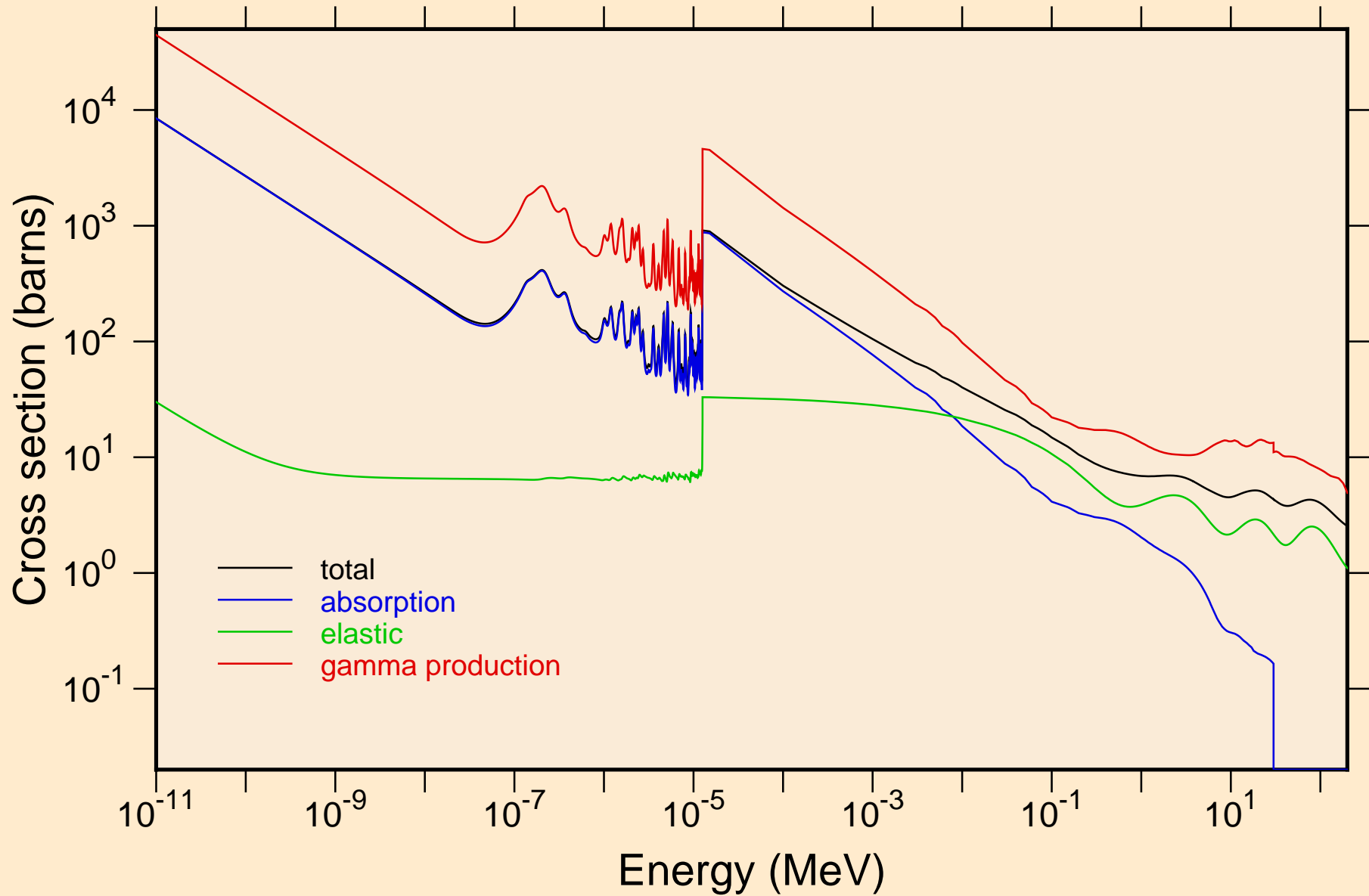


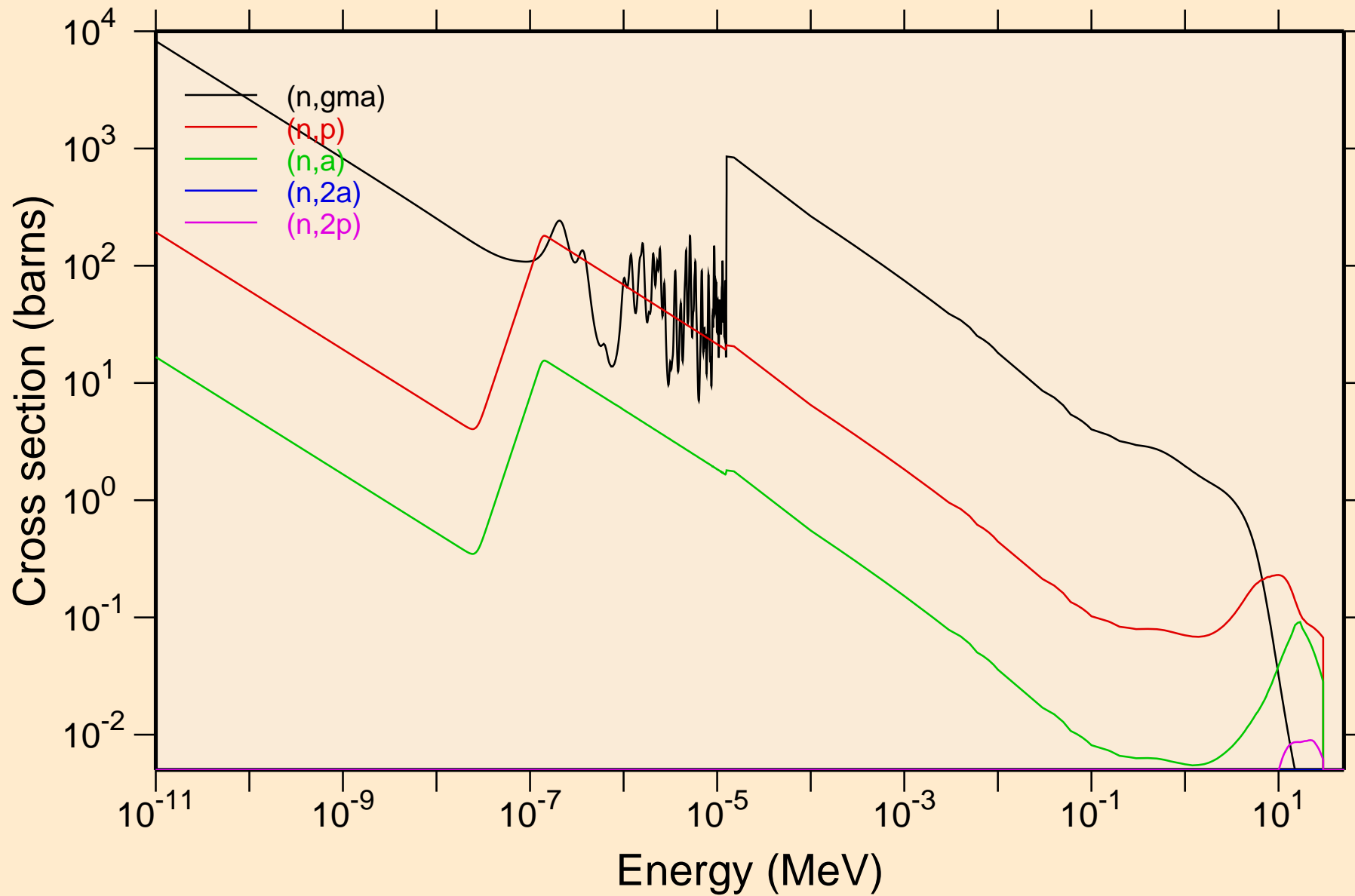
# N-HF163 NRG TENDL-2017, AKONING

## Principal cross sections

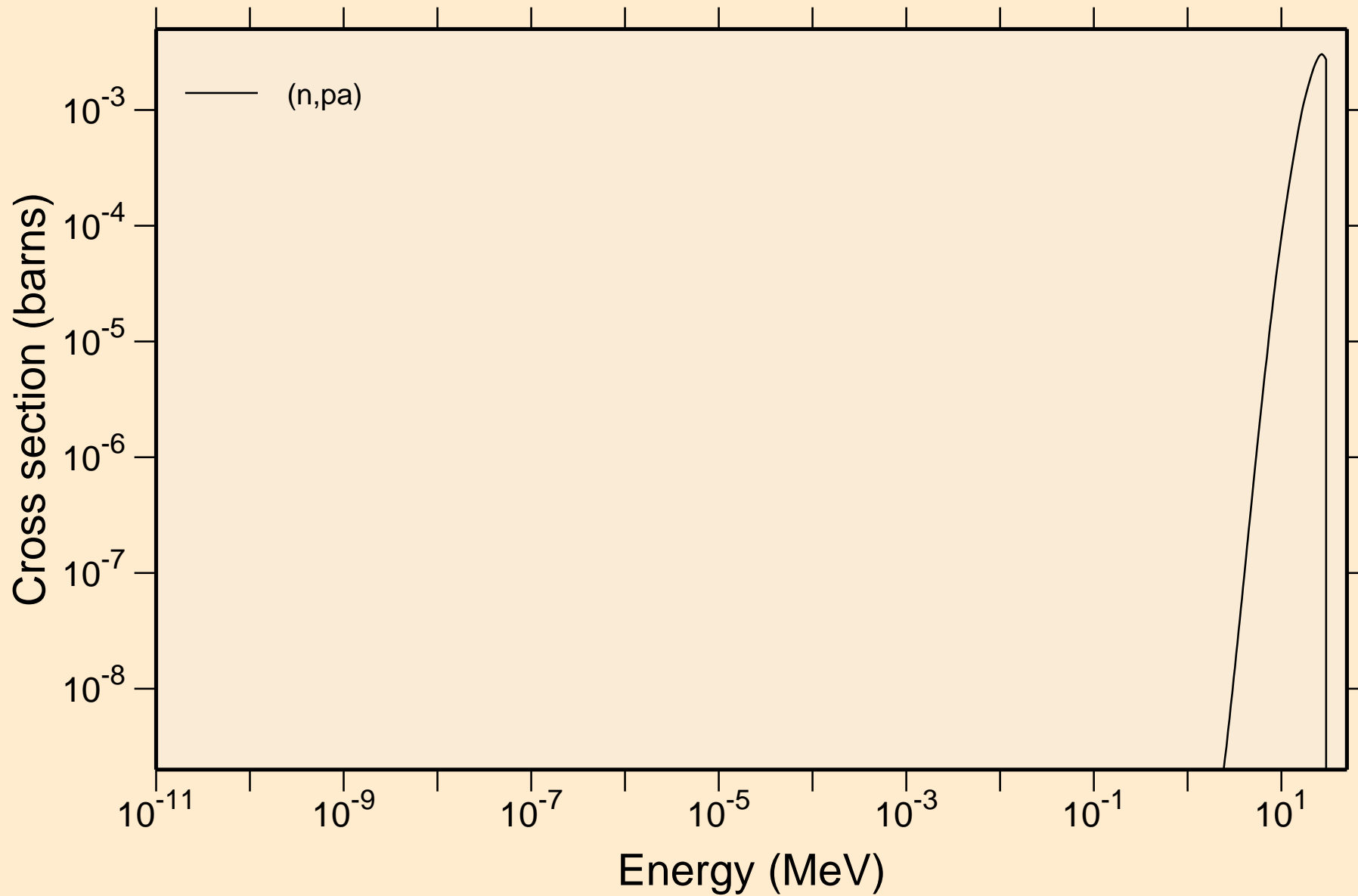


# N-HF163 NRG TENDL-2017, AKONING

## Non-threshold reactions

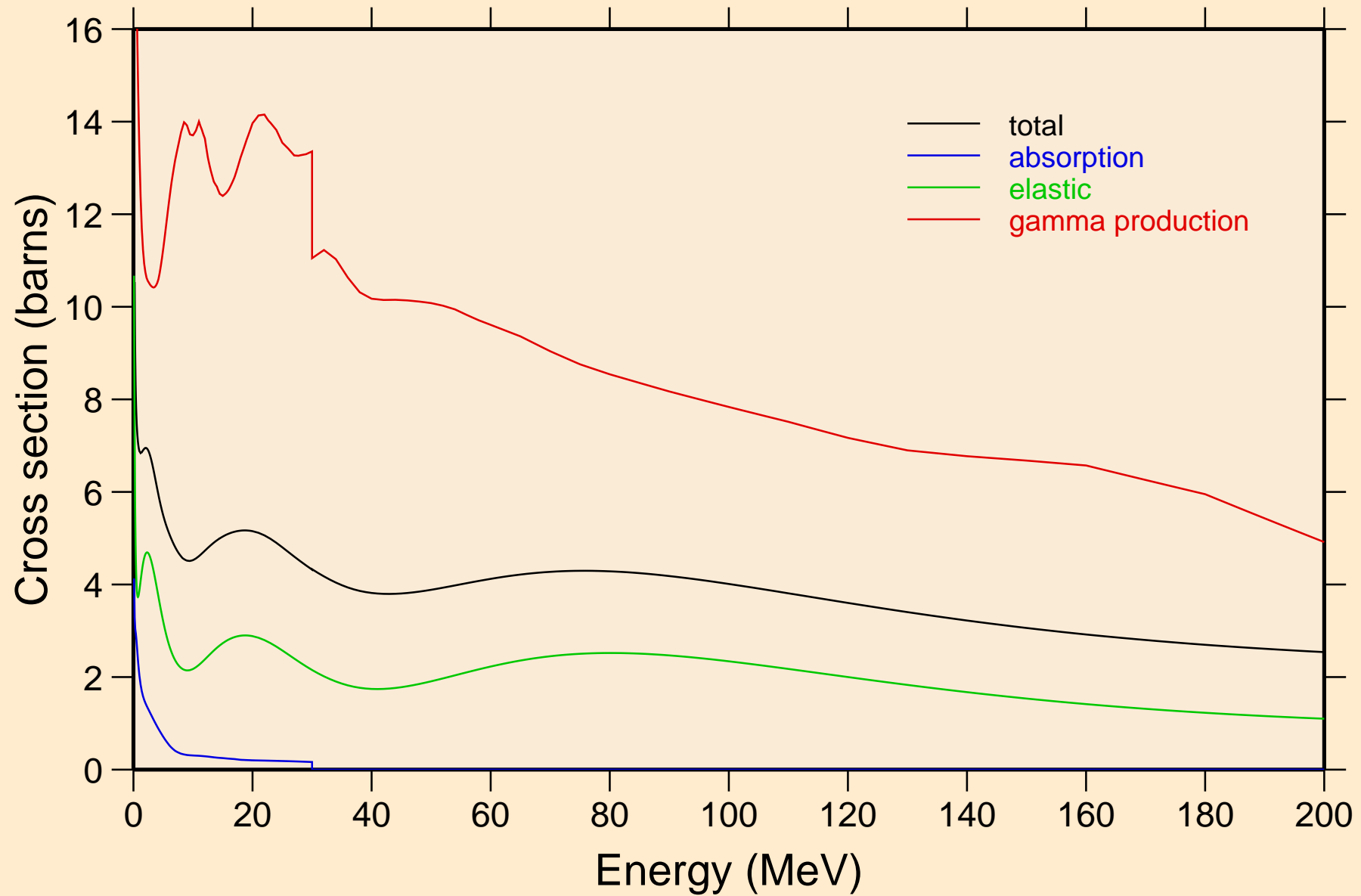


N-HF163 NRG TENDL-2017, AKONING  
Non-threshold reactions



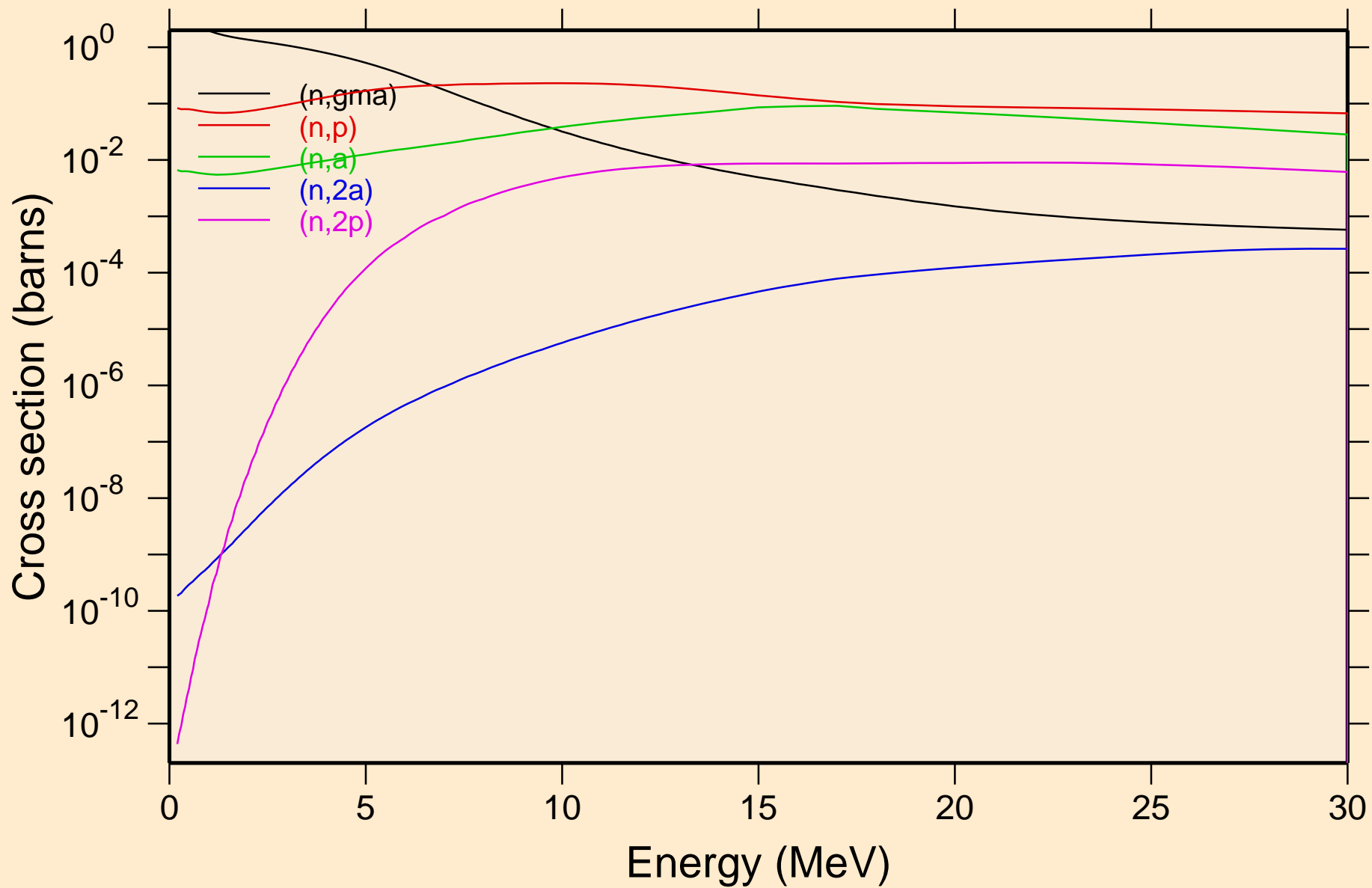
# N-HF163 NRG TENDL-2017, AKONING

## Principal cross sections



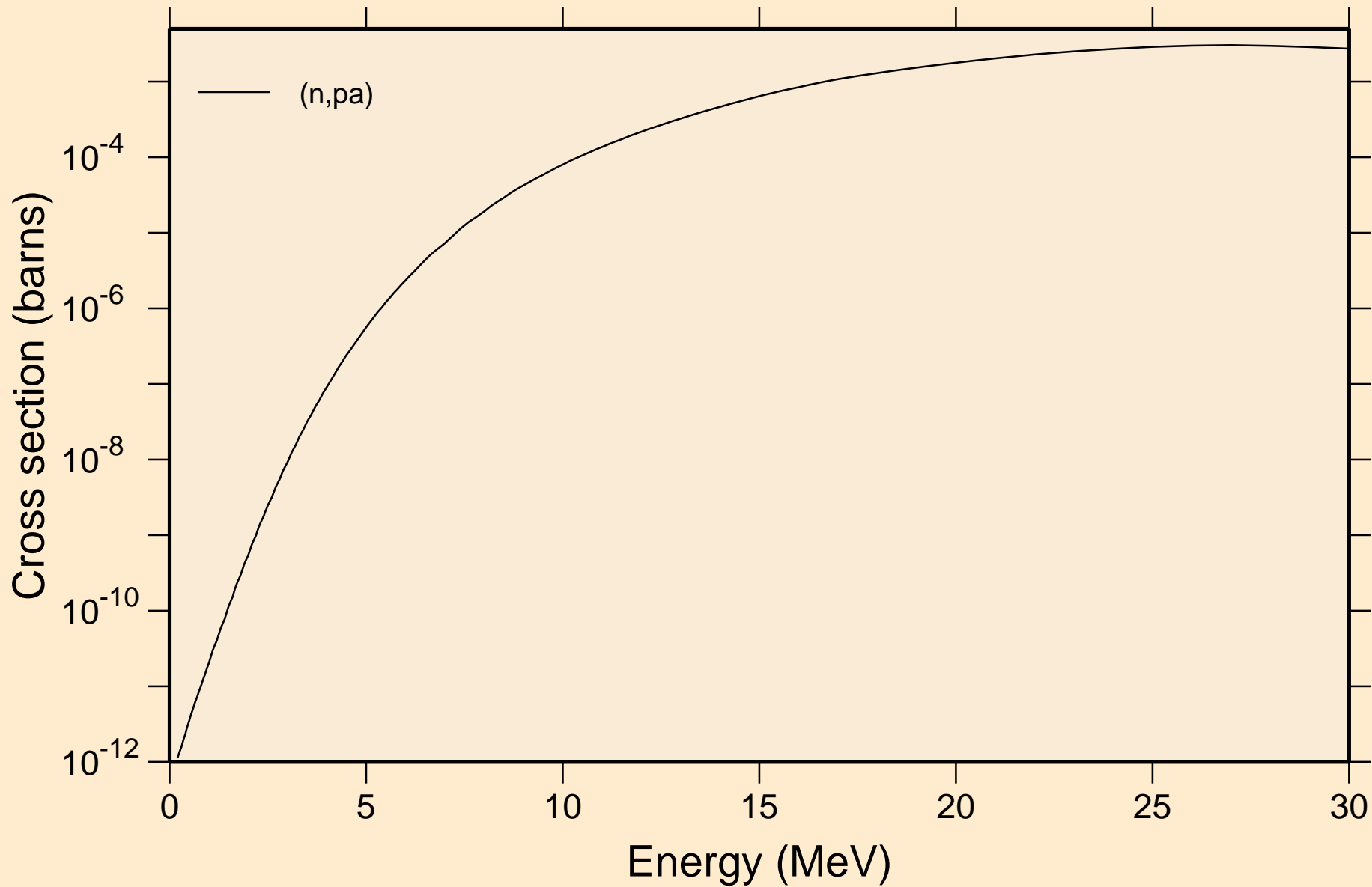
# N-HF163 NRG TENDL-2017, AKONING

## Non-threshold reactions



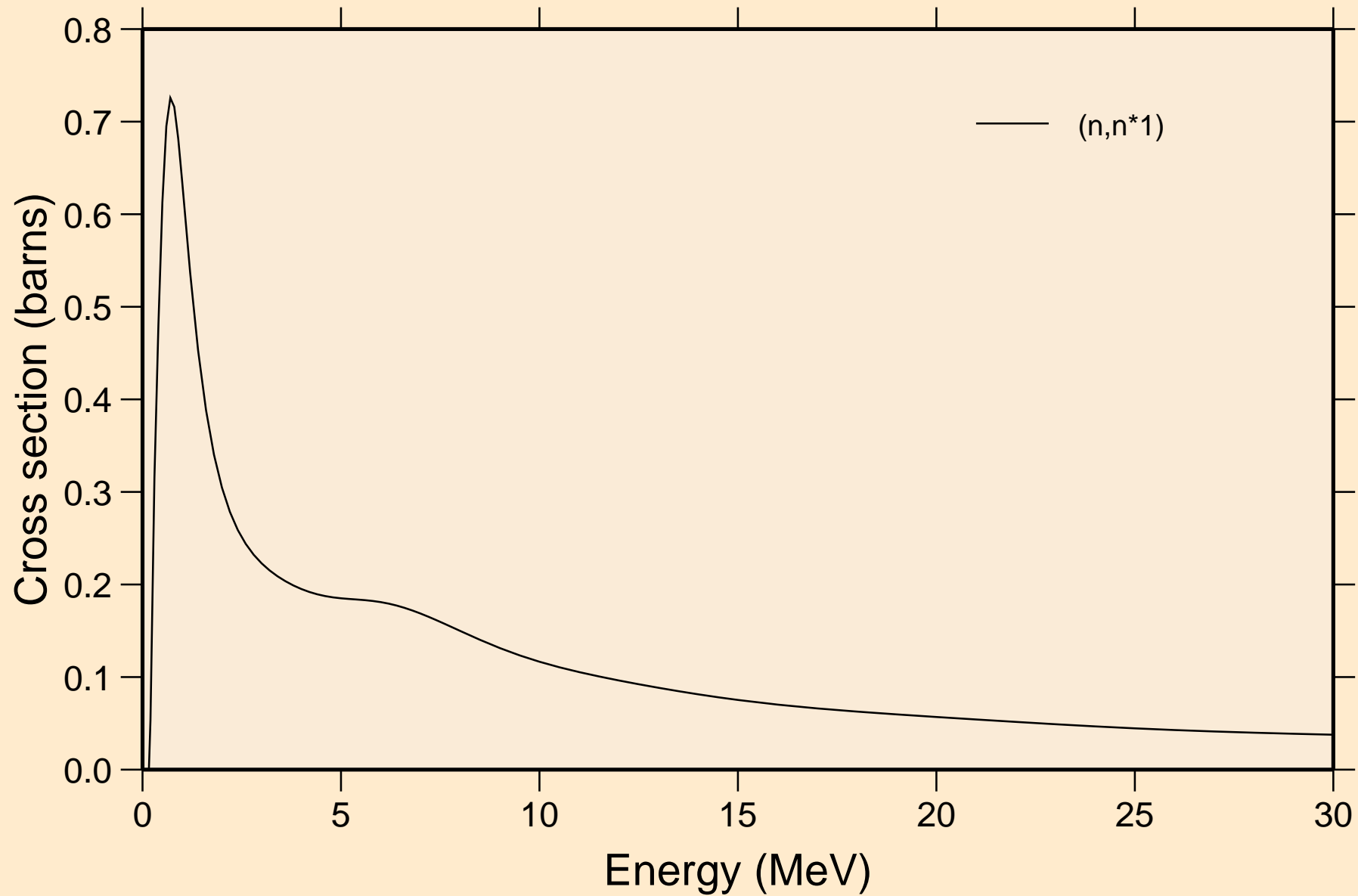
# N-HF163 NRG TENDL-2017, AKONING

## Non-threshold reactions



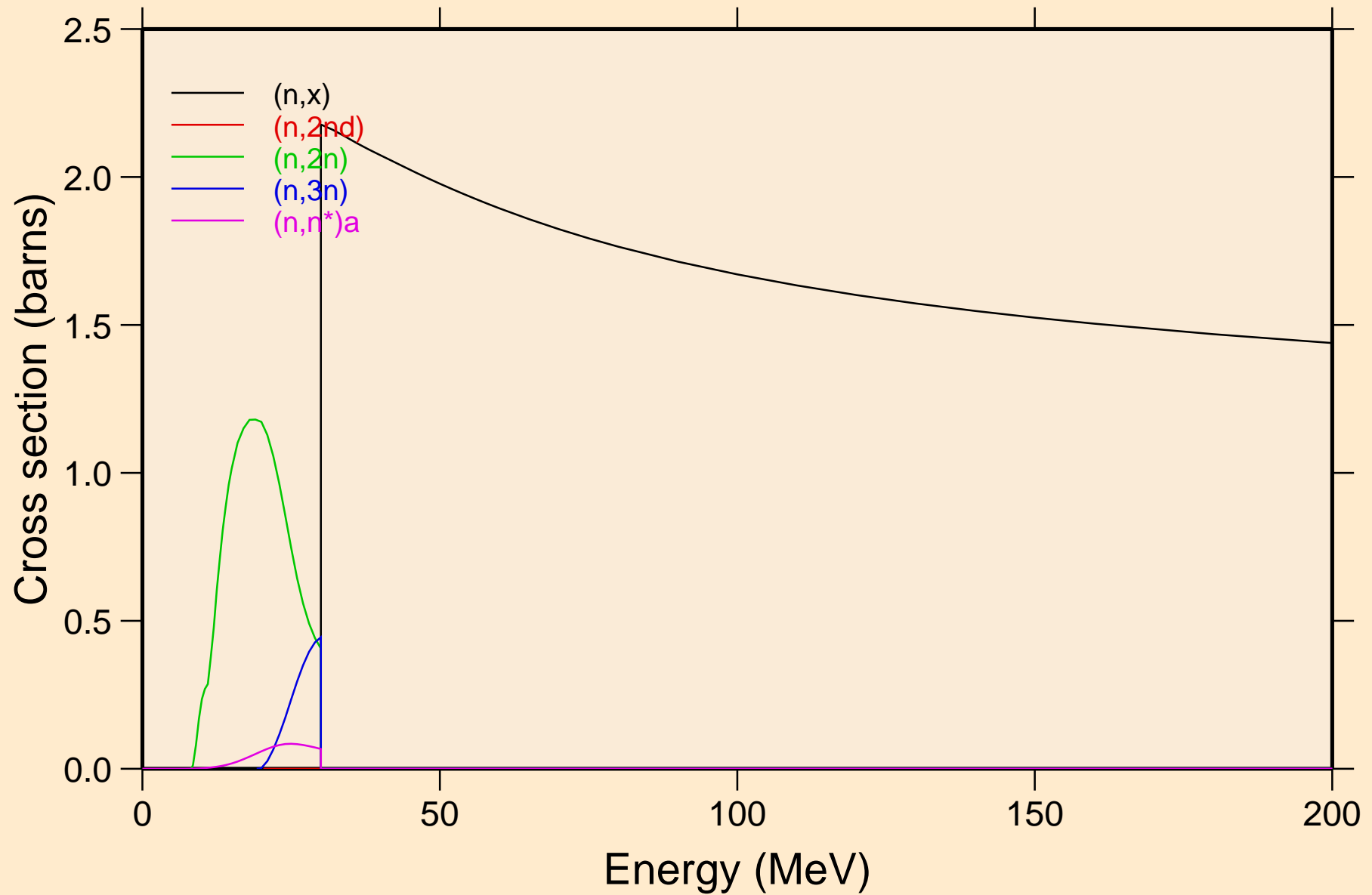
# N-HF163 NRG TENDL-2017, AKONING

## Inelastic levels



# N-HF163 NRG TENDL-2017, AKONING

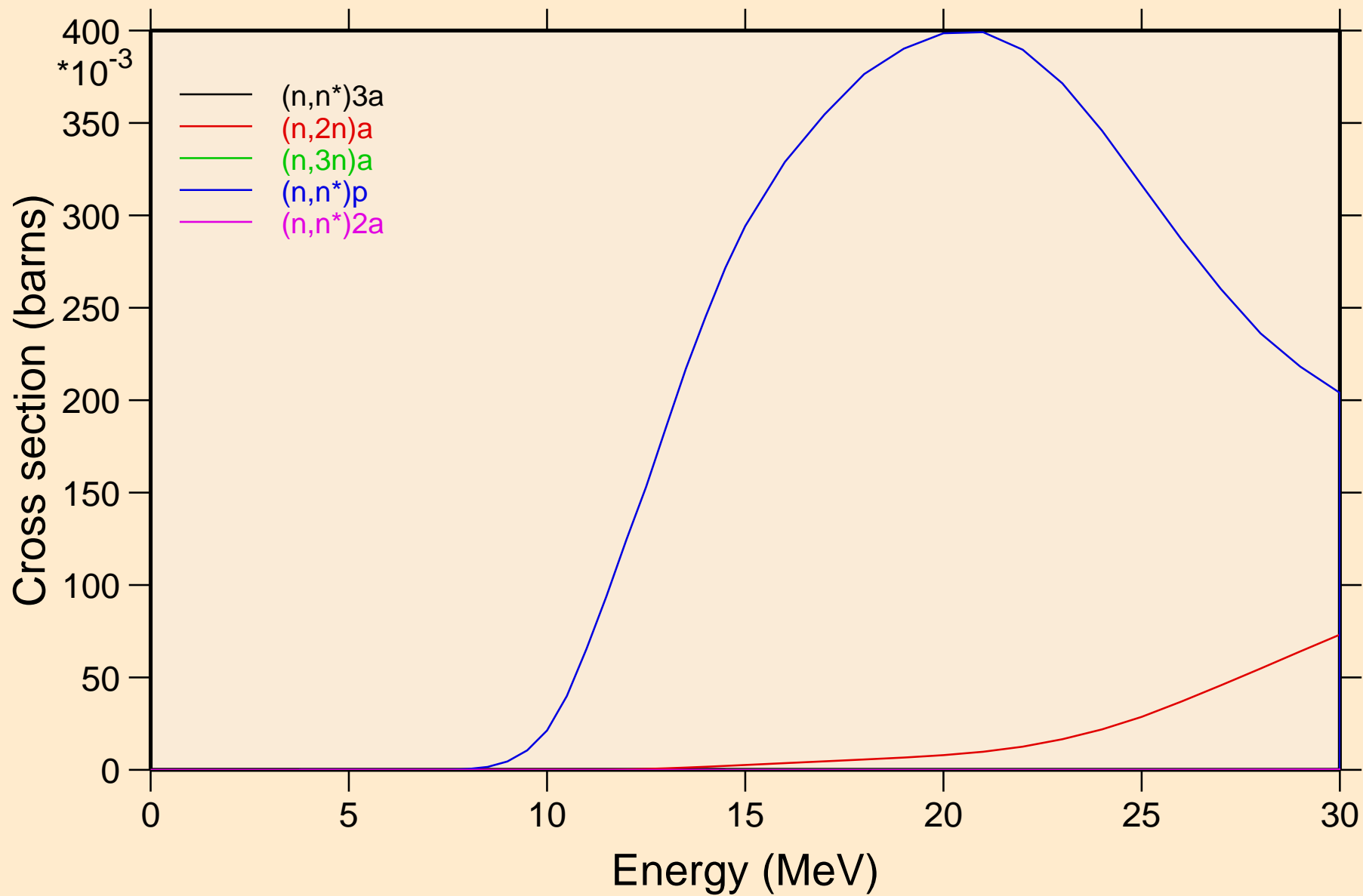
## Threshold reactions





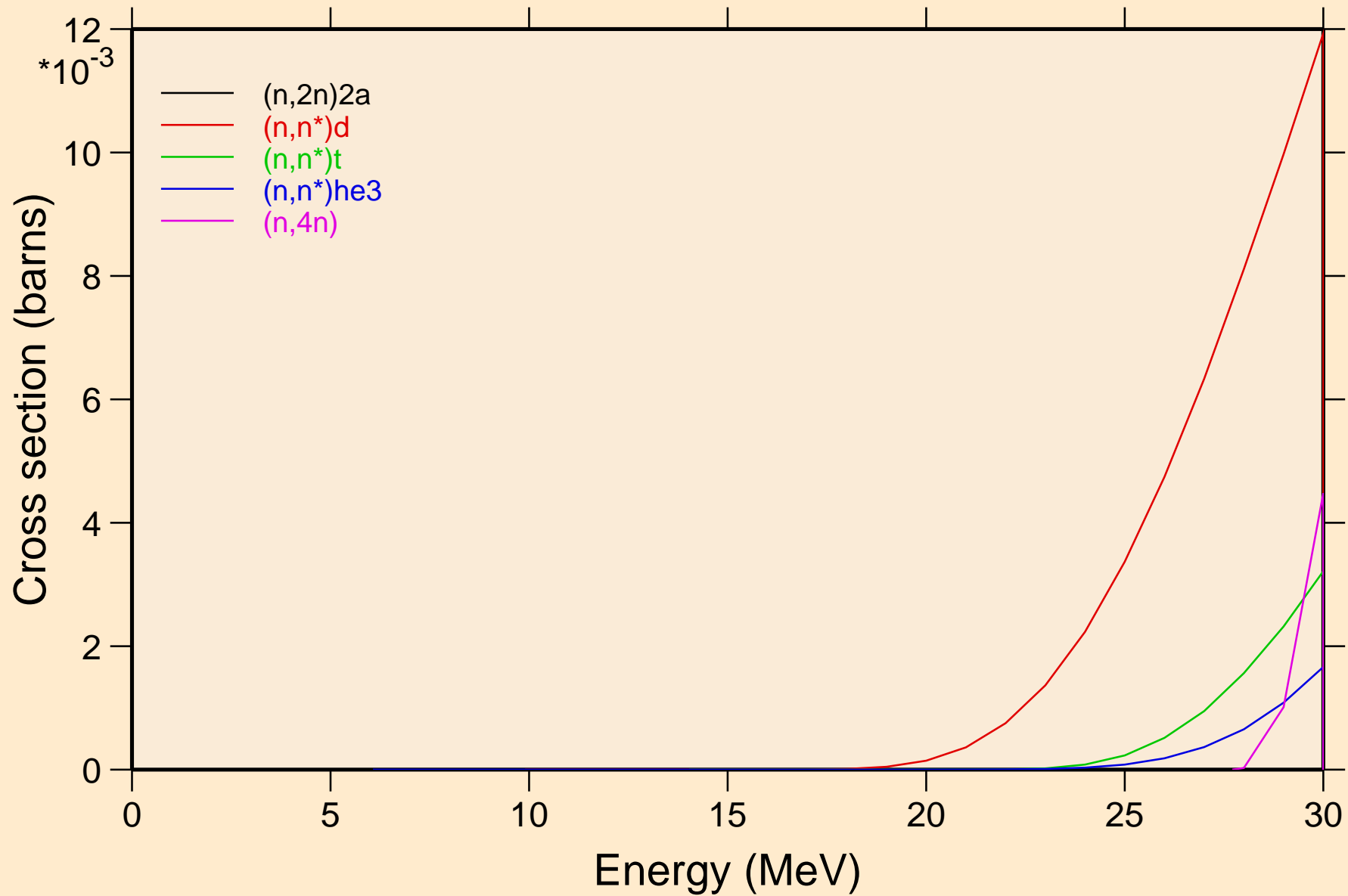
# N-HF163 NRG TENDL-2017, AKONING

## Threshold reactions



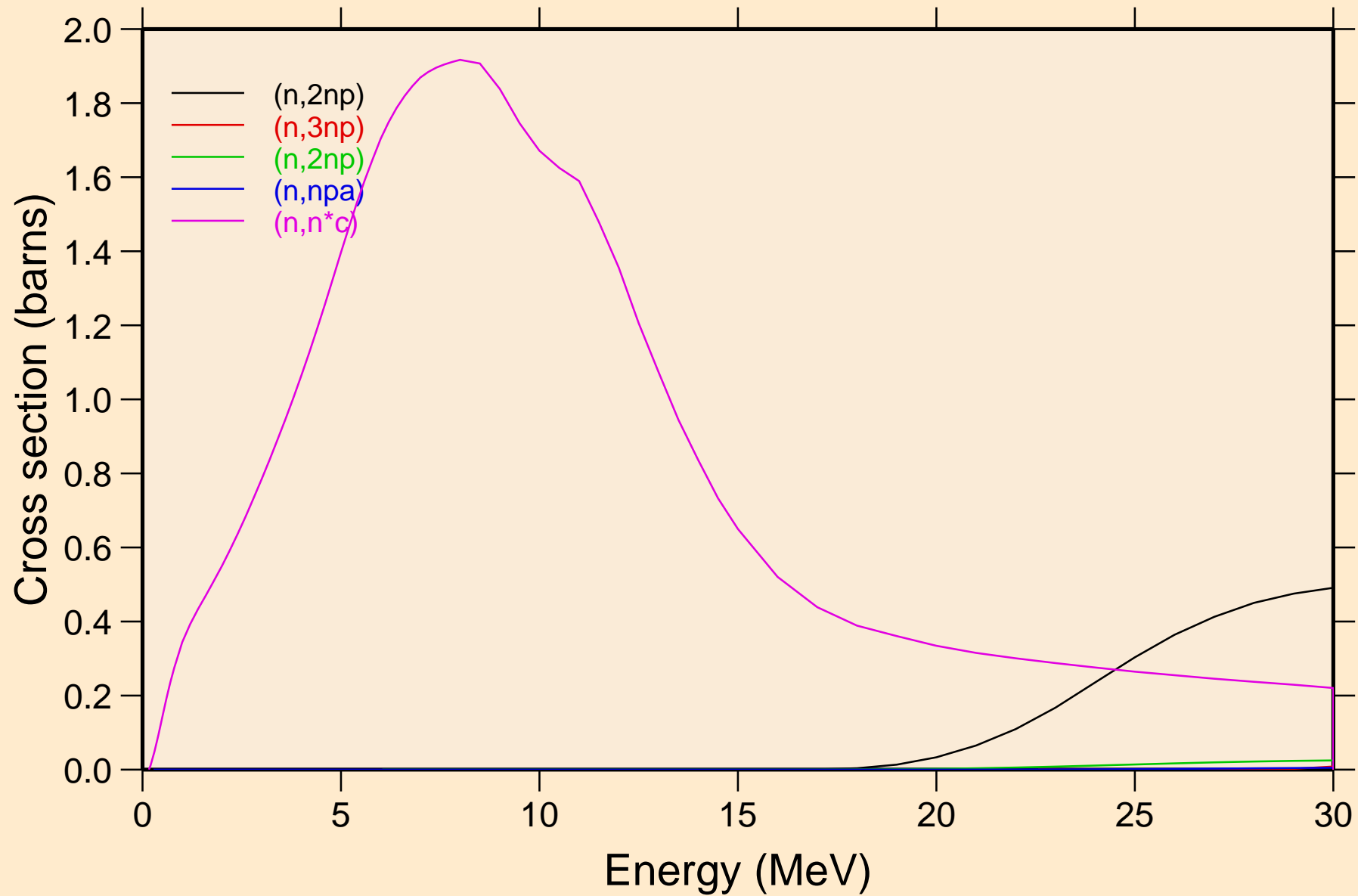
# N-HF163 NRG TENDL-2017, AKONING

## Threshold reactions



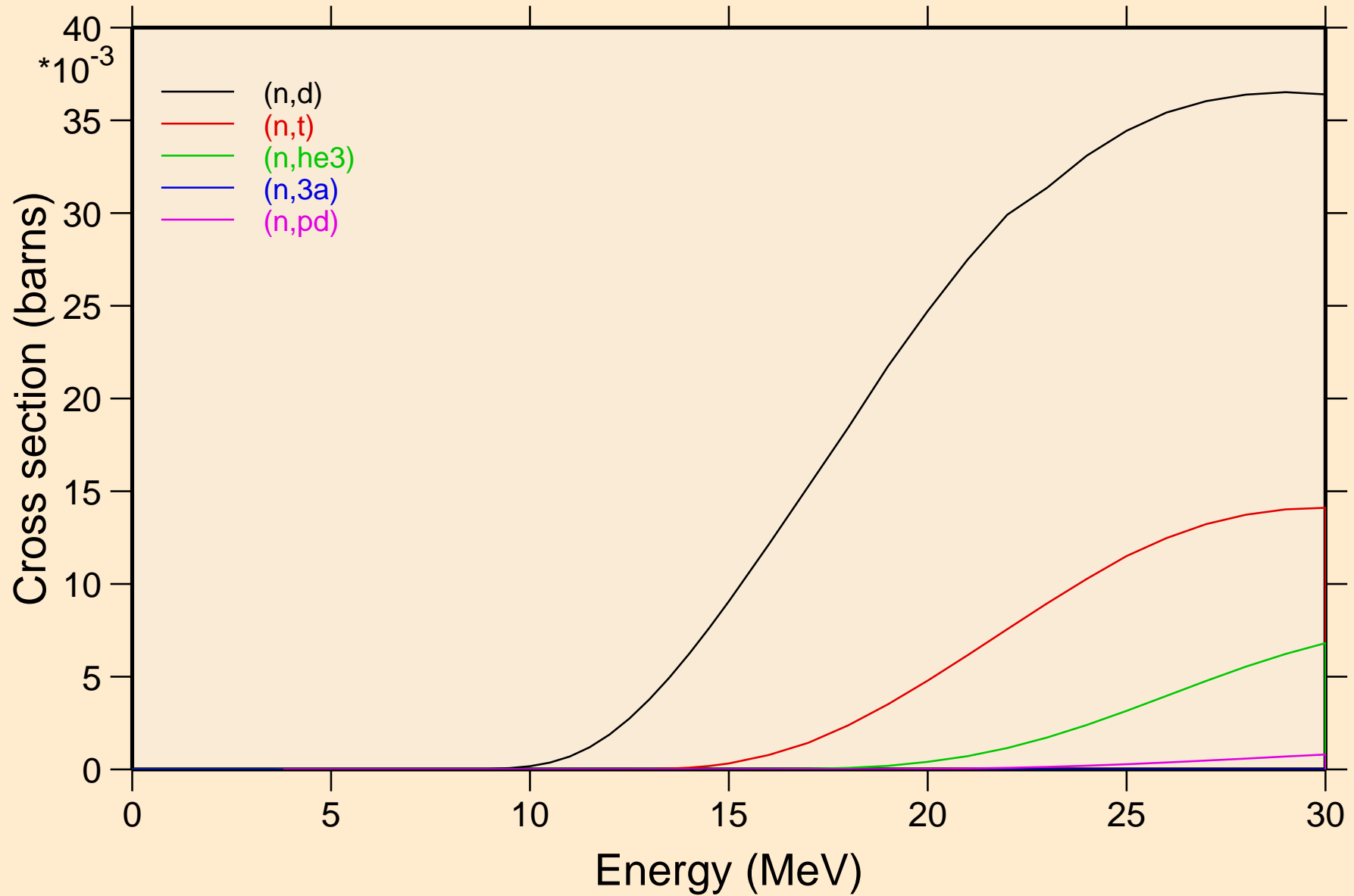
# N-HF163 NRG TENDL-2017, AKONING

## Threshold reactions



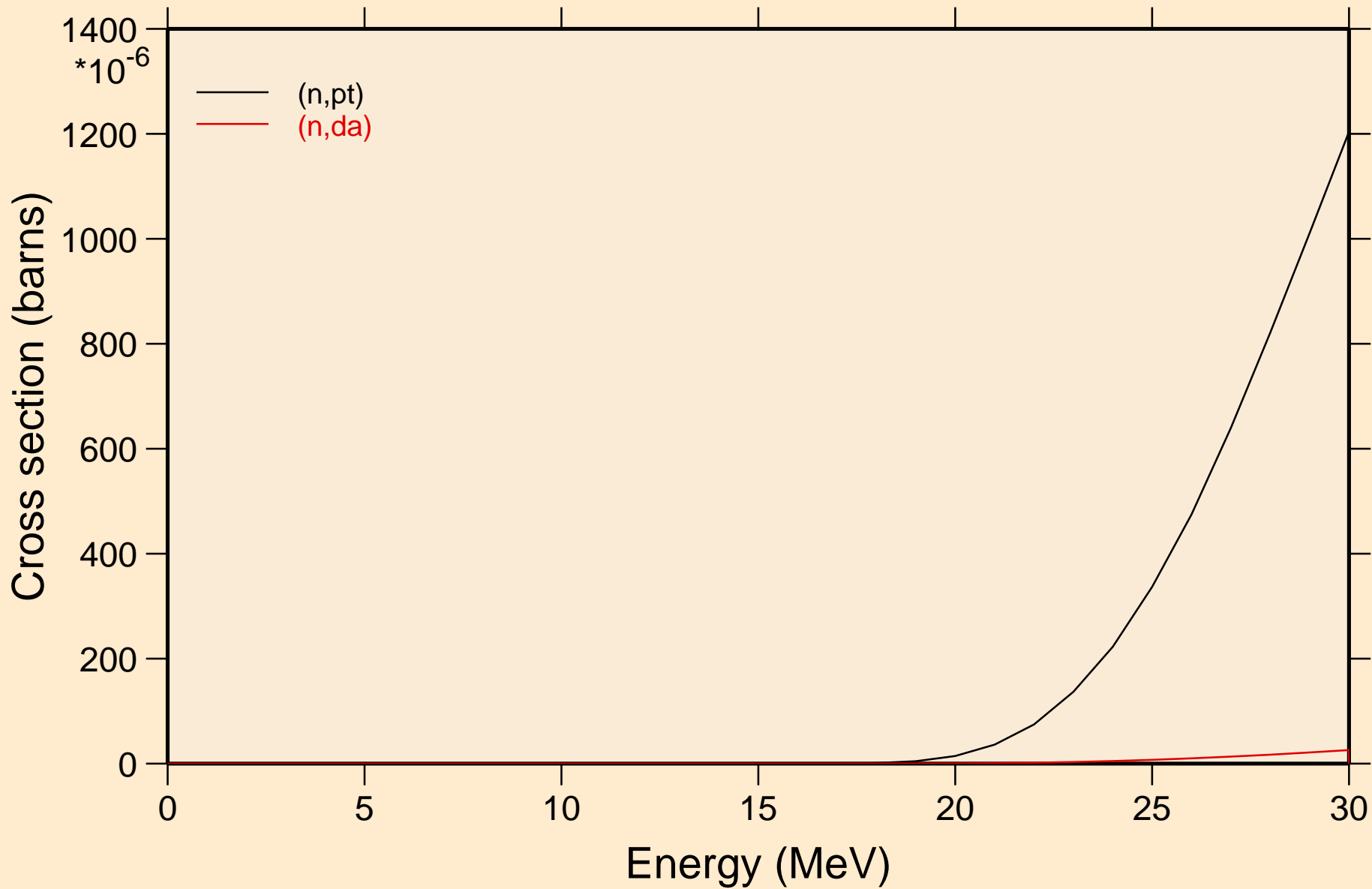
# N-HF163 NRG TENDL-2017, AKONING

## Threshold reactions

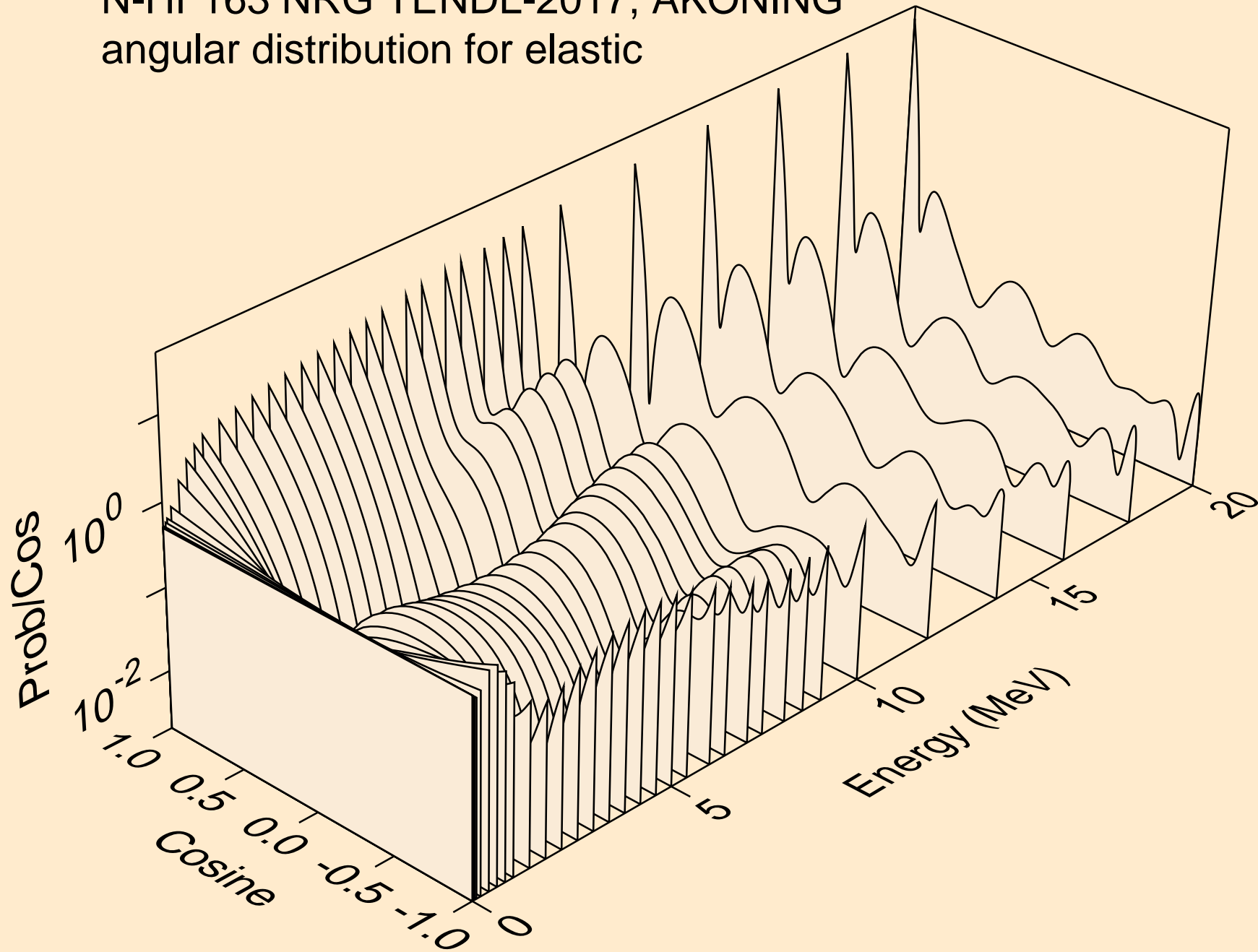


# N-HF163 NRG TENDL-2017, AKONING

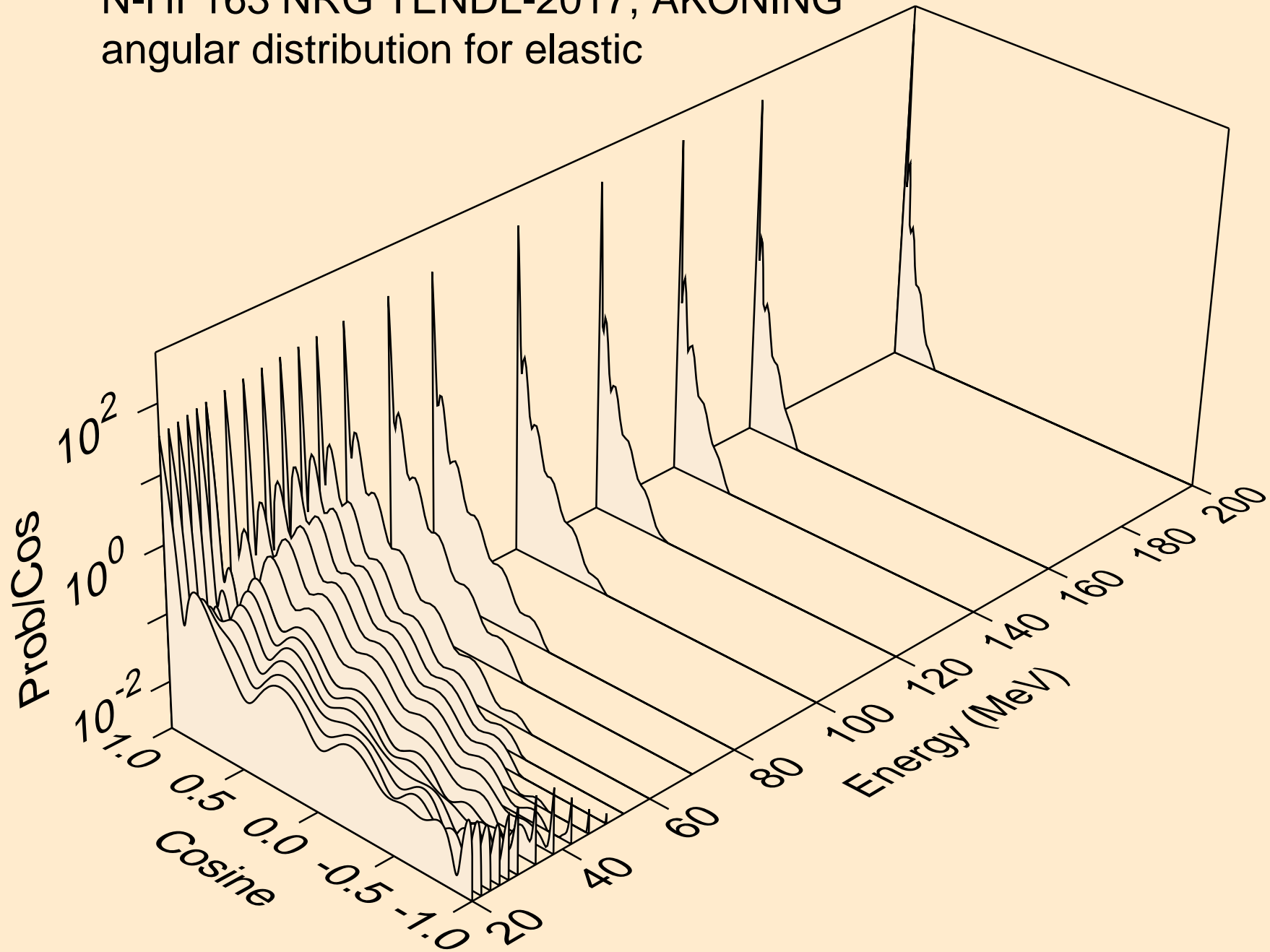
## Threshold reactions



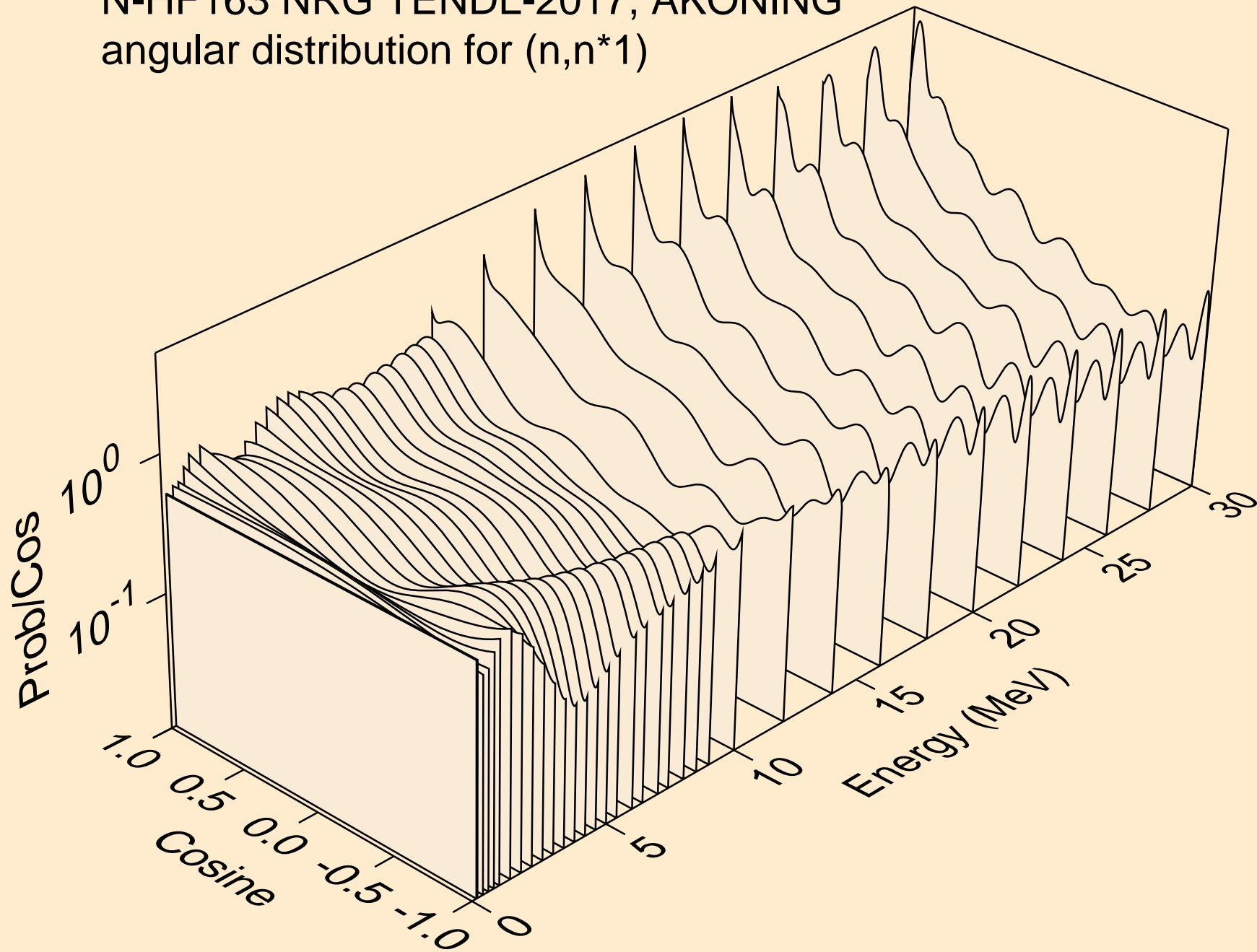
N-HF163 NRG TENDL-2017, AKONING  
angular distribution for elastic



N-HF163 NRG TENDL-2017, AKONING  
angular distribution for elastic

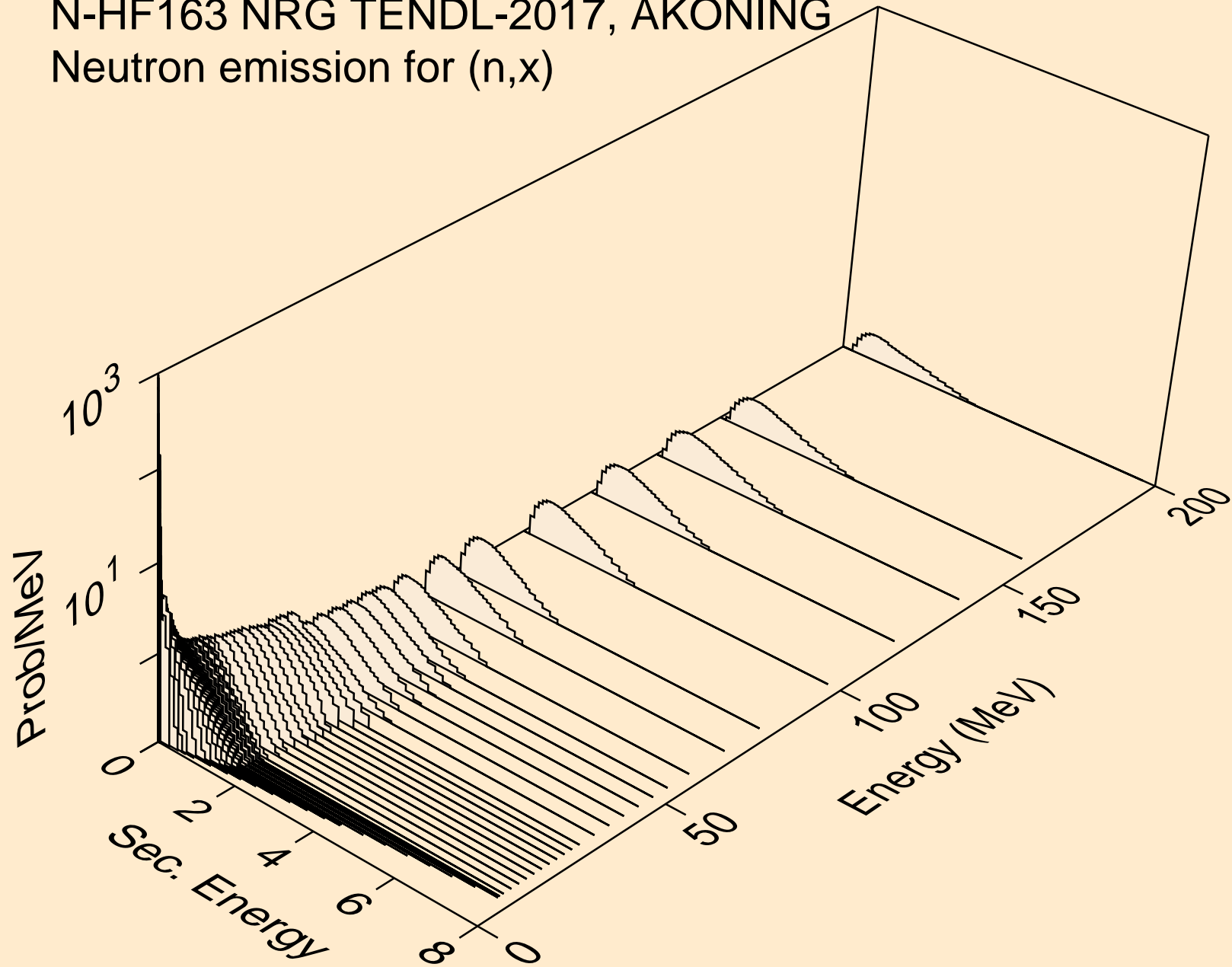


N-HF163 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*1)

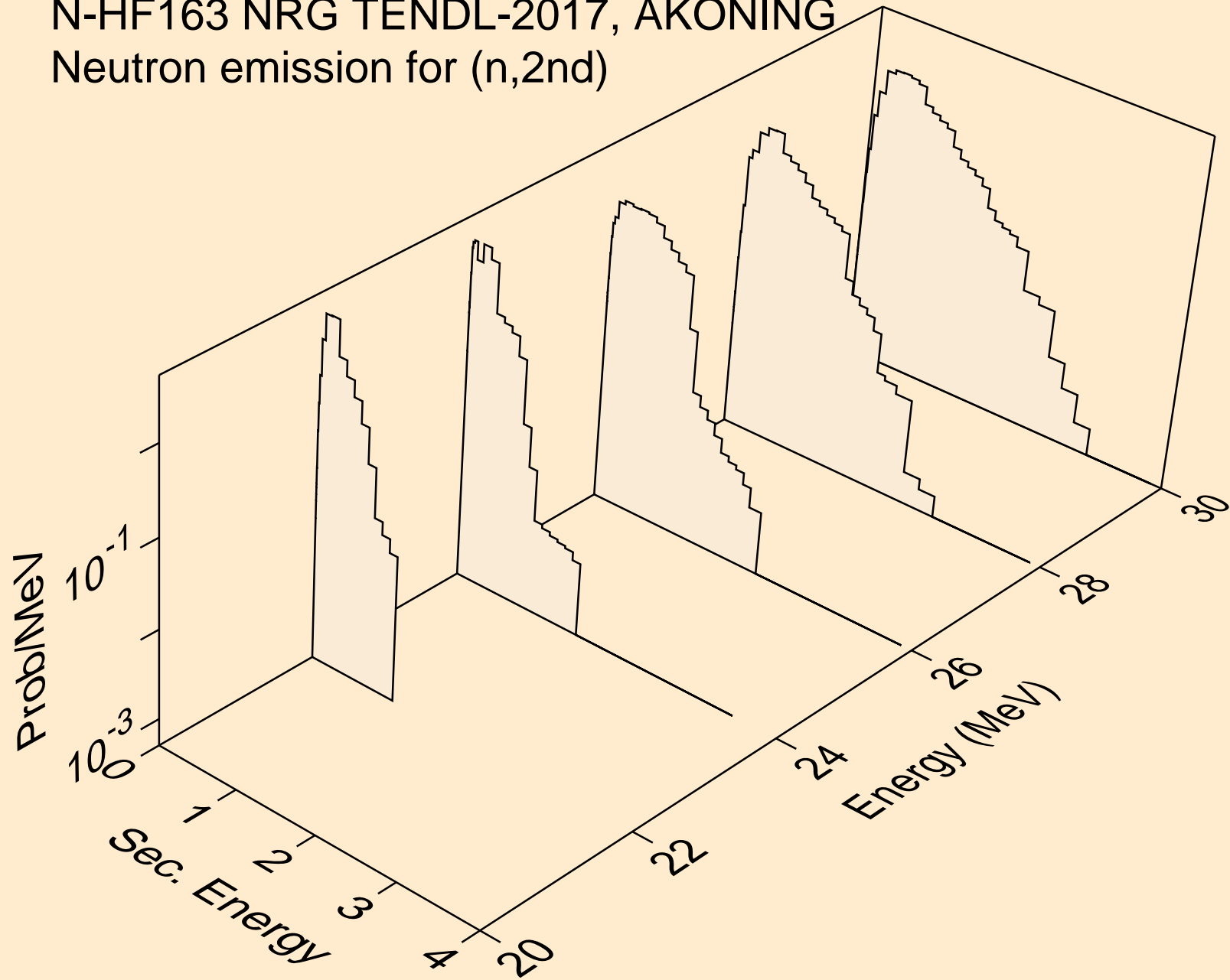




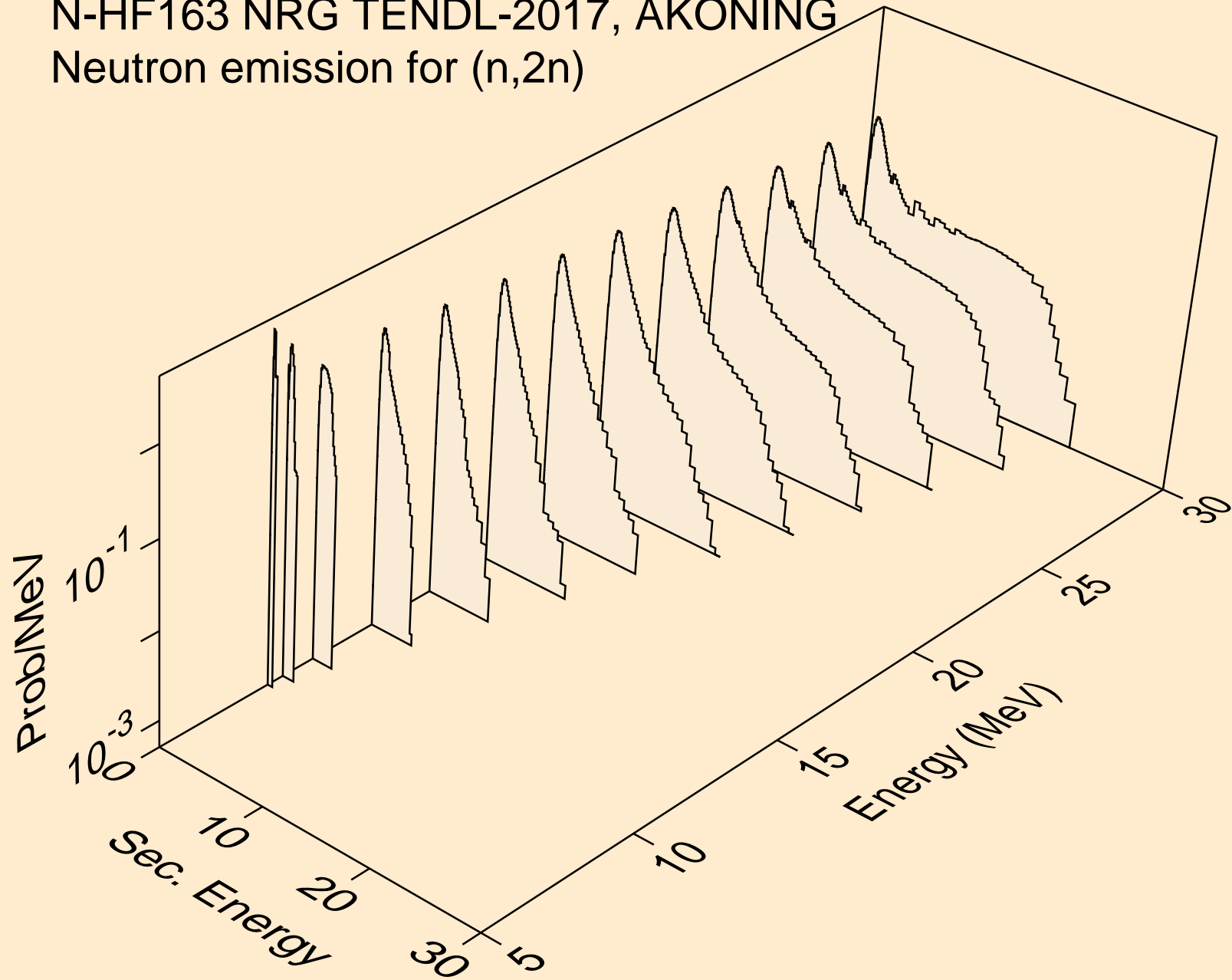
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,x)



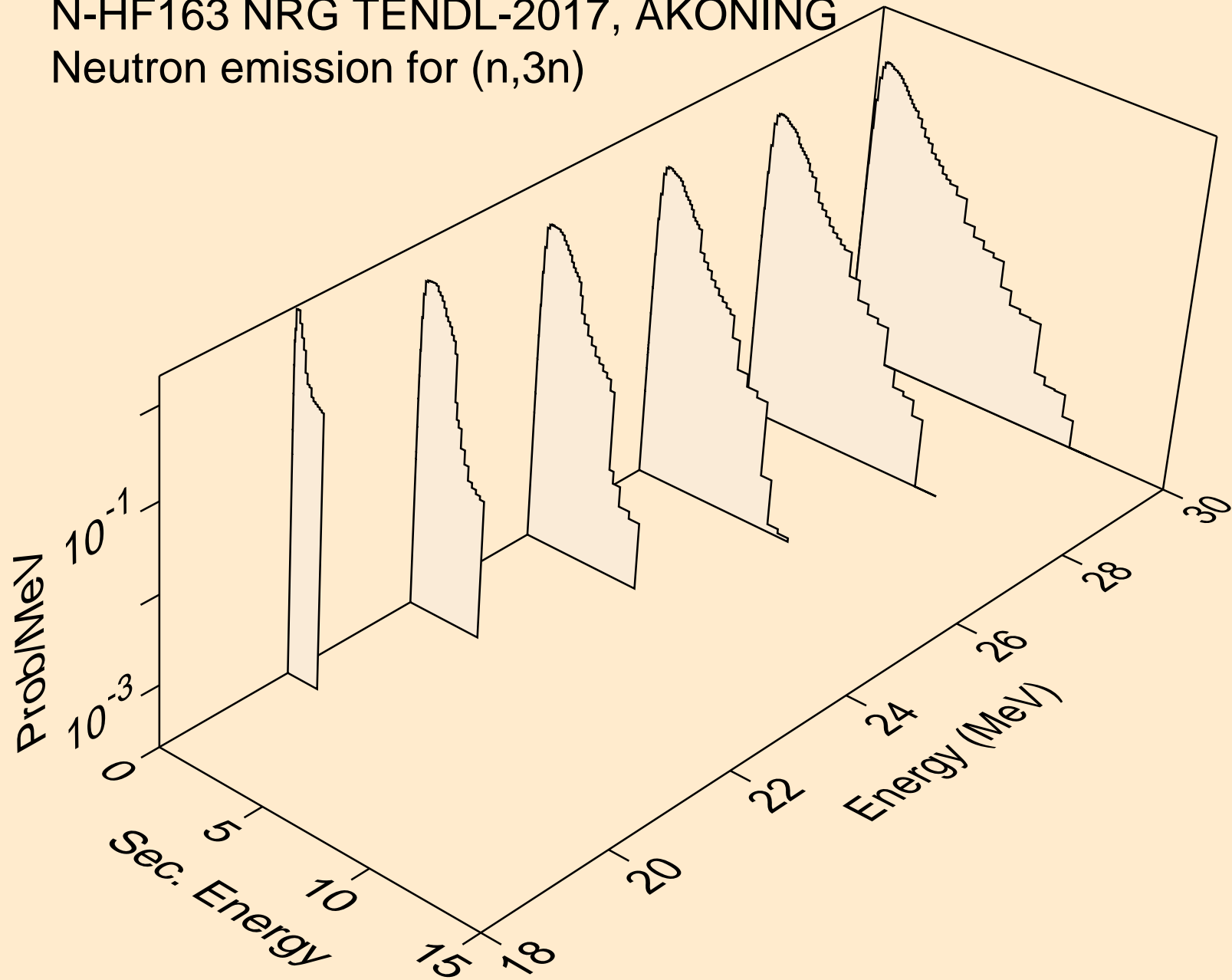
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,2nd)



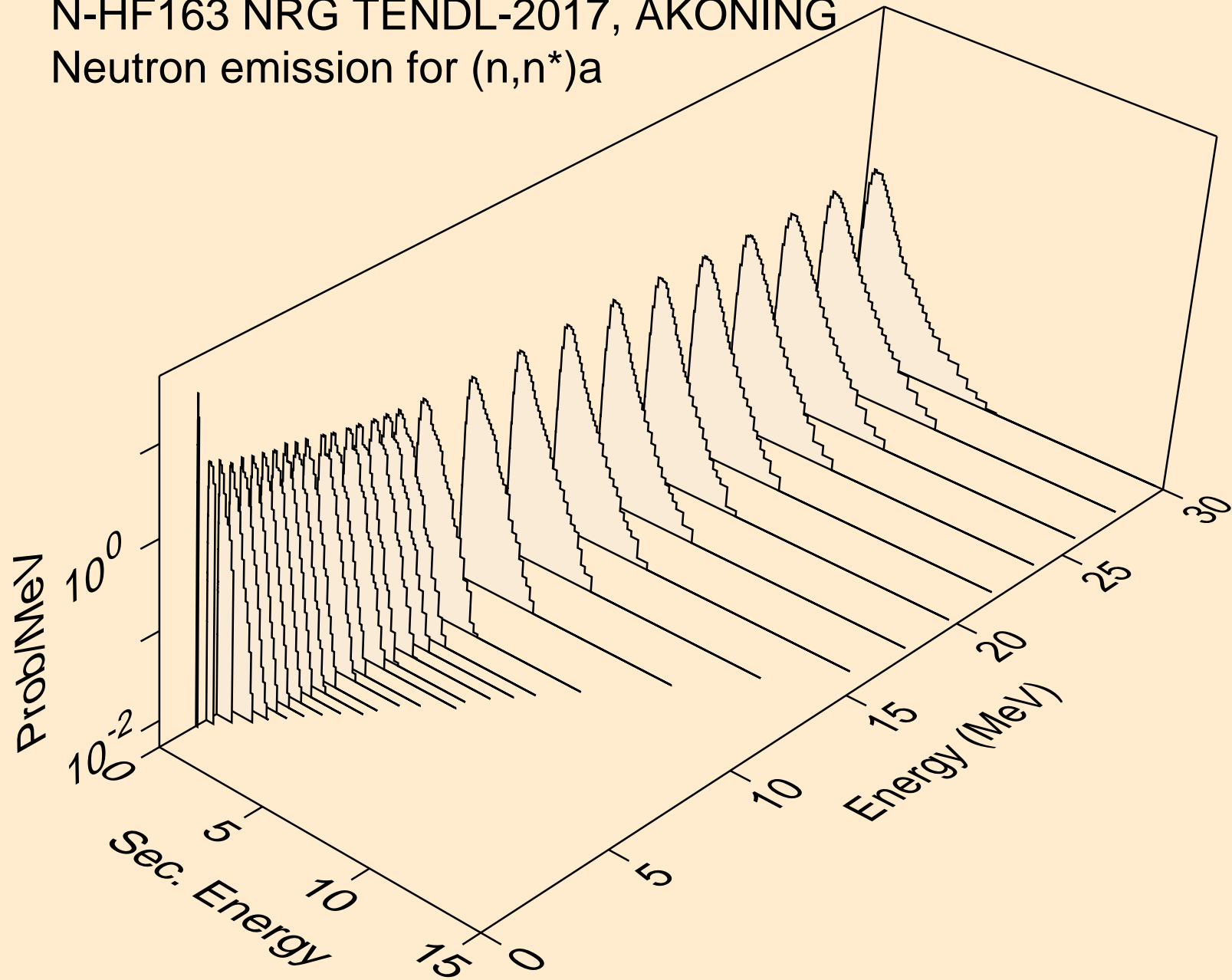
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,2n)



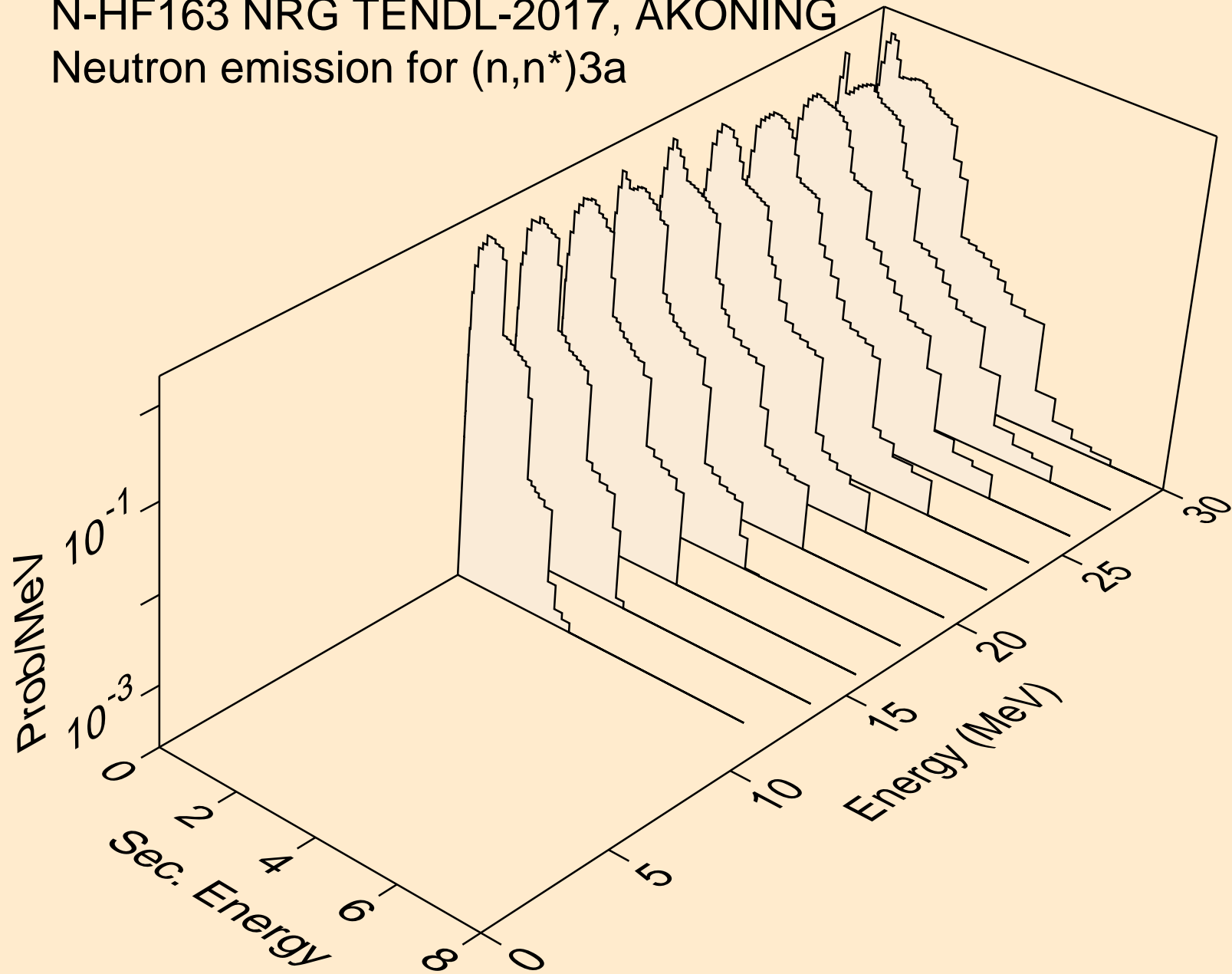
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,3n)



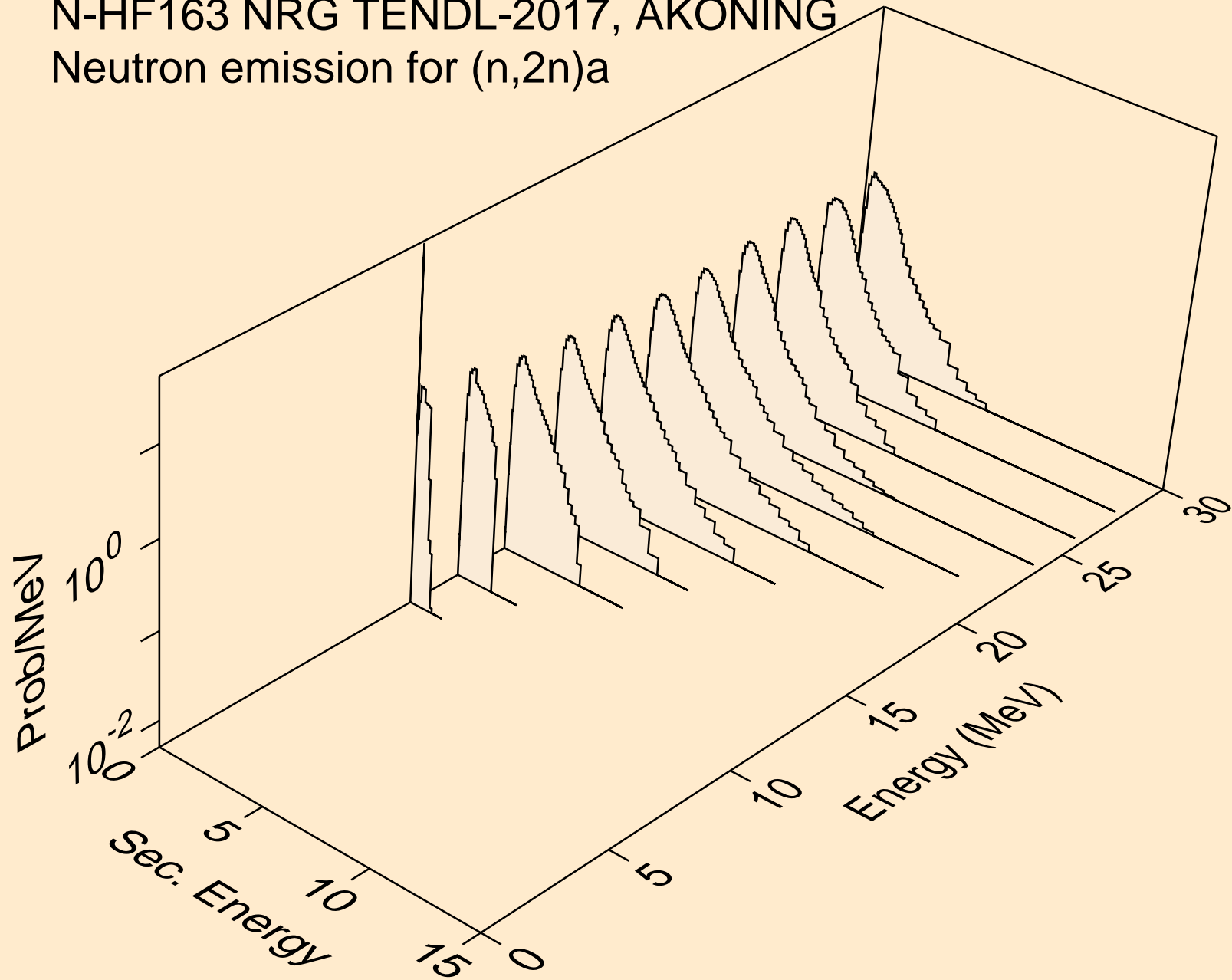
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)a



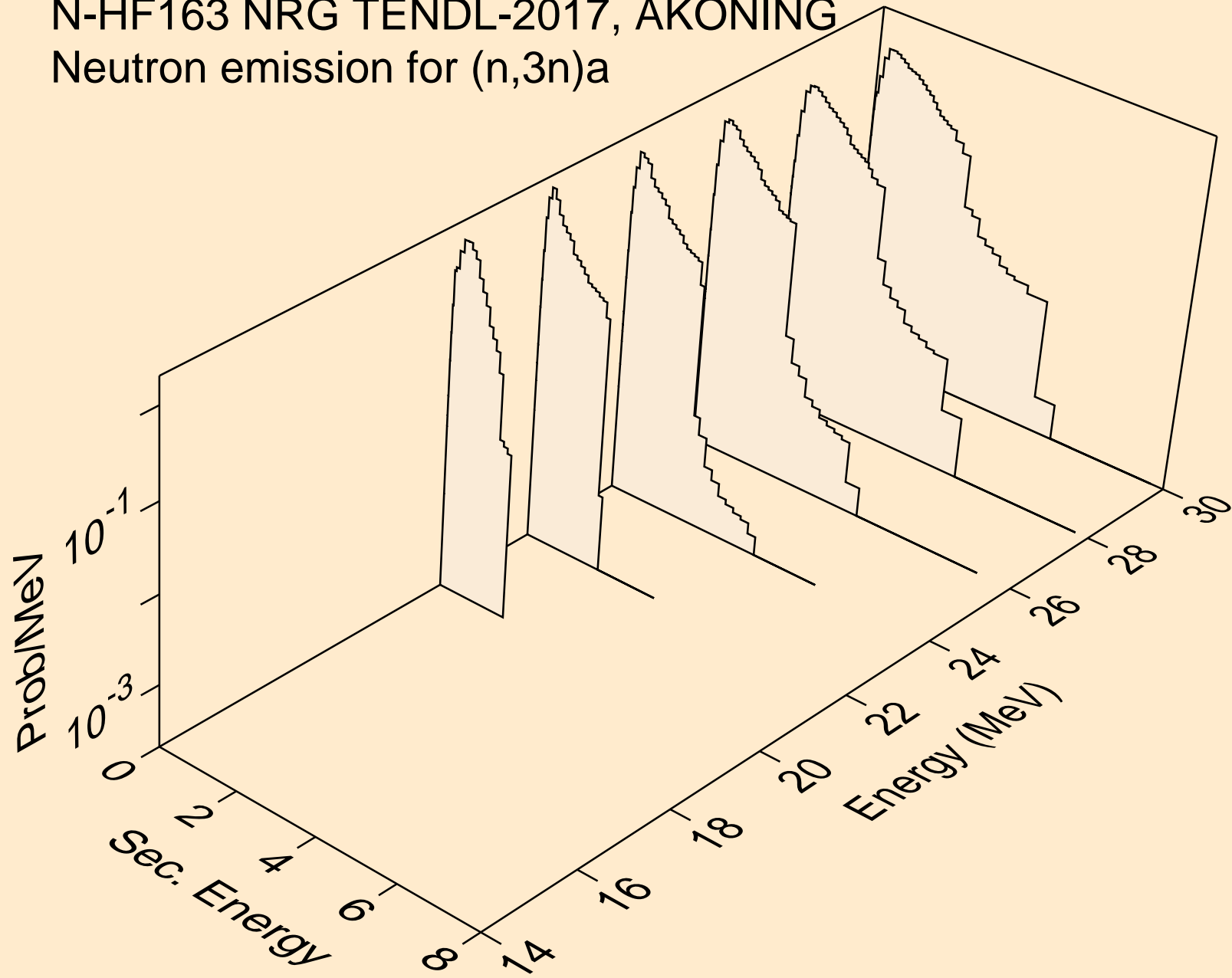
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)3a



N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,2n)<sub>a</sub>

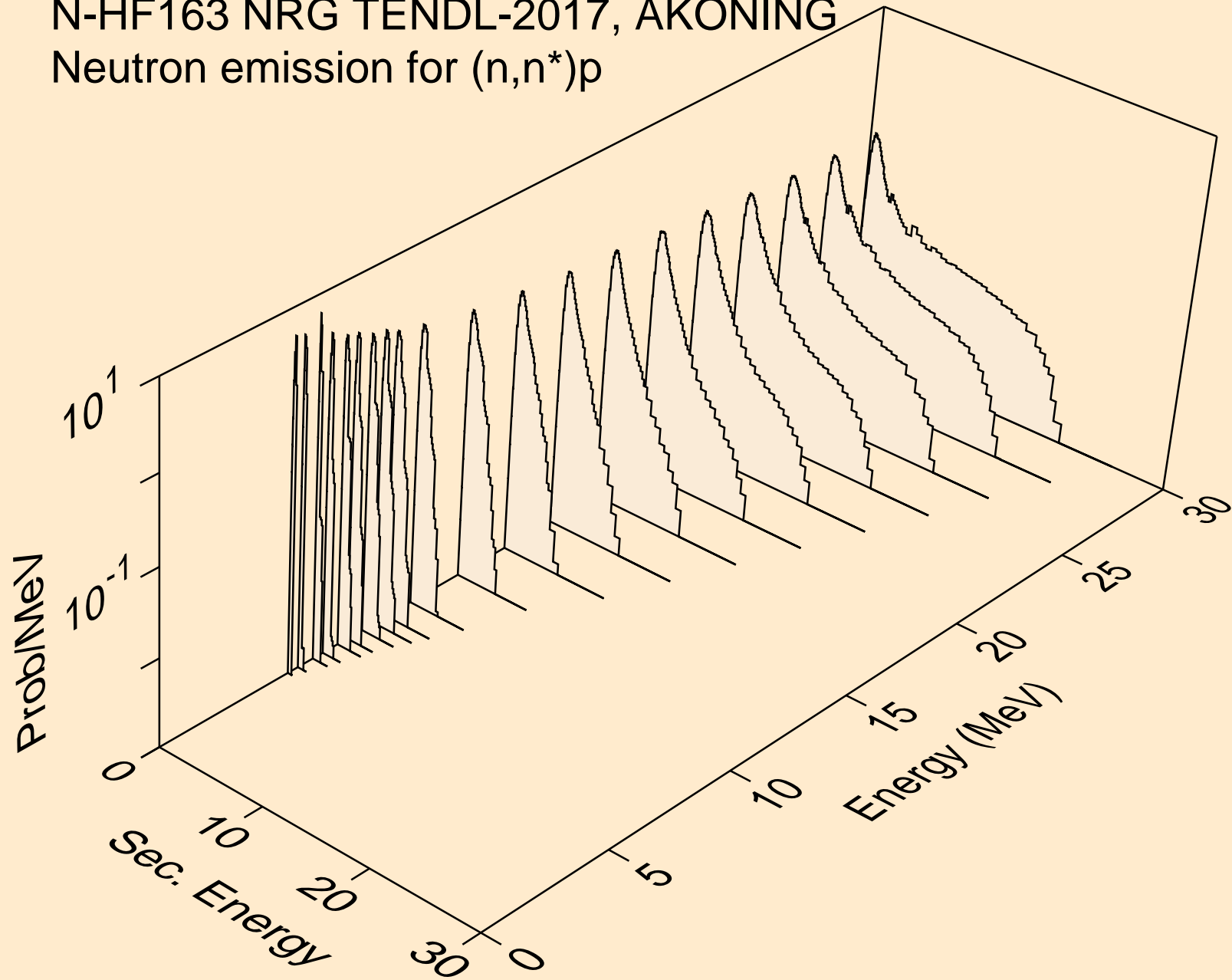


N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,3n)a

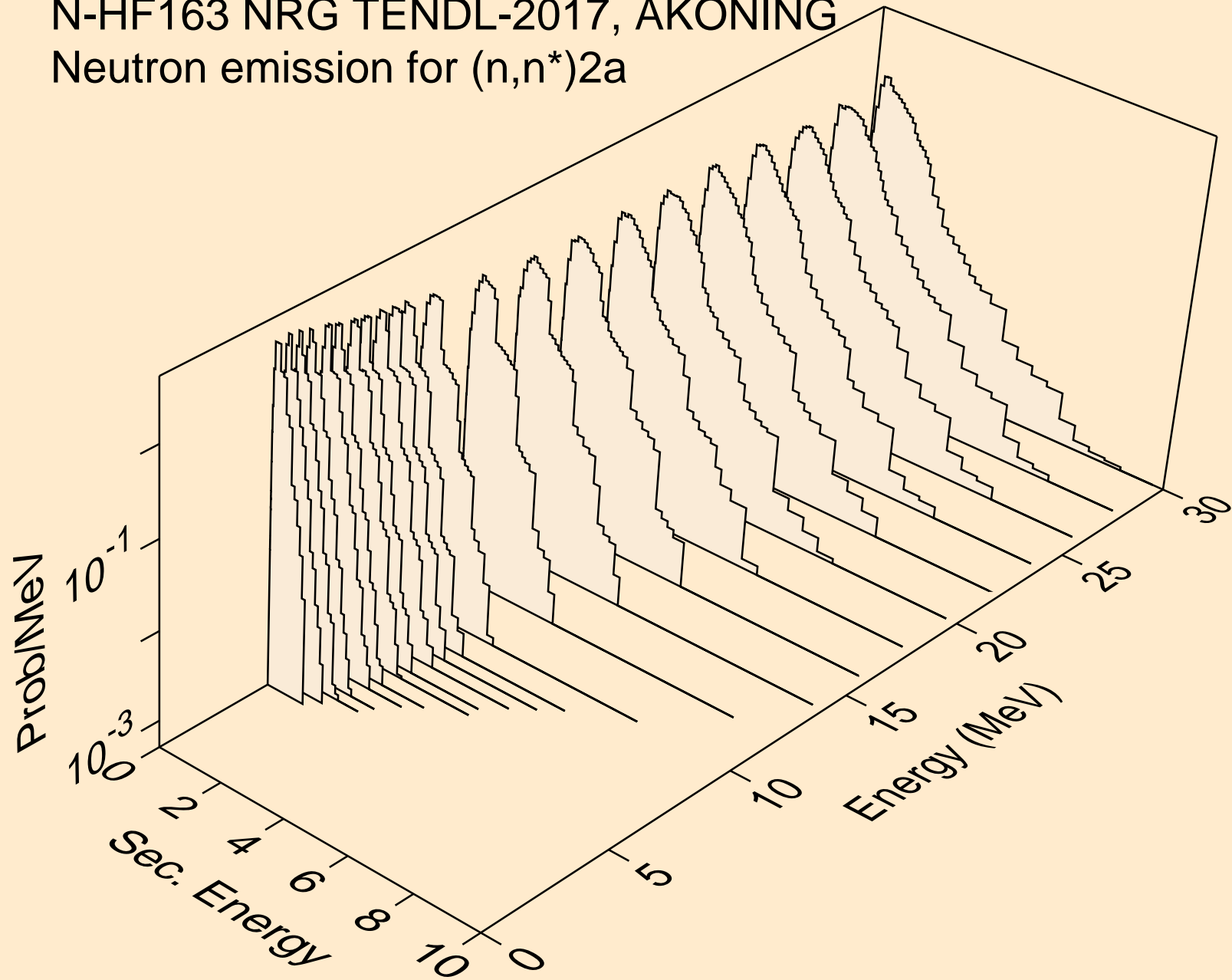




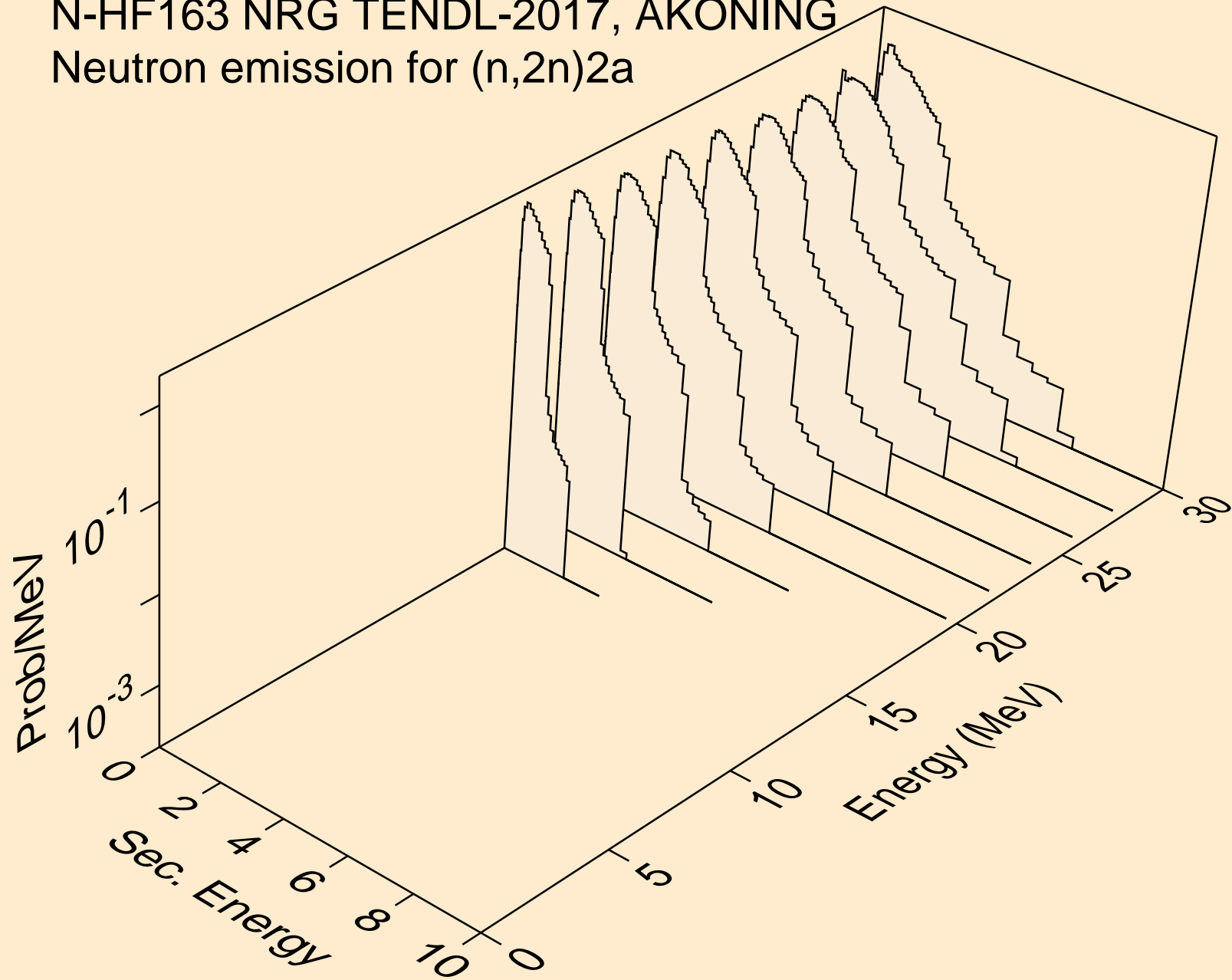
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)p



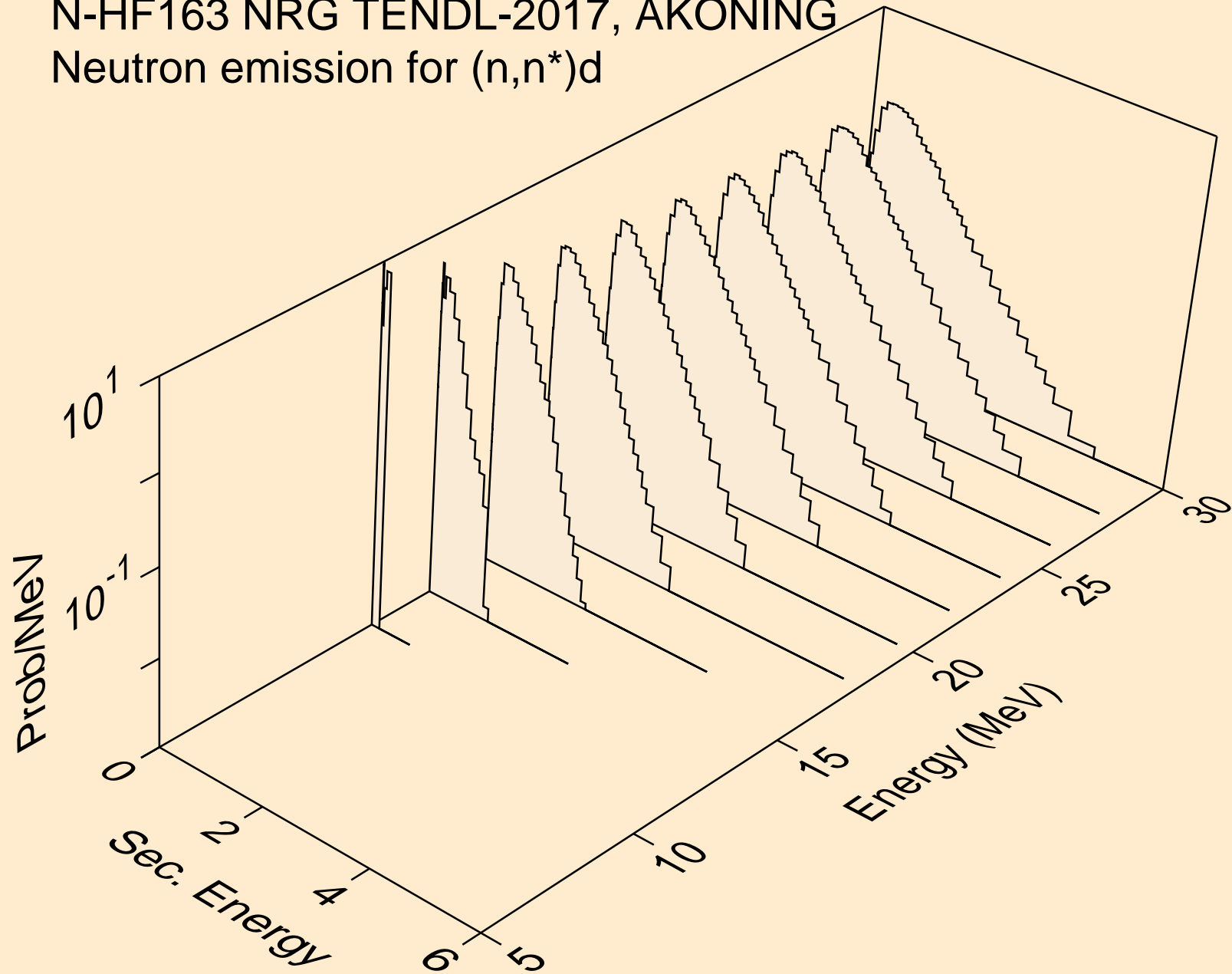
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)2a



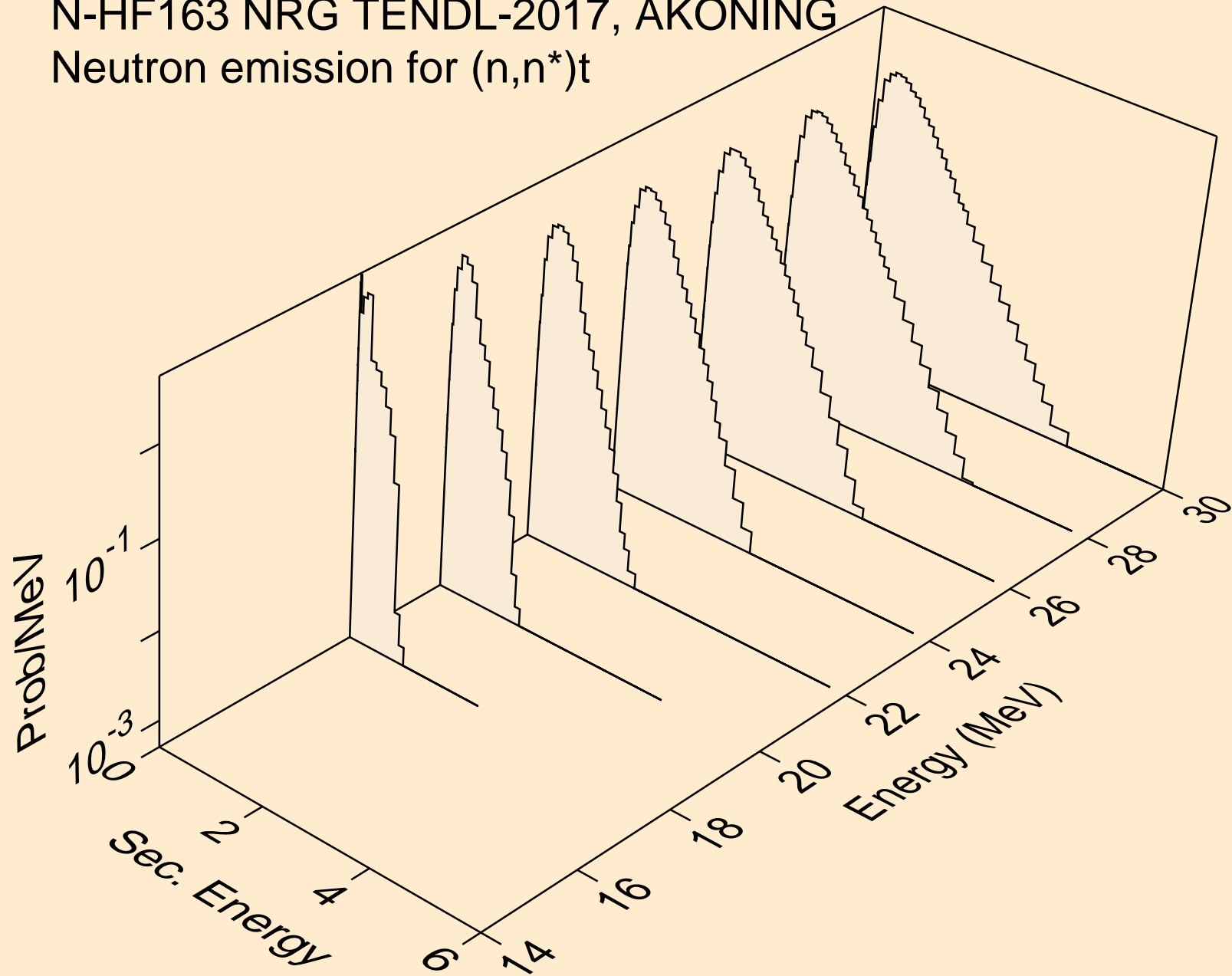
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,2n)2a



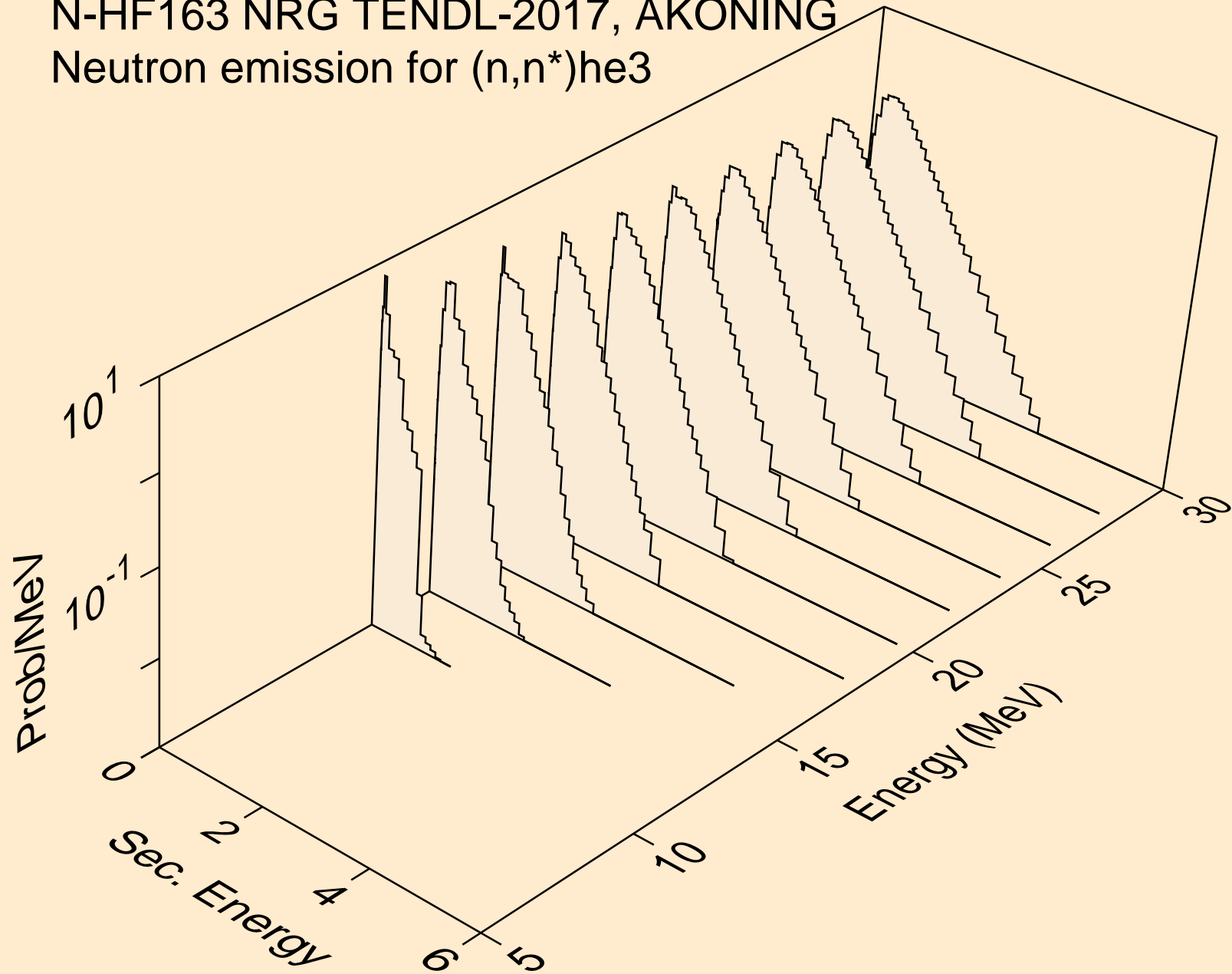
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)d



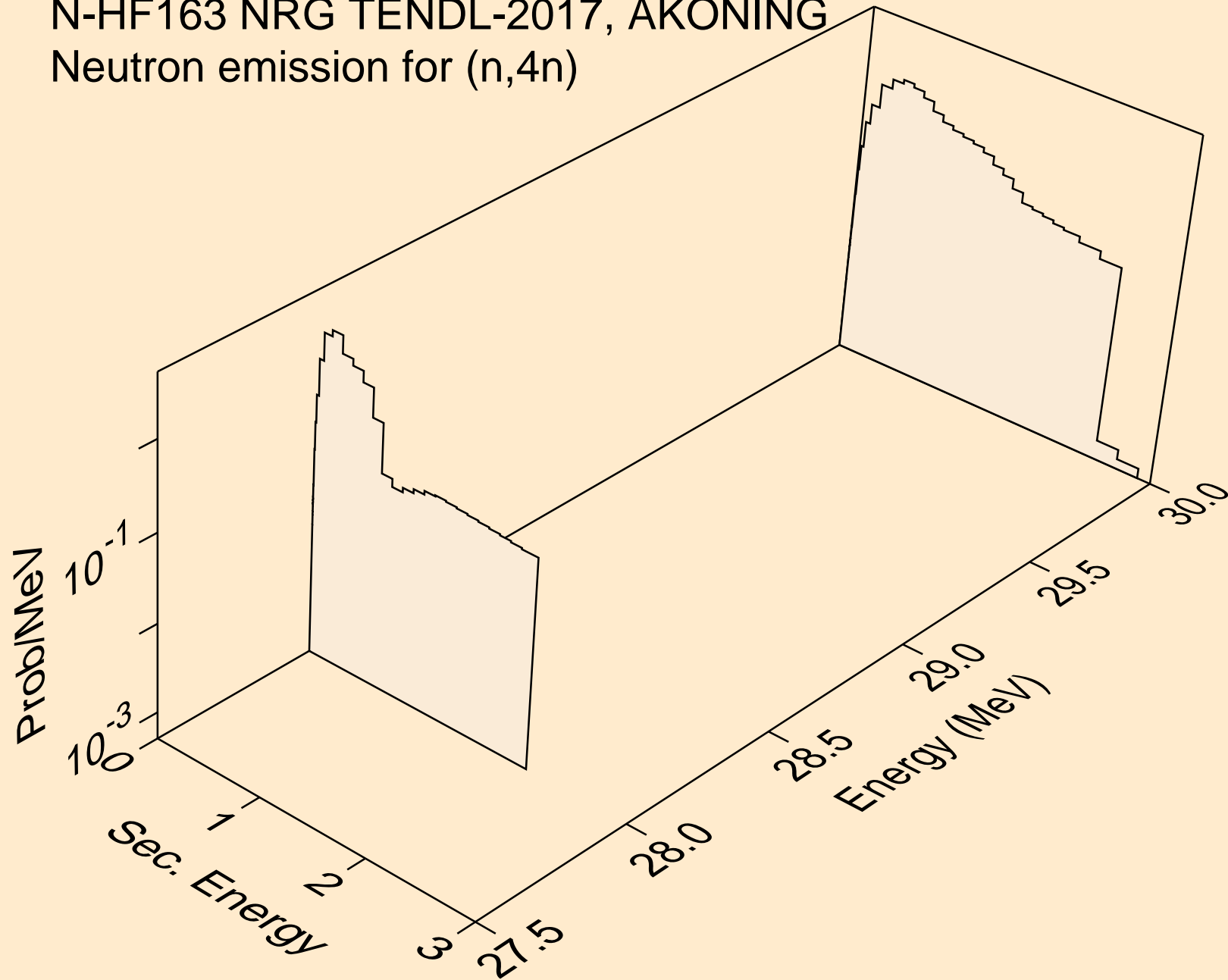
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)t



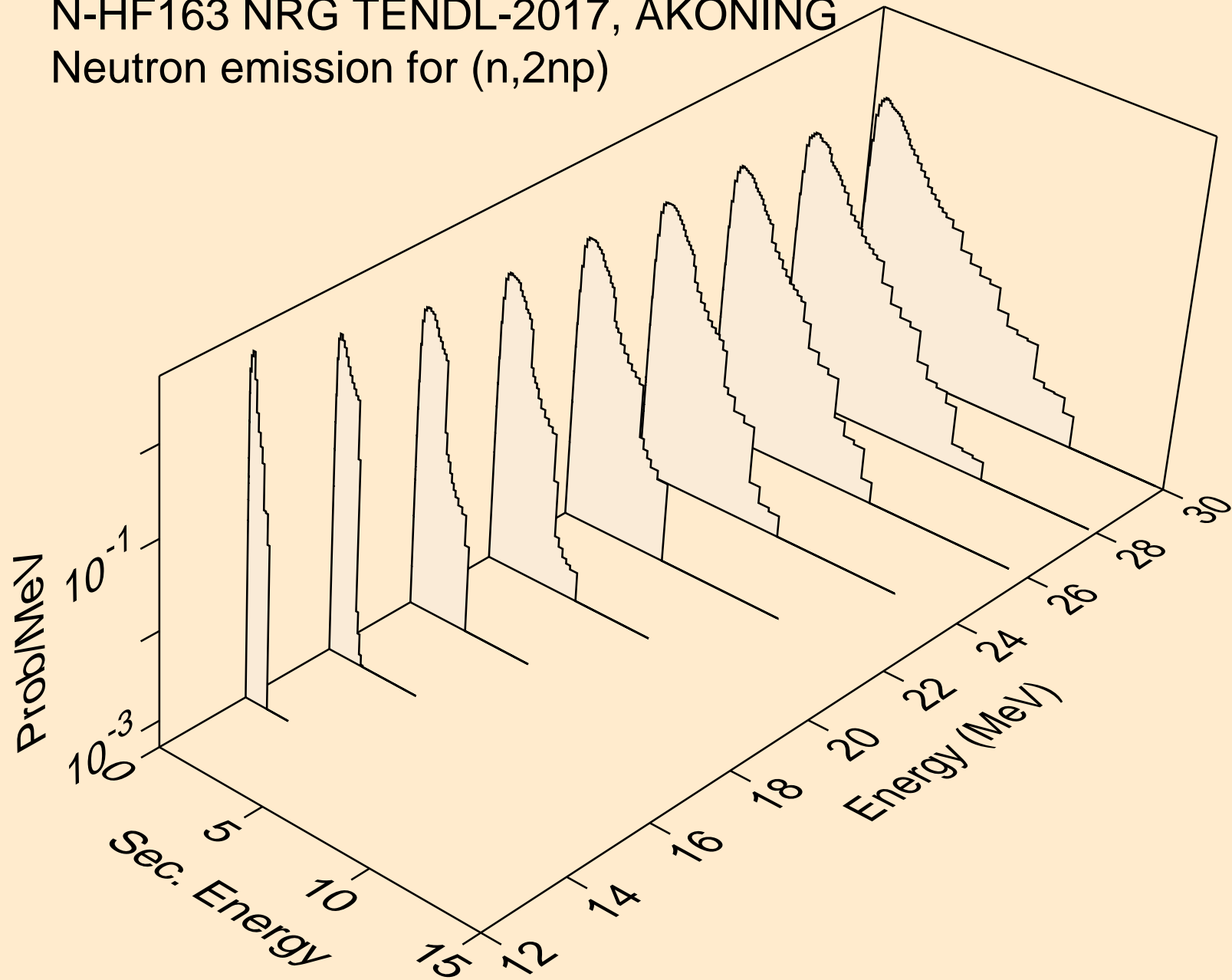
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*)he3



N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,4n)

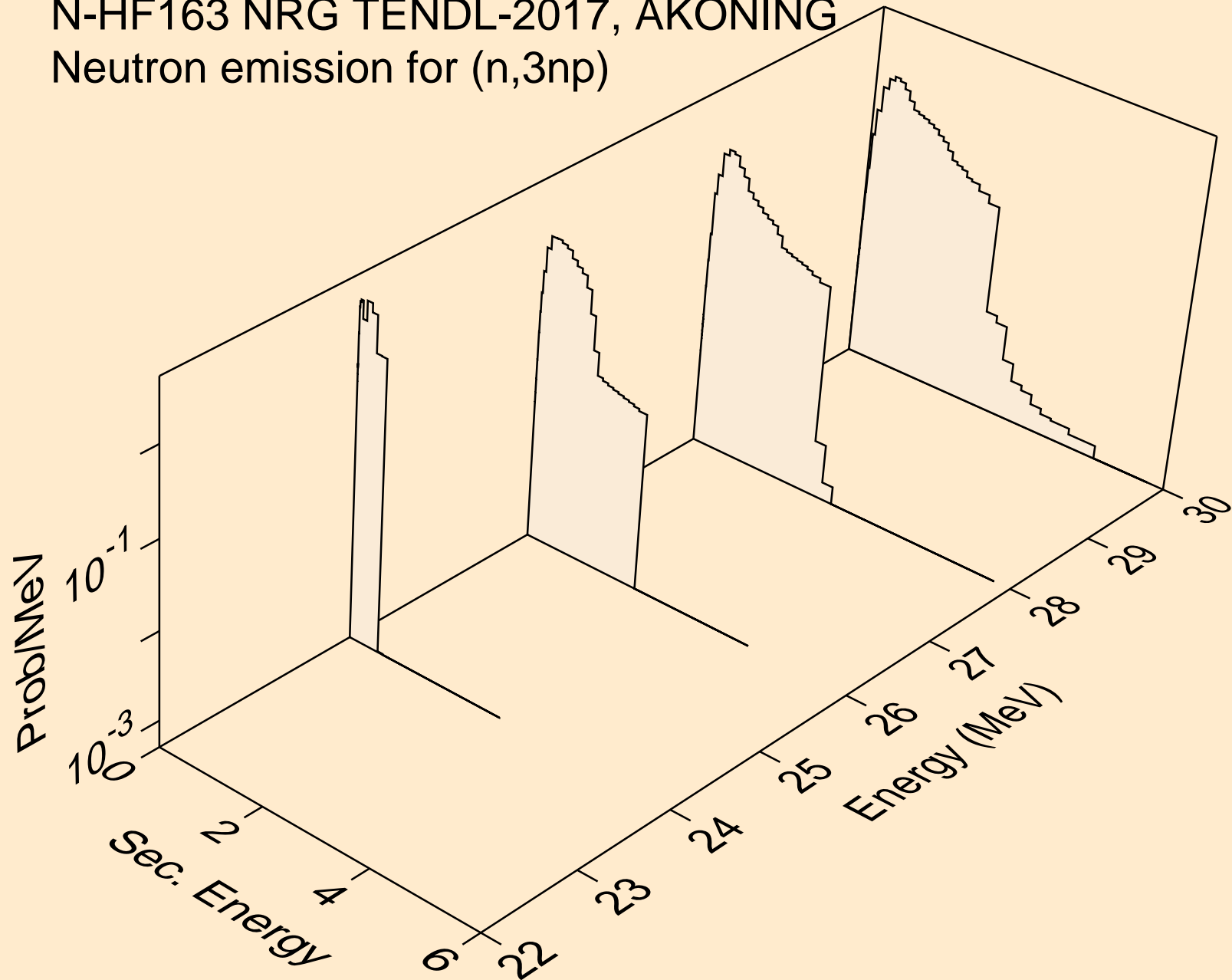


N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,2np)

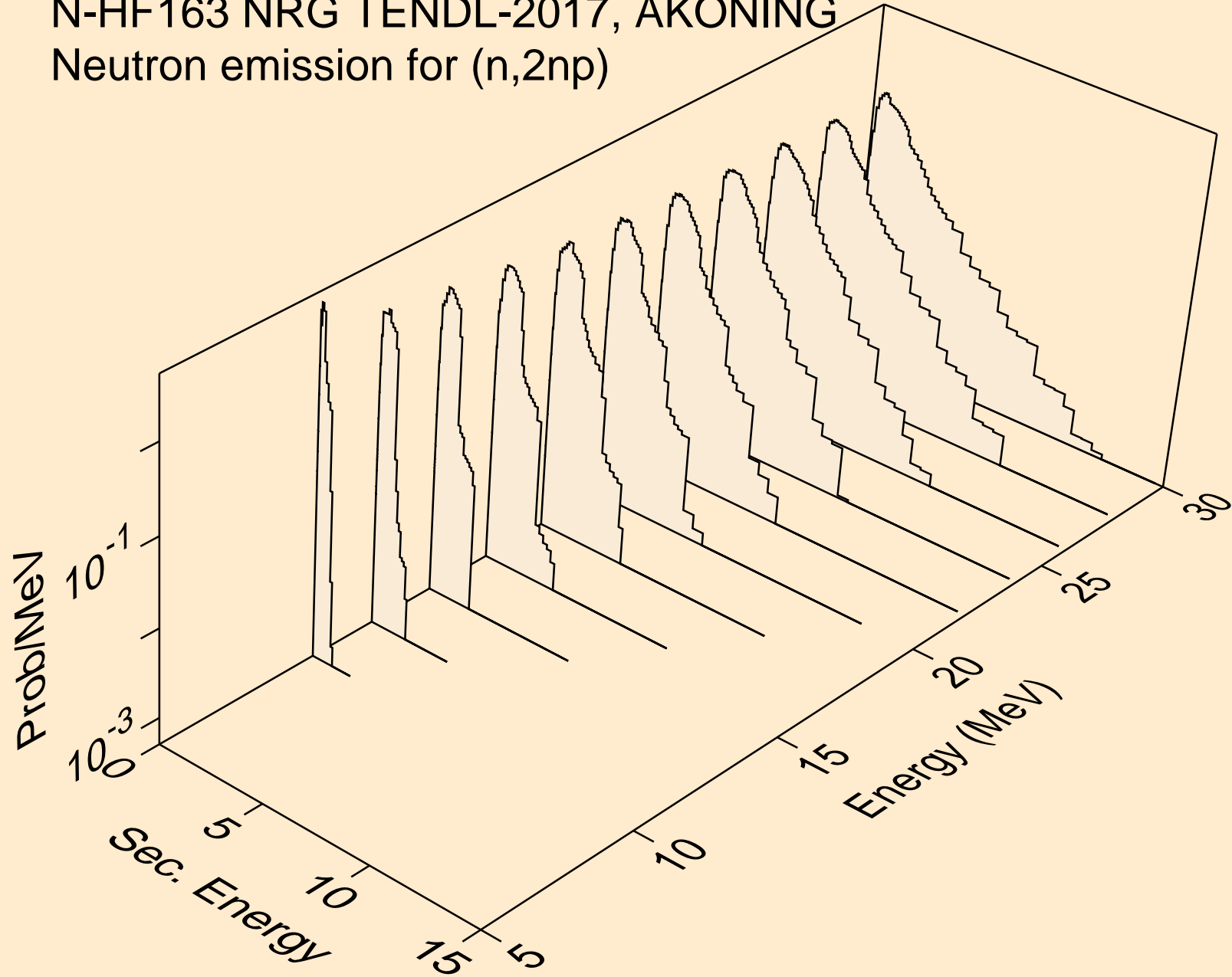




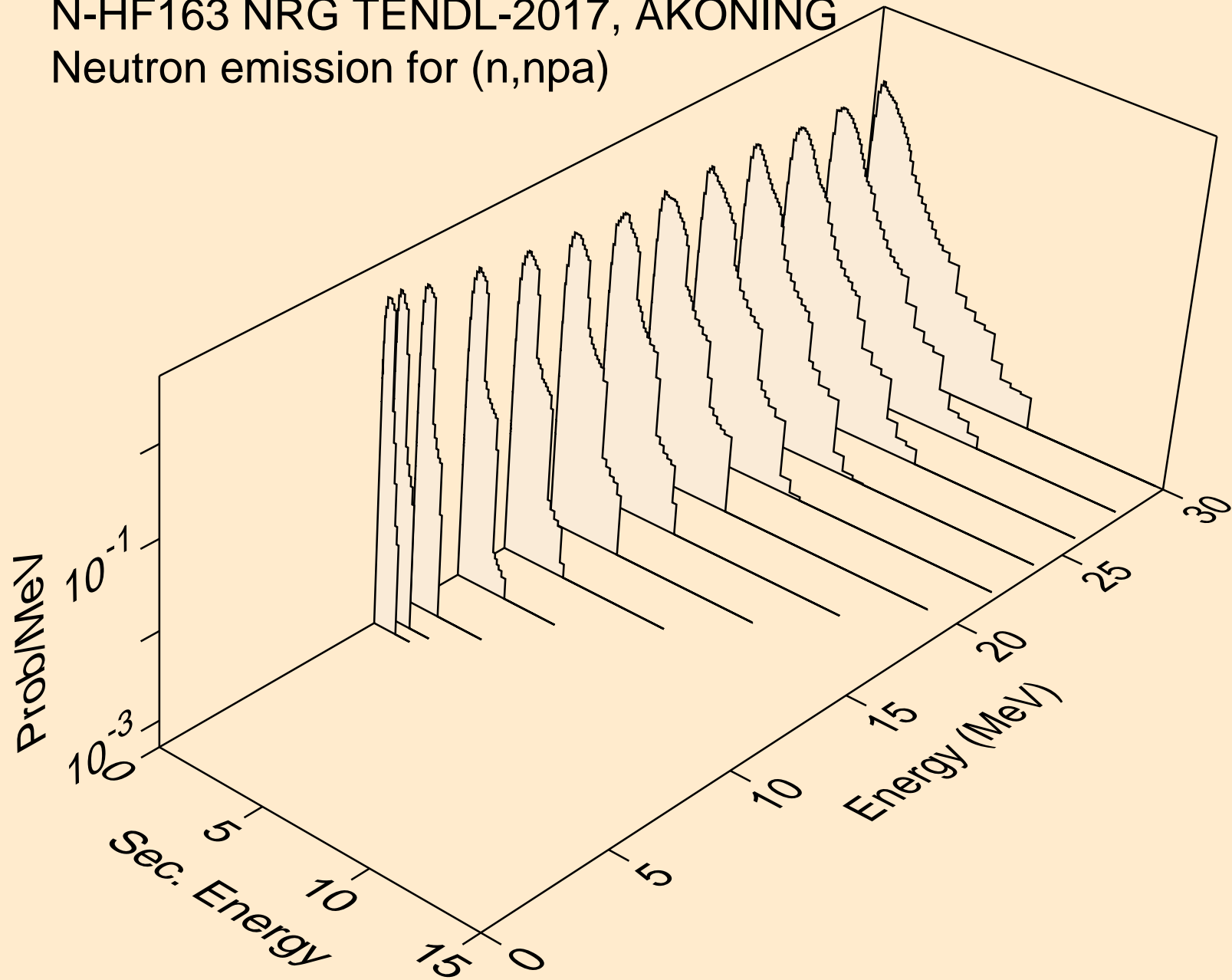
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Neutron emission for (n,3np)



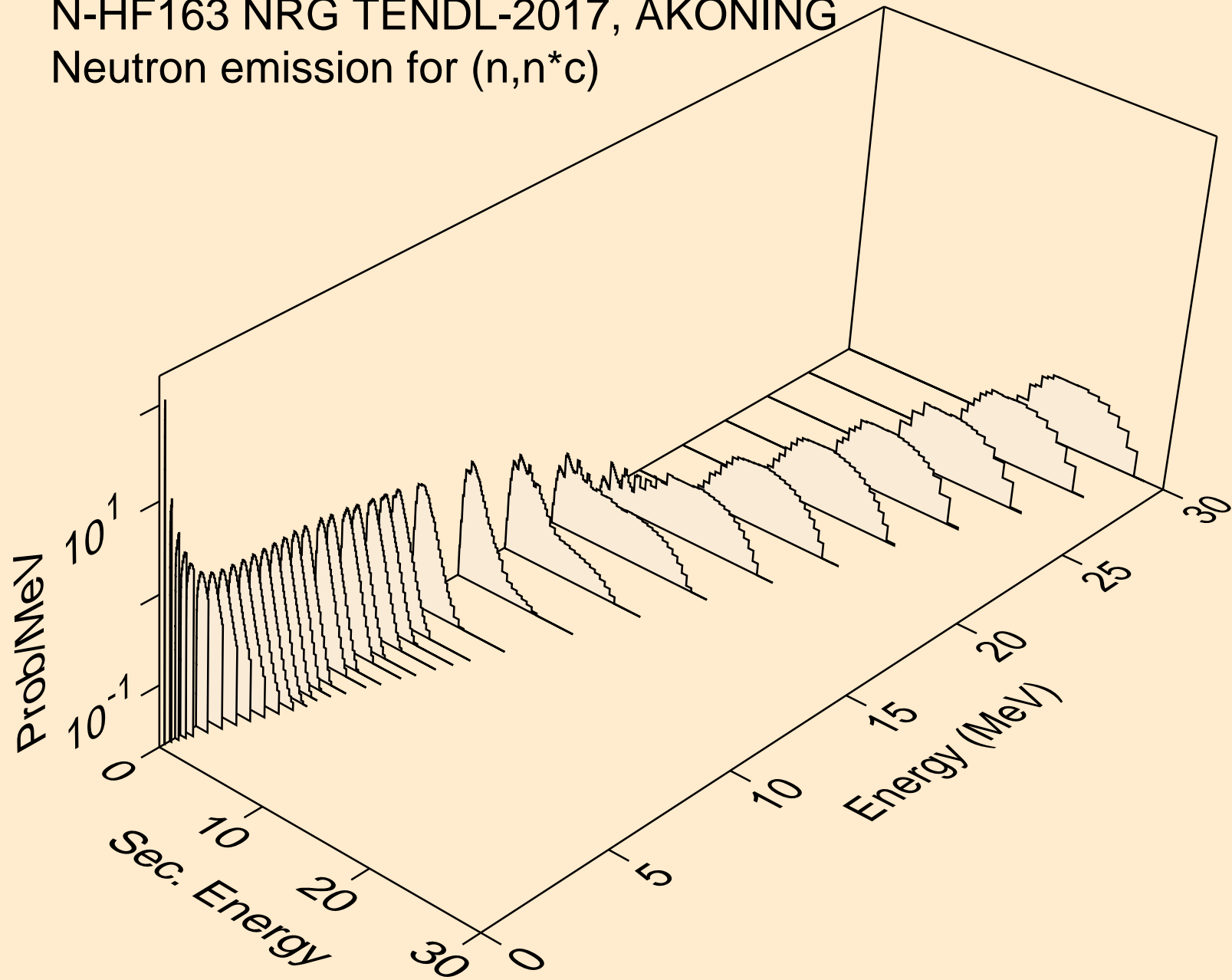
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Neutron emission for (n,2np)



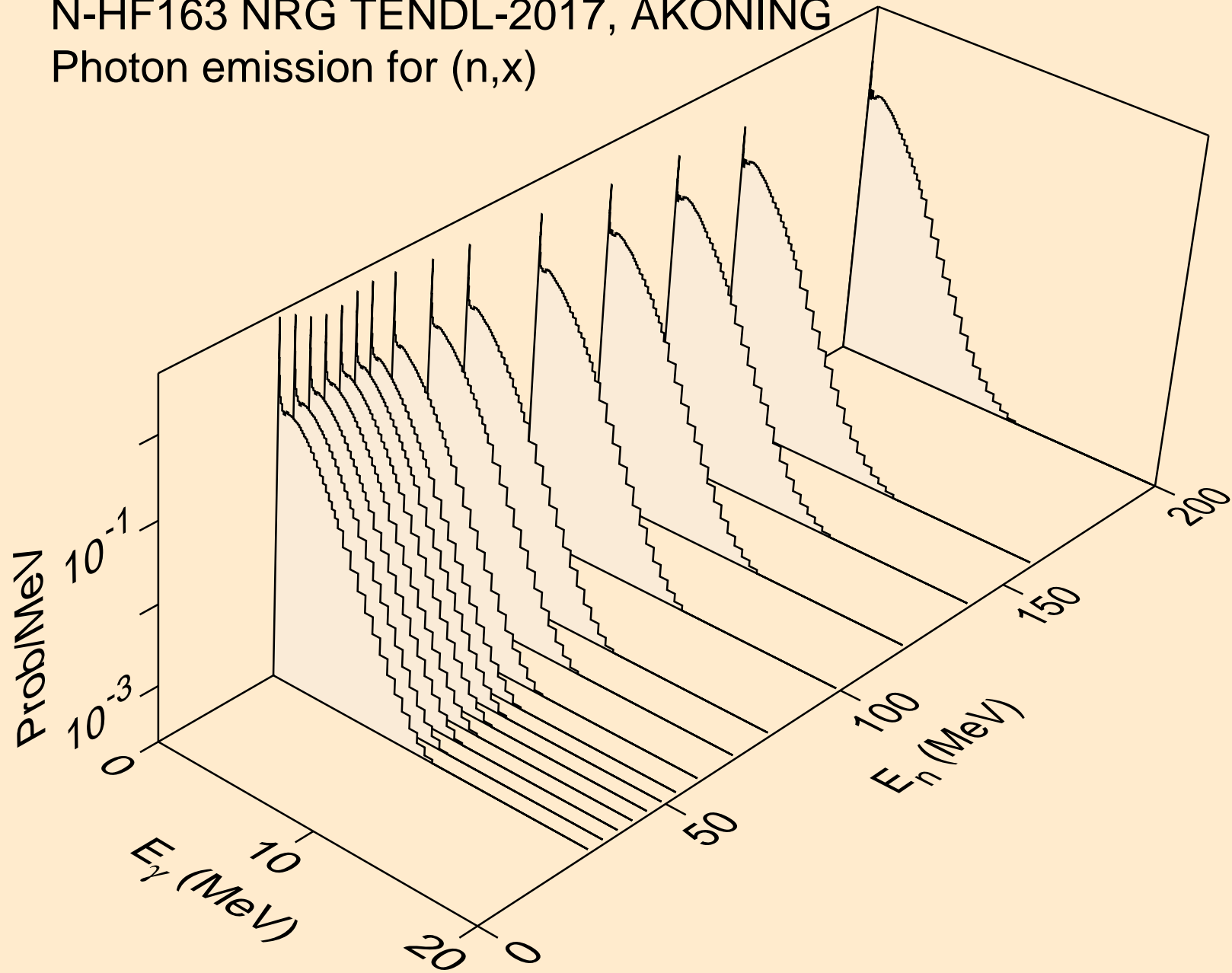
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,npa)



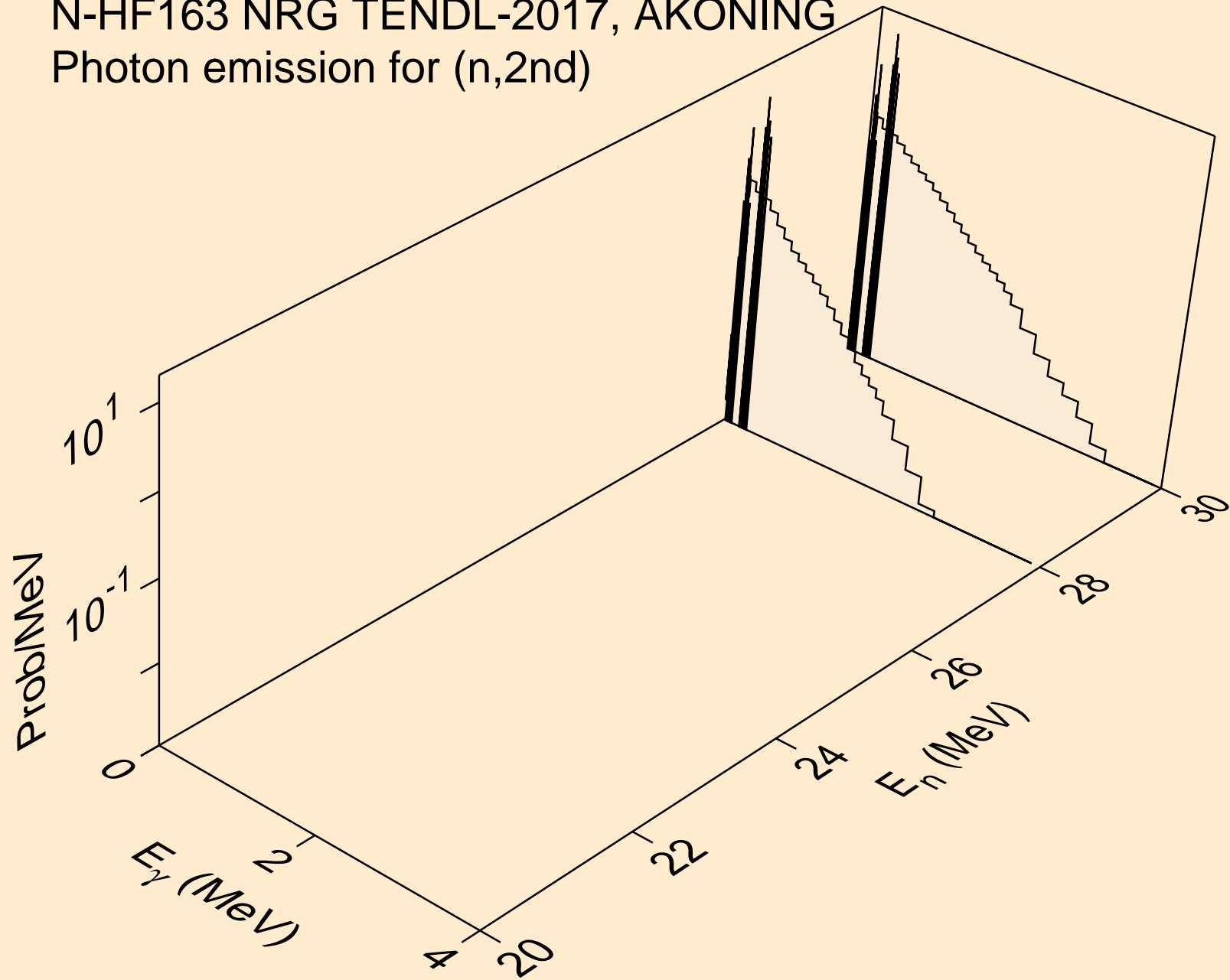
N-HF163 NRG TENDL-2017, AKONING  
Neutron emission for (n,n\*c)



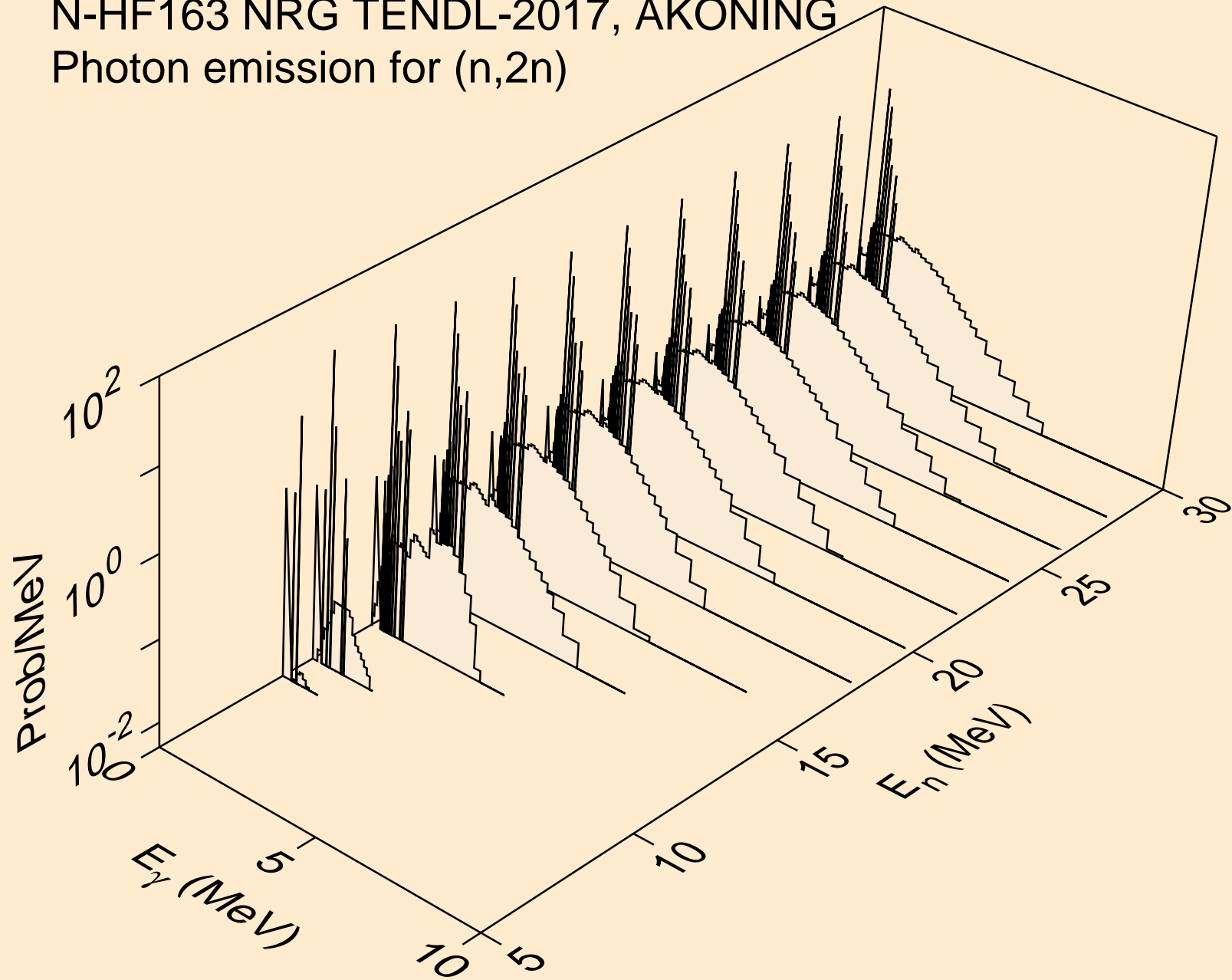
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,x)



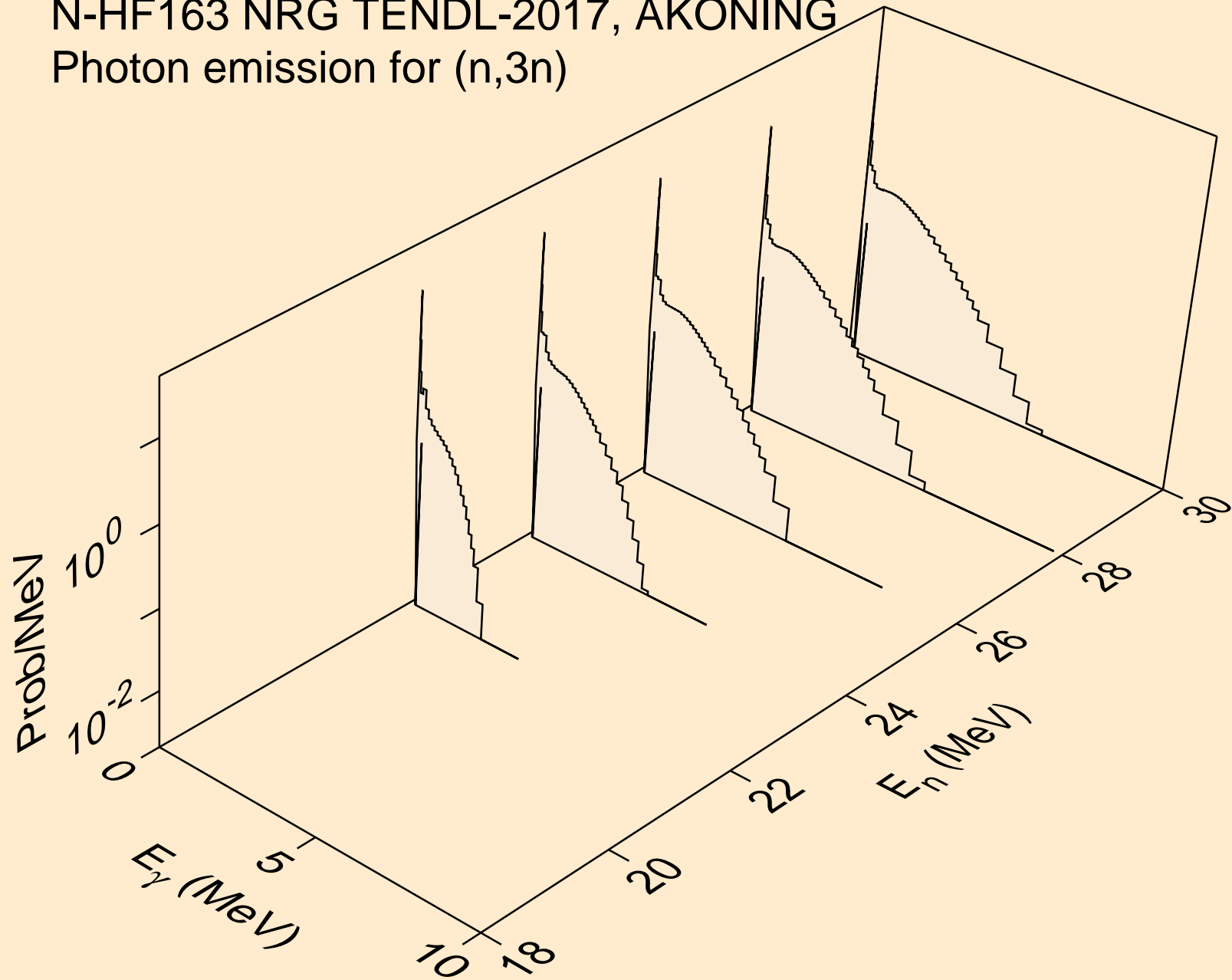
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2nd)



N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2n)

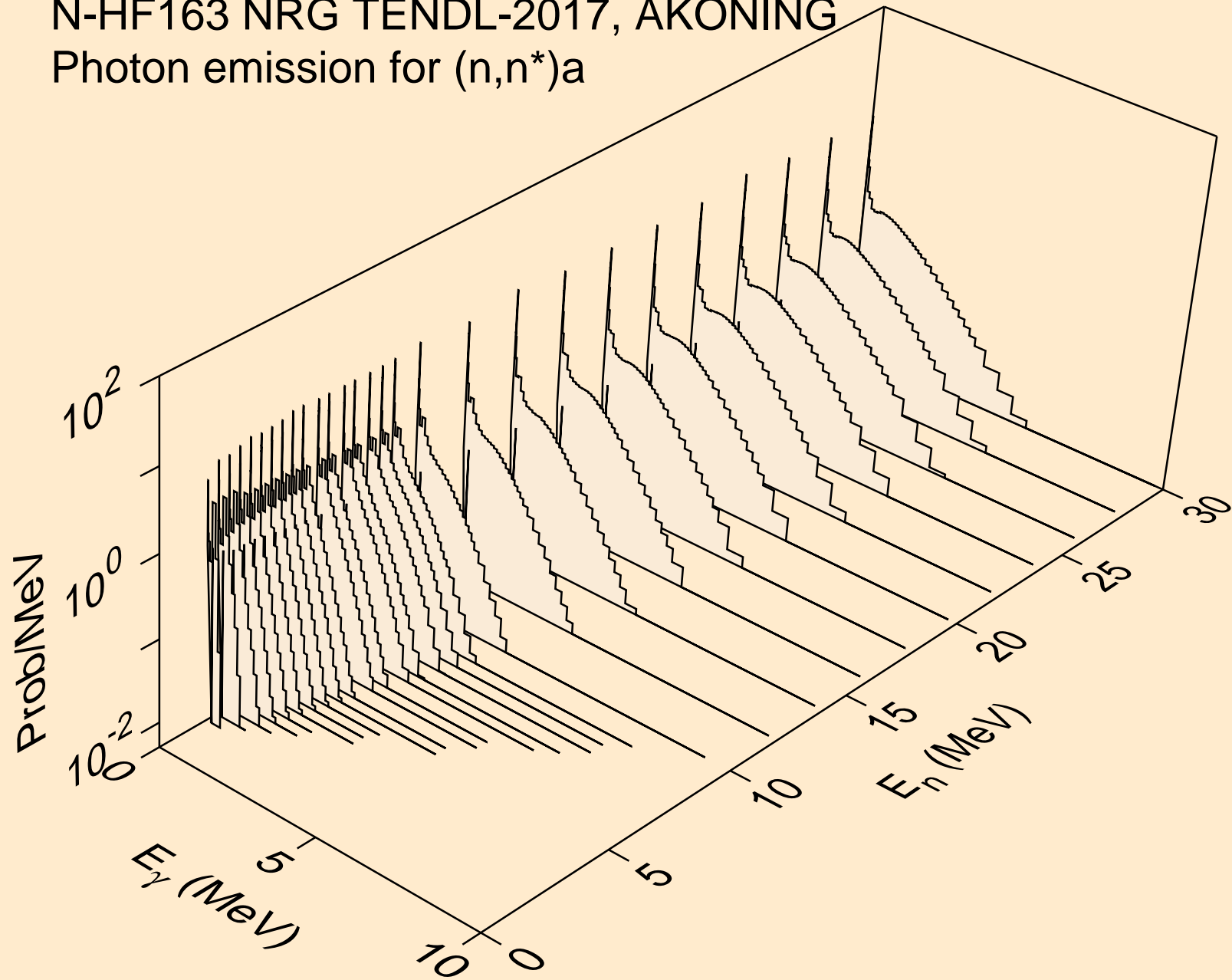


N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,3n)

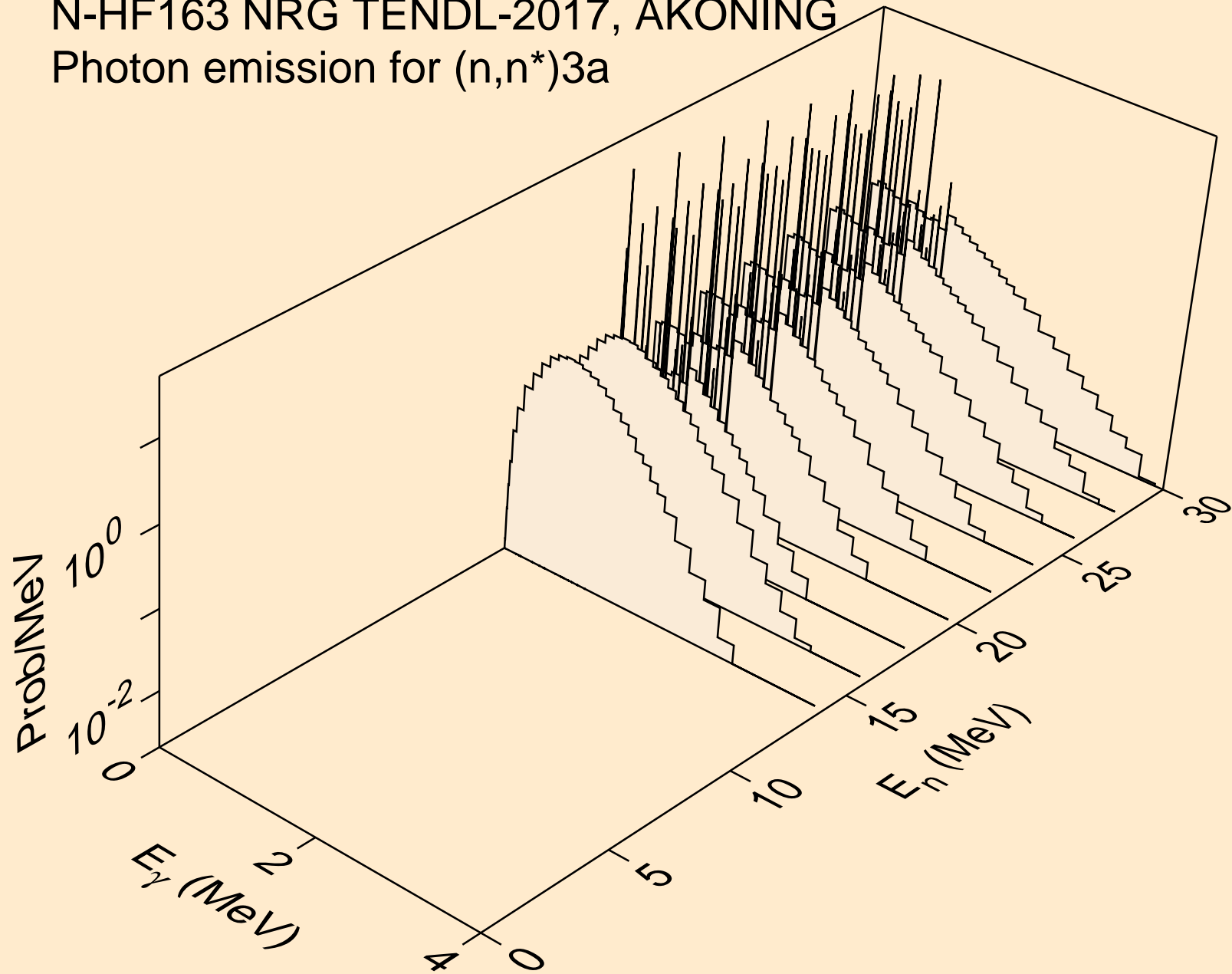




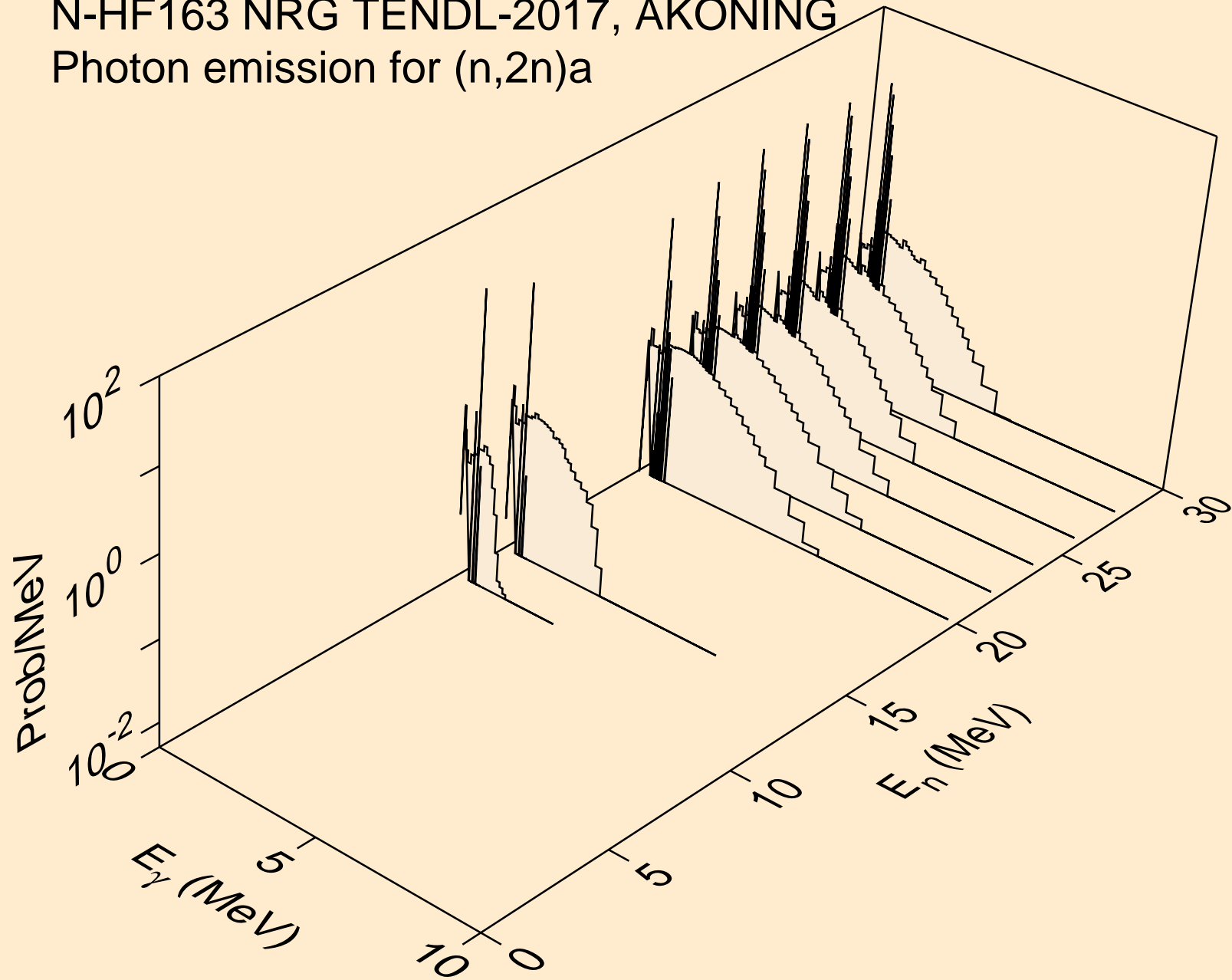
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)a



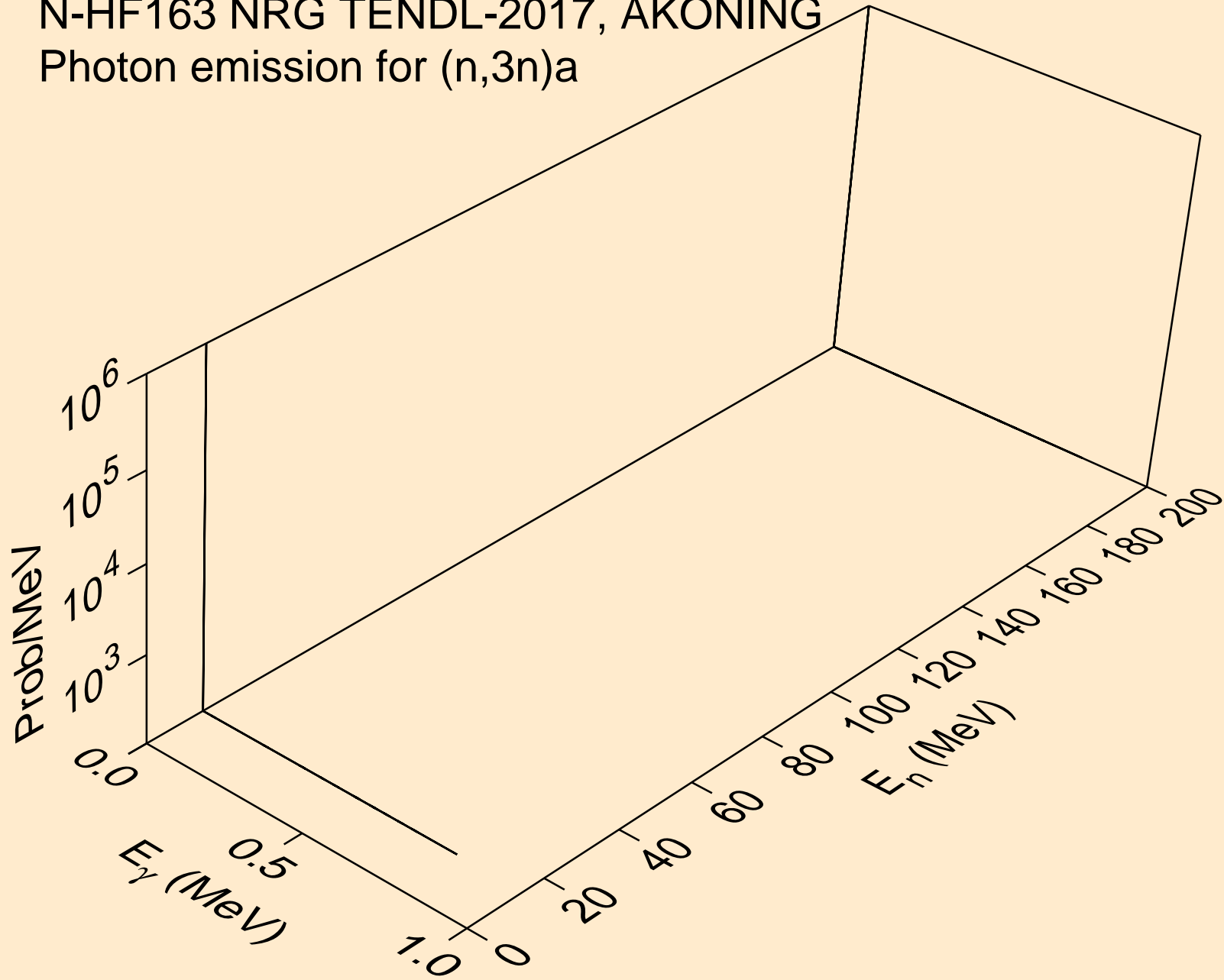
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)3a



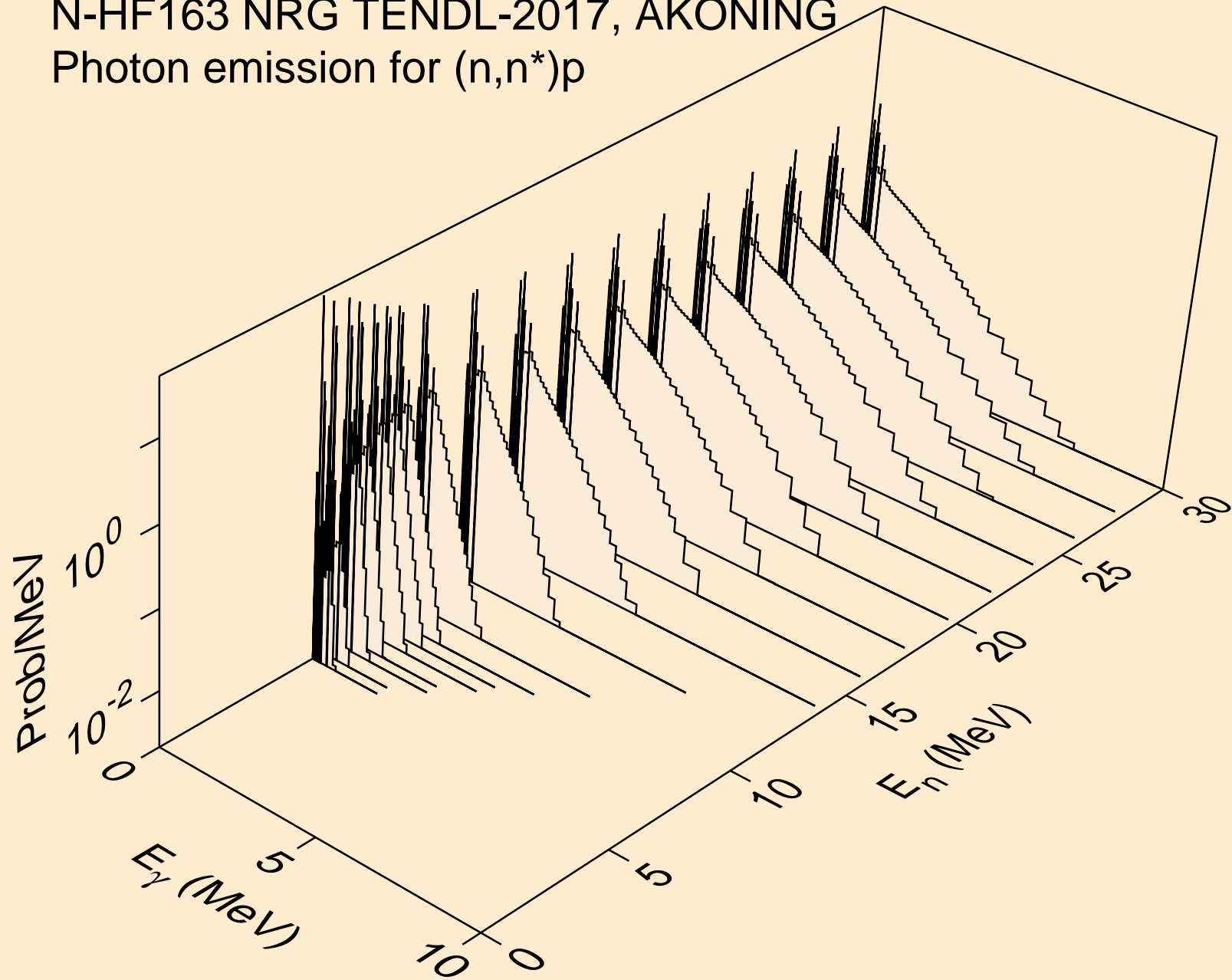
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2n)<sub>a</sub>



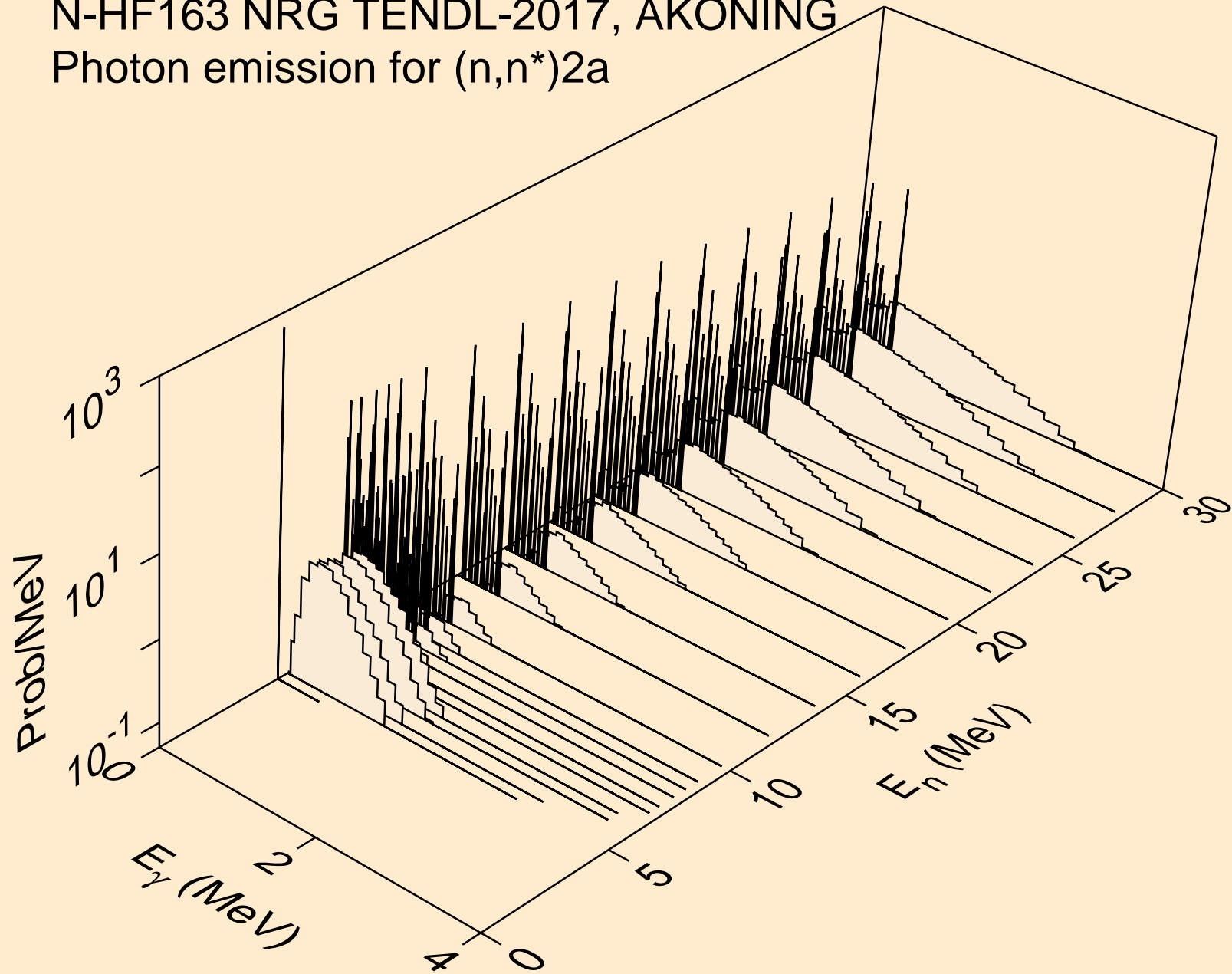
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,3n)a



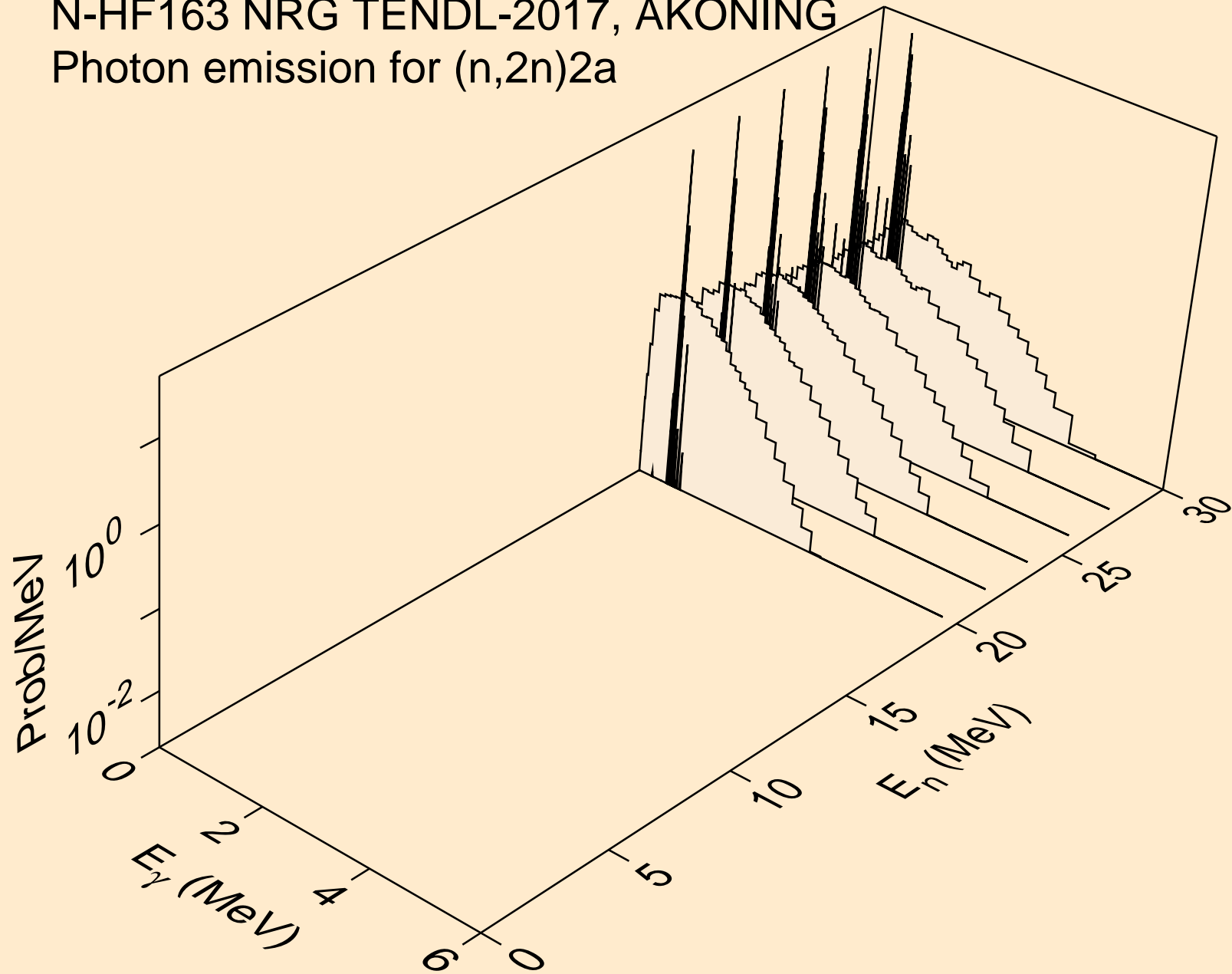
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)p



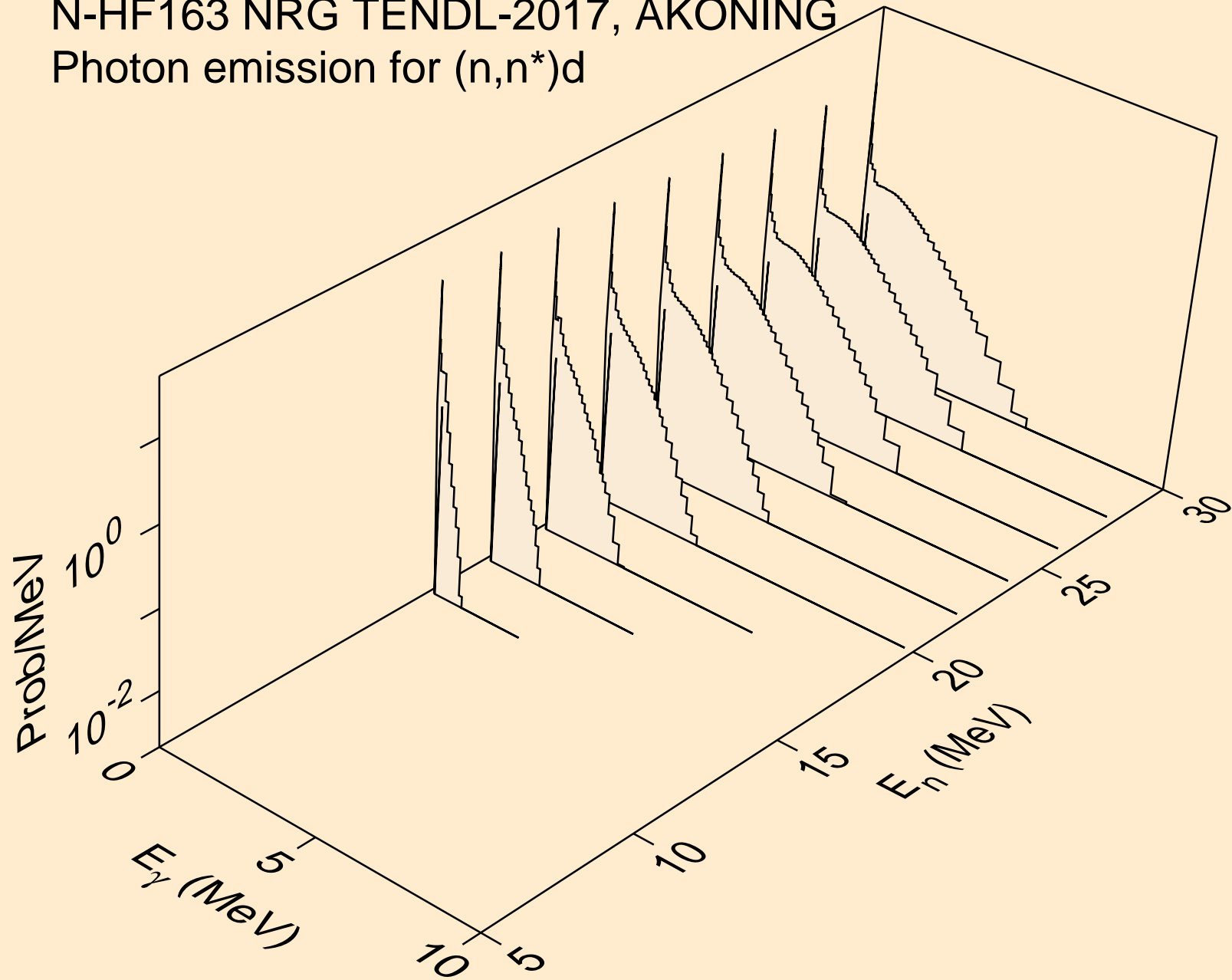
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)2a



N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2n)2a

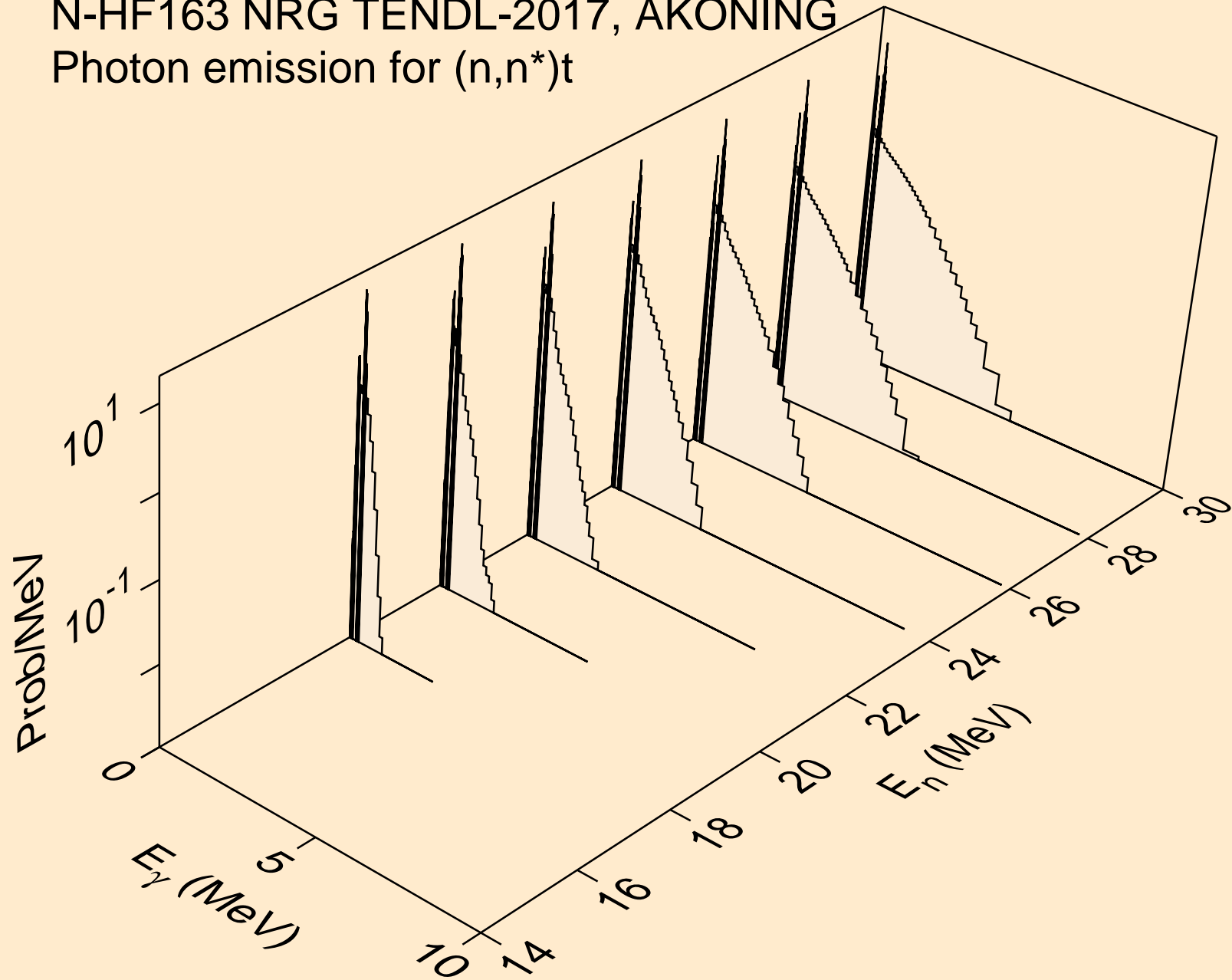


N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)d

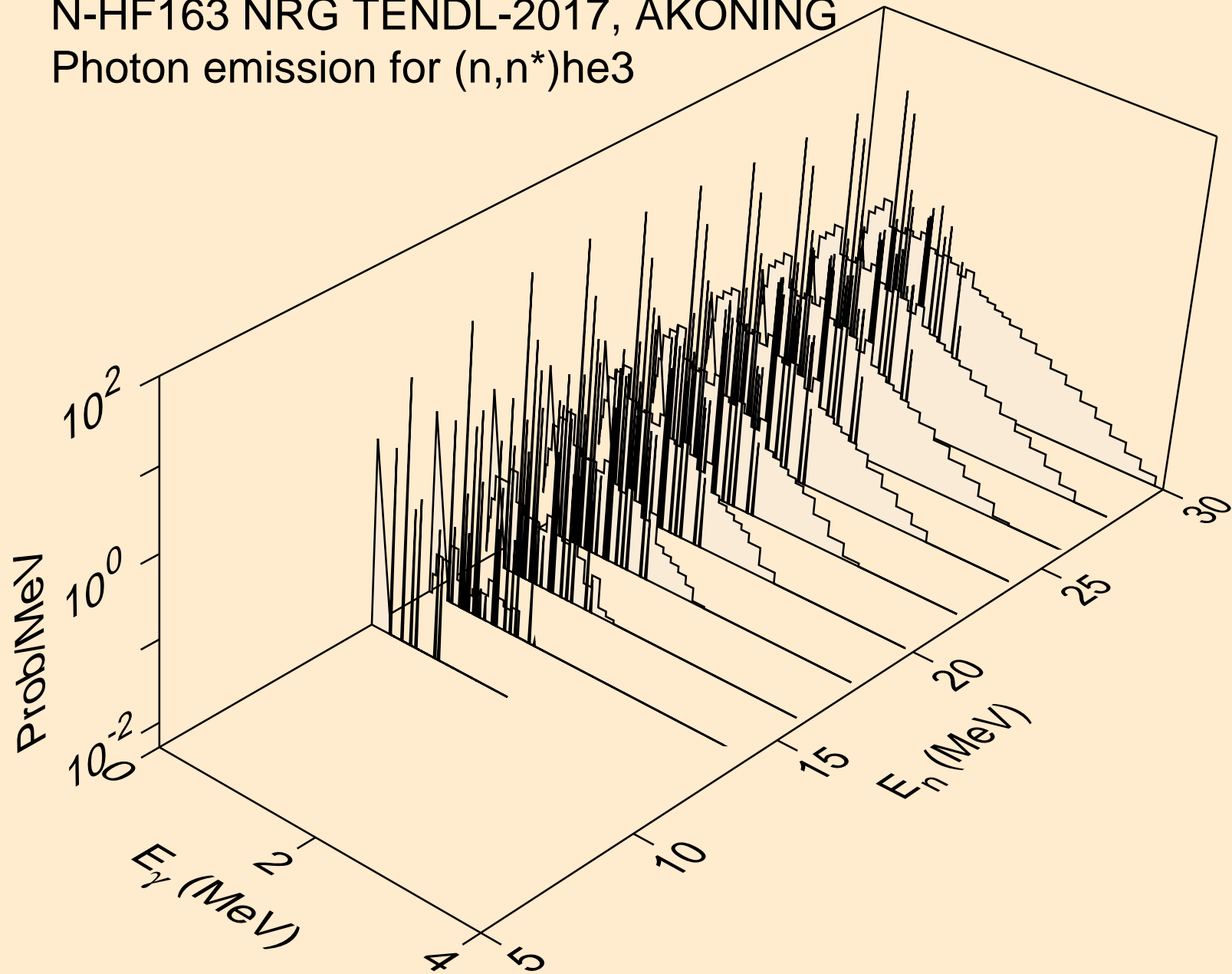




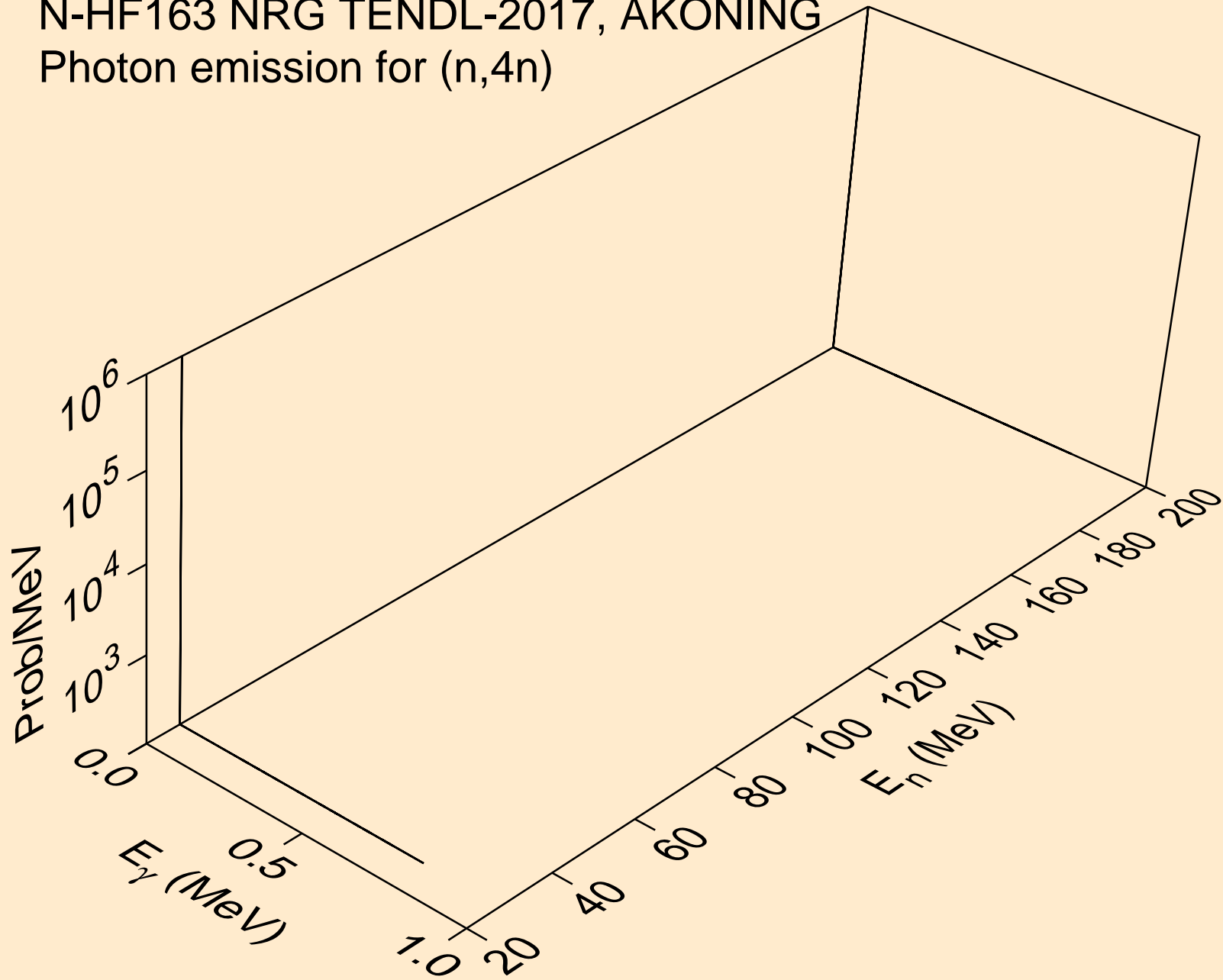
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)t



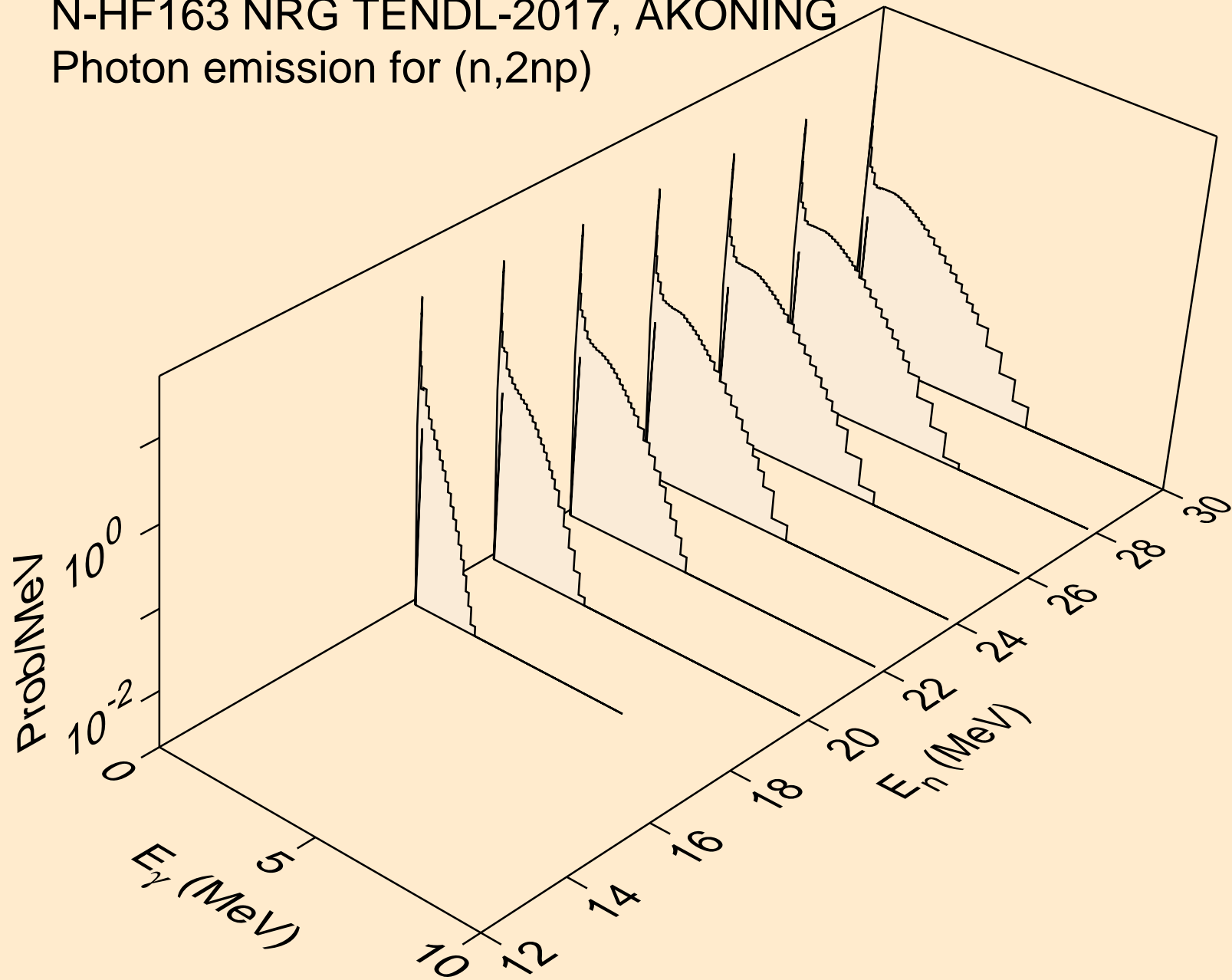
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*)he3



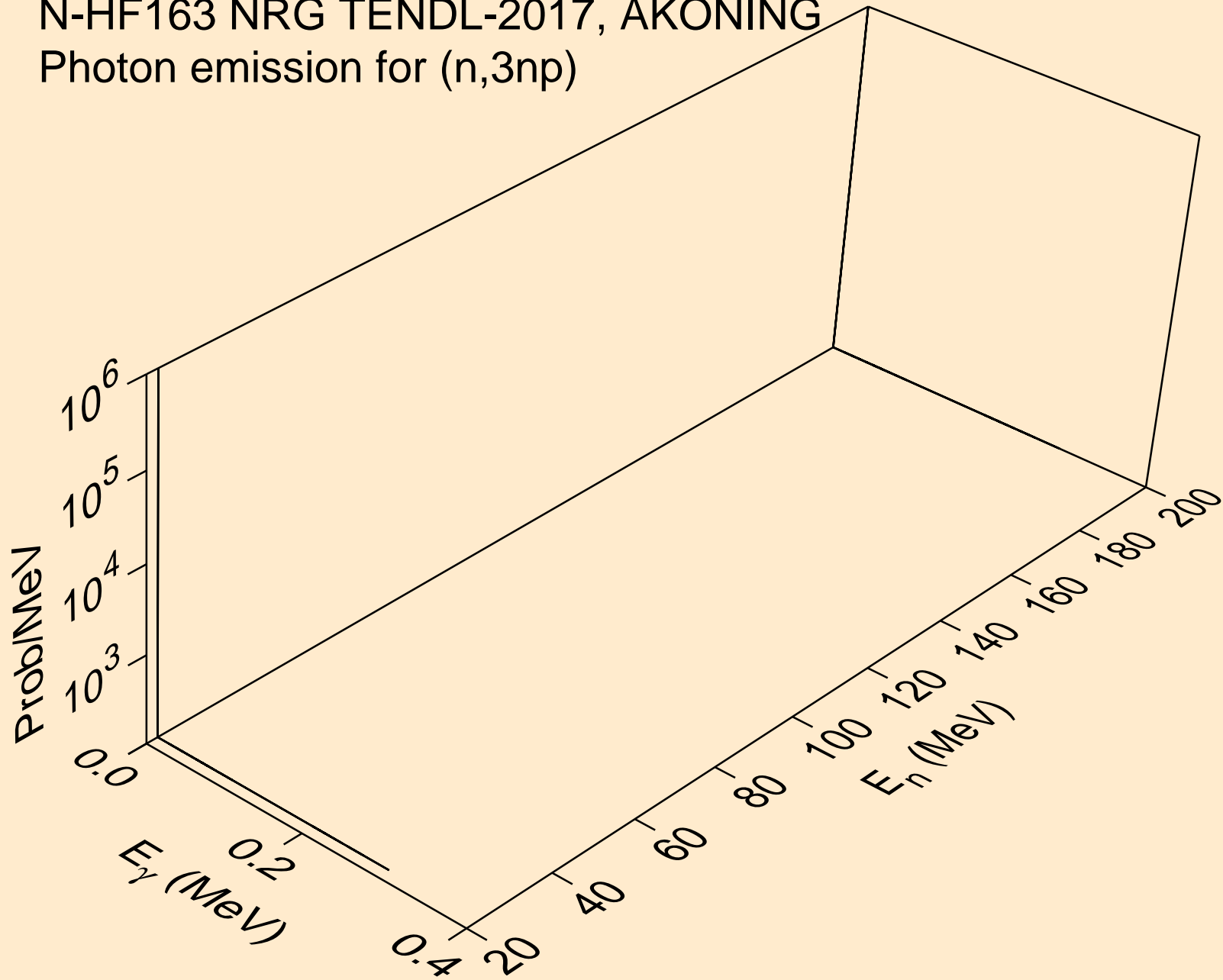
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,4n)



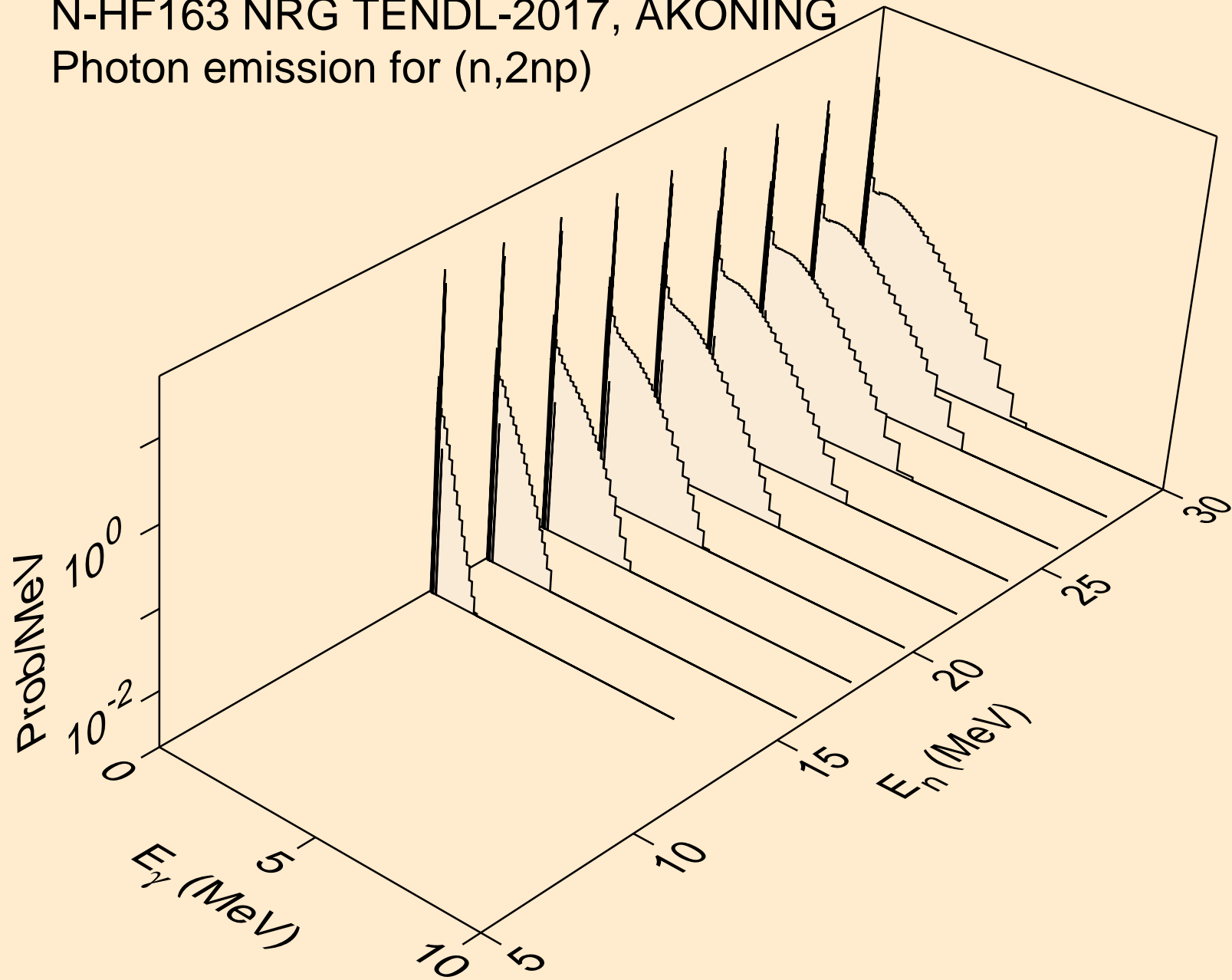
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2np)



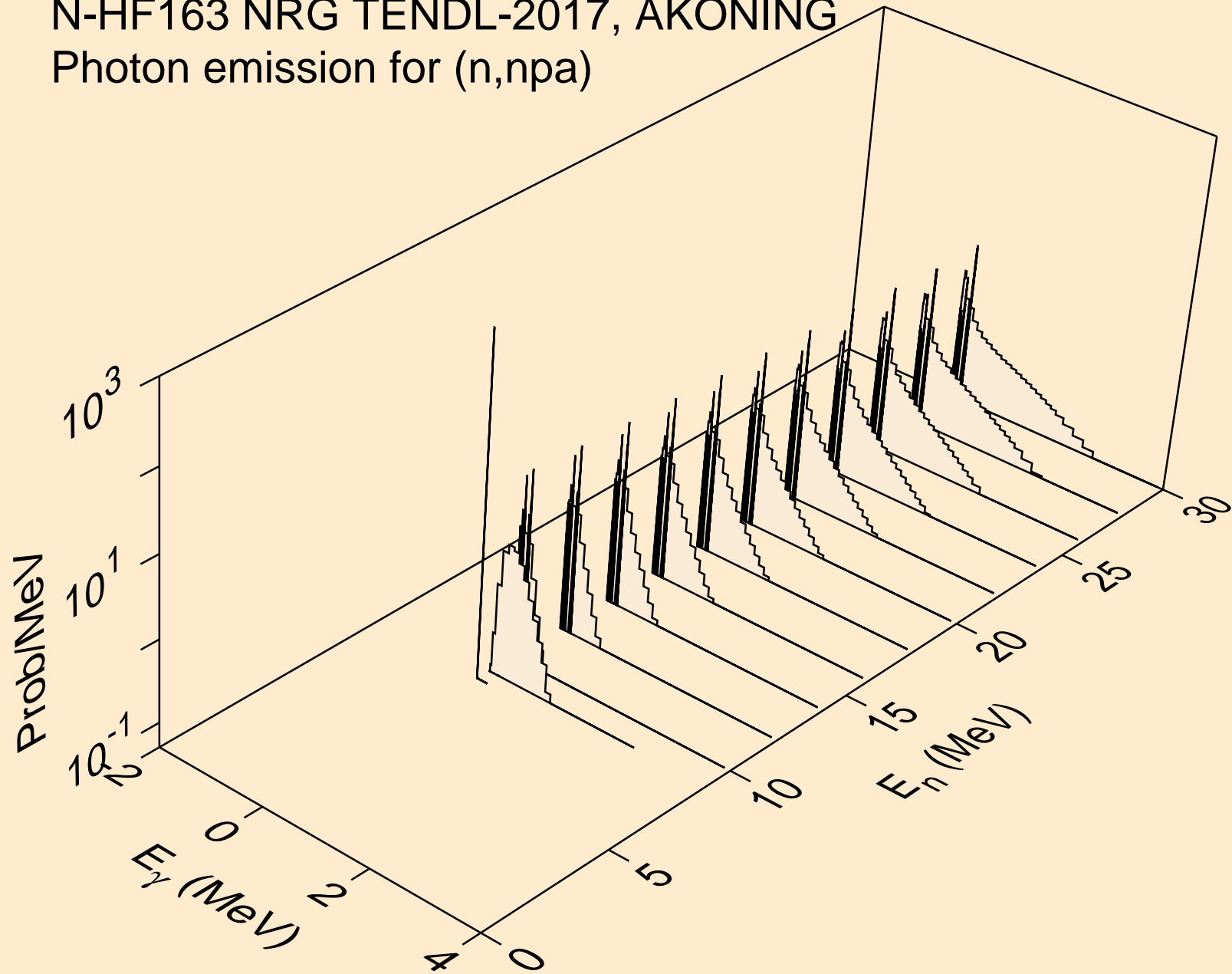
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,3np)



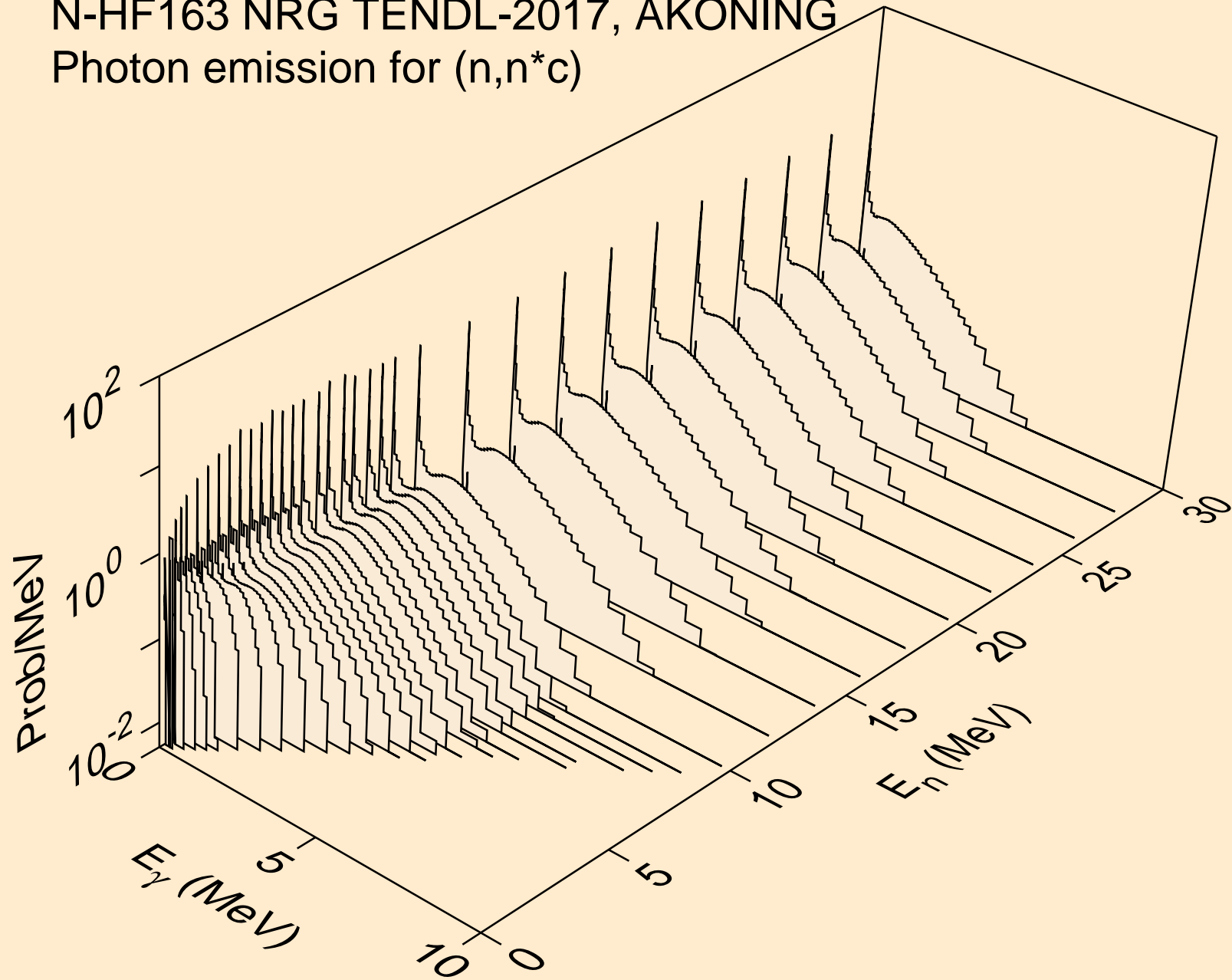
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2np)



N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,npa)

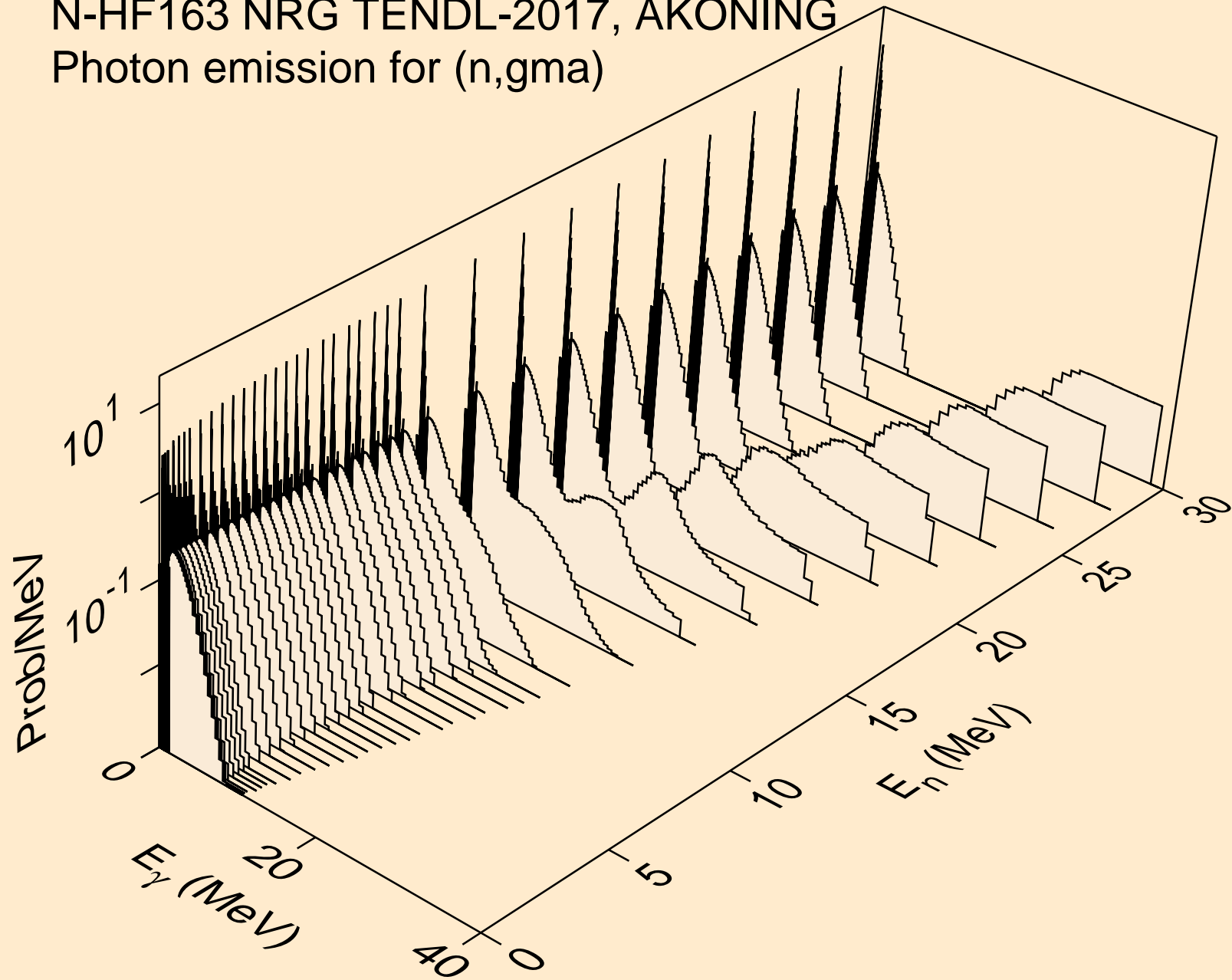


N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,n\*c)

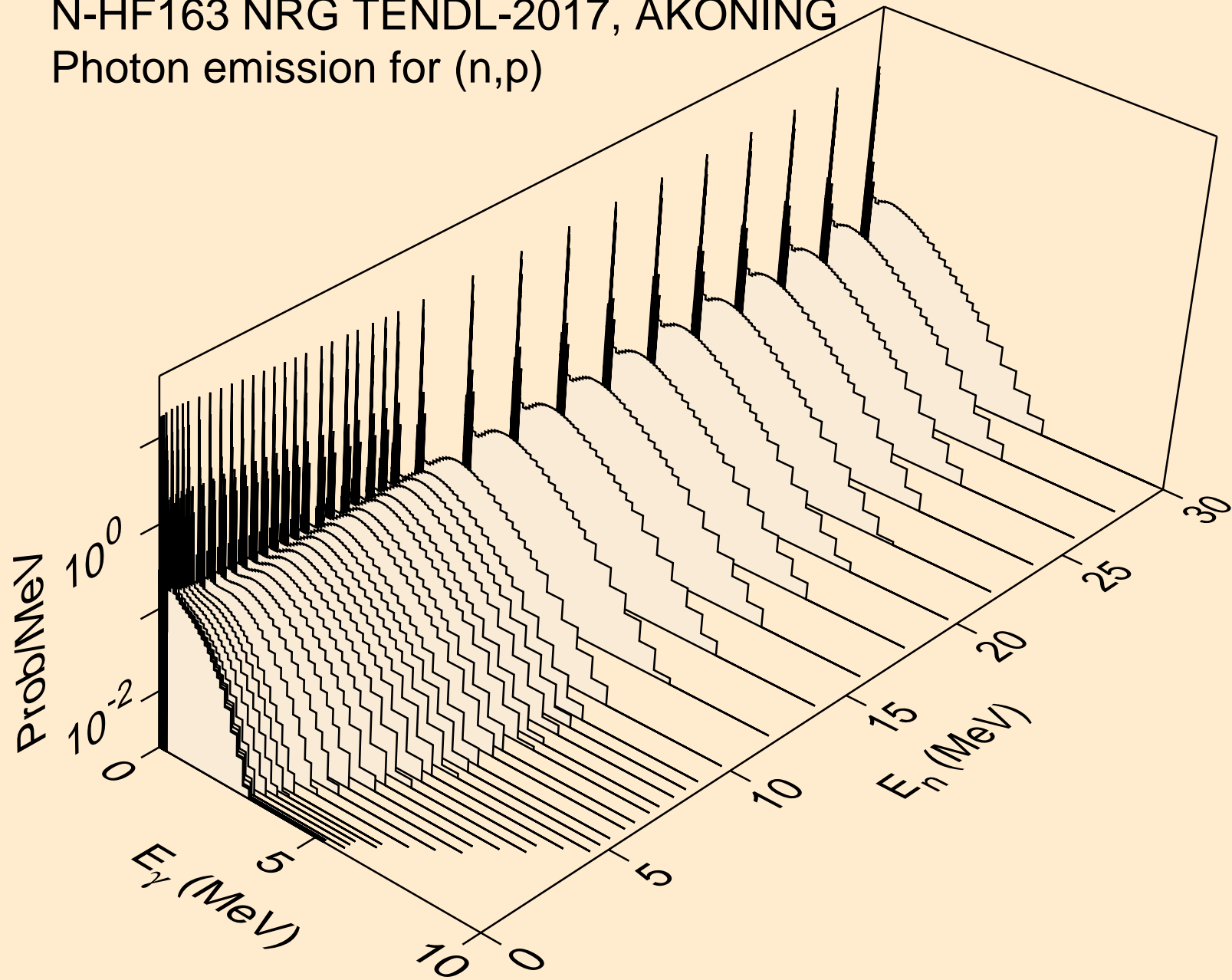




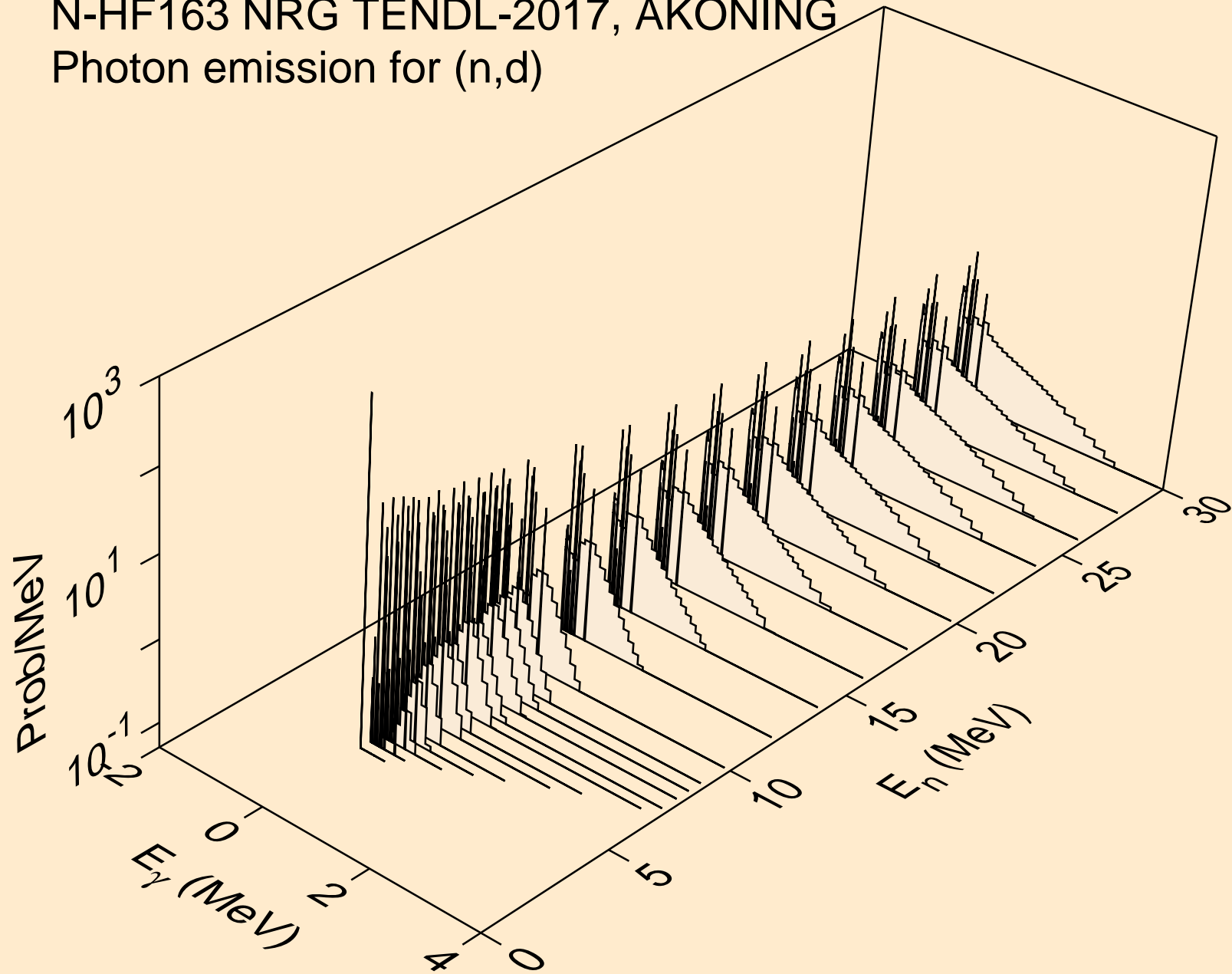
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,gma)



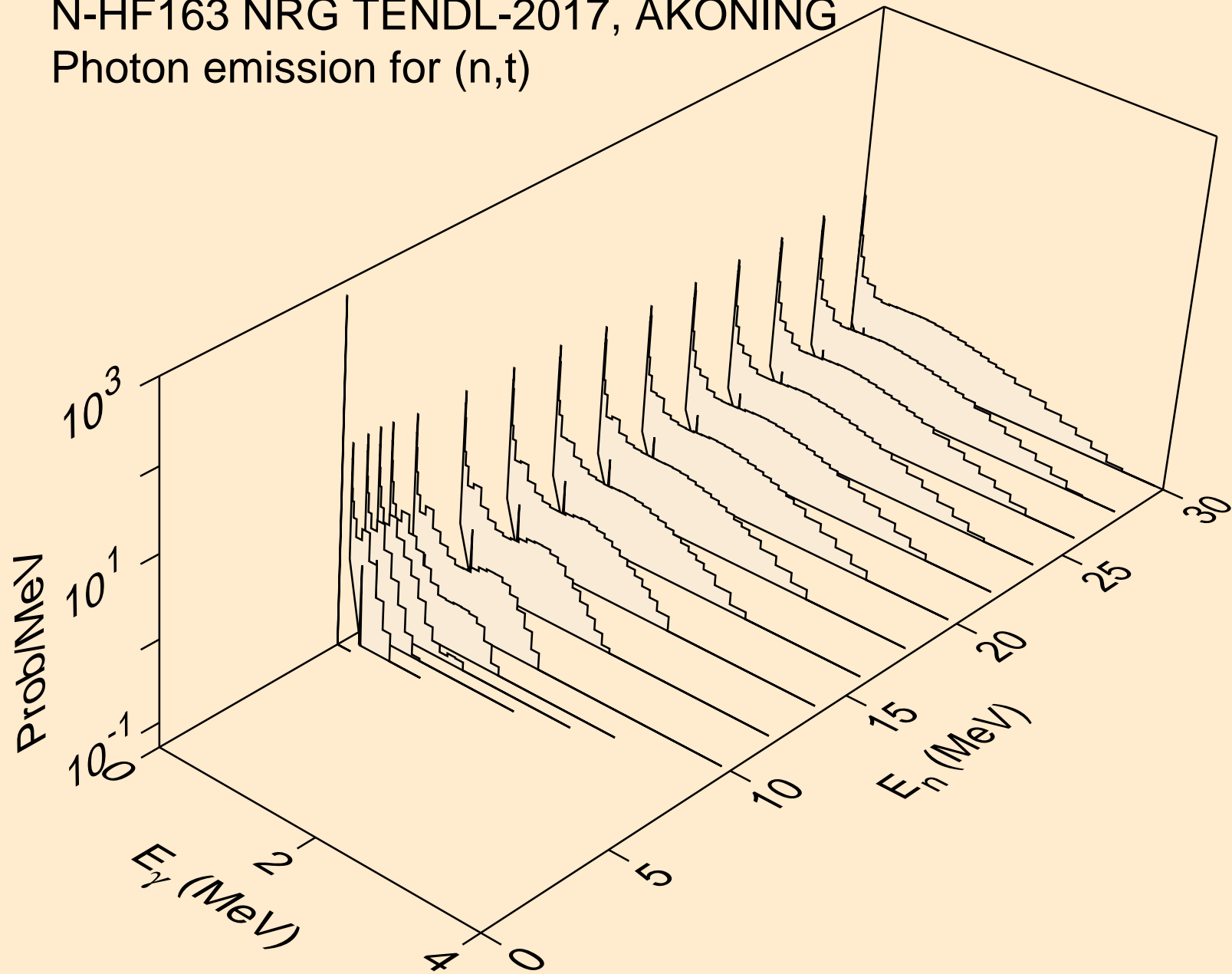
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,p)



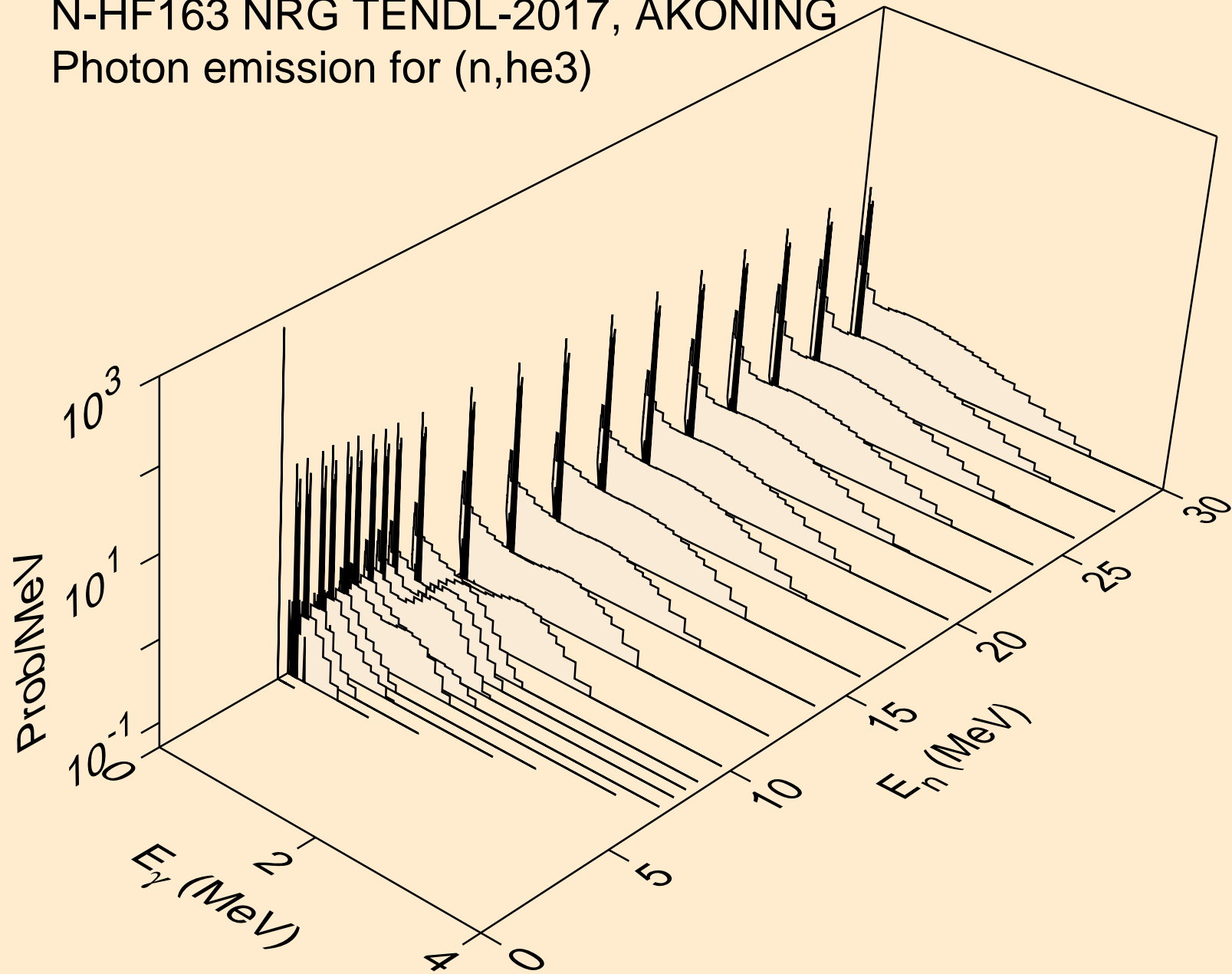
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,d)



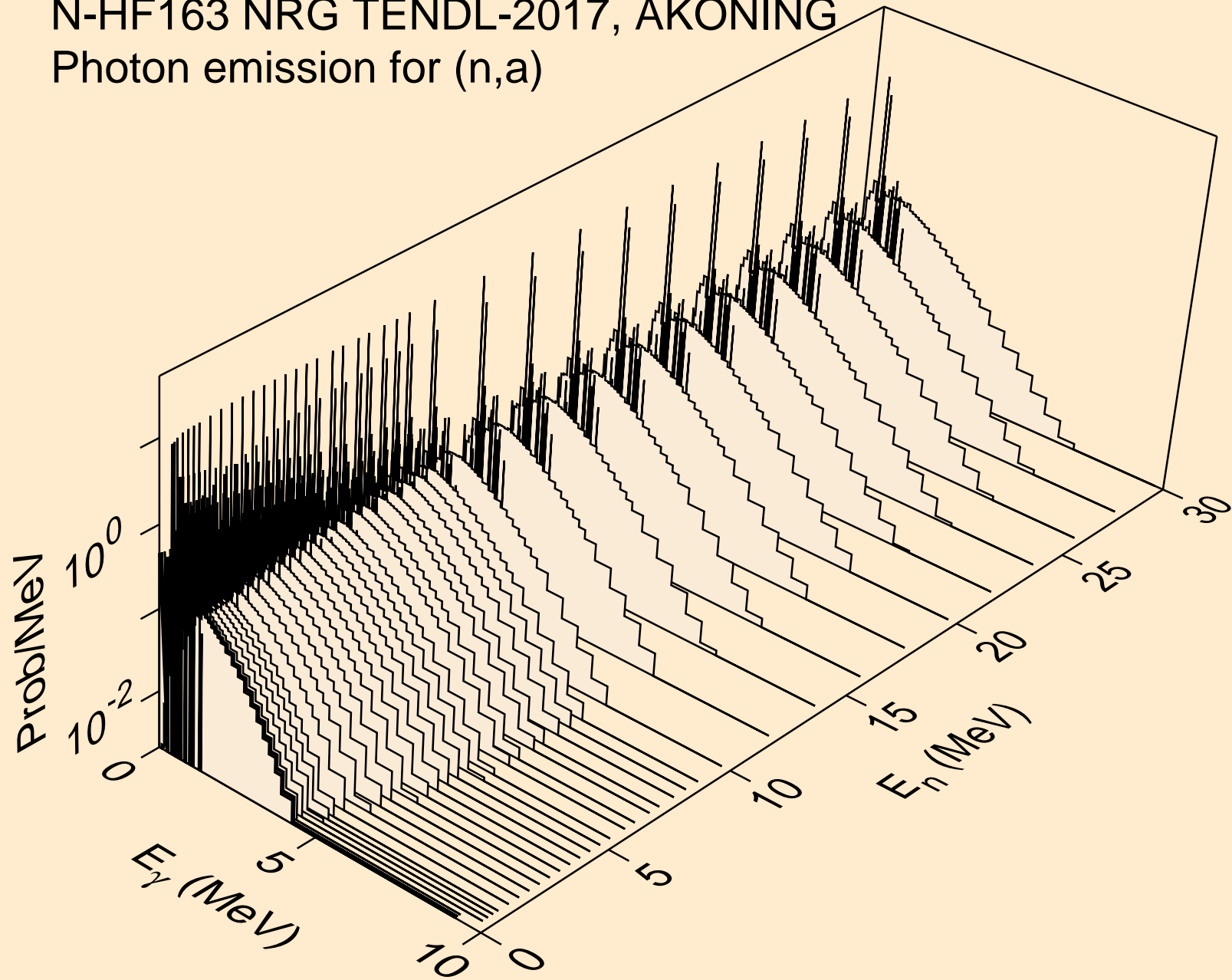
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,t)



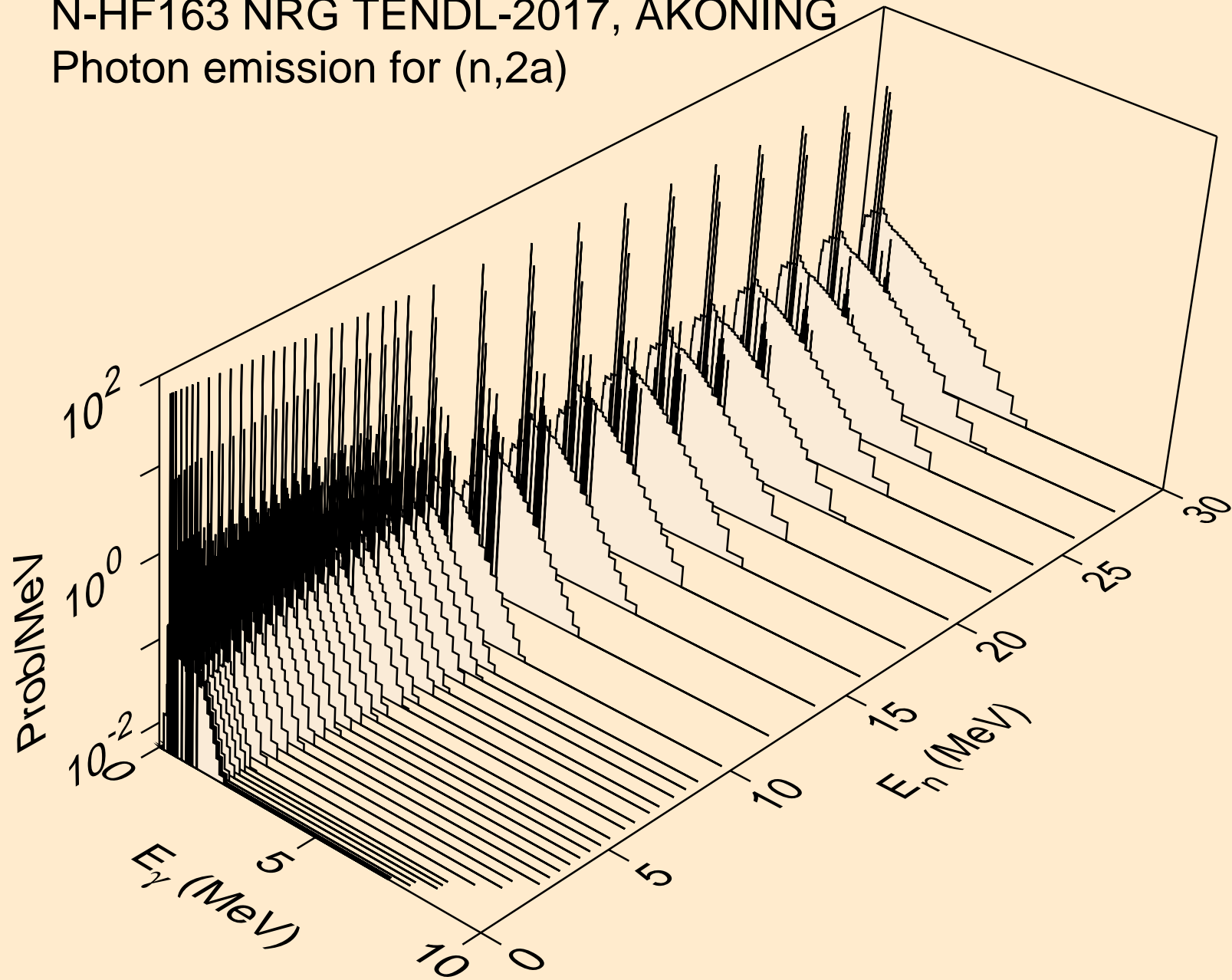
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,he3)



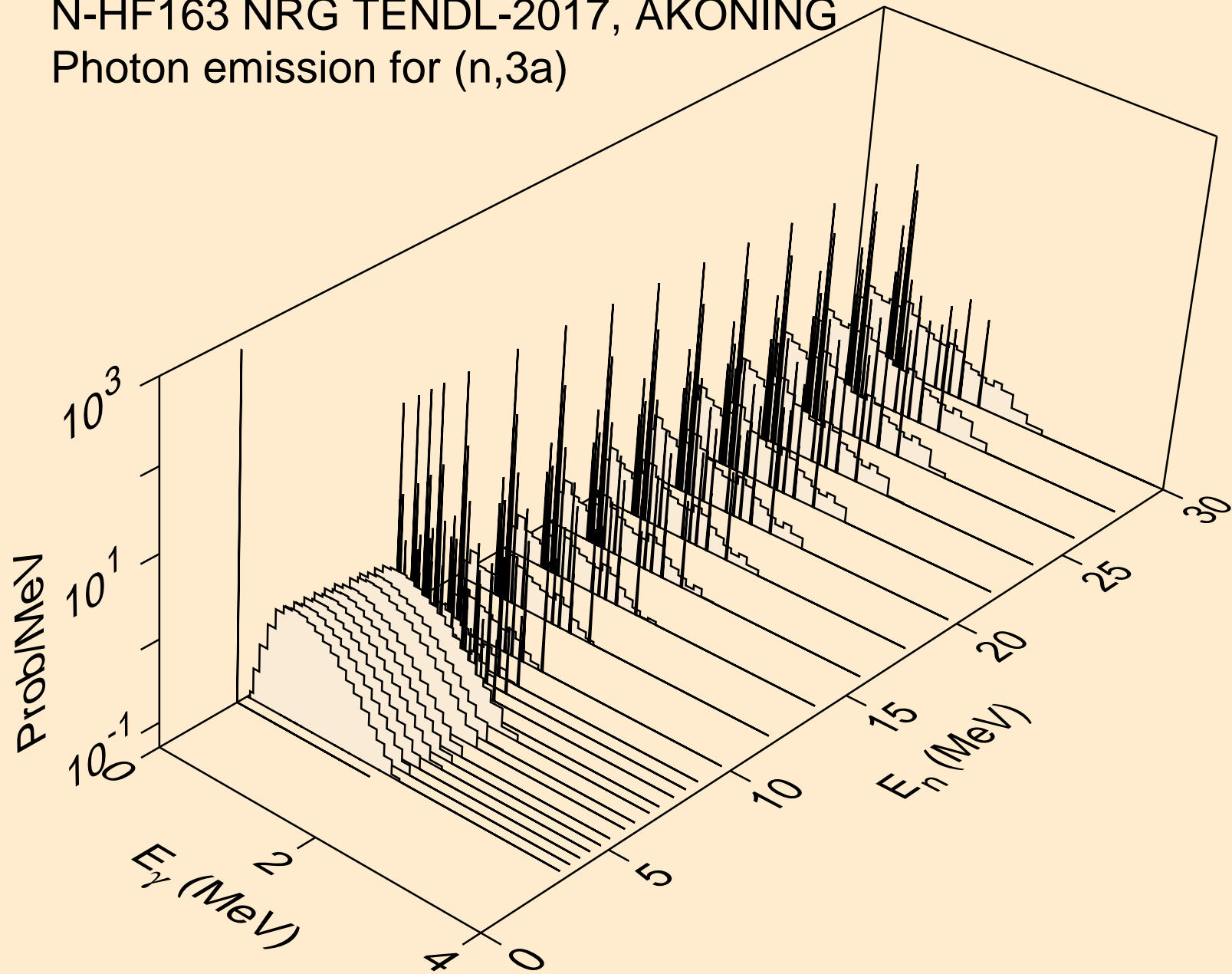
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,a)



N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,2a)

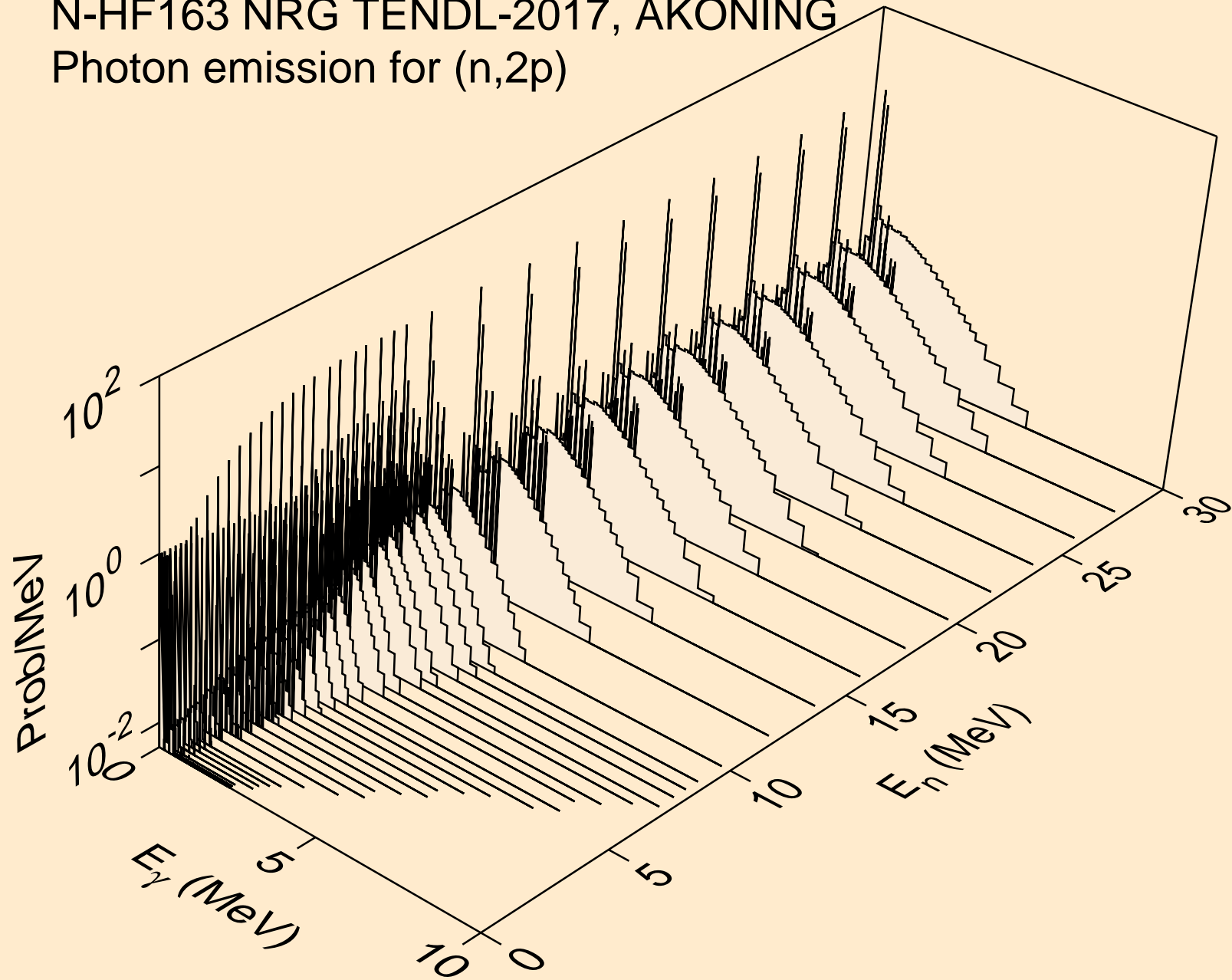


N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,3a)

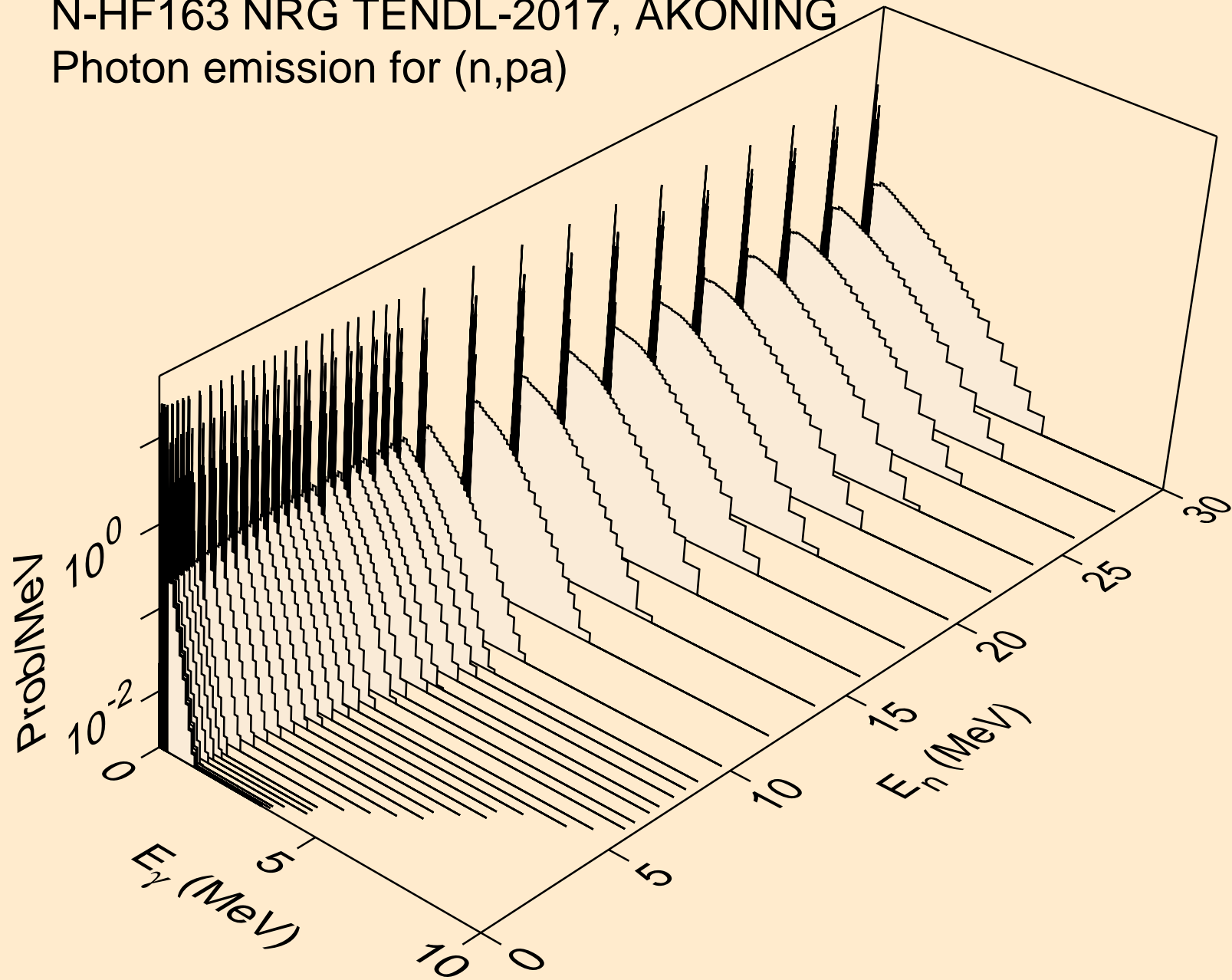




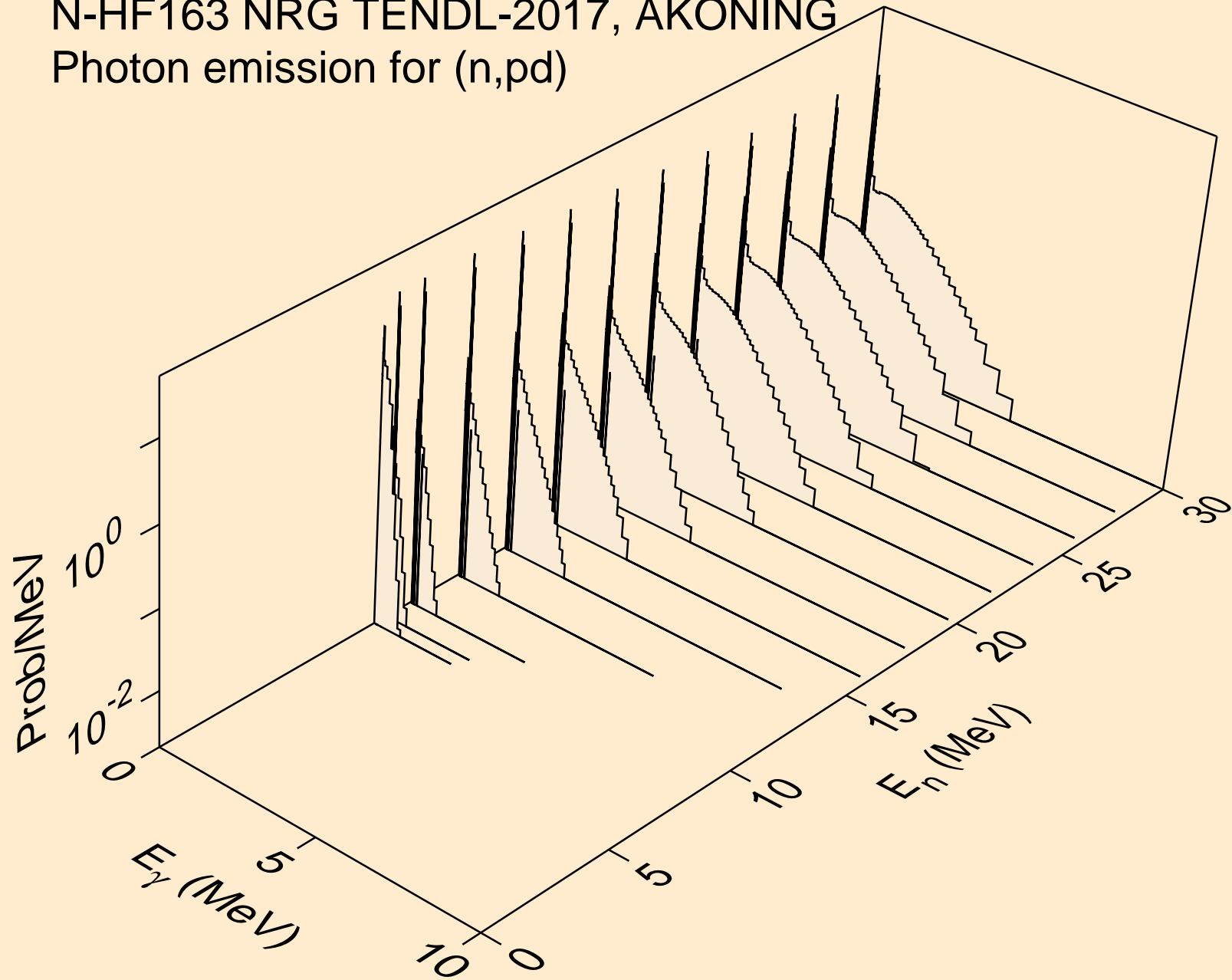
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Photon emission for (n,2p)



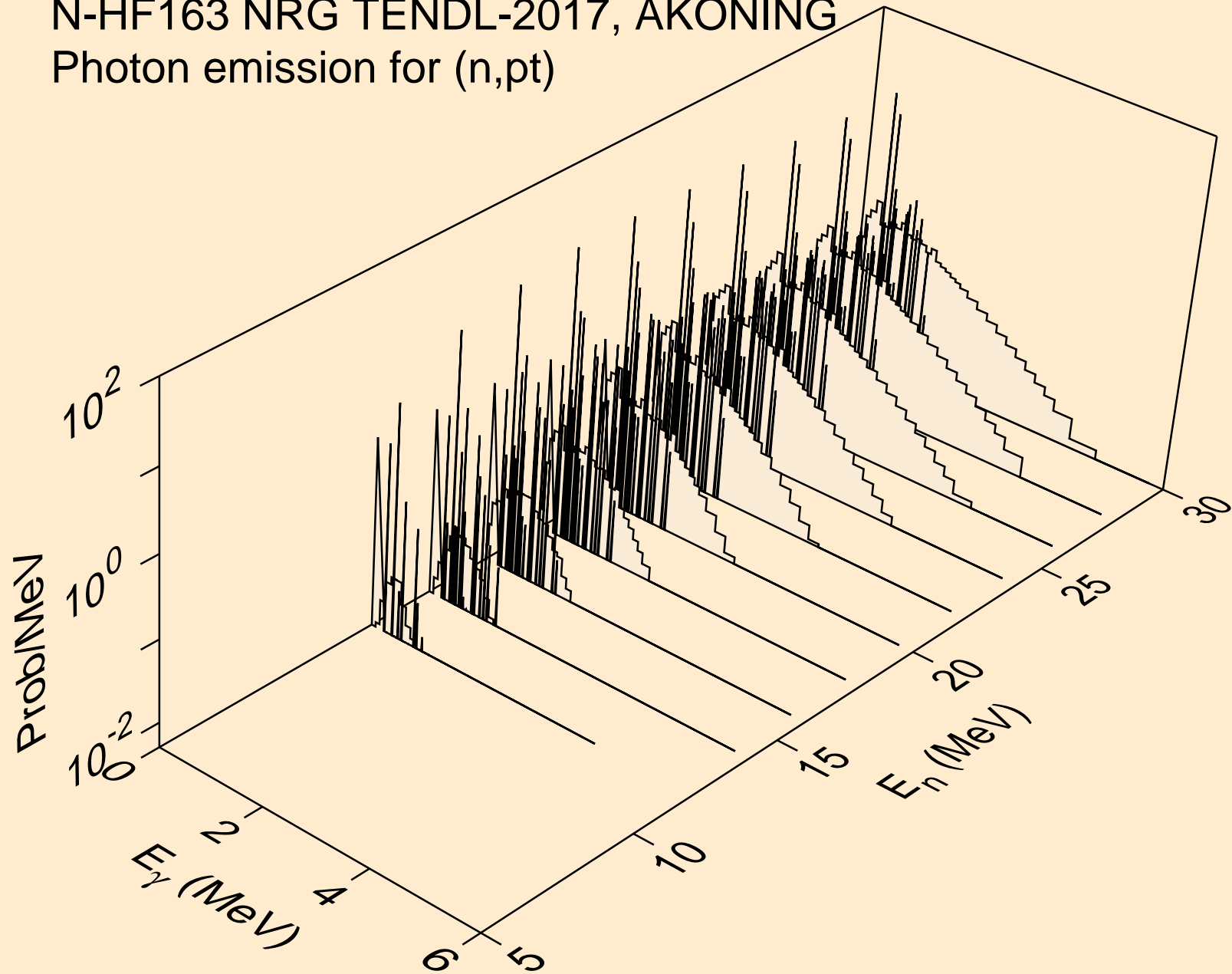
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,p $\alpha$ )



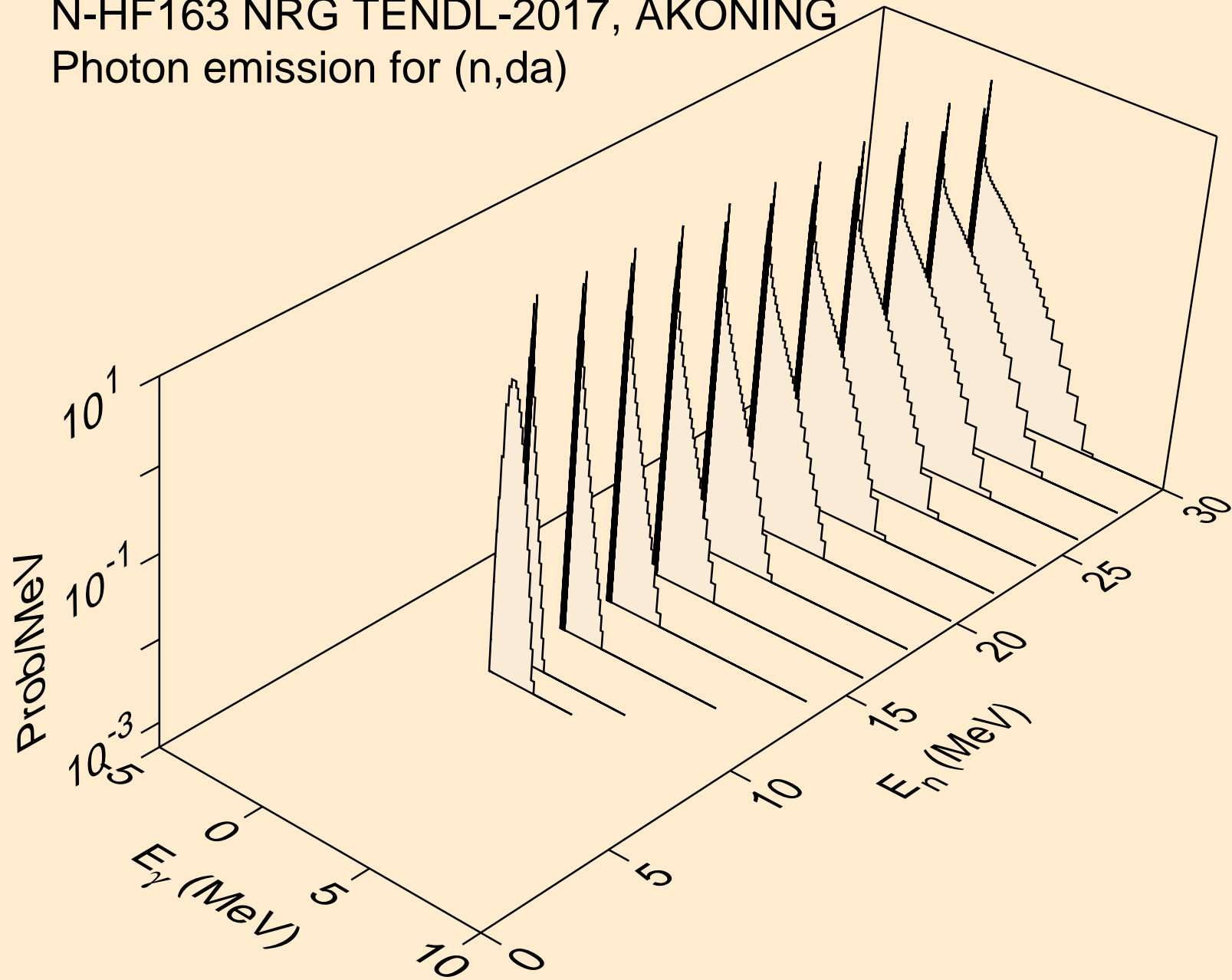
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,pd)



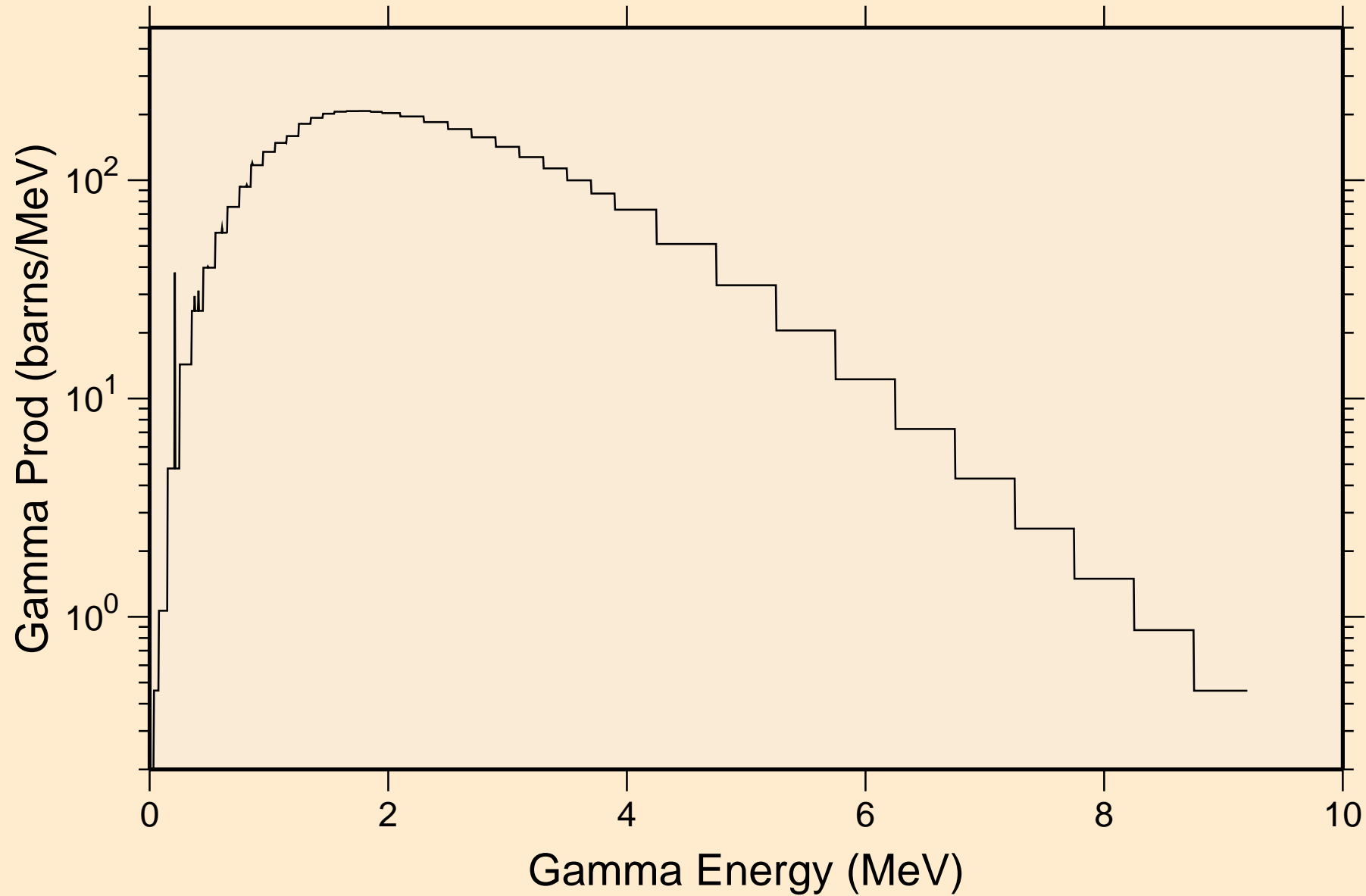
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Photon emission for (n,pt)



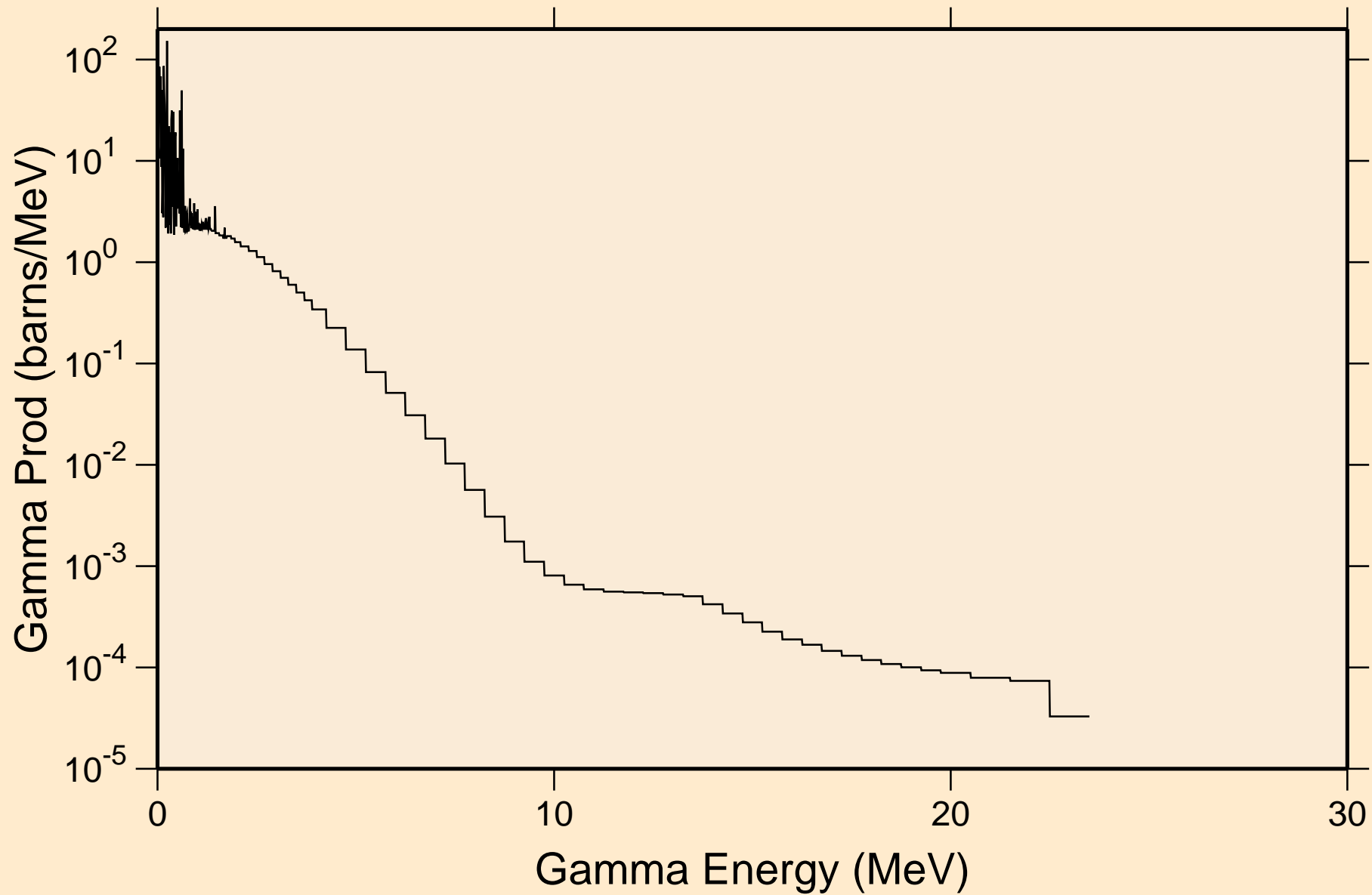
N-HF163 NRG TENDL-2017, AKONING  
Photon emission for (n,da)



N-HF163 NRG TENDL-2017, AKONING  
thermal capture photon spectrum

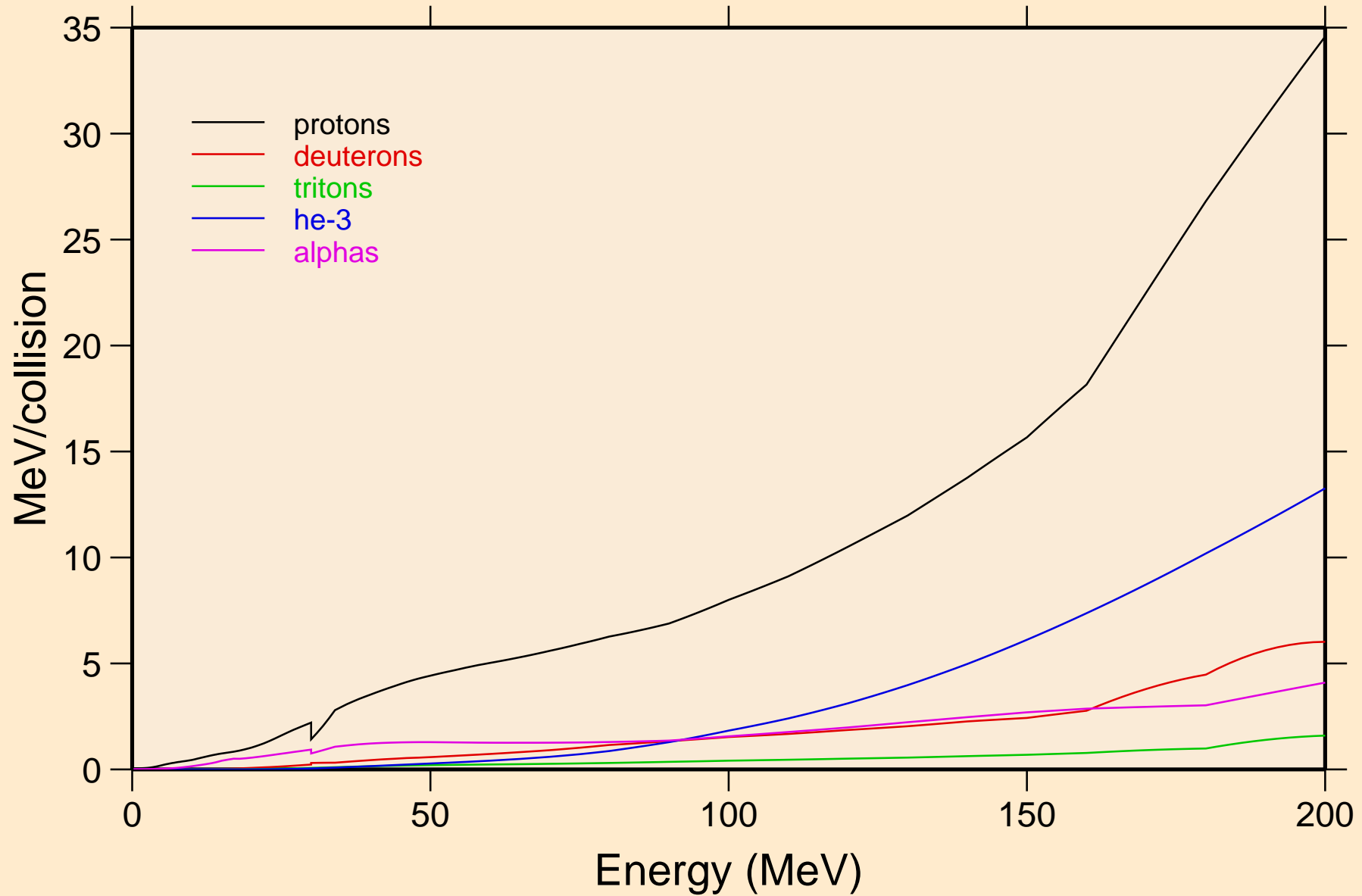


N-HF163 NRG TENDL-2017, AKONING  
14 MeV photon spectrum



# N-HF163 NRG TENDL-2017, AKONING

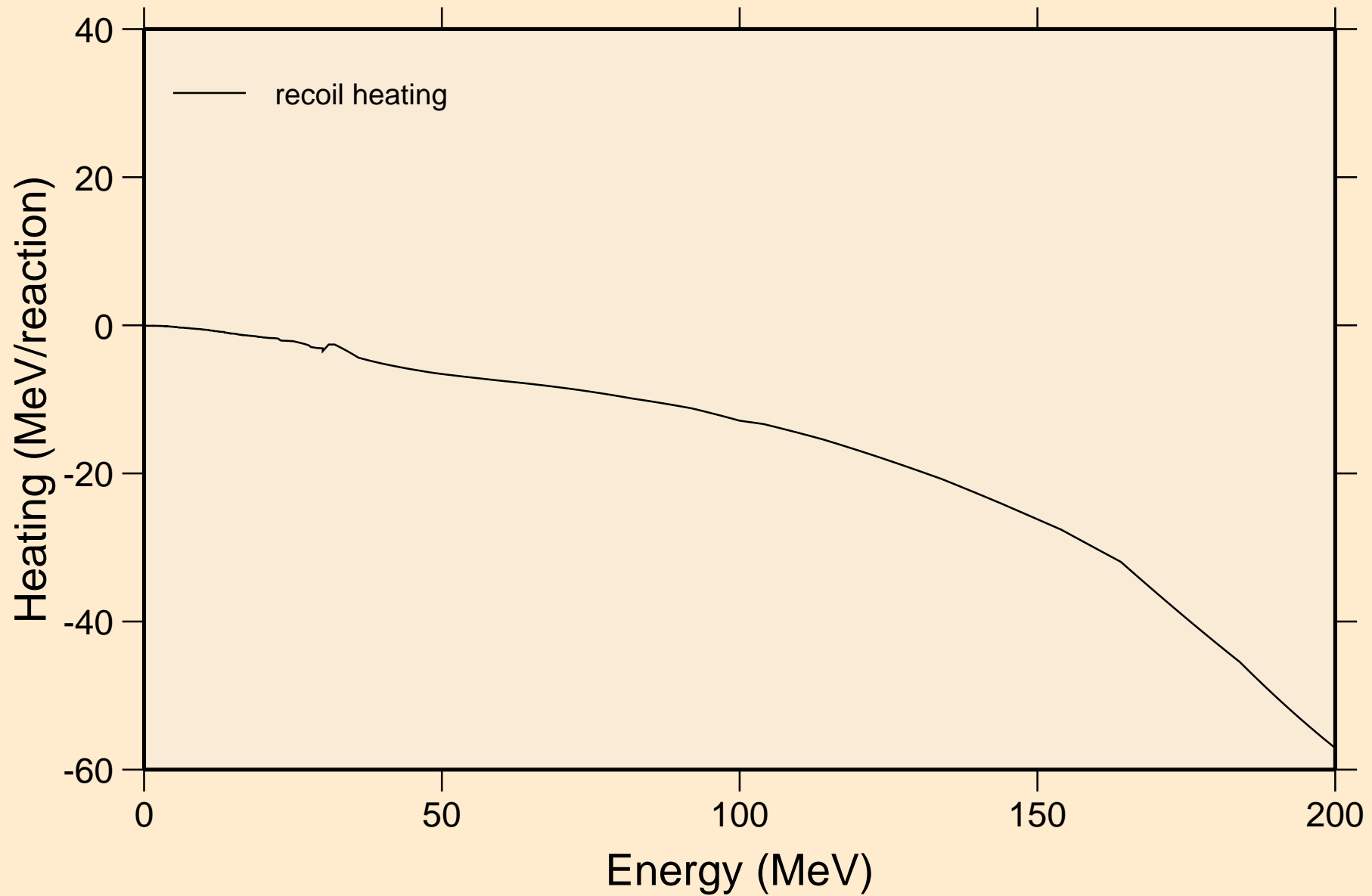
## Particle heating contributions





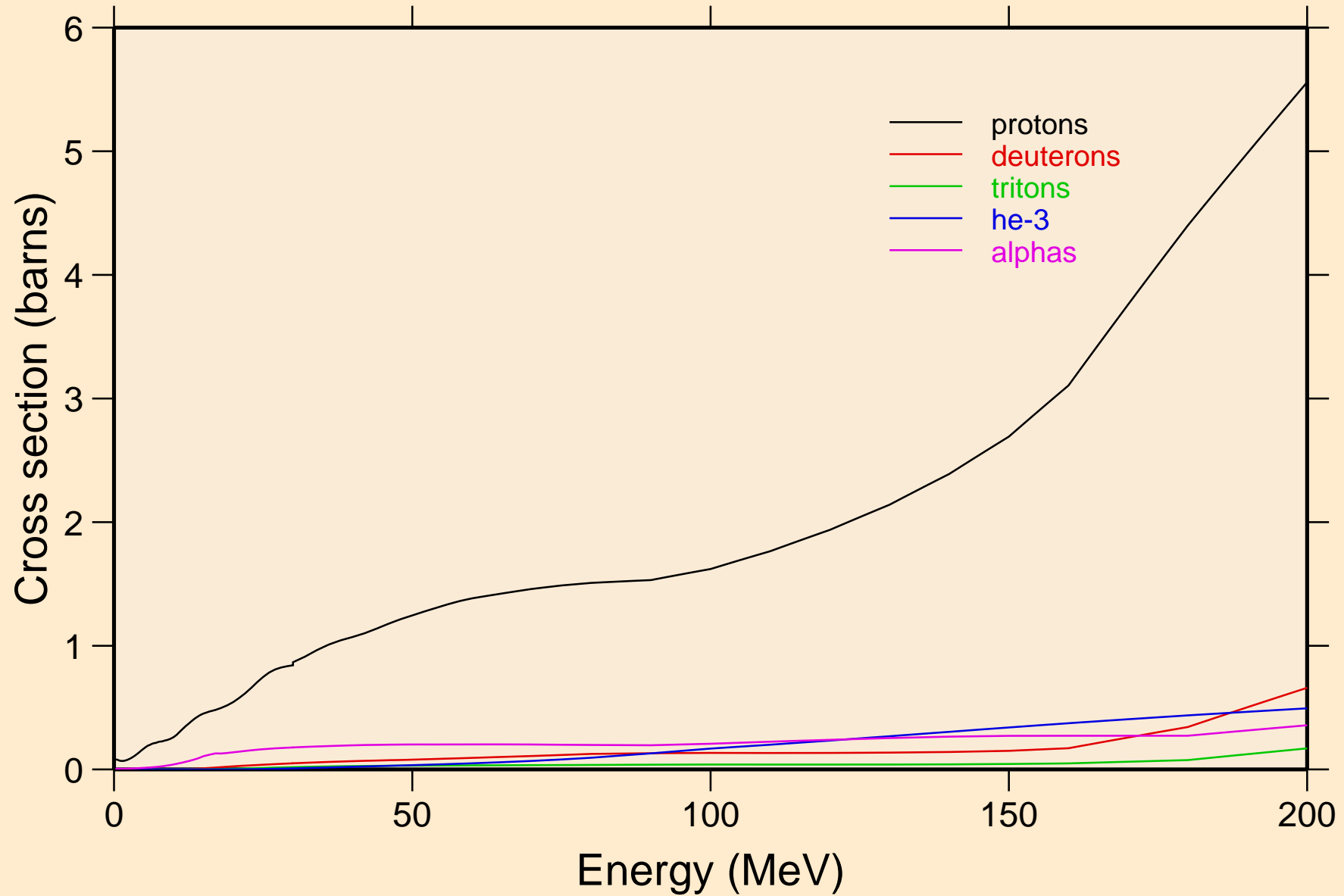
# N-HF163 NRG TENDL-2017, AKONING

## Recoil Heating

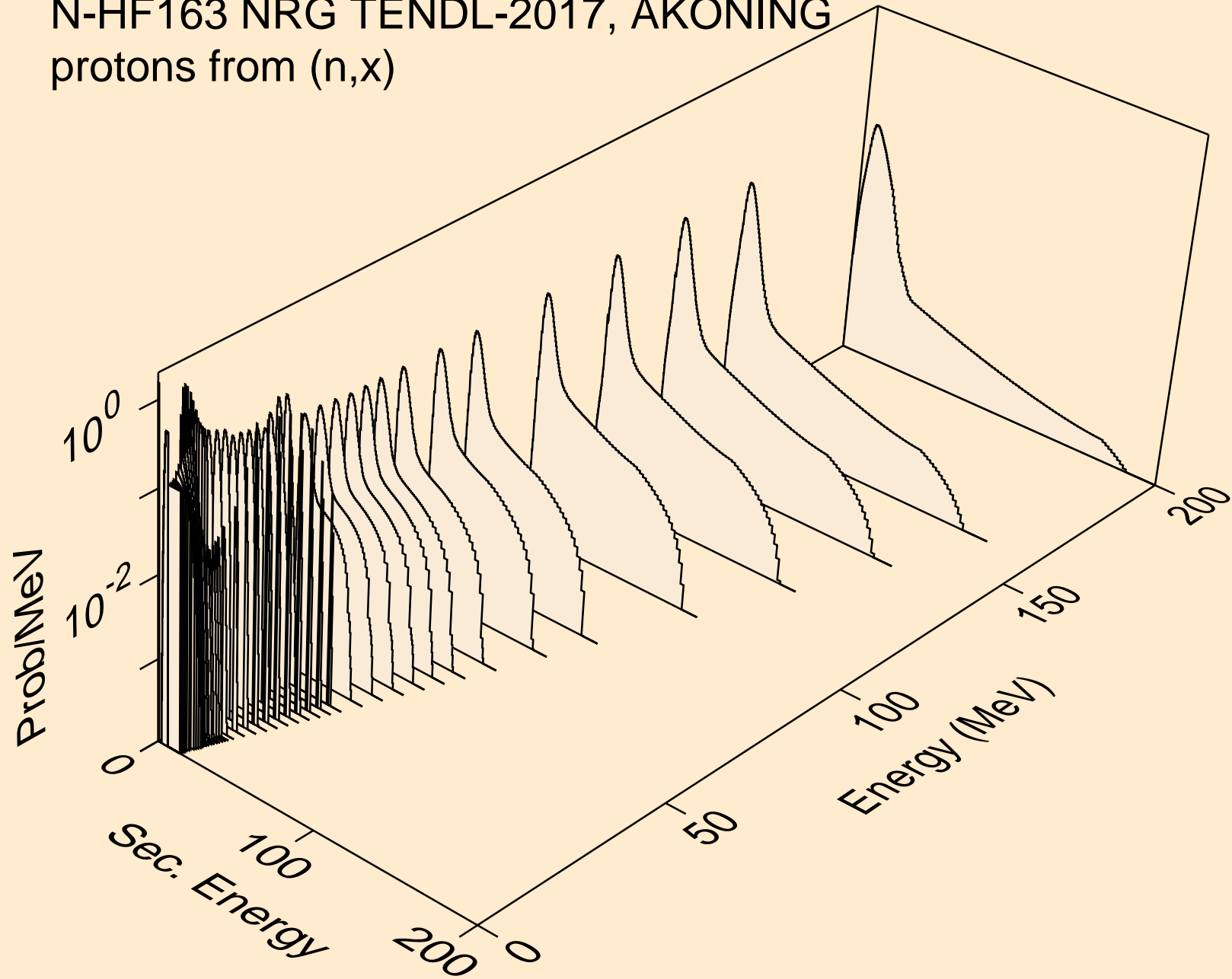


# N-HF163 NRG TENDL-2017, AKONING

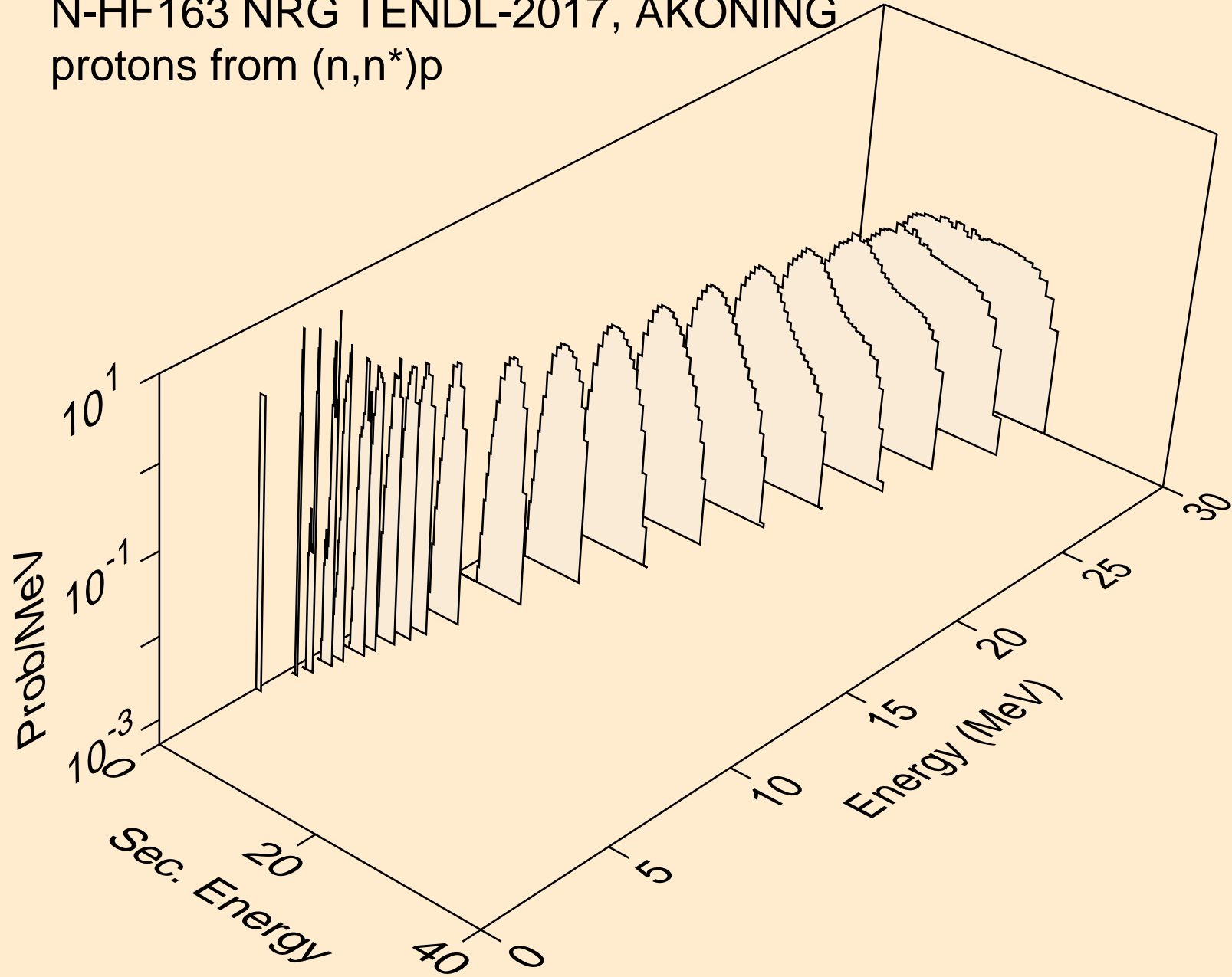
## Particle production cross sections



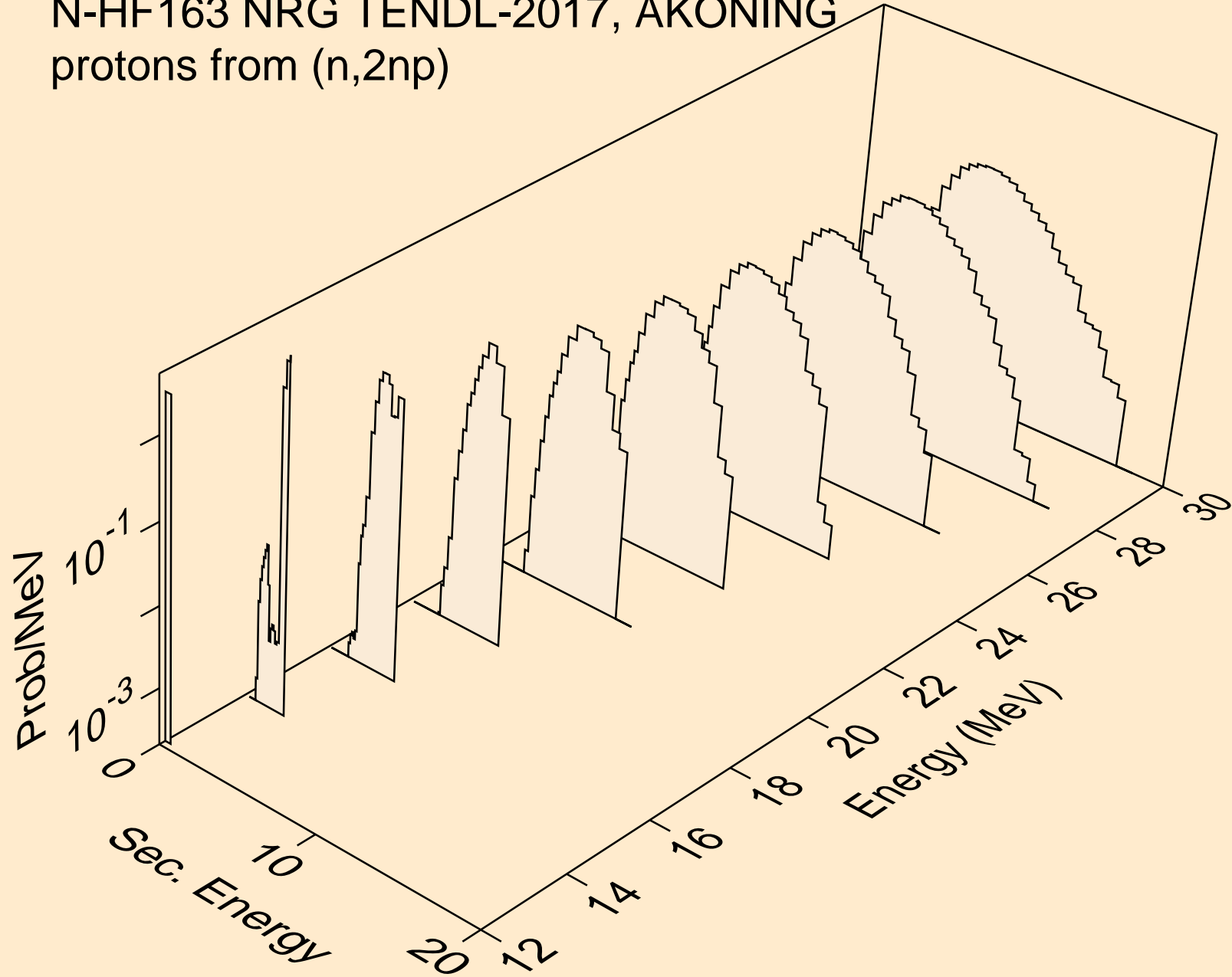
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,x)



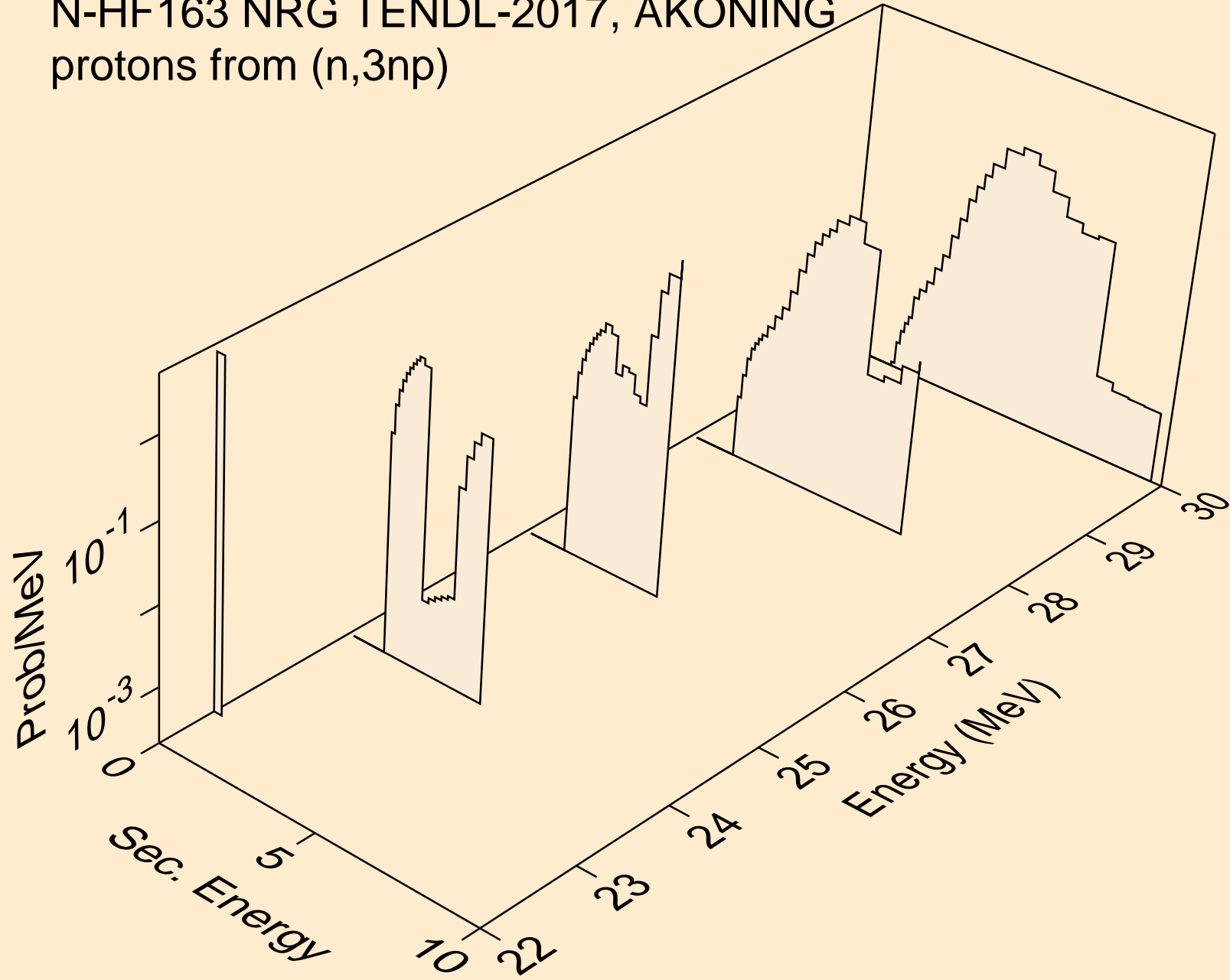
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,n\*)p



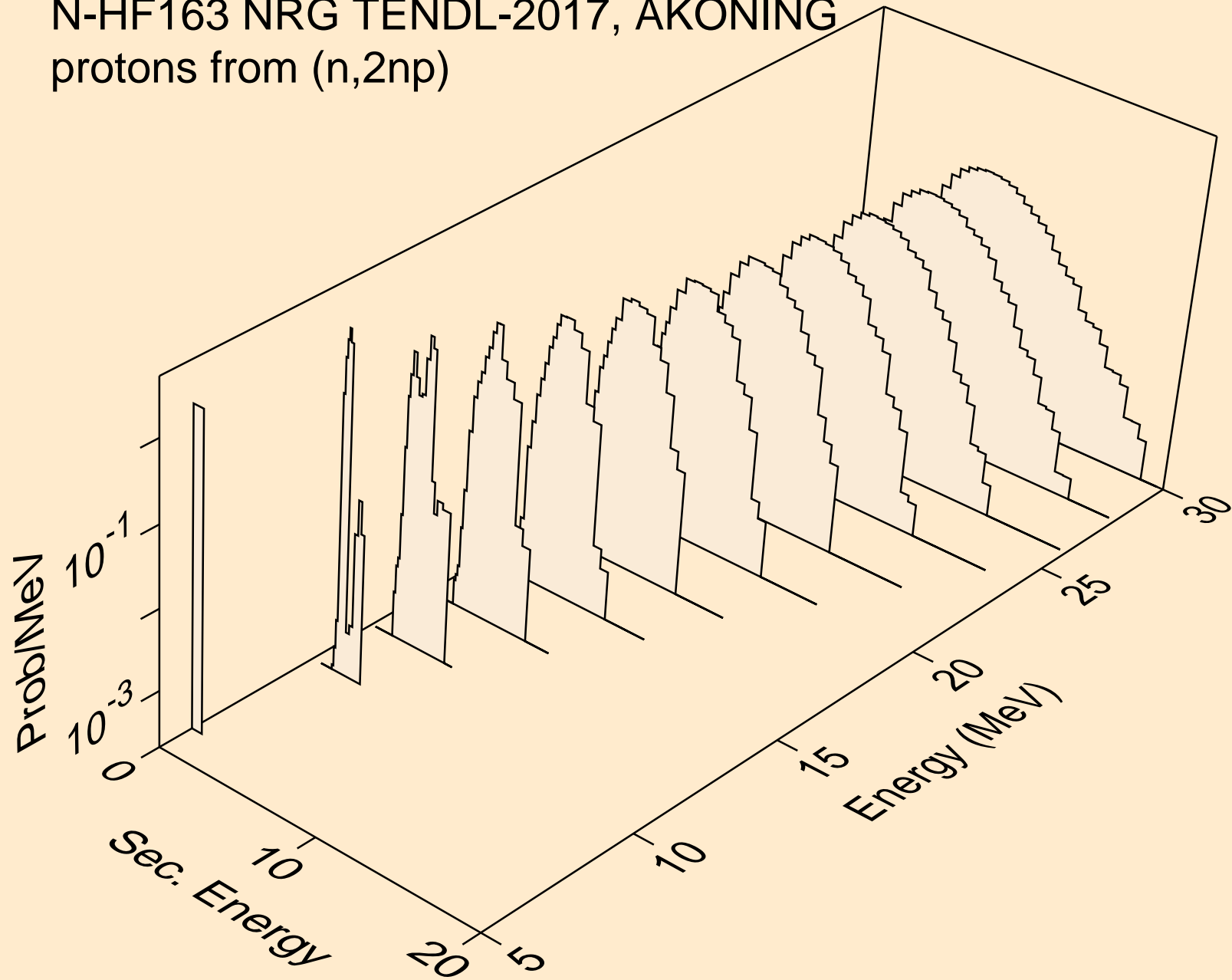
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,2np)



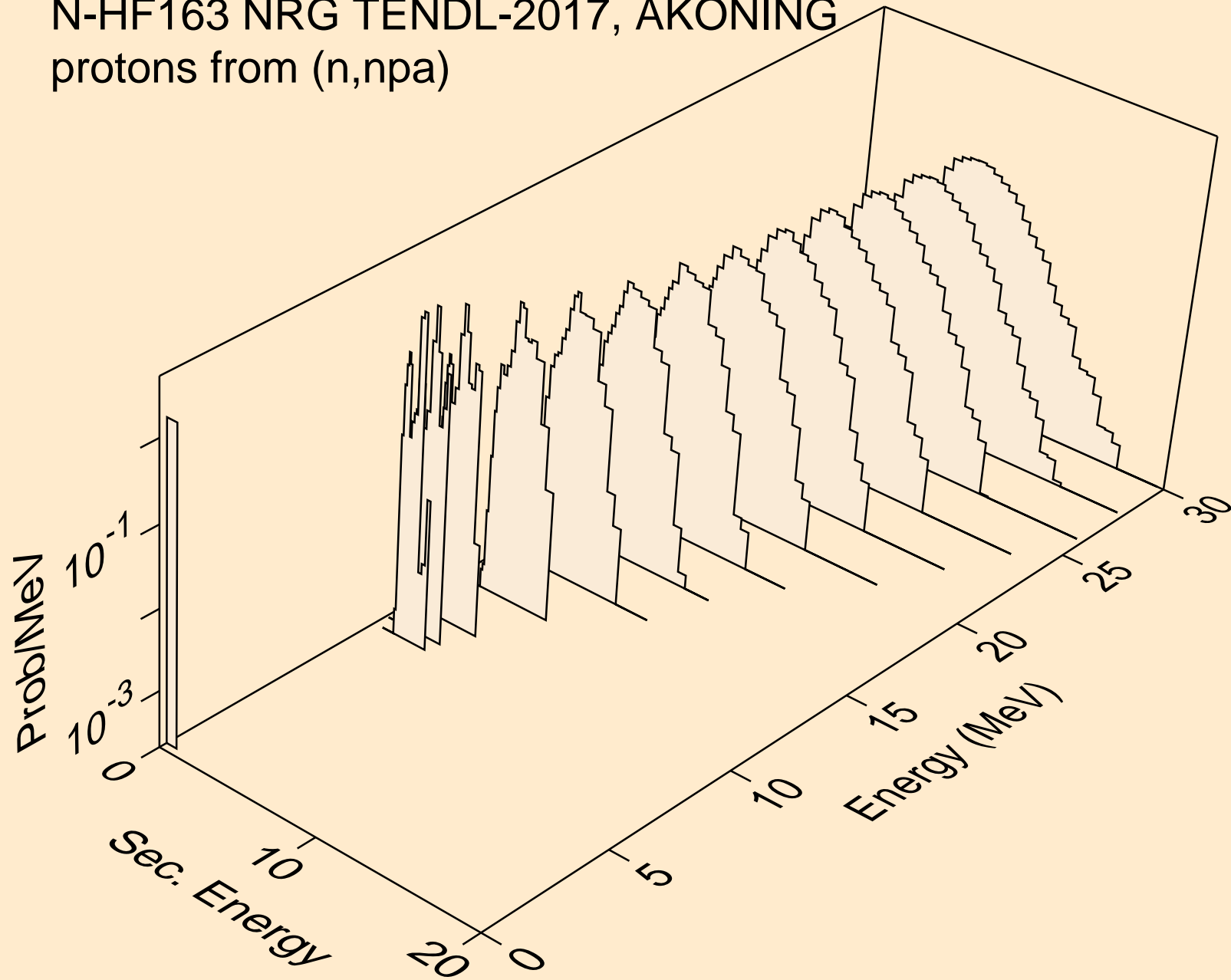
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,3np)



N-HF163 NRG TENDL-2017, AKONING  
protons from (n,2np)

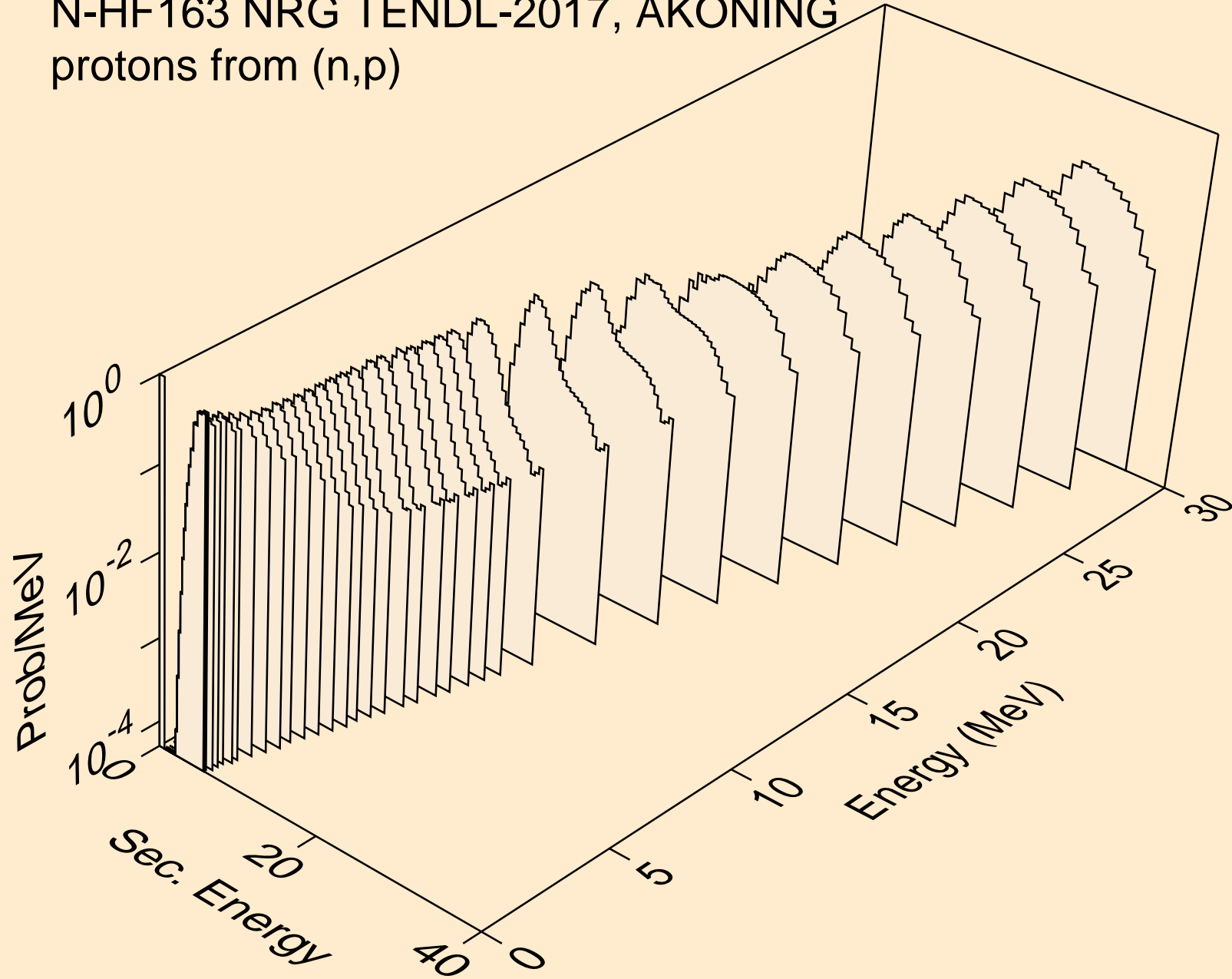


N-HF163 NRG TENDL-2017, AKONING  
protons from (n,npa)

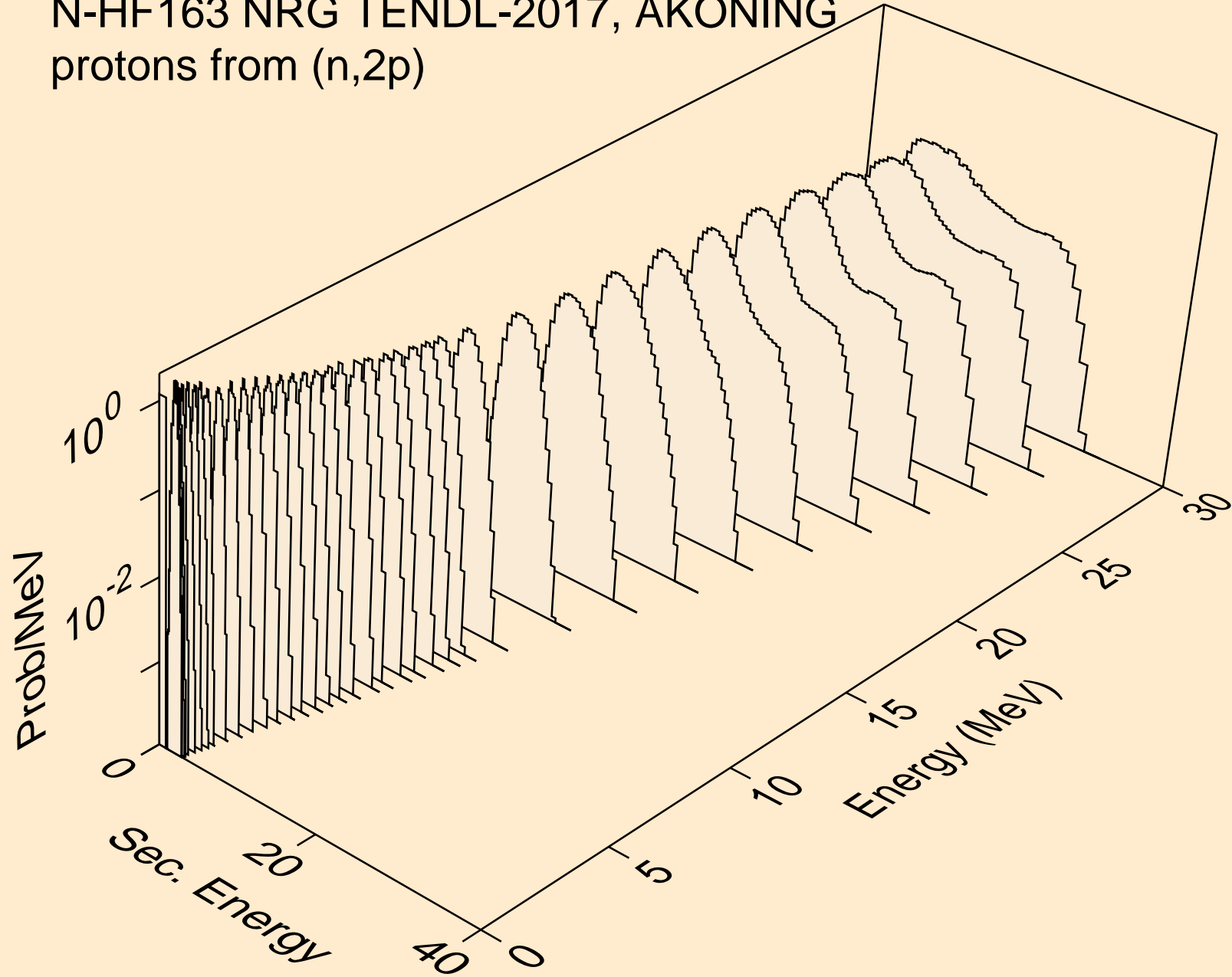




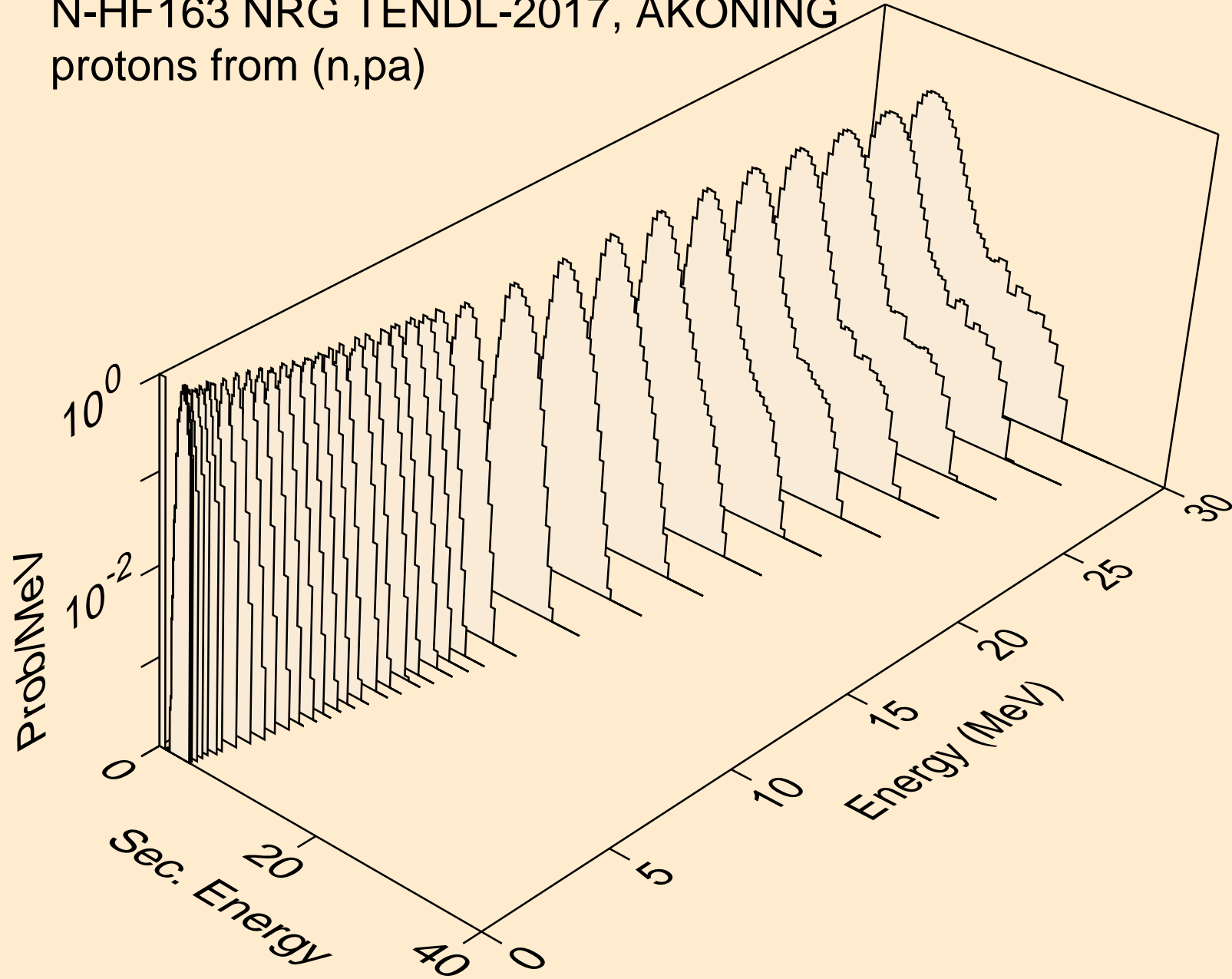
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,p)



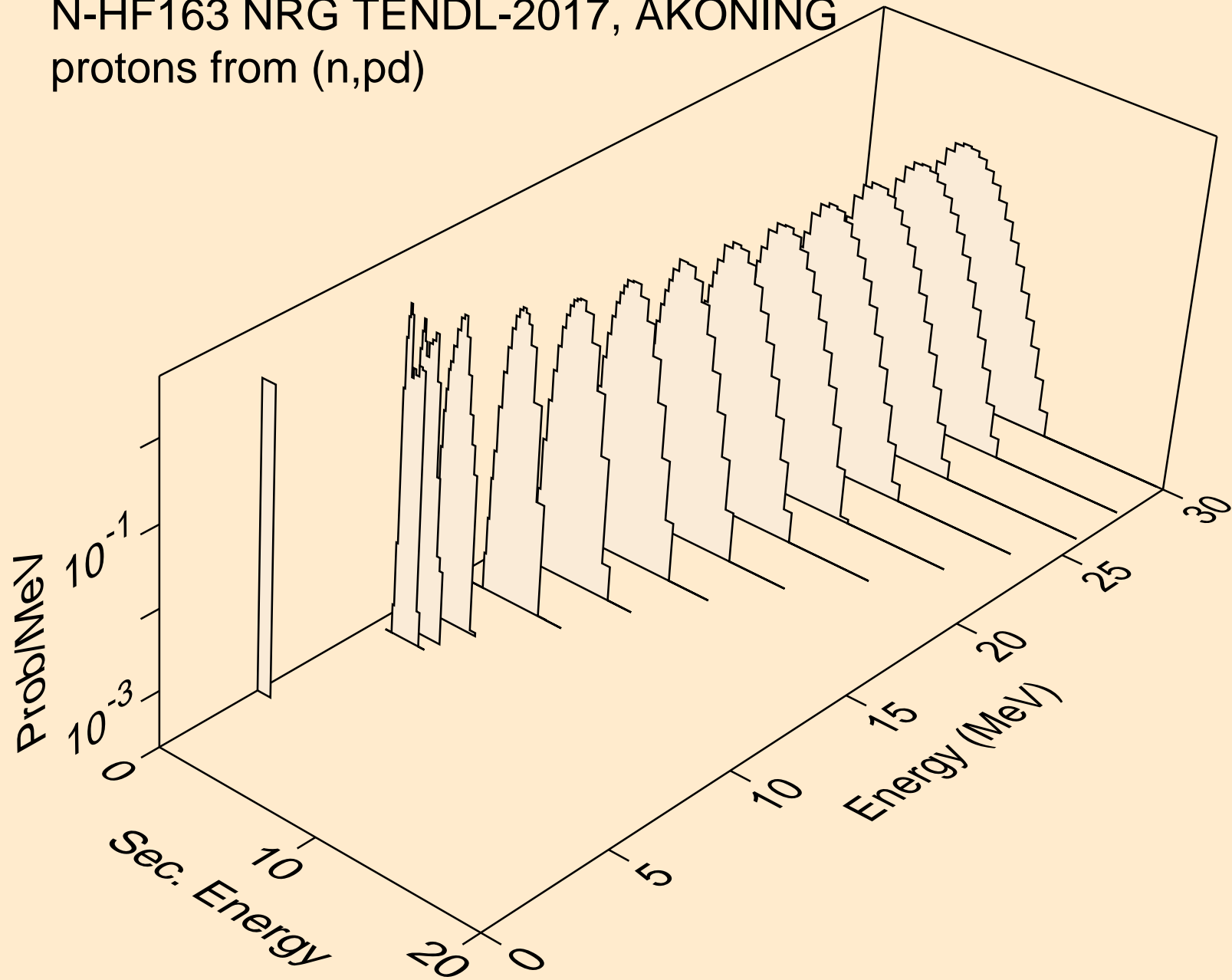
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,2p)



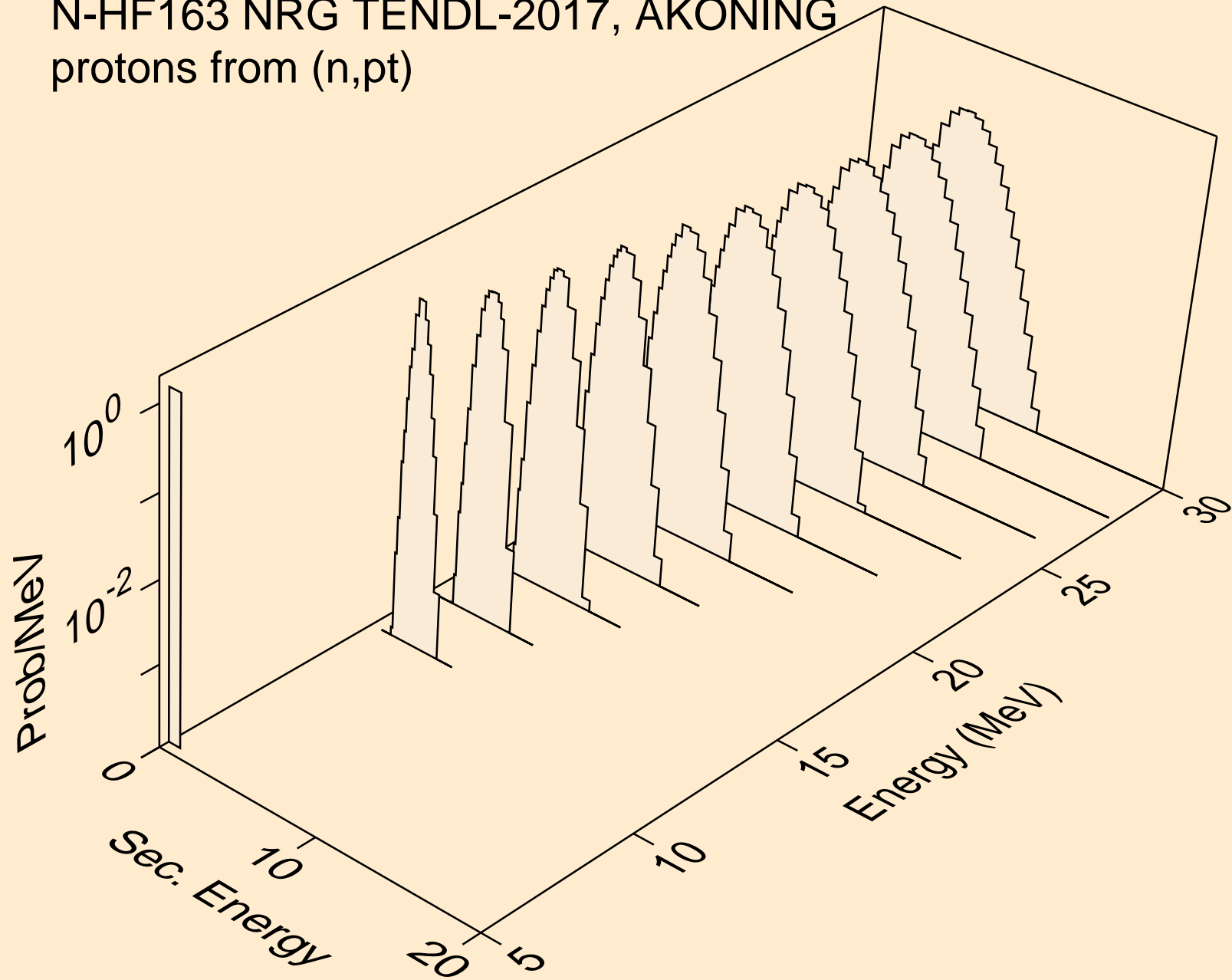
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,pa)



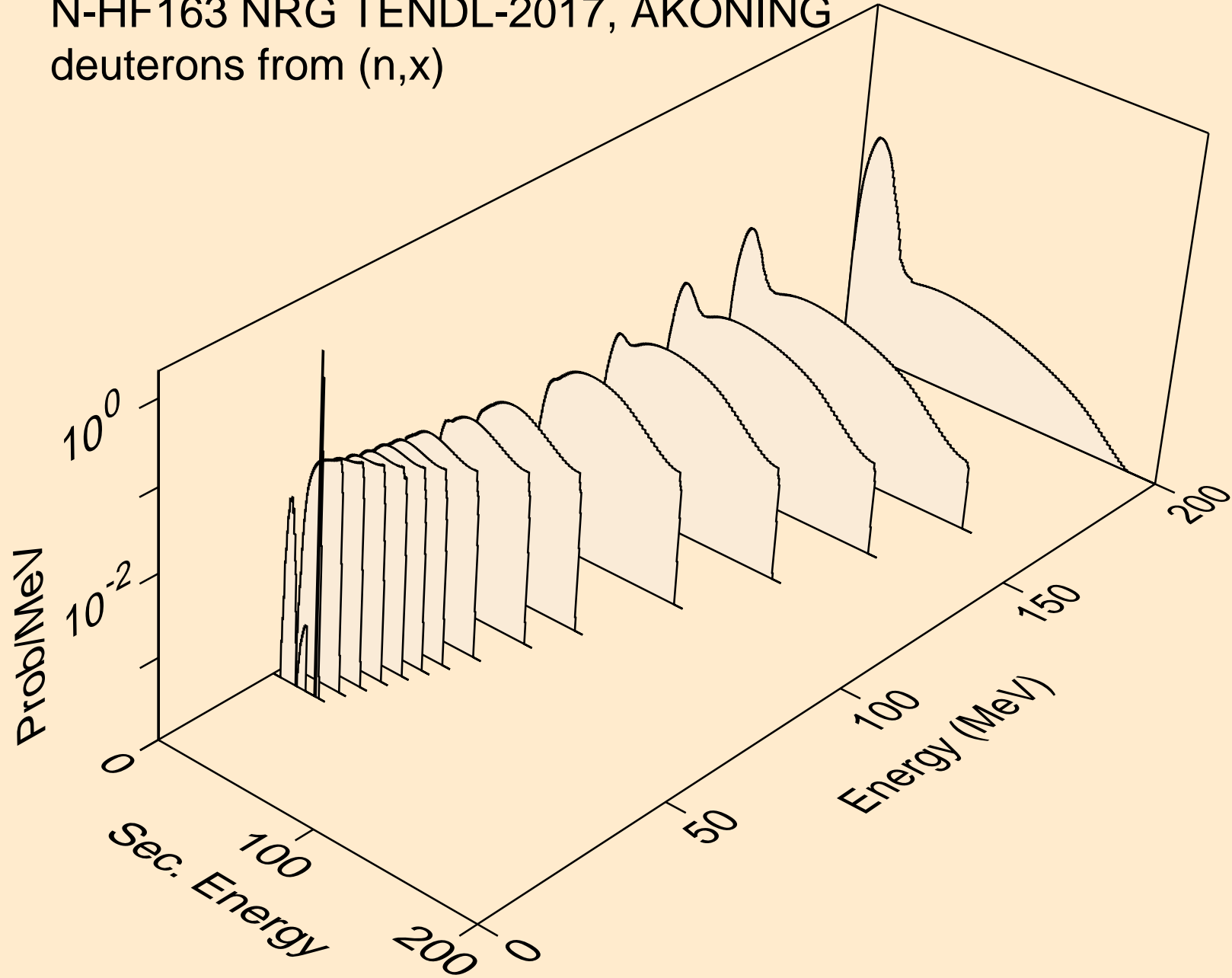
N-HF163 NRG TENDL-2017, AKONING  
protons from (n,pd)



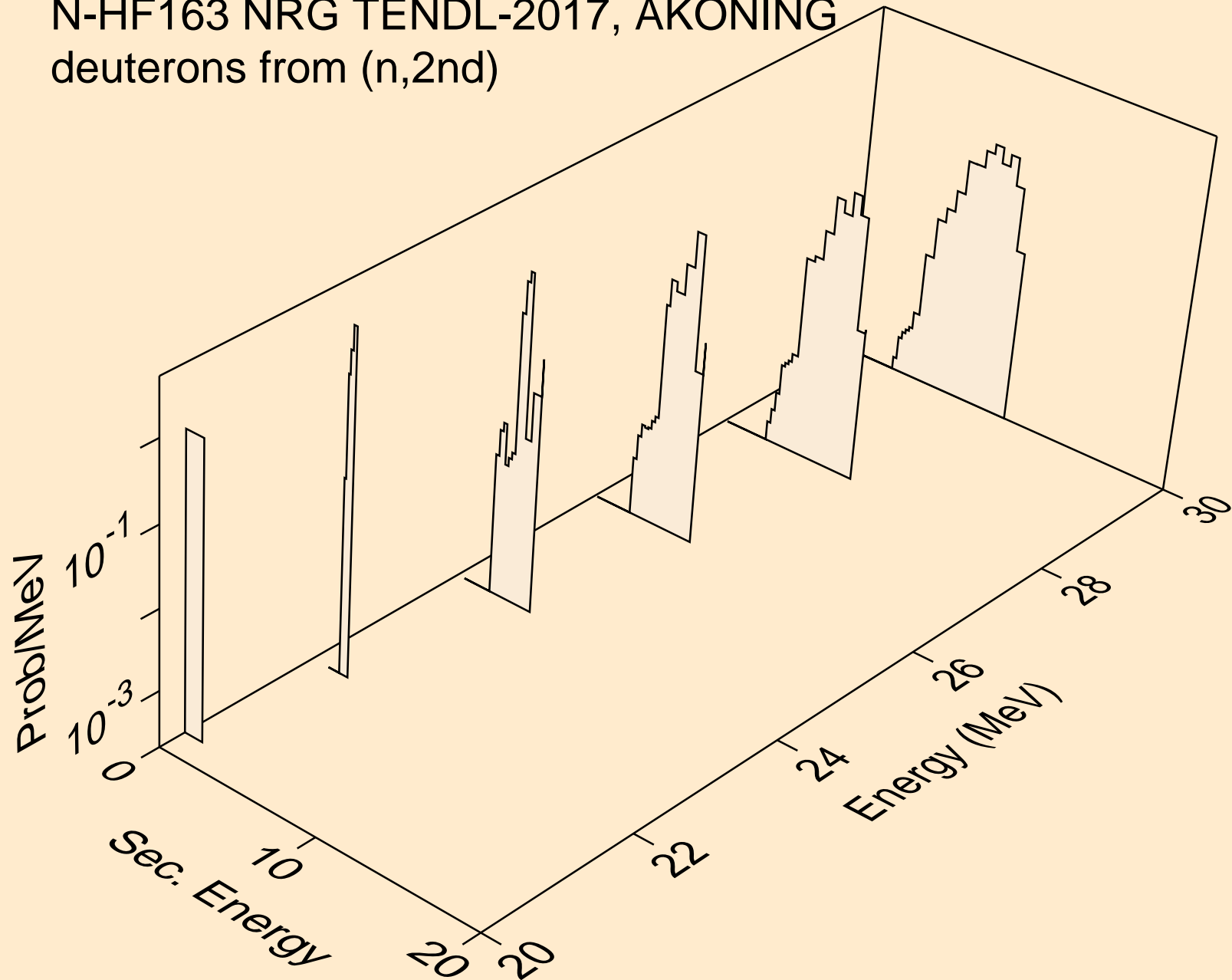
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protons from (n,pt)



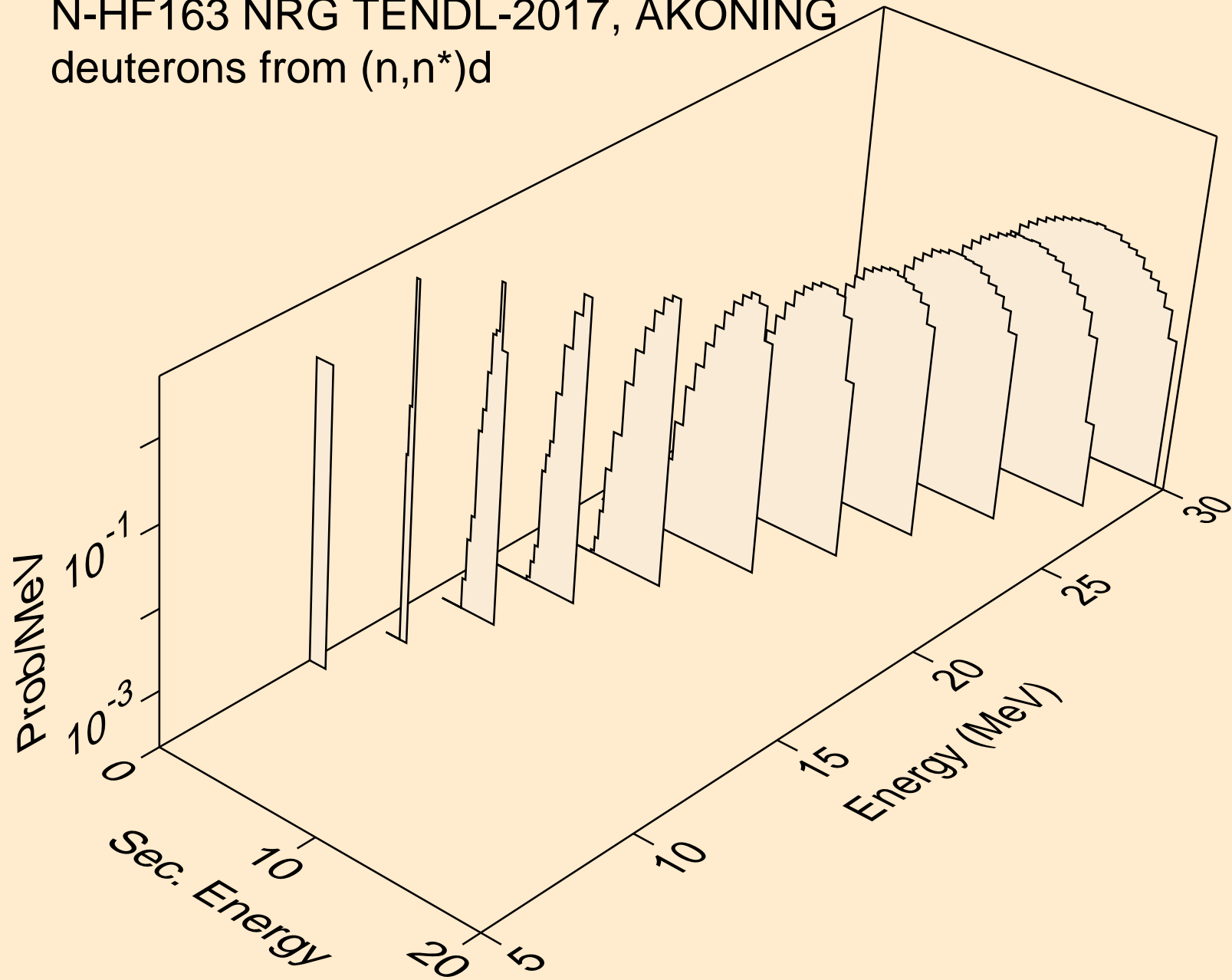
N-HF163 NRG TENDL-2017, AKONING  
deuterons from (n,x)



N-HF163 NRG TENDL-2017, AKONING  
deuterons from (n,2nd)

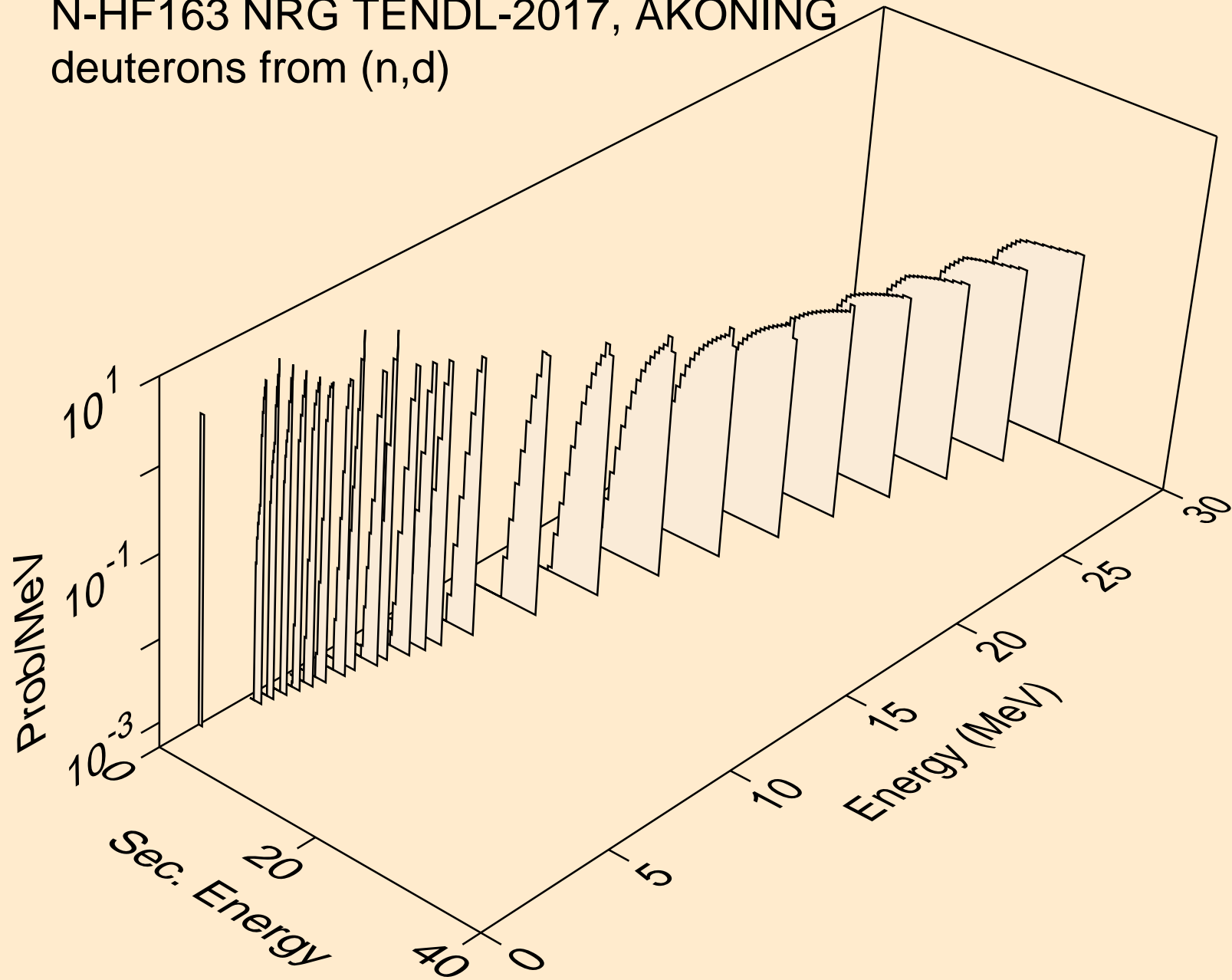


N-HF163 NRG TENDL-2017, AKONING  
deuterons from (n,n\*)d

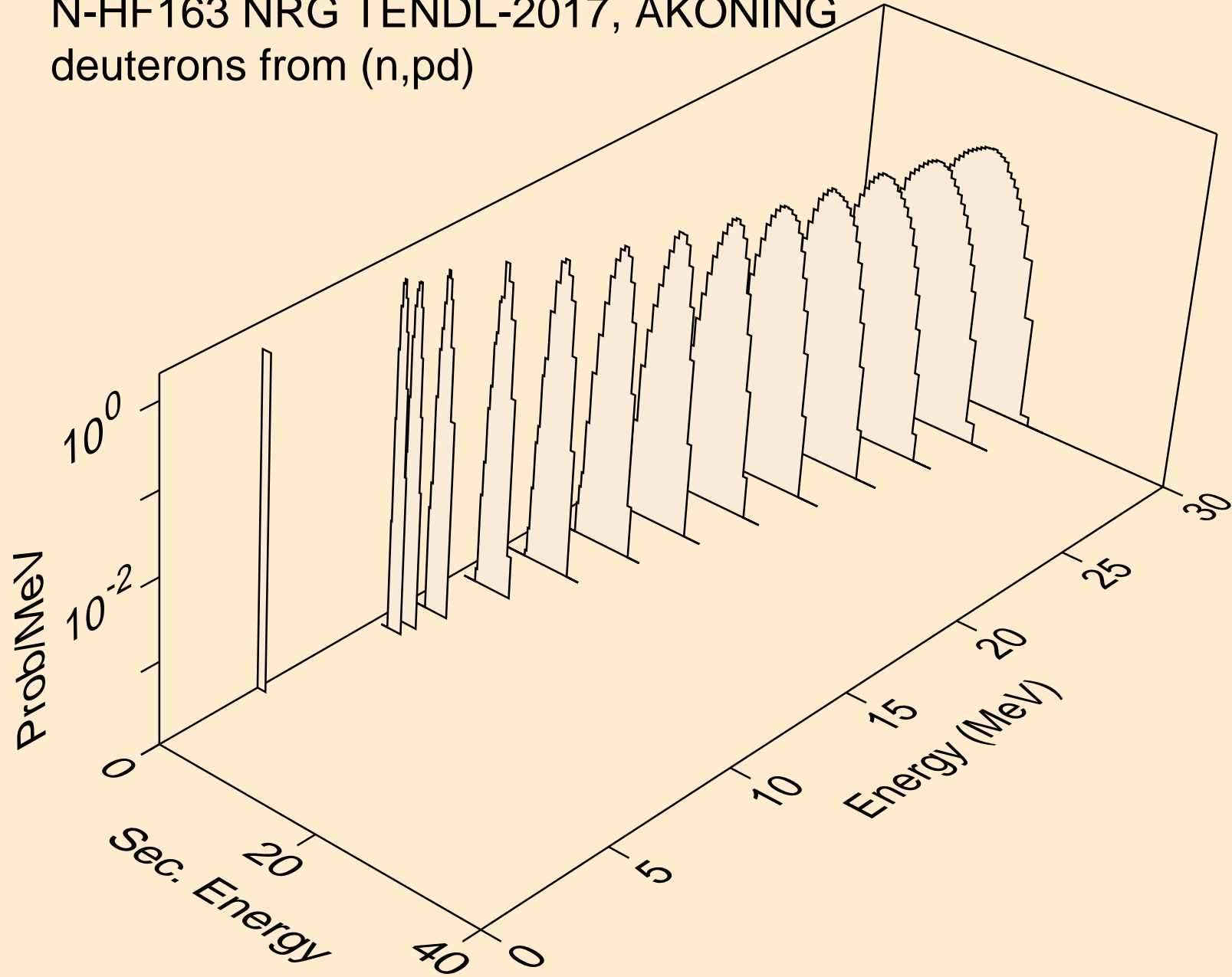




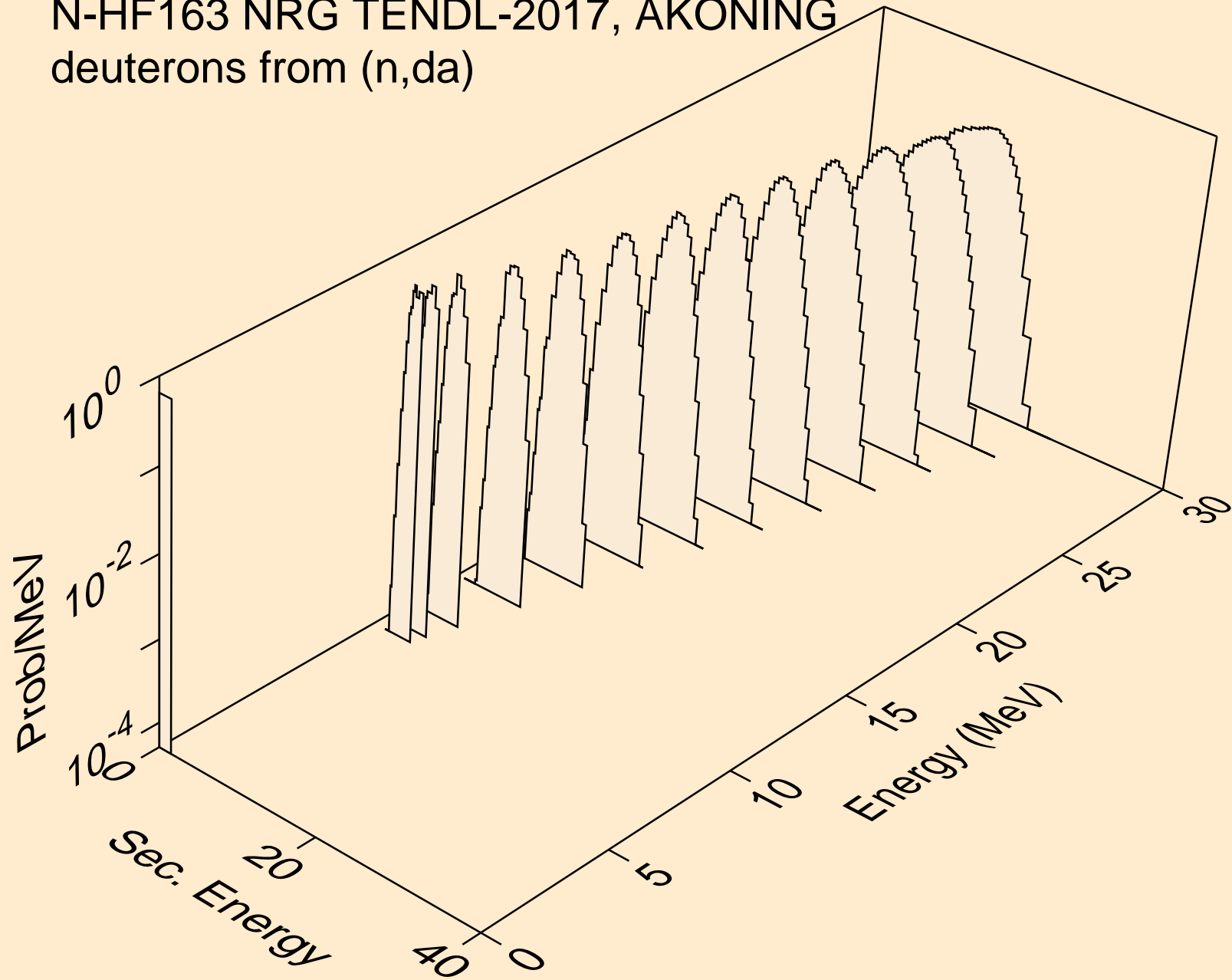
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deuterons from (n,d)



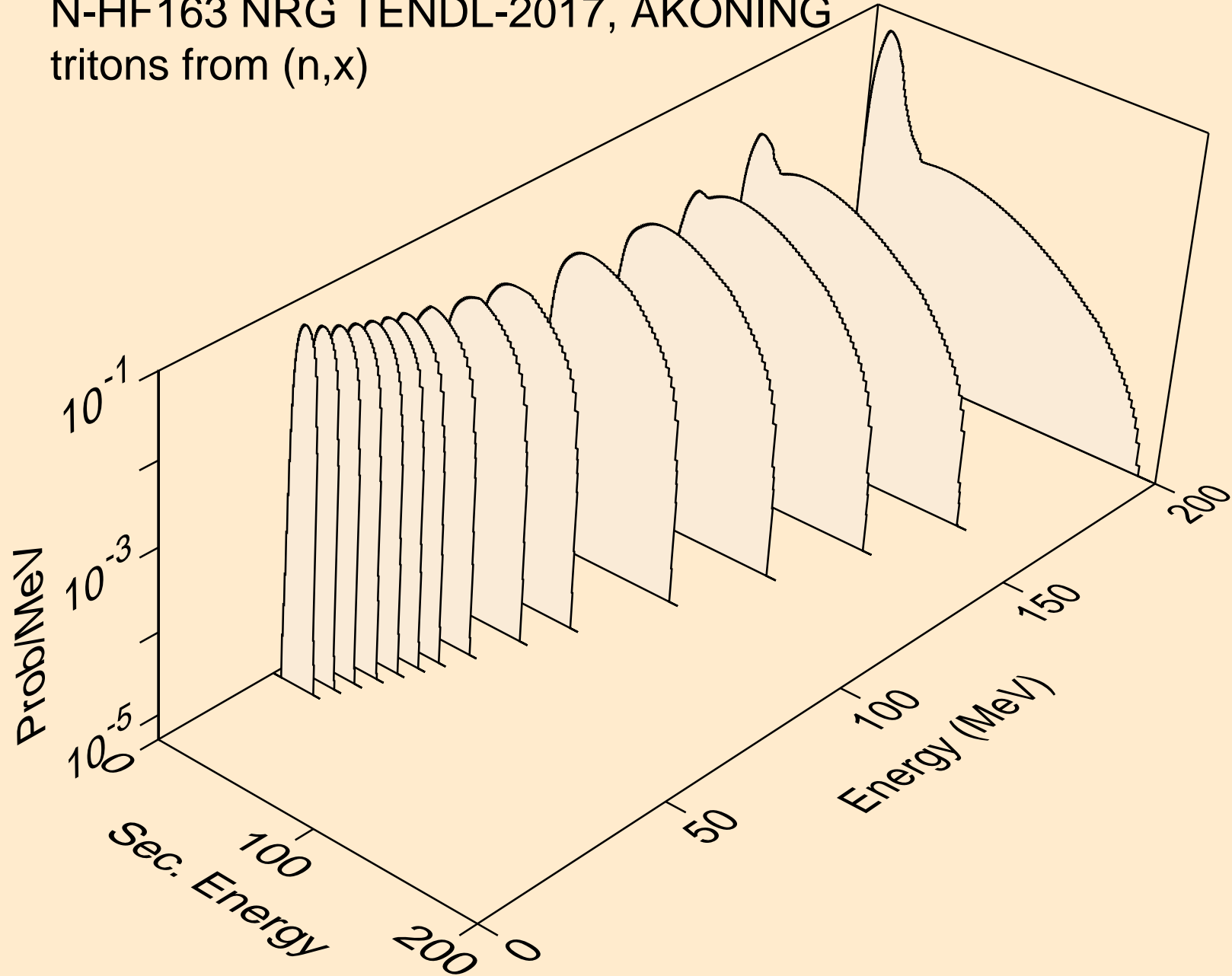
N-HF163 NRG TENDL-2017, AKONING  
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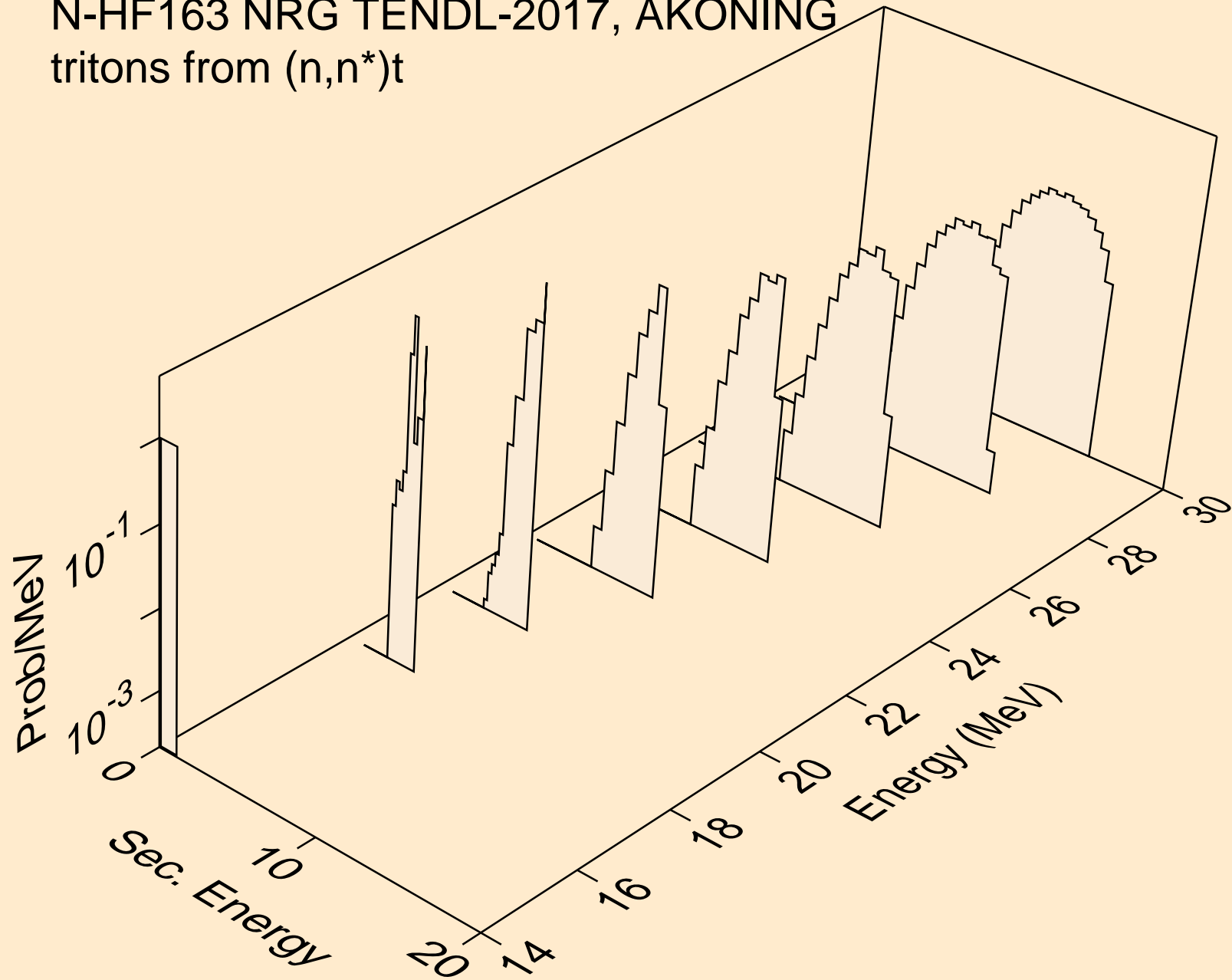
N-HF163 NRG TENDL-2017, AKONING  
deuterons from (n,da)



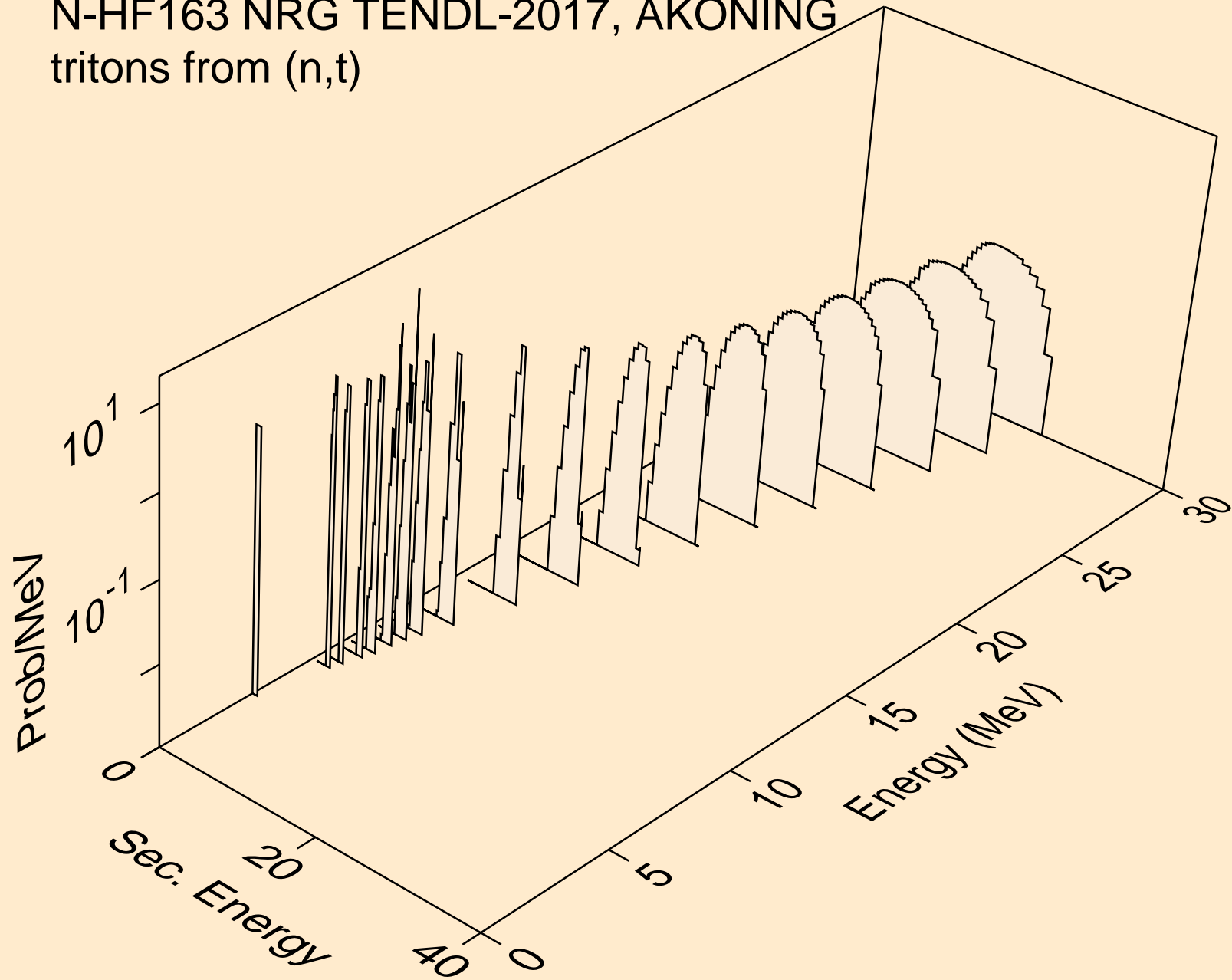
N-HF163 NRG TENDL-2017, AKONING  
tritons from (n,x)



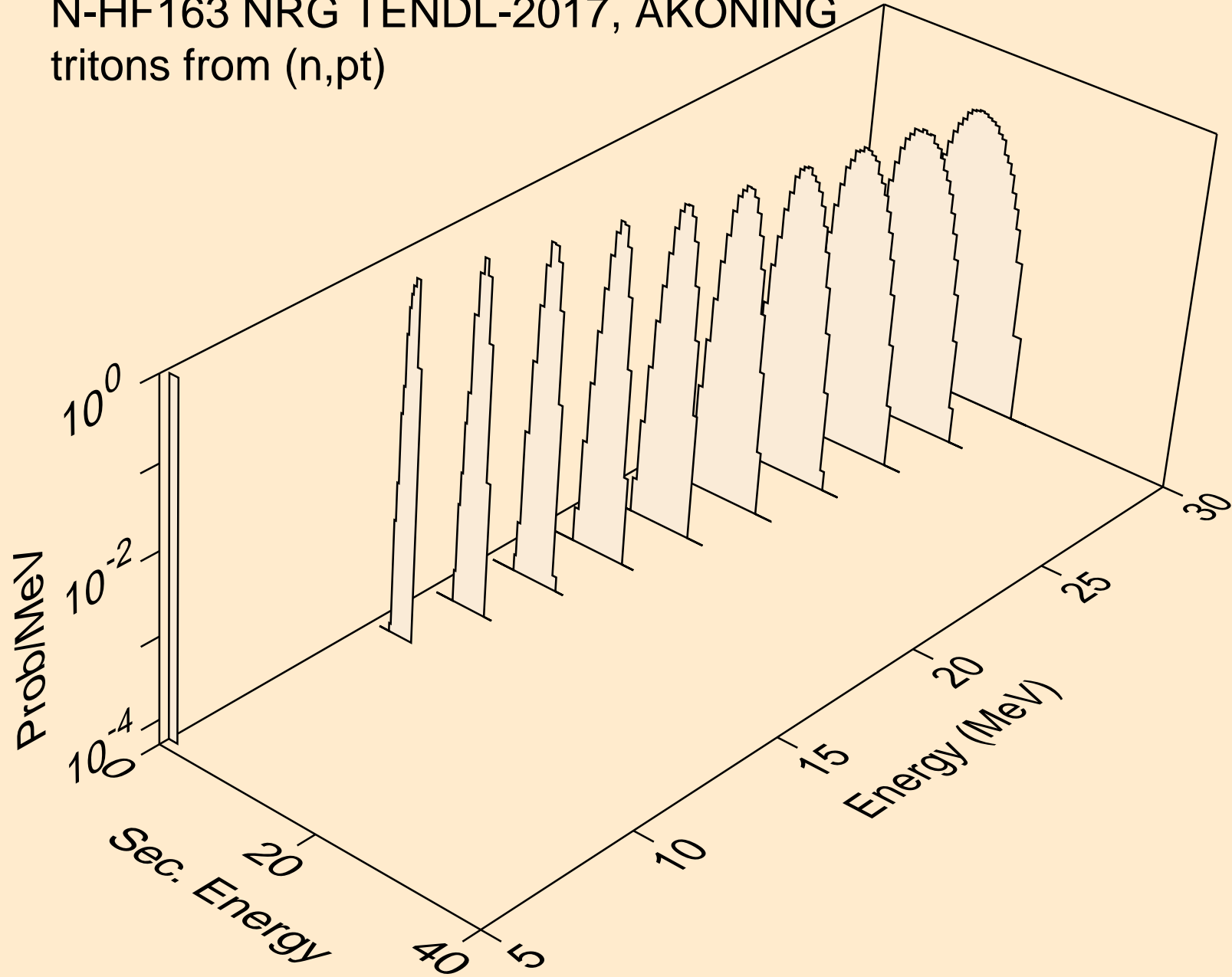
N-HF163 NRG TENDL-2017, AKONING  
tritons from (n,n\*)t



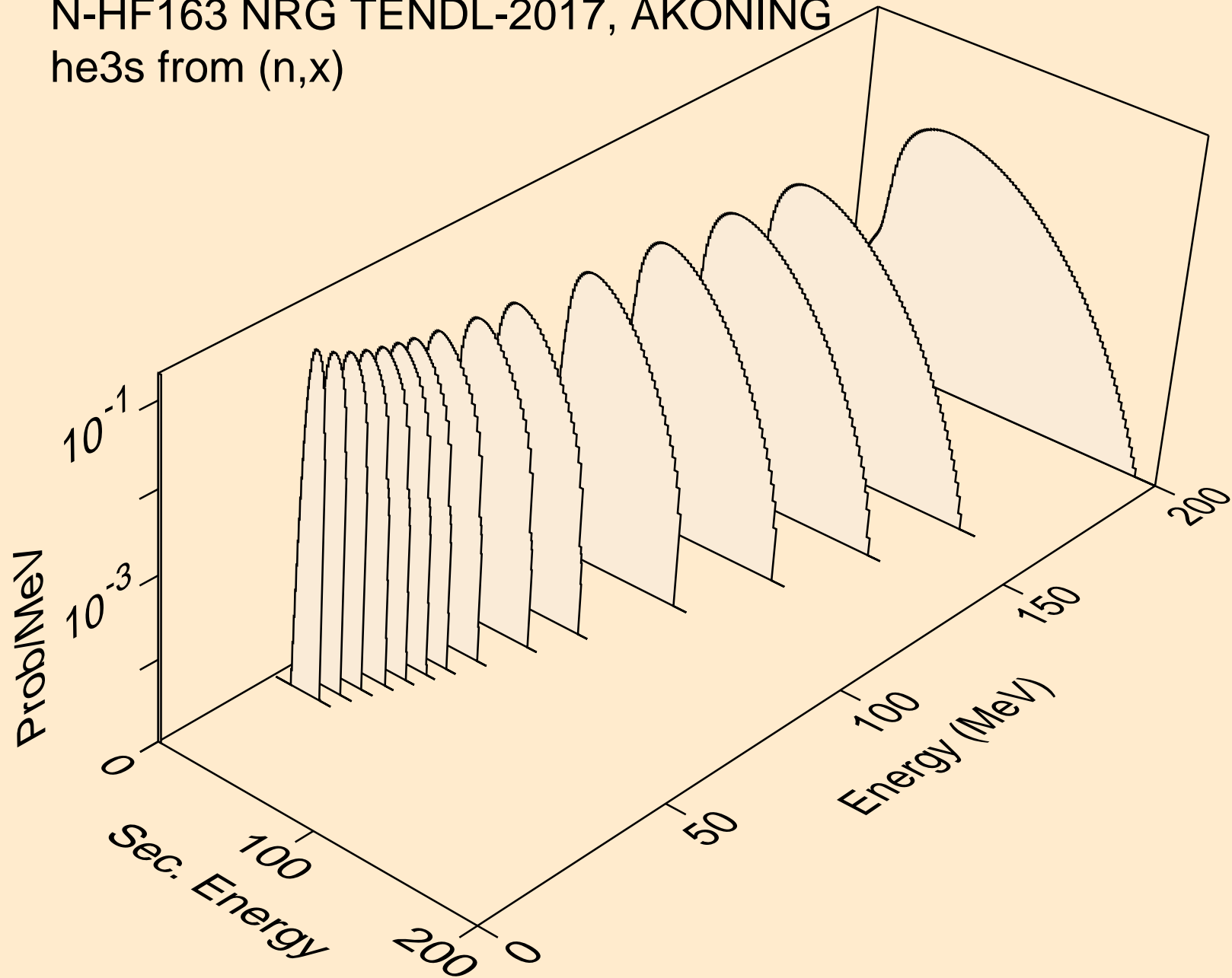
N-HF163 NRG TENDL-2017, AKONING  
tritons from (n,t)



N-HF163 NRG TENDL-2017, AKONING  
tritons from (n,pt)

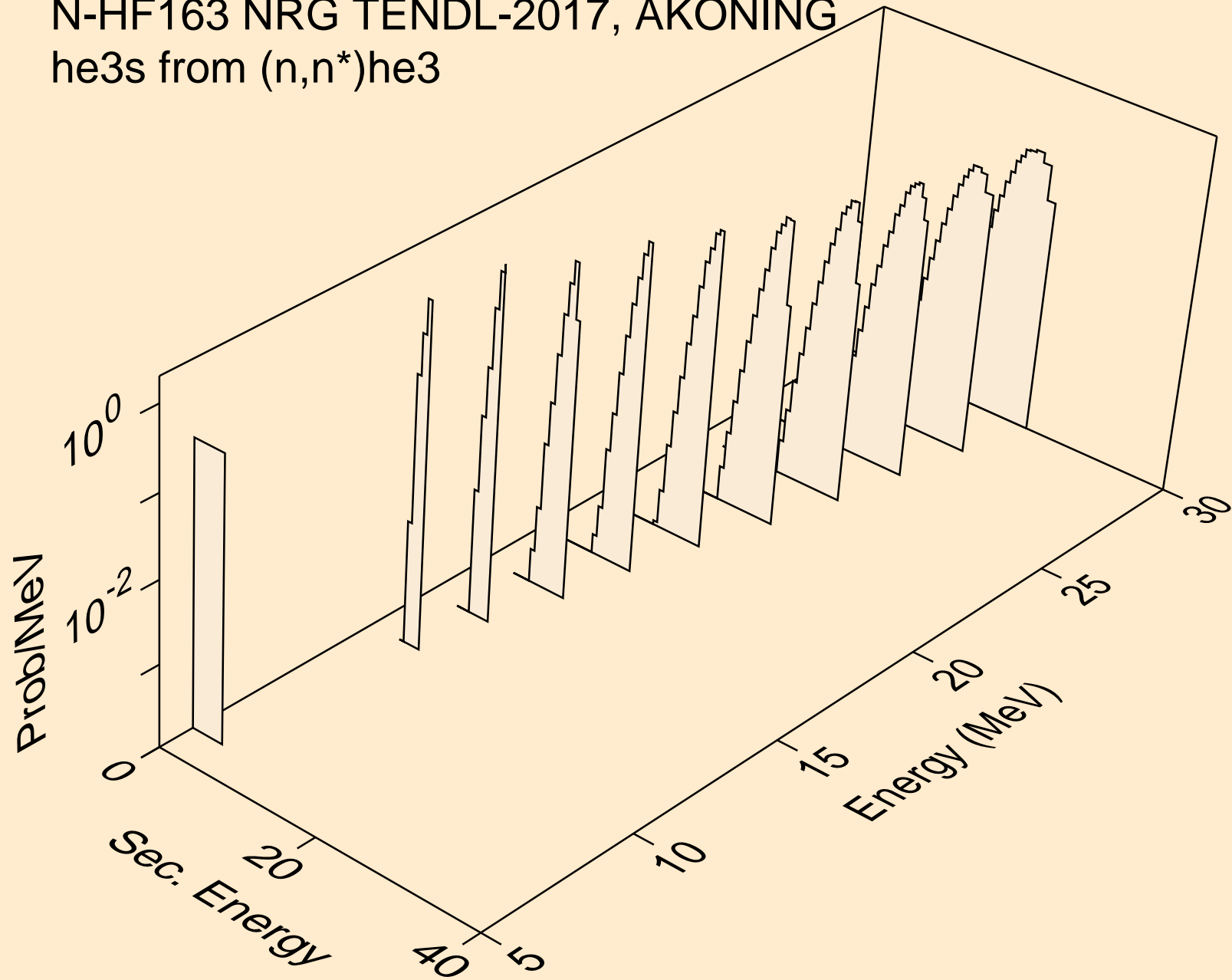


N-HF163 NRG TENDL-2017, AKONING  
he3s from (n,x)

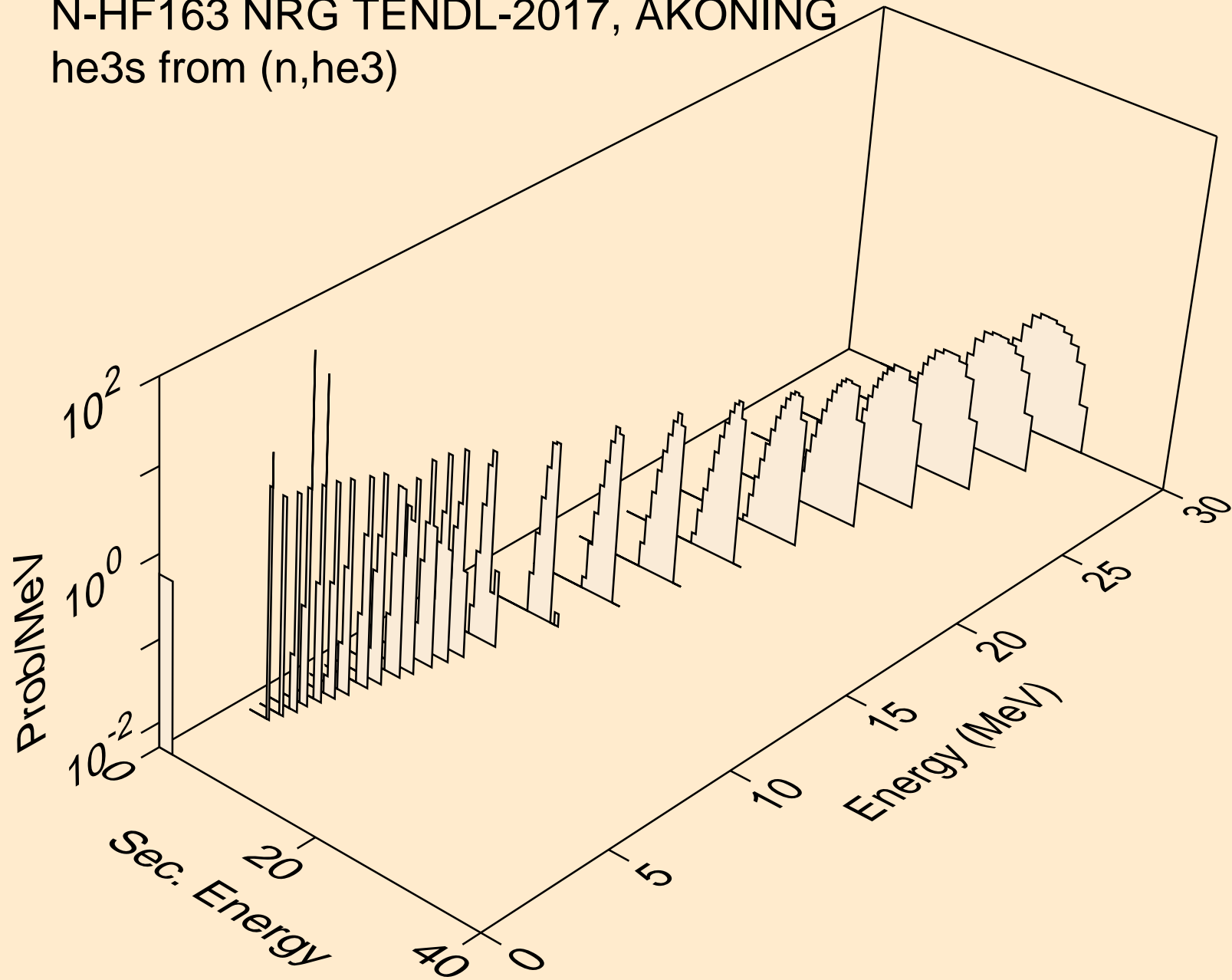




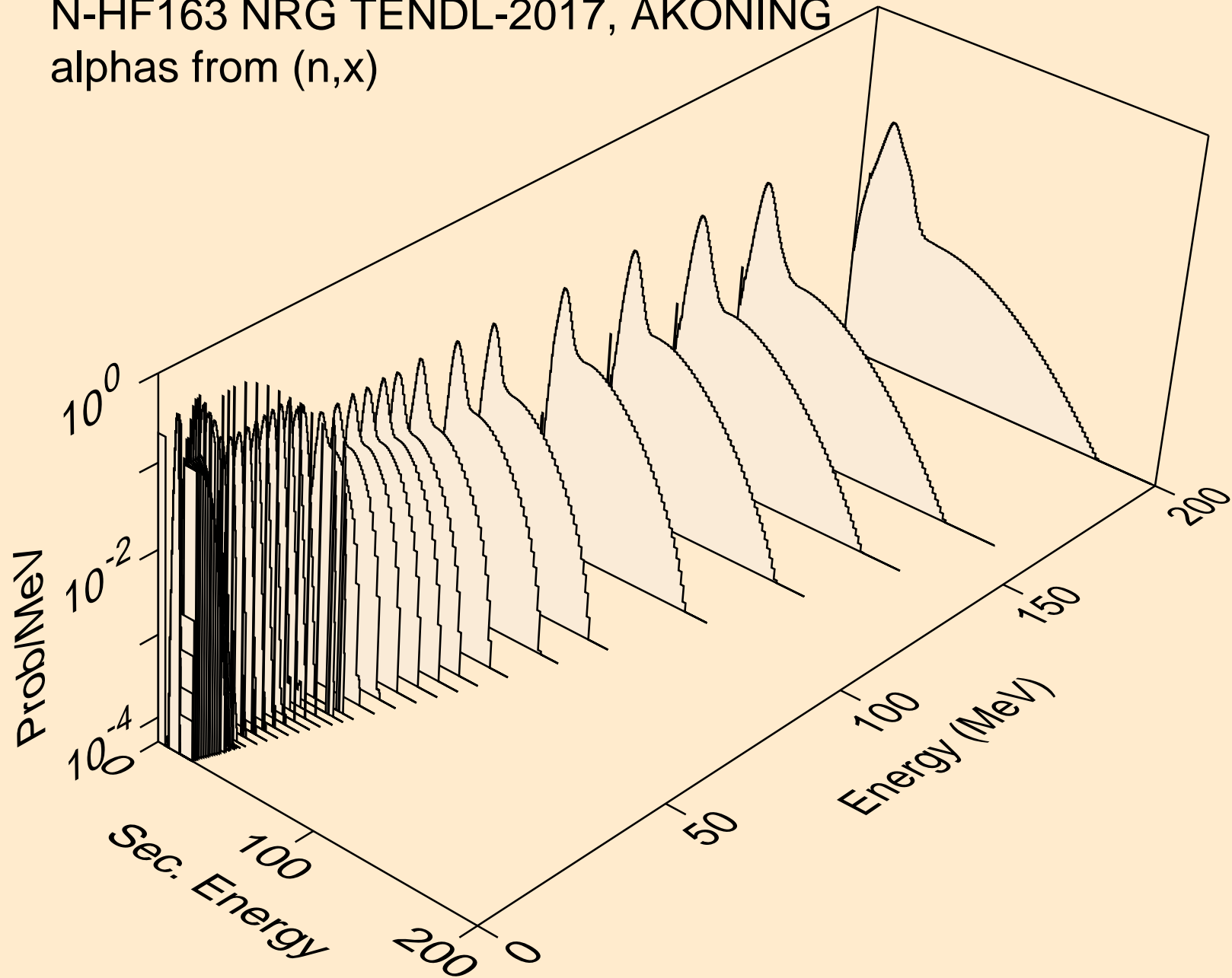
N-HF163 NRG TENDL-2017, AKONING  
he3s from (n,n\*)he3



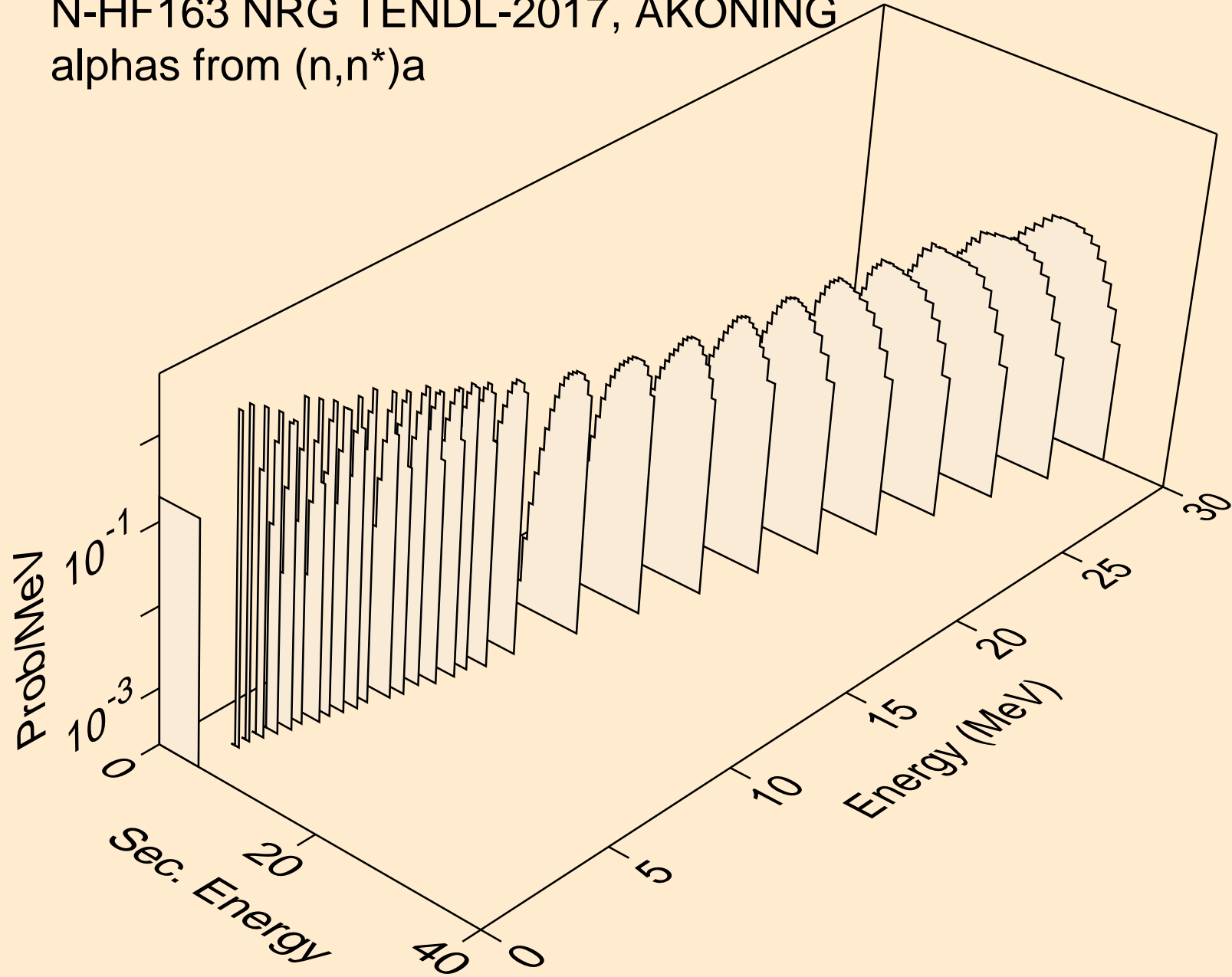
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he3s from (n,he3)



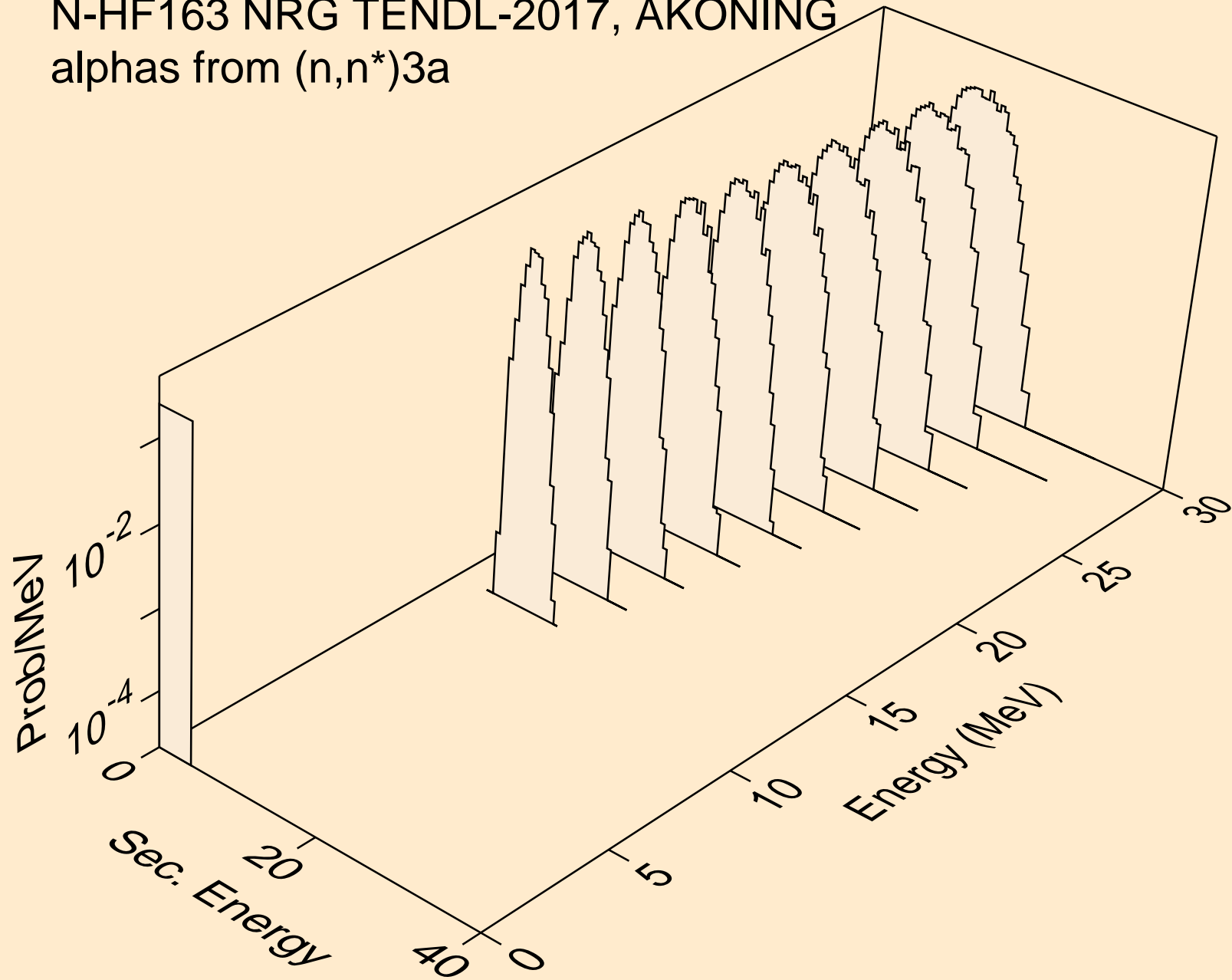
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,x)



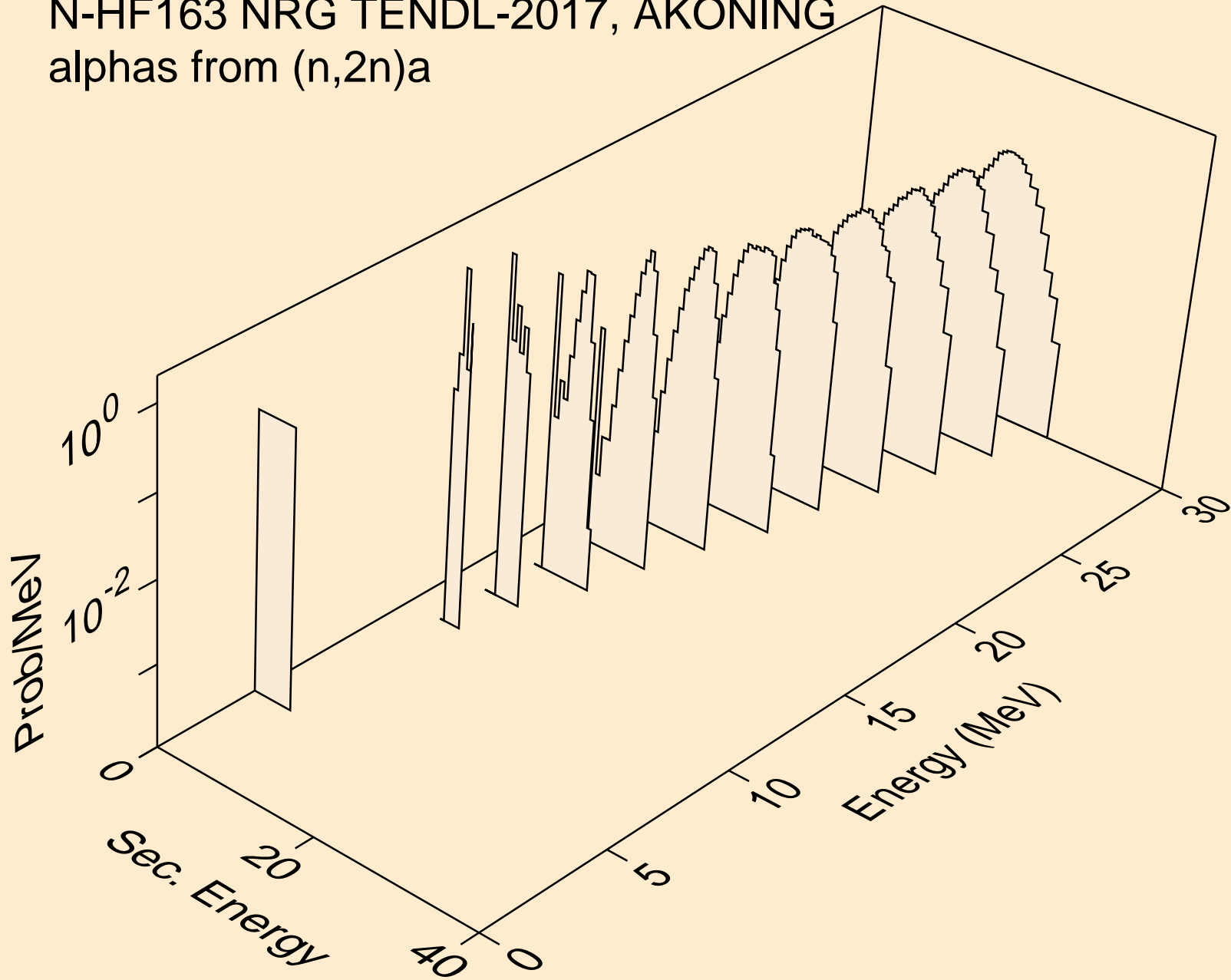
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,n\*)a



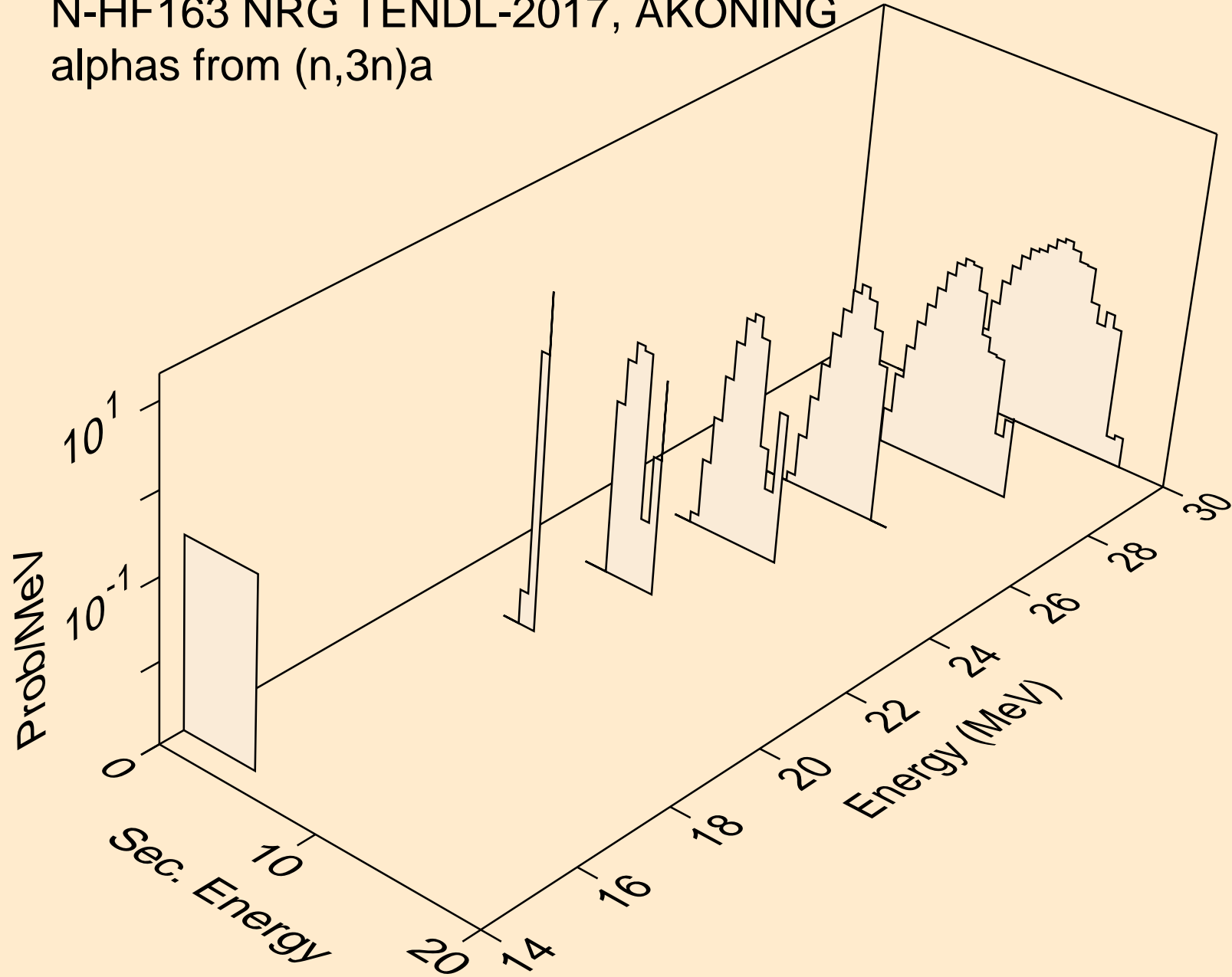
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,n\*)3a



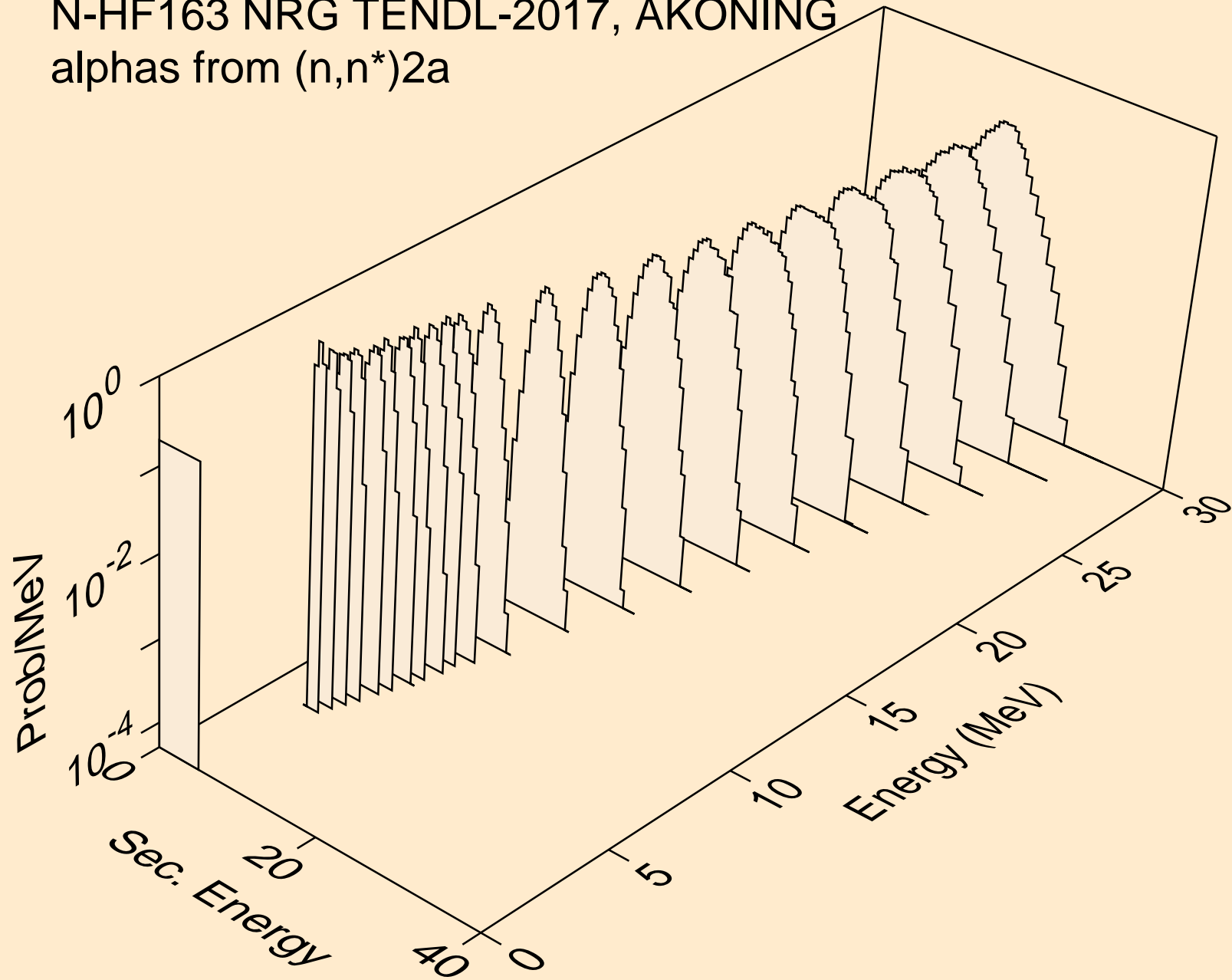
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,2n)a



N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,3n)a

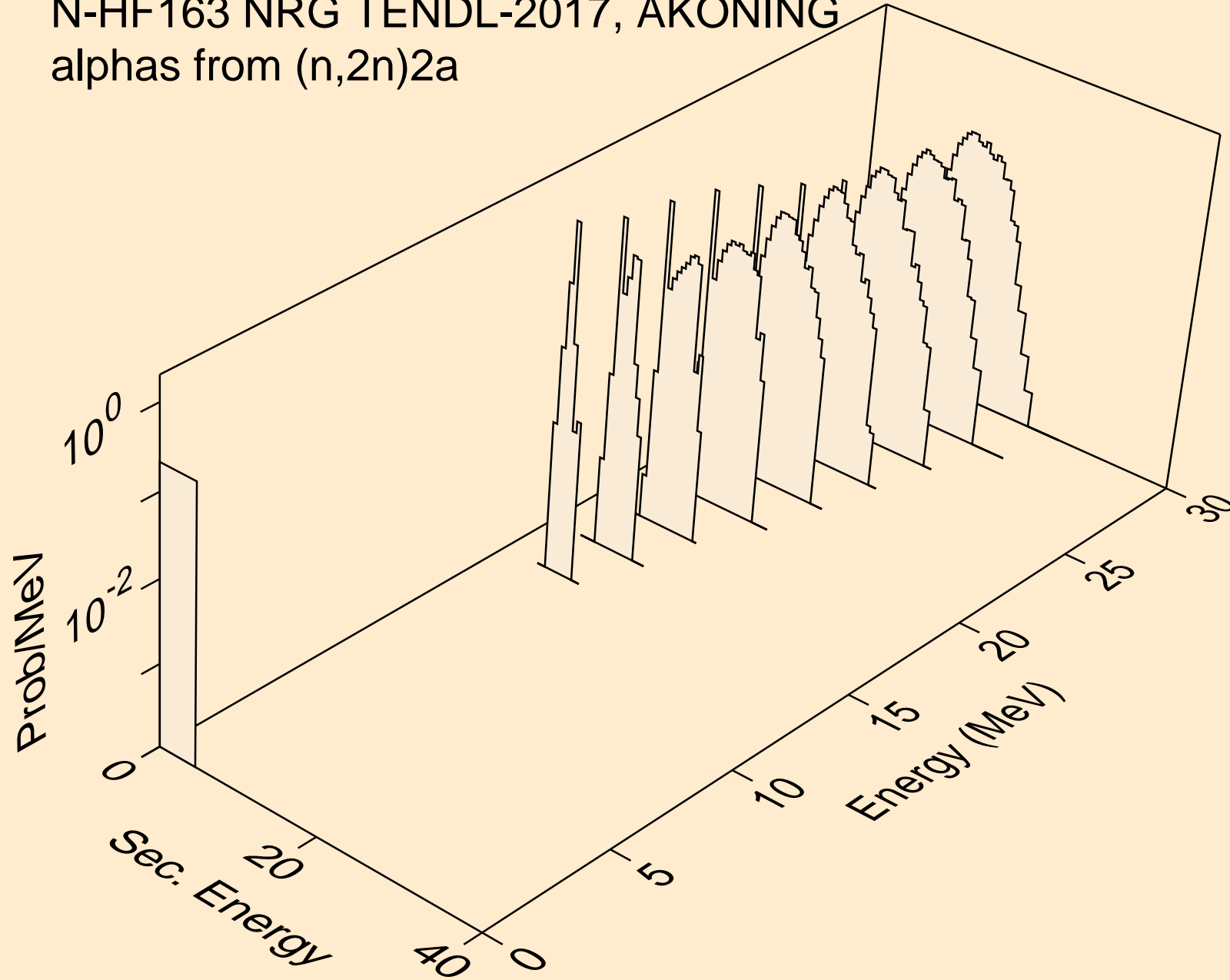


N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,n\*)2a

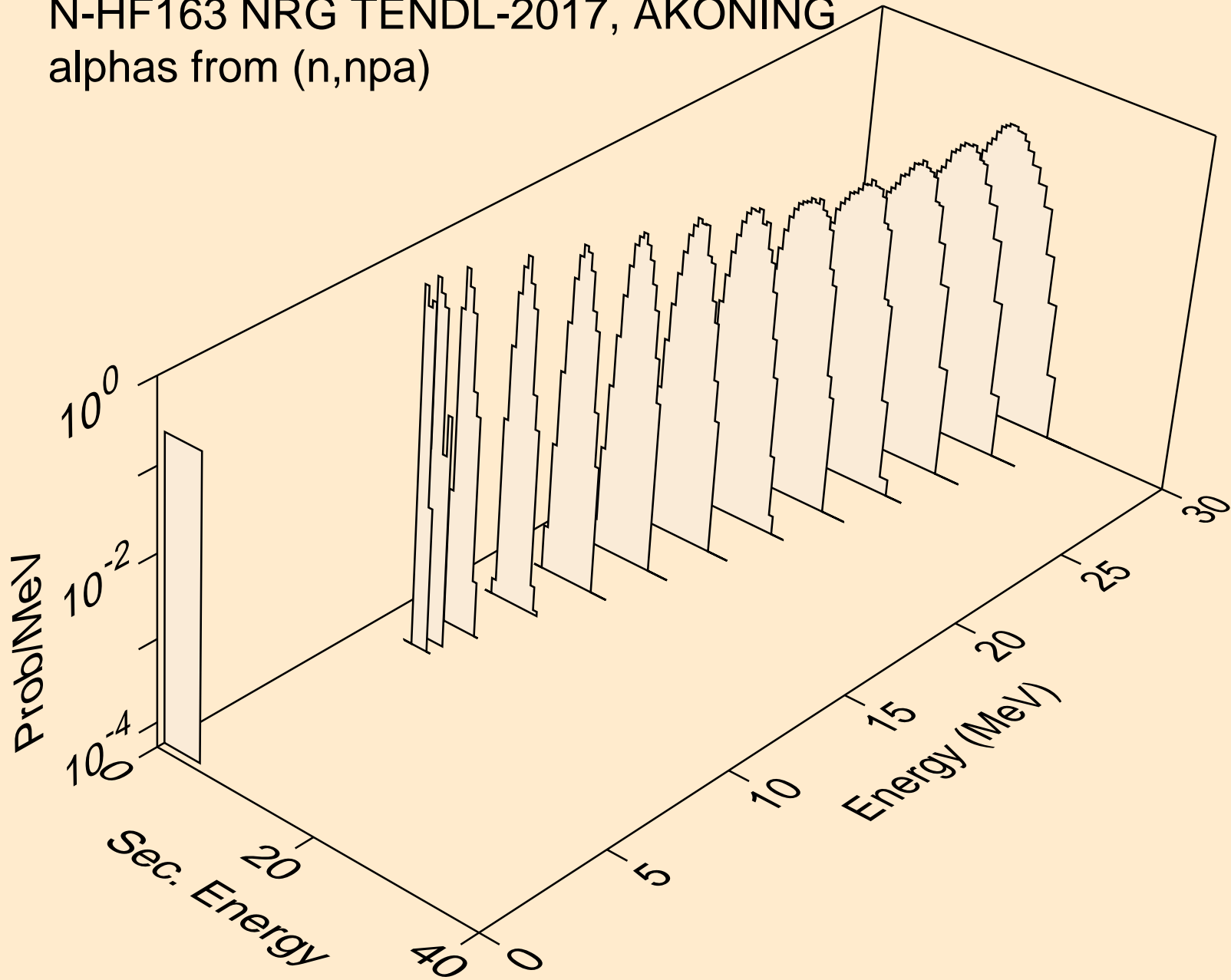




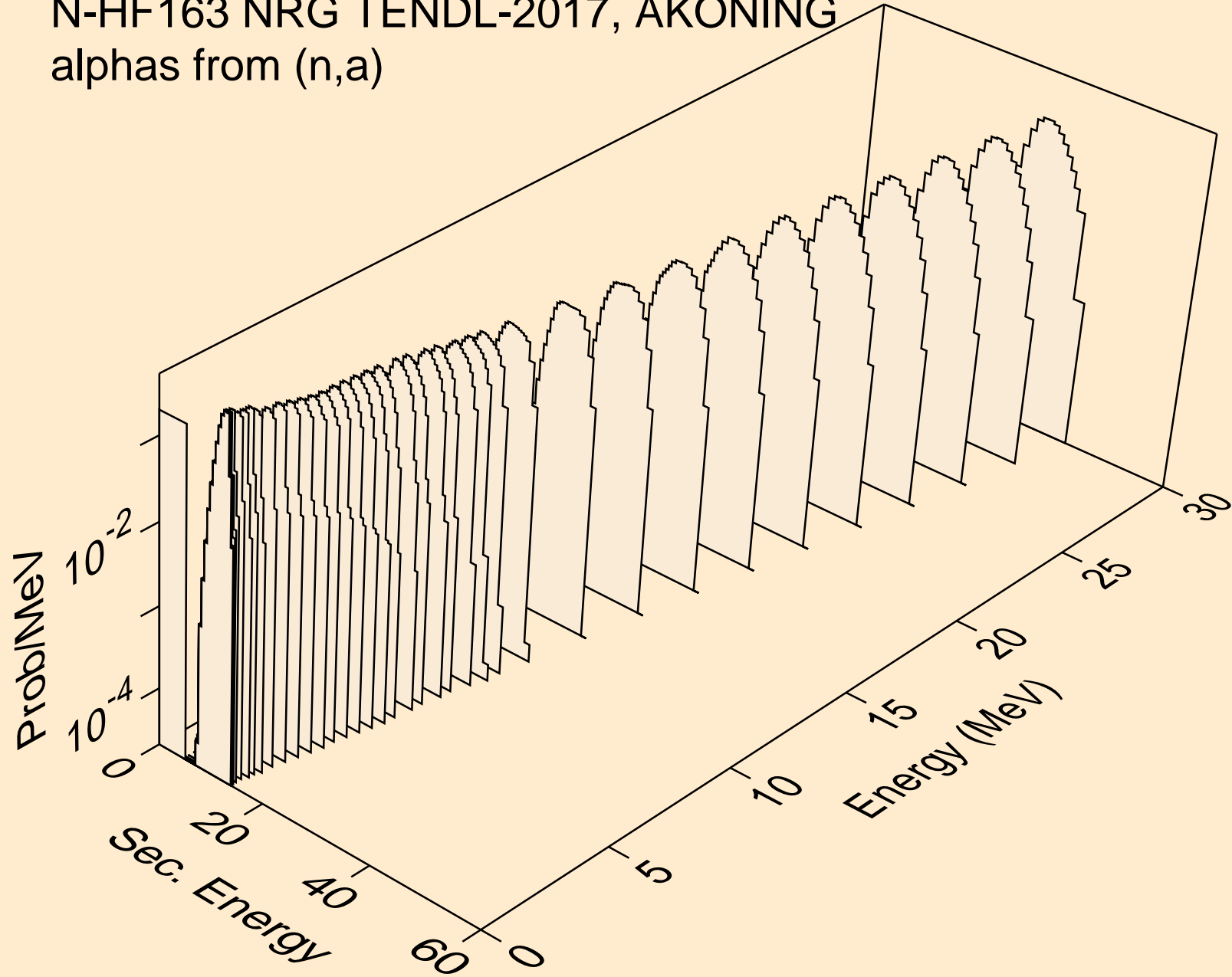
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,2n)2a



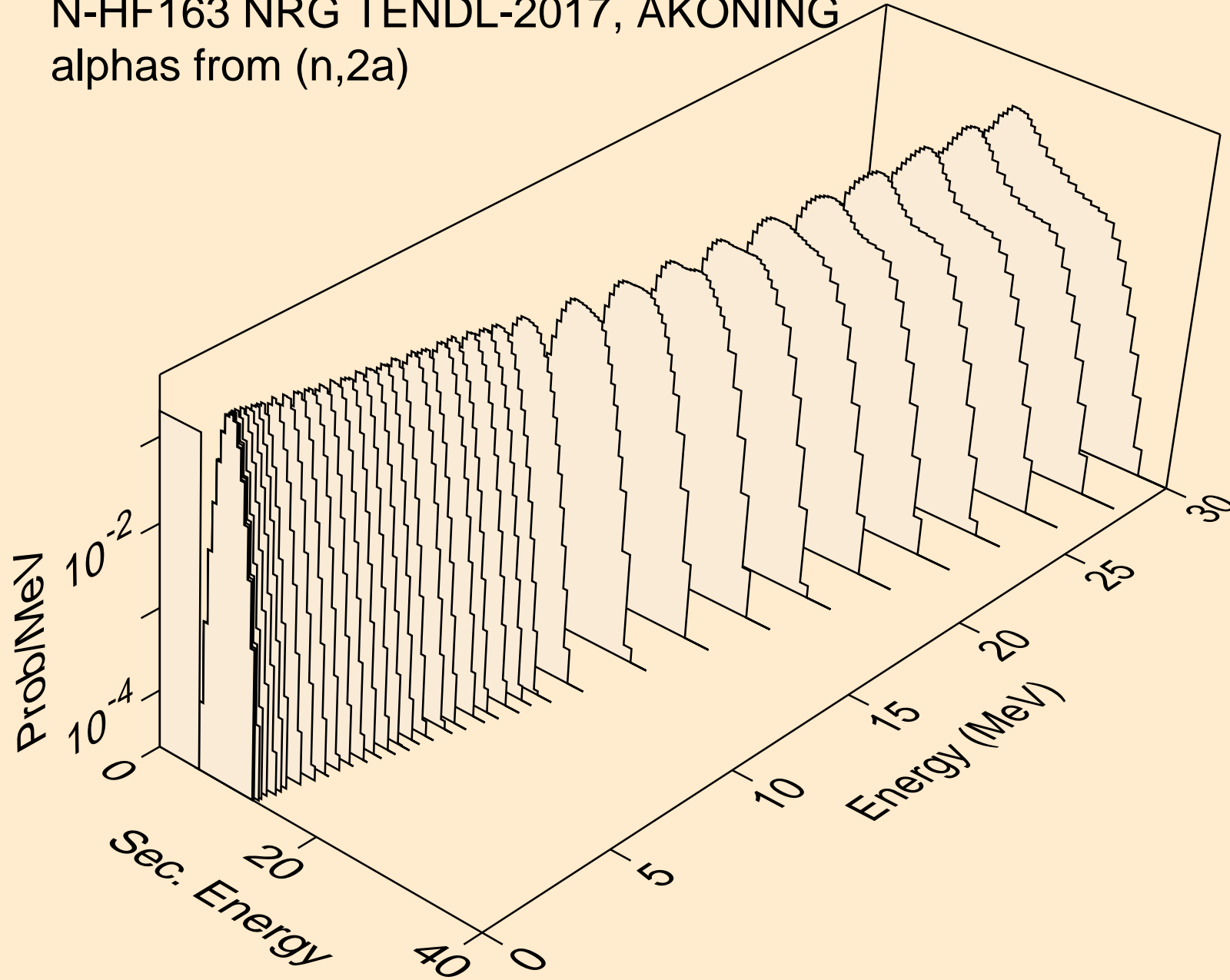
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,npa)



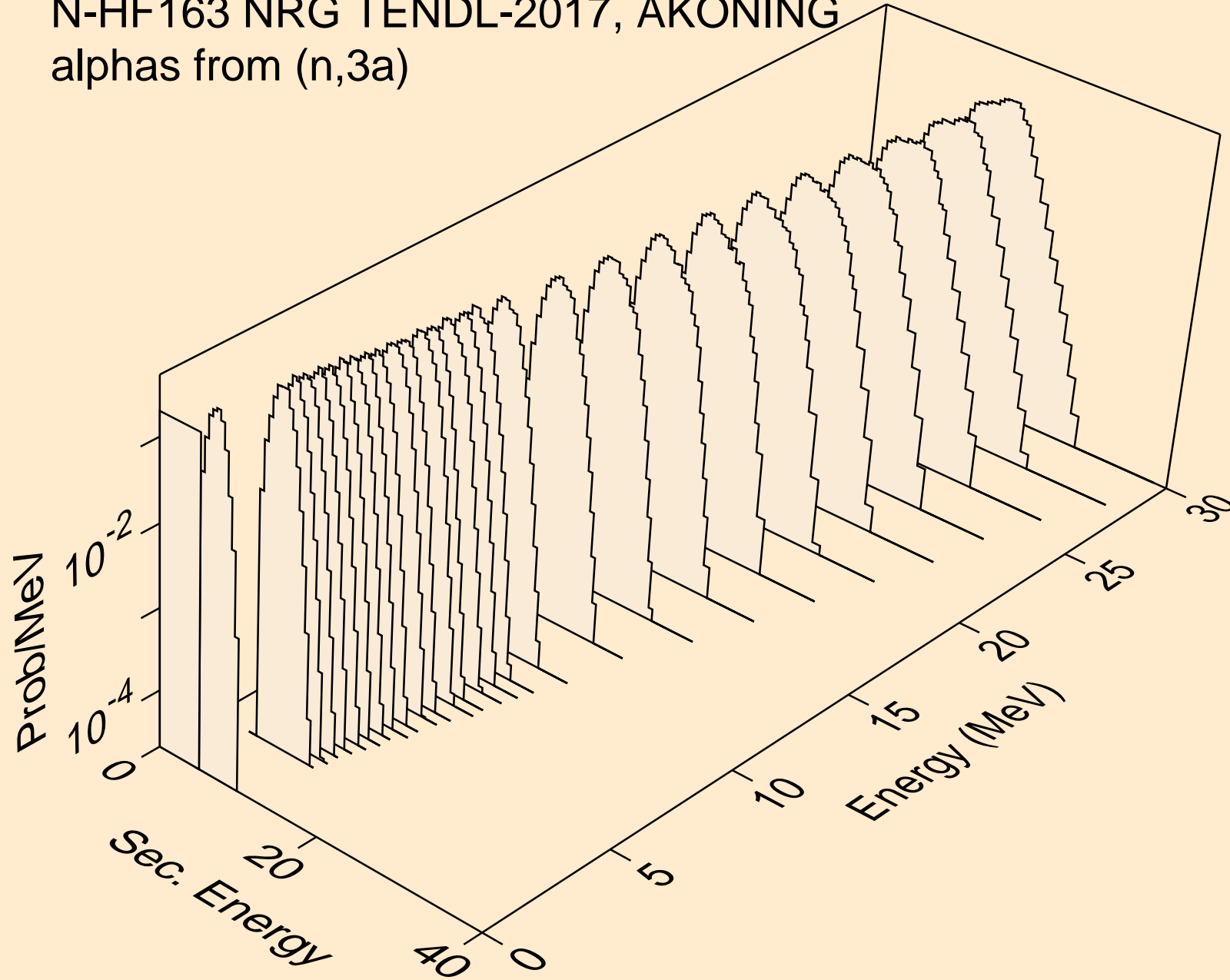
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alphas from (n,a)



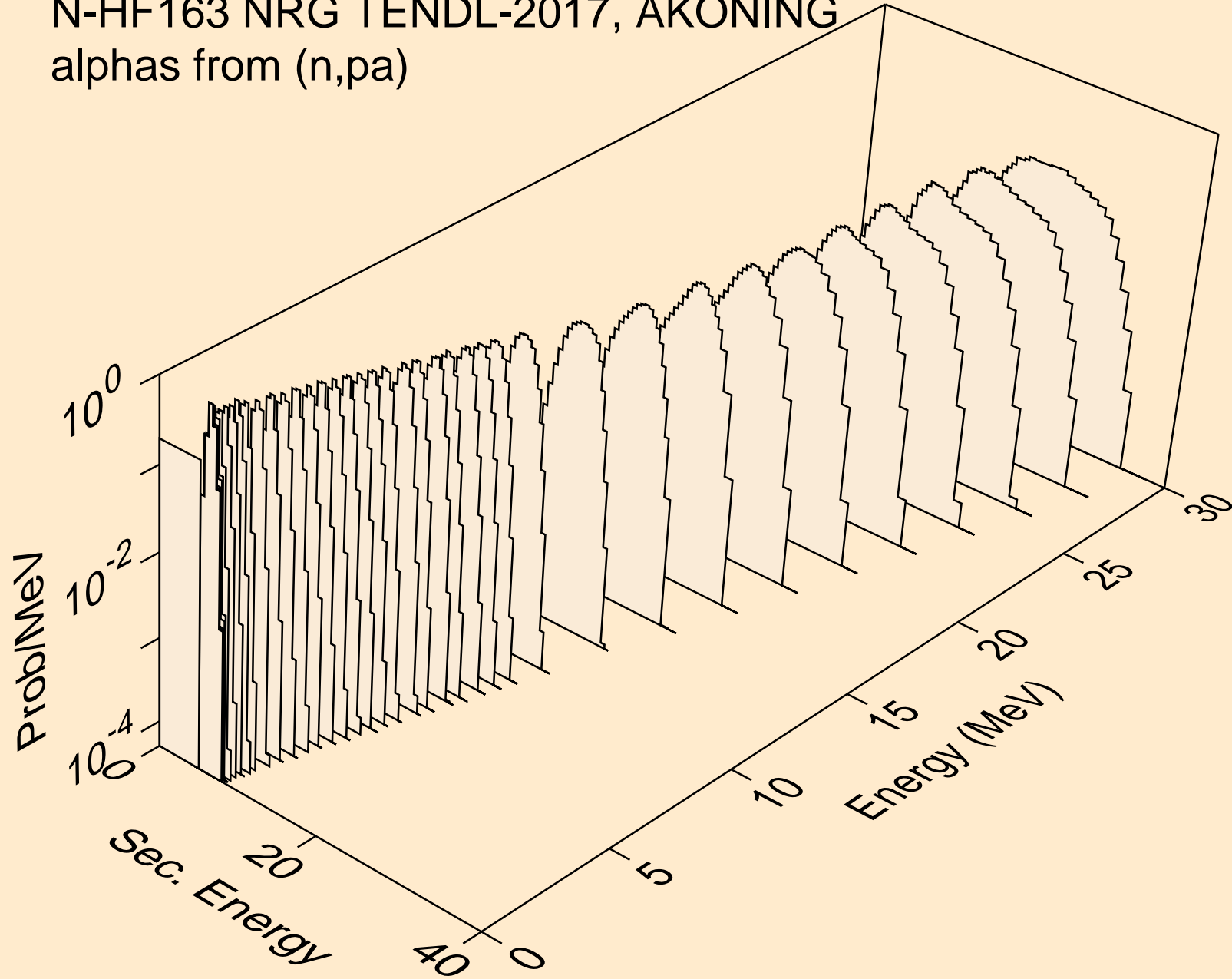
N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,2a)



N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,3a)



N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,pa)



N-HF163 NRG TENDL-2017, AKONING  
alphas from (n,da)

