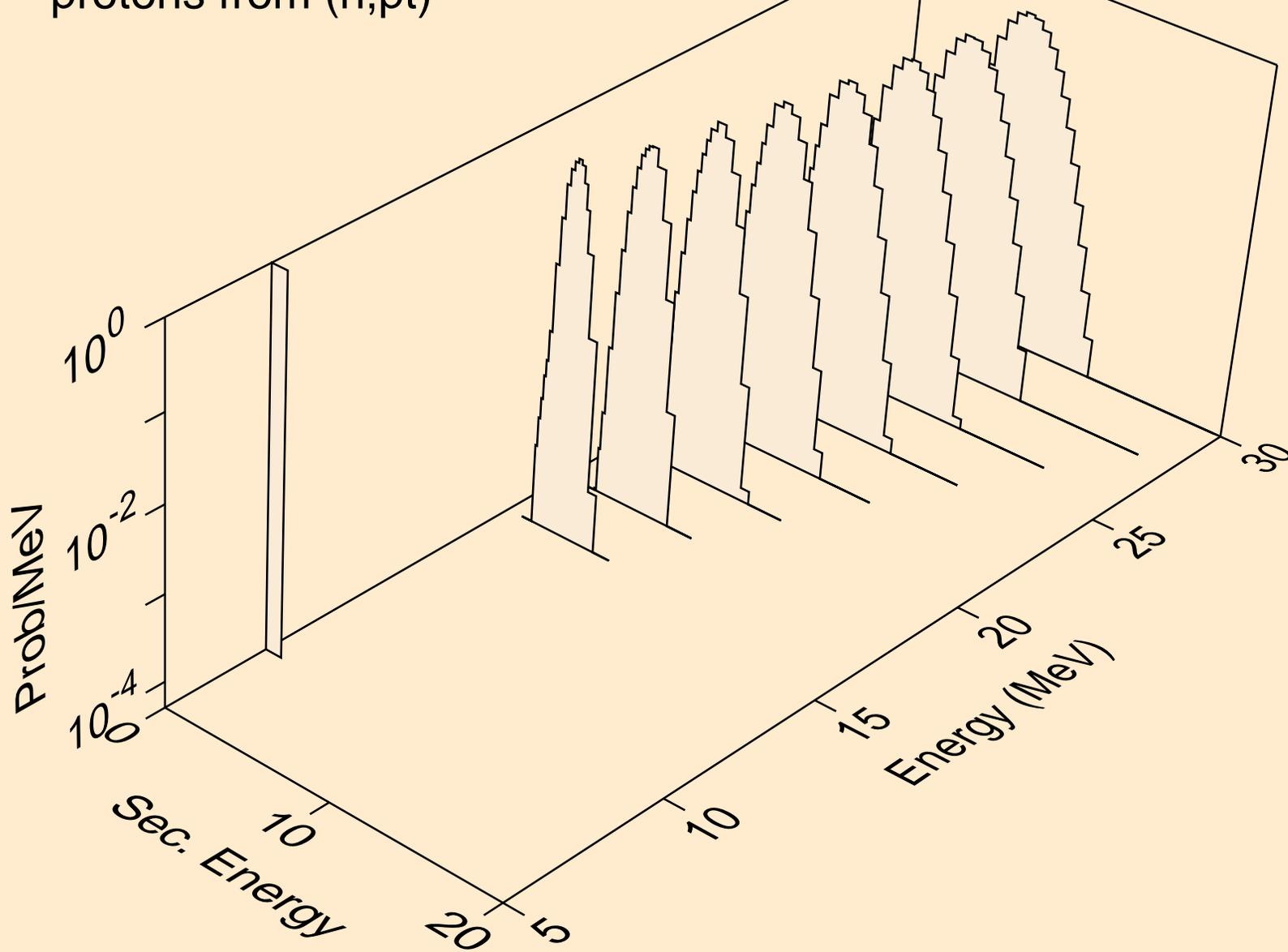protons from (n,2p)

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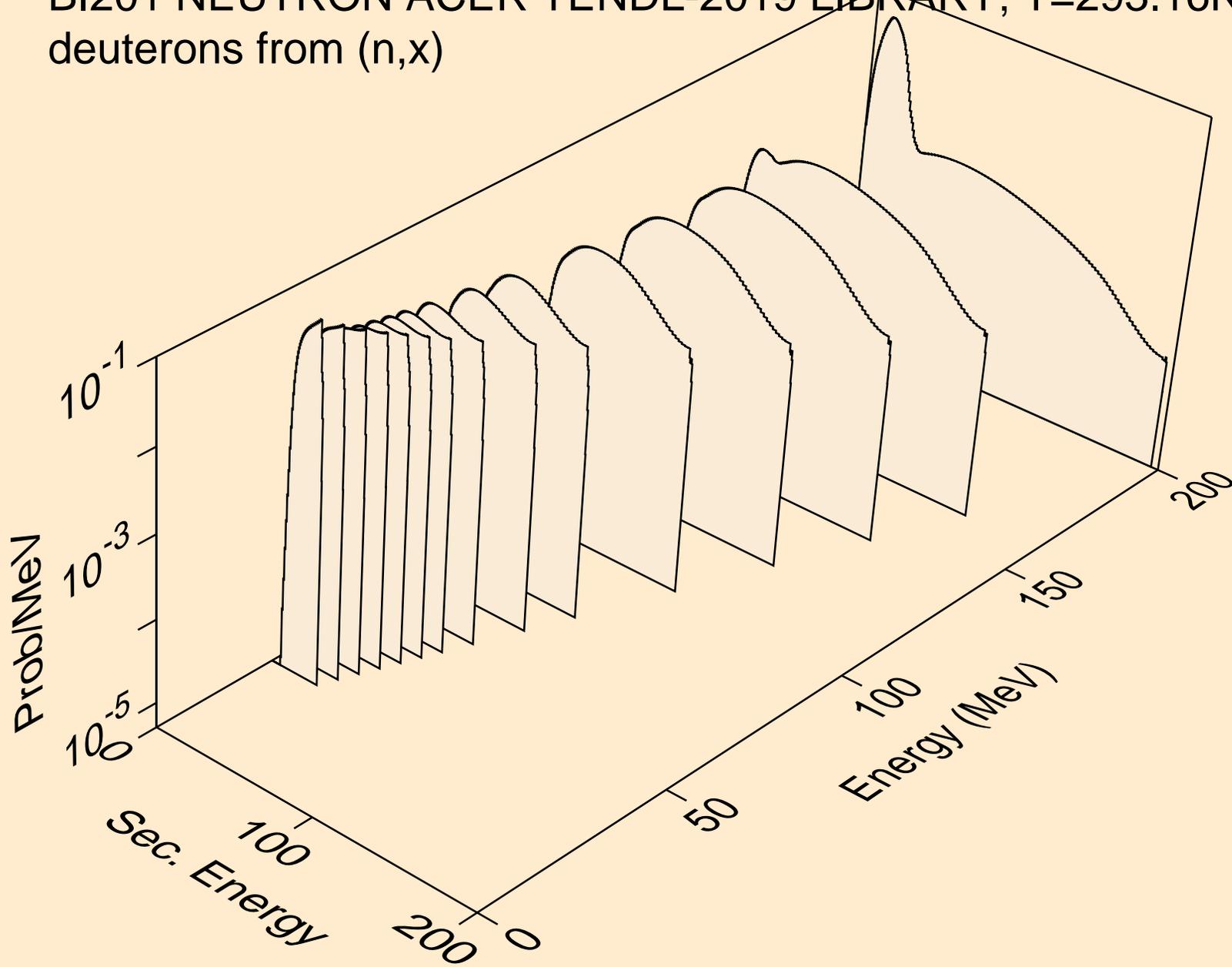protons from (n,pa)

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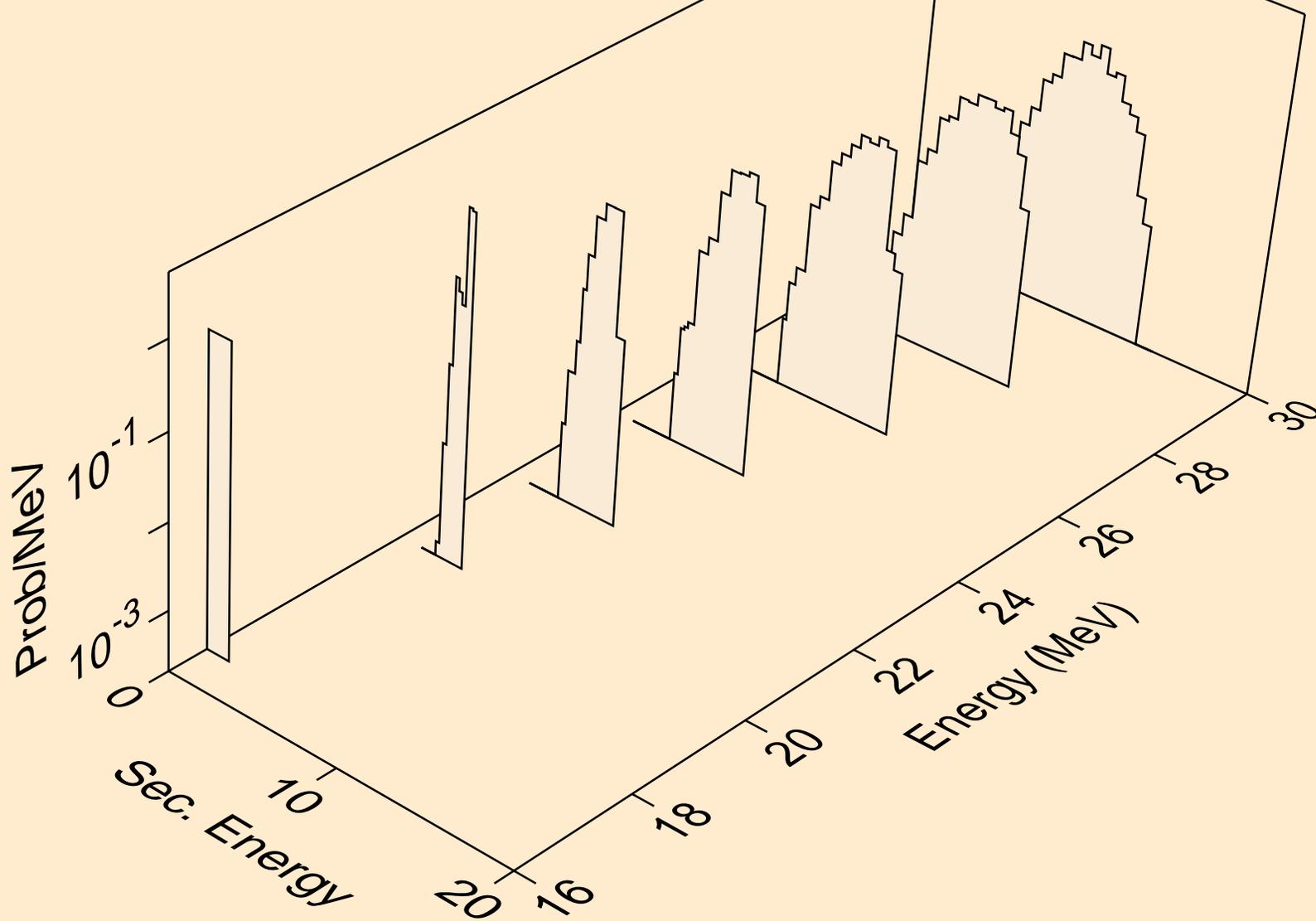protons from (n,pd)

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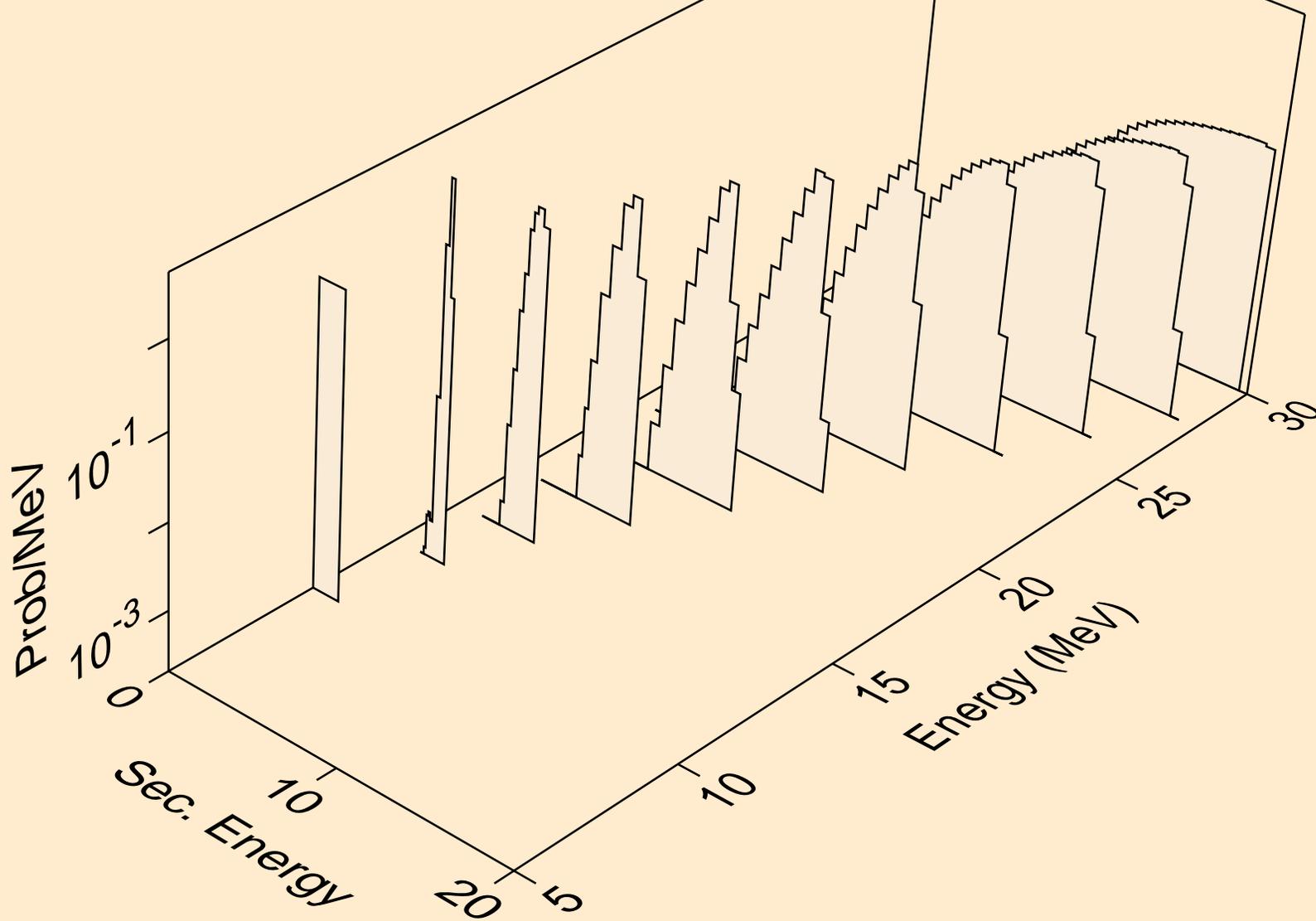protons from (n,pt)

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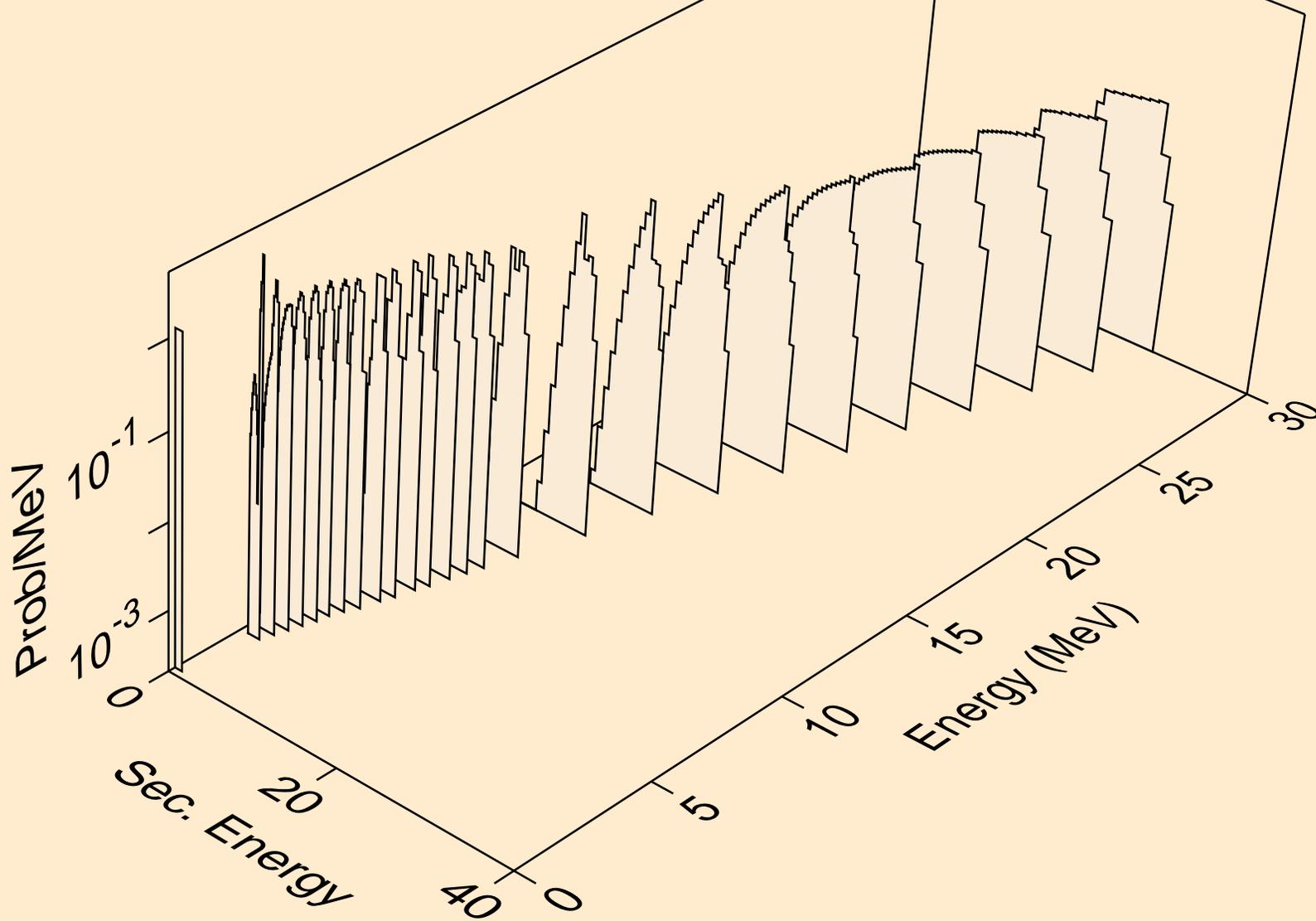deuterons from (n,x)

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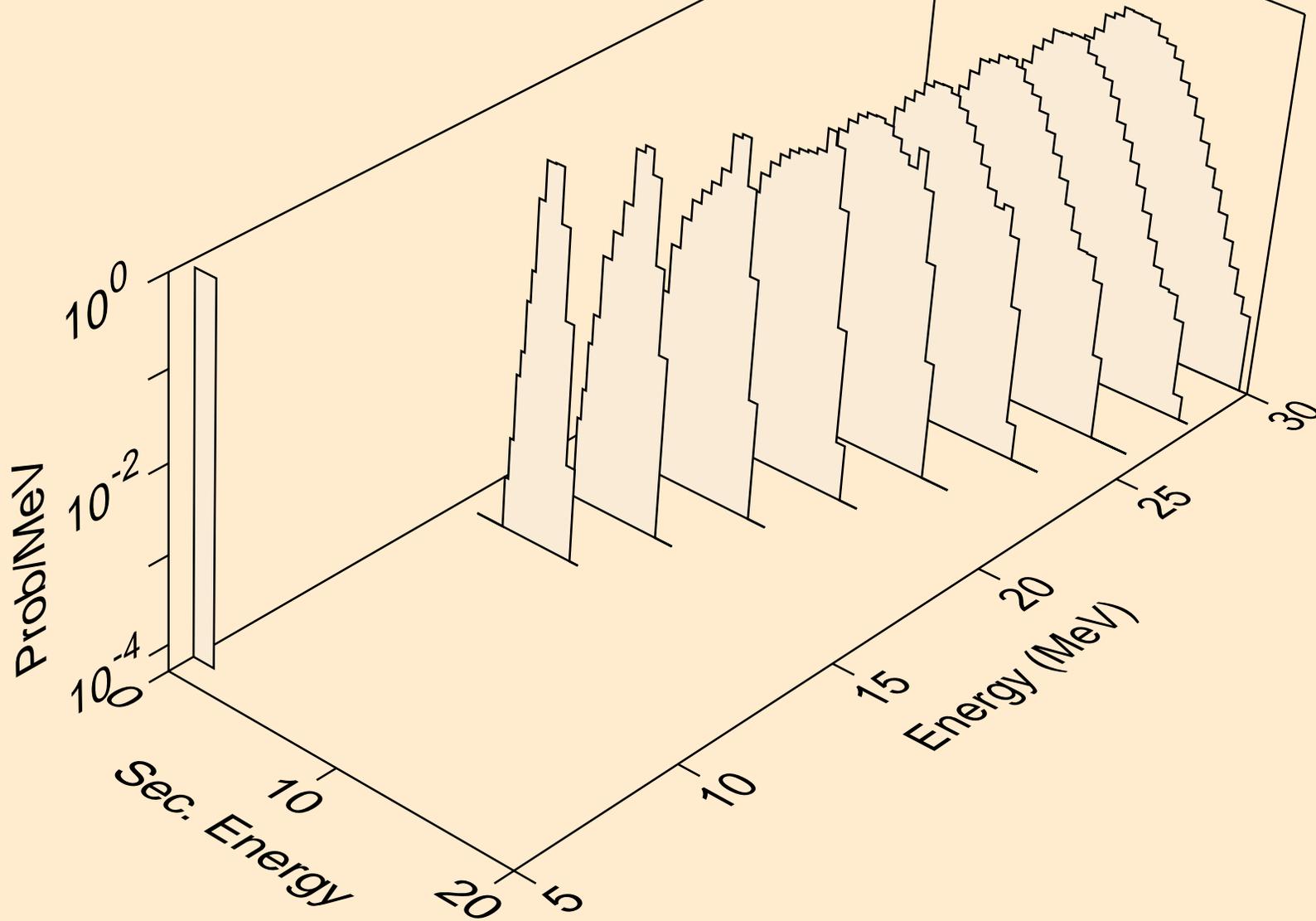deuterons from (n,2nd)

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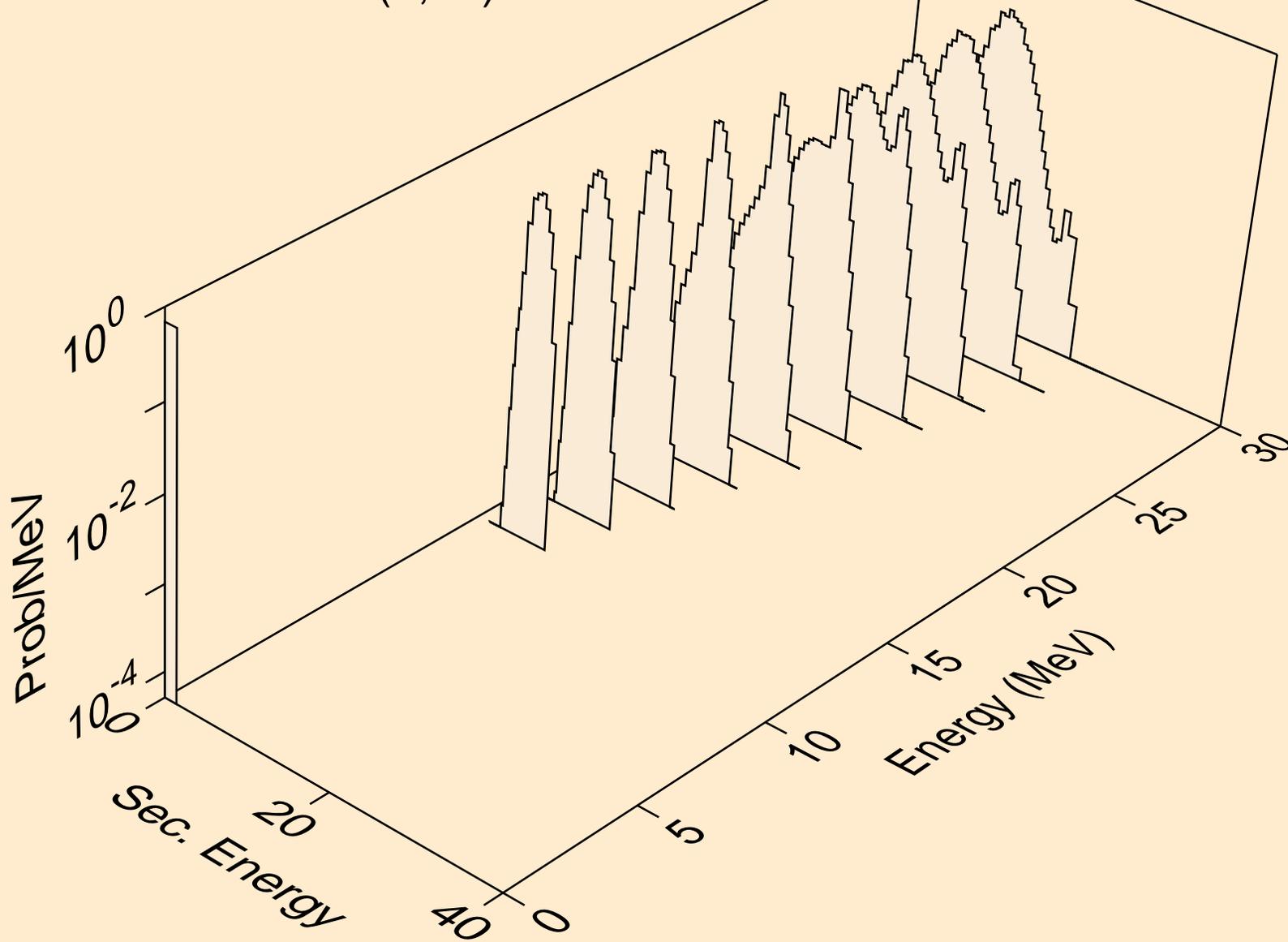deuterons from (n,n*)d

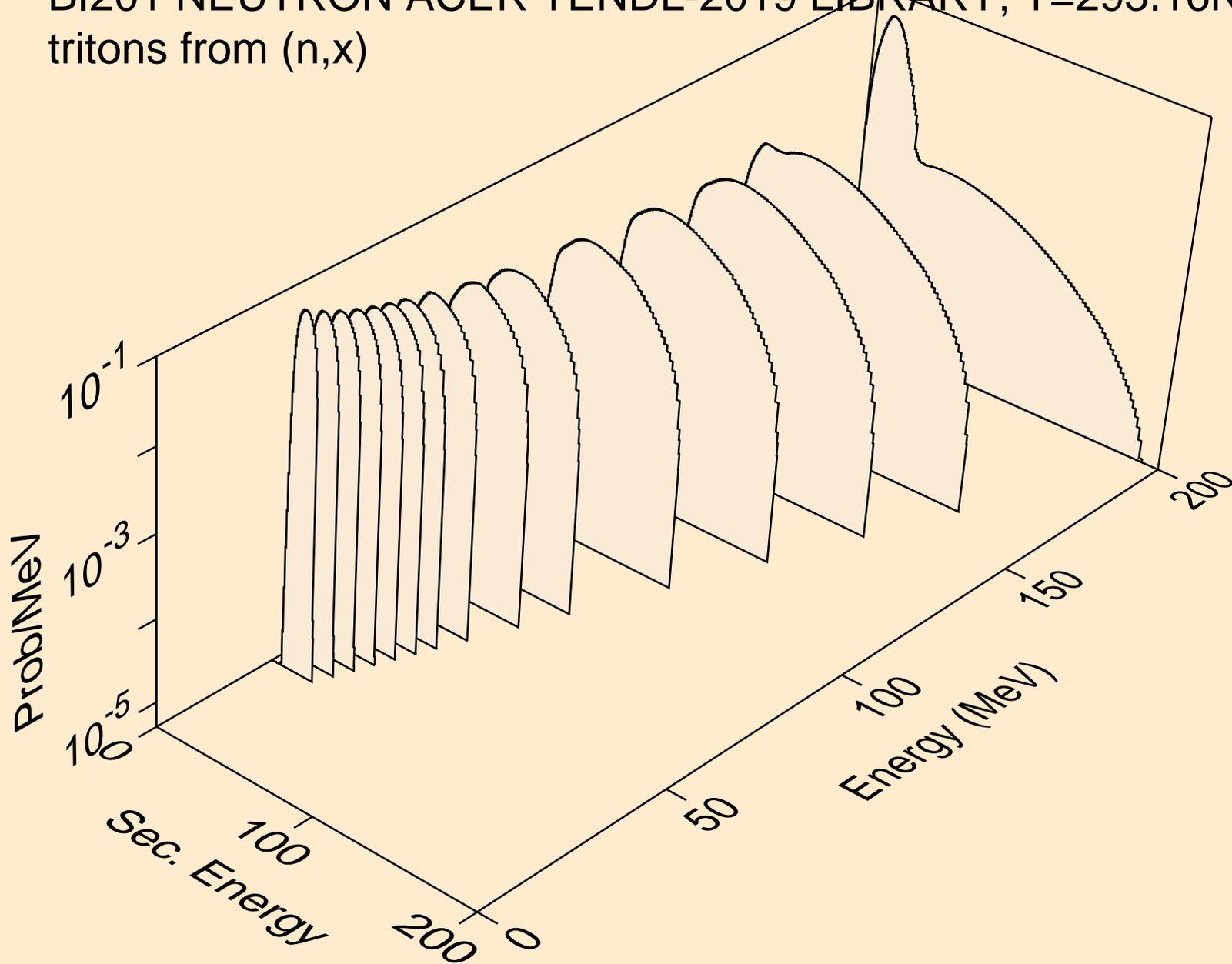BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
deuterons from (n,d)

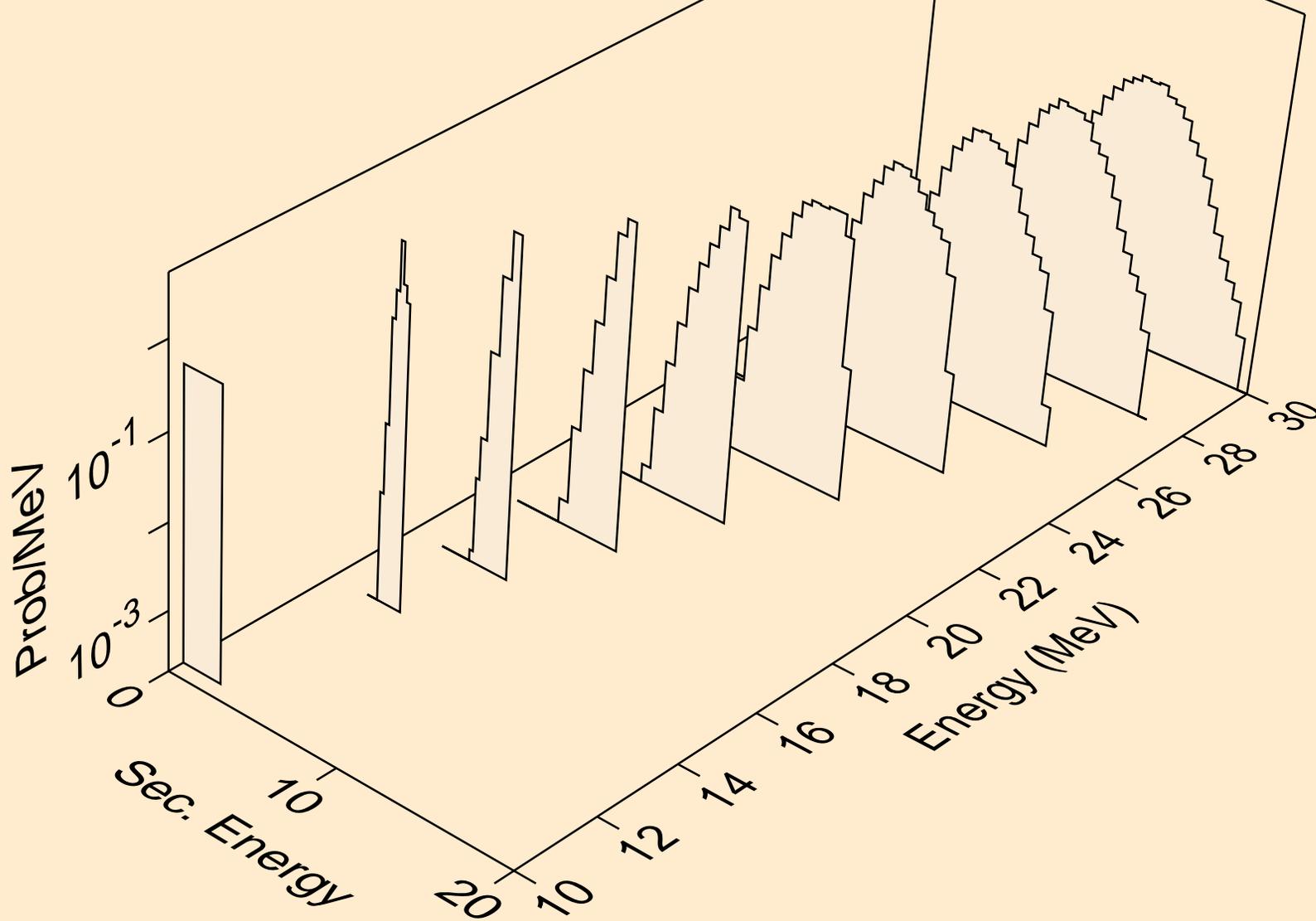BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
deuterons from (n,pd)

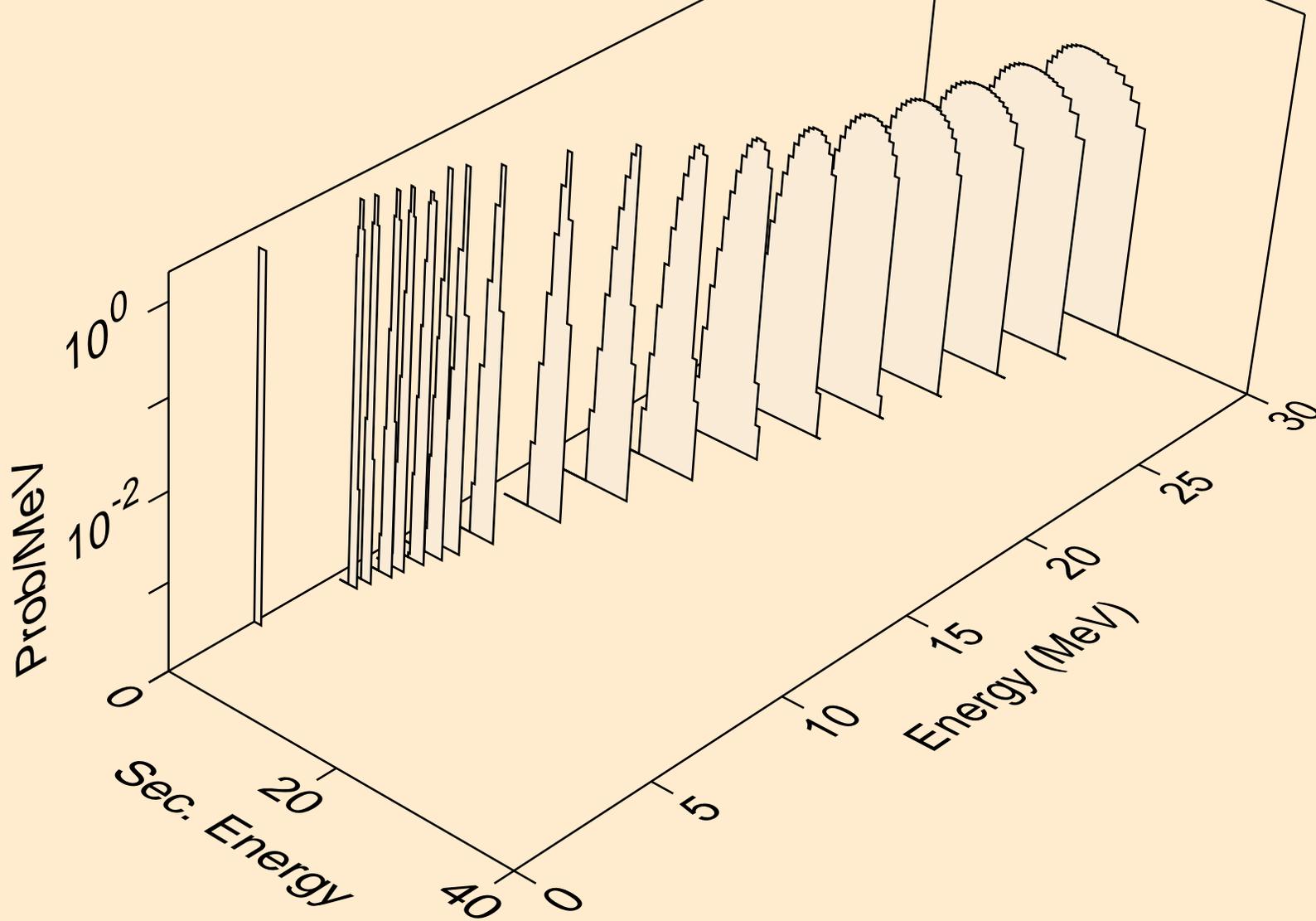BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
deuterons from (n,da)

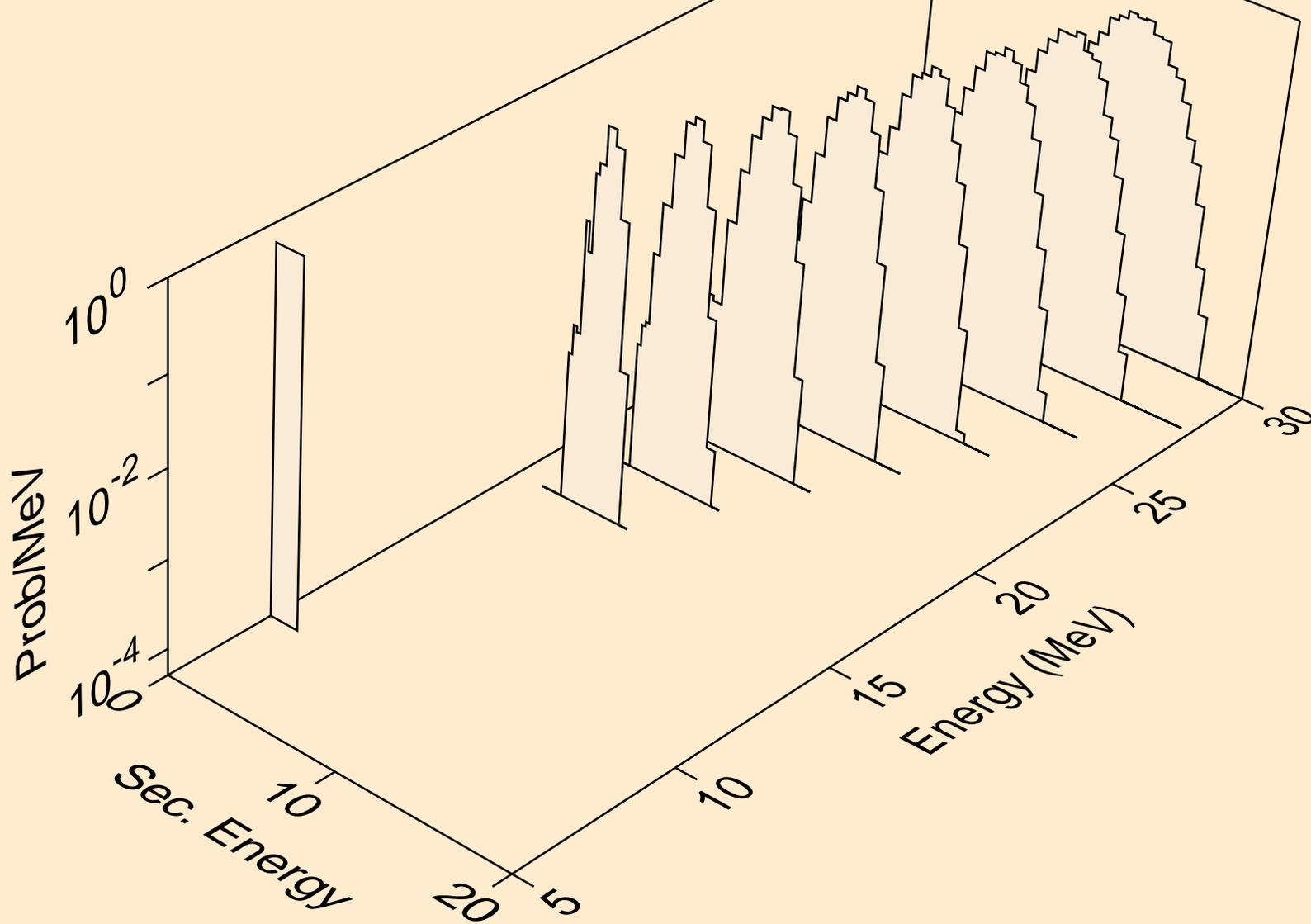BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
tritons from (n,x)

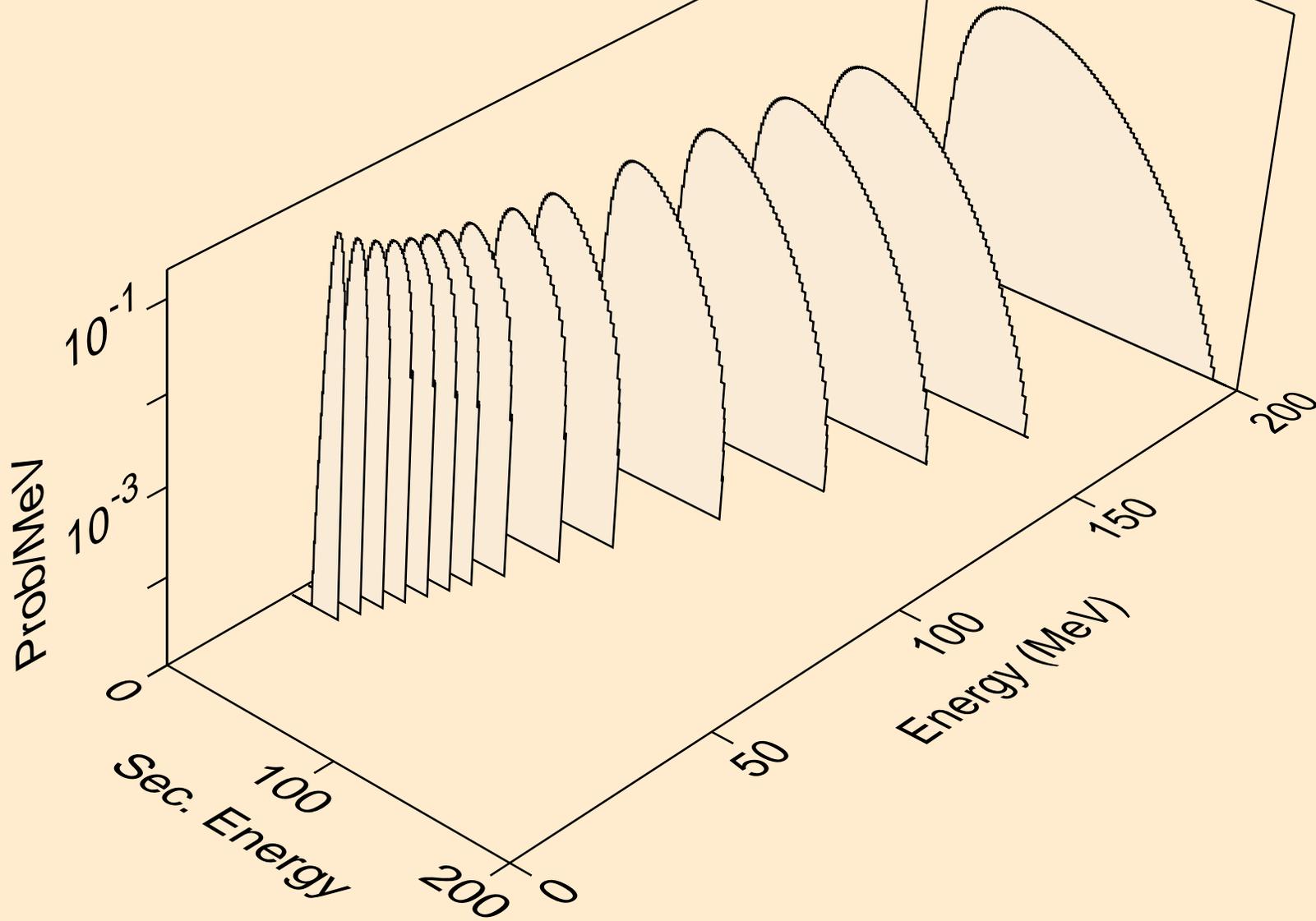BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
tritons from (n,n*)t

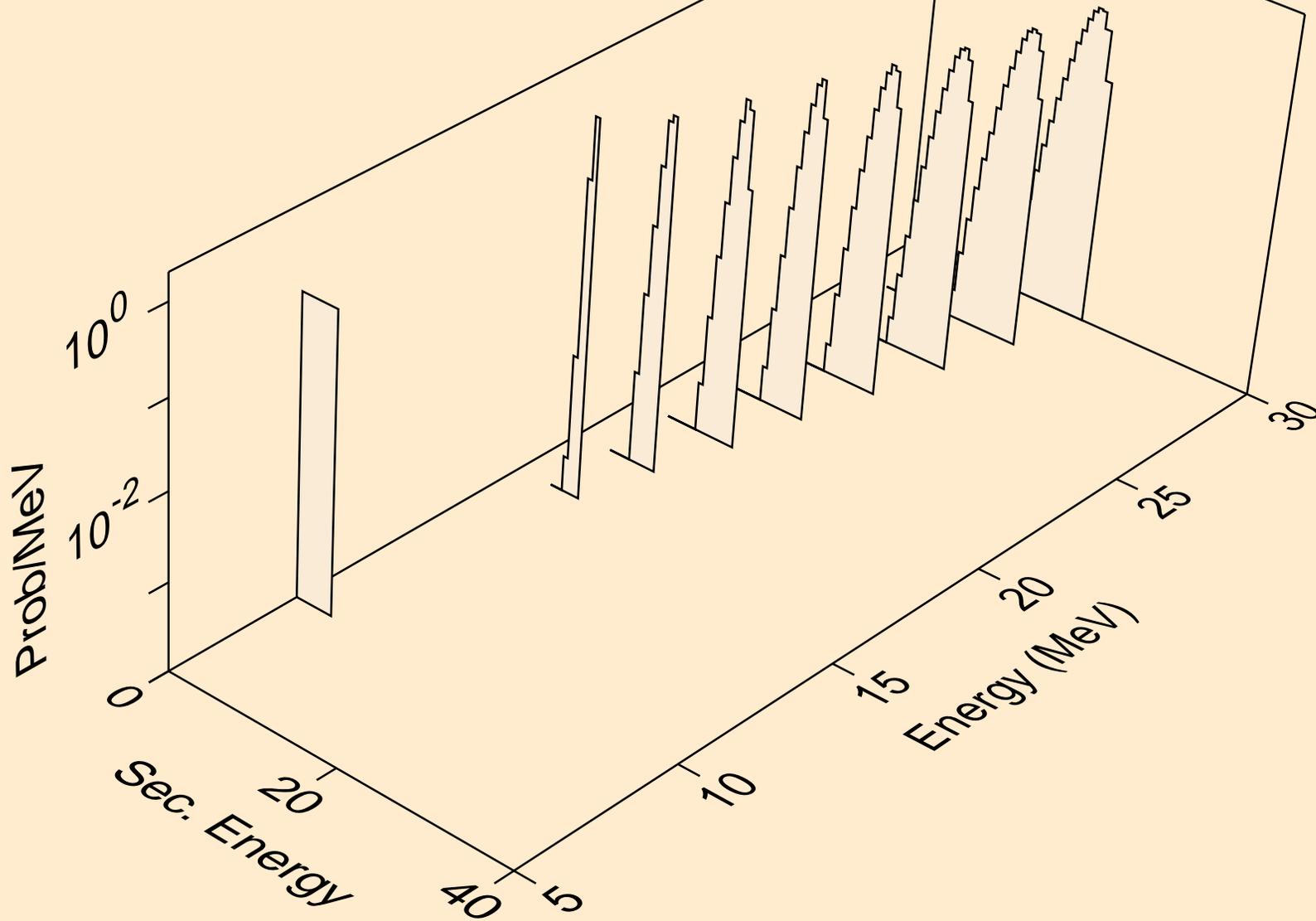BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
tritons from (n,t)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
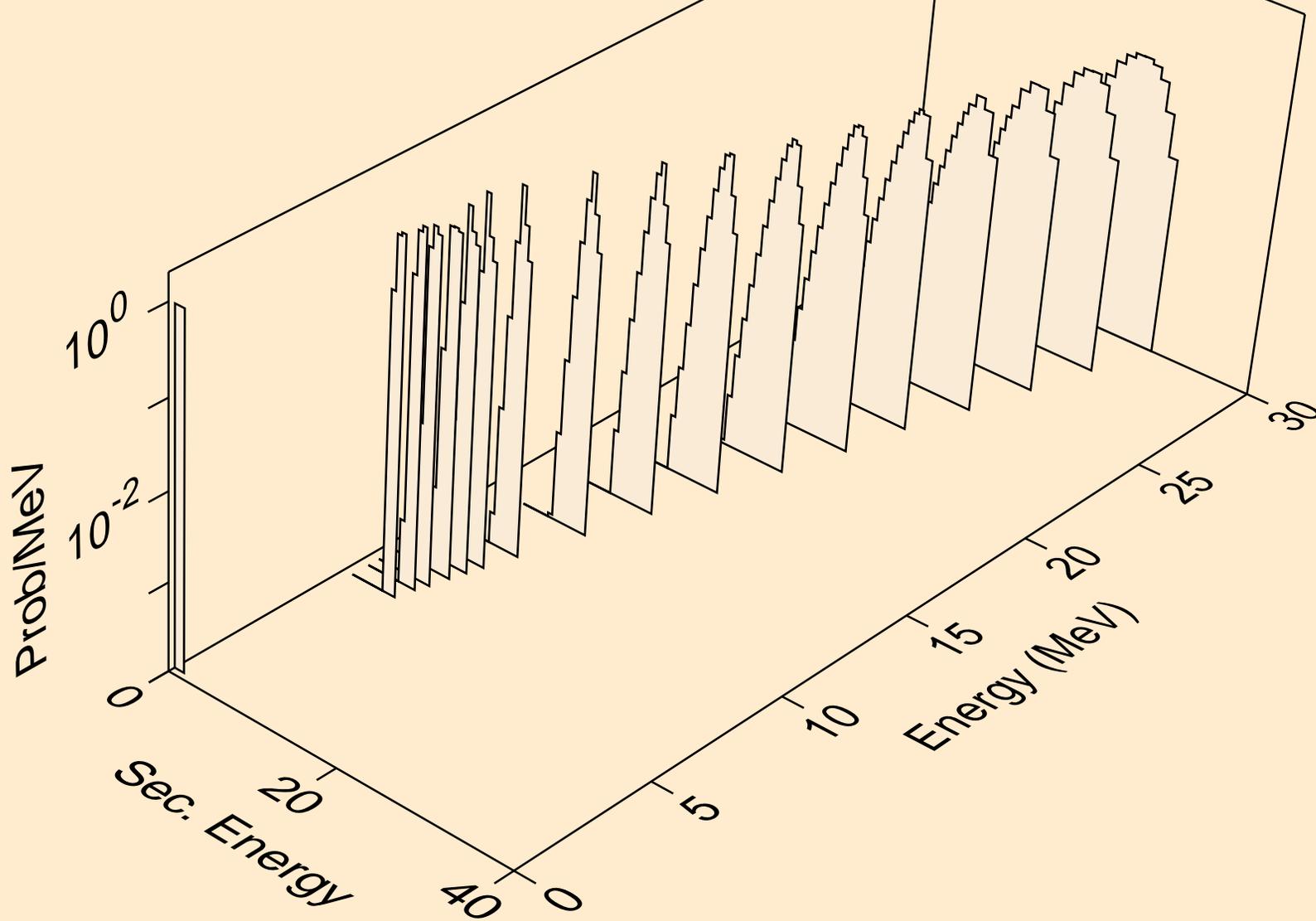tritons from (n,pt)

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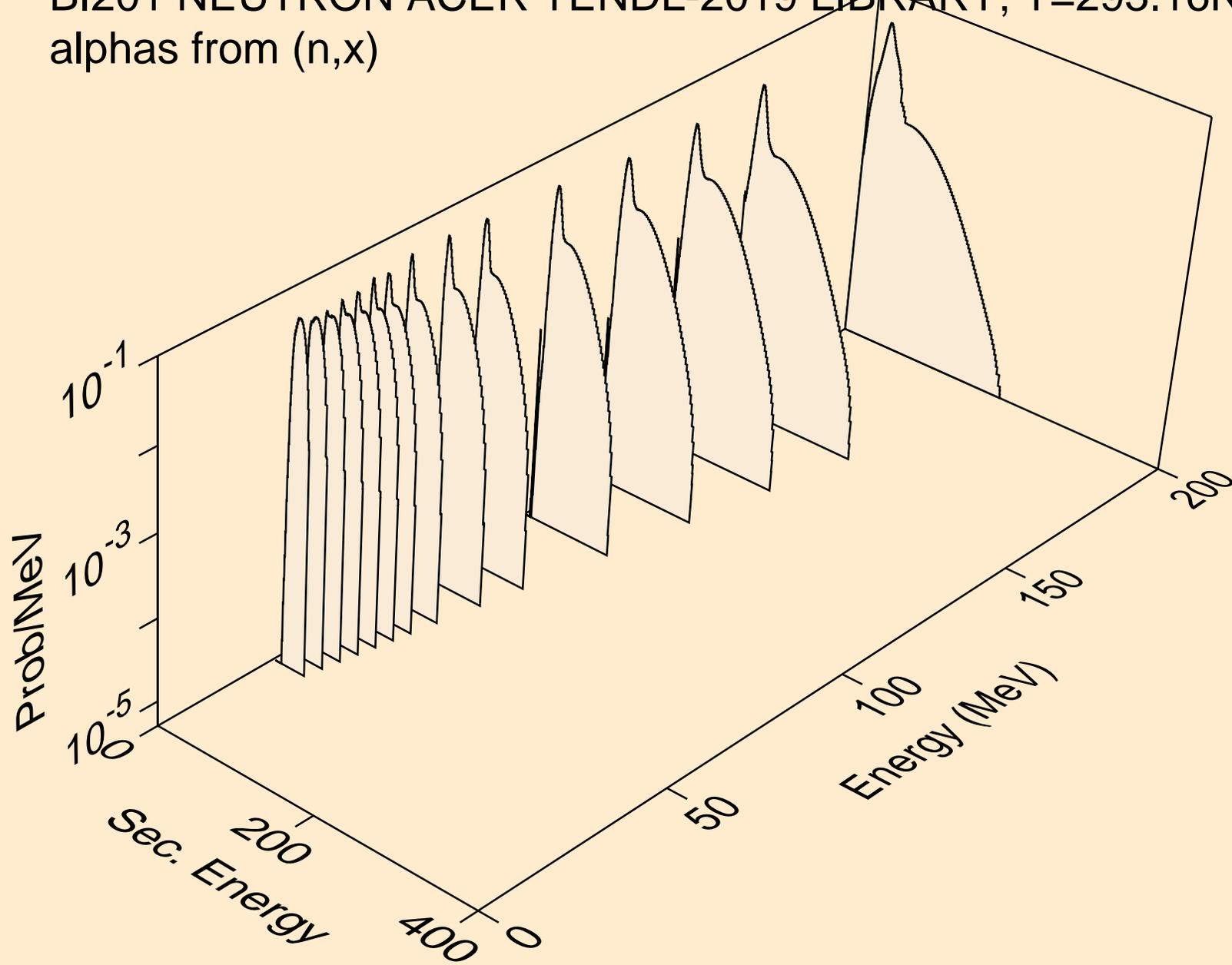he3s from (n,x)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
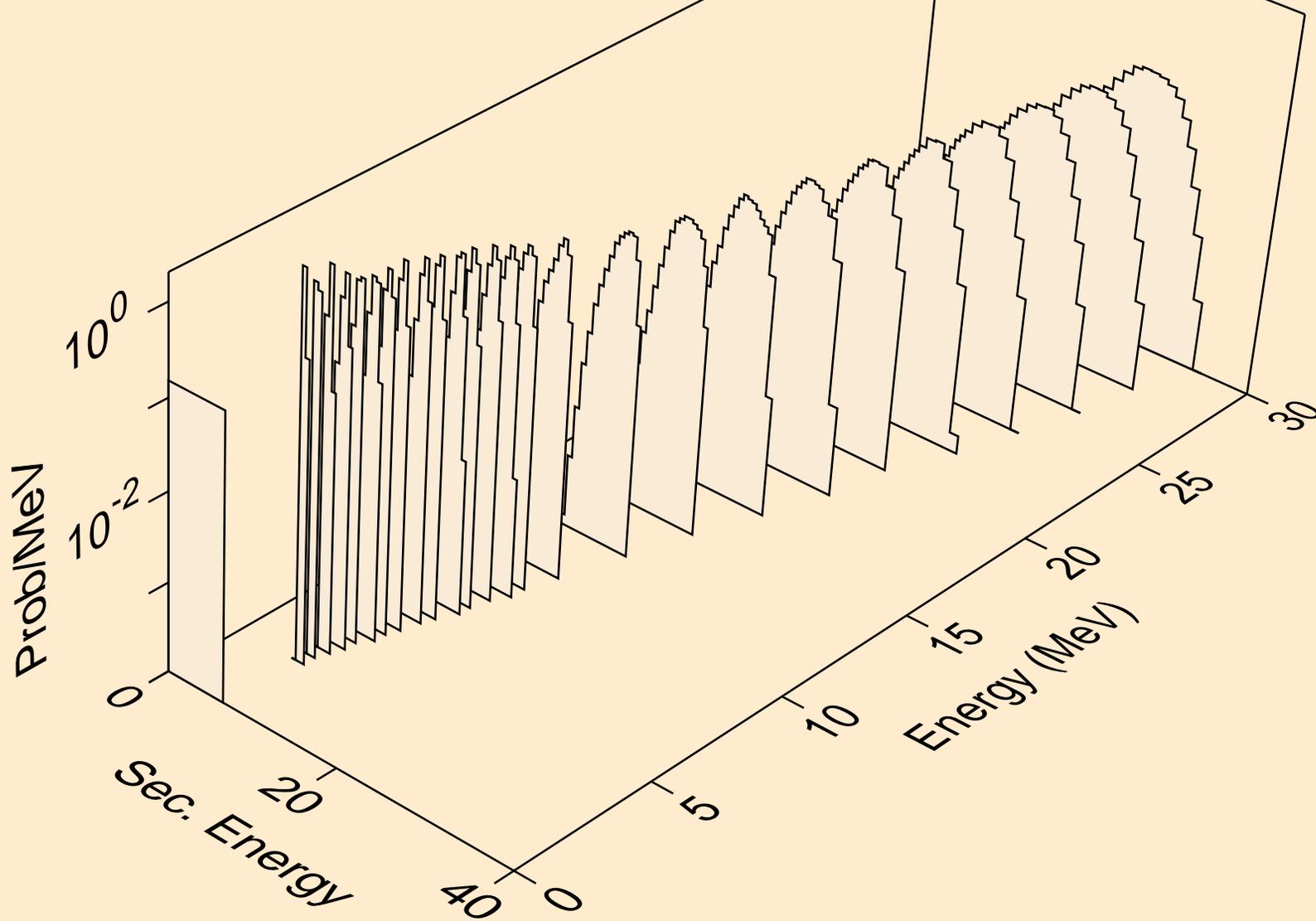he3s from (n,n*)he3

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
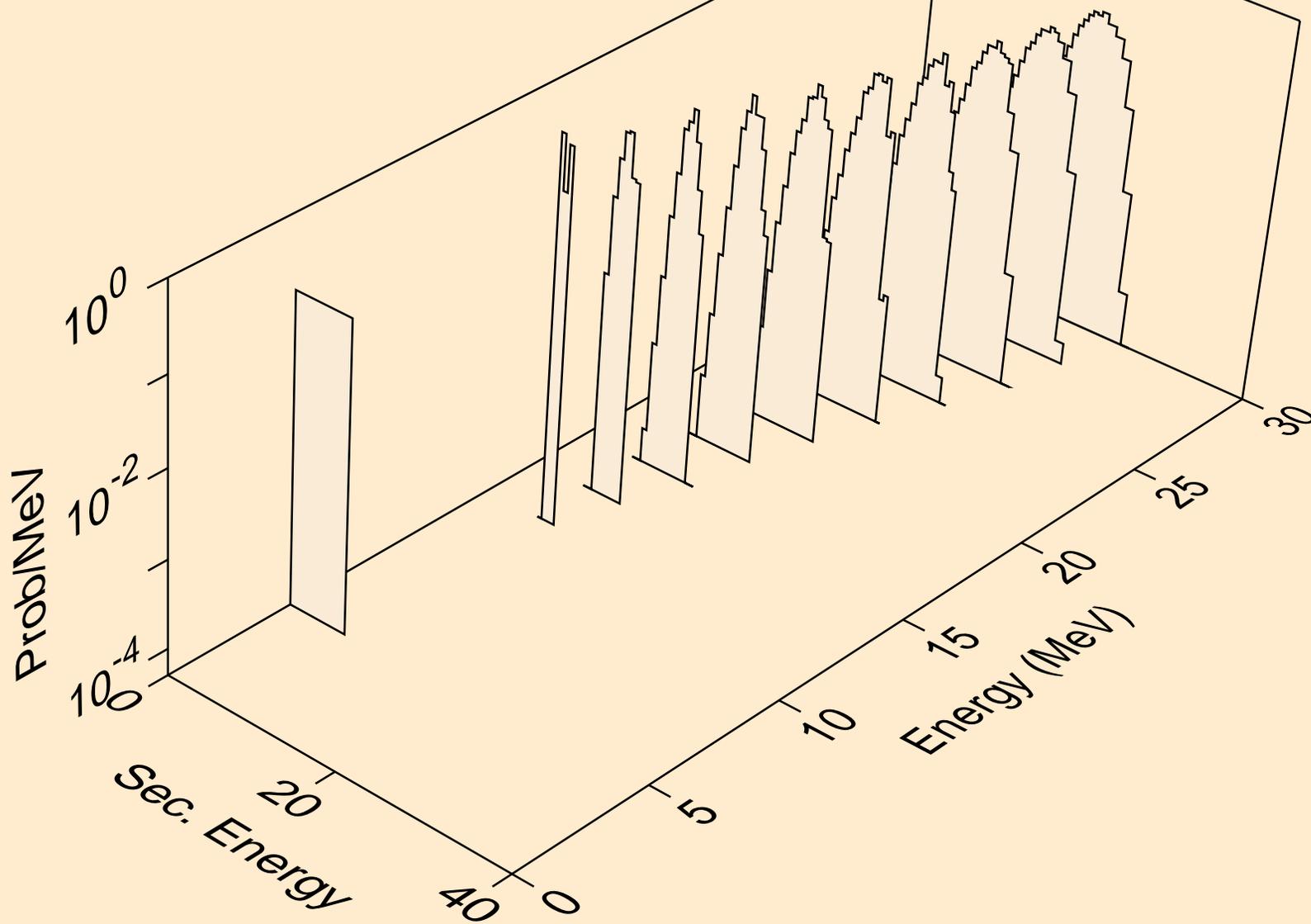he3s from (n,he3)

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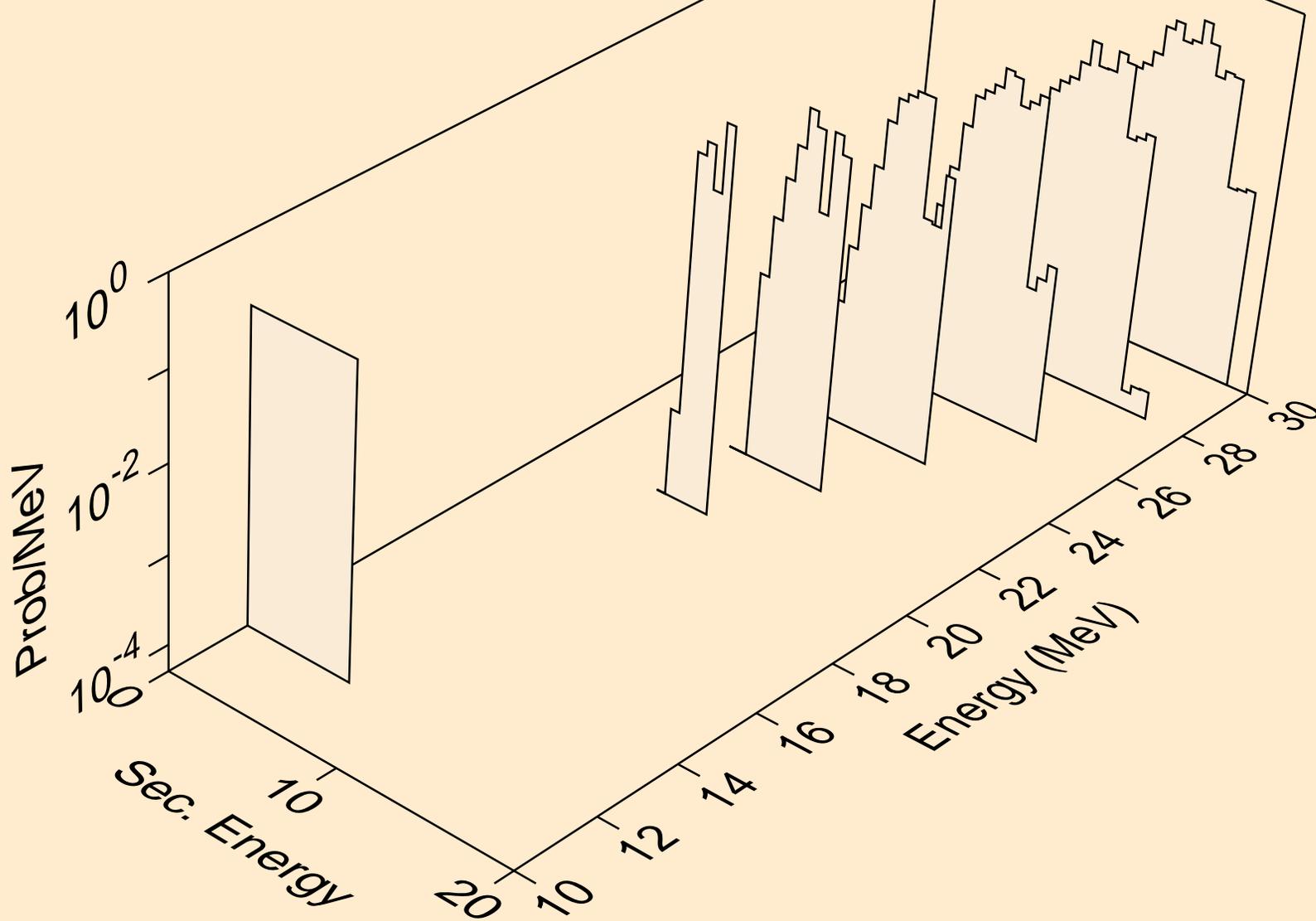alphas from (n,x)

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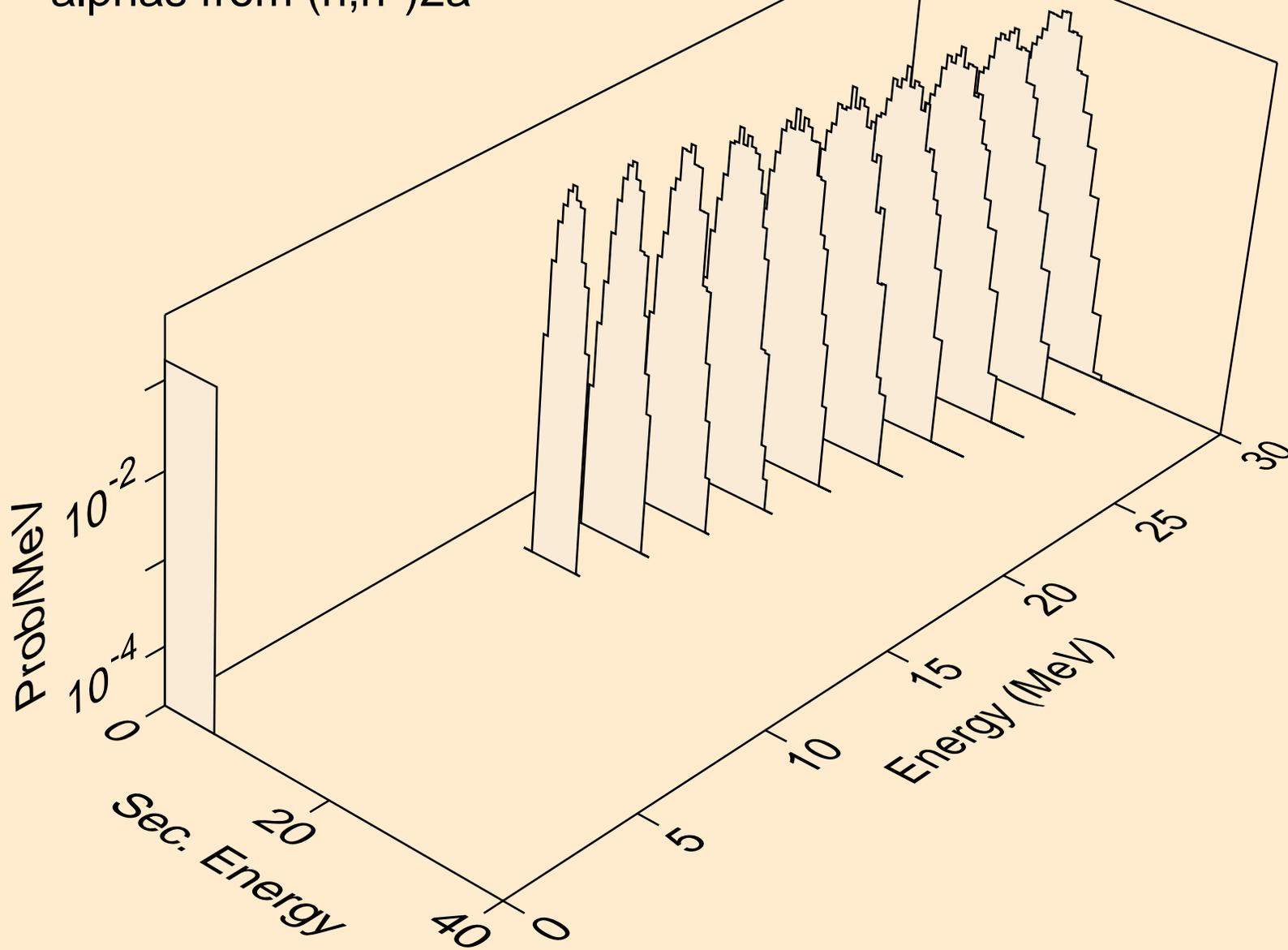alphas from (n,n*)a

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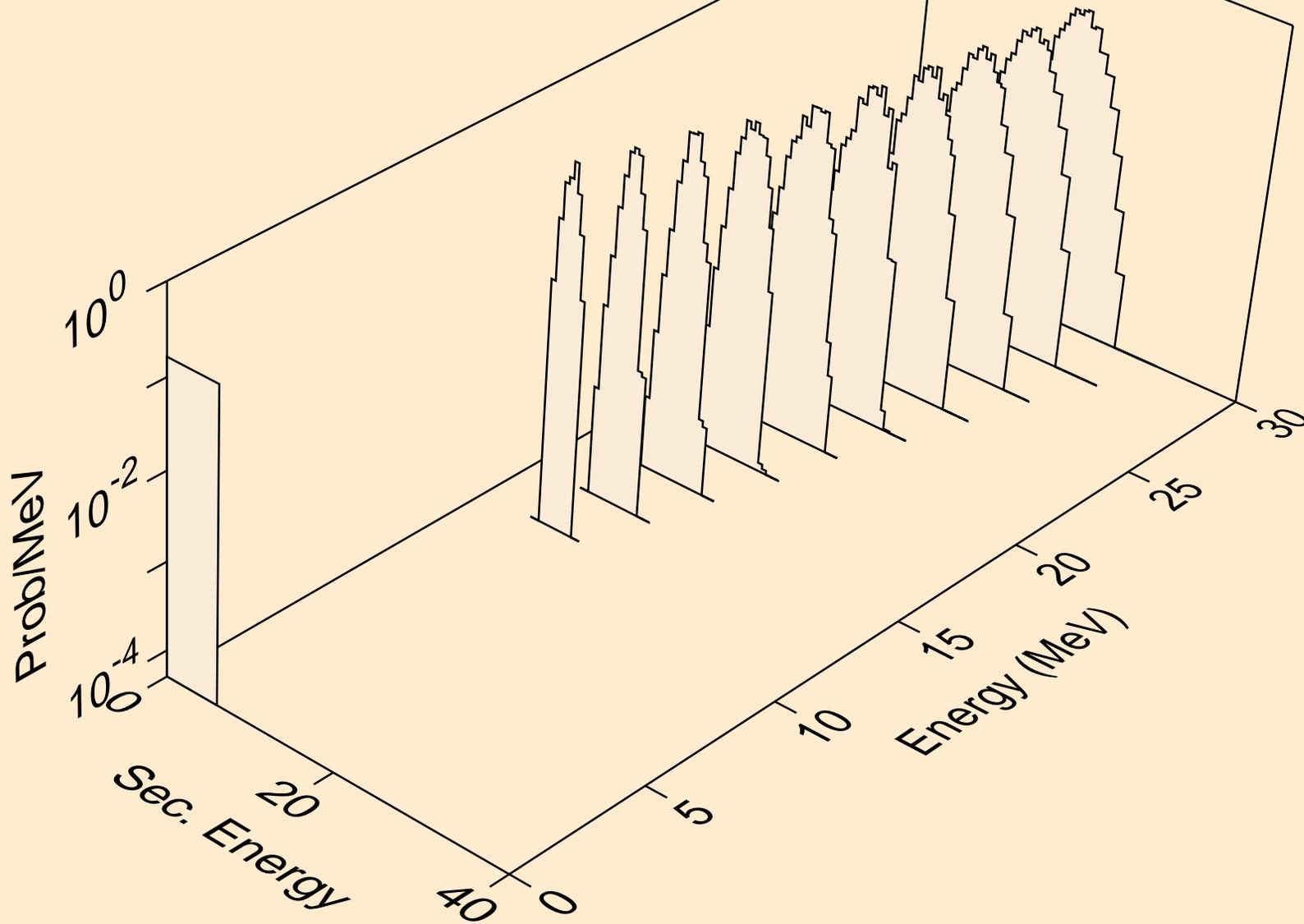alphas from (n,2n)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,3n)a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,n*)2a

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,npa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,a)
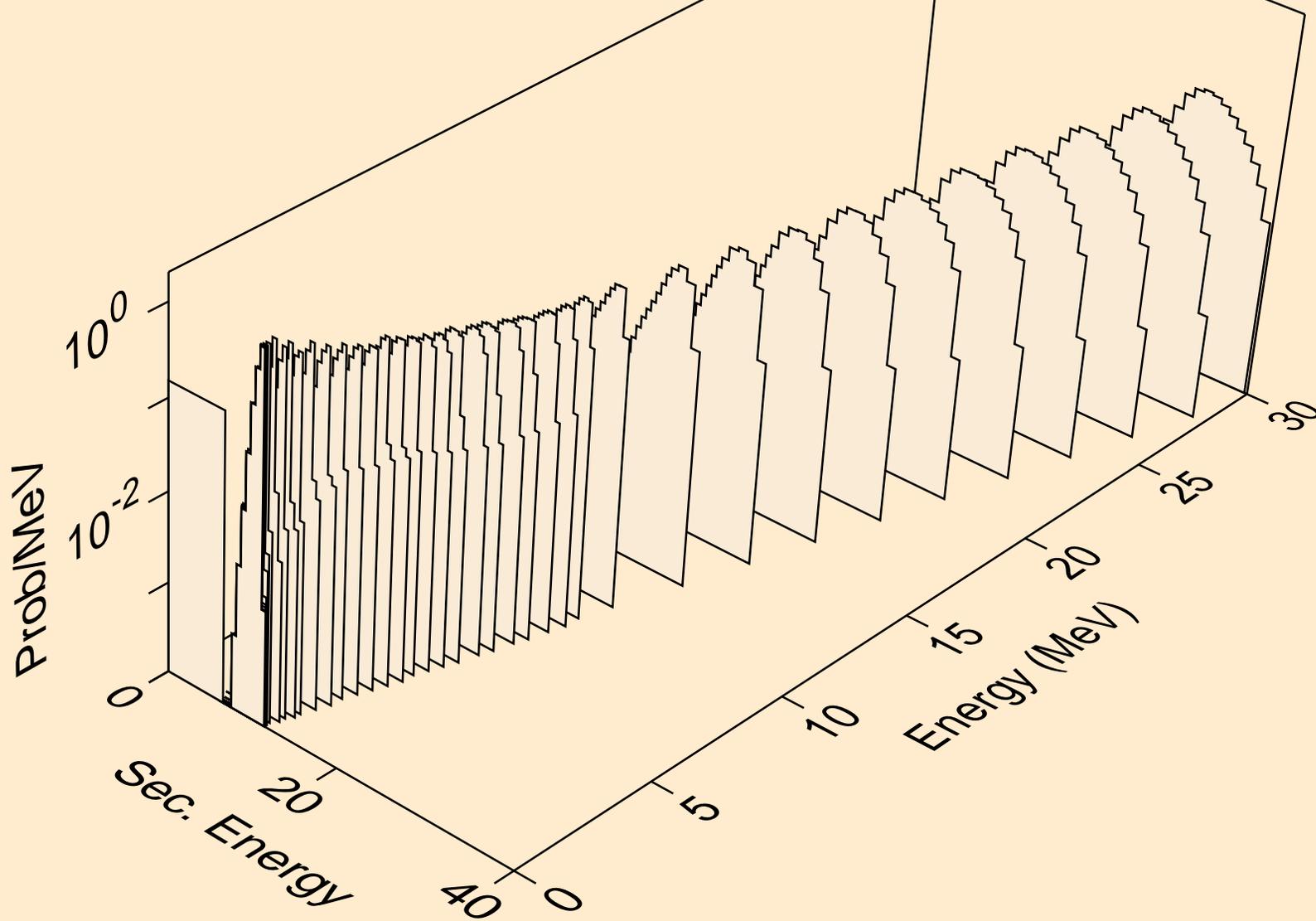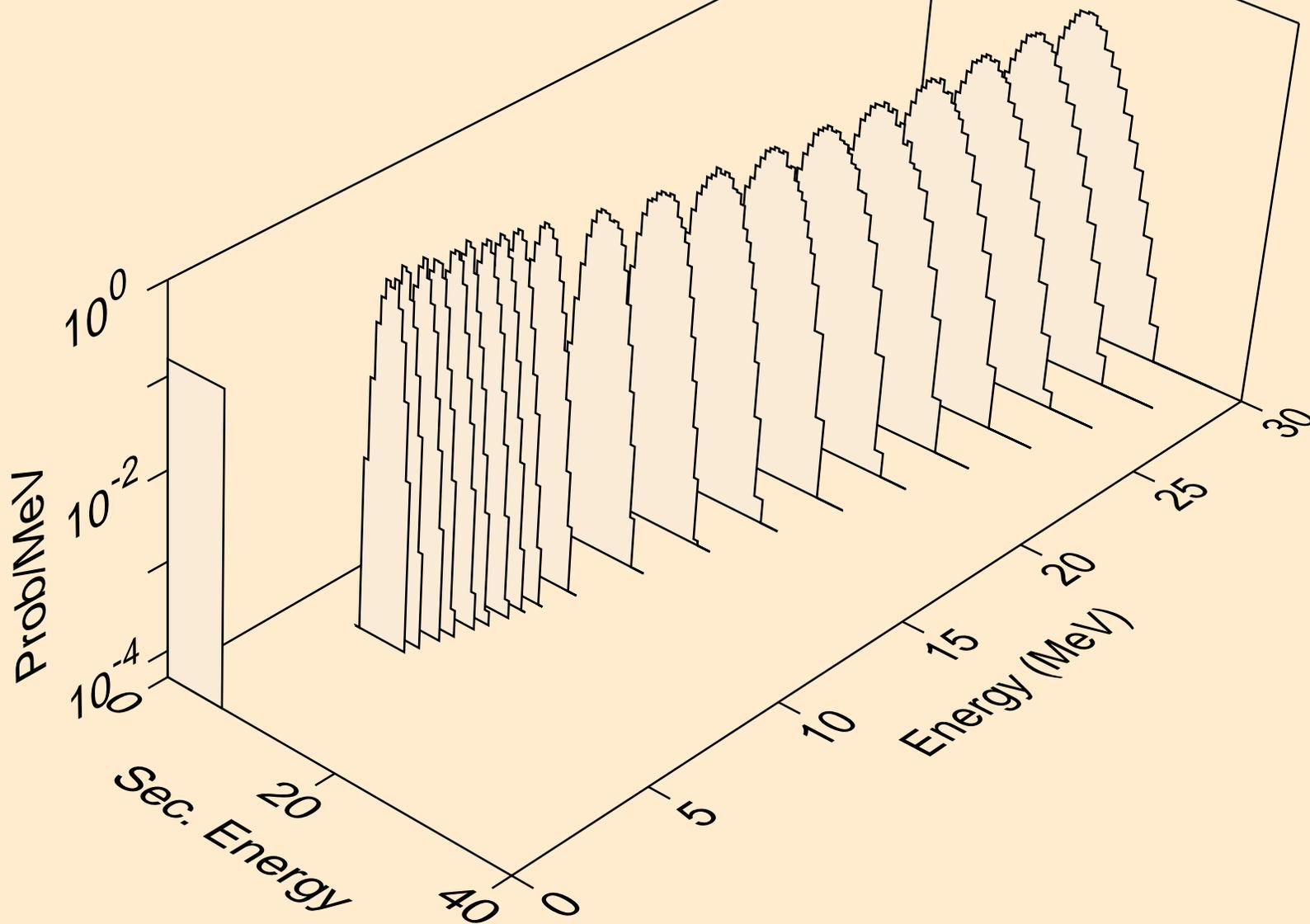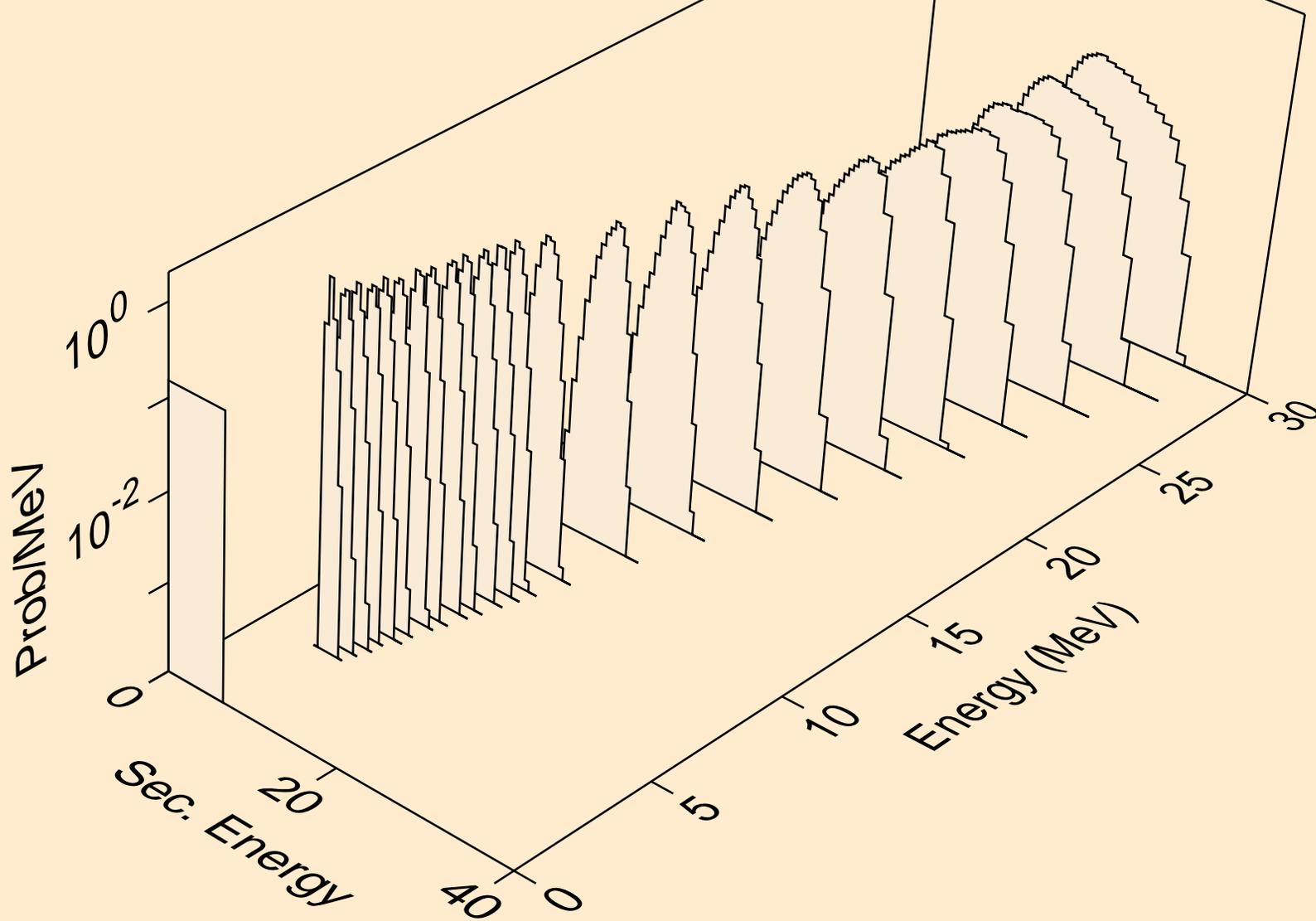
BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,2a)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,pa)

BI201 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K
alphas from (n,da)