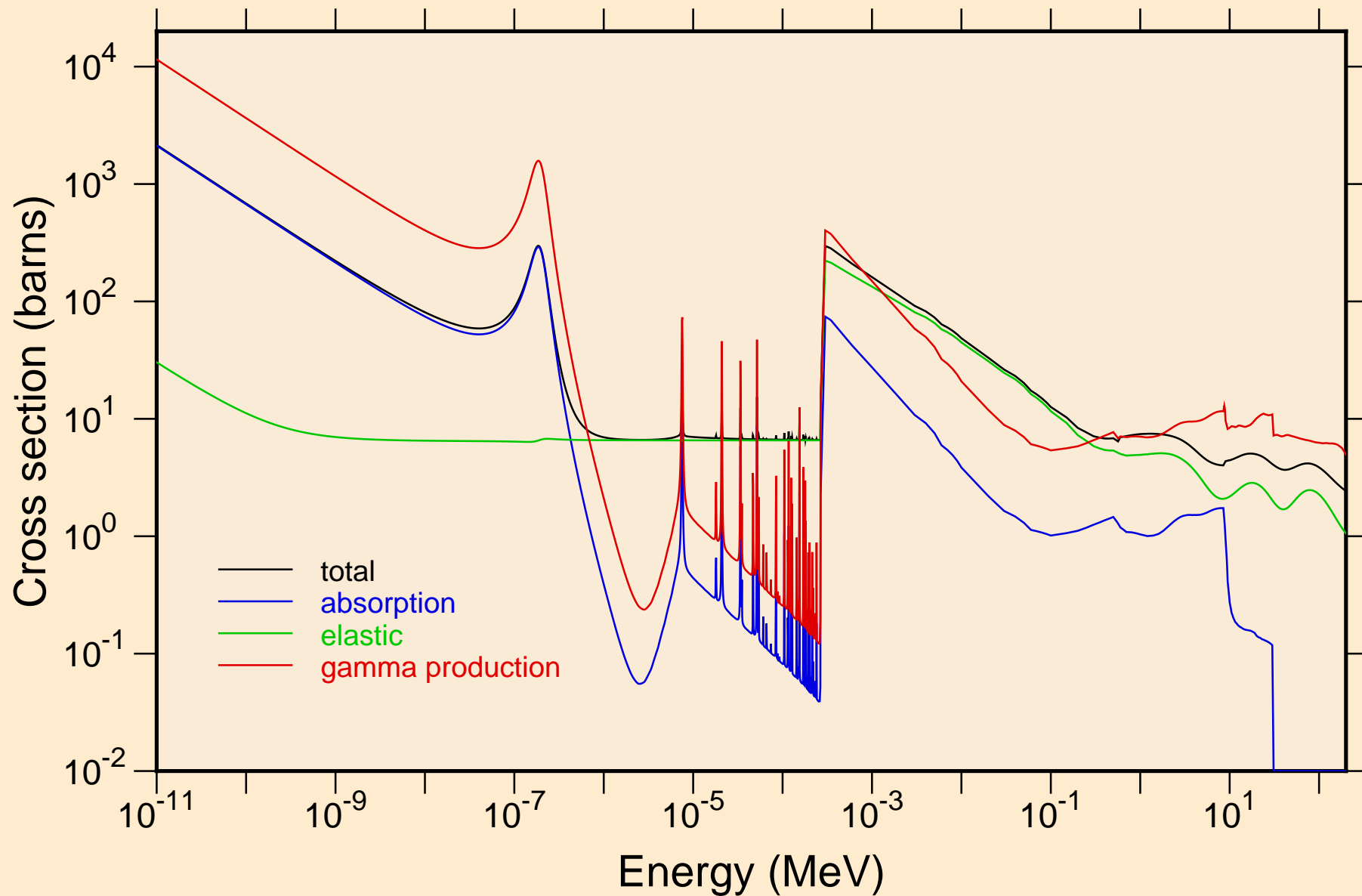
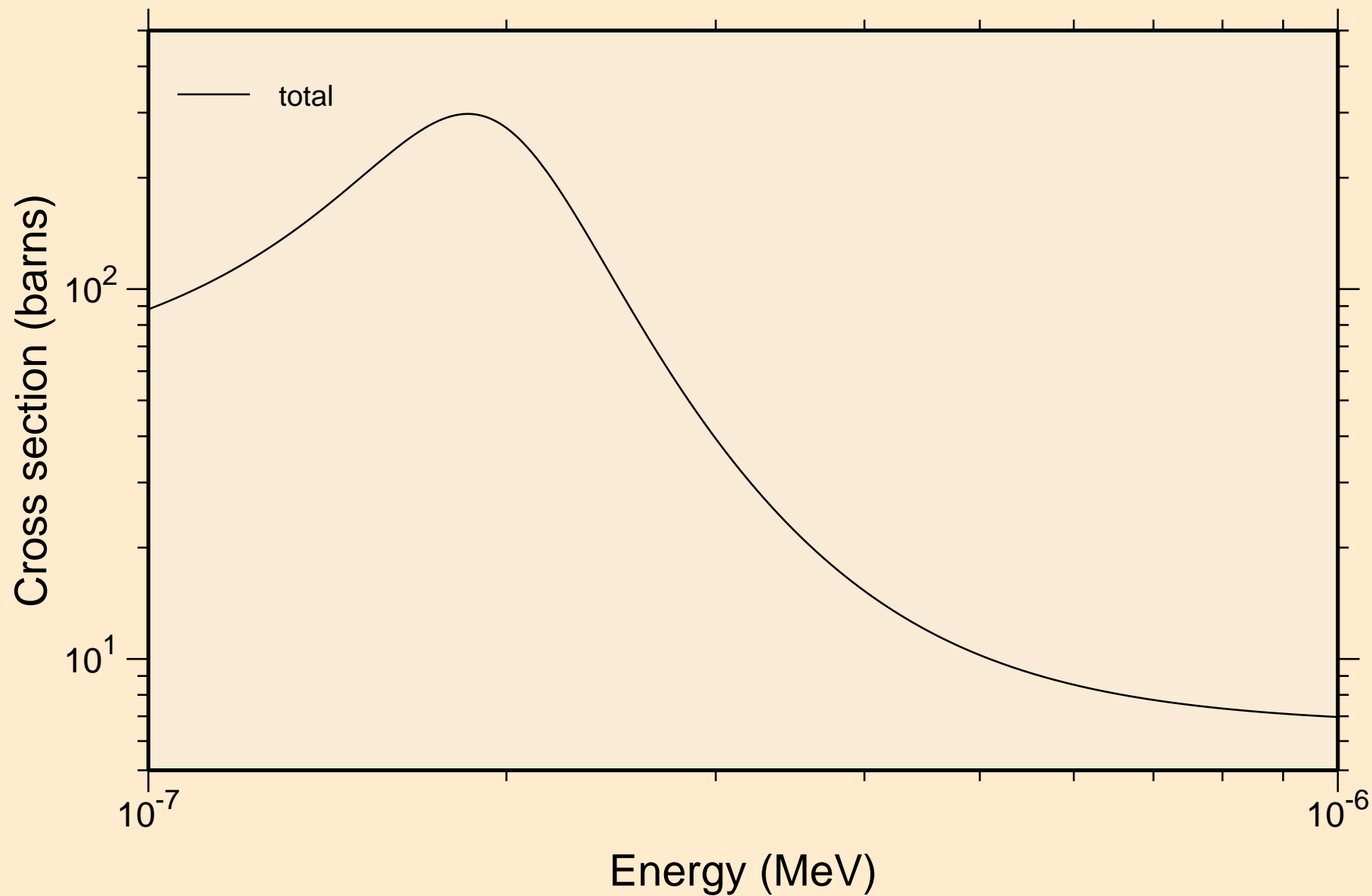


# ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

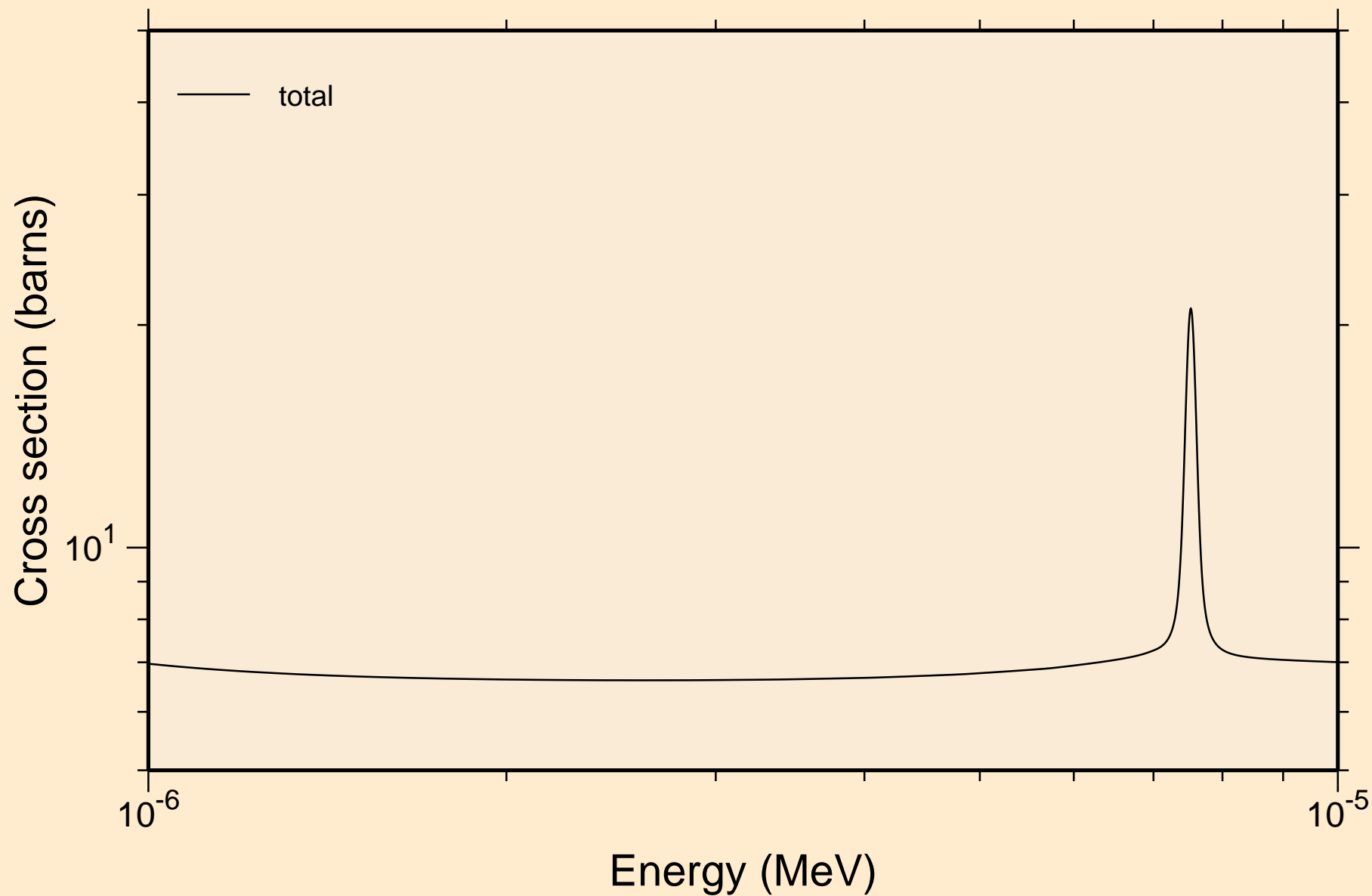
## Principal cross sections



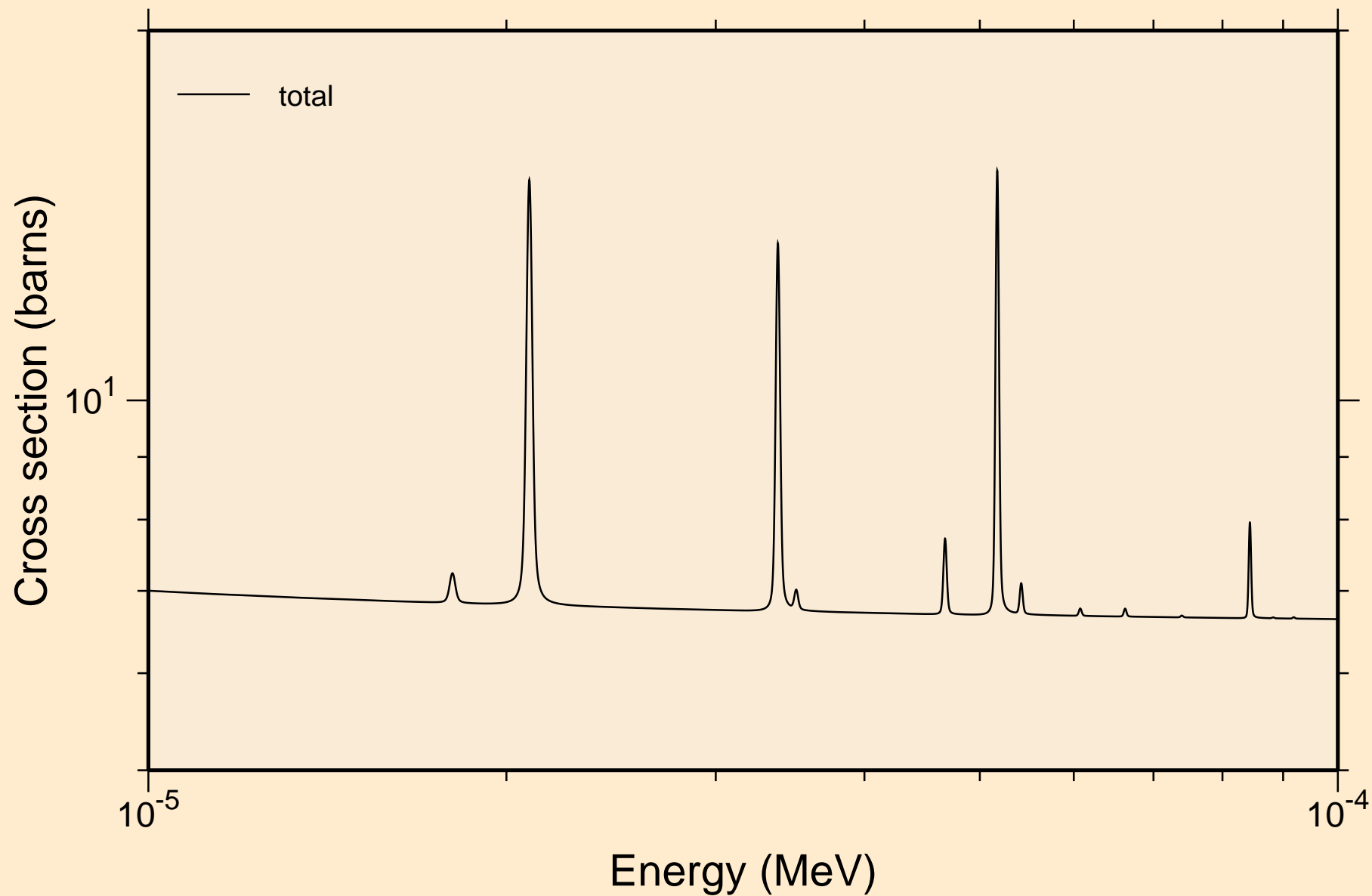
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



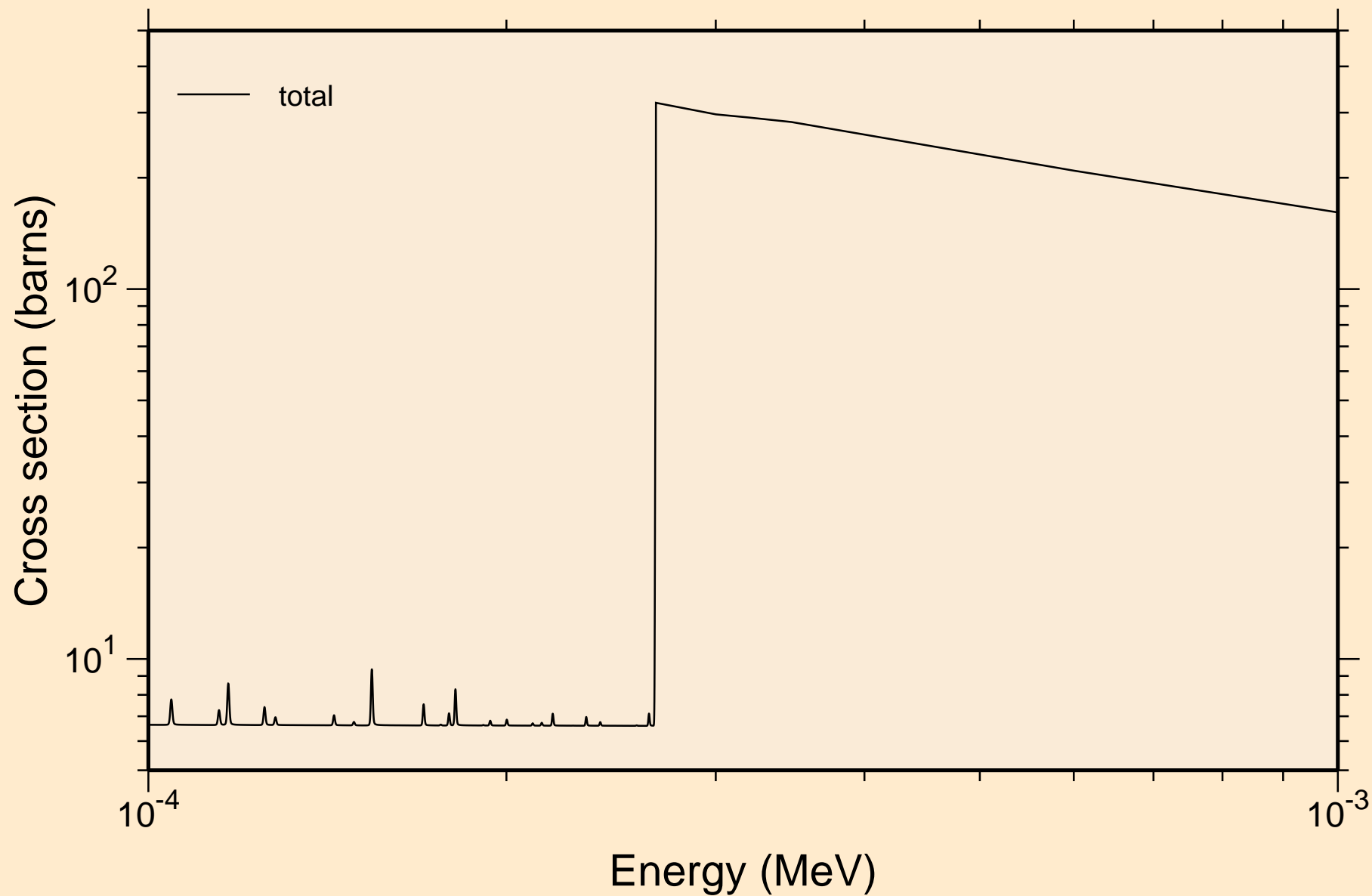
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



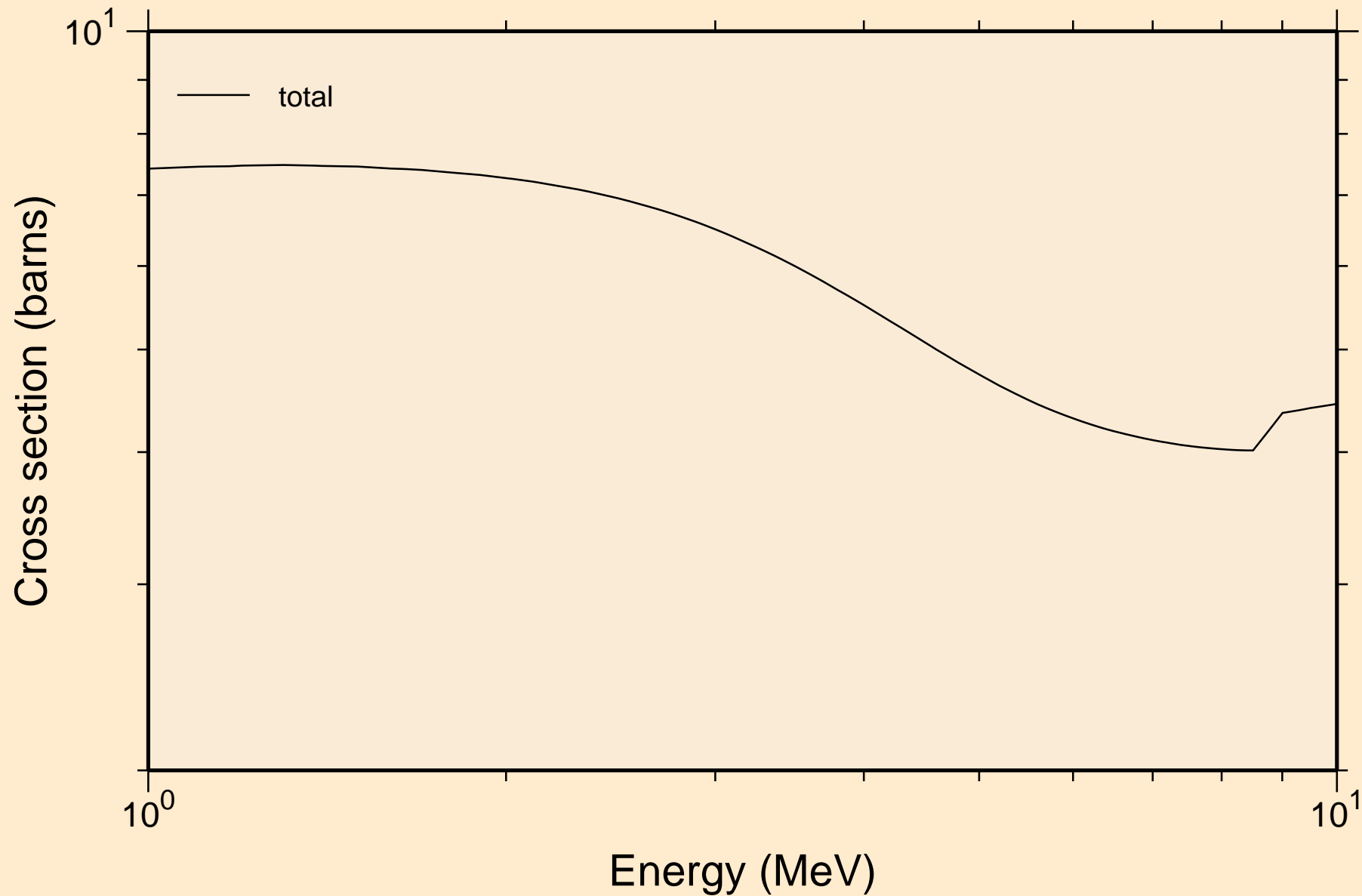
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



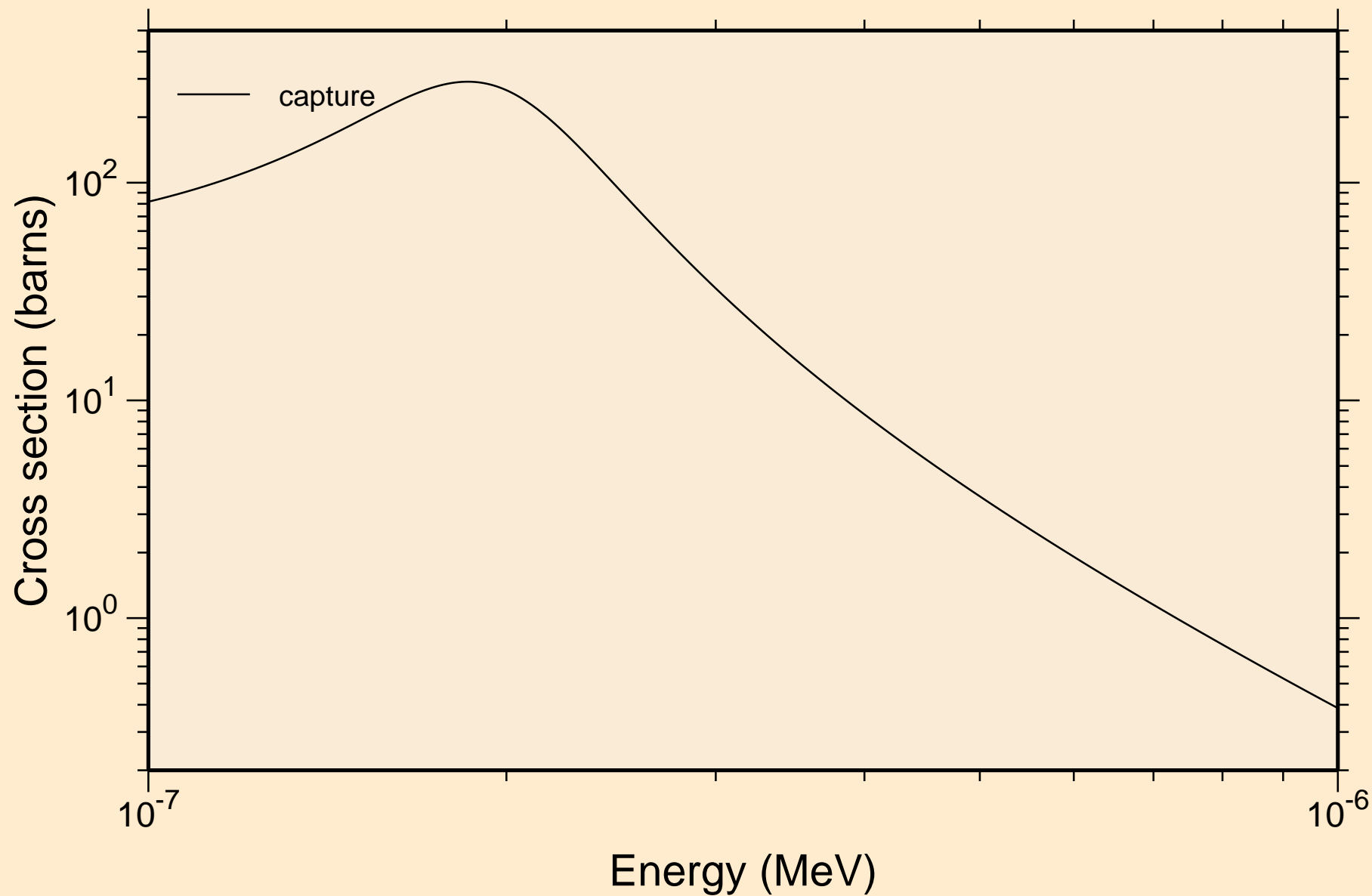
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



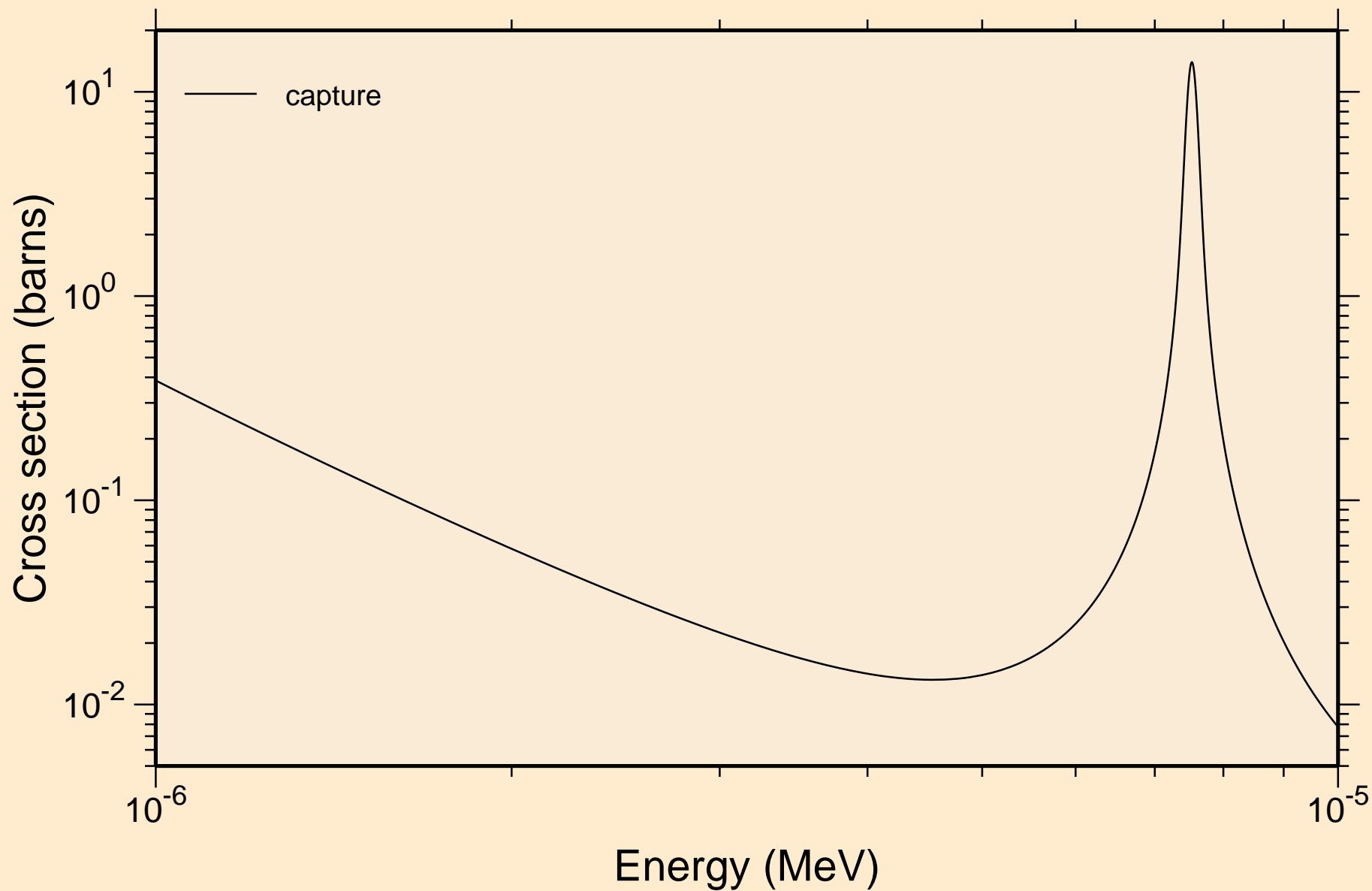
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance total cross section



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections

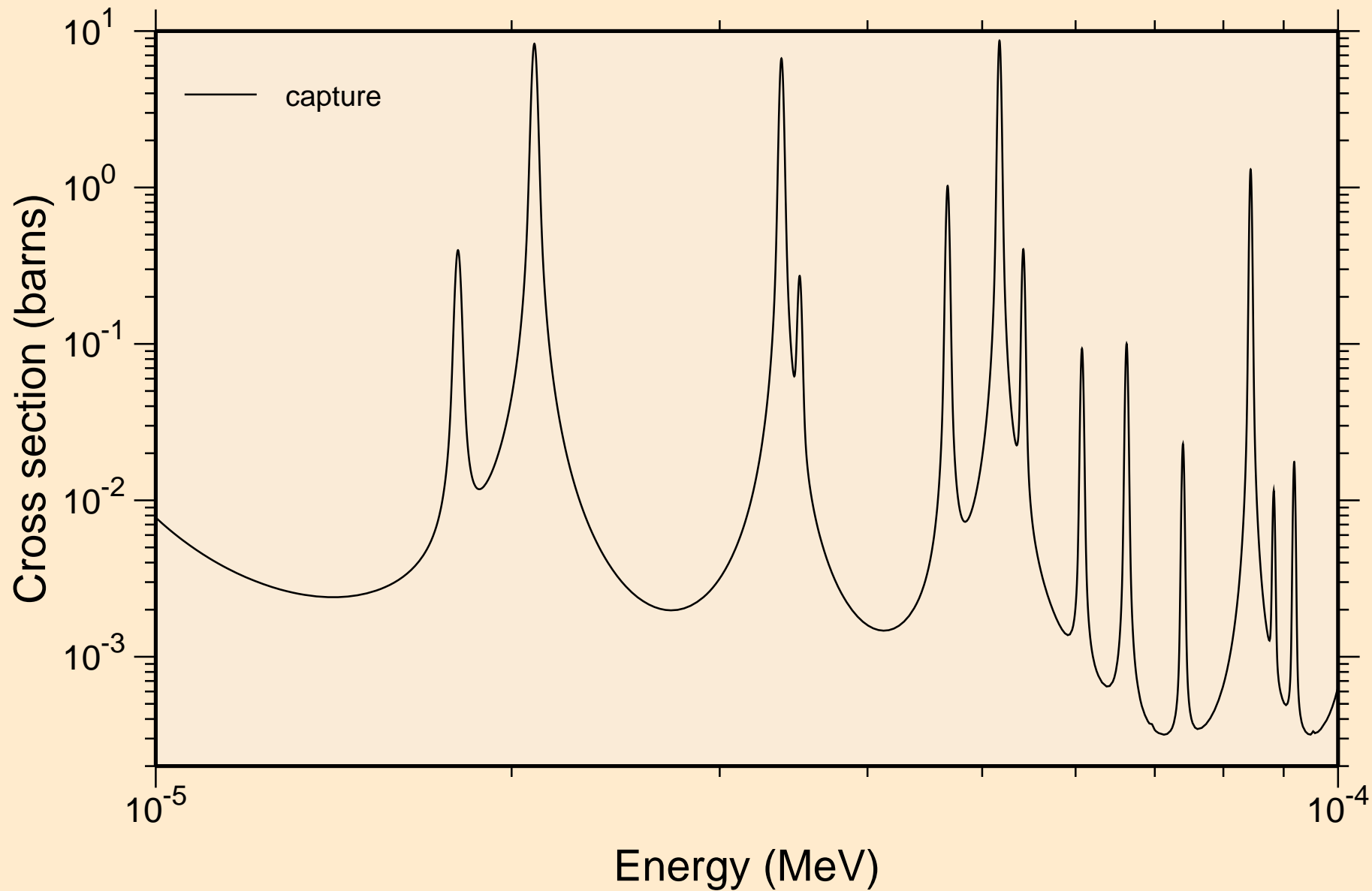


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections

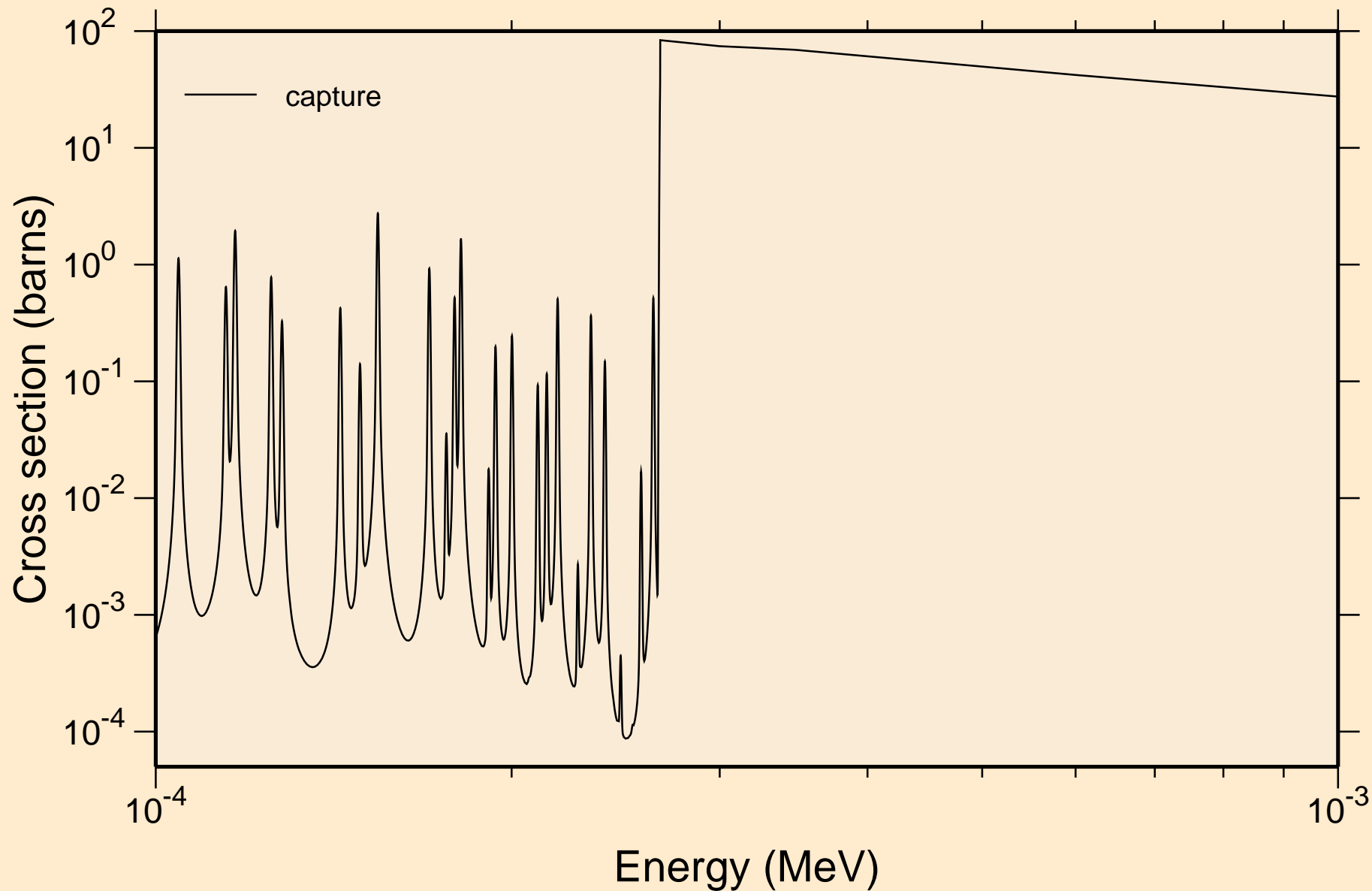




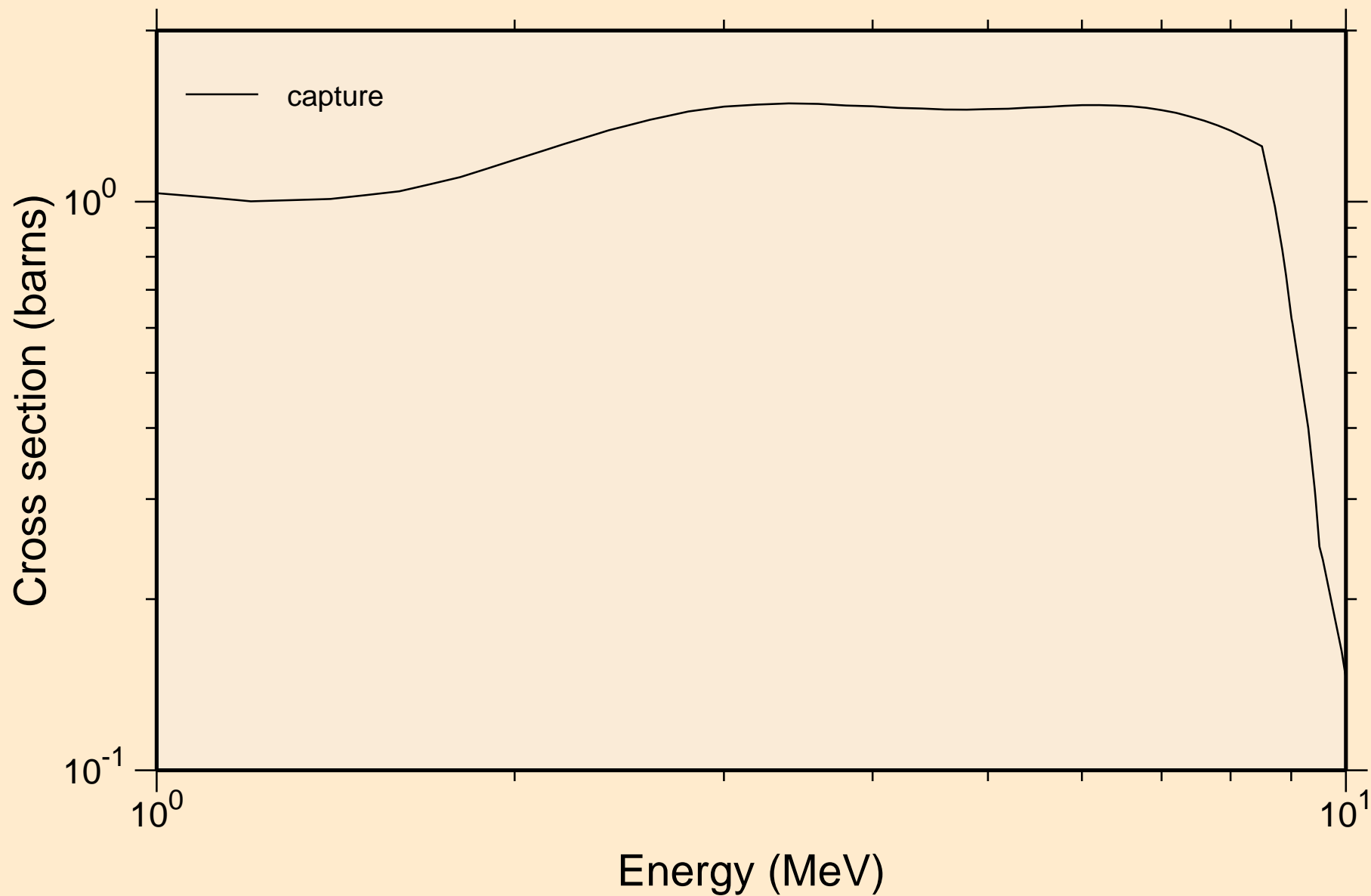
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections



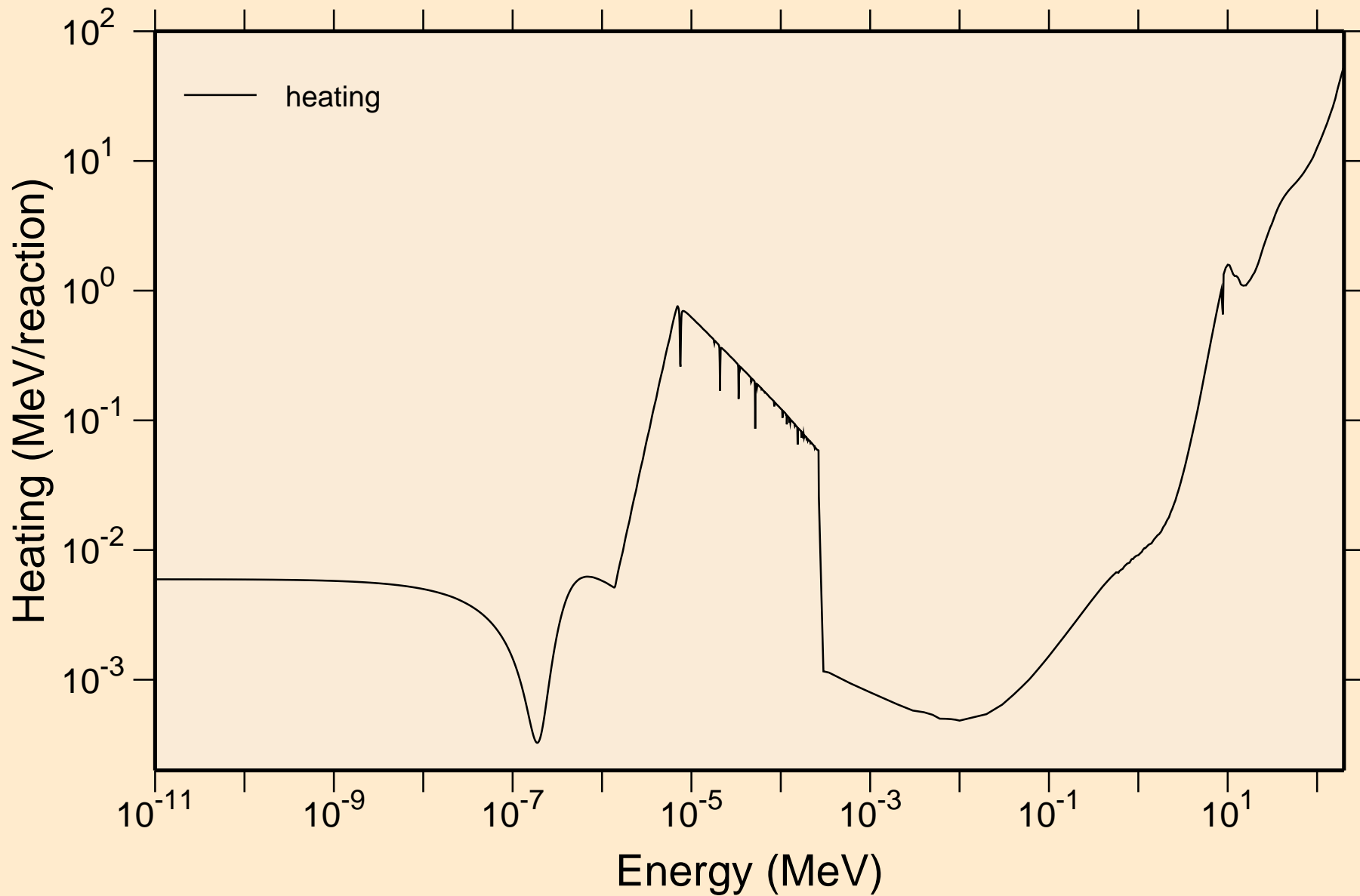
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections



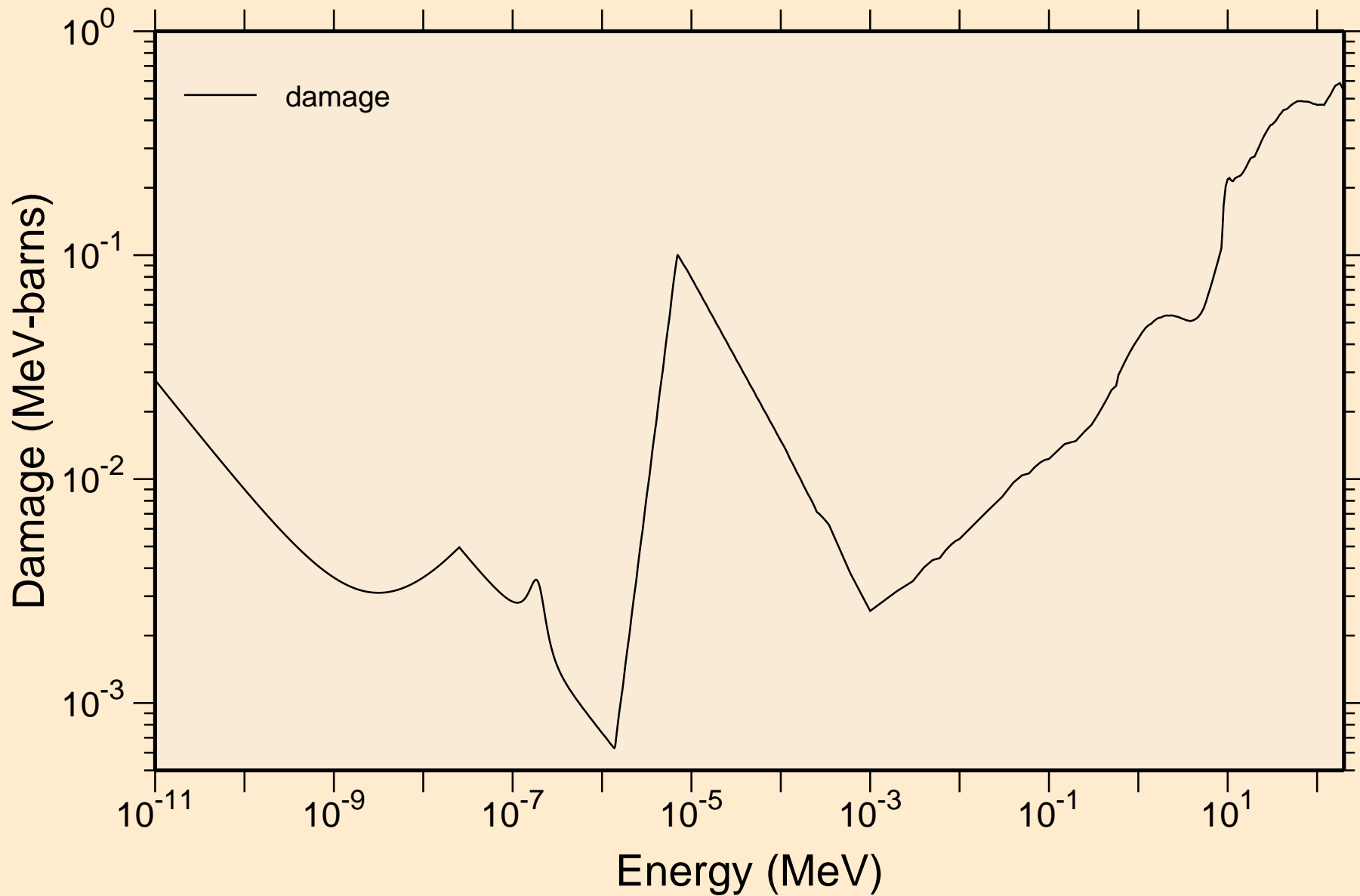
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
resonance absorption cross sections



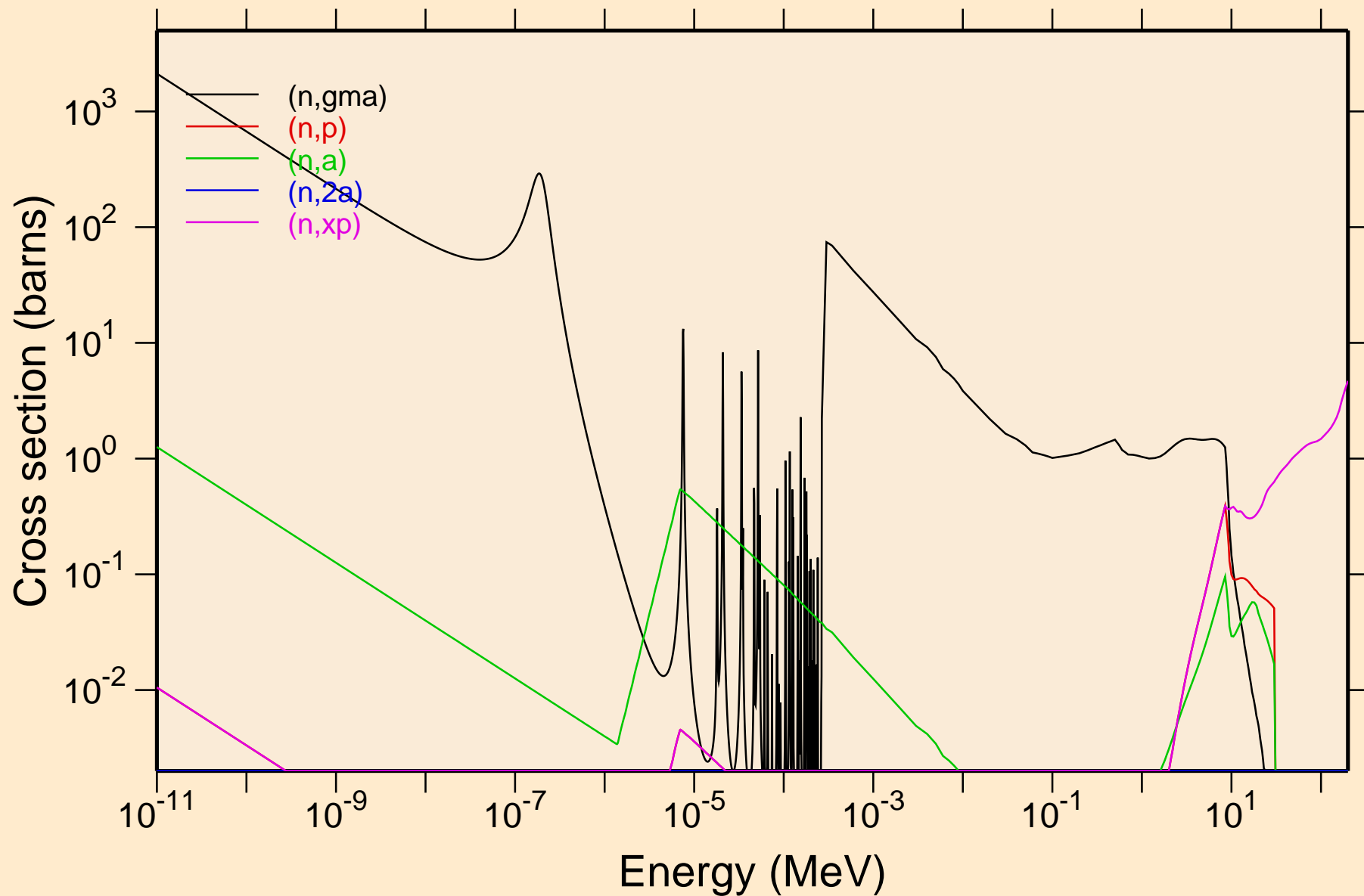
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Heating



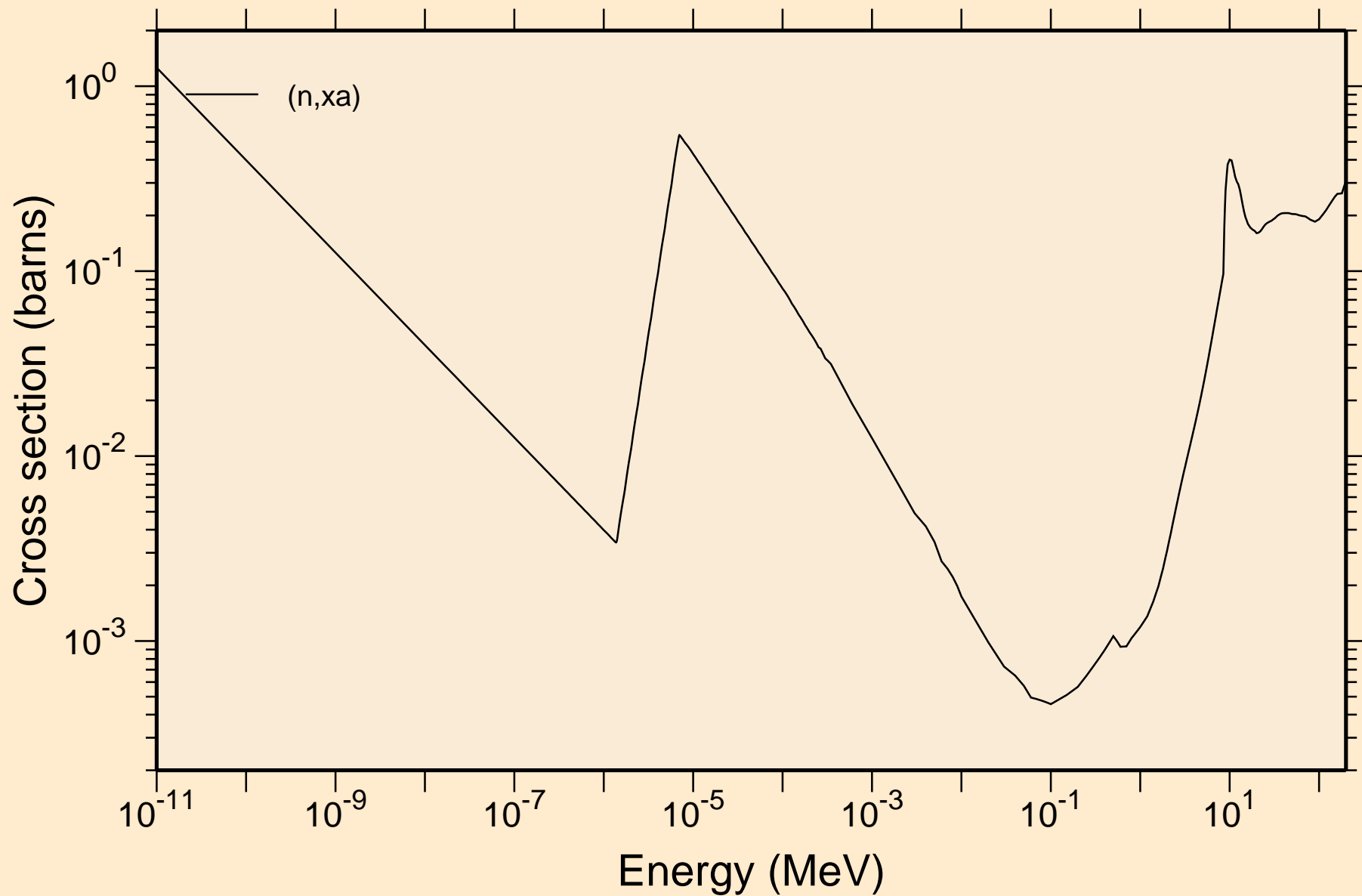
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Damage



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Non-threshold reactions

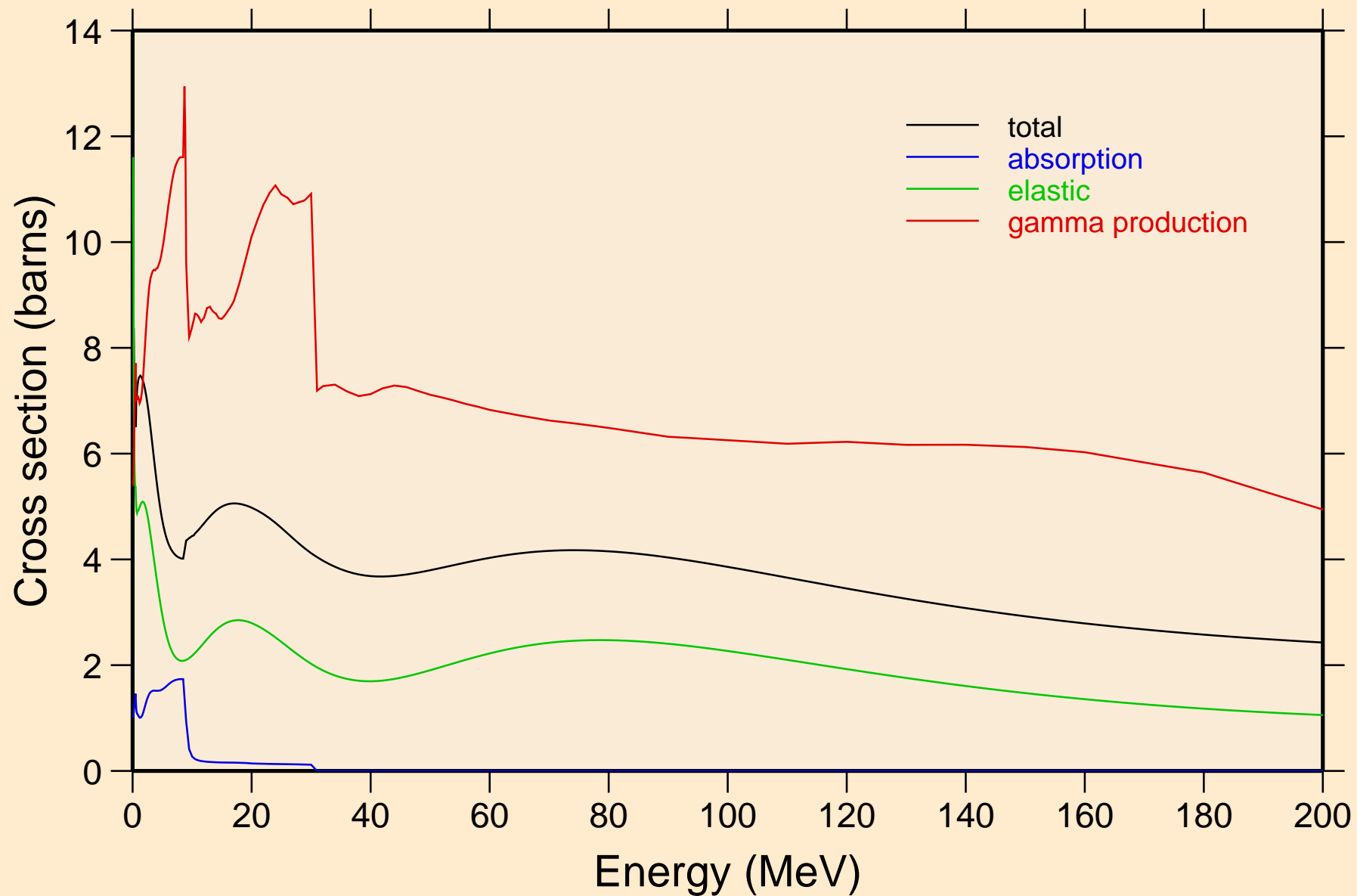


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Non-threshold reactions



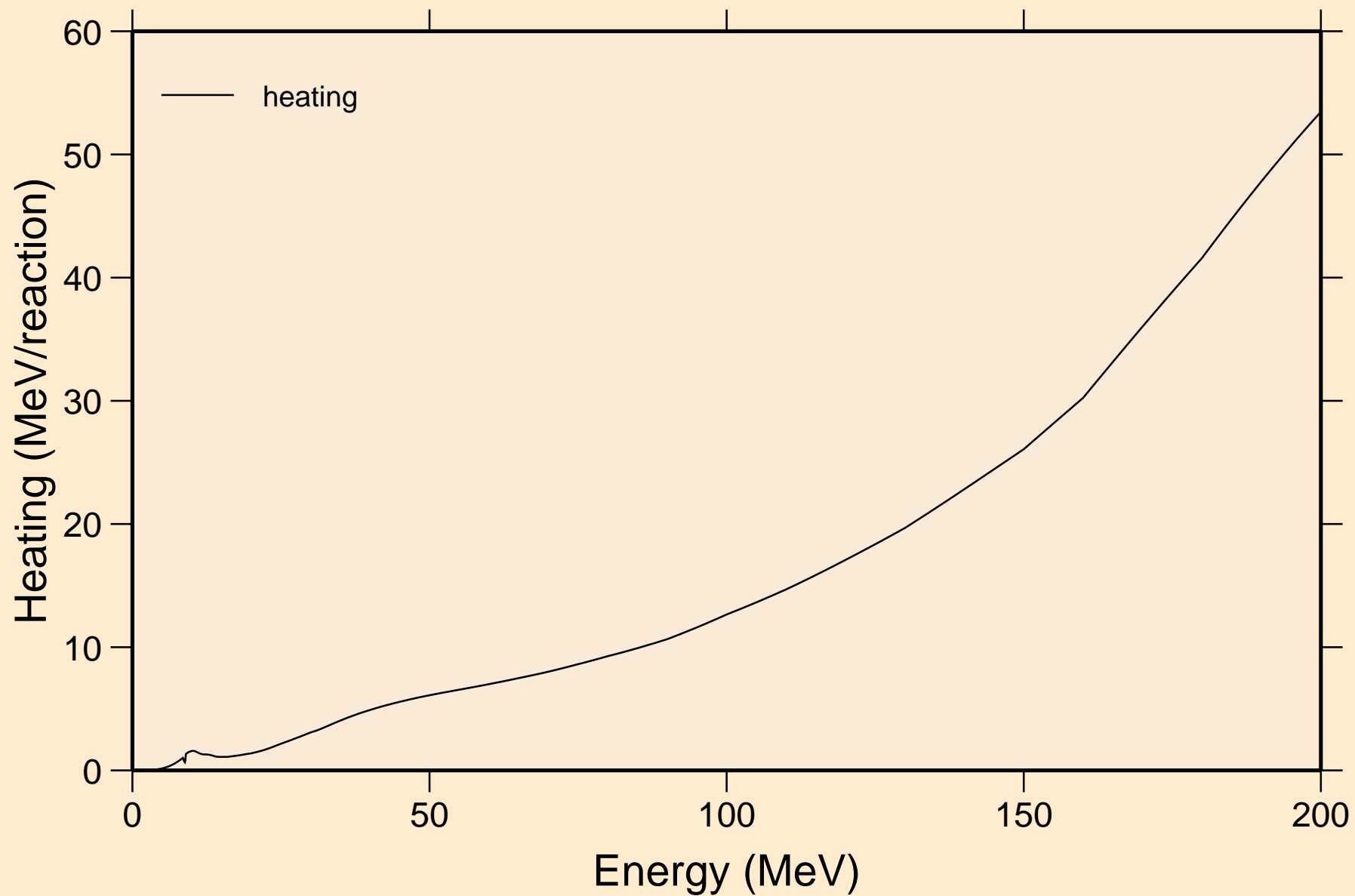
# ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

## Principal cross sections

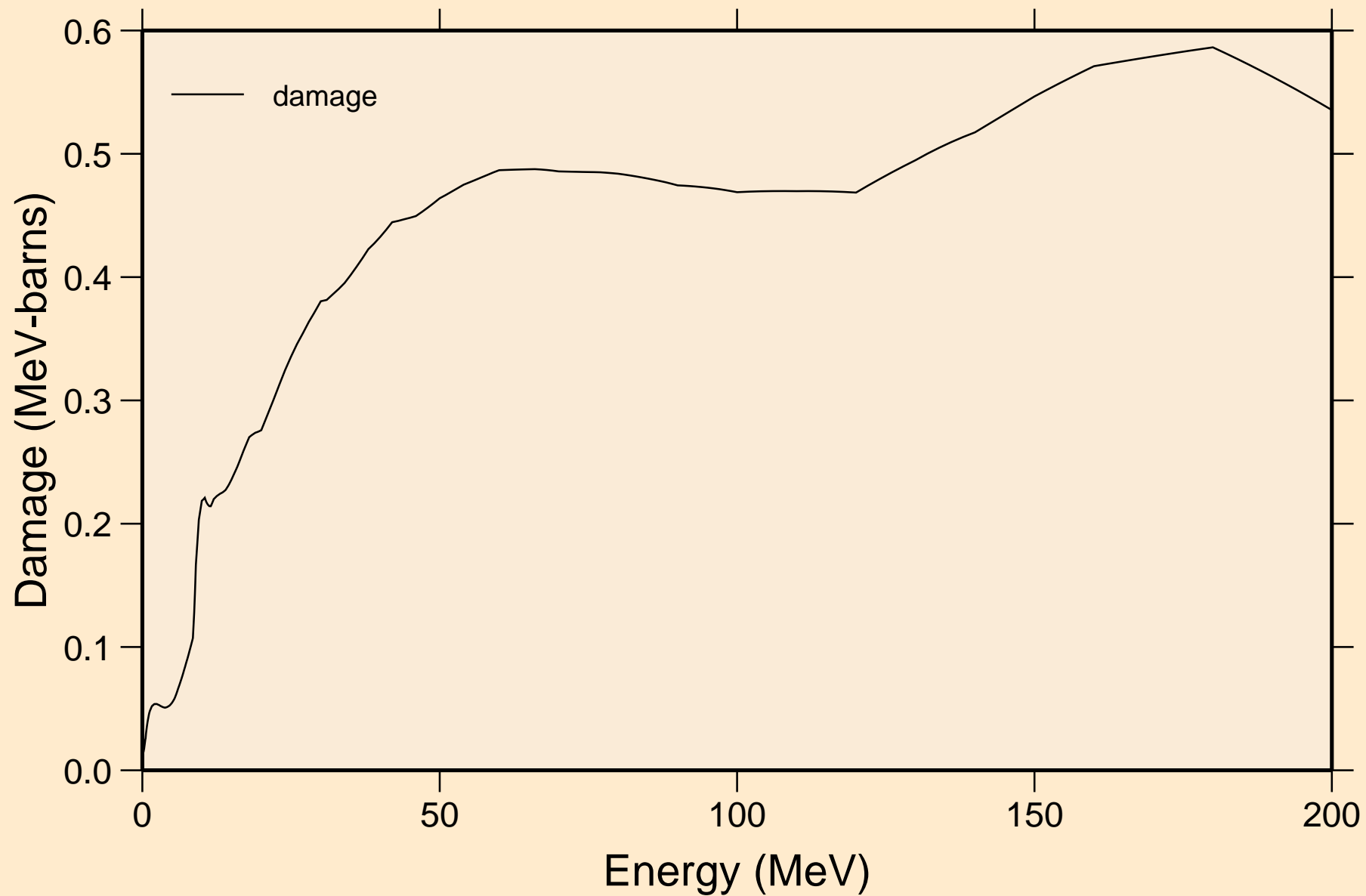




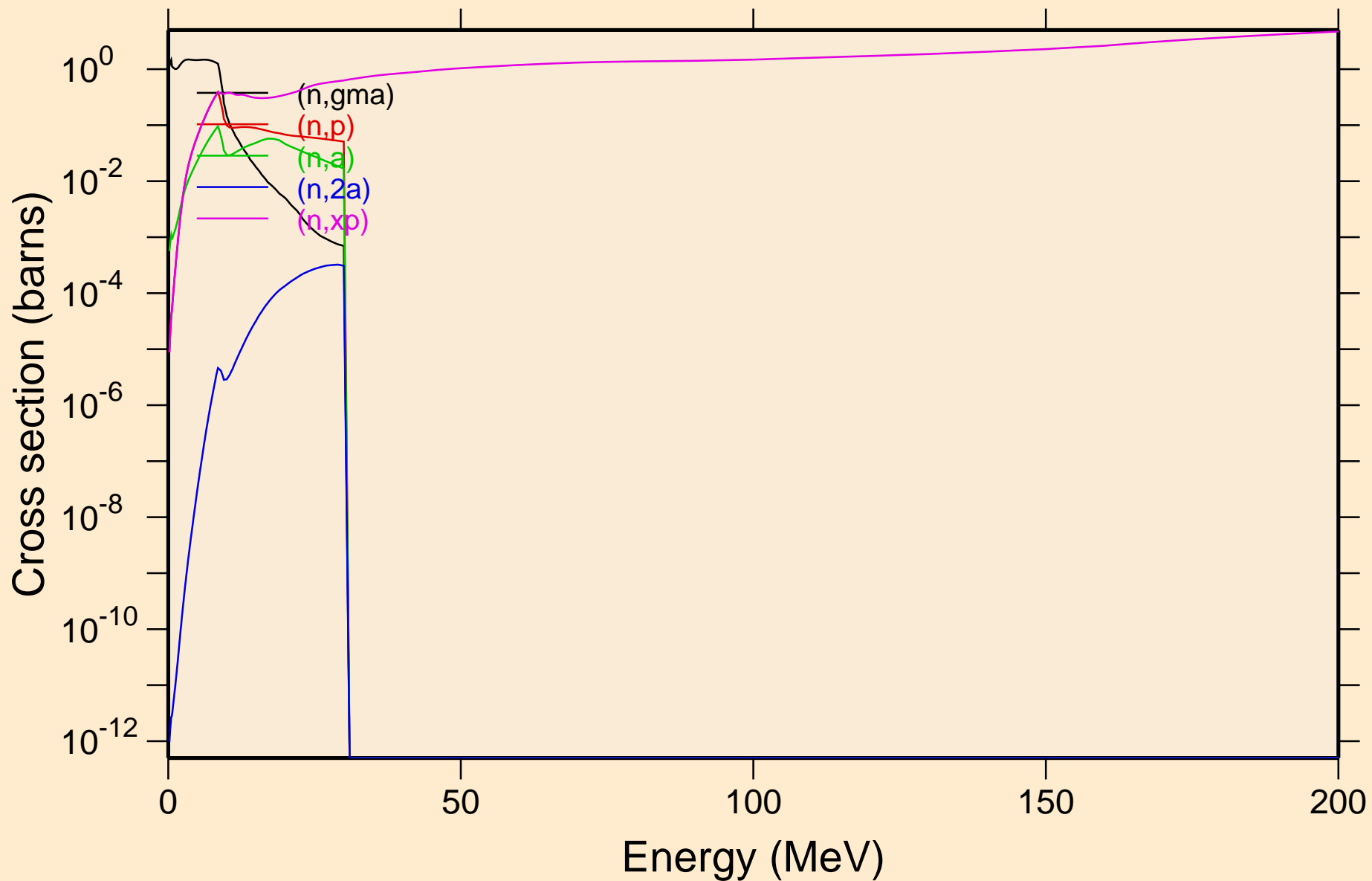
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Heating



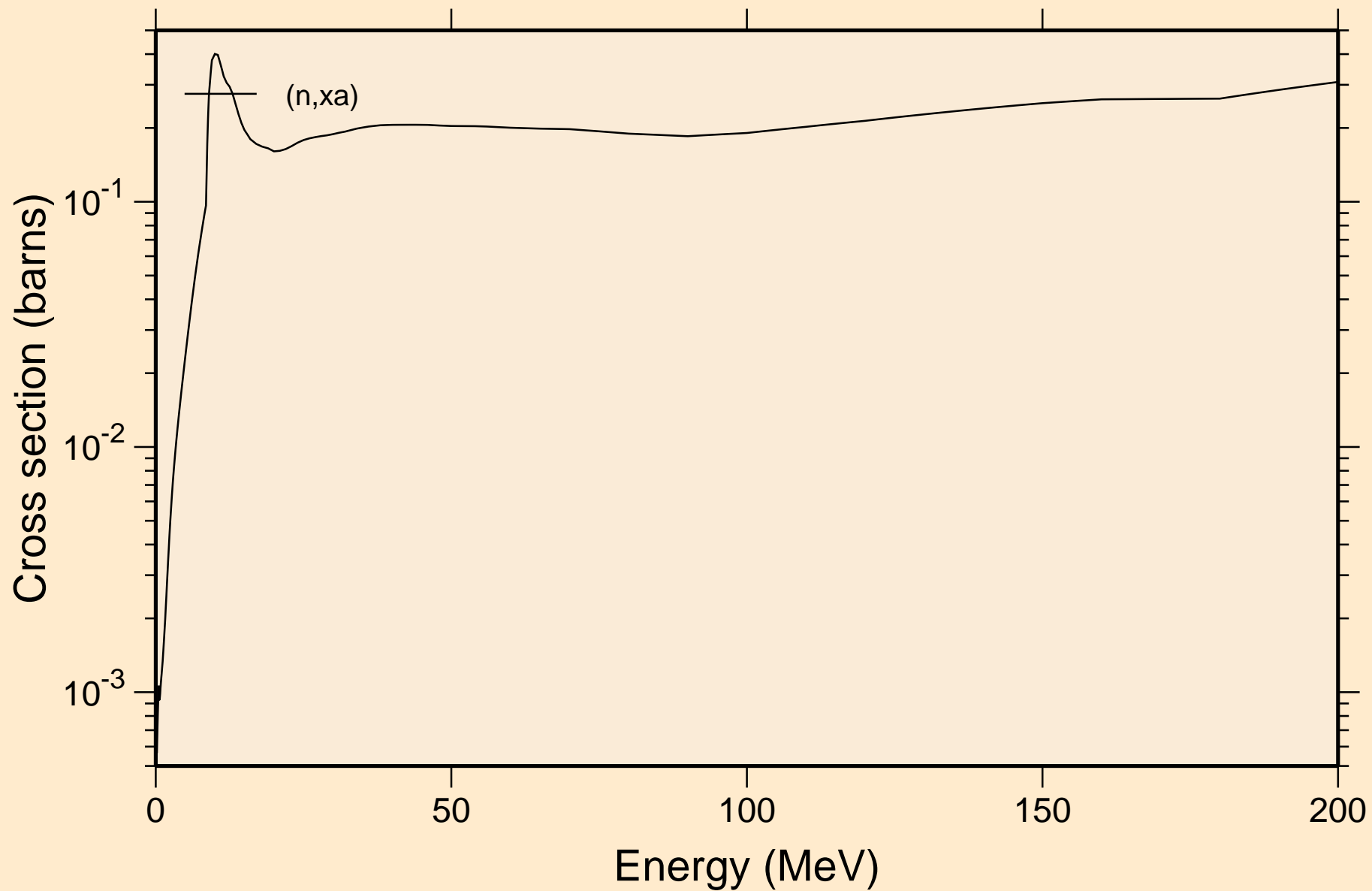
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Damage



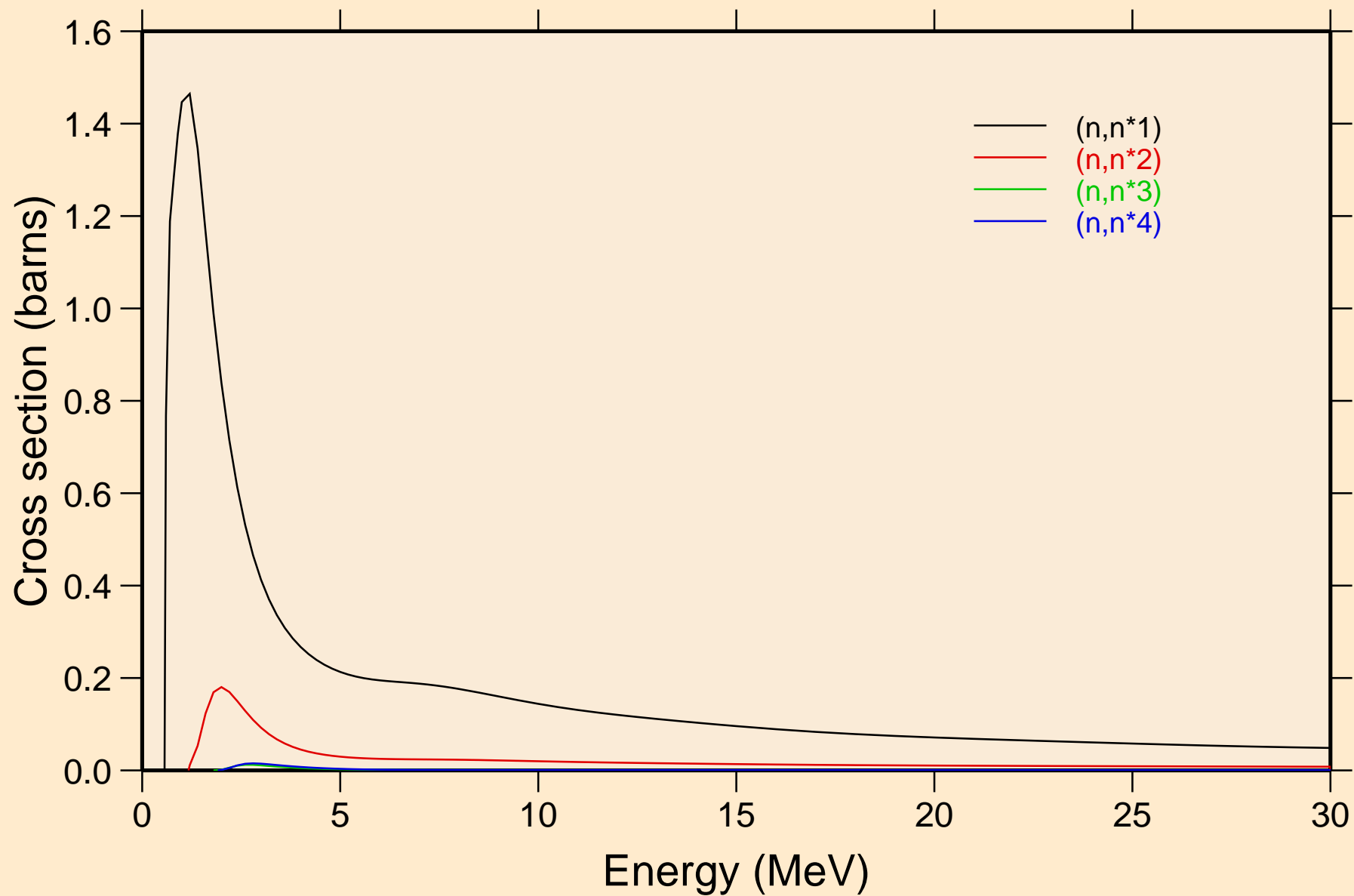
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Non-threshold reactions



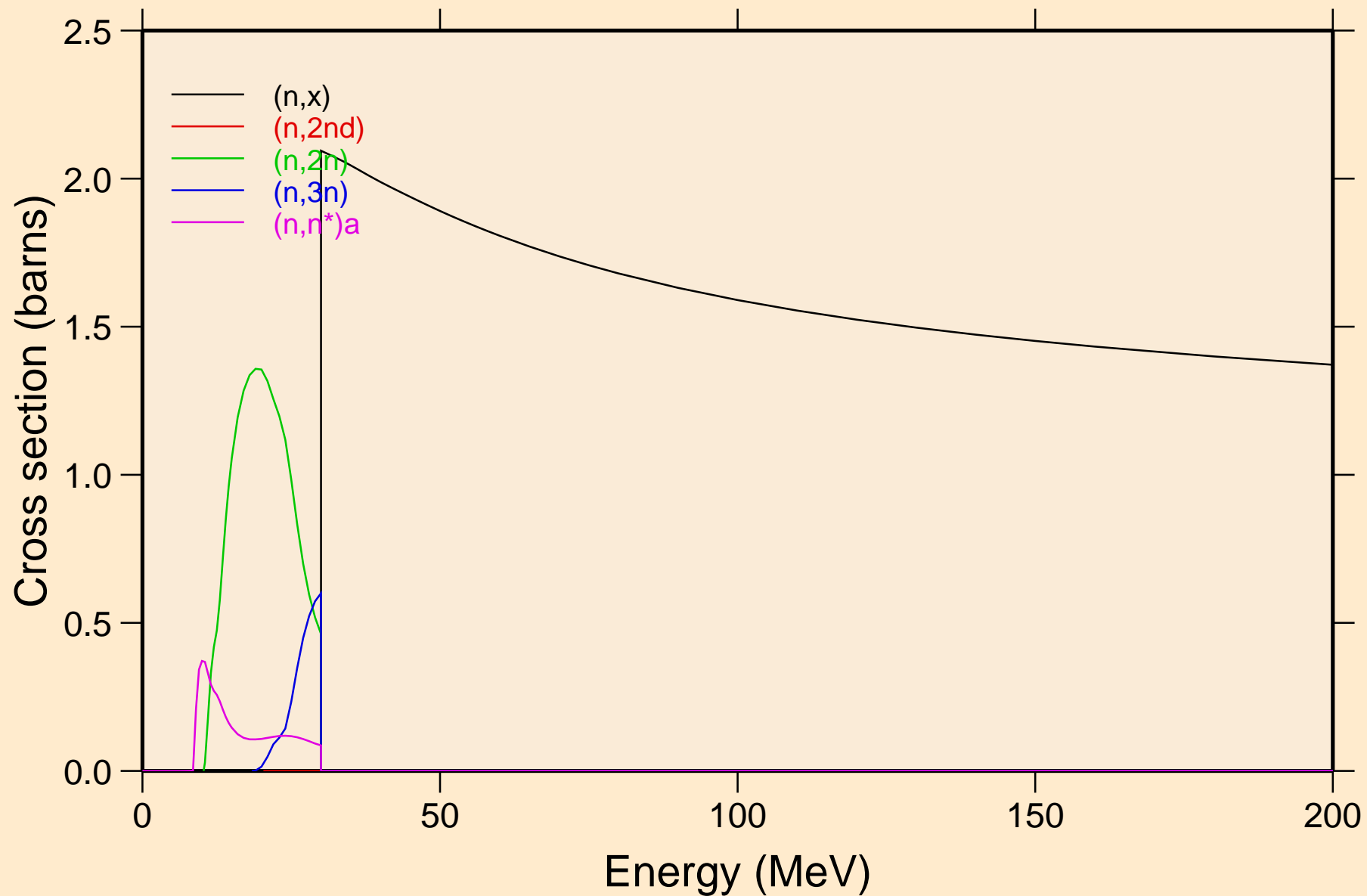
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Non-threshold reactions



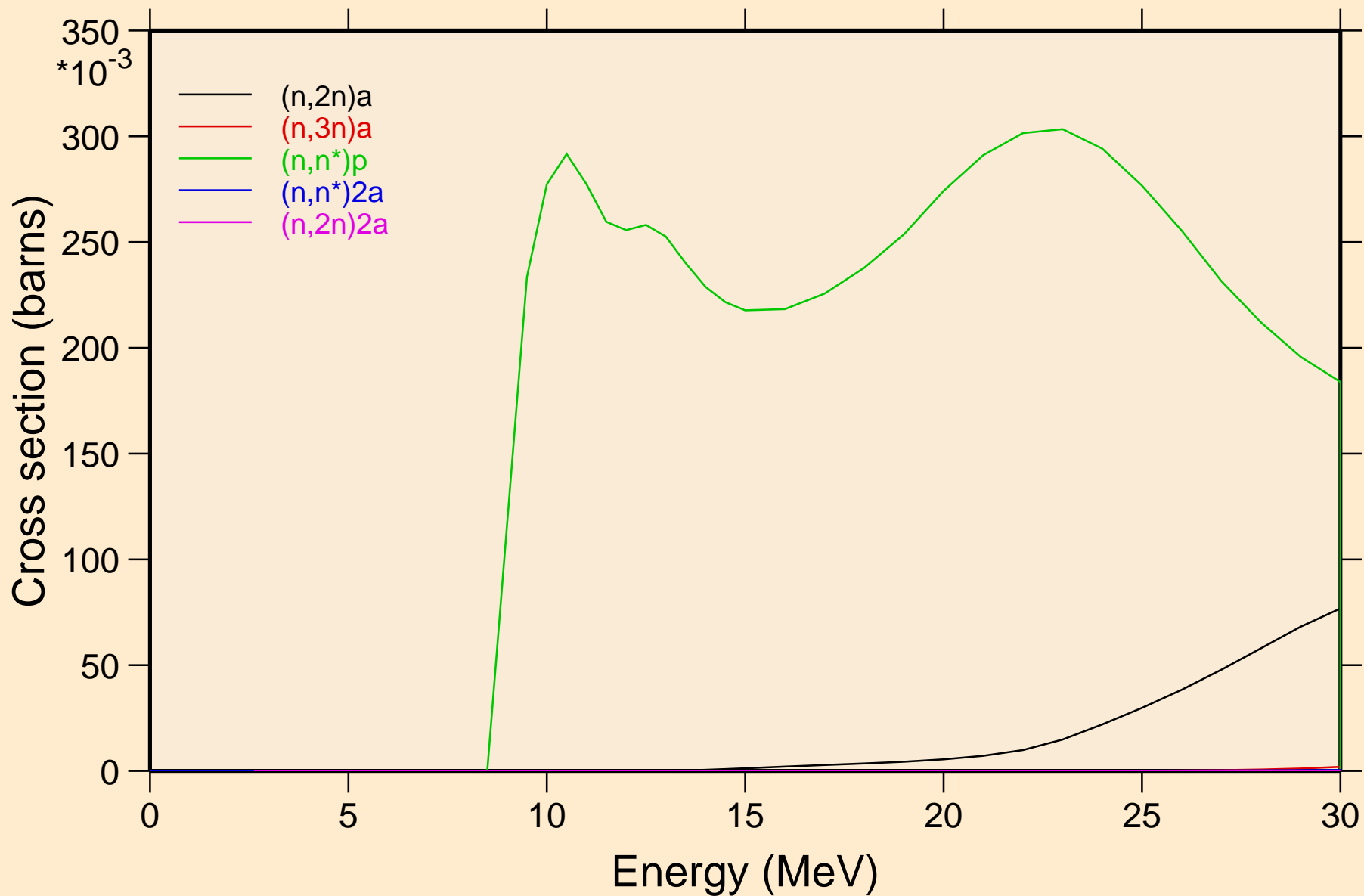
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Inelastic levels



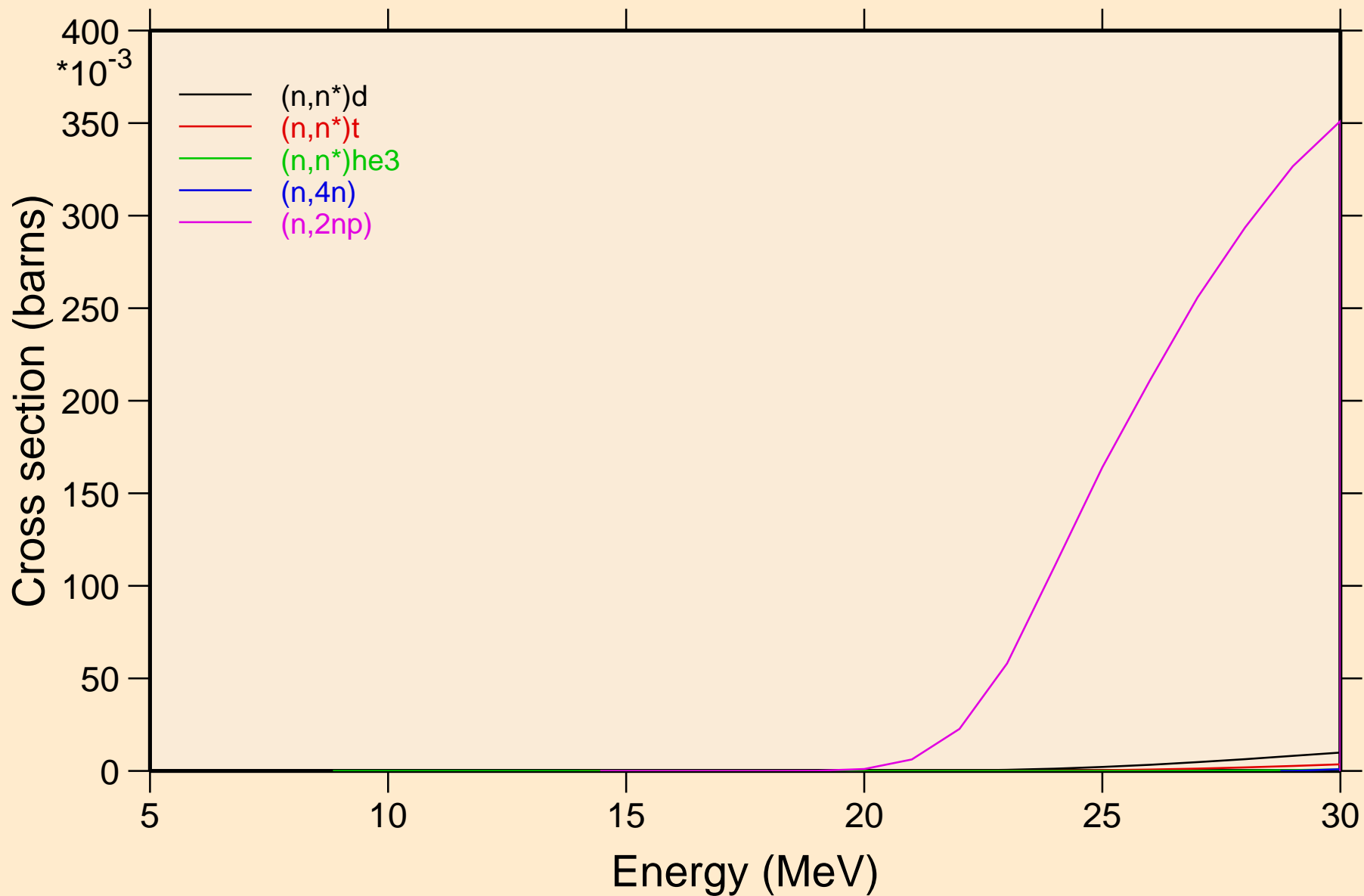
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions

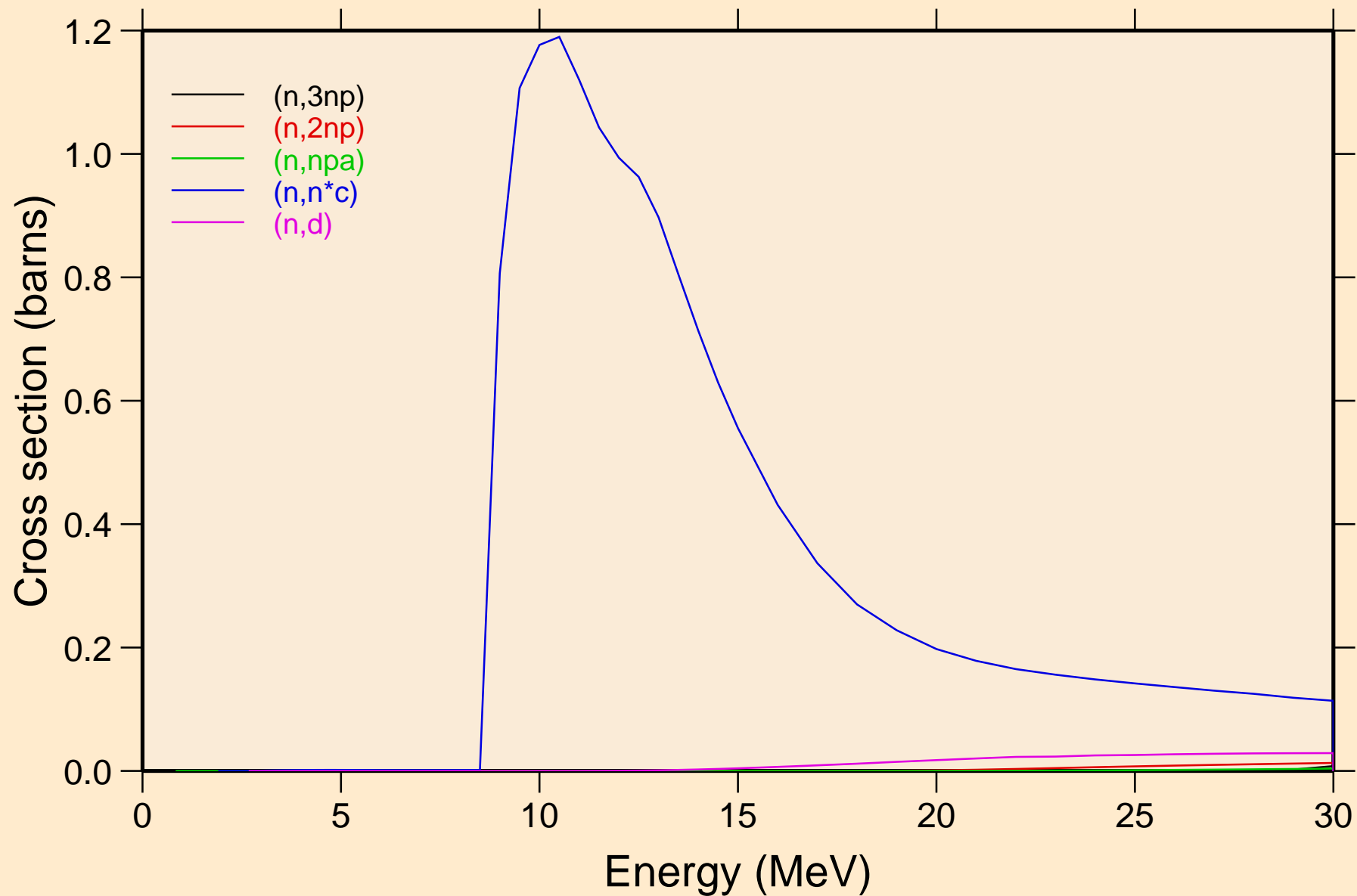


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions

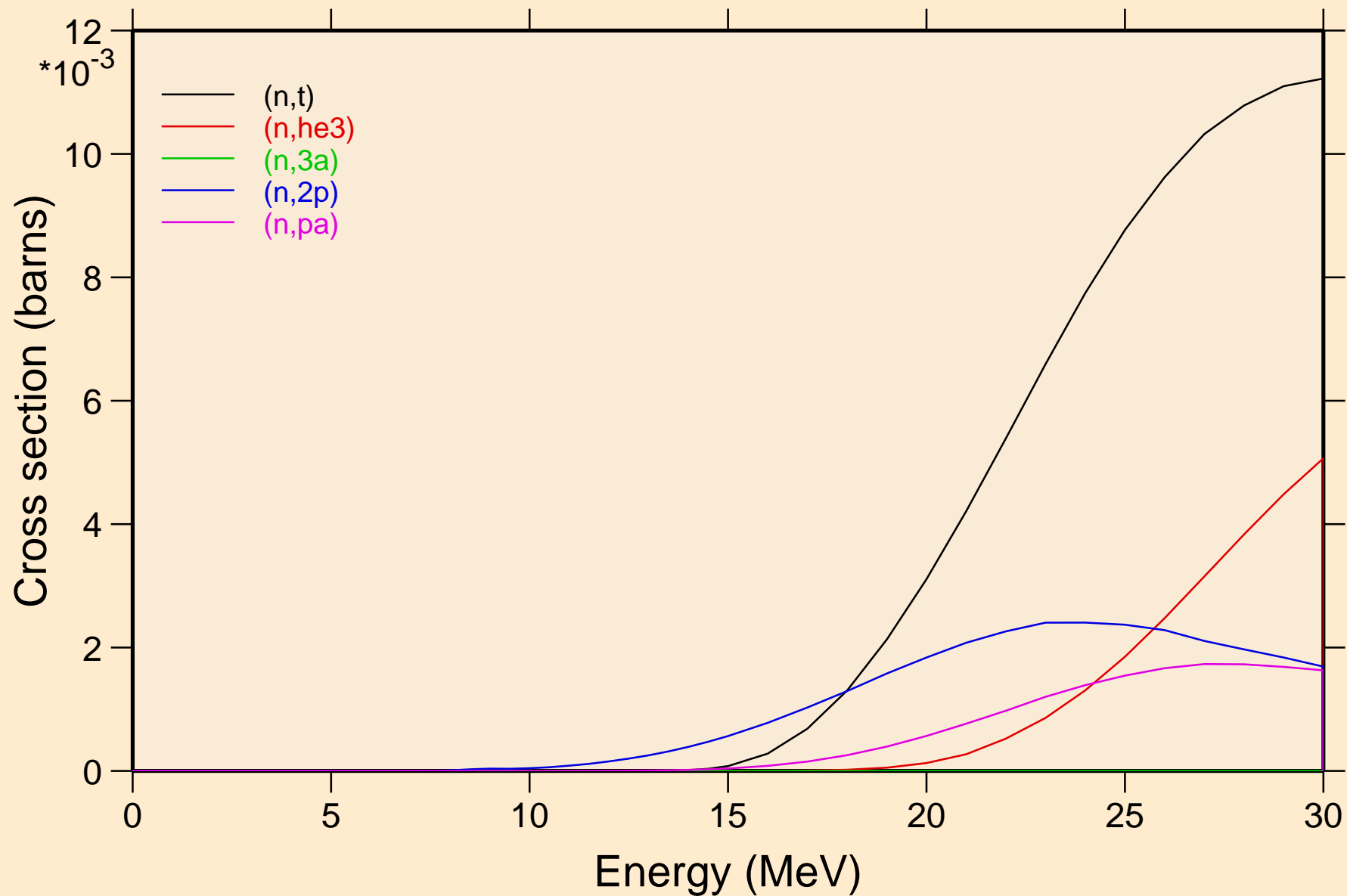




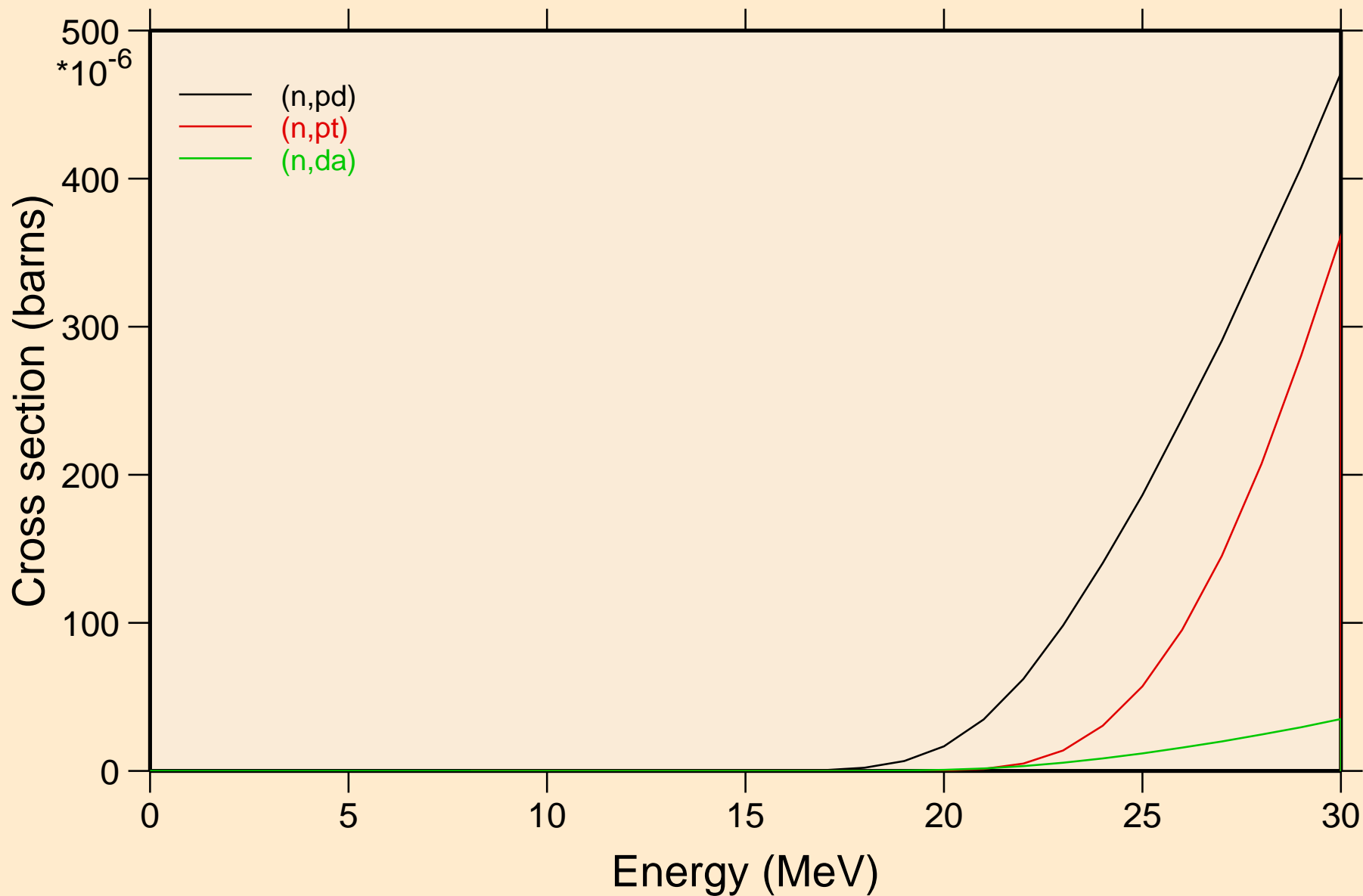
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



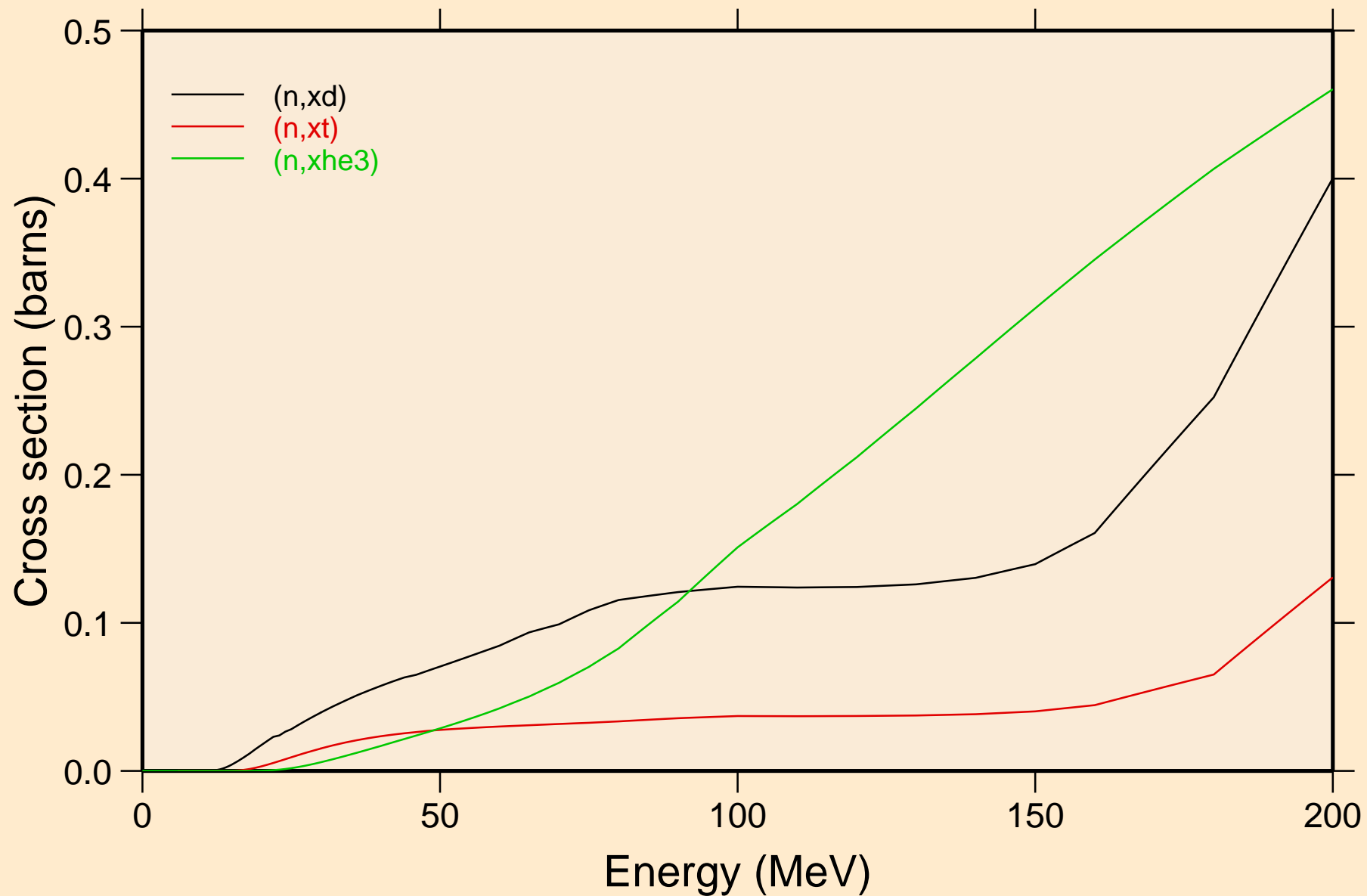
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



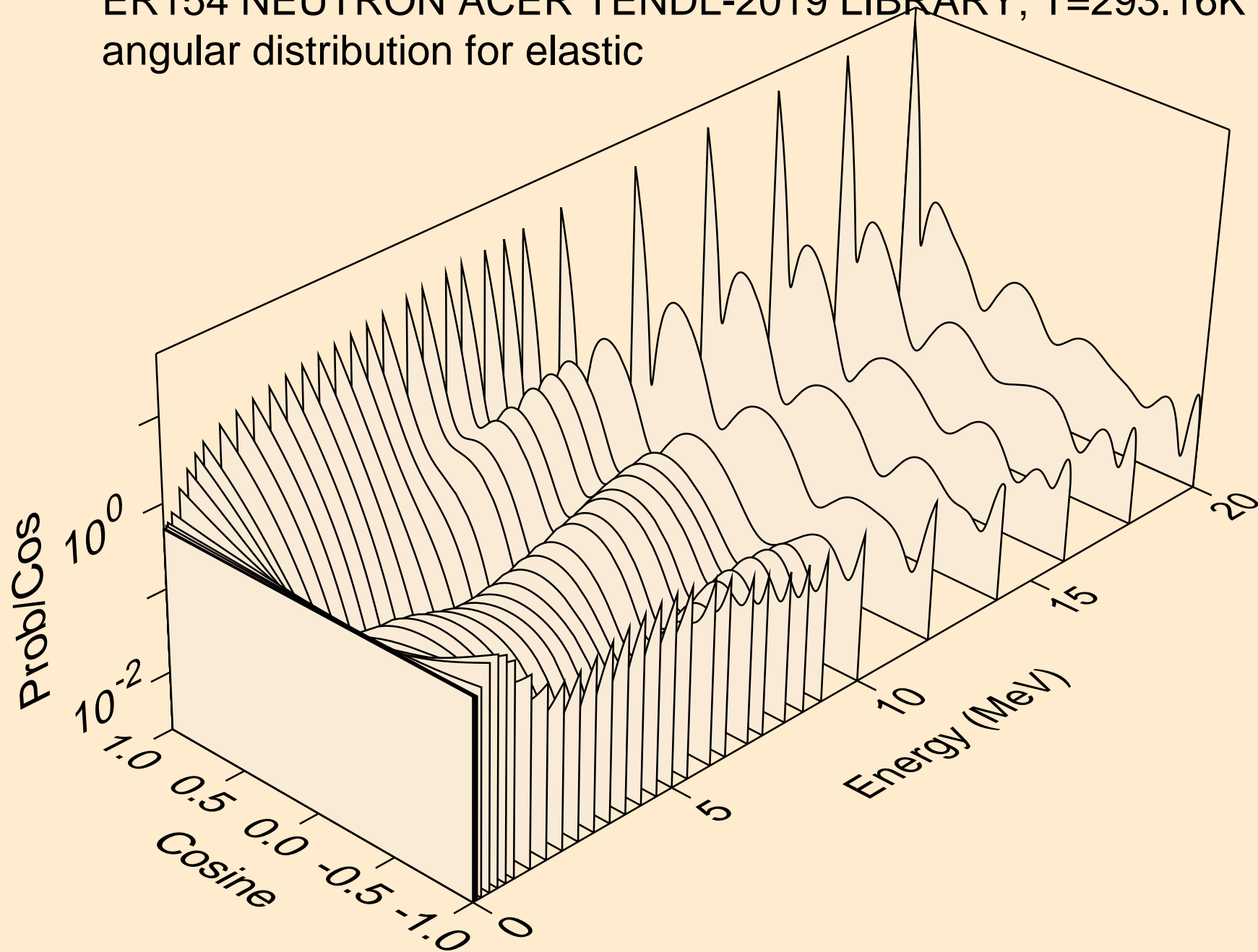
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



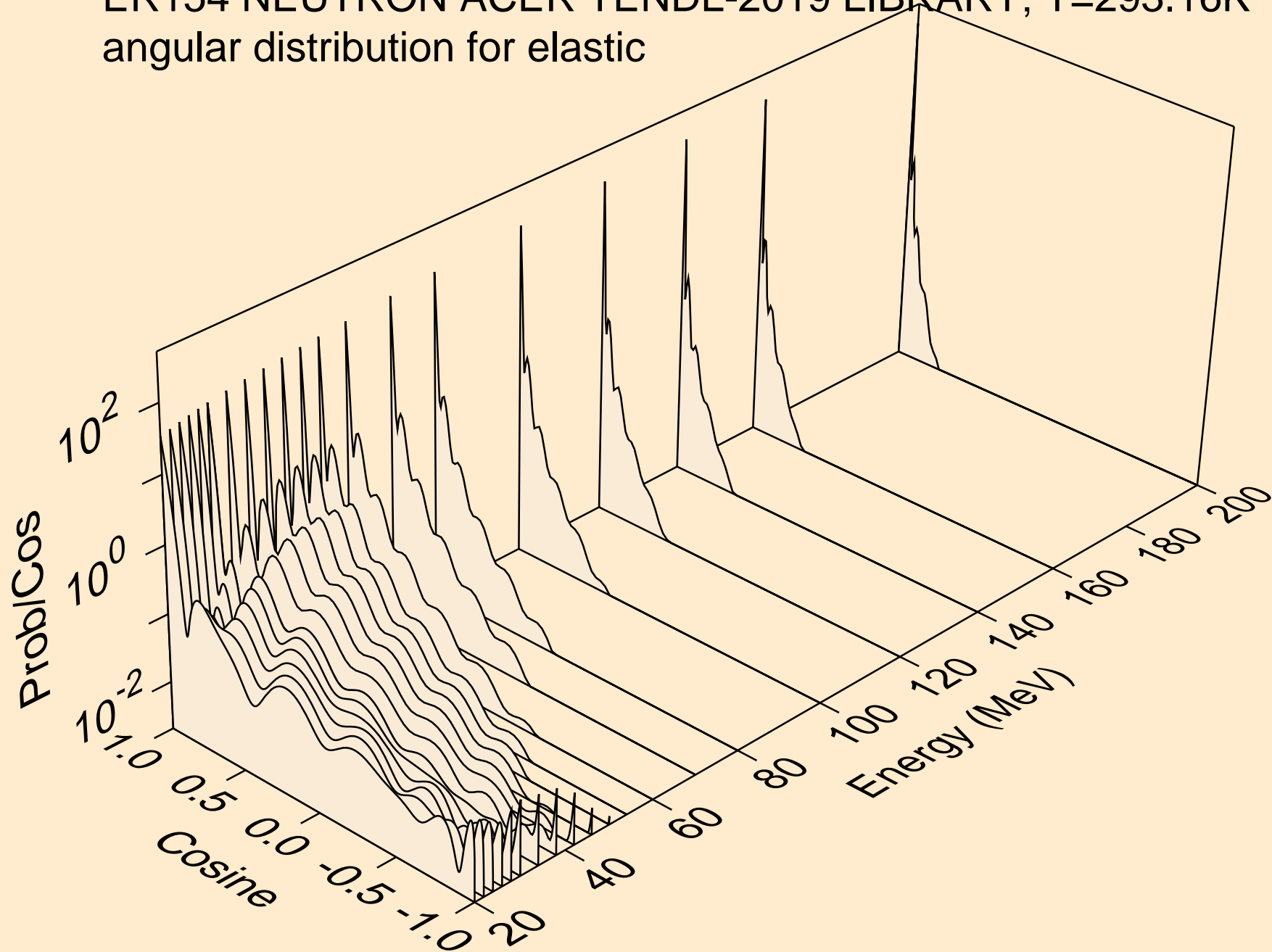
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Threshold reactions



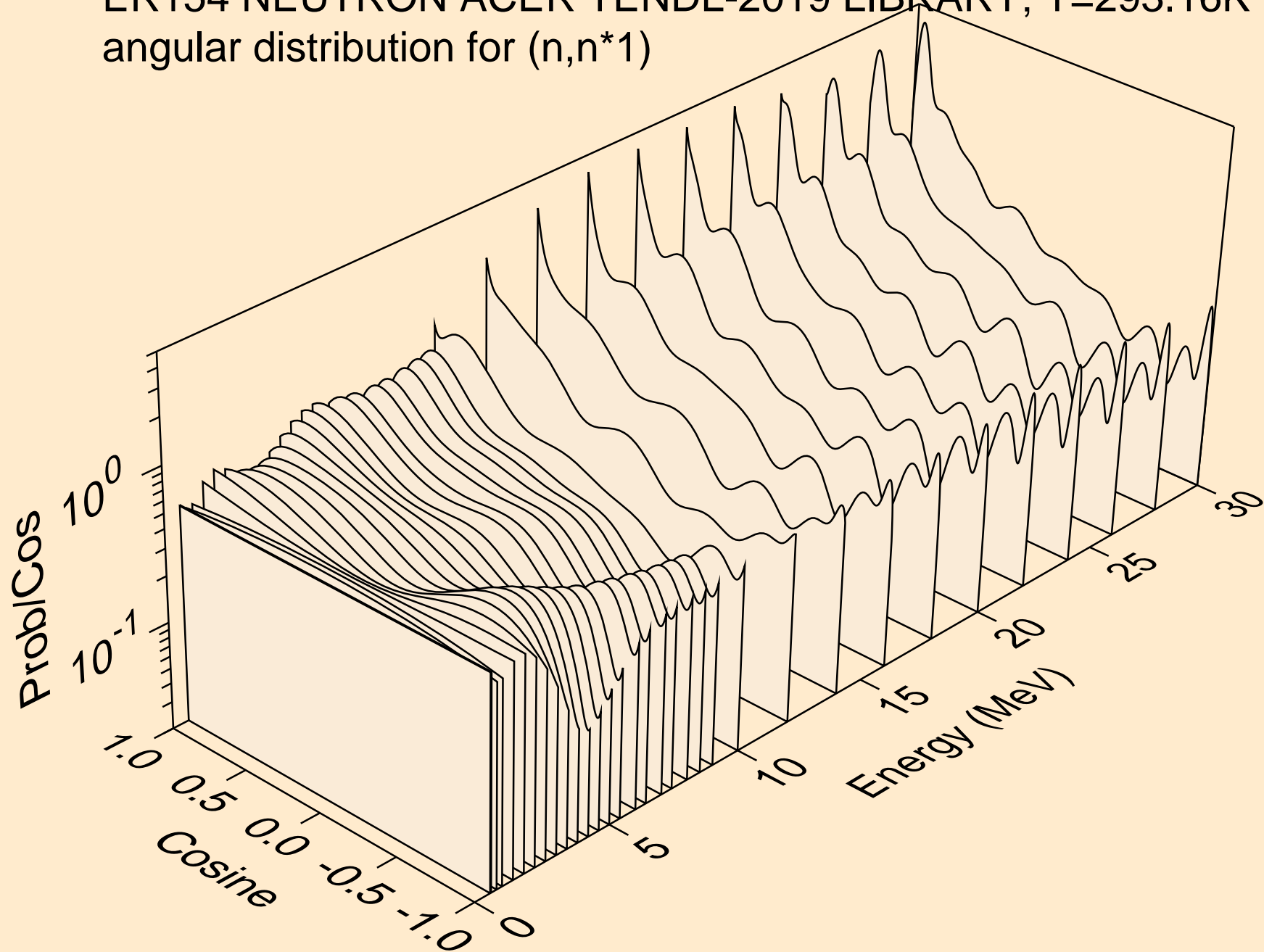
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for elastic



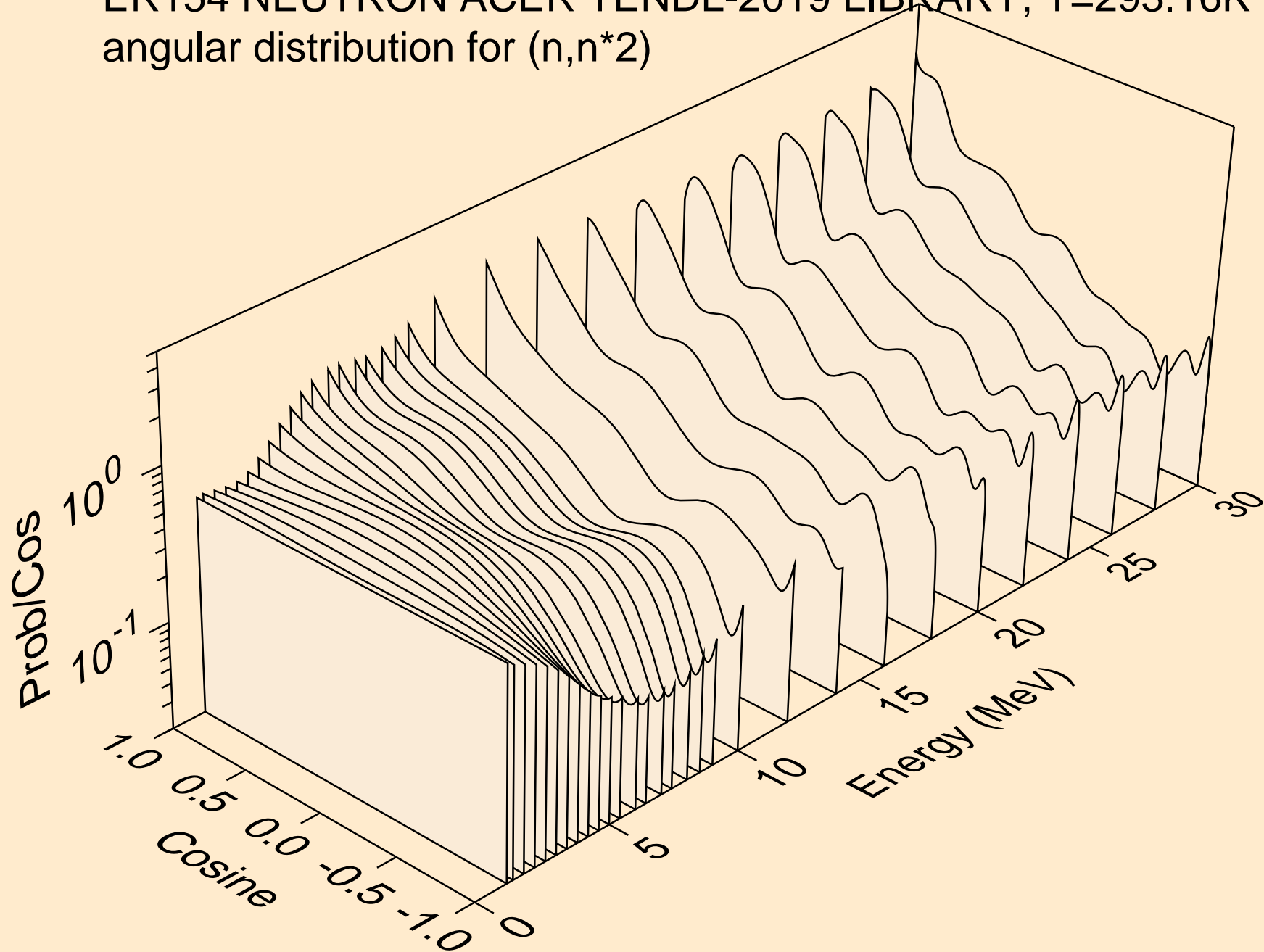
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for elastic



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*1)

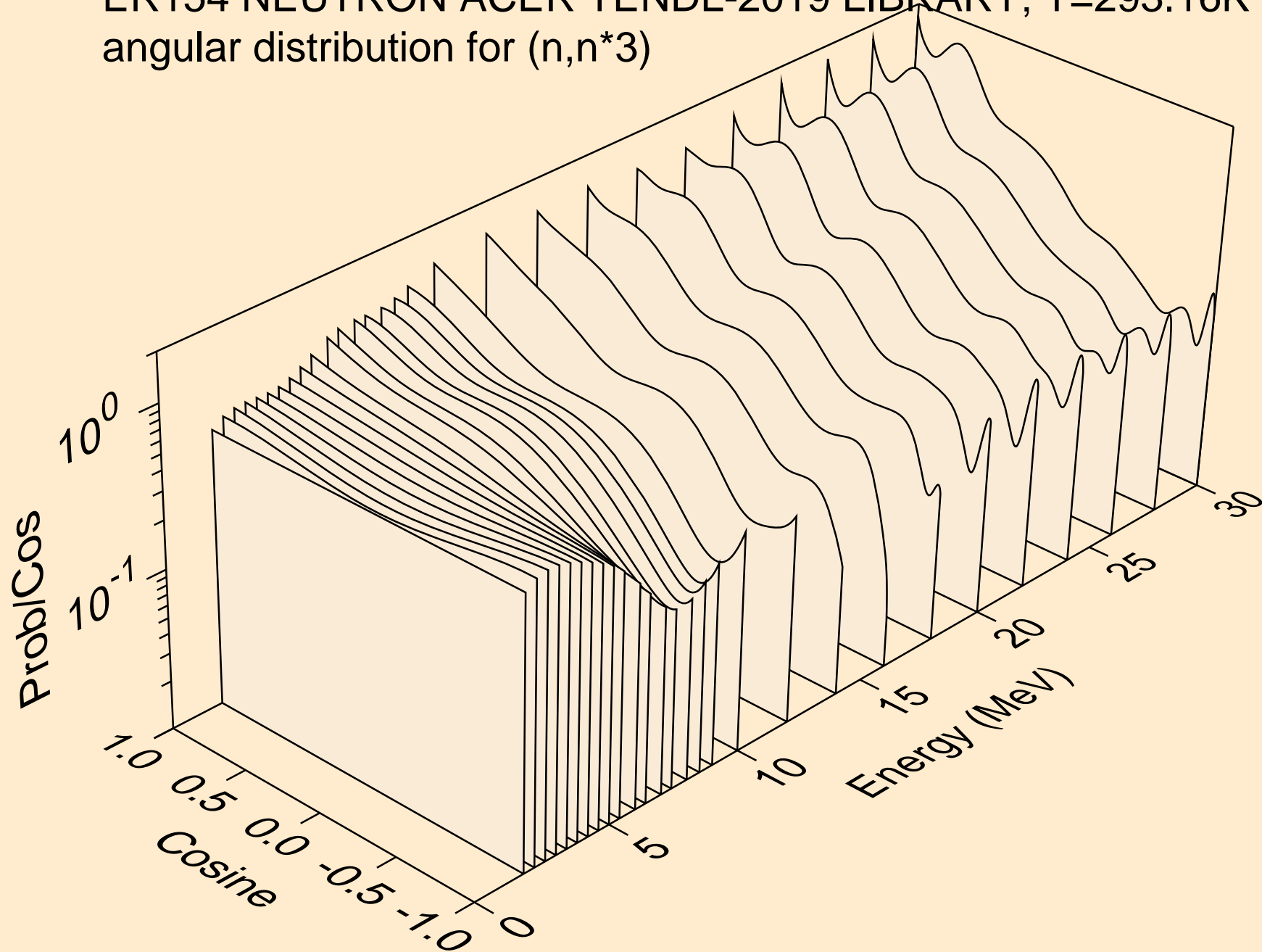


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*2)

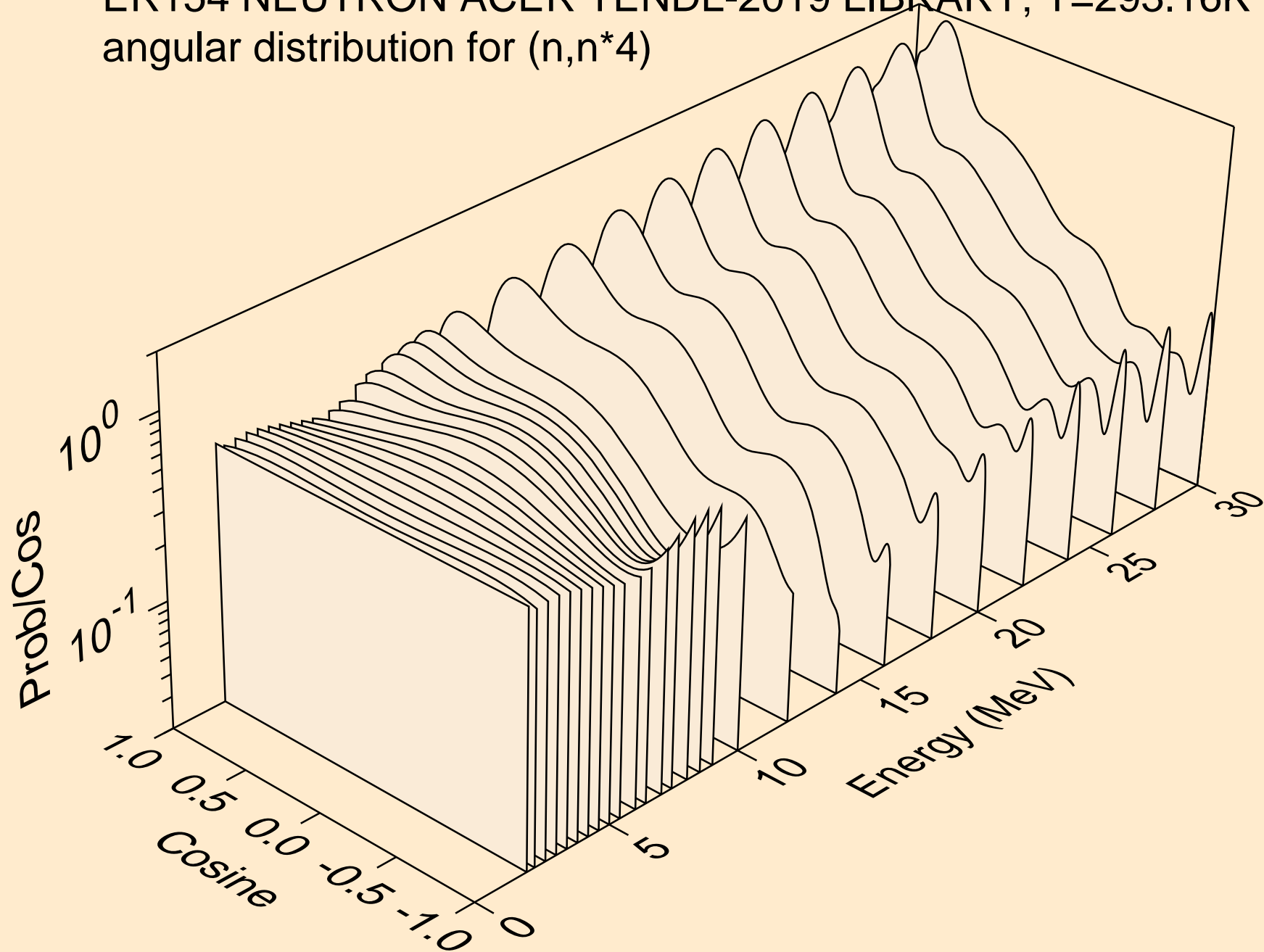




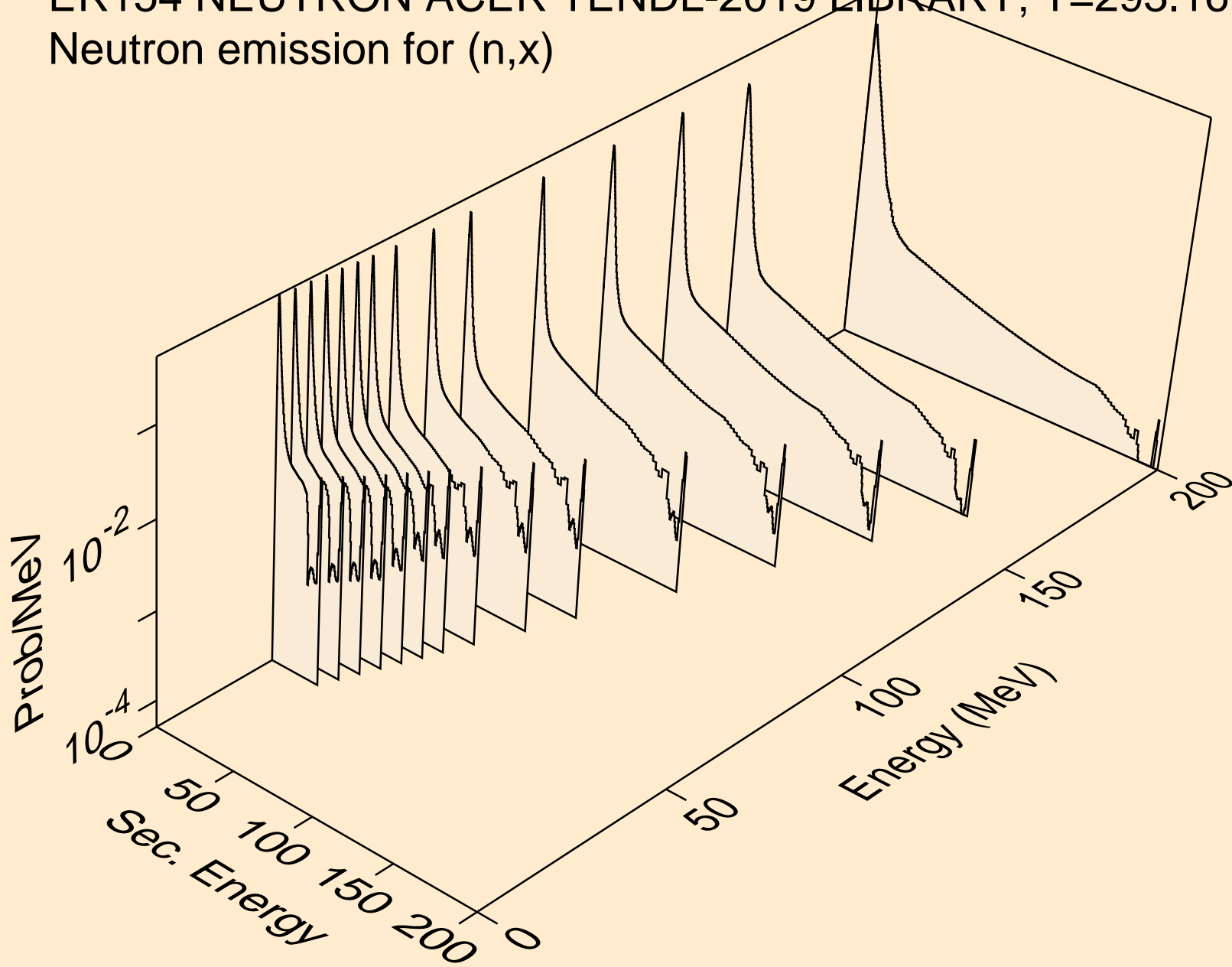
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*3)



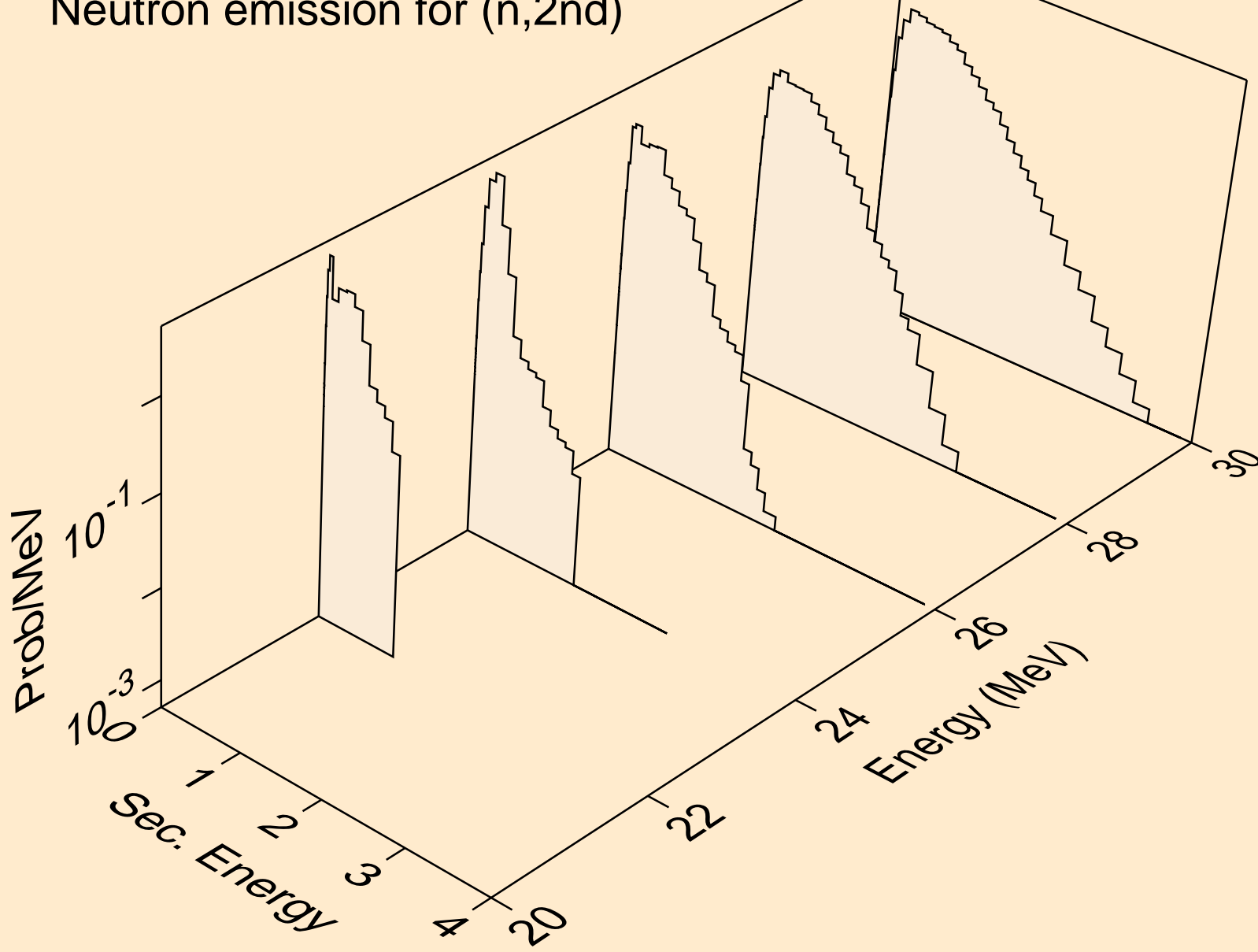
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
angular distribution for (n,n\*4)



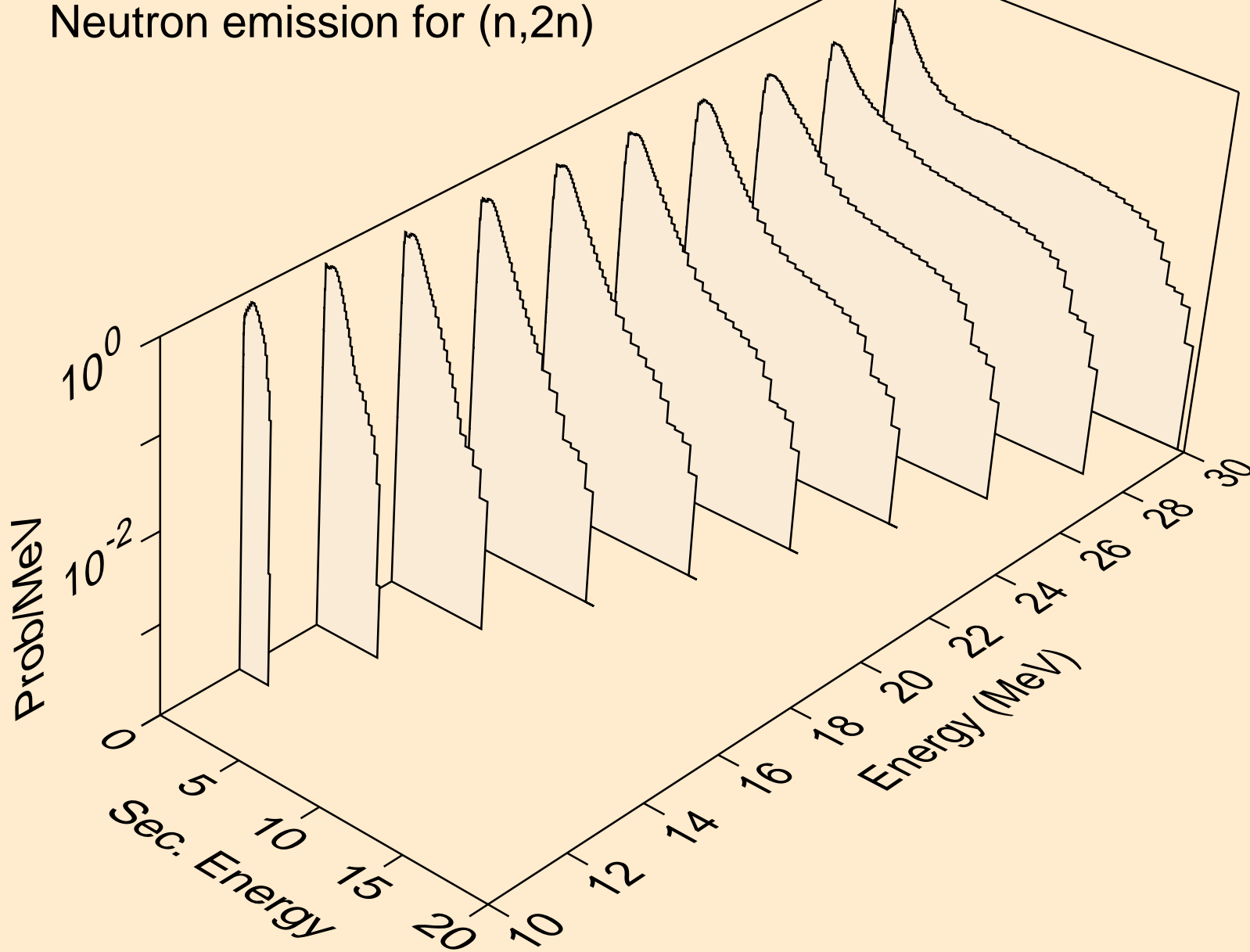
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,x)



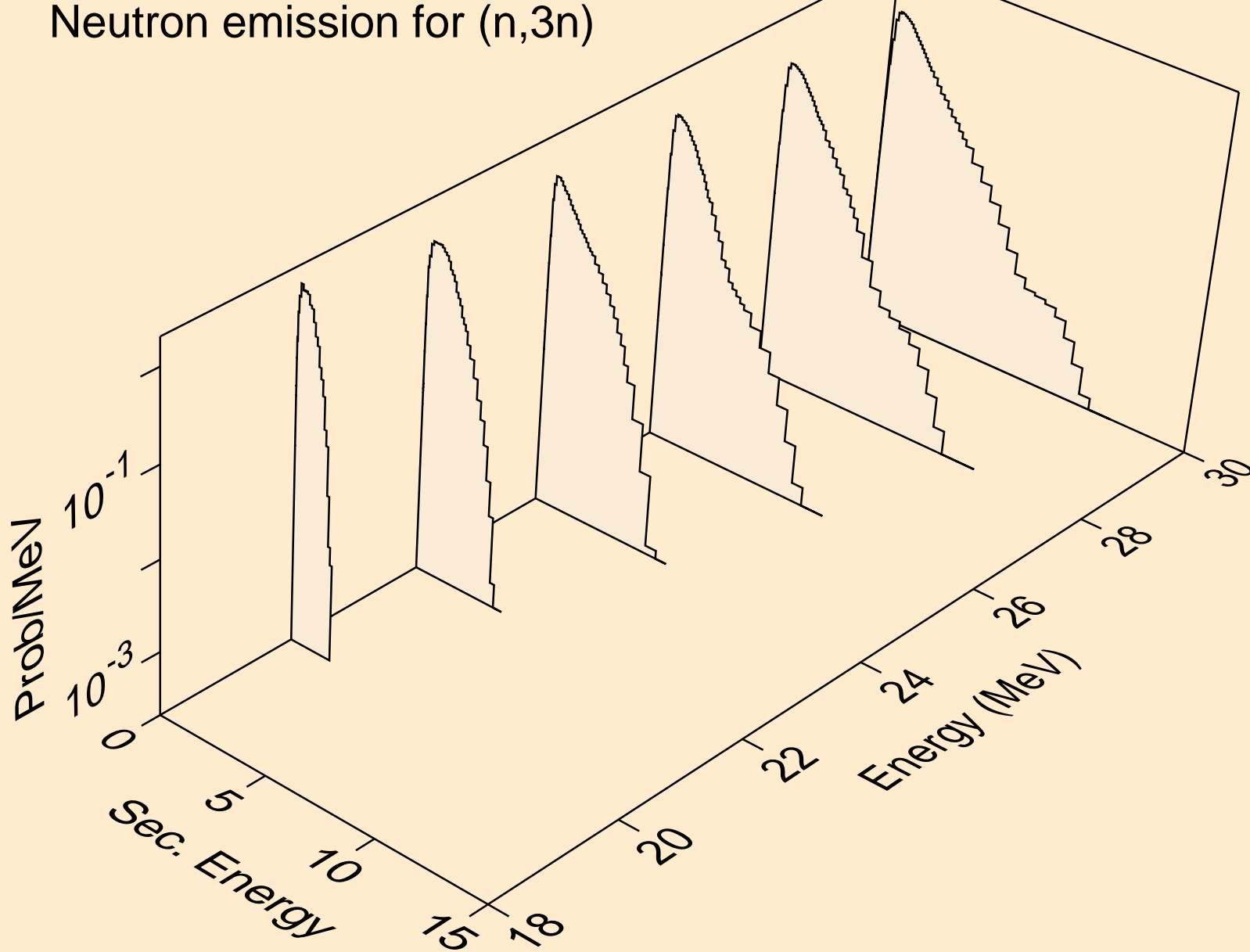
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2nd)



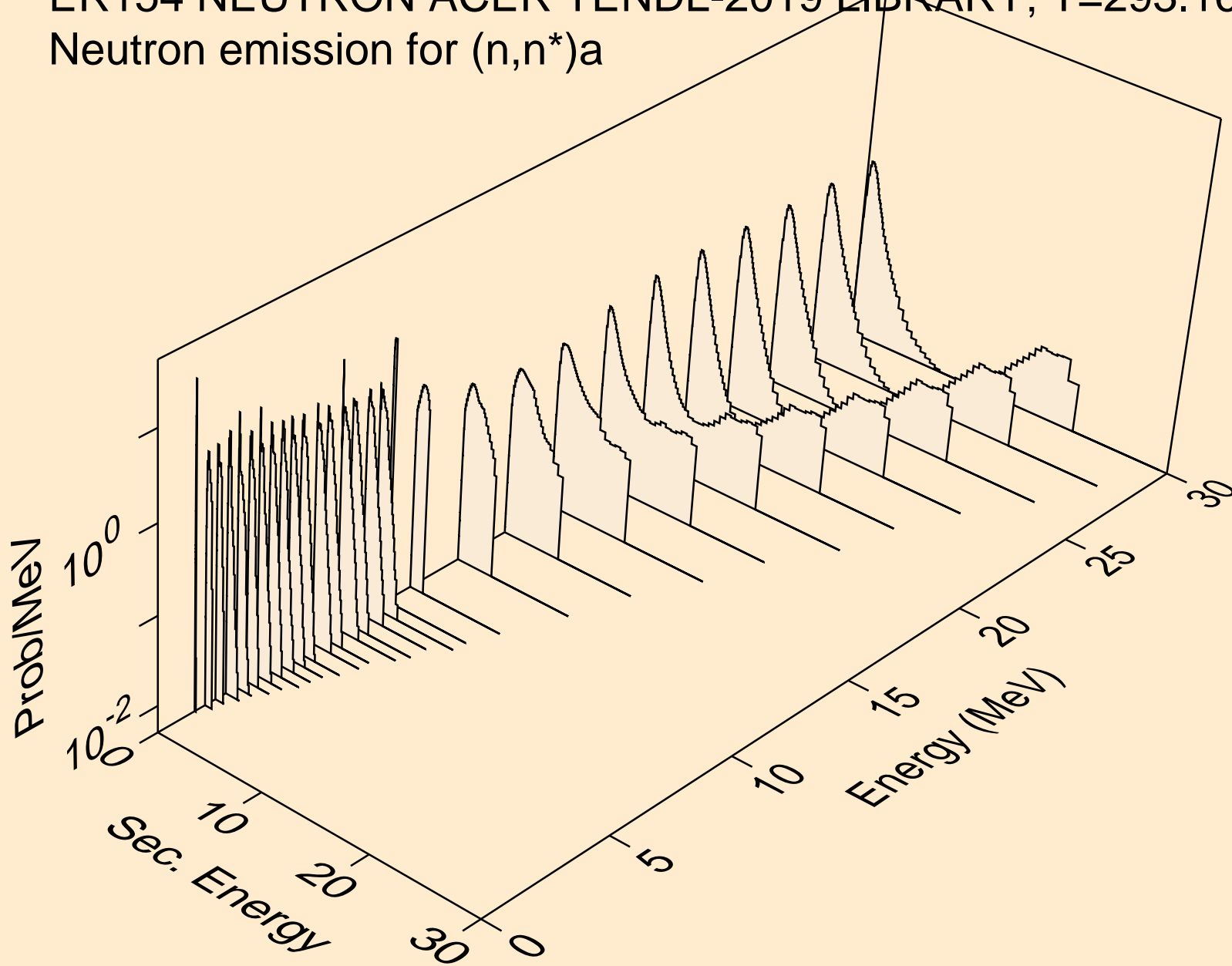
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2n)



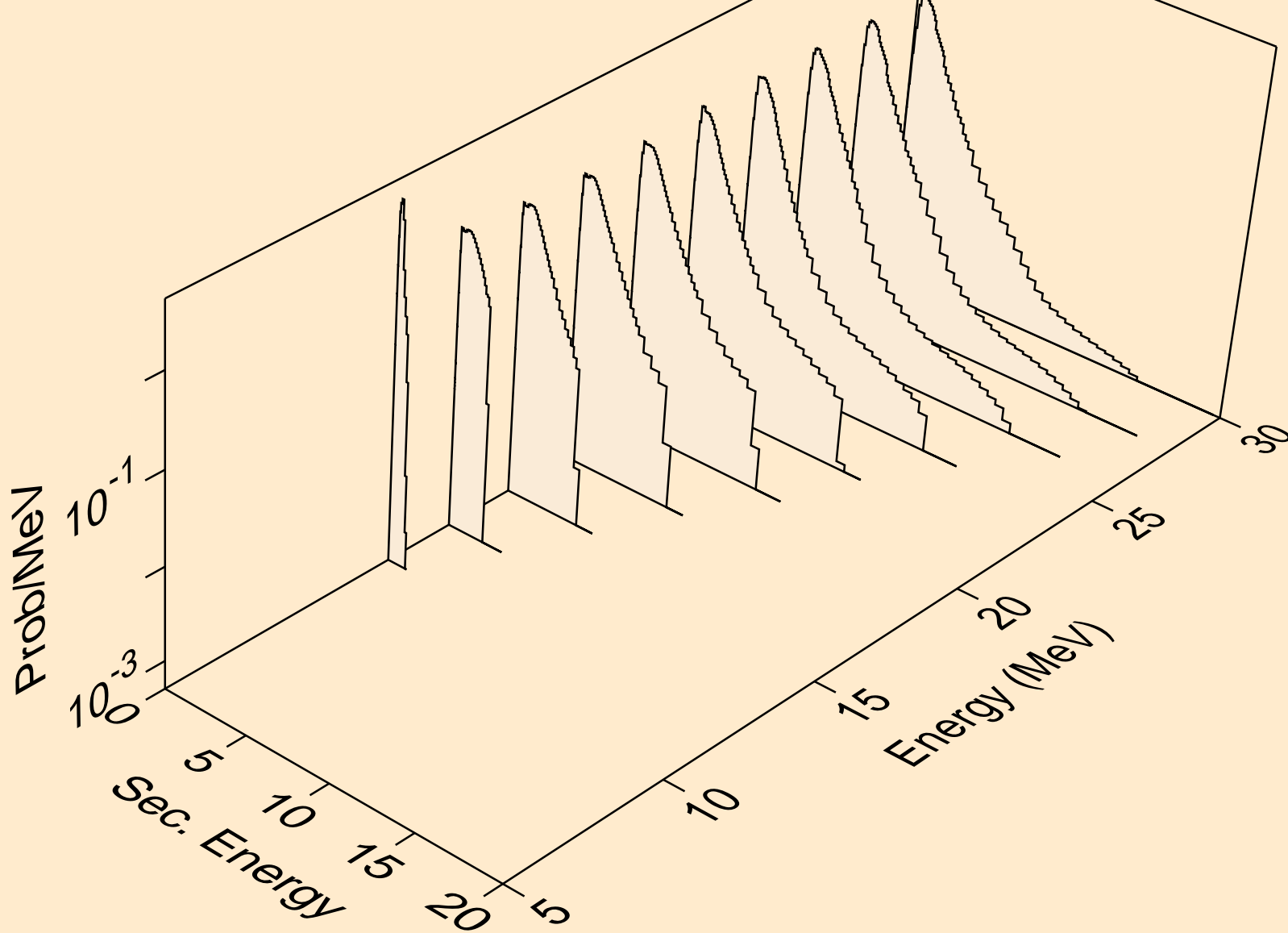
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3n)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)a

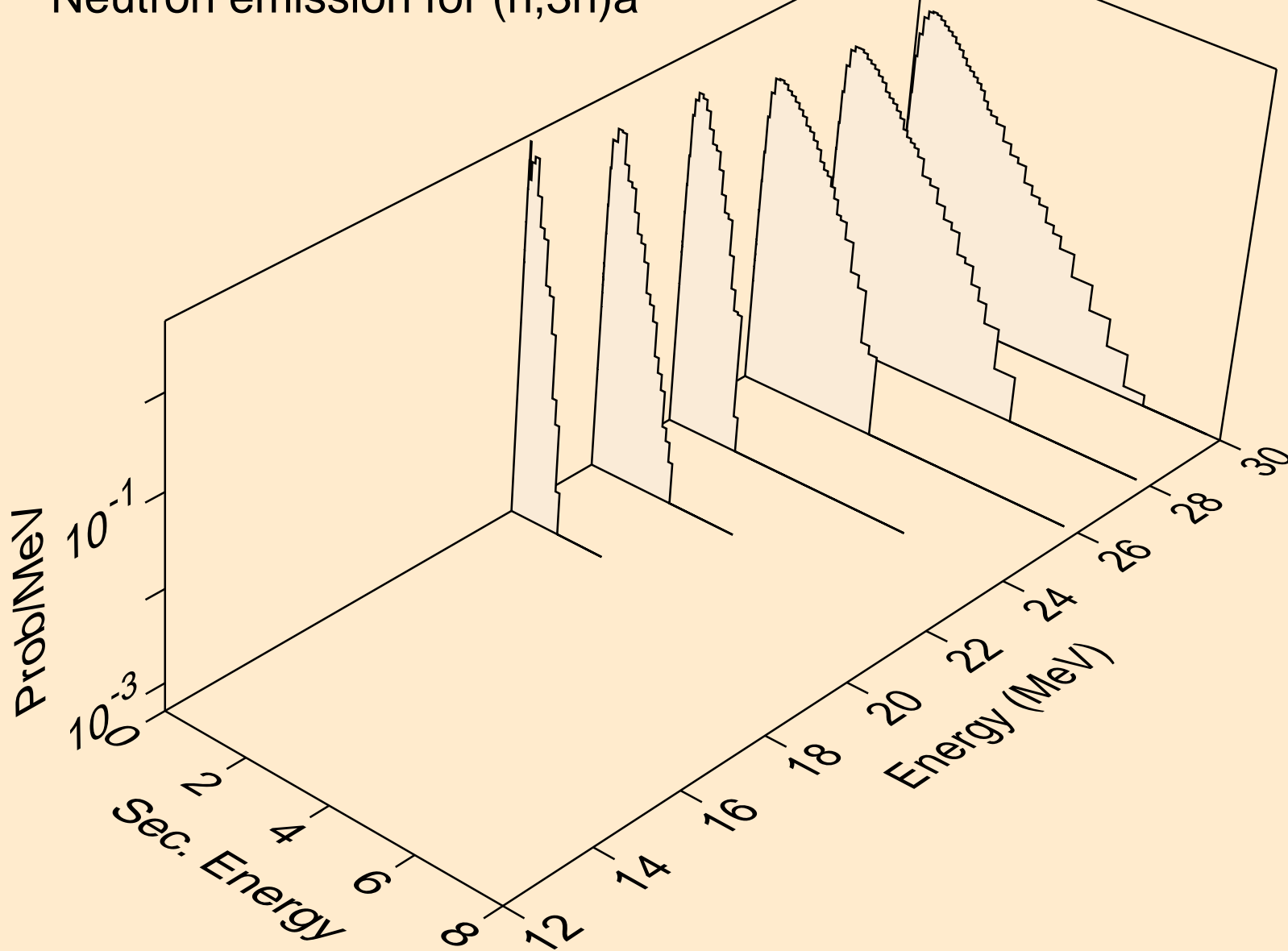


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2n)a

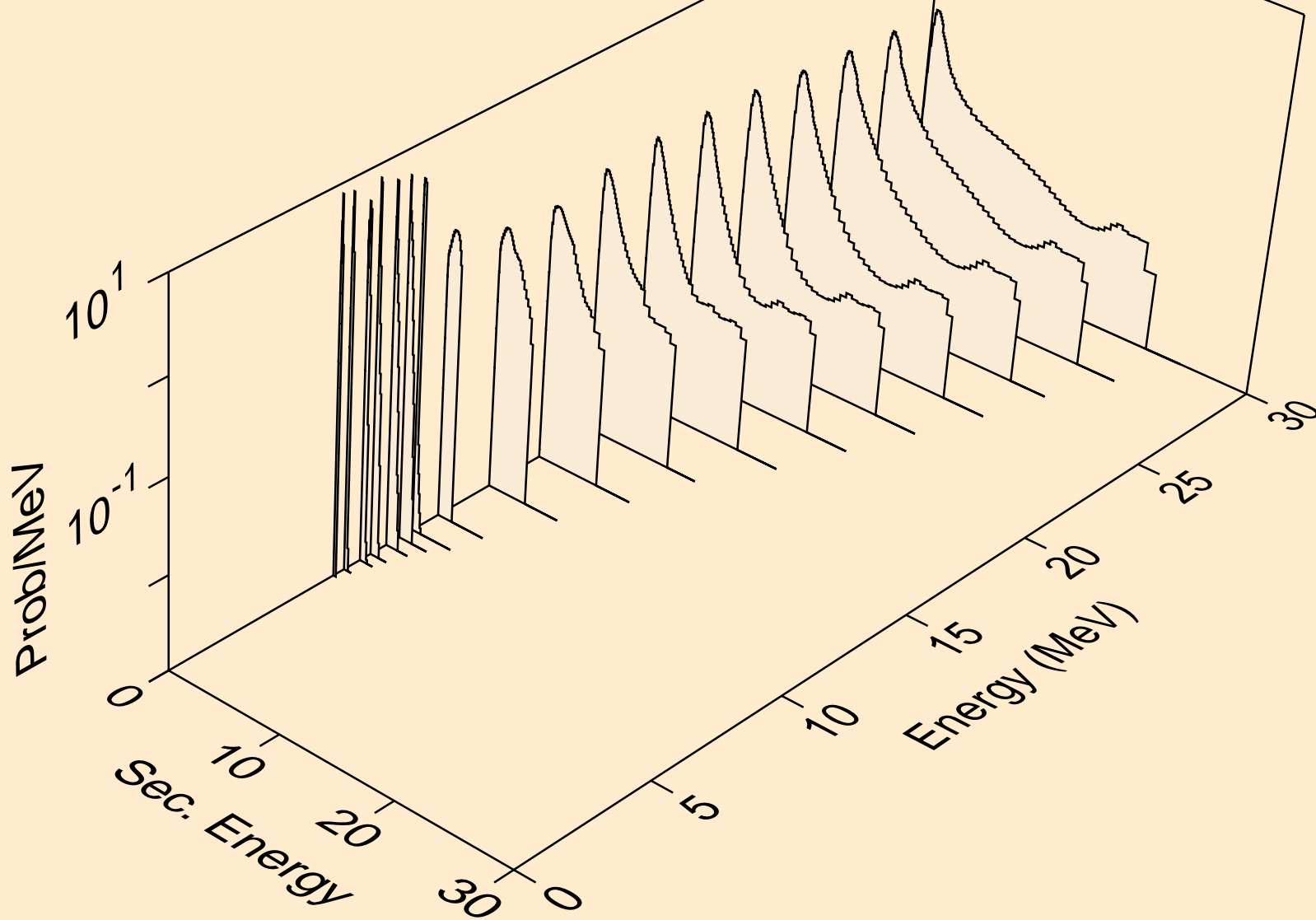




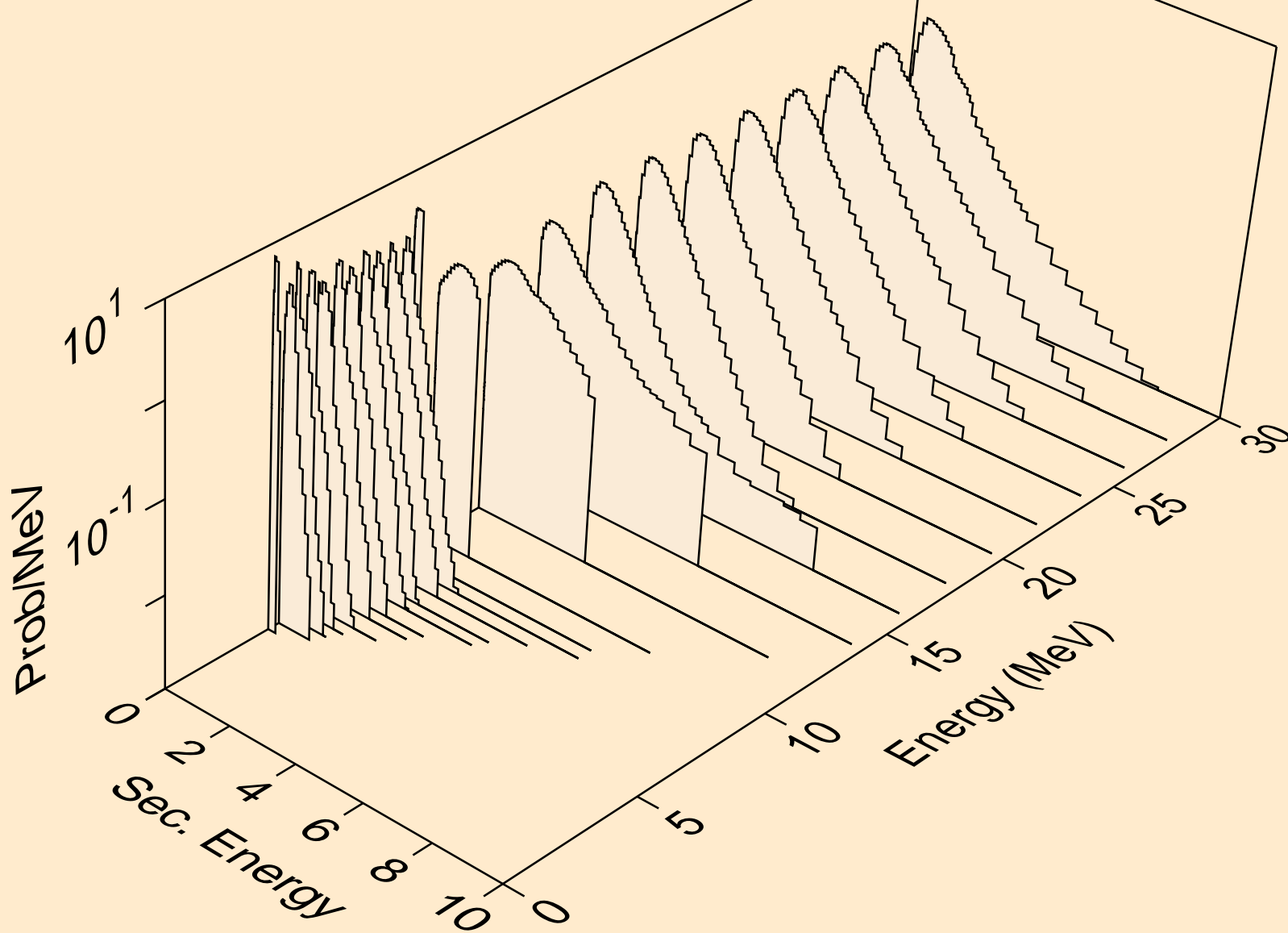
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3n)a



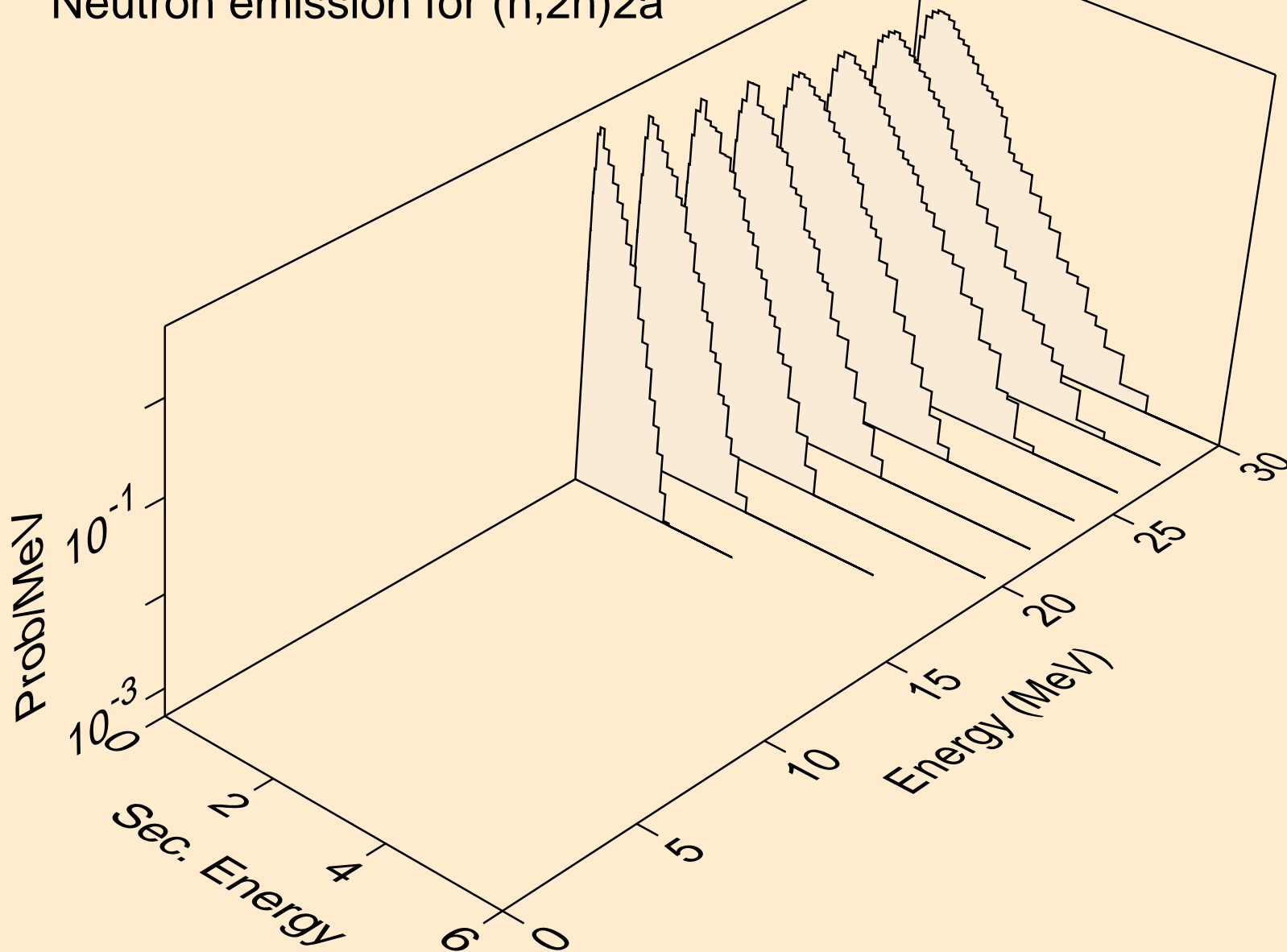
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)p



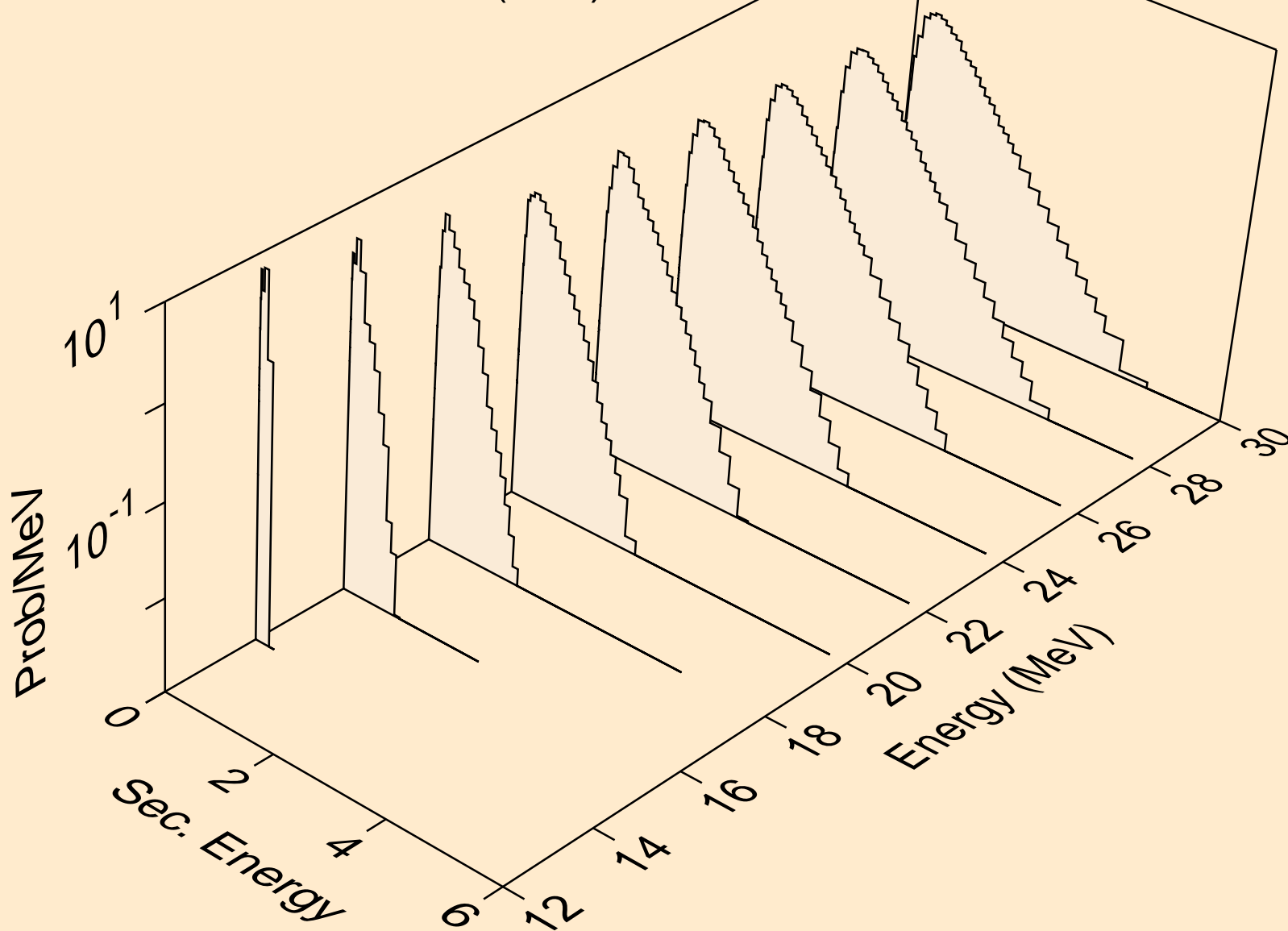
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)2a



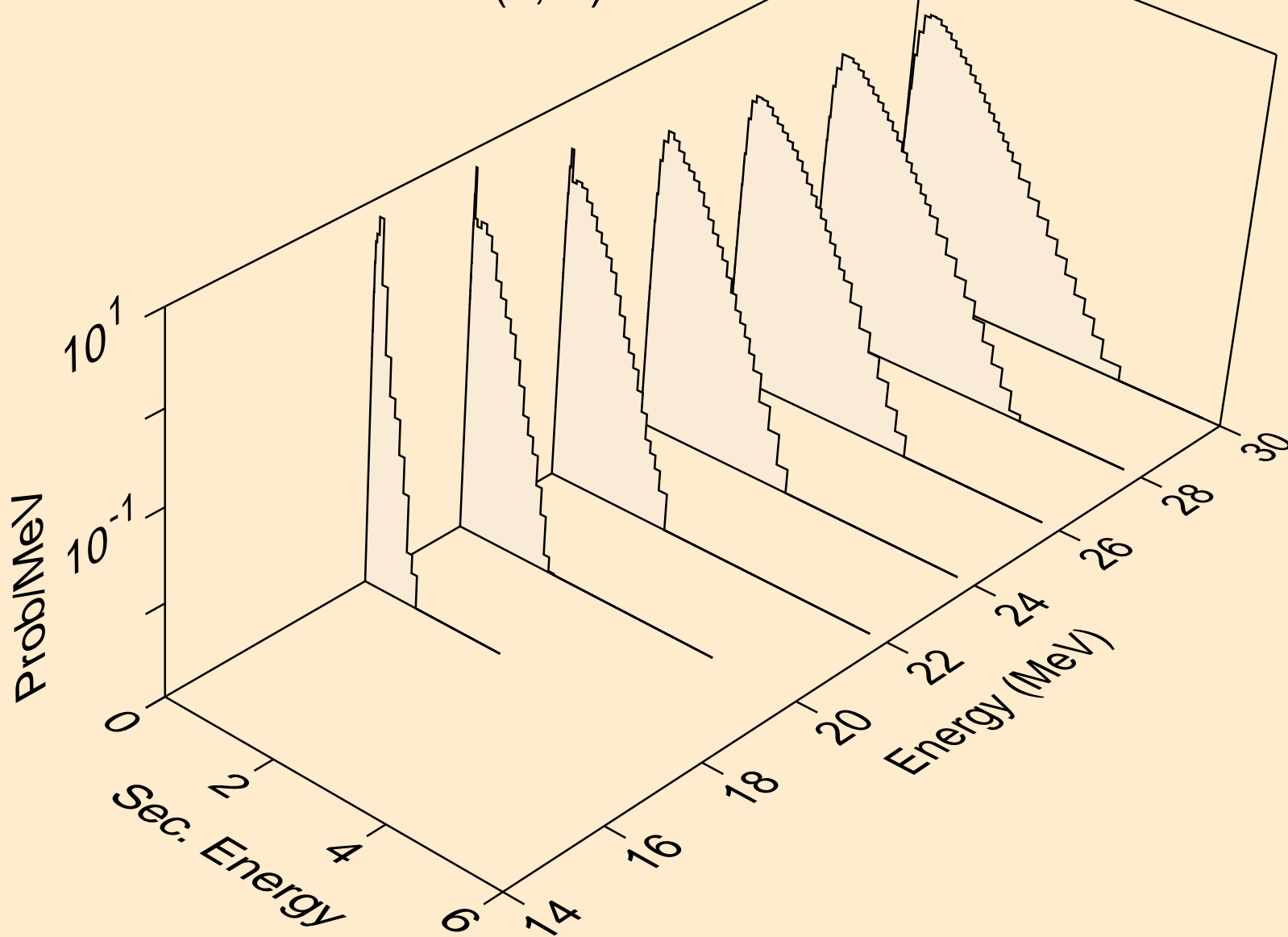
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2n)2a



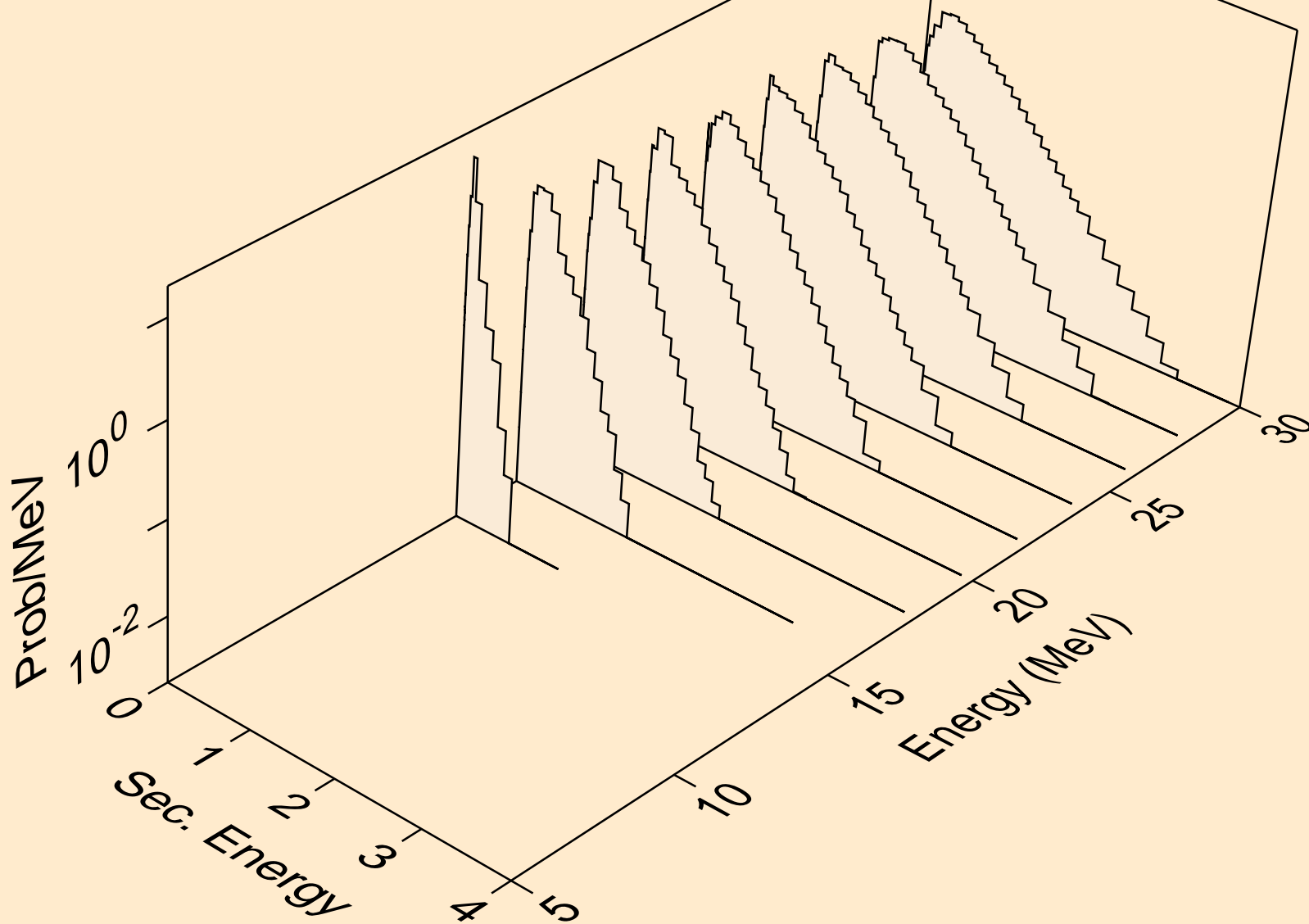
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)d



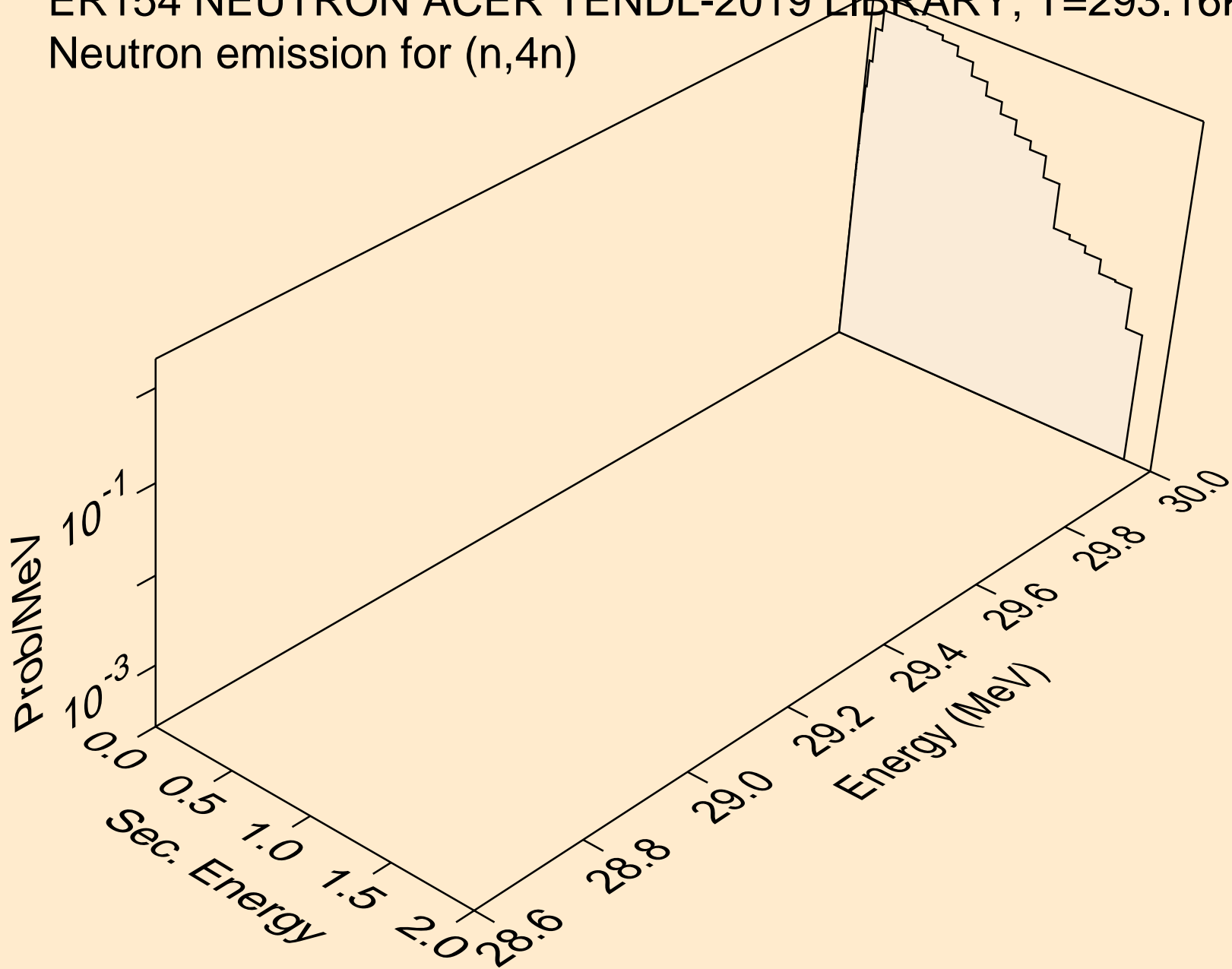
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)t



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*)he3

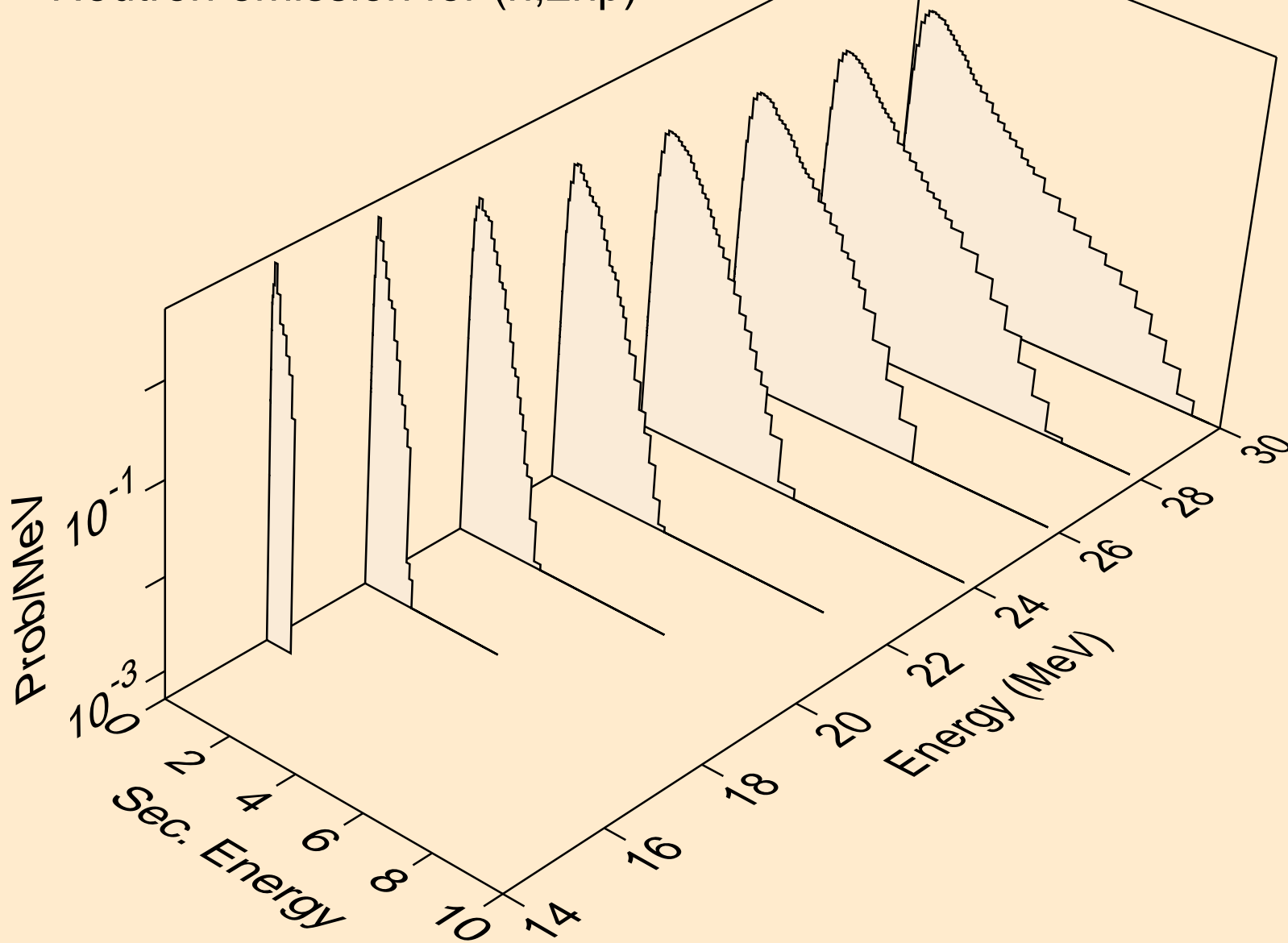


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,4n)

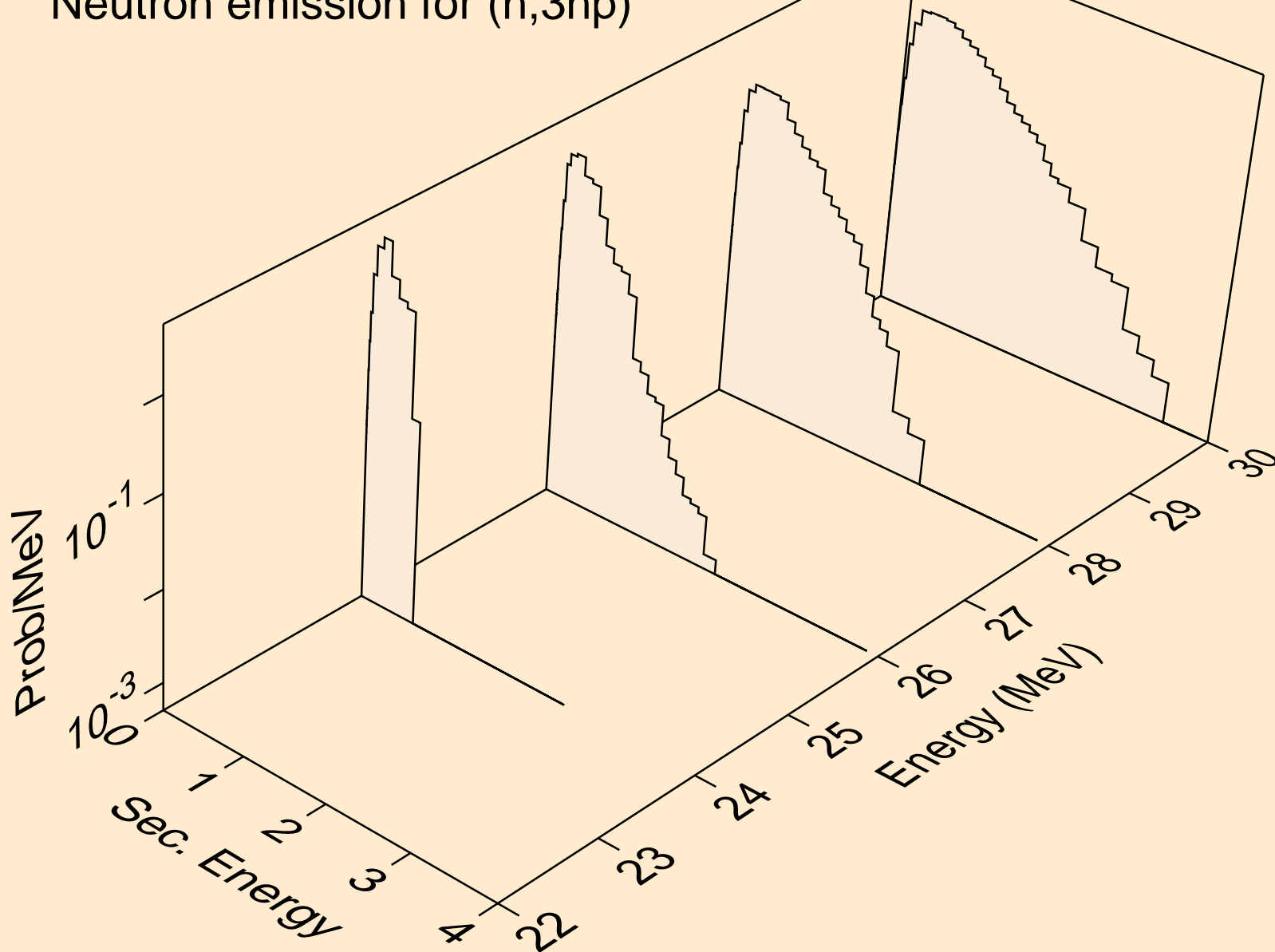




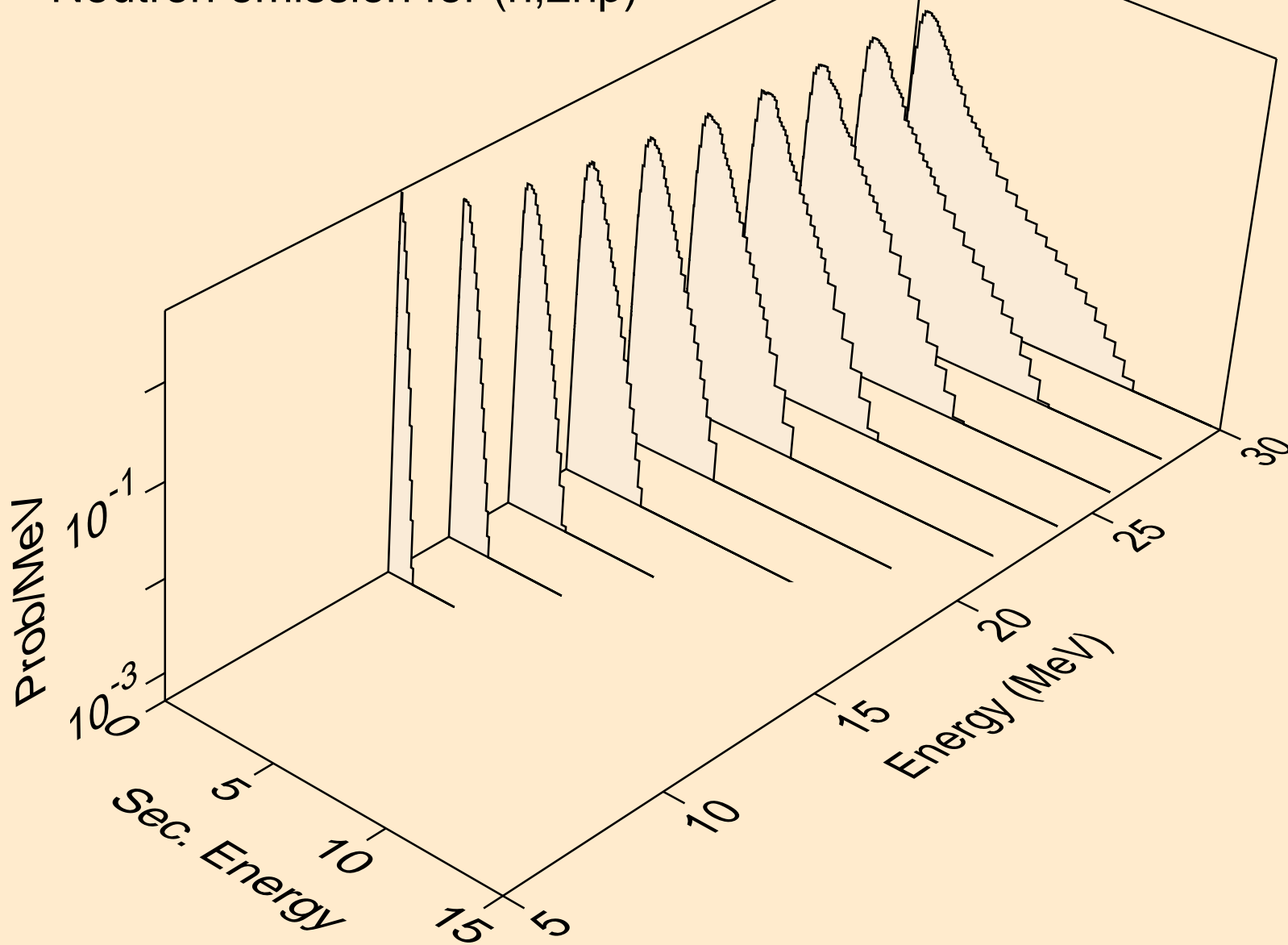
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2np)



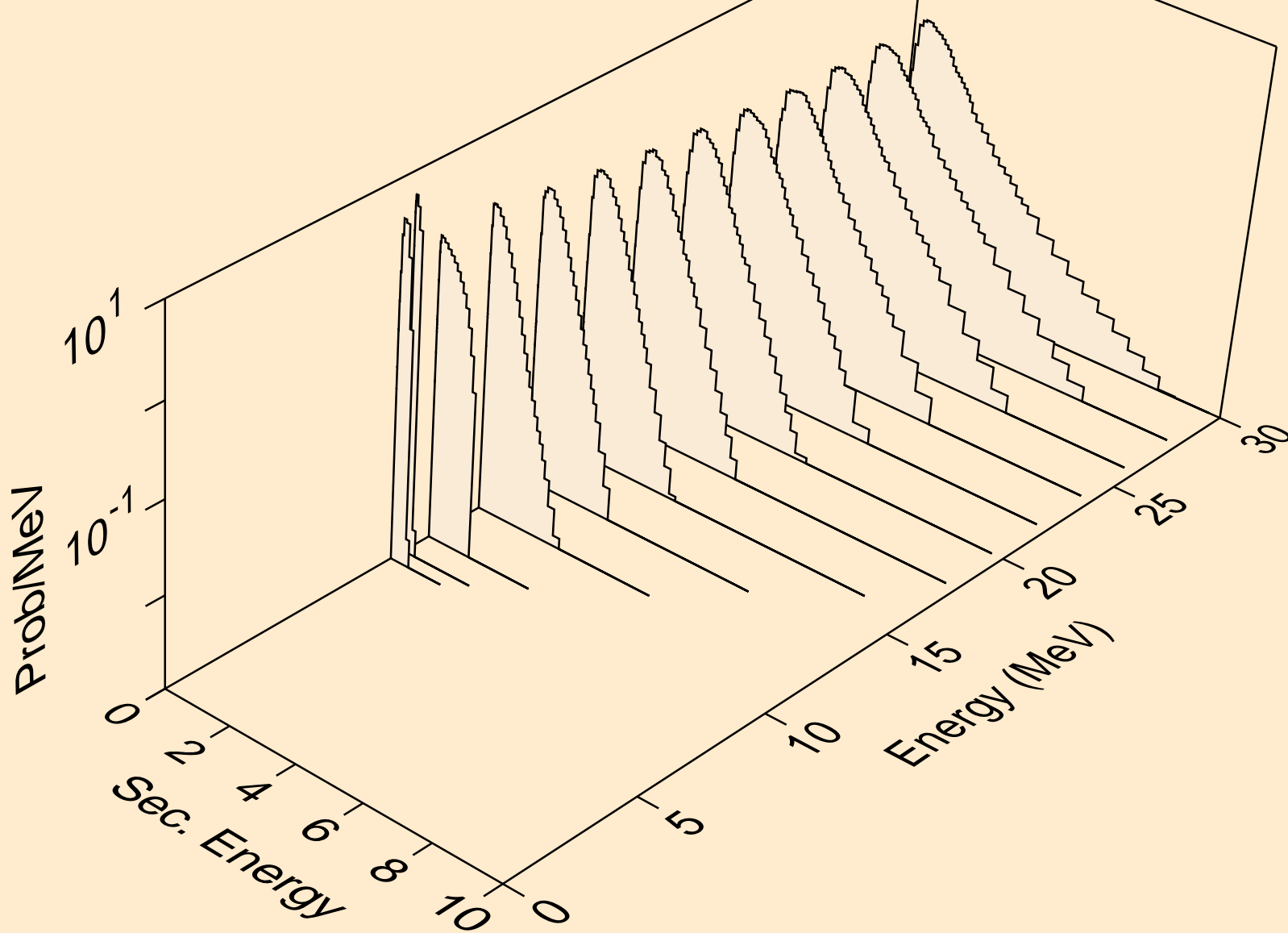
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,3np)



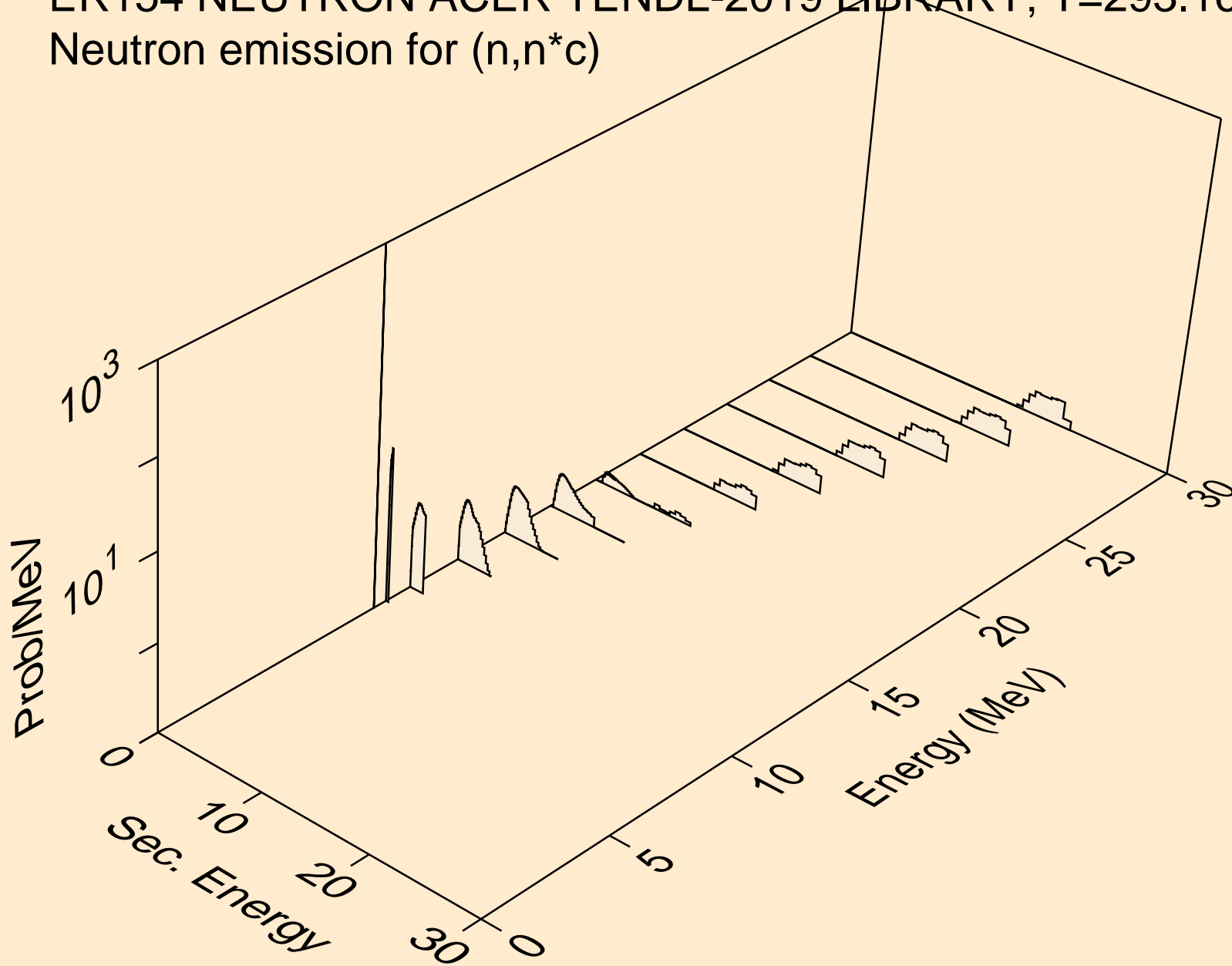
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,2np)



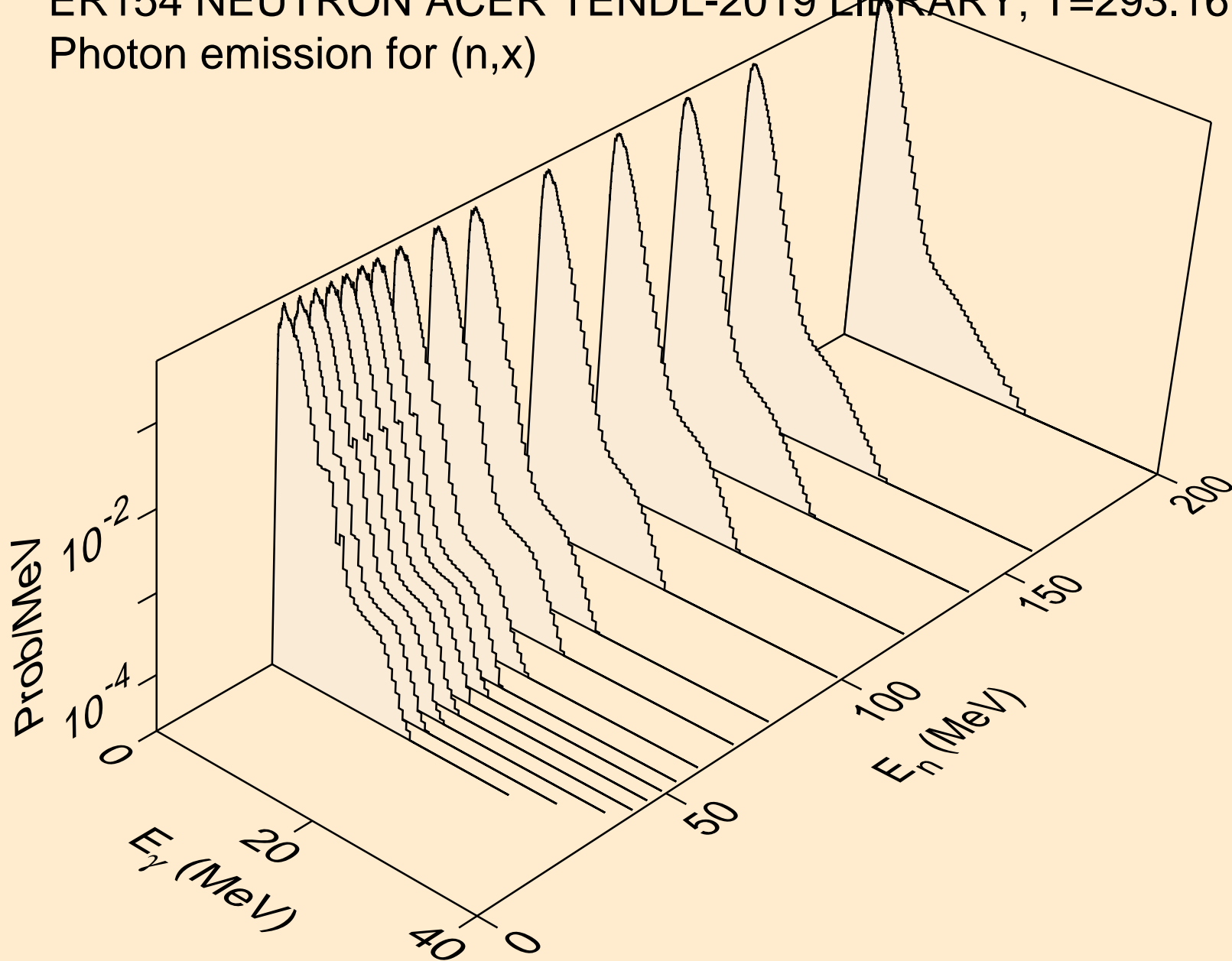
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,npa)



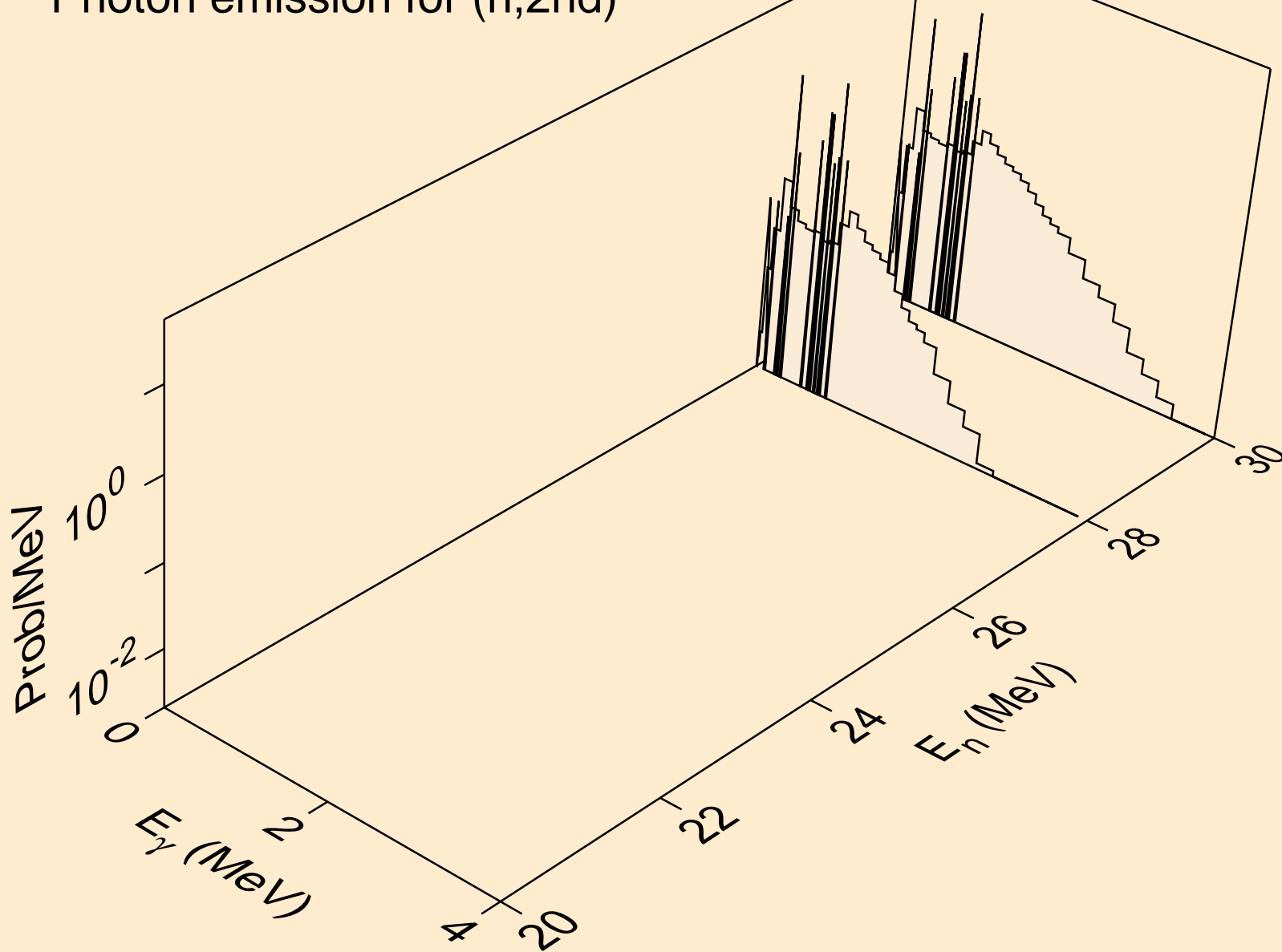
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Neutron emission for (n,n\*c)



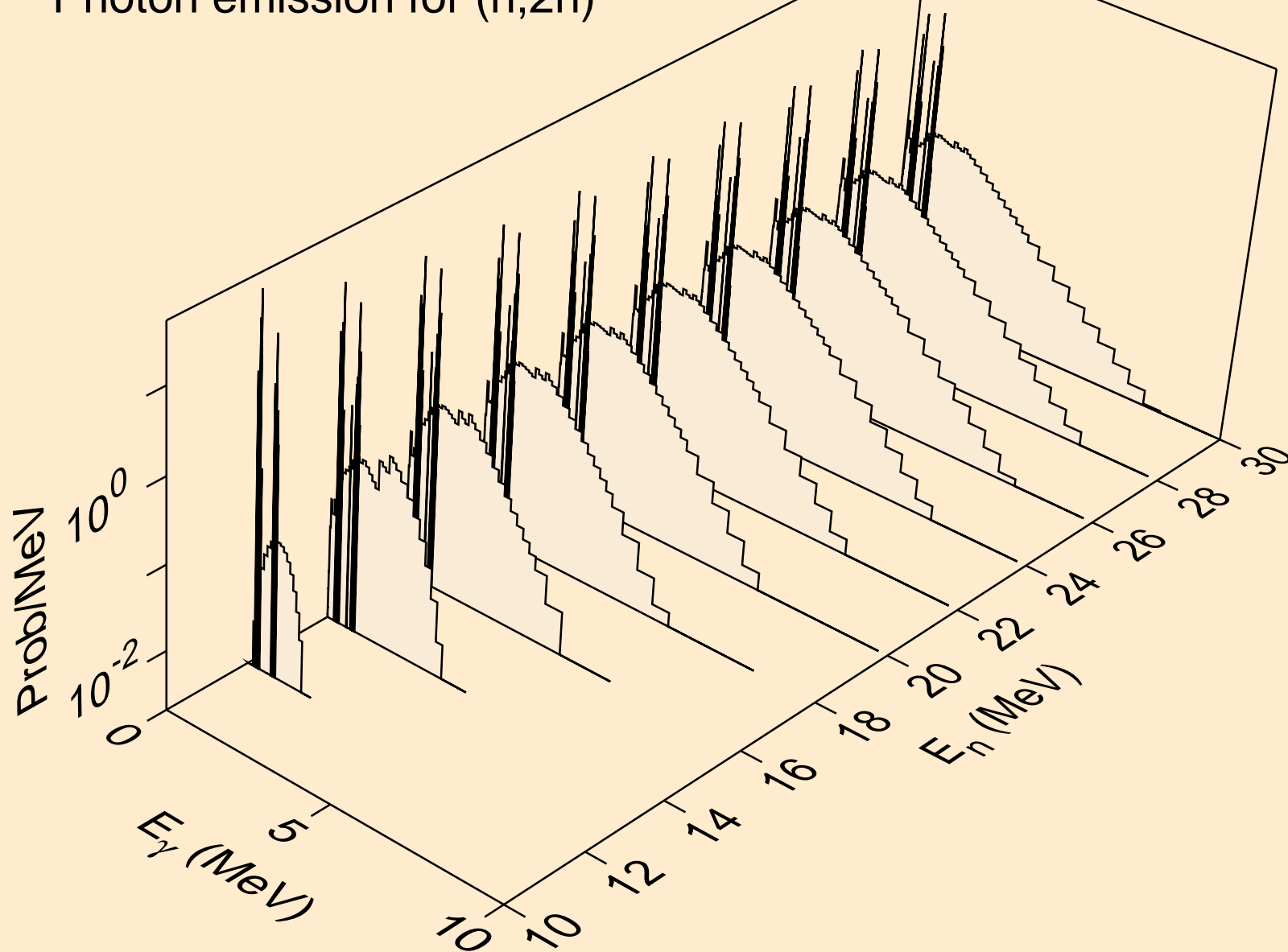
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,x)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2nd)

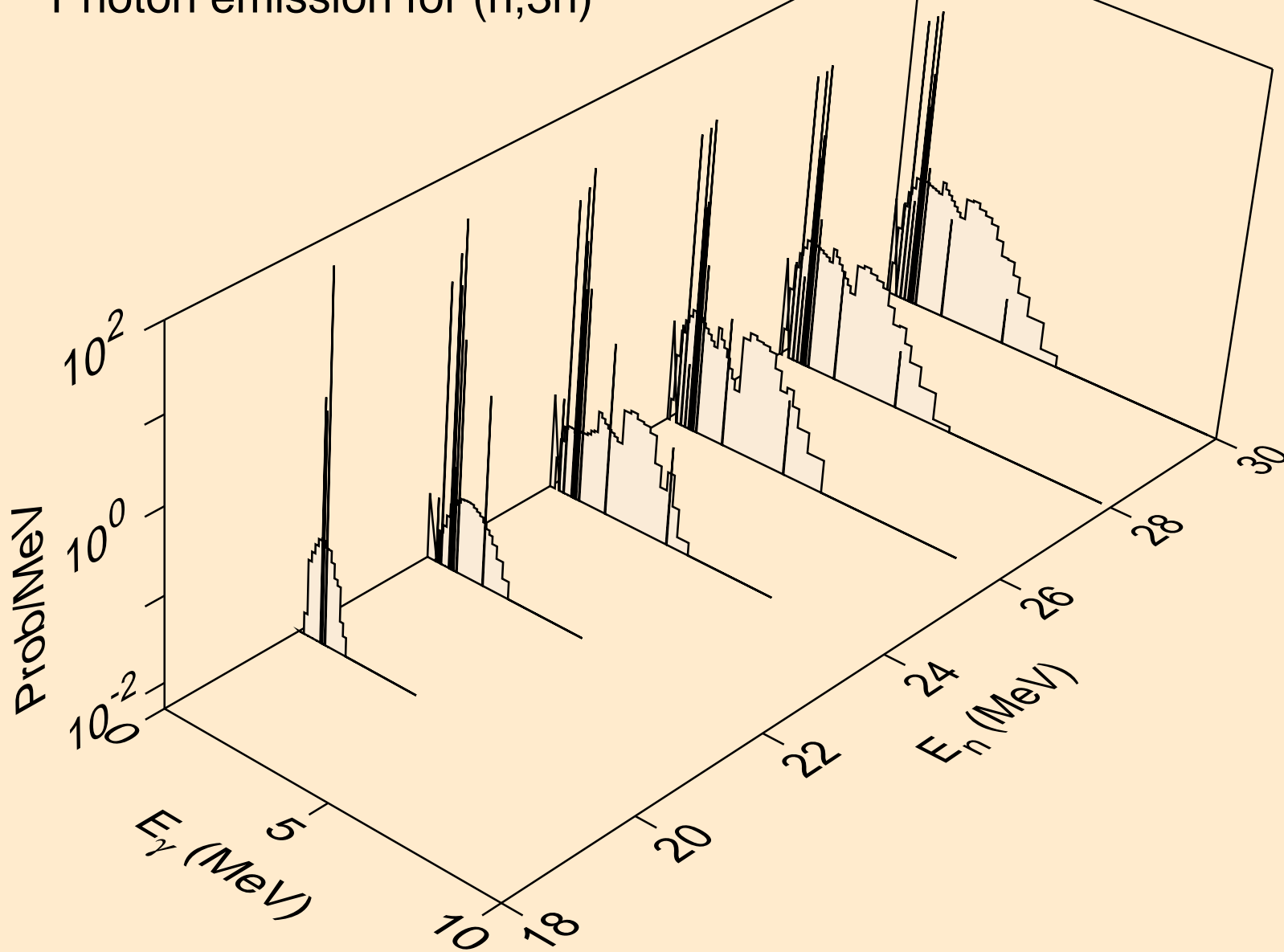


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2n)

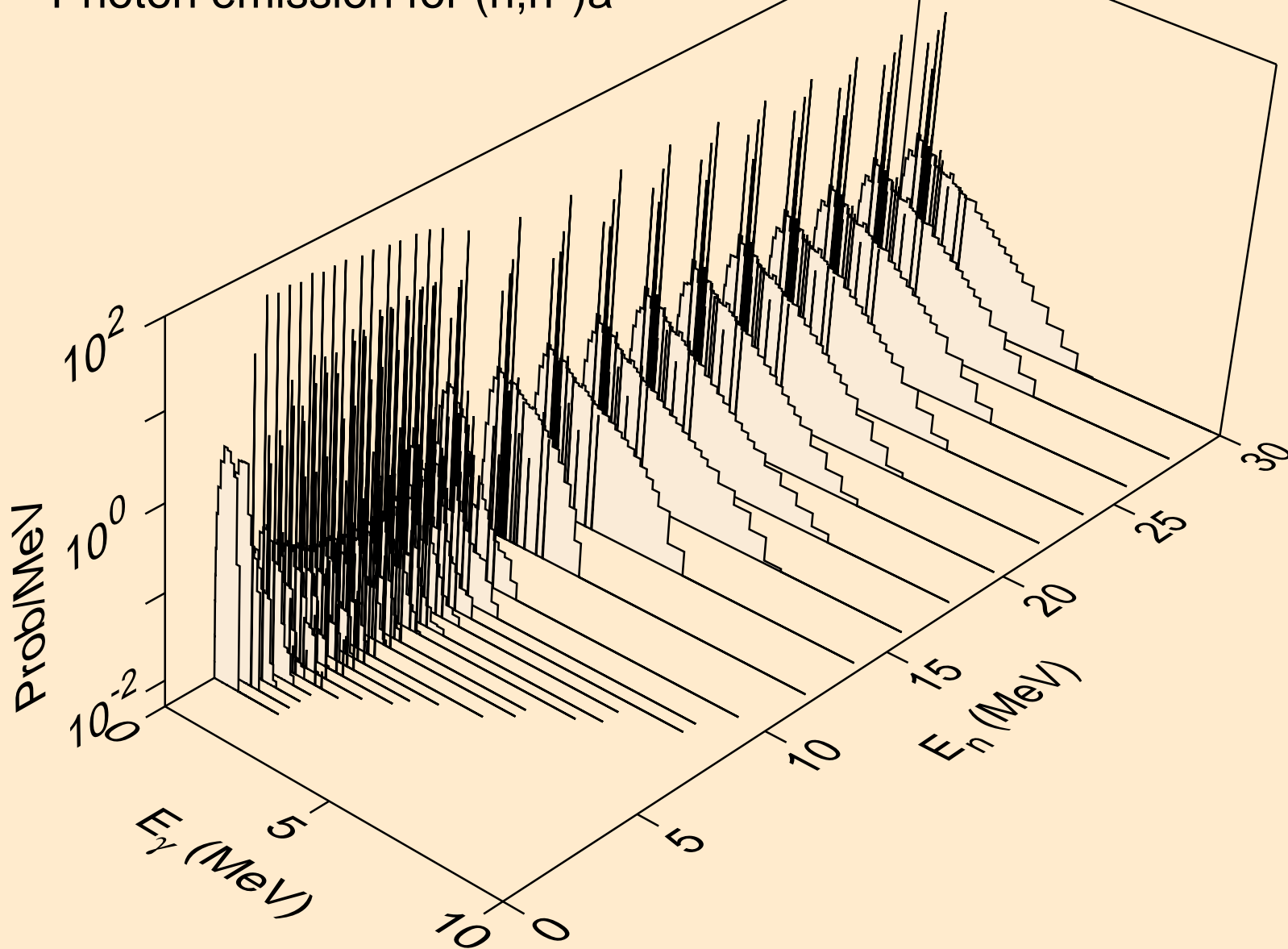




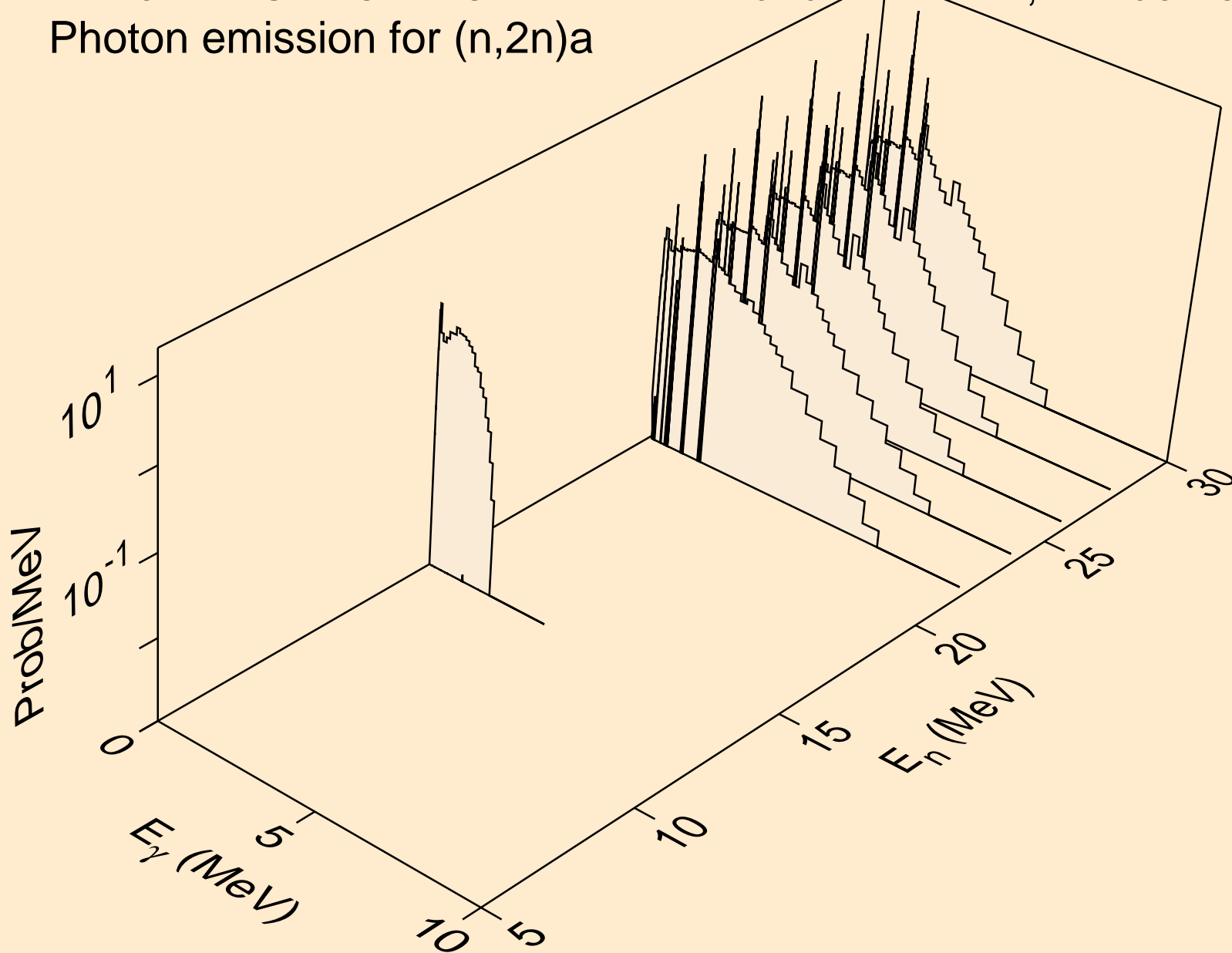
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3n)



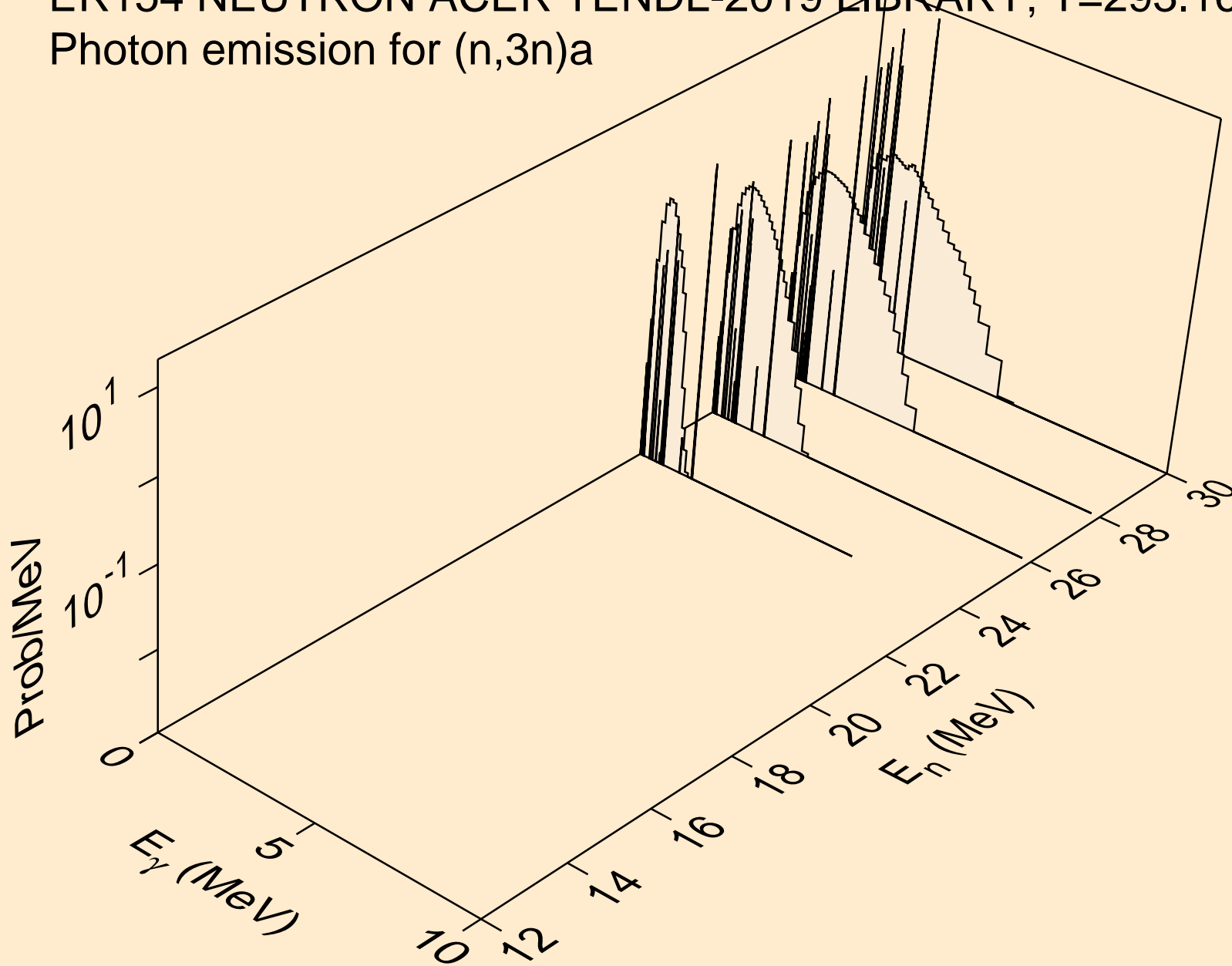
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)a



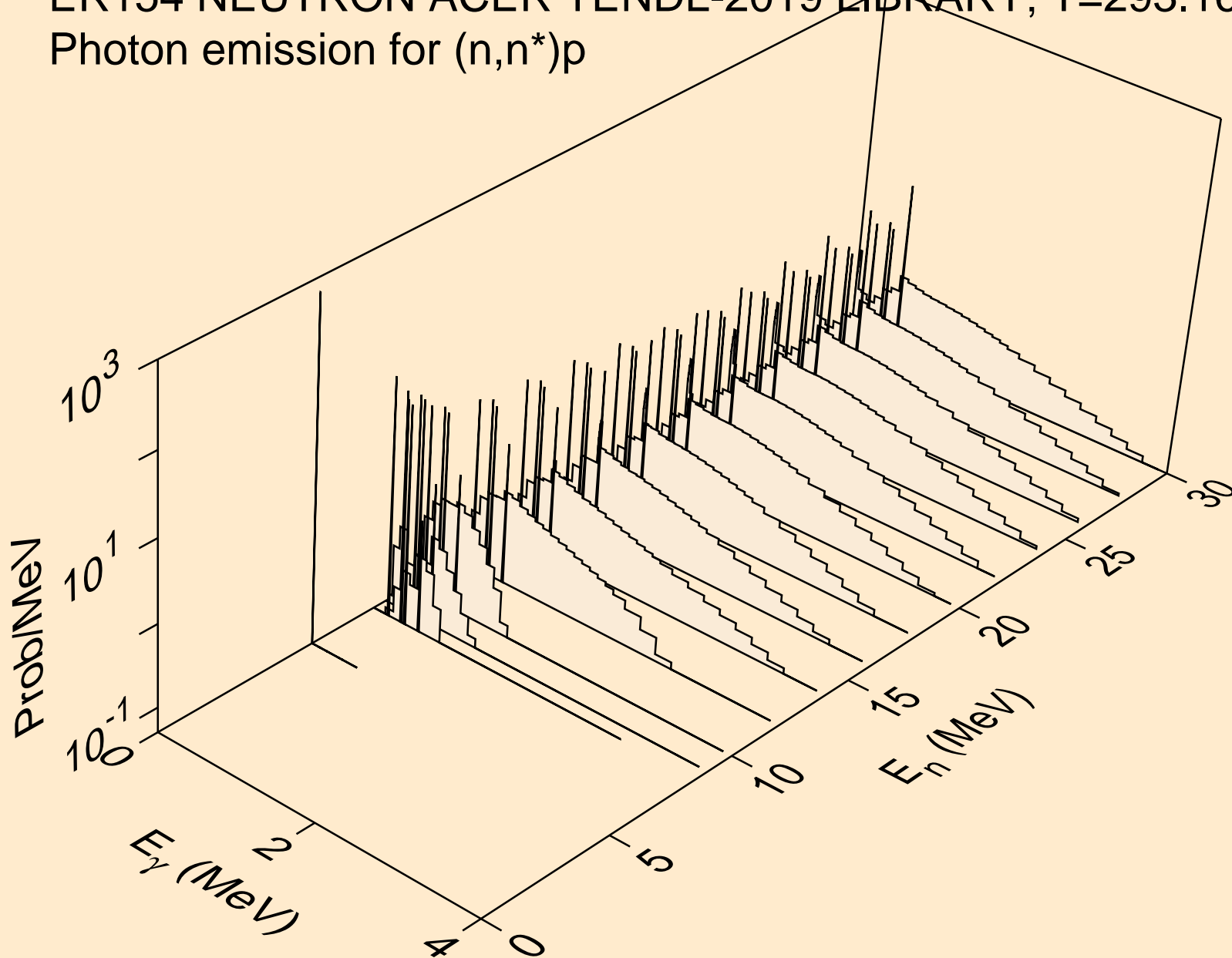
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2n)a



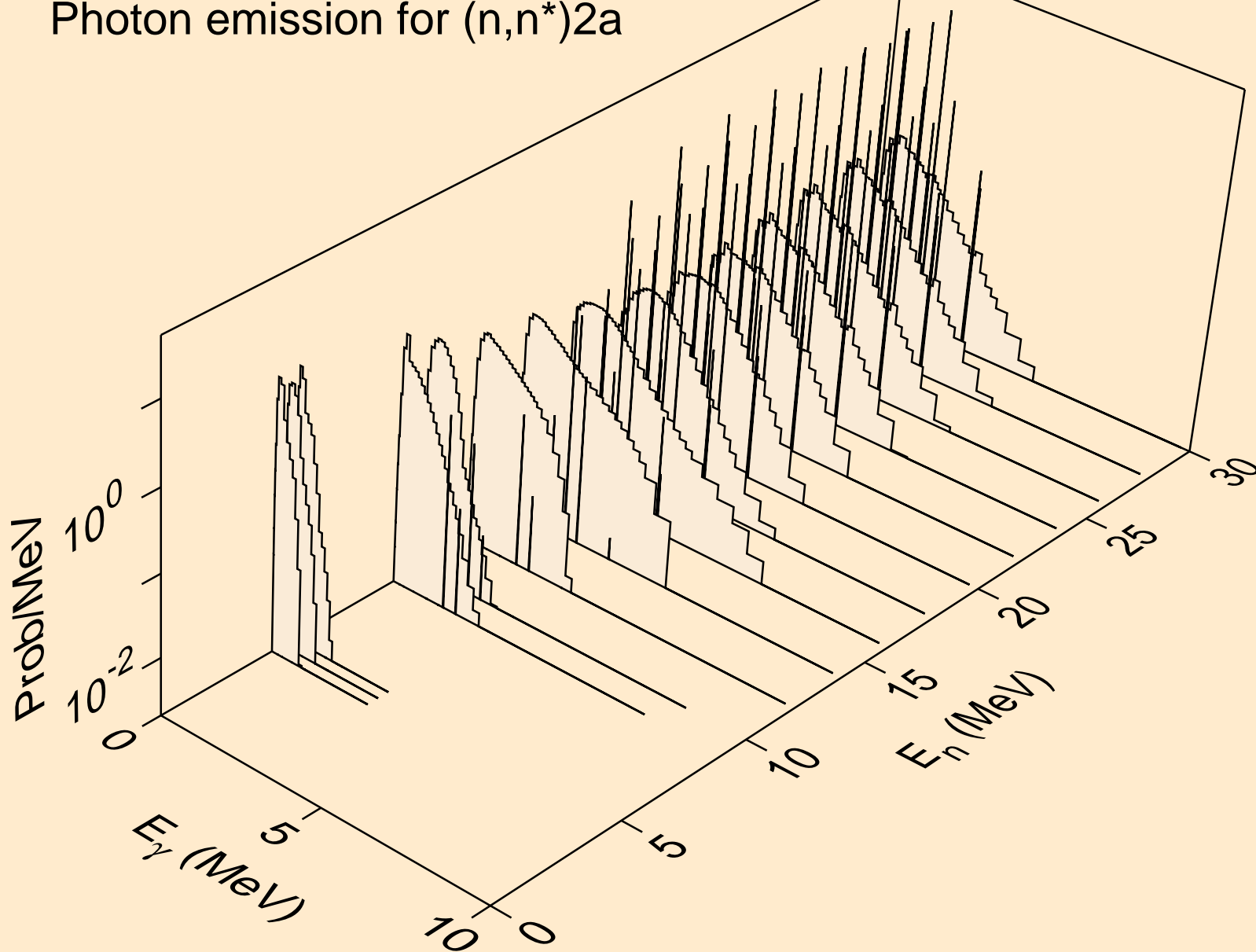
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3n)a



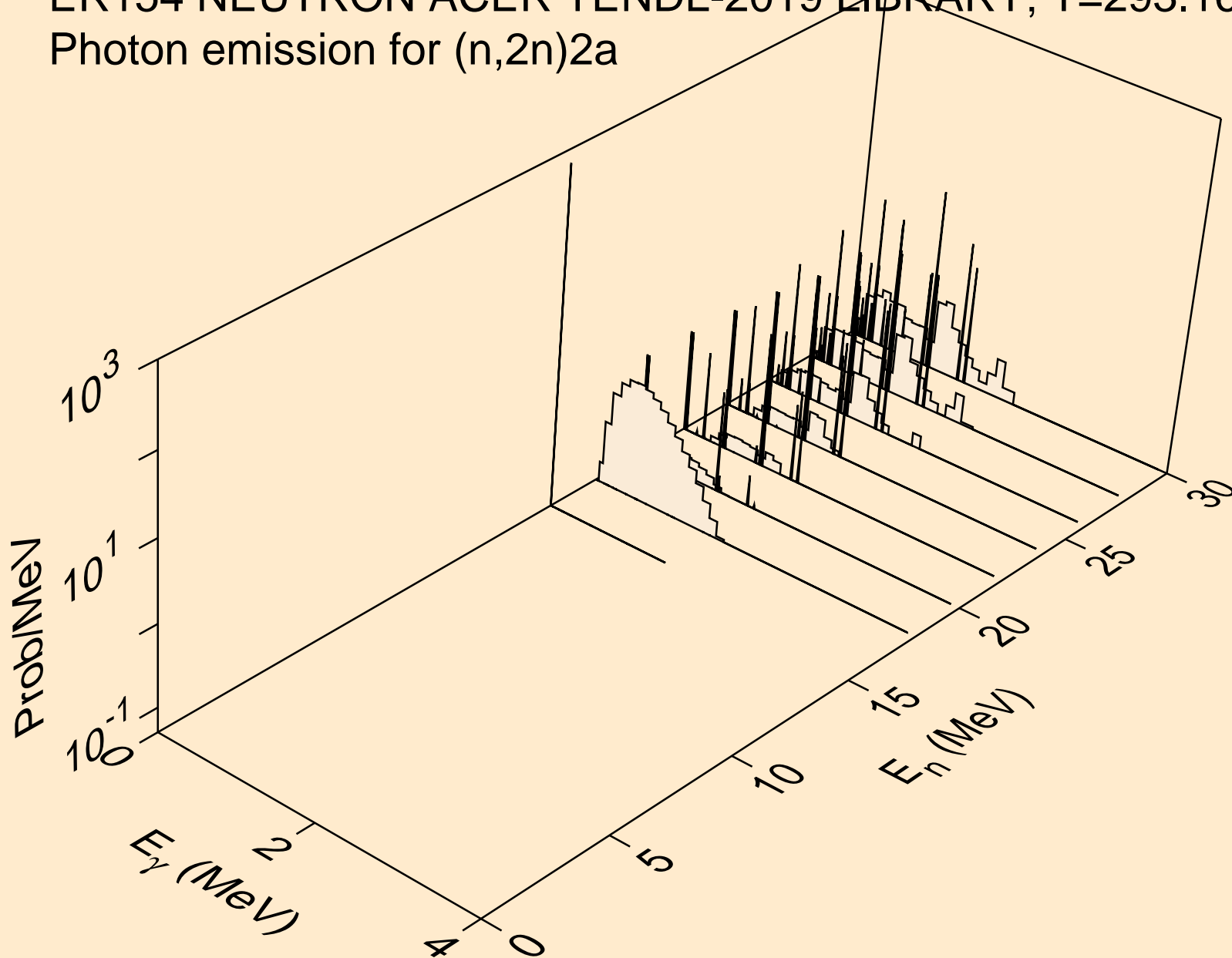
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)p



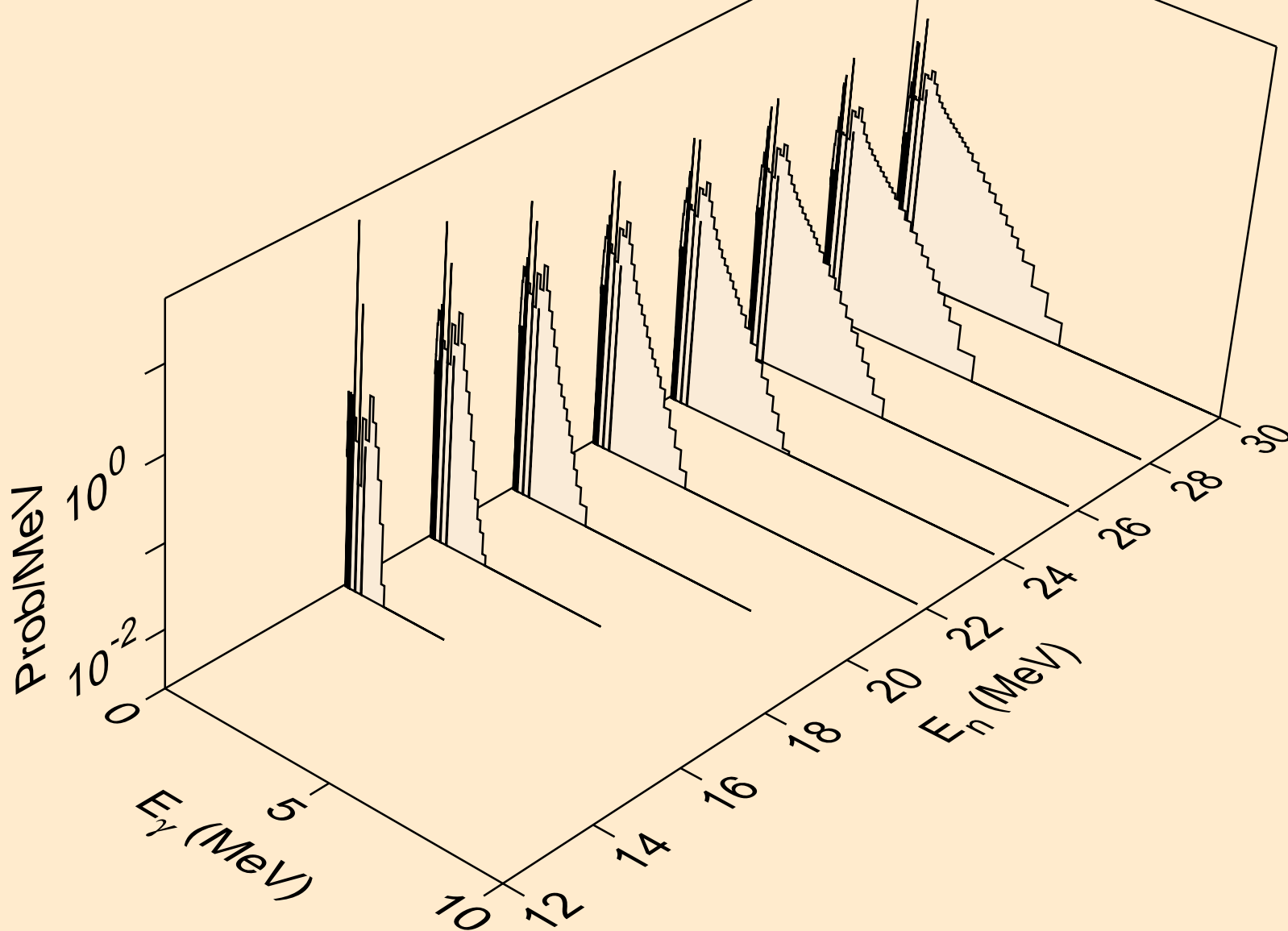
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)2a



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2n)2a

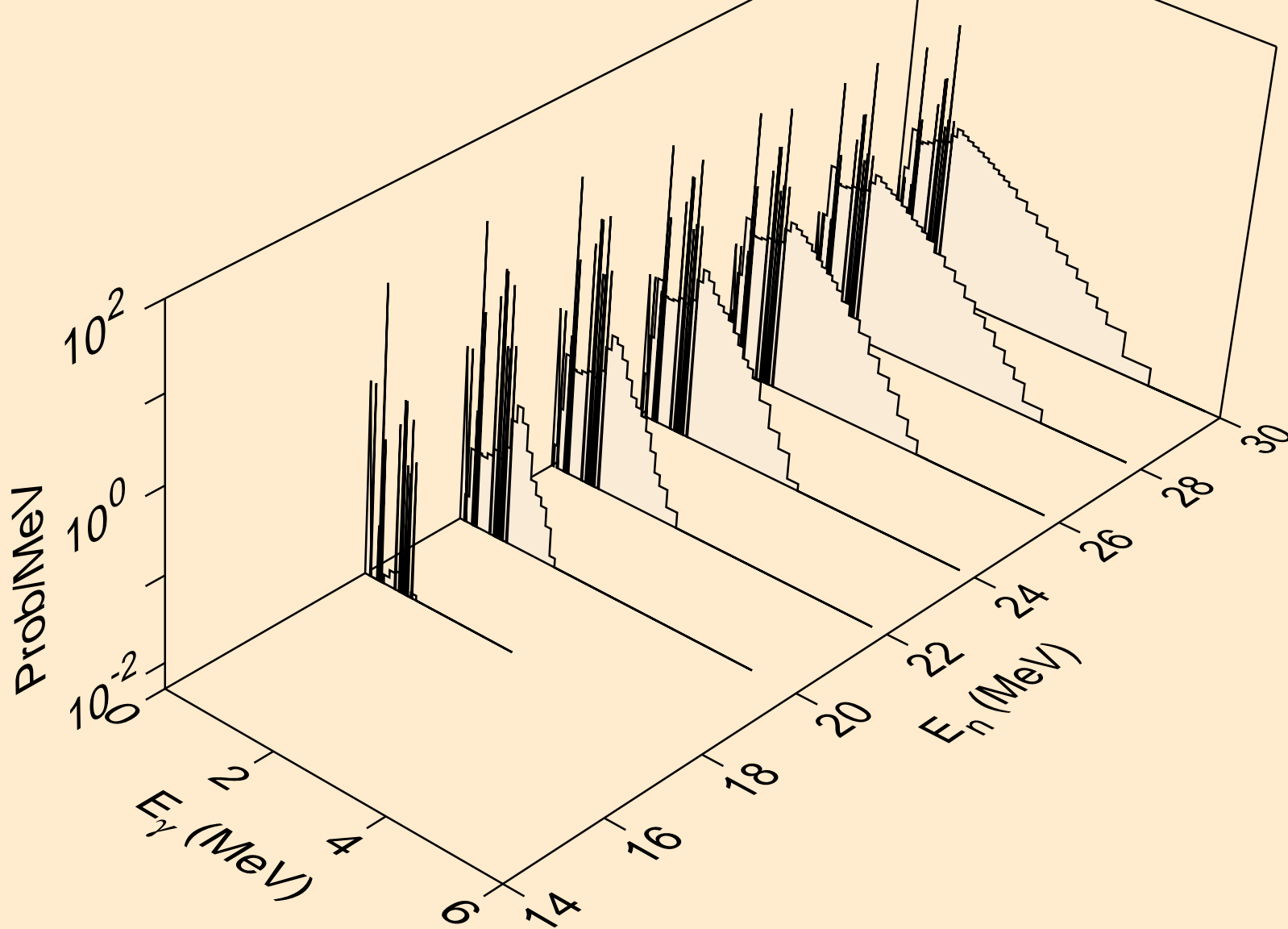


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)d

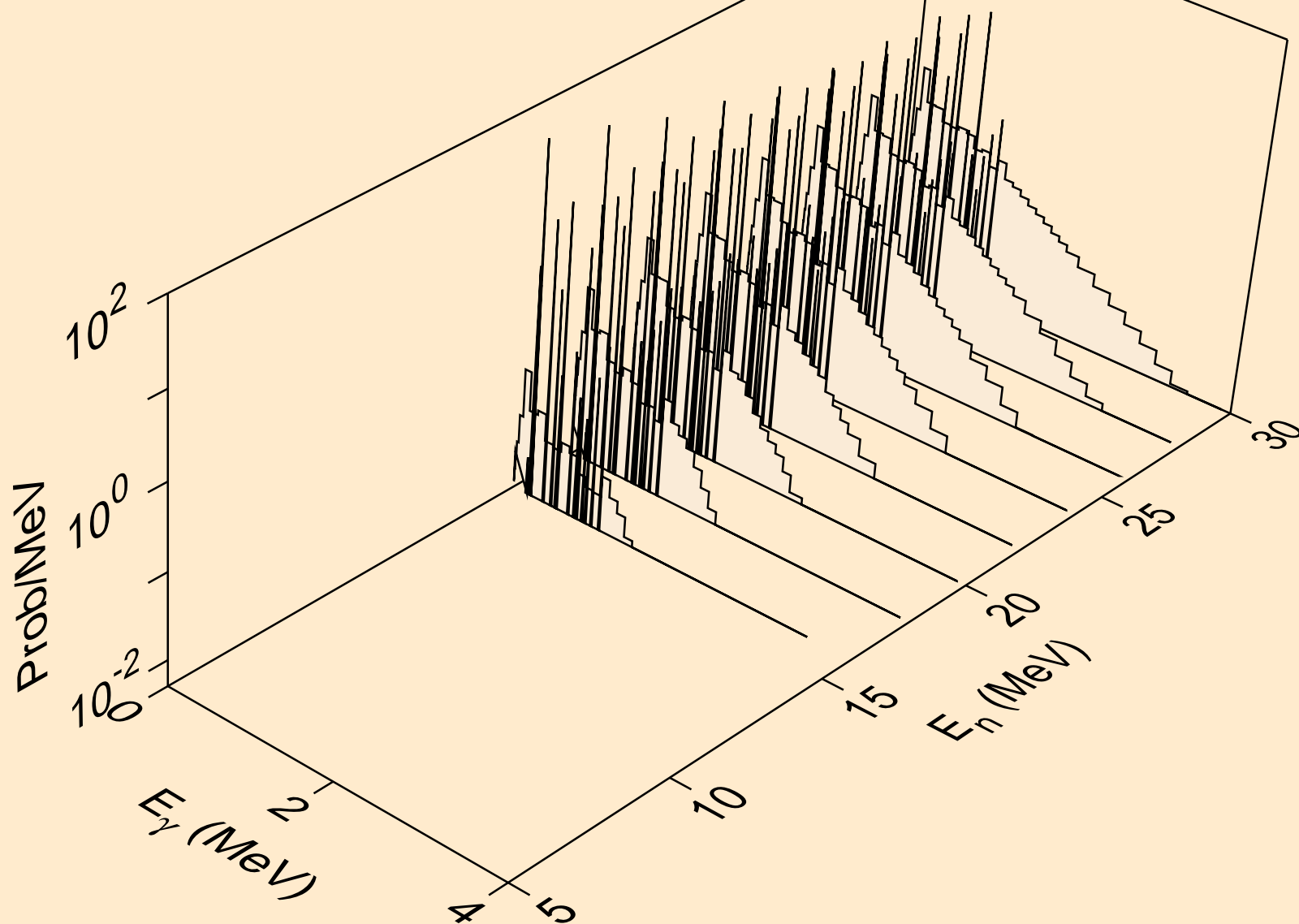




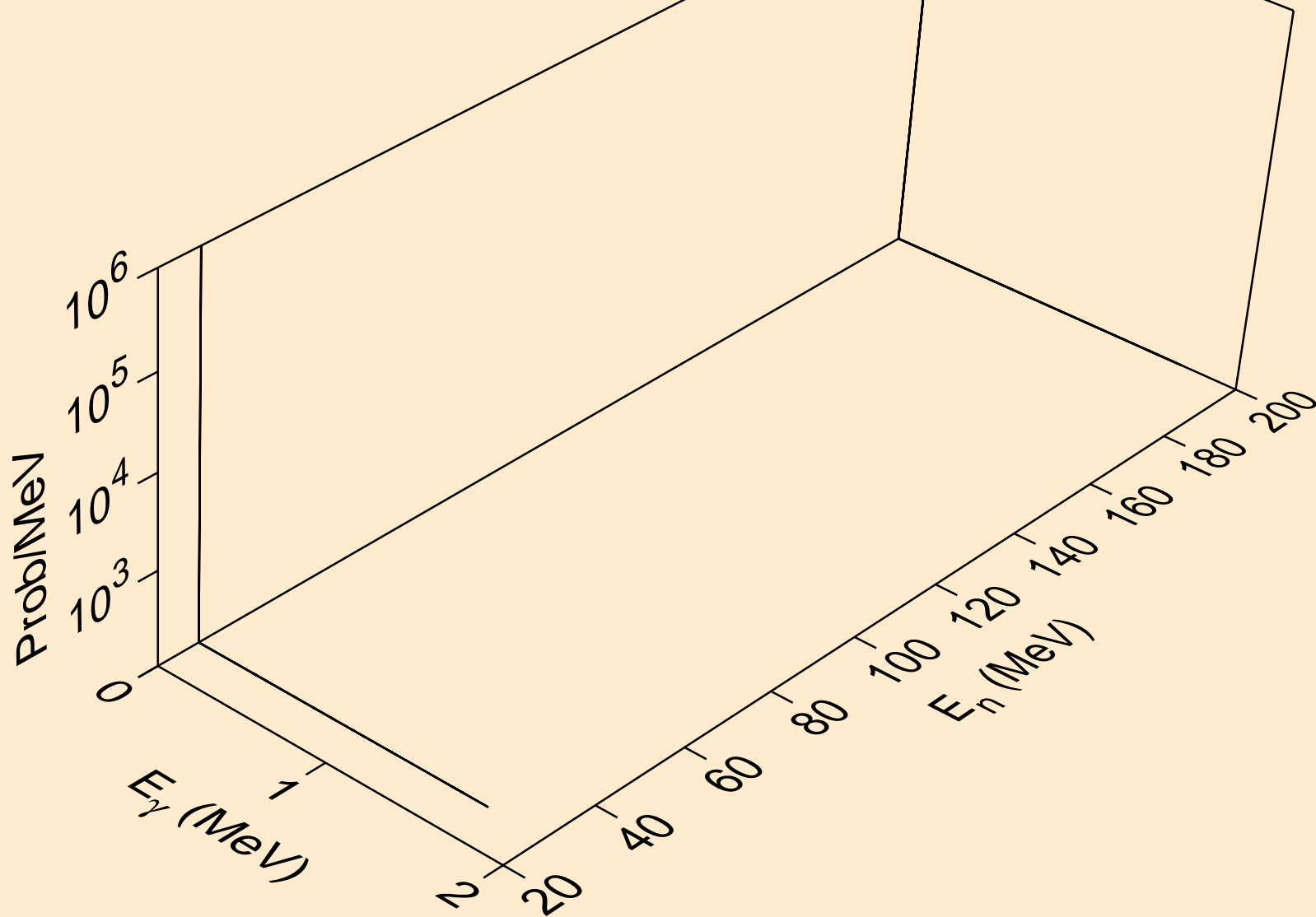
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)t



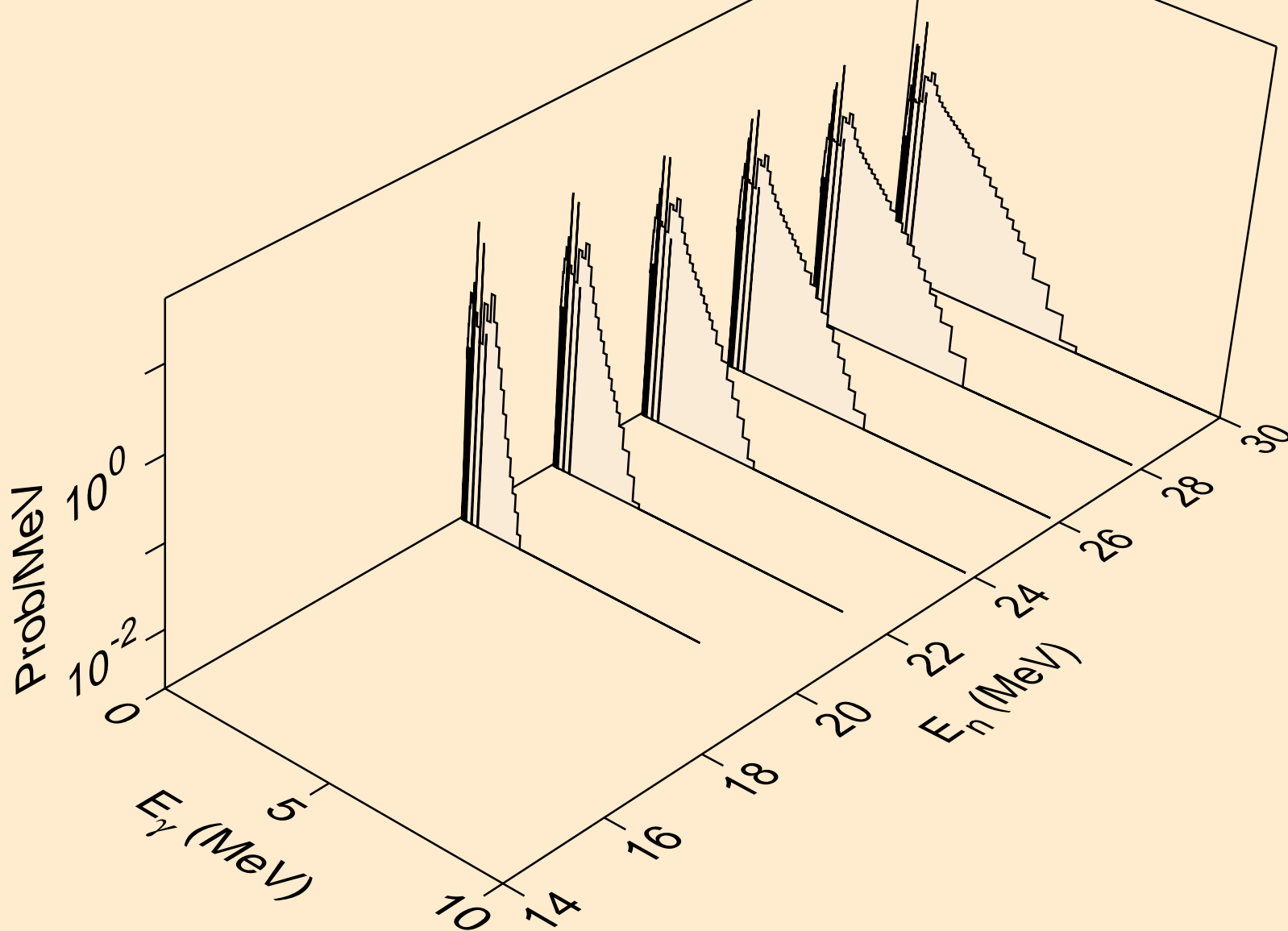
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*)he3



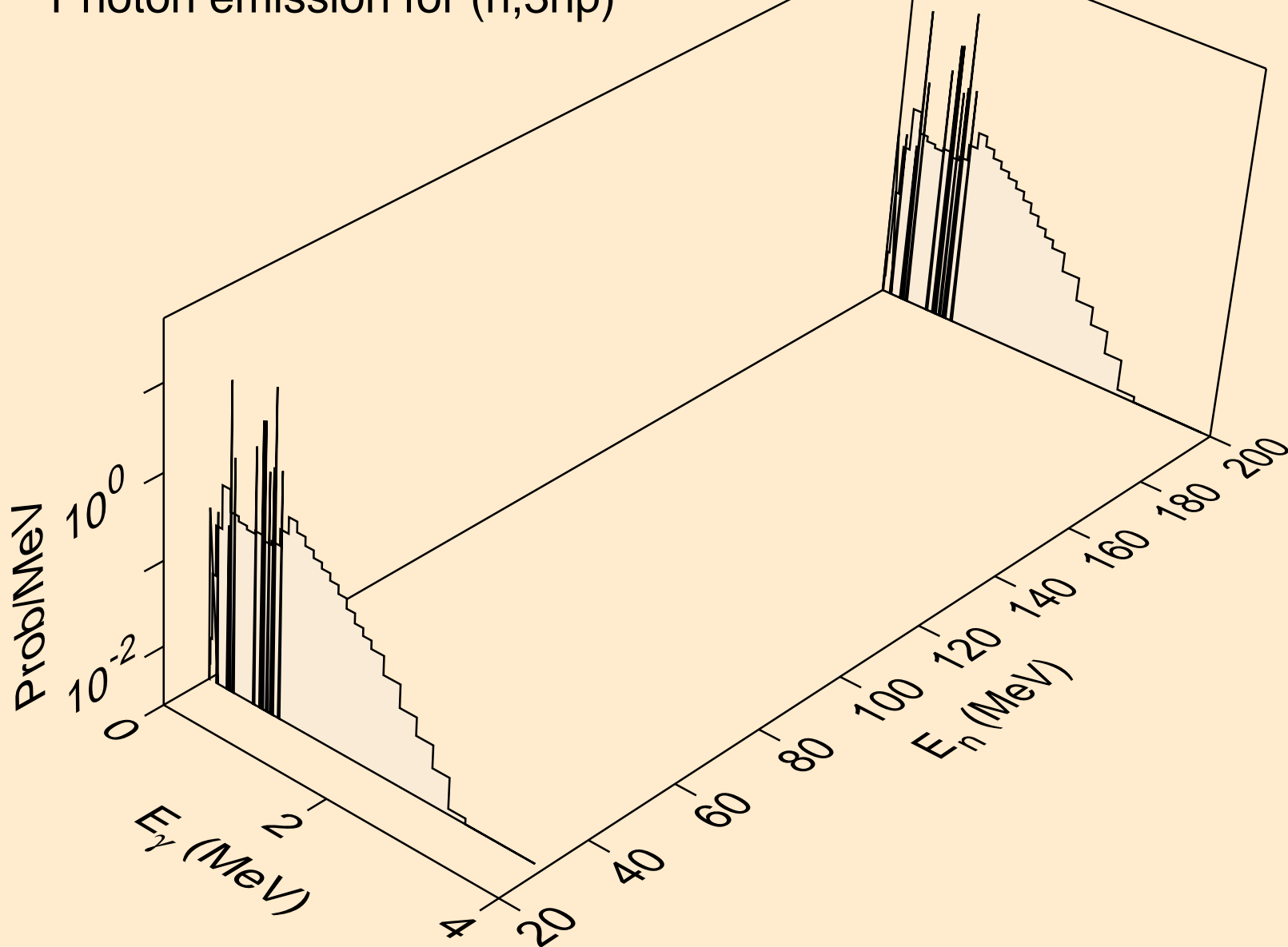
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,4n)



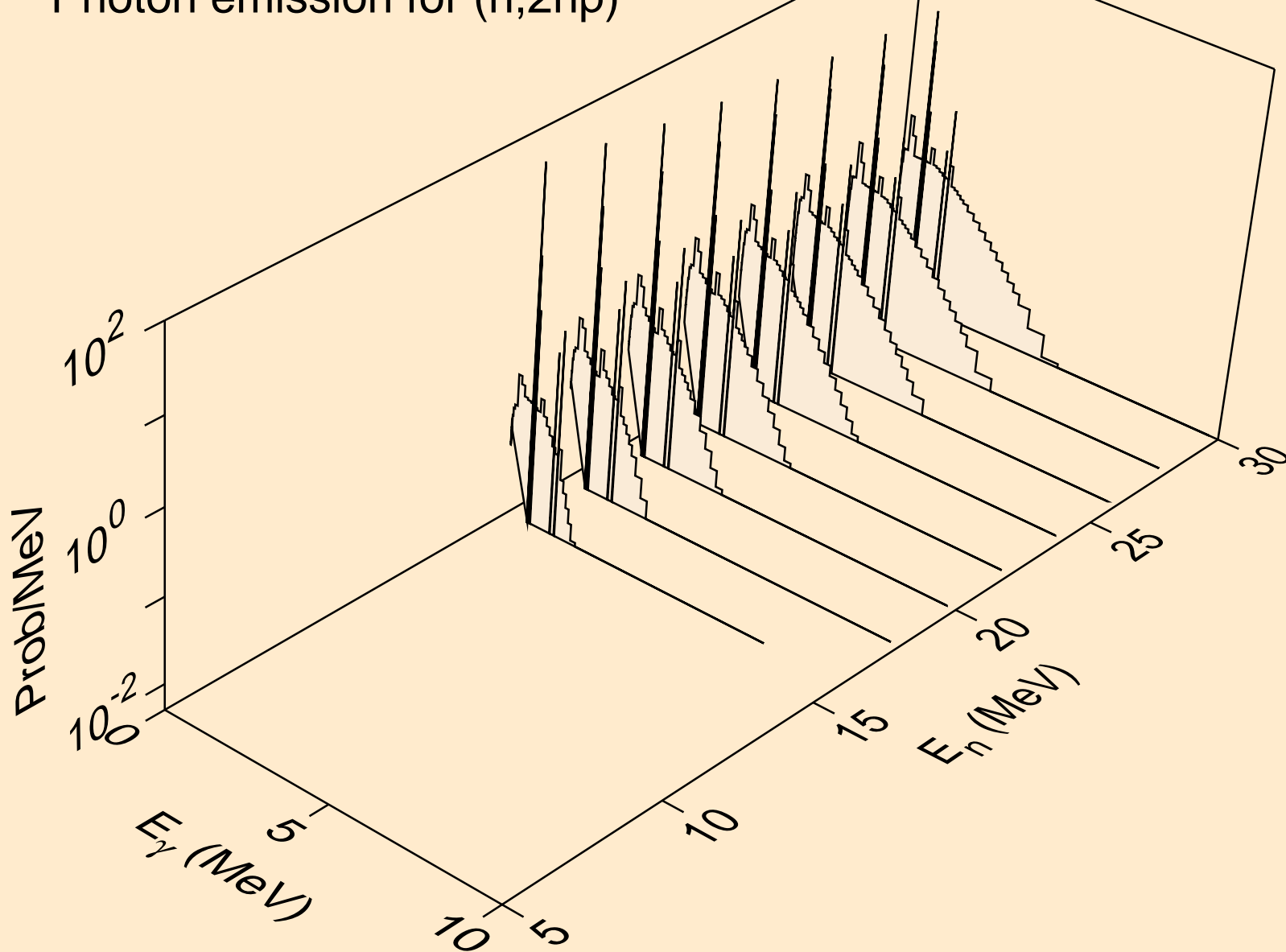
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2np)



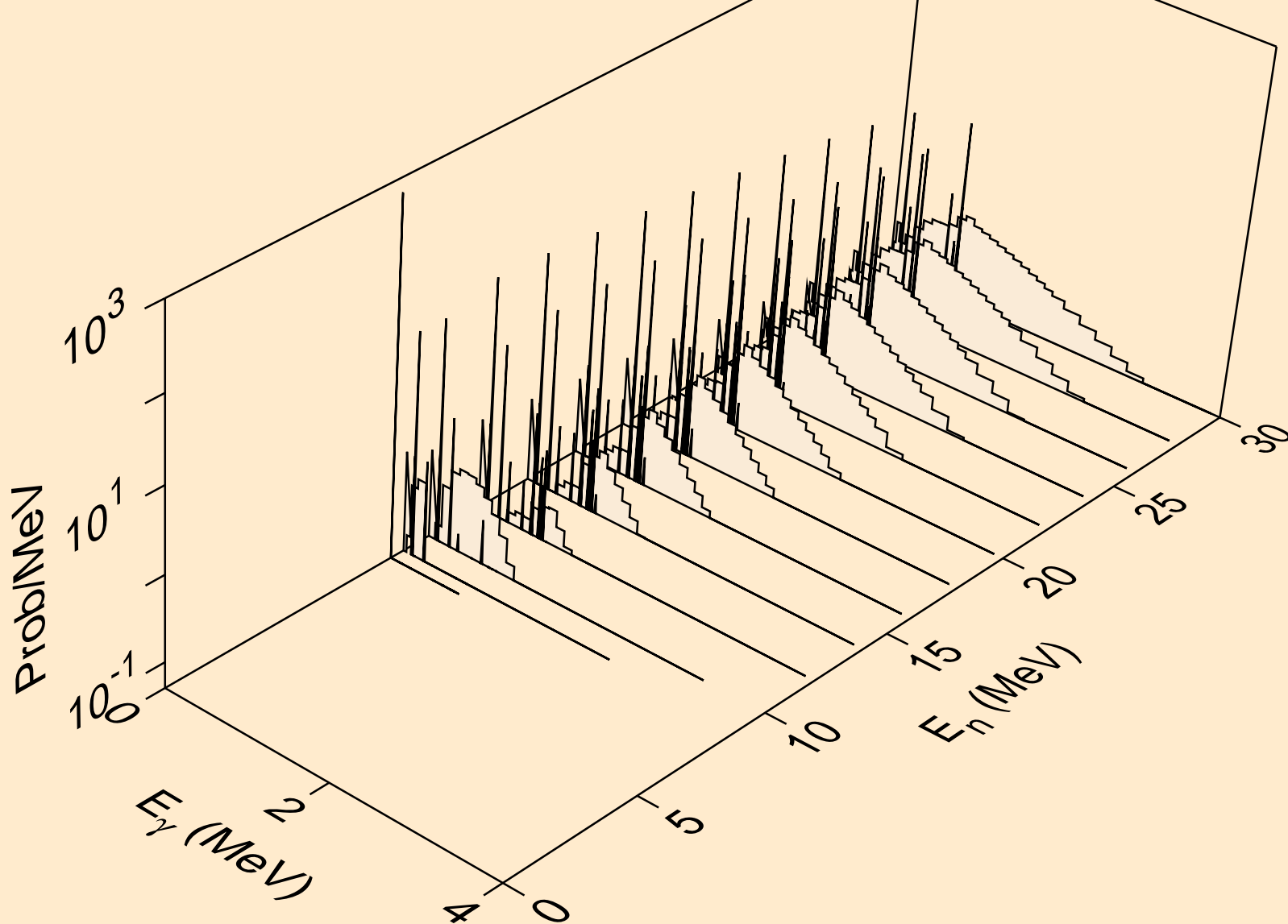
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3np)



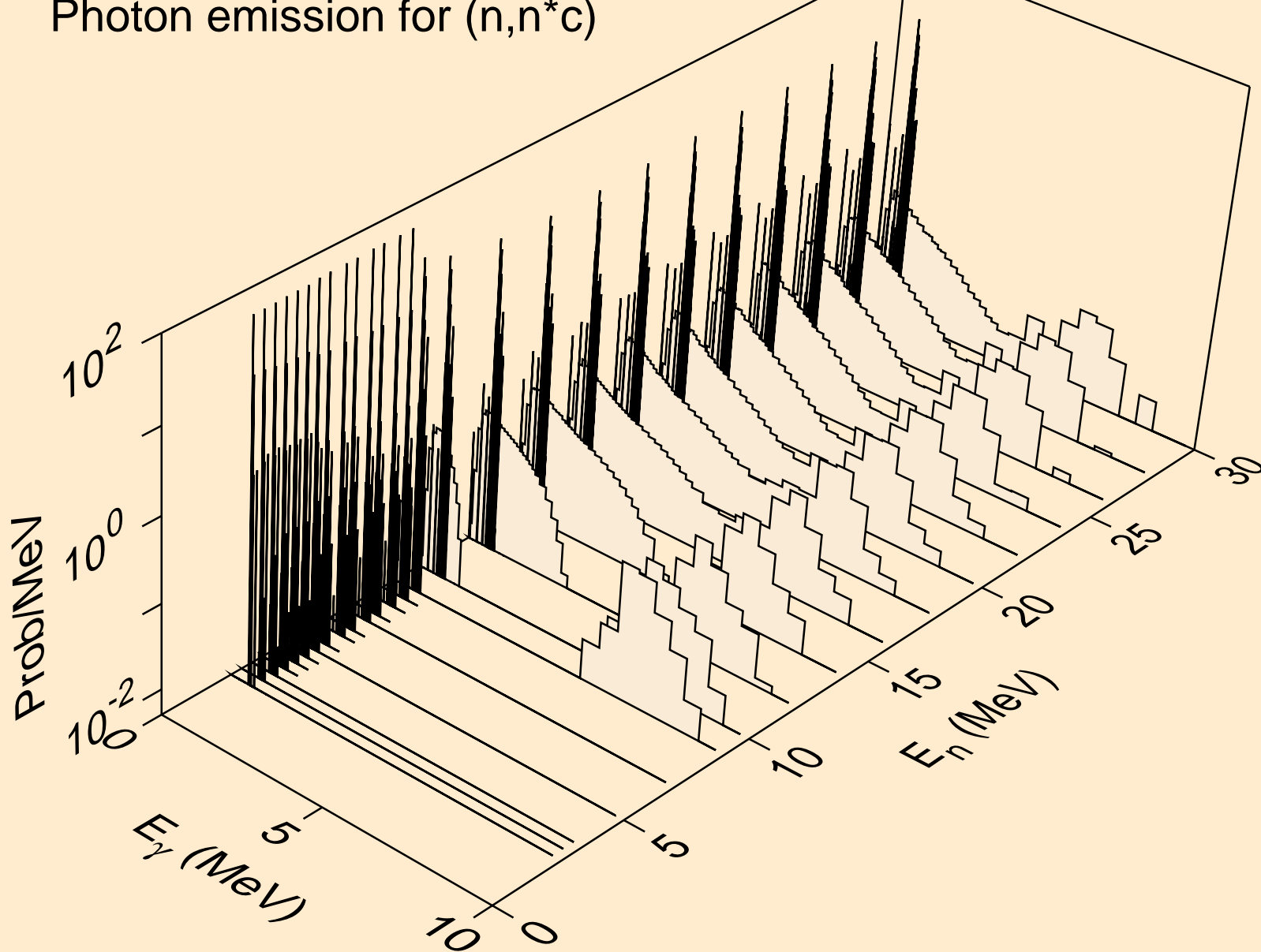
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2np)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,npa)

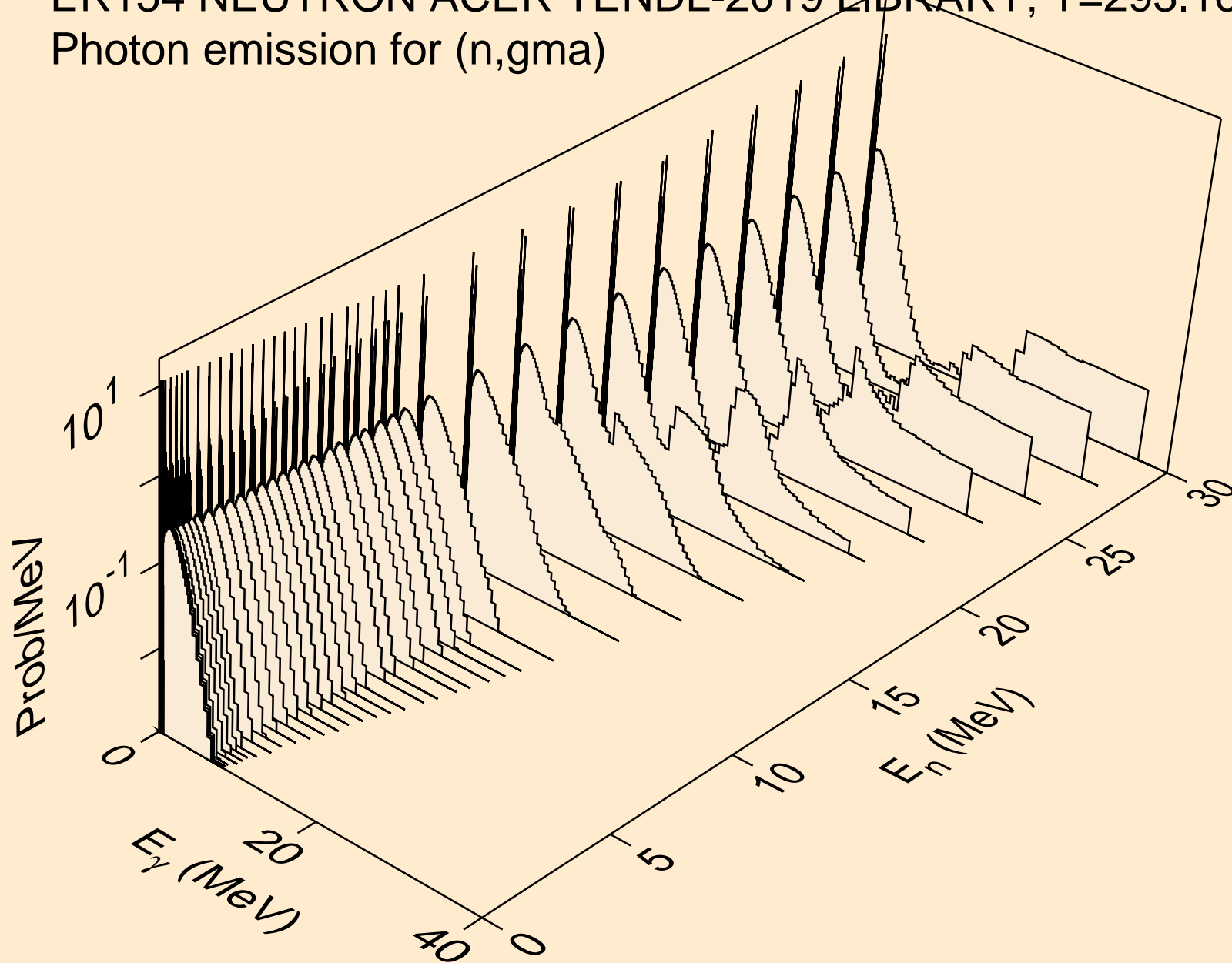


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,n\*c)

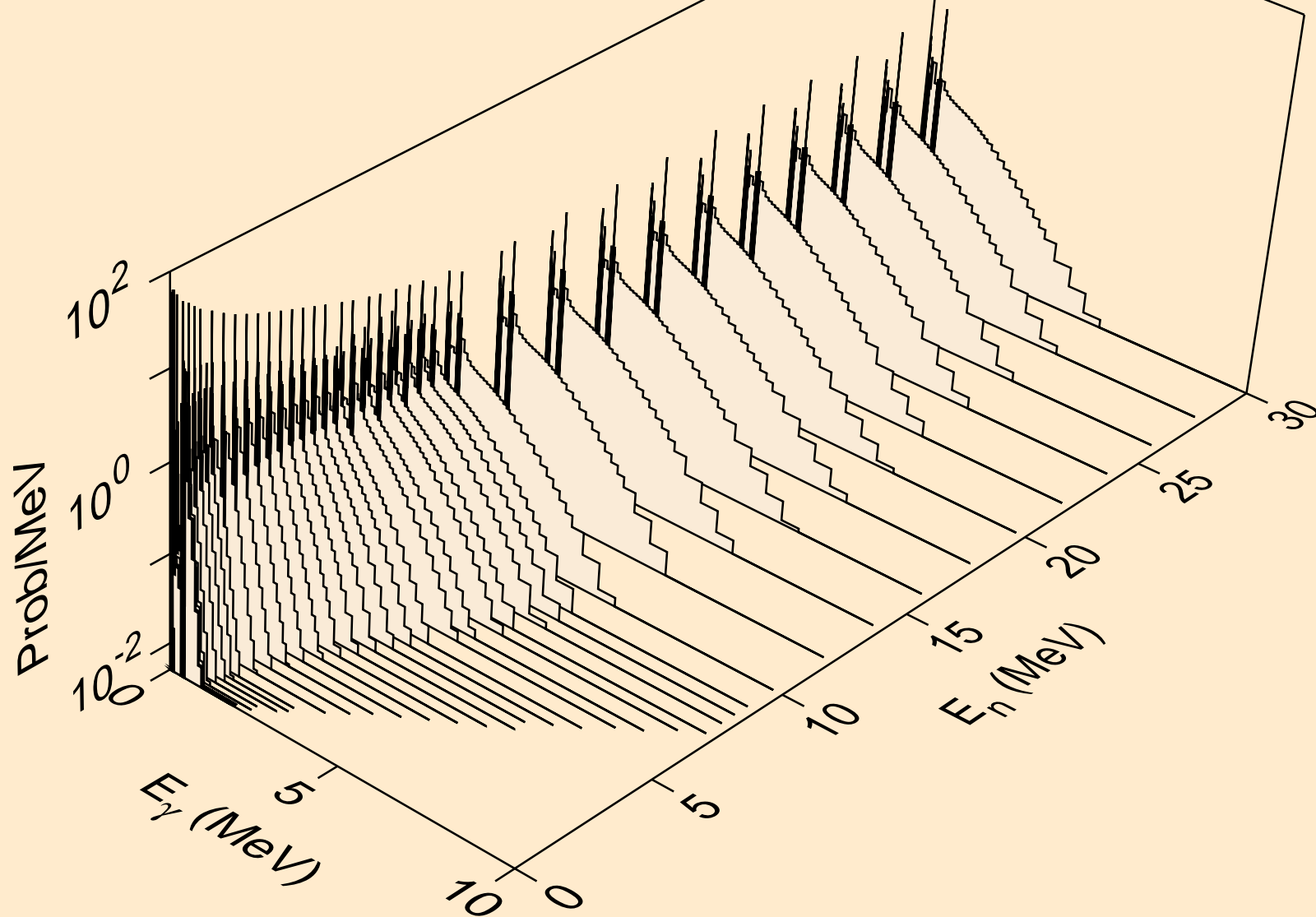




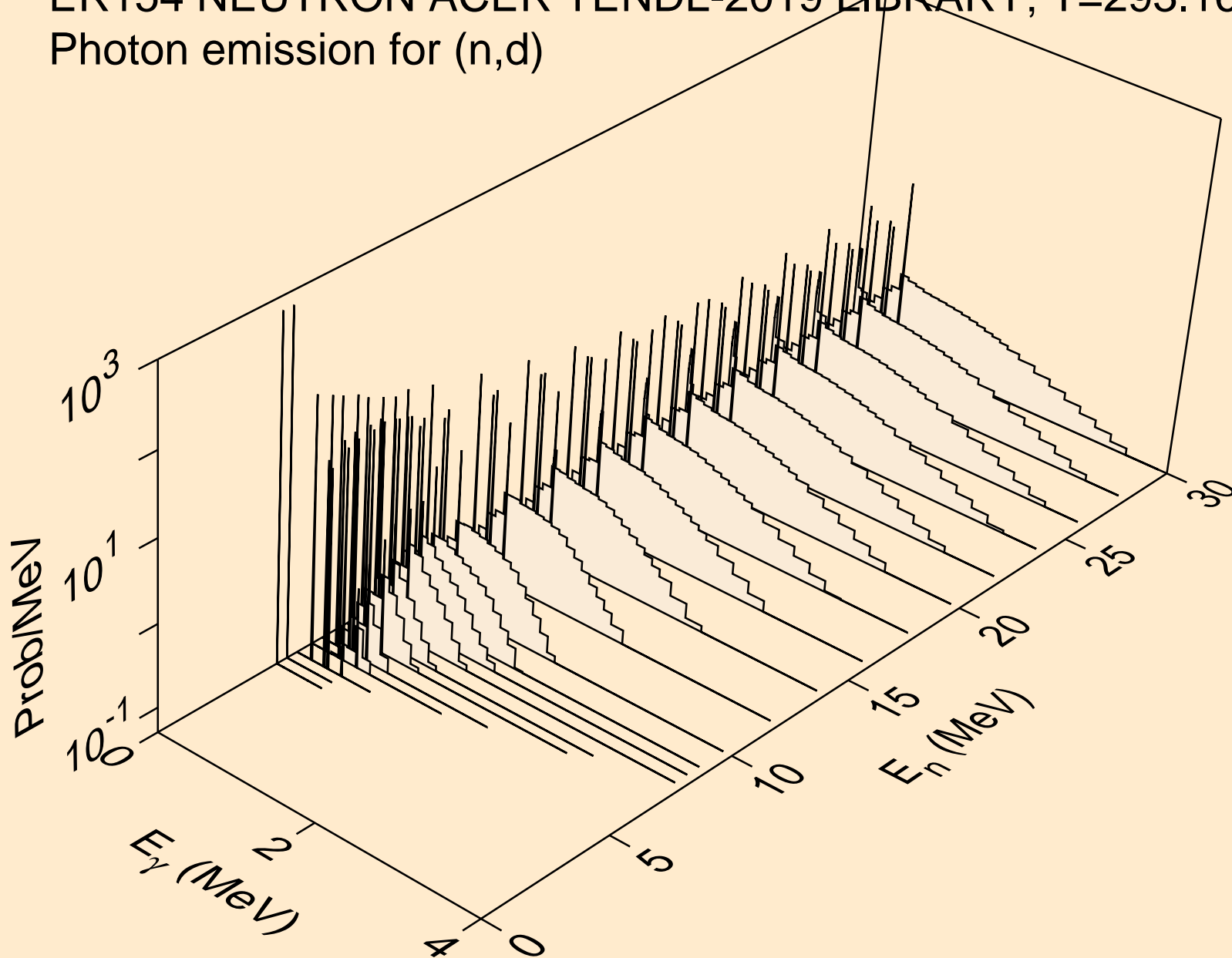
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,gma)



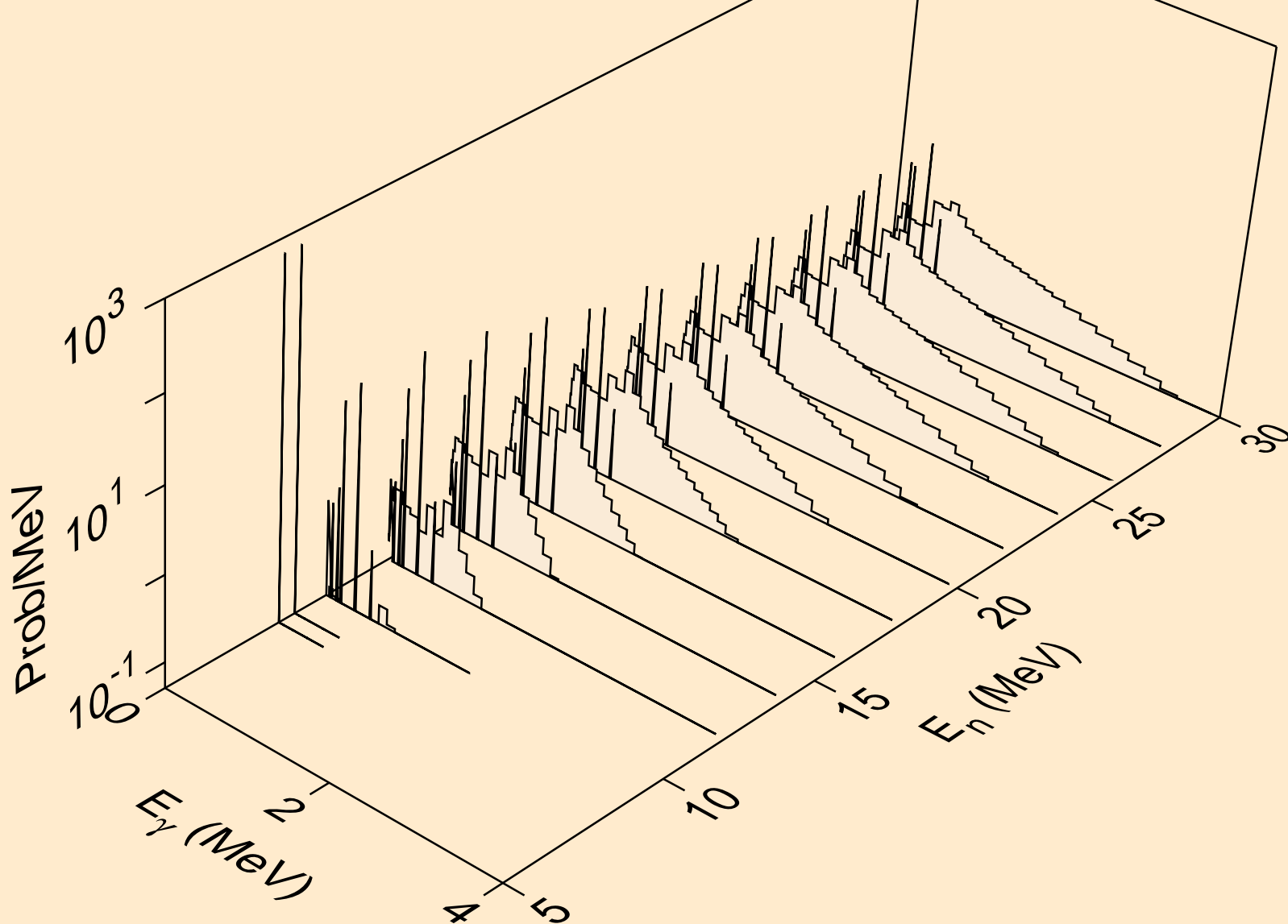
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,p)



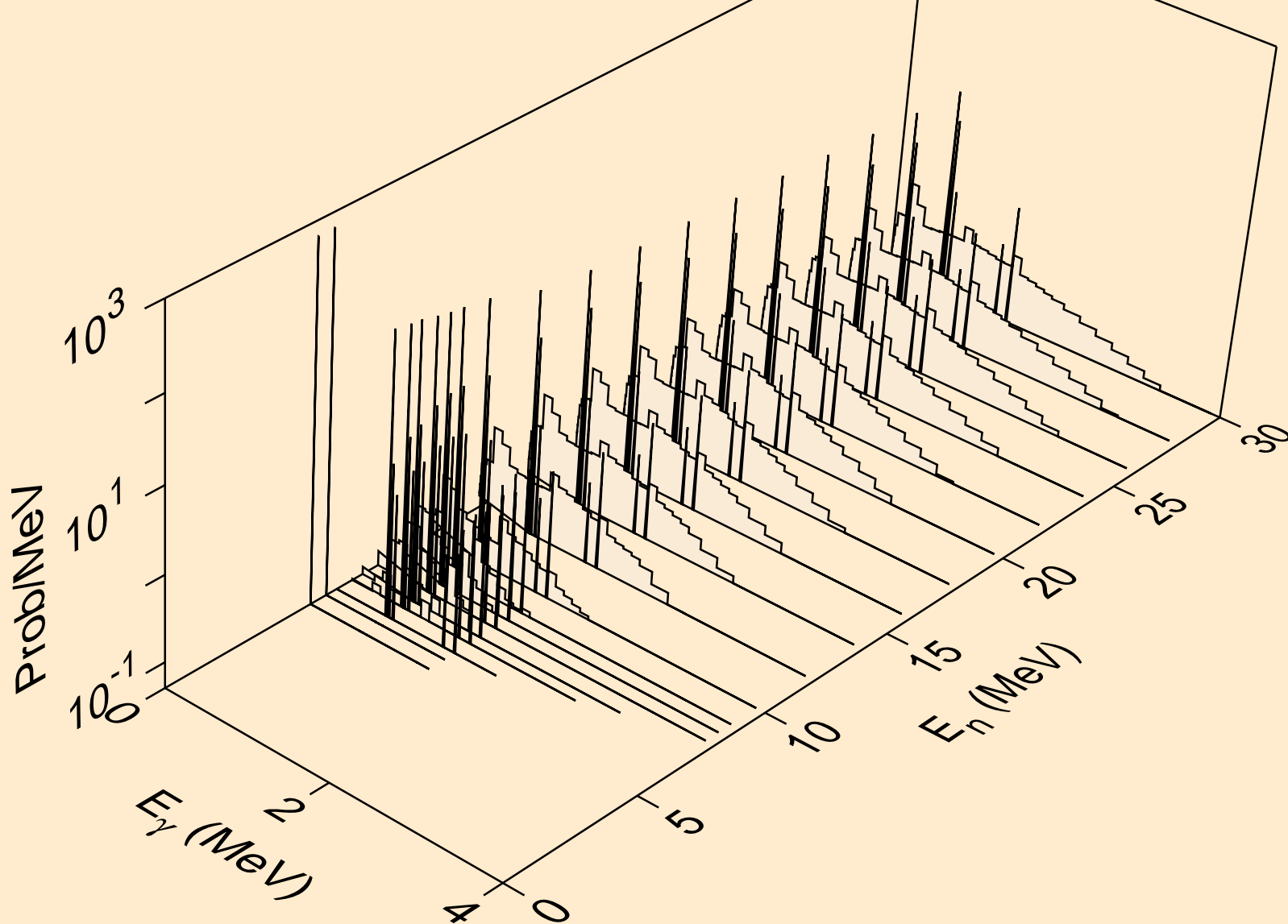
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,d)



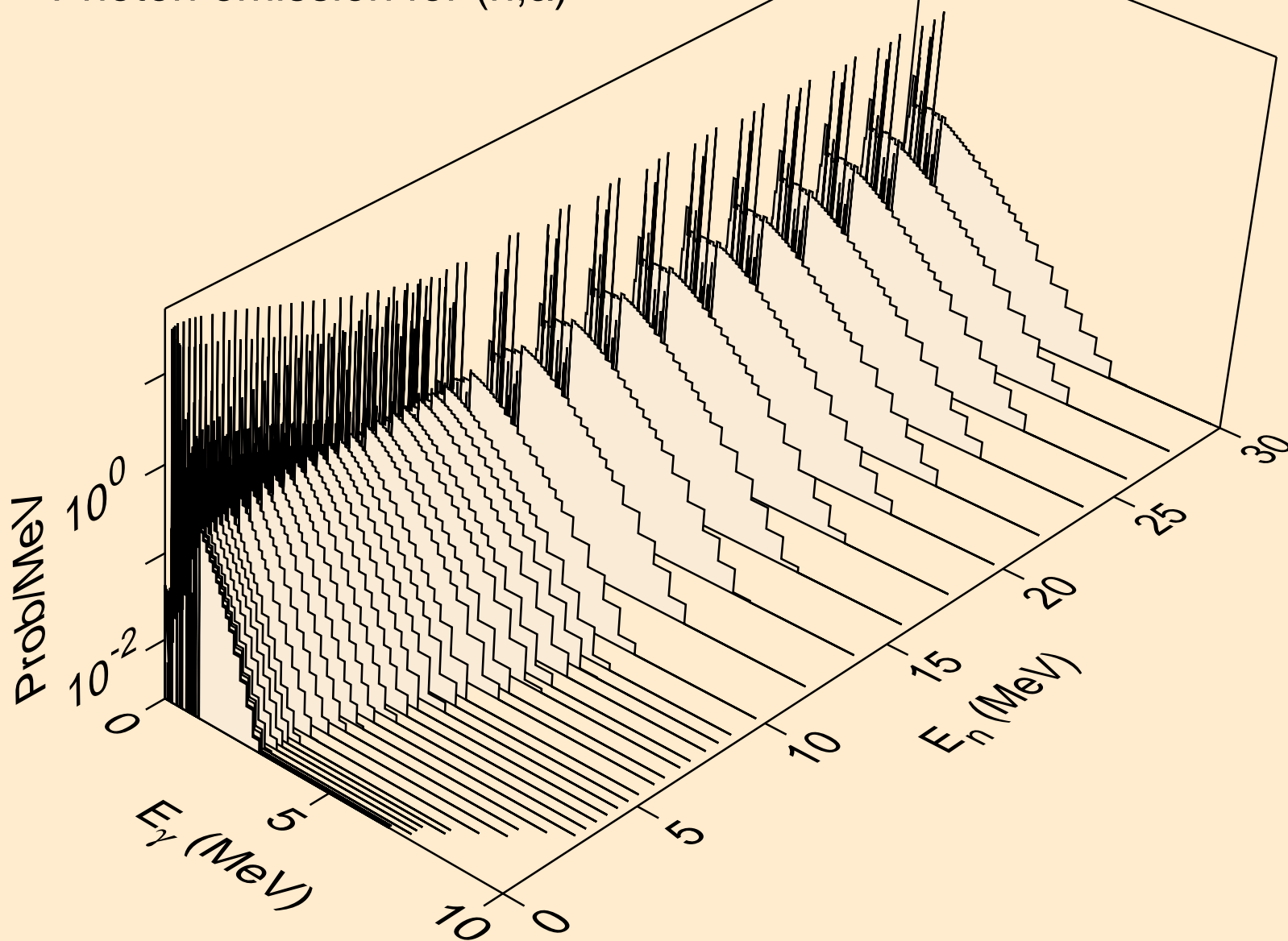
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,t)



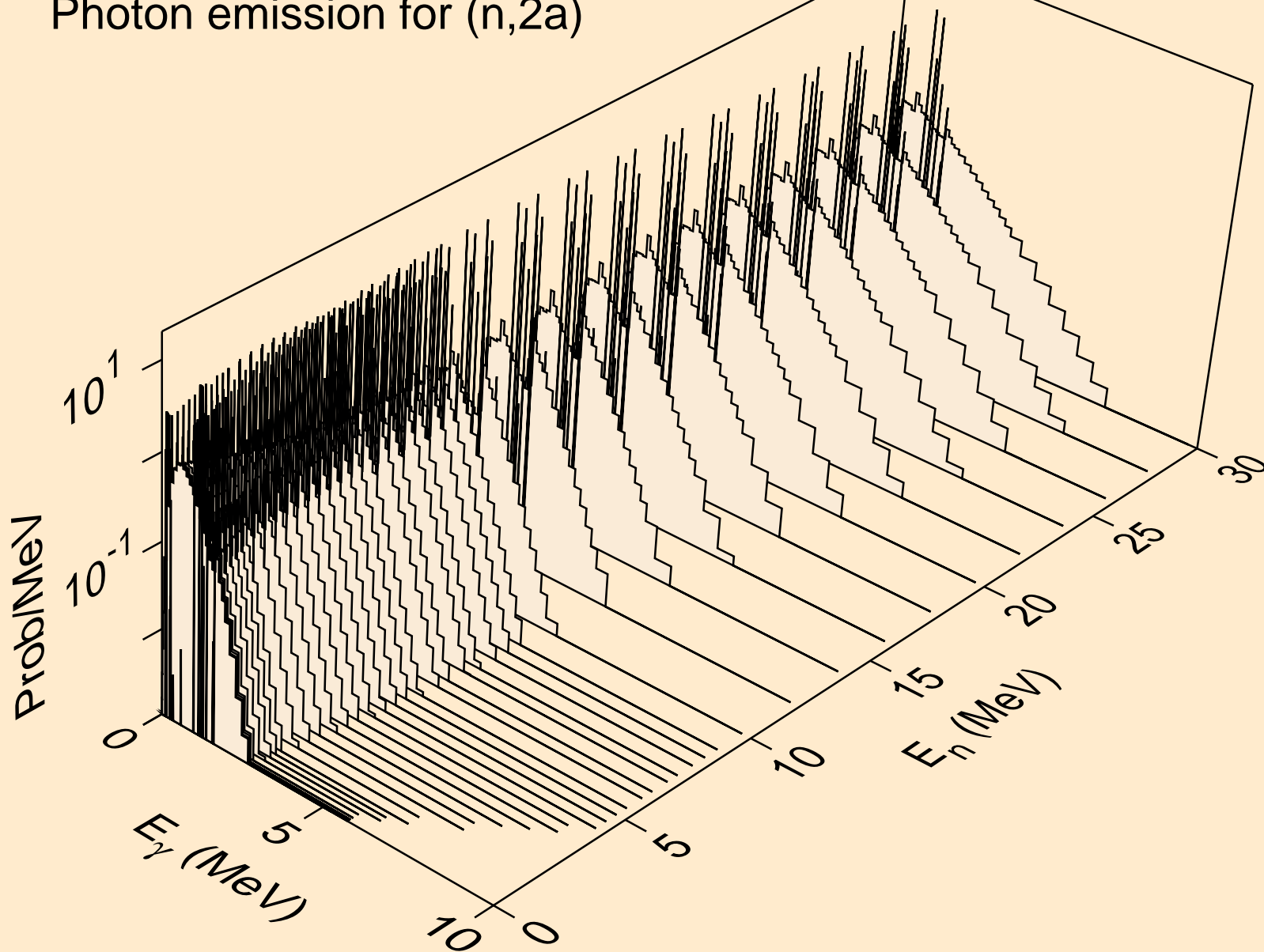
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,he3)



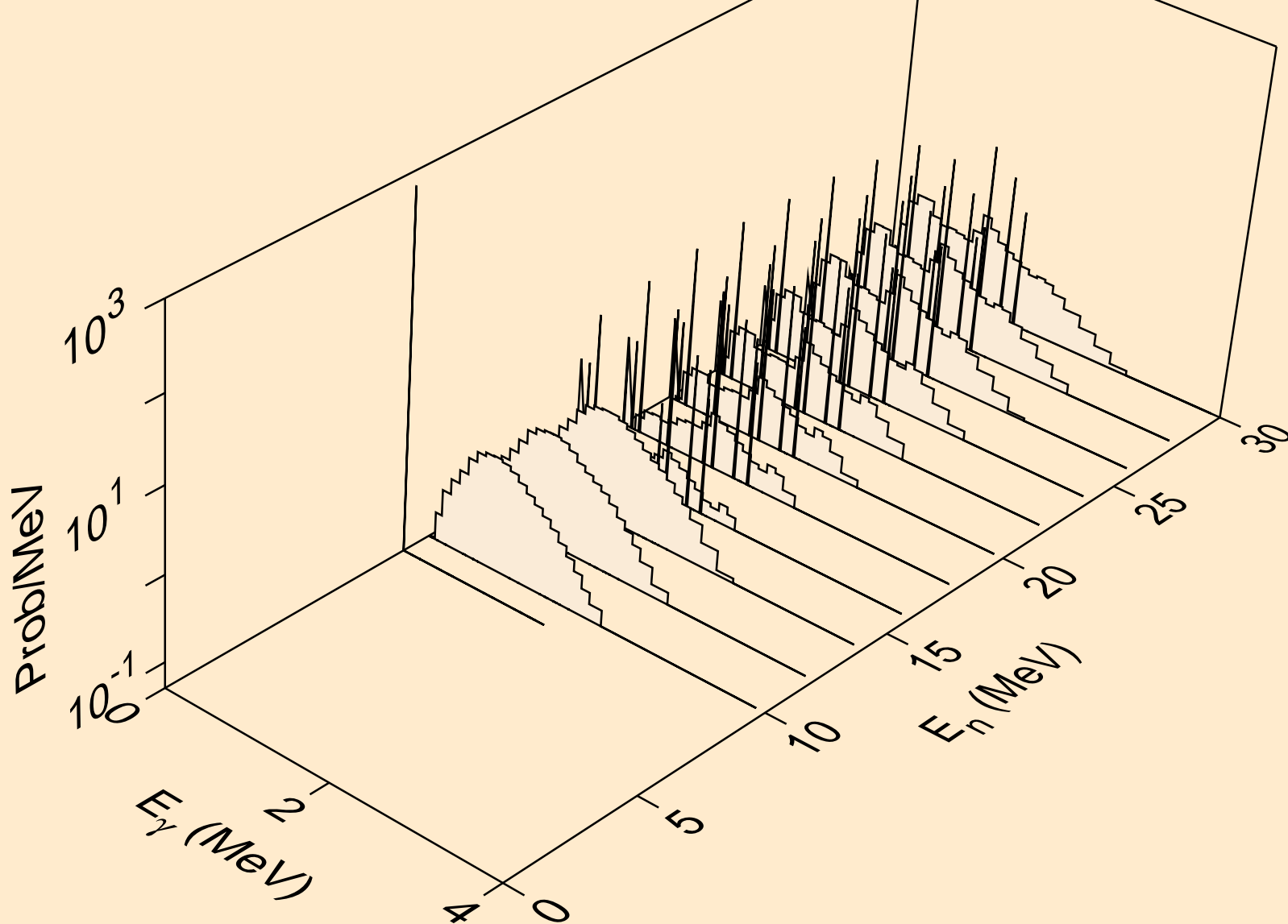
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,a)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2a)

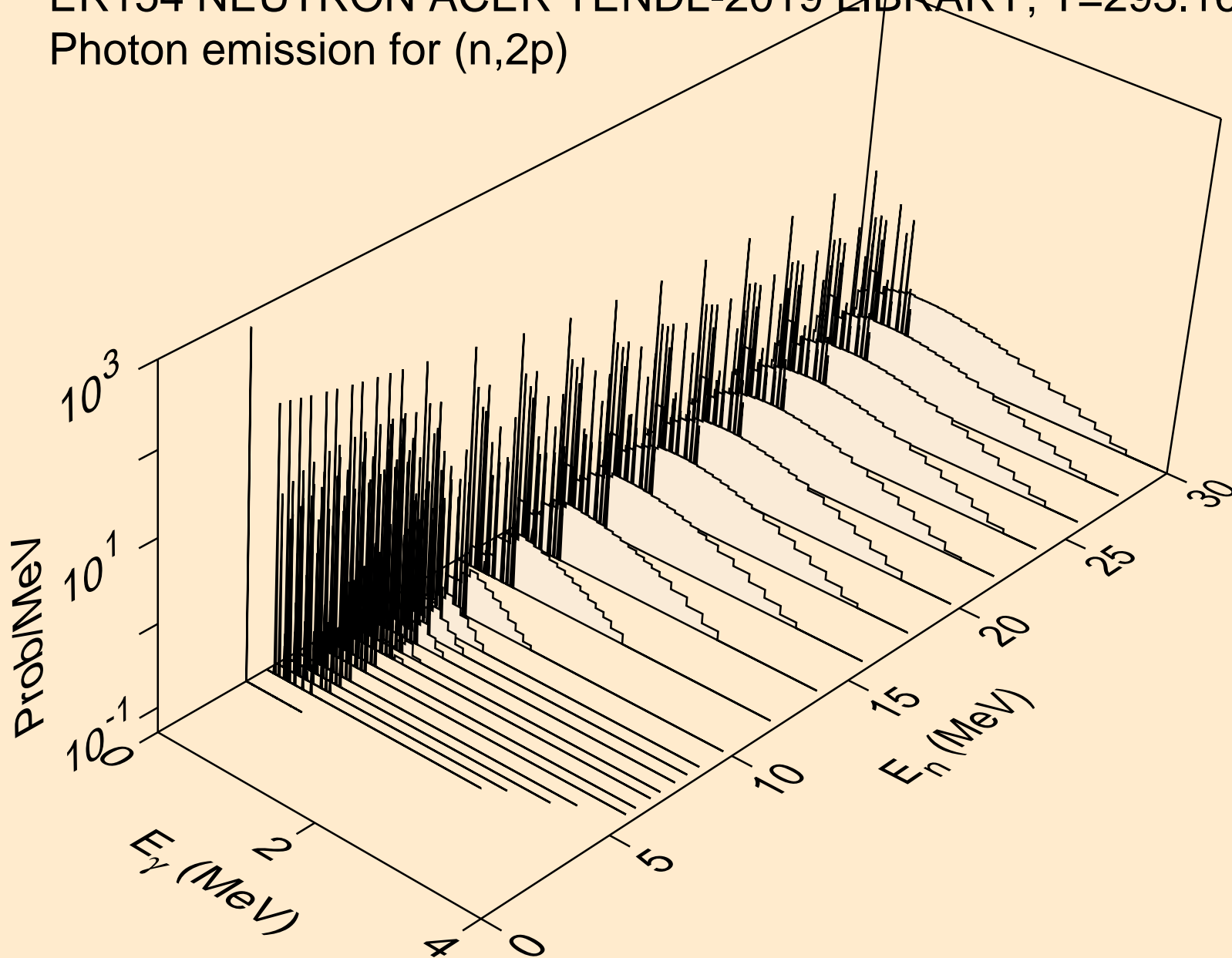


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,3a)

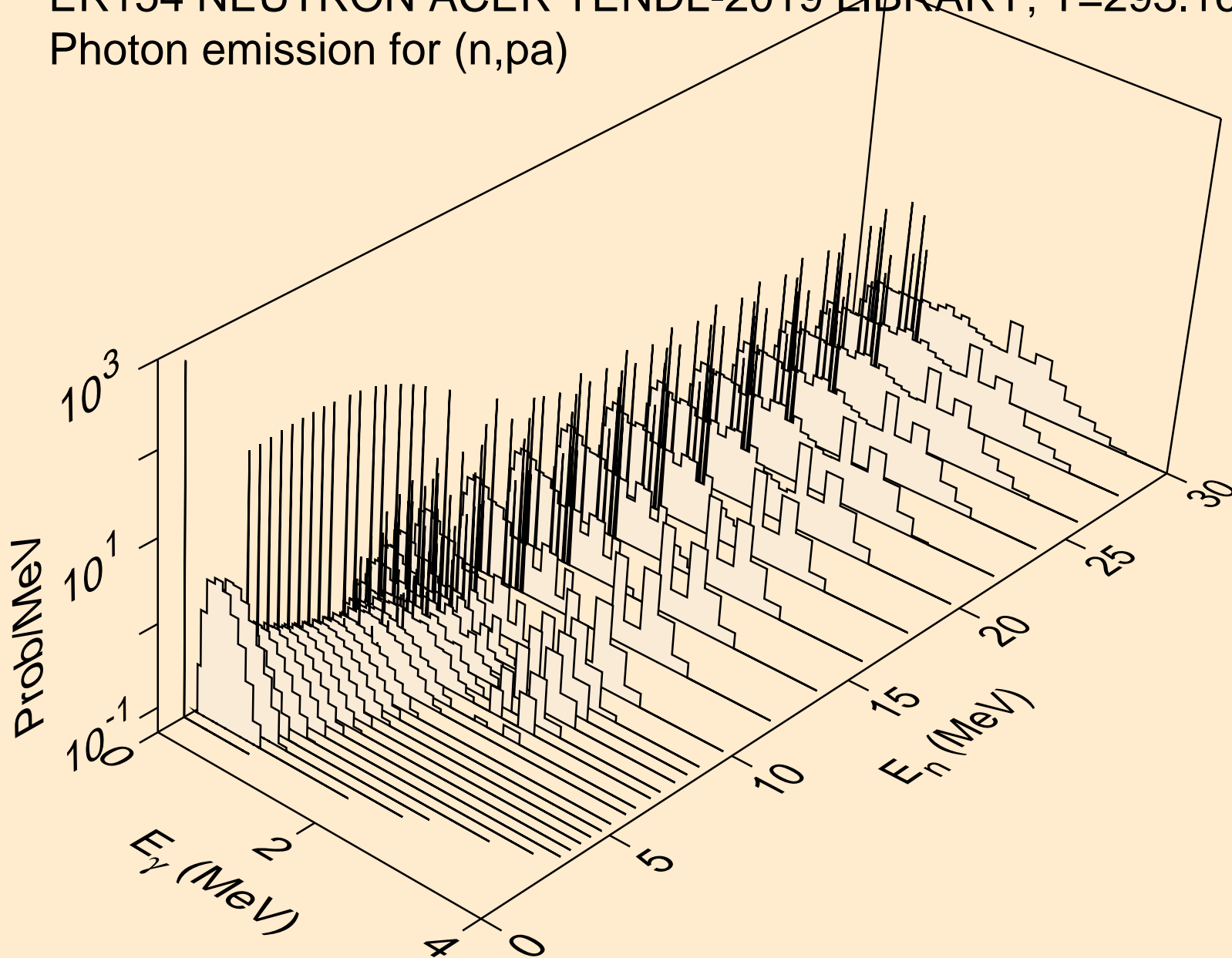




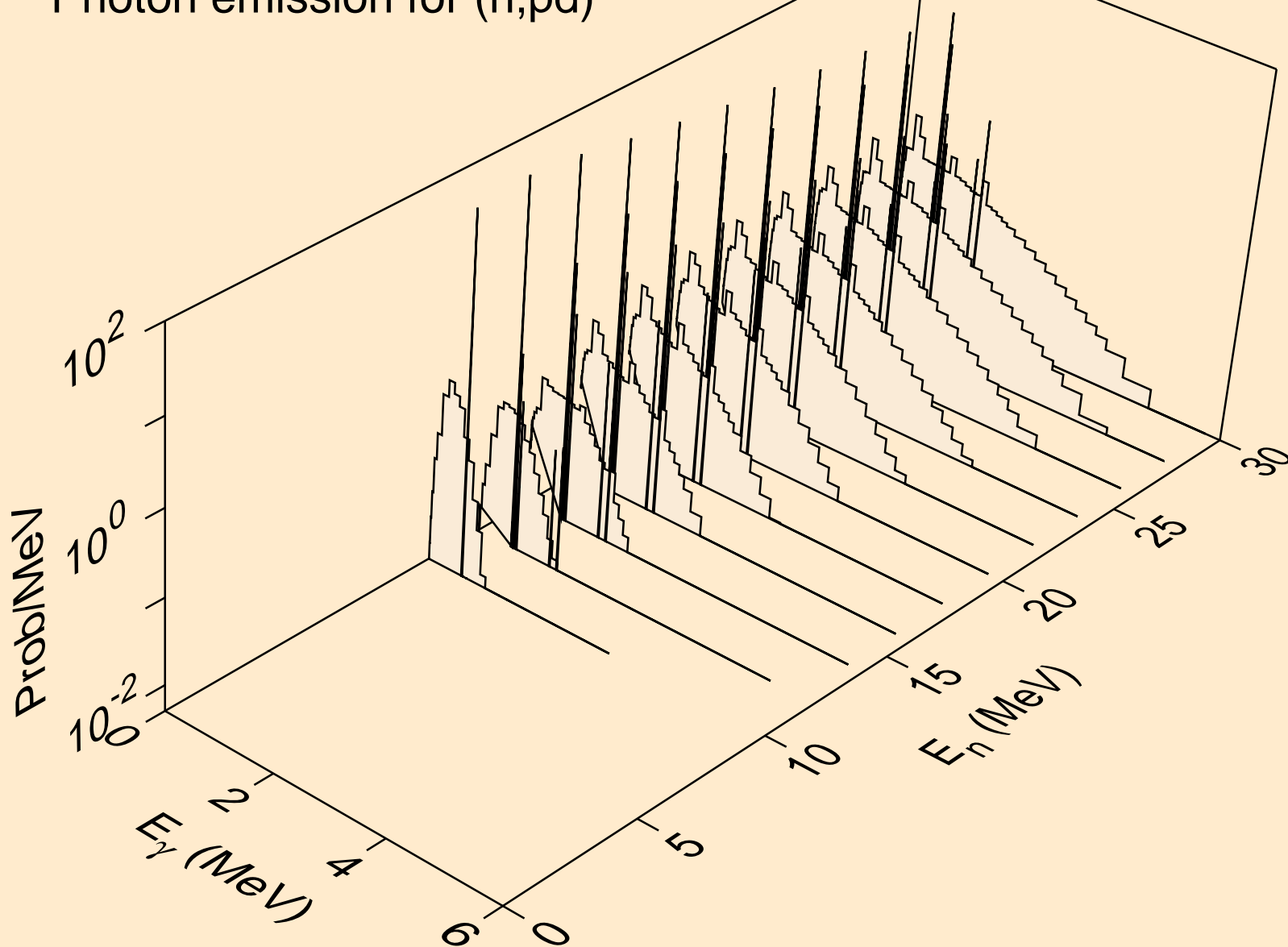
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,2p)



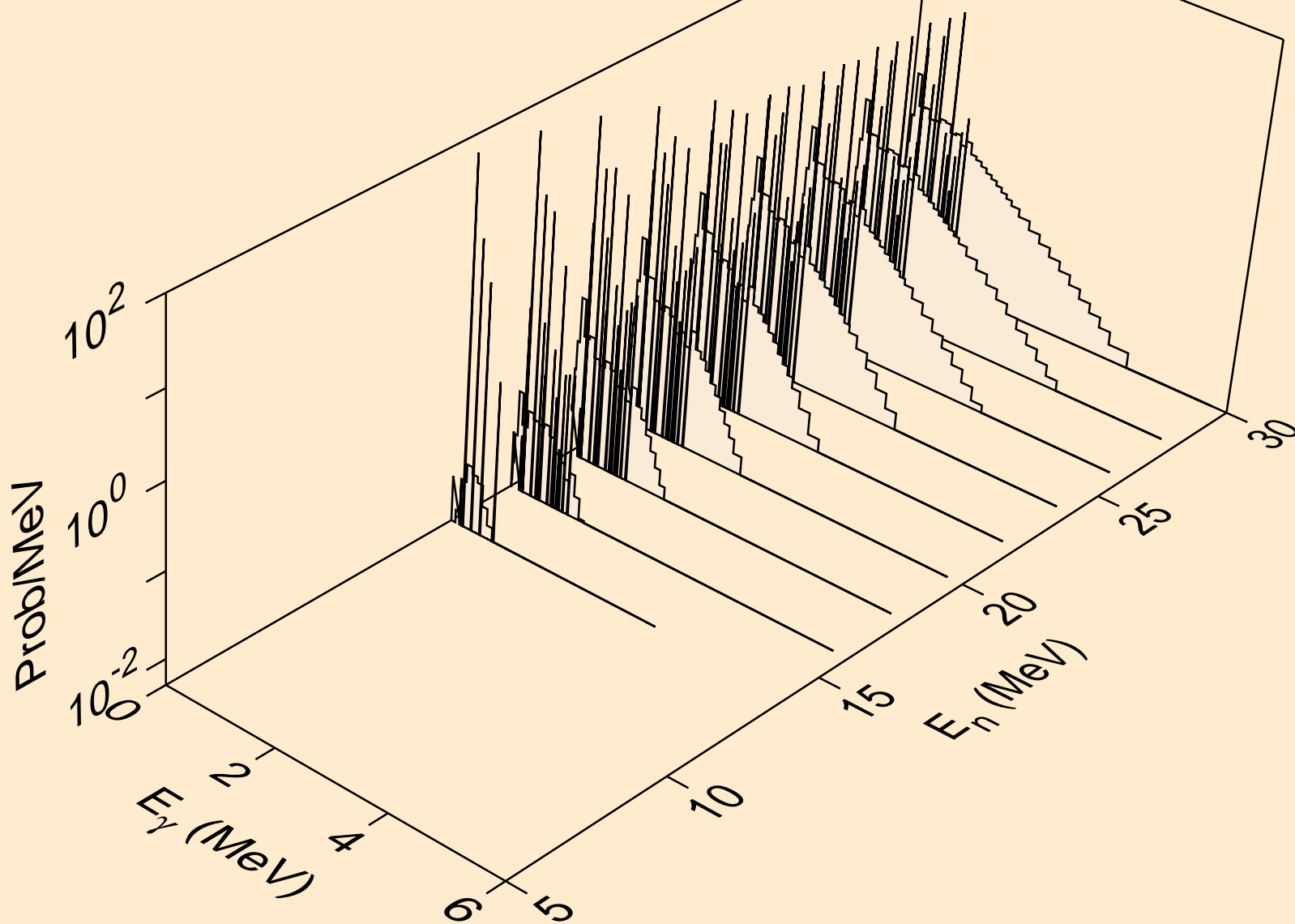
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,p $\alpha$ )



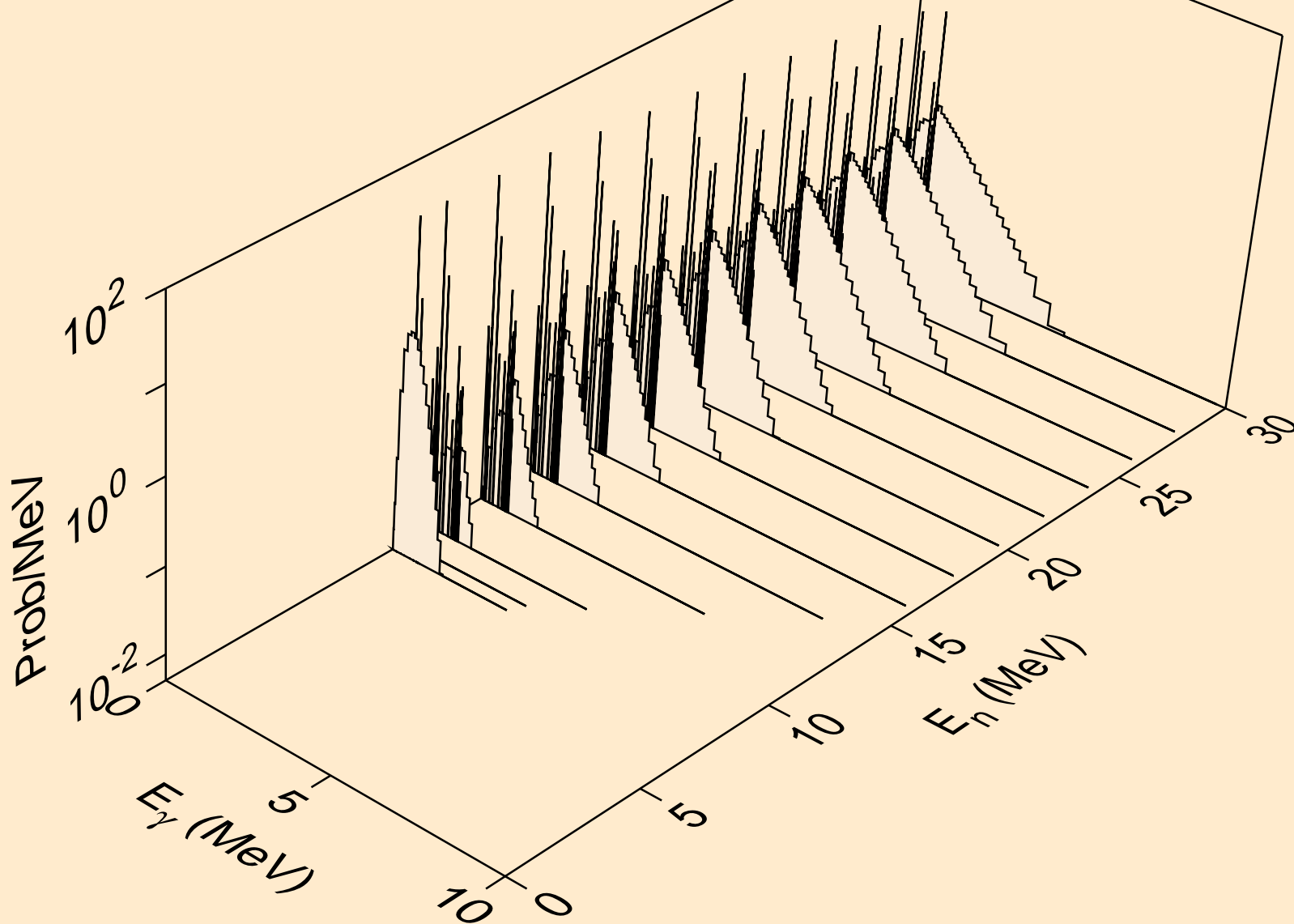
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,pd)



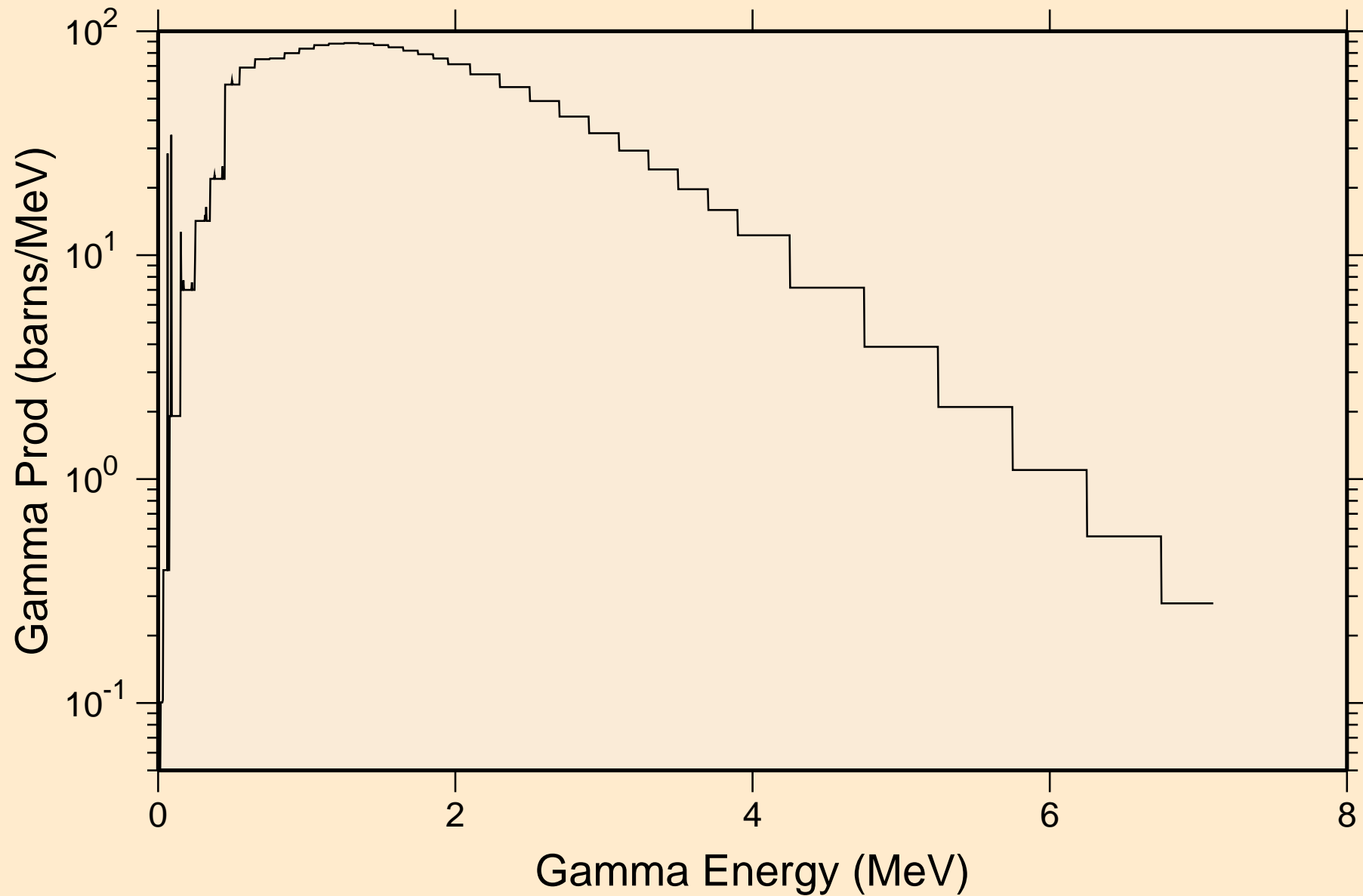
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,pt)



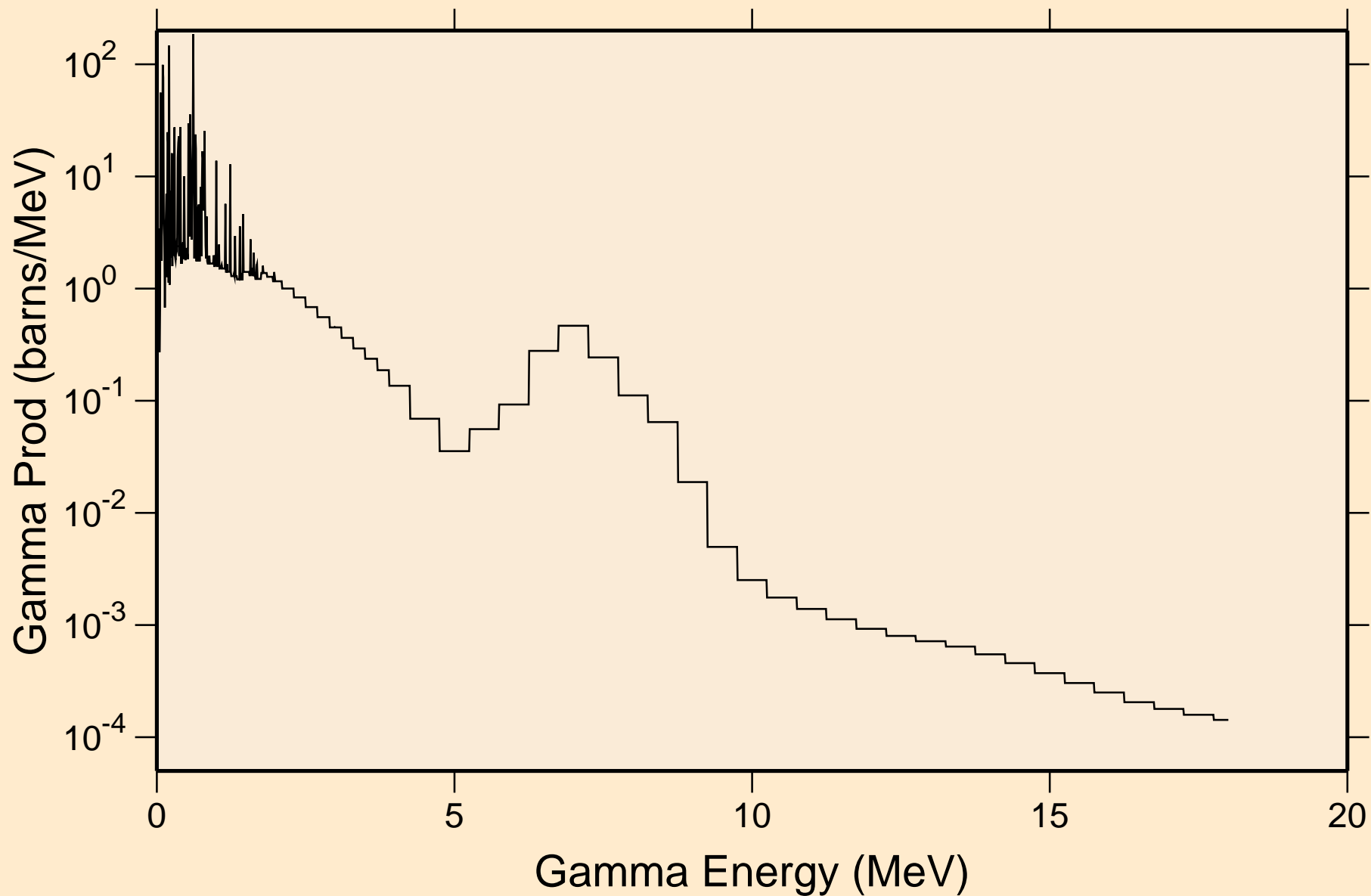
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Photon emission for (n,da)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
thermal capture photon spectrum

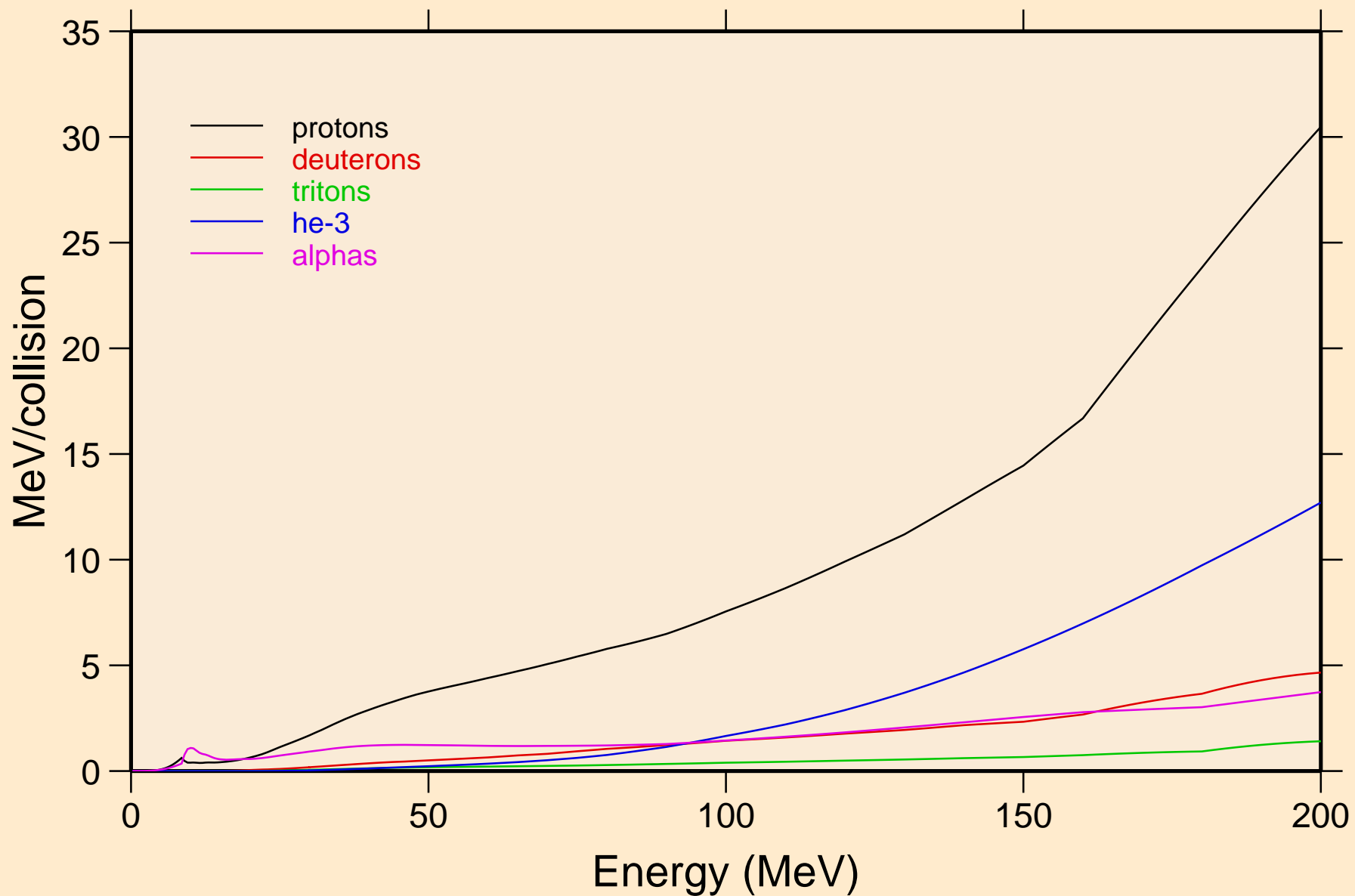


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
14 MeV photon spectrum



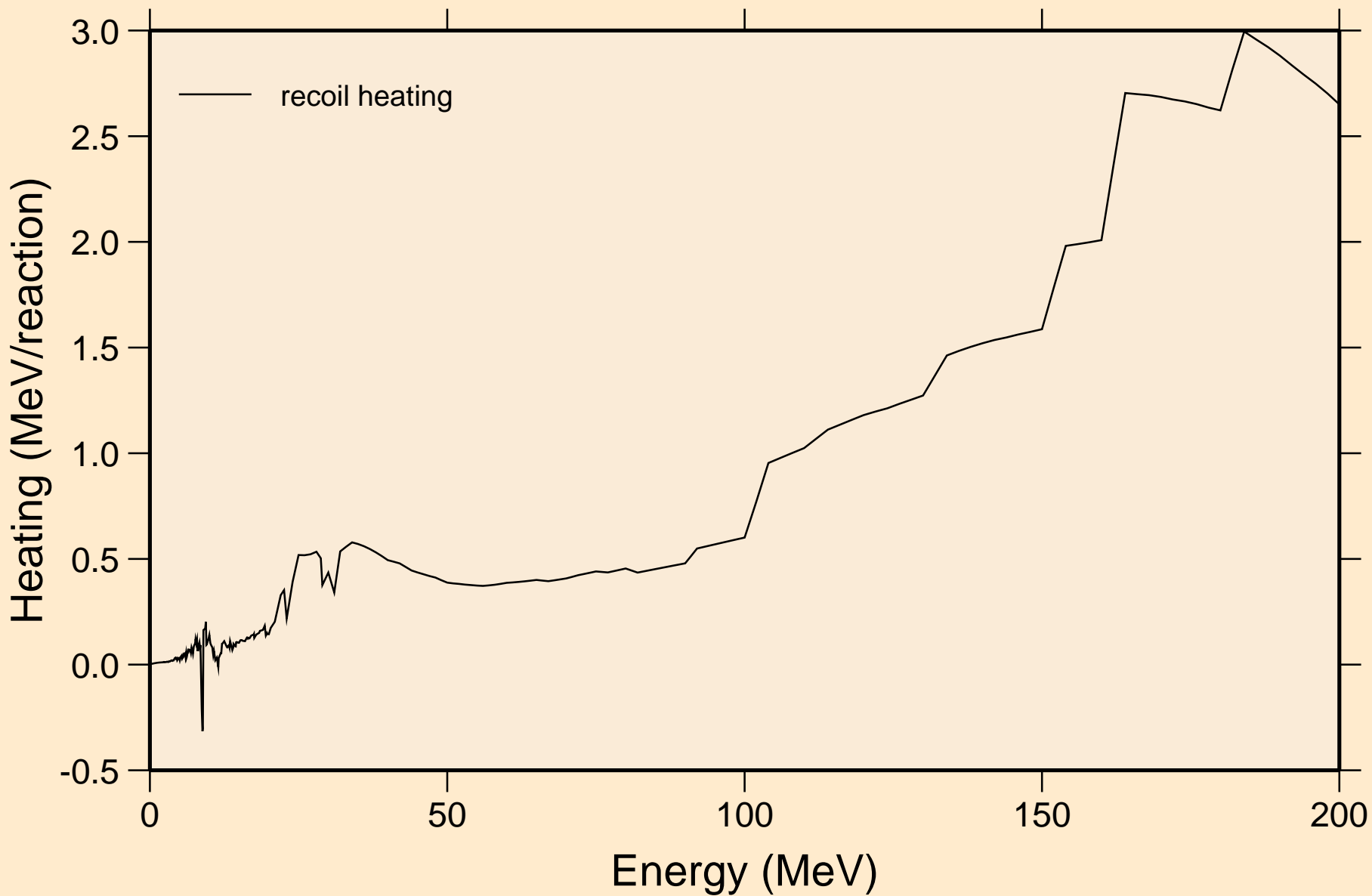
# ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K

## Particle heating contributions

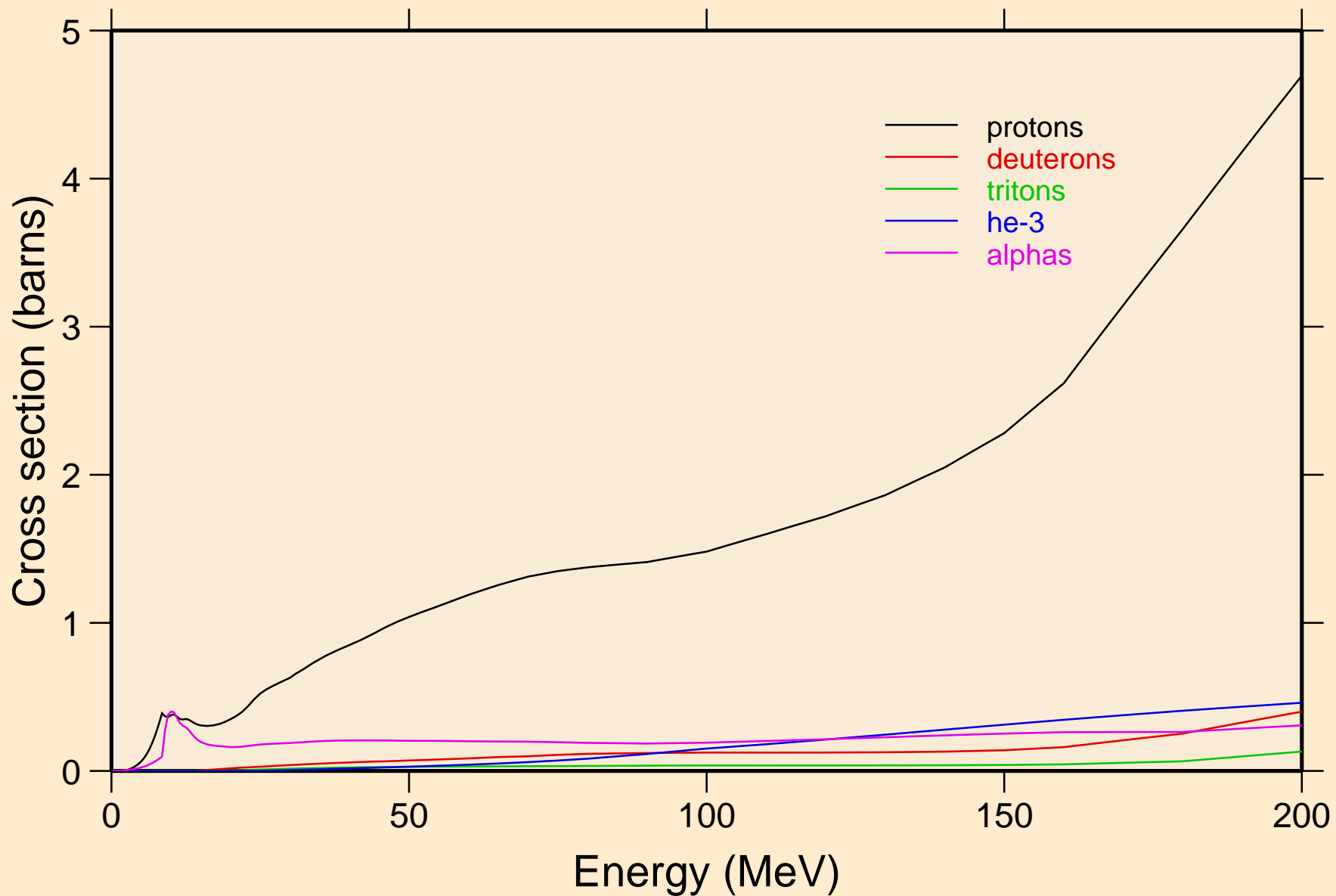




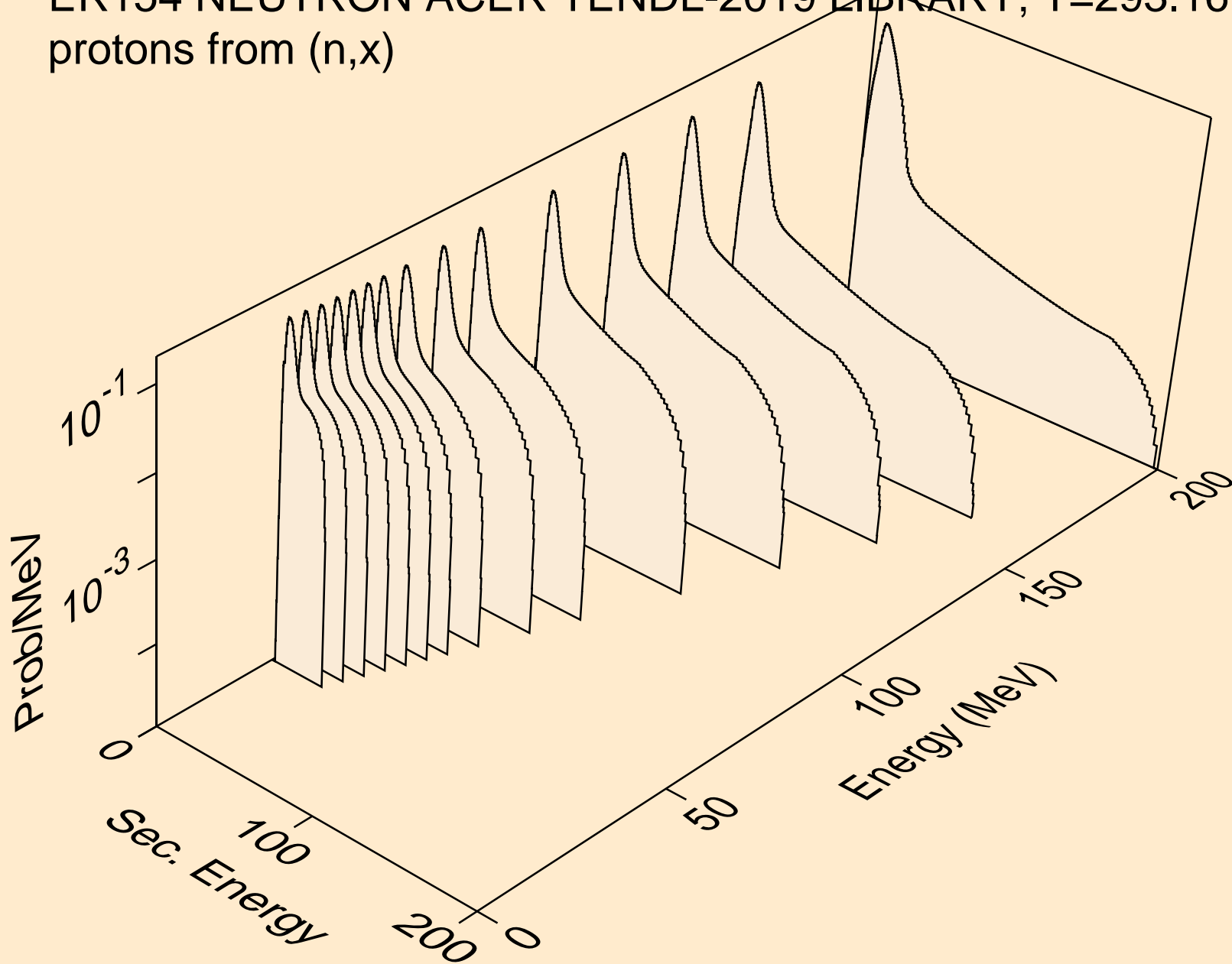
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Recoil Heating



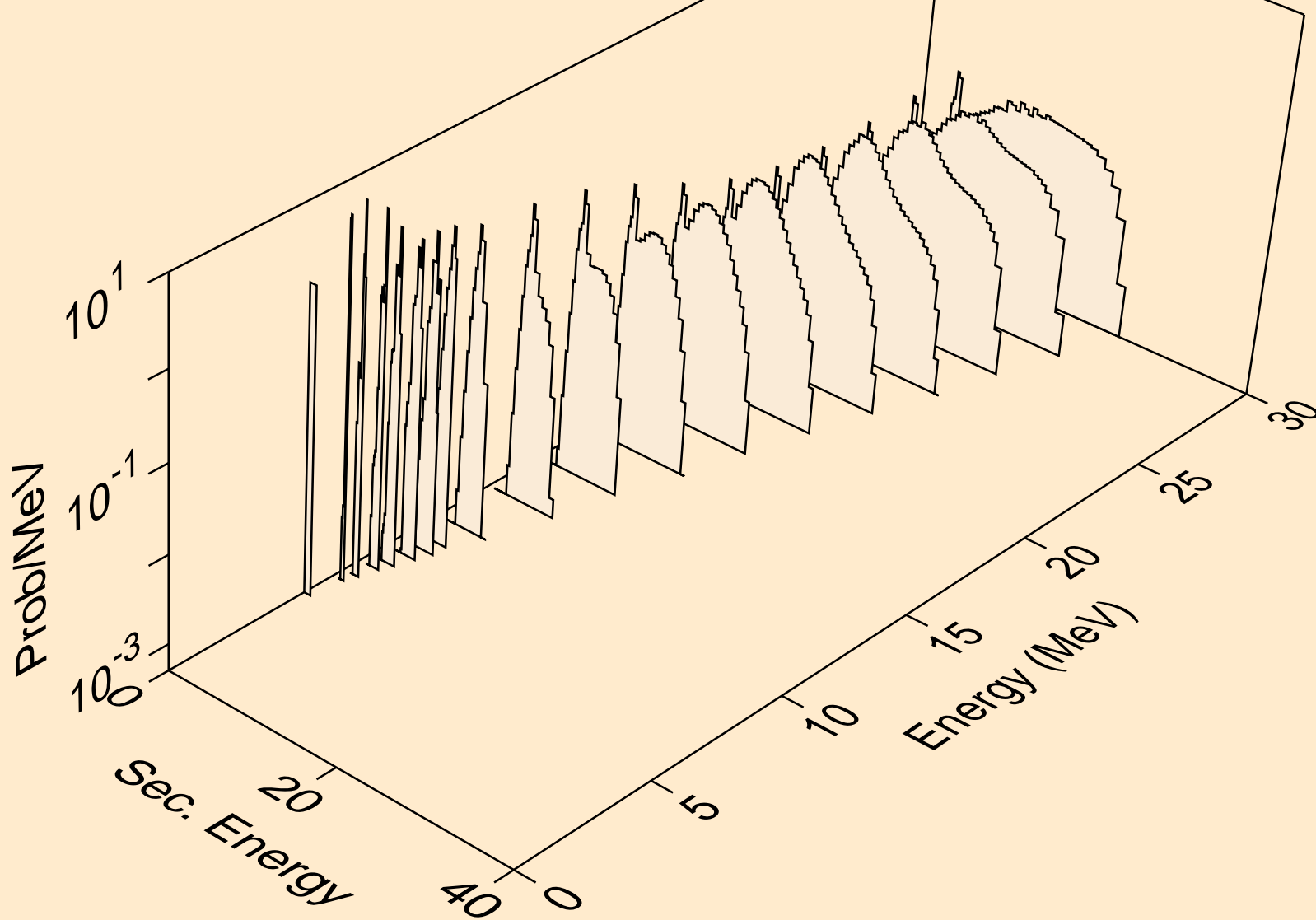
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
Particle production cross sections



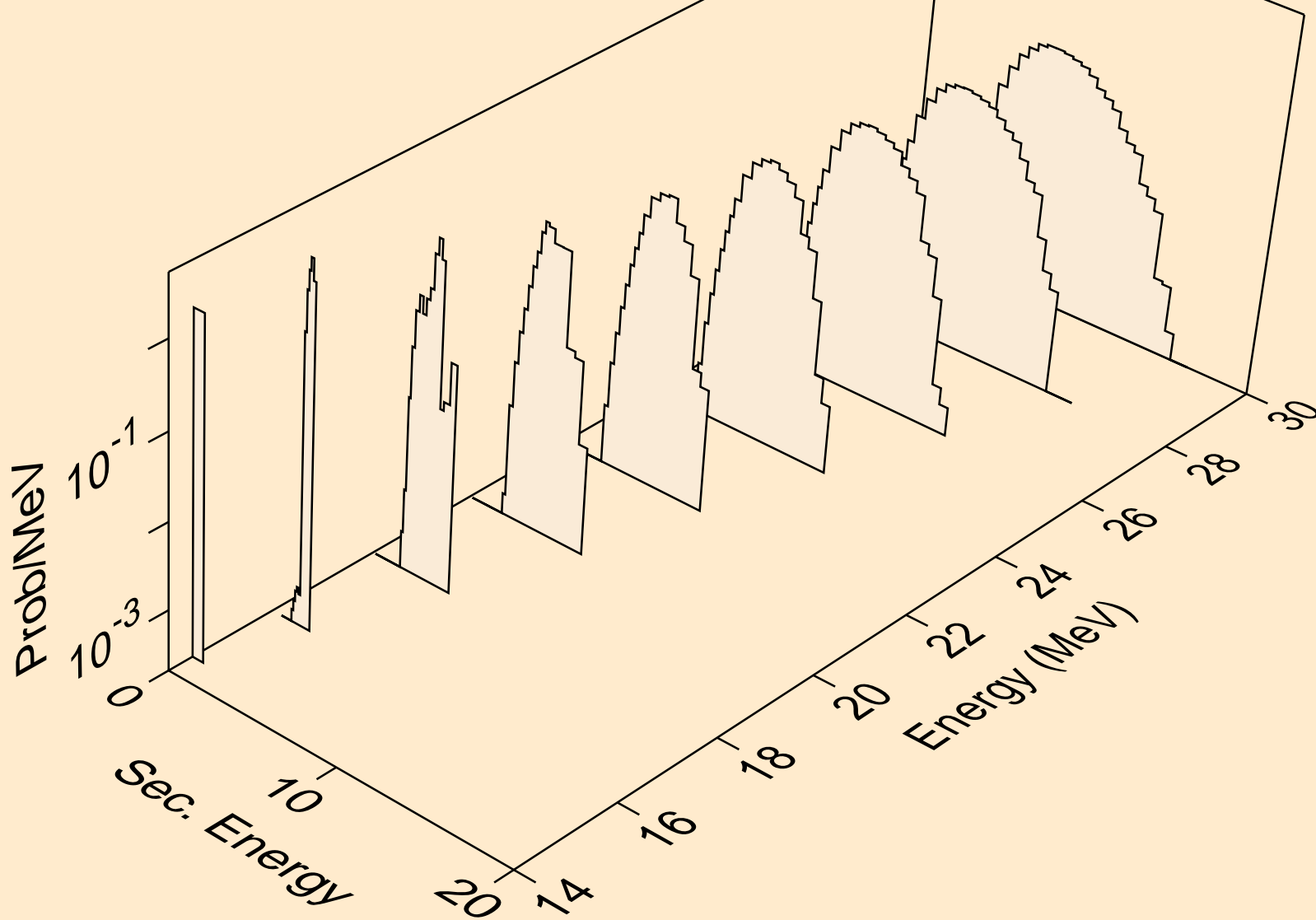
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,x)



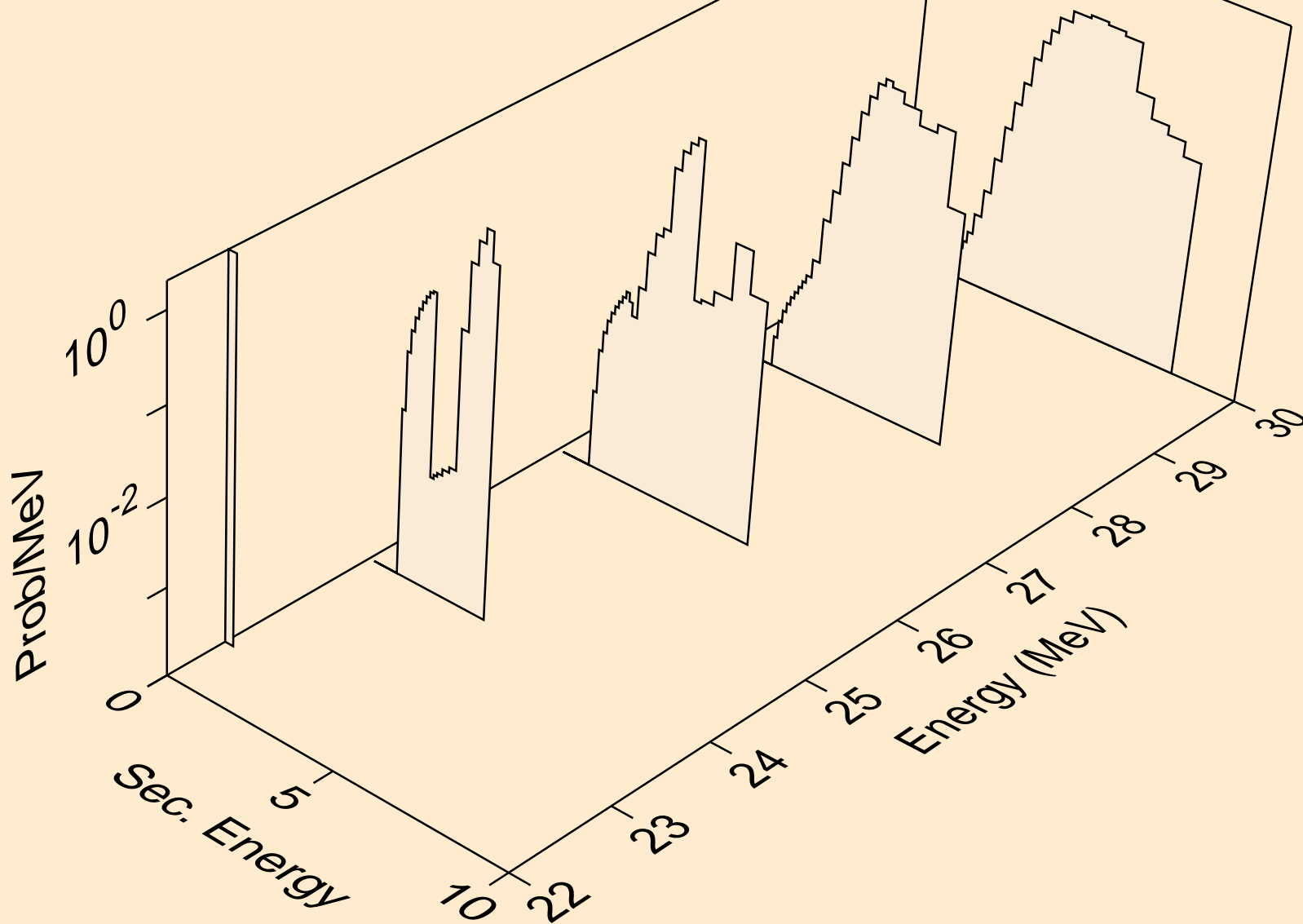
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,n\*)p



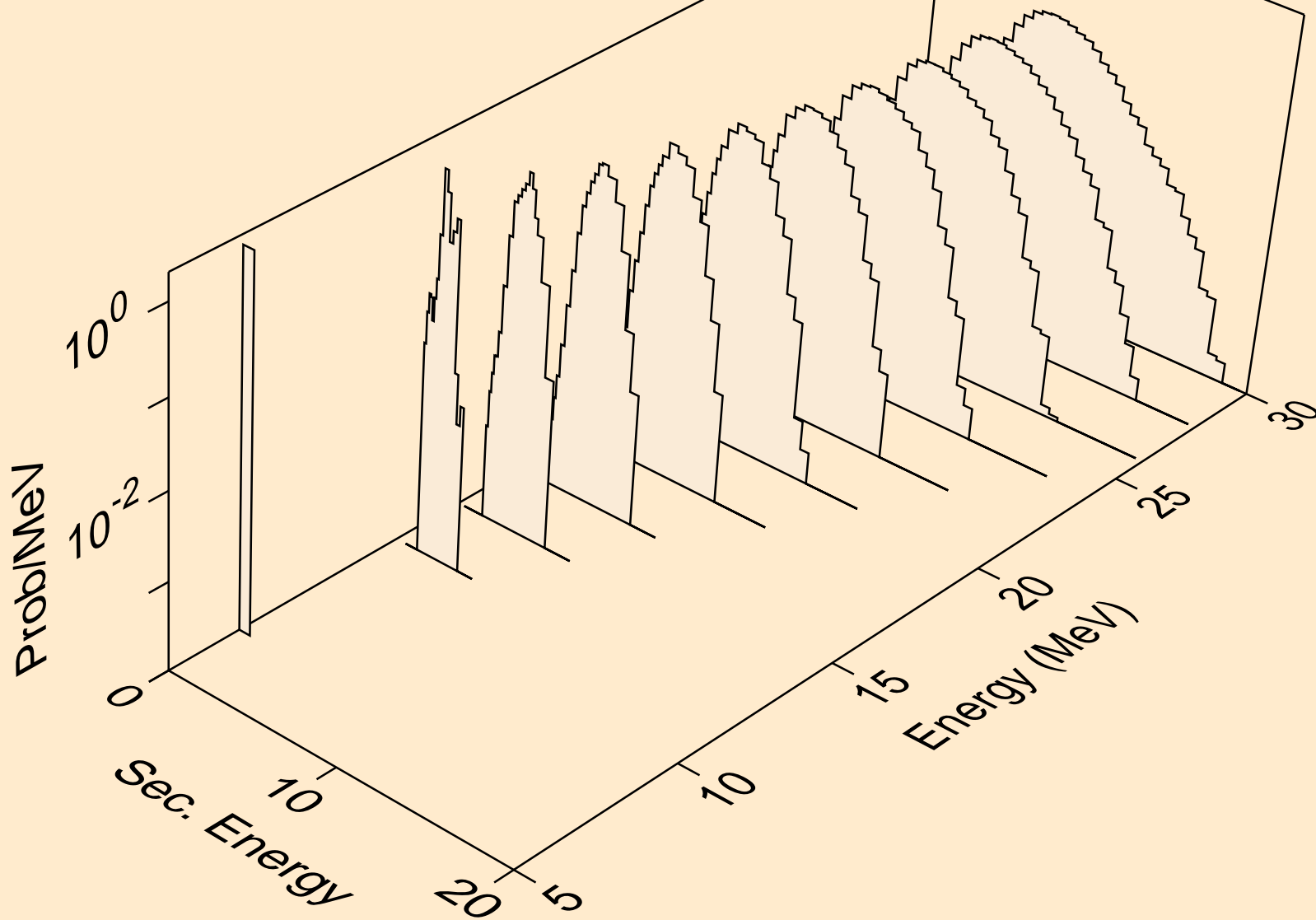
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,2np)



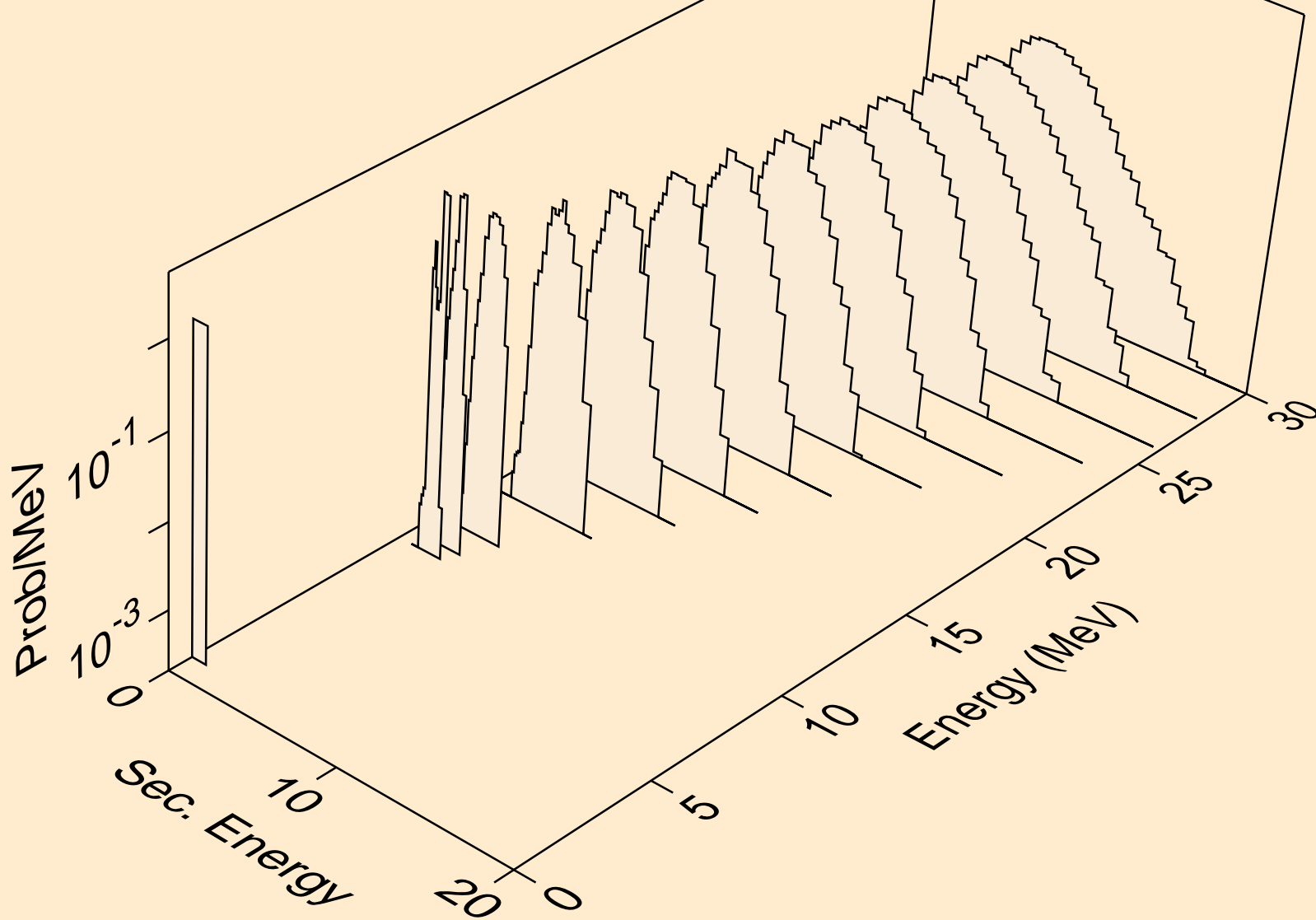
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,3np)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,2np)

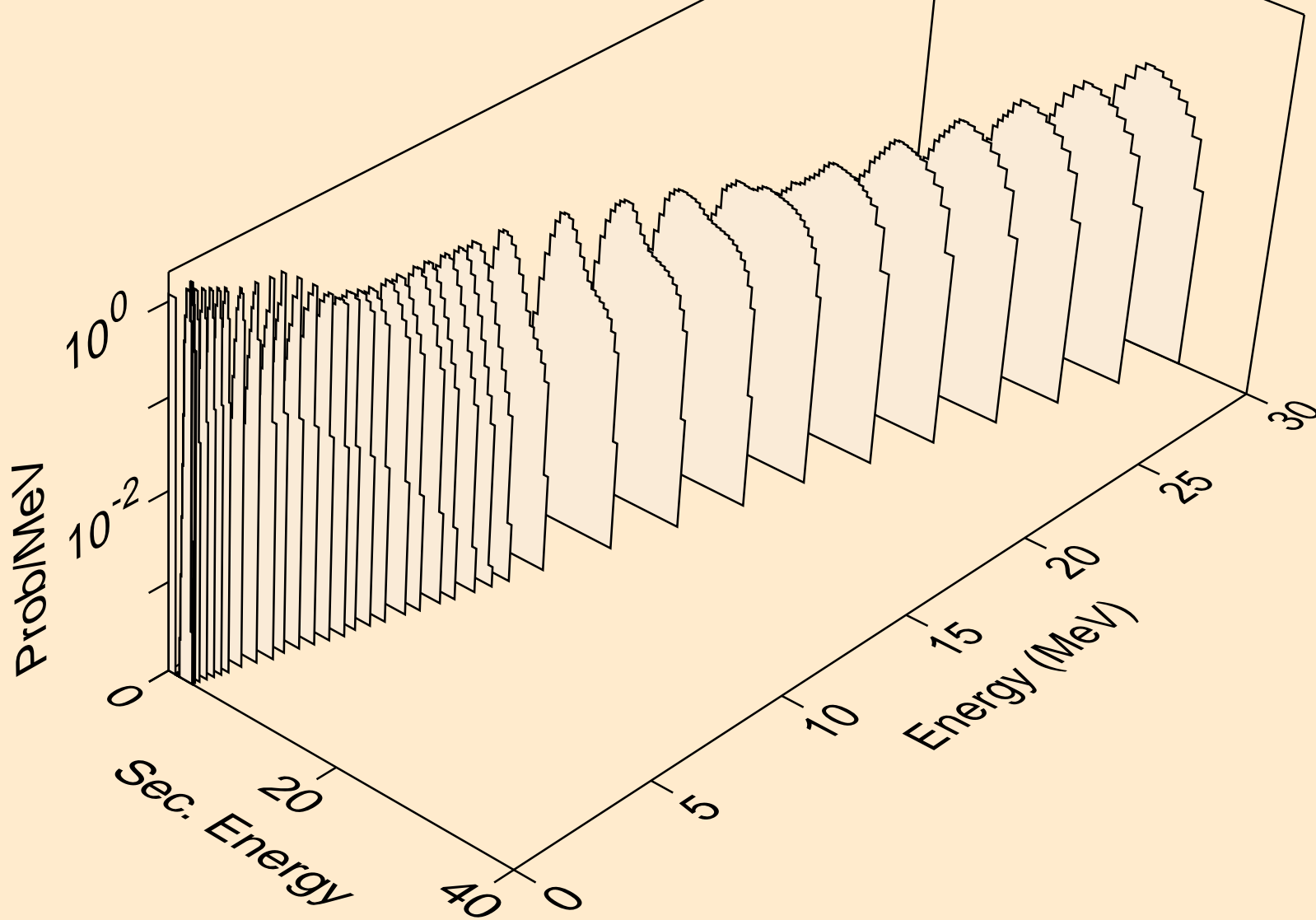


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,npa)

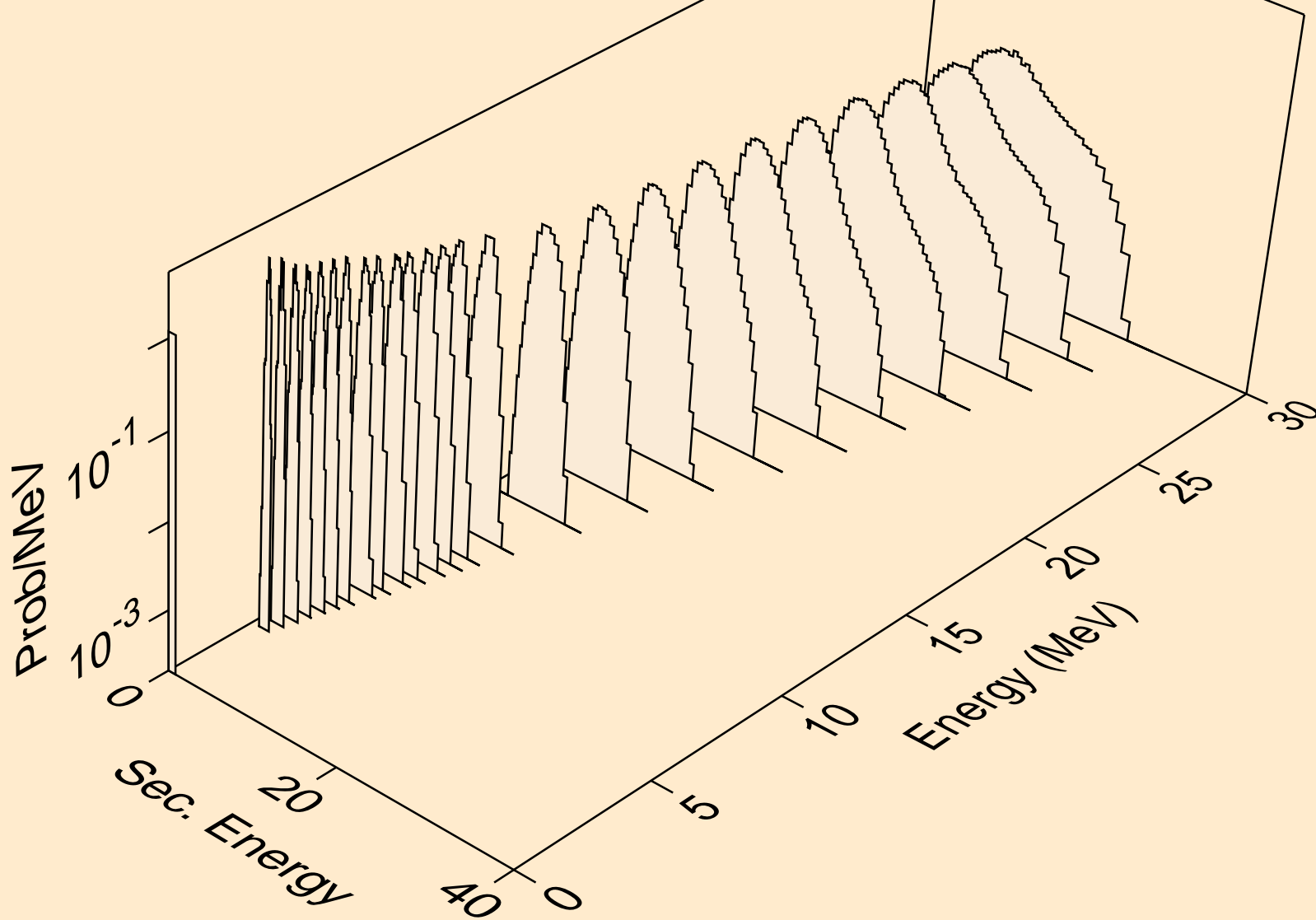




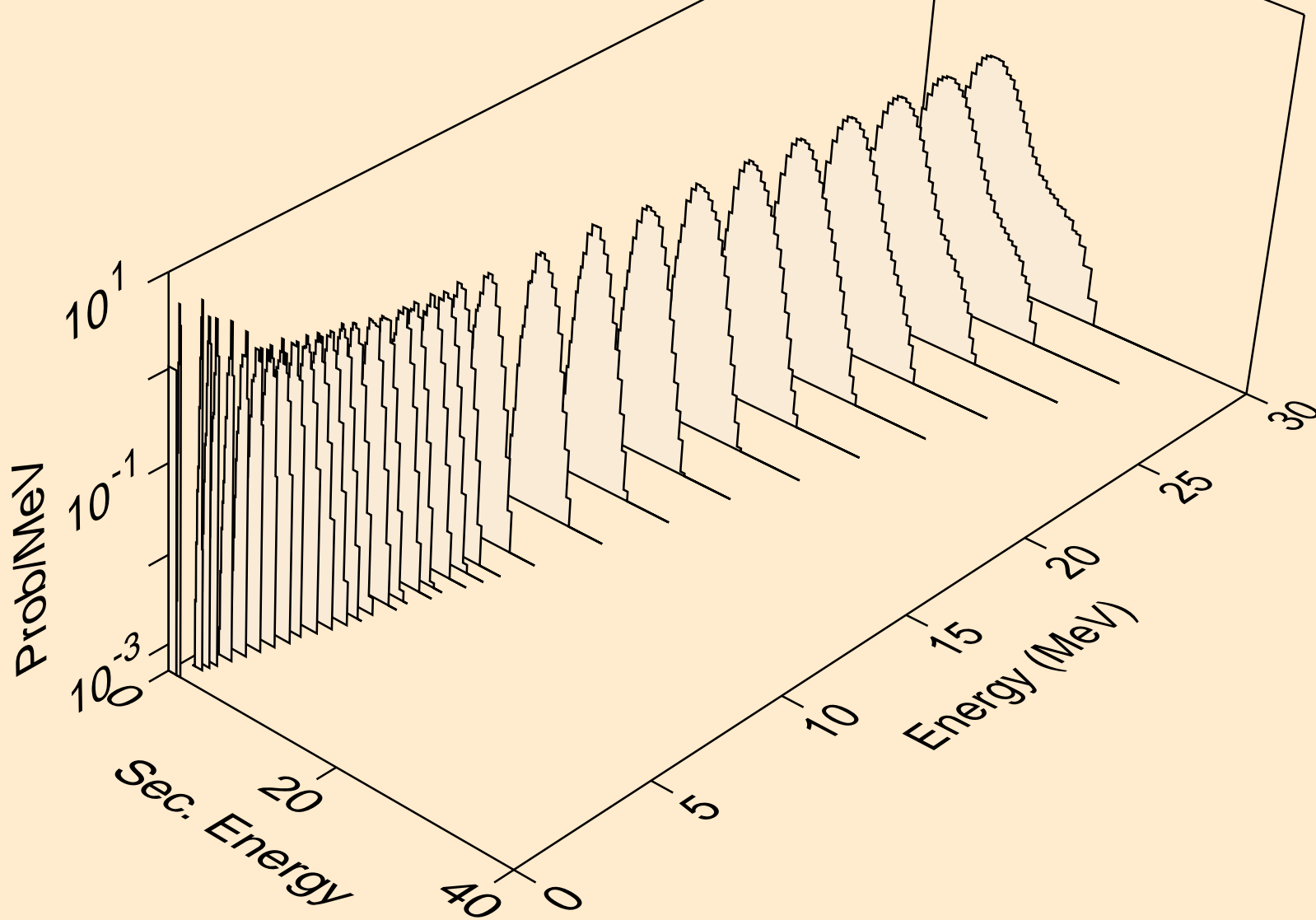
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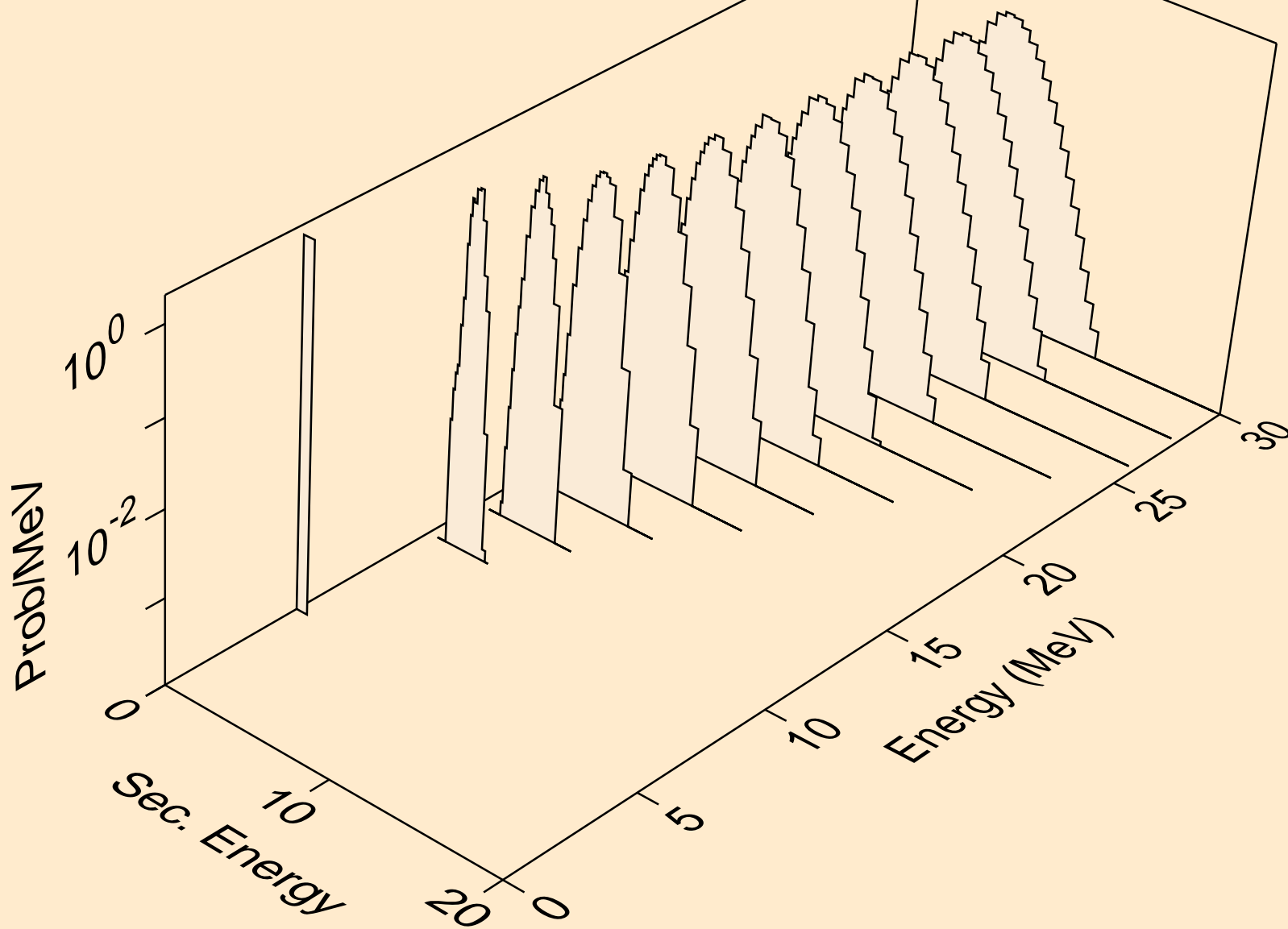
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protons from (n,2p)



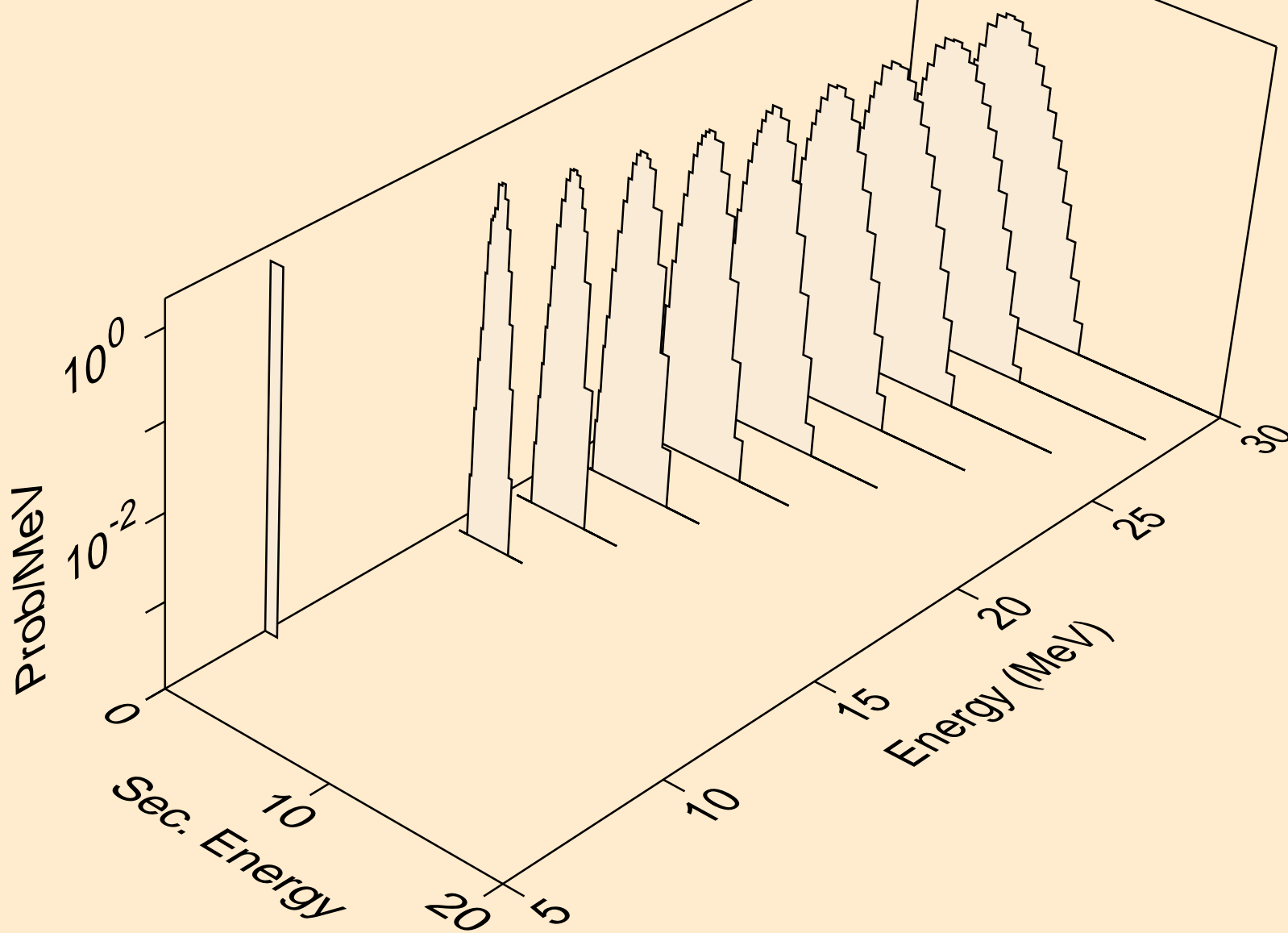
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protons from (n,p)



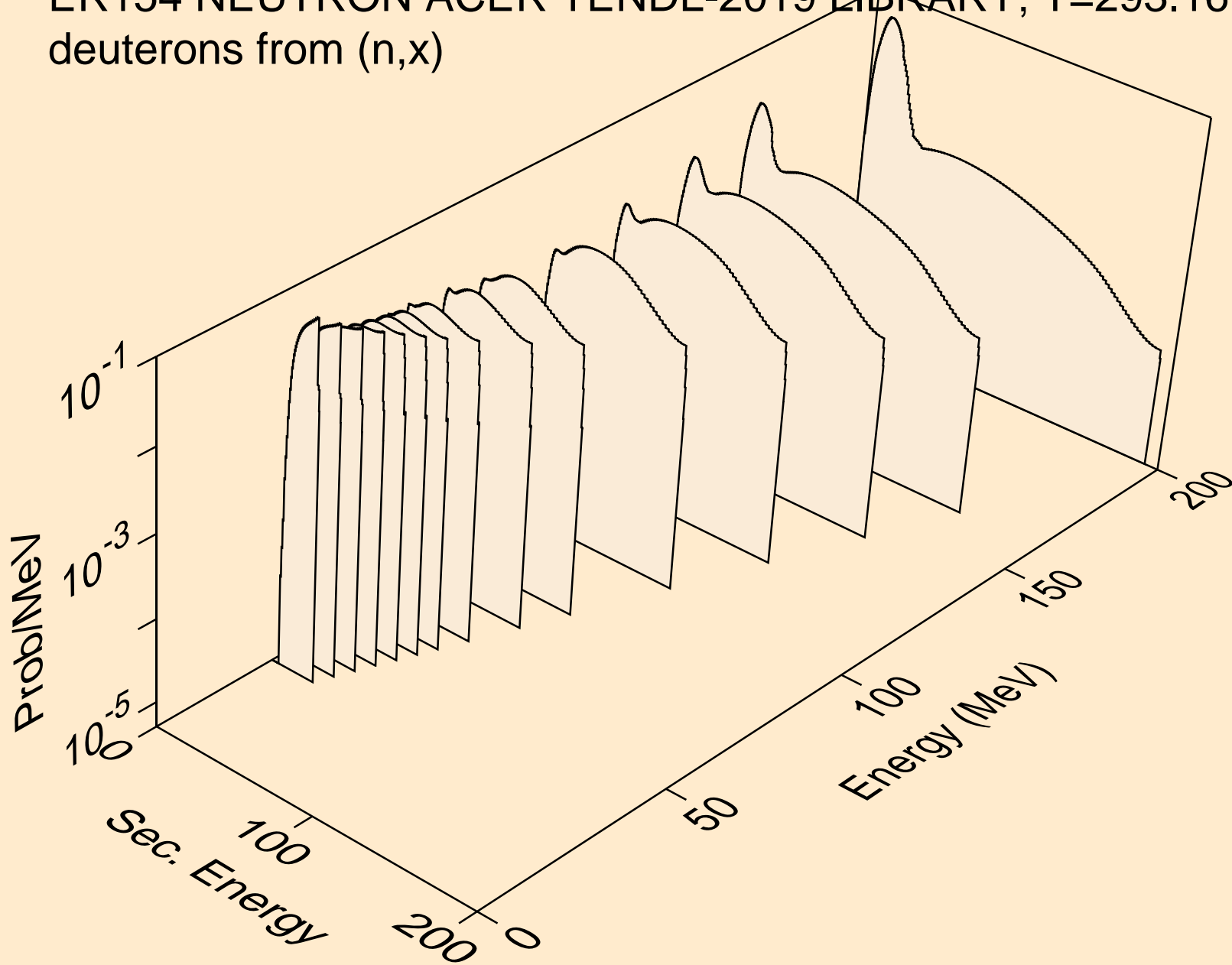
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,pd)



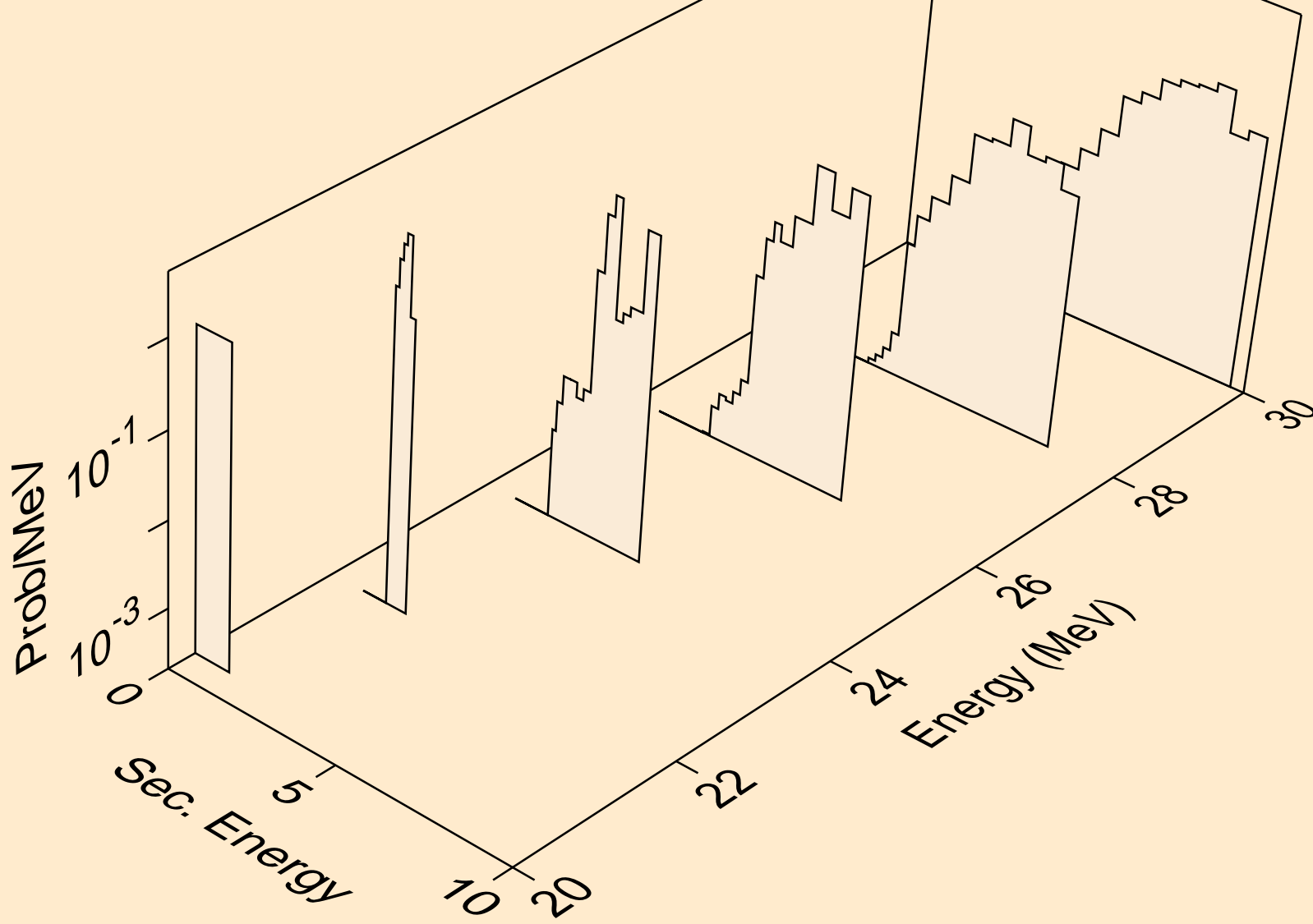
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
protons from (n,pt)



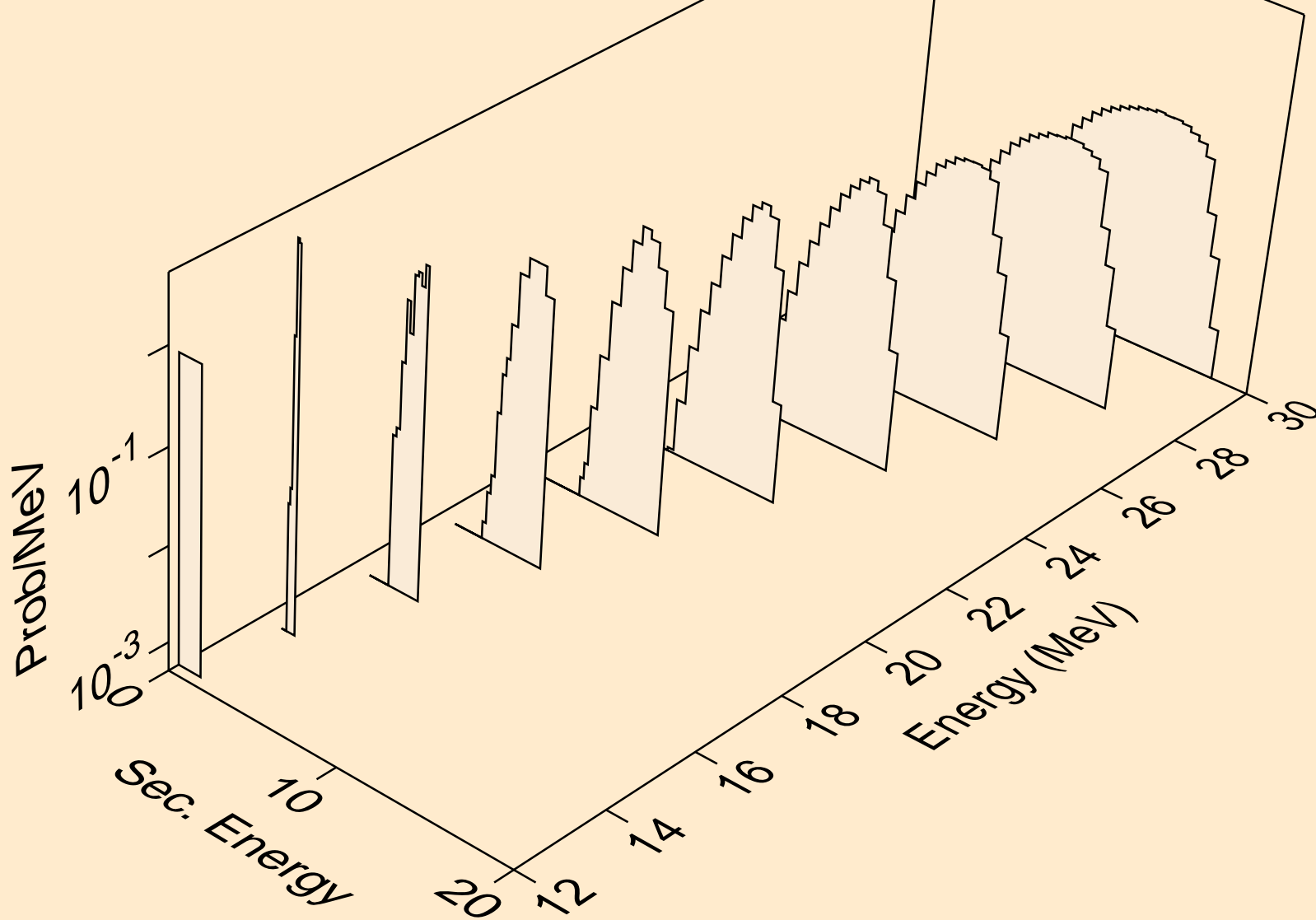
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,x)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,2nd)

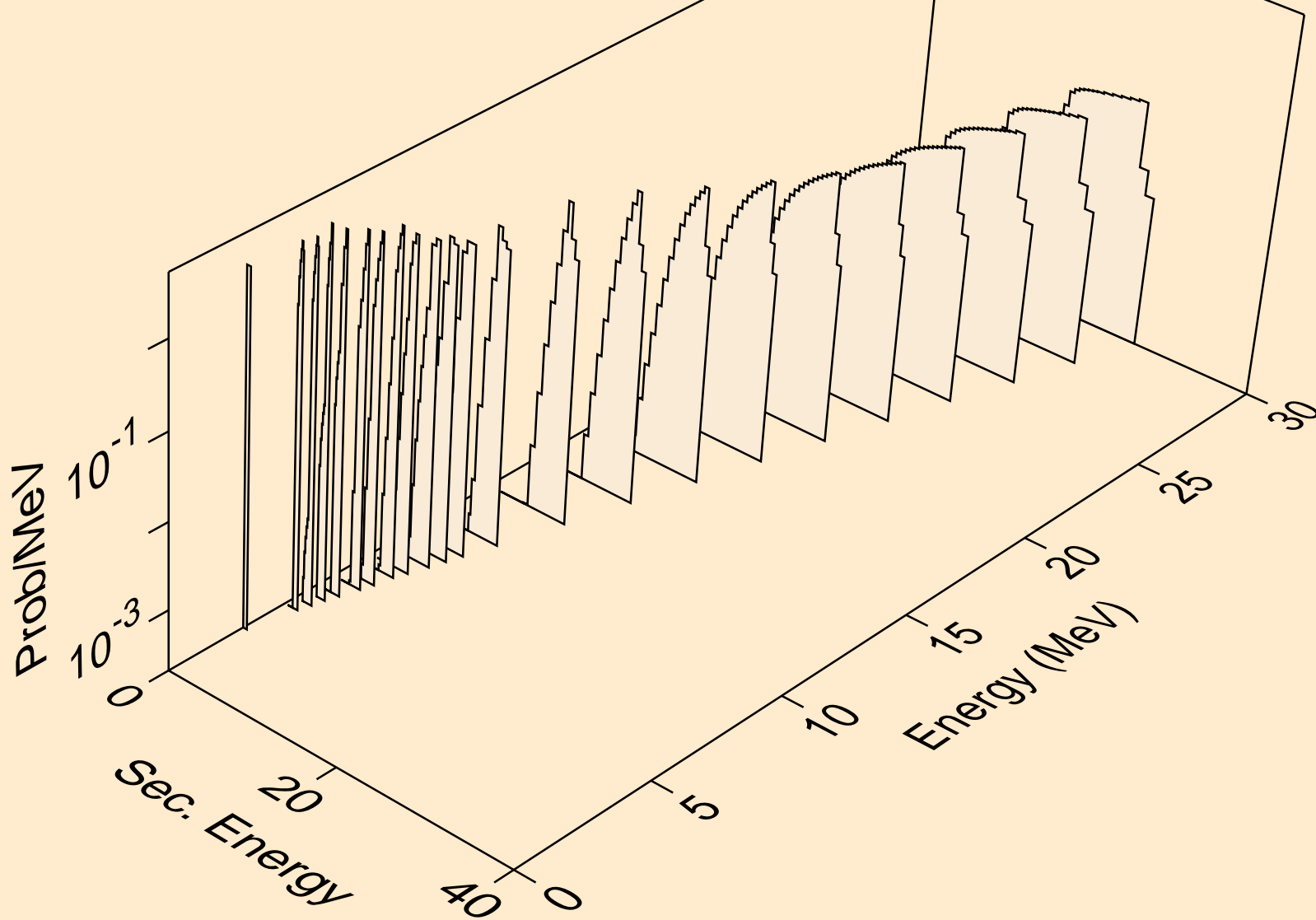


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,n\*)d

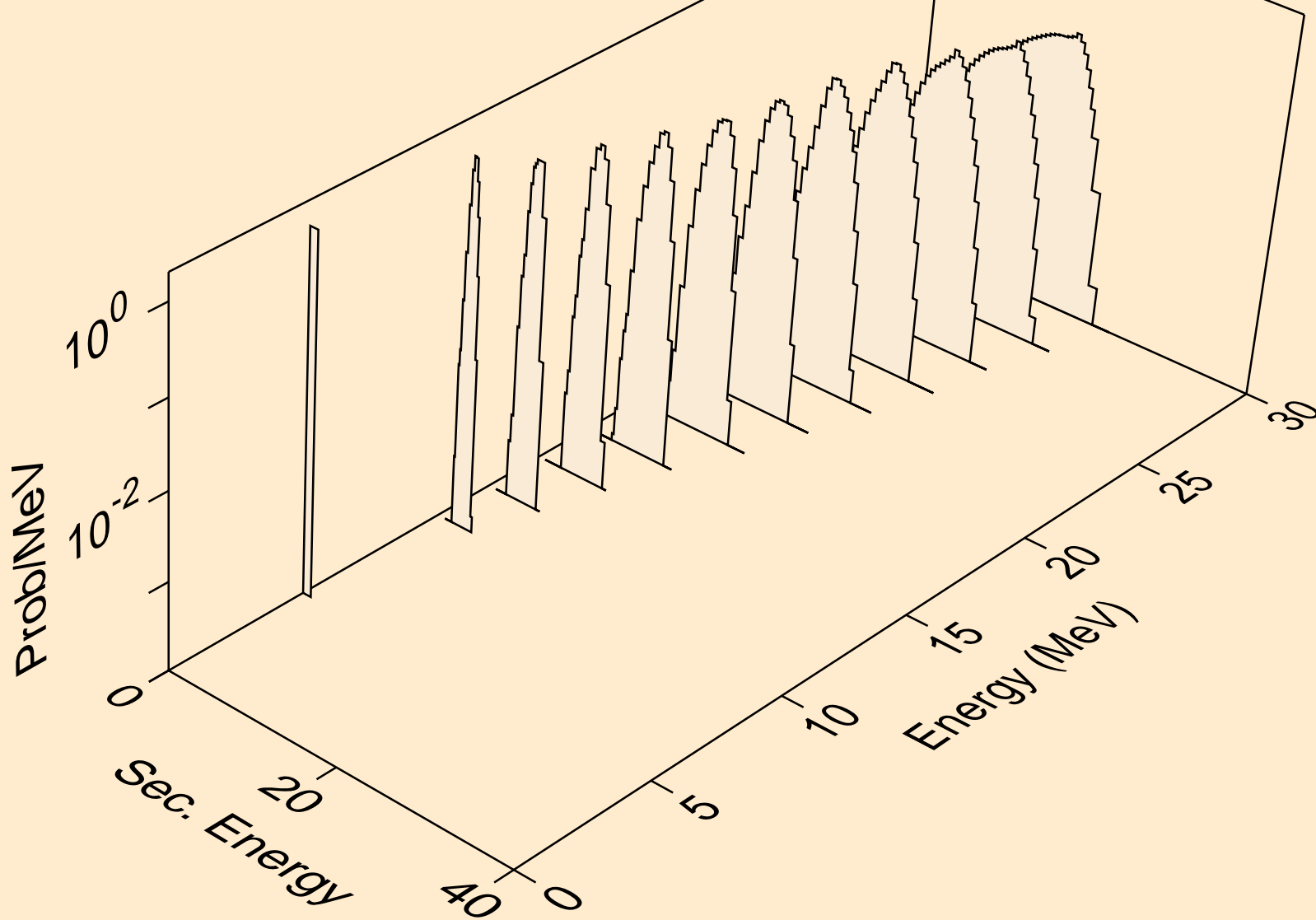




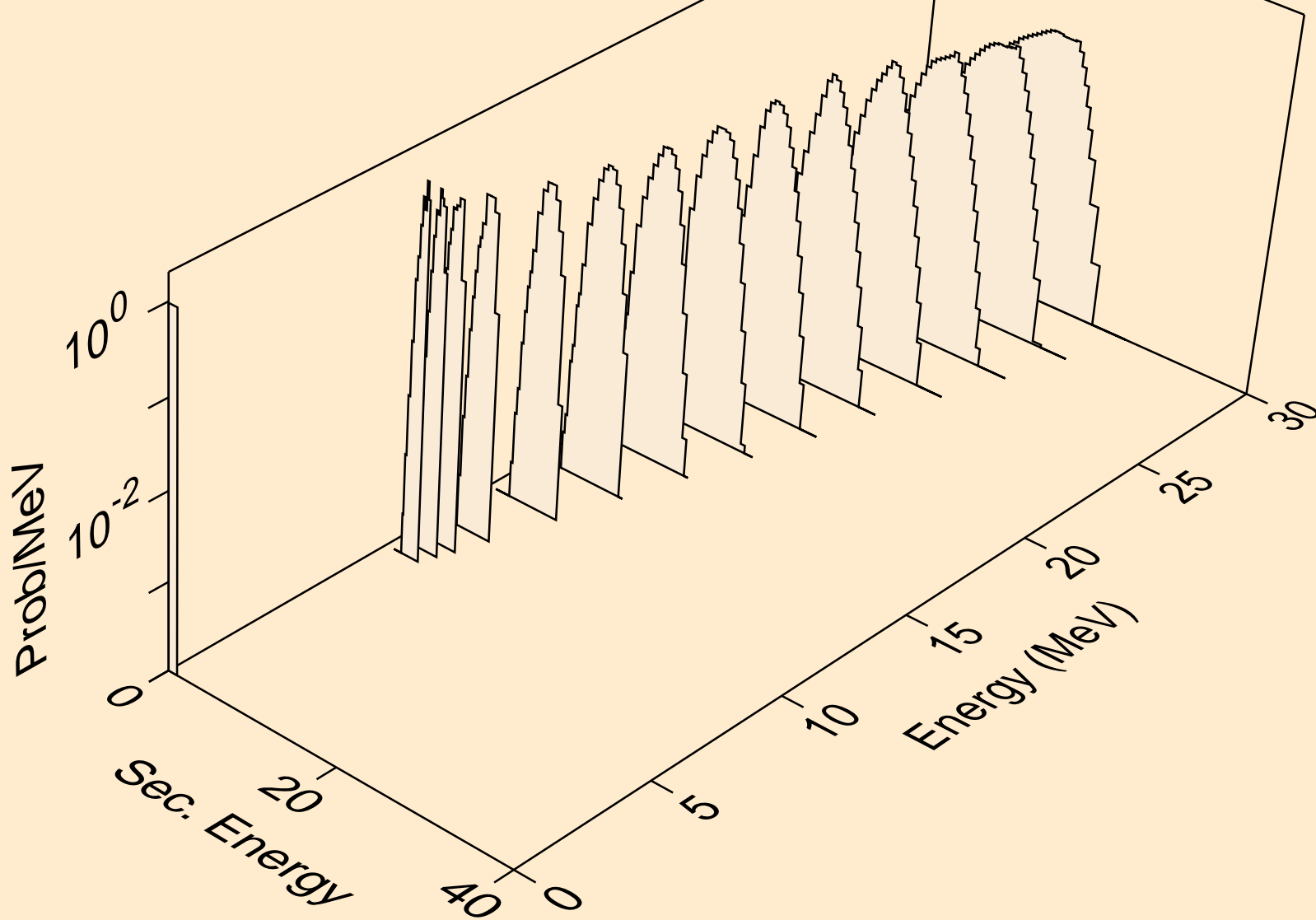
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,d)



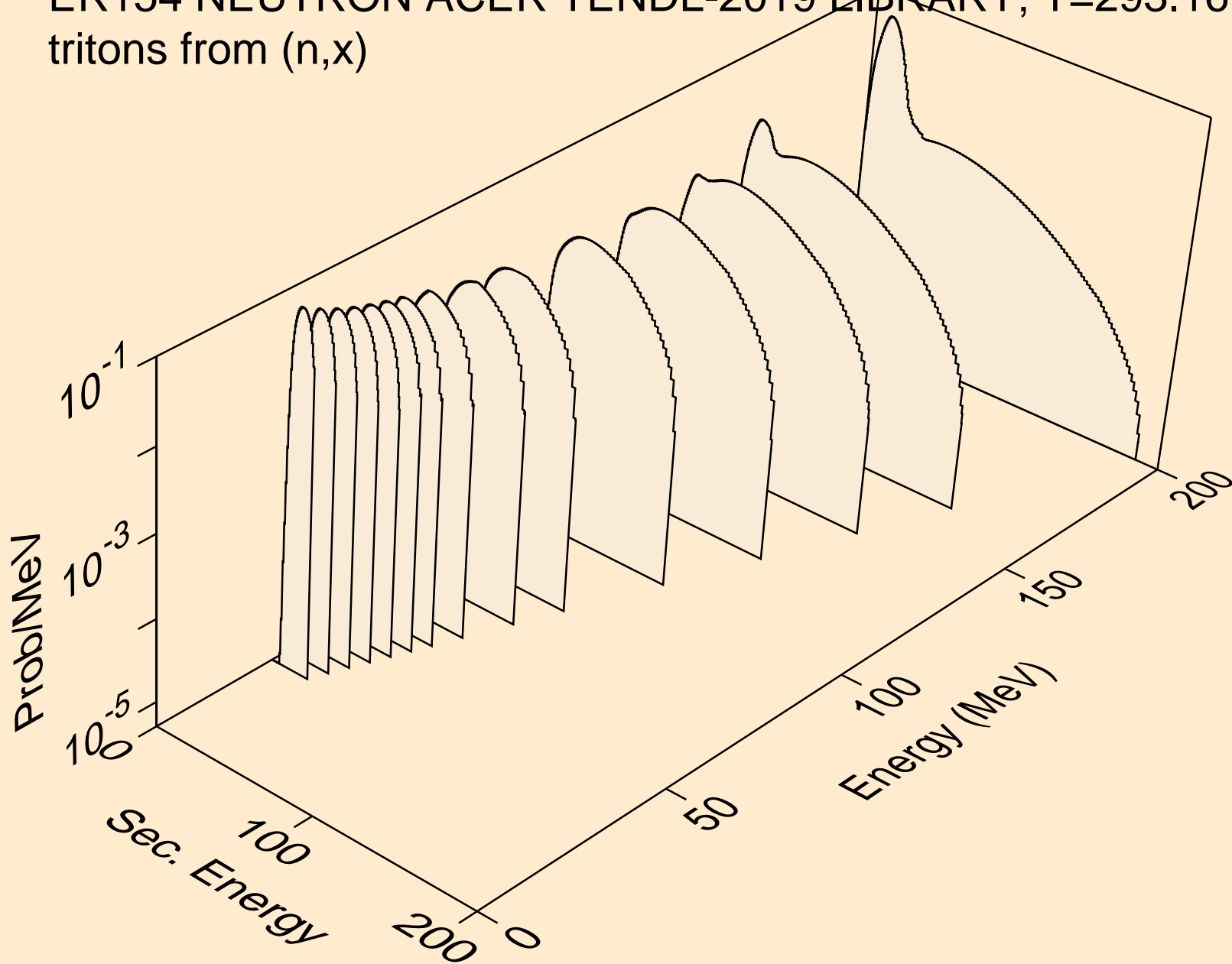
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,pd)



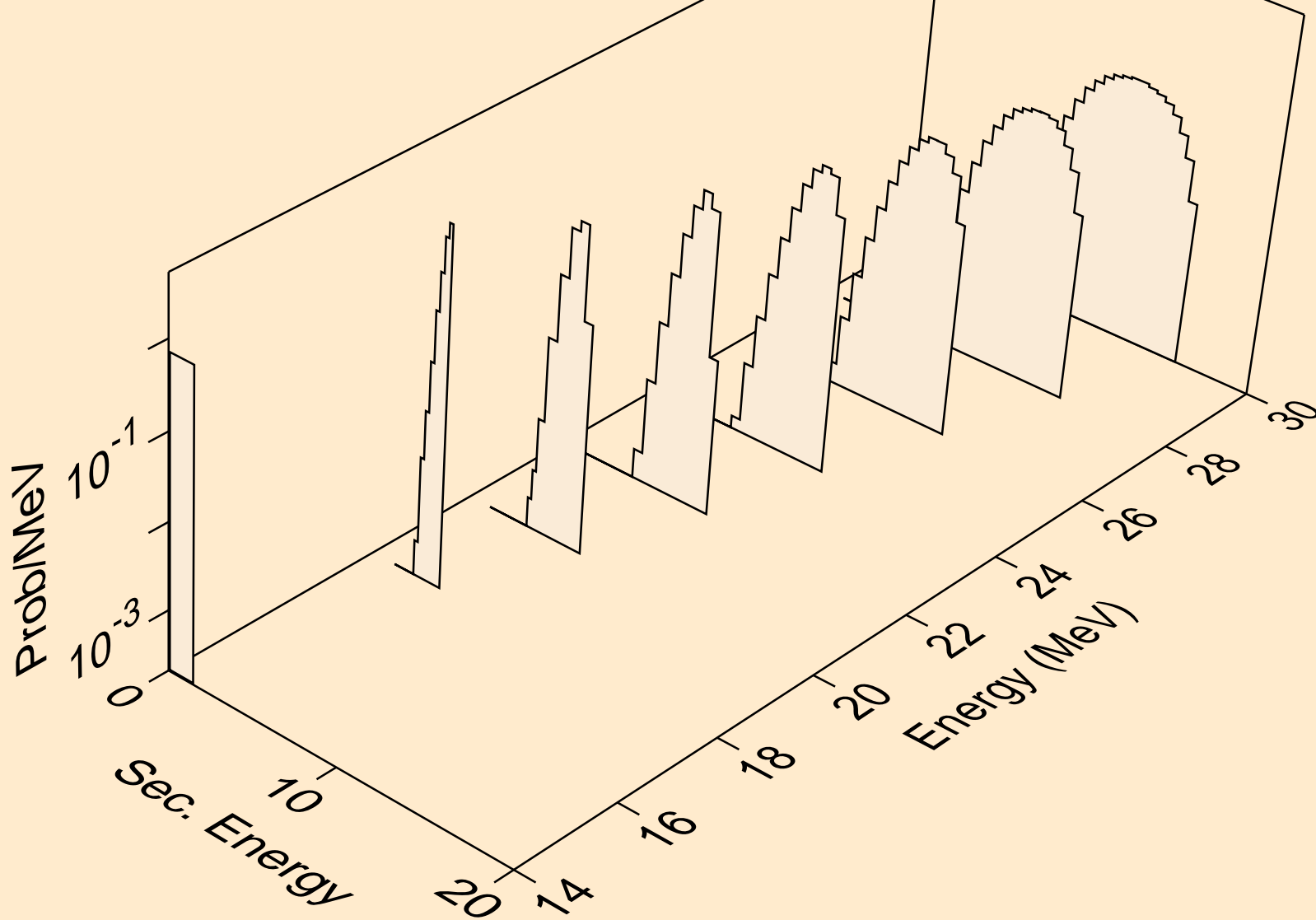
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
deuterons from (n,da)



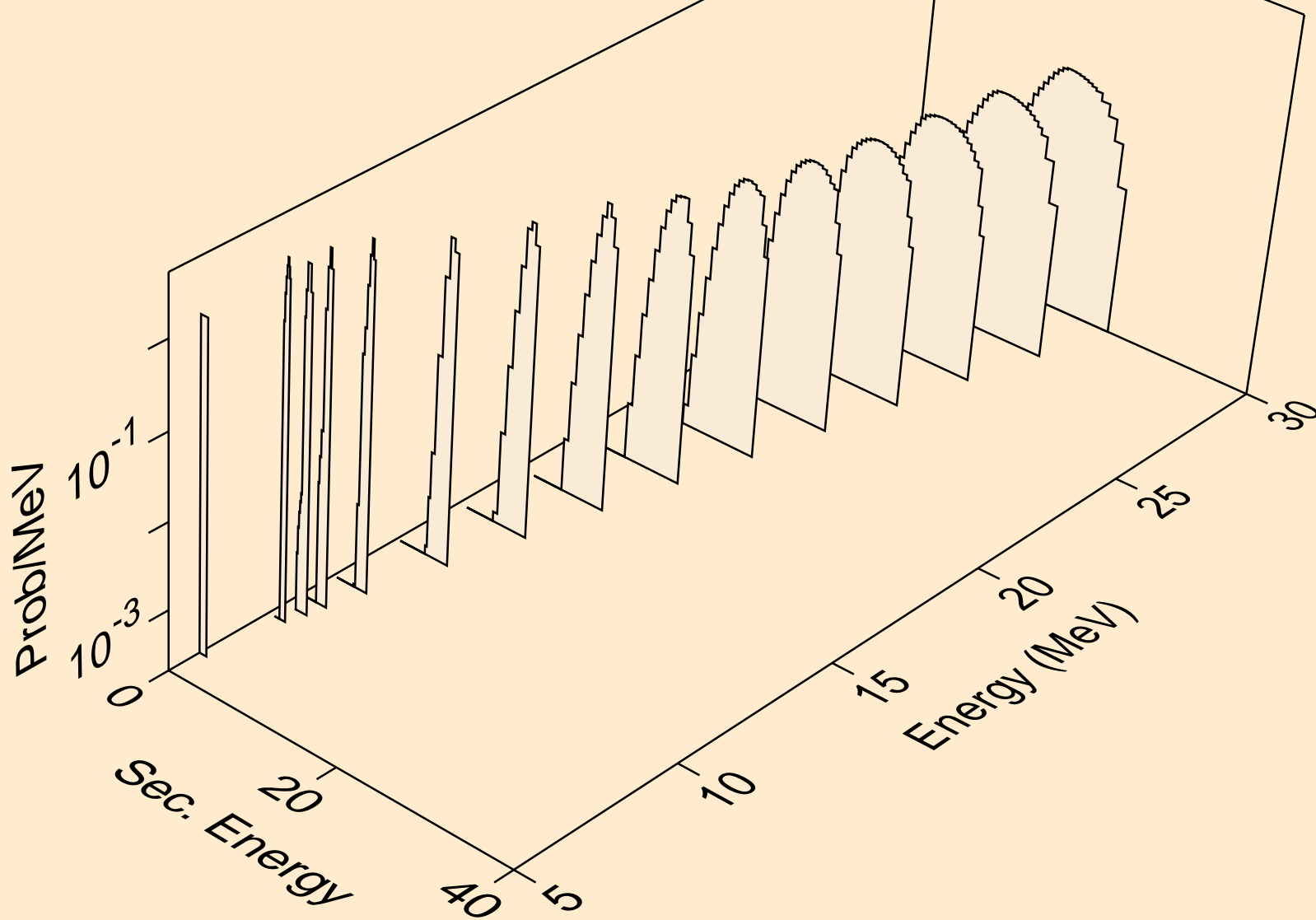
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,x)



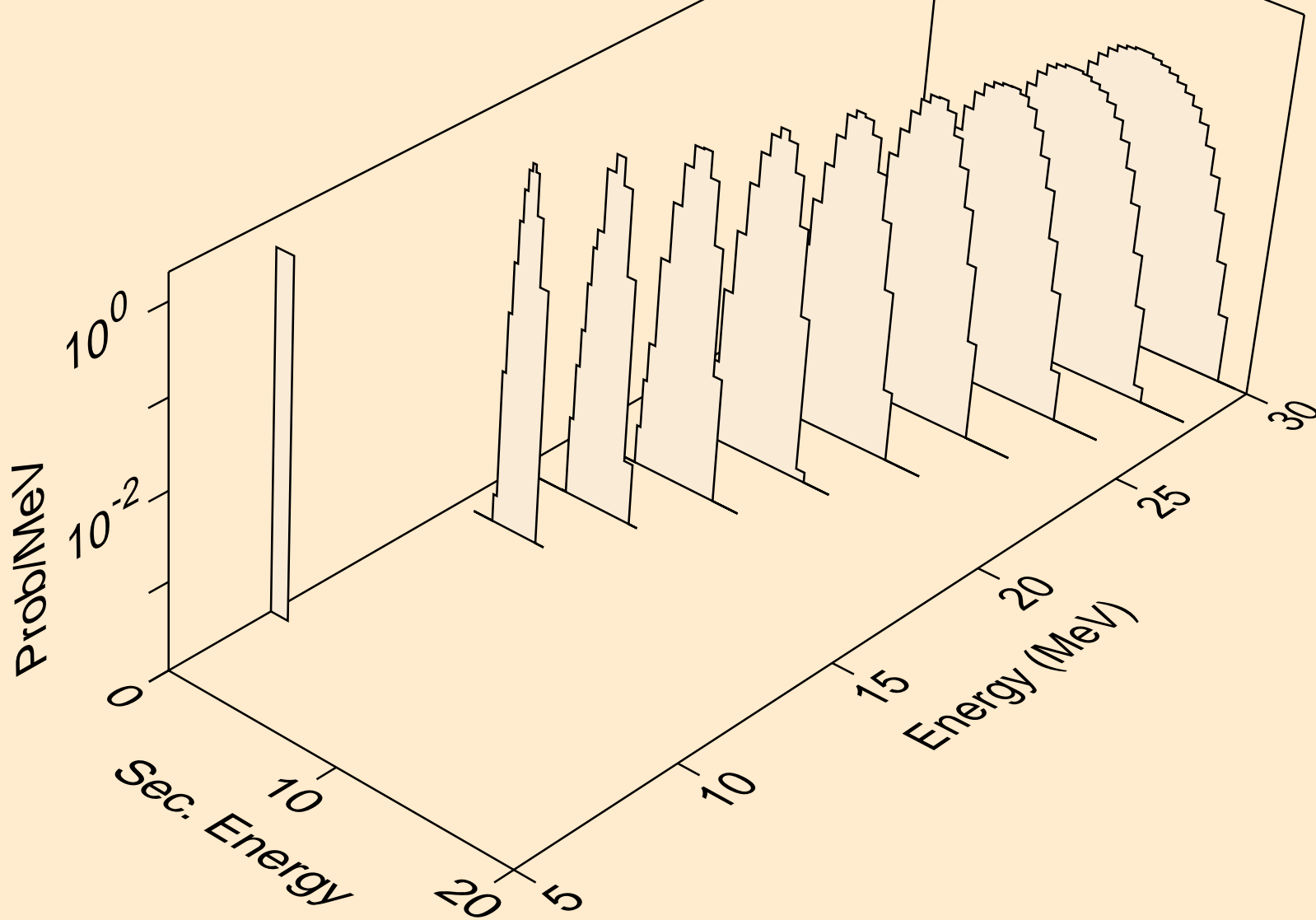
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,n\*)t



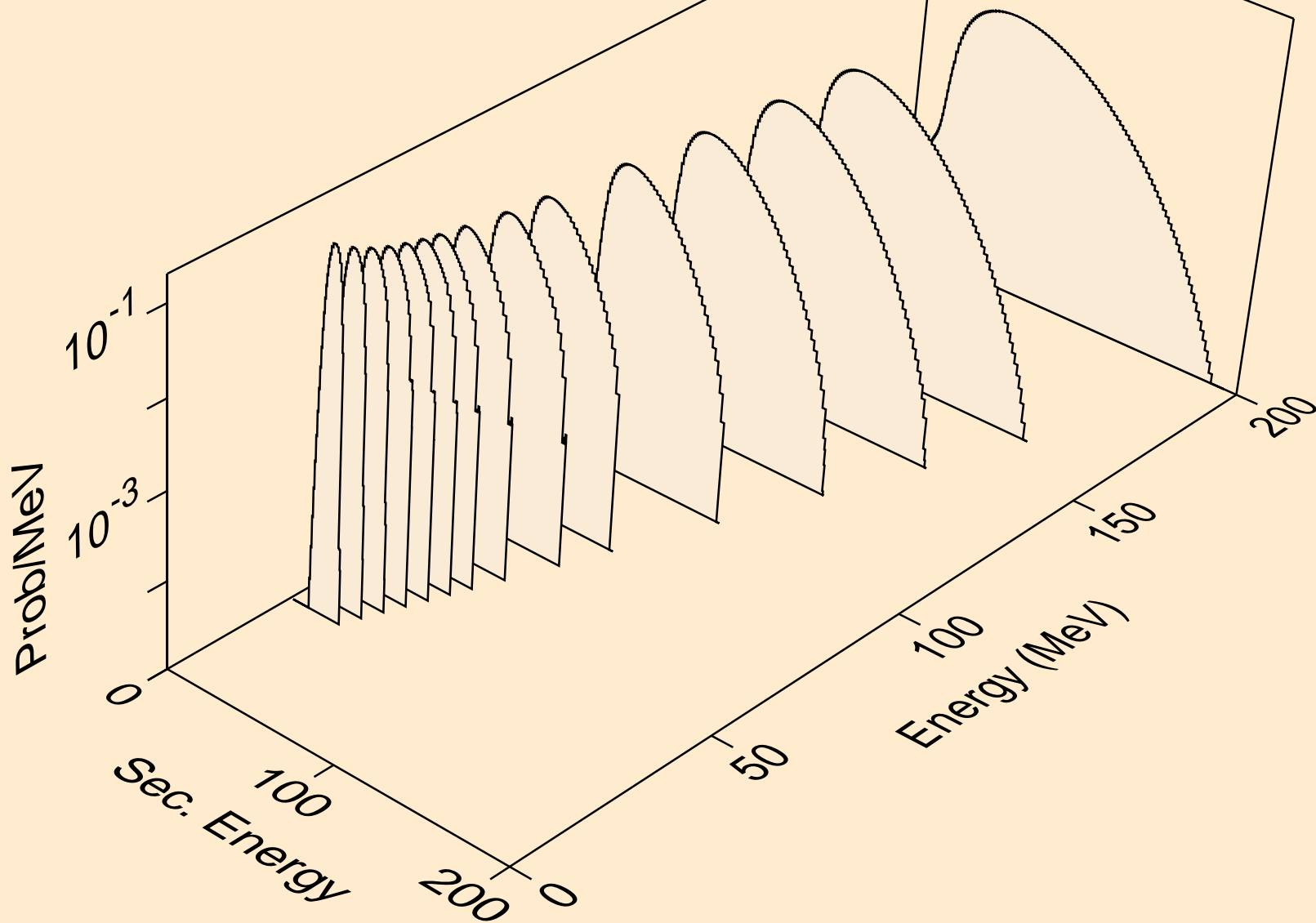
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,t)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
tritons from (n,pt)

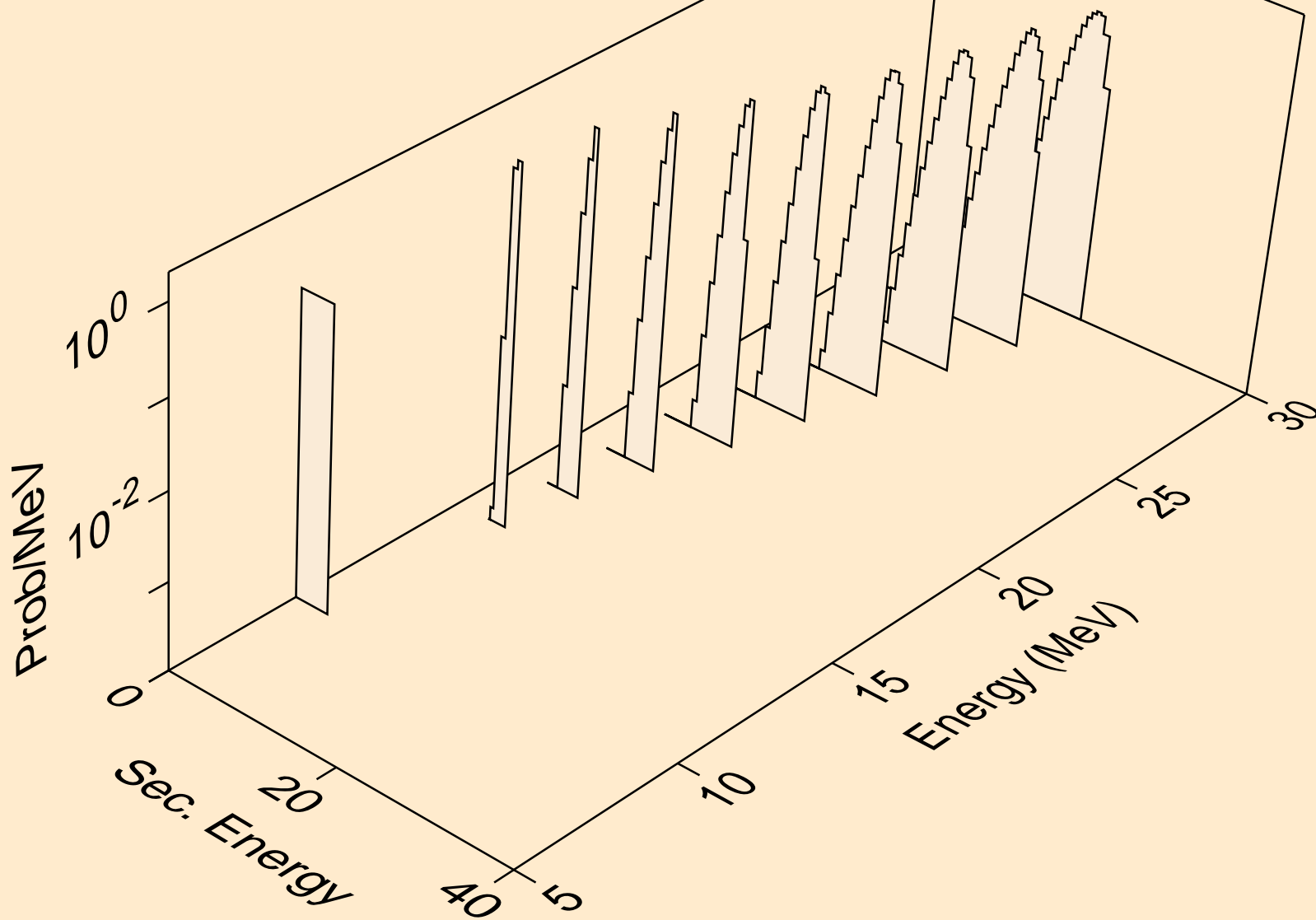


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,x)

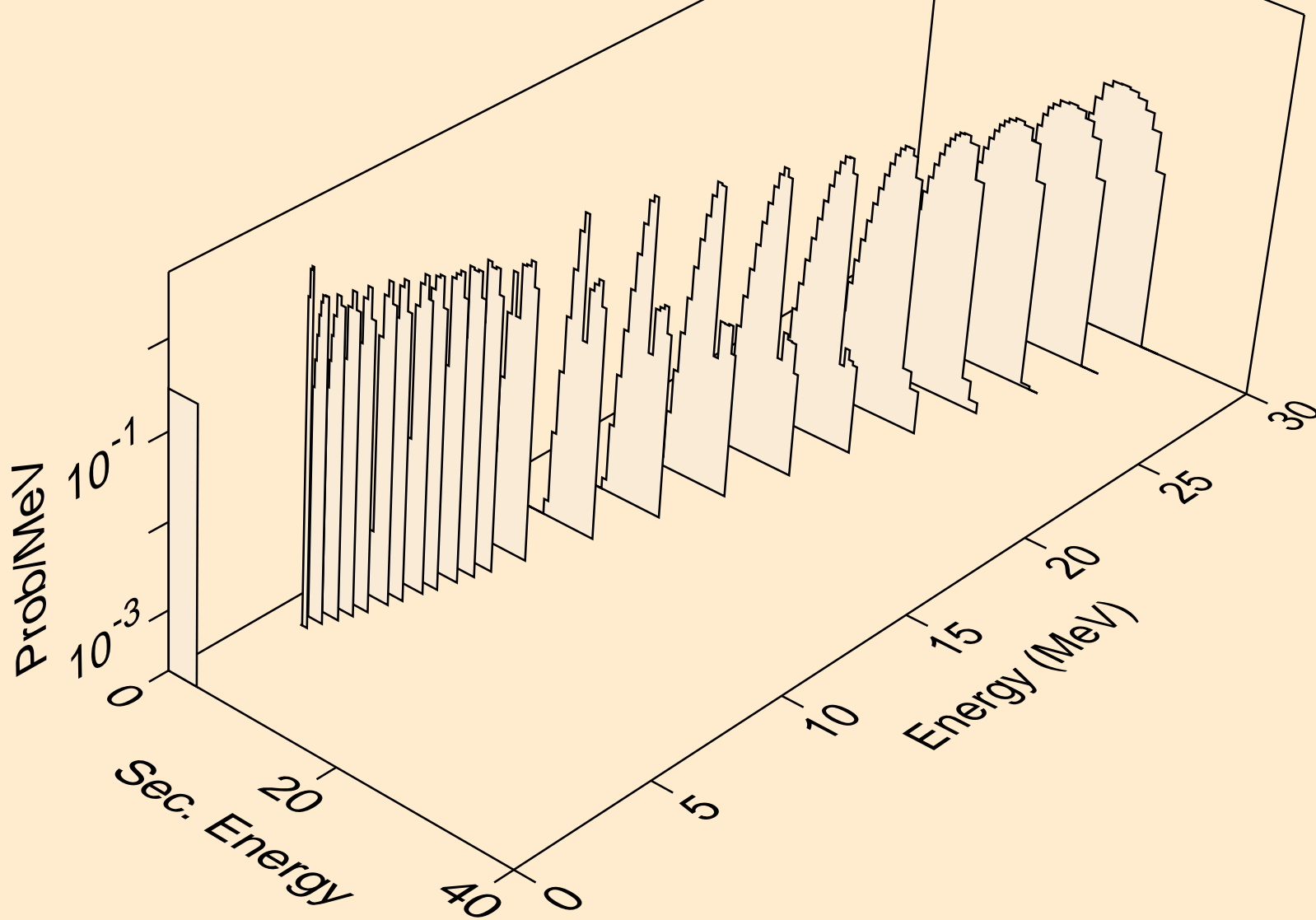




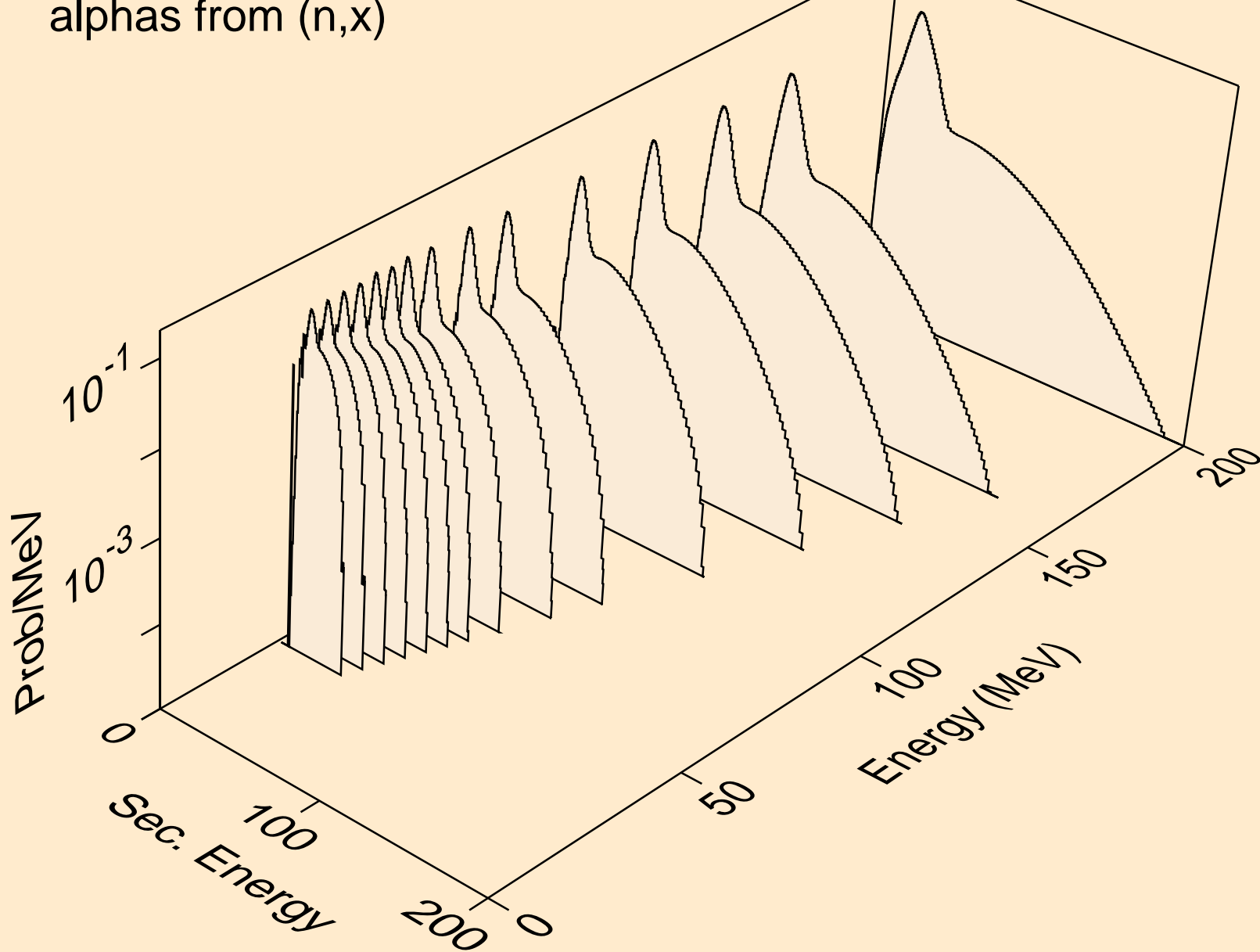
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,n\*)he3



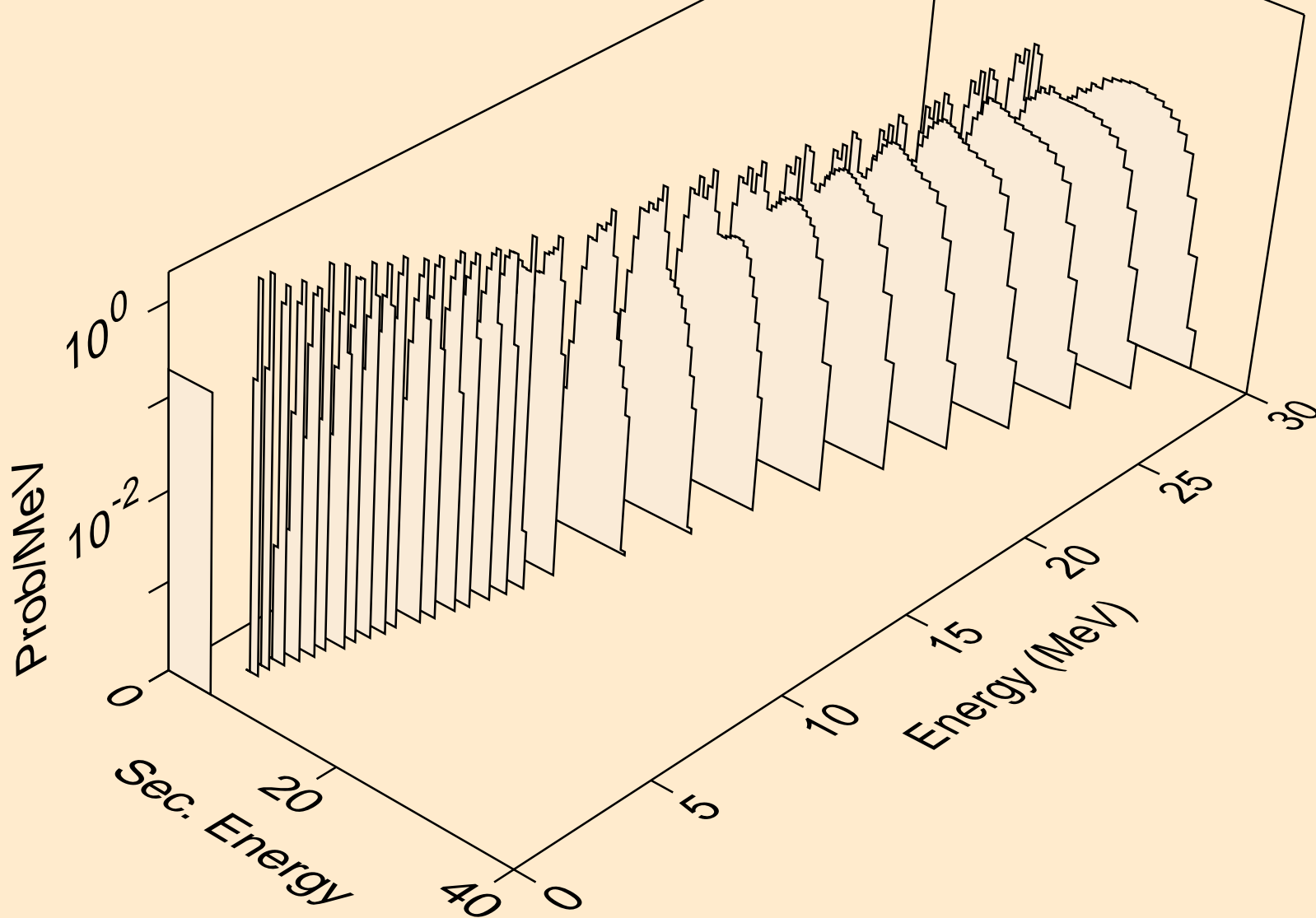
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
he3s from (n,he3)



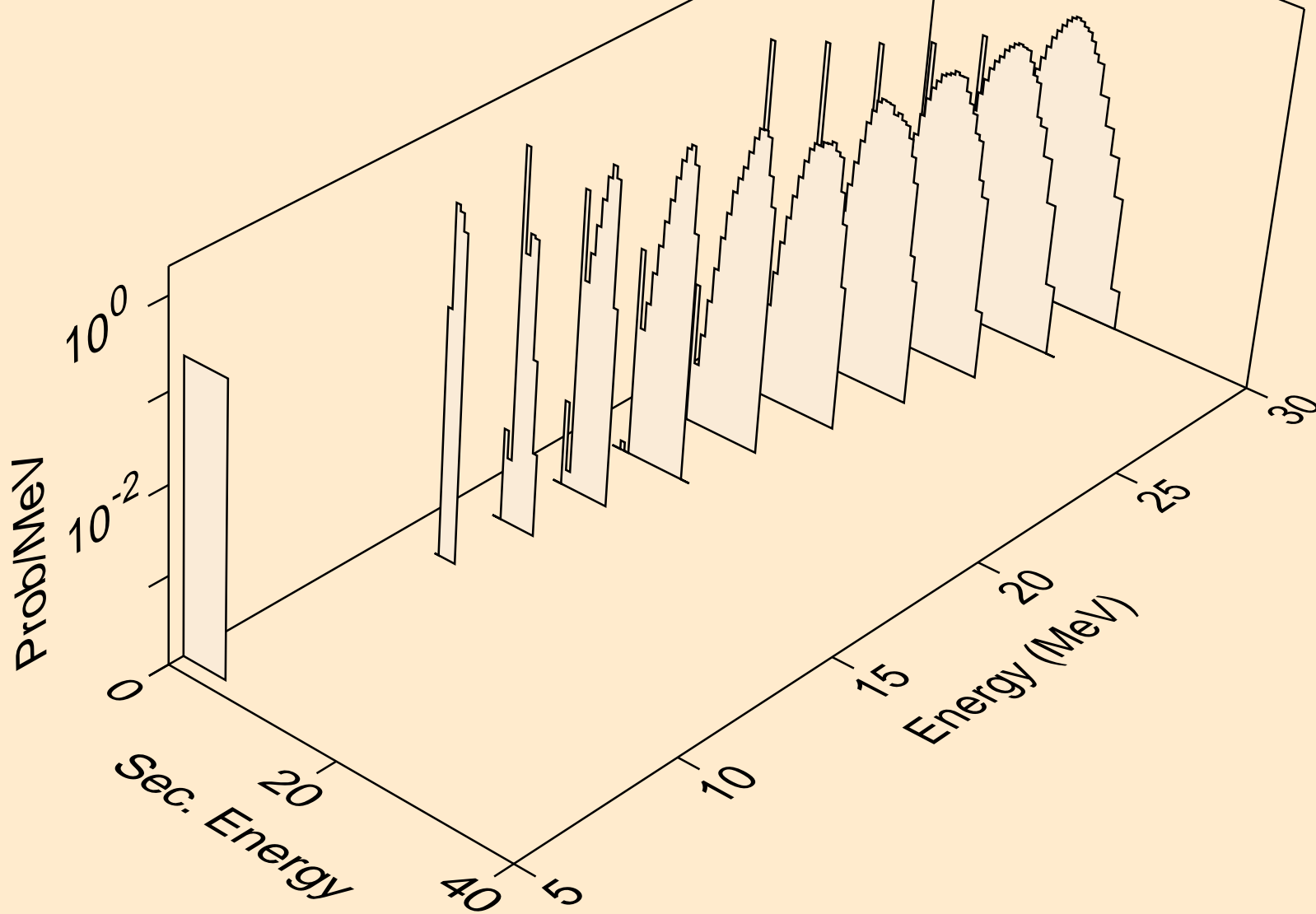
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,x)



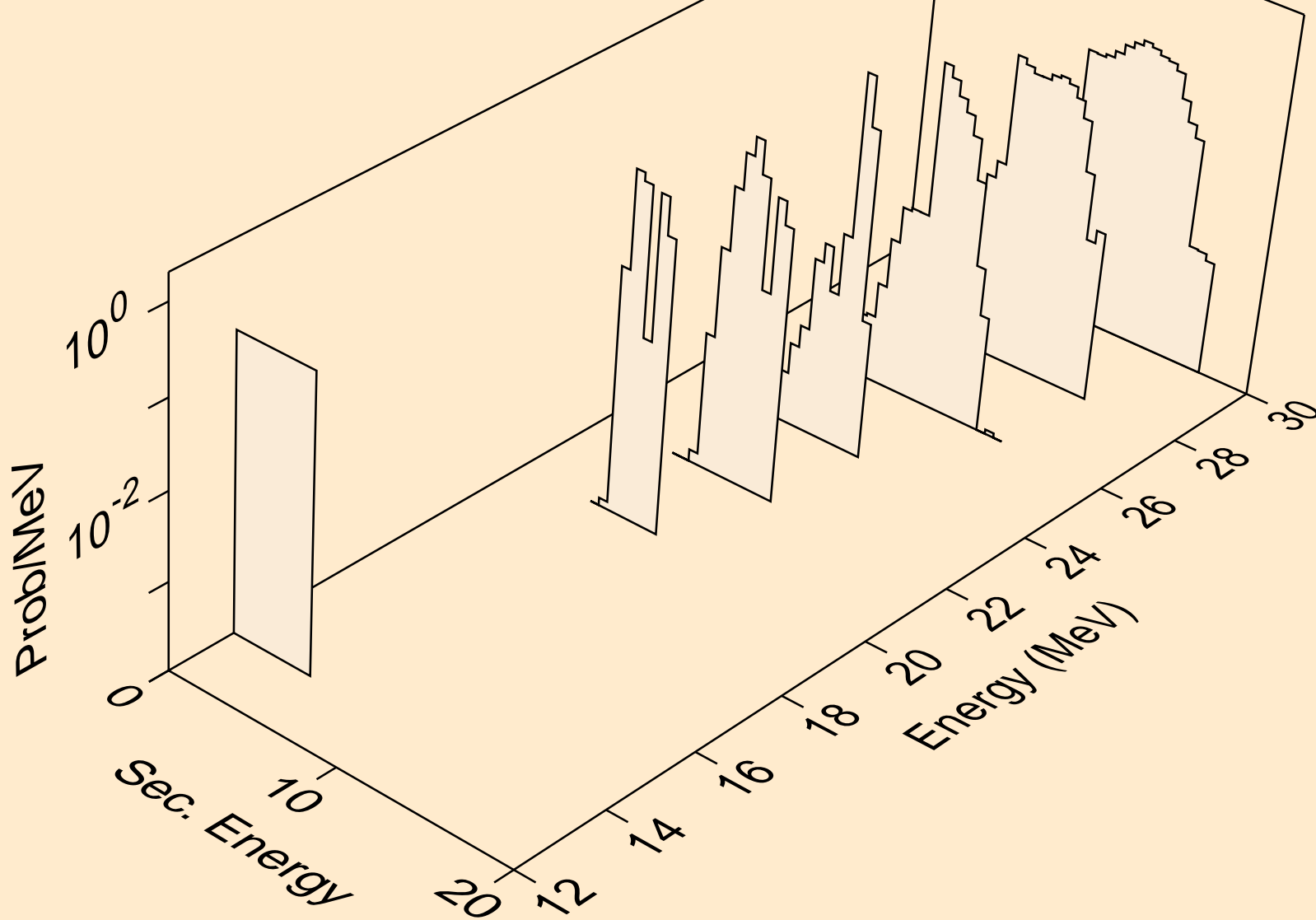
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,n\*)a



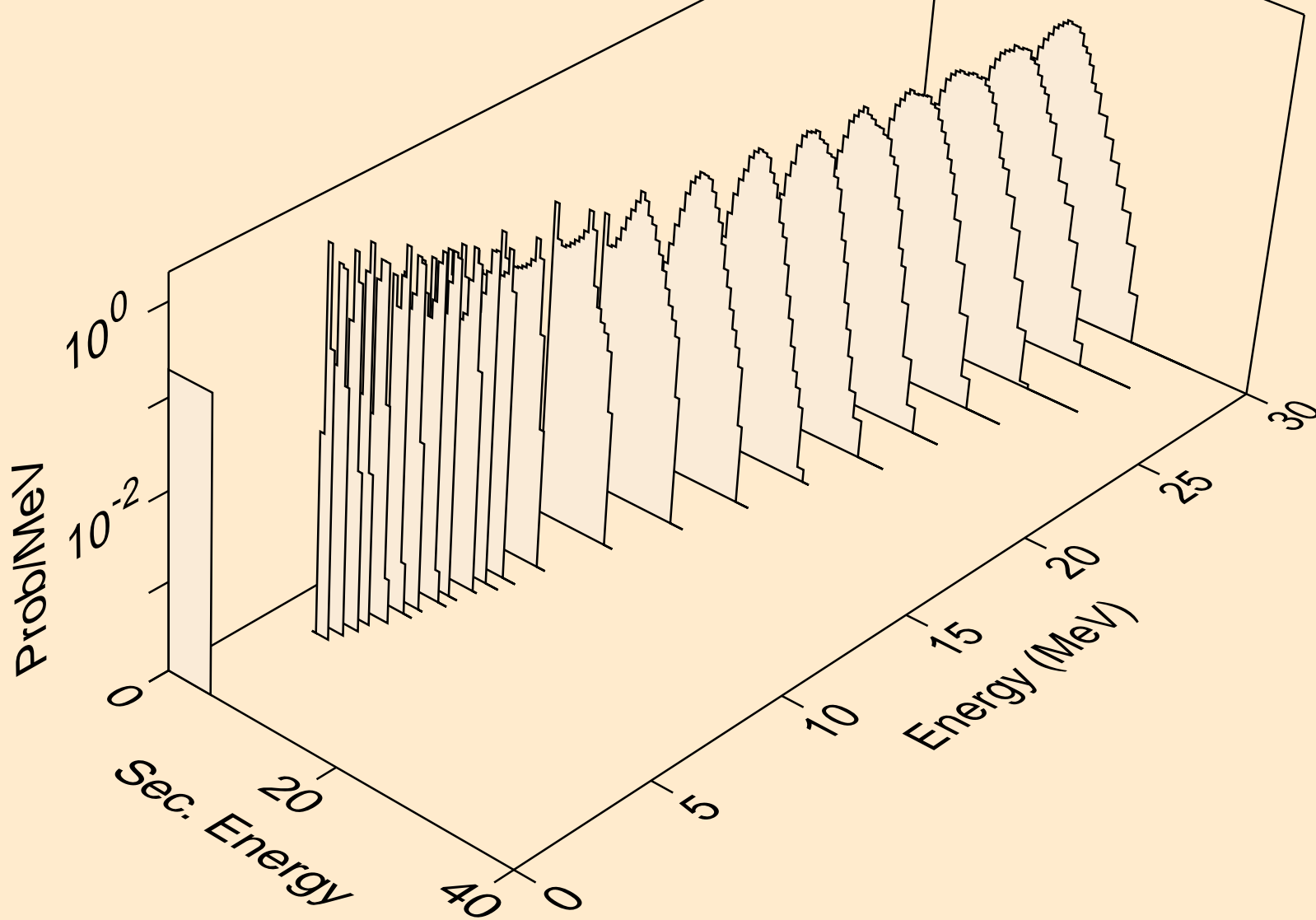
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,2n)a



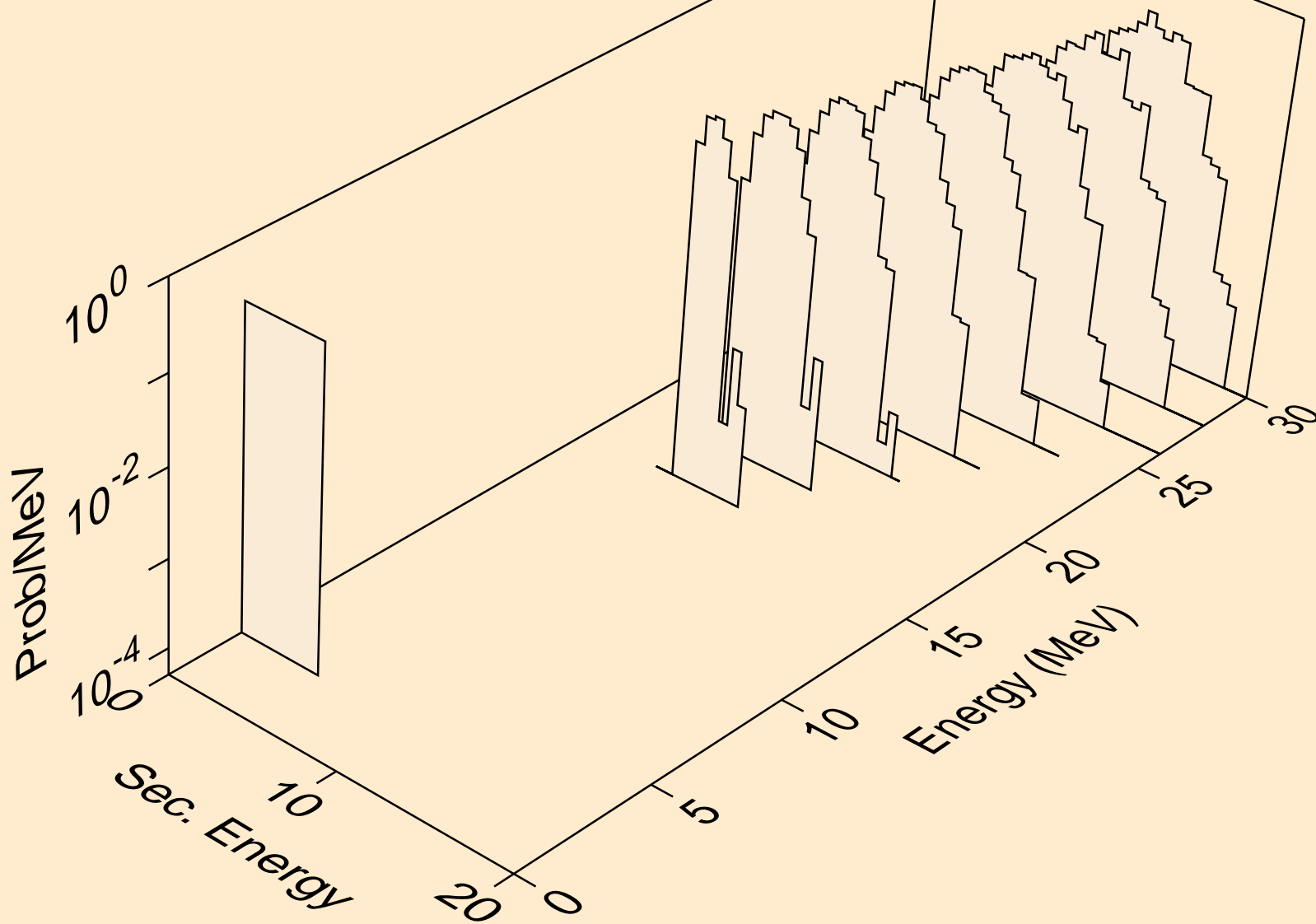
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,3n)a



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,n\*)2a

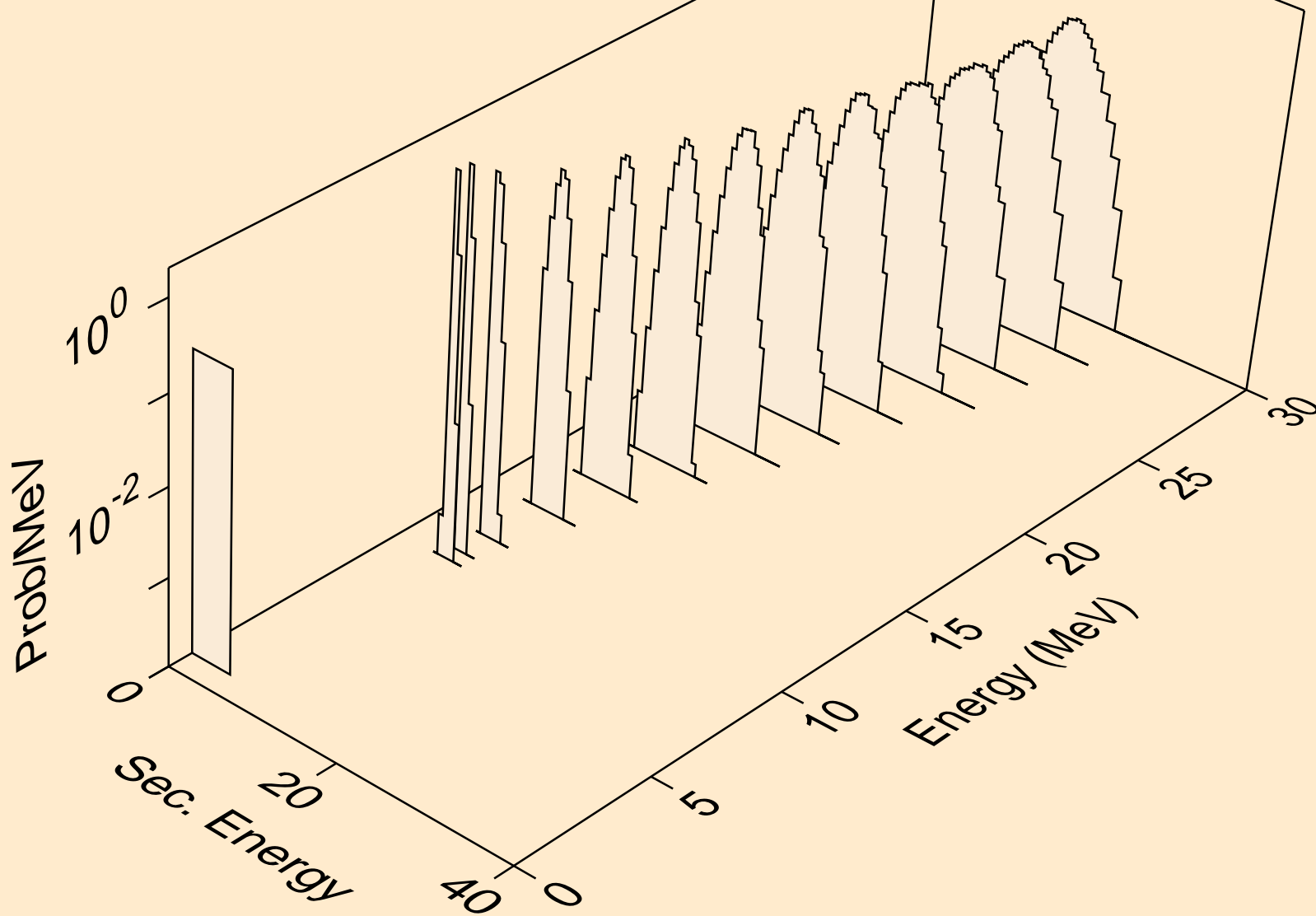


ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,2n)2a

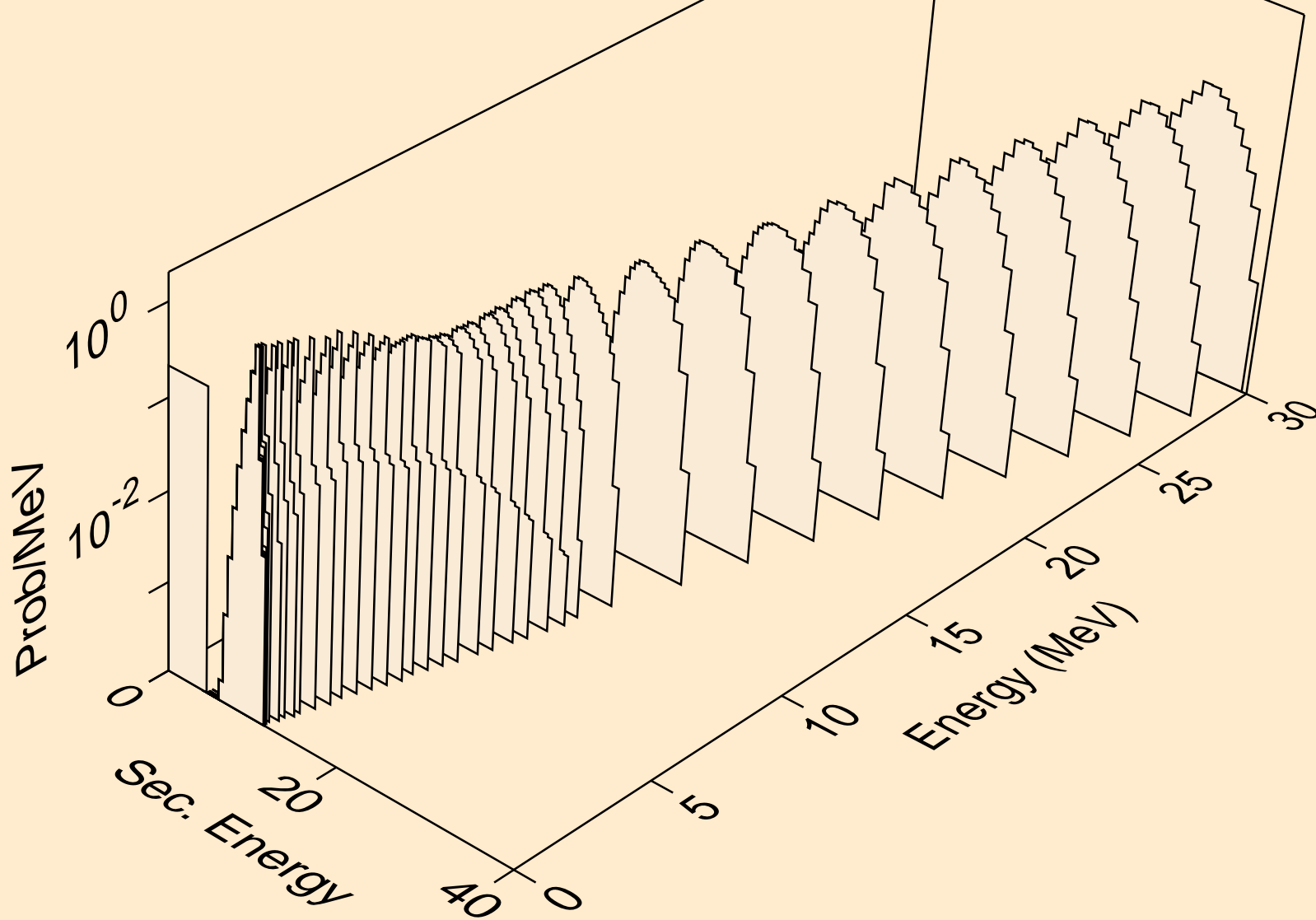




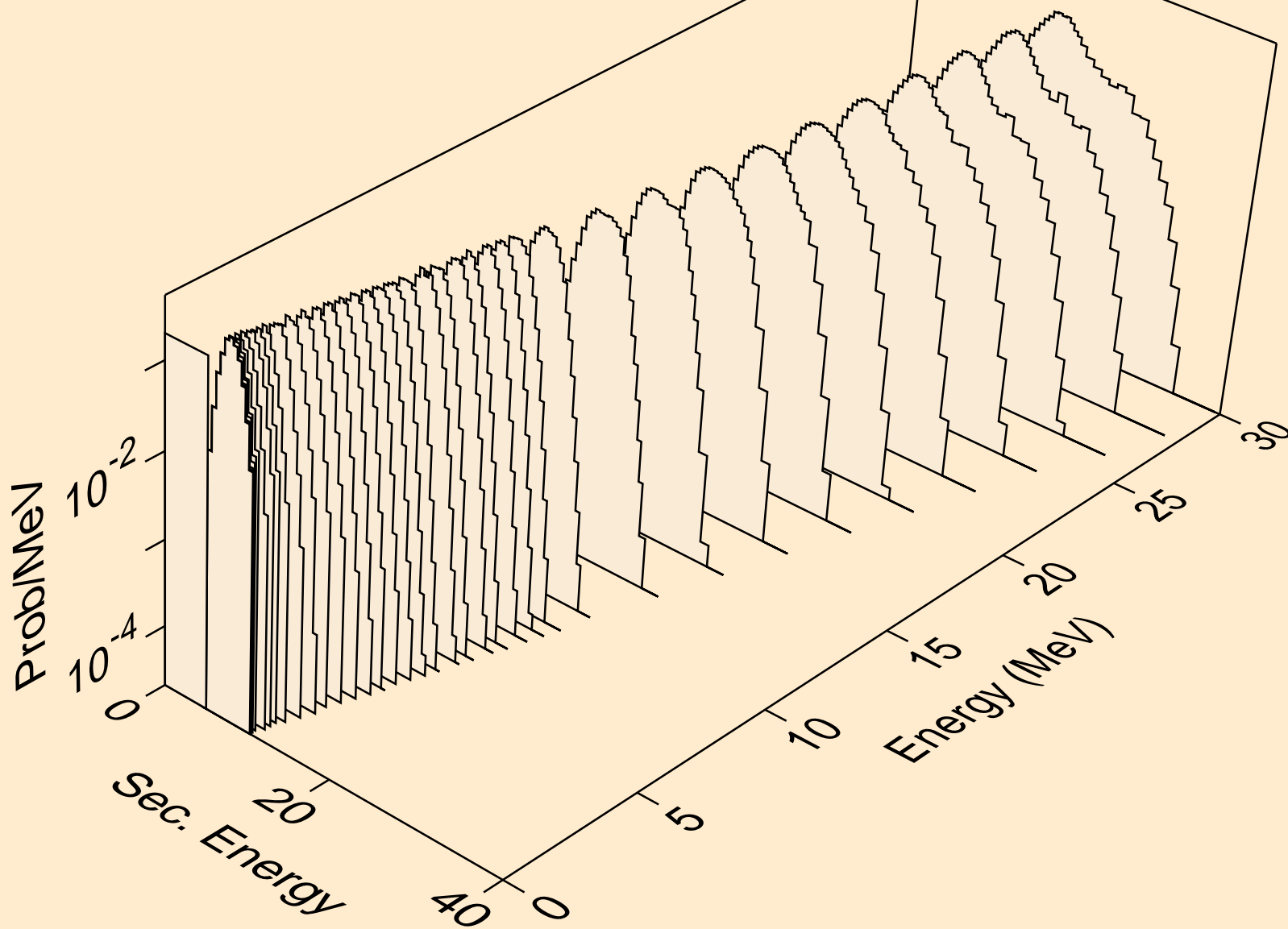
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,npa)



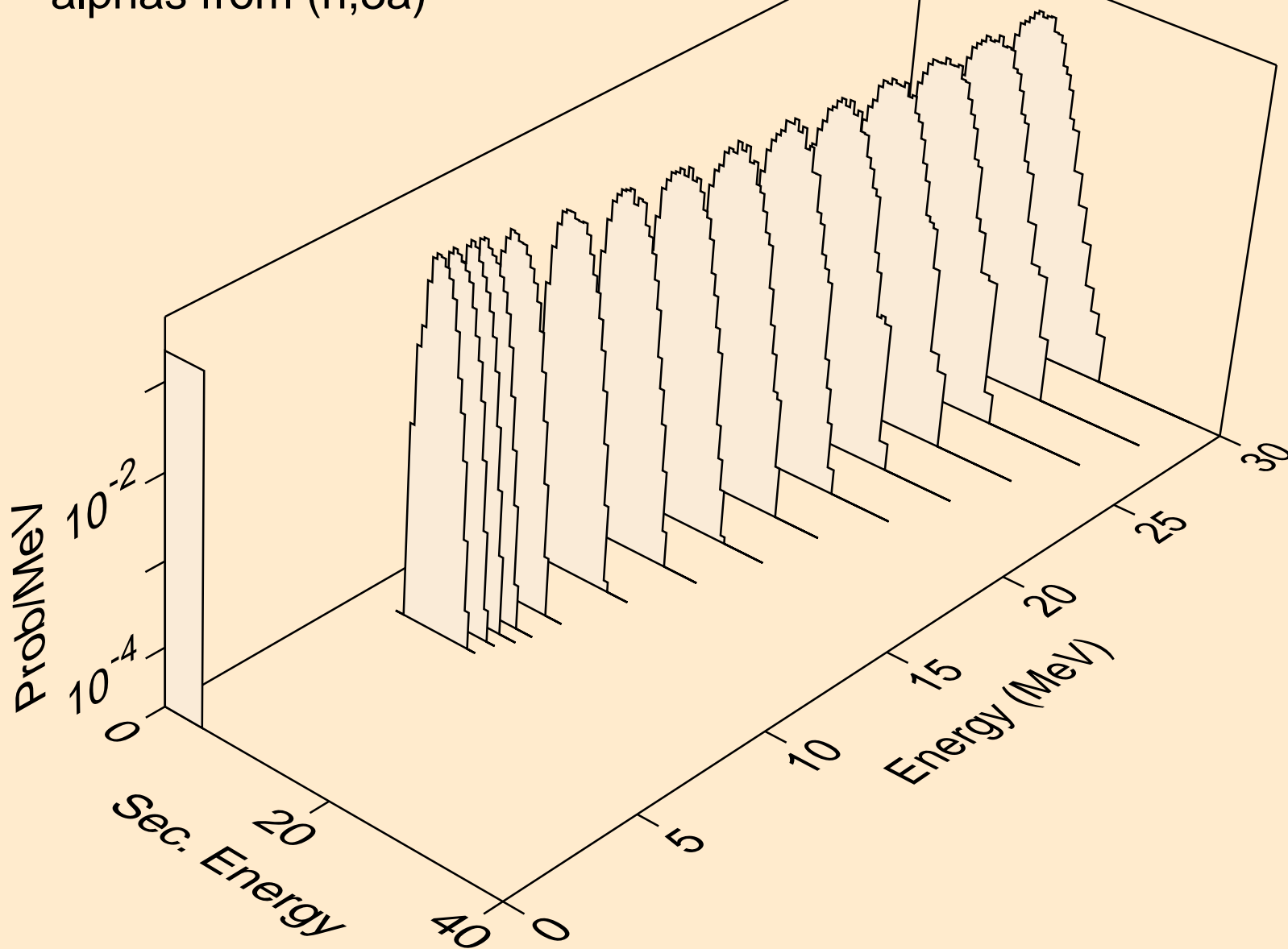
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,a)



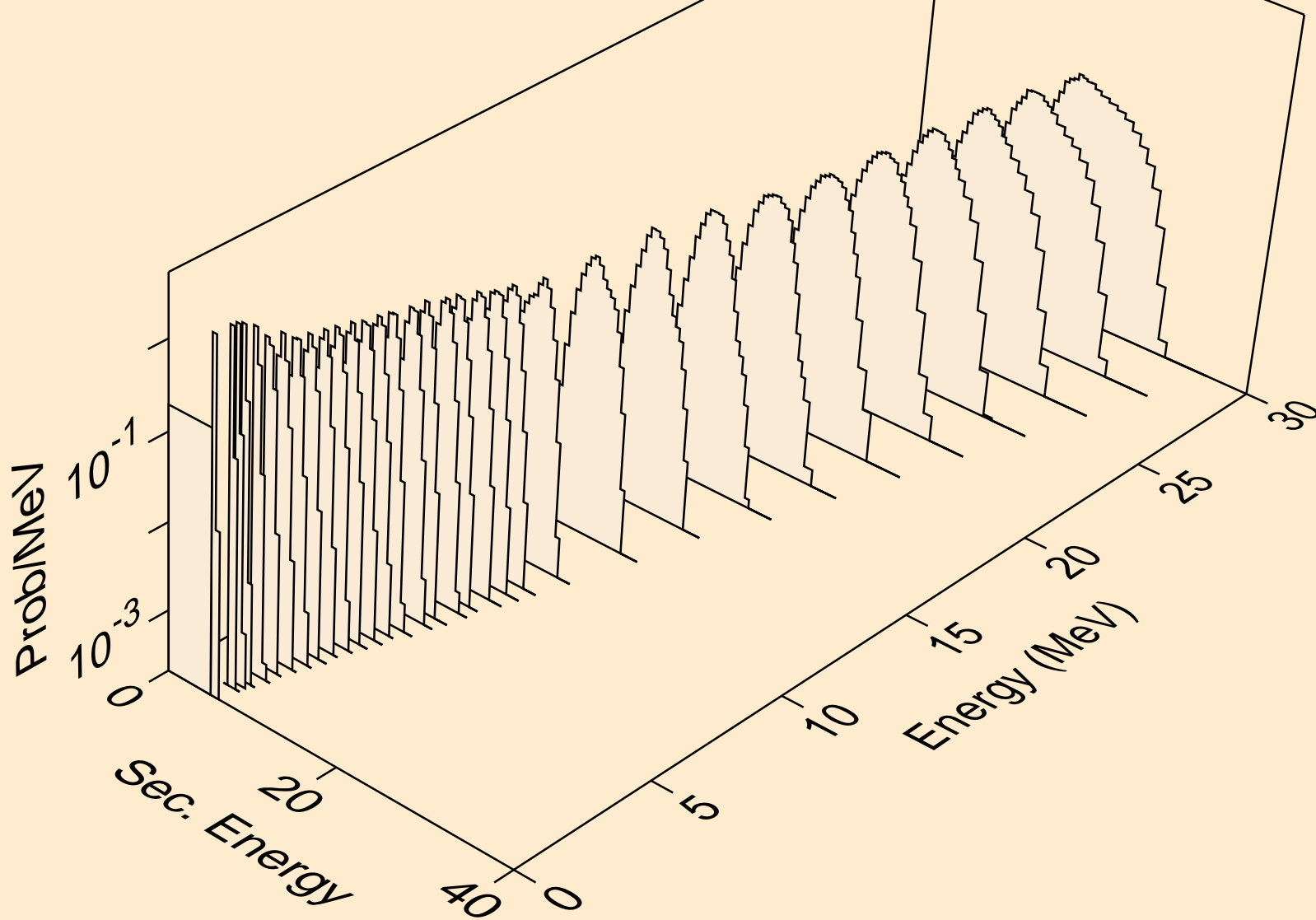
ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,2a)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,3a)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,pa)



ER154 NEUTRON ACER TENDL-2019 LIBRARY; T=293.16K  
alphas from (n,da)

