Additional tables for melting temperatures

Here, we list the complete results of our implementation that computes the melting temperature of the codewords determined by an enumerative encoding. Table 2 provides the total number of codewords with a melting temperature between 50 and 62 °C for codeword lengths $n \in [16, 22]$ and the four collections of partitions satisfying $|R_1| = |R_2| = 3$, $|R_3| = \cdots = |R_{n-1}| = 0$. Table 3 provides the number of codewords with an appropriate melting temperature, between 50 and 62 °C, divided into bins of a width of 2 °C for the same parameter values. Furthermore, Table 4 provides the counts of the codewords with too high melting temperature and a prefix with an appropriate melting temperature for $n \in [17, 22]$. A ratio to the total number of codewords is also given.

In the second part, we provide the number of codewords with an appropriate melting temperature, between 50 and 62 °C for codeword length $n \in [16, 18]$ obtained by Construction 7 using collections of pseudopartitions satisfying $|R_1| = |R_2| = 3$, $|R_4| = 1$, $|R_3| = |R_5| = \cdots = |R_{n-1}| = 0$. The results are given in Tables 5, 6 and 7. For compactness, we enumerate the collections of pseudopartitions satisfying $|R_1| = |R_2| = 3$, $|R_4| = 1$, $|R_3| = |R_5| = \cdots = |R_{n-1}| = 0$ using numbers $0 \ldots 35$ as follows. For $0 \leq i \leq 7$, $L_1 = \{\mathrm{T}\}$. For $8 \leq i \leq 15$, $L_1 = \{\mathrm{A}\}$. For $16 \leq i \leq 23$, $L_1 = \{\mathrm{G}\}$. For $24 \leq i \leq 35$, $L_1 = \{\mathrm{C}\}$. The pseudopartition (L_4, R_4) is selected by the rule given in Table 1.

0	$R_4 = \{\mathrm{AATT}\}$	12	$R_4 = \{\mathrm{GCAA}\}$	24	$R_4 = \{\mathrm{ACGG}\}$
1	$R_4 = \{\mathrm{ACTT}\}$	13	$R_4 = \{\mathrm{GGAA}\}$	25	$R_4 = \{\mathrm{ATGG}\}$
2	$R_4 = \{\mathrm{AGTT}\}$	14	$R_4 = \{\mathrm{GTAA}\}$	26	$R_4 = \{\mathrm{AAGG}\}$
3	$R_4 = \{\mathrm{CATT}\}$	15	$R_4 = \{\mathrm{TCAA}\}$	27	$R_4 = \{\mathrm{GGCC}\}$
4	$R_4 = \{\mathrm{CCTT}\}$	16	$R_4 = \{\mathrm{TGAA}\}$	28	$R_4 = \{\mathrm{GTCC}\}$
5	$R_4 = \{\mathrm{CGTT}\}$	17	$R_4 = \{\mathrm{TTAA}\}$	29	$R_4 = \{\mathrm{GACC}\}$
6	$R_4 = \{\mathrm{GATT}\}$	18	$R_4 = \{\mathrm{CCGG}\}$	30	$R_4 = \{\mathrm{TGCC}\}$
7	$R_4 = \{\mathrm{GCTT}\}$	19	$R_4 = \{\mathrm{CTGG}\}$	31	$R_4 = \{\mathrm{TTCC}\}$
8	$R_4 = \{\mathrm{GGTT}\}$	20	$R_4 = \{\mathrm{CAGG}\}$	32	$R_4 = \{\mathrm{TACC}\}$
9	$R_4 = \{\mathrm{CCAA}\}$	21	$R_4 = \{\mathrm{TCGG}\}$	33	$R_4 = \{\mathrm{AGCC}\}$
10	$R_4 = \{\mathrm{CGAA}\}$	22	$R_4 = \{\mathrm{TTGG}\}$	34	$R_4 = \{\mathrm{ATCC}\}$
11	$R_4 = \{\mathrm{CTAA}\}$	23	$R_4 = \{\mathrm{TAGG}\}$	35	$R_4 = \{\mathrm{AACC}\}$

Table 1: Bijection between the enumeration of a collection of pseudopartition and the set R_4.

n	pseudopartition	total number of codewords
16	$L_1 = \{\mathrm{T}\}$	$18,749,432$
	$L_1 = \{\mathrm{A}\}$	$17,993,206$
	$L_1 = \{\mathrm{G}\}$	$14,808,520$
	$L_1 = \{\mathrm{C}\}$	$15,330,152$
17	$L_1 = \{\mathrm{T}\}$	$114,203,390$
	$L_1 = \{\mathrm{A}\}$	$109,957,507$
	$L_1 = \{\mathrm{G}\}$	$90,135,211$
	$L_1 = \{\mathrm{C}\}$	$92,099,880$
18	$L_1 = \{\mathrm{T}\}$	$602,846,334$
	$L_1 = \{\mathrm{A}\}$	$584,371,792$
	$L_1 = \{\mathrm{G}\}$	$485,483,066$
	$L_1 = \{\mathrm{C}\}$	$494,068,828$
19	$L_1 = \{\mathrm{T}\}$	$2,863,933,049$
	$L_1 = \{\mathrm{A}\}$	$2,795,425,423$
	$L_1 = \{\mathrm{G}\}$	$2,401,778,337$
	$L_1 = \{\mathrm{C}\}$	$2,422,638,763$
20	$L_1 = \{\mathrm{T}\}$	$12,459,558,385$
	$L_1 = \{\mathrm{A}\}$	$12,241,672,008$
	$L_1 = \{\mathrm{G}\}$	$10,971,136,102$
	$L_1 = \{\mathrm{C}\}$	$11,035,878,720$
21	$L_1 = \{\mathrm{T}\}$	$50,713,490,969$
	$L_1 = \{\mathrm{A}\}$	$50,147,985,788$
	$L_1 = \{\mathrm{G}\}$	$47,157,222,648$
	$L_1 = \{\mathrm{C}\}$	$47,313,926,922$
22	$L_1 = \{\mathrm{T}\}$	$196,155,156,505$
	$L_1 = \{\mathrm{A}\}$	$195,454,115,500$
	$L_1 = \{\mathrm{G}\}$	$193,189,409,823$
	$L_1 = \{\mathrm{C}\}$	$193,115,531,186$

Table 2: The number of codewords in a non-overlapping code having a melting temperature from 50 °C to 62 °C for the different choices of the collection of the pseudopartitions with $L_2 = R_3 = \cdots = R_{n-1} = \emptyset$.

Table 3: The number of codewords in a non-overlapping code having a melting temperature from 50 °C to 62 °C divided into intervals of 2 °C for the different choices of the collection of the pseudopartitions with $L_2 = R_3 = \cdots = R_{n-1} = \emptyset$.

n	pseudopartition	50 °C to 52 °C	52 °C to 54 °C	54 °C to 56 °C	56 °C to 58 °C	58 °C to 60 °C	60 °C to 62 °C
16	$L_1 = \{\mathrm{T}\}$	7,929,319	5,241,461	3,215,031	1,479,254	686,593	197,774
	$L_1 = \{\mathrm{A}\}$	7,612,090	4,979,719	3,169,864	1,416,939	617,150	197,444
	$L_1 = \{\mathrm{G}\}$	6,544,007	4,181,070	2,336,860	1,105,024	478,298	163,261
	$L_1 = \{\mathrm{C}\}$	6,724,940	4,277,252	2,450,282	1,178,874	522,463	176,341
17	$L_1 = \{\mathrm{T}\}$	40,787,193	31,238,359	22,245,133	11,575,399	5,809,697	2,547,609
	$L_1 = \{\mathrm{A}\}$	39,414,309	30,234,810	21,206,519	11,117,220	5,556,013	2,428,636
	$L_1 = \{\mathrm{G}\}$	35,405,834	25,345,183	15,719,685	8,151,407	3,959,244	1,553,858
	$L_1 = \{\mathrm{C}\}$	35,639,859	25,933,606	16,091,926	8,559,287	4,176,296	1,698,906
18	$L_1 = \{\mathrm{T}\}$	177,259,777	158,131,198	124,926,348	77,340,638	42,956,167	22,232,206
	$L_1 = \{\mathrm{A}\}$	175,659,104	152,645,396	119,190,172	74,382,600	41,217,629	21,276,891
	$L_1 = \{\mathrm{G}\}$	166,827,966	133,943,794	91,818,160	52,939,667	27,576,211	12,377,268
	$L_1 = \{\mathrm{C}\}$	168,073,984	135,504,955	93,477,651	54,721,761	29,062,012	13,228,465
19	$L_1 = \{\mathrm{T}\}$	683,139,960	698,020,403	610,953,888	444,227,645	271,113,002	156,478,151
	$L_1 = \{\mathrm{A}\}$	687,015,228	682,304,802	588,177,235	429,250,883	259,722,589	148,954,686
	$L_1 = \{\mathrm{G}\}$	715,266,299	634,042,019	482,775,420	309,882,199	173,118,010	86,694,390
	$L_1 = \{\mathrm{C}\}$	708,513,776	639,760,677	486,581,266	316,465,960	180,619,129	90,697,955
20	$L_1 = \{\mathrm{T}\}$	2,368,161,463	2,722,659,675	2,682,829,563	2,209,686,343	1,531,687,572	944,533,769
	$L_1 = \{\mathrm{A}\}$	2,397,364,352	2708043931	2615009124	2160721261	1,461,619,481	898,913,859
	$L_1 = \{\mathrm{G}\}$	2,764,029,836	2,728,635,170	2,303,866,336	1,630,972,791	1,002,996,048	540,635,921
	$L_1 = \{\mathrm{C}\}$	2,736,760,750	2,735,347,625	2,309,283,481	1,657,276,434	1,029,889,032	567,321,398
21	$L_1 = \{\mathrm{T}\}$	7,417,072,870	9,652,426,090	10,731,489,290	9,990,488,351	7,771,169,113	5,150,845,255
	$L_1 = \{\mathrm{A}\}$	7,576,907,680	9,782,481,523	10,545,665,742	9,814,174,796	7,510,872,502	4,917,883,545
	$L_1 = \{\mathrm{G}\}$	9,798,912,272	10,870,355,833	10,172,689,825	7,944,869,563	5,341,832,530	3,028,562,625
	$L_1 = \{\mathrm{C}\}$	9,740,191,809	10,790,585,197	10,140,088,717	8,050,246,629	5,454,714,504	3,138,080,066
22	$L_1 = \{\mathrm{T}\}$	21,230,911,945	31,676,254,015	39,421,722,322	41,271,173,242	36,027,005,691	26,528,089,290
	$L_1 = \{\mathbf{A}\}$	22,243,220,612	32,397,787,910	39,335,130,810	40,642,462,075	35,197,552,398	25,637,961,695
	$L_1 = \{\mathrm{G}\}$	32,008,480,412	40,364,274,472	41,875,923,917	36,217,719,498	26,428,388,595	16,294,622,929
	$L_1 = \{\mathrm{C}\}$	31,620,495,253	39,860,246,873	41,693,577,002	36,406,524,598	26,799,366,986	16,735,320,474

n	pseudopartition	words with an appropriate prefix	ratio to more stable words	ratio to all words
17	$L_1 = \{\mathrm{T}\}$	$147,977$	$16.17\,\%$	$0.05\,\%$
	$L_1 = \{\mathrm{A}\}$	$2,273,17$	$23.81\,\%$	$0.07\,\%$
	$L_1 = \{\mathrm{G}\}$	$496,627$	$77.77\,\%$	$0.16\,\%$
	$L_1 = \{\mathrm{C}\}$	$582,385$	$77.58\,\%$	$0.19\,\%$
18	$L_1 = \{\mathrm{T}\}$	$5,777,765$	$54.12\,\%$	$0.48\,\%$
	$L_1 = \{\mathrm{A}\}$	$5,479,539$	$53.80\,\%$	$0.46\,\%$
	$L_1 = \{\mathrm{G}\}$	$5,877,443$	$93.88\,\%$	$0.49\,\%$
	$L_1 = \{\mathrm{C}\}$	$6,633,821$	$94.54\,\%$	$0.56\,\%$
19	$L_1 = \{\mathrm{T}\}$	$78,452,133$	$82.35\,\%$	$1.73\,\%$
	$L_1 = \{\mathrm{A}\}$	$74,047,830$	$81.73\,\%$	$1.64\,\%$
	$L_1 = \{\mathrm{G}\}$	$46,422,660$	$96.72\,\%$	$1.03\,\%$
	$L_1 = \{\mathrm{C}\}$	$515,843,86$	$96.89\,\%$	$1.14\,\%$
20	$L_1 = \{\mathrm{T}\}$	$673,479,776$	$91.12\,\%$	$3.93\,\%$
	$L_1 = \{\mathrm{A}\}$	$641,311,242$	$90.83\,\%$	$3.74\,\%$
	$L_1 = \{\mathrm{G}\}$	$339,121,624$	$98.30\,\%$	$1.98\,\%$
	$L_1 = \{\mathrm{C}\}$	$365,278,380$	$98.35\,\%$	$2.13\,\%$
21	$L_1 = \{\mathrm{T}\}$	$4,693,886,054$	$94.99\,\%$	$7.22\,\%$
	$L_1 = \{\mathrm{A}\}$	$4,460,609,633$	$94.79\,\%$	$6.86\,\%$
	$L_1 = \{\mathrm{G}\}$	$2,277,020,366$	$99.03\,\%$	$3.50\,\%$
	$L_1 = \{\mathrm{C}\}$	$2,422,141,428$	$99.05\,\%$	$3.73\,\%$
22	$L_1 = \{\mathrm{T}\}$	$28,397,301,703$	$96.80\,\%$	$11.5\,\%$
	$L_1 = \{\mathrm{A}\}$	$26,945,212,692$	$96.65\,\%$	$10.93\,\%$
	$L_1 = \{\mathrm{G}\}$	$13,644,103,059$	$99.38\,\%$	$5.54\,\%$
	$L_1 = \{\mathrm{C}\}$	$14,416,839,648$	$99.40\,\%$	$5.85\,\%$

Table 4: The number of codewords with melting temperature over 62 °C that have a 16-letter prefix with a melting temperature at most 62 °C, and the ratio to the number of all codewords with melting temperature over 62 °C for the different choices of the collection of pseudopartitions with $L_2 = R_3 = \cdots = R_{n-1} = \emptyset$.

Table 5: The number of codewords in a non-overlapping code of length 16 having a melting temperature from 50 °C to 62 °C divided into intervals of 2 °C for the different choices of the collection of the pseudopartitions from Table 1.

	50 °C to 52 °C	52 °C to 54 °C	54 °C to 56 °C	56 °C to 58 °C	58 °C to 60 °C	60 °C to 62 °C	total
0	7,722,524	5,106,458	3,168,072	1,458,534	682,742	196,969	18,335,299
1	7,556,229	5,018,746	3,071,072	1,424,329	663,344	193,923	17,927,643
2	7,556,229	5,018,746	3,071,072	1,424,329	663,344	193,923	17,927,643
3	7,549,541	4,961,153	3,048,114	1,404,572	654,031	191,847	17,809,258
4	7,412,490	4,863,018	2,912,960	1,297,729	603,470	165,674	17,255,341
5	7,438,741	4,816,902	2,817,209	1,259,818	555,230	153,885	17,041,785
6	7,552,246	5,002,918	3,061,849	1,420,992	663,840	193,011	17,894,856
7	7,427,737	4,826,495	2,830,669	1,274,988	561,601	156,939	17,078,429
8	7,397,724	4,864,634	2,875,837	1,289,686	590,988	163,548	17,182,417
9	7,102,524	4,599,536	2,817,278	1,228,573	518,268	160,155	16,426,334
10	7,100,731	4,586,038	2,787,645	1,218,399	518,461	156,740	16,368,014
11	7,257,784	4,798,650	3,045,872	1,374,444	603,587	193,793	17,274,130
12	7,146,245	4,531,994	2,763,849	1,189,110	475,706	149,979	16,256,883
13	7,098,350	4,603,077	2,867,683	1,235,155	549,633	165,983	16,519,881
14	7,239,857	4,778,142	3,033,645	1,369,942	602,886	193,694	17,218,166
15	7,243,748	4,740,313	3,017,734	1,360,971	595,389	193,548	17,151,703
16	7,243,748	4,740,313	3,017,734	1,360,971	595,389	193,548	17,151,703
17	7,431,518	4,879,894	3,133,180	1,405,900	614,963	197,309	17,662,764
18	6,398,402	4,139,155	2,383,985	1,162,696	513,911	190,413	14,788,562
19	6,583,044	4,230,949	2,404,162	1,140,786	498,722	170,239	15,027,902
20	6,583,044	4,230,949	2,404,162	1,140,786	498,722	170,239	15,027,902
21	6,591,066	4,239,087	2,424,861	1,153,147	500,740	173,955	15,082,856
22	6,619,756	4,261,000	2,382,076	1,124,876	487,033	165,146	15,039,887
23	6,639,010	4,226,506	2,367,160	1,115,442	481,505	164,026	14,993,649
24	6,570,345	4,231,513	2,429,440	1,151,840	506,852	174,557	15,064,547
25	6,626,204	4,243,724	2,381,203	1,121,657	485,896	164,727	15,023,411
26	6,630,035	4,243,388	2,379,471	1,121,050	485,597	164,817	15,024,358
27	6,565,301	4,224,534	2,489,424	1,228,990	567,754	203,300	15,279,303
28	6,766,156	4,331,903	2,515,761	1,216,417	541,993	183,272	15,555,502
29	6,766,156	4,331,903	2,515,761	1,216,417	541,993	183,272	15,555,502
30	6,709,610	4,331,259	2,542,133	1,227,529	559,076	188,782	15,558,389
31	6,811,005	4,344,212	2,493,109	1,196,452	530,062	177,944	15,552,784
32	6,818,950	4,329,401	2,486,947	1,191,192	526,625	177,396	15,530,511
33	6,763,122	4,329,937	2,537,239	1,223,536	551,884	186,812	15,592,530
34	6,817,851	4,330,535	2,490,291	1,193,025	528,357	177,692	15,537,751
35	6,803,018	4,351,248	2,494,549	1,198,148	530,673	178,429	15,556,065

Table 6: The number of codewords in a non-overlapping code of length 17 having a melting temperature from 50 °C to 62 °C divided into intervals of 2 °C for the different choices of the collection of the partitions from Table 1.

	50 °C to 52 °C	52 °C to 54 °C	54 °C to 56 °C	56 °C to 58 °C	58 °C to 60 °C	60 °C to 62 °C	total
0	39,538,467	30,277,649	21,764,995	11,350,372	5,729,525	2,532,593	111,193,601
1	39,177,029	29,972,209	21,221,537	11,102,087	5,585,338	2,462,648	109,520,848
2	39,177,029	29,972,209	21,221,537	11,102,087	5,585,338	2,462,648	109,520,848
3	39,256,660	29,770,471	21,094,715	11,012,024	5,490,545	2,442,592	109,067,007
4	39,162,459	29,653,226	20,727,301	10,404,478	5,263,219	2,187,478	107,398,161
5	39,558,383	29,667,591	20,356,194	10,376,397	4,947,681	2,090,648	106,996,894
6	39,173,719	29,932,110	21,176,750	11,085,597	5,553,696	2,456,074	109,377,946
7	39,435,308	29,720,258	20,405,130	10,359,509	5,050,389	2,091,299	107,061,893
8	39,199,765	29,725,291	20,565,814	10,401,100	5,179,296	2,170,769	107,242,035
9	37,892,584	28,729,188	19,530,218	9,950,835	4,899,453	2,043,740	103,046,018
10	37,998,622	28,714,560	19,429,638	9,951,470	4,840,100	2,008,250	102,942,640
11	37,763,684	29,086,324	20,359,700	10,688,144	5,392,248	2,361,012	105,651,112
12	38,289,655	28,650,916	19,359,198	9,872,884	4,637,493	1,961,415	102,771,561
13	37,788,538	28,620,273	19,720,768	9,981,100	5,018,445	2,099,646	103,228,770
14	37,747,703	29,029,076	20,255,066	10,669,155	5,362,316	2,355,362	105,418,678
15	37,819,297	28,894,587	20,168,024	10,626,955	5,323,056	2,344,237	105,176,156
16	37,819,297	28,894,587	20,168,024	10,626,955	5,323,056	2,344,237	105,176,156
17	38,268,989	29,454,809	20,796,984	10,967,977	5,504,751	2,419,790	107,413,300
18	34,477,908	24,923,527	15,818,625	8,458,002	4,191,569	1,765,180	89,634,811
19	35,328,442	25,547,742	16,086,653	8,424,090	4,111,890	1,639,857	91,138,674
20	35,328,442	25,547,742	16,086,653	8,424,090	4,111,890	1,639,857	91,138,674
21	35,256,378	25,541,075	16,169,163	8,484,498	4,147,564	1,661,513	91,260,191
22	35,677,570	25,812,414	16,049,106	8,331,307	4,053,781	1,580,441	91,504,619
23	35,894,108	25,677,182	15,969,277	8,269,918	3,999,476	1,569,407	91,379,368
24	35,164,242	25,497,080	16,176,629	8,467,271	4,170,396	1,673,714	91,149,332
25	35,740,769	25,753,343	16,043,993	8,301,362	4,040,121	1,578,282	91,457,870
26	35,758,742	25,733,760	16,042,948	8,298,609	4,035,292	1,578,031	91,447,382
27	34,629,393	25,467,980	16,156,652	8,844,845	4,419,722	1,922,130	91,440,722
28	35,556,822	26,163,322	16,452,209	8,842,714	4,329,465	1,782,341	93,126,873
29	35,556,822	26,163,322	16,452,209	8,842,714	4,329,465	1,782,341	93,126,873
30	35,210,251	26,075,116	16,518,663	8,876,732	4,426,984	1,826,365	92,934,111
31	35,971,113	26,357,045	16,420,090	8,717,283	4,255,921	1,724,206	93,445,658
32	36,076,892	26,292,534	16,377,452	8,689,892	4,230,396	1,718,089	93,385,255
33	35,461,313	26,102,342	16,534,526	8,878,894	4,372,152	1,817,532	93,166,759
34	36,060,282	26,298,511	16,395,945	8,694,002	4,243,639	1,720,119	93,412,498
35	35,921,142	26,373,889	16,416,807	8,732,009	4,267,107	1,725,530	93,436,484

Table 7: The number of codewords in a non-overlapping code of length 18 having a melting temperature from 50 °C to 62 °C divided into intervals of 2 °C for the different choices of the collection of the partitions from Table 1.

	50 °C to 52 °C	52 °C to 54 °C	54 °C to 56 °C	56 °C to 58 °C	58 °C to 60 °C	60 °C to 62 °C	total
0	172,049,764	153,060,028	121,639,005	75,544,081	42,101,229	21,978,444	586,372,551
1	172,127,739	152,841,734	119,701,992	74,087,282	41,213,045	21,352,430	581,324,222
2	172,127,739	152,841,734	119,701,992	74,087,282	41,213,045	21,352,430	581,324,222
3	172,811,712	152,271,590	119,219,862	73,855,138	40,698,626	21,130,823	579,987,751
4	173,820,657	153,461,486	119,100,777	71,472,477	39,450,928	19,873,602	577,179,927
5	175,589,833	154,305,009	118,352,910	71,675,754	38,561,659	19,038,432	577,523,597
6	172,202,945	152,633,326	119,483,755	73,967,030	41,192,301	21,276,607	580,755,964
7	175,265,942	154,309,883	118,316,046	71,558,547	38,752,323	19,162,463	577,365,204
8	174,198,201	153,921,435	118,773,159	71,433,223	39,288,000	19,626,476	577,240,494
9	172,862,968	148,440,578	113,021,138	68,639,137	37,432,986	18,564,737	558,961,544
10	173,342,749	148,423,399	112,776,878	68,576,557	37,348,631	18,436,543	558,904,757
11	169,821,806	147,545,326	114,605,210	71,256,045	39,885,908	20,581,554	563,695,849
12	174,523,601	148,802,782	112,766,142	68,748,654	36,416,922	17,941,285	559,199,386
13	172,253,965	147,683,000	113,430,706	68,629,671	3,7775,396	19,067,154	558,839,892
14	170,089,850	147,388,937	114,239,236	71,186,166	39,730,792	20,475,884	563,110,865
15	170,718,095	147,022,983	113,921,016	71,091,850	39,355,639	20,367,139	562,476,722
16	170,718,095	147,022,983	113,921,016	71,091,850	39,355,639	20,367,139	562,476,722
17	170,360,478	148,242,139	116,180,247	73,006,107	40,583,353	21,082,861	569,455,185
18	162,202,098	131,146,523	91,580,053	54,197,948	28,911,928	13,653,737	481,692,287
19	165,186,174	134,233,948	93,502,806	54,567,373	28,630,830	13,061,751	489,182,882
20	165,186,174	13,4233,948	93,502,806	54,567,373	28,630,830	13,061,751	489,182,882
21	164,604,749	134,108,686	93,723,513	54,824,402	28,840,563	13,198,241	489,300,154
22	167,203,177	136,064,160	93,813,066	54,192,358	28,360,471	12,682,649	492,315,881
23	168,664,007	135,831,139	93,494,118	53,938,704	27,957,196	12,535,302	492,420,466
24	164,339,589	133,877,750	93,648,655	54,736,039	28,908,944	13,276,566	488,787,543
25	167,580,332	135,921,686	93,787,304	54,086,267	28,226,603	12,653,050	492,255,242
26	167,663,970	135,889,220	93,809,024	54,045,204	28,207,947	12,651,591	492,266,956
27	163,137,504	132,511,248	93,080,852	55,836,791	30,362,231	14,568,541	489,497,167
28	166,500,585	135,796,704	95,141,179	56,400,069	30,137,906	13,895,475	497,871,918
29	166,500,585	135,796,704	95,141,179	56,400,069	30,137,906	13,895,475	497,871,918
30	164,920,750	135,134,240	95,040,836	56,403,357	30,595,243	14,235,014	496,329,440
31	168,790,886	137,476,387	95,460,762	55,901,996	29,732,508	13,511,696	500,874,235
32	169,596,219	137,387,544	95,293,055	55,776,789	29,527,838	13,438,221	501,019,666
33	165,800,275	135,494,748	95,307,785	56,506,792	30,366,538	14,114,781	497,590,919
34	169,295,915	137,391,637	9,537,4220	55,817,151	29,604,144	13,467,928	500,950,995
35	168,563,275	137,488,766	95,432,428	55,941,445	29,805,530	13,533,527	500,764,971