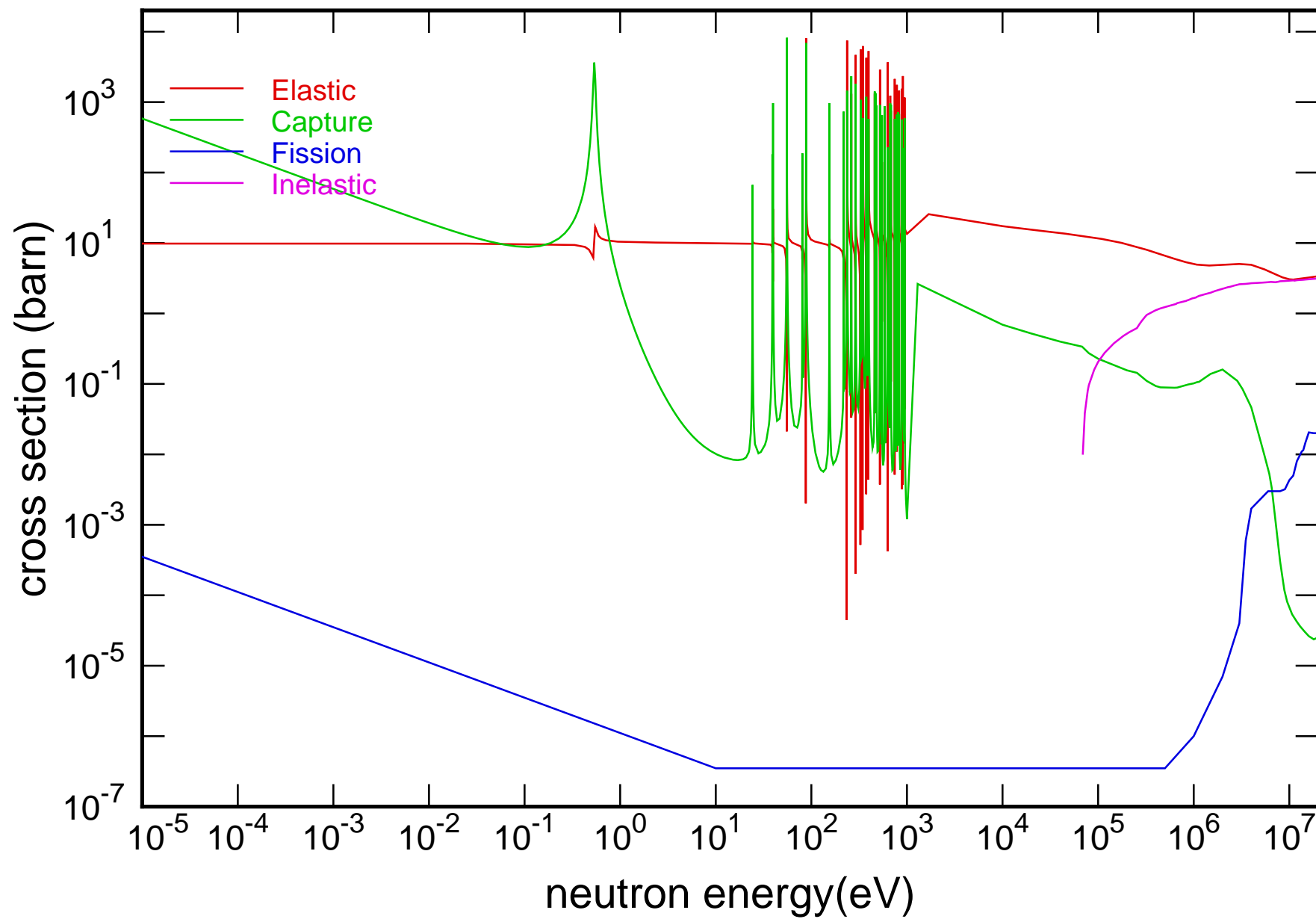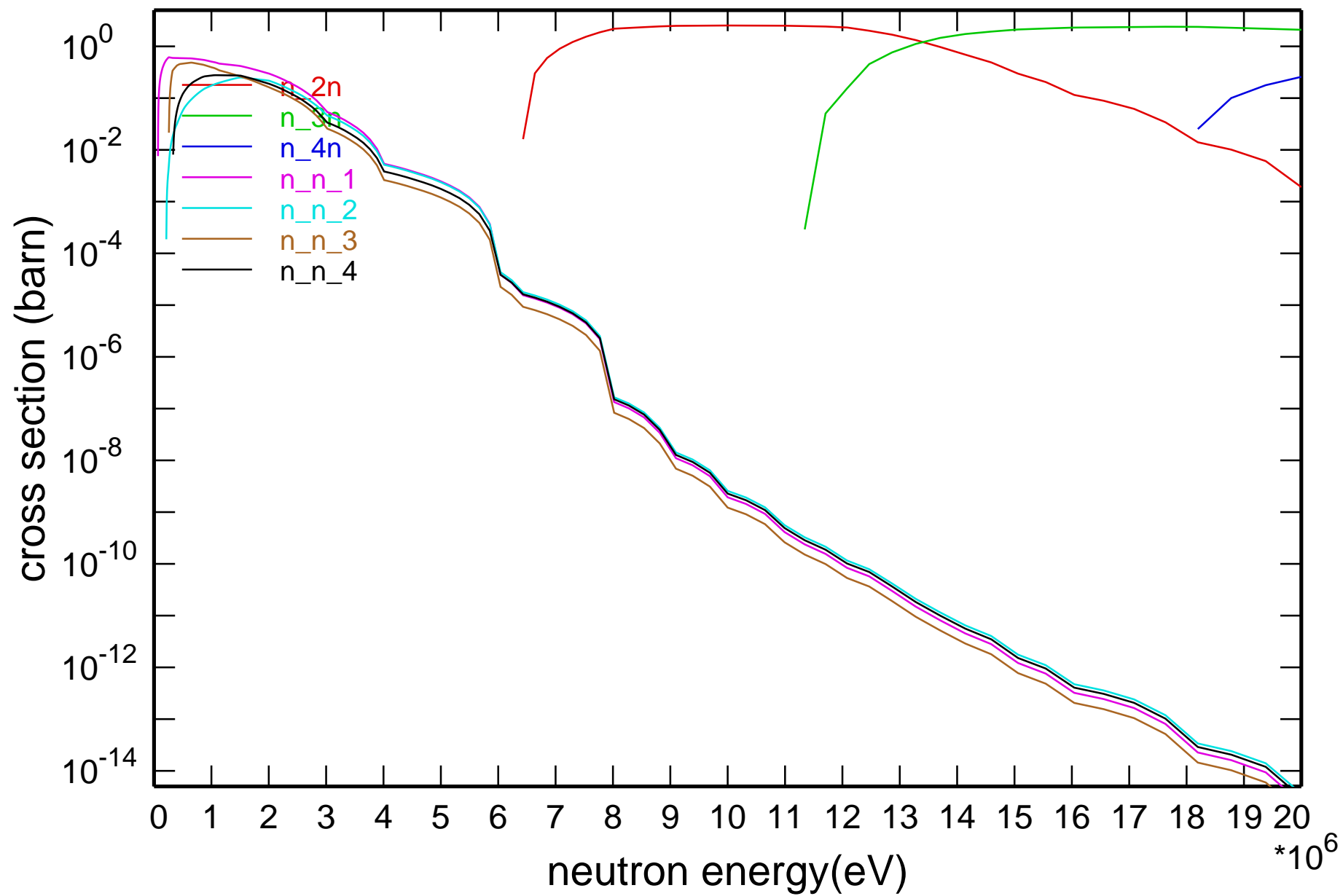Main Cross Sections

Cross Section

Cross Section

cross section (barn)

neutron energy(eV)

$*10^6$

n_n_5
n_n_6
n_n_7
n_n_8
n_n_9
n_n_10
n_n_11

Cross Section

cross section (barn)

neutron energy(eV)

n_n_12
n_n_13
n_n_14
n_n_15
n_n_16
n_n_cont
n_n_tot
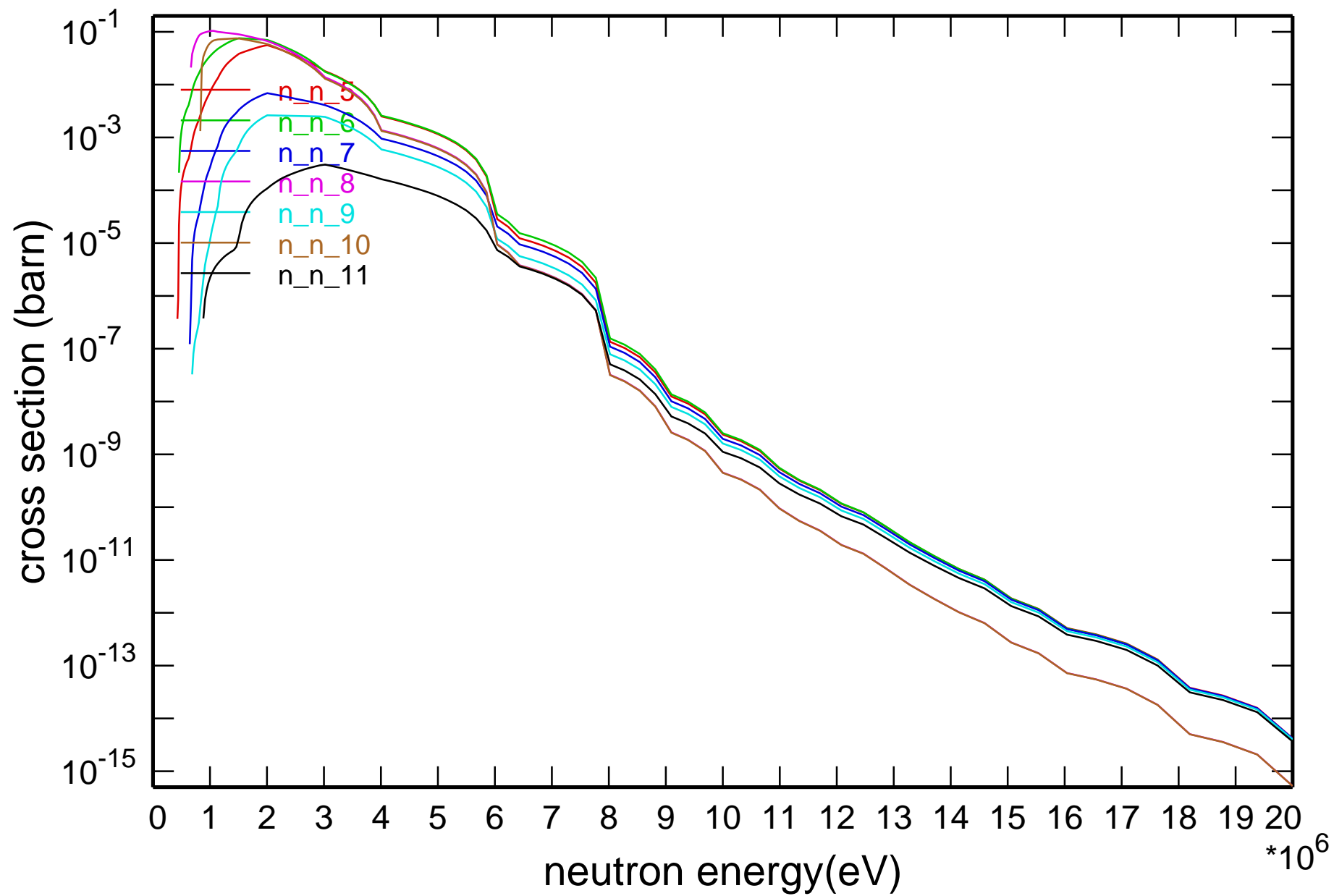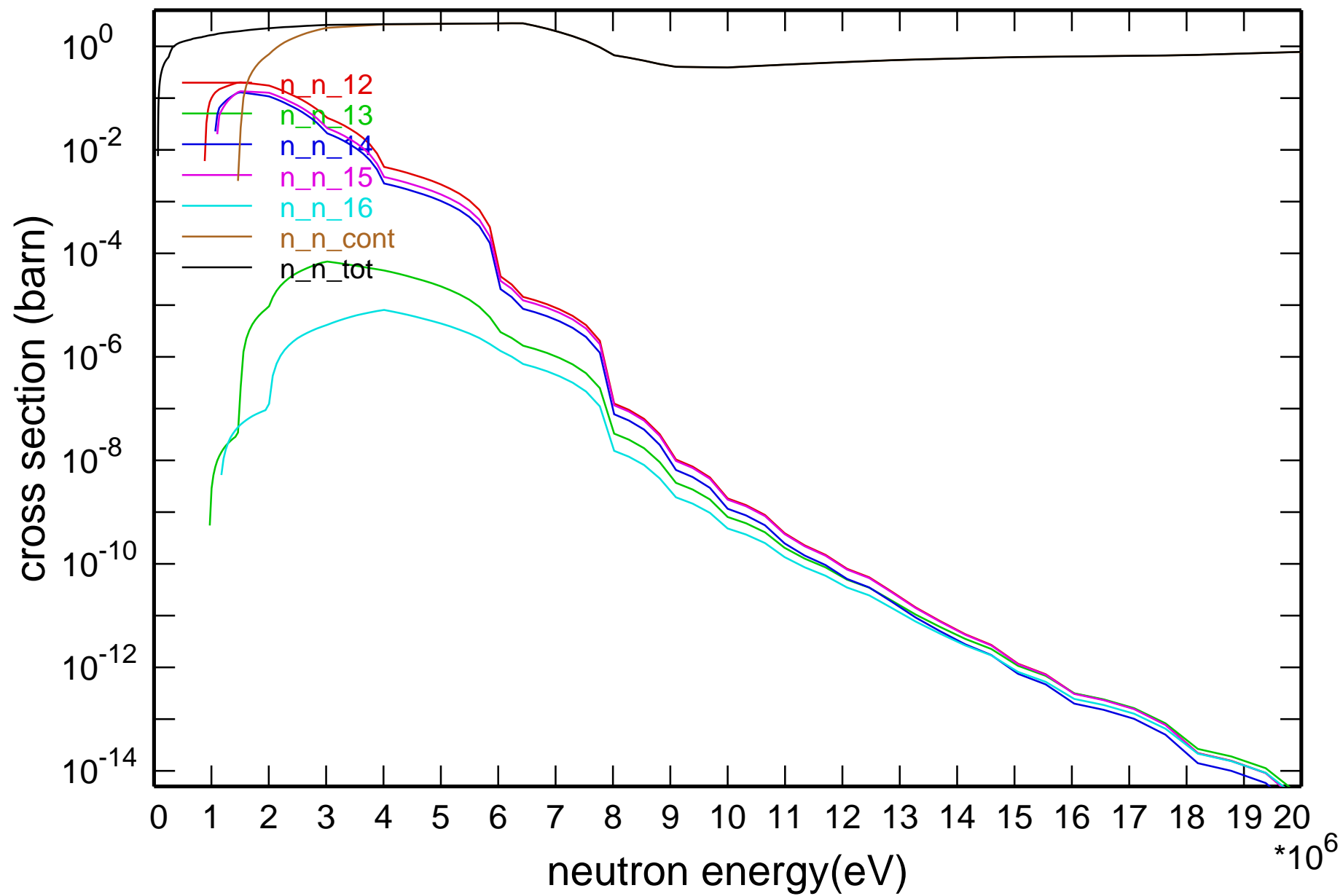
neutron multiplicity for fission

total
prompt
delayed

multiplicity

10^0

10^{-1}

10^{-5} 10^{-4} 10^{-3} 10^{-2} 10^{-1} 10^0 10^1 10^2 10^3 10^4 10^5 10^6 10^7

neutron energy(eV)
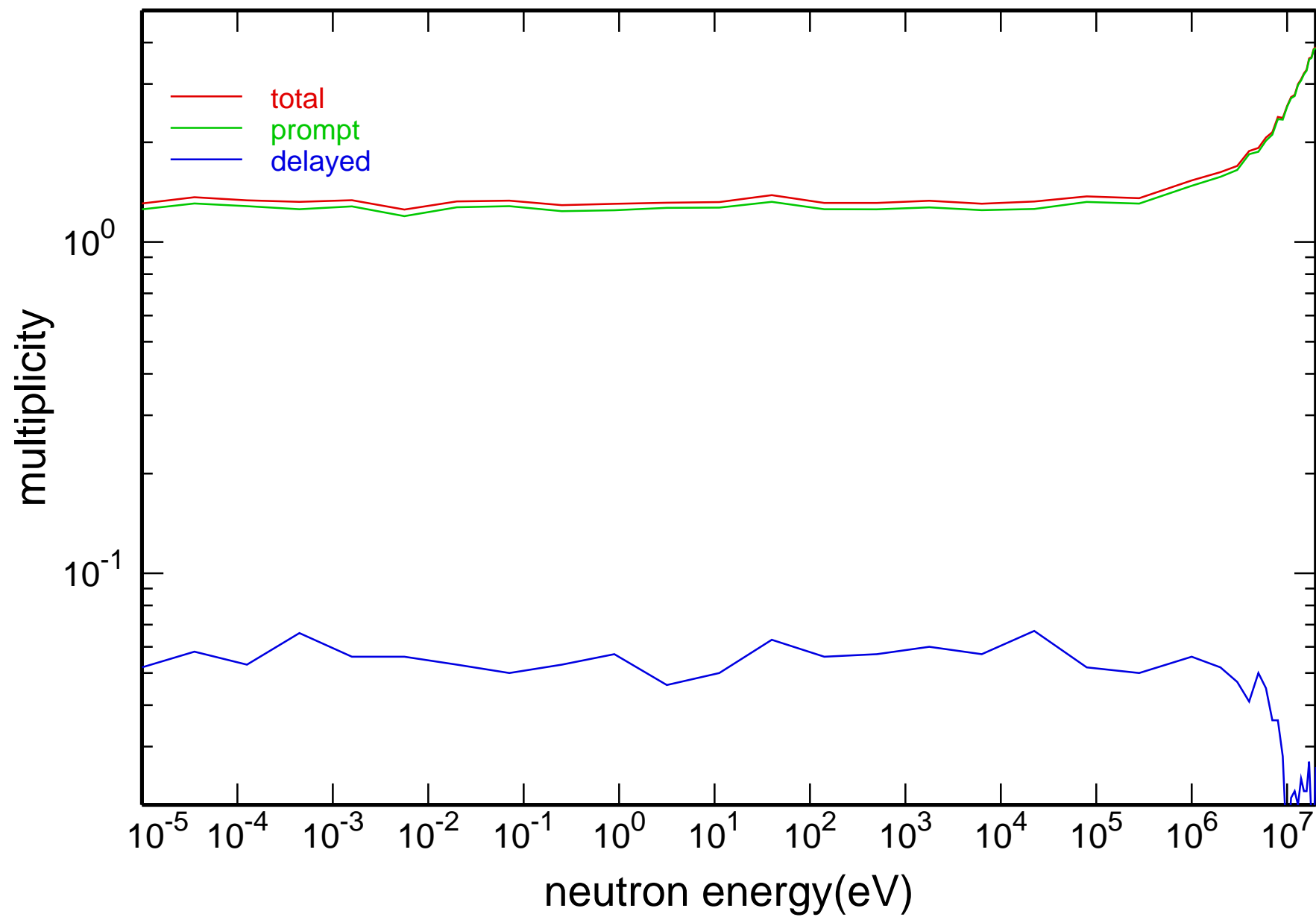
Angular distribution (CMS)
Elastic

probability

neutron energy (eV)

cos(theta)

Angular distribution (LABS)
n_2n

probability

neutron energy (eV)

cos(theta)
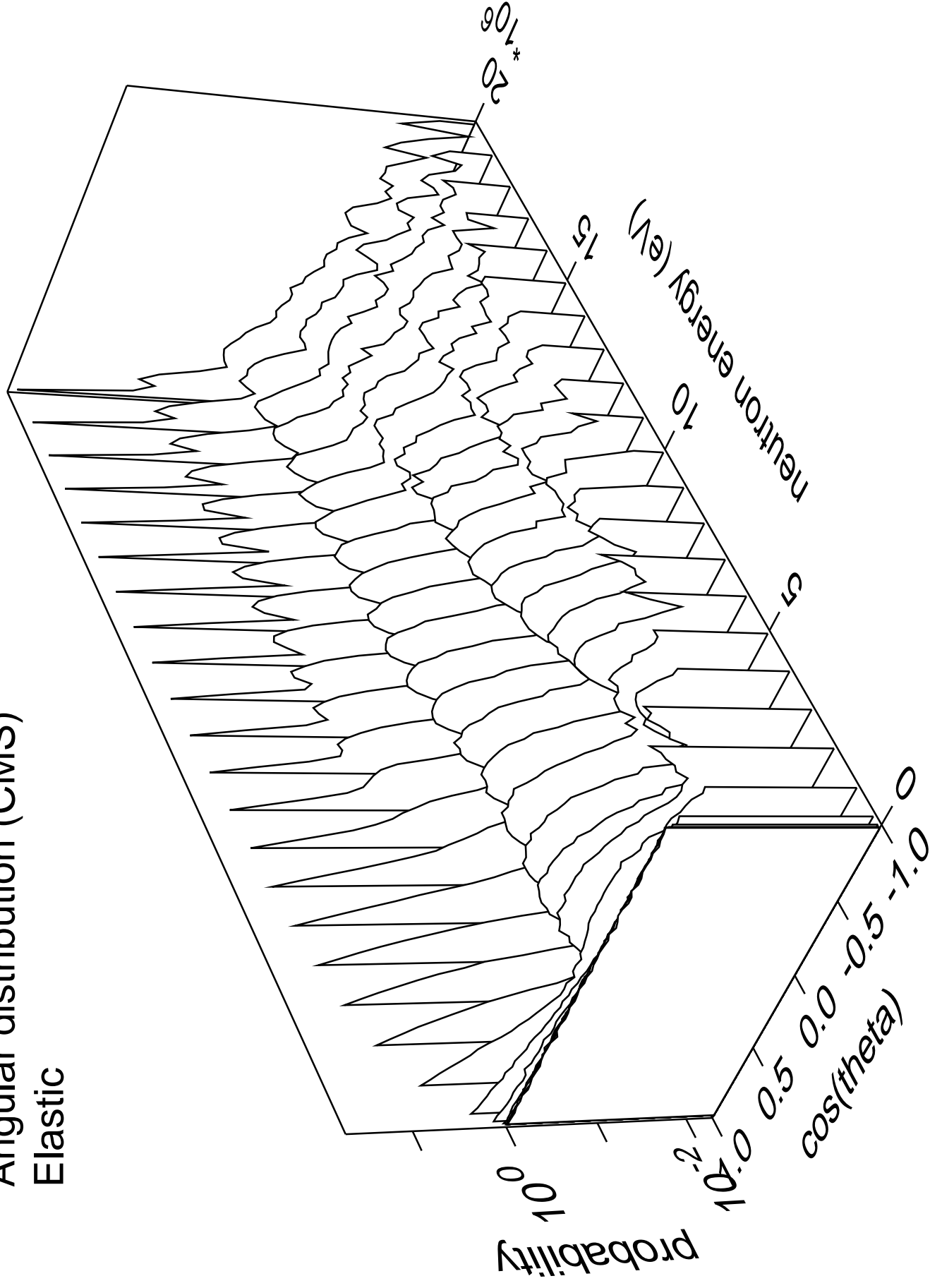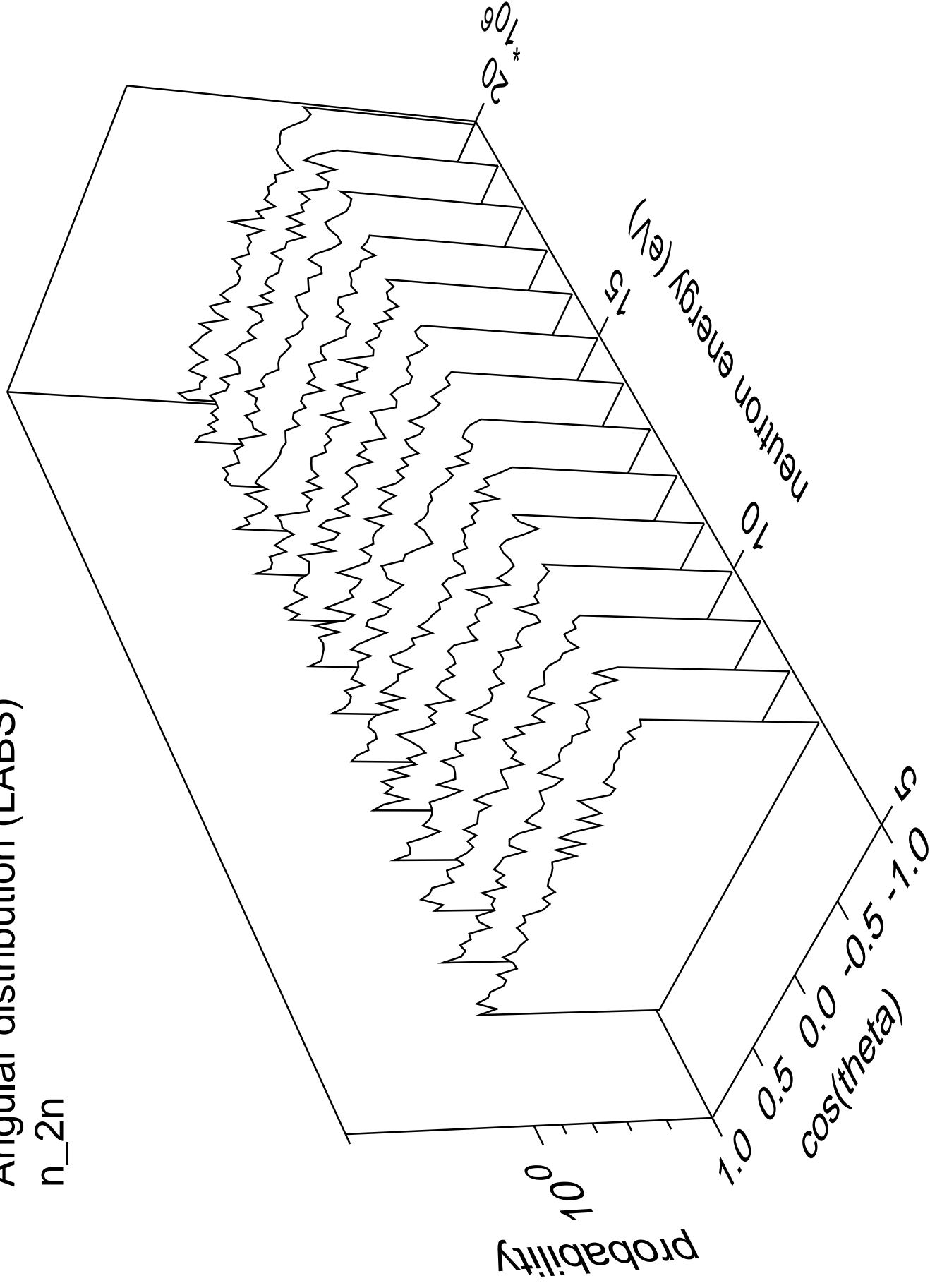
Angular distribution (LABS)
n_3n

Angular distribution (LABS)
n_4n
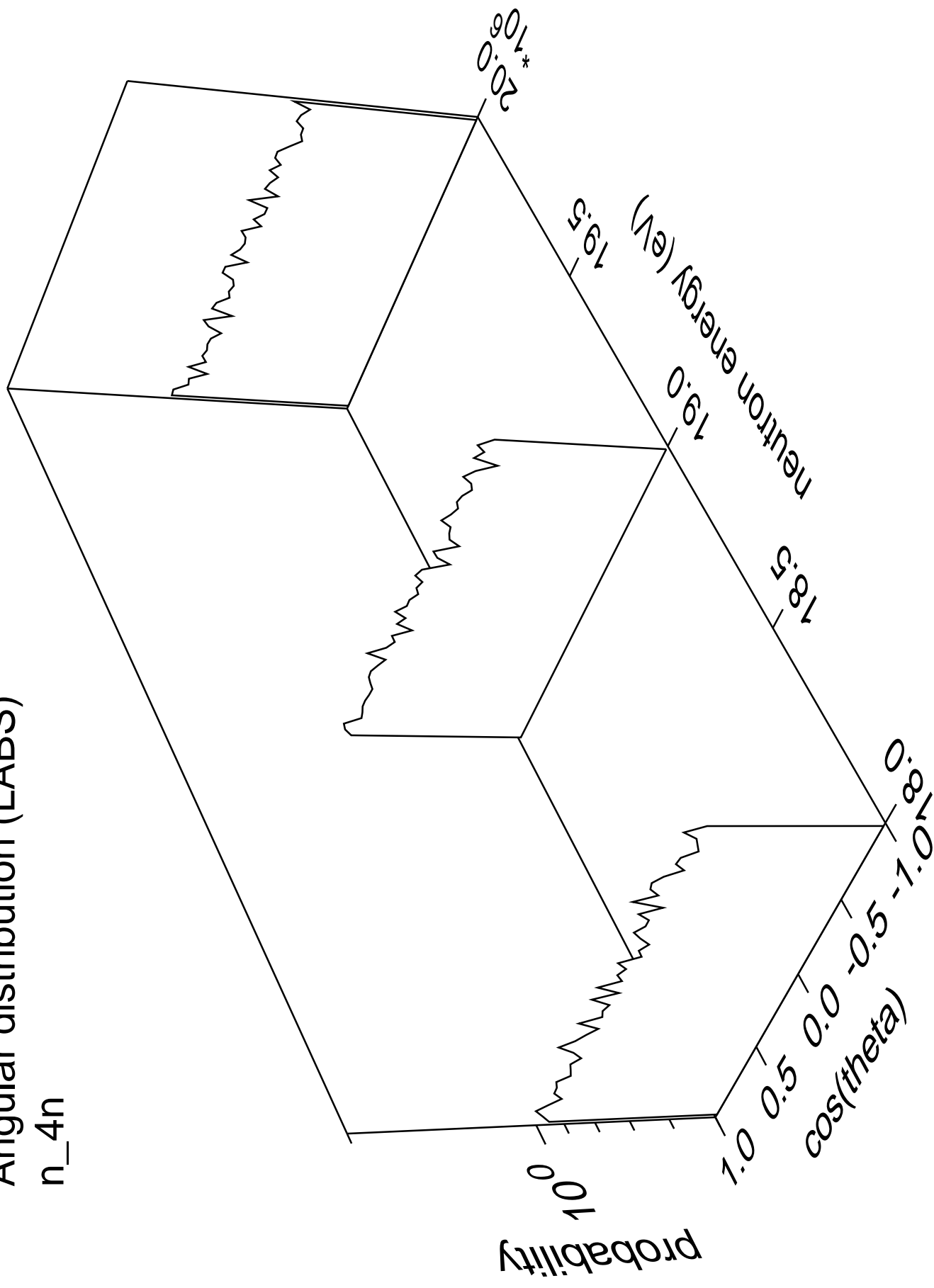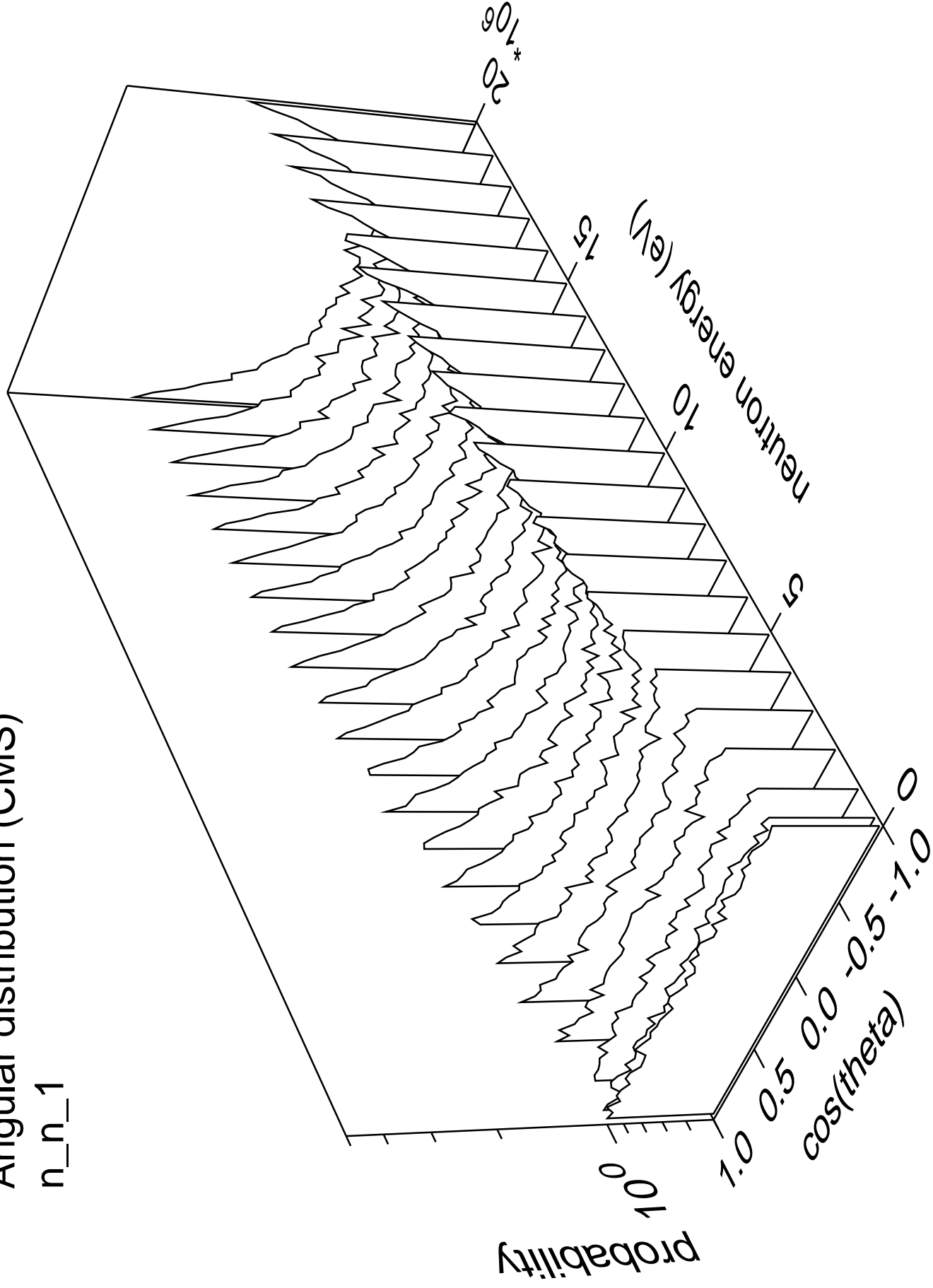
probability

cos(theta)

neutron energy (eV)

20.0 *10^6

19.5

19.0

18.5

18.0

1.0 0.5 0.0 -0.5 -1.0

Angular distribution (CMS)
n_n_1

cos(theta)

neutron energy (eV)

probability

Angular distribution (CMS)
n_n_2

cos(theta)

neutron energy (eV)

probability

Angular distribution (CMS)
n_n_3

neutron energy (eV)

cos(theta)

probability

Angular distribution (CMS)
n_n_4

cos(theta)

neutron energy (eV)

probability

Angular distribution (CMS)
n_n_5

probability

neutron energy (eV)

cos(theta)

Angular distribution (CMS)

n_n_6

probability

10⁰

20 *10⁶

15

10

5

0

neutron energy (eV)

1.0 0.5 0.0 -0.5 -1.0

cos(theta)

Angular distribution (CMS)
n_n_7

cos(theta)

neutron energy (eV)

probability

Angular distribution (CMS)
n_n_8

neutron energy (eV)

cos(theta)

probability

20 *10⁶

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

10⁰

Angular distribution (CMS)
n_n_9

cos(theta)

neutron energy (eV)

probability

Angular distribution (CMS)
n_n_10

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (CMS)
n_n_11

neutron energy (eV)

cos(theta)

probability
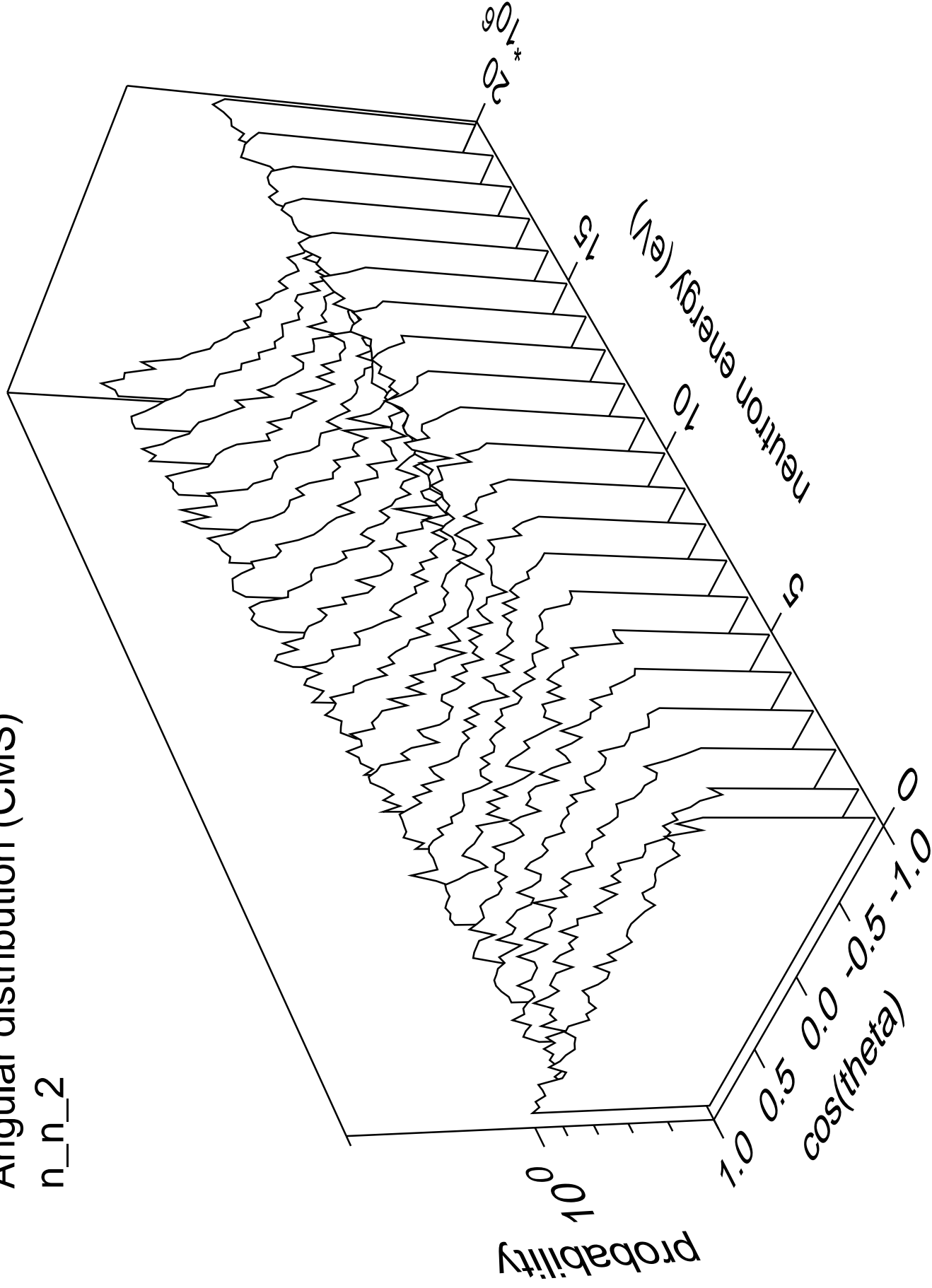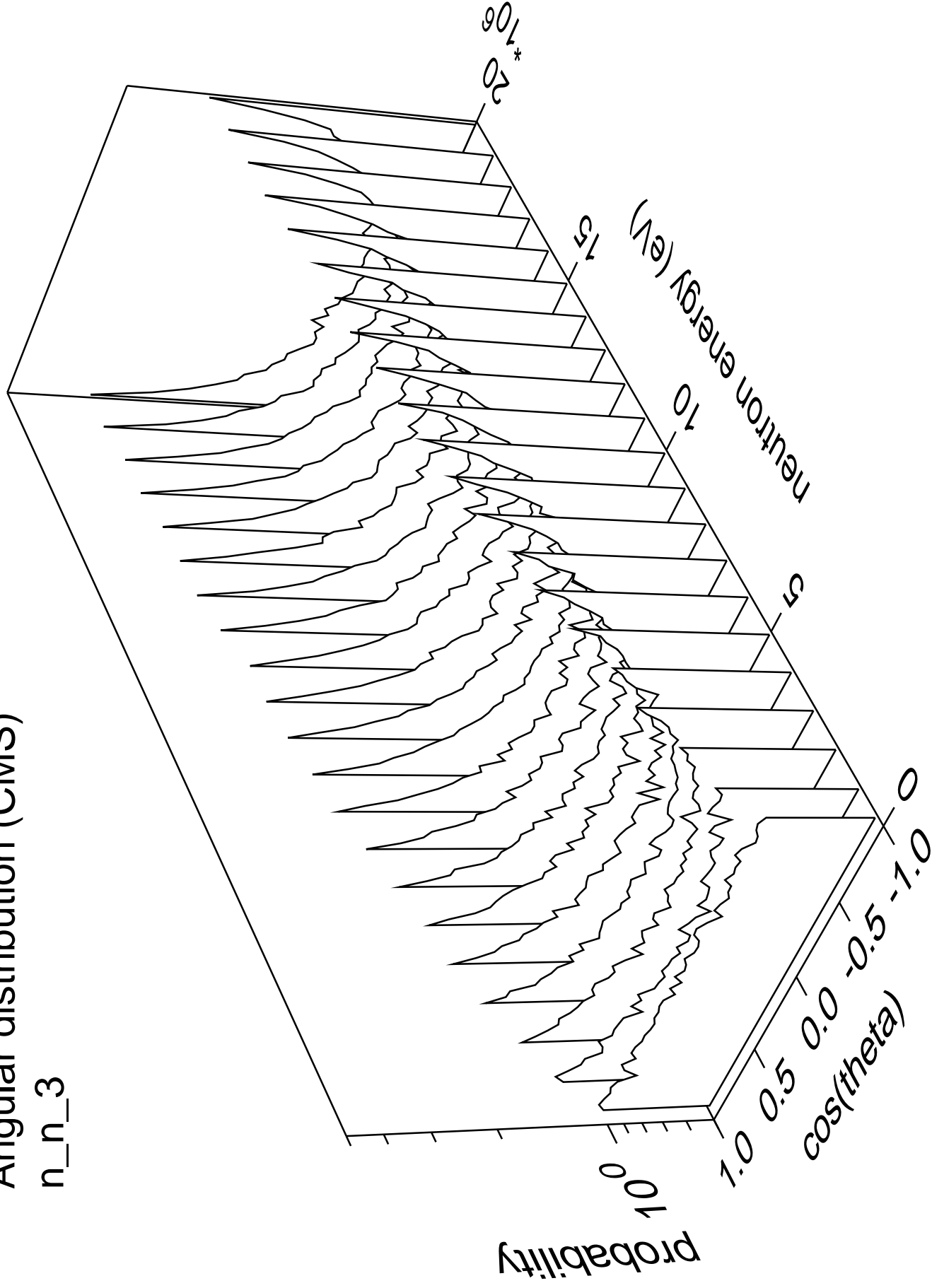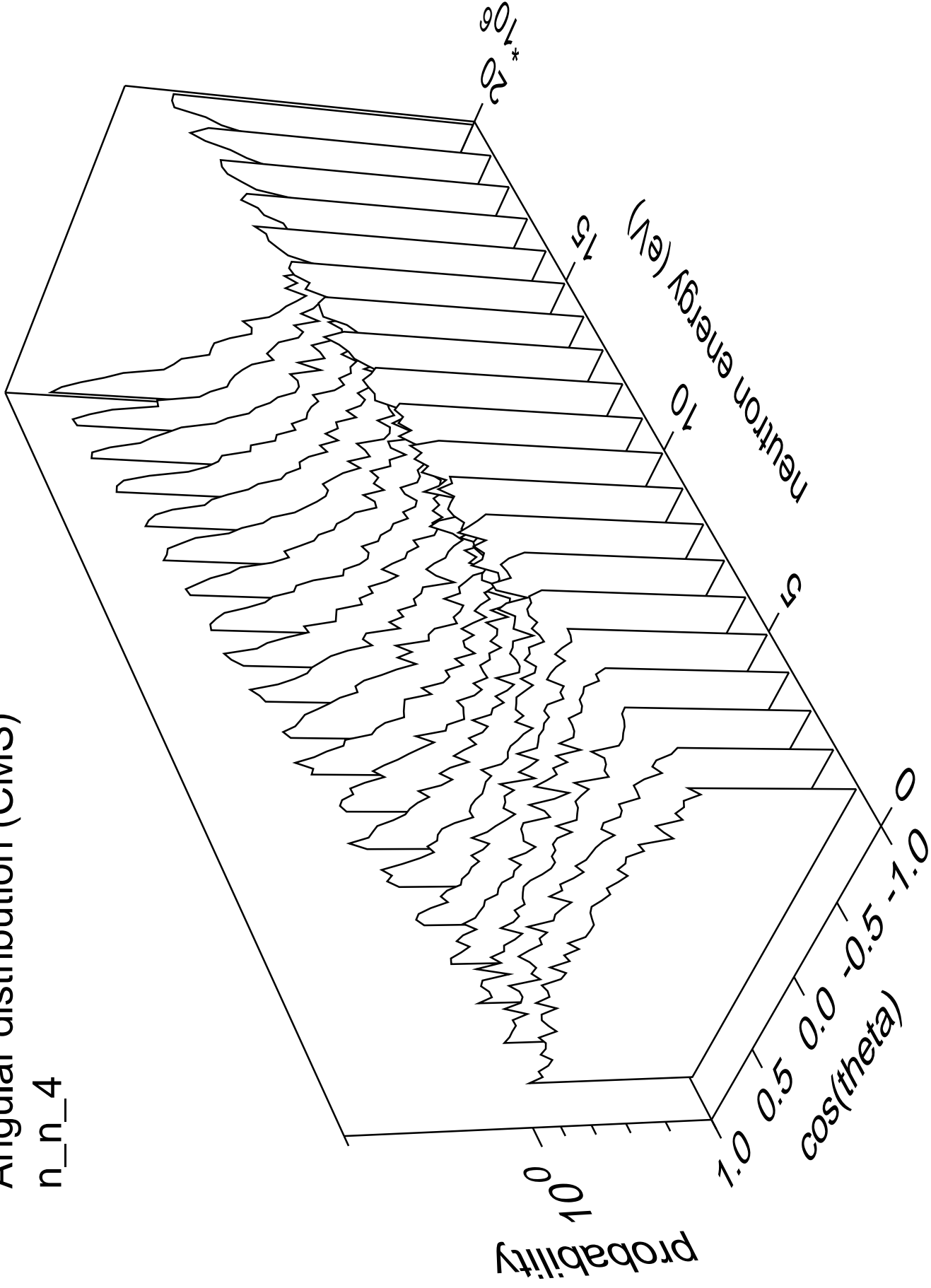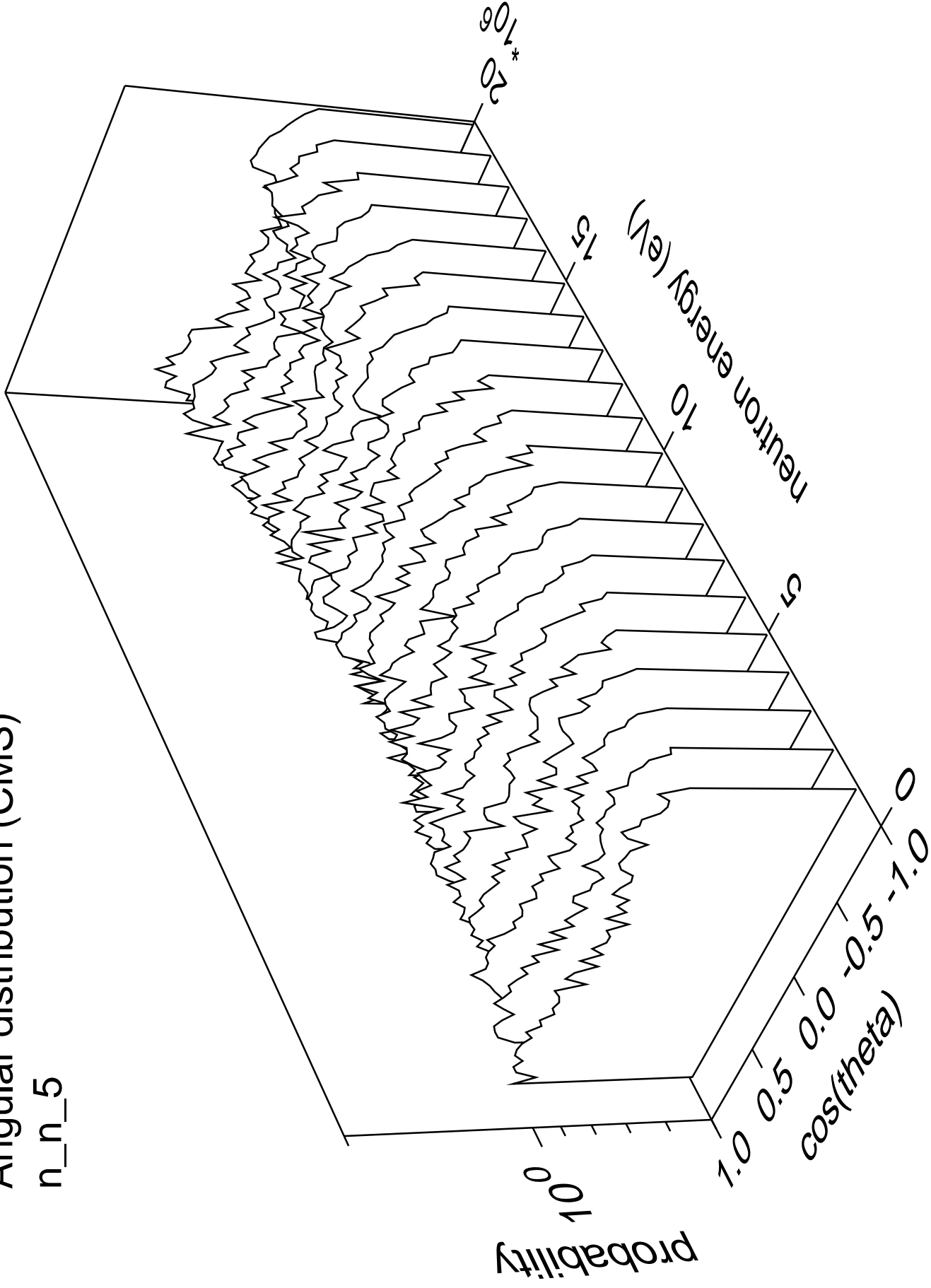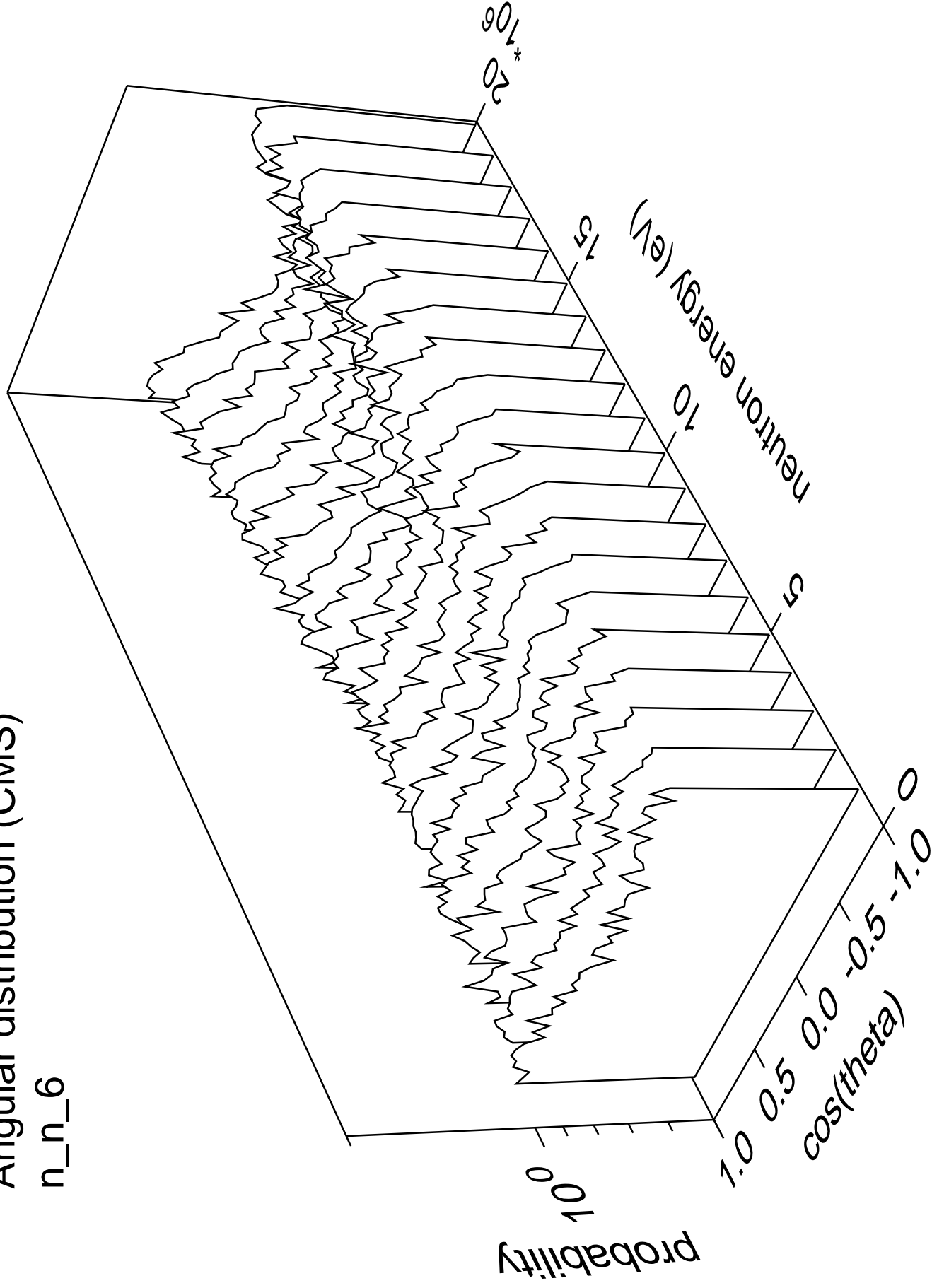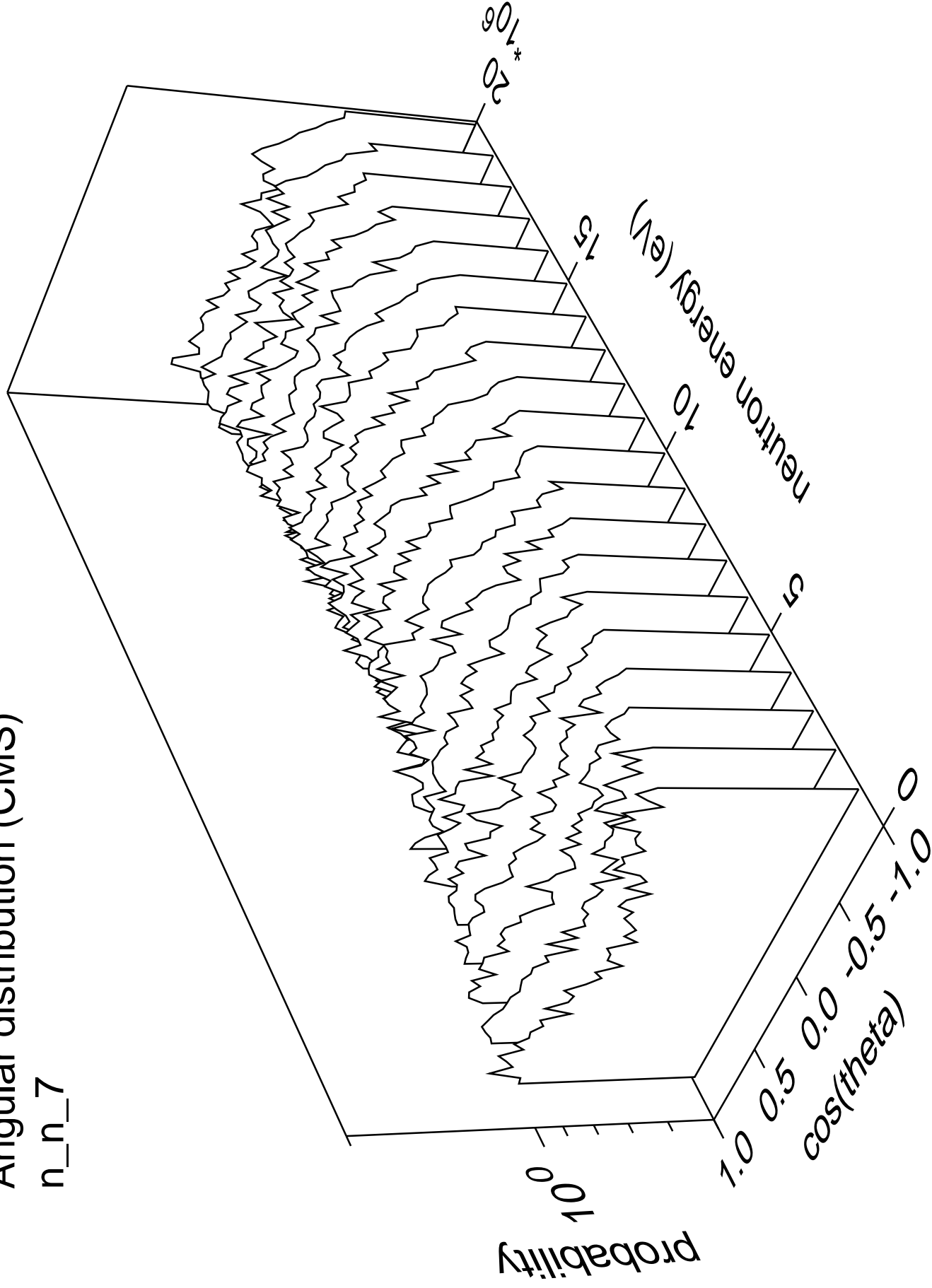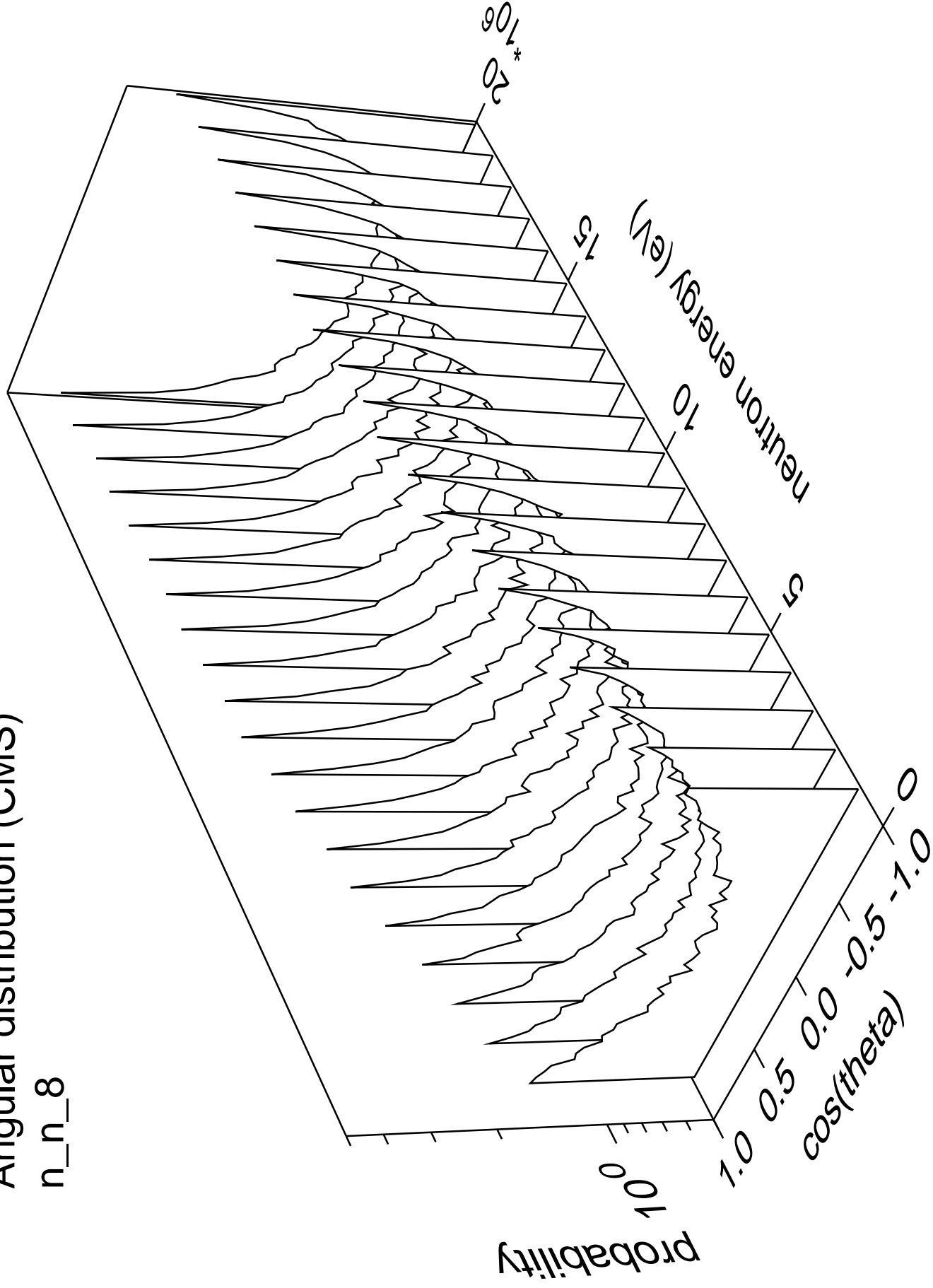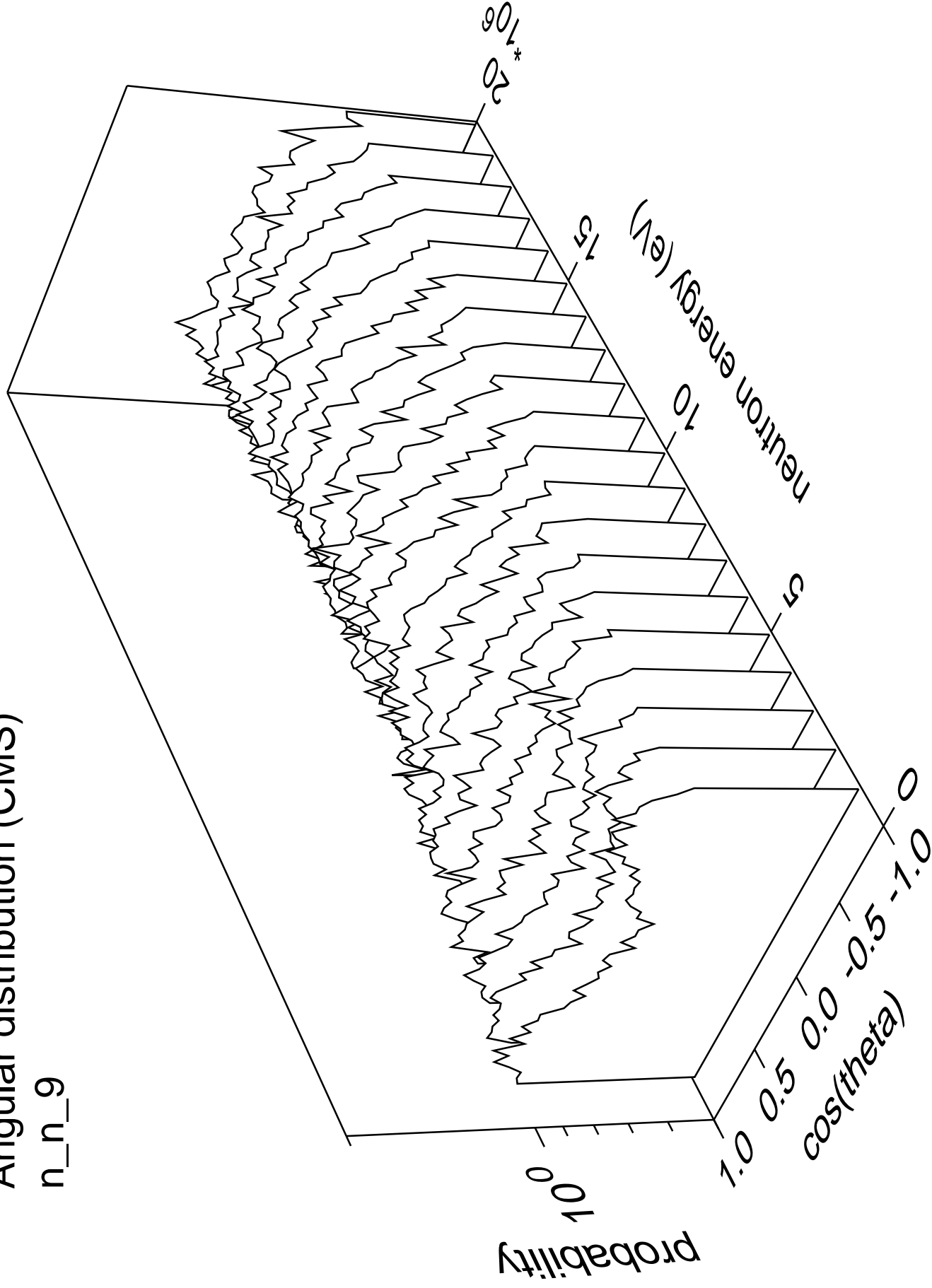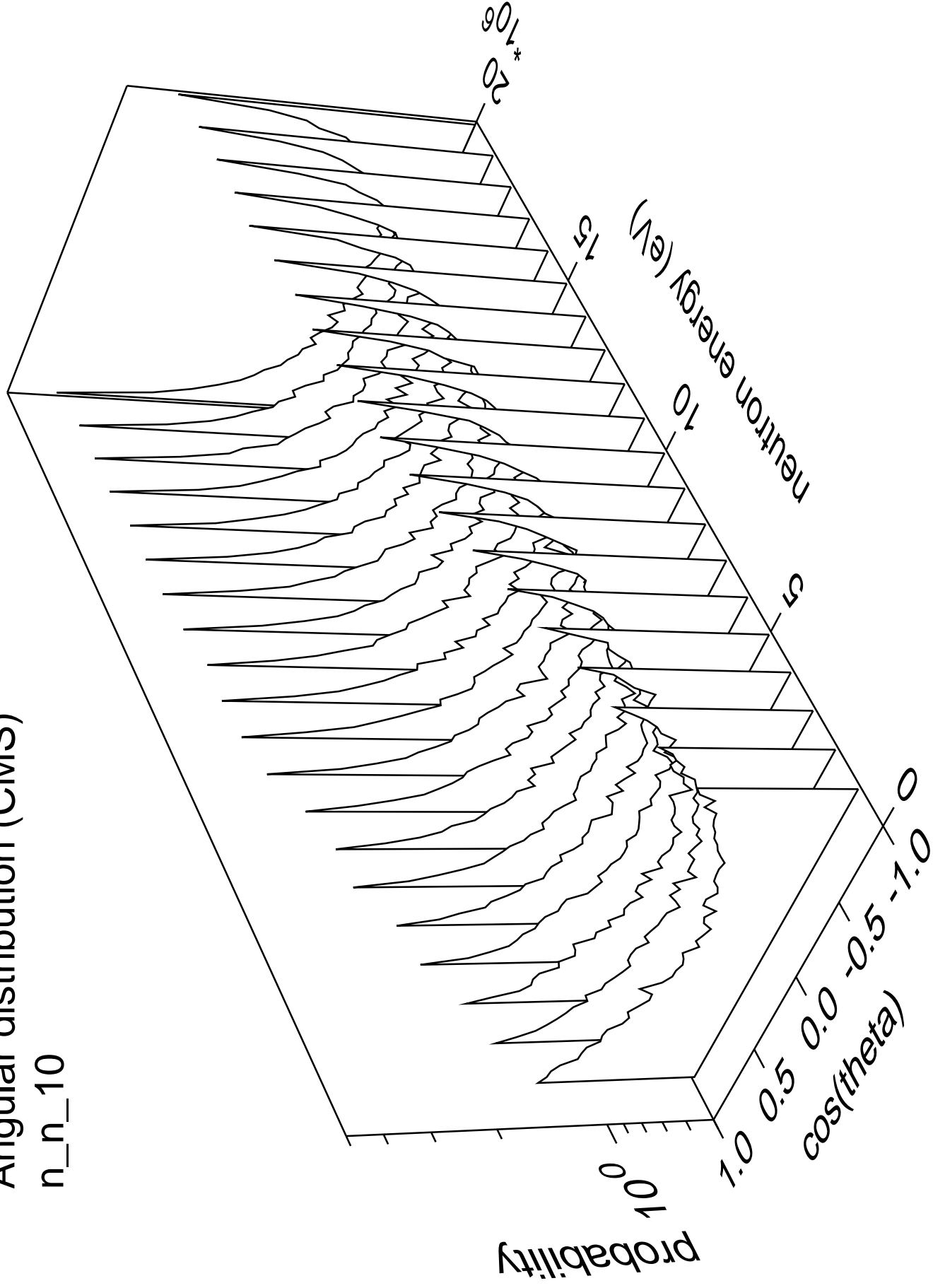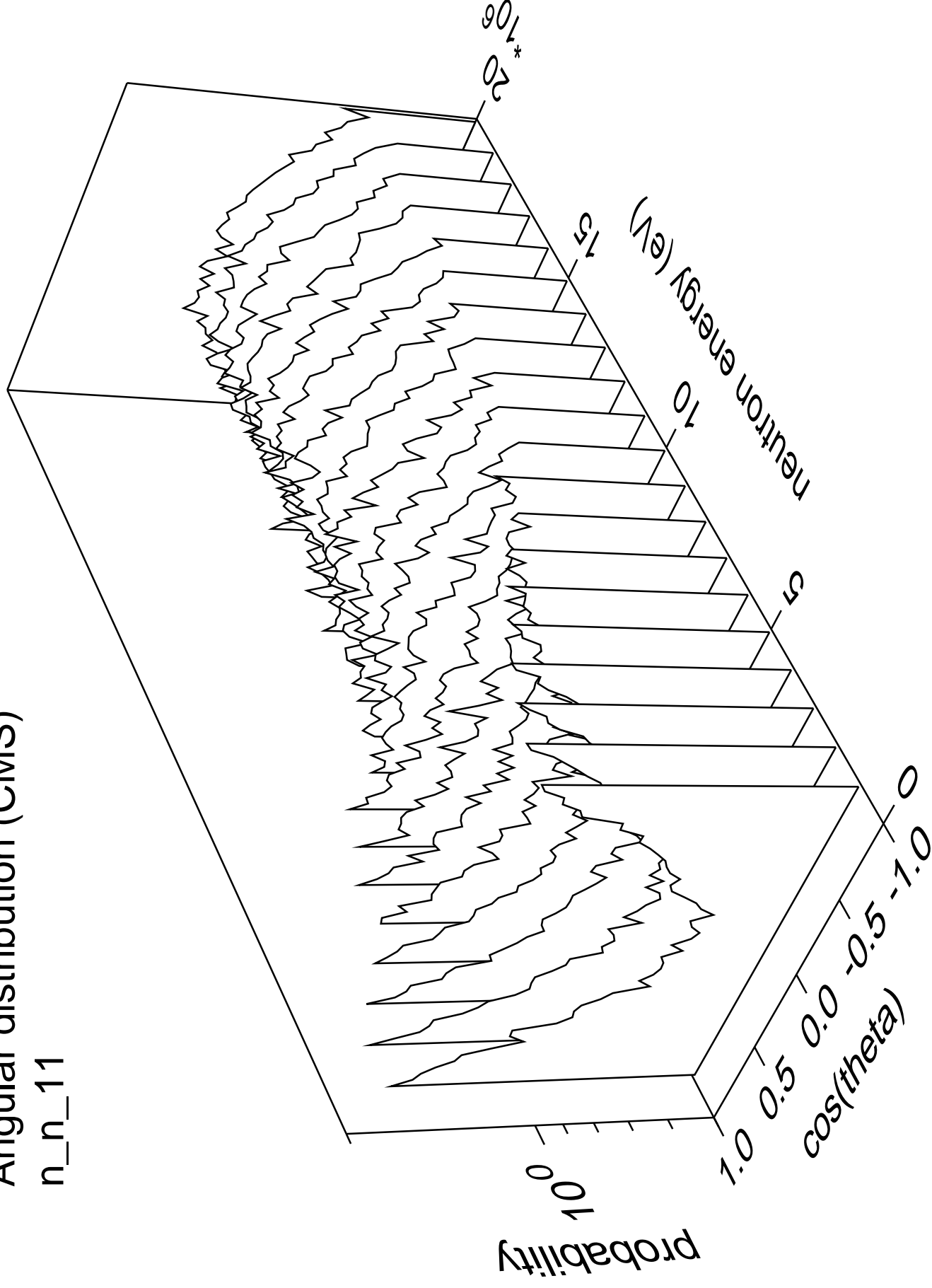
Angular distribution (CMS)
n_n_12

Angular distribution (CMS)
n_n_13
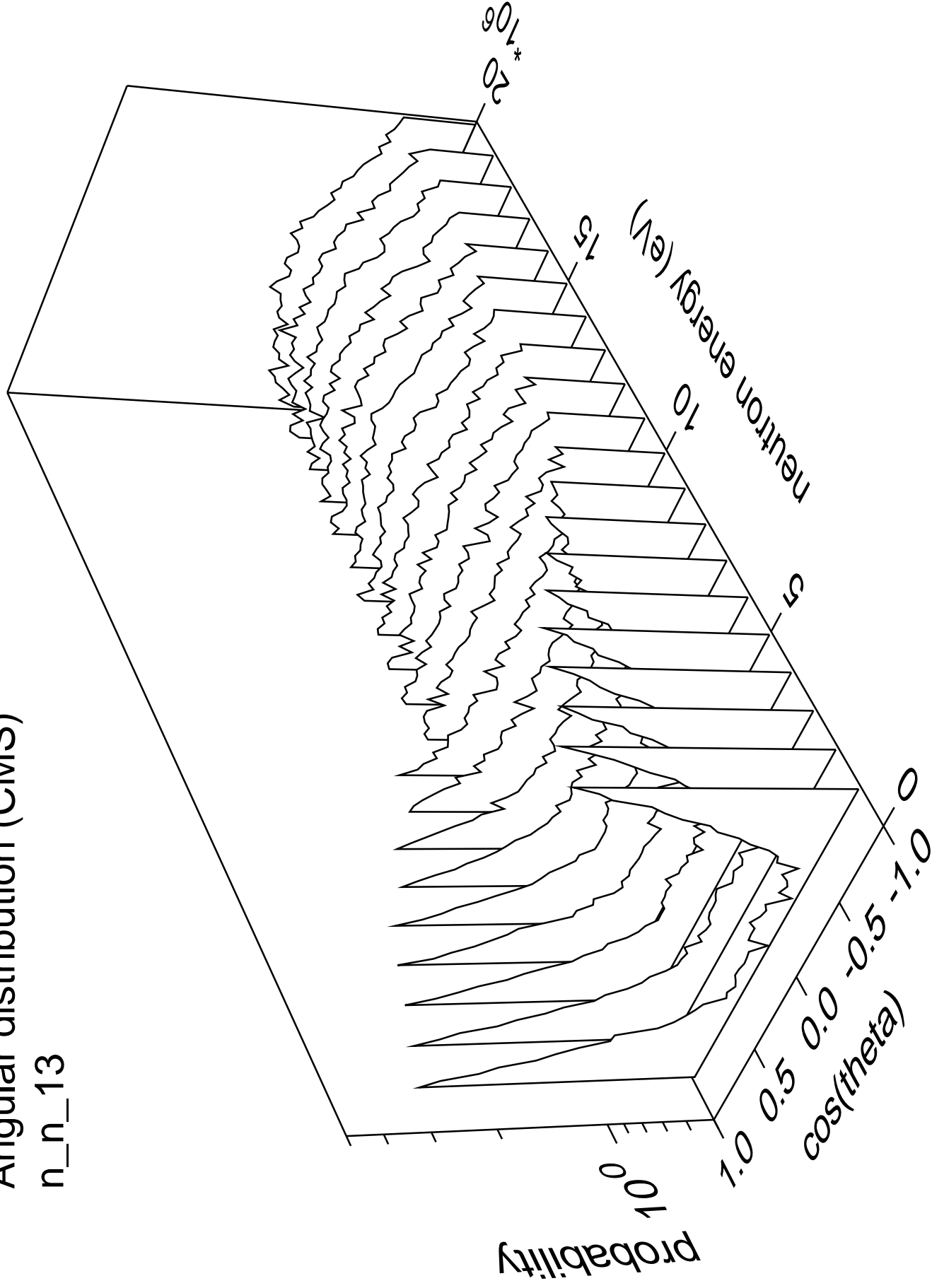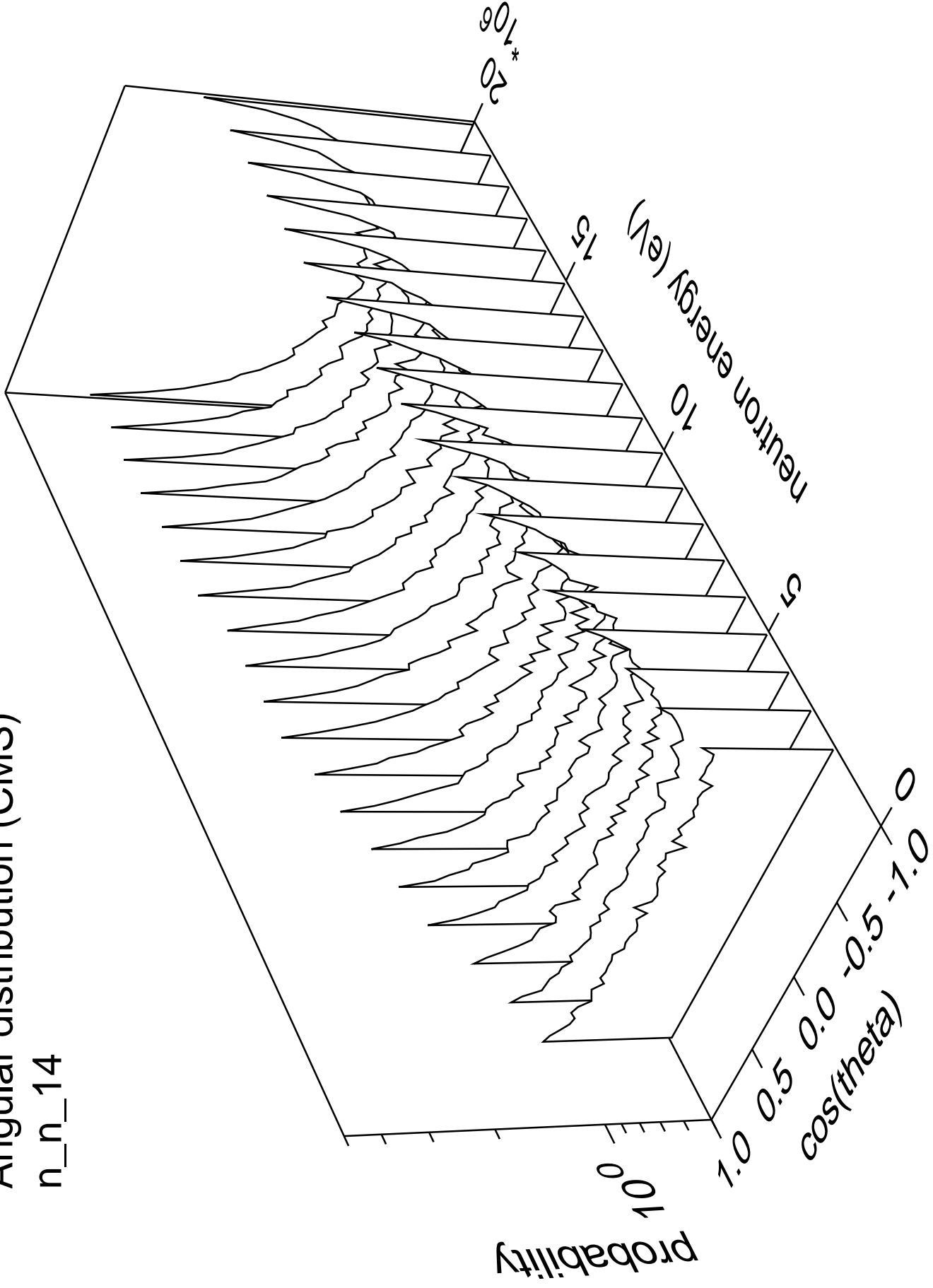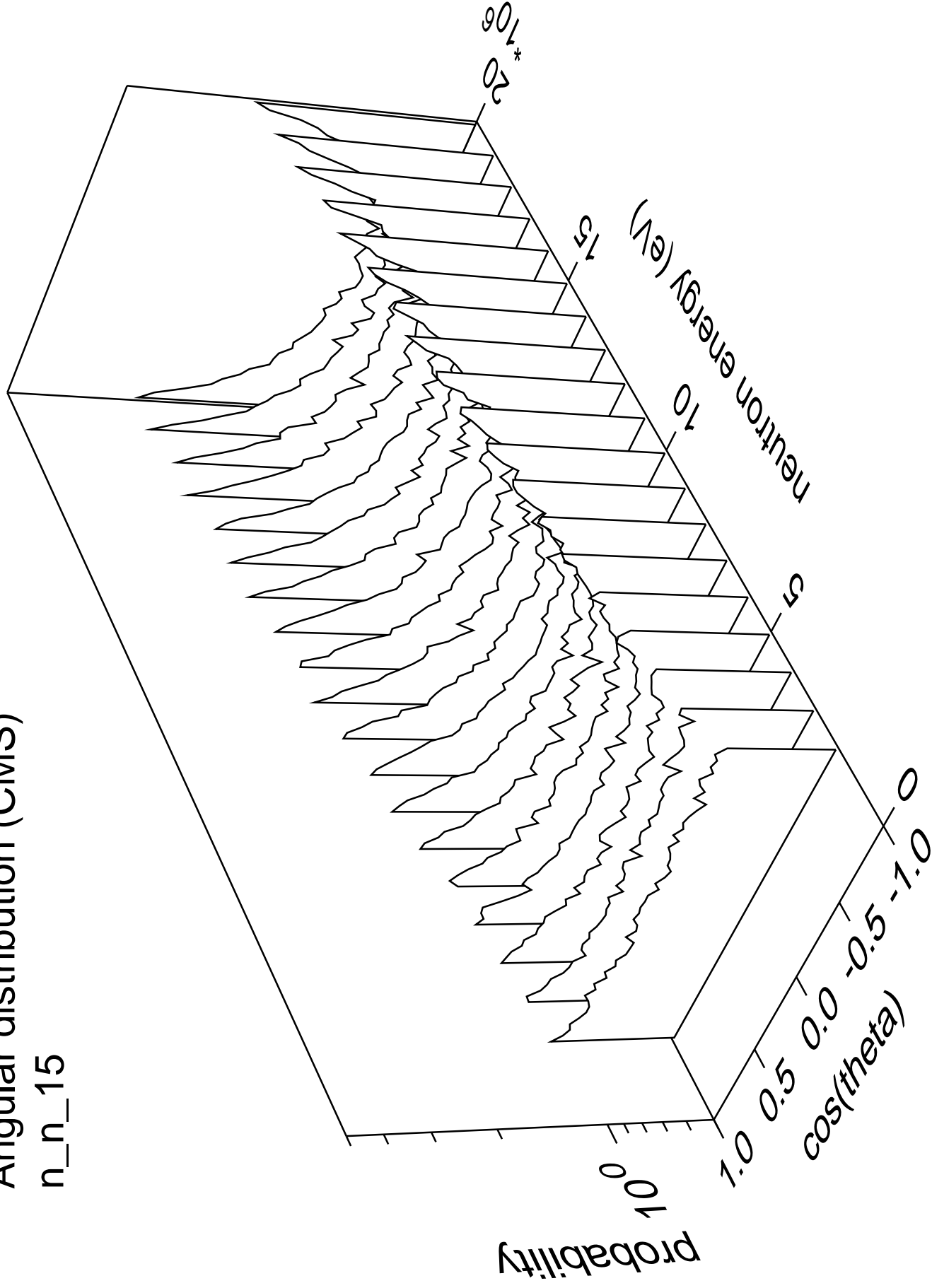
probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_14

neutron energy (eV)

cos(theta)

probability

Angular distribution (CMS)
n_n_15

probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_16

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (LABS)
n_n_cont

probability

neutron energy (eV)

cos(theta)
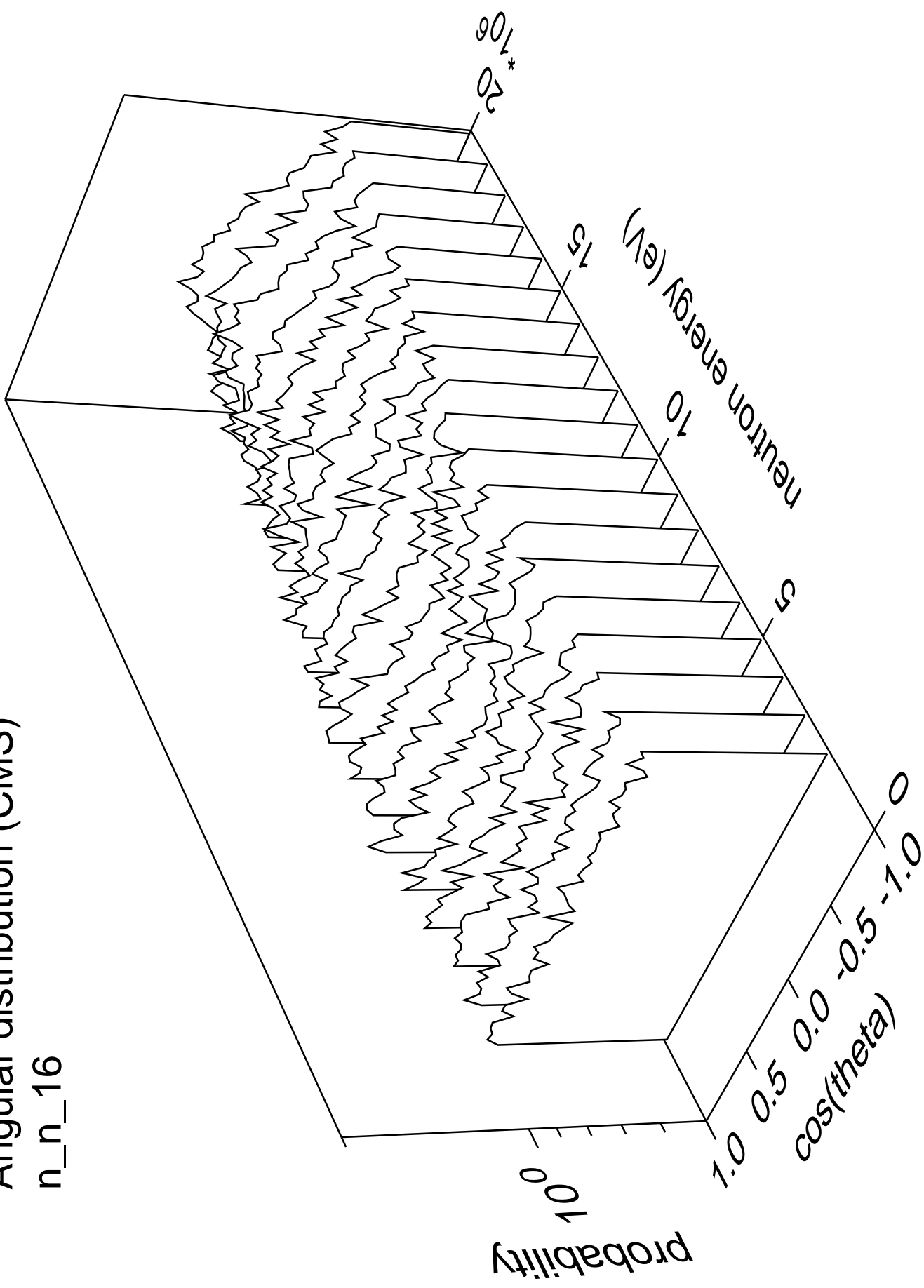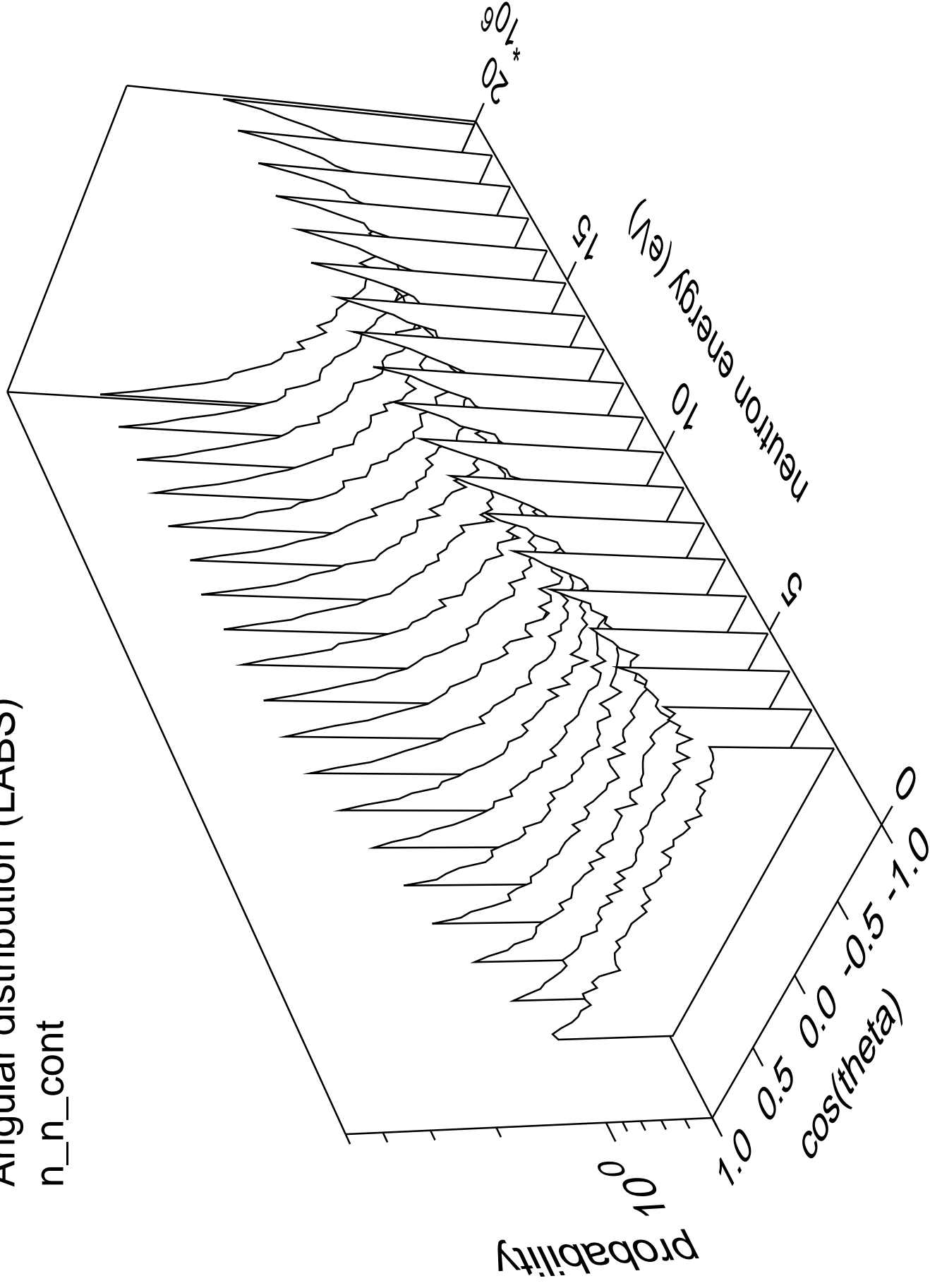
Angular distribution (LABS)
Fission
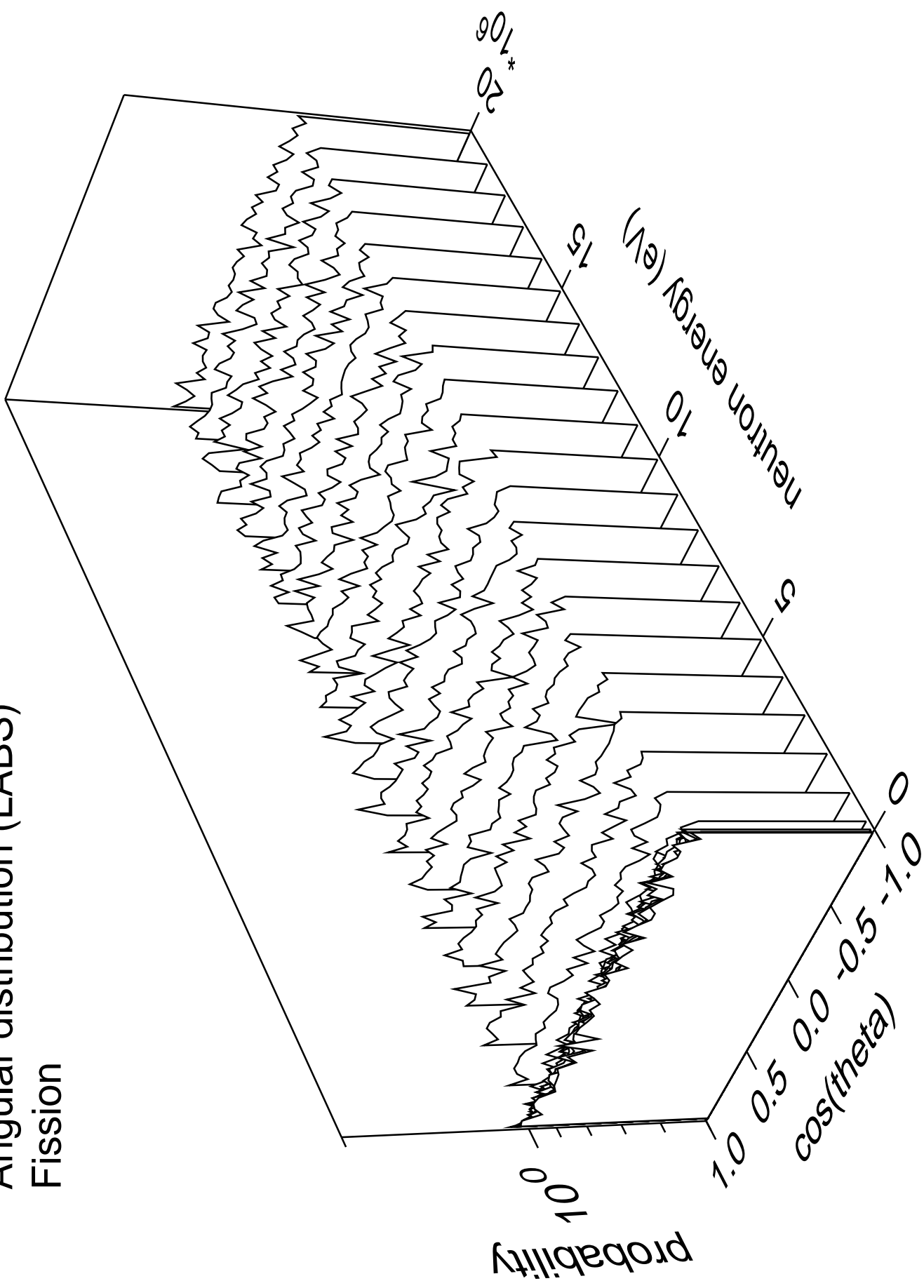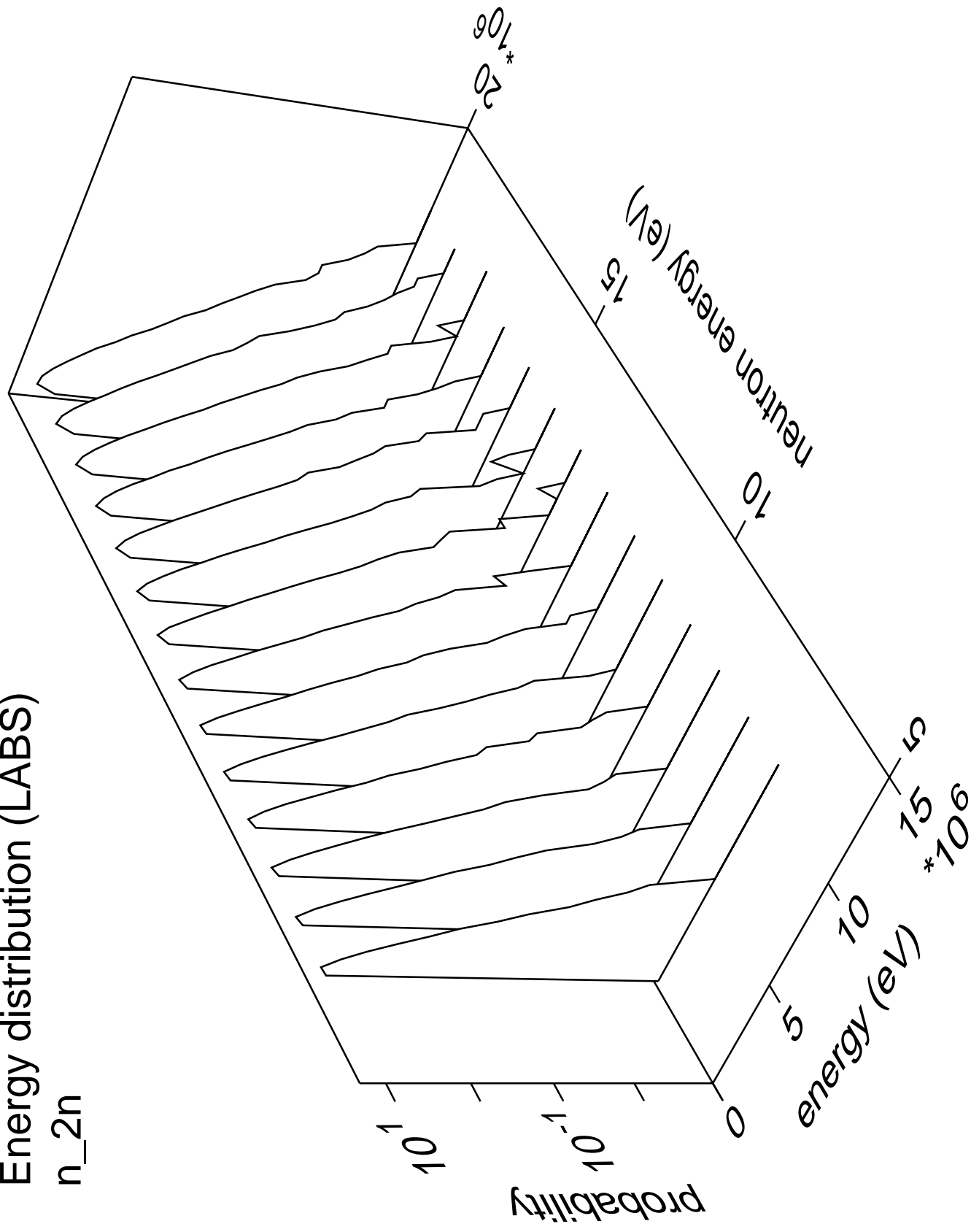
neutron energy (eV)

cos(theta)

probability

20 *10^6

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

10^0

Energy distribution (LABS)
n_2n

probability

energy (eV)

neutron energy (eV)

Energy distribution (LABS)
n_3n

probability

energy (eV)

neutron energy (eV)

Energy distribution (LABS)
n_4n

probability

10^1

10^{-1}

neutron energy (eV)

18.0

18.5

19.0

19.5

20.0 *10^6

energy (eV)

0

5

10 *10^6

15

Energy distribution (LABS)
n_n_cont

probability

10^1

10^{-1}

neutron energy (eV)

20 $*10^6$

15

10

5

0

energy (eV)

0

5

10

15 $*10^6$
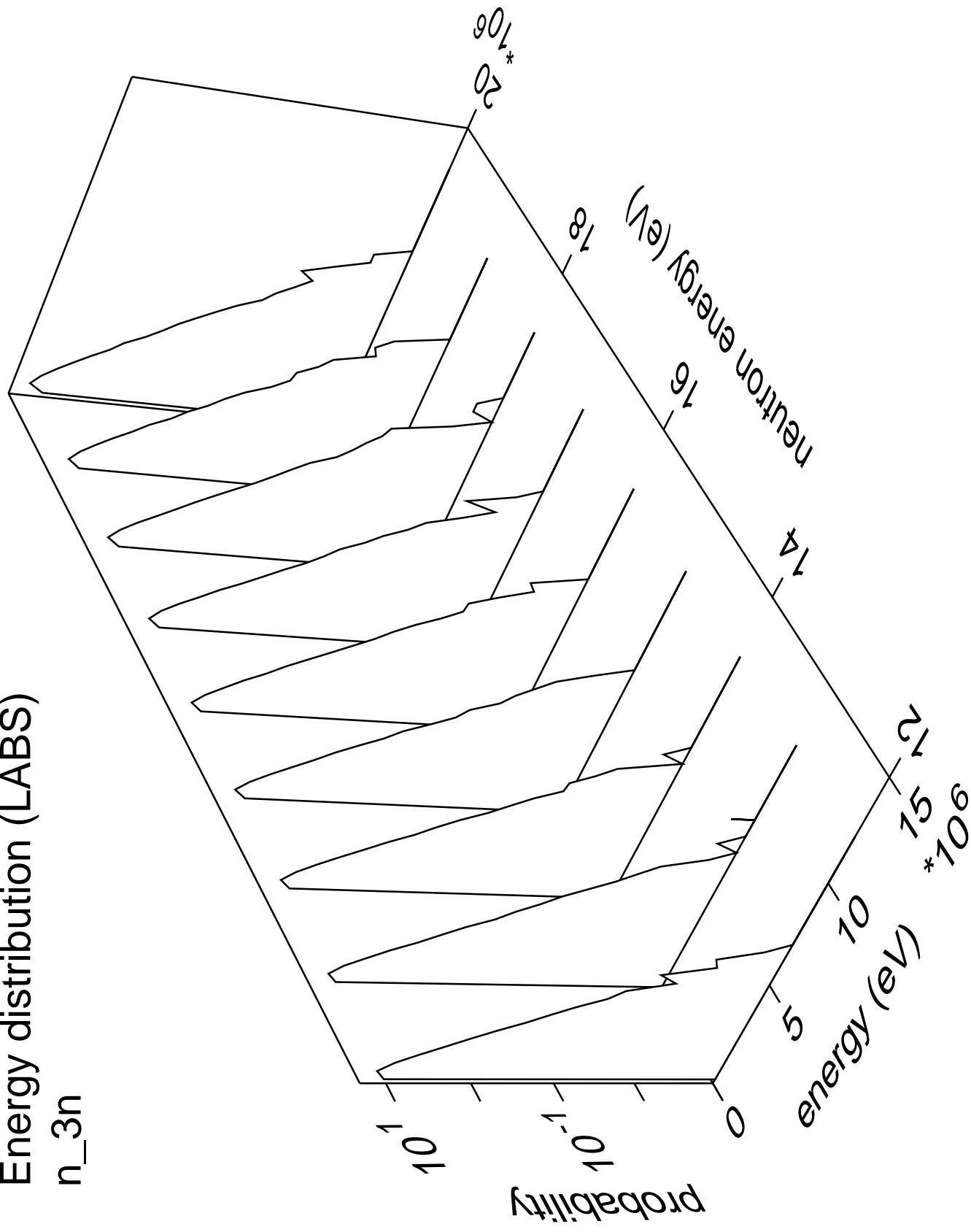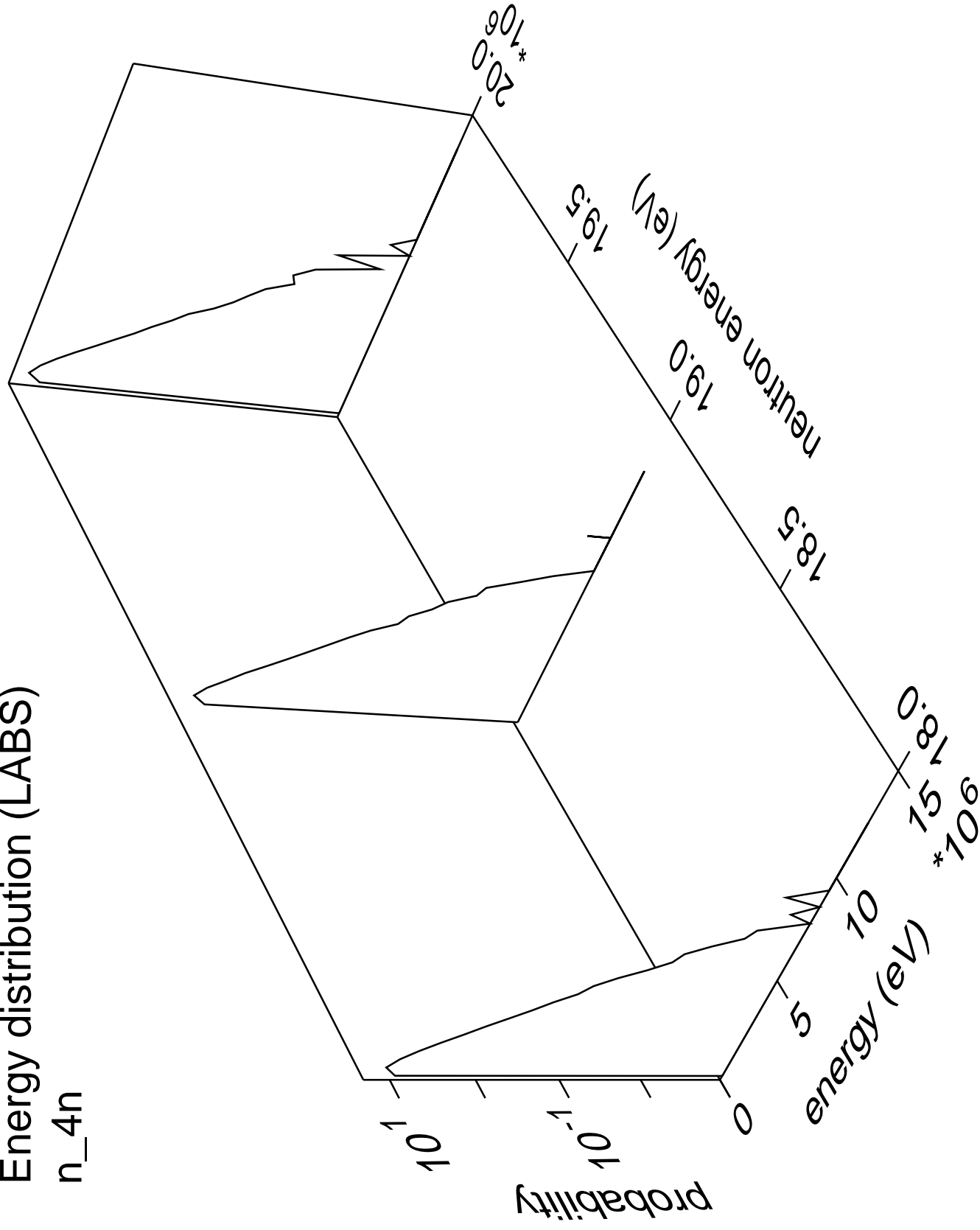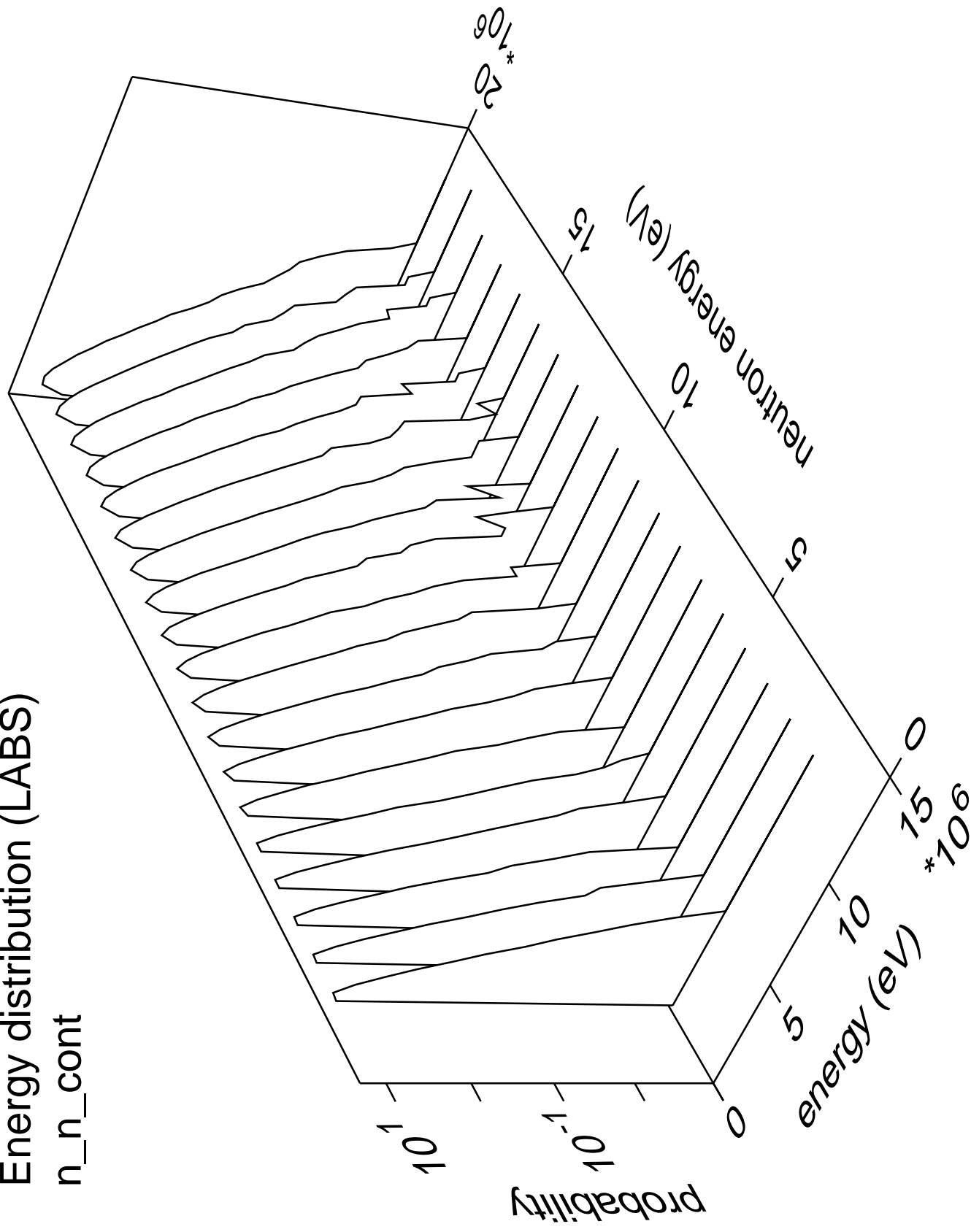
Energy distribution (CMS)
Fission prompt