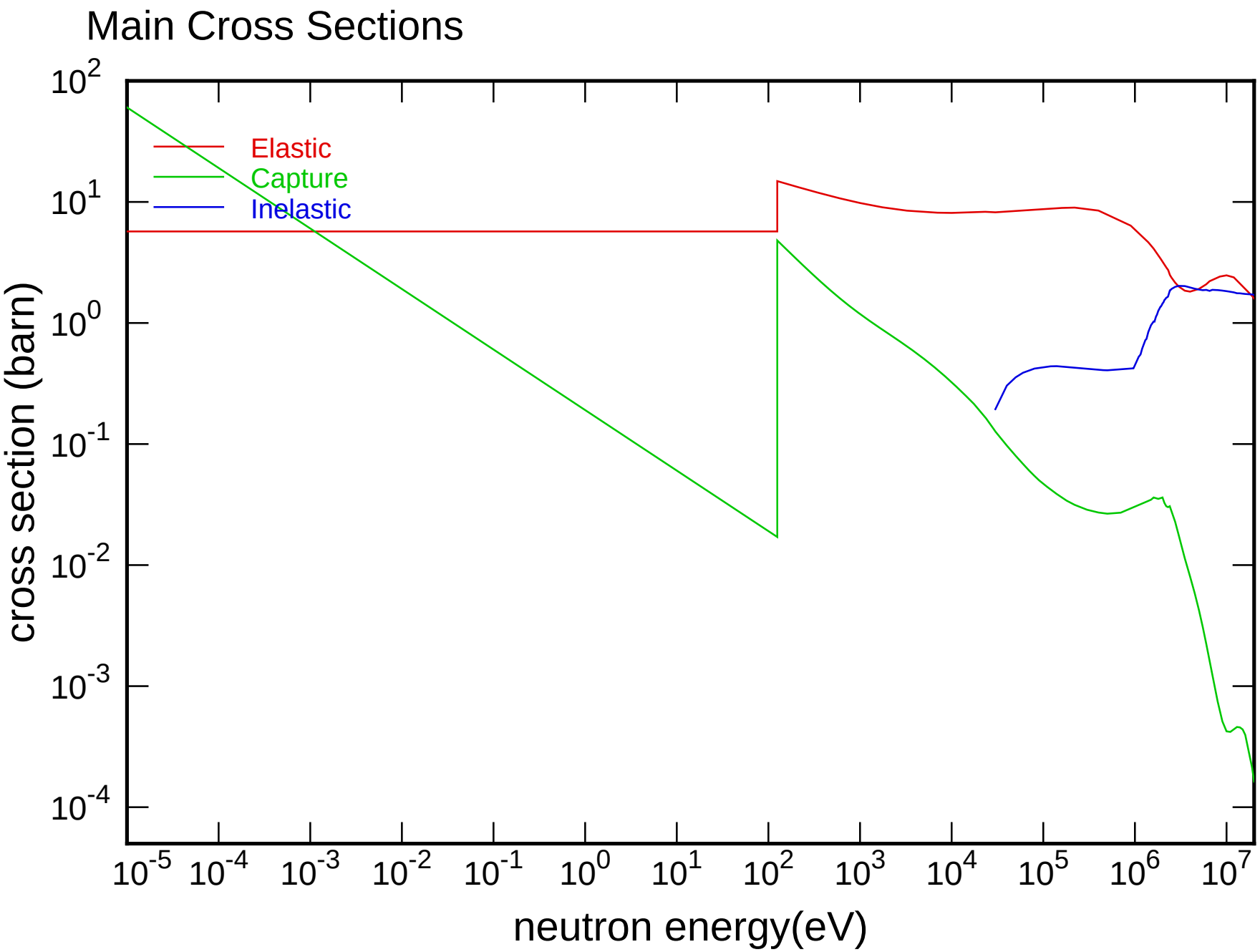
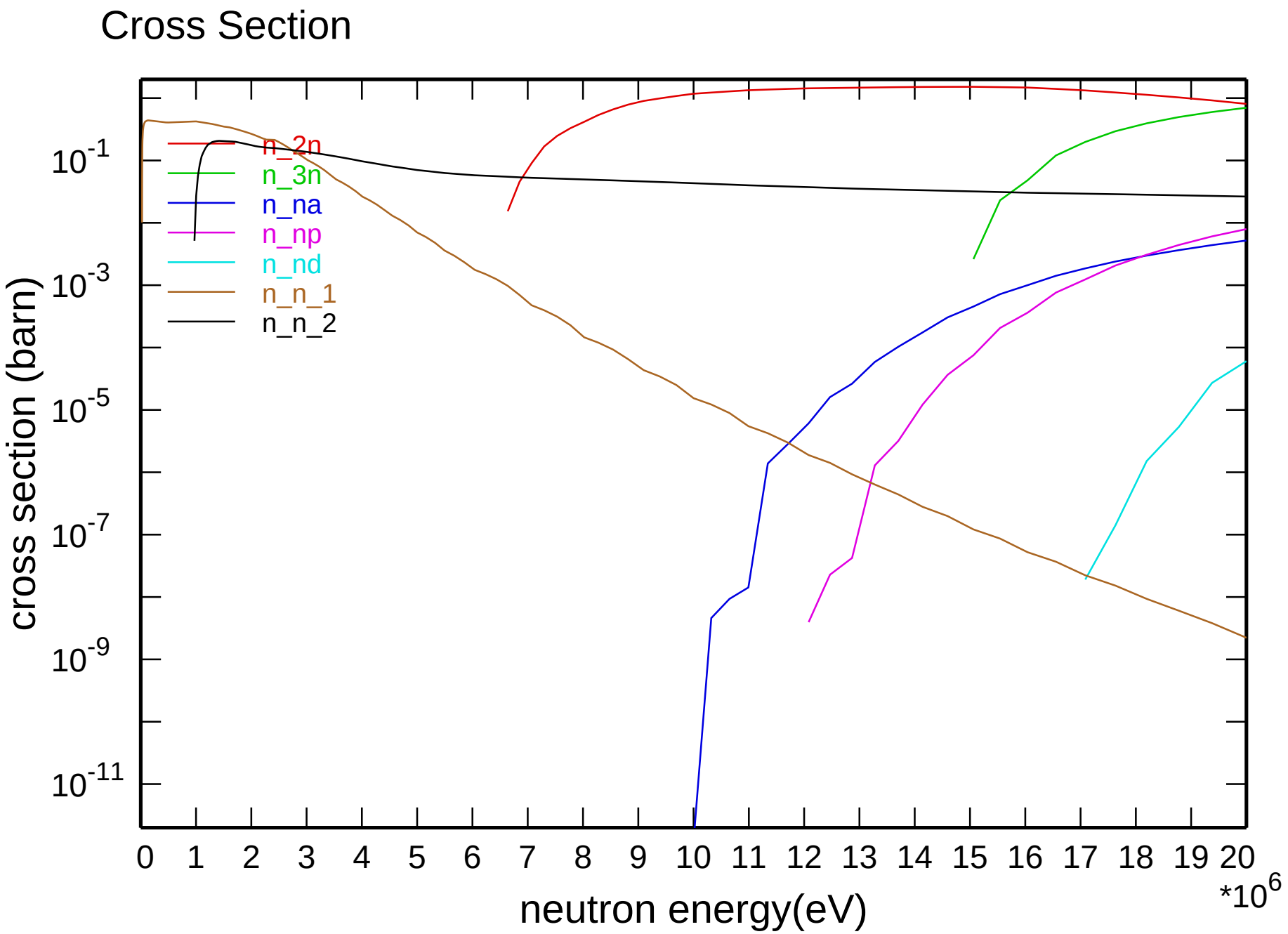
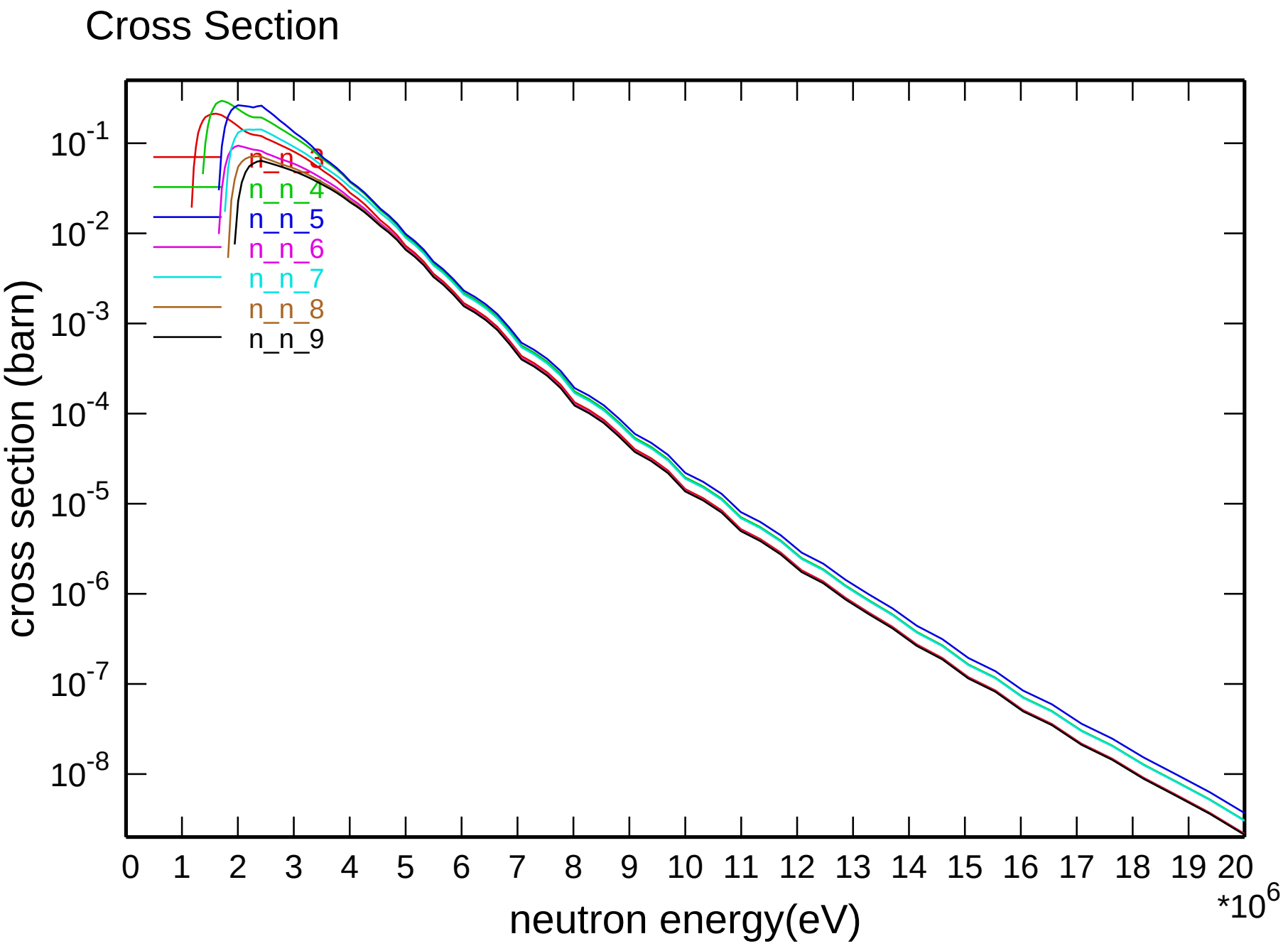
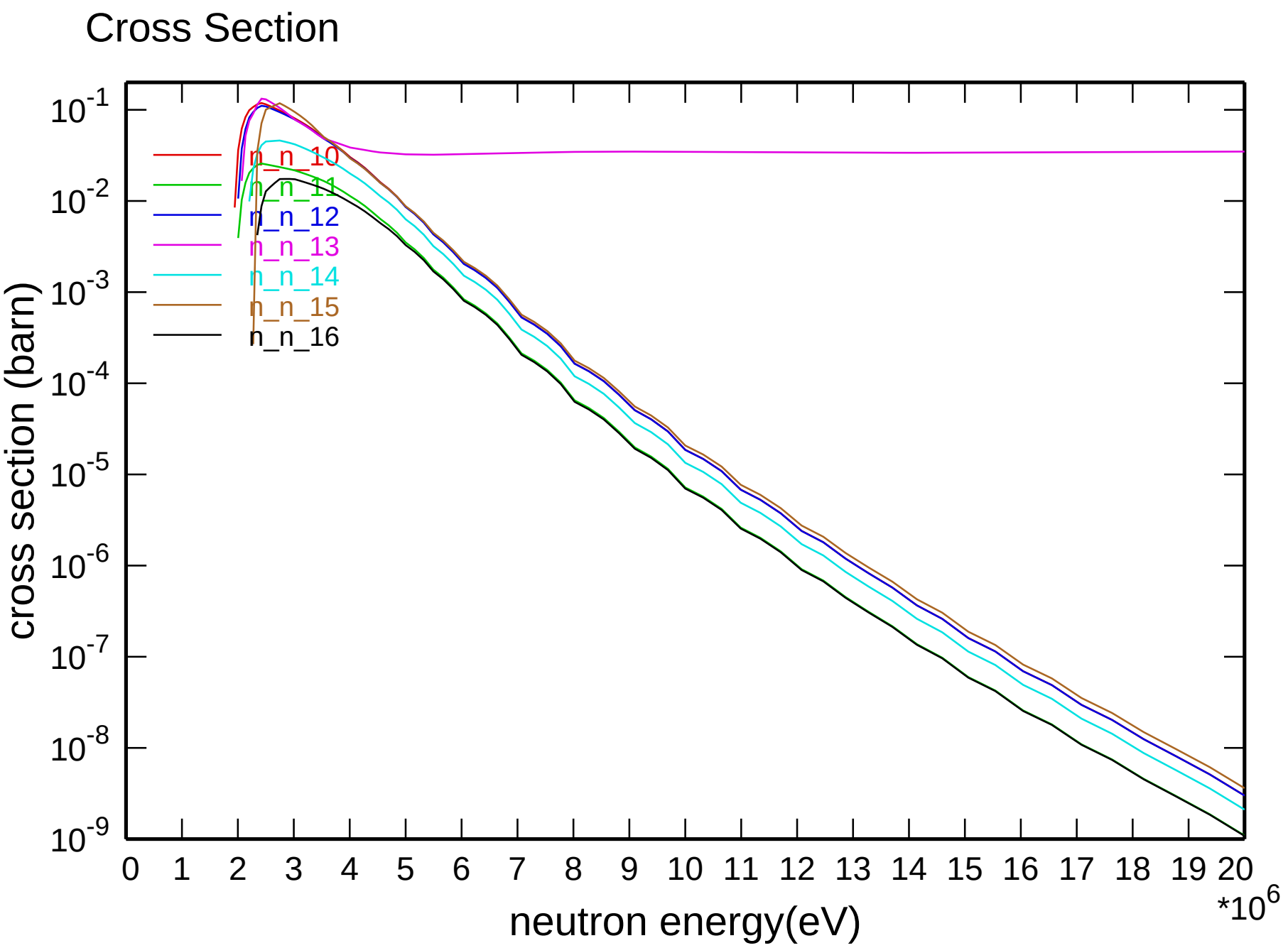
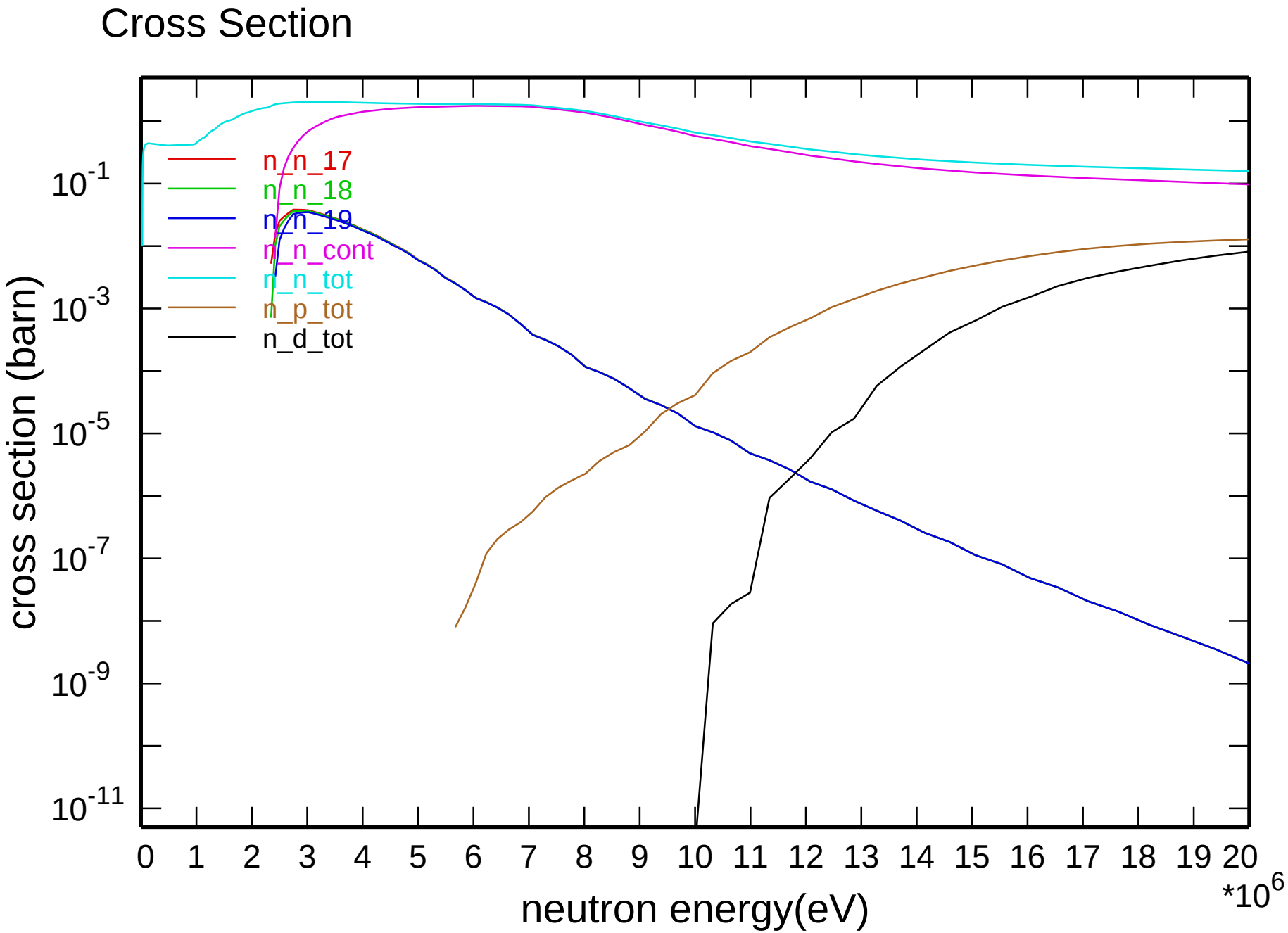
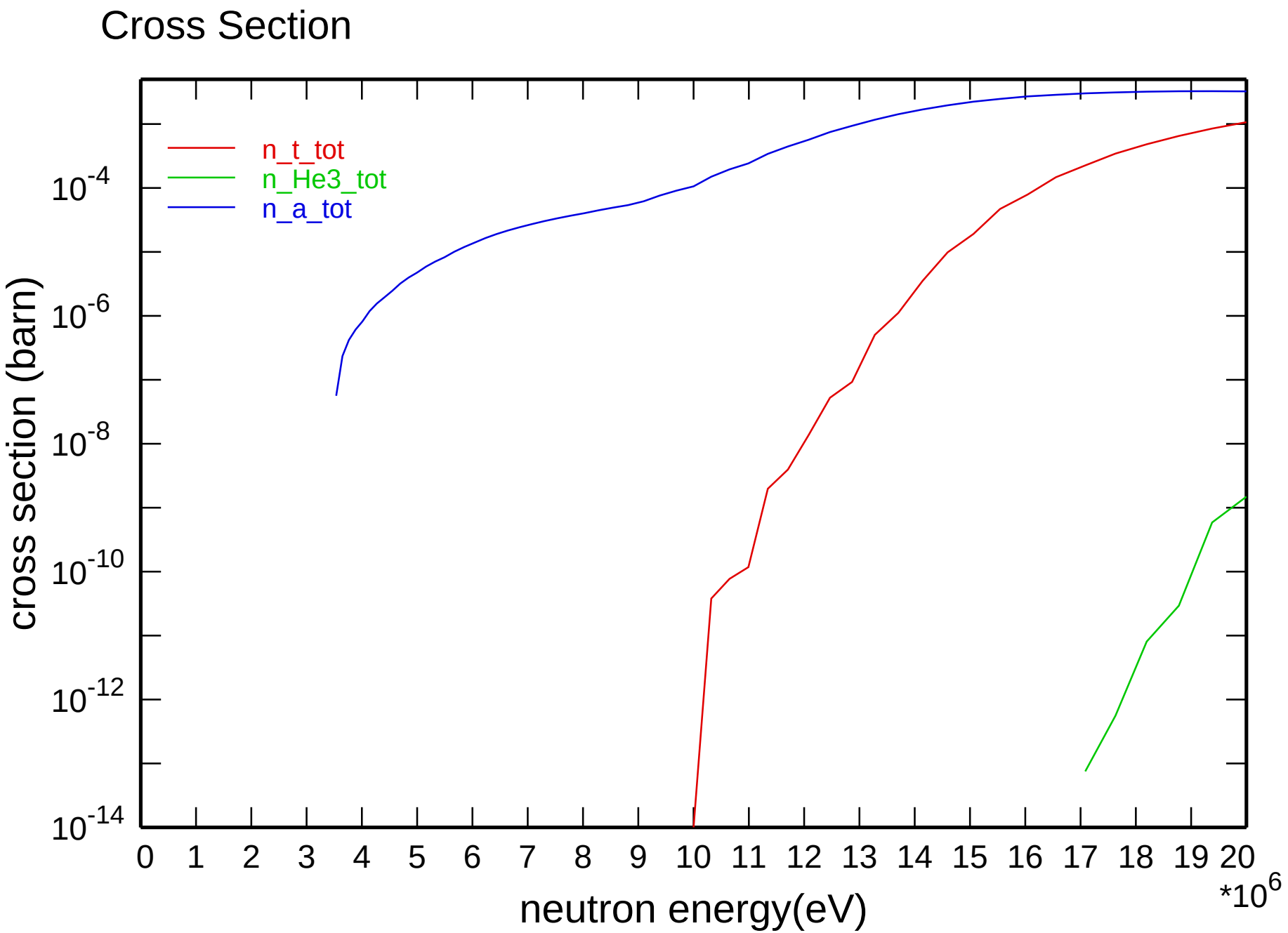

Main Cross Sections
Elastic
Capture
Inelastic
cross section (barn)
neutron energy(eV)
10^2
10^1
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-4
10^-3
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7

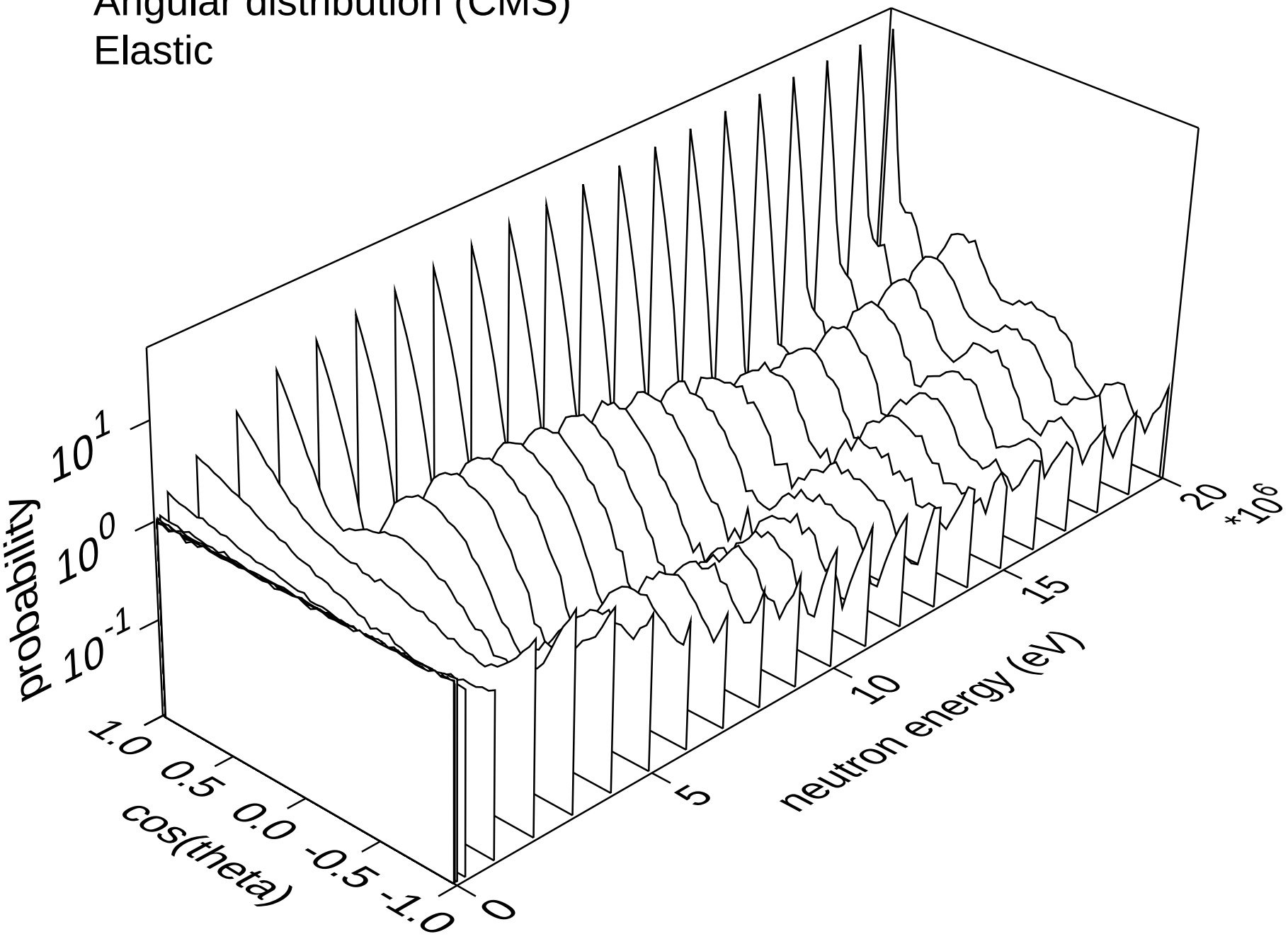

Cross Section
n_2n
n_3n
n_na
n_np
n_nd
n_n_1
n_n_2
cross section (barn)
10-1
10-3
10-5
10-7
10-9
10-11
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^6
neutron energy(eV)

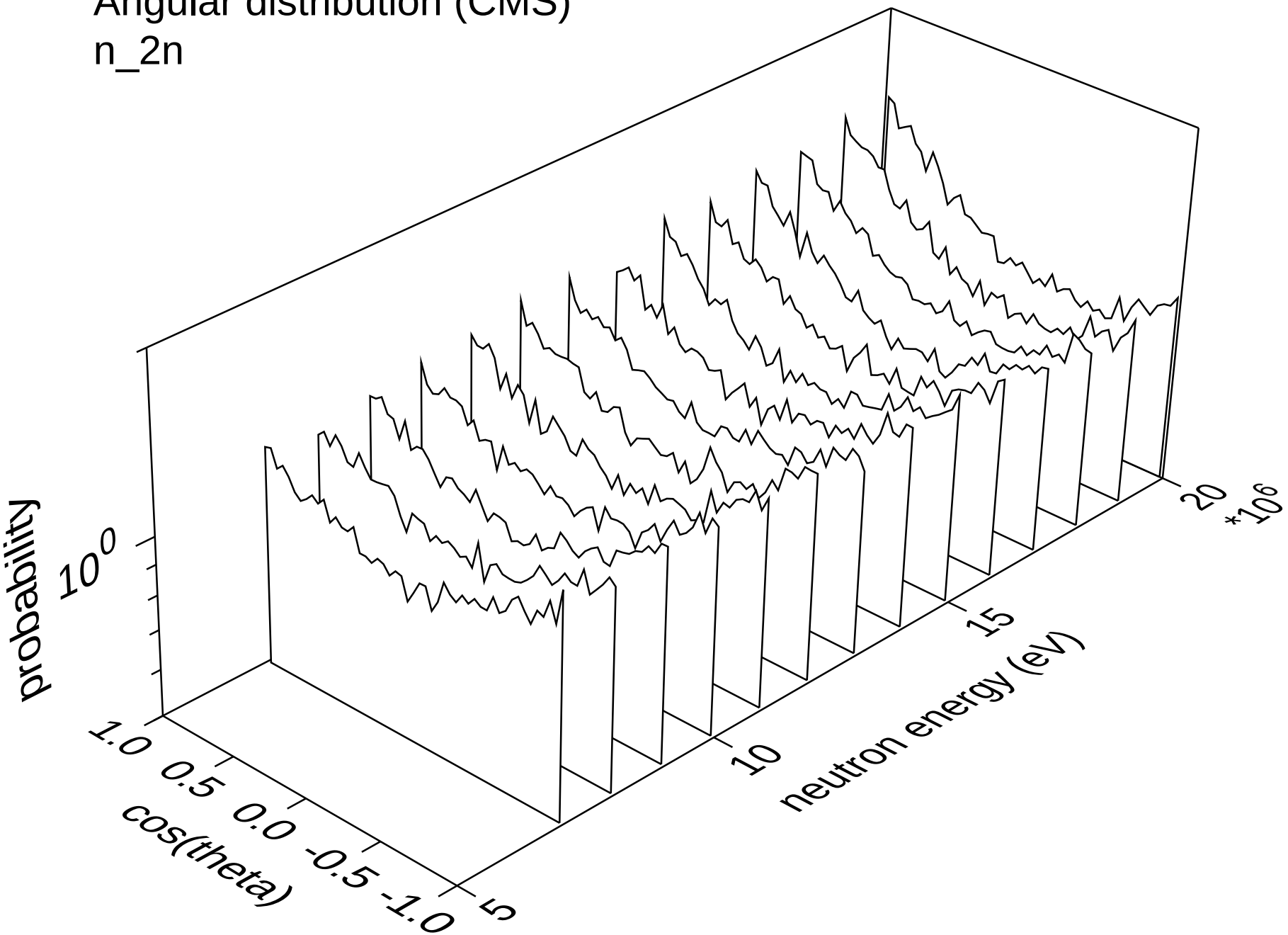

Cross Section
cross section (barn)
neutron energy(eV)
*10^6
n_n_3
n_n_4
n_n_5
n_n_6
n_n_7
n_n_8
n_n_9

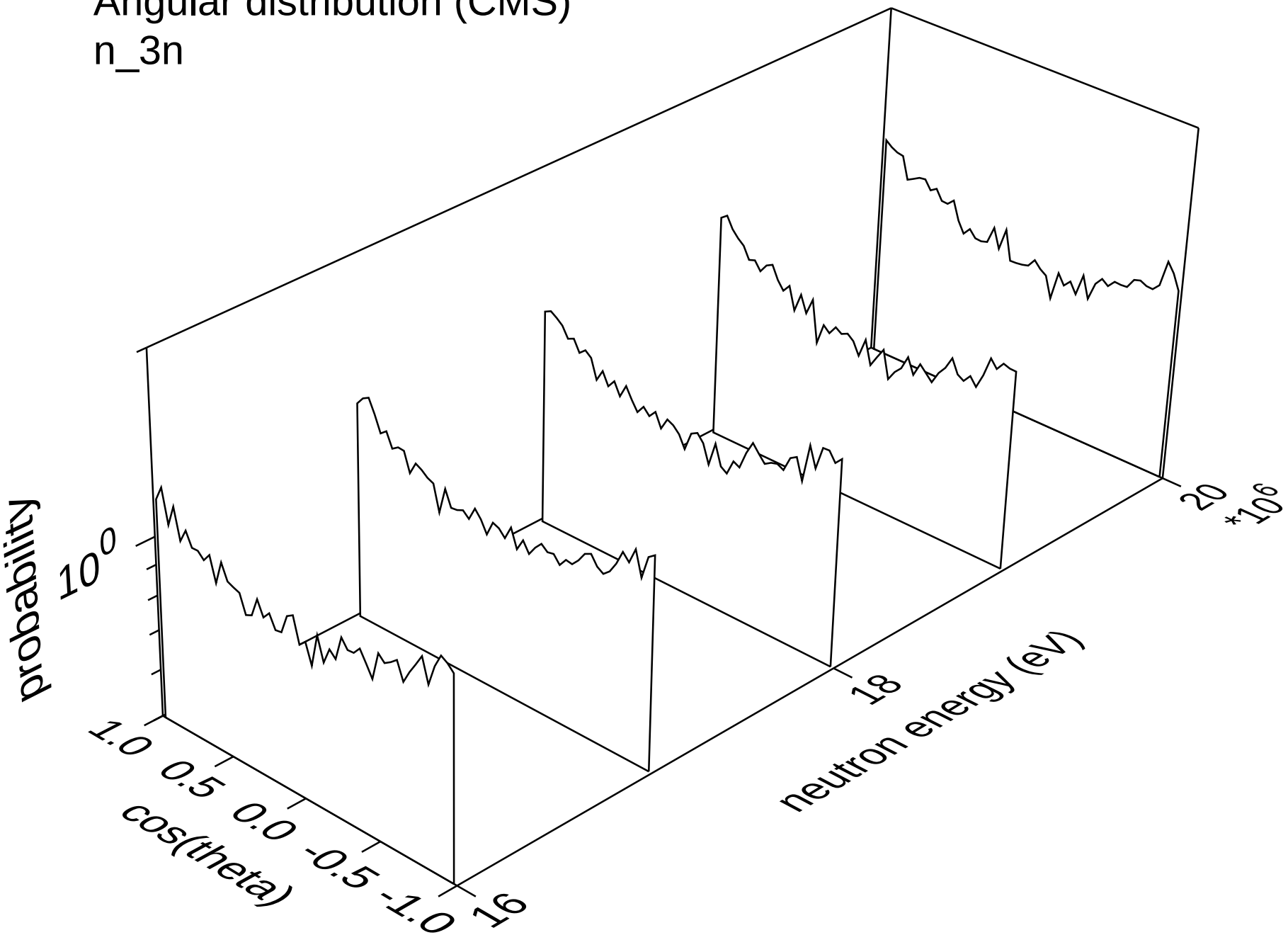

Cross Section
cross section (barn)
neutron energy(eV)
*10^6
n_n_10
n_n_11
n_n_12
n_n_13
n_n_14
n_n_15
n_n_16

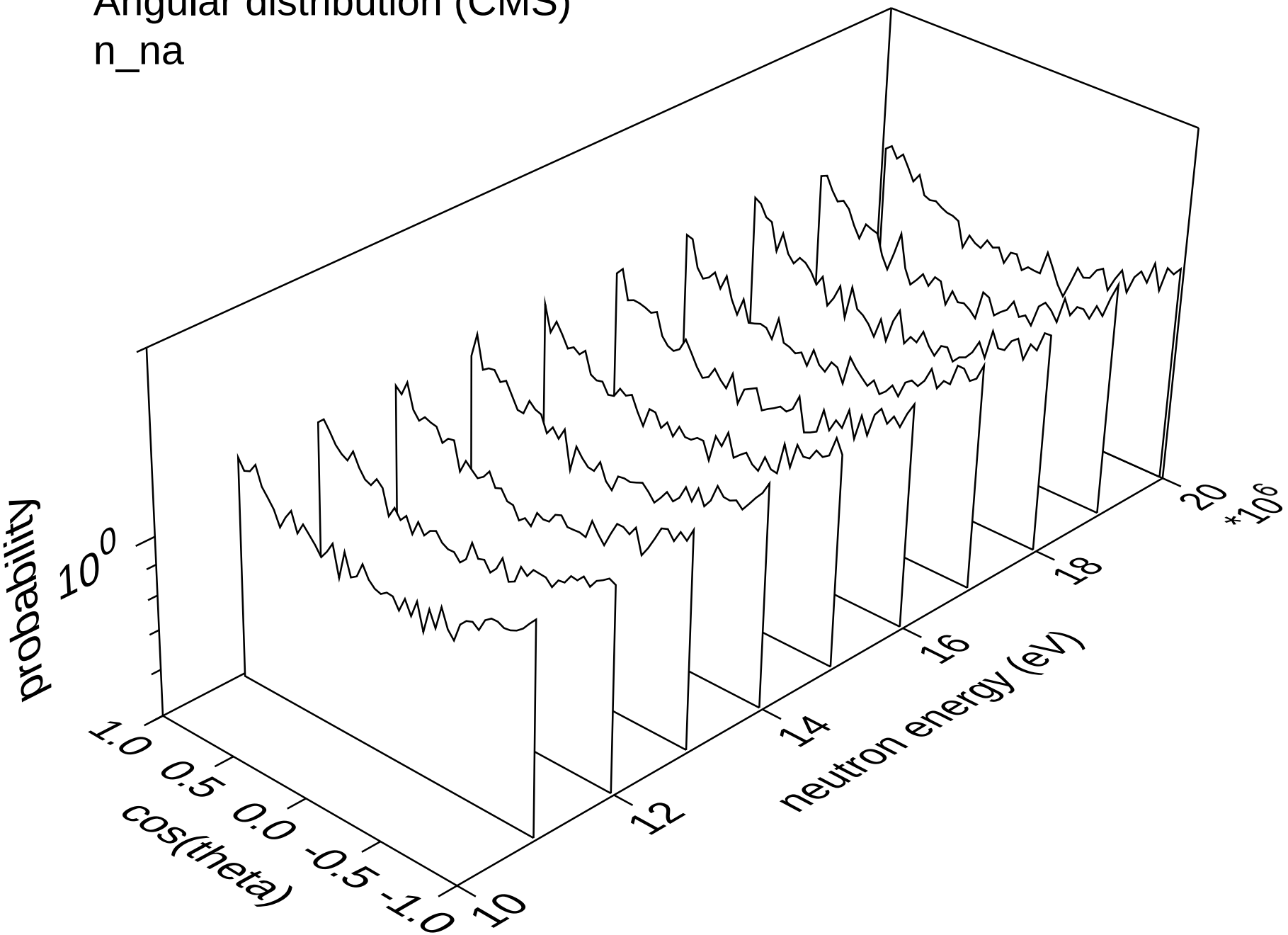

Cross Section
n_n_17
n_n_18
n_n_19
n_n_cont
n_n_tot
n_p_tot
n_d_tot
cross section (barn)
10-1
10-3
10-5
10-7
10-9
10-11
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^6
neutron energy(eV)

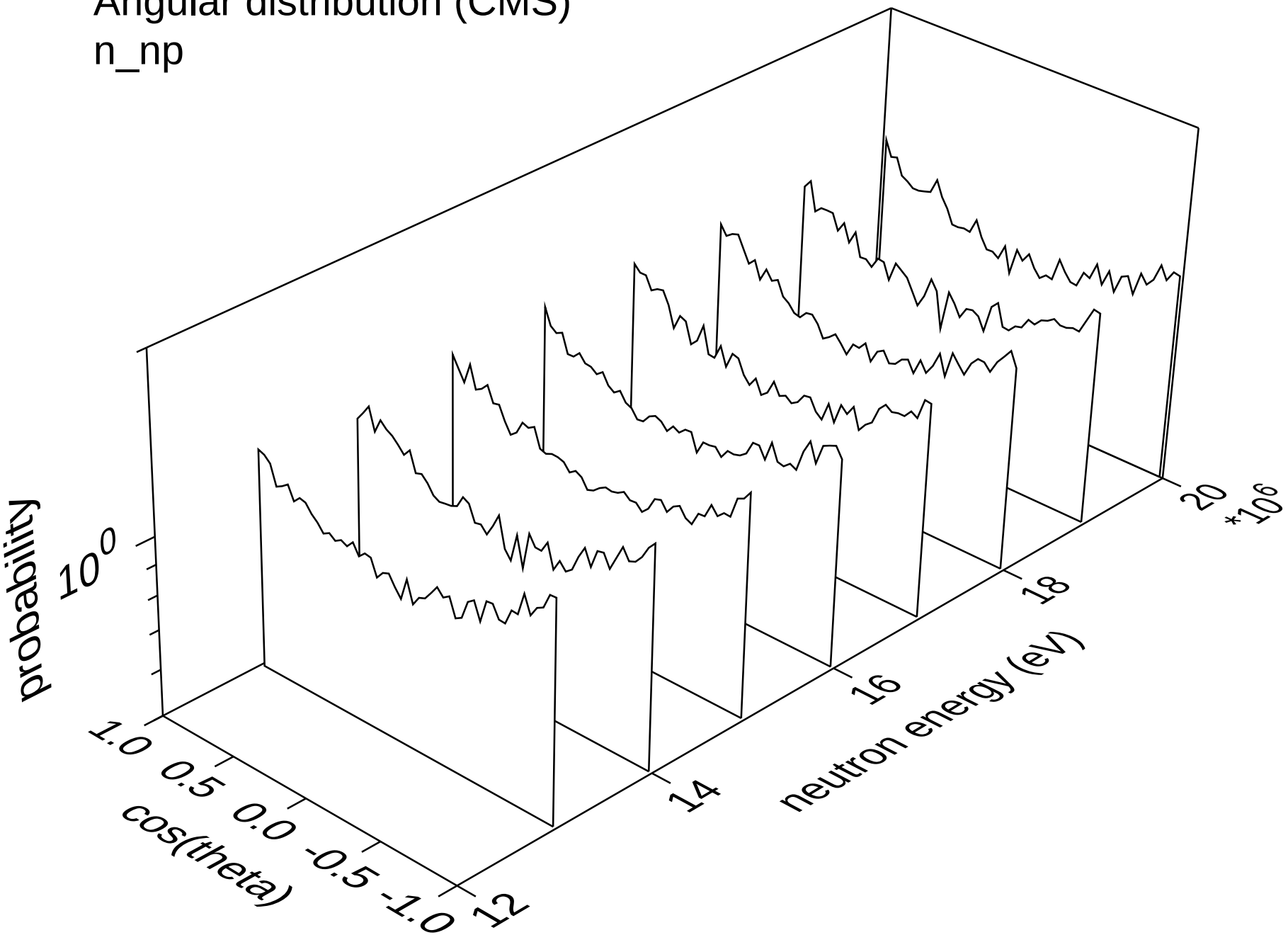

Cross Section
n_t_tot
n_He3_tot
n_a_tot
cross section (barn)
10-4
10-6
10-8
10-10
10-12
10-14
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
*10^6
neutron energy(eV)

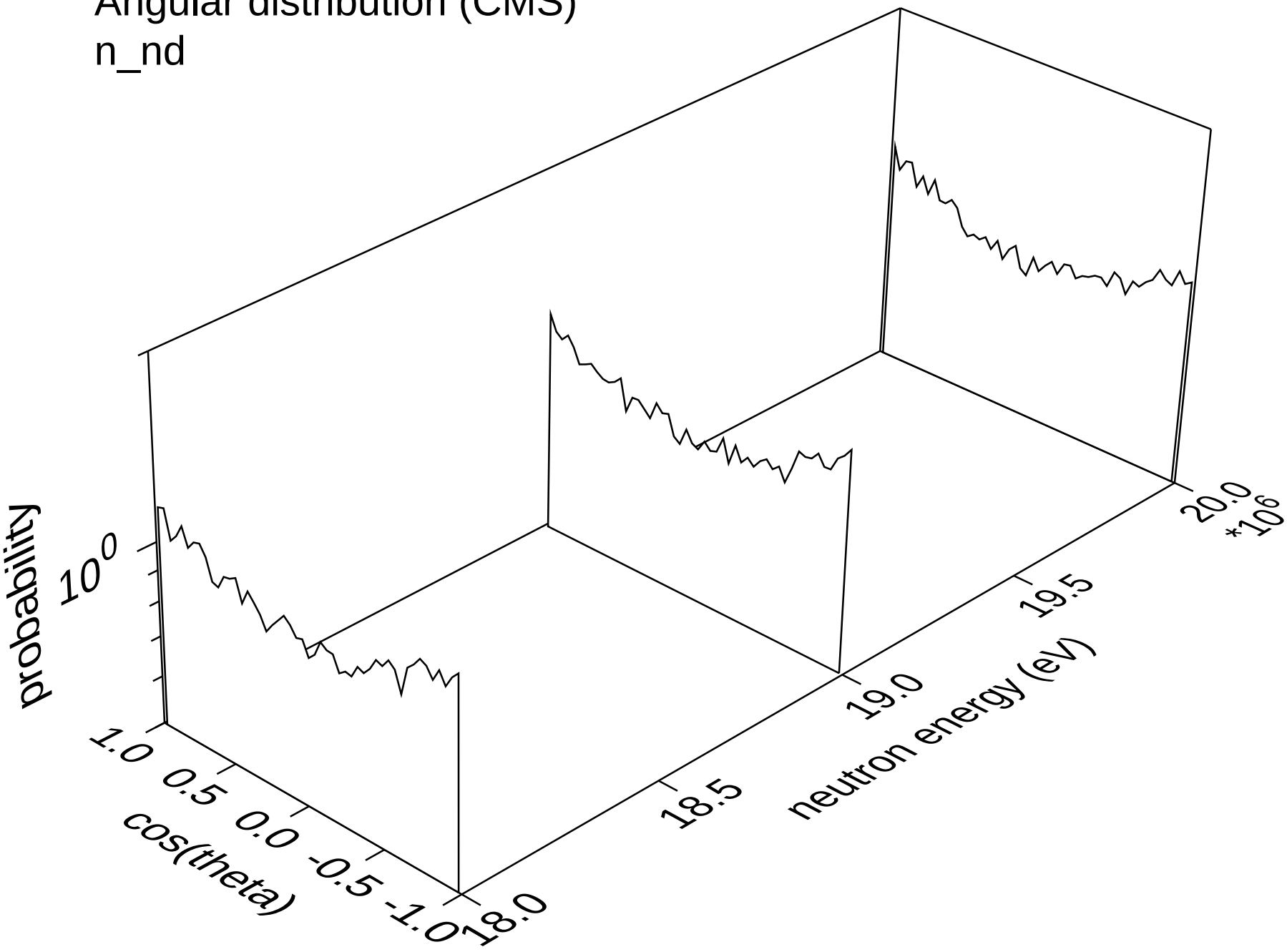

Angular distribution (CMS)
Elastic
probability
$10^{1}$
$10^{0}$
$10^{-1}$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

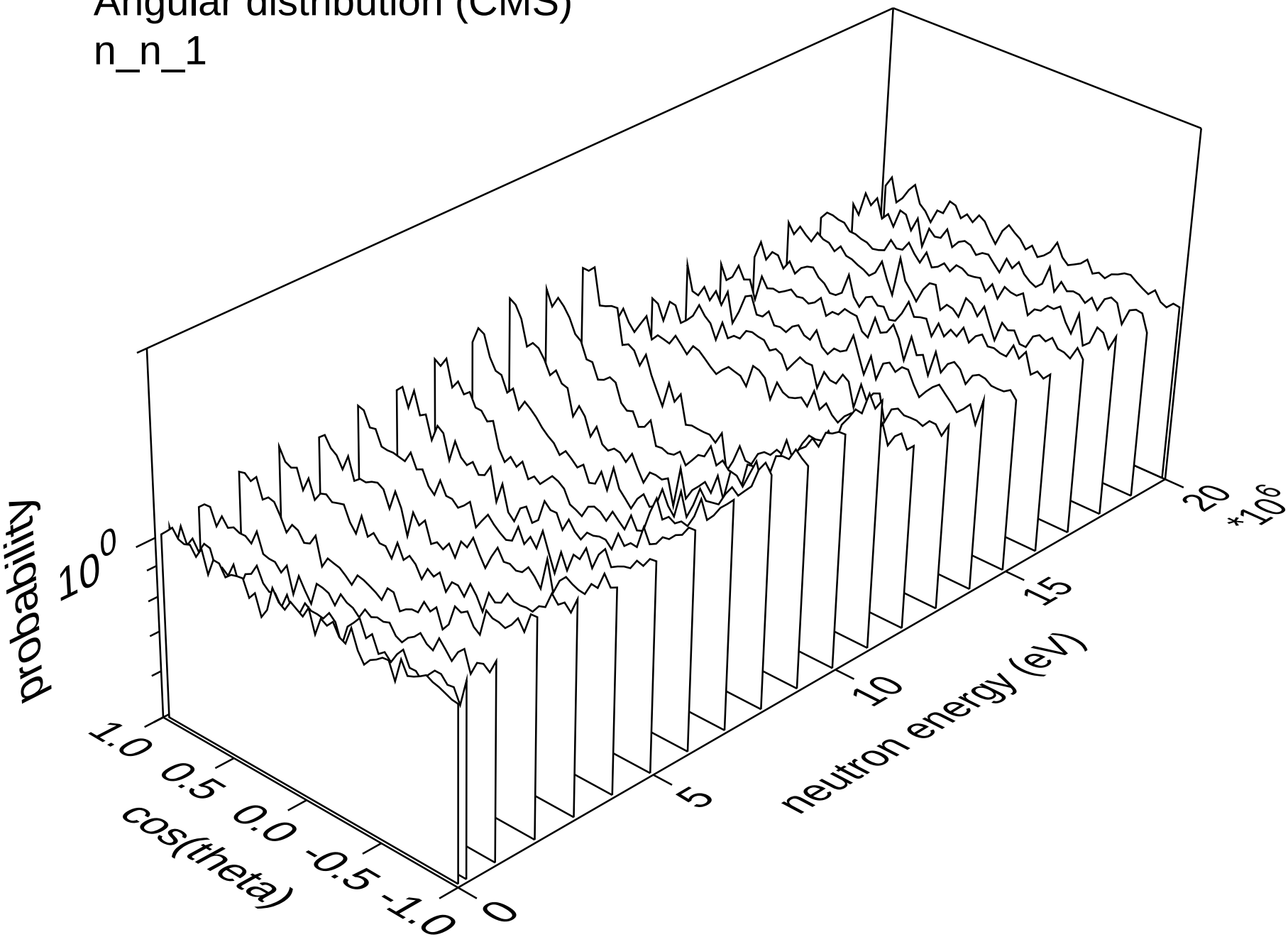

Angular distribution (CMS)
n_2n
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
5
10
15
20
*10^6
neutron energy (eV)

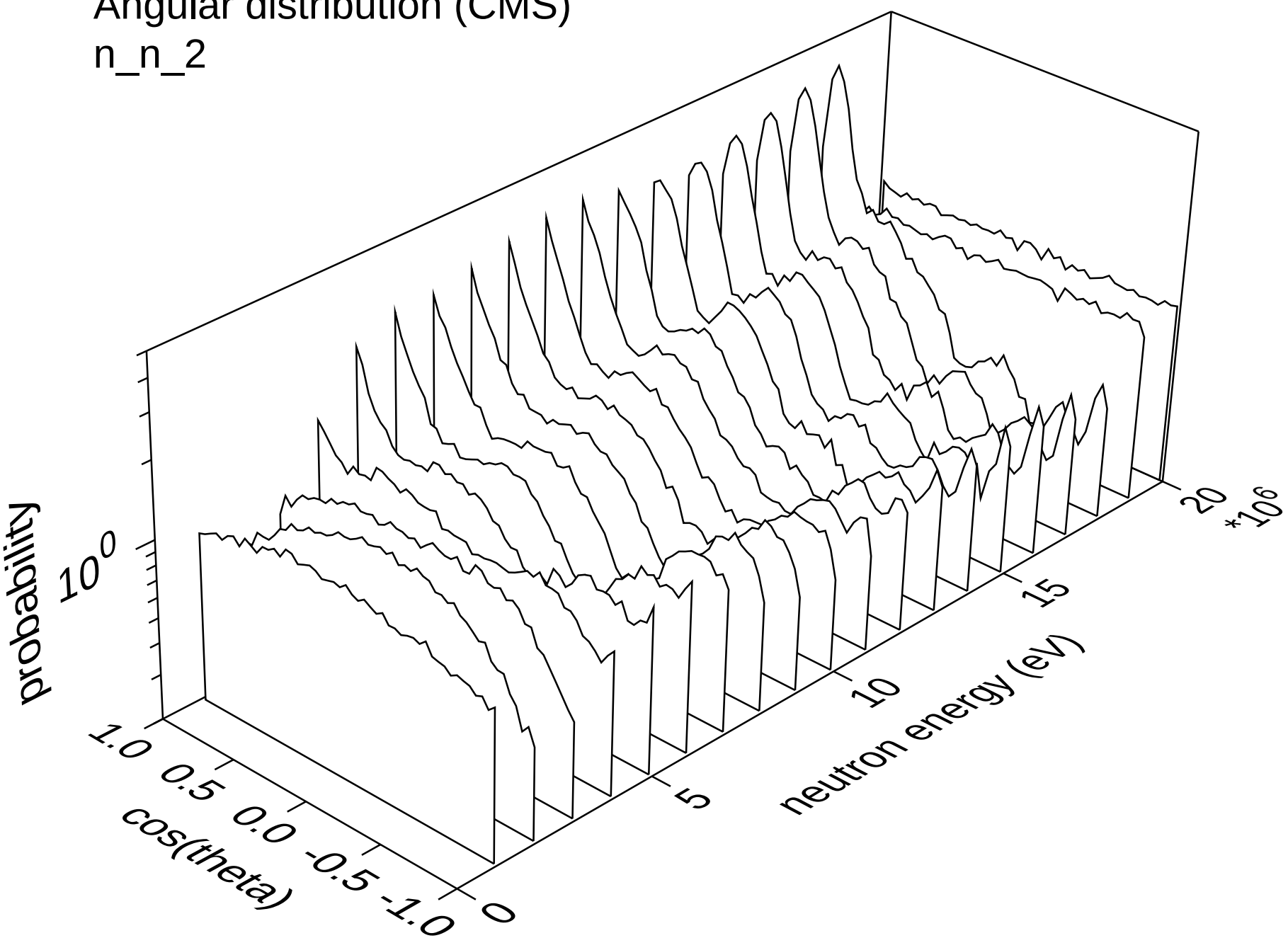

Angular distribution (CMS)
n_3n
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
16
18
20
*10^6
neutron energy (eV)

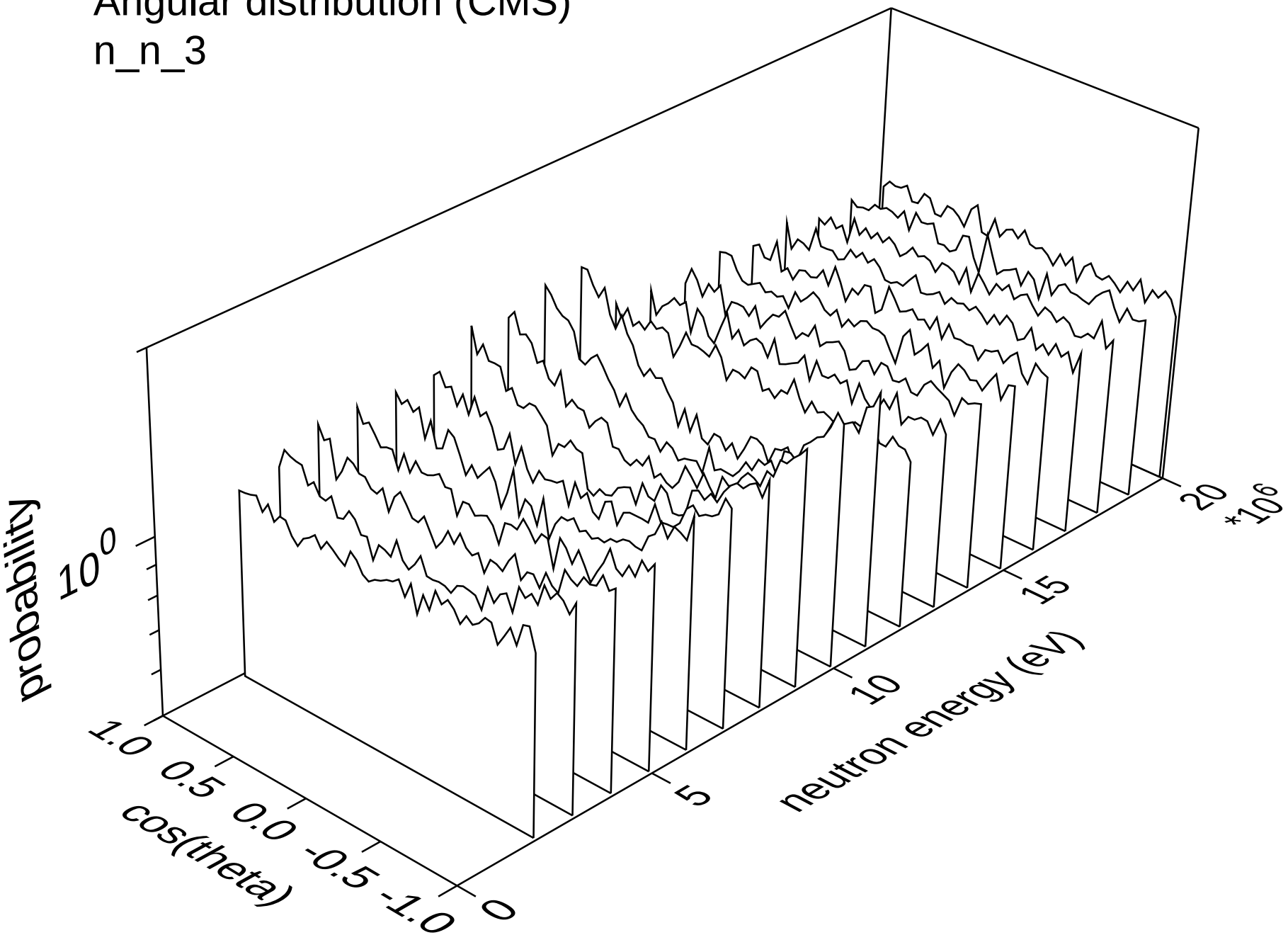

Angular distribution (CMS)
n_na
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
10
12
14
16
18
20
*10^6
neutron energy (eV)

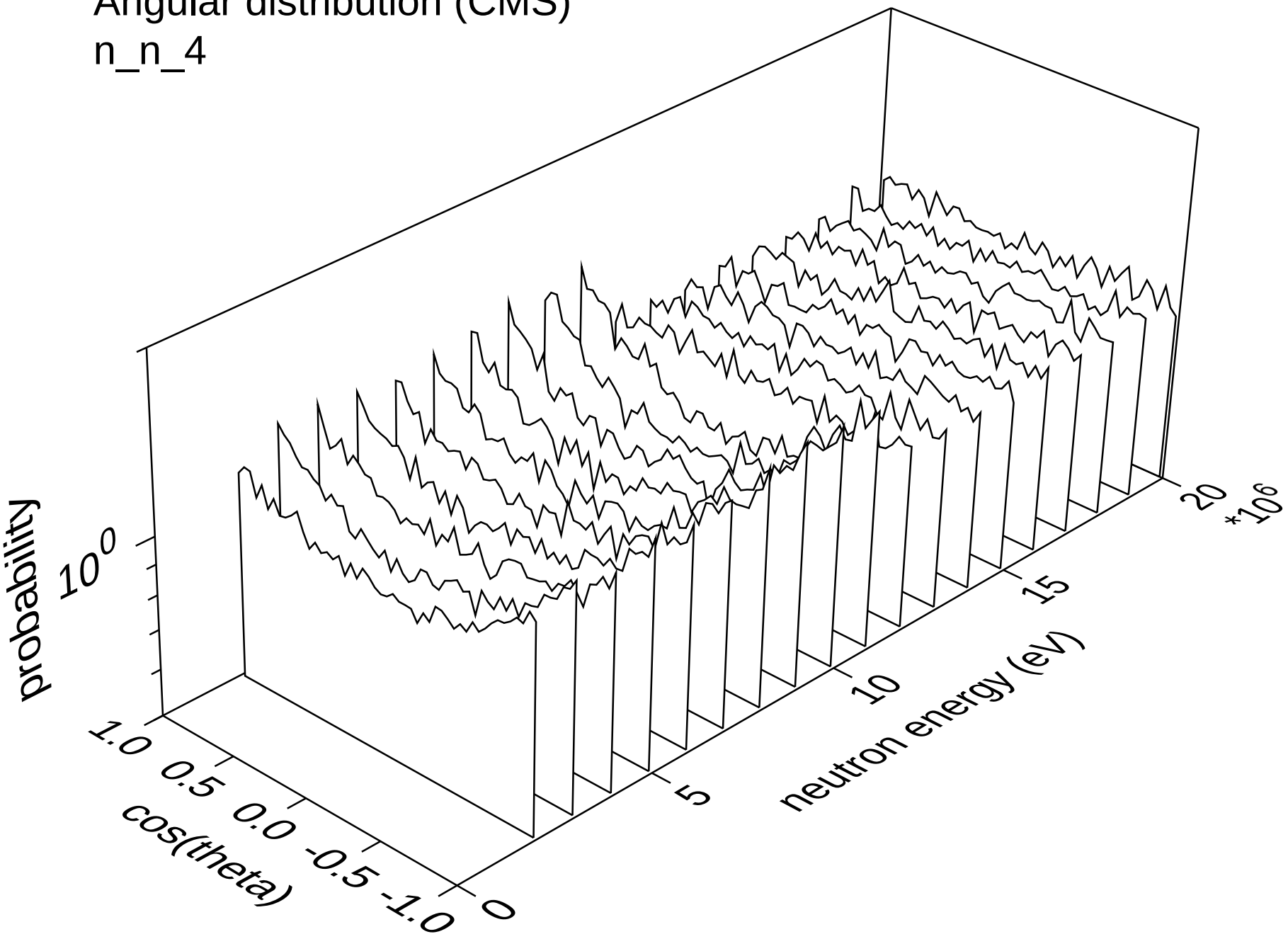

Angular distribution (CMS)
n_np
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
12
14
16
18
20
*10^6
neutron energy (eV)

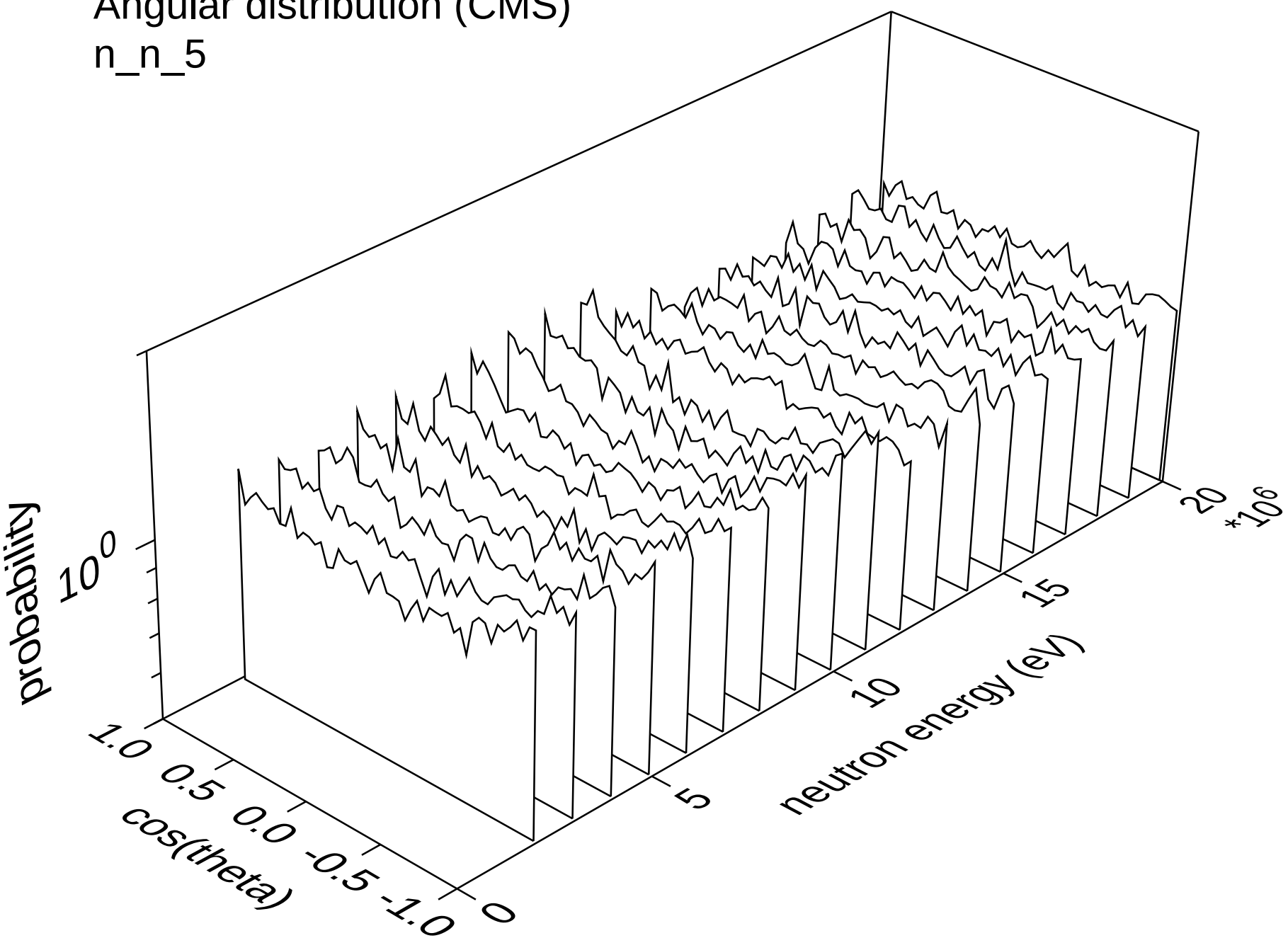

Angular distribution (CMS)
n_nd
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
18.0
18.5
19.0
19.5
20.0
*10^6
neutron energy (eV)

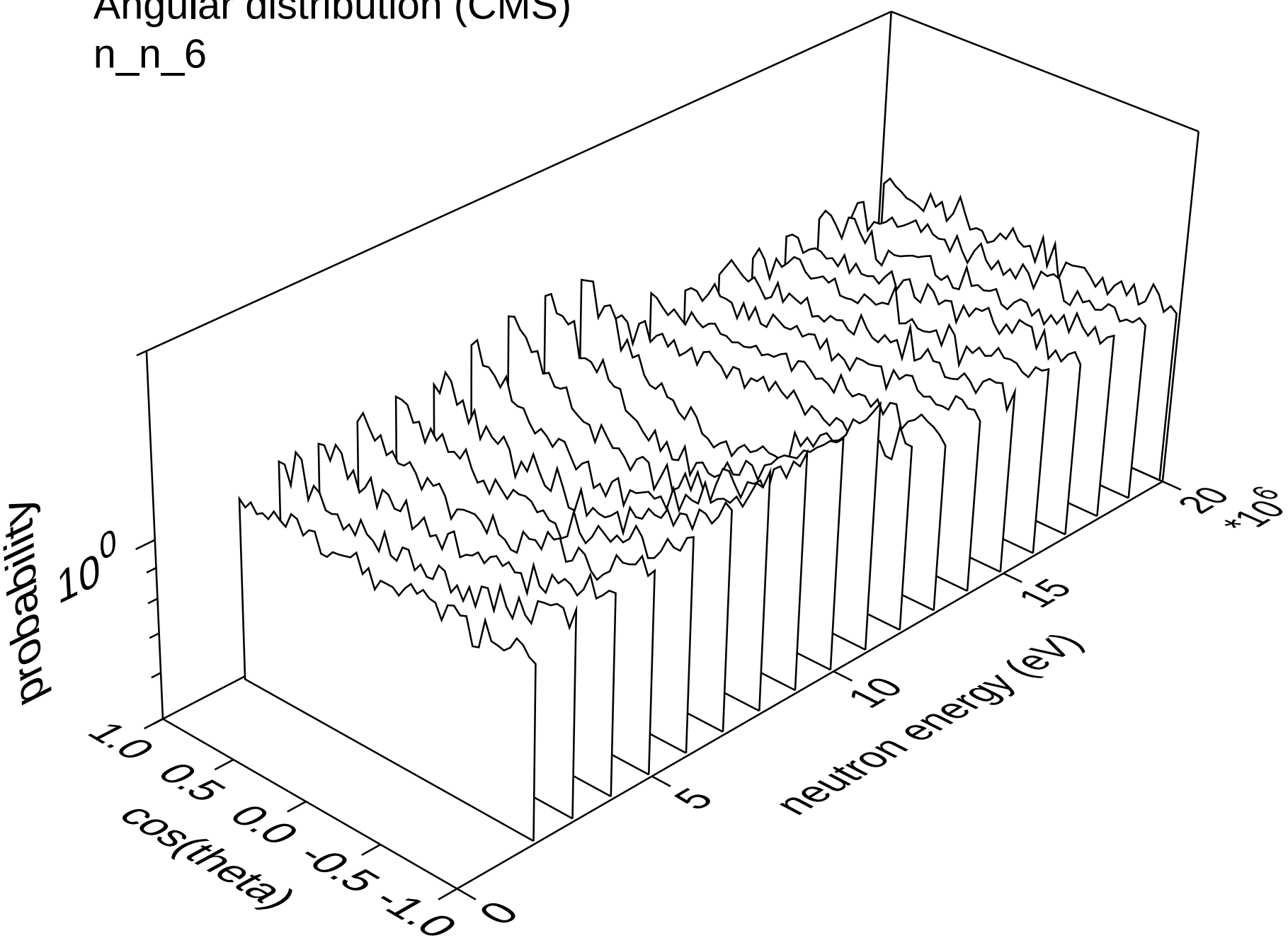

Angular distribution (CMS)
n_n_1
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

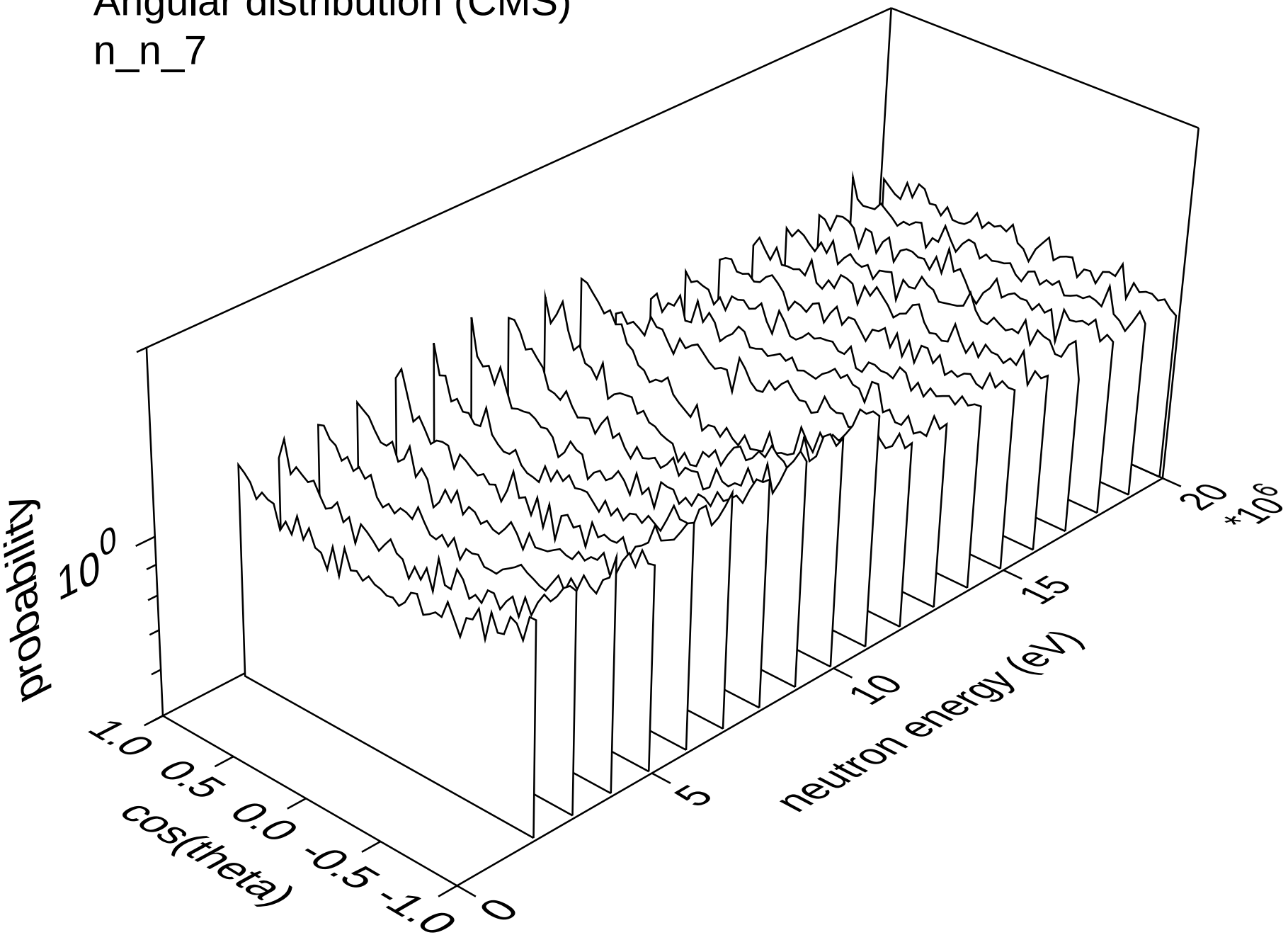

Angular distribution (CMS)
n_n_2
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

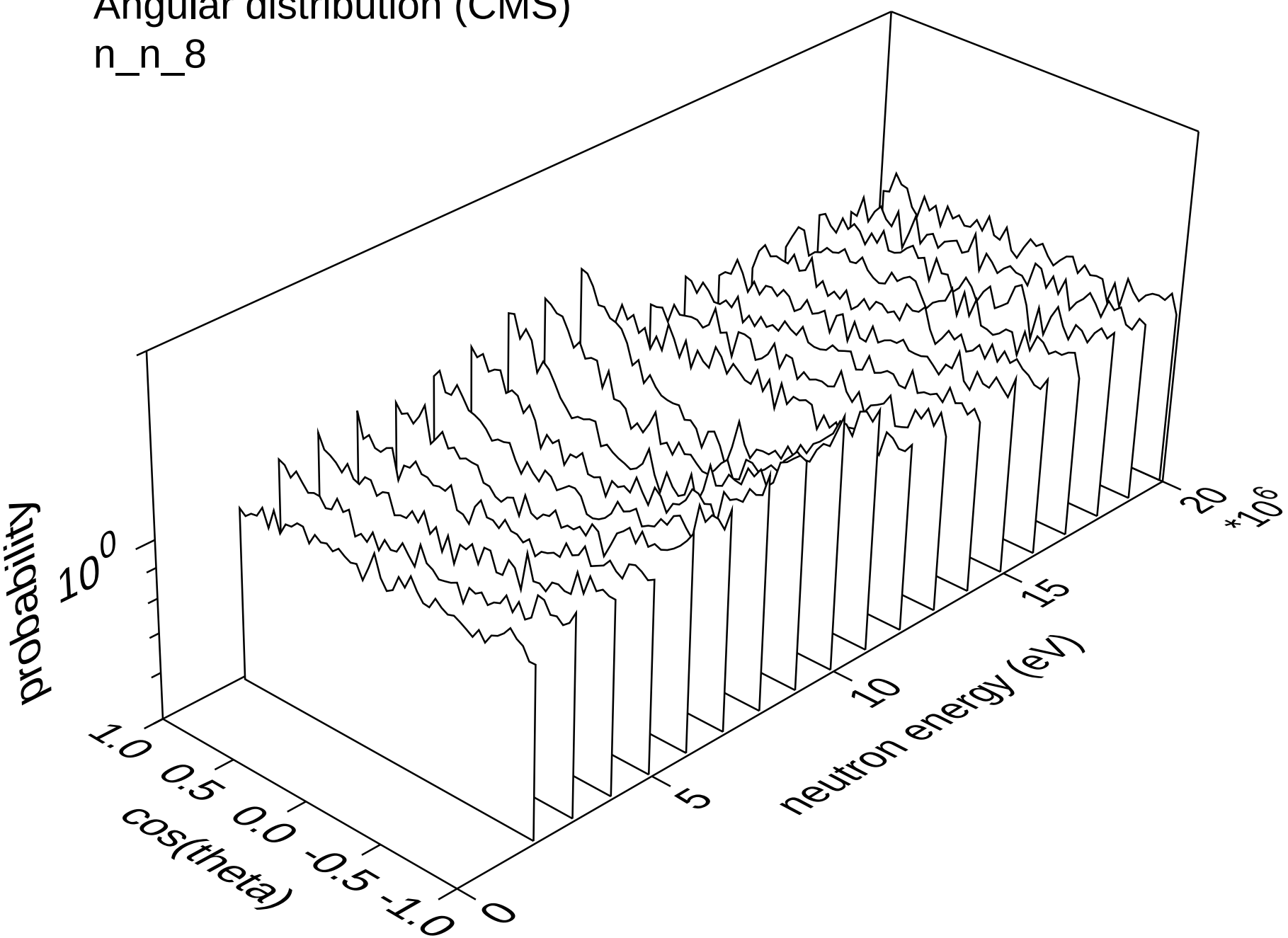

Angular distribution (CMS)
n_n_3
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

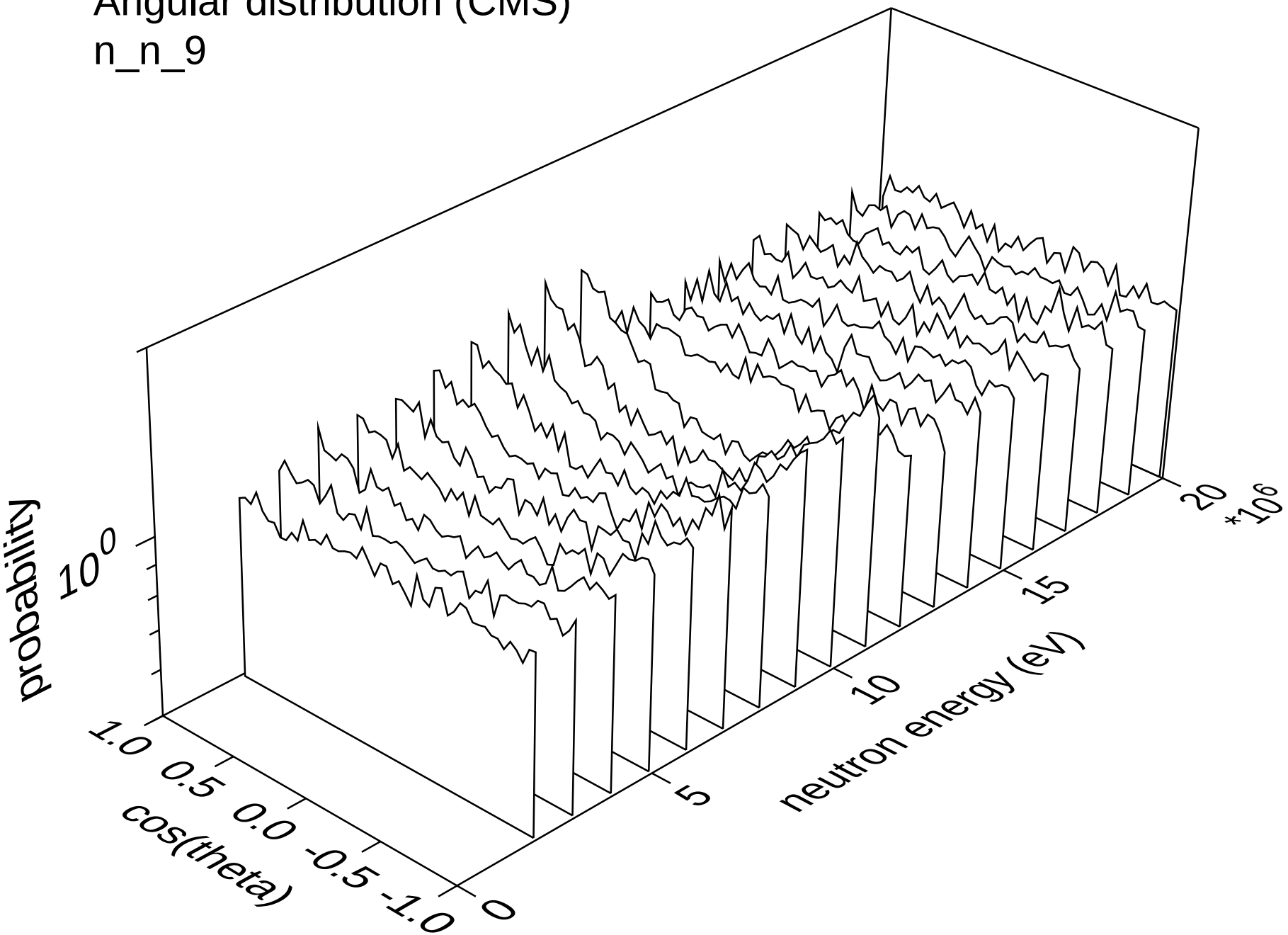

Angular distribution (CMS)
n_n_4
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

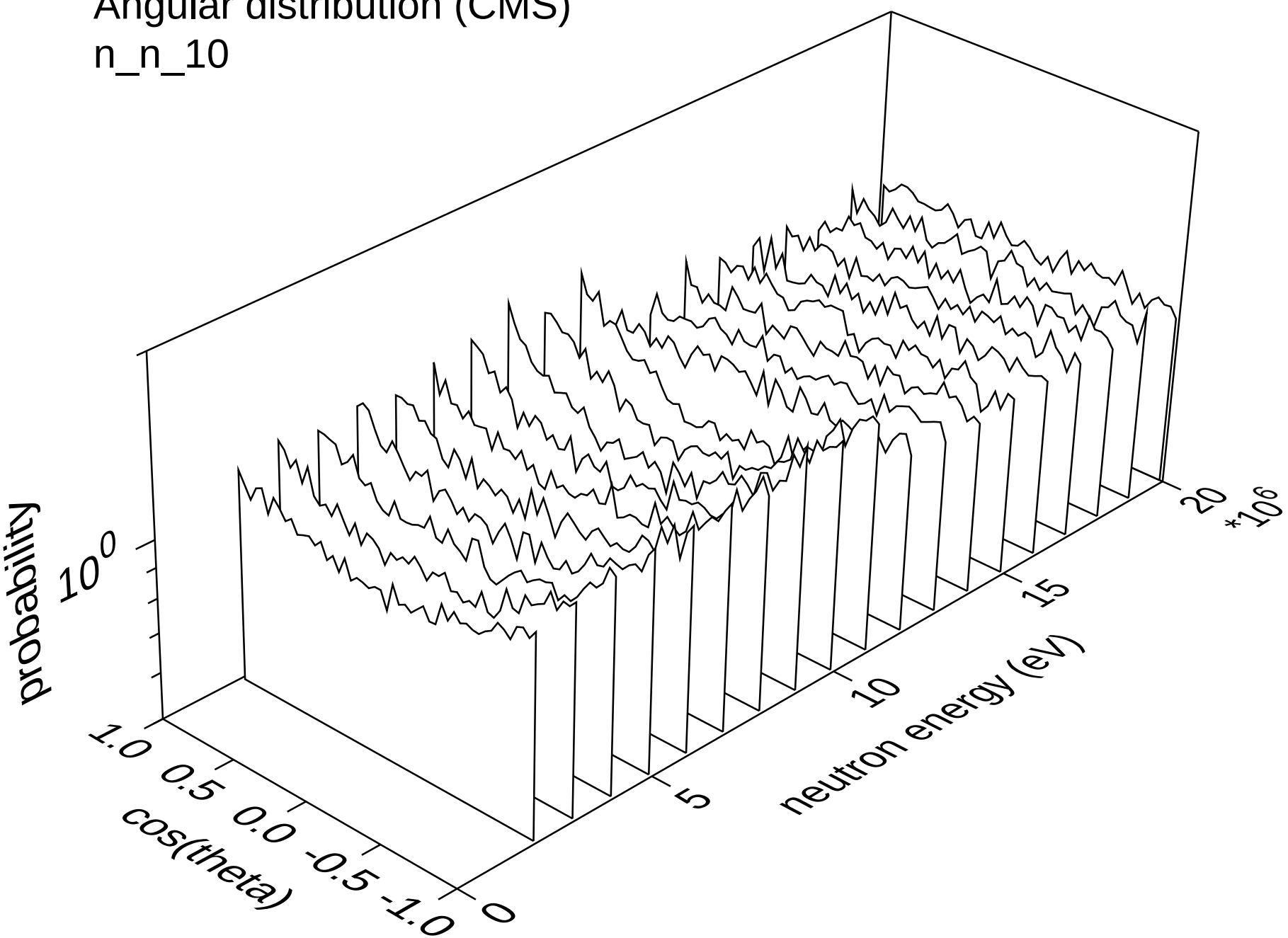

Angular distribution (CMS)
n_n_5
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
neutron energy (eV)
*10^6

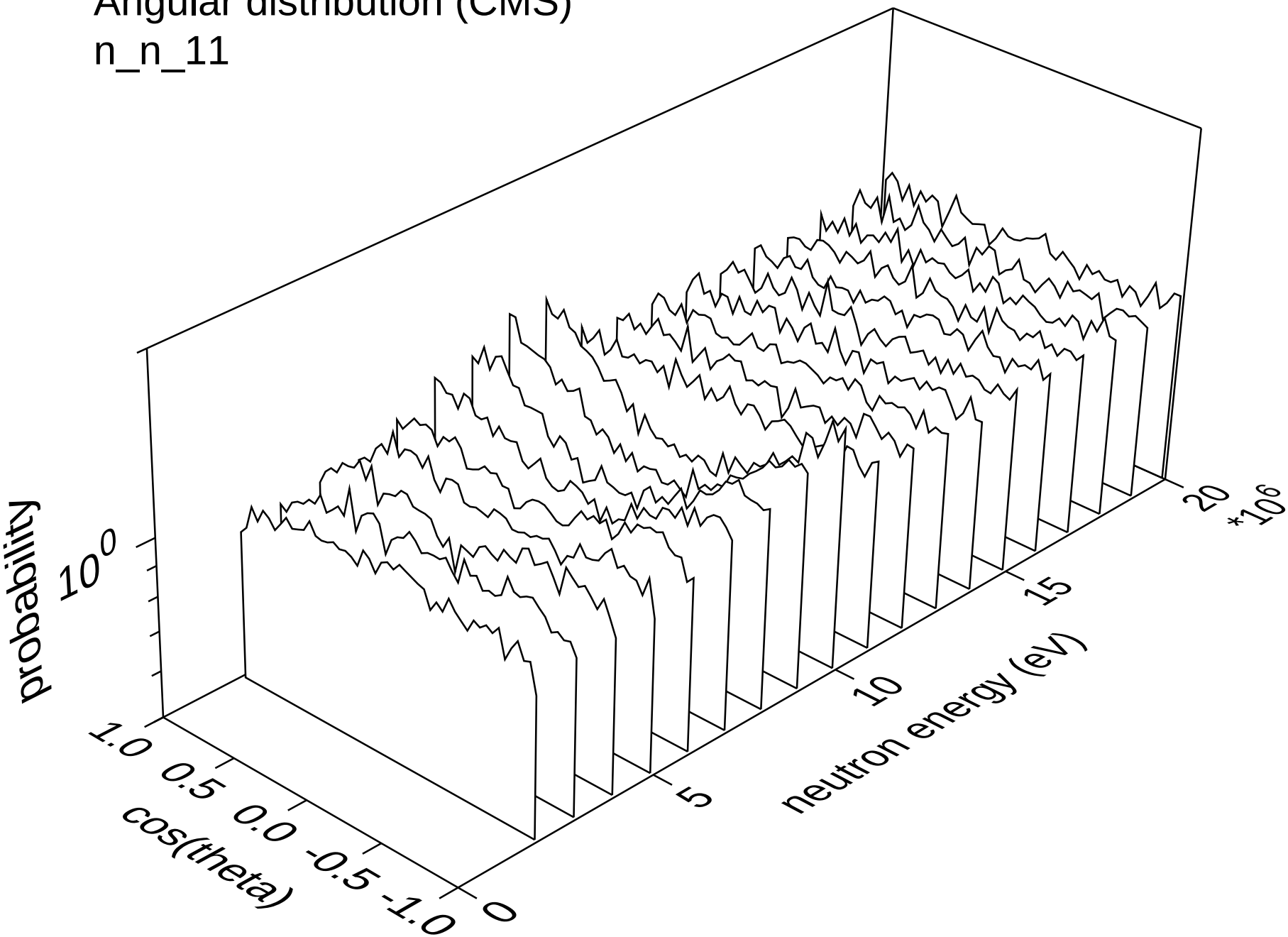

Angular distribution (CMS)
n_n_6
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
neutron energy (eV)
*10^6

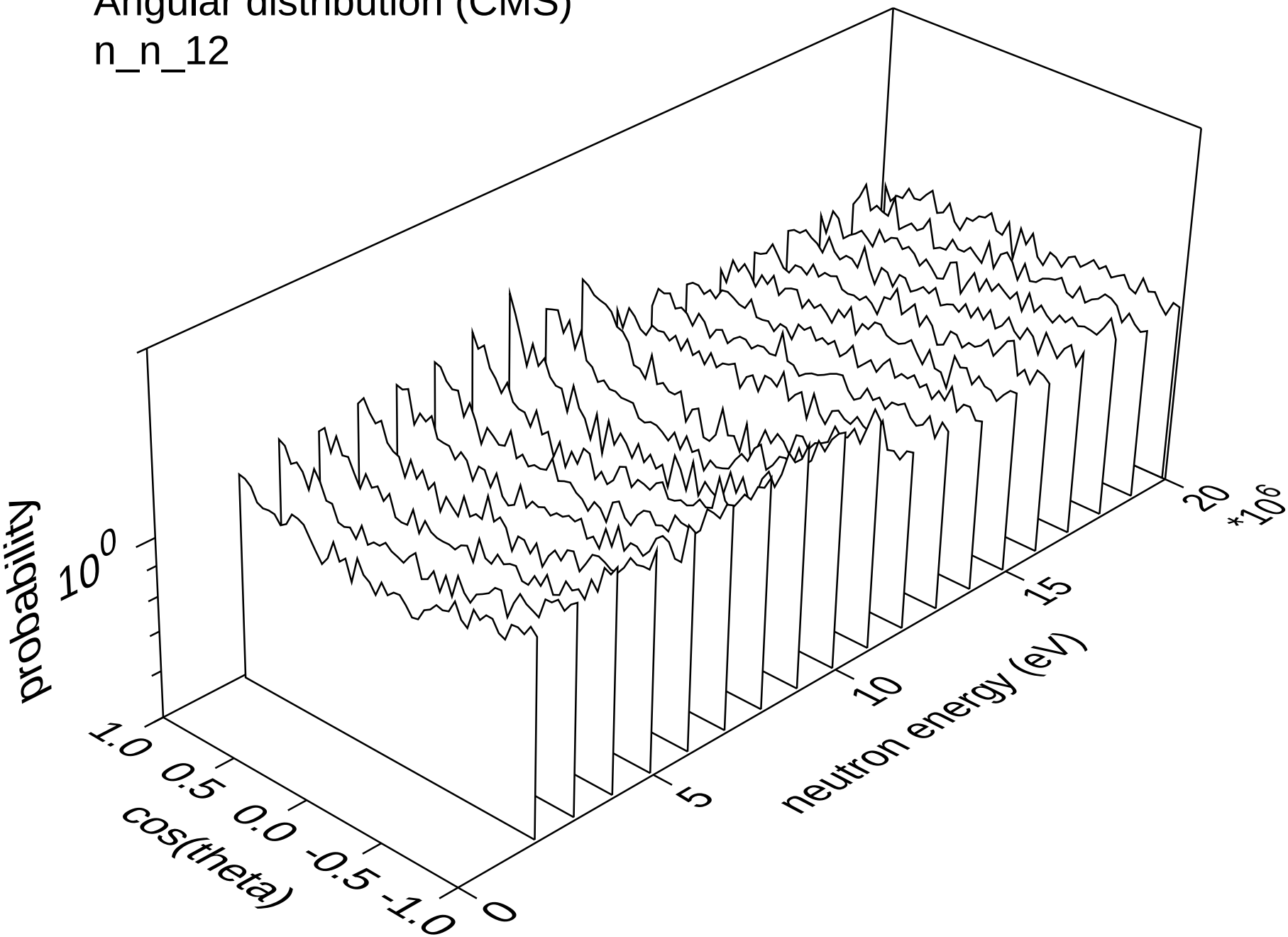

Angular distribution (CMS)
n_n_7
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

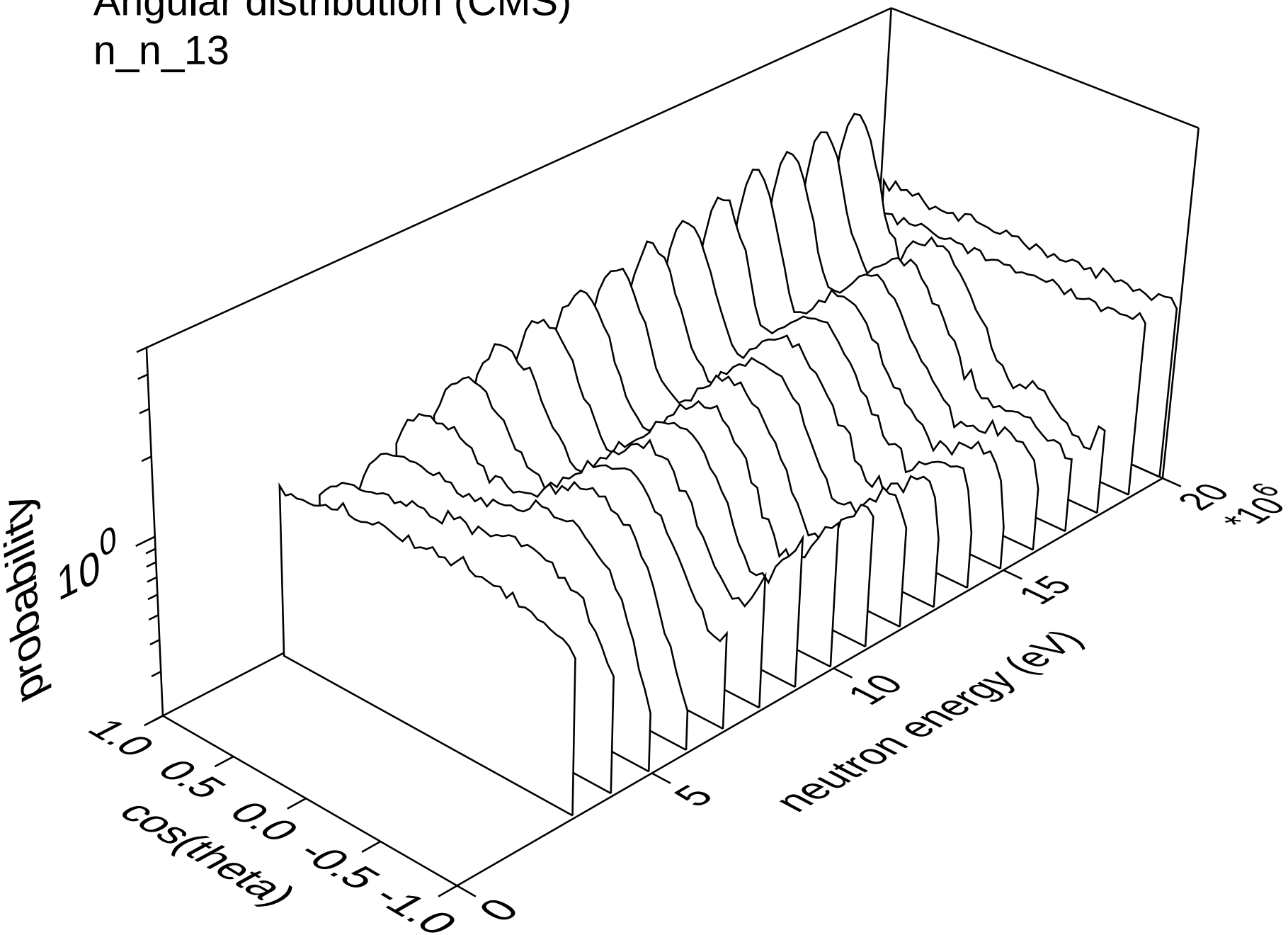

Angular distribution (CMS)
n_n_8
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

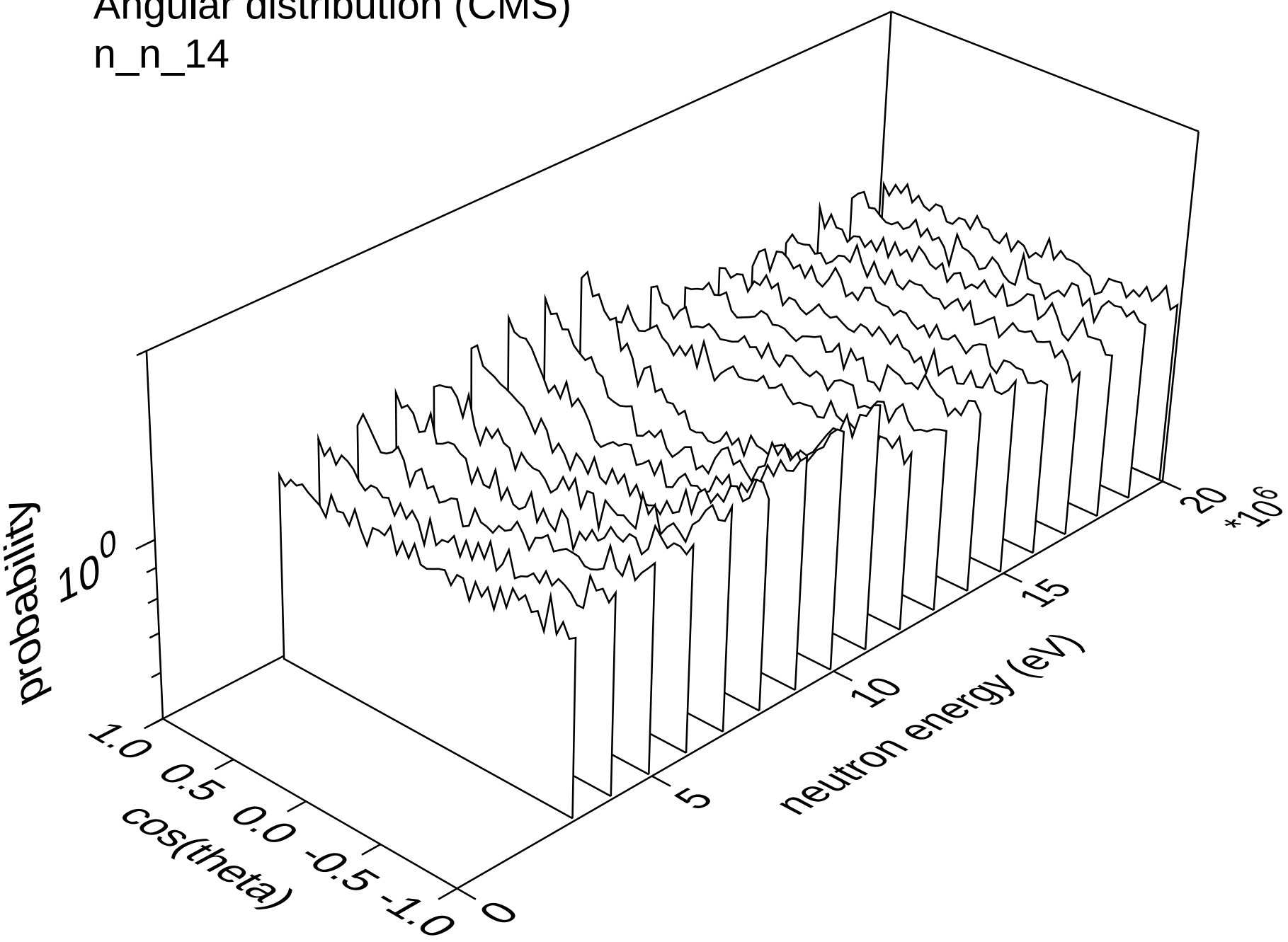

Angular distribution (CMS)
n_n_9
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

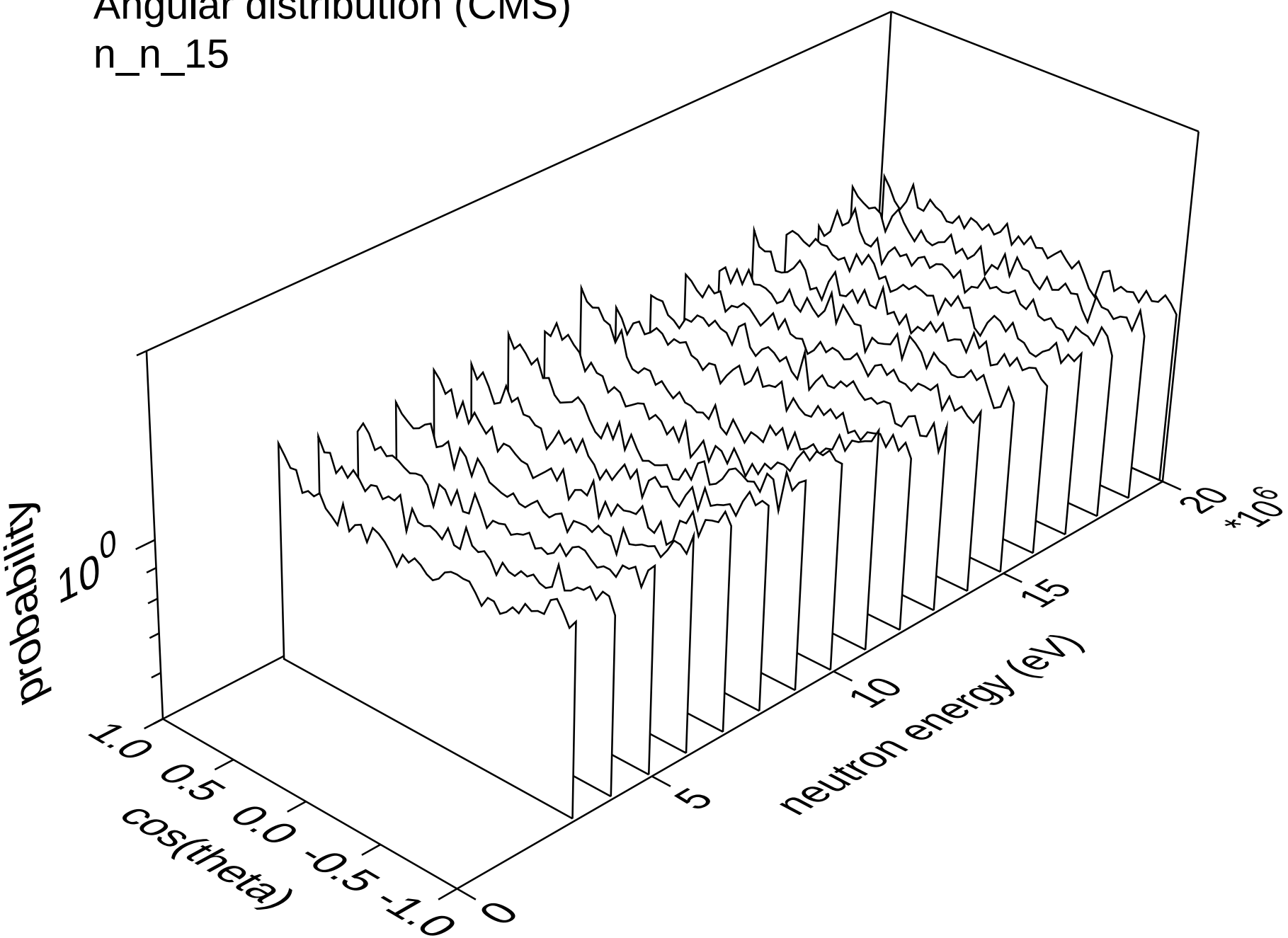

Angular distribution (CMS)
n_n_10
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

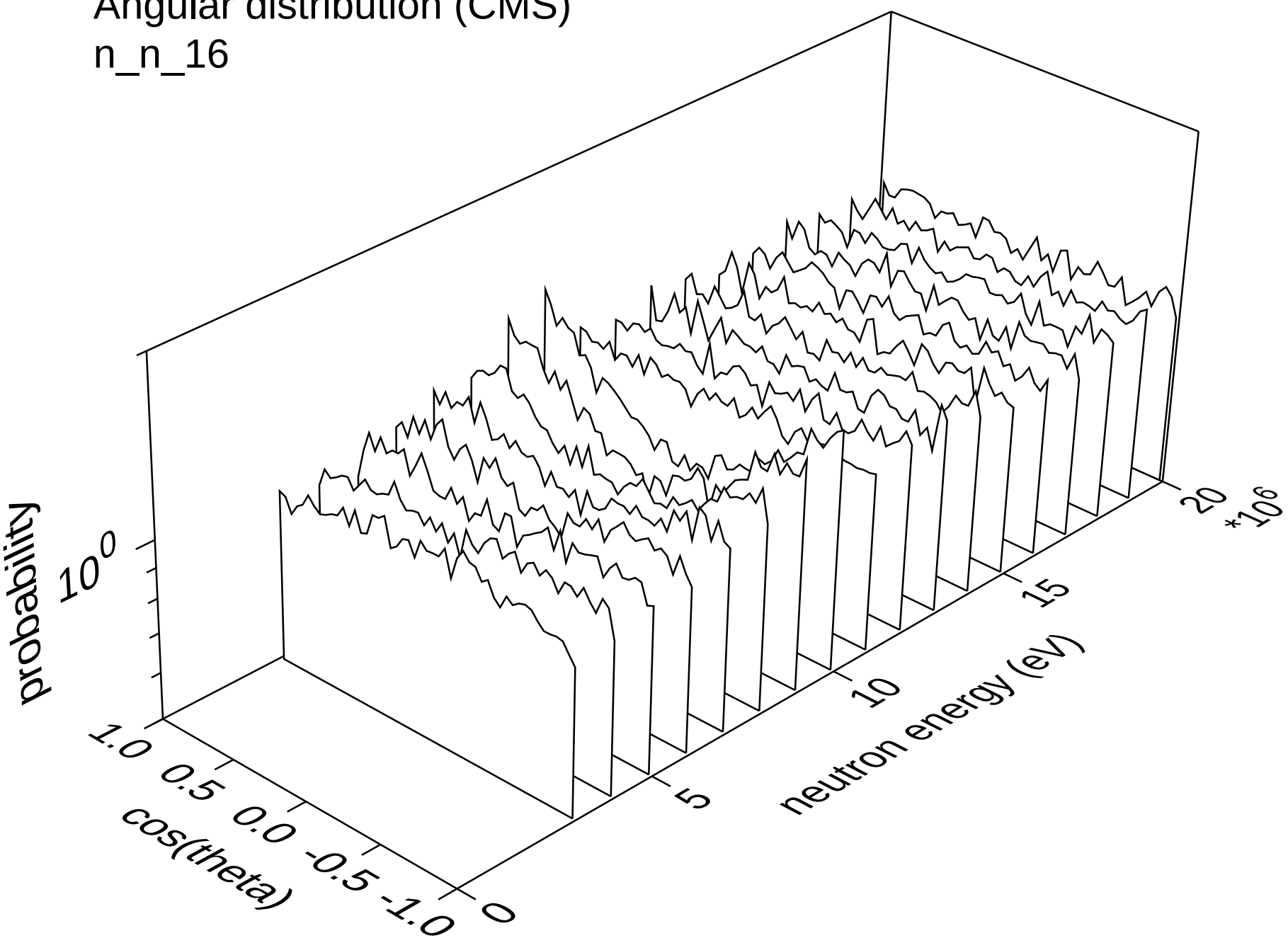

Angular distribution (CMS)
n_n_11
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

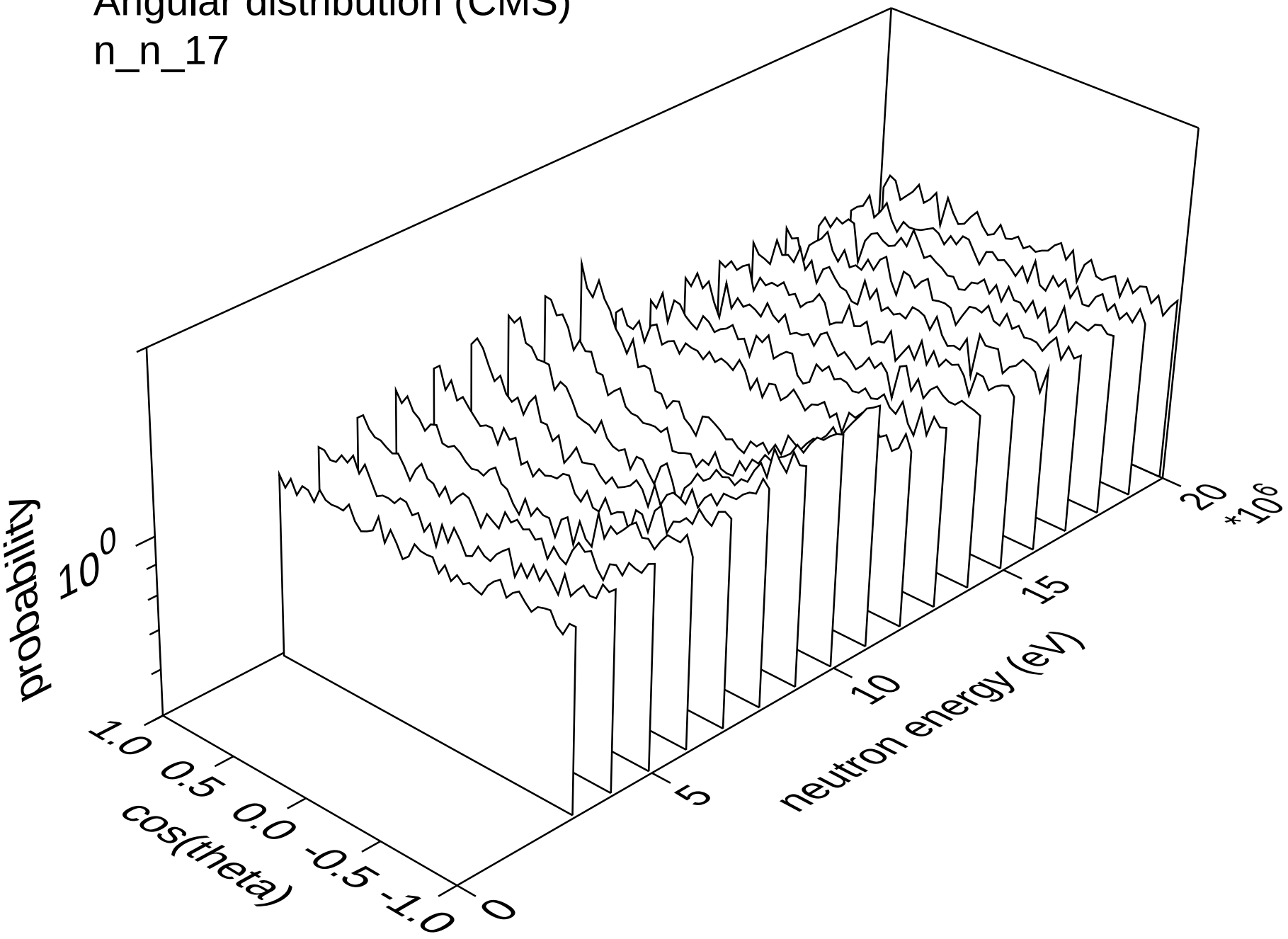

Angular distribution (CMS)
n_n_12
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

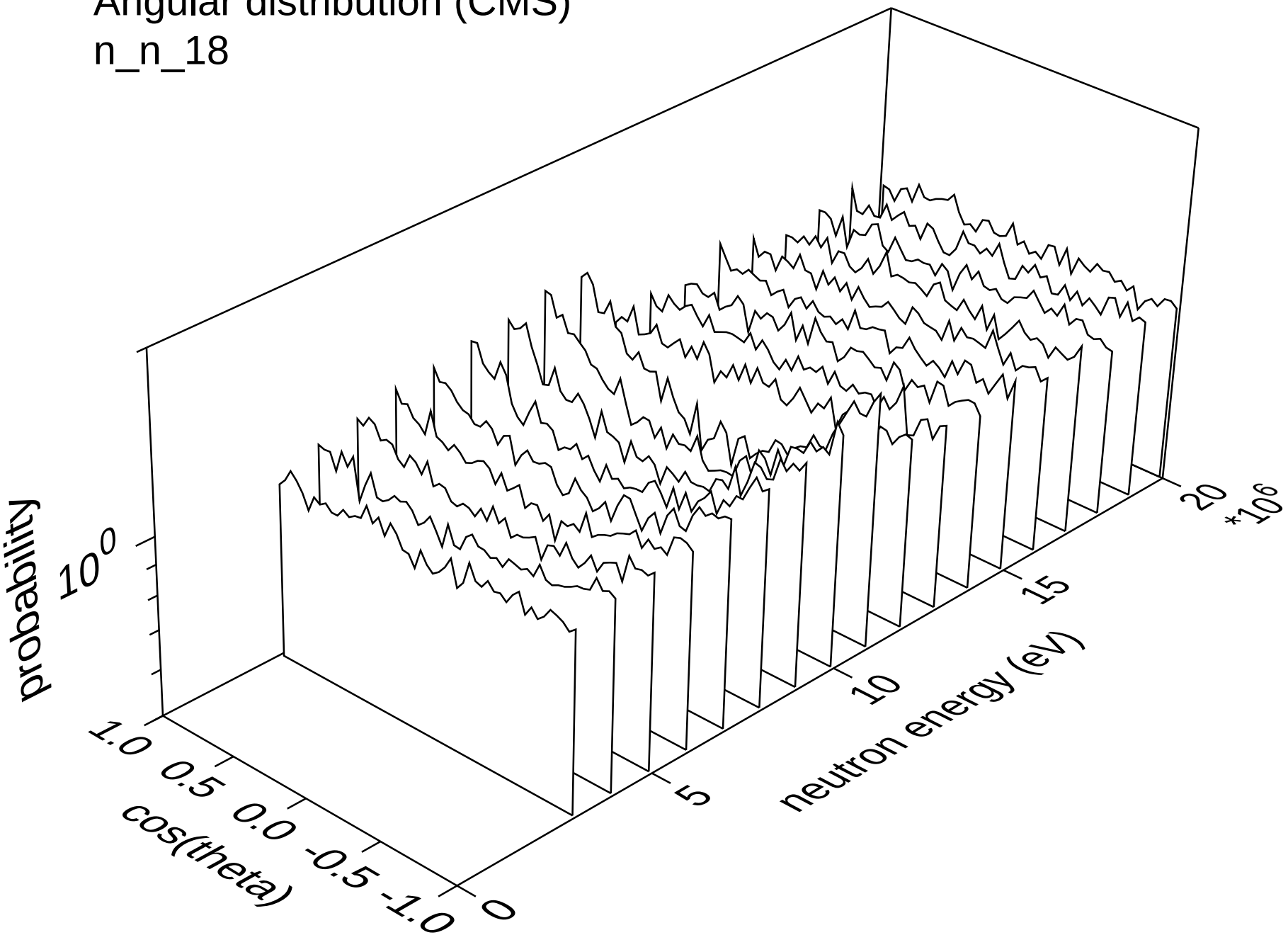

Angular distribution (CMS)
n_n_13
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

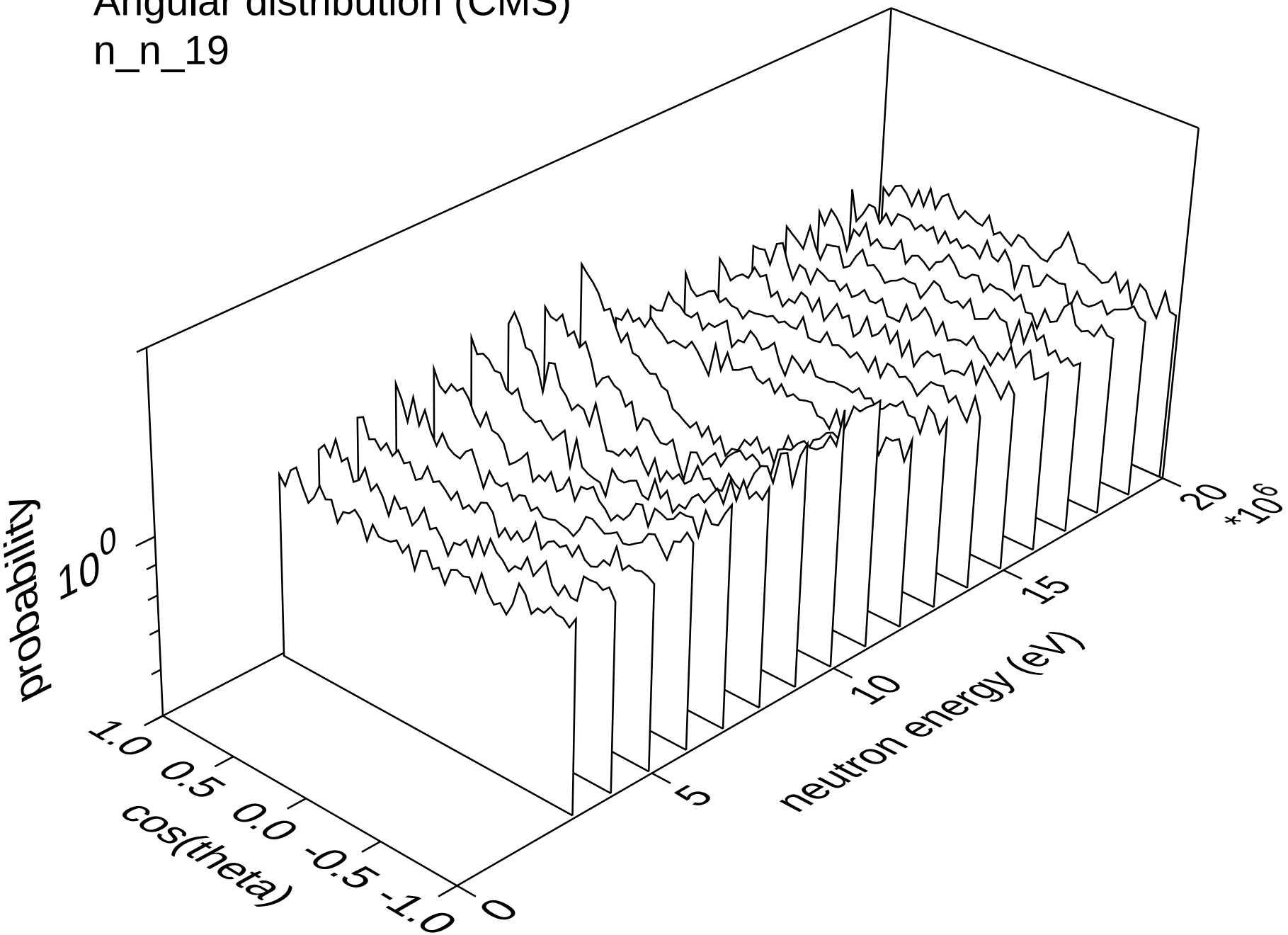

Angular distribution (CMS)
n_n_14
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

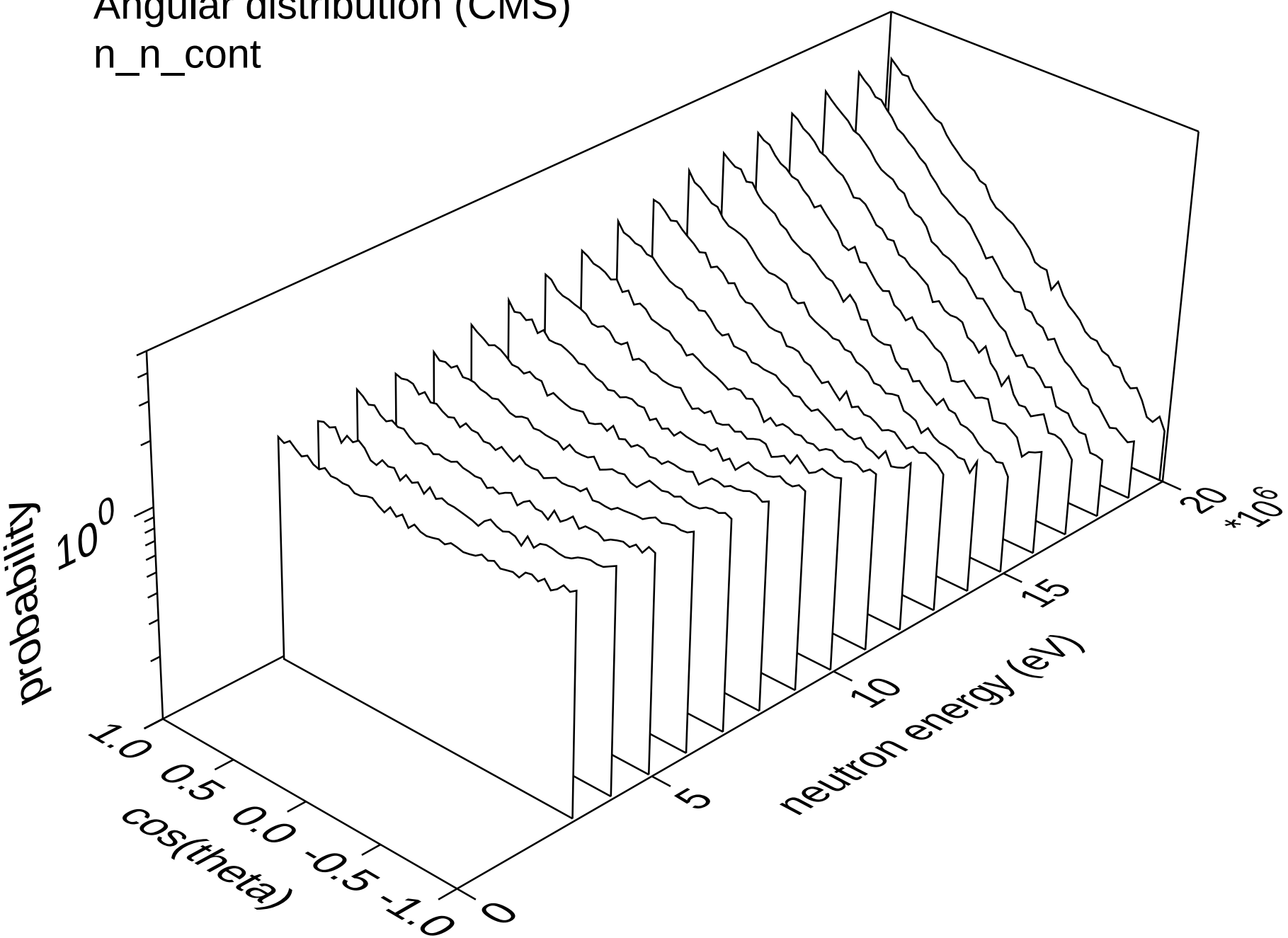

Angular distribution (CMS)
n_n_15
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

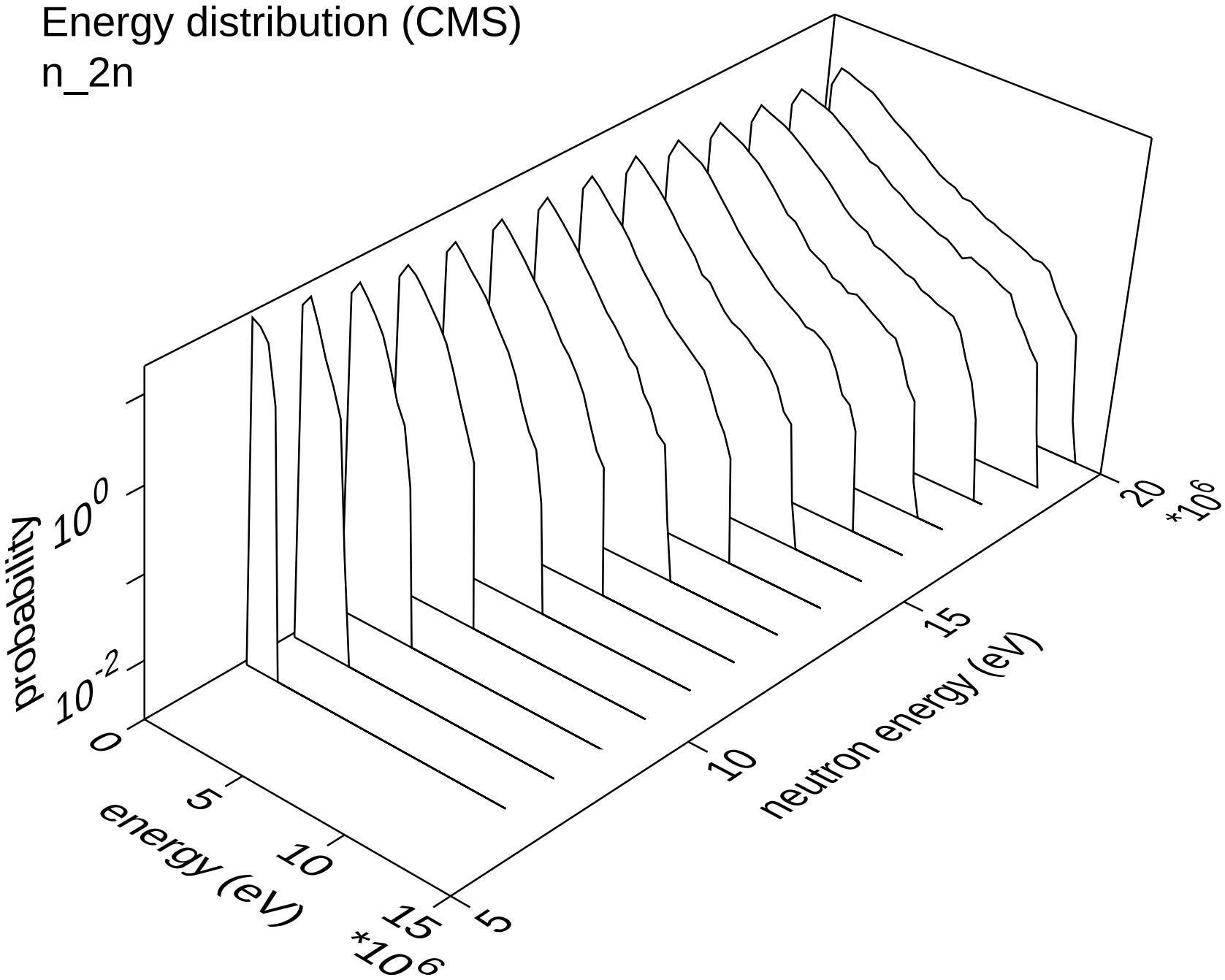

Angular distribution (CMS)
n_n_16
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

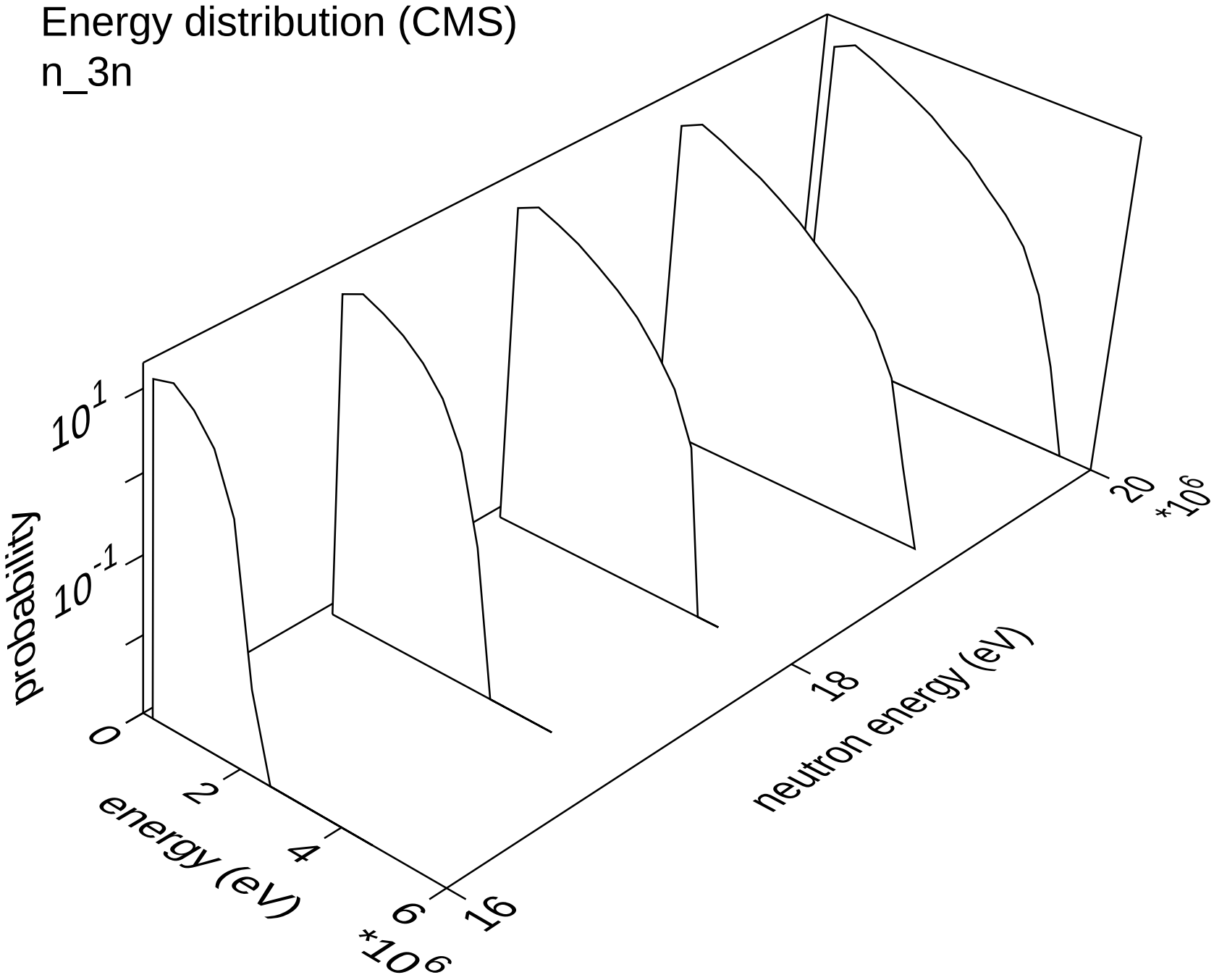

Angular distribution (CMS)
n_n_17
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

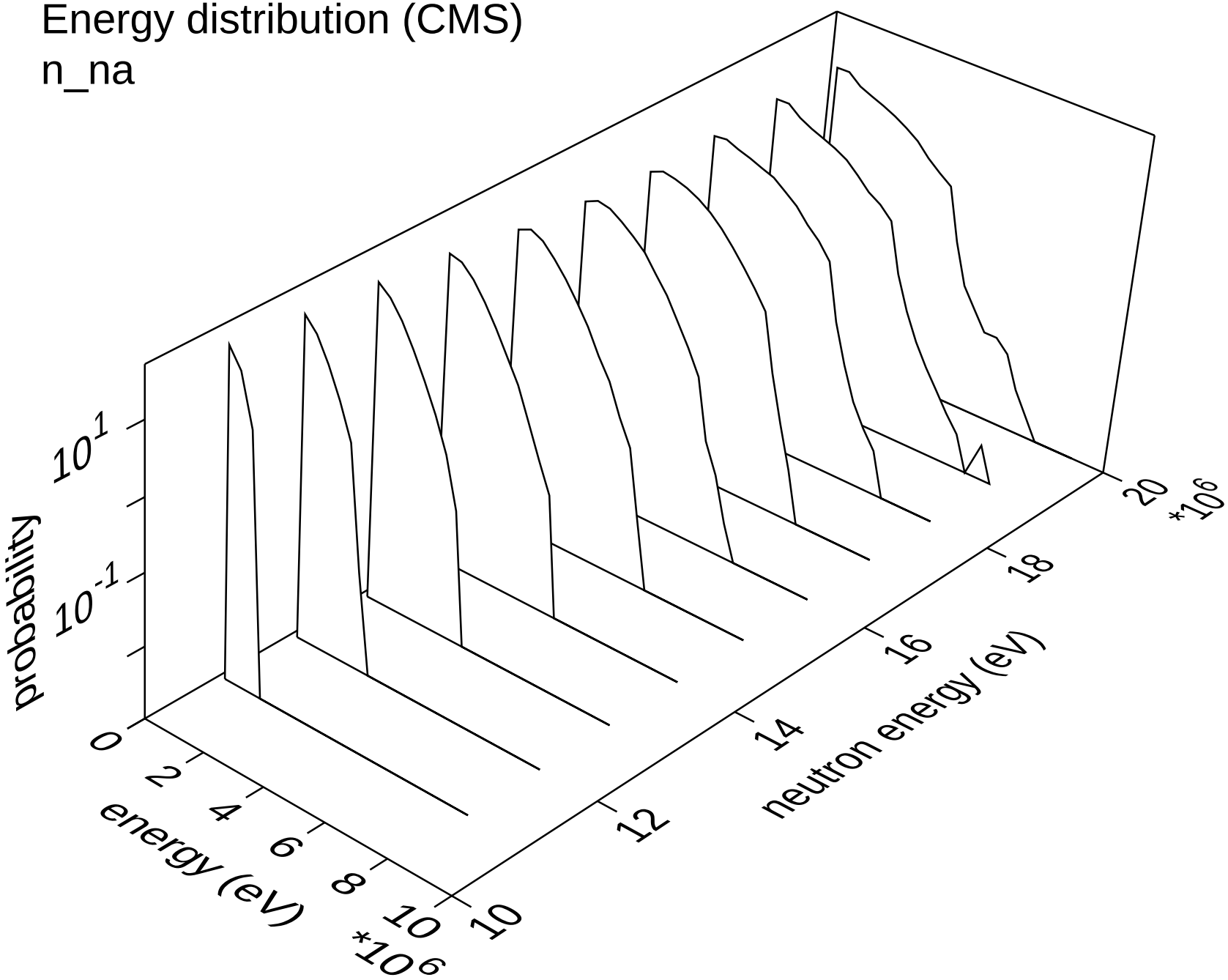

Angular distribution (CMS)
n_n_18
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

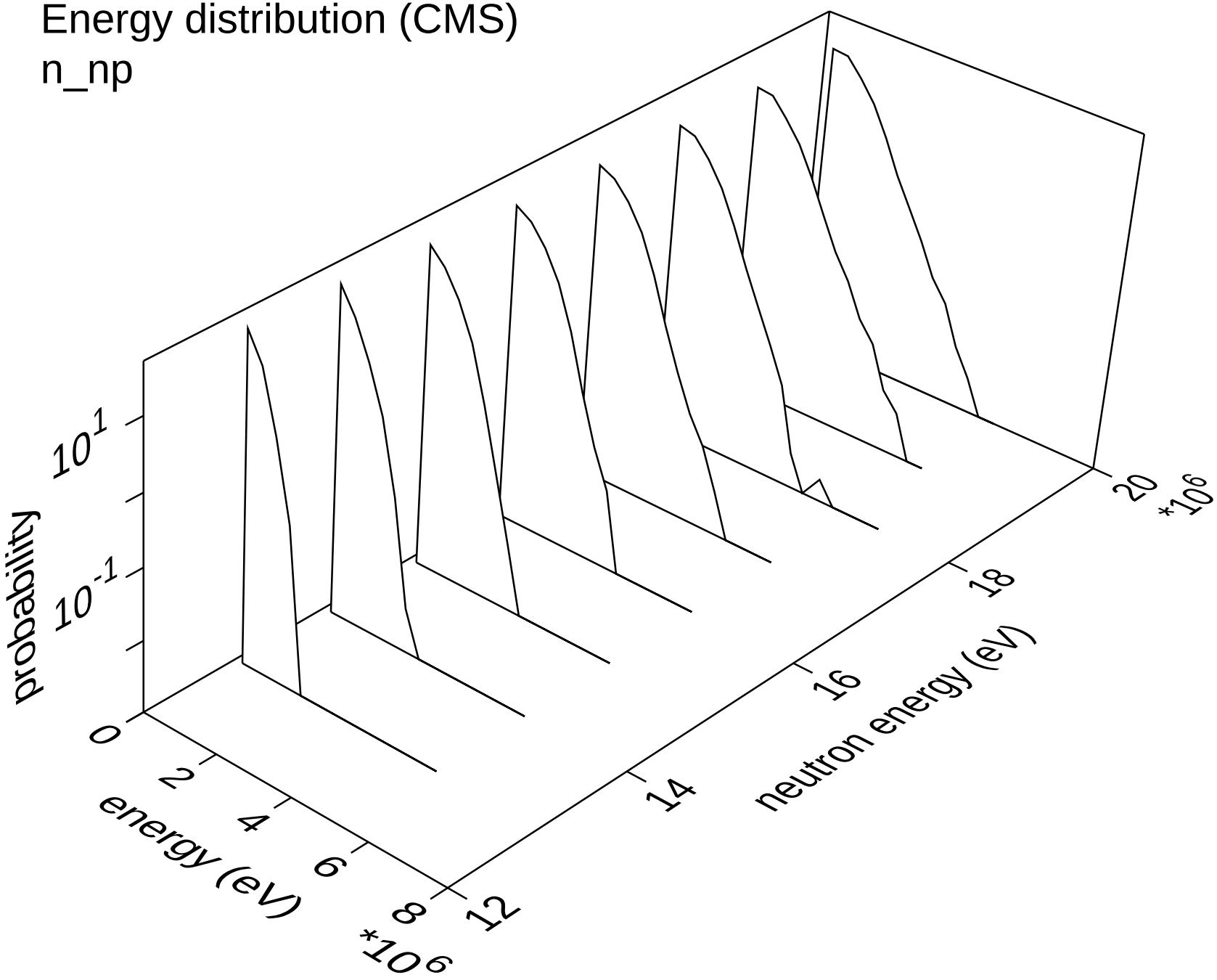

Angular distribution (CMS)
n_n_19
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

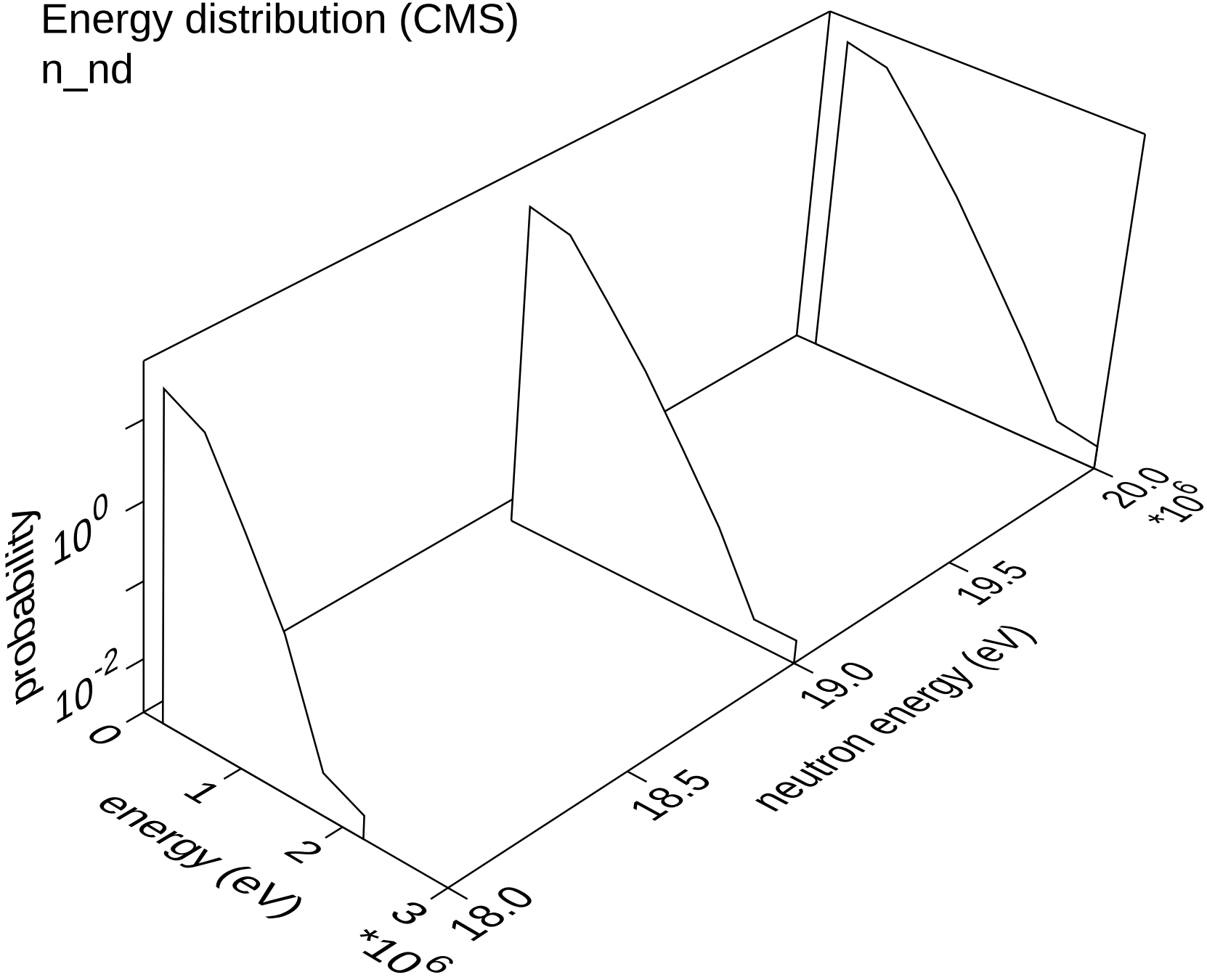

Angular distribution (CMS)
n_n_cont
probability
$10^0$
1.0
0.5
0.0
-0.5
-1.0
cos(theta)
0
5
10
15
20
*10^6
neutron energy (eV)

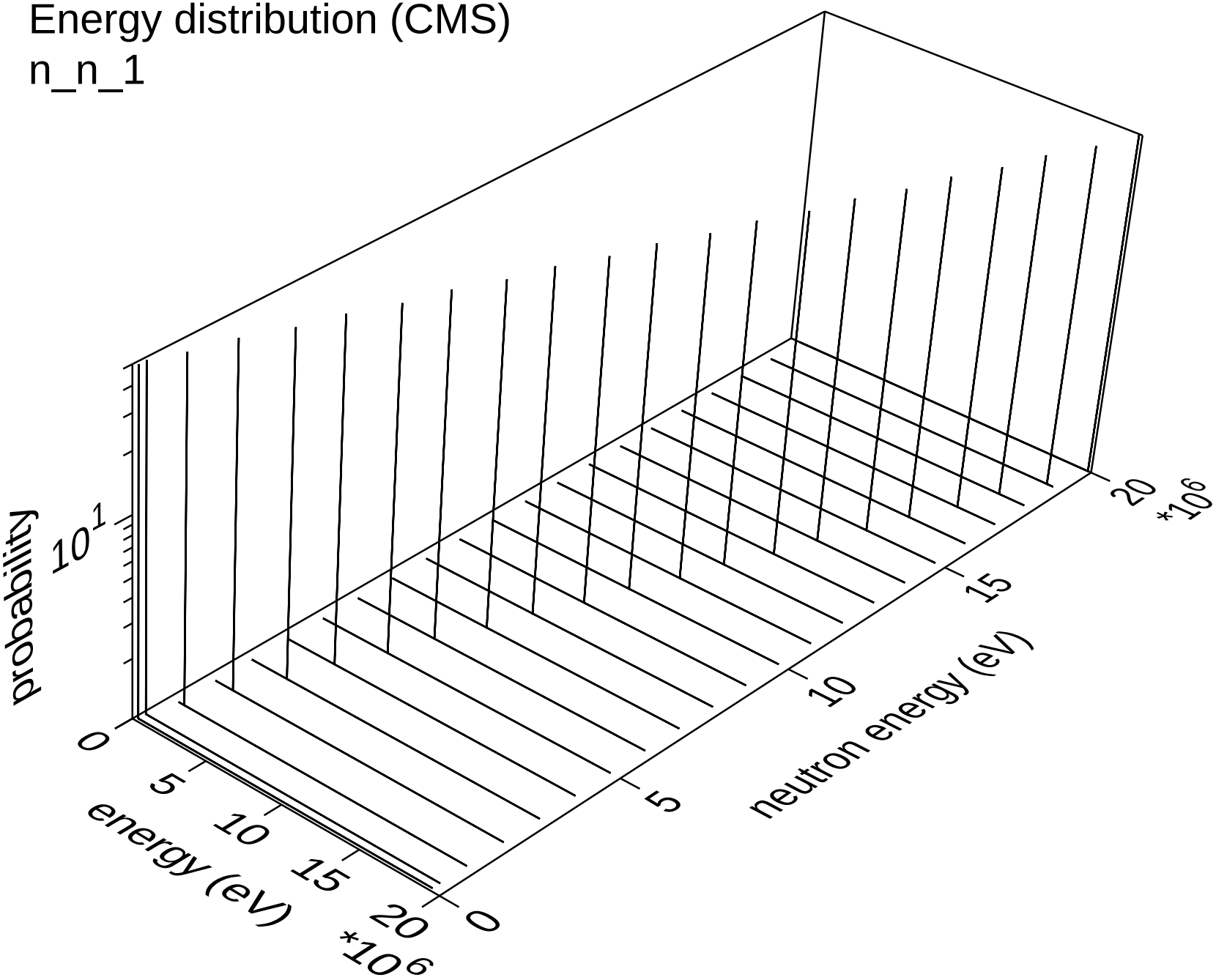

Energy distribution (CMS)
n_2n
probability
$10^0$
$10^{-2}$
0
energy (eV)
5
10
15
*10^6
5
10
15
20
*10^6
neutron energy (eV)

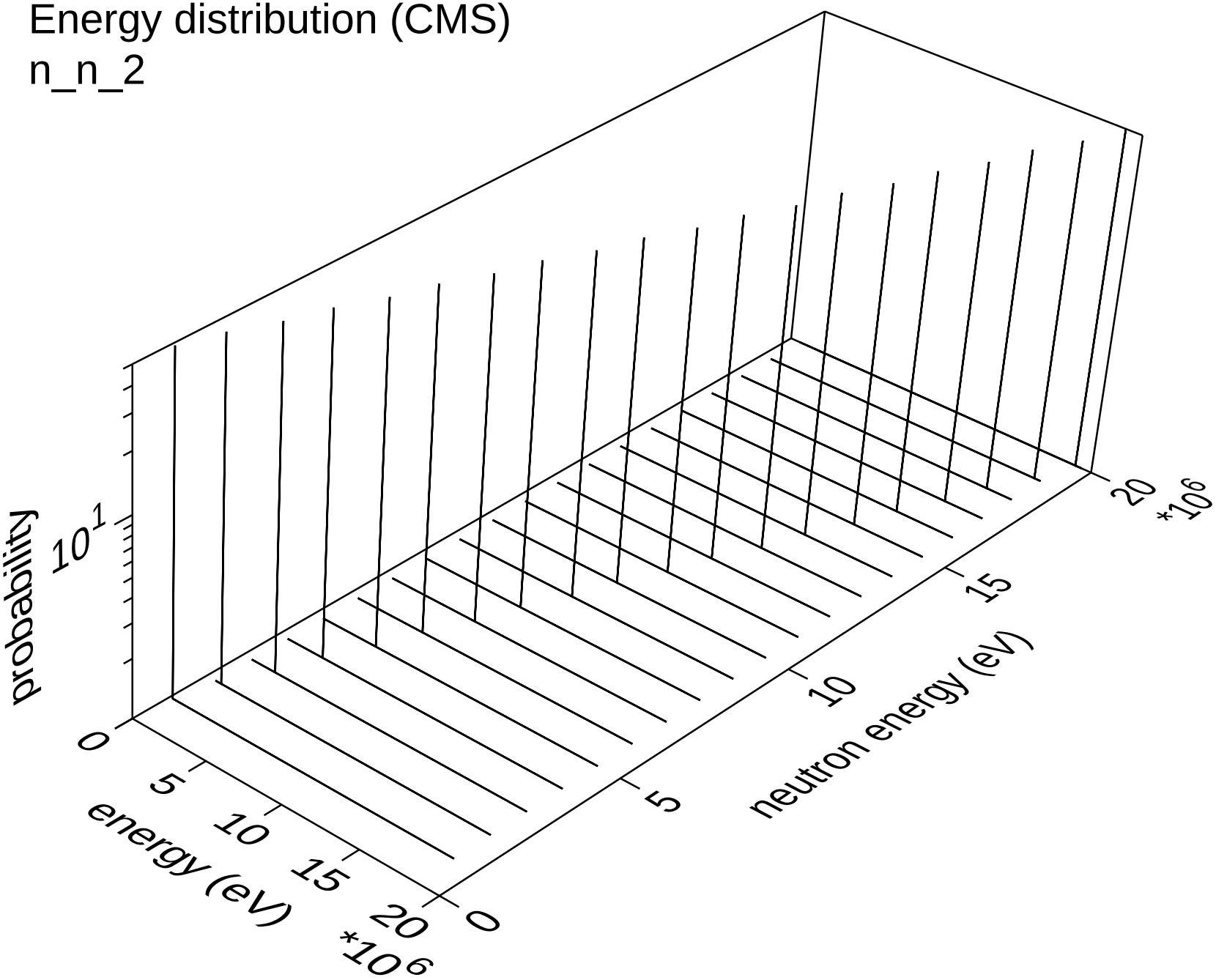

Energy distribution (CMS)
n_3n
probability
$10^{1}$
$10^{-1}$
0
2
4
6
*10^6
energy (eV)
16
18
20
*10^6
neutron energy (eV)

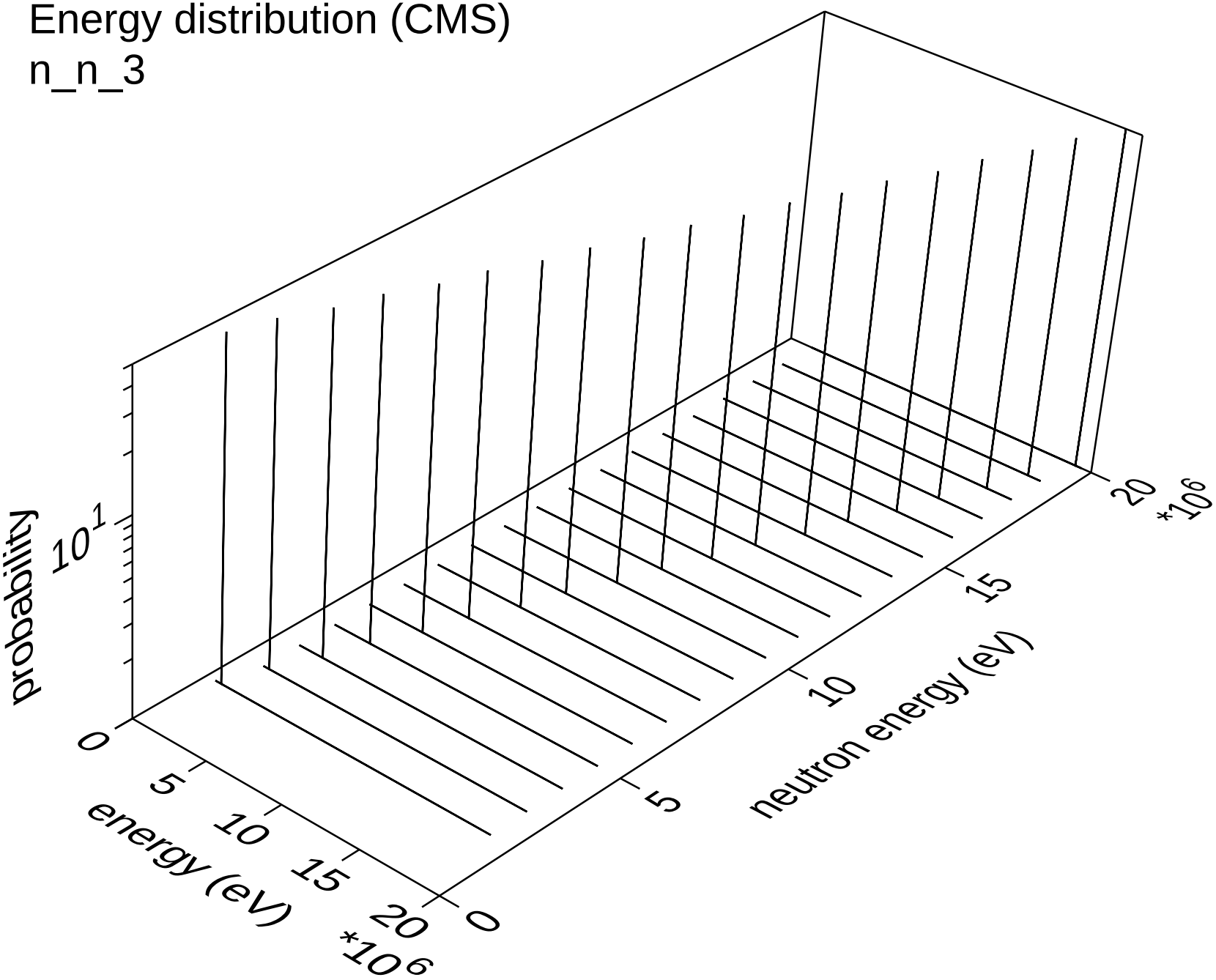

Energy distribution (CMS)
n_na
probability
$10^{1}$
$10^{-1}$
0
2
4
6
8
10
*10^6
energy (eV)
10
12
14
16
18
20
*10^6
neutron energy (eV)

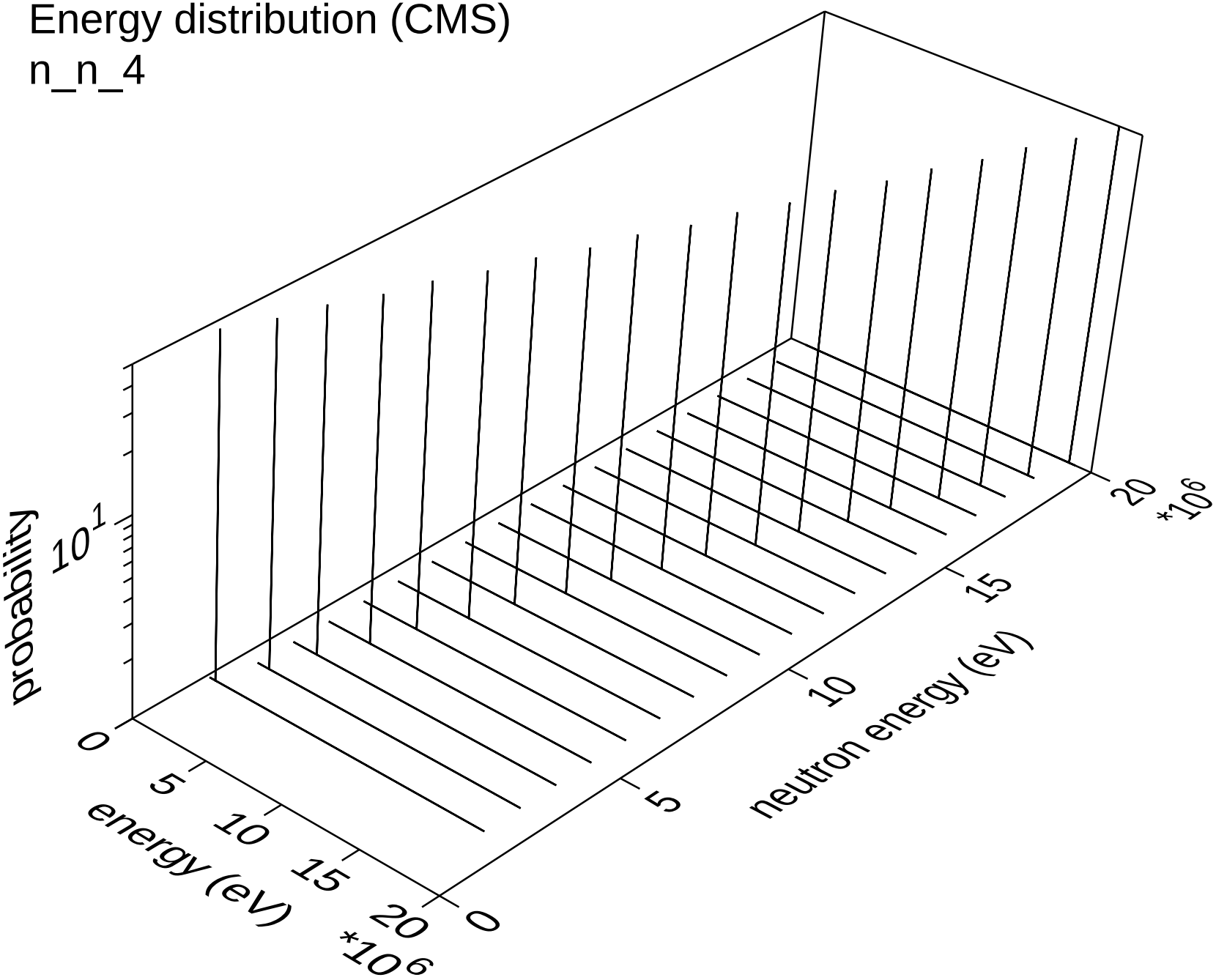

Energy distribution (CMS)
n_np
probability
$10^{1}$
$10^{-1}$
0
2
4
6
8
*10 6
energy (eV)
12
14
16
18
20
*10^6
neutron energy (eV)

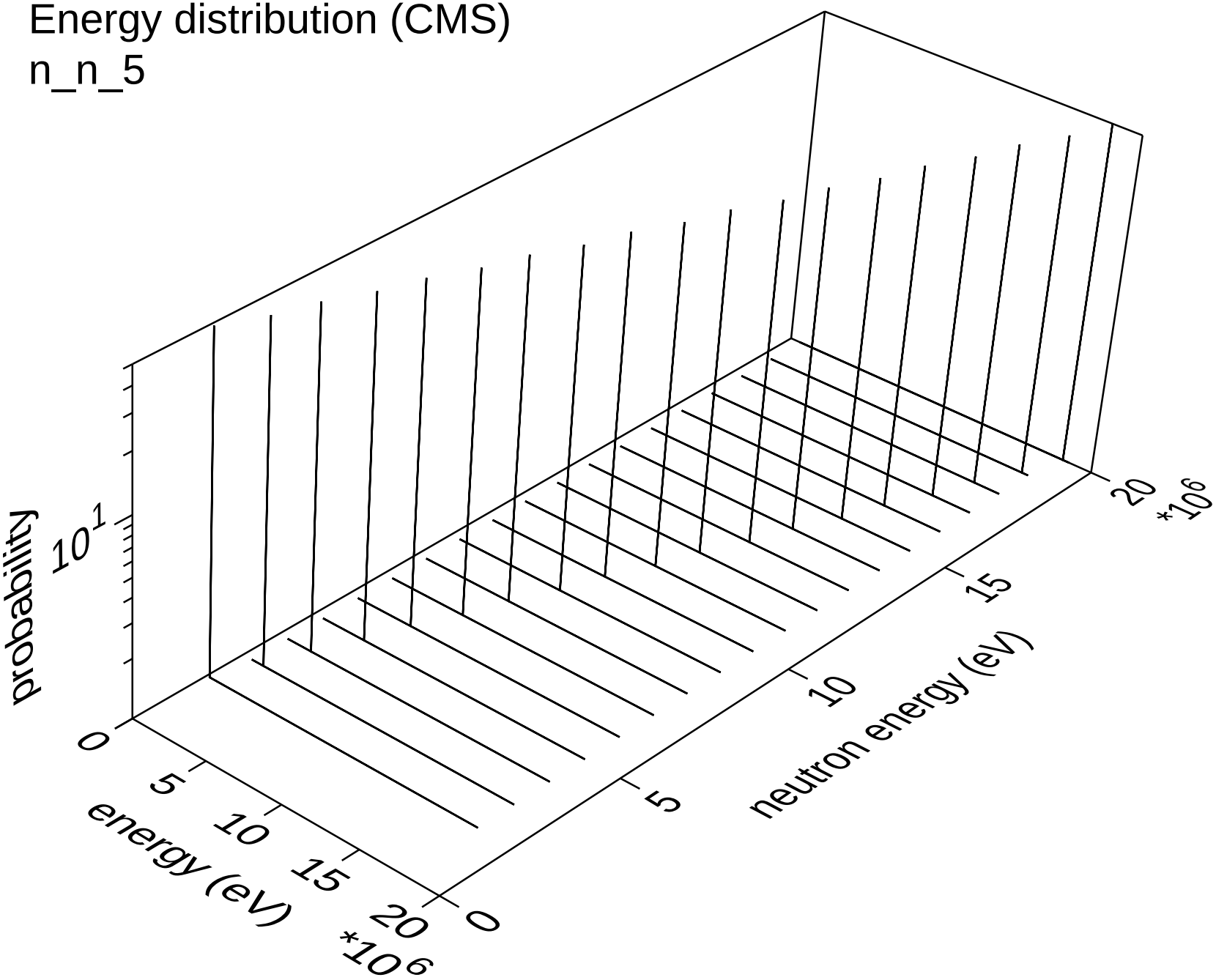

Energy distribution (CMS)
n_nd
probability
$10^0$
$10^{-2}$
0
1
2
3
*10 6
energy (eV)
18.0
18.5
19.0
19.5
20.0
*10 6
neutron energy (eV)

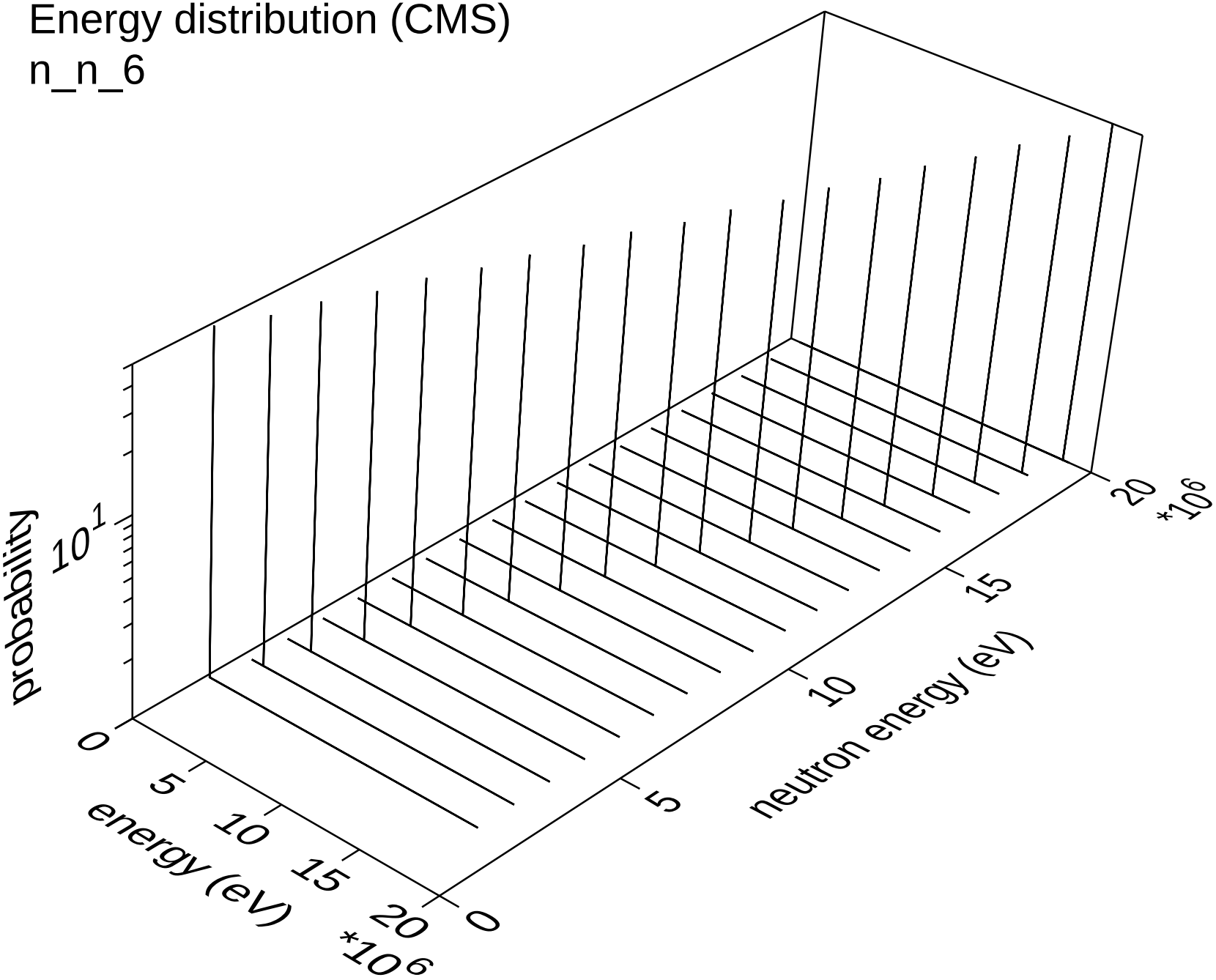

Energy distribution (CMS)
n_n_1
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

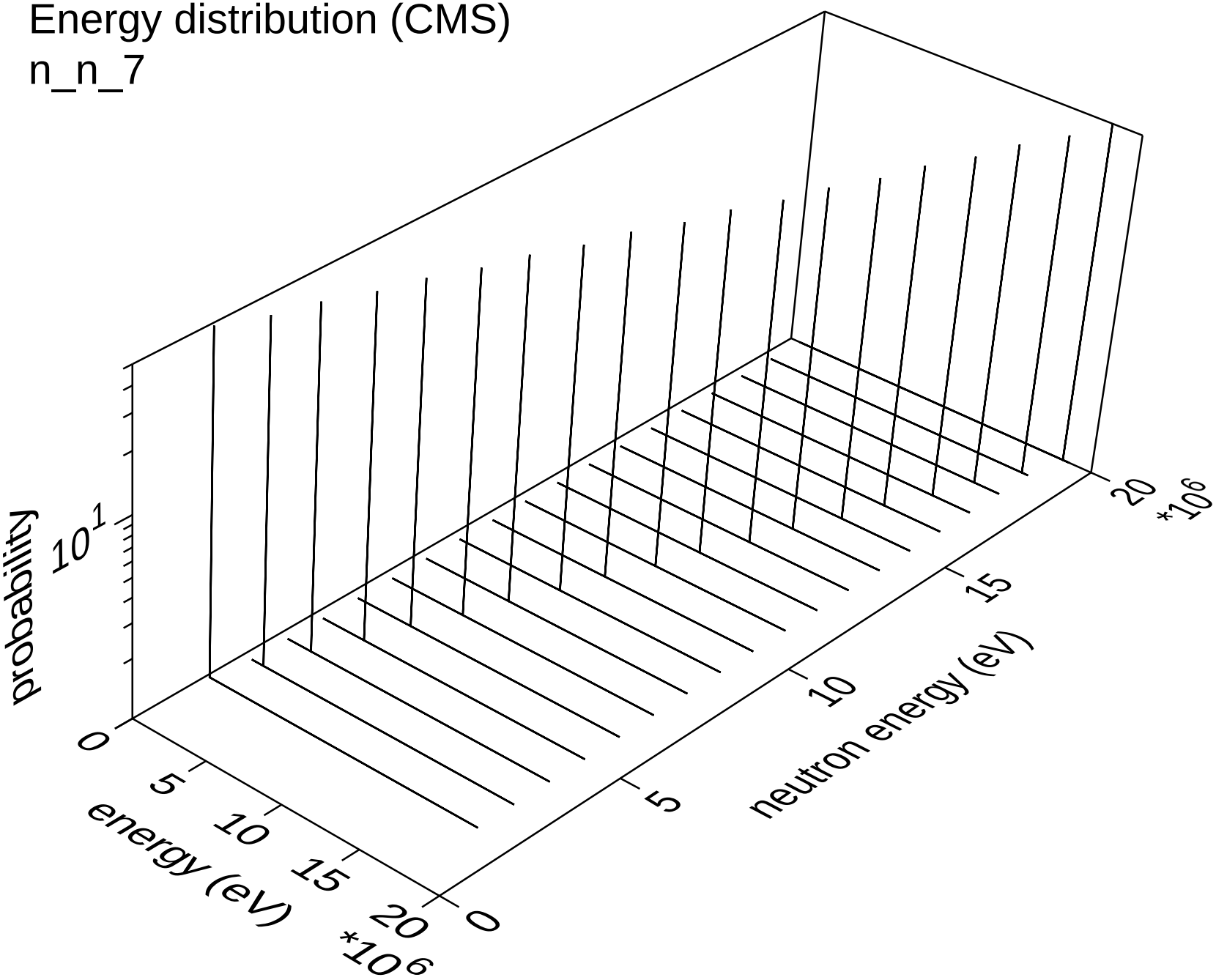

Energy distribution (CMS)
n_n_2
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
20
*10^6
neutron energy (eV)

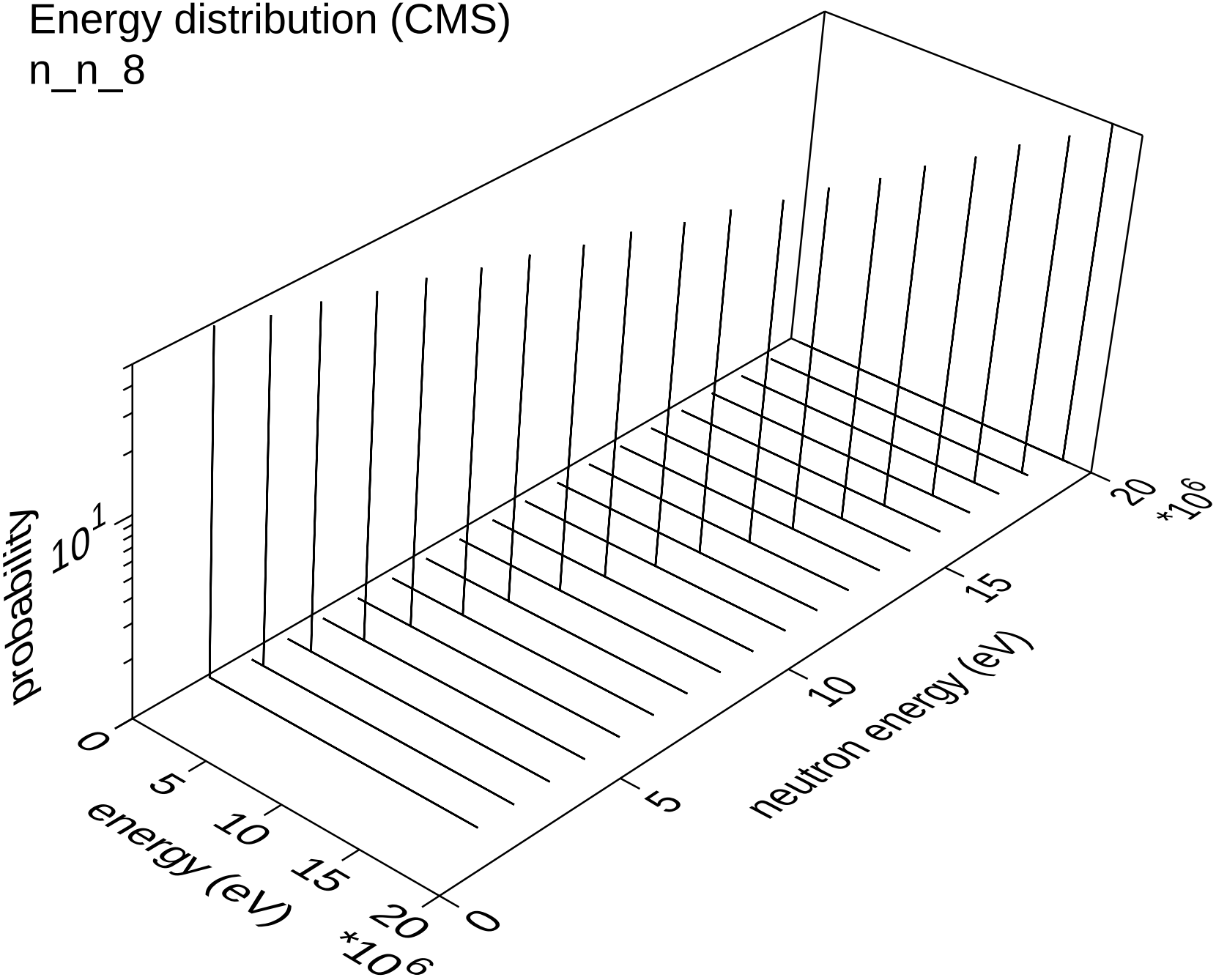

Energy distribution (CMS)
n_n_3
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

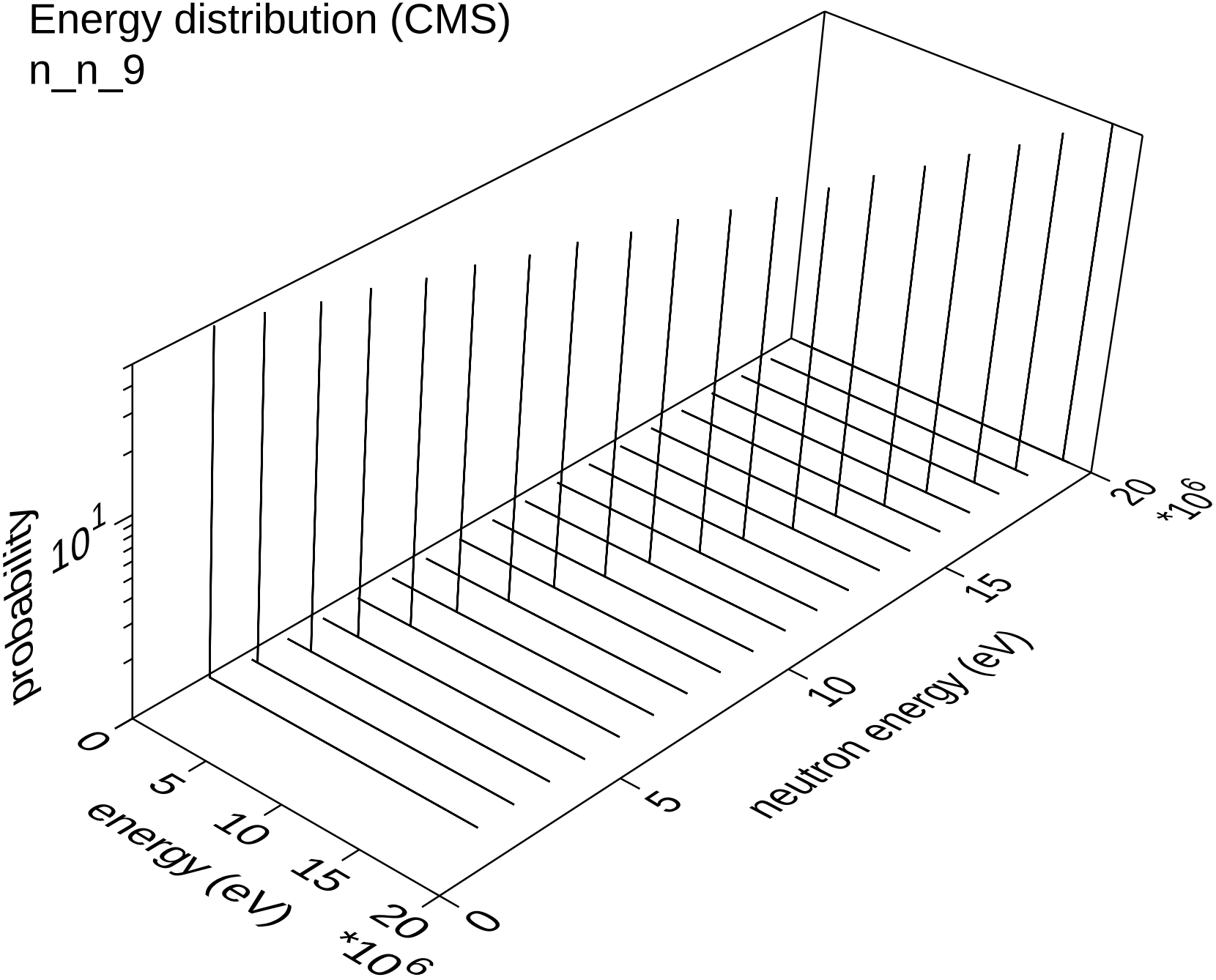

Energy distribution (CMS)
n_n_4
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

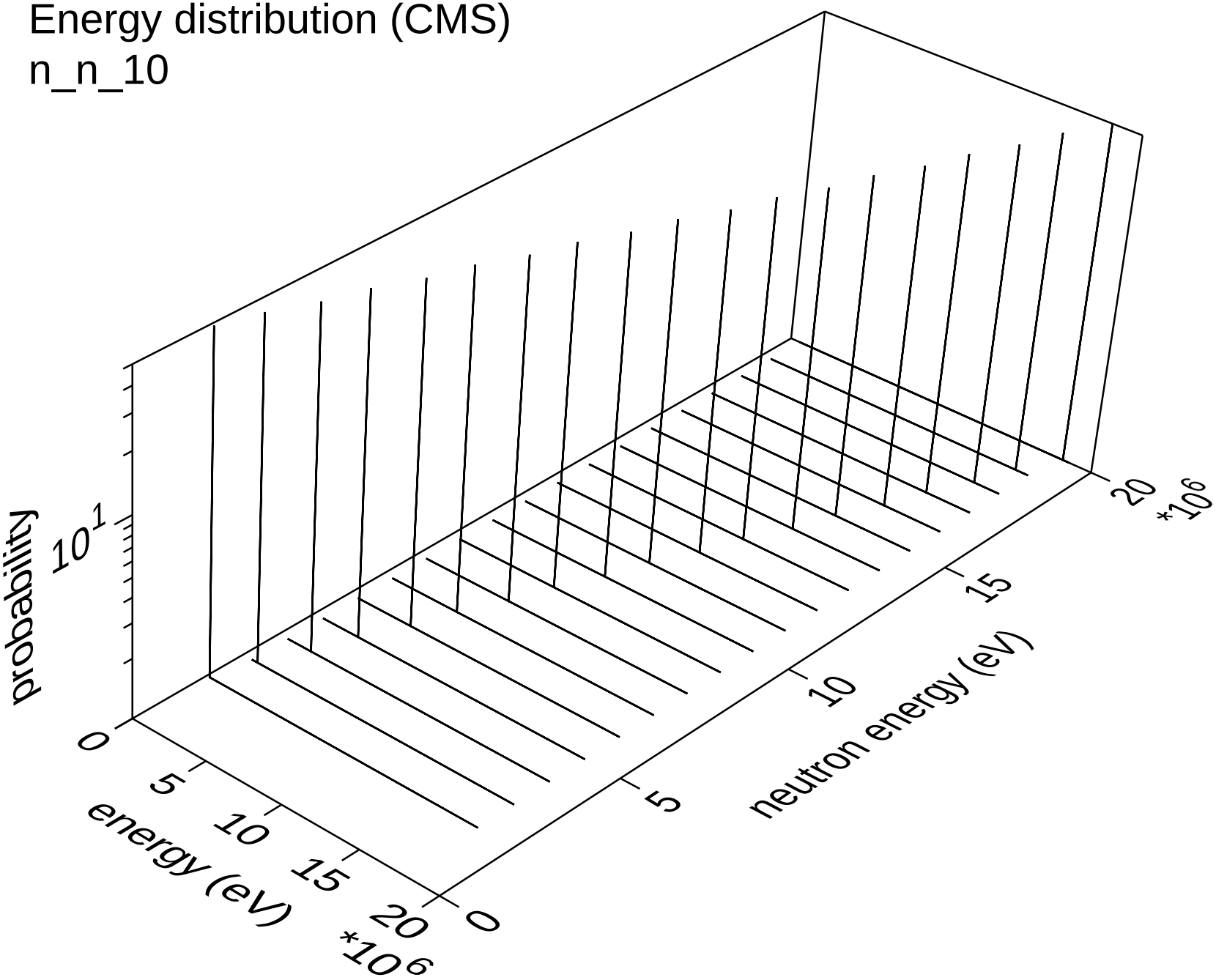

Energy distribution (CMS)
n_n_5
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

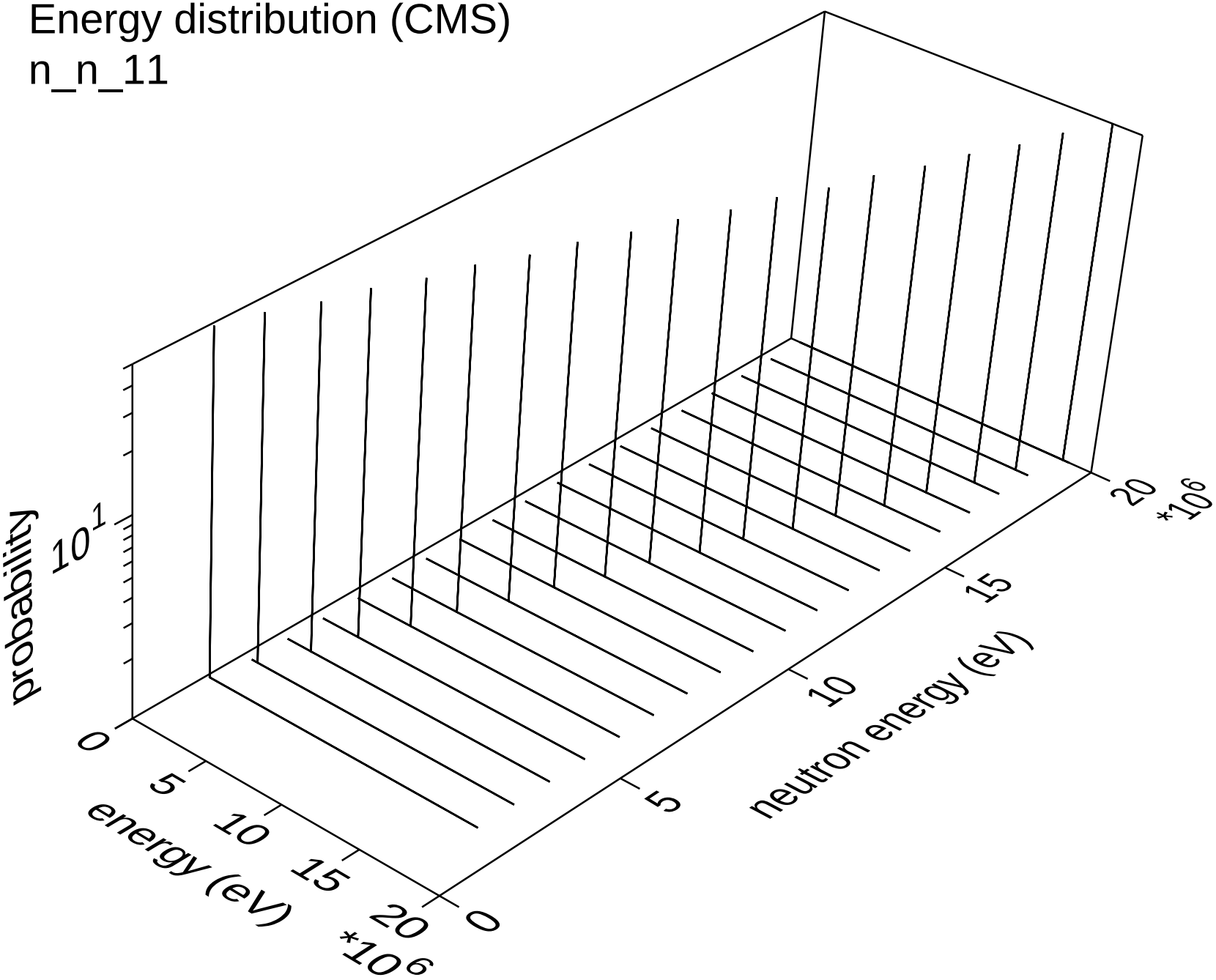

Energy distribution (CMS)
n_n_6
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

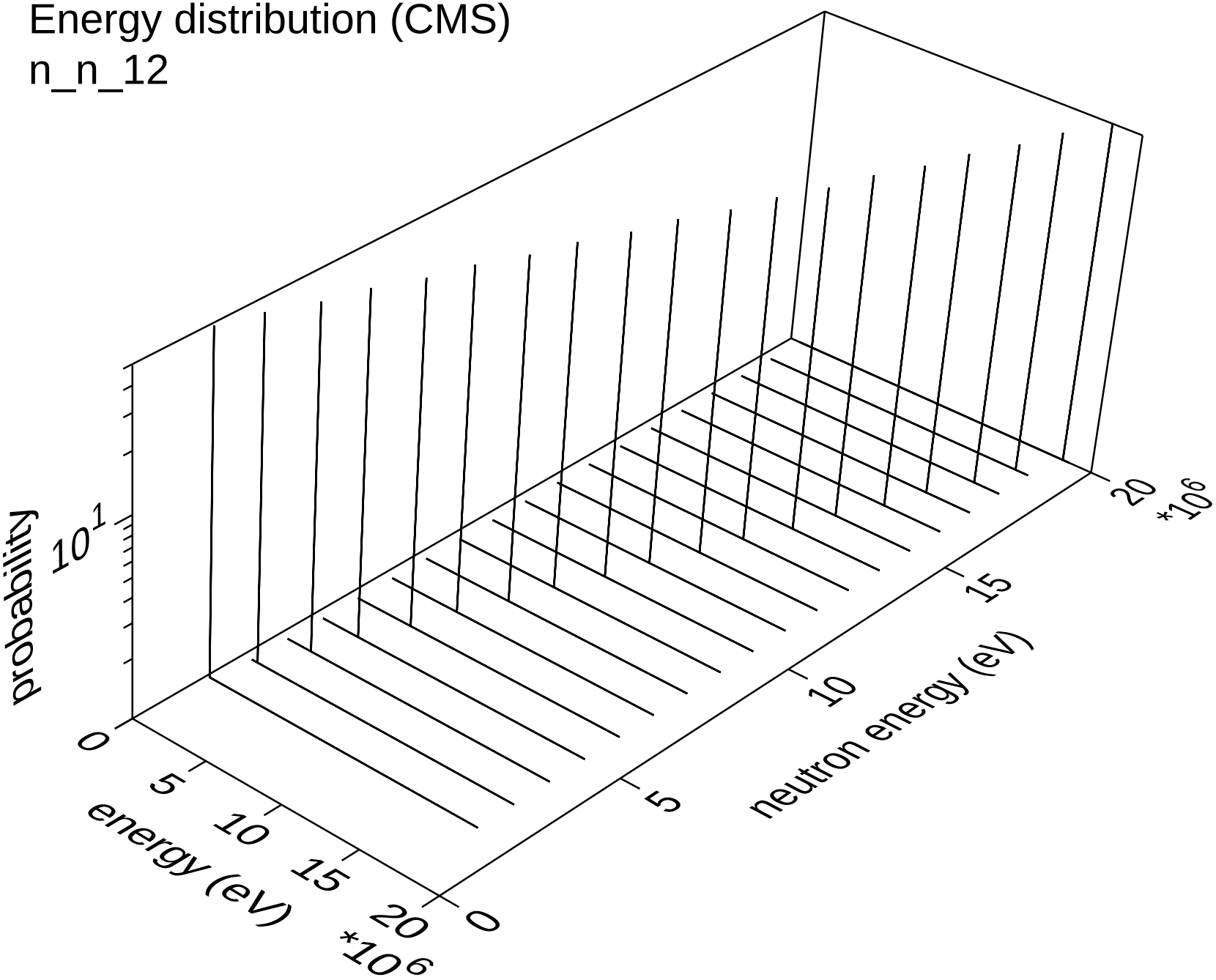

Energy distribution (CMS)
n_n_7
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

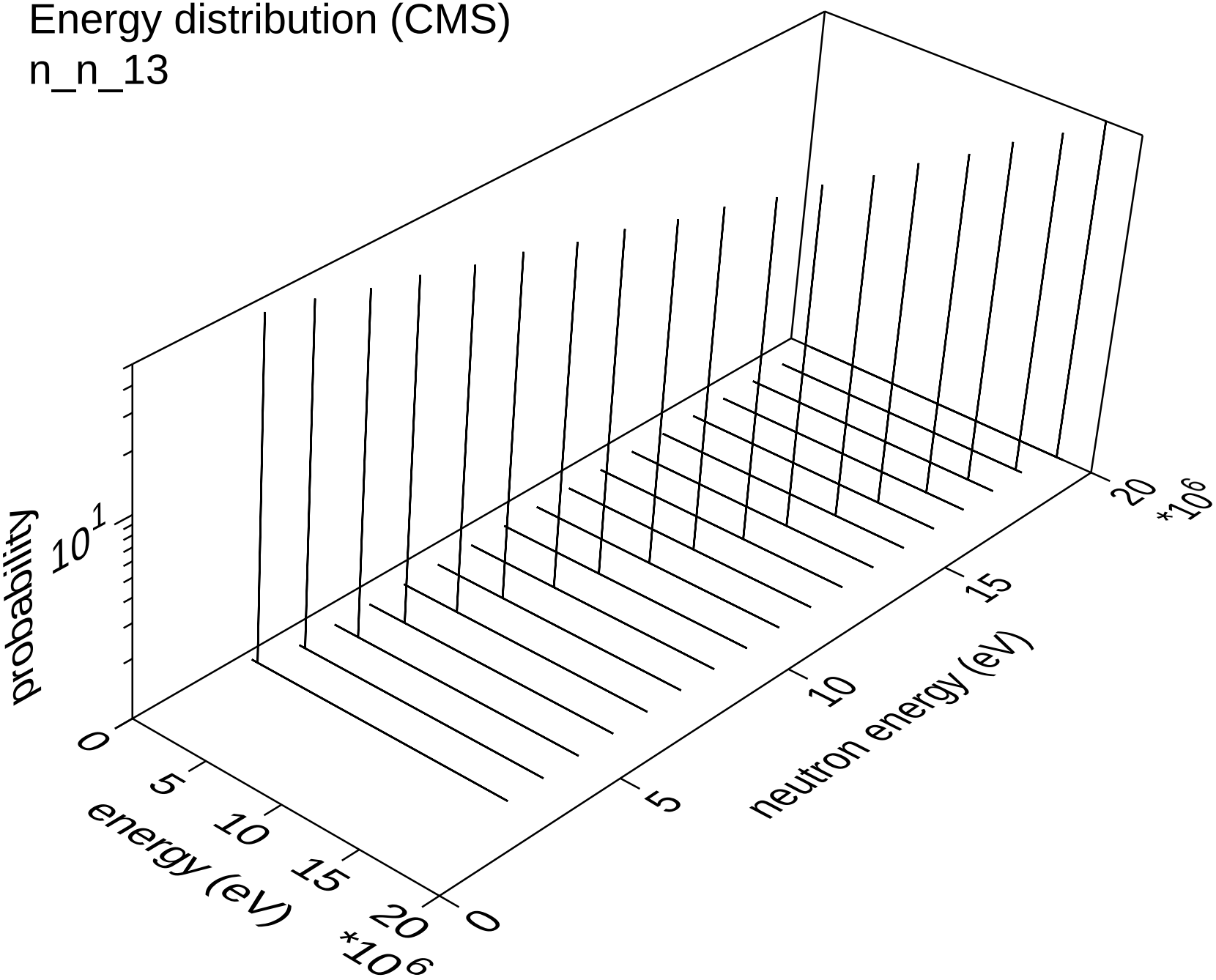

Energy distribution (CMS)
n_n_8
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

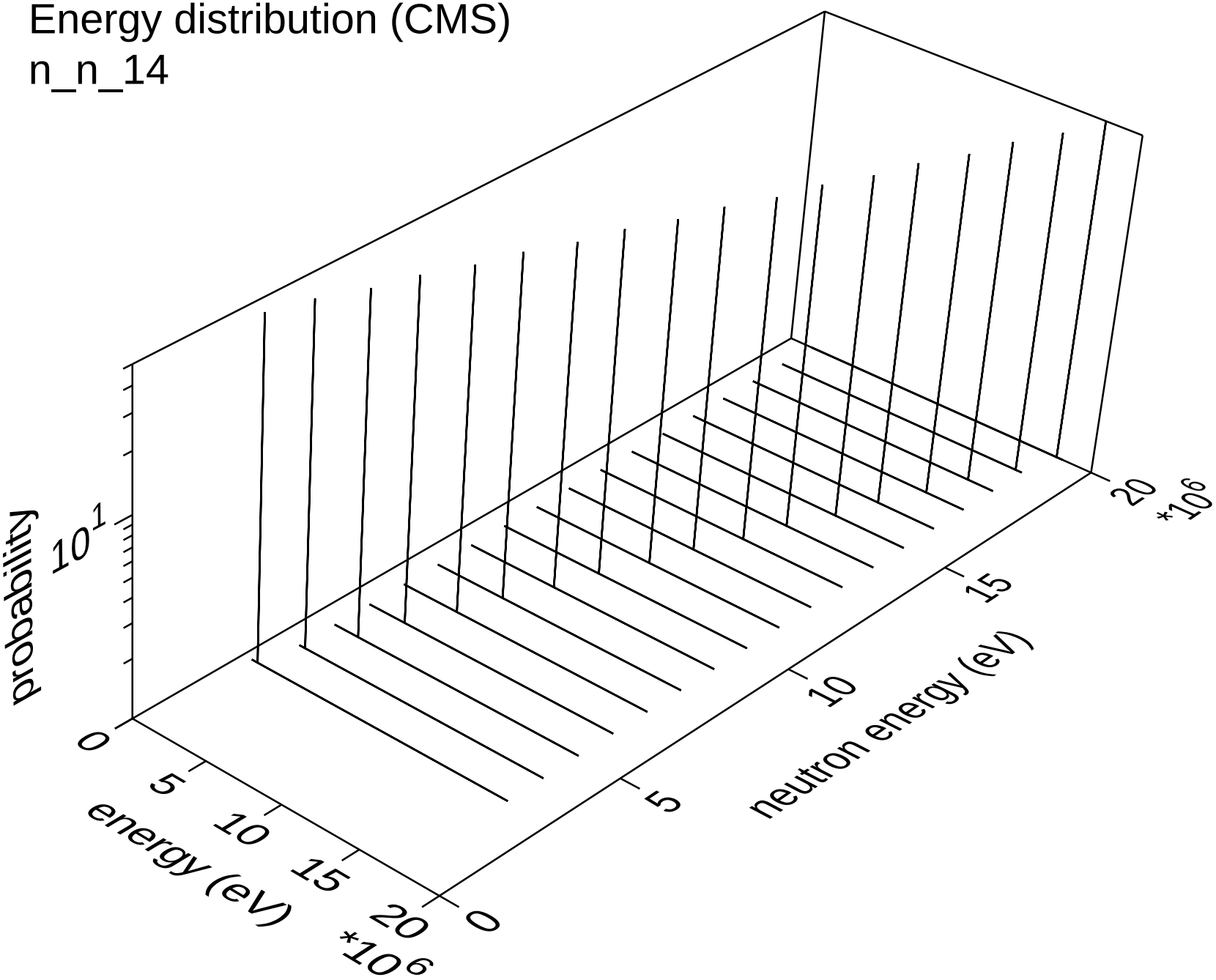

Energy distribution (CMS)
n_n_9
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

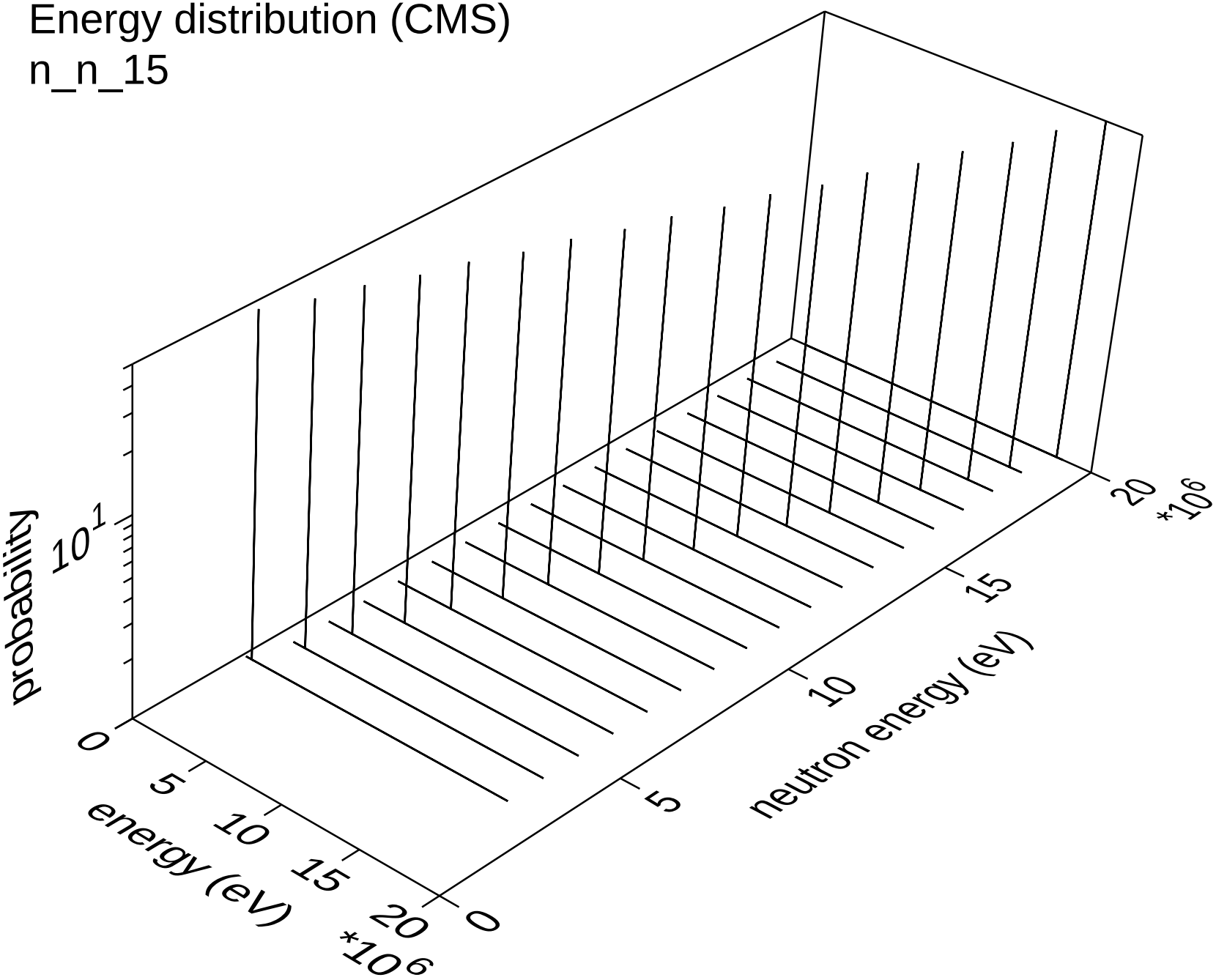

Energy distribution (CMS)
n_n_10
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

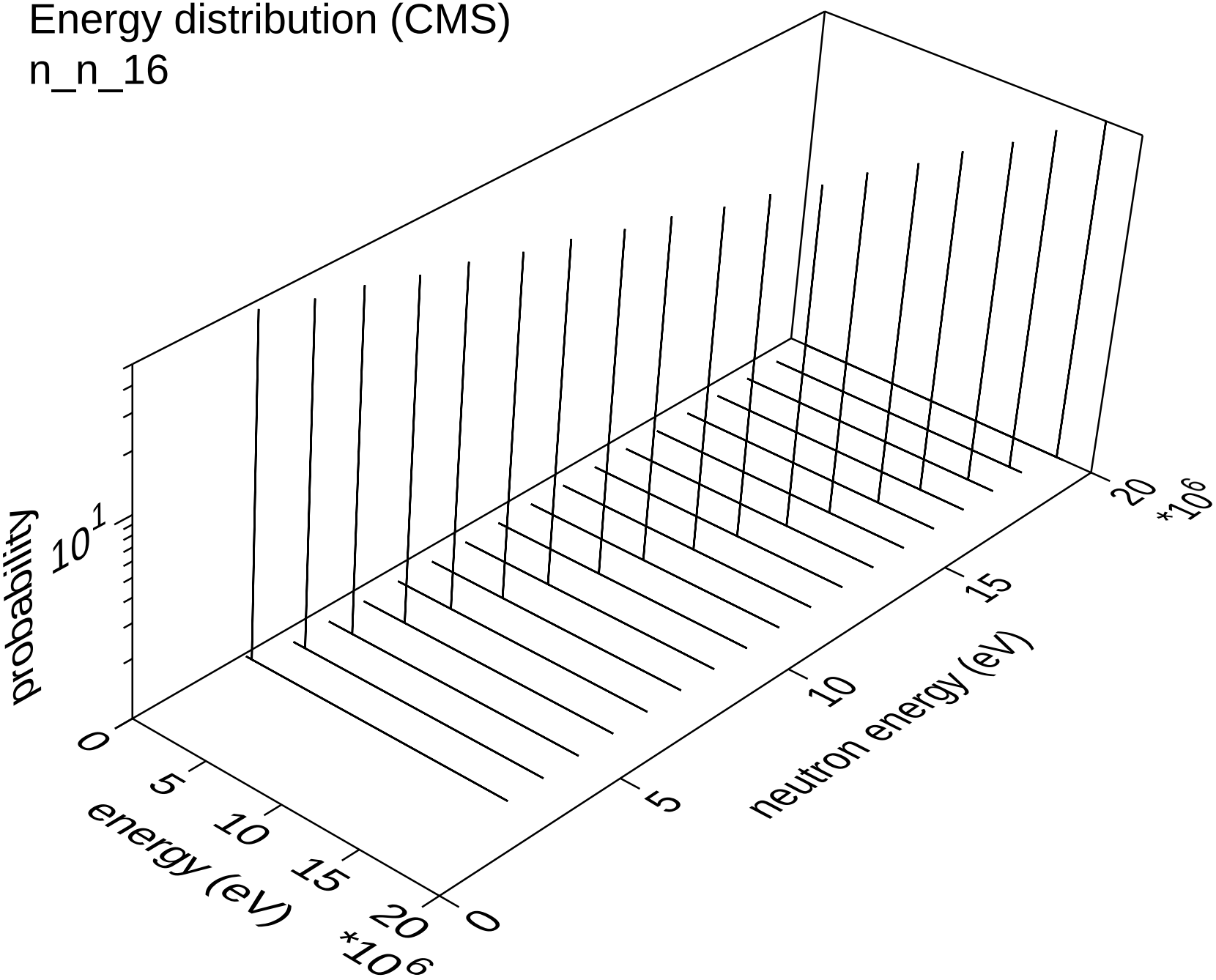

Energy distribution (CMS)
n_n_11
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

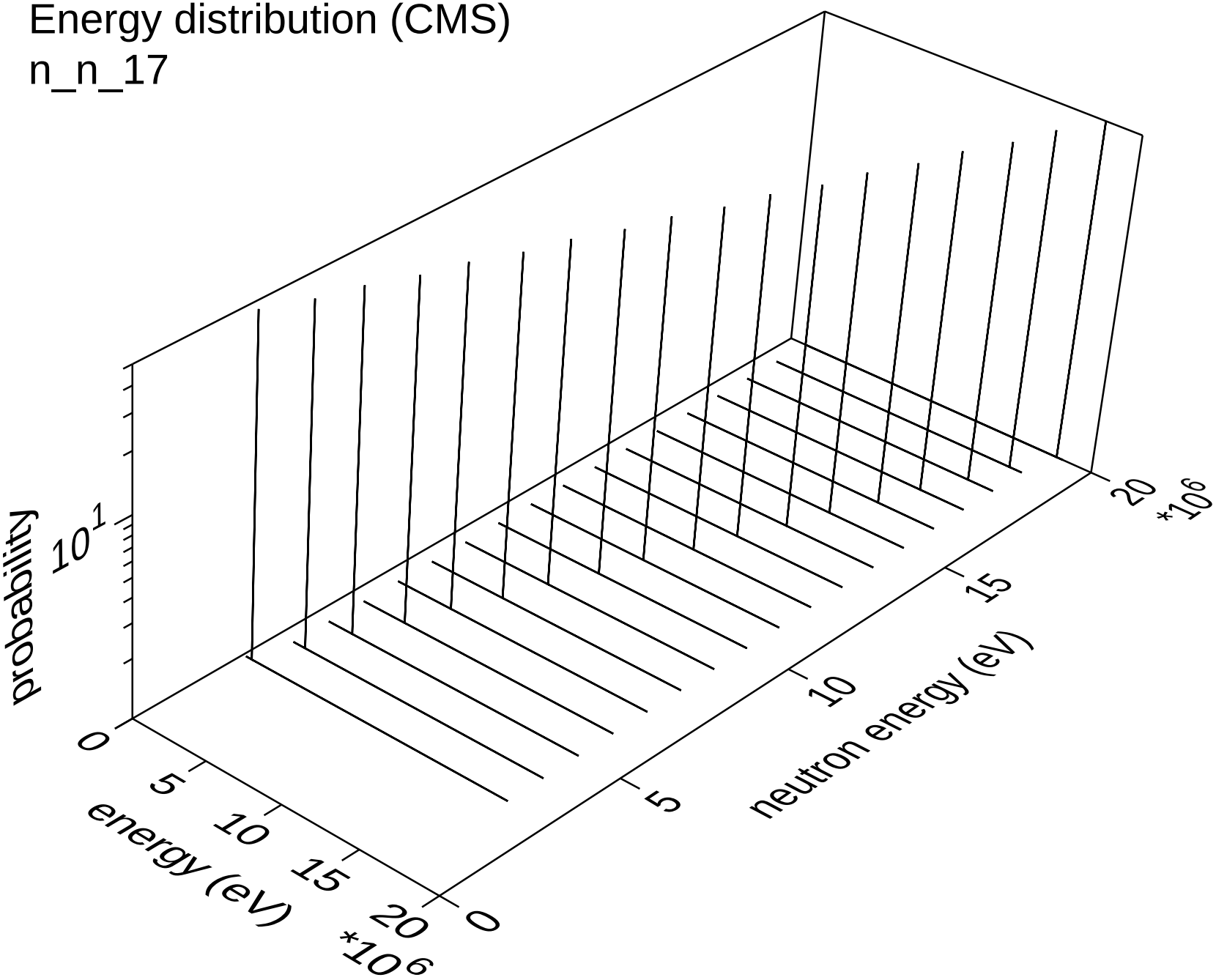

Energy distribution (CMS)
n_n_12
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)

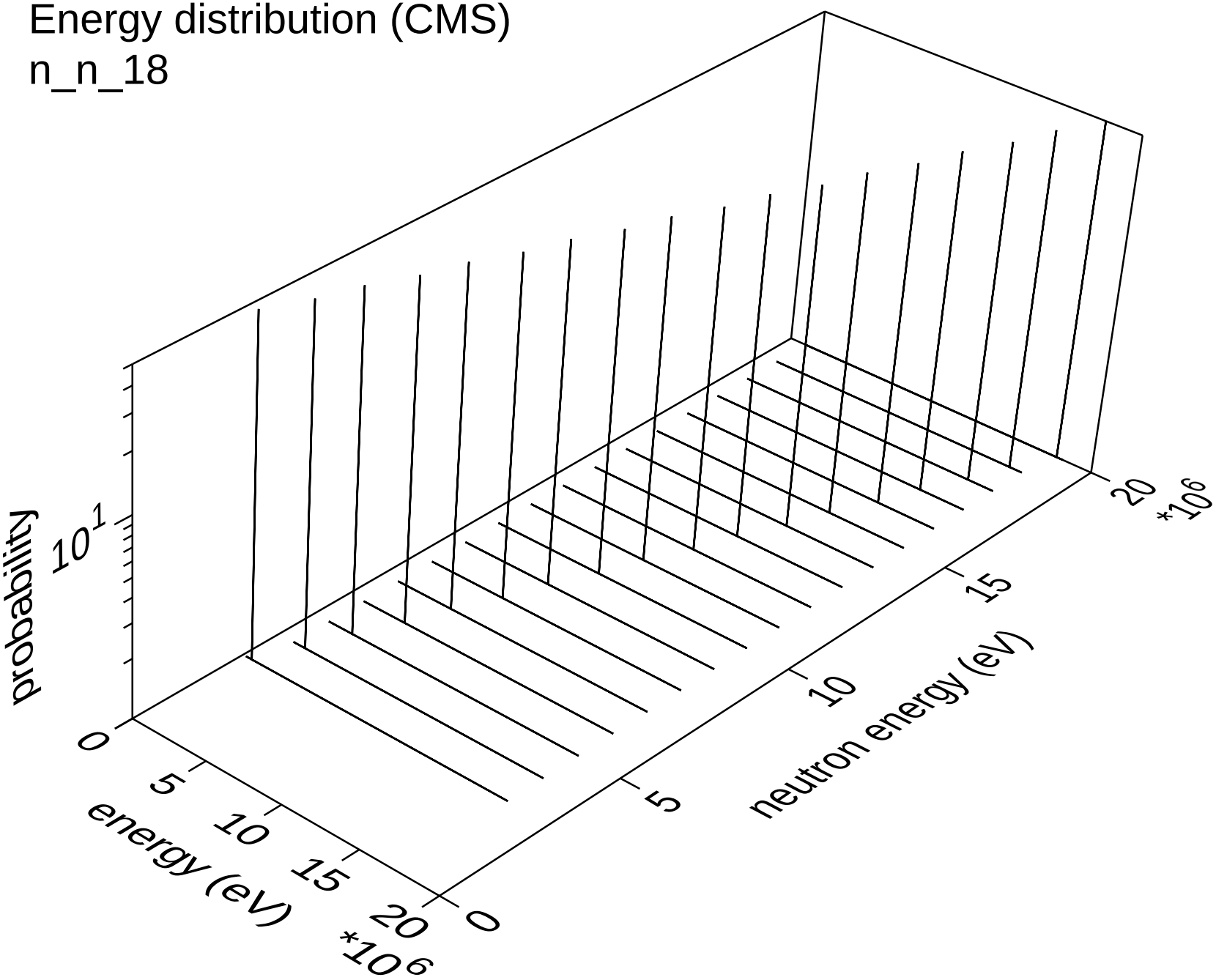

Energy distribution (CMS)
n_n_13
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

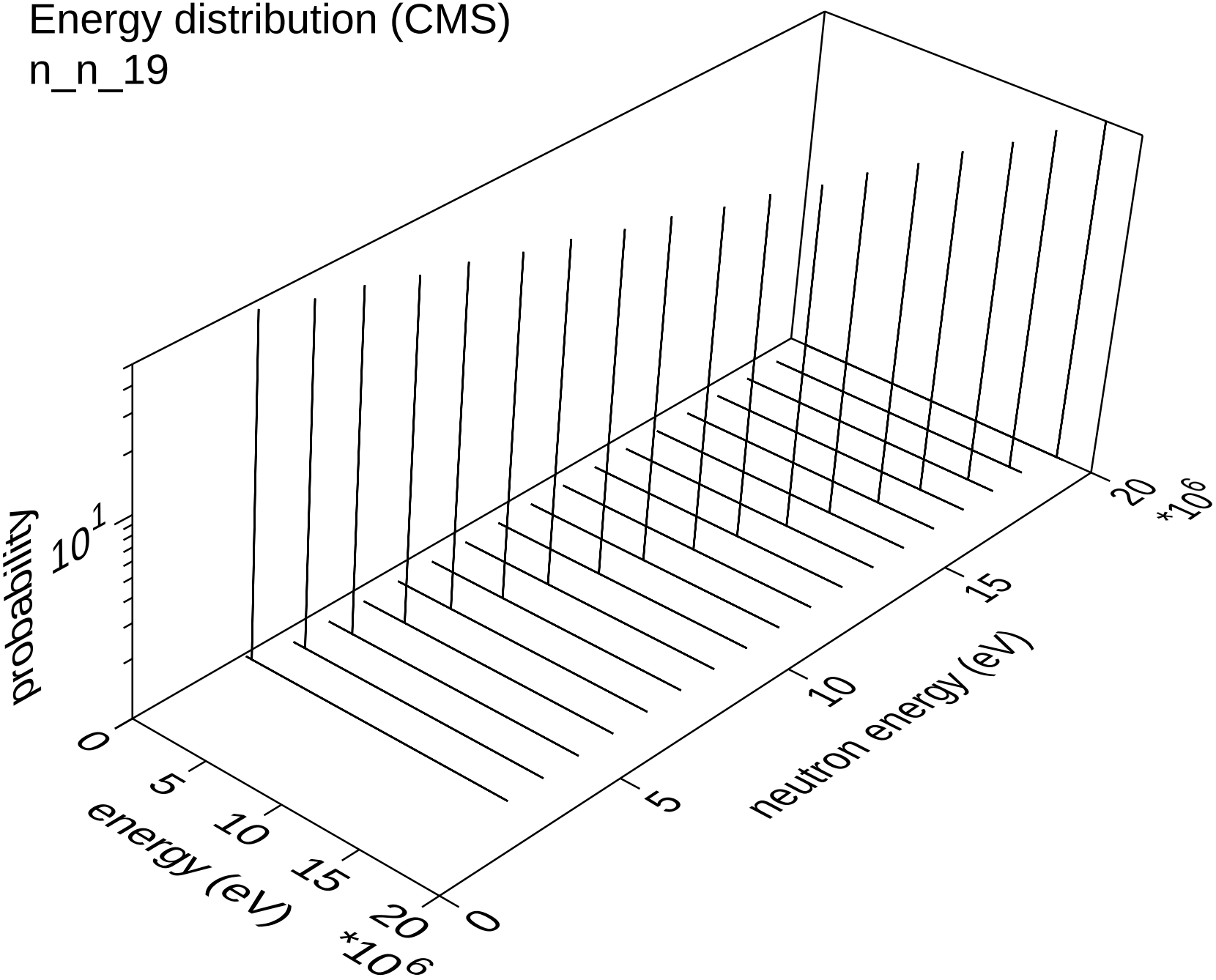

Energy distribution (CMS)
n_n_14
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6

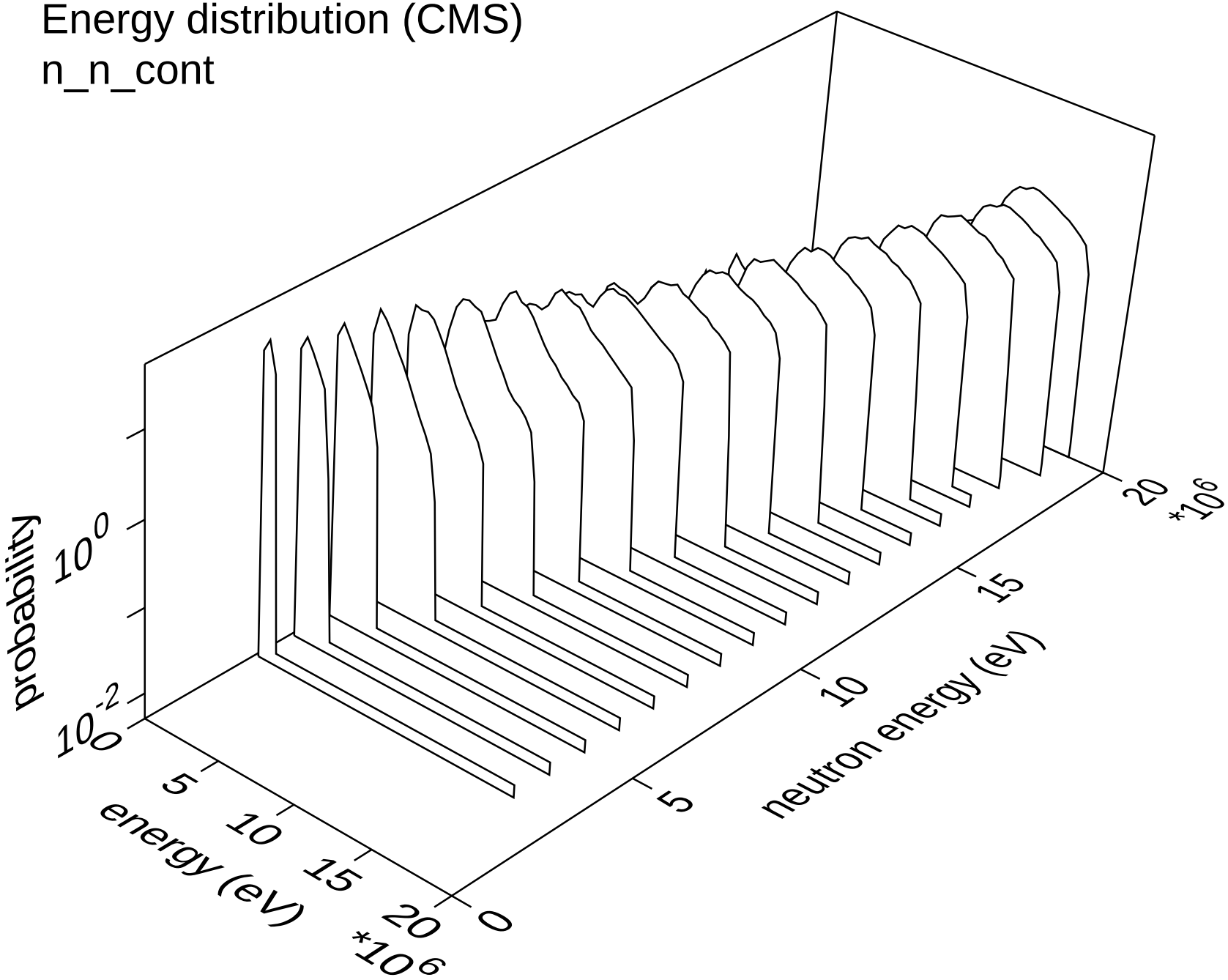

Energy distribution (CMS)
n_n_15
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)


Energy distribution (CMS)
n_n_16
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6


Energy distribution (CMS)
n_n_17
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)


Energy distribution (CMS)
n_n_18
probability
$10^{-1}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)


Energy distribution (CMS)
n_n_19
probability
$10^{-1}$
0
energy (eV)
5
10
15
20
*10^6
0
5
10
15
neutron energy (eV)
20
*10^6


Energy distribution (CMS)
n_n_cont
probability
$10^{0}$
$10^{-2}$
0
5
10
15
20
*10^6
energy (eV)
0
5
10
15
20
*10^6
neutron energy (eV)