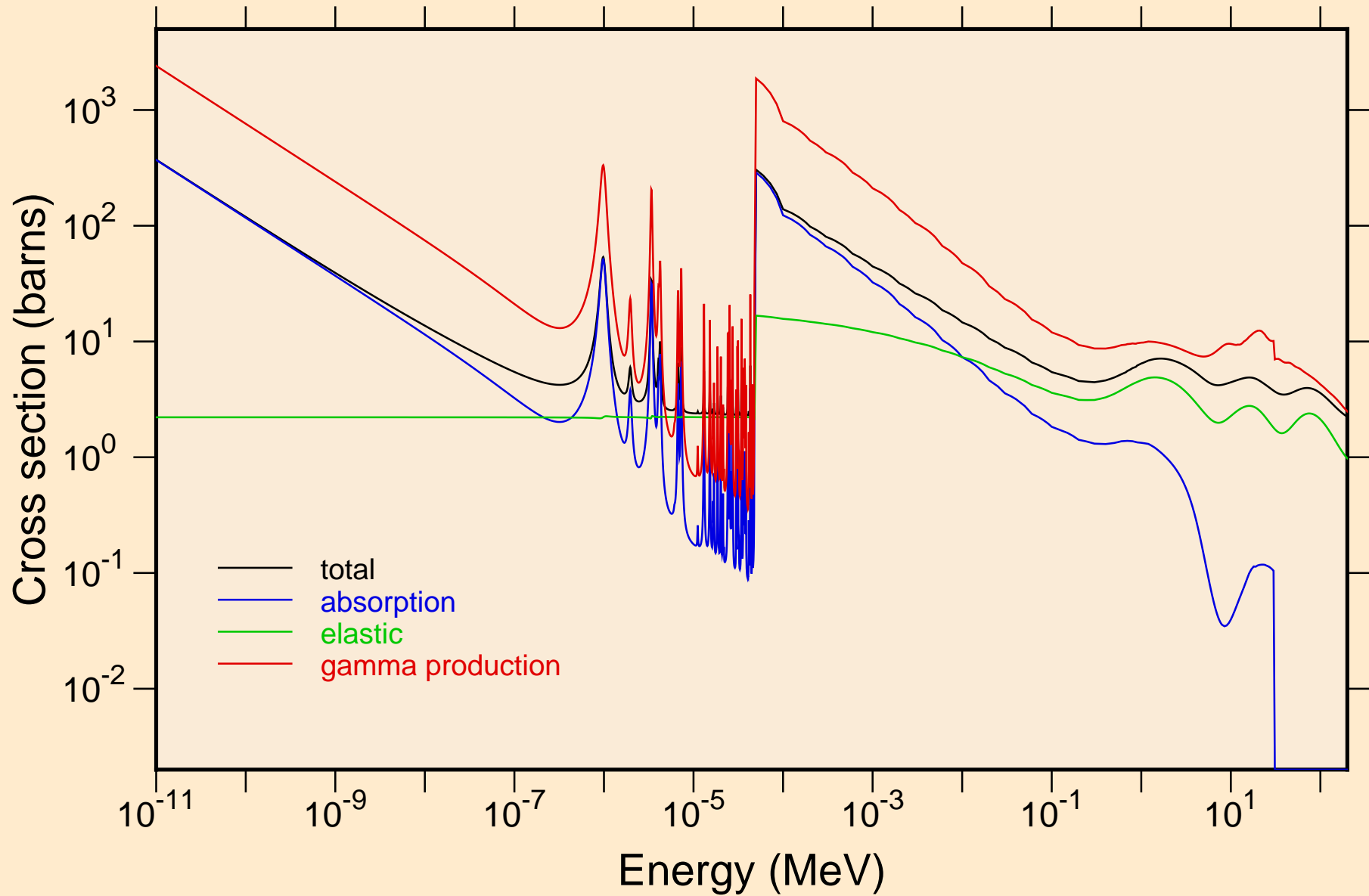
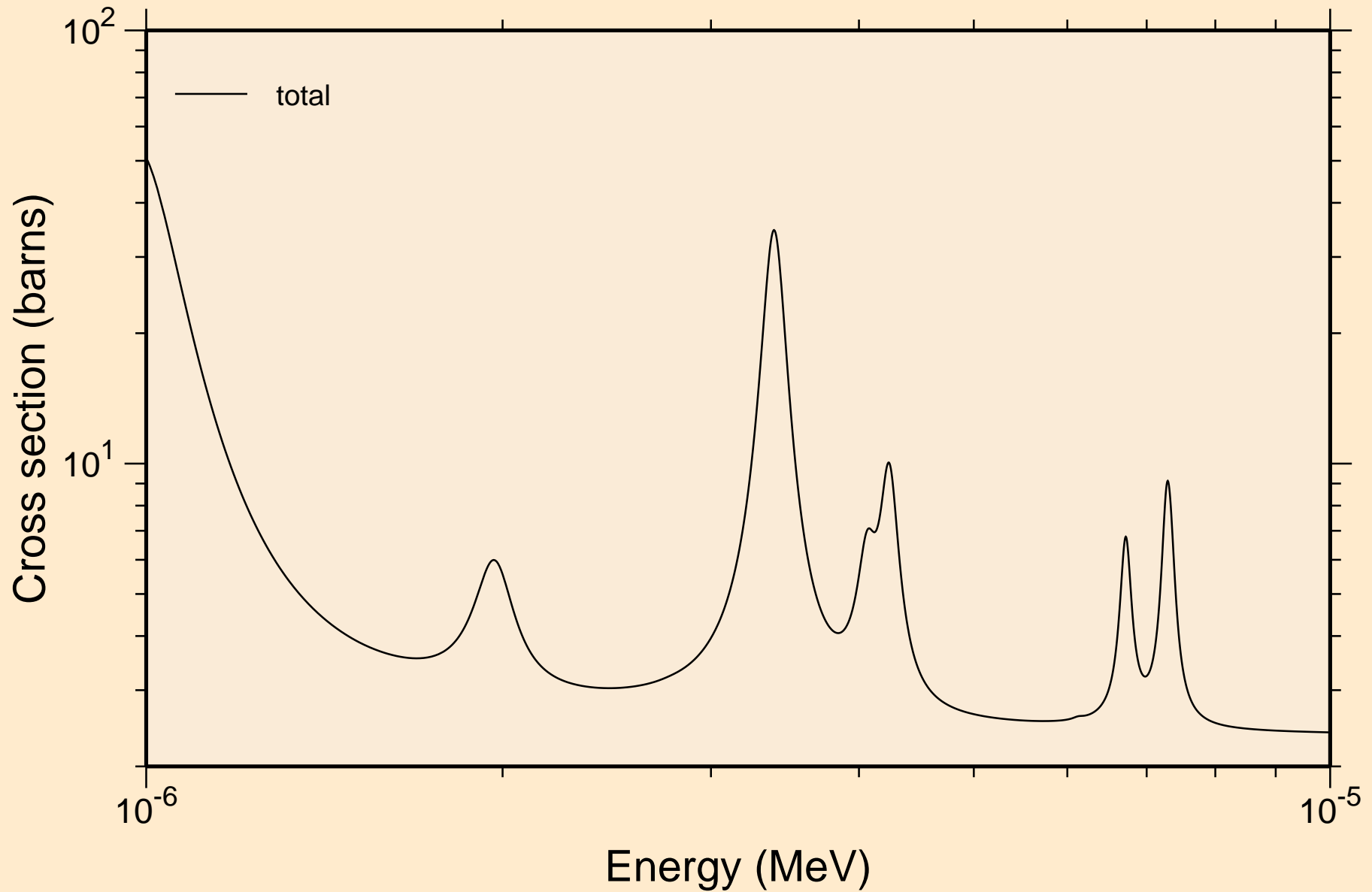


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

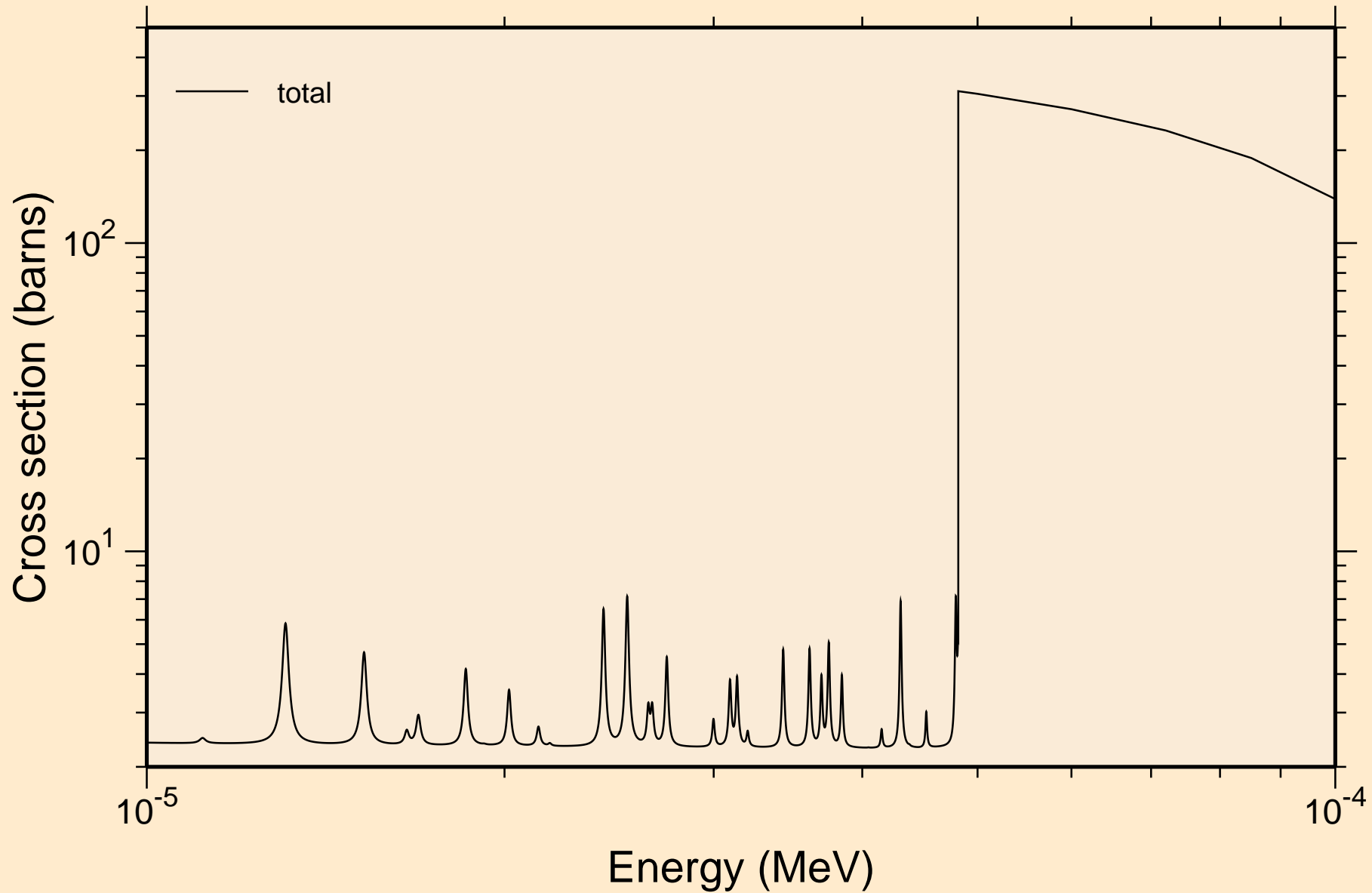
## Principal cross sections



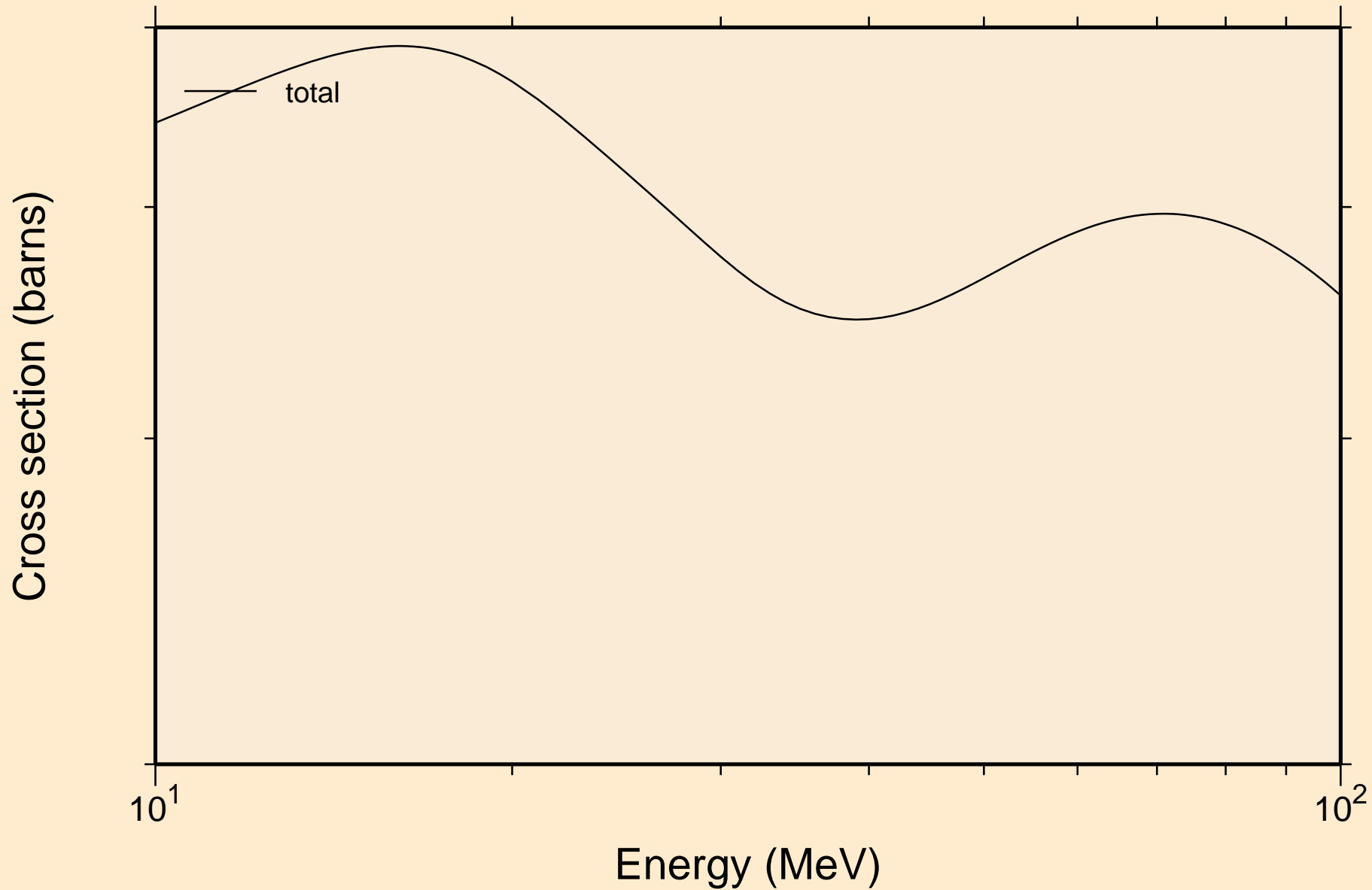
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resonance total cross section



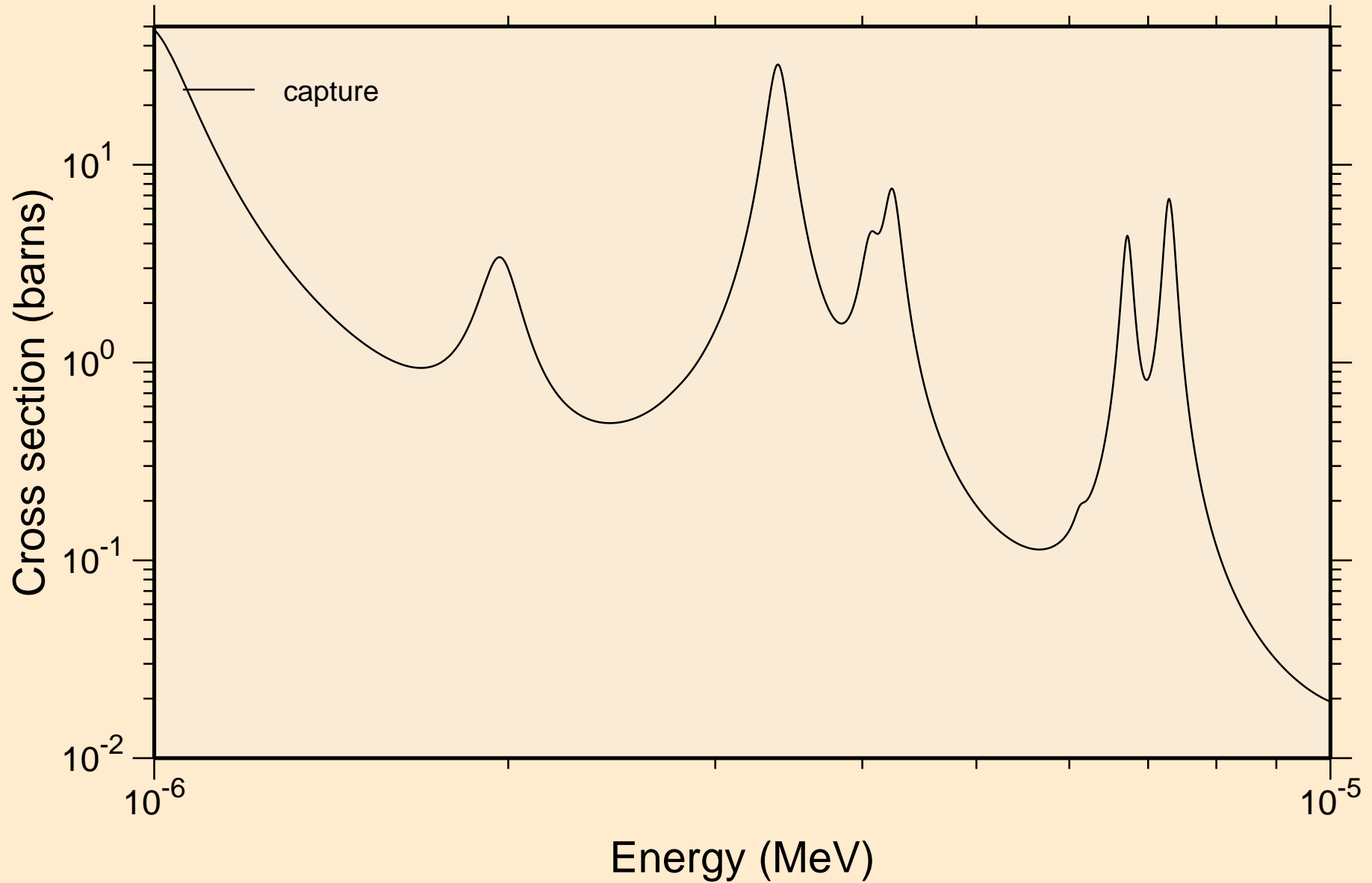
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resonance total cross section



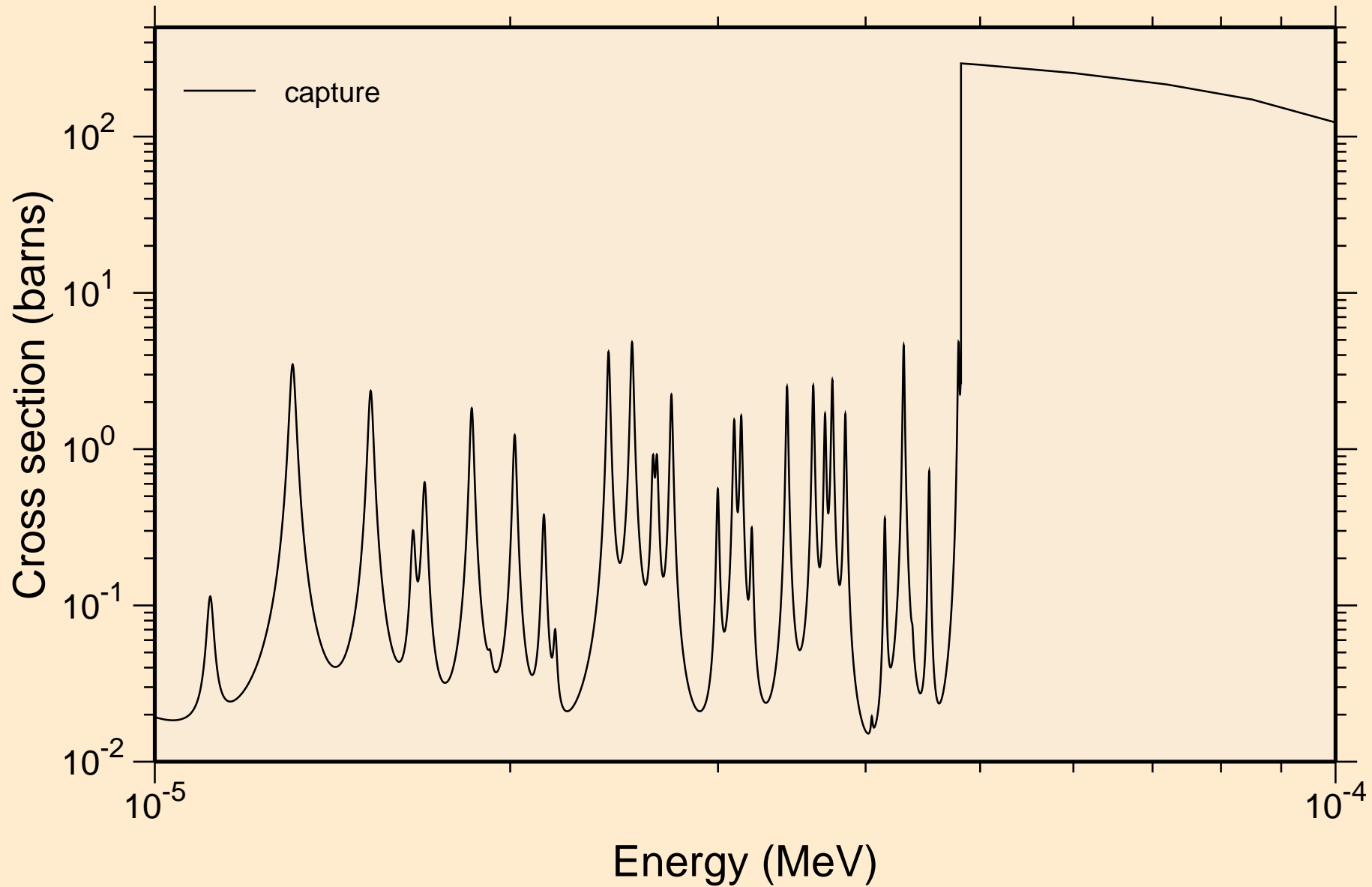
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resonance total cross section



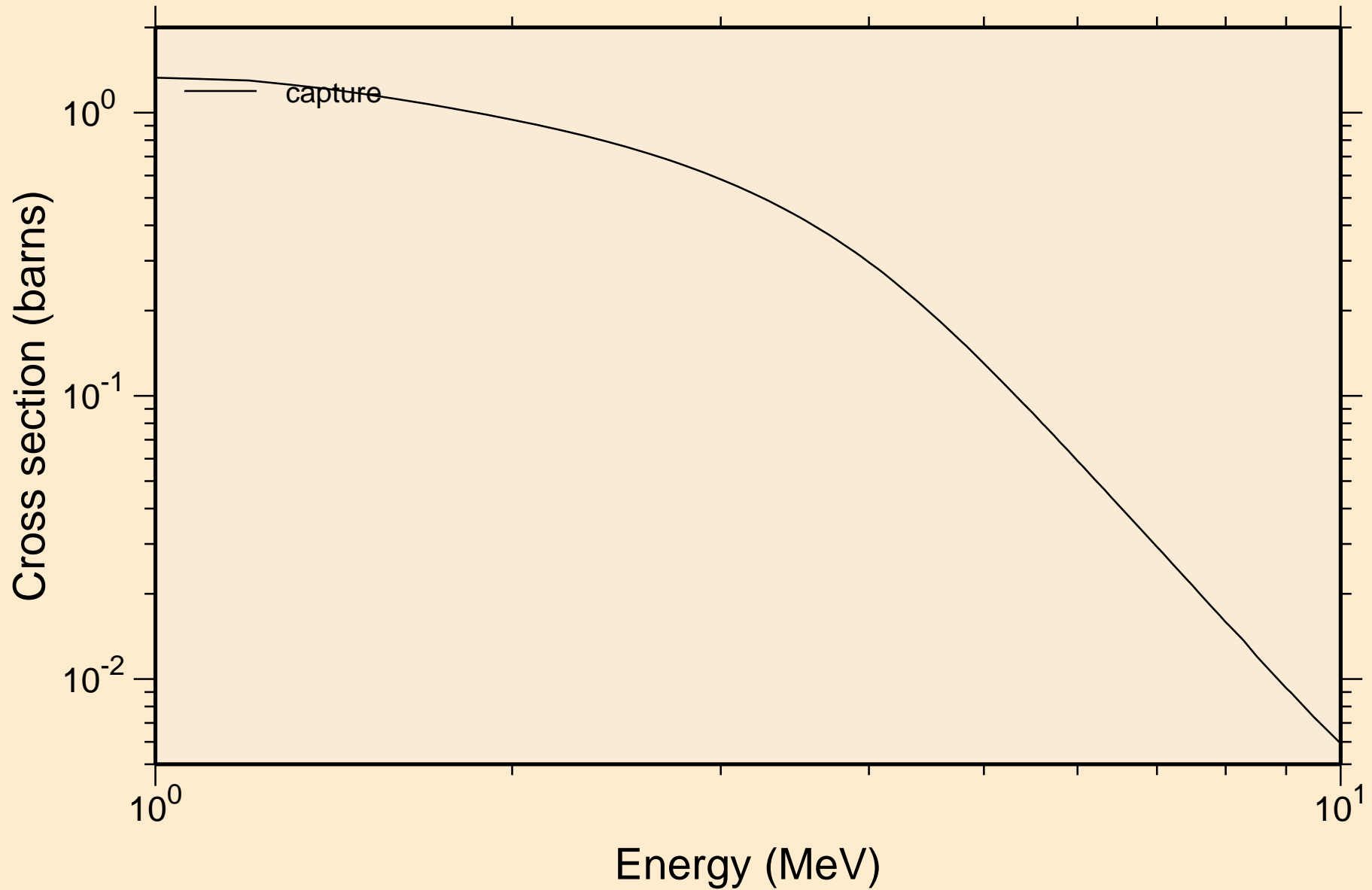
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
resonance absorption cross sections



ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
resonance absorption cross sections

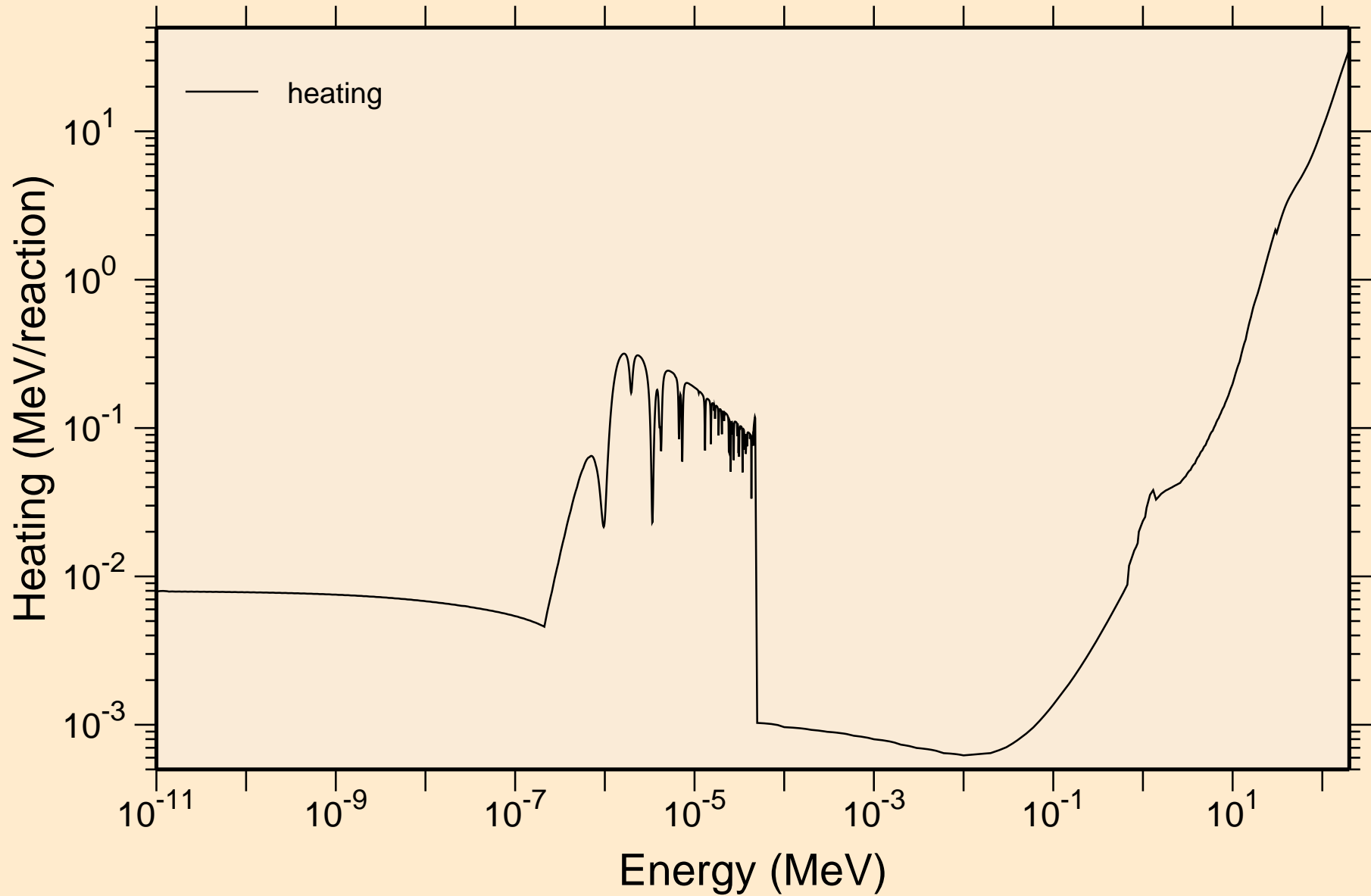


ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
resonance absorption cross sections



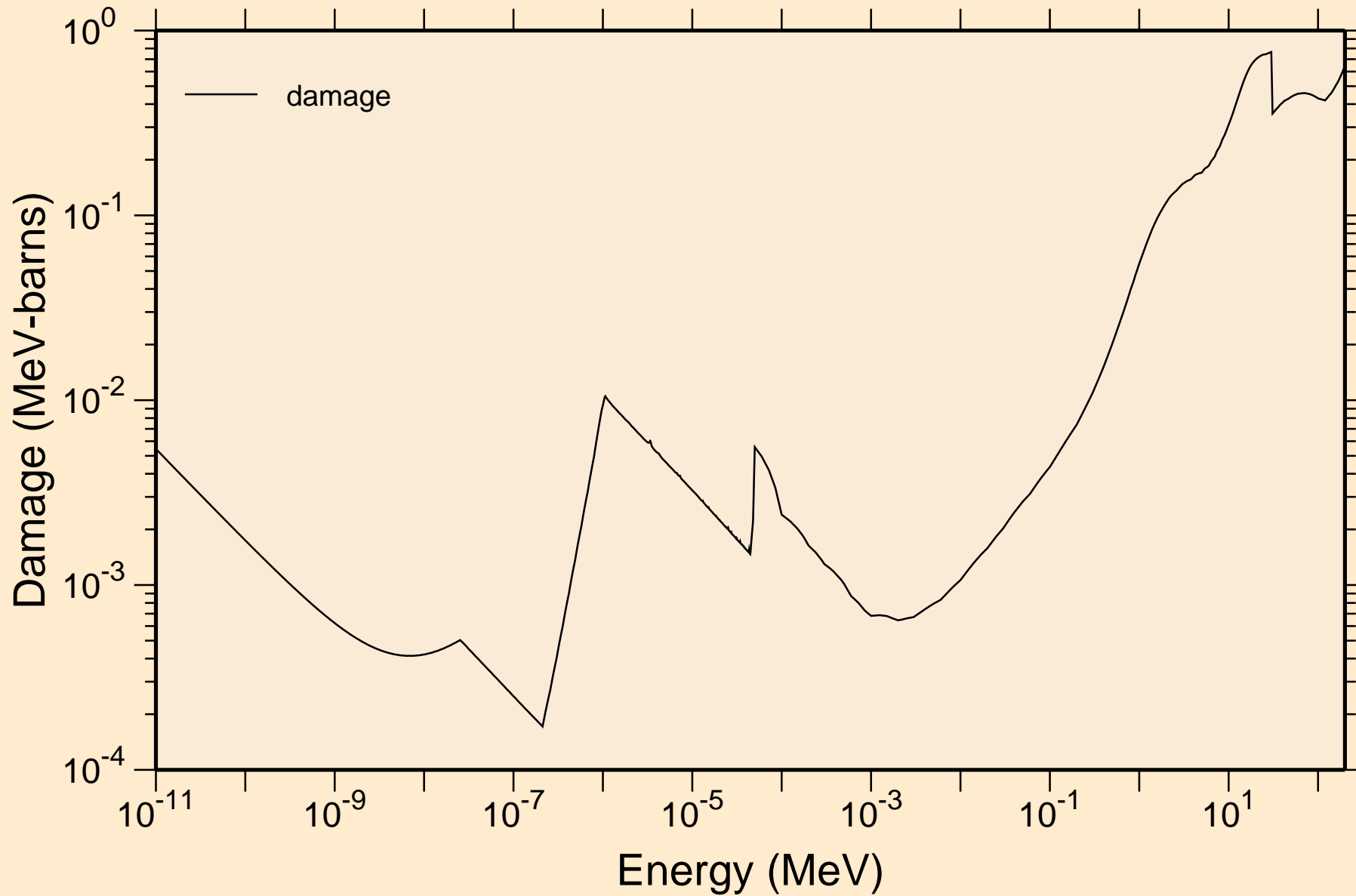
# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

## Heating



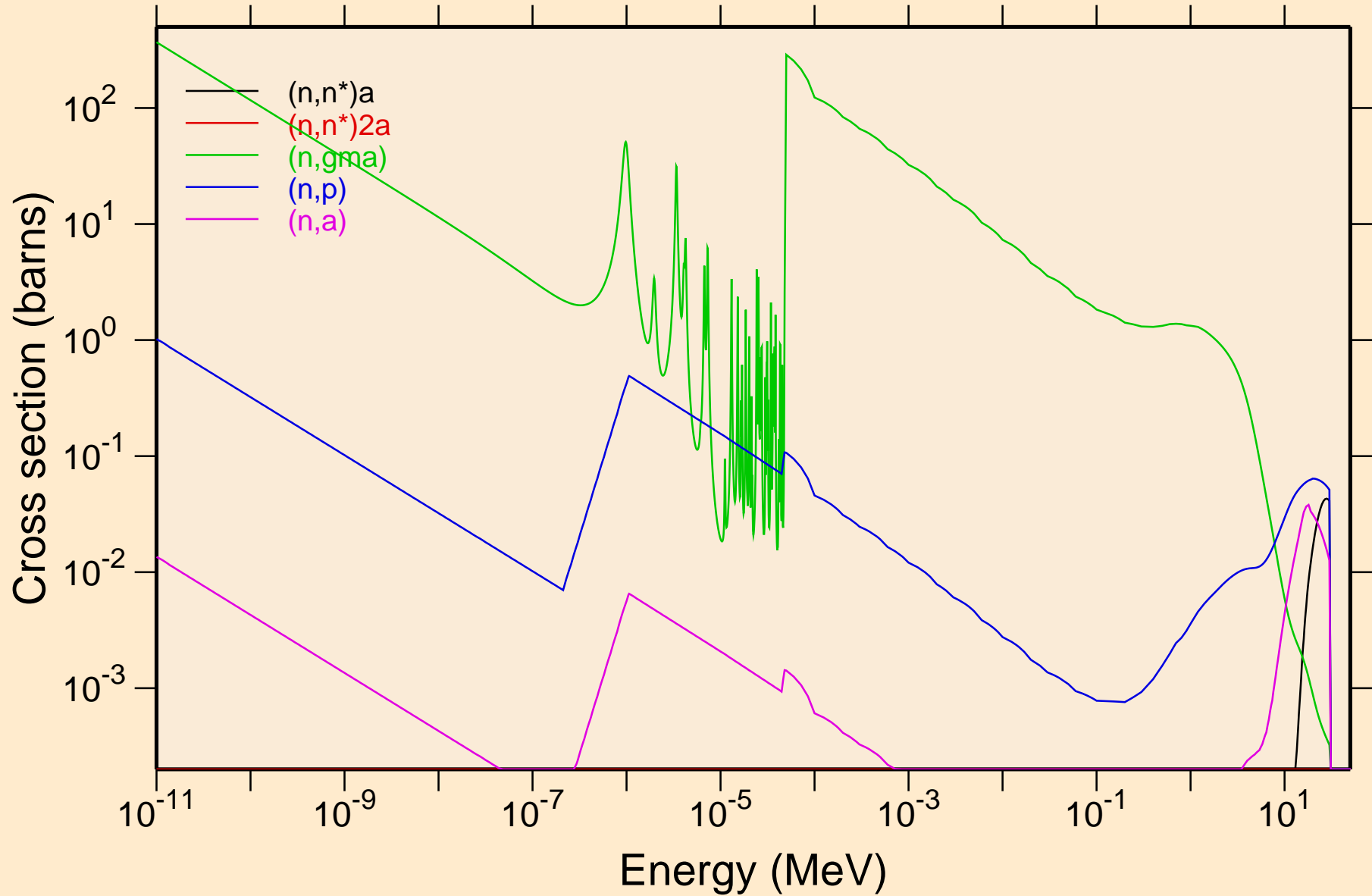
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## Damage

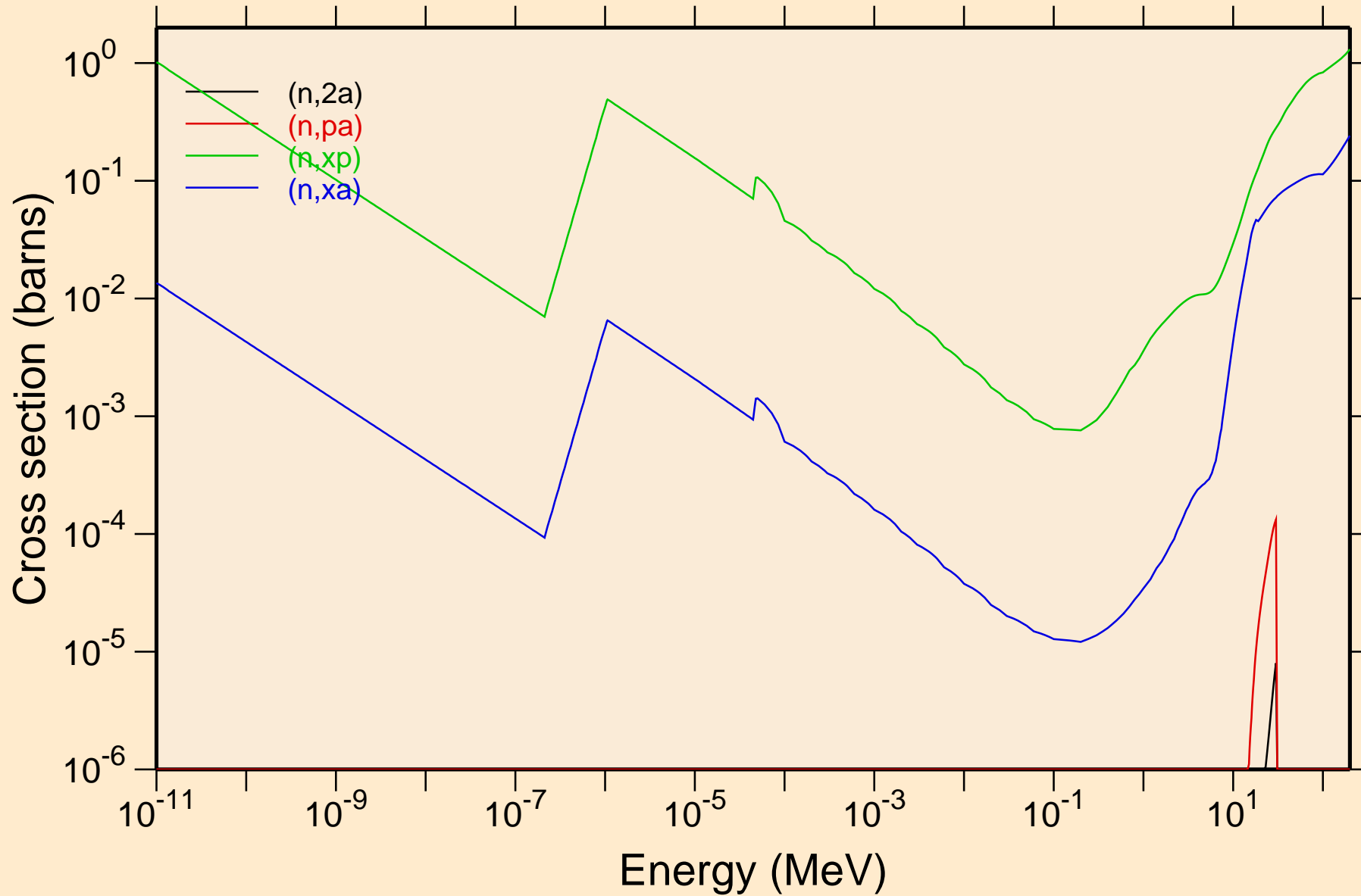


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

## Non-threshold reactions

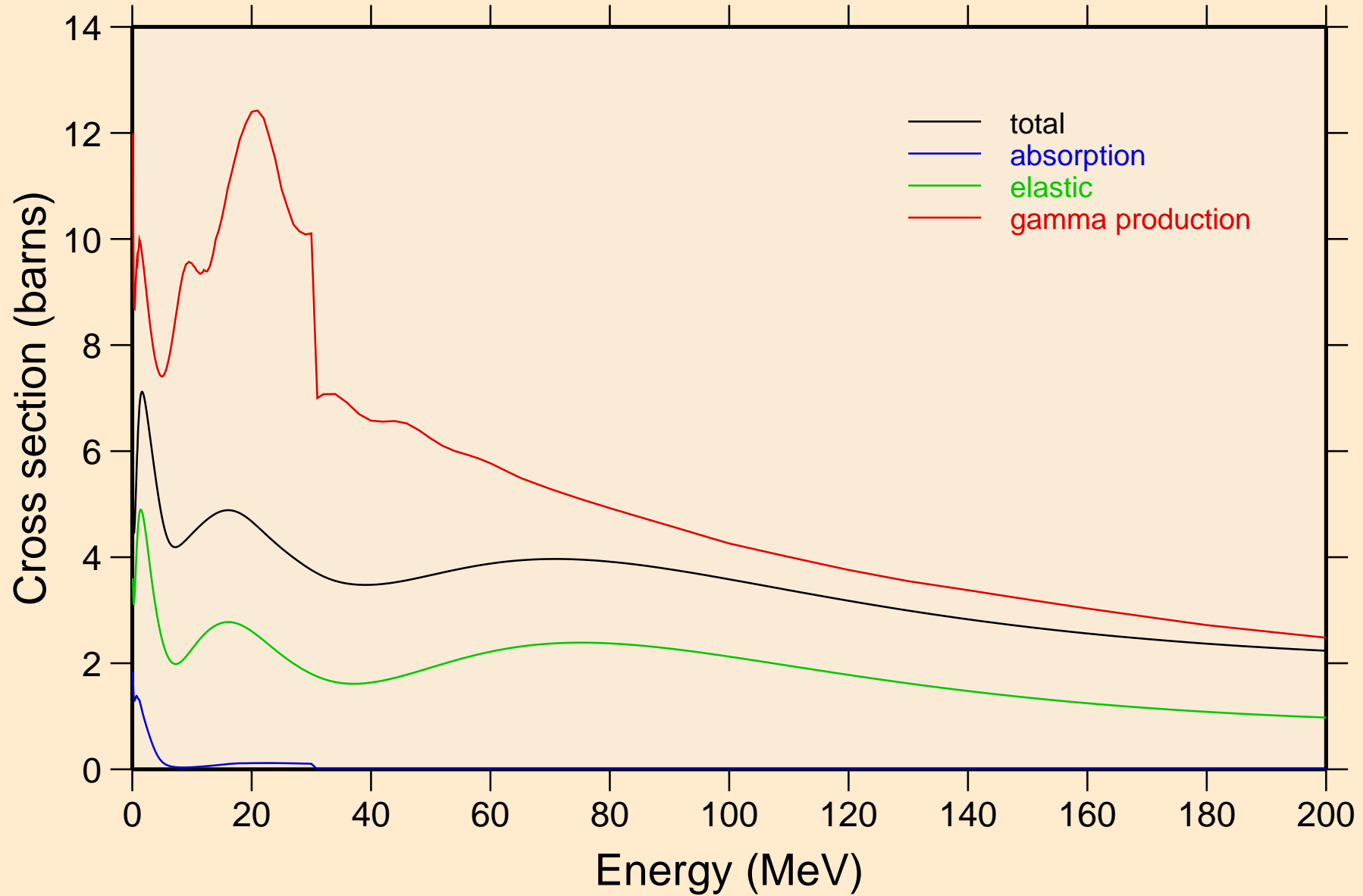


ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
Non-threshold reactions



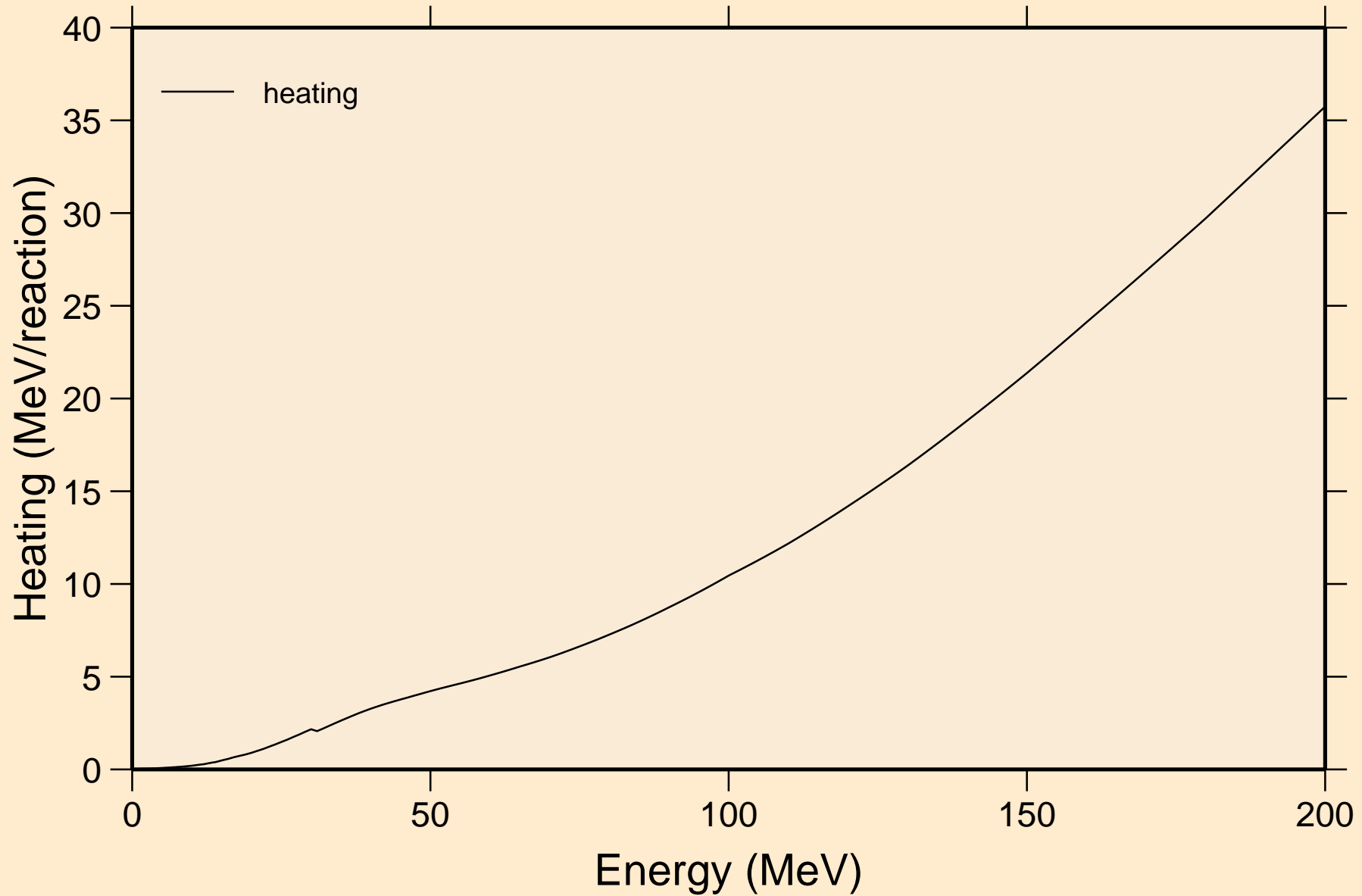
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## Principal cross sections



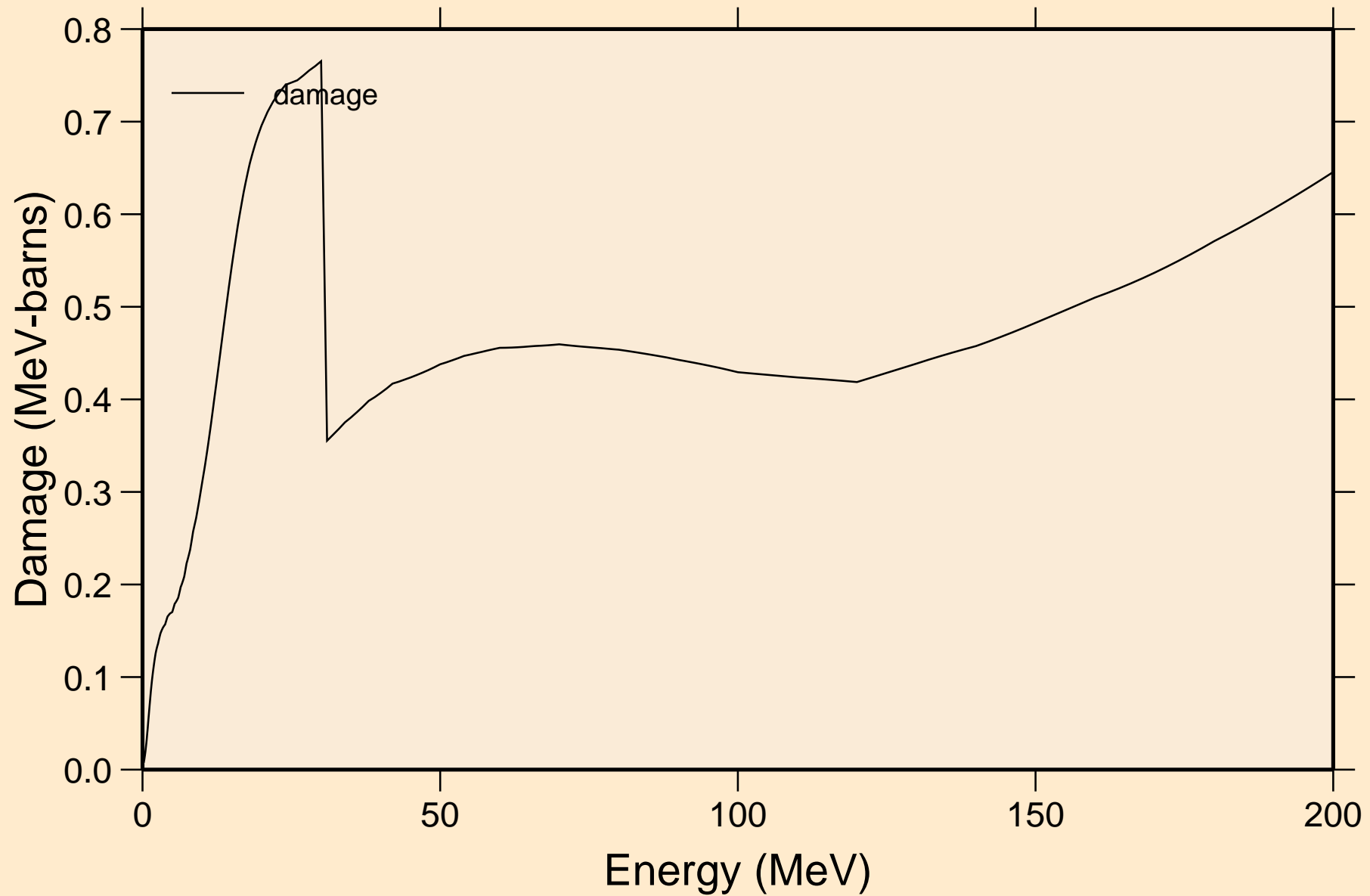
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## Heating



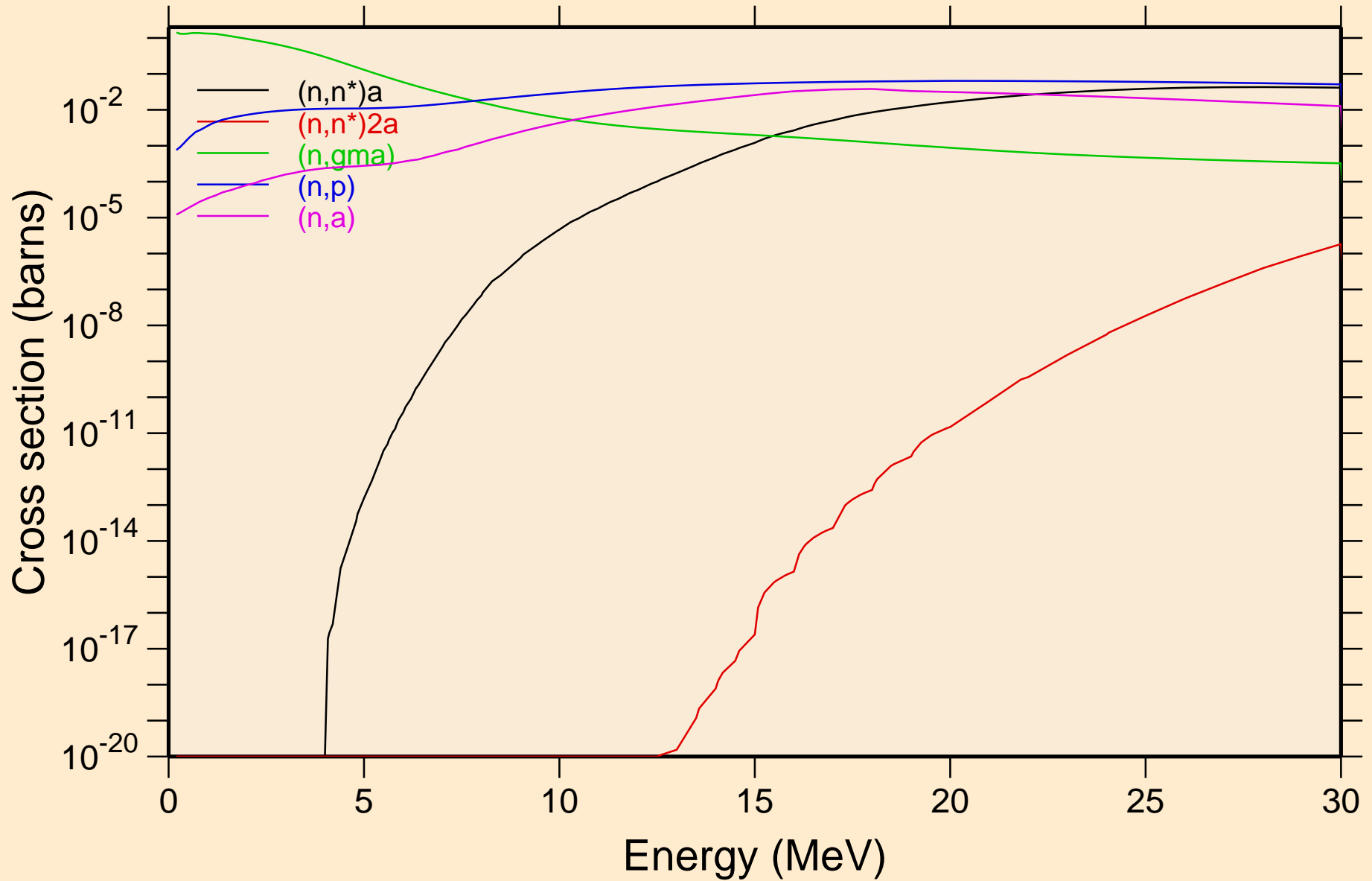
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## Damage



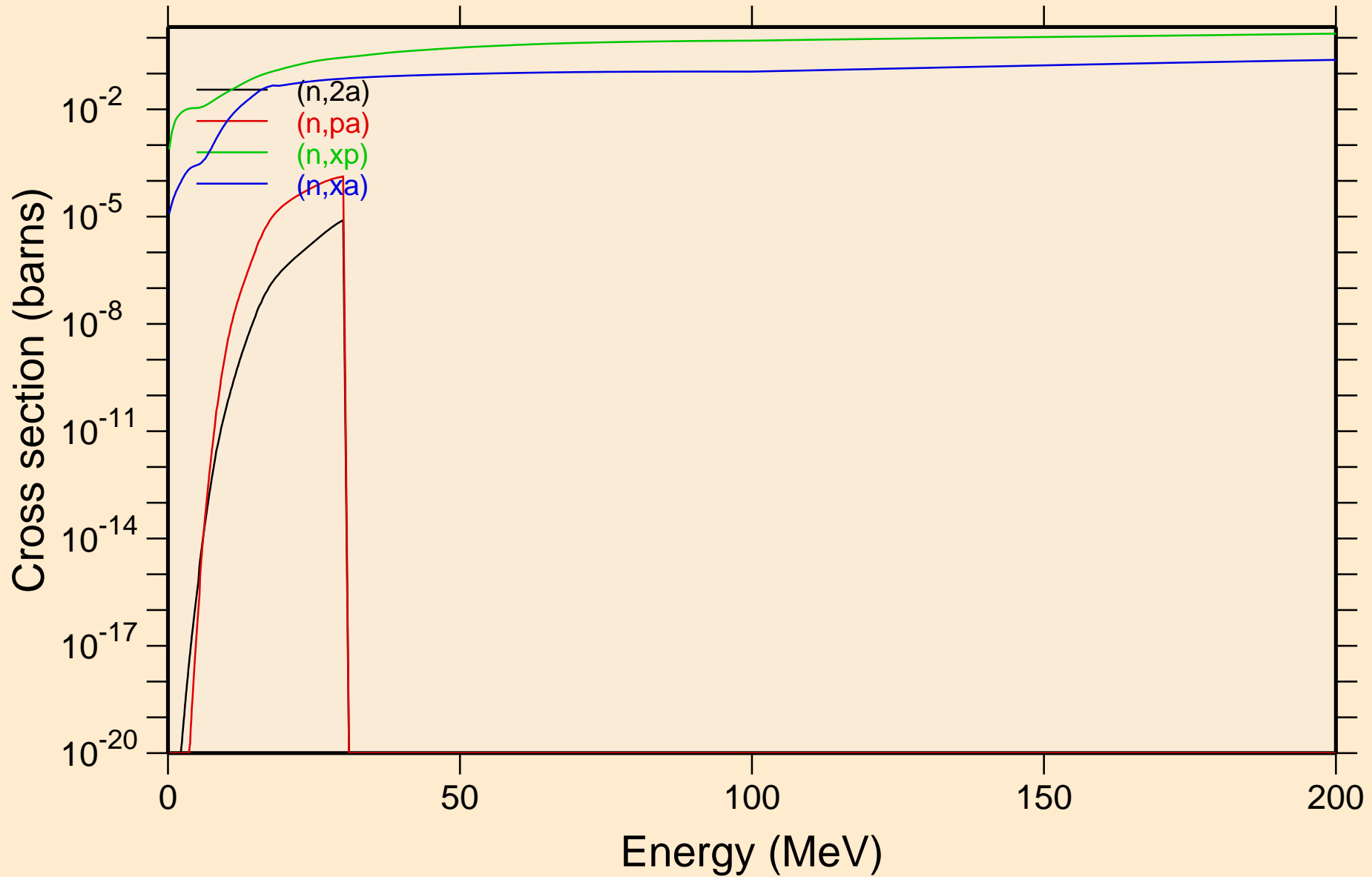
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## Non-threshold reactions

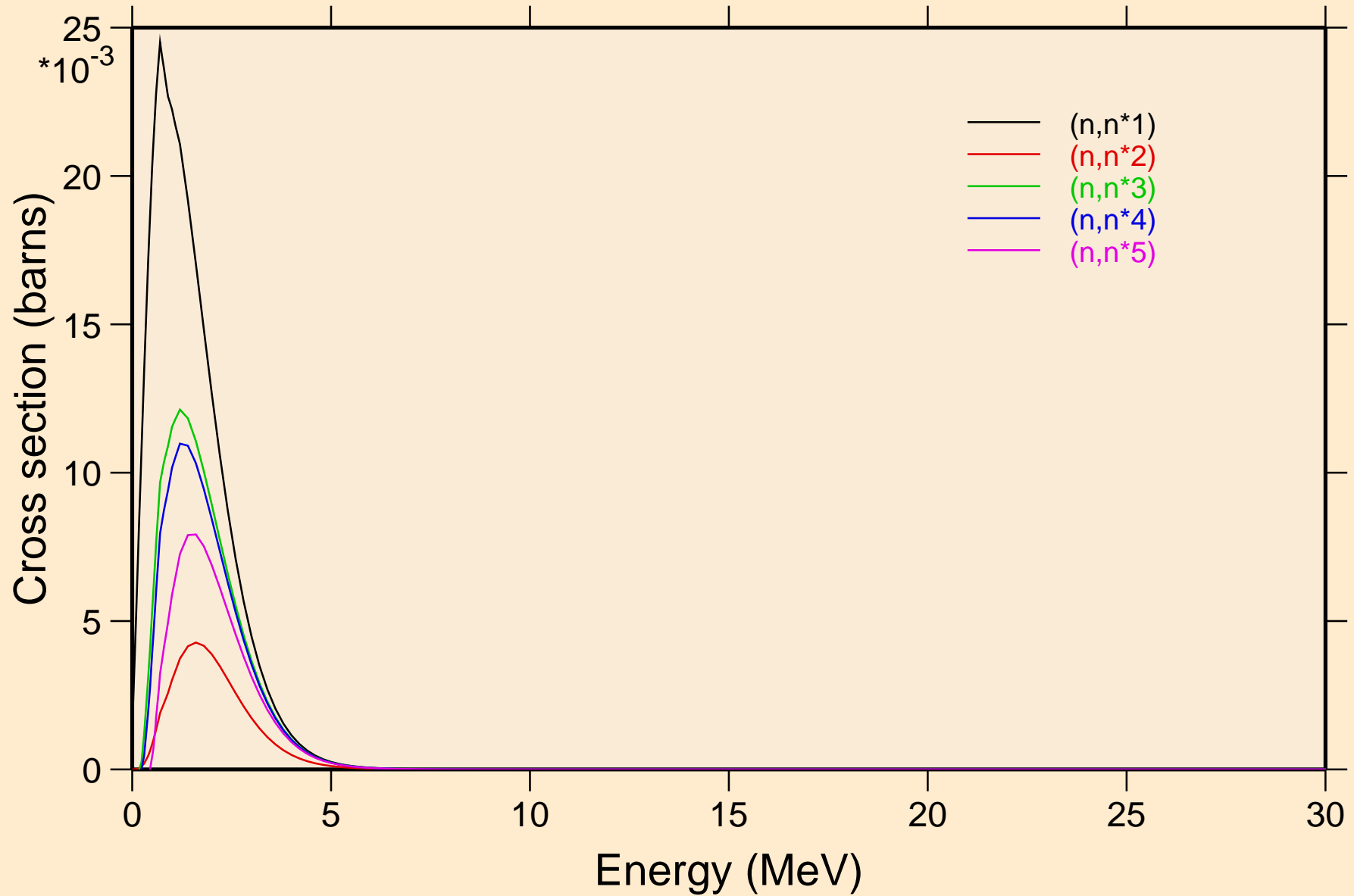


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

## Non-threshold reactions

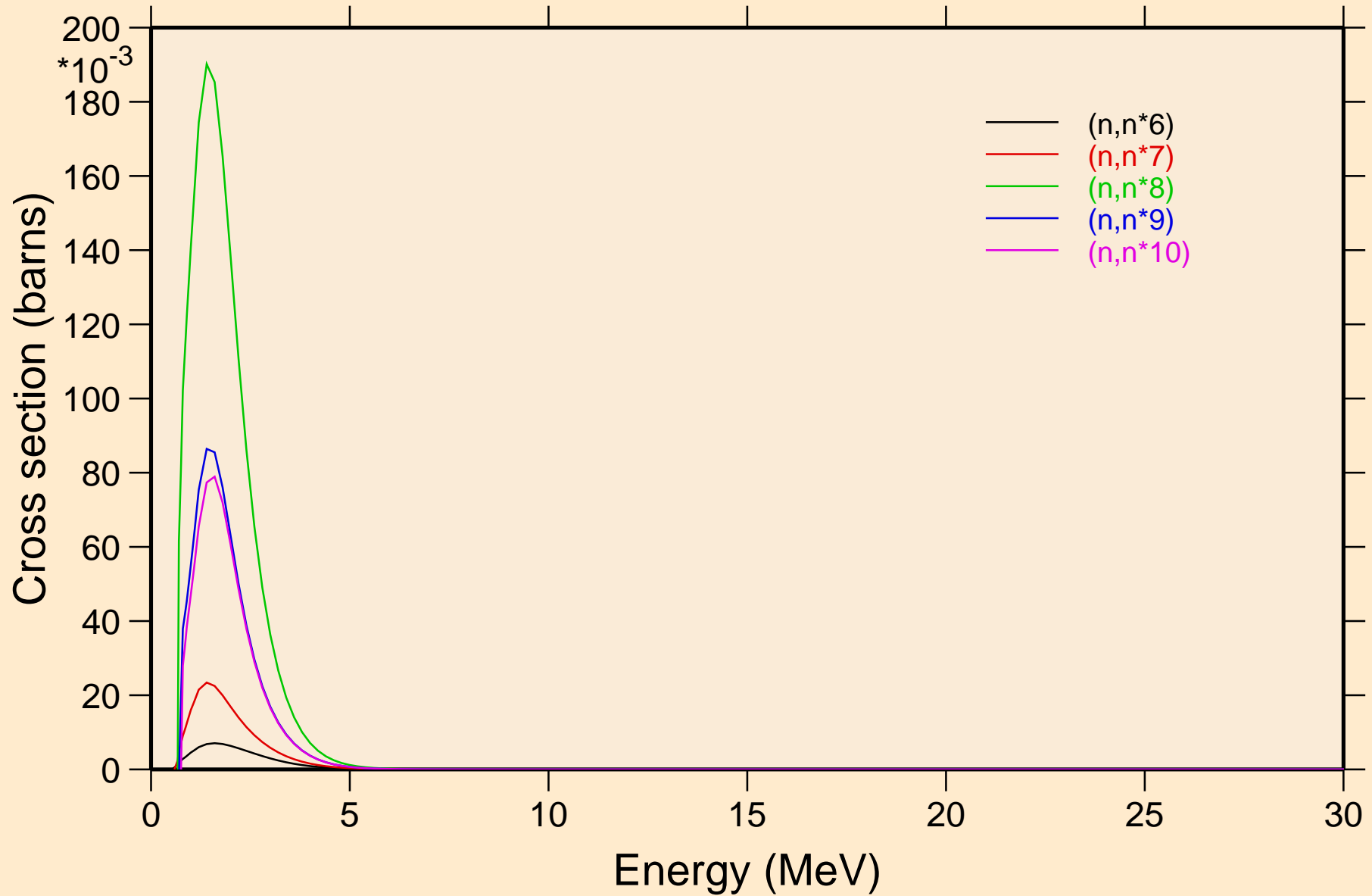


ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
Inelastic levels

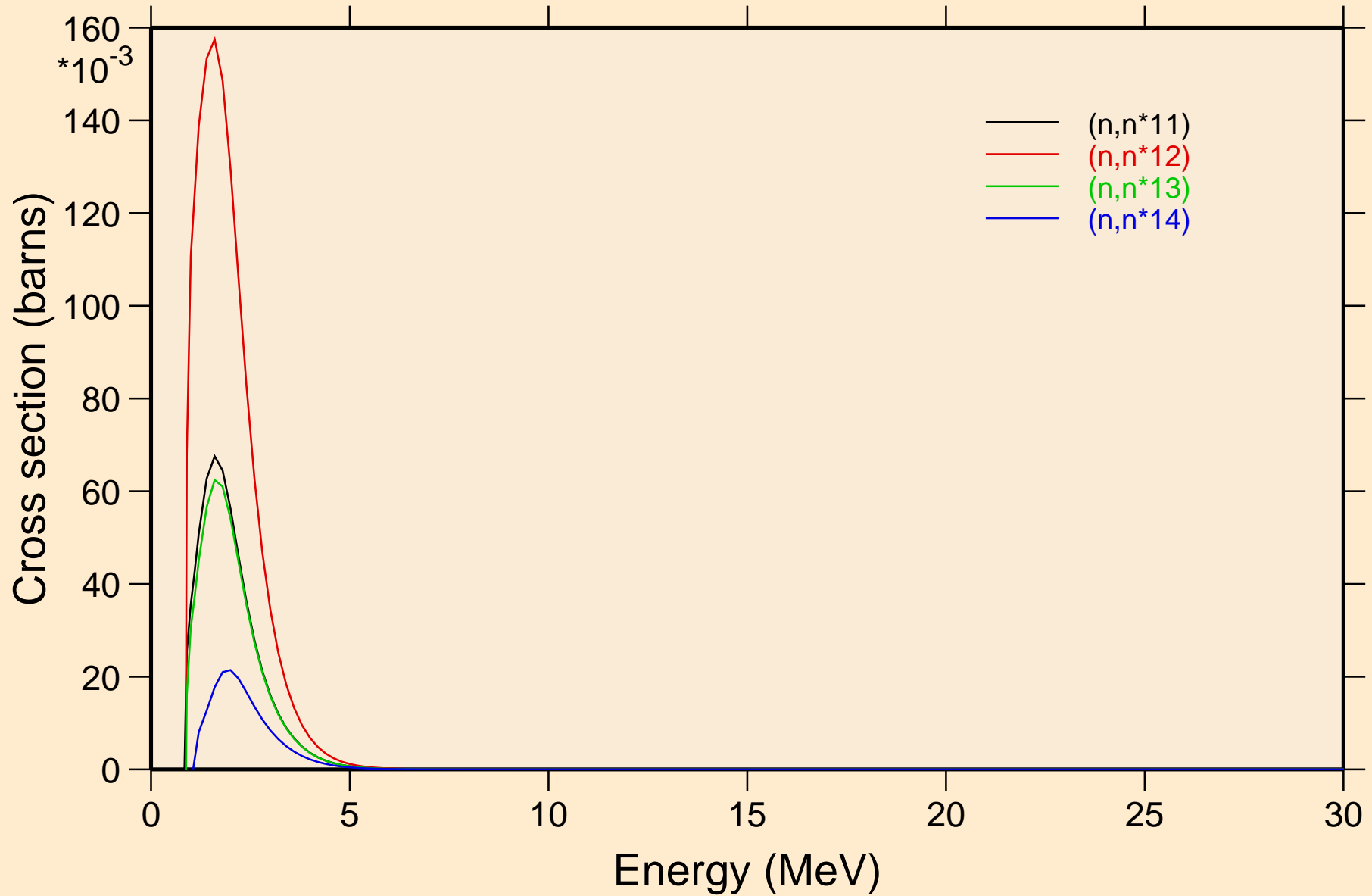


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

## Inelastic levels

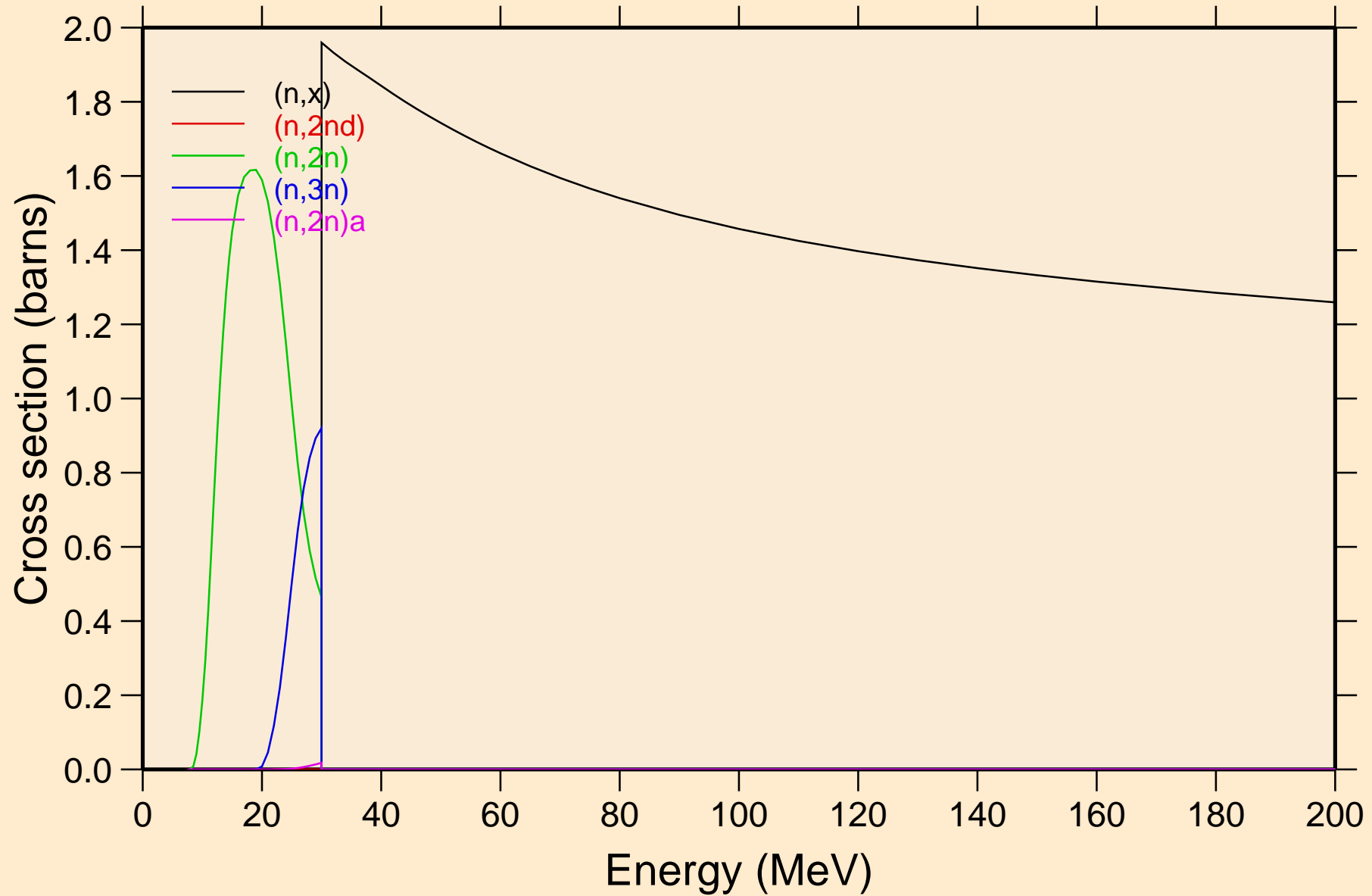


ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
Inelastic levels



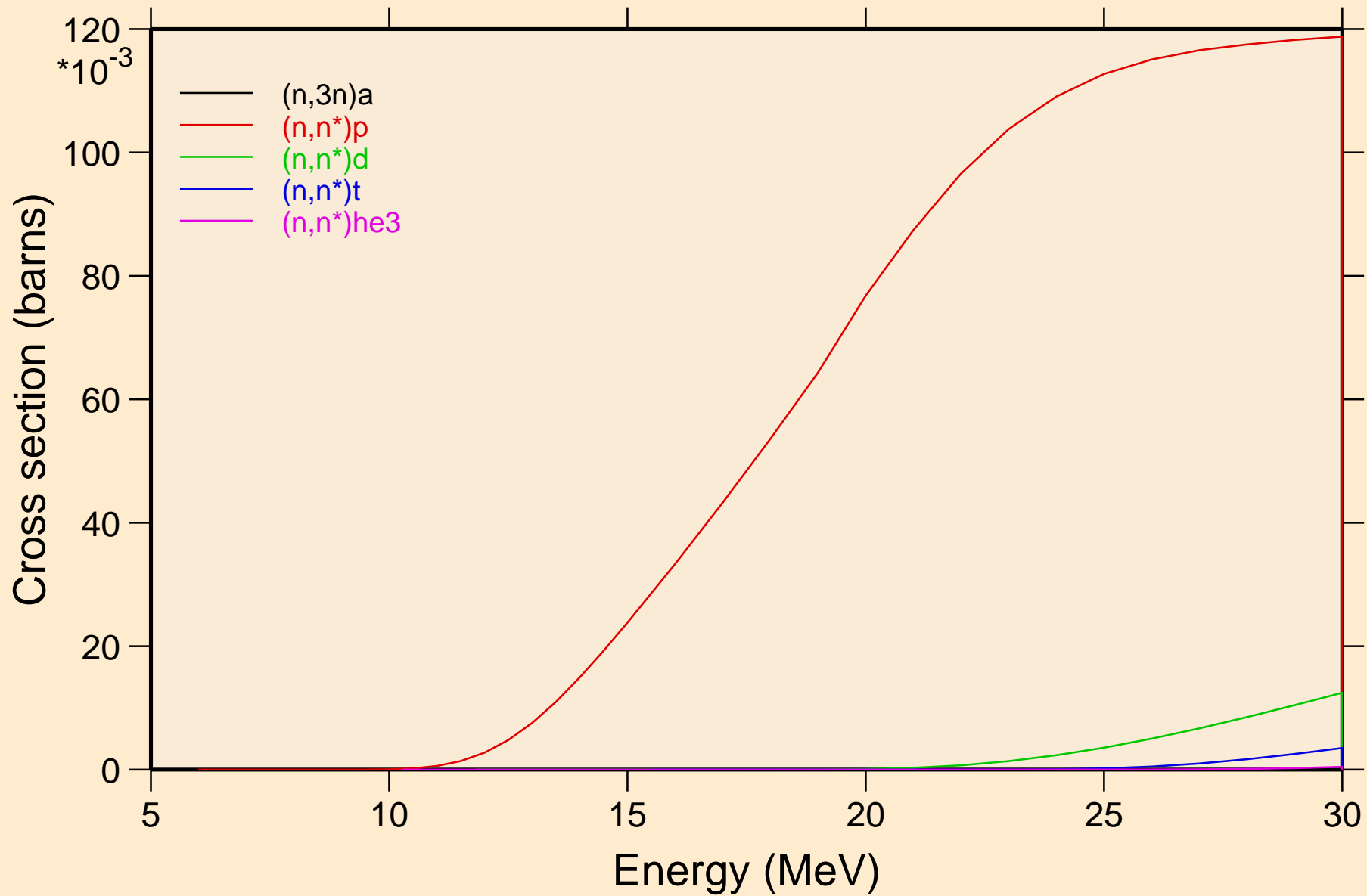
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## Threshold reactions



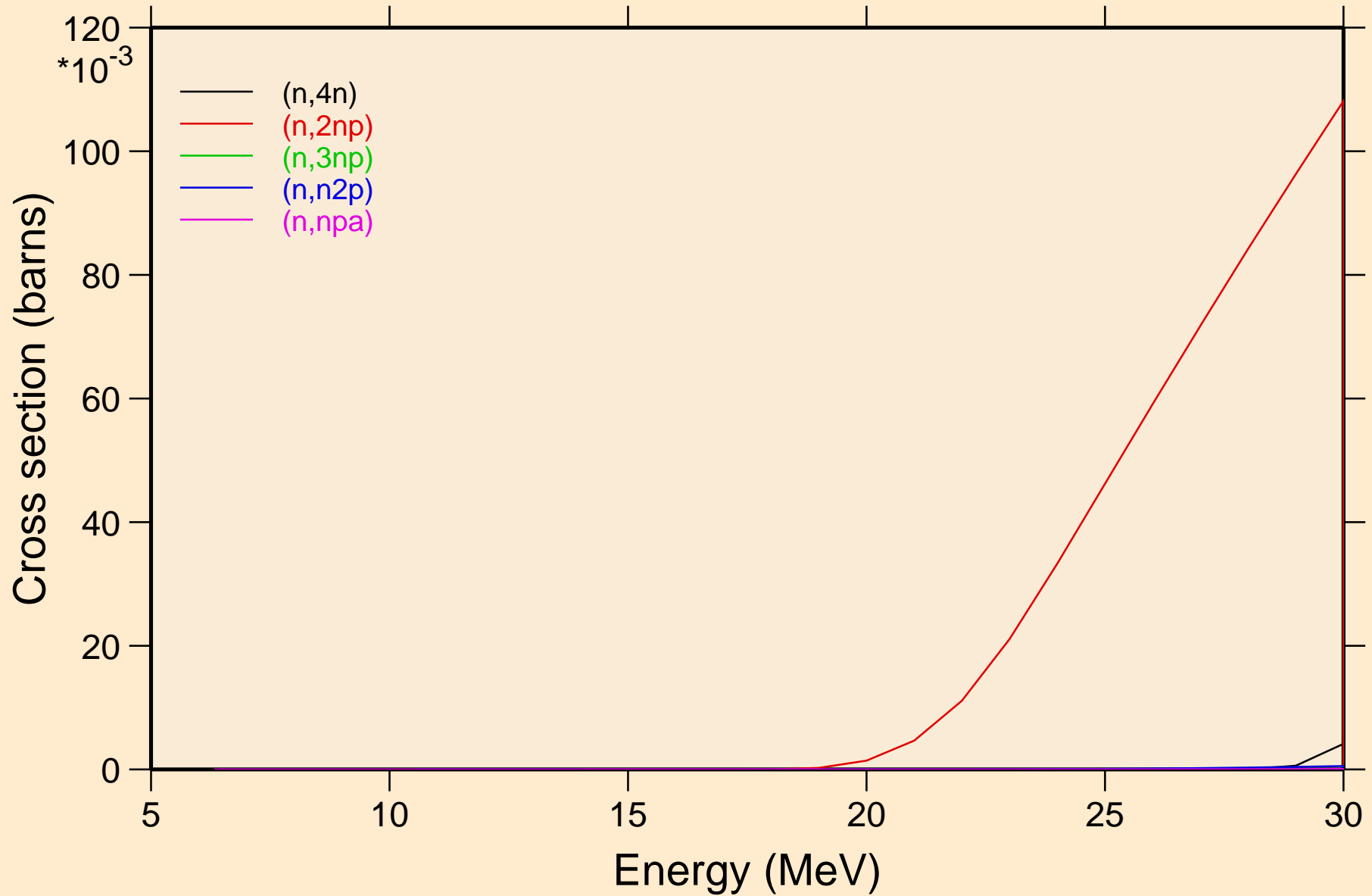
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## Threshold reactions



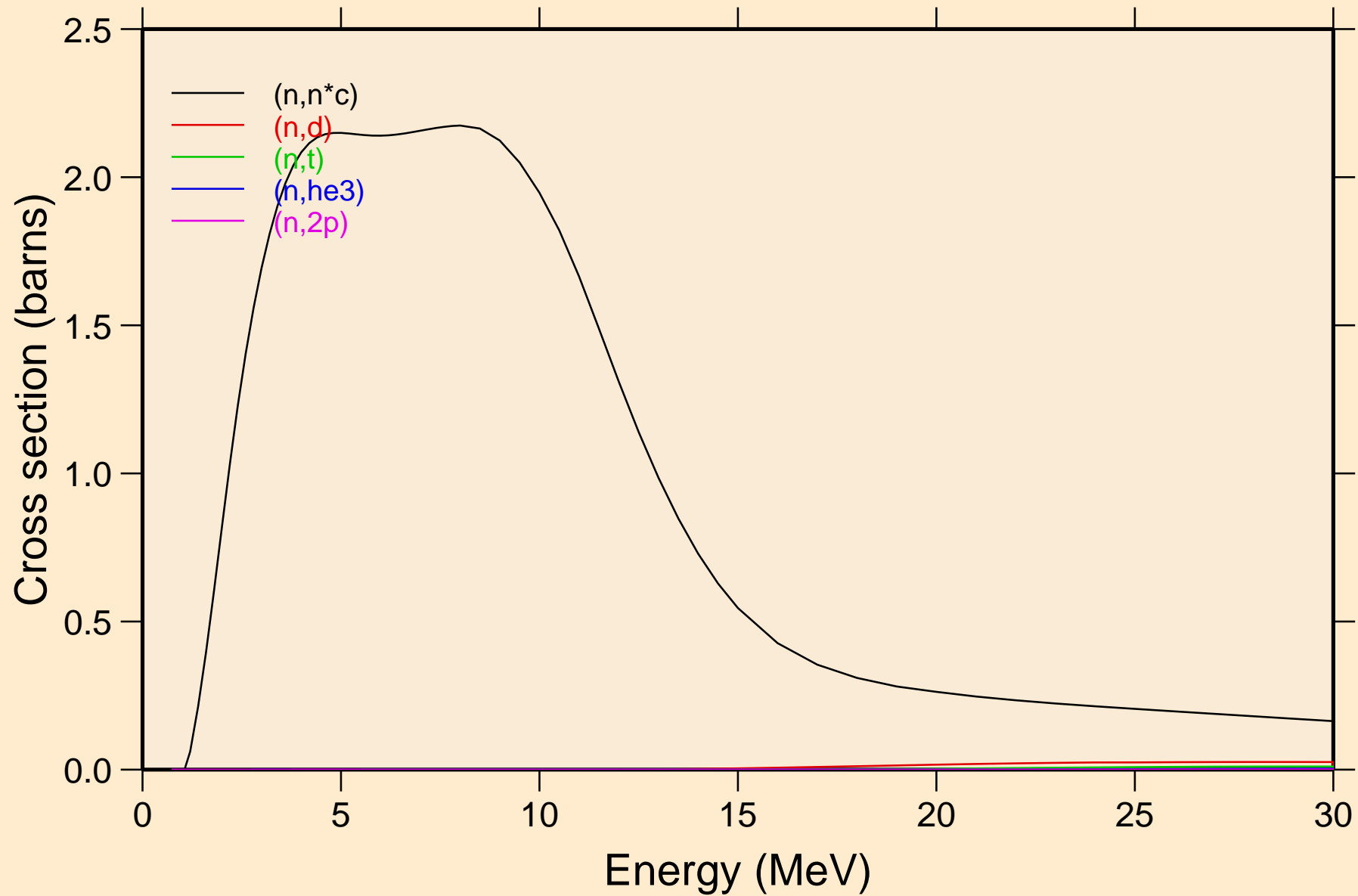
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## Threshold reactions



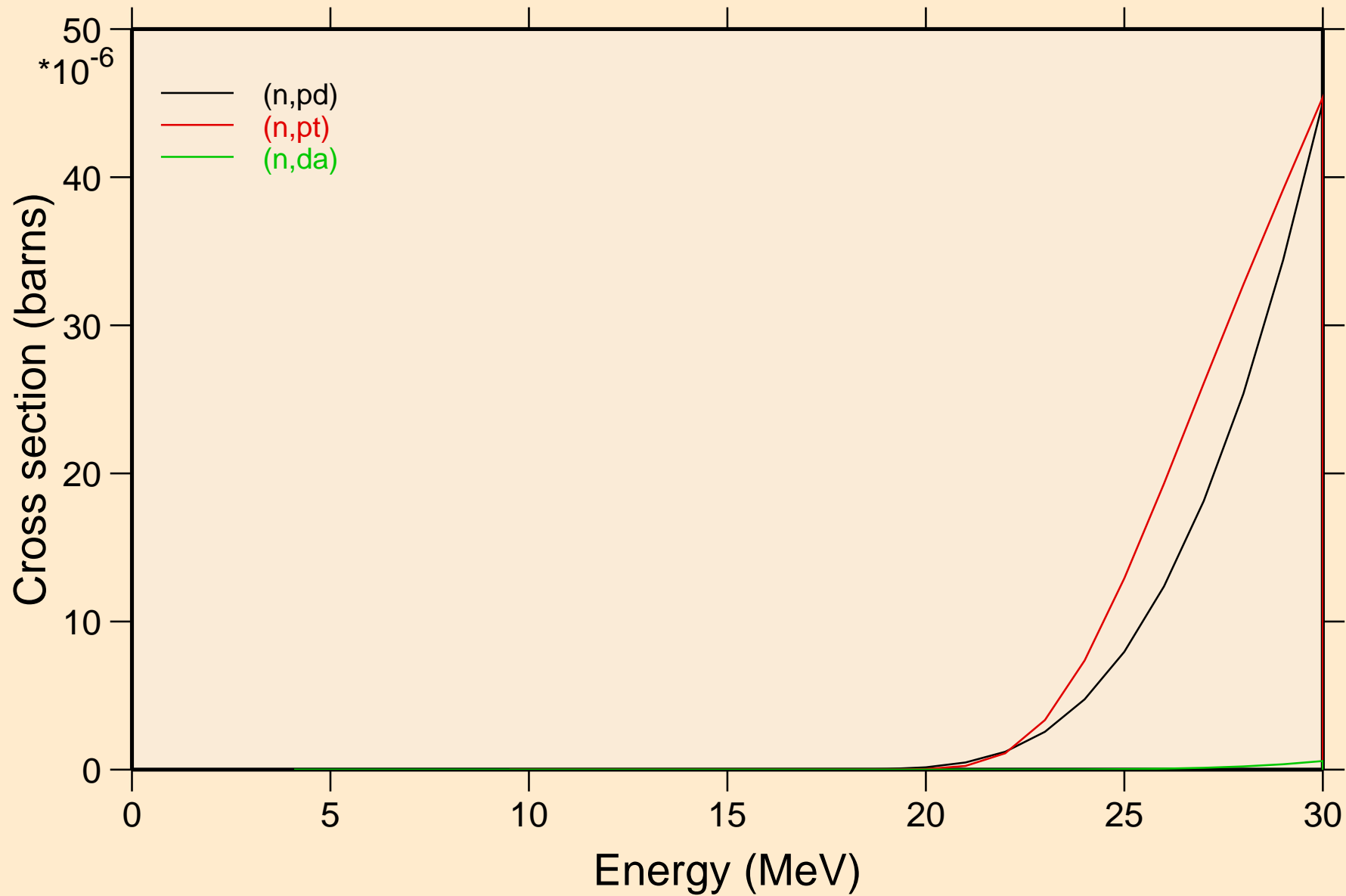
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## Threshold reactions



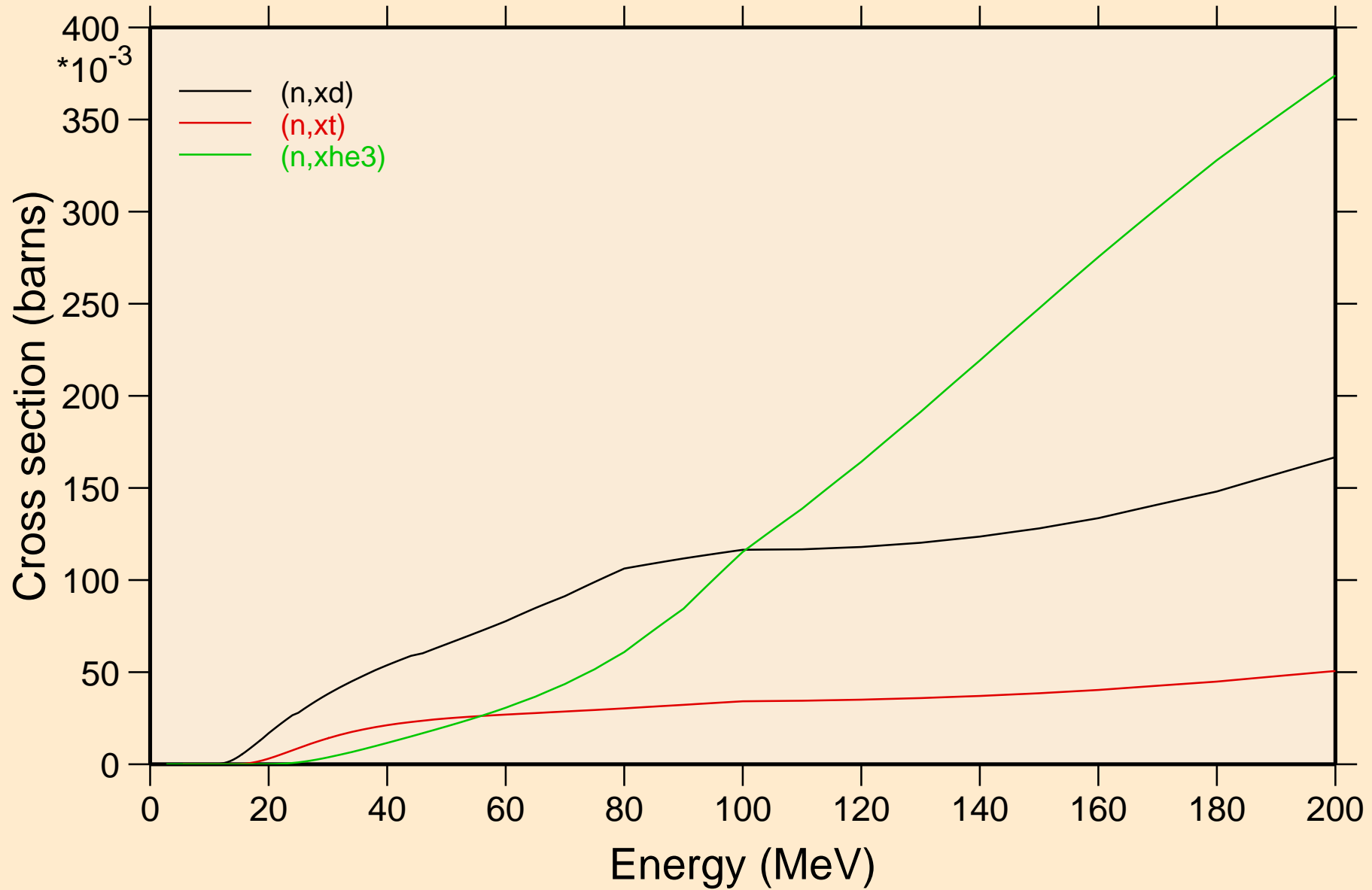
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## Threshold reactions

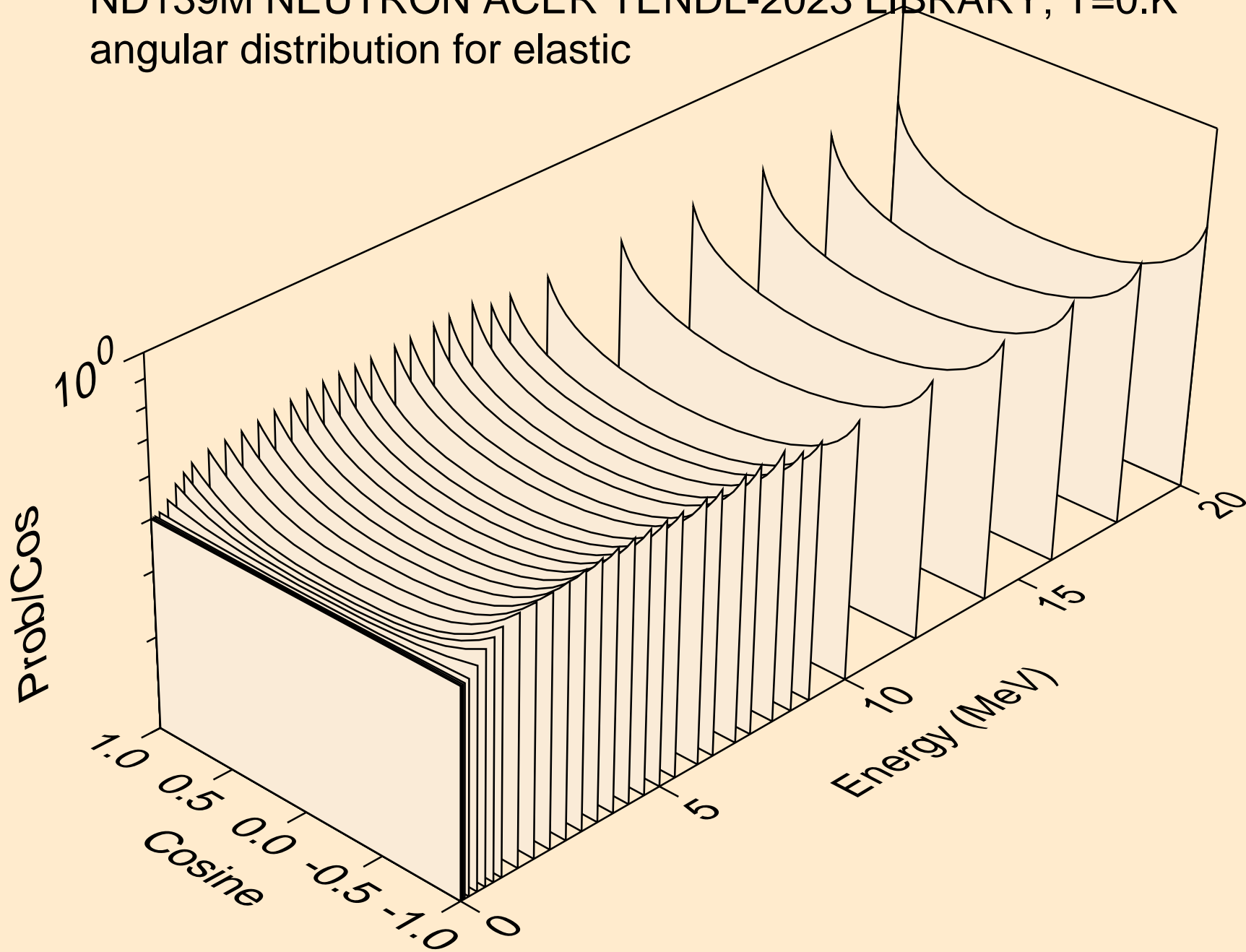


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

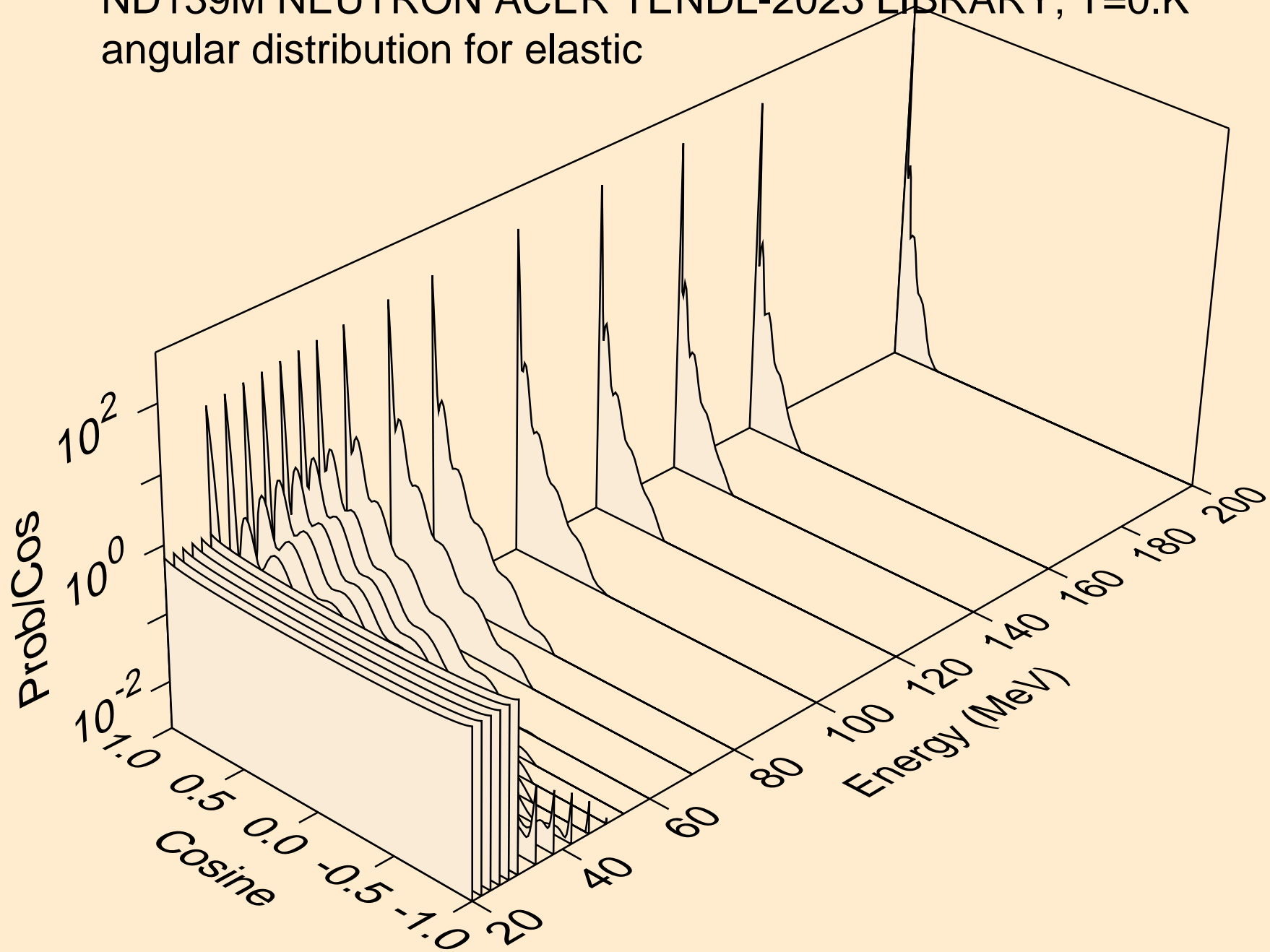
## Threshold reactions



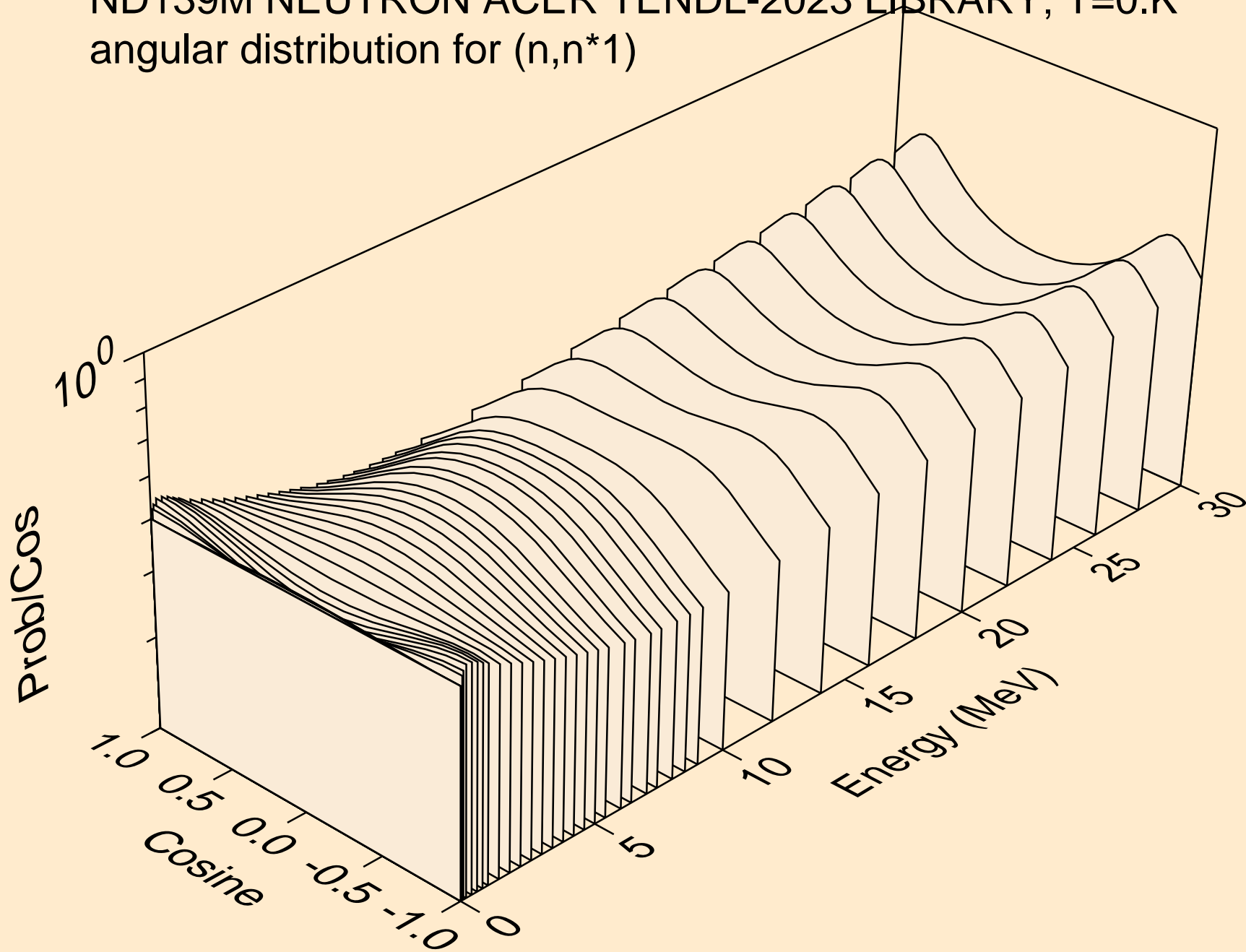
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angular distribution for elastic



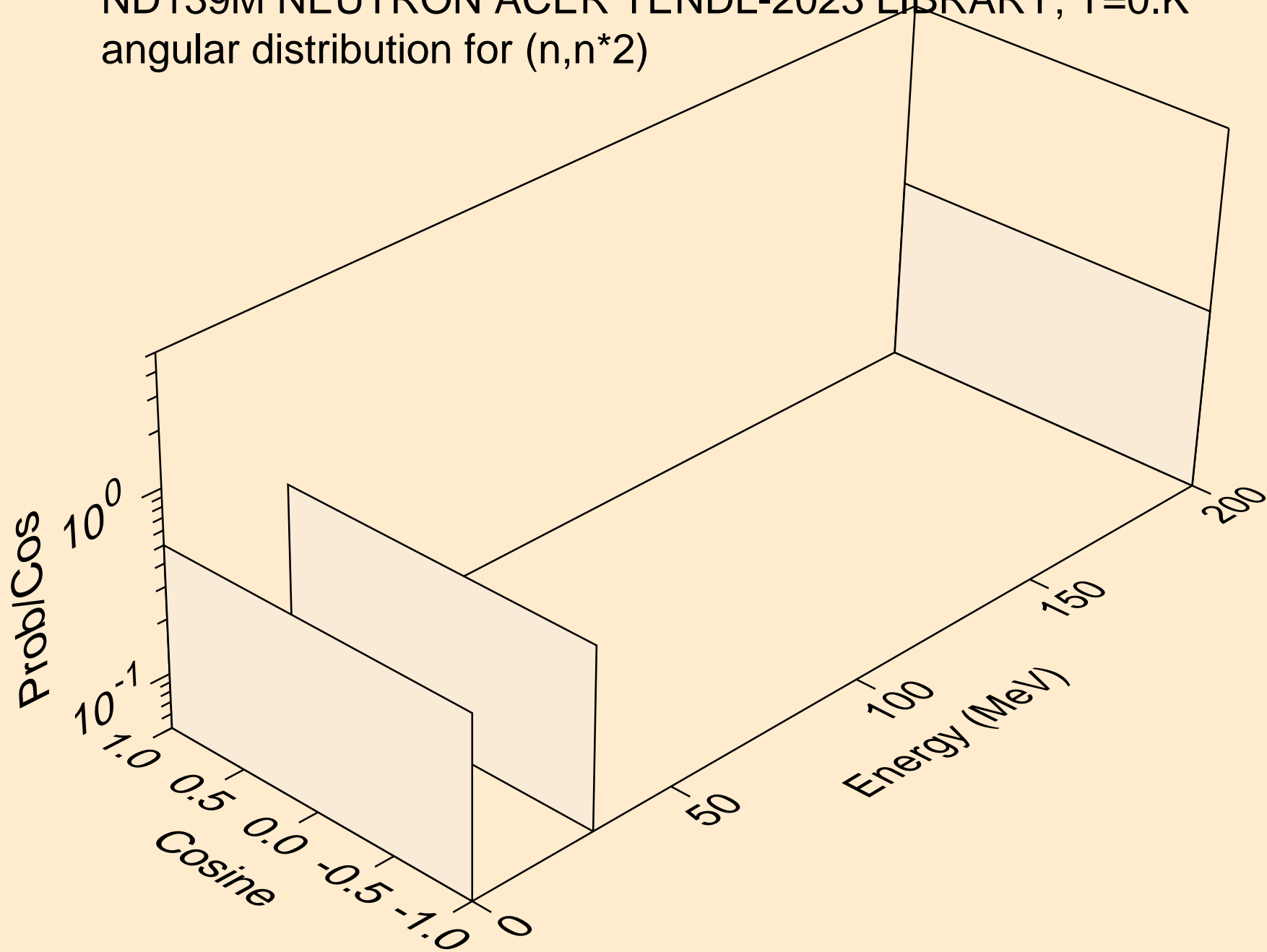
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angular distribution for elastic



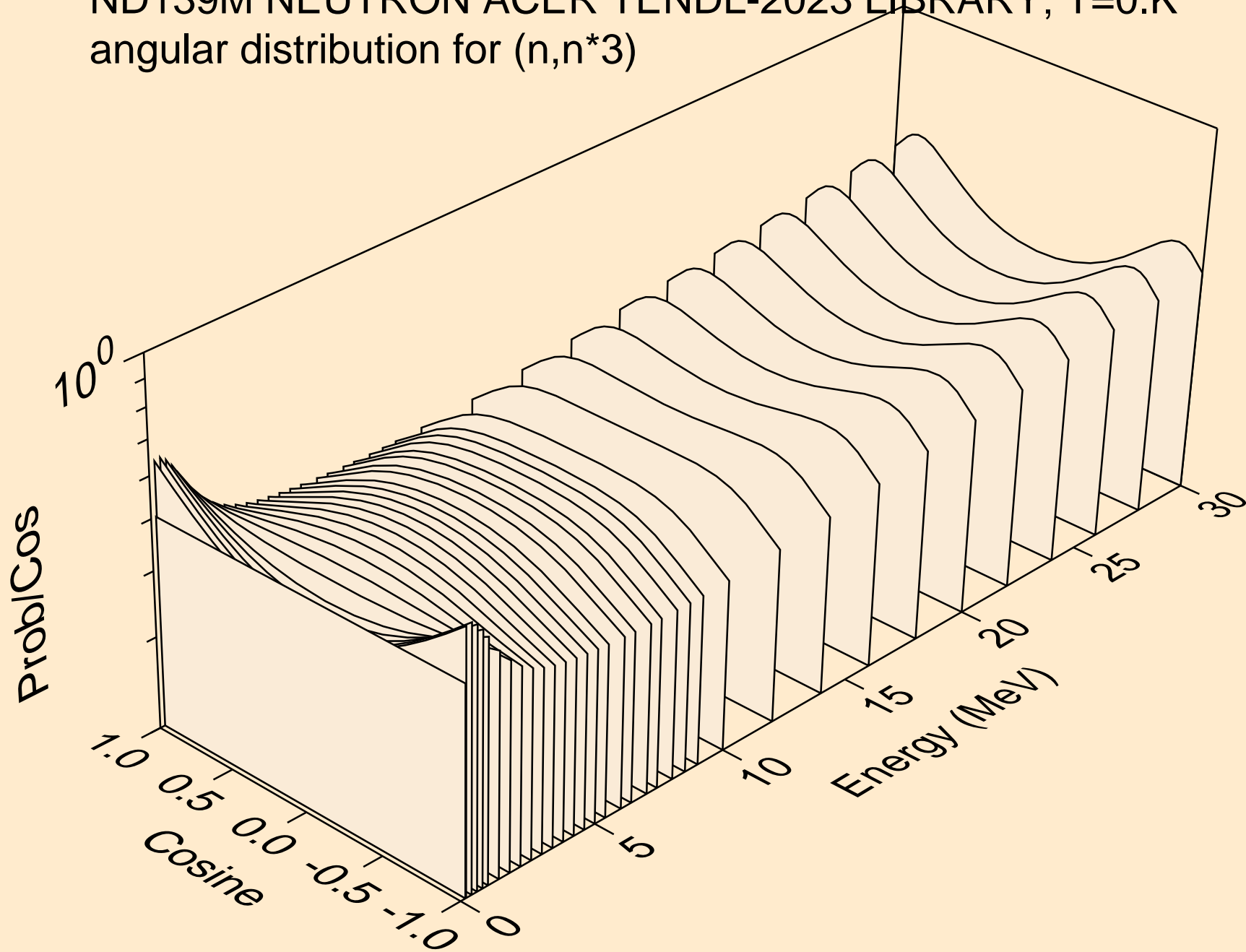
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angular distribution for (n,n\*1)



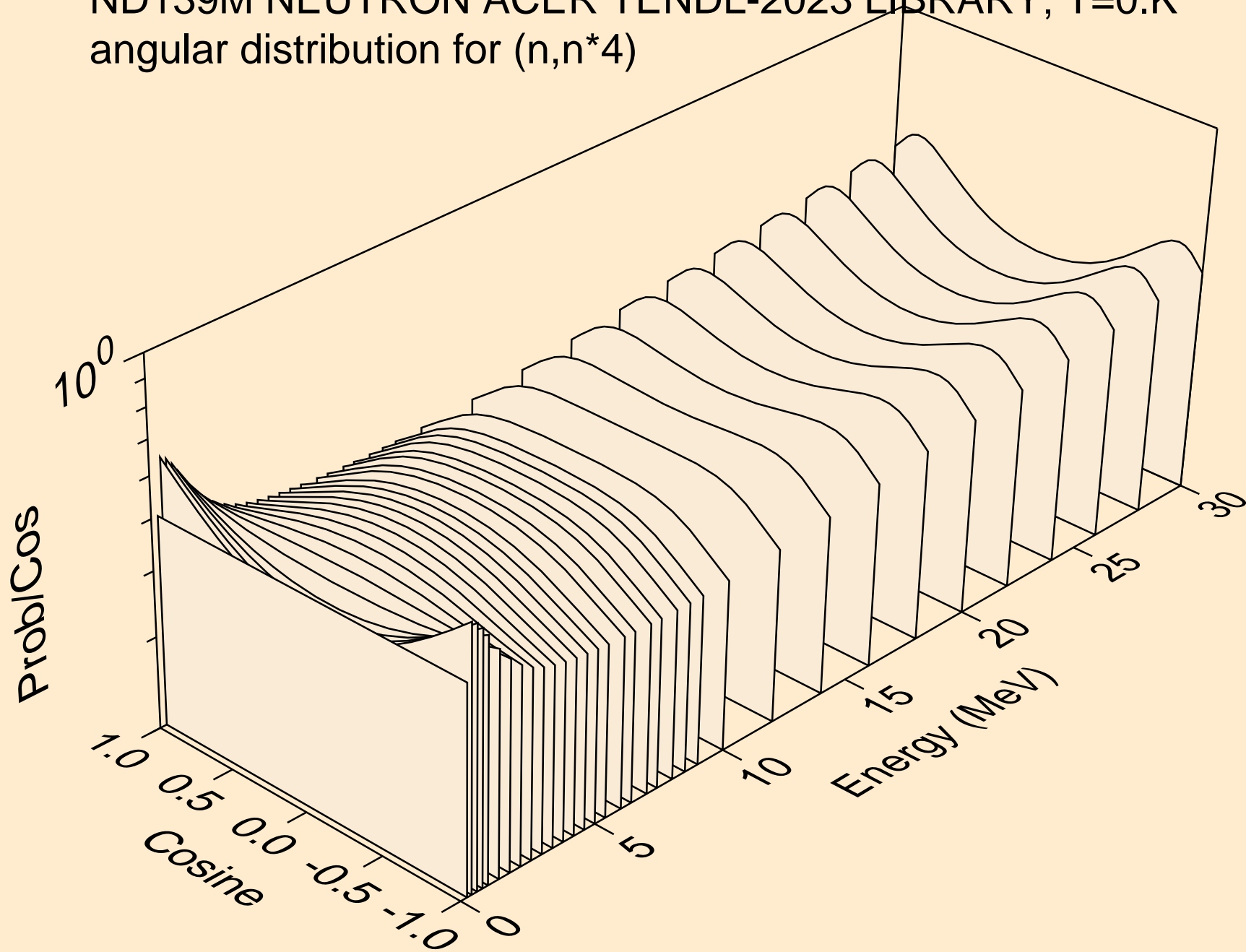
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angular distribution for (n,n\*2)



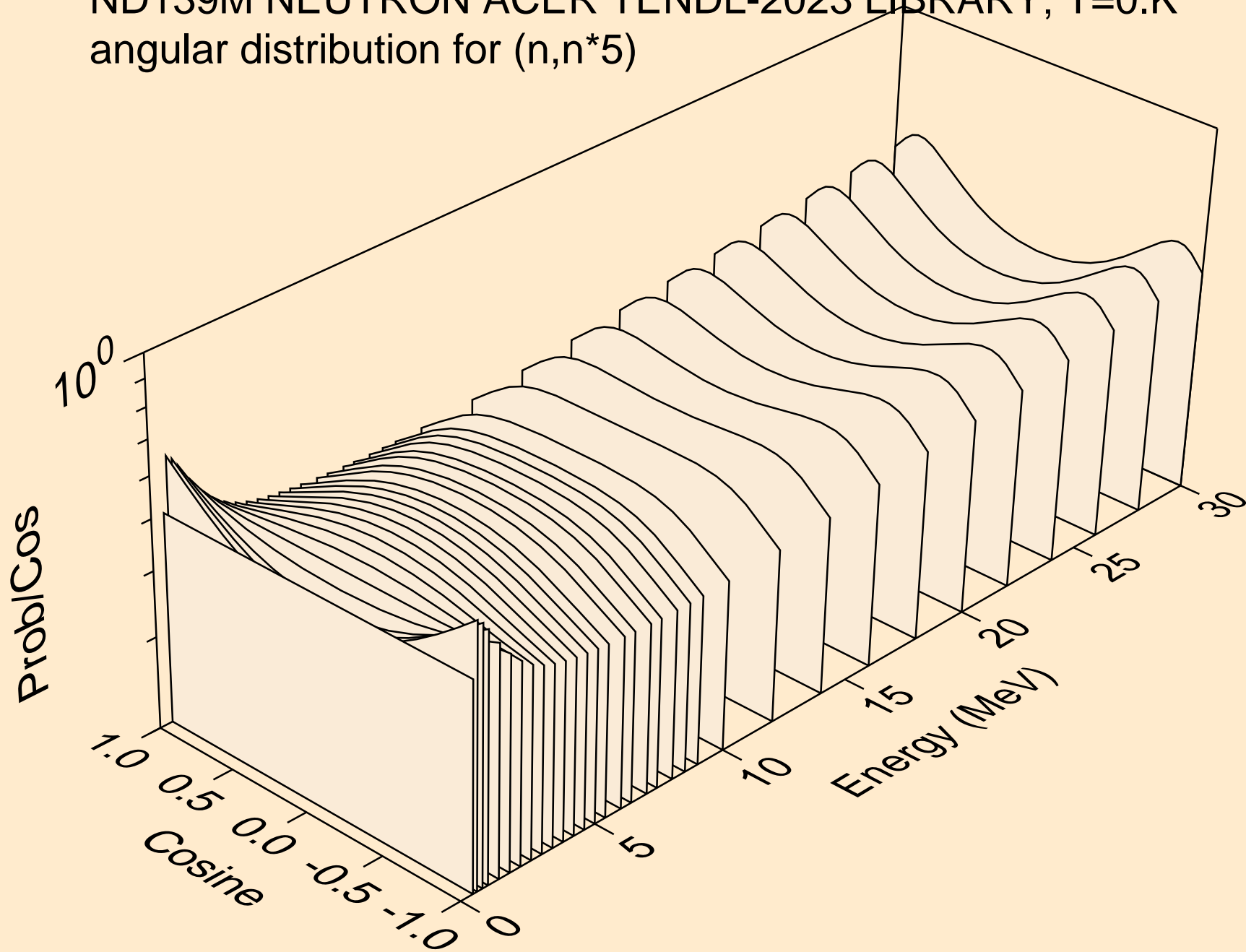
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angular distribution for (n,n\*3)



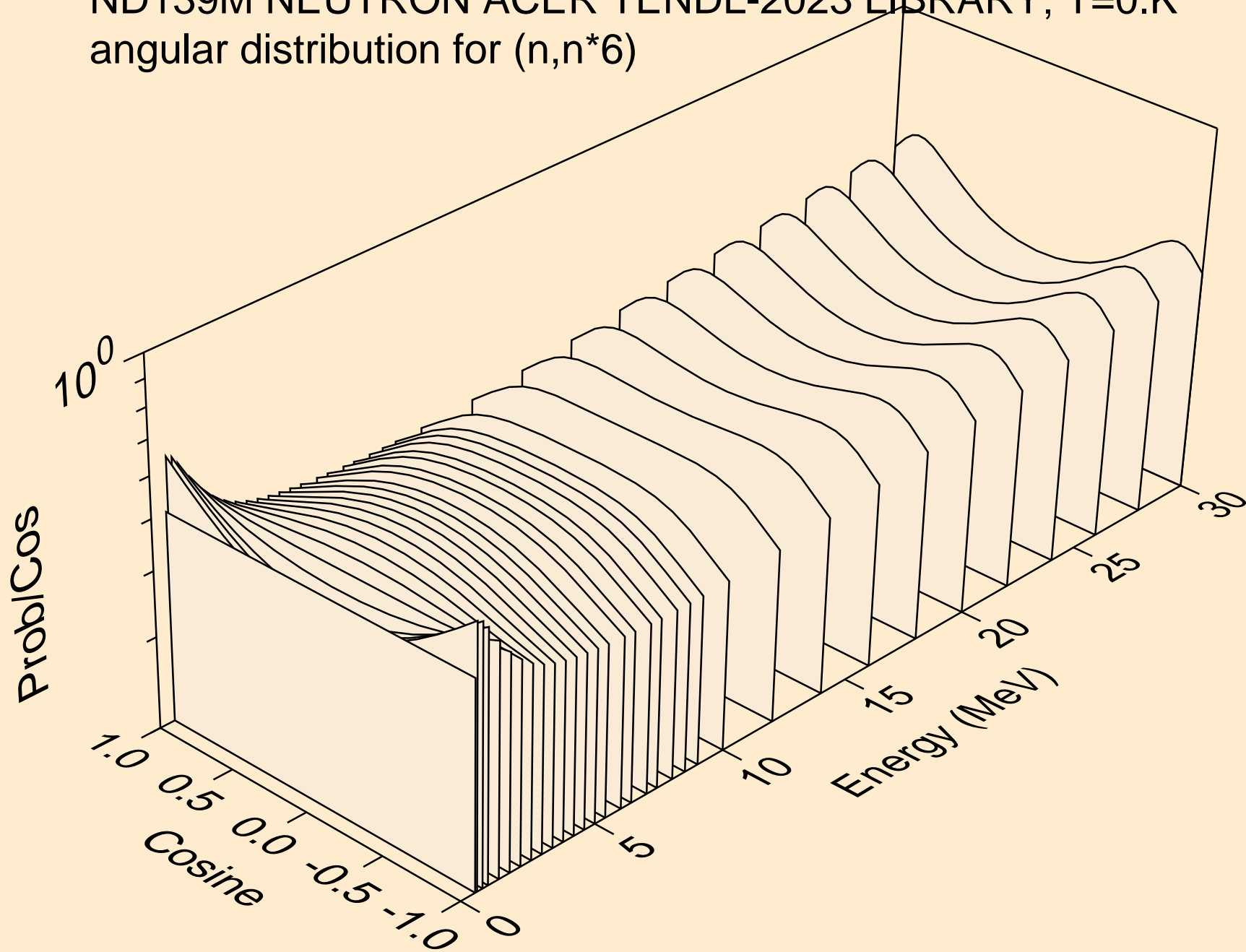
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angular distribution for (n,n\*4)



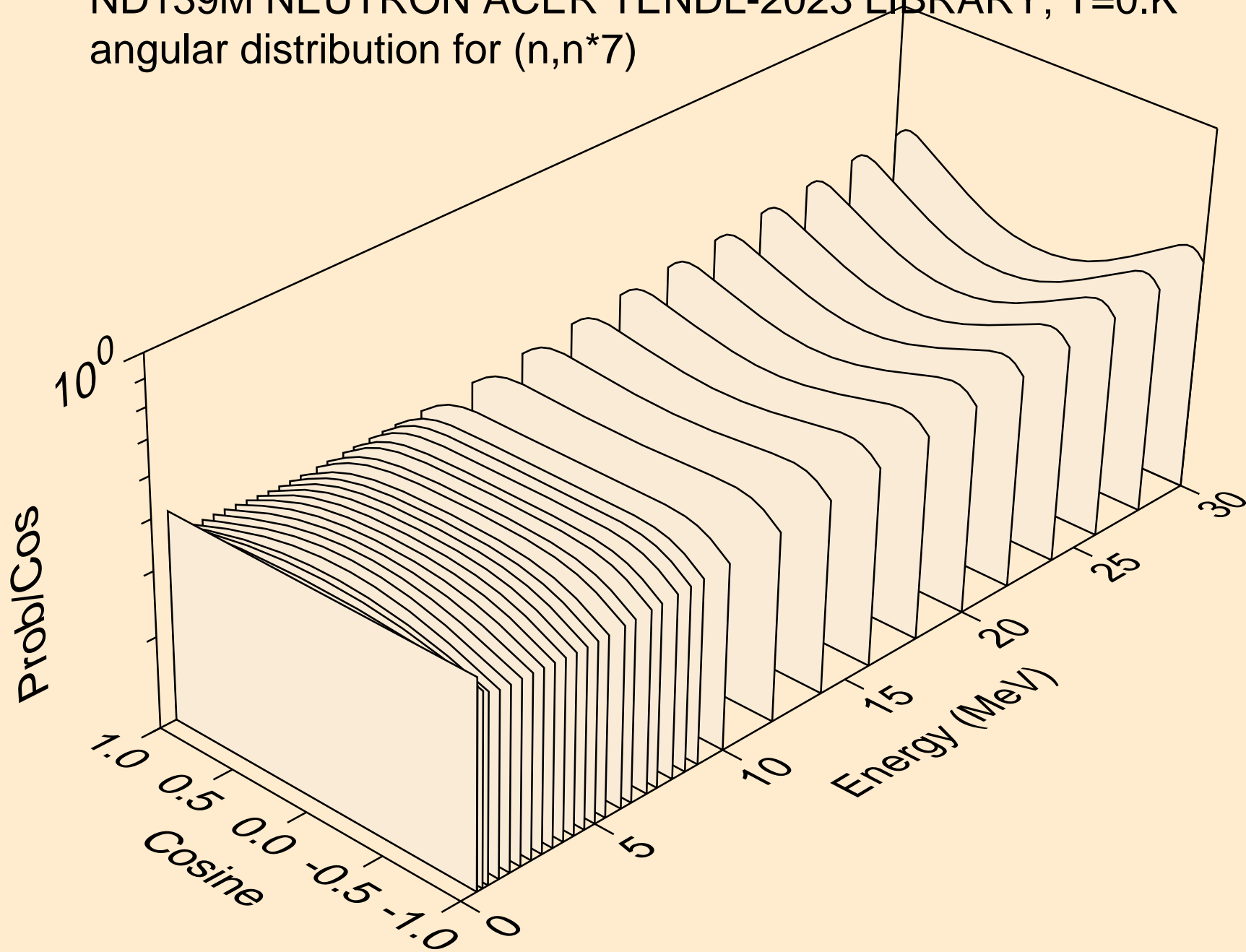
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angular distribution for (n,n\*5)



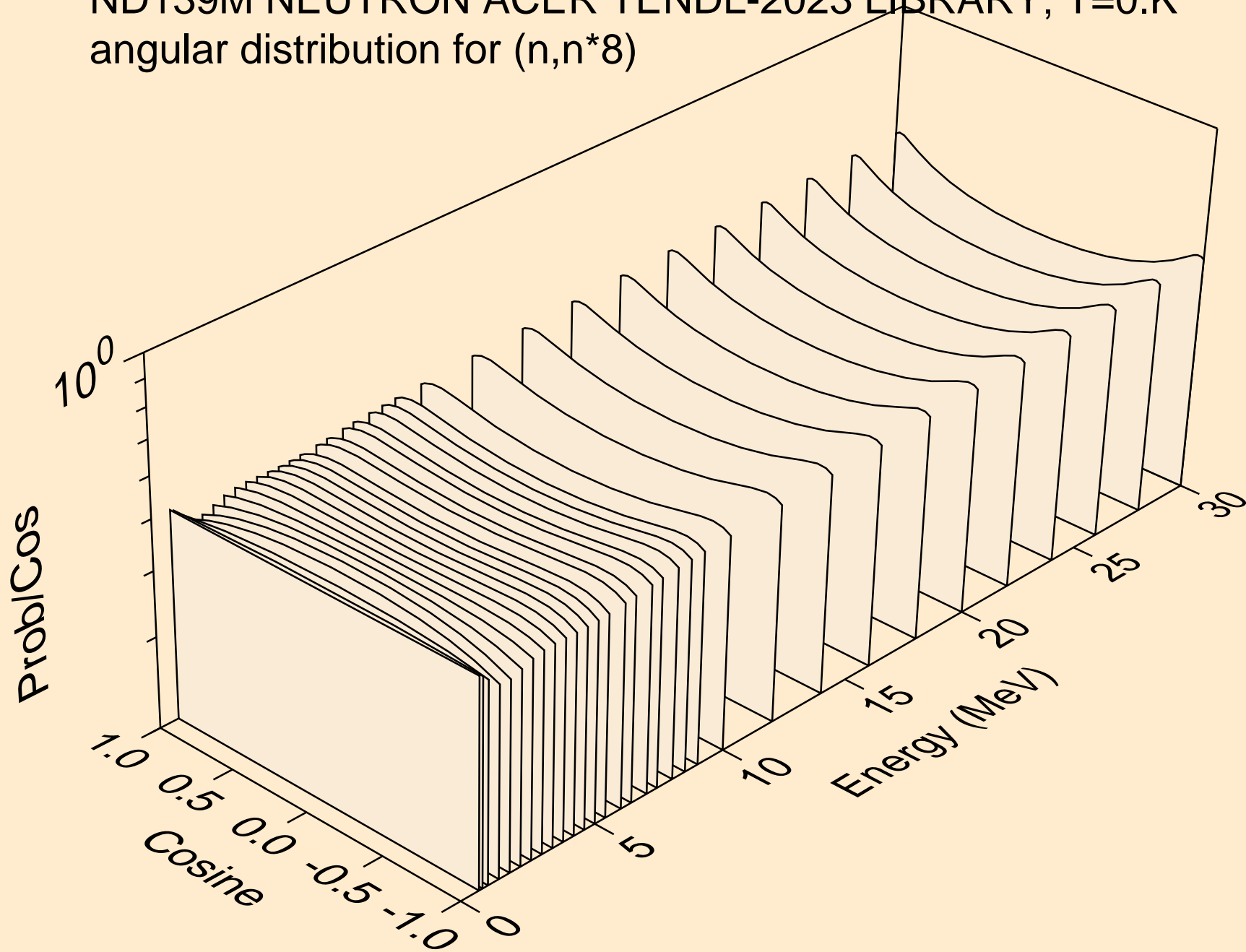
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angular distribution for (n,n\*6)



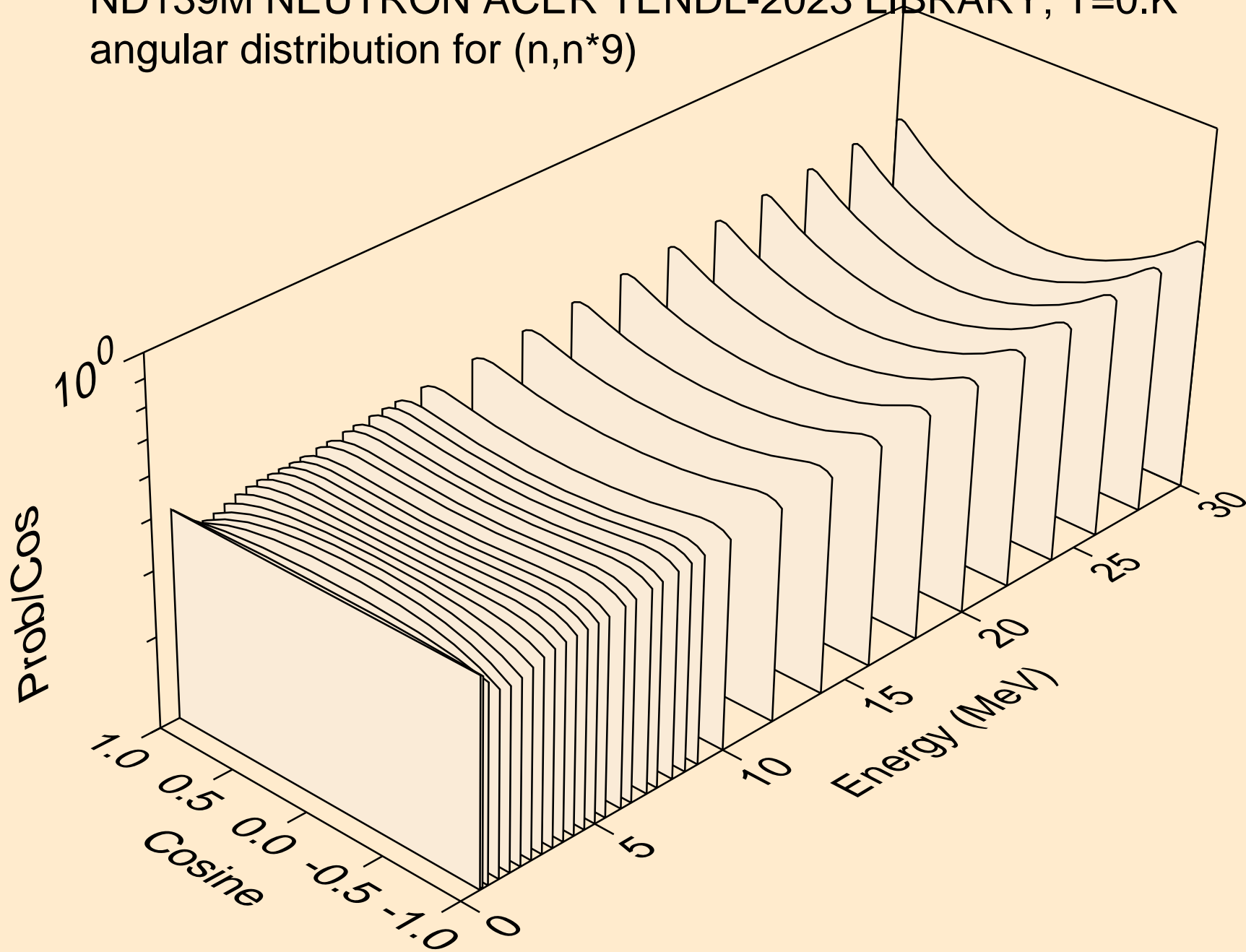
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angular distribution for (n,n\*7)



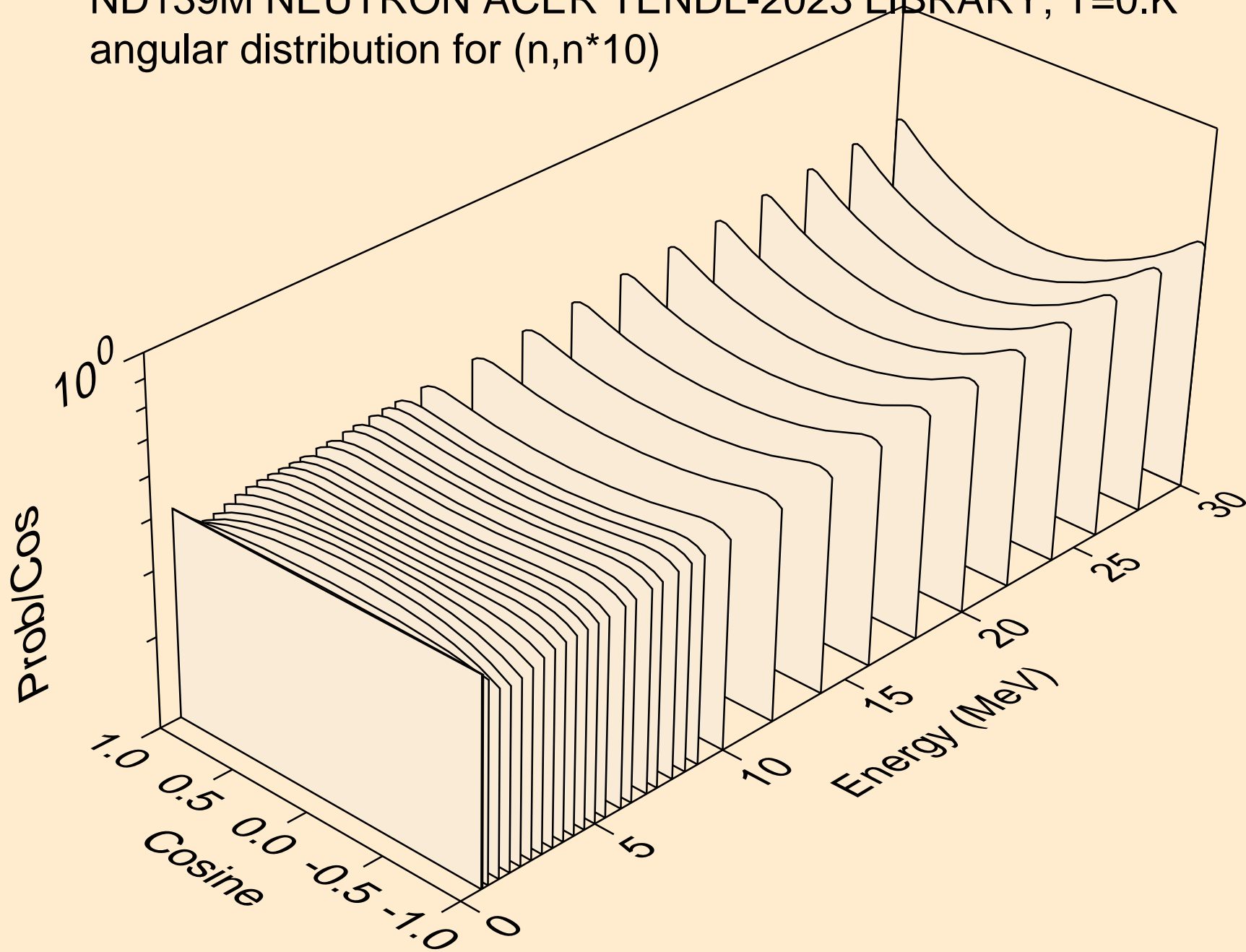
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angular distribution for (n,n\*8)



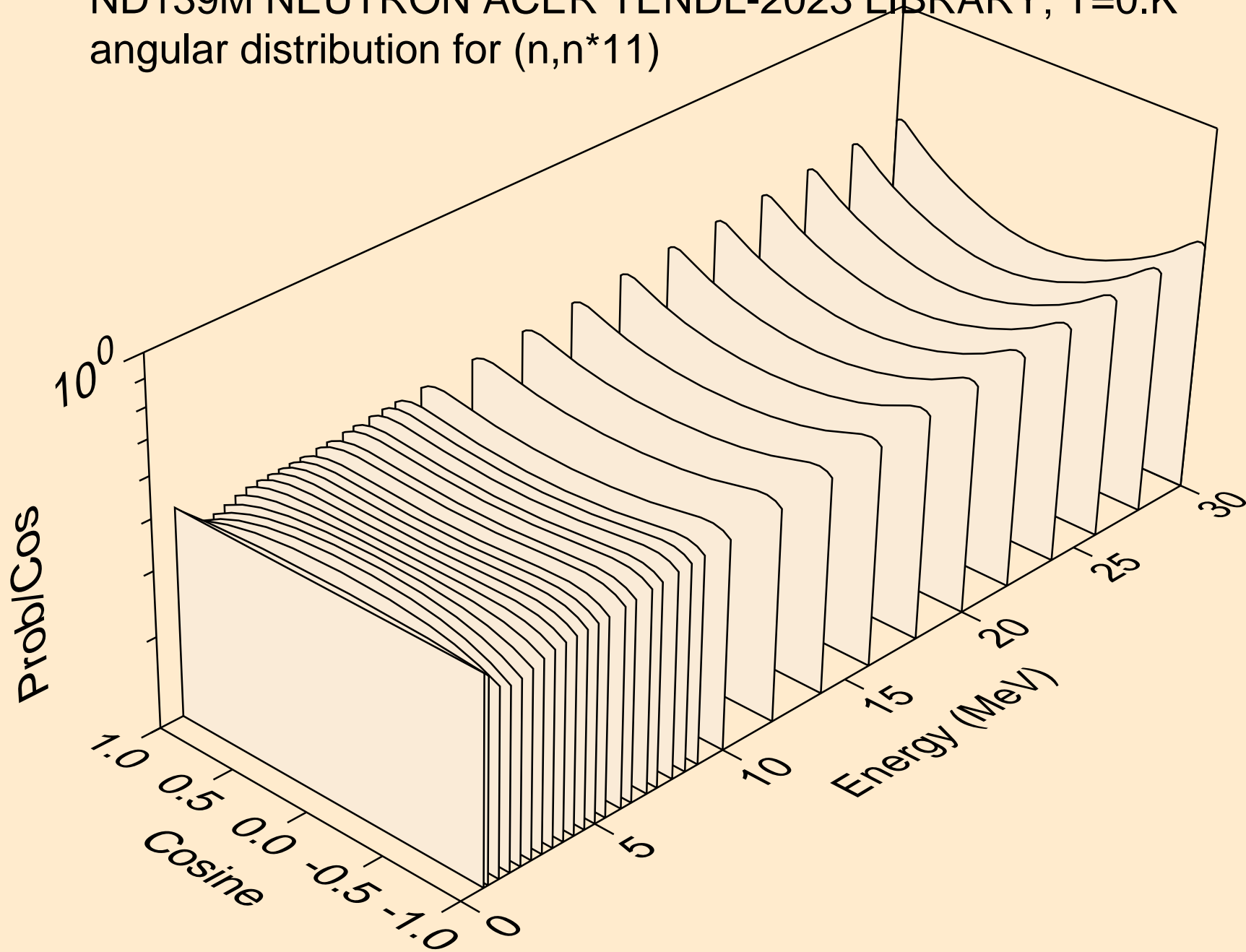
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angular distribution for (n,n\*9)



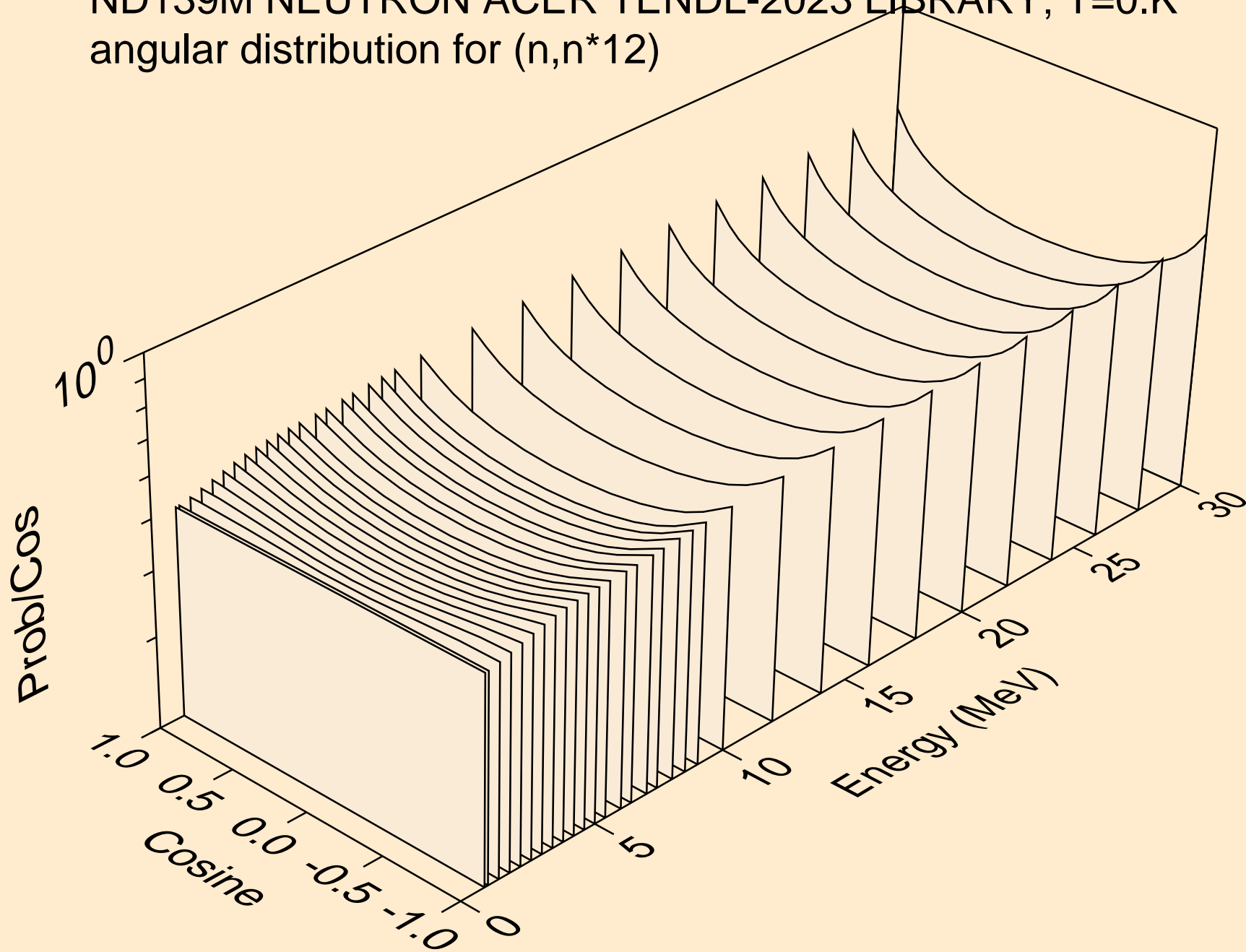
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angular distribution for (n,n\*10)



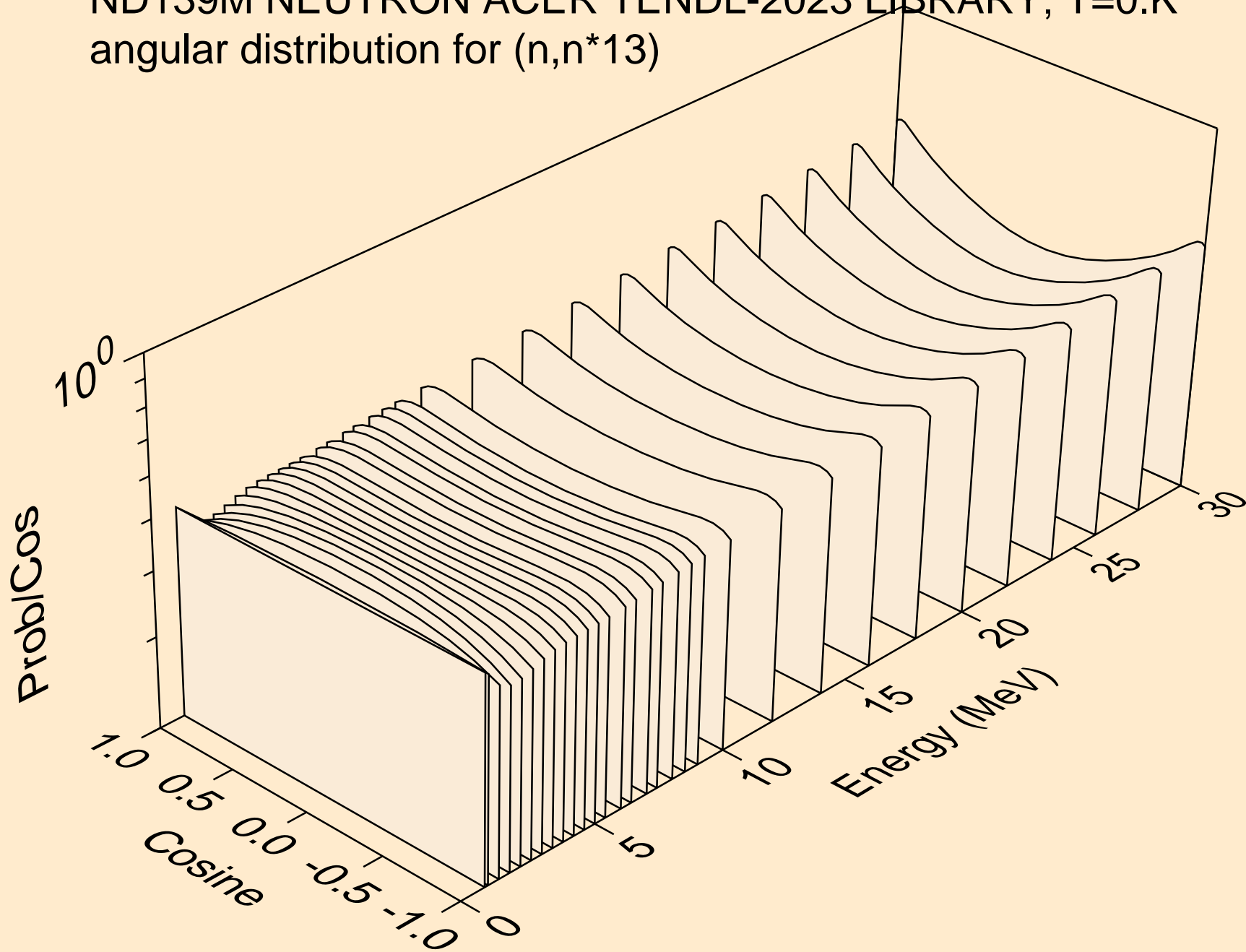
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angular distribution for (n,n\*11)



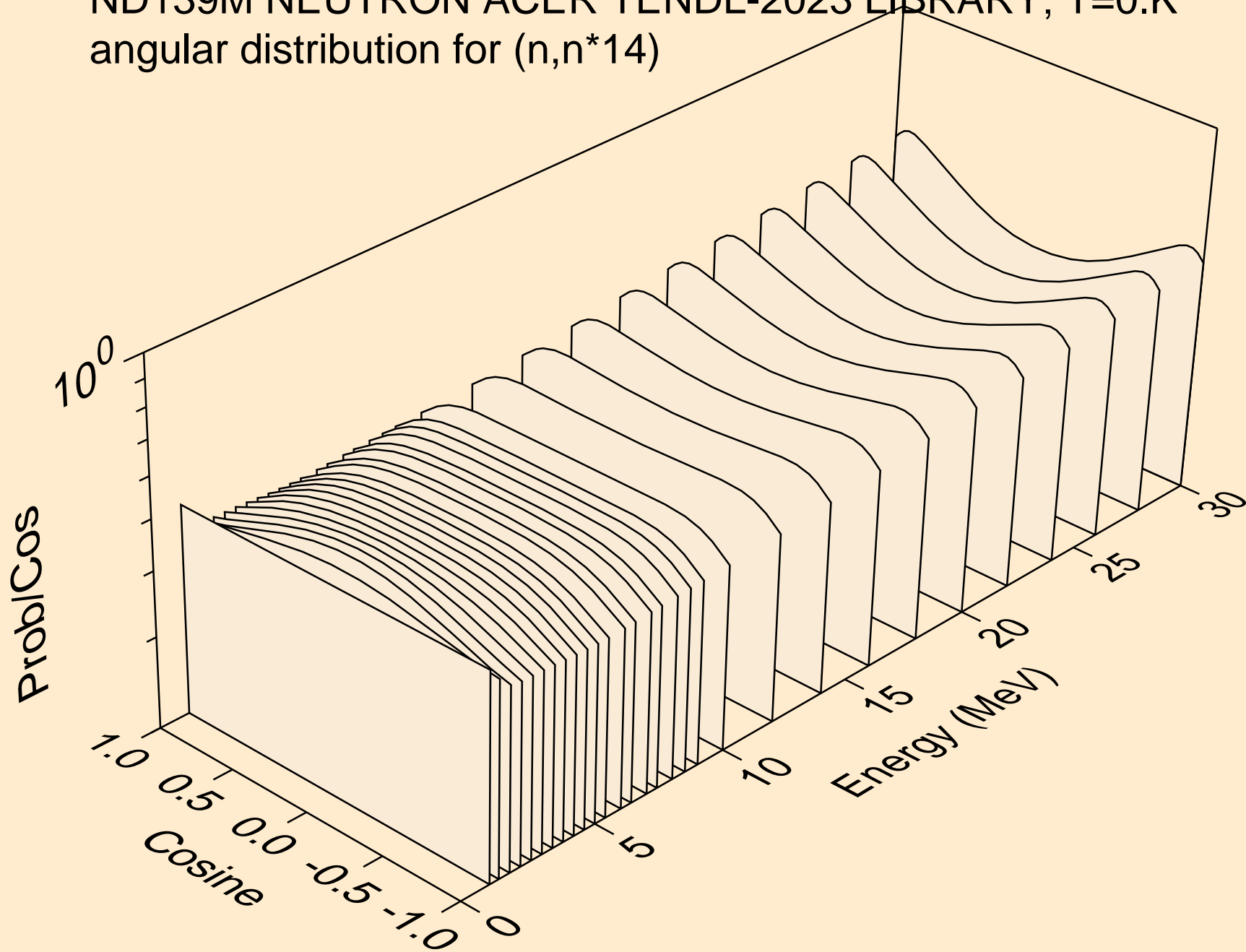
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angular distribution for (n,n\*12)



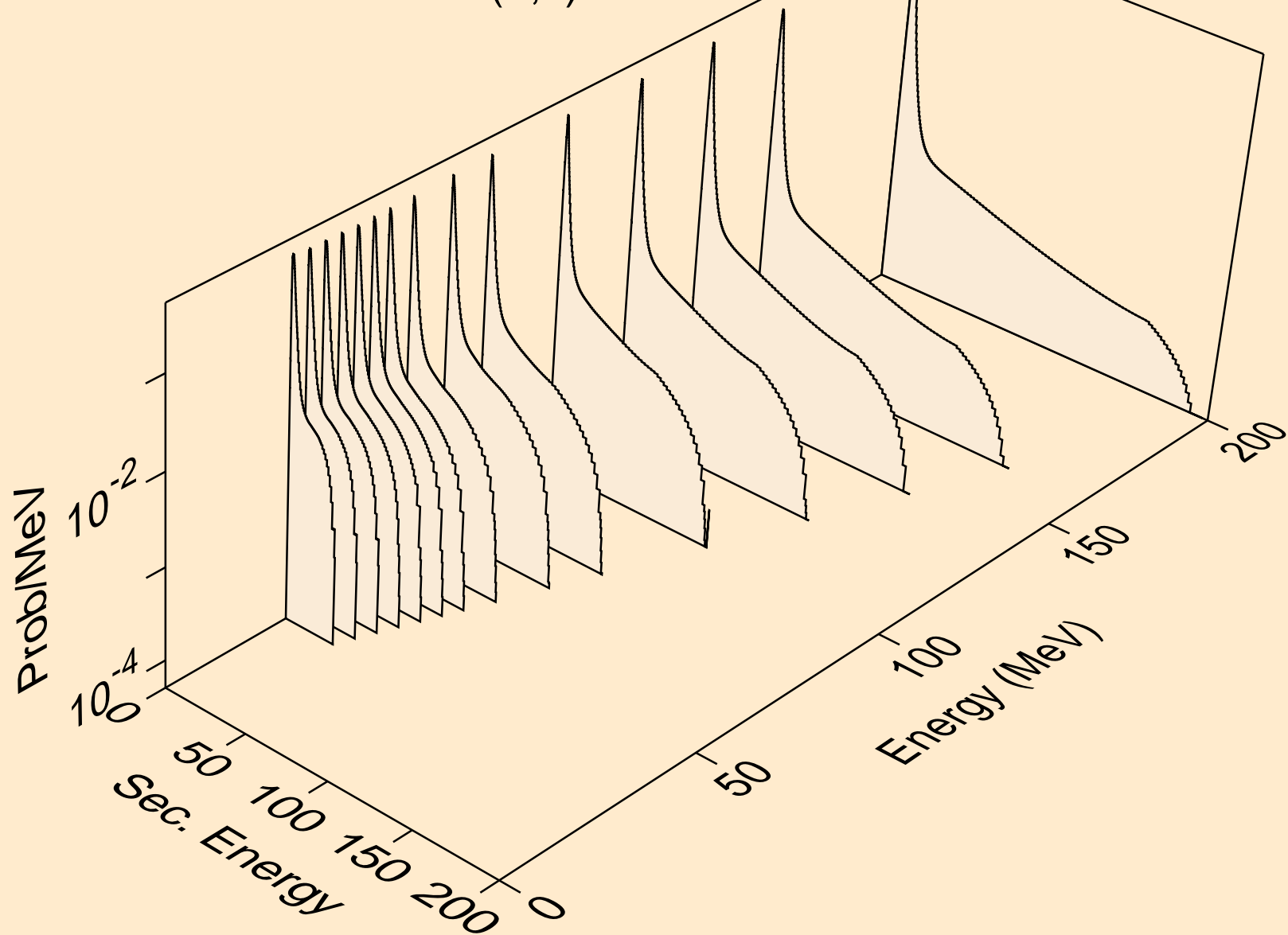
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angular distribution for (n,n\*13)



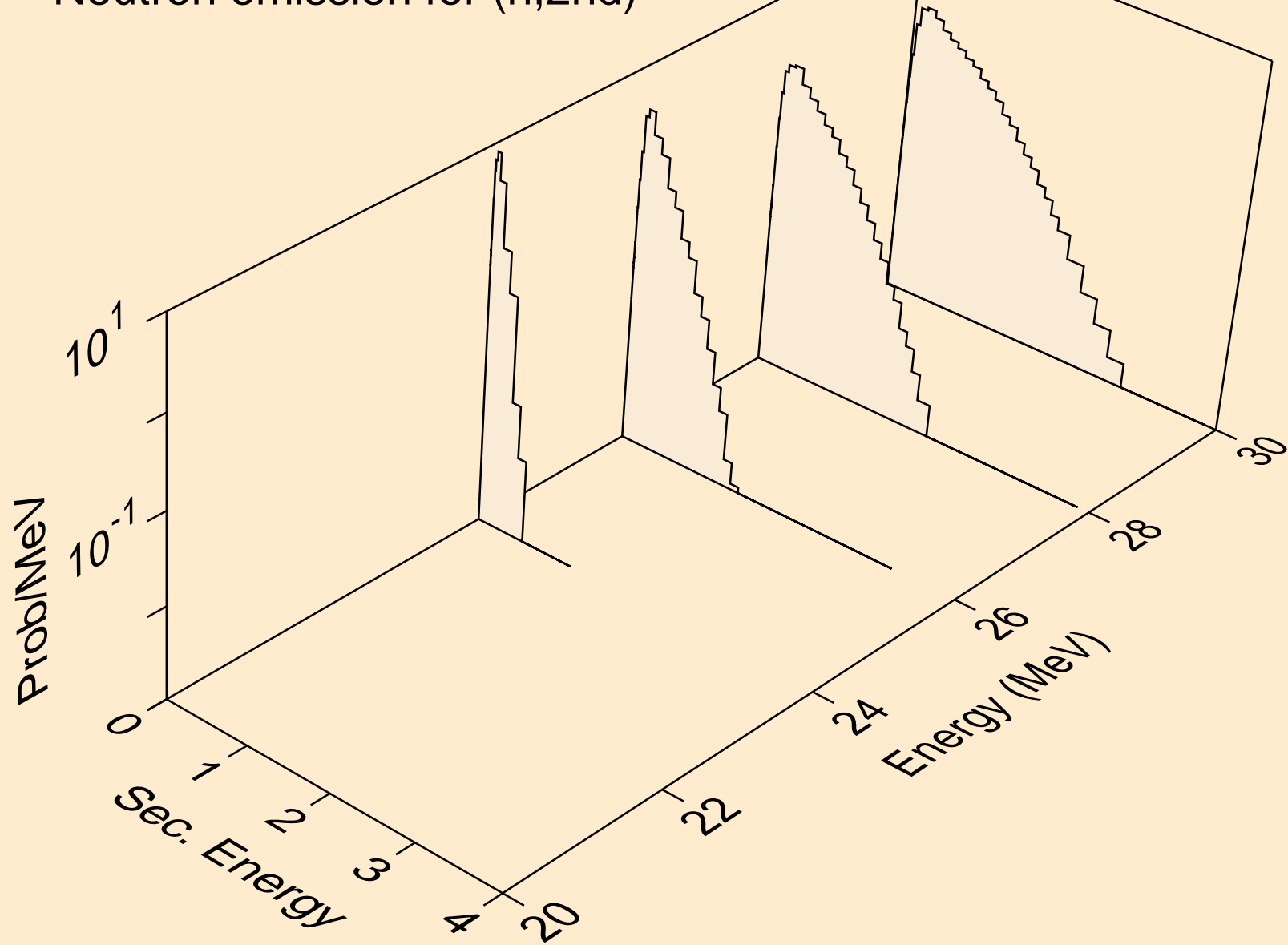
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angular distribution for (n,n\*14)



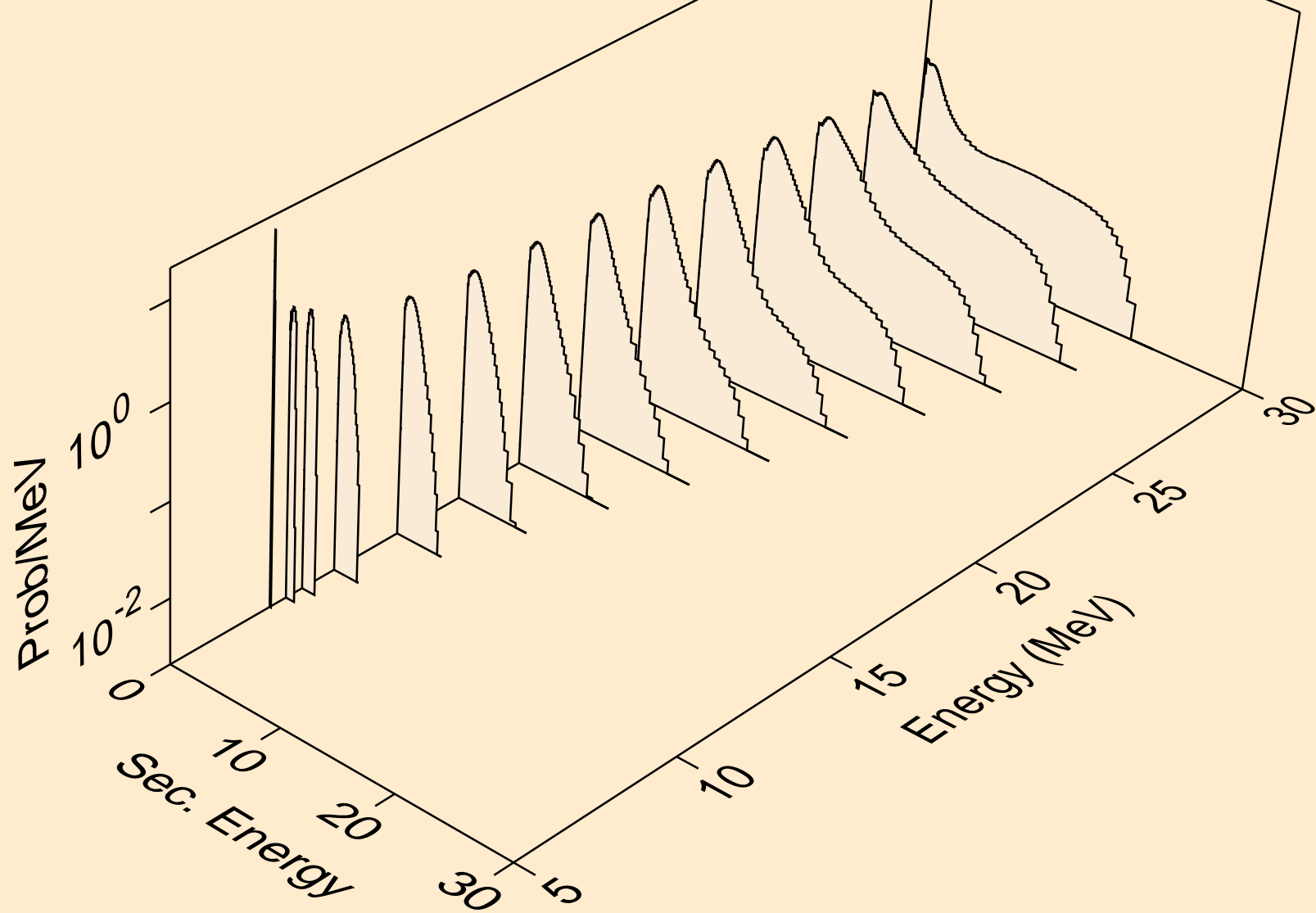
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Neutron emission for (n,x)



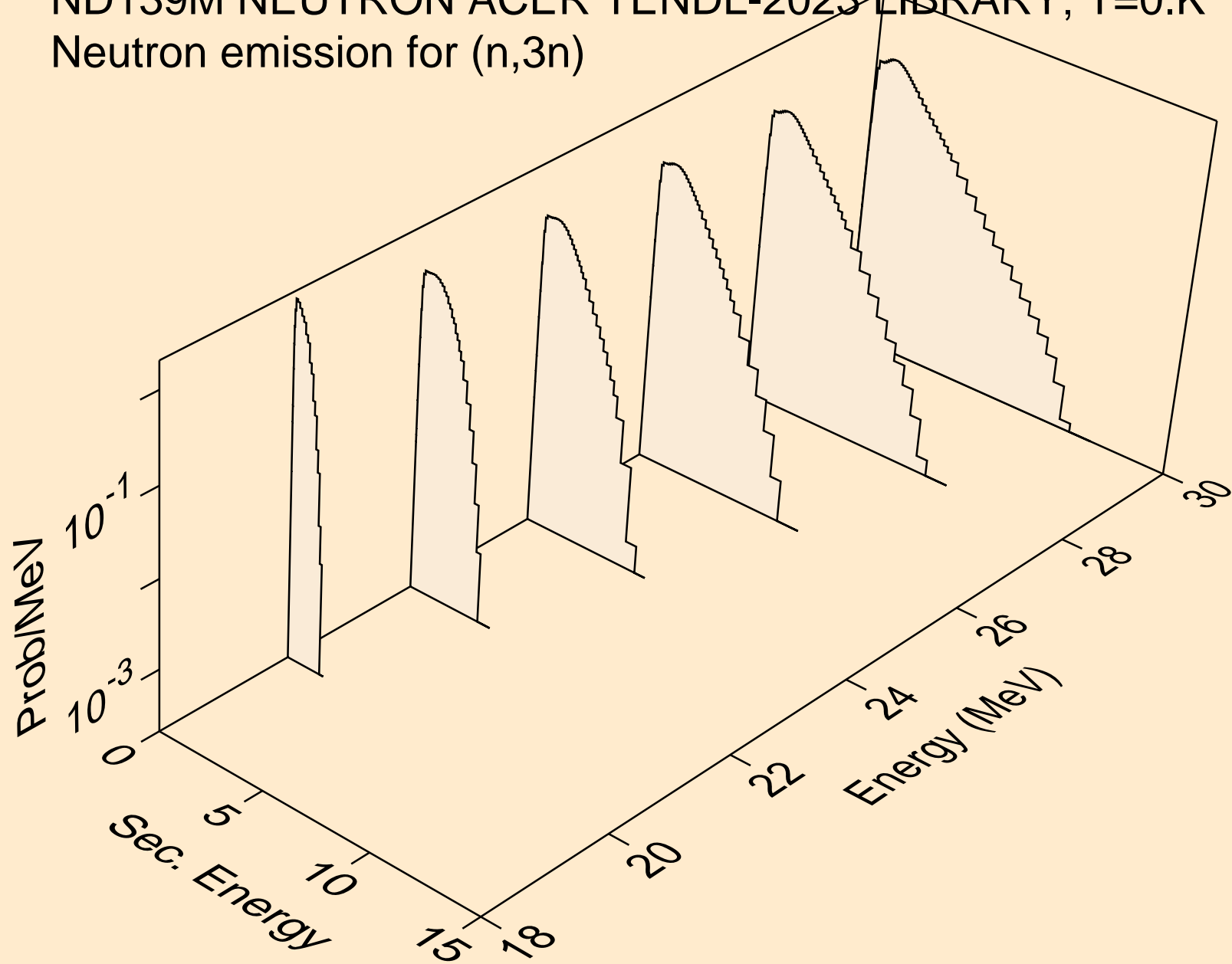
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Neutron emission for (n,2nd)



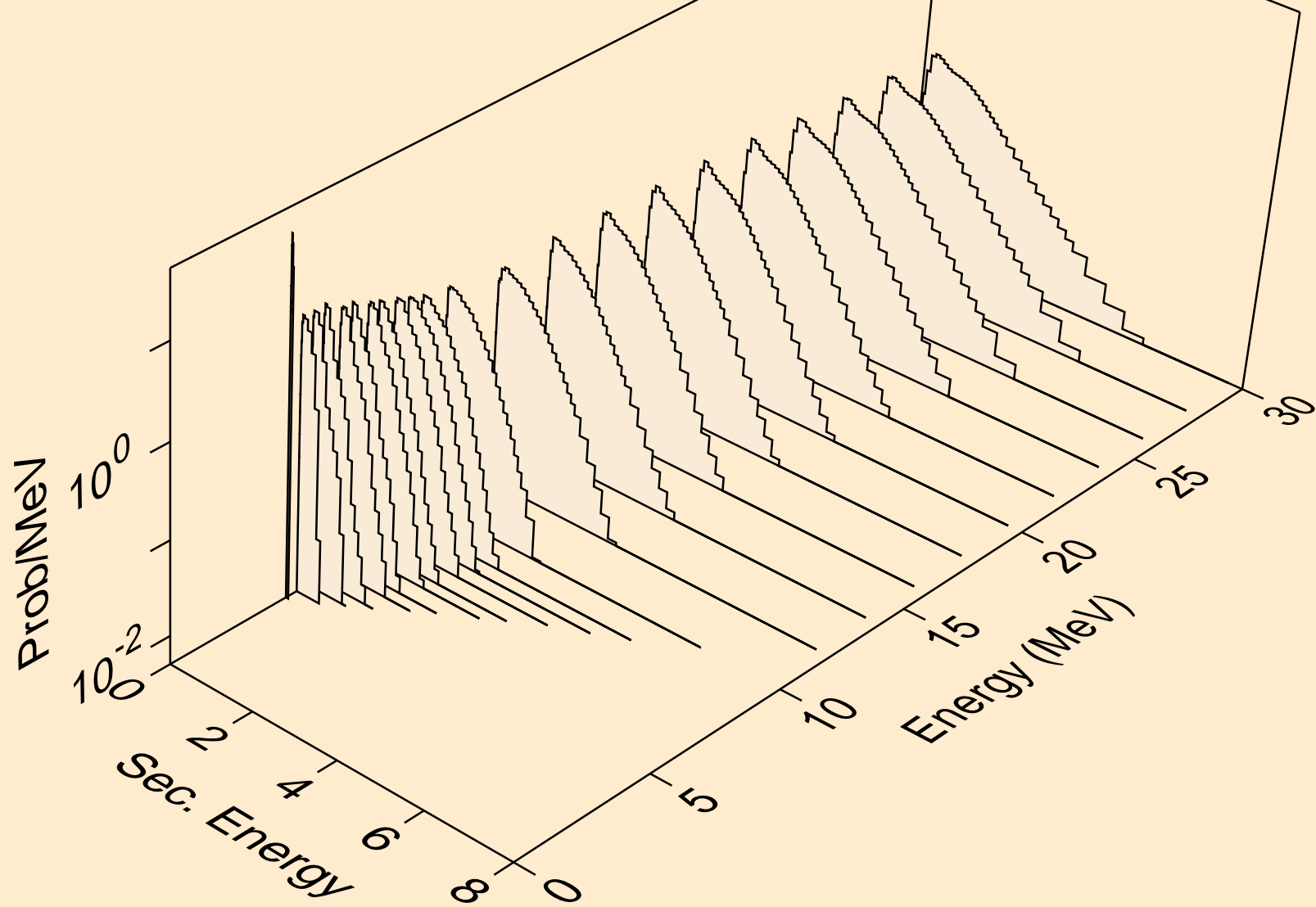
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Neutron emission for (n,2n)



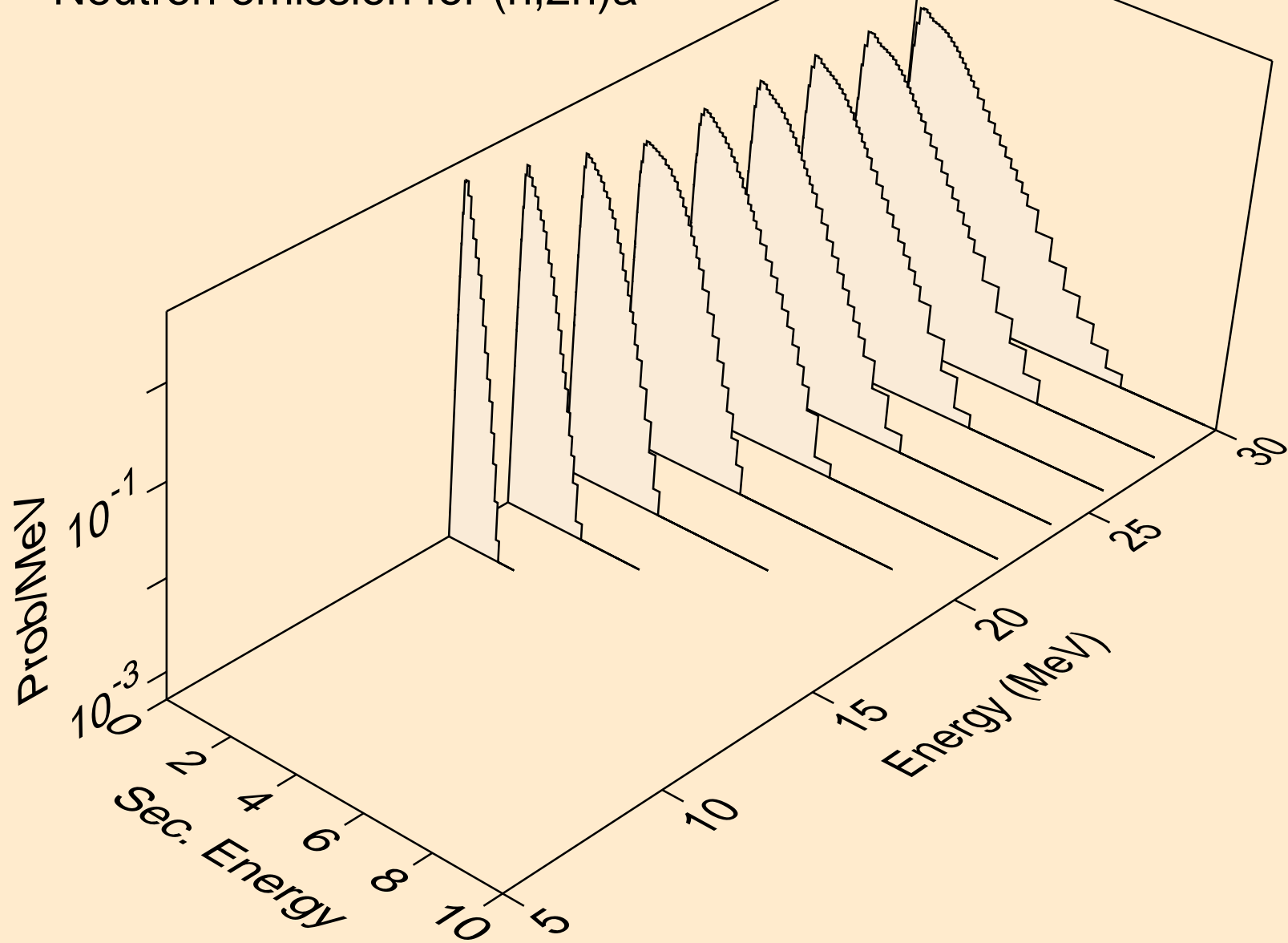
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Neutron emission for (n,3n)



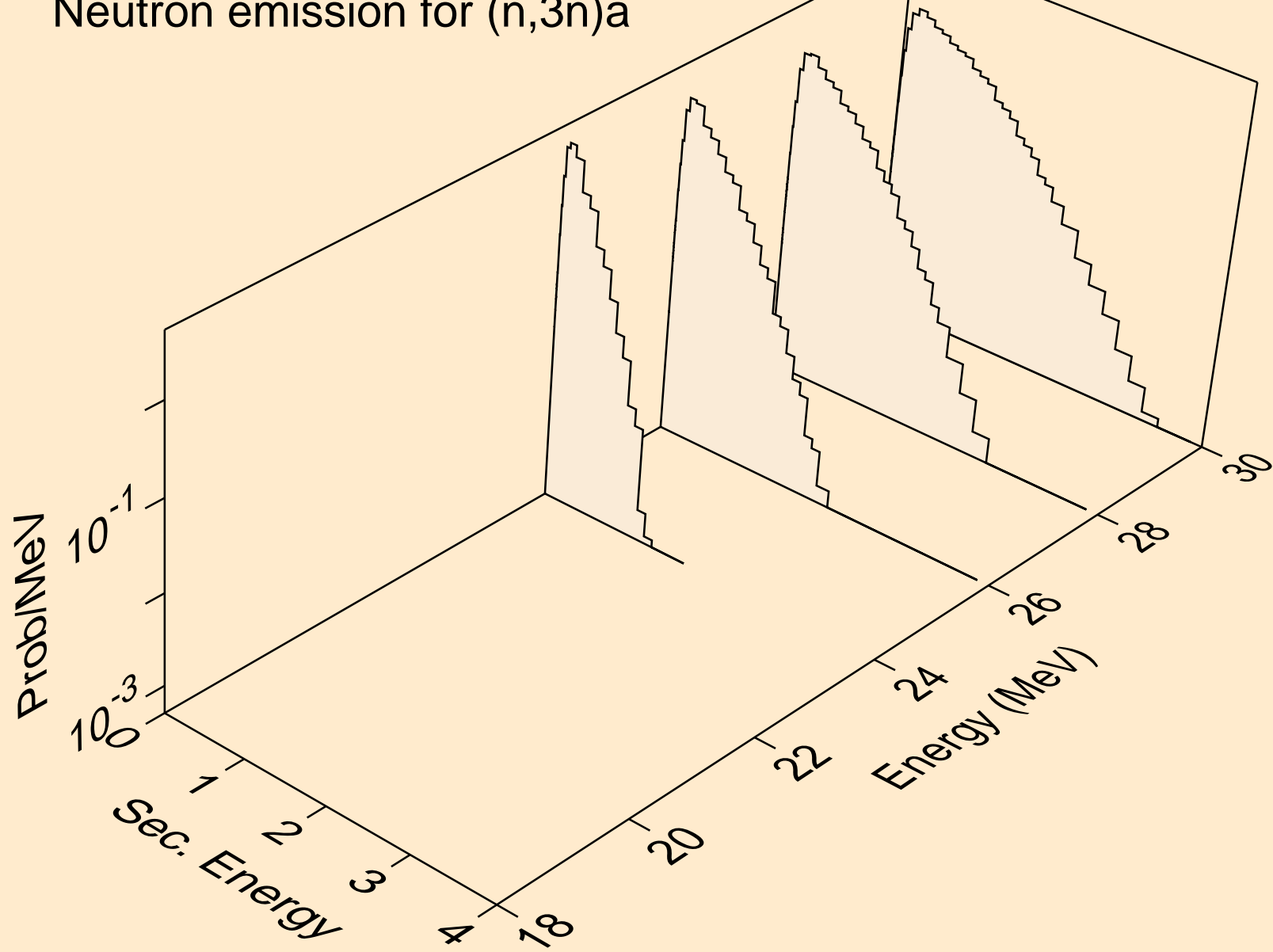
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Neutron emission for (n,n\*)a



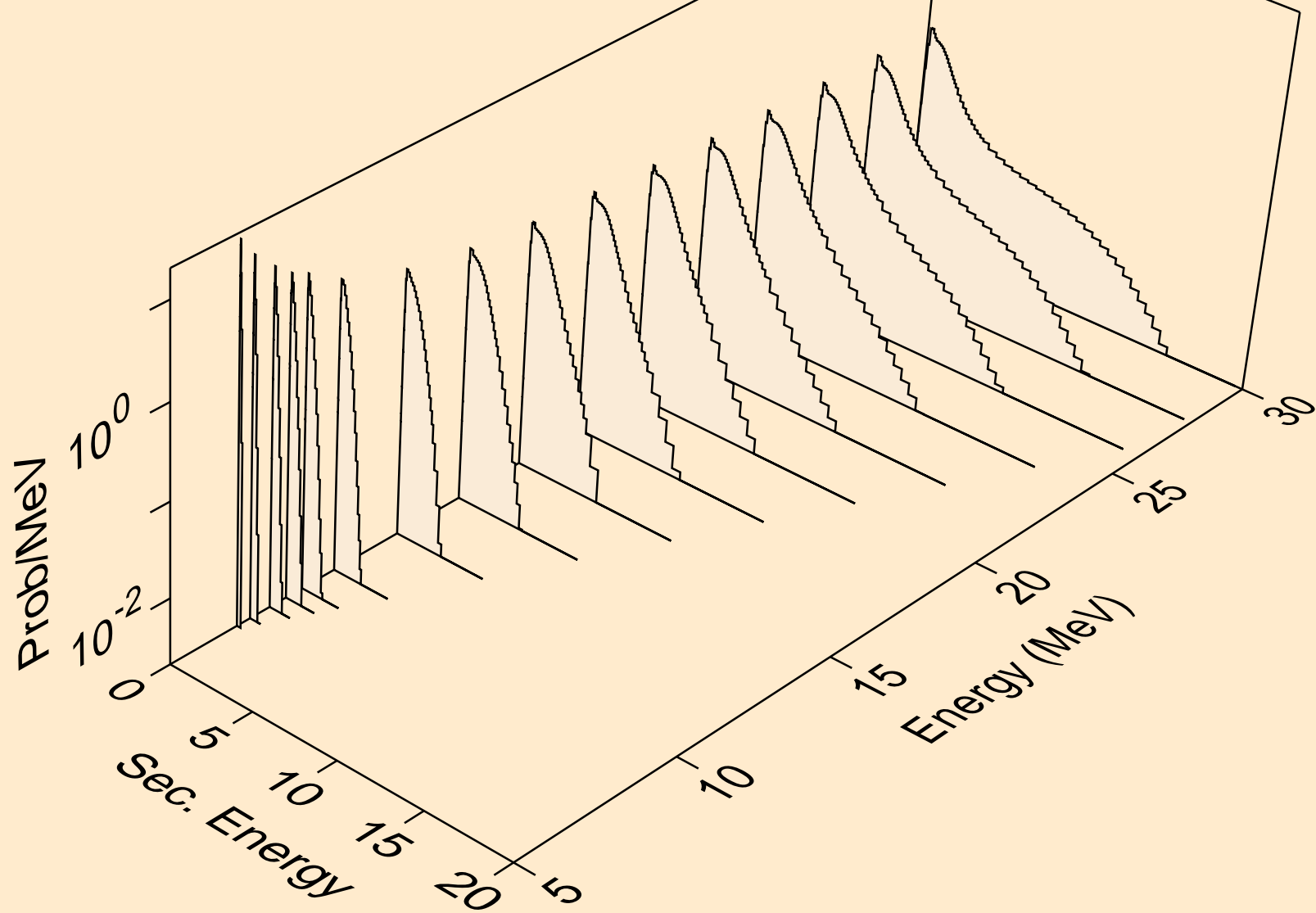
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Neutron emission for (n,2n)a



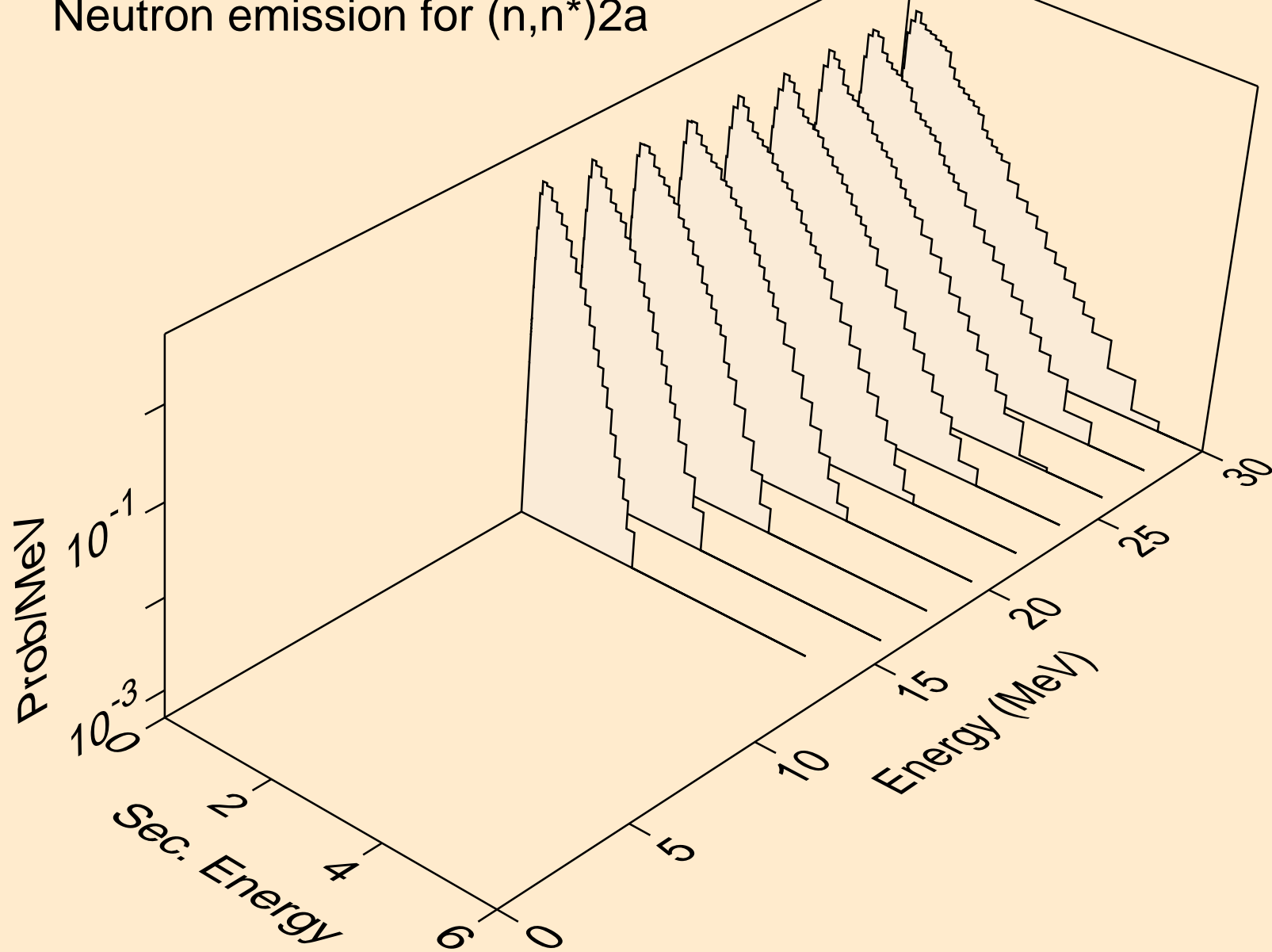
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Neutron emission for (n,3n)a



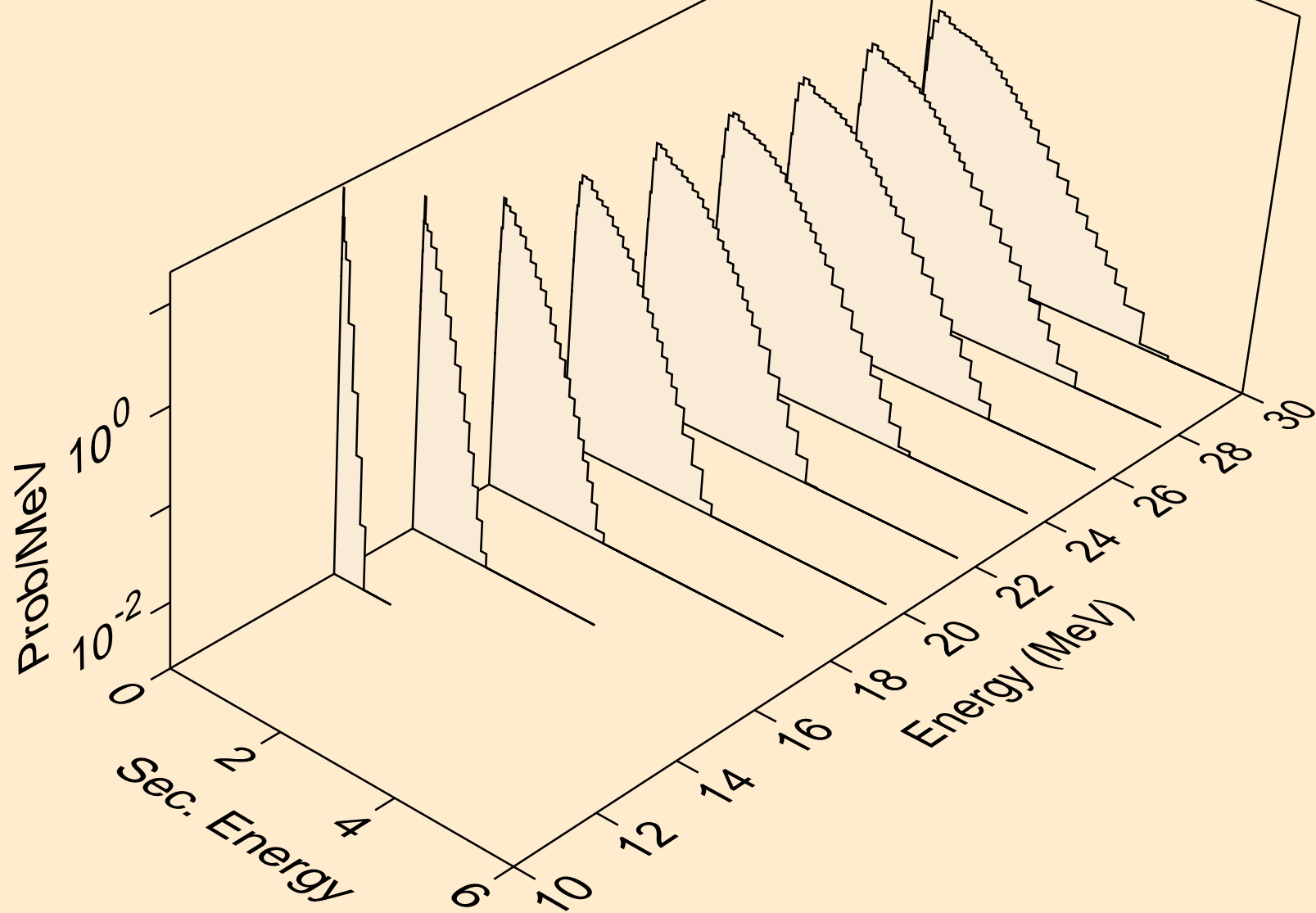
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Neutron emission for (n,n\*)p



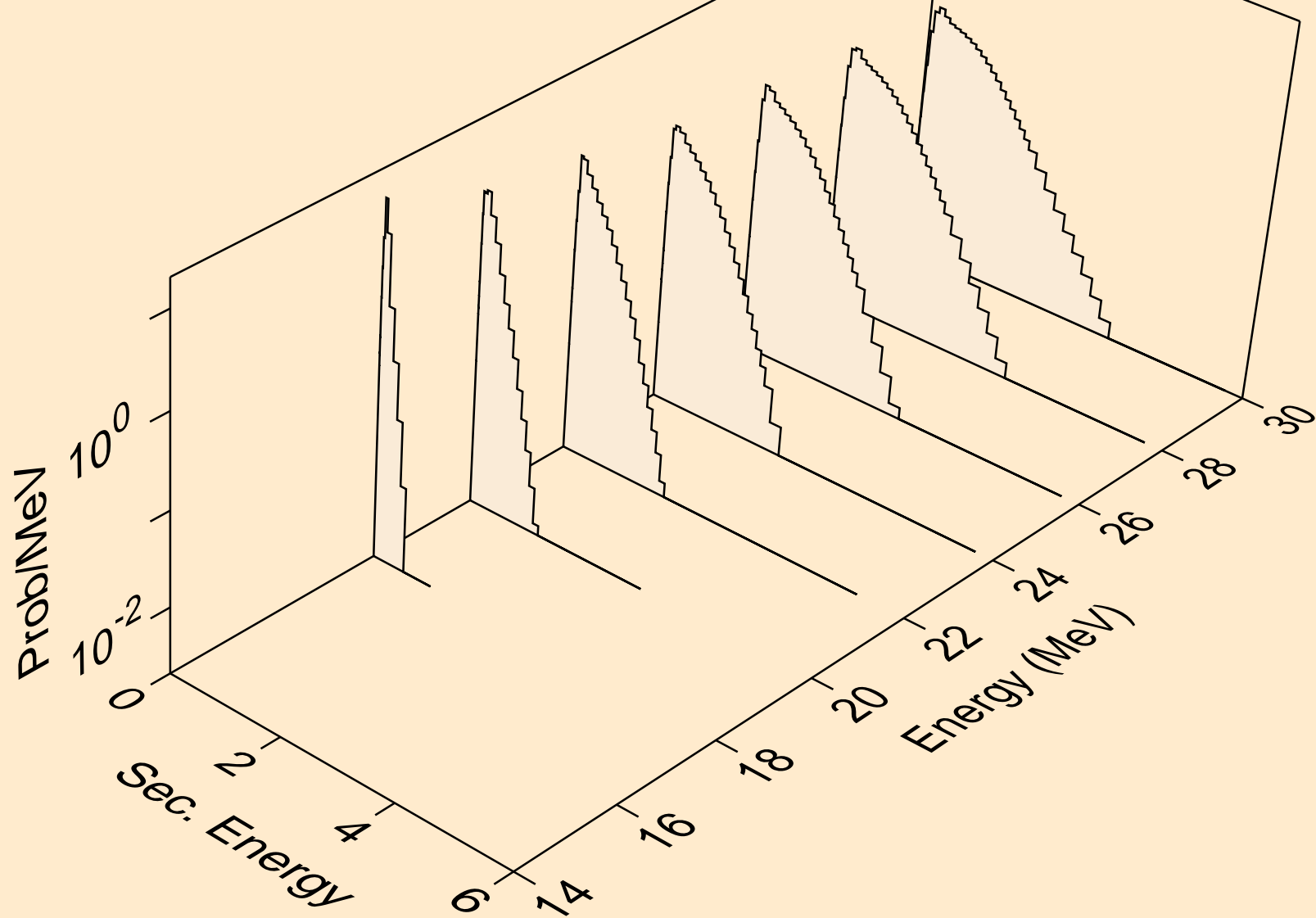
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Neutron emission for (n,n\*)2a



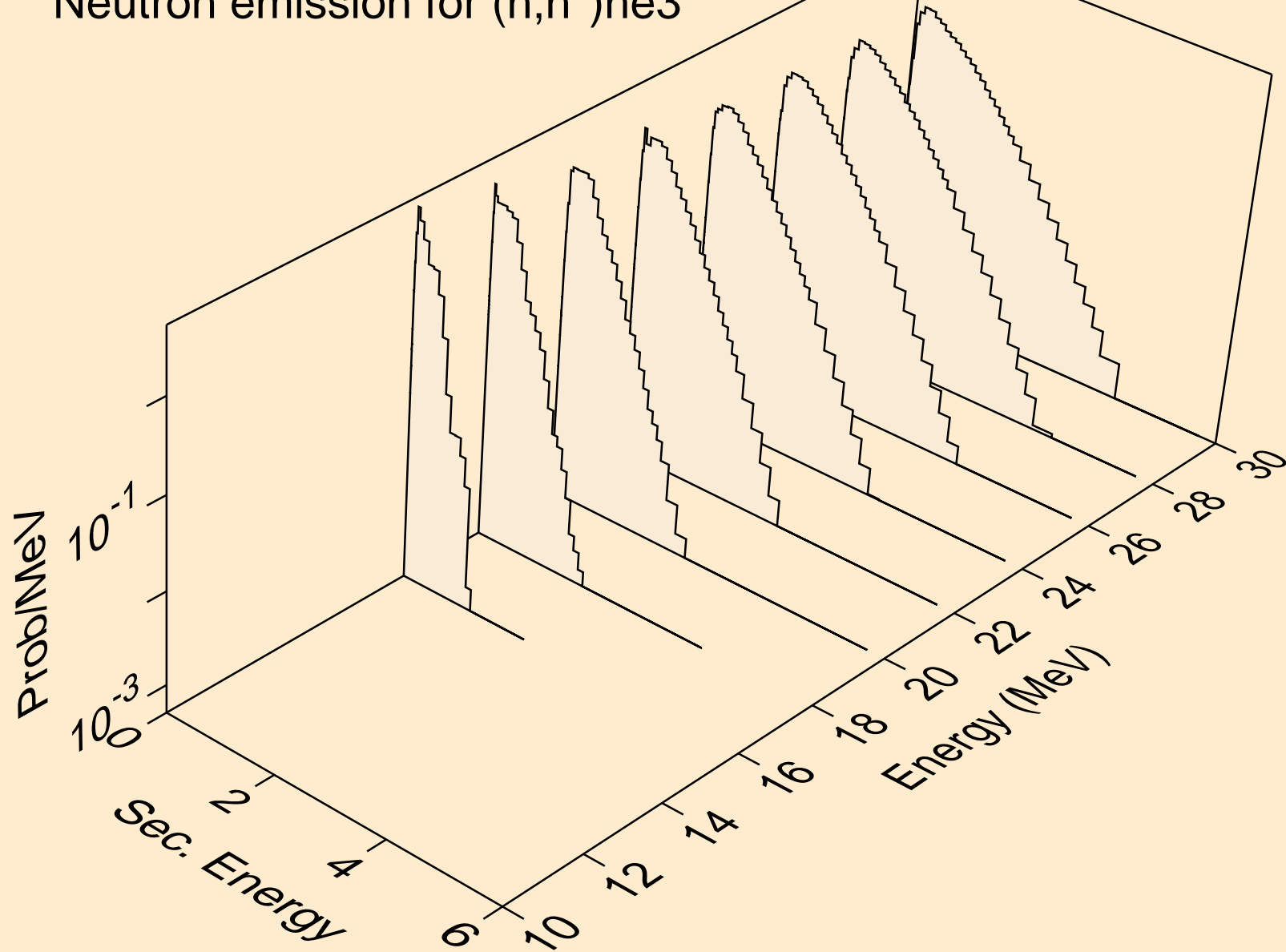
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Neutron emission for (n,n\*)d



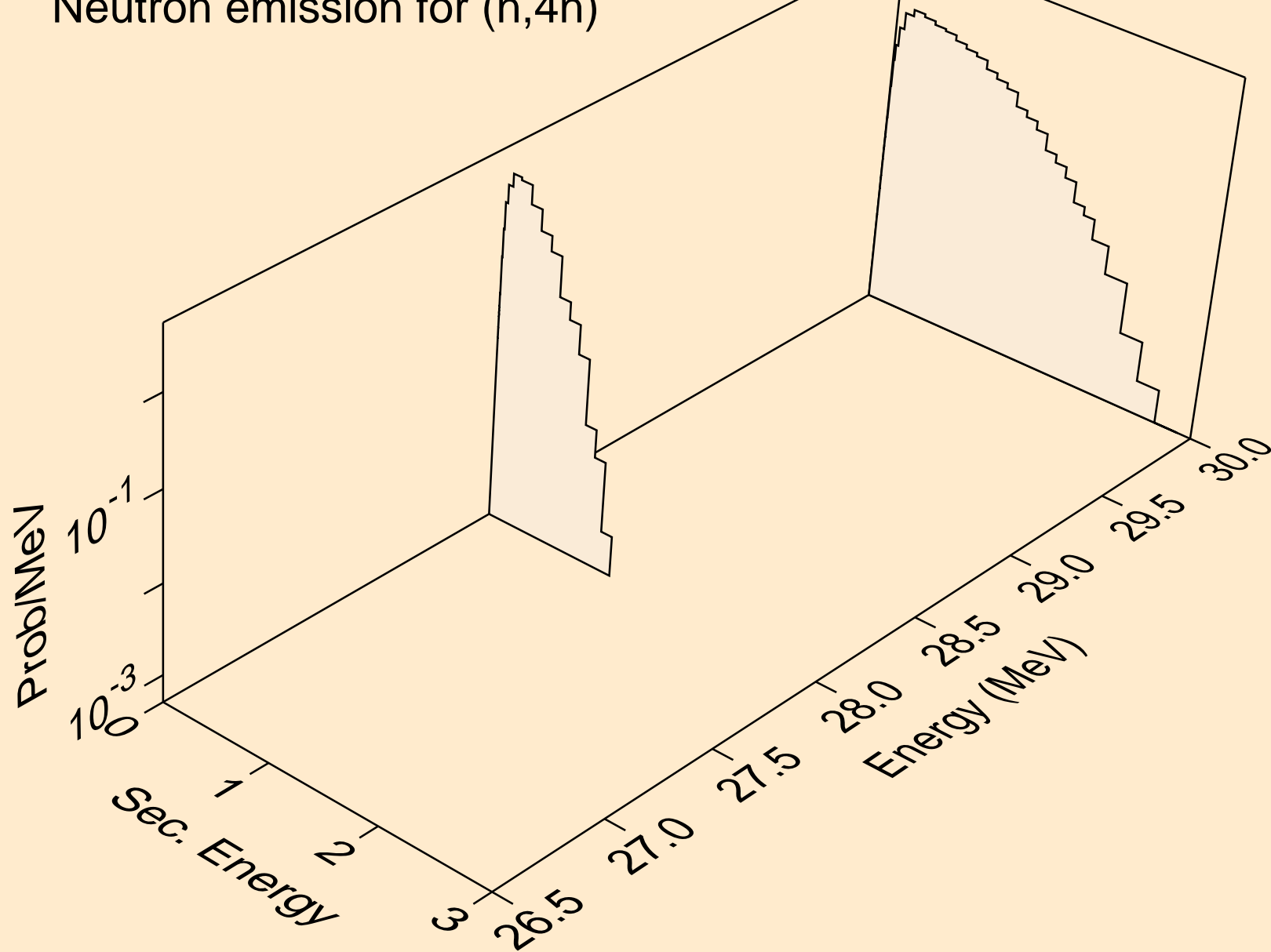
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Neutron emission for (n,n\*)t



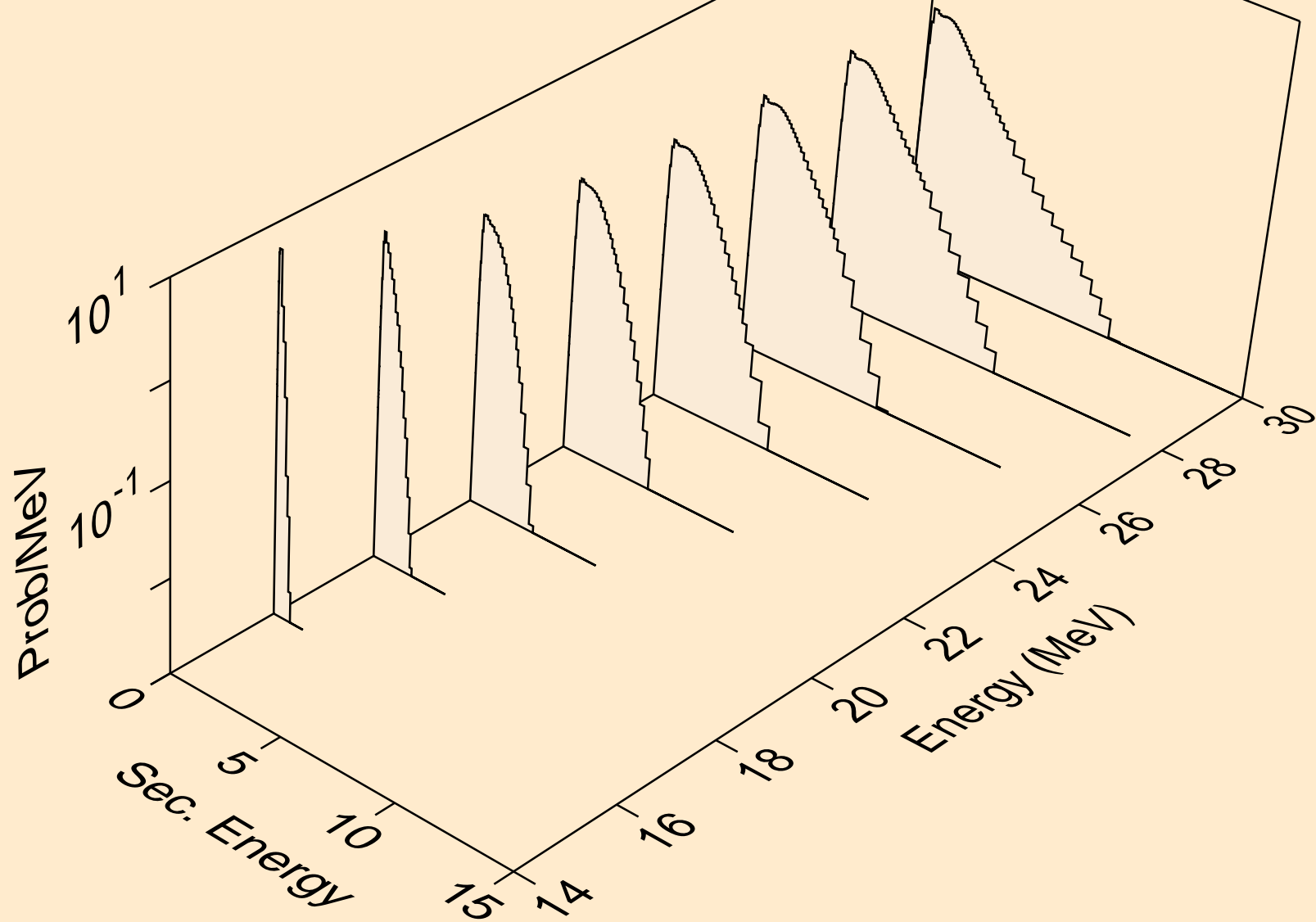
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Neutron emission for (n,n\*)he3



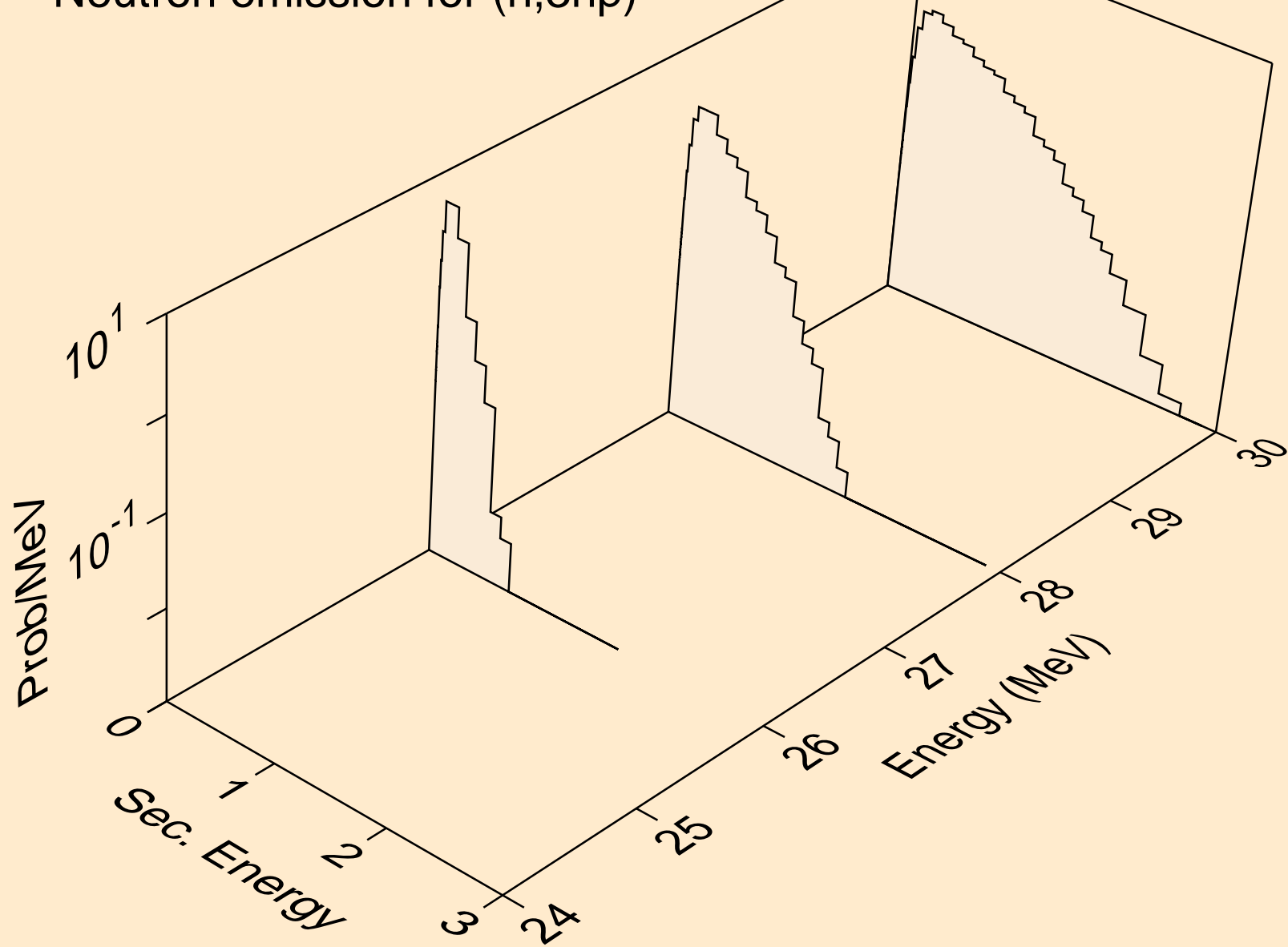
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Neutron emission for (n,4n)



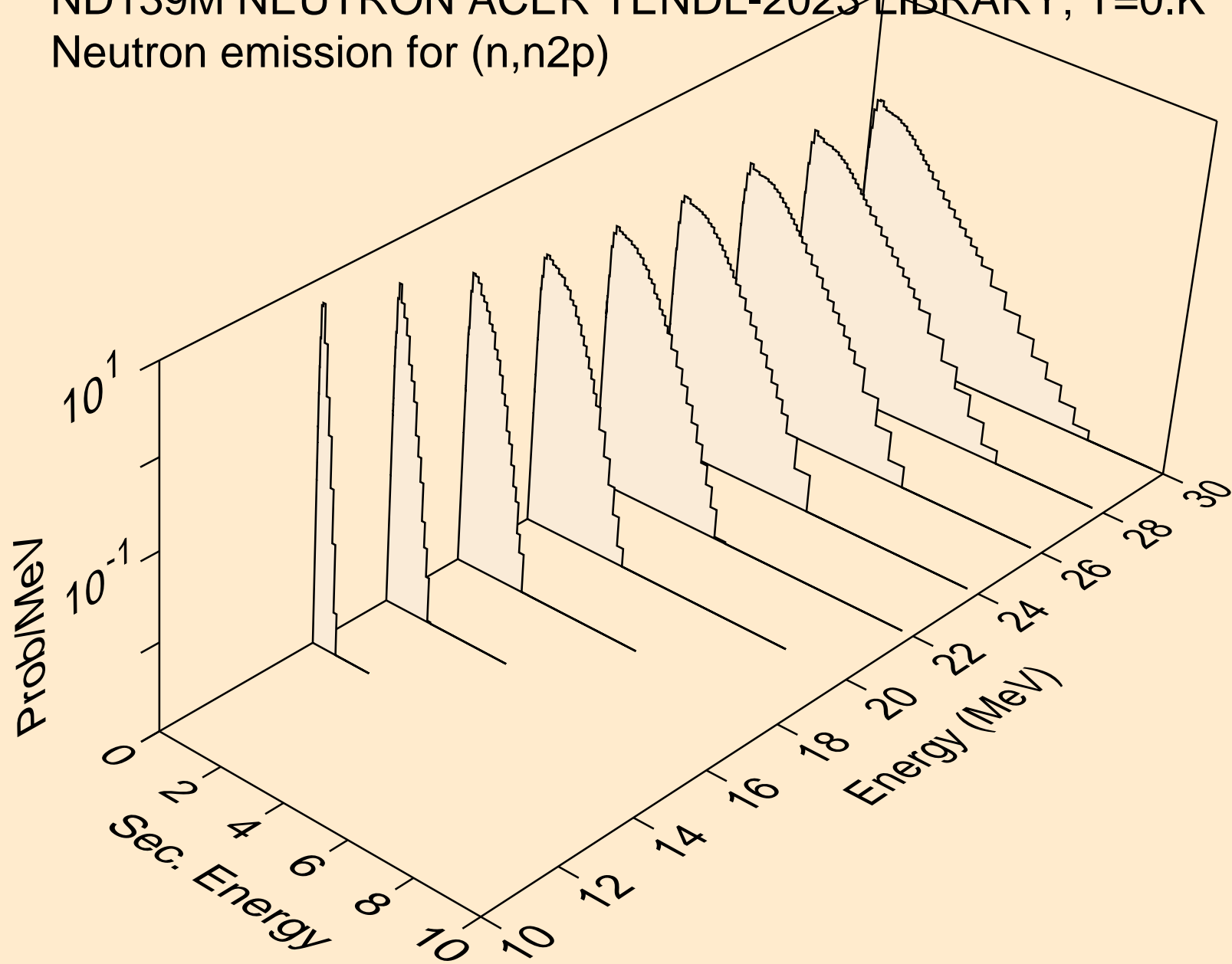
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Neutron emission for (n,2np)



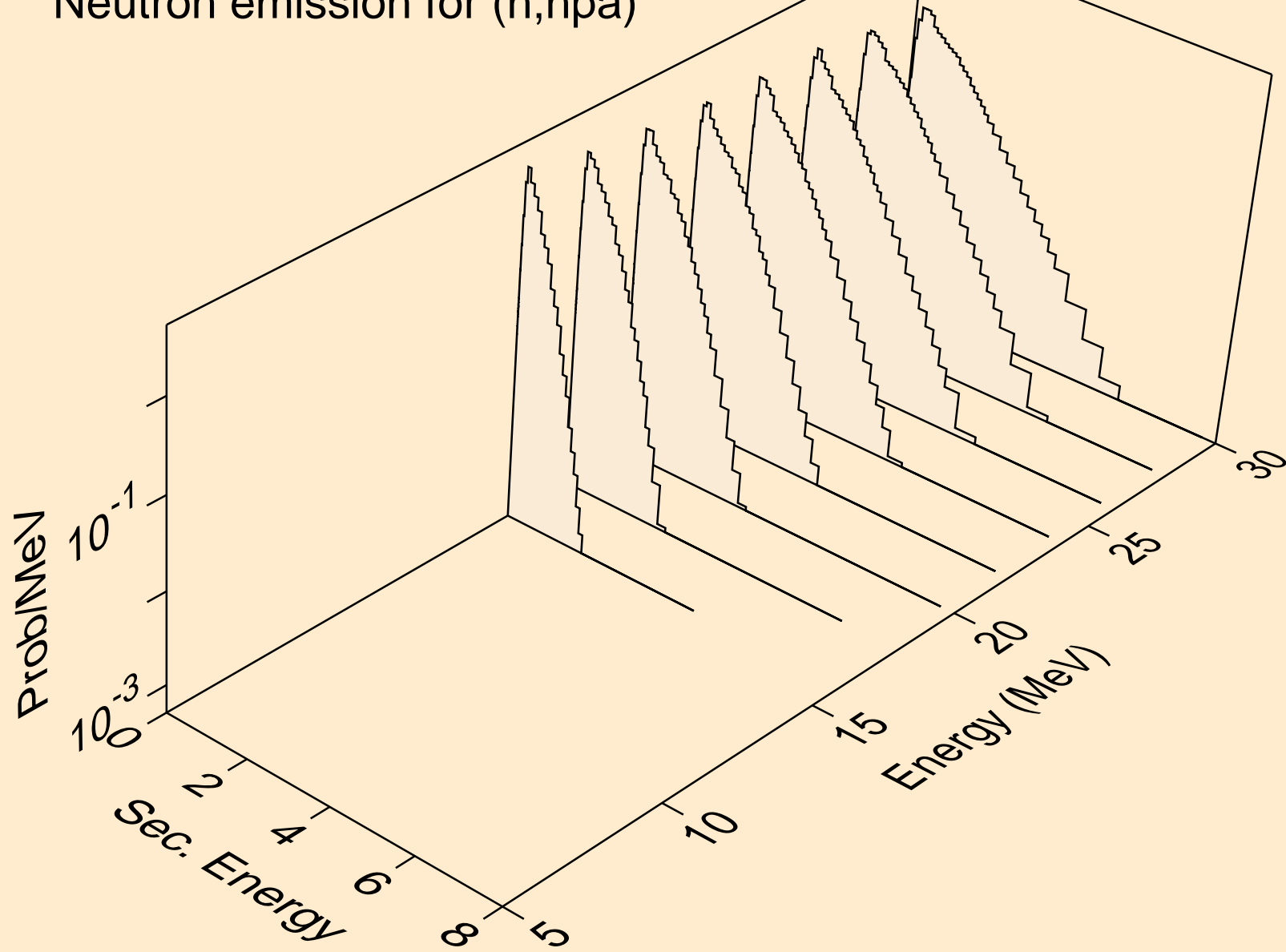
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Neutron emission for (n,3np)



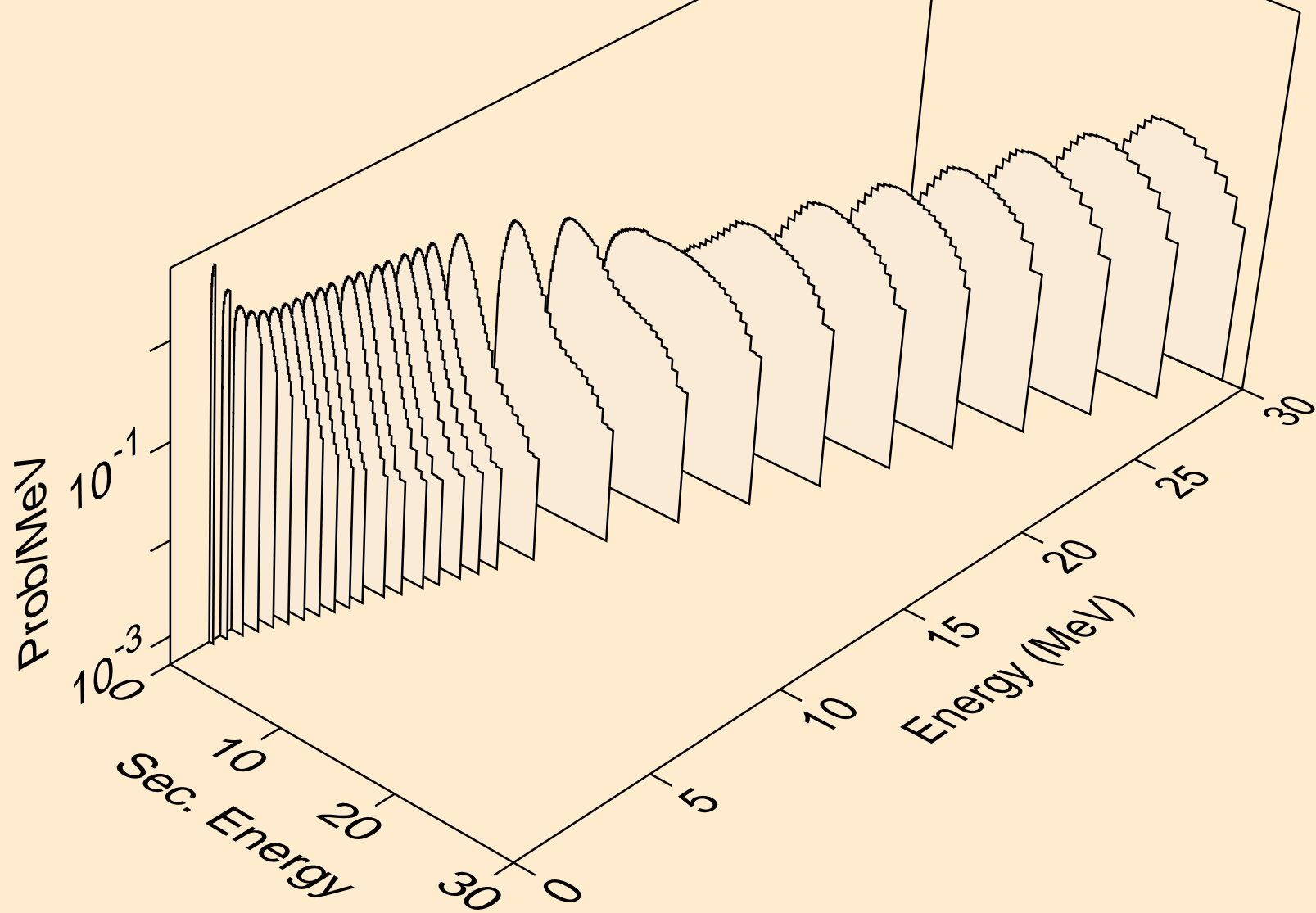
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Neutron emission for (n,n2p)



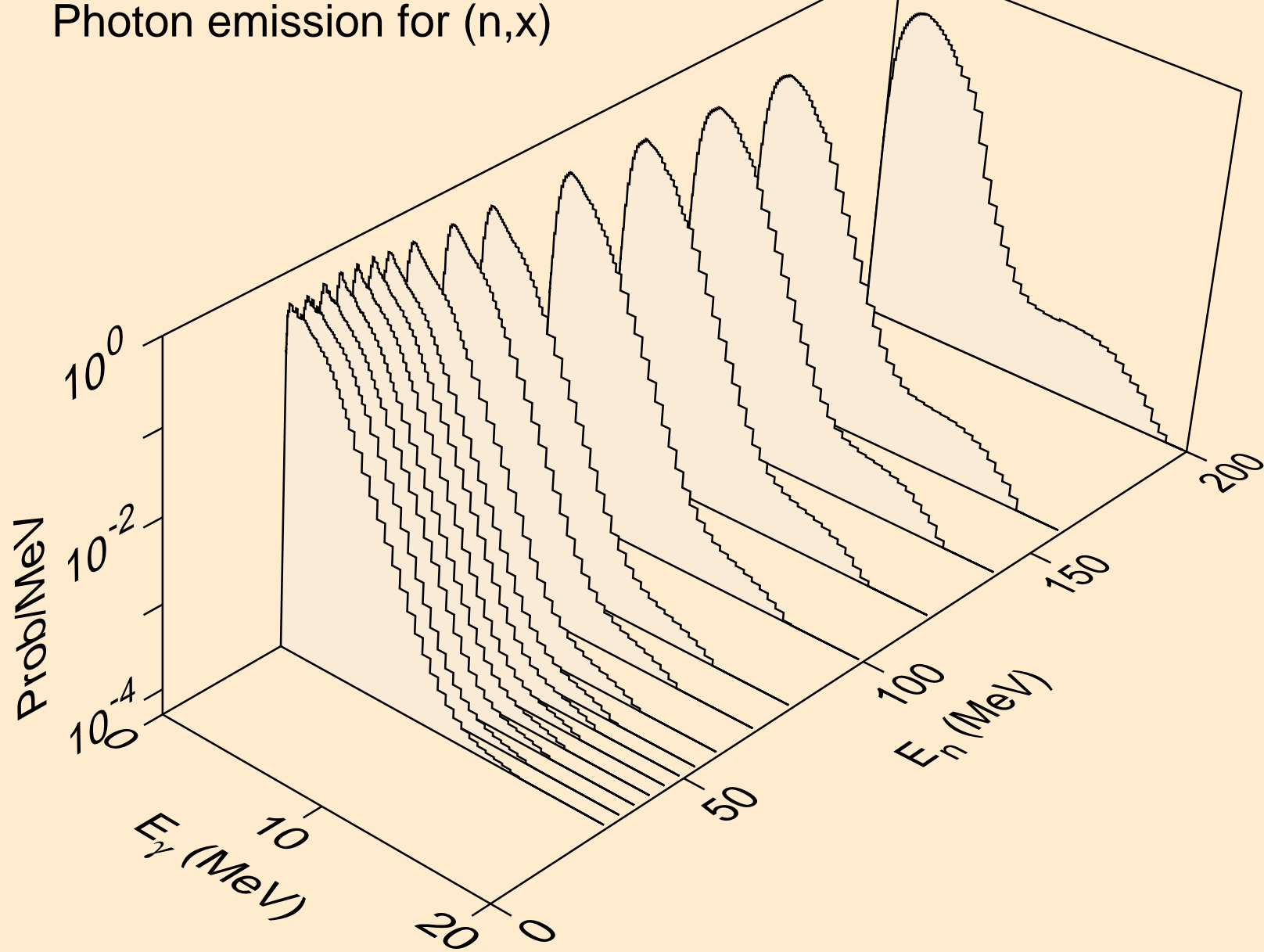
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Neutron emission for (n,npa)



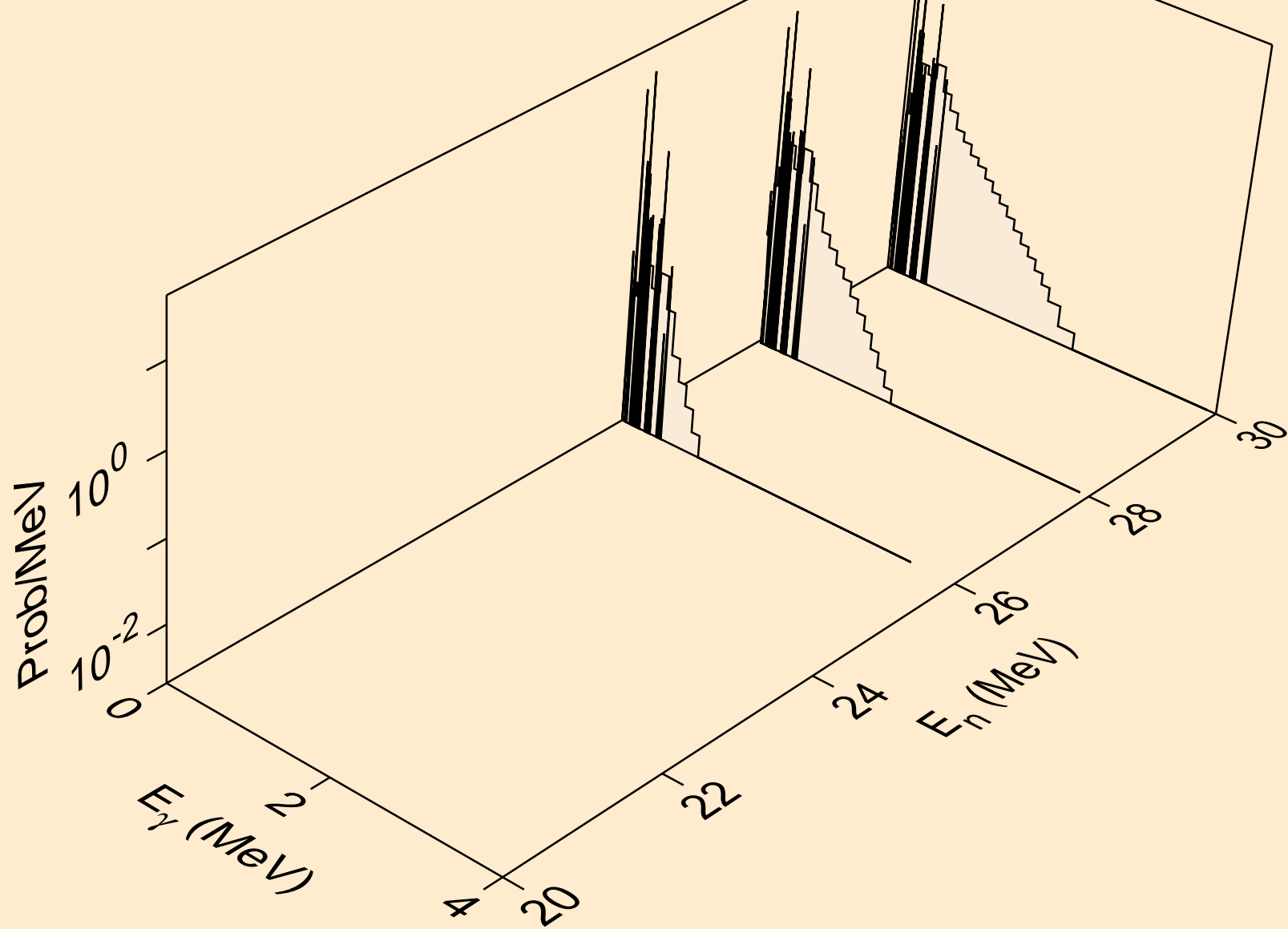
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Neutron emission for (n,n\*c)



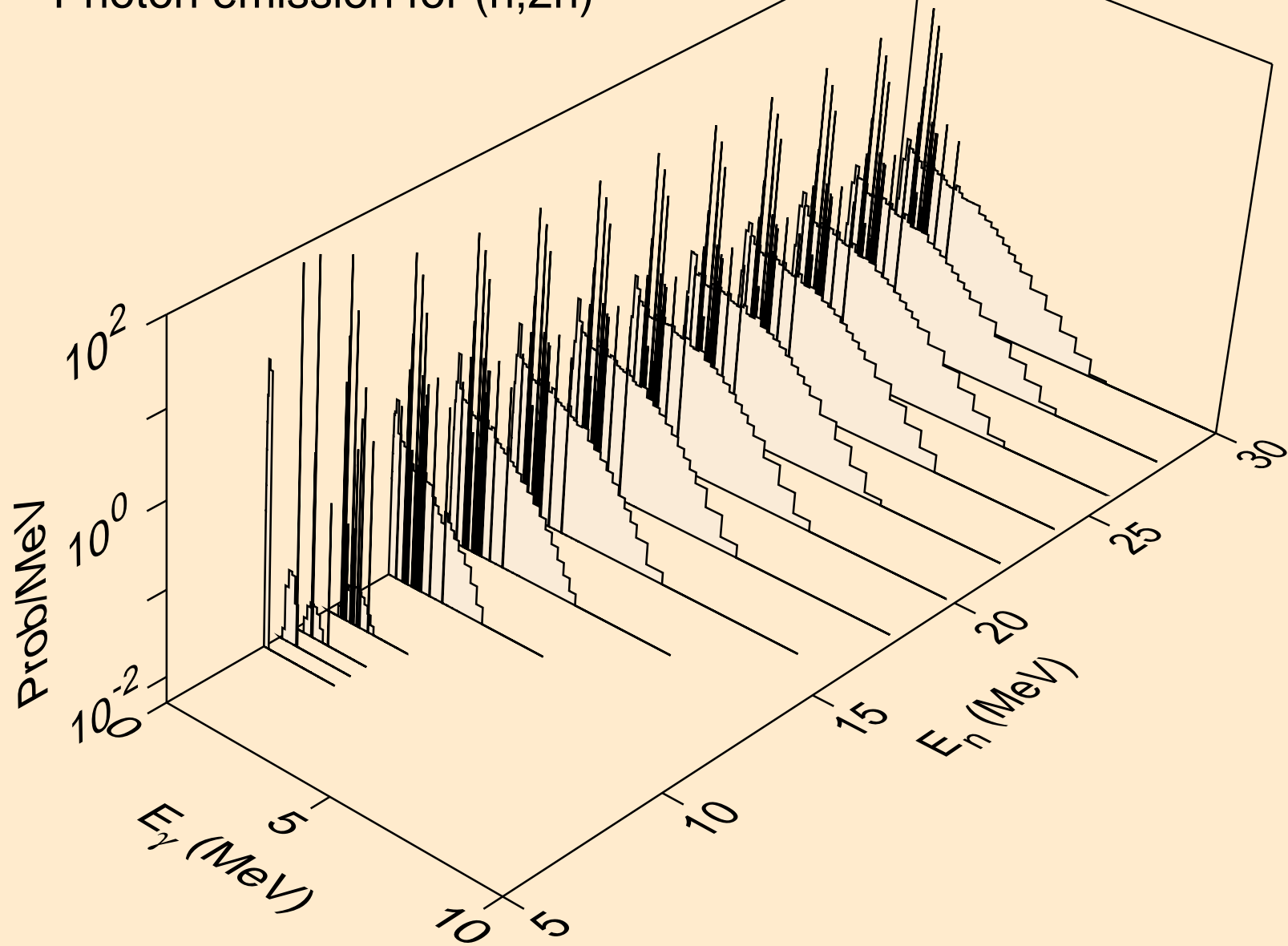
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Photon emission for (n,x)



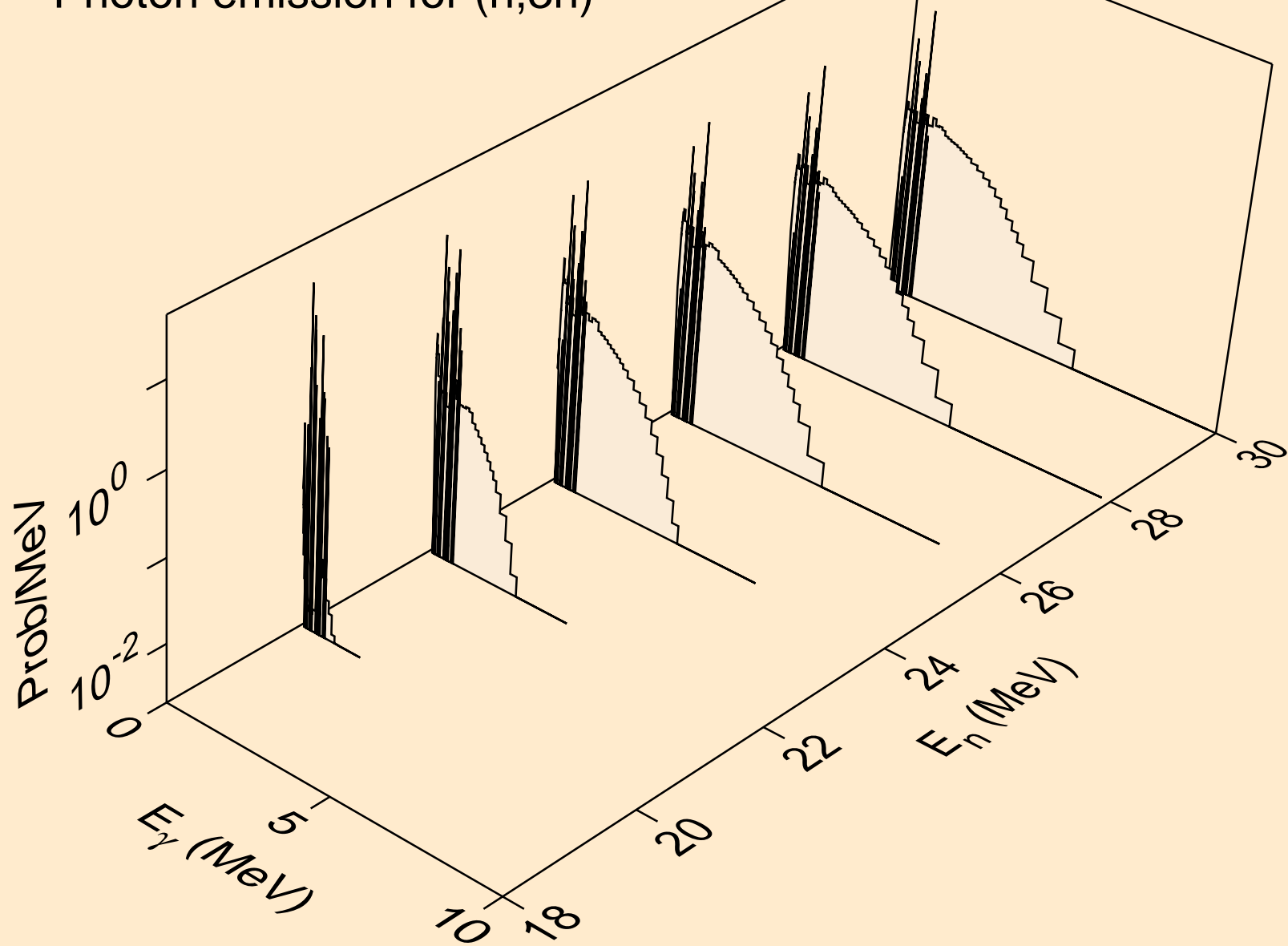
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Photon emission for (n,2nd)



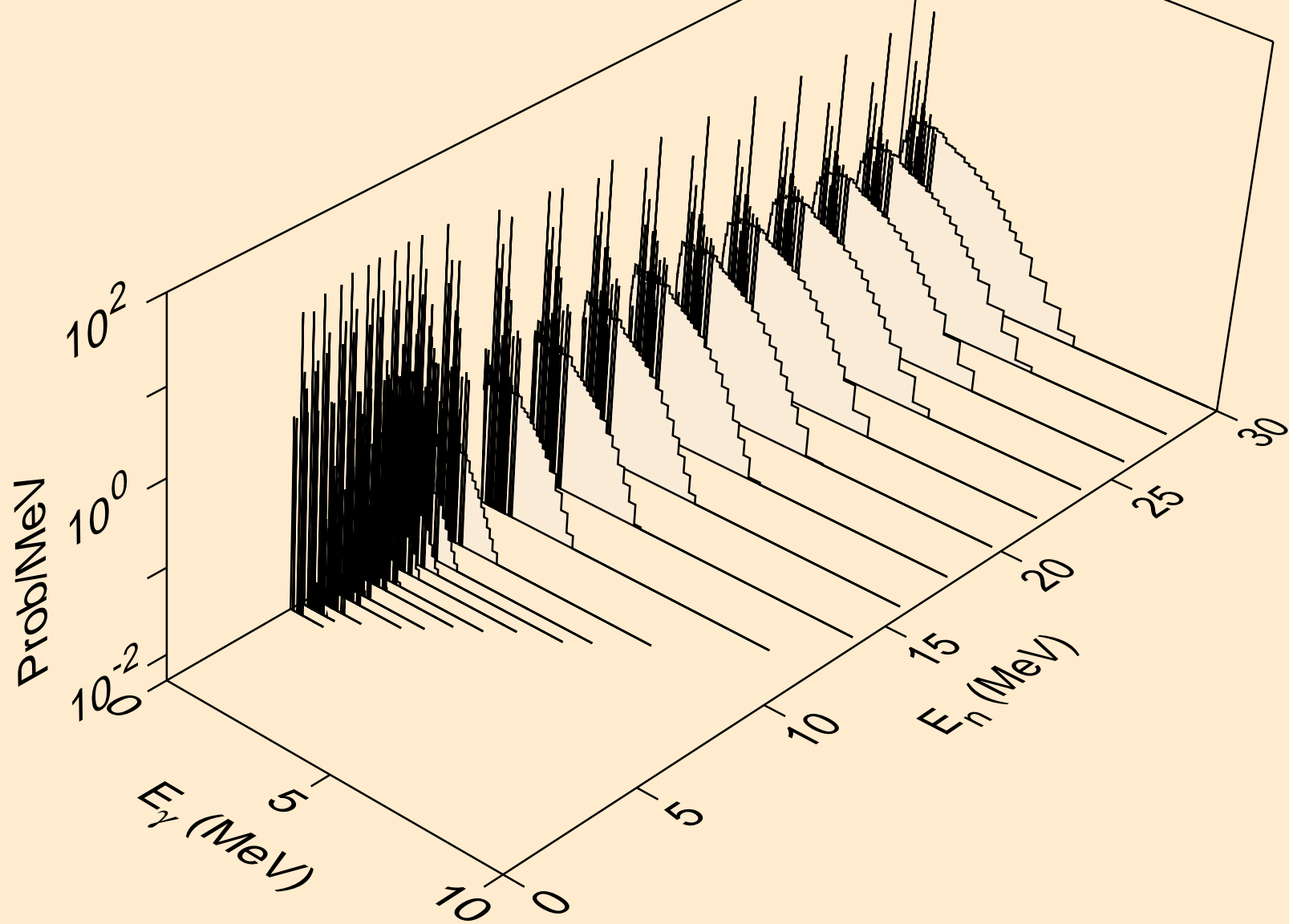
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Photon emission for (n,2n)



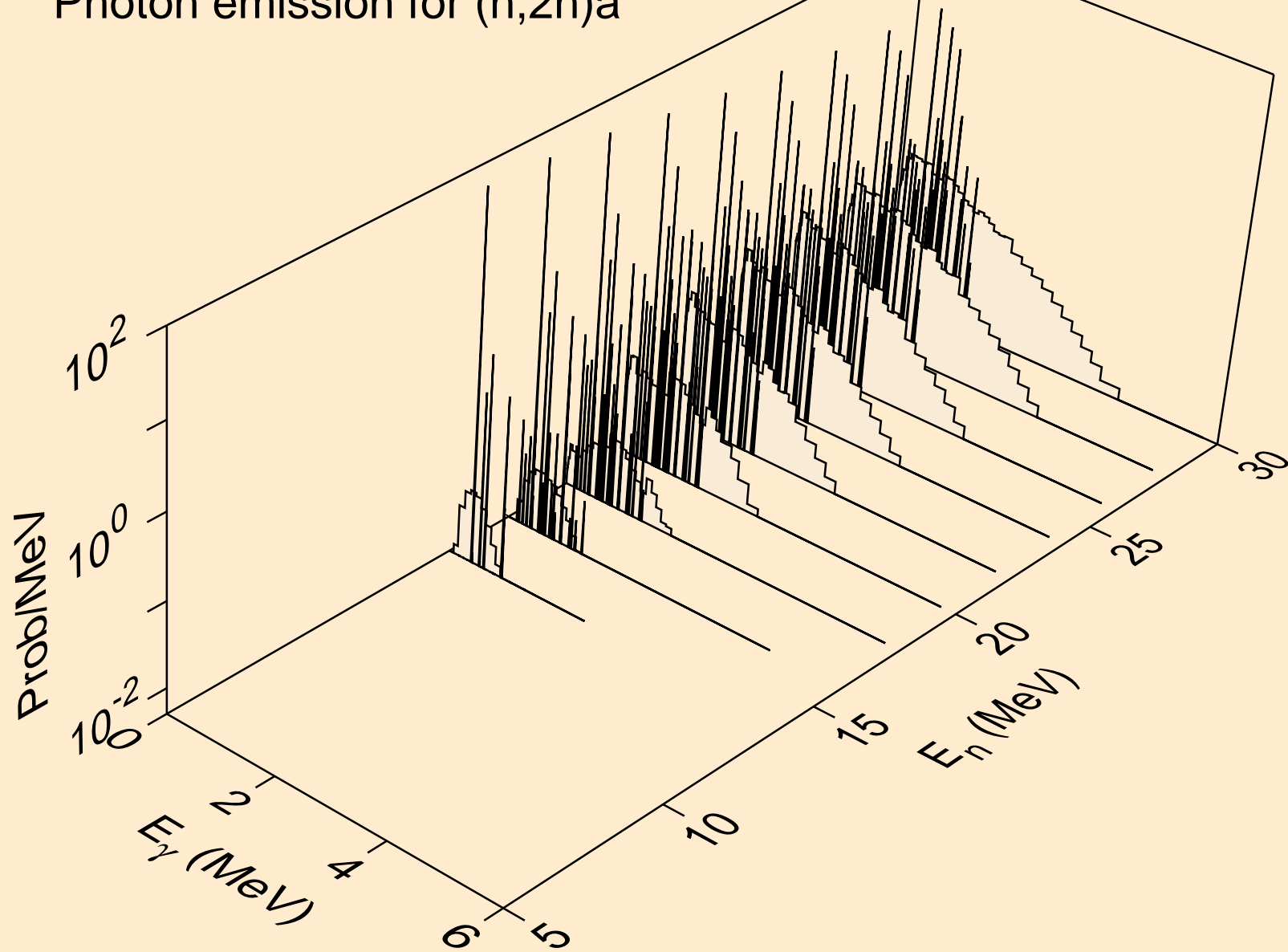
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Photon emission for (n,3n)



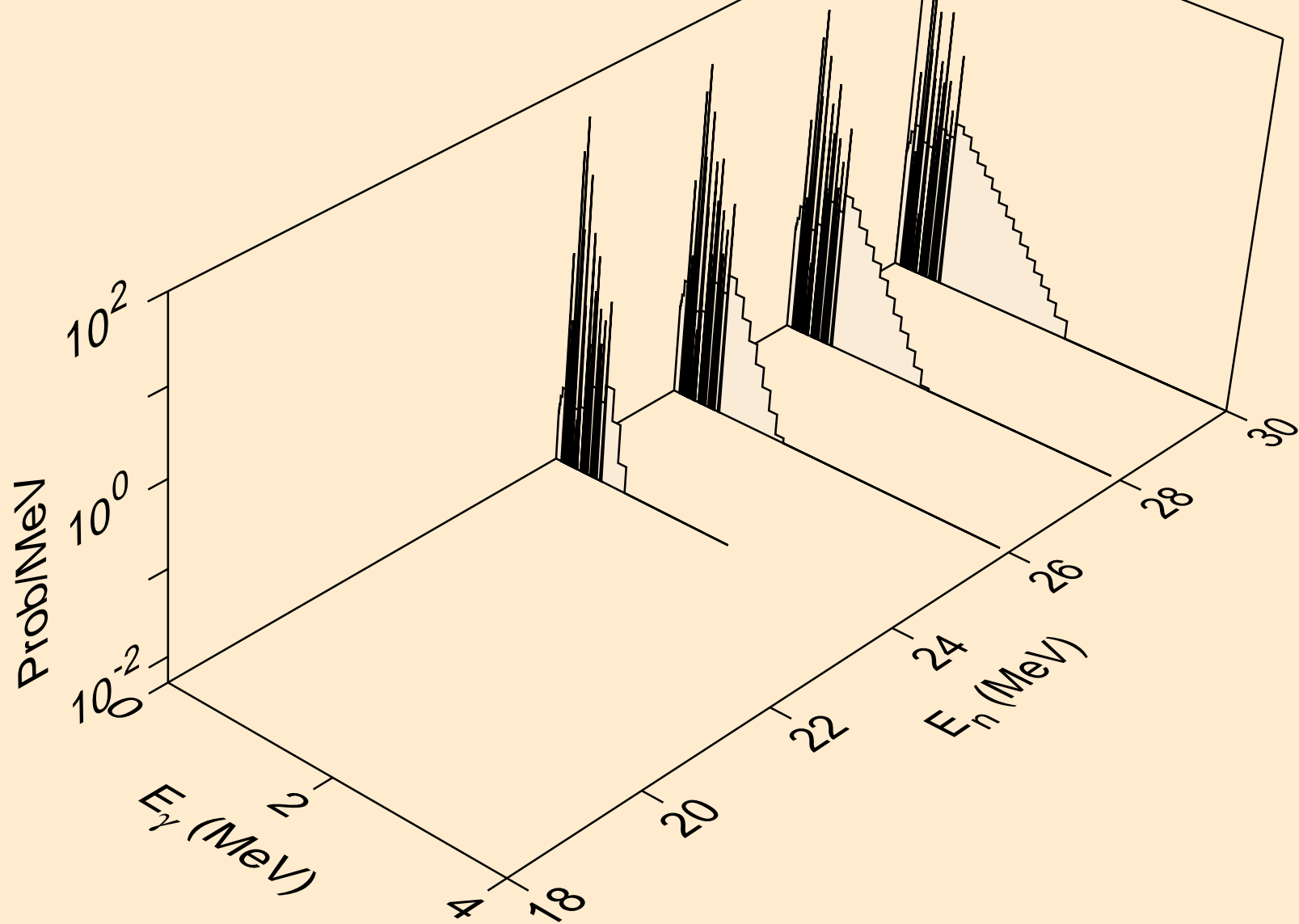
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Photon emission for (n,n\*)a



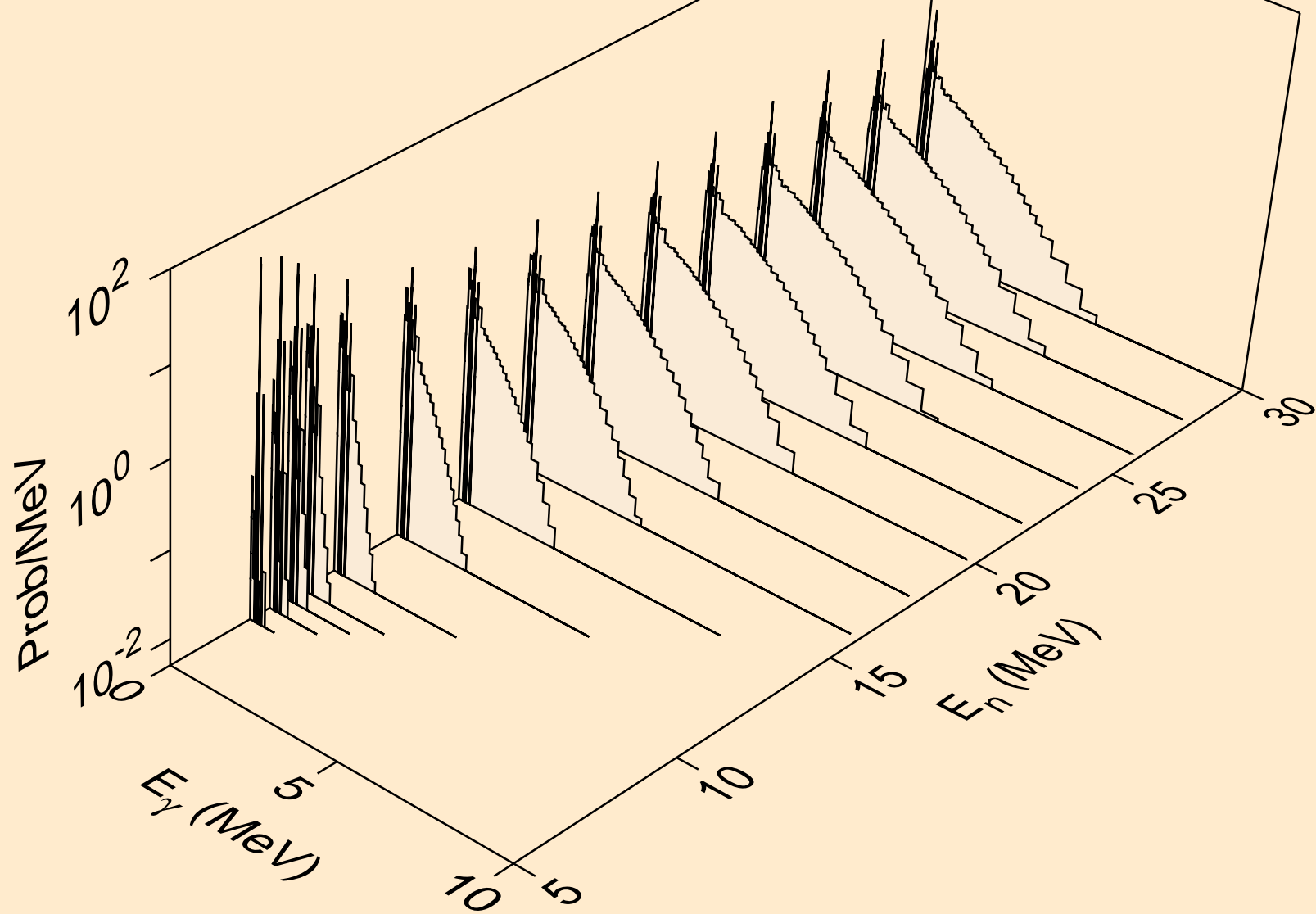
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Photon emission for (n,2n)a



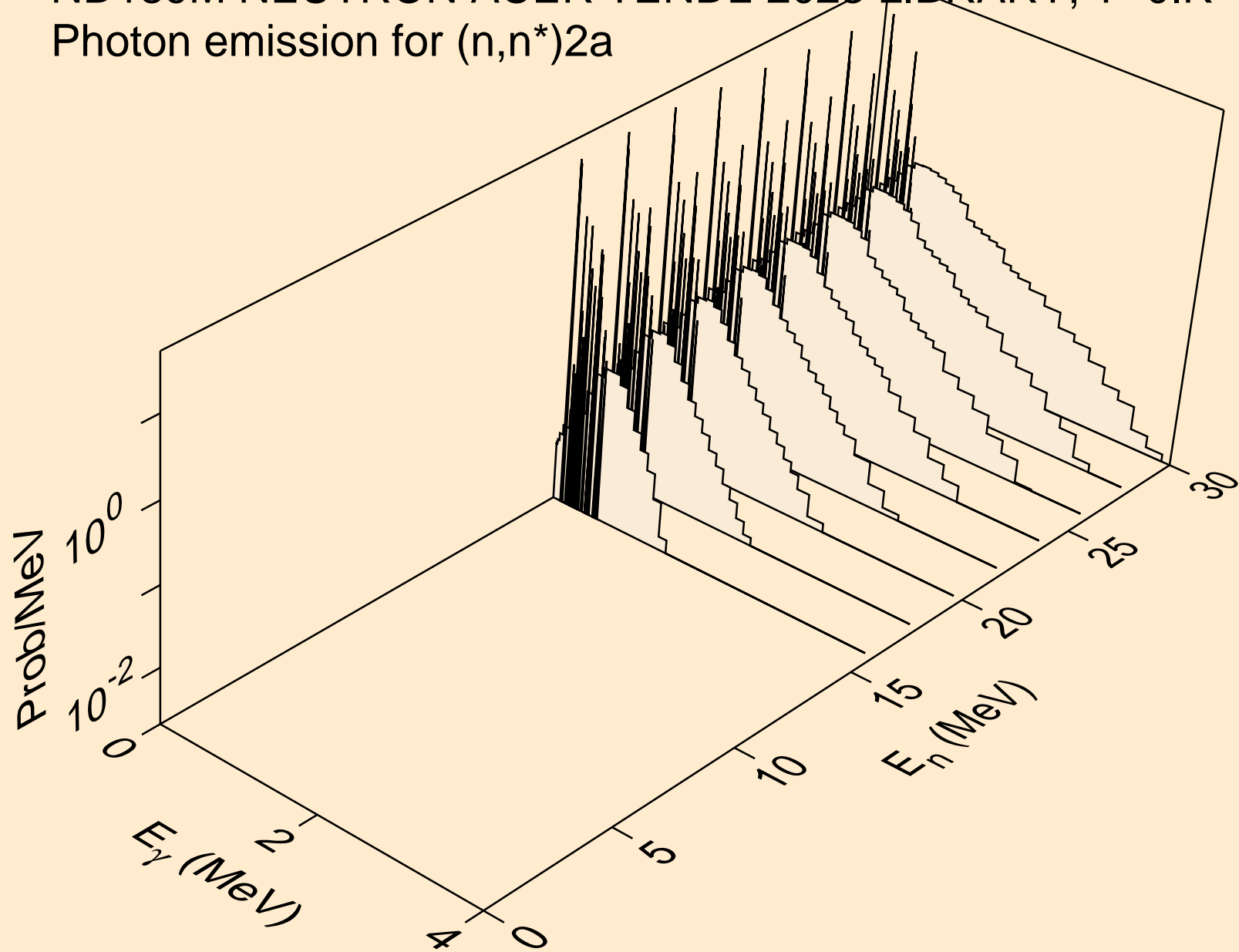
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Photon emission for (n,3n)a



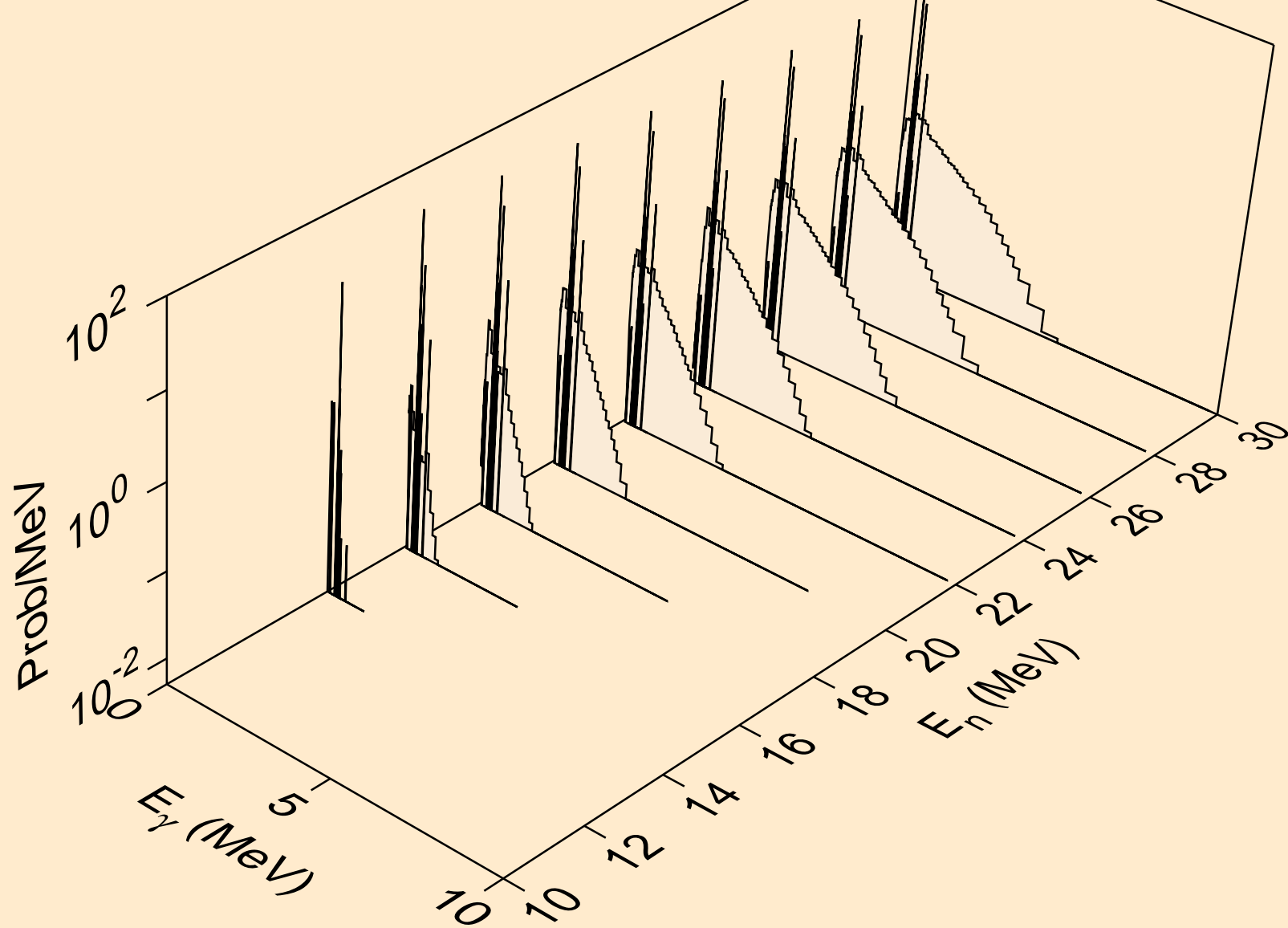
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Photon emission for (n,n\*)p



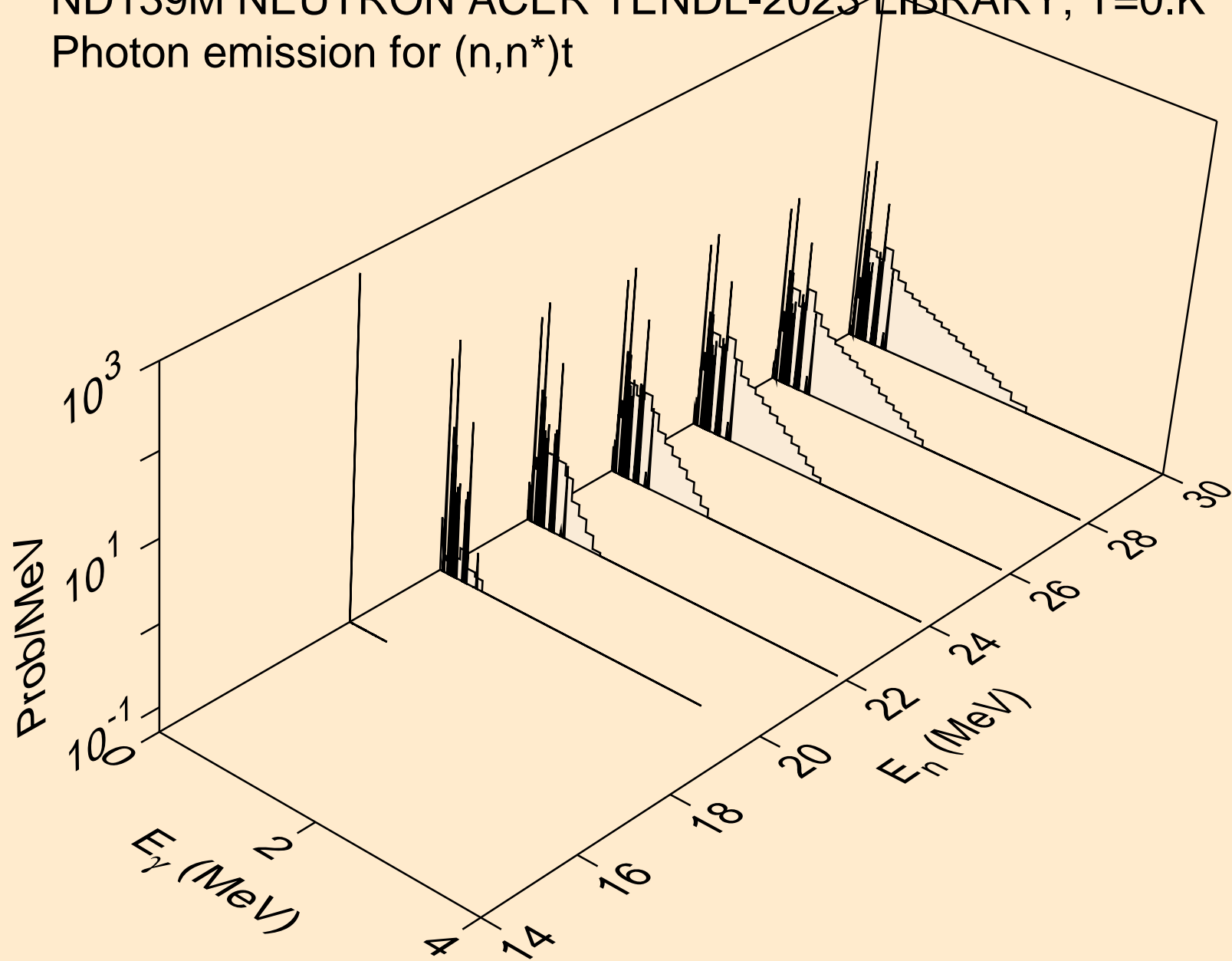
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Photon emission for (n,n\*)2a



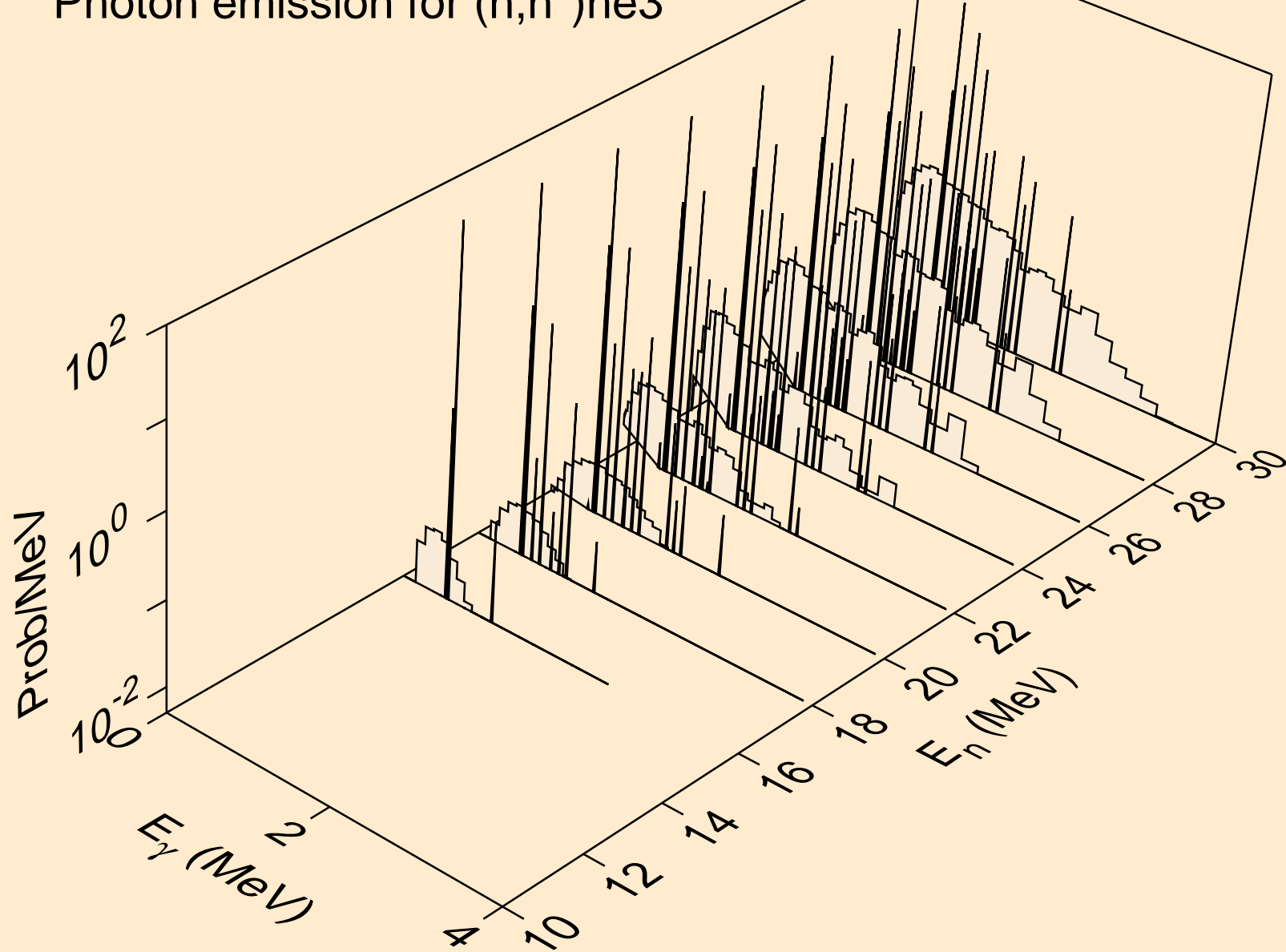
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Photon emission for (n,n\*)d



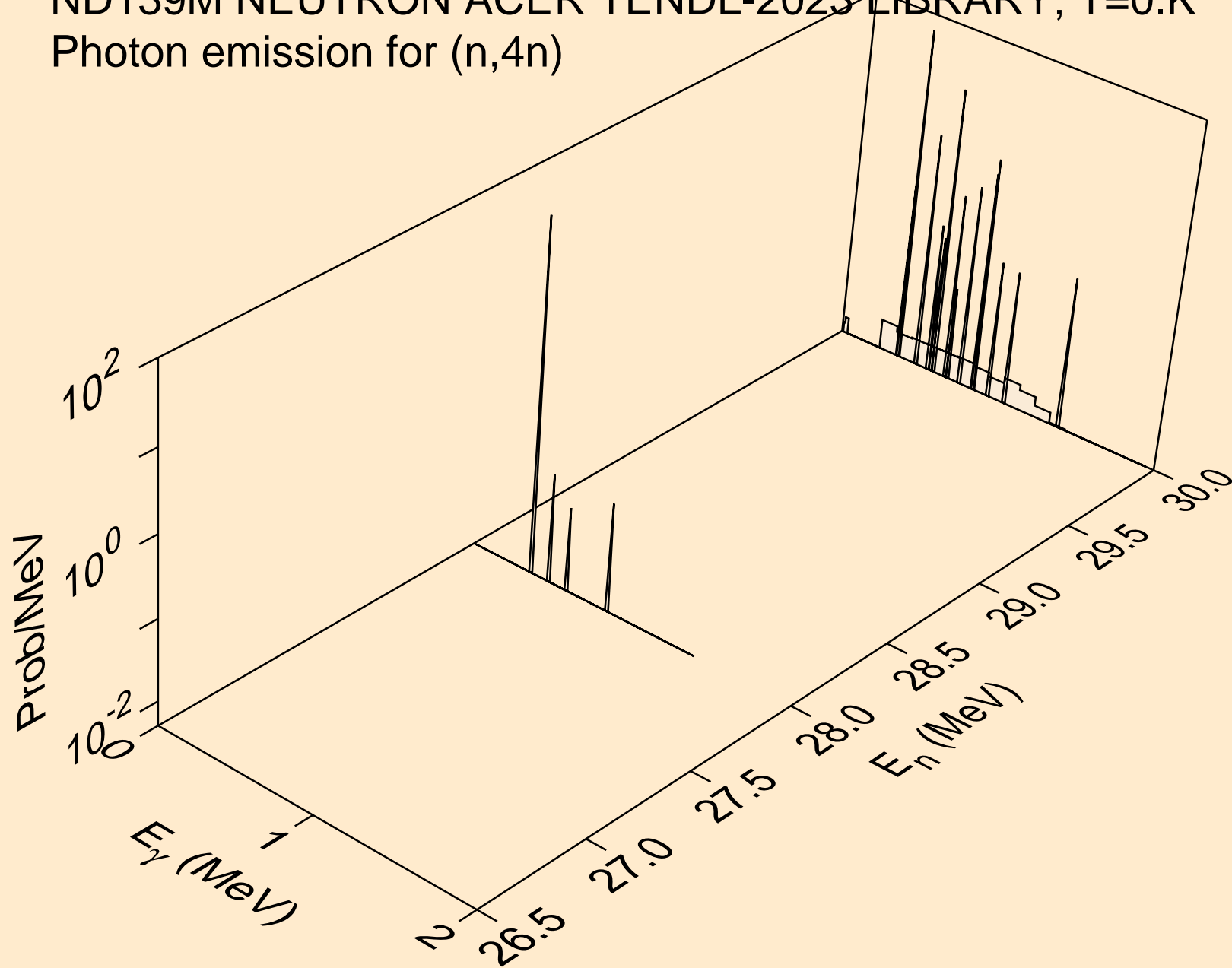
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Photon emission for (n,n\*)t



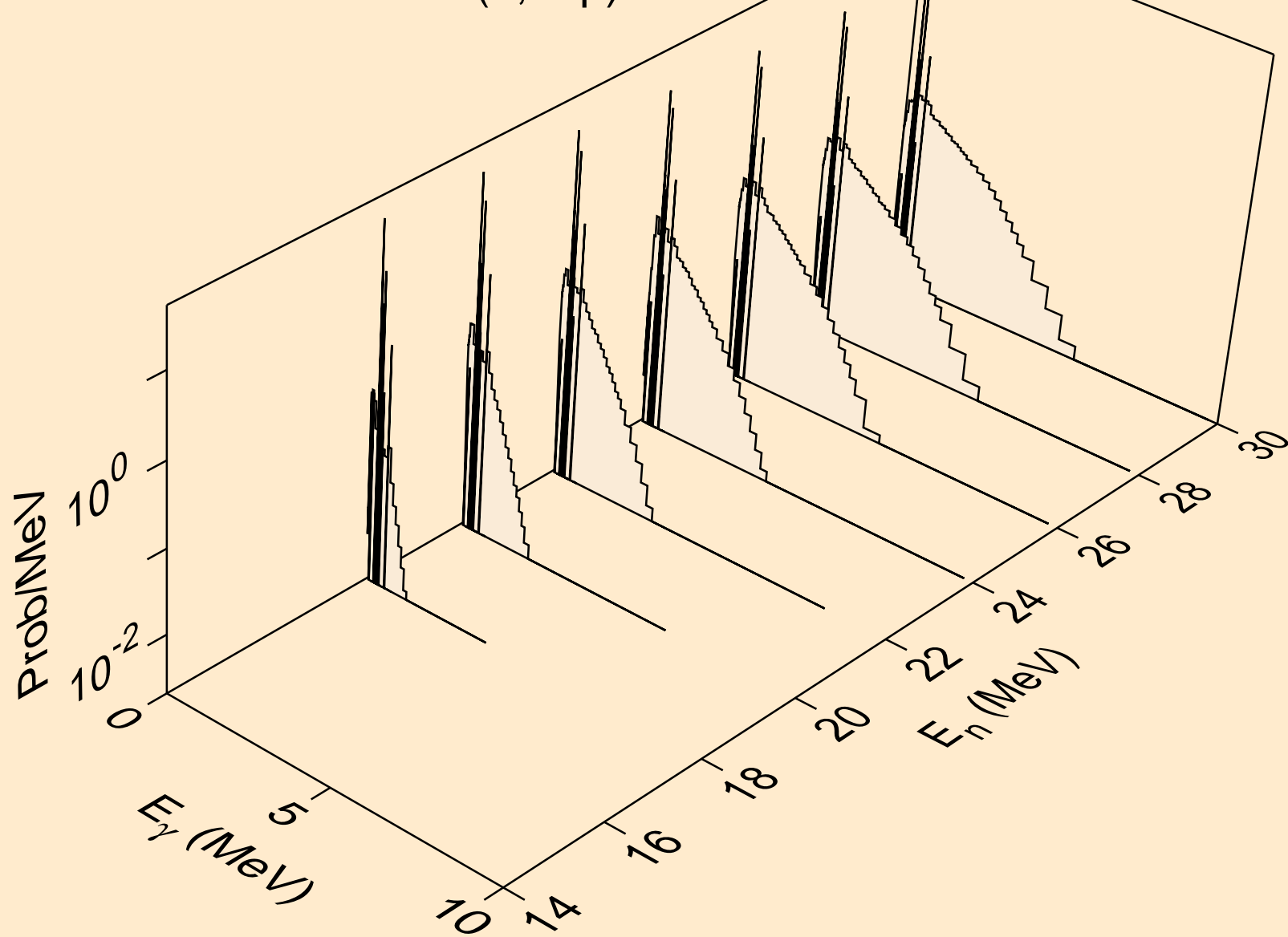
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Photon emission for (n,n\*)he3



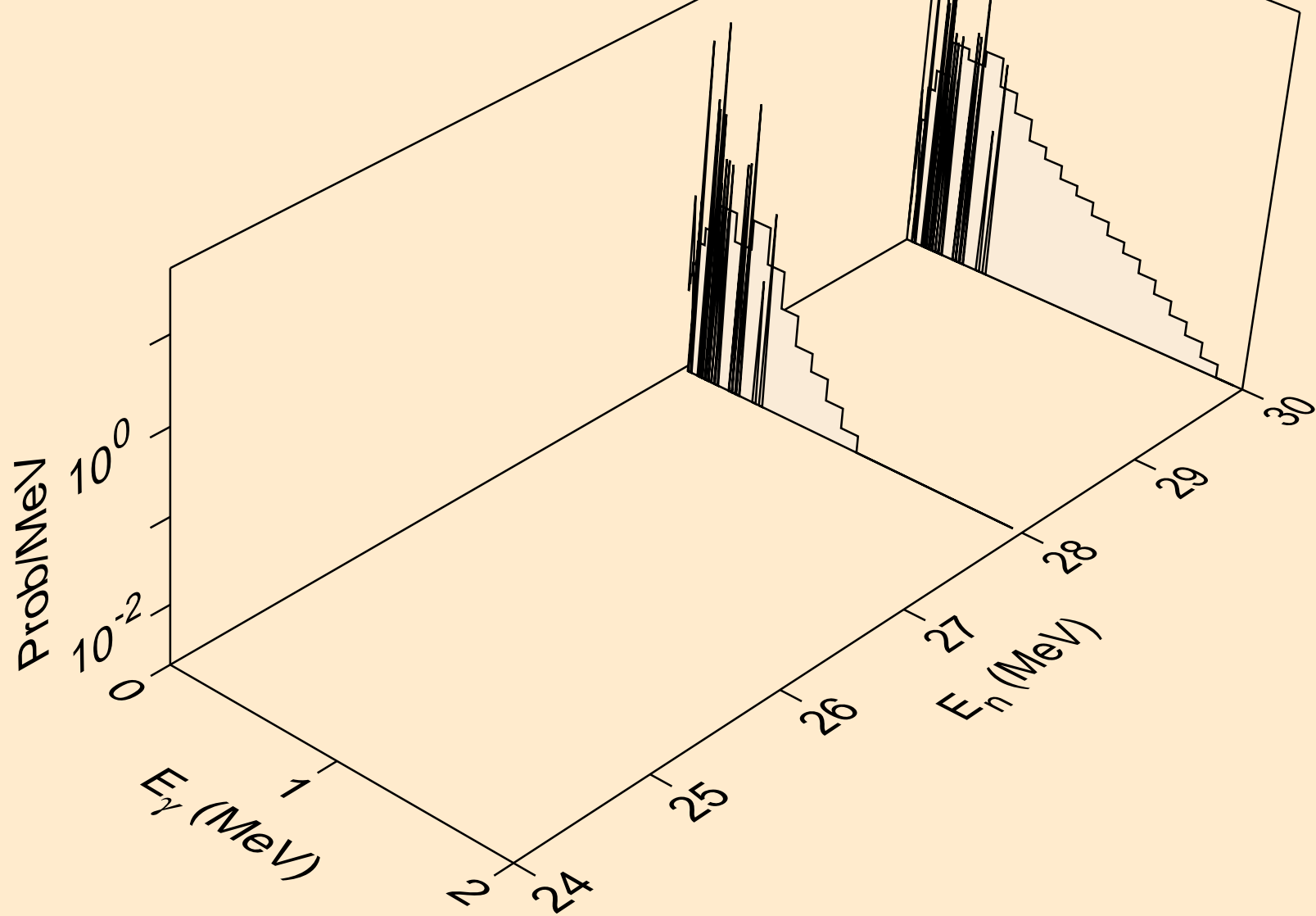
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Photon emission for (n,4n)



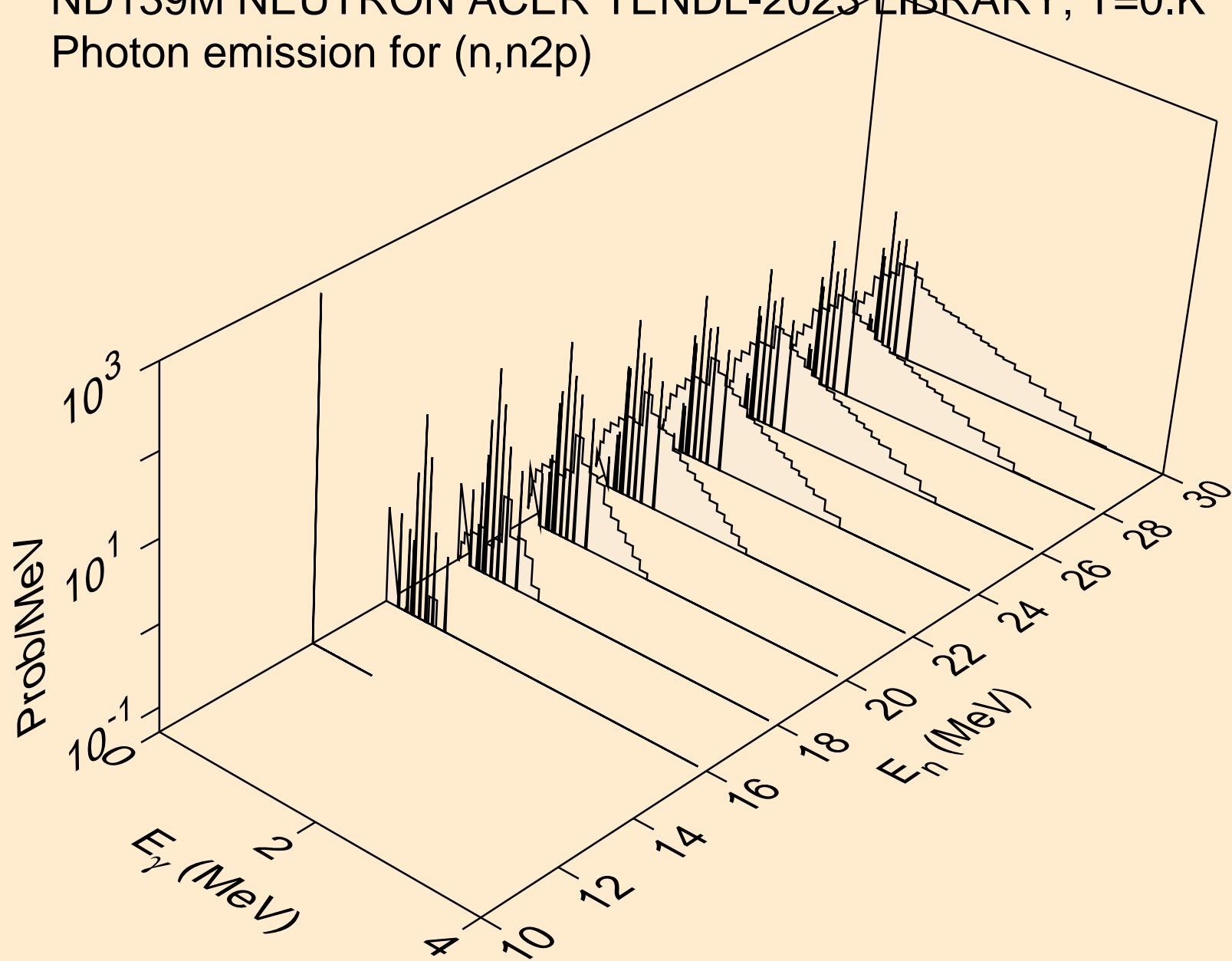
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Photon emission for (n,2np)



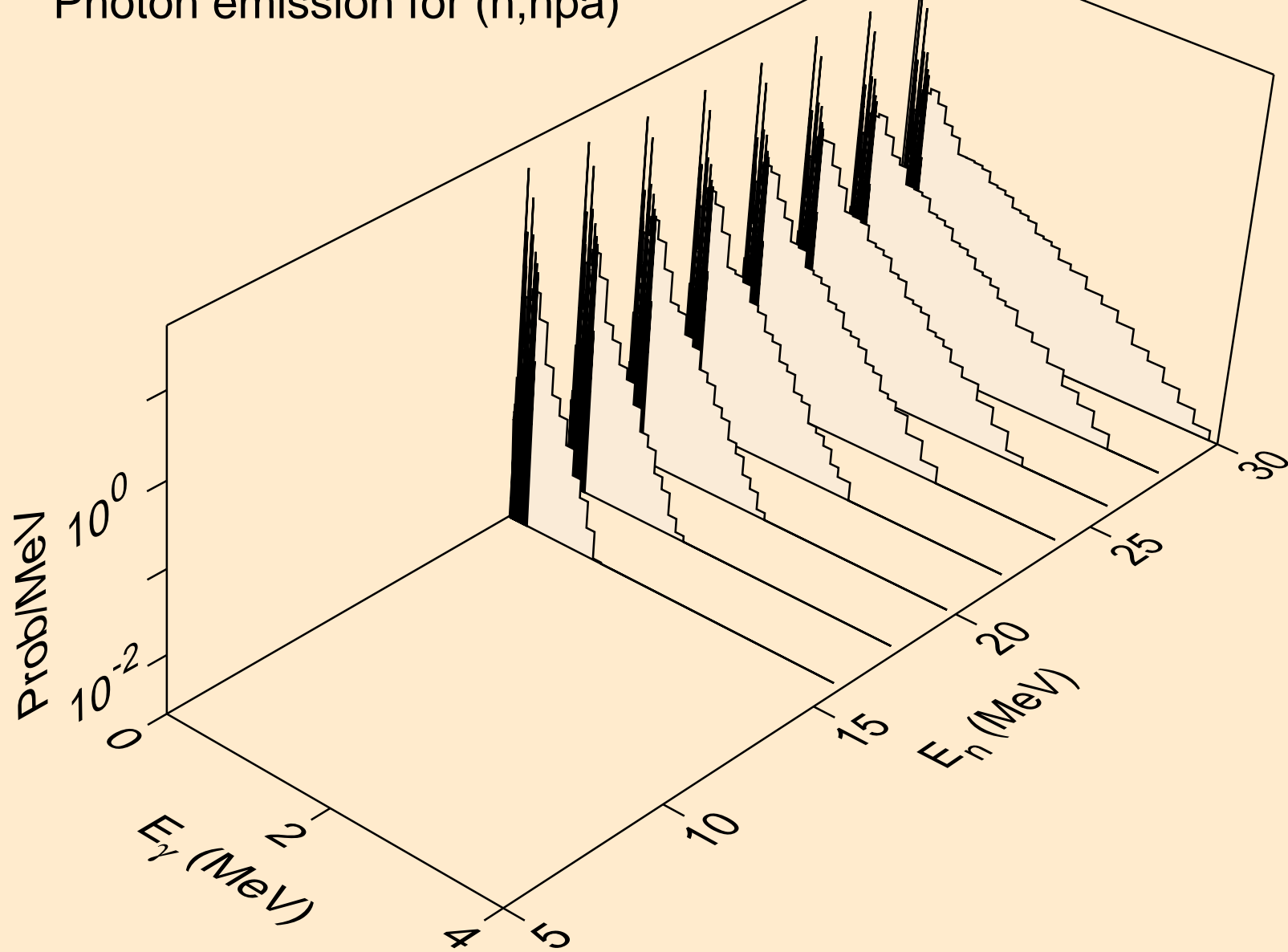
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Photon emission for (n,3np)



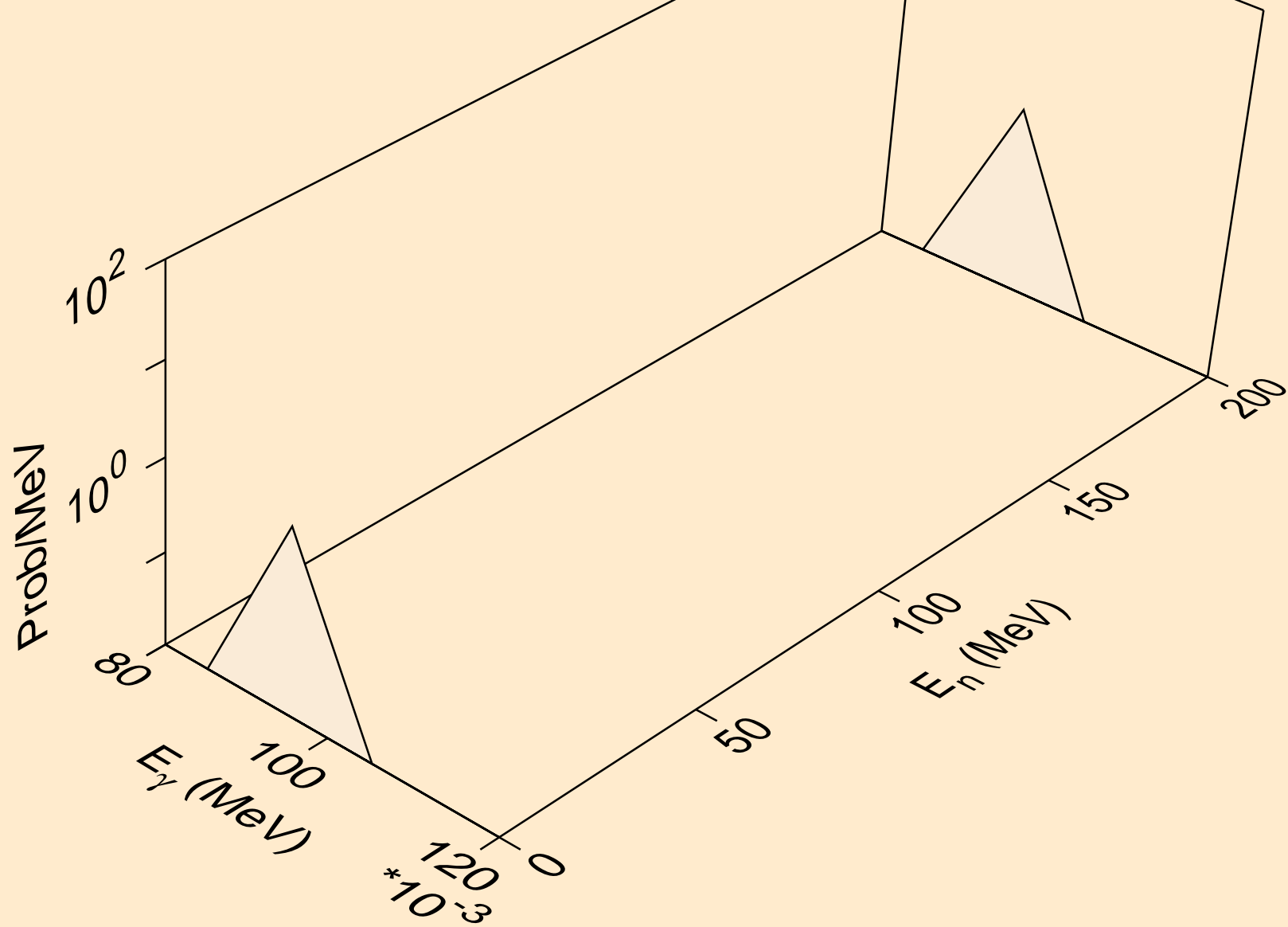
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Photon emission for (n,n2p)



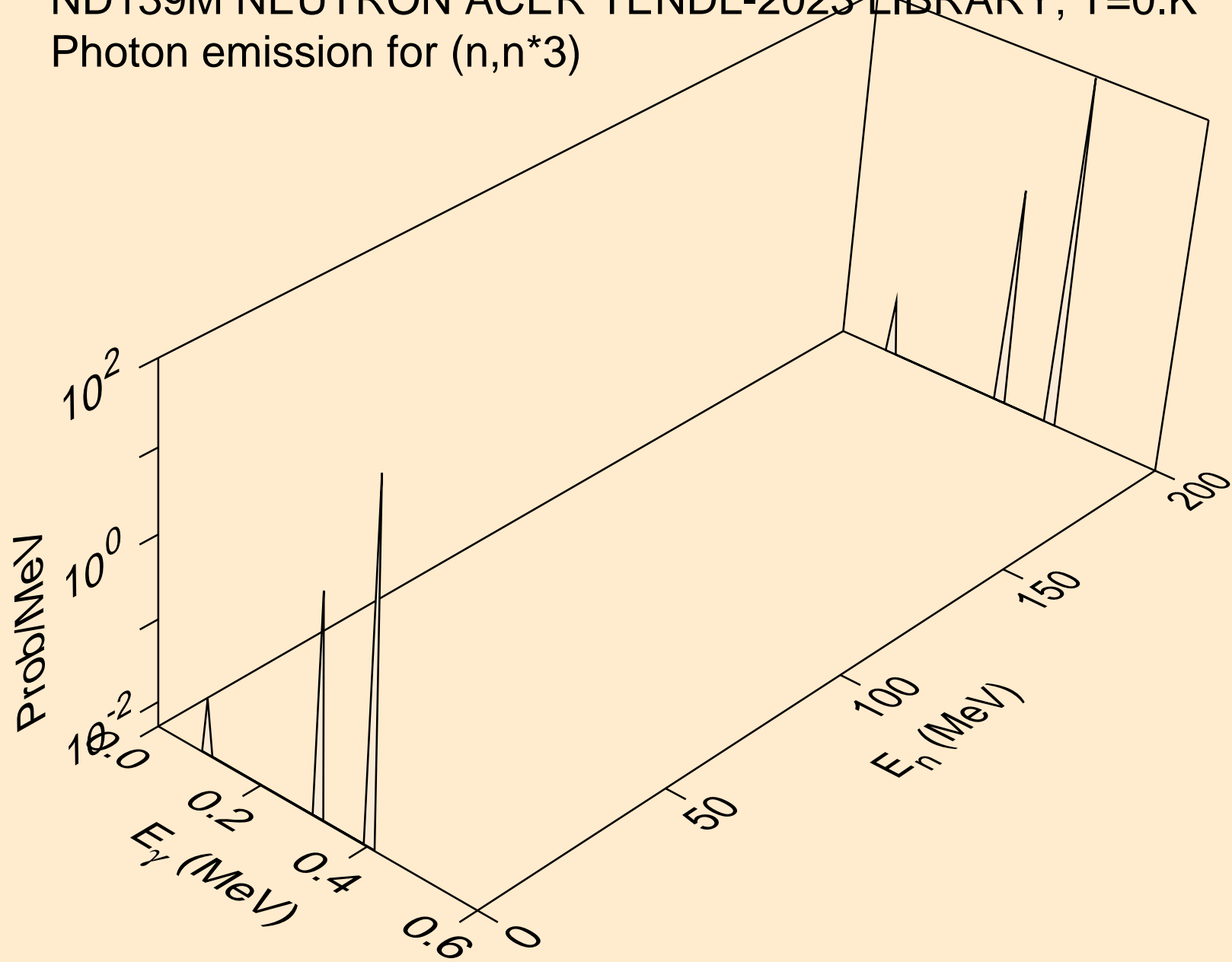
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Photon emission for (n,npa)



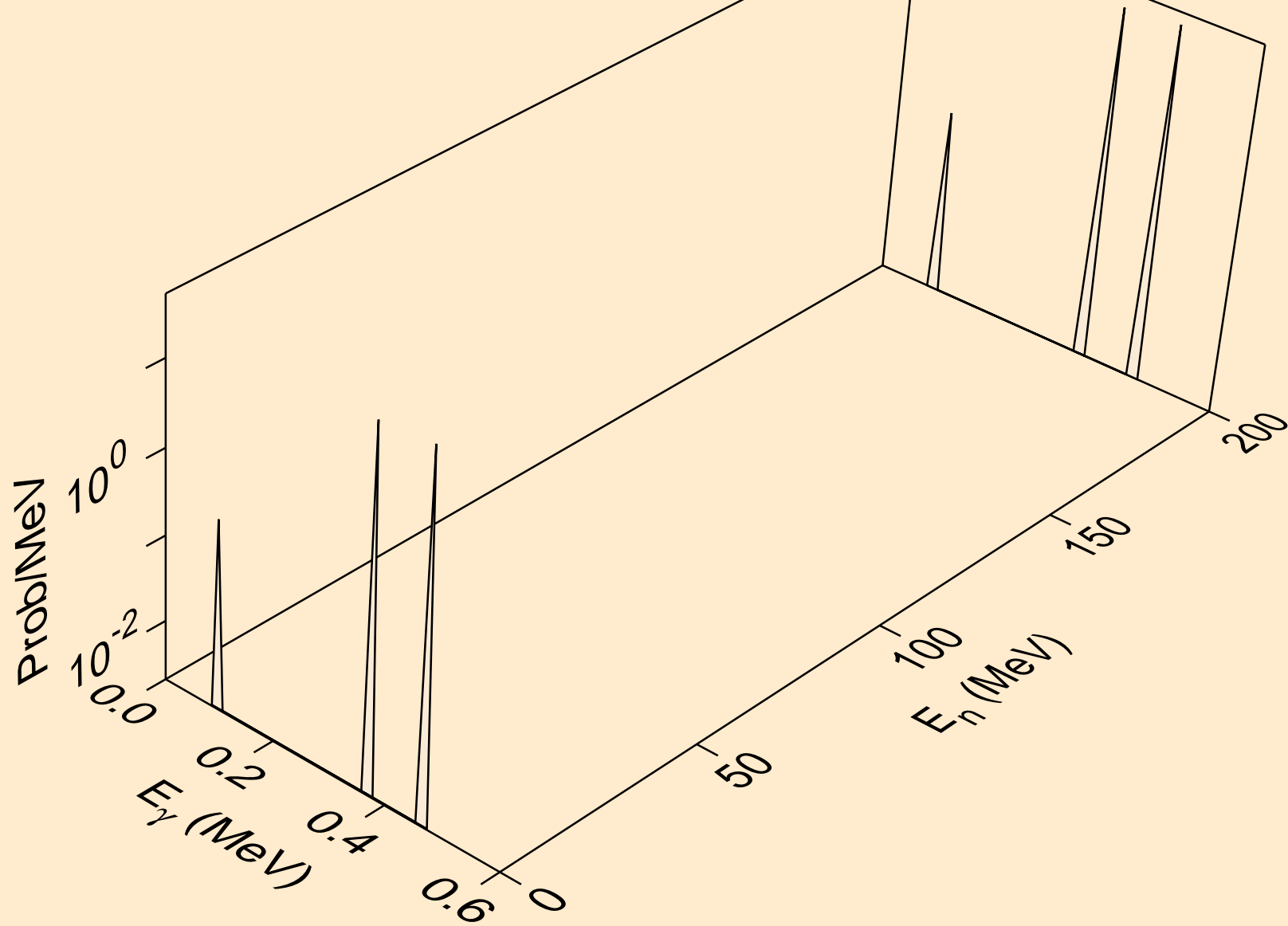
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Photon emission for (n,n\*1)



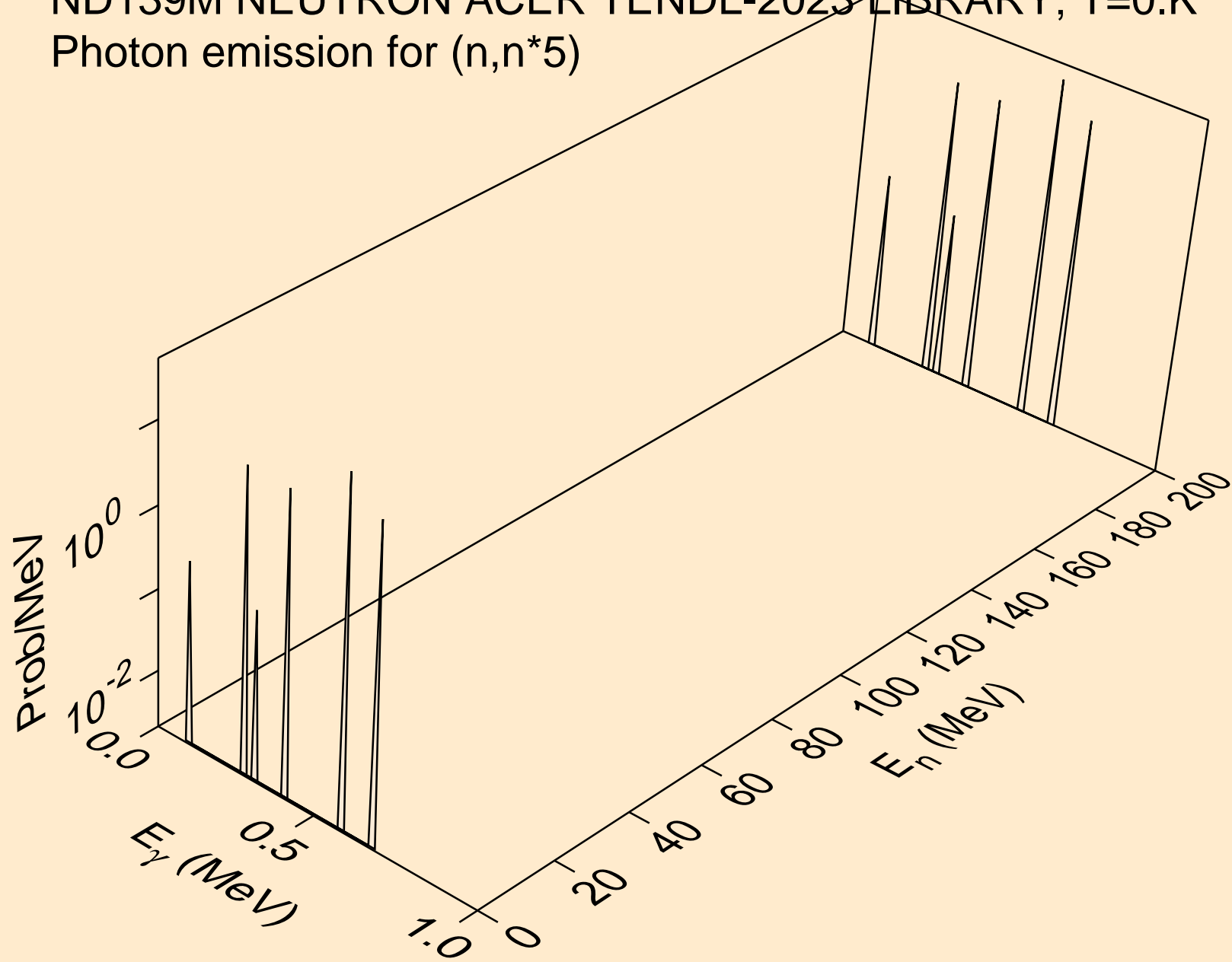
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Photon emission for (n,n\*3)



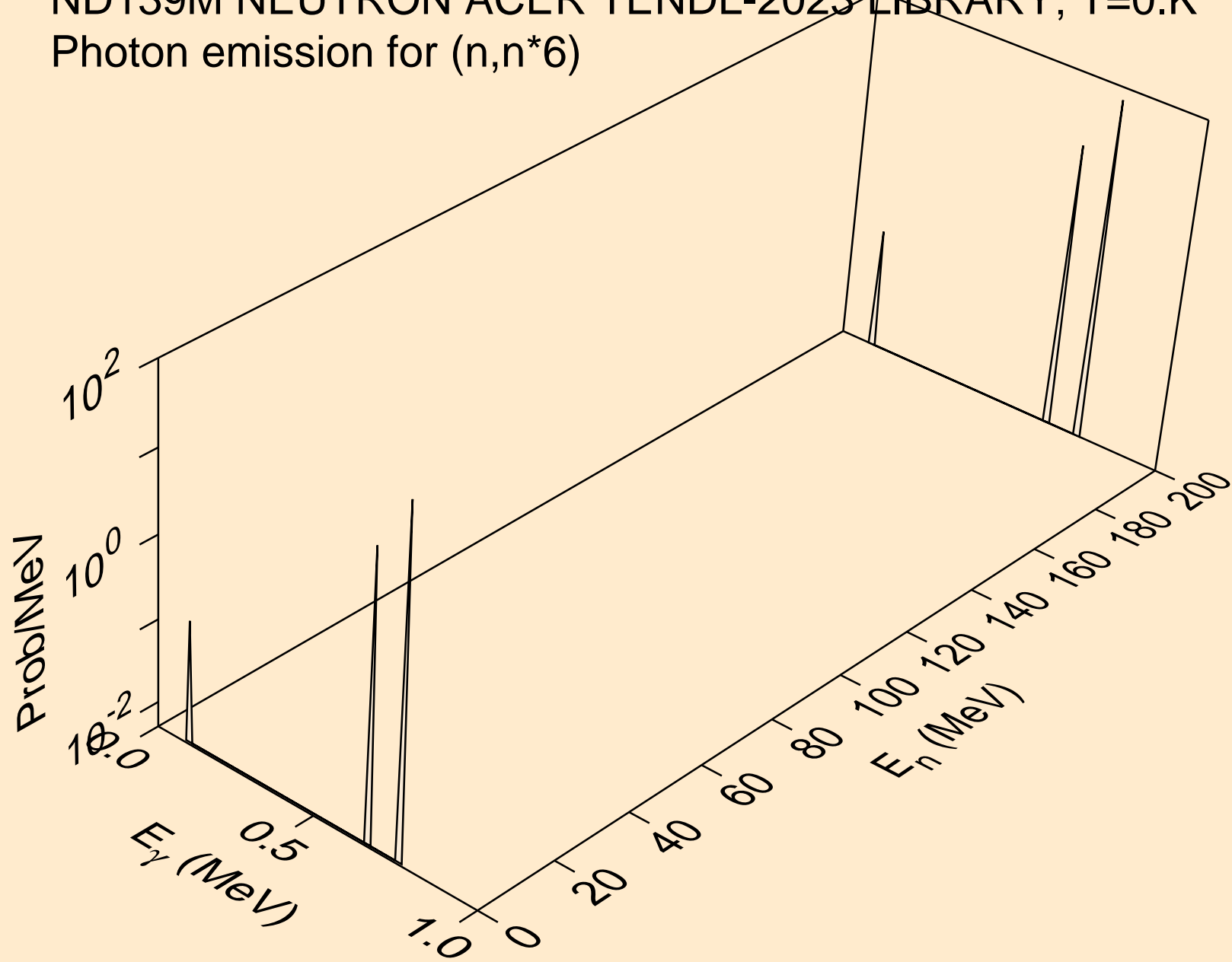
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Photon emission for (n,n\*4)



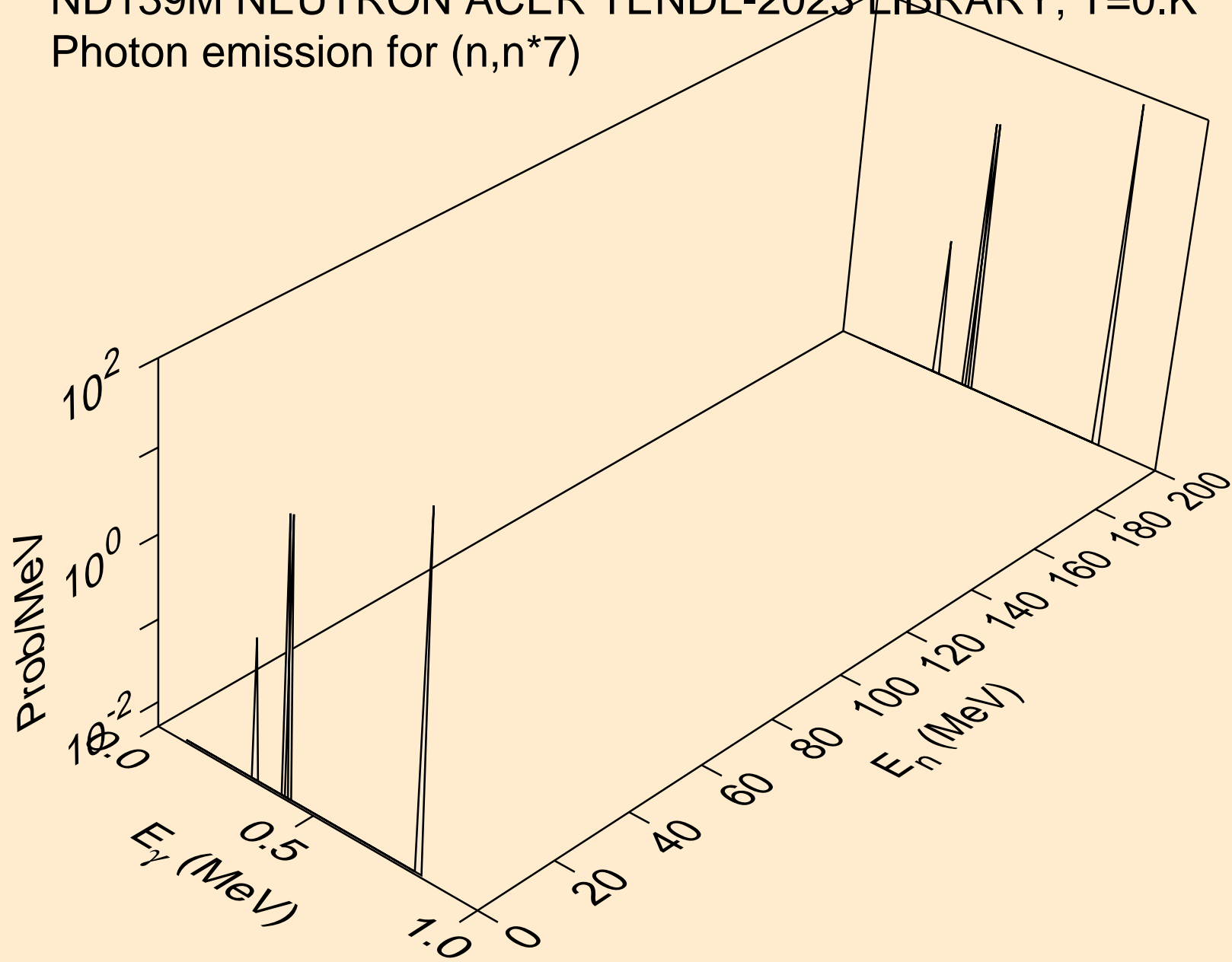
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Photon emission for (n,n\*5)



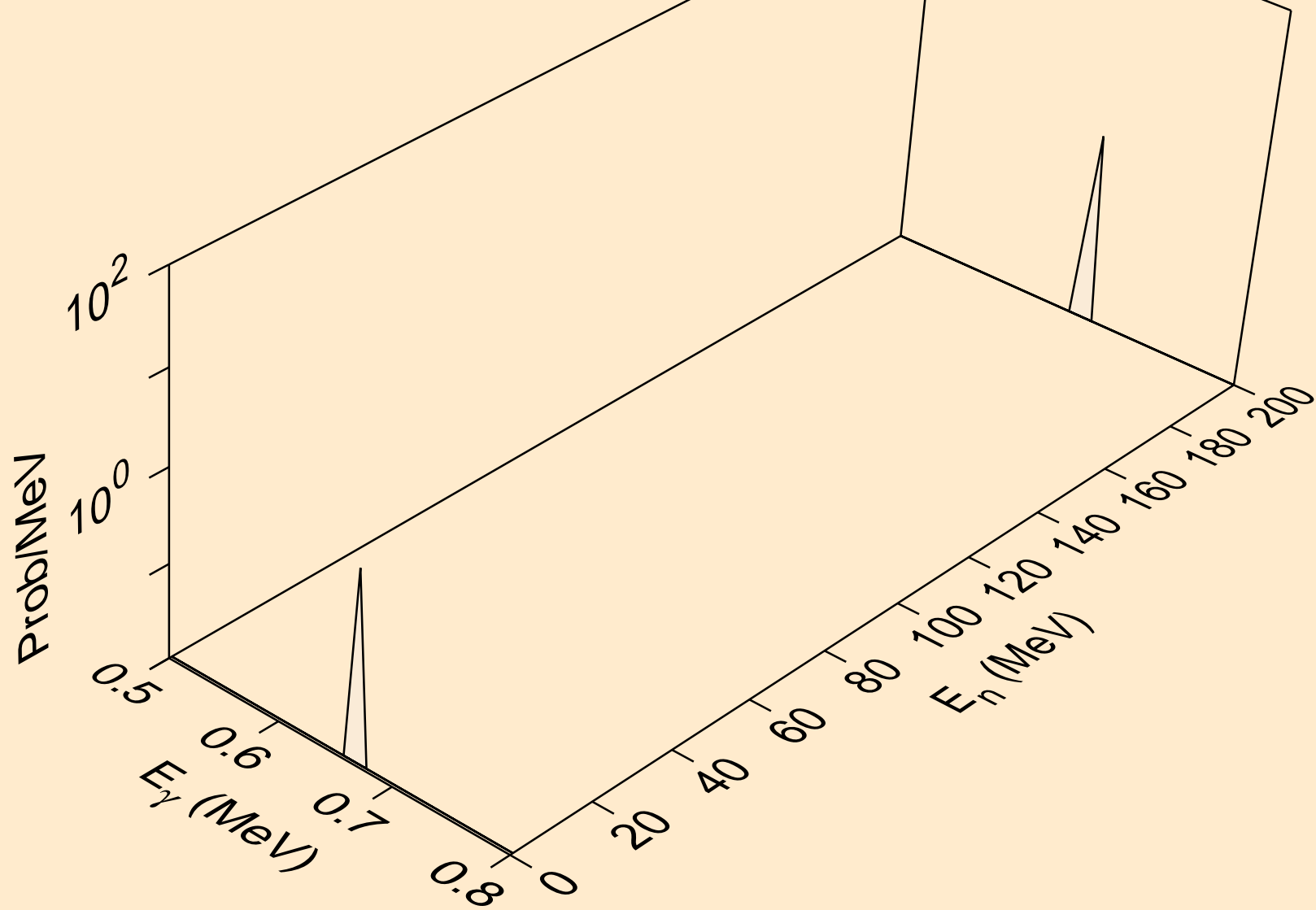
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Photon emission for (n,n\*6)



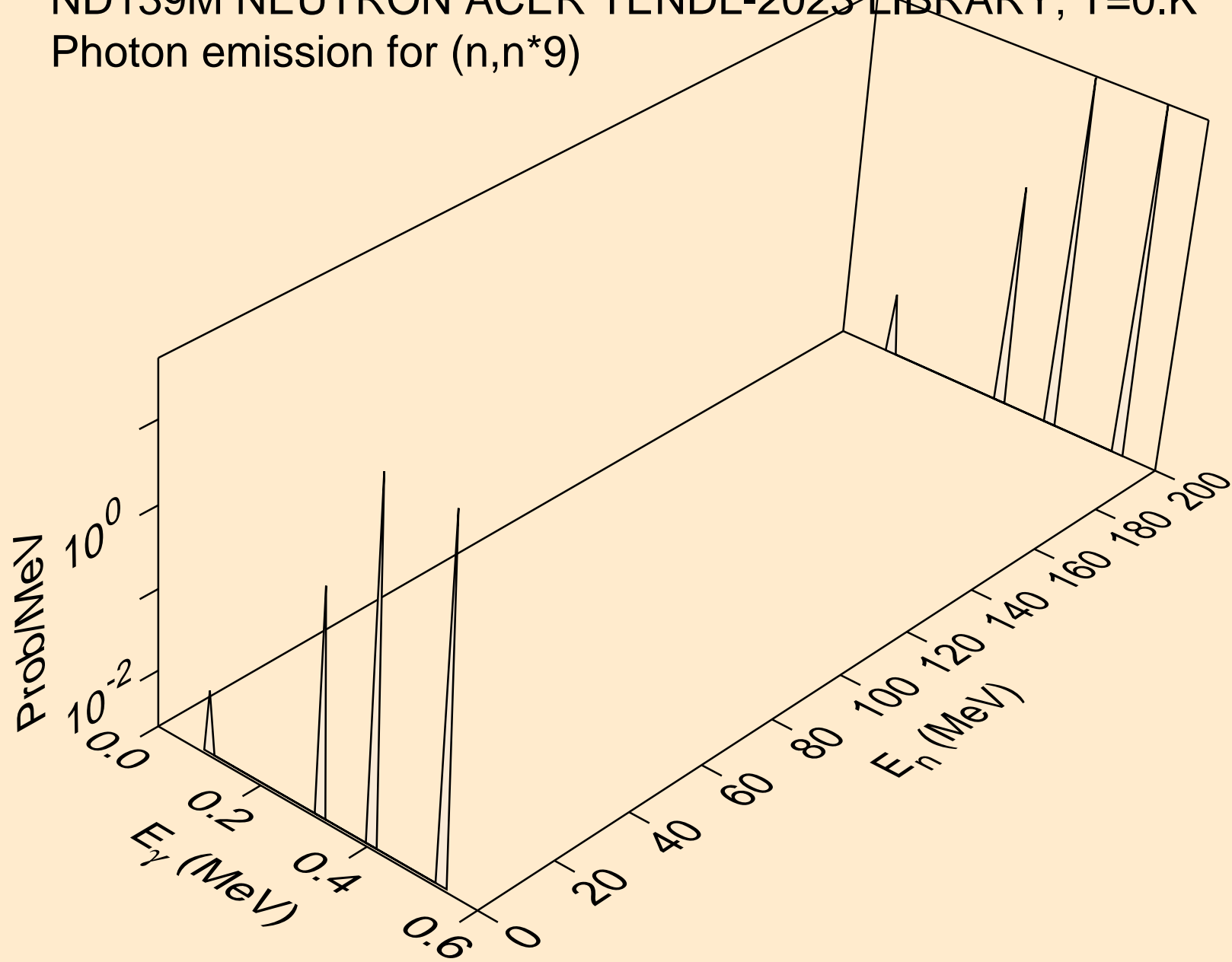
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Photon emission for (n,n\*7)



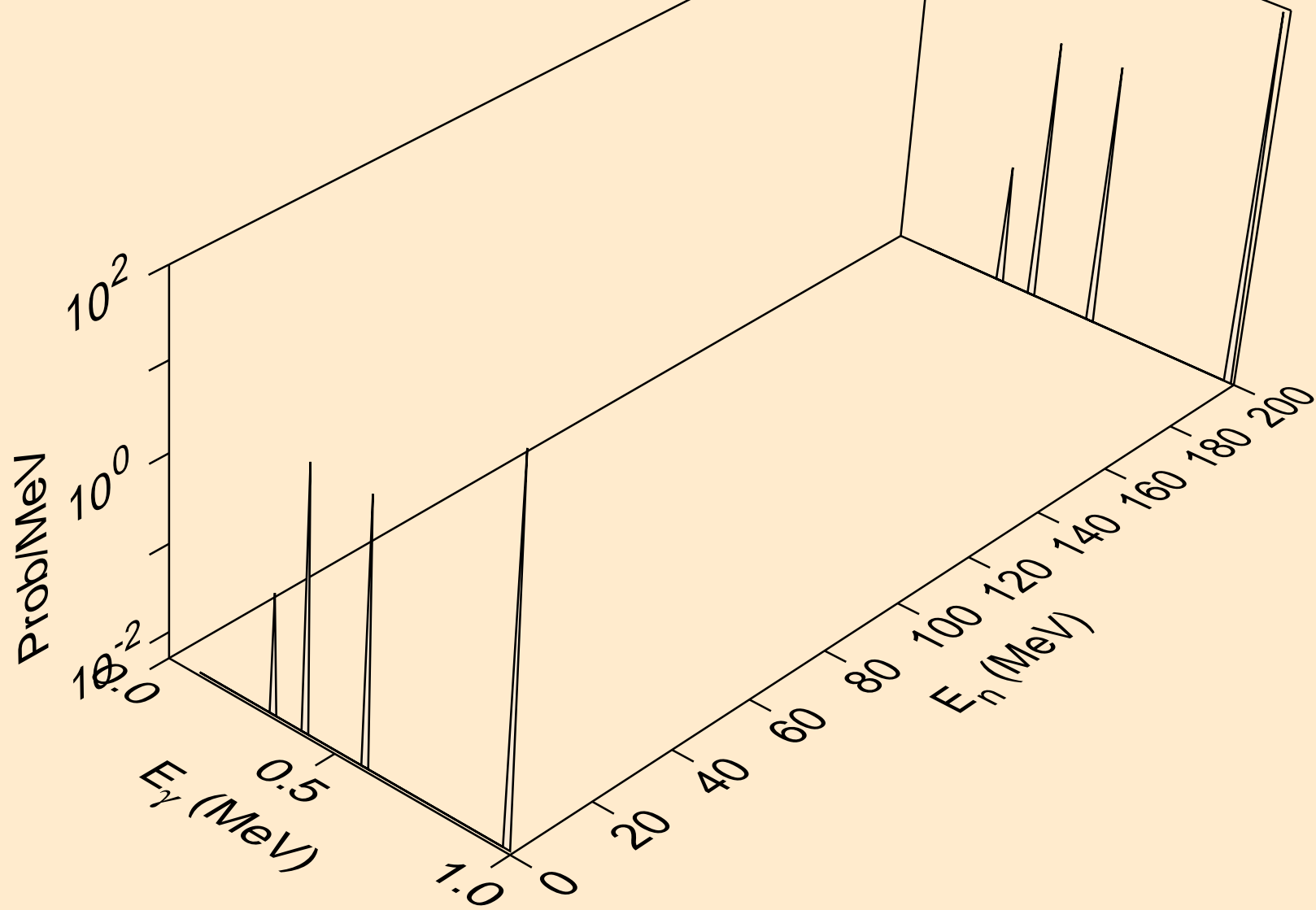
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Photon emission for (n,n\*8)



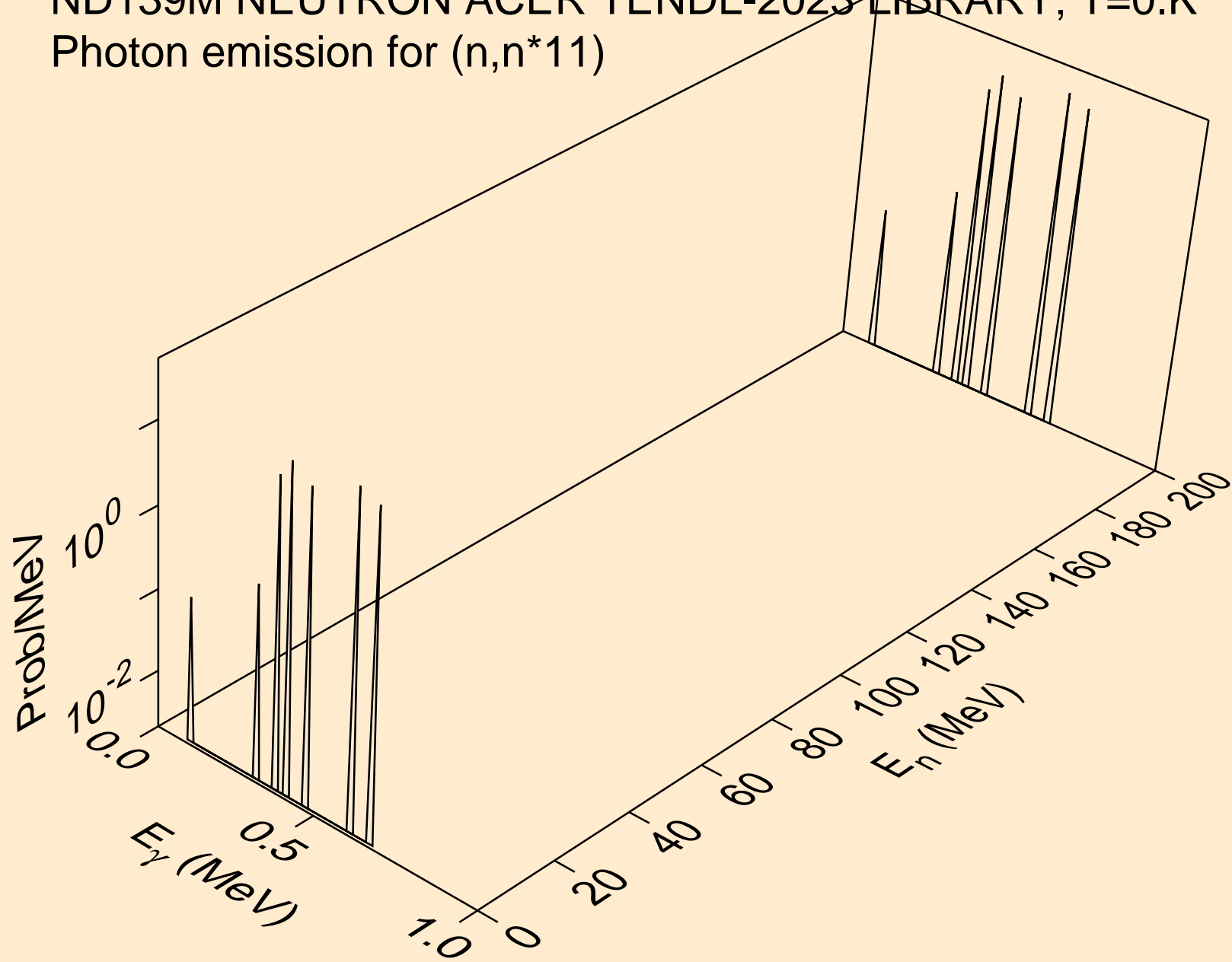
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Photon emission for (n,n\*9)



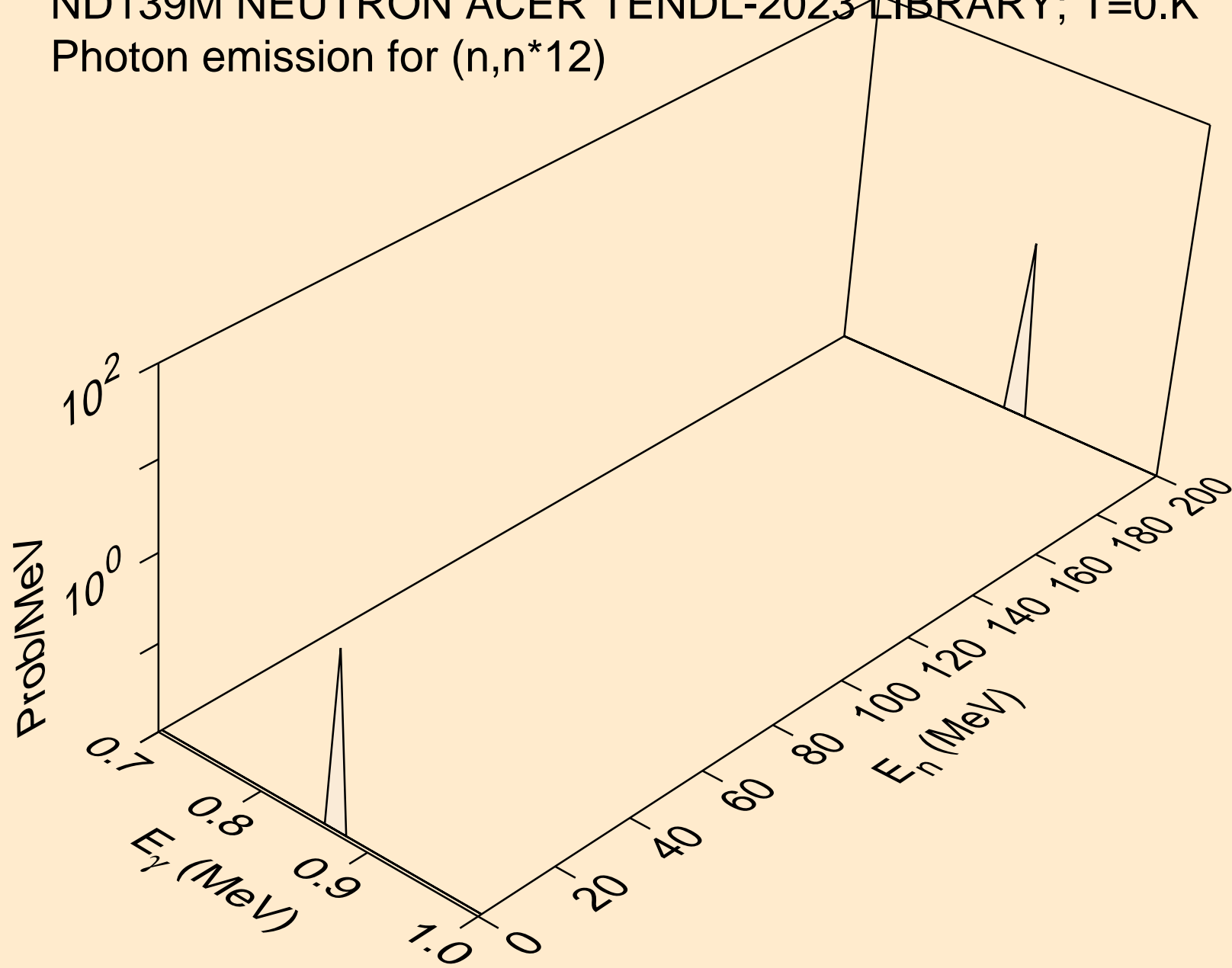
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Photon emission for (n,n\*10)



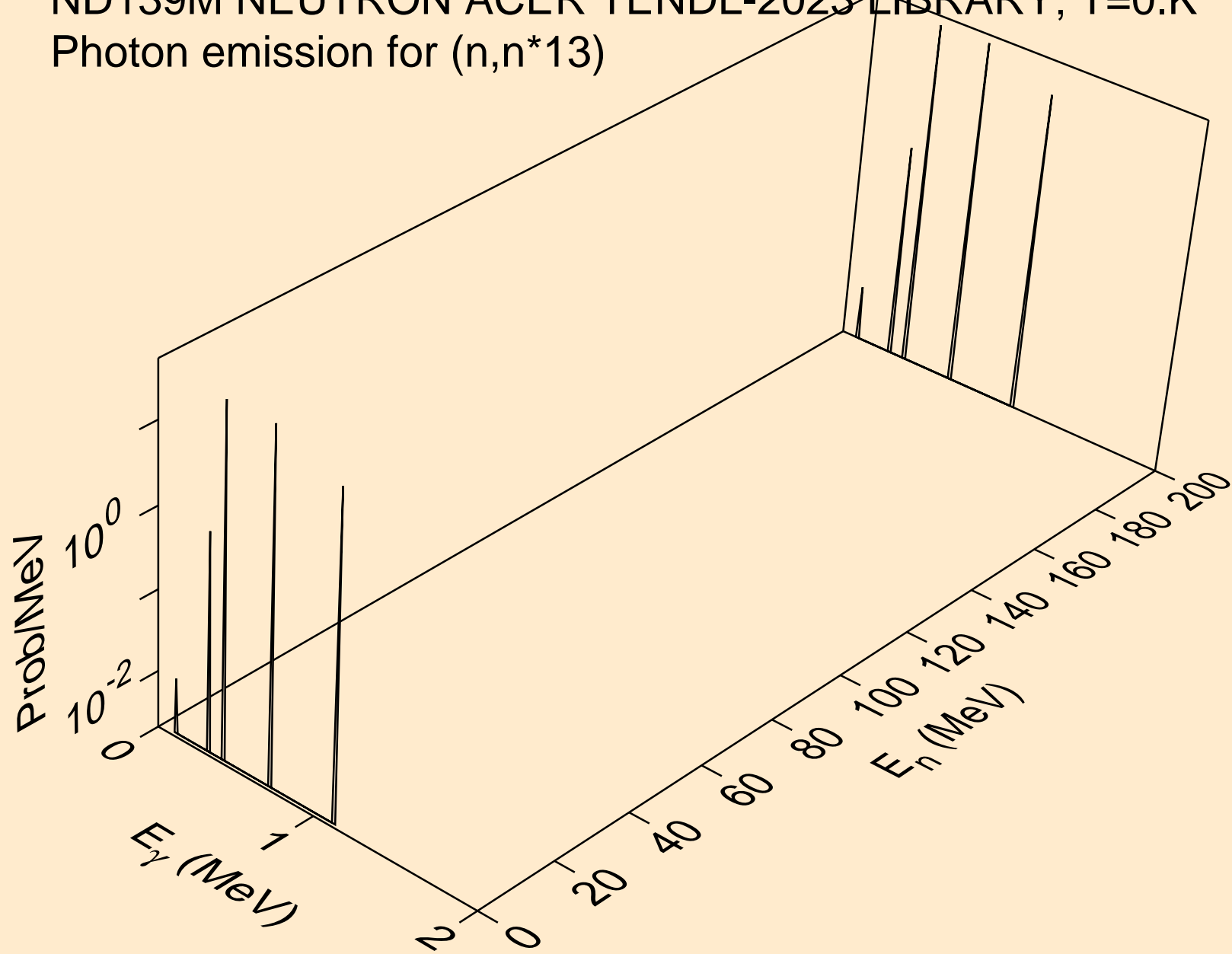
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Photon emission for (n,n\*11)



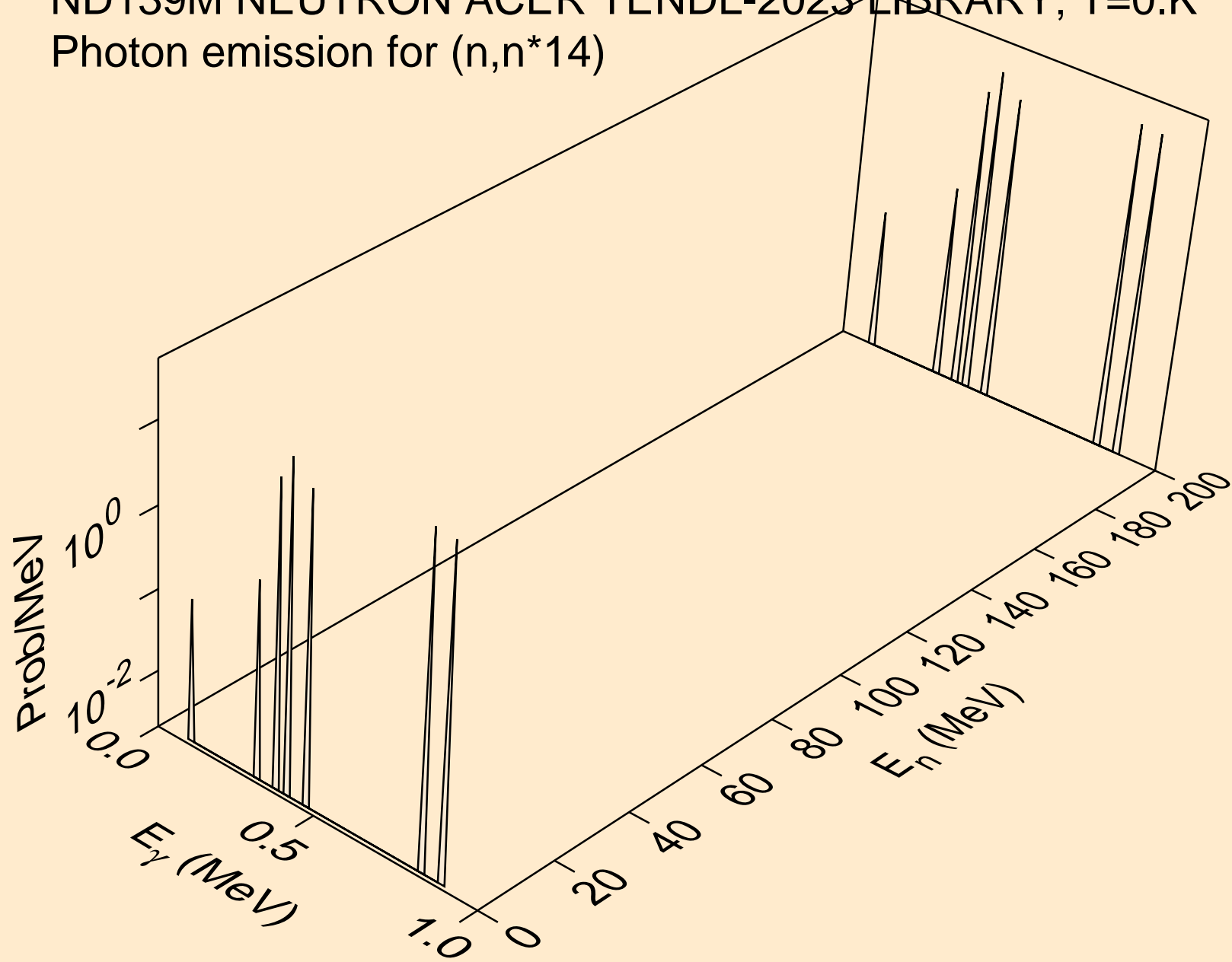
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Photon emission for (n,n\*12)



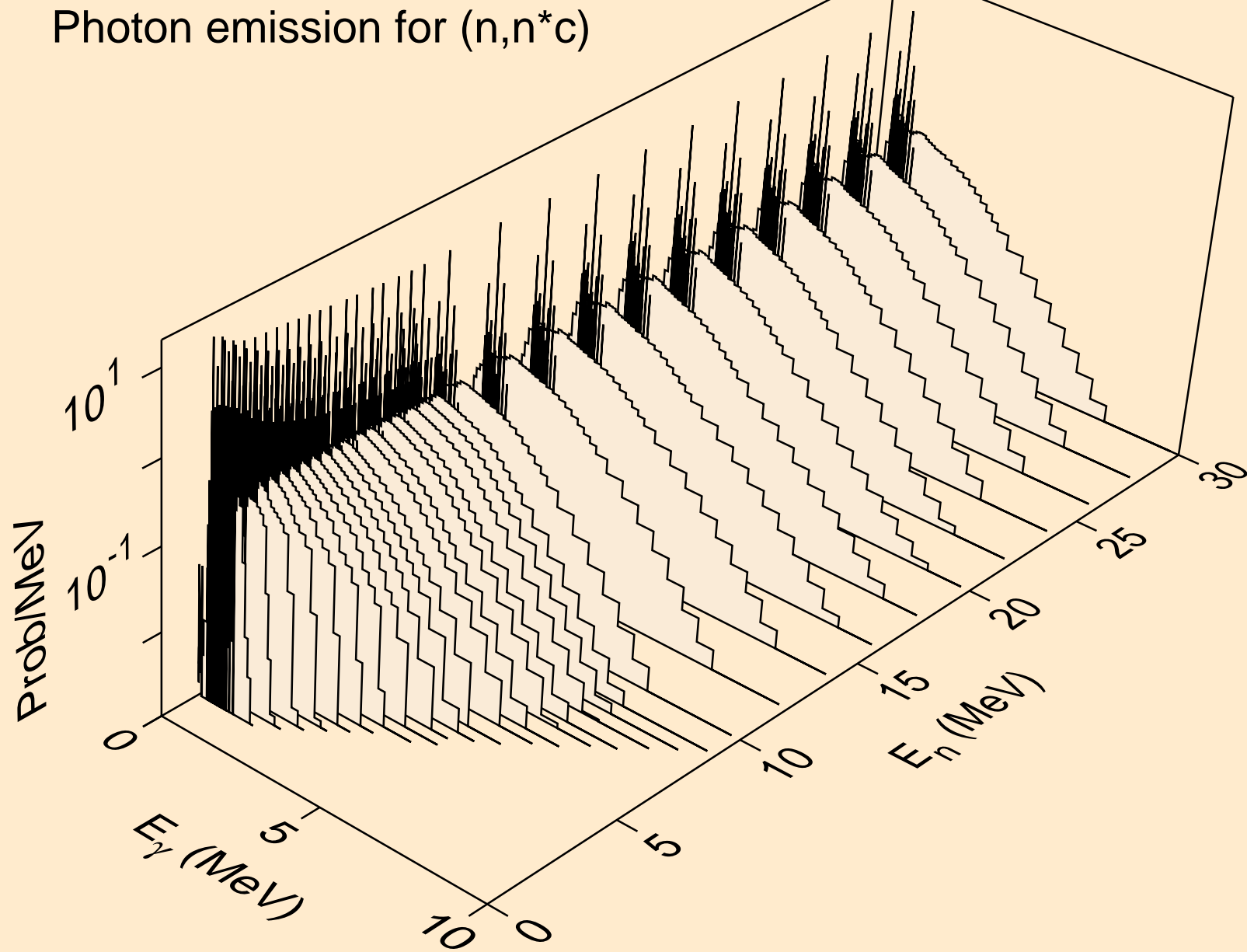
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Photon emission for (n,n\*13)



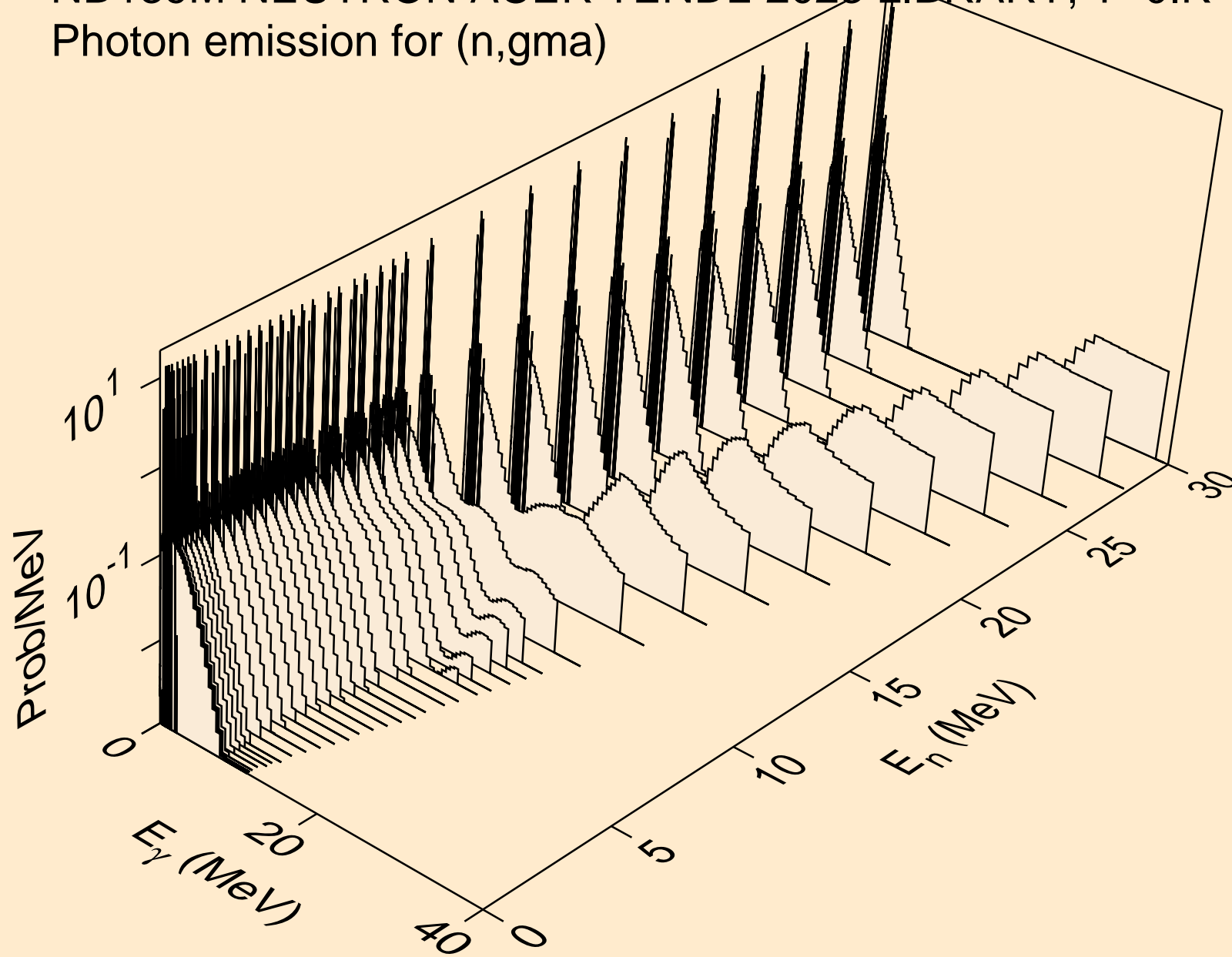
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Photon emission for (n,n\*14)



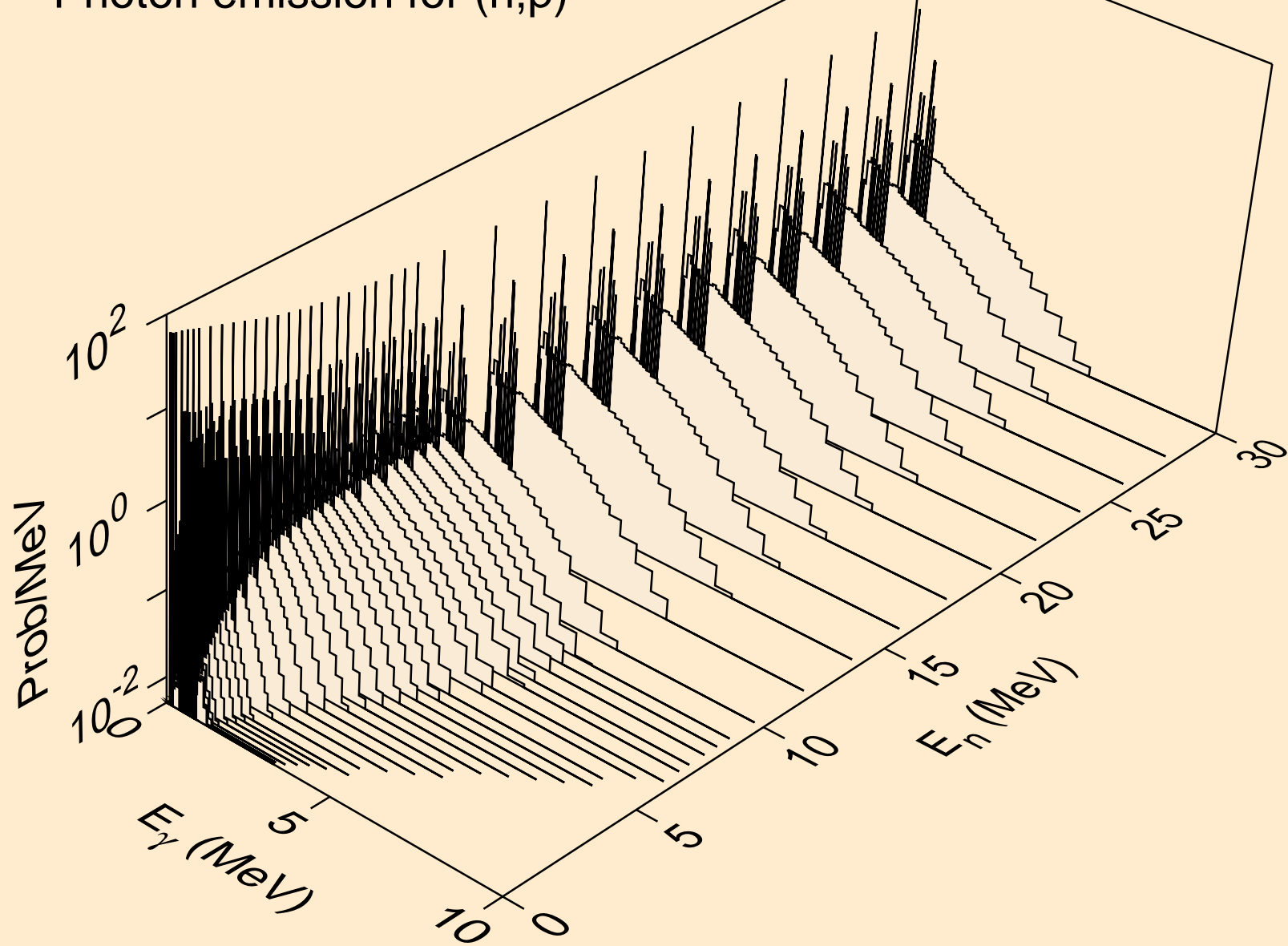
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Photon emission for (n,n\*c)



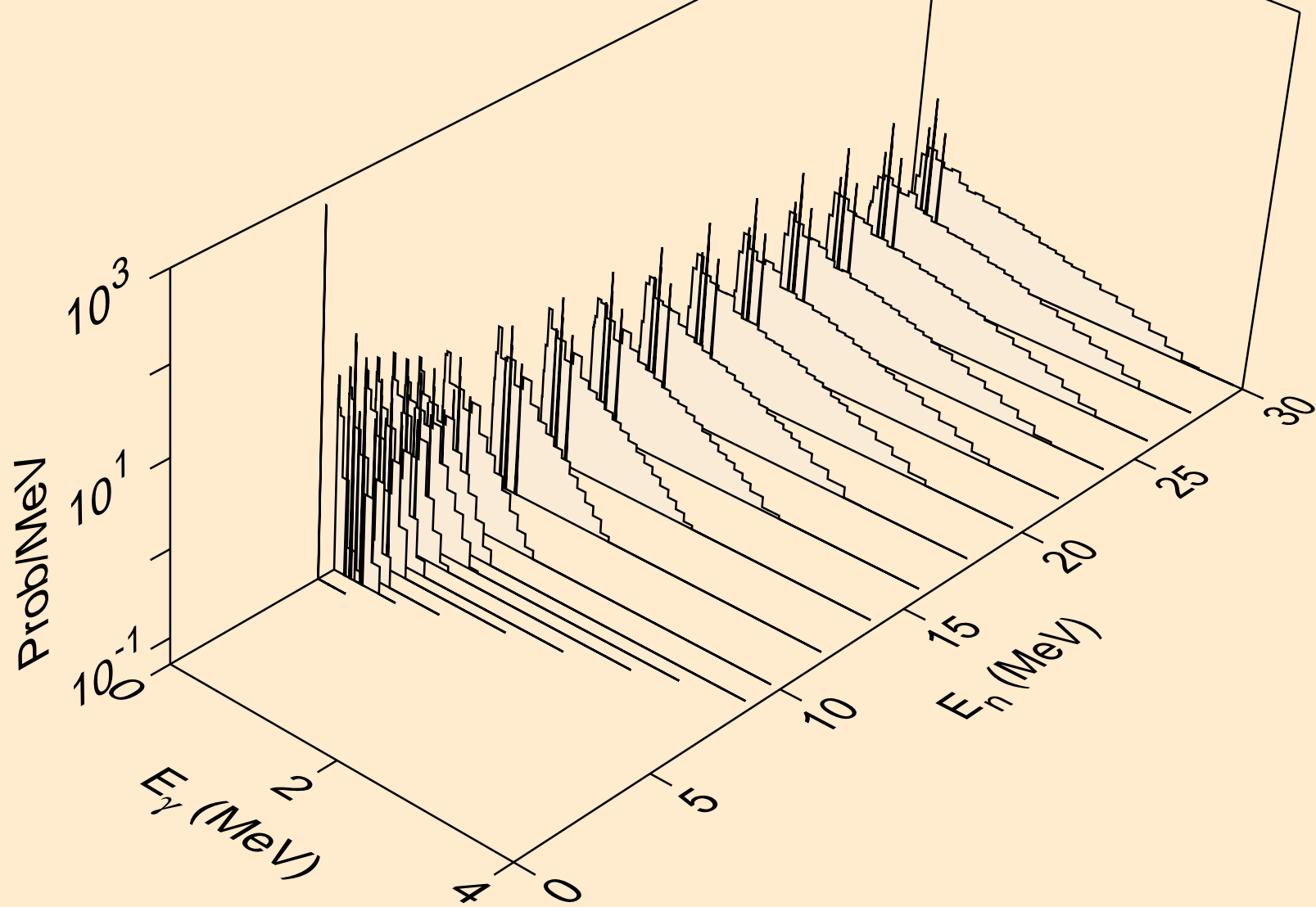
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Photon emission for (n,gma)



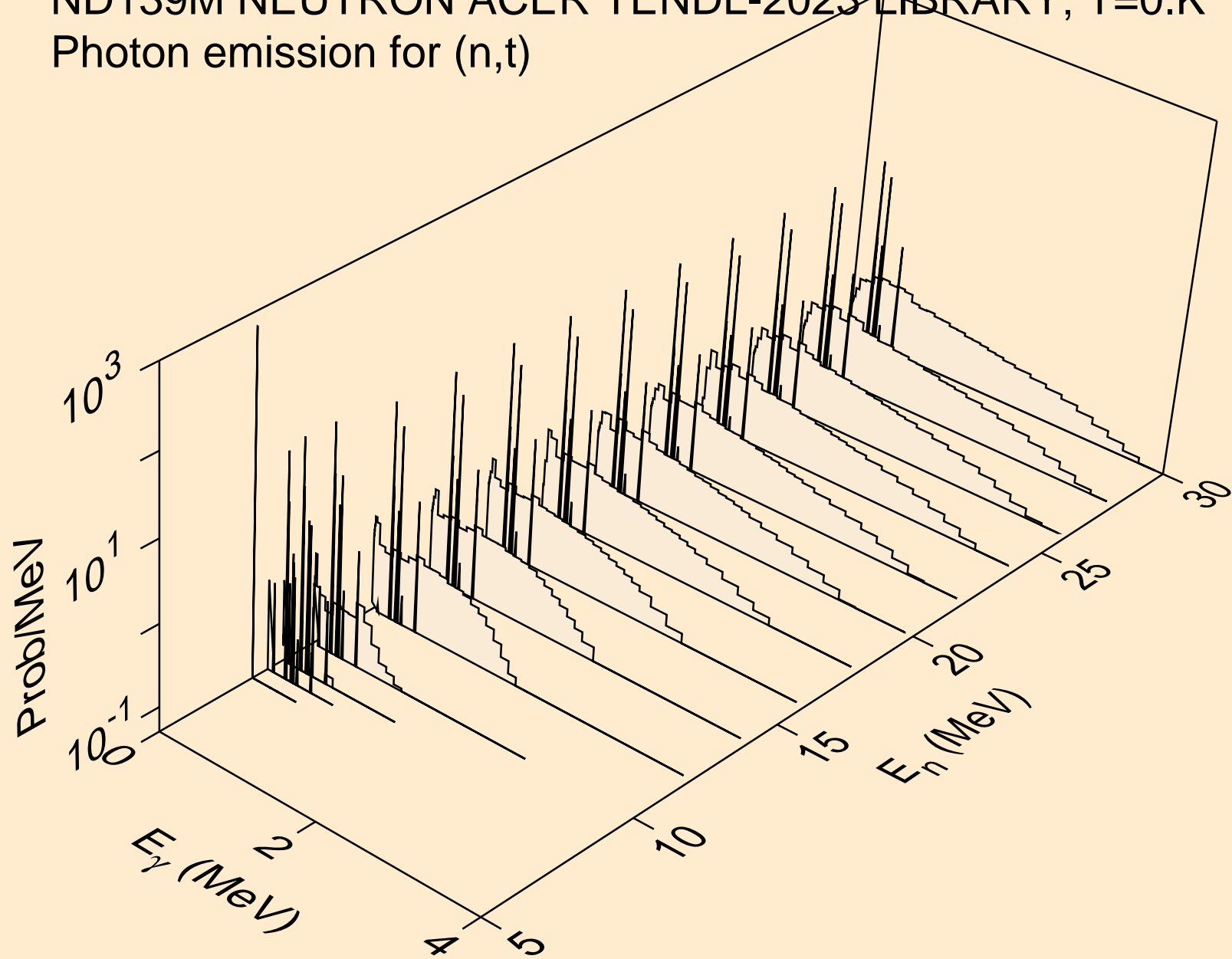
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Photon emission for (n,p)



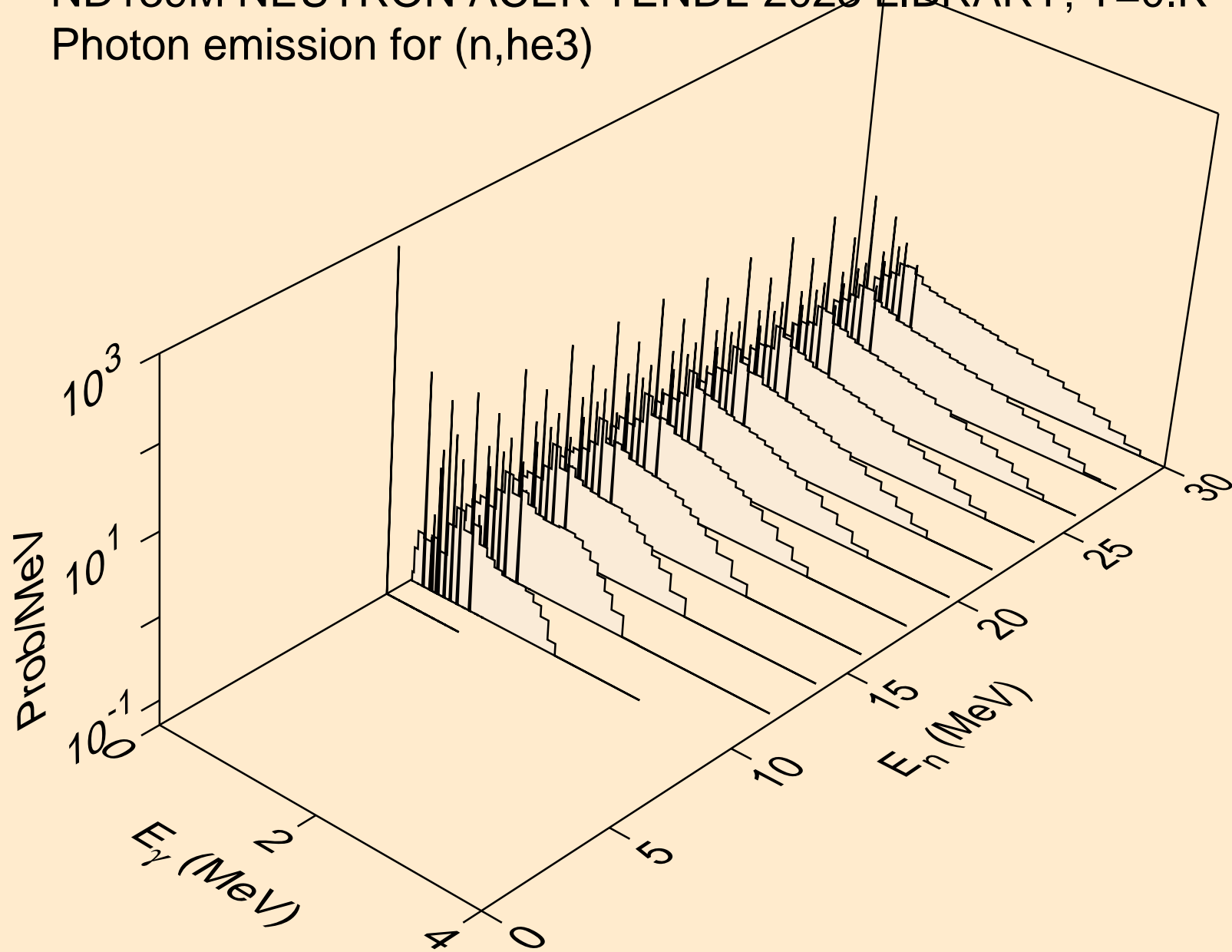
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Photon emission for (n,d)



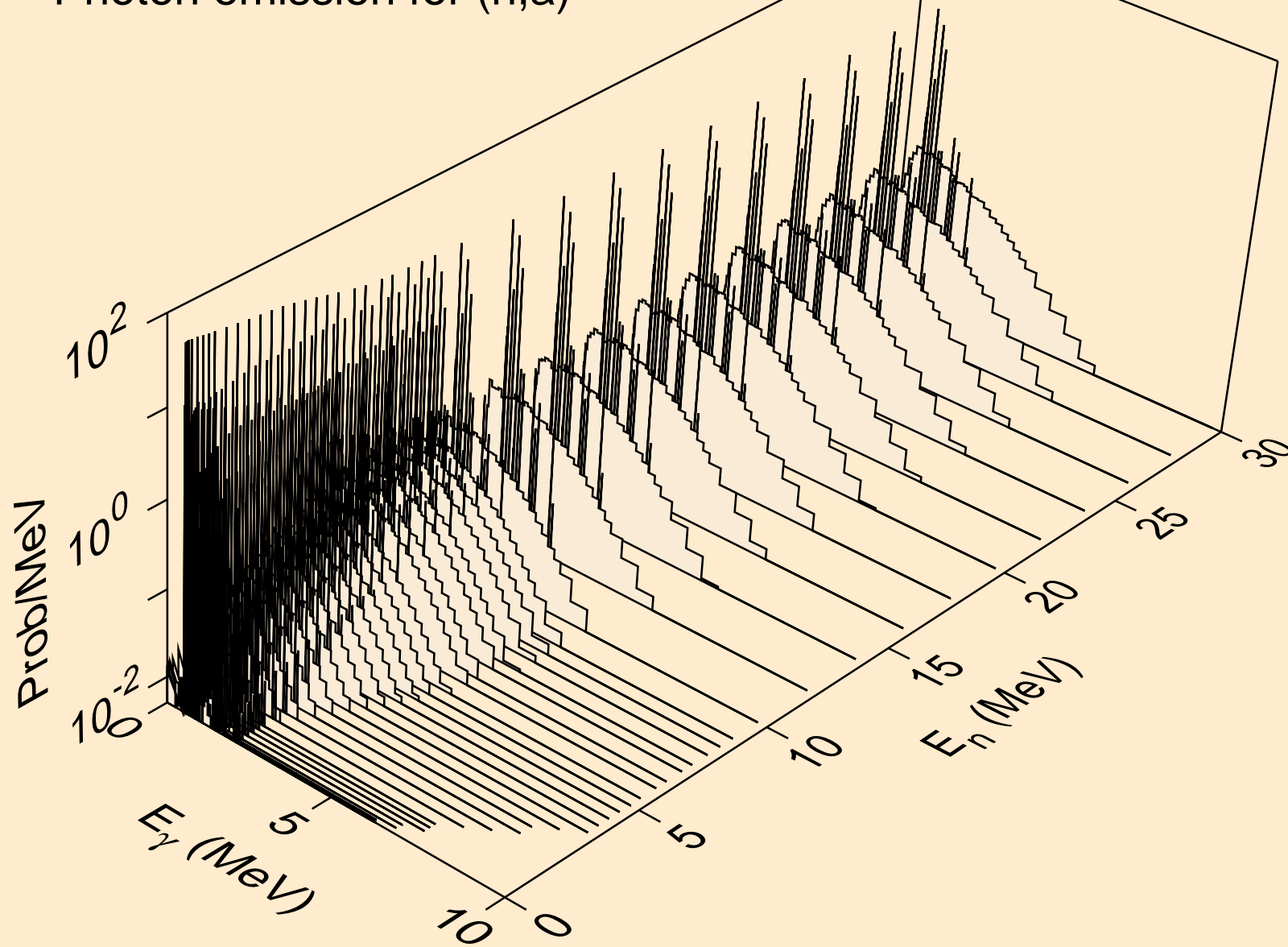
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Photon emission for (n,t)



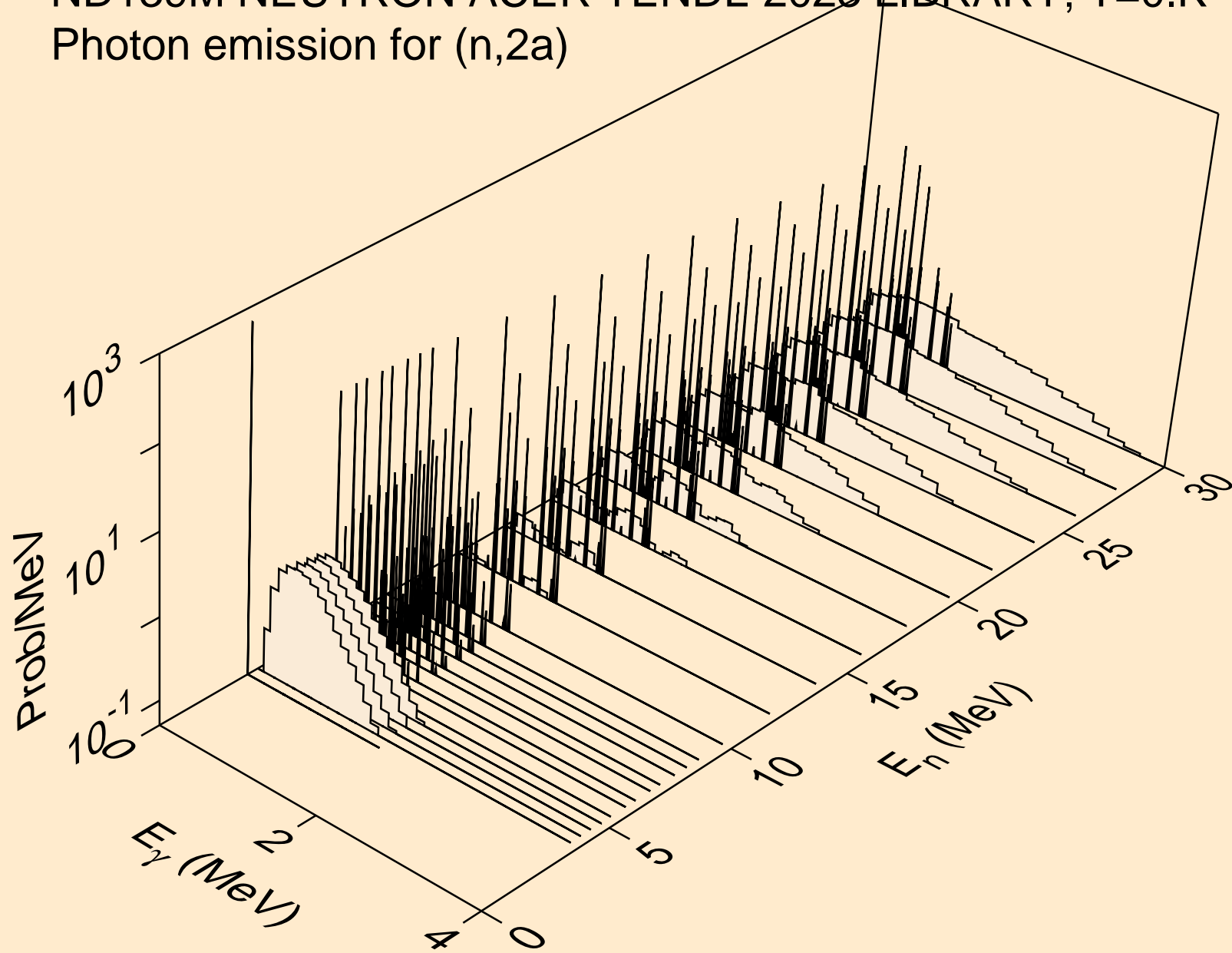
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Photon emission for (n,he3)



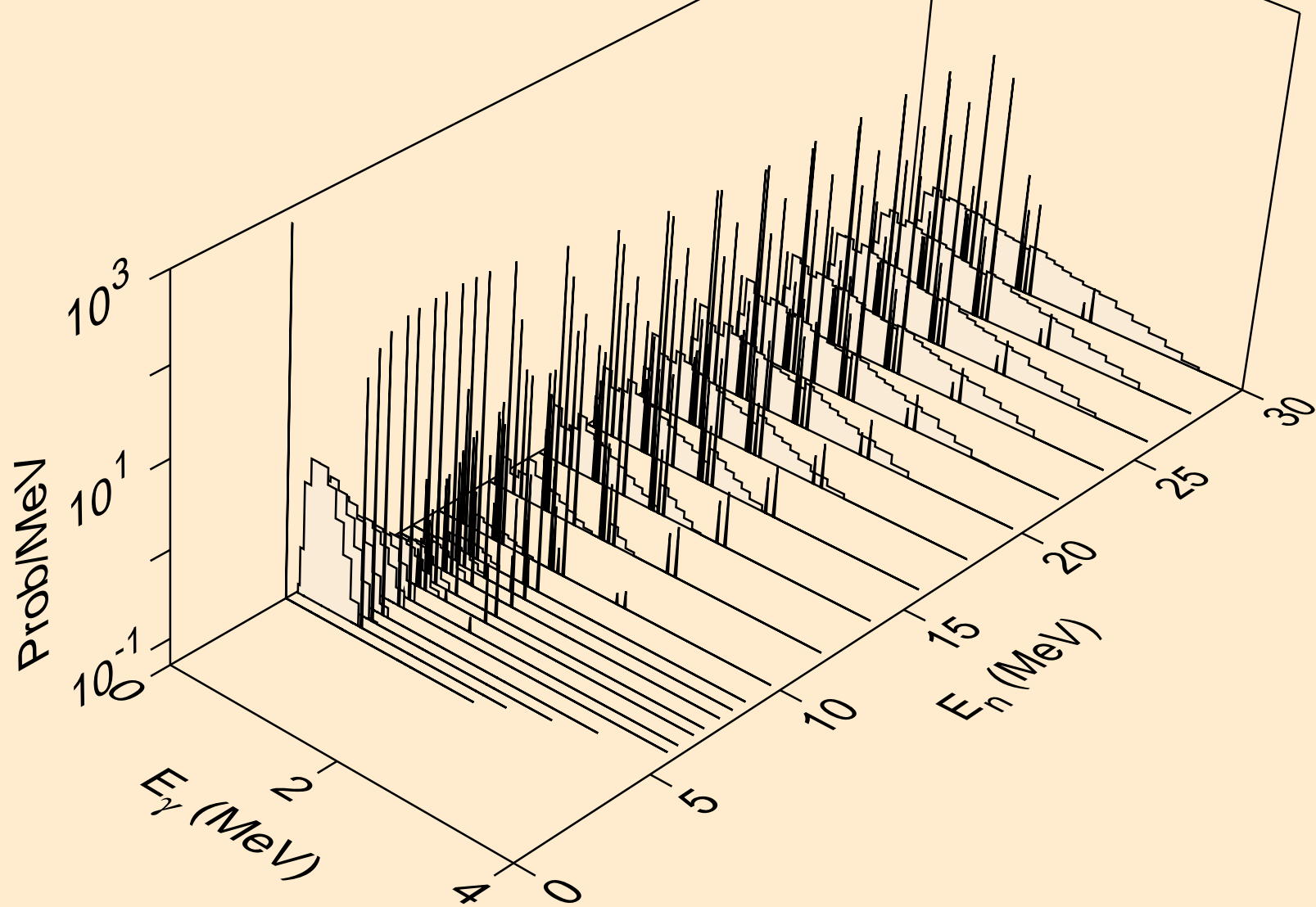
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Photon emission for (n,a)



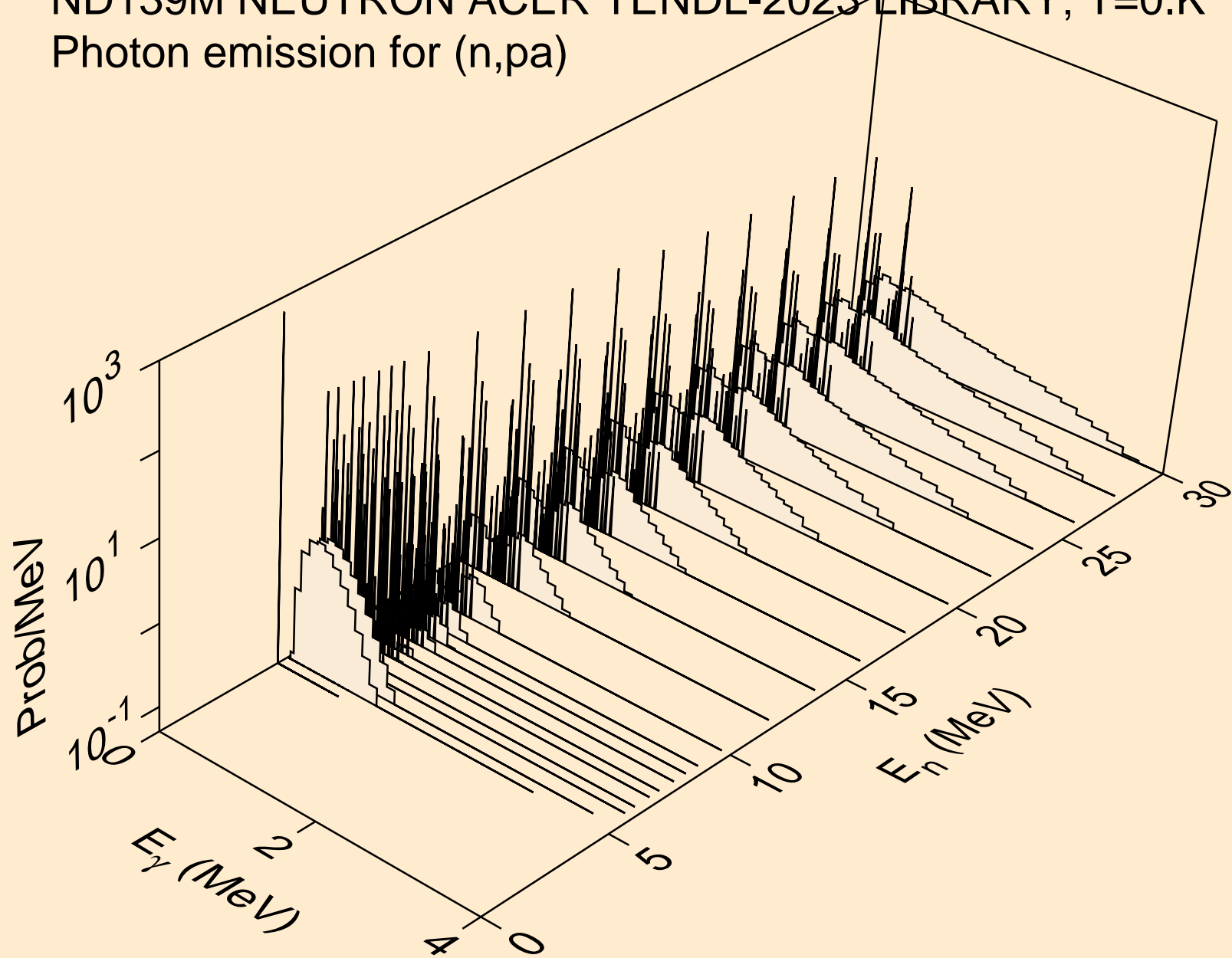
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Photon emission for (n,2a)



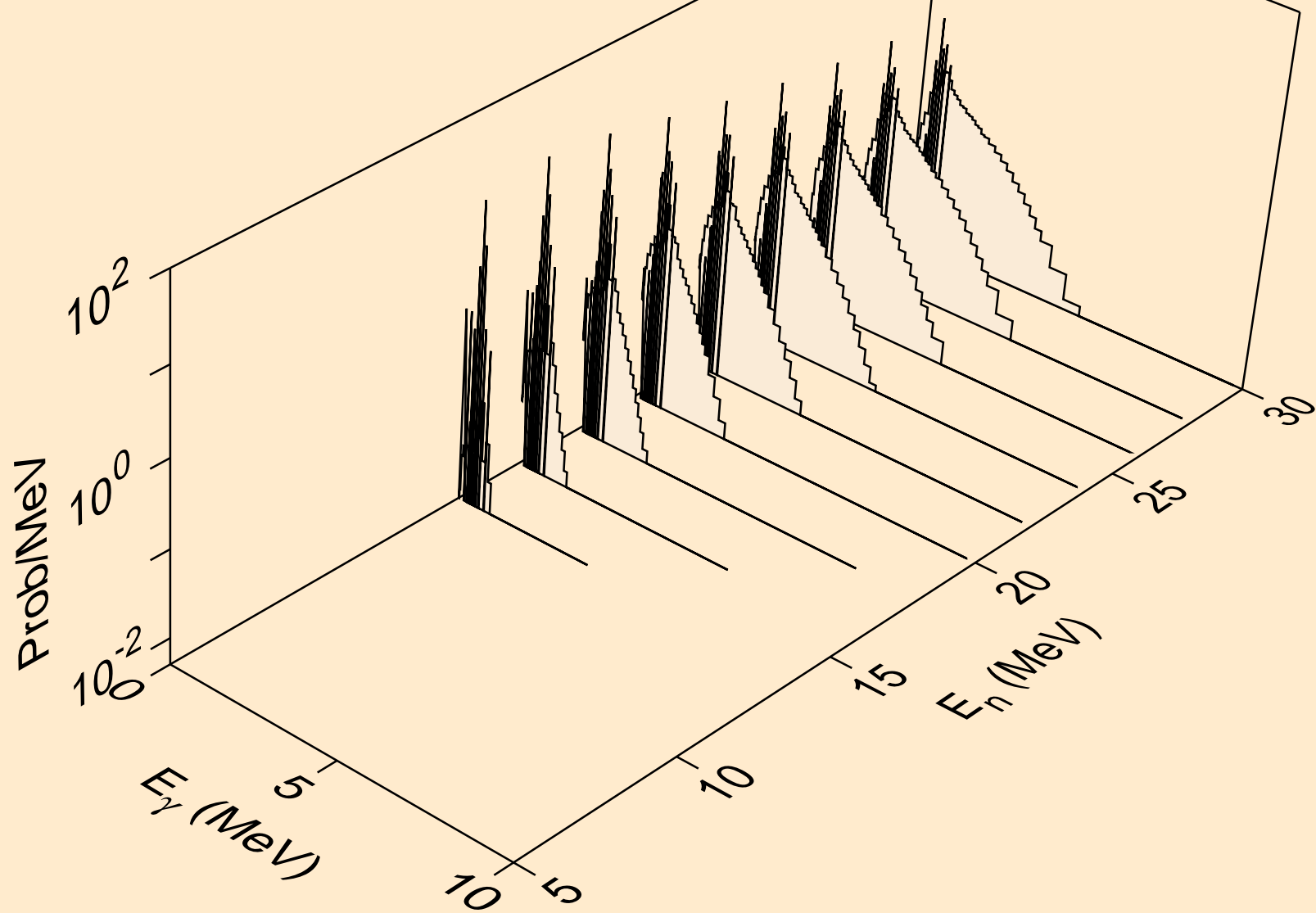
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Photon emission for (n,2p)



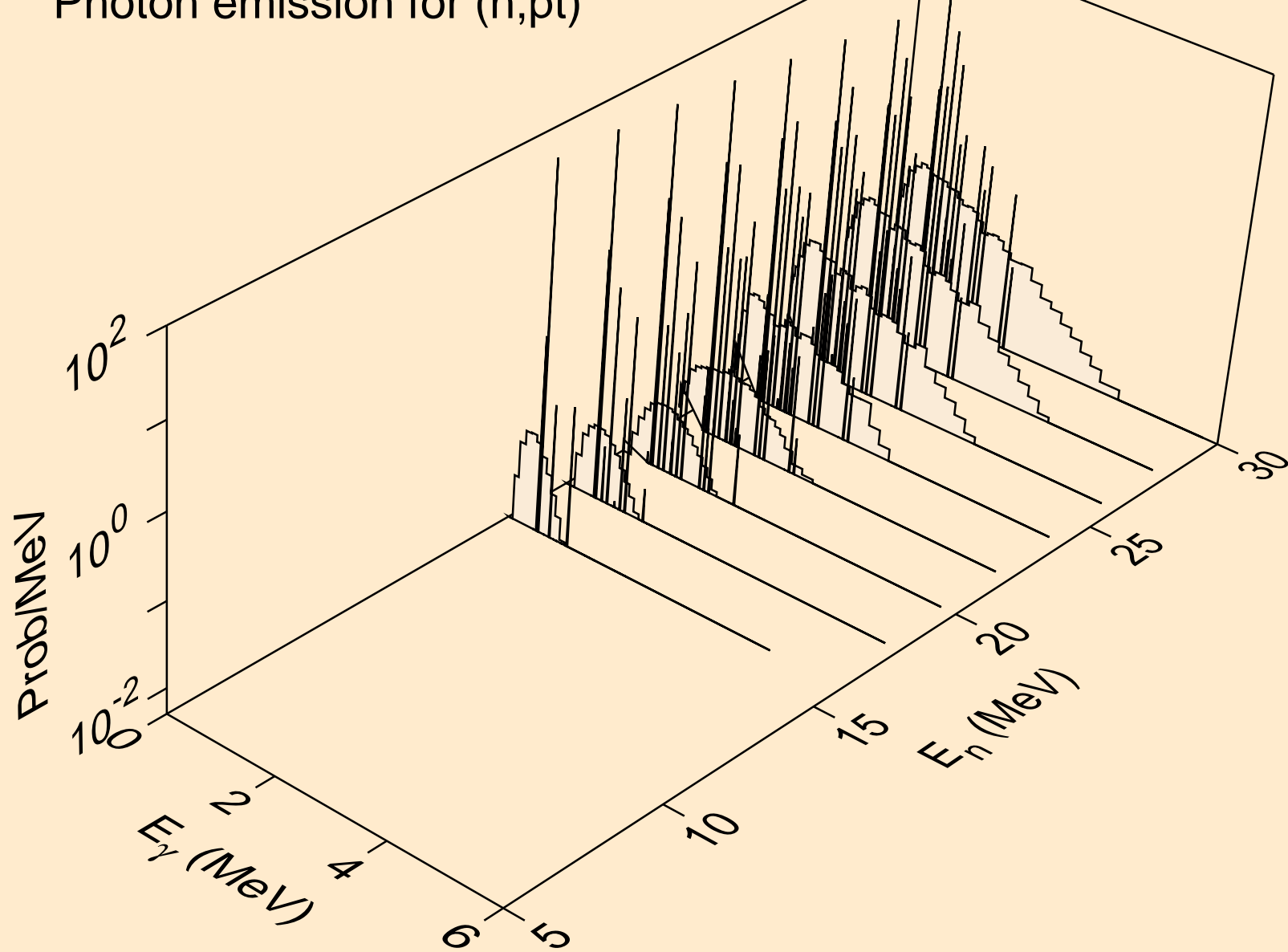
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Photon emission for (n,p)



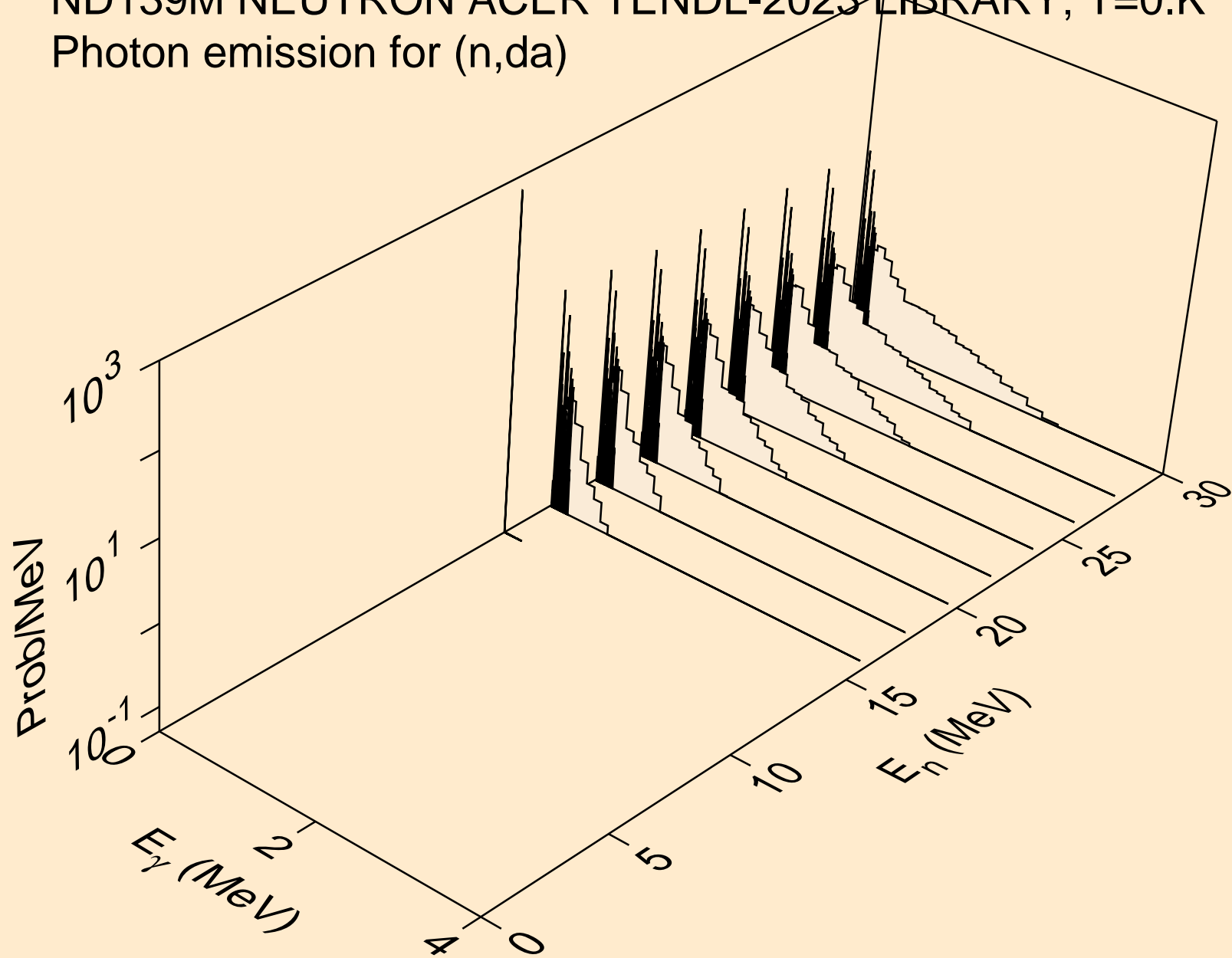
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Photon emission for (n,pd)



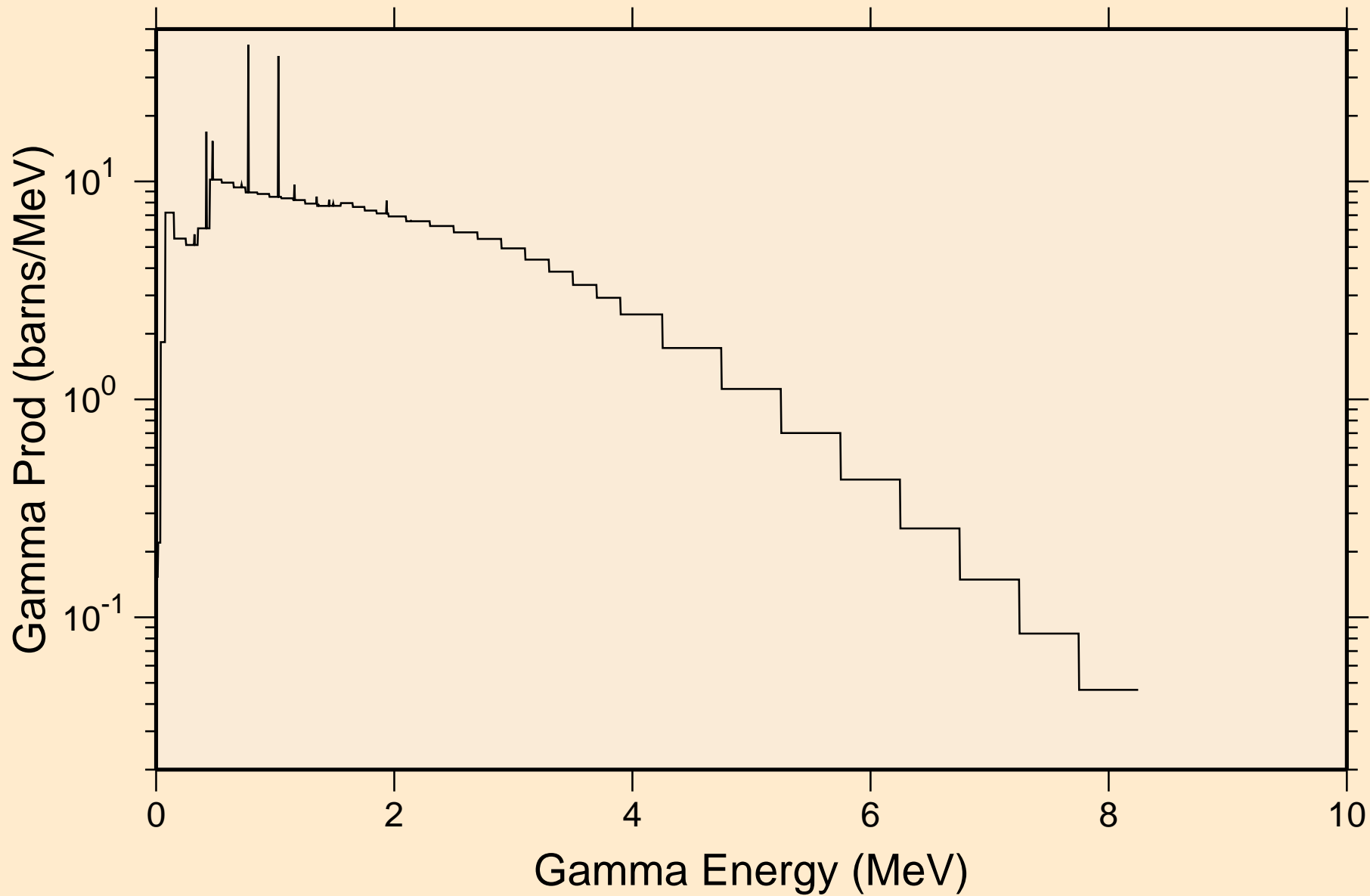
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Photon emission for (n,pt)



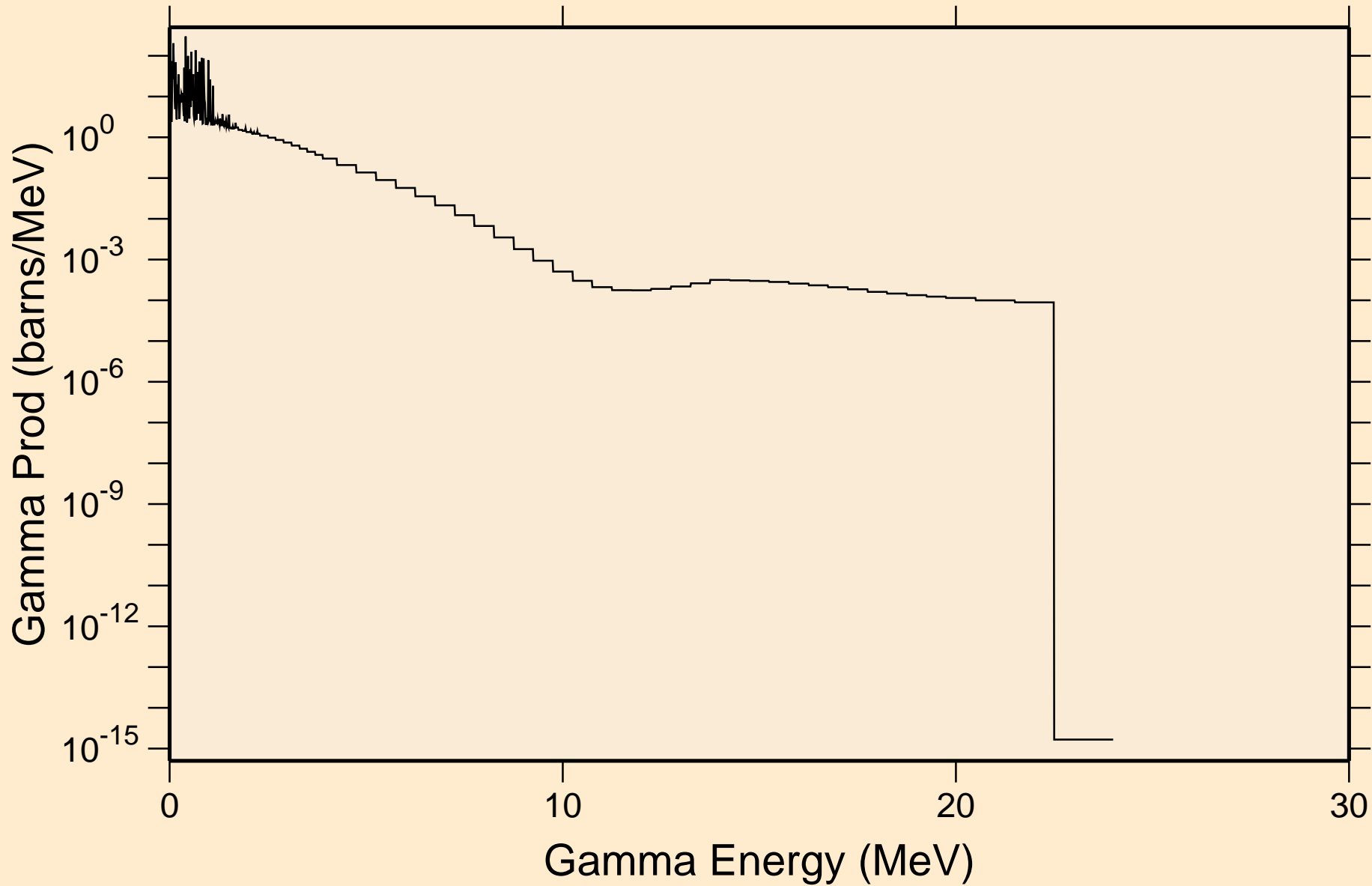
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Photon emission for (n,da)



ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
thermal capture photon spectrum

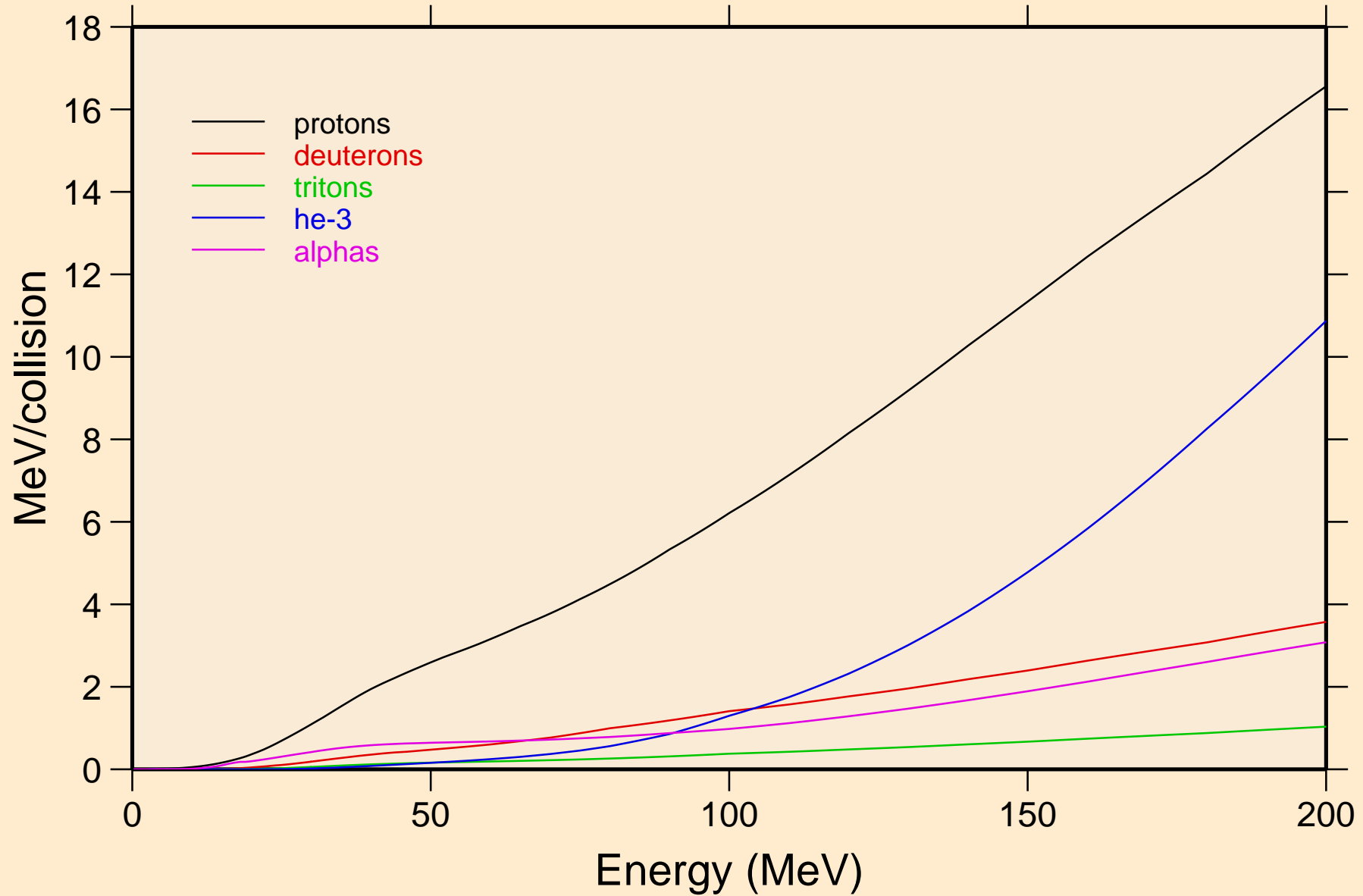


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14 MeV photon spectrum

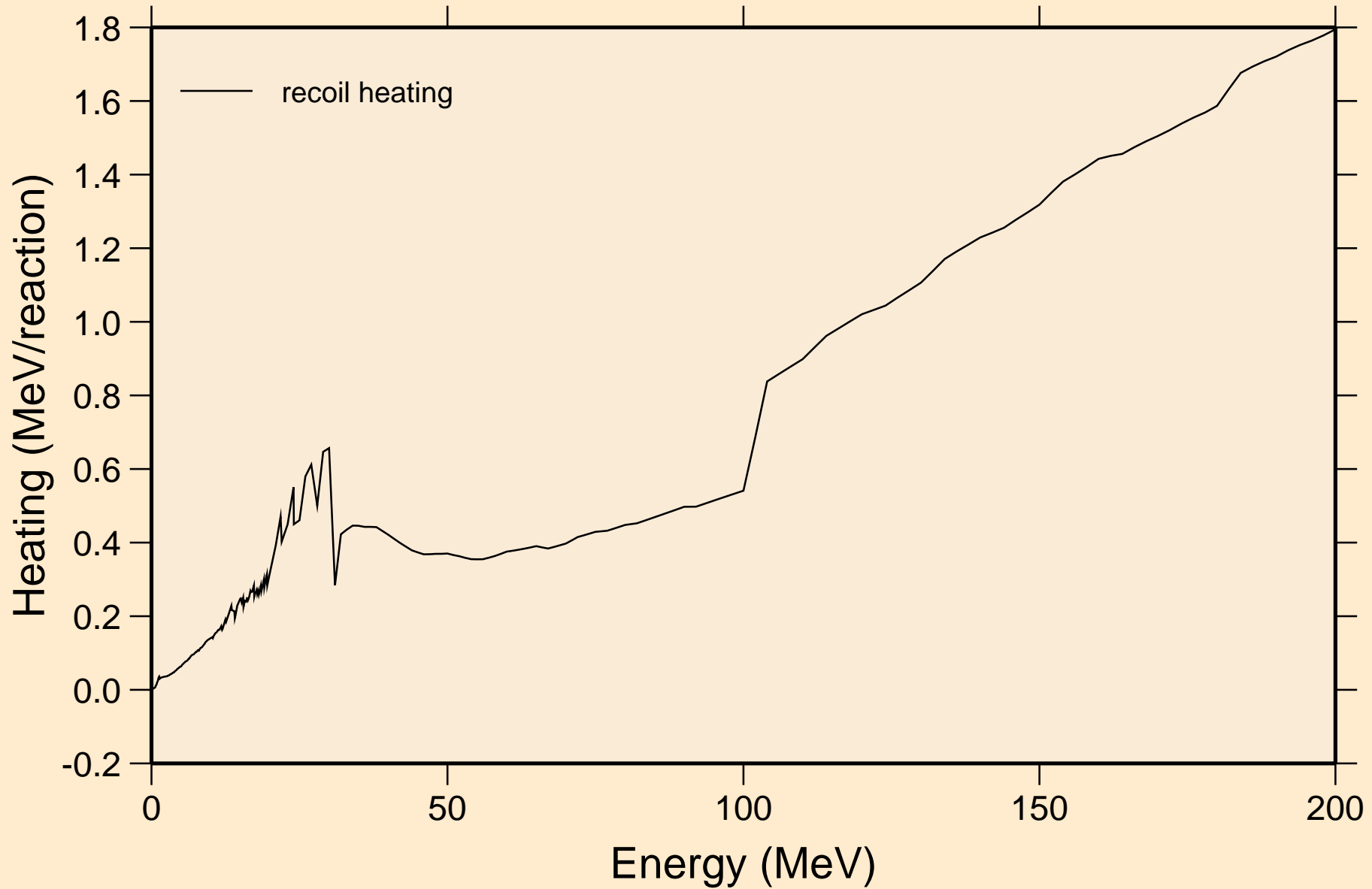


# ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K

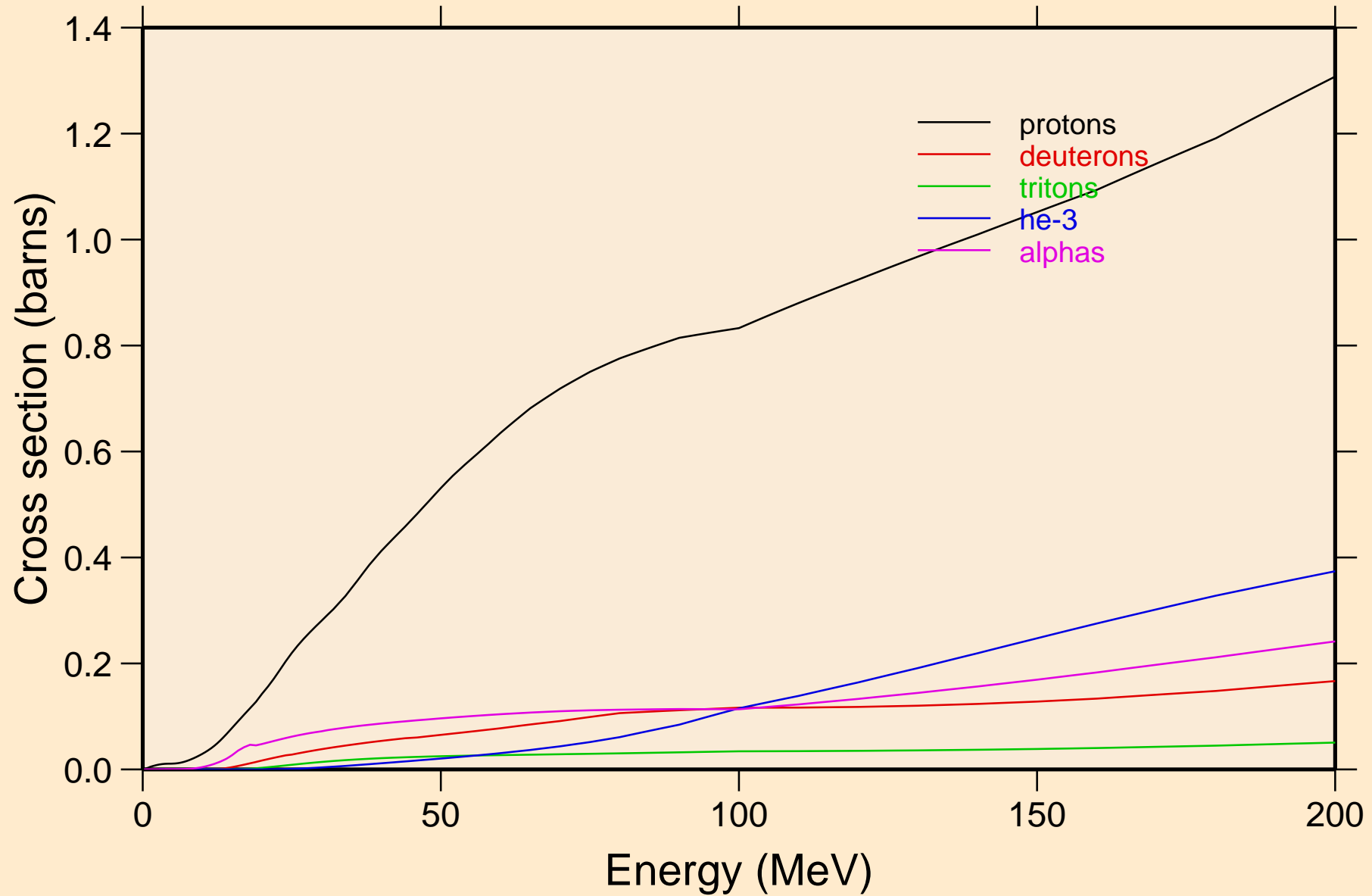
## Particle heating contributions



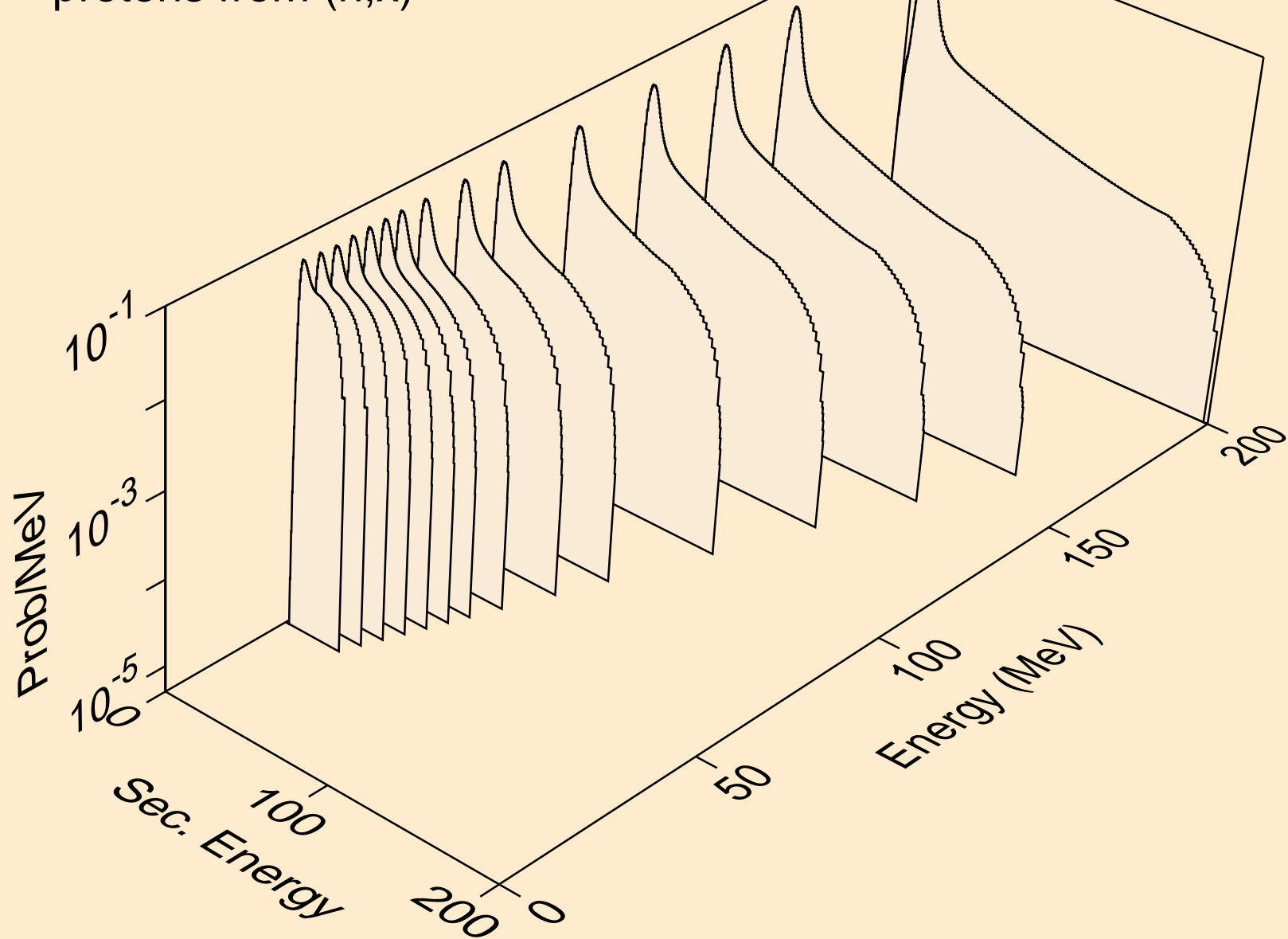
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Recoil Heating



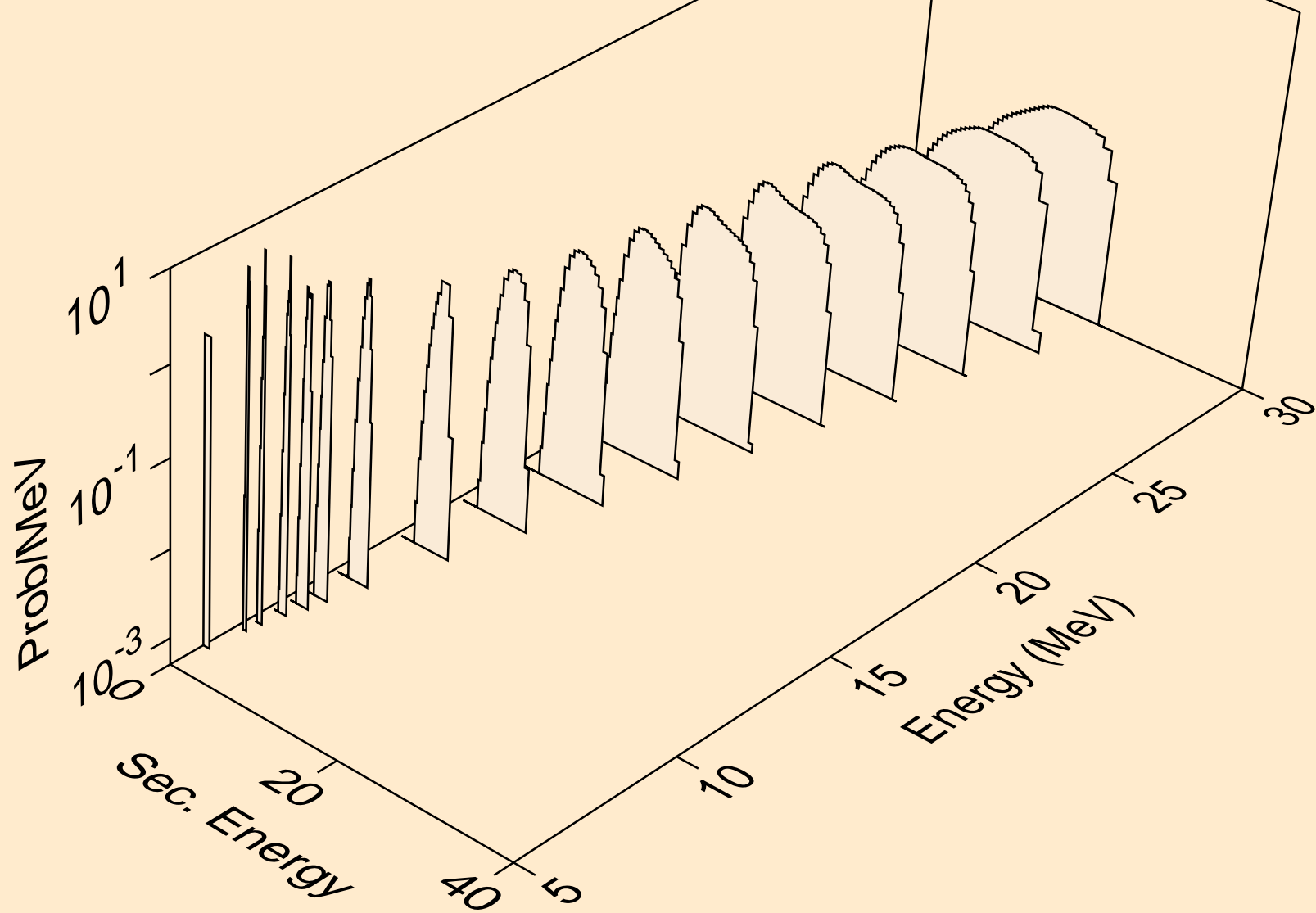
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Particle production cross sections



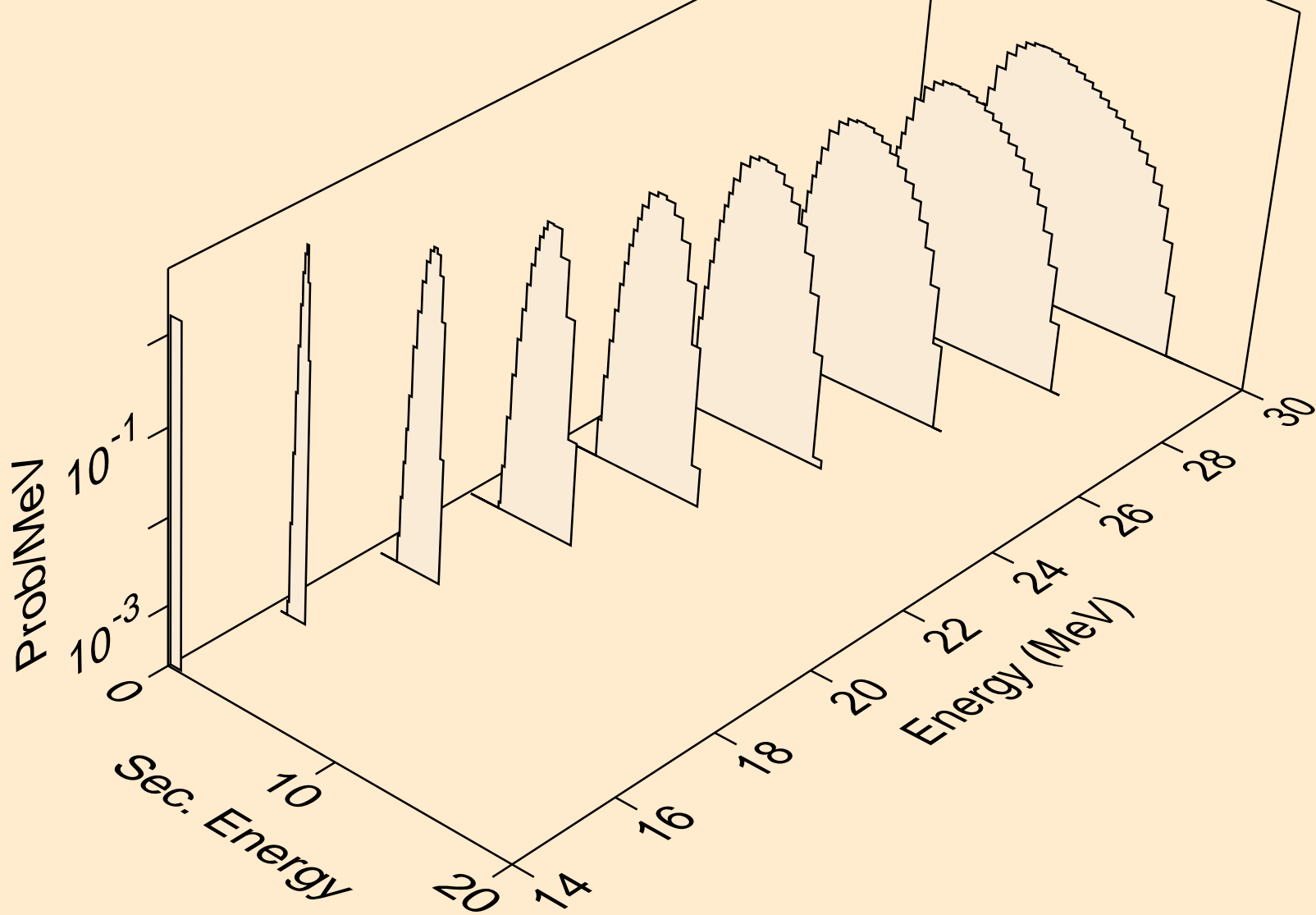
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protons from (n,x)



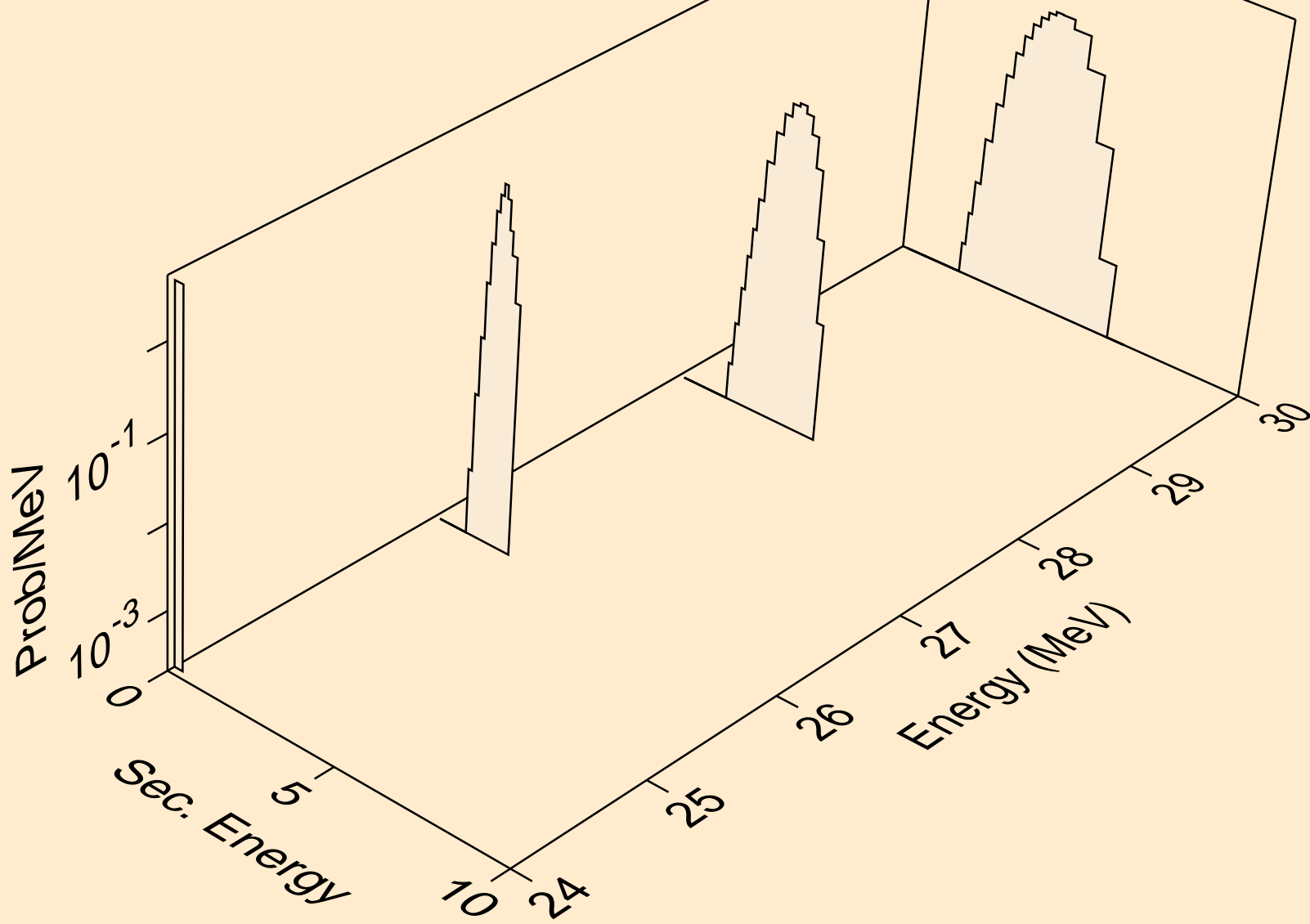
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protons from (n,n\*)p



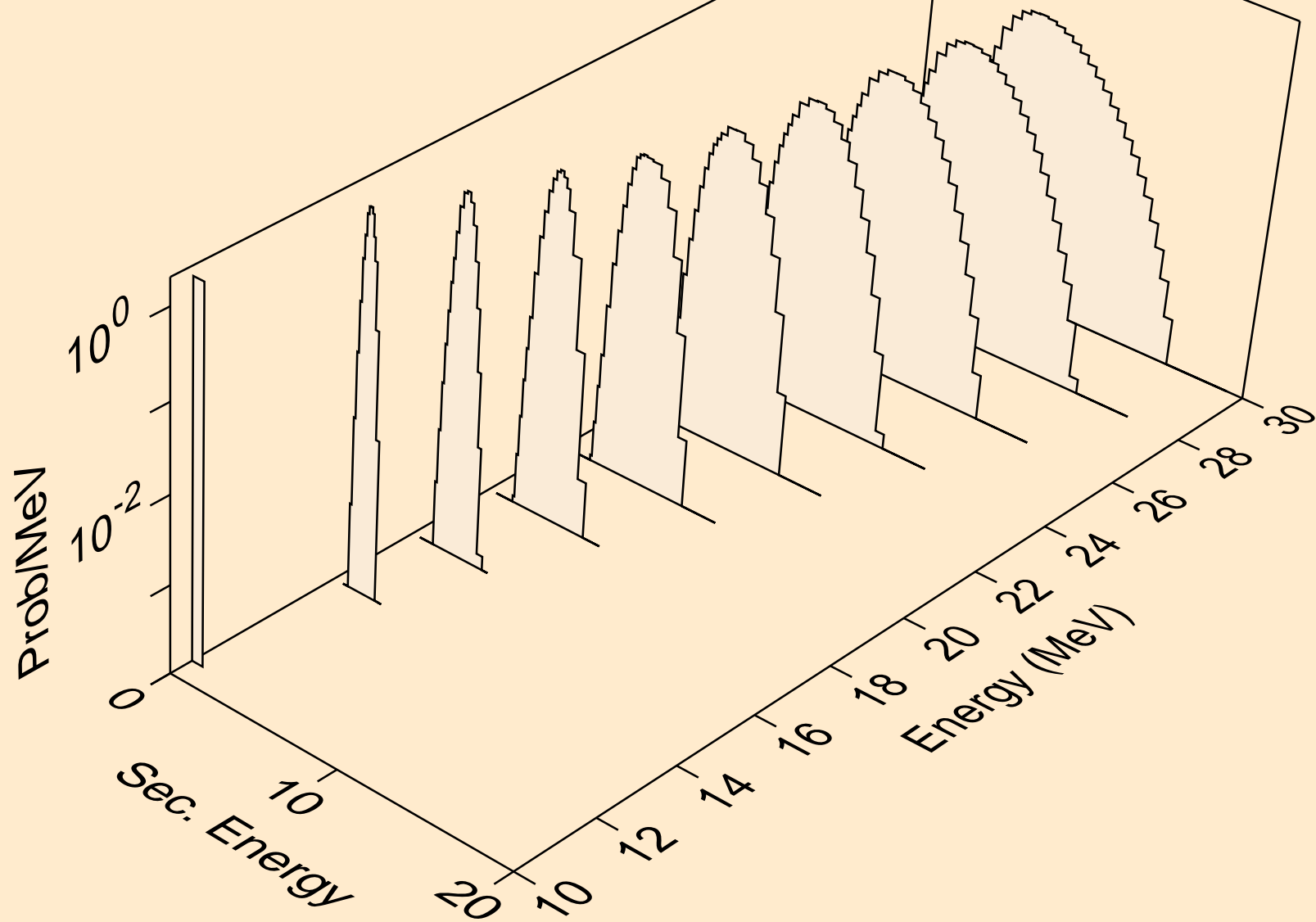
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protons from (n,2np)



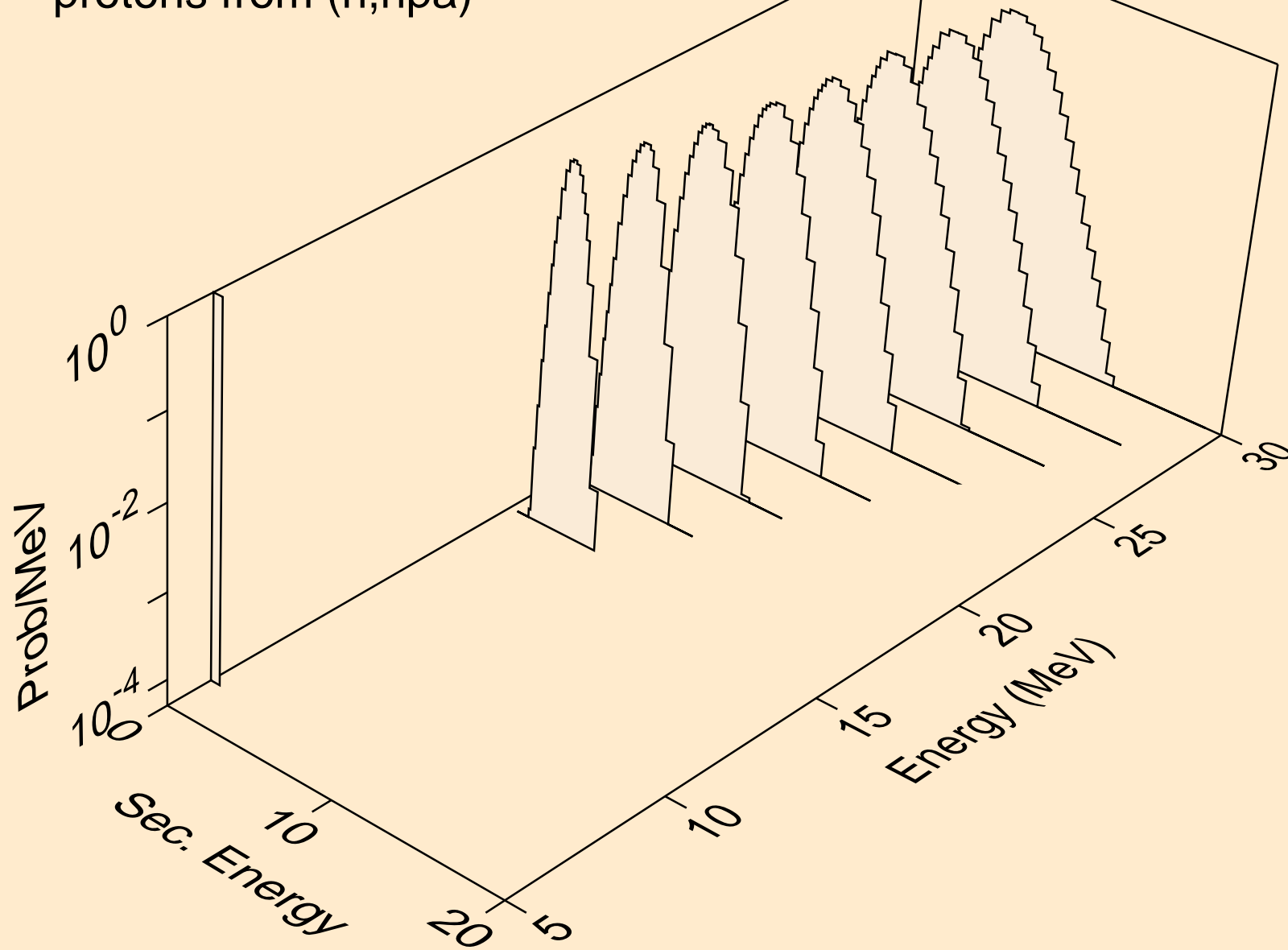
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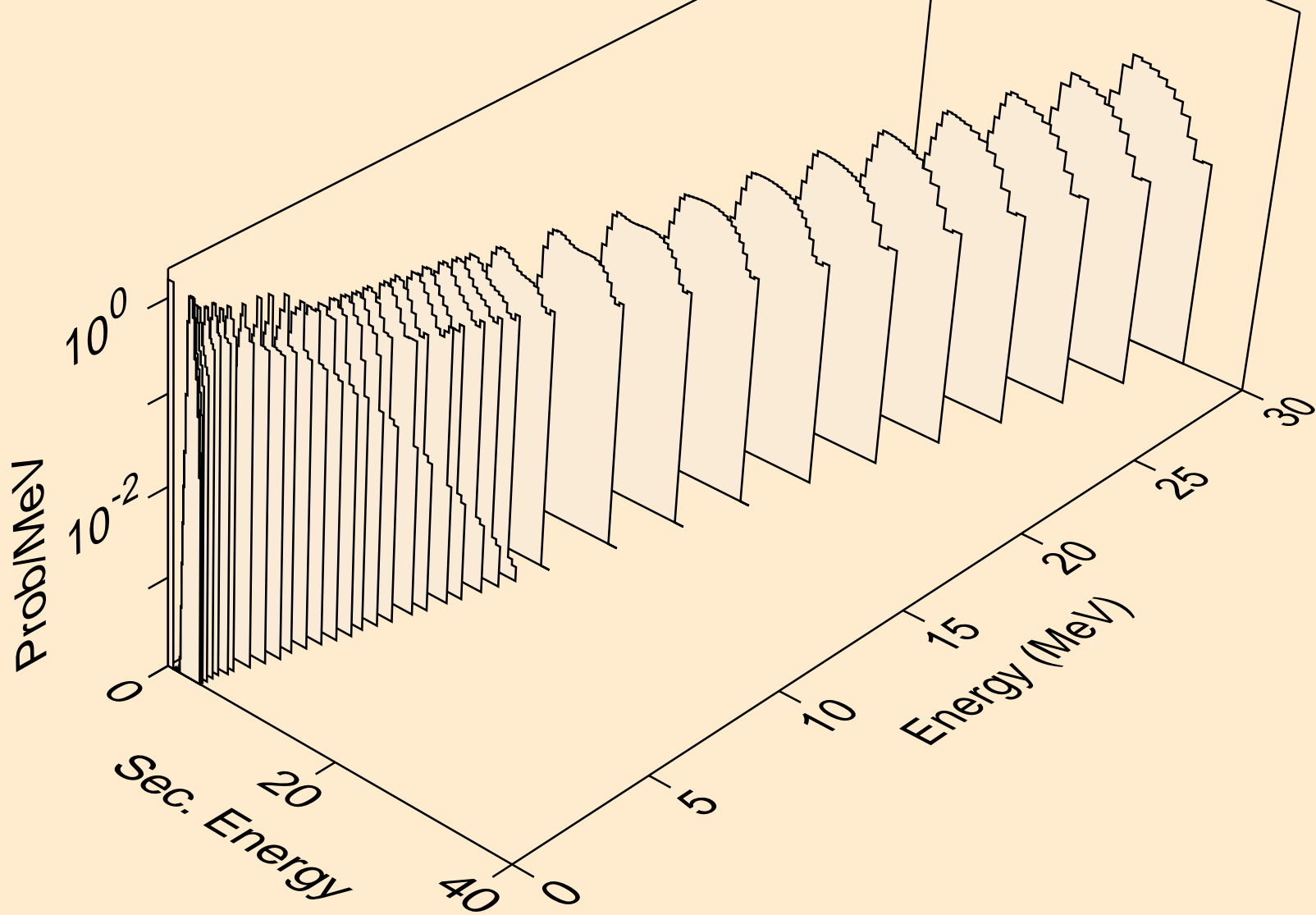
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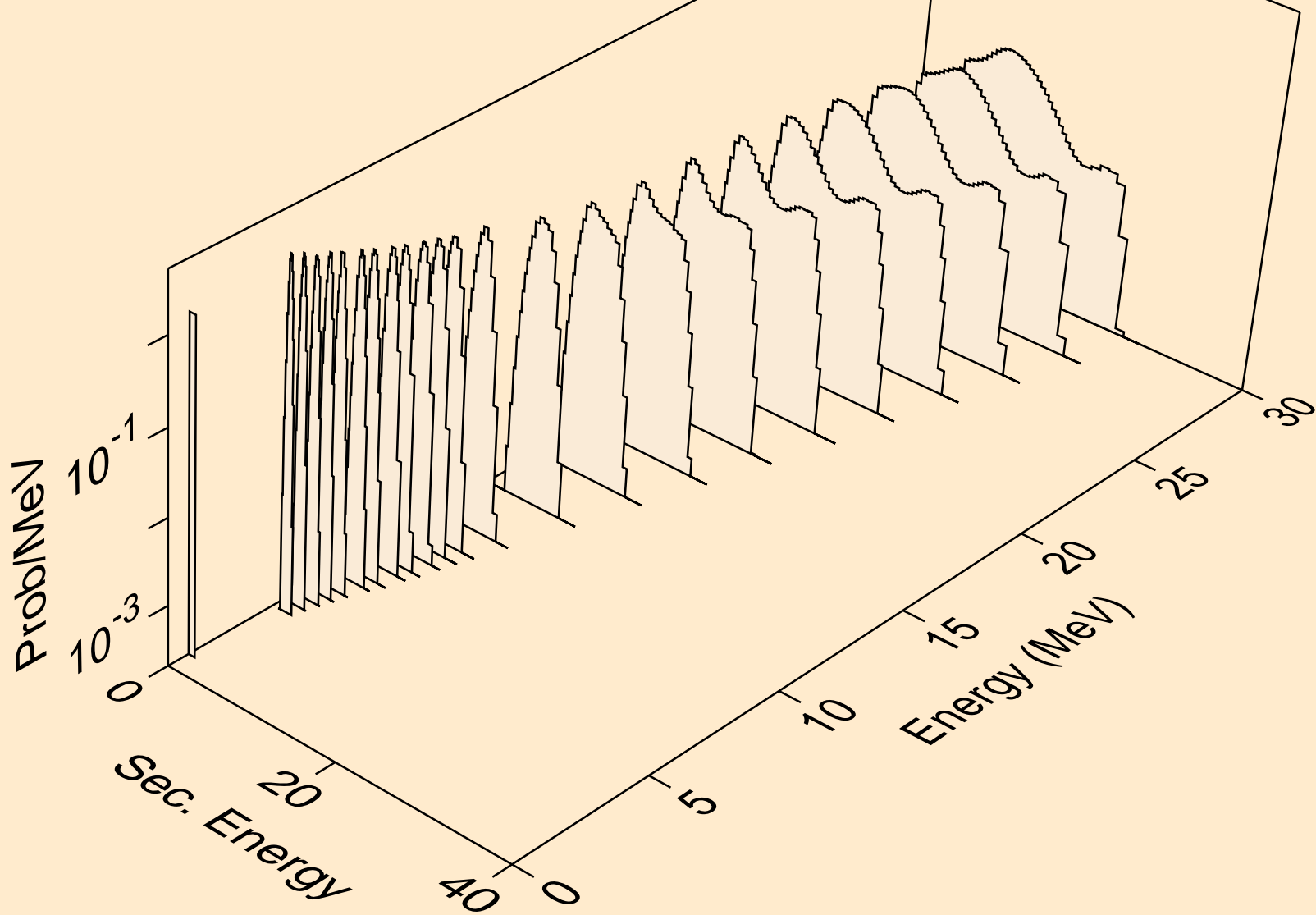
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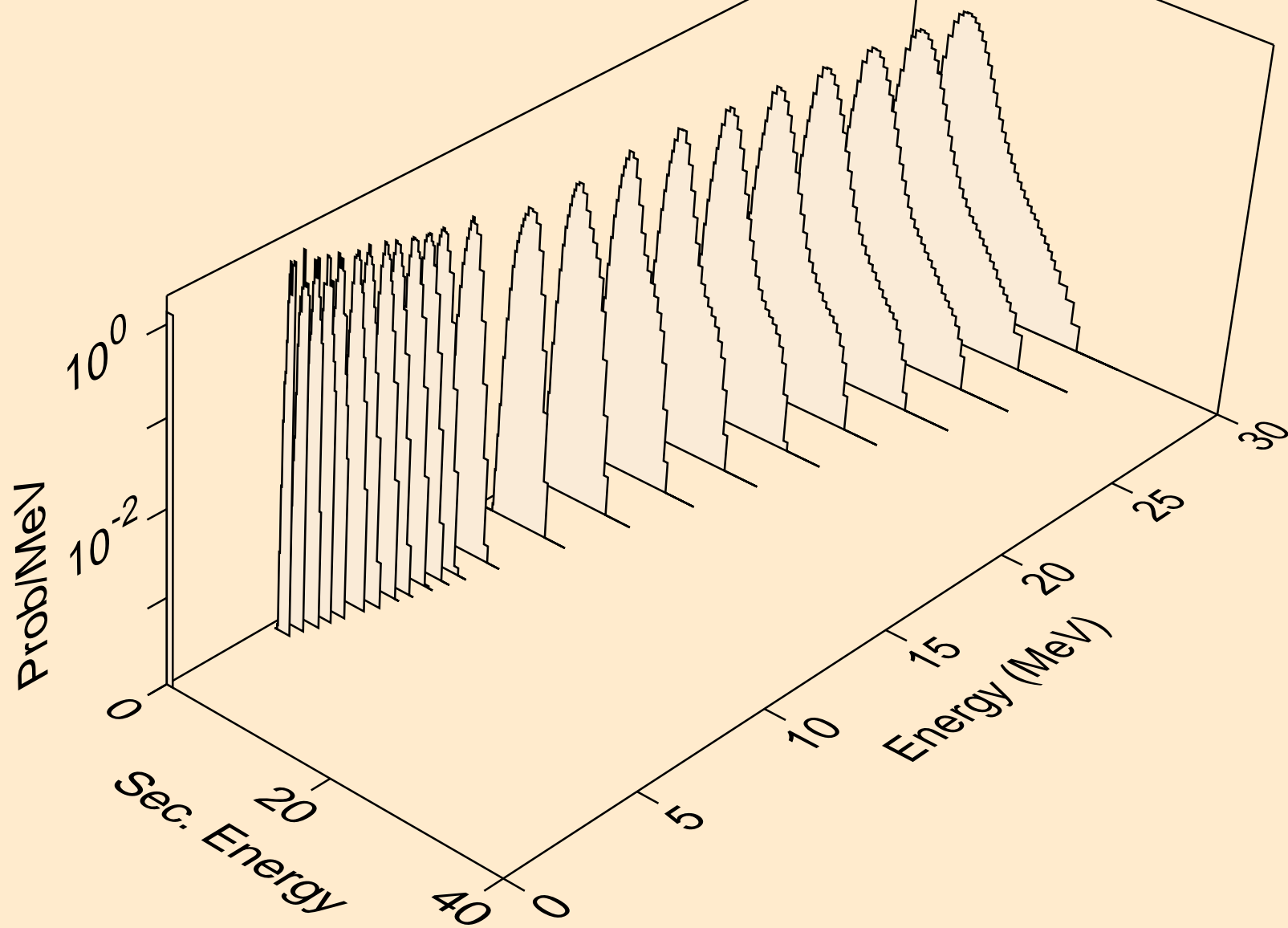
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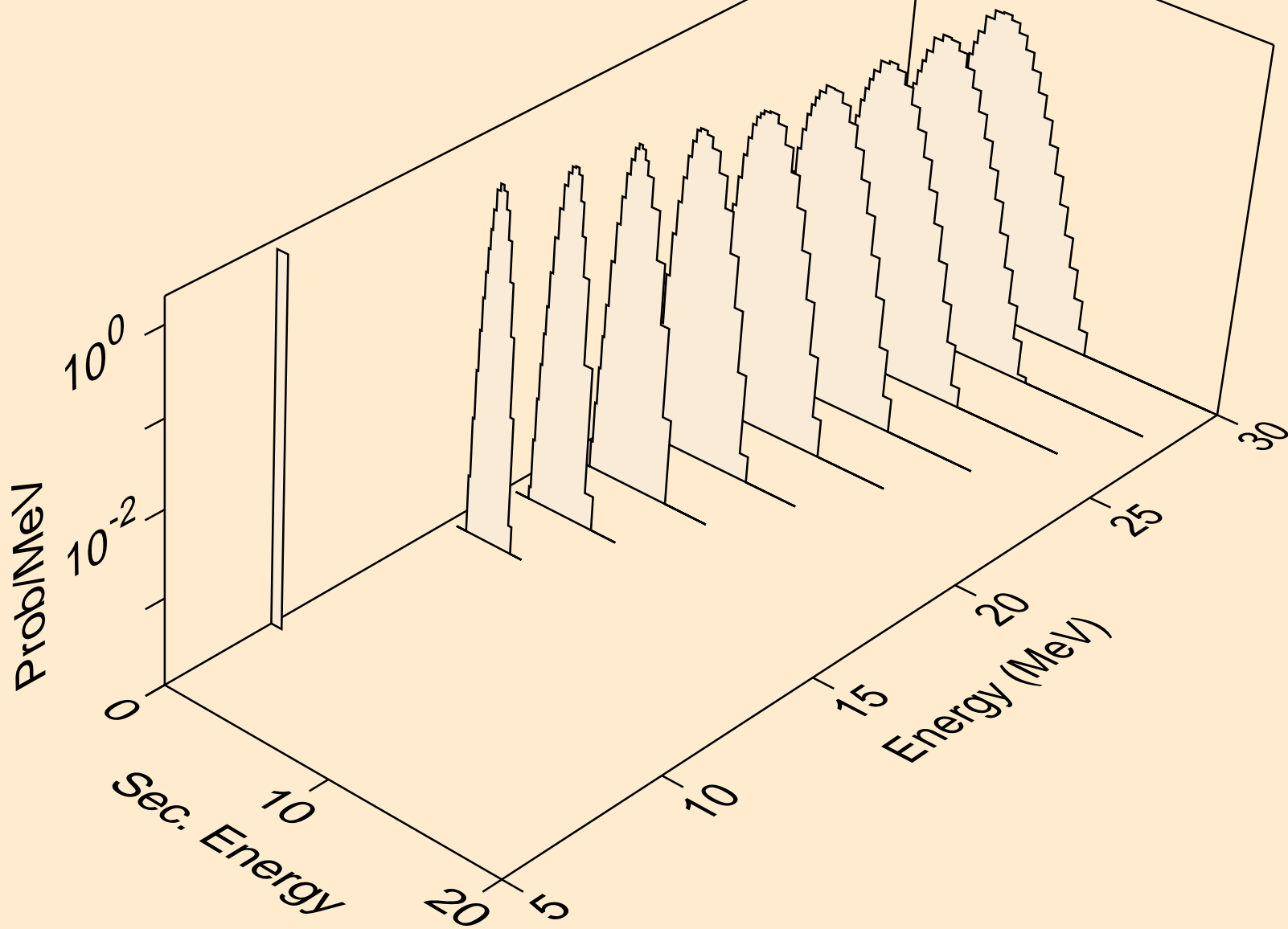
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protons from (n,2p)



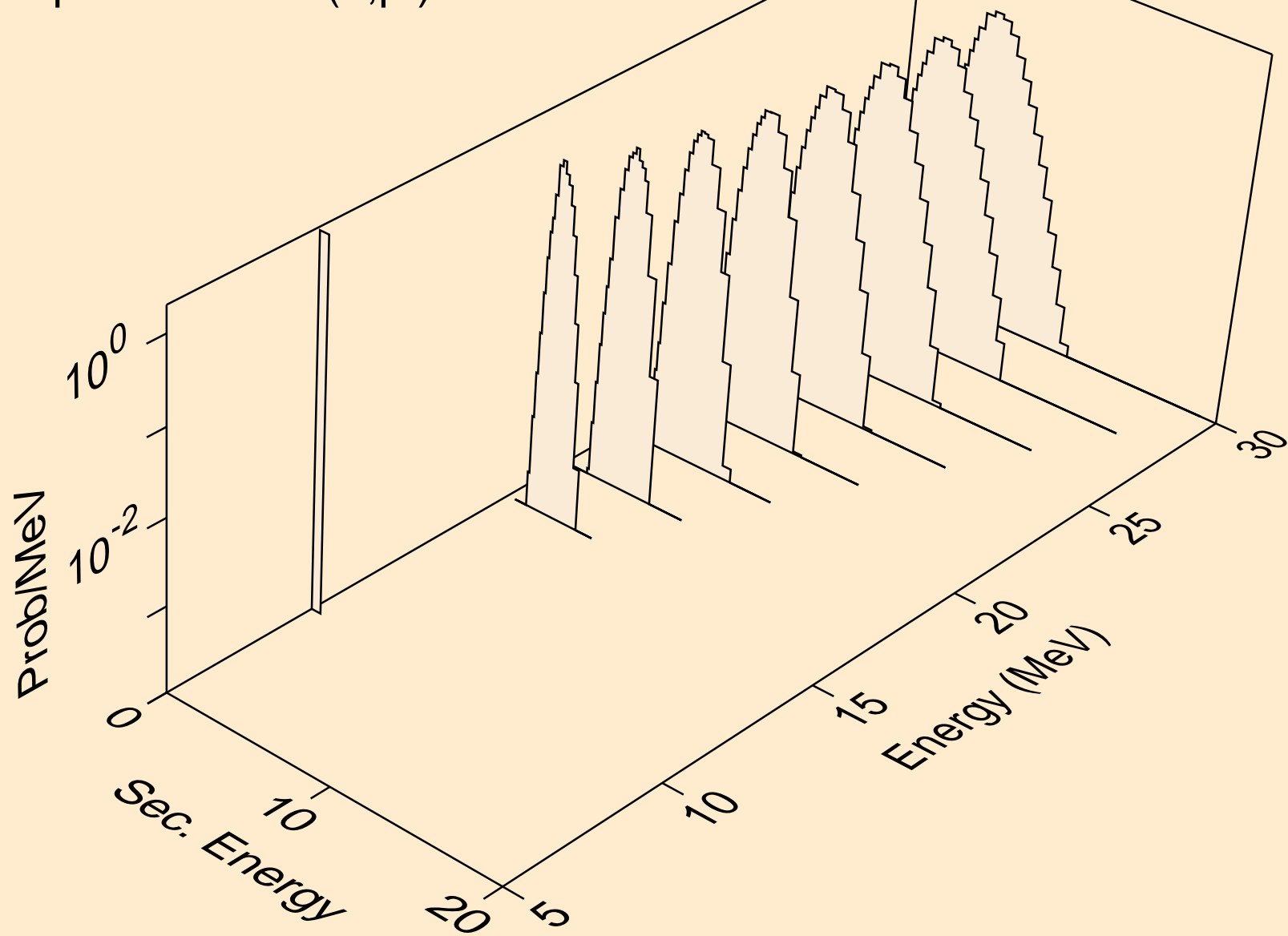
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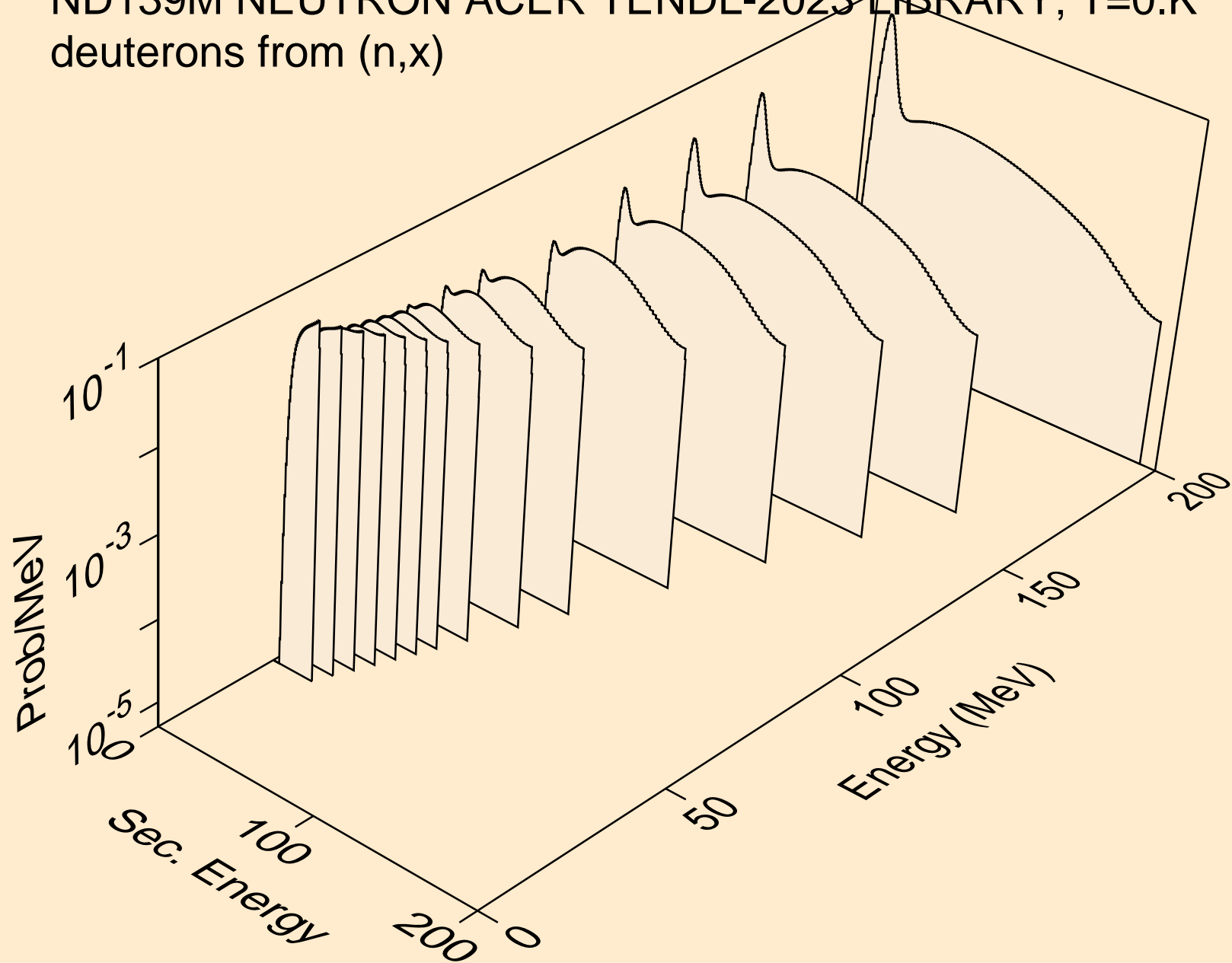
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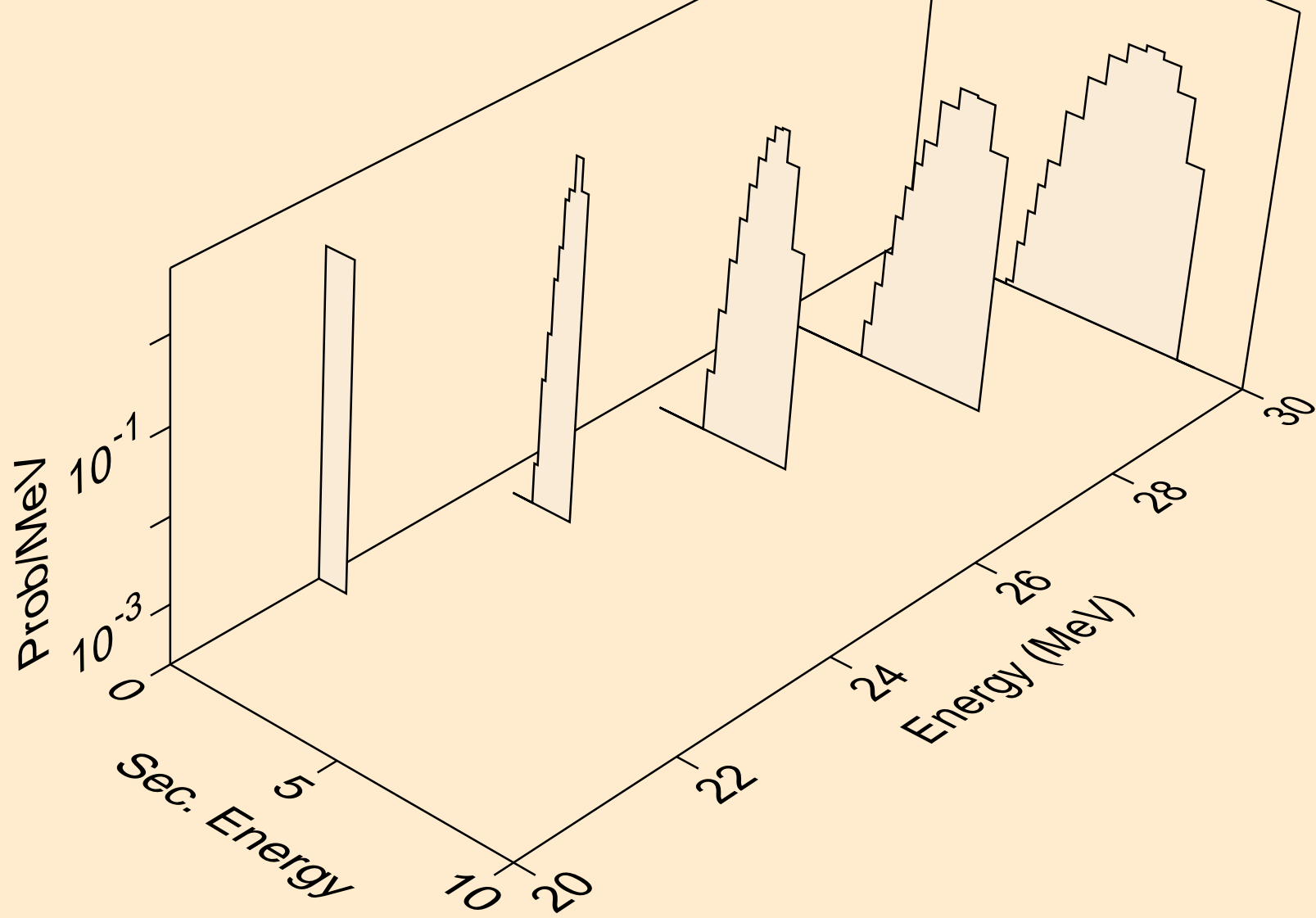
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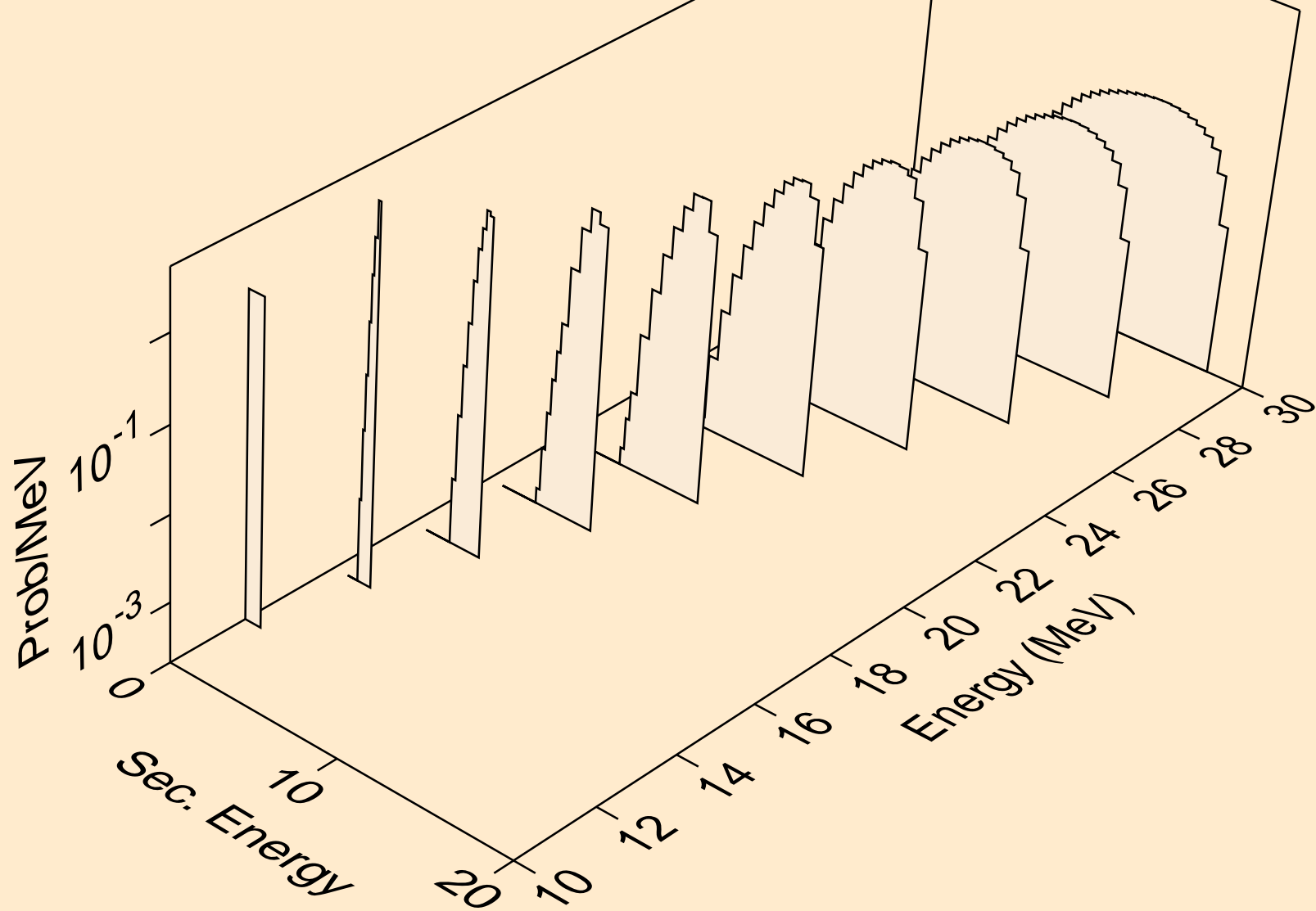
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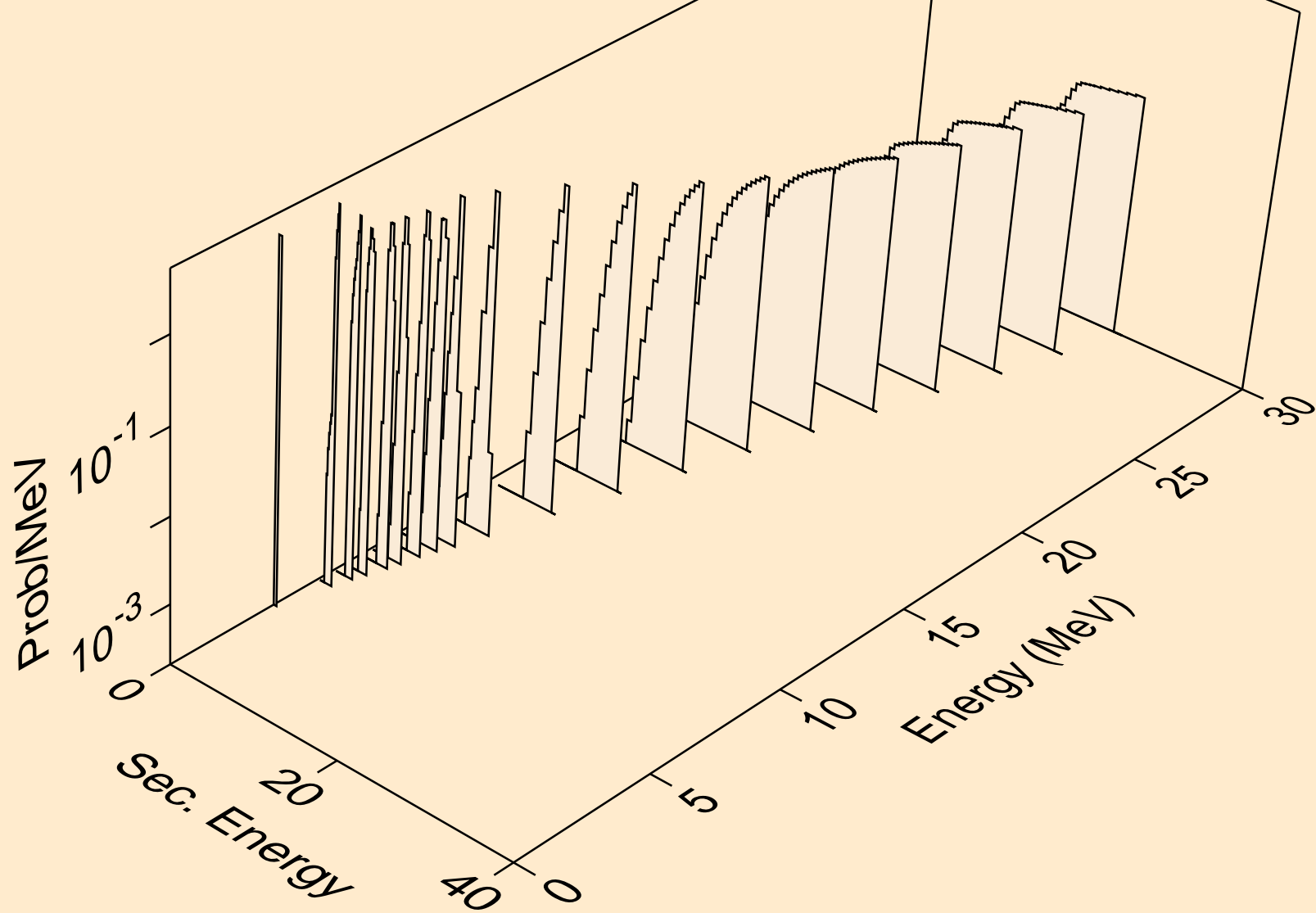
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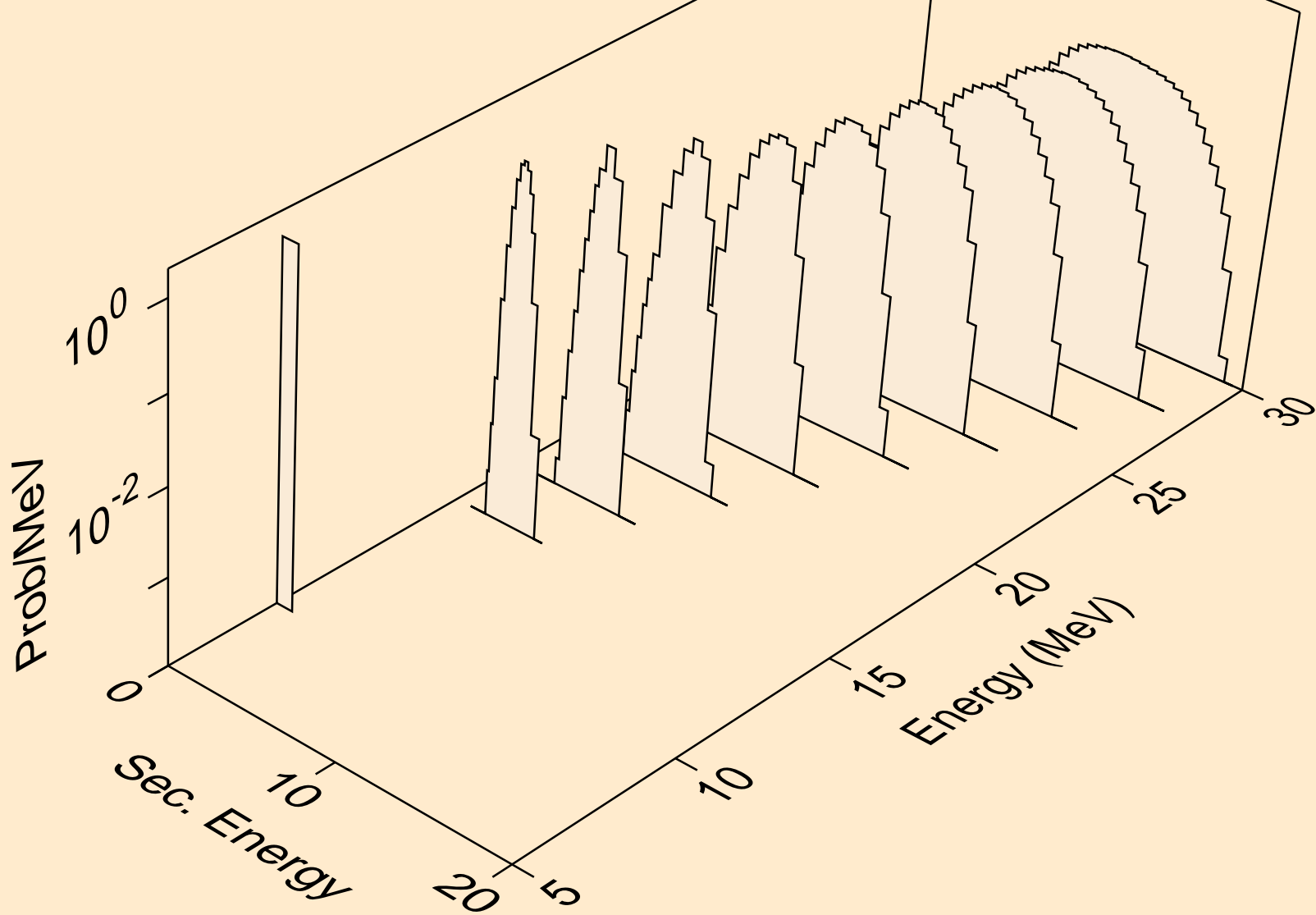
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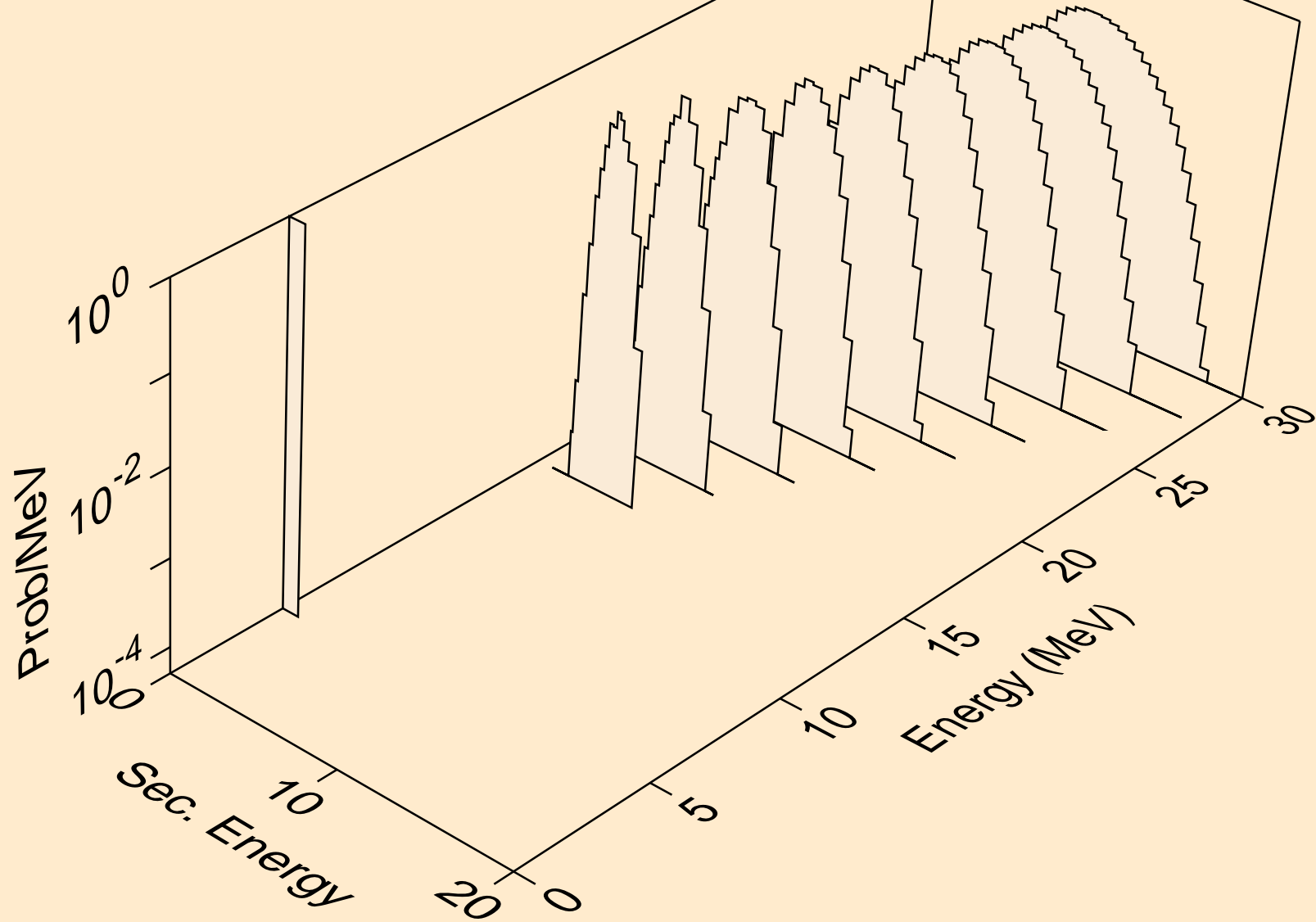
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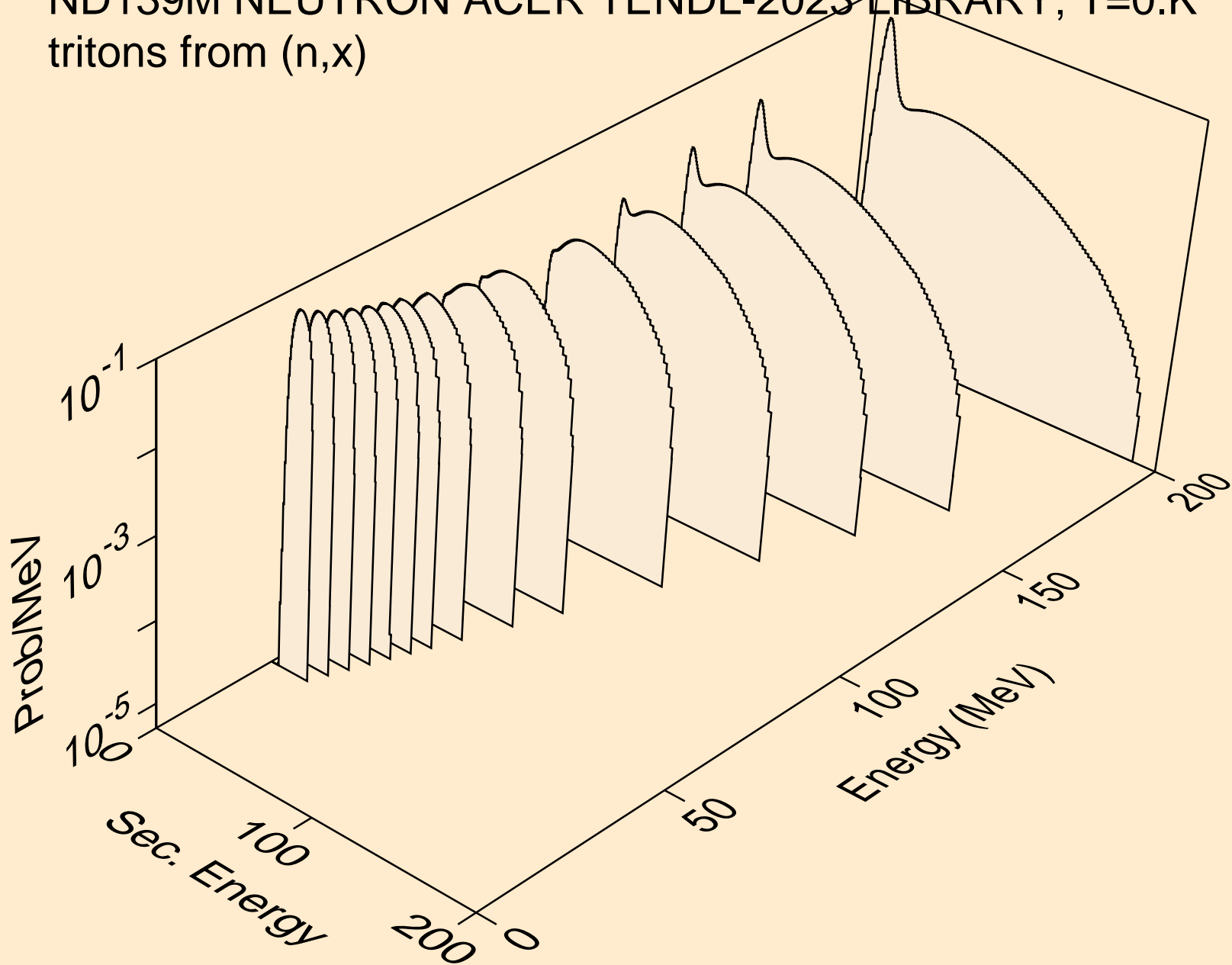
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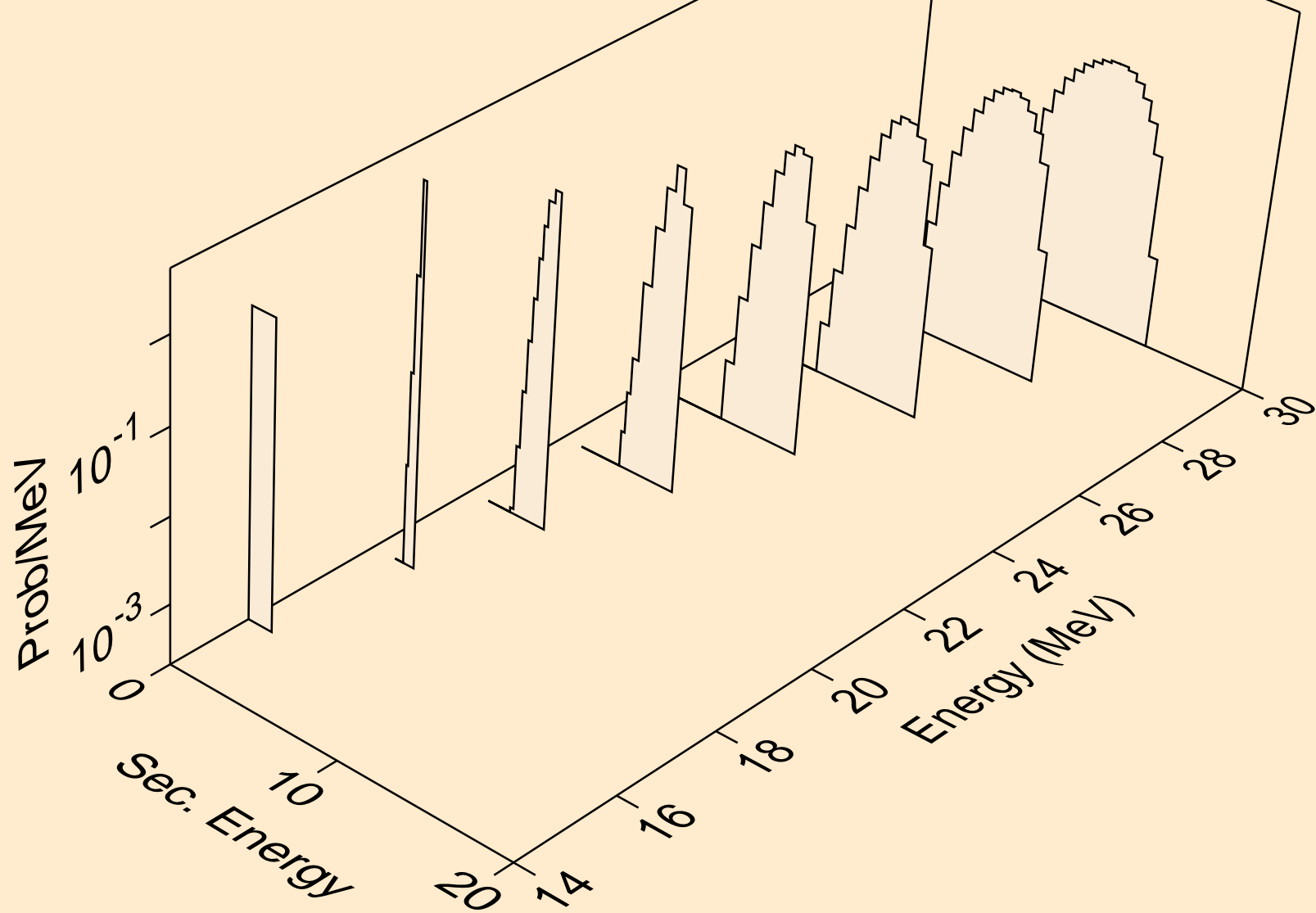
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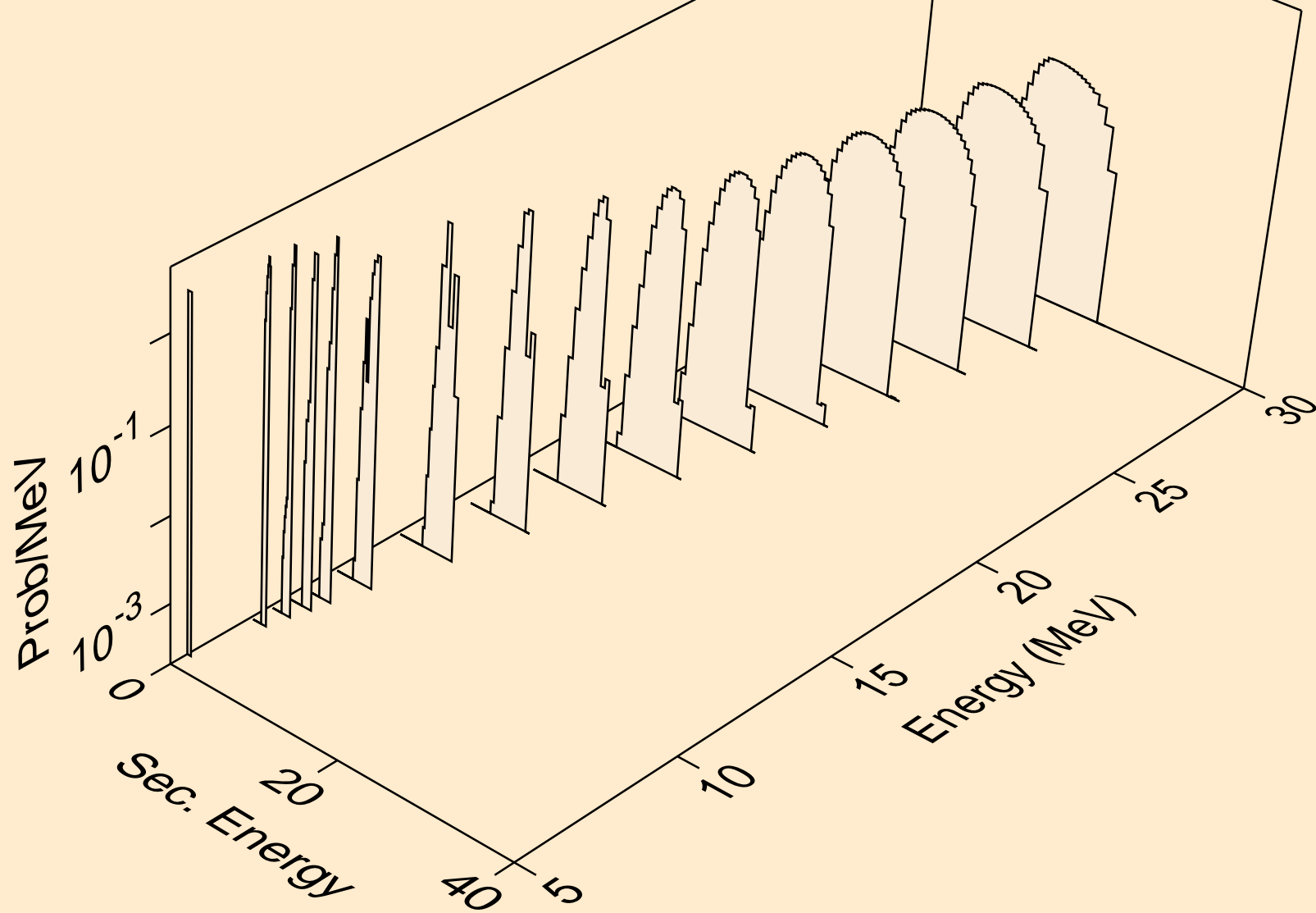
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tritons from (n,x)



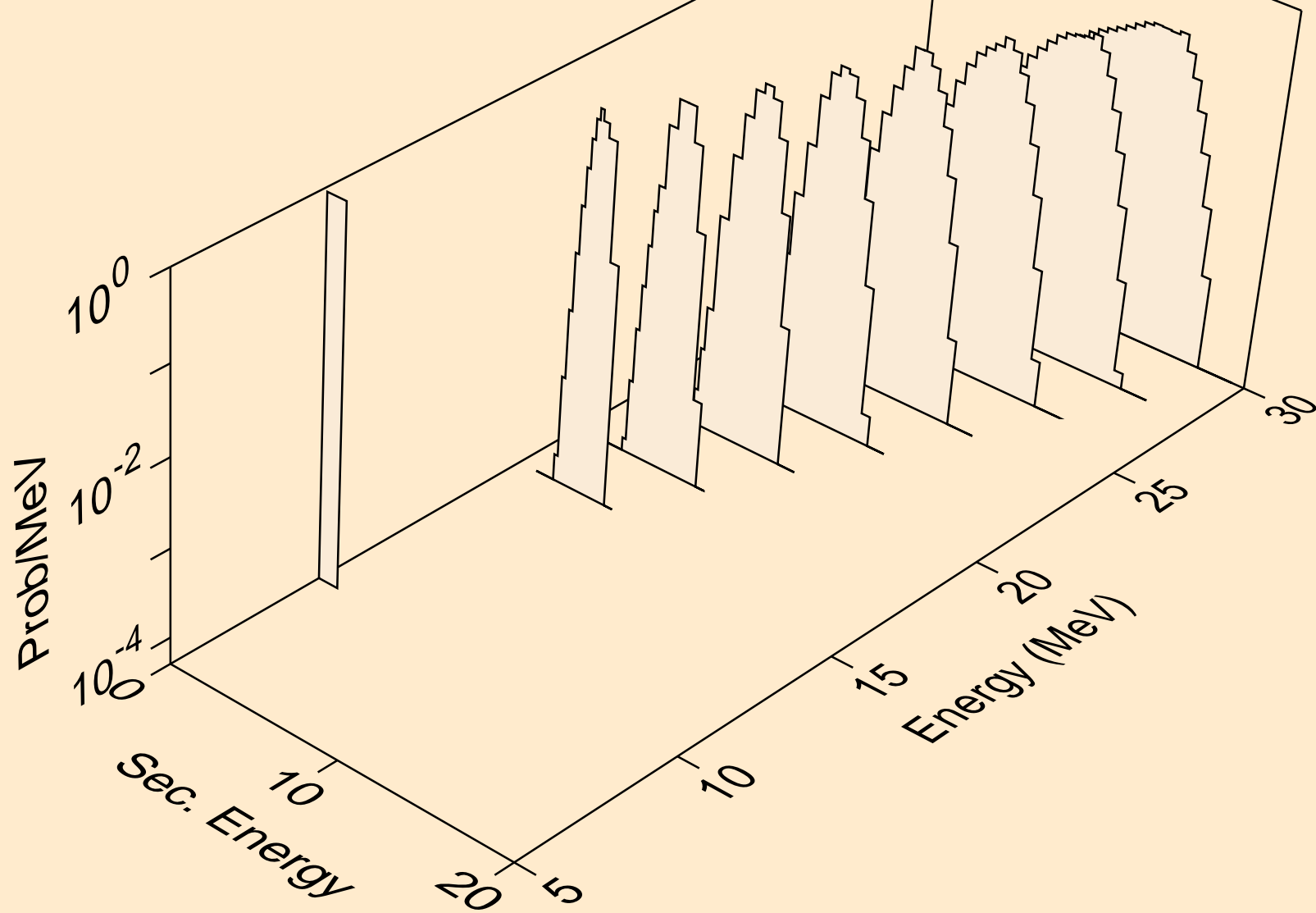
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tritons from (n,n\*)t



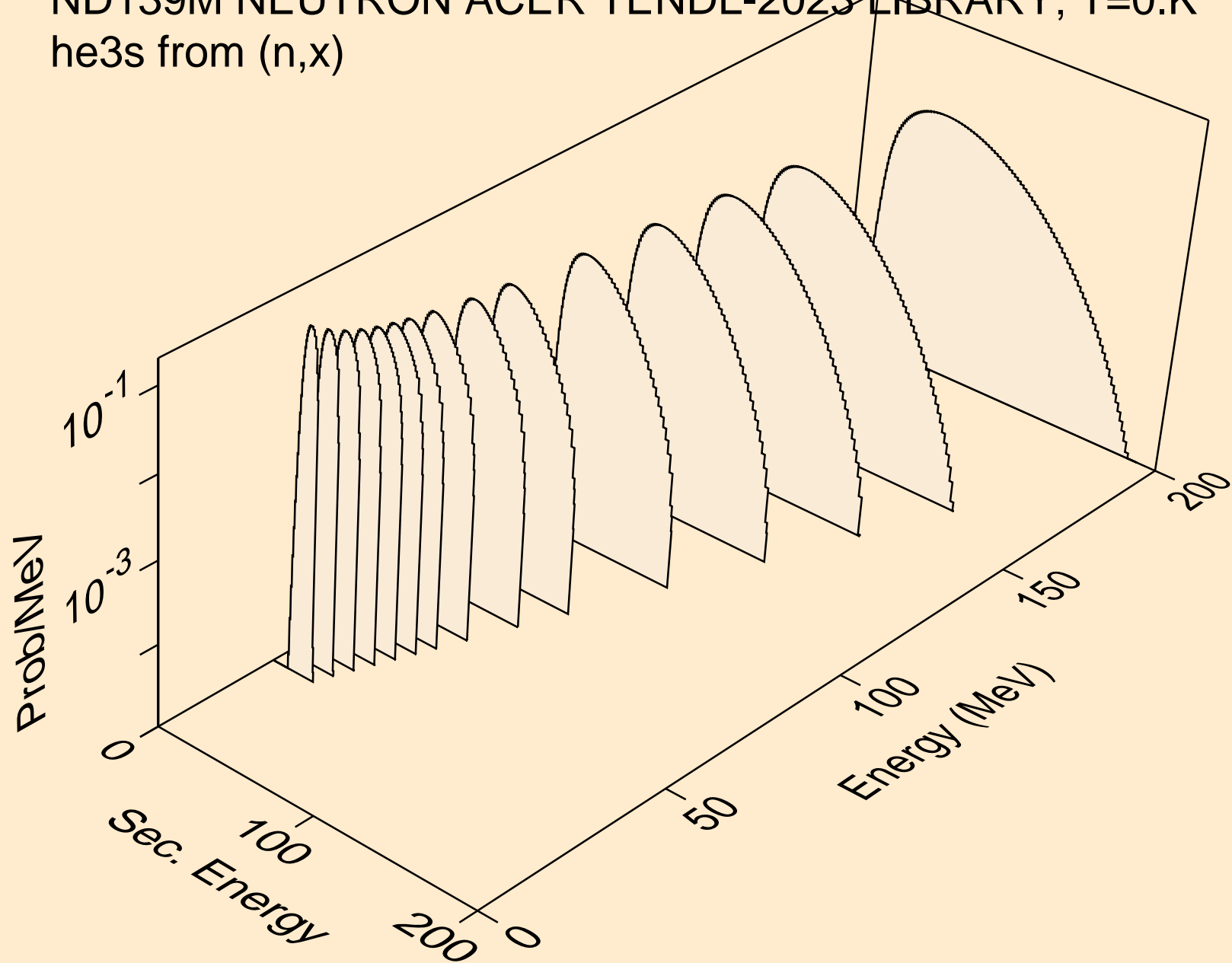
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tritons from (n,t)



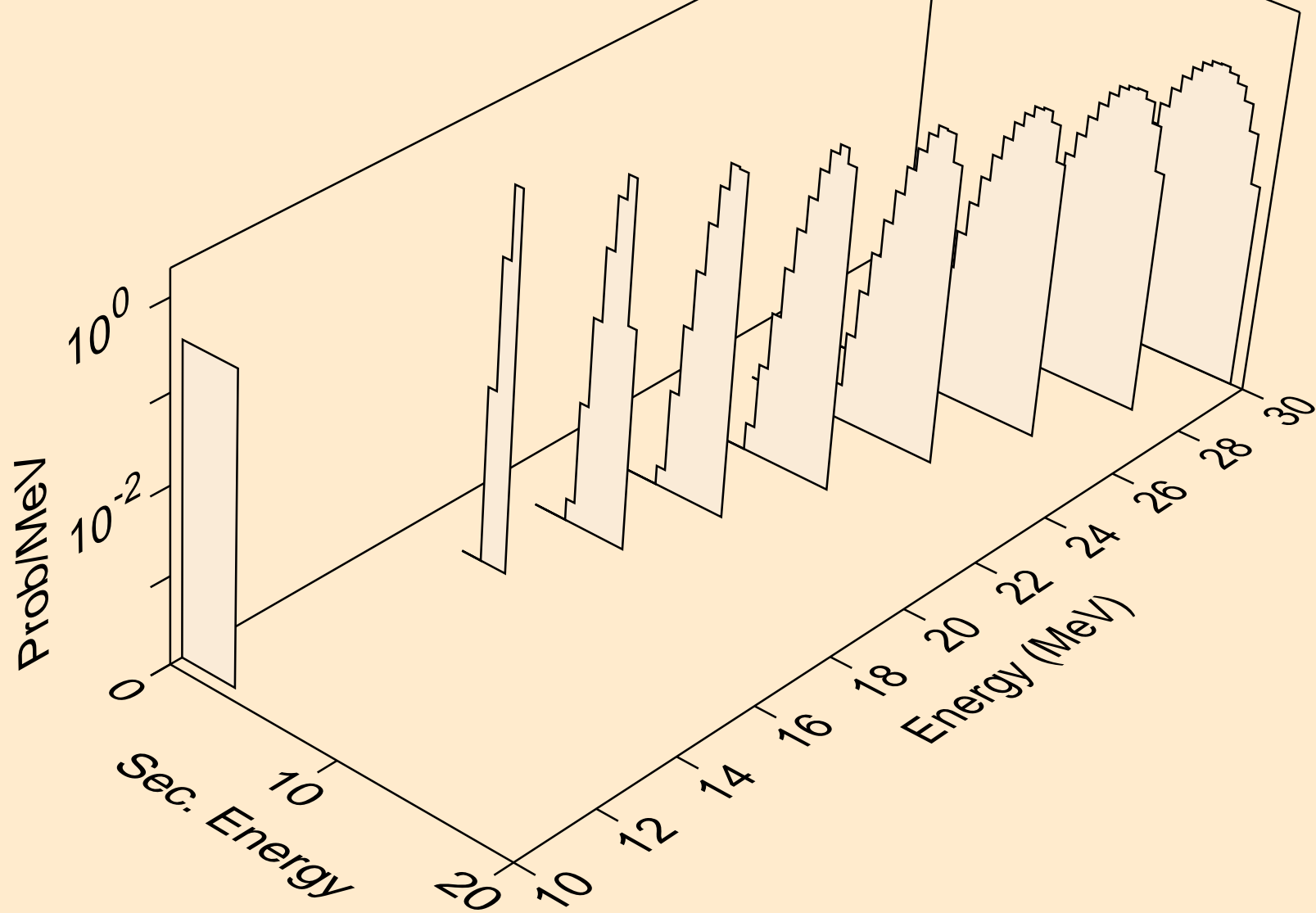
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tritons from (n,pt)



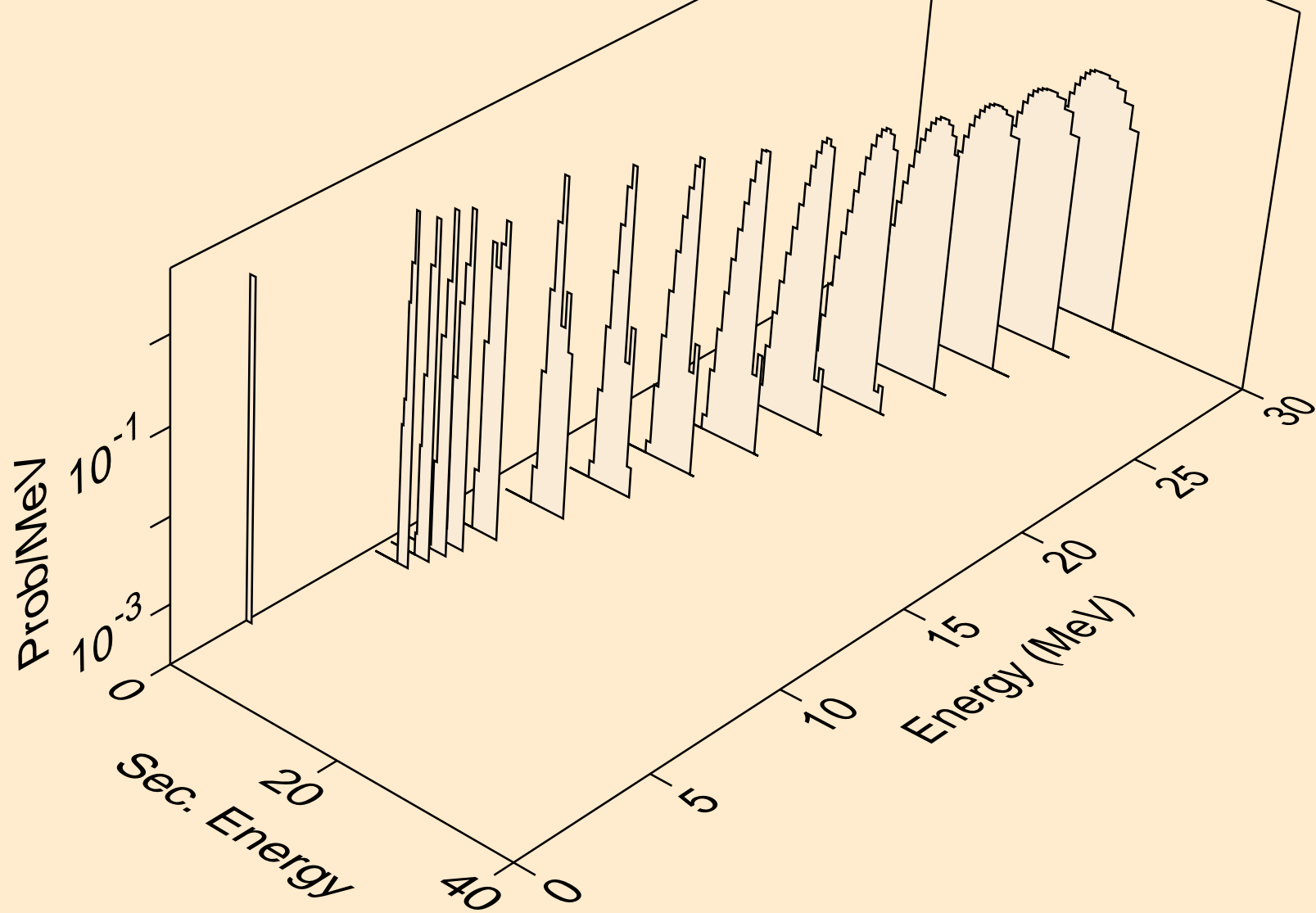
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he3s from (n,x)



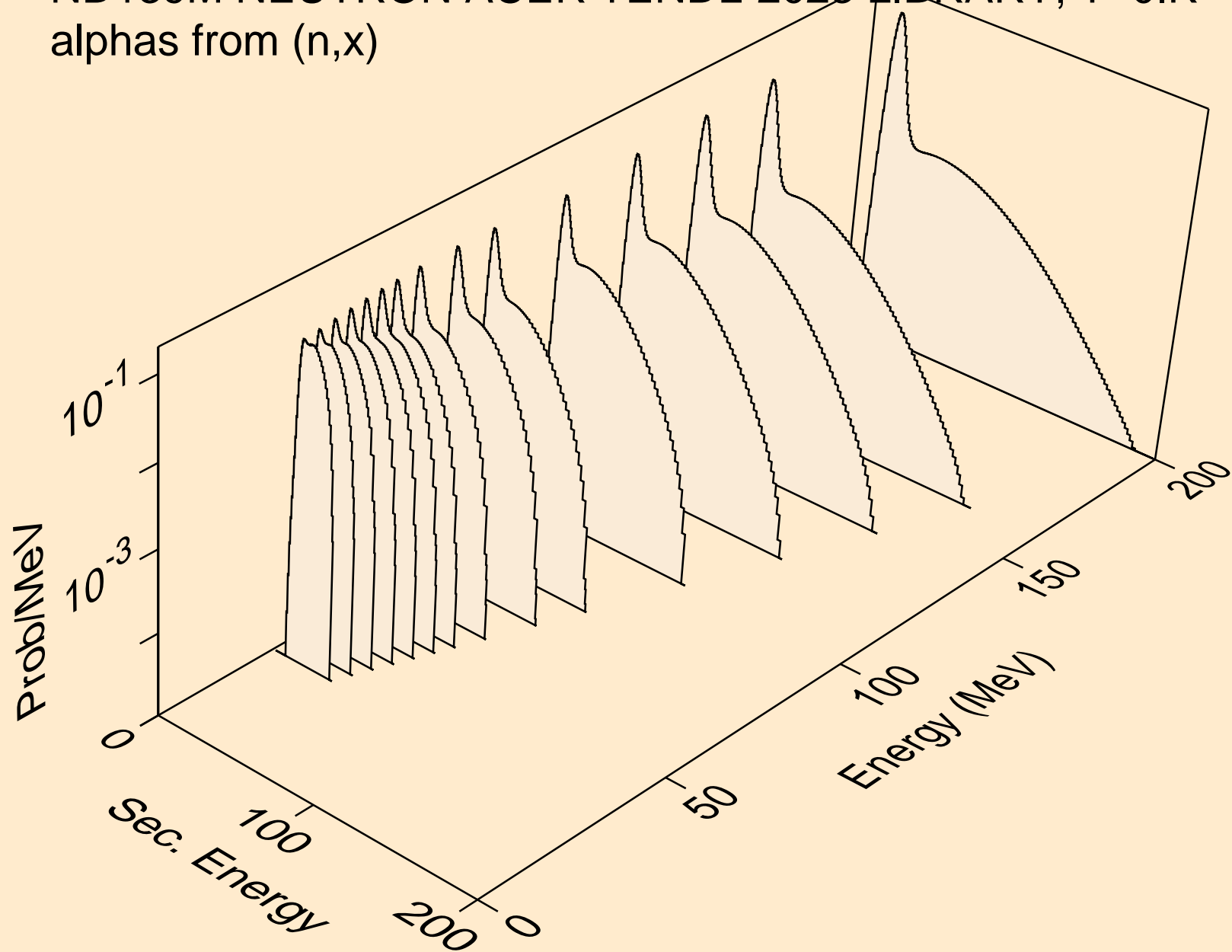
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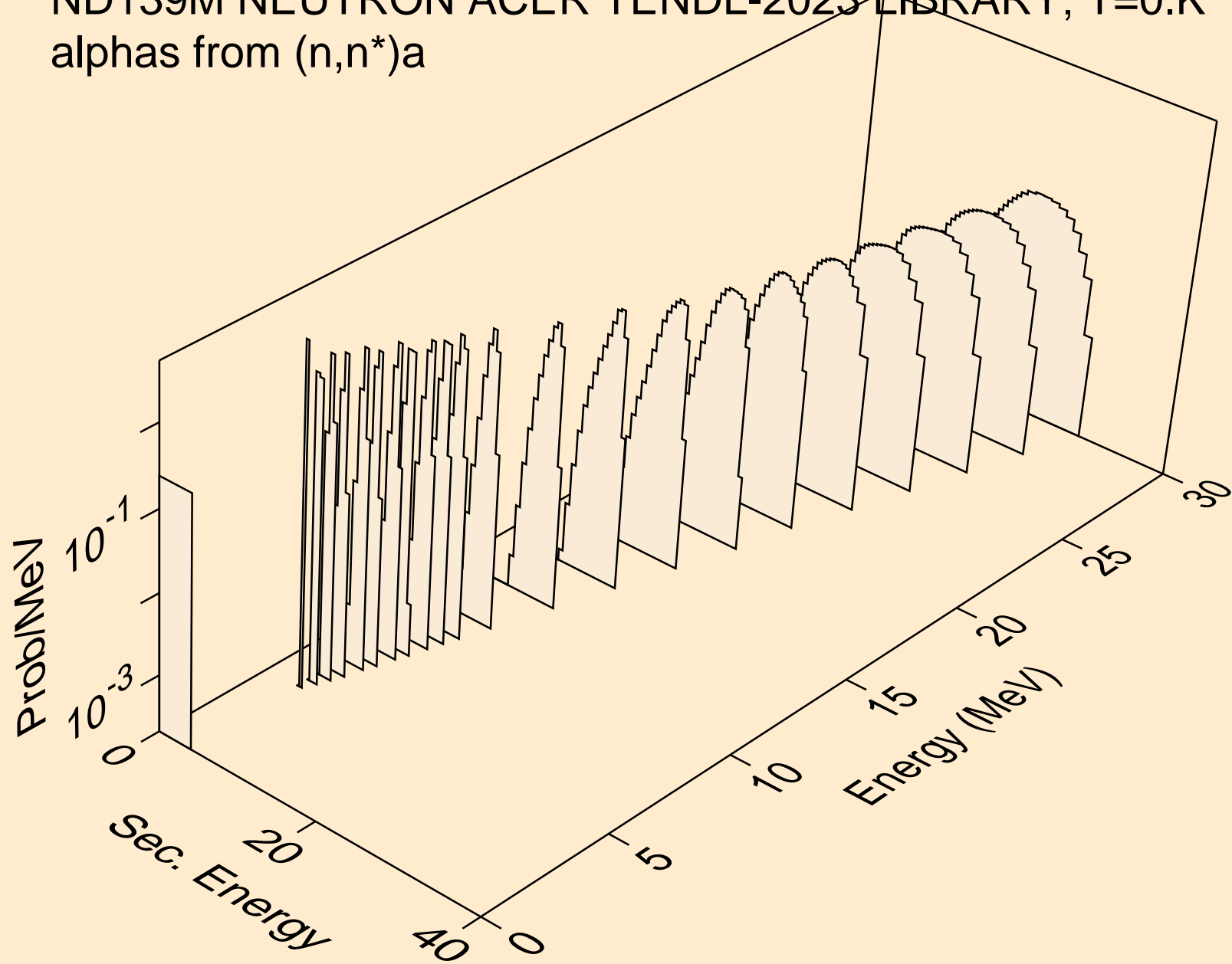
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he3s from (n,he3)



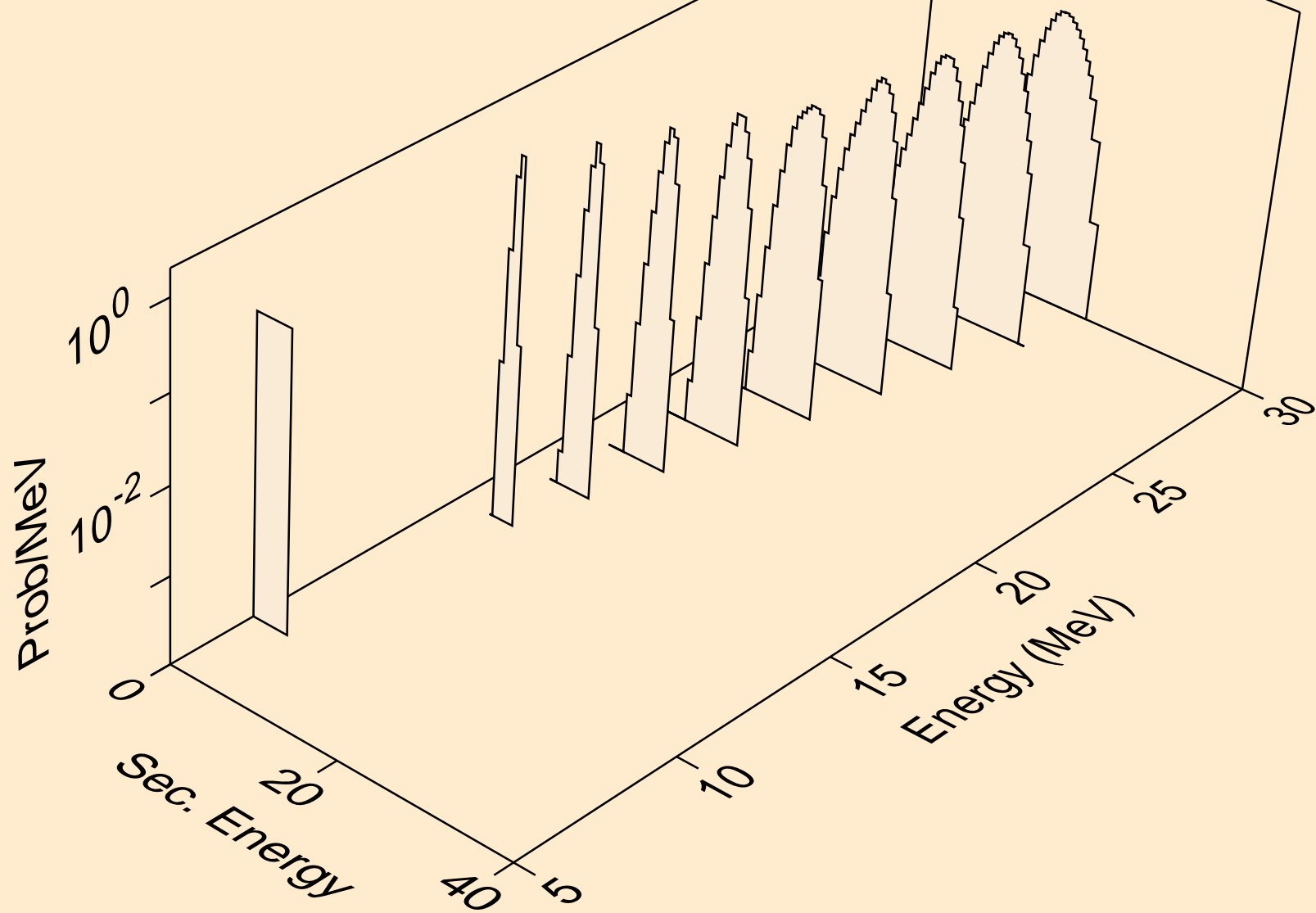
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,x)



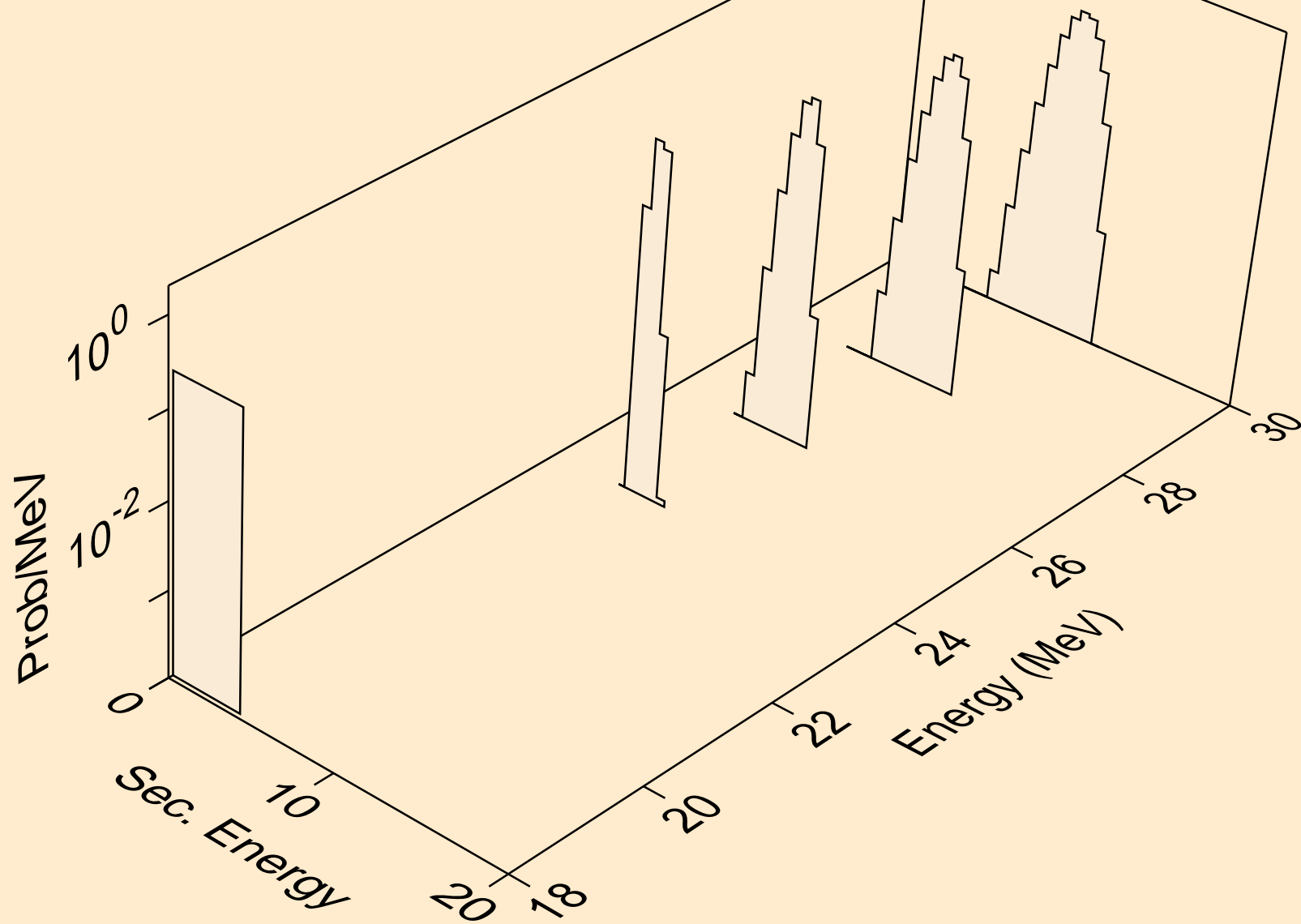
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,n\*)a



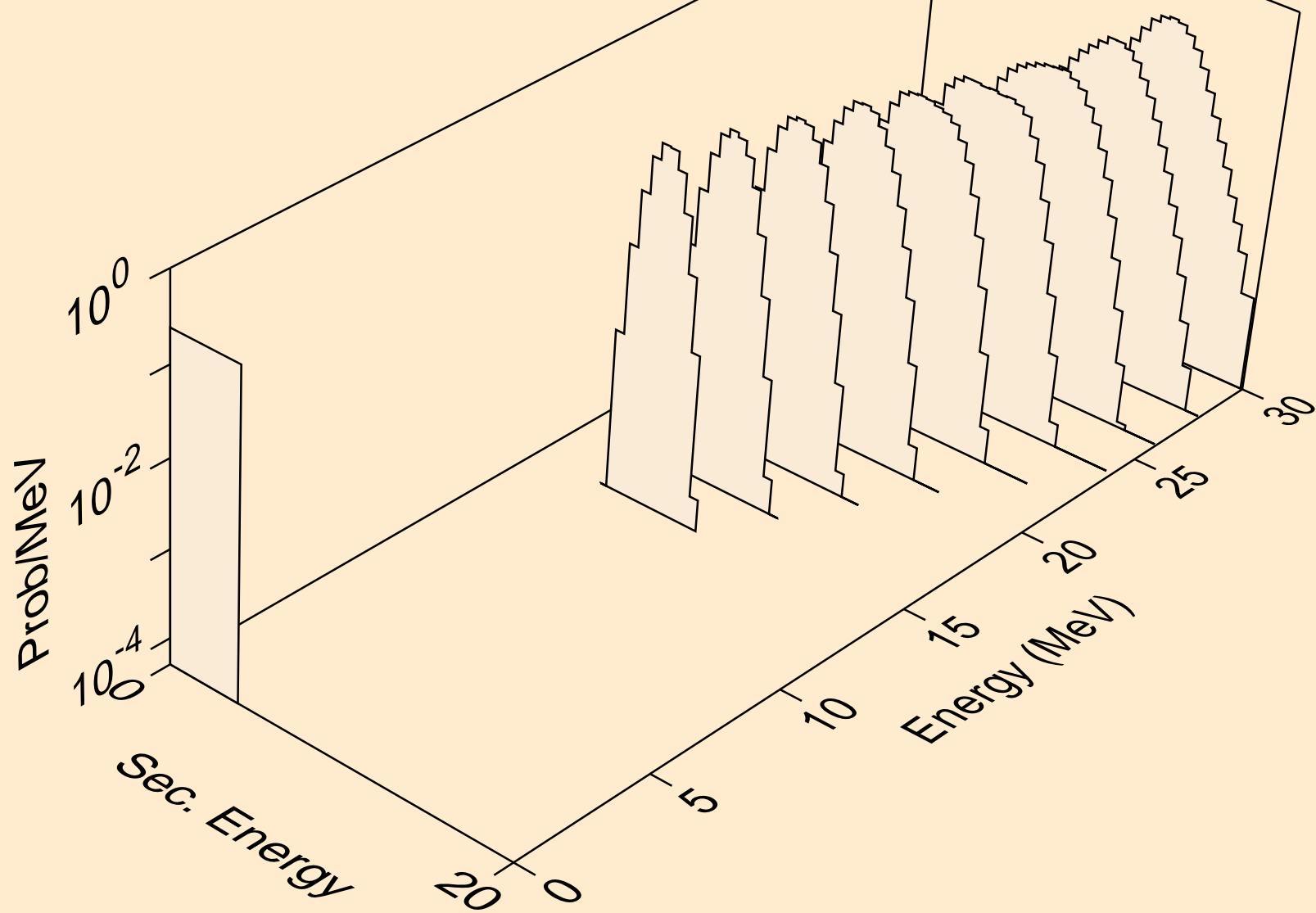
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,2n)a



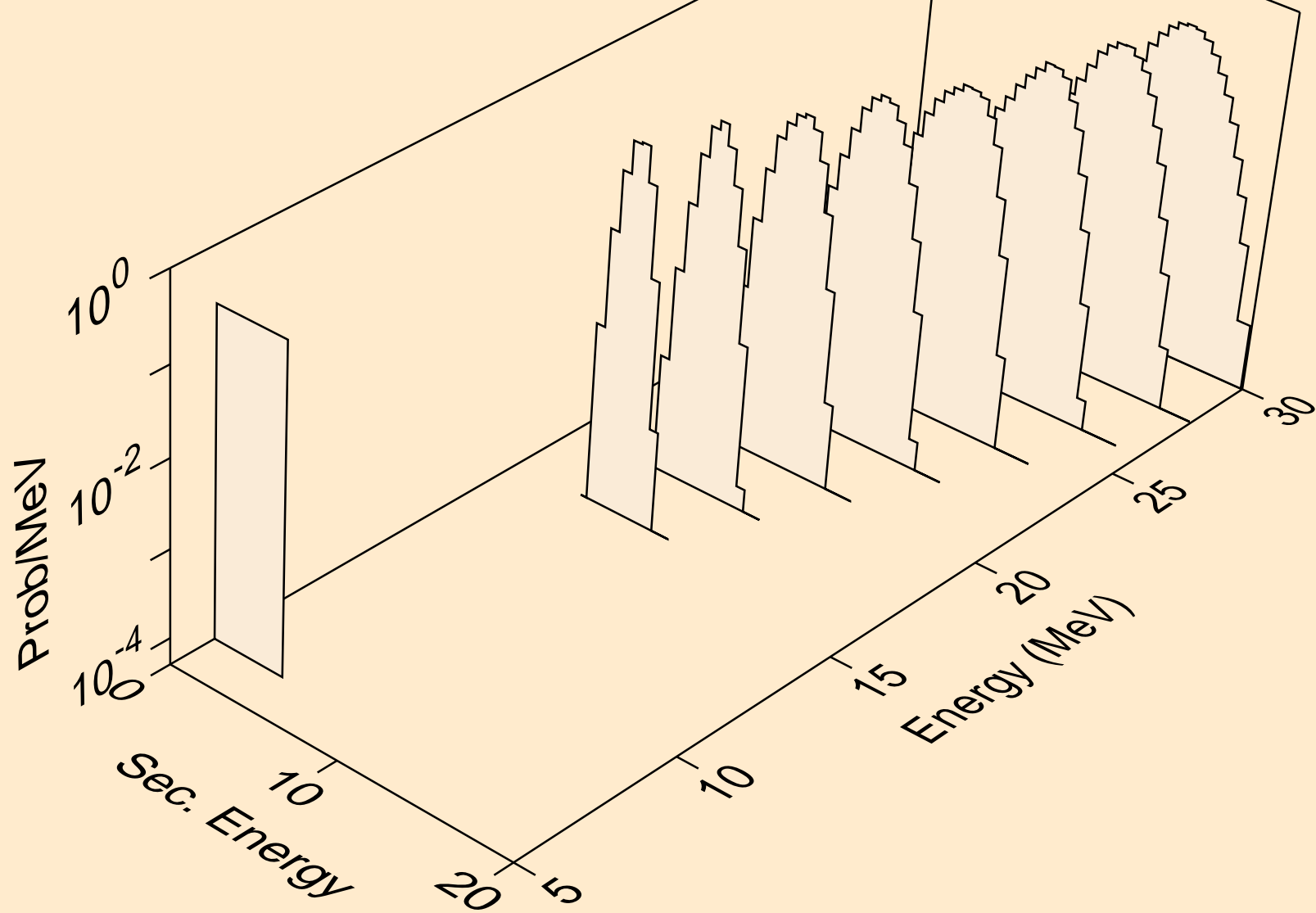
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alphas from (n,3n)a



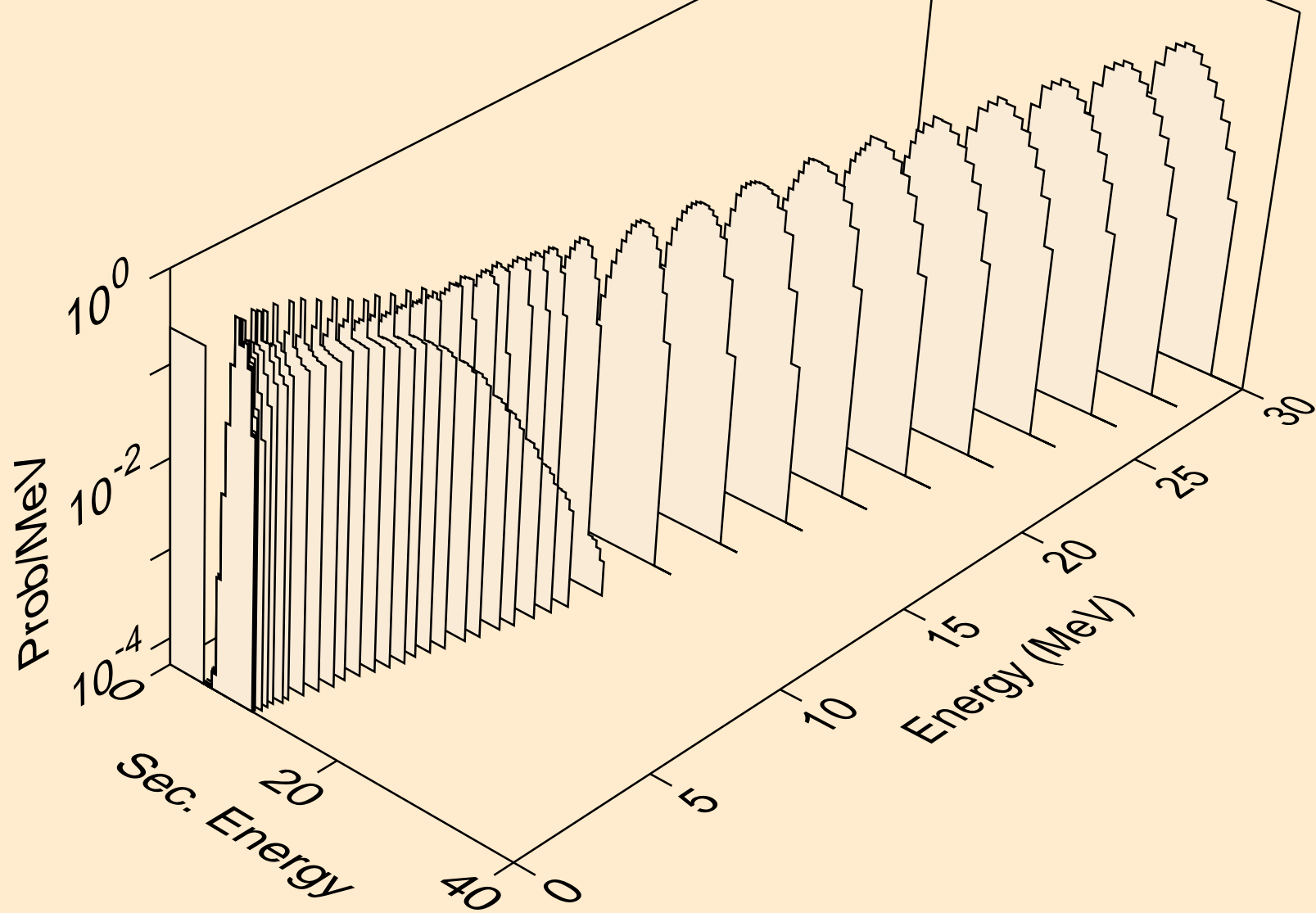
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,n\*)2a



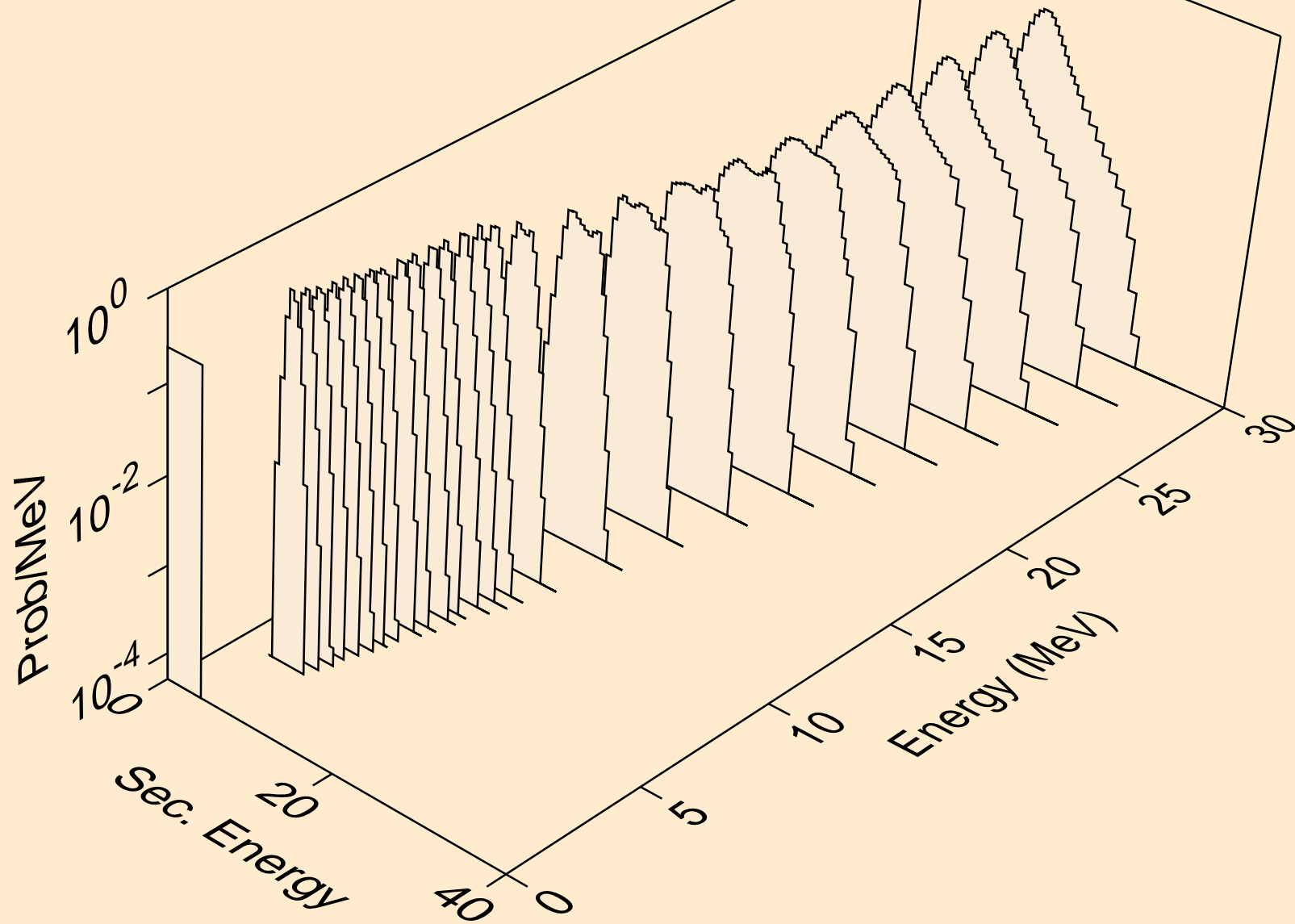
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,npa)



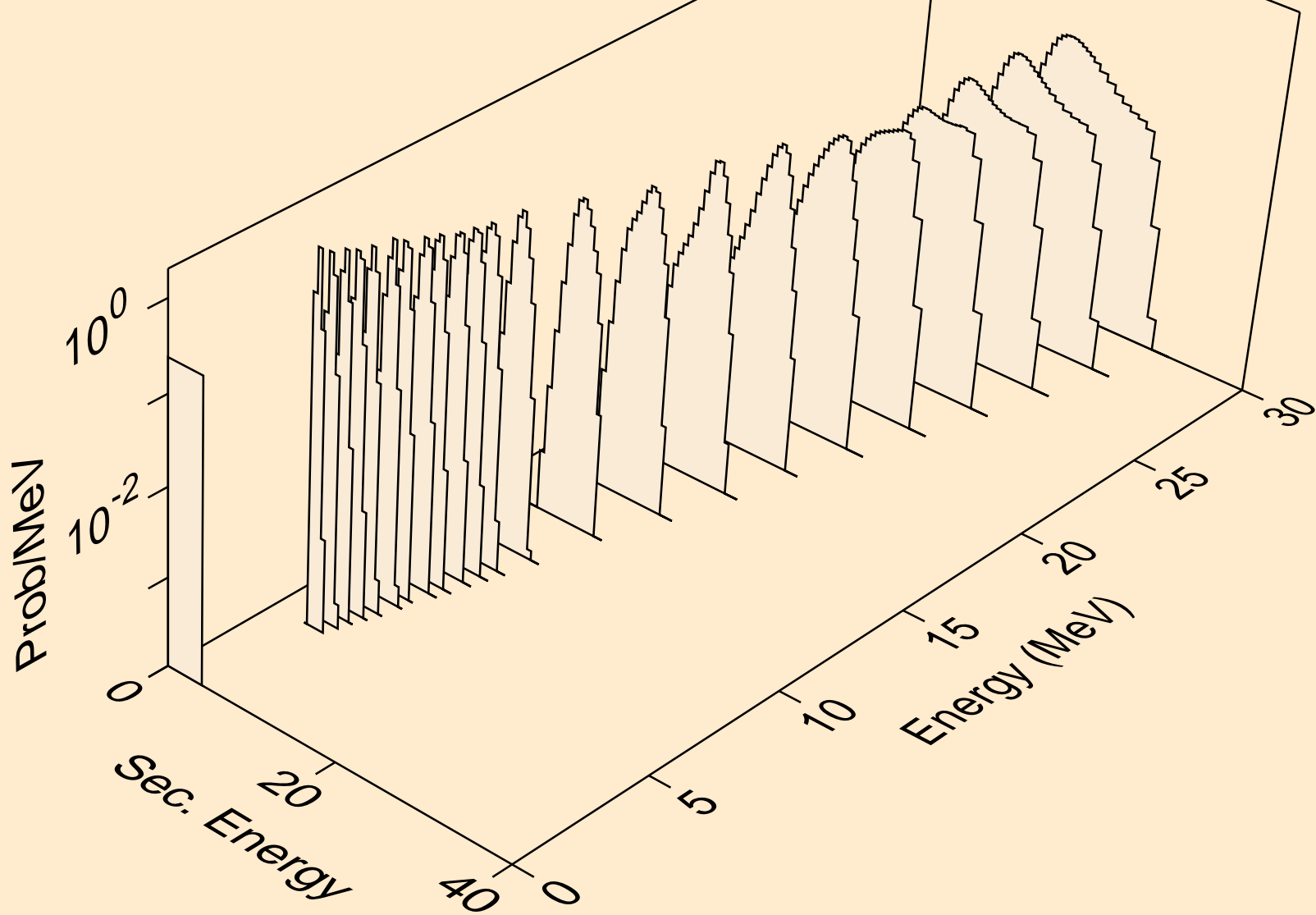
ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,a)



ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,2a)



ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,pa)



ND139M NEUTRON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (n,da)

