

$q_A$	$\Omega_A$	$S_A/k$	$q_B$	$\Omega_B$	$S_B/k$	$\Omega_{\text{total}}$	$S_{\text{total}}/k$
0	1	0	100	$2.8 \times 10^{81}$	187.5	$2.8 \times 10^{81}$	187.5
1	300	5.7	99	$9.3 \times 10^{80}$	186.4	$2.8 \times 10^{83}$	192.1
2	45150	10.7	98	$3.1 \times 10^{80}$	185.3	$1.4 \times 10^{85}$	196.0
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
11	$5.3 \times 10^{19}$	45.4	89	$1.1 \times 10^{76}$	175.1	$5.9 \times 10^{95}$	220.5
12	$1.4 \times 10^{21}$	48.7	88	$3.4 \times 10^{75}$	173.9	$4.7 \times 10^{96}$	222.6
13	$3.3 \times 10^{22}$	51.9	87	$1.0 \times 10^{75}$	172.7	$3.5 \times 10^{97}$	224.6
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
59	$2.2 \times 10^{68}$	157.4	41	$3.1 \times 10^{46}$	107.0	$6.8 \times 10^{114}$	264.4
60	$1.3 \times 10^{69}$	159.1	40	$5.3 \times 10^{45}$	105.5	$6.9 \times 10^{114}$	264.4
61	$7.7 \times 10^{69}$	160.9	39	$8.8 \times 10^{44}$	103.5	$6.8 \times 10^{114}$	264.4
$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$	$\vdots$
100	$1.7 \times 10^{96}$	221.6	0	1	0	$1.7 \times 10^{96}$	221.6

**Table 3.1.** Macrostates, multiplicities, and entropies of a system of two Einstein solids, one with 300 oscillators and the other with 200, sharing a total of 100 units of energy.