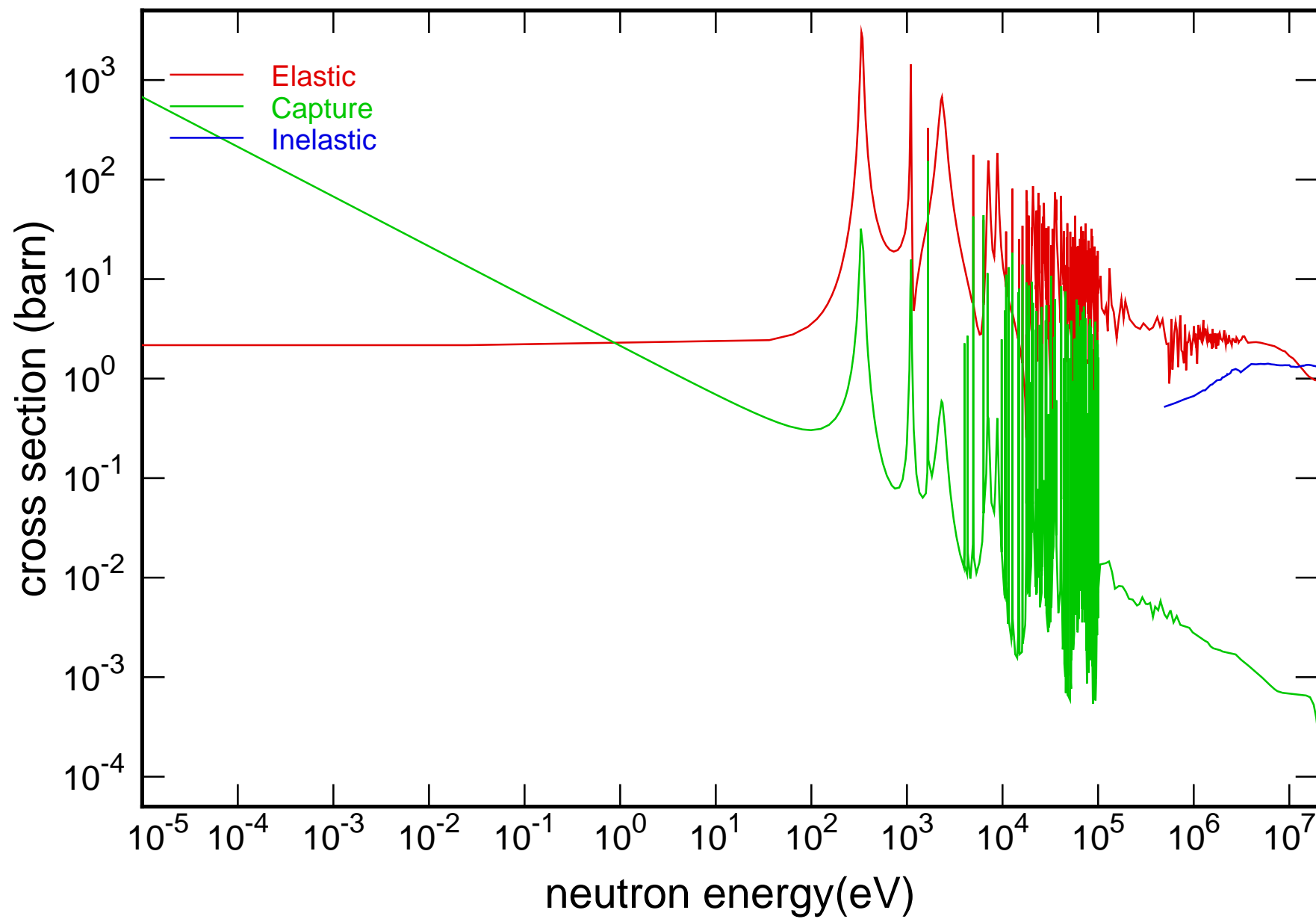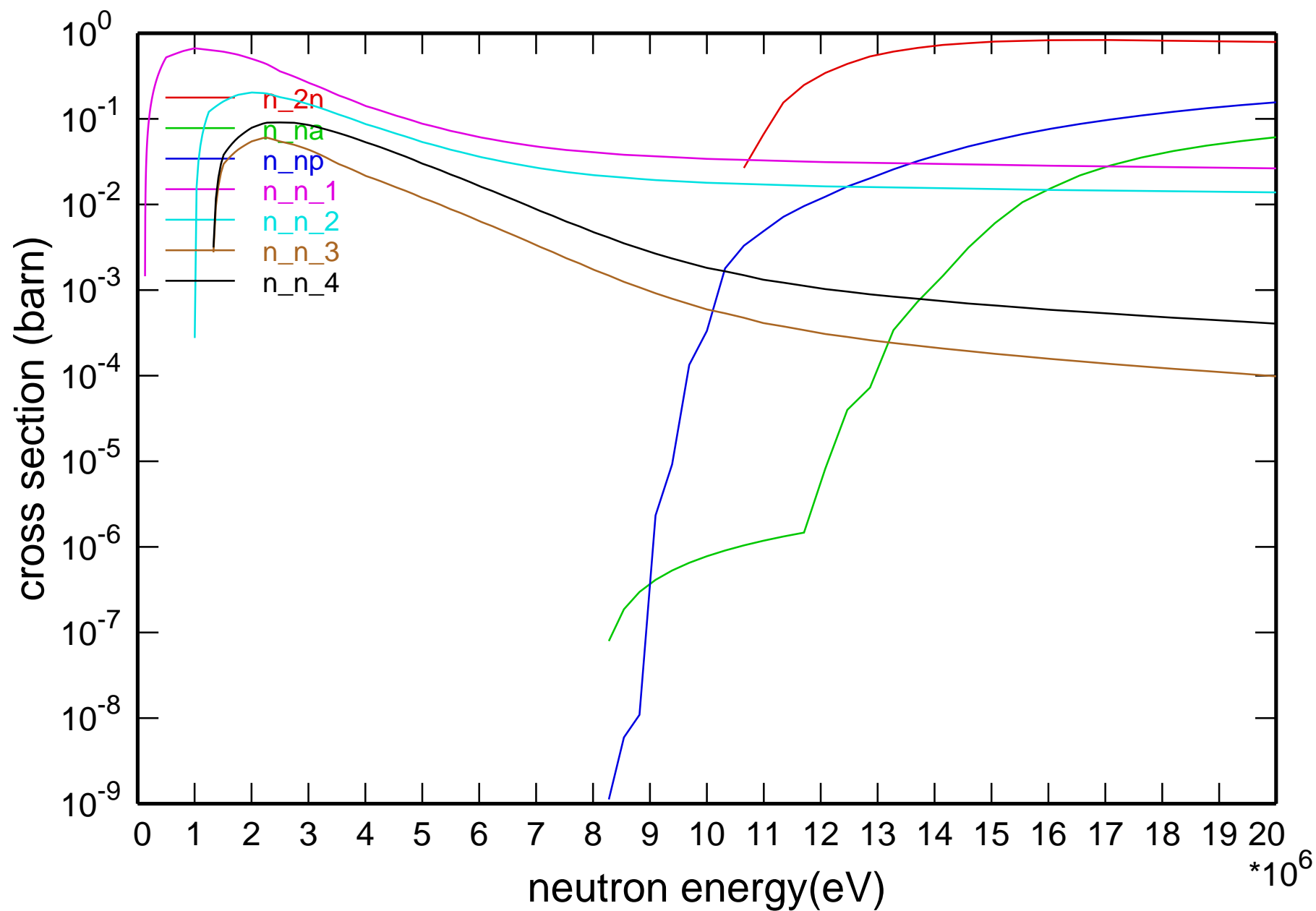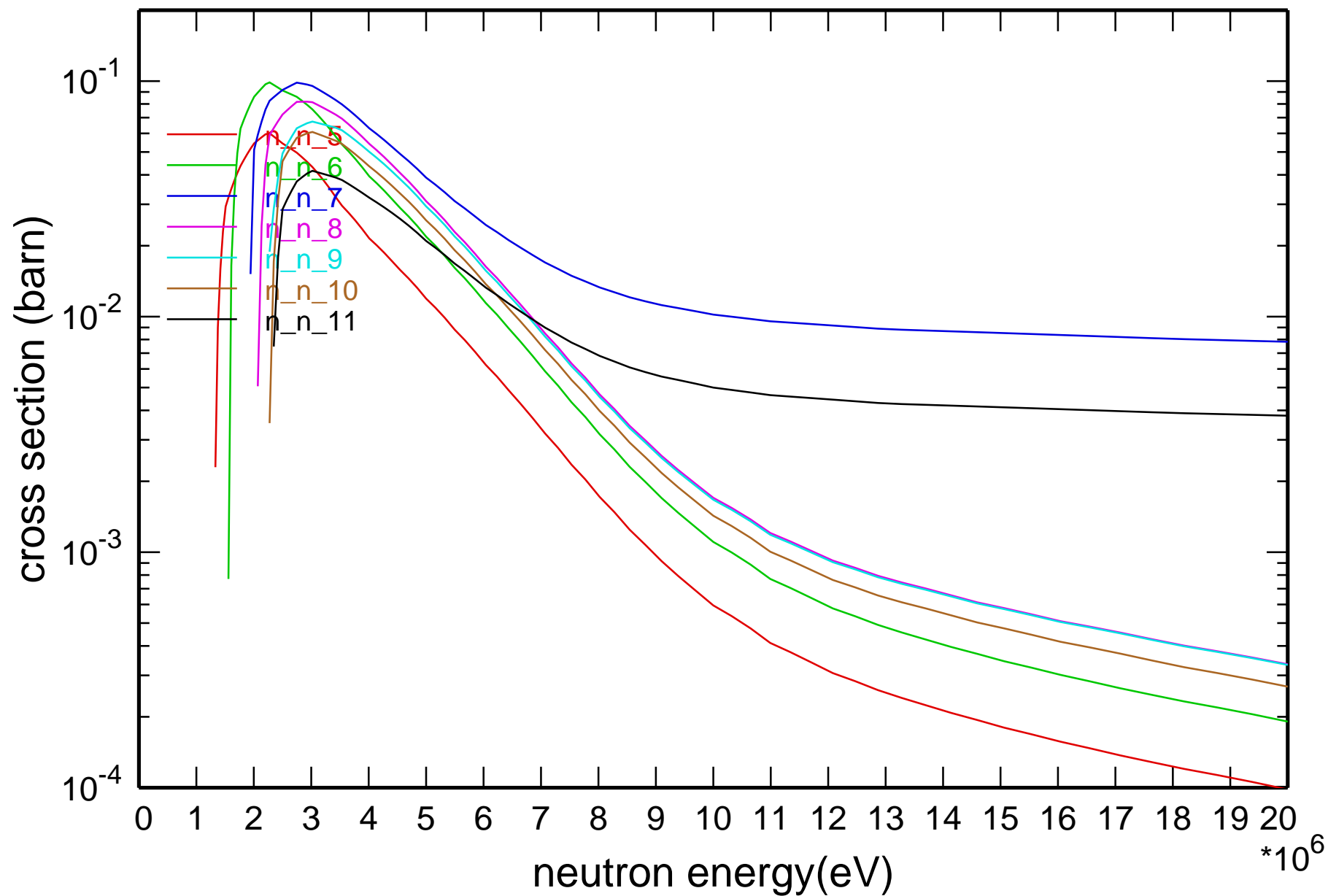Main Cross Sections

Cross Section

Cross Section

cross section (barn)

neutron energy(eV)

Legend:
- n_n_5
- n_n_6
- n_n_7
- n_n_8
- n_n_9
- n_n_10
- n_n_11
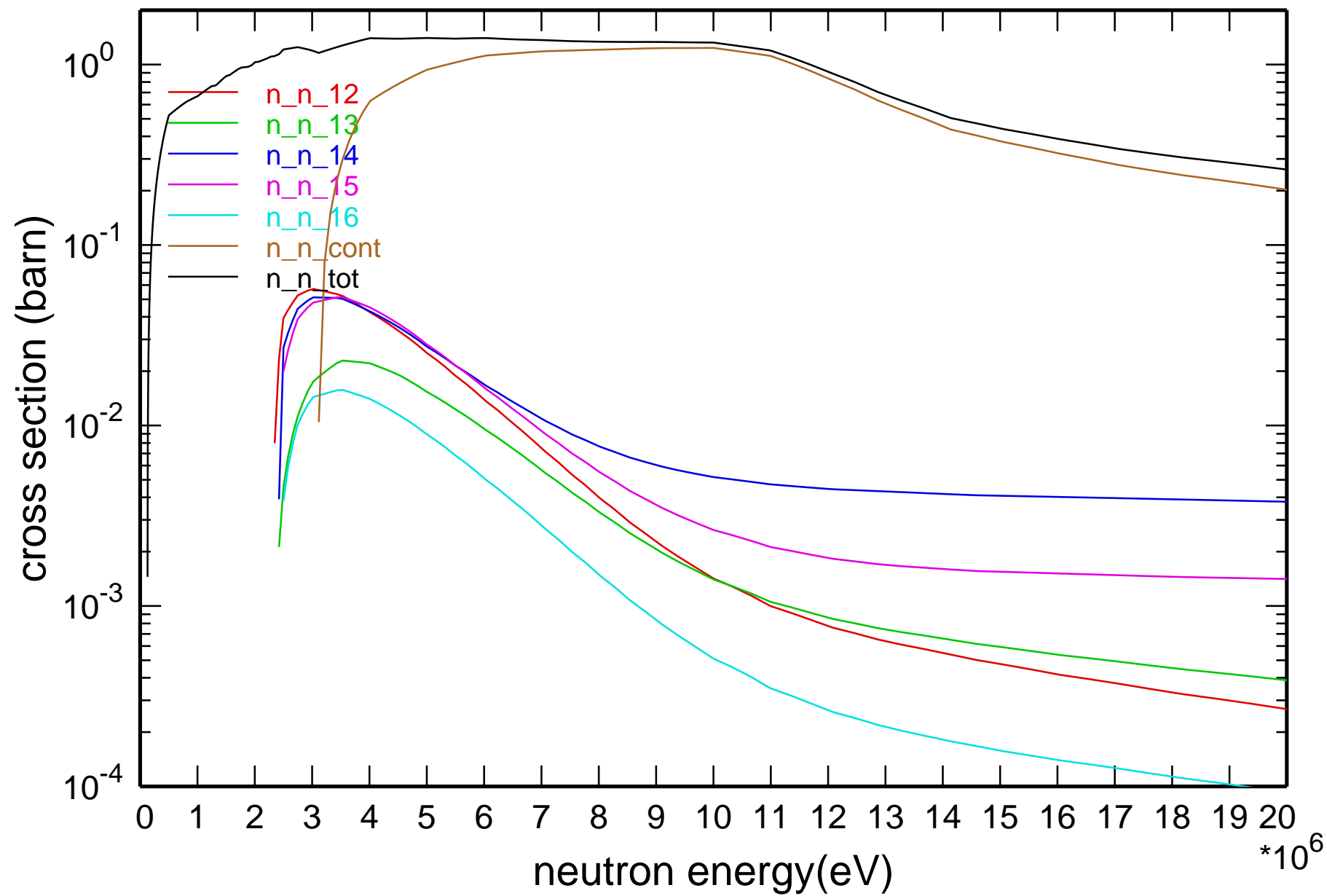
Cross Section

Cross Section
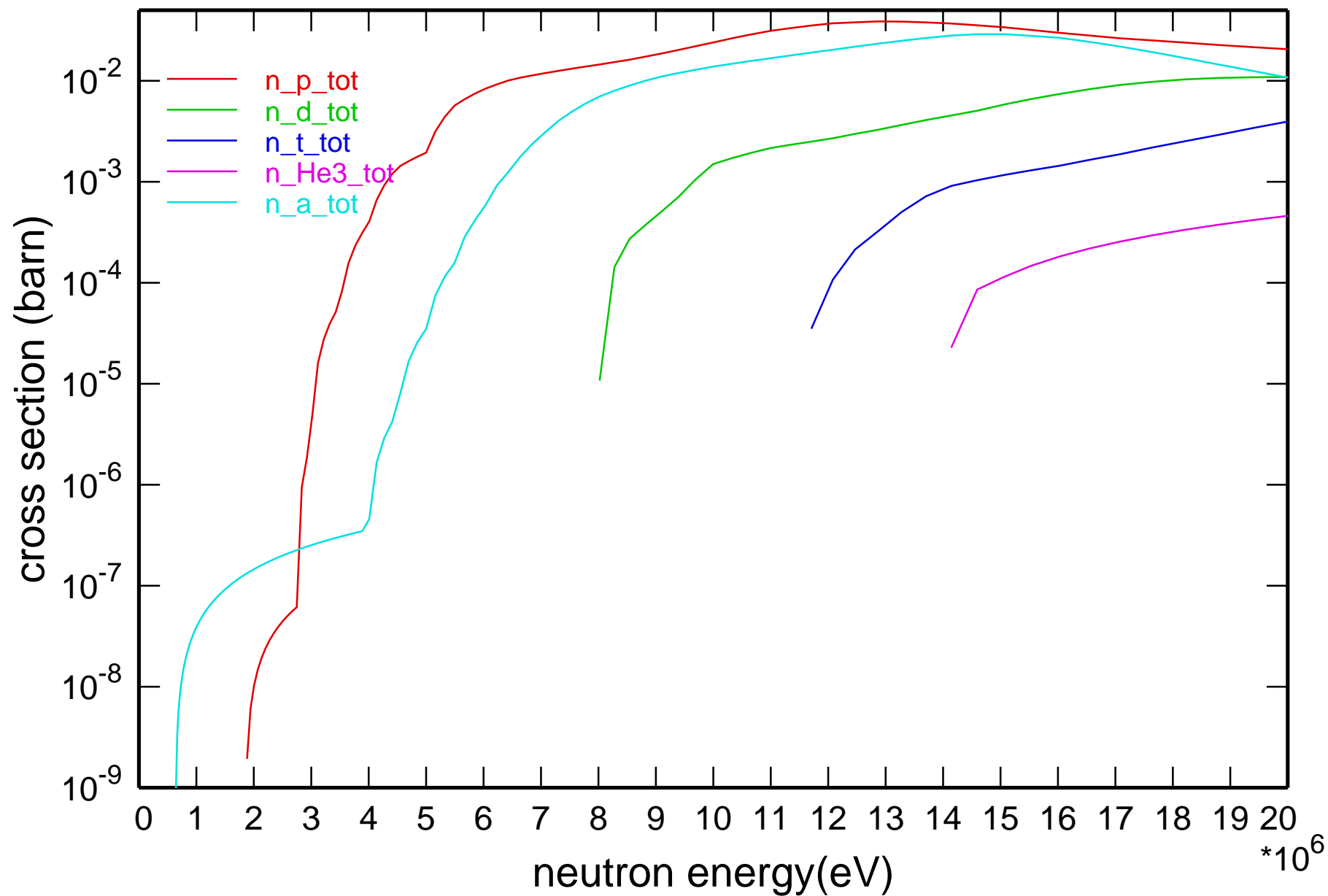
Angular distribution (CMS)
Elastic
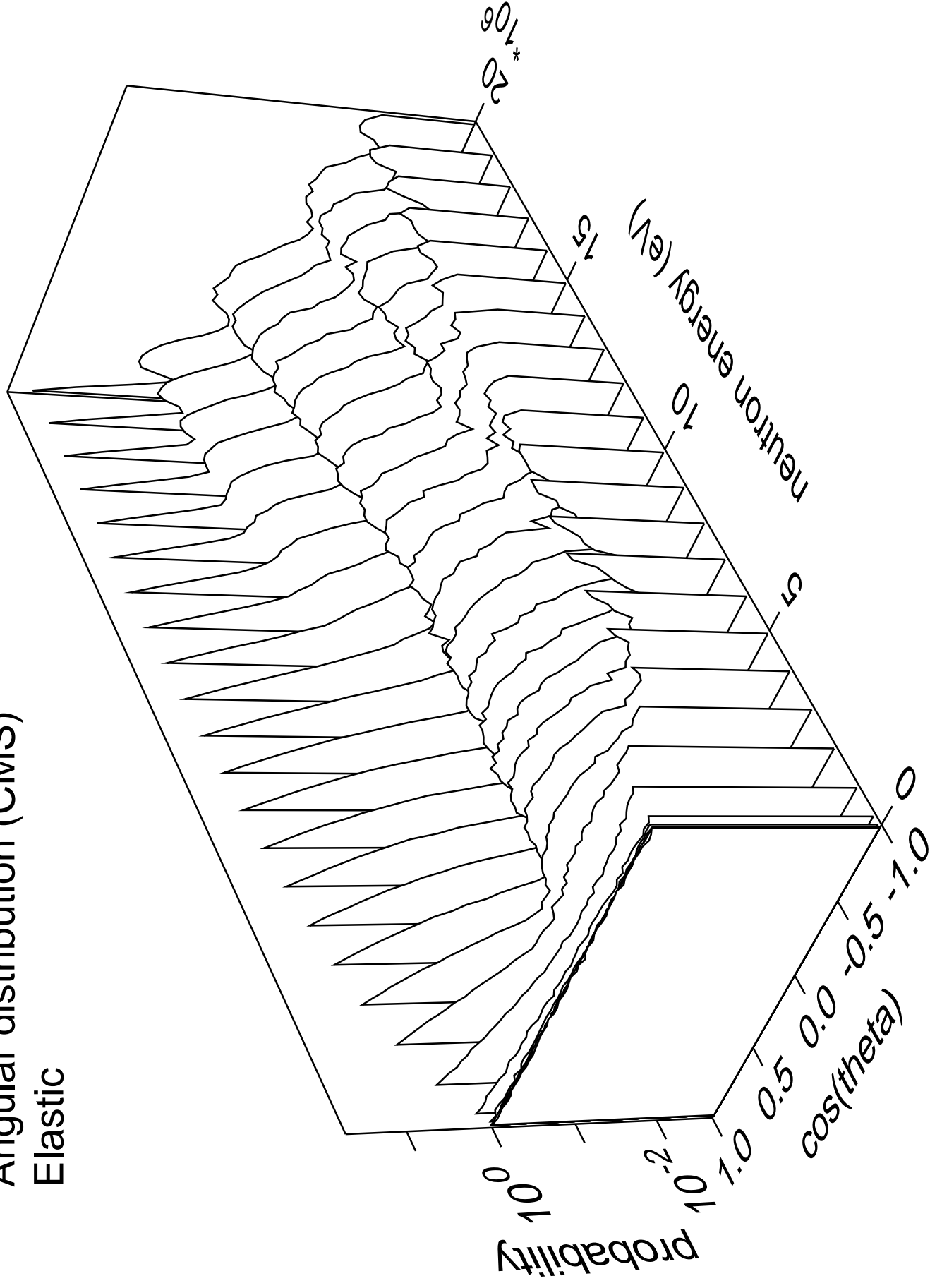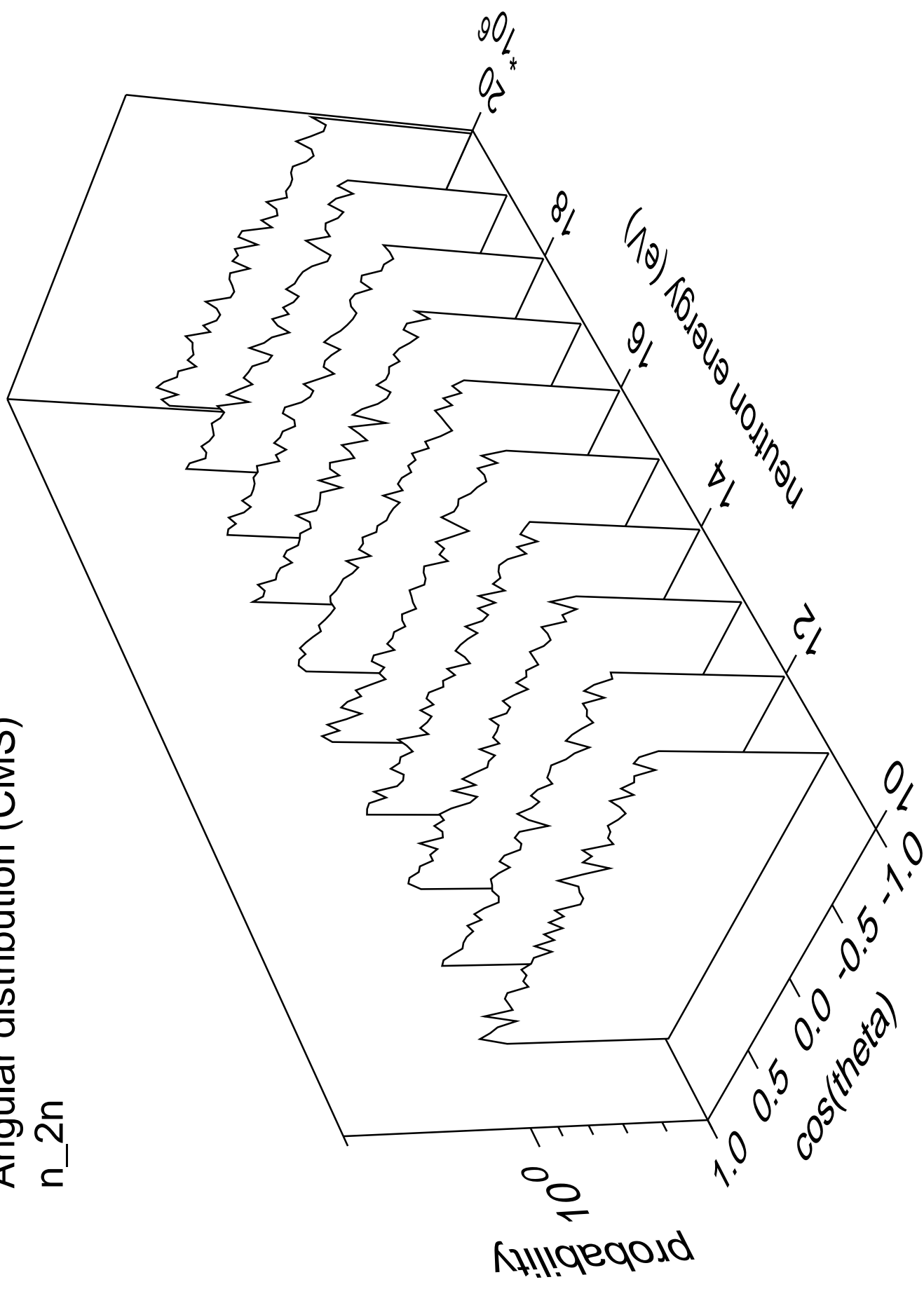
probability

neutron energy (eV)

cos(theta)

Angular distribution (CMS)
n_2n

probability

neutron energy (eV)

cos(theta)

10^0

$*10^6$

20

18

16

14

12

1.0 0.5 0.0 -0.5 -1.0

Angular distribution (CMS)
n_na

neutron energy (eV)

cos(theta)

probability

20 *10⁶

15

10

5

1.0 0.5 0.0 -0.5 -1.0

10⁰

Angular distribution (CMS)
n_np

probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_1

neutron energy (eV)

cos(theta)

probability
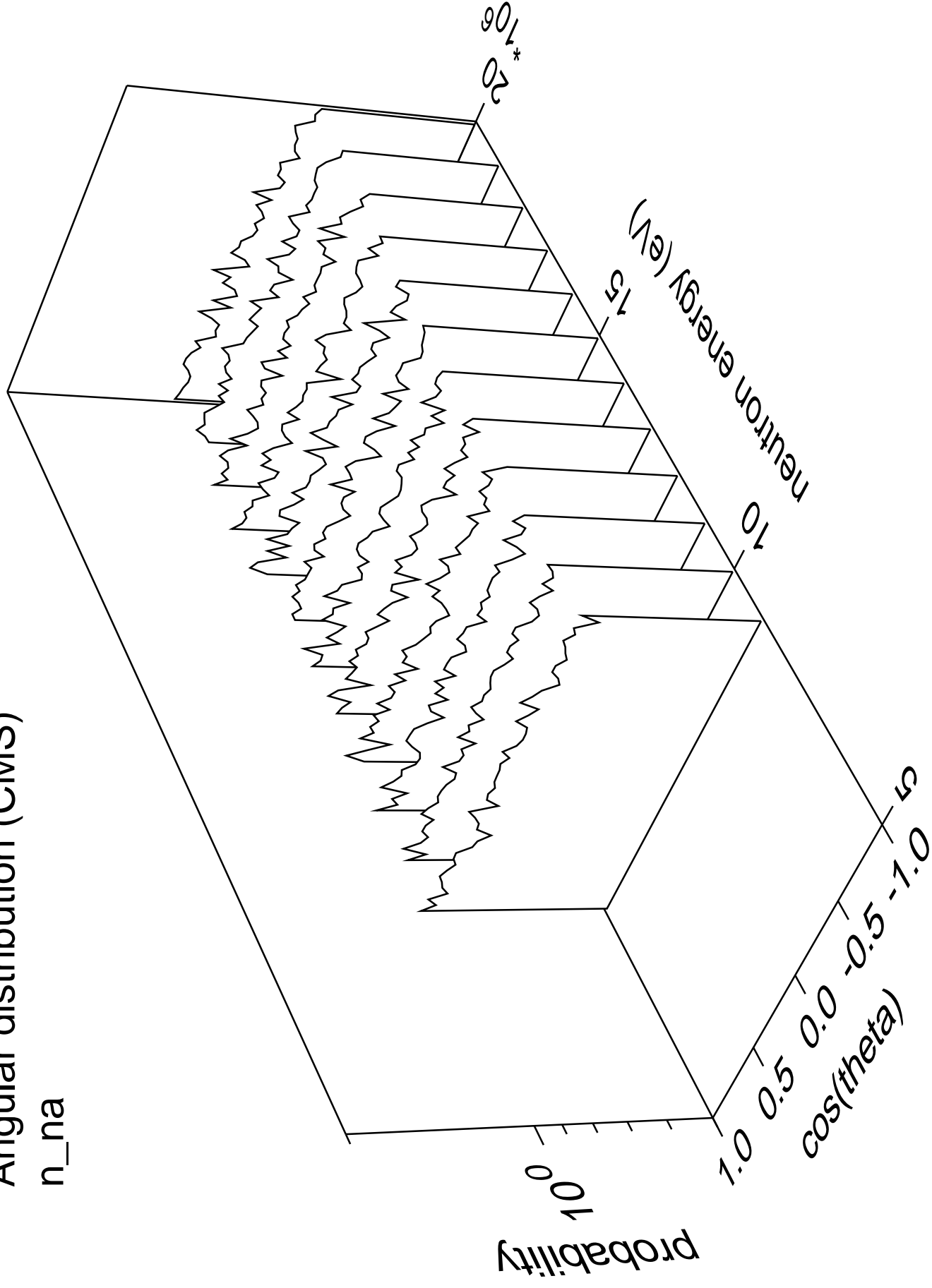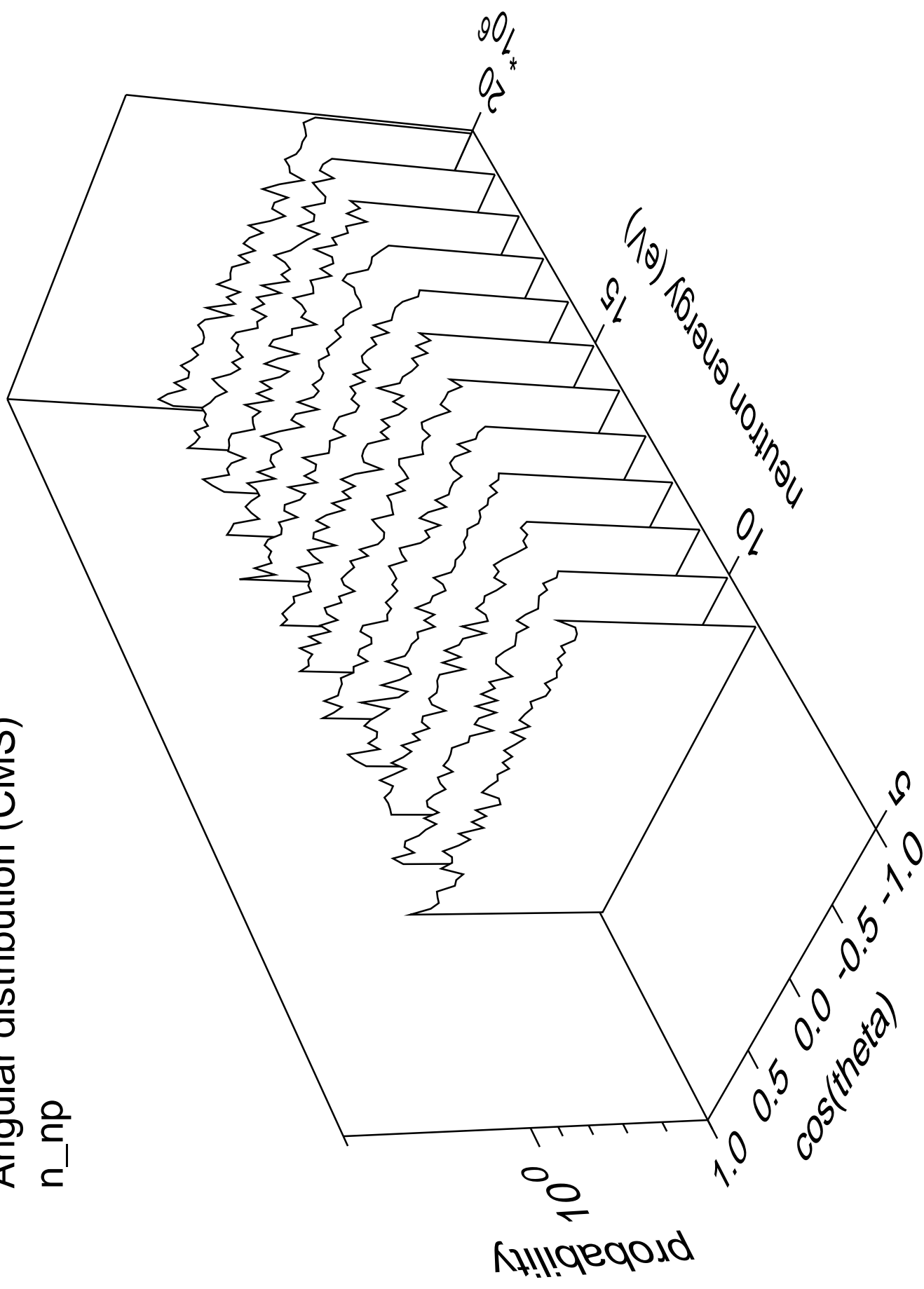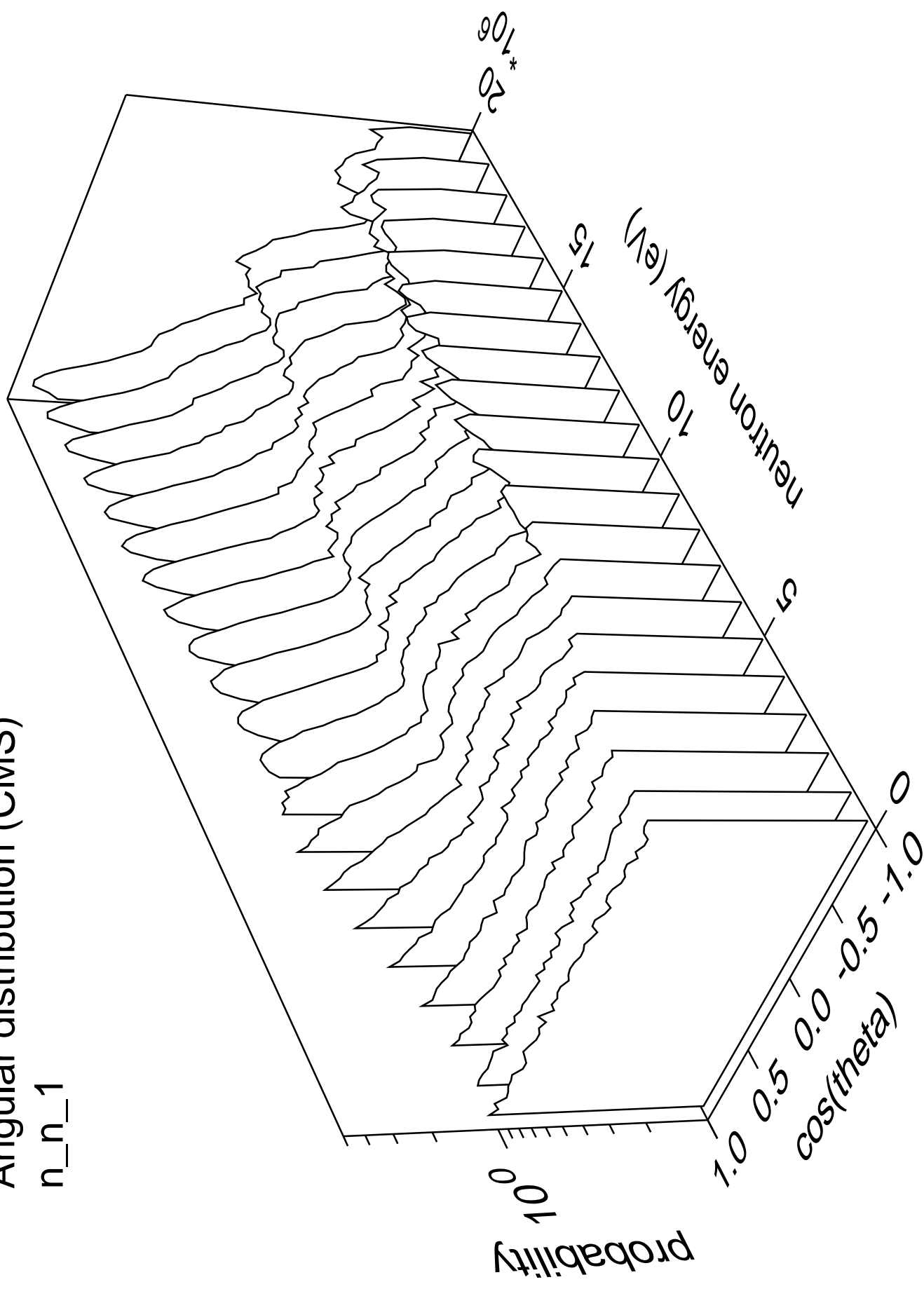
Angular distribution (CMS)
n_n_2

Angular distribution (CMS)
n_n_3
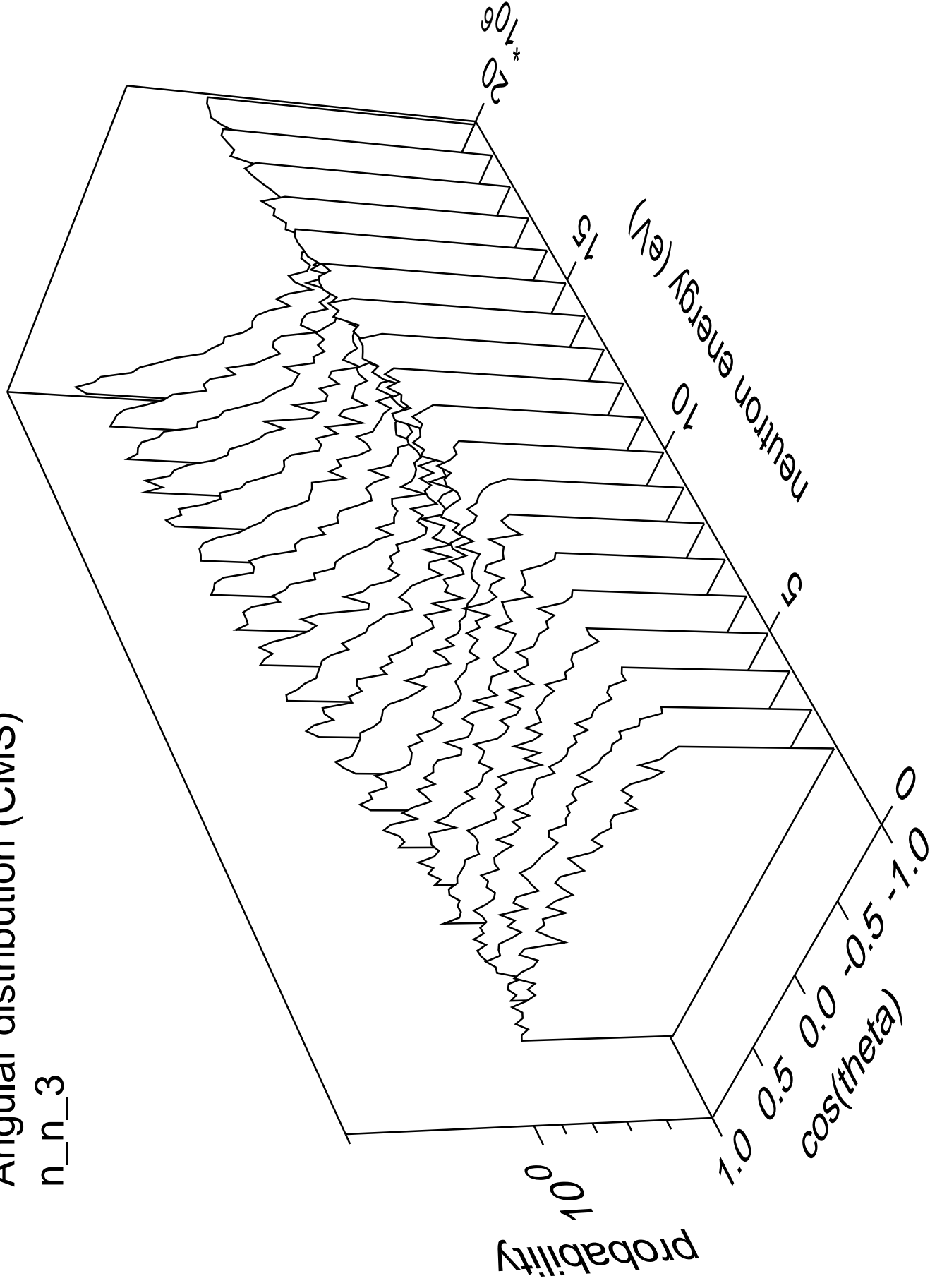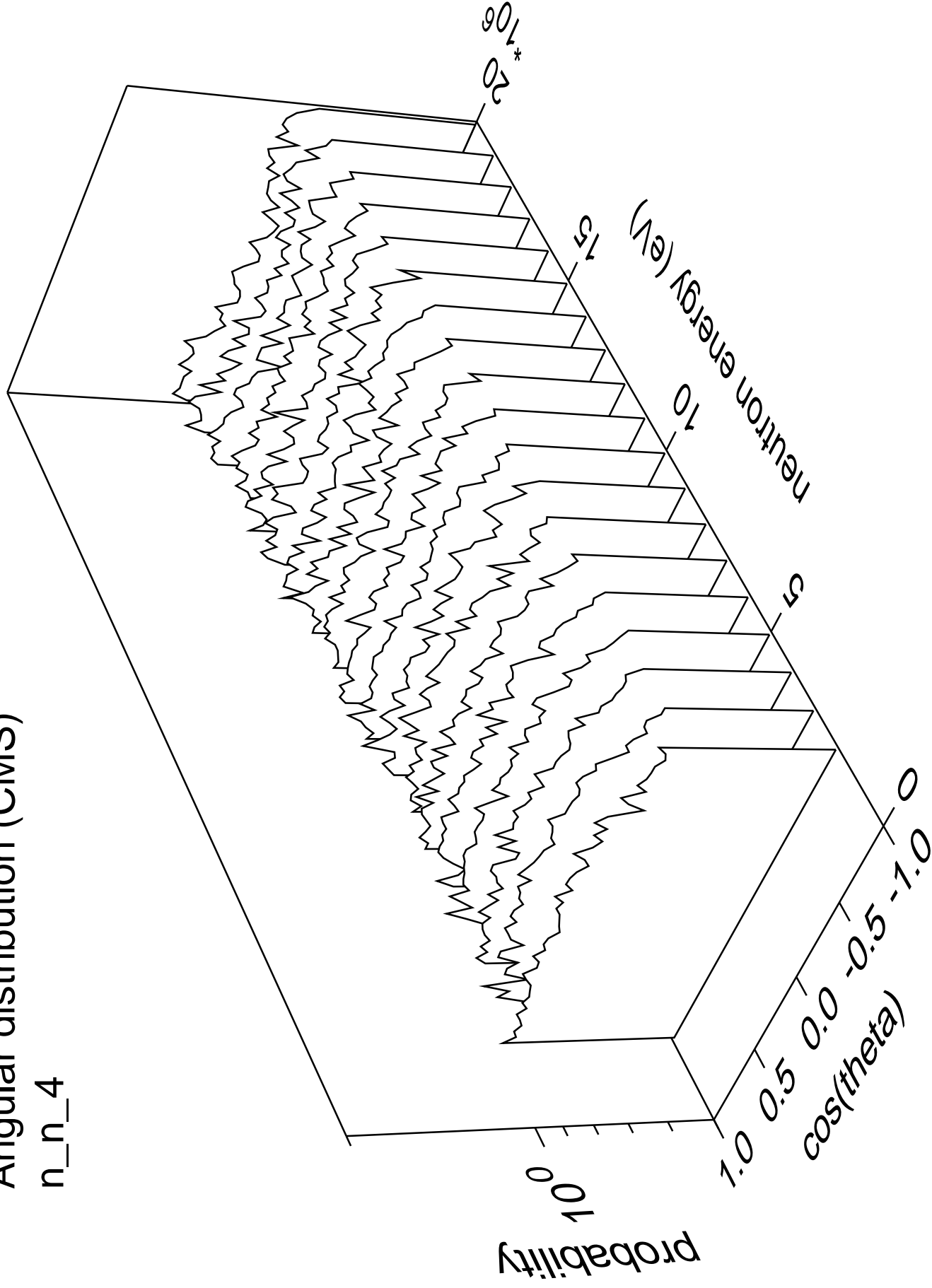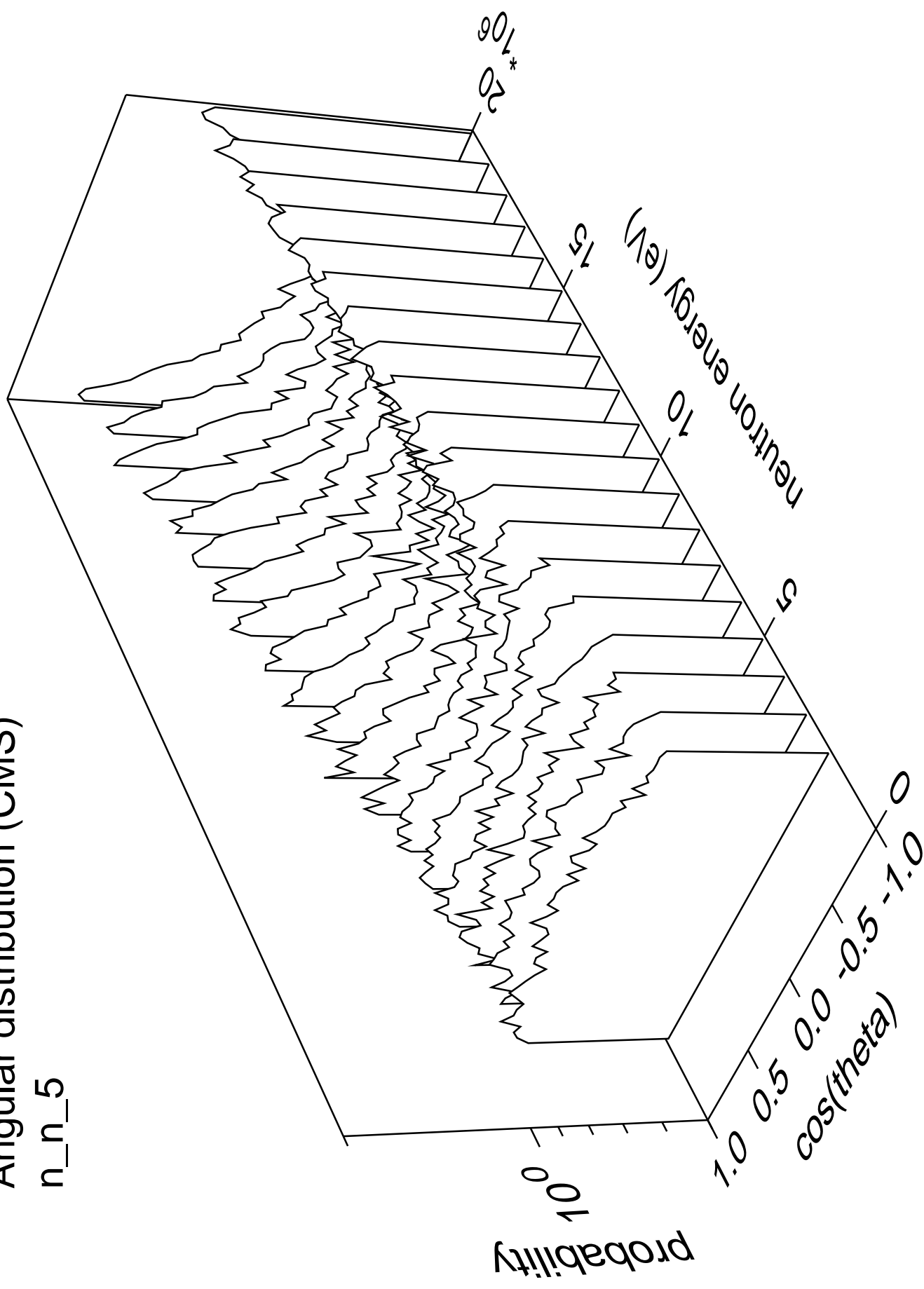
neutron energy (eV)

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

10^0

cos(theta)
1.0 0.5 0.0 -0.5 -1.0

neutron energy (eV)
*10^6
20

15

10

5

0

Angular distribution (CMS)
n_n_7

probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_8

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

10⁰

0

Angular distribution (CMS)
n_n_9

neutron energy (eV)

cos(theta)

probability

*10^6

Angular distribution (CMS)
n_n_10

probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_11

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (CMS)
n_n_12

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

10

5

1.0 0.5 0.0 -0.5 -1.0

0

Angular distribution (CMS)
n_n_13

probability

10⁰

neutron energy (eV)

cos(theta)

1.0 0.5 0.0 -0.5 -1.0

0

5

10

15

20 *10⁶

Angular distribution (CMS)
n_n_14

neutron energy (eV)

cos(theta)

probability

Angular distribution (CMS)
n_n_15

probability

10^0

cos(theta)

1.0 0.5 0.0 -0.5 -1.0

neutron energy (eV)

20

15

10

5

0

*10^6

Angular distribution (CMS)
n_n_16

probability

neutron energy (eV)

cos(theta)

Angular distribution (CMS)
n_n_cont

probability

cos(theta)

neutron energy (eV)

*10⁶
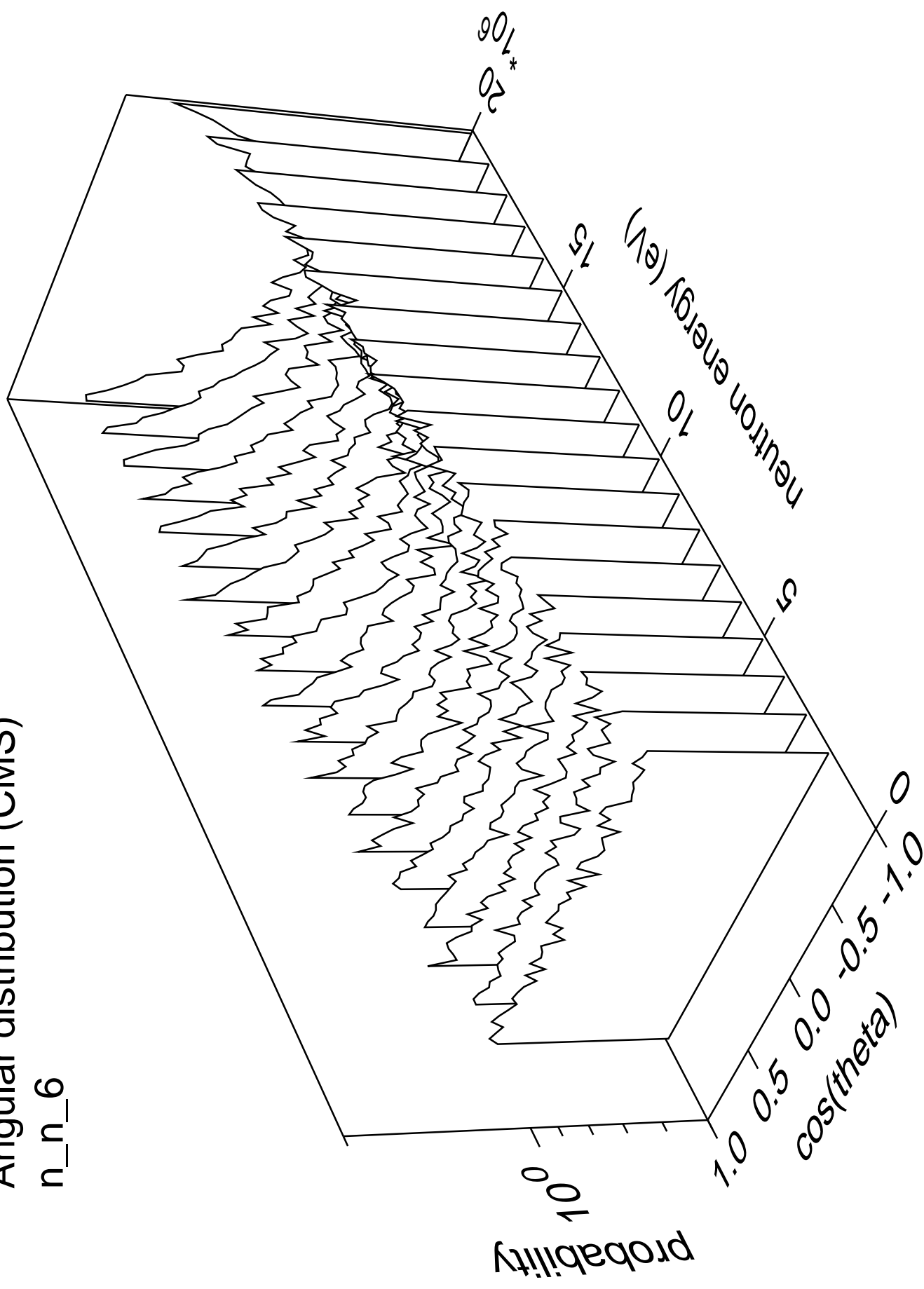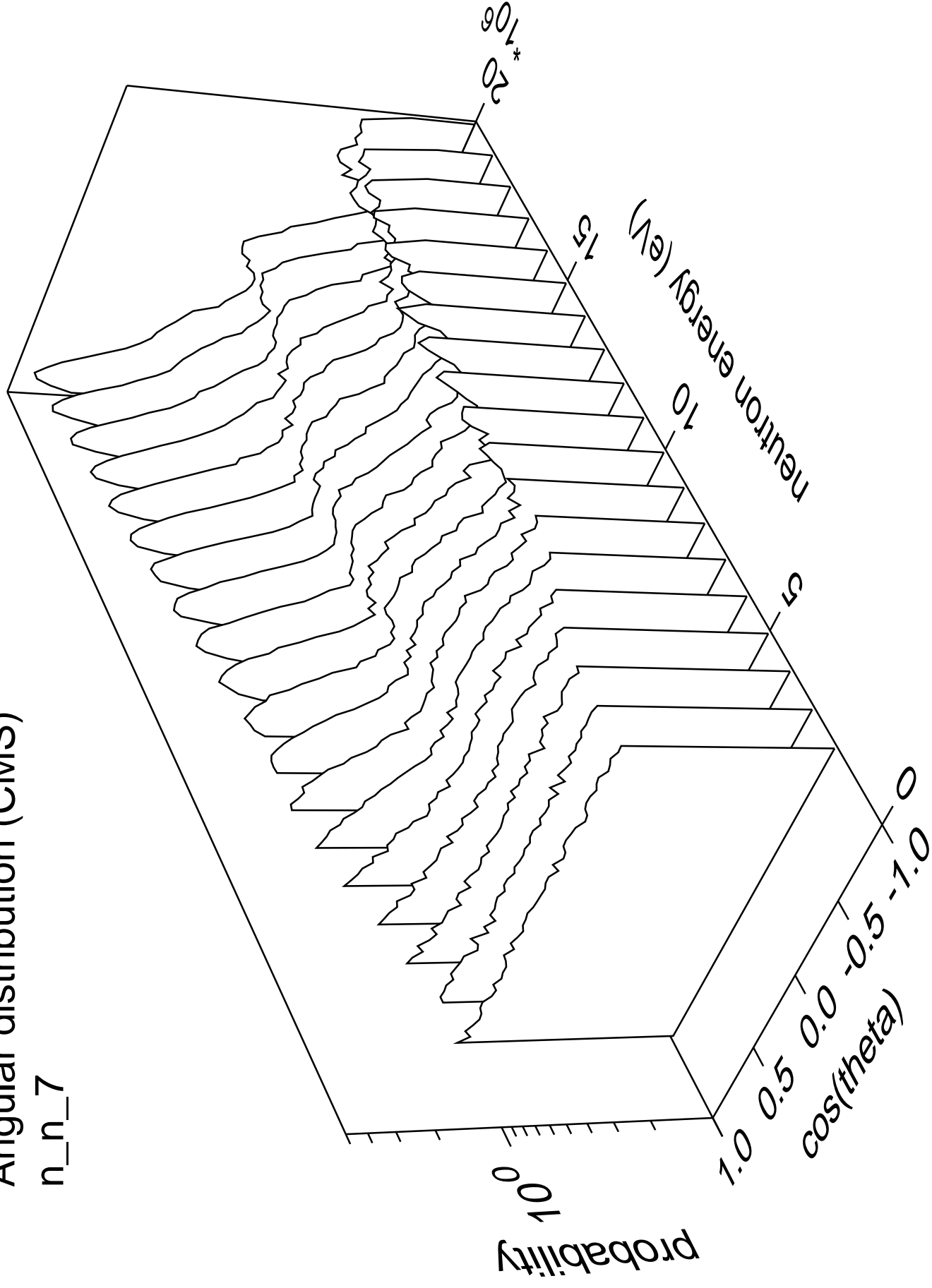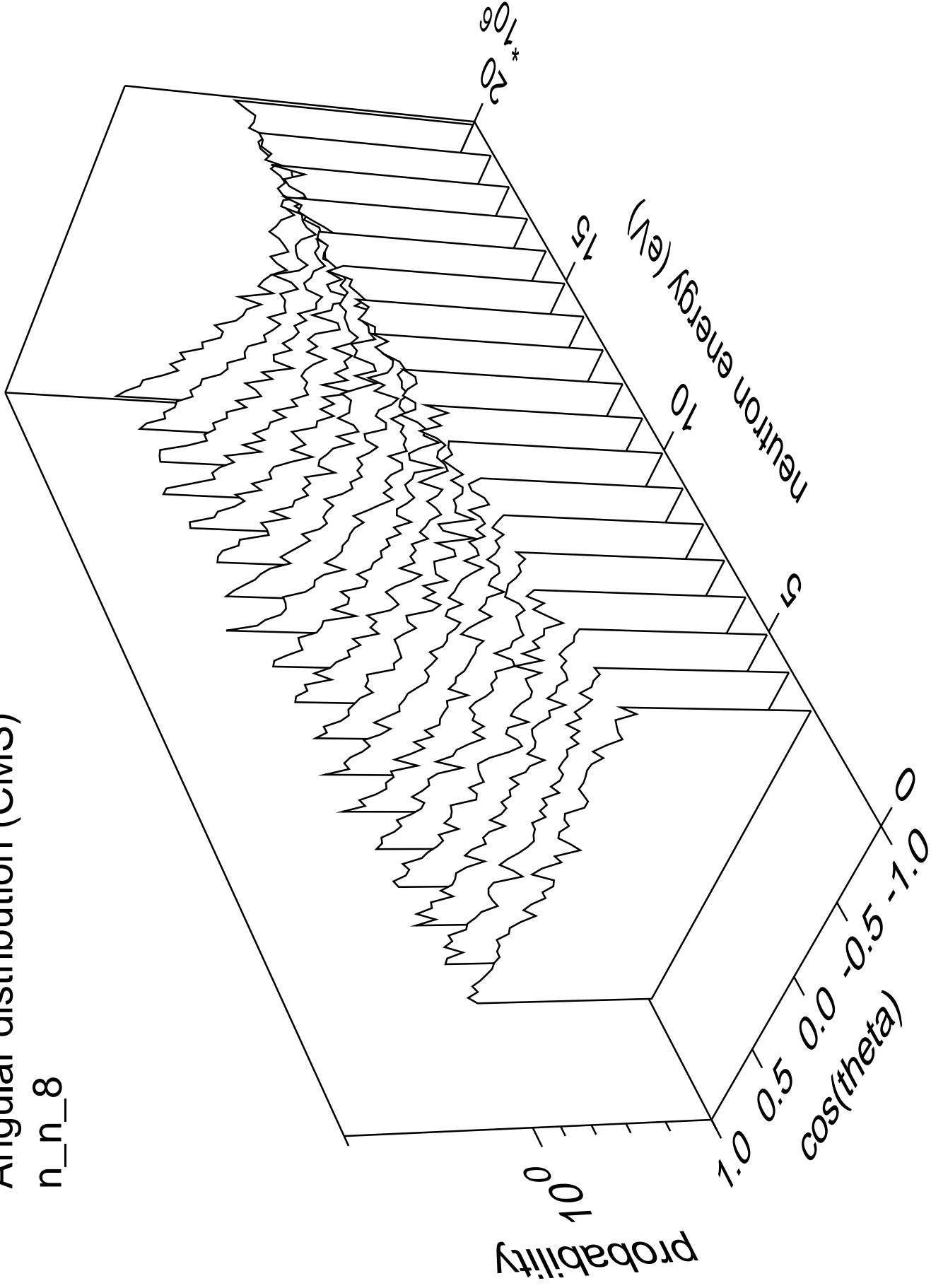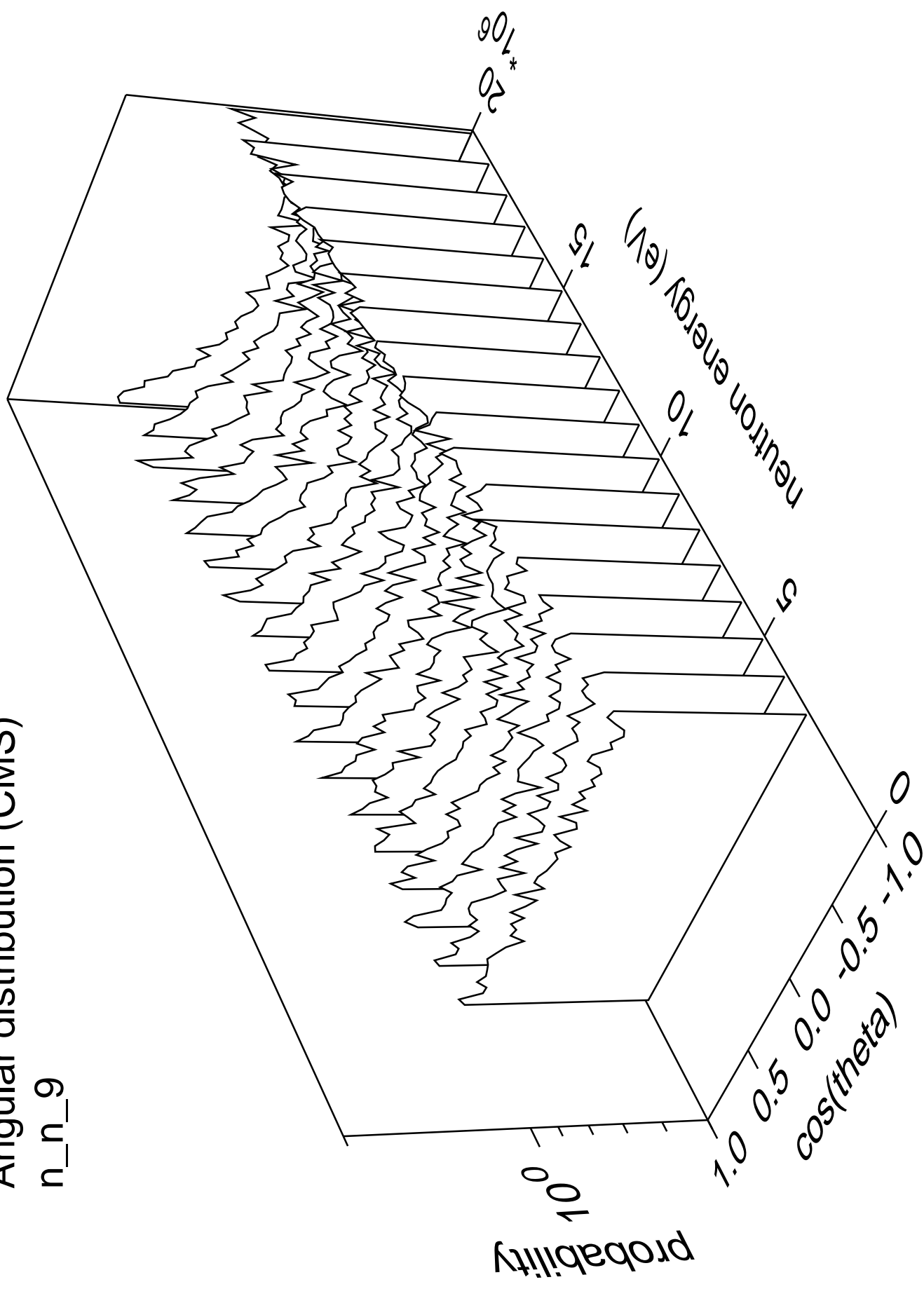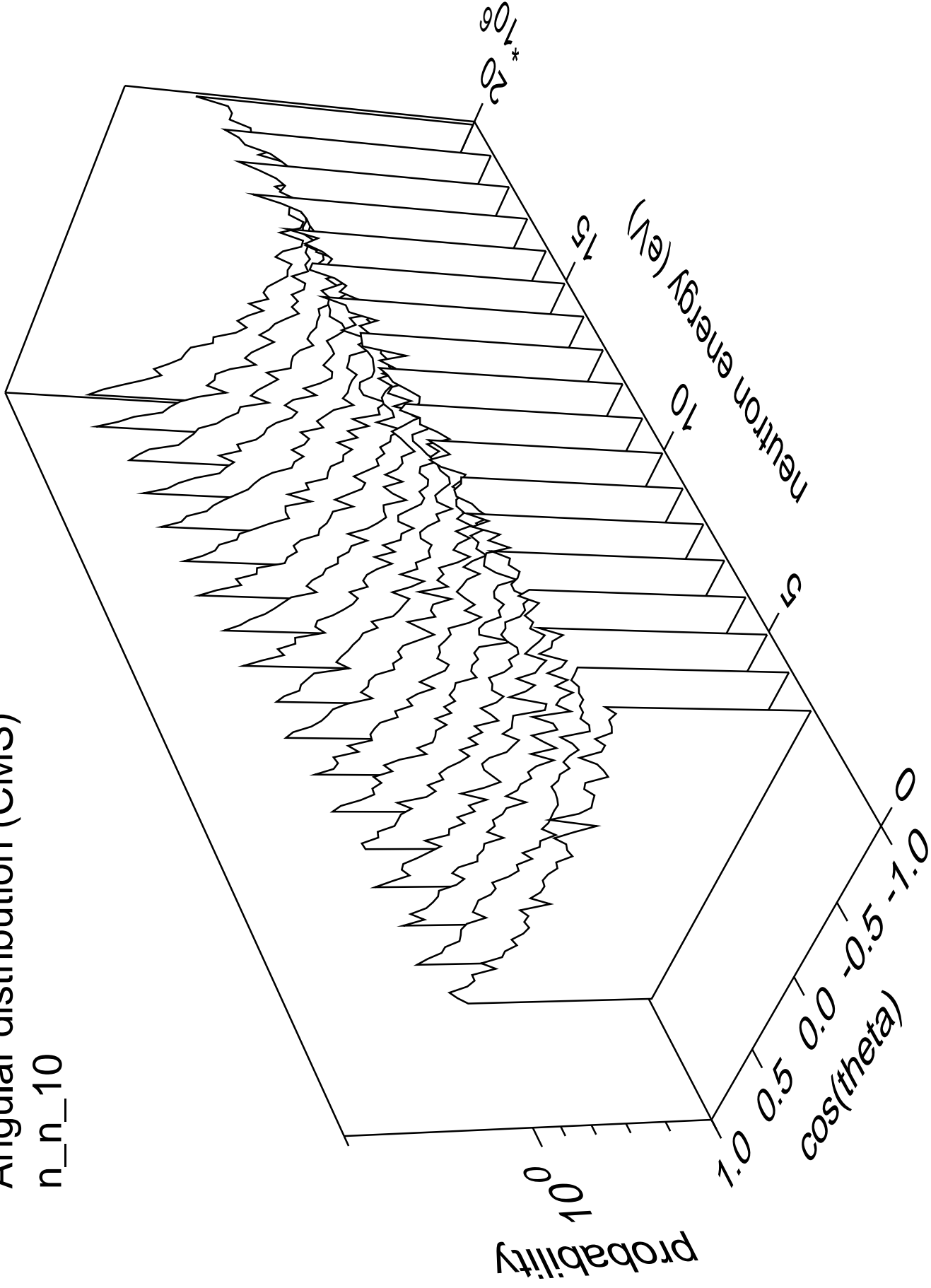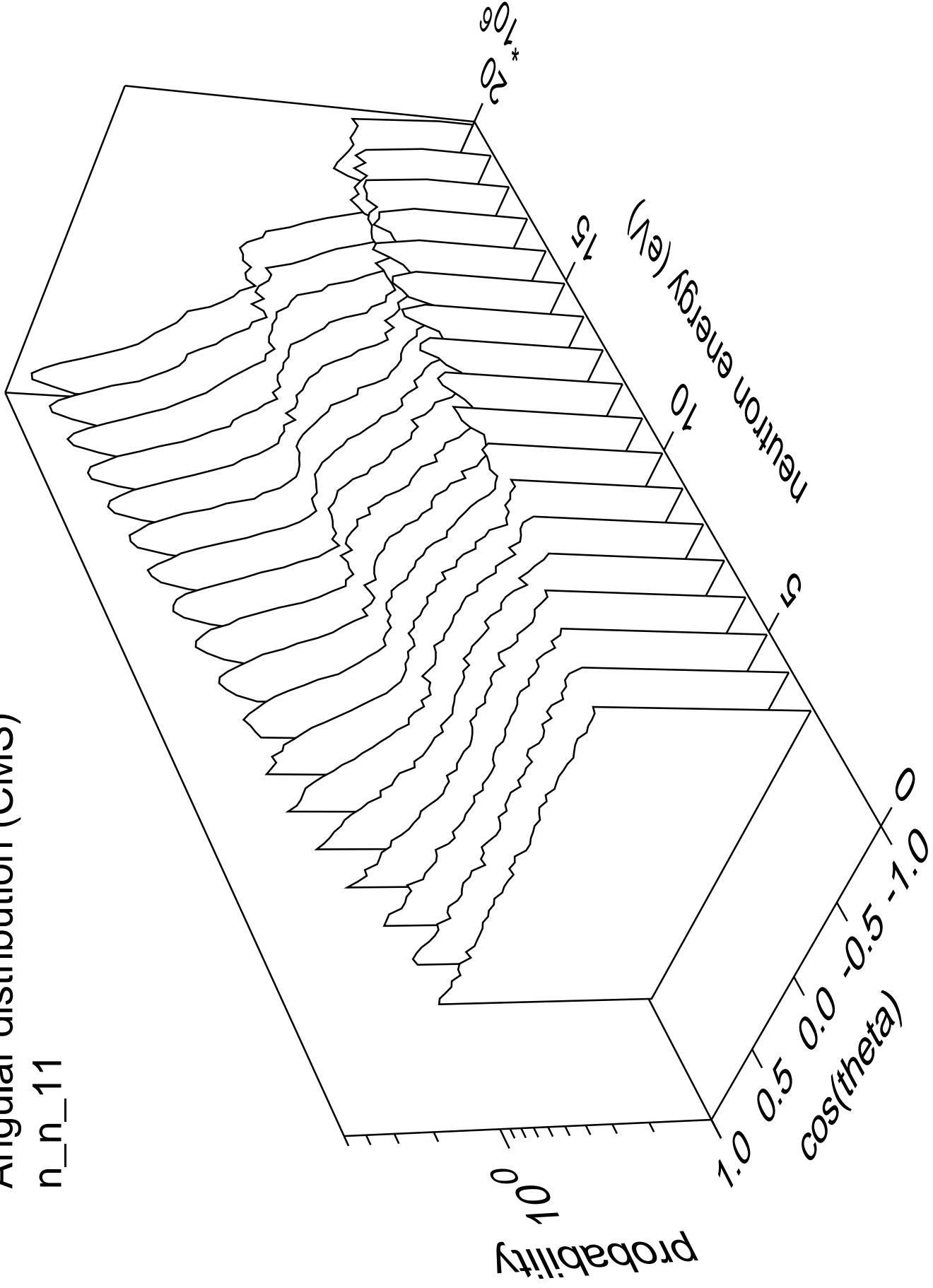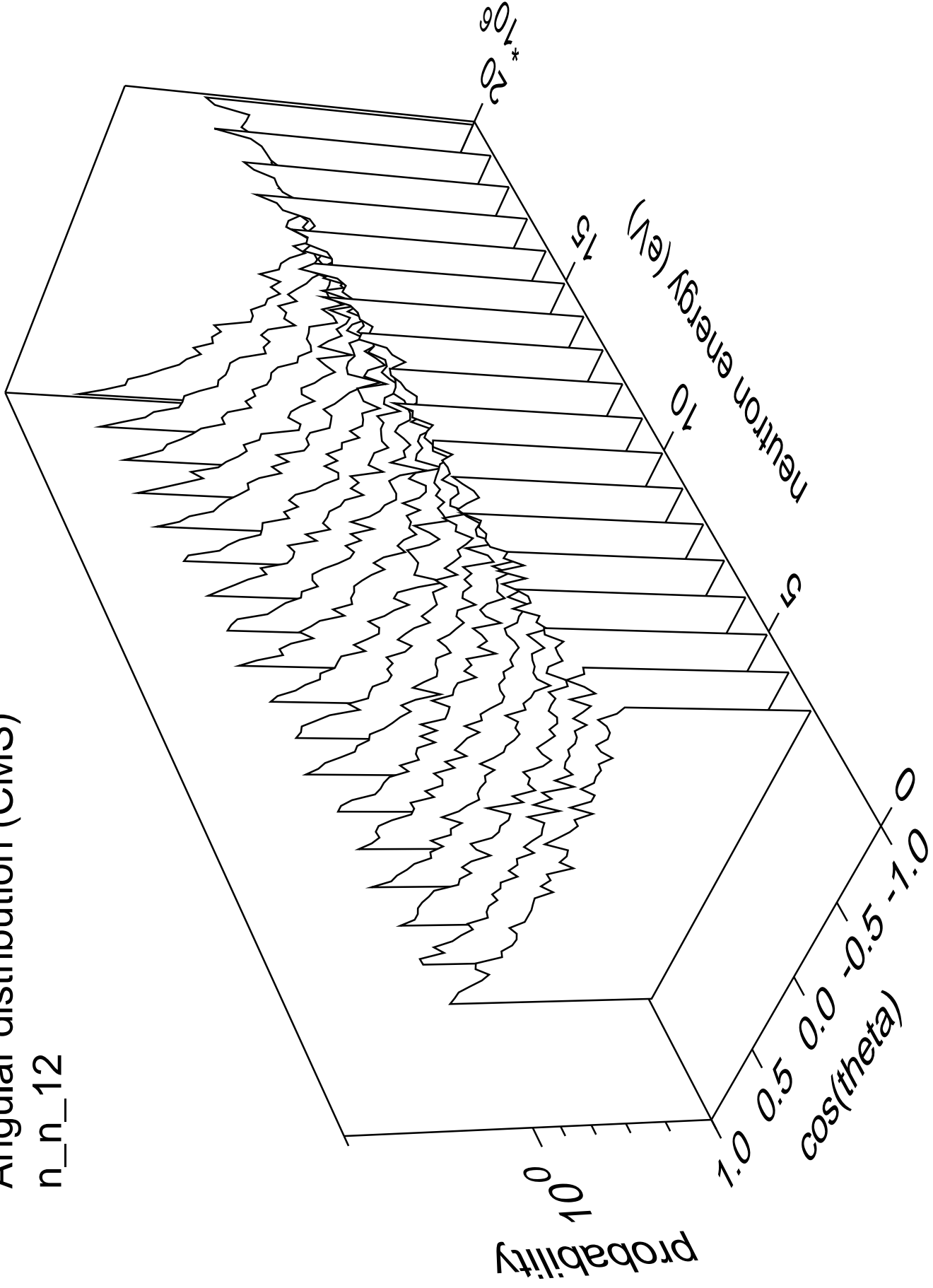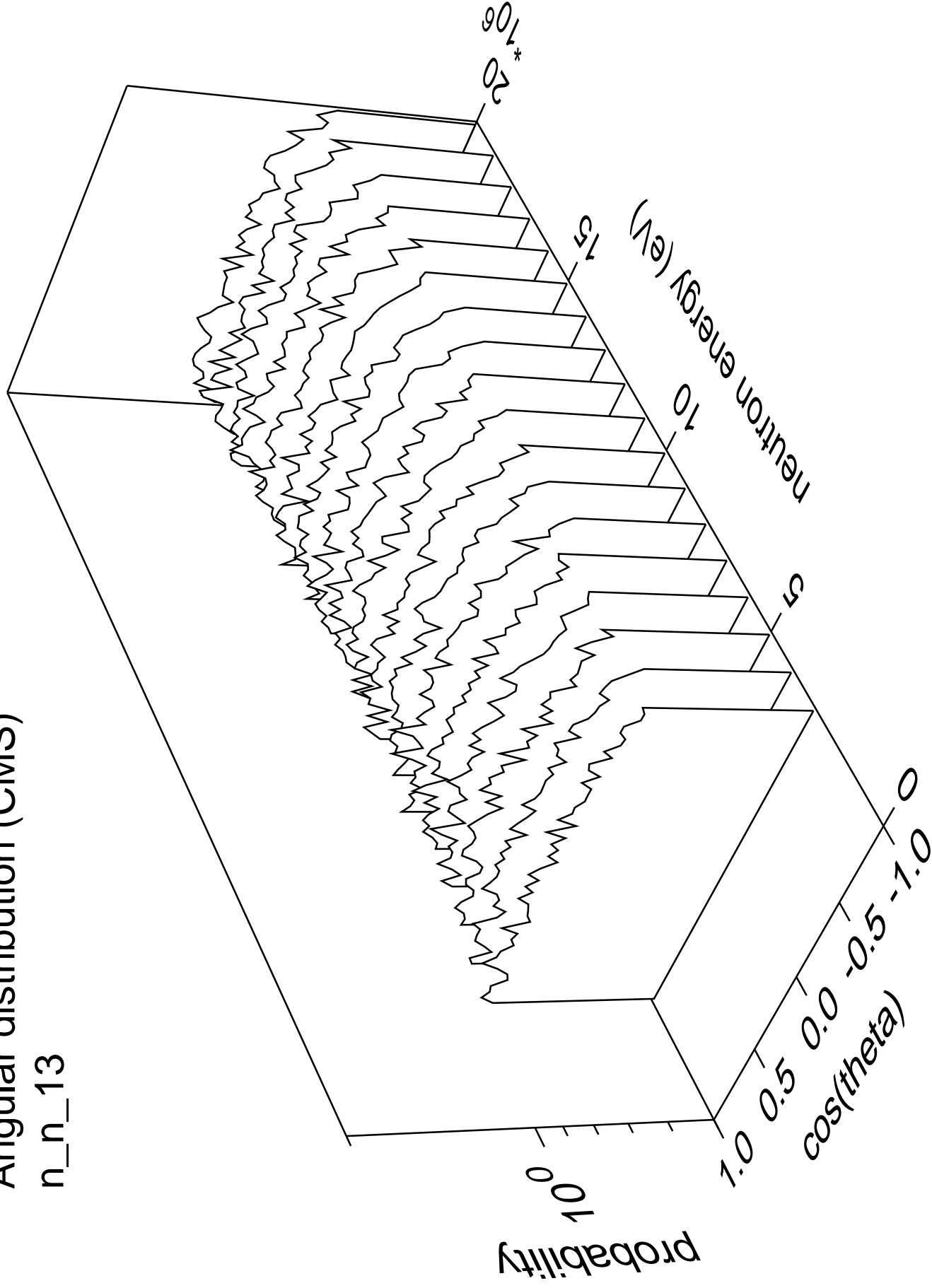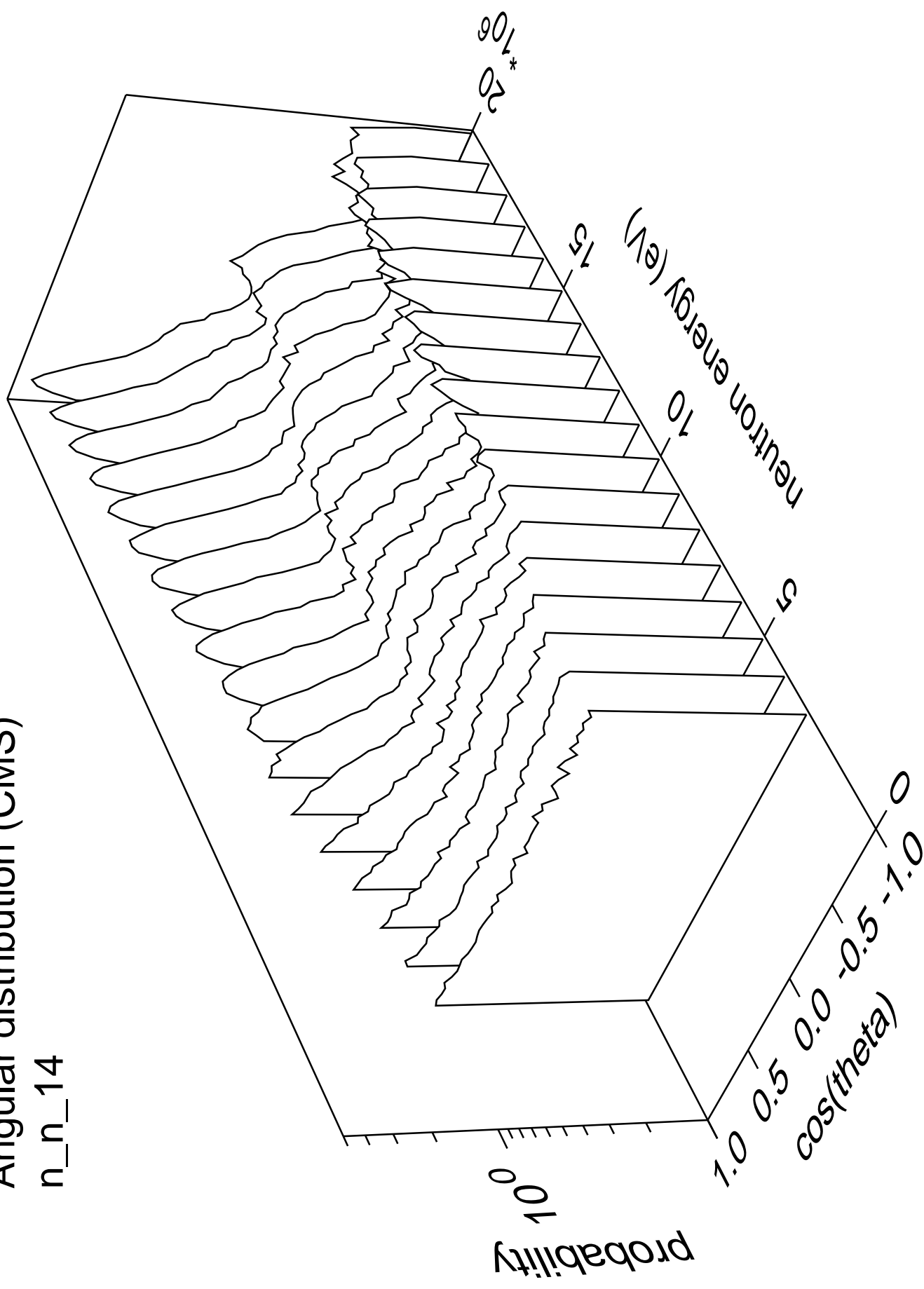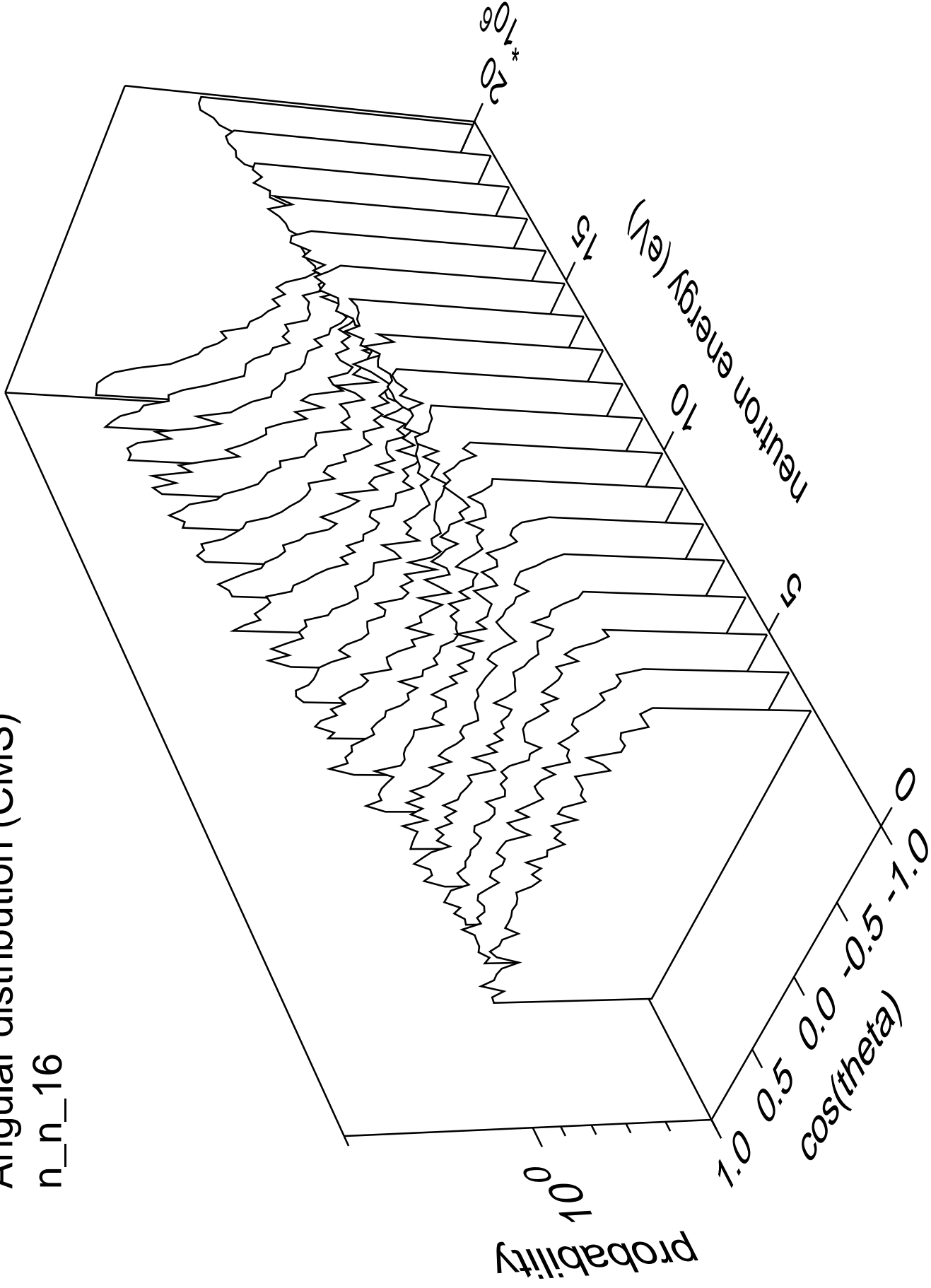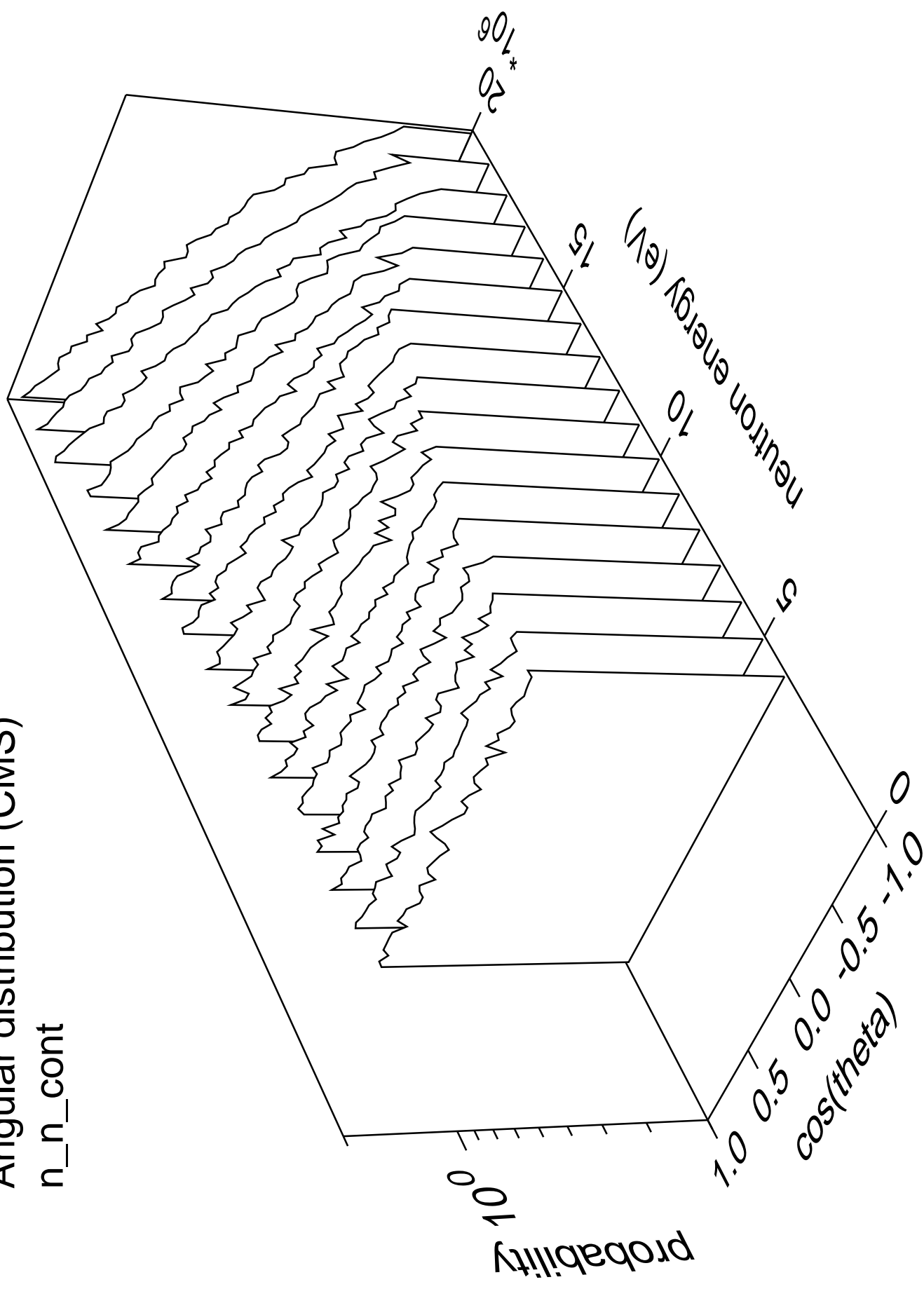
Energy distribution (CMS)
n_2n

Energy distribution (CMS)
n_na
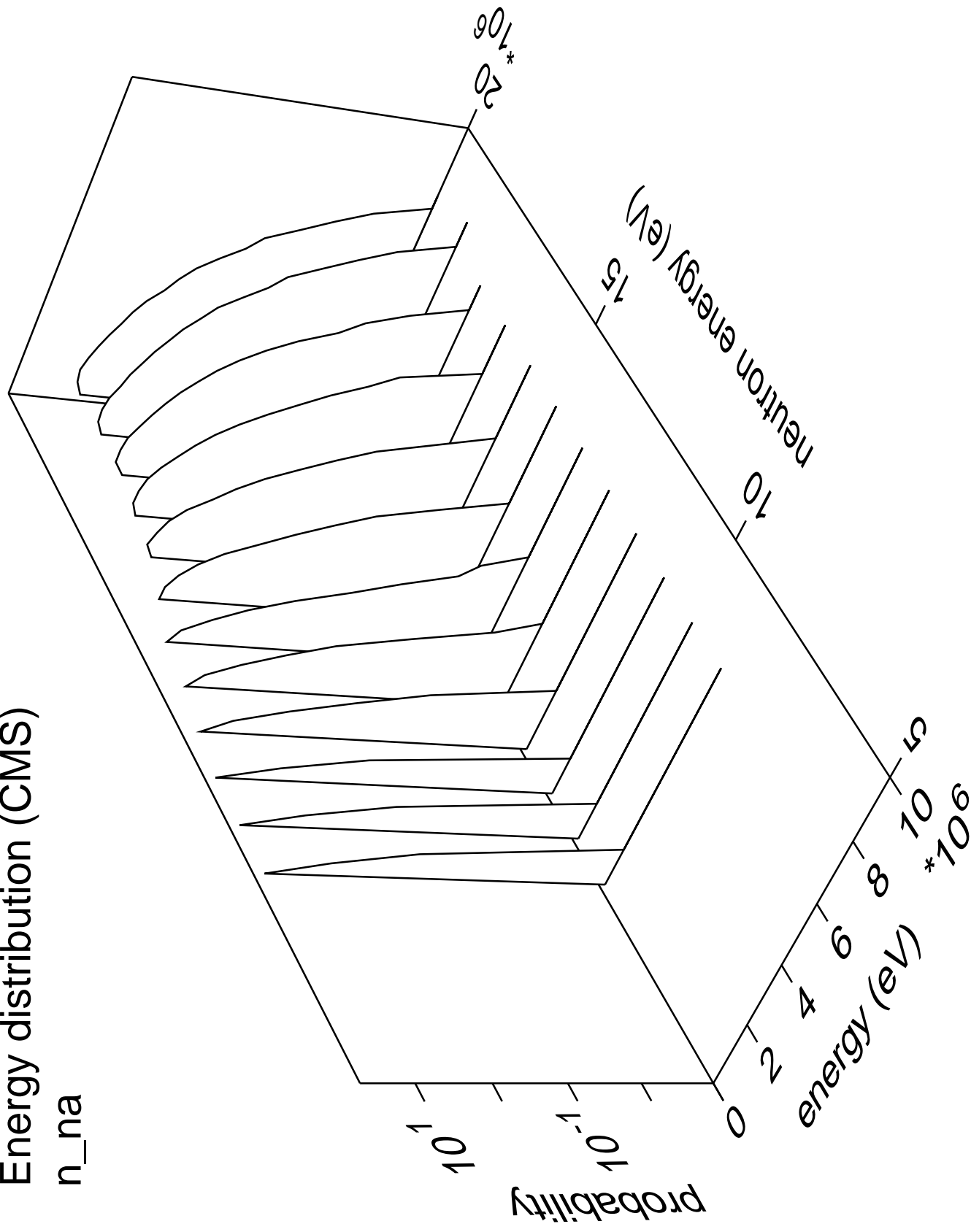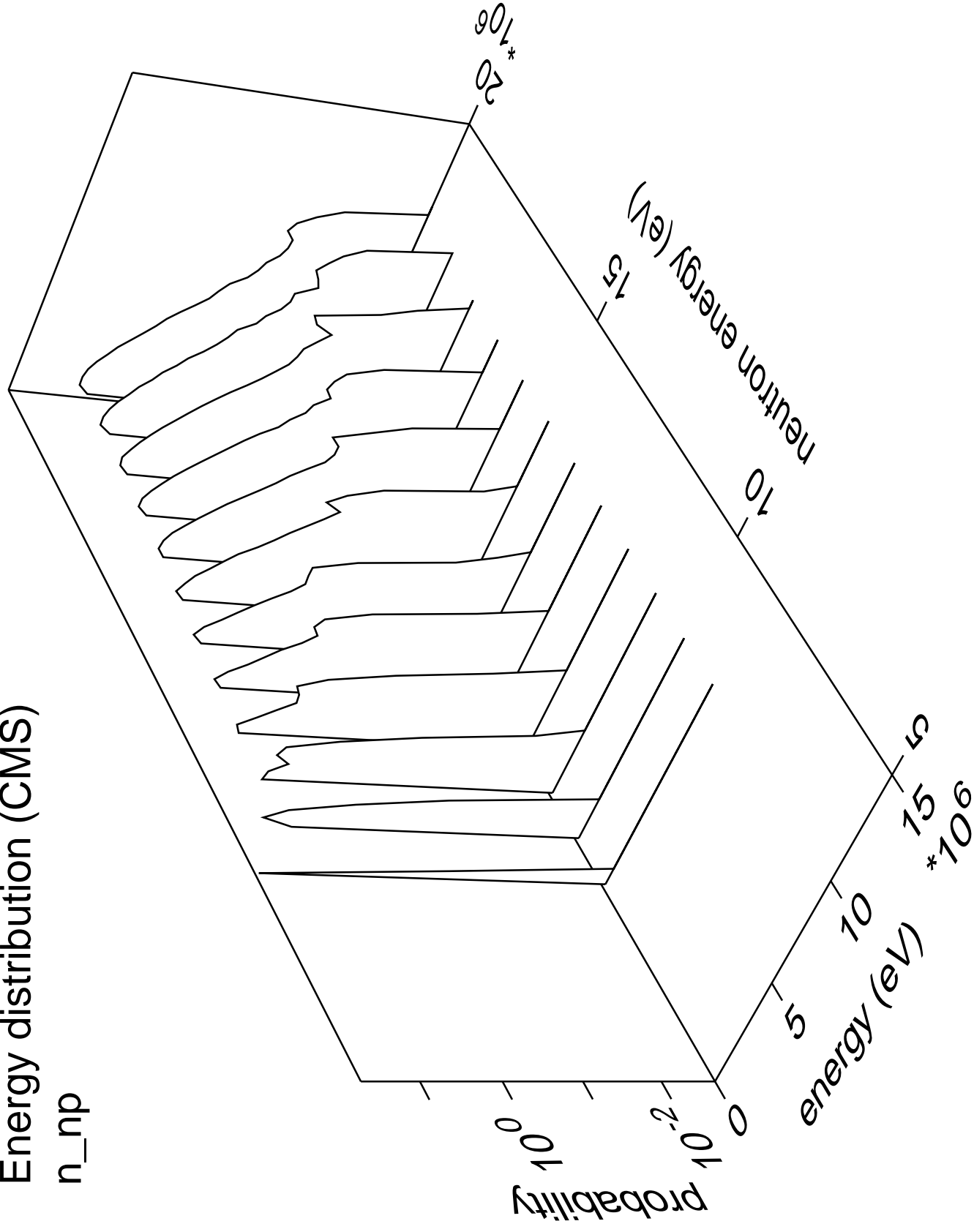
probability

10^1

10^{-1}

energy (eV)

0   2   4   6   8   10   *10^6

neutron energy (eV)

5   10   15   20   *10^6

Energy distribution (CMS)
n_np

probability

energy (eV)

neutron energy (eV)

Energy distribution (CMS)
n_n_cont

probability

10^1

10^0

10^{-1}

energy (eV)

0   5   10   15   20   *10^6

neutron energy (eV)

0   5   10   15   20   *10^6
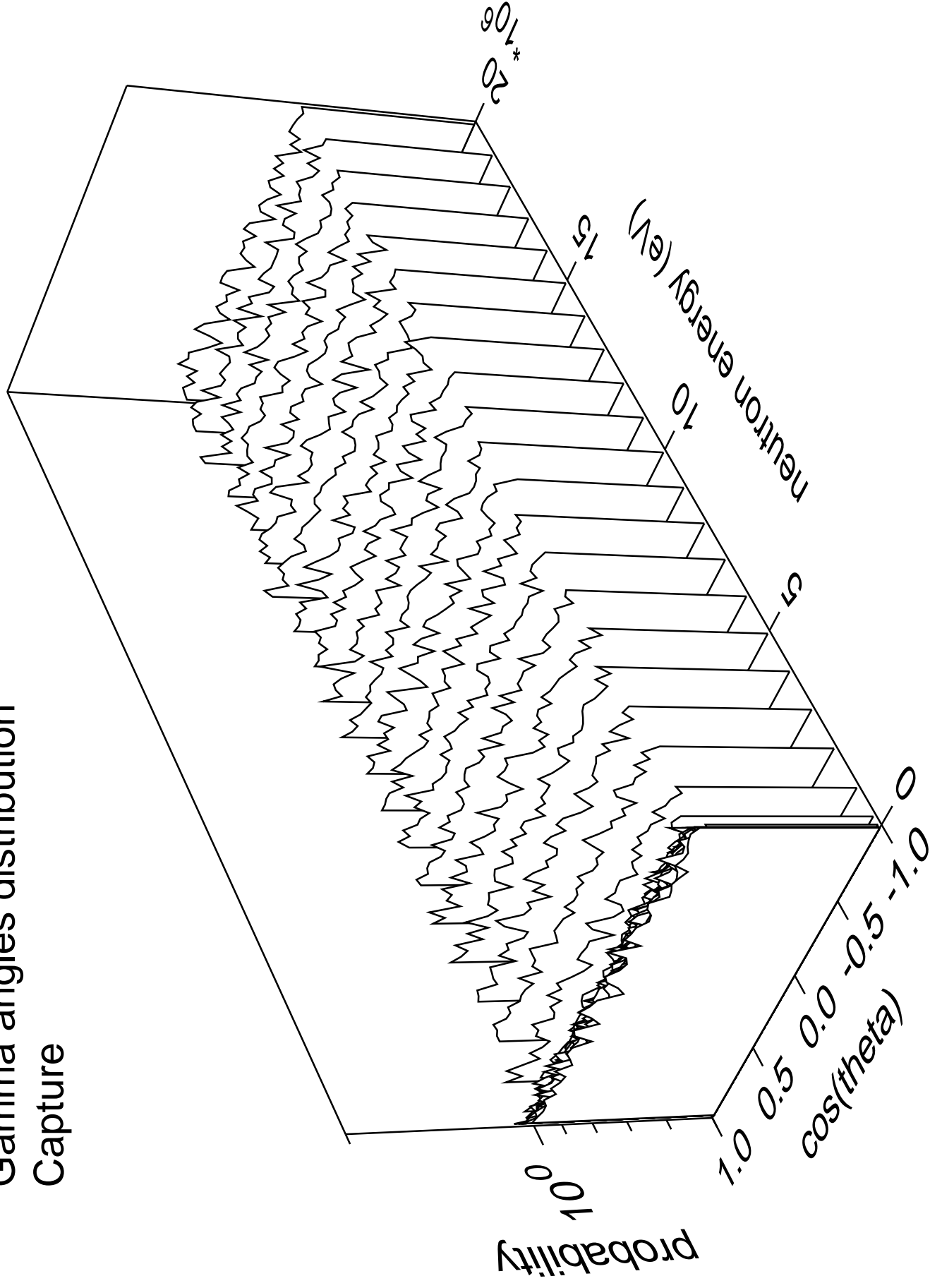
Gamma energy distribution
Capture

probability

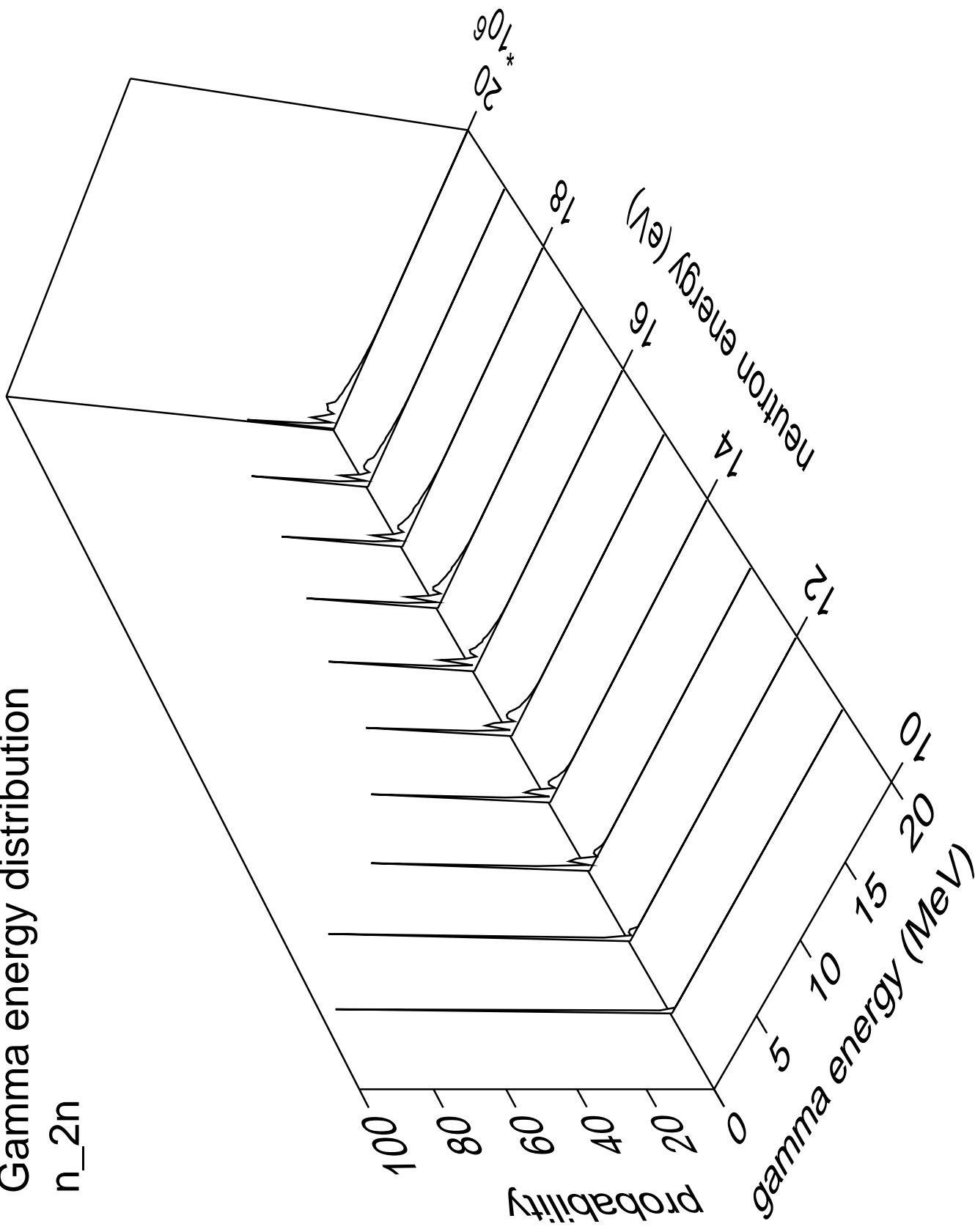neutron energy (eV)

gamma energy (MeV)

20 *10⁶
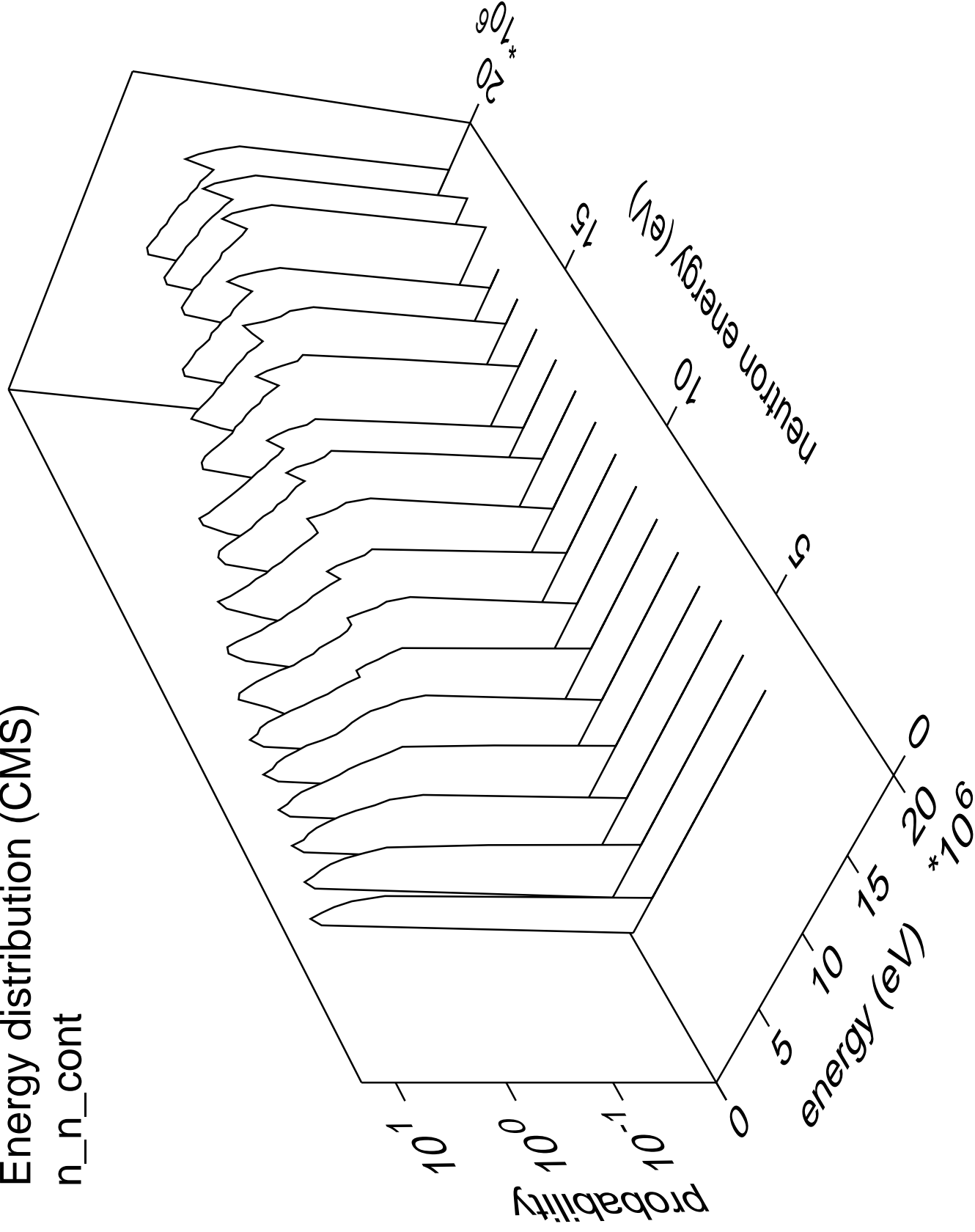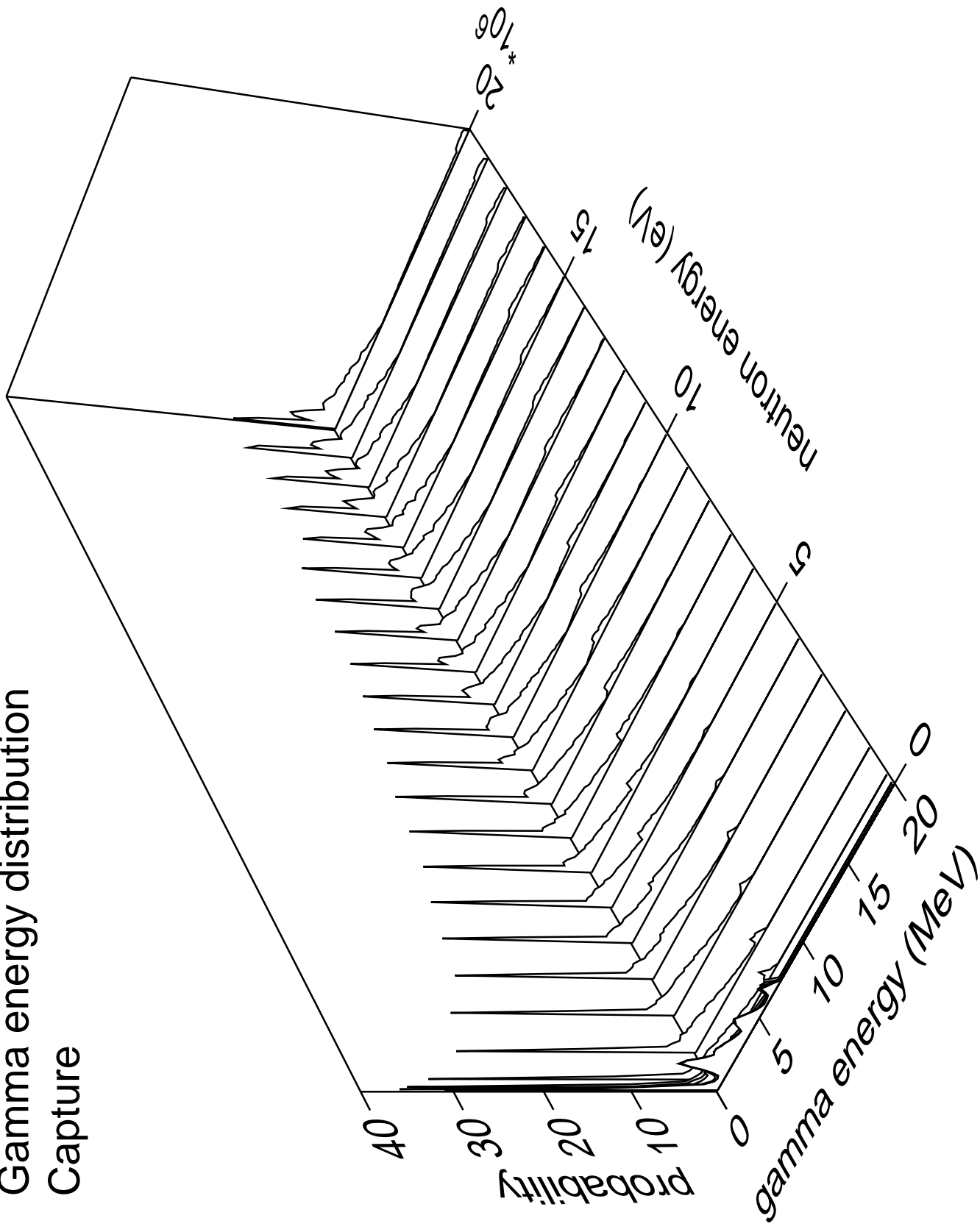
Gamma angles distribution
Capture

Gamma multiplicities distribution
Capture

Gamma energy distribution
n_2n

neutron energy (eV)

*10⁶

gamma energy (MeV)

probability

Gamma angles distribution
n_2n

probability

neutron energy (eV)

cos(theta)

20 *10e

18

16

14

12

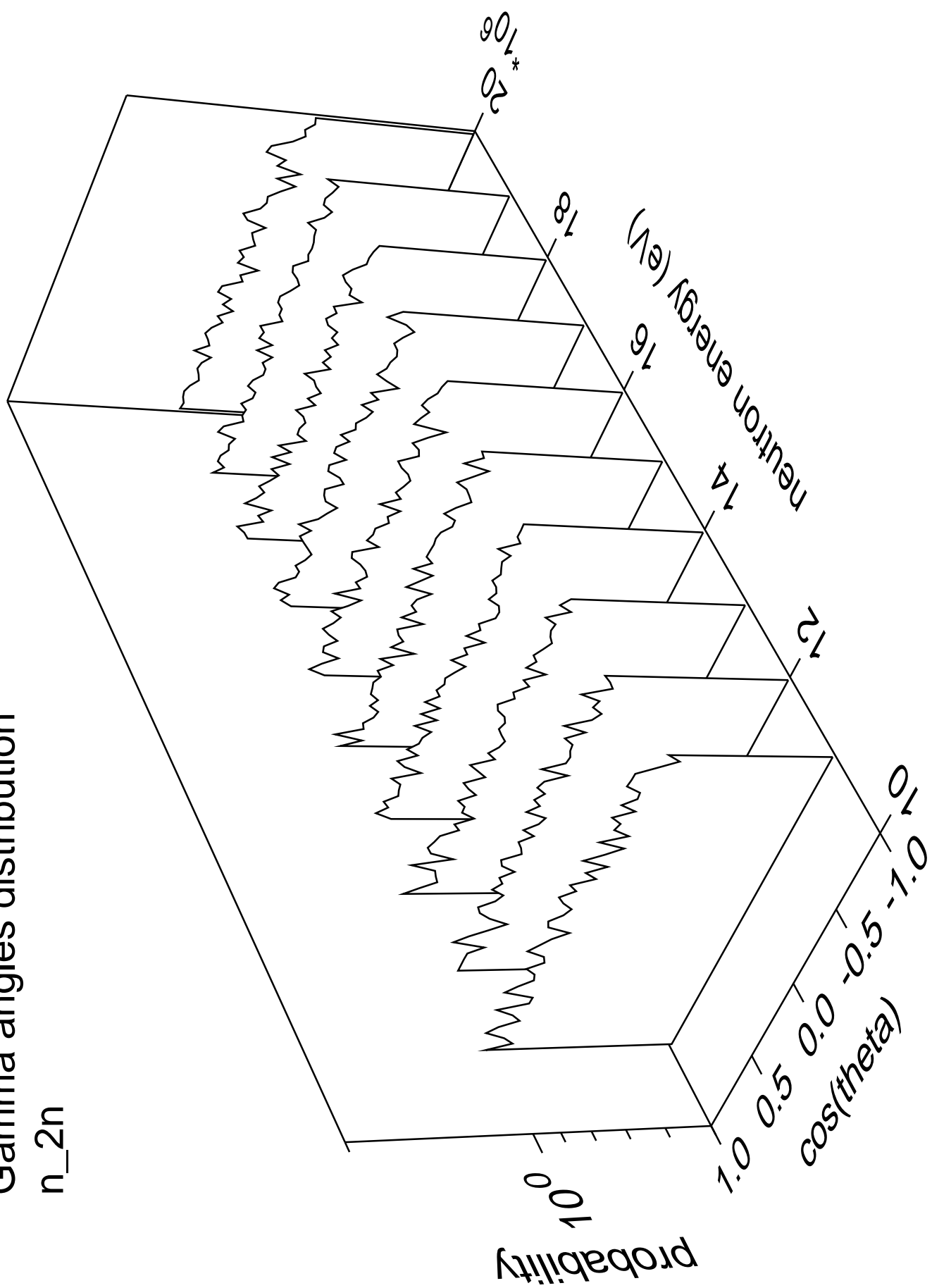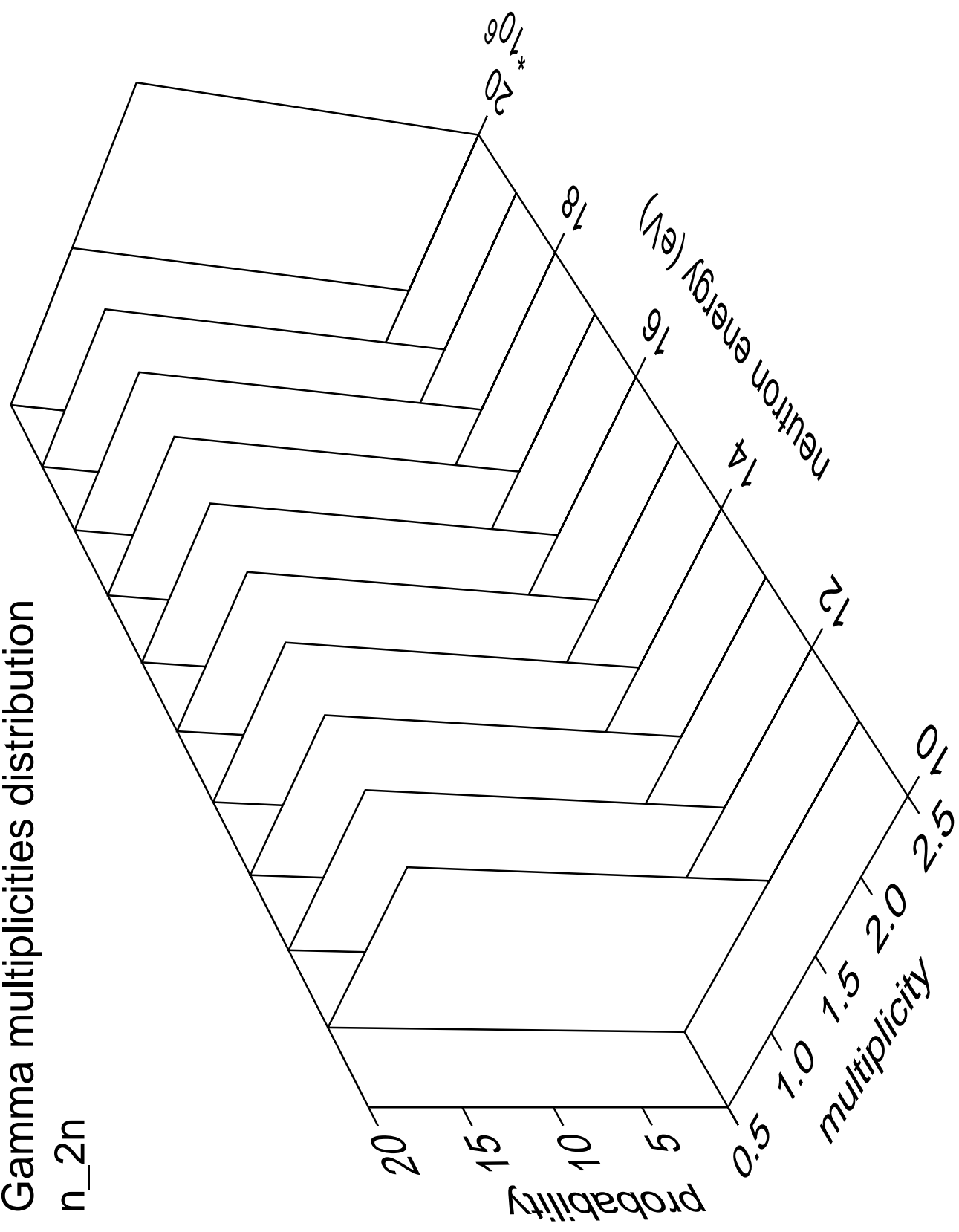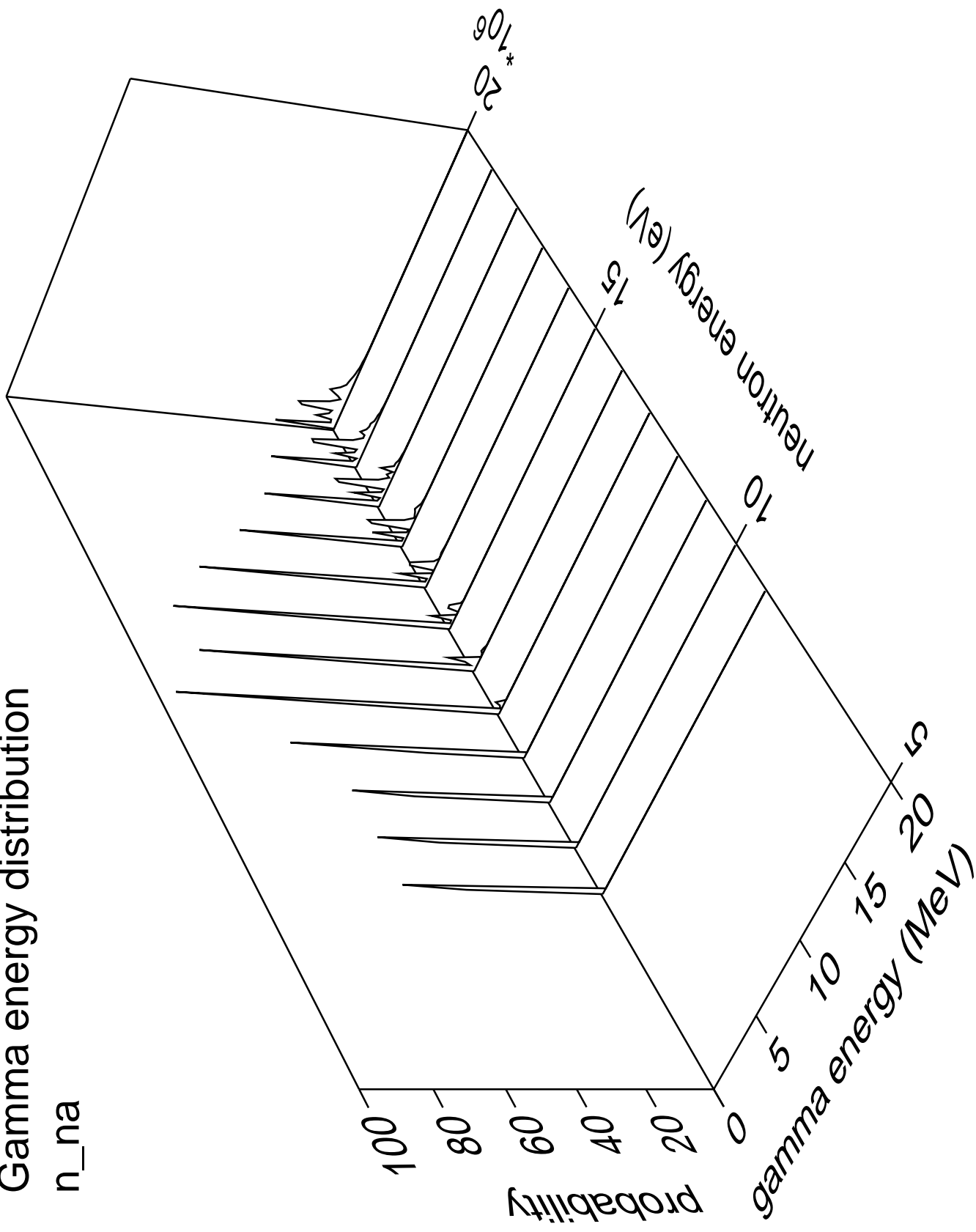1.0 0.5 0.0 -0.5 -1.0

10^0

Gamma multiplicities distribution
n_2n
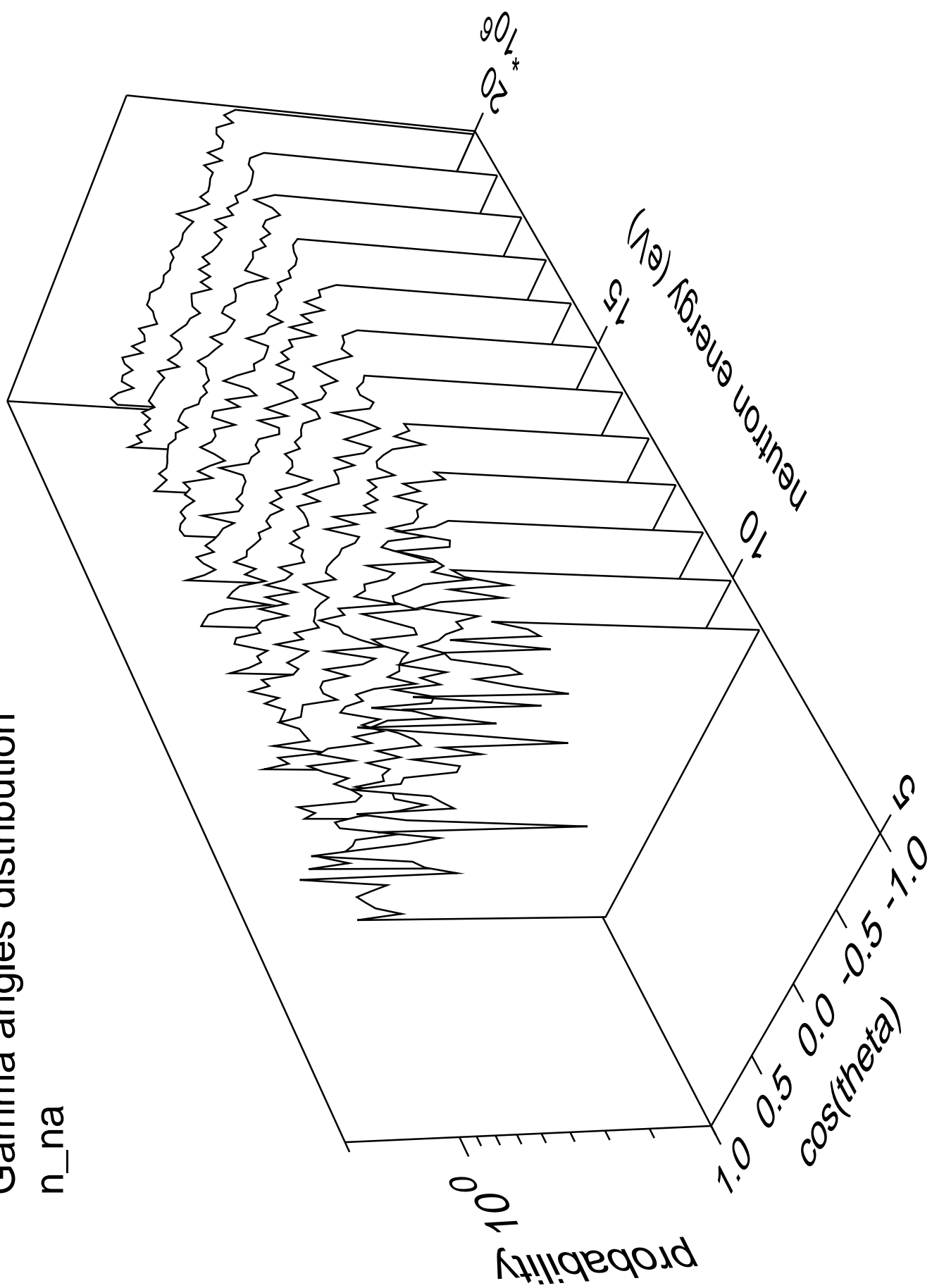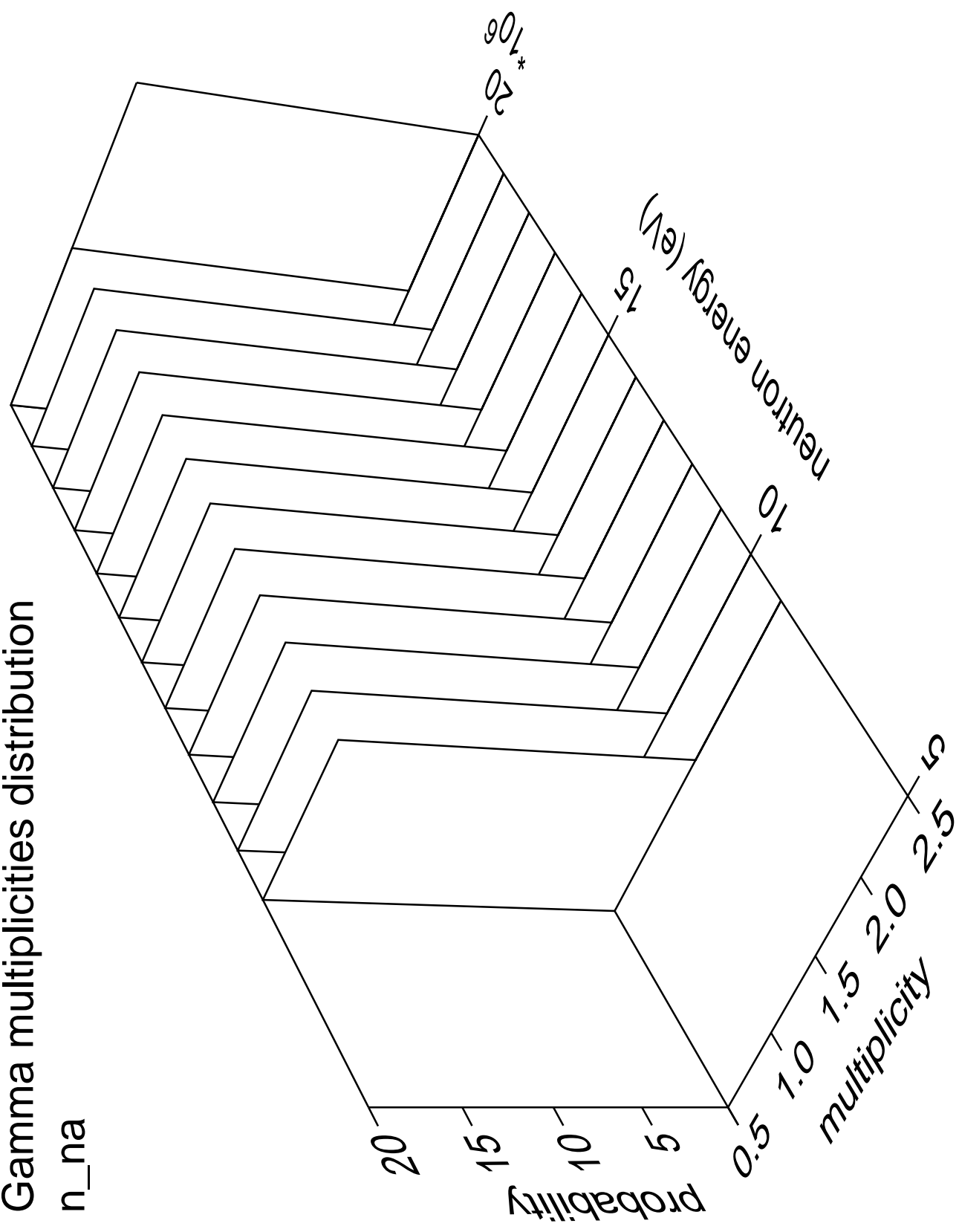
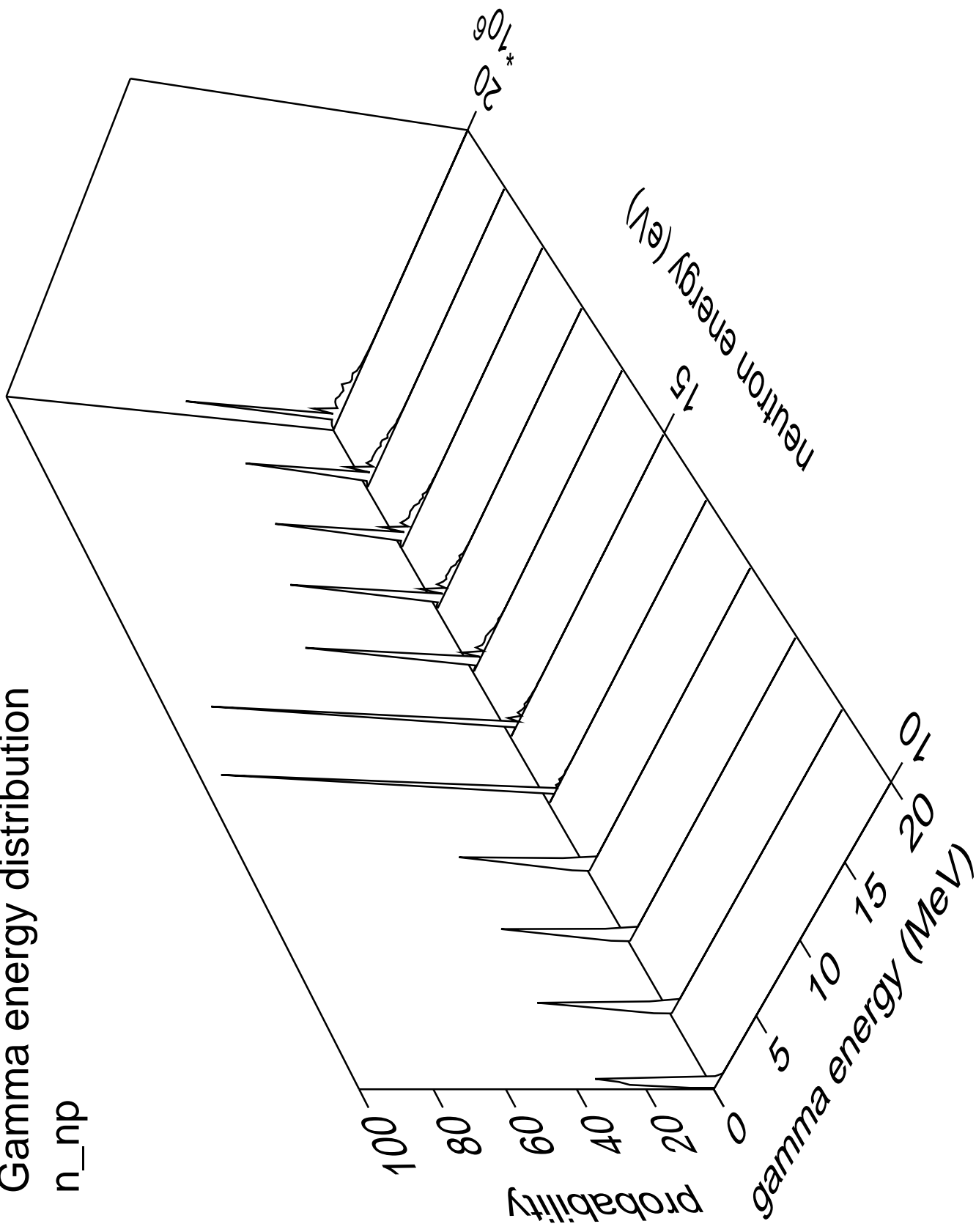Gamma energy distribution
n_na

Gamma angles distribution
n_na

Gamma multiplicities distribution

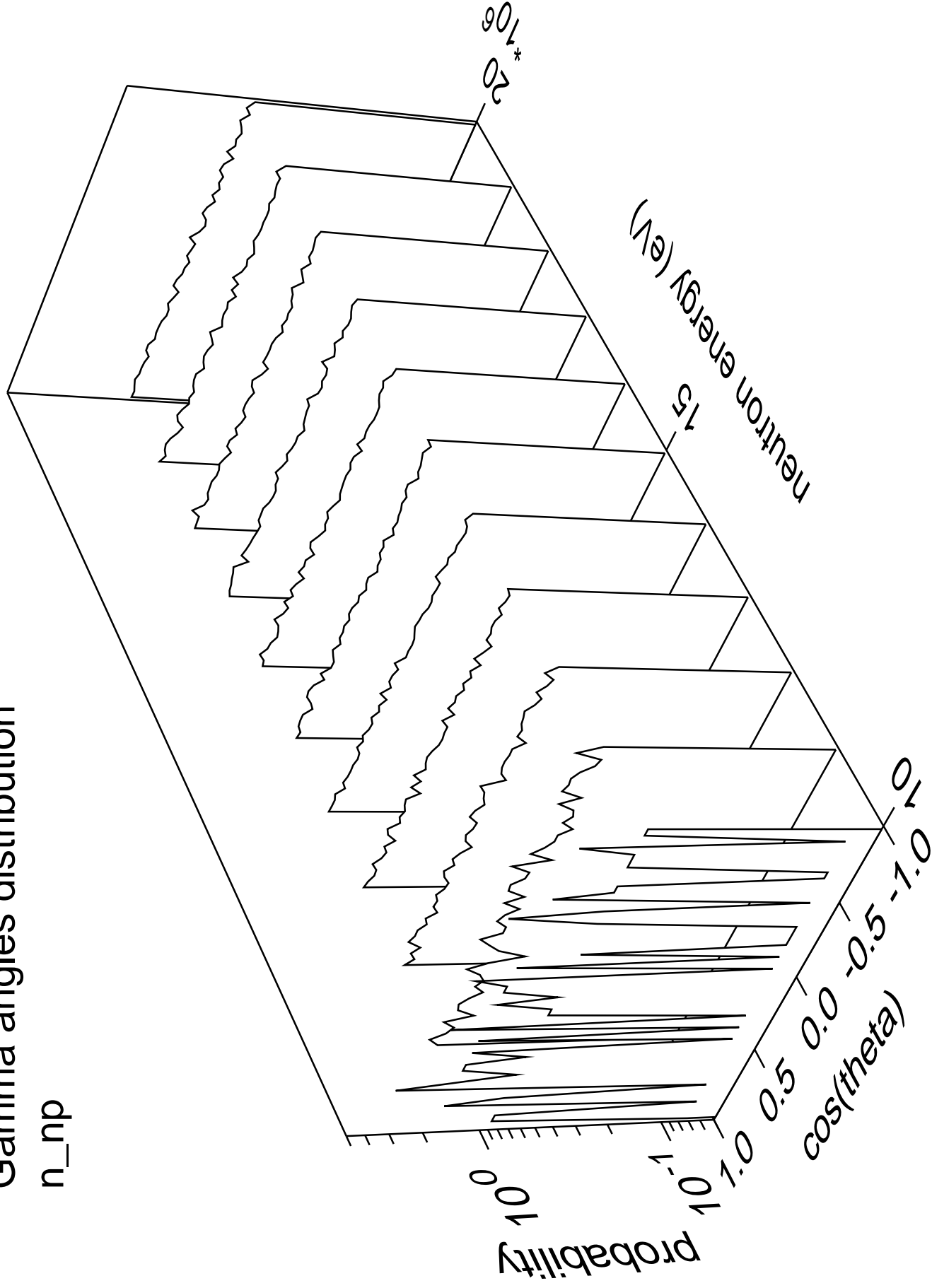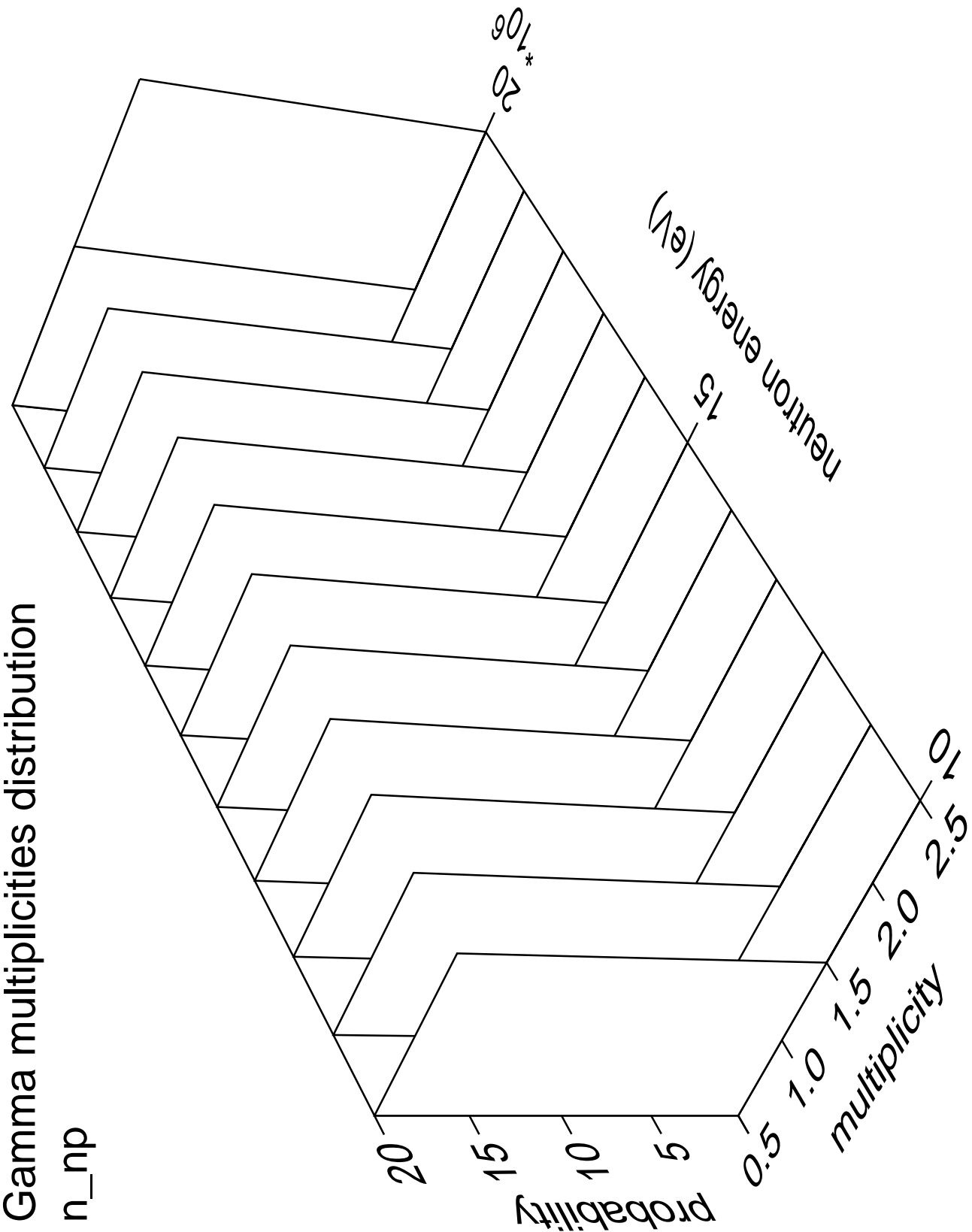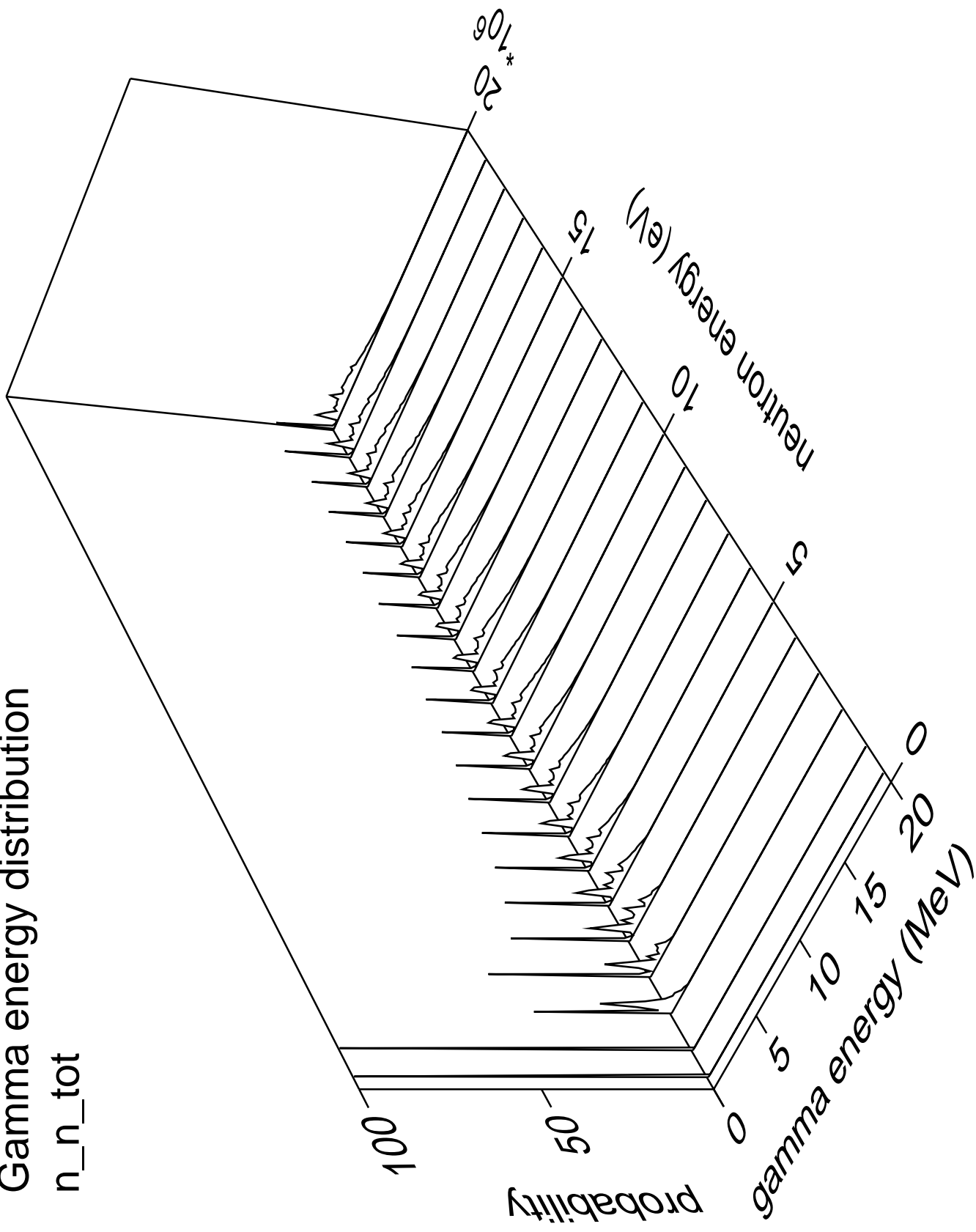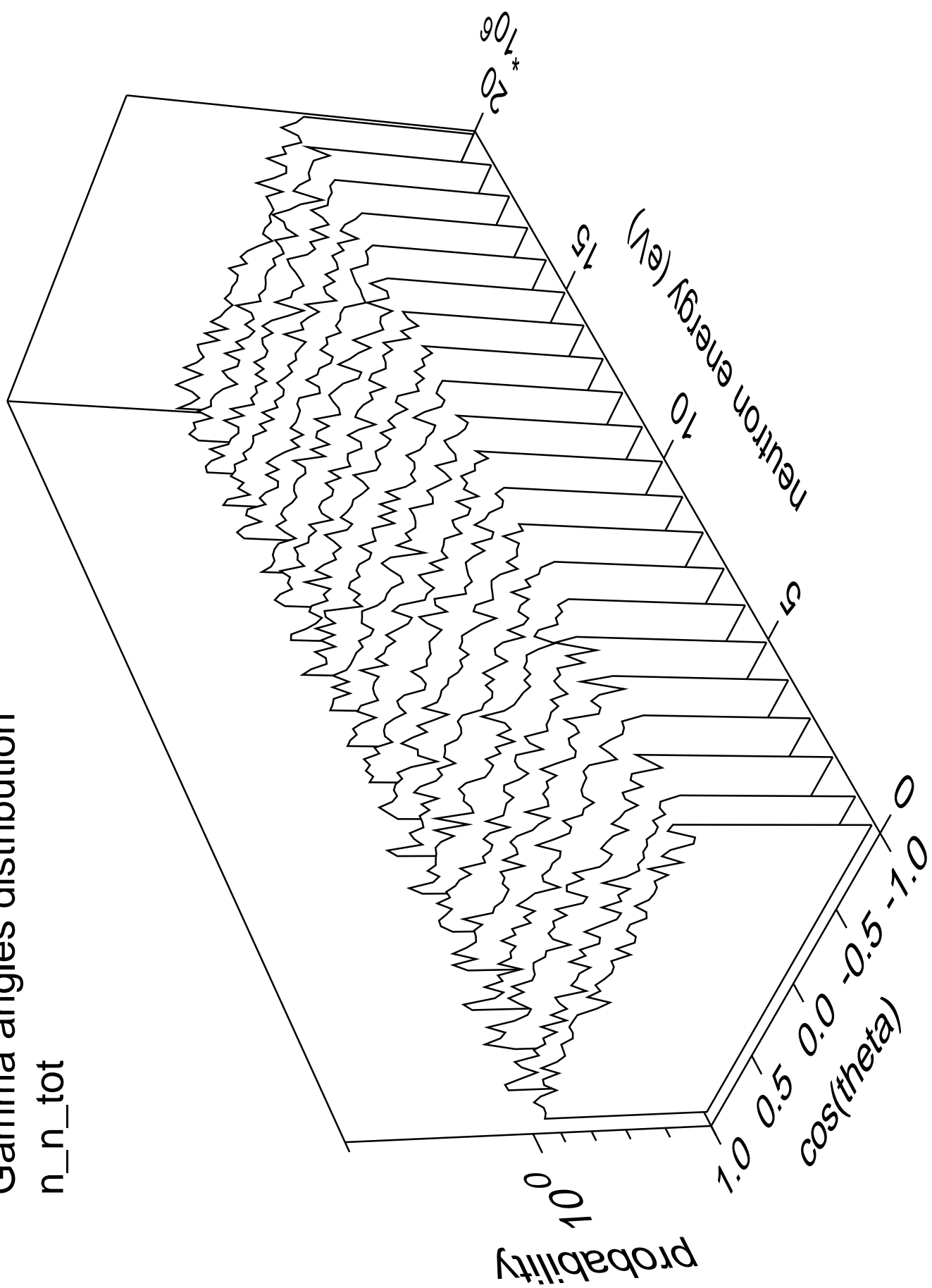Gamma energy distribution
n_np

probability

neutron energy (eV)

gamma energy (MeV)

Gamma angles distribution
n_np

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

1.0 0.5 0.0 -0.5 -1.0

10⁰

10⁻¹

Gamma multiplicities distribution

Gamma energy distribution
n_n_tot

probability

100

50

0

gamma energy (MeV)

0   5   10   15   20

neutron energy (eV)

0   5   10   15   20 *10⁶

Gamma angles distribution
n_n_tot

probability

cos(theta)

neutron energy (eV)

*10⁶

Gamma multiplicities distribution
n_n_tot

Gamma energy distribution
n_p_tot

probability

neutron energy (eV)

gamma energy (MeV)

20 *10⁶

15

10

5

0

5 10 15 20

80

60

40

20

Gamma angles distribution
n_p_tot

neutron energy (eV)

cos(theta)

probability
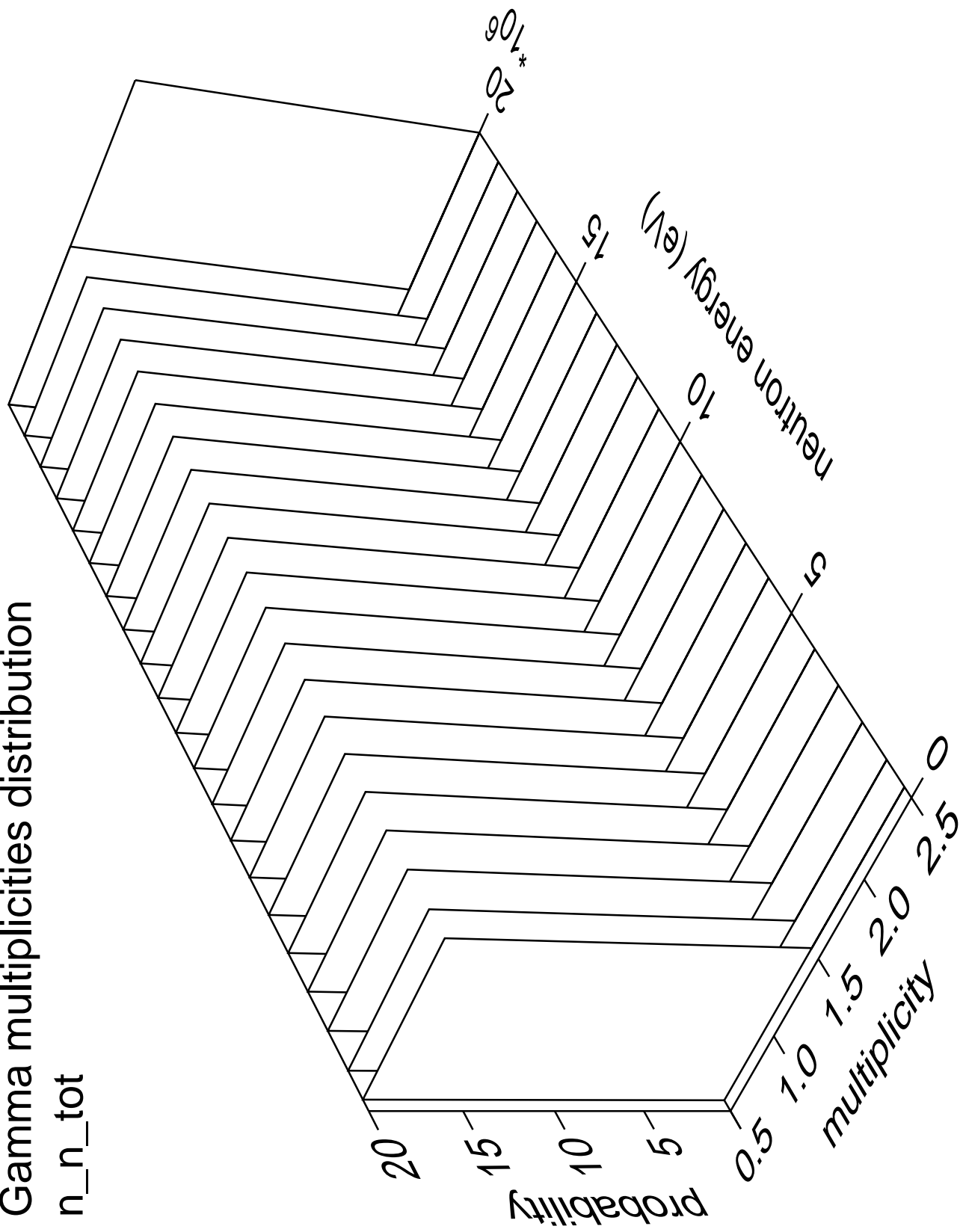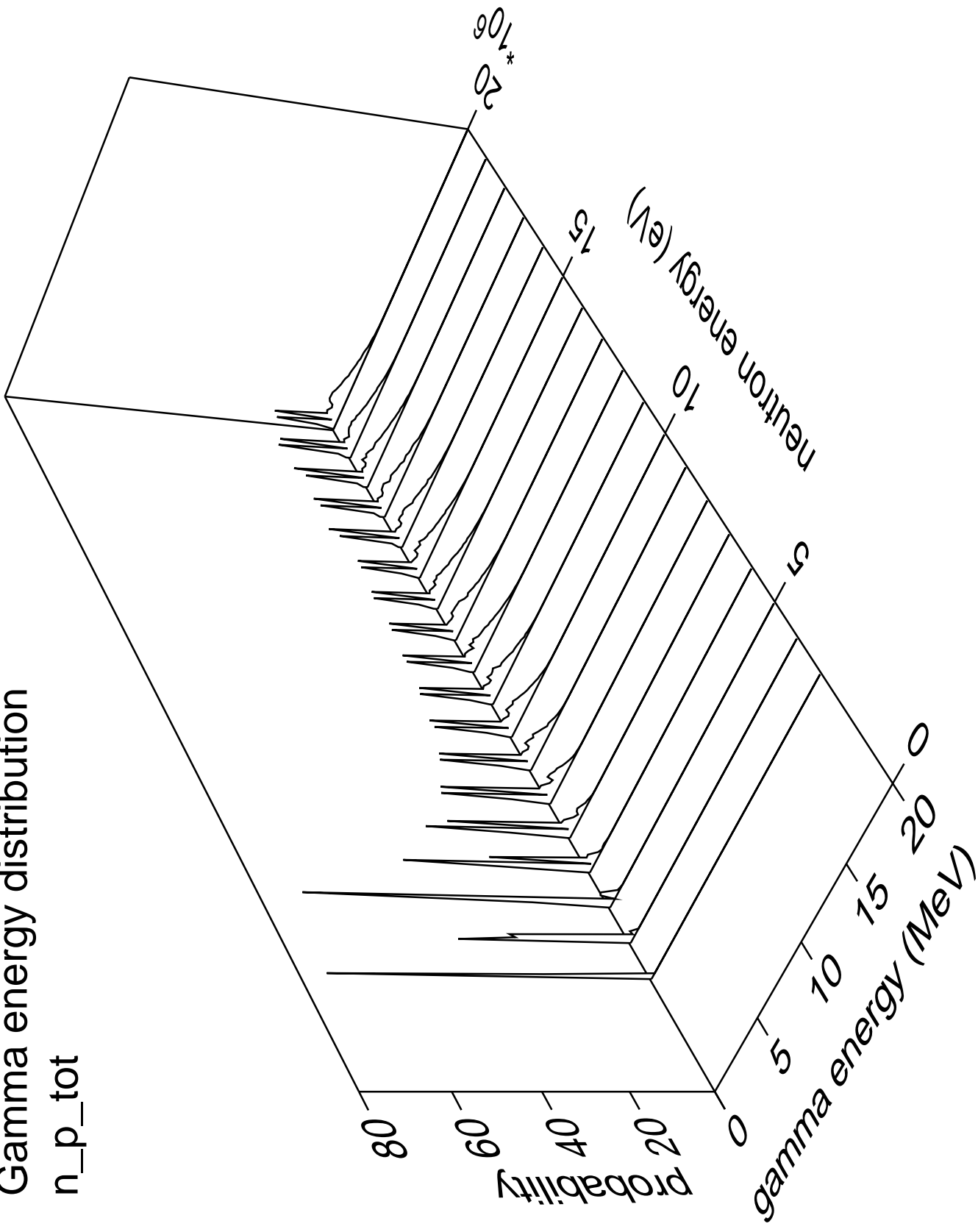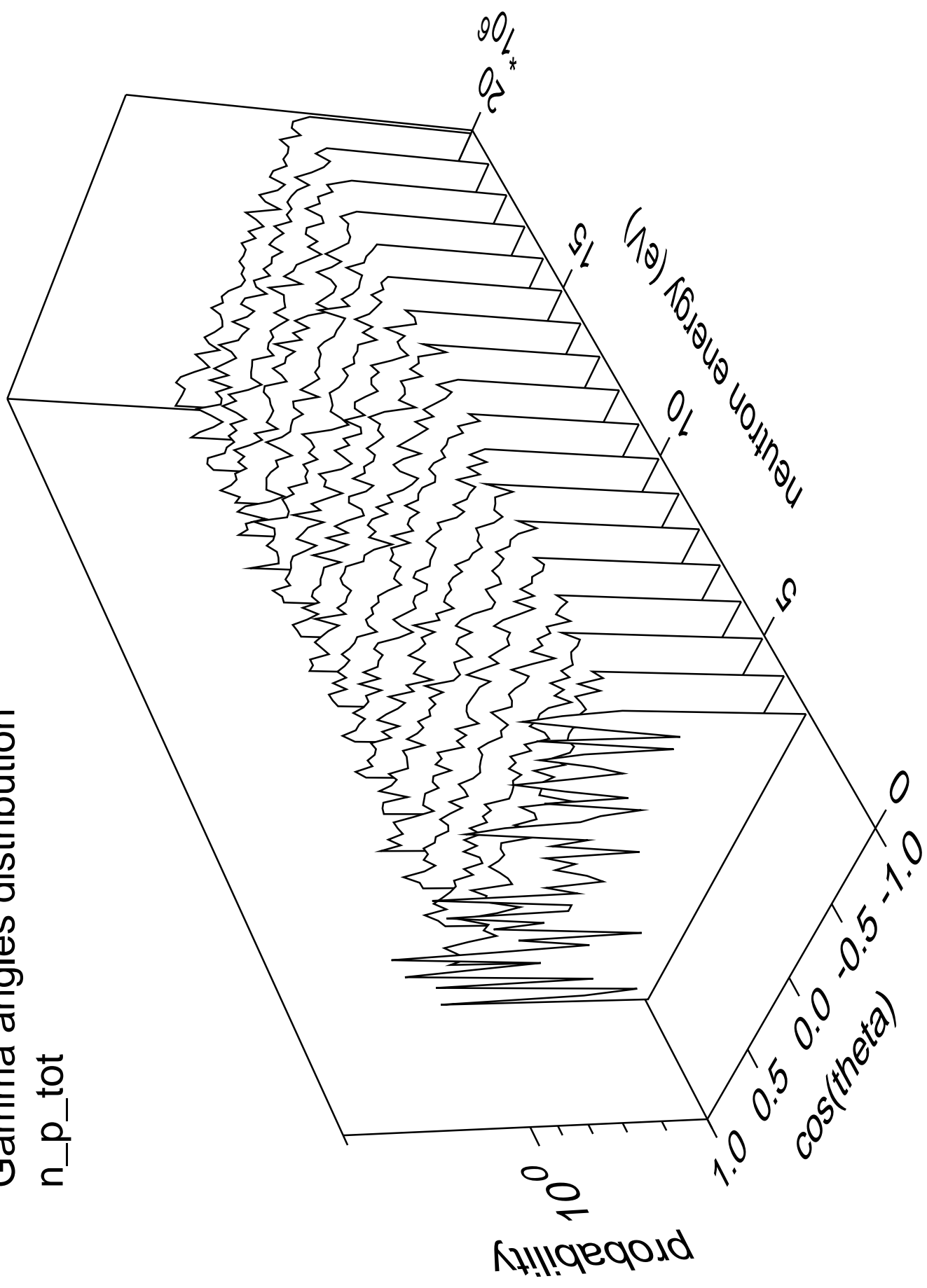
Gamma multiplicities distribution n_p_tot

Gamma energy distribution
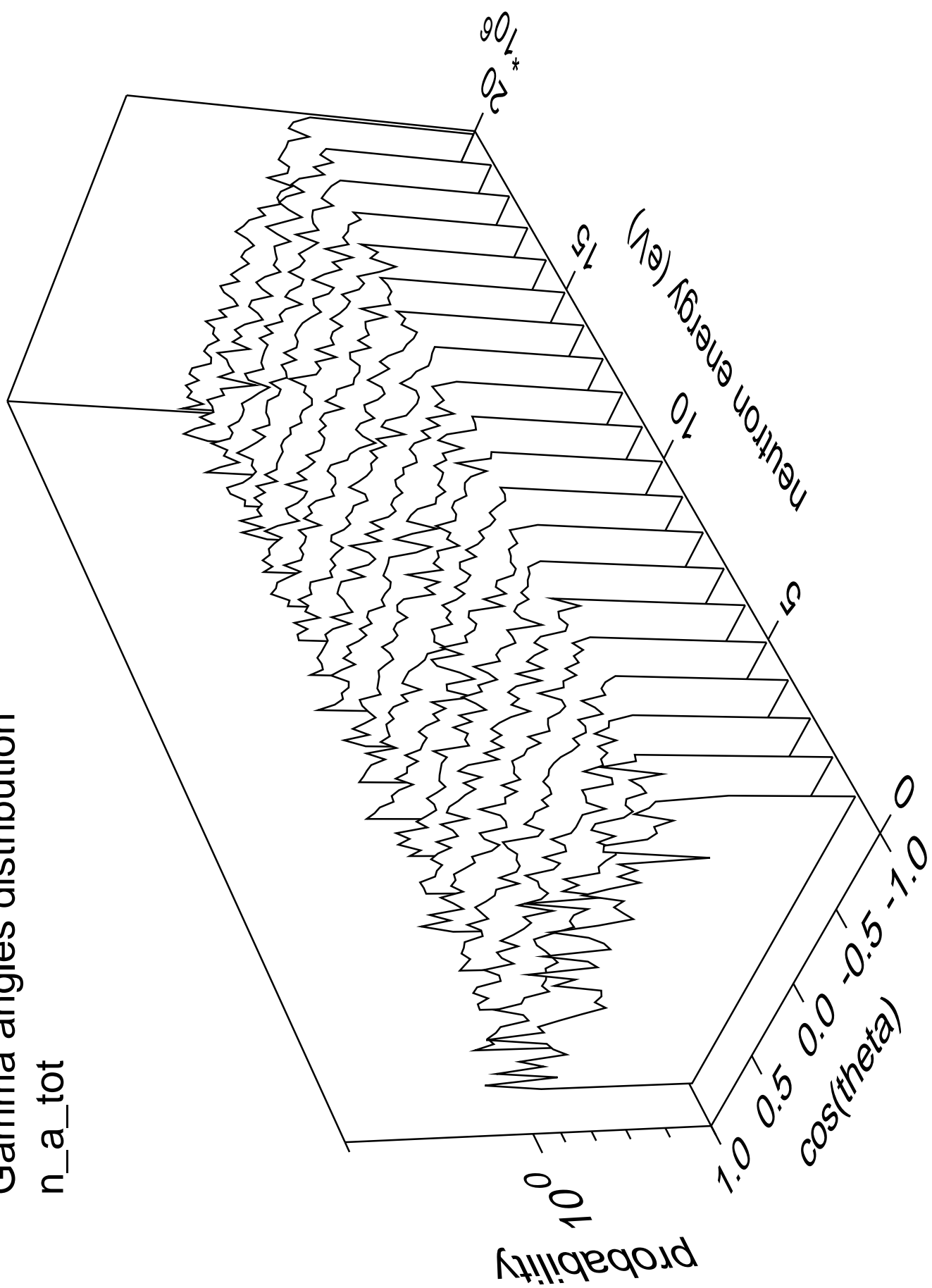n_a_tot

probability

gamma energy (MeV)

neutron energy (eV)
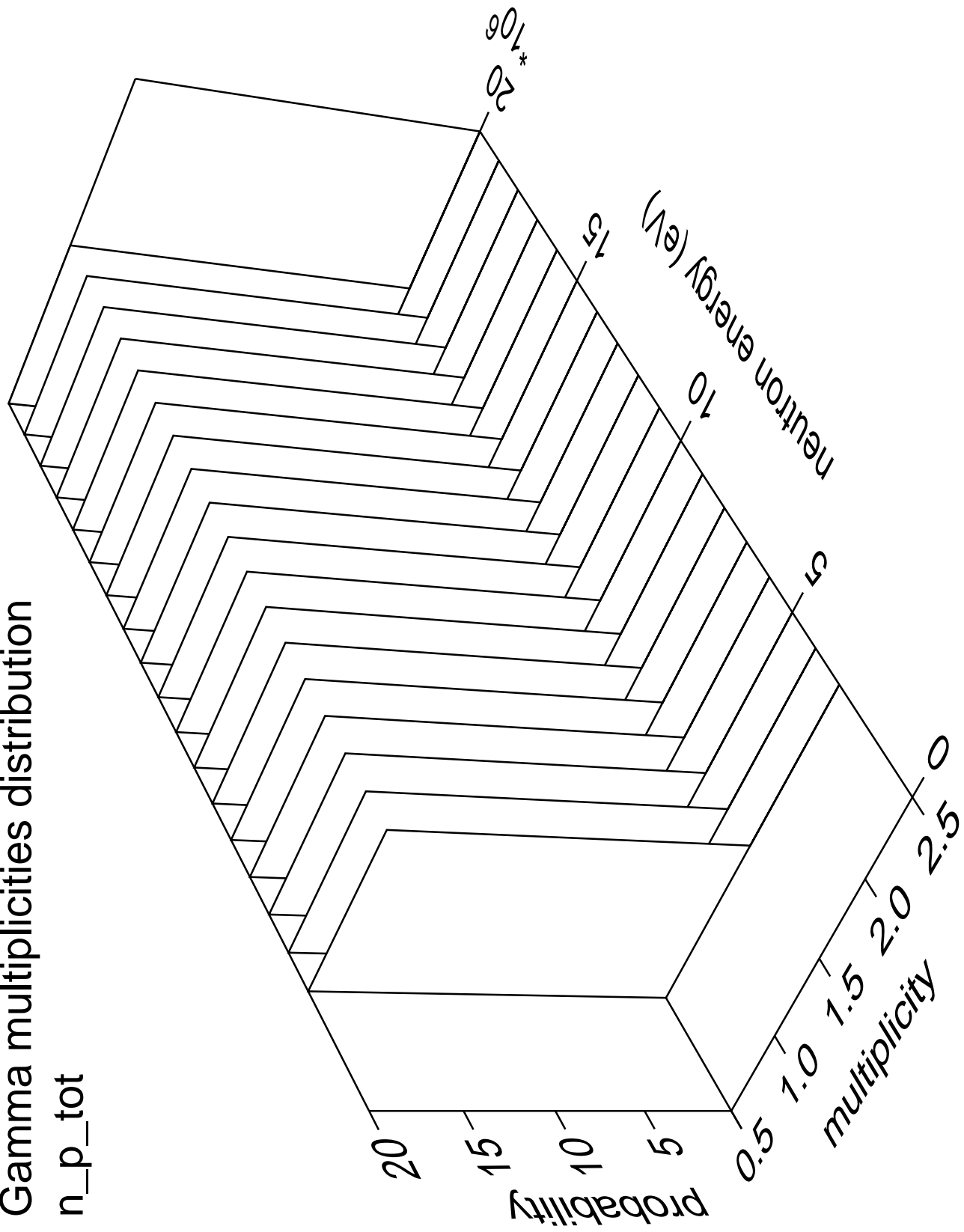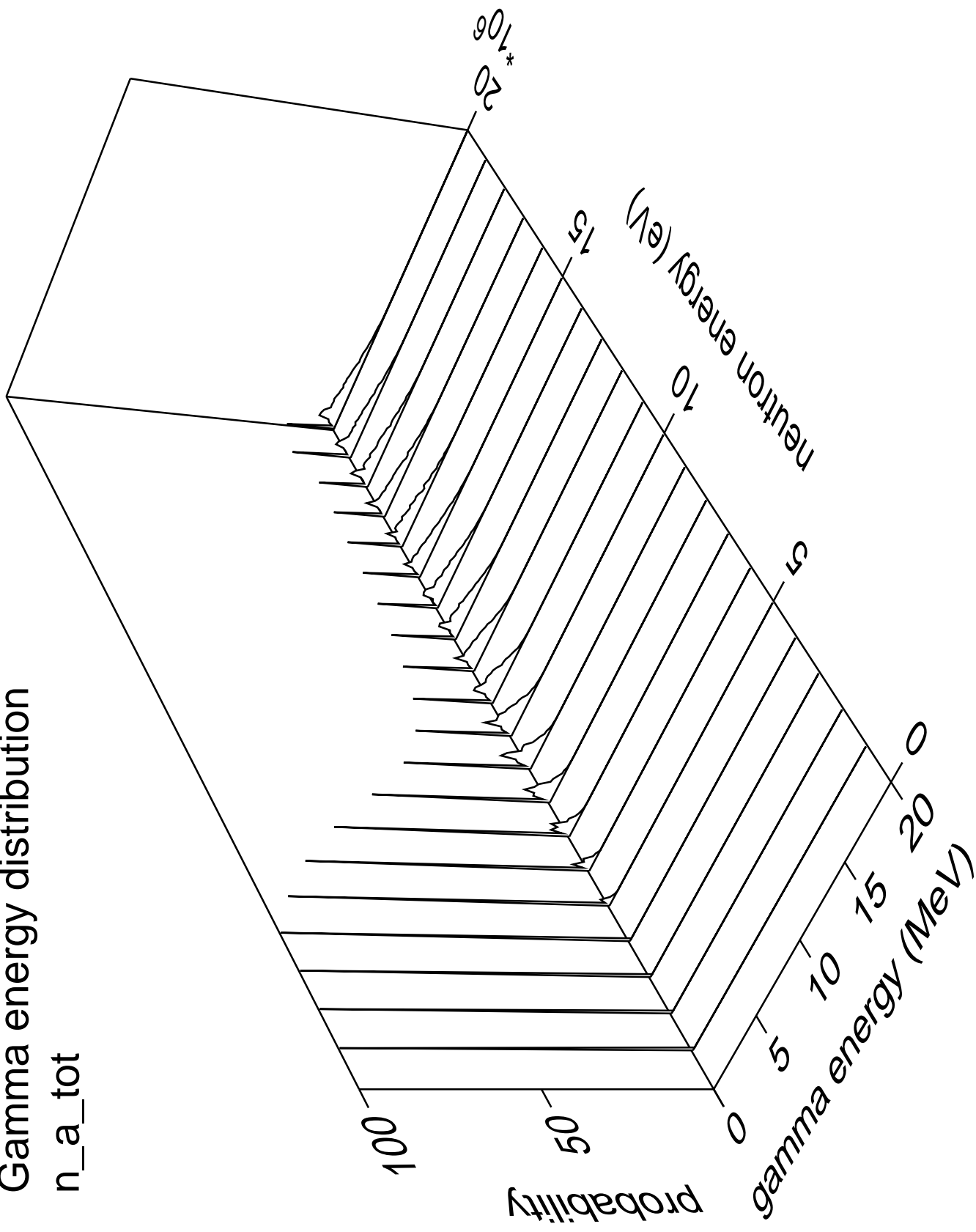
Gamma angles distribution
n_a_tot

Gamma multiplicities distribution
n_a_tot