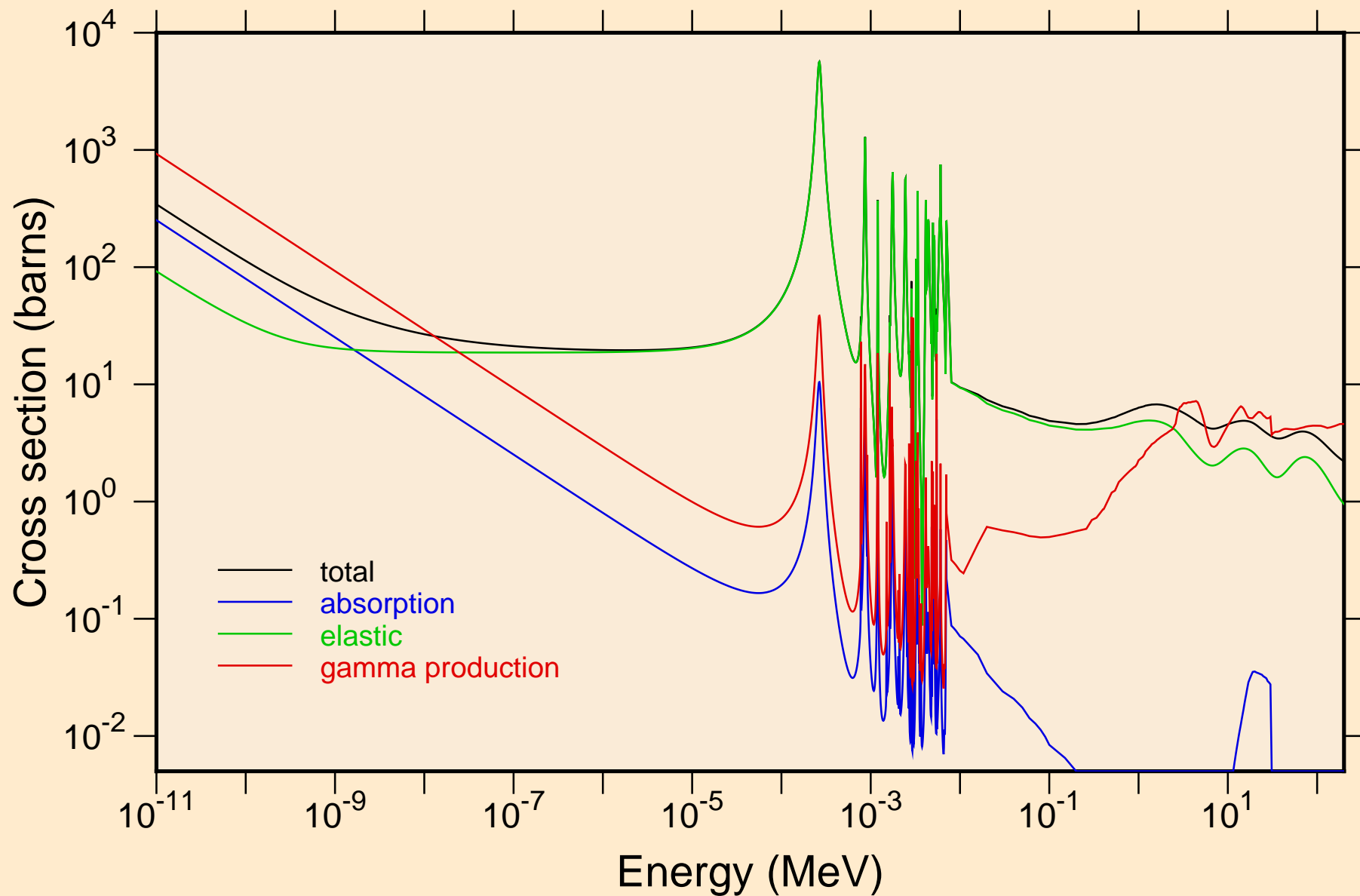
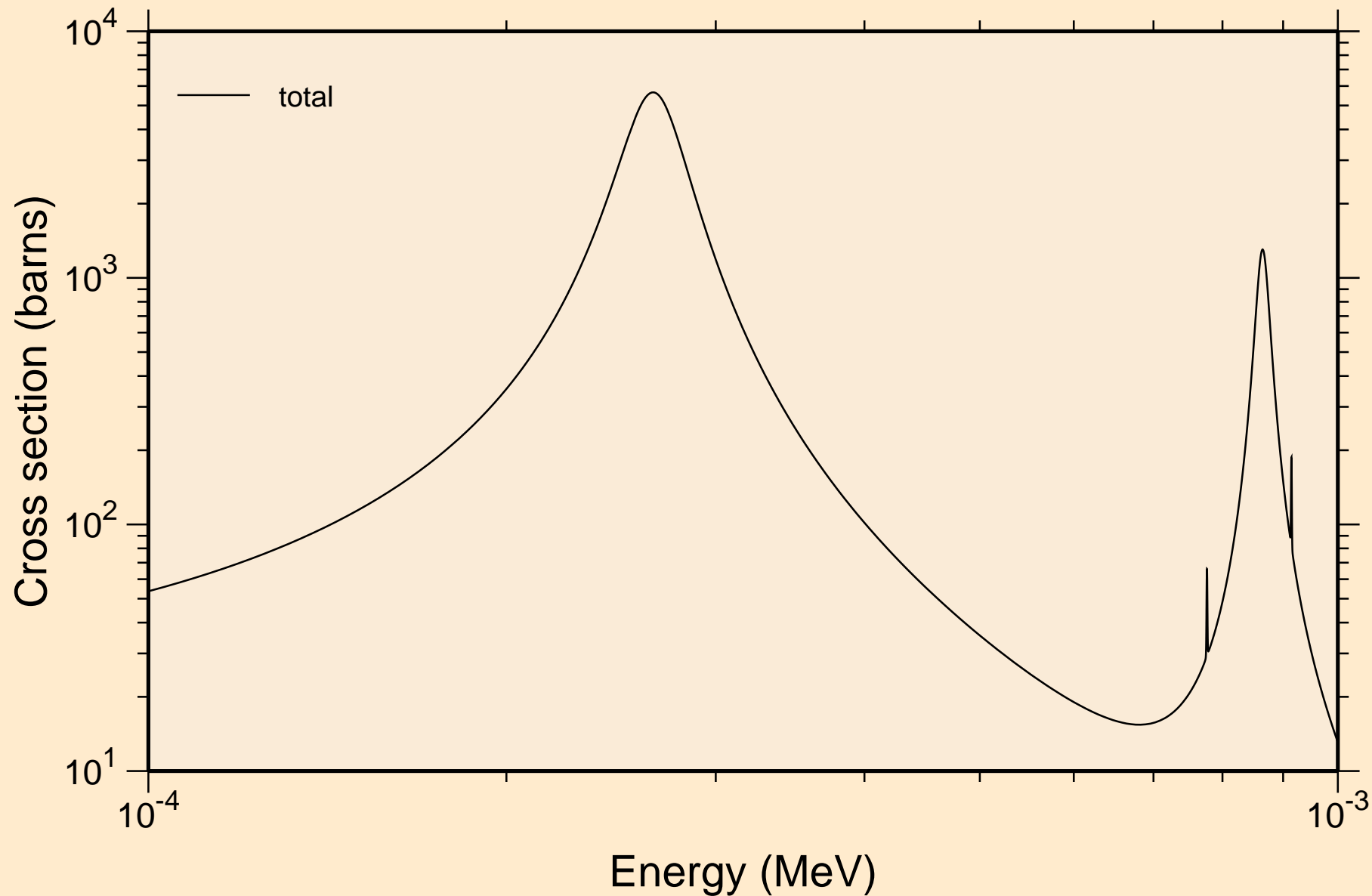


# CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

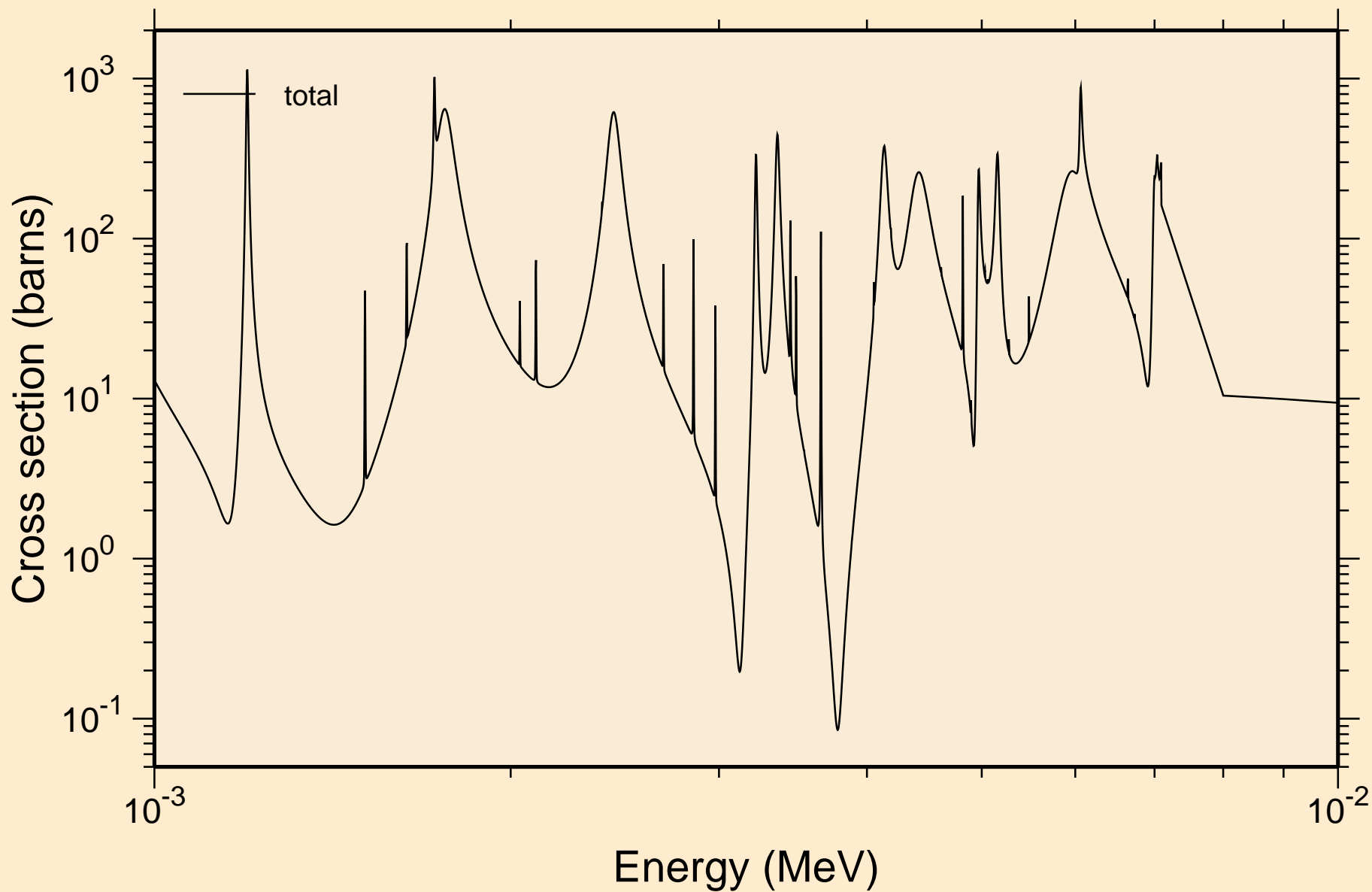
## Principal cross sections



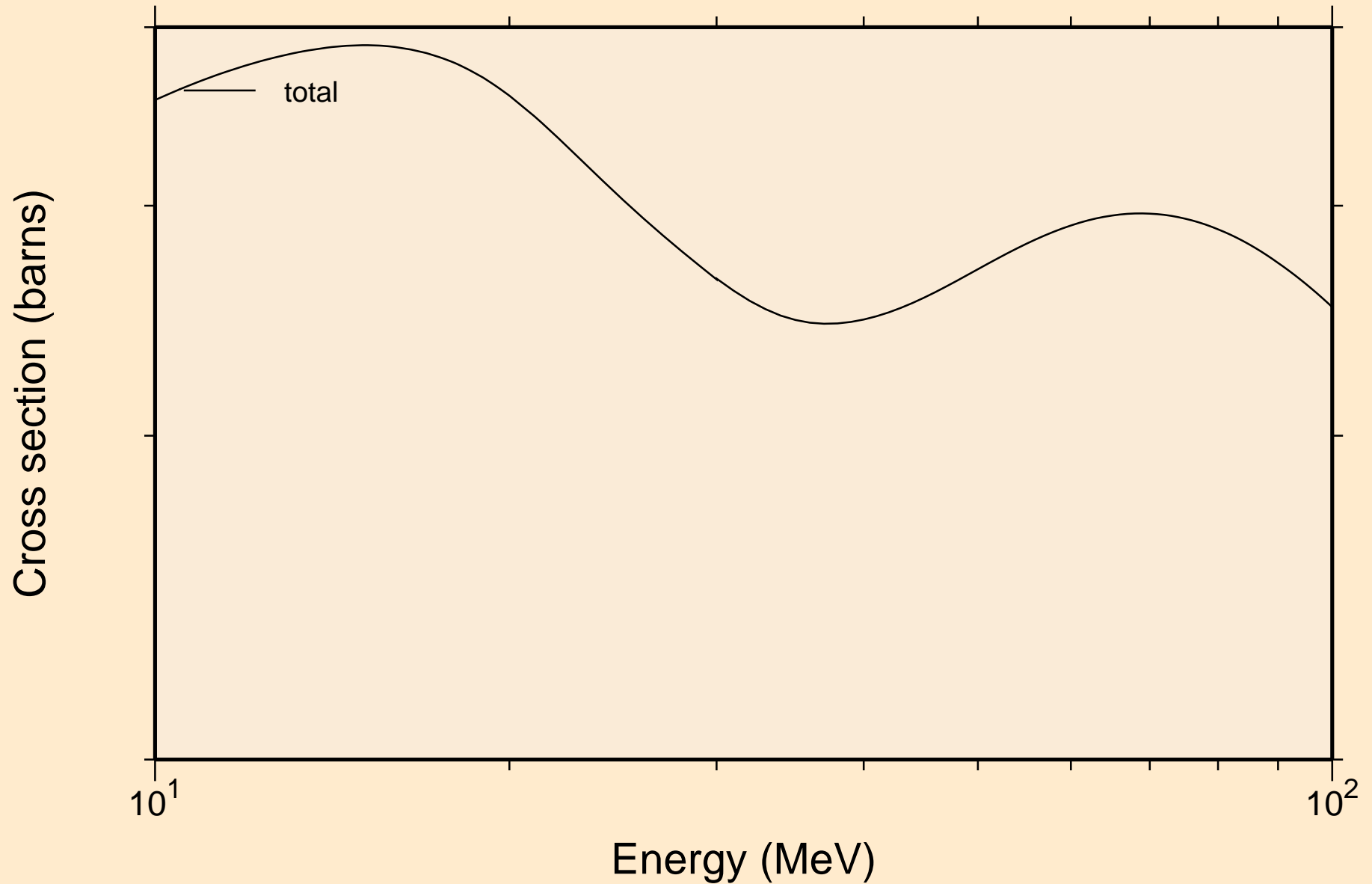
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



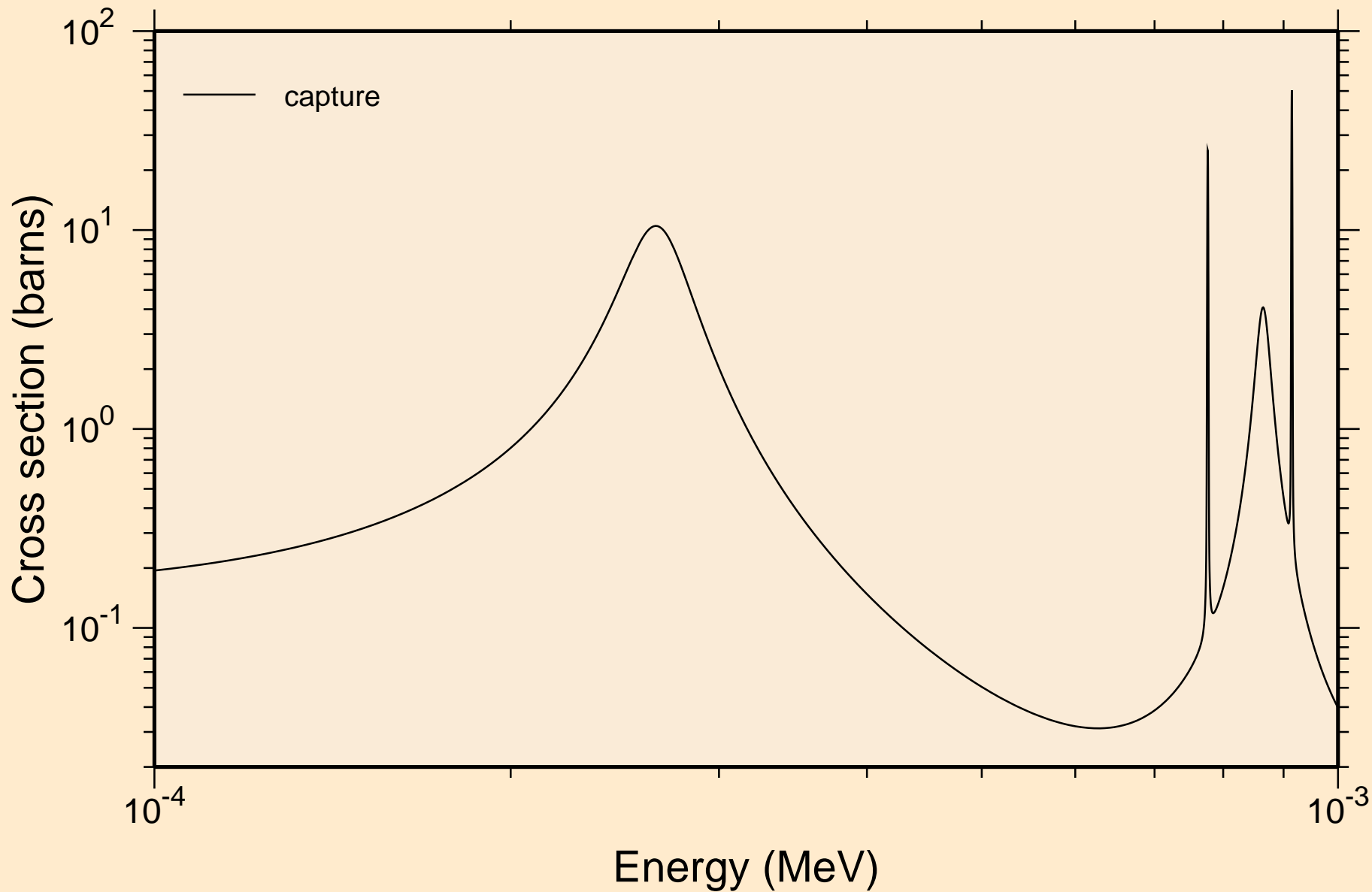
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



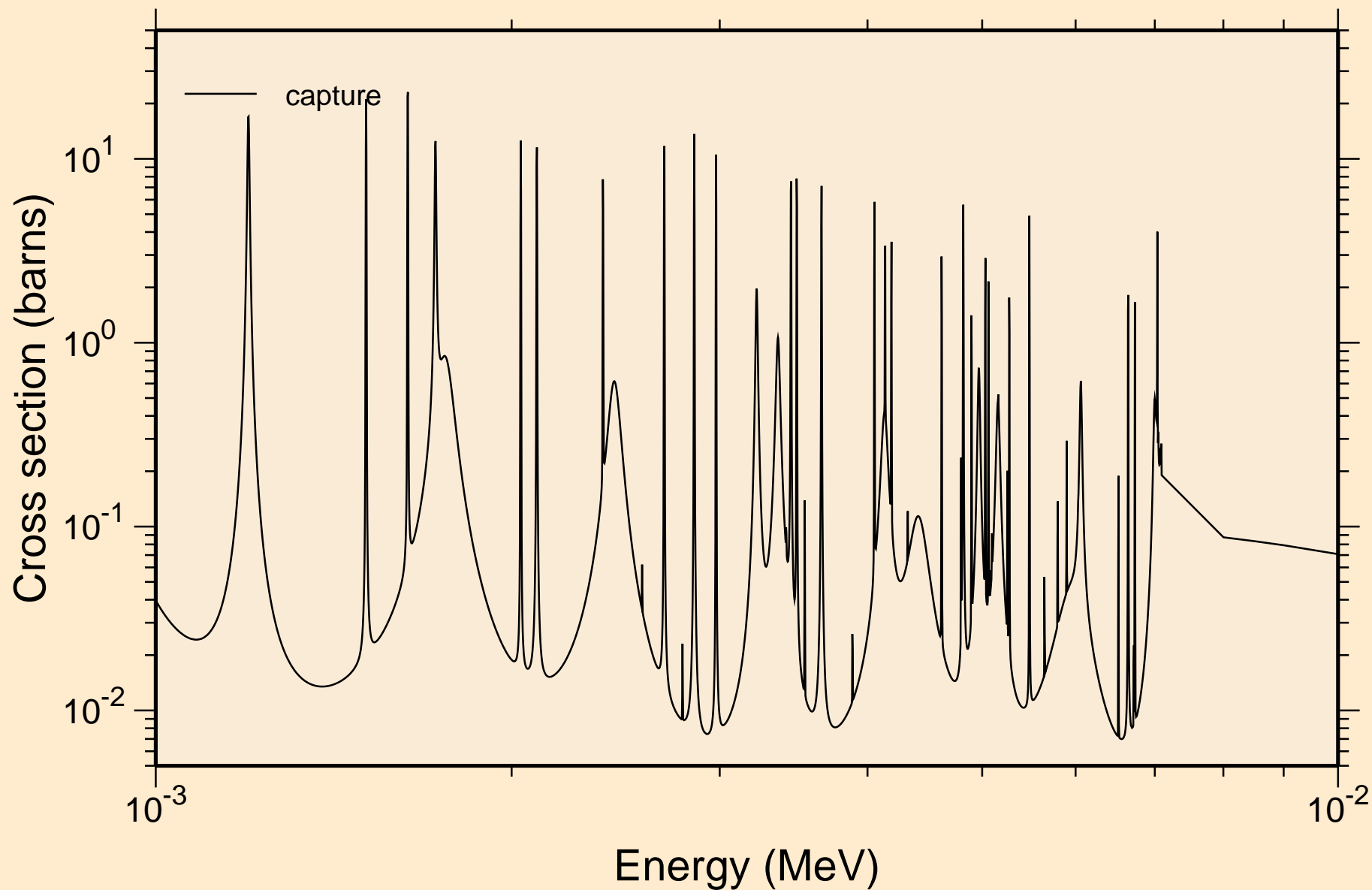
C<sup>138</sup> NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



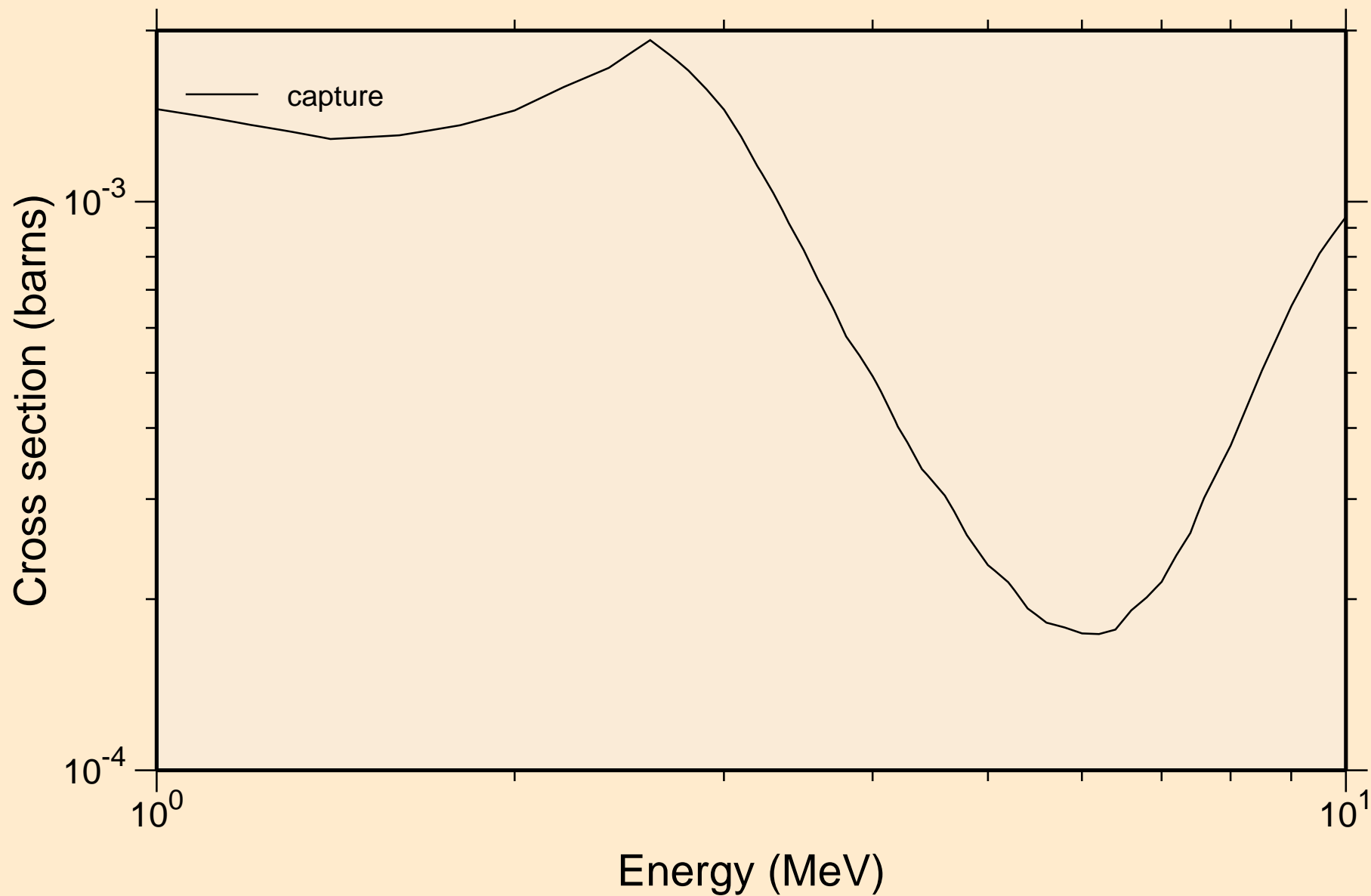
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections



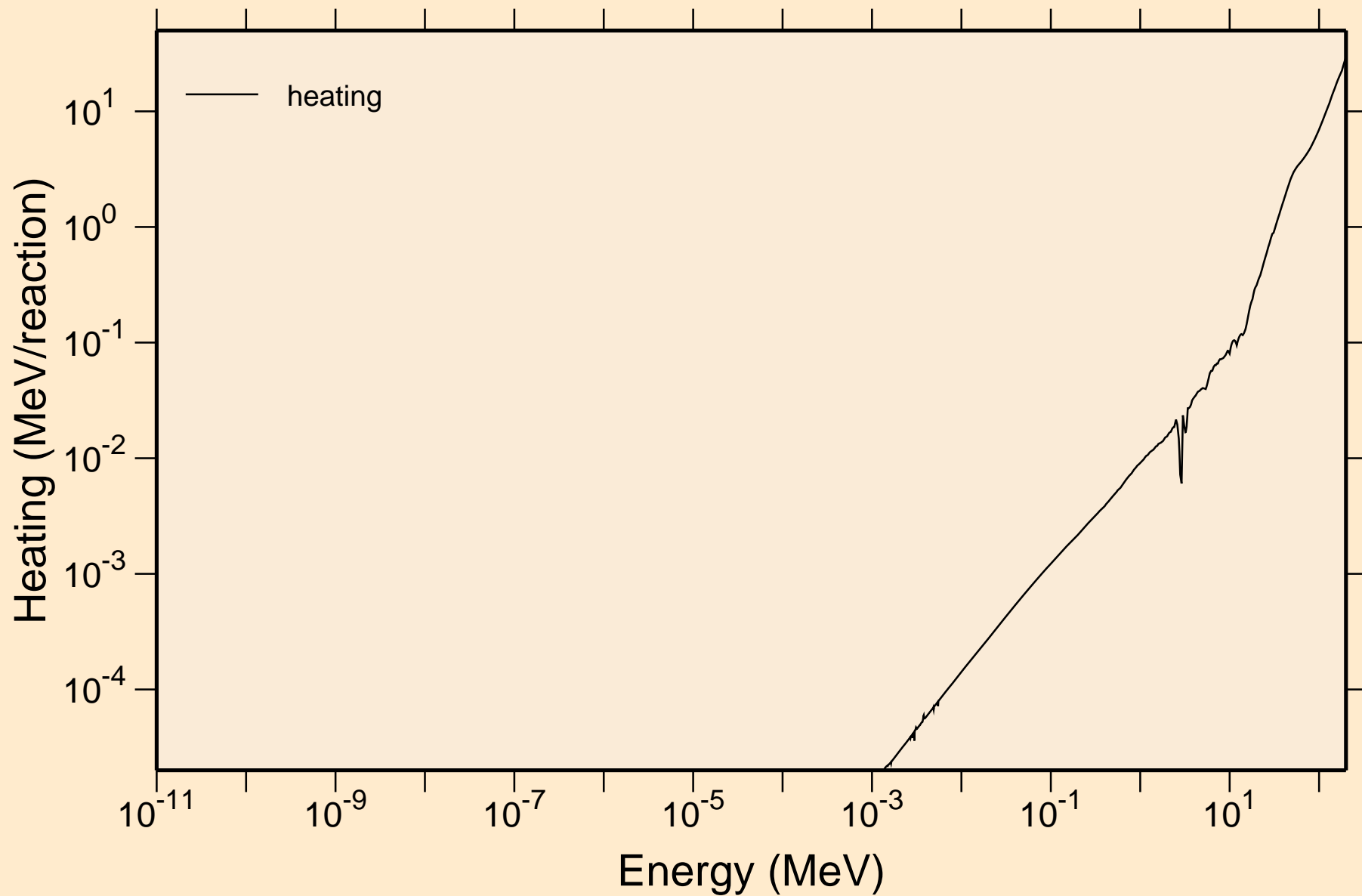
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections

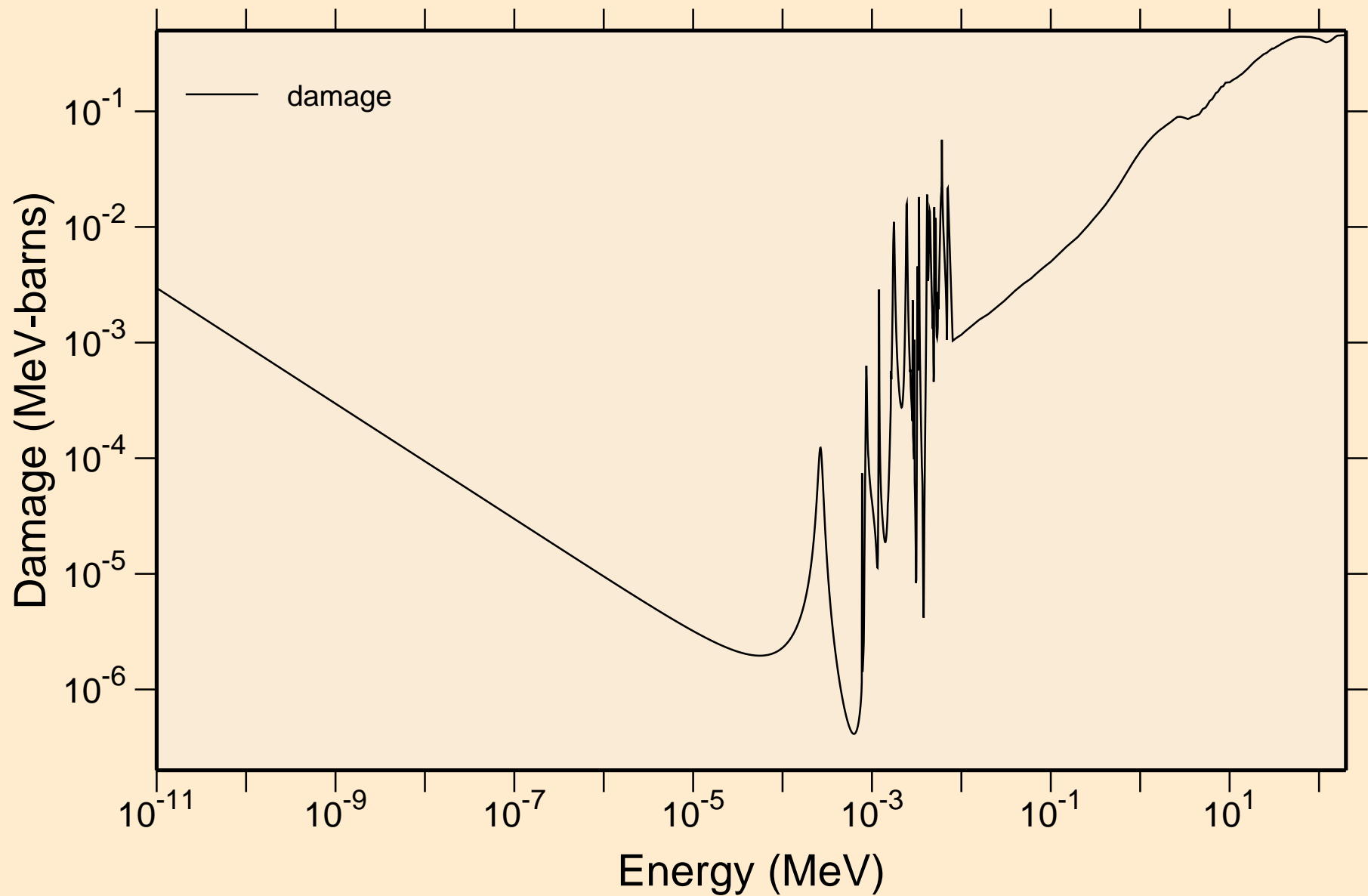


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Heating



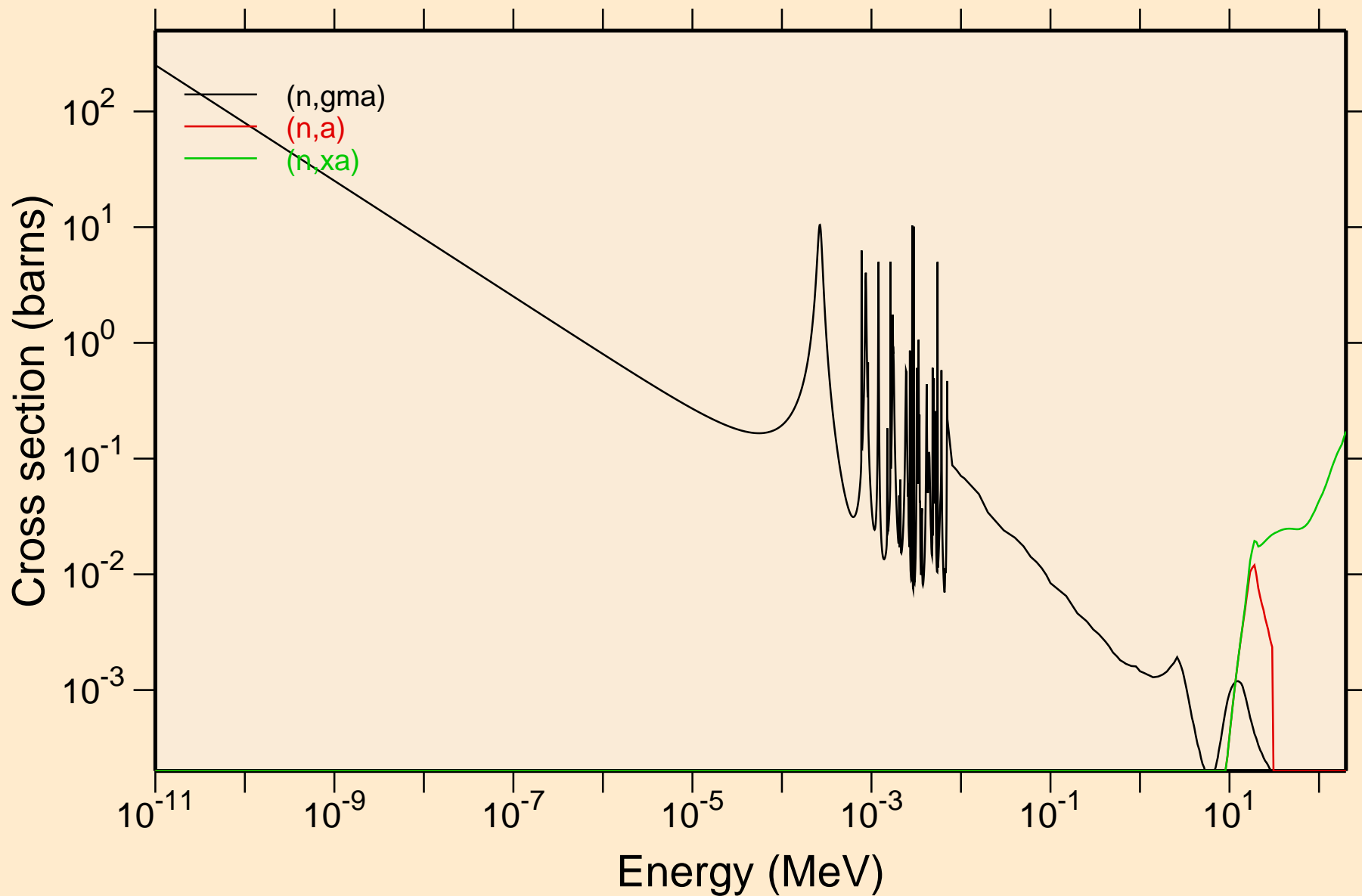


# CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K Damage

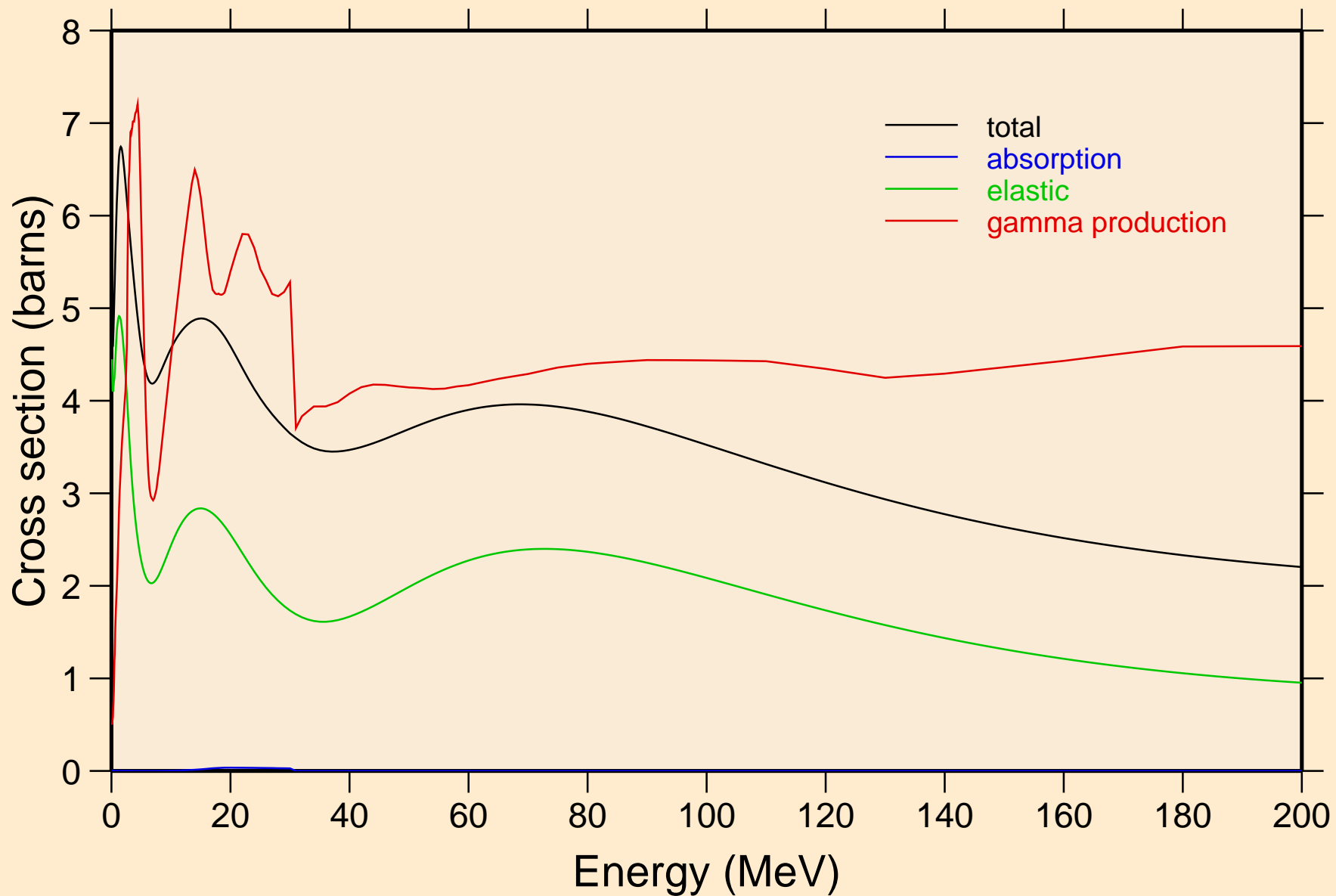


# CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

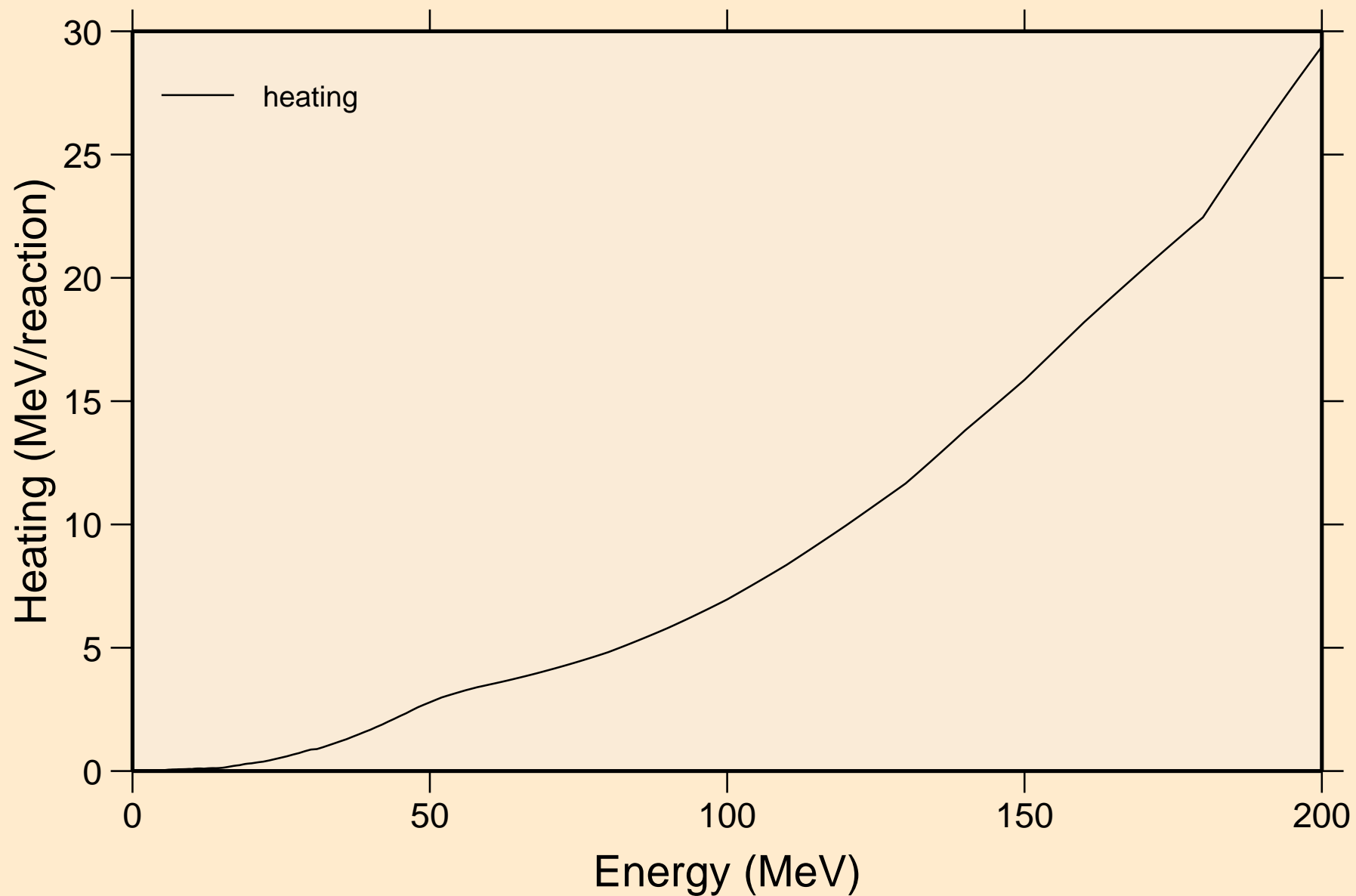
## Non-threshold reactions



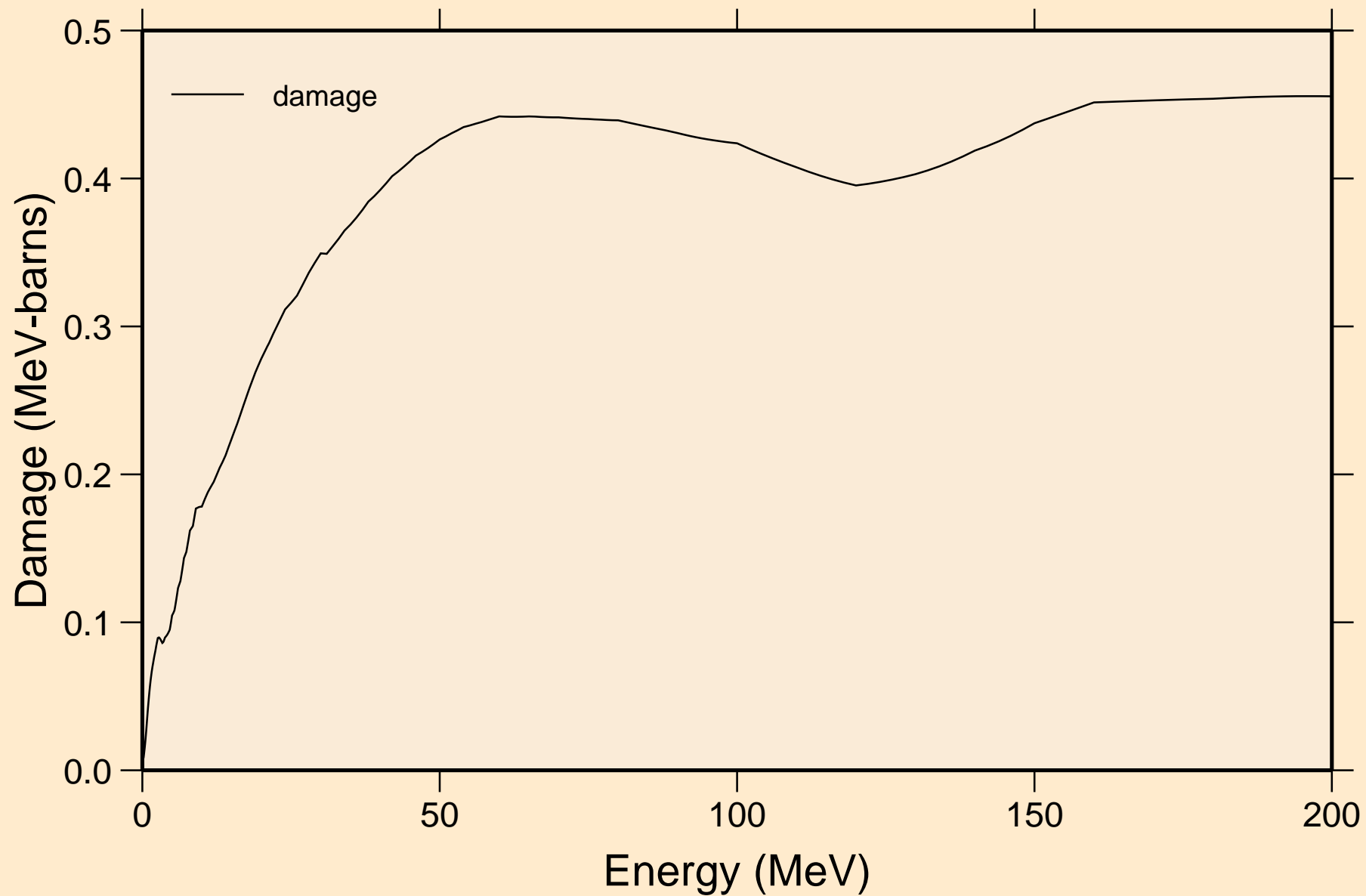
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Principal cross sections



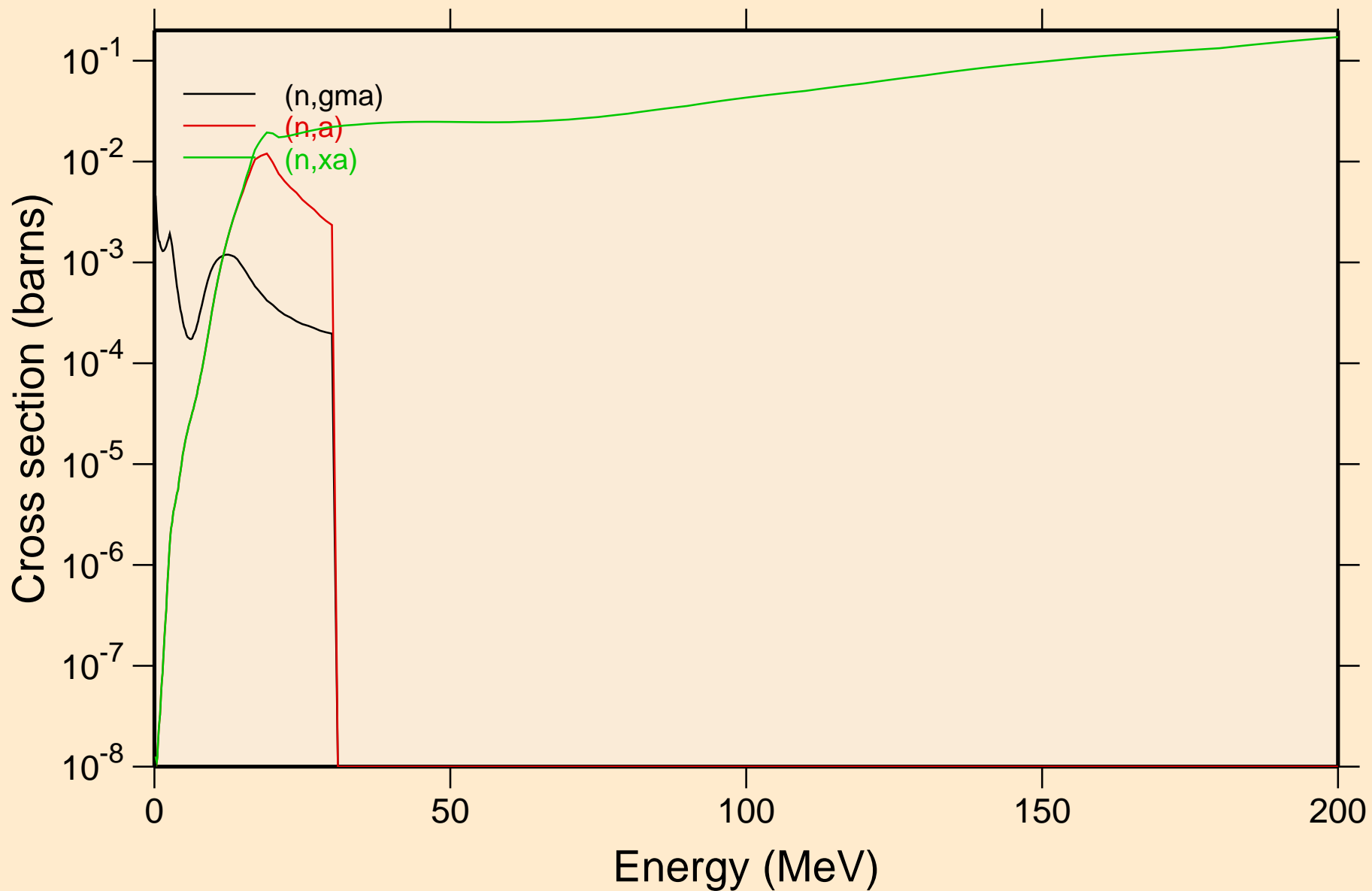
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Heating



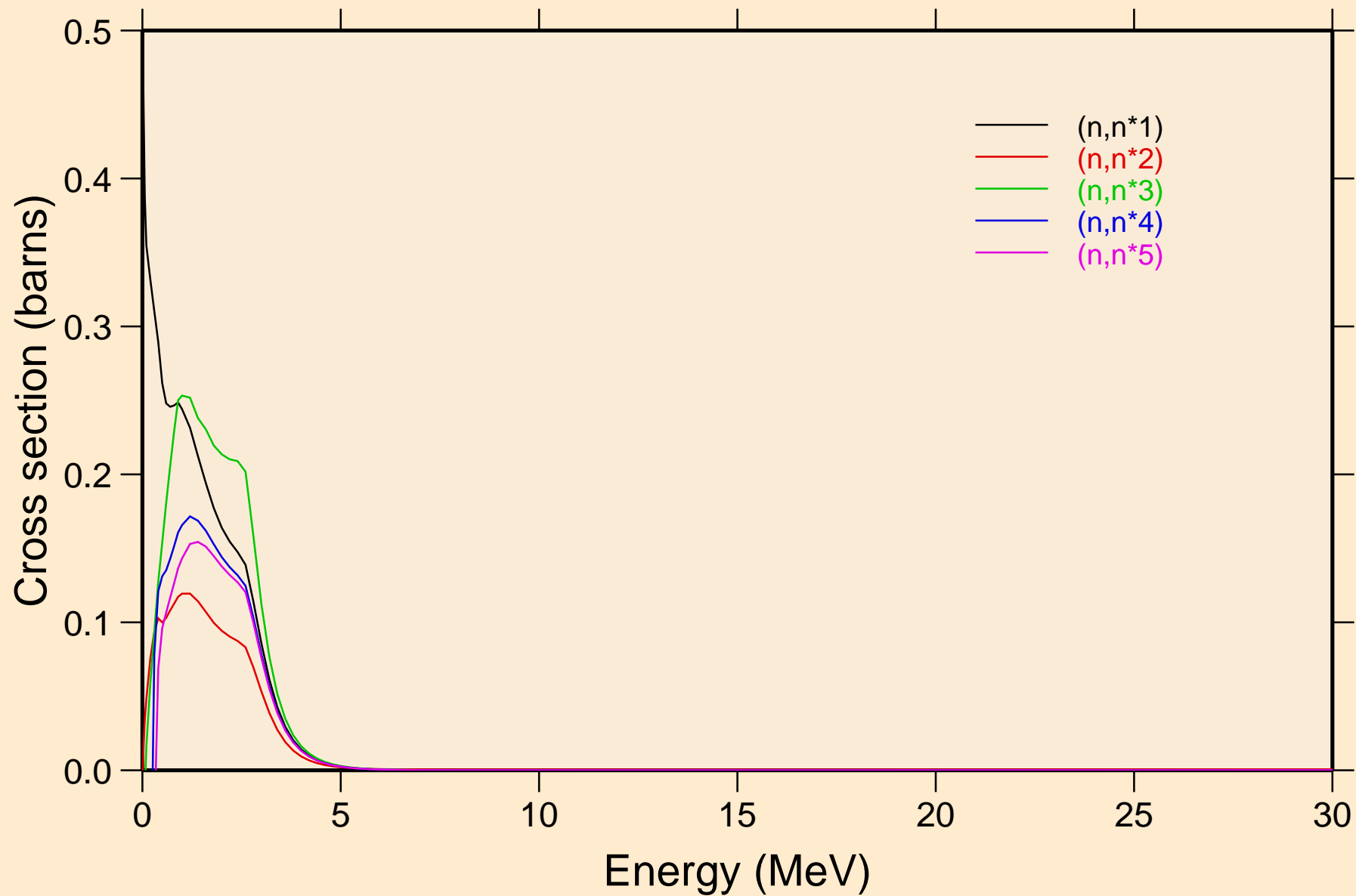
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Damage



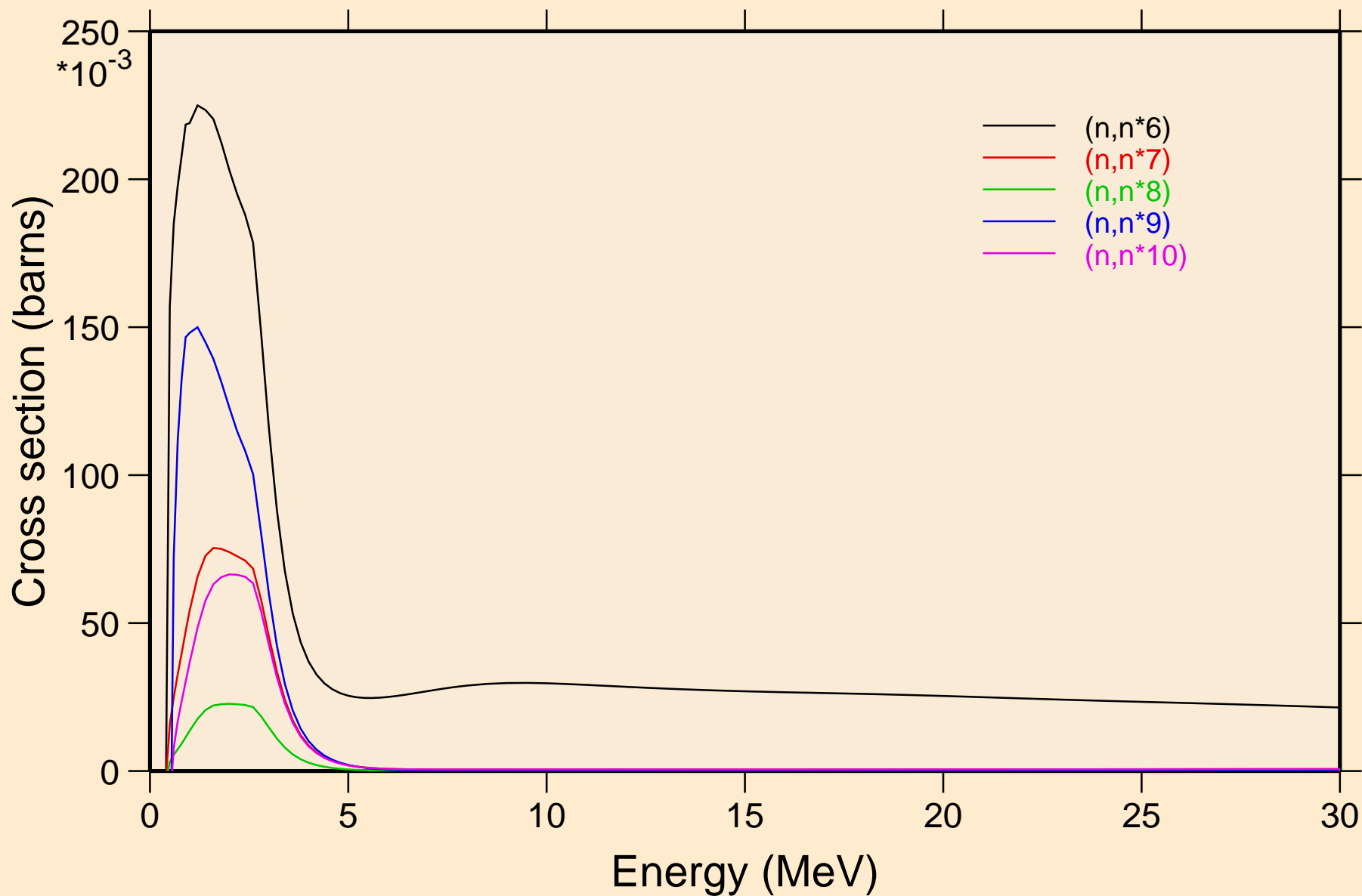
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Non-threshold reactions



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels

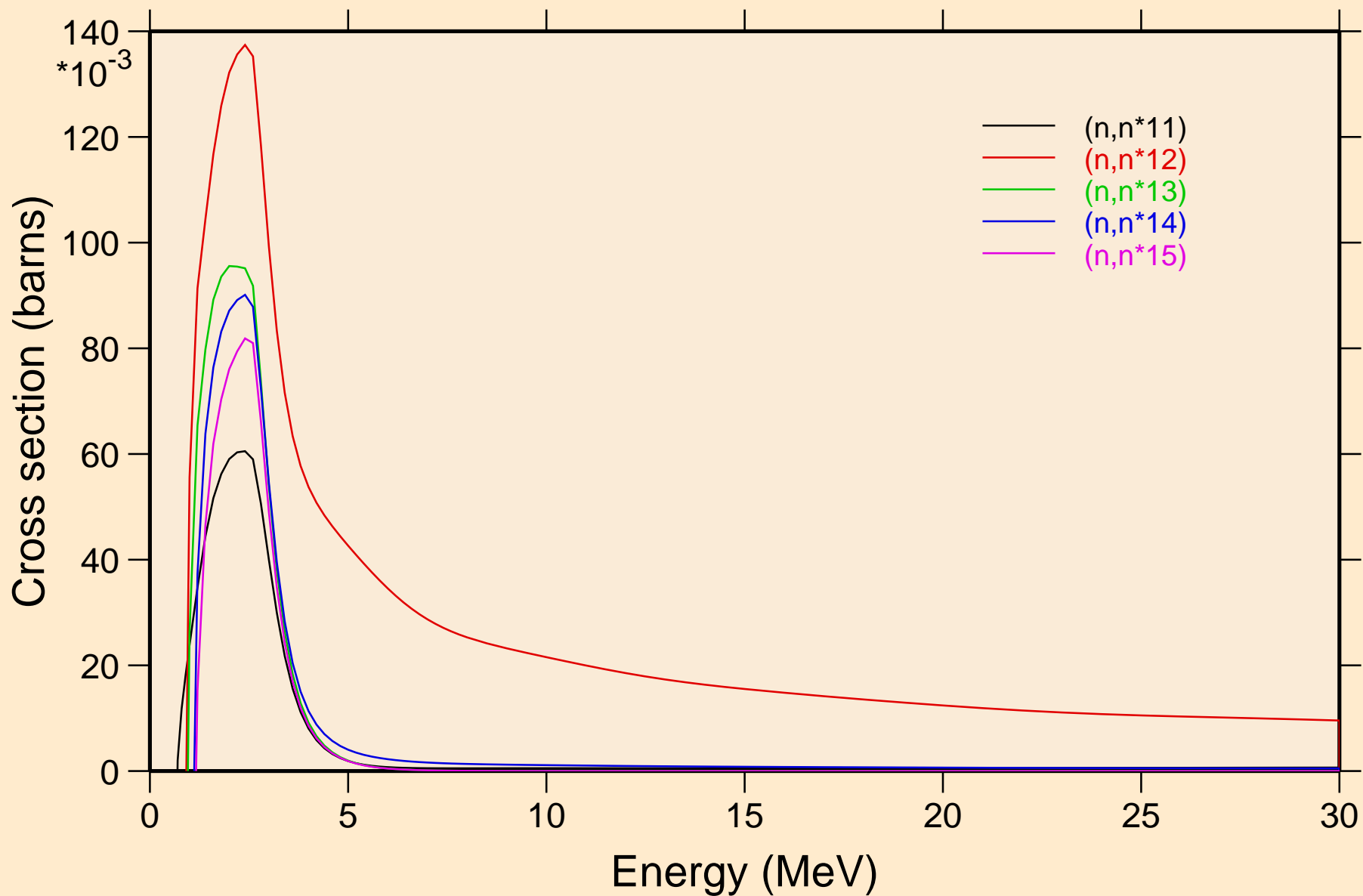


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels

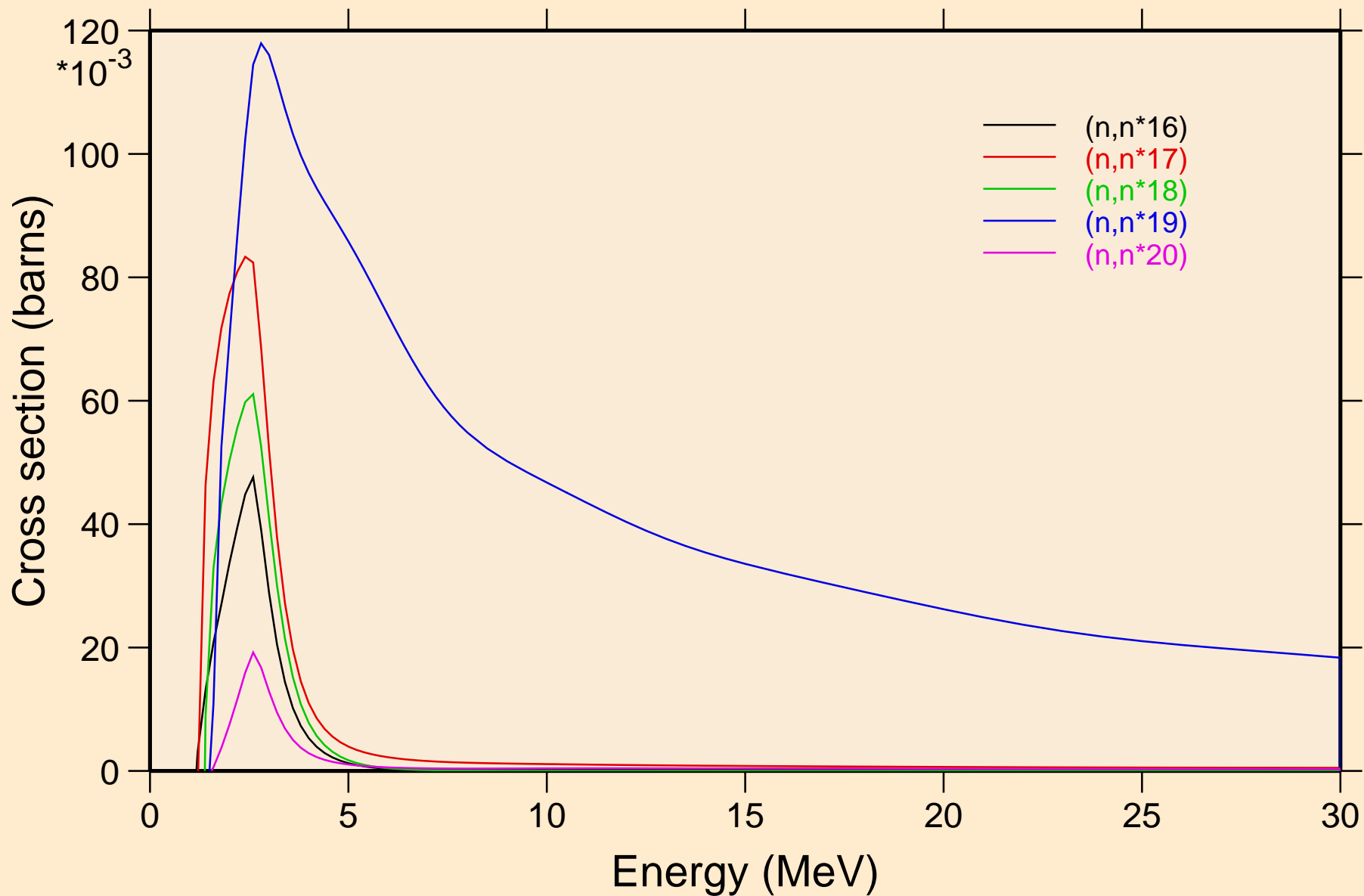




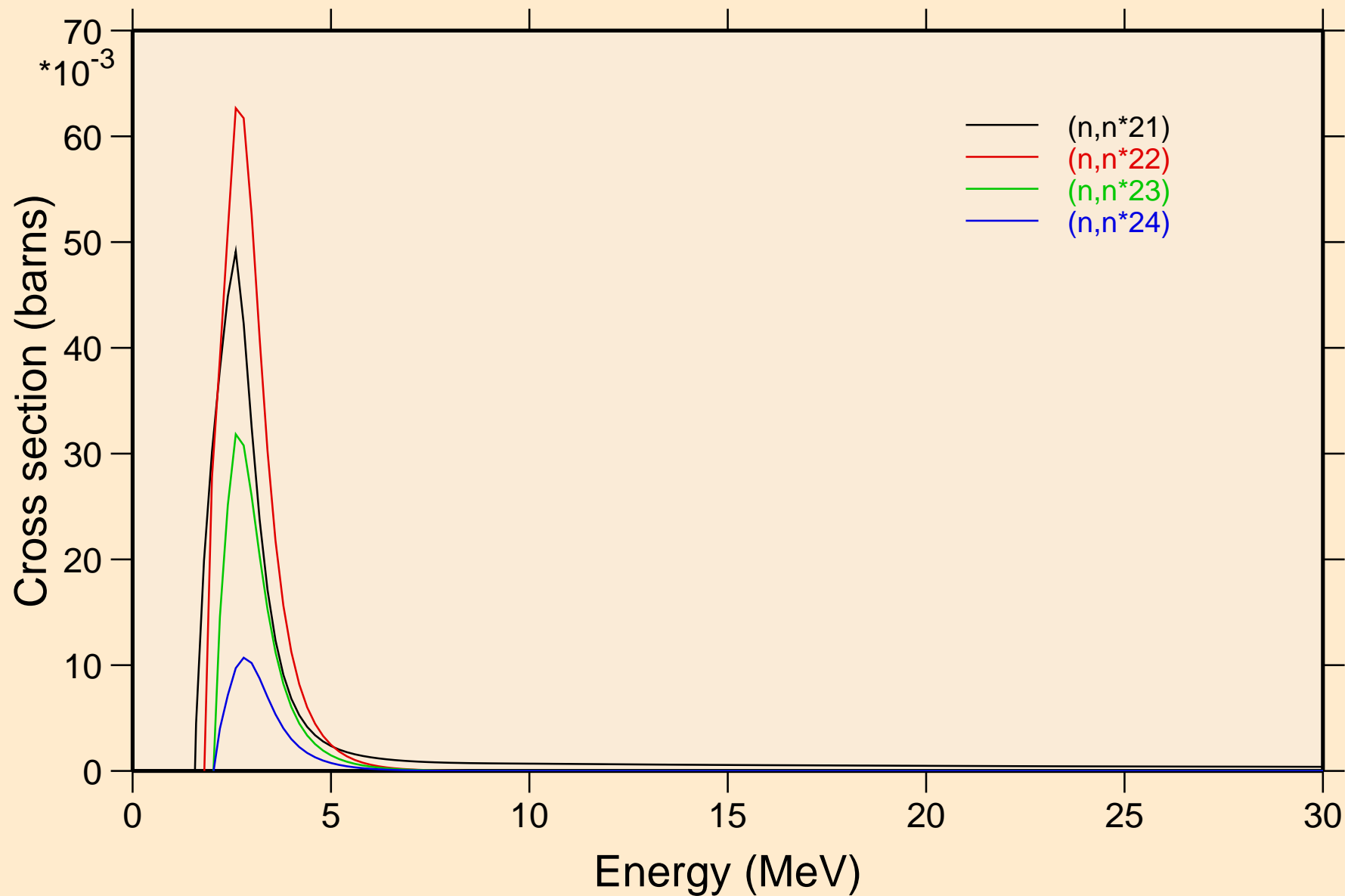
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels



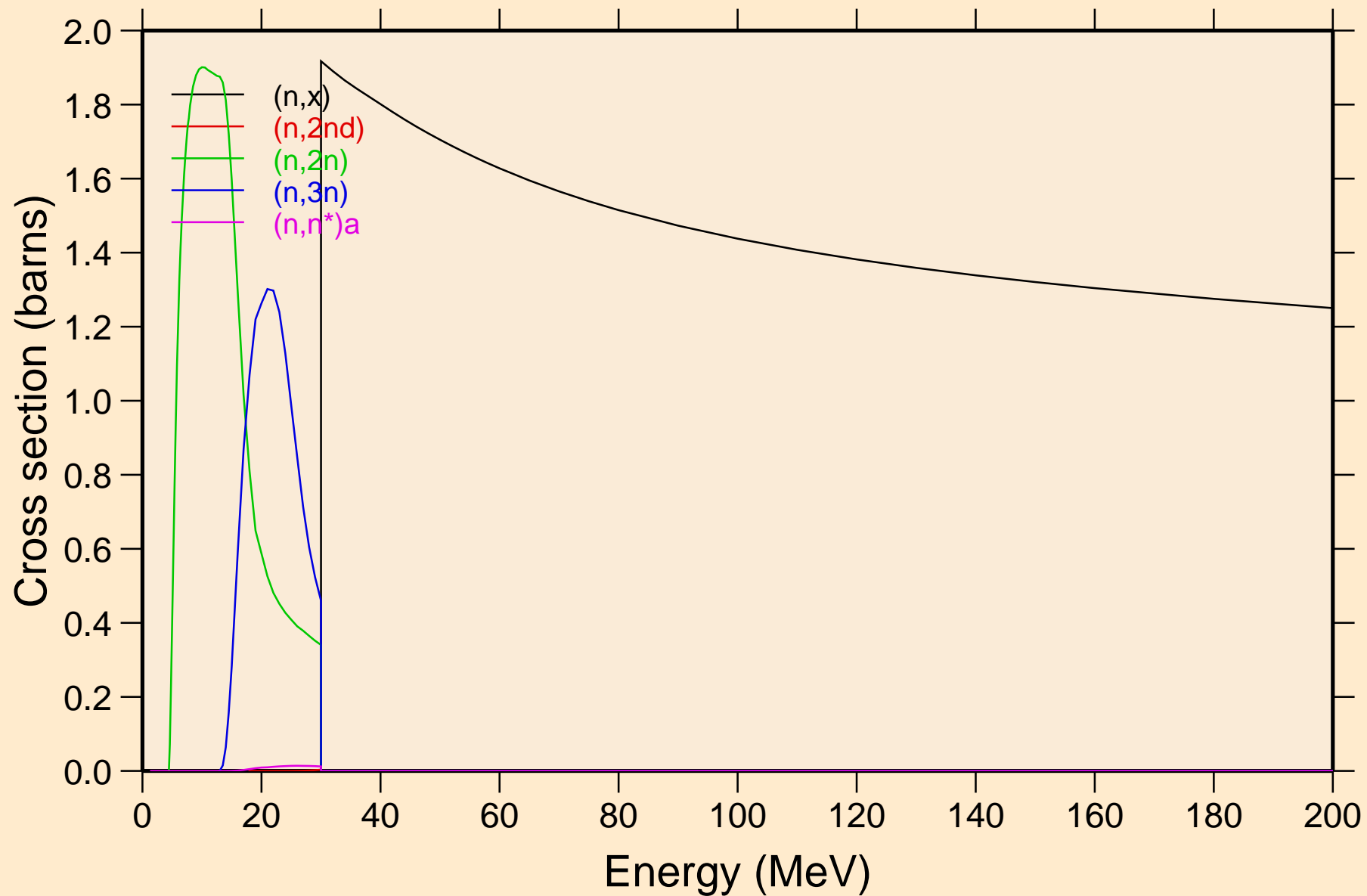
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels

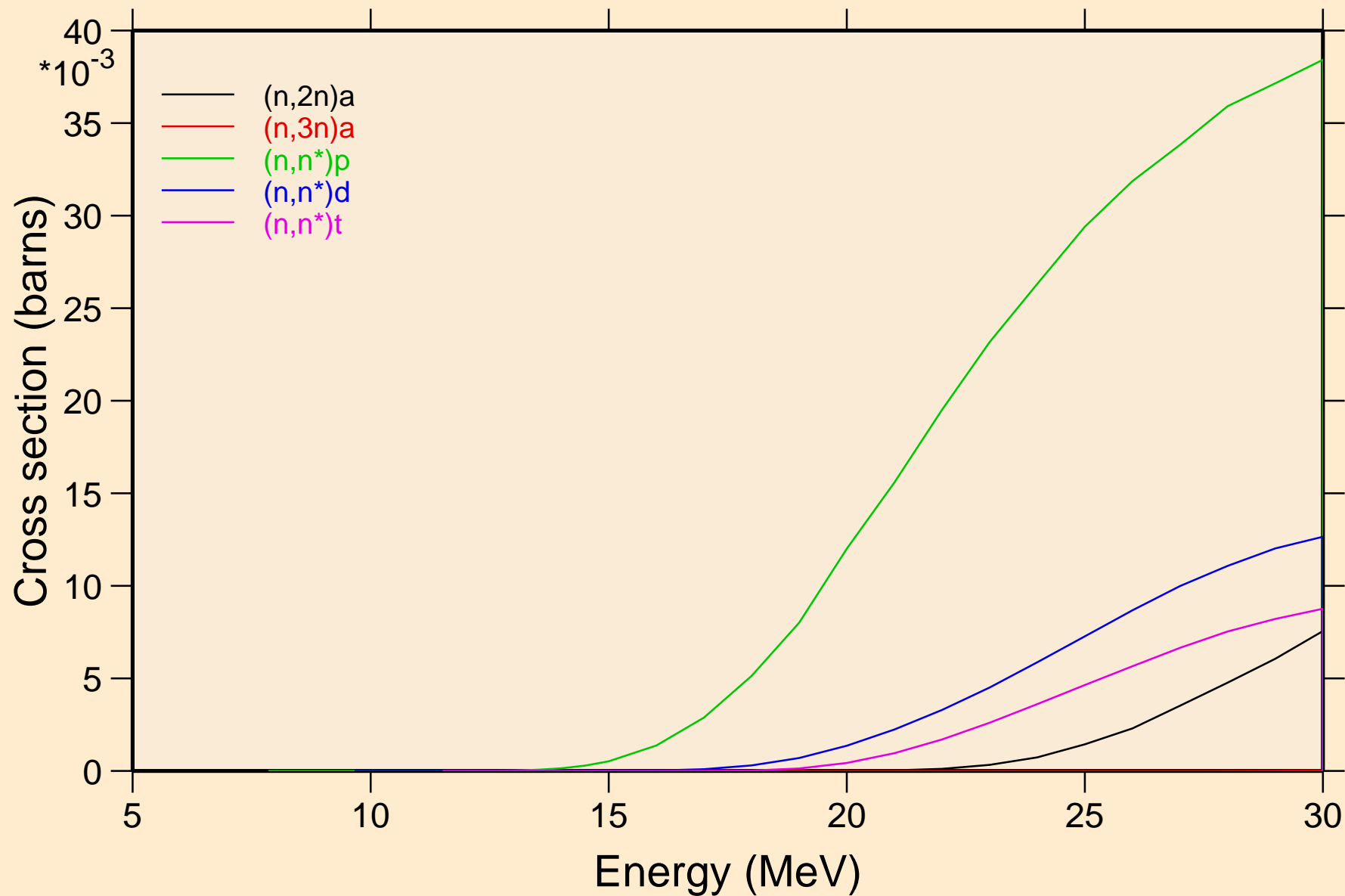


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions

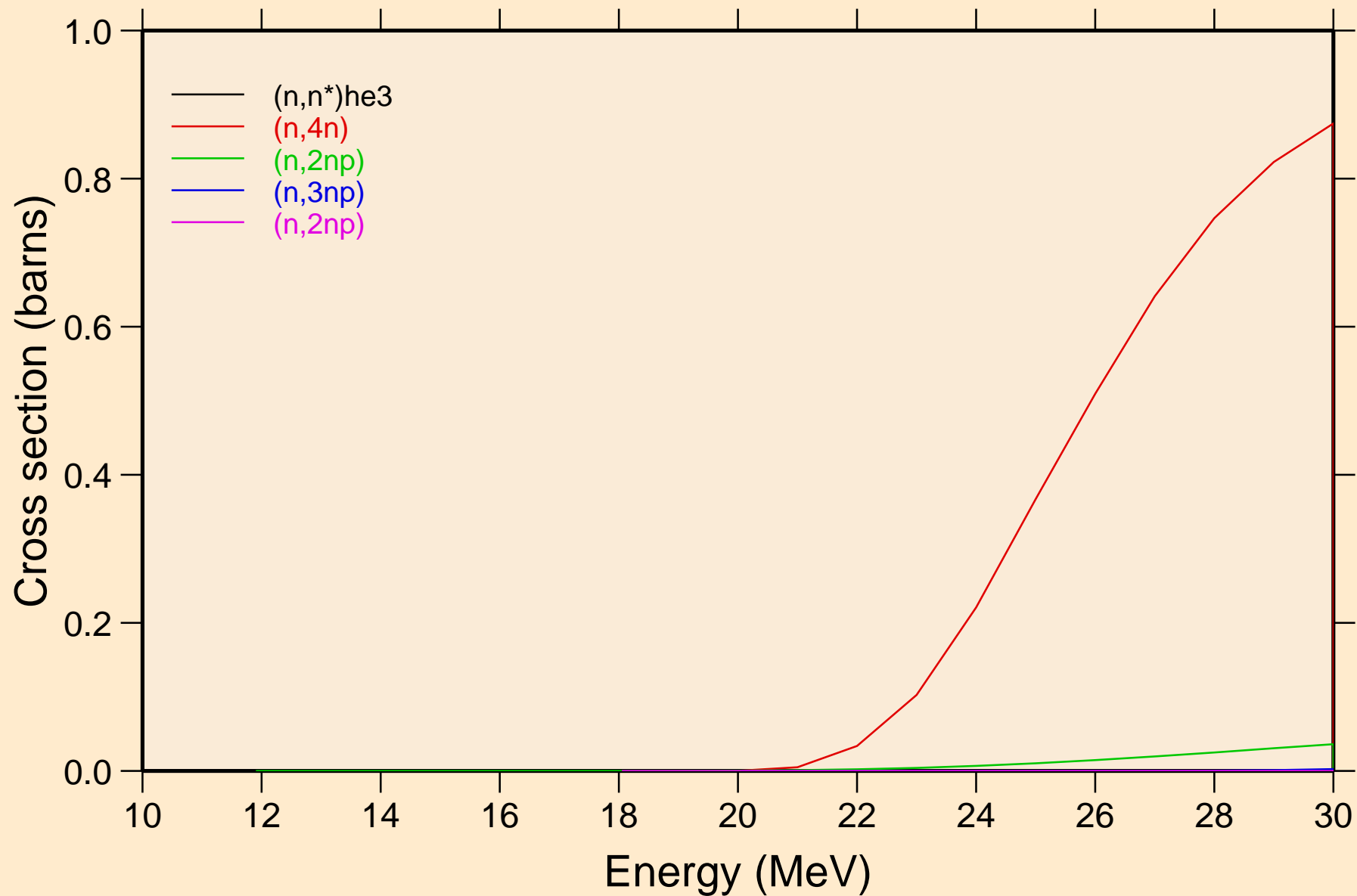


# CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

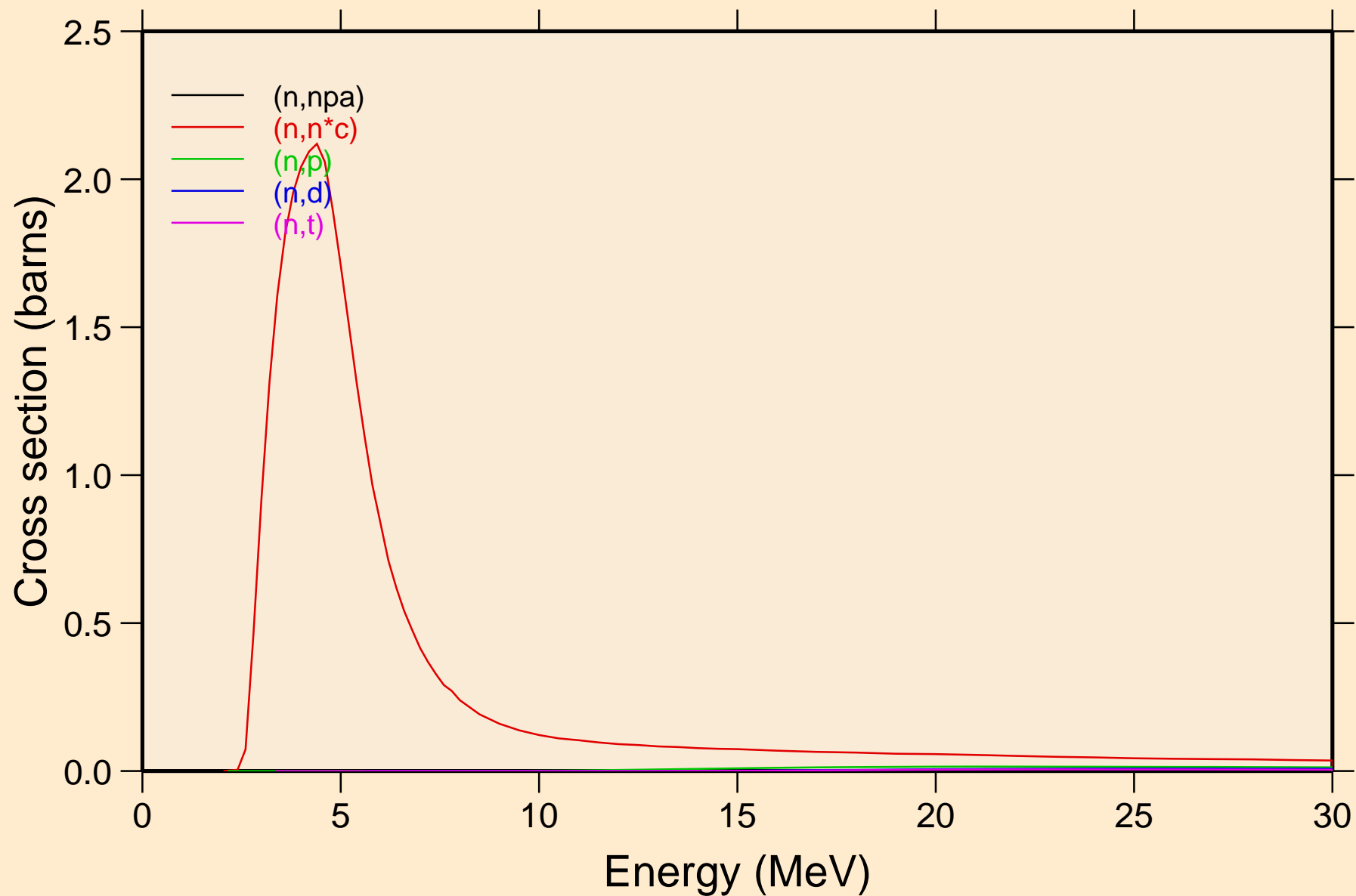
## Threshold reactions



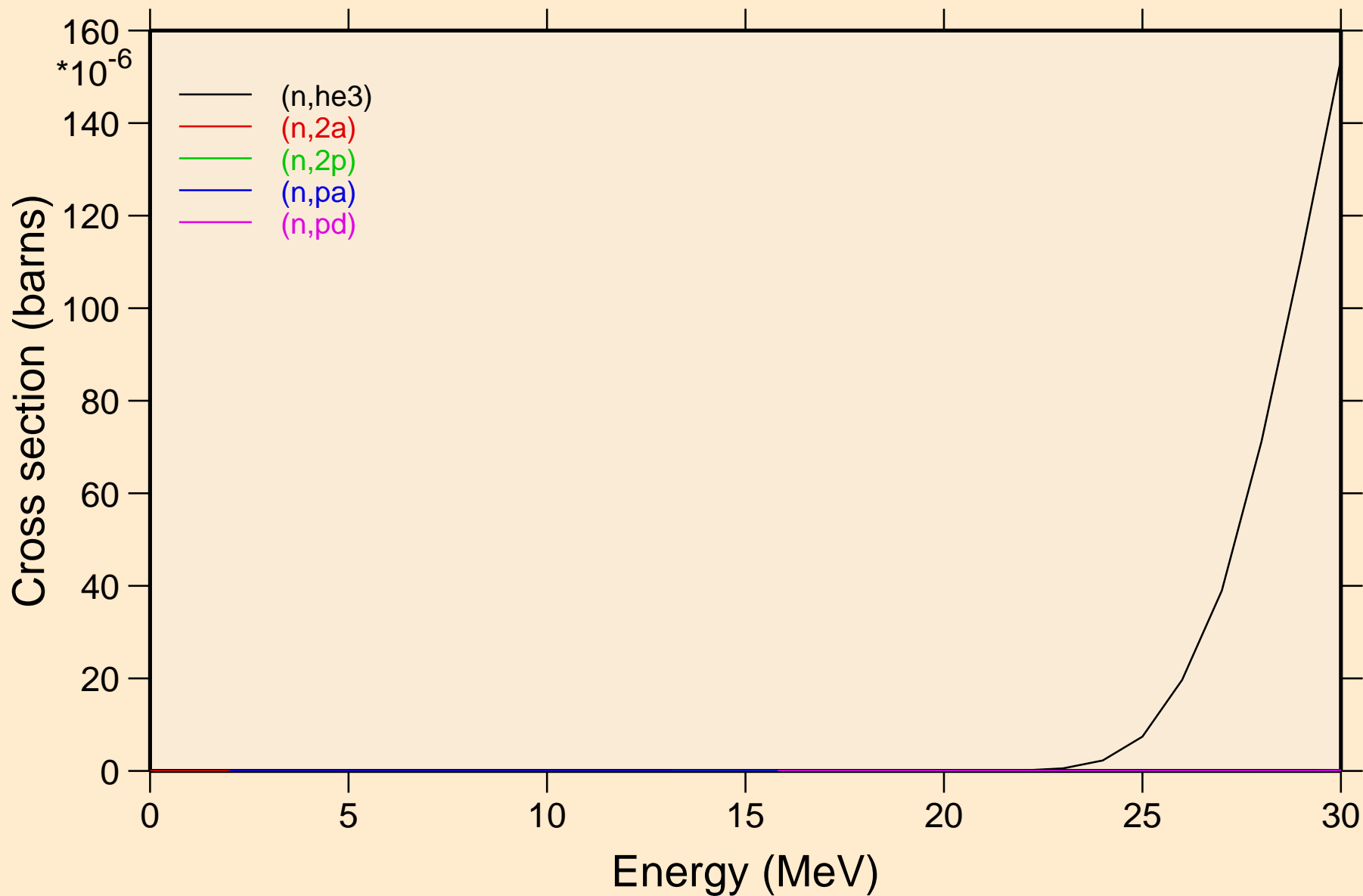
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions

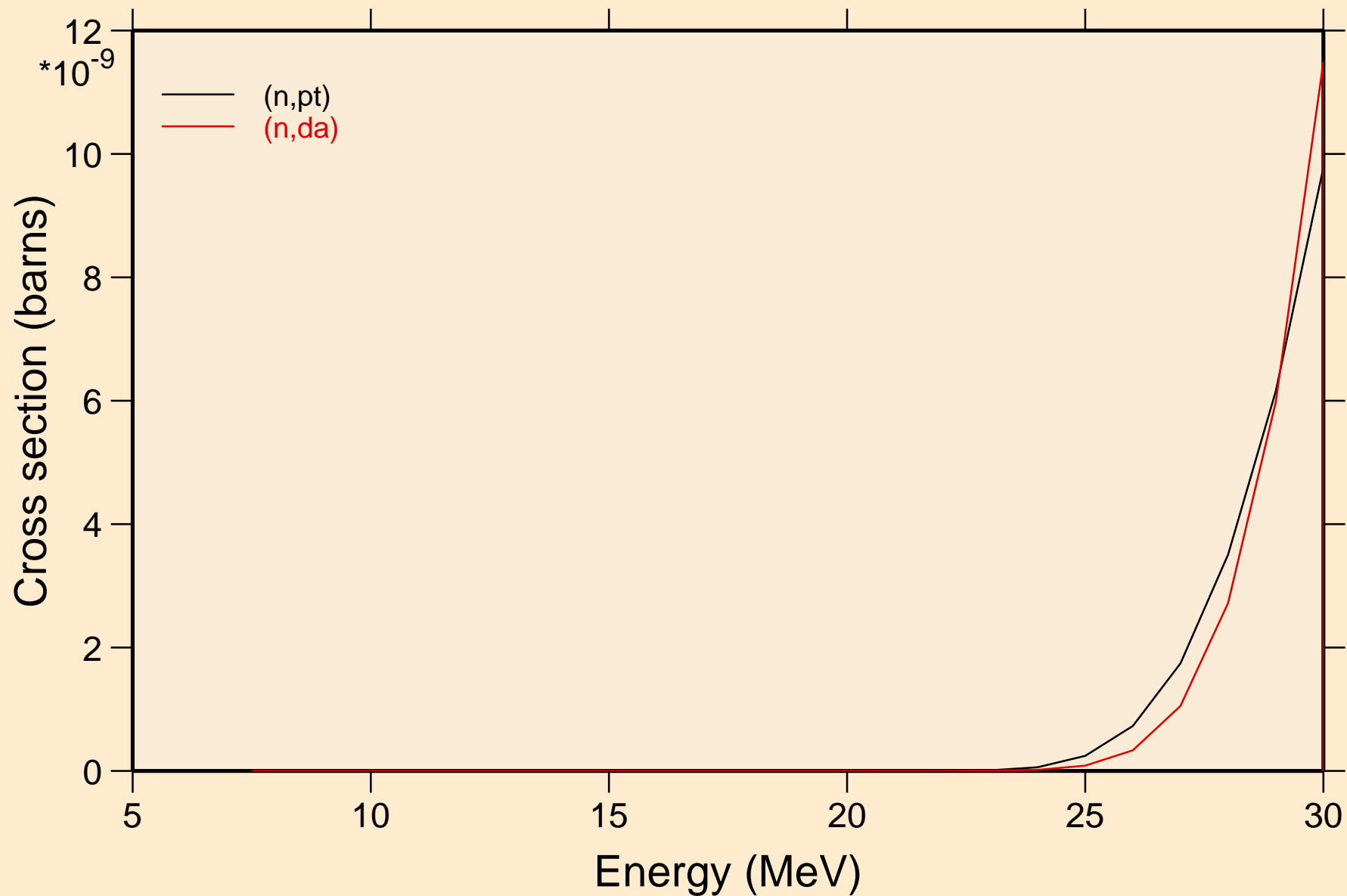


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions

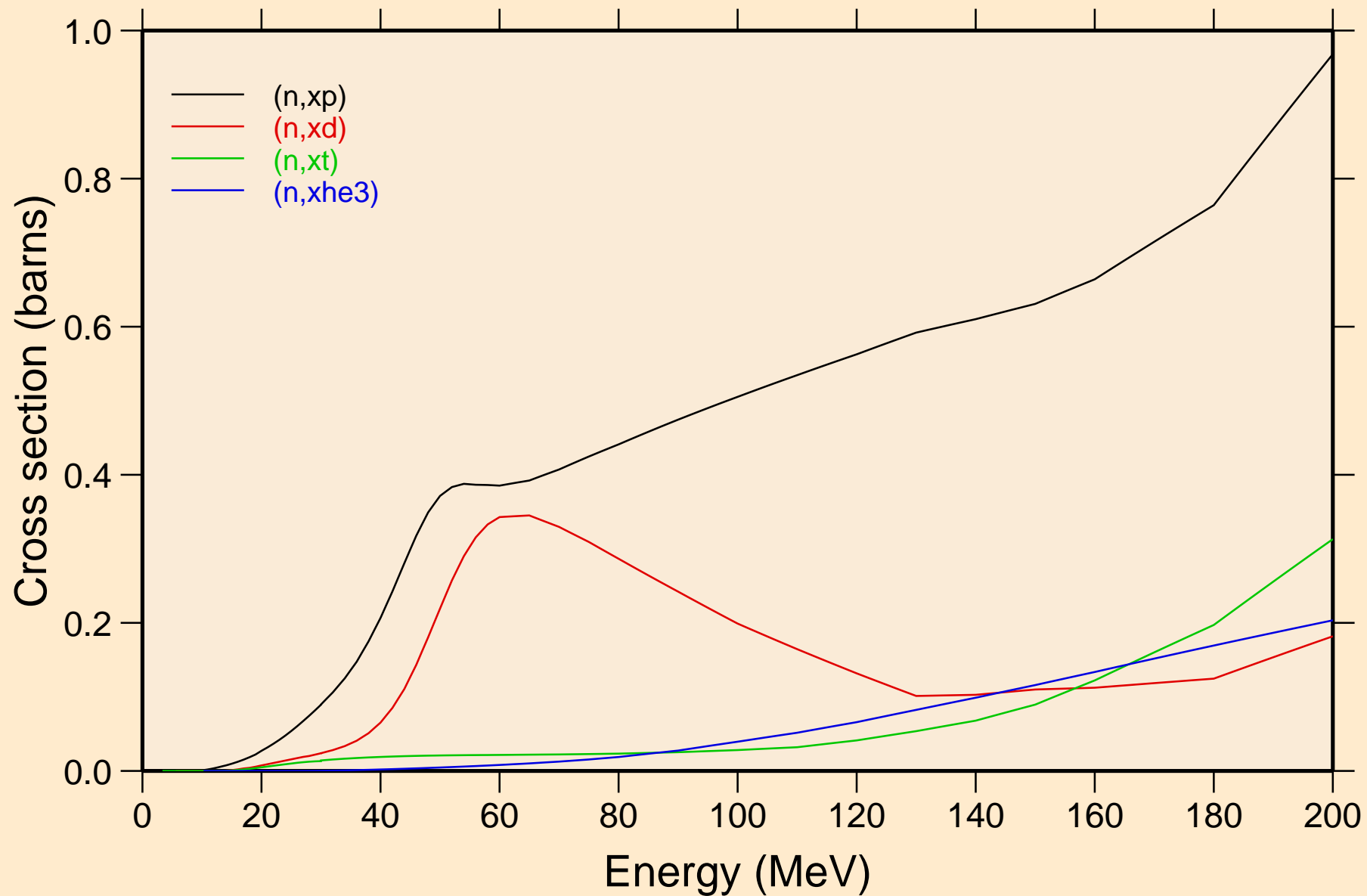




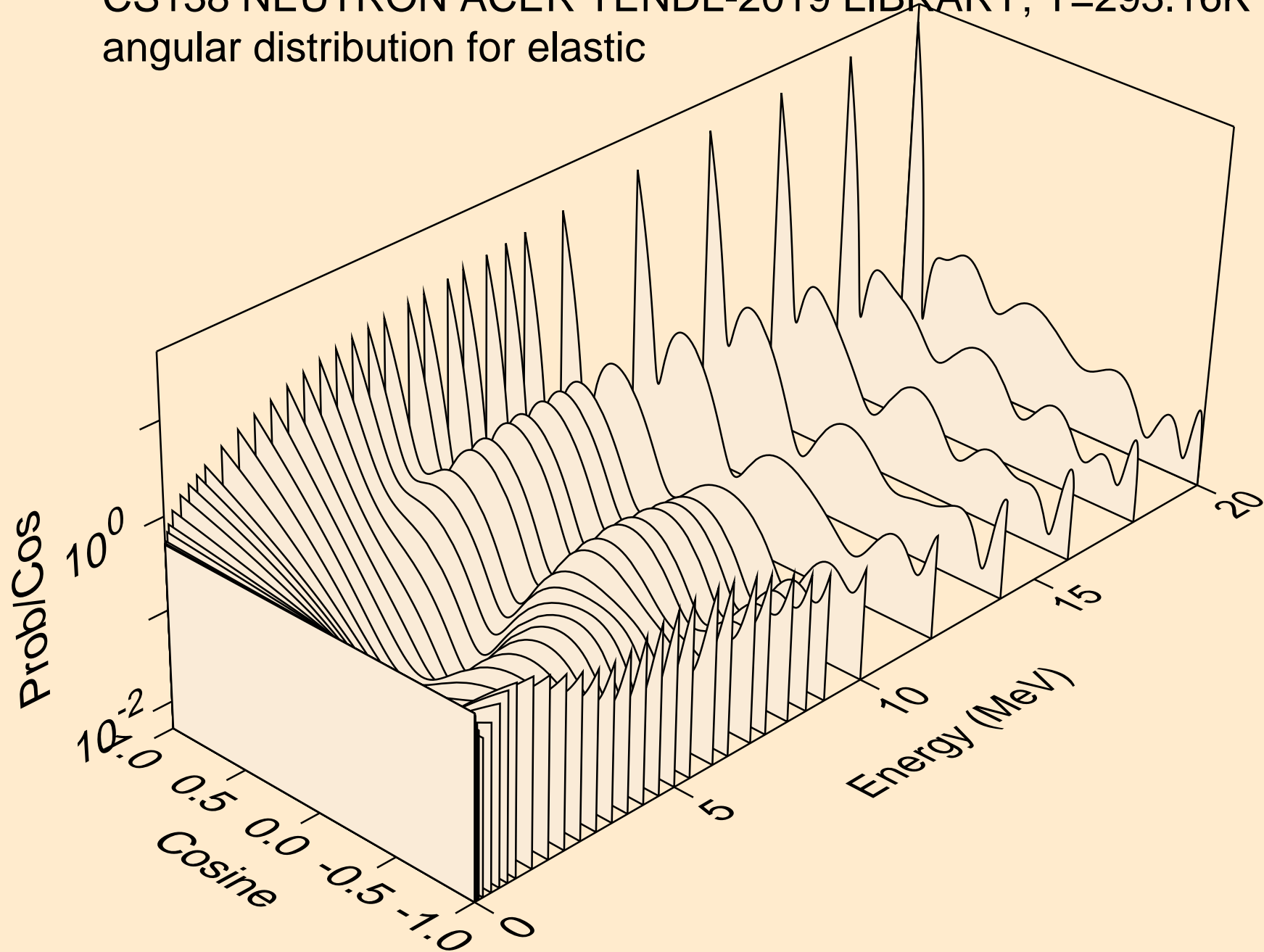
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



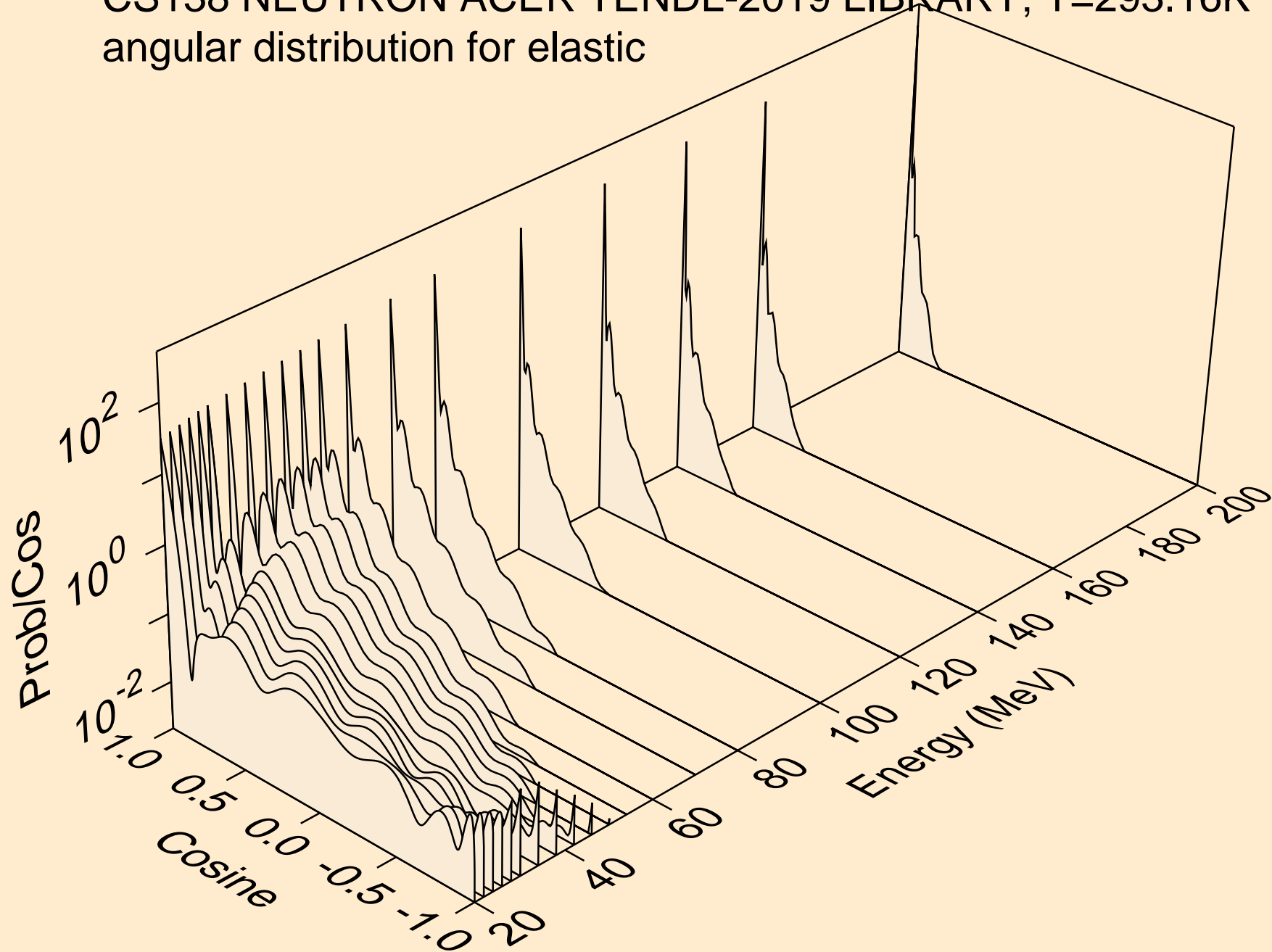
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



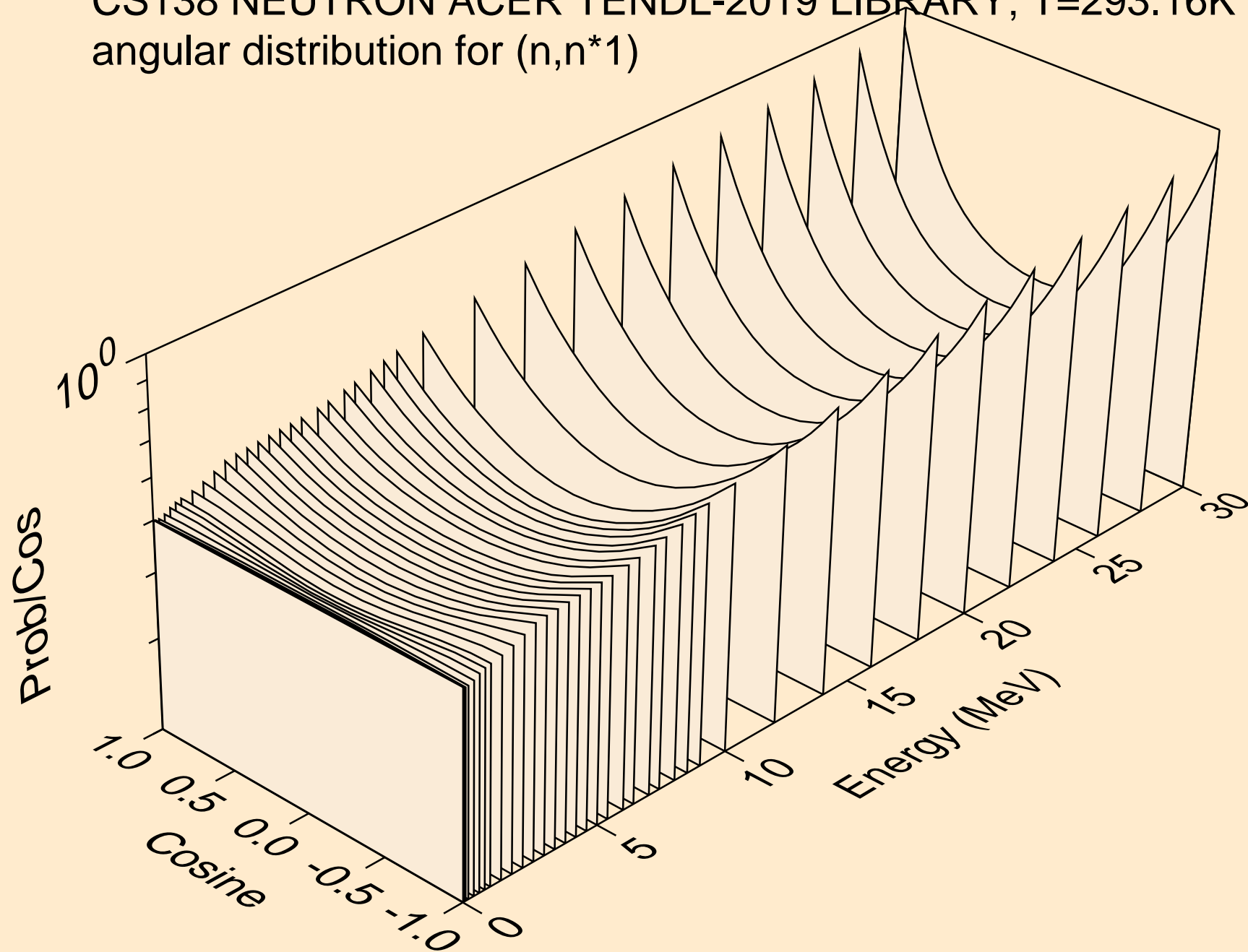
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for elastic



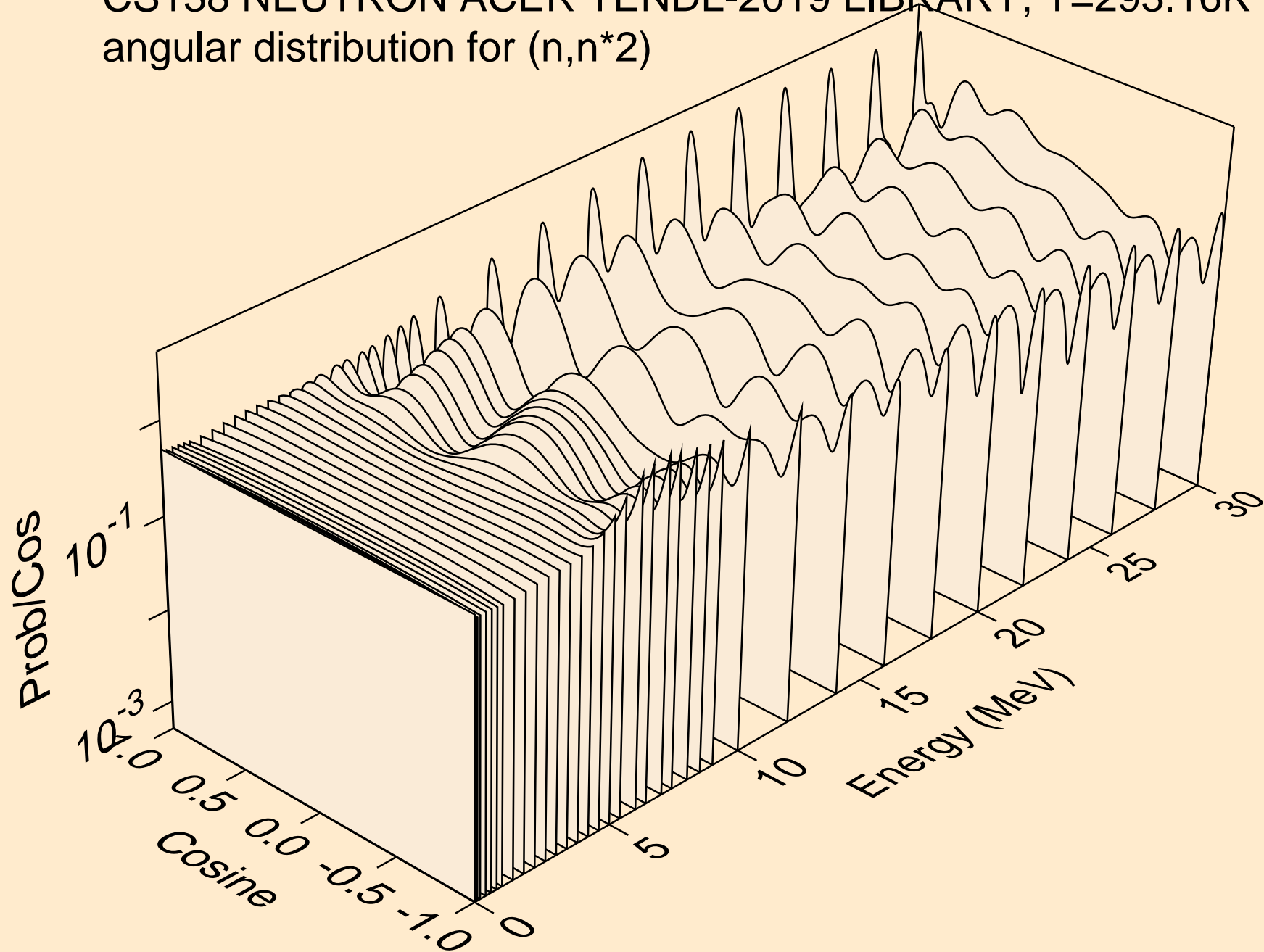
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for elastic



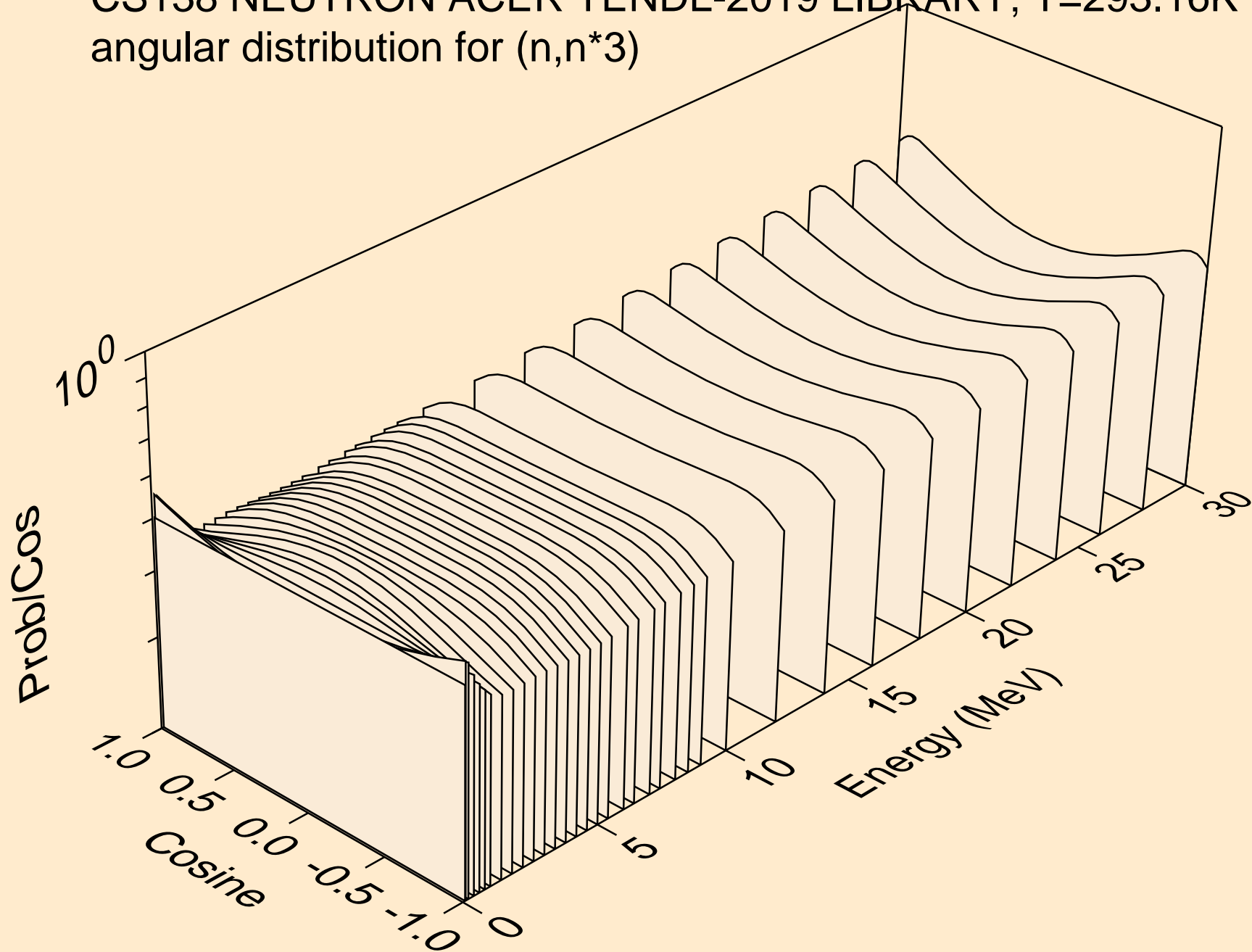
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*1)



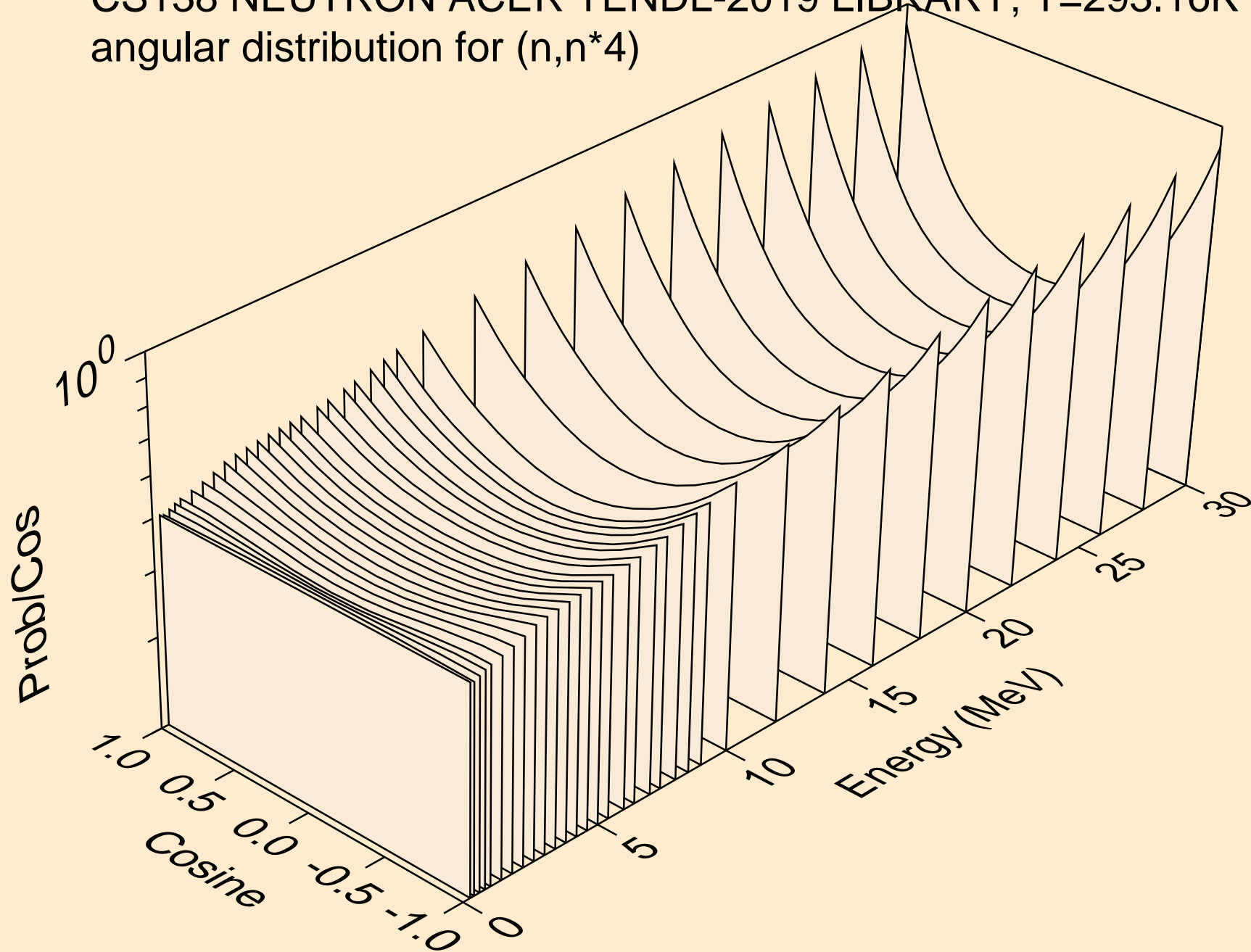
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*2)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*3)

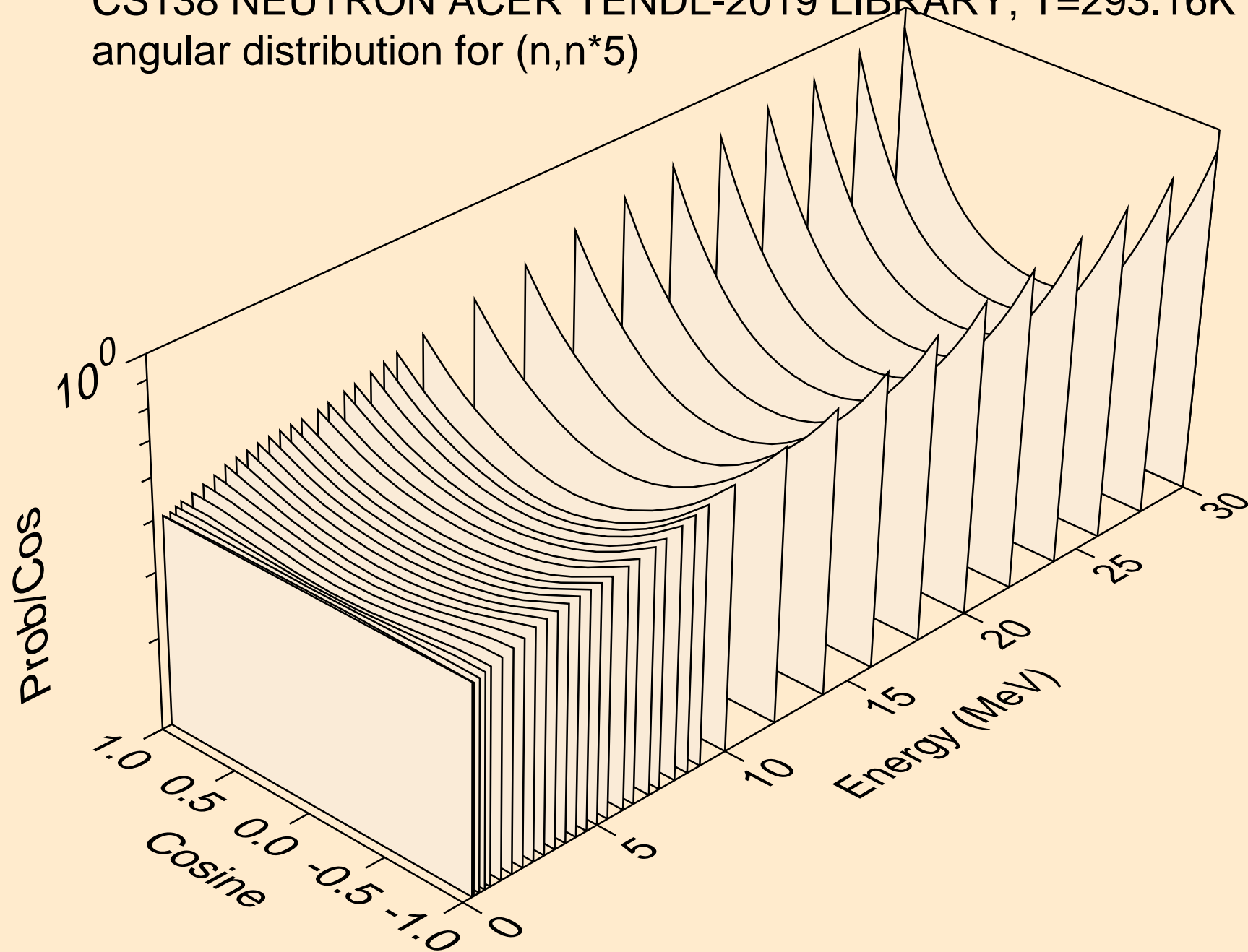


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*4)

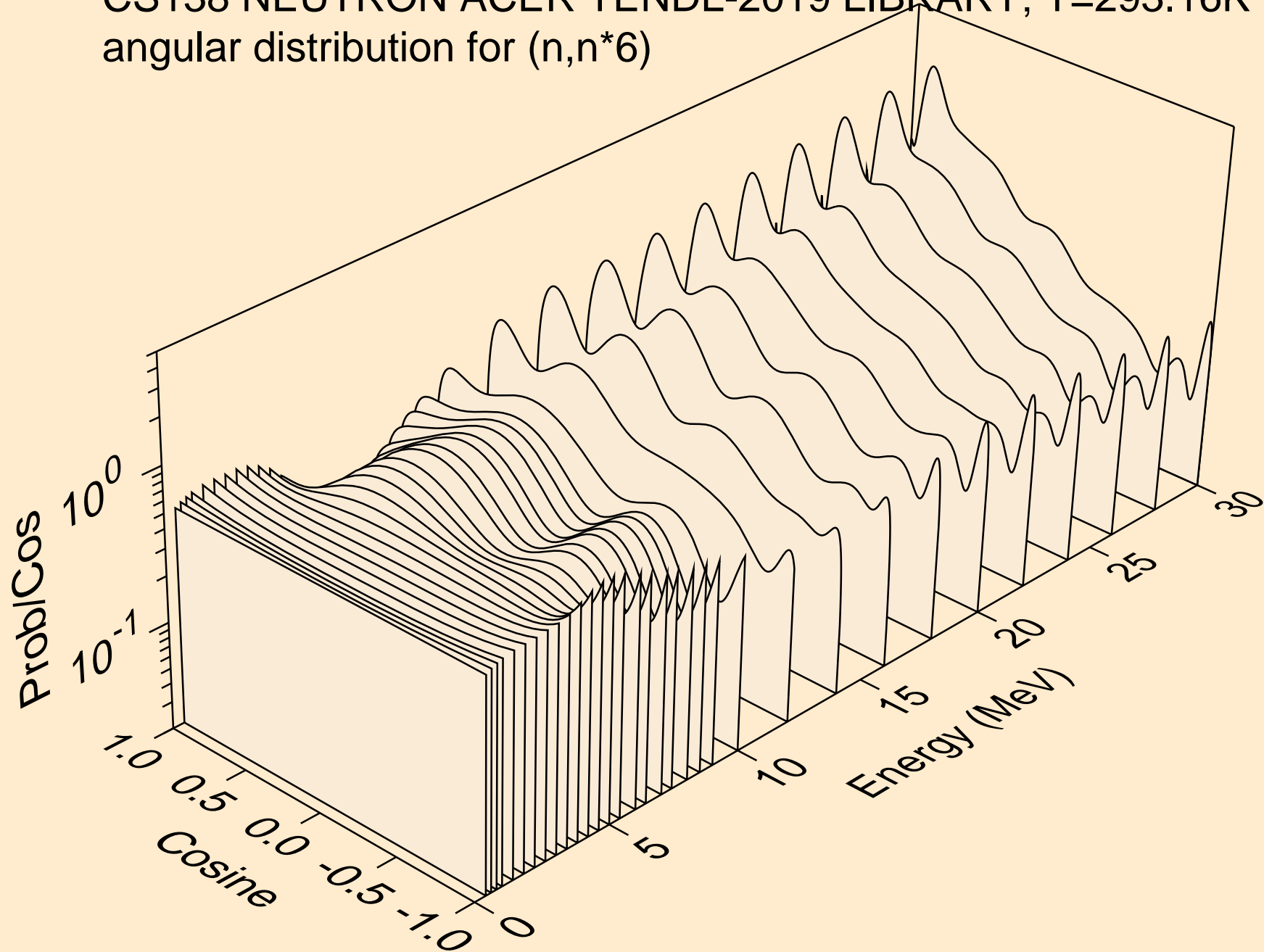




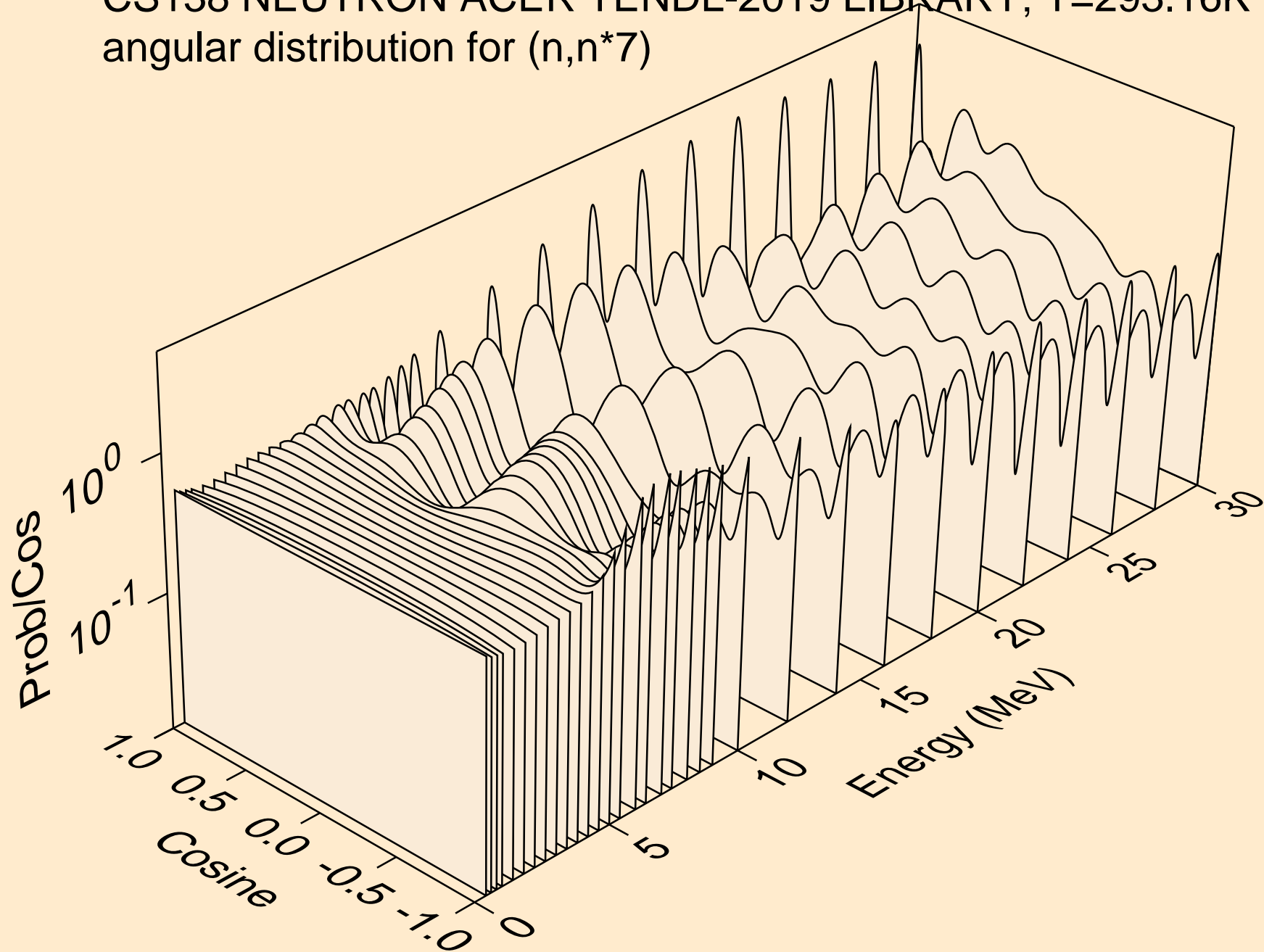
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*5)



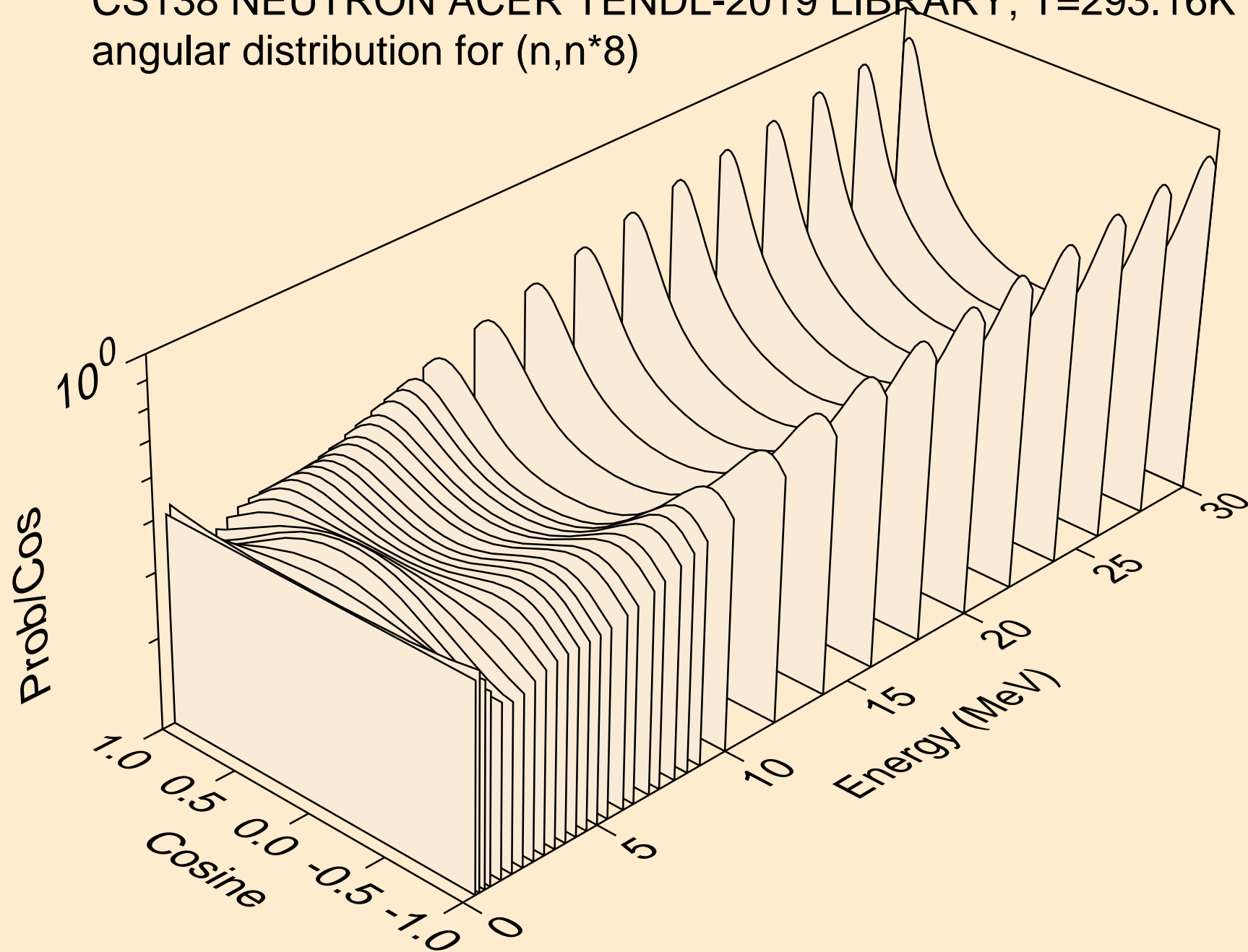
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*6)



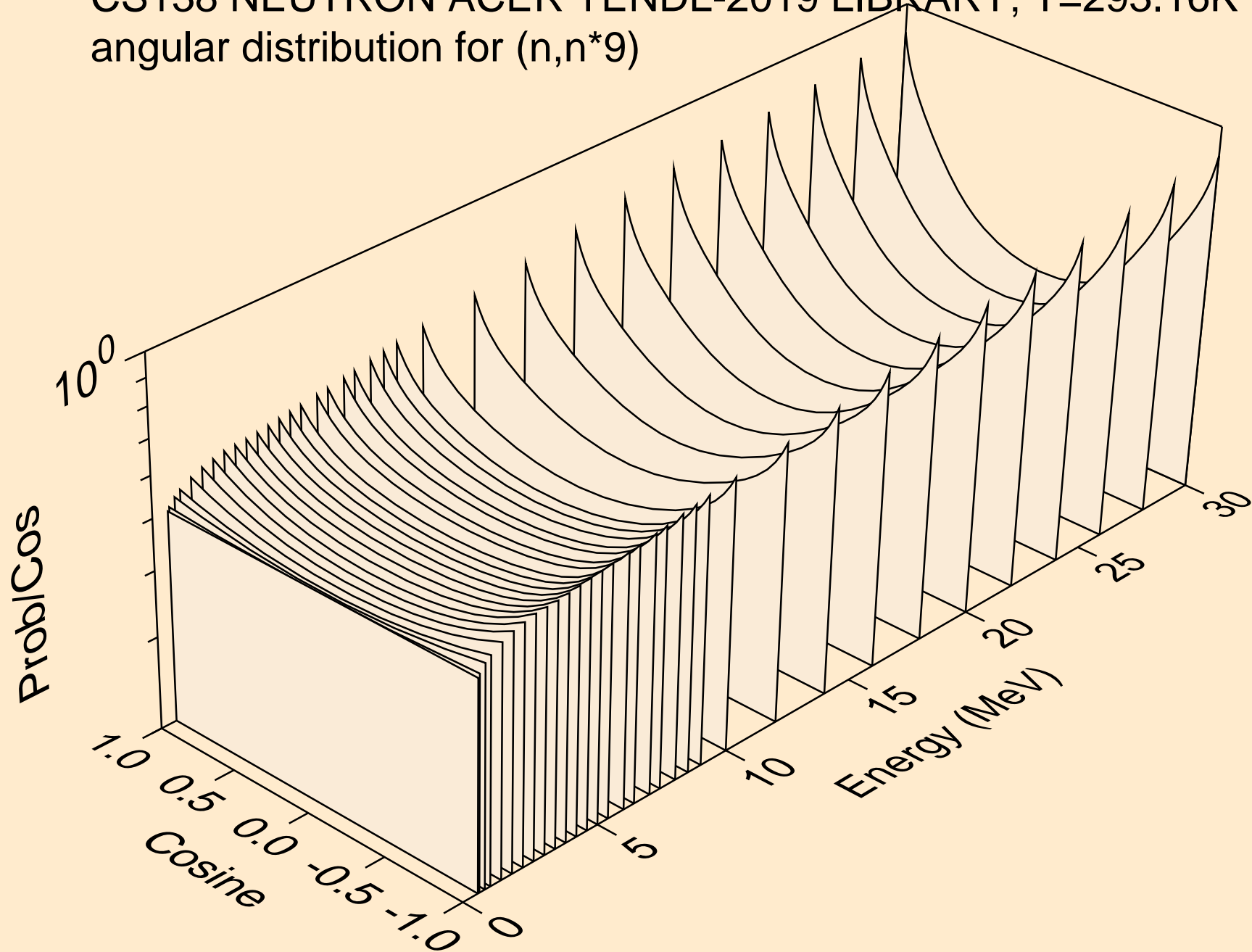
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*7)



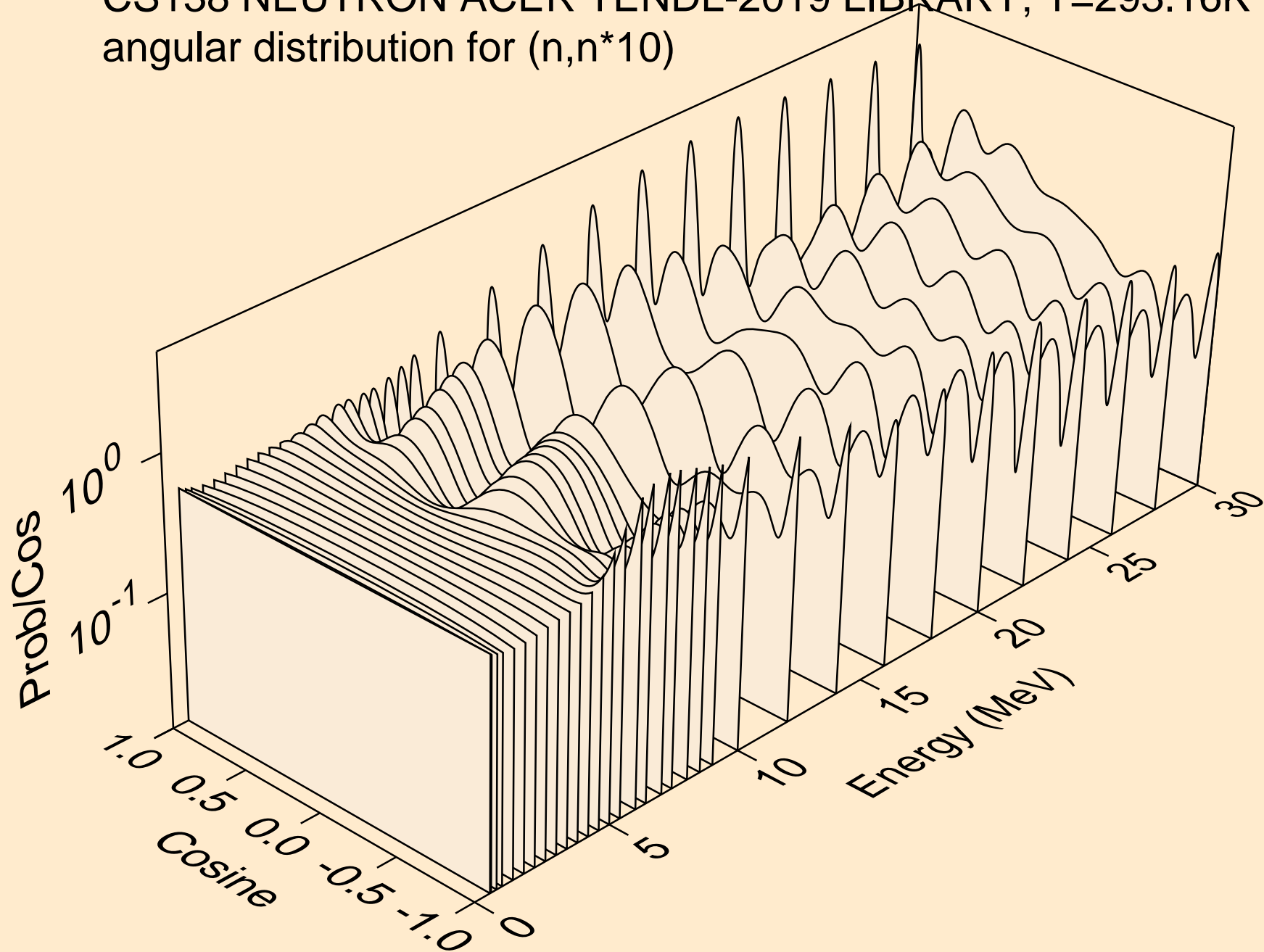
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*8)



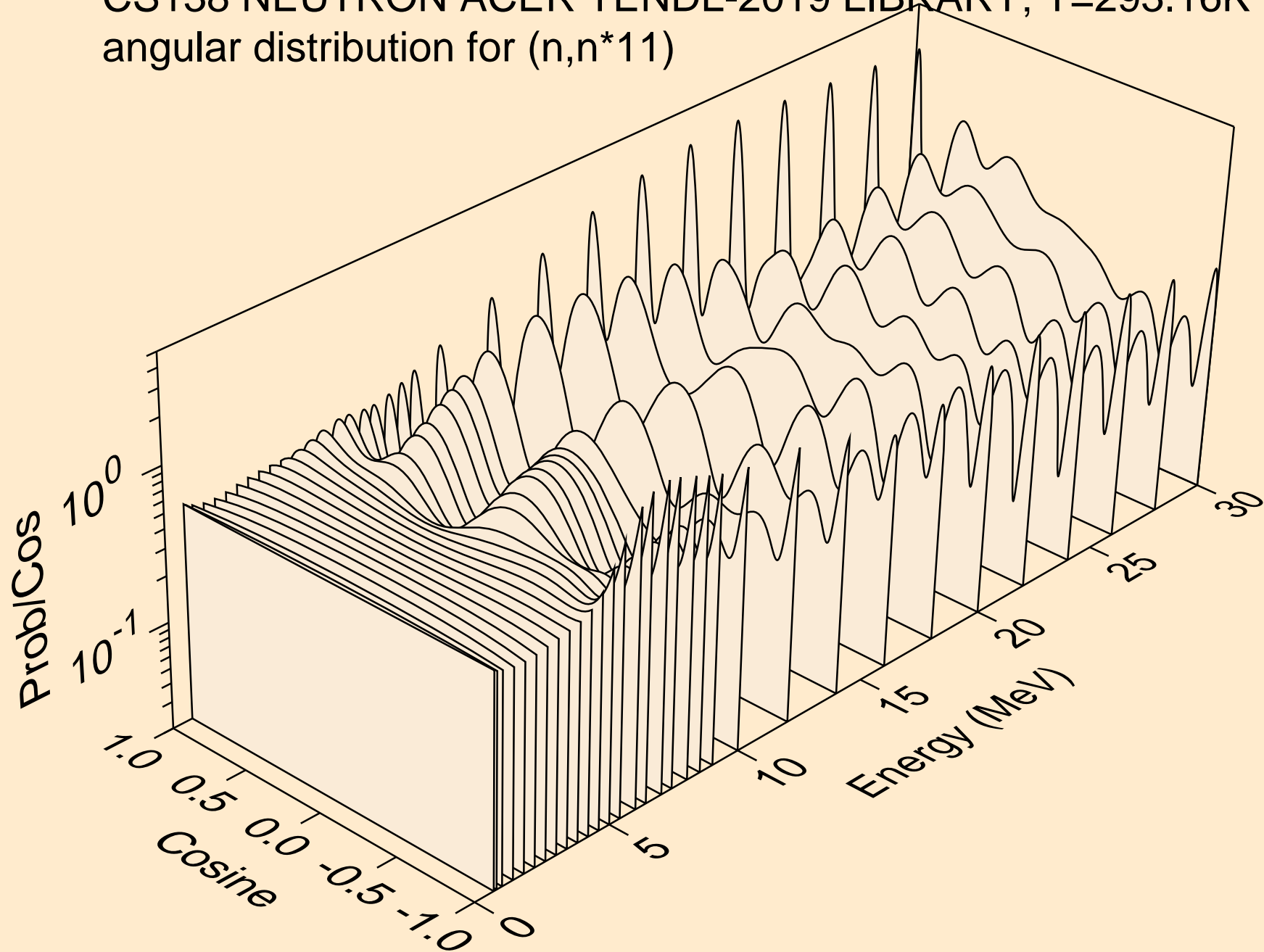
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*9)



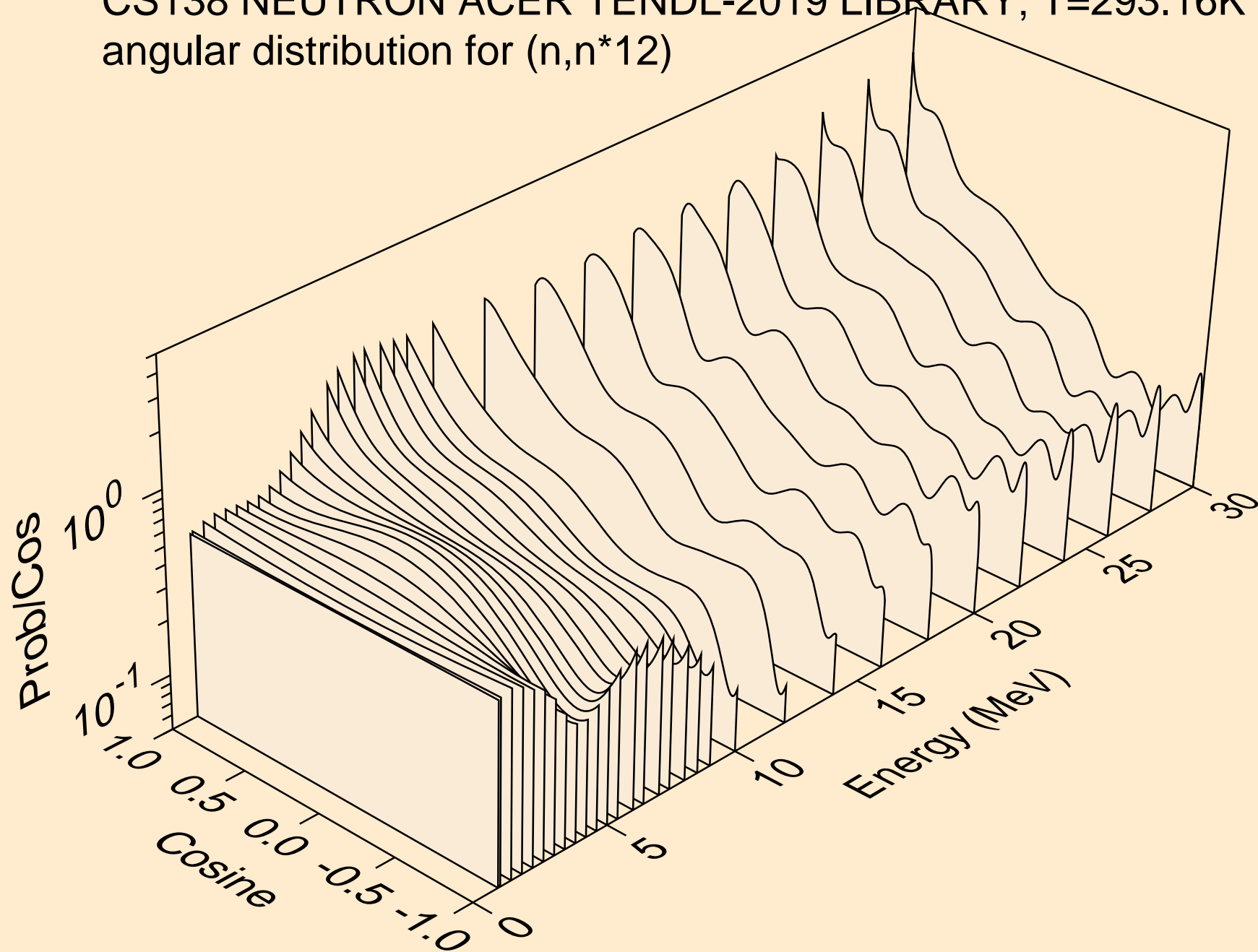
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*10)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*11)

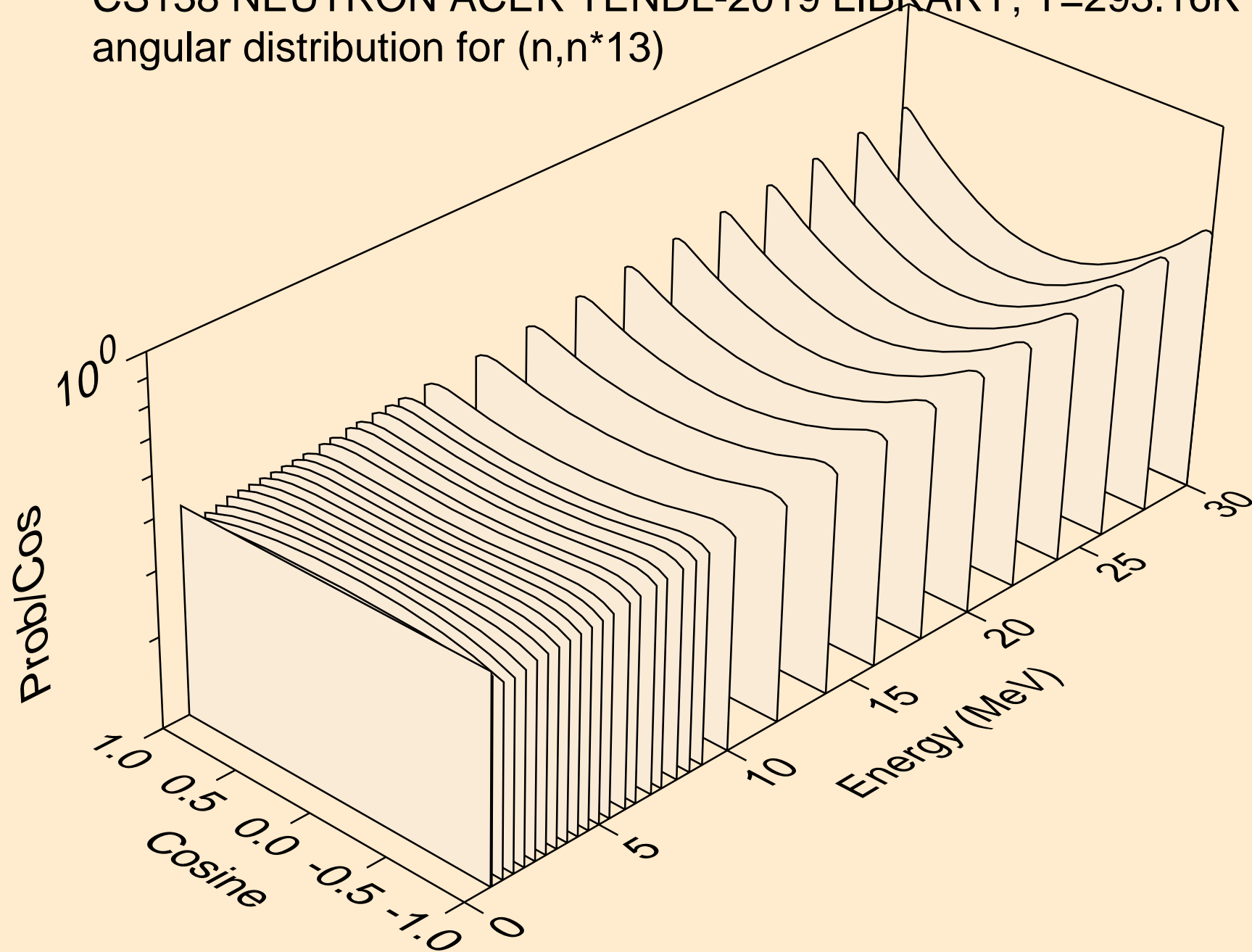


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*12)

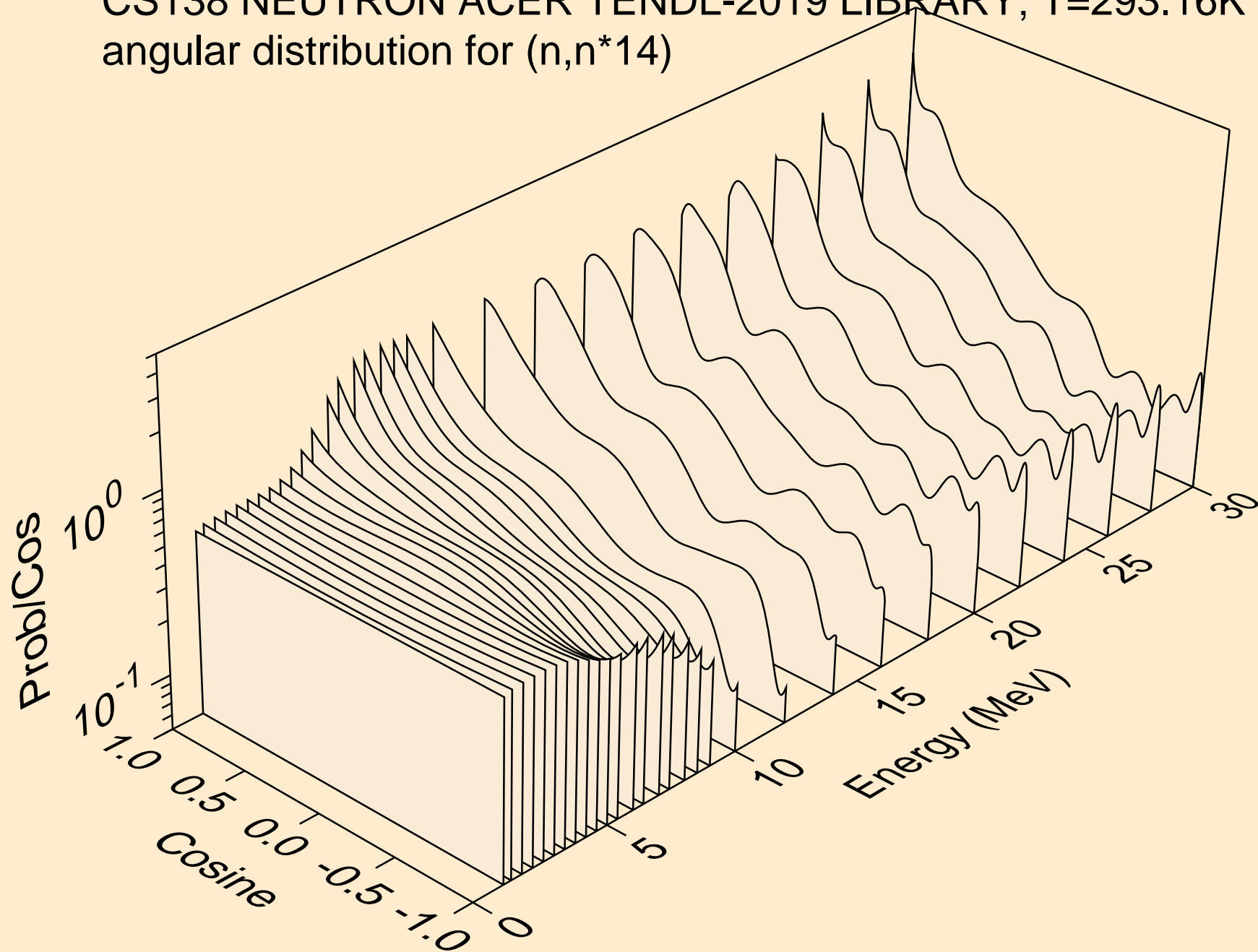




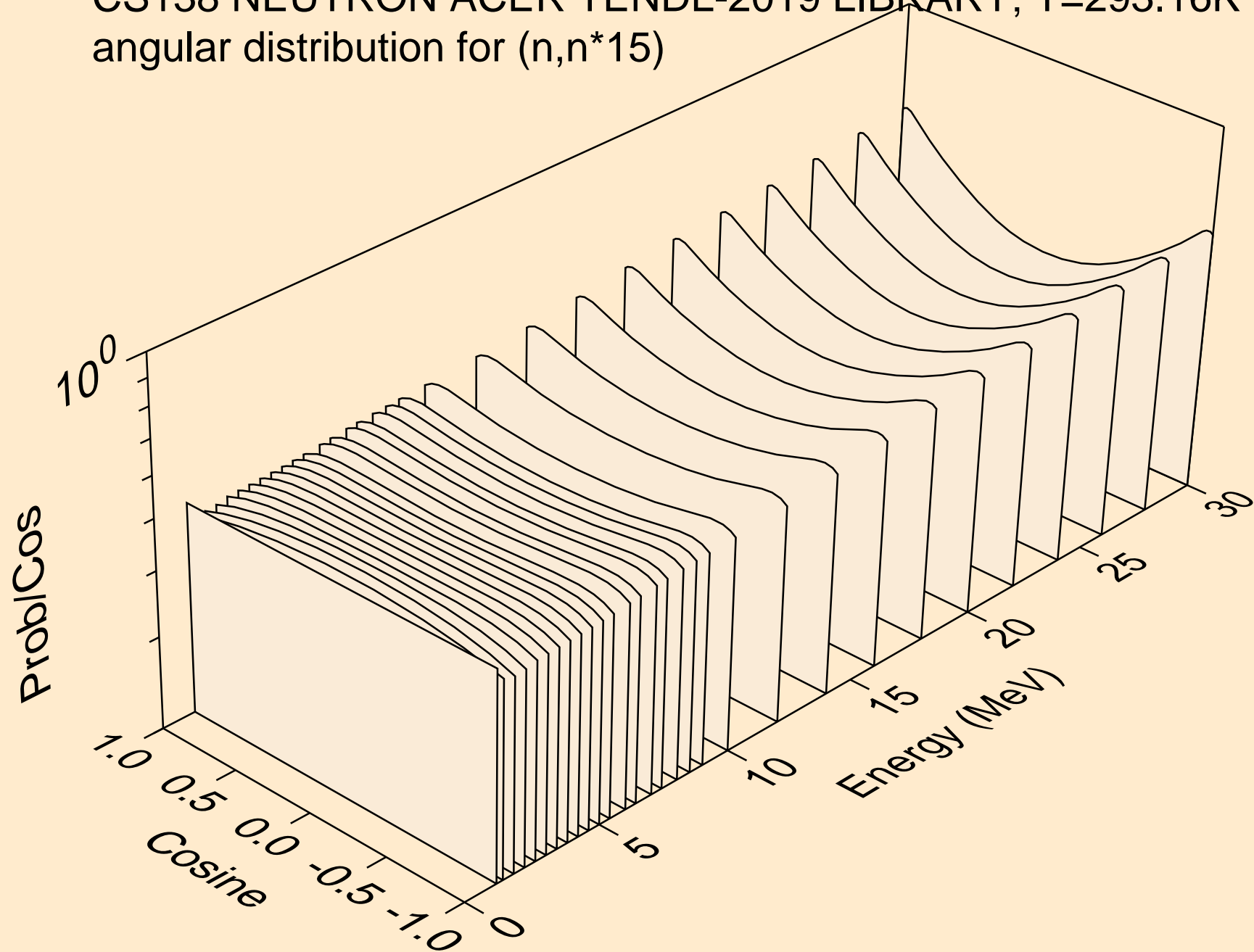
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*13)



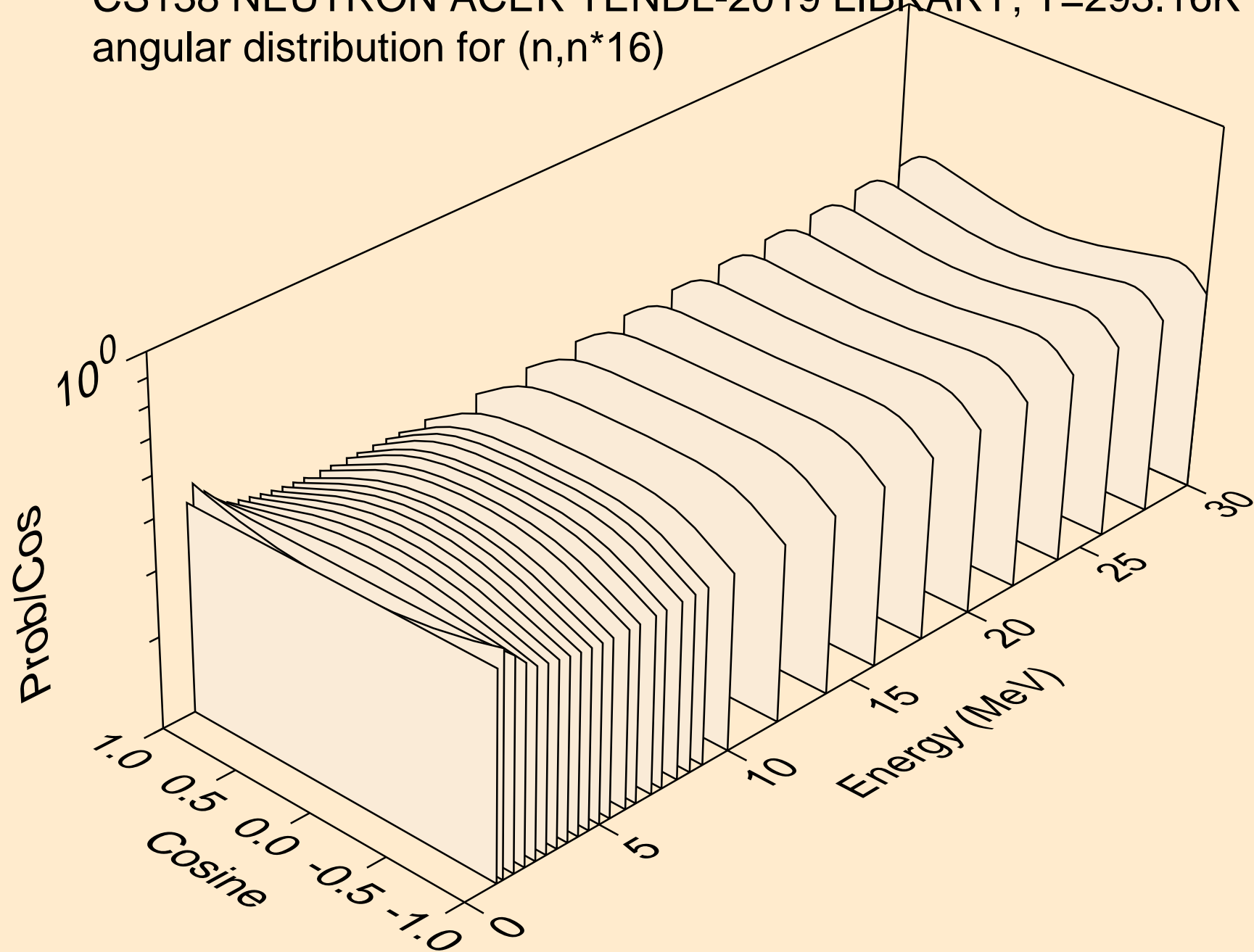
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*14)



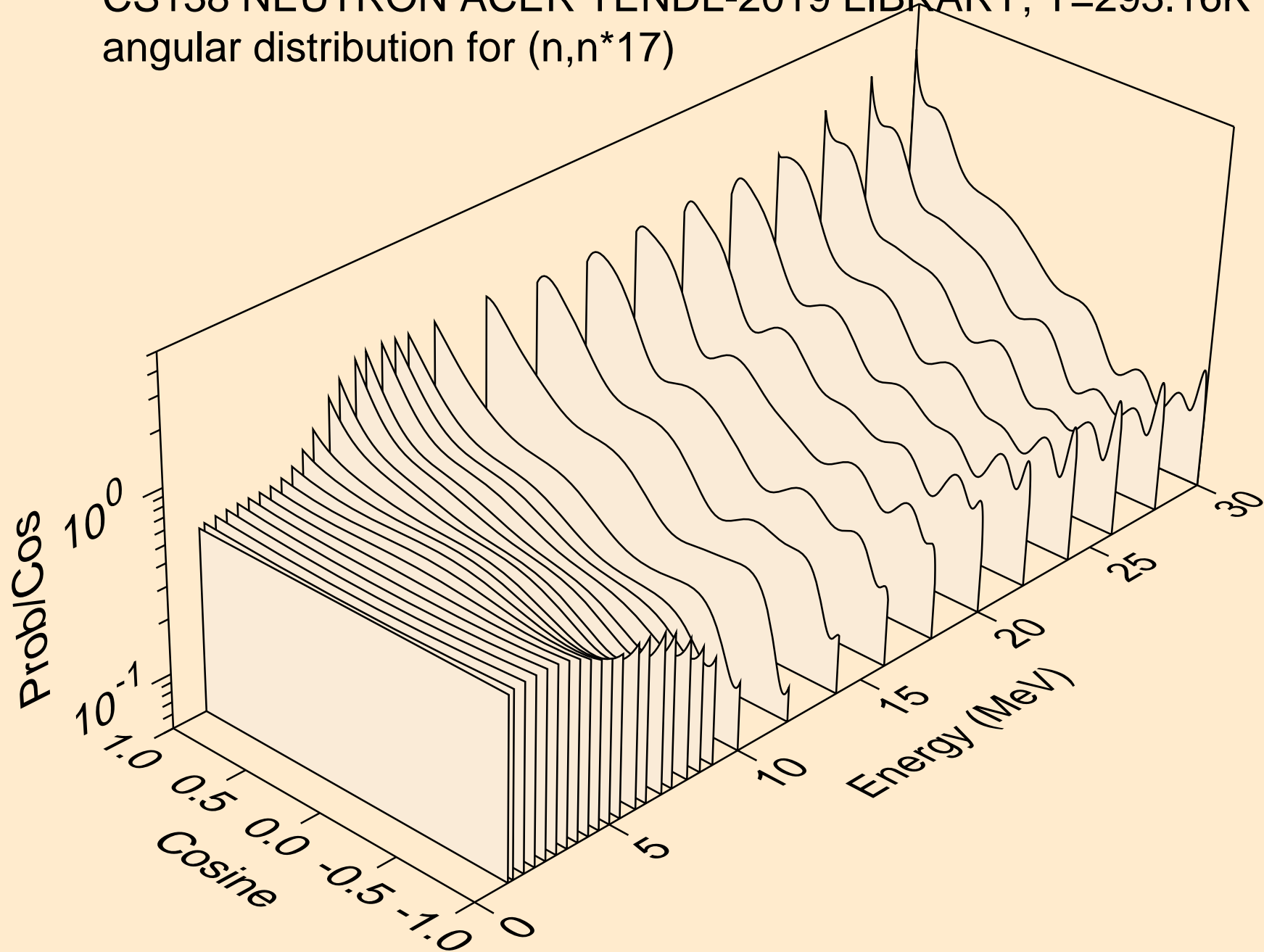
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*15)



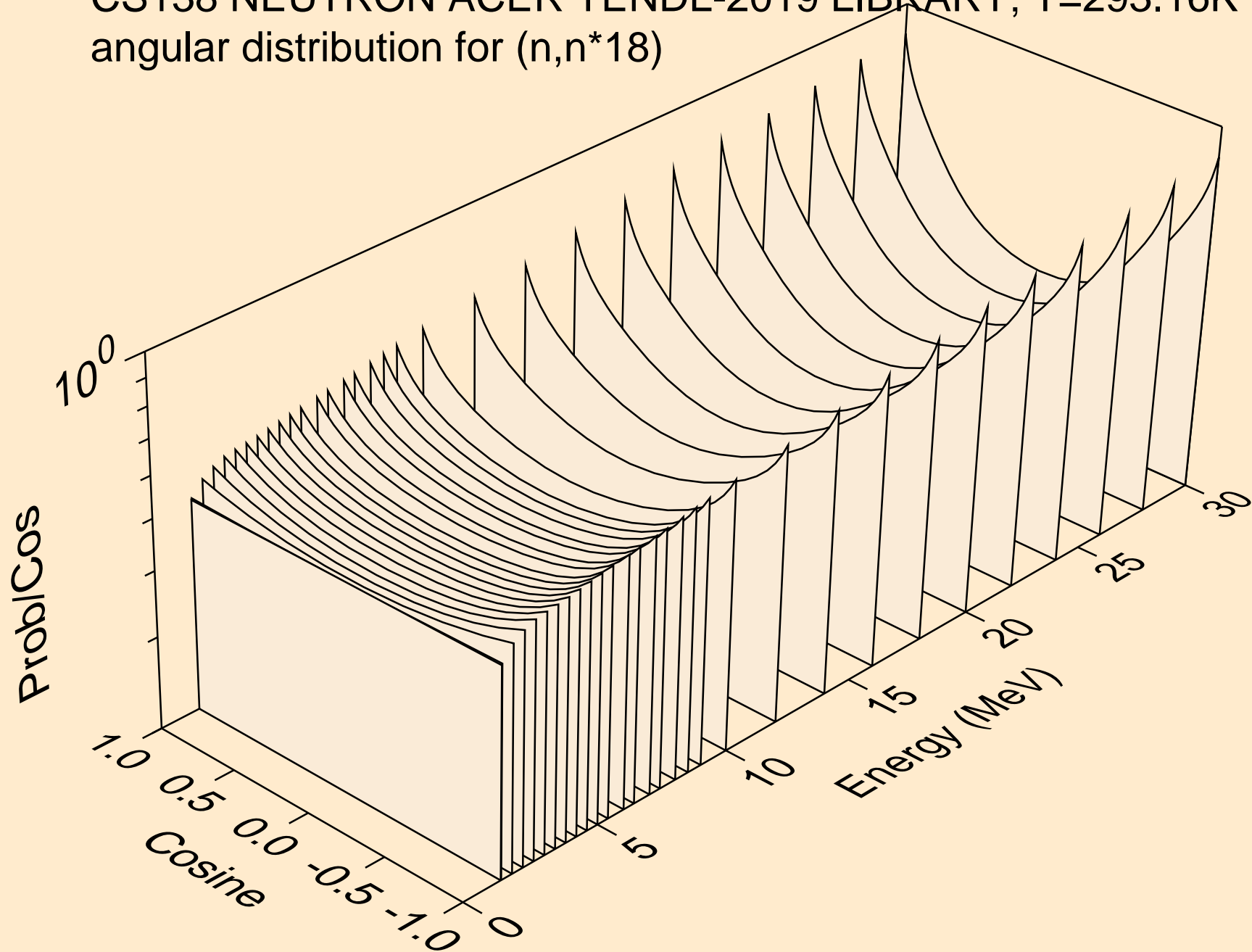
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angular distribution for (n,n\*16)



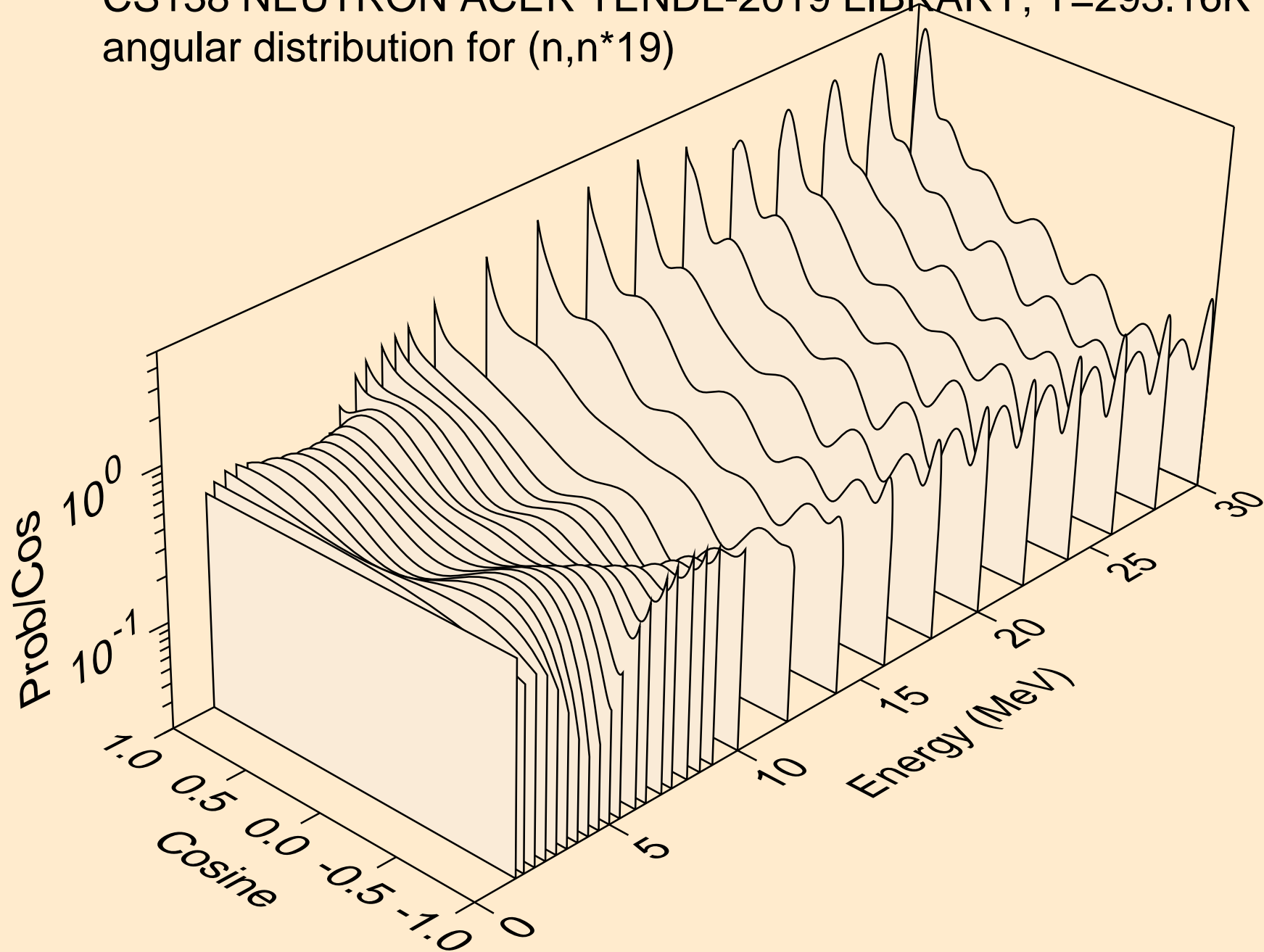
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angular distribution for (n,n\*17)



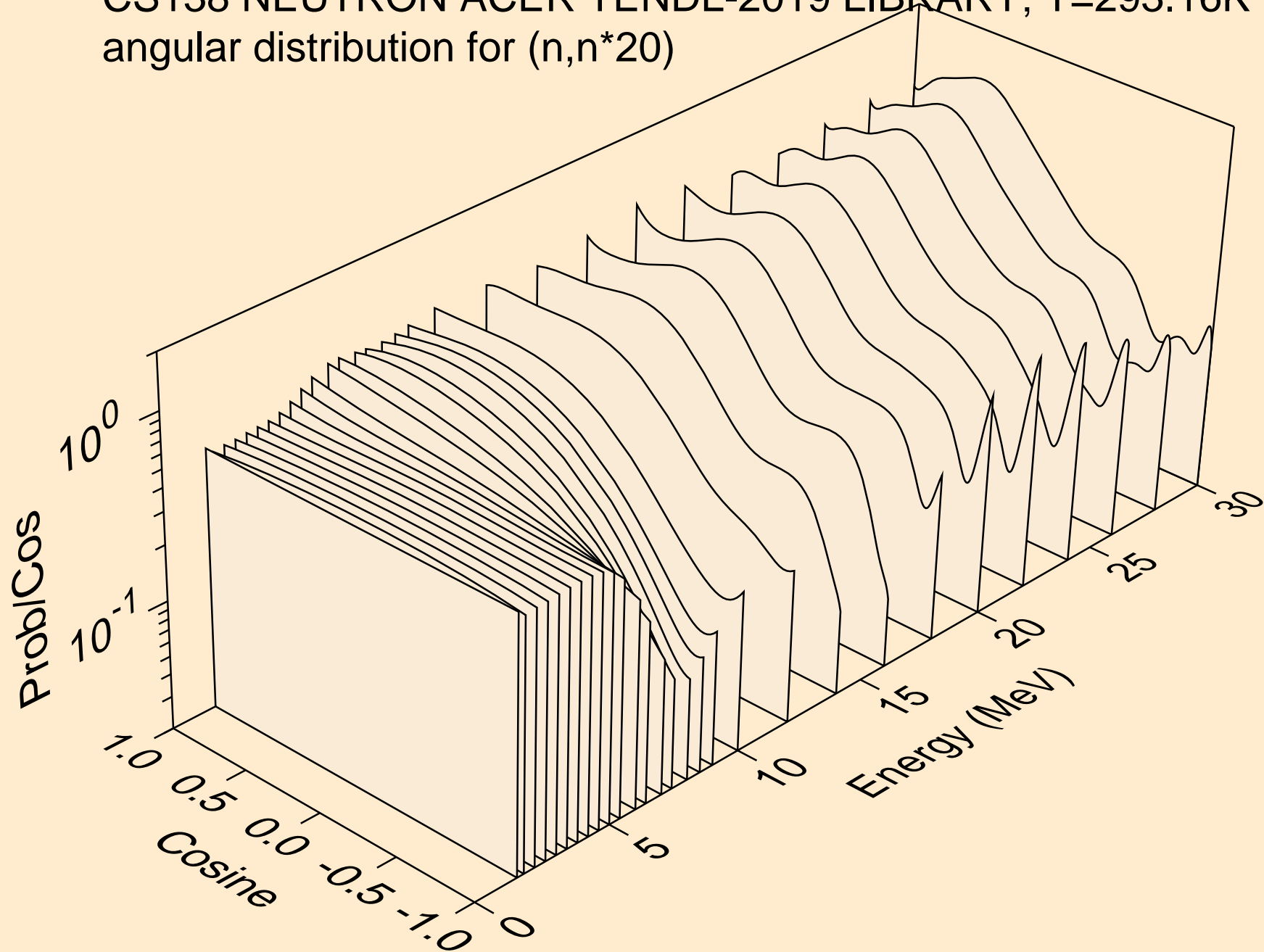
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*18)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*19)

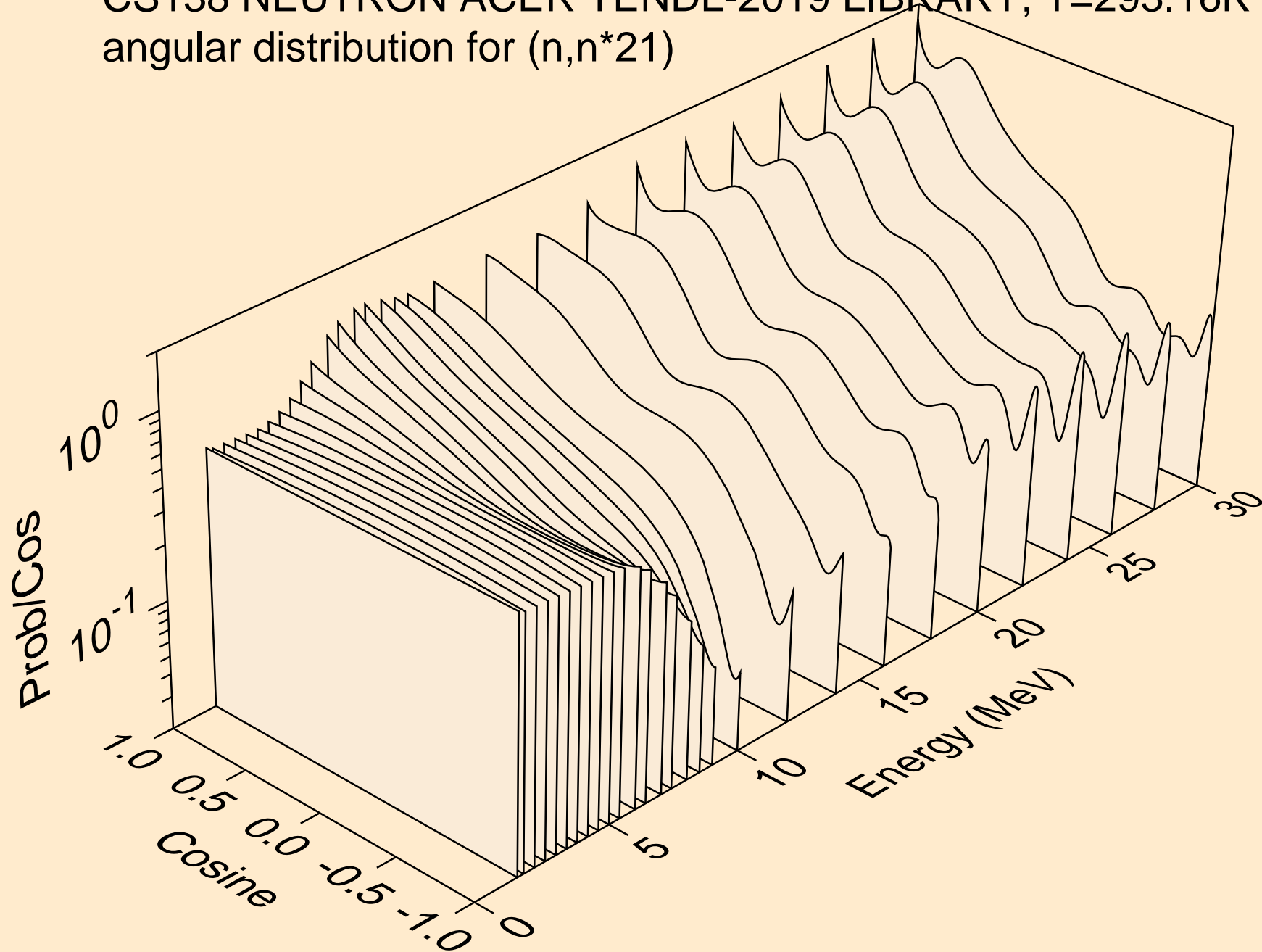


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*20)

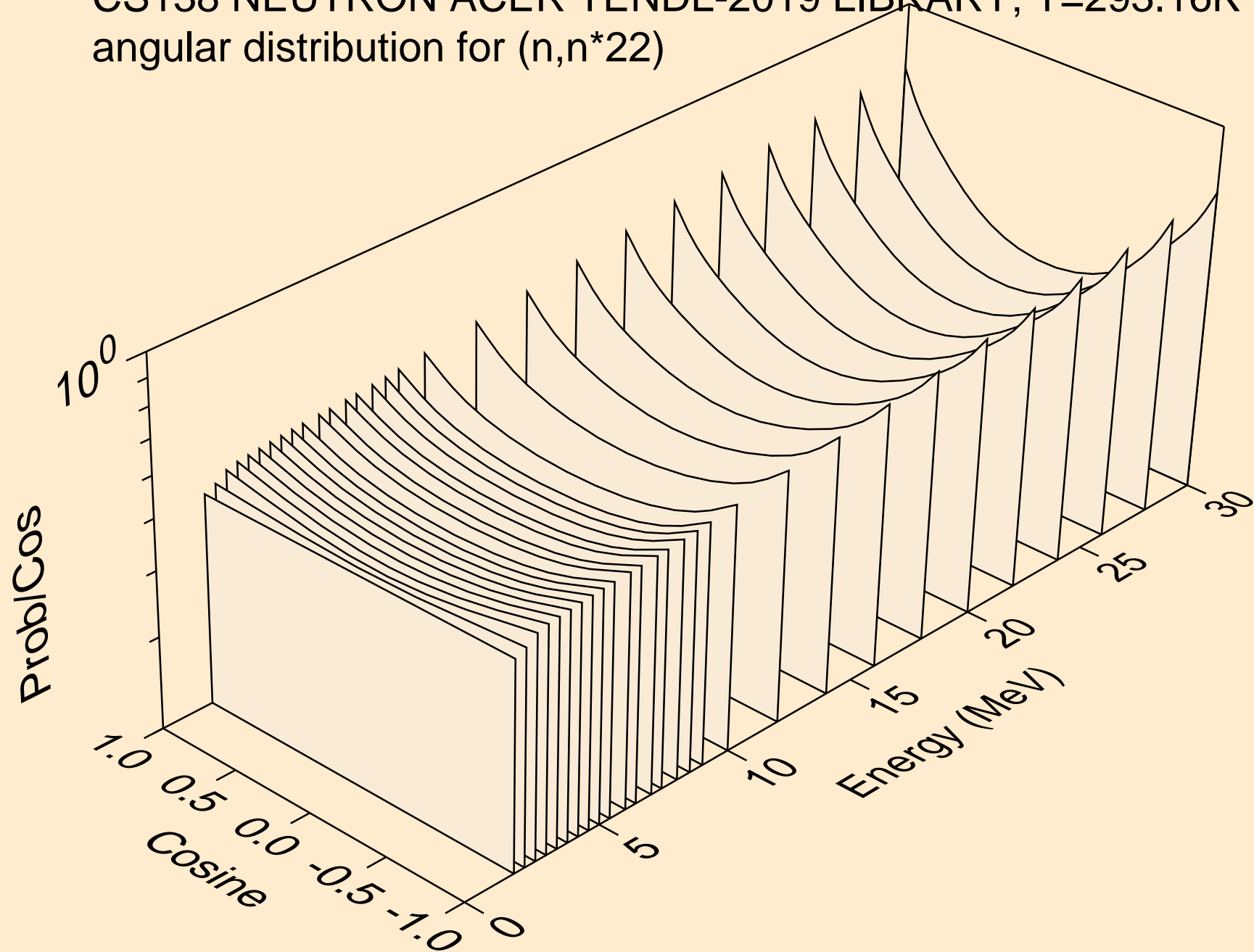




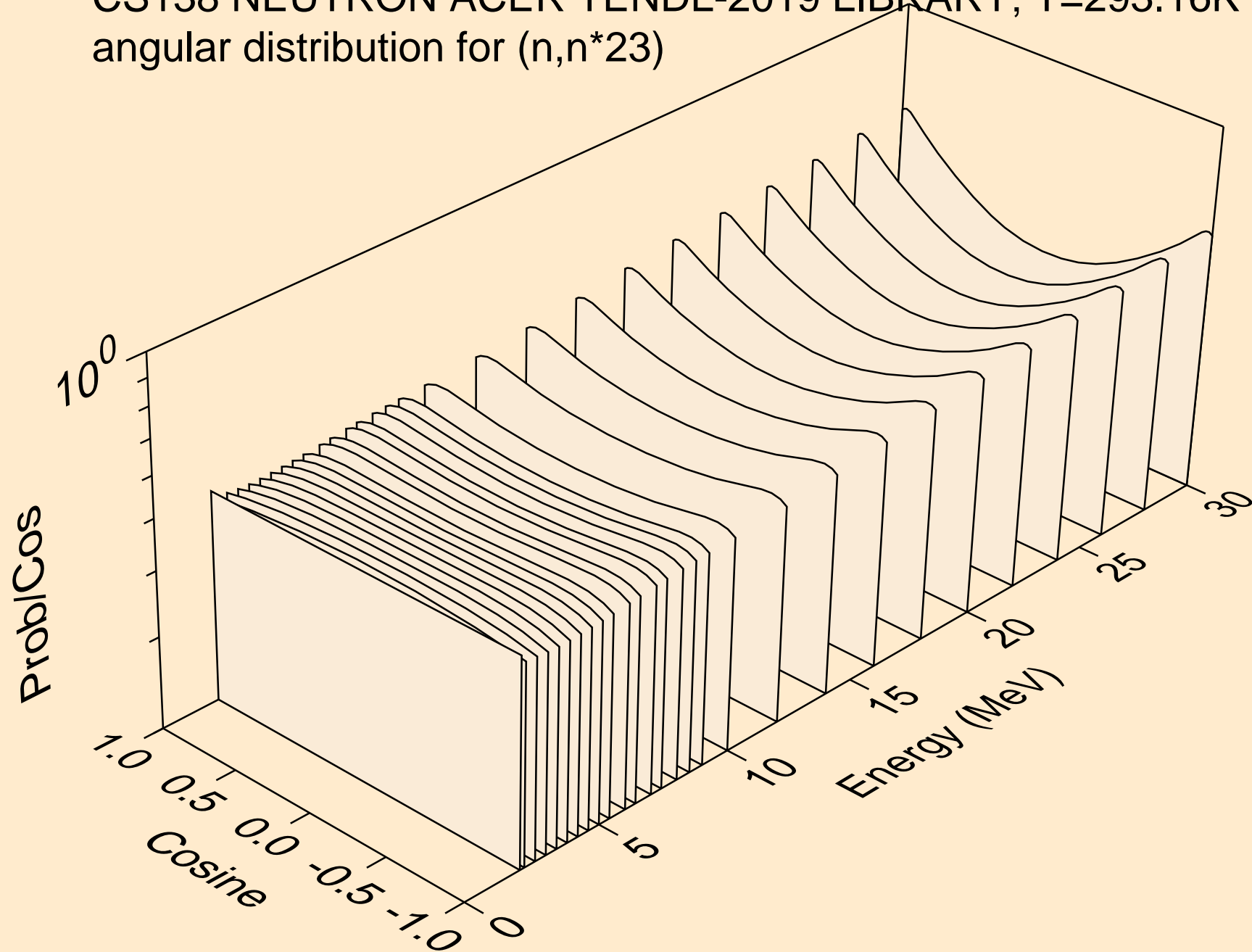
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*21)



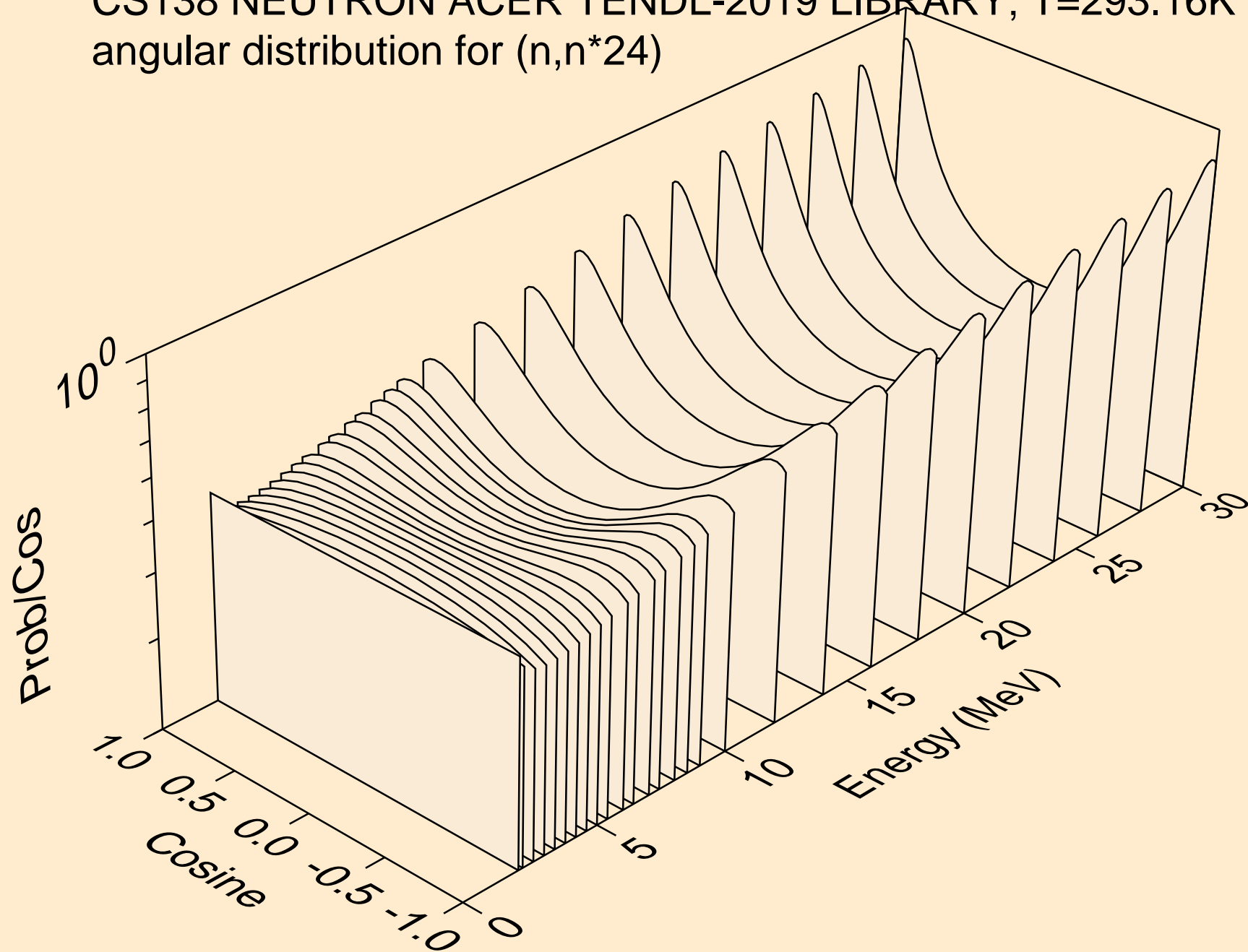
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angular distribution for (n,n\*22)



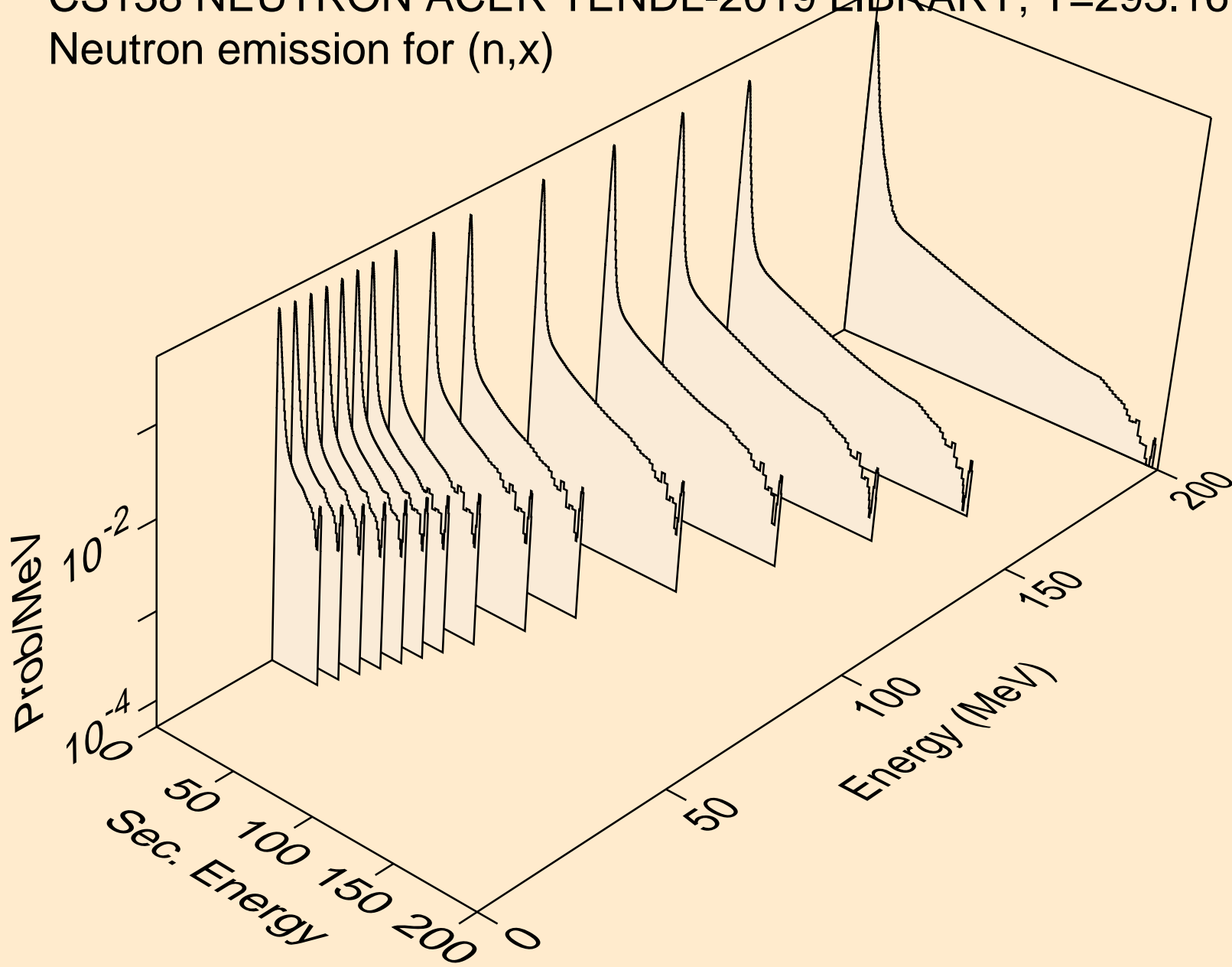
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angular distribution for (n,n\*23)



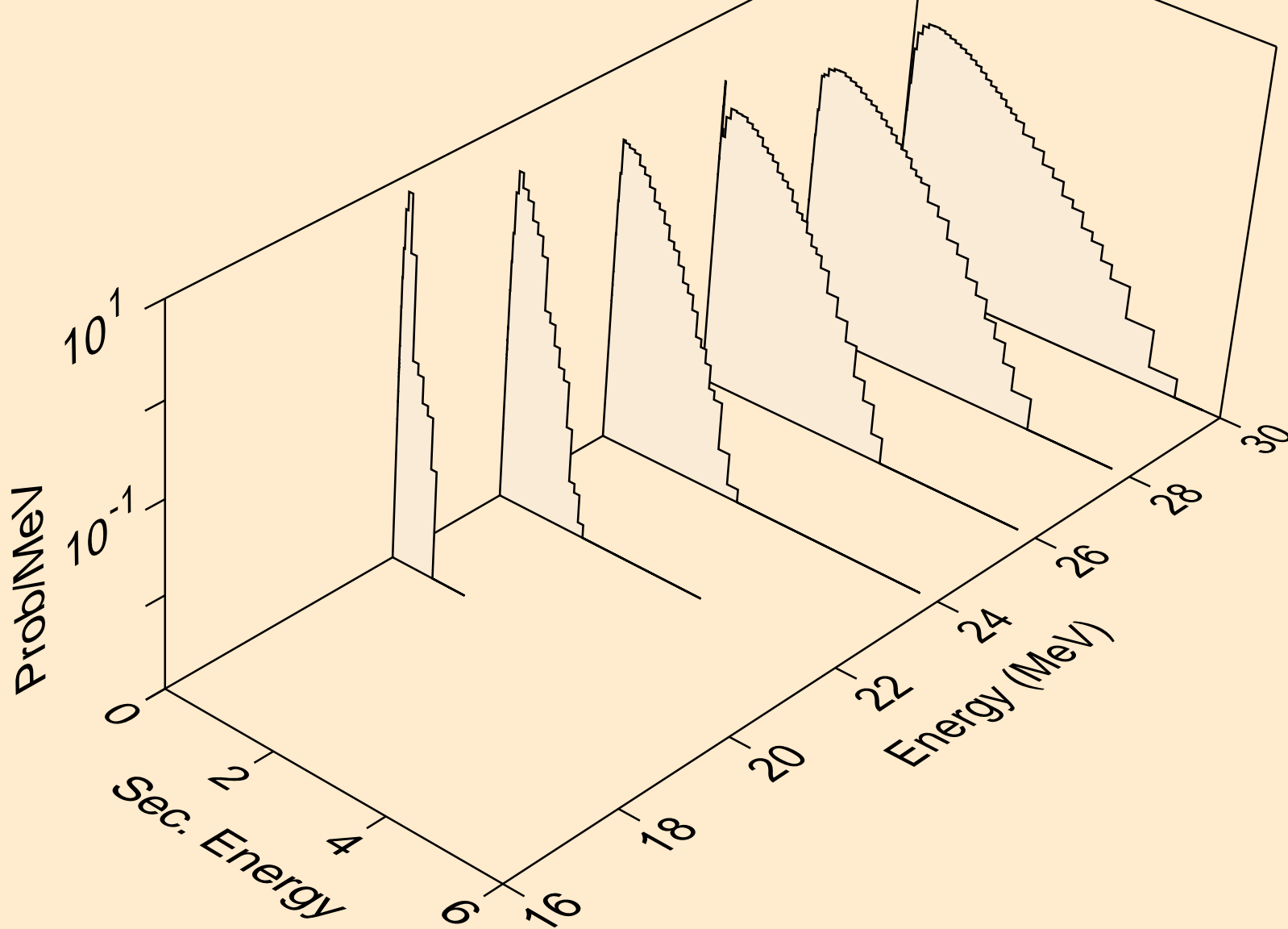
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*24)



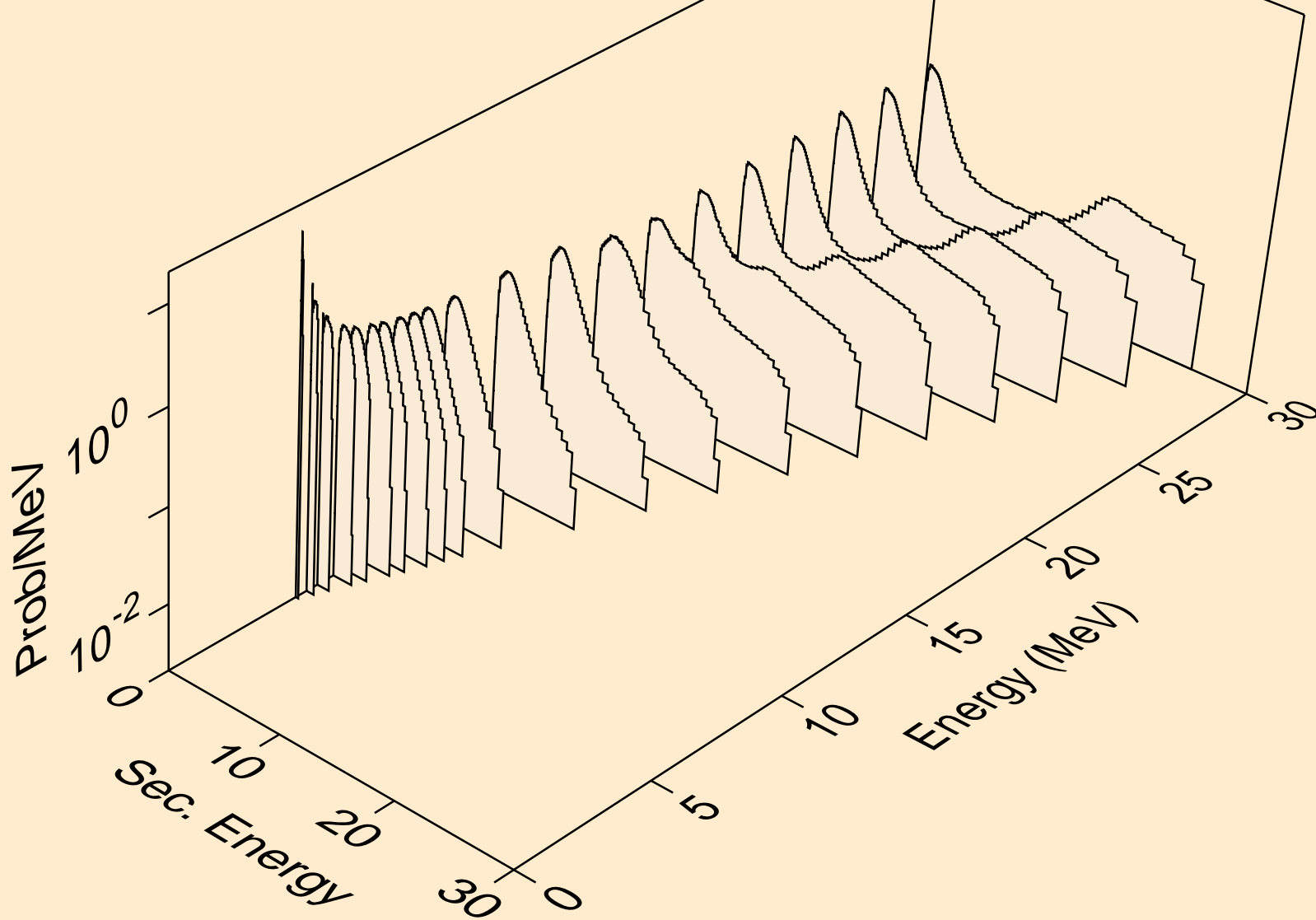
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,x)



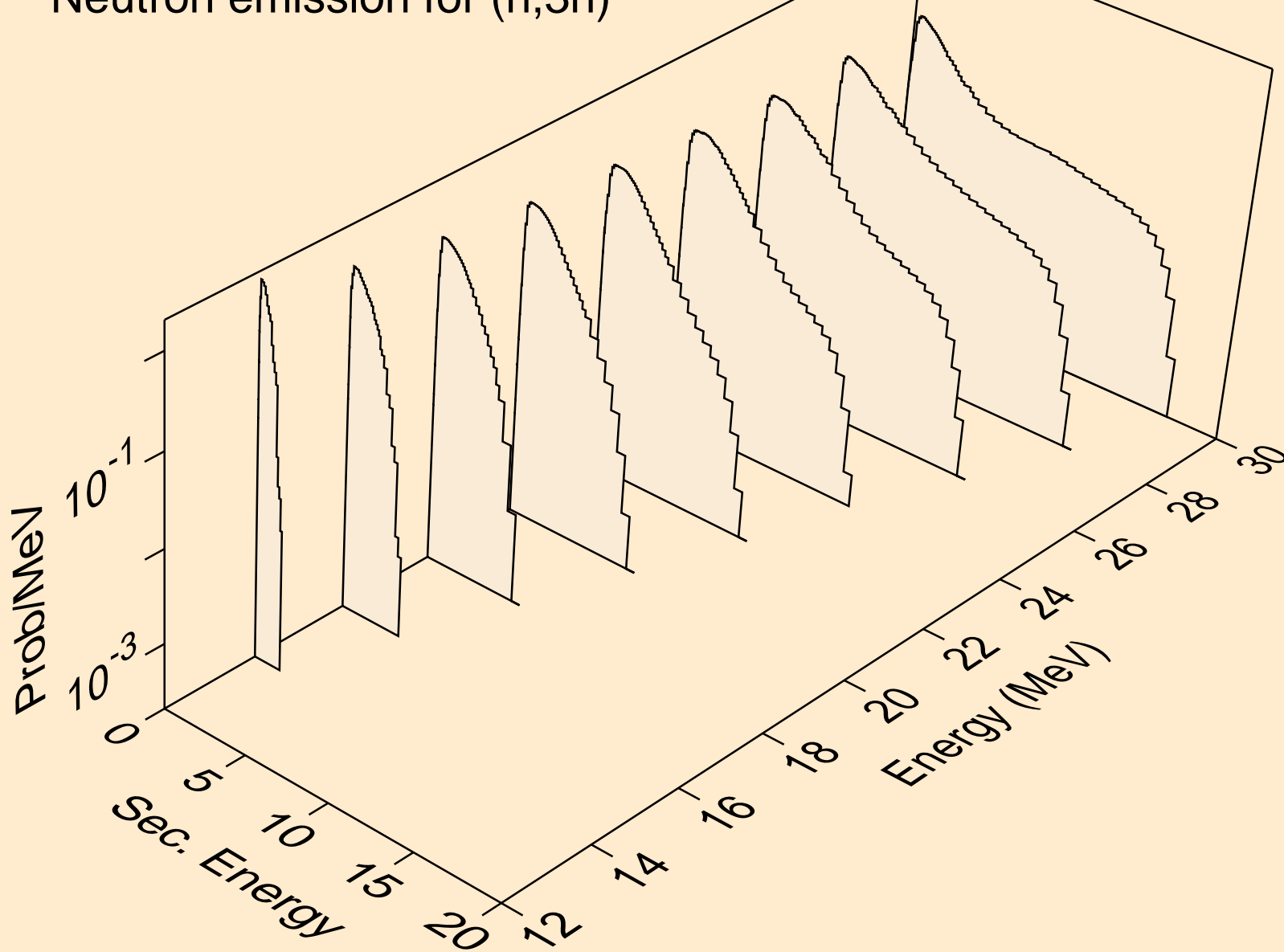
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2nd)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2n)

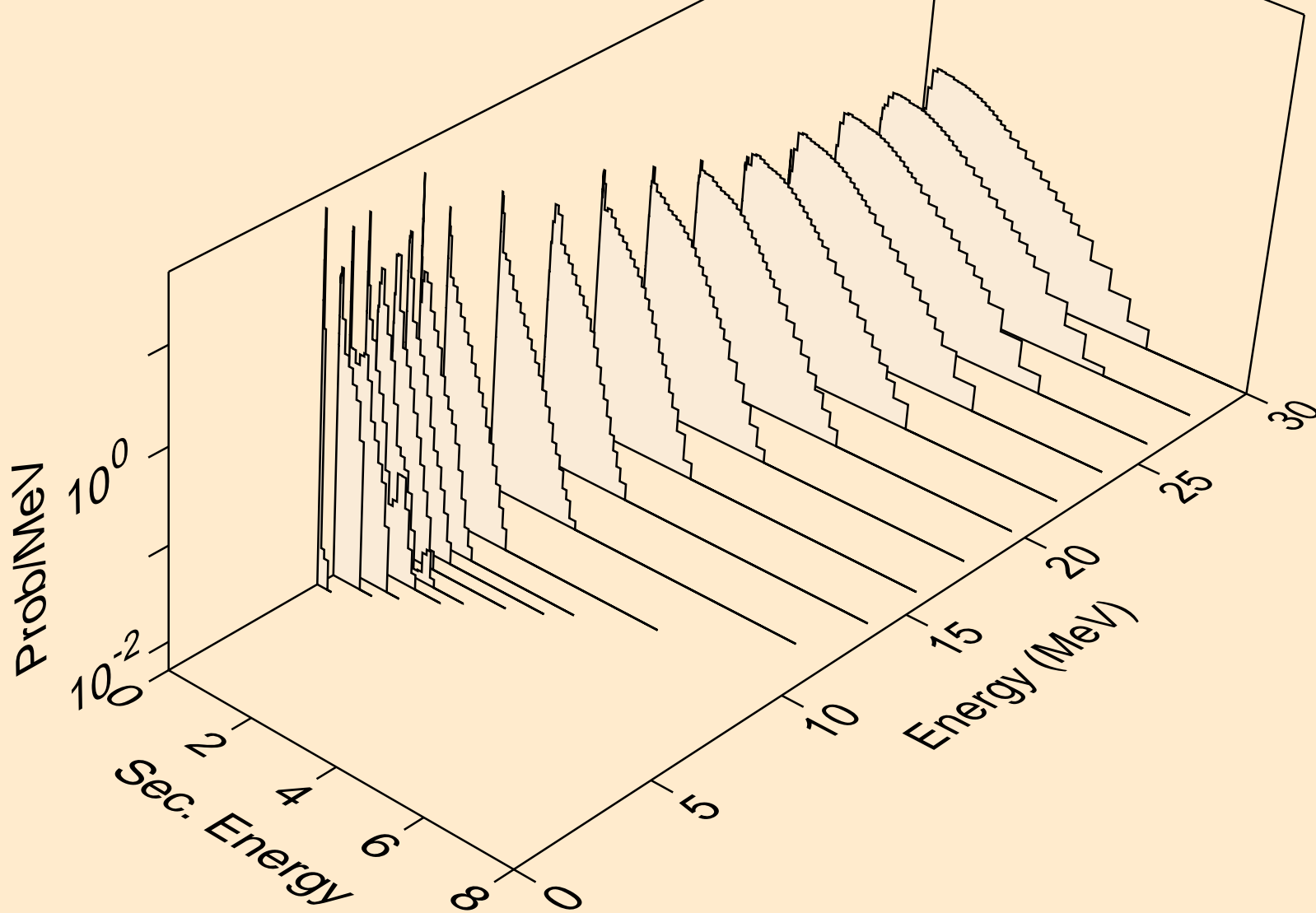


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3n)

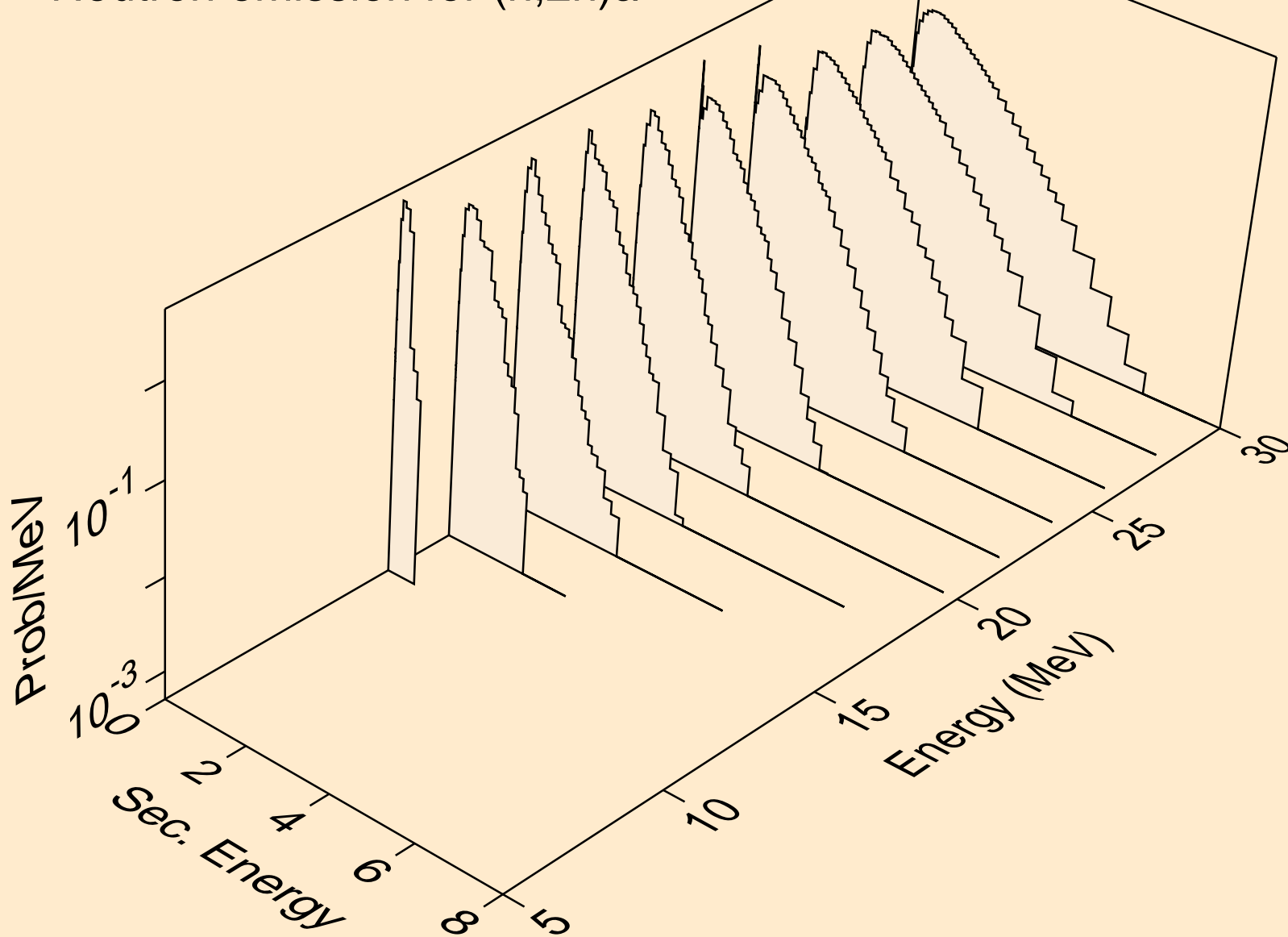




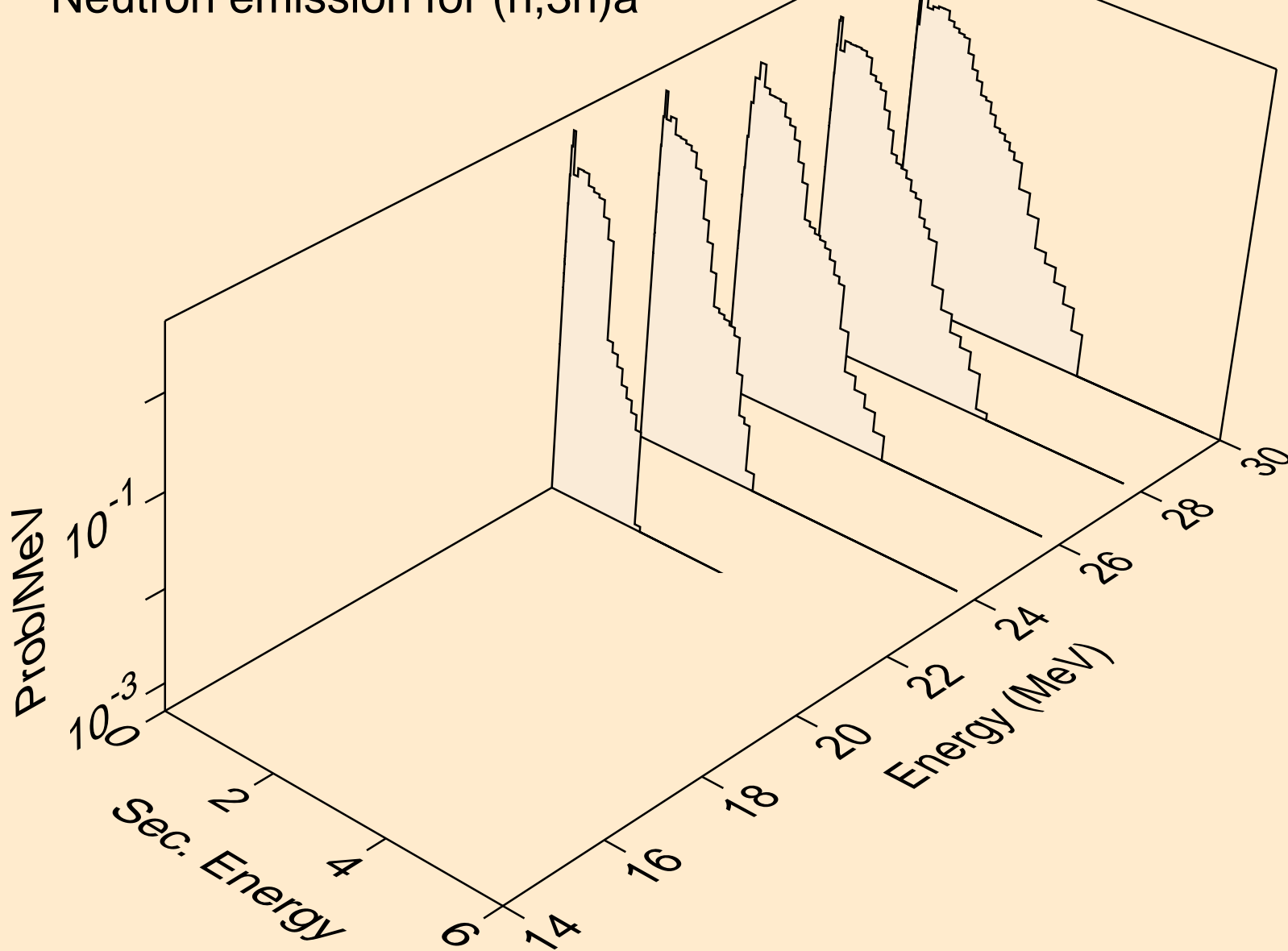
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)a



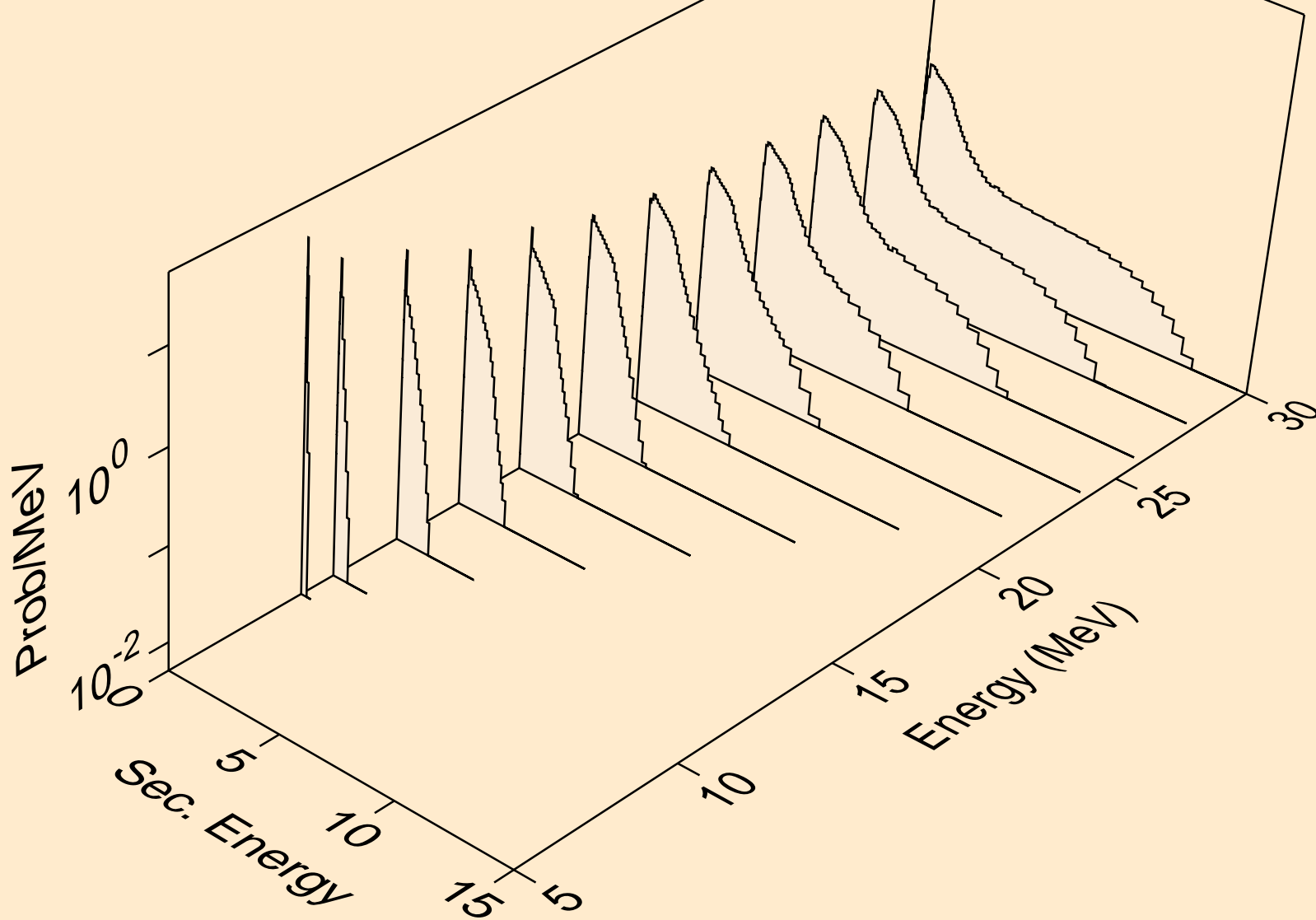
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2n)a



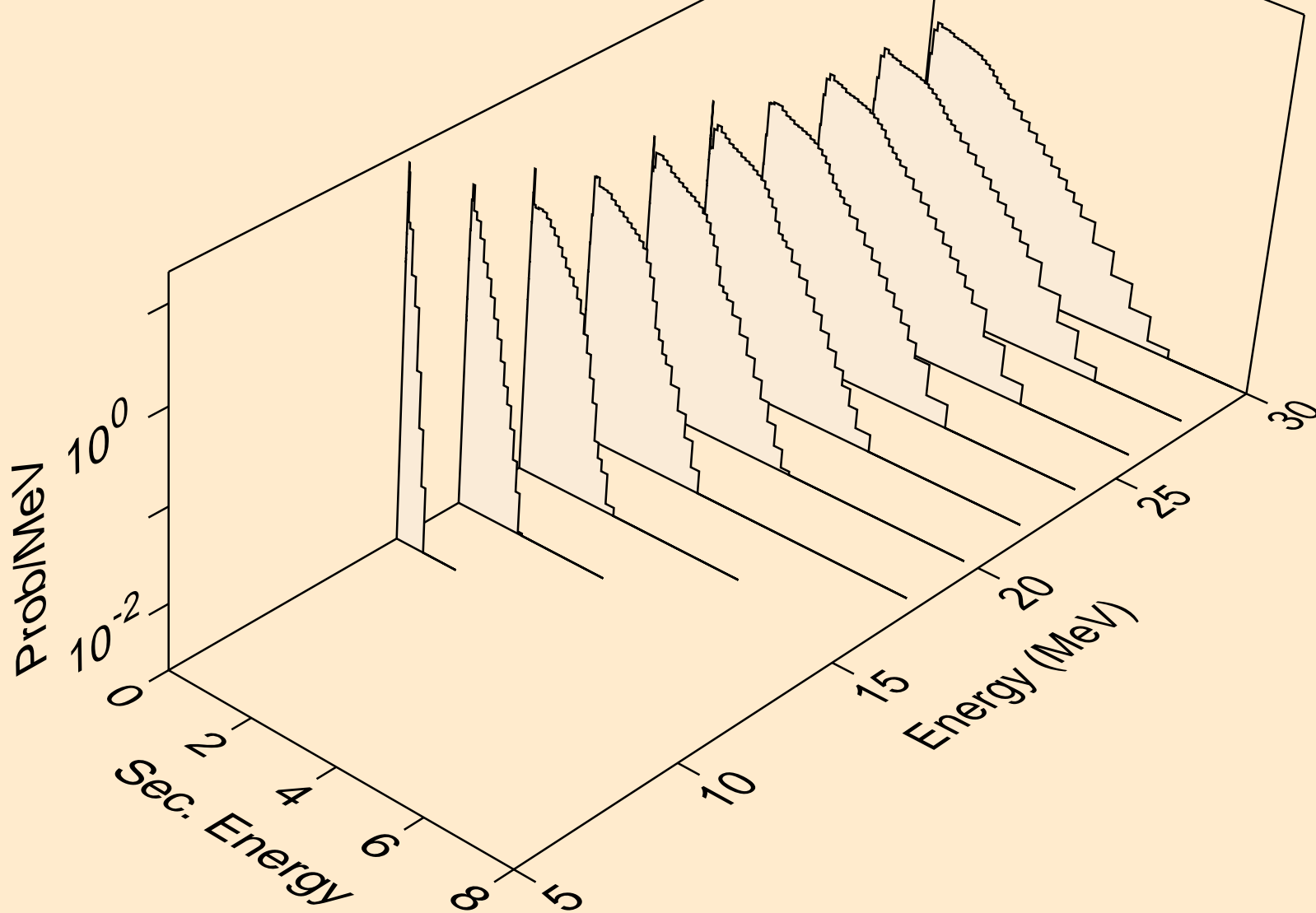
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3n)a



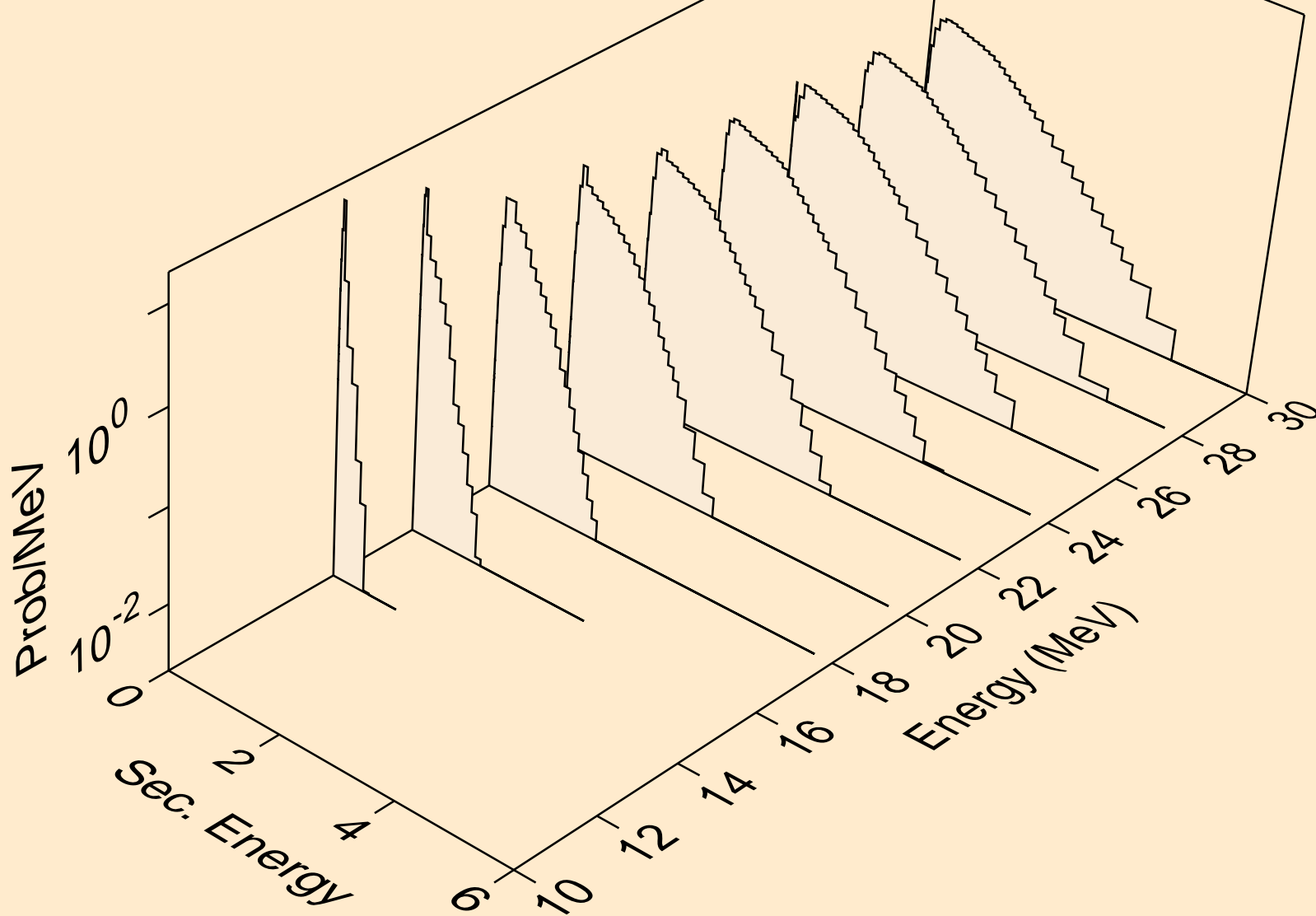
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)p



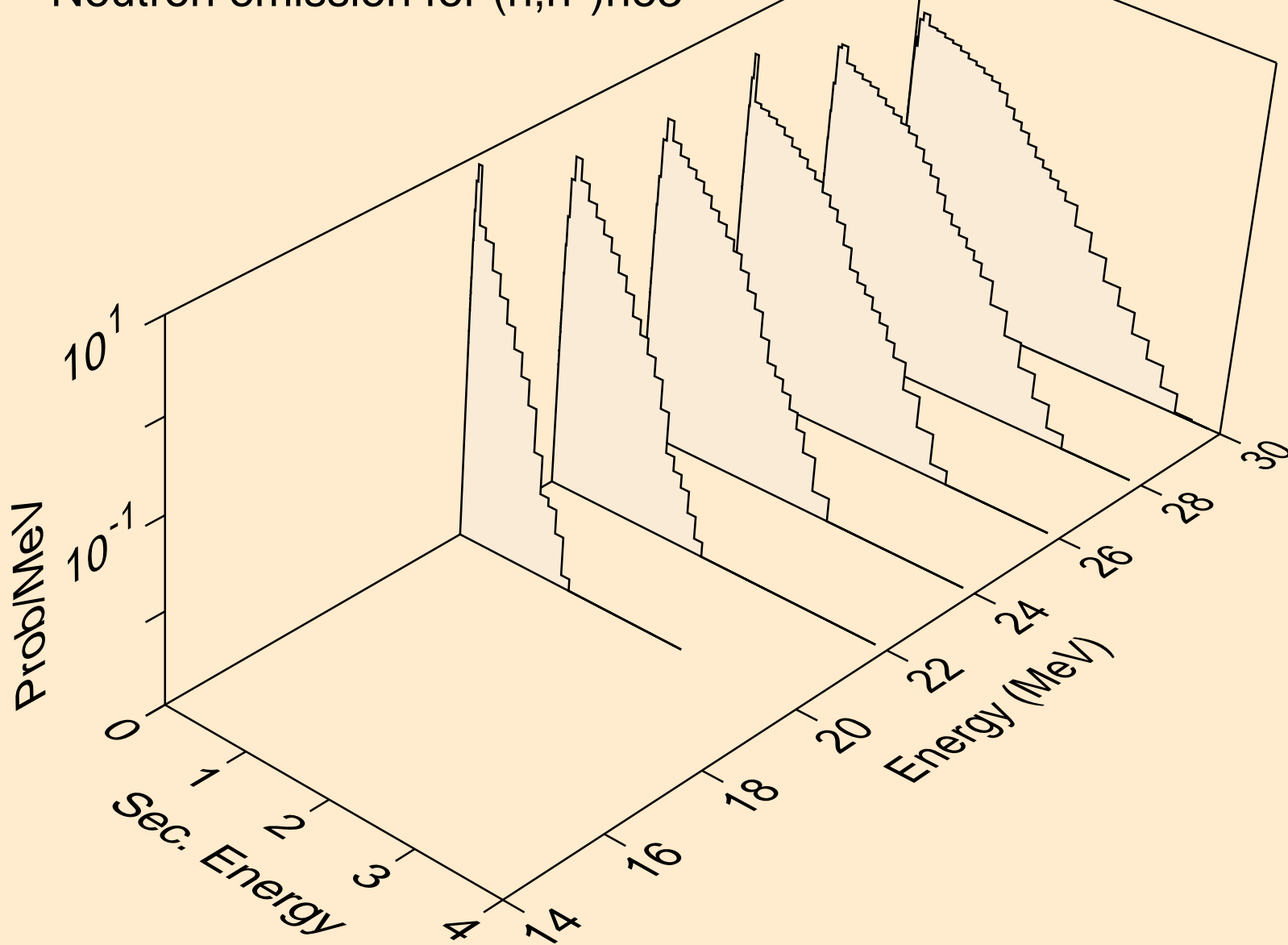
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)d



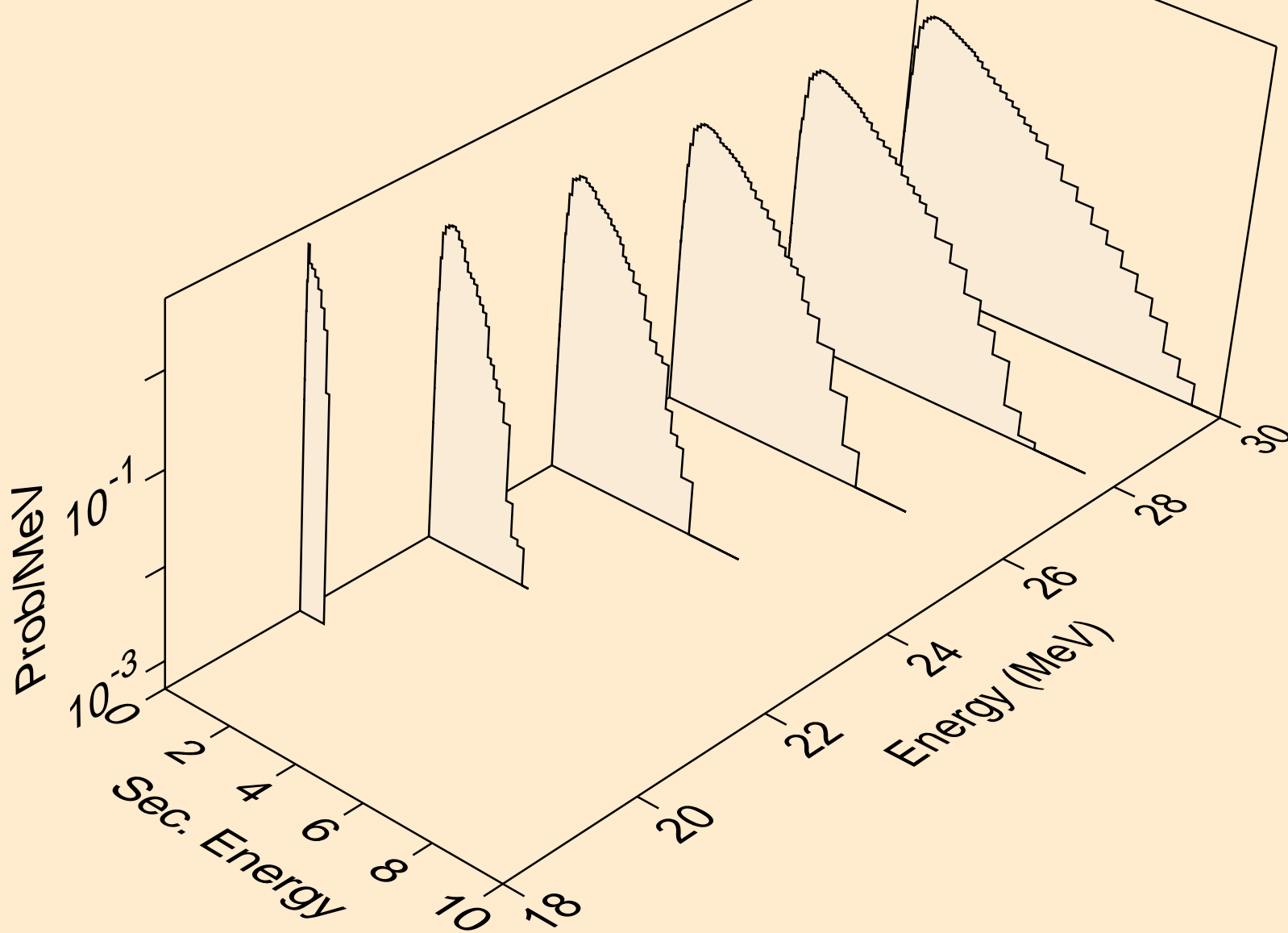
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)t



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)he3

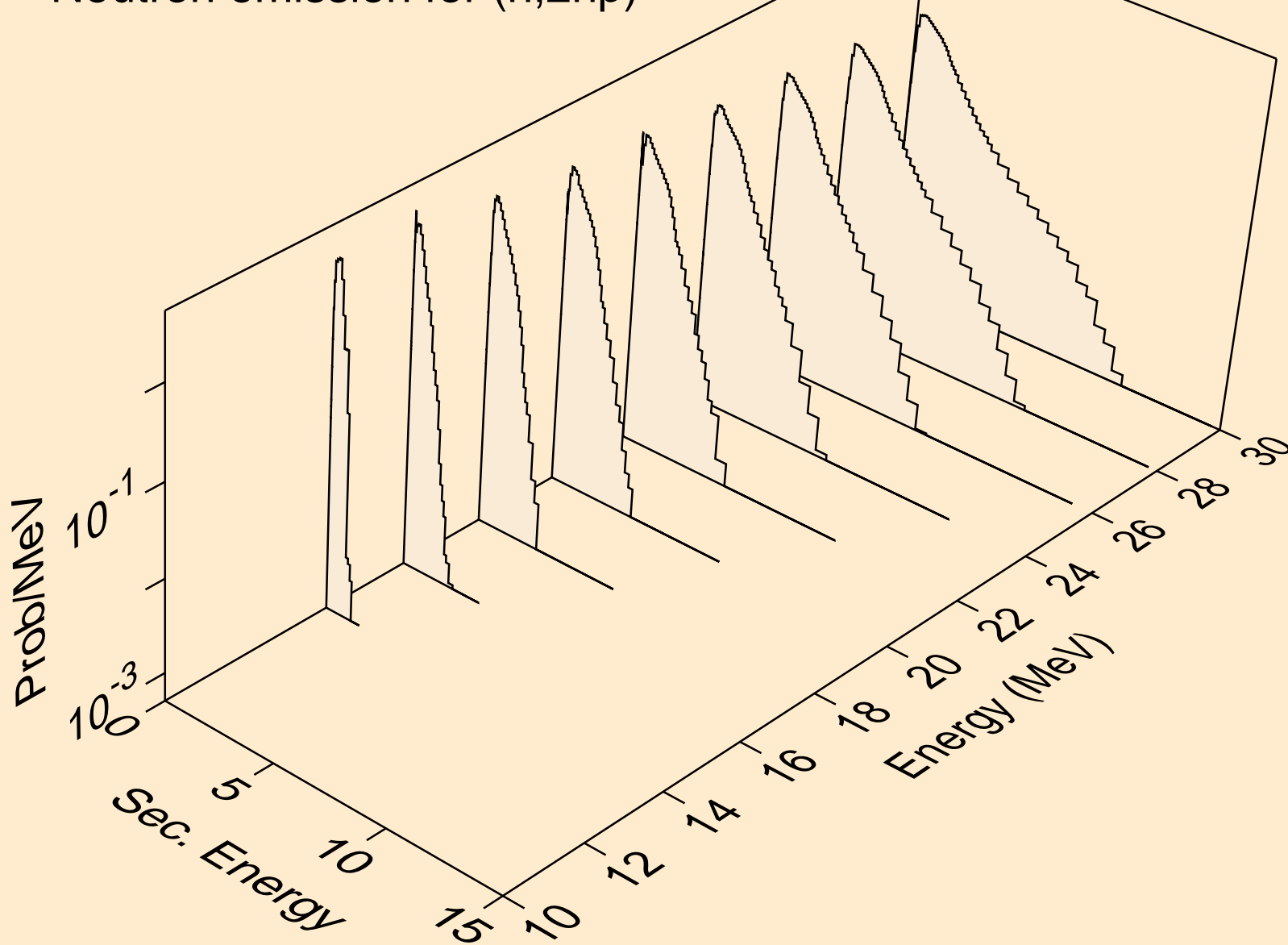


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,4n)

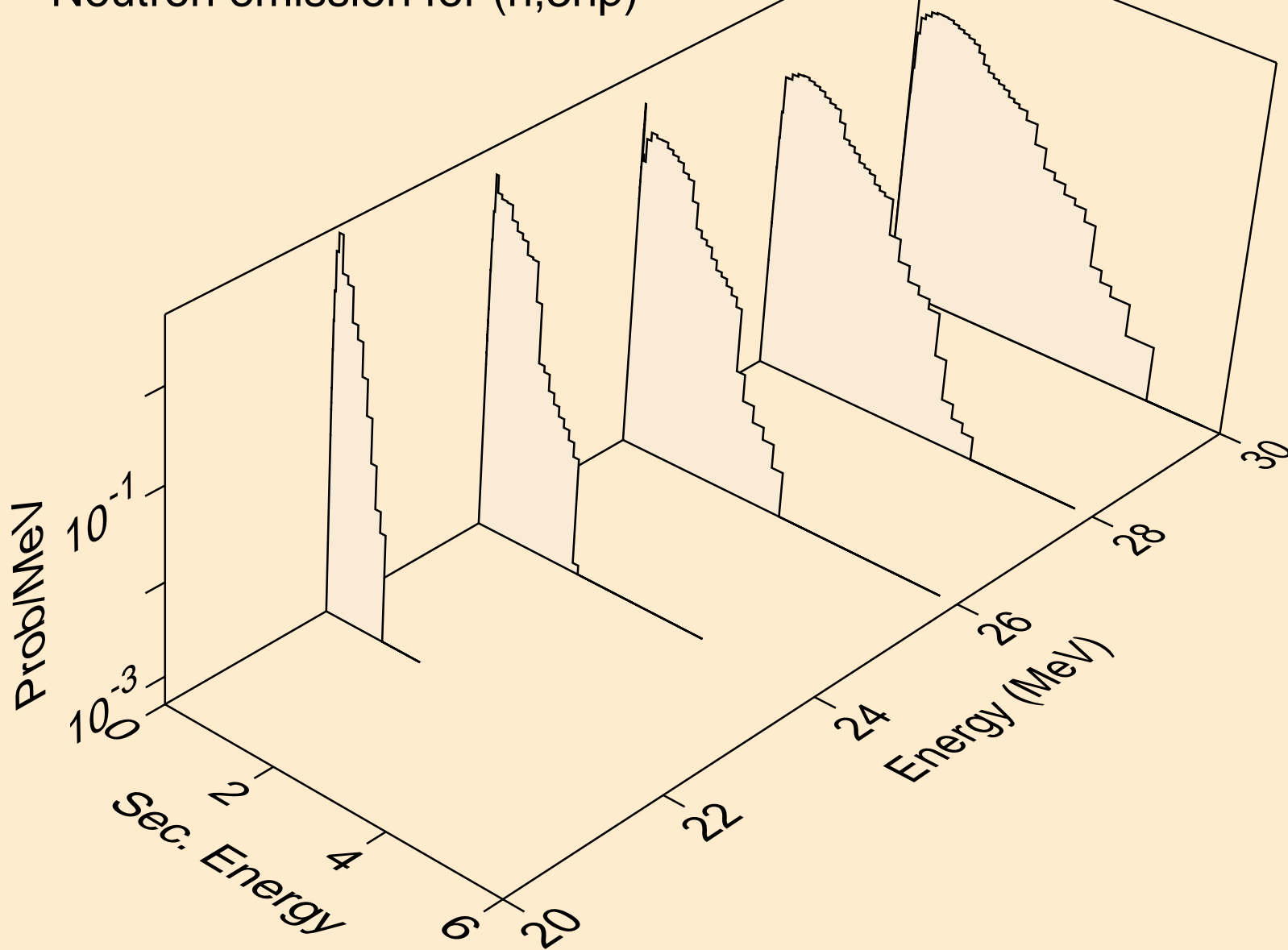




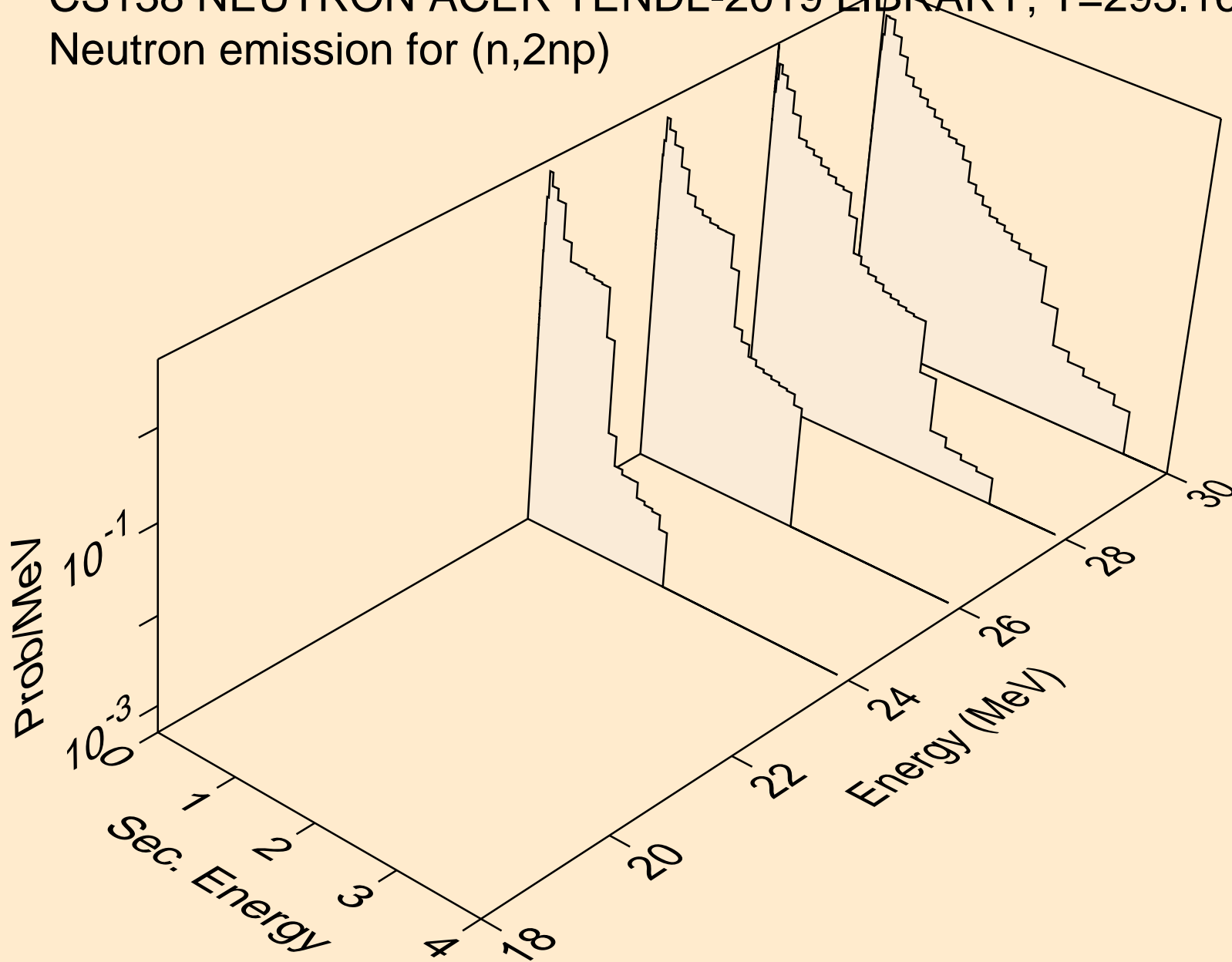
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2np)



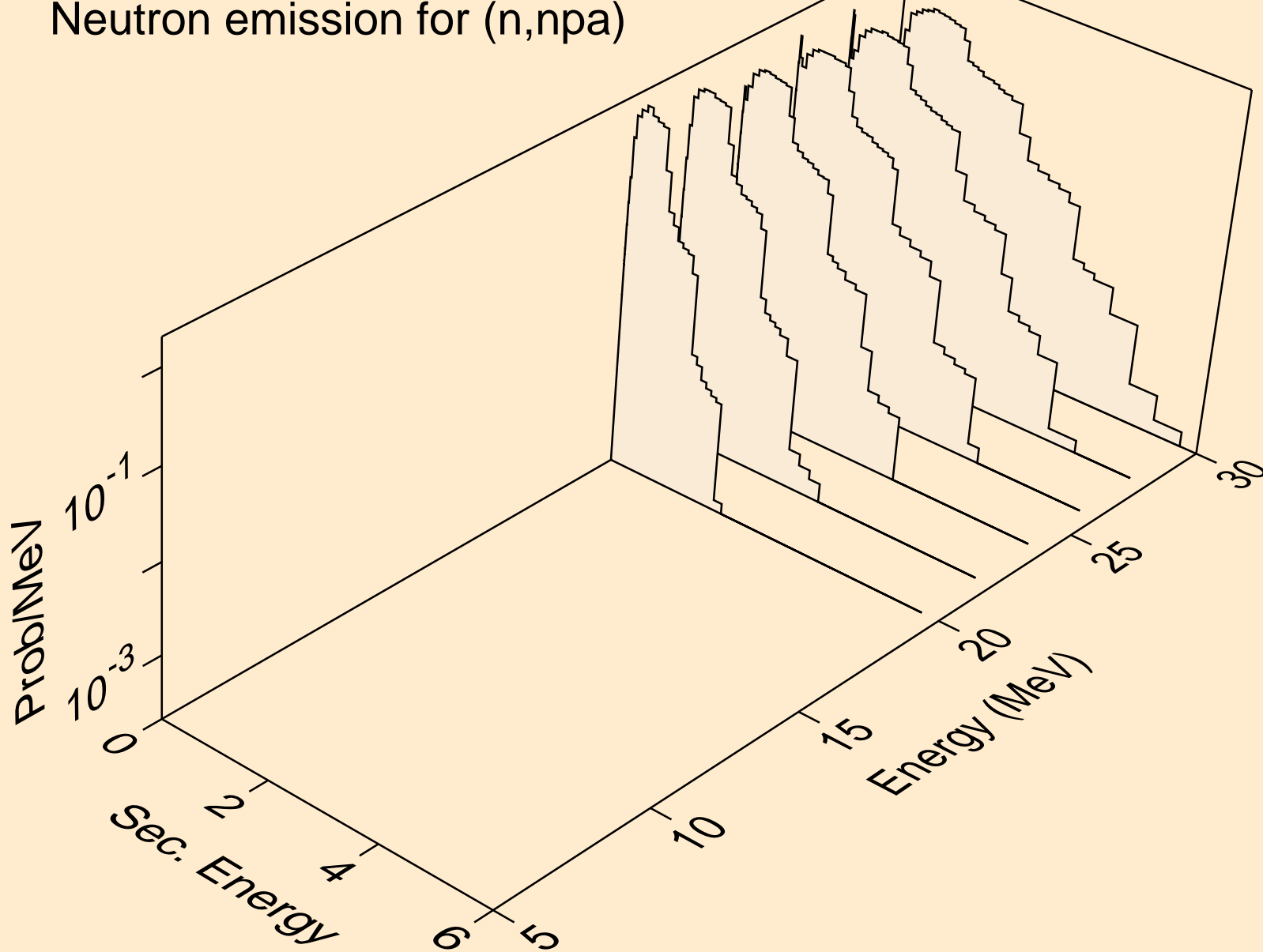
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3np)



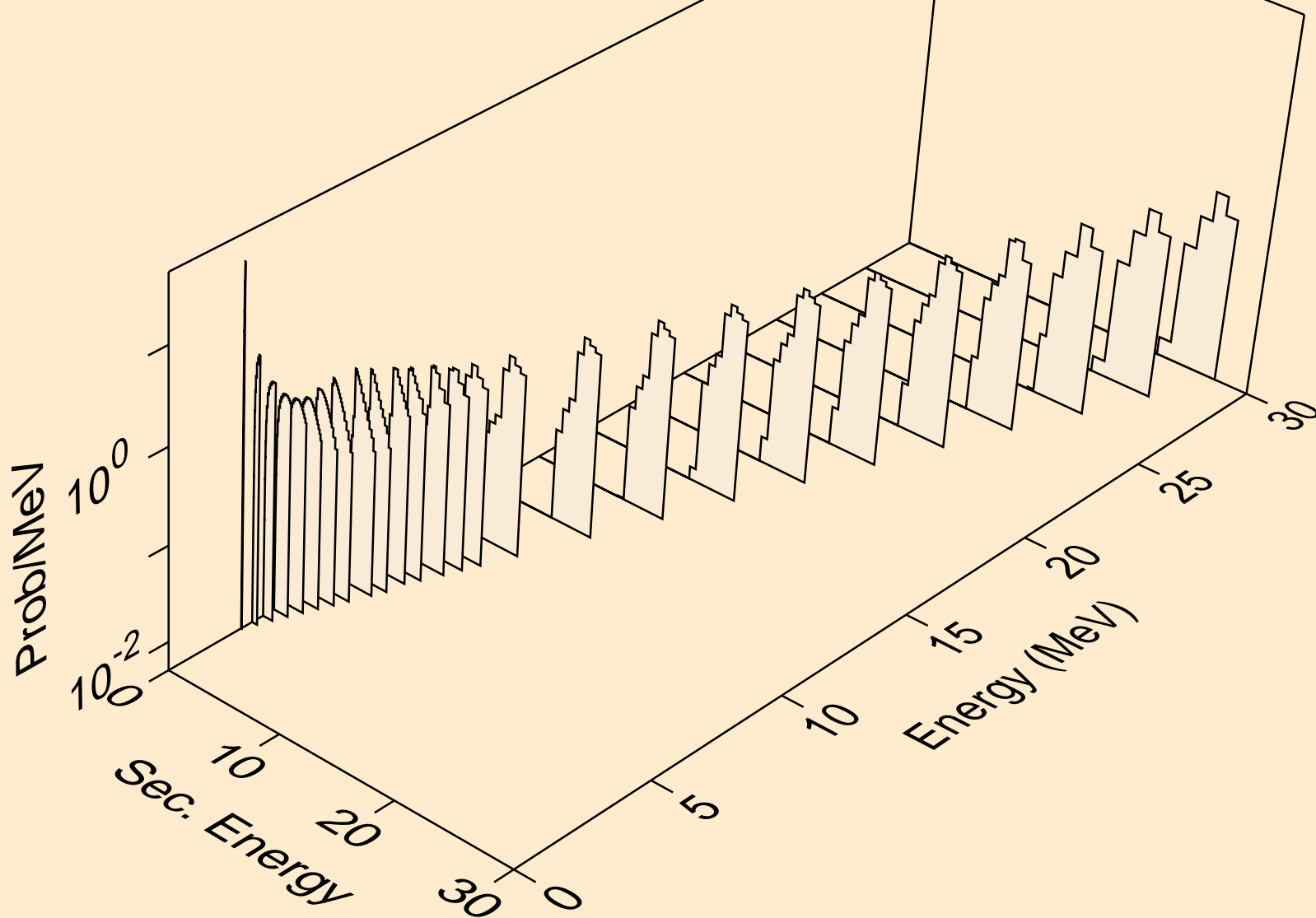
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2np)



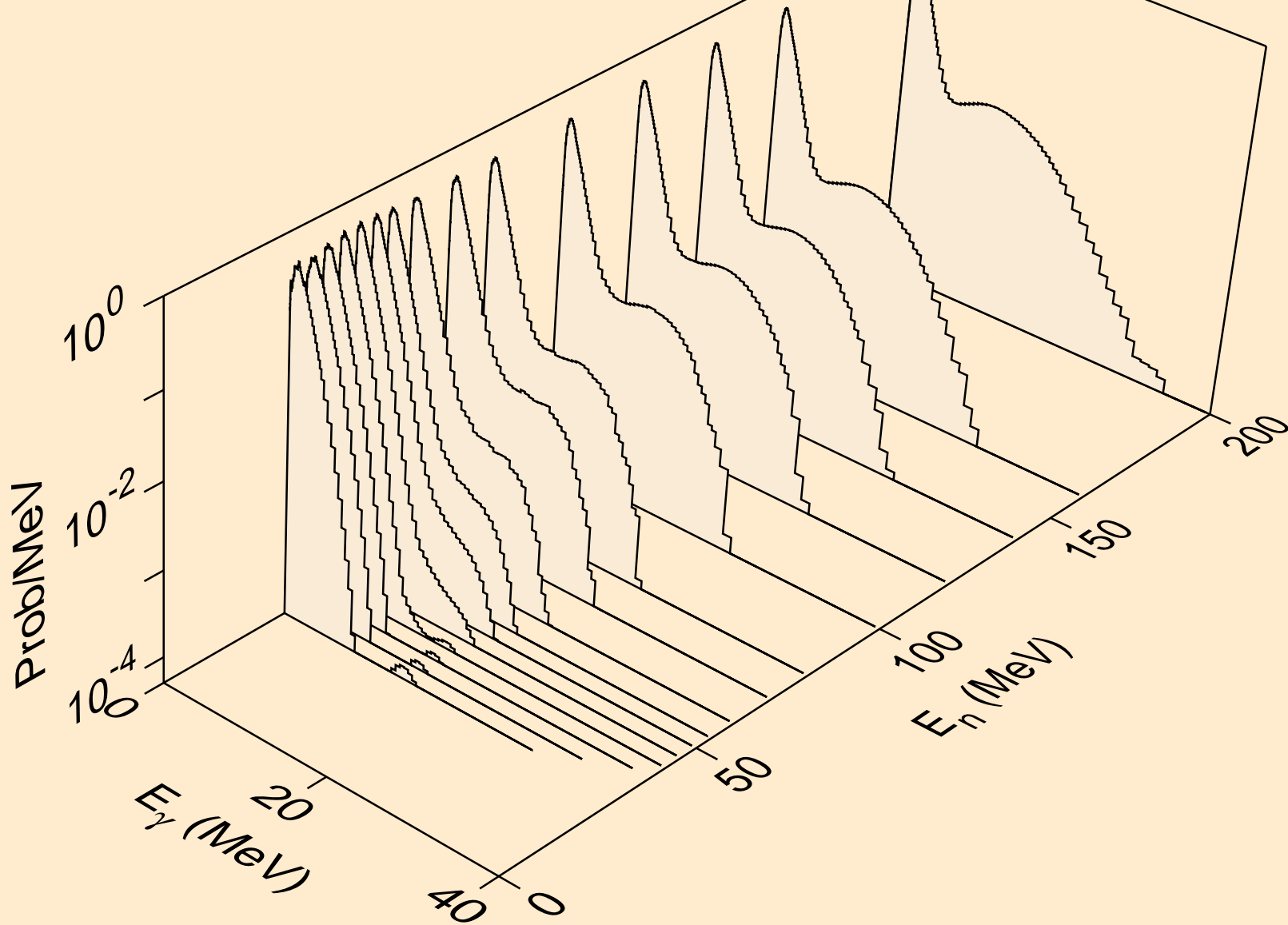
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,npa)



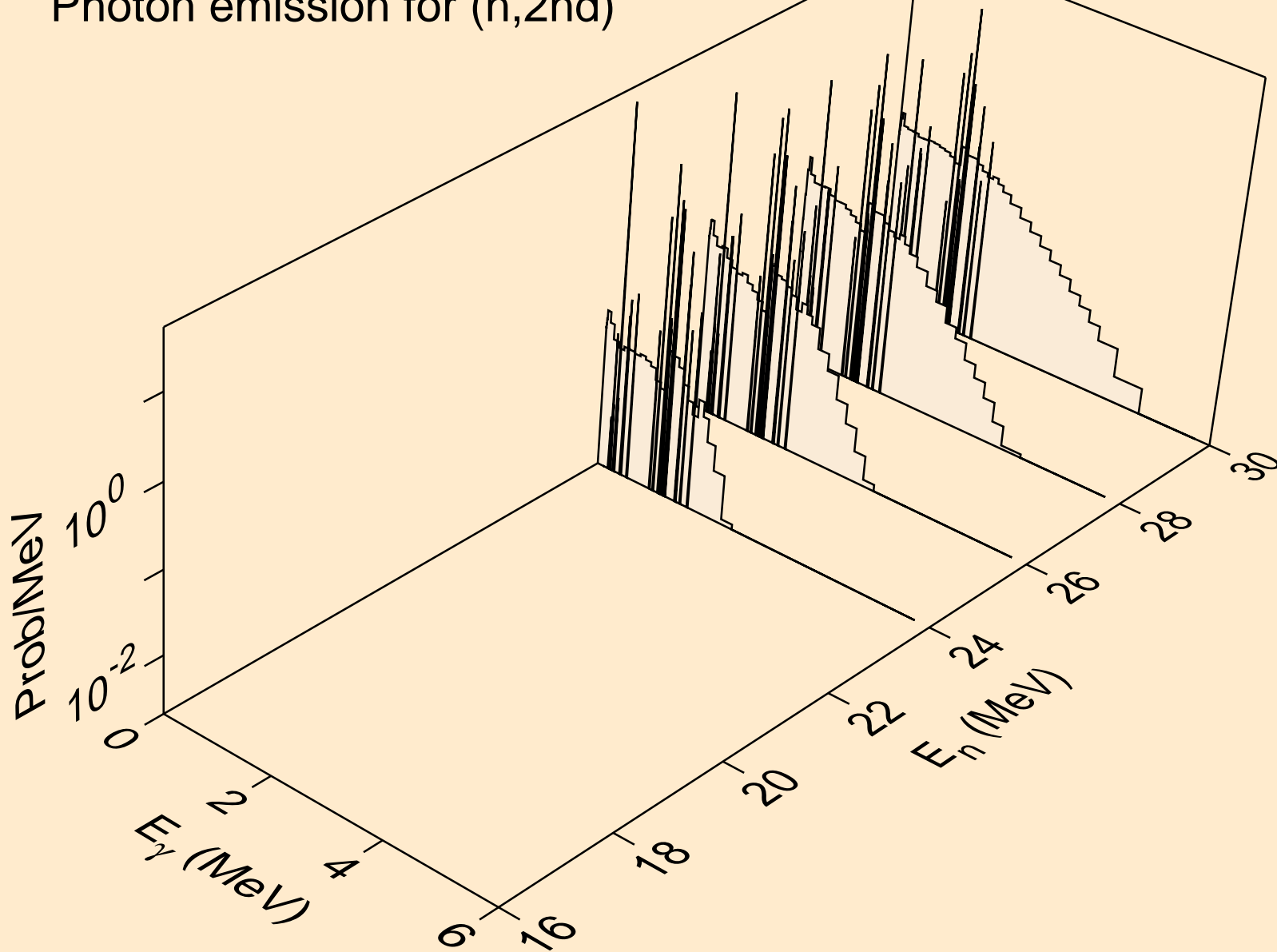
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*c)



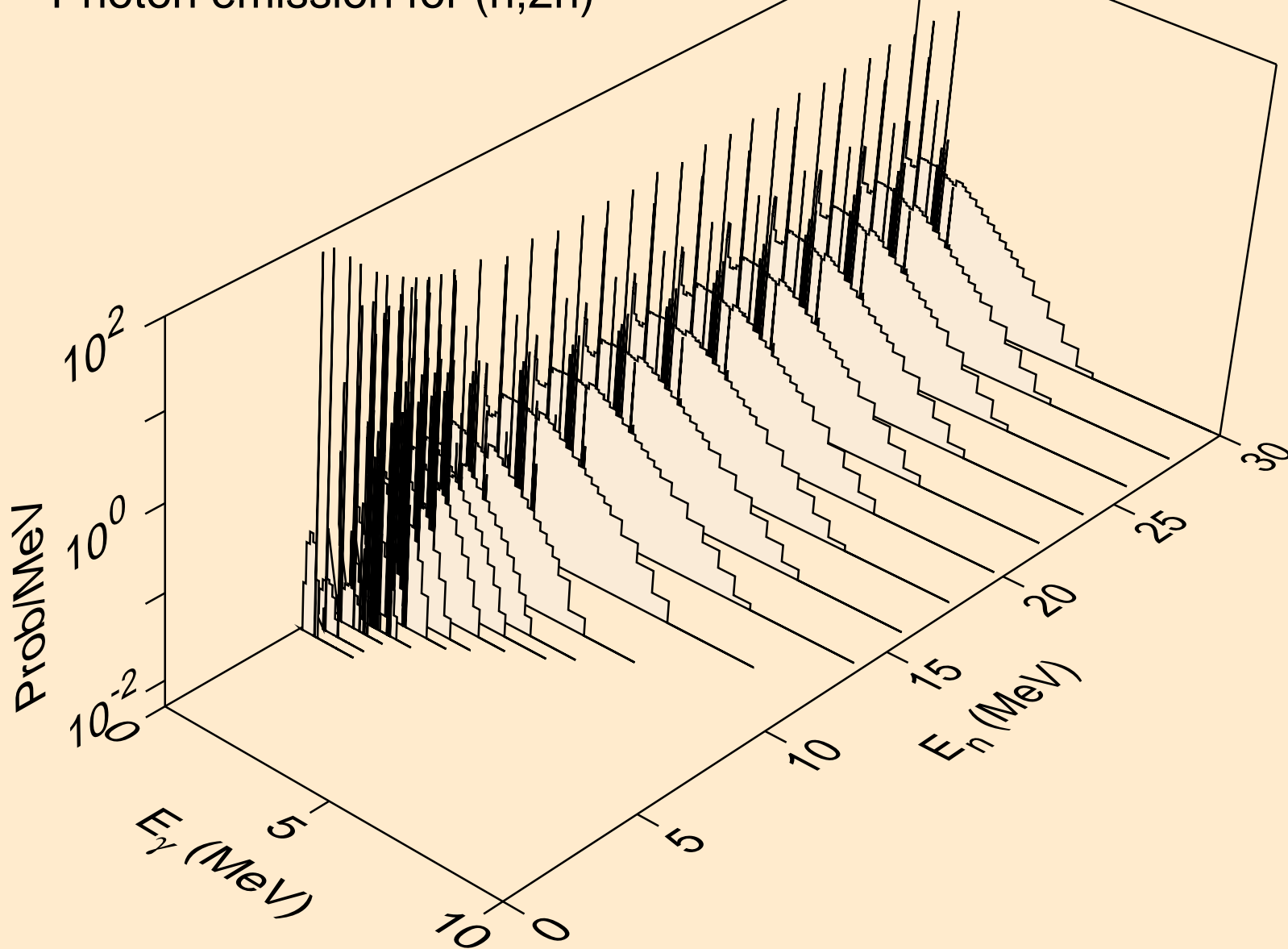
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,x)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2nd)

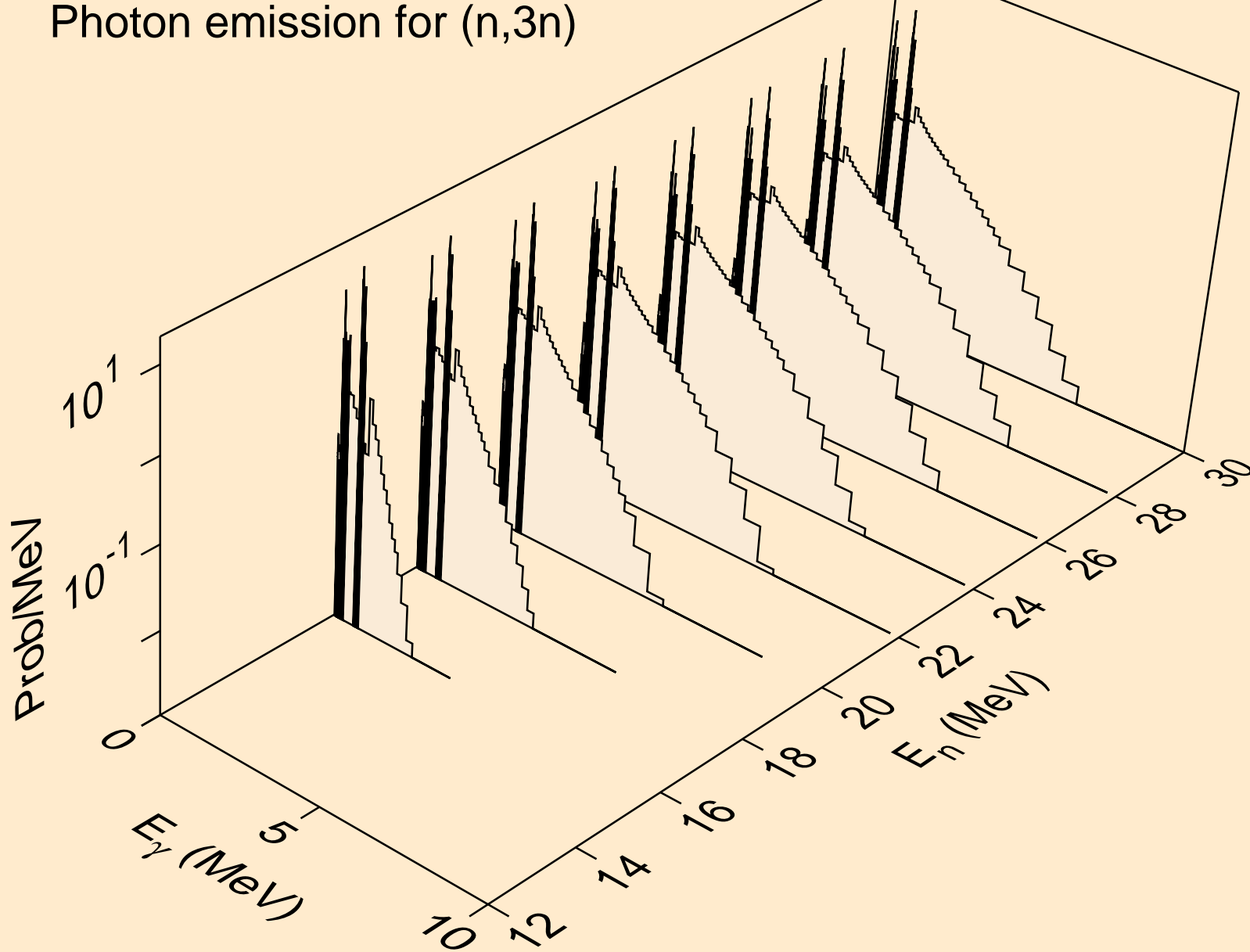


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2n)

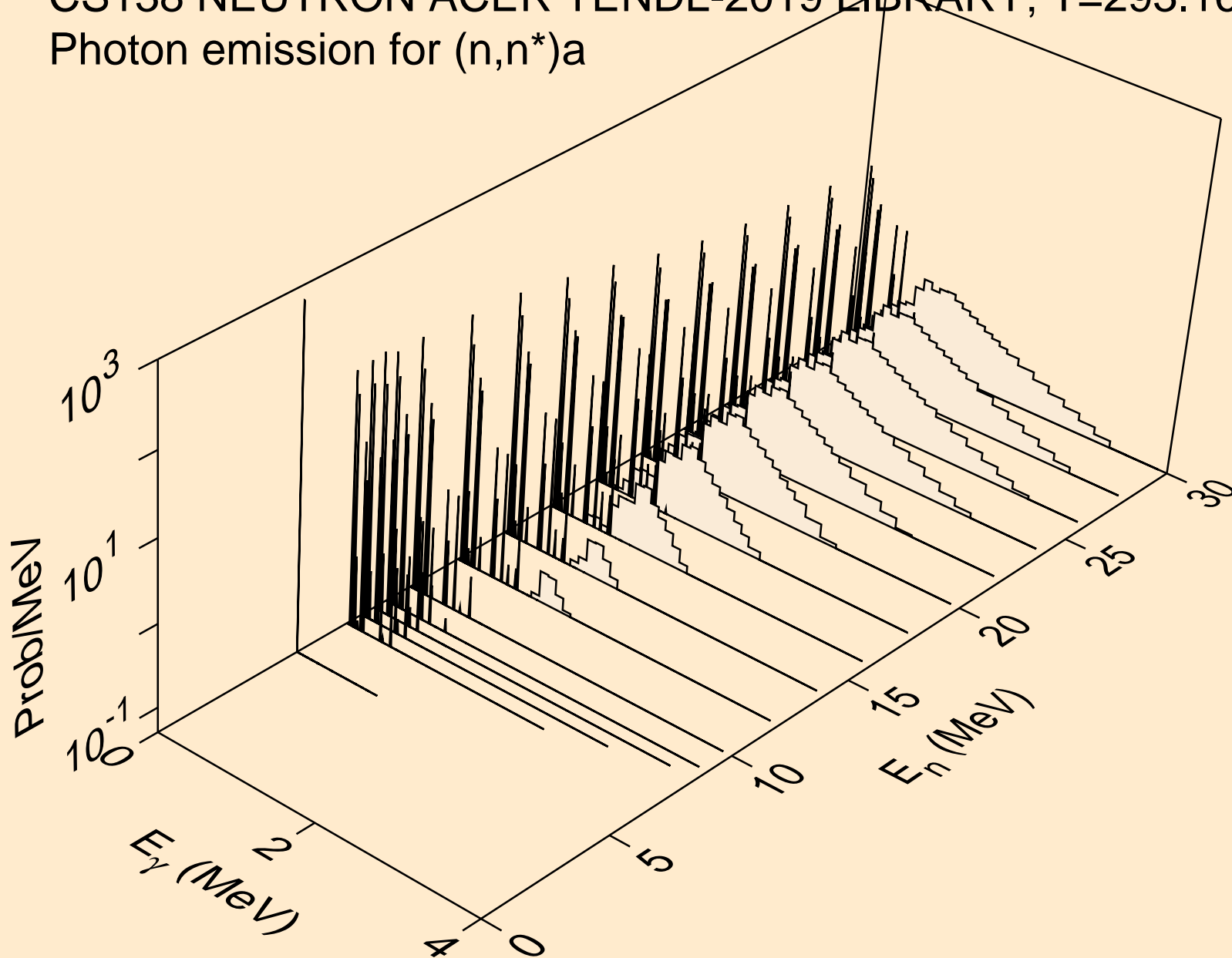




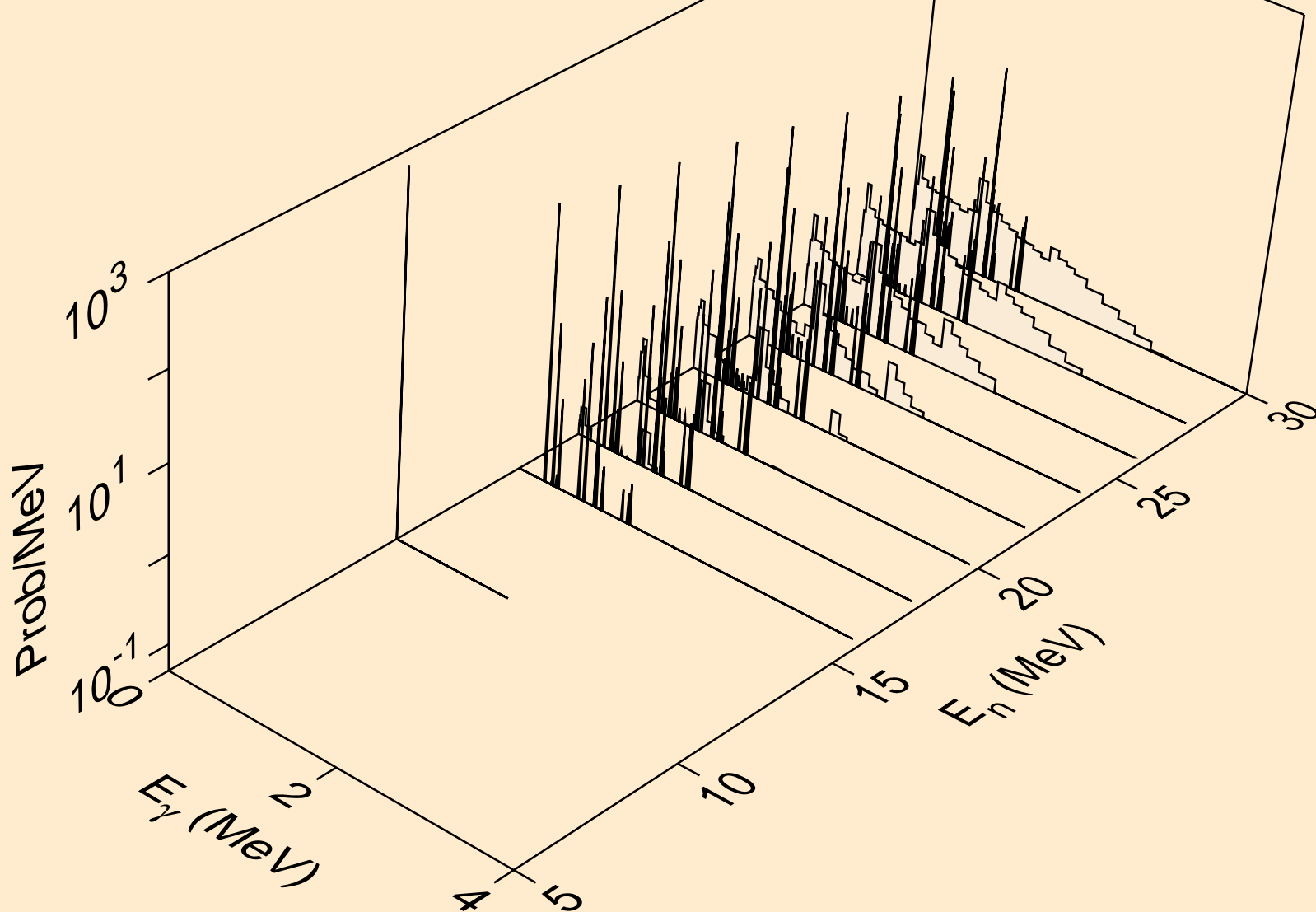
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3n)



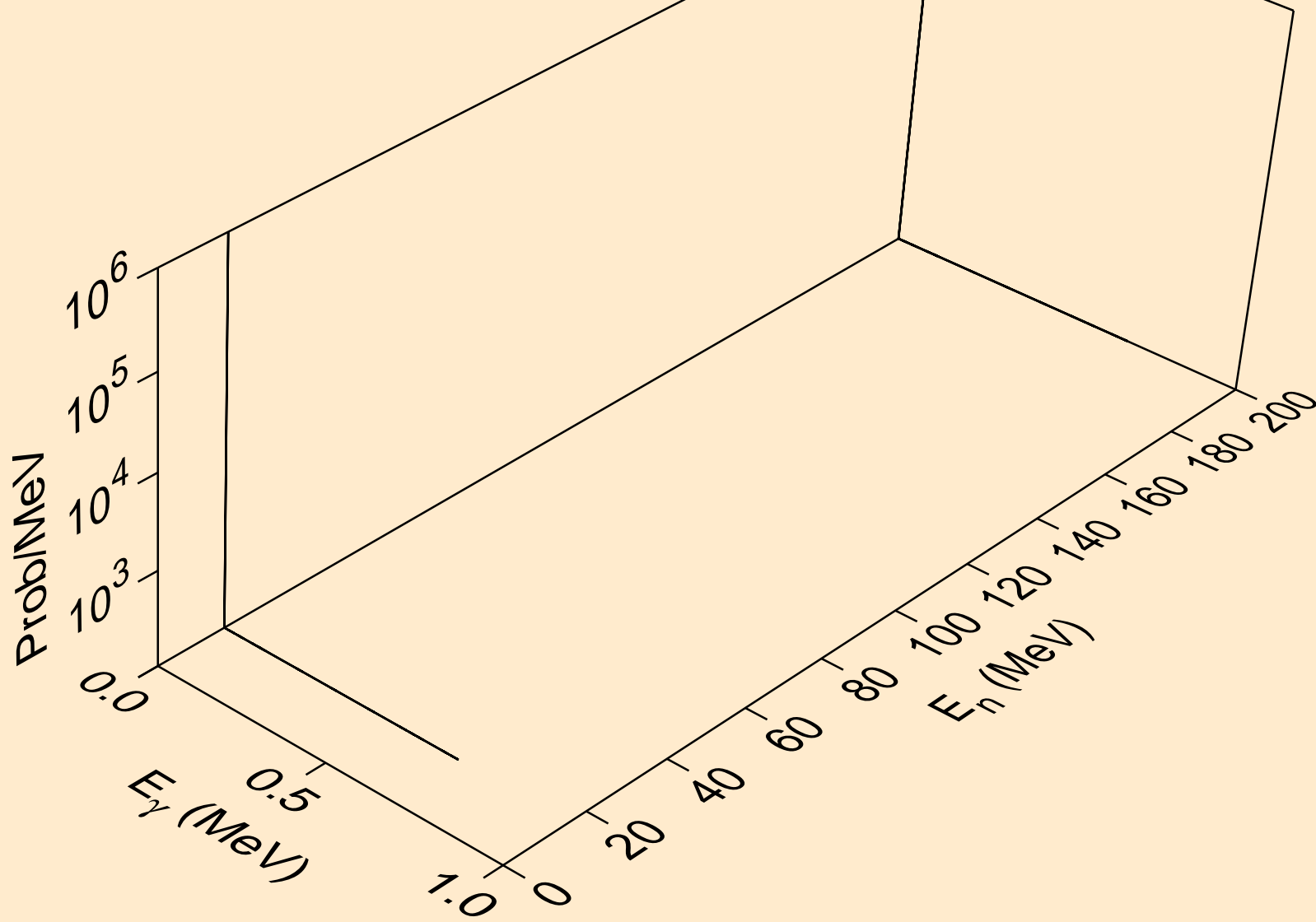
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)a



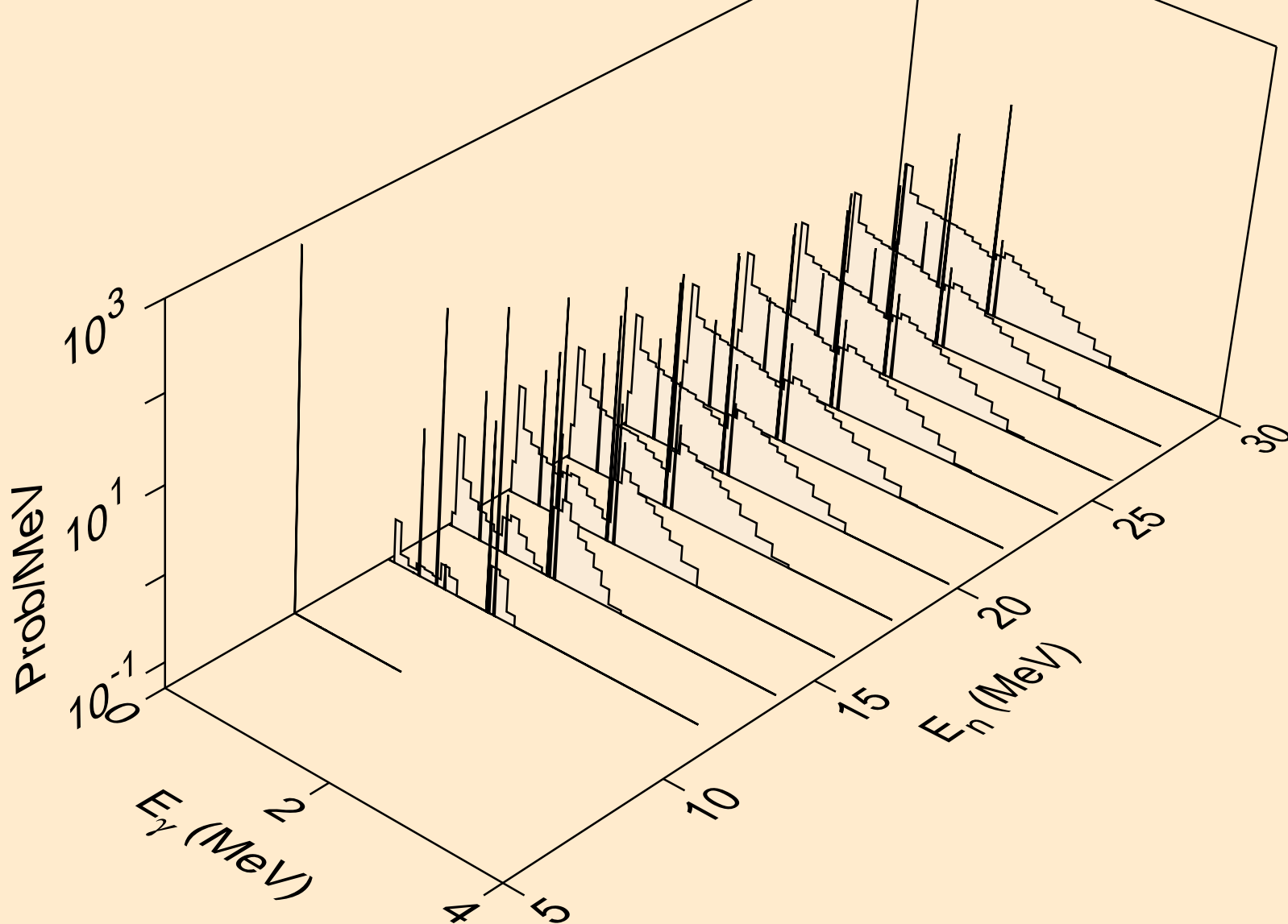
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2n)a



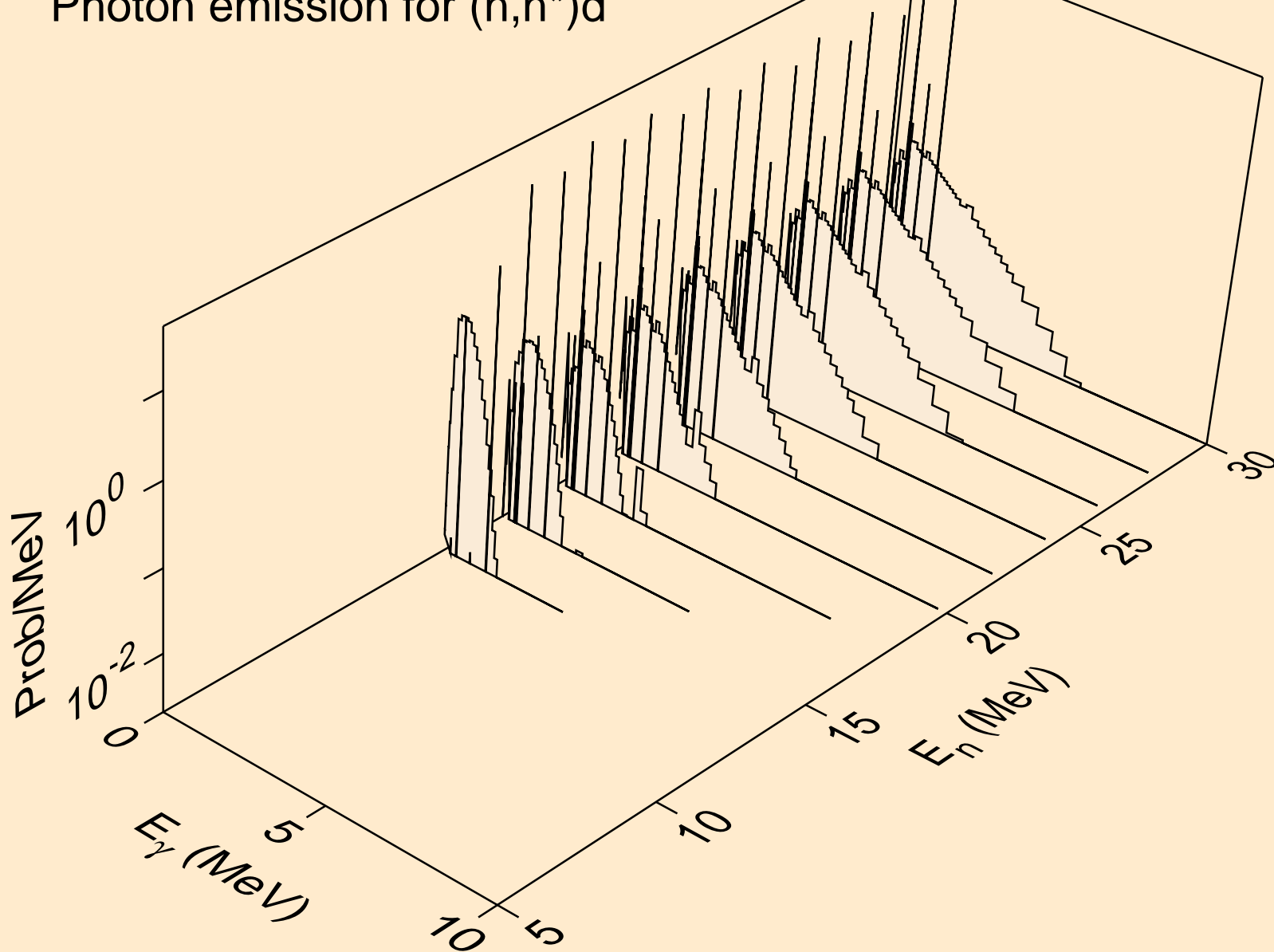
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3n)a



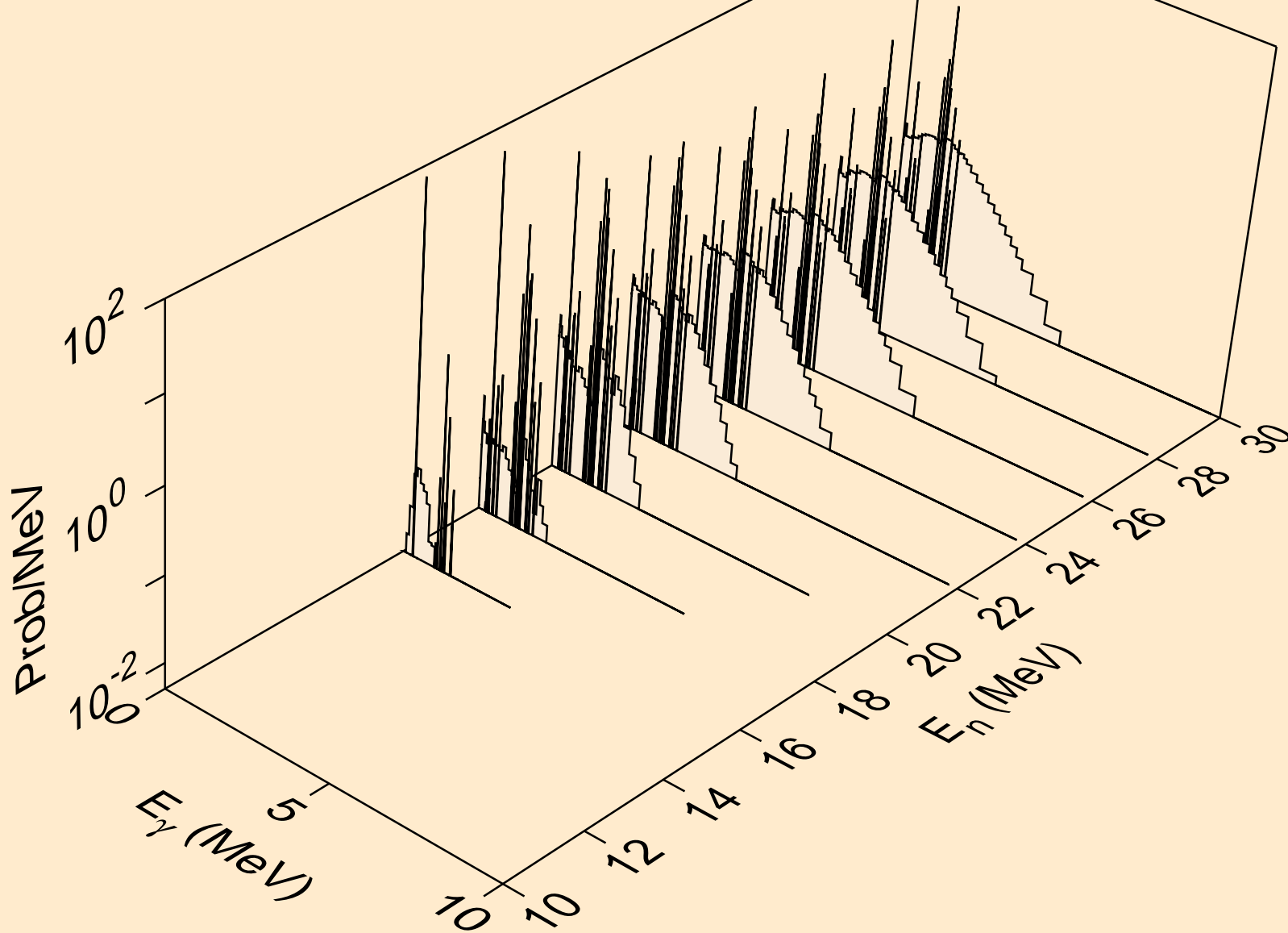
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)p



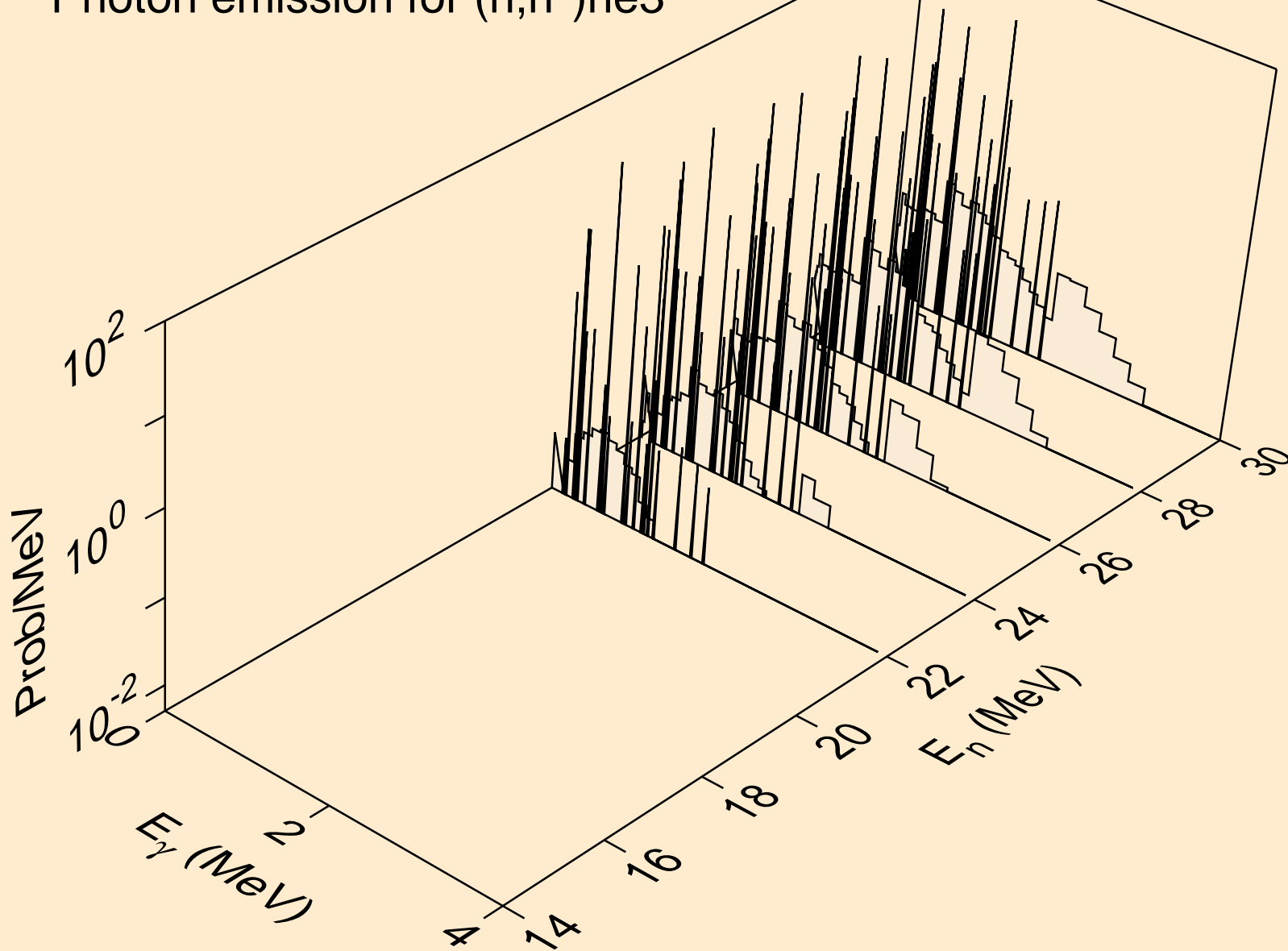
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)d



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)t

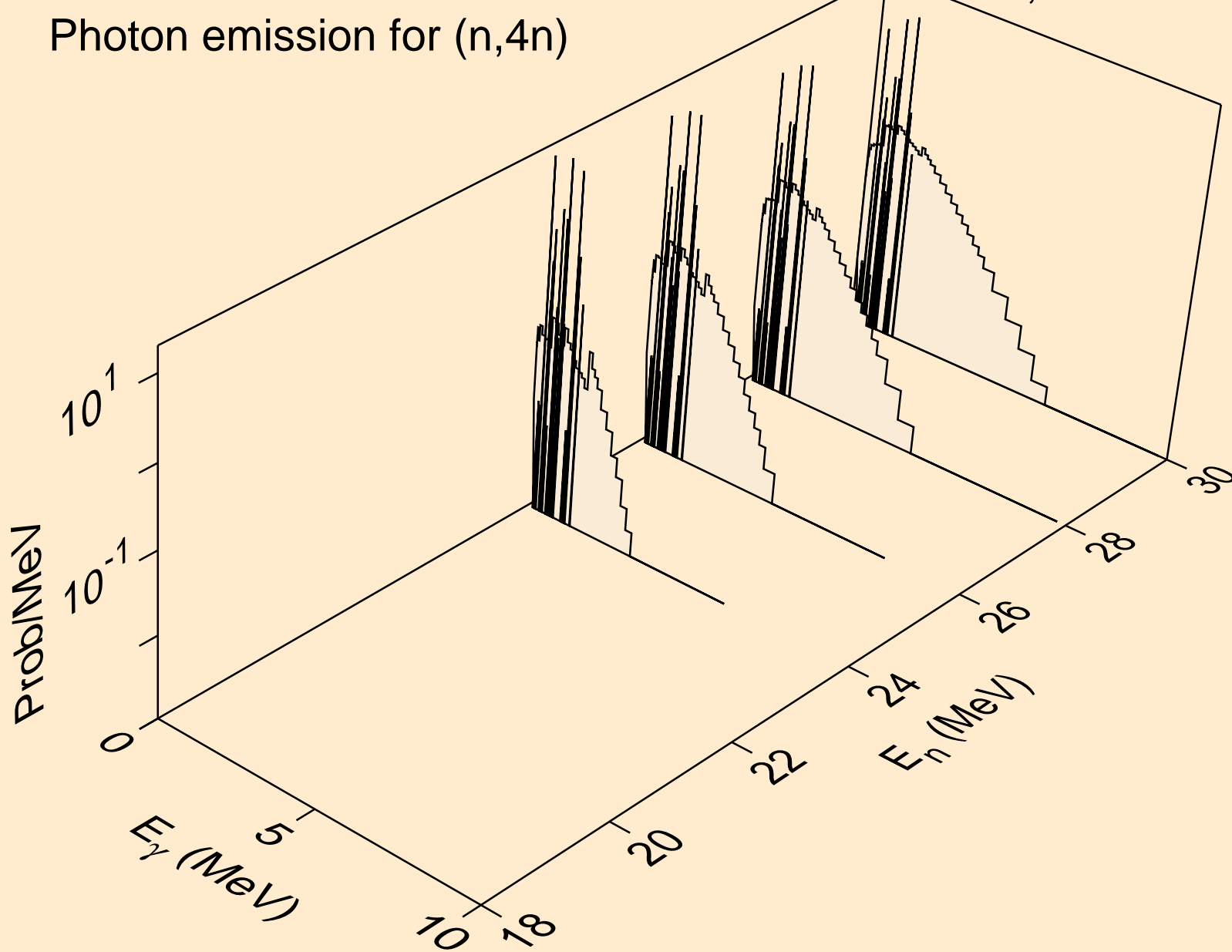


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)he3

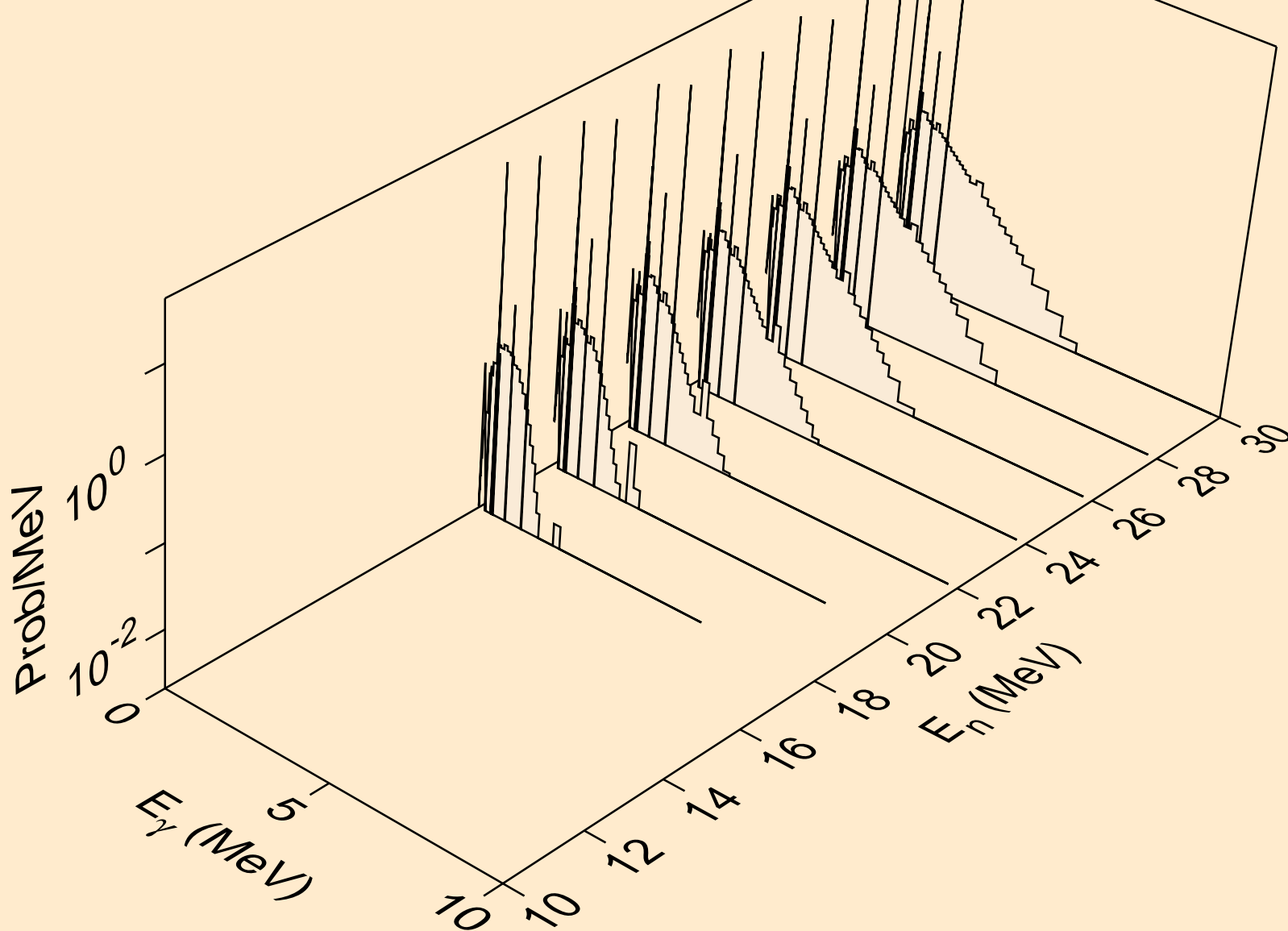




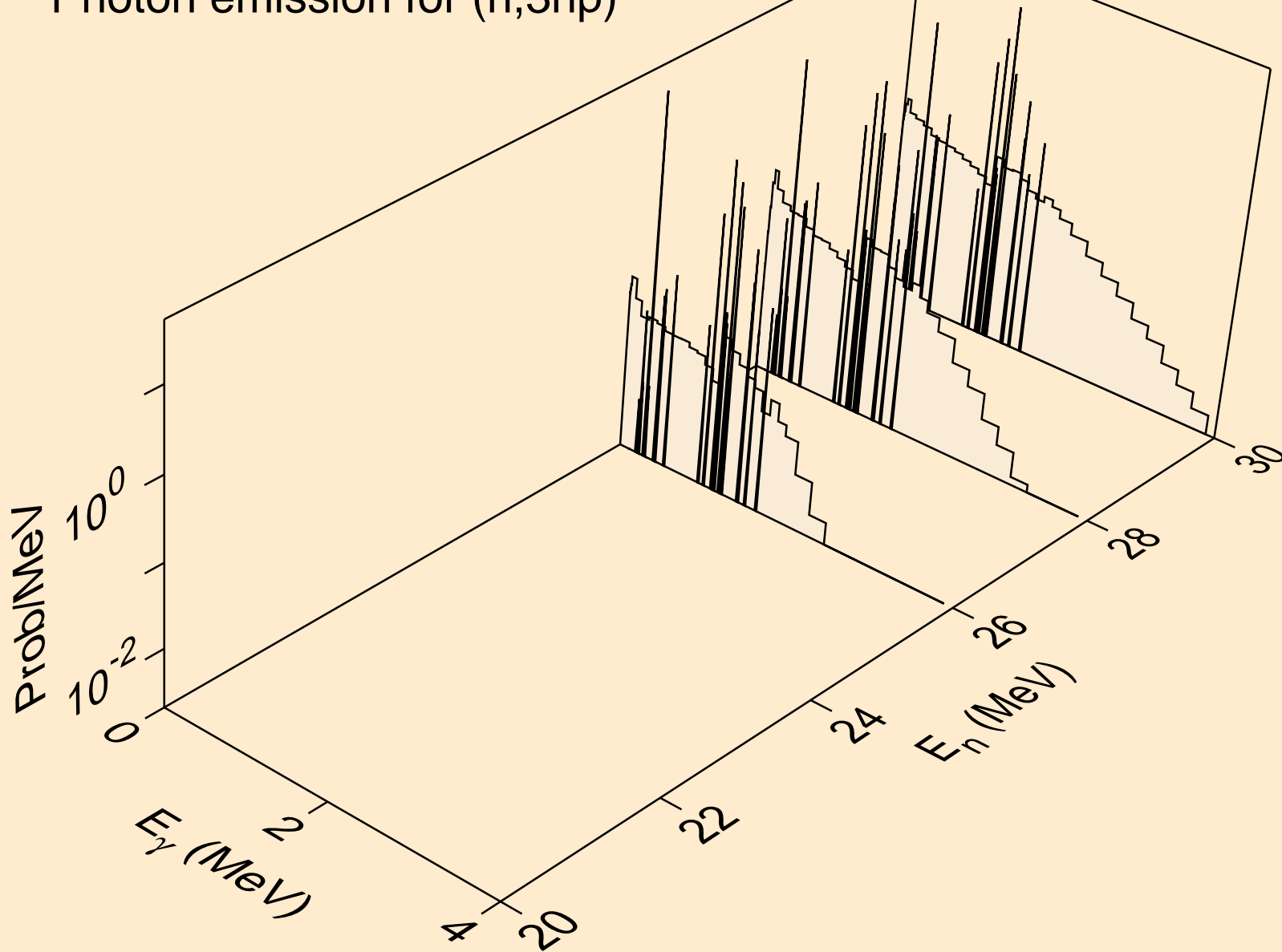
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,4n)



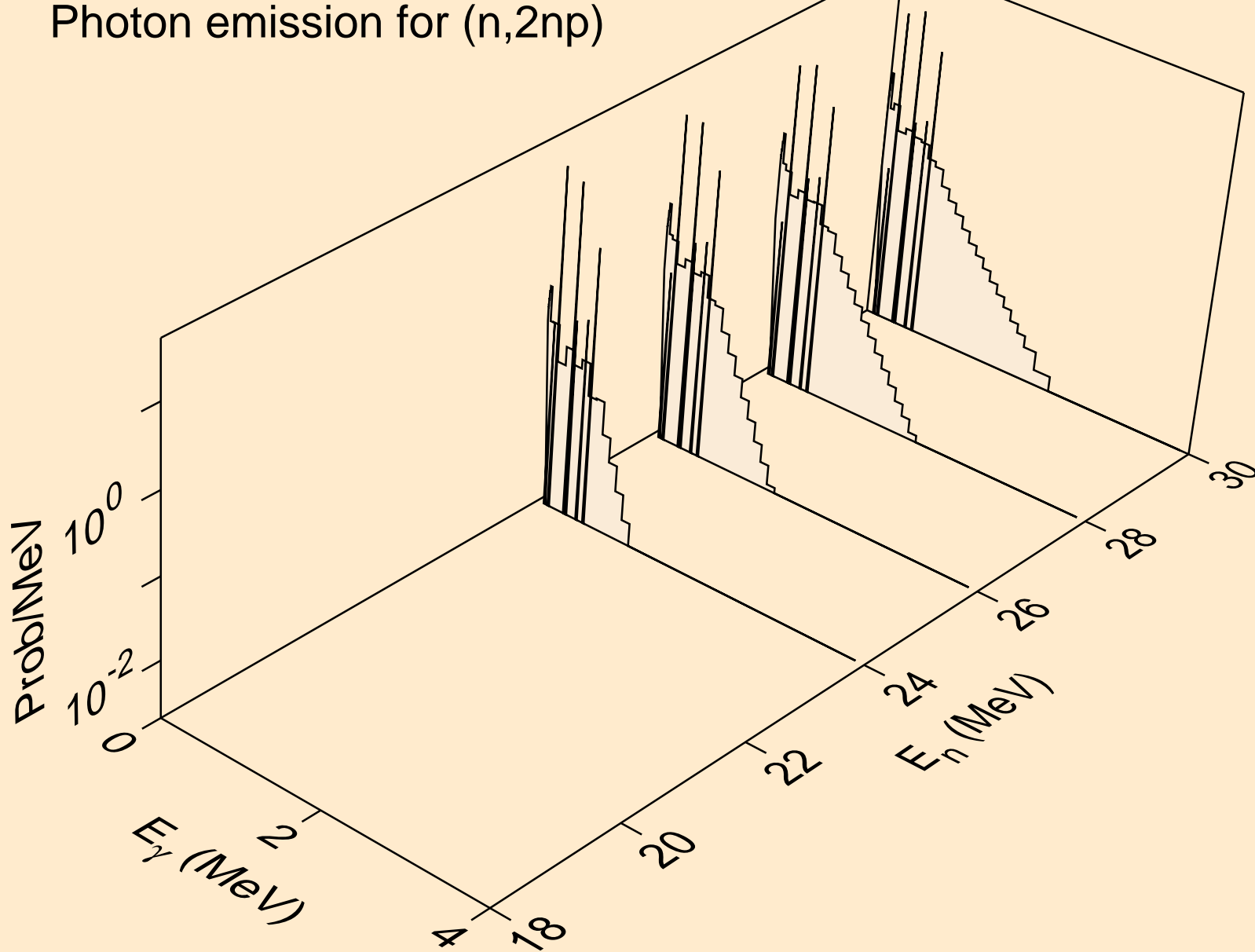
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2np)



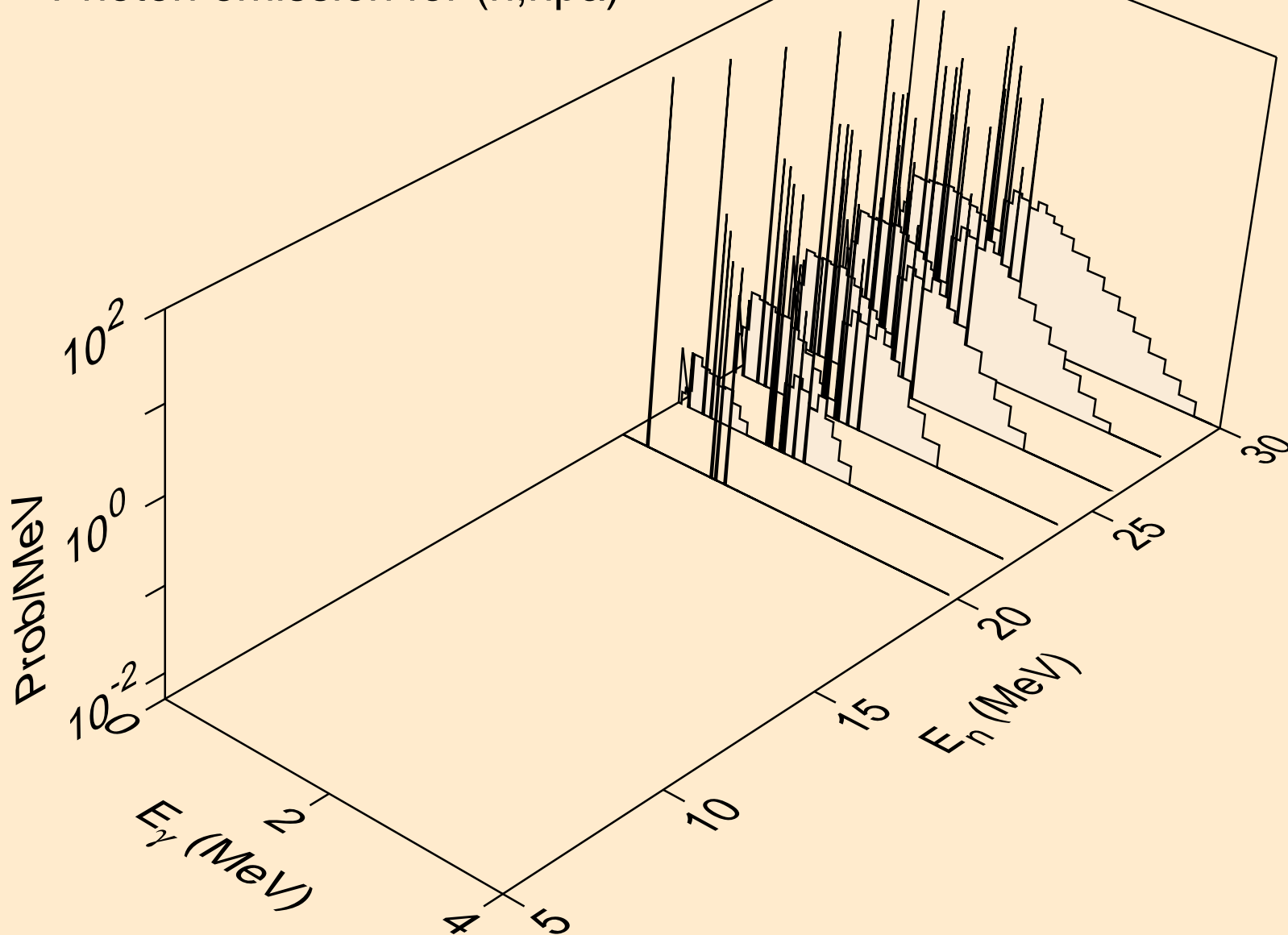
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3np)



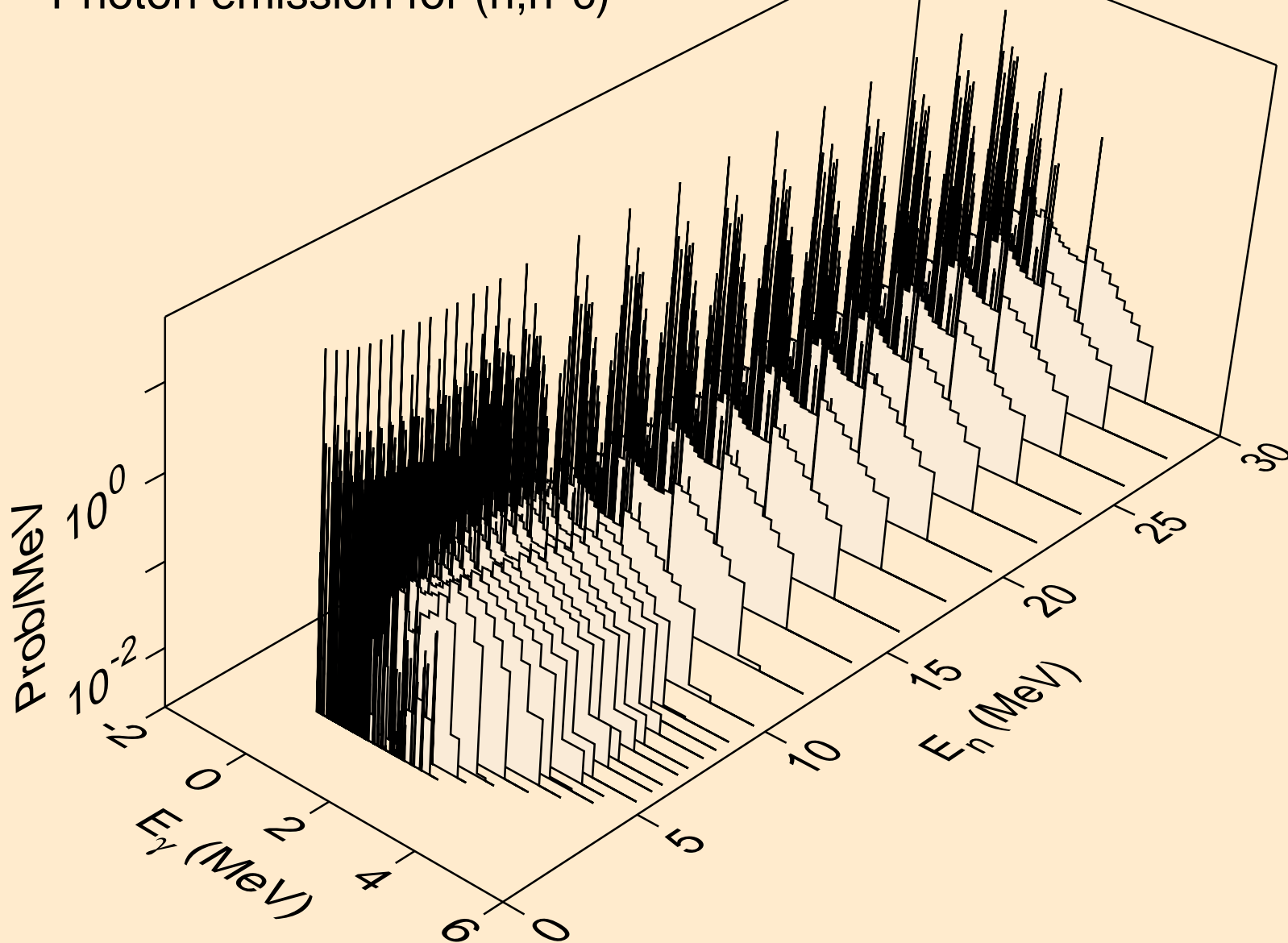
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2np)



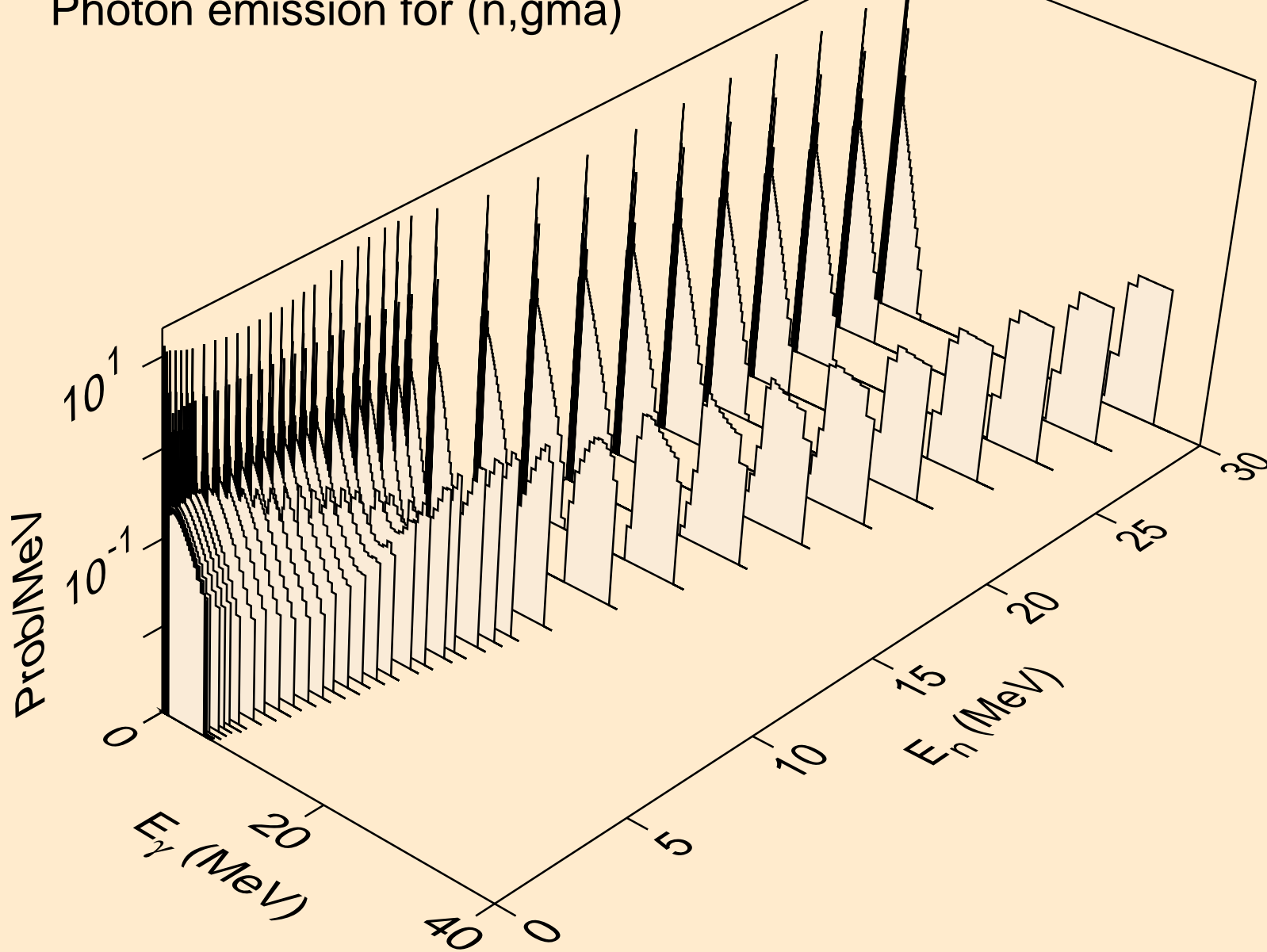
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,npa)



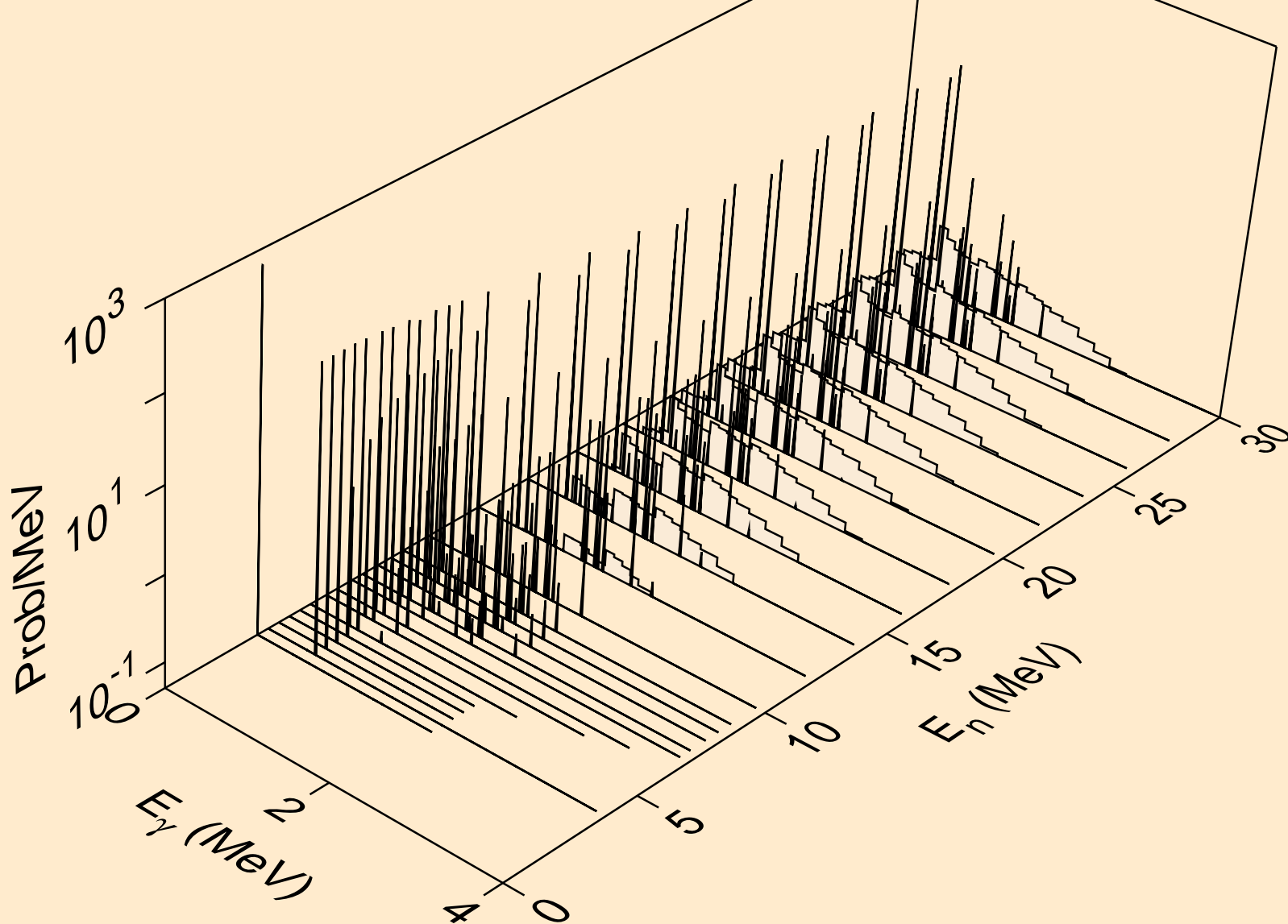
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*c)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,gma)

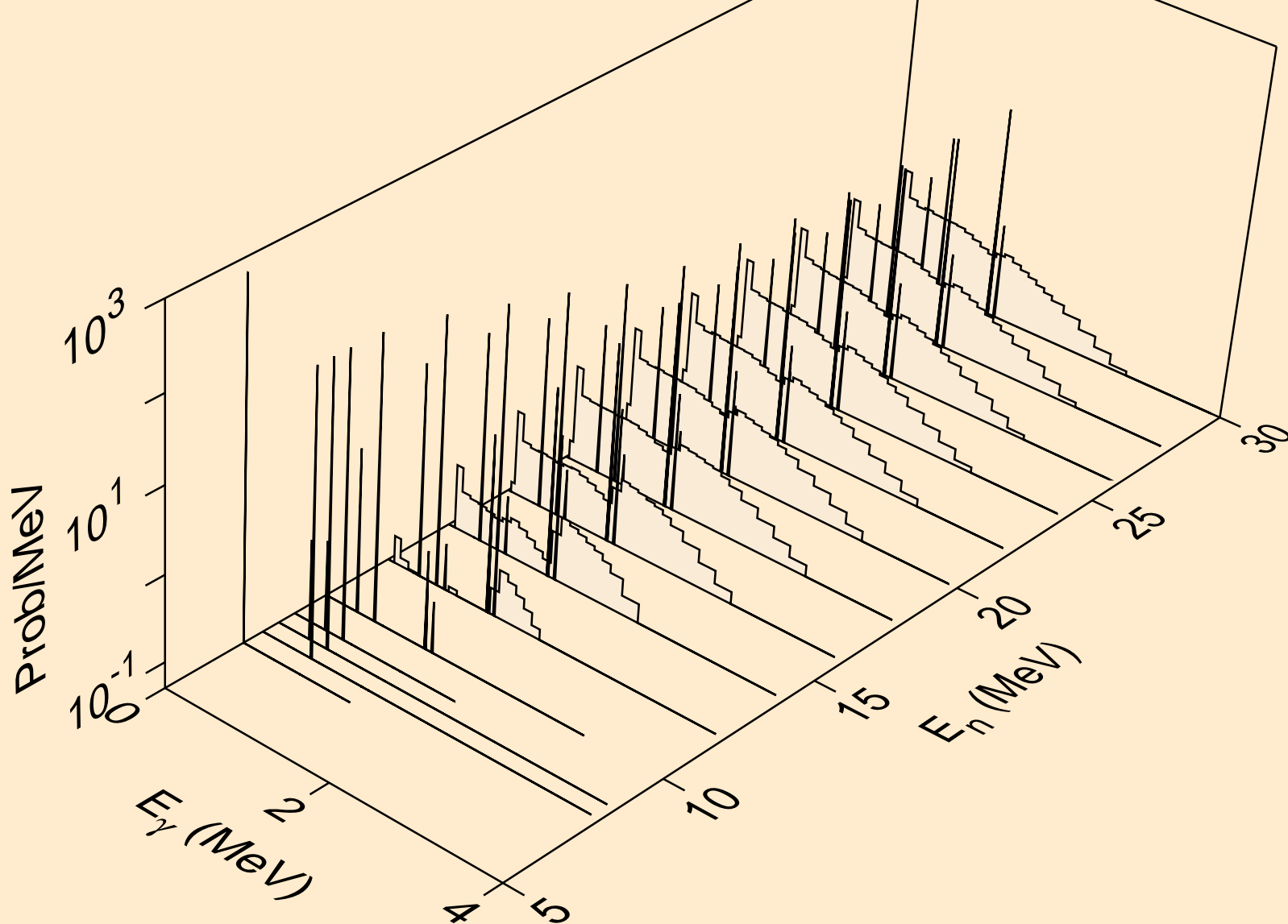


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,p)

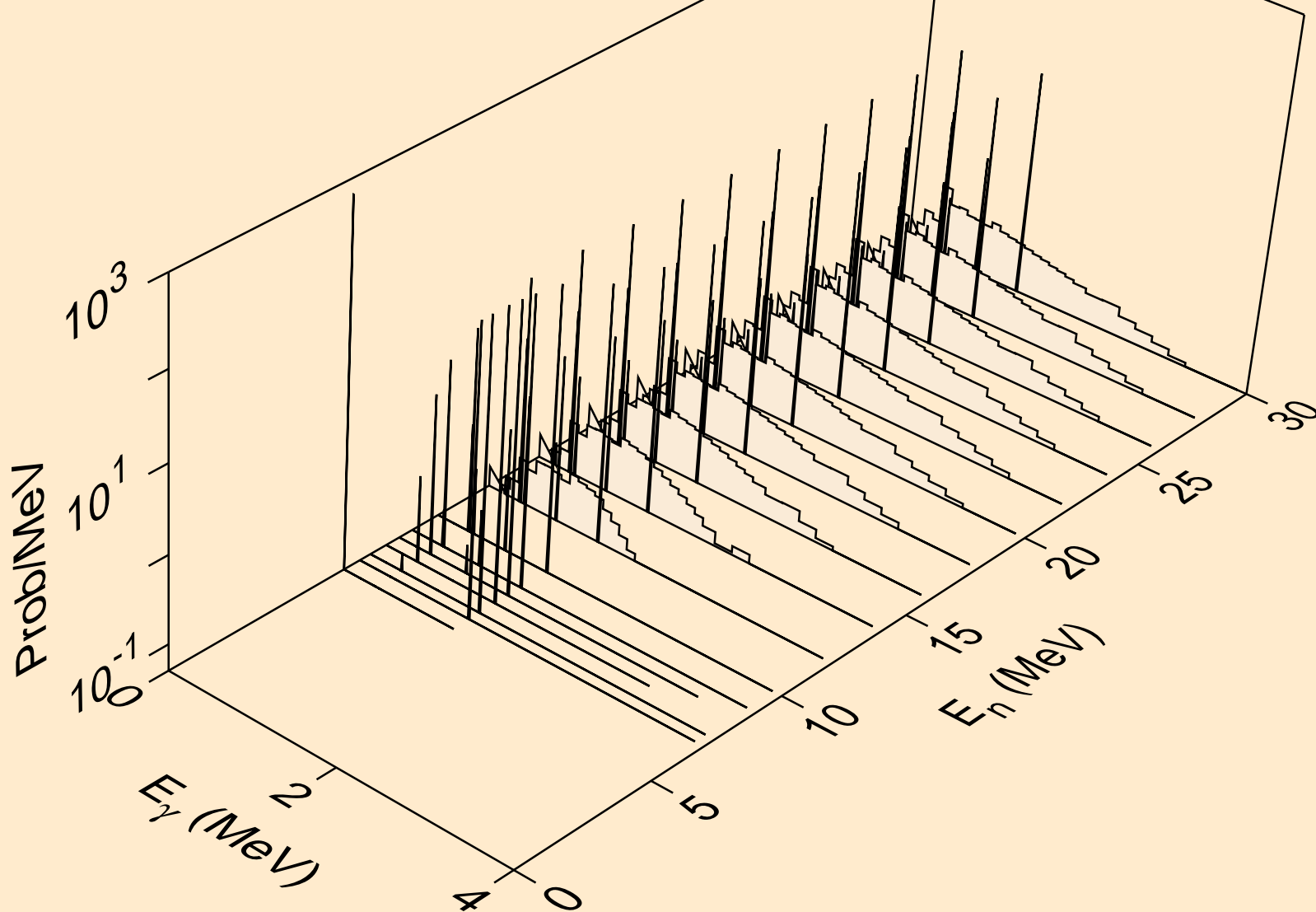




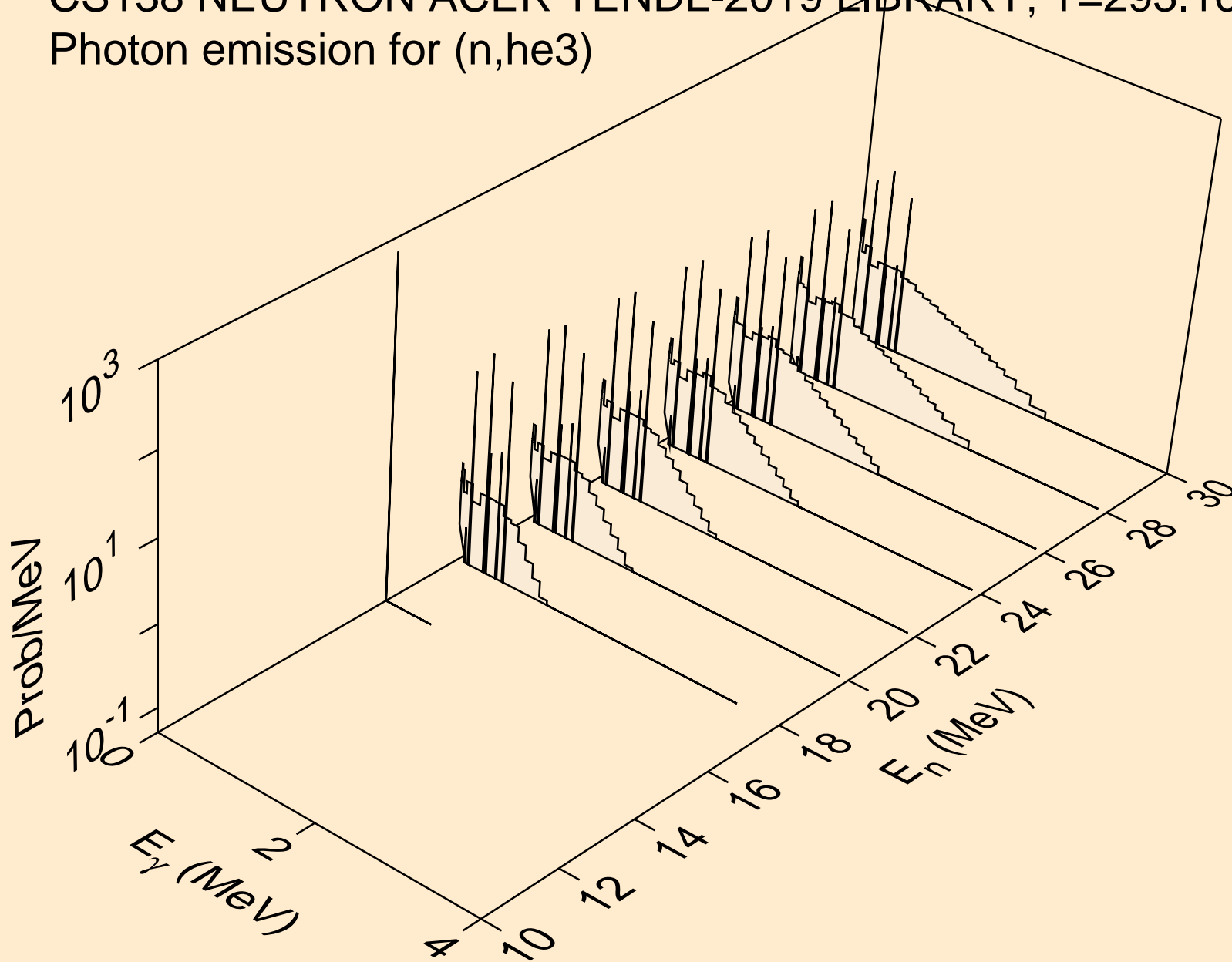
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,d)



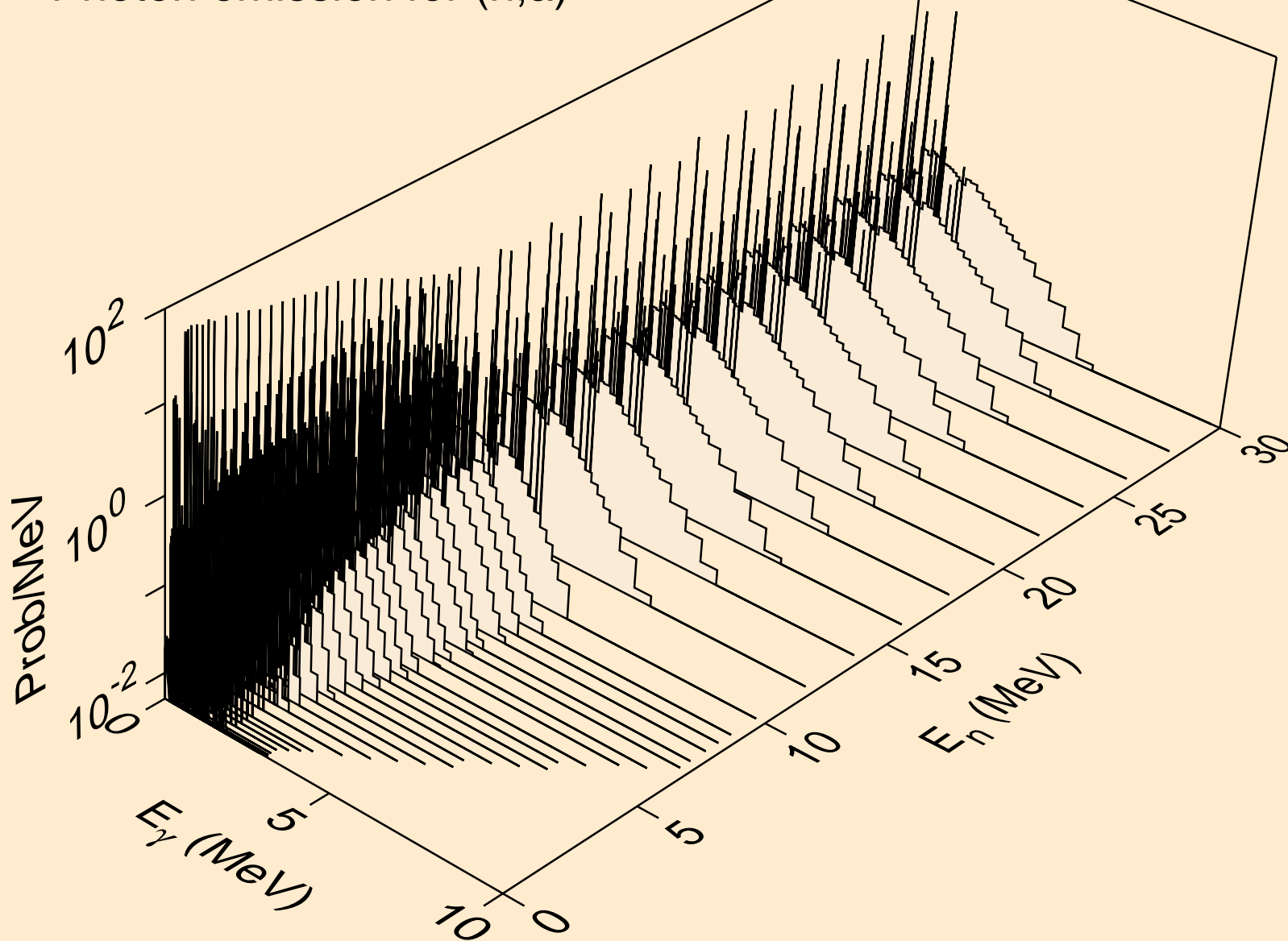
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,t)



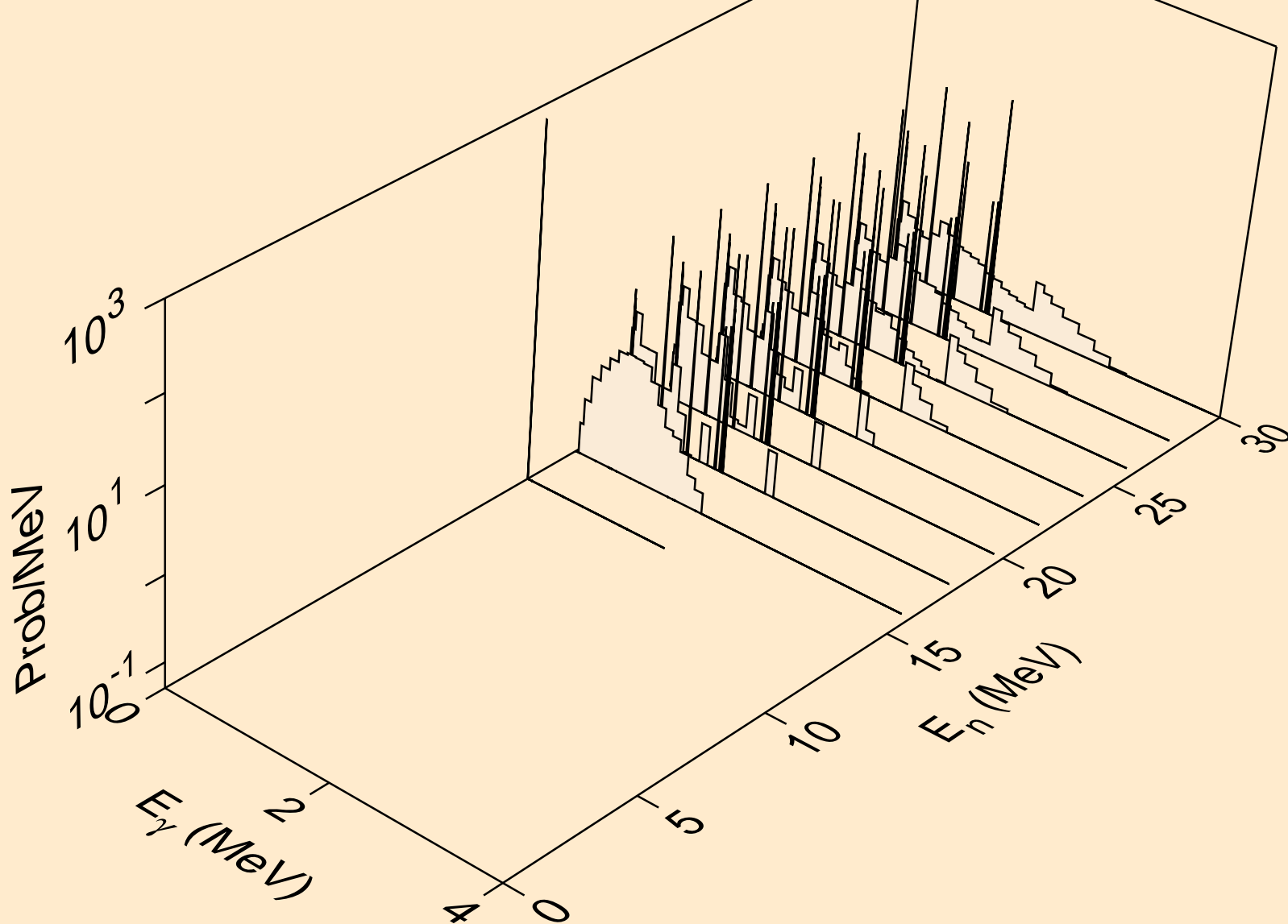
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Photon emission for (n,he3)



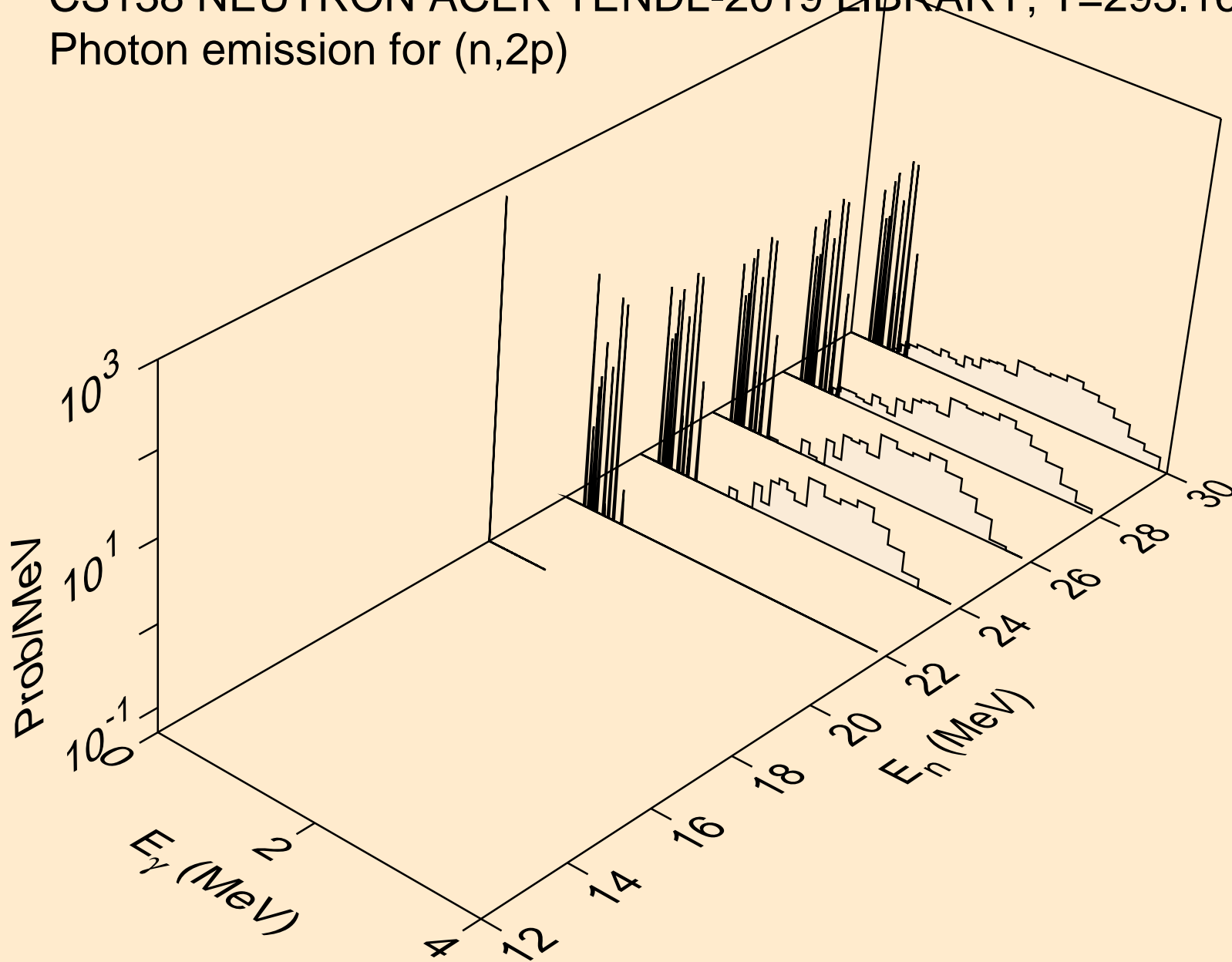
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Photon emission for (n,a)



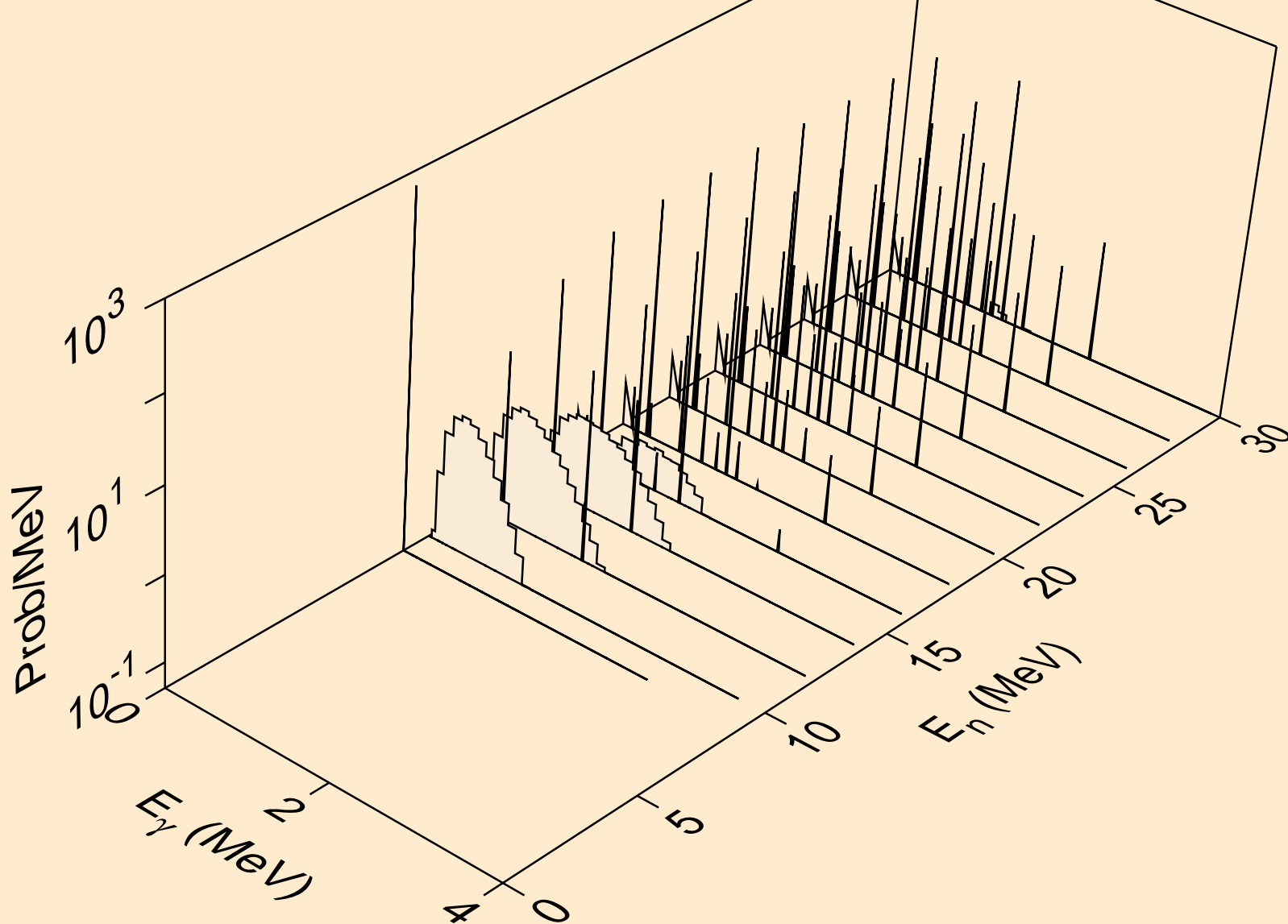
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2a)



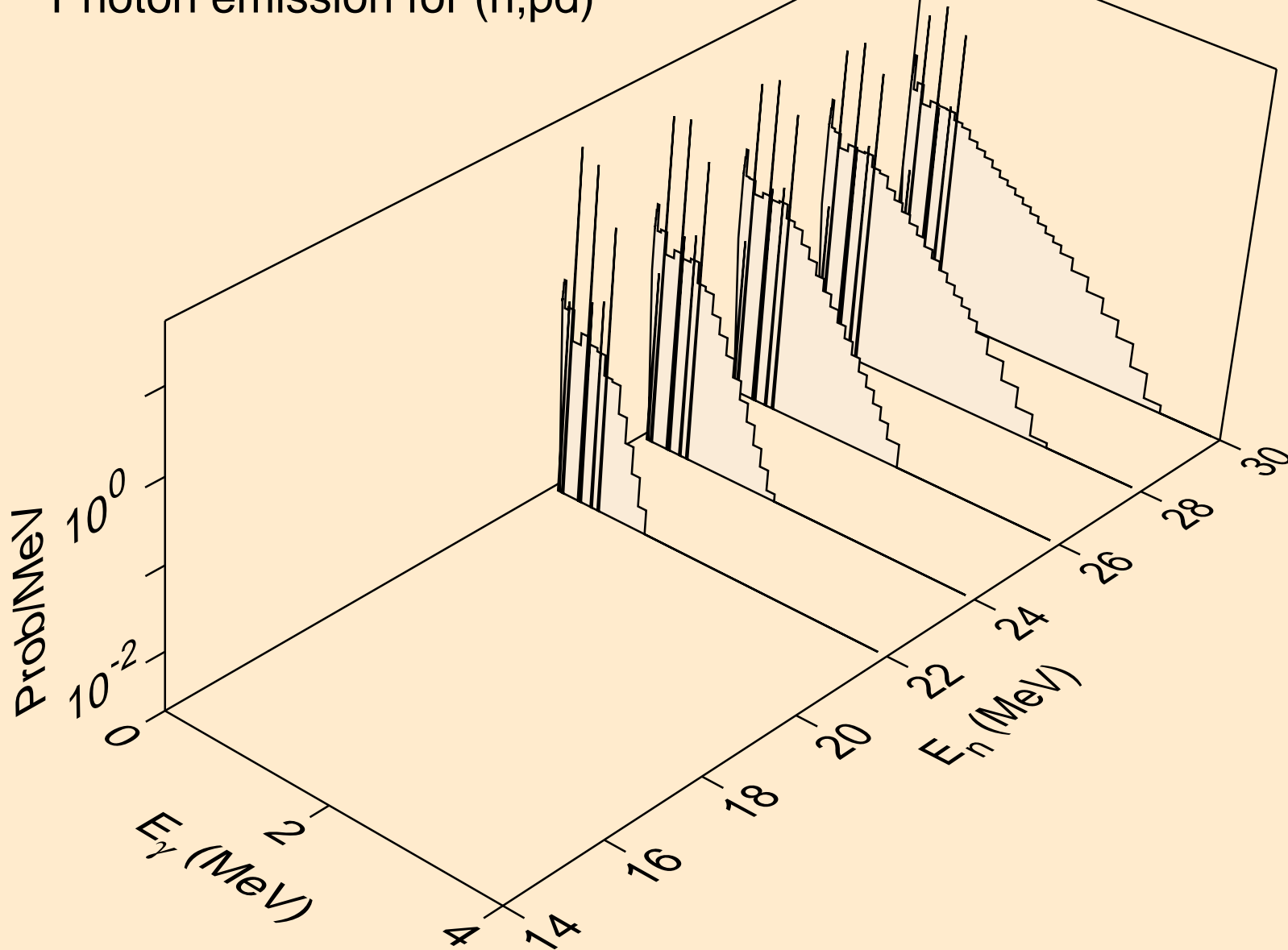
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2p)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,p $\alpha$ )

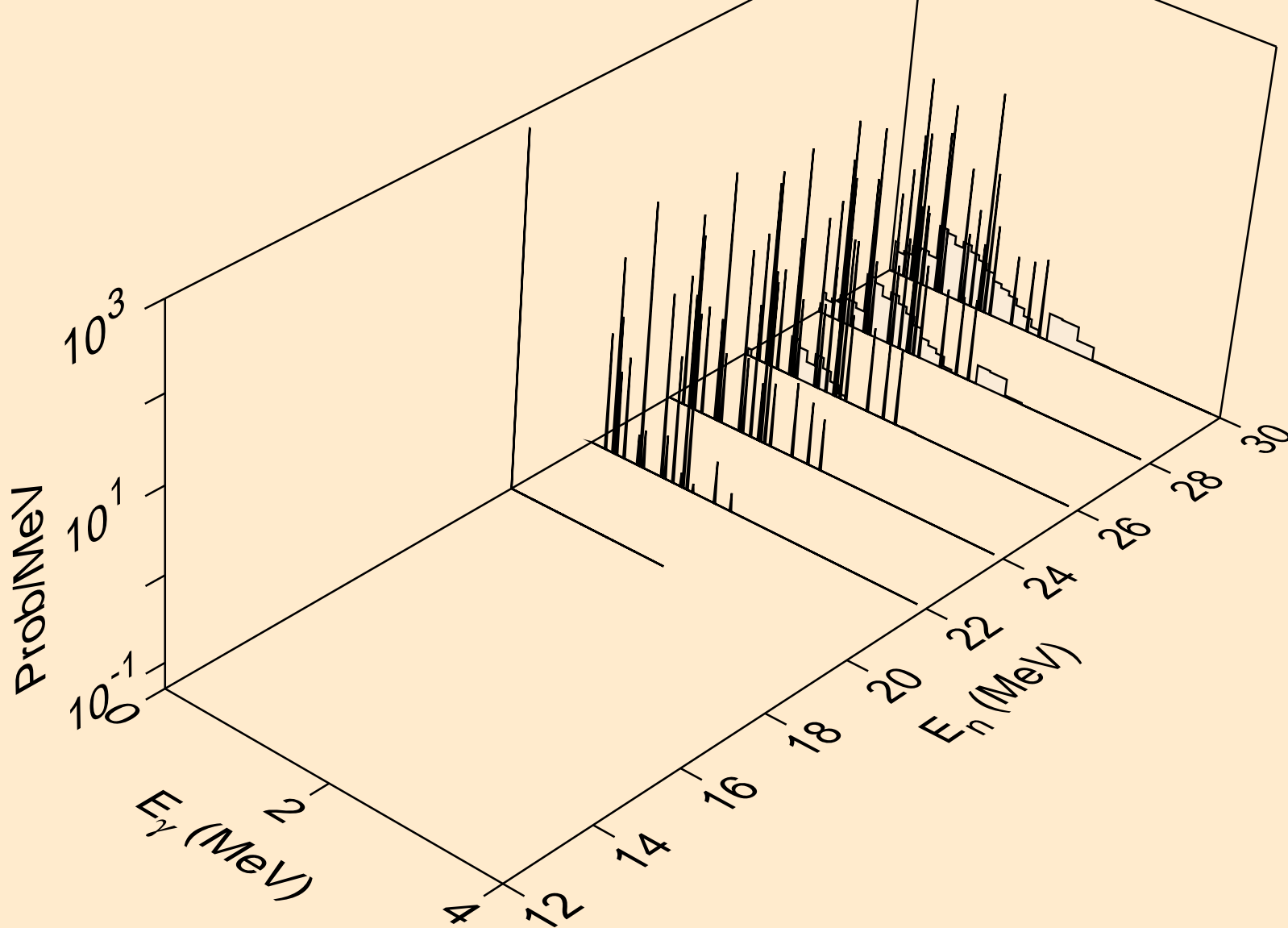


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,pd)

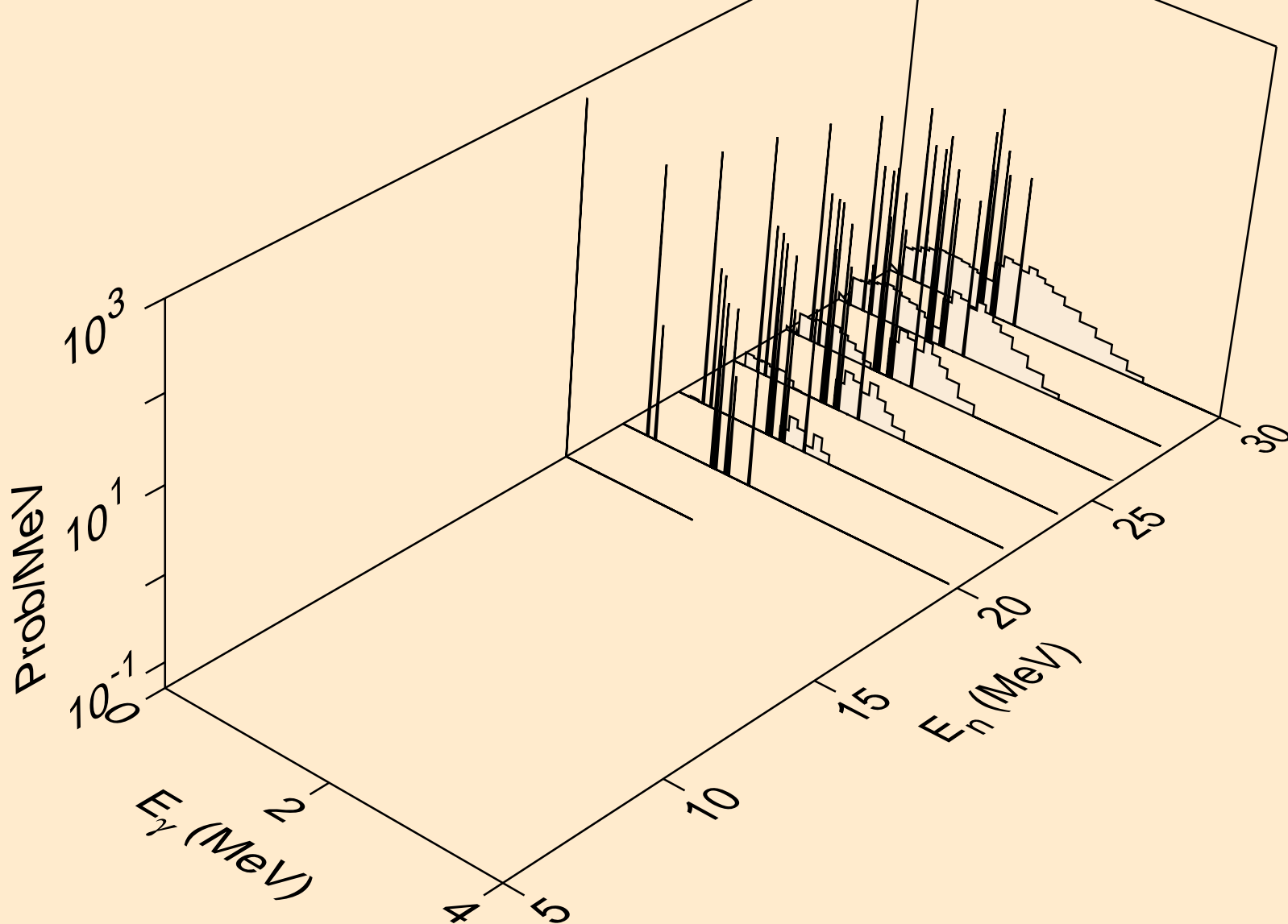




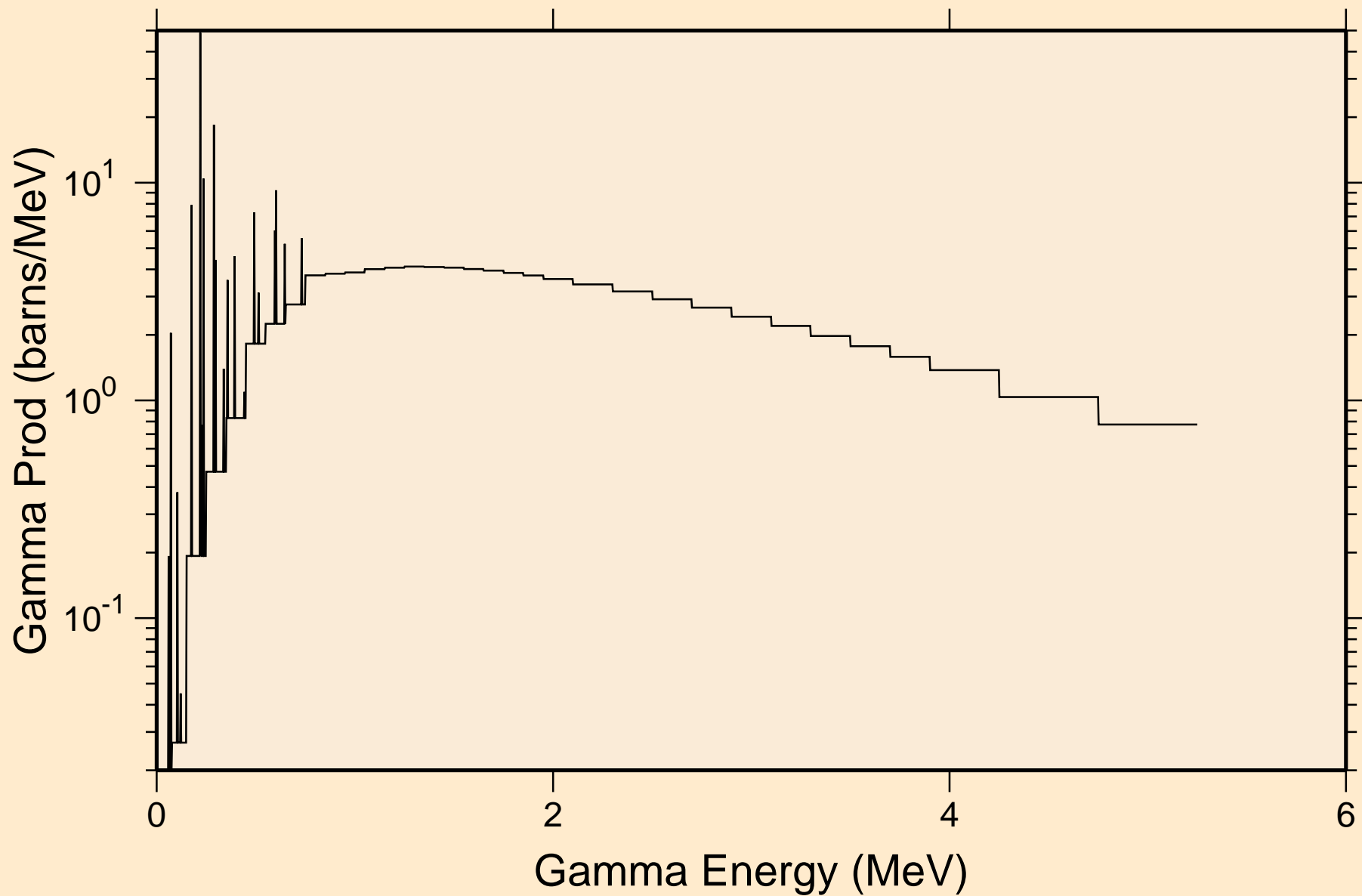
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,pt)



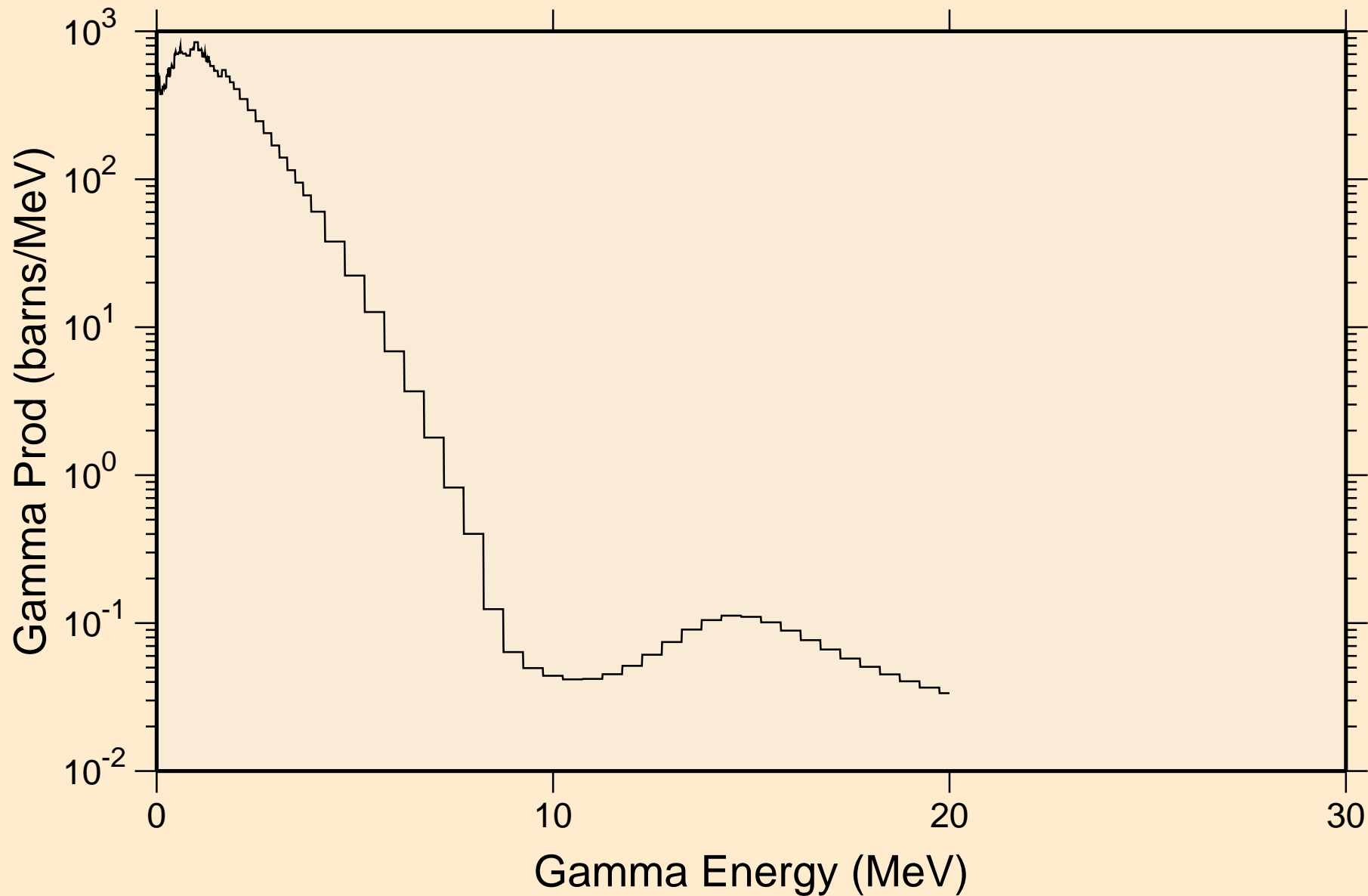
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,da)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
thermal capture photon spectrum

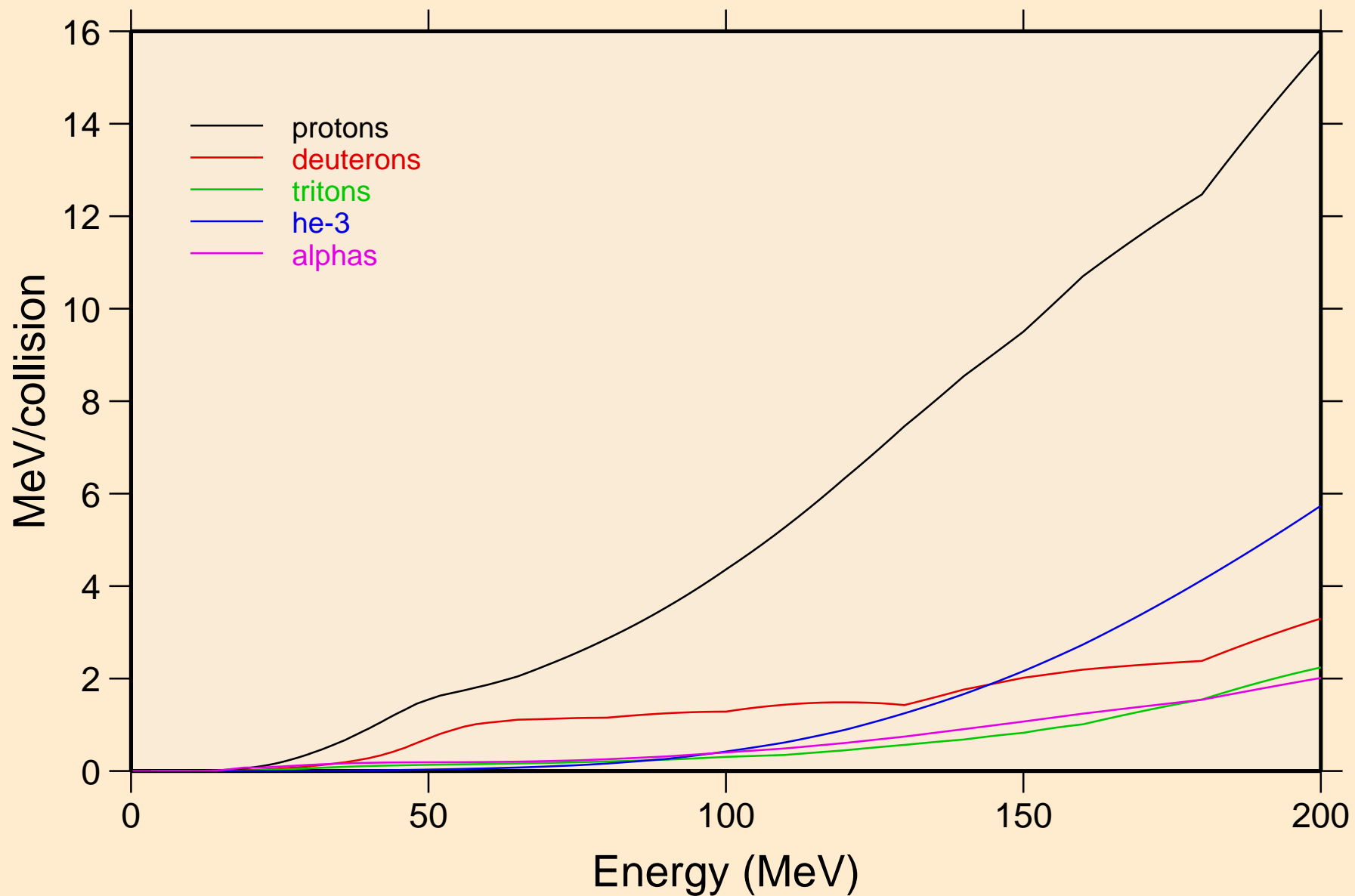


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
14 MeV photon spectrum

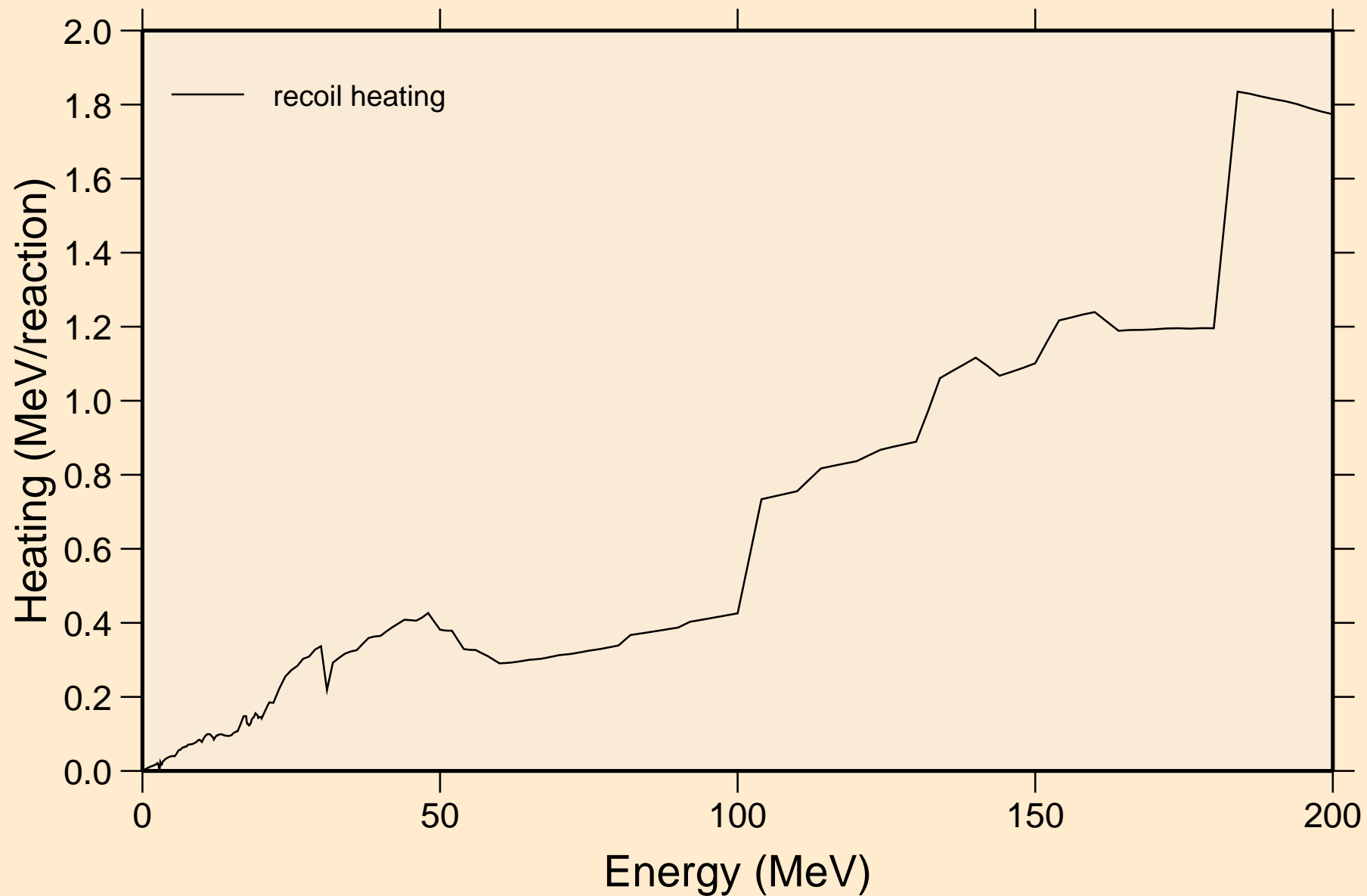


# CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

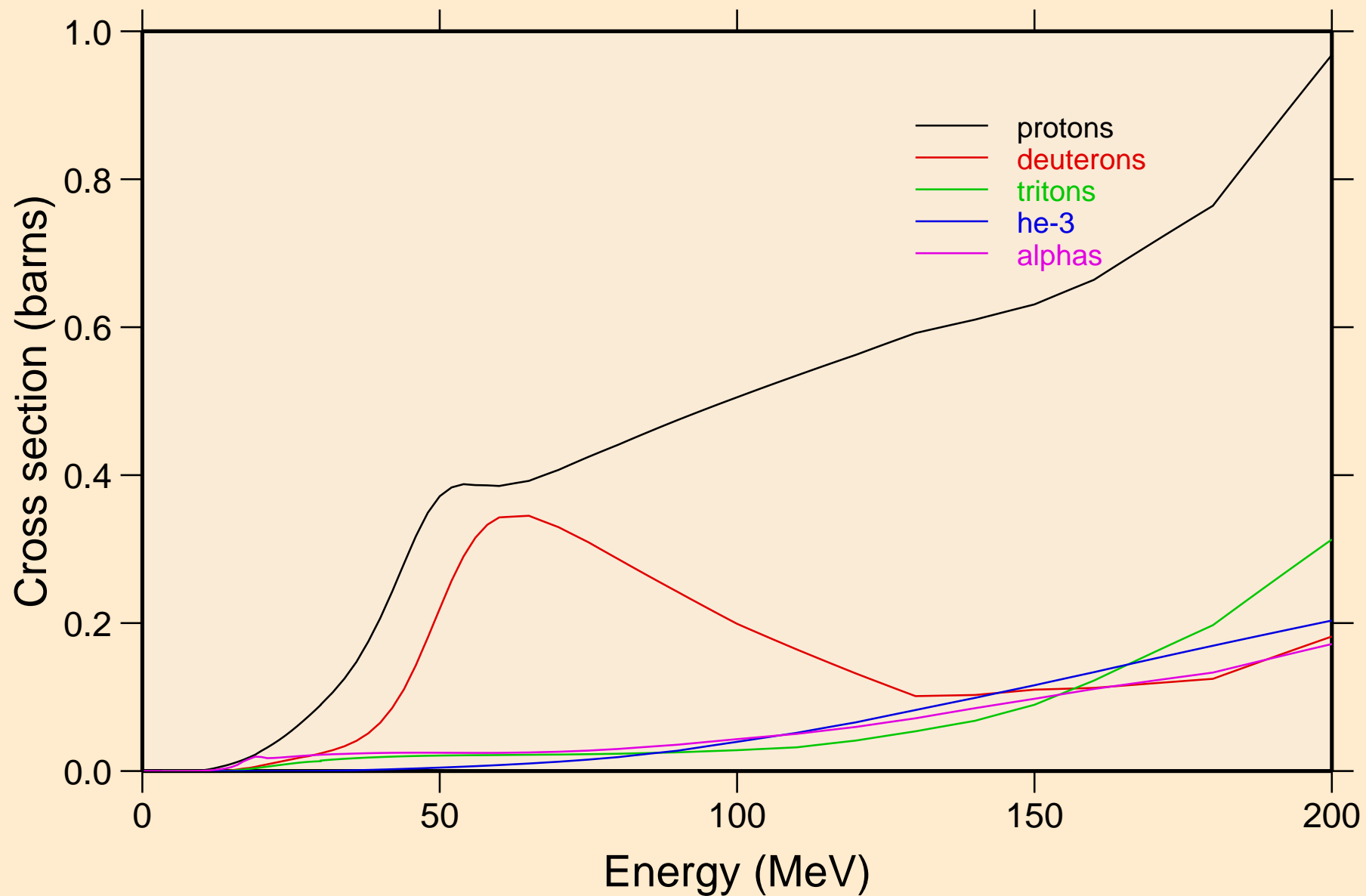
## Particle heating contributions



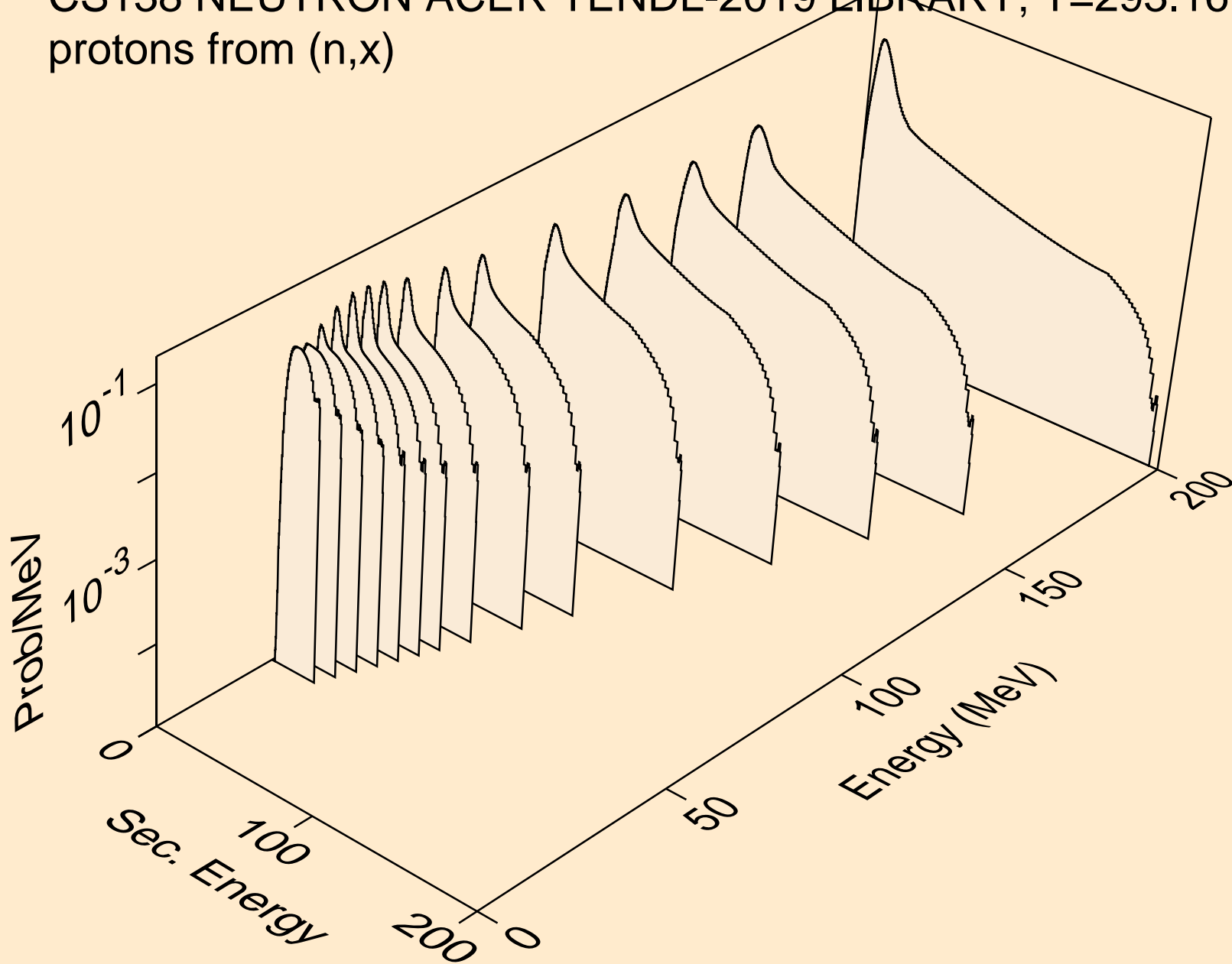
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Recoil Heating



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Particle production cross sections

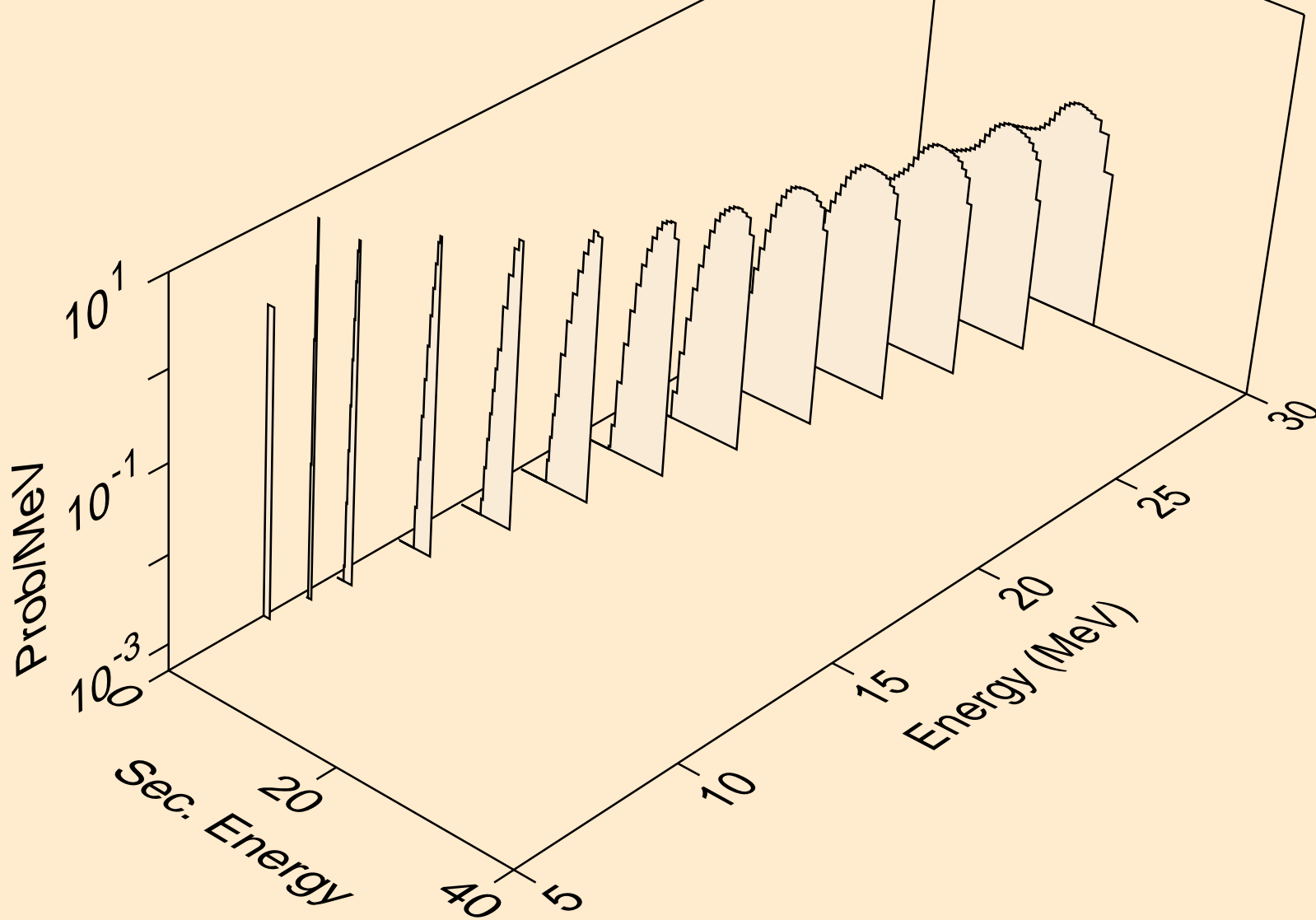


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,x)

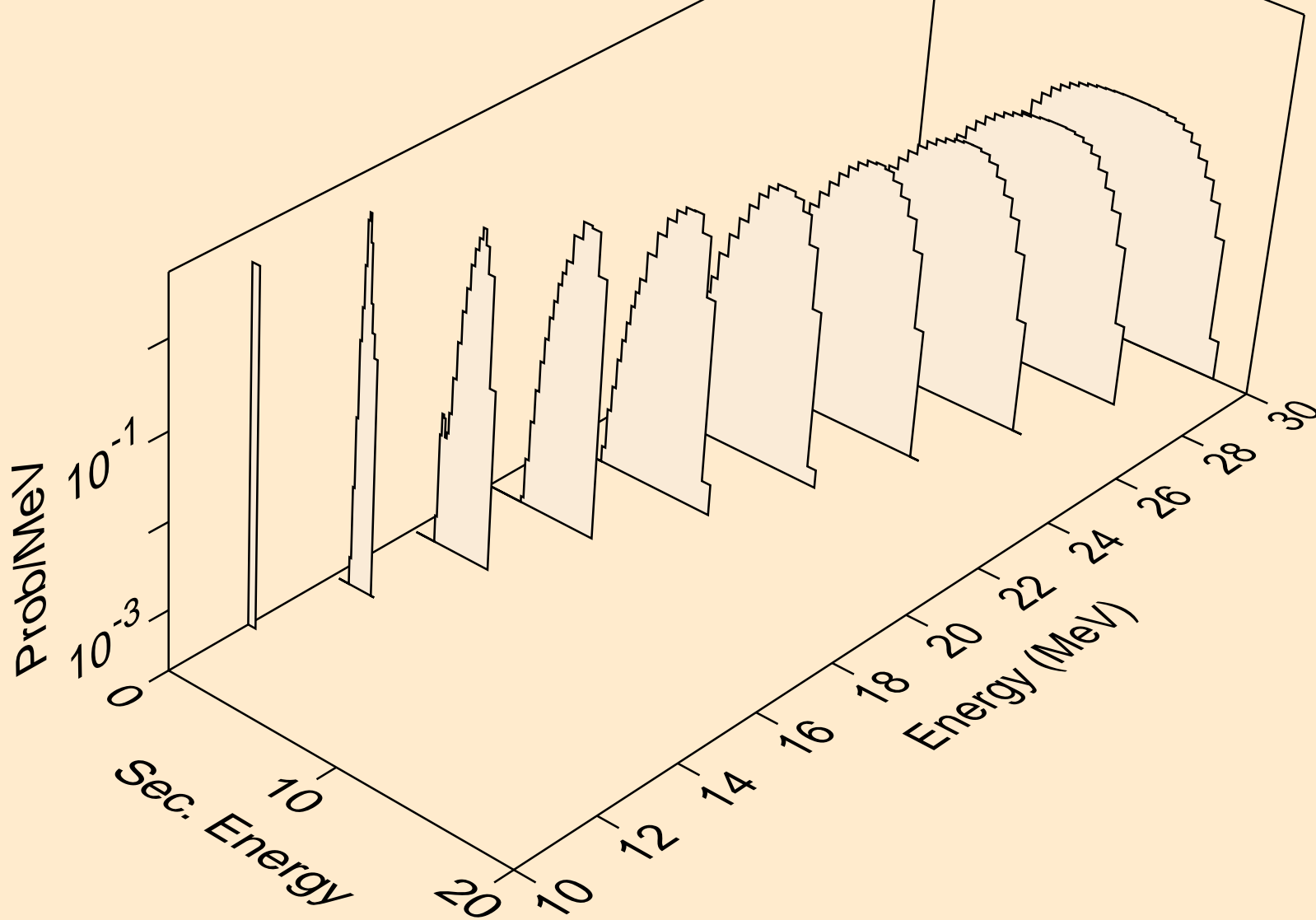




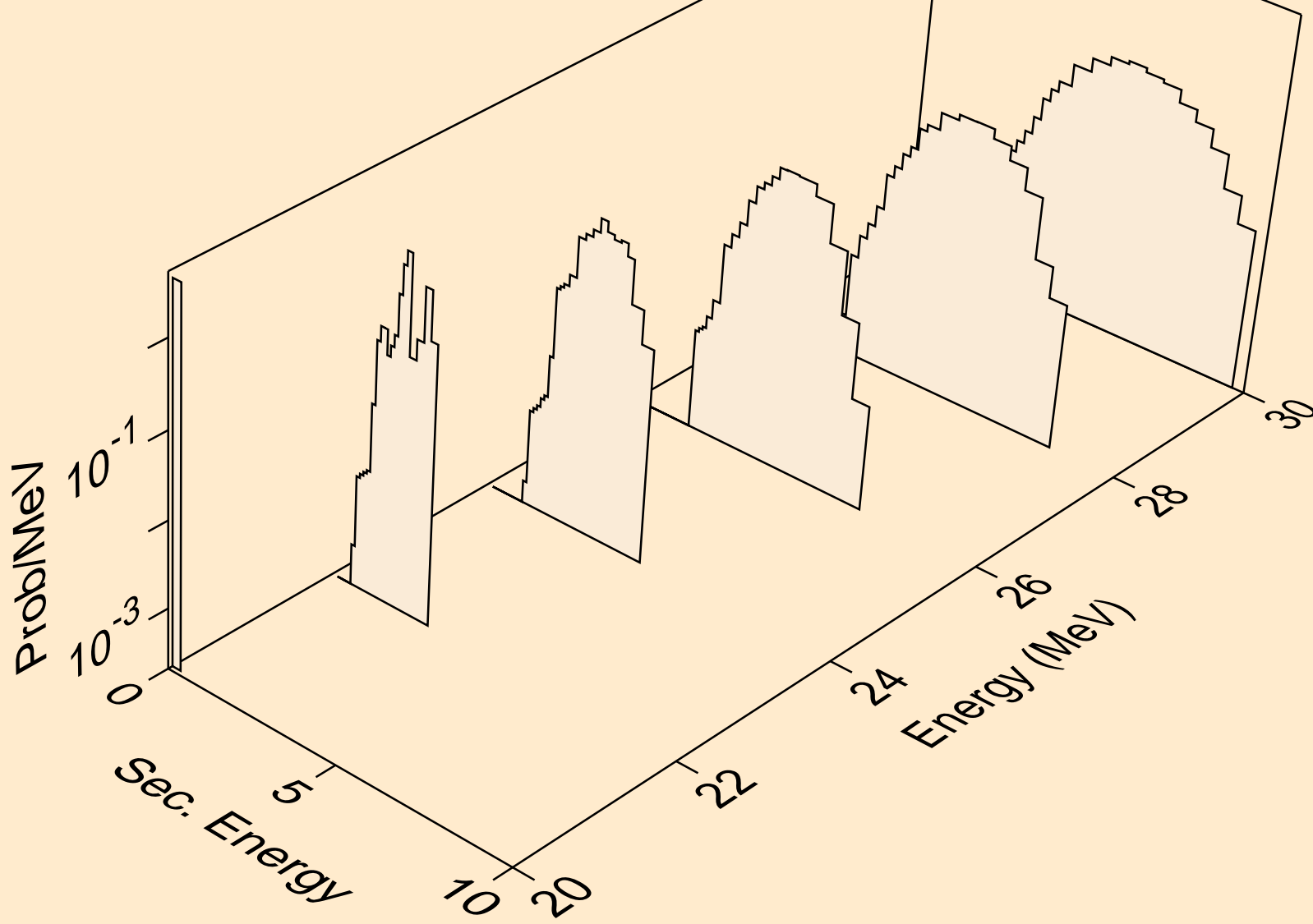
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,n\*)p



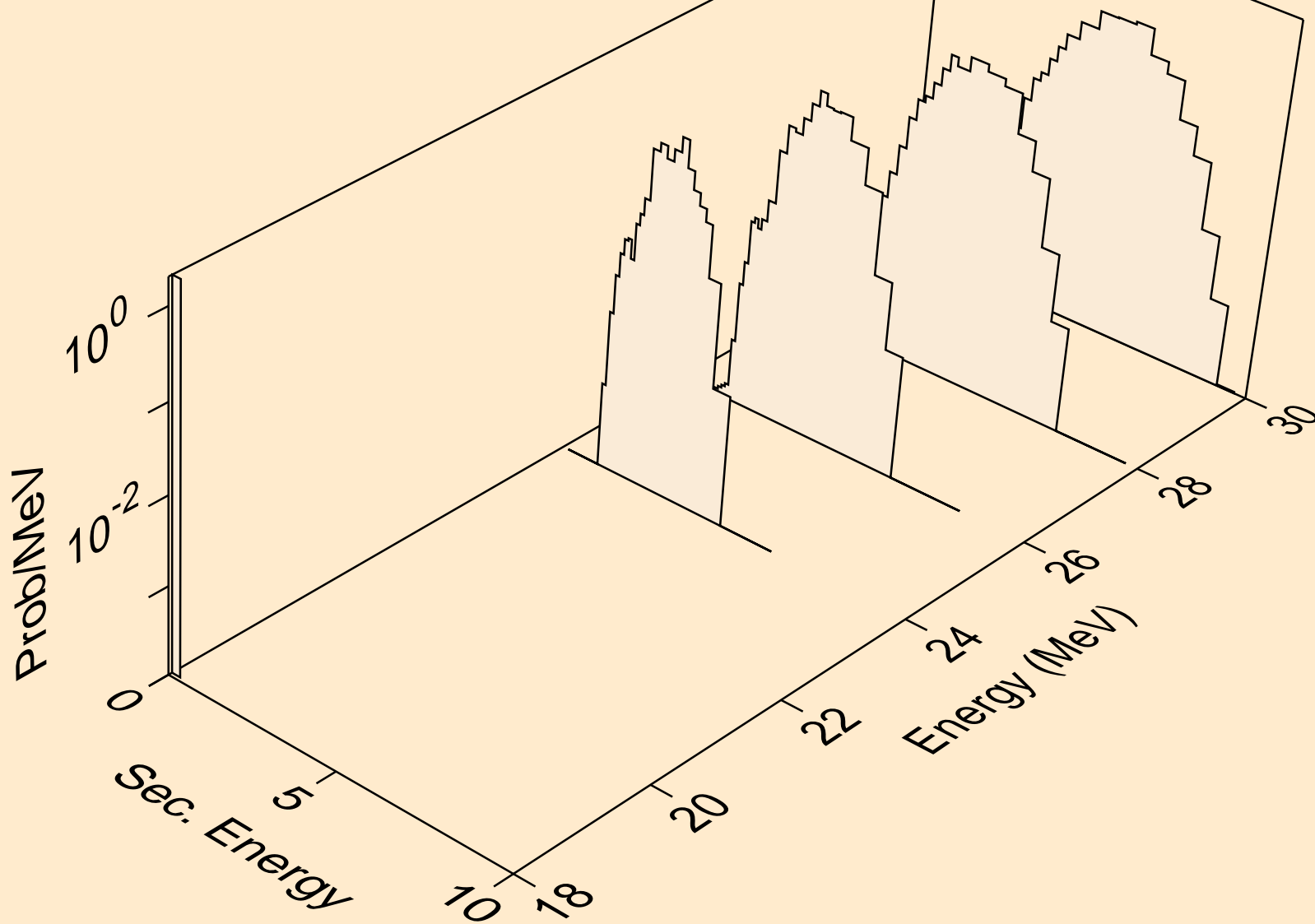
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,2np)



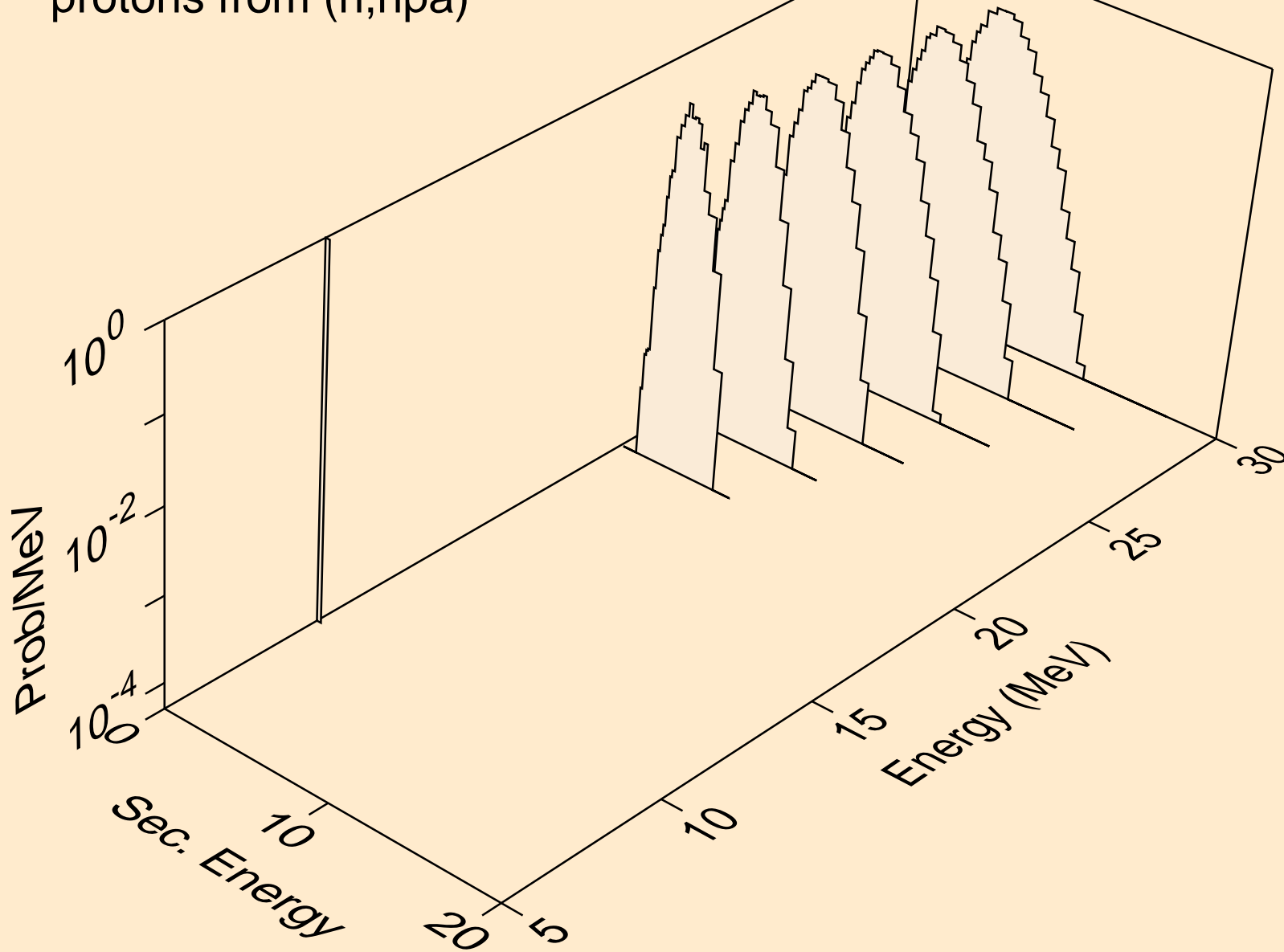
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protons from (n,3np)



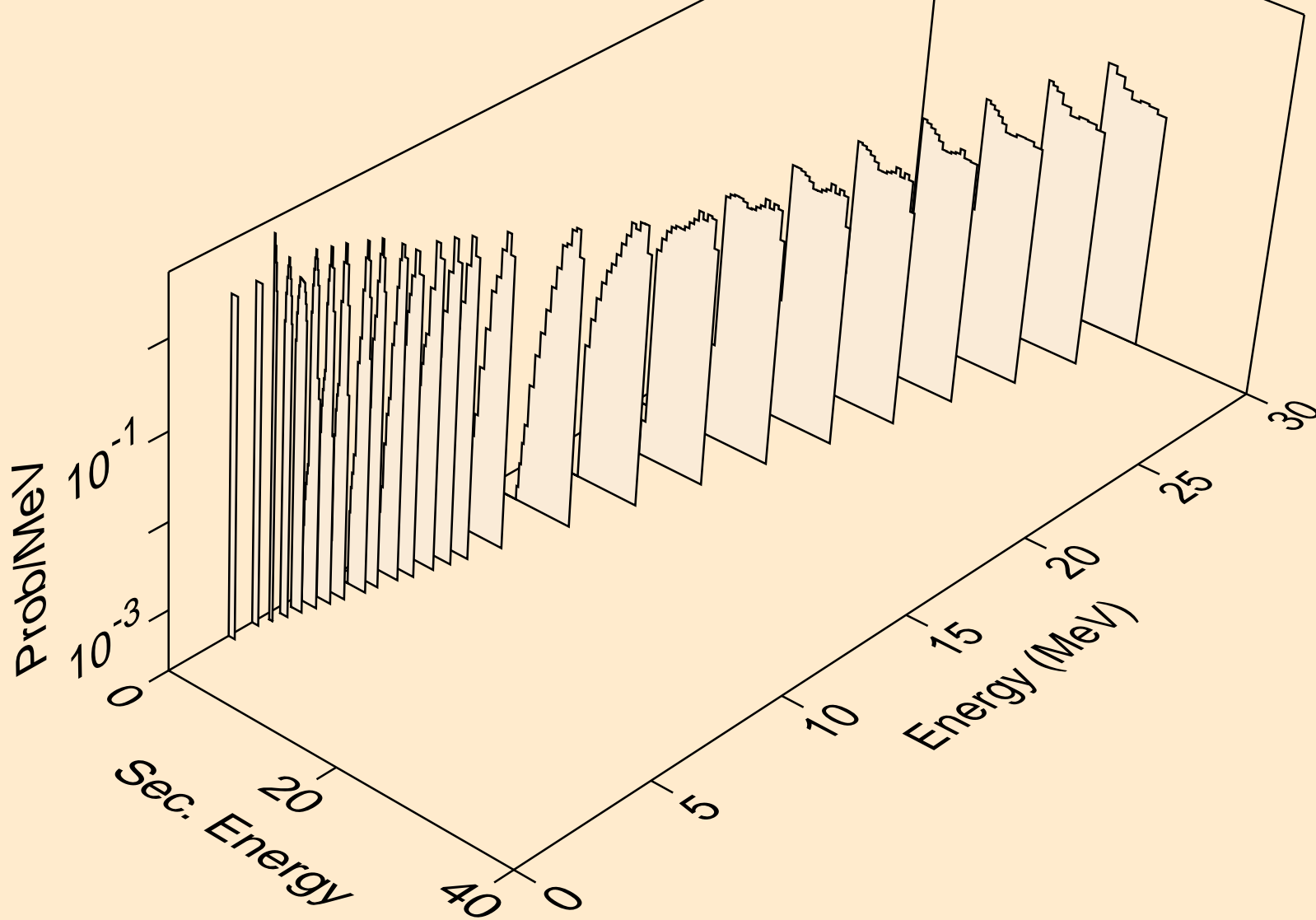
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protons from (n,2np)



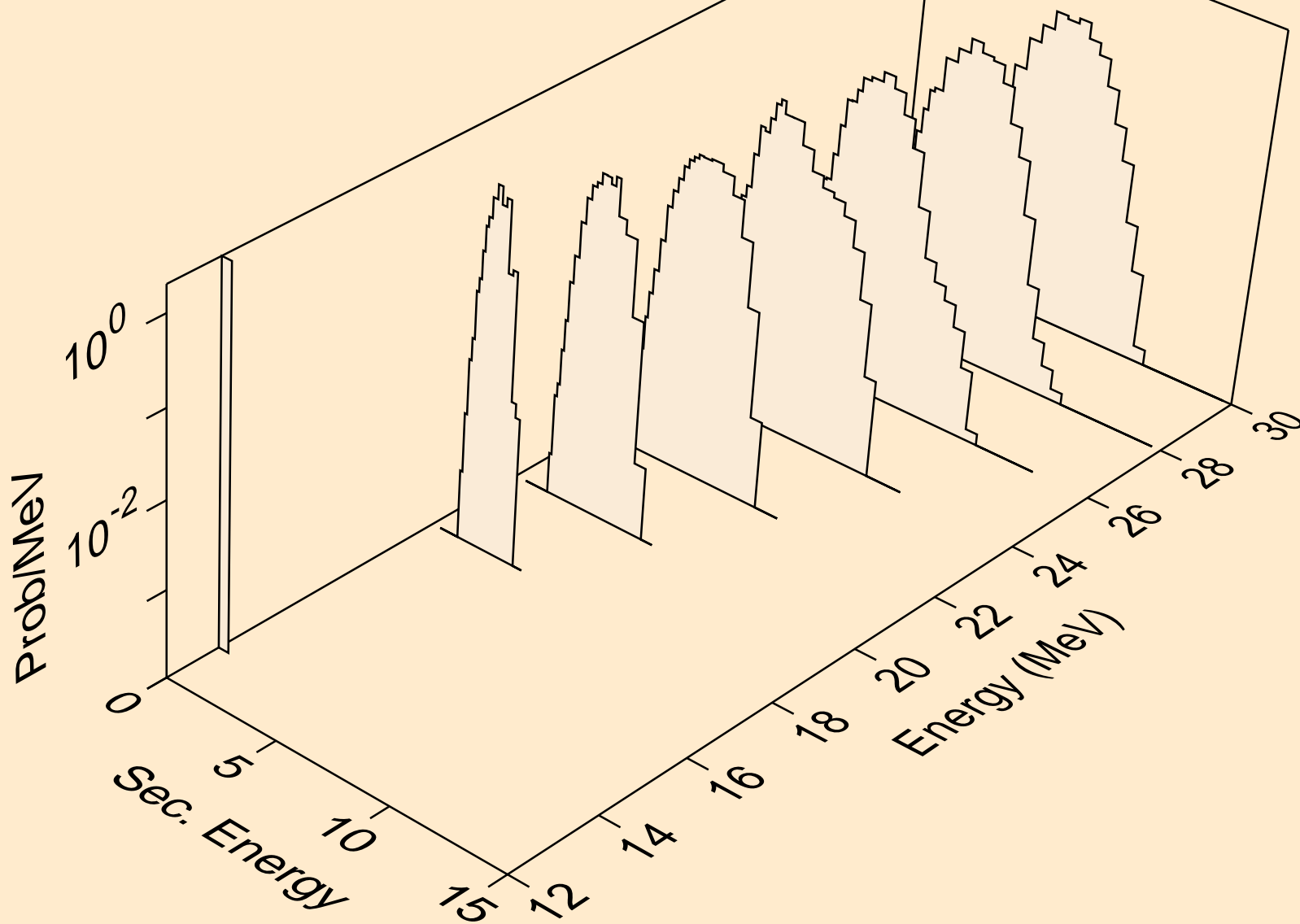
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protons from (n,npa)



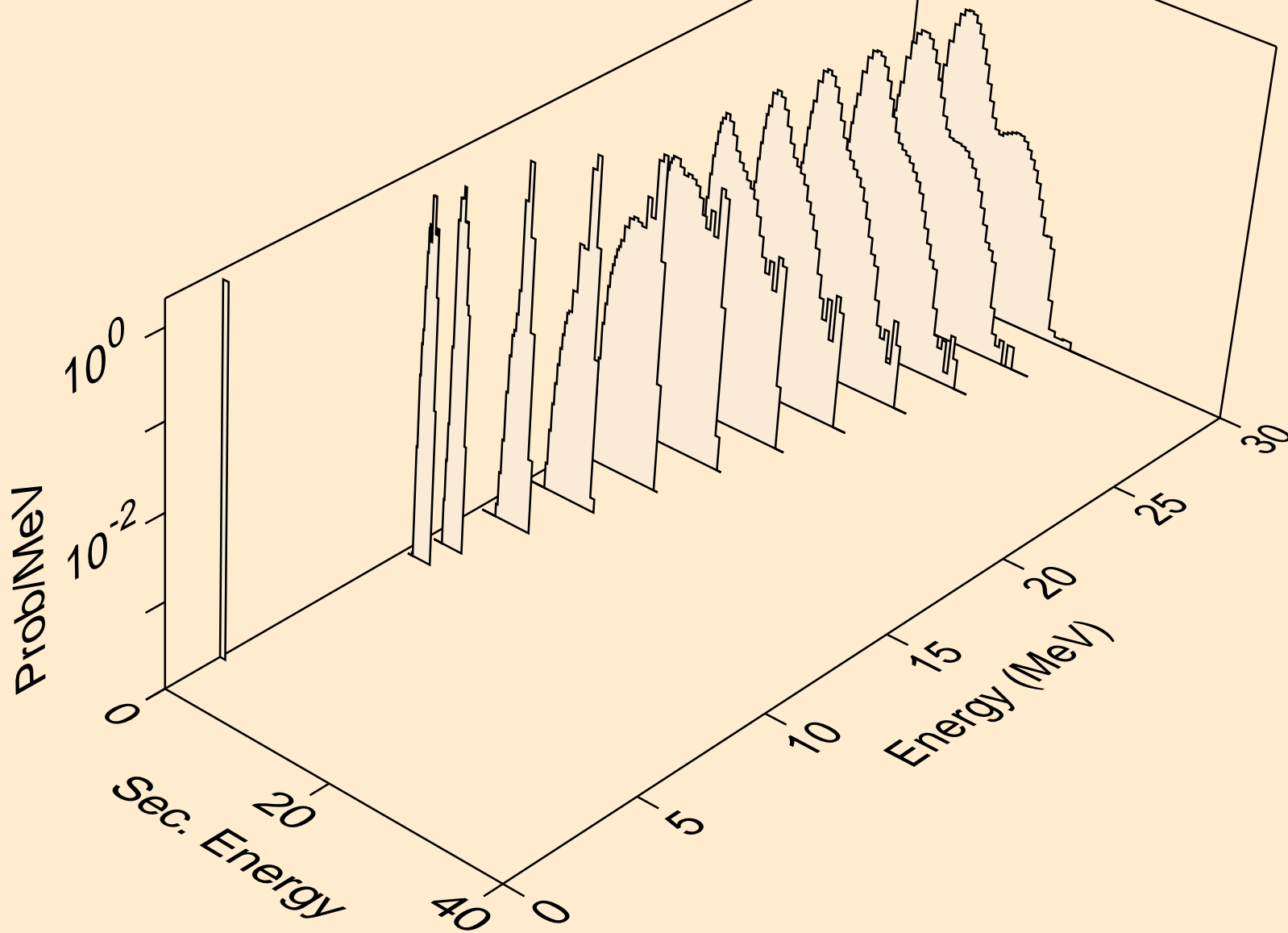
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protons from (n,p)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,2p)

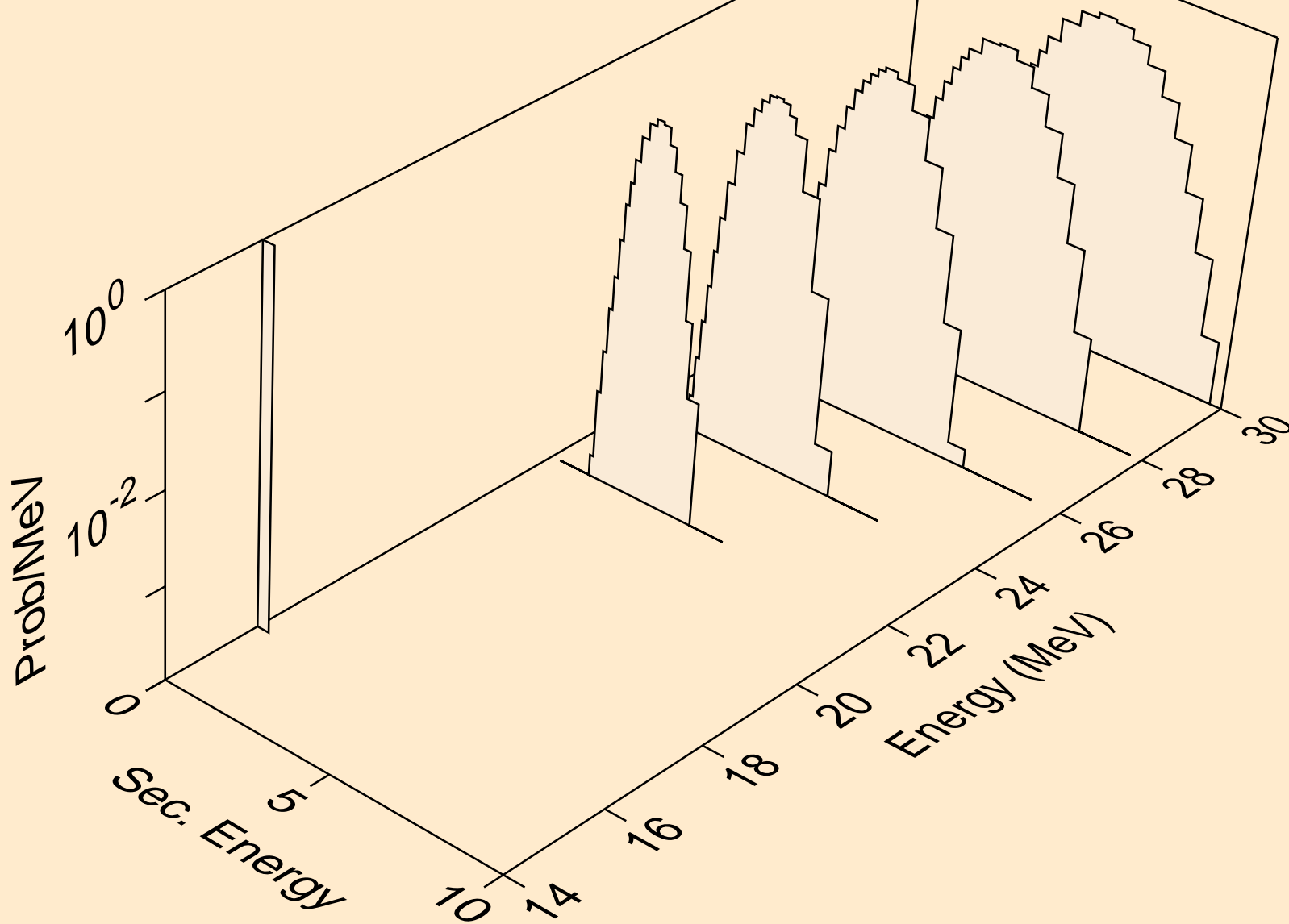


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
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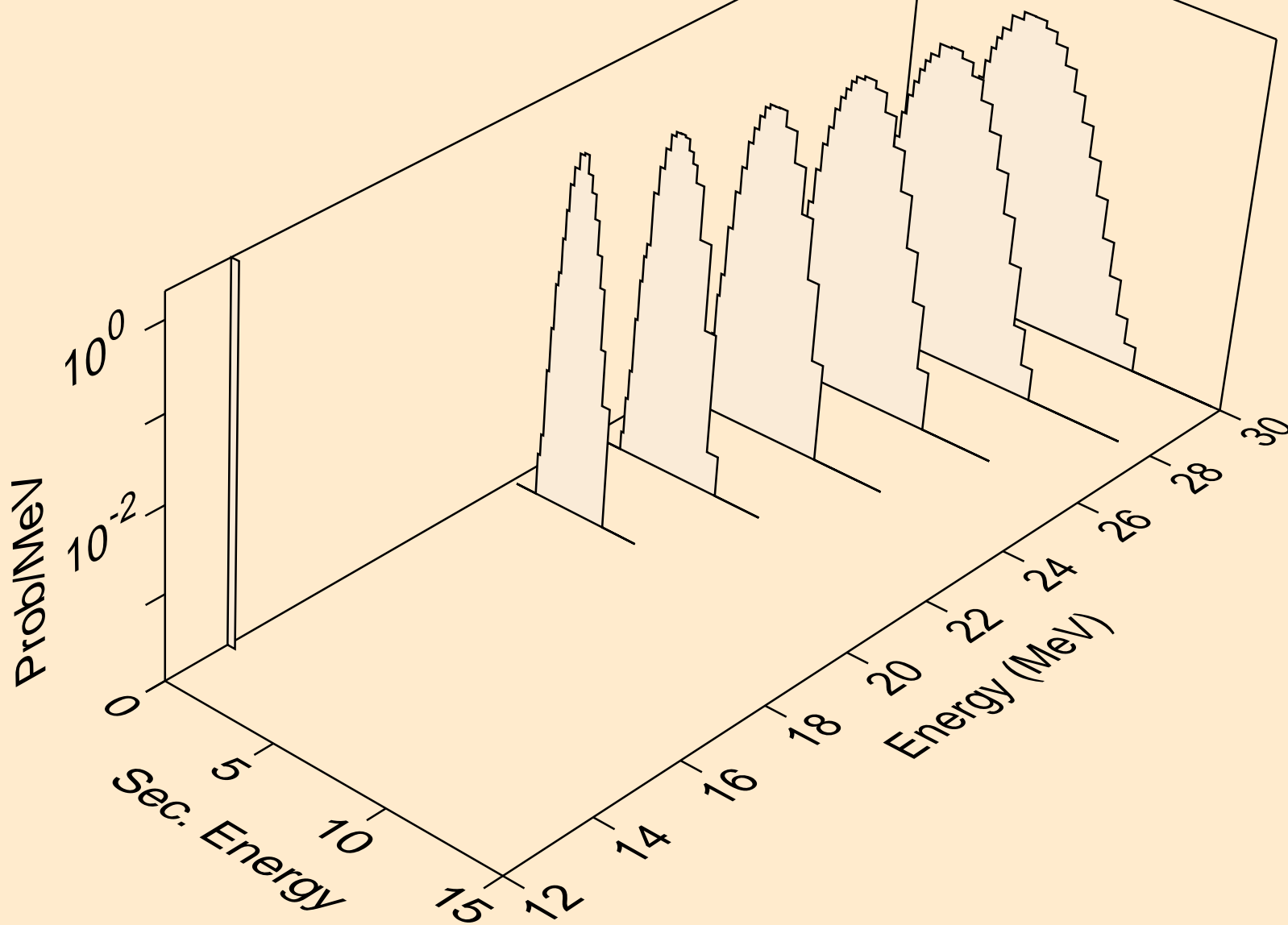




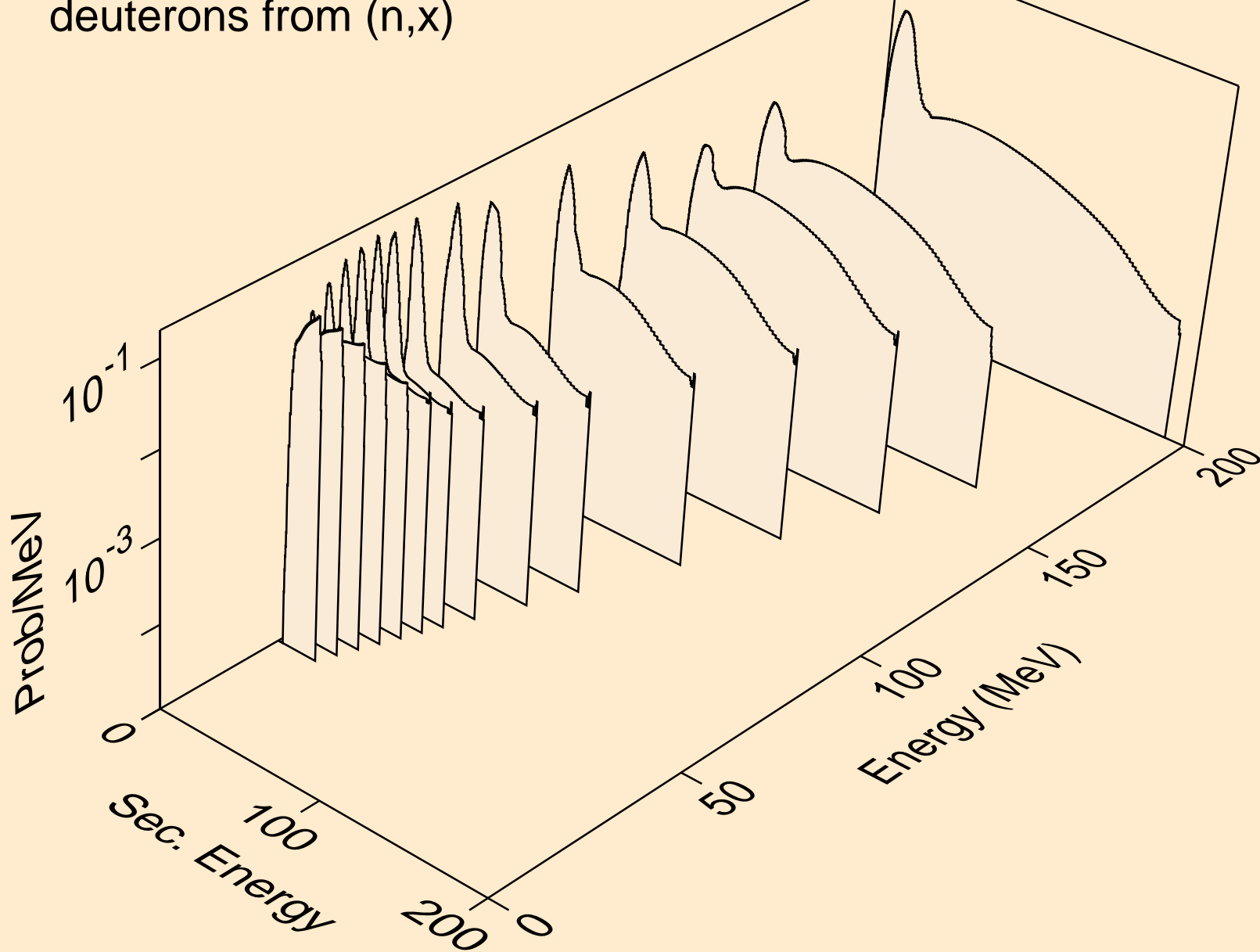
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,pd)



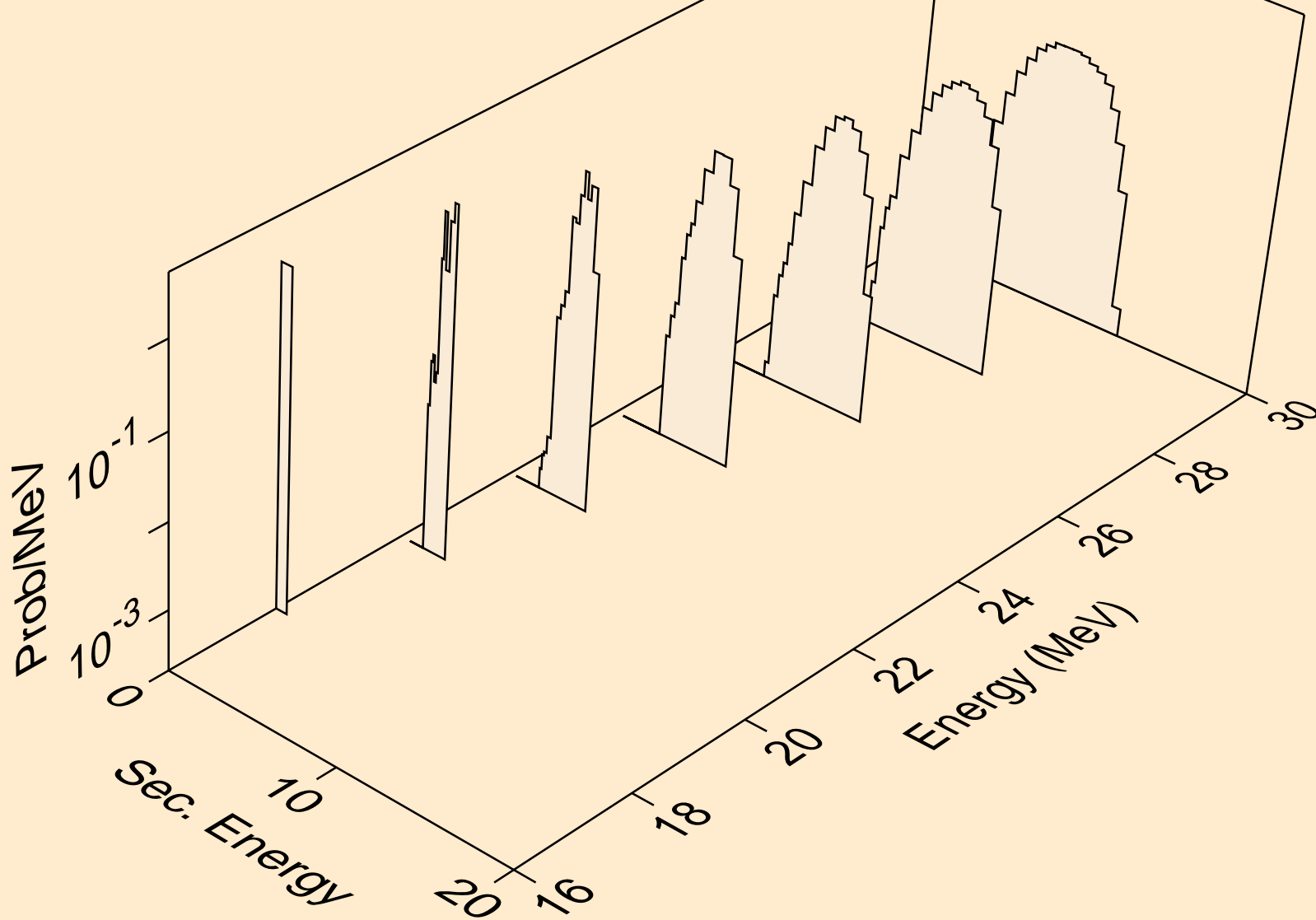
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,pt)



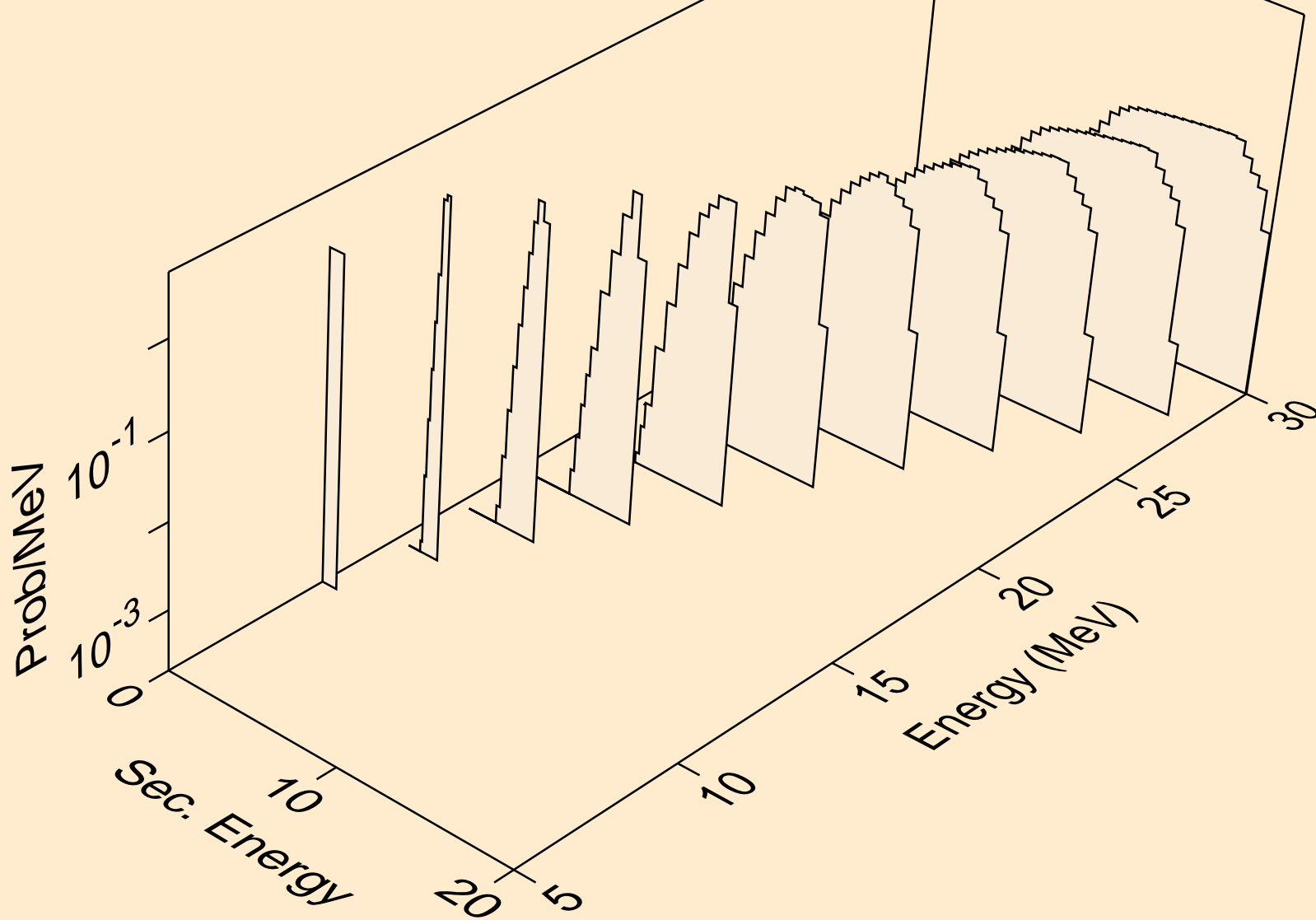
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deuterons from (n,x)



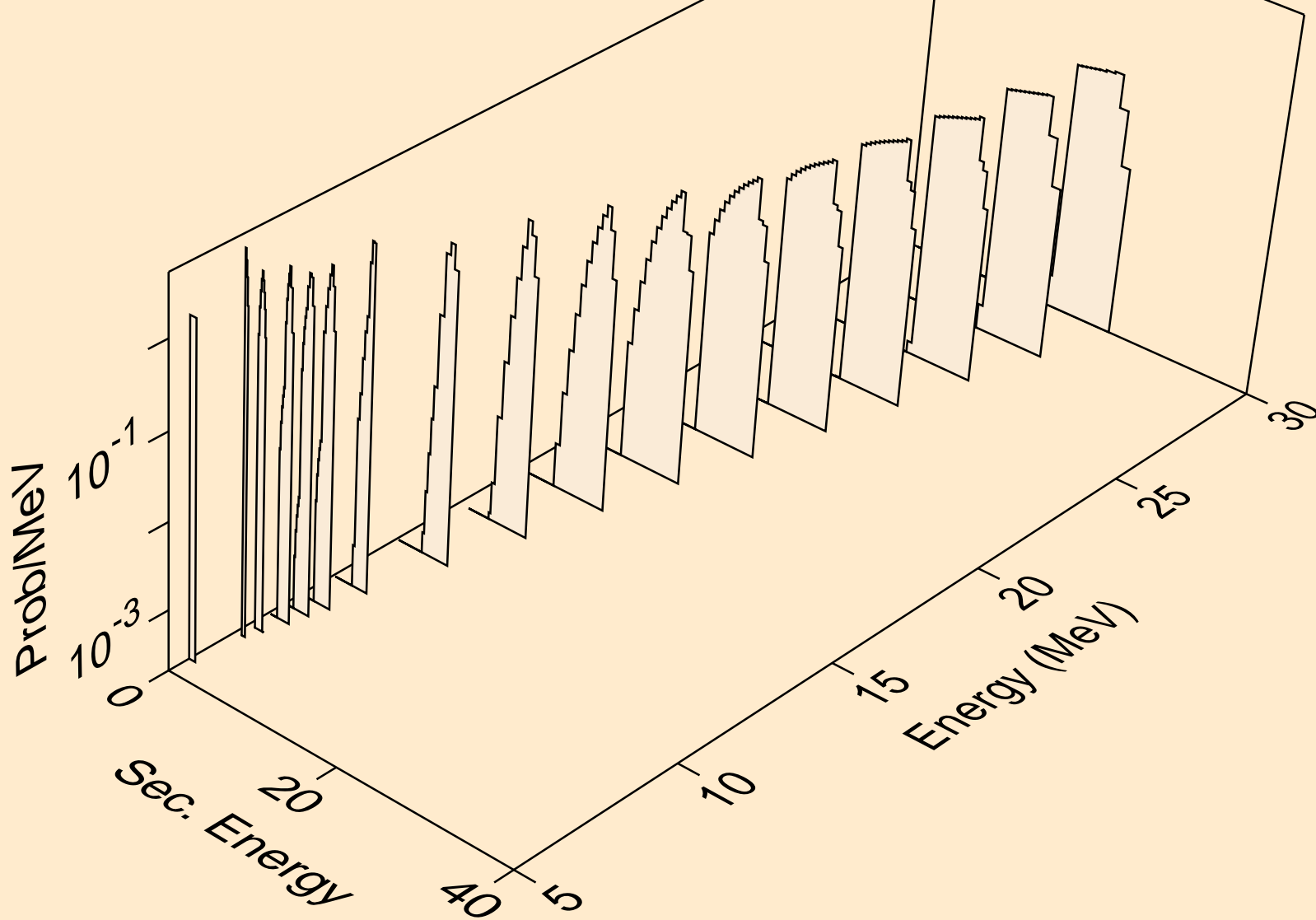
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deuterons from (n,2nd)



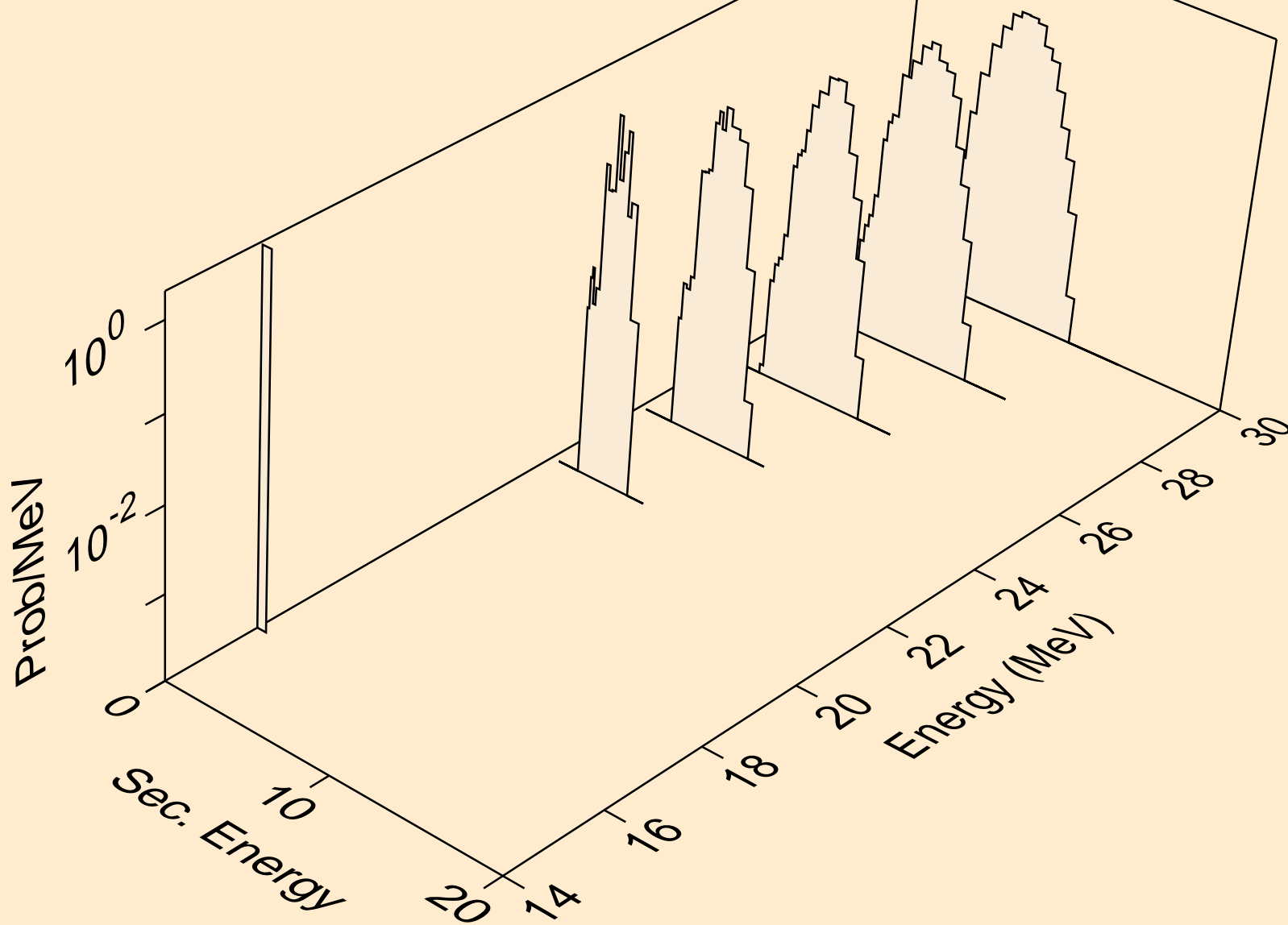
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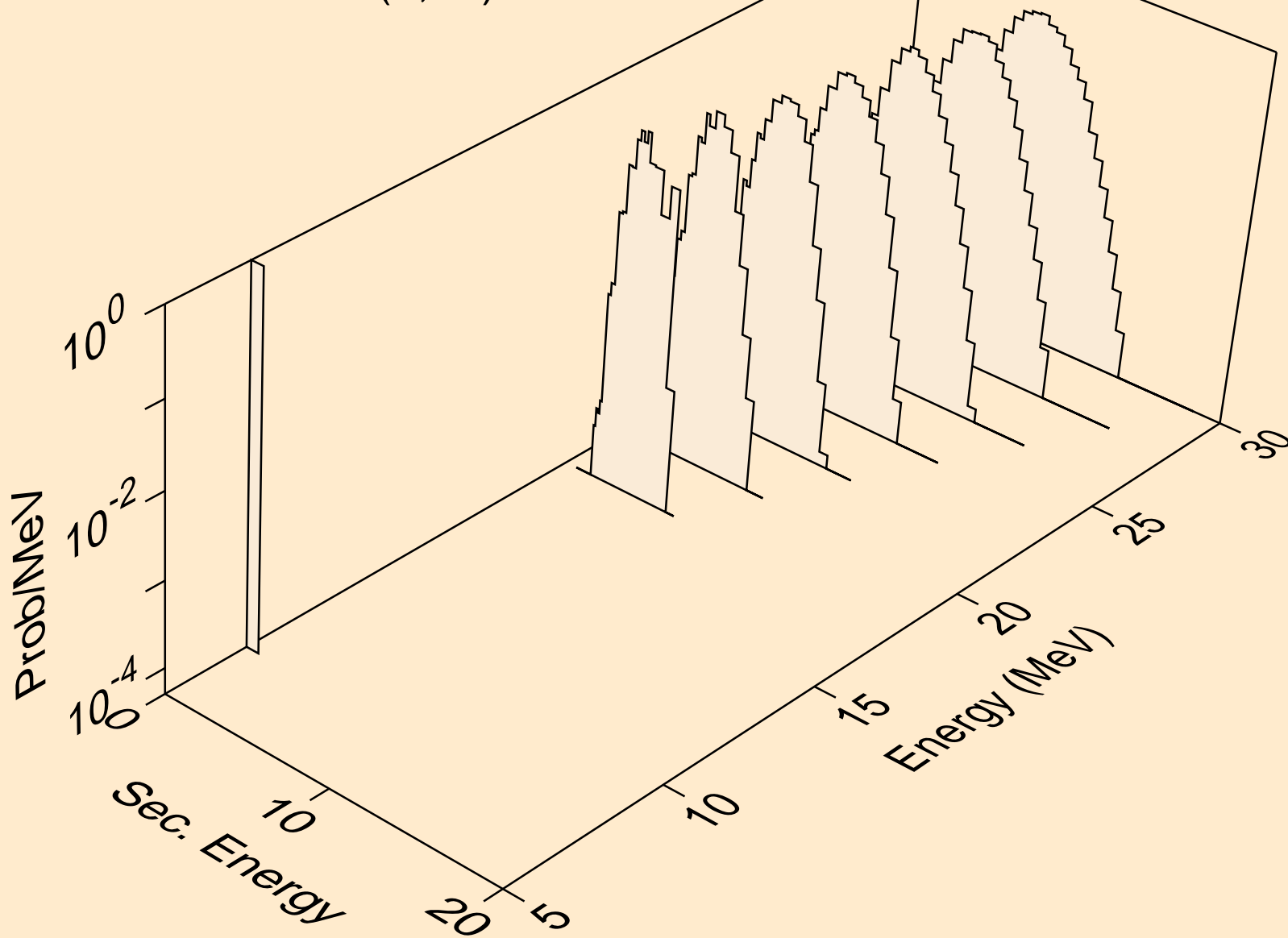
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,d)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,pd)

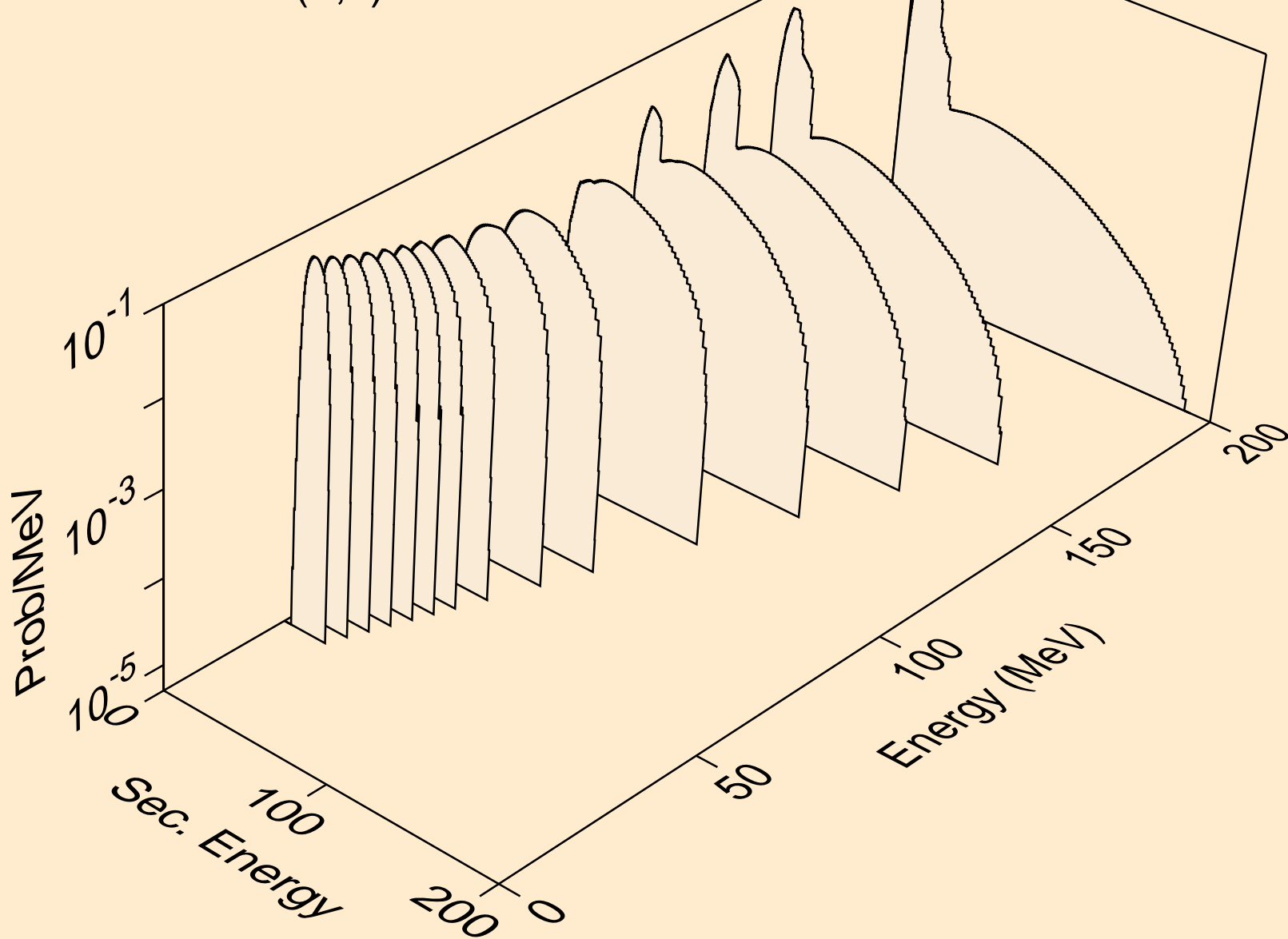


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,da)

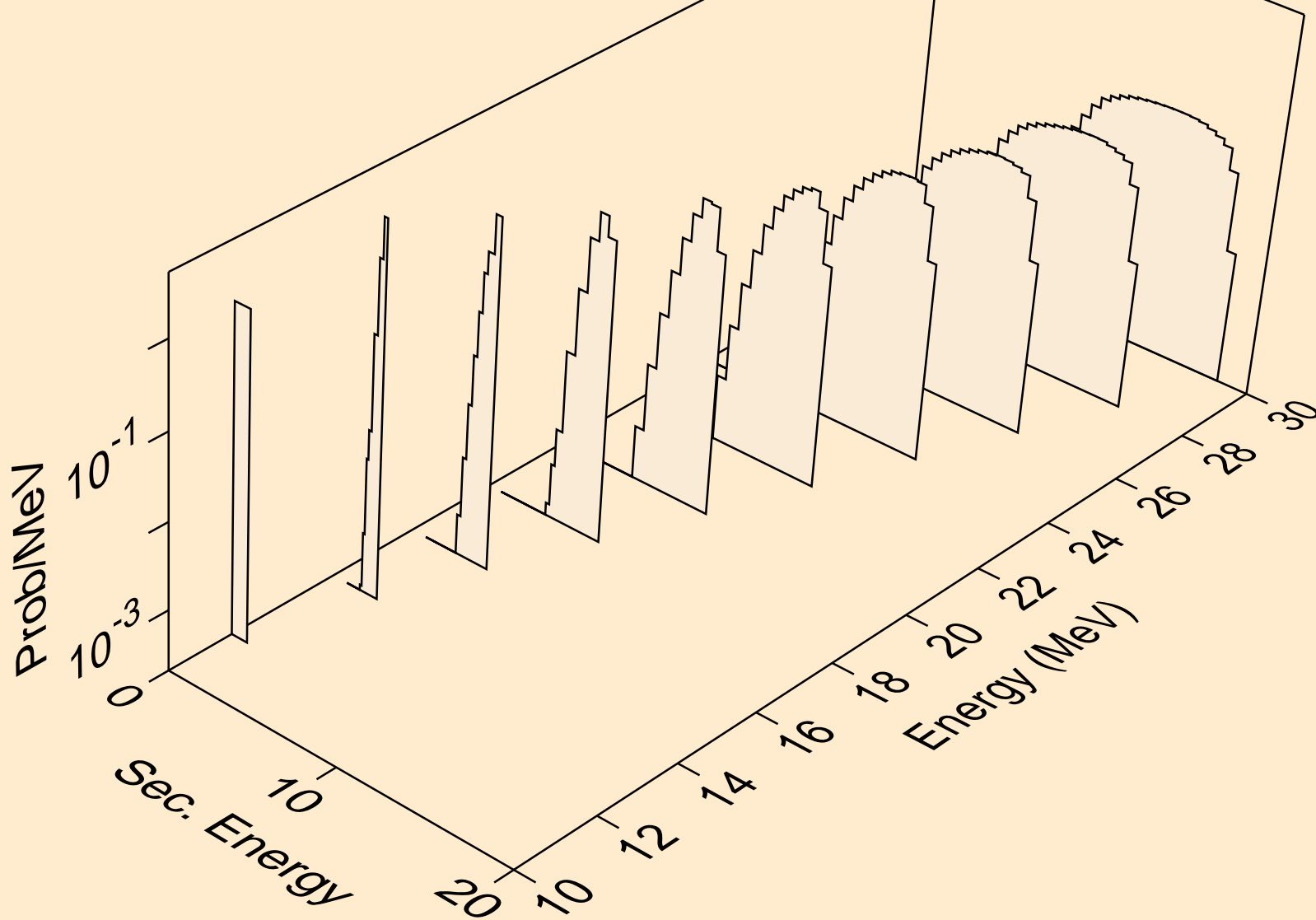




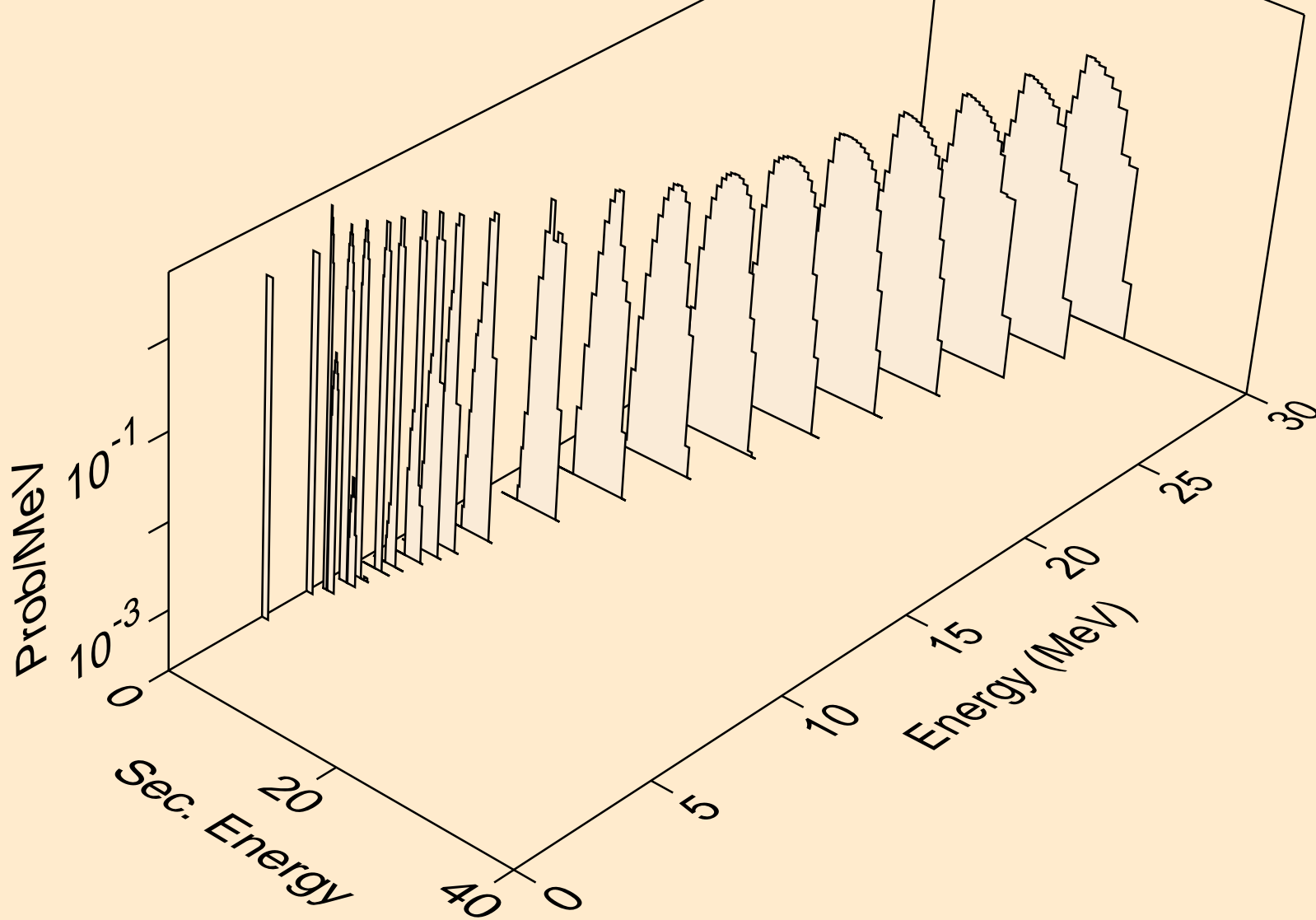
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,x)



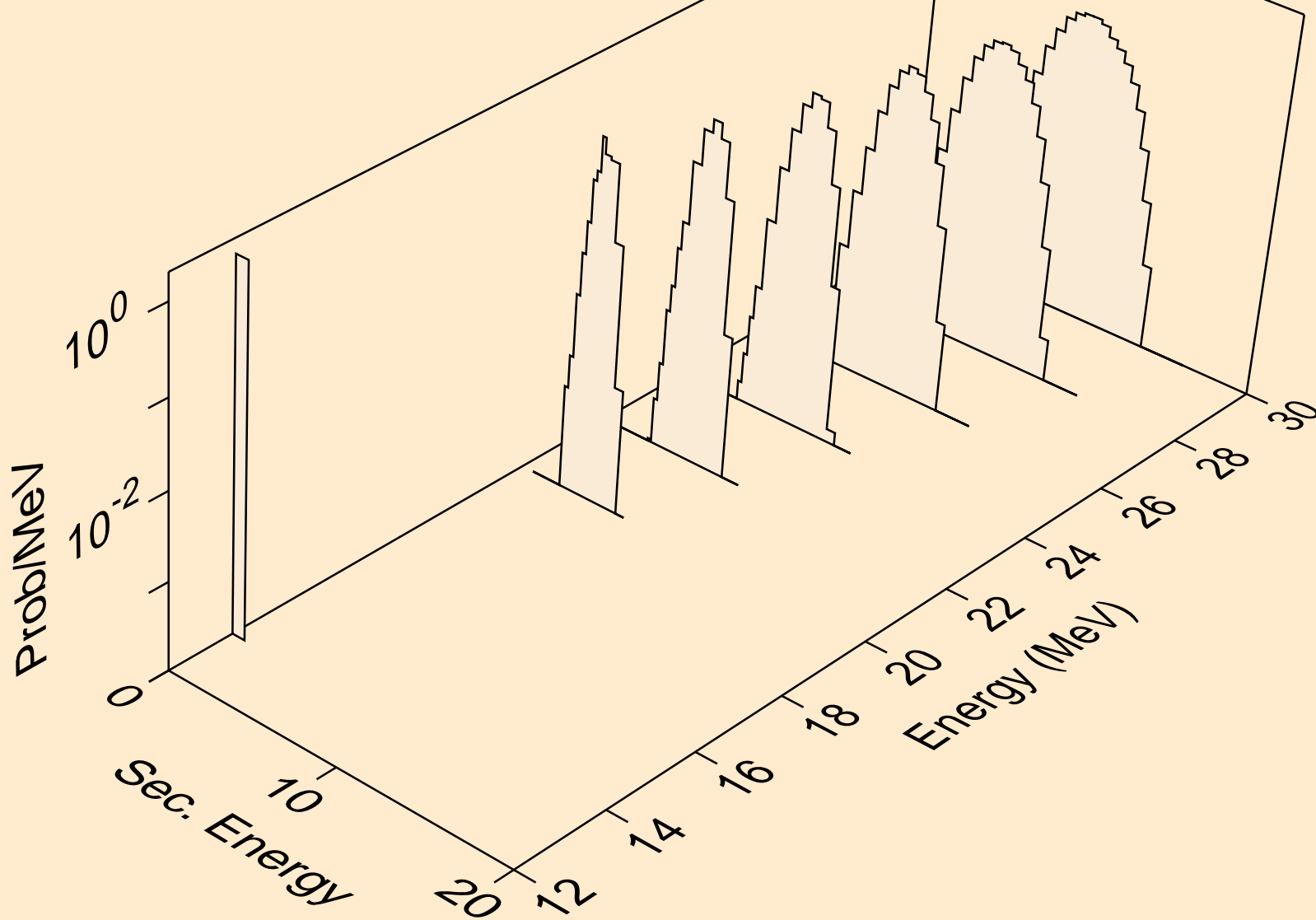
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,n\*)t



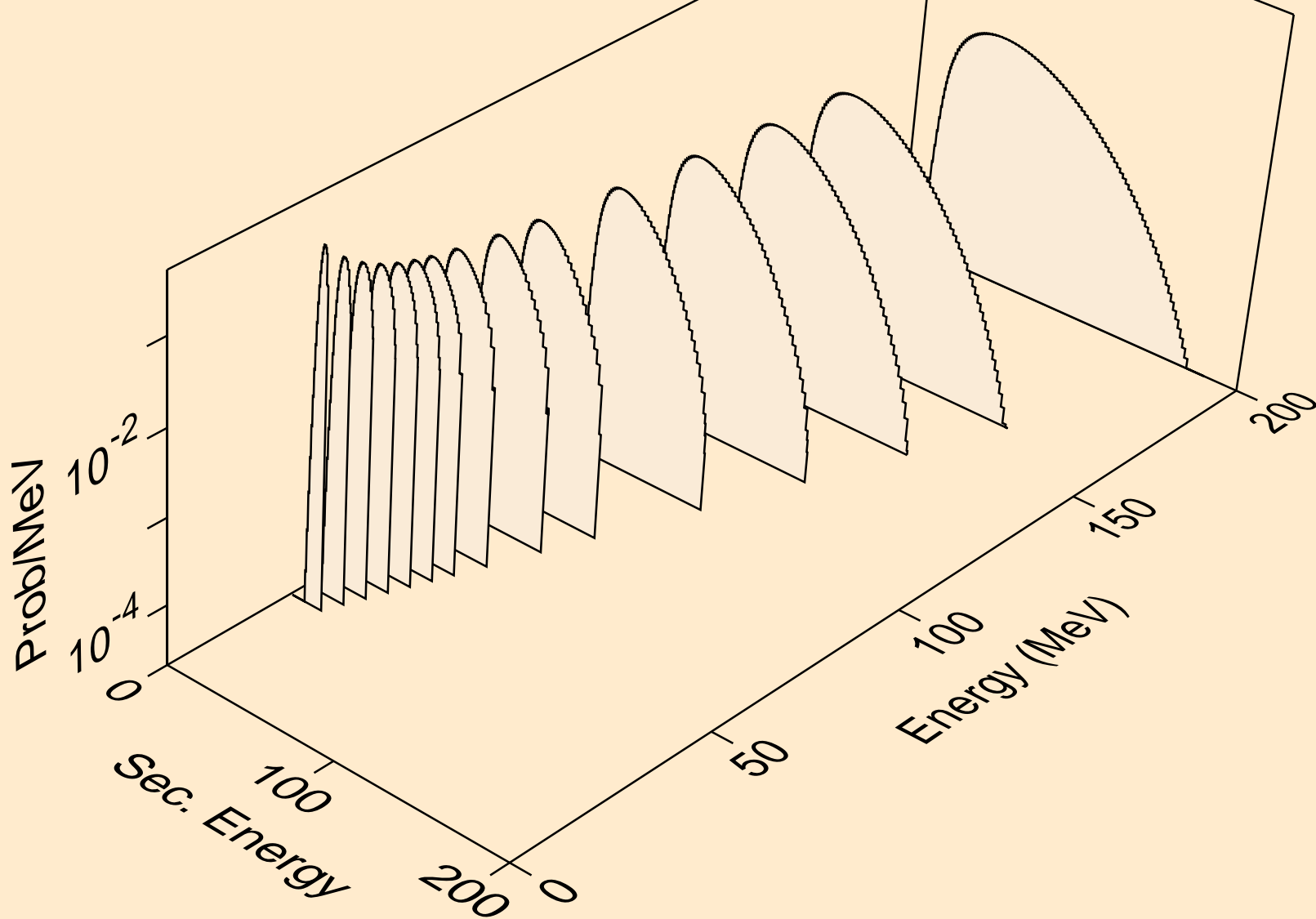
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tritons from (n,t)



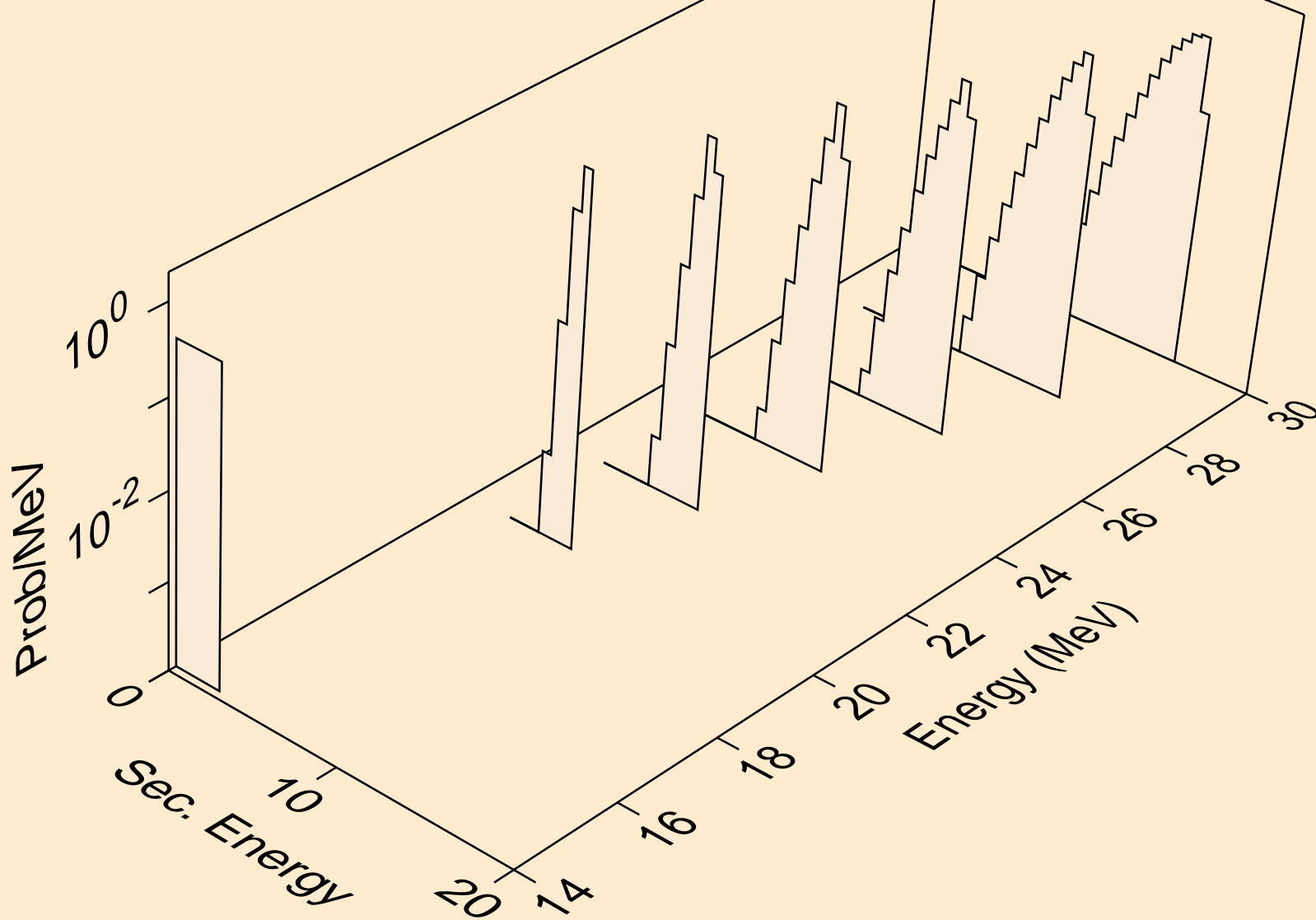
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,pt)



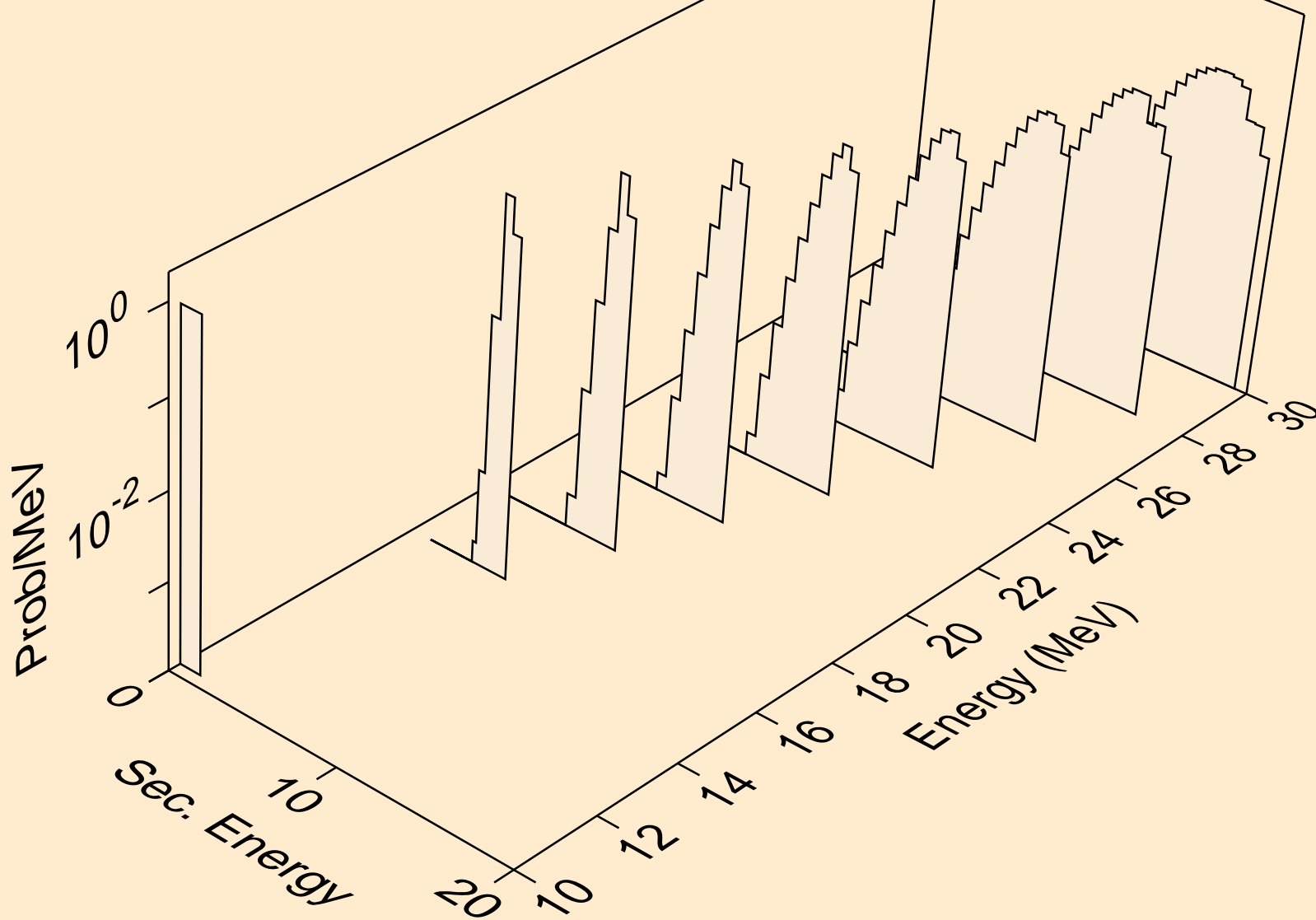
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,x)



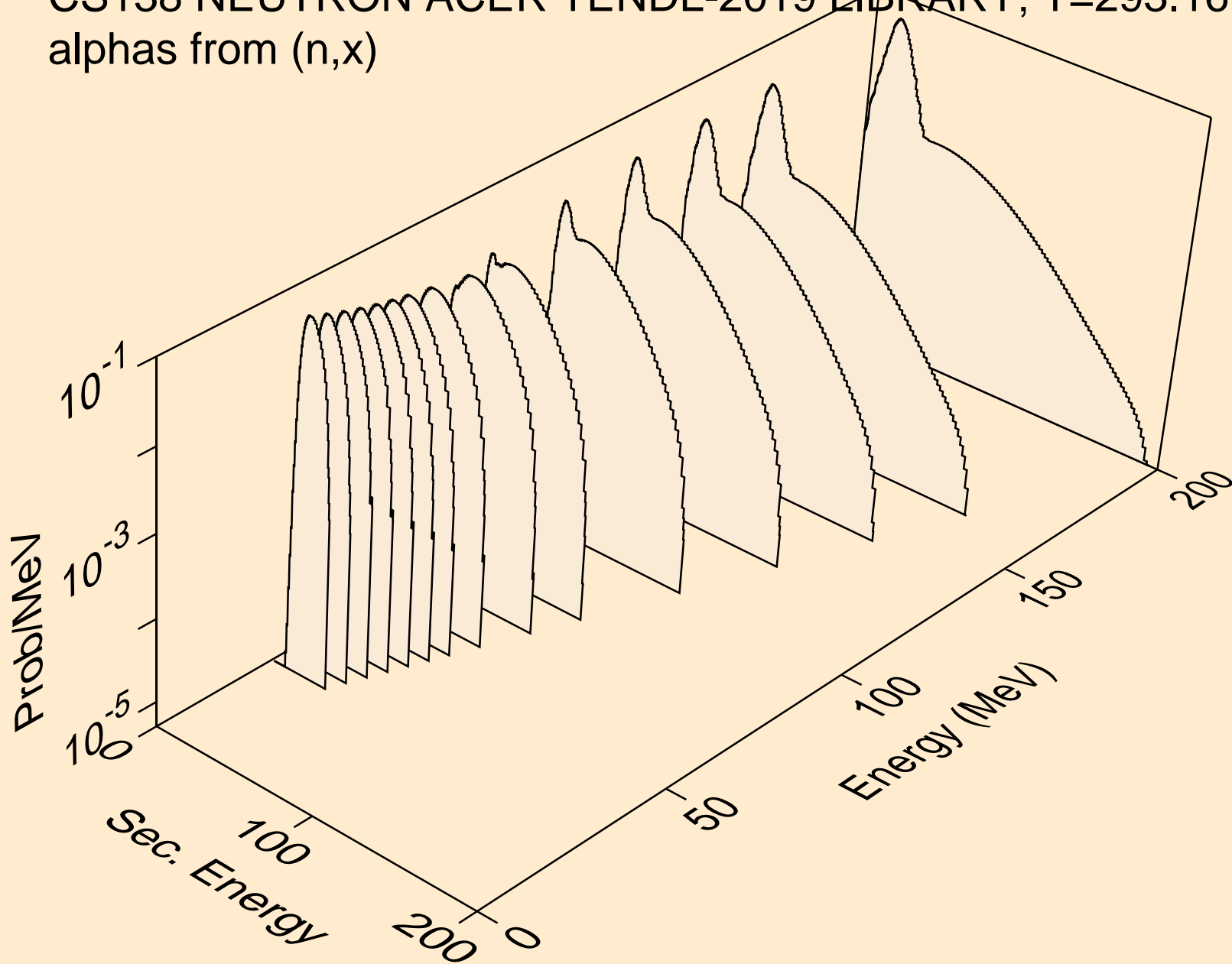
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,n\*)he3



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,he3)

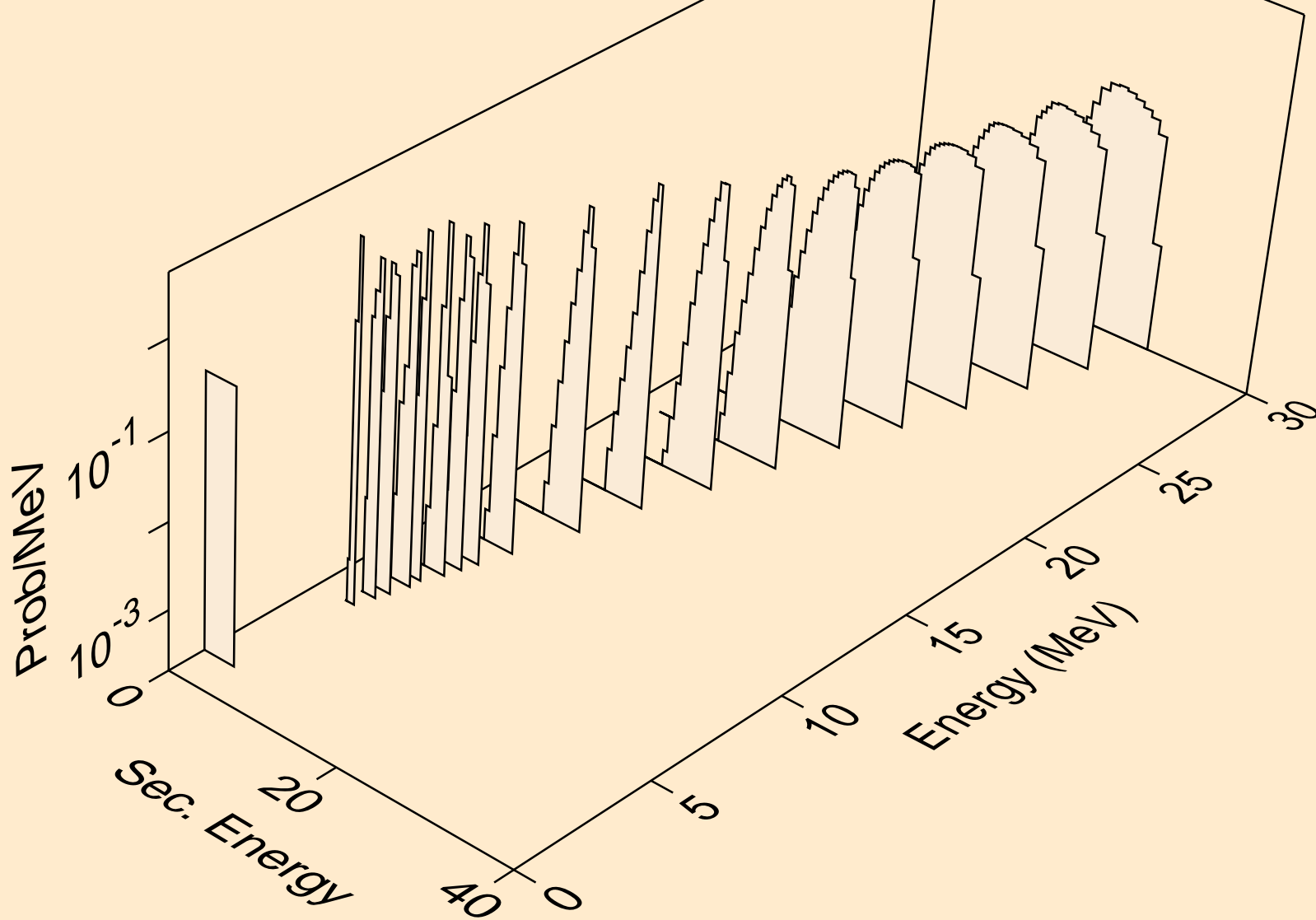


CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,x)

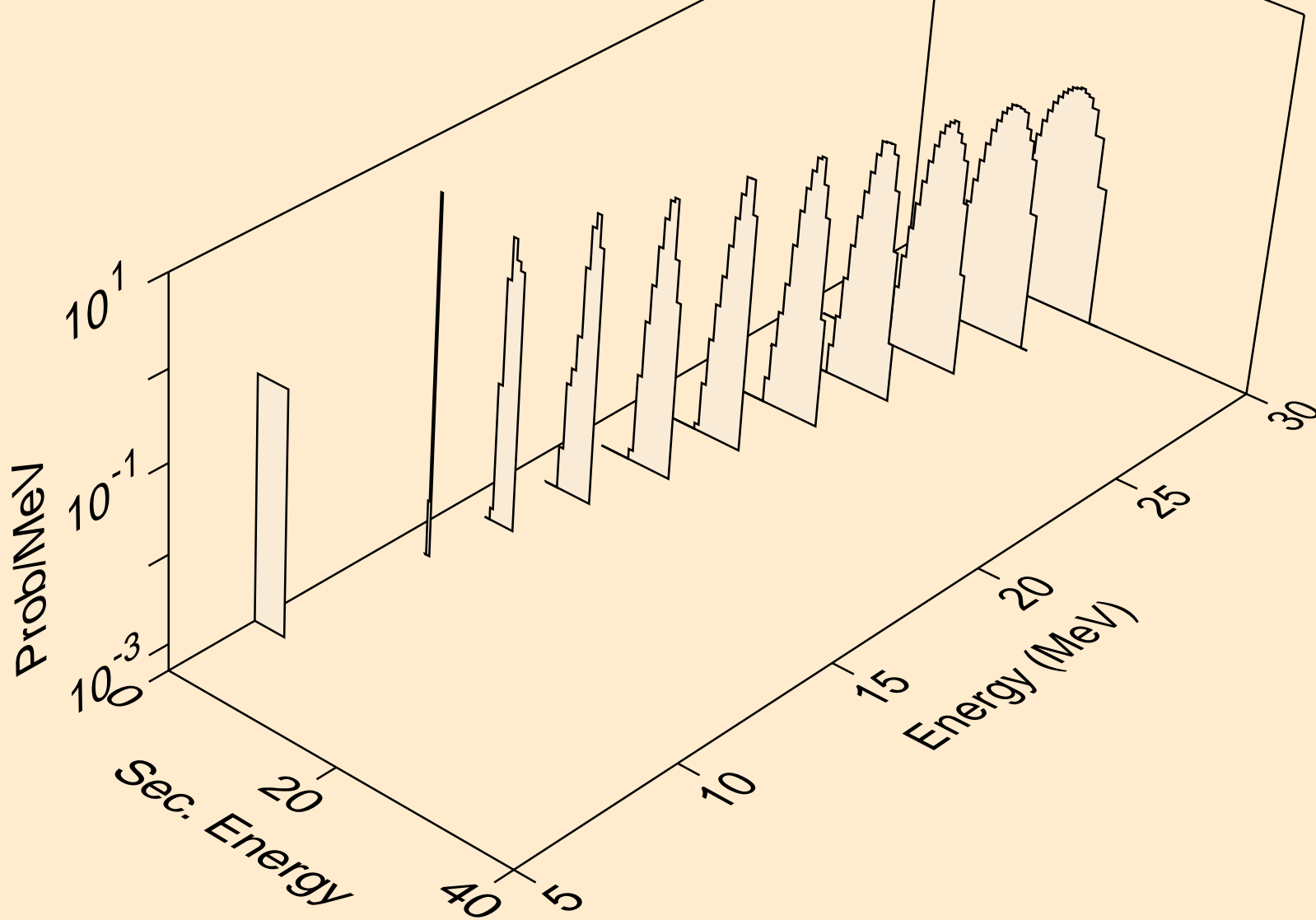




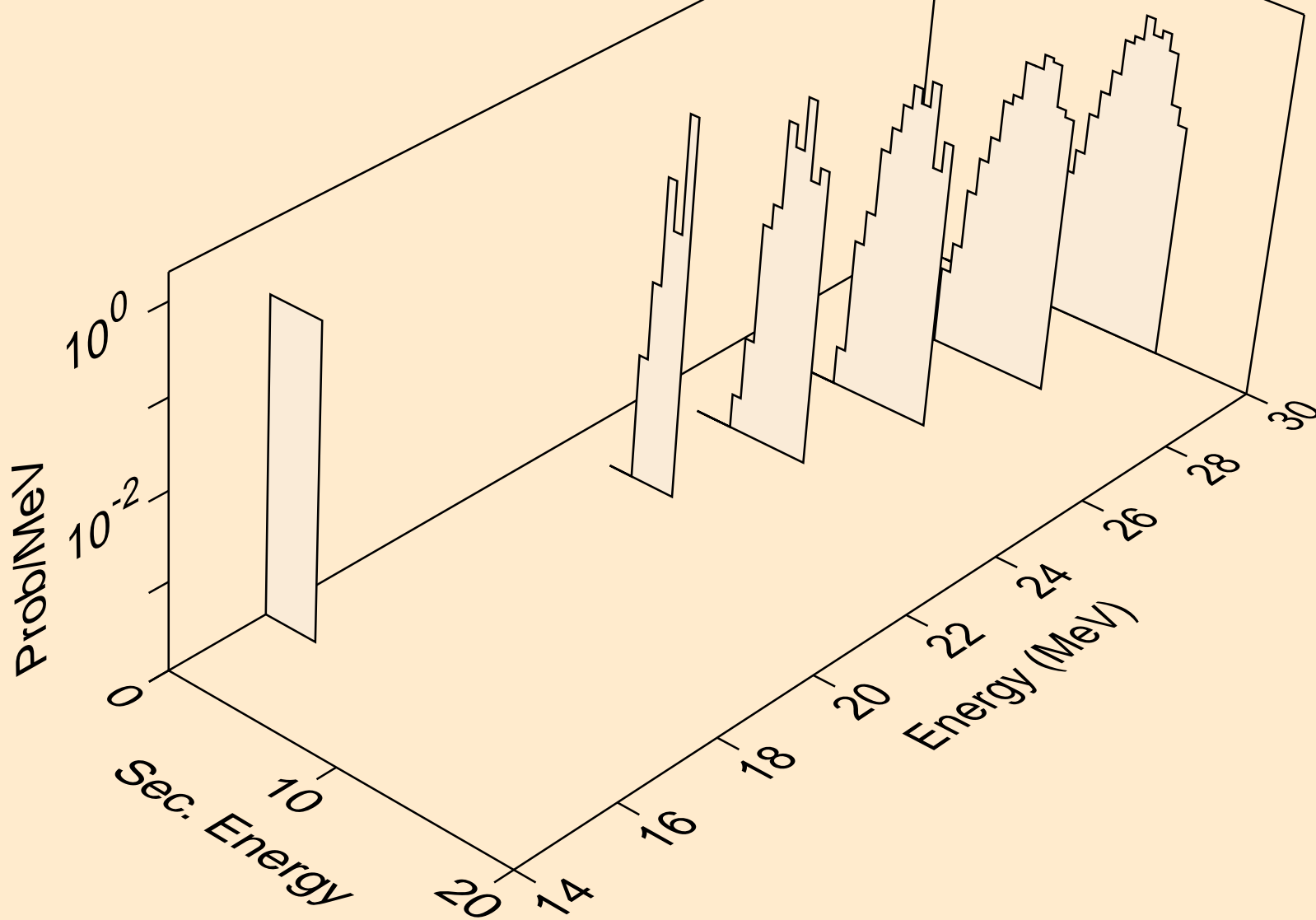
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,n\*)a



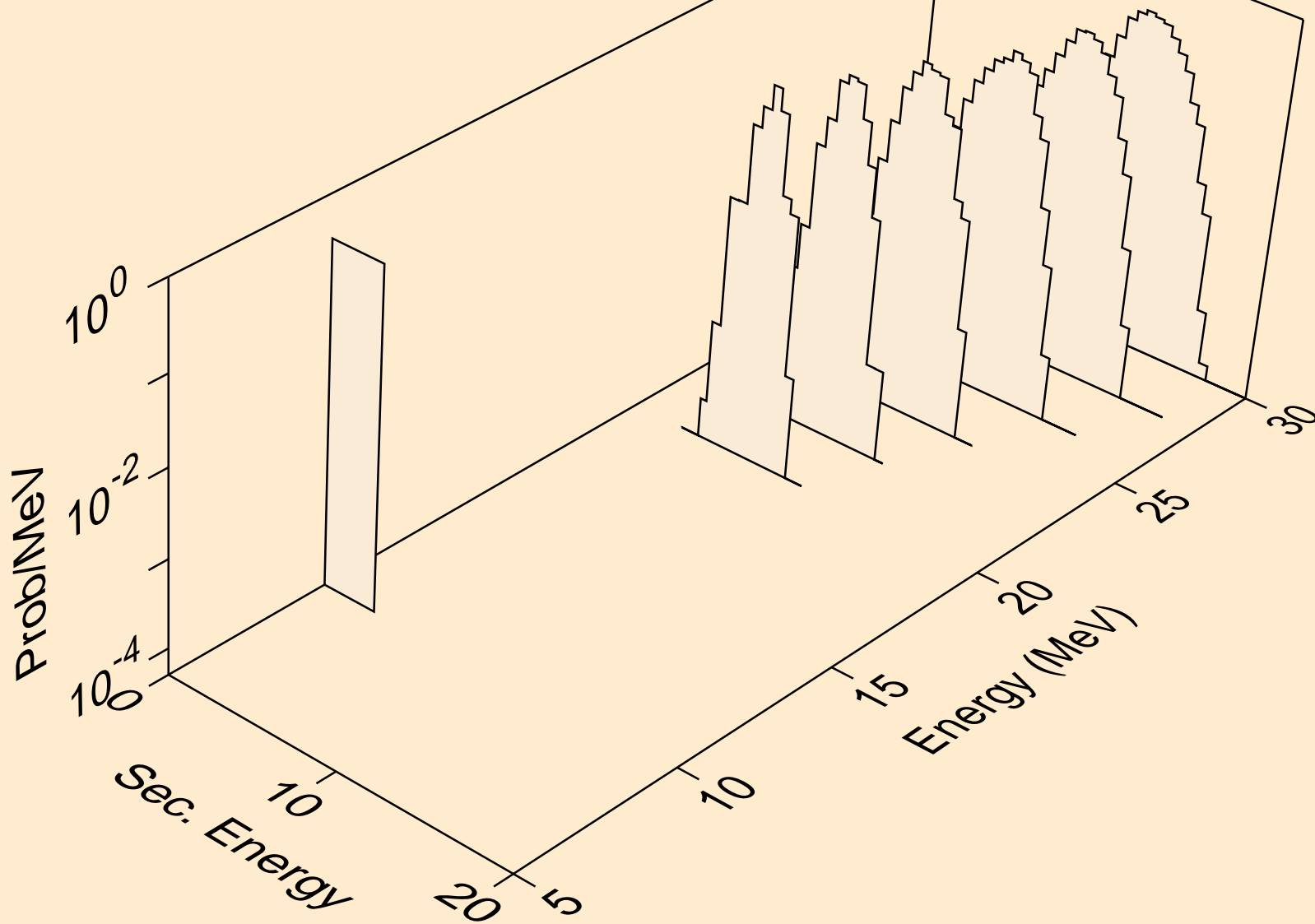
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,2n)a



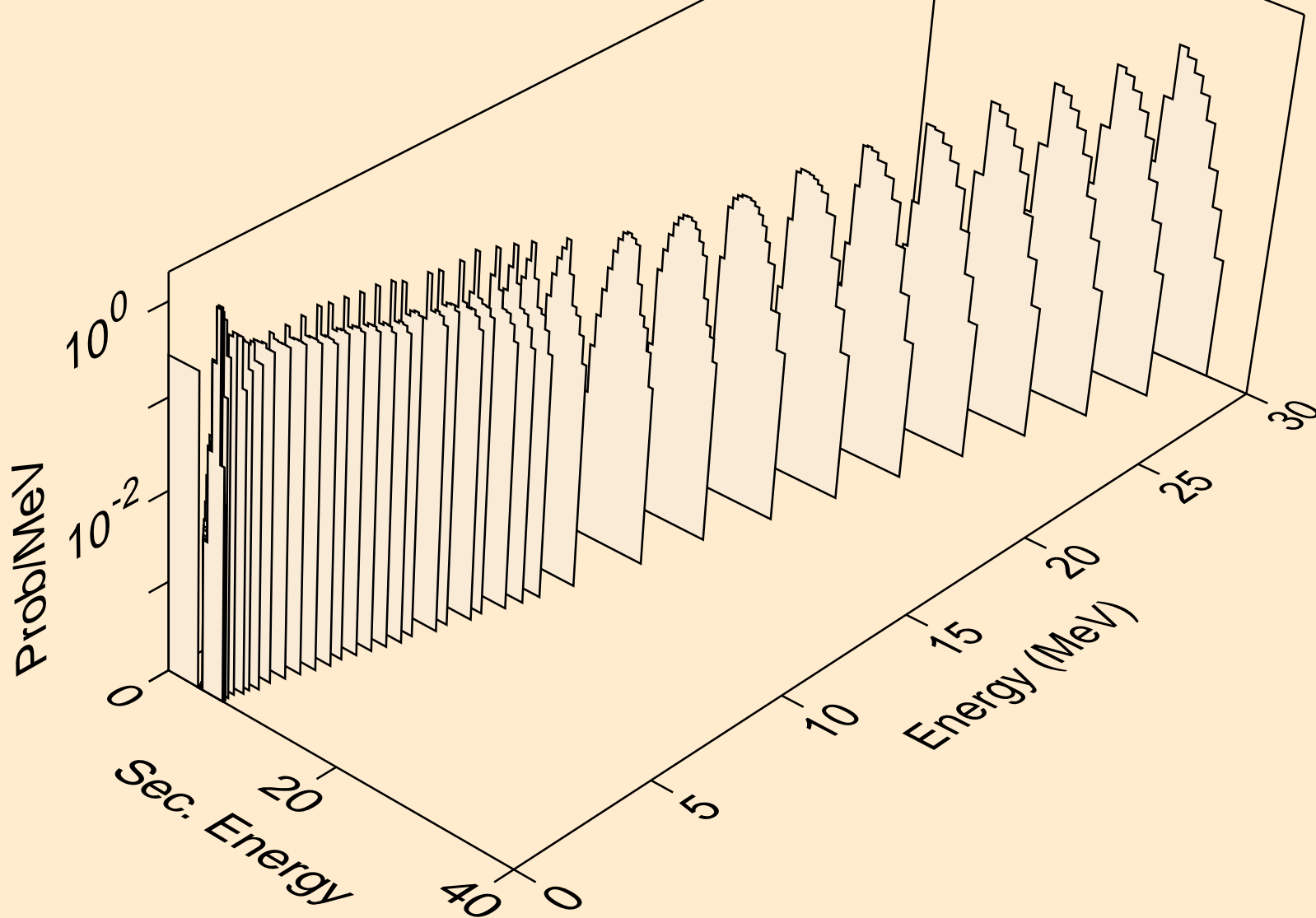
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alphas from (n,3n)a



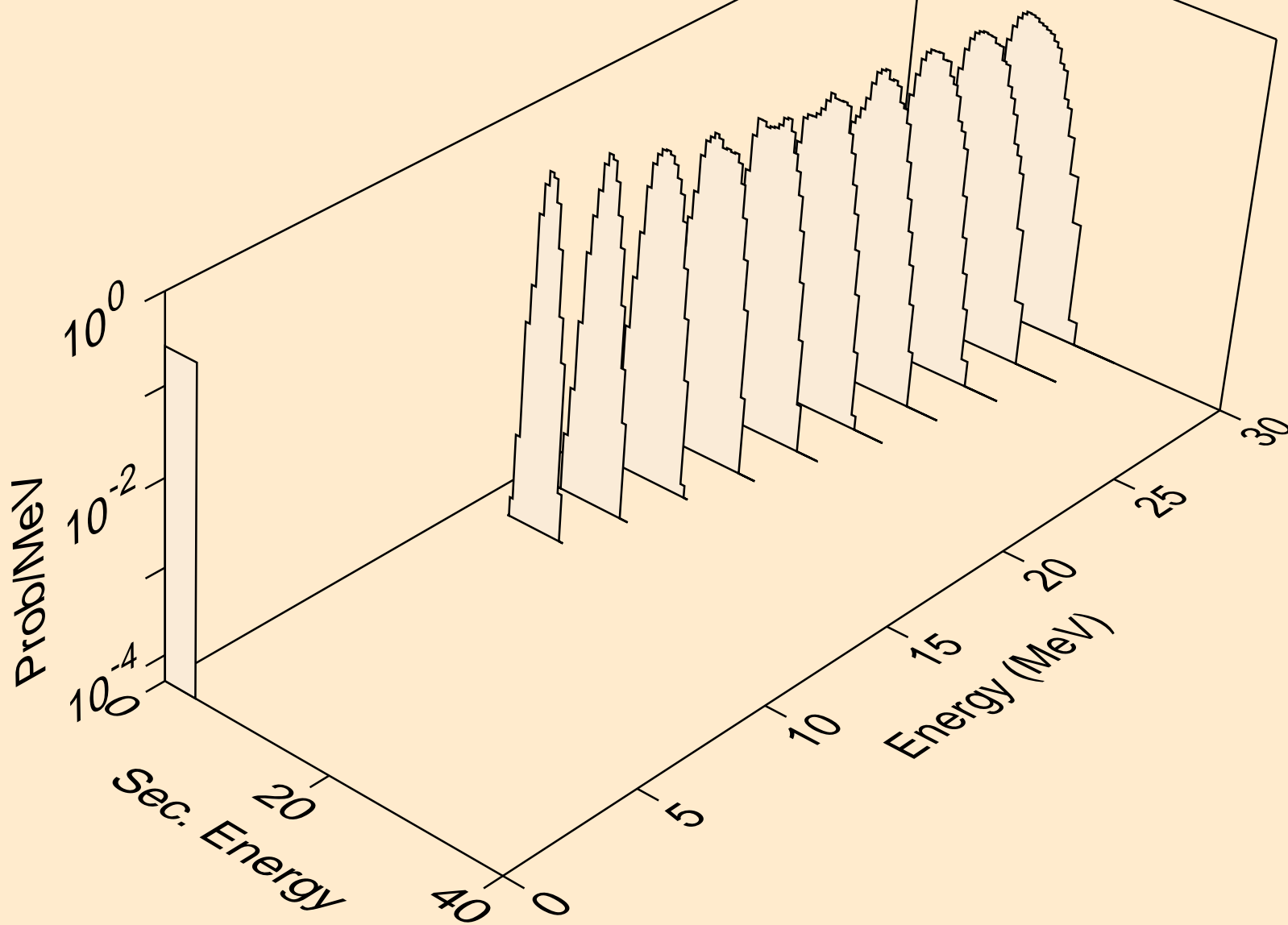
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alphas from (n,npa)



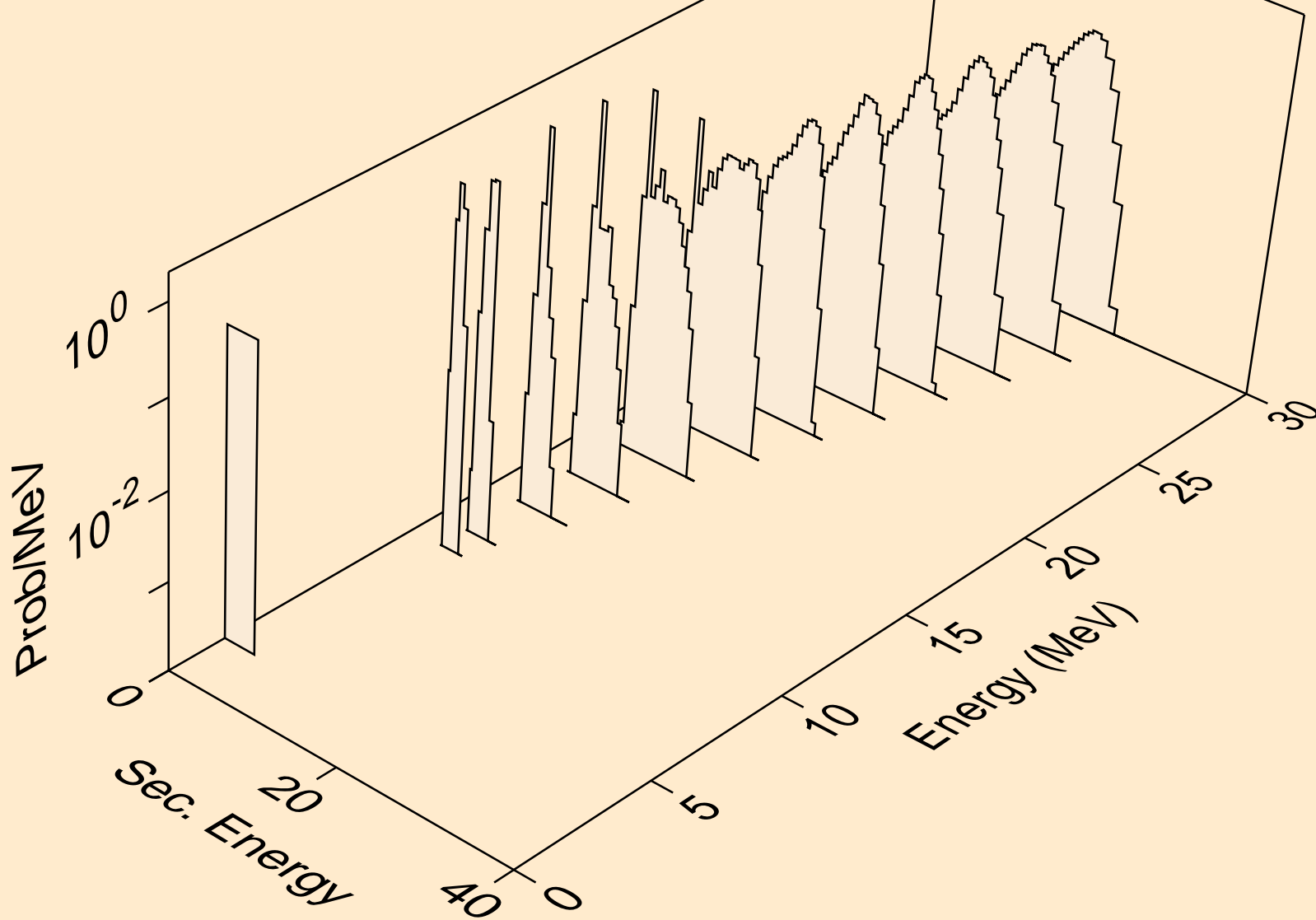
CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,a)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,2a)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,pa)



CS138 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,da)

