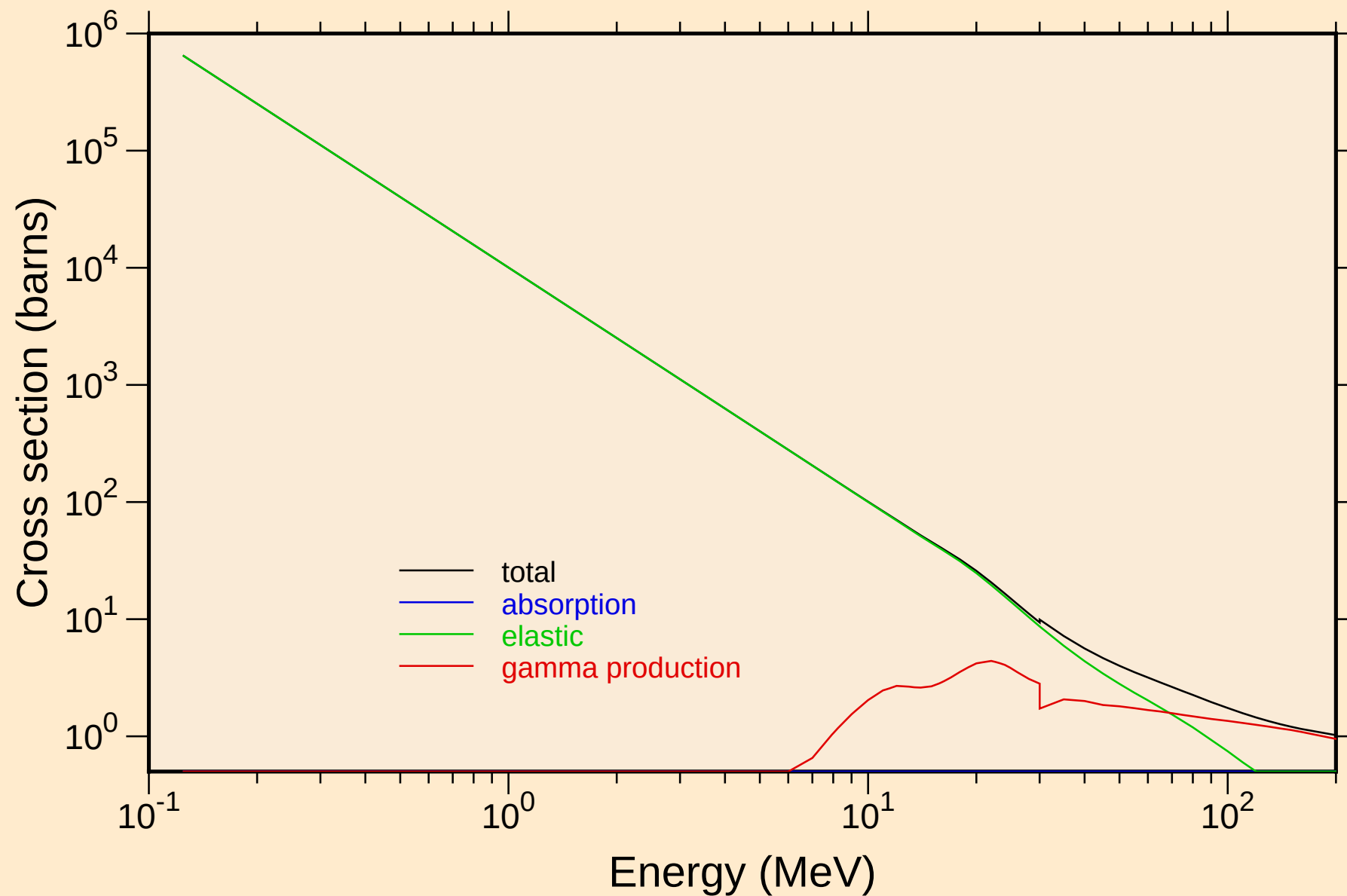


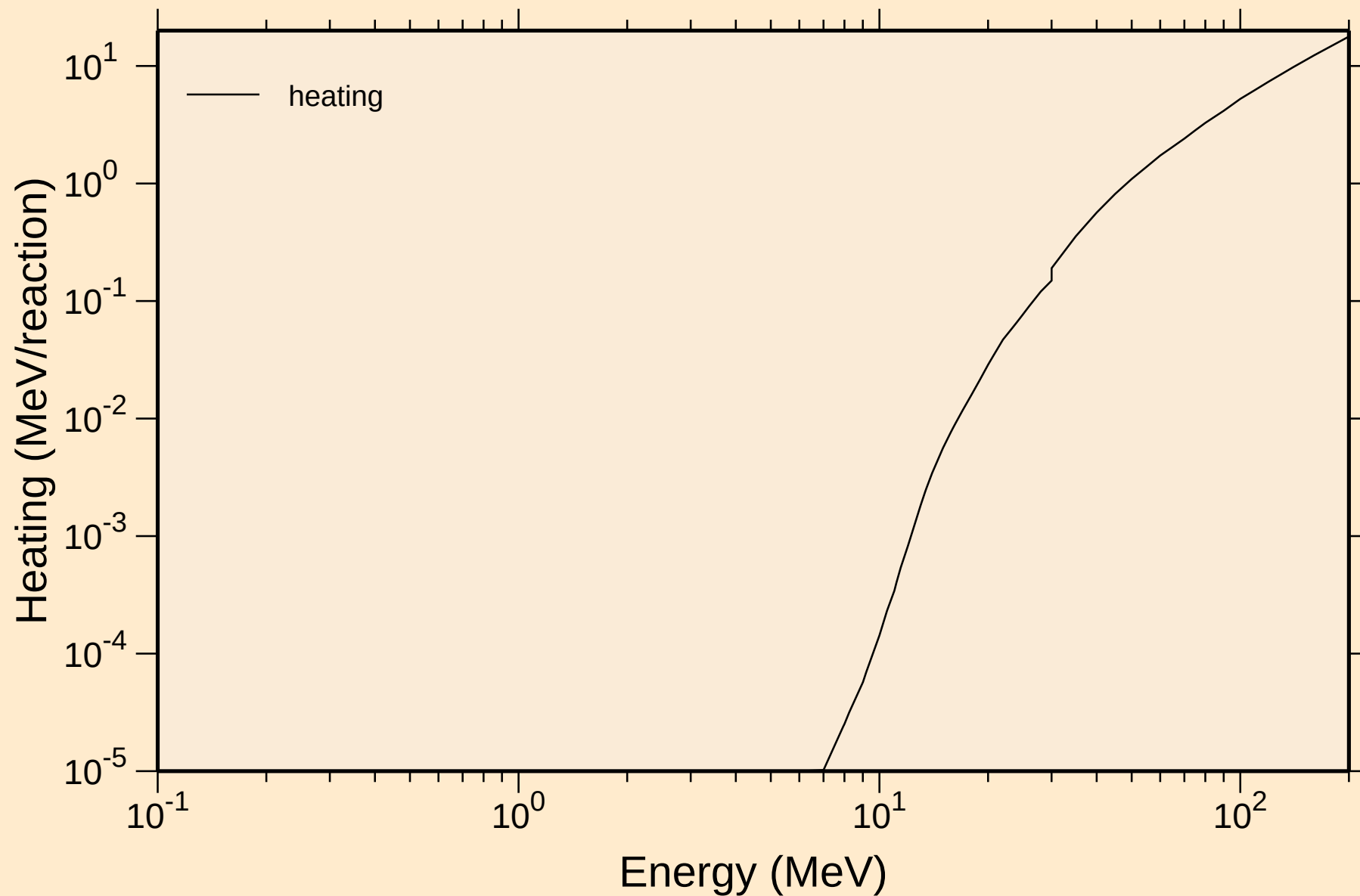
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

## Principal cross sections



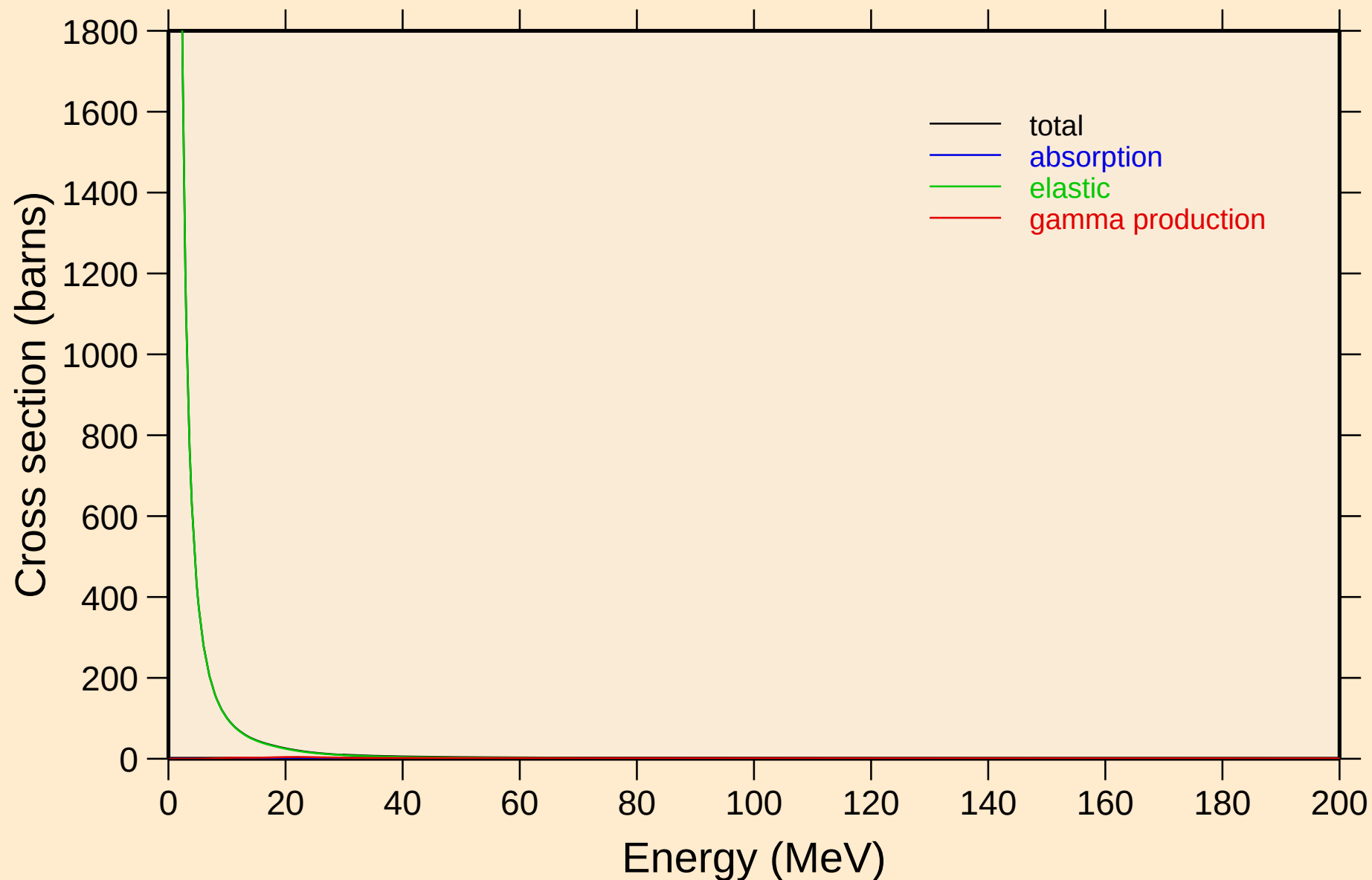
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Heating



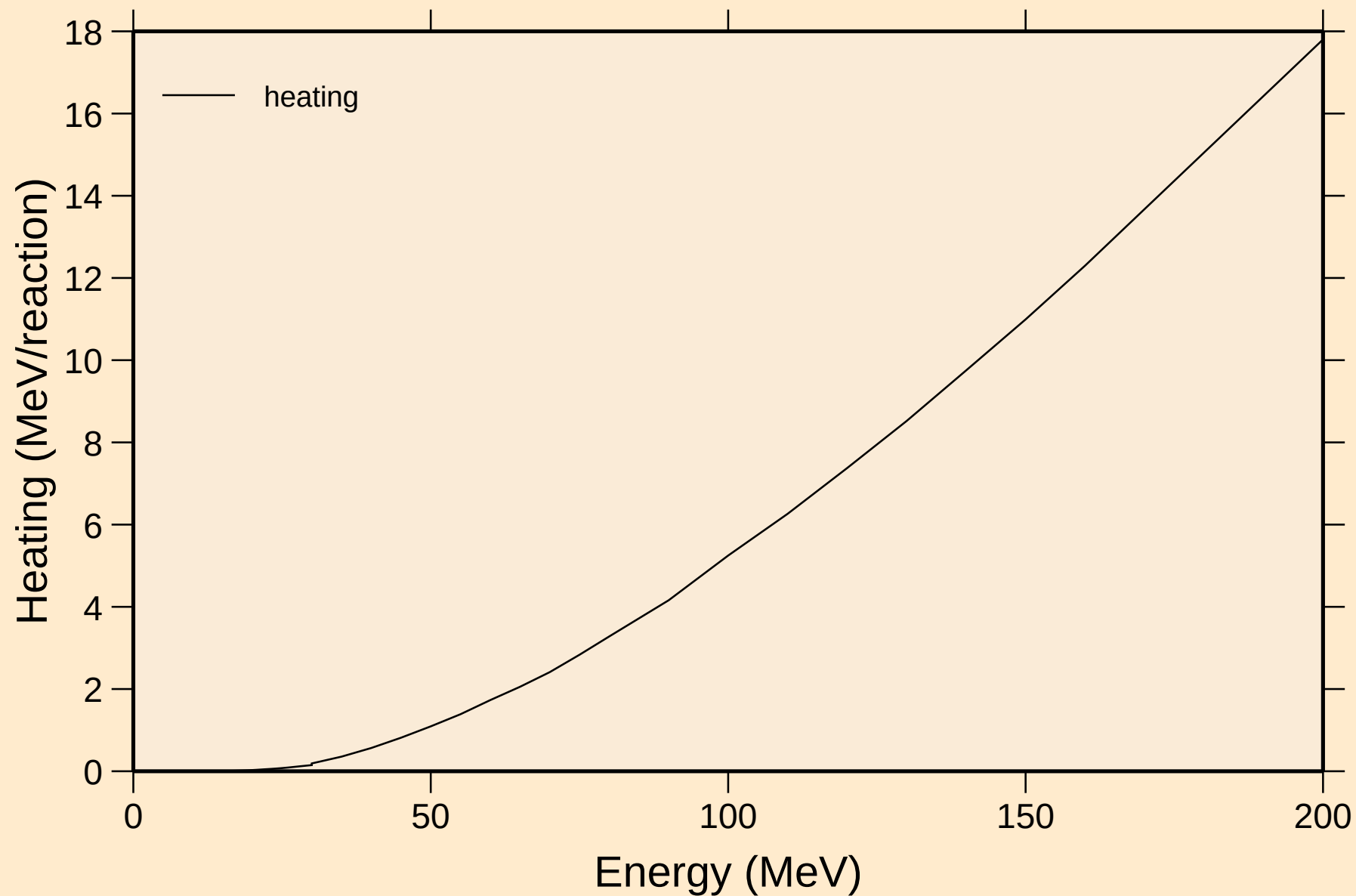
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

## Principal cross sections



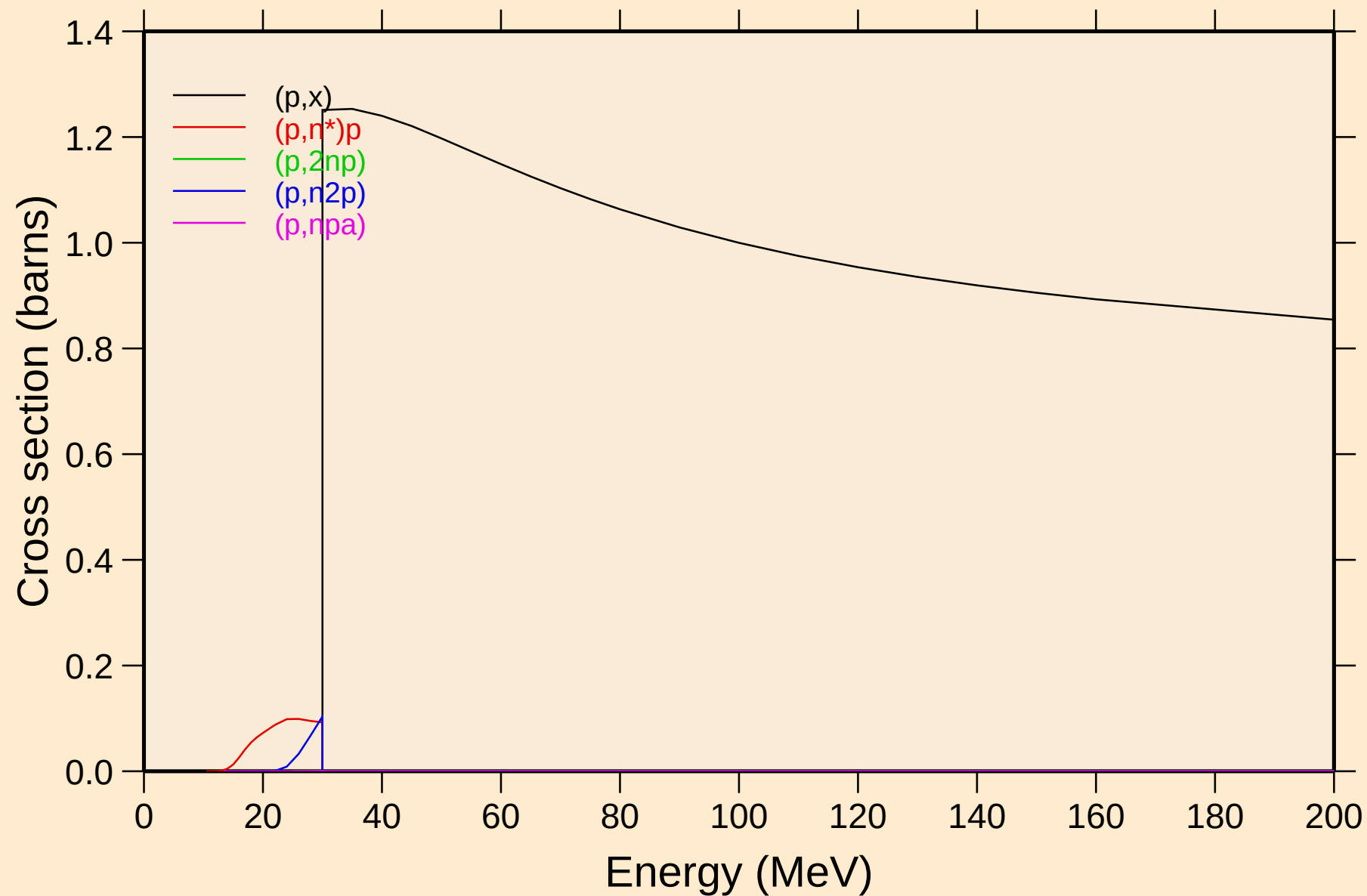
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Heating



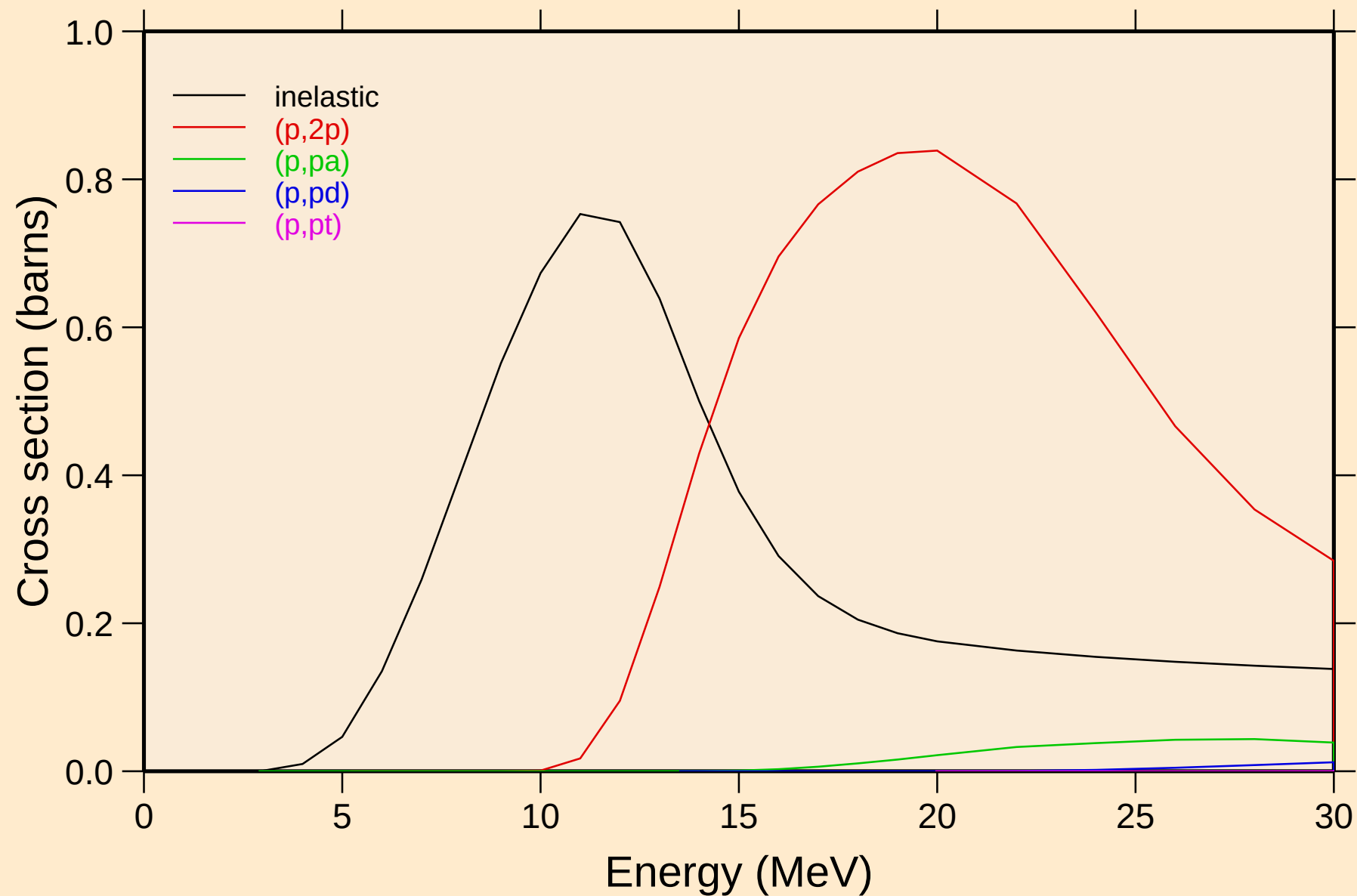
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Threshold reactions



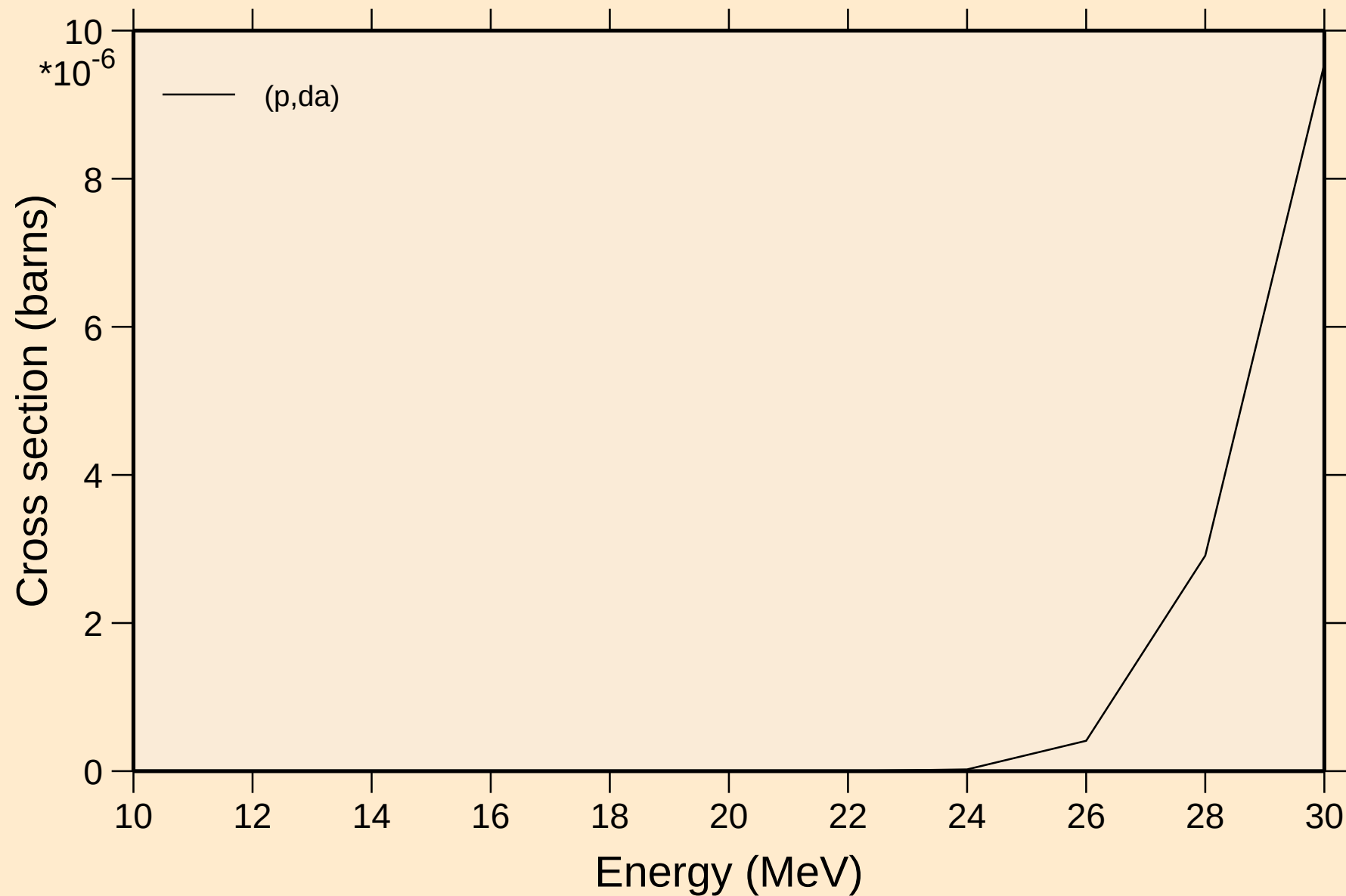
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Threshold reactions

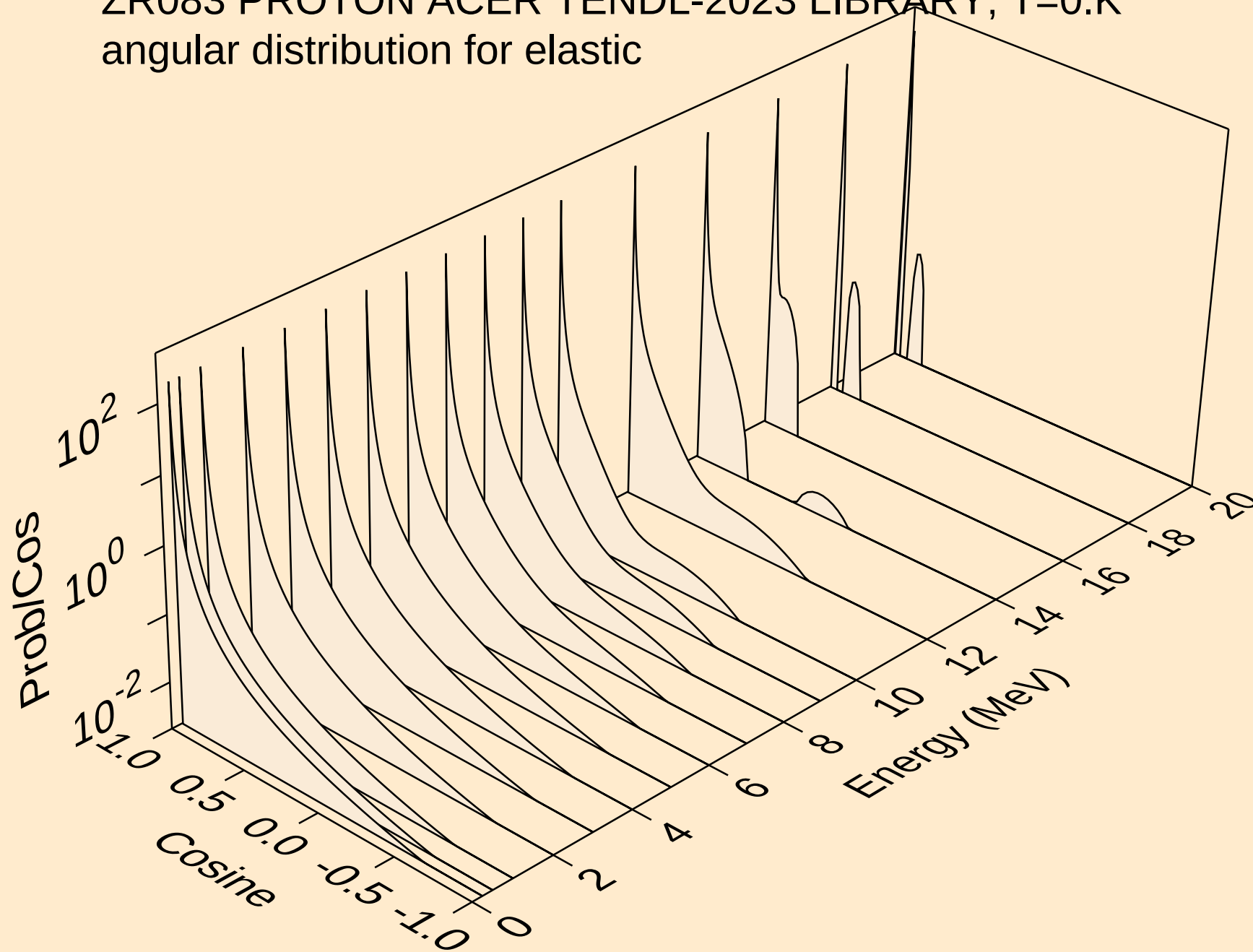


# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Threshold reactions

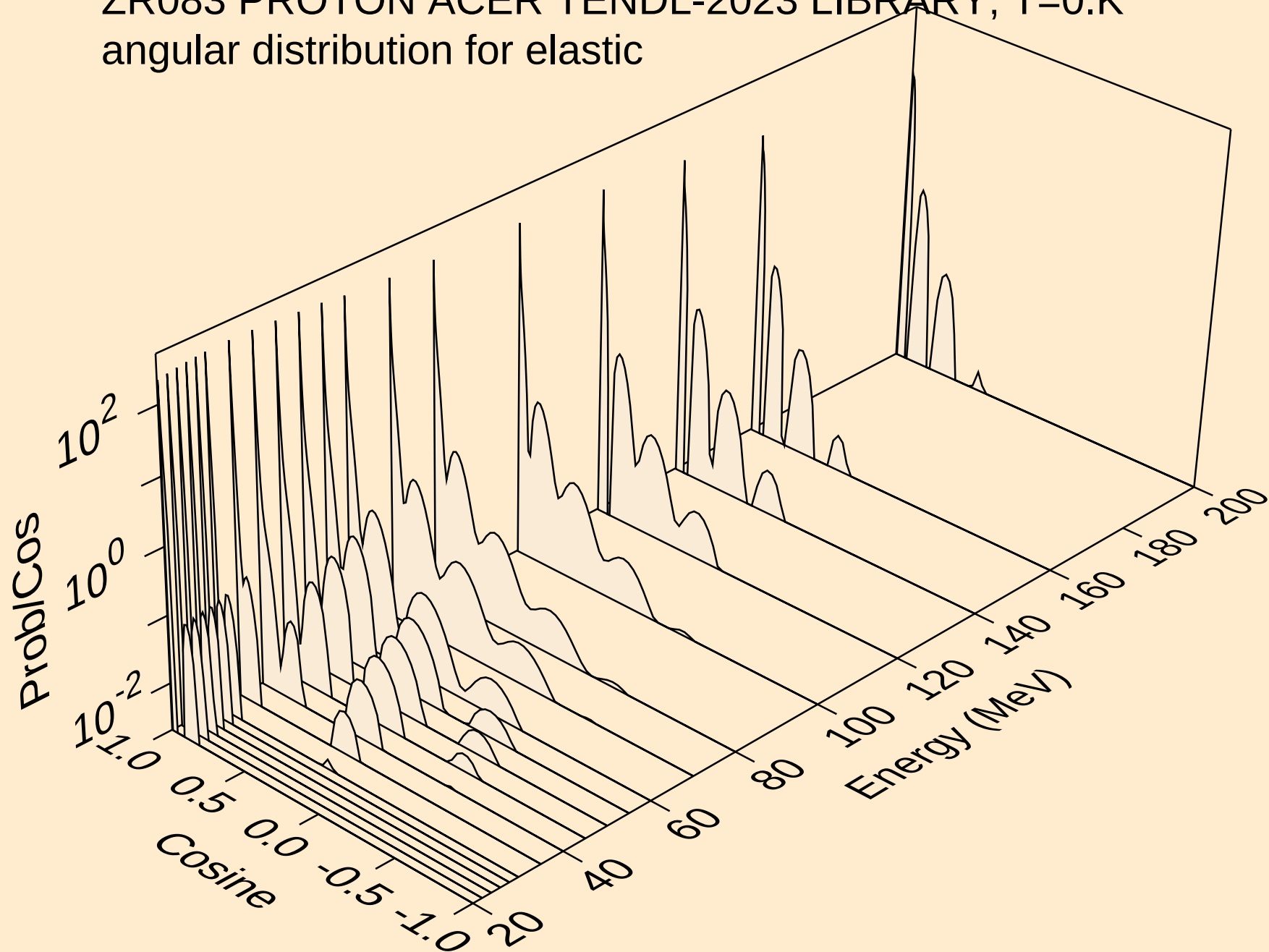


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
angular distribution for elastic



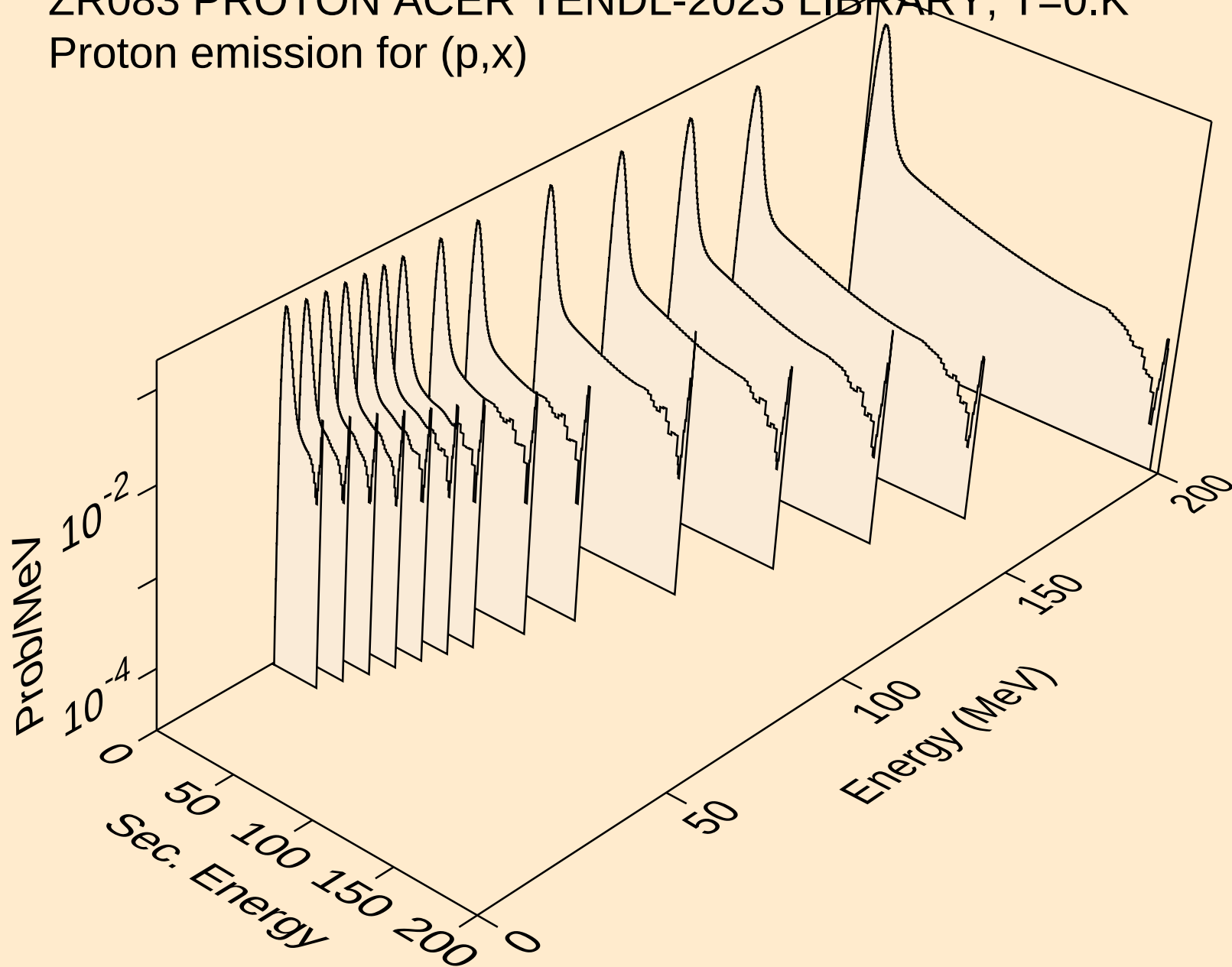


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
angular distribution for elastic



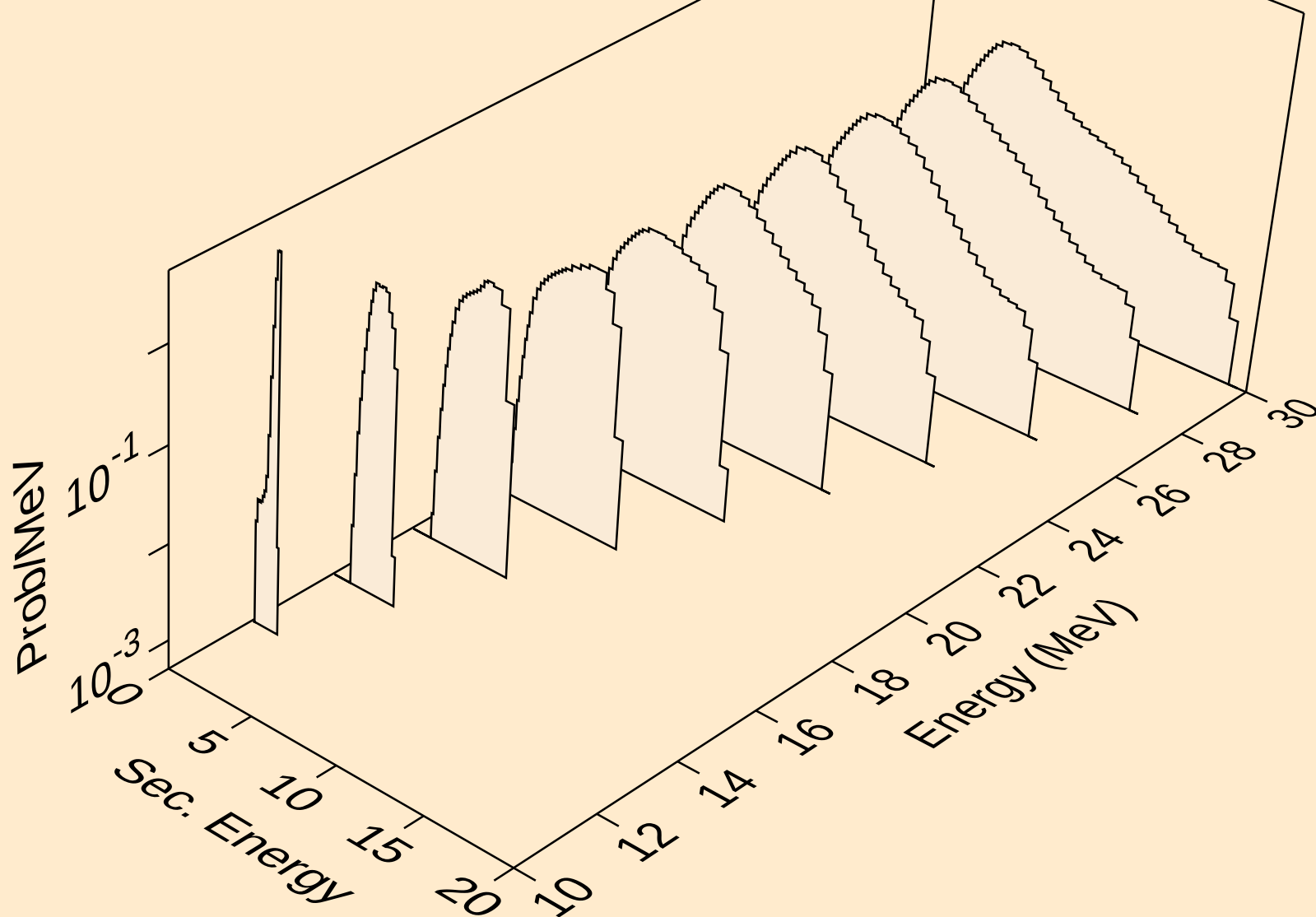
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Proton emission for (p,x)

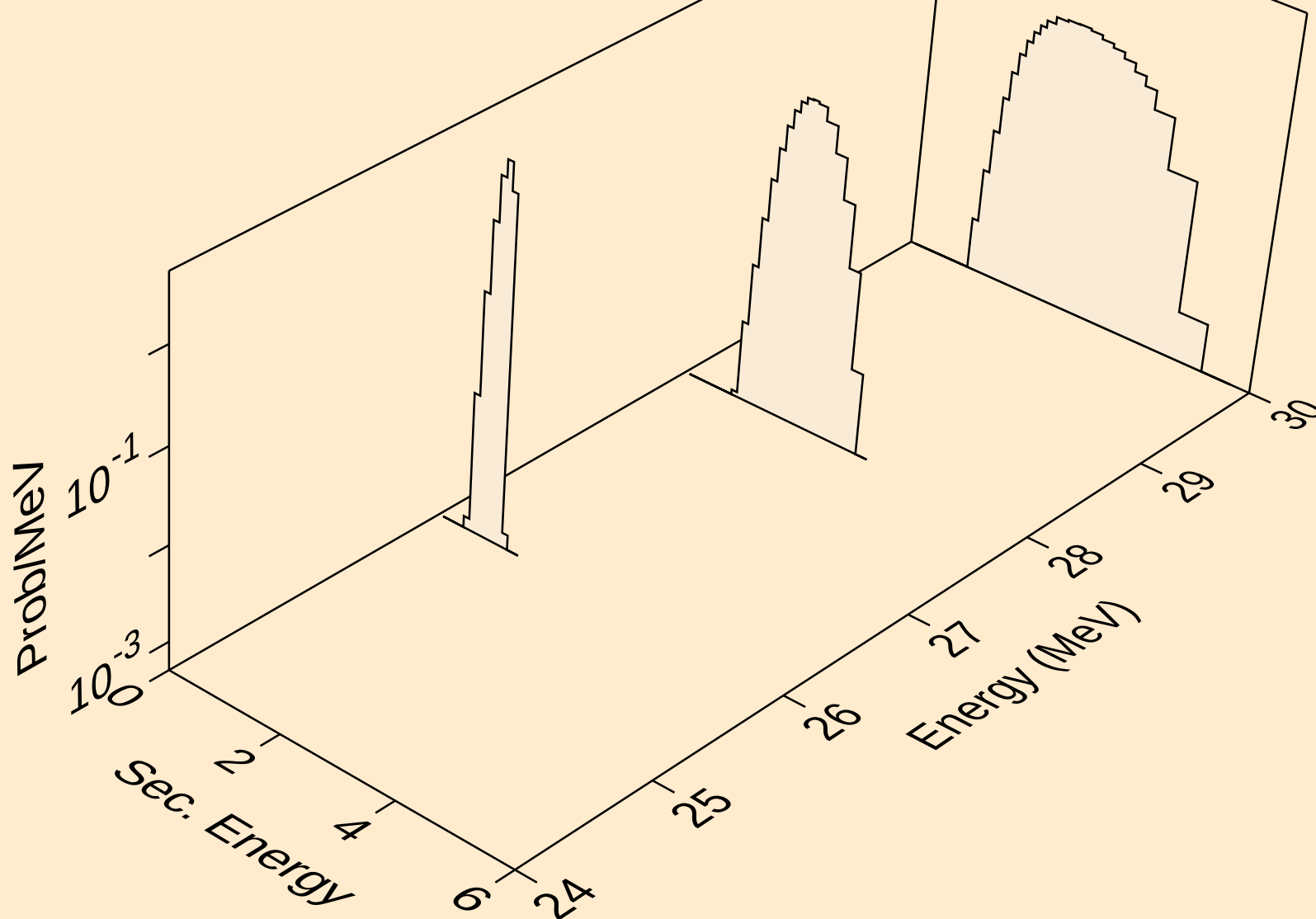


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

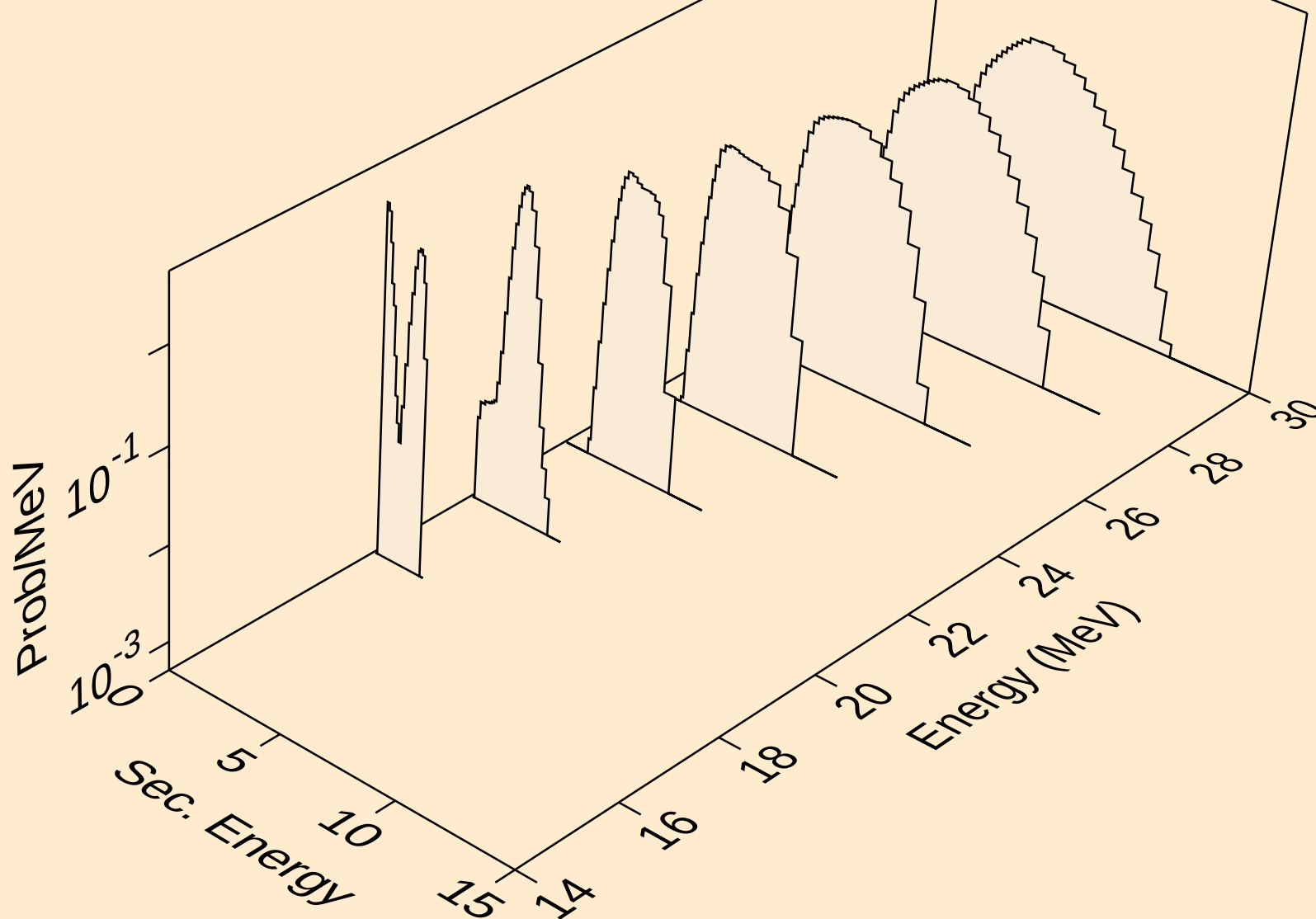
Proton emission for (p,n\*)p



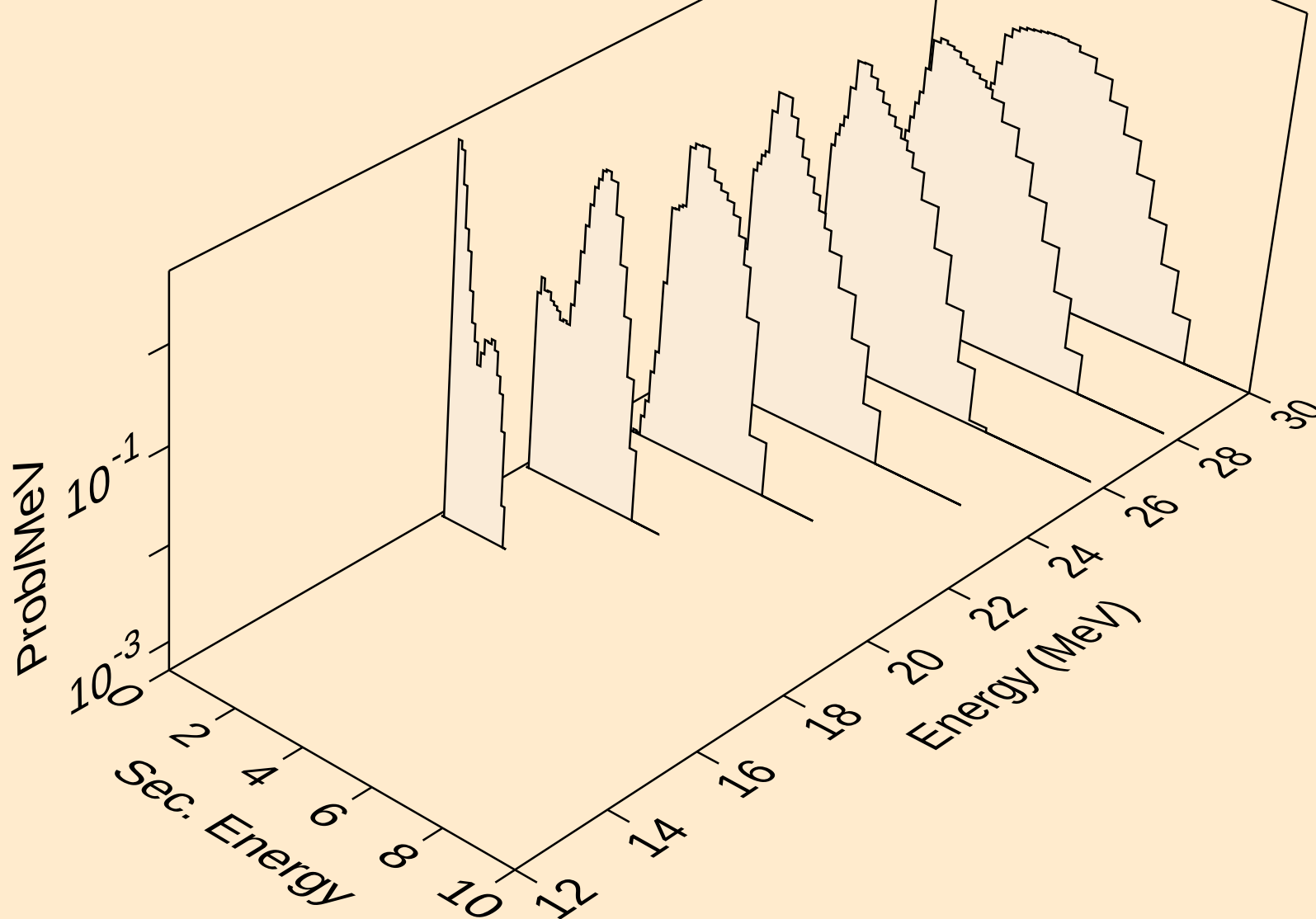
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Proton emission for (p,2np)



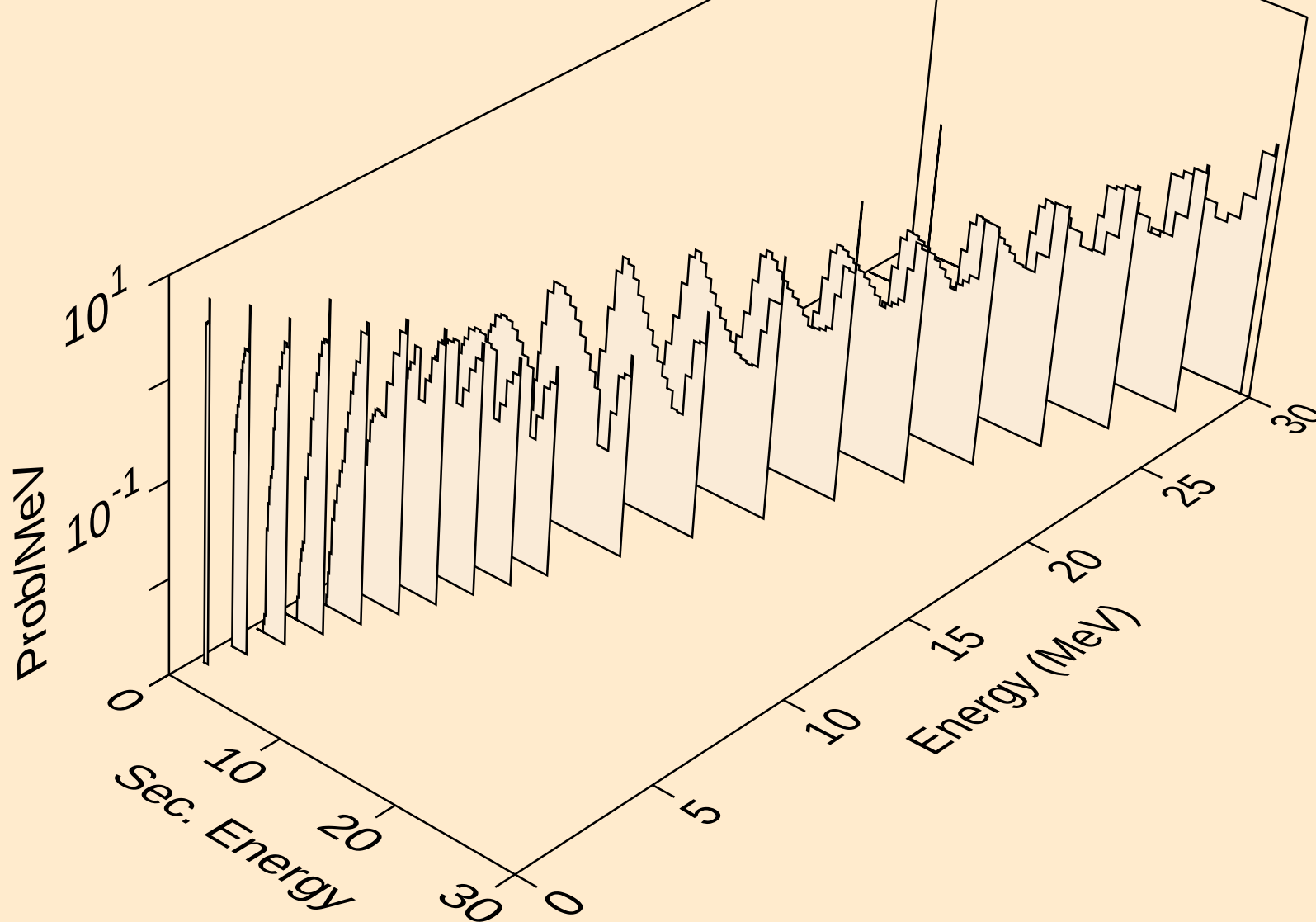
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Proton emission for (p,n2p)



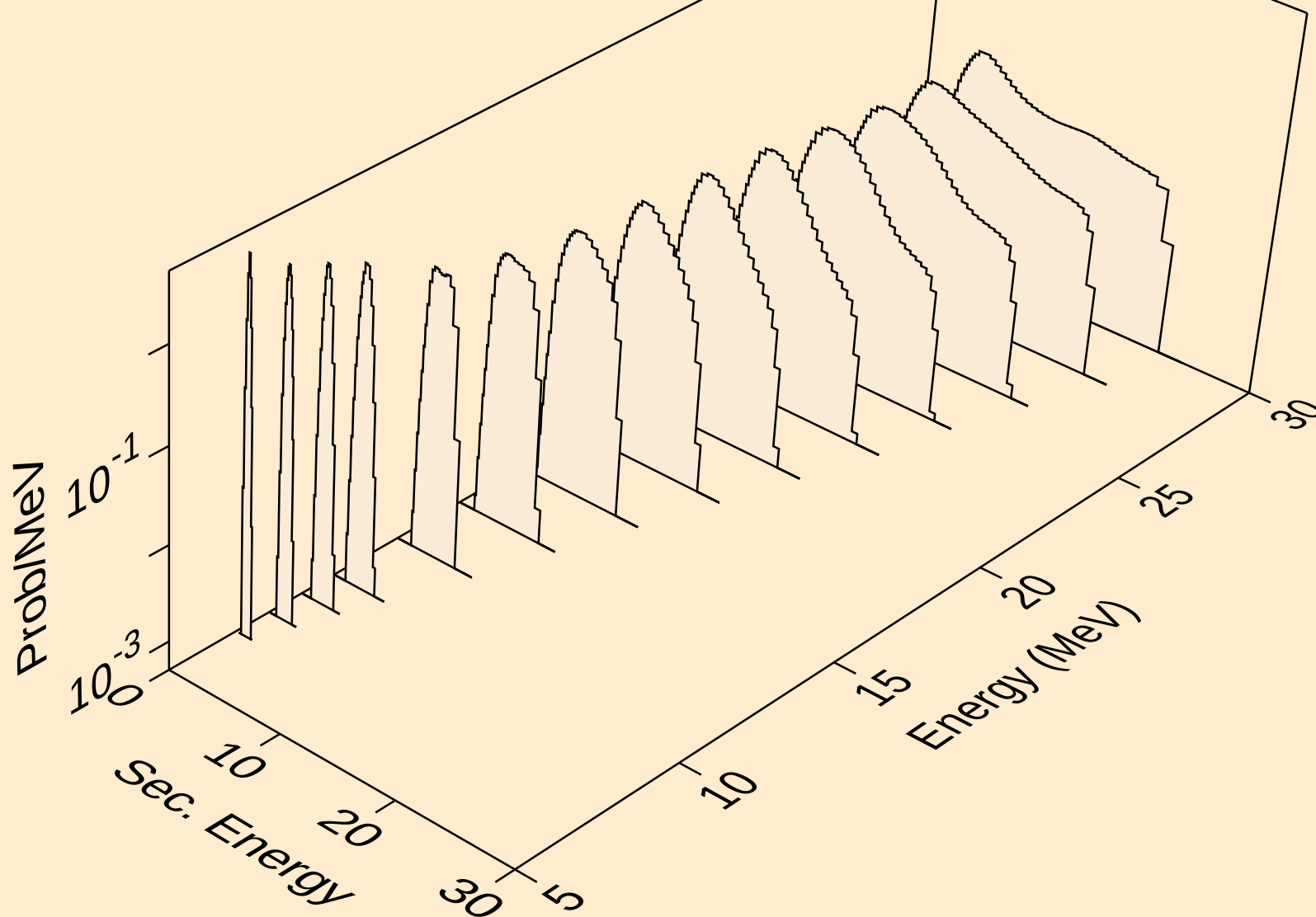
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Proton emission for (p,npa)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Proton emission for inelastic



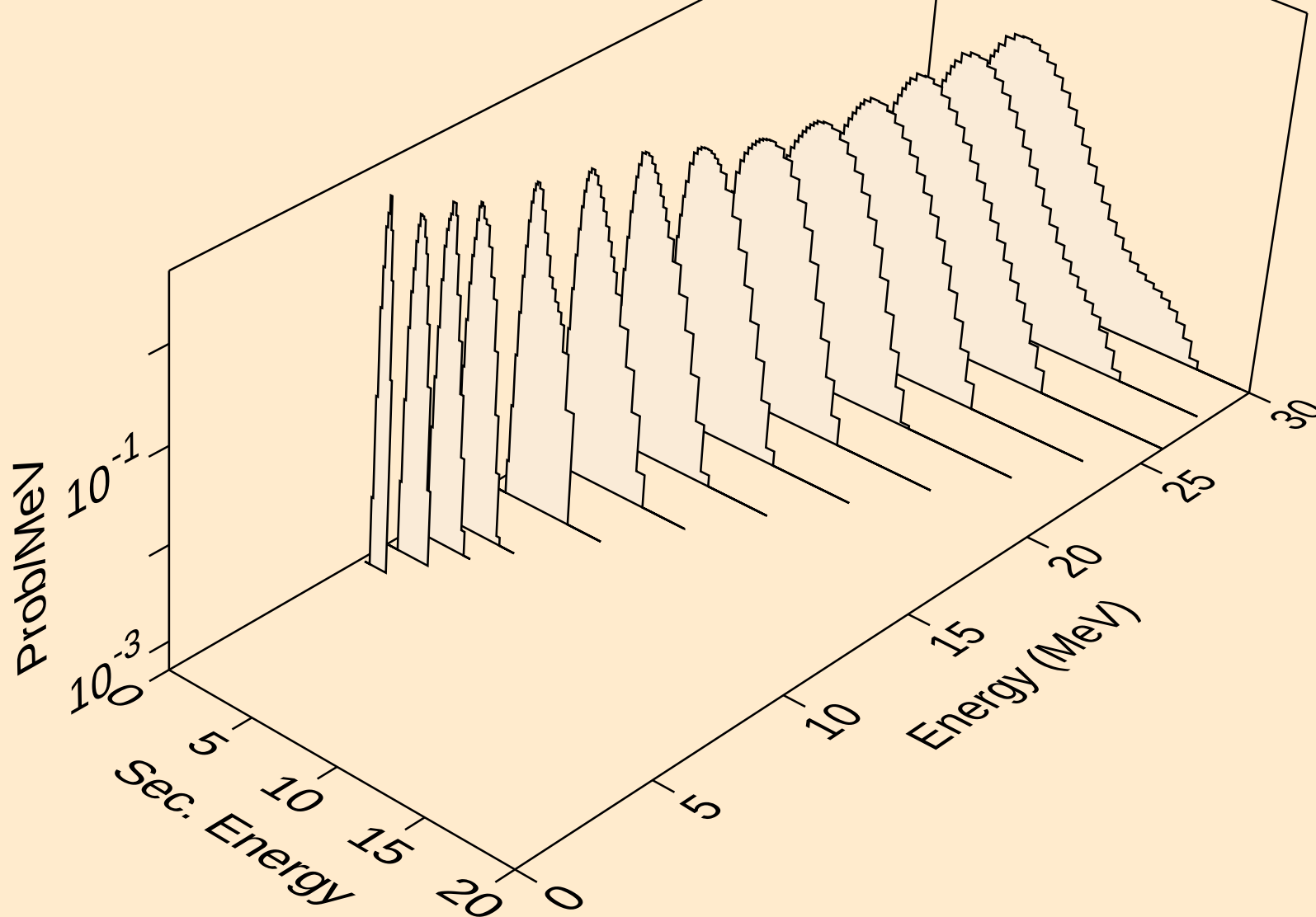
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Proton emission for (p,2p)





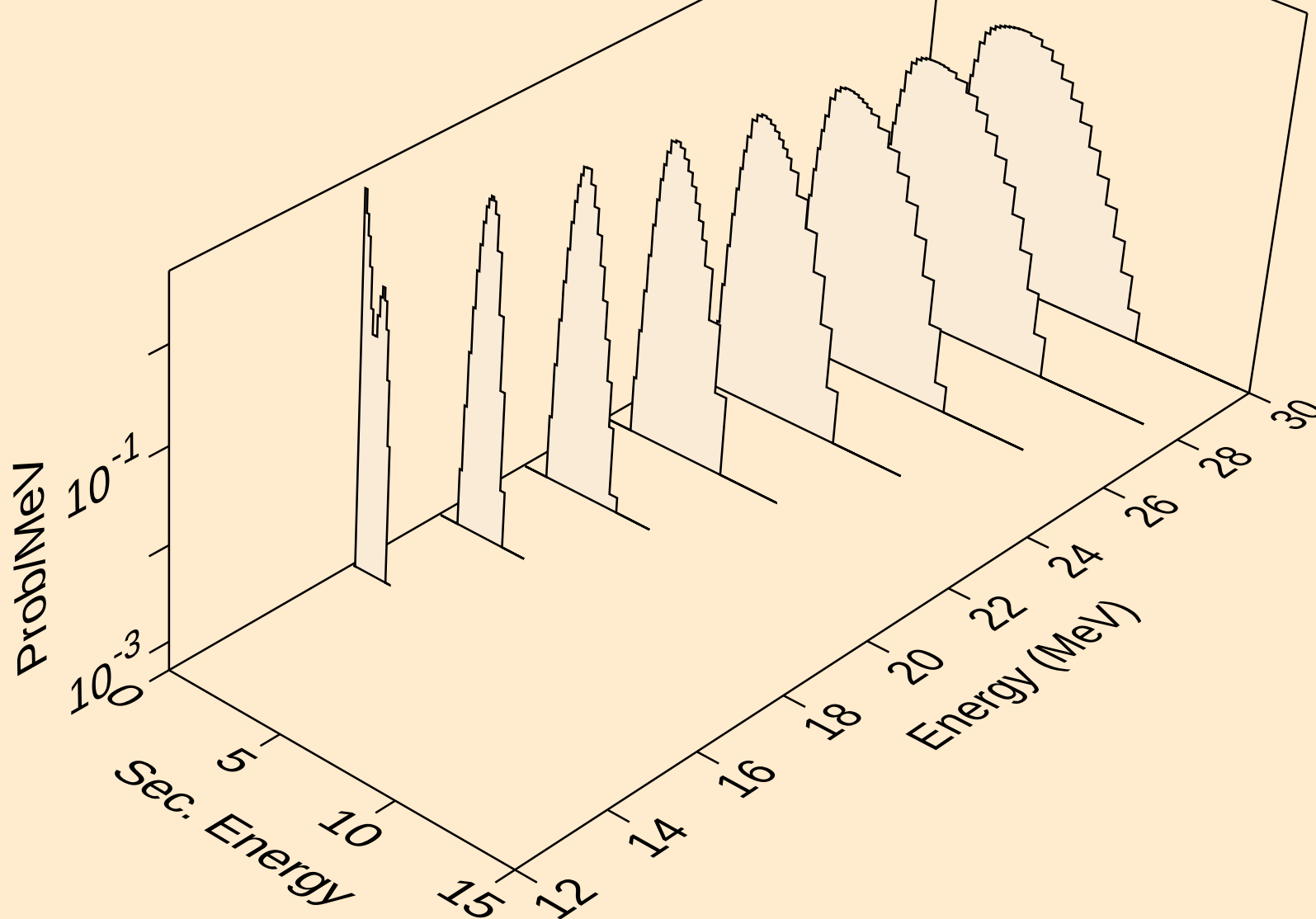
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Proton emission for (p,pa)



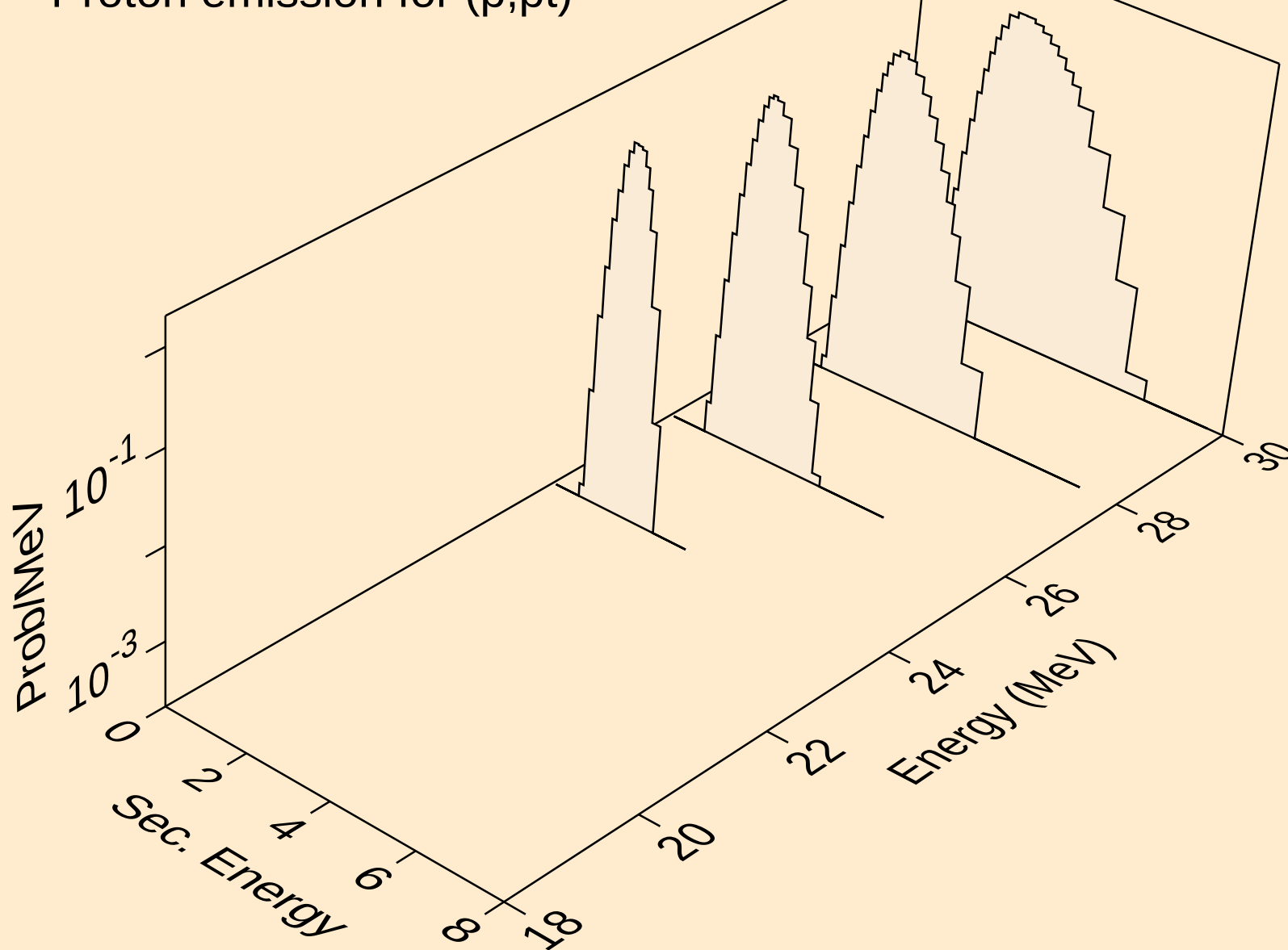
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Proton emission for (p,pd)



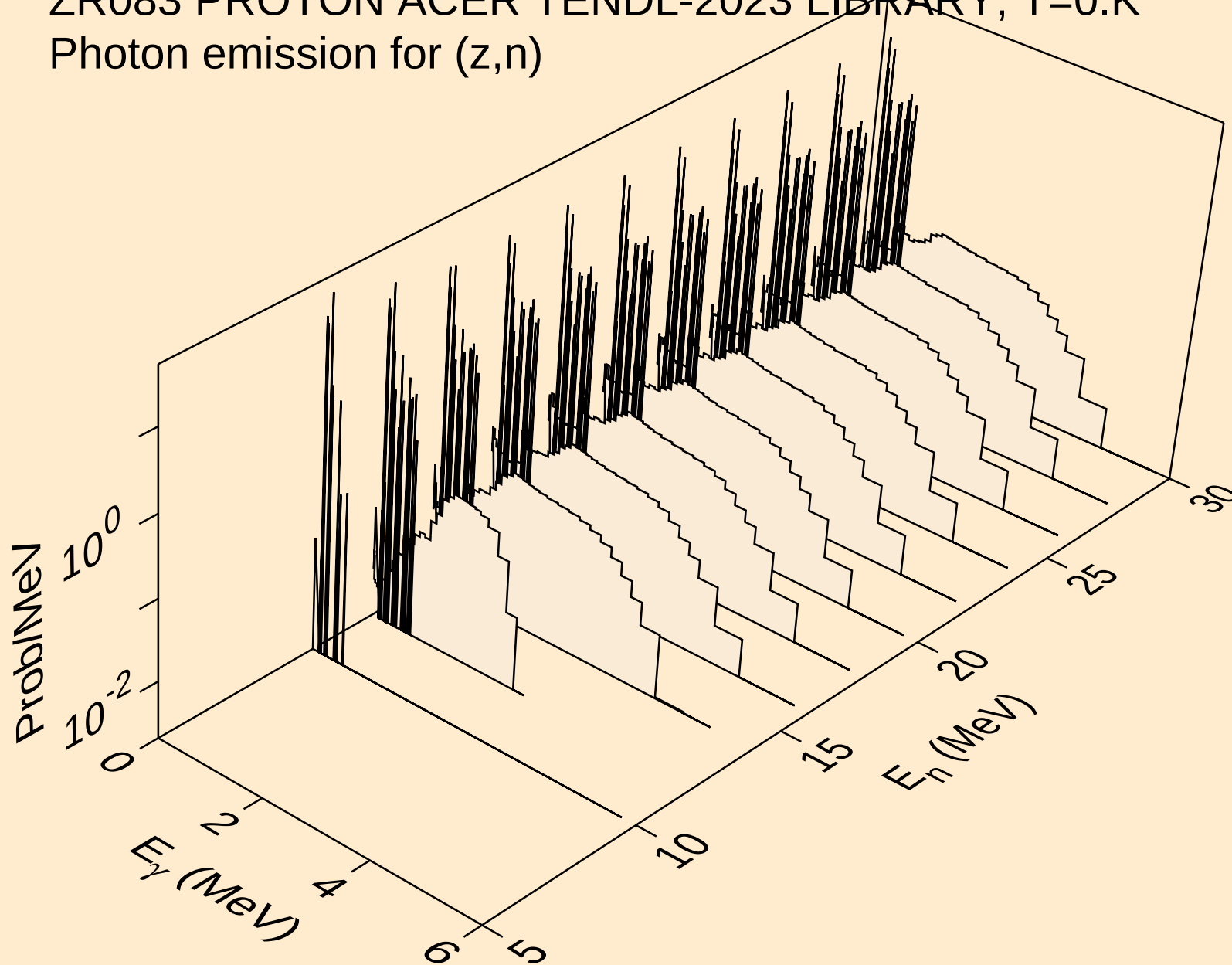
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Proton emission for (p,pt)



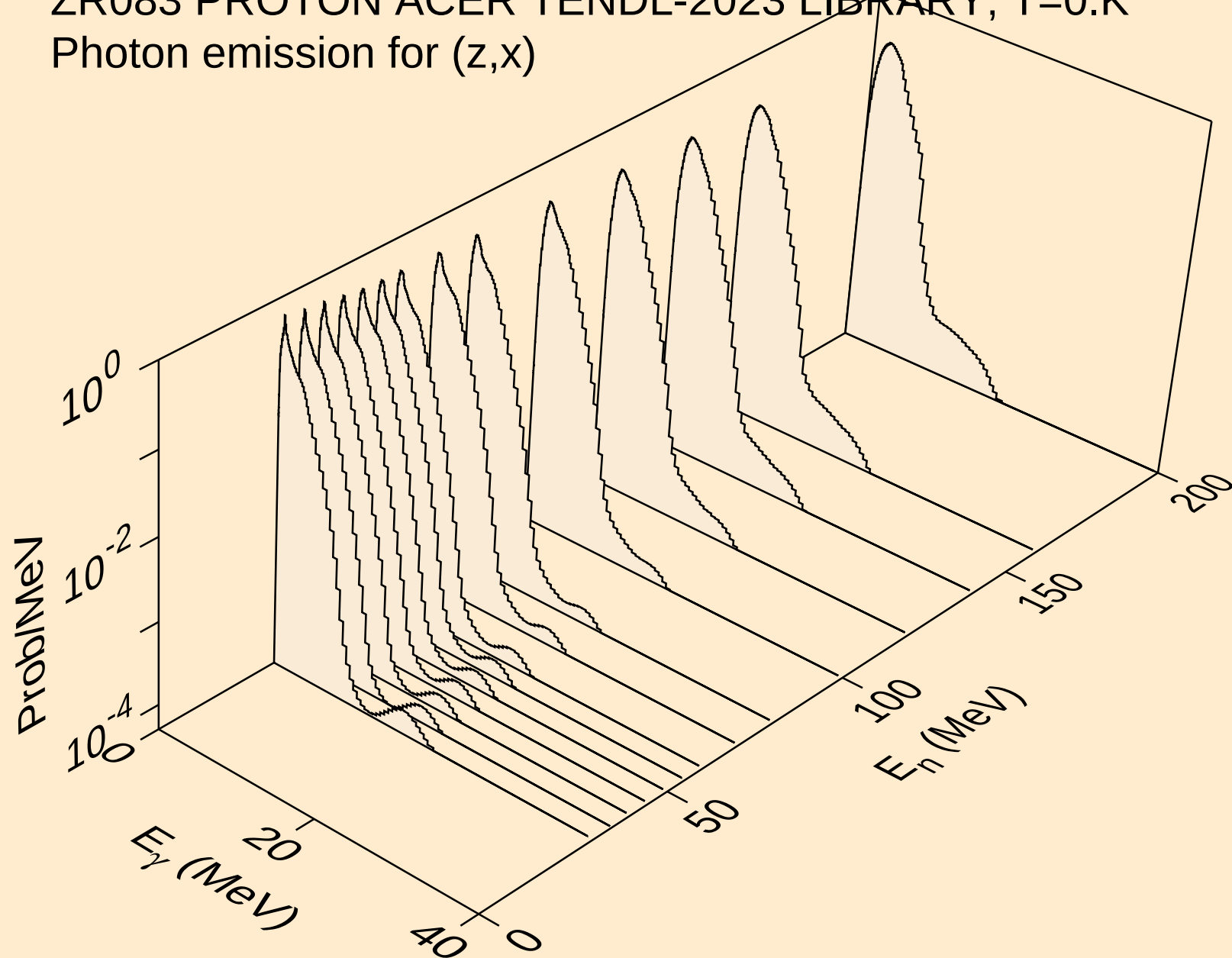
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Photon emission for (z,n)



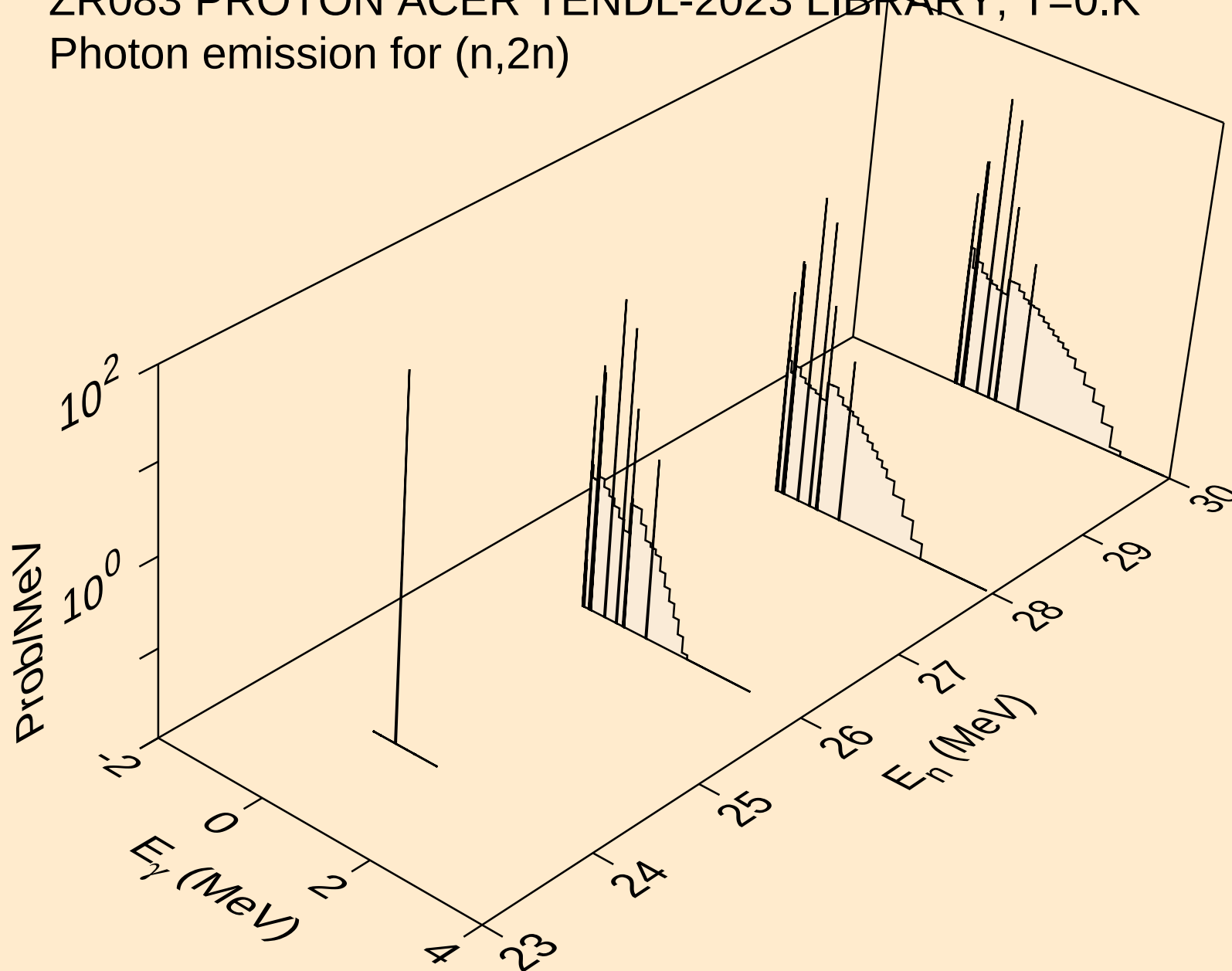
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Photon emission for (z,x)



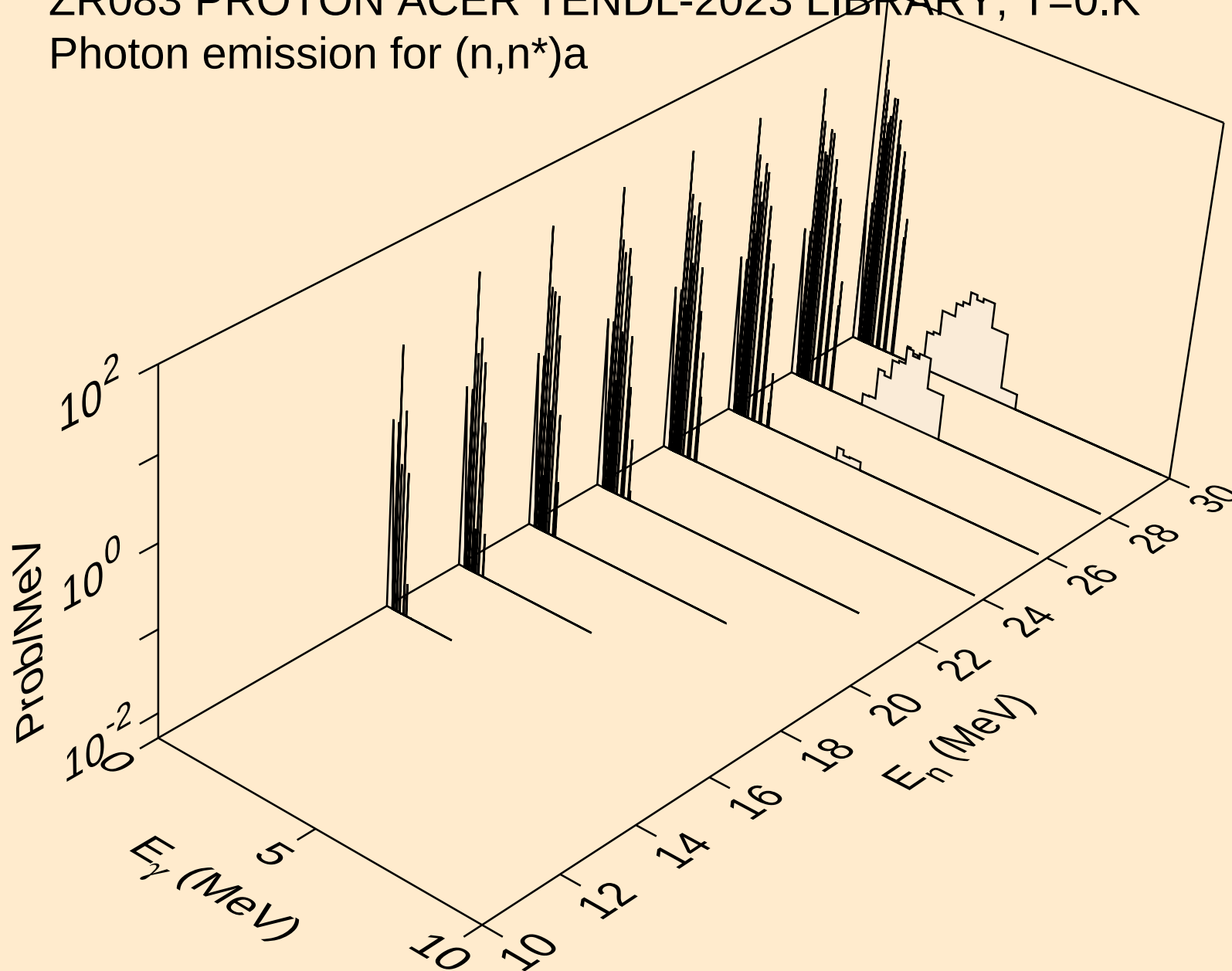
ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$

Photon emission for (n,2n)



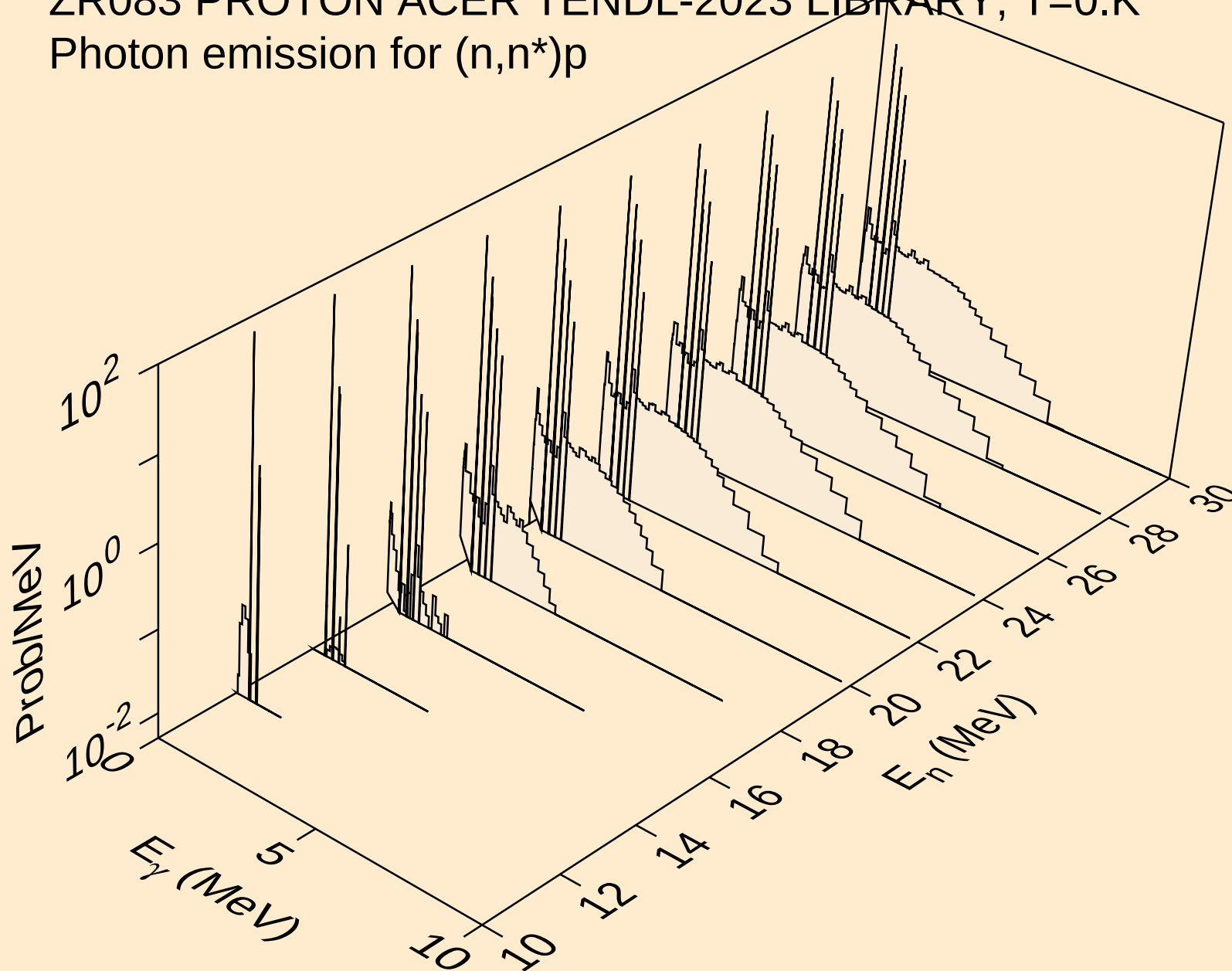
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Photon emission for (n,n\*)a



ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$

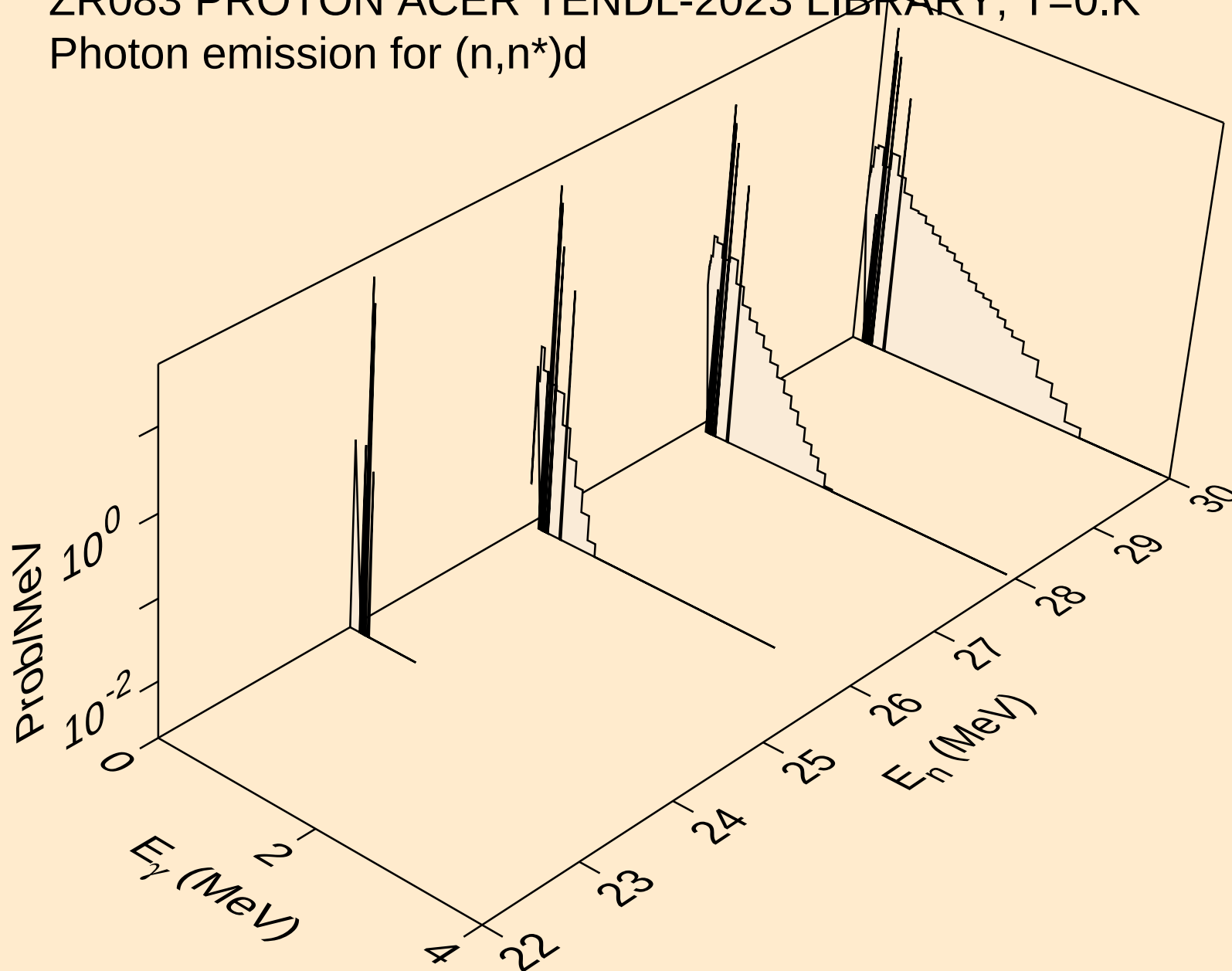
Photon emission for  $(n,n^*)p$





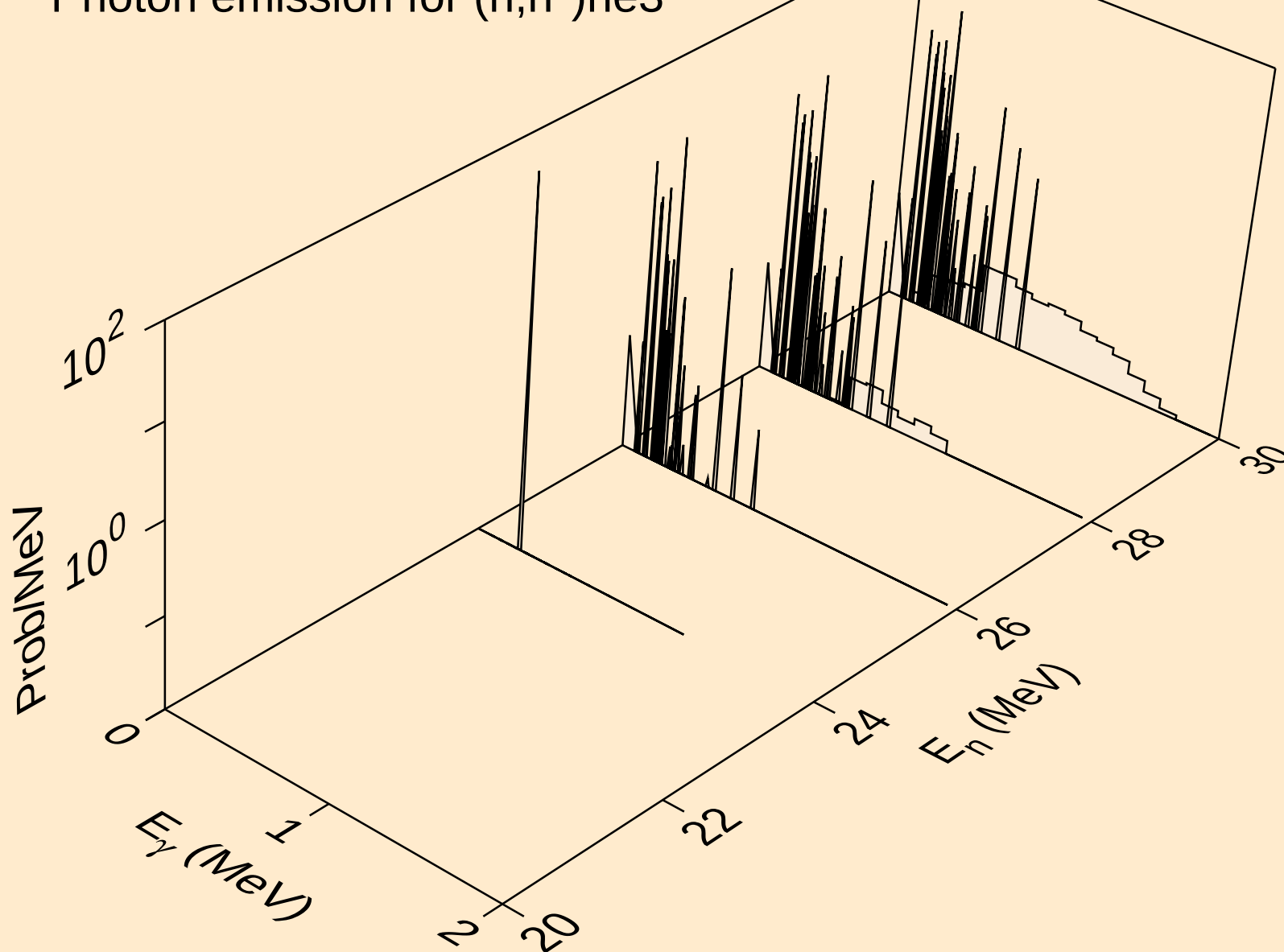
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Photon emission for (n,n\*)d



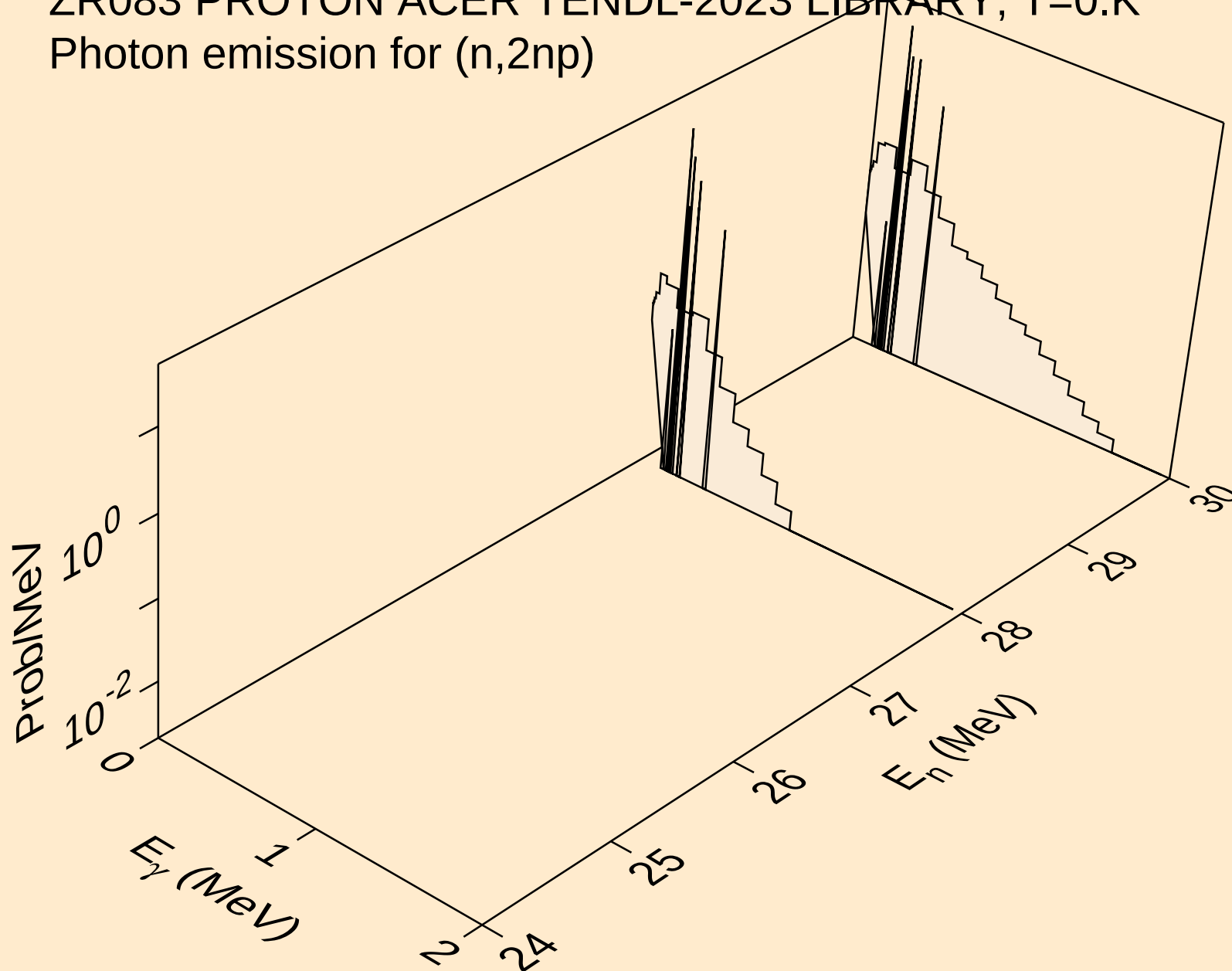
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

Photon emission for (n,n\*)he3

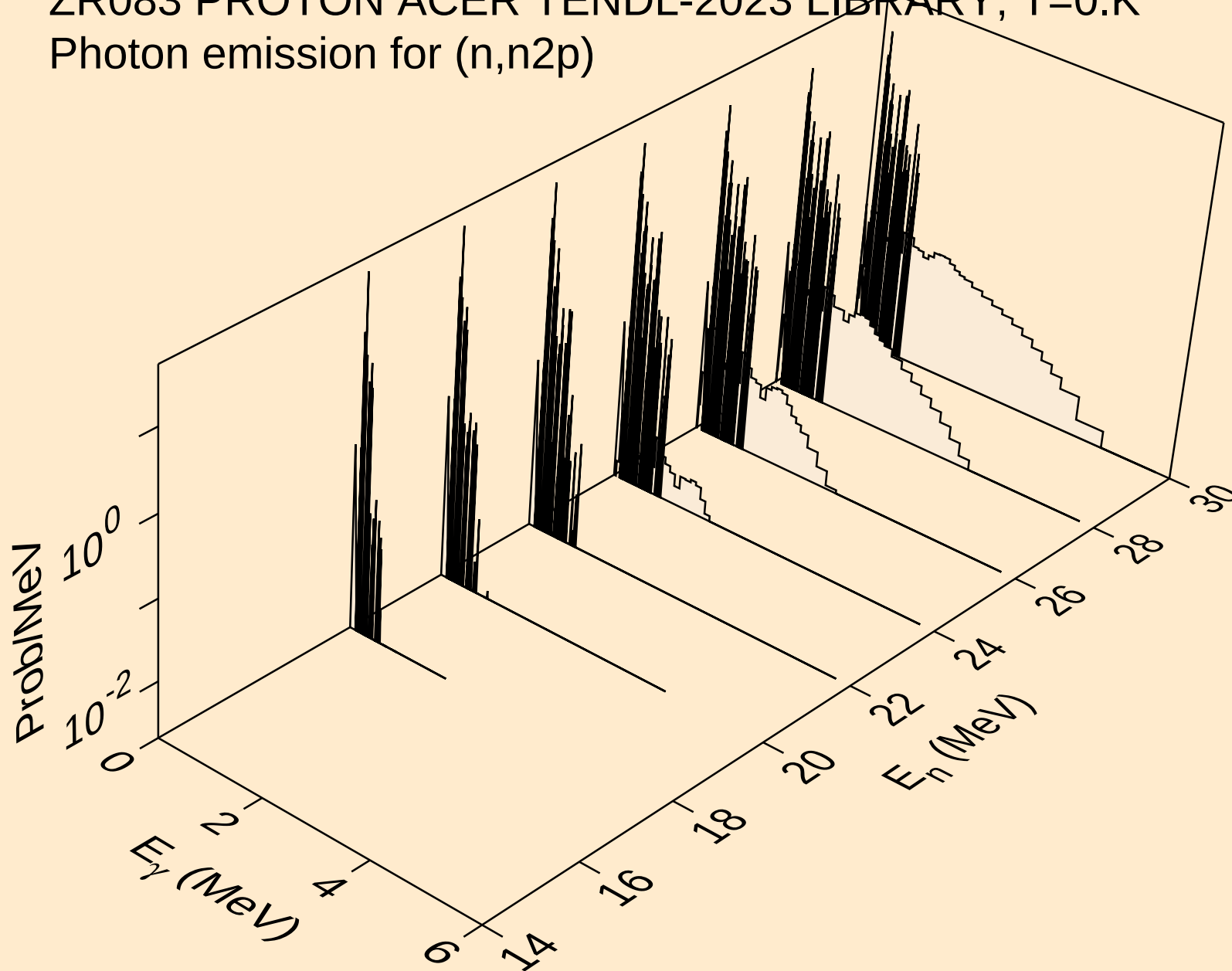


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

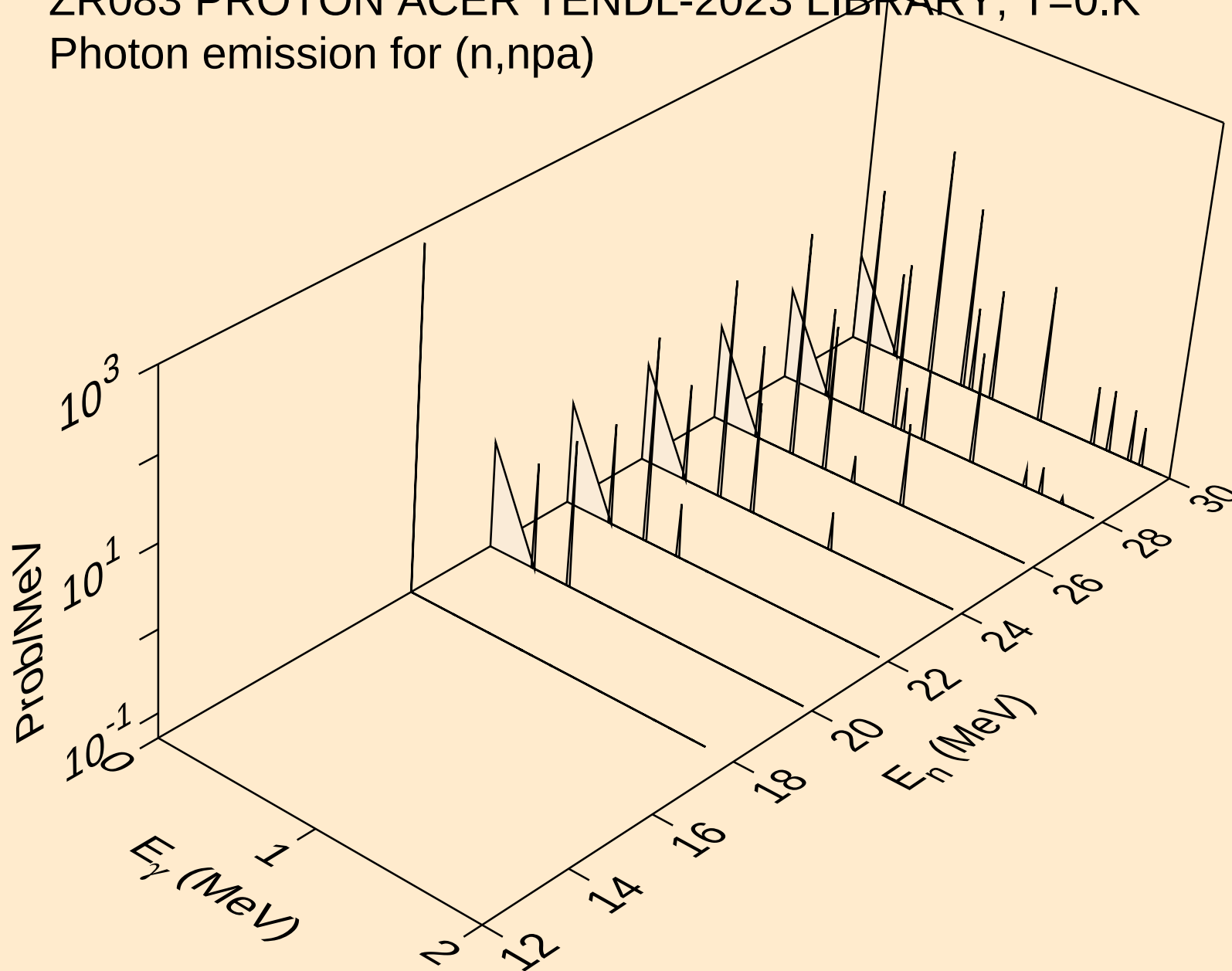
Photon emission for (n,2np)



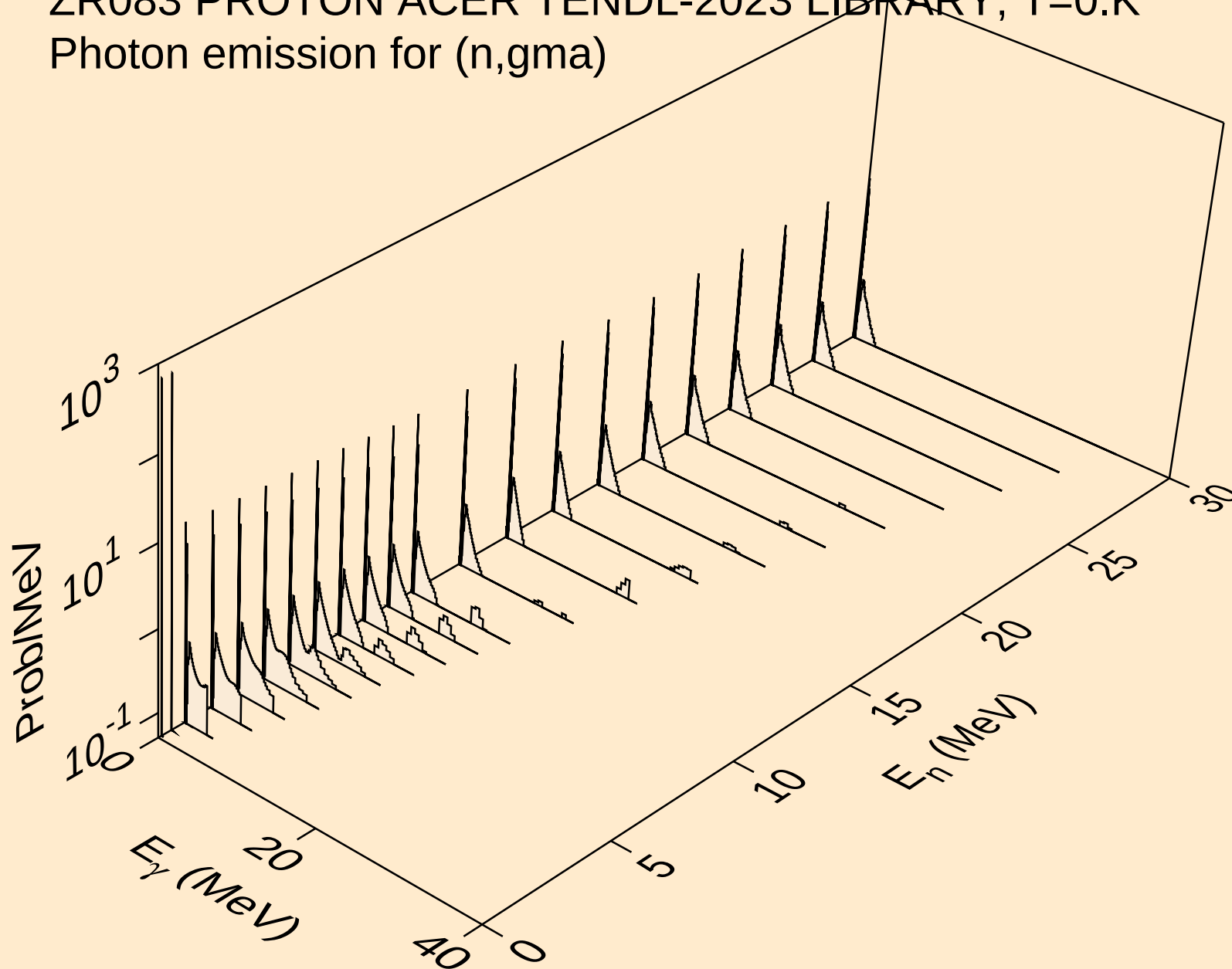
ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
Photon emission for (n,n2p)



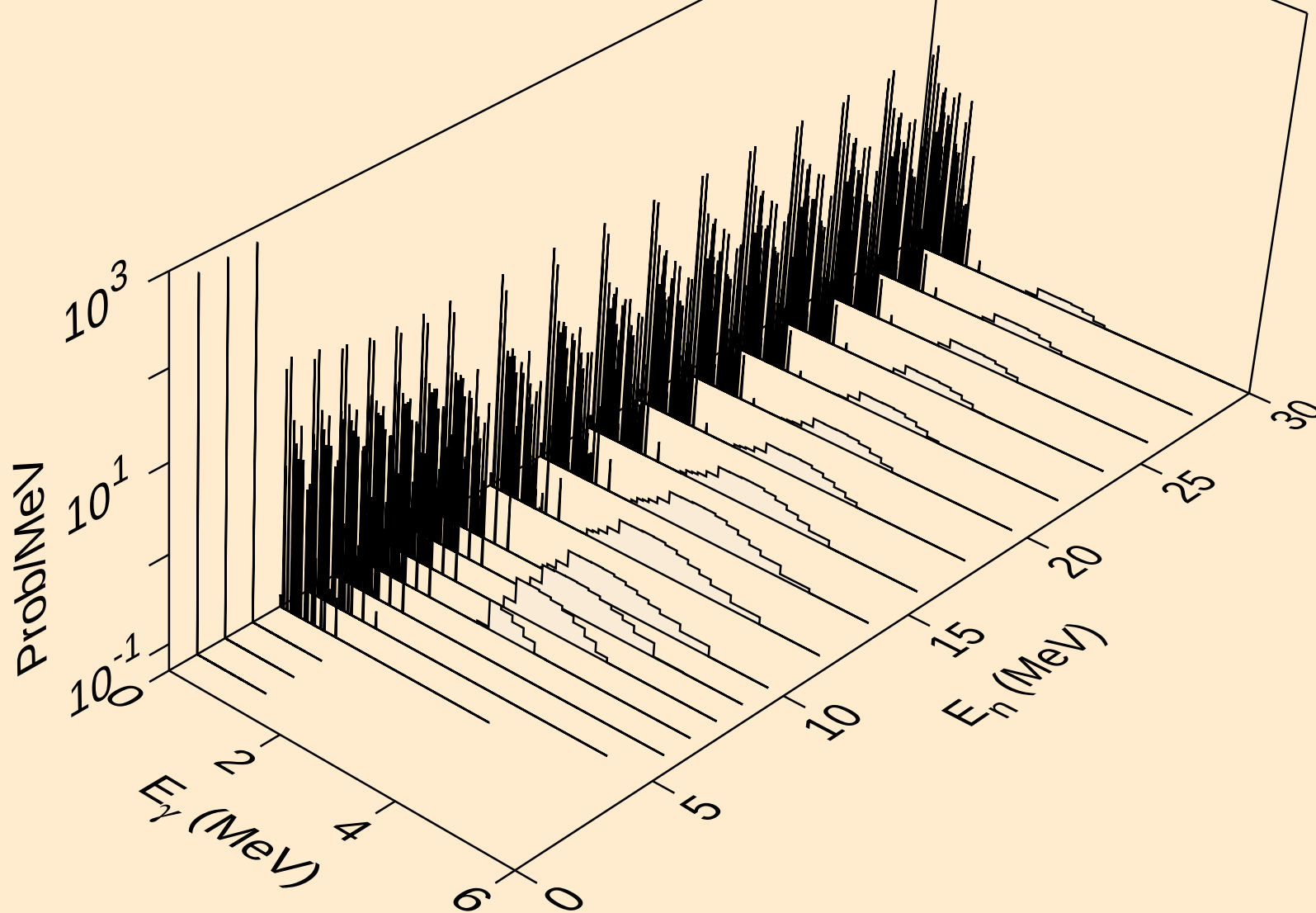
ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
Photon emission for (n,npa)



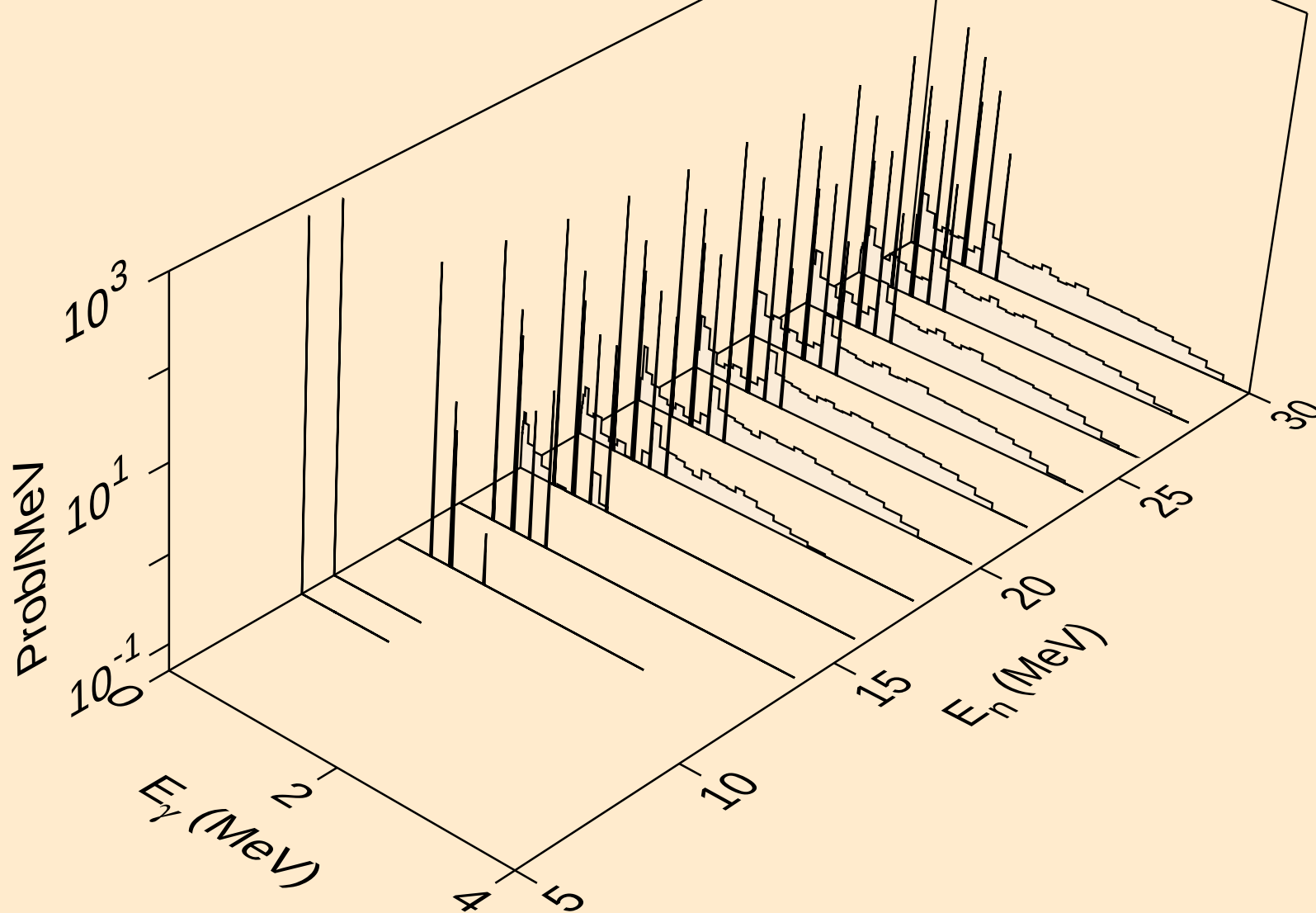
ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
Photon emission for (n,gma)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Photon emission for inelastic



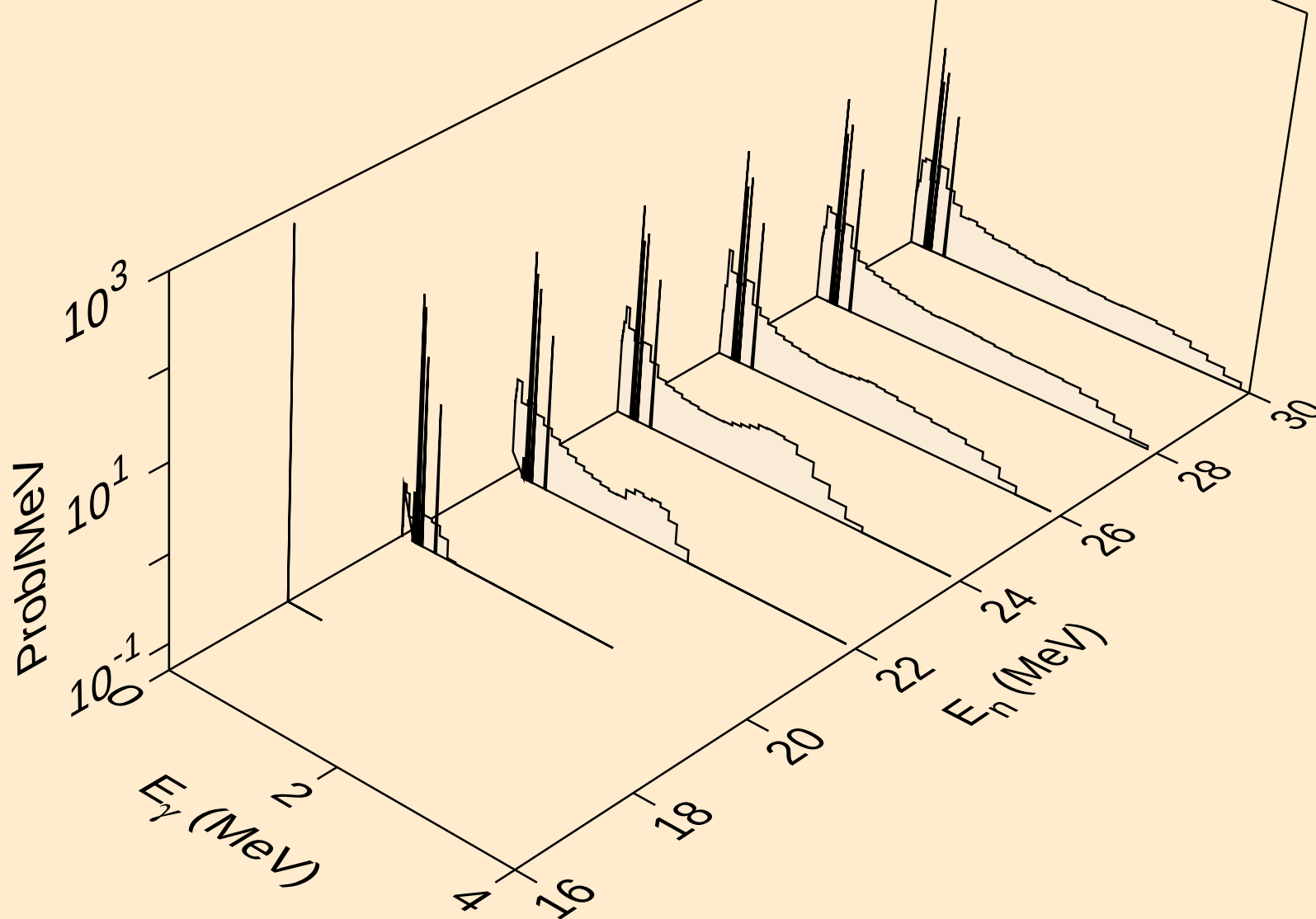
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Photon emission for (n,d)



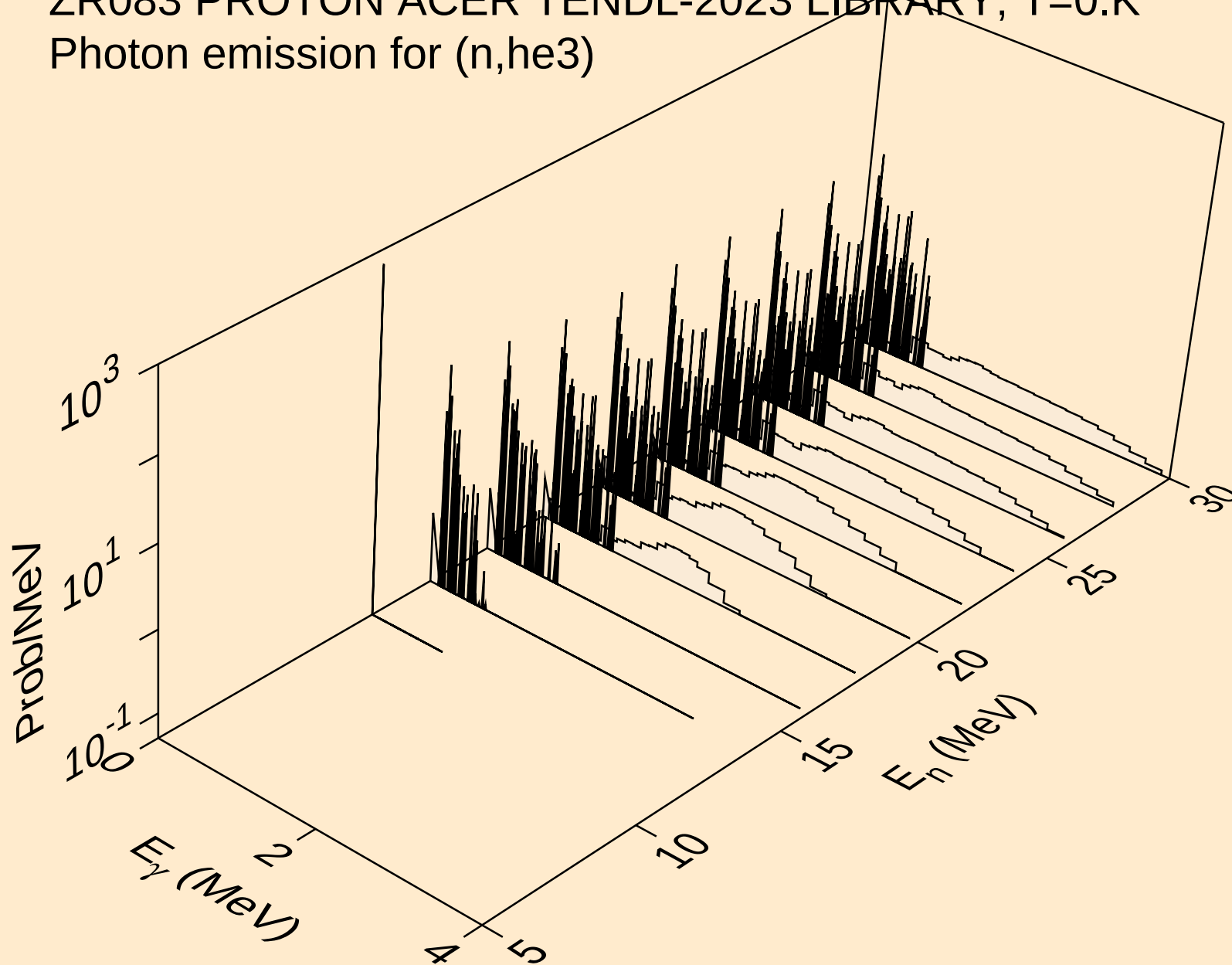


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

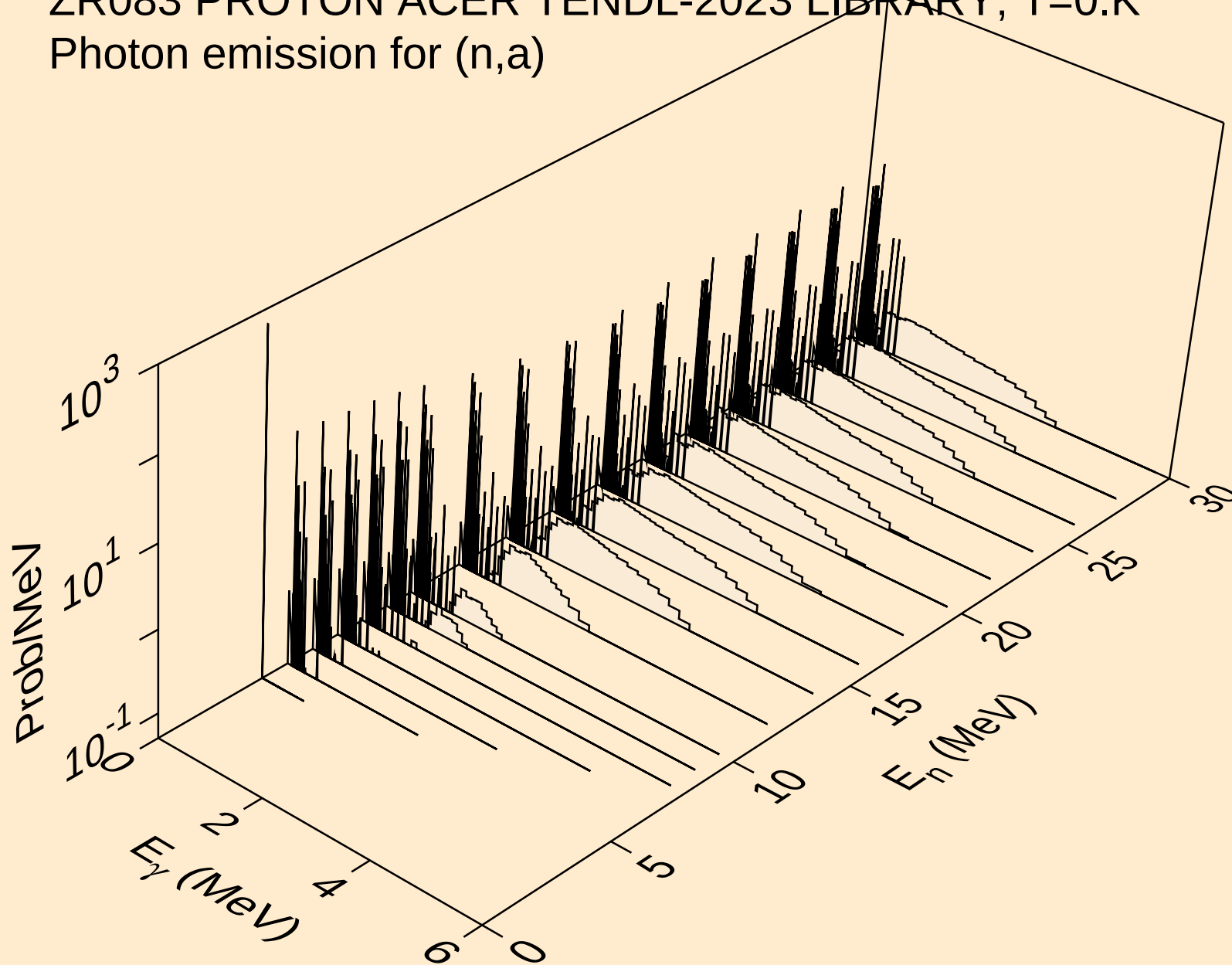
Photon emission for (n,t)



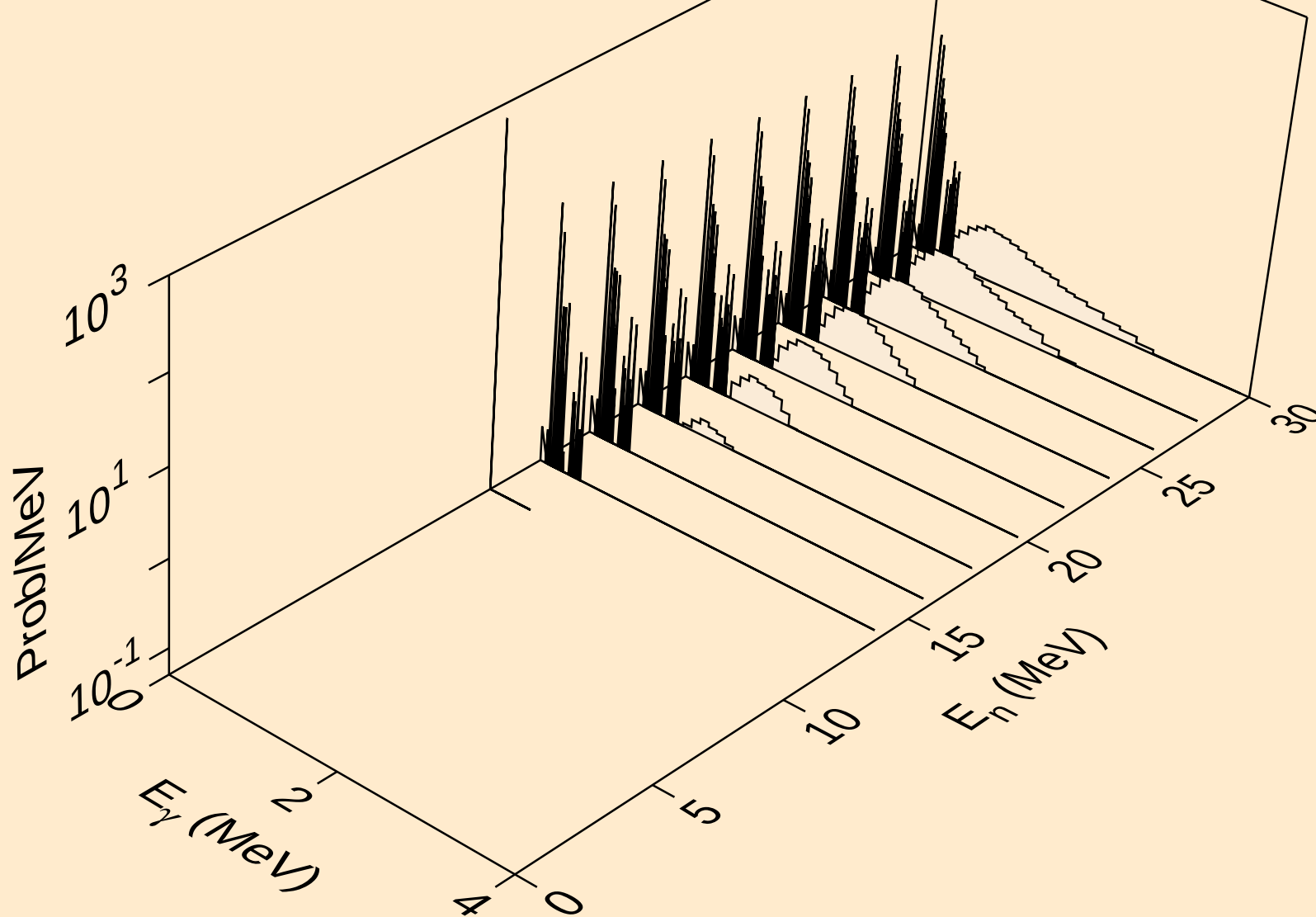
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Photon emission for (n,he3)



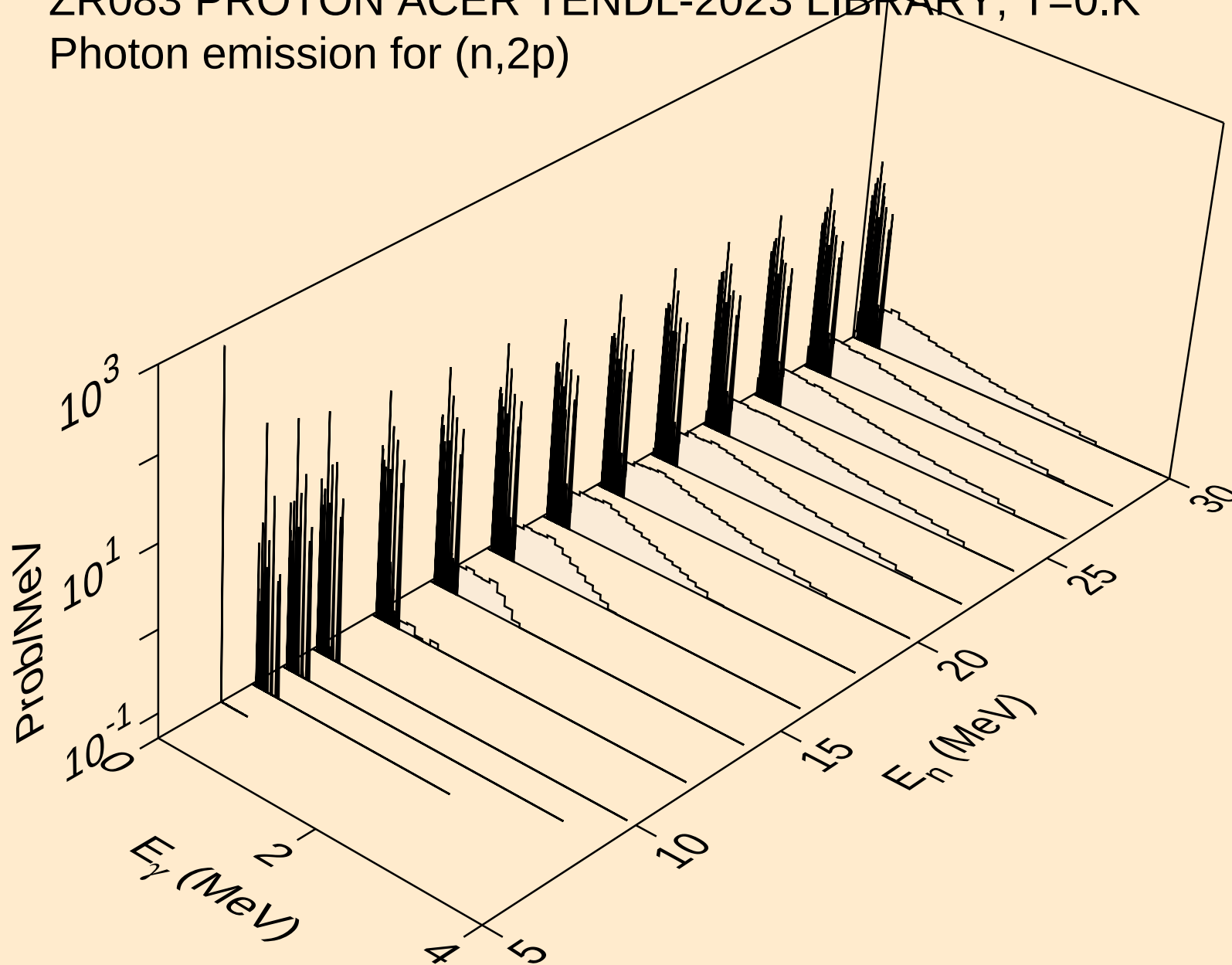
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Photon emission for (n,a)



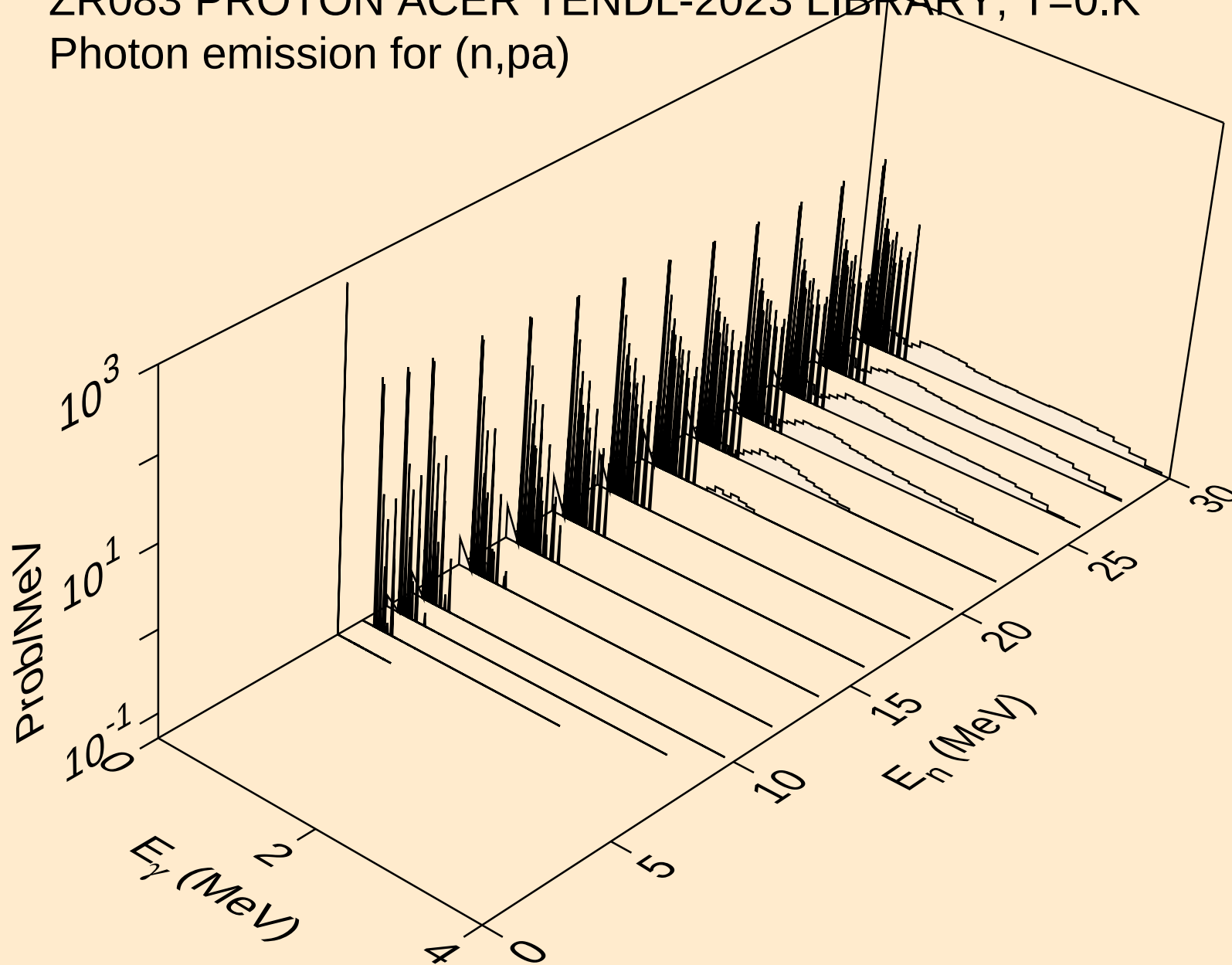
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Photon emission for (n,2a)



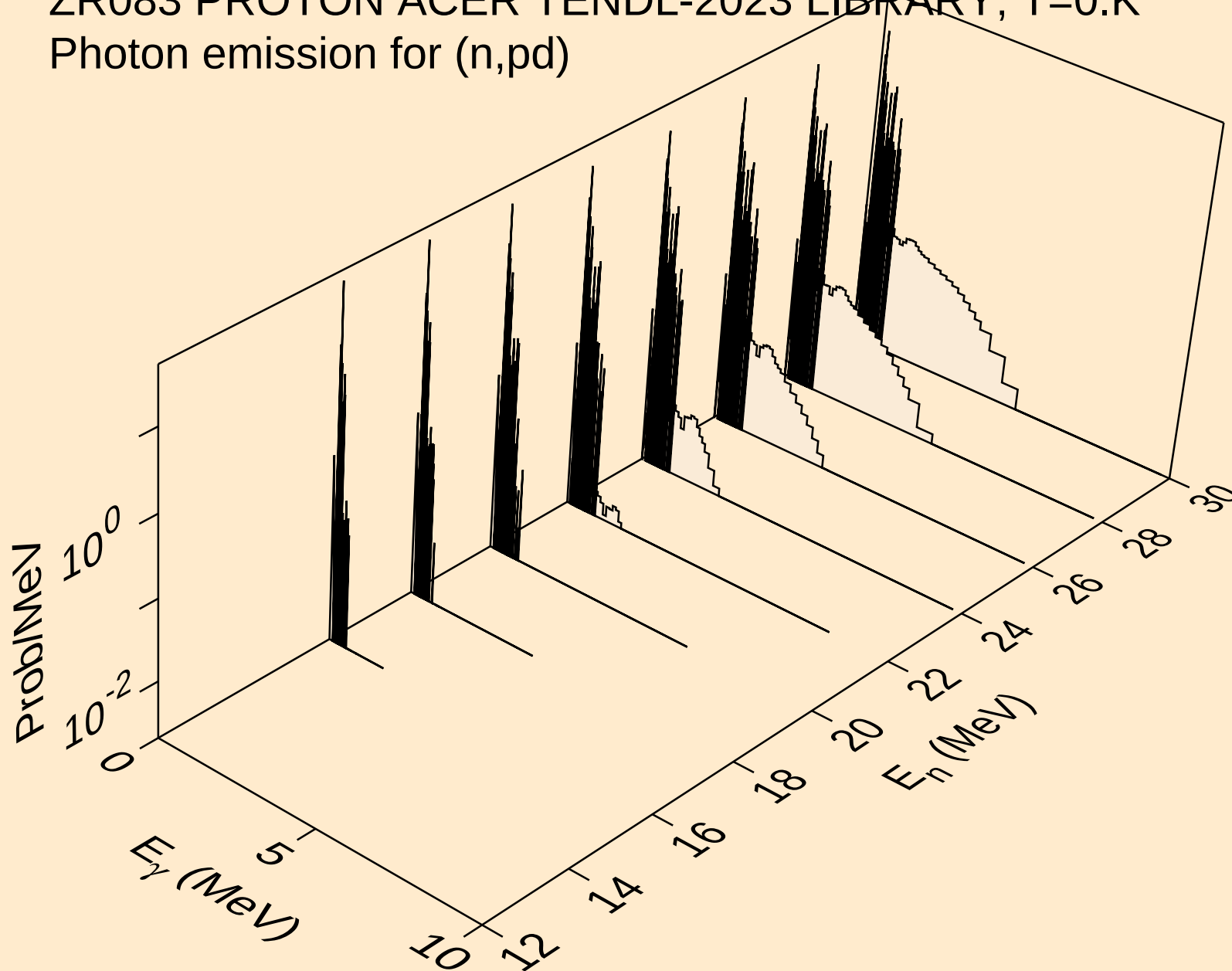
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
Photon emission for (n,2p)



ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
Photon emission for (n,p $\alpha$ )

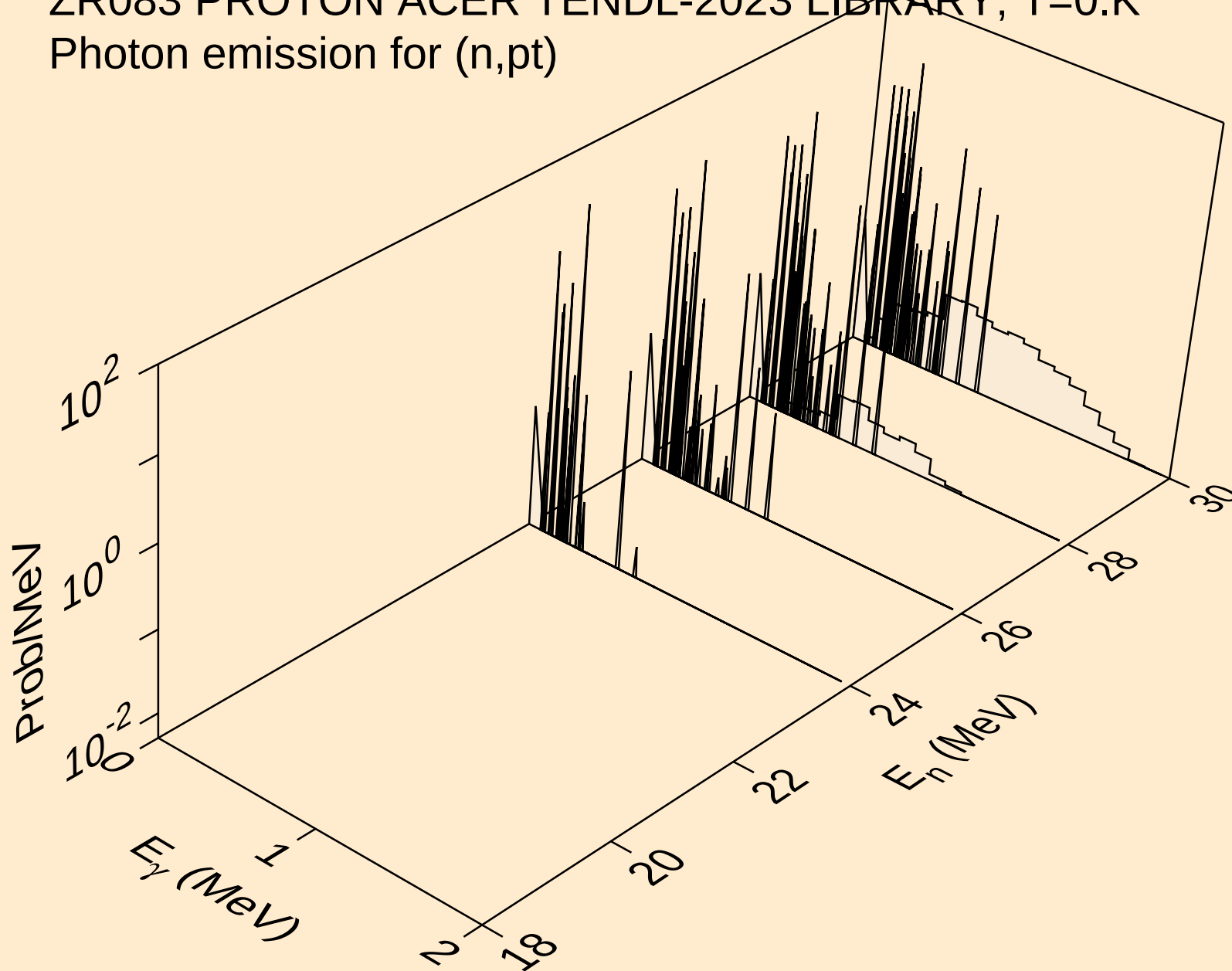


ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
Photon emission for (n,pd)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

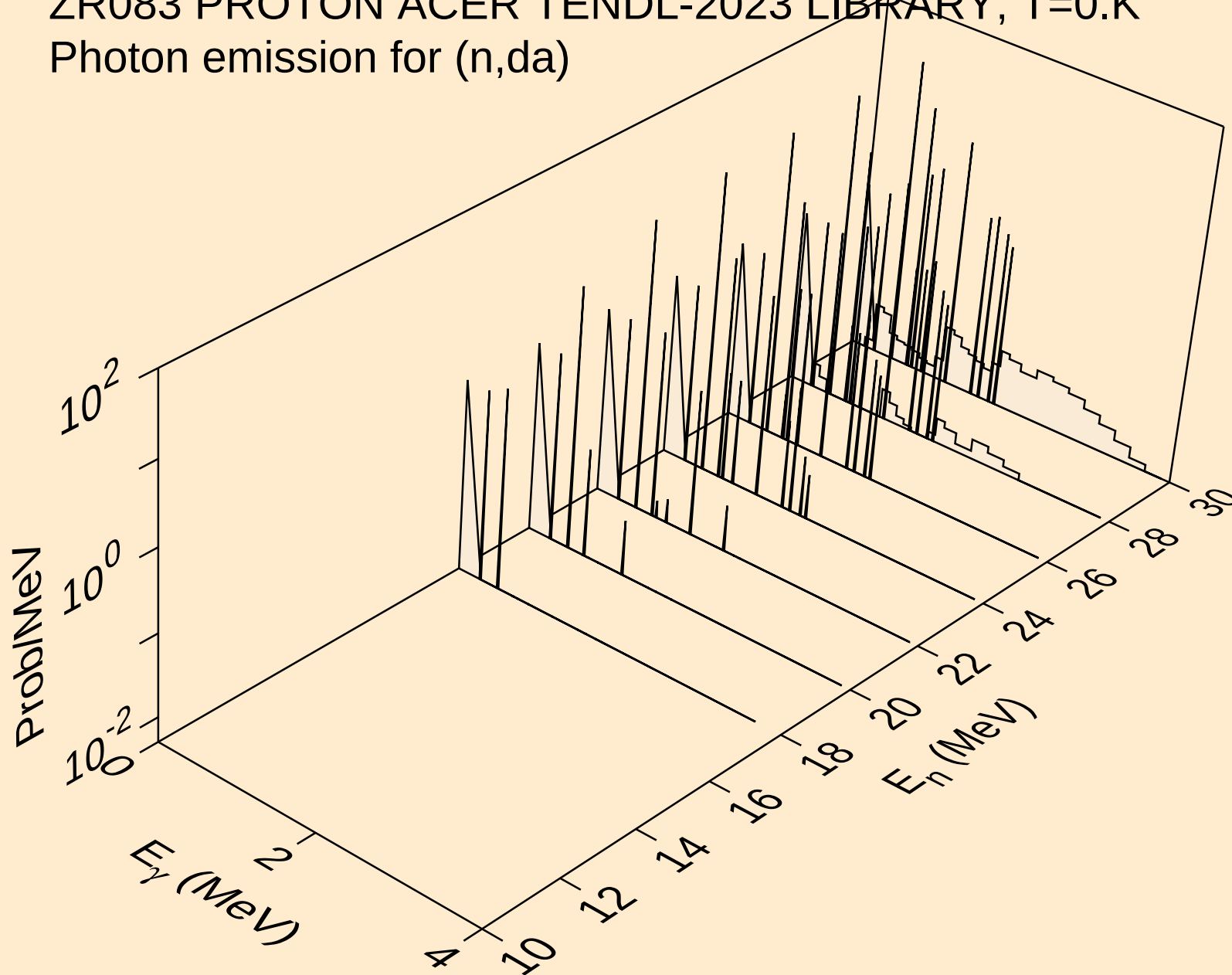
Photon emission for (n,pt)





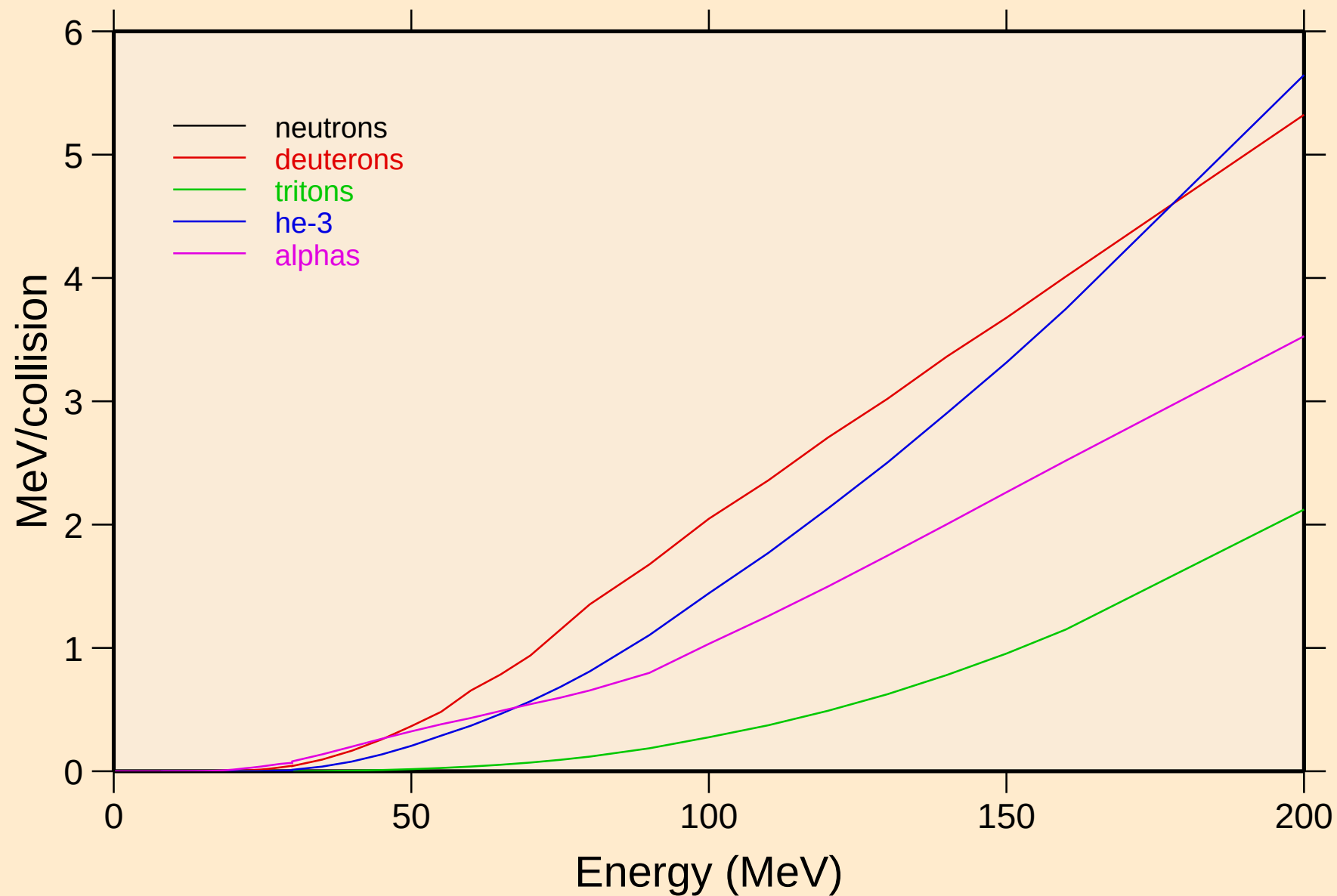
ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$

Photon emission for (n,da)



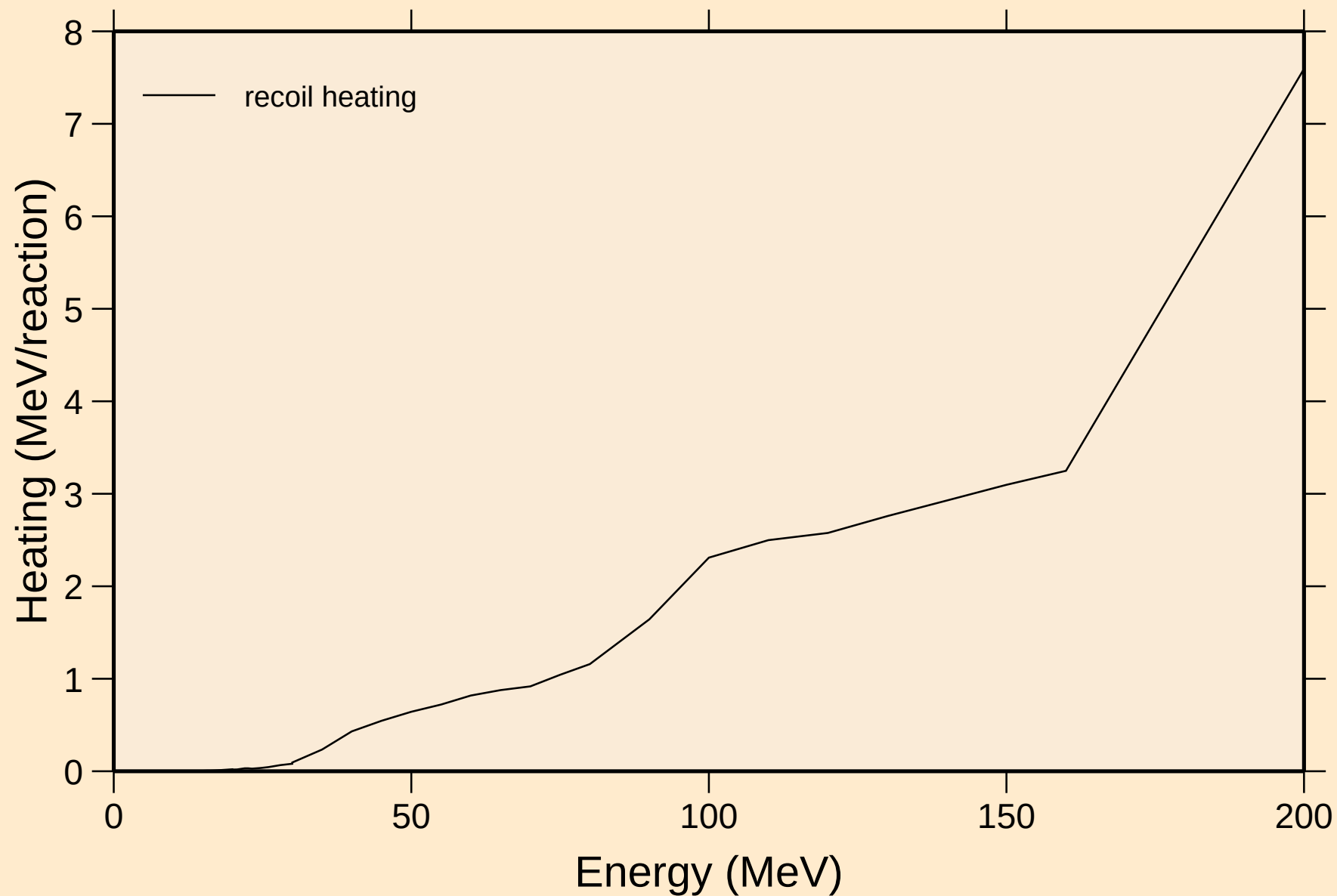
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

## Particle heating contributions



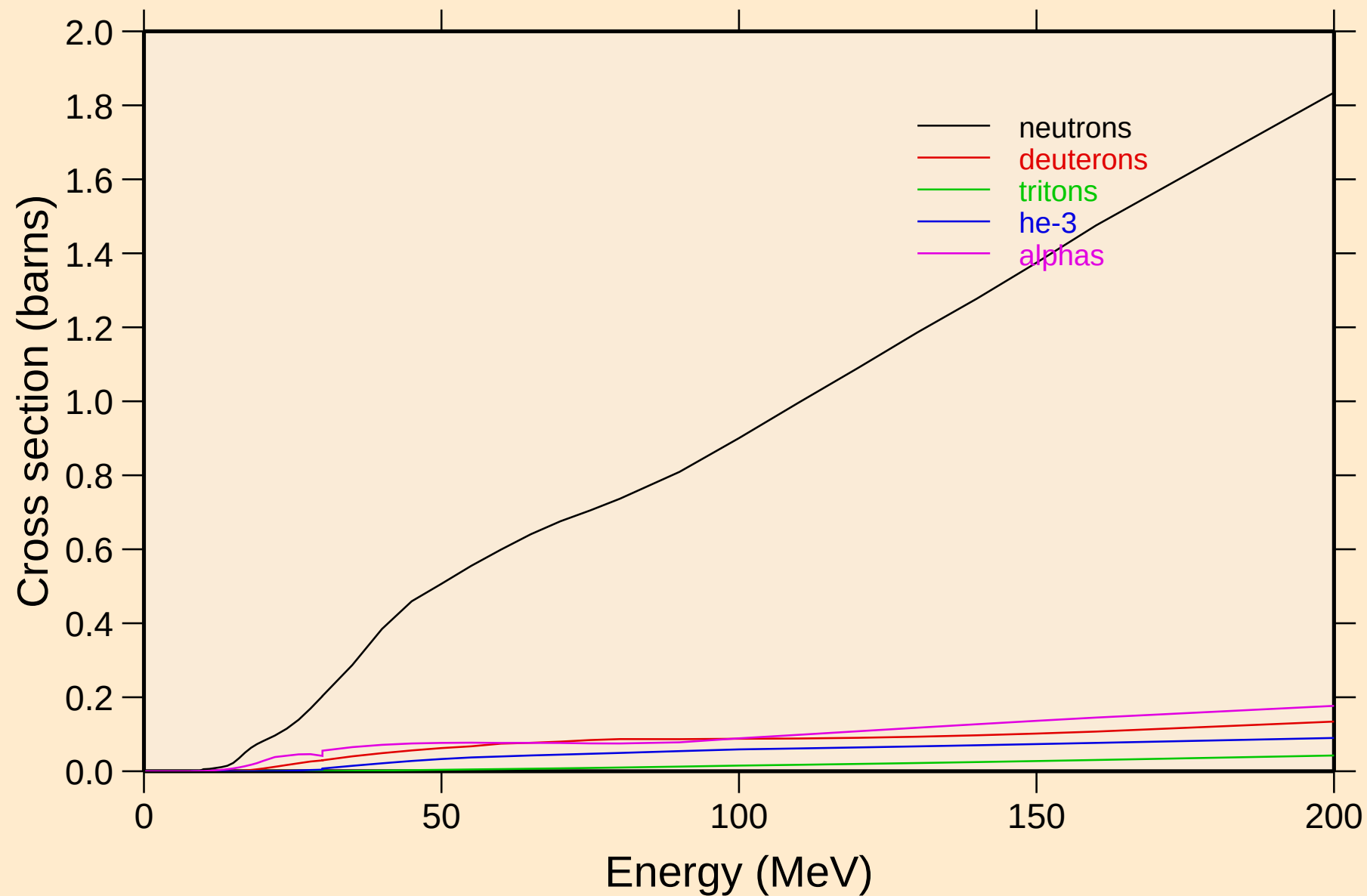
# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

## Recoil Heating

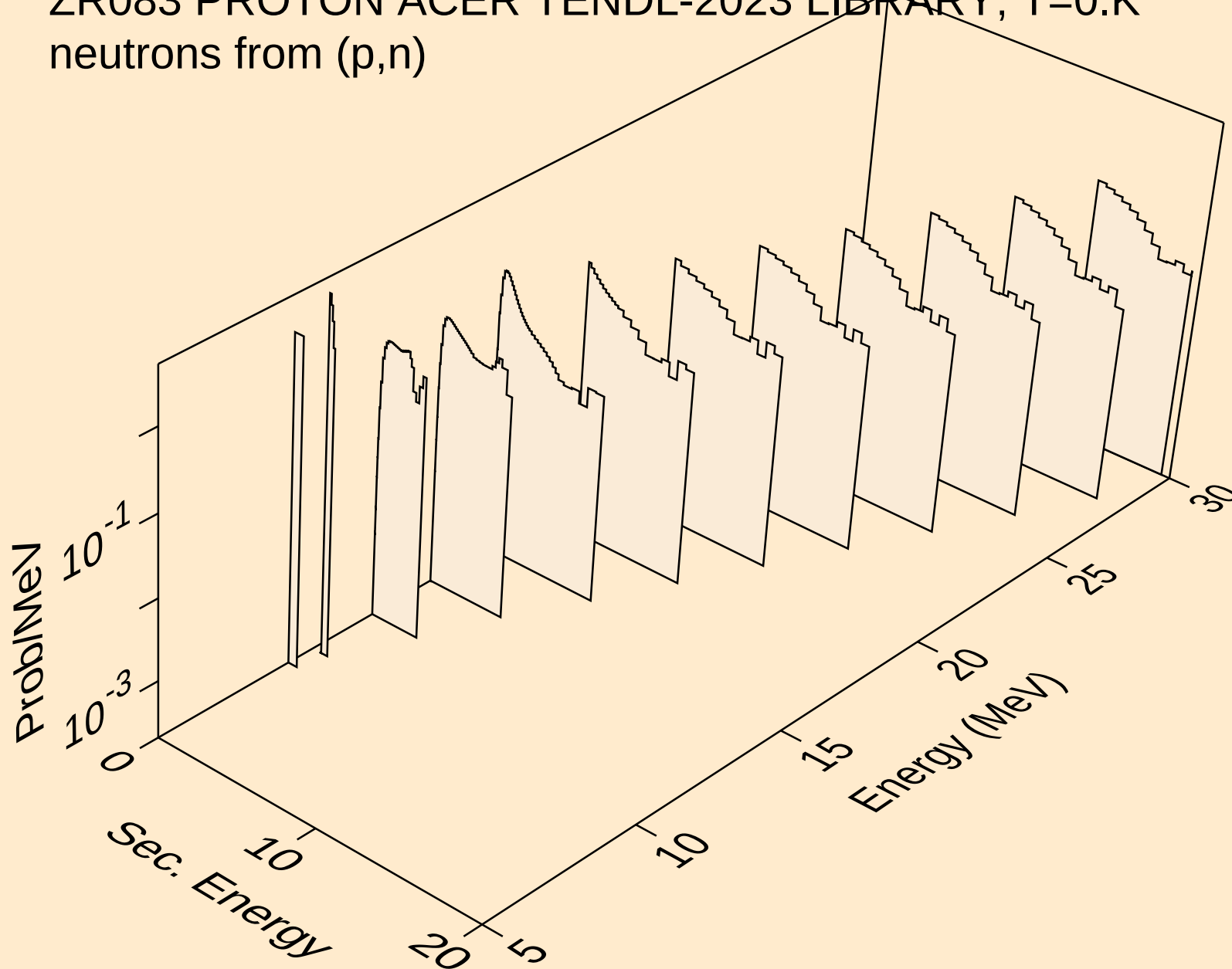


# ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K

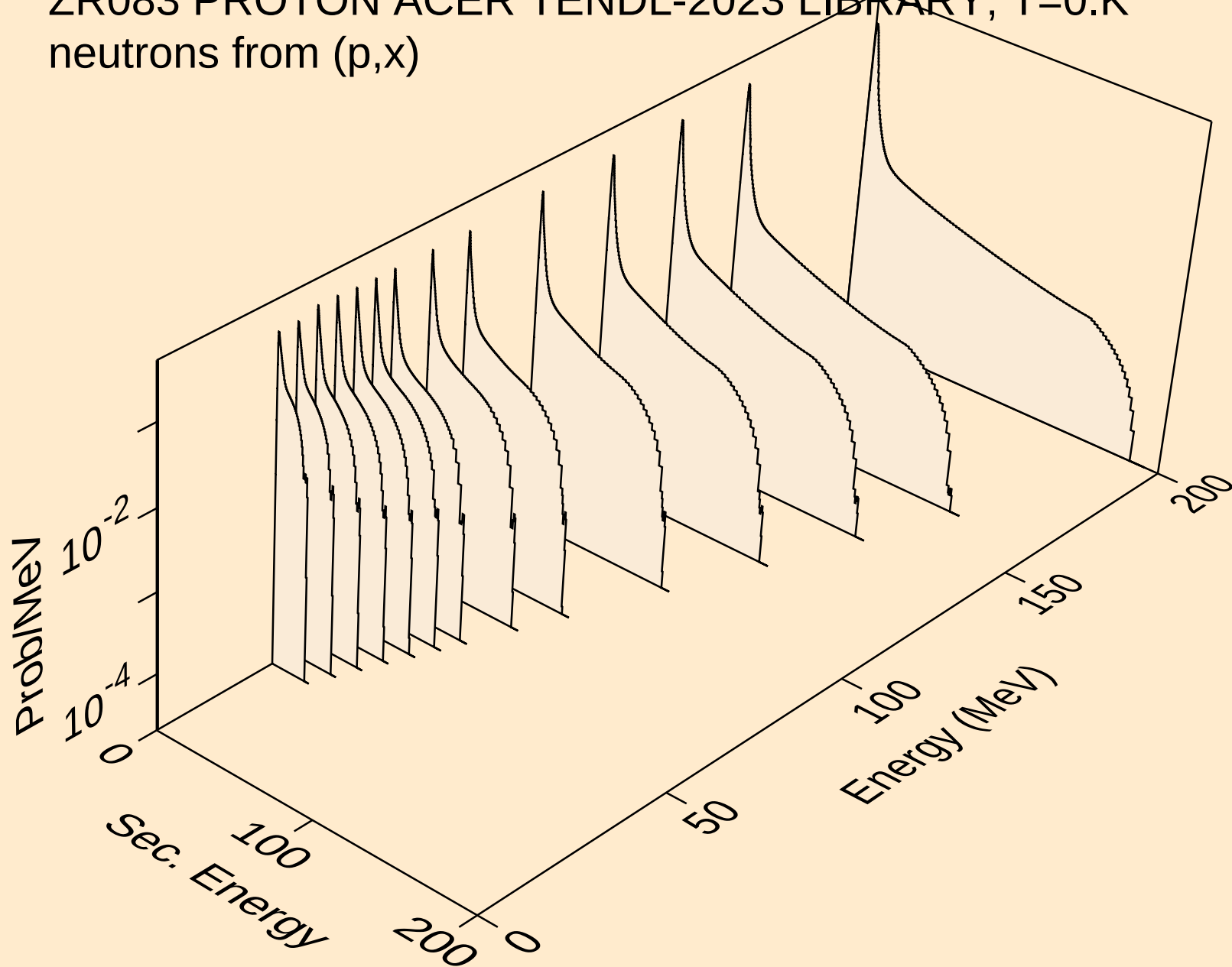
## Particle production cross sections



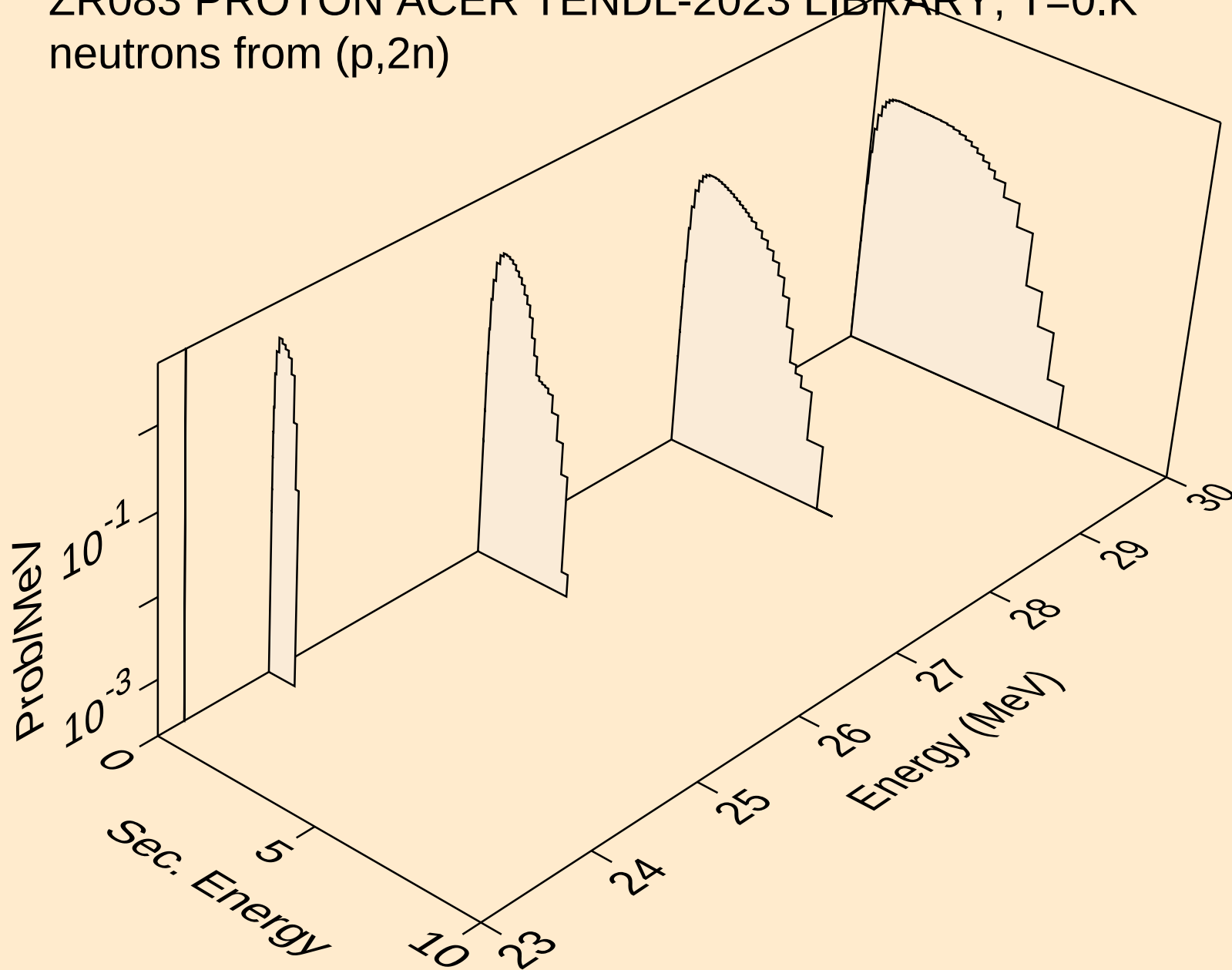
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,n)



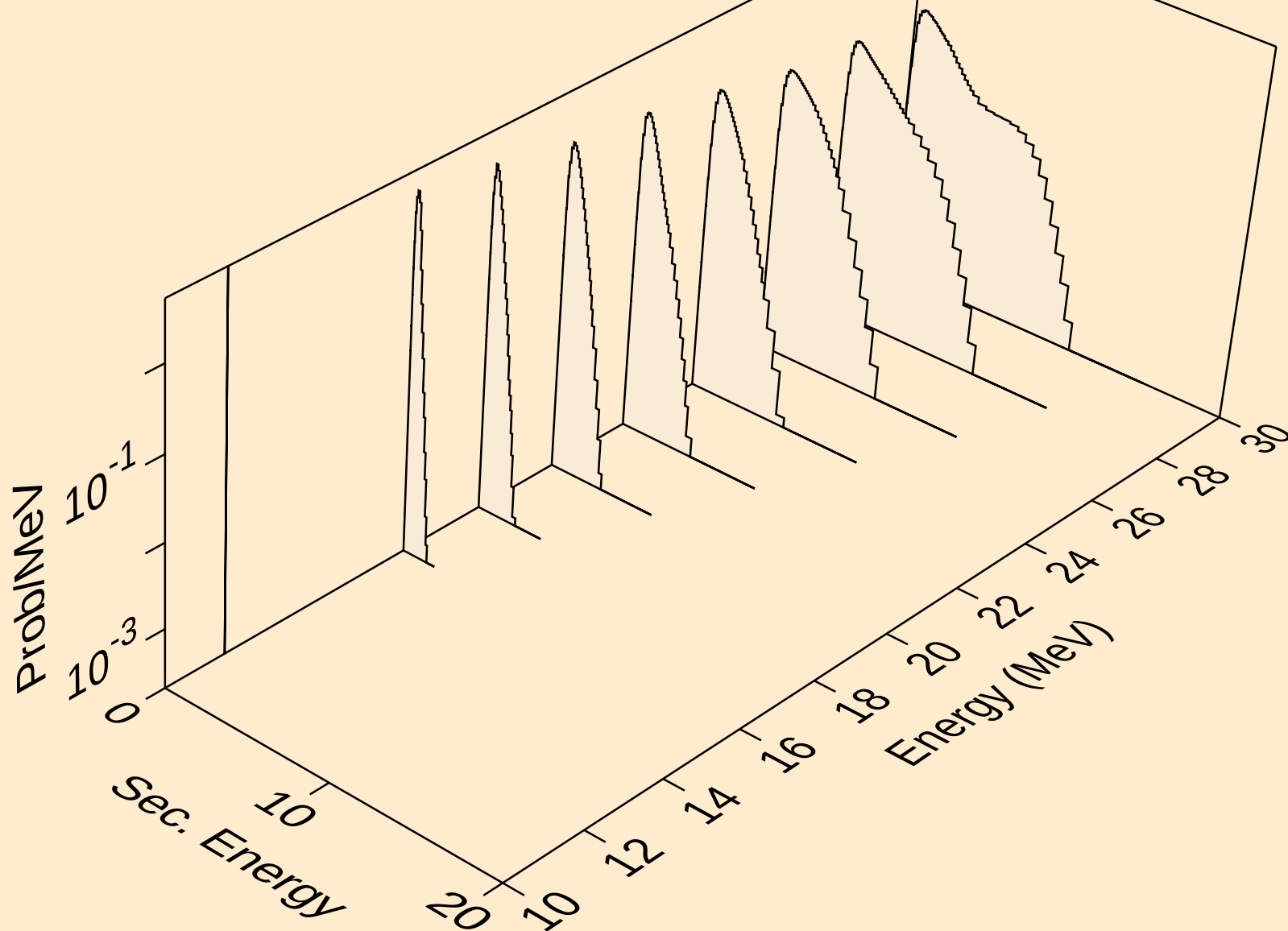
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,x)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,2n)

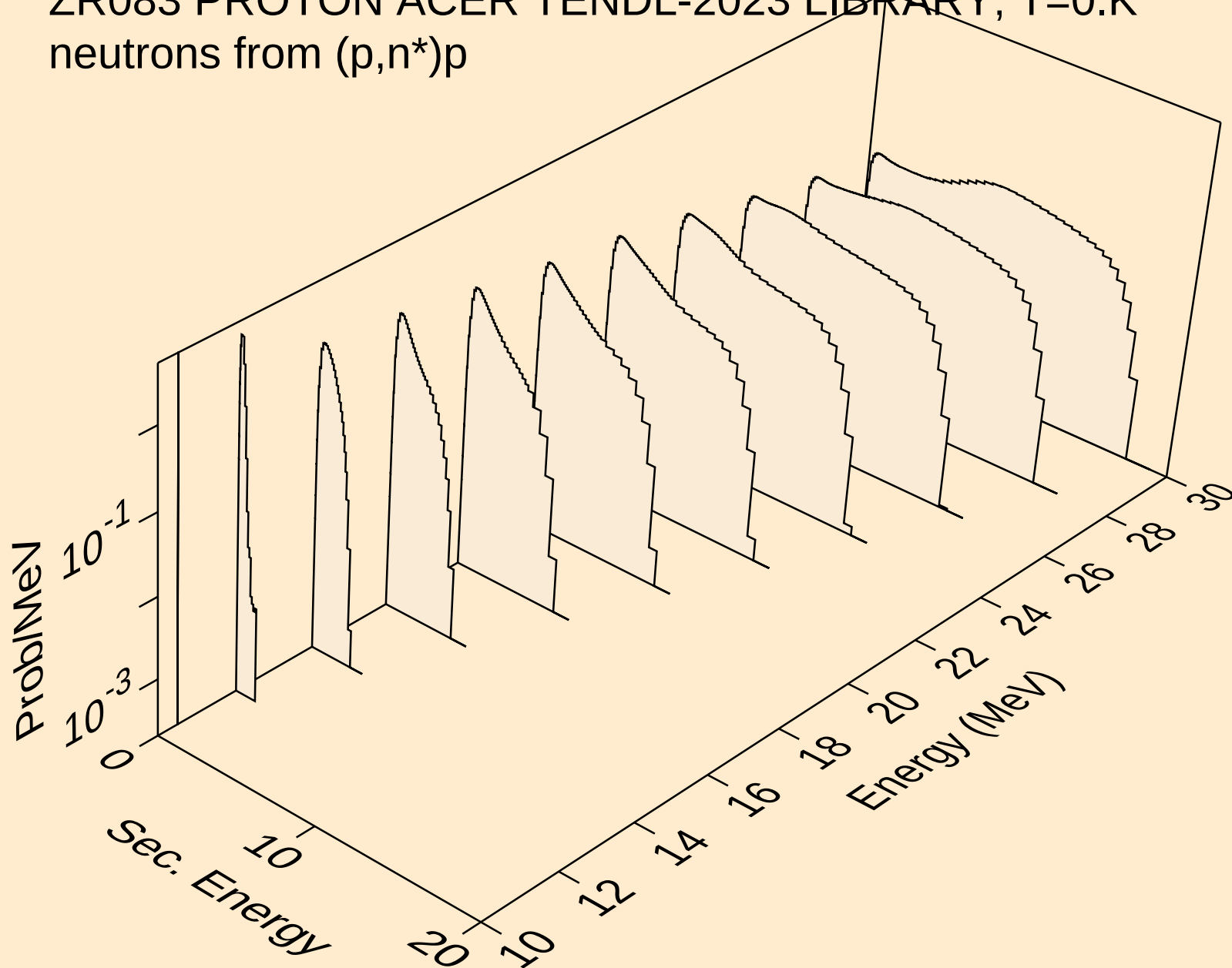


ZR083 PROTON ACER TENDL-2023 LIBRARY;  $T=0.K$   
neutrons from  $(p,n^*)a$

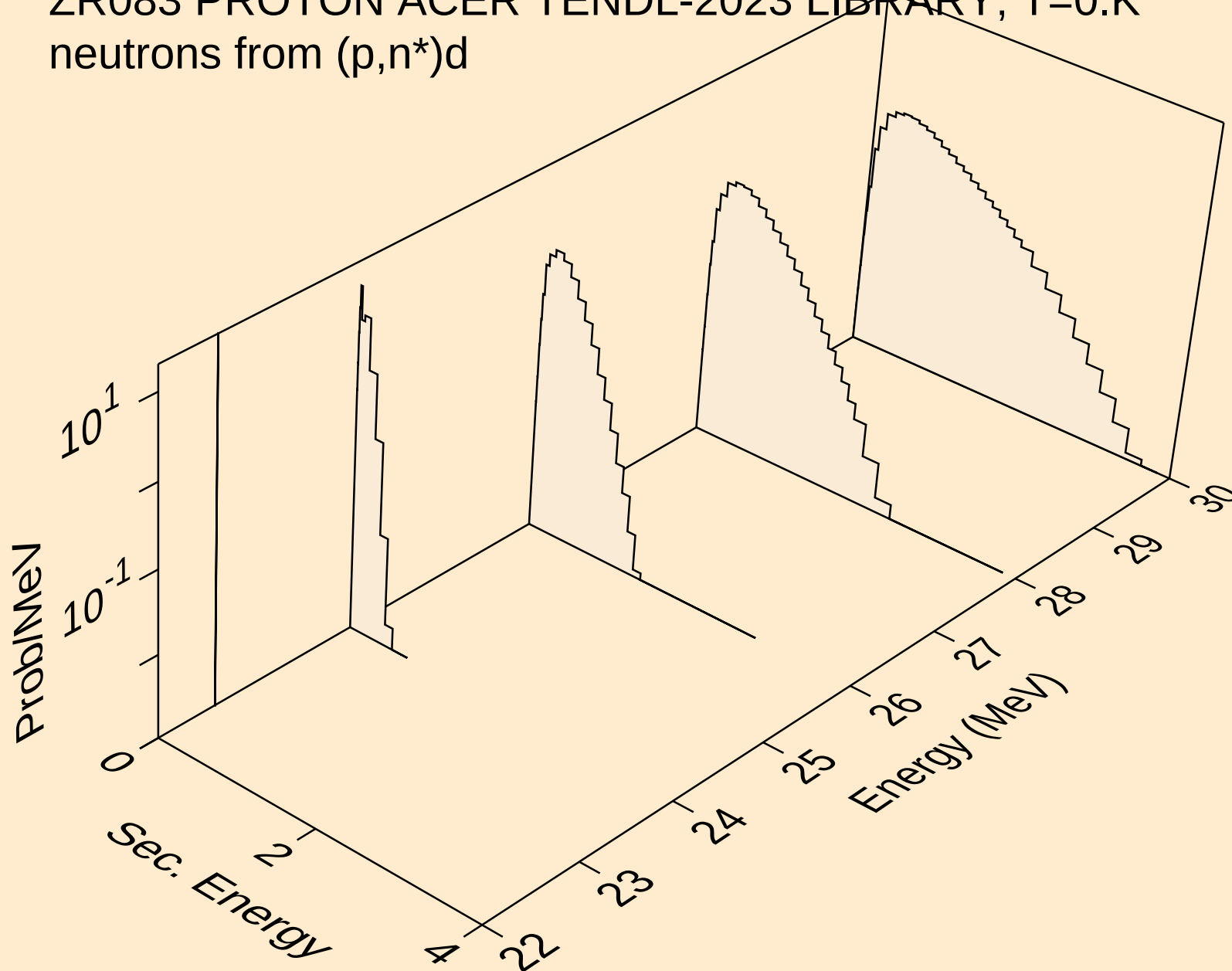




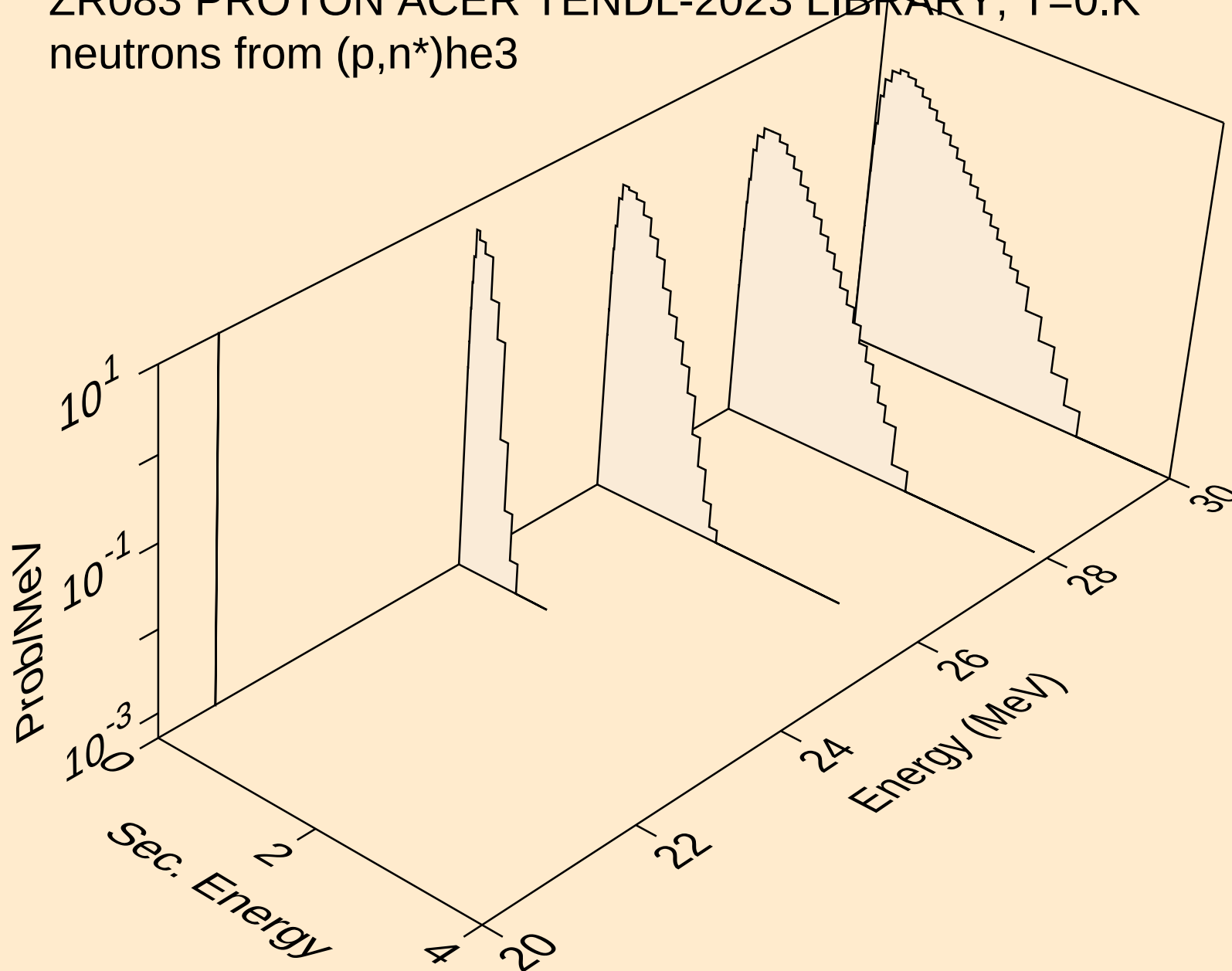
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,n\*)p



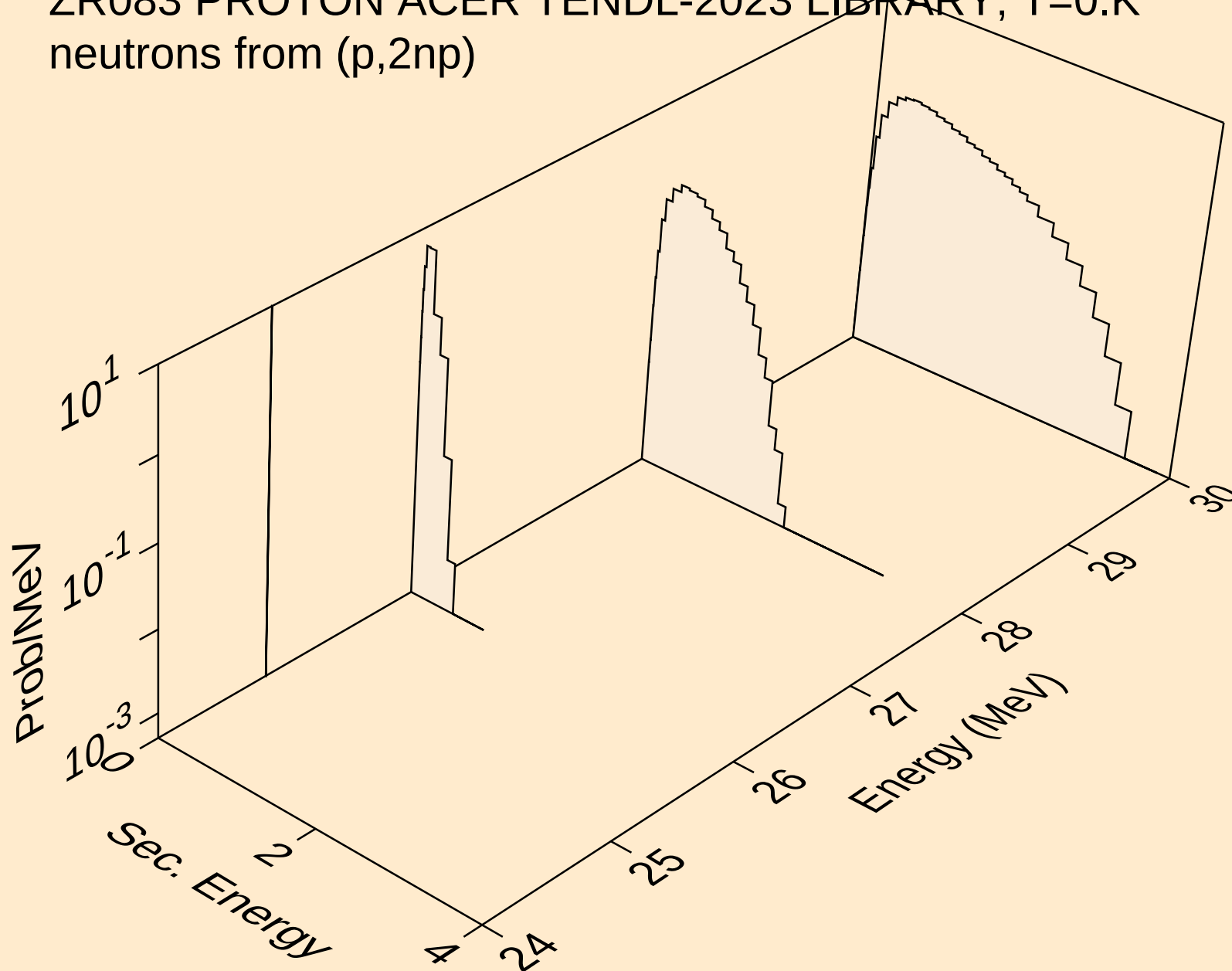
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,n\*)d



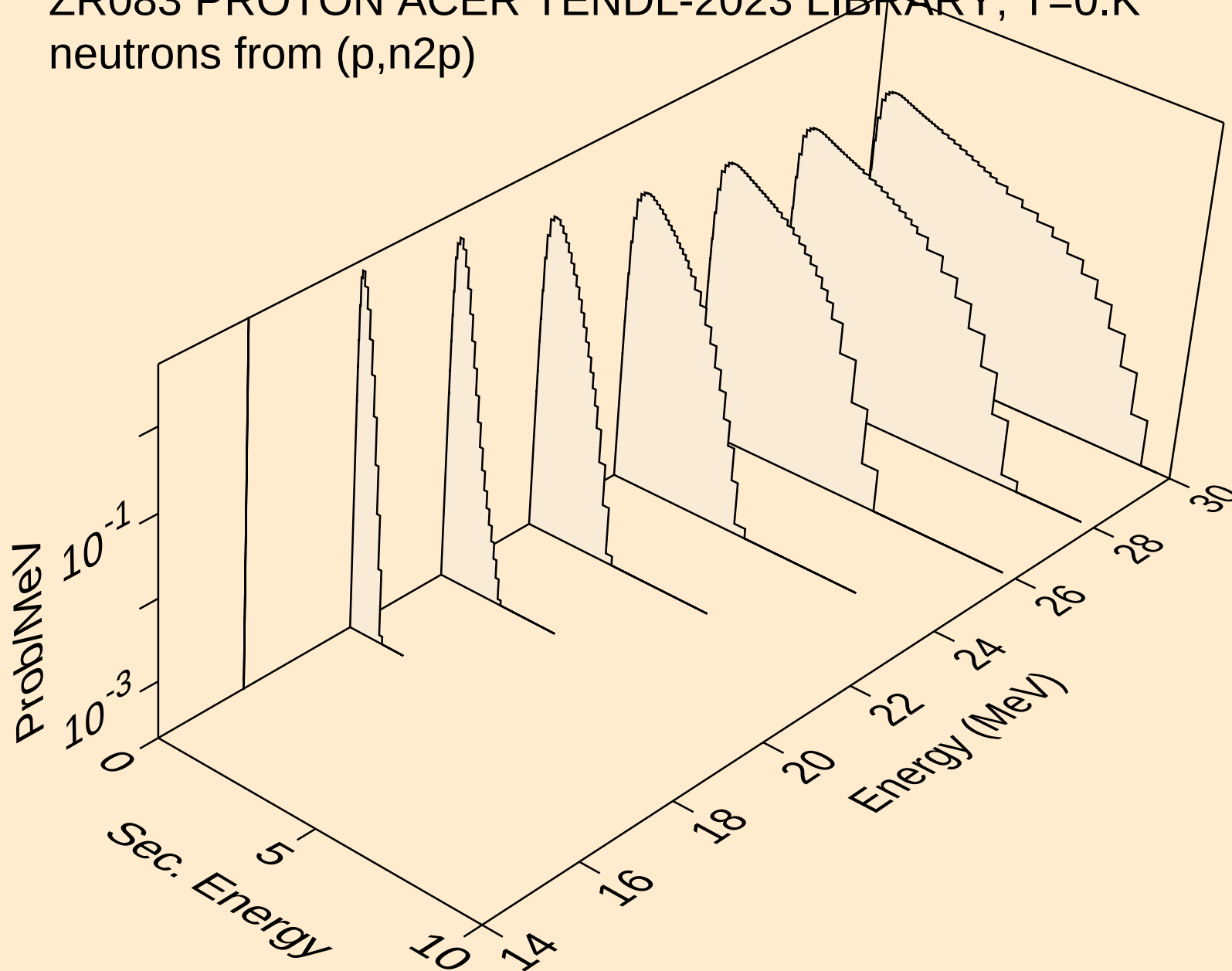
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,n\*)he3



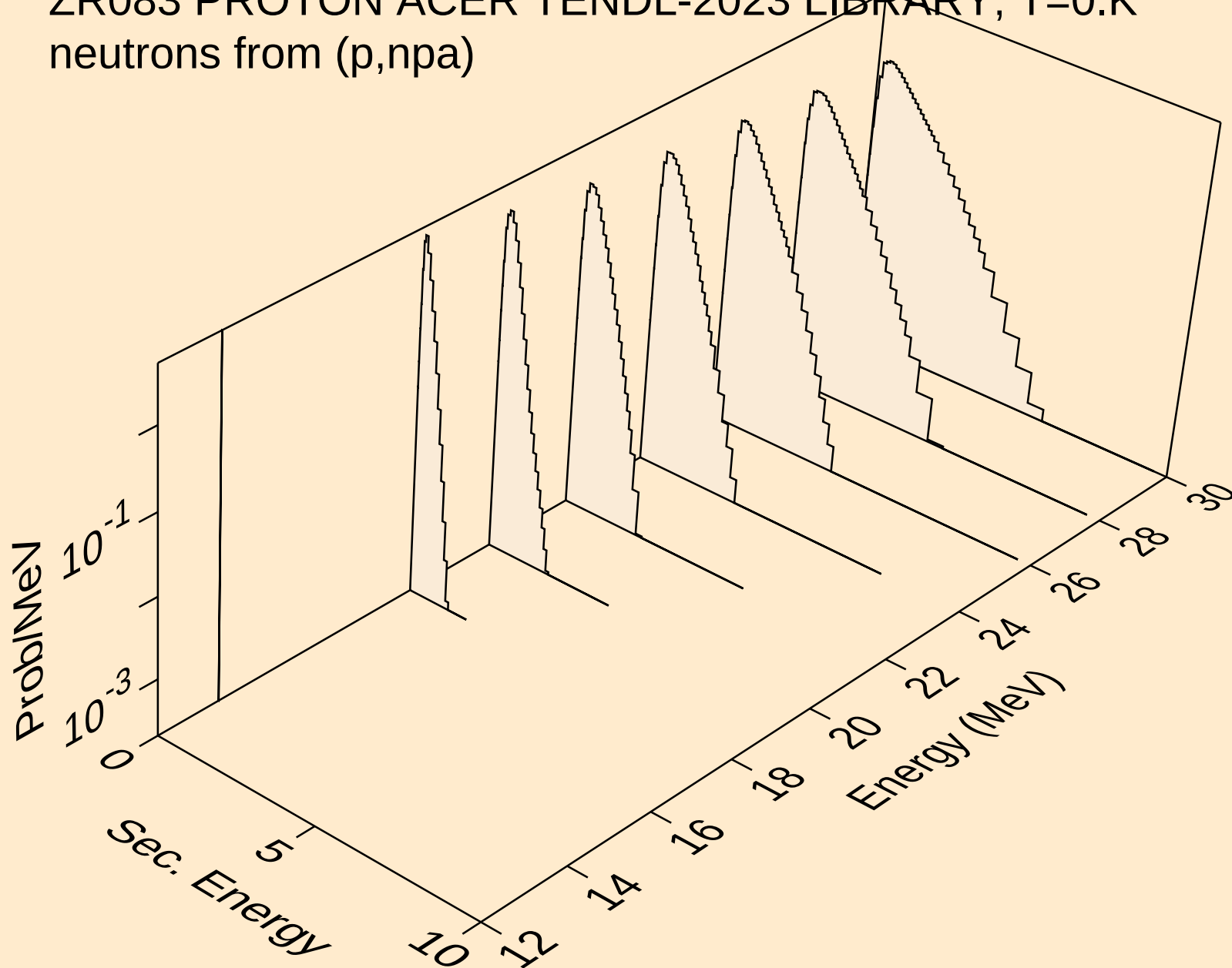
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neutrons from (p,2np)



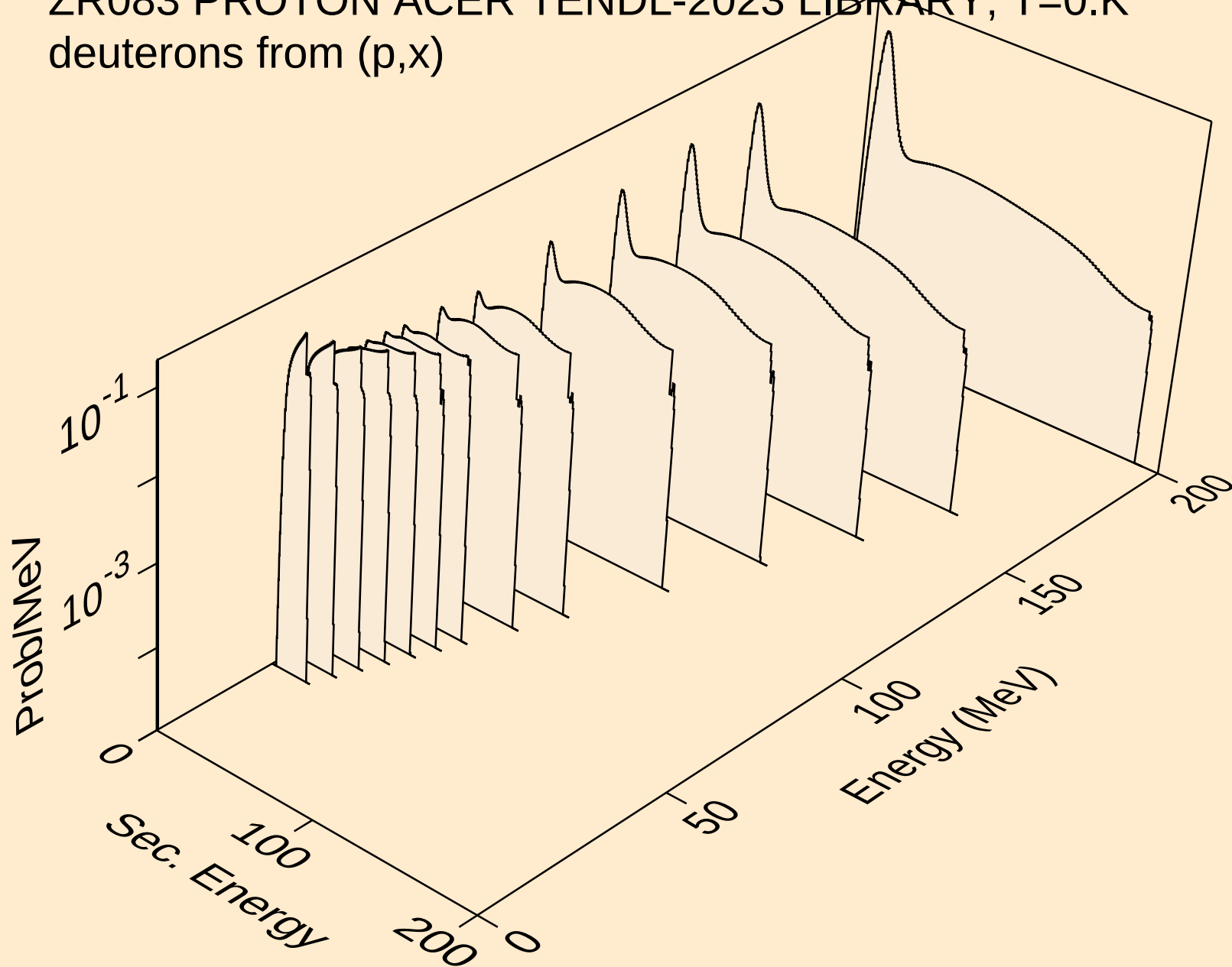
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,n2p)



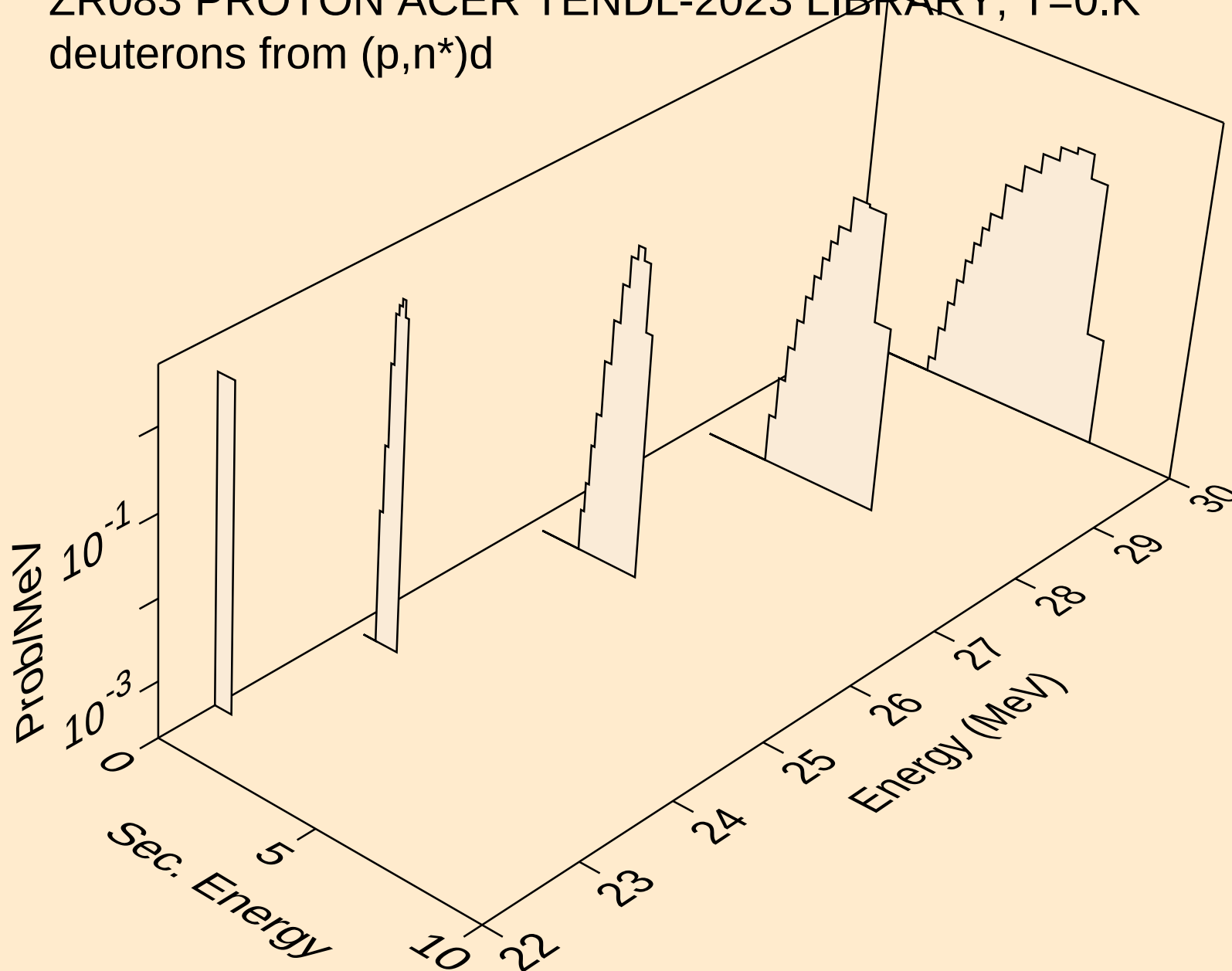
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
neutrons from (p,npa)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
deuterons from (p,x)

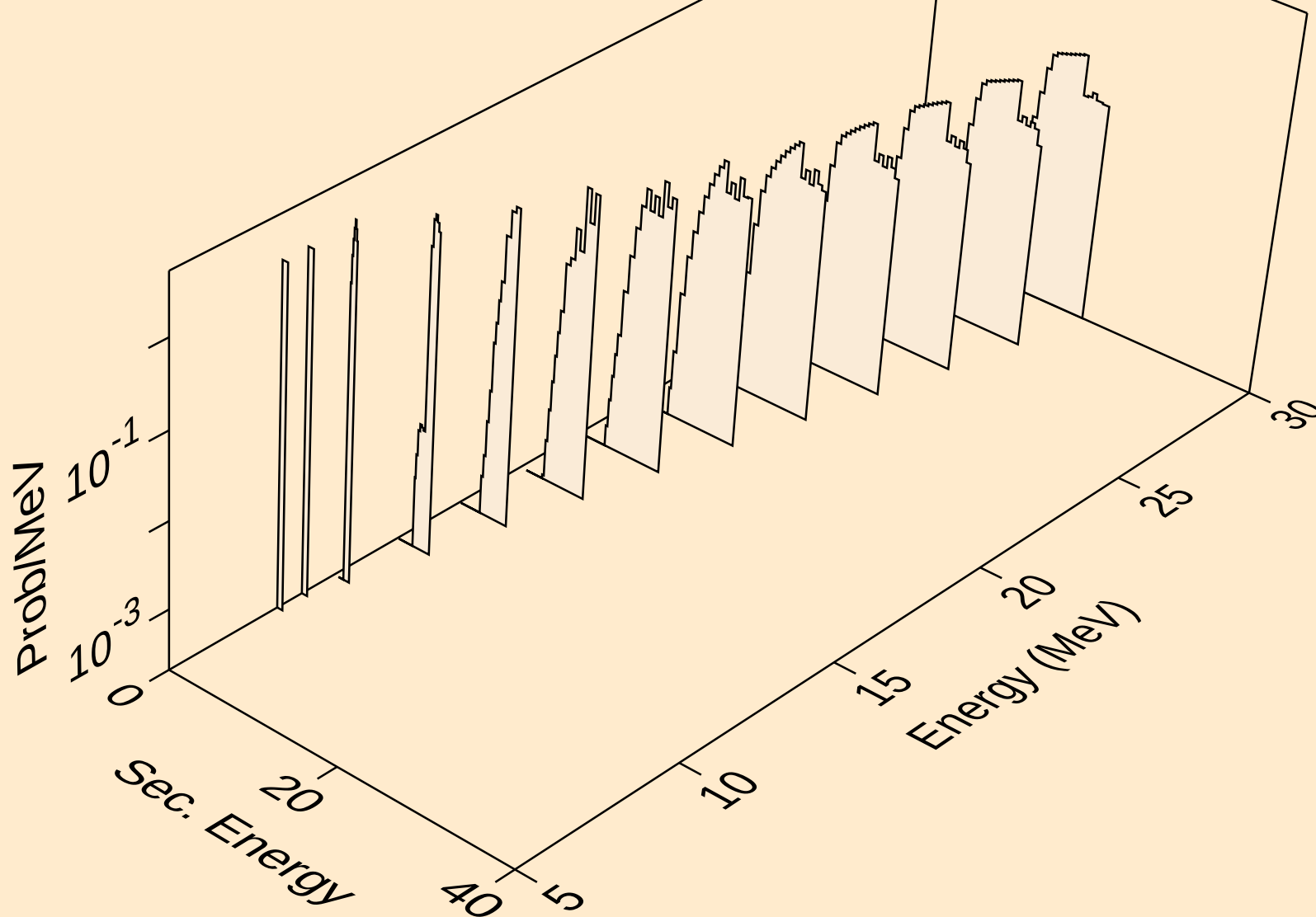


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
deuterons from (p,n\*)d

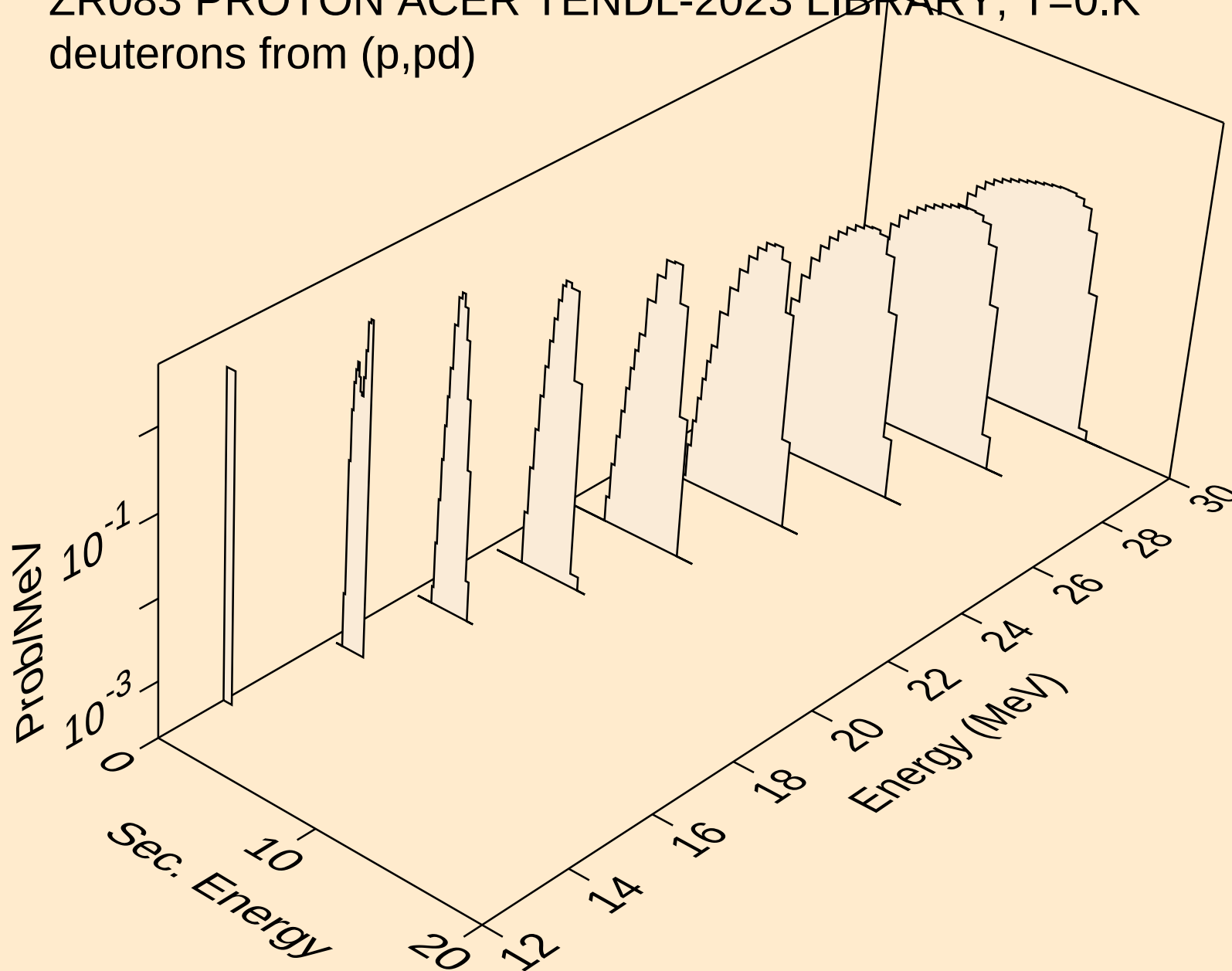




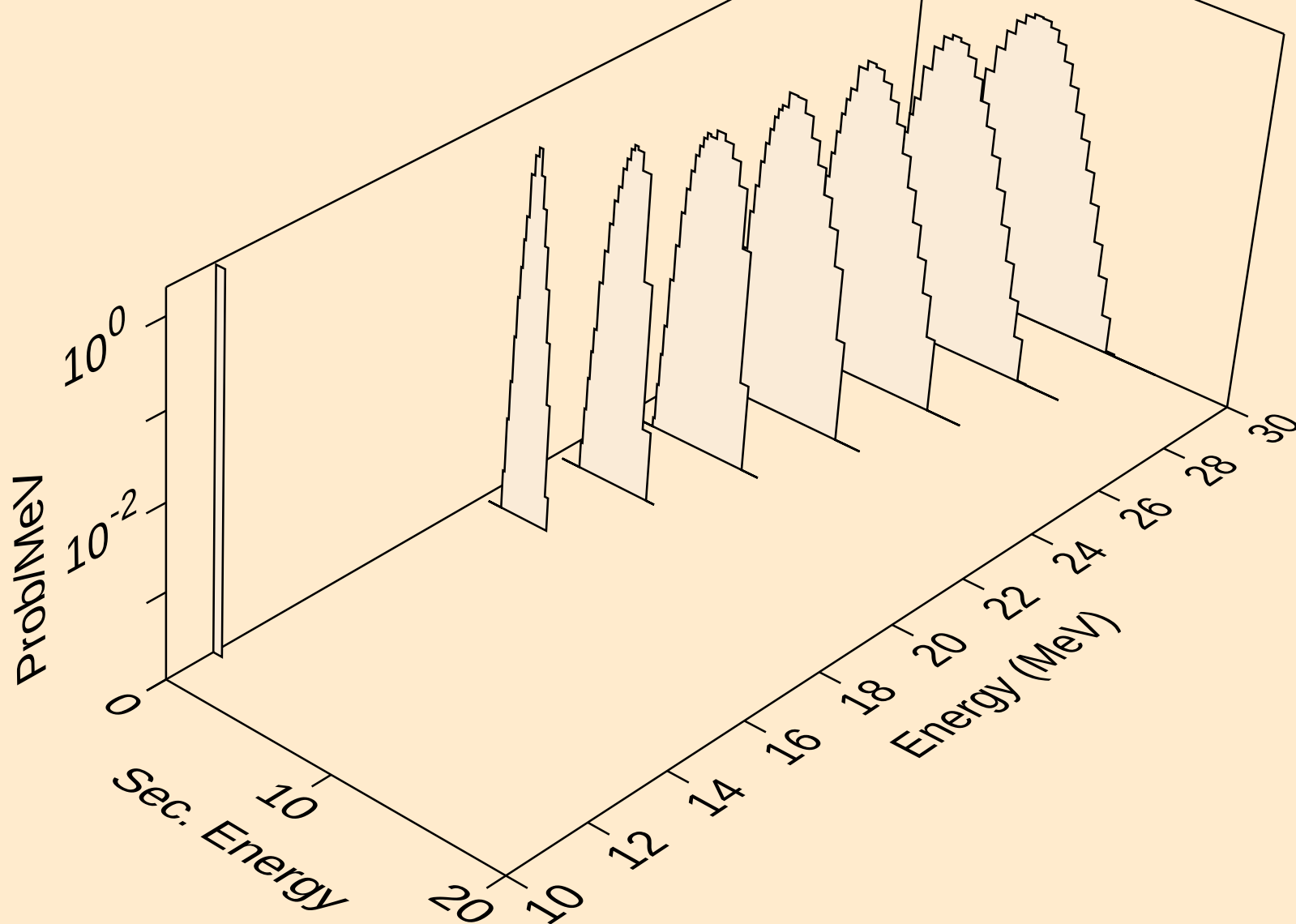
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deuterons from (p,d)



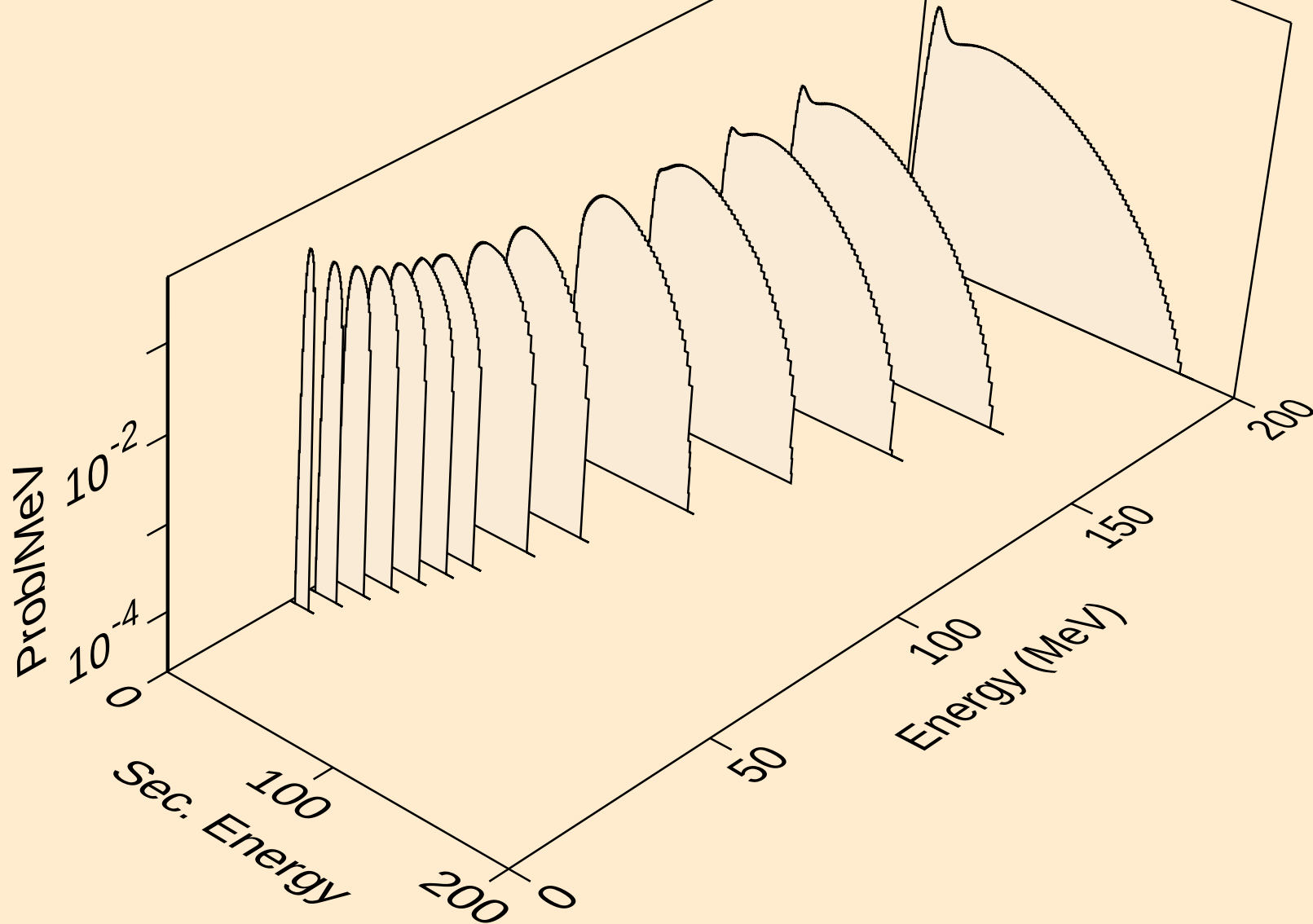
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
deuterons from (p,pd)



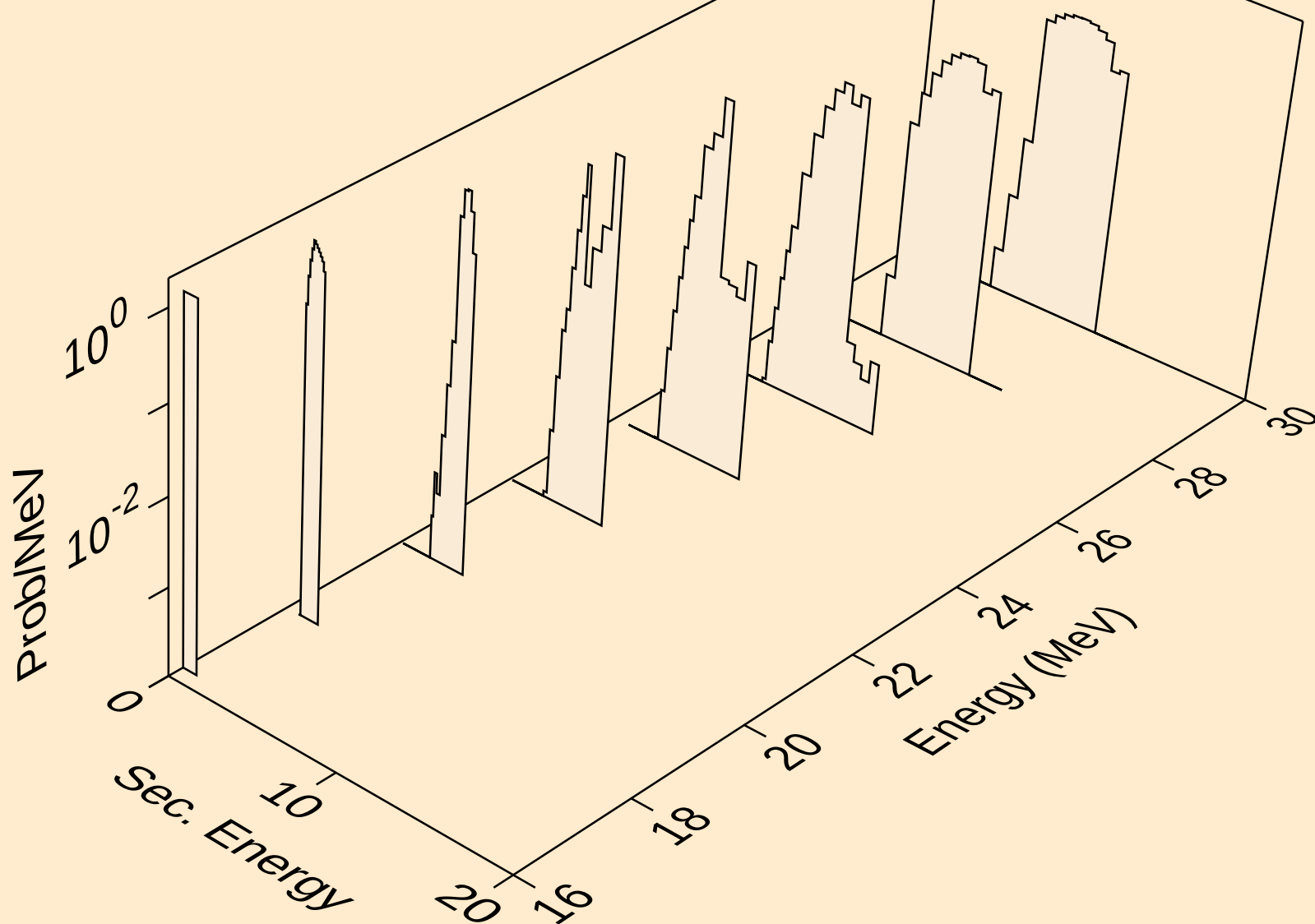
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
deuterons from (p,da)



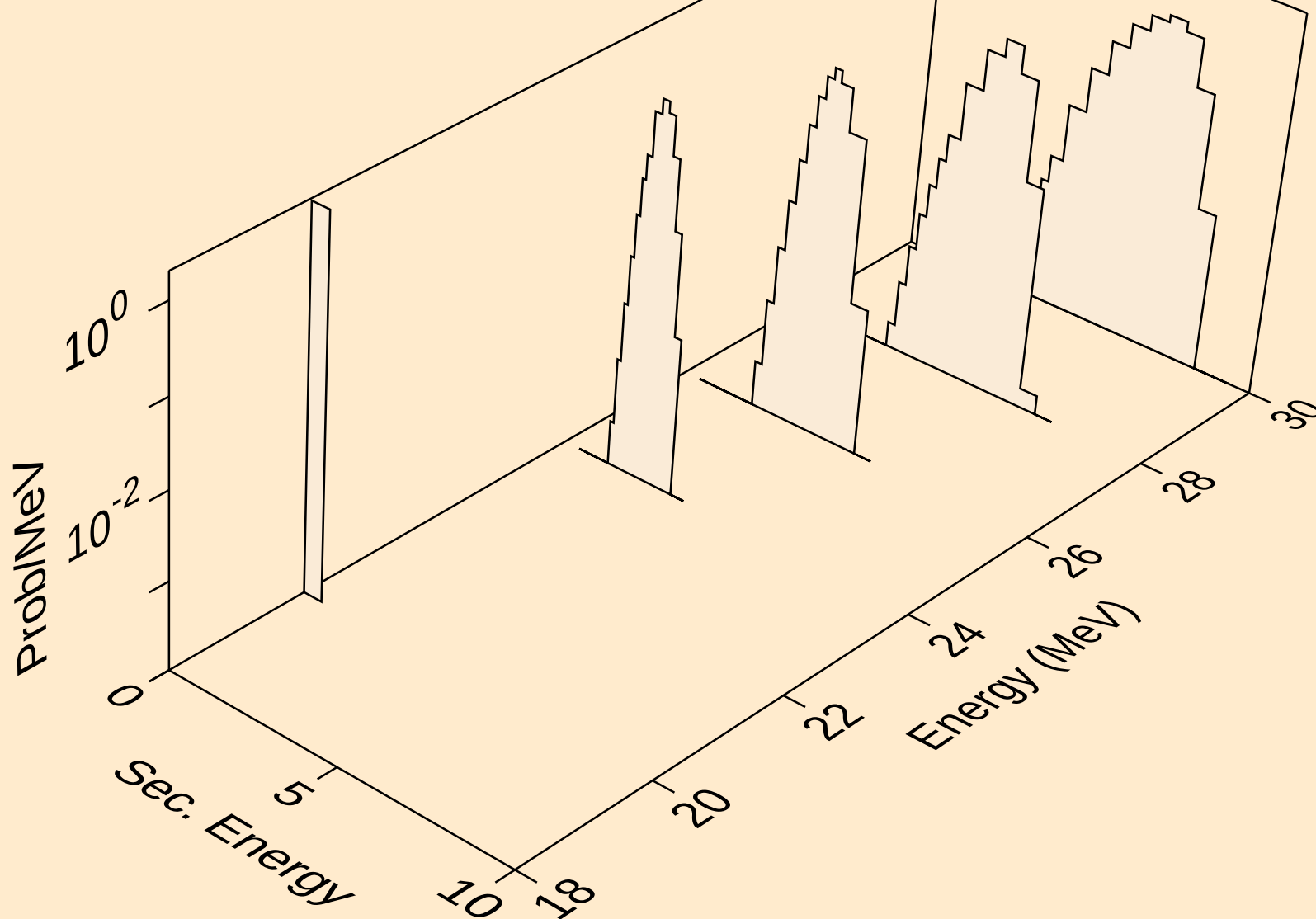
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
tritons from (p,x)



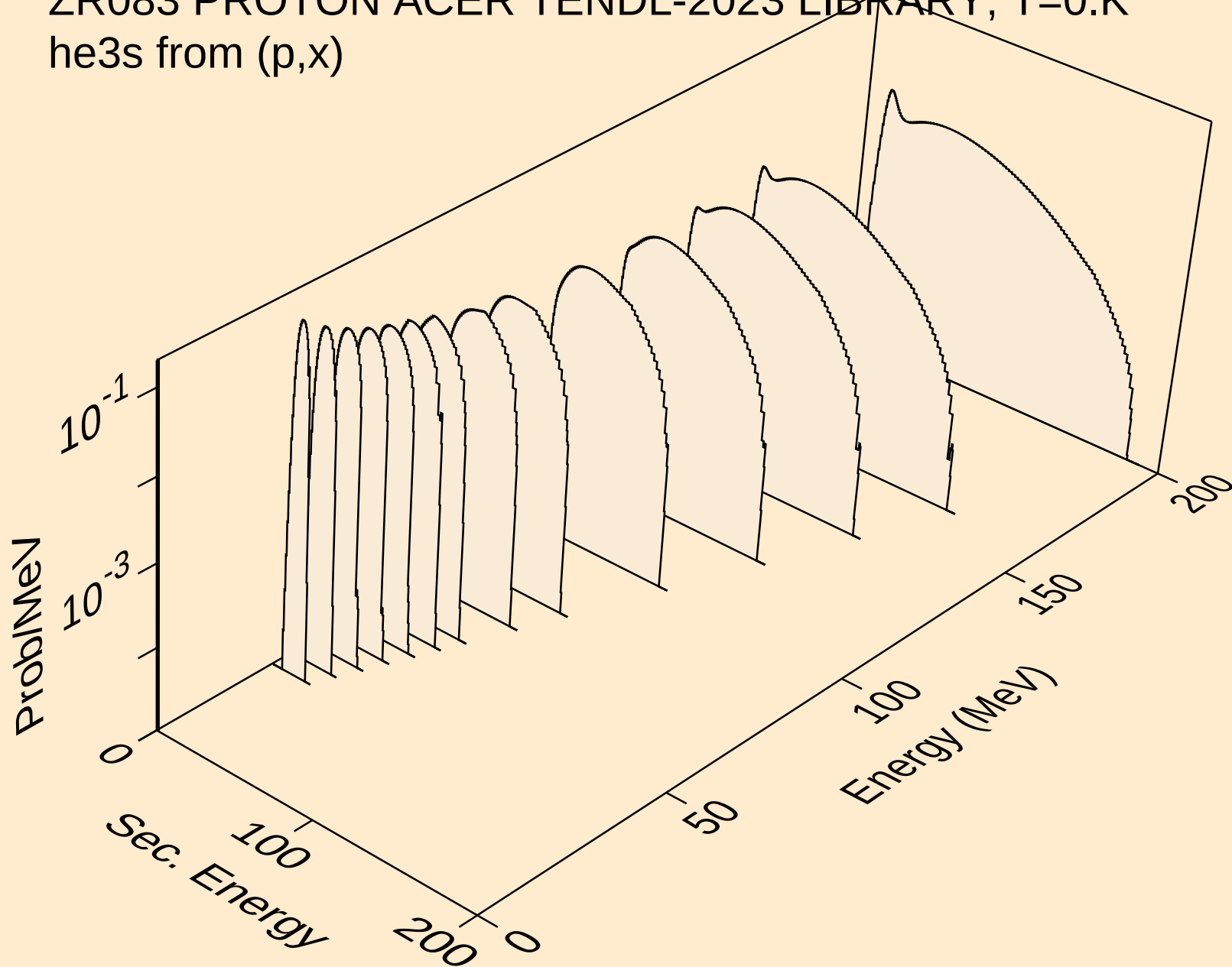
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tritons from (p,t)



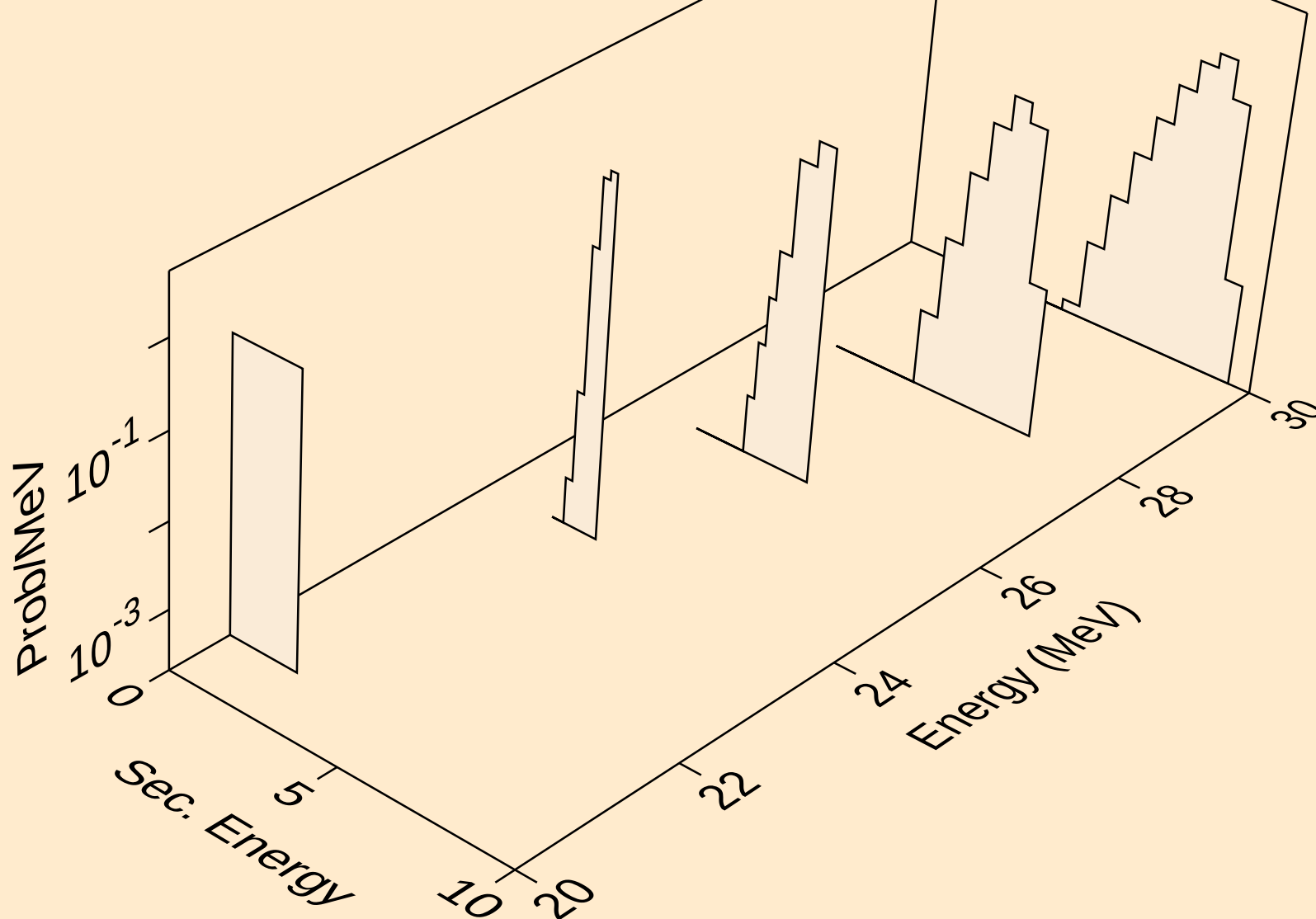
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
tritons from (p,pt)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
he3s from (p,x)

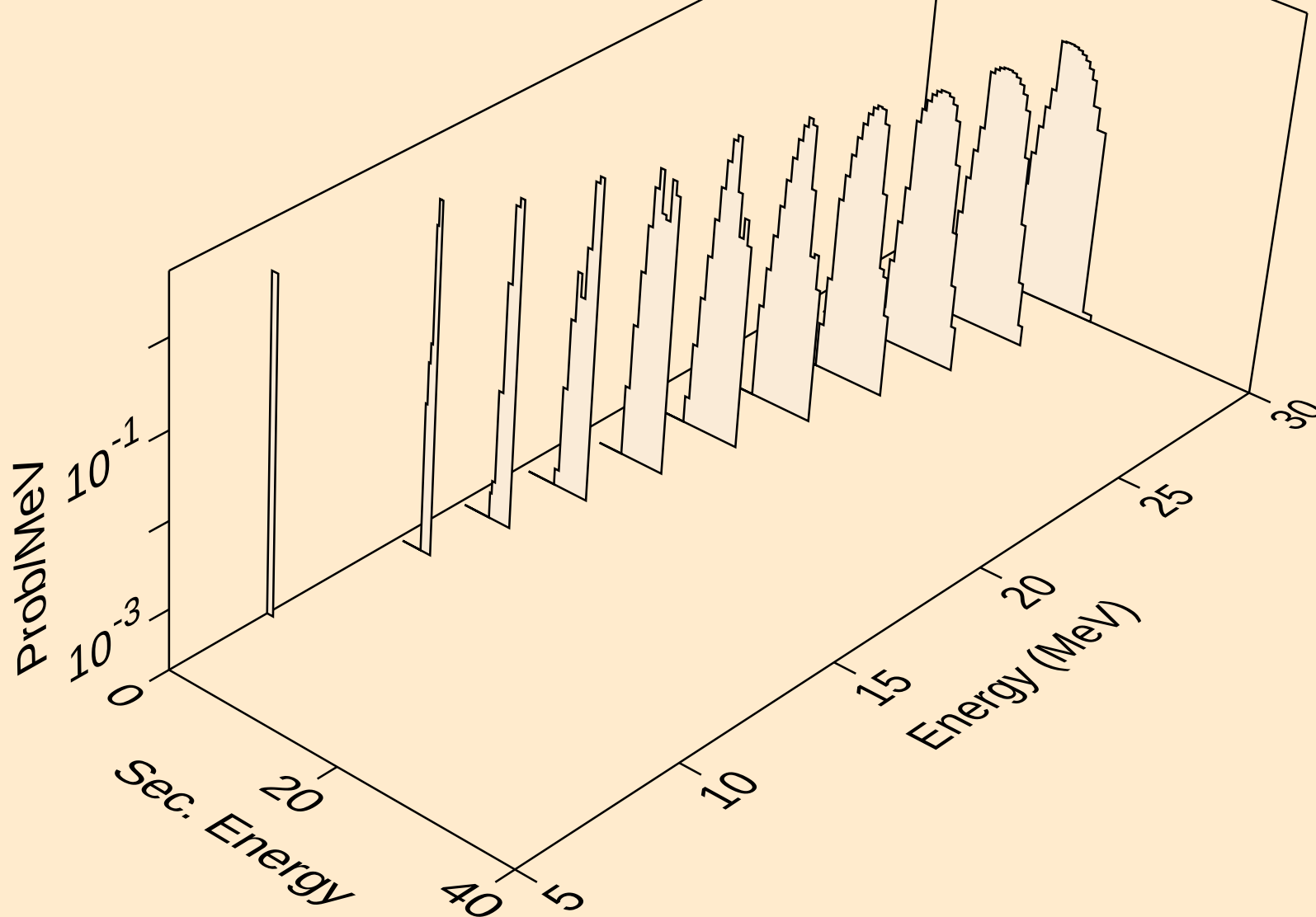


ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
he3s from (p,n\*)he3

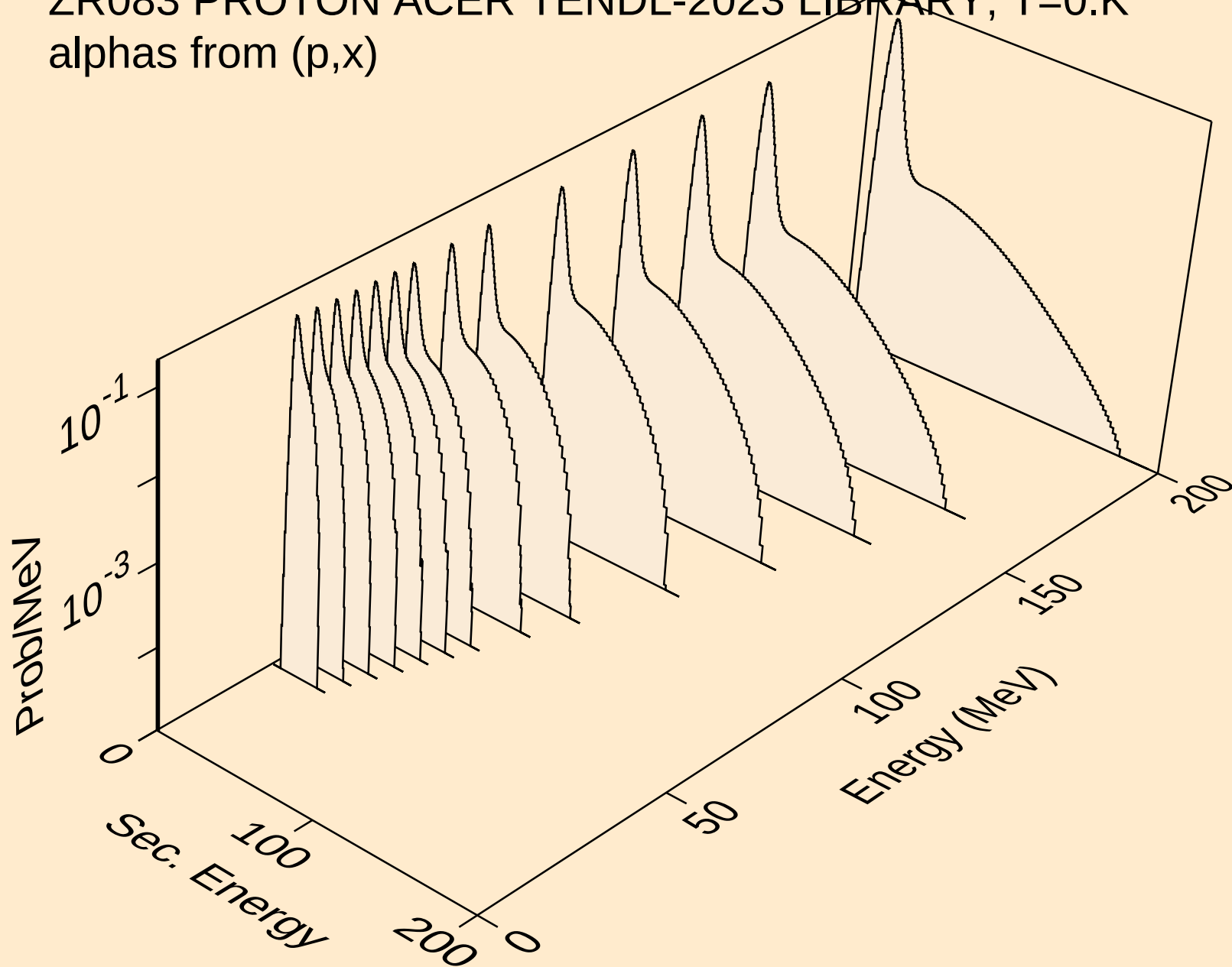




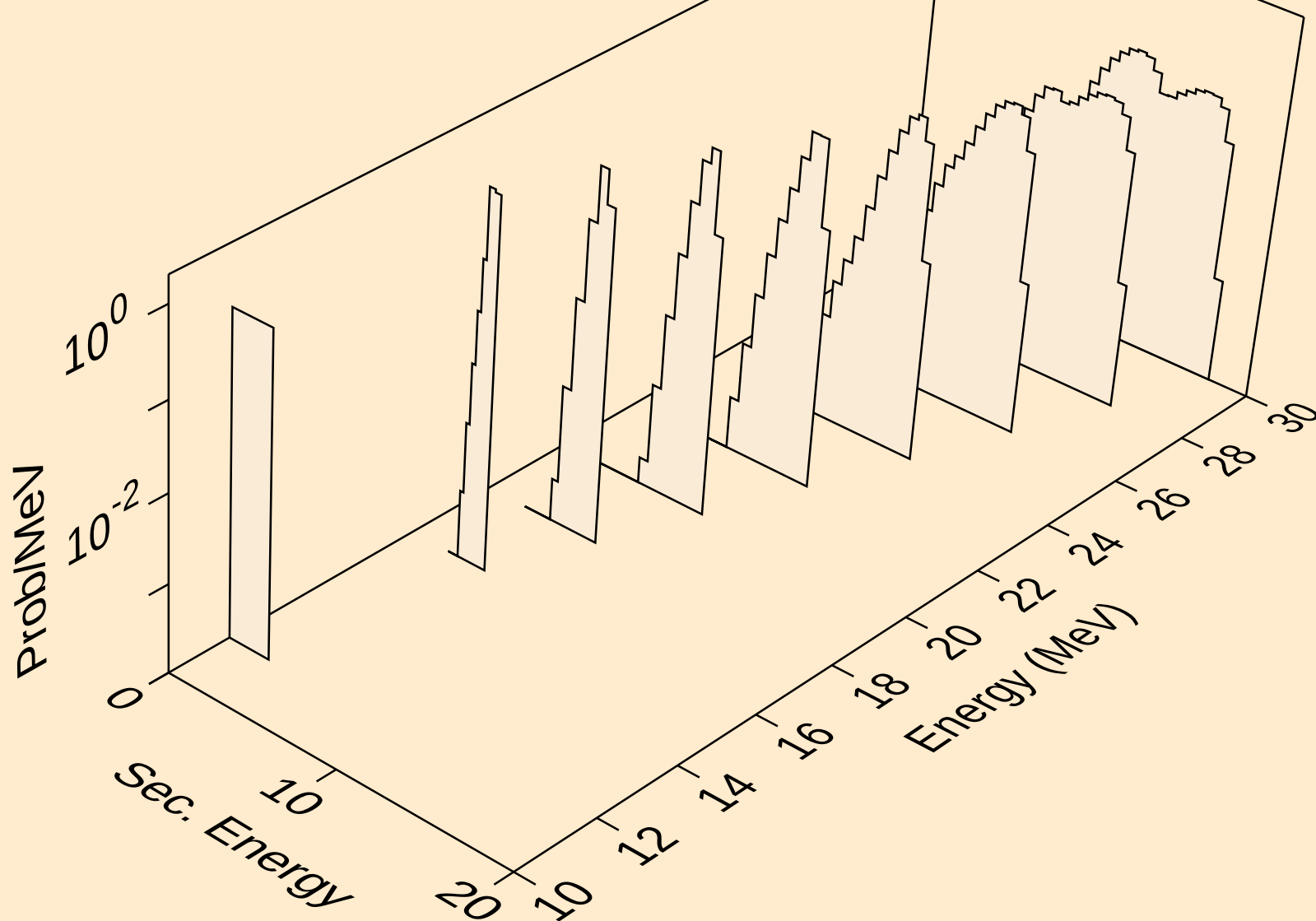
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he3s from (p,he3)



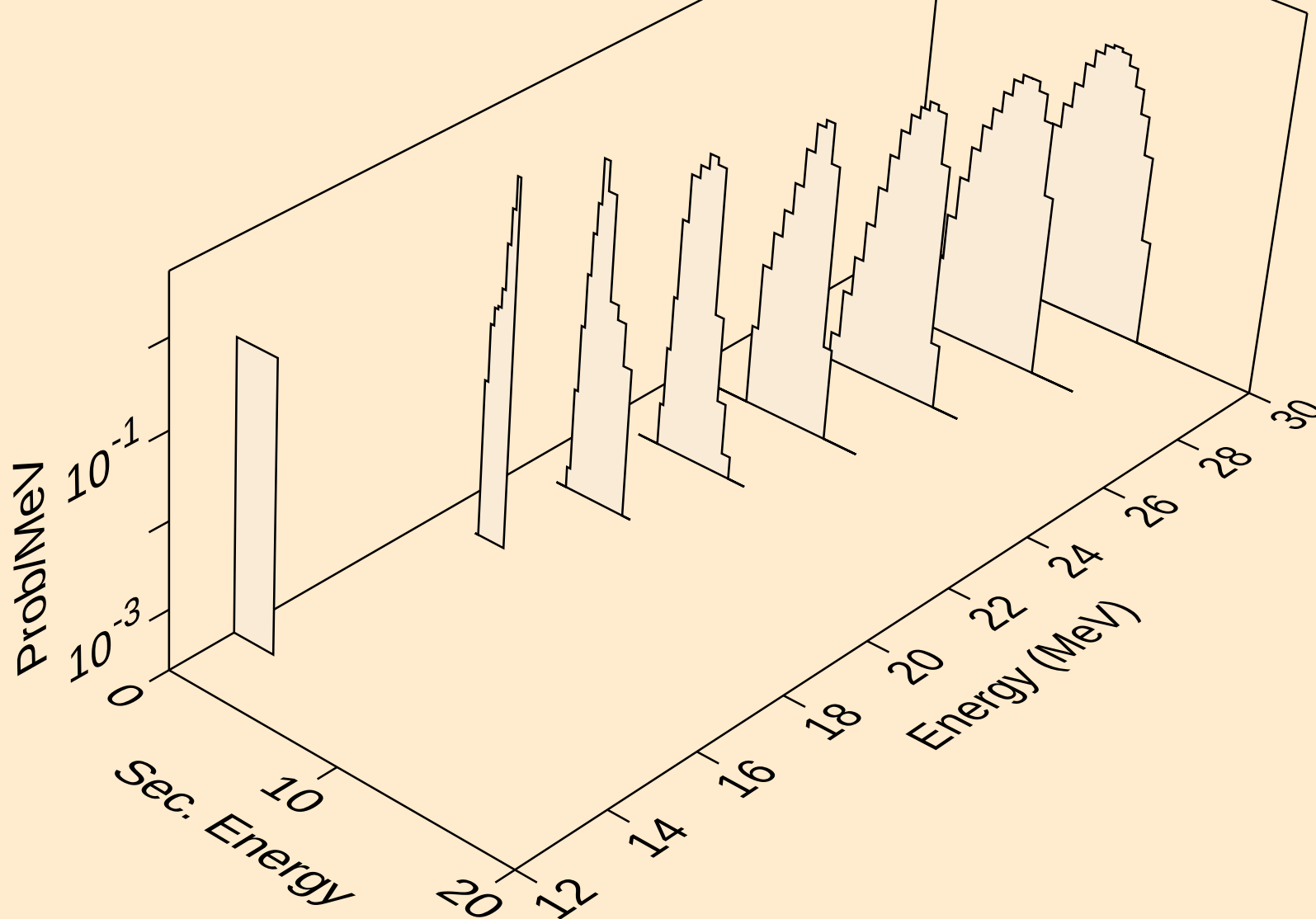
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,x)



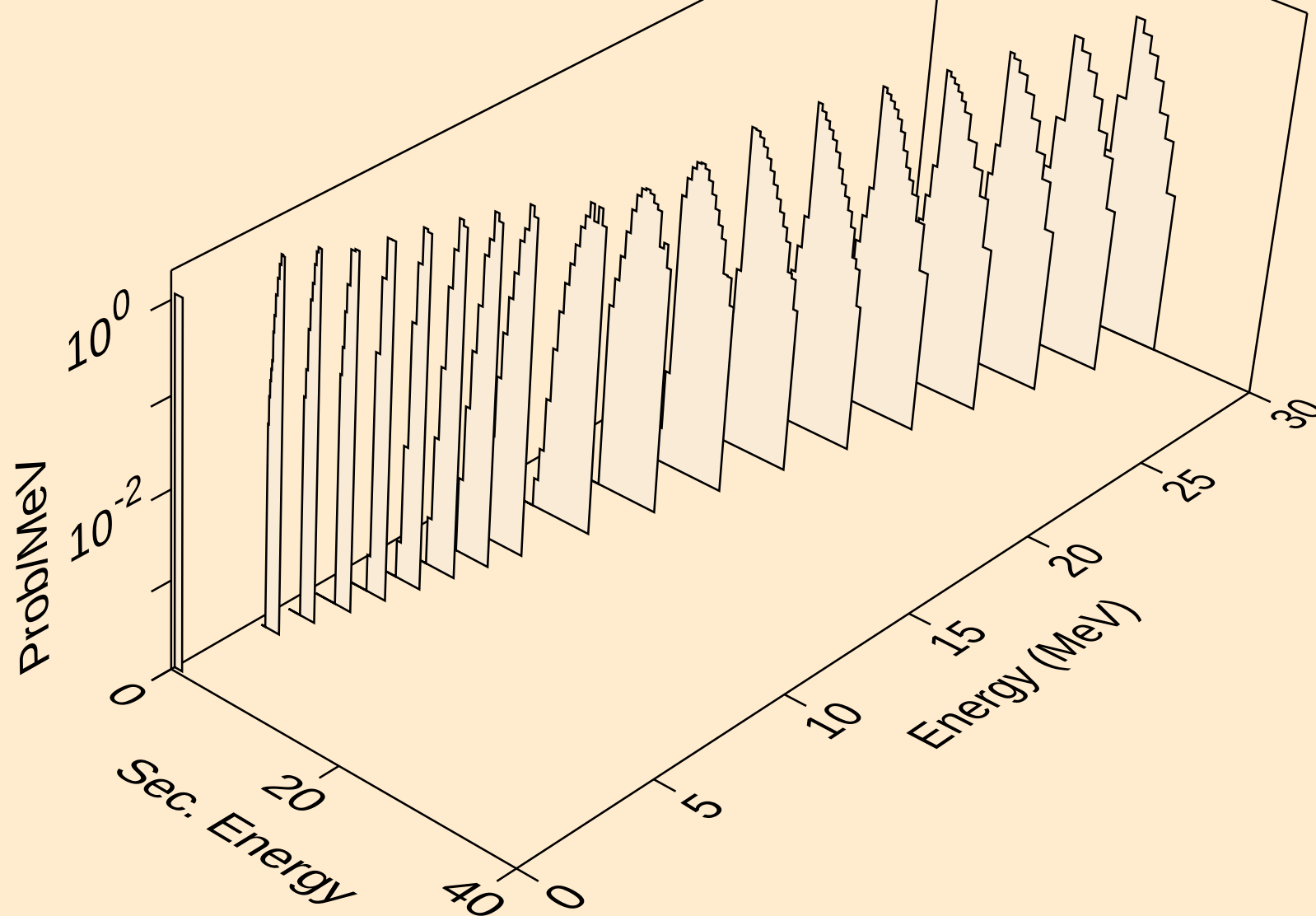
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,n\*)a



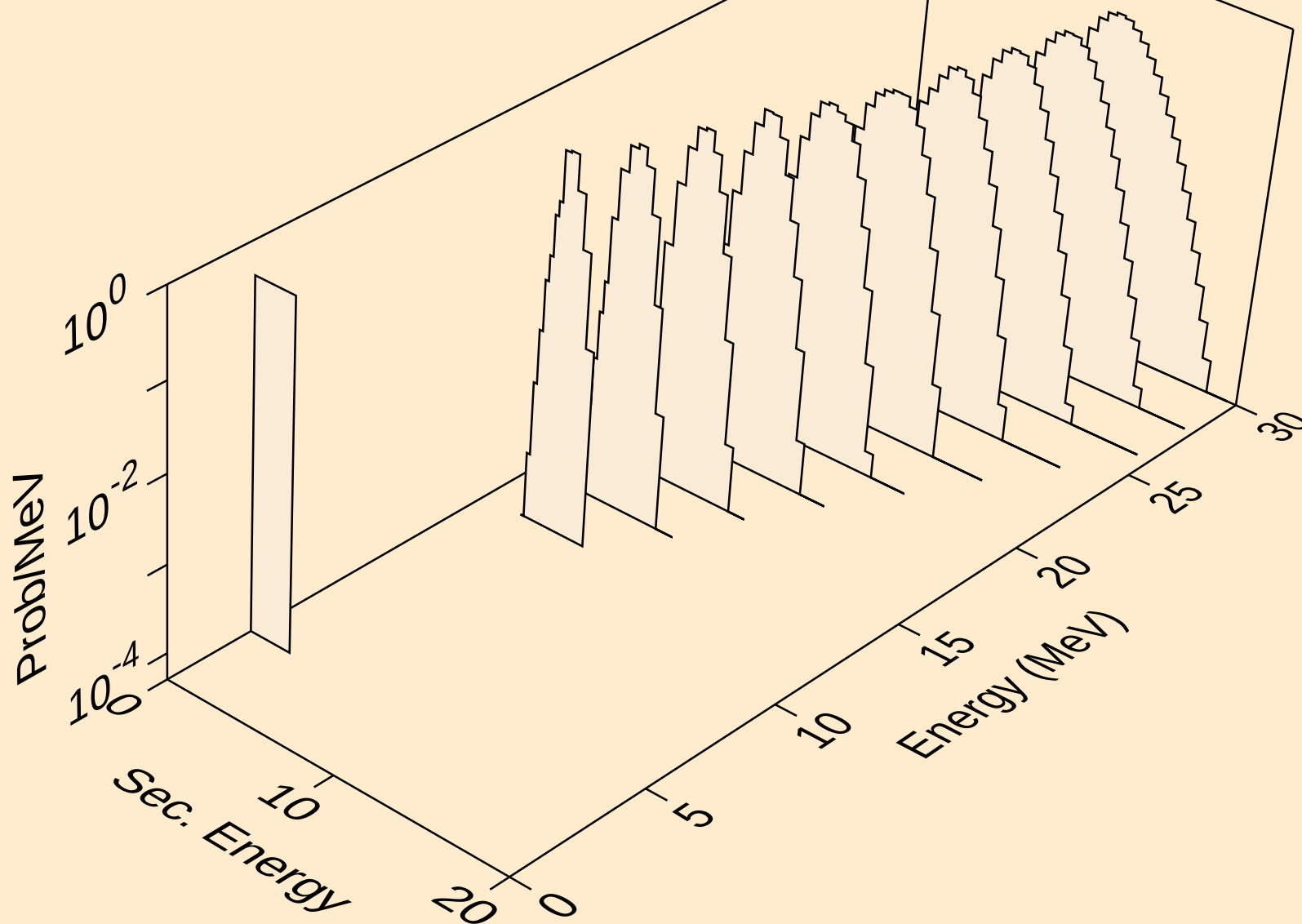
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,npa)



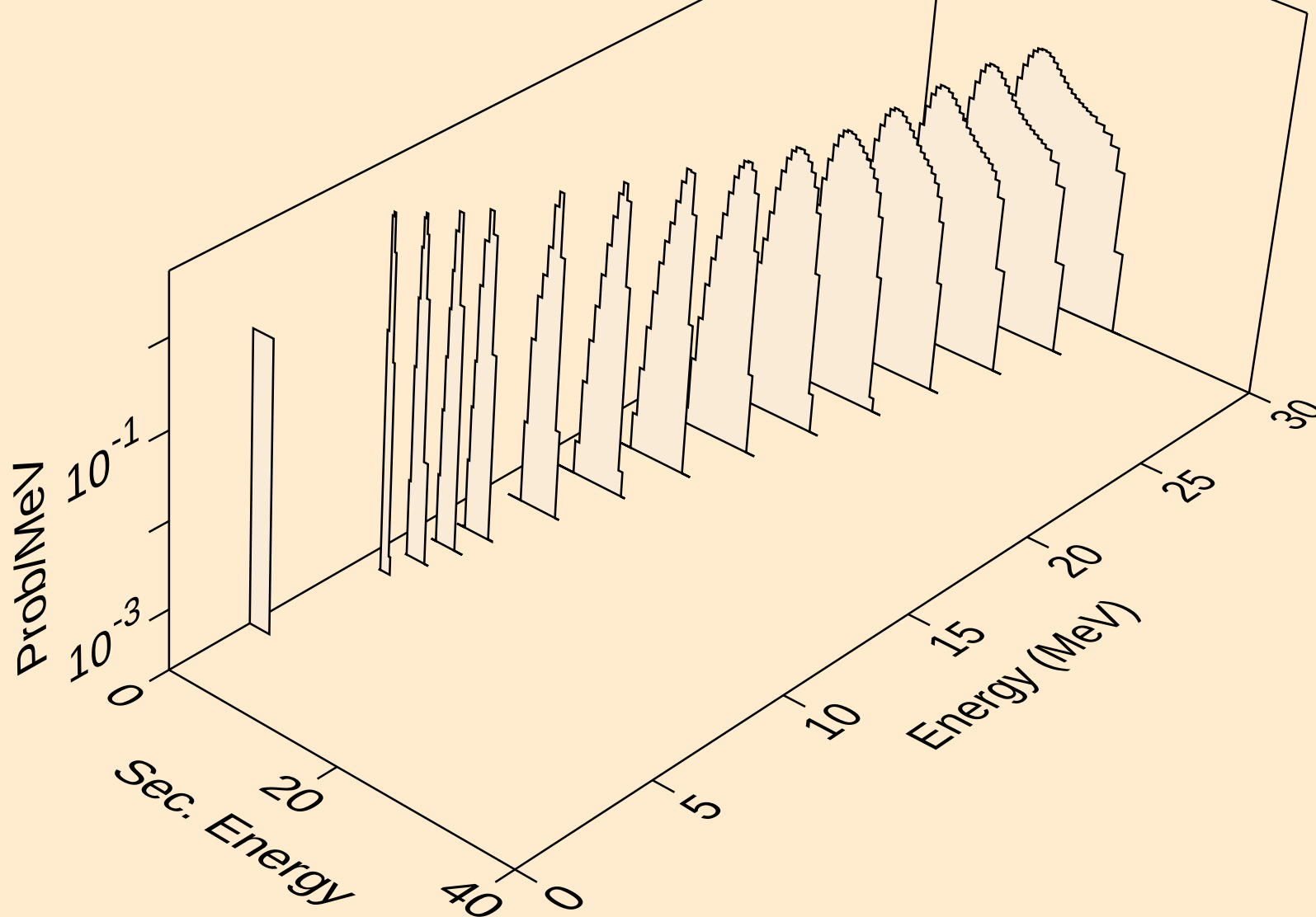
ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,a)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,2a)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,pa)



ZR083 PROTON ACER TENDL-2023 LIBRARY; T=0.K  
alphas from (p,da)

