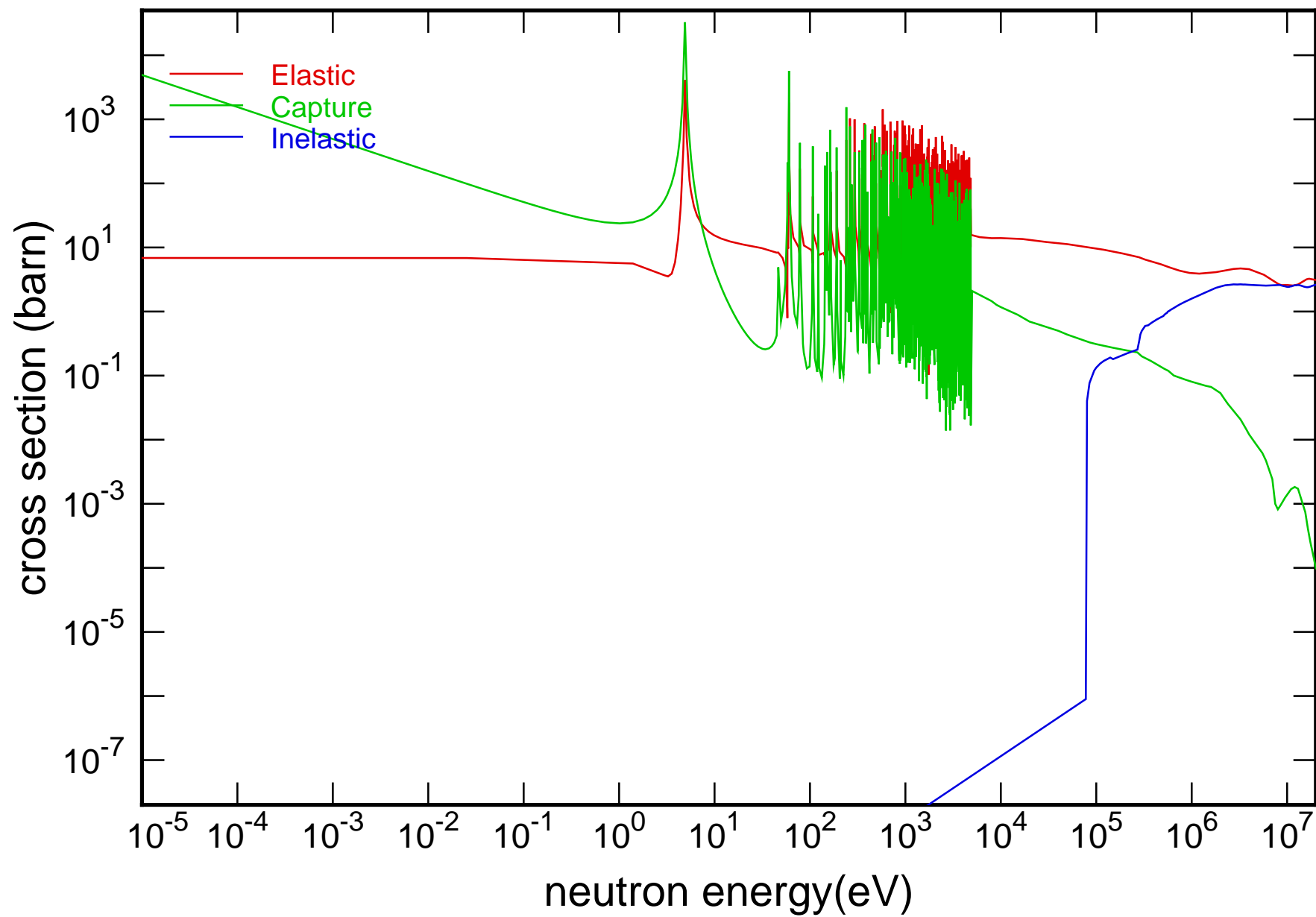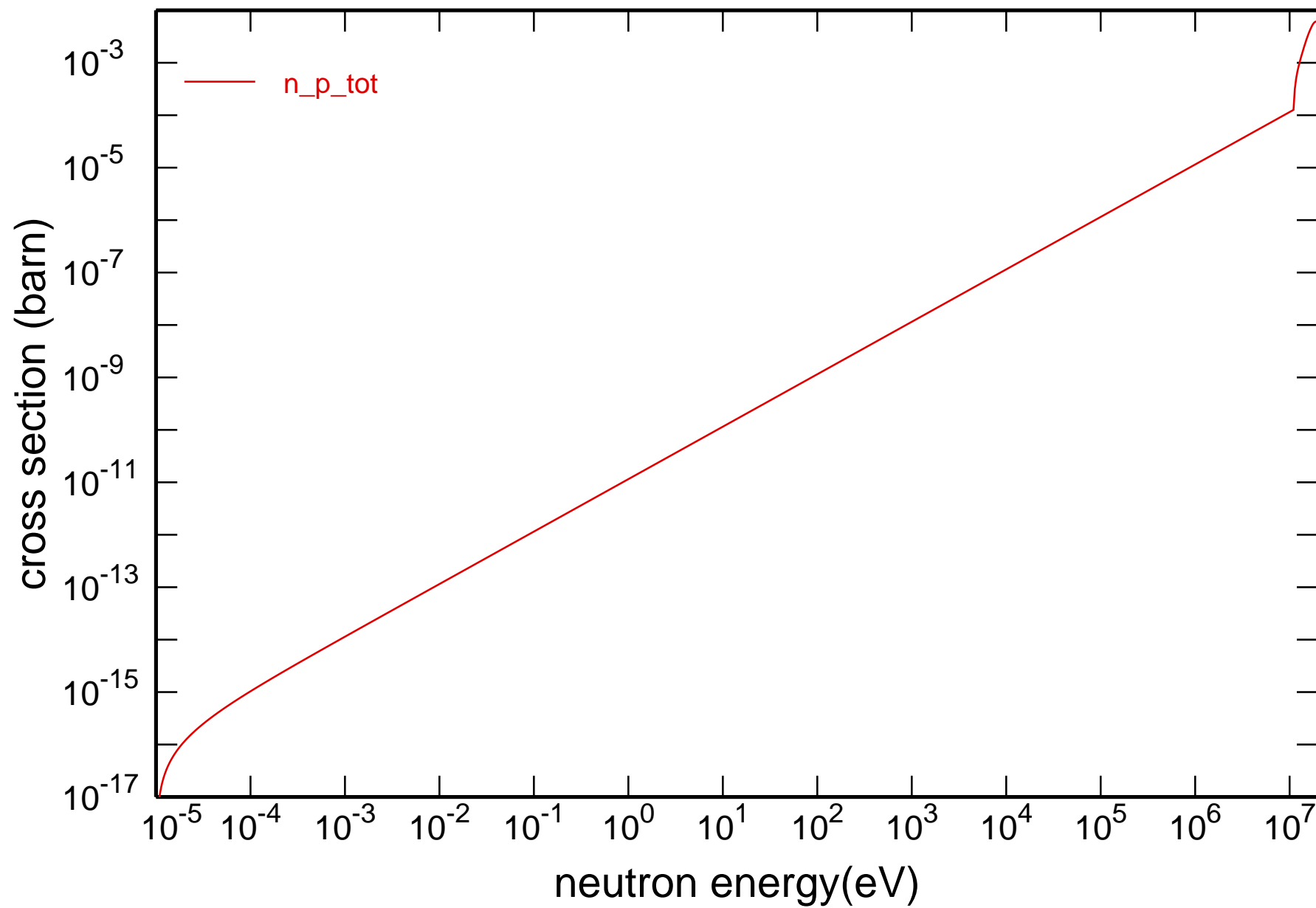Main Cross Sections

Cross Section

neutron energy(eV)

cross section (barn)

n_p_tot

Cross Section

n_2n
n_3n
n_na
n_np
n_nd
n_nt
n_n_1

cross section (barn)

neutron energy(eV)

$*10^6$

Cross Section

cross section (barn)

neutron energy(eV)

n_n_2
n_n_3
n_n_4
n_n_5
n_n_6
n_n_cont
n_n_tot
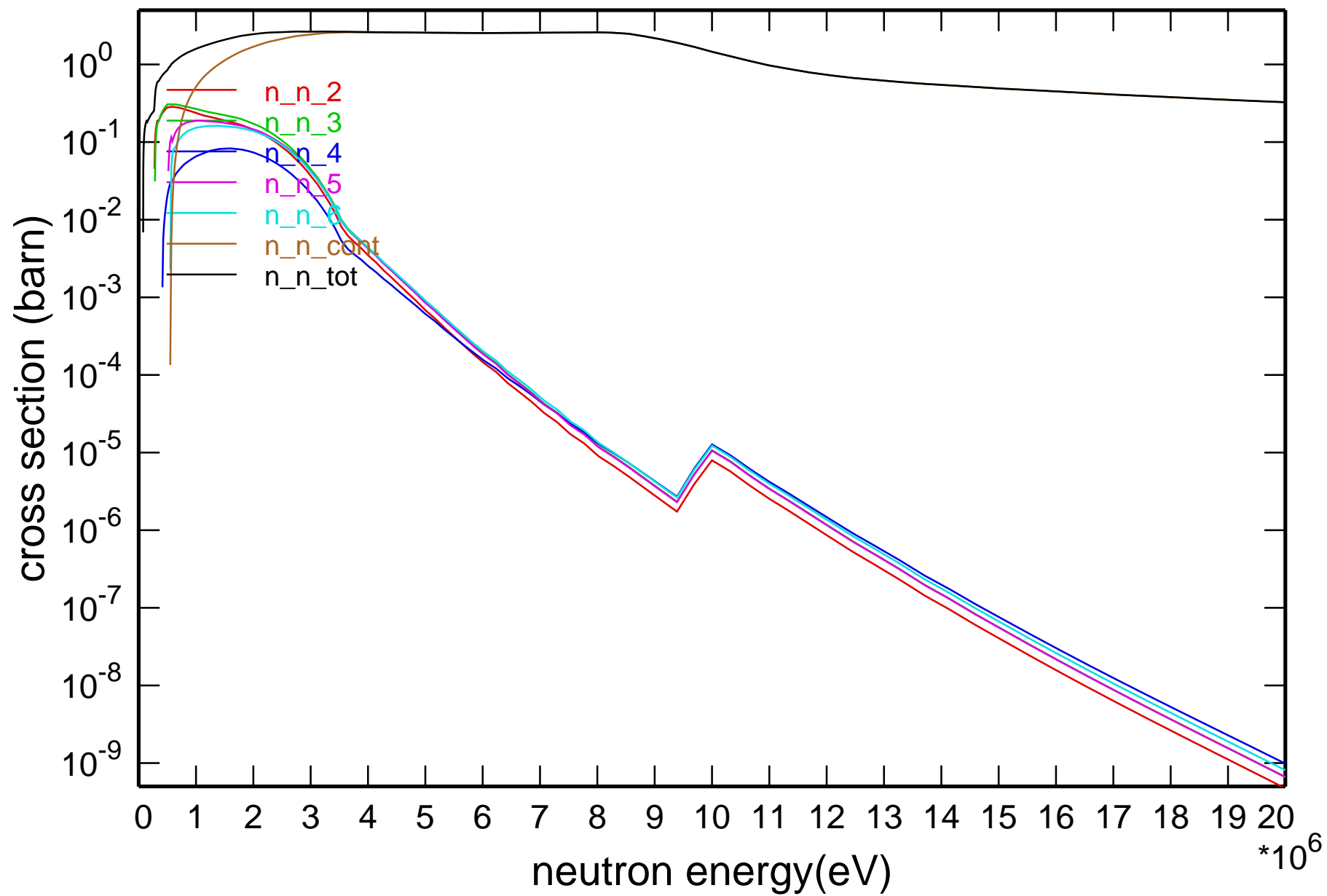
Cross Section
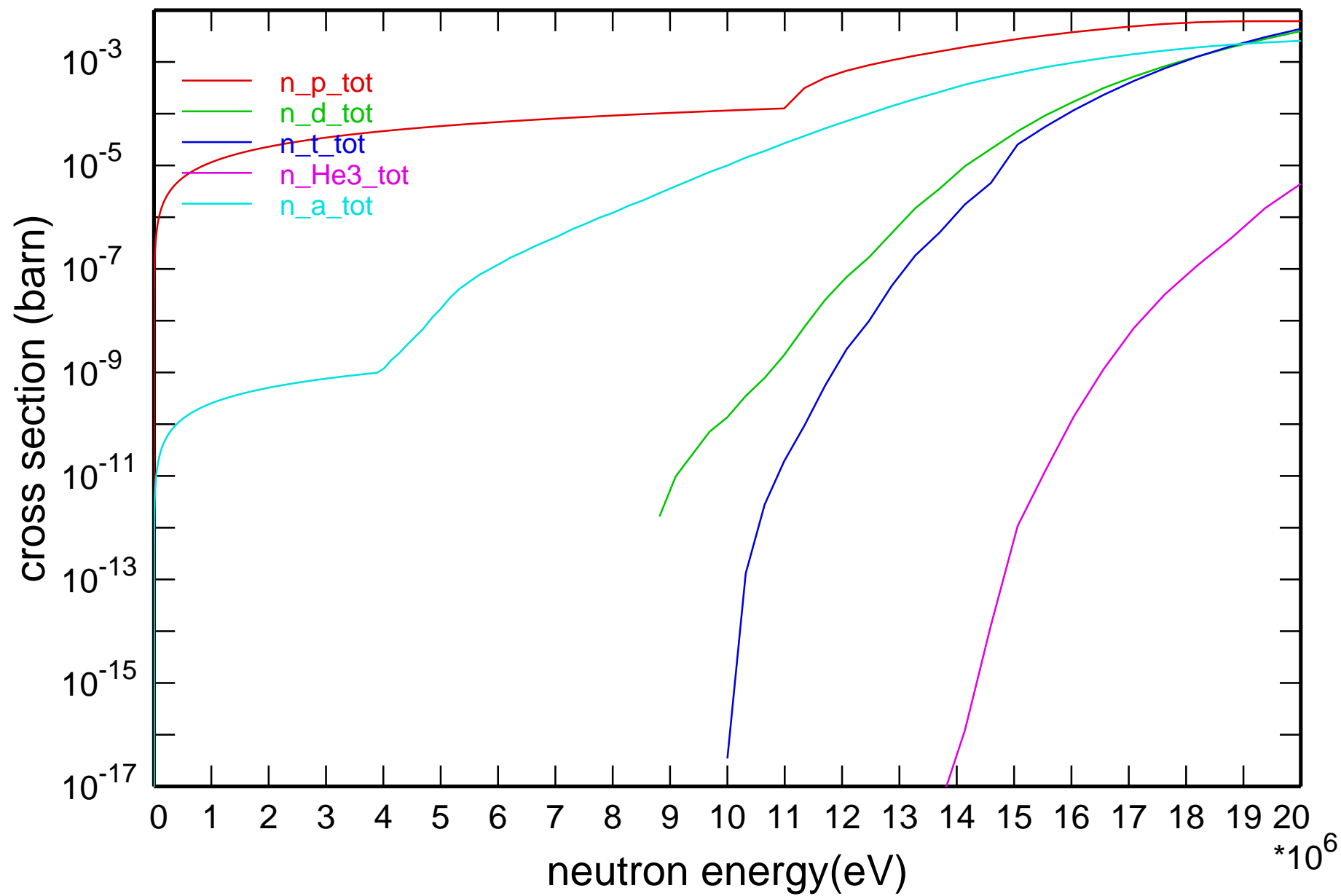
Angular distribution (CMS)
Elastic
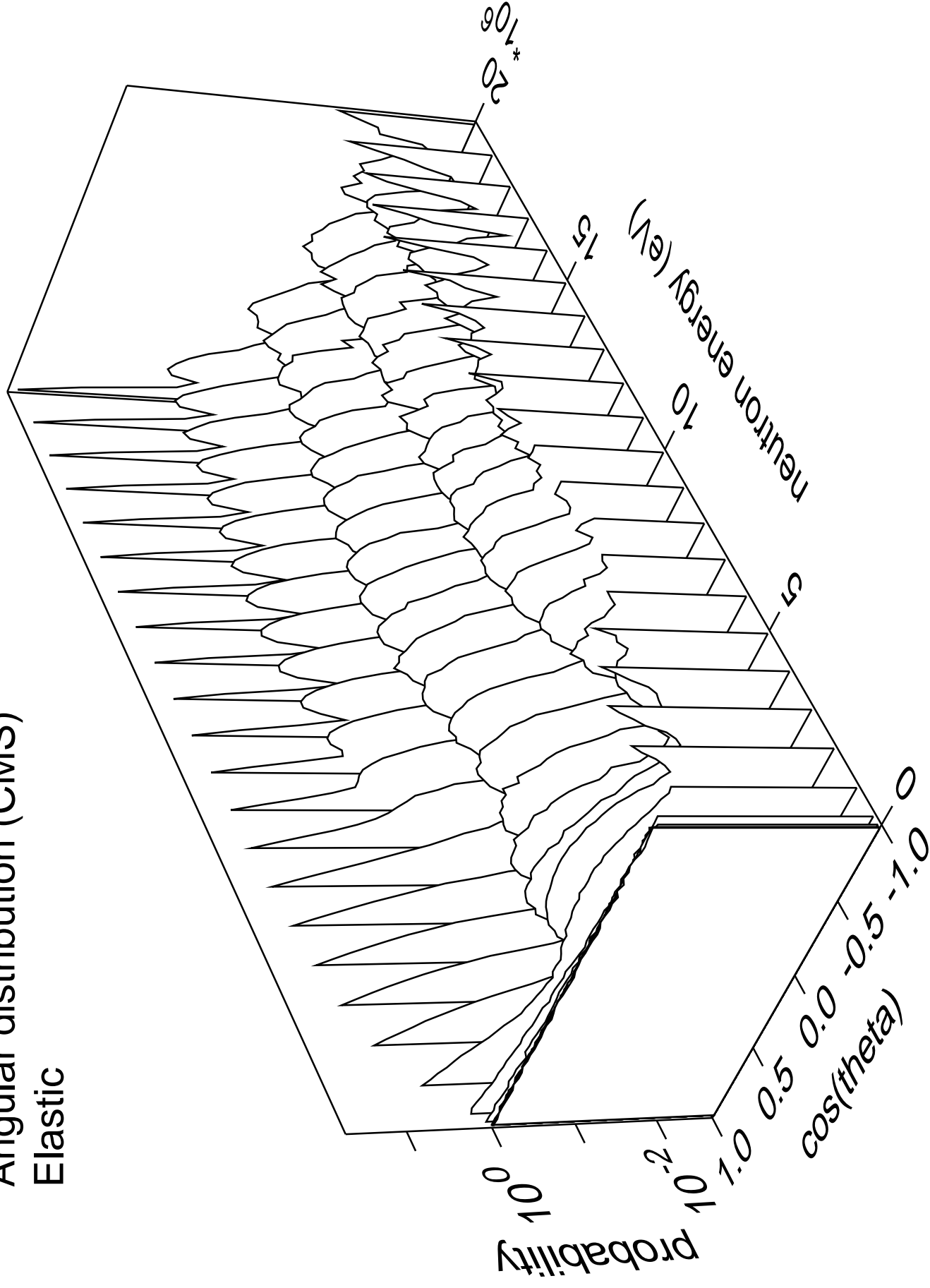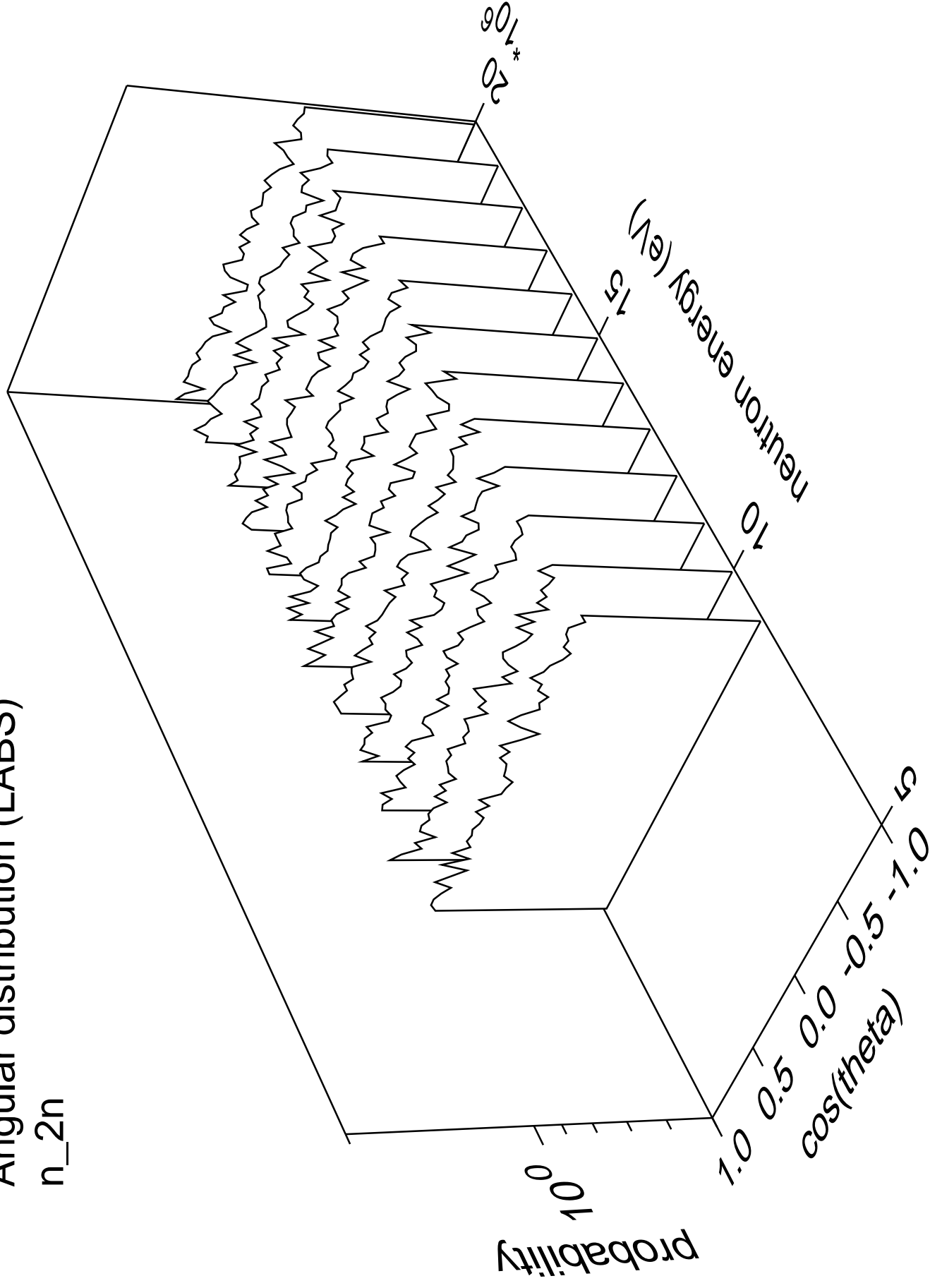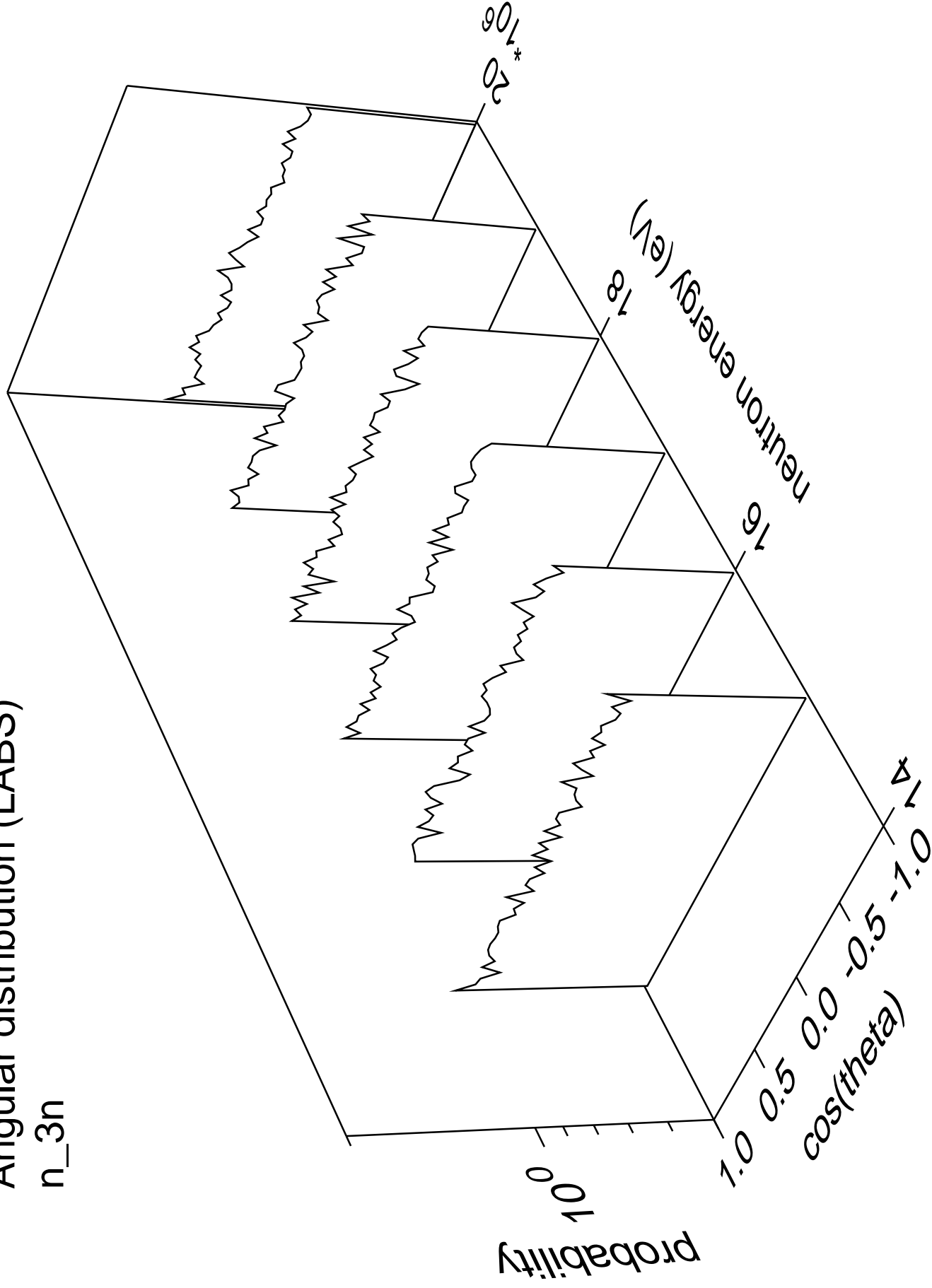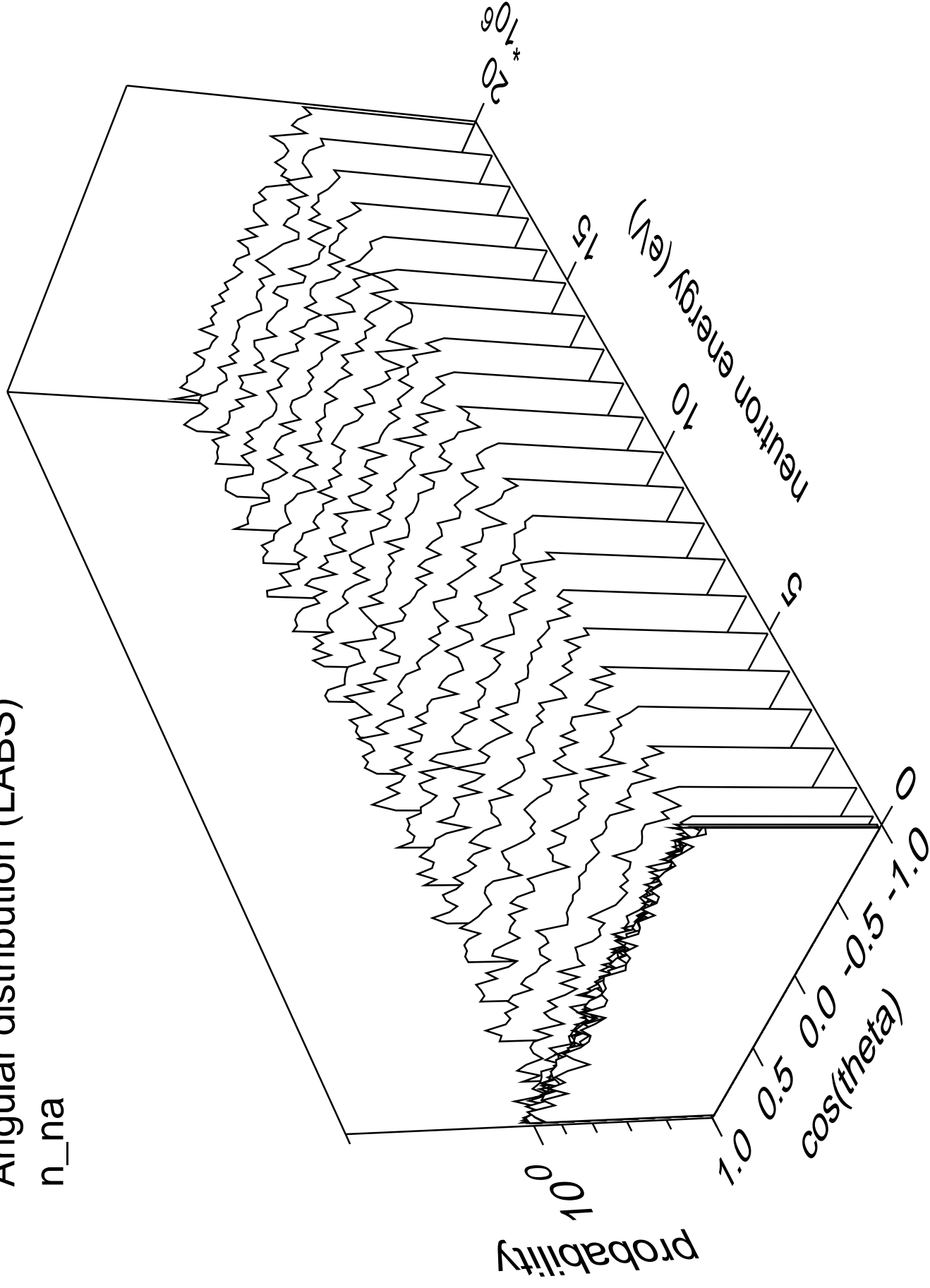
probability

neutron energy (eV)

cos(theta)

Angular distribution (LABS)
n_2n

probability

cos(theta)

neutron energy (eV)

Angular distribution (LABS)
n_3n

probability

neutron energy (eV)

cos(theta)

Angular distribution (LABS)
n_na

probability

cos(theta)

neutron energy (eV)

*10^6

Angular distribution (LABS)
n_np

probability

10^0

cos(theta)

1.0 0.5 0.0 -0.5 -1.0

neutron energy (eV)

15

20
*10⁶

Angular distribution (LABS)
n_nd

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (LABS)
n_nt

probability

neutron energy (eV)

cos(theta)

Angular distribution (CMS)
n_n_1

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

10⁰

Angular distribution (CMS)
n_n_2

probability

cos(theta)

neutron energy (eV)

*10⁶

20

15

10

5

0

1.0 0.5 0.0 -0.5 -1.0

10⁰

Angular distribution (CMS)
n_n_3

probability

cos(theta)

neutron energy (eV)

Angular distribution (CMS)
n_n_4

probability

cos(theta)

neutron energy (eV)

*10⁶

Angular distribution (CMS)
n_n_5

probability

cos(theta)

neutron energy (ev)

$*10^6$
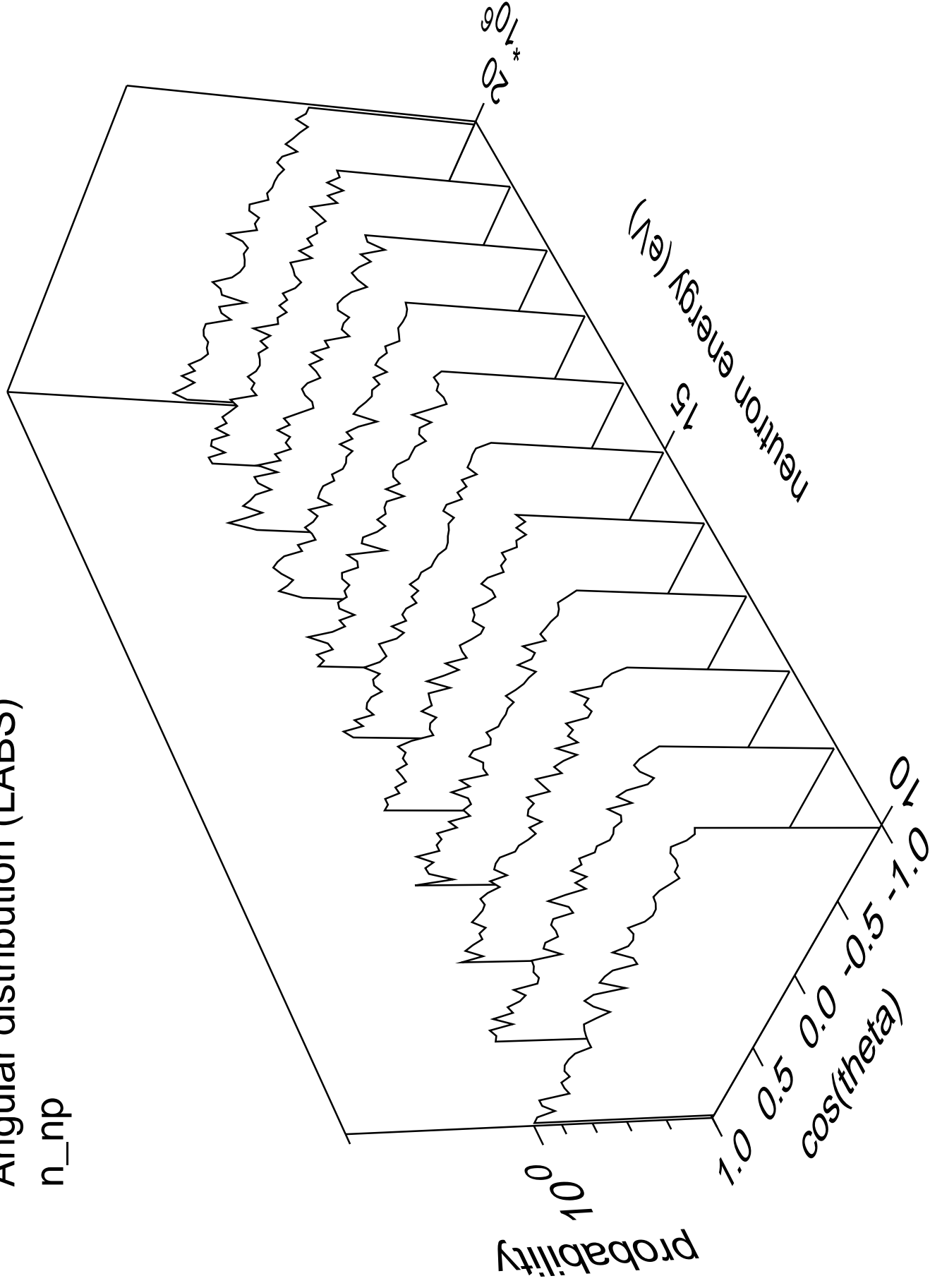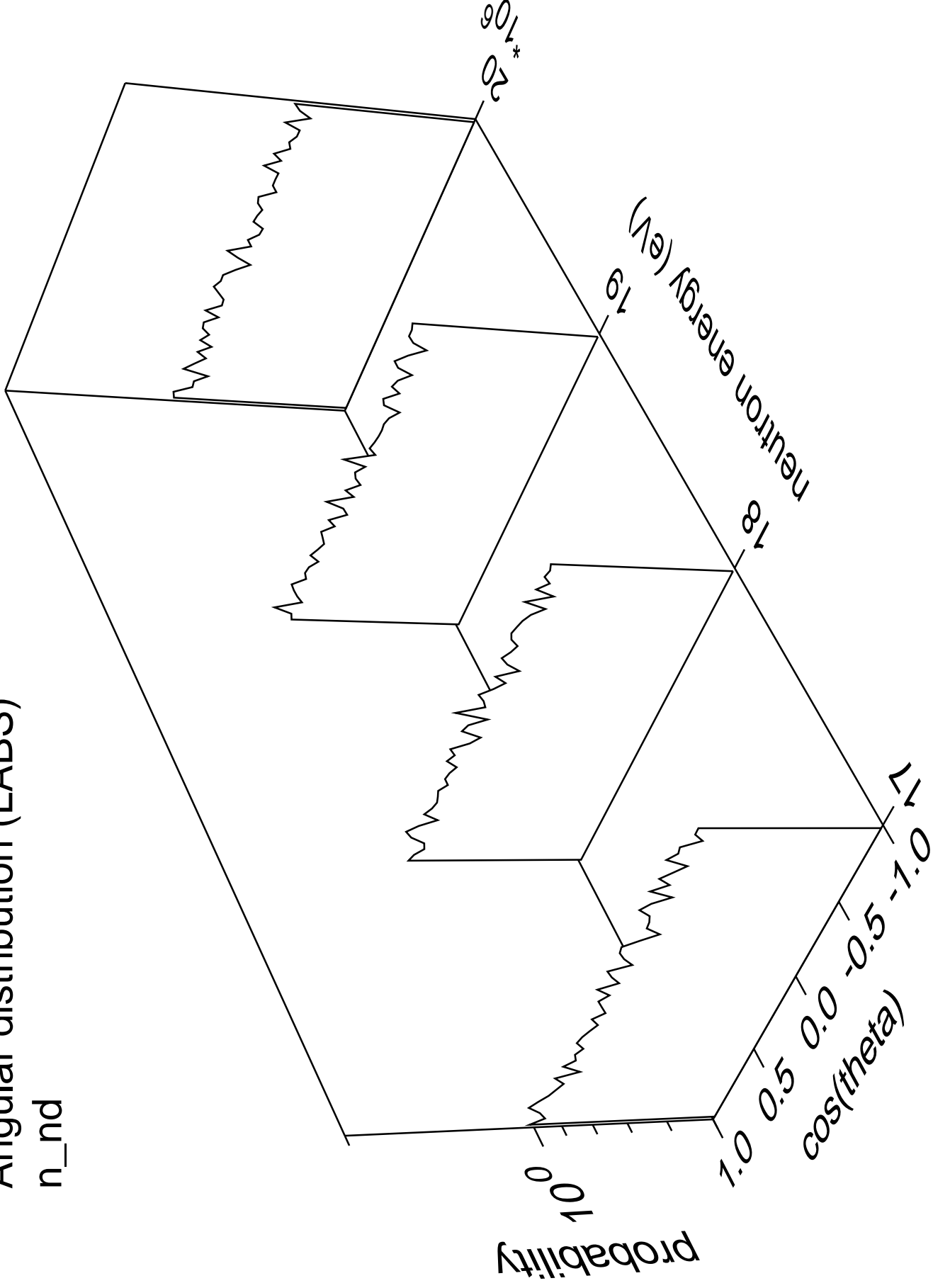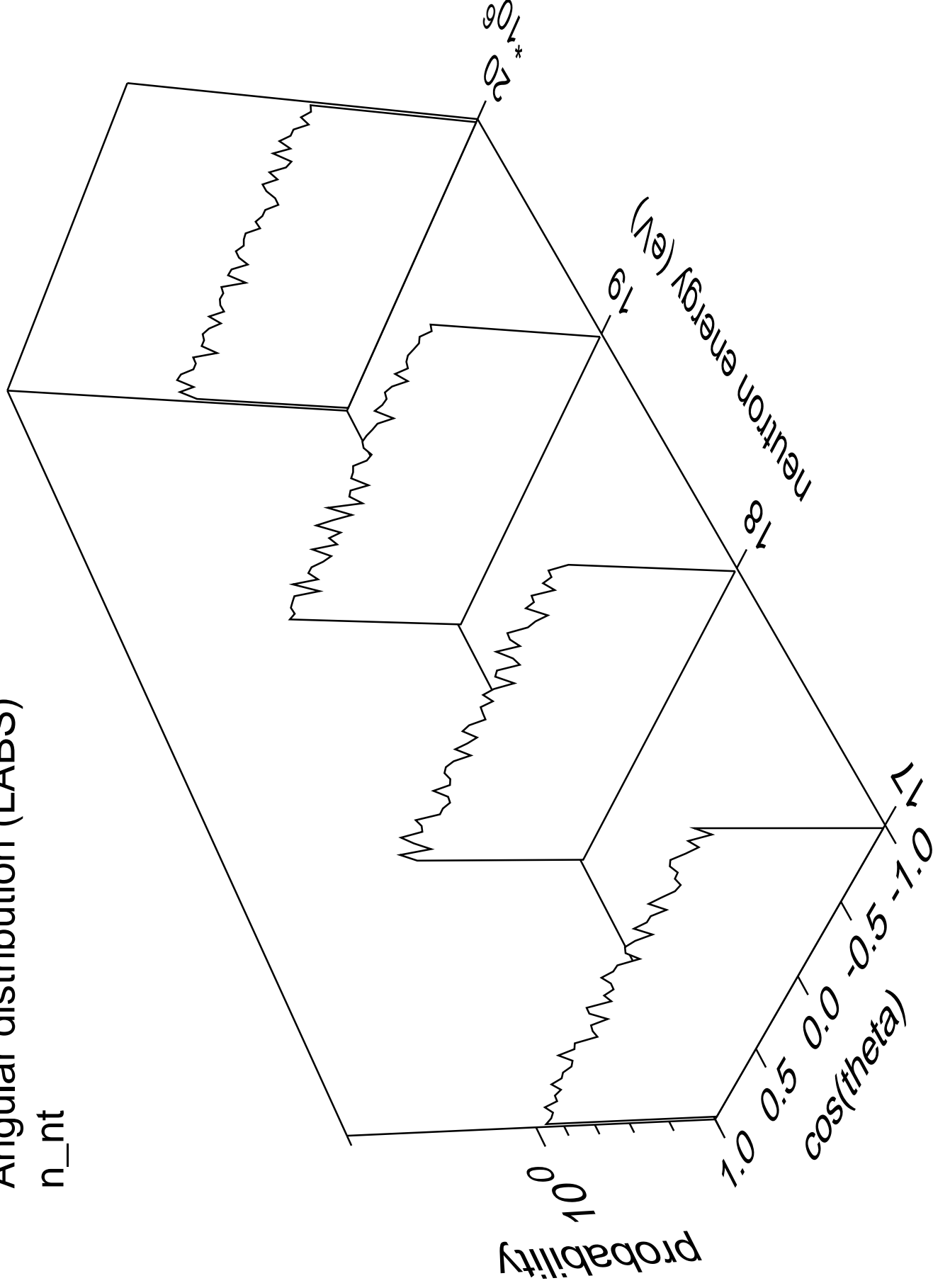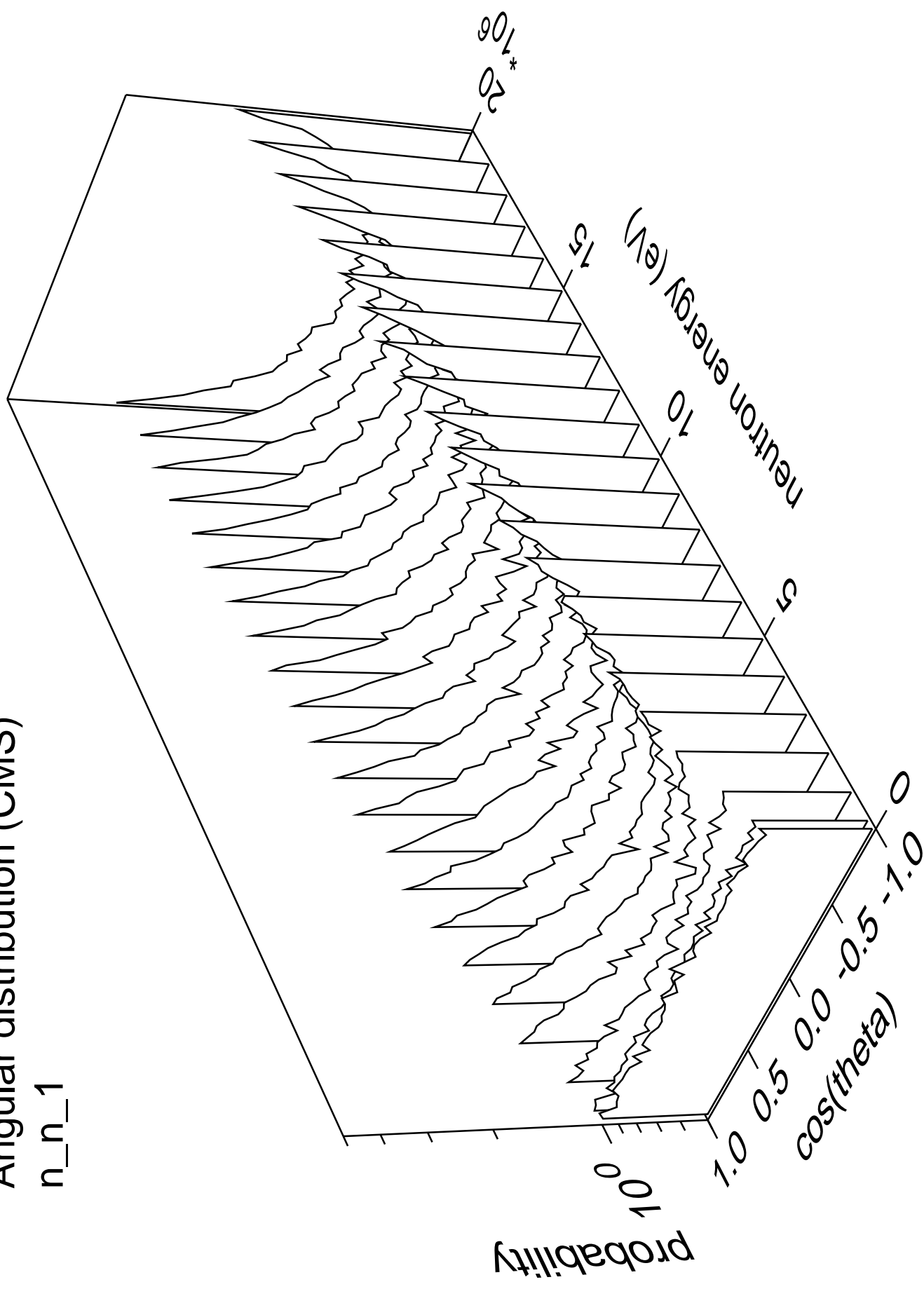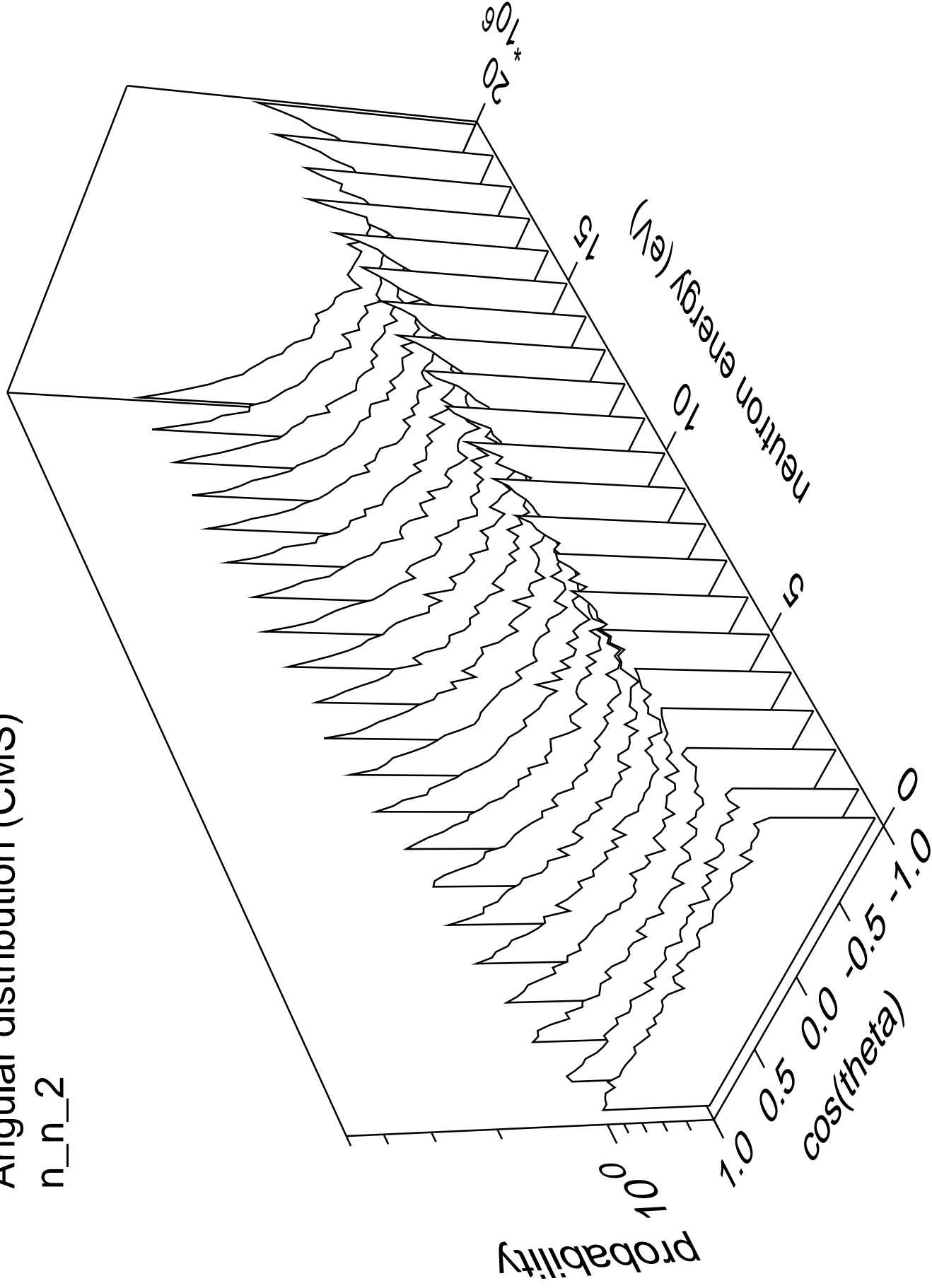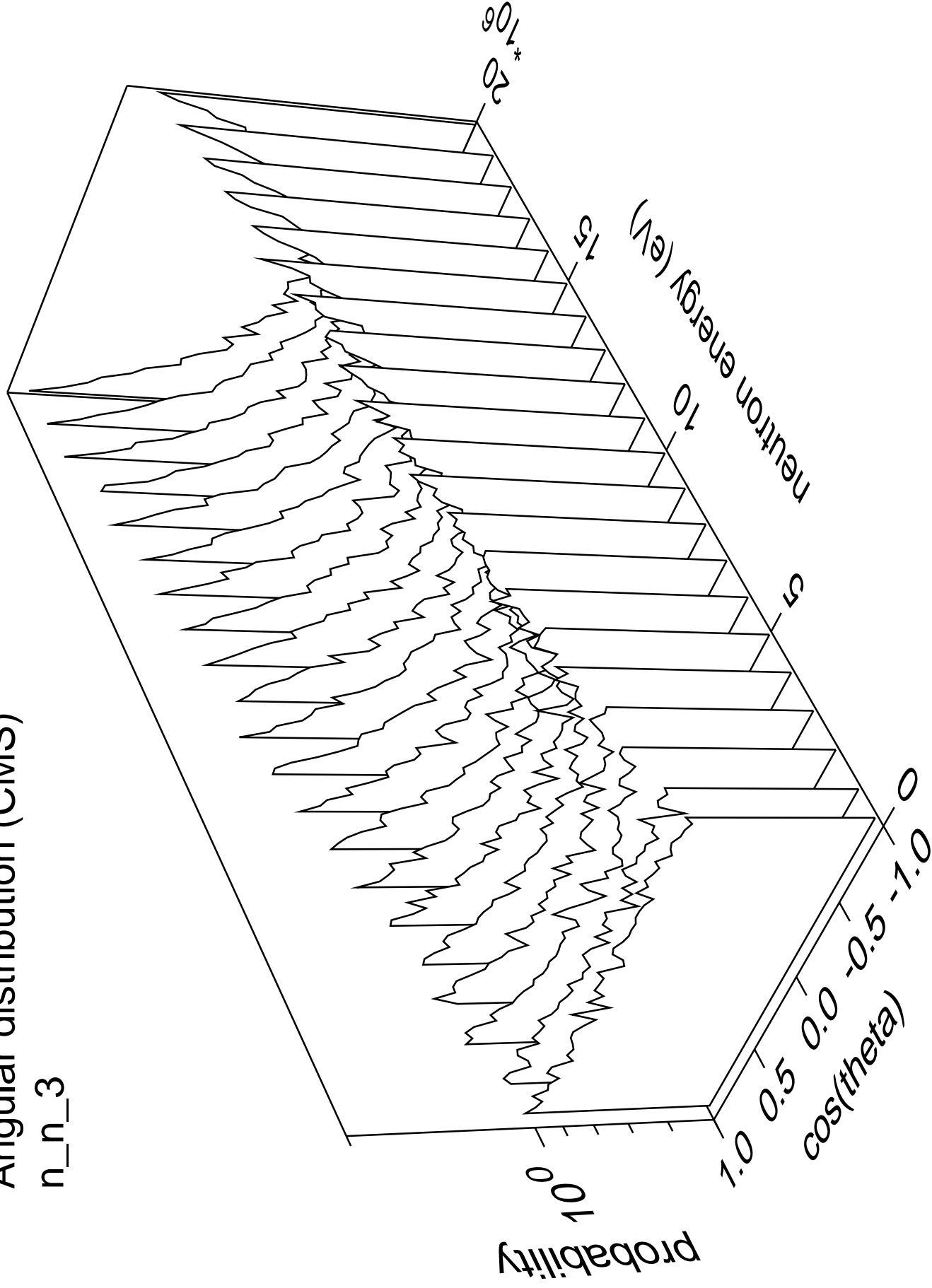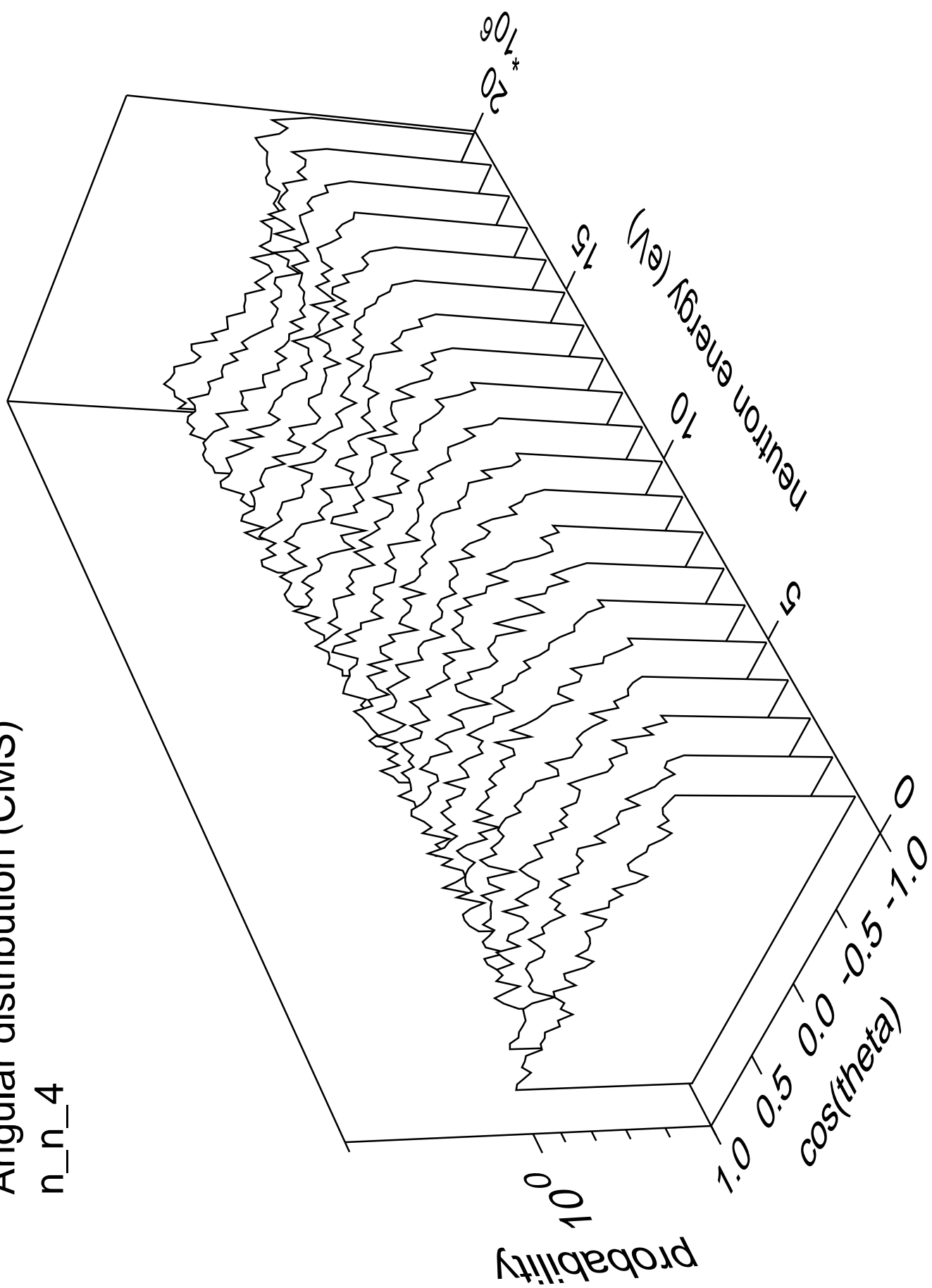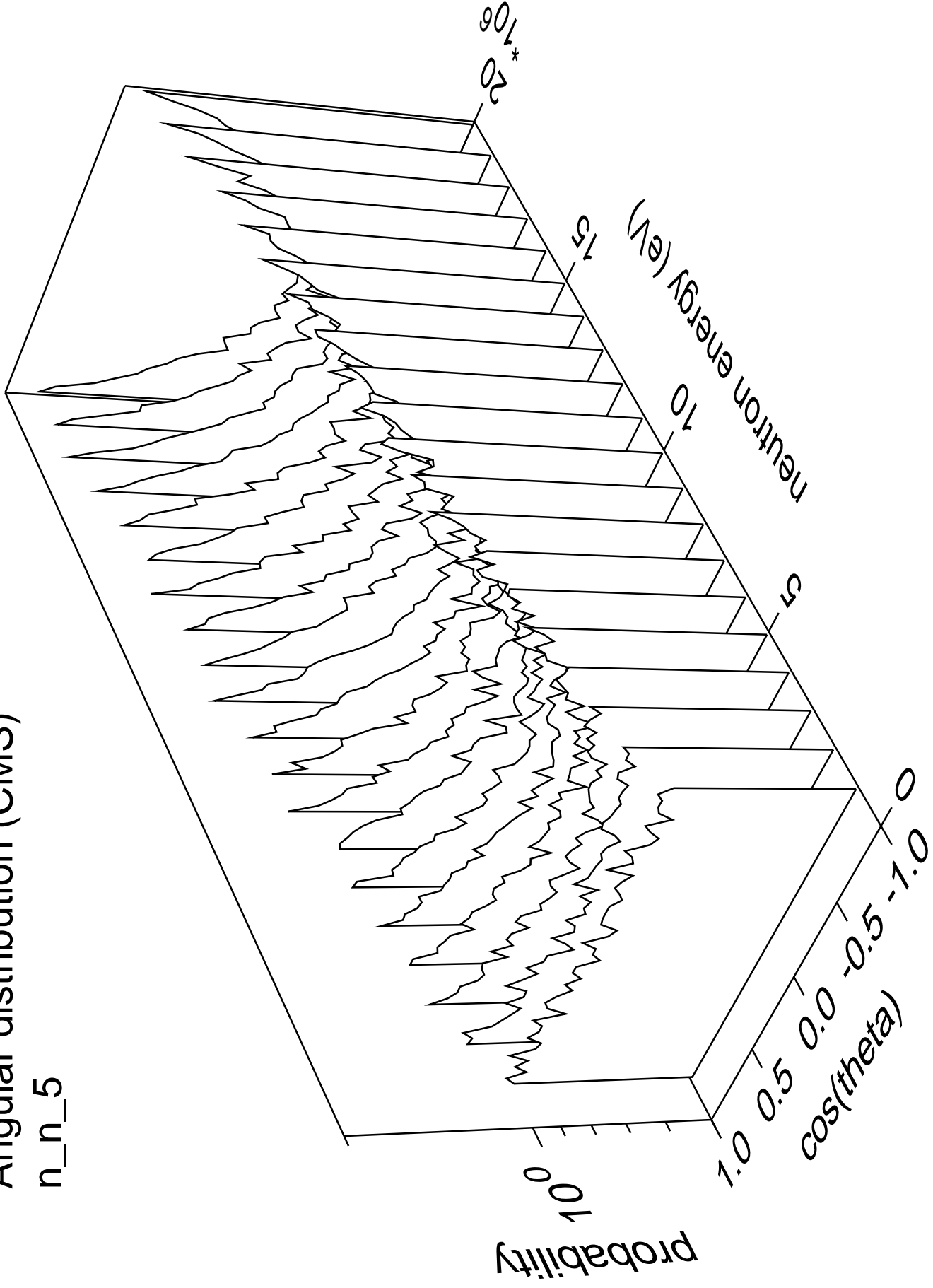
Angular distribution (CMS)
n_n_6

Angular distribution (LABS)
n_n_cont

neutron energy (eV)

cos(theta)

probability

Energy distribution (LABS)
n_2n

probability

10⁰

10⁻²

energy (eV)

5   10   15   *10⁶

neutron energy (eV)

5   10   15   20   *10⁶
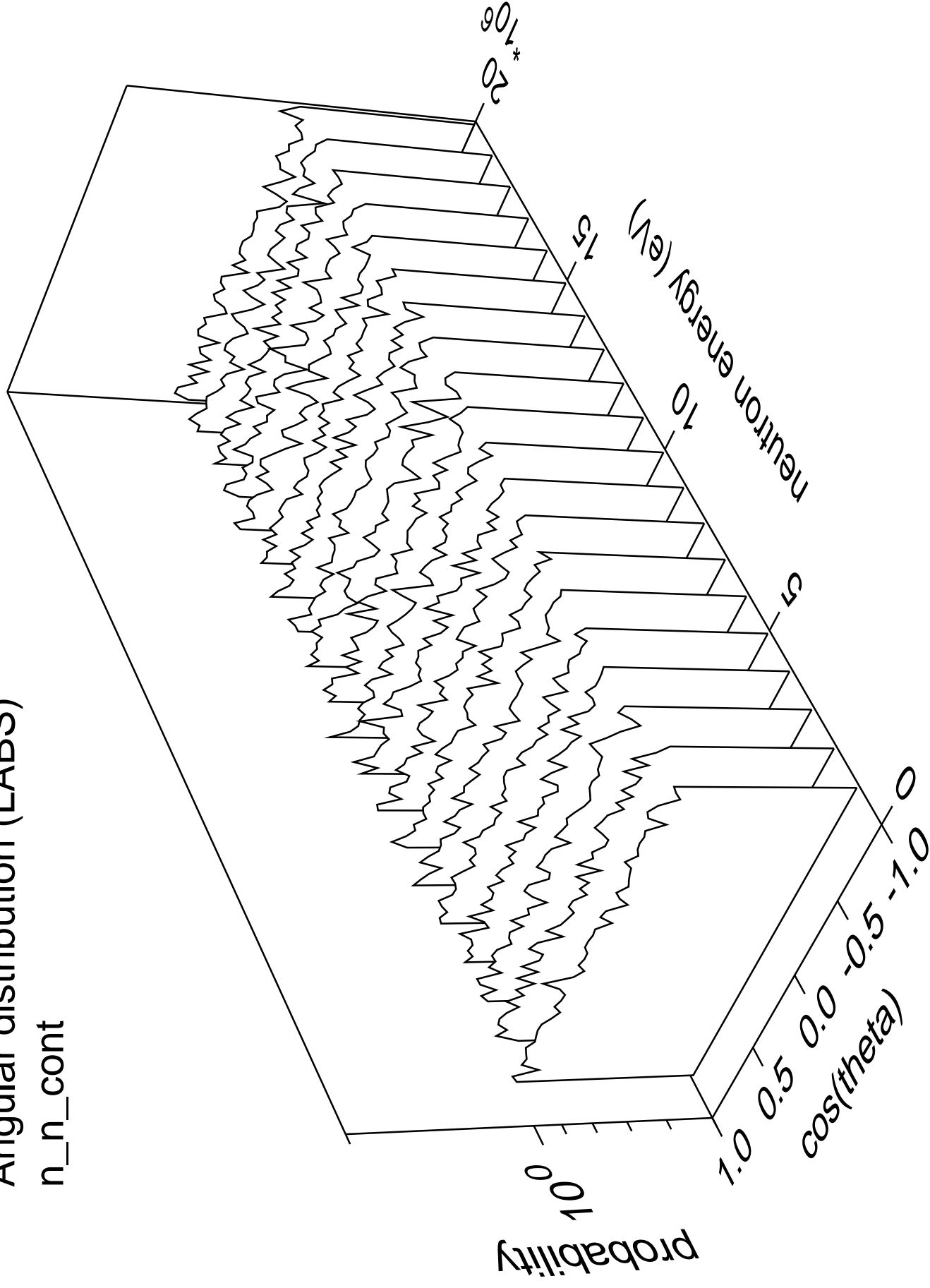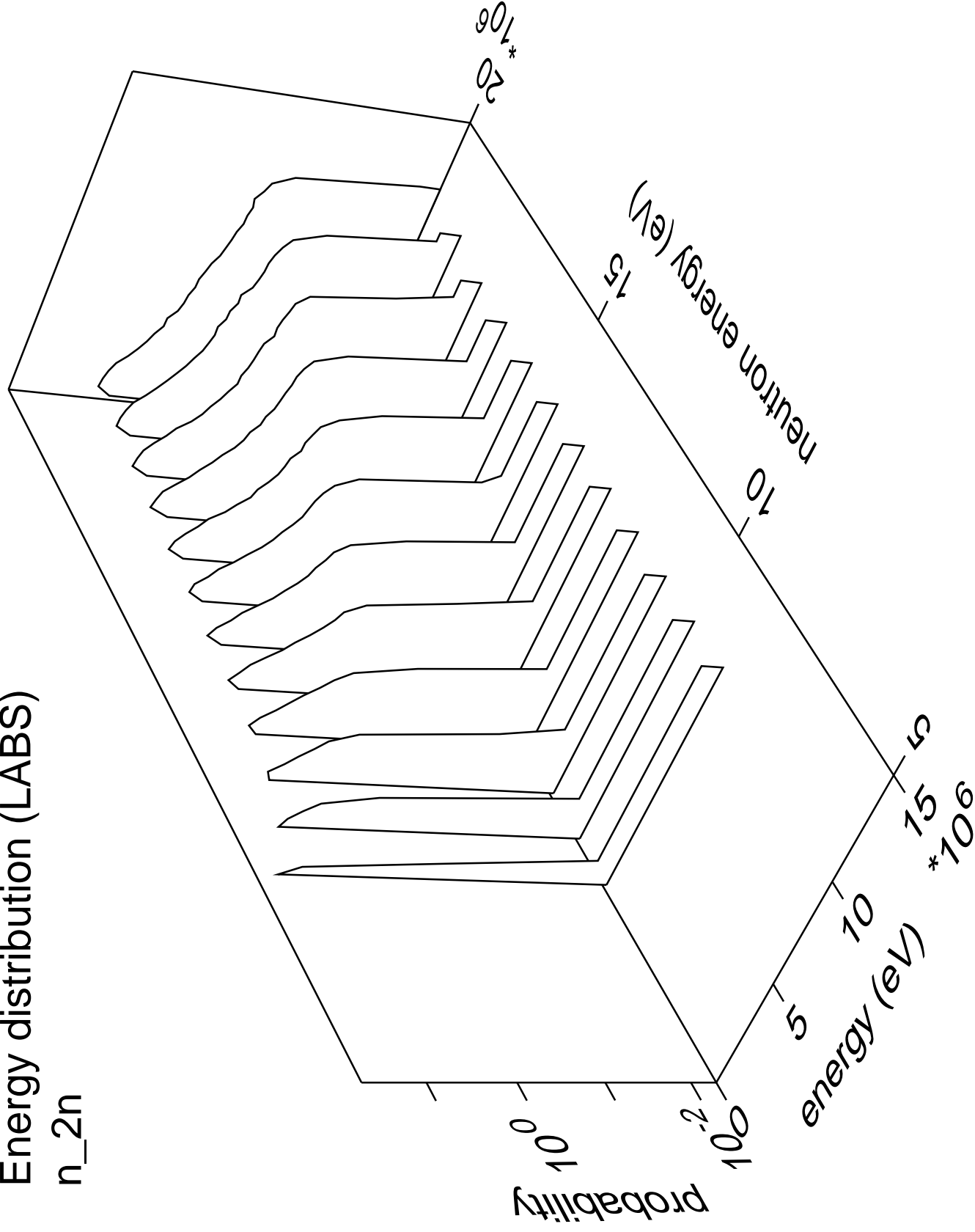
Energy distribution (LABS)
n_3n

Energy distribution (LABS)
n_na

probability

10^1

10^{-1}

energy (eV)

0

2

4

6
*10^6

neutron energy (eV)

5

10

15

20
*10^6

0

Energy distribution (LABS)
n_np

probability

energy (eV)

neutron energy (eV)
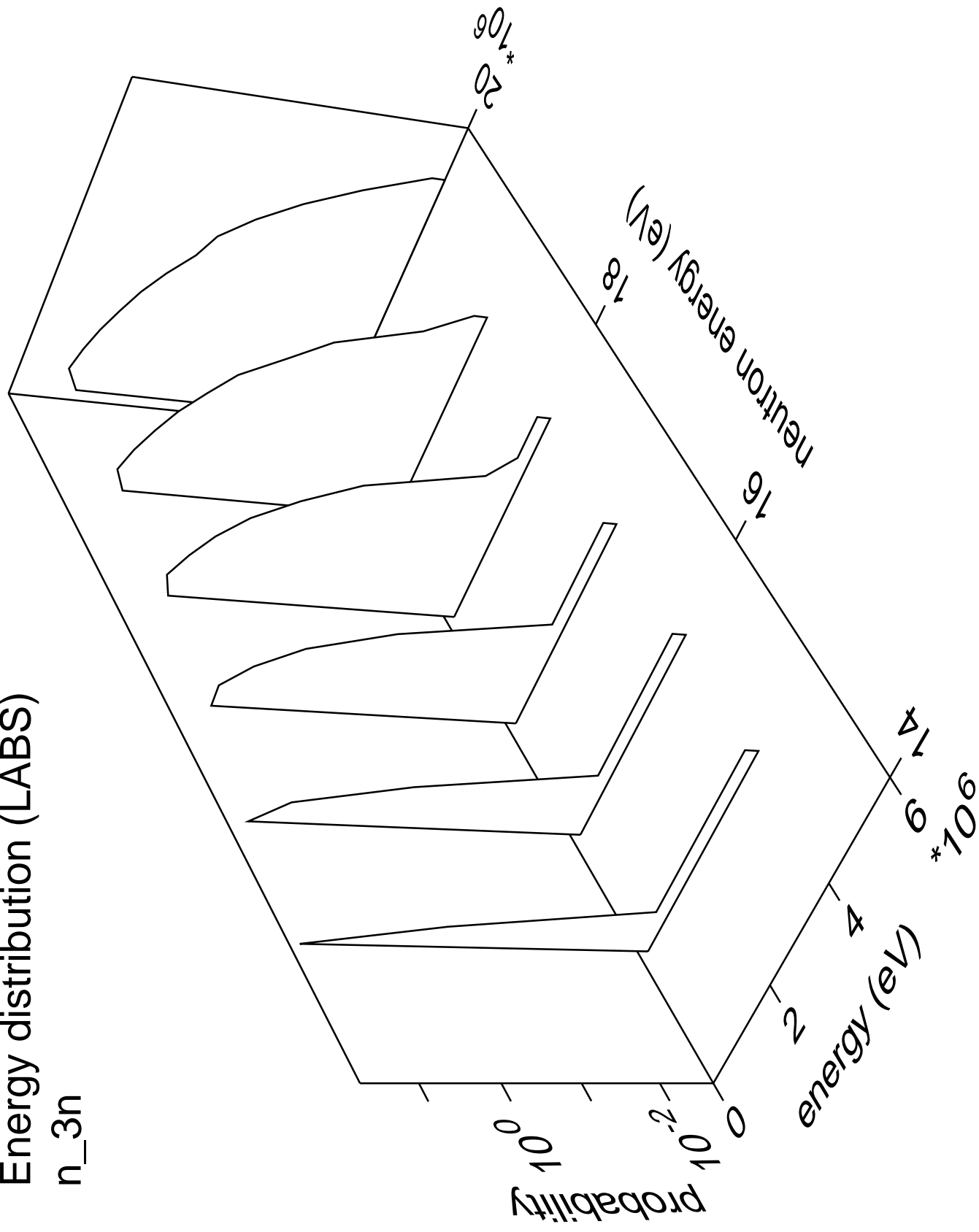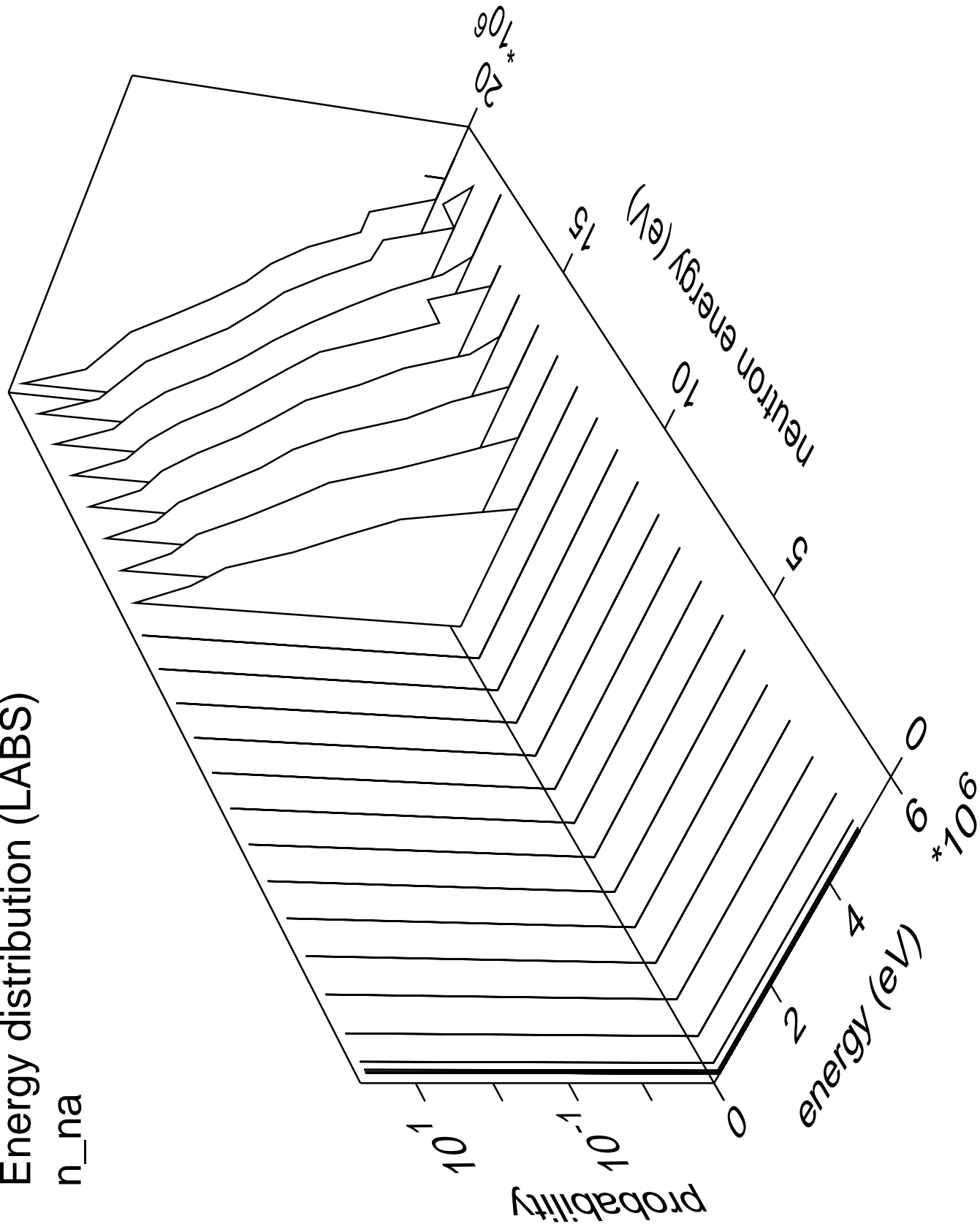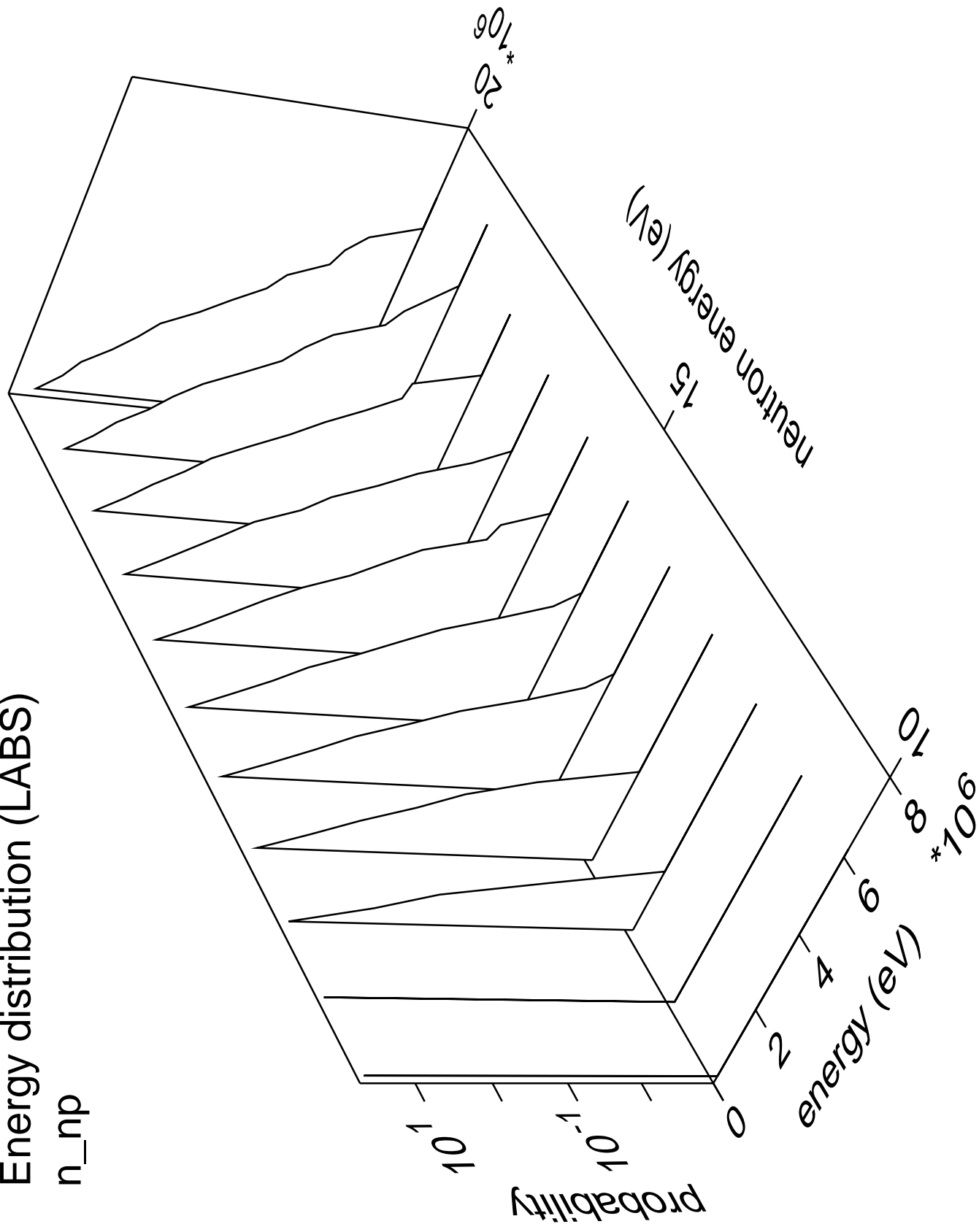
Energy distribution (LABS)
n_nd

Energy distribution (LABS)

n_nt

probability

10^1

10^{-1}

energy (eV)

0

1

2

3

$*10^6$

neutron energy (eV)

17

18

19

20

$*10^6$

Energy distribution (LABS)
n_n_cont

probability

10^1

10^{-1}

neutron energy (eV)

0

5

10

15

energy (eV)

0

5

10

15

20

*10⁶

20 *10⁶
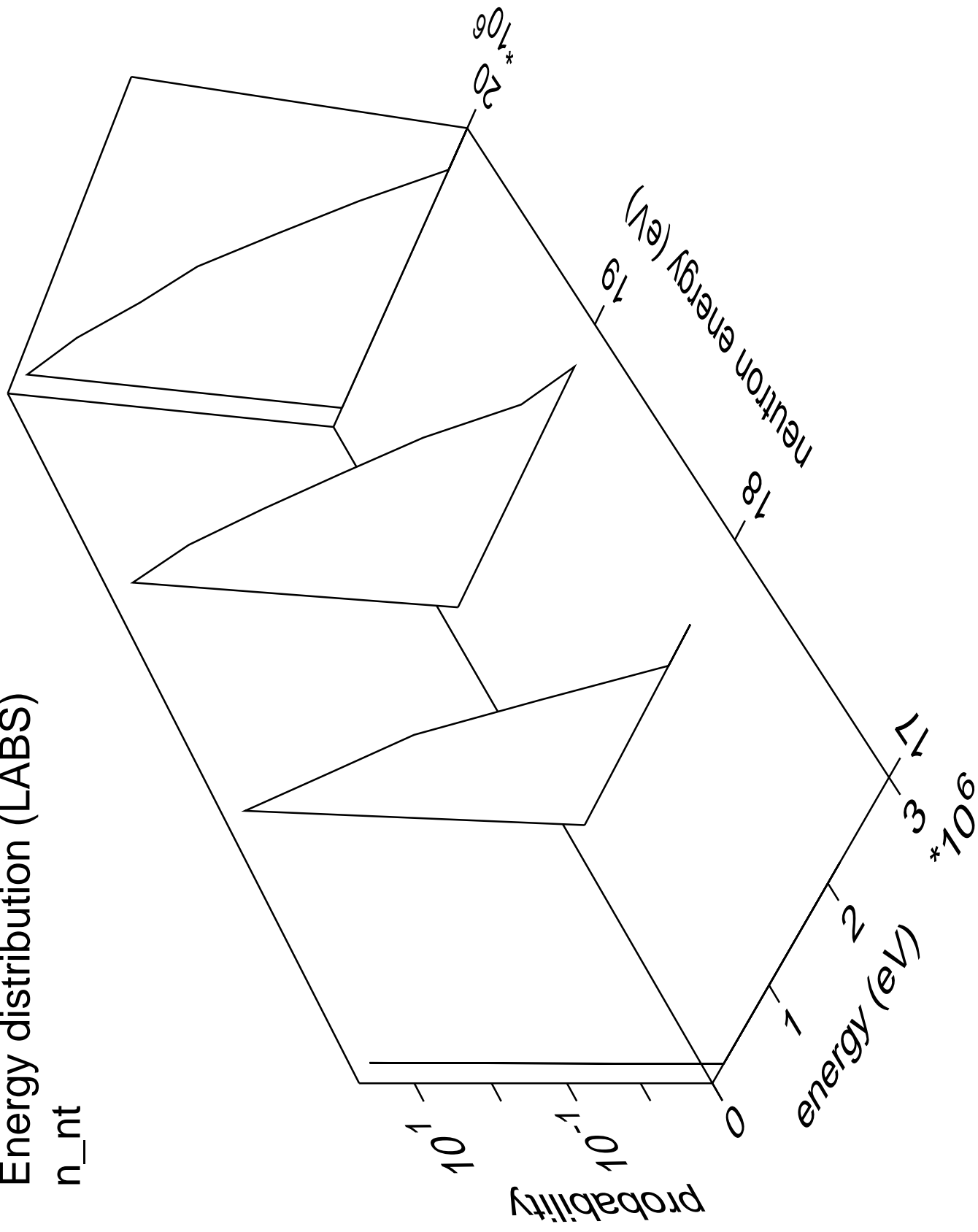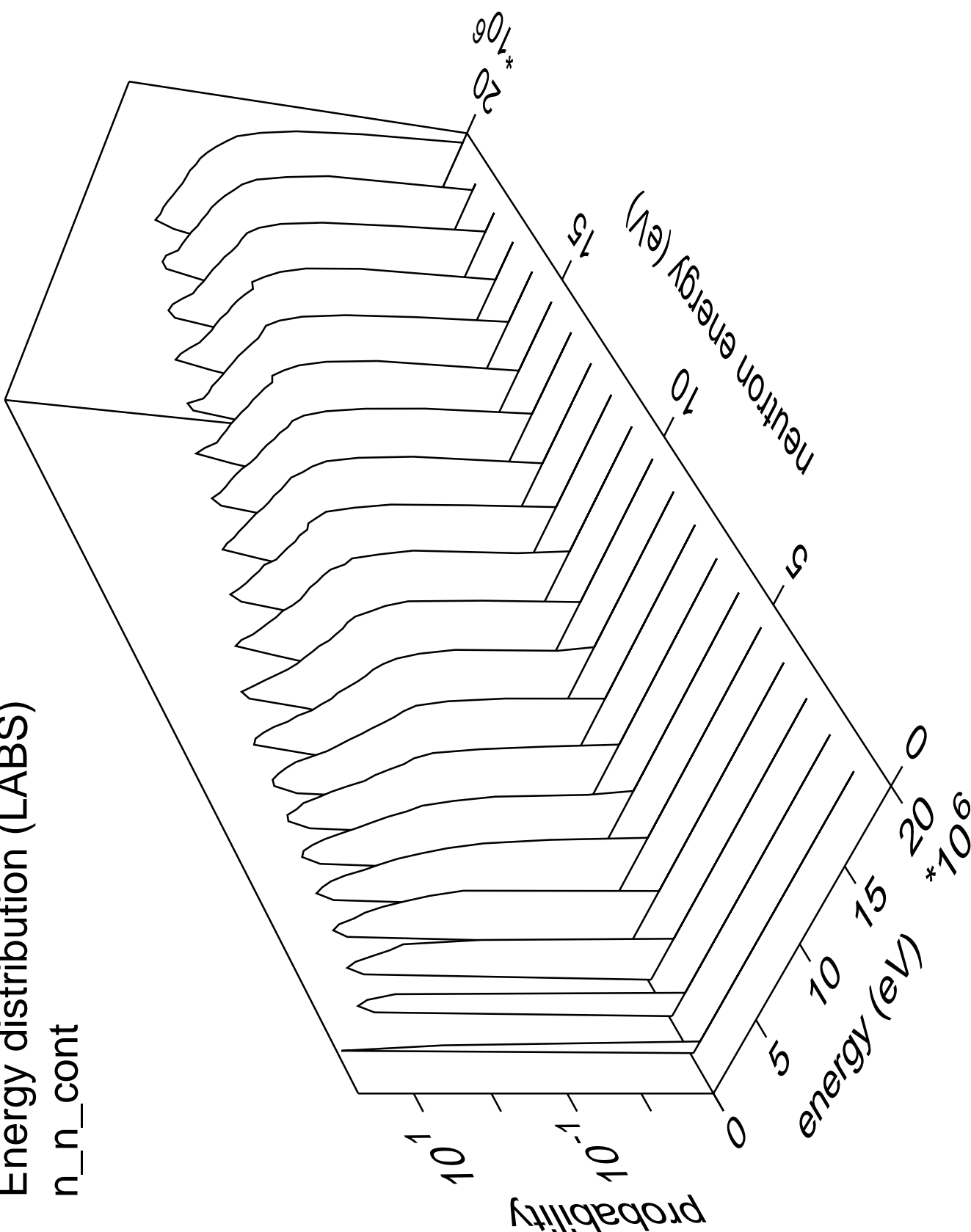
Gamma energy distribution
Capture

probability

neutron energy (eV)

gamma energy (MeV)

*10⁶
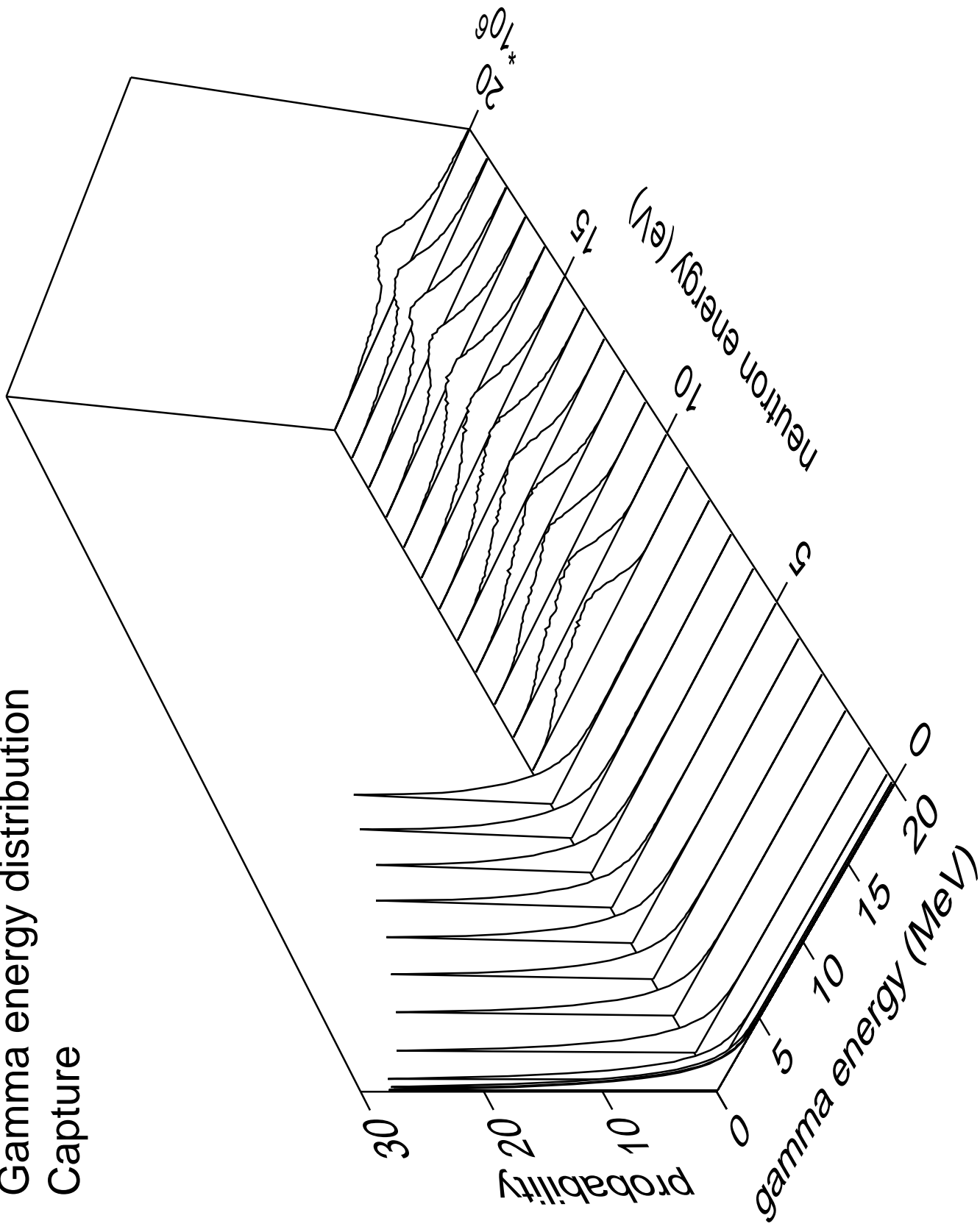
Gamma angles distribution
Capture

Gamma multiplicities distribution
Capture

probability

multiplicity

neutron energy (eV)

20 *10⁶

15

10

5

0

0.5 1.0 1.5 2.0 2.5

20

15

10

5

Gamma energy distribution
n_2n

probability

neutron energy (eV)

gamma energy (MeV)

20 *10⁶

15

10

5

0   5   10   15   20

20

40

60
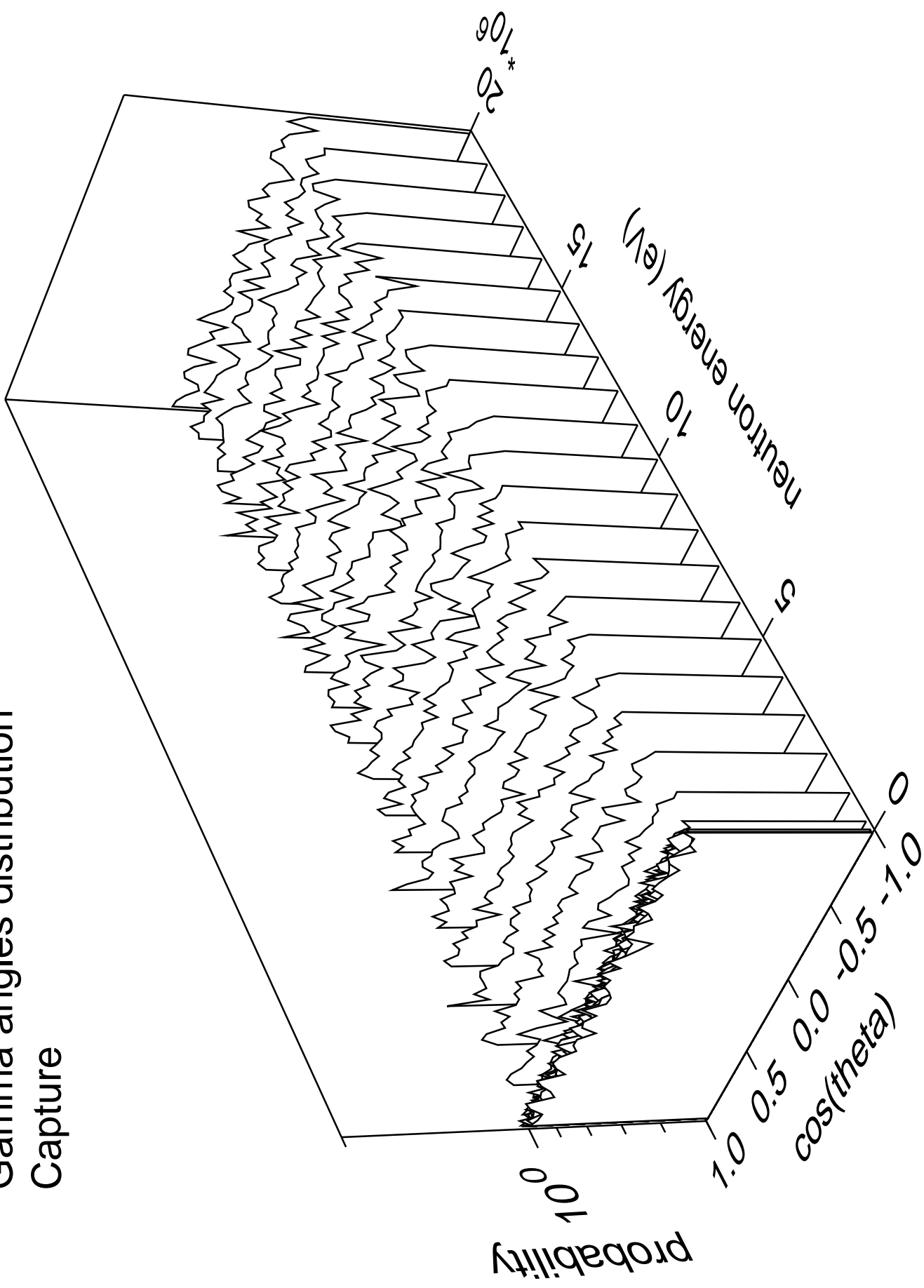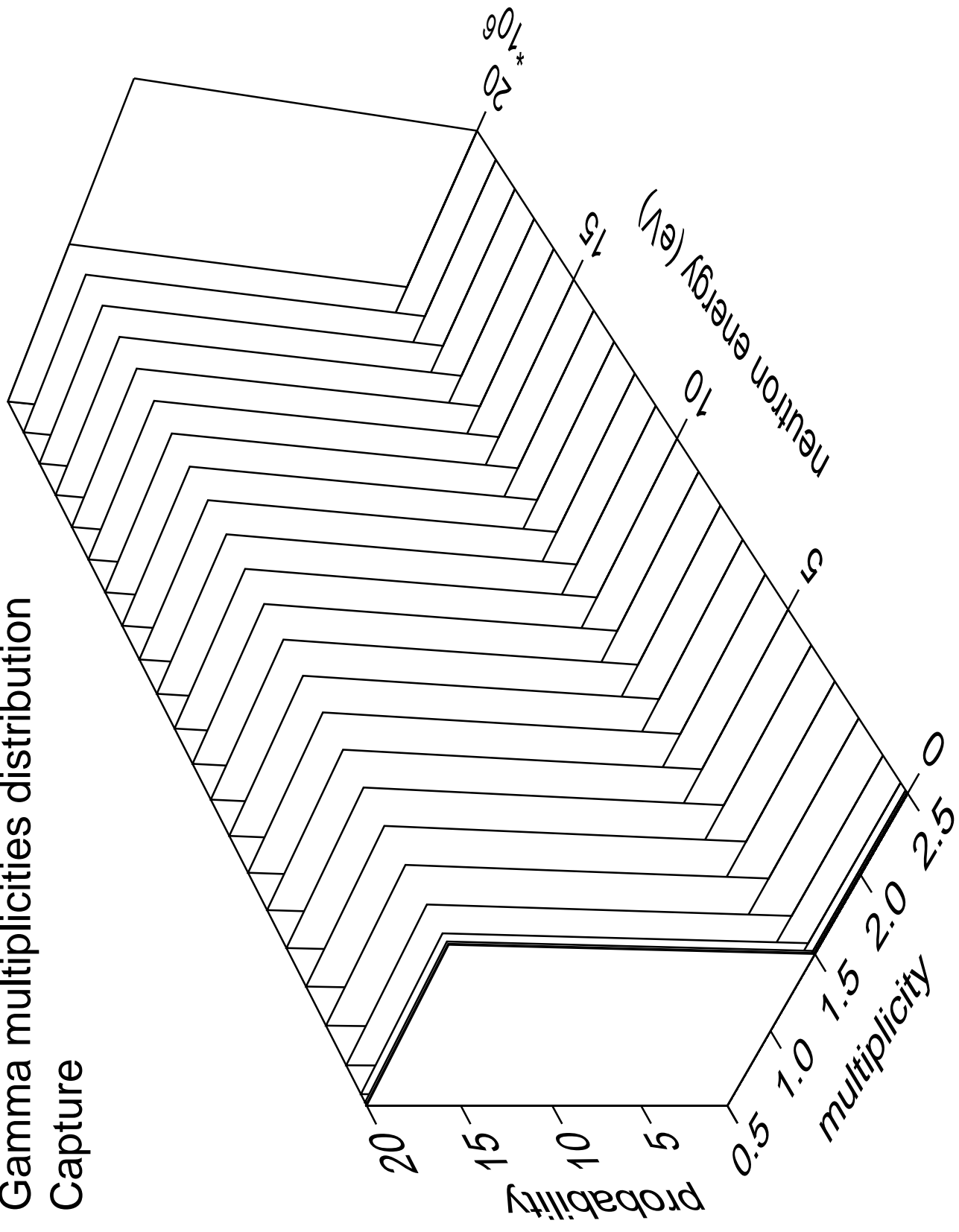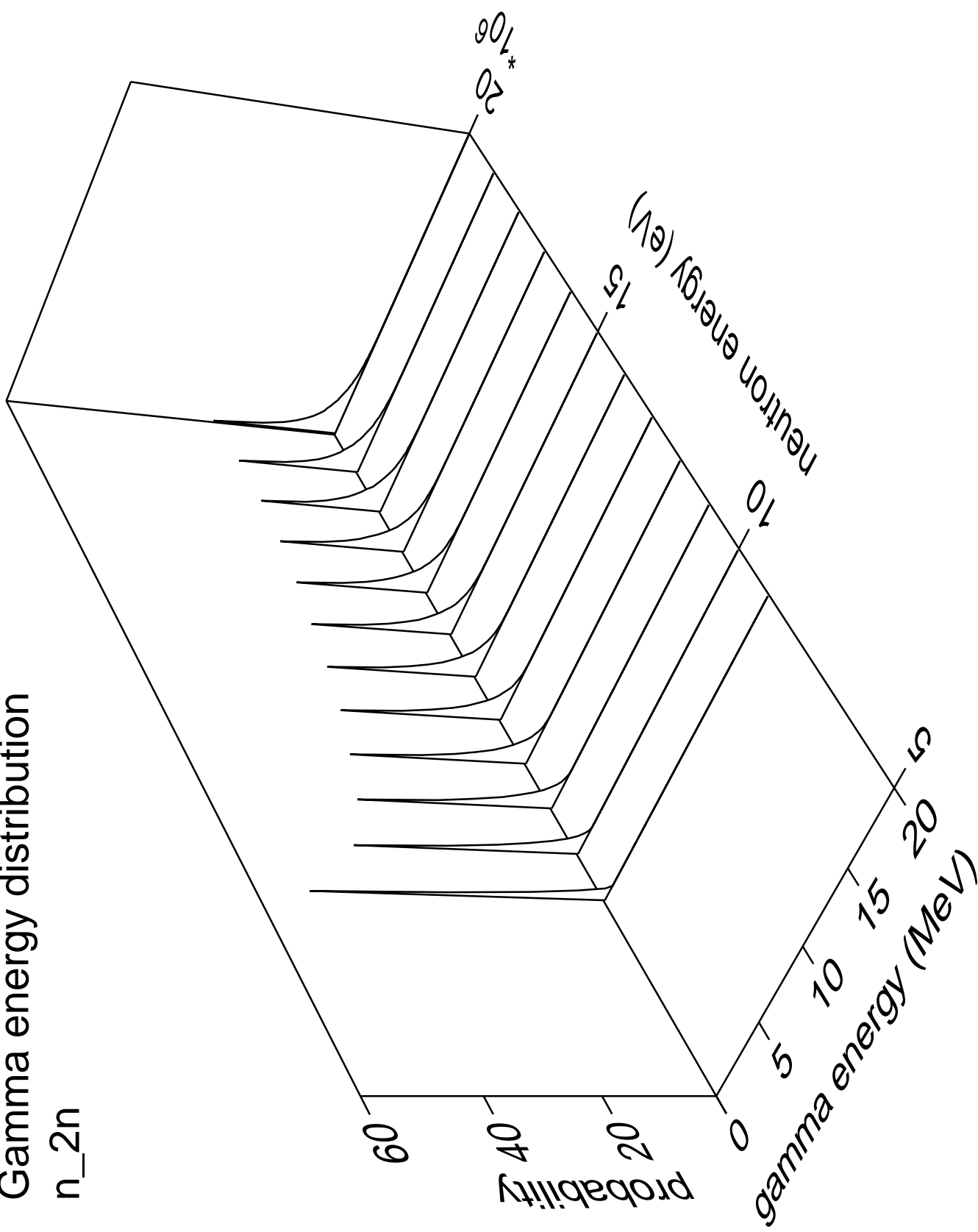
Gamma angles distribution n_2n

Gamma multiplicities distribution
n_2n
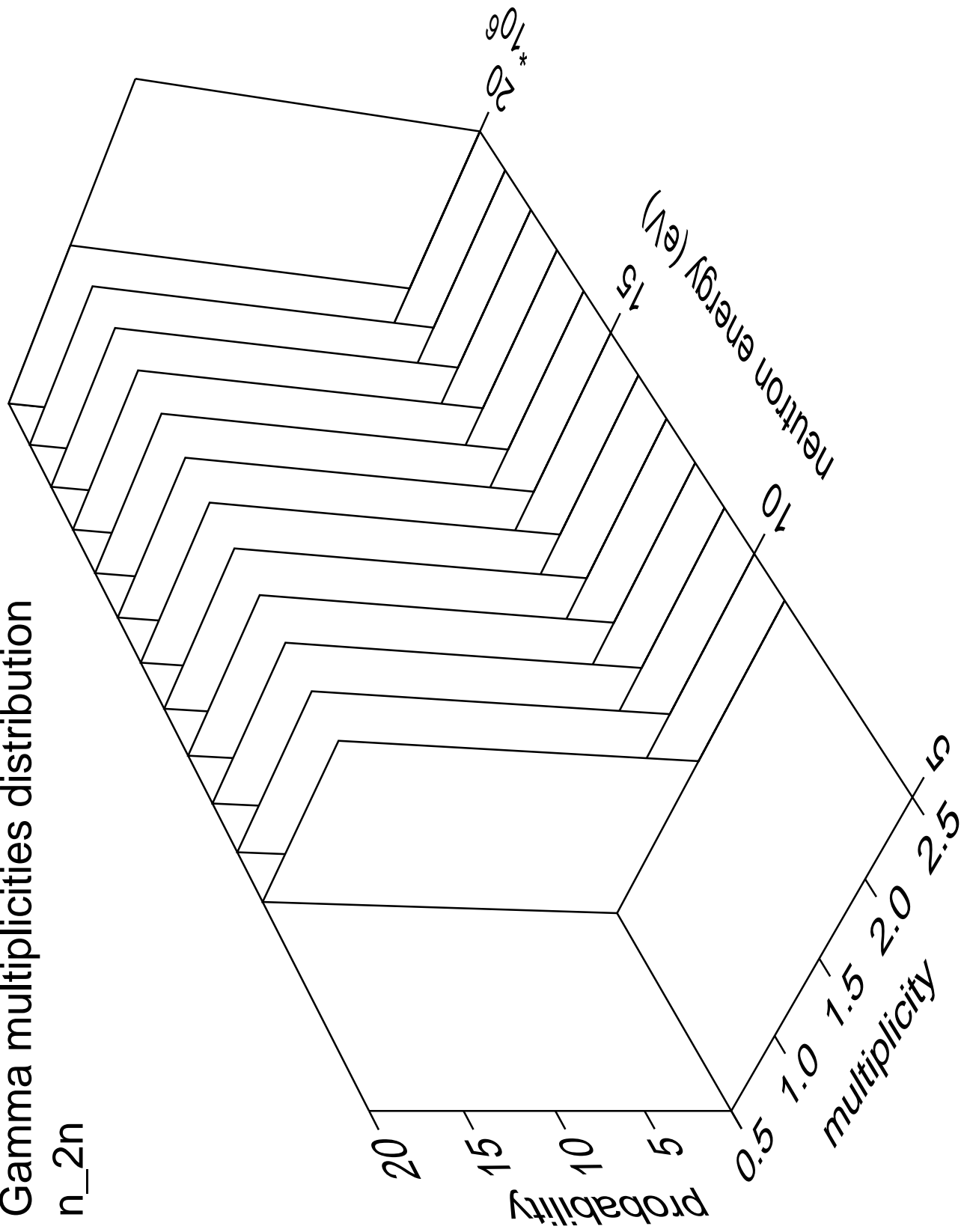
probability

multiplicity

neutron energy (eV)

20
15
10
5

0.5 1.0 1.5 2.0 2.5

5

10

15

20 *10⁶

Gamma energy distribution
n_3n

probability

gamma energy (MeV)

neutron energy (eV)

20 *10⁶

18

16

14

0 5 10 15 20

20 40 60 80 100

Gamma angles distribution
n_3n

probability

10^0

neutron energy (eV)

20 *10^6

18

16

14

cos(theta)

1.0 0.5 0.0 -0.5 -1.0
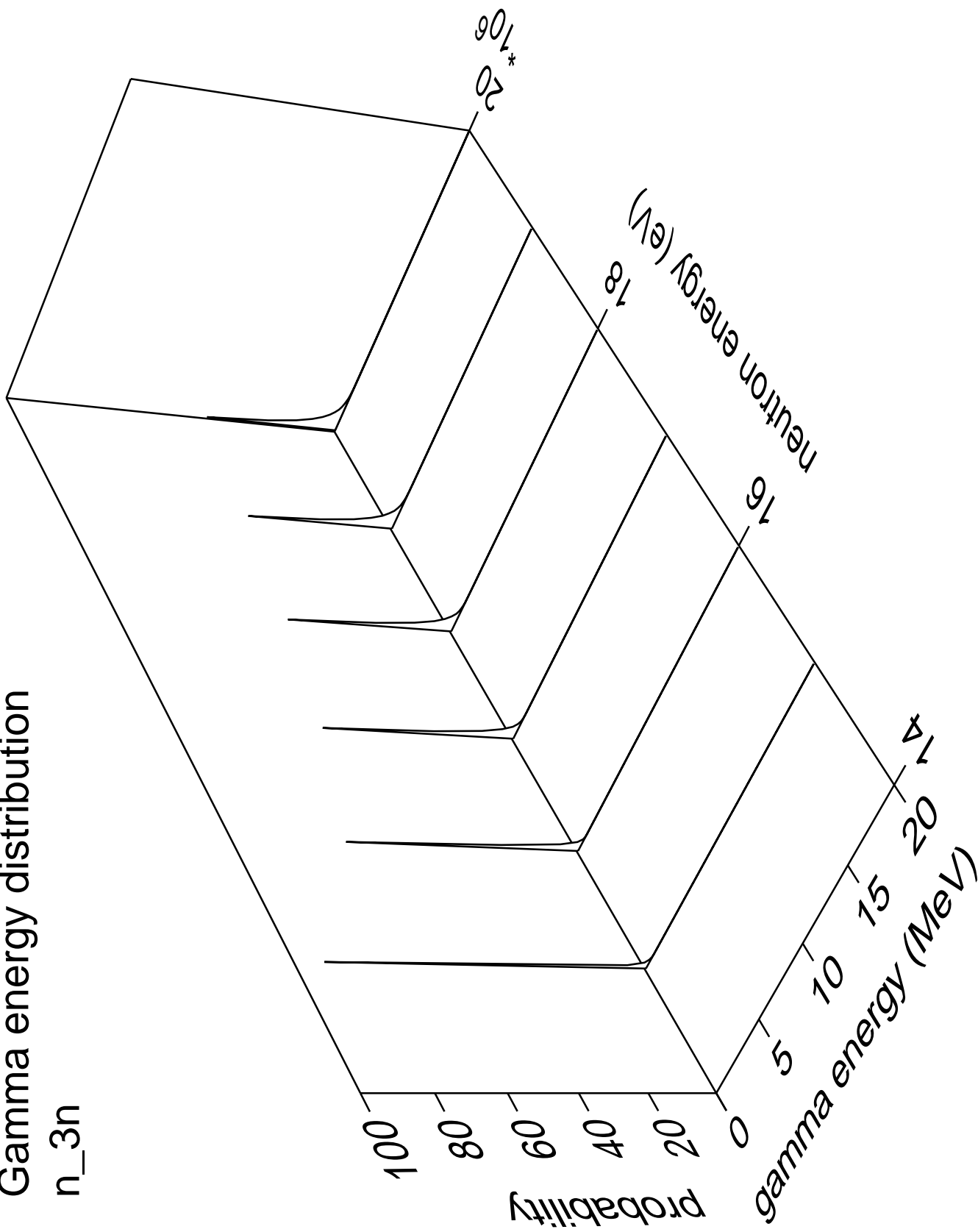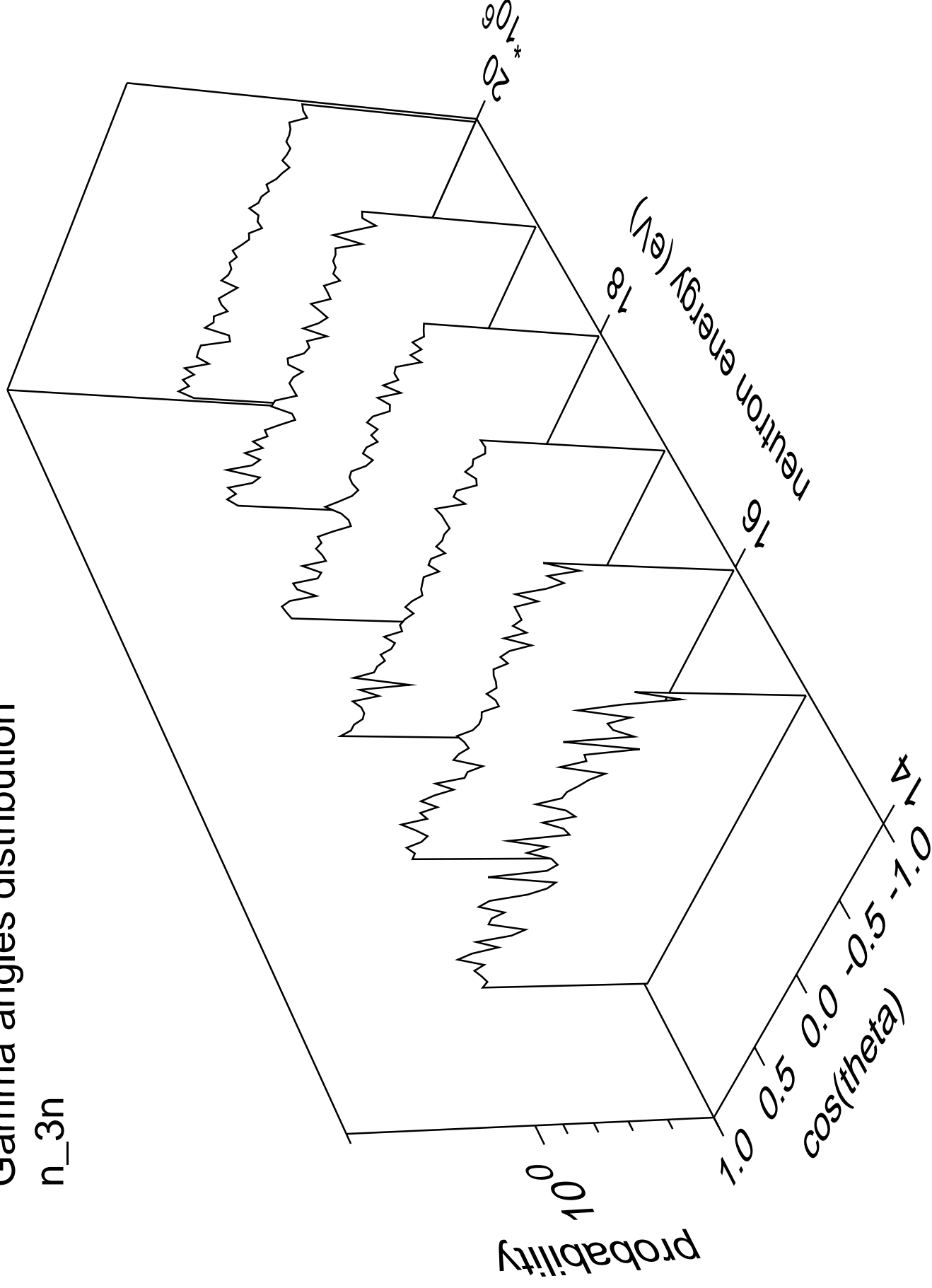
Gamma multiplicities distribution
n_3n

Gamma energy distribution

n_na

probability

gamma energy (MeV)

neutron energy (eV)

*10⁶

Gamma angles distribution
n_na

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

10

5

0

10⁰

1.0 0.5 0.0 -0.5 -1.0
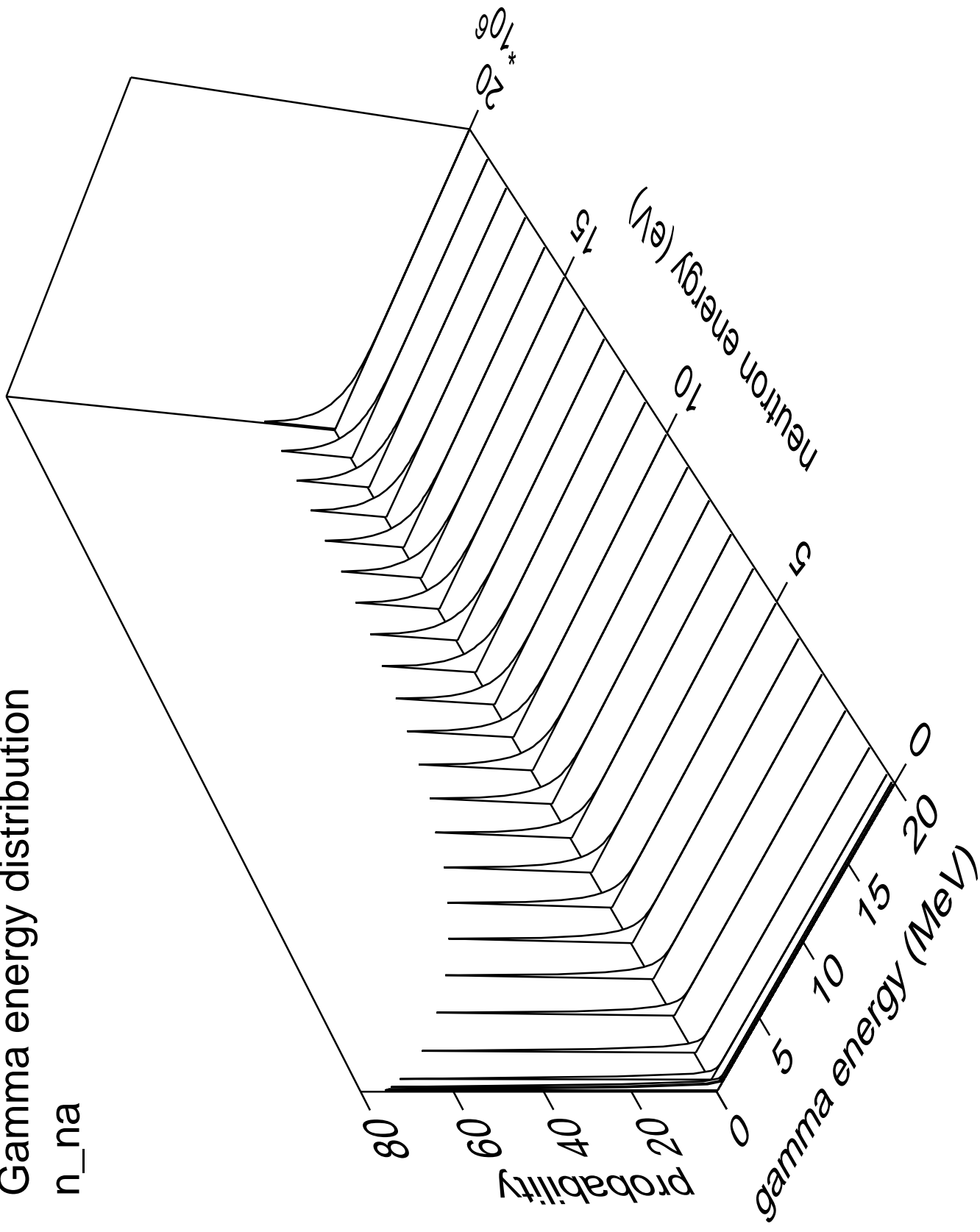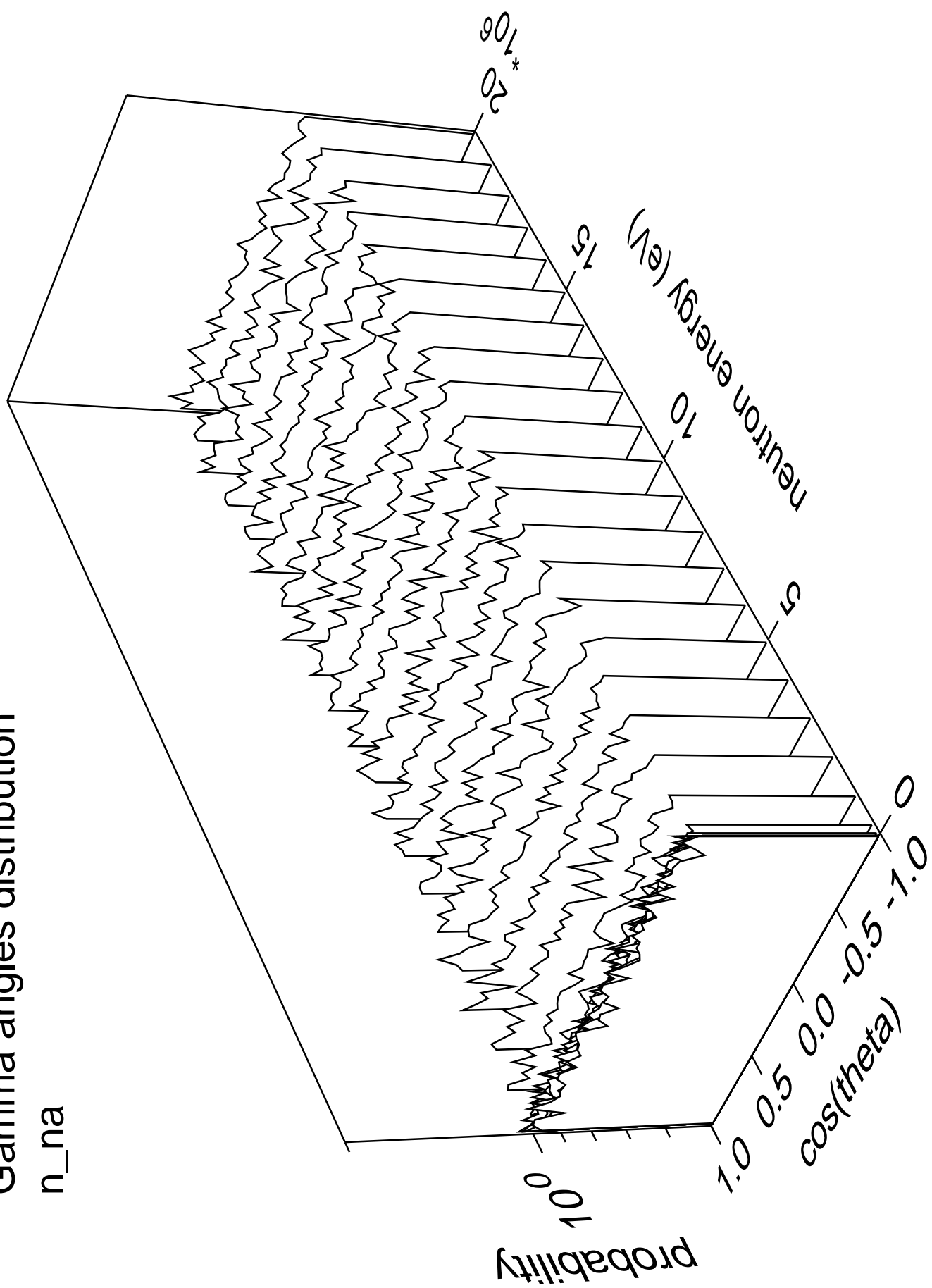
Gamma multiplicities distribution
n_na

Gamma energy distribution
n_np
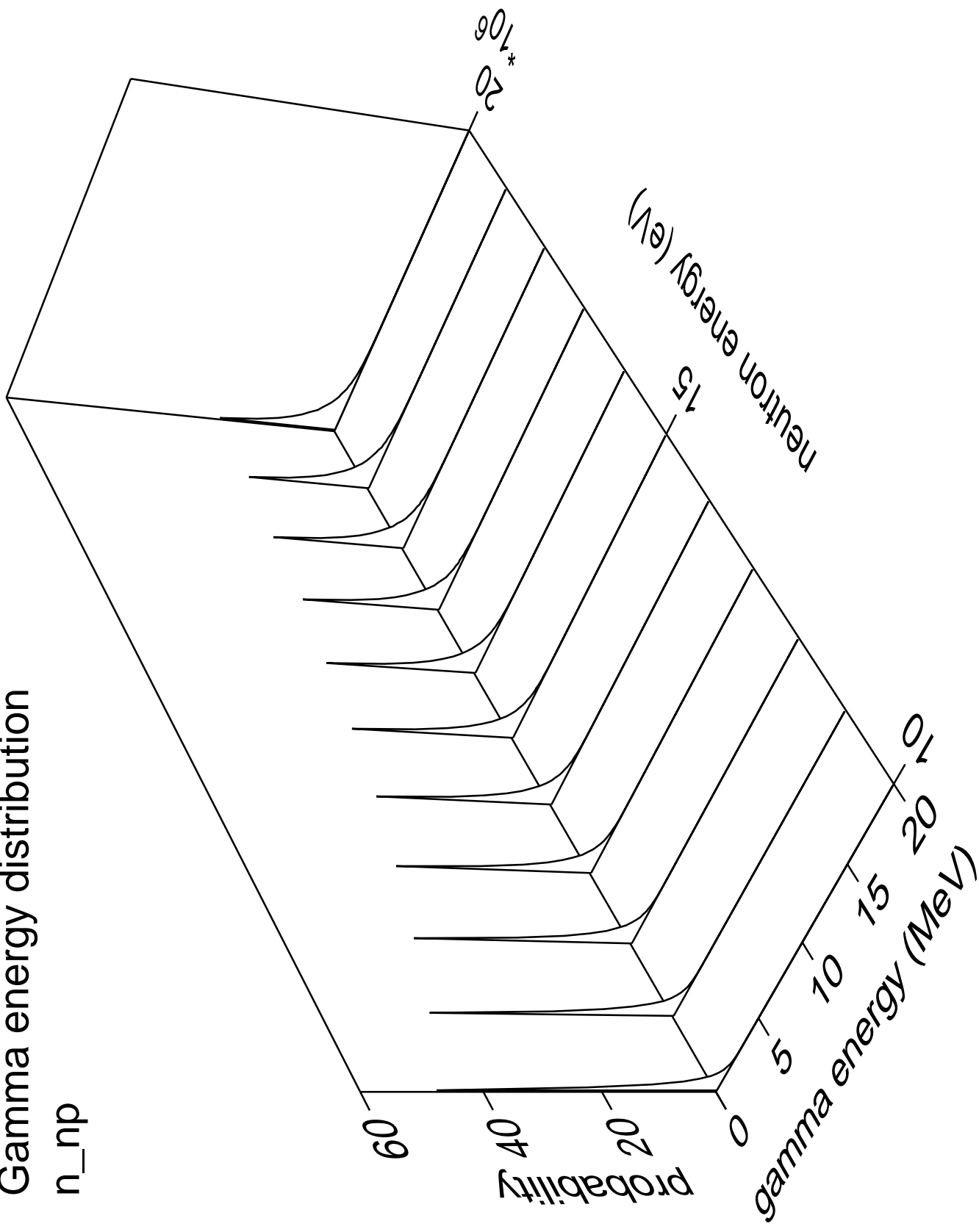
neutron energy (eV)

gamma energy (MeV)

probability

Gamma angles distribution
n_np

probability

neutron energy (eV)

cos(theta)

20 *10⁶

15

10

1.0 0.5 0.0 -0.5 -1.0

Gamma multiplicities distribution

Gamma energy distribution
n_n_tot

probability

100

50

0

5

10

15

20

gamma energy (MeV)

neutron energy (eV)

20 *10⁶

15

10

5

0

Gamma angles distribution
n_n_tot

neutron energy (eV)

cos(theta)

probability

*10⁶
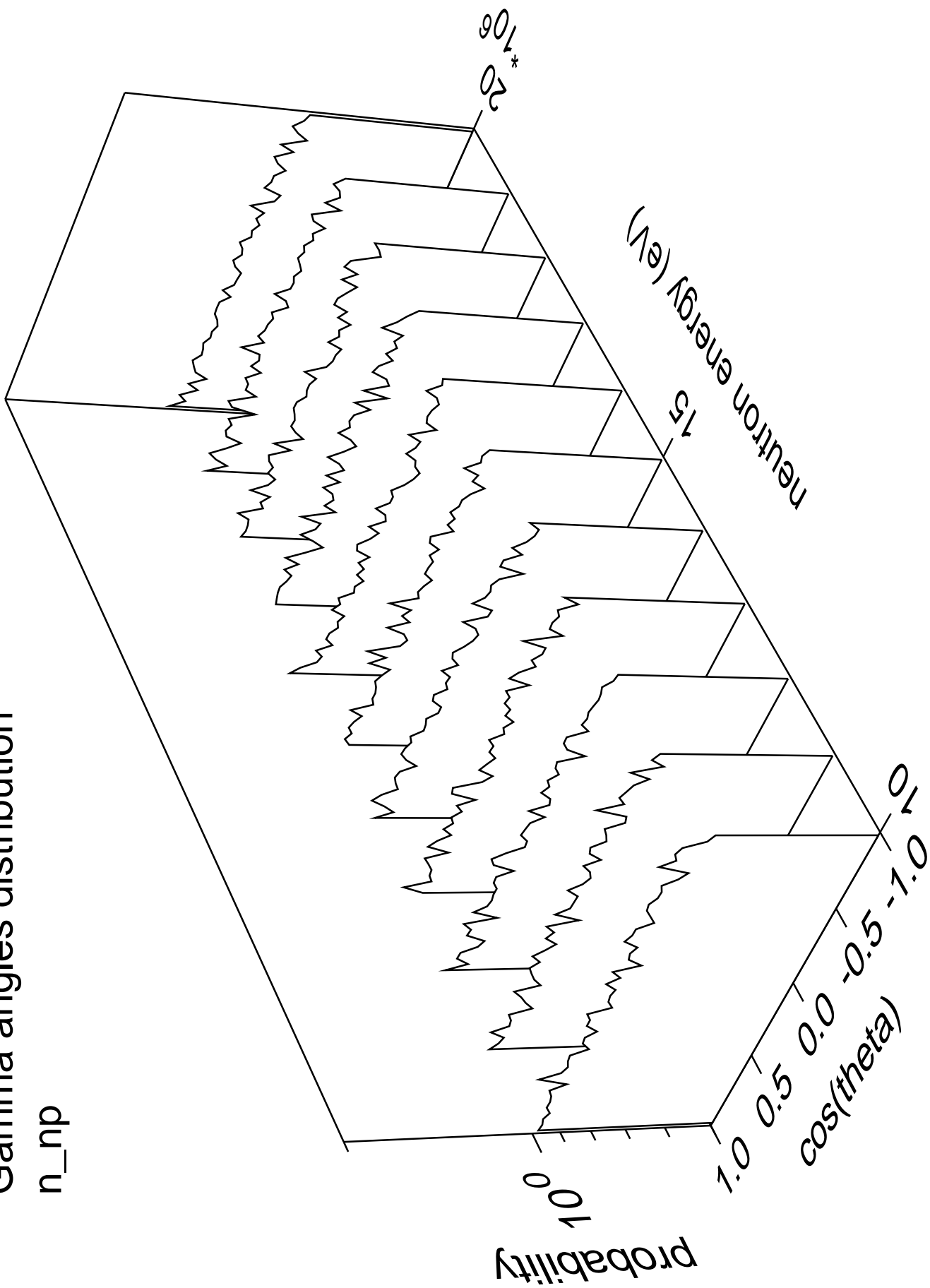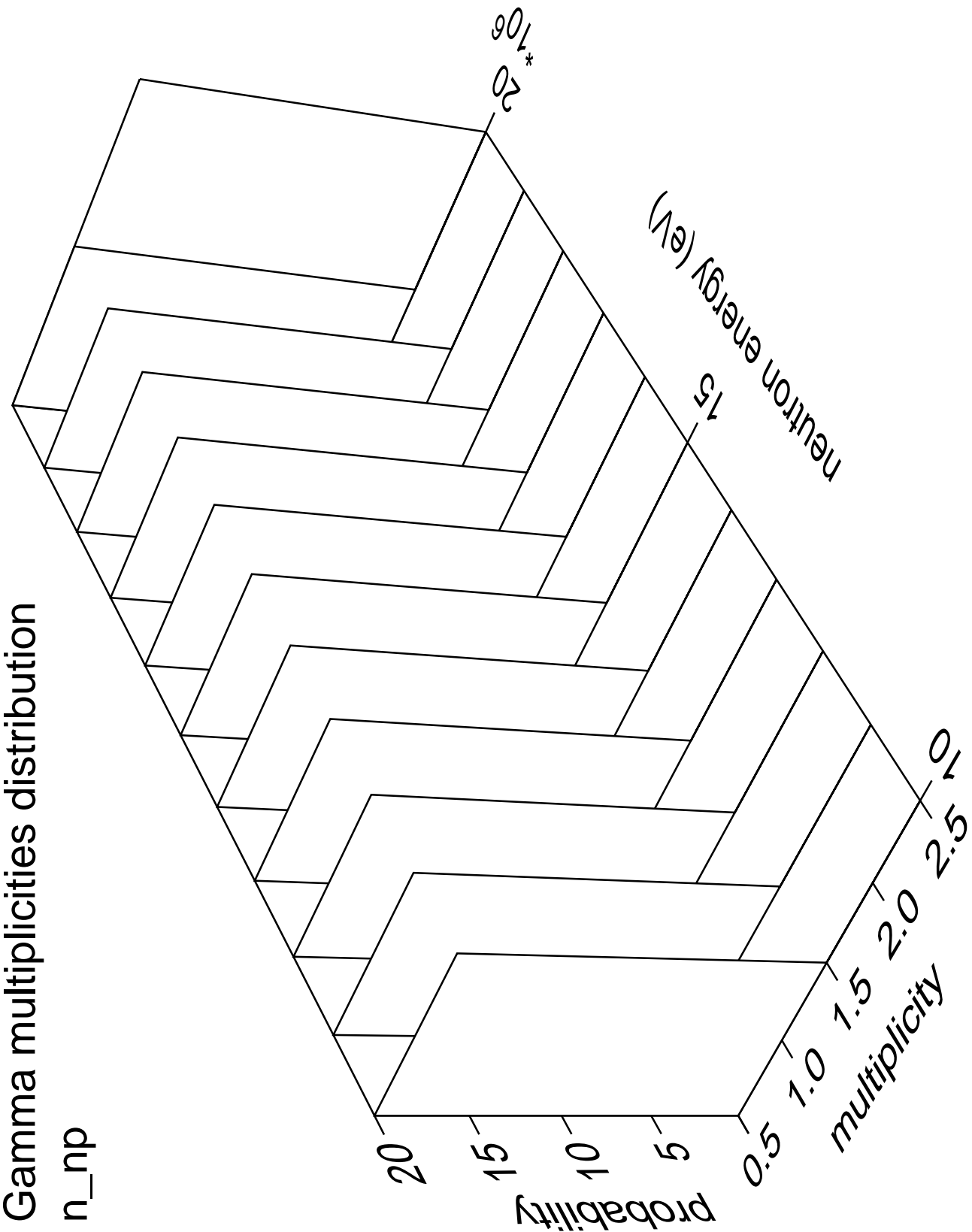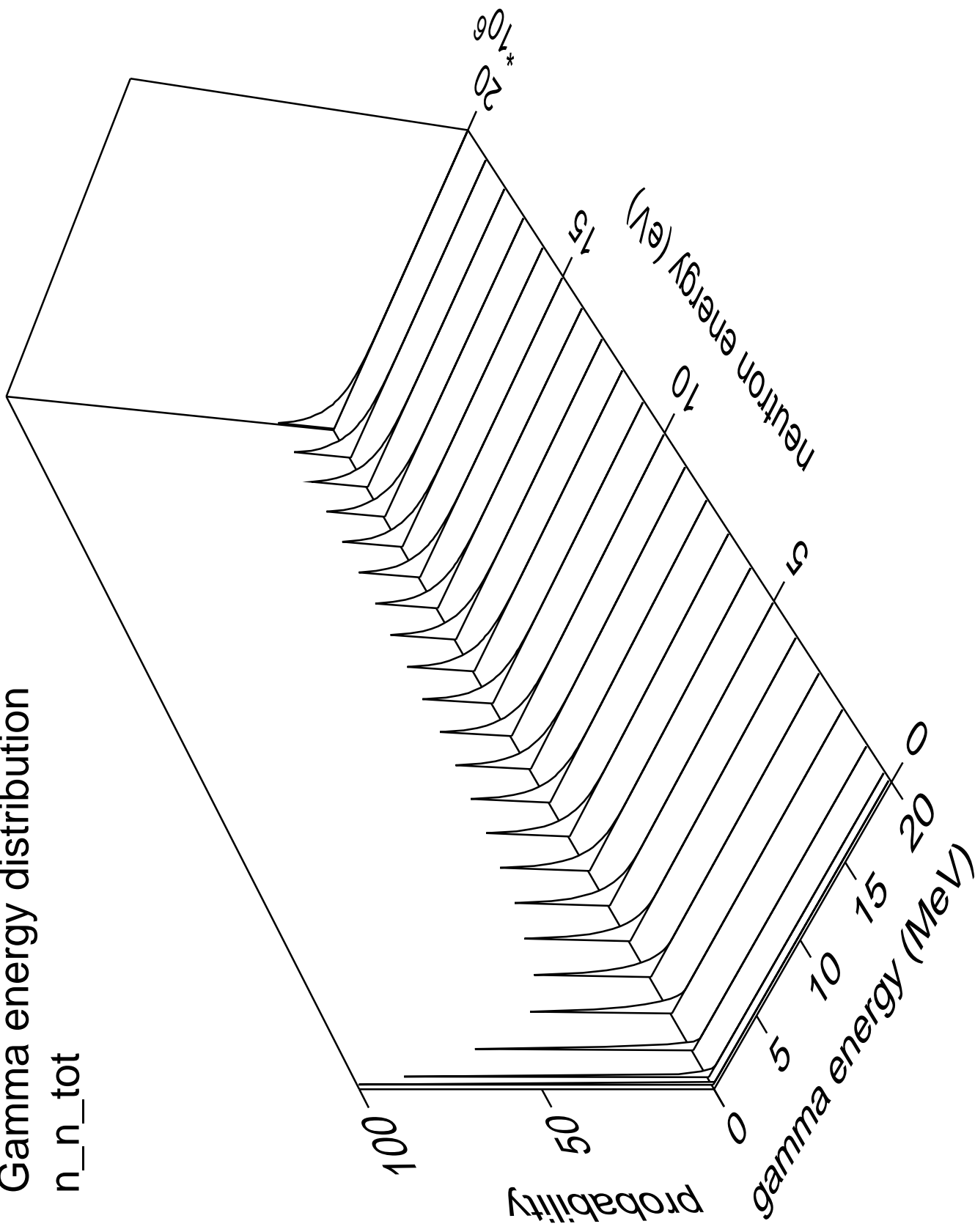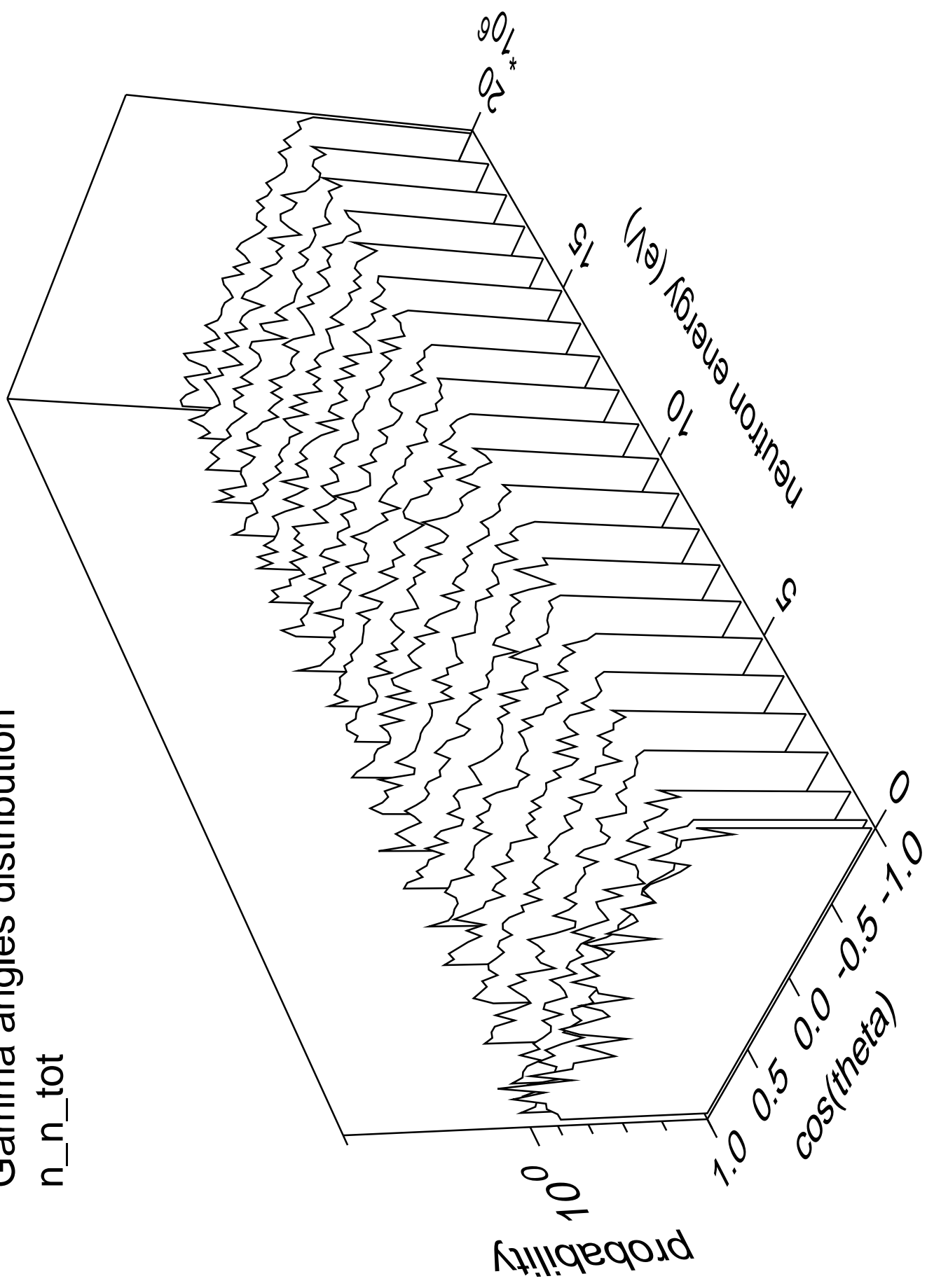
Gamma multiplicities distribution
n_n_tot

Gamma energy distribution
n_p_tot

probability

neutron energy (eV)

gamma energy (MeV)

20 *10⁶

15

10

5

100

50

0

5

10

15

20
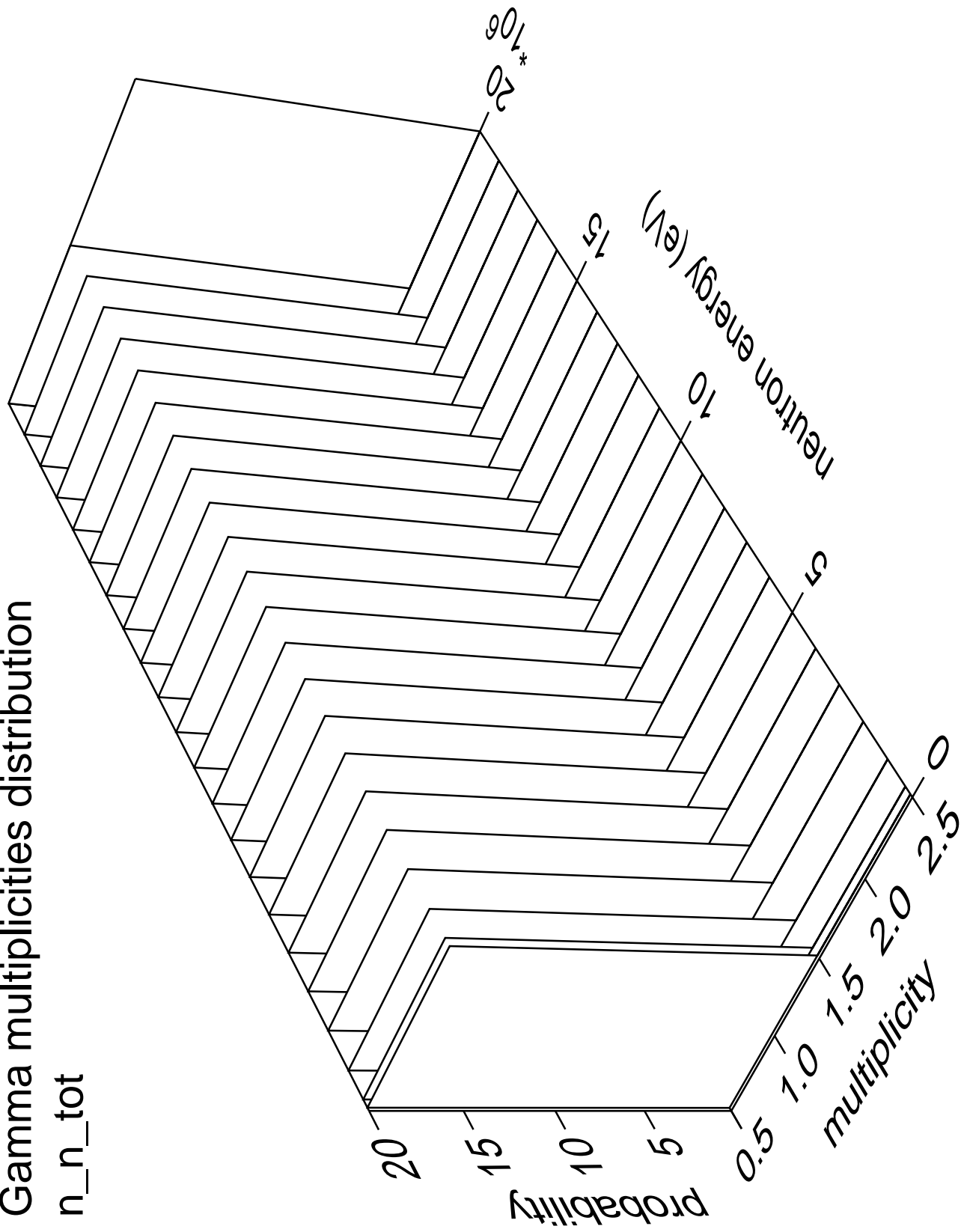
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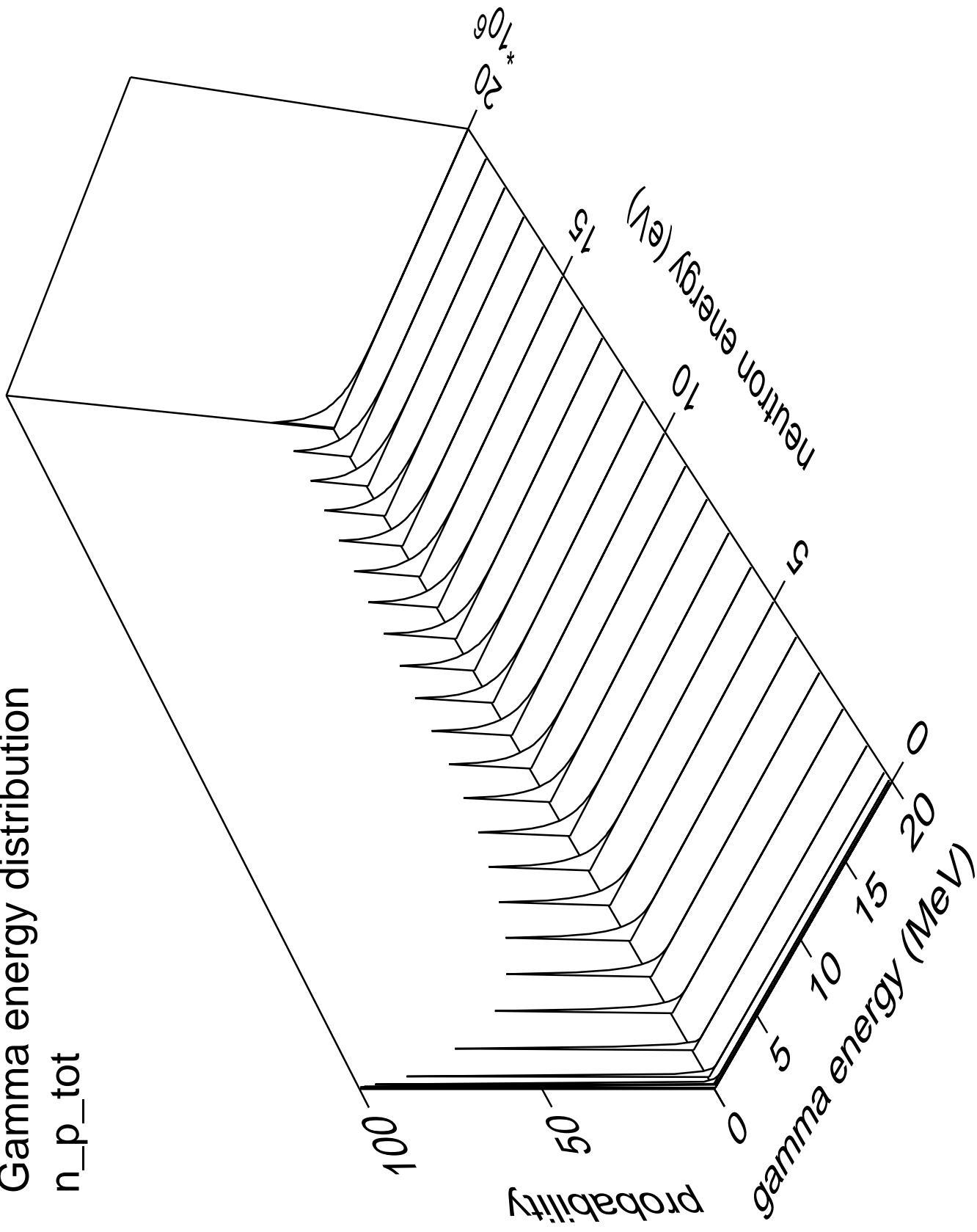
Gamma angles distribution
n_p_tot
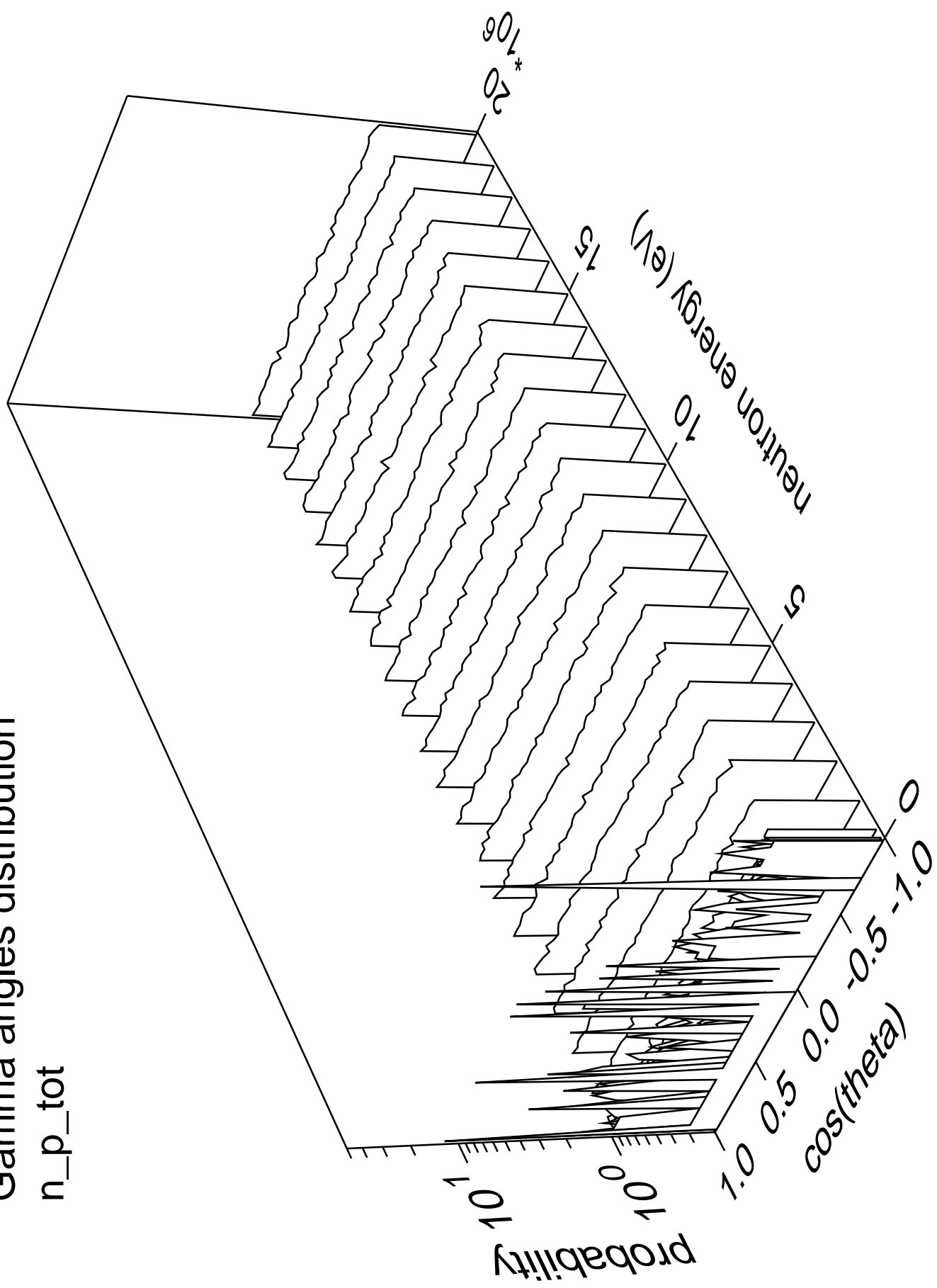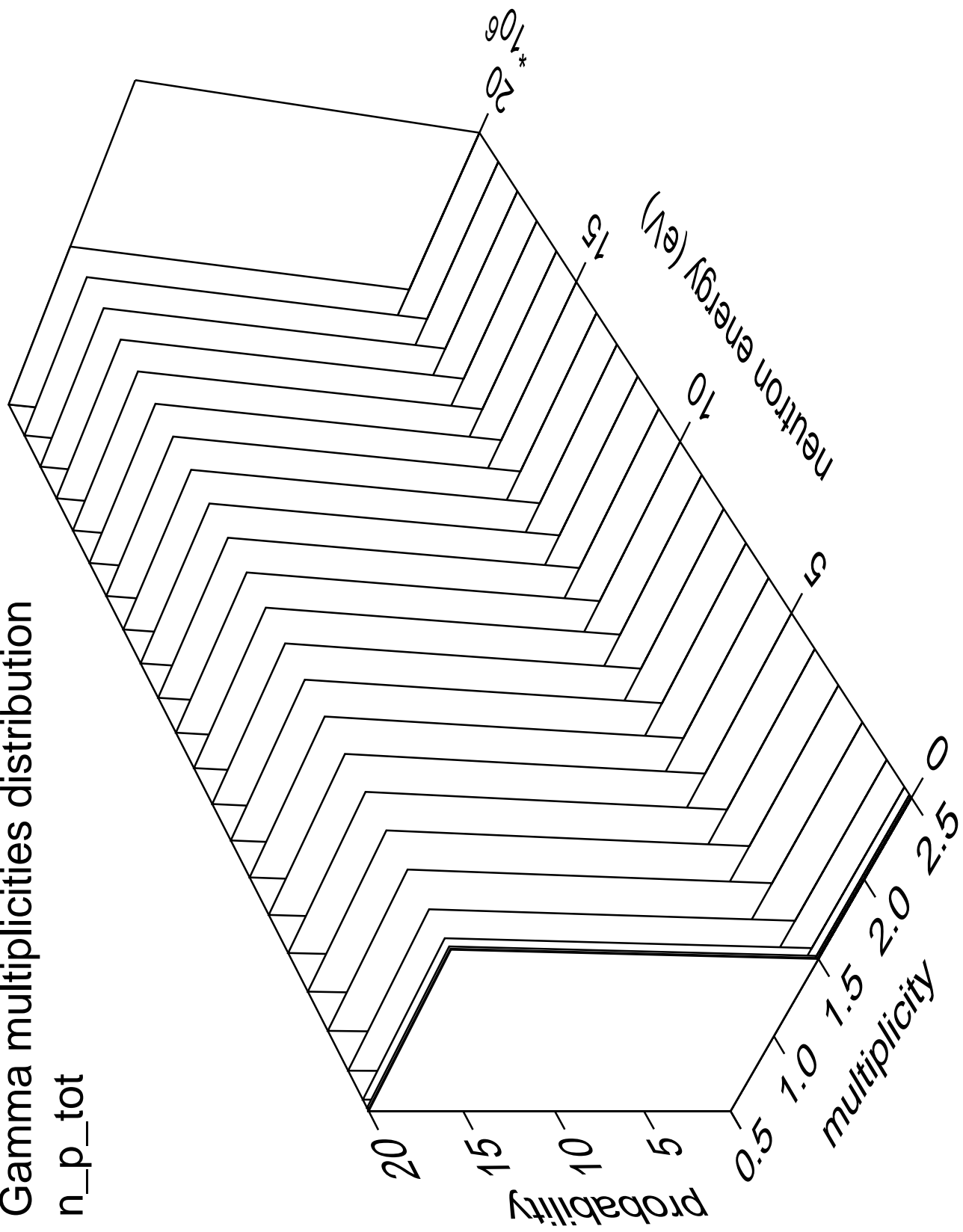
Gamma multiplicities distribution
n_p_tot

Gamma energy distribution
n_a_tot

probability

neutron energy (eV)

gamma energy (MeV)

20 *10⁶

15

10

5

0

30

20

10

0

0

5

10

15

20

Gamma angles distribution
n_a_tot

probability

neutron energy (eV)

cos(theta)

Gamma multiplicities distribution
n_a_tot

neutron energy (eV)

multiplicity

probability

20 *10⁶

15

10

5

0.5 1.0 1.5 2.0 2.5

20 15 10 5