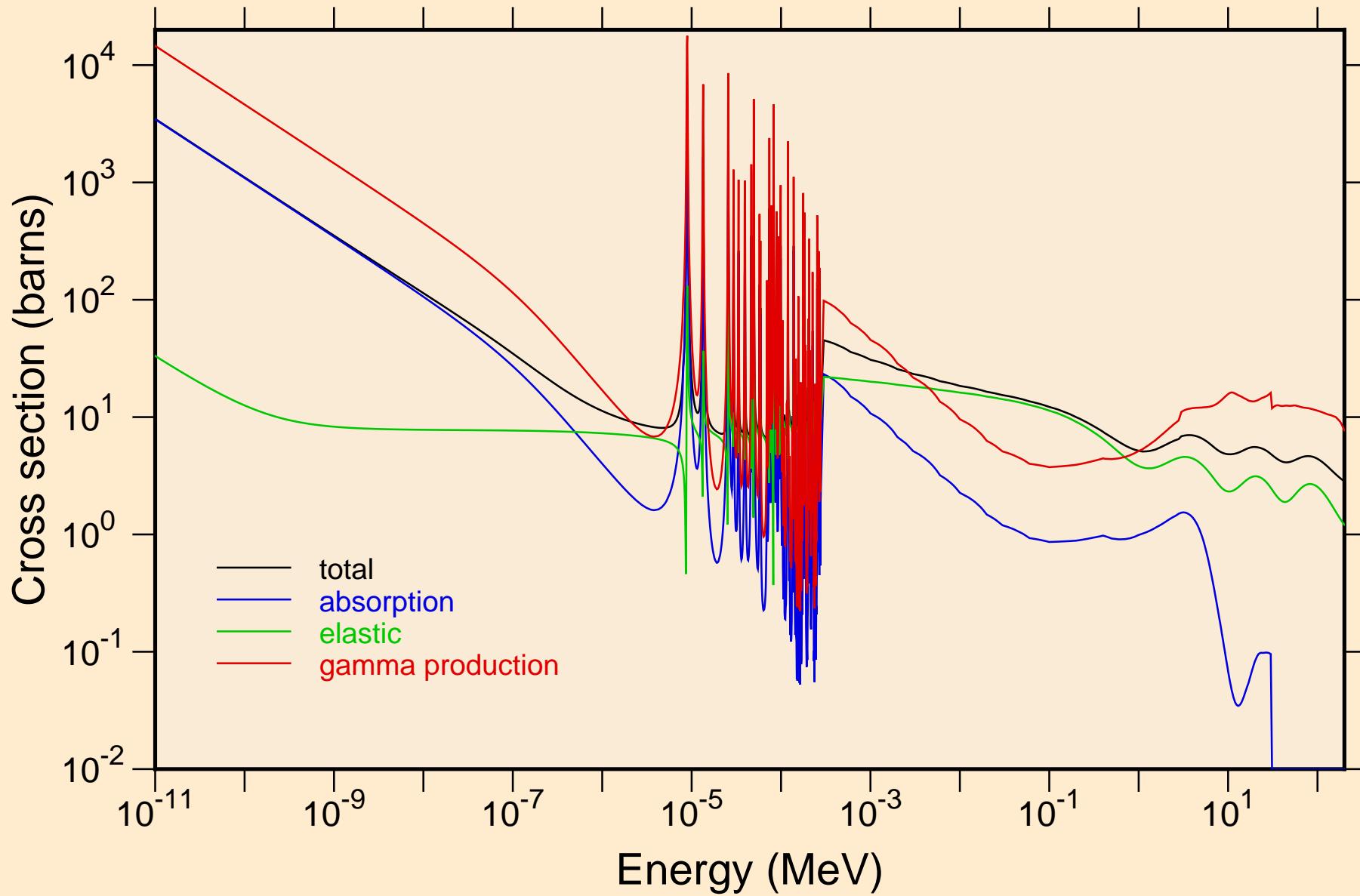
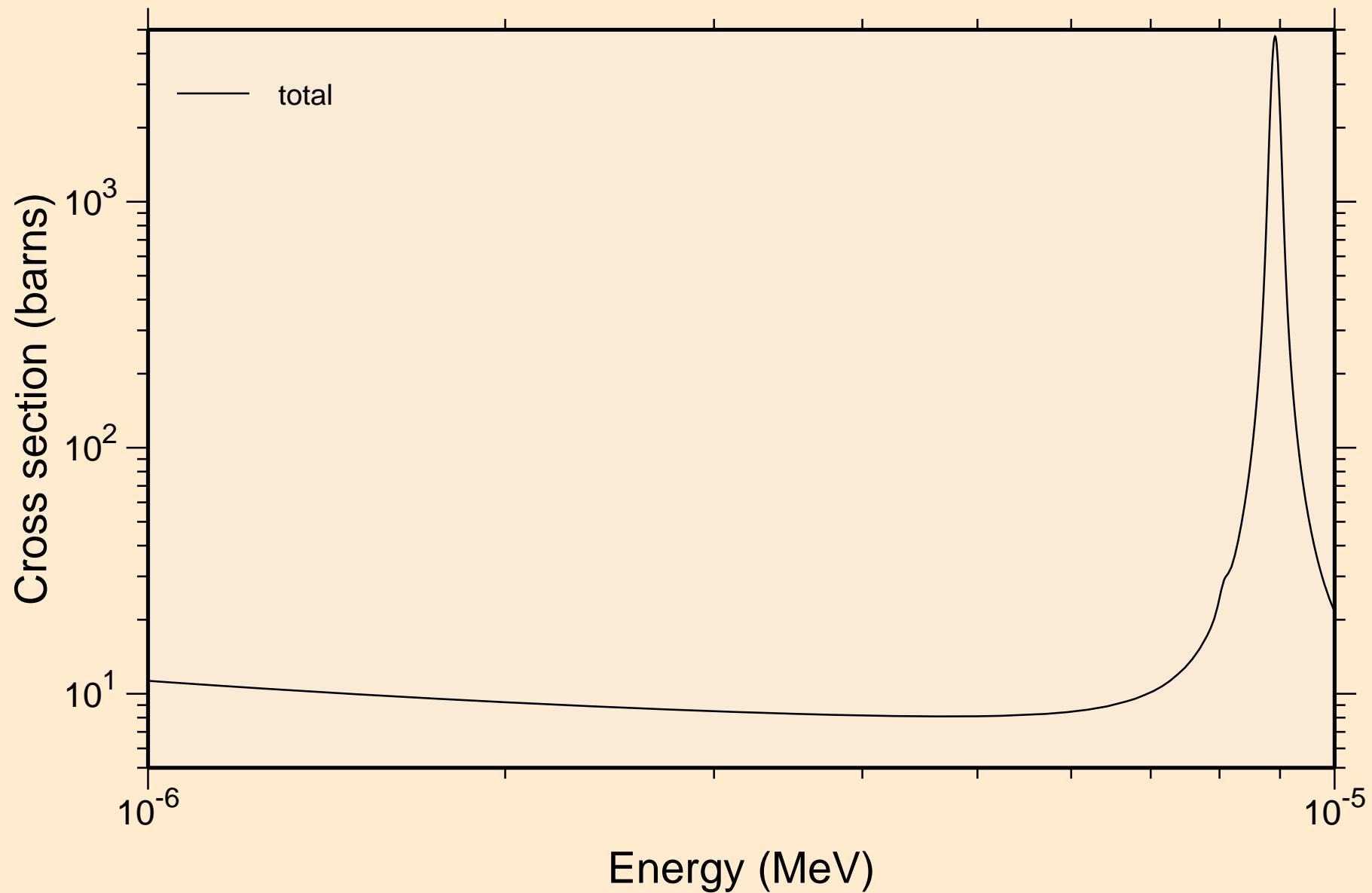


# N-HG190 NRG TENDL-2017, AKONING

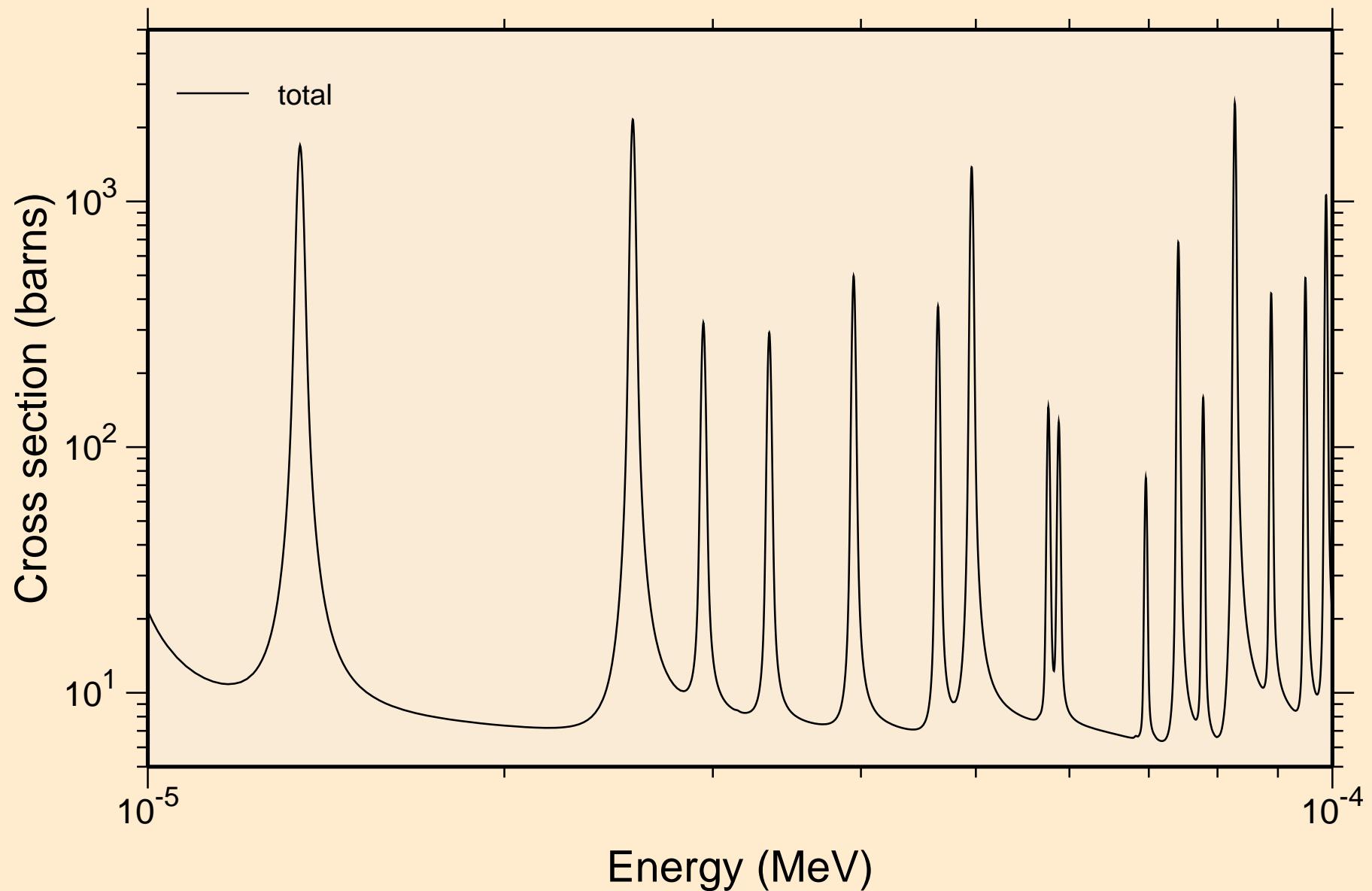
## Principal cross sections



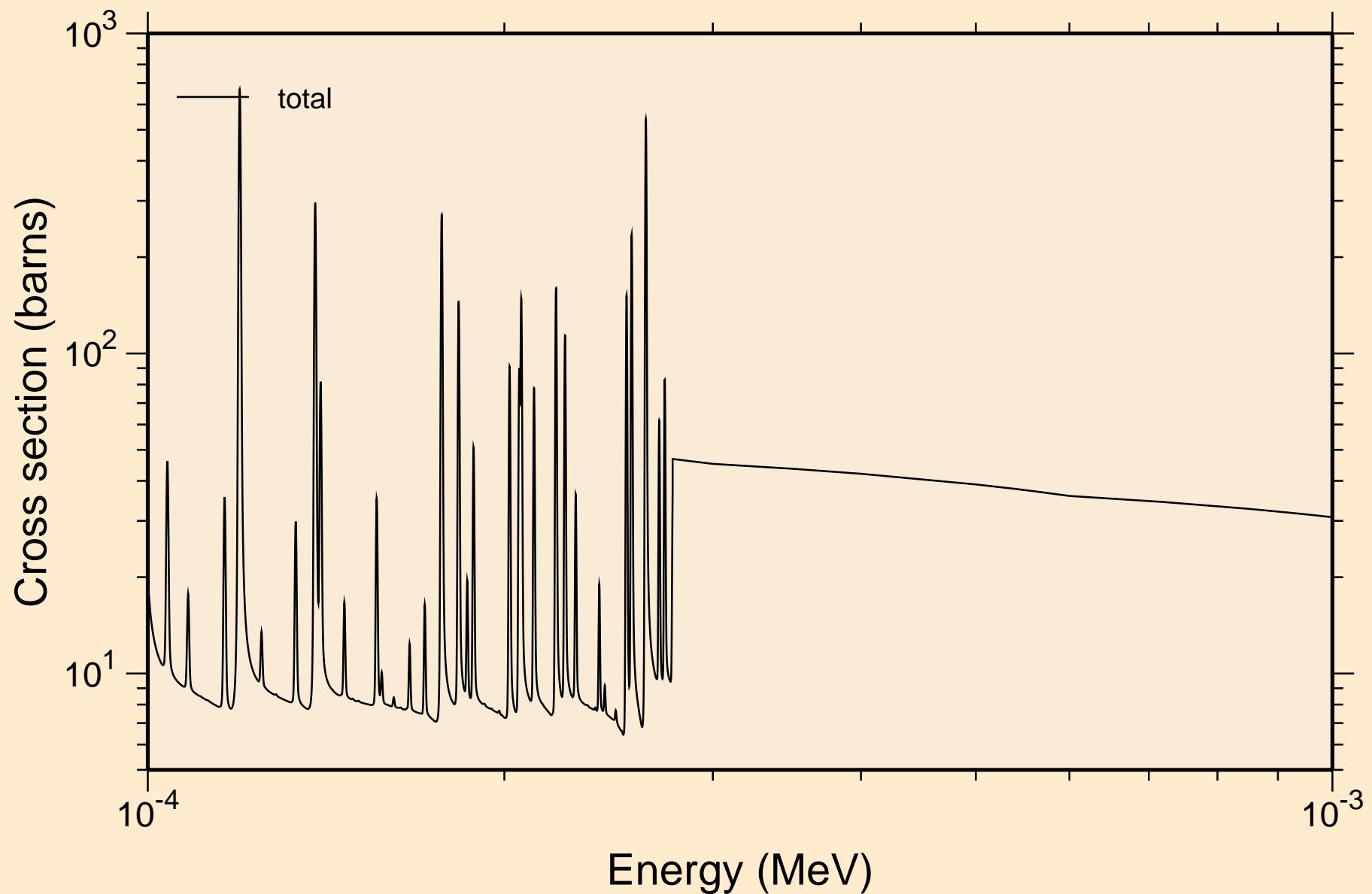
N-HG190 NRG TENDL-2017, AKONING  
resonance total cross section



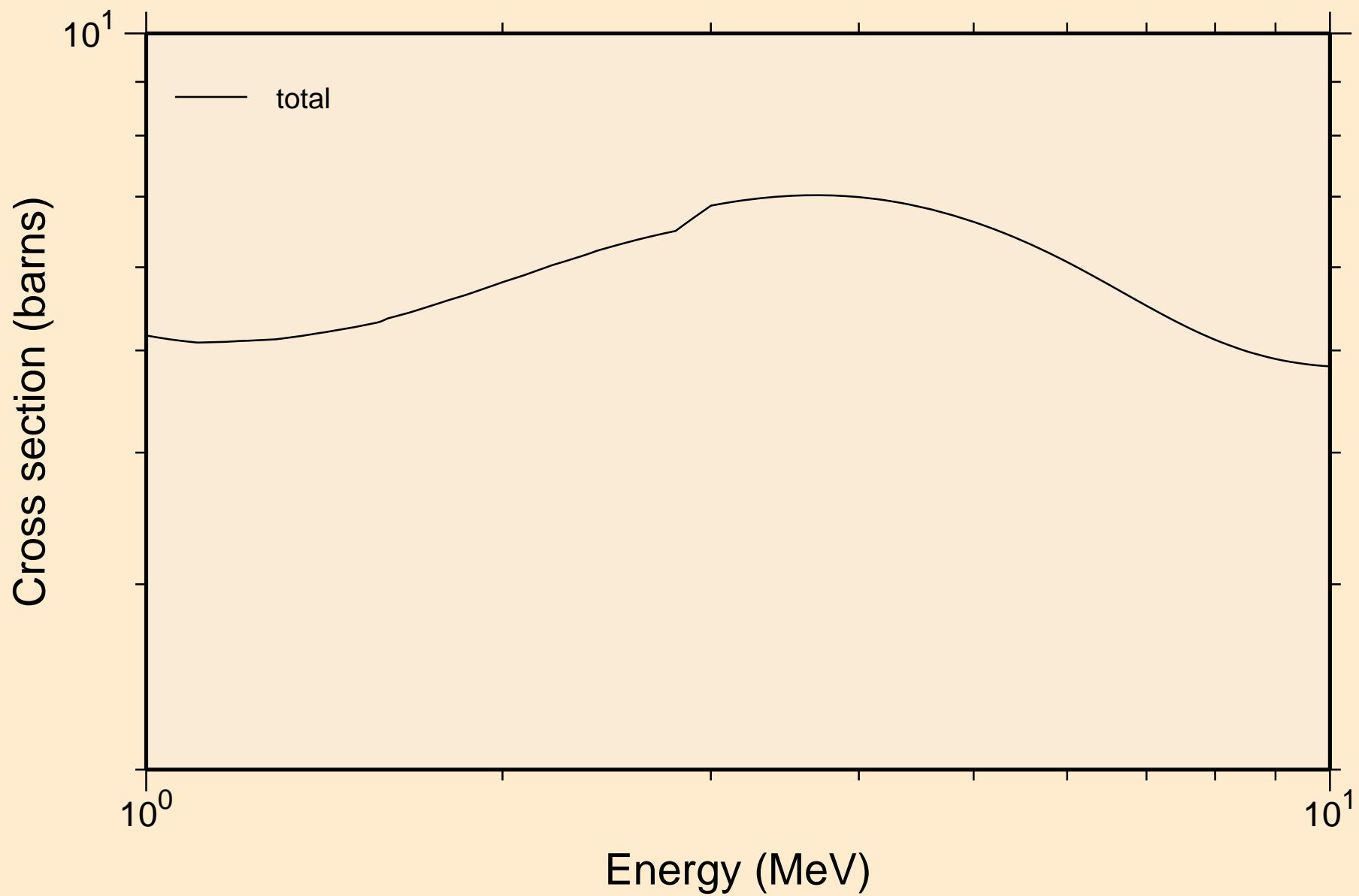
N-HG190 NRG TENDL-2017, AKONING  
resonance total cross section



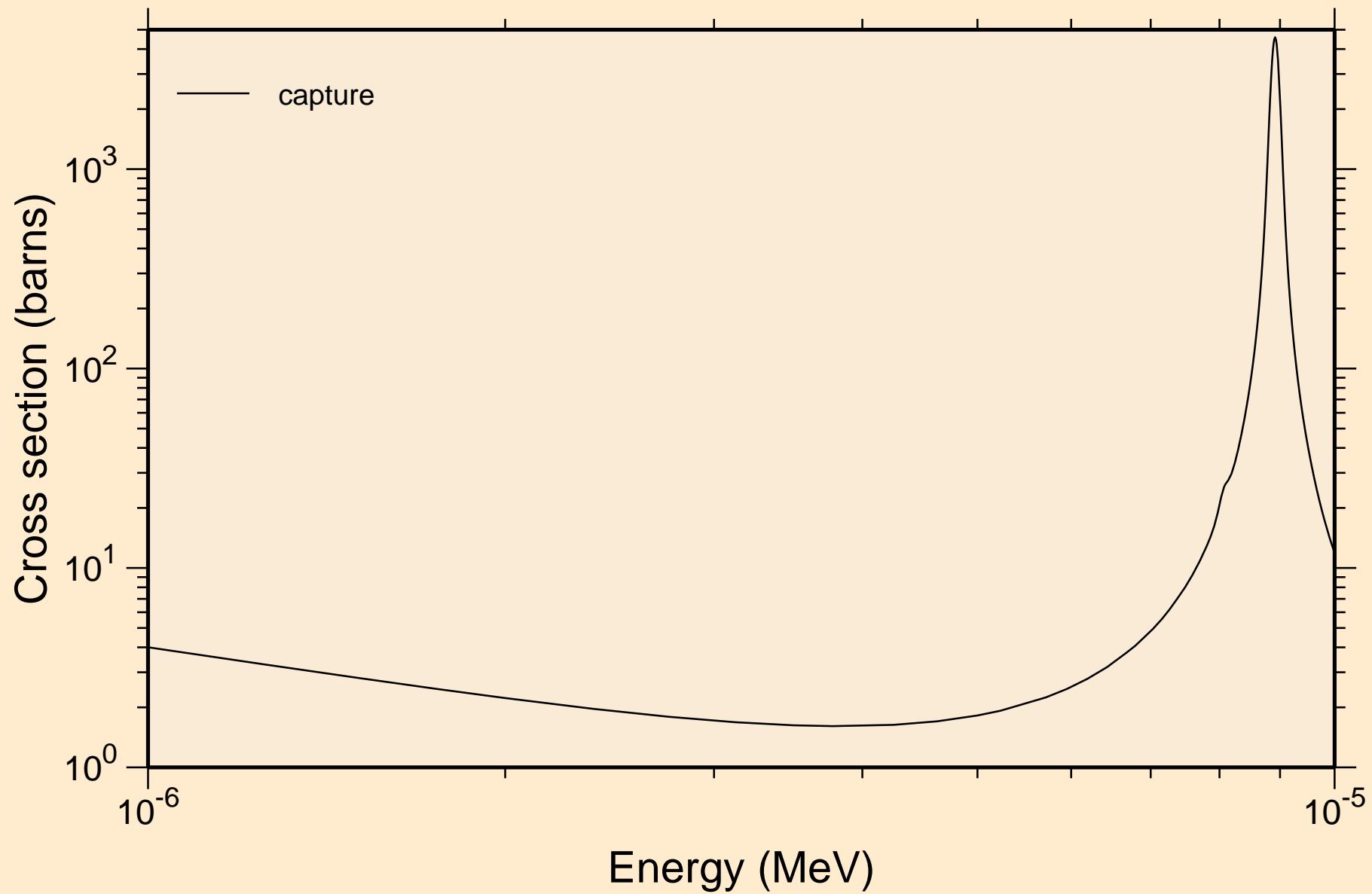
N-HG190 NRG TENDL-2017, AKONING  
resonance total cross section



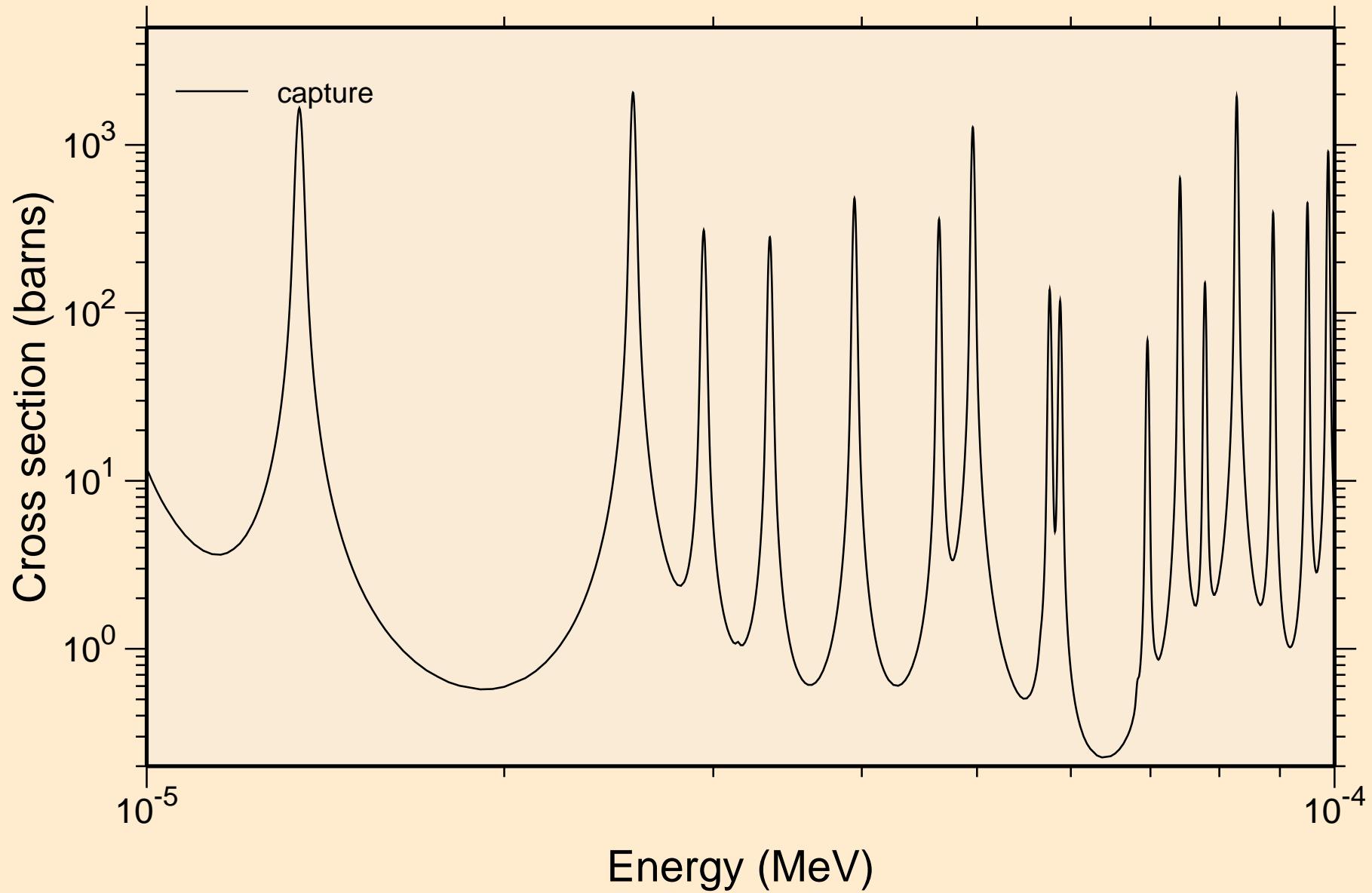
N-HG190 NRG TENDL-2017, AKONING  
resonance total cross section



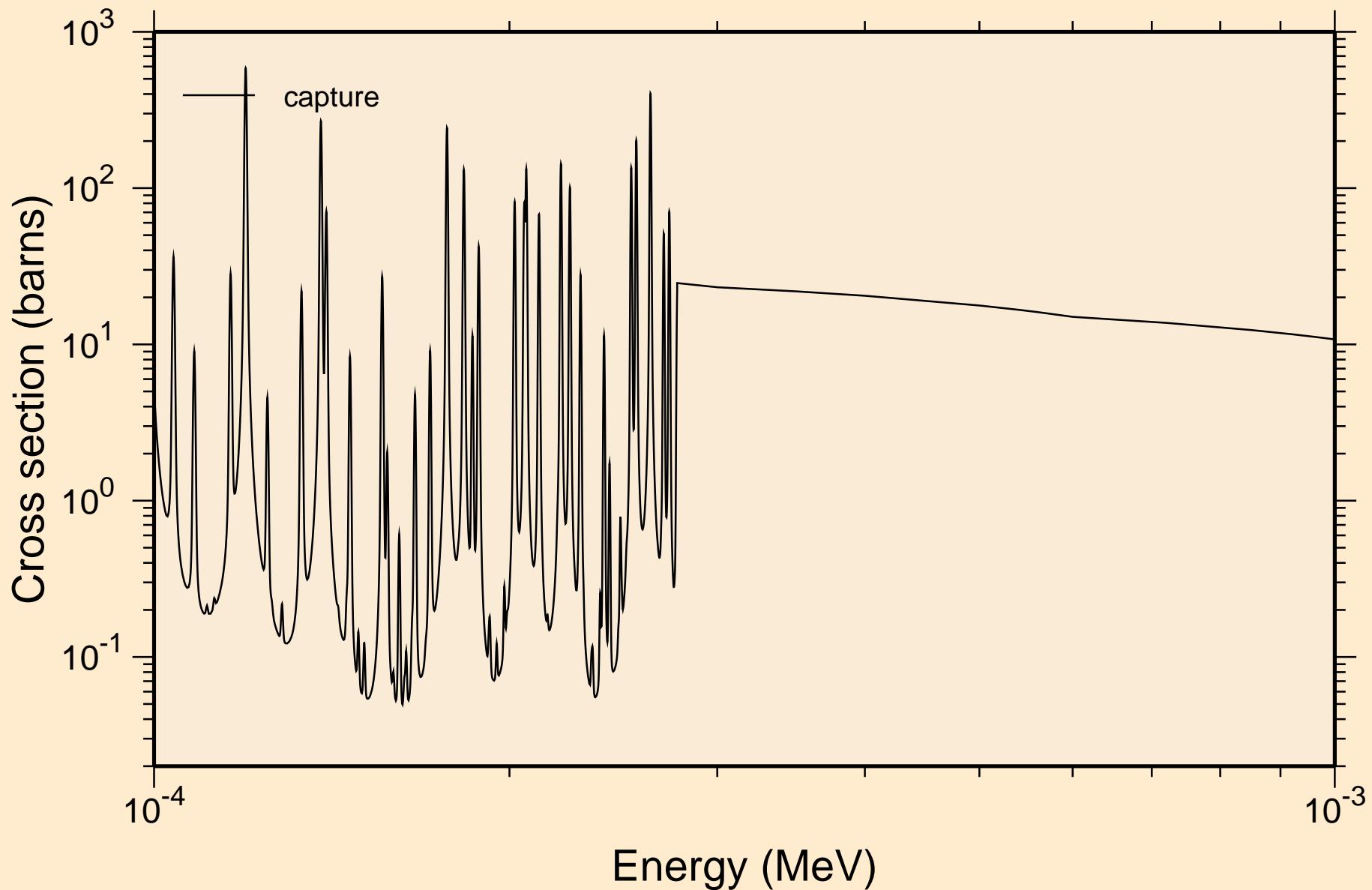
N-HG190 NRG TENDL-2017, AKONING  
resonance absorption cross sections



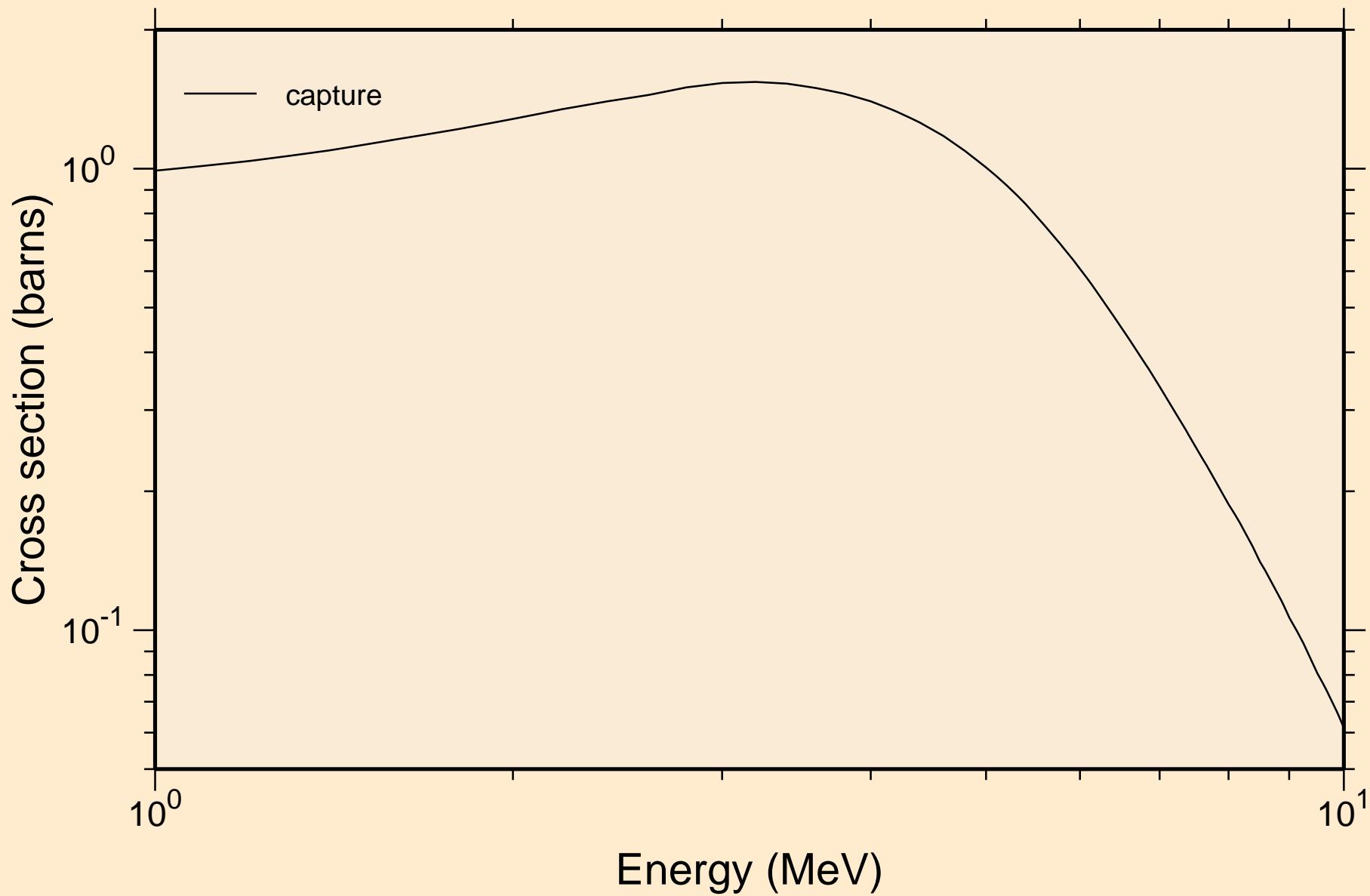
N-HG190 NRG TENDL-2017, AKONING  
resonance absorption cross sections



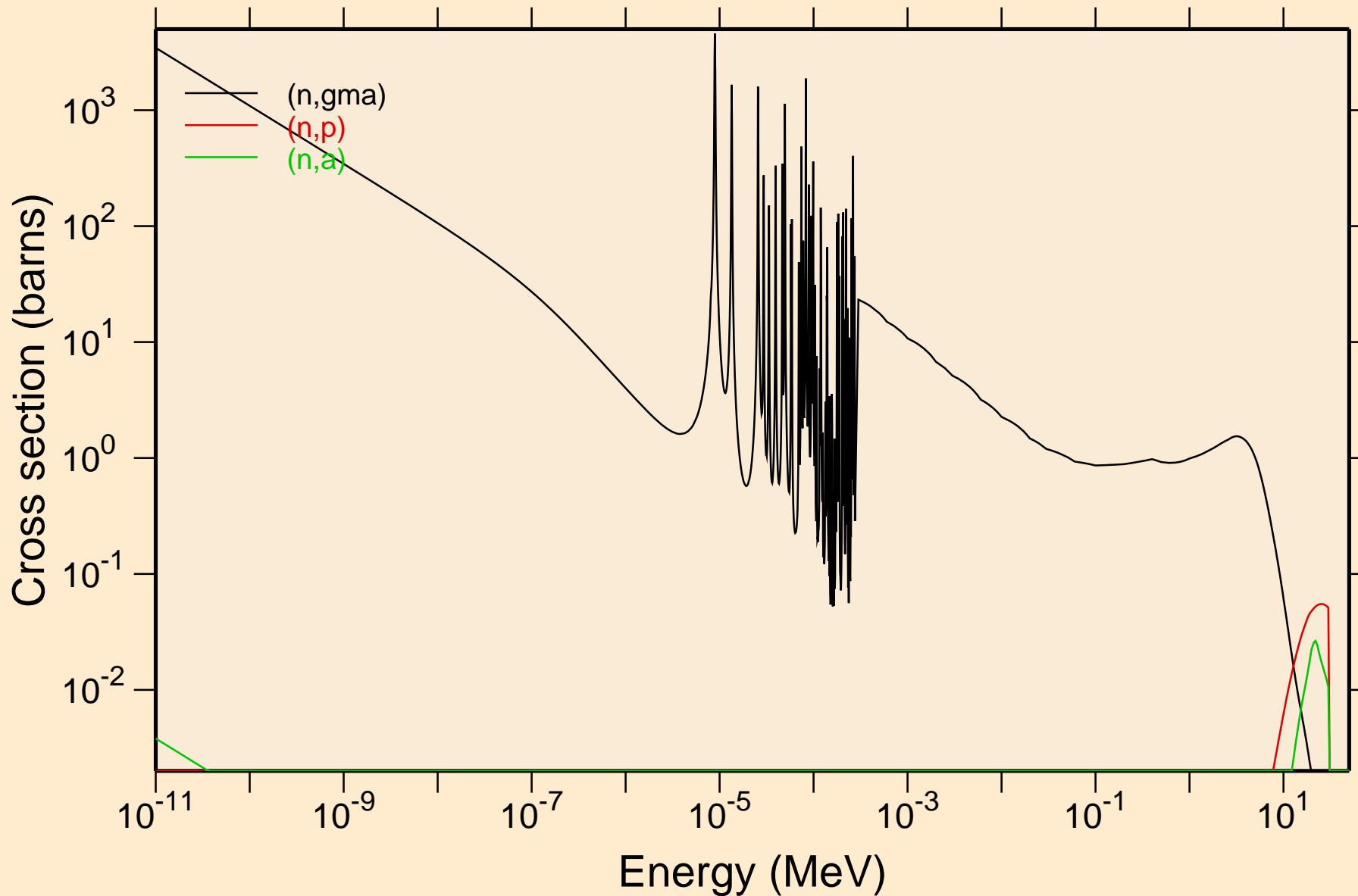
N-HG190 NRG TENDL-2017, AKONING  
resonance absorption cross sections



N-HG190 NRG TENDL-2017, AKONING  
resonance absorption cross sections

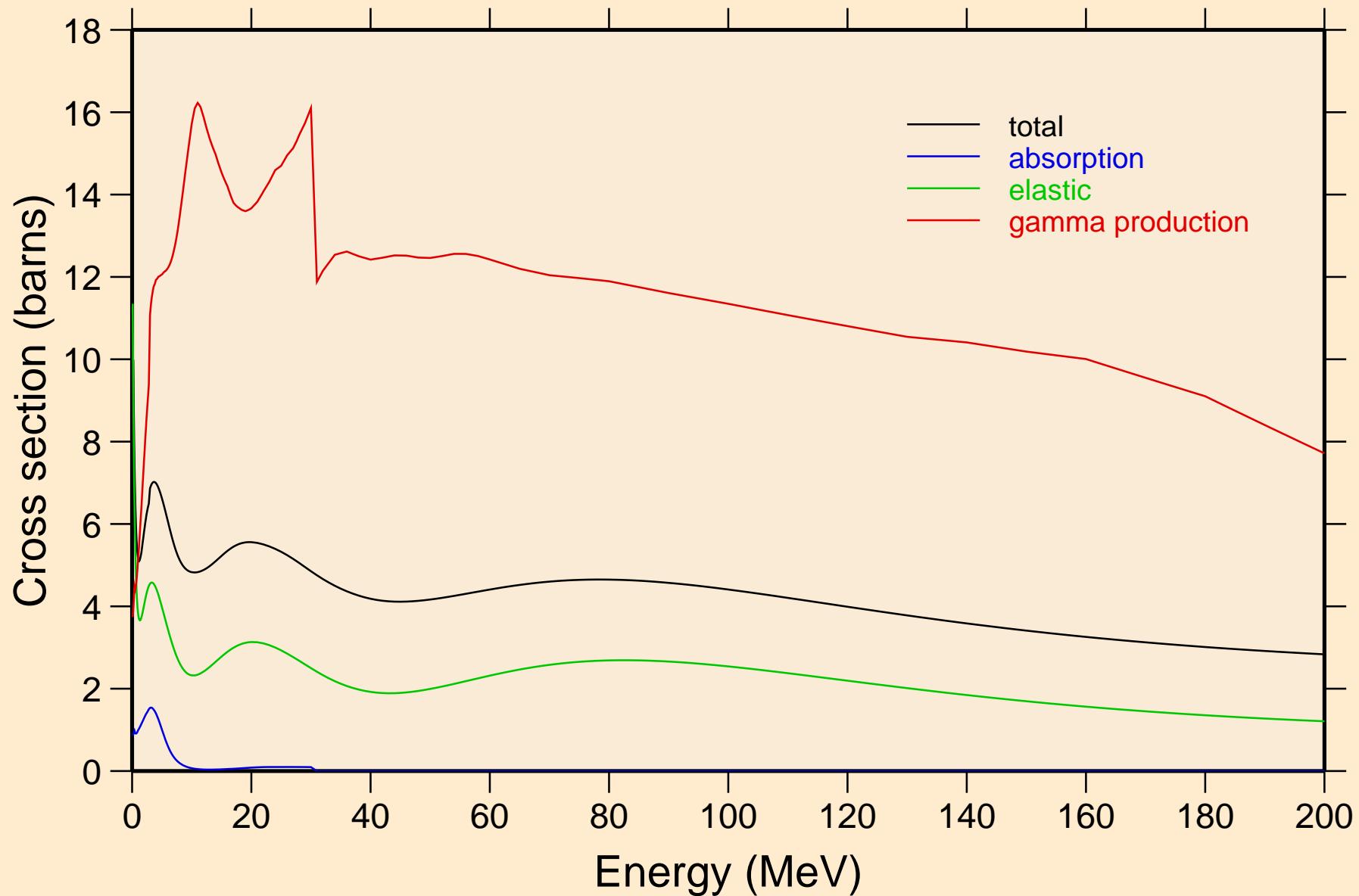


N-HG190 NRG TENDL-2017, AKONING  
Non-threshold reactions

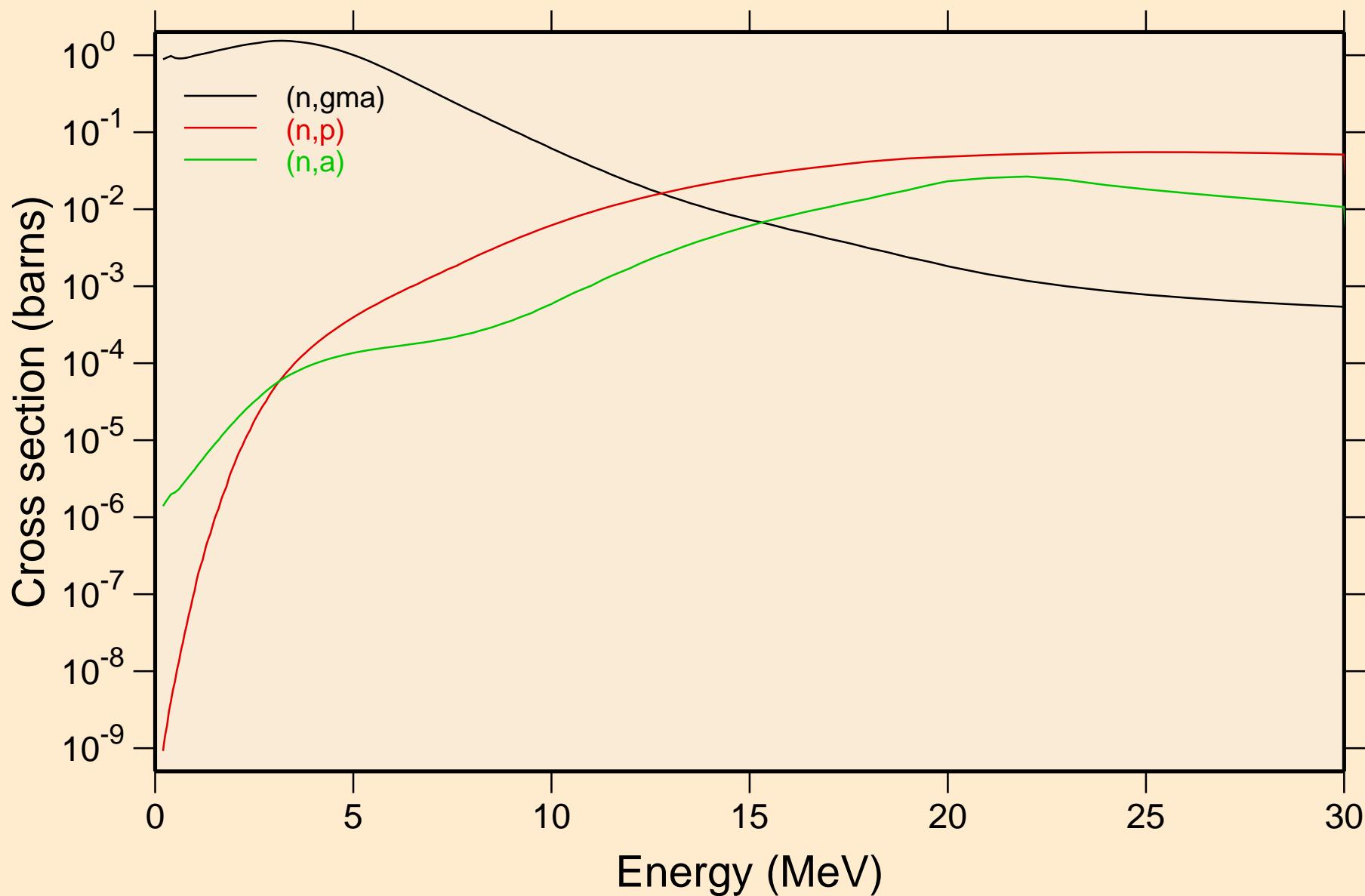


# N-HG190 NRG TENDL-2017, AKONING

## Principal cross sections

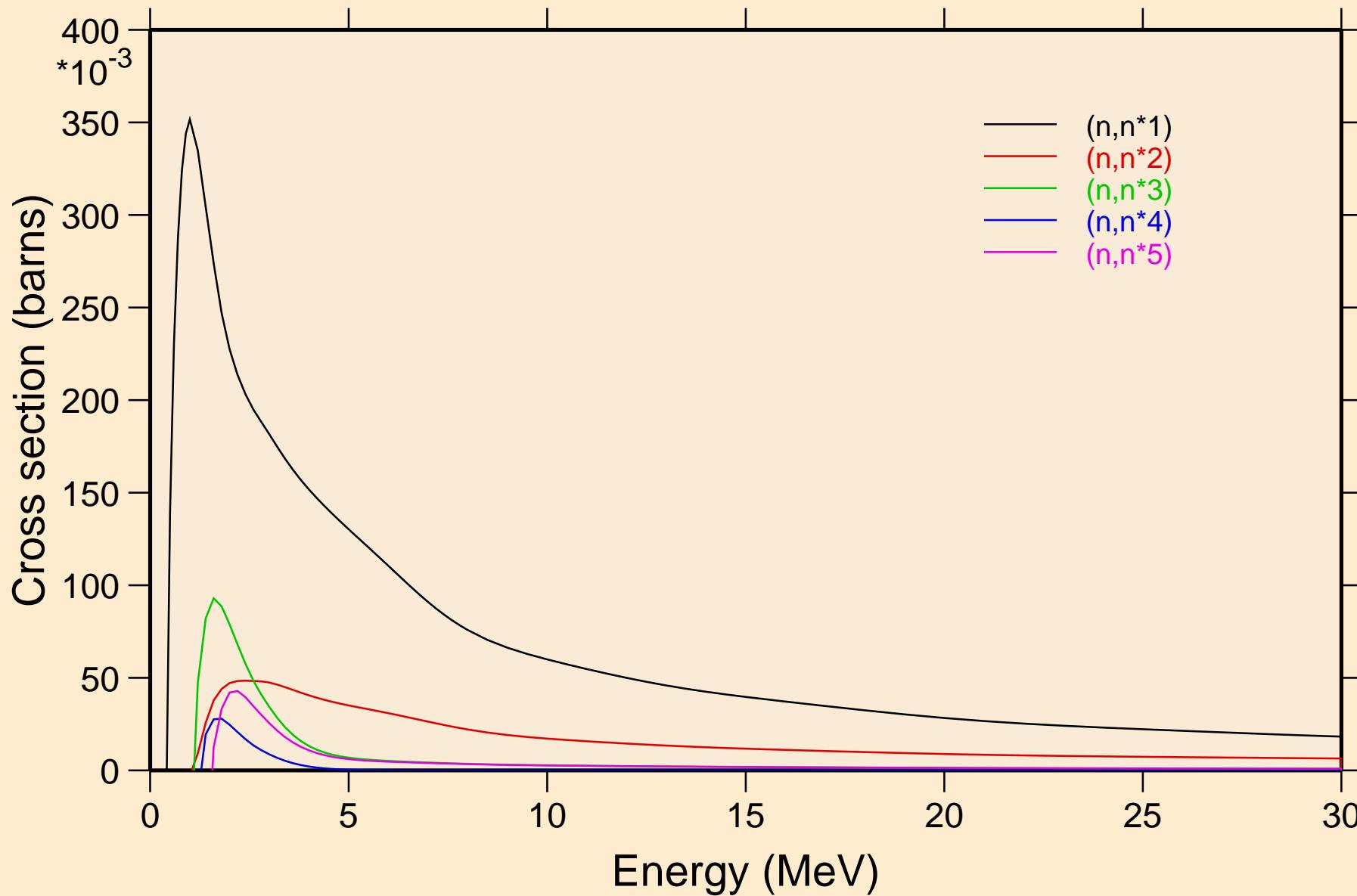


N-HG190 NRG TENDL-2017, AKONING  
Non-threshold reactions



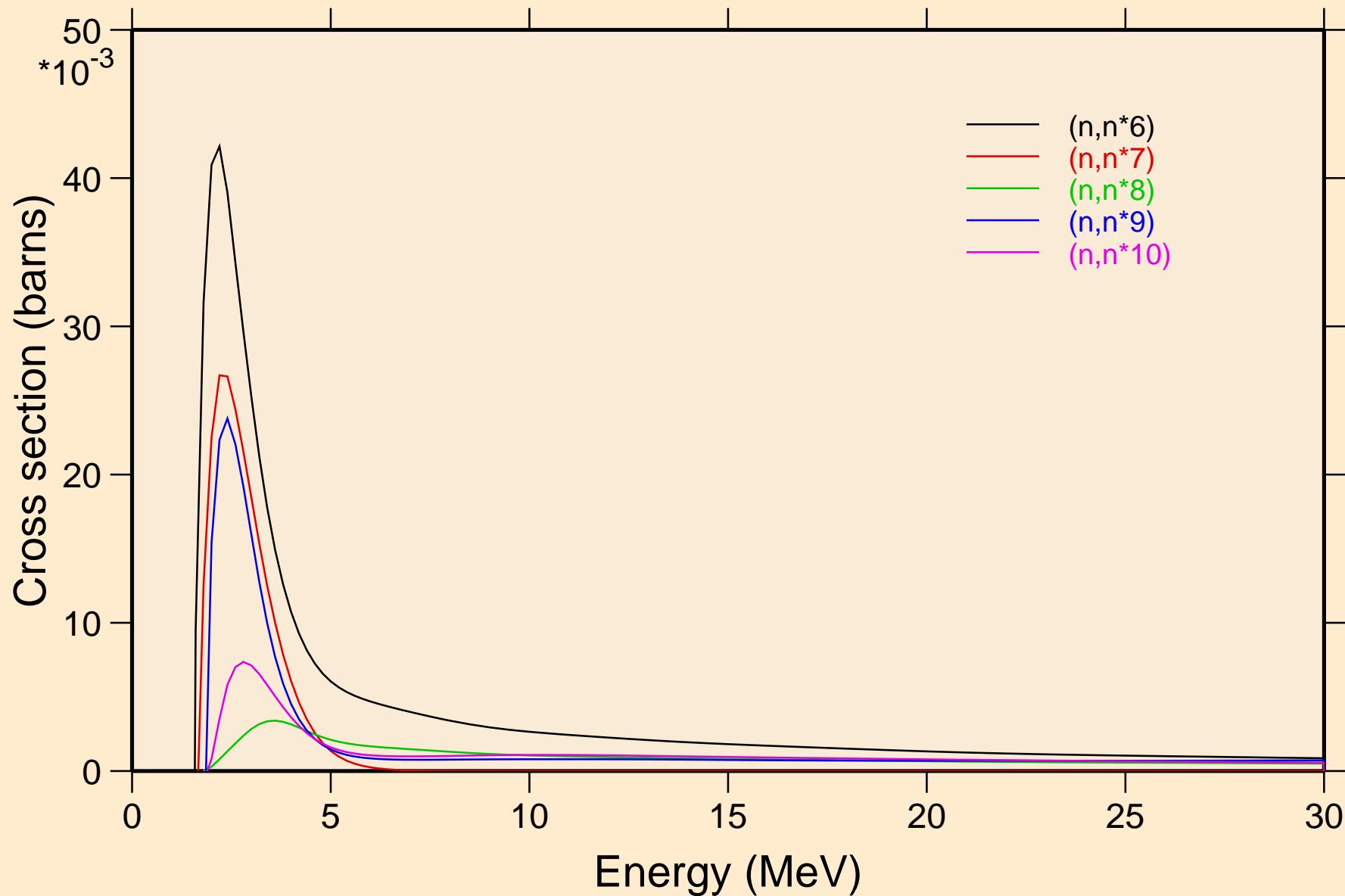
# N-HG190 NRG TENDL-2017, AKONING

## Inelastic levels



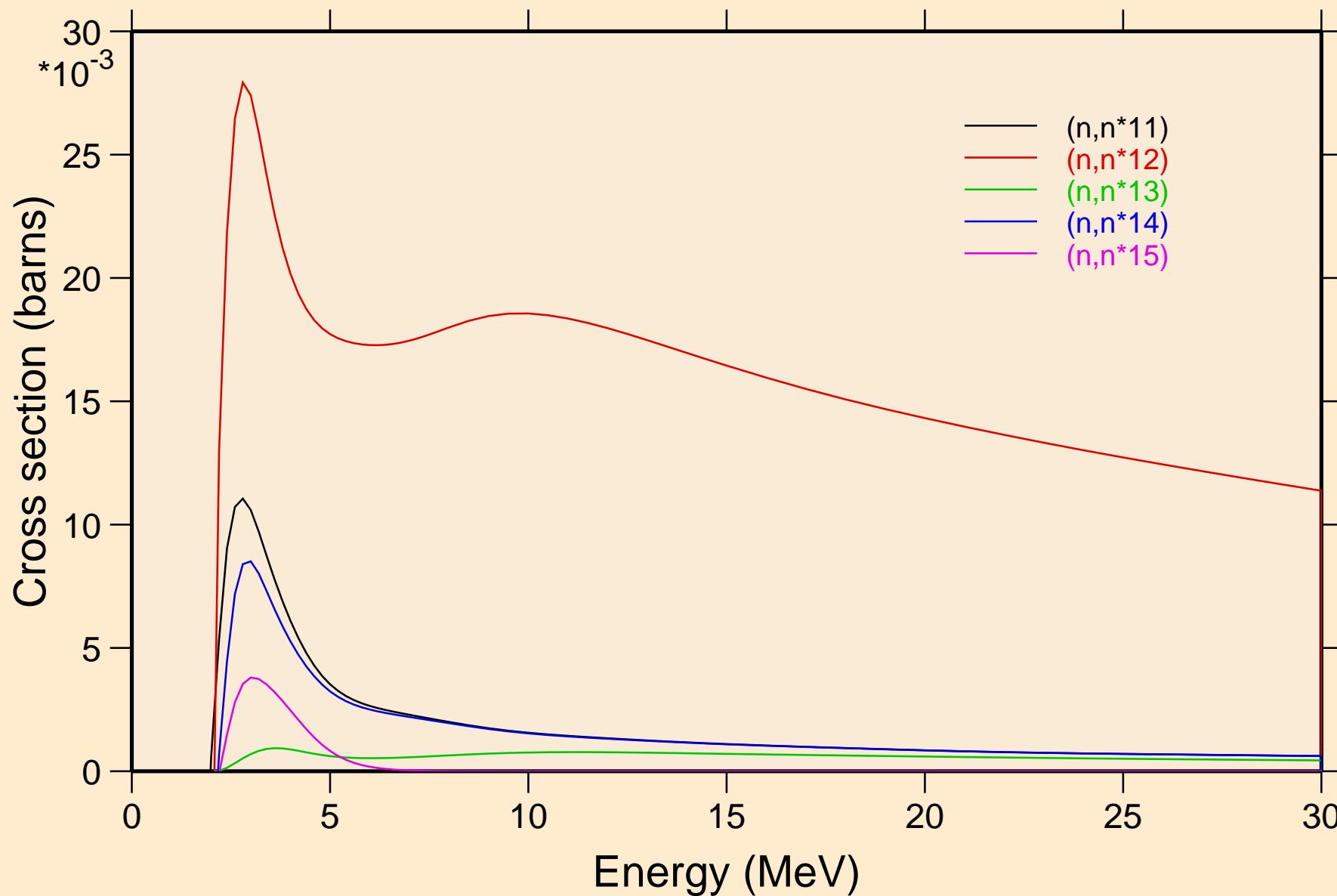
# N-HG190 NRG TENDL-2017, AKONING

## Inelastic levels



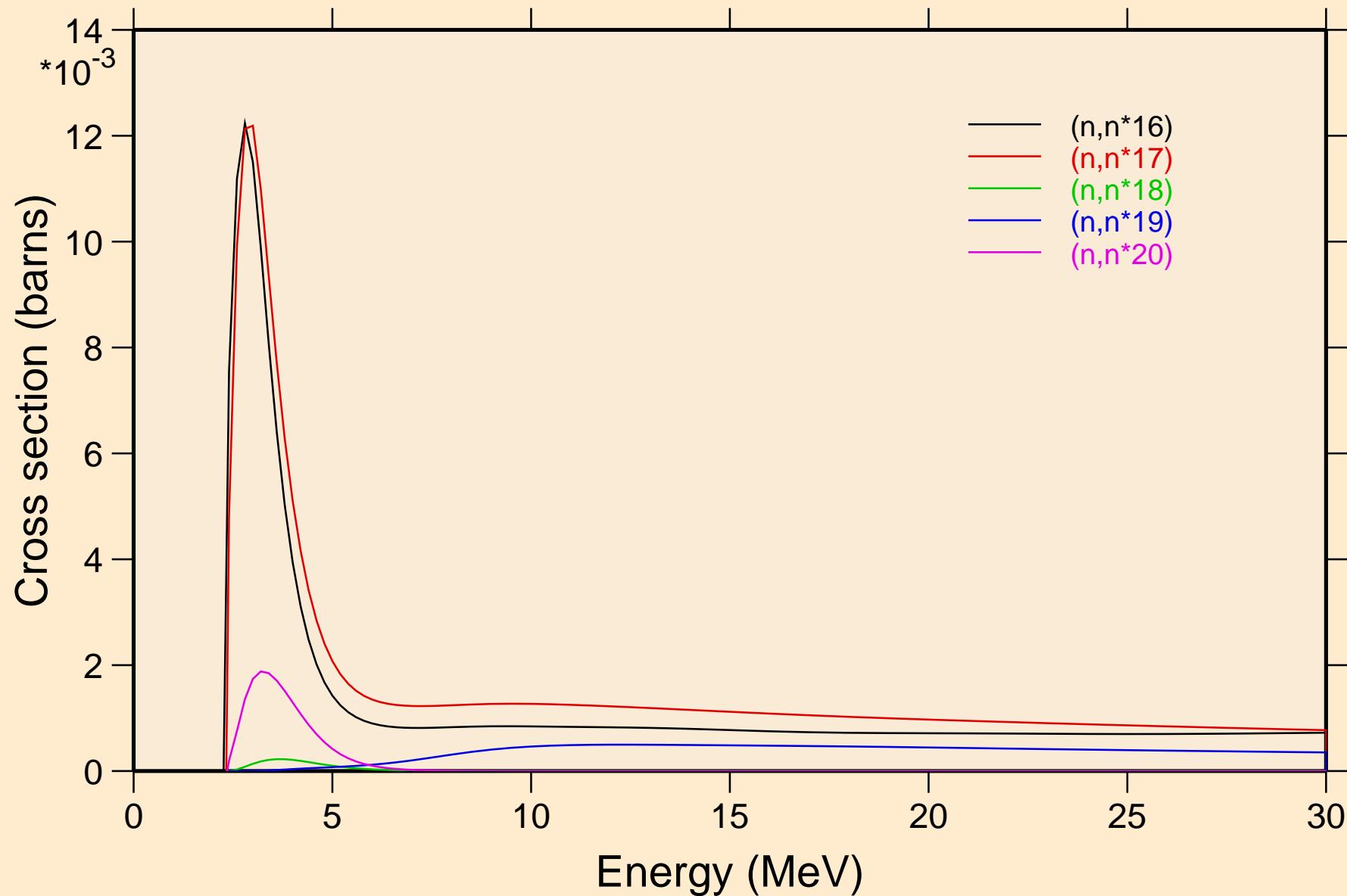
# N-HG190 NRG TENDL-2017, AKONING

## Inelastic levels

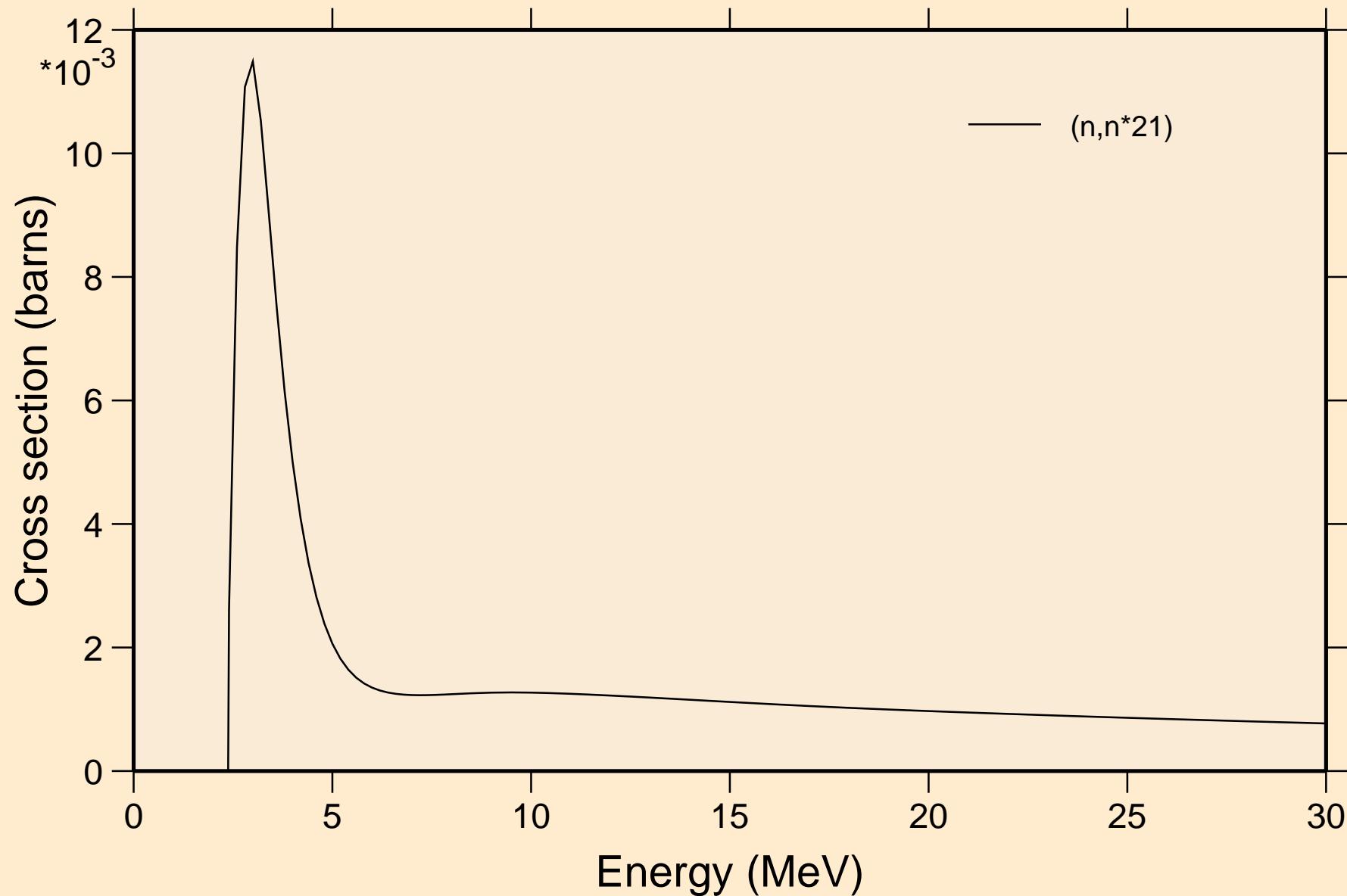


# N-HG190 NRG TENDL-2017, AKONING

## Inelastic levels

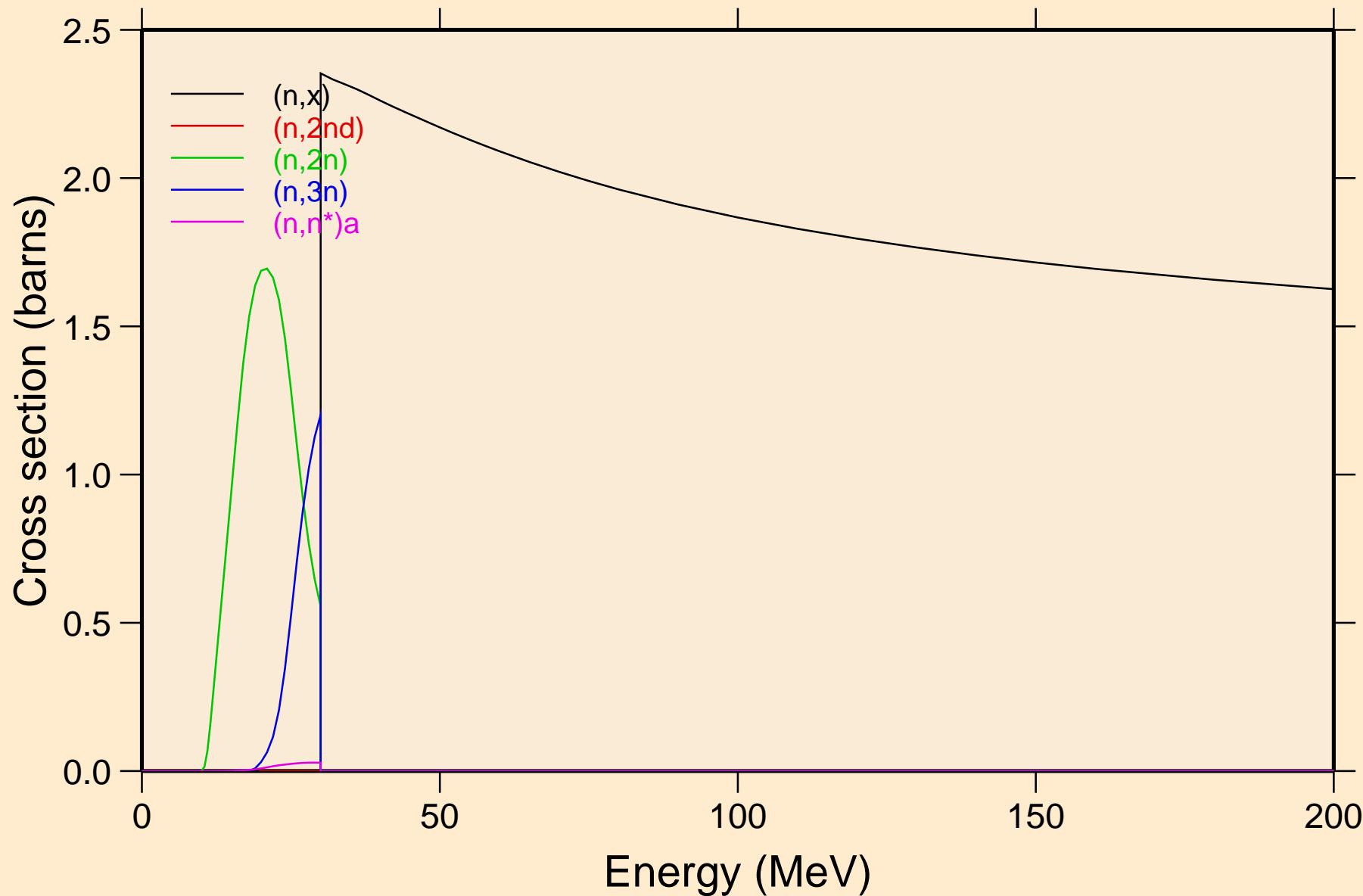


N-HG190 NRG TENDL-2017, AKONING  
Inelastic levels



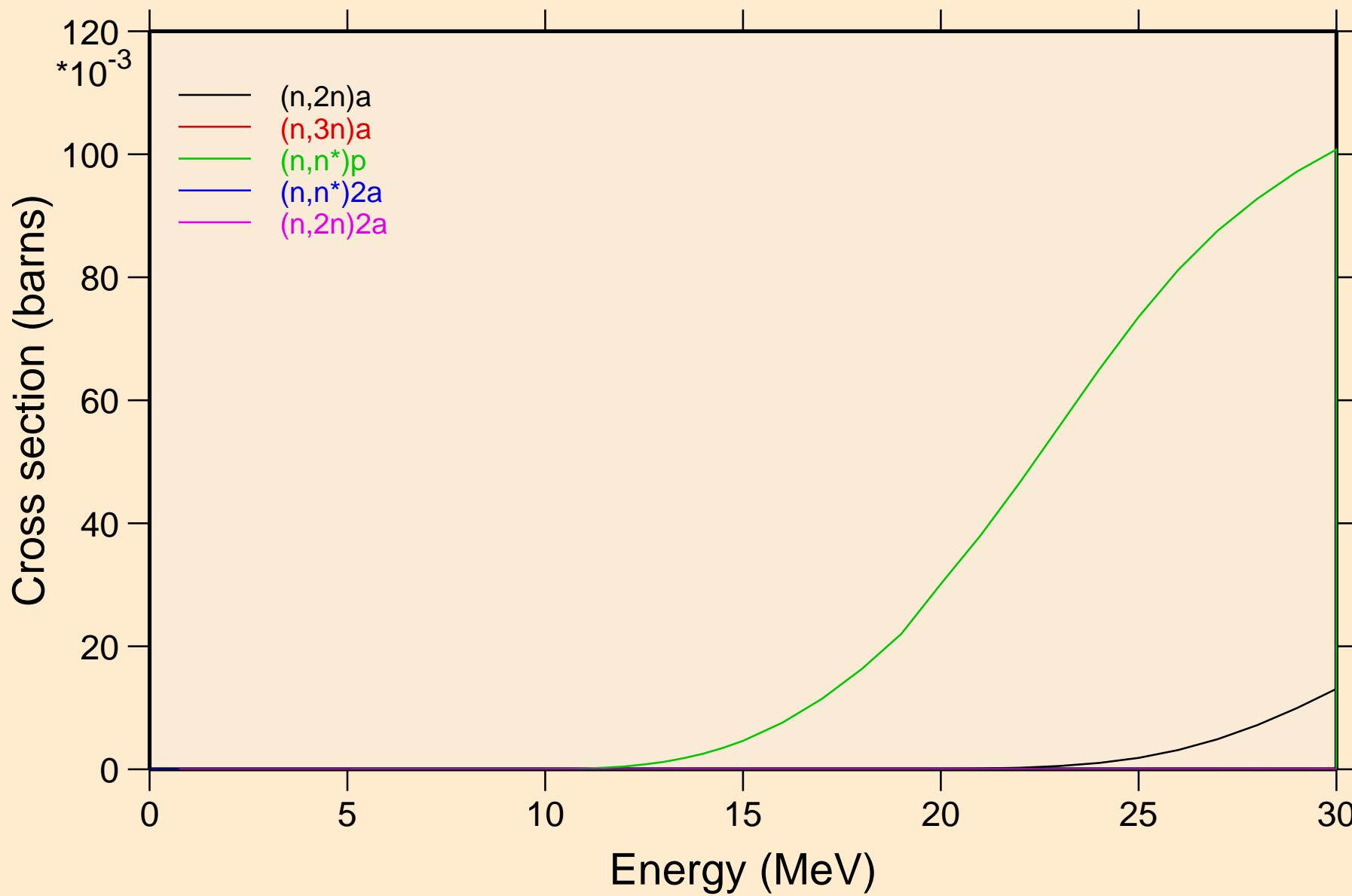
# N-HG190 NRG TENDL-2017, AKONING

## Threshold reactions



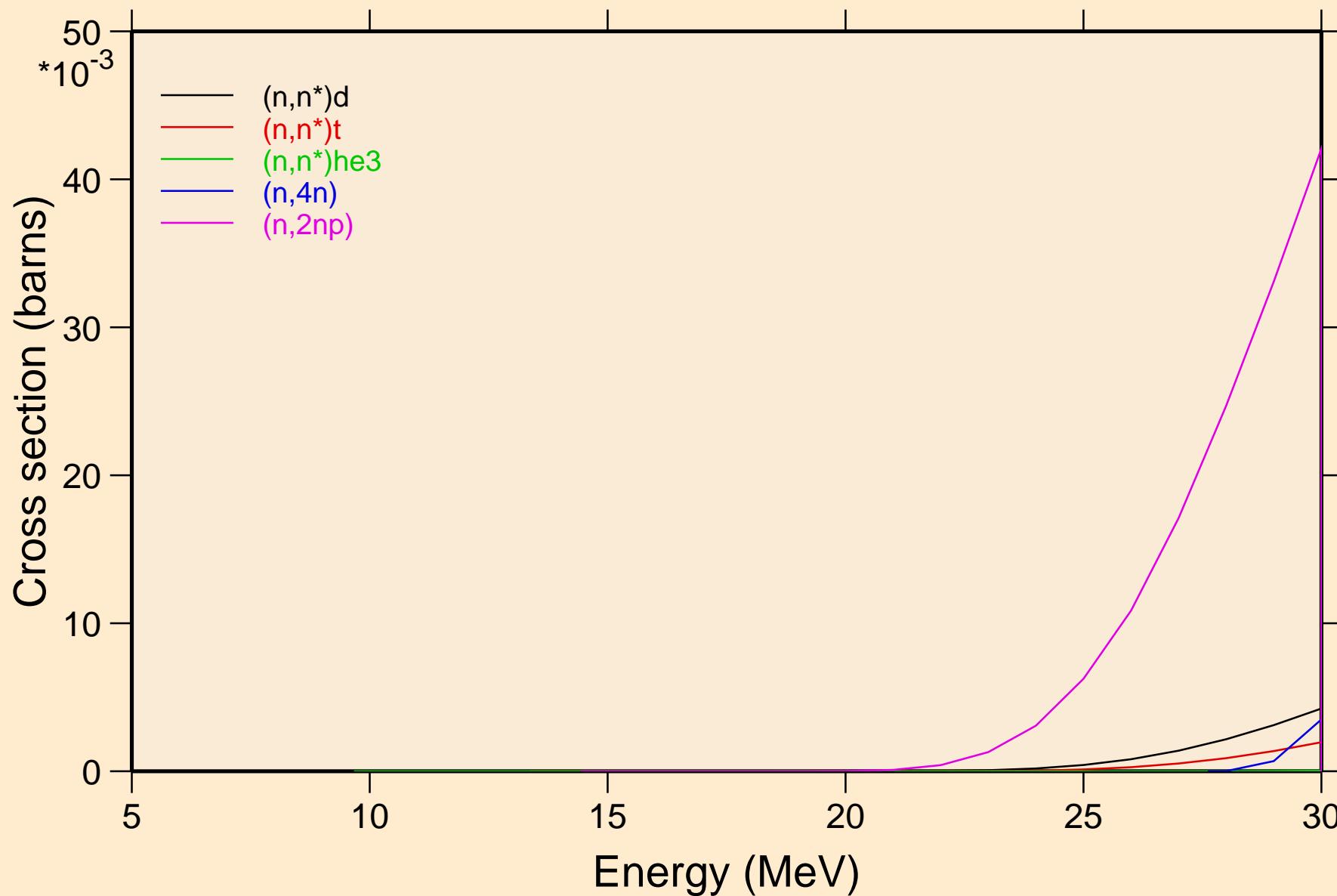
# N-HG190 NRG TENDL-2017, AKONING

## Threshold reactions



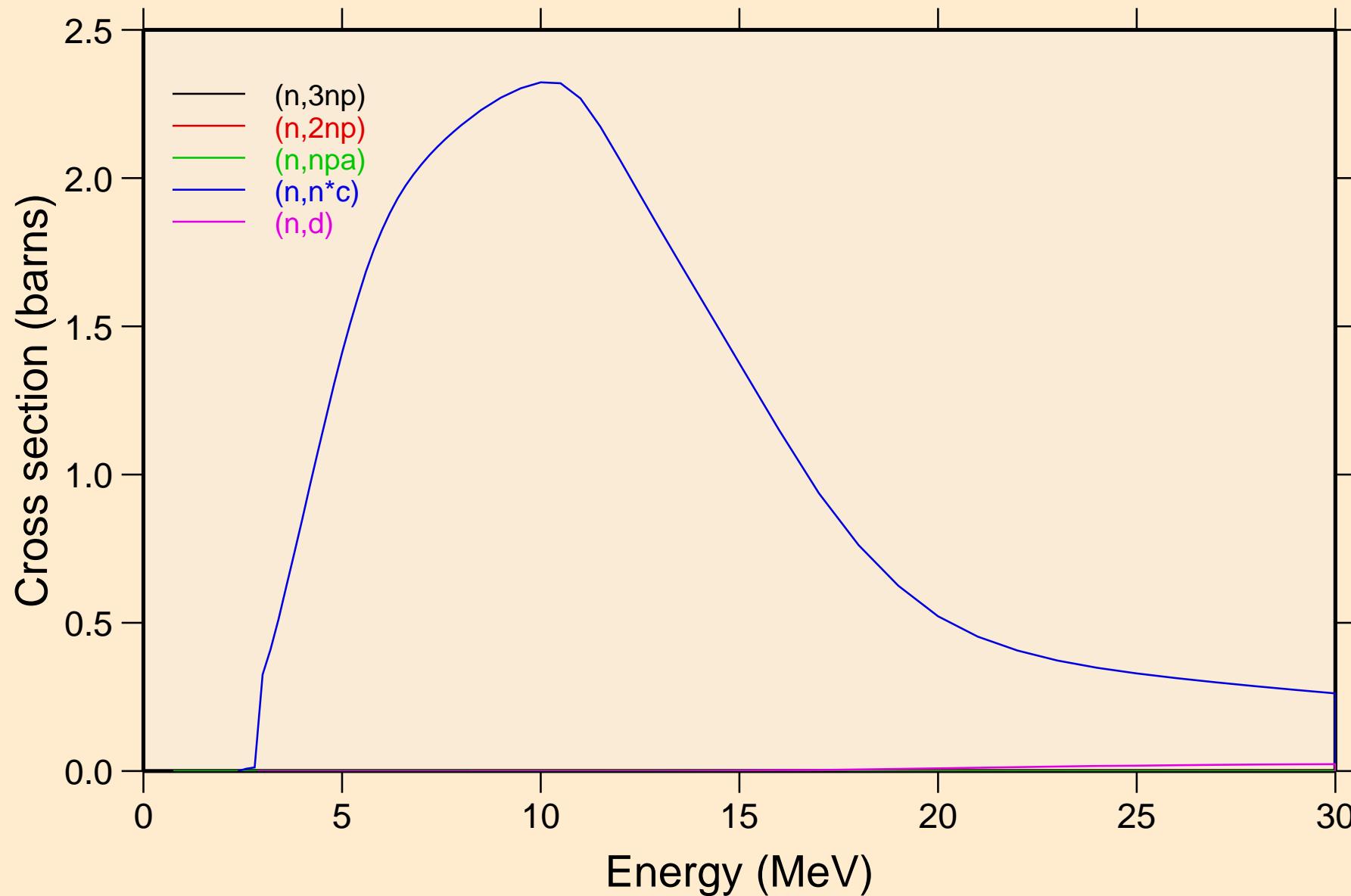
# N-HG190 NRG TENDL-2017, AKONING

## Threshold reactions



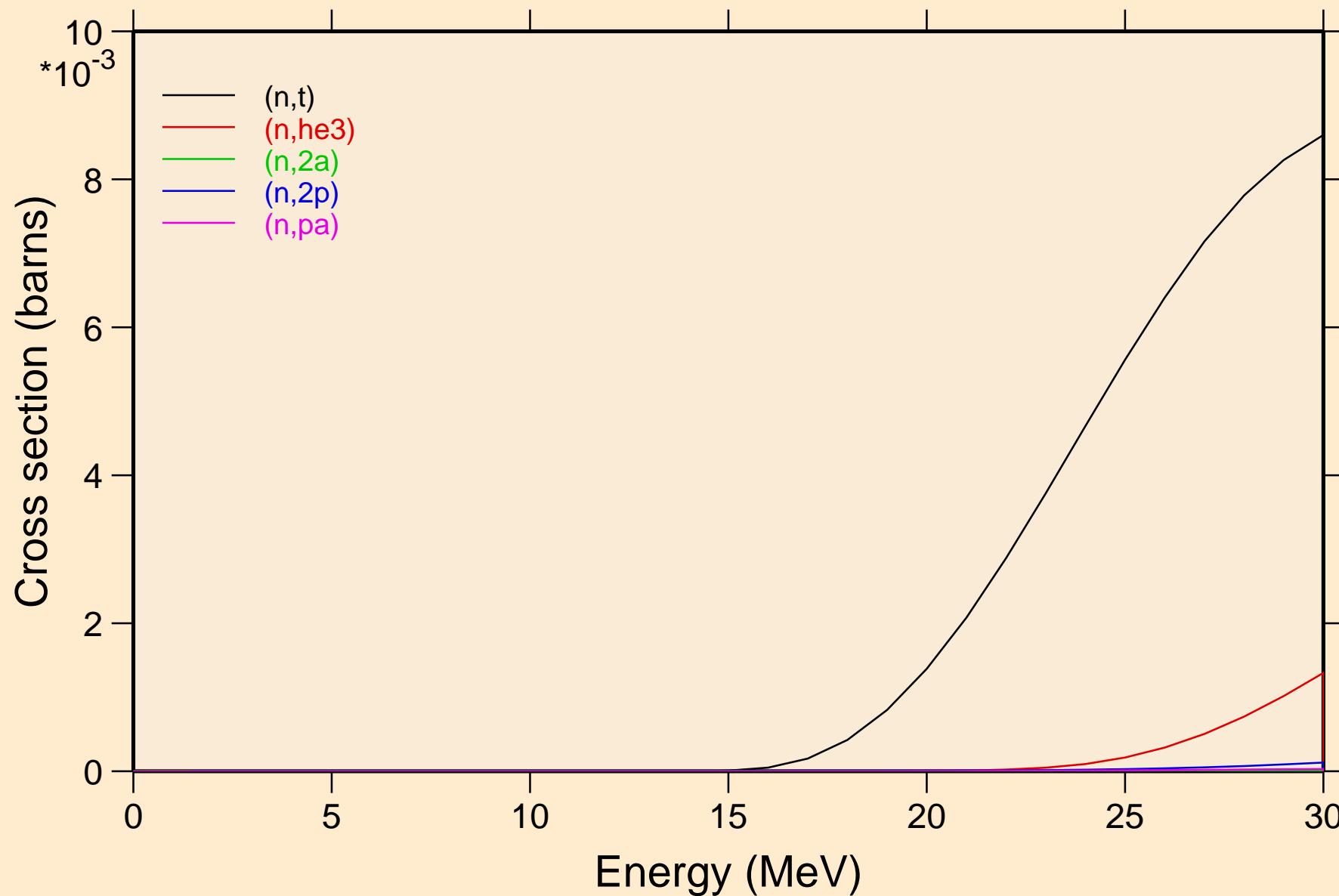
# N-HG190 NRG TENDL-2017, AKONING

## Threshold reactions



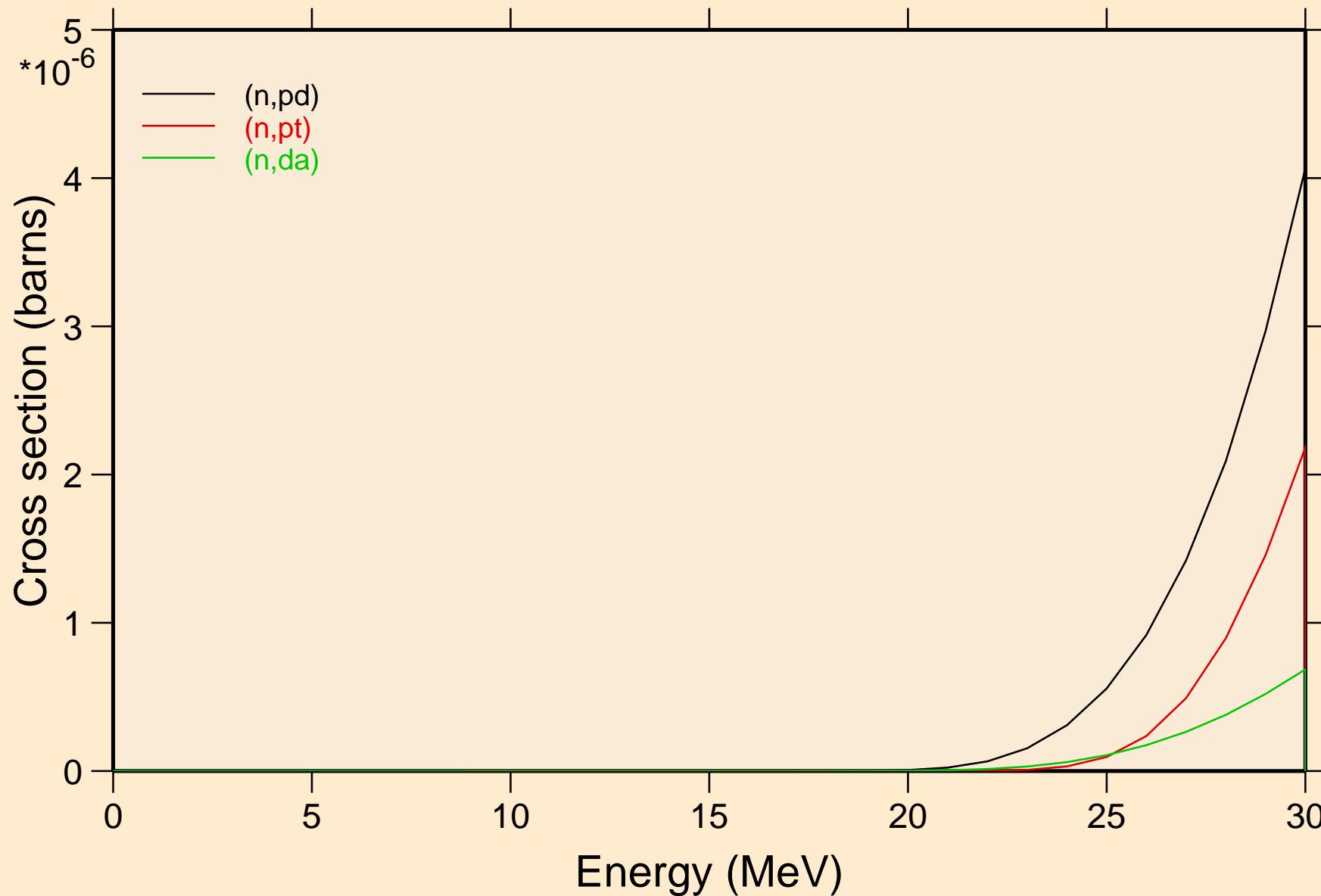
# N-HG190 NRG TENDL-2017, AKONING

## Threshold reactions

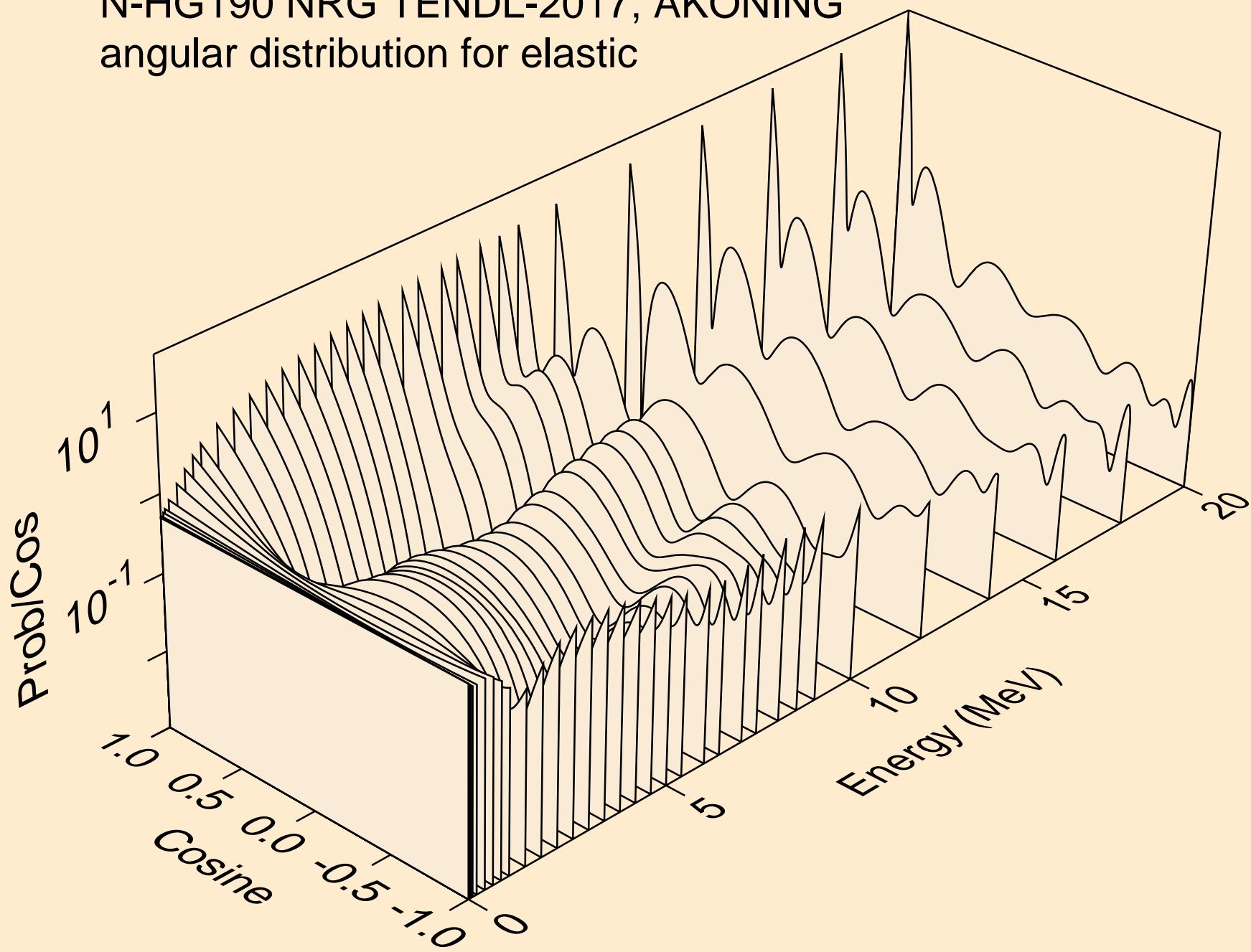


# N-HG190 NRG TENDL-2017, AKONING

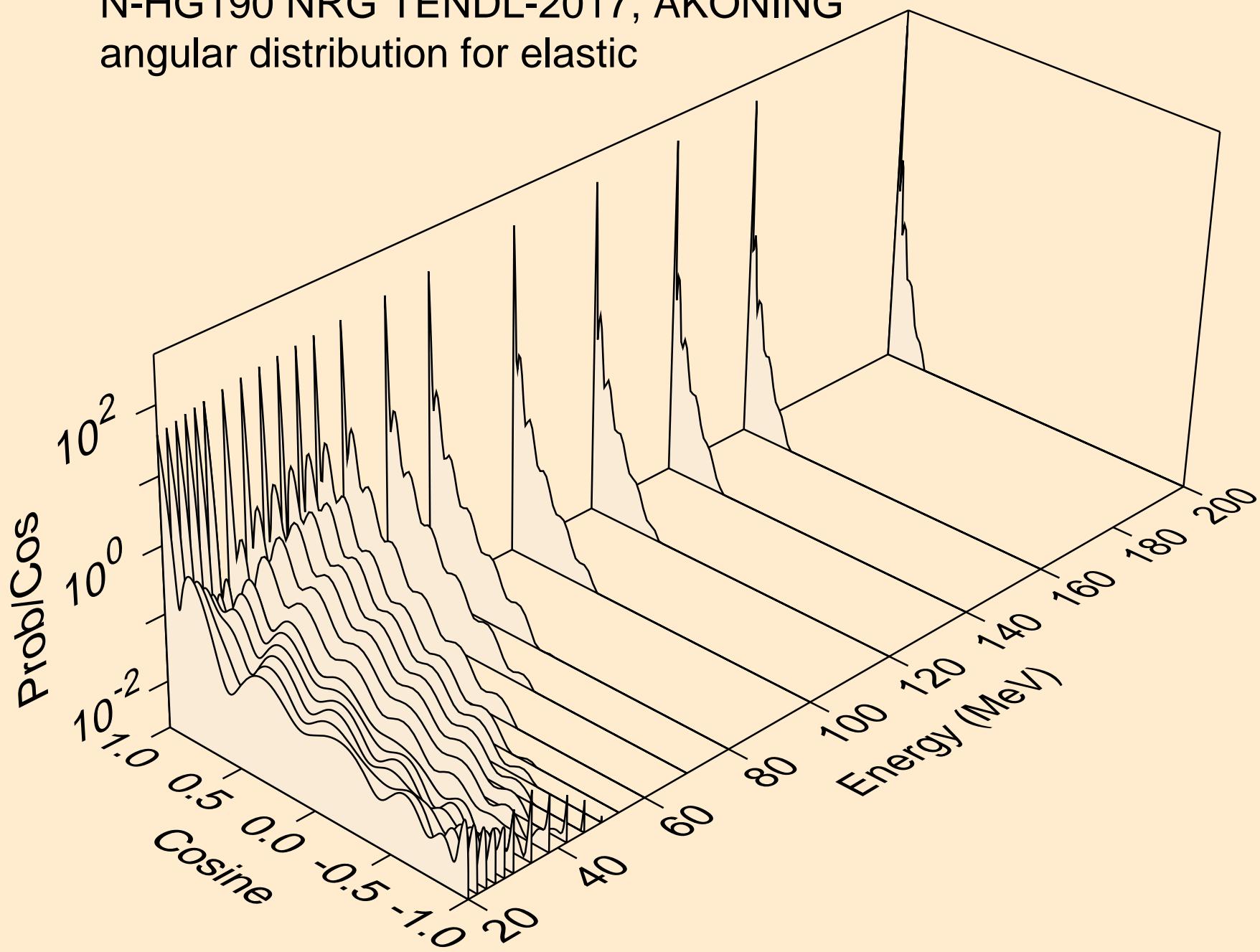
## Threshold reactions



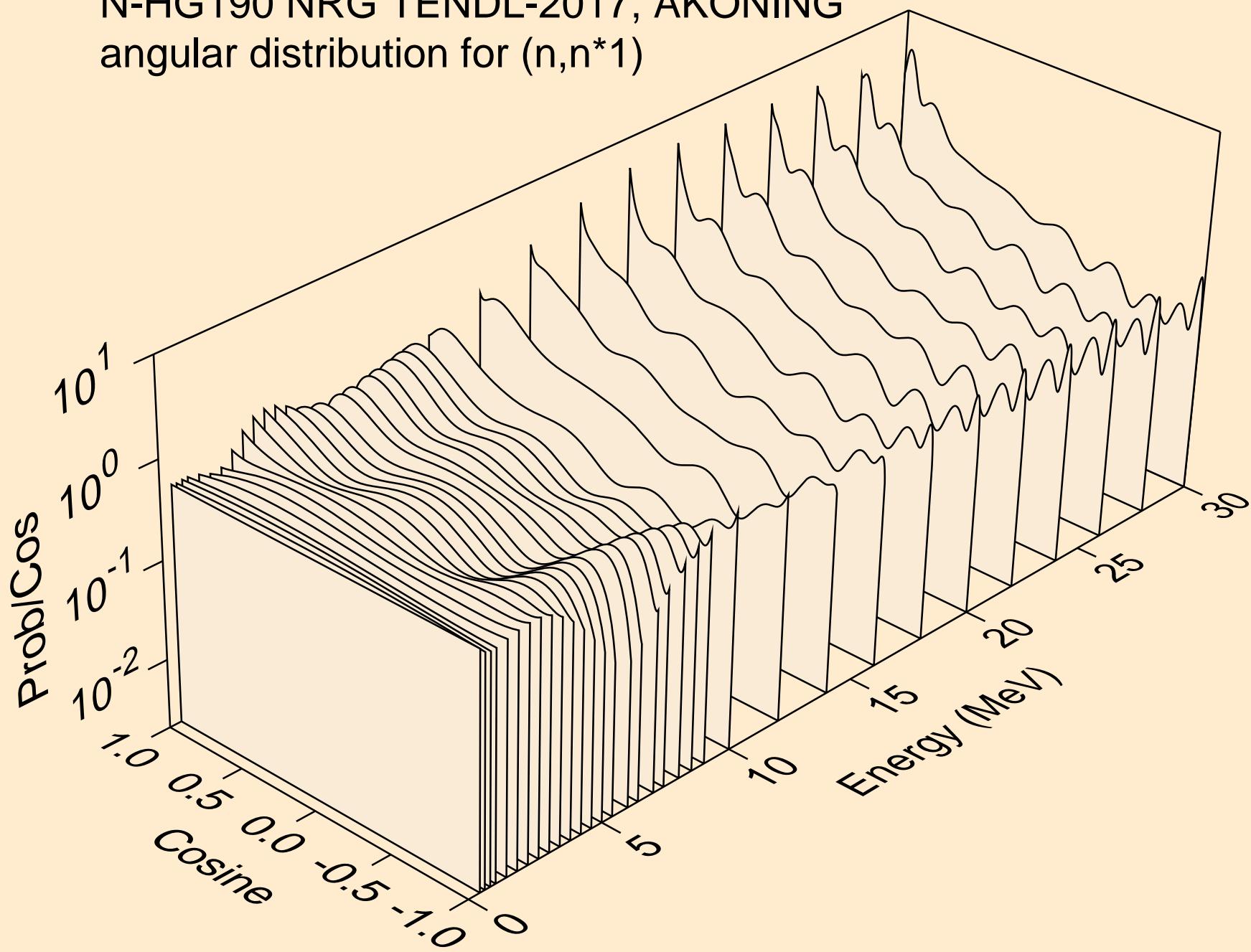
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for elastic



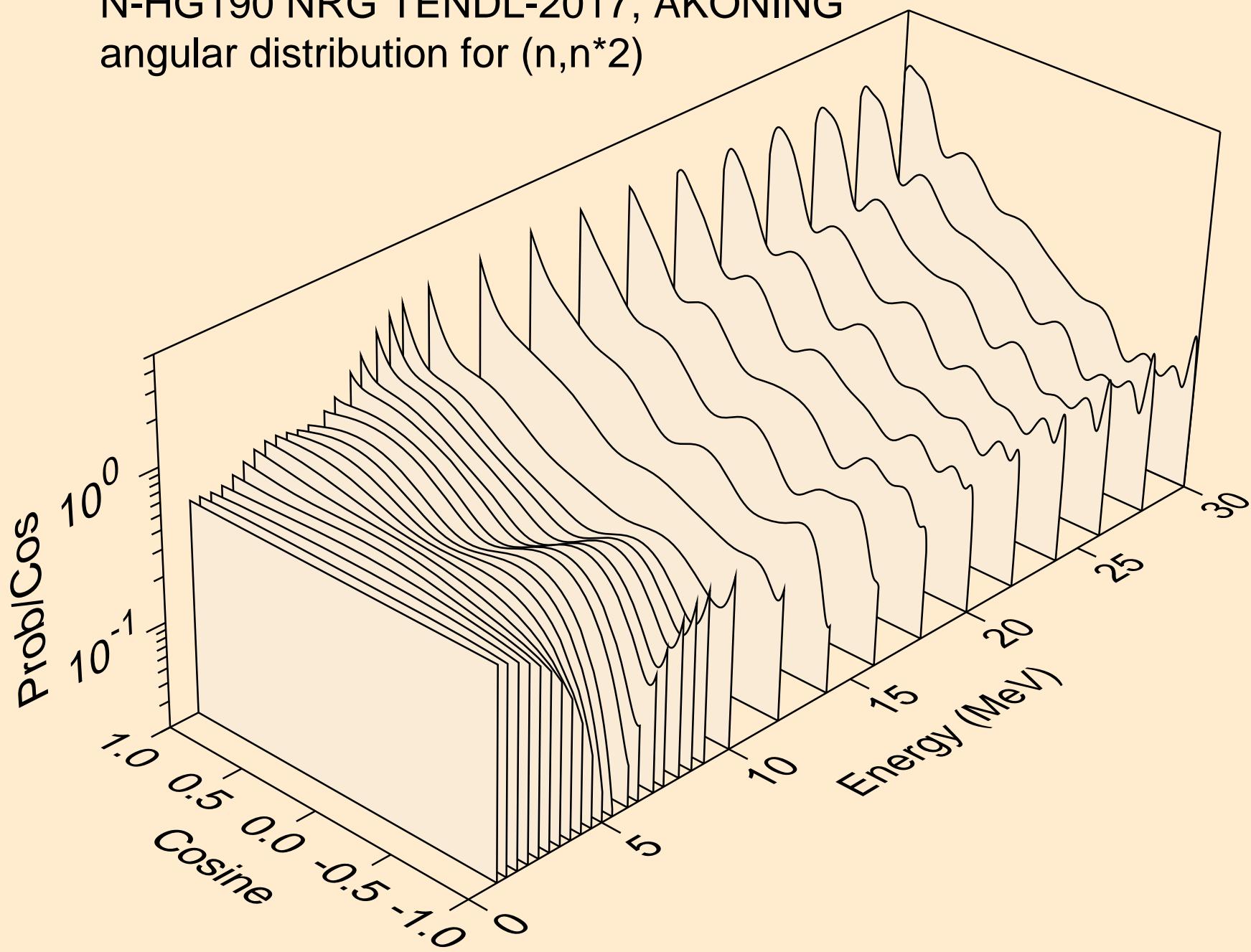
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for elastic



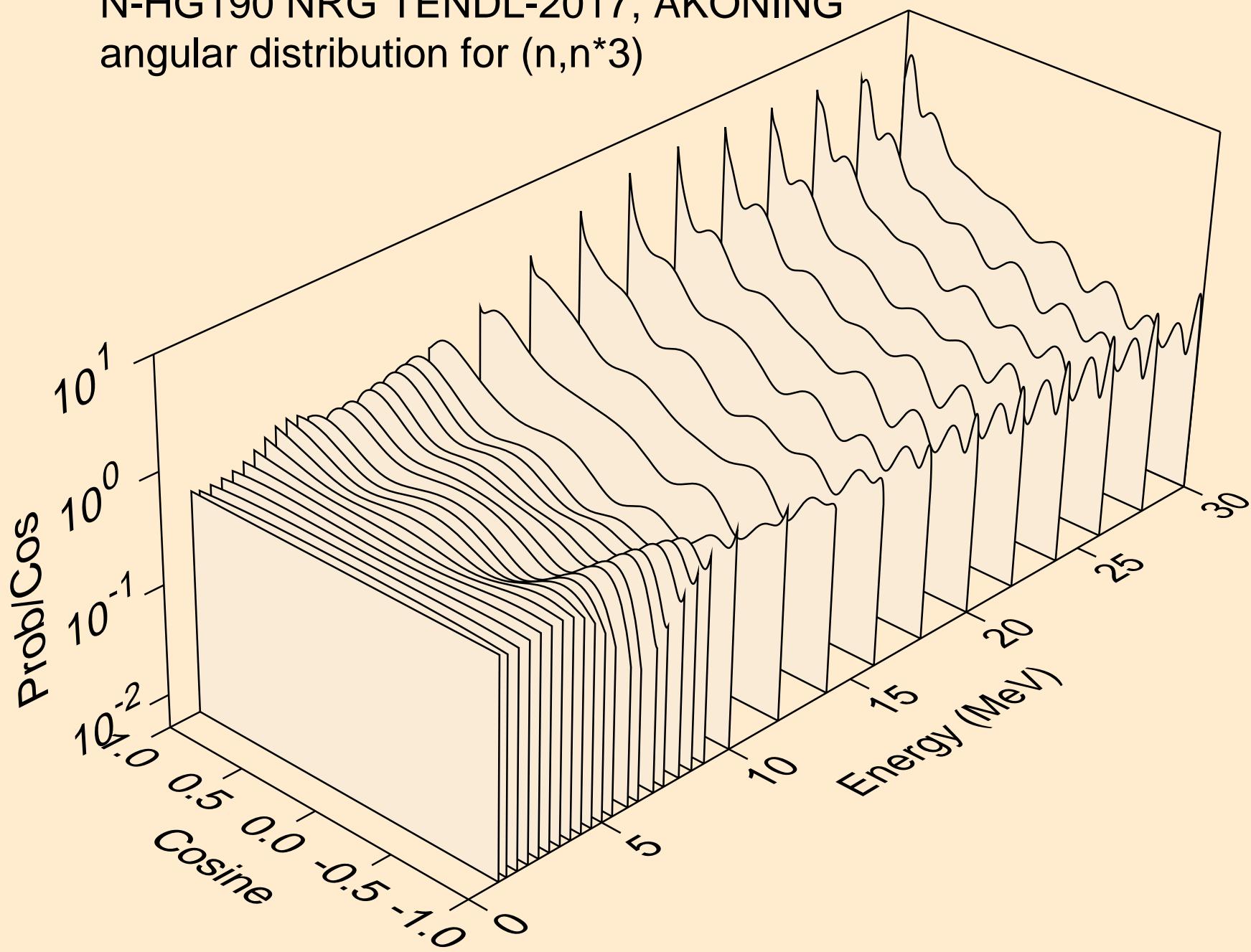
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*1)



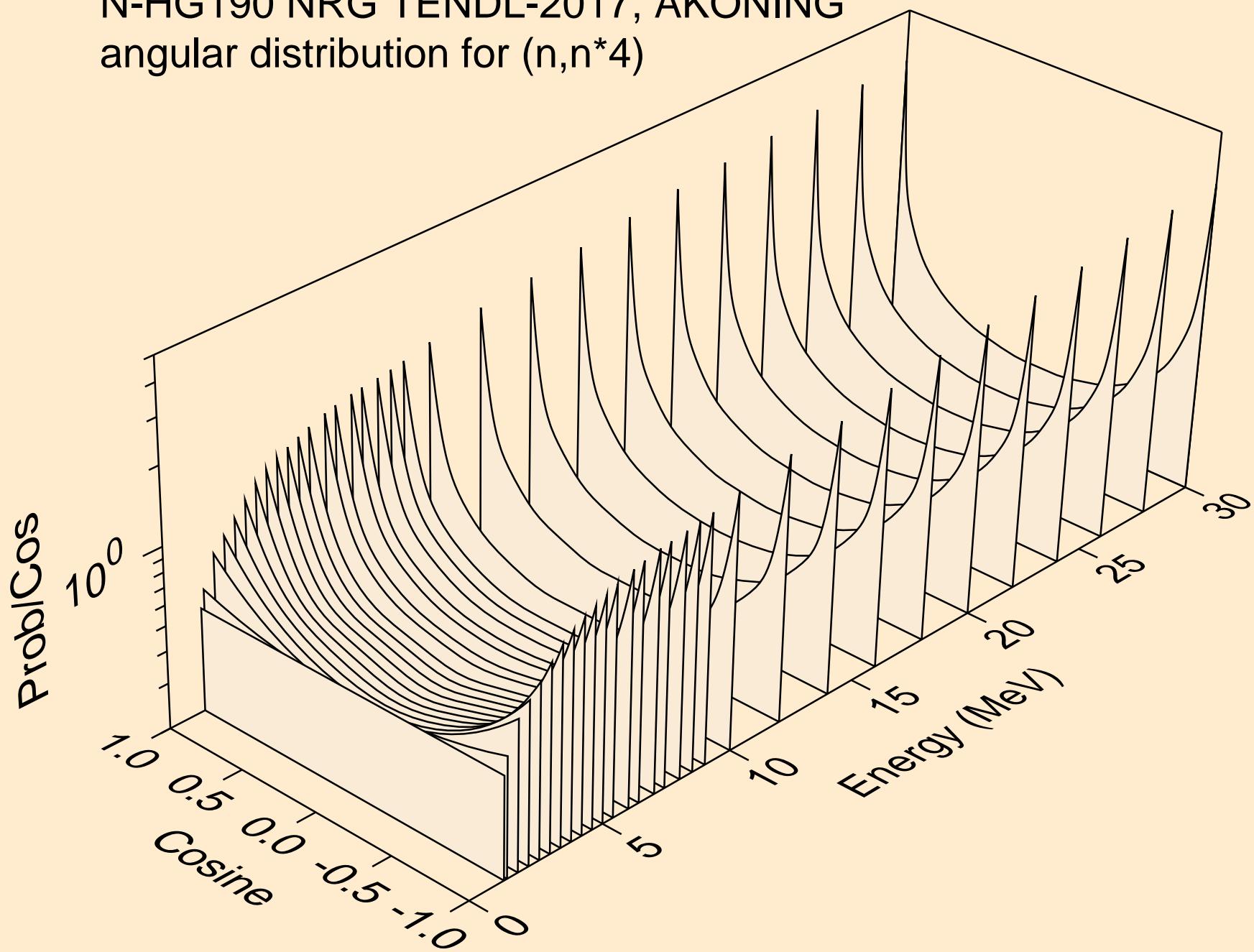
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*)^2$



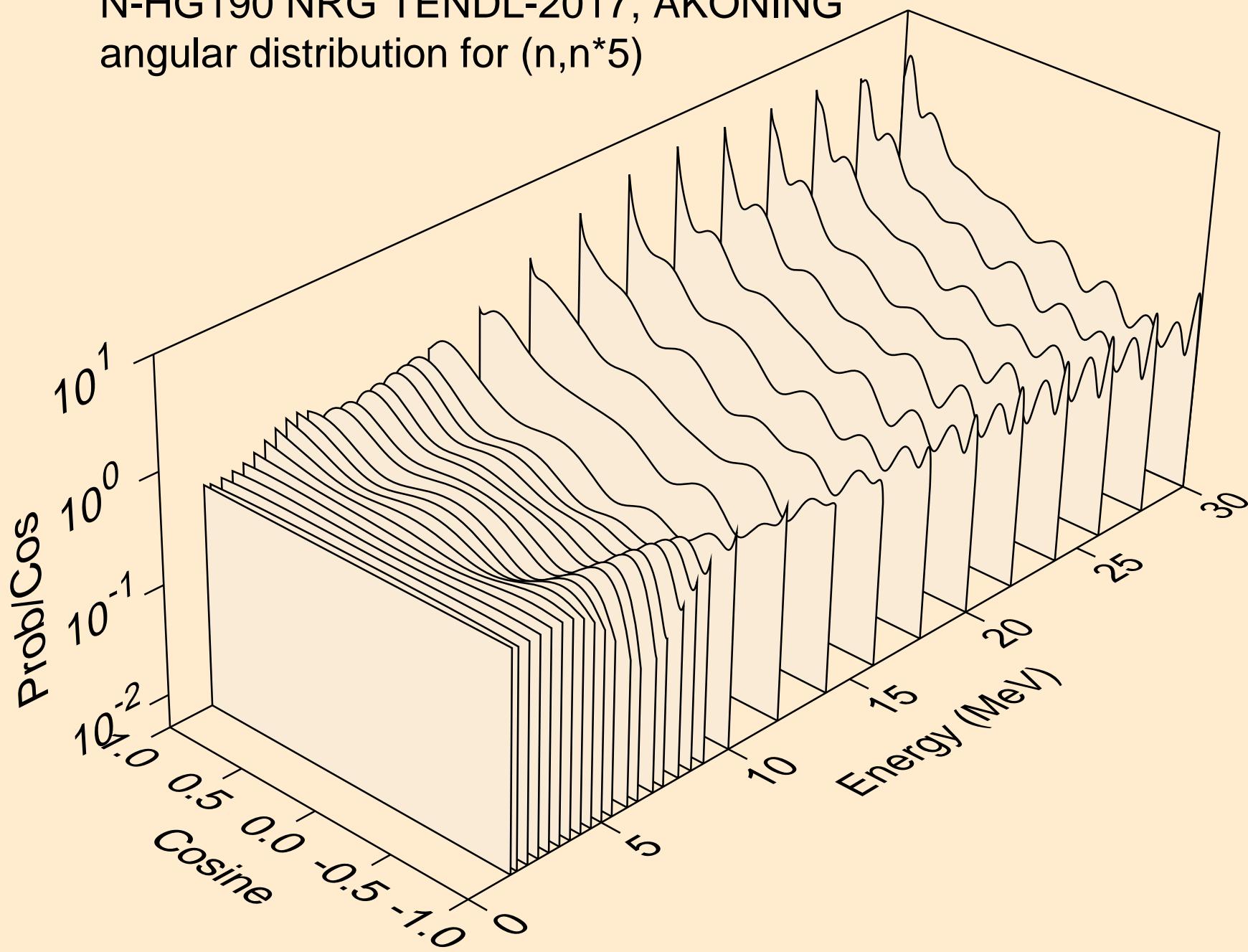
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*3)$



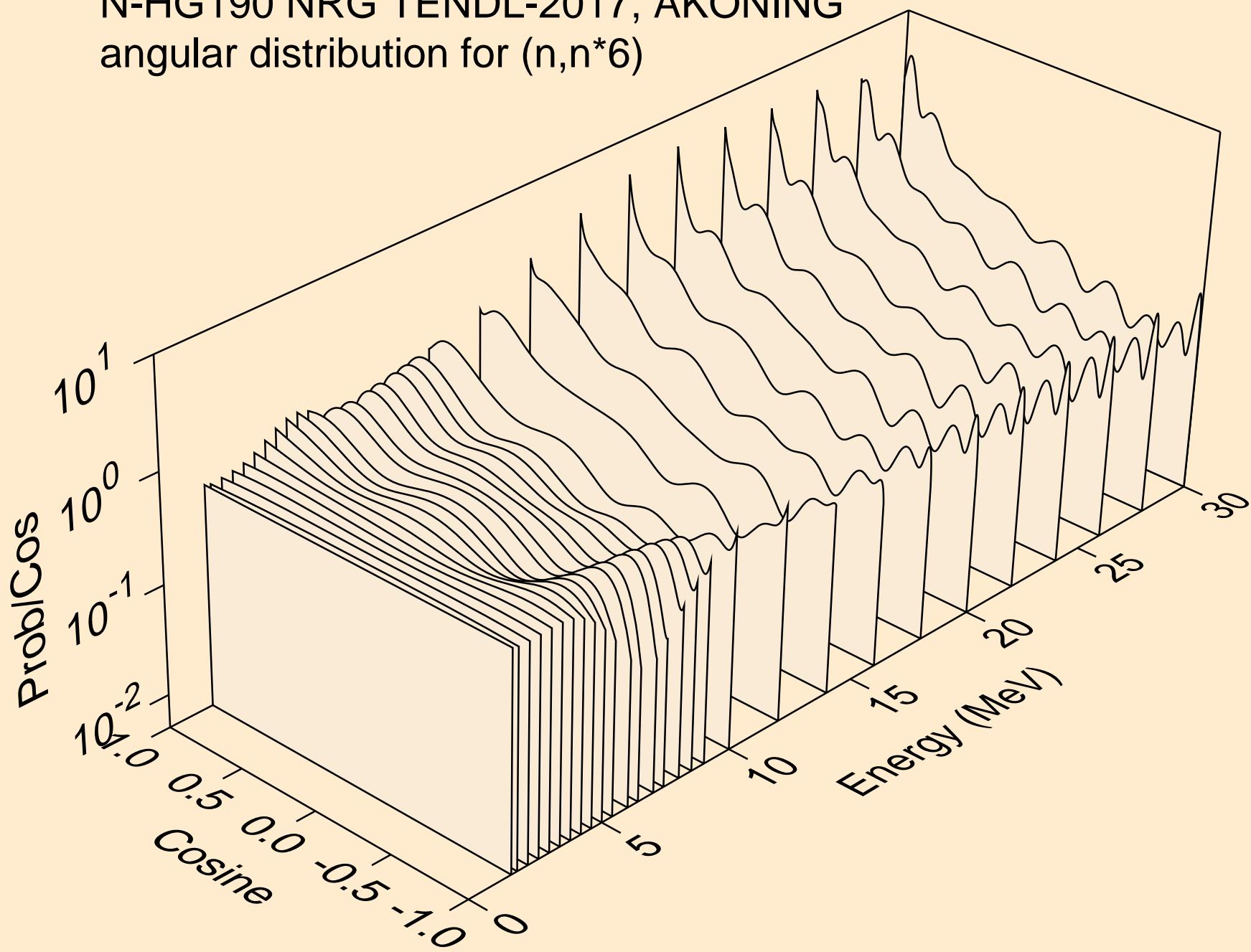
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*4)$



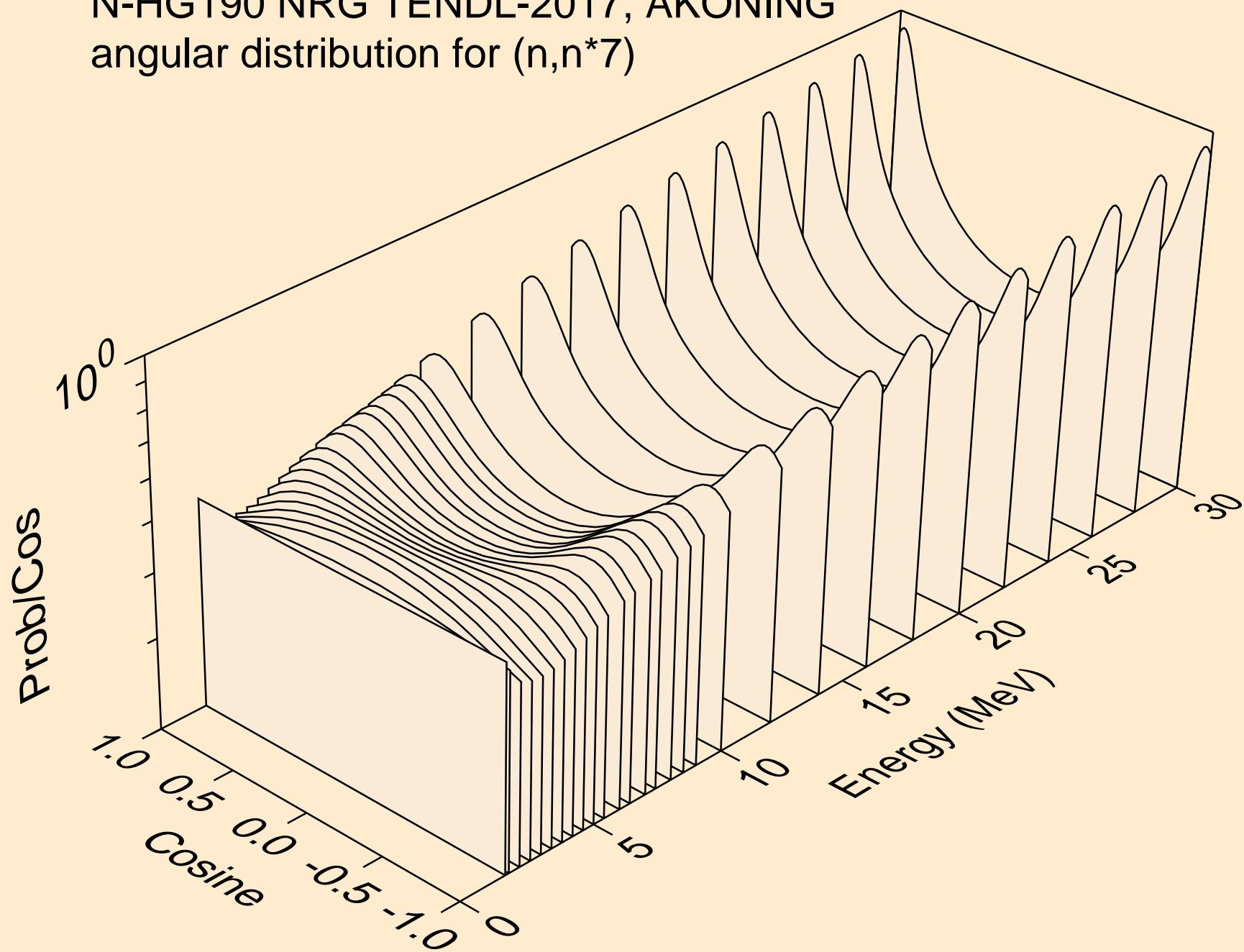
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*5)



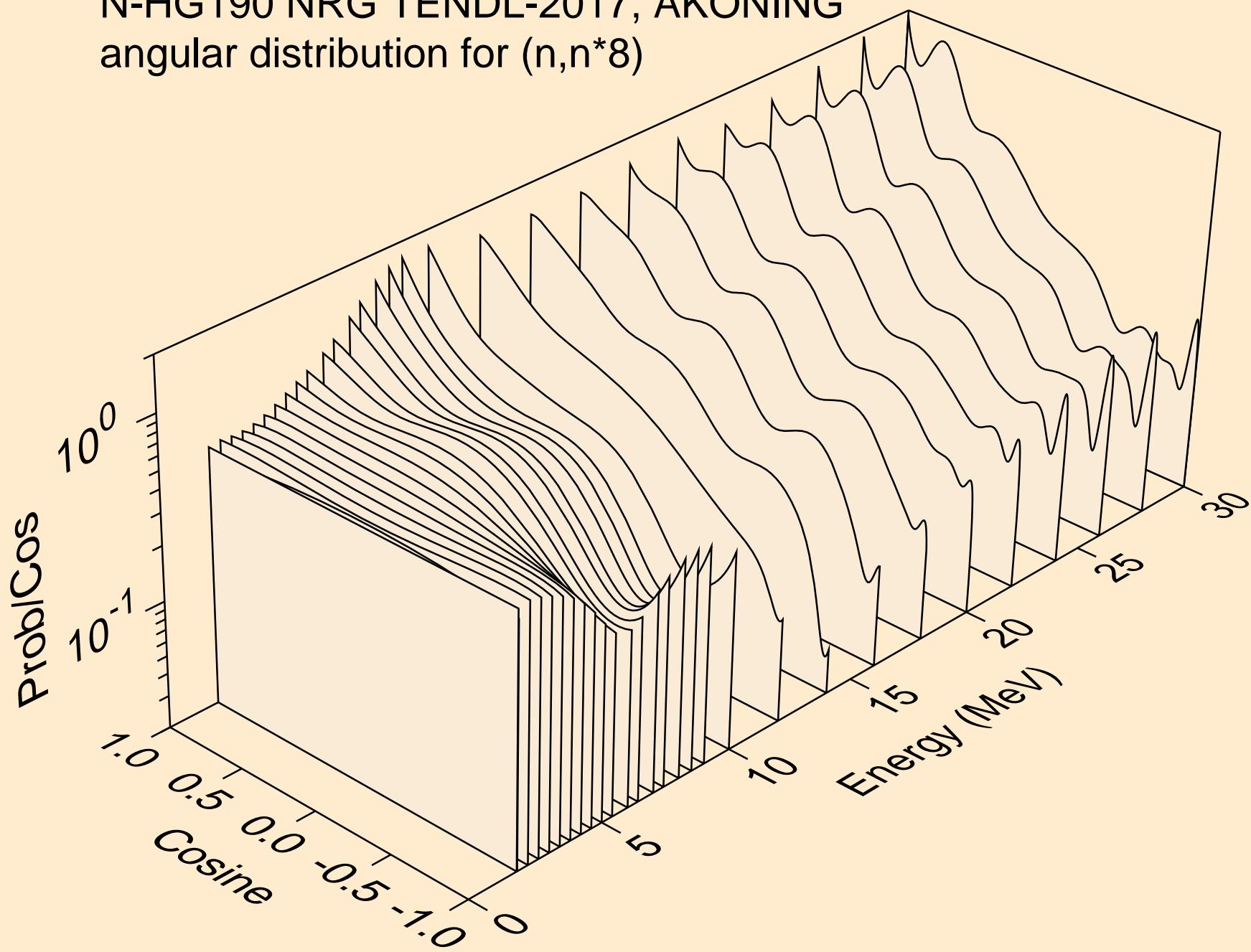
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*6)$



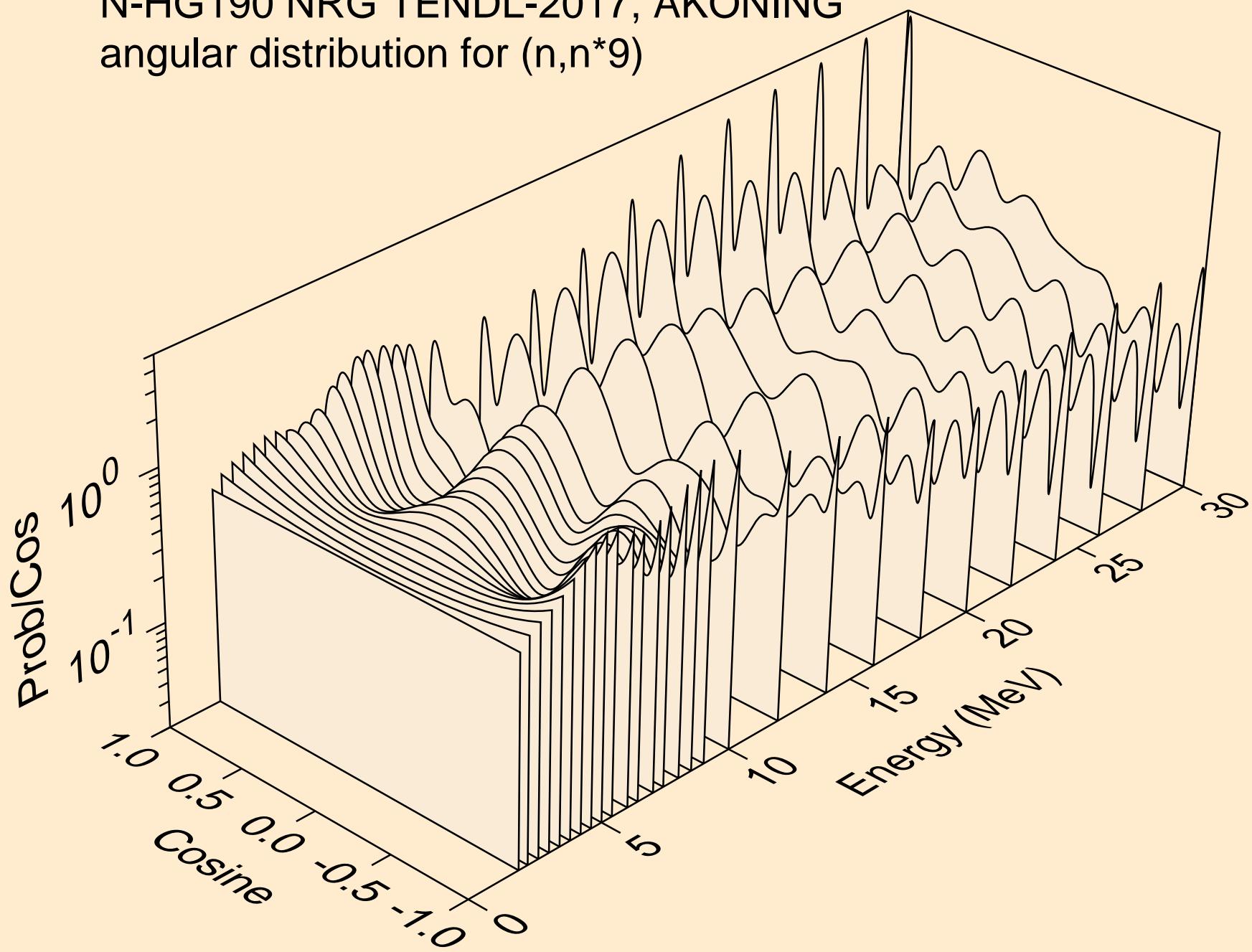
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*)^7$



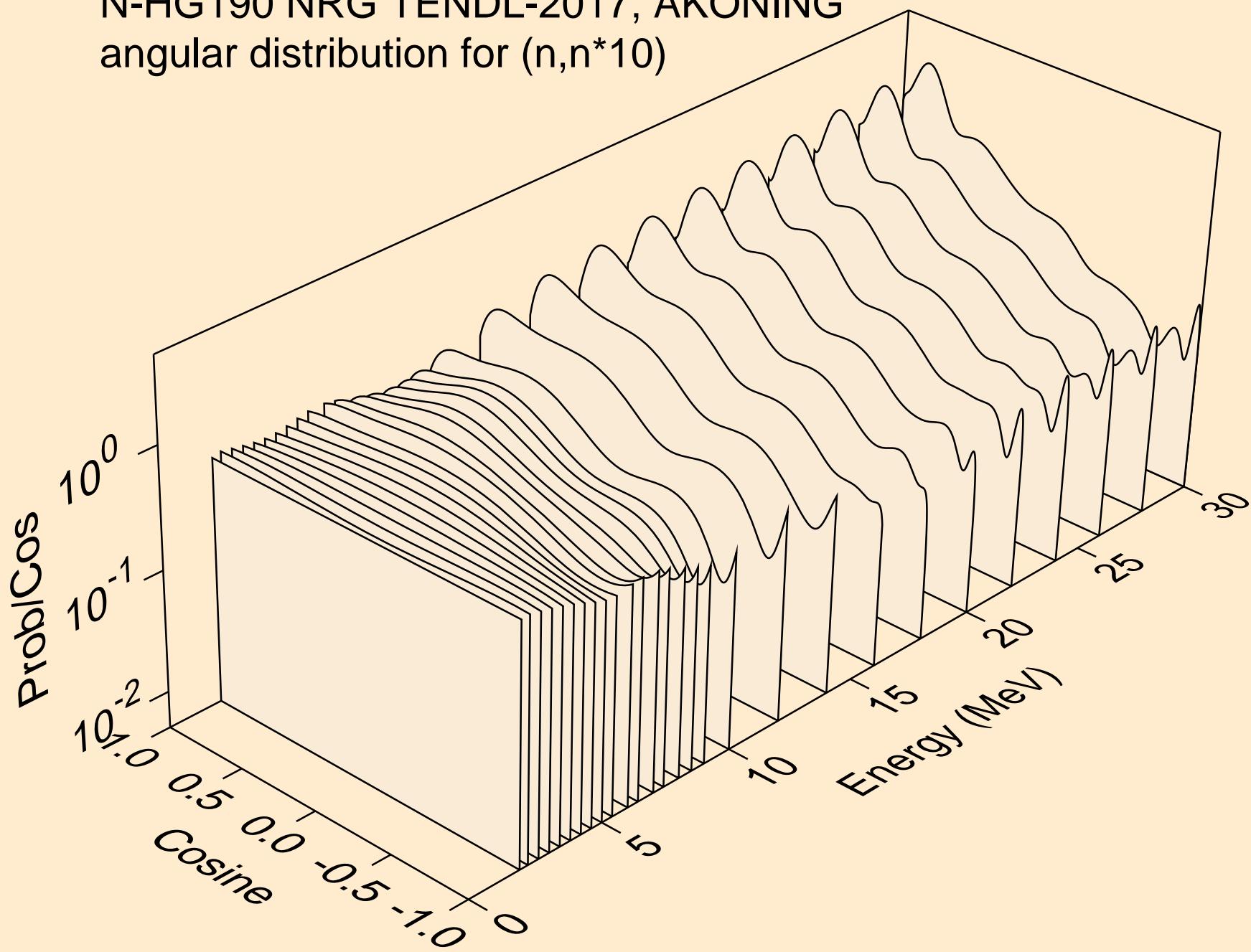
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*)^8$



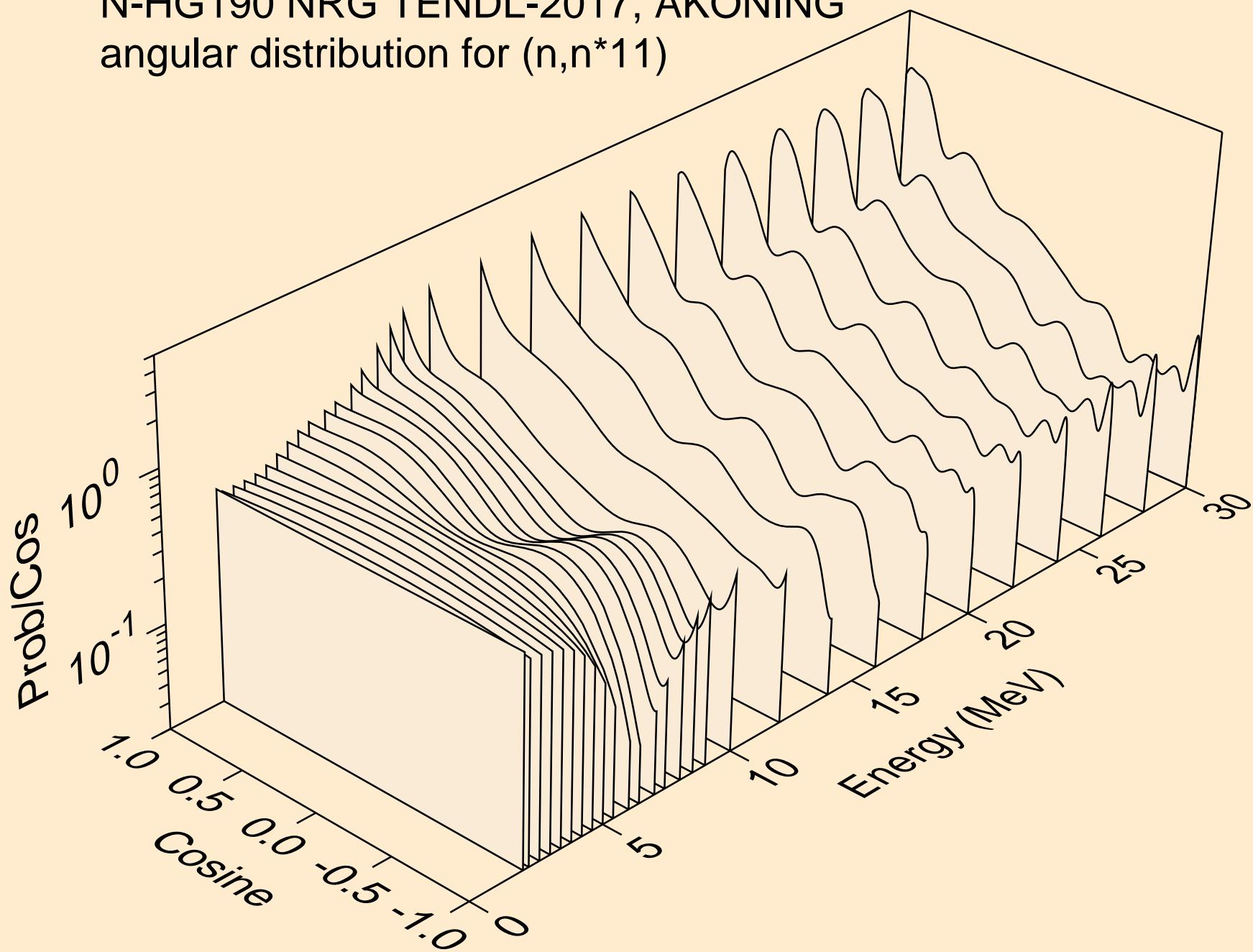
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*)9$



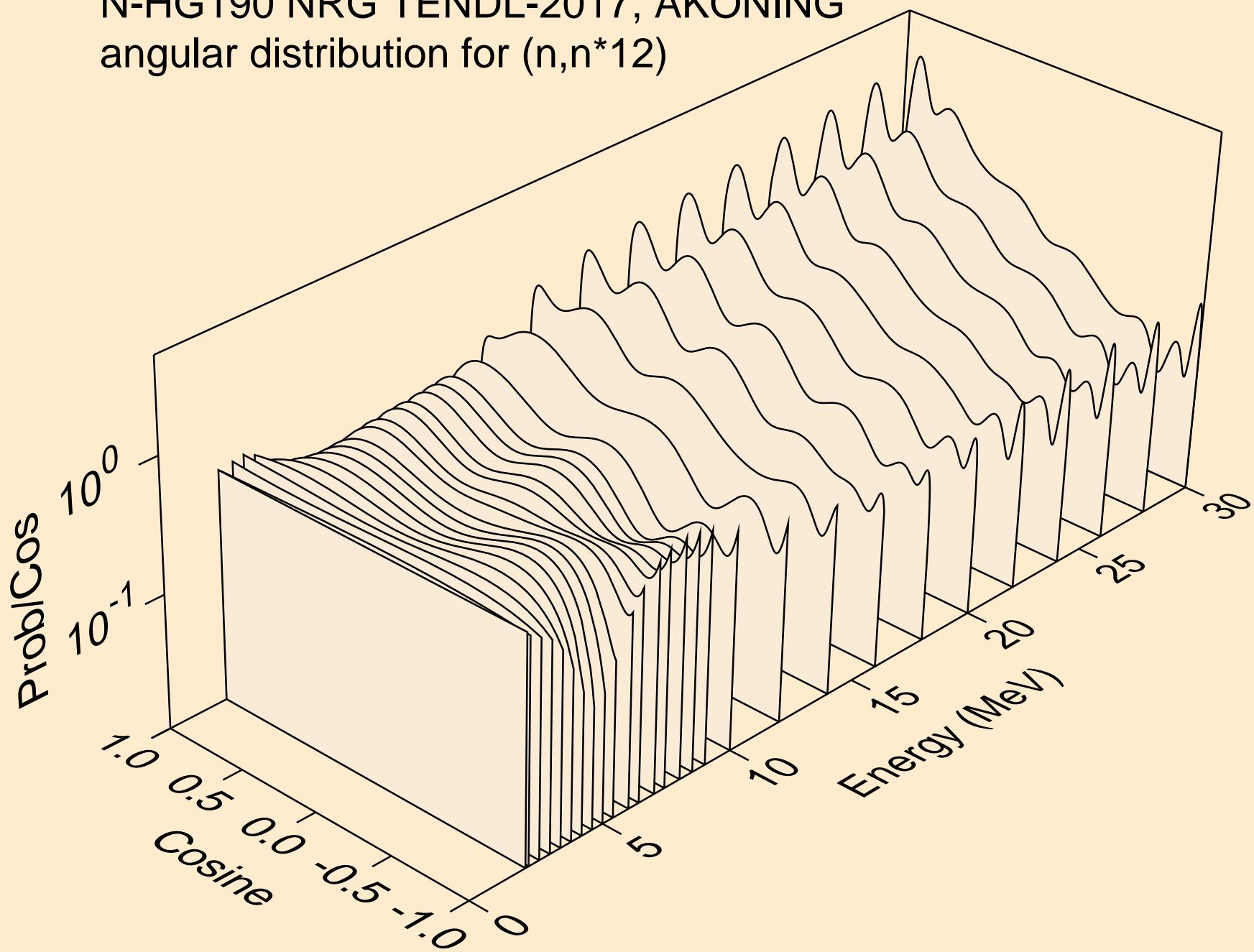
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*10)



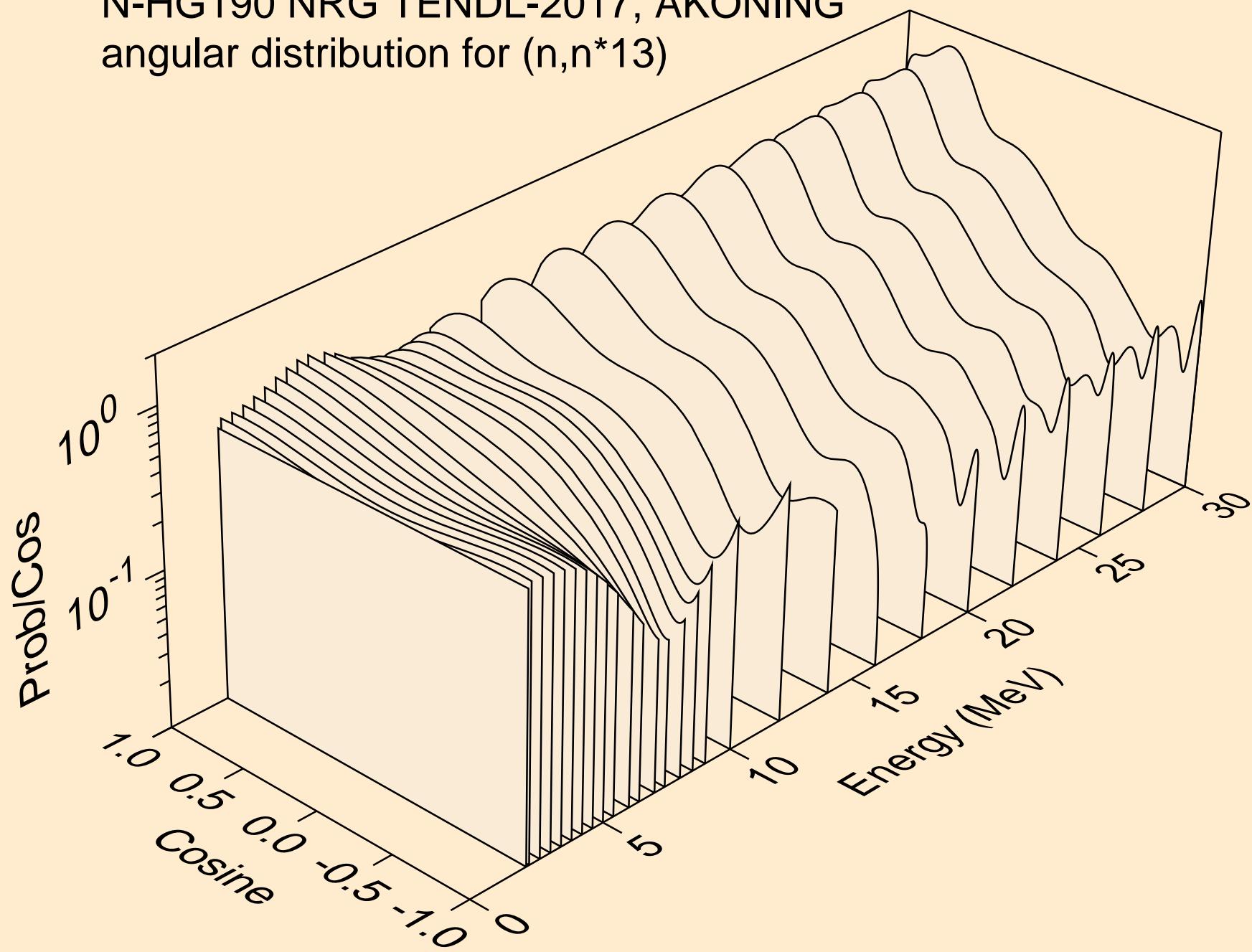
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*11)



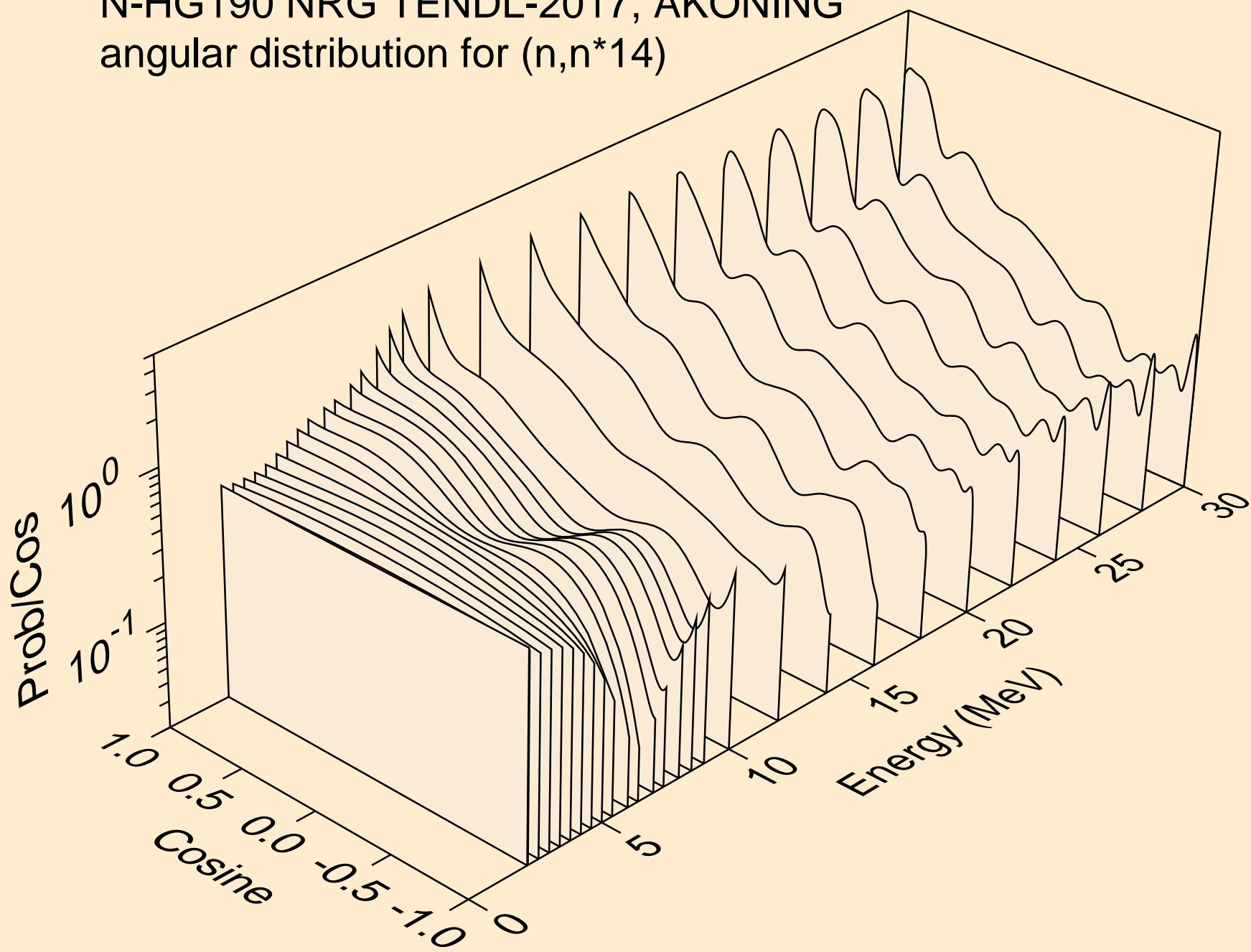
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*12)$



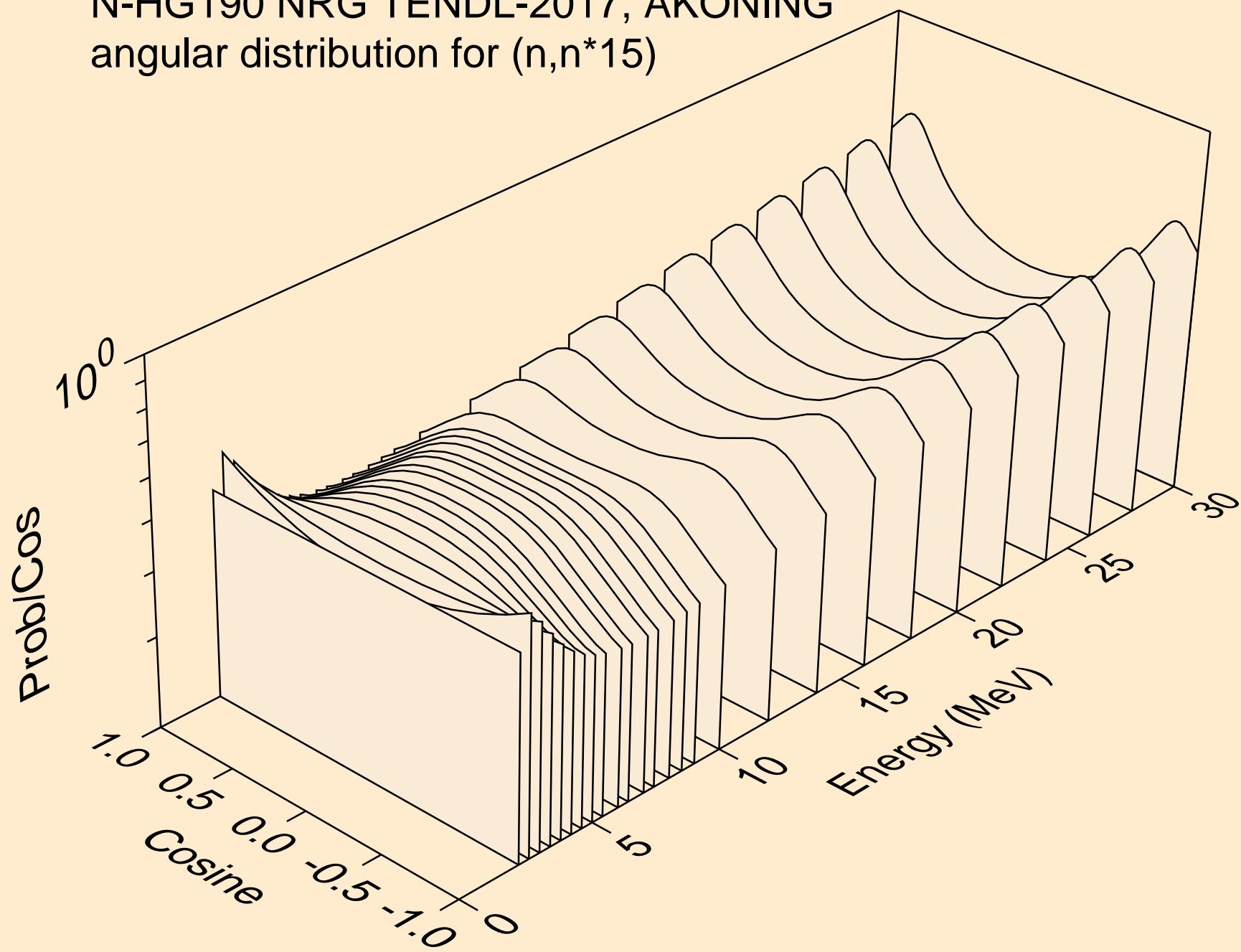
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*13)$



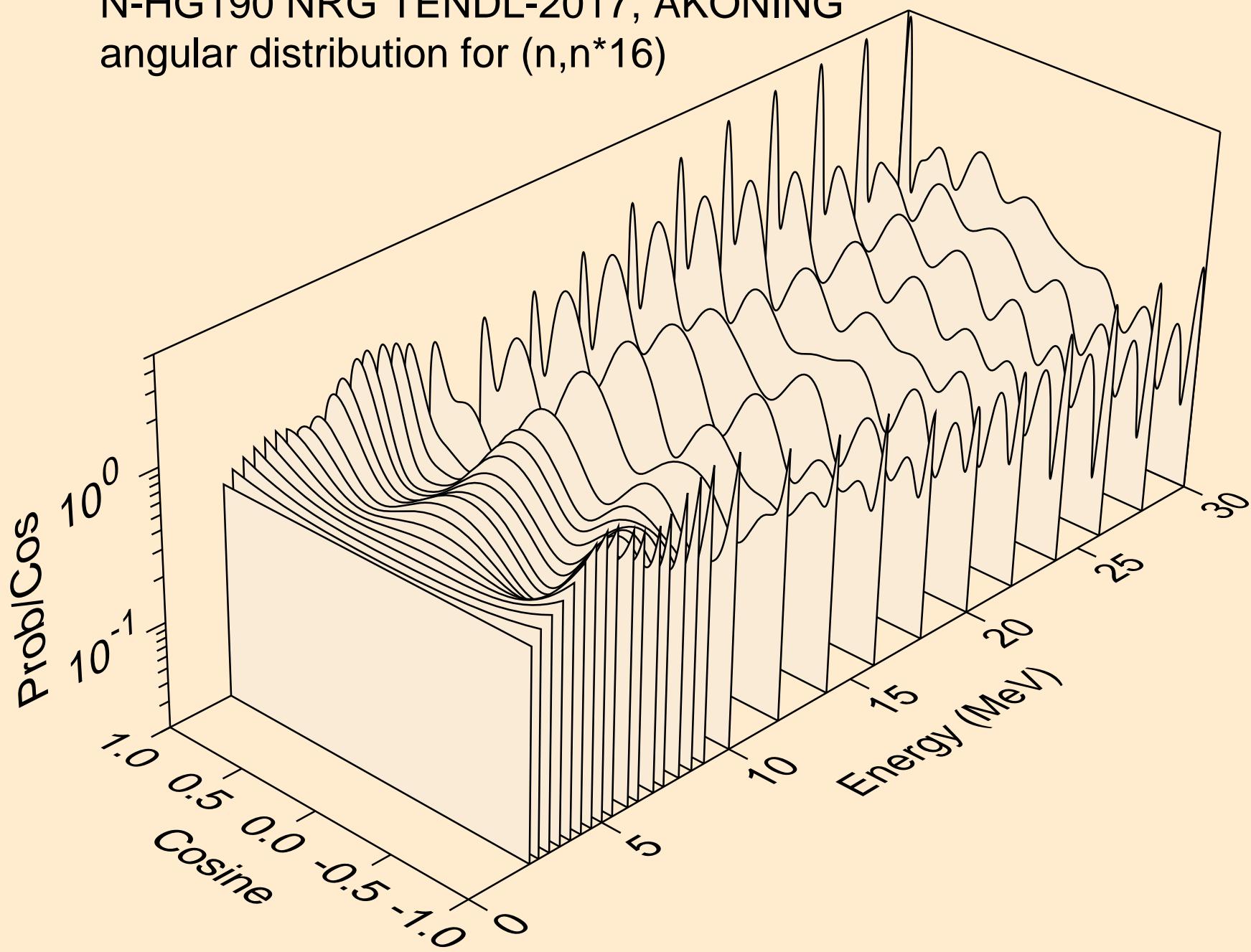
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*14)



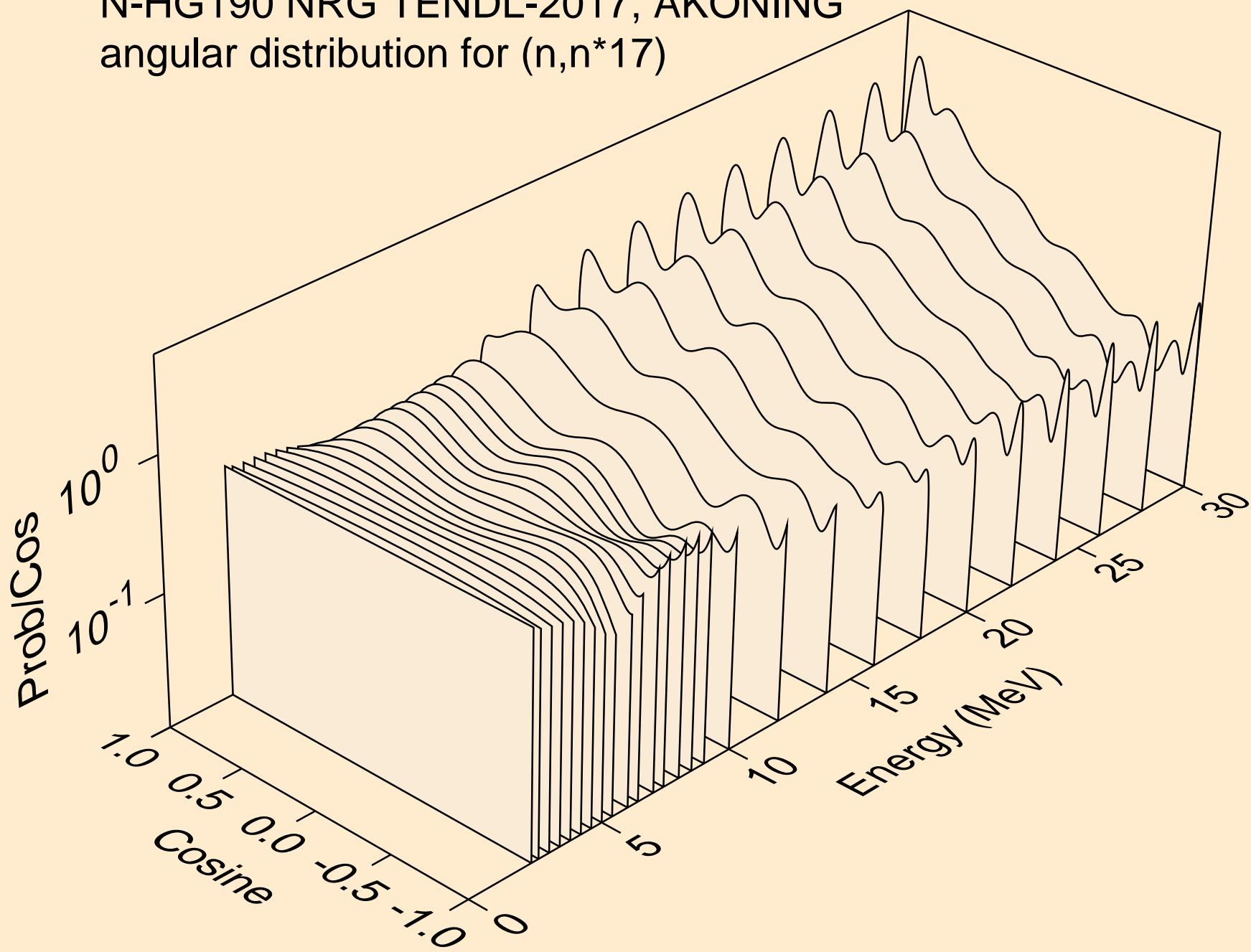
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*15)$



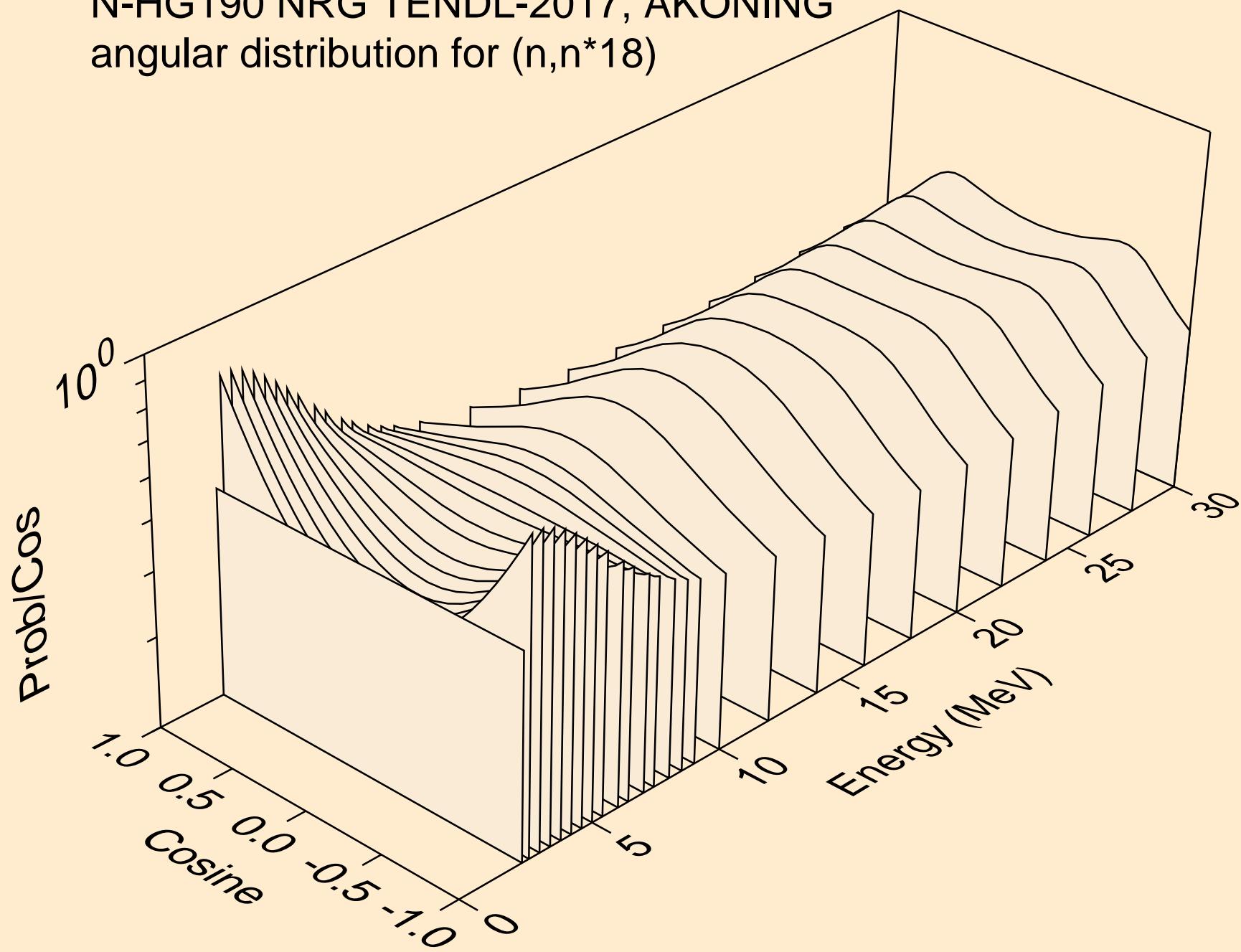
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*16)$



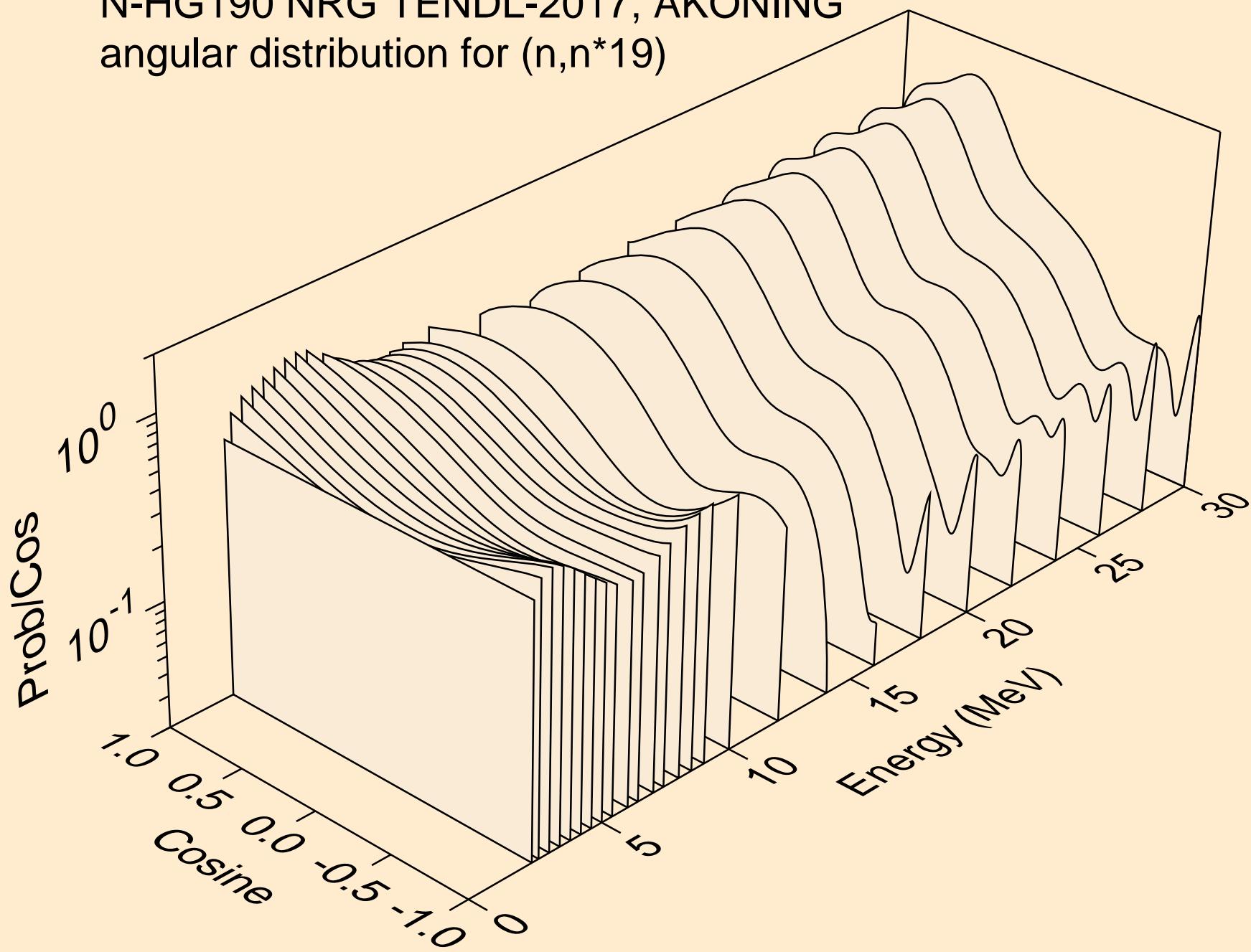
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*17)



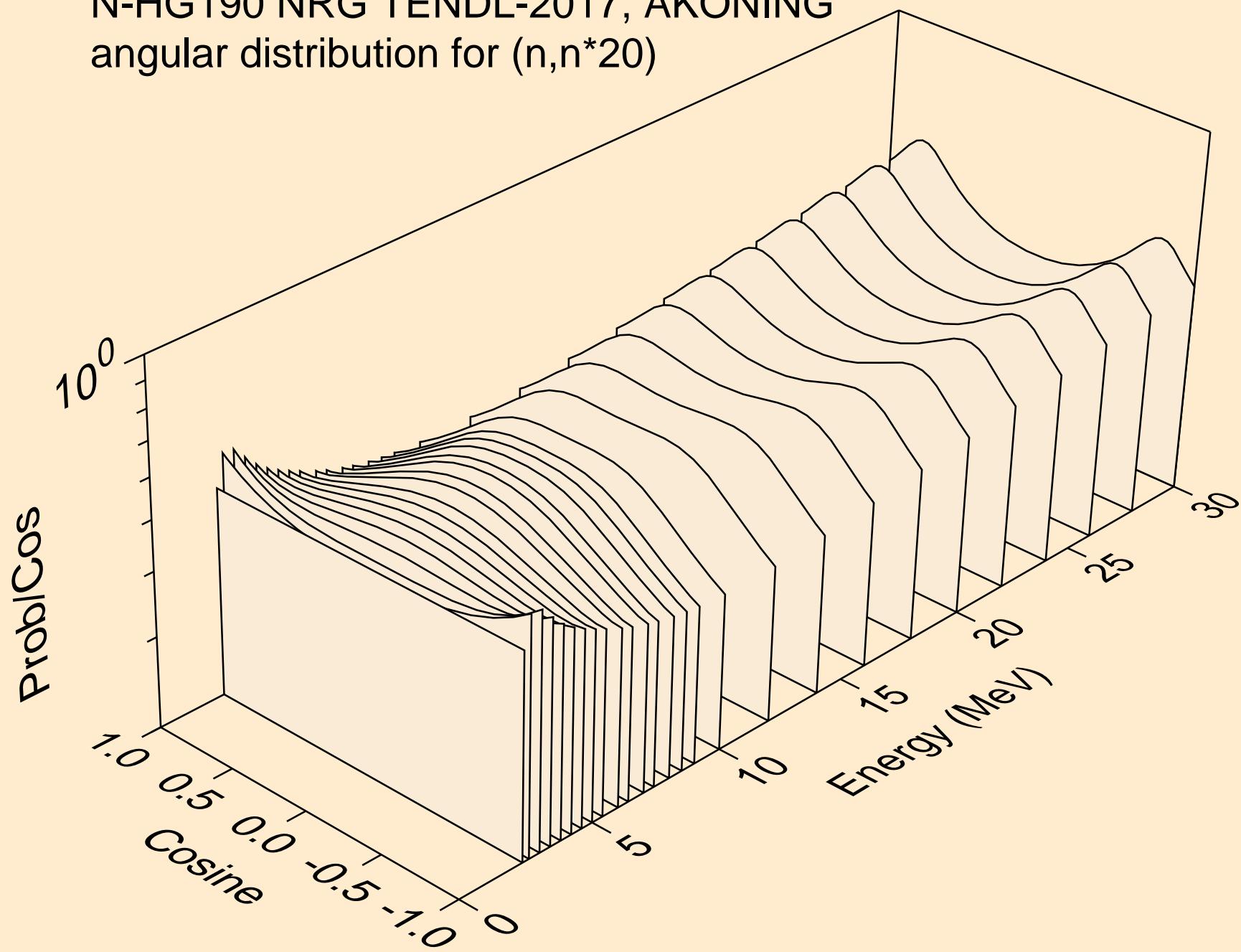
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*18)



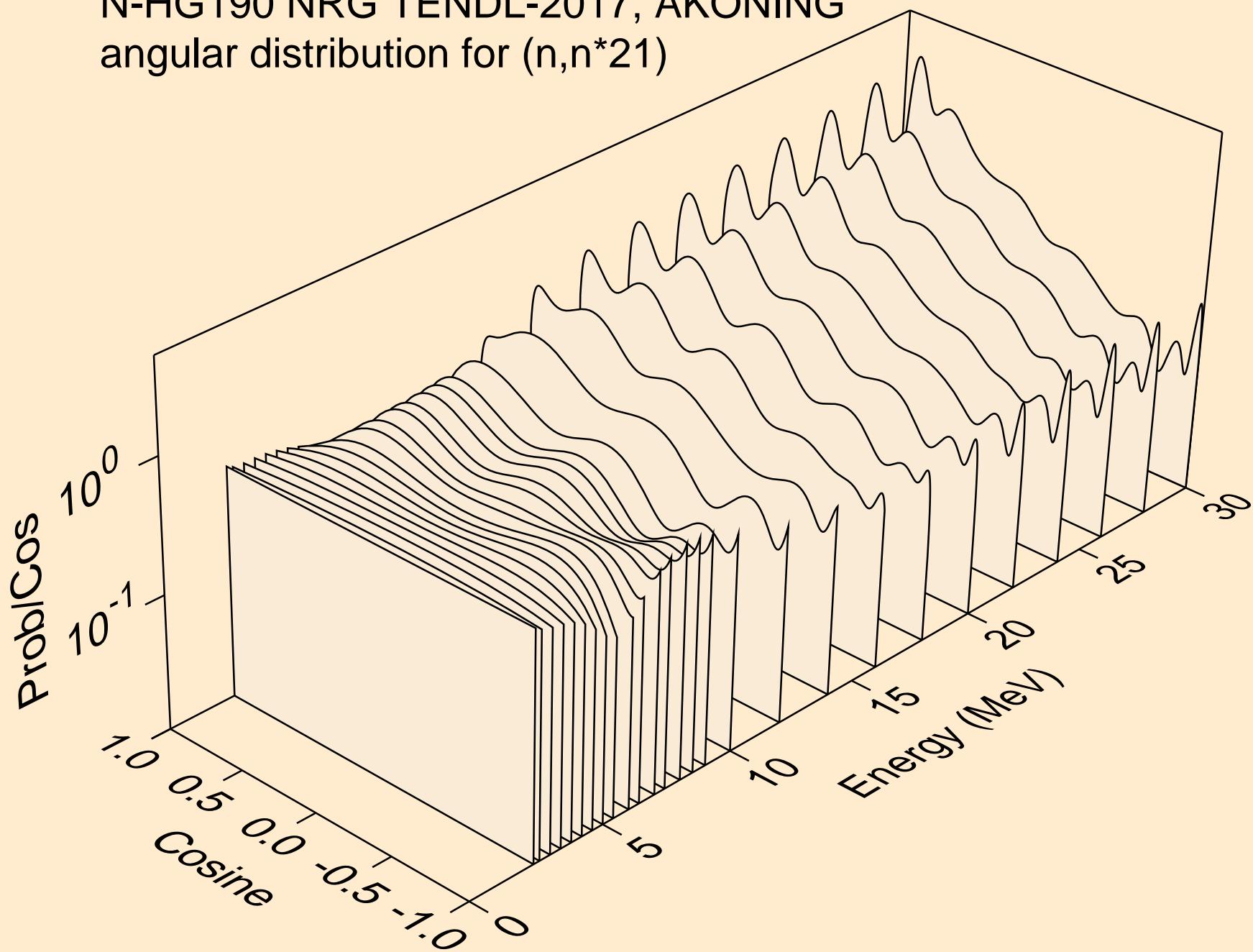
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*19)



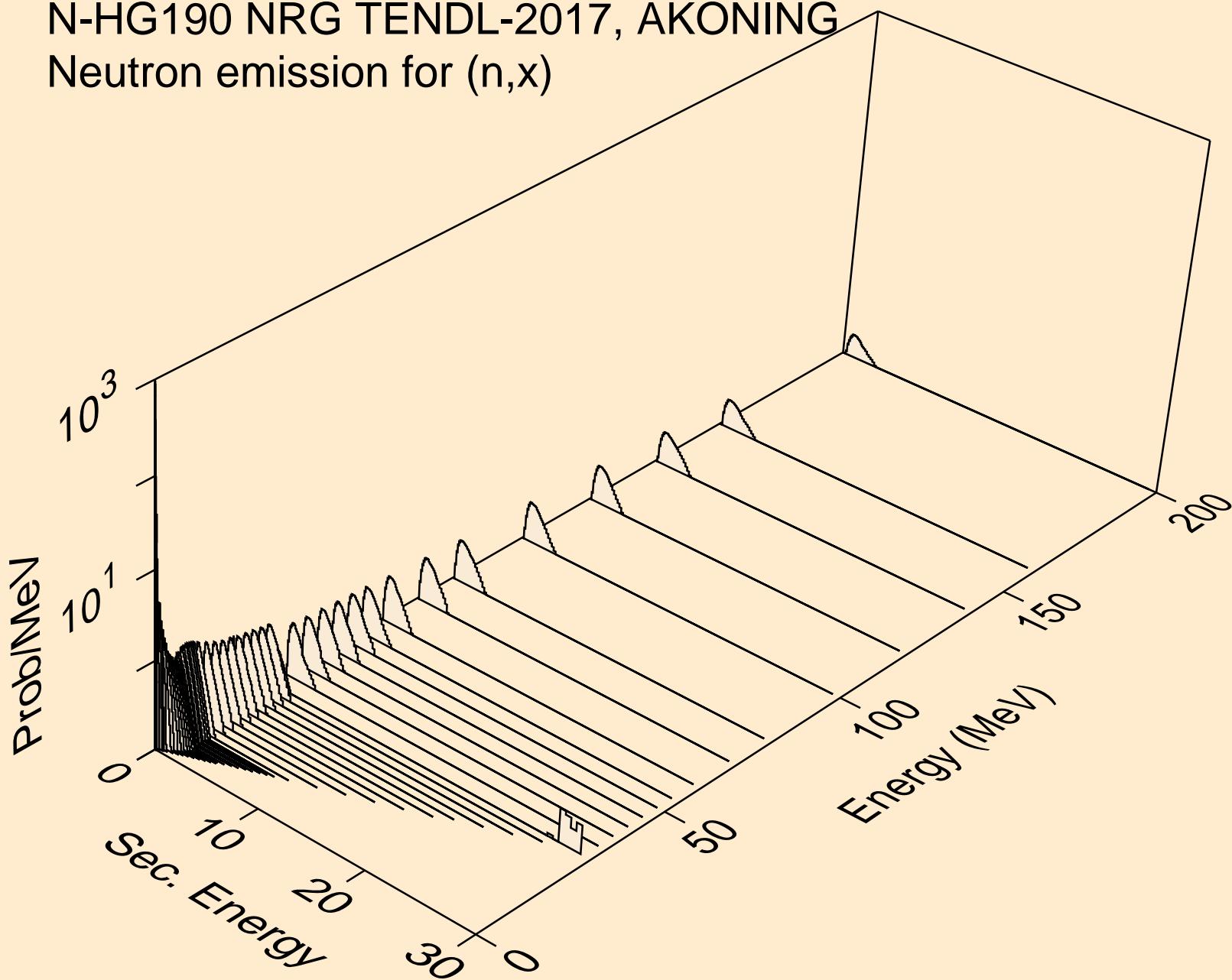
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for (n,n\*20)



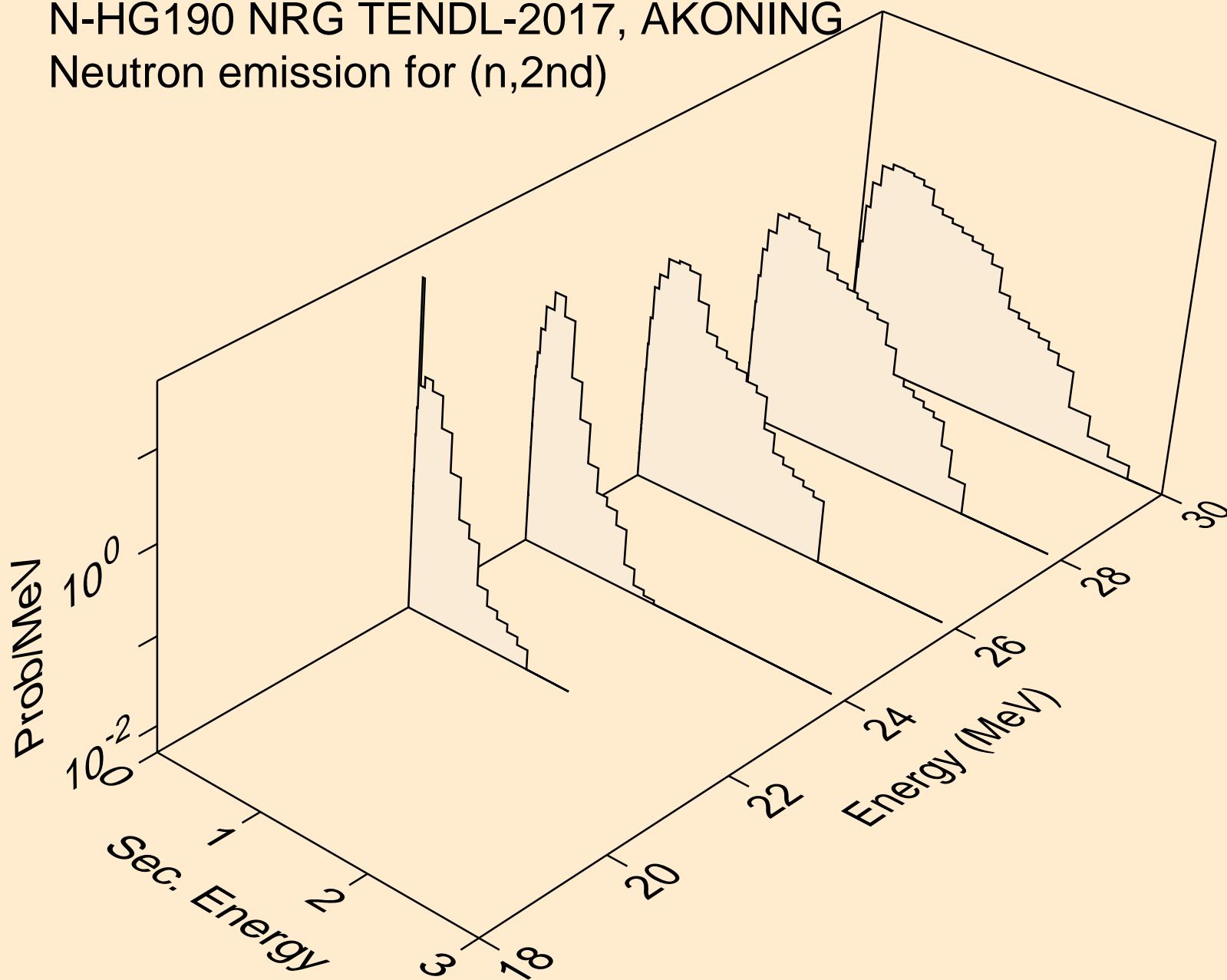
N-HG190 NRG TENDL-2017, AKONING  
angular distribution for  $(n,n^*21)$



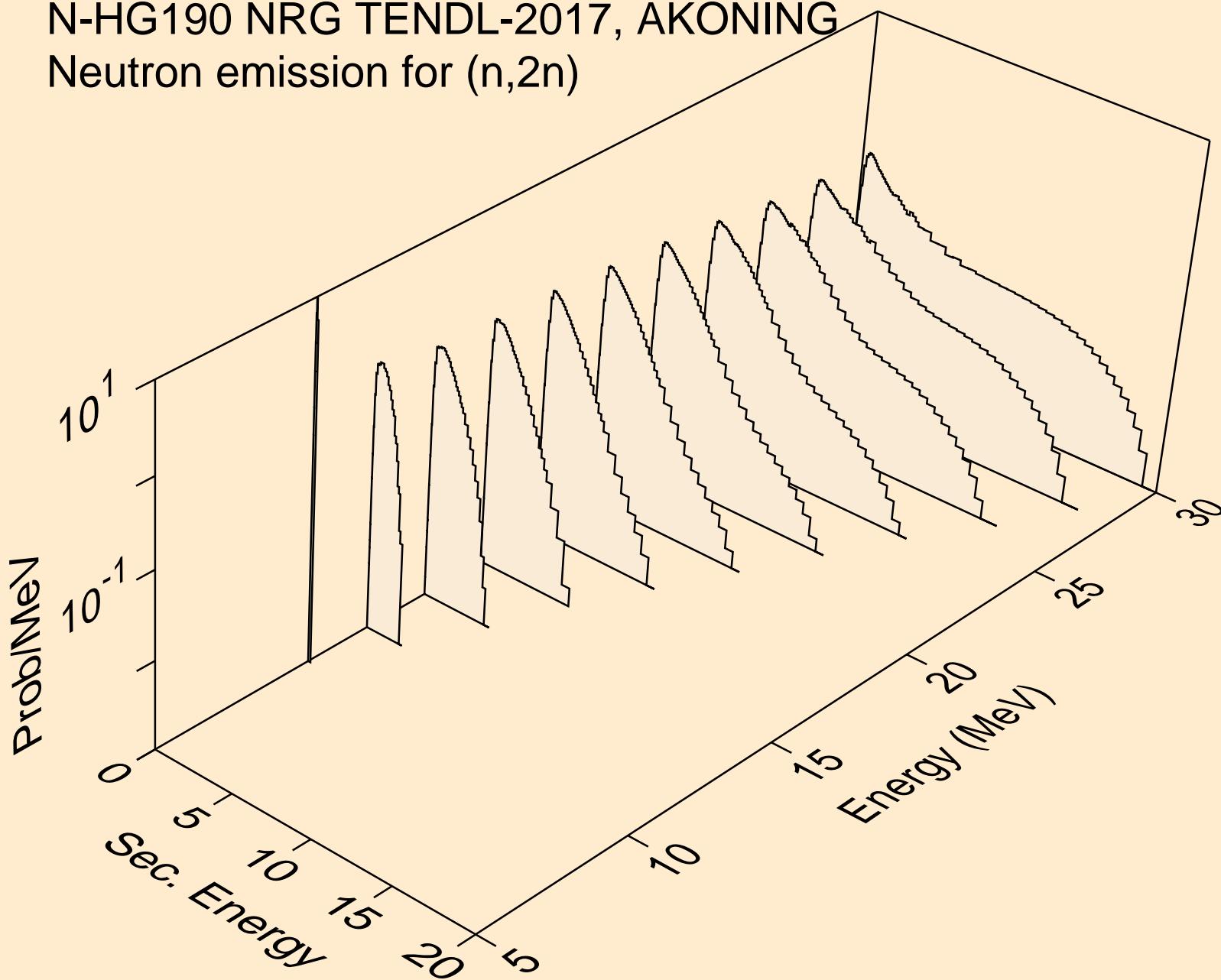
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,x)



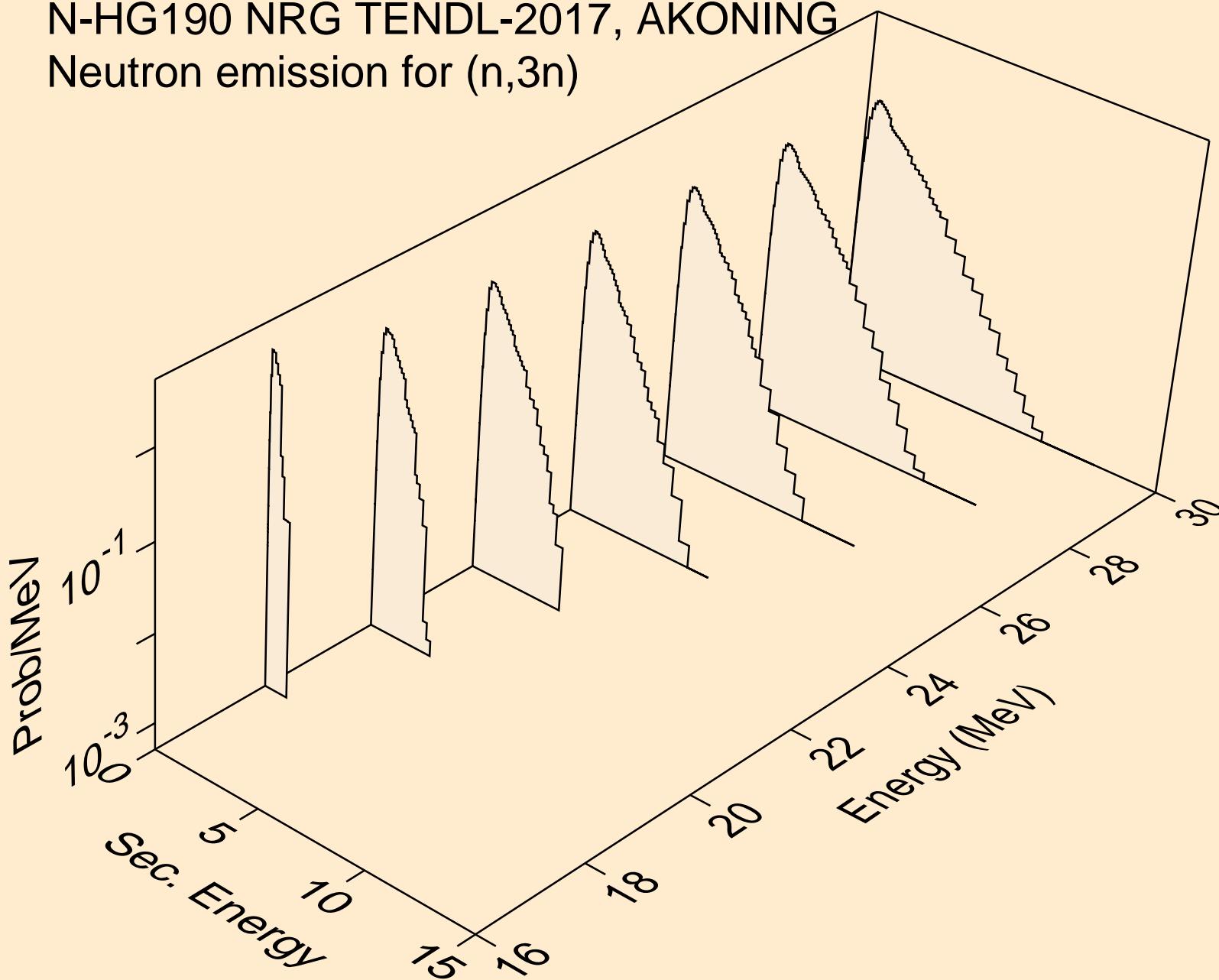
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,2nd)



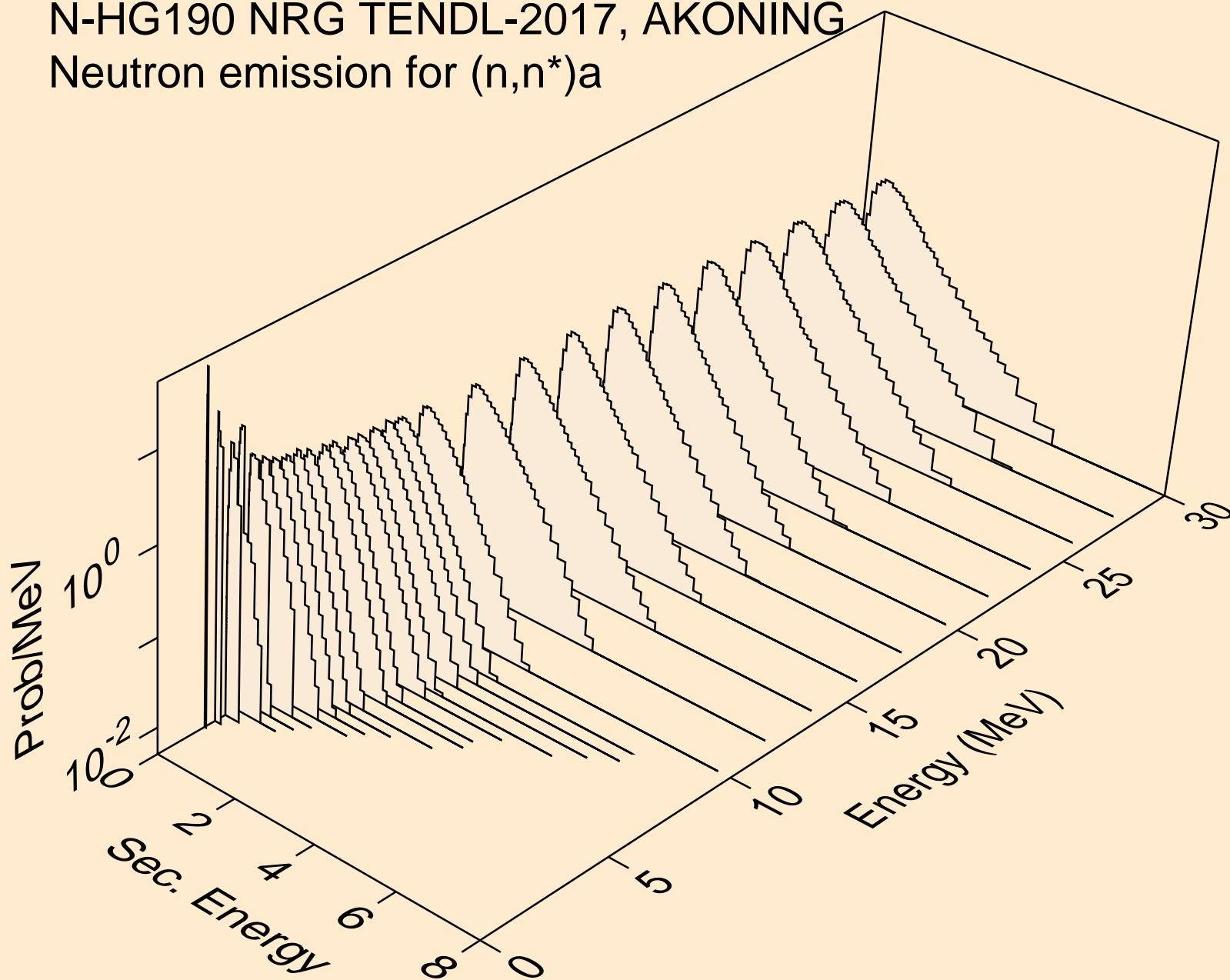
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,2n)



N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,3n)

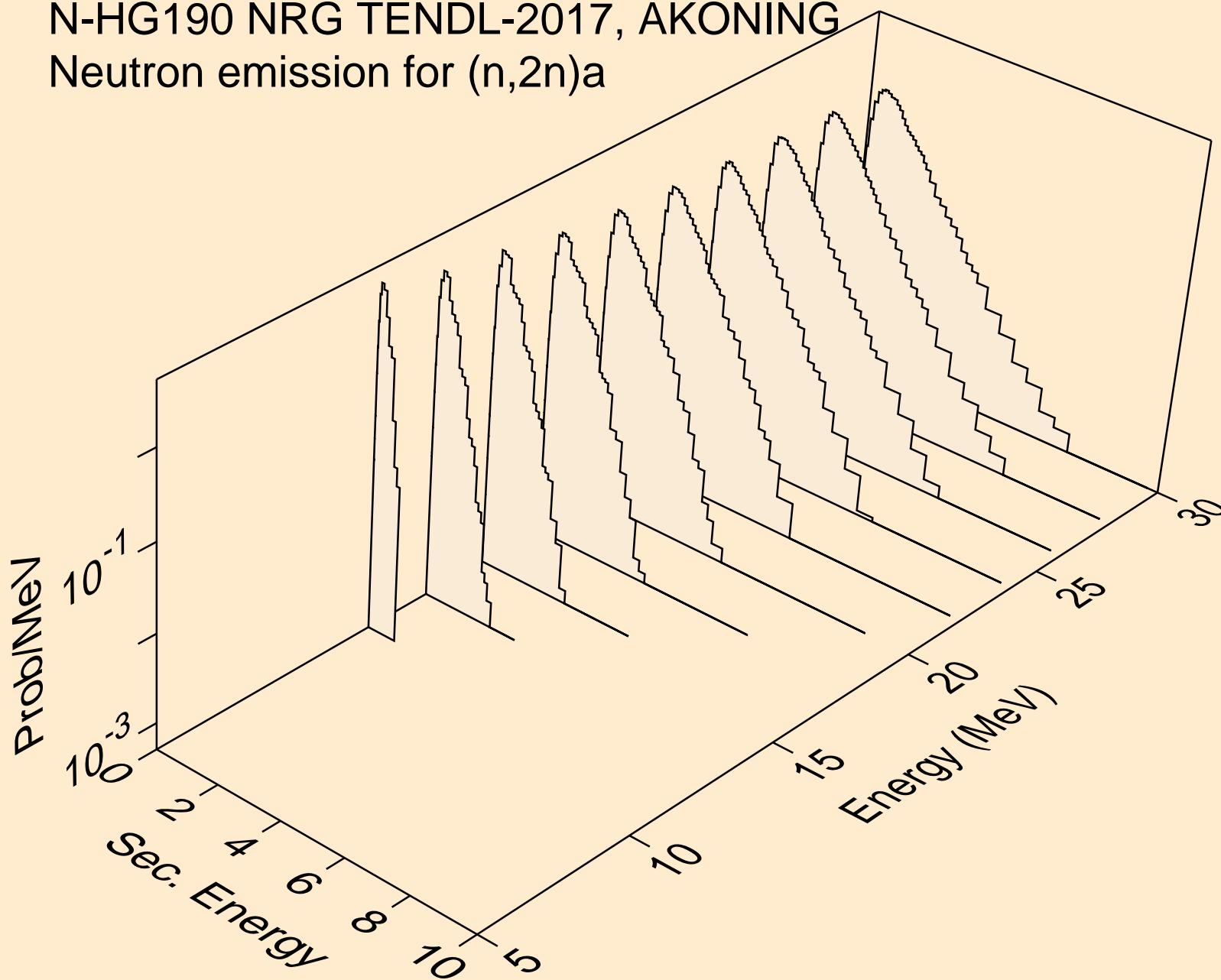


N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,n^*)a$

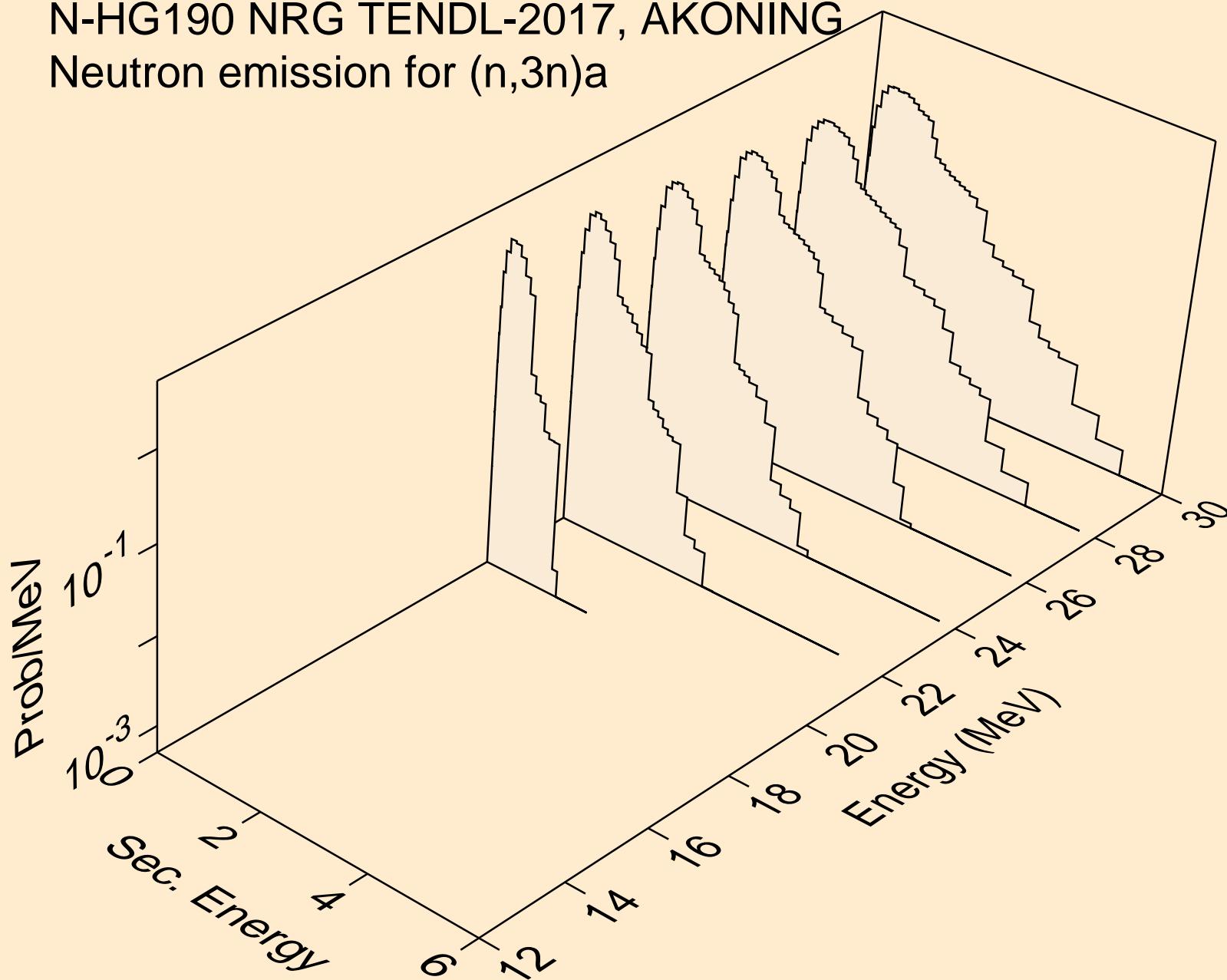


N-HG190 NRG TENDL-2017, AKONING

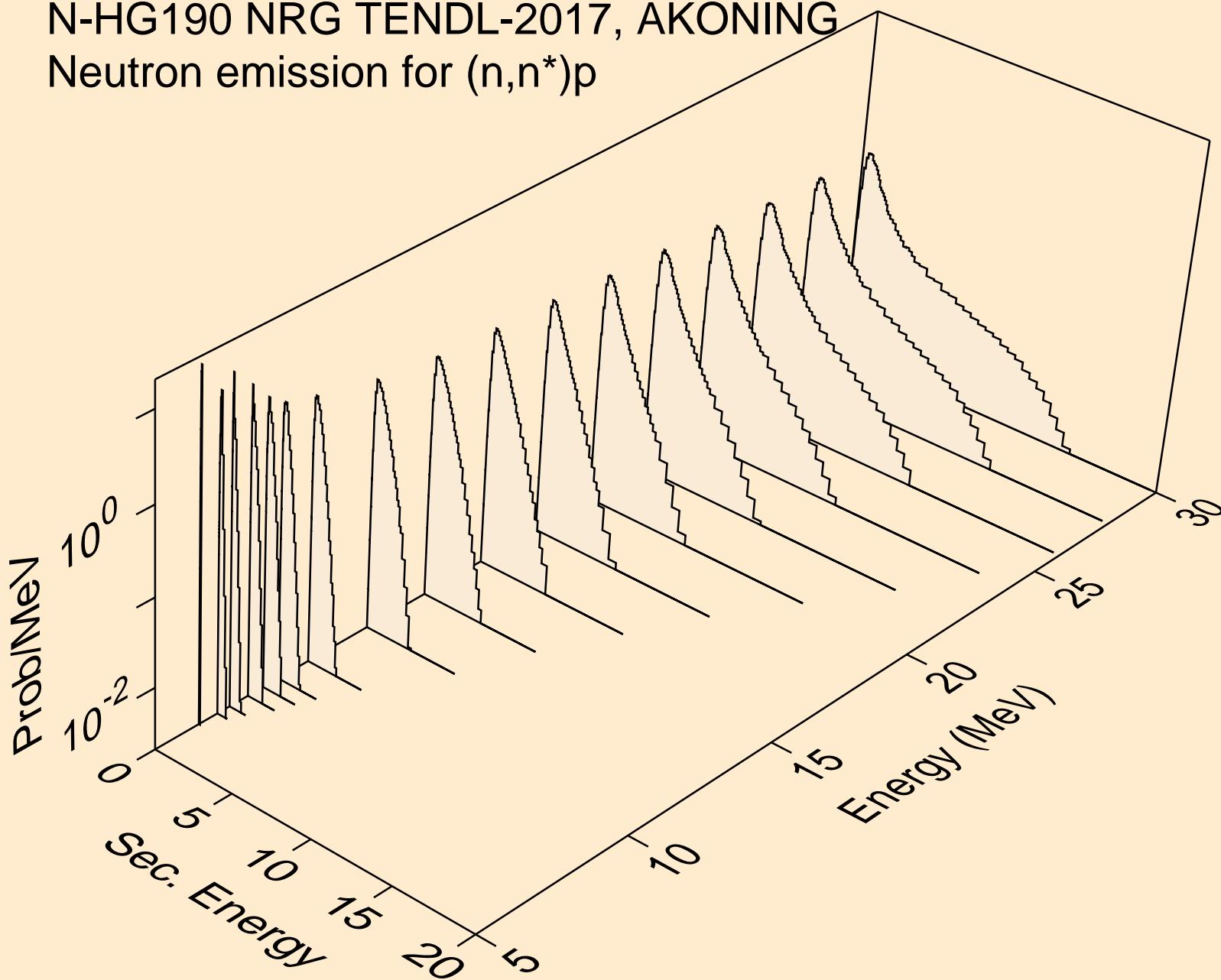
Neutron emission for  $(n,2n)a$



N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,3n)a

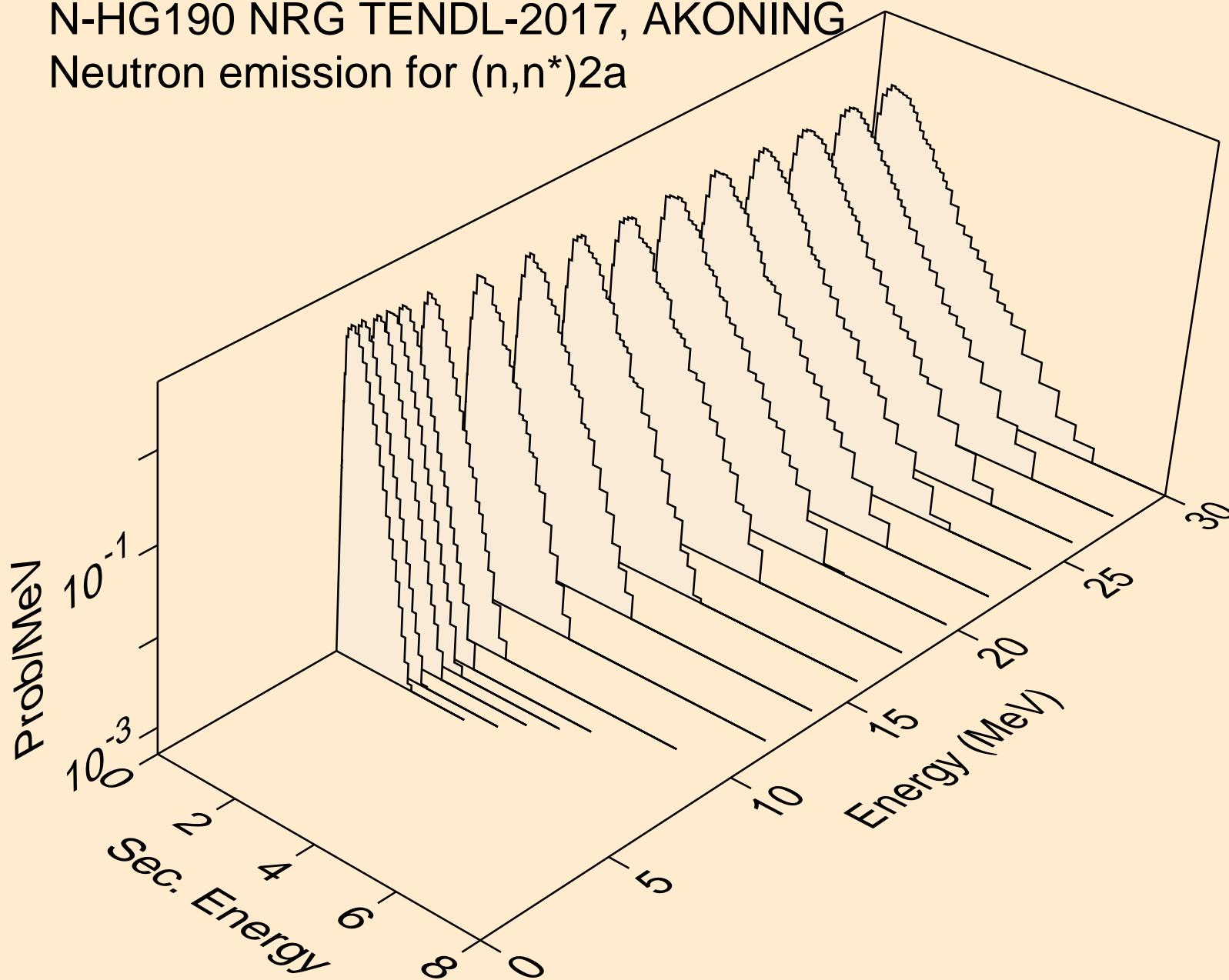


N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,n^*)p$

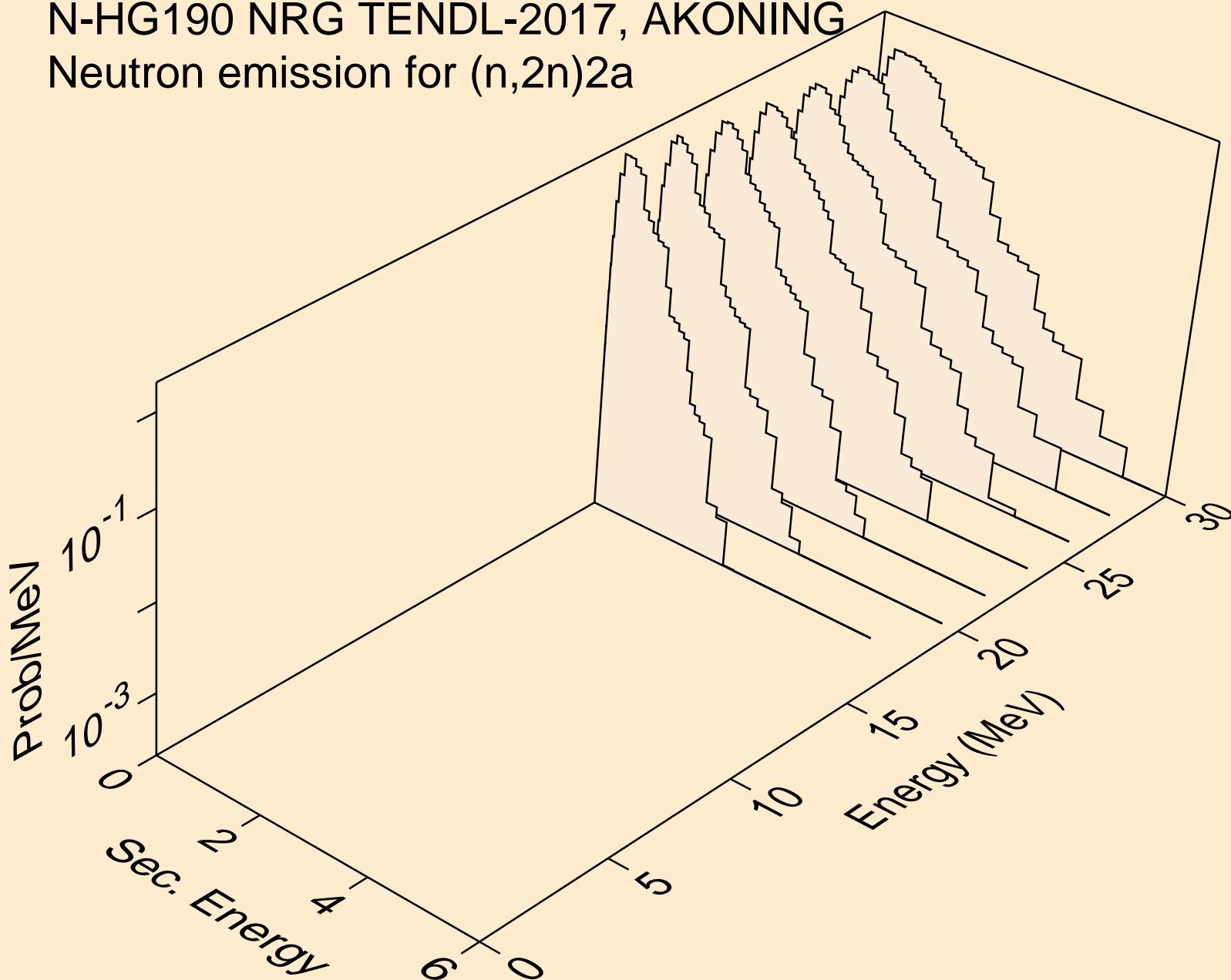


N-HG190 NRG TENDL-2017, AKONING

Neutron emission for  $(n,n^*)2a$

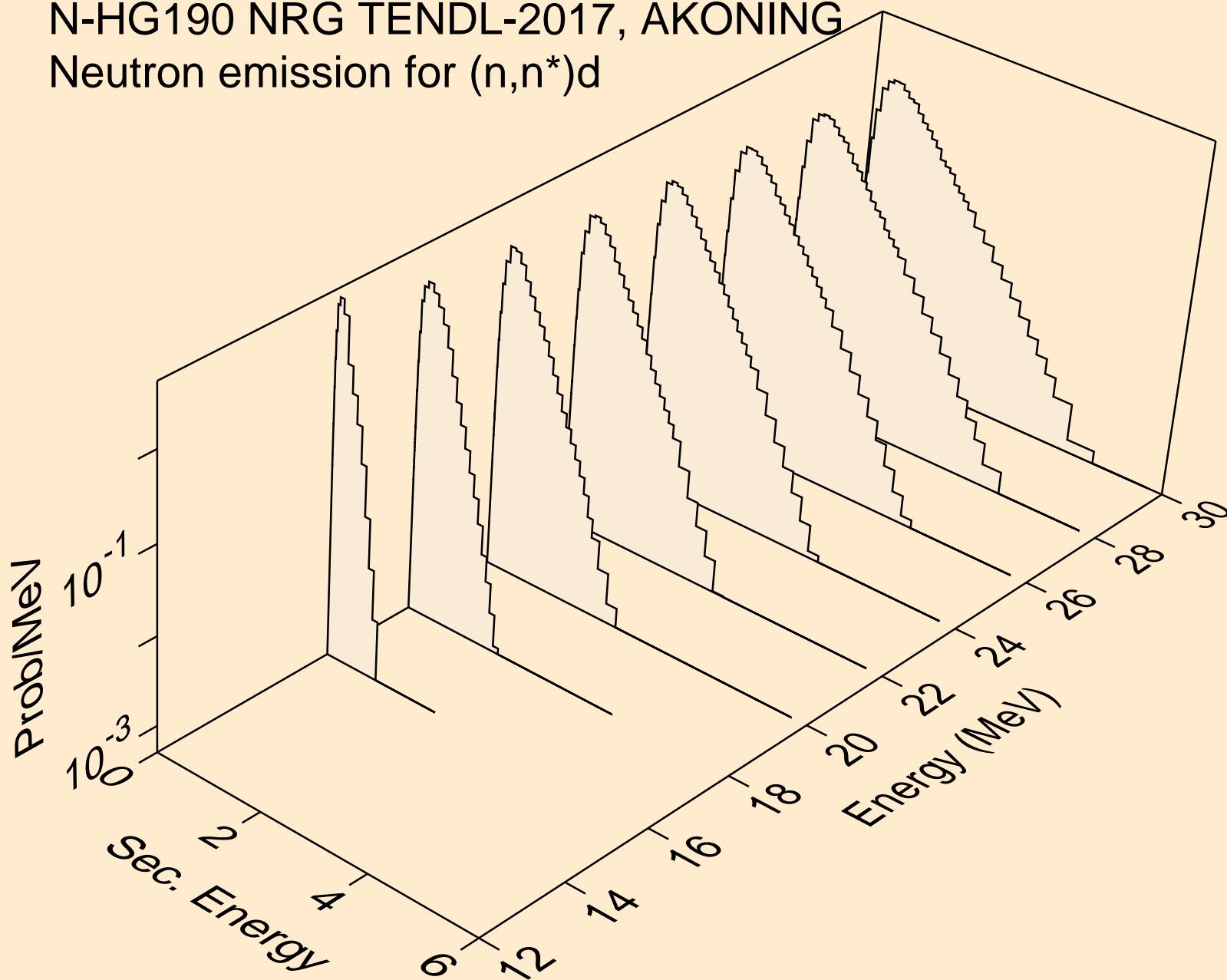


N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,2n)2a$

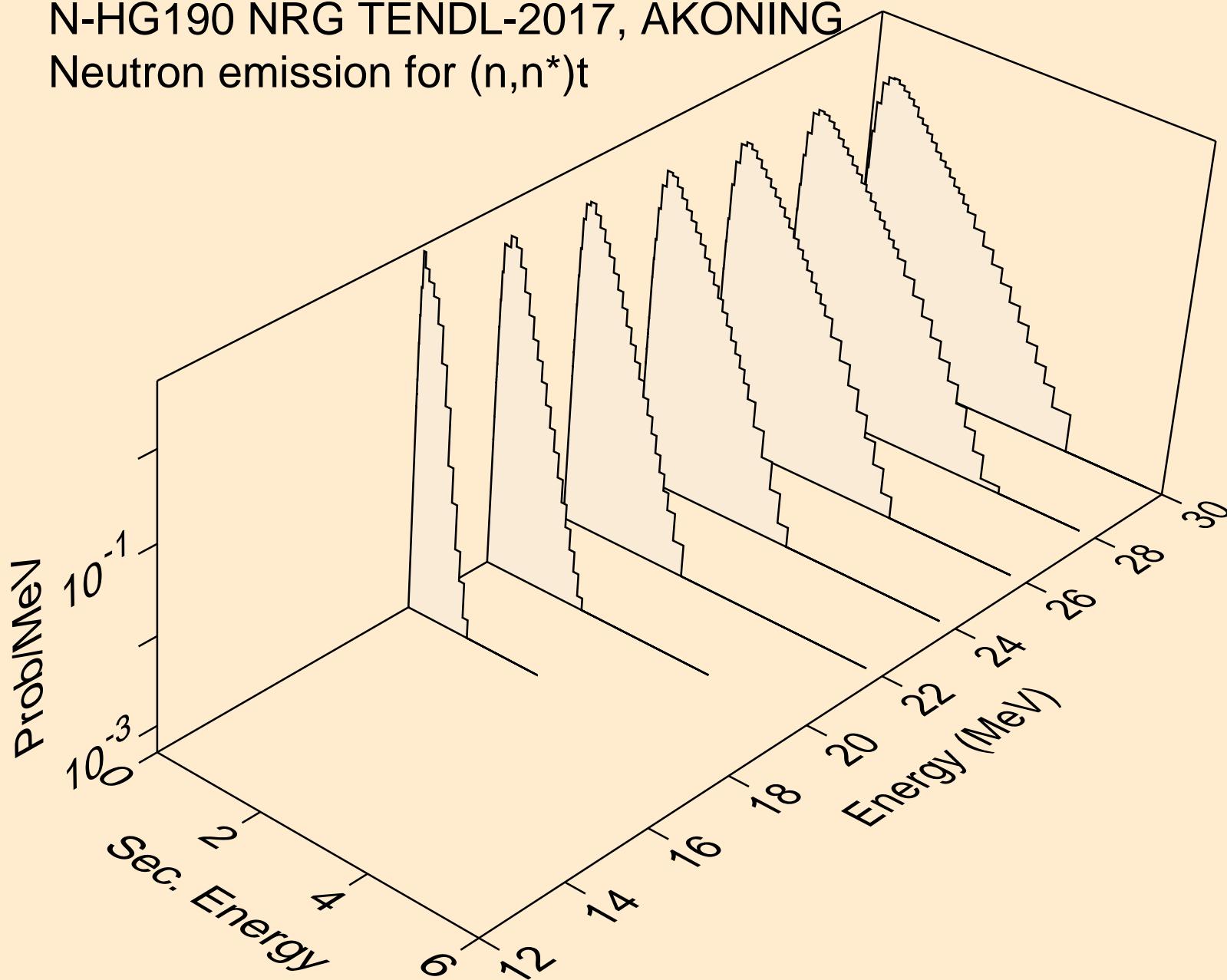


N-HG190 NRG TENDL-2017, AKONING

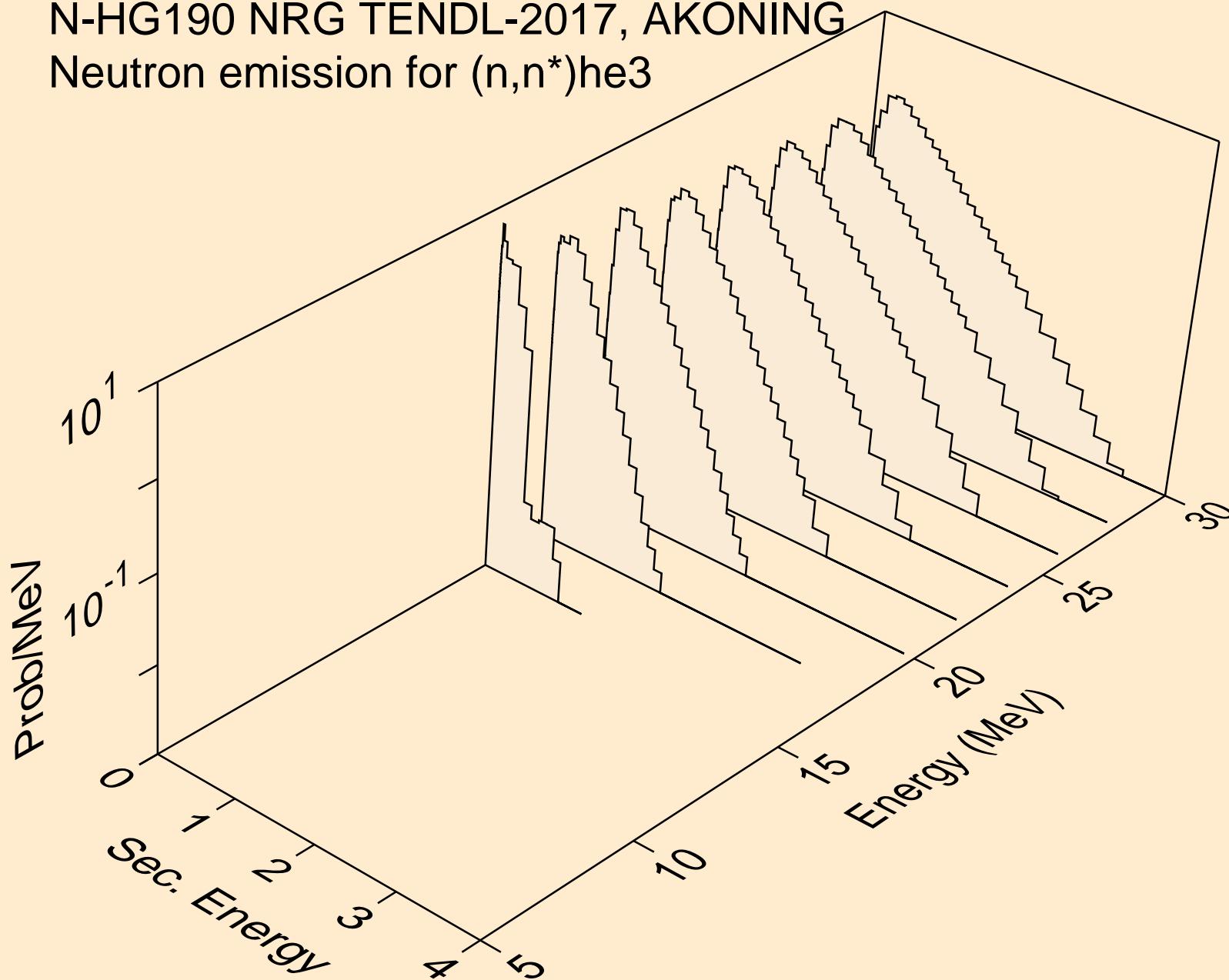
Neutron emission for  $(n,n^*)d$



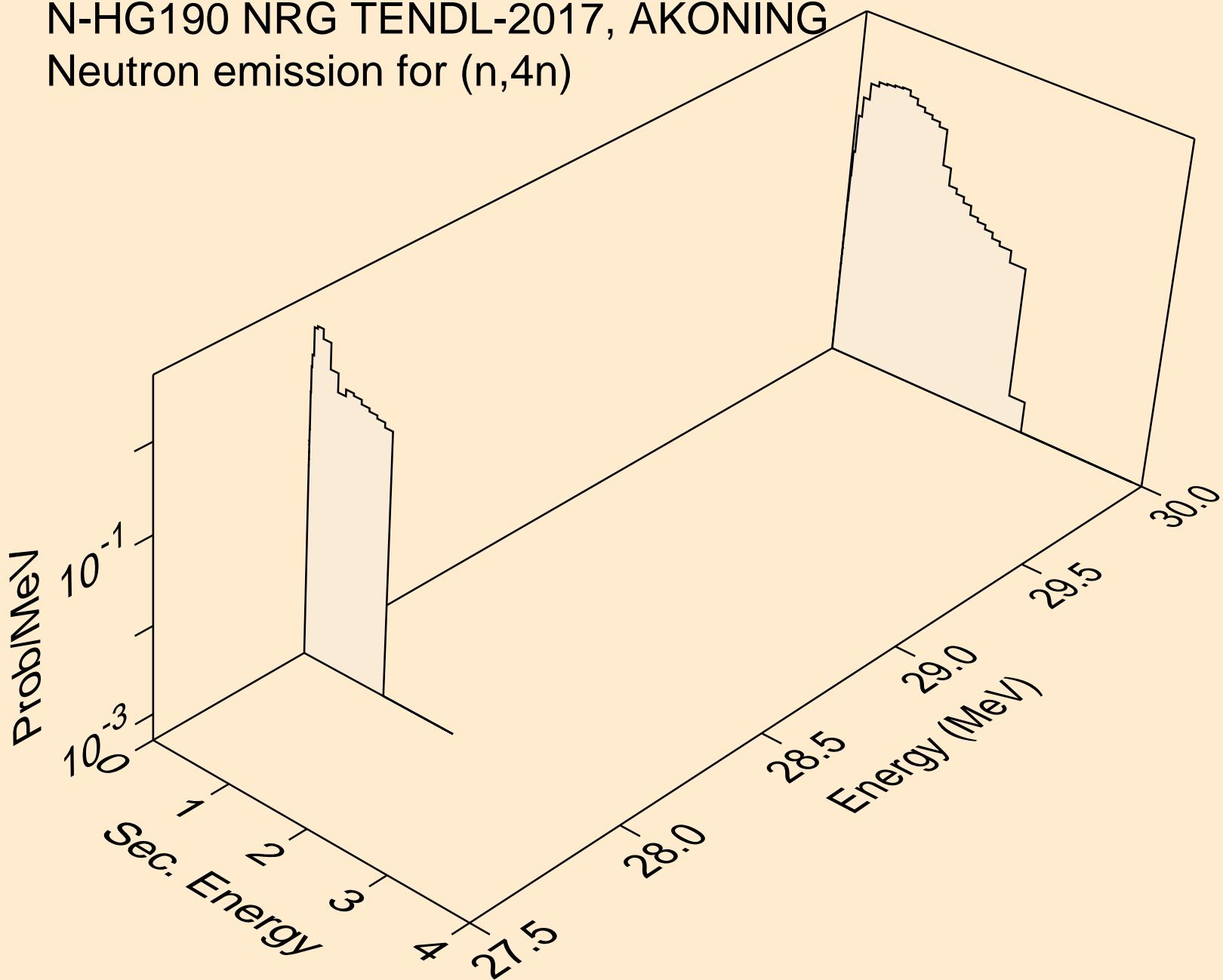
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,n^*)t$



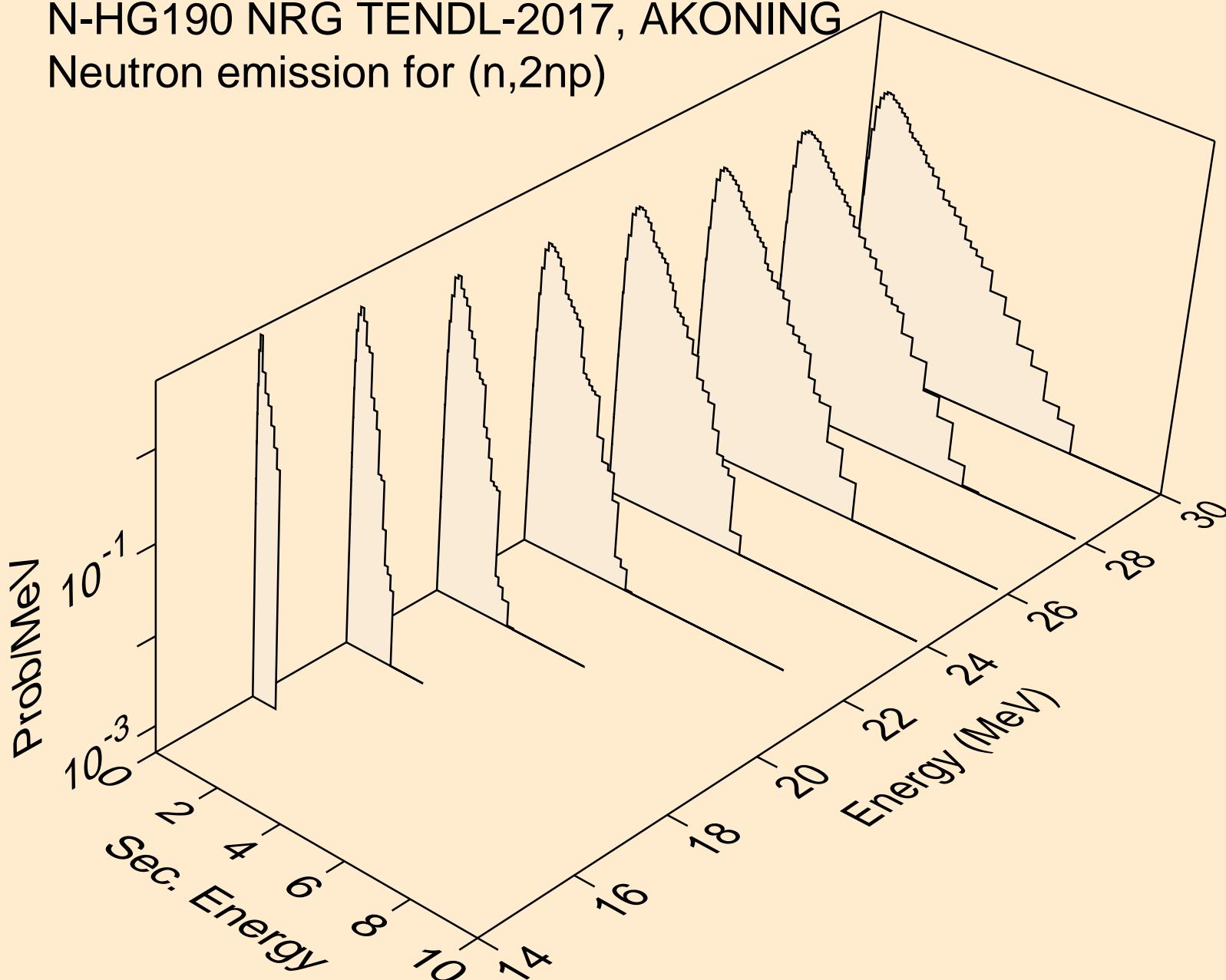
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,n^*)\text{he3}$



N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,4n)

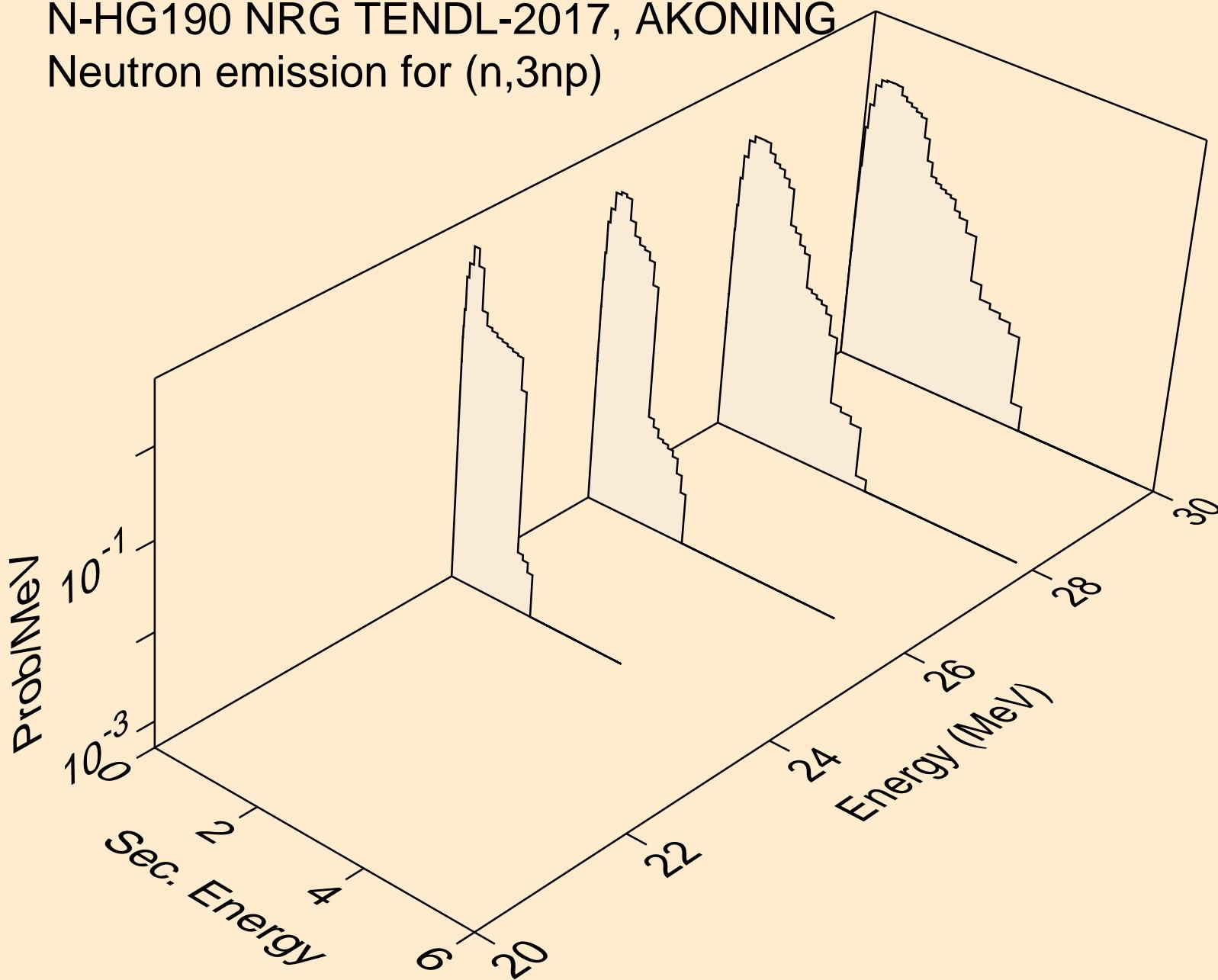


N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,2np)

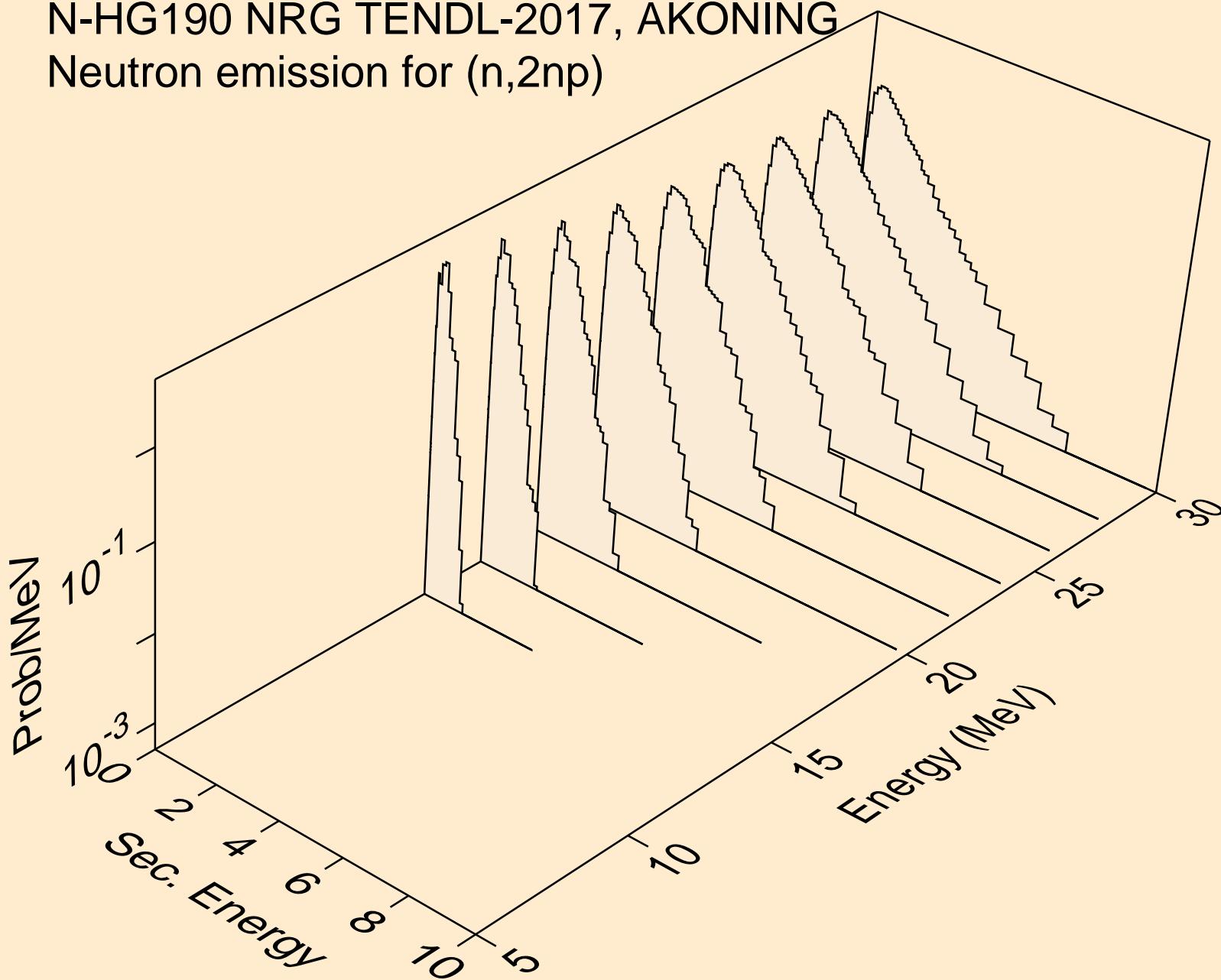


N-HG190 NRG TENDL-2017, AKONING

Neutron emission for (n,3np)

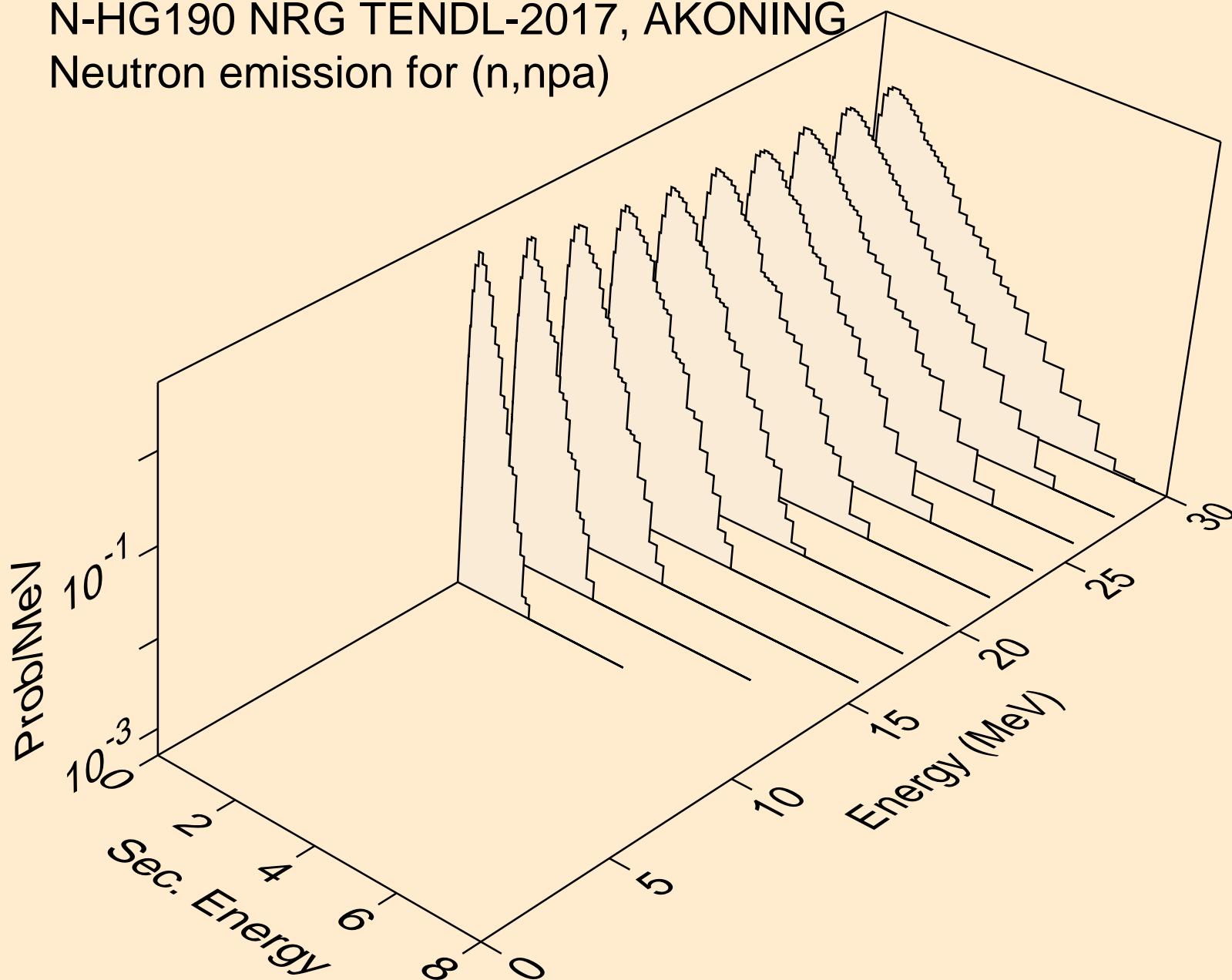


N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for (n,2np)

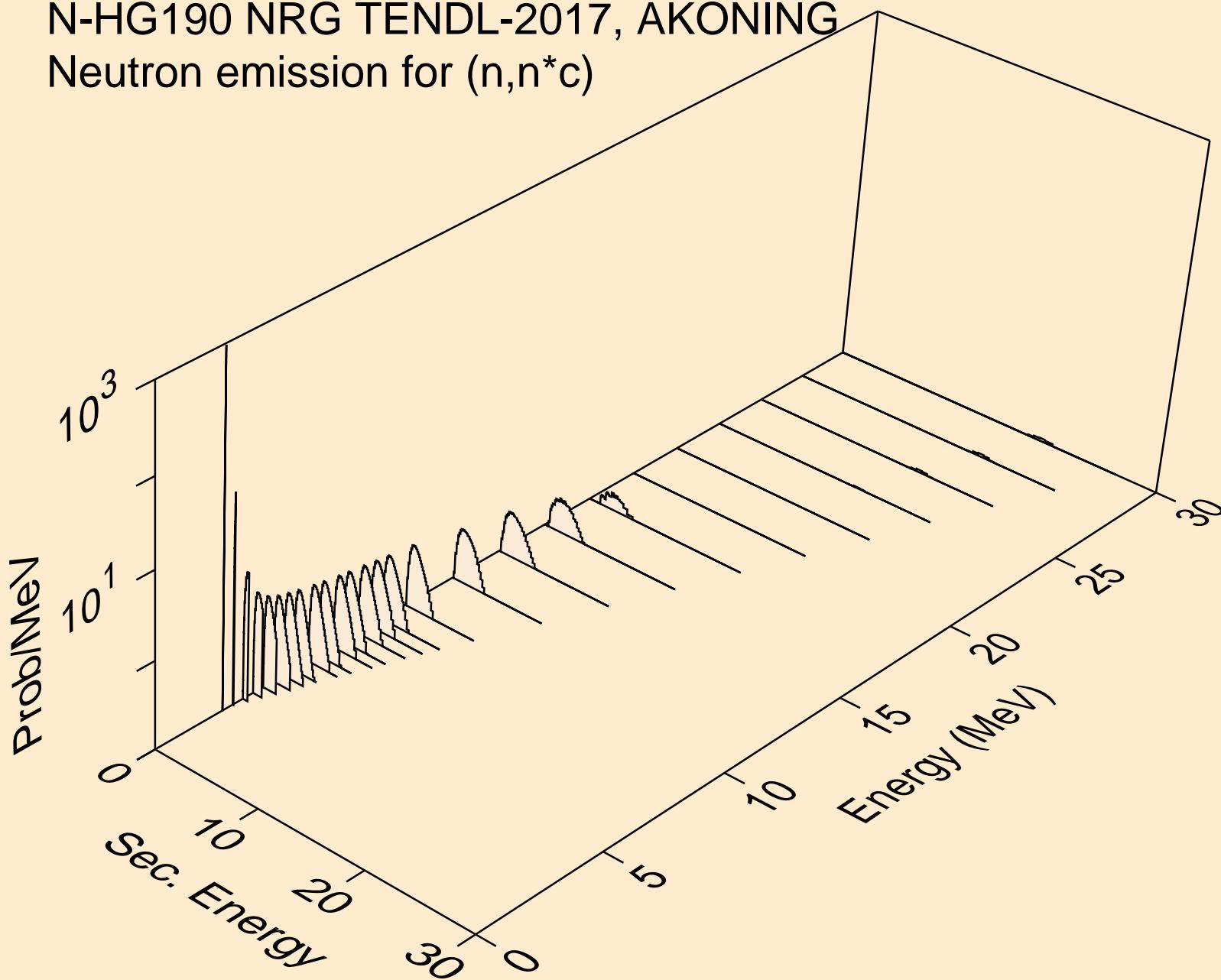


N-HG190 NRG TENDL-2017, AKONING

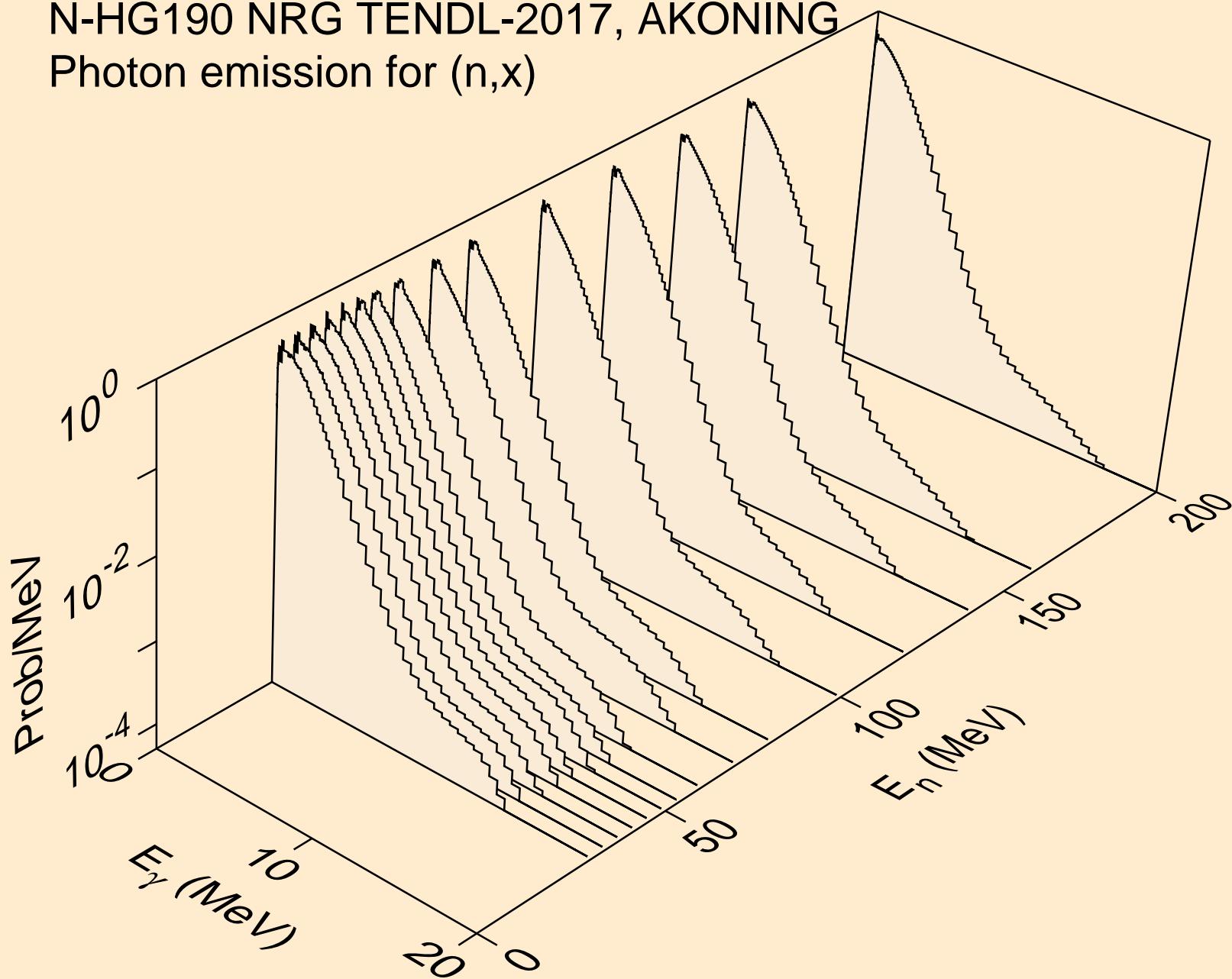
Neutron emission for (n,npa)



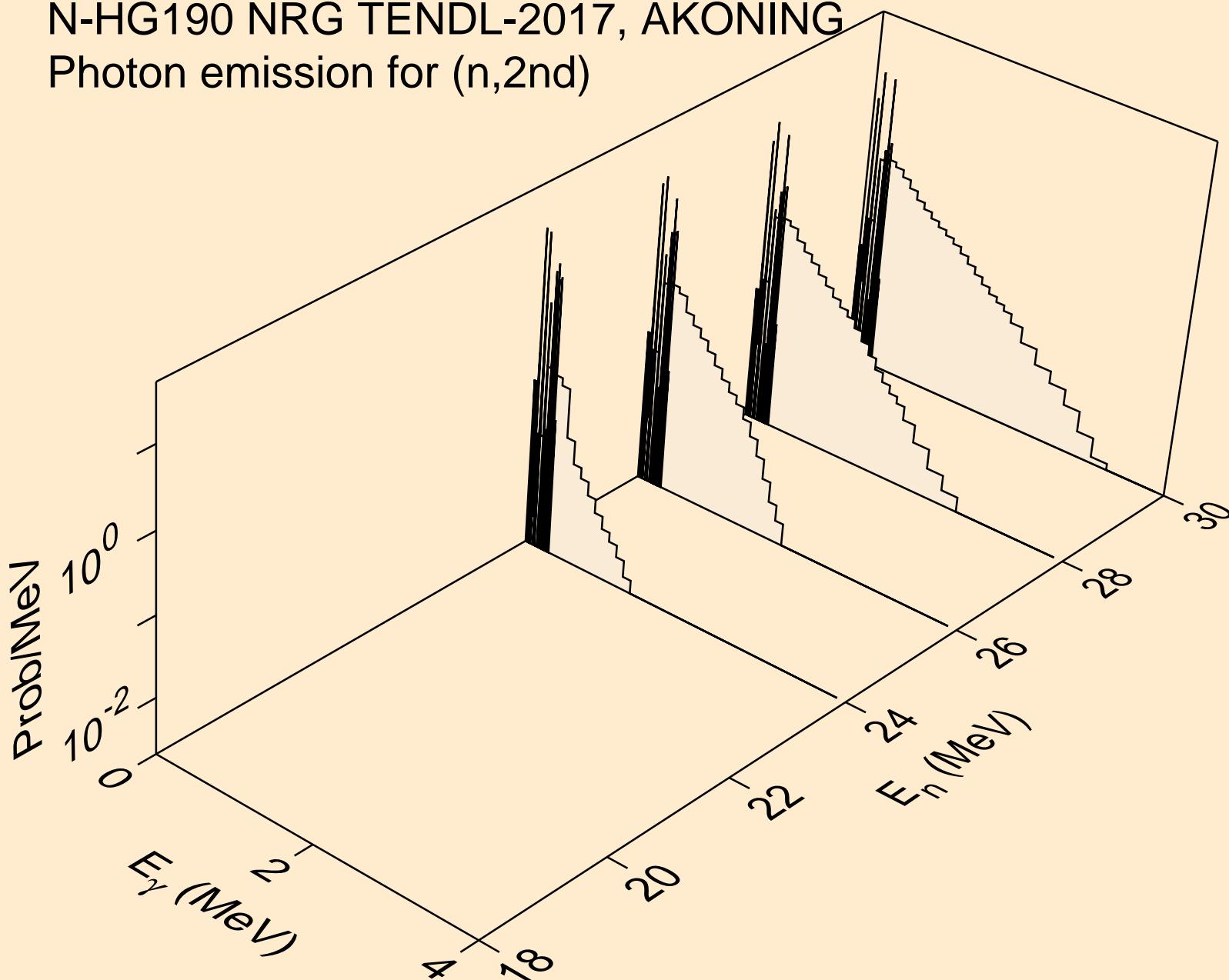
N-HG190 NRG TENDL-2017, AKONING  
Neutron emission for  $(n,n^*c)$



N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,x)

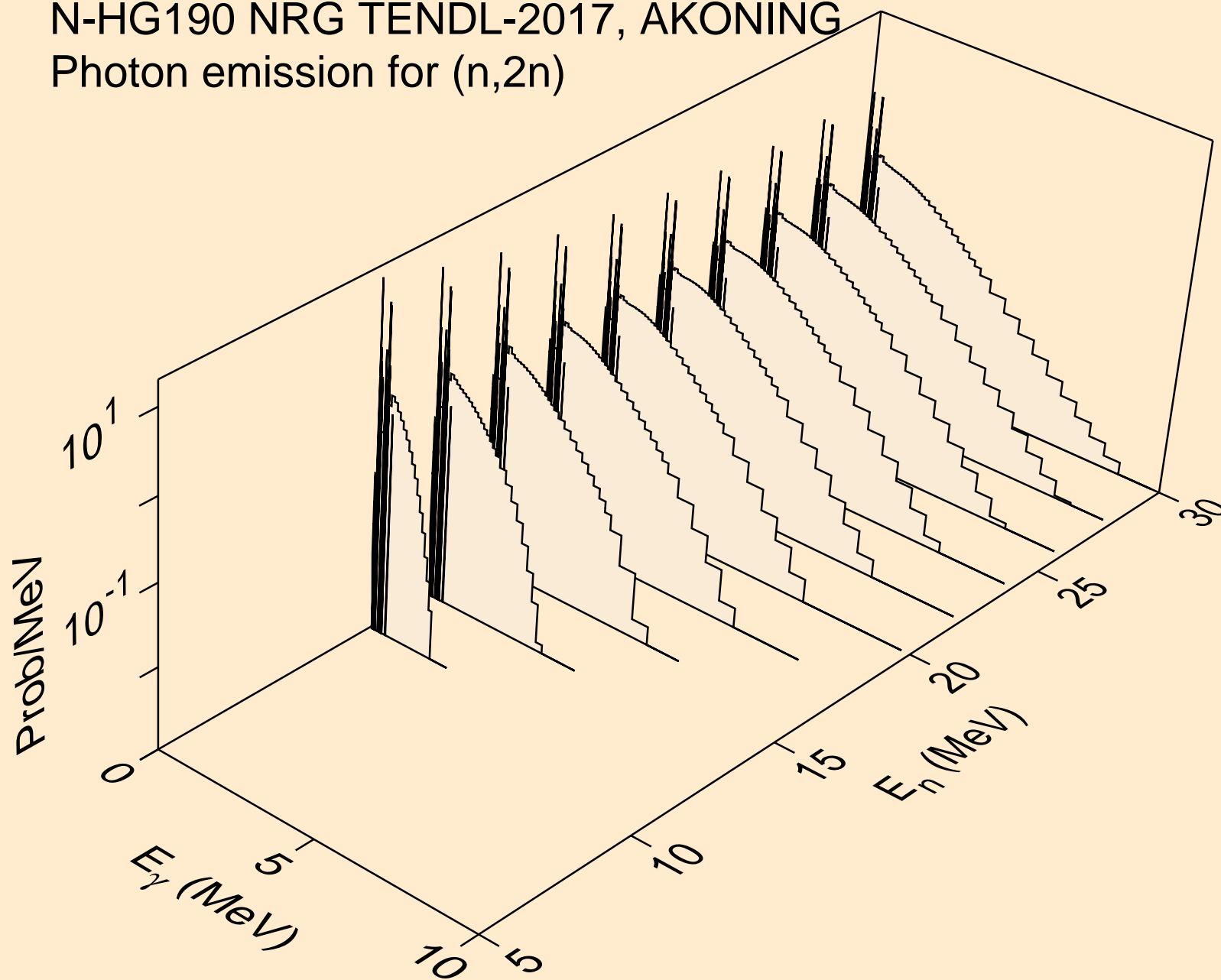


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2nd)

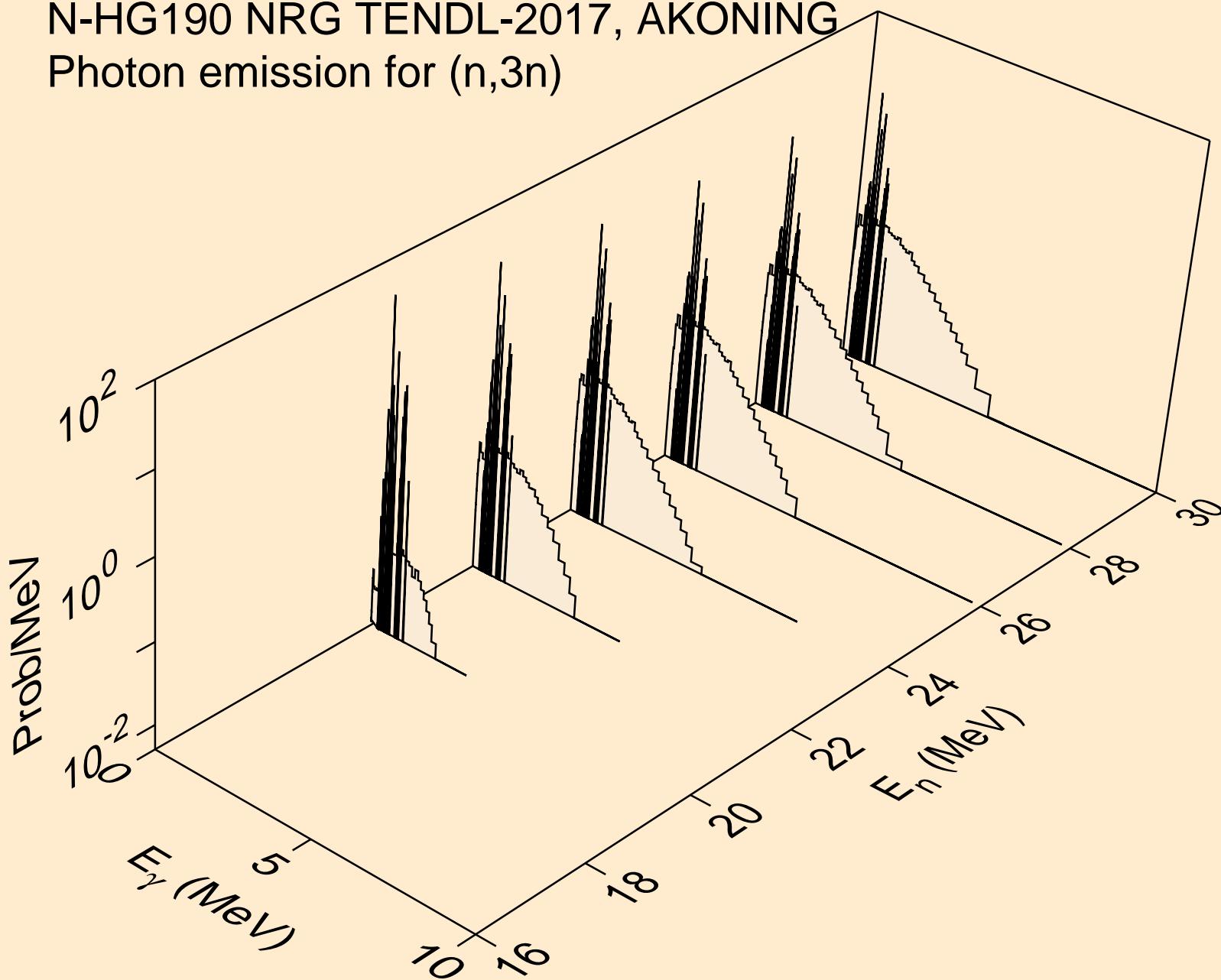


N-HG190 NRG TENDL-2017, AKONING

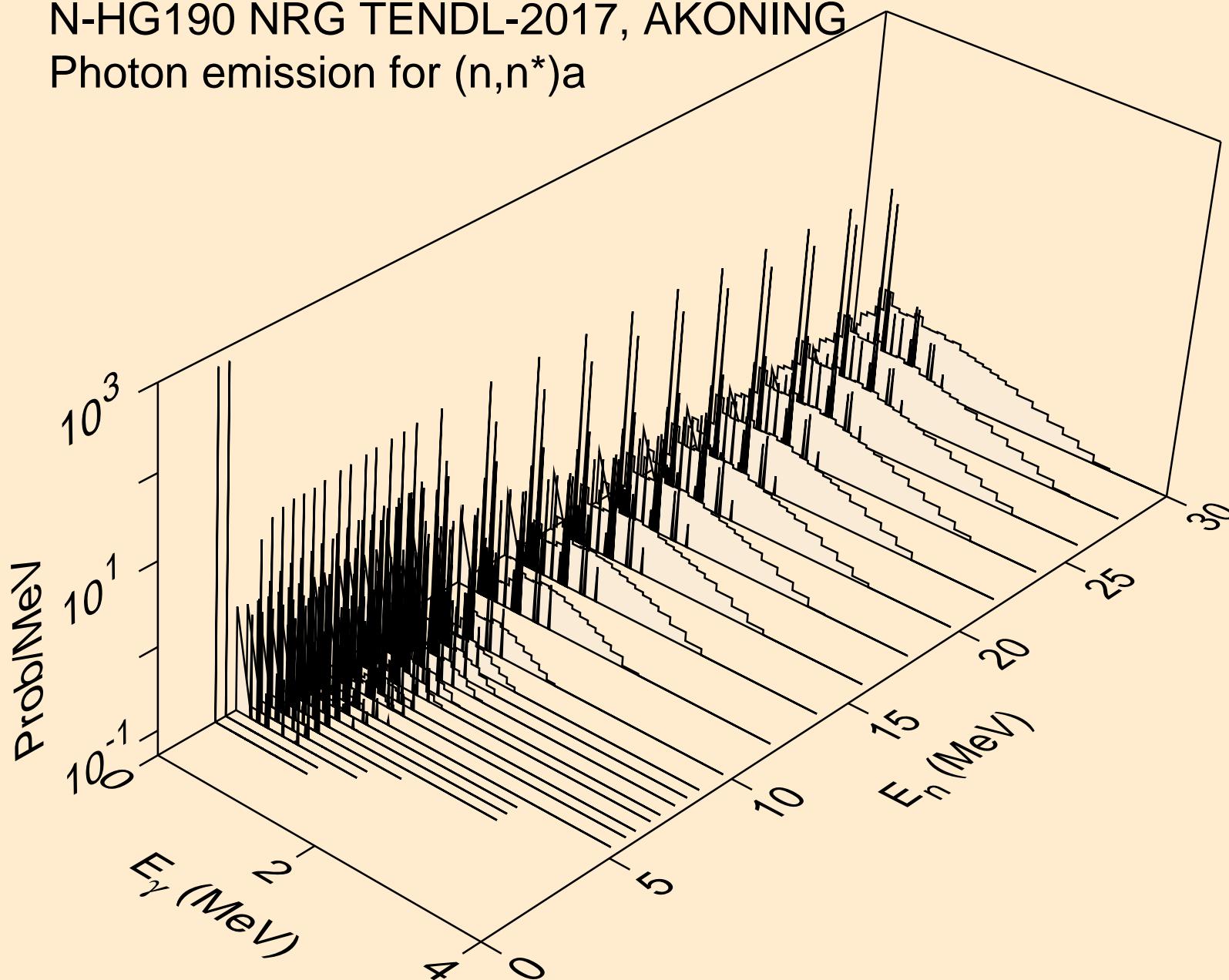
Photon emission for (n,2n)



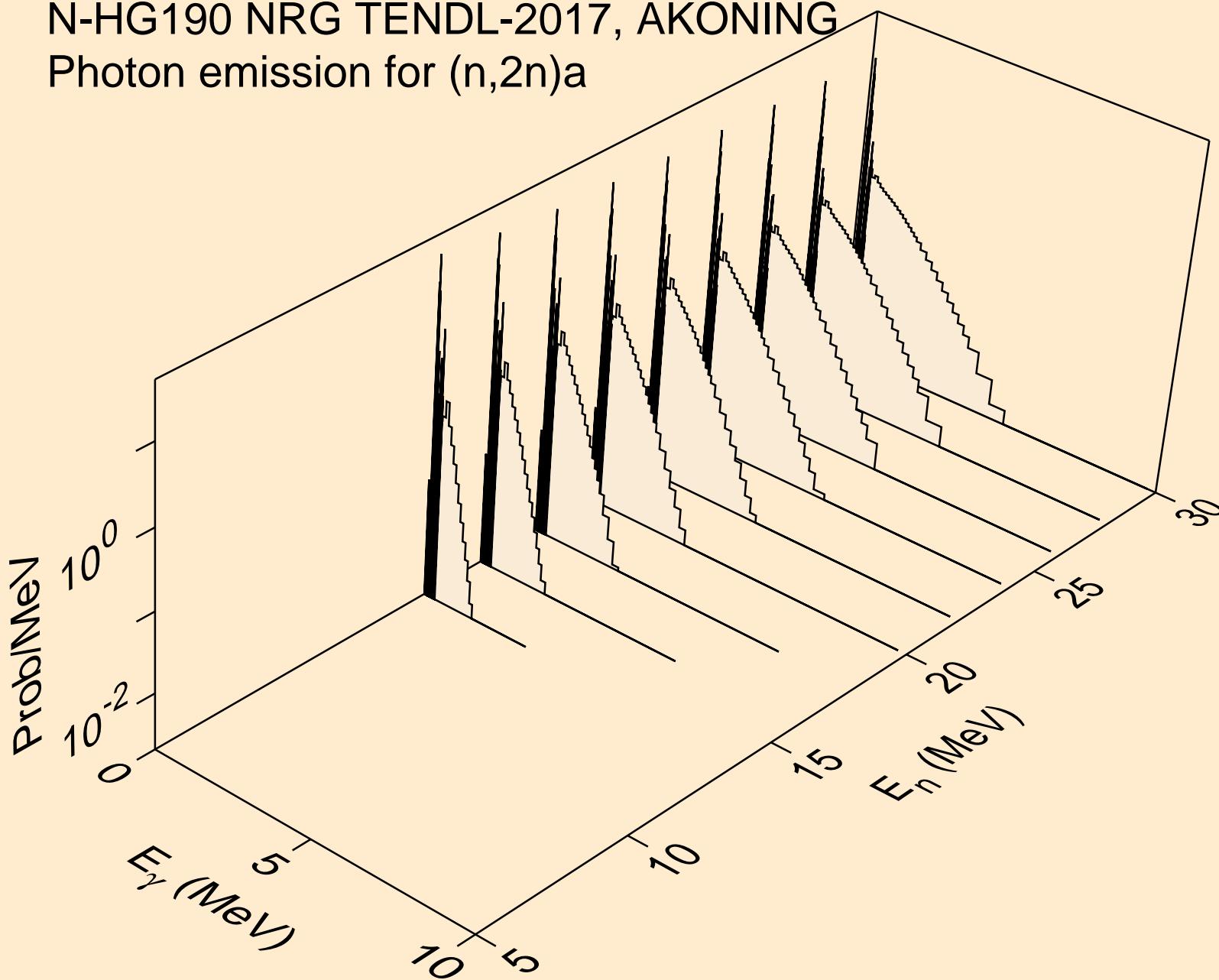
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,3n)



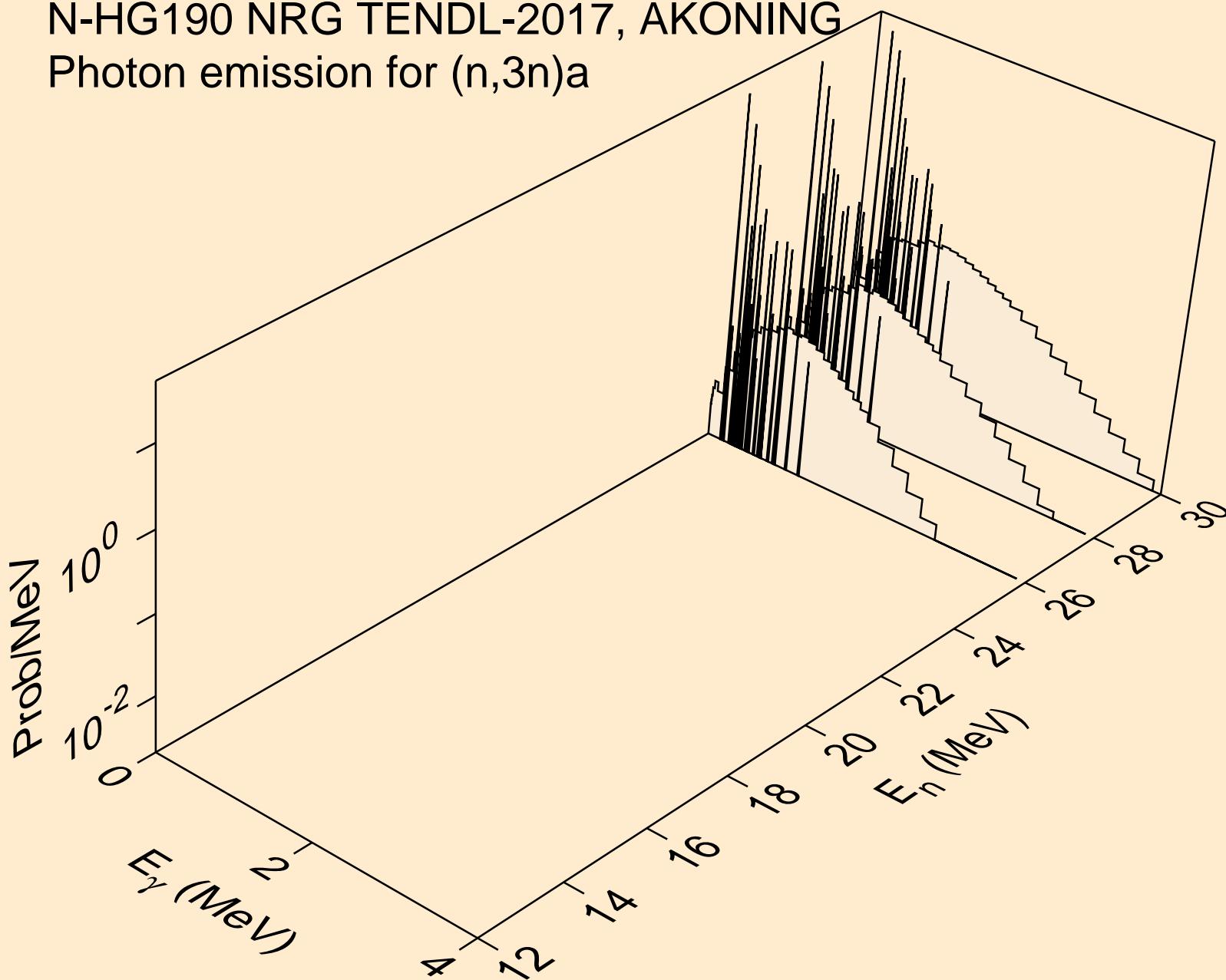
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for  $(n,n^*)a$



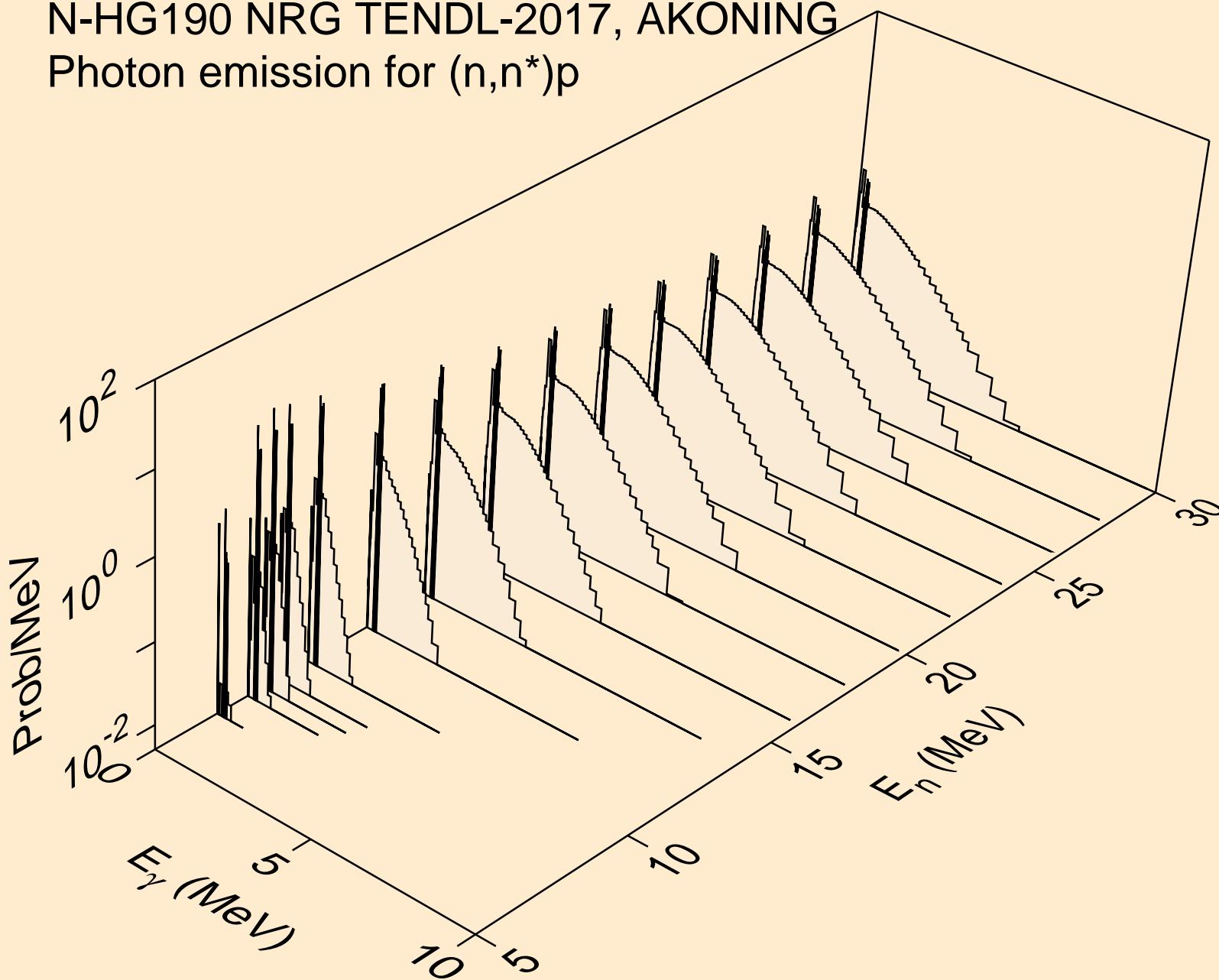
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2n)a



N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,3n)a

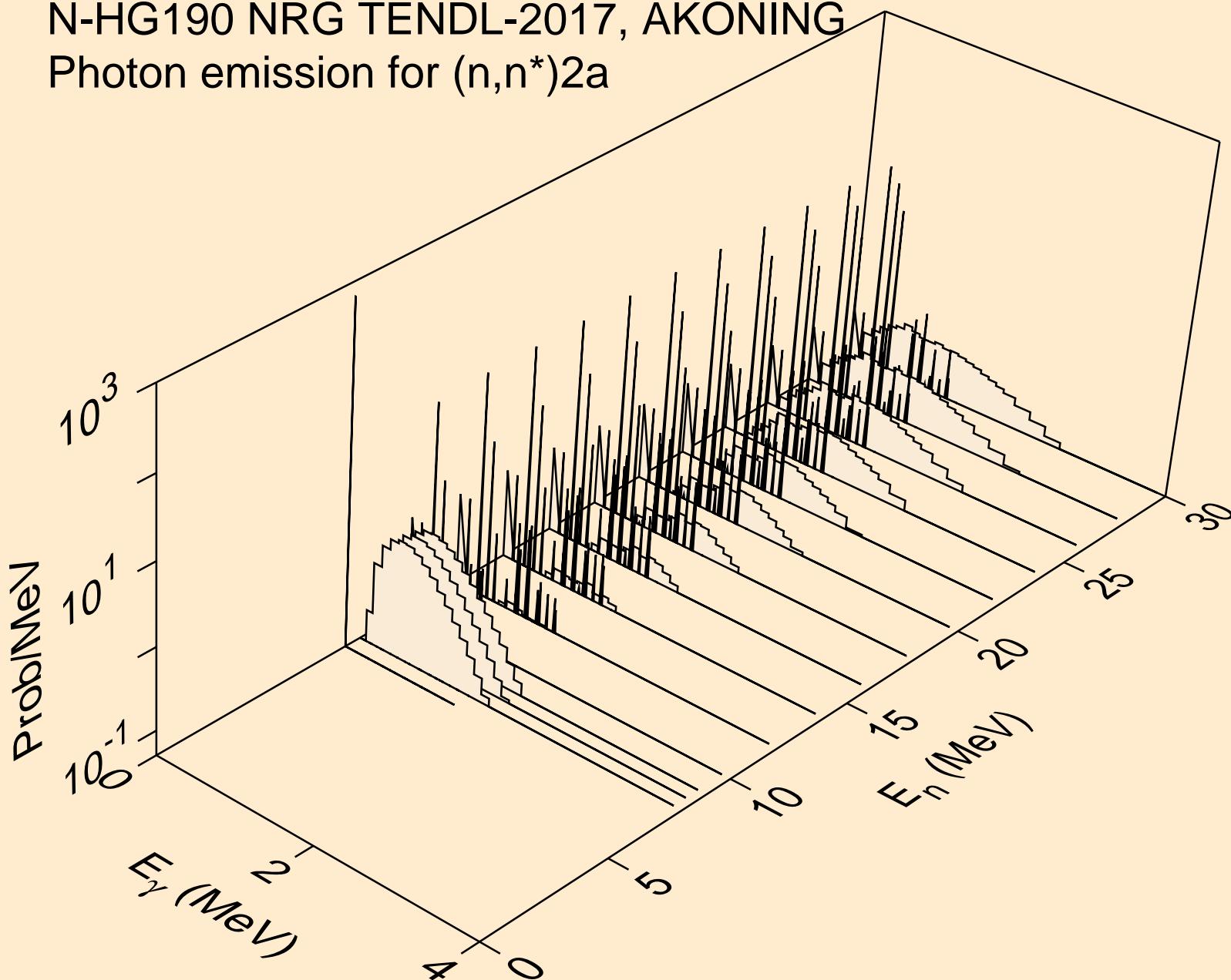


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for  $(n,n^*)p$

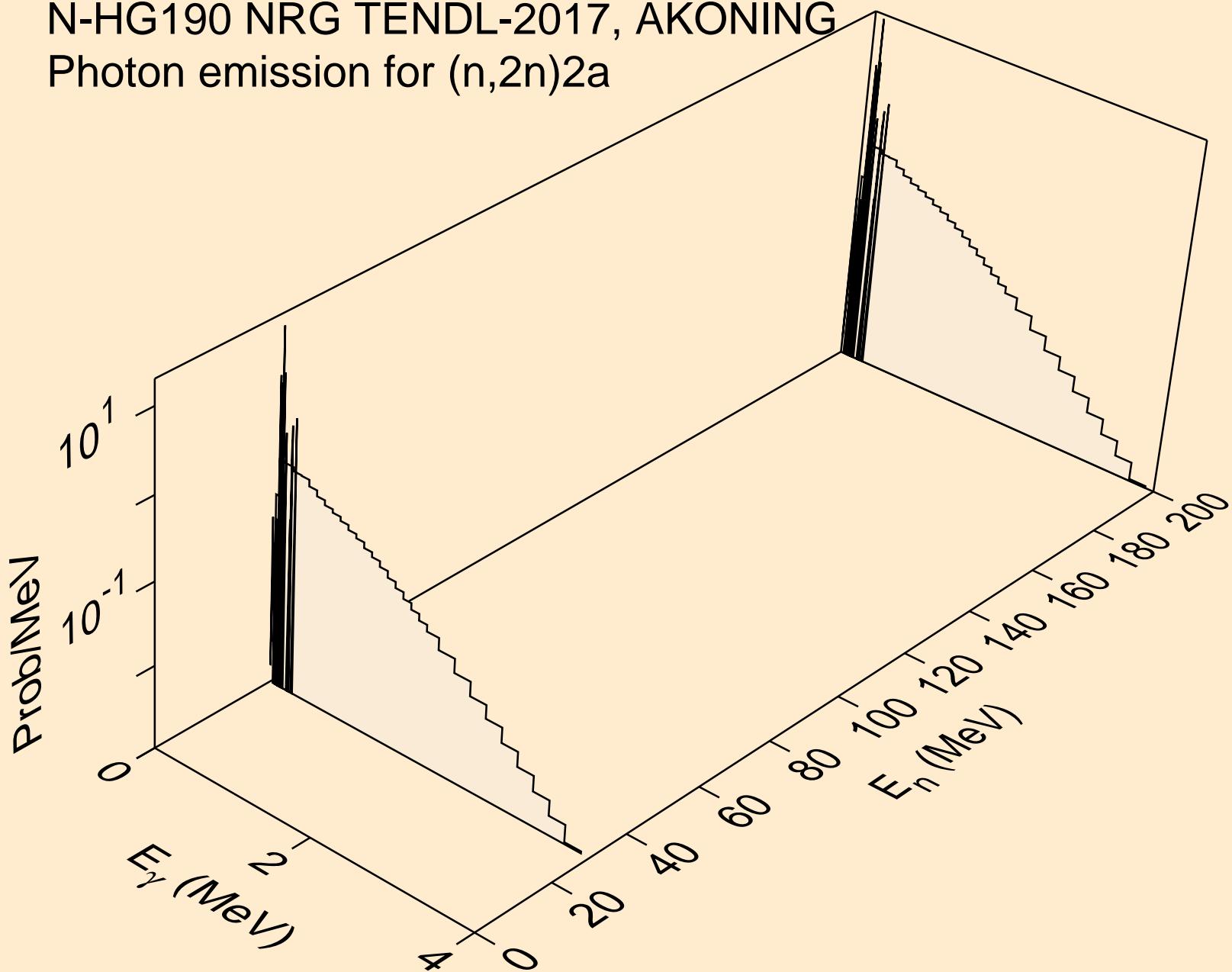


N-HG190 NRG TENDL-2017, AKONING

Photon emission for  $(n,n^*)2a$

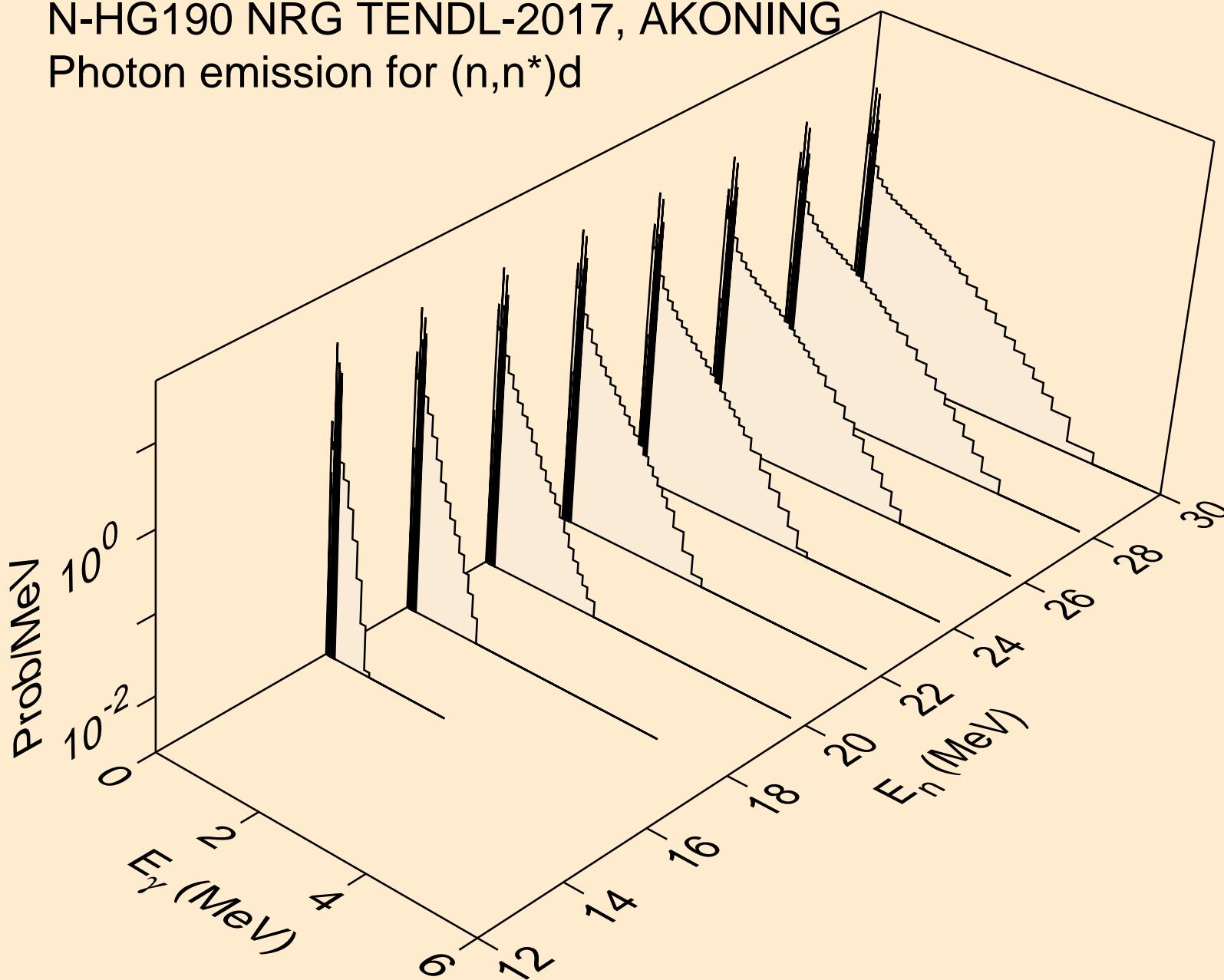


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for  $(n,2n)2a$

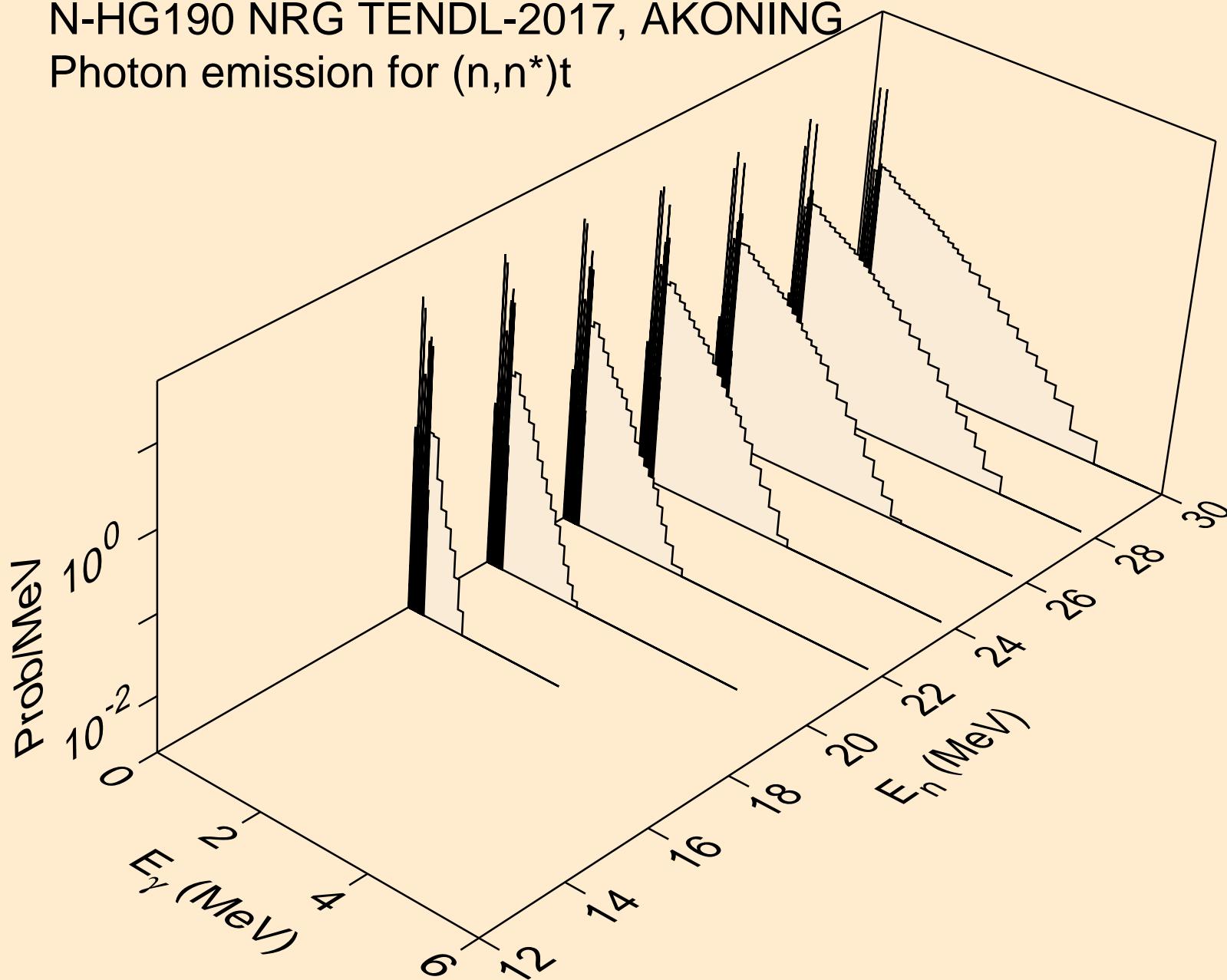


N-HG190 NRG TENDL-2017, AKONING

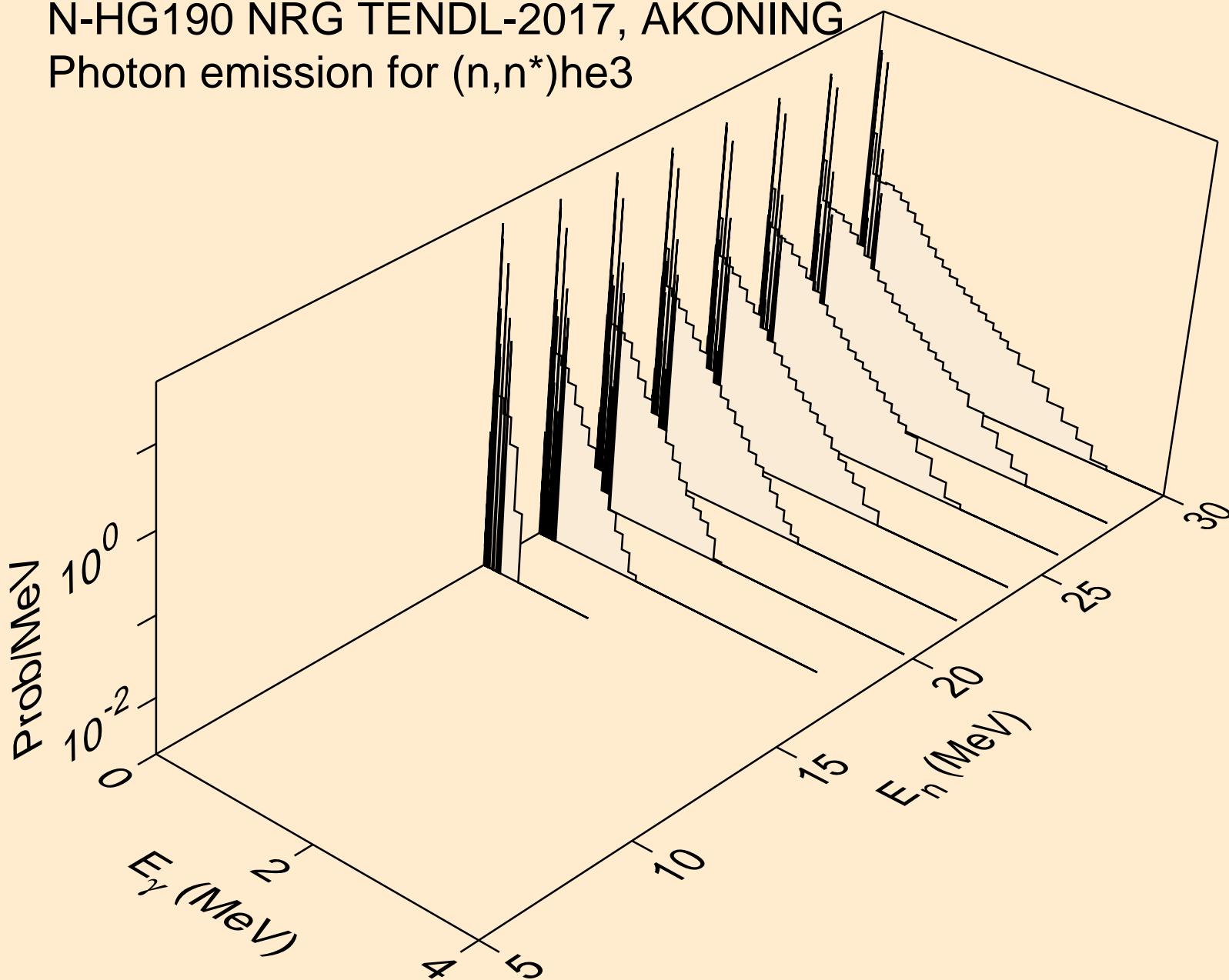
Photon emission for  $(n,n^*)d$



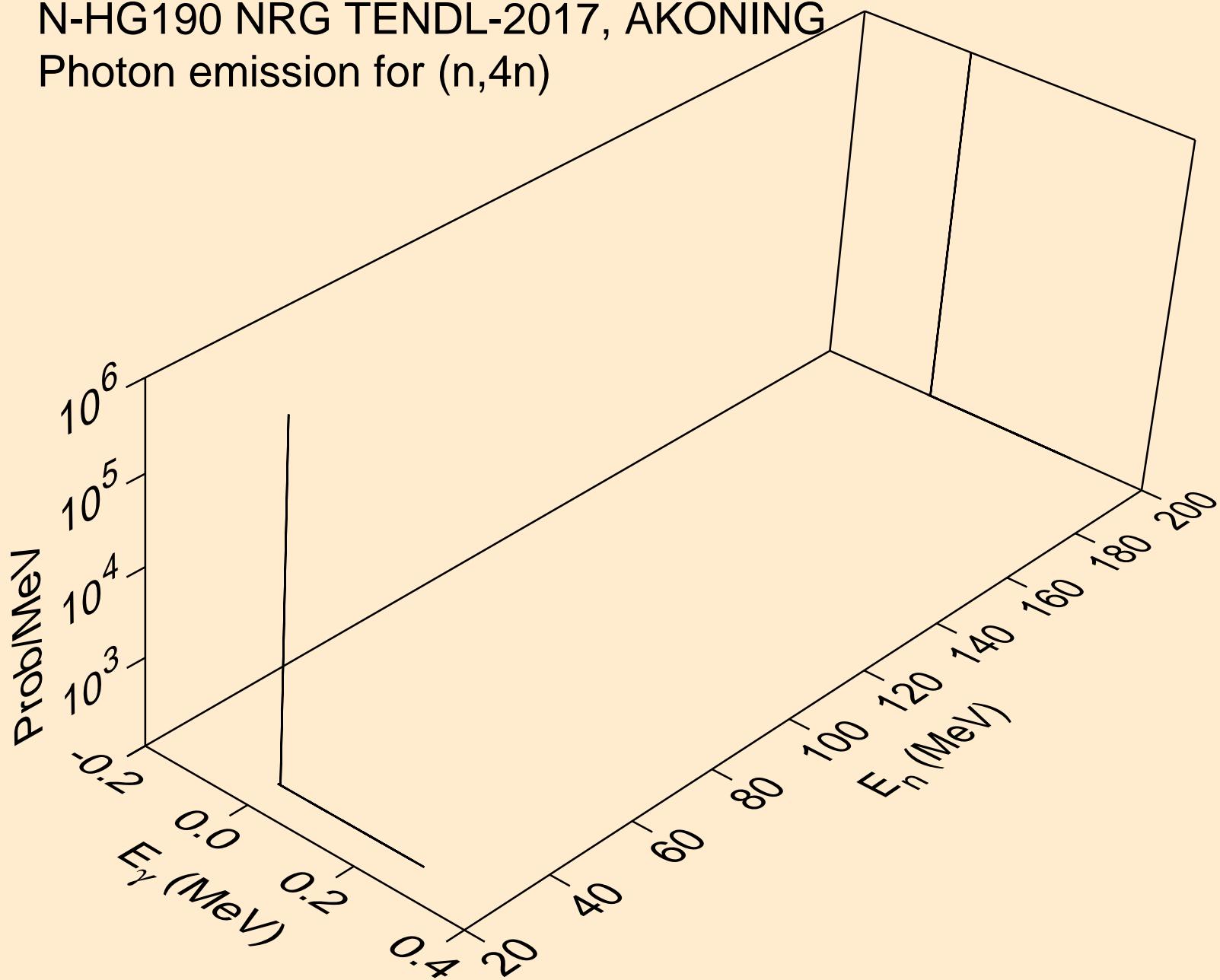
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for  $(n,n^*)t$



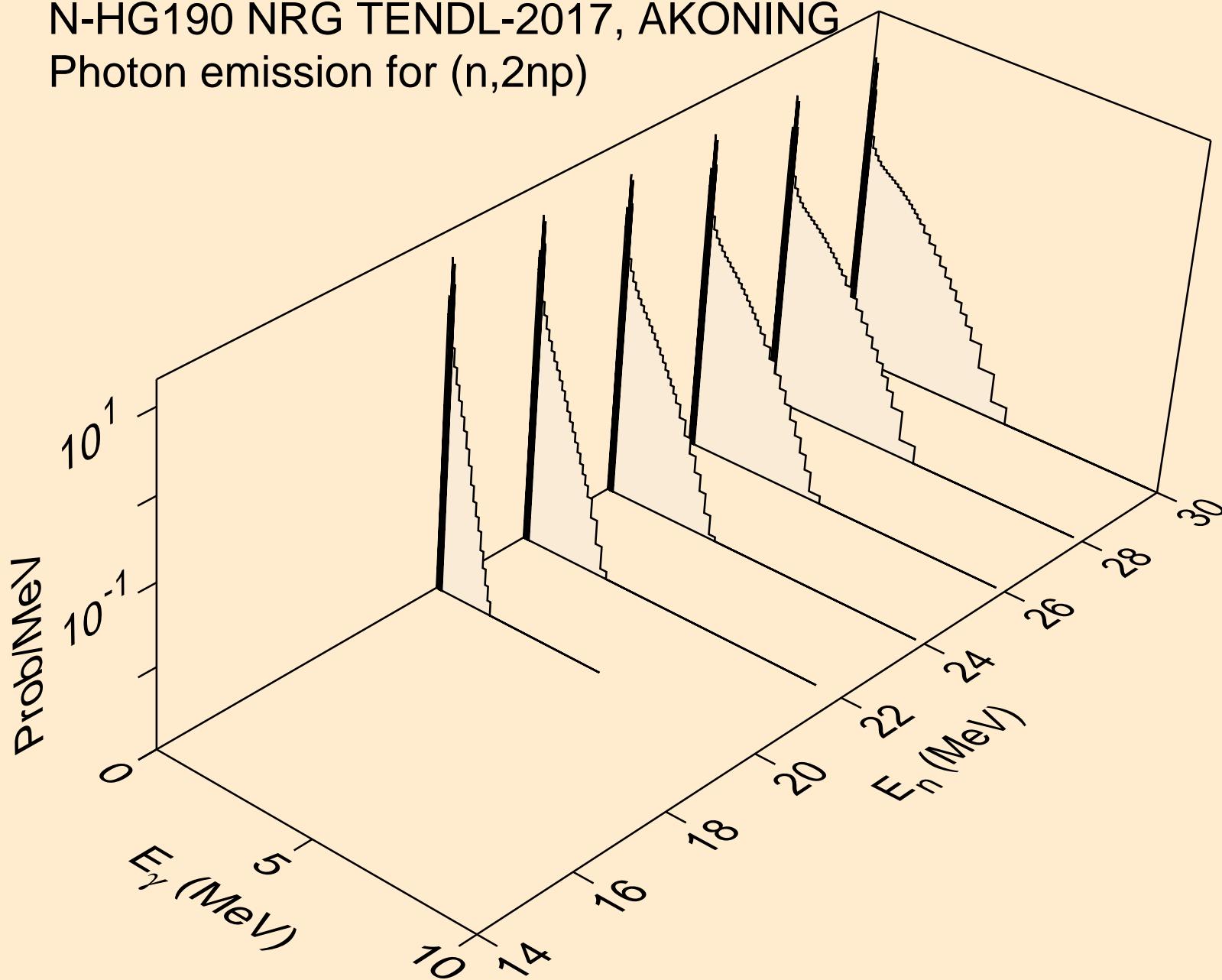
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for  $(n,n^*)\text{he3}$



N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,4n)

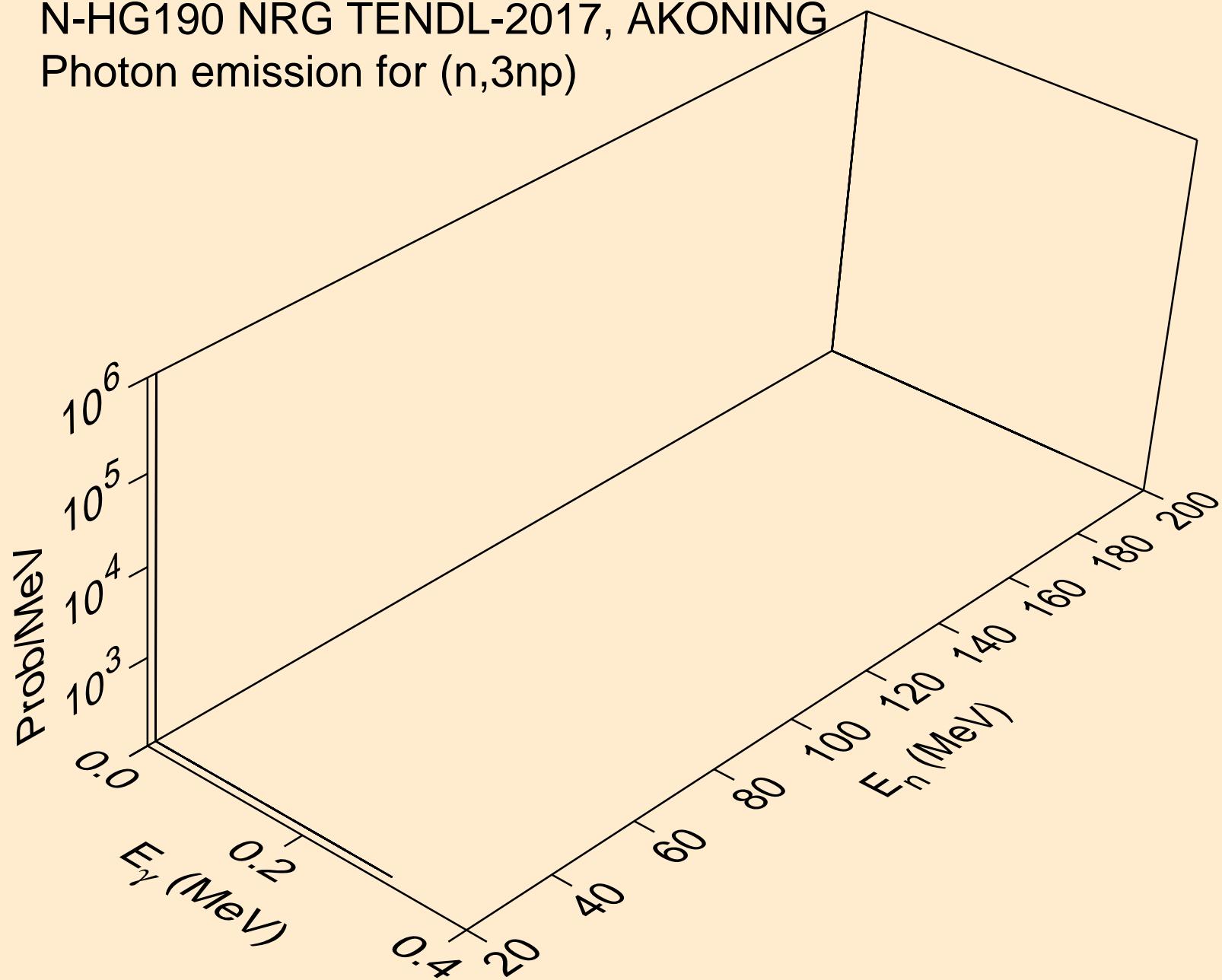


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2np)

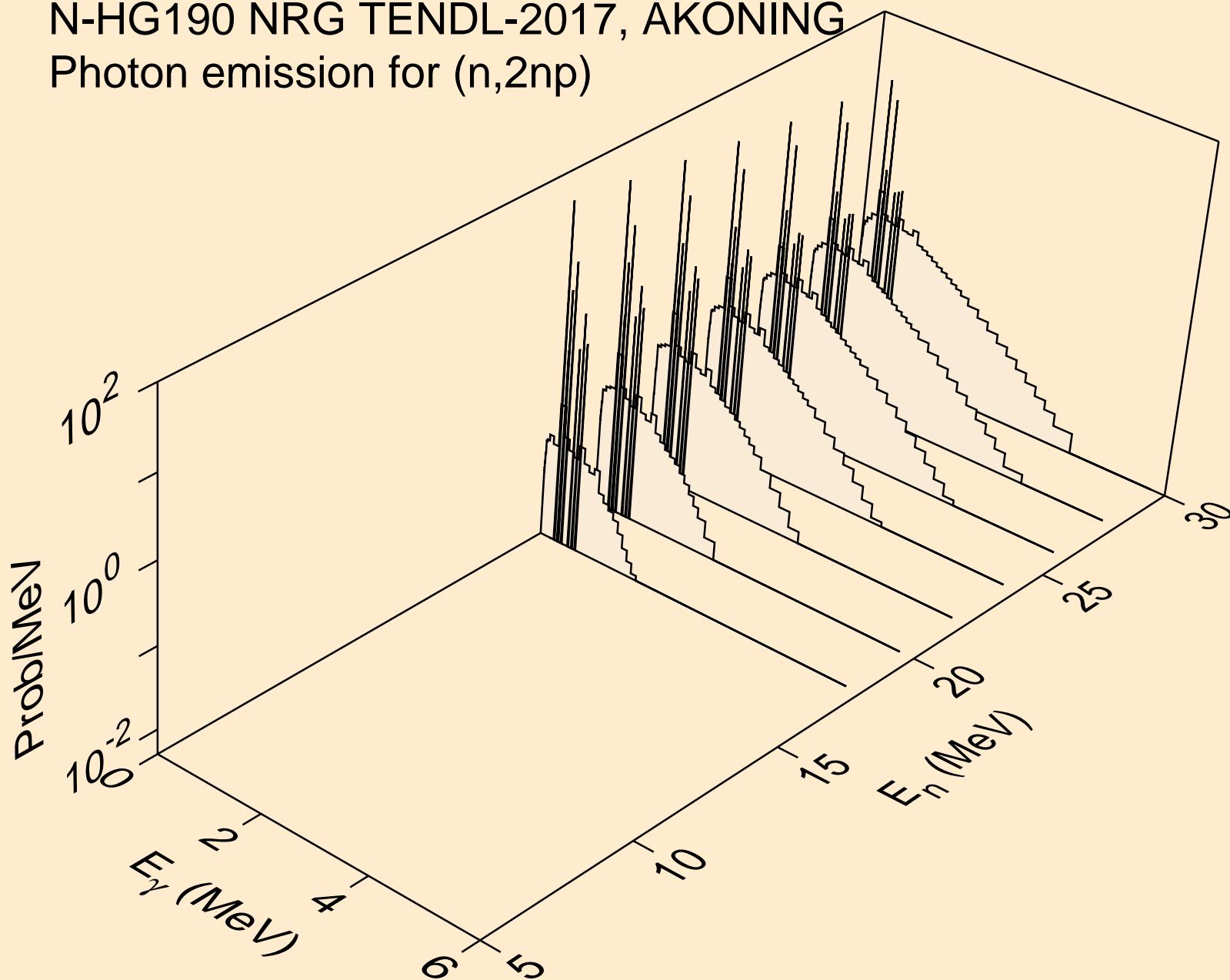


N-HG190 NRG TENDL-2017, AKONING

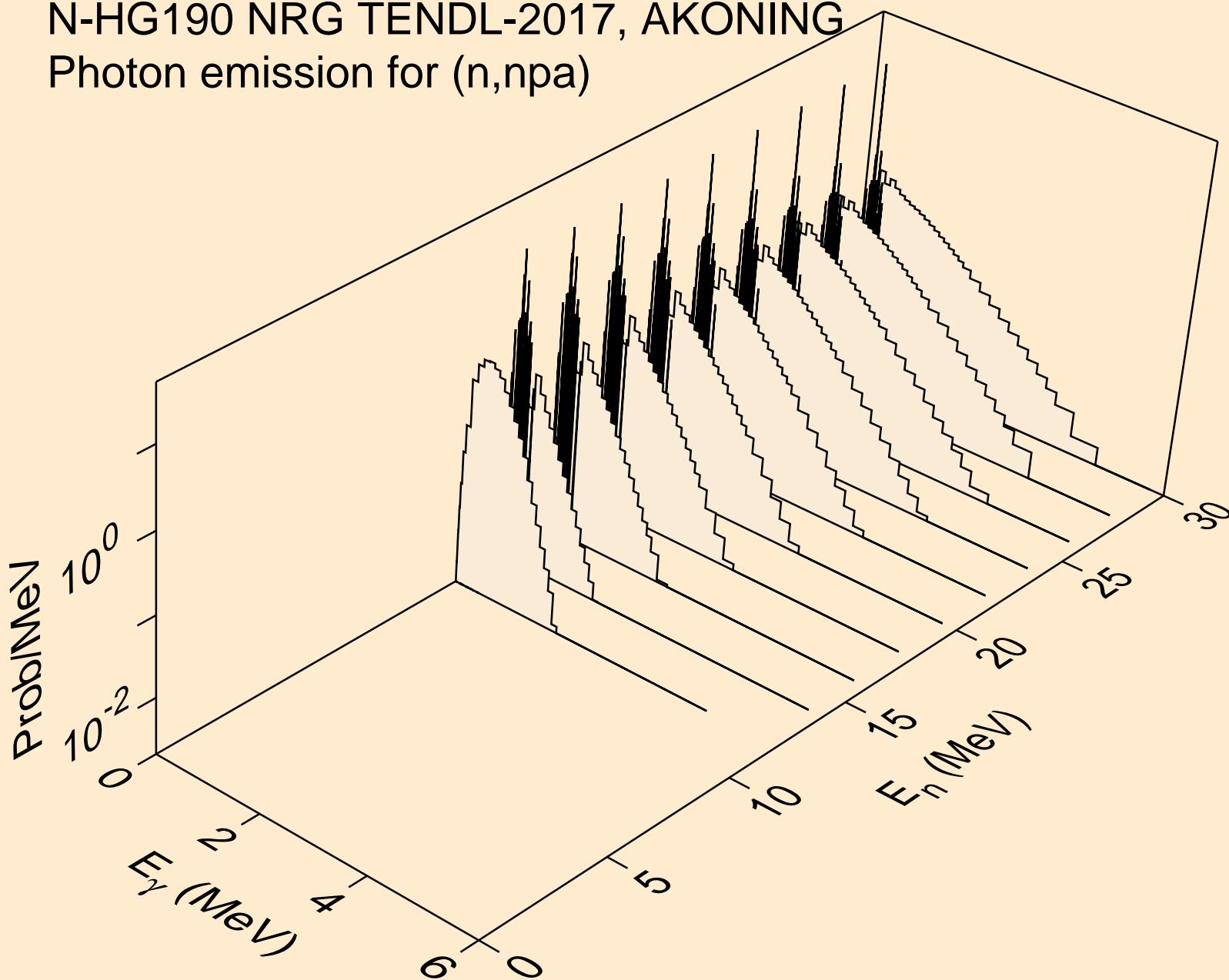
Photon emission for (n,3np)



N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2np)

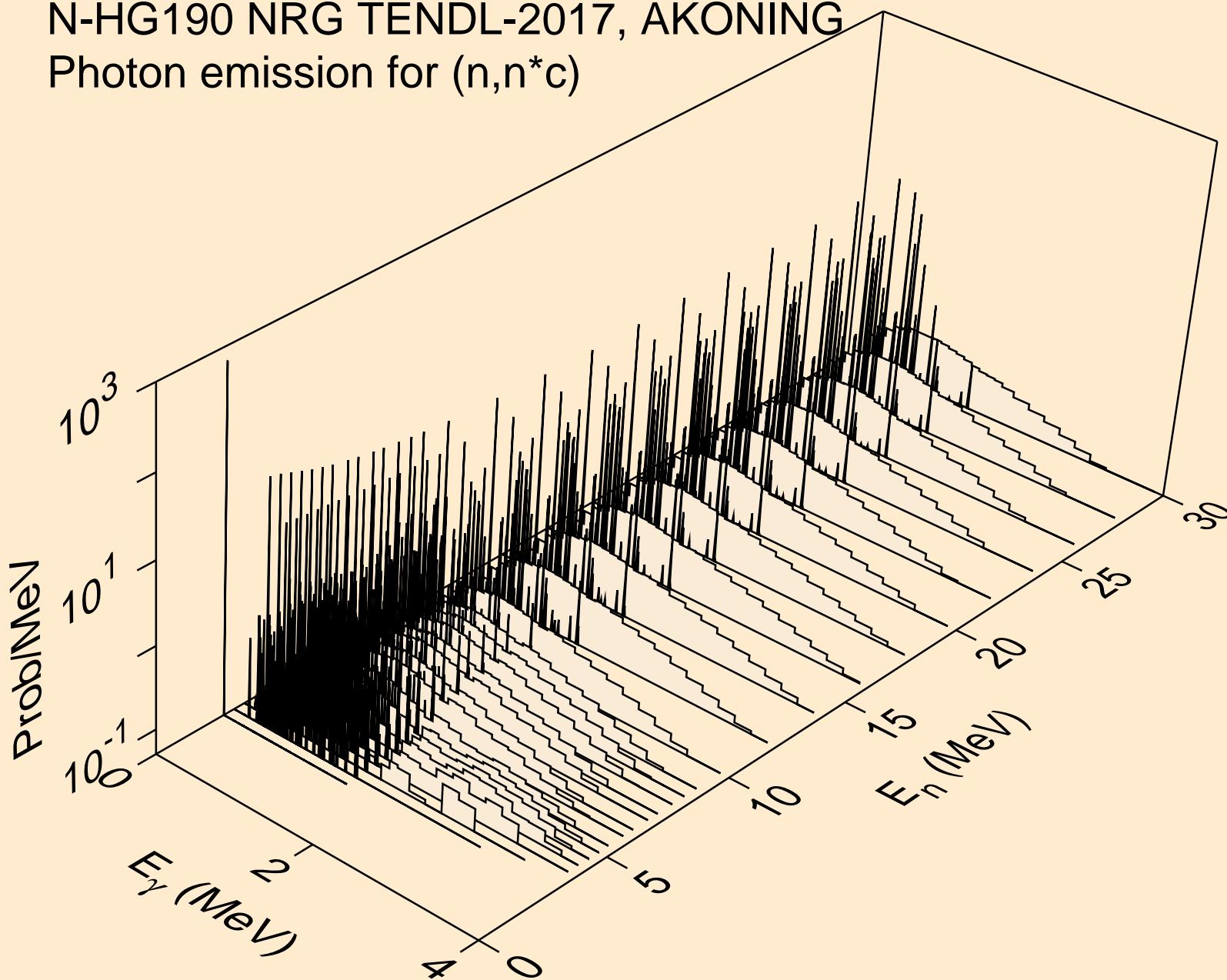


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,npa)

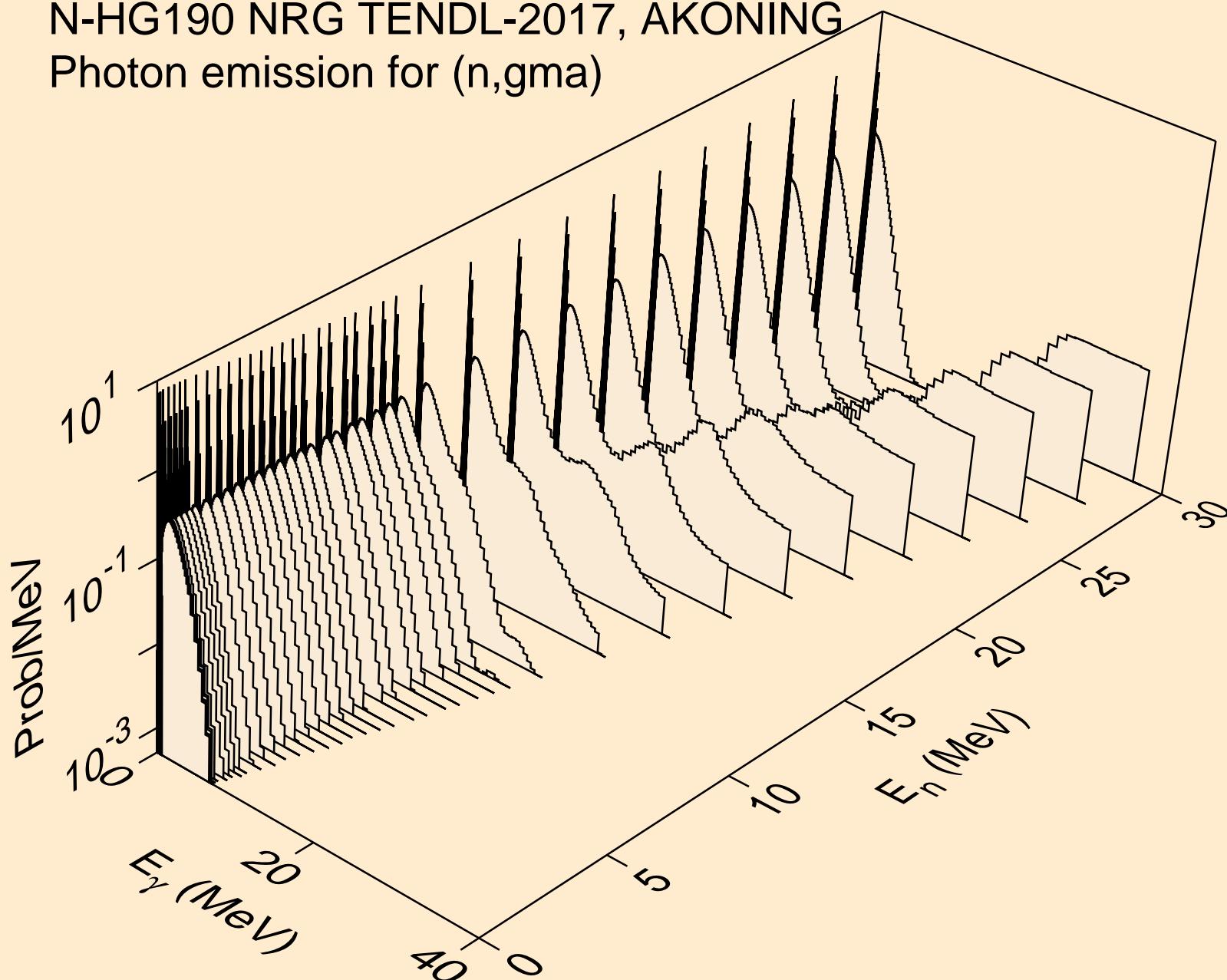


N-HG190 NRG TENDL-2017, AKONING

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

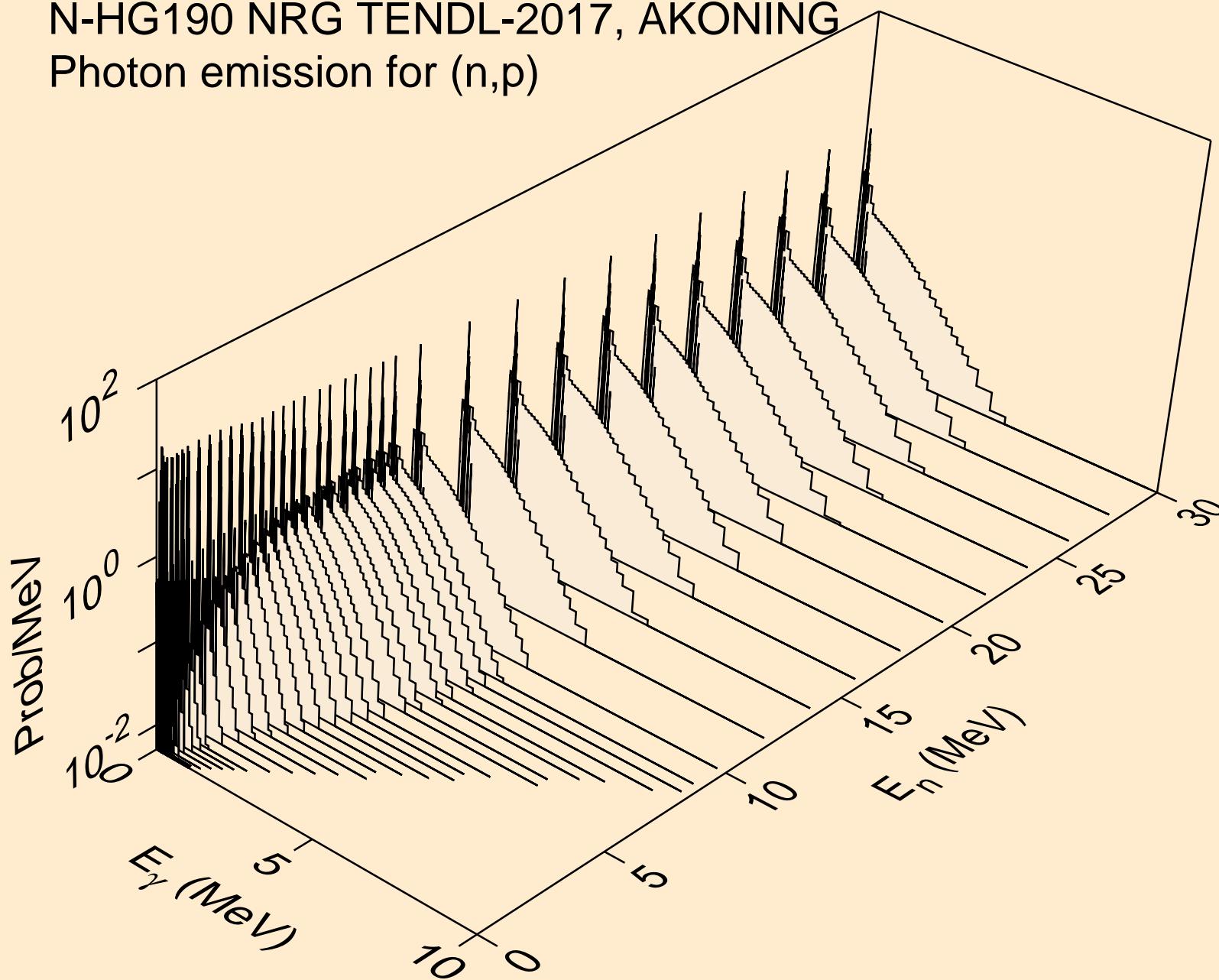


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,gma)

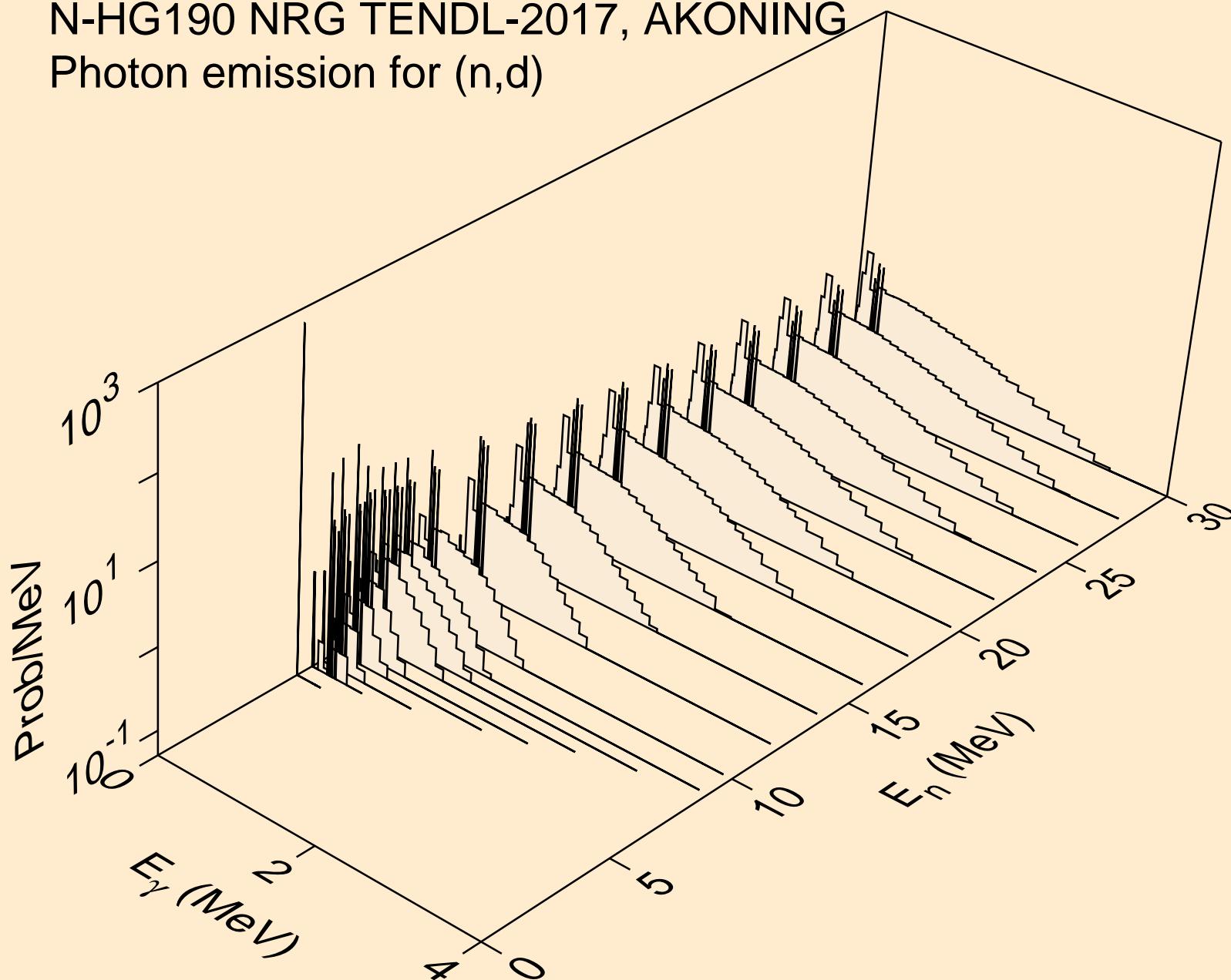


N-HG190 NRG TENDL-2017, AKONING

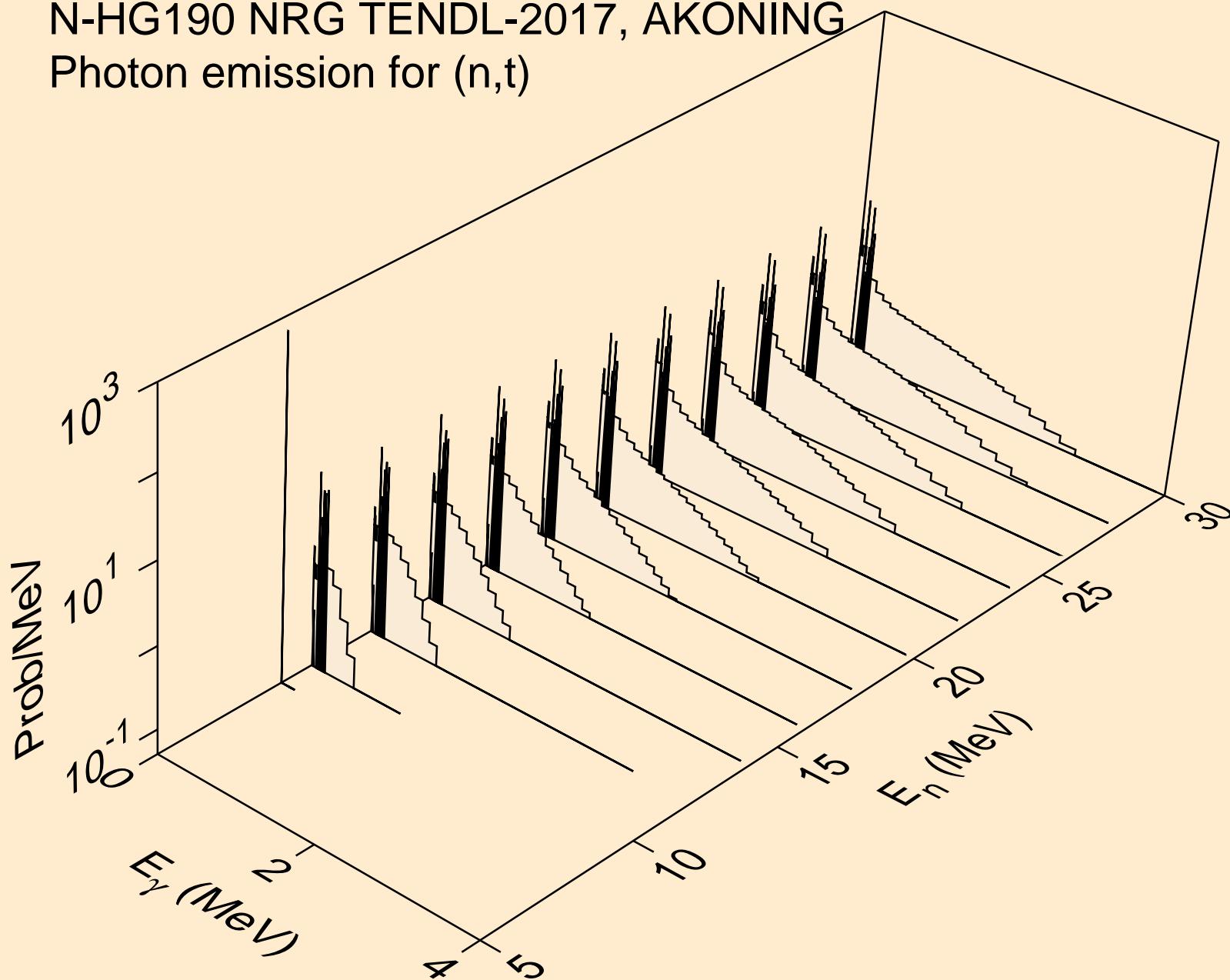
Photon emission for (n,p)



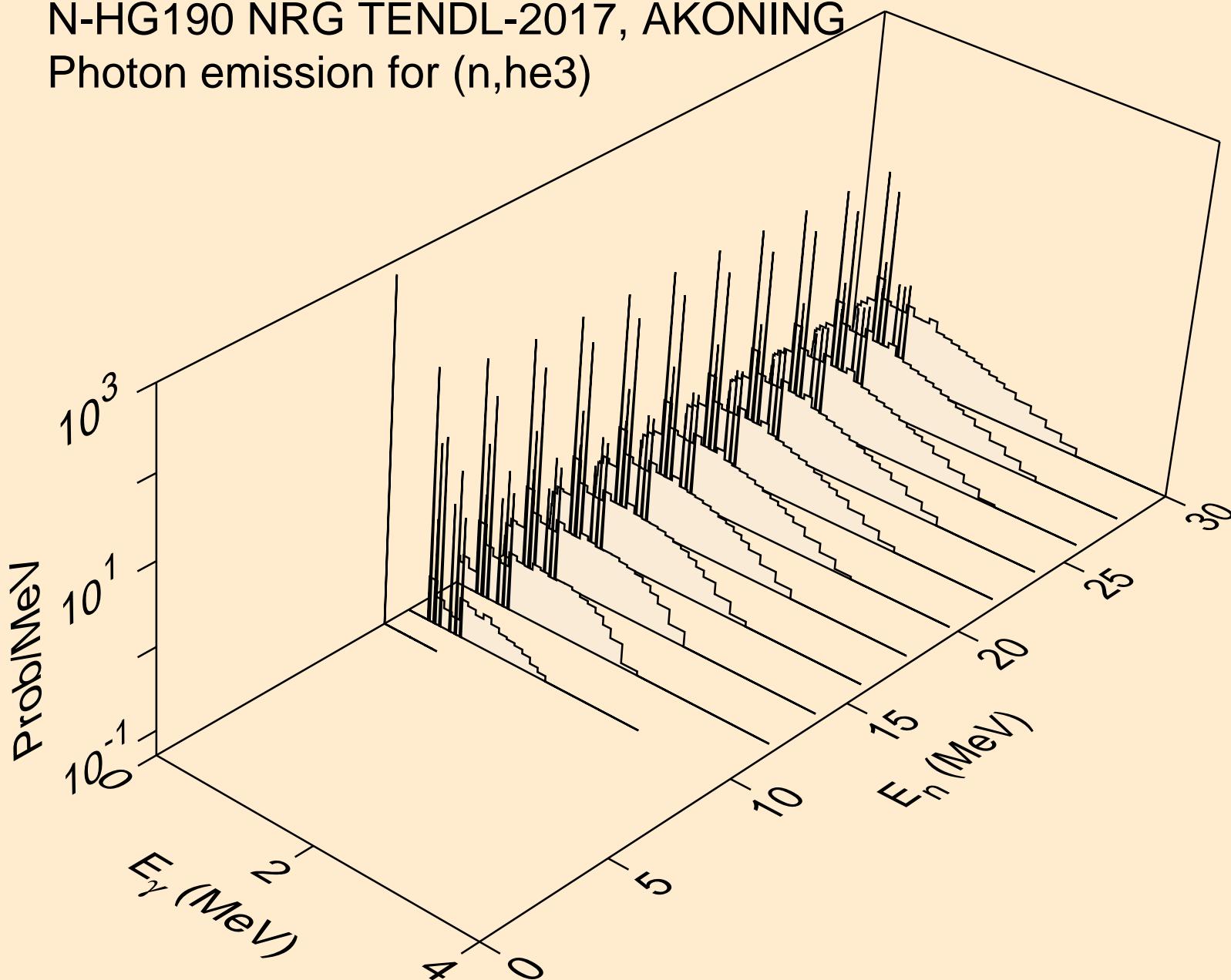
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,d)



N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,t)

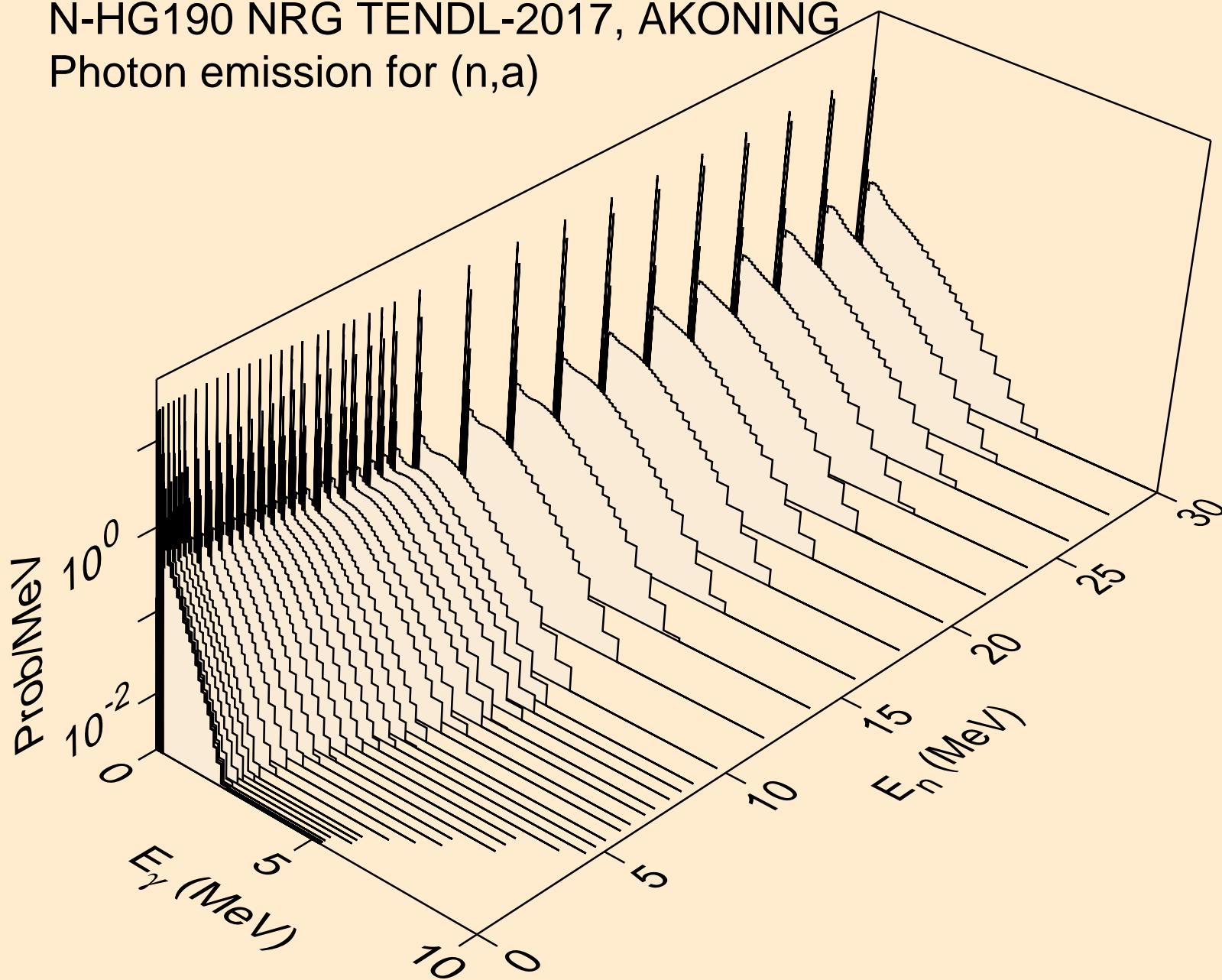


N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,he3)

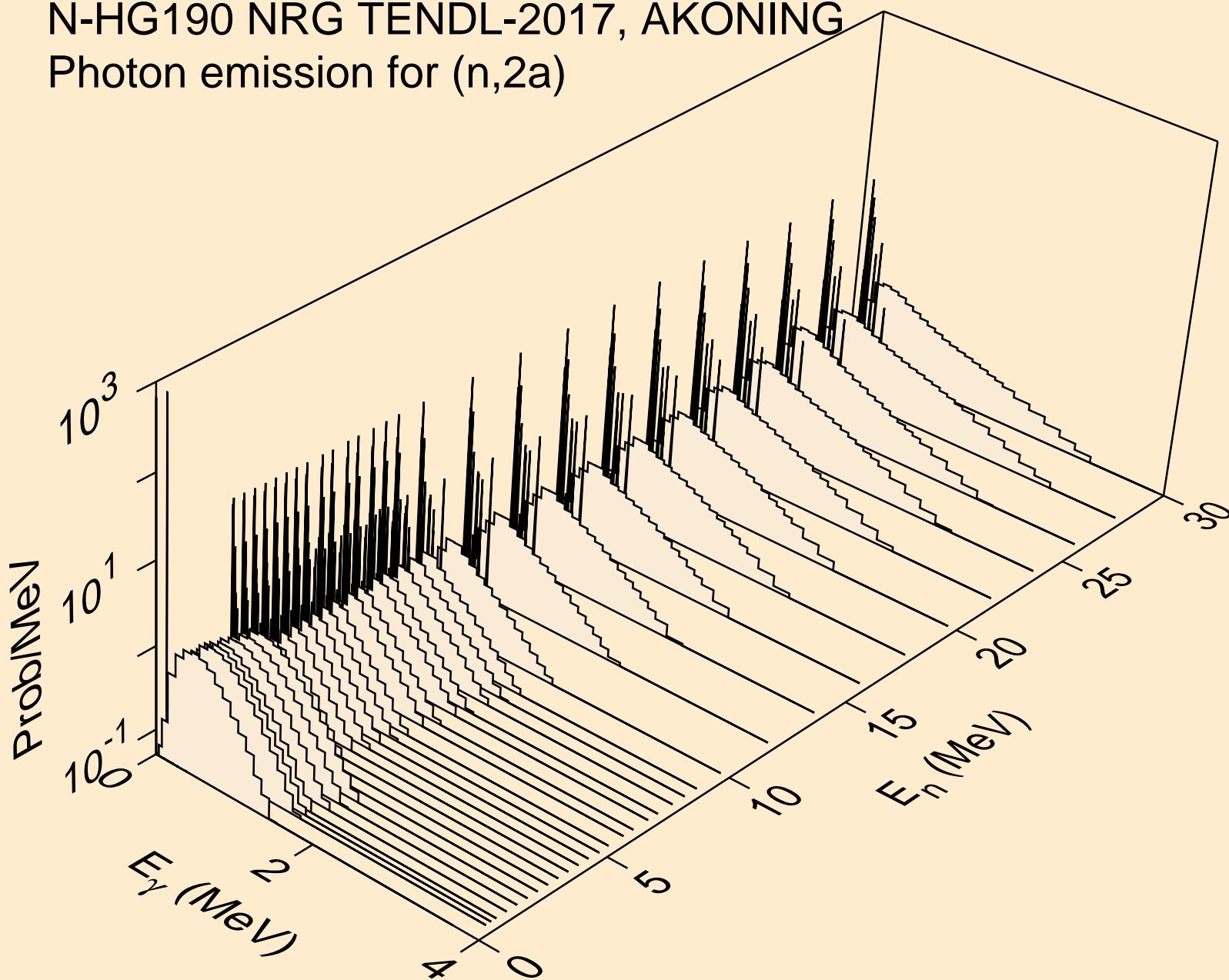


N-HG190 NRG TENDL-2017, AKONING

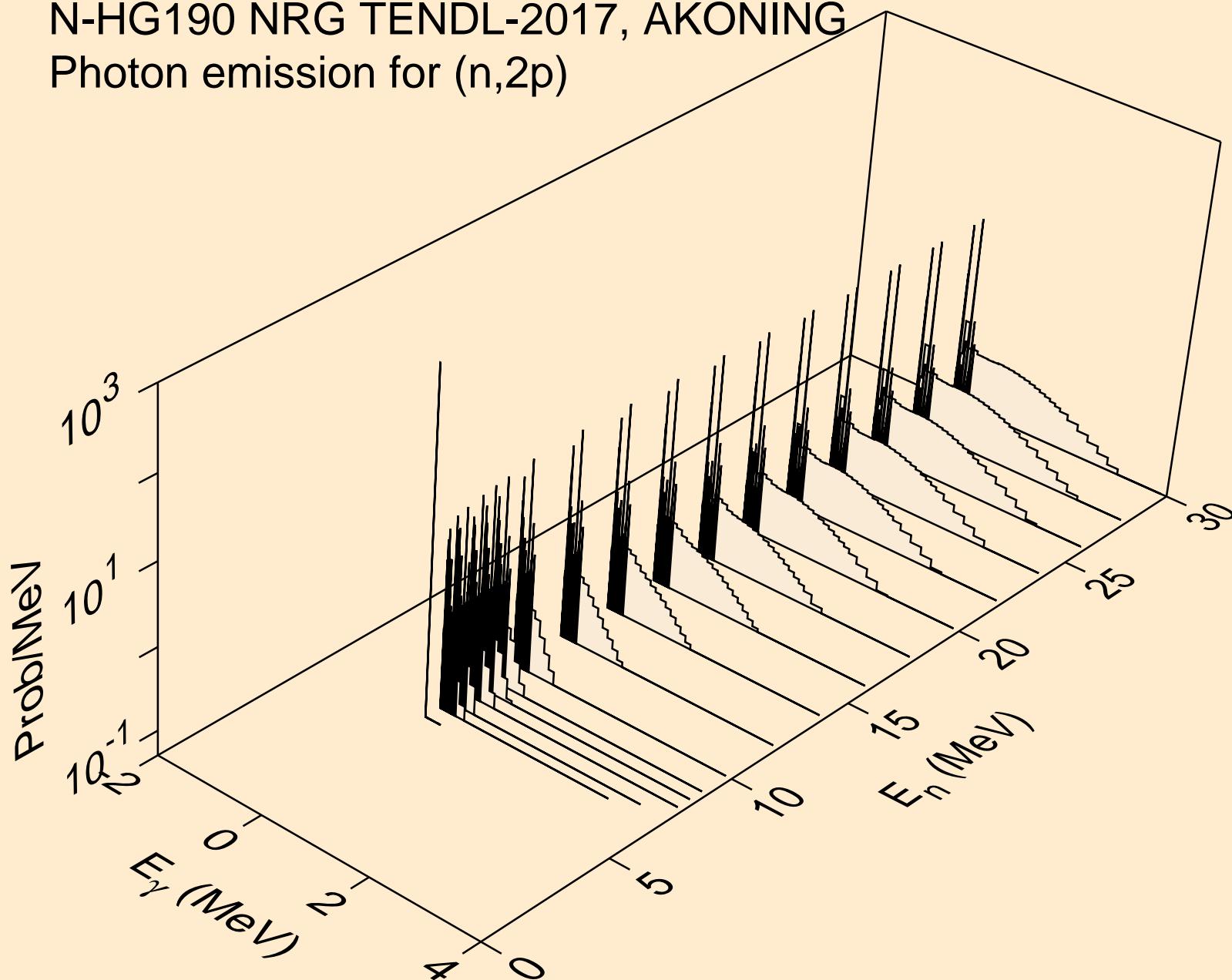
Photon emission for (n,a)



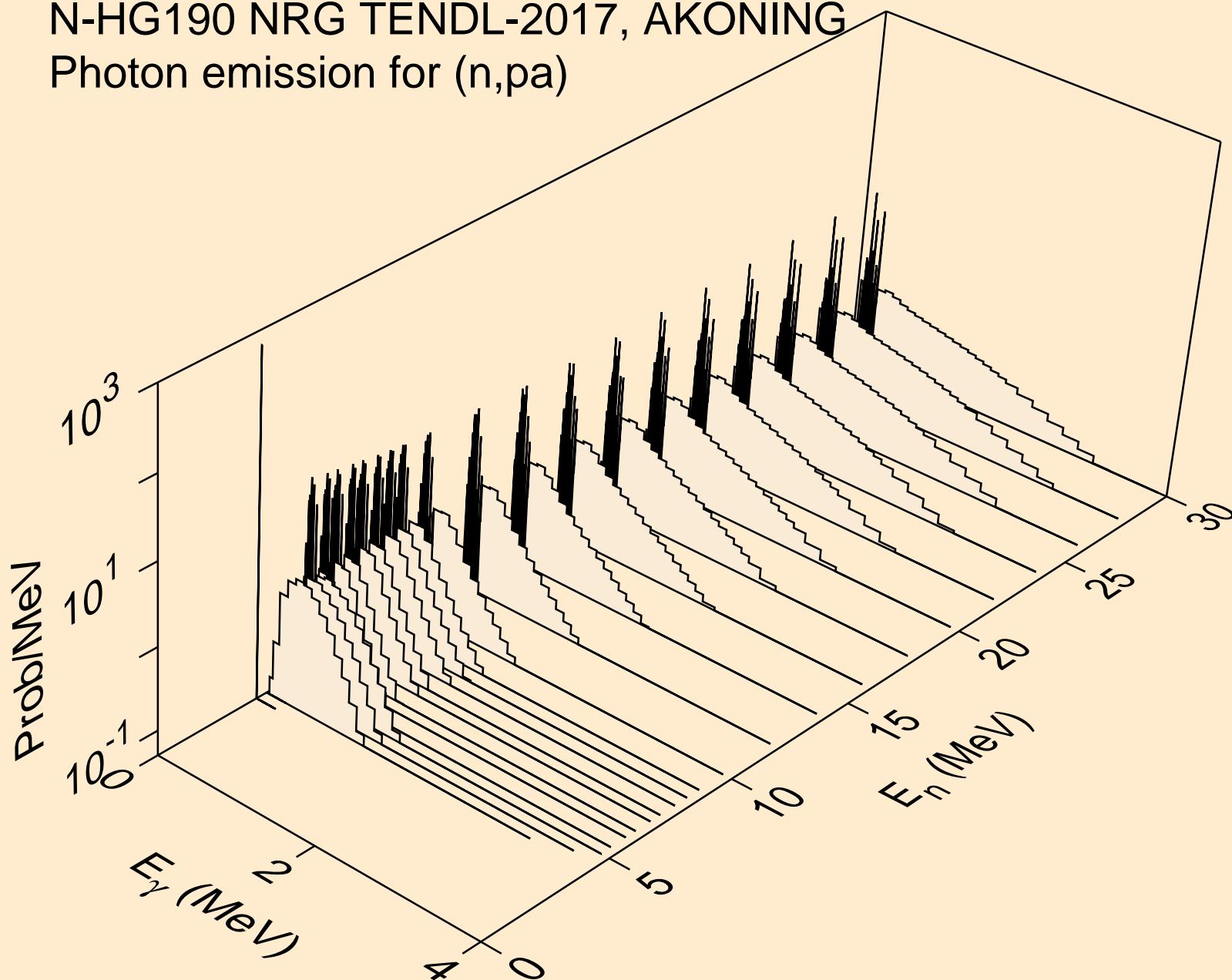
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2a)



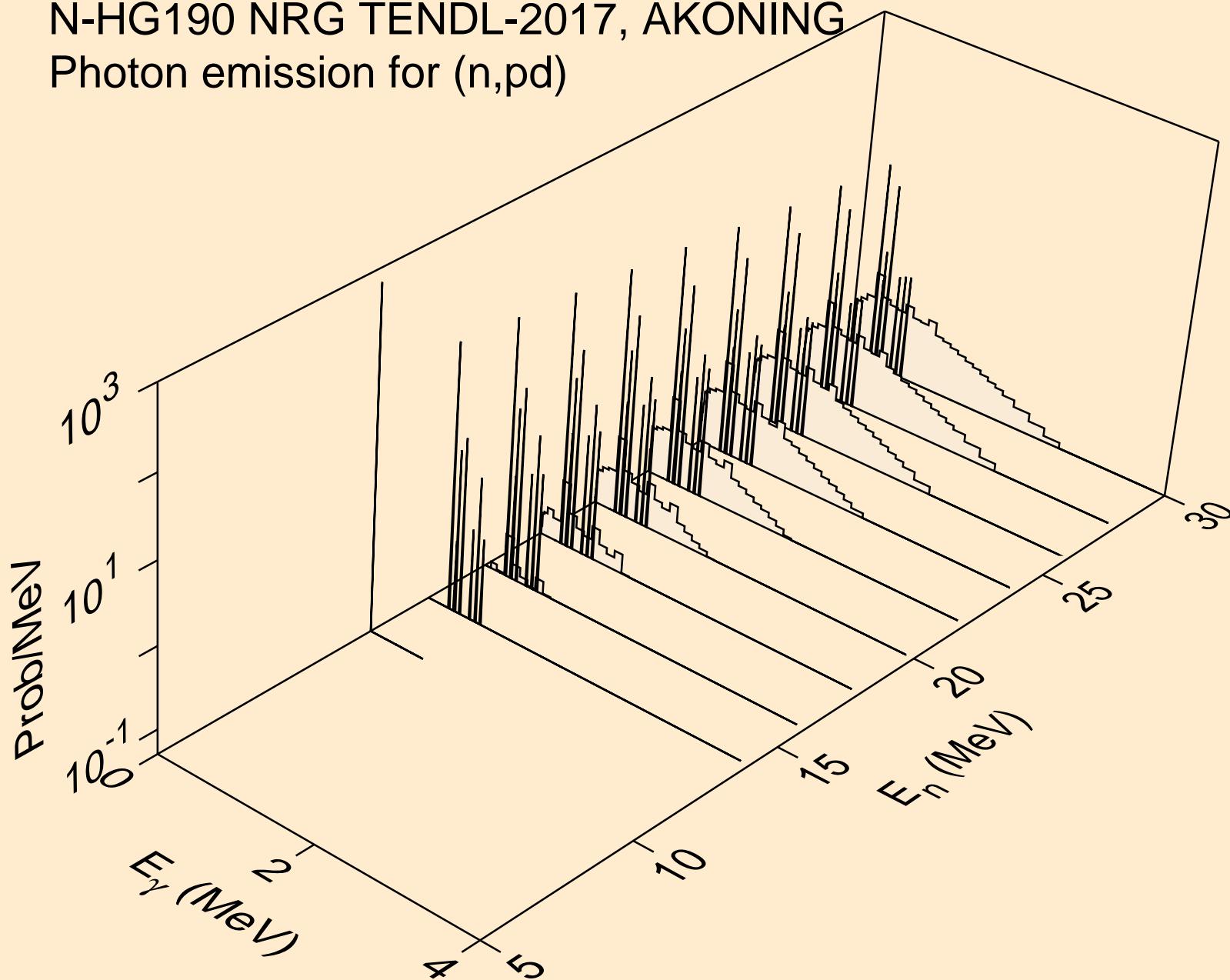
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,2p)



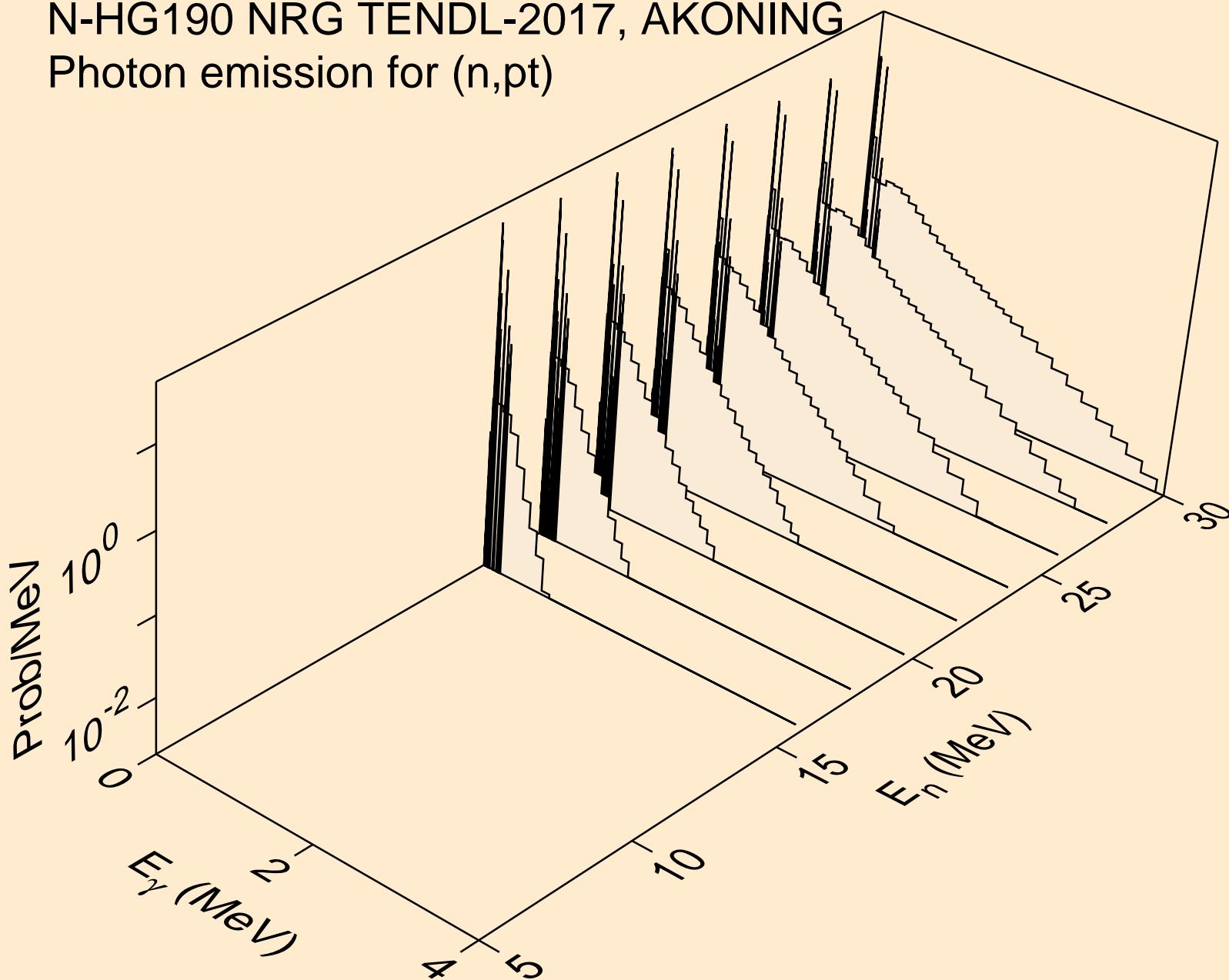
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,pa)



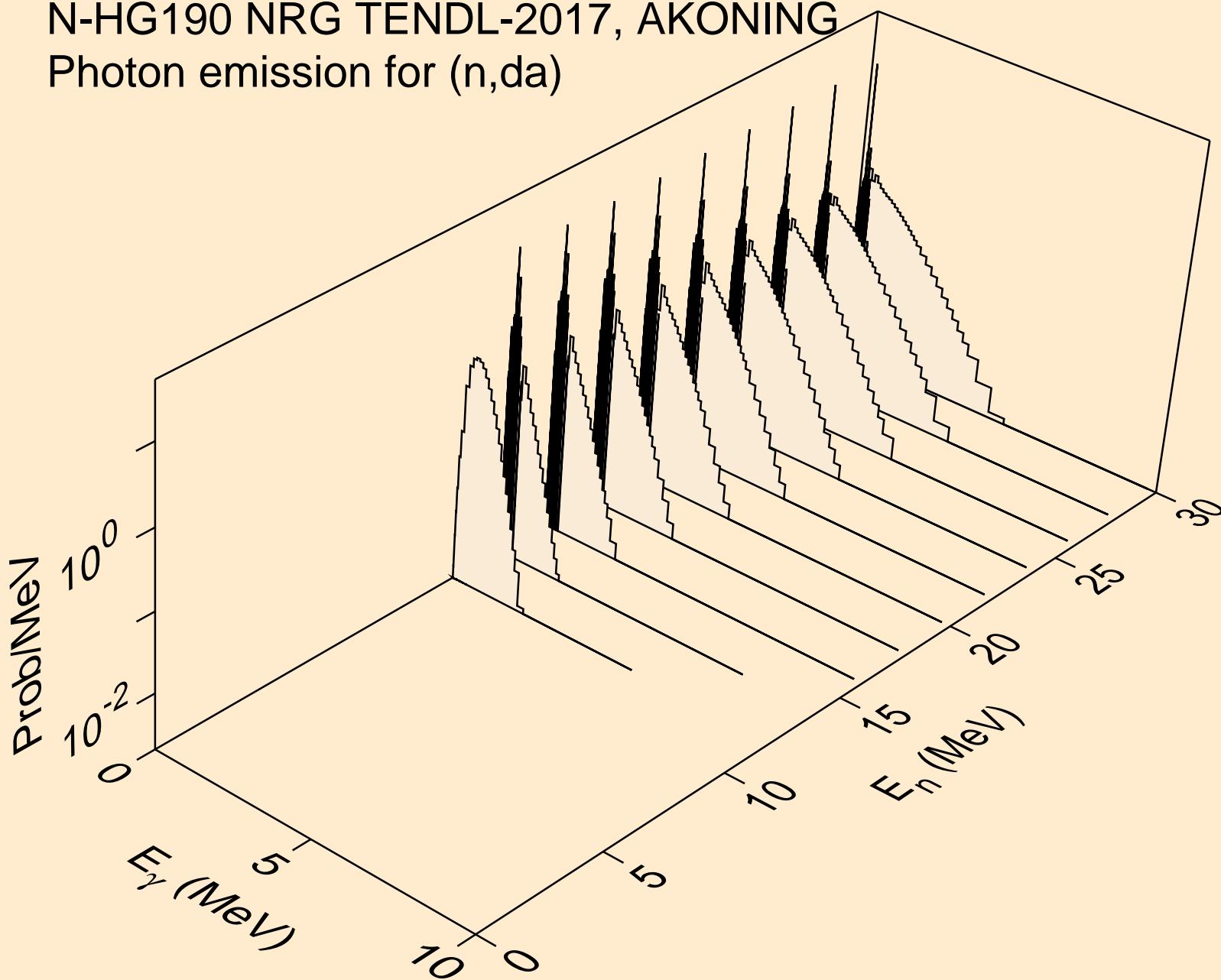
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,pd)



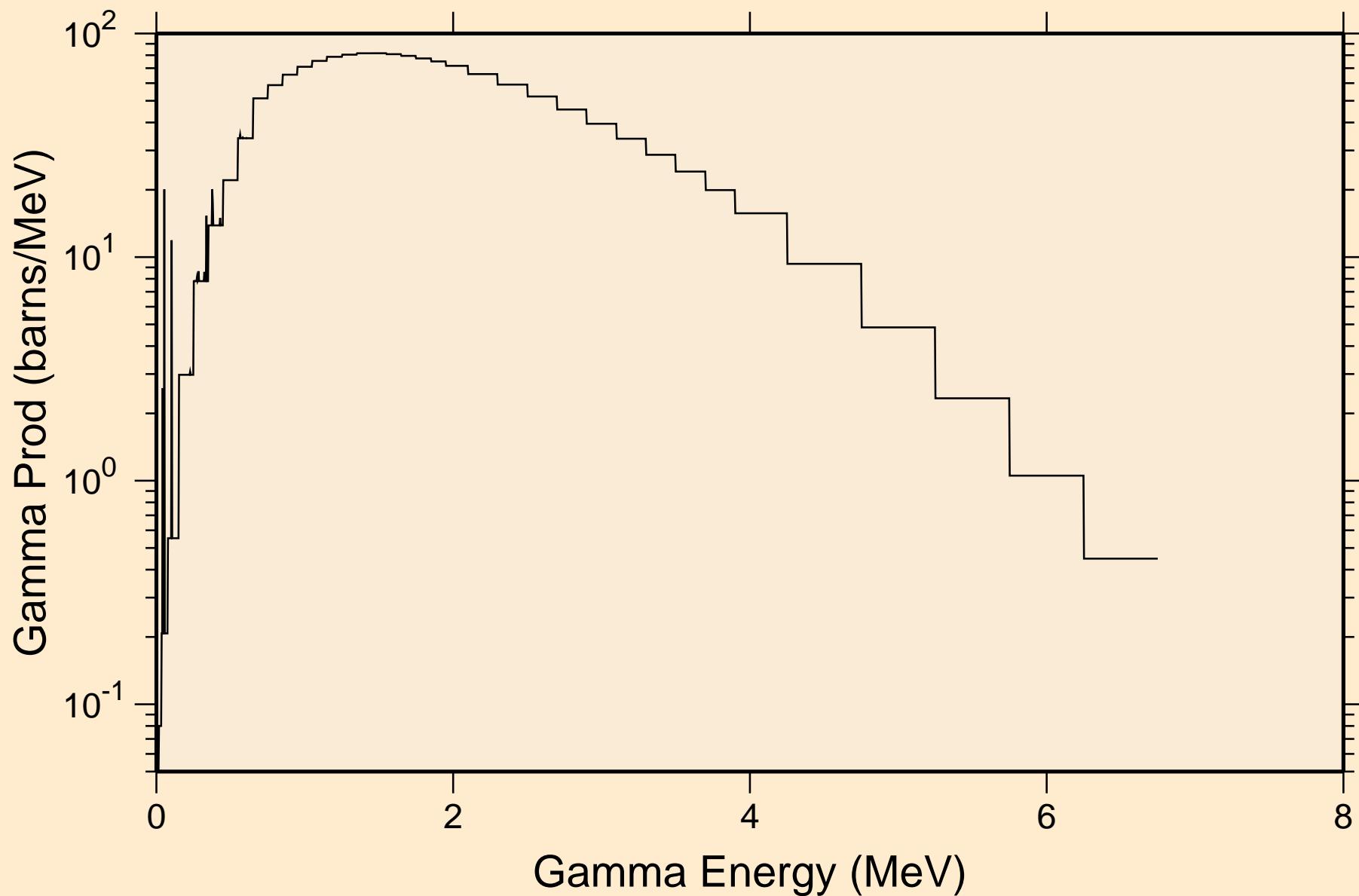
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,pt)



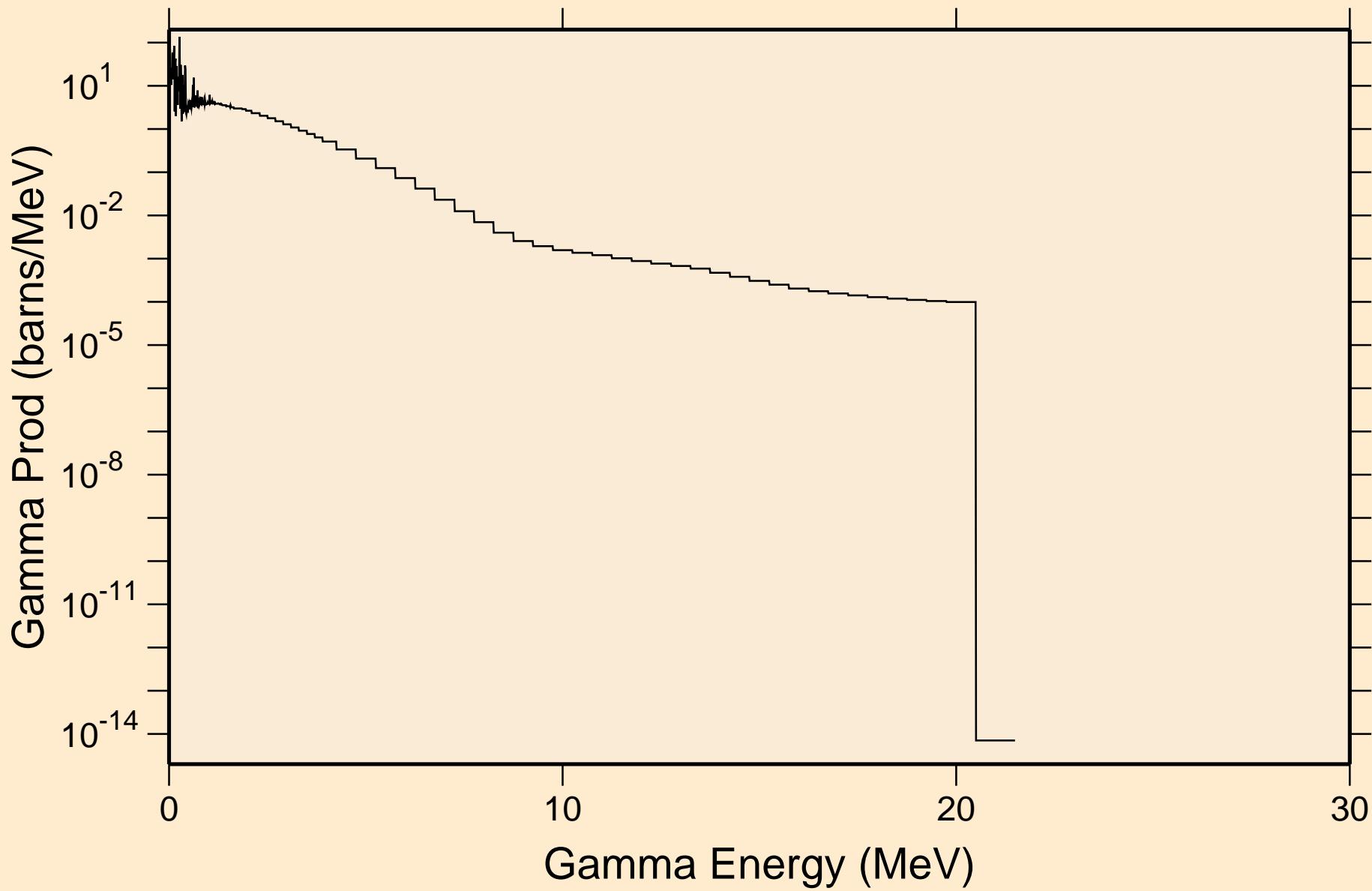
N-HG190 NRG TENDL-2017, AKONING  
Photon emission for (n,da)



N-HG190 NRG TENDL-2017, AKONING  
thermal capture photon spectrum

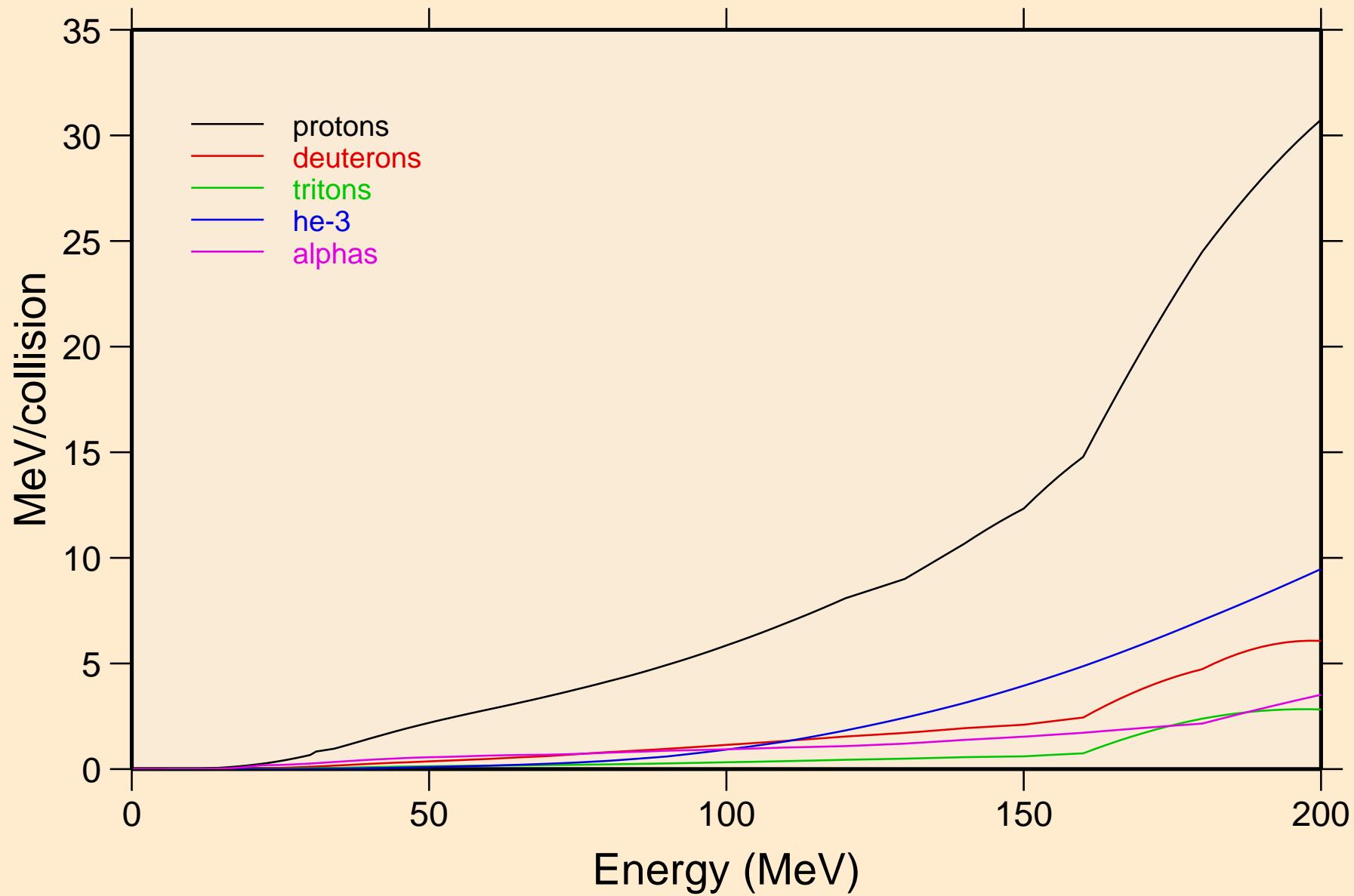


N-HG190 NRG TENDL-2017, AKONING  
14 MeV photon spectrum



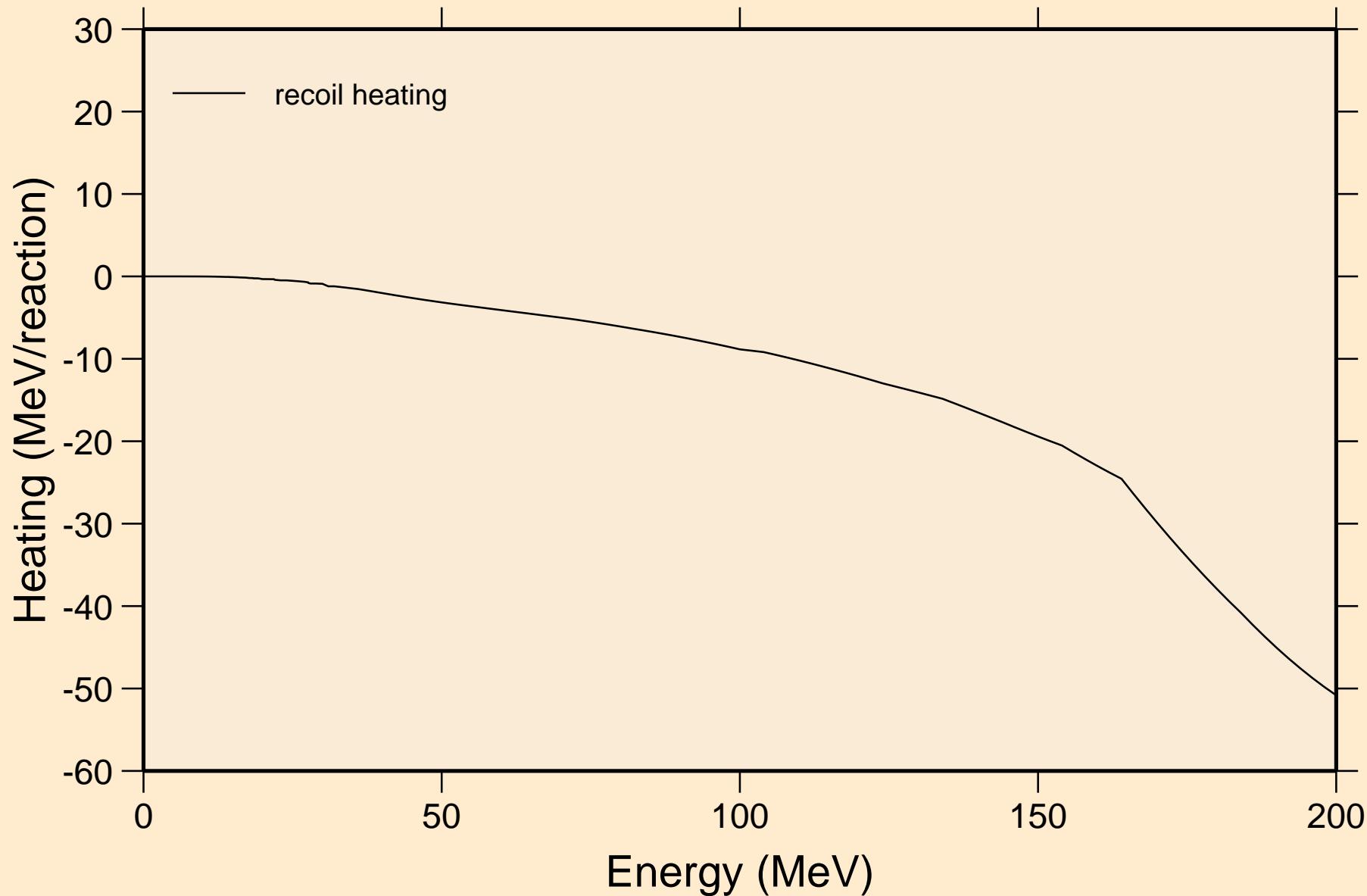
# N-HG190 NRG TENDL-2017, AKONING

## Particle heating contributions

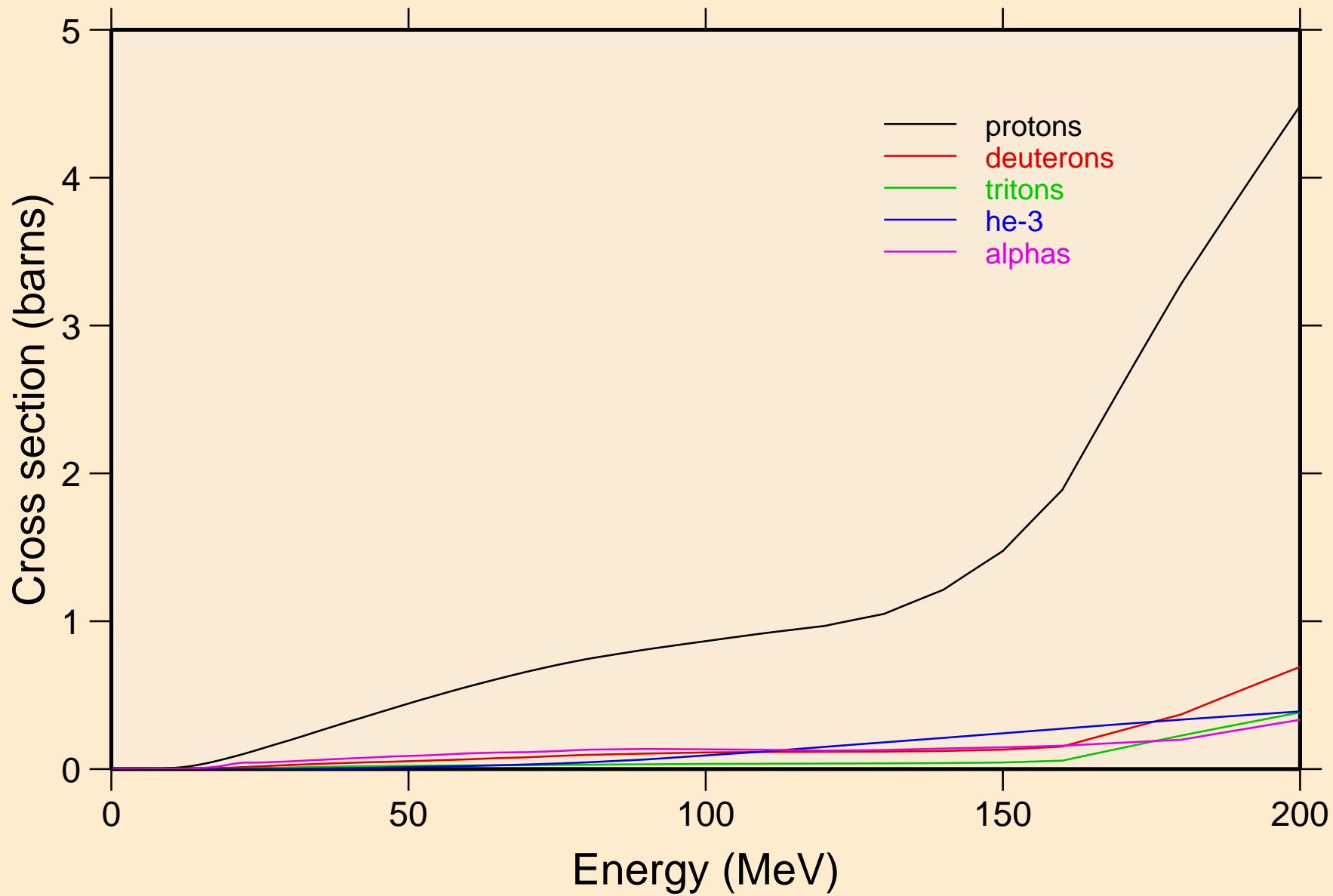


# N-HG190 NRG TENDL-2017, AKONING

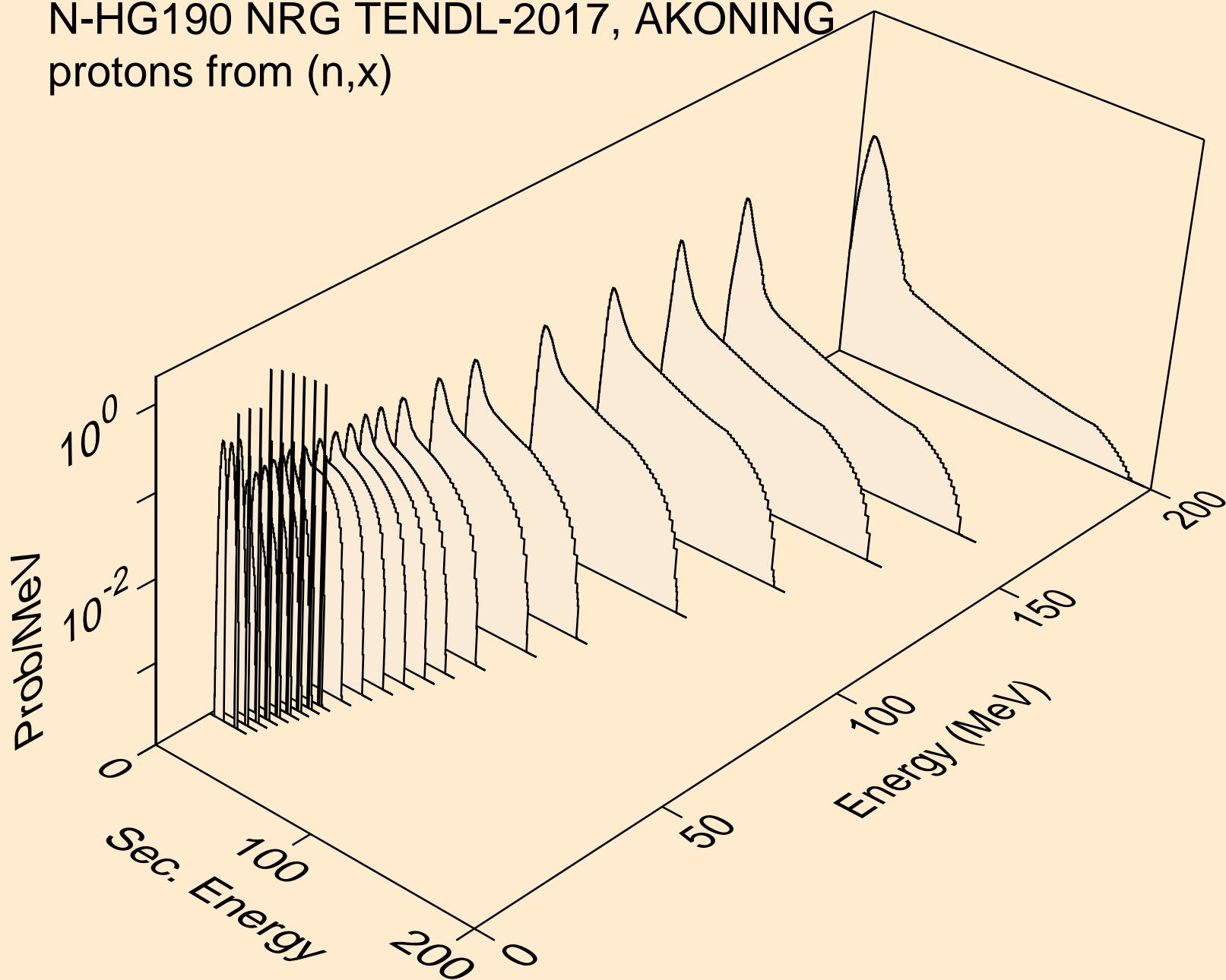
## Recoil Heating



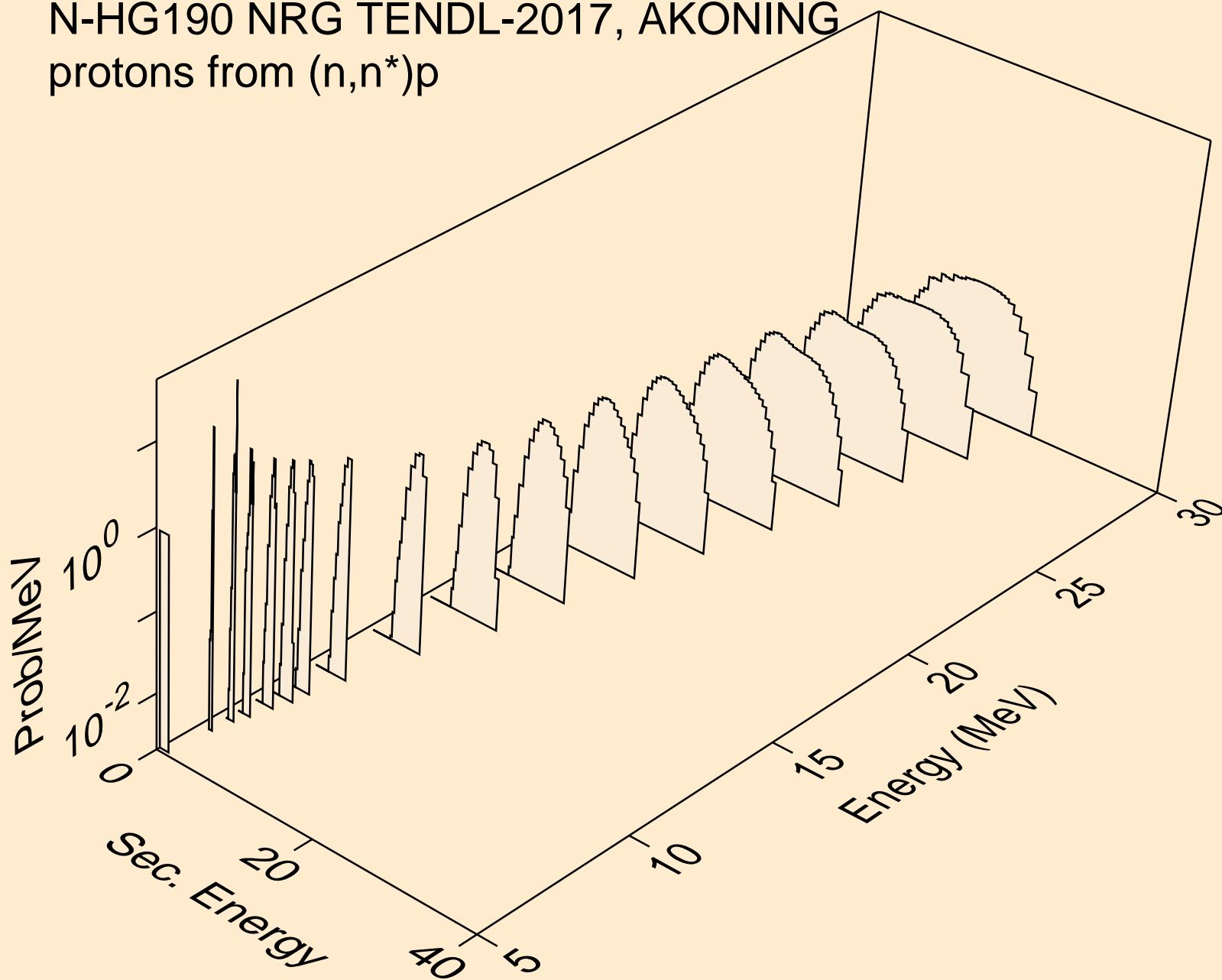
N-HG190 NRG TENDL-2017, AKONING  
Particle production cross sections



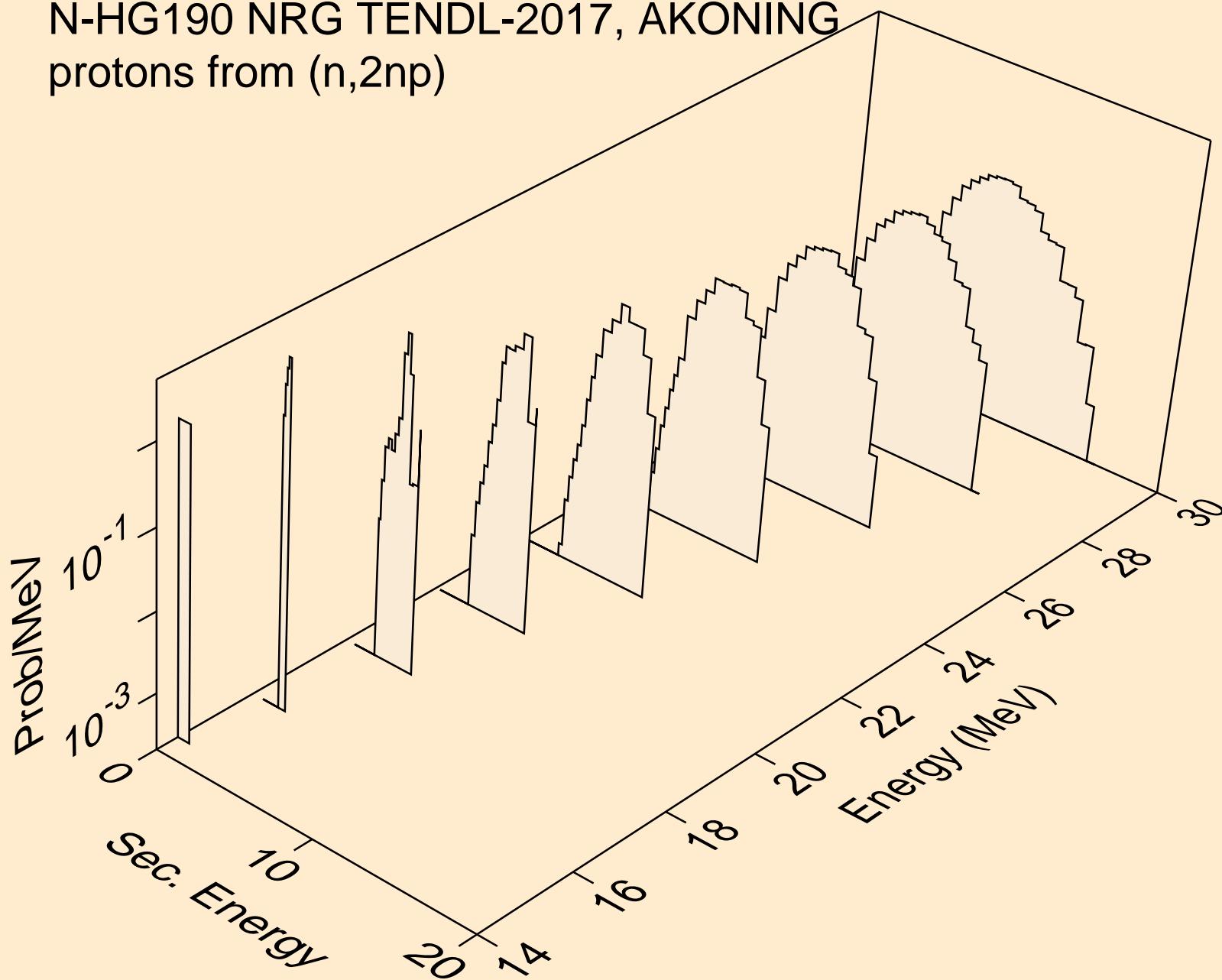
N-HG190 NRG TENDL-2017, AKONING  
protons from ( $n,x$ )



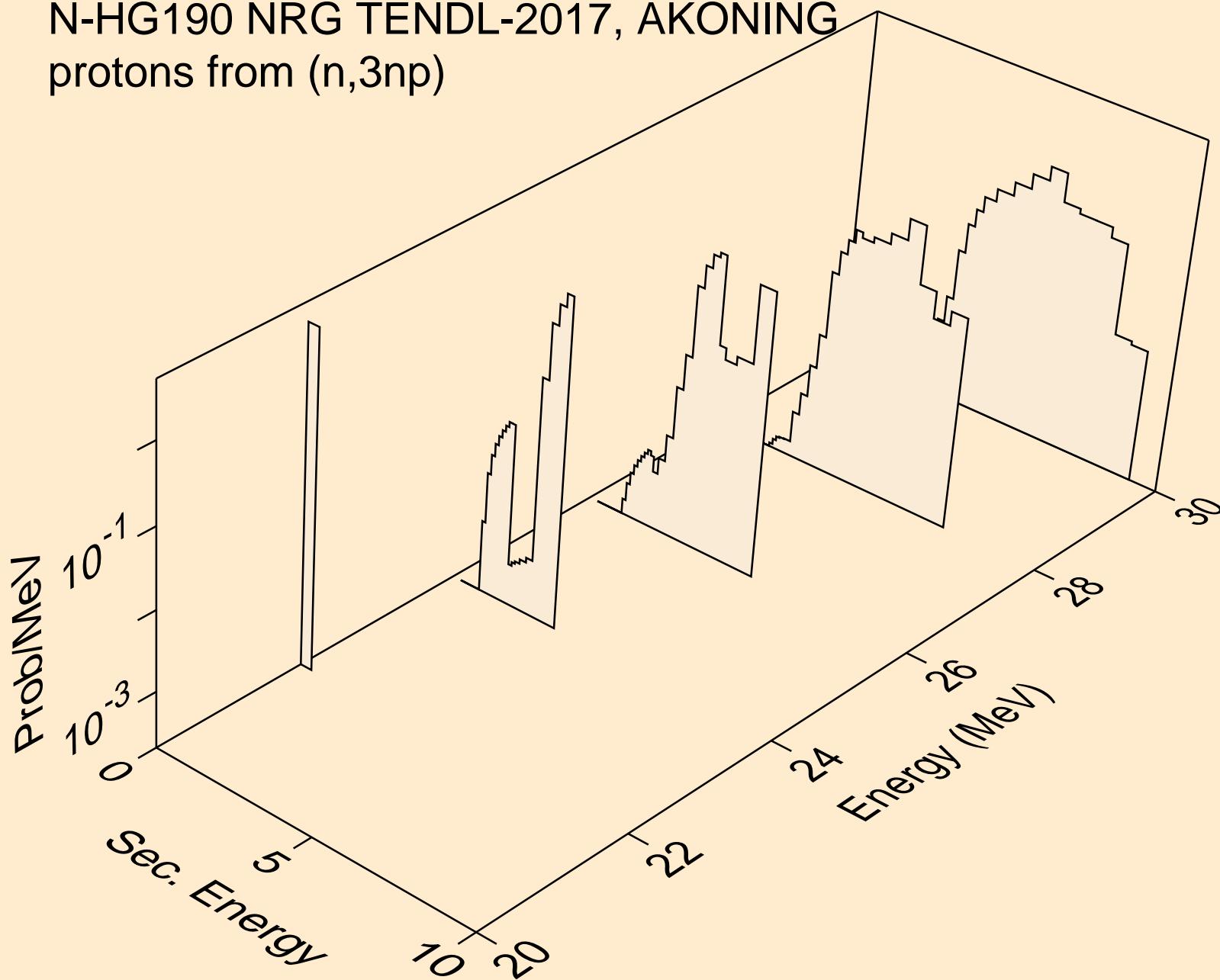
N-HG190 NRG TENDL-2017, AKONING  
protons from  $(n,n^*)p$



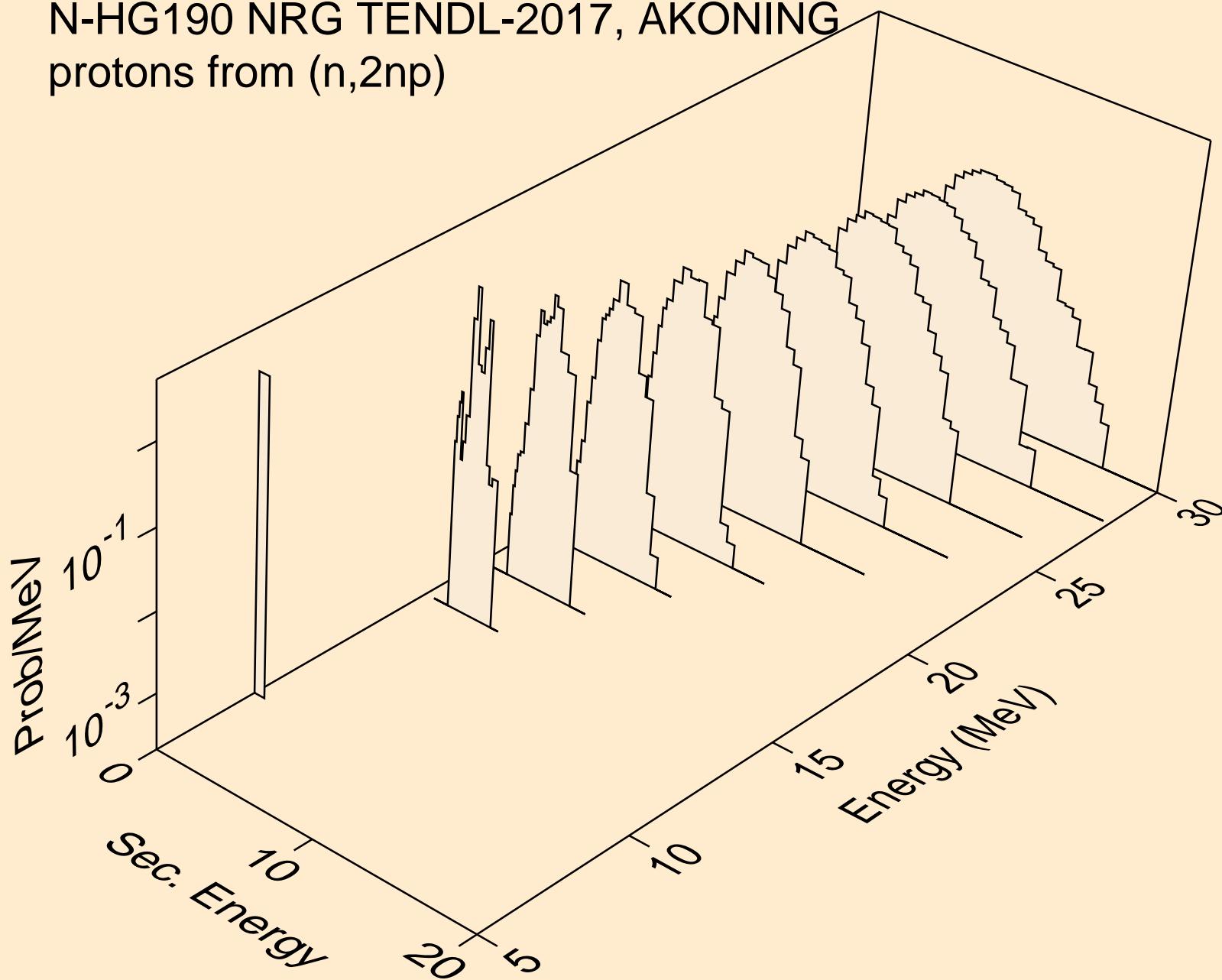
N-HG190 NRG TENDL-2017, AKONING  
protons from ( $n,2np$ )



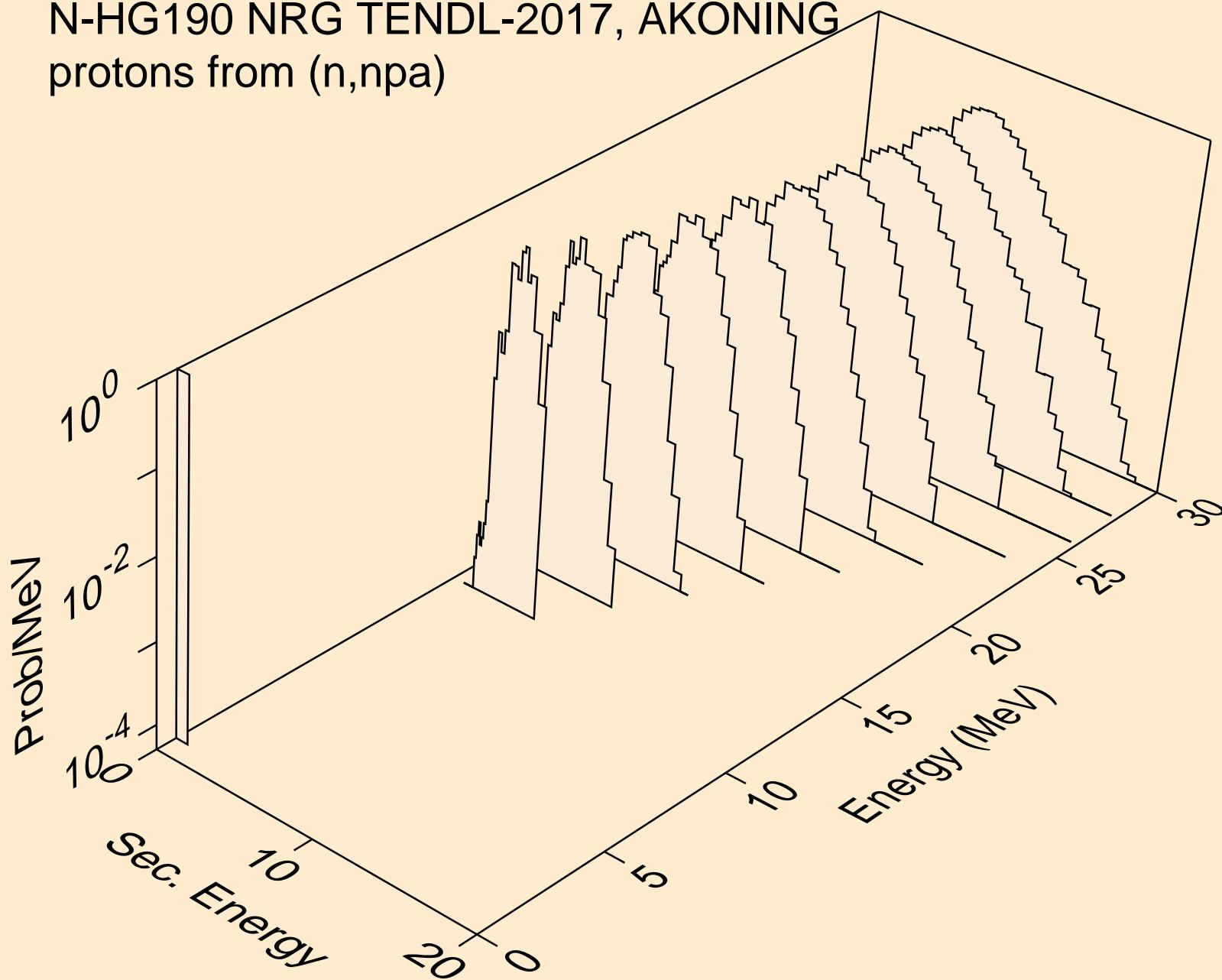
N-HG190 NRG TENDL-2017, AKONING  
protons from ( $n,3np$ )



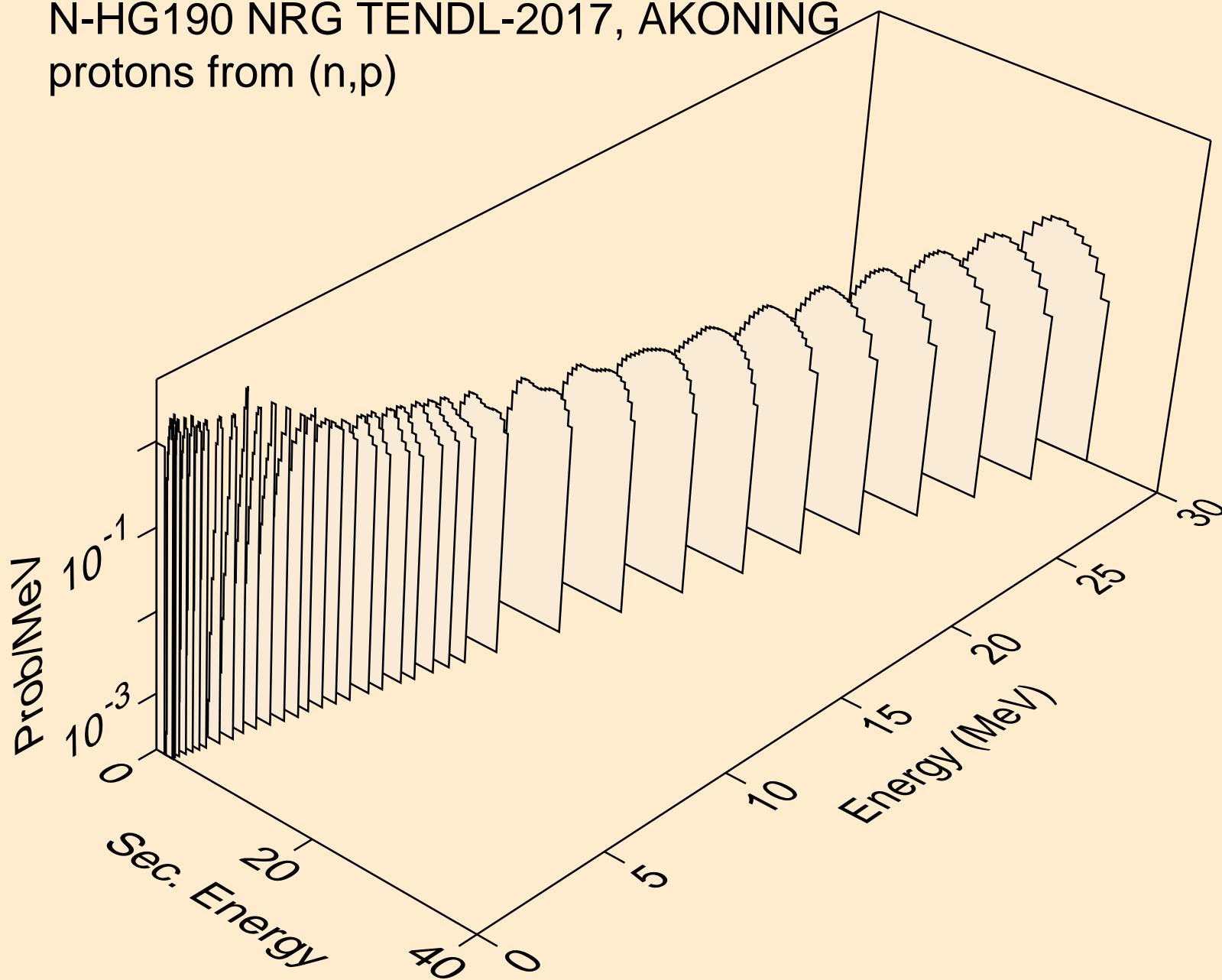
N-HG190 NRG TENDL-2017, AKONING  
protons from ( $n,2np$ )



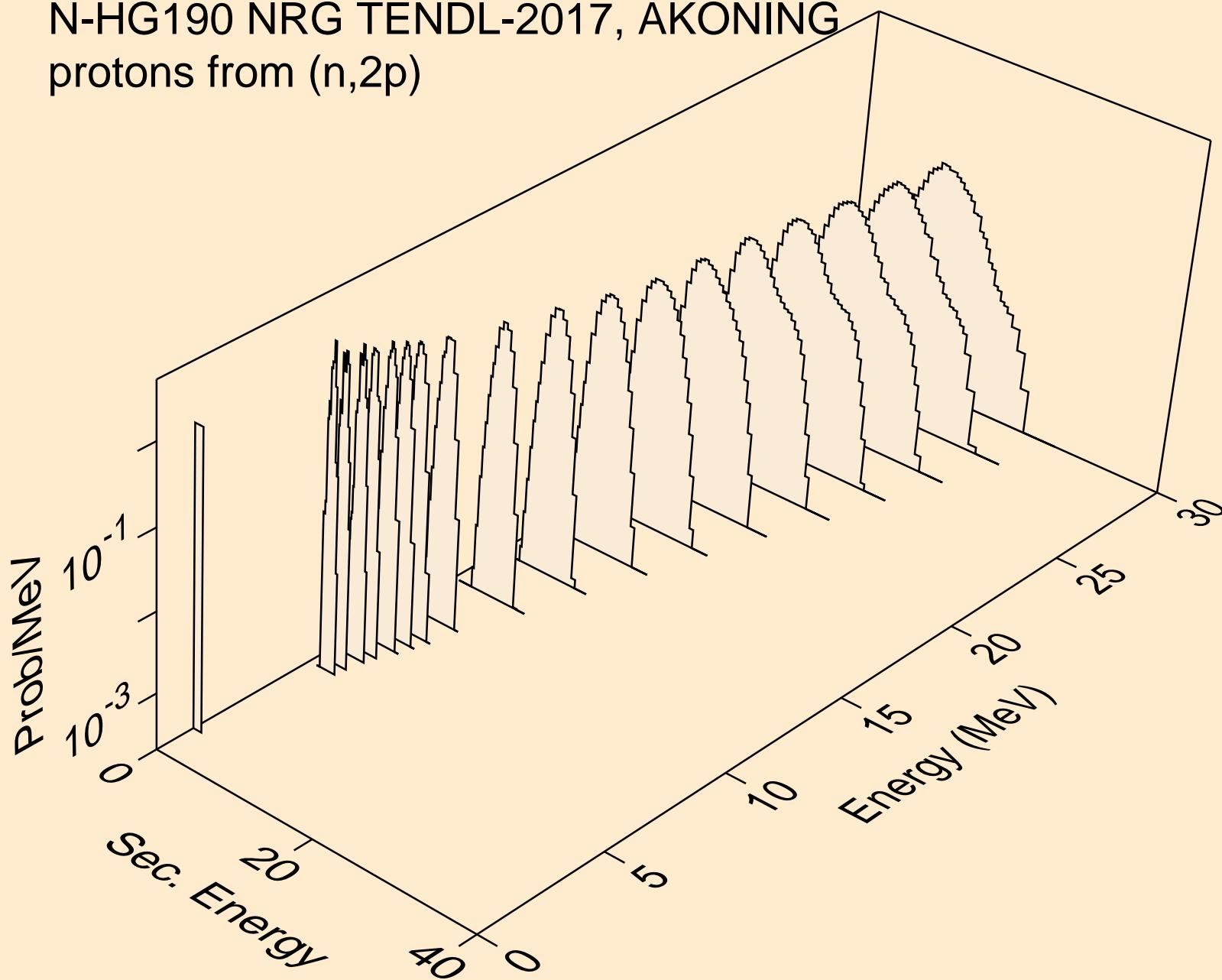
N-HG190 NRG TENDL-2017, AKONING  
protons from (n,npa)



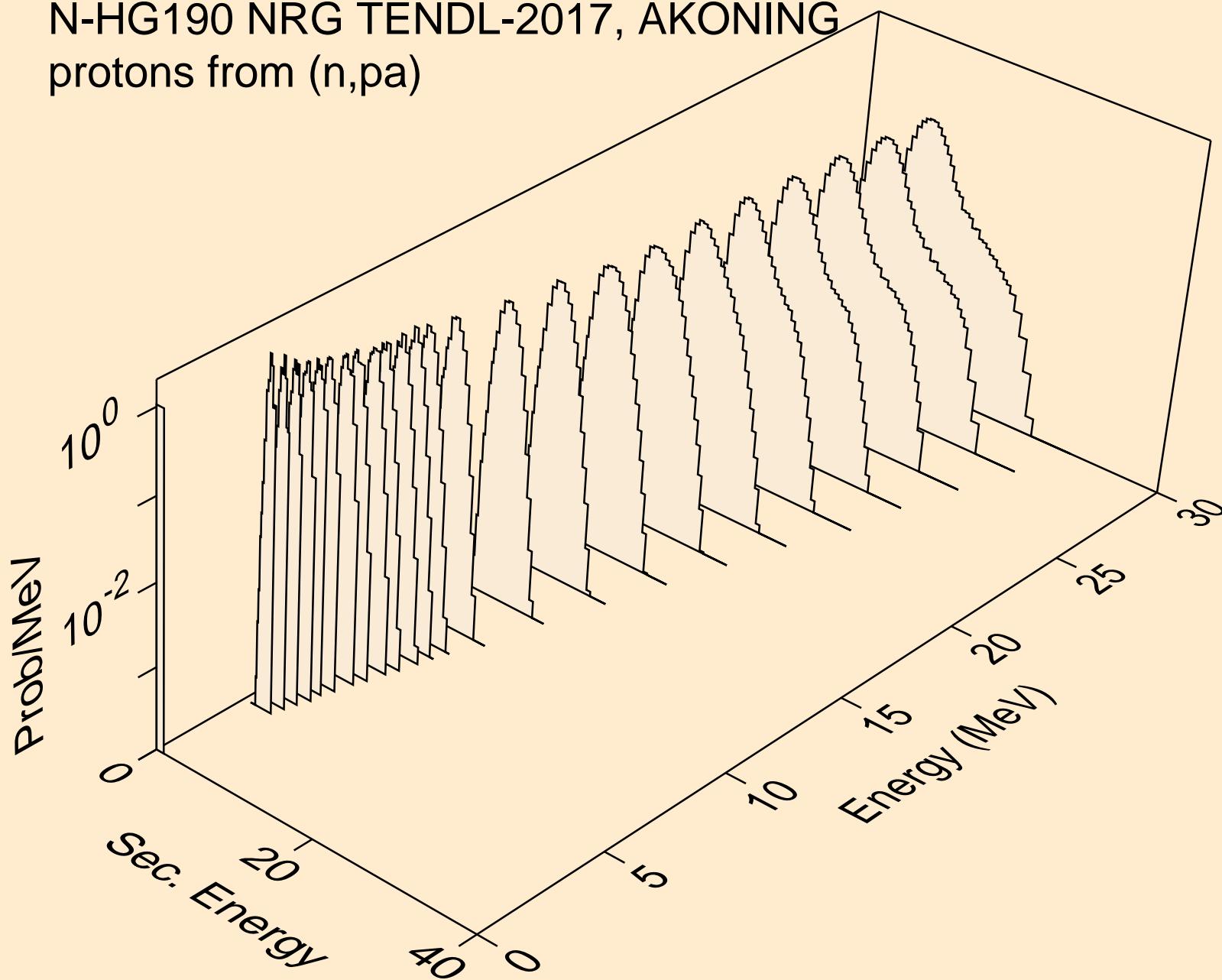
N-HG190 NRG TENDL-2017, AKONING  
protons from (n,p)



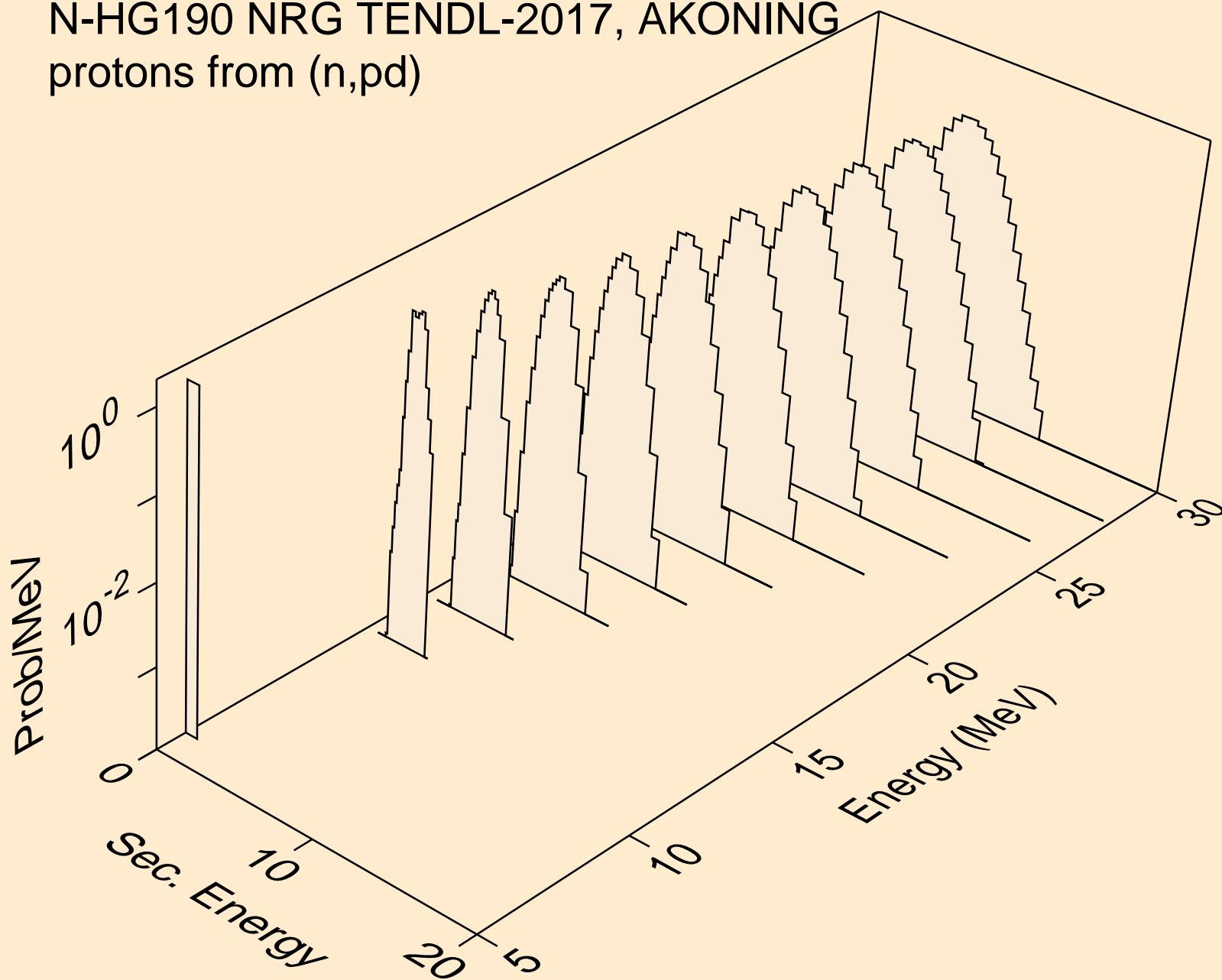
N-HG190 NRG TENDL-2017, AKONING  
protons from ( $n,2p$ )



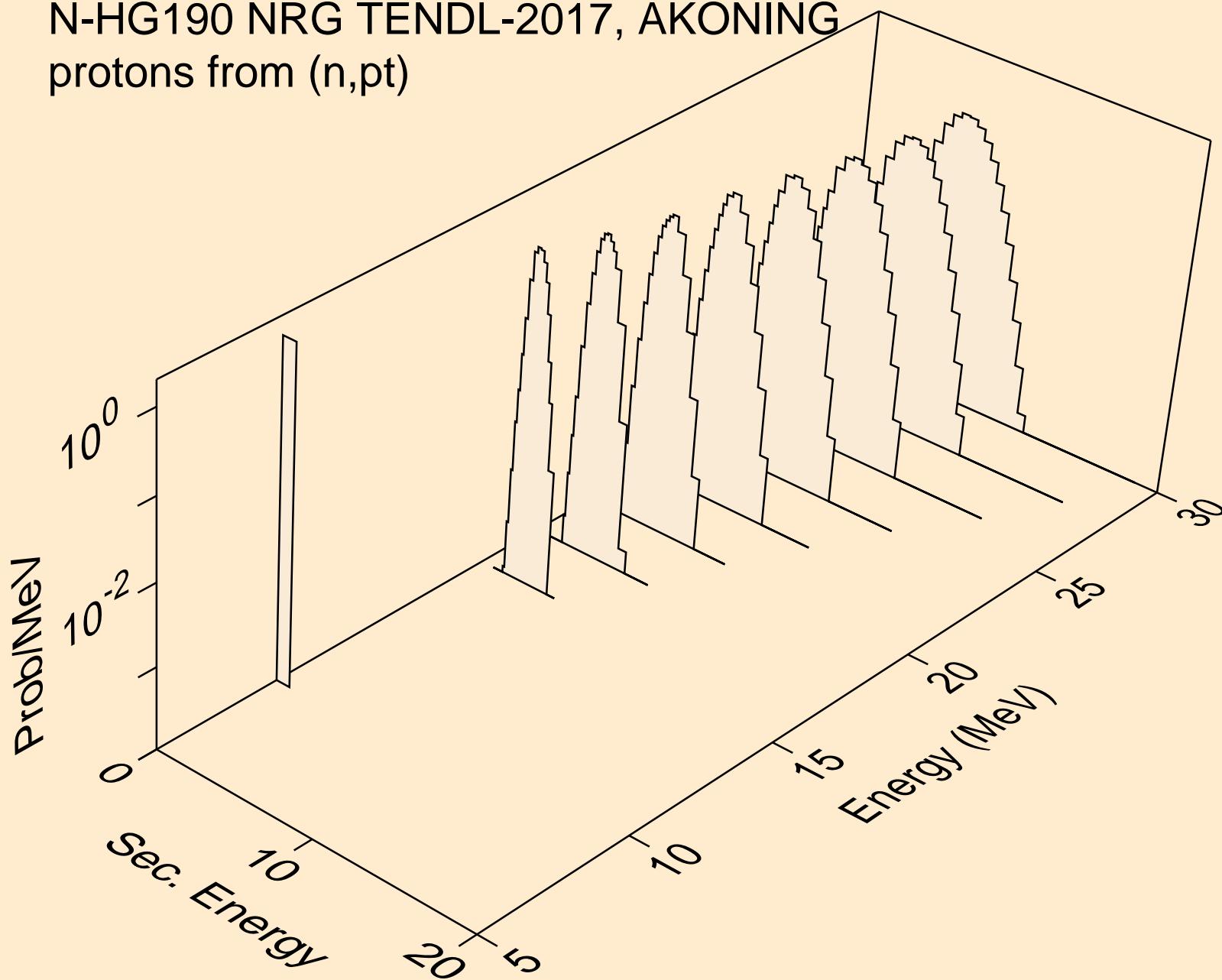
N-HG190 NRG TENDL-2017, AKONING  
protons from (n,pa)



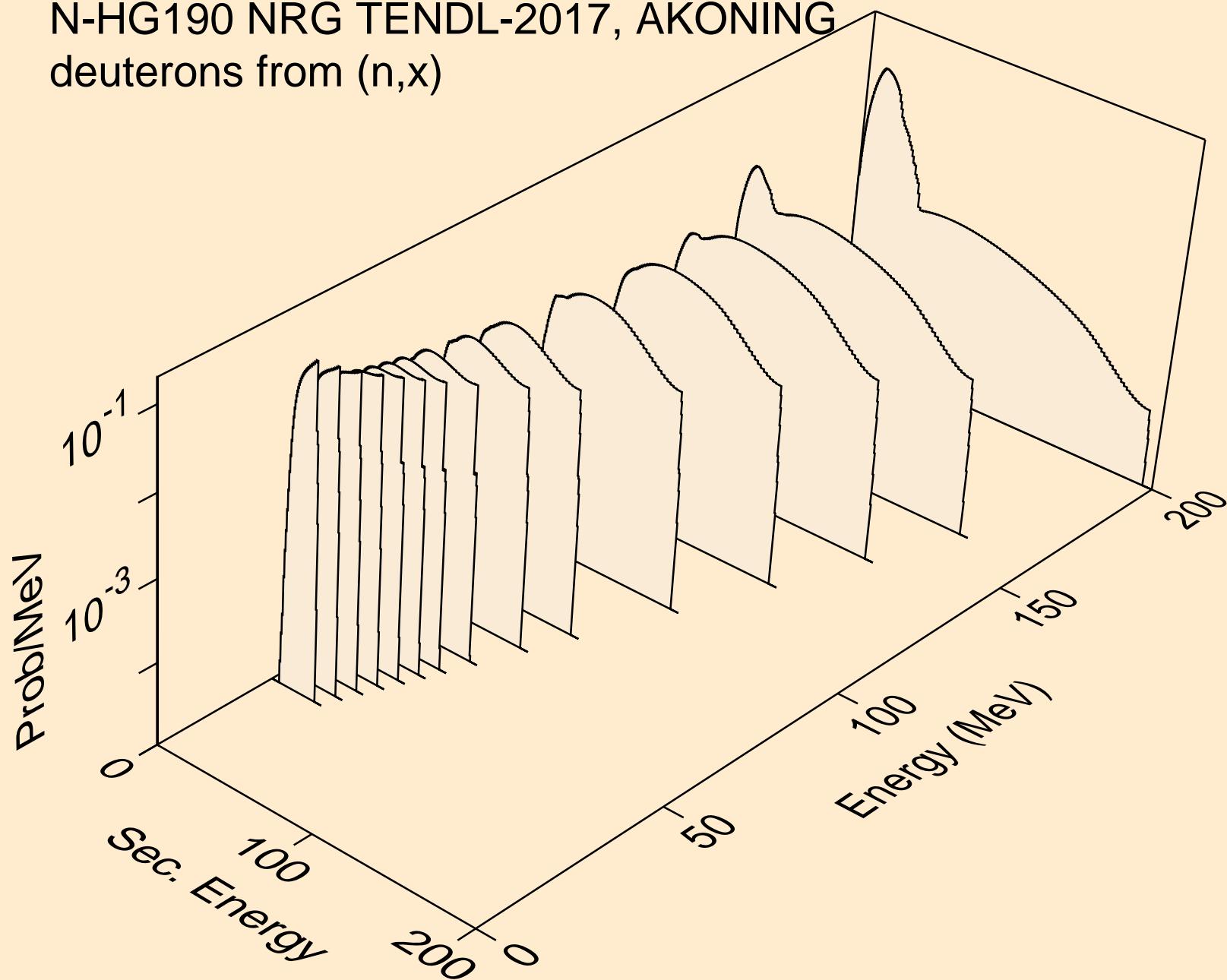
N-HG190 NRG TENDL-2017, AKONING  
protons from (n,pd)



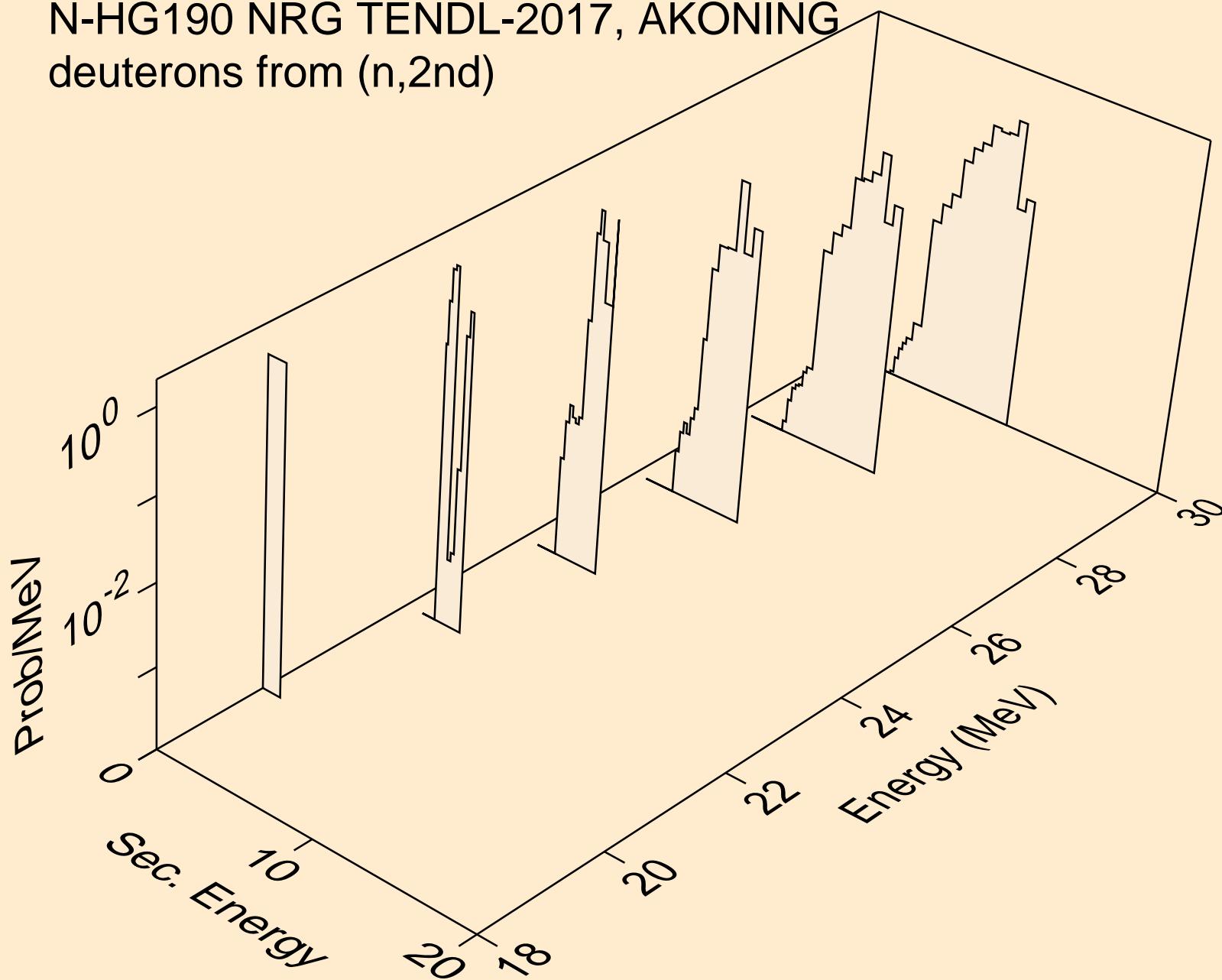
N-HG190 NRG TENDL-2017, AKONING  
protons from (n,pt)



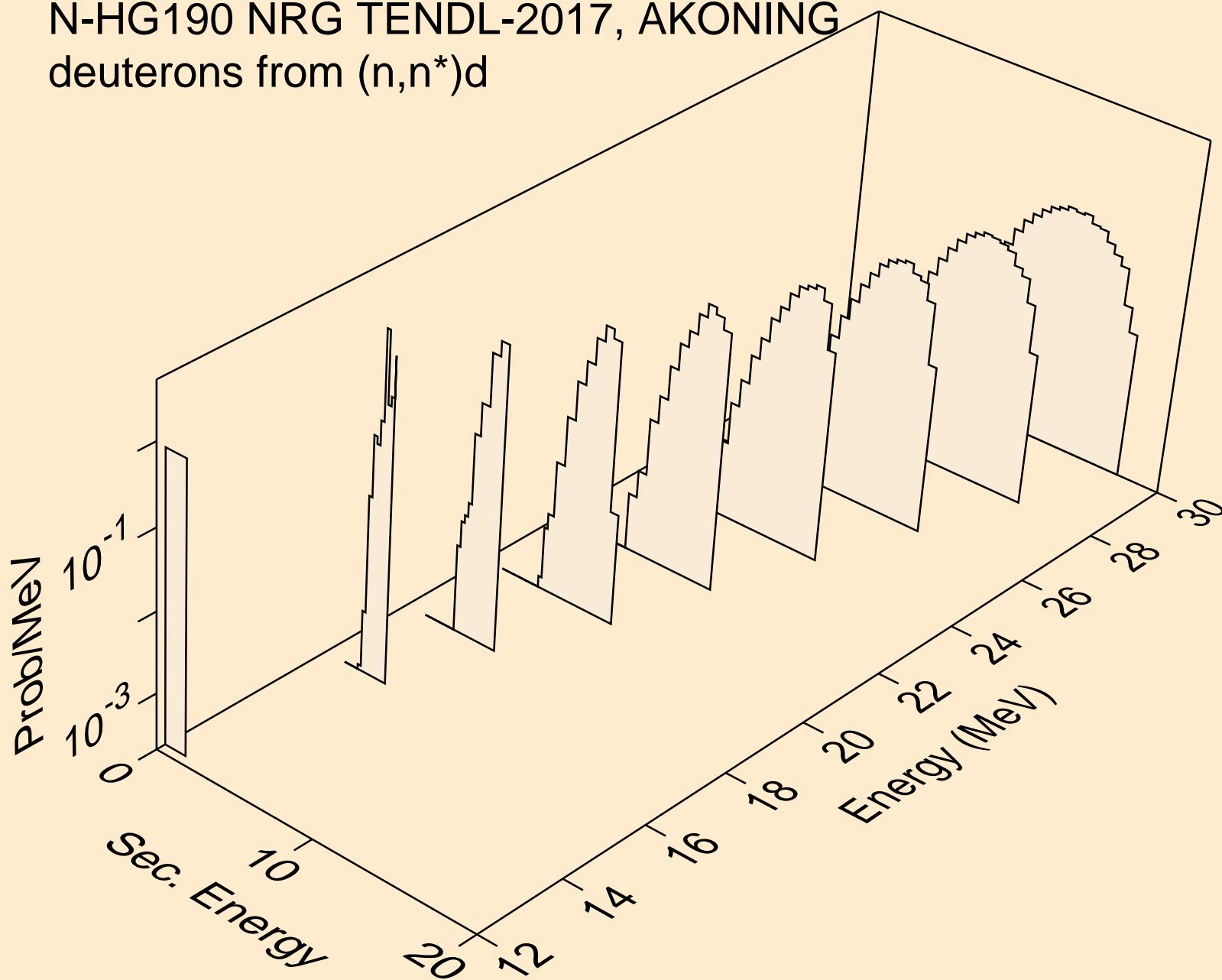
N-HG190 NRG TENDL-2017, AKONING  
deuterons from ( $n, x$ )



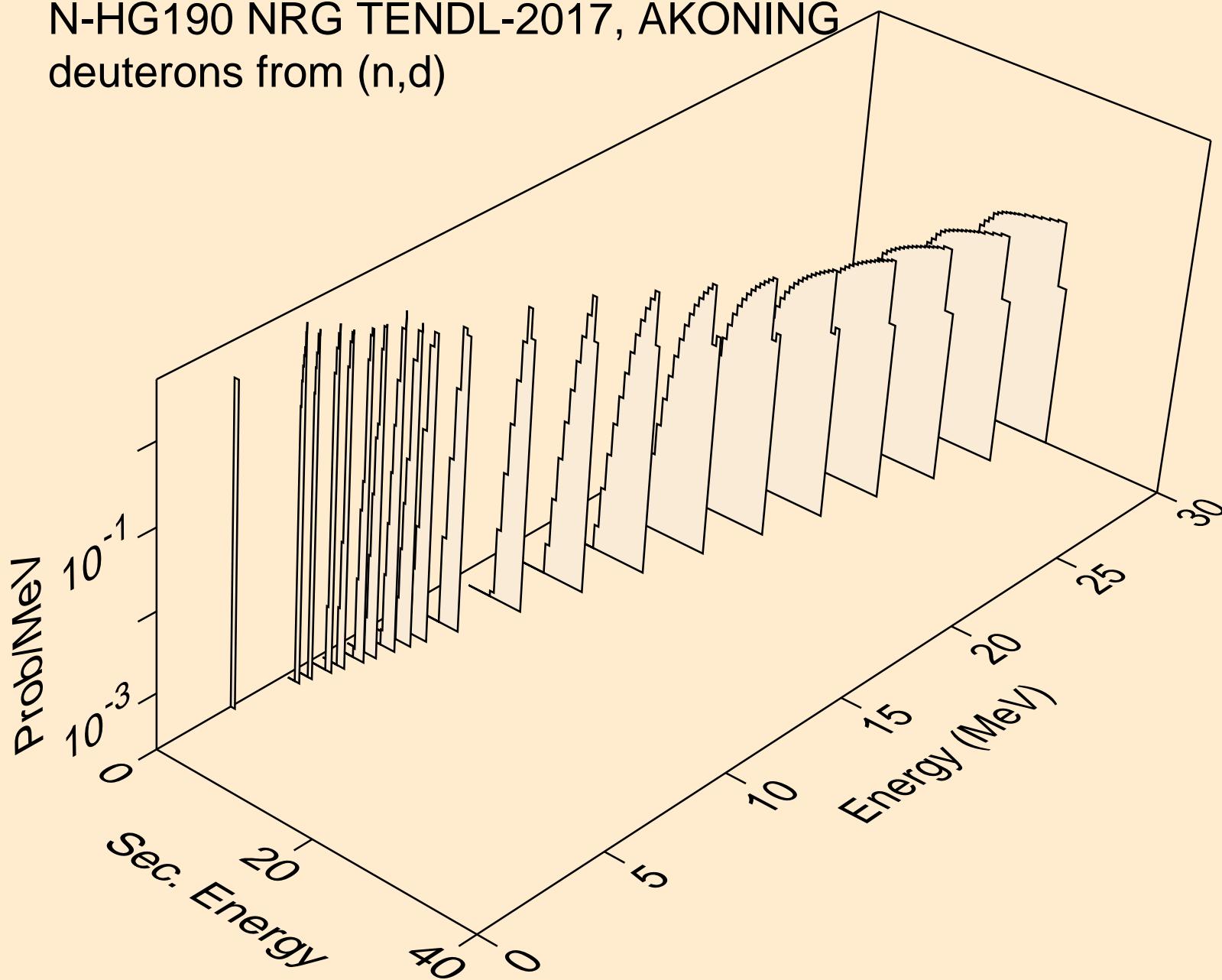
N-HG190 NRG TENDL-2017, AKONING  
deuterons from ( $n,2nd$ )



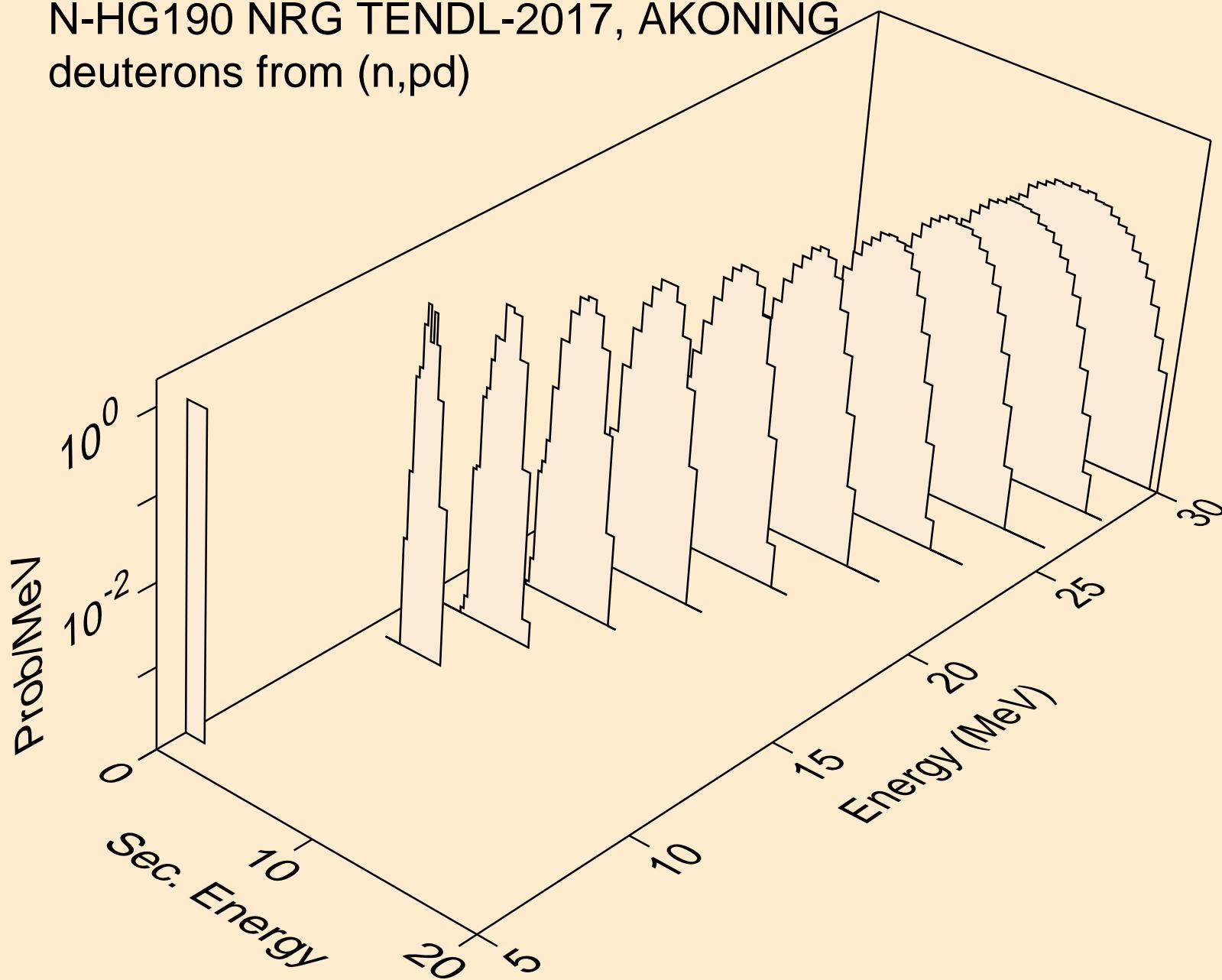
N-HG190 NRG TENDL-2017, AKONING  
deuterons from  $(n,n^*)d$



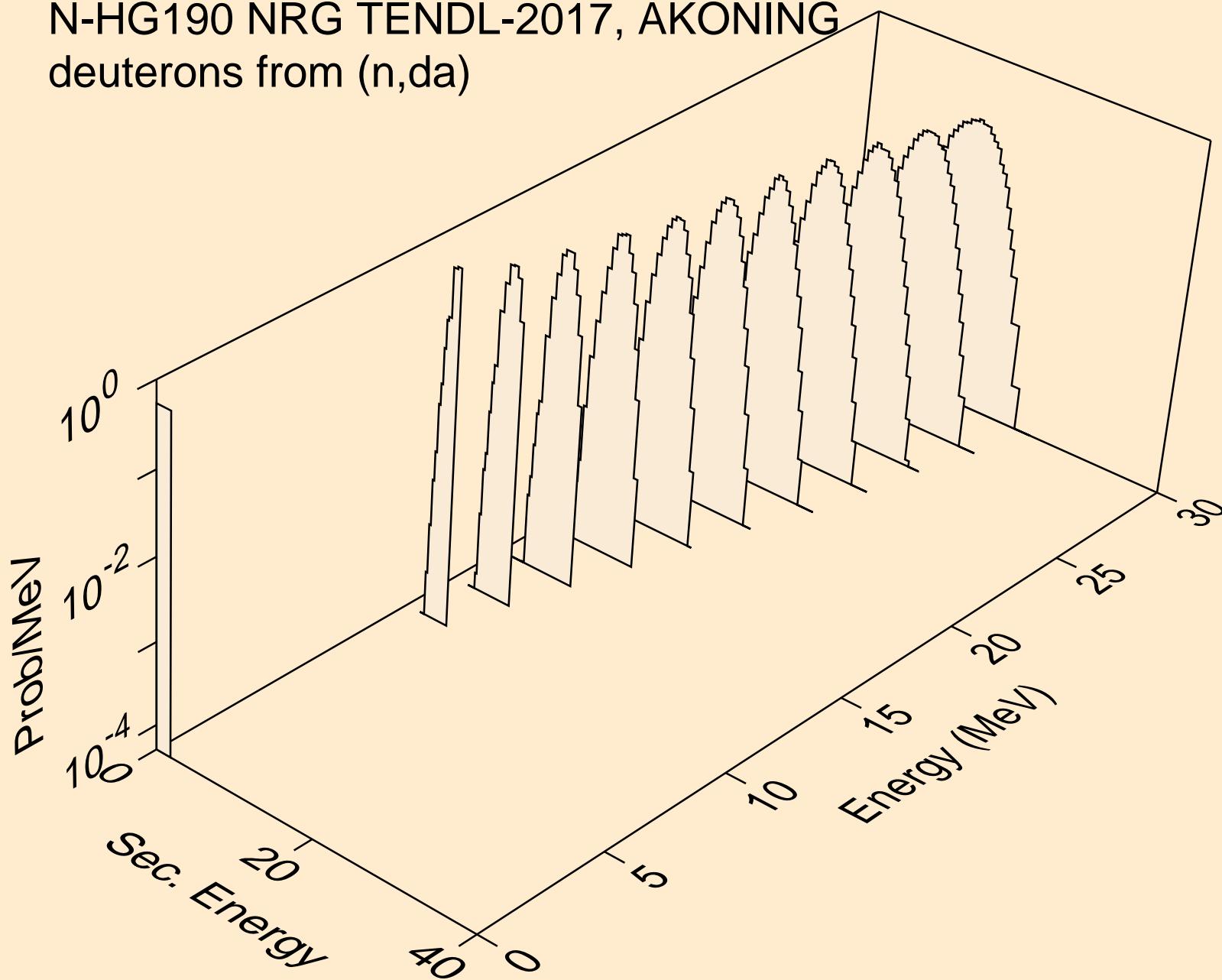
N-HG190 NRG TENDL-2017, AKONING  
deuterons from ( $n, d$ )



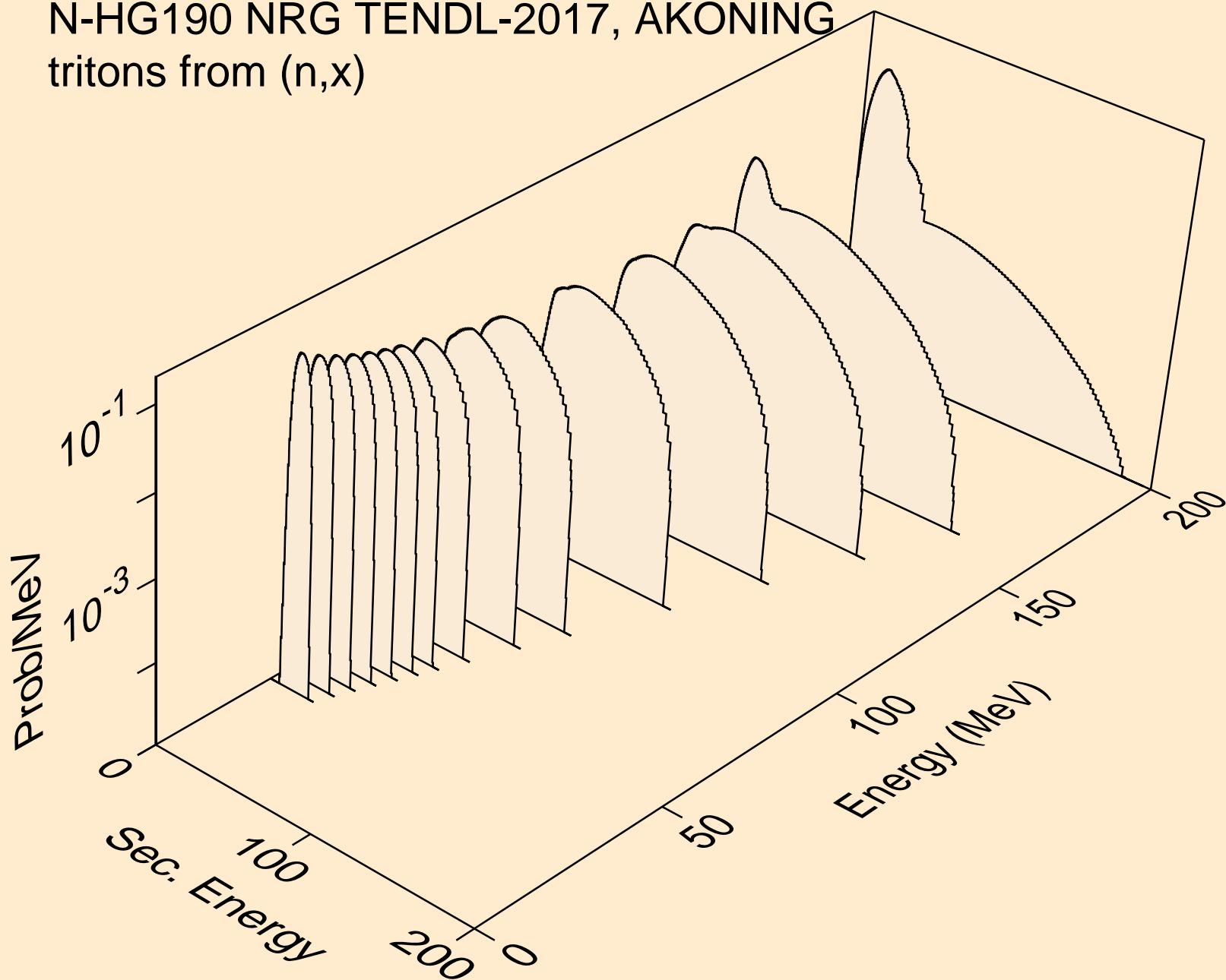
N-HG190 NRG TENDL-2017, AKONING  
deuterons from ( $n, pd$ )



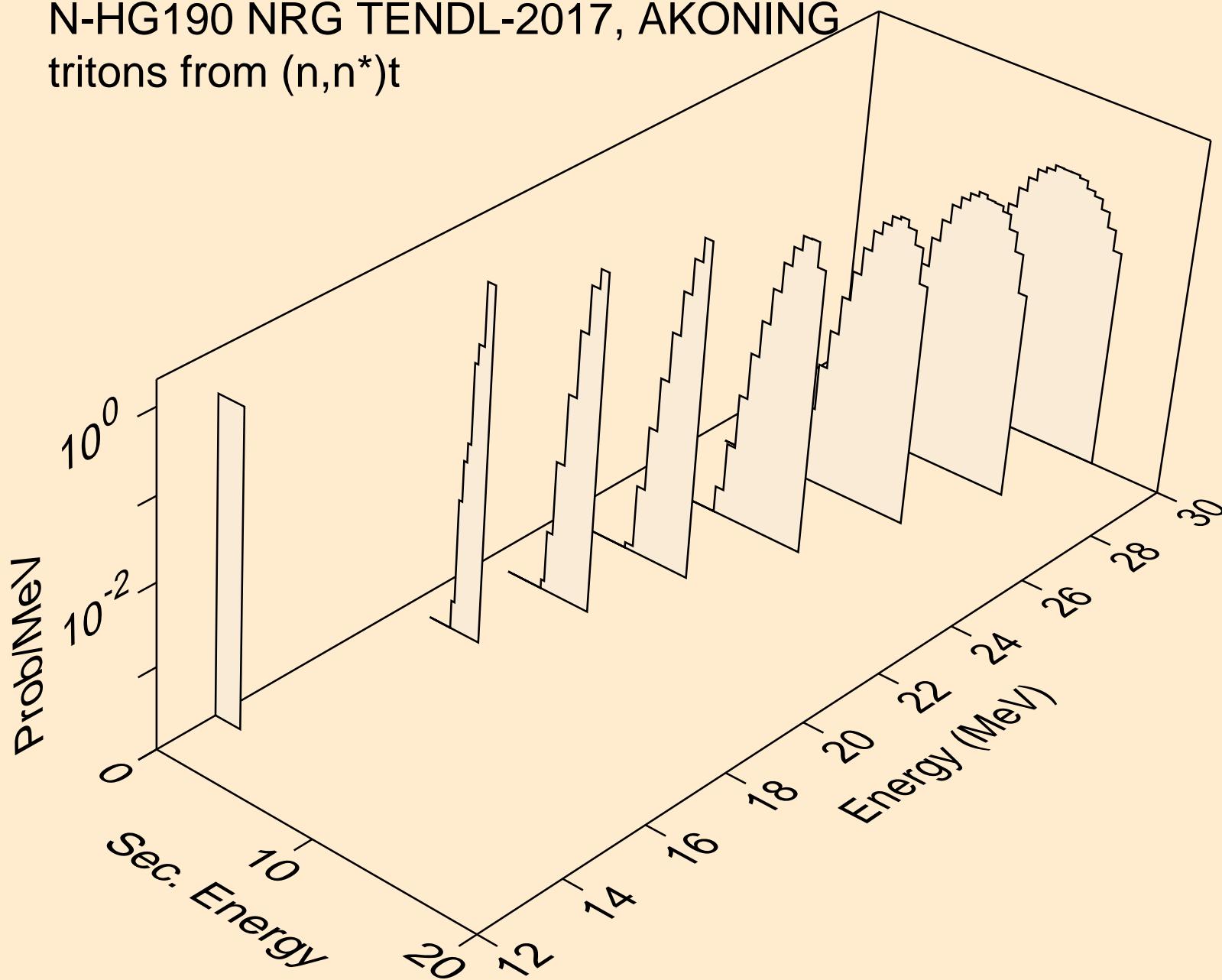
N-HG190 NRG TENDL-2017, AKONING  
deuterons from (n,da)



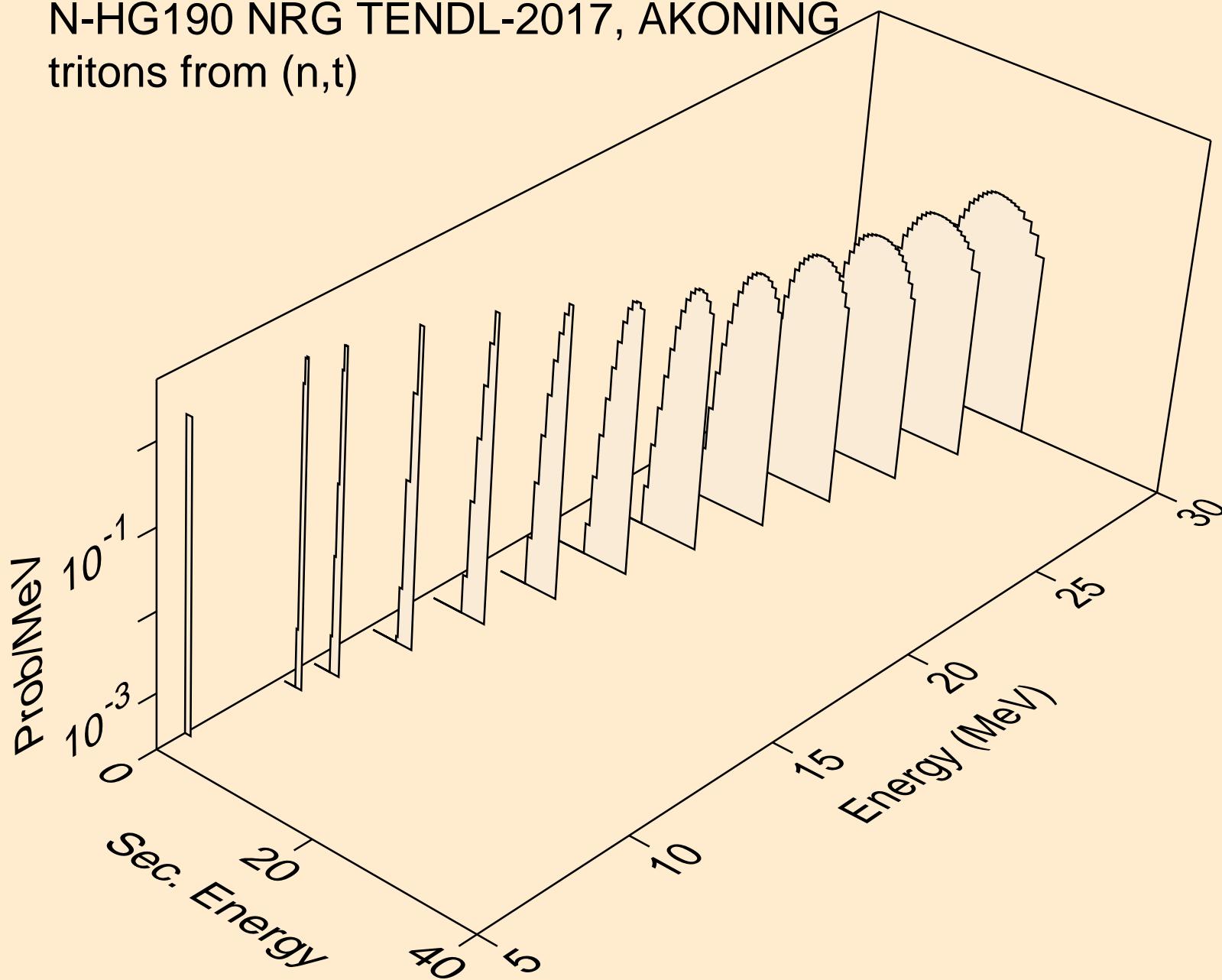
N-HG190 NRG TENDL-2017, AKONING  
tritons from ( $n,x$ )



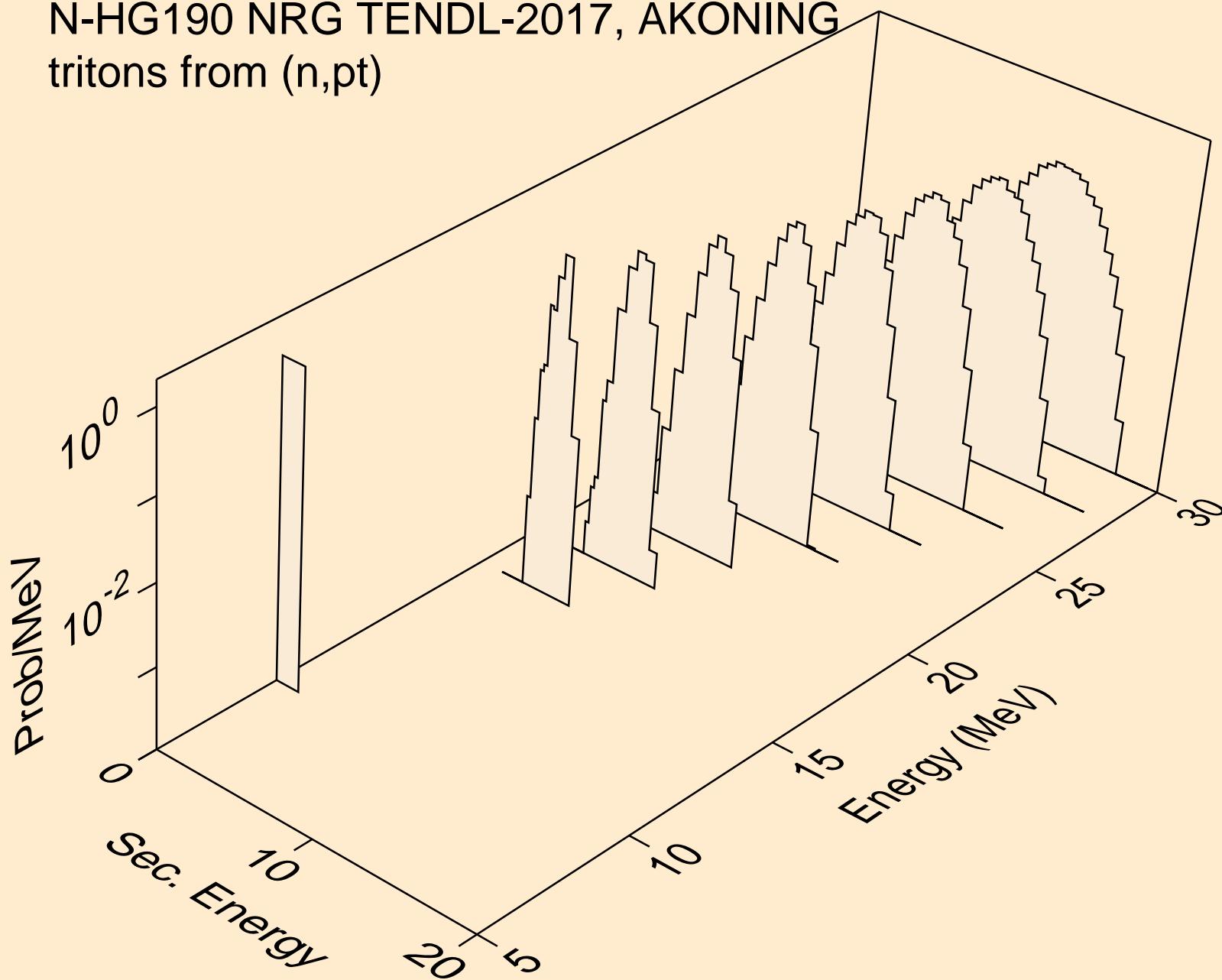
N-HG190 NRG TENDL-2017, AKONING  
tritons from  $(n,n^*)t$



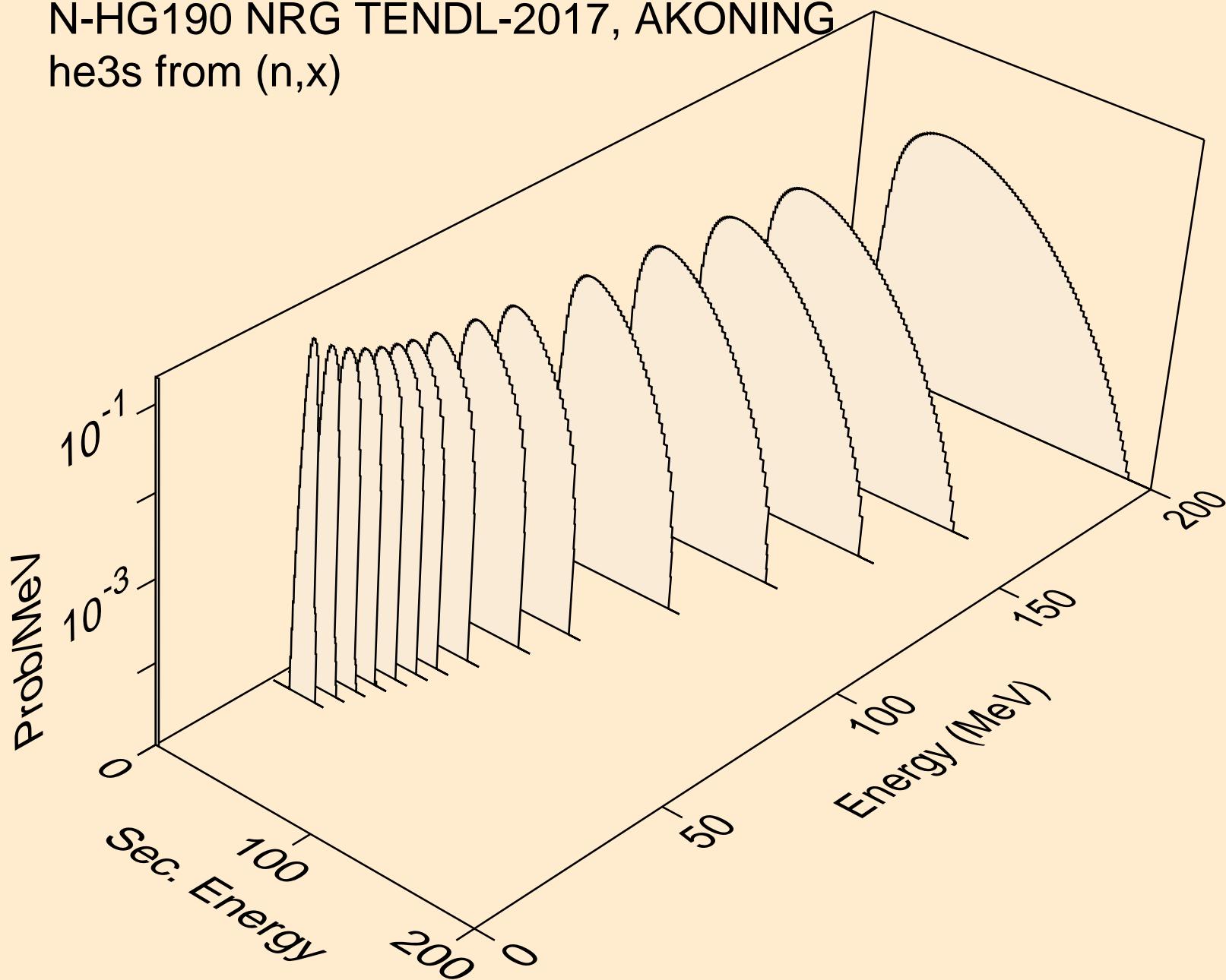
N-HG190 NRG TENDL-2017, AKONING  
tritons from (n,t)



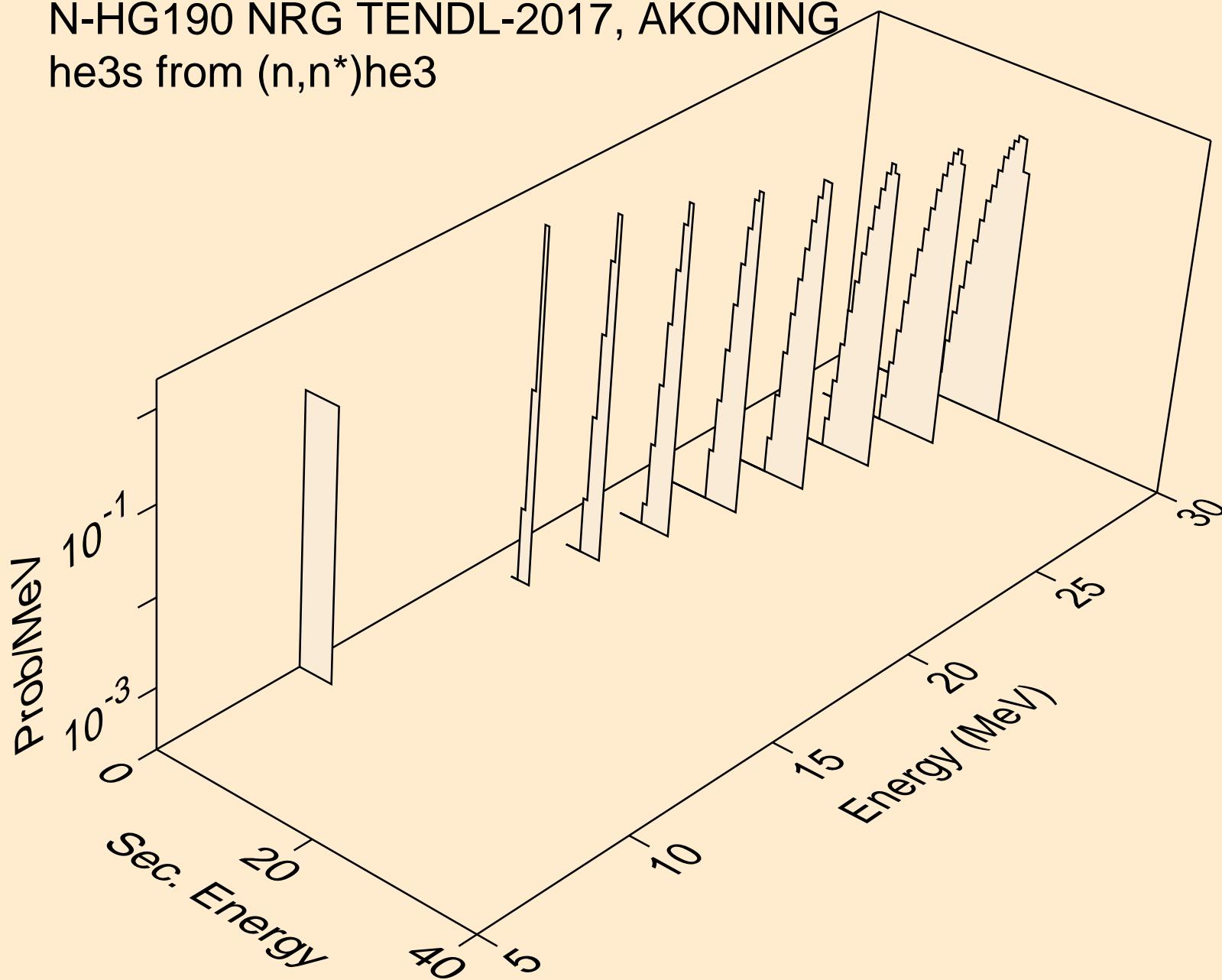
N-HG190 NRG TENDL-2017, AKONING  
tritons from (n,pt)



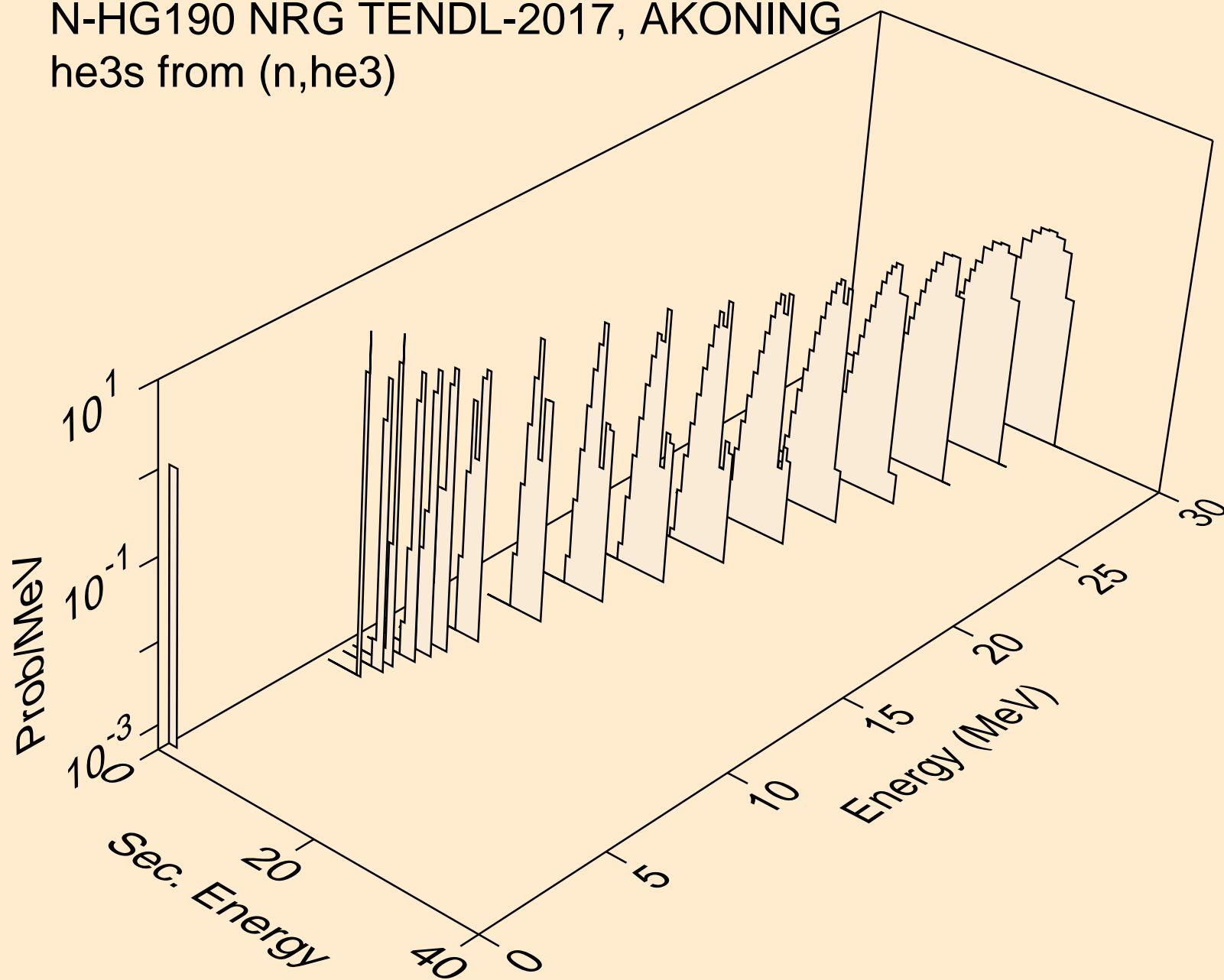
N-HG190 NRG TENDL-2017, AKONING  
he3s from (n,x)



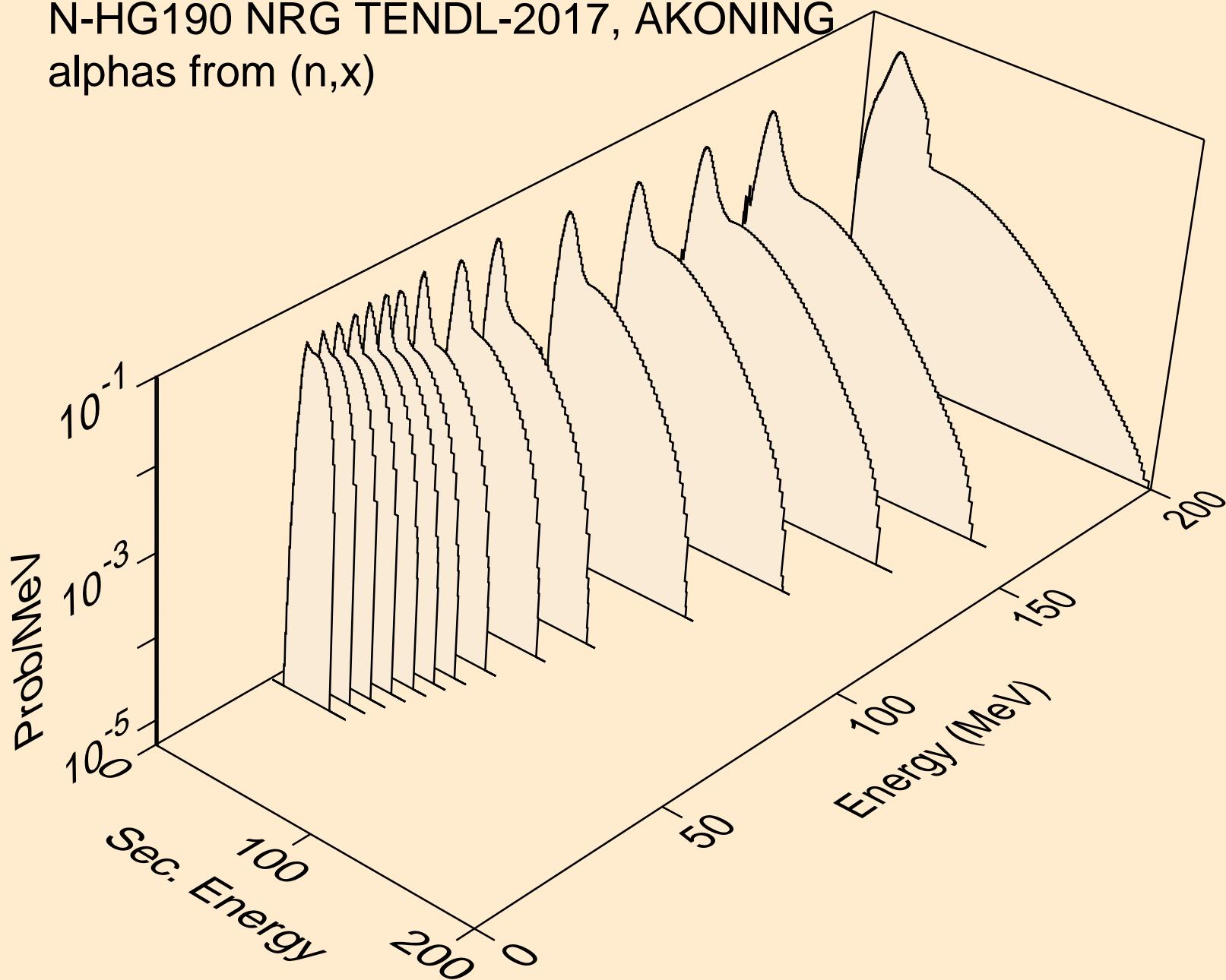
N-HG190 NRG TENDL-2017, AKONING  
he3s from  $(n,n^*)\text{he3}$



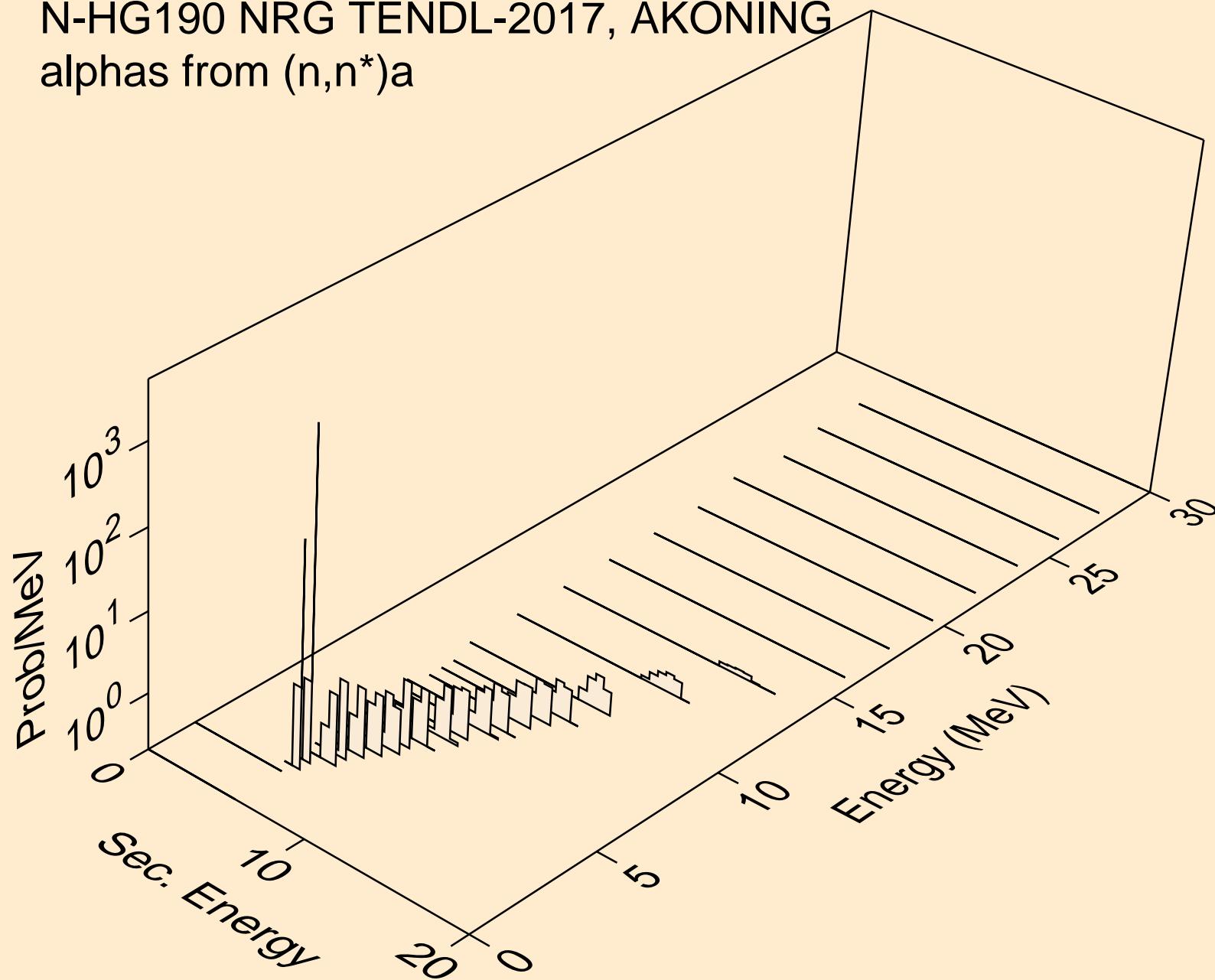
N-HG190 NRG TENDL-2017, AKONING  
he3s from (n,he3)



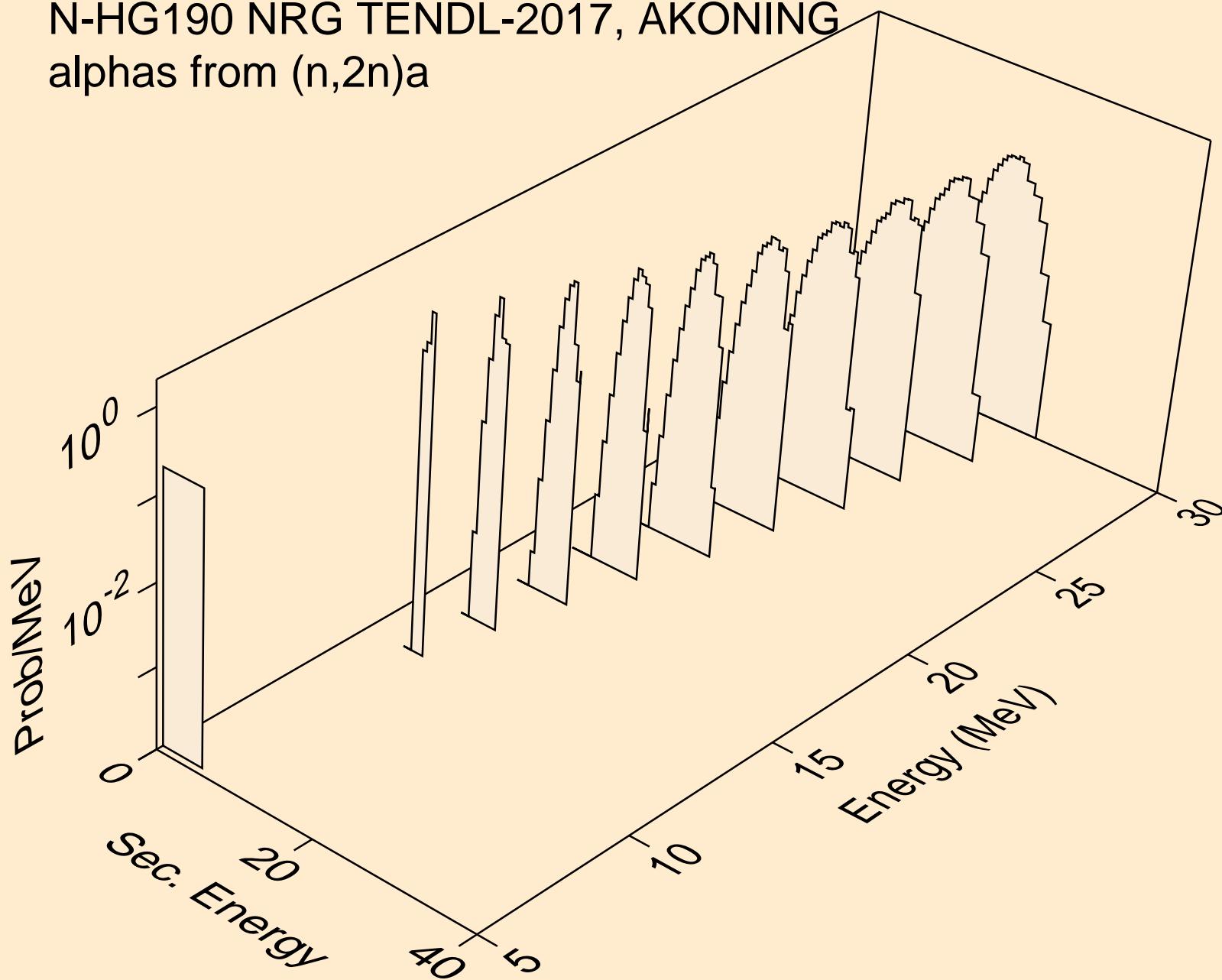
N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,x)



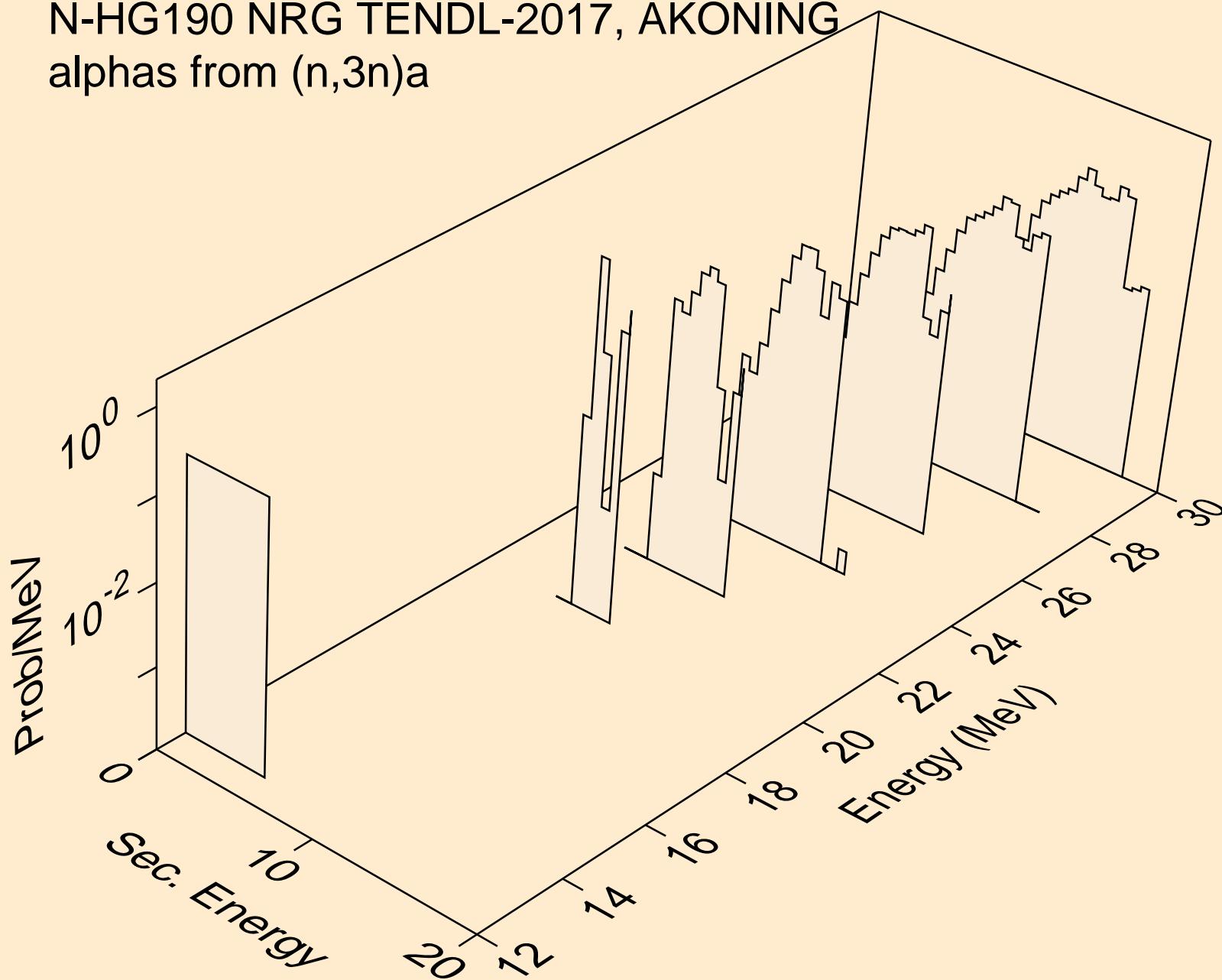
N-HG190 NRG TENDL-2017, AKONING  
alphas from  $(n,n^*)a$



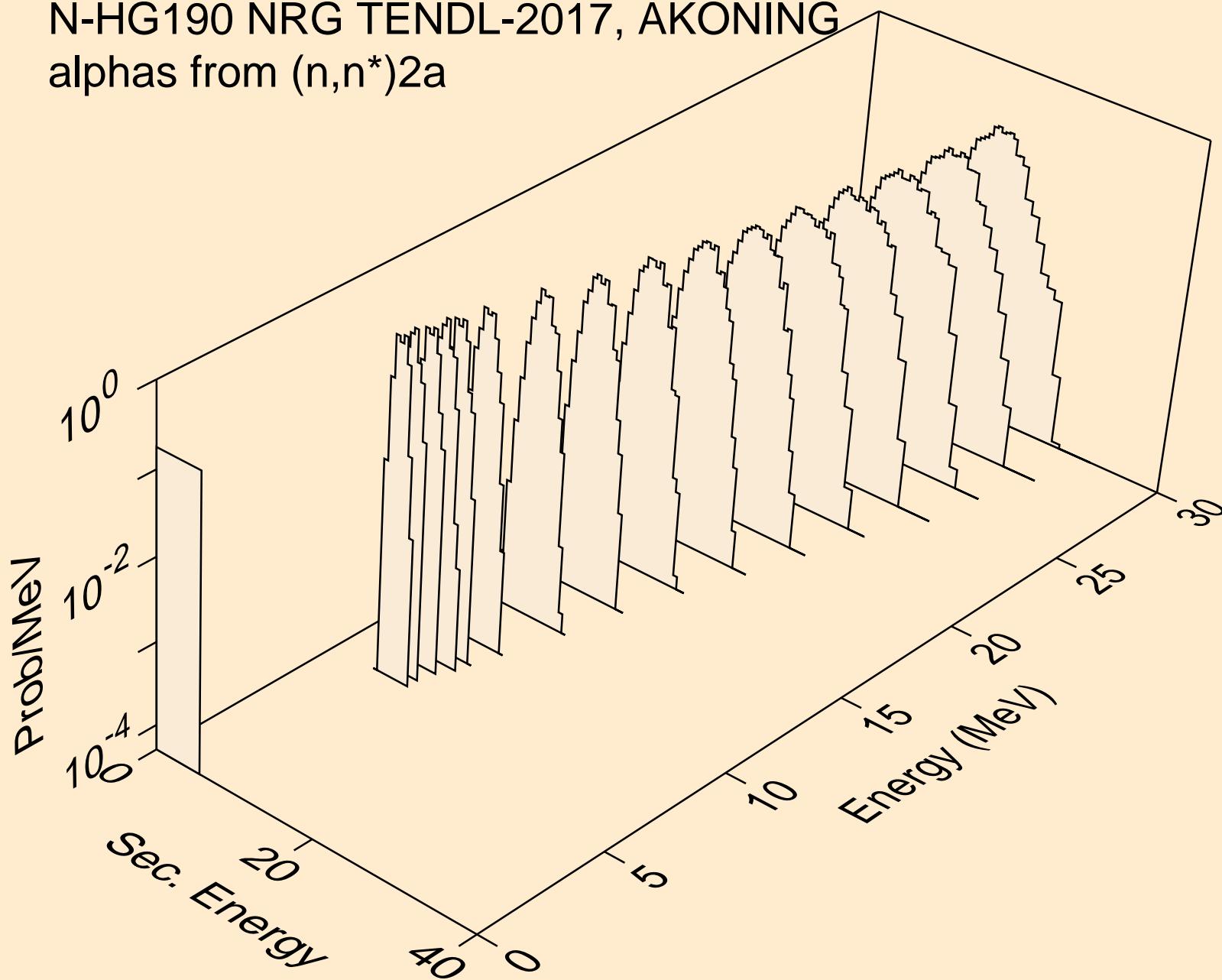
N-HG190 NRG TENDL-2017, AKONING  
alphas from  $(n,2n)a$



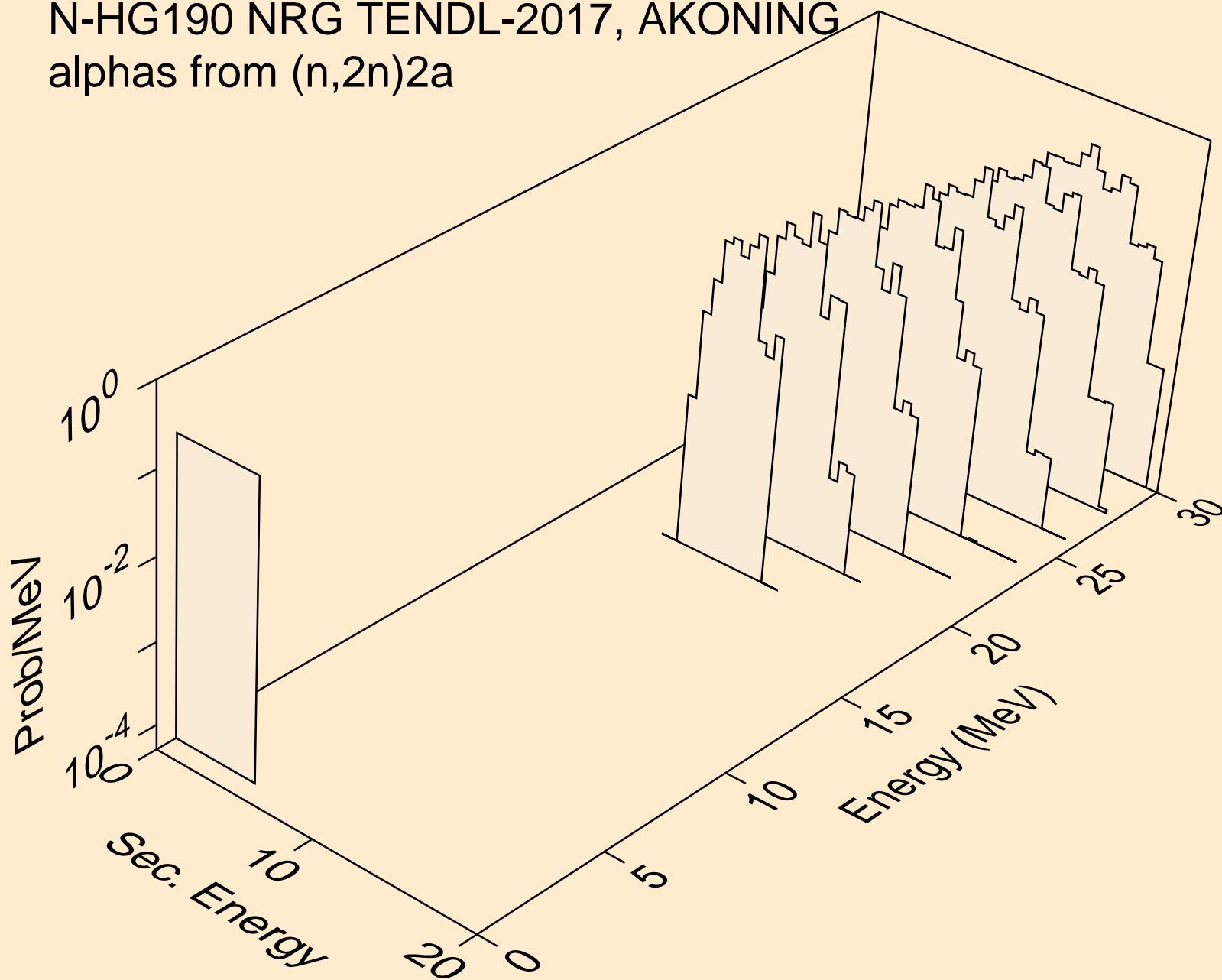
N-HG190 NRG TENDL-2017, AKONING  
alphas from  $(n,3n)a$



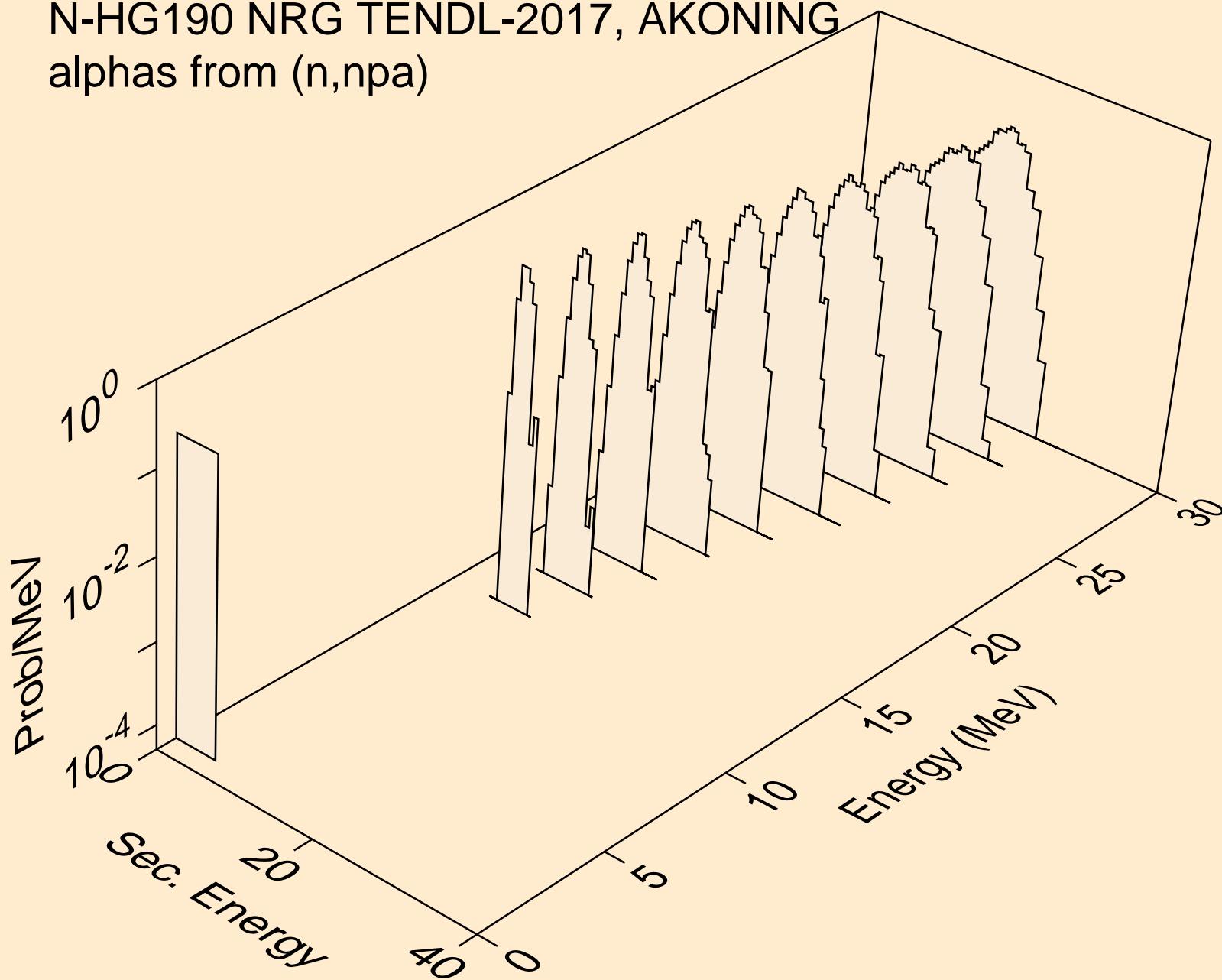
N-HG190 NRG TENDL-2017, AKONING  
alphas from  $(n,n^*)2a$



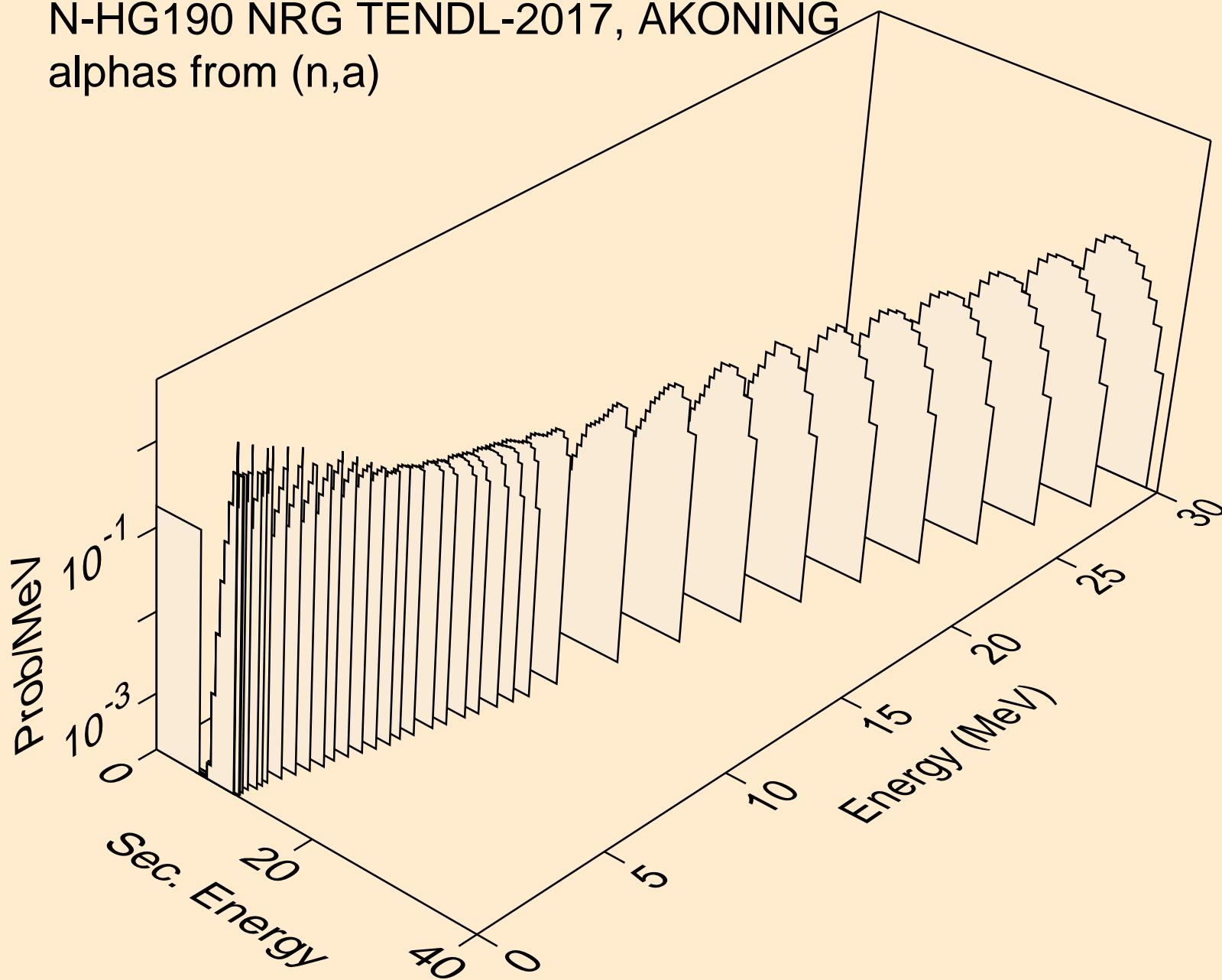
N-HG190 NRG TENDL-2017, AKONING  
alphas from  $(n,2n)2a$



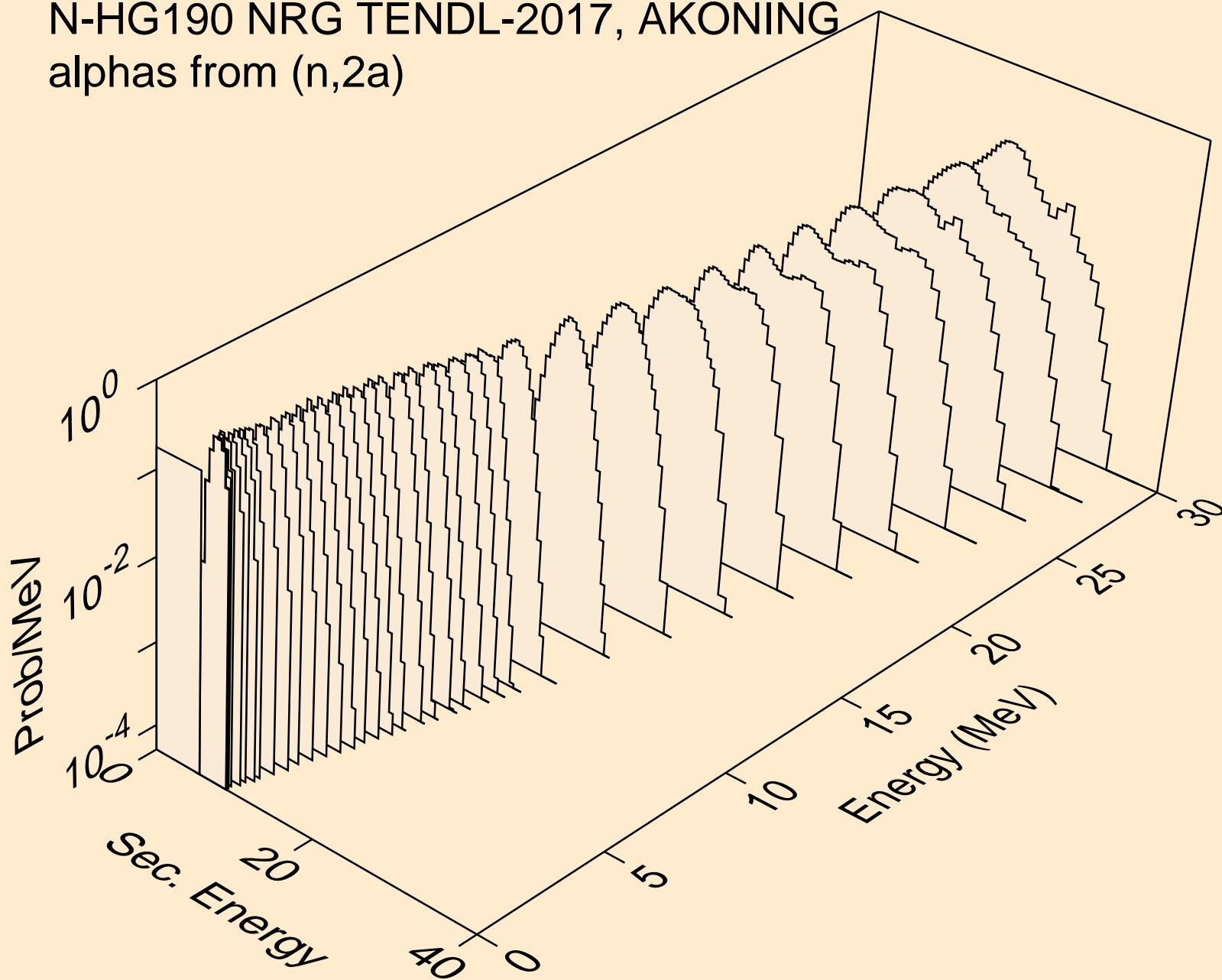
N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,npa)



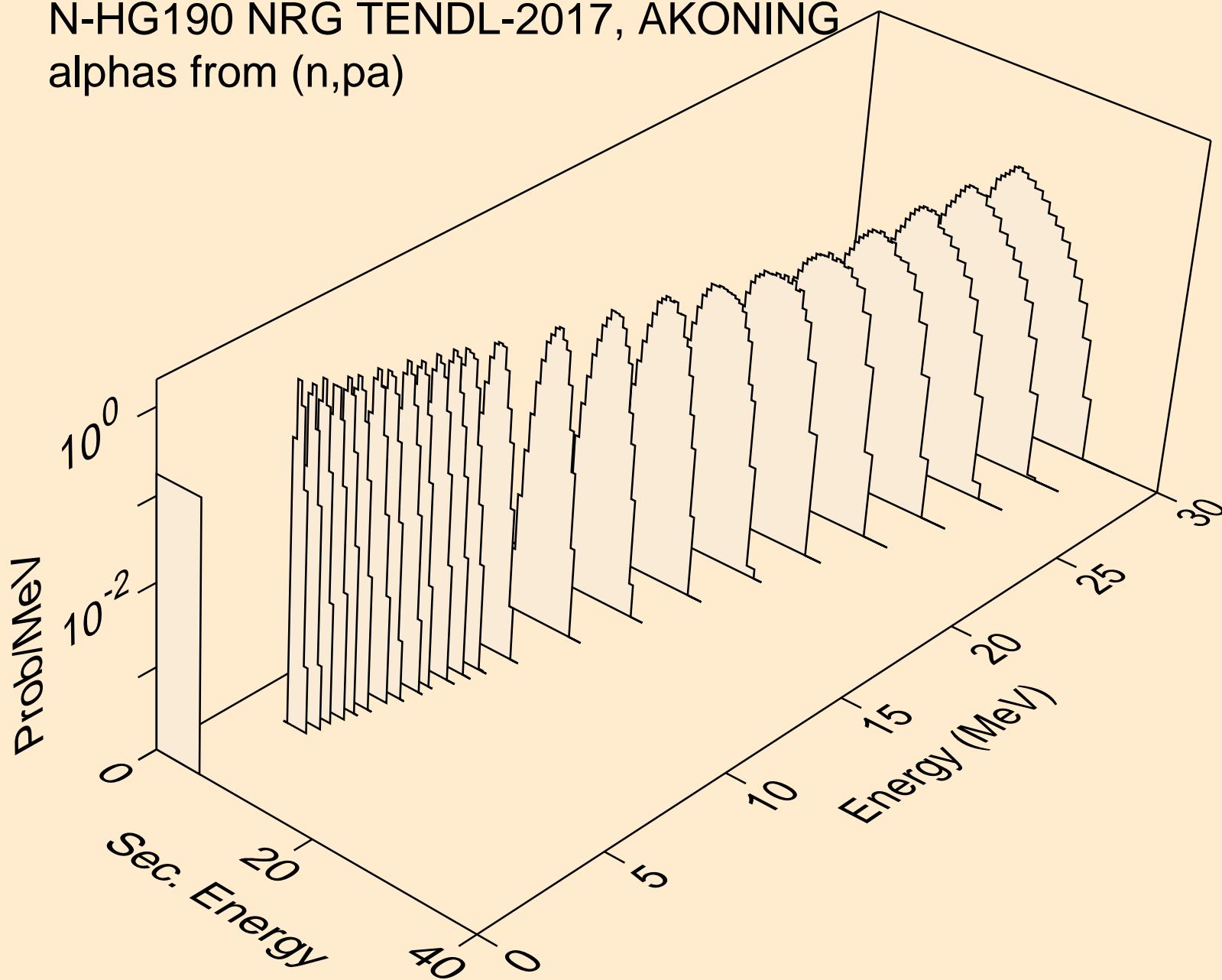
N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,a)



N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,2a)



N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,pa)



N-HG190 NRG TENDL-2017, AKONING  
alphas from (n,da)

