

Supporting Information for

Local and Remote Conformational Switching in 2-Fluoro-4-Hydroxy Benzoic Acid

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Table S1. Geometry of conformer **A1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.195067	-0.120805	0.000003
C	-1.444508	1.050103	-0.000005
C	-0.065806	0.966306	-0.000009
C	0.613295	-0.257527	-0.000005
C	-0.176134	-1.414043	-0.000004
C	-1.554801	-1.362598	0.000001
H	-1.928175	2.015225	-0.000010
H	0.338127	-2.364088	-0.000005
H	-2.136617	-2.275739	0.000007
C	2.082881	-0.445444	0.000000
O	2.619545	-1.529622	-0.000017
O	2.794669	0.701671	0.000033
H	3.725498	0.434414	0.000036
F	0.605253	2.124492	-0.000017
O	-3.545388	0.007610	0.000012
H	-3.955878	-0.863451	0.000015

Table S2. Geometry of conformer **A2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.186263	-0.167431	0.000004
C	-1.481146	1.031714	-0.000001
C	-0.100987	1.000212	-0.000004
C	0.626085	-0.198081	-0.000001
C	-0.117956	-1.384784	0.000004
C	-1.499261	-1.383059	0.000007
H	-2.000885	1.977870	-0.000004
H	0.414151	-2.323294	0.000007
H	-2.046095	-2.317569	0.000011
C	2.104427	-0.215198	-0.000003
O	2.833980	0.743968	-0.000005
O	2.599816	-1.485480	0.000002
H	3.562504	-1.389709	0.000002
F	0.530261	2.176151	-0.000009
O	-3.540489	-0.090547	0.000006
H	-3.917876	-0.976437	0.000010

Table S3. Geometry of conformer **B1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.194251	-0.158020	-0.000001
C	-1.455917	1.021280	-0.000002
C	-0.073406	0.955725	-0.000002
C	0.616564	-0.258200	-0.000001
C	-0.163322	-1.424843	0.000000
C	-1.540401	-1.392398	0.000000
H	-1.932714	1.992474	-0.000003
H	0.362458	-2.368561	0.000000
H	-2.126051	-2.299778	0.000001
C	2.088044	-0.428408	-0.000001
O	2.638109	-1.505508	0.000002
O	2.785934	0.727933	0.000007
H	3.719843	0.471678	0.000011
F	0.579142	2.125201	-0.000003
O	-3.550563	-0.166093	-0.000001
H	-3.887529	0.735905	-0.000001

Table S4. Geometry of conformer **B2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.184387	-0.204872	0.000002
C	-1.492035	1.002283	0.000001
C	-0.108797	0.989389	0.000000
C	0.629035	-0.198406	0.000000
C	-0.104910	-1.394926	0.000001
C	-1.483847	-1.412410	0.000002
H	-2.005266	1.954693	0.000001
H	0.439030	-2.326670	0.000001
H	-2.034567	-2.341415	0.000002
C	2.107404	-0.197571	0.000000
O	2.824789	0.771081	-0.000002
O	2.617863	-1.461108	-0.000004
H	3.579419	-1.354431	-0.000006
F	0.503463	2.176033	-0.000001
O	-3.539395	-0.265075	0.000002
H	-3.910622	0.623406	0.000002

Table S5. Geometry of conformer **C1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.190585	-0.150256	-0.000003
C	-1.444828	1.025973	-0.000001
C	-0.067883	0.932920	0.000001
C	0.626003	-0.271802	0.000000
C	-0.163018	-1.431478	-0.000002
C	-1.540597	-1.386756	-0.000003
H	-1.911063	2.001935	0.000000
H	0.358172	-2.377806	-0.000002
H	-2.132096	-2.290457	-0.000005
C	2.113806	-0.446868	0.000002
O	2.626609	-1.534386	0.000002
O	2.881672	0.662272	0.000004
H	2.337613	1.460317	0.000004
F	0.614926	2.113932	0.000003
O	-3.545968	-0.152764	-0.000004
H	-3.882852	0.749249	-0.000004

Table S6. Geometry of conformer **C2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.177944	-0.187361	-0.022141
C	-1.471217	1.006057	0.101344
C	-0.088746	0.977099	0.086530
C	0.635530	-0.210205	-0.027009
C	-0.109379	-1.391380	-0.142813
C	-1.491136	-1.395051	-0.147964
H	-1.974075	1.957784	0.210724
H	0.410950	-2.331476	-0.273085
H	-2.050913	-2.312096	-0.256845
C	2.127153	-0.206680	-0.089008
O	2.786141	0.650821	-0.602730
O	2.736773	-1.291822	0.468925
H	2.101018	-1.812044	0.973143
F	0.550165	2.142797	0.223103
O	-3.533795	-0.233594	-0.025028
H	-3.896986	0.654554	0.055172

Table S7. Geometry of conformer **C2*** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.177944	-0.187361	-0.022141
C	1.471217	1.006057	0.101344
C	0.088746	0.977099	0.086530
C	-0.635530	-0.210205	-0.027009
C	0.109379	-1.391380	-0.142813
C	1.491136	-1.395051	-0.147964
H	1.974075	1.957784	0.210724
H	-0.410950	-2.331476	-0.273085
H	2.050913	-2.312096	-0.256845
C	-2.127153	-0.206680	-0.089008
O	-2.786141	0.650821	-0.602730
O	-2.736773	-1.291822	0.468925
H	-2.101018	-1.812044	0.973143
F	-0.550165	2.142797	0.223103
O	3.533795	-0.233594	-0.025028
H	3.896986	0.654554	0.055172

Table S8. Geometry of conformer **D1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.19110	-0.11407	0.00000
C	-1.43280	1.05375	0.00000
C	-0.06036	0.94270	0.00000
C	0.62252	-0.27218	0.00000
C	-0.17597	-1.42142	0.00000
C	-1.55519	-1.35783	0.00000
H	-1.90663	2.02359	0.00000
H	0.33374	-2.37401	0.00000
H	-2.14260	-2.26742	-0.00001
C	2.10833	-0.46426	0.00000
O	2.60854	-1.55797	0.00001
O	2.88812	0.63572	-0.00001
H	2.35248	1.43974	-0.00001
F	0.64114	2.11203	0.00000
O	-3.53939	0.02390	0.00000
H	-3.95794	-0.84344	0.00000

Table S9. Geometry of conformer **D2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.179264	-0.151861	0.020311
C	-1.460097	1.033754	-0.105509
C	-0.081213	0.986690	-0.090383
C	0.632198	-0.210749	0.025403
C	-0.121643	-1.382233	0.142394
C	-1.506154	-1.367023	0.147874
H	-1.970547	1.978847	-0.214292
H	0.387919	-2.327993	0.273513
H	-2.061281	-2.289585	0.260000
C	2.123802	-0.224225	0.092704
O	2.789901	0.616399	0.624129
O	2.723220	-1.307566	-0.480756
H	2.083908	-1.807527	-1.000705
F	0.577229	2.140801	-0.228201
O	-3.532777	-0.058105	0.010684
H	-3.923583	-0.932895	0.106085

Table S10. Geometry of conformer **D2*** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	-2.179264	-0.151858	0.020197
C	-1.460091	1.033737	-0.105766
C	-0.081208	0.986677	-0.090551
C	0.632195	-0.210745	0.025468
C	-0.121652	-1.382212	0.142595
C	-1.506162	-1.367001	0.147982
H	-1.970535	1.978814	-0.214726
H	0.387904	-2.327951	0.273894
H	-2.061300	-2.289544	0.260218
C	2.123794	-0.224208	0.092877
O	2.789854	0.616505	0.624211
O	2.723257	-1.307647	-0.480356
H	2.083983	-1.807693	-1.000271
F	0.577244	2.140765	-0.228500
O	-3.532778	-0.058104	0.010469
H	-3.923588	-0.932880	0.105984

Table S11. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **A1** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3810.6	3626.5	86.9	71.5
2(1)	3745.2	3564.0	90.7	72.5
3(1)	3214.3	3087.5	0.1	0.7
4(1)	3206.7	3071.4	2.3	3.9
5(1)	3166.5	3031.5	9.5	11.1
6(1)	1775.4	1746.2	361.5	328.7
7(1)	1662.3	1618.4	309.7	169.9
8(1)	1624.1	1586.9	71.2	51.7
9(1)	1537.9	1498.2	17.0	11.0
10(1)	1495.5	1459.6	156.5	113.4
11(1)	1389.0	1369.1	69.3	48.8
12(1)	1366.3	1335.4	25.5	46.4
13(1)	1330.9	1298.8	187.8	120.6
14(1)	1273.6	1246.5	41.1	11.4
15(1)	1226.0	1206.4	40.2	21.7
16(1)	1210.1	1180.0	159.8	98.4
17(1)	1172.6	1146.3	50.1	37.6
18(1)	1137.7	1115.6	371.0	212.1
19(1)	1107.3	1084.7	6.5	26.2
20(1)	997.0	975.2	1.3	0.8
21(1)	991.3	976.6	44.4	29.2
22(1)	878.8	872.8	33.8	28.8
23(1)	840.4	829.1	4.1	1.8
24(1)	786.2	775.6	53.0	37.2
25(1)	758.3	746.1	6.1	6.2
26(1)	744.1	731.7	11.5	7.8
27(1)	712.2	698.9	33.7	17.1
28(1)	654.3	643.1	0.0	0.0
29(1)	613.8	608.4	29.5	27.8
30(1)	594.8	573.7	63.2	69.4
31(1)	587.4	580.9	46.5	45.1
32(1)	530.2	527.7	4.1	2.7
33(1)	473.8	466.2	3.7	6.5
34(1)	406.2	404.6	5.6	4.4
35(1)	395.6	363.1	99.4	95.6
36(1)	356.4	354.7	0.8	0.6

37(1)	322.3	320.9	1.3	1.0
38(1)	293.5	289.0	1.3	1.7
39(1)	225.0	221.8	1.7	1.7
40(1)	202.0	199.1	4.2	4.2
41(1)	100.0	98.3	0.0	0.0
42(1)	45.8	30.1	2.8	2.7
1(2)	7621.3	7085.6		6.2
2(2)	7490.4	6963.8		5.8
3(2)	6428.7	6070.8		0.7
4(2)	6413.4	6056.5		0.5
5(2)	6333.0	5969.7		0.7
6(2)	3550.8	3474.6		3.2
7(2)	3324.6	3236.2		0.4
8(2)	3248.1	3168.5		1.0
9(2)	3075.8	2994.2		0.3
10(2)	2991.0	2918.0		0.1
11(2)	2778.0	2699.5		0.3
12(2)	2732.6	2671.1		1.3
13(2)	2661.8	2593.7		1.0
14(2)	2547.2	2489.1		0.2
15(2)	2452.0	2396.1		1.4
16(2)	2420.1	2356.6		0.8
17(2)	2345.2	2291.8		0.1
18(2)	2275.4	2229.9		0.8
19(2)	2214.6	2166.7		0.7
20(2)	1994.0	1946.2		3.4
21(2)	1982.5	1952.1		0.5
22(2)	1757.5	1748.3		1.9
23(2)	1680.9	1658.4		5.8
24(2)	1572.3	1551.9		0.1
25(2)	1516.6	1491.2		0.3
26(2)	1488.1	1463.2		1.1
27(2)	1424.5	1399.6		0.4
28(2)	1308.6	1286.2		1.3
29(2)	1227.7	1217.7		20.7
30(2)	1189.6	1134.5		6.1
31(2)	1174.9	1161.4		2.4
32(2)	1060.4	1055.1		0.2
33(2)	947.7	932.7		0.4
34(2)	812.4	809.3		0.1

35(2)		791.1	702.2	9.9
36(2)		712.8	709.3	0.2
37(2)		644.6	642.0	0.1
38(2)		586.9	578.2	0.4
39(2)		450.0	443.5	0.3
40(2)		404.0	395.5	0.5
41(2)		200.0	195.1	0.0
42(2)		91.5	60.5	0.0
2(1)	1(1)	7555.8	7190.5	0.0
3(1)	1(1)	7025.0	6715.6	0.0
3(1)	2(1)	6959.5	6653.3	0.0
4(1)	1(1)	7017.3	6706.3	0.0
4(1)	2(1)	6951.9	6644.0	0.0
4(1)	3(1)	6421.1	6166.0	0.0
5(1)	1(1)	6977.1	6664.4	0.0
5(1)	2(1)	6911.7	6603.4	0.0
5(1)	3(1)	6380.8	6128.4	0.0
5(1)	4(1)	6373.2	6108.4	0.1
6(1)	1(1)	5586.0	5372.6	0.0
6(1)	2(1)	5520.6	5309.0	1.0
6(1)	3(1)	4989.8	4835.5	0.0
6(1)	4(1)	4982.1	4826.4	0.1
6(1)	5(1)	4941.9	4785.7	0.0
7(1)	1(1)	5472.9	5244.5	0.0
7(1)	2(1)	5407.5	5183.2	0.0
7(1)	3(1)	4876.6	4711.3	0.0
7(1)	4(1)	4869.0	4701.5	0.0
7(1)	5(1)	4828.8	4658.7	0.3
7(1)	6(1)	3437.7	3364.9	0.2
8(1)	1(1)	5434.7	5212.0	0.6
8(1)	2(1)	5369.3	5151.0	0.0
8(1)	3(1)	4838.4	4674.3	0.2
8(1)	4(1)	4830.8	4666.0	0.2
8(1)	5(1)	4790.5	4627.8	0.1
8(1)	6(1)	3399.5	3332.3	0.1
8(1)	7(1)	3286.4	3204.4	0.5
9(1)	1(1)	5348.5	5125.7	0.0
9(1)	2(1)	5283.1	5064.2	0.0
9(1)	3(1)	4752.2	4590.2	0.1
9(1)	4(1)	4744.6	4582.3	0.0

9(1)	5(1)	4704.4	4540.4	0.1
9(1)	6(1)	3313.3	3246.4	0.2
9(1)	7(1)	3200.2	3128.9	0.1
9(1)	8(1)	3162.0	3084.9	0.1
10(1)	1(1)	5306.1	5085.7	0.6
10(1)	2(1)	5240.7	5024.8	0.0
10(1)	3(1)	4709.8	4555.0	0.2
10(1)	4(1)	4702.2	4543.0	0.0
10(1)	5(1)	4662.0	4503.4	0.1
10(1)	6(1)	3270.9	3207.1	0.0
10(1)	7(1)	3157.8	3067.6	0.0
10(1)	8(1)	3119.6	3042.7	0.3
10(1)	9(1)	3033.4	2957.5	0.1
11(1)	1(1)	5199.6	4979.0	0.2
11(1)	2(1)	5134.2	4905.5	0.8
11(1)	3(1)	4603.4	4442.4	0.0
11(1)	4(1)	4595.7	4433.6	0.0
11(1)	5(1)	4555.5	4391.8	0.0
11(1)	6(1)	3164.4	3095.9	0.6
11(1)	7(1)	3051.3	2970.4	0.3
11(1)	8(1)	3013.1	2939.0	0.1
11(1)	9(1)	2926.9	2851.5	0.4
11(1)	10(1)	2884.5	2813.0	0.3
12(1)	1(1)	5177.0	4962.2	0.0
12(1)	2(1)	5111.5	4900.3	0.0
12(1)	3(1)	4580.7	4428.0	0.1
12(1)	4(1)	4573.0	4417.7	0.0
12(1)	5(1)	4532.8	4381.5	0.0
12(1)	6(1)	3141.7	3083.0	0.1
12(1)	7(1)	3028.6	2944.2	0.1
12(1)	8(1)	2990.4	2916.4	0.1
12(1)	9(1)	2904.2	2832.3	0.7
12(1)	10(1)	2861.8	2793.2	1.5
12(1)	11(1)	2755.3	2688.7	0.7
13(1)	1(1)	5141.5	4926.3	0.6
13(1)	2(1)	5076.1	4861.8	0.1
13(1)	3(1)	4545.2	4387.7	0.2
13(1)	4(1)	4537.6	4377.6	0.1
13(1)	5(1)	4497.4	4337.9	0.1
13(1)	6(1)	3106.3	3045.0	0.1

13(1)	7(1)	2993.2	2913.9	0.2
13(1)	8(1)	2955.0	2883.5	0.1
13(1)	9(1)	2868.8	2795.3	0.7
13(1)	10(1)	2826.4	2756.4	0.1
13(1)	11(1)	2719.9	2650.5	0.4
13(1)	12(1)	2697.2	2634.3	0.8
14(1)	1(1)	5084.2	4871.1	0.1
14(1)	2(1)	5018.8	4808.5	0.1
14(1)	3(1)	4488.0	4331.8	0.1
14(1)	4(1)	4480.3	4318.4	0.1
14(1)	5(1)	4440.1	4284.4	0.0
14(1)	6(1)	3049.0	2991.2	0.1
14(1)	7(1)	2935.9	2860.9	0.1
14(1)	8(1)	2897.7	2831.0	0.1
14(1)	9(1)	2811.5	2743.1	0.0
14(1)	10(1)	2769.1	2704.4	0.1
14(1)	11(1)	2662.6	2597.6	0.1
14(1)	12(1)	2639.9	2581.1	0.4
14(1)	13(1)	2604.5	2542.8	0.1
15(1)	1(1)	5036.6	4819.1	0.6
15(1)	2(1)	4971.2	4762.5	0.1
15(1)	3(1)	4440.3	4289.7	0.0
15(1)	4(1)	4432.7	4276.0	0.1
15(1)	5(1)	4392.5	4238.8	0.0
15(1)	6(1)	3001.4	2945.4	0.1
15(1)	7(1)	2888.3	2816.7	0.1
15(1)	8(1)	2850.1	2783.5	0.0
15(1)	9(1)	2763.9	2698.0	0.1
15(1)	10(1)	2721.5	2657.3	0.0
15(1)	11(1)	2615.0	2551.1	0.4
15(1)	12(1)	2592.3	2534.6	0.6
15(1)	13(1)	2556.9	2494.9	0.7
15(1)	14(1)	2499.6	2443.5	0.1
16(1)	1(1)	5020.7	4805.2	0.1
16(1)	2(1)	4955.3	4737.2	0.3
16(1)	3(1)	4424.4	4267.9	0.0
16(1)	4(1)	4416.8	4259.2	0.0
16(1)	5(1)	4376.6	4216.0	0.0
16(1)	6(1)	2985.5	2923.9	0.3
16(1)	7(1)	2872.4	2796.8	0.1

16(1)	8(1)	2834.1	2765.8	0.1
16(1)	9(1)	2748.0	2679.0	0.2
16(1)	10(1)	2705.6	2639.3	0.0
16(1)	11(1)	2599.1	2527.1	0.2
16(1)	12(1)	2576.4	2514.8	0.3
16(1)	13(1)	2541.0	2477.1	0.2
16(1)	14(1)	2483.7	2424.5	0.6
16(1)	15(1)	2436.1	2377.5	1.2
17(1)	1(1)	4983.2	4772.3	0.2
17(1)	2(1)	4917.8	4710.7	0.0
17(1)	3(1)	4386.9	4227.3	0.1
17(1)	4(1)	4379.3	4224.8	0.0
17(1)	5(1)	4339.1	4184.5	0.0
17(1)	6(1)	2948.0	2893.0	0.0
17(1)	7(1)	2834.9	2762.8	0.1
17(1)	8(1)	2796.7	2731.6	0.1
17(1)	9(1)	2710.5	2645.1	0.8
17(1)	10(1)	2668.1	2604.5	0.3
17(1)	11(1)	2561.6	2499.3	0.1
17(1)	12(1)	2538.9	2482.3	0.1
17(1)	13(1)	2503.5	2442.1	1.1
17(1)	14(1)	2446.2	2391.2	0.8
17(1)	15(1)	2398.6	2343.1	0.4
17(1)	16(1)	2382.7	2325.6	0.4
18(1)	1(1)	4948.3	4741.5	0.3
18(1)	2(1)	4882.9	4678.6	0.1
18(1)	3(1)	4352.0	4203.2	0.1
18(1)	4(1)	4344.4	4193.6	0.1
18(1)	5(1)	4304.2	4150.2	0.0
18(1)	6(1)	2913.1	2860.6	0.2
18(1)	7(1)	2800.0	2731.6	0.6
18(1)	8(1)	2761.8	2700.3	0.0
18(1)	9(1)	2675.6	2613.7	0.0
18(1)	10(1)	2633.2	2575.0	0.7
18(1)	11(1)	2526.7	2464.5	0.3
18(1)	12(1)	2504.0	2450.5	0.1
18(1)	13(1)	2468.6	2412.8	0.4
18(1)	14(1)	2411.3	2360.2	0.8
18(1)	15(1)	2363.7	2313.9	0.3
18(1)	16(1)	2347.8	2292.6	0.3

18(1)	17(1)	2310.3	2261.8	0.1
19(1)	1(1)	4917.9	4711.1	0.0
19(1)	2(1)	4852.5	4649.5	0.0
19(1)	3(1)	4321.6	4173.3	0.2
19(1)	4(1)	4314.0	4163.3	0.1
19(1)	5(1)	4273.8	4123.6	0.1
19(1)	6(1)	2882.7	2829.3	0.4
19(1)	7(1)	2769.6	2701.4	0.0
19(1)	8(1)	2731.3	2669.3	0.0
19(1)	9(1)	2645.2	2583.6	0.1
19(1)	10(1)	2602.8	2544.1	0.3
19(1)	11(1)	2496.3	2432.7	1.0
19(1)	12(1)	2473.6	2419.6	0.0
19(1)	13(1)	2438.2	2382.5	0.7
19(1)	14(1)	2380.9	2329.5	0.1
19(1)	15(1)	2333.3	2283.4	0.1
19(1)	16(1)	2317.4	2262.4	0.6
19(1)	17(1)	2279.9	2231.1	0.2
19(1)	18(1)	2245.0	2197.4	0.5
20(1)	1(1)	4807.6	4601.3	0.0
20(1)	2(1)	4742.2	4539.1	0.0
20(1)	3(1)	4211.3	4064.0	0.0
20(1)	4(1)	4203.7	4040.8	0.0
20(1)	5(1)	4163.5	4010.0	0.0
20(1)	6(1)	2772.4	2721.6	0.0
20(1)	7(1)	2659.3	2593.5	0.0
20(1)	8(1)	2621.1	2561.0	0.0
20(1)	9(1)	2534.9	2474.9	0.0
20(1)	10(1)	2492.5	2436.1	0.0
20(1)	11(1)	2386.0	2327.8	0.0
20(1)	12(1)	2363.3	2311.0	0.0
20(1)	13(1)	2327.9	2274.2	0.0
20(1)	14(1)	2270.6	2219.2	0.0
20(1)	15(1)	2223.0	2175.2	0.0
20(1)	16(1)	2207.1	2154.5	0.0
20(1)	17(1)	2169.6	2121.8	0.0
20(1)	18(1)	2134.7	2090.0	0.0
20(1)	19(1)	2104.3	2059.5	0.0
21(1)	1(1)	4801.9	4603.3	0.0
21(1)	2(1)	4736.5	4540.5	0.0

21(1)	3(1)	4205.6	4063.2	0.1
21(1)	4(1)	4198.0	4054.8	0.0
21(1)	5(1)	4157.7	4014.5	0.4
21(1)	6(1)	2766.7	2722.6	0.0
21(1)	7(1)	2653.6	2593.6	0.0
21(1)	8(1)	2615.3	2559.5	0.0
21(1)	9(1)	2529.2	2475.2	0.5
21(1)	10(1)	2486.8	2435.6	0.1
21(1)	11(1)	2380.3	2329.6	0.0
21(1)	12(1)	2357.6	2312.7	0.4
21(1)	13(1)	2322.2	2273.4	1.0
21(1)	14(1)	2264.9	2221.8	0.1
21(1)	15(1)	2217.2	2175.0	0.1
21(1)	16(1)	2201.3	2156.4	0.1
21(1)	17(1)	2163.9	2122.5	0.2
21(1)	18(1)	2129.0	2091.9	0.3
21(1)	19(1)	2098.5	2060.9	0.2
21(1)	20(1)	1988.3	1951.8	0.0
22(1)	1(1)	4689.4	4498.9	0.0
22(1)	2(1)	4624.0	4436.7	0.0
22(1)	3(1)	4093.1	3947.2	0.0
22(1)	4(1)	4085.5	3952.3	0.0
22(1)	5(1)	4045.3	3911.8	0.0
22(1)	6(1)	2654.2	2619.0	0.0
22(1)	7(1)	2541.1	2489.4	0.0
22(1)	8(1)	2502.8	2458.0	0.0
22(1)	9(1)	2416.7	2372.4	0.0
22(1)	10(1)	2374.3	2331.8	0.0
22(1)	11(1)	2267.8	2226.0	0.0
22(1)	12(1)	2245.1	2209.3	0.0
22(1)	13(1)	2209.7	2170.8	0.0
22(1)	14(1)	2152.4	2119.1	0.0
22(1)	15(1)	2104.8	2071.3	0.0
22(1)	16(1)	2088.8	2052.5	0.0
22(1)	17(1)	2051.4	2020.5	0.0
22(1)	18(1)	2016.5	1988.1	0.0
22(1)	19(1)	1986.1	1956.8	0.0
22(1)	20(1)	1875.8	1849.7	0.5
22(1)	21(1)	1870.0	1849.0	0.0
23(1)	1(1)	4651.1	4454.8	0.0

23(1)	2(1)	4585.6	4392.9	0.0
23(1)	3(1)	4054.8	3918.2	0.0
23(1)	4(1)	4047.2	3907.5	0.0
23(1)	5(1)	4006.9	3859.6	0.0
23(1)	6(1)	2615.9	2574.5	0.0
23(1)	7(1)	2502.7	2446.1	0.0
23(1)	8(1)	2464.5	2414.5	0.0
23(1)	9(1)	2378.3	2327.3	0.0
23(1)	10(1)	2335.9	2289.8	0.0
23(1)	11(1)	2229.5	2179.0	0.0
23(1)	12(1)	2206.8	2166.2	0.0
23(1)	13(1)	2171.3	2128.3	0.0
23(1)	14(1)	2114.1	2074.2	0.0
23(1)	15(1)	2066.4	2028.5	0.0
23(1)	16(1)	2050.5	2007.9	0.0
23(1)	17(1)	2013.0	1975.5	0.0
23(1)	18(1)	1978.1	1945.0	0.0
23(1)	19(1)	1947.7	1912.9	0.0
23(1)	20(1)	1837.4	1803.8	0.8
23(1)	21(1)	1831.7	1805.1	0.0
23(1)	22(1)	1719.2	1703.2	0.8
24(1)	1(1)	4596.8	4401.7	0.0
24(1)	2(1)	4531.4	4339.5	0.0
24(1)	3(1)	4000.5	3863.8	0.0
24(1)	4(1)	3992.9	3853.4	0.0
24(1)	5(1)	3952.6	3811.3	0.0
24(1)	6(1)	2561.6	2520.1	0.0
24(1)	7(1)	2448.5	2394.0	0.0
24(1)	8(1)	2410.2	2361.3	0.0
24(1)	9(1)	2324.1	2275.2	0.0
24(1)	10(1)	2281.7	2236.2	0.0
24(1)	11(1)	2175.2	2125.2	0.0
24(1)	12(1)	2152.5	2111.0	0.0
24(1)	13(1)	2117.1	2073.9	0.0
24(1)	14(1)	2059.8	2021.8	0.0
24(1)	15(1)	2012.1	1976.3	0.0
24(1)	16(1)	1996.2	1953.5	0.0
24(1)	17(1)	1958.8	1920.5	0.0
24(1)	18(1)	1923.9	1890.3	0.0
24(1)	19(1)	1893.4	1859.2	0.0

24(1)	20(1)	1783.2	1750.3	1.1
24(1)	21(1)	1777.4	1751.8	0.0
24(1)	22(1)	1664.9	1649.4	24.5
24(1)	23(1)	1626.6	1605.0	9.3
25(1)	1(1)	4568.9	4372.4	0.0
25(1)	2(1)	4503.5	4309.3	0.0
25(1)	3(1)	3972.6	3835.0	0.0
25(1)	4(1)	3965.0	3825.2	0.1
25(1)	5(1)	3924.8	3785.4	0.0
25(1)	6(1)	2533.7	2491.6	0.1
25(1)	7(1)	2420.6	2364.3	1.0
25(1)	8(1)	2382.3	2331.7	0.5
25(1)	9(1)	2296.2	2245.6	0.1
25(1)	10(1)	2253.8	2205.8	0.3
25(1)	11(1)	2147.3	2098.6	0.1
25(1)	12(1)	2124.6	2081.0	0.2
25(1)	13(1)	2089.2	2044.2	0.4
25(1)	14(1)	2031.9	1990.8	0.3
25(1)	15(1)	1984.3	1945.2	0.3
25(1)	16(1)	1968.4	1925.6	0.5
25(1)	17(1)	1930.9	1892.8	0.3
25(1)	18(1)	1896.0	1860.9	0.9
25(1)	19(1)	1865.6	1828.8	0.5
25(1)	20(1)	1755.3	1720.8	0.0
25(1)	21(1)	1749.5	1722.3	0.4
25(1)	22(1)	1637.1	1618.7	0.0
25(1)	23(1)	1598.7	1574.6	0.0
25(1)	24(1)	1544.4	1521.1	0.0
26(1)	1(1)	4554.7	4358.1	0.0
26(1)	2(1)	4489.3	4293.3	0.1
26(1)	3(1)	3958.4	3820.7	0.0
26(1)	4(1)	3950.8	3811.1	0.1
26(1)	5(1)	3910.6	3771.0	0.1
26(1)	6(1)	2519.5	2476.1	0.1
26(1)	7(1)	2406.4	2349.9	0.0
26(1)	8(1)	2368.1	2317.4	0.1
26(1)	9(1)	2282.0	2230.9	0.4
26(1)	10(1)	2239.6	2192.0	0.0
26(1)	11(1)	2133.1	2084.1	0.6
26(1)	12(1)	2110.4	2068.5	0.0

26(1)	13(1)	2075.0	2029.2	0.3
26(1)	14(1)	2017.7	1977.1	0.1
26(1)	15(1)	1970.1	1931.1	0.0
26(1)	16(1)	1954.1	1910.9	1.9
26(1)	17(1)	1916.7	1878.4	0.8
26(1)	18(1)	1881.8	1846.1	0.3
26(1)	19(1)	1851.3	1815.9	1.0
26(1)	20(1)	1741.1	1706.5	0.0
26(1)	21(1)	1735.3	1708.2	0.0
26(1)	22(1)	1622.8	1604.4	0.0
26(1)	23(1)	1584.5	1560.3	0.0
26(1)	24(1)	1530.2	1506.6	0.0
26(1)	25(1)	1502.3	1477.8	8.1
27(1)	1(1)	4522.9	4325.2	0.0
27(1)	2(1)	4457.4	4263.0	0.1
27(1)	3(1)	3926.6	3786.3	0.0
27(1)	4(1)	3918.9	3778.4	0.0
27(1)	5(1)	3878.7	3737.6	0.0
27(1)	6(1)	2487.6	2444.3	0.0
27(1)	7(1)	2374.5	2316.7	0.0
27(1)	8(1)	2336.3	2284.2	0.0
27(1)	9(1)	2250.1	2197.6	0.0
27(1)	10(1)	2207.7	2158.9	0.0
27(1)	11(1)	2101.2	2053.8	0.0
27(1)	12(1)	2078.6	2034.4	0.0
27(1)	13(1)	2043.1	1998.9	0.0
27(1)	14(1)	1985.8	1942.7	0.0
27(1)	15(1)	1938.2	1897.9	0.0
27(1)	16(1)	1922.3	1876.2	0.0
27(1)	17(1)	1884.8	1845.2	0.0
27(1)	18(1)	1849.9	1812.9	0.0
27(1)	19(1)	1819.5	1782.3	0.0
27(1)	20(1)	1709.2	1675.0	0.1
27(1)	21(1)	1703.5	1674.6	0.0
27(1)	22(1)	1591.0	1572.7	1.3
27(1)	23(1)	1552.7	1529.3	1.3
27(1)	24(1)	1498.4	1476.1	9.5
27(1)	25(1)	1470.5	1444.3	0.0
27(1)	26(1)	1456.3	1430.2	0.0
28(1)	1(1)	4464.9	4269.4	0.0

28(1)	2(1)	4399.5	4207.2	0.1
28(1)	3(1)	3868.6	3731.9	0.0
28(1)	4(1)	3861.0	3722.6	0.0
28(1)	5(1)	3820.8	3680.5	0.0
28(1)	6(1)	2429.7	2389.3	0.0
28(1)	7(1)	2316.6	2262.4	0.0
28(1)	8(1)	2278.3	2228.3	0.0
28(1)	9(1)	2192.2	2142.5	0.0
28(1)	10(1)	2149.8	2102.5	0.0
28(1)	11(1)	2043.3	1997.2	0.0
28(1)	12(1)	2020.6	1979.1	0.0
28(1)	13(1)	1985.2	1941.1	0.0
28(1)	14(1)	1927.9	1889.2	0.0
28(1)	15(1)	1880.3	1843.0	0.0
28(1)	16(1)	1864.4	1822.3	0.0
28(1)	17(1)	1826.9	1789.9	0.0
28(1)	18(1)	1792.0	1760.8	0.0
28(1)	19(1)	1761.6	1727.0	0.0
28(1)	20(1)	1651.3	1616.8	41.6
28(1)	21(1)	1645.5	1618.5	0.0
28(1)	22(1)	1533.0	1520.3	0.6
28(1)	23(1)	1494.7	1472.4	0.6
28(1)	24(1)	1440.4	1419.4	0.3
28(1)	25(1)	1412.6	1388.9	0.0
28(1)	26(1)	1398.3	1374.5	0.0
28(1)	27(1)	1366.5	1341.4	10.6
29(1)	1(1)	4424.5	4235.0	0.0
29(1)	2(1)	4359.0	4172.0	0.0
29(1)	3(1)	3828.2	3697.3	0.1
29(1)	4(1)	3820.6	3688.1	0.0
29(1)	5(1)	3780.3	3647.6	0.0
29(1)	6(1)	2389.3	2352.0	0.0
29(1)	7(1)	2276.1	2226.5	0.0
29(1)	8(1)	2237.9	2194.5	0.0
29(1)	9(1)	2151.7	2107.5	0.0
29(1)	10(1)	2109.3	2069.2	0.0
29(1)	11(1)	2002.9	1962.0	0.0
29(1)	12(1)	1980.2	1945.4	0.1
29(1)	13(1)	1944.7	1906.4	0.1
29(1)	14(1)	1887.5	1854.2	0.3

29(1)	15(1)	1839.8	1806.3	0.3
29(1)	16(1)	1823.9	1788.4	2.9
29(1)	17(1)	1786.4	1755.3	1.4
29(1)	18(1)	1751.5	1723.3	1.4
29(1)	19(1)	1721.1	1692.2	0.7
29(1)	20(1)	1610.8	1583.4	0.0
29(1)	21(1)	1605.1	1585.0	0.7
29(1)	22(1)	1492.6	1481.2	0.0
29(1)	23(1)	1454.3	1437.4	0.0
29(1)	24(1)	1400.0	1383.9	0.0
29(1)	25(1)	1372.1	1355.2	1.4
29(1)	26(1)	1357.9	1339.0	3.8
29(1)	27(1)	1326.1	1306.2	0.0
29(1)	28(1)	1268.1	1251.2	0.0
30(1)	1(1)	4405.4	4200.0	0.0
30(1)	2(1)	4340.0	4137.7	0.9
30(1)	3(1)	3809.1	3662.7	0.0
30(1)	4(1)	3801.5	3653.4	0.0
30(1)	5(1)	3761.3	3613.0	0.0
30(1)	6(1)	2370.2	2319.7	0.1
30(1)	7(1)	2257.1	2192.5	0.0
30(1)	8(1)	2218.9	2160.1	0.0
30(1)	9(1)	2132.7	2073.8	0.0
30(1)	10(1)	2090.3	2034.8	0.0
30(1)	11(1)	1983.8	1929.2	0.0
30(1)	12(1)	1961.1	1909.2	0.0
30(1)	13(1)	1925.7	1873.9	0.0
30(1)	14(1)	1868.4	1818.0	0.0
30(1)	15(1)	1820.8	1773.9	0.0
30(1)	16(1)	1804.9	1756.5	0.0
30(1)	17(1)	1767.4	1720.3	0.0
30(1)	18(1)	1732.5	1688.2	0.0
30(1)	19(1)	1702.1	1656.1	0.0
30(1)	20(1)	1591.8	1549.1	0.0
30(1)	21(1)	1586.1	1550.4	0.0
30(1)	22(1)	1473.6	1446.4	4.8
30(1)	23(1)	1435.3	1405.0	0.4
30(1)	24(1)	1381.0	1335.5	0.1
30(1)	25(1)	1353.1	1319.4	0.0
30(1)	26(1)	1338.9	1305.6	0.0

30(1)	27(1)	1307.0	1264.2	100.8
30(1)	28(1)	1249.1	1213.7	7.2
30(1)	29(1)	1208.7	1181.5	0.0
31(1)	1(1)	4398.1	4207.3	0.0
31(1)	2(1)	4332.6	4143.6	0.1
31(1)	3(1)	3801.8	3669.8	0.0
31(1)	4(1)	3794.2	3660.6	0.0
31(1)	5(1)	3753.9	3619.9	0.1
31(1)	6(1)	2362.9	2325.9	0.0
31(1)	7(1)	2249.7	2198.8	0.0
31(1)	8(1)	2211.5	2166.6	0.0
31(1)	9(1)	2125.3	2080.0	0.1
31(1)	10(1)	2082.9	2041.2	0.0
31(1)	11(1)	1976.5	1932.6	0.3
31(1)	12(1)	1953.8	1917.0	0.2
31(1)	13(1)	1918.3	1879.0	0.2
31(1)	14(1)	1861.1	1826.3	0.1
31(1)	15(1)	1813.4	1780.4	0.0
31(1)	16(1)	1797.5	1760.6	2.2
31(1)	17(1)	1760.0	1727.4	0.3
31(1)	18(1)	1725.1	1696.2	0.6
31(1)	19(1)	1694.7	1664.7	3.7
31(1)	20(1)	1584.4	1555.7	0.0
31(1)	21(1)	1578.7	1556.6	1.5
31(1)	22(1)	1466.2	1453.3	0.0
31(1)	23(1)	1427.9	1409.7	0.0
31(1)	24(1)	1373.6	1356.1	0.0
31(1)	25(1)	1345.7	1326.4	1.1
31(1)	26(1)	1331.5	1312.5	0.1
31(1)	27(1)	1299.7	1279.5	0.0
31(1)	28(1)	1241.7	1223.9	0.0
31(1)	29(1)	1201.3	1189.2	0.3
31(1)	30(1)	1182.2	1154.6	0.0
32(1)	1(1)	4340.8	4154.3	0.0
32(1)	2(1)	4275.4	4091.5	0.0
32(1)	3(1)	3744.6	3616.9	0.1
32(1)	4(1)	3736.9	3607.4	0.0
32(1)	5(1)	3696.7	3566.7	0.0
32(1)	6(1)	2305.6	2273.7	0.0
32(1)	7(1)	2192.5	2144.9	0.3

32(1)	8(1)	2154.3	2113.0	0.0
32(1)	9(1)	2068.1	2027.5	0.0
32(1)	10(1)	2025.7	1986.5	0.1
32(1)	11(1)	1919.2	1880.9	0.0
32(1)	12(1)	1896.5	1863.7	0.1
32(1)	13(1)	1861.1	1826.1	0.1
32(1)	14(1)	1803.8	1773.1	0.2
32(1)	15(1)	1756.2	1726.9	1.3
32(1)	16(1)	1740.3	1707.7	0.3
32(1)	17(1)	1702.8	1675.0	3.2
32(1)	18(1)	1667.9	1644.5	0.1
32(1)	19(1)	1637.5	1612.8	4.4
32(1)	20(1)	1527.2	1502.7	0.0
32(1)	21(1)	1521.5	1504.6	10.1
32(1)	22(1)	1409.0	1400.2	0.0
32(1)	23(1)	1370.7	1356.6	0.0
32(1)	24(1)	1316.4	1303.1	0.0
32(1)	25(1)	1288.5	1273.7	0.0
32(1)	26(1)	1274.3	1259.3	0.3
32(1)	27(1)	1242.4	1226.3	0.0
32(1)	28(1)	1184.5	1170.6	0.0
32(1)	29(1)	1144.1	1136.3	16.5
32(1)	30(1)	1125.0	1101.2	0.0
32(1)	31(1)	1117.7	1108.3	0.2
33(1)	1(1)	4284.5	4093.0	0.0
33(1)	2(1)	4219.0	4030.1	0.0
33(1)	3(1)	3688.2	3555.1	0.0
33(1)	4(1)	3680.6	3545.2	0.0
33(1)	5(1)	3640.3	3505.2	0.0
33(1)	6(1)	2249.3	2212.3	0.0
33(1)	7(1)	2136.1	2084.1	0.0
33(1)	8(1)	2097.9	2052.0	0.0
33(1)	9(1)	2011.7	1965.9	0.0
33(1)	10(1)	1969.3	1927.7	0.0
33(1)	11(1)	1862.9	1819.4	0.0
33(1)	12(1)	1840.2	1802.1	0.0
33(1)	13(1)	1804.7	1765.5	0.0
33(1)	14(1)	1747.4	1711.6	0.0
33(1)	15(1)	1699.8	1666.0	0.0
33(1)	16(1)	1683.9	1646.0	0.0

33(1)	17(1)	1646.4	1612.6	0.0
33(1)	18(1)	1611.5	1583.2	0.0
33(1)	19(1)	1581.1	1550.1	0.0
33(1)	20(1)	1470.8	1440.0	5.0
33(1)	21(1)	1465.1	1442.6	0.0
33(1)	22(1)	1352.6	1338.1	0.2
33(1)	23(1)	1314.3	1294.9	7.7
33(1)	24(1)	1260.0	1240.5	5.4
33(1)	25(1)	1232.1	1211.5	0.0
33(1)	26(1)	1217.9	1197.2	0.0
33(1)	27(1)	1186.1	1166.0	1.3
33(1)	28(1)	1128.1	1106.4	83.4
33(1)	29(1)	1087.7	1074.8	0.0
33(1)	30(1)	1068.6	1039.3	0.1
33(1)	31(1)	1061.3	1046.8	0.0
33(1)	32(1)	1004.1	994.1	0.0
34(1)	1(1)	4216.9	4031.2	0.0
34(1)	2(1)	4151.4	3968.1	0.0
34(1)	3(1)	3620.6	3493.9	0.0
34(1)	4(1)	3612.9	3484.4	0.0
34(1)	5(1)	3572.7	3443.8	0.0
34(1)	6(1)	2181.6	2150.2	0.0
34(1)	7(1)	2068.5	2022.7	0.0
34(1)	8(1)	2030.3	1990.8	0.0
34(1)	9(1)	1944.1	1904.4	0.0
34(1)	10(1)	1901.7	1865.0	0.2
34(1)	11(1)	1795.2	1757.1	1.4
34(1)	12(1)	1772.5	1742.1	1.3
34(1)	13(1)	1737.1	1703.1	1.6
34(1)	14(1)	1679.8	1650.5	0.3
34(1)	15(1)	1632.2	1604.3	3.5
34(1)	16(1)	1616.3	1584.3	3.2
34(1)	17(1)	1578.8	1551.8	0.7
34(1)	18(1)	1543.9	1520.1	0.6
34(1)	19(1)	1513.5	1489.1	1.3
34(1)	20(1)	1403.2	1379.5	0.0
34(1)	21(1)	1397.5	1381.0	1.6
34(1)	22(1)	1285.0	1277.2	0.0
34(1)	23(1)	1246.7	1233.7	0.0
34(1)	24(1)	1192.4	1180.0	0.0

34(1)	25(1)	1164.5	1149.7	0.6
34(1)	26(1)	1150.3	1136.2	5.4
34(1)	27(1)	1118.5	1103.3	0.0
34(1)	28(1)	1060.5	1047.7	0.0
34(1)	29(1)	1020.1	1013.3	0.2
34(1)	30(1)	1001.0	978.1	0.0
34(1)	31(1)	993.7	985.3	2.5
34(1)	32(1)	936.4	932.3	0.1
34(1)	33(1)	880.1	871.3	8.6
35(1)	1(1)	4206.2	3979.9	1.3
35(1)	2(1)	4140.7	3926.9	0.0
35(1)	3(1)	3609.9	3452.3	0.0
35(1)	4(1)	3602.3	3442.9	0.0
35(1)	5(1)	3562.0	3406.0	0.0
35(1)	6(1)	2171.0	2109.8	0.0
35(1)	7(1)	2057.8	1982.0	0.0
35(1)	8(1)	2019.6	1948.5	0.0
35(1)	9(1)	1933.4	1862.9	0.0
35(1)	10(1)	1891.0	1821.9	0.0
35(1)	11(1)	1784.6	1716.1	0.0
35(1)	12(1)	1761.9	1700.3	0.0
35(1)	13(1)	1726.4	1657.4	0.0
35(1)	14(1)	1669.2	1609.8	0.0
35(1)	15(1)	1621.5	1568.0	0.0
35(1)	16(1)	1605.6	1543.8	0.0
35(1)	17(1)	1568.2	1508.0	0.0
35(1)	18(1)	1533.2	1477.9	0.0
35(1)	19(1)	1502.8	1448.0	0.0
35(1)	20(1)	1392.5	1339.6	4.6
35(1)	21(1)	1386.8	1340.2	0.0
35(1)	22(1)	1274.3	1237.9	0.2
35(1)	23(1)	1236.0	1189.0	5.6
35(1)	24(1)	1181.7	1140.1	15.0
35(1)	25(1)	1153.8	1107.5	0.0
35(1)	26(1)	1139.6	1093.4	0.0
35(1)	27(1)	1107.8	1061.4	2.1
35(1)	28(1)	1049.8	1003.8	3.1
35(1)	29(1)	1009.4	972.1	0.0
35(1)	30(1)	990.4	936.2	15.3
35(1)	31(1)	983.0	943.0	0.0

35(1)	32(1)	925.8	891.2	0.1
35(1)	33(1)	869.4	829.6	0.5
35(1)	34(1)	801.8	768.1	0.1
36(1)	1(1)	4167.0	3981.7	0.0
36(1)	2(1)	4101.6	3918.5	0.0
36(1)	3(1)	3570.7	3444.0	0.0
36(1)	4(1)	3563.1	3434.5	0.0
36(1)	5(1)	3522.9	3394.1	0.0
36(1)	6(1)	2131.8	2101.4	0.2
36(1)	7(1)	2018.7	1973.6	0.3
36(1)	8(1)	1980.5	1941.2	0.0
36(1)	9(1)	1894.3	1854.6	0.1
36(1)	10(1)	1851.9	1815.5	0.3
36(1)	11(1)	1745.4	1706.6	1.6
36(1)	12(1)	1722.7	1691.4	0.2
36(1)	13(1)	1687.3	1652.9	1.0
36(1)	14(1)	1630.0	1600.4	0.3
36(1)	15(1)	1582.4	1554.4	0.4
36(1)	16(1)	1566.5	1535.0	0.2
36(1)	17(1)	1529.0	1501.8	0.0
36(1)	18(1)	1494.1	1470.5	0.2
36(1)	19(1)	1463.7	1438.7	1.8
36(1)	20(1)	1353.4	1329.7	0.0
36(1)	21(1)	1347.7	1331.6	7.3
36(1)	22(1)	1235.2	1227.5	0.0
36(1)	23(1)	1196.8	1183.8	0.0
36(1)	24(1)	1142.6	1130.1	0.0
36(1)	25(1)	1114.7	1100.9	3.6
36(1)	26(1)	1100.5	1084.9	0.8
36(1)	27(1)	1068.6	1053.3	0.0
36(1)	28(1)	1010.7	997.9	0.0
36(1)	29(1)	970.2	963.1	0.0
36(1)	30(1)	951.2	928.1	0.0
36(1)	31(1)	943.8	935.3	0.0
36(1)	32(1)	886.6	882.4	0.0
36(1)	33(1)	830.2	820.8	0.0
36(1)	34(1)	762.6	760.2	0.7
36(1)	35(1)	751.9	718.9	0.0
37(1)	1(1)	4132.9	3948.1	0.0
37(1)	2(1)	4067.5	3884.8	0.0

37(1)	3(1)	3536.6	3410.2	0.0
37(1)	4(1)	3529.0	3400.9	0.0
37(1)	5(1)	3488.8	3360.3	0.0
37(1)	6(1)	2097.7	2066.9	0.0
37(1)	7(1)	1984.6	1937.5	0.0
37(1)	8(1)	1946.4	1907.2	0.0
37(1)	9(1)	1860.2	1822.0	0.3
37(1)	10(1)	1817.8	1781.5	0.1
37(1)	11(1)	1711.3	1674.1	0.0
37(1)	12(1)	1688.6	1660.6	29.6
37(1)	13(1)	1653.2	1619.5	3.1
37(1)	14(1)	1595.9	1566.3	0.2
37(1)	15(1)	1548.3	1520.7	0.3
37(1)	16(1)	1532.4	1500.2	8.2
37(1)	17(1)	1494.9	1468.6	0.0
37(1)	18(1)	1460.0	1436.5	0.8
37(1)	19(1)	1429.6	1405.3	0.1
37(1)	20(1)	1319.3	1296.1	0.0
37(1)	21(1)	1313.6	1297.2	0.8
37(1)	22(1)	1201.1	1193.7	0.0
37(1)	23(1)	1162.8	1150.0	0.0
37(1)	24(1)	1108.5	1096.5	0.0
37(1)	25(1)	1080.6	1066.8	0.0
37(1)	26(1)	1066.4	1052.4	0.2
37(1)	27(1)	1034.5	1019.4	0.0
37(1)	28(1)	976.6	964.0	0.0
37(1)	29(1)	936.2	929.3	0.0
37(1)	30(1)	917.1	894.5	0.0
37(1)	31(1)	909.7	901.8	0.0
37(1)	32(1)	852.5	850.0	0.0
37(1)	33(1)	796.1	787.1	0.0
37(1)	34(1)	728.5	725.7	0.2
37(1)	35(1)	717.9	686.0	0.2
37(1)	36(1)	678.7	675.5	0.0
38(1)	1(1)	4104.1	3915.1	0.0
38(1)	2(1)	4038.7	3853.0	0.1
38(1)	3(1)	3507.8	3378.2	0.0
38(1)	4(1)	3500.2	3368.7	0.0
38(1)	5(1)	3459.9	3328.2	0.0
38(1)	6(1)	2068.9	2035.1	0.0

38(1)	7(1)	1955.8	1907.7	0.0
38(1)	8(1)	1917.5	1875.2	0.0
38(1)	9(1)	1831.3	1789.0	0.0
38(1)	10(1)	1789.0	1749.8	0.0
38(1)	11(1)	1682.5	1642.0	0.0
38(1)	12(1)	1659.8	1625.7	0.0
38(1)	13(1)	1624.4	1587.9	0.0
38(1)	14(1)	1567.1	1532.9	0.0
38(1)	15(1)	1519.4	1489.0	0.0
38(1)	16(1)	1503.5	1468.7	0.0
38(1)	17(1)	1466.1	1435.7	0.0
38(1)	18(1)	1431.2	1404.8	0.0
38(1)	19(1)	1400.7	1373.6	0.0
38(1)	20(1)	1290.4	1265.8	4.7
38(1)	21(1)	1284.7	1265.4	0.0
38(1)	22(1)	1172.2	1162.2	1.1
38(1)	23(1)	1133.9	1117.0	83.9
38(1)	24(1)	1079.6	1063.9	0.8
38(1)	25(1)	1051.7	1035.0	0.0
38(1)	26(1)	1037.5	1019.8	0.0
38(1)	27(1)	1005.7	987.5	0.1
38(1)	28(1)	947.7	932.1	0.2
38(1)	29(1)	907.3	897.3	0.0
38(1)	30(1)	888.3	862.5	0.1
38(1)	31(1)	880.9	870.0	1.2
38(1)	32(1)	823.7	816.1	0.1
38(1)	33(1)	767.3	755.9	0.6
38(1)	34(1)	699.7	695.2	0.0
38(1)	35(1)	689.0	652.5	0.3
38(1)	36(1)	649.8	644.4	0.0
38(1)	37(1)	615.8	609.8	0.1
39(1)	1(1)	4035.6	3848.8	0.1
39(1)	2(1)	3970.2	3785.8	0.0
39(1)	3(1)	3439.4	3310.9	0.0
39(1)	4(1)	3431.7	3301.6	0.0
39(1)	5(1)	3391.5	3261.2	0.0
39(1)	6(1)	2000.4	1968.2	0.0
39(1)	7(1)	1887.3	1840.5	0.0
39(1)	8(1)	1849.1	1808.5	0.0
39(1)	9(1)	1762.9	1722.1	0.0

39(1)	10(1)	1720.5	1682.7	0.1
39(1)	11(1)	1614.0	1575.1	0.0
39(1)	12(1)	1591.3	1558.4	0.0
39(1)	13(1)	1555.9	1520.6	0.2
39(1)	14(1)	1498.6	1467.6	0.0
39(1)	15(1)	1451.0	1421.8	0.1
39(1)	16(1)	1435.1	1401.8	0.0
39(1)	17(1)	1397.6	1368.8	0.0
39(1)	18(1)	1362.7	1337.3	0.0
39(1)	19(1)	1332.3	1306.3	0.0
39(1)	20(1)	1222.0	1196.6	3.6
39(1)	21(1)	1216.3	1198.4	0.0
39(1)	22(1)	1103.8	1095.0	0.0
39(1)	23(1)	1065.5	1050.6	0.1
39(1)	24(1)	1011.2	997.3	0.0
39(1)	25(1)	983.3	968.0	0.0
39(1)	26(1)	969.1	953.7	0.0
39(1)	27(1)	937.3	920.4	0.1
39(1)	28(1)	879.3	864.5	0.0
39(1)	29(1)	838.9	830.3	0.1
39(1)	30(1)	819.8	795.2	0.0
39(1)	31(1)	812.5	803.1	0.0
39(1)	32(1)	755.2	750.9	0.0
39(1)	33(1)	698.9	687.6	0.1
39(1)	34(1)	631.2	626.1	0.0
39(1)	35(1)	620.6	586.4	0.4
39(1)	36(1)	581.4	576.2	0.7
39(1)	37(1)	547.3	542.6	0.0
39(1)	38(1)	518.5	510.3	0.1
40(1)	1(1)	4012.6	3823.8	0.0
40(1)	2(1)	3947.2	3761.3	0.1
40(1)	3(1)	3416.3	3286.9	0.0
40(1)	4(1)	3408.7	3277.8	0.0
40(1)	5(1)	3368.5	3237.0	0.0
40(1)	6(1)	1977.4	1943.6	0.4
40(1)	7(1)	1864.3	1816.7	0.1
40(1)	8(1)	1826.1	1784.3	0.2
40(1)	9(1)	1739.9	1697.7	1.1
40(1)	10(1)	1697.5	1658.8	3.3
40(1)	11(1)	1591.0	1550.2	1.0

40(1)	12(1)	1568.3	1534.1	1.8
40(1)	13(1)	1532.9	1496.5	0.4
40(1)	14(1)	1475.6	1443.1	0.1
40(1)	15(1)	1428.0	1397.8	0.1
40(1)	16(1)	1412.1	1377.3	0.4
40(1)	17(1)	1374.6	1344.7	0.3
40(1)	18(1)	1339.7	1313.0	1.1
40(1)	19(1)	1309.3	1281.7	0.1
40(1)	20(1)	1199.0	1172.7	0.0
40(1)	21(1)	1193.3	1174.4	0.5
40(1)	22(1)	1080.8	1070.1	0.0
40(1)	23(1)	1042.4	1026.7	0.0
40(1)	24(1)	988.2	973.0	0.0
40(1)	25(1)	960.3	943.2	0.1
40(1)	26(1)	946.1	929.1	0.0
40(1)	27(1)	914.2	896.2	0.0
40(1)	28(1)	856.3	840.7	0.0
40(1)	29(1)	815.8	806.3	0.1
40(1)	30(1)	796.8	771.0	0.0
40(1)	31(1)	789.4	778.5	0.1
40(1)	32(1)	732.2	726.5	0.0
40(1)	33(1)	675.8	663.4	0.0
40(1)	34(1)	608.2	602.6	0.6
40(1)	35(1)	597.5	559.1	0.0
40(1)	36(1)	558.4	552.2	0.0
40(1)	37(1)	524.3	516.9	0.7
40(1)	38(1)	495.5	487.0	0.0
40(1)	39(1)	427.0	418.9	0.0
41(1)	1(1)	3910.6	3725.1	0.0
41(1)	2(1)	3845.2	3662.5	0.1
41(1)	3(1)	3314.3	3187.6	0.0
41(1)	4(1)	3306.7	3178.0	0.0
41(1)	5(1)	3266.5	3137.7	0.0
41(1)	6(1)	1875.4	1844.8	0.2
41(1)	7(1)	1762.3	1717.5	0.0
41(1)	8(1)	1724.1	1685.0	0.0
41(1)	9(1)	1637.9	1598.8	0.1
41(1)	10(1)	1595.5	1559.4	0.0
41(1)	11(1)	1489.0	1451.6	0.0
41(1)	12(1)	1466.3	1435.1	0.0

41(1)	13(1)	1430.9	1397.4	0.1
41(1)	14(1)	1373.6	1344.3	0.0
41(1)	15(1)	1326.0	1298.2	0.0
41(1)	16(1)	1310.1	1278.3	0.0
41(1)	17(1)	1272.6	1245.3	0.1
41(1)	18(1)	1237.7	1213.9	0.0
41(1)	19(1)	1207.3	1183.1	0.1
41(1)	20(1)	1097.0	1072.6	0.1
41(1)	21(1)	1091.3	1074.9	0.0
41(1)	22(1)	978.8	970.7	0.0
41(1)	23(1)	940.5	927.3	0.2
41(1)	24(1)	886.2	873.7	0.1
41(1)	25(1)	858.3	844.5	0.0
41(1)	26(1)	844.1	830.1	0.0
41(1)	27(1)	812.2	795.9	0.0
41(1)	28(1)	754.3	741.2	0.1
41(1)	29(1)	713.9	708.3	17.5
41(1)	30(1)	694.8	671.6	0.1
41(1)	31(1)	687.4	679.4	0.0
41(1)	32(1)	630.2	626.2	0.0
41(1)	33(1)	573.8	564.0	0.8
41(1)	34(1)	506.2	504.2	0.0
41(1)	35(1)	495.6	461.6	0.3
41(1)	36(1)	456.4	453.1	0.0
41(1)	37(1)	422.3	419.7	0.0
41(1)	38(1)	393.5	386.1	0.6
41(1)	39(1)	325.0	320.0	0.0
41(1)	40(1)	302.0	295.0	0.0
42(1)	1(1)	3856.4	3654.7	0.0
42(1)	2(1)	3791.0	3593.3	0.0
42(1)	3(1)	3260.1	3119.5	0.0
42(1)	4(1)	3252.5	3109.5	0.0
42(1)	5(1)	3212.3	3069.3	0.0
42(1)	6(1)	1821.2	1777.9	1.6
42(1)	7(1)	1708.1	1649.3	0.1
42(1)	8(1)	1669.8	1617.1	0.0
42(1)	9(1)	1583.7	1530.1	0.0
42(1)	10(1)	1541.3	1491.3	0.0
42(1)	11(1)	1434.8	1383.0	0.2
42(1)	12(1)	1412.1	1367.0	0.0

42(1)	13(1)	1376.7	1328.6	0.0
42(1)	14(1)	1319.4	1275.8	0.0
42(1)	15(1)	1271.8	1229.9	0.0
42(1)	16(1)	1255.8	1209.6	0.4
42(1)	17(1)	1218.4	1177.1	0.1
42(1)	18(1)	1183.5	1145.1	0.3
42(1)	19(1)	1153.0	1114.0	0.5
42(1)	20(1)	1042.8	1002.4	0.0
42(1)	21(1)	1037.0	1007.3	0.0
42(1)	22(1)	924.5	903.4	0.0
42(1)	23(1)	886.2	859.0	0.1
42(1)	24(1)	831.9	805.3	0.1
42(1)	25(1)	804.0	776.0	0.0
42(1)	26(1)	789.8	761.3	0.0
42(1)	27(1)	758.0	728.2	0.1
42(1)	28(1)	700.0	673.0	0.1
42(1)	29(1)	659.6	638.1	0.9
42(1)	30(1)	640.6	600.2	1.0
42(1)	31(1)	633.2	610.2	0.5
42(1)	32(1)	576.0	558.2	0.0
42(1)	33(1)	519.6	494.3	0.0
42(1)	34(1)	452.0	434.1	0.0
42(1)	35(1)	441.3	381.9	0.0
42(1)	36(1)	402.2	387.0	0.0
42(1)	37(1)	368.1	350.7	0.0
42(1)	38(1)	339.2	315.8	0.1
42(1)	39(1)	270.8	249.1	0.0
42(1)	40(1)	247.8	226.0	0.0
42(1)	41(1)	145.8	128.4	0.0

Table S12. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **A2** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3810.8	3621.9	86.9	73.1
2(1)	3759.3	3577.0	96.6	79.1
3(1)	3220.3	3090.6	0.7	1.5
4(1)	3215.0	3074.9	0.1	0.0
5(1)	3166.3	3028.9	10.5	12.1
6(1)	1799.6	1769.2	413.0	195.9
7(1)	1662.9	1616.9	253.4	89.3
8(1)	1623.4	1587.0	132.1	98.0
9(1)	1538.9	1498.0	43.5	26.8
10(1)	1491.0	1455.3	45.3	17.7
11(1)	1376.6	1351.2	37.1	25.9
12(1)	1356.5	1317.2	10.3	4.5
13(1)	1334.2	1298.8	192.1	162.1
14(1)	1282.2	1254.2	0.7	0.4
15(1)	1228.4	1207.8	20.5	18.1
16(1)	1203.6	1173.0	191.7	97.4
17(1)	1179.0	1157.0	21.0	20.3
18(1)	1151.4	1125.1	331.5	327.1
19(1)	1074.4	1048.8	149.3	95.8
20(1)	992.6	976.3	36.7	36.6
21(1)	982.3	969.4	0.9	0.1
22(1)	881.6	875.1	34.1	32.6
23(1)	837.5	825.9	3.6	2.5
24(1)	783.8	775.5	45.5	21.6
25(1)	757.7	747.1	4.0	3.2
26(1)	743.2	731.3	5.9	3.8
27(1)	707.8	702.2	31.0	35.3
28(1)	650.9	642.1	0.6	3.2
29(1)	605.6	598.3	10.7	10.9
30(1)	591.2	585.8	69.0	61.5
31(1)	577.2	552.1	68.5	68.1
32(1)	526.1	522.2	5.6	4.6
33(1)	467.7	463.5	8.8	12.4
34(1)	409.7	408.0	5.0	4.4
35(1)	395.1	360.2	99.1	92.2
36(1)	366.7	362.7	1.7	1.9
37(1)	317.3	314.6	0.5	0.4

38(1)	291.7	289.0	0.9	1.0
39(1)	225.4	223.4	1.7	2.4
40(1)	197.9	195.2	0.3	0.3
41(1)	99.0	99.5	0.0	0.0
42(1)	40.3	47.1	0.3	0.3
1(2)	3810.8	3621.9	86.9	73.1
2(2)	3759.3	3577.0	96.6	79.1
3(2)	3220.3	3090.6	0.7	1.5
4(2)	3215.0	3074.9	0.1	0.0
5(2)	3166.3	3028.9	10.5	12.1
6(2)	1799.6	1769.2	413.0	195.9
7(2)	1662.9	1616.9	253.4	89.3
8(2)	1623.4	1587.0	132.1	98.0
9(2)	1538.9	1498.0	43.5	26.8
10(2)	1491.0	1455.3	45.3	17.7
11(2)	1376.6	1351.2	37.1	25.9
12(2)	1356.5	1317.2	10.3	4.5
13(2)	1334.2	1298.8	192.1	162.1
14(2)	1282.2	1254.2	0.7	0.4
15(2)	1228.4	1207.8	20.5	18.1
16(2)	1203.6	1173.0	191.7	97.4
17(2)	1179.0	1157.0	21.0	20.3
18(2)	1151.4	1125.1	331.5	327.1
19(2)	1074.4	1048.8	149.3	95.8
20(2)	992.6	976.3	36.7	36.6
21(2)	982.3	969.4	0.9	0.1
22(2)	881.6	875.1	34.1	32.6
23(2)	837.5	825.9	3.6	2.5
24(2)	783.8	775.5	45.5	21.6
25(2)	757.7	747.1	4.0	3.2
26(2)	743.2	731.3	5.9	3.8
27(2)	707.8	702.2	31.0	35.3
28(2)	650.9	642.1	0.6	3.2
29(2)	605.6	598.3	10.7	10.9
30(2)	591.2	585.8	69.0	61.5
31(2)	577.2	552.1	68.5	68.1
32(2)	526.1	522.2	5.6	4.6
33(2)	467.7	463.5	8.8	12.4
34(2)	409.7	408.0	5.0	4.4
35(2)	395.1	360.2	99.1	92.2

36(2)		366.7	362.7	1.7	1.9
37(2)		317.3	314.6	0.5	0.4
38(2)		291.7	289.0	0.9	1.0
39(2)		225.4	223.4	1.7	2.4
40(2)		197.9	195.2	0.3	0.3
41(2)		99.0	99.5	0.0	0.0
42(2)		40.3	47.1	0.3	0.3
2(1)	1(1)	3810.8	3621.9	86.9	73.1
3(1)	1(1)	3759.3	3577.0	96.6	79.1
3(1)	2(1)	3220.3	3090.6	0.7	1.5
4(1)	1(1)	3215.0	3074.9	0.1	0.0
4(1)	2(1)	3166.3	3028.9	10.5	12.1
4(1)	3(1)	1799.6	1769.2	413.0	195.9
5(1)	1(1)	1662.9	1616.9	253.4	89.3
5(1)	2(1)	1623.4	1587.0	132.1	98.0
5(1)	3(1)	1538.9	1498.0	43.5	26.8
5(1)	4(1)	1491.0	1455.3	45.3	17.7
6(1)	1(1)	1376.6	1351.2	37.1	25.9
6(1)	2(1)	1356.5	1317.2	10.3	4.5
6(1)	3(1)	1334.2	1298.8	192.1	162.1
6(1)	4(1)	1282.2	1254.2	0.7	0.4
6(1)	5(1)	1228.4	1207.8	20.5	18.1
7(1)	1(1)	1203.6	1173.0	191.7	97.4
7(1)	2(1)	1179.0	1157.0	21.0	20.3
7(1)	3(1)	1151.4	1125.1	331.5	327.1
7(1)	4(1)	1074.4	1048.8	149.3	95.8
7(1)	5(1)	992.6	976.3	36.7	36.6
7(1)	6(1)	982.3	969.4	0.9	0.1
8(1)	1(1)	881.6	875.1	34.1	32.6
8(1)	2(1)	837.5	825.9	3.6	2.5
8(1)	3(1)	783.8	775.5	45.5	21.6
8(1)	4(1)	757.7	747.1	4.0	3.2
8(1)	5(1)	743.2	731.3	5.9	3.8
8(1)	6(1)	707.8	702.2	31.0	35.3
8(1)	7(1)	650.9	642.1	0.6	3.2
9(1)	1(1)	605.6	598.3	10.7	10.9
9(1)	2(1)	591.2	585.8	69.0	61.5
9(1)	3(1)	577.2	552.1	68.5	68.1
9(1)	4(1)	526.1	522.2	5.6	4.6
9(1)	5(1)	467.7	463.5	8.8	12.4

9(1)	6(1)	409.7	408.0	5.0	4.4
9(1)	7(1)	395.1	360.2	99.1	92.2
9(1)	8(1)	366.7	362.7	1.7	1.9
10(1)	1(1)	317.3	314.6	0.5	0.4
10(1)	2(1)	291.7	289.0	0.9	1.0
10(1)	3(1)	225.4	223.4	1.7	2.4
10(1)	4(1)	197.9	195.2	0.3	0.3
10(1)	5(1)	99.0	99.5	0.0	0.0
10(1)	6(1)	40.3	47.1	0.3	0.3
10(1)	7(1)	3810.8	3621.9	86.9	73.1
10(1)	8(1)	3759.3	3577.0	96.6	79.1
10(1)	9(1)	3220.3	3090.6	0.7	1.5
11(1)	1(1)	3215.0	3074.9	0.1	0.0
11(1)	2(1)	3166.3	3028.9	10.5	12.1
11(1)	3(1)	1799.6	1769.2	413.0	195.9
11(1)	4(1)	1662.9	1616.9	253.4	89.3
11(1)	5(1)	1623.4	1587.0	132.1	98.0
11(1)	6(1)	1538.9	1498.0	43.5	26.8
11(1)	7(1)	1491.0	1455.3	45.3	17.7
11(1)	8(1)	1376.6	1351.2	37.1	25.9
11(1)	9(1)	1356.5	1317.2	10.3	4.5
11(1)	10(1)	1334.2	1298.8	192.1	162.1
12(1)	1(1)	1282.2	1254.2	0.7	0.4
12(1)	2(1)	1228.4	1207.8	20.5	18.1
12(1)	3(1)	1203.6	1173.0	191.7	97.4
12(1)	4(1)	1179.0	1157.0	21.0	20.3
12(1)	5(1)	1151.4	1125.1	331.5	327.1
12(1)	6(1)	1074.4	1048.8	149.3	95.8
12(1)	7(1)	992.6	976.3	36.7	36.6
12(1)	8(1)	982.3	969.4	0.9	0.1
12(1)	9(1)	881.6	875.1	34.1	32.6
12(1)	10(1)	837.5	825.9	3.6	2.5
12(1)	11(1)	783.8	775.5	45.5	21.6
13(1)	1(1)	757.7	747.1	4.0	3.2
13(1)	2(1)	743.2	731.3	5.9	3.8
13(1)	3(1)	707.8	702.2	31.0	35.3
13(1)	4(1)	650.9	642.1	0.6	3.2
13(1)	5(1)	605.6	598.3	10.7	10.9
13(1)	6(1)	591.2	585.8	69.0	61.5
13(1)	7(1)	577.2	552.1	68.5	68.1

13(1)	8(1)	526.1	522.2	5.6	4.6
13(1)	9(1)	467.7	463.5	8.8	12.4
13(1)	10(1)	409.7	408.0	5.0	4.4
13(1)	11(1)	395.1	360.2	99.1	92.2
13(1)	12(1)	366.7	362.7	1.7	1.9
14(1)	1(1)	317.3	314.6	0.5	0.4
14(1)	2(1)	291.7	289.0	0.9	1.0
14(1)	3(1)	225.4	223.4	1.7	2.4
14(1)	4(1)	197.9	195.2	0.3	0.3
14(1)	5(1)	99.0	99.5	0.0	0.0
14(1)	6(1)	40.3	47.1	0.3	0.3
14(1)	7(1)	3810.8	3621.9	86.9	73.1
14(1)	8(1)	3759.3	3577.0	96.6	79.1
14(1)	9(1)	3220.3	3090.6	0.7	1.5
14(1)	10(1)	3215.0	3074.9	0.1	0.0
14(1)	11(1)	3166.3	3028.9	10.5	12.1
14(1)	12(1)	1799.6	1769.2	413.0	195.9
14(1)	13(1)	1662.9	1616.9	253.4	89.3
15(1)	1(1)	1623.4	1587.0	132.1	98.0
15(1)	2(1)	1538.9	1498.0	43.5	26.8
15(1)	3(1)	1491.0	1455.3	45.3	17.7
15(1)	4(1)	1376.6	1351.2	37.1	25.9
15(1)	5(1)	1356.5	1317.2	10.3	4.5
15(1)	6(1)	1334.2	1298.8	192.1	162.1
15(1)	7(1)	1282.2	1254.2	0.7	0.4
15(1)	8(1)	1228.4	1207.8	20.5	18.1
15(1)	9(1)	1203.6	1173.0	191.7	97.4
15(1)	10(1)	1179.0	1157.0	21.0	20.3
15(1)	11(1)	1151.4	1125.1	331.5	327.1
15(1)	12(1)	1074.4	1048.8	149.3	95.8
15(1)	13(1)	992.6	976.3	36.7	36.6
15(1)	14(1)	982.3	969.4	0.9	0.1
16(1)	1(1)	881.6	875.1	34.1	32.6
16(1)	2(1)	837.5	825.9	3.6	2.5
16(1)	3(1)	783.8	775.5	45.5	21.6
16(1)	4(1)	757.7	747.1	4.0	3.2
16(1)	5(1)	743.2	731.3	5.9	3.8
16(1)	6(1)	707.8	702.2	31.0	35.3
16(1)	7(1)	650.9	642.1	0.6	3.2
16(1)	8(1)	605.6	598.3	10.7	10.9

16(1)	9(1)	591.2	585.8	69.0	61.5
16(1)	10(1)	577.2	552.1	68.5	68.1
16(1)	11(1)	526.1	522.2	5.6	4.6
16(1)	12(1)	467.7	463.5	8.8	12.4
16(1)	13(1)	409.7	408.0	5.0	4.4
16(1)	14(1)	395.1	360.2	99.1	92.2
16(1)	15(1)	366.7	362.7	1.7	1.9
17(1)	1(1)	317.3	314.6	0.5	0.4
17(1)	2(1)	291.7	289.0	0.9	1.0
17(1)	3(1)	225.4	223.4	1.7	2.4
17(1)	4(1)	197.9	195.2	0.3	0.3
17(1)	5(1)	99.0	99.5	0.0	0.0
17(1)	6(1)	40.3	47.1	0.3	0.3
17(1)	7(1)	3810.8	3621.9	86.9	73.1
17(1)	8(1)	3759.3	3577.0	96.6	79.1
17(1)	9(1)	3220.3	3090.6	0.7	1.5
17(1)	10(1)	3215.0	3074.9	0.1	0.0
17(1)	11(1)	3166.3	3028.9	10.5	12.1
17(1)	12(1)	1799.6	1769.2	413.0	195.9
17(1)	13(1)	1662.9	1616.9	253.4	89.3
17(1)	14(1)	1623.4	1587.0	132.1	98.0
17(1)	15(1)	1538.9	1498.0	43.5	26.8
17(1)	16(1)	1491.0	1455.3	45.3	17.7
18(1)	1(1)	1376.6	1351.2	37.1	25.9
18(1)	2(1)	1356.5	1317.2	10.3	4.5
18(1)	3(1)	1334.2	1298.8	192.1	162.1
18(1)	4(1)	1282.2	1254.2	0.7	0.4
18(1)	5(1)	1228.4	1207.8	20.5	18.1
18(1)	6(1)	1203.6	1173.0	191.7	97.4
18(1)	7(1)	1179.0	1157.0	21.0	20.3
18(1)	8(1)	1151.4	1125.1	331.5	327.1
18(1)	9(1)	1074.4	1048.8	149.3	95.8
18(1)	10(1)	992.6	976.3	36.7	36.6
18(1)	11(1)	982.3	969.4	0.9	0.1
18(1)	12(1)	881.6	875.1	34.1	32.6
18(1)	13(1)	837.5	825.9	3.6	2.5
18(1)	14(1)	783.8	775.5	45.5	21.6
18(1)	15(1)	757.7	747.1	4.0	3.2
18(1)	16(1)	743.2	731.3	5.9	3.8
18(1)	17(1)	707.8	702.2	31.0	35.3

19(1)	1(1)	650.9	642.1	0.6	3.2
19(1)	2(1)	605.6	598.3	10.7	10.9
19(1)	3(1)	591.2	585.8	69.0	61.5
19(1)	4(1)	577.2	552.1	68.5	68.1
19(1)	5(1)	526.1	522.2	5.6	4.6
19(1)	6(1)	467.7	463.5	8.8	12.4
19(1)	7(1)	409.7	408.0	5.0	4.4
19(1)	8(1)	395.1	360.2	99.1	92.2
19(1)	9(1)	366.7	362.7	1.7	1.9
19(1)	10(1)	317.3	314.6	0.5	0.4
19(1)	11(1)	291.7	289.0	0.9	1.0
19(1)	12(1)	225.4	223.4	1.7	2.4
19(1)	13(1)	197.9	195.2	0.3	0.3
19(1)	14(1)	99.0	99.5	0.0	0.0
19(1)	15(1)	40.3	47.1	0.3	0.3
19(1)	16(1)	3810.8	3621.9	86.9	73.1
19(1)	17(1)	3759.3	3577.0	96.6	79.1
19(1)	18(1)	3220.3	3090.6	0.7	1.5
20(1)	1(1)	3215.0	3074.9	0.1	0.0
20(1)	2(1)	3166.3	3028.9	10.5	12.1
20(1)	3(1)	1799.6	1769.2	413.0	195.9
20(1)	4(1)	1662.9	1616.9	253.4	89.3
20(1)	5(1)	1623.4	1587.0	132.1	98.0
20(1)	6(1)	1538.9	1498.0	43.5	26.8
20(1)	7(1)	1491.0	1455.3	45.3	17.7
20(1)	8(1)	1376.6	1351.2	37.1	25.9
20(1)	9(1)	1356.5	1317.2	10.3	4.5
20(1)	10(1)	1334.2	1298.8	192.1	162.1
20(1)	11(1)	1282.2	1254.2	0.7	0.4
20(1)	12(1)	1228.4	1207.8	20.5	18.1
20(1)	13(1)	1203.6	1173.0	191.7	97.4
20(1)	14(1)	1179.0	1157.0	21.0	20.3
20(1)	15(1)	1151.4	1125.1	331.5	327.1
20(1)	16(1)	1074.4	1048.8	149.3	95.8
20(1)	17(1)	992.6	976.3	36.7	36.6
20(1)	18(1)	982.3	969.4	0.9	0.1
20(1)	19(1)	881.6	875.1	34.1	32.6
21(1)	1(1)	837.5	825.9	3.6	2.5
21(1)	2(1)	783.8	775.5	45.5	21.6
21(1)	3(1)	757.7	747.1	4.0	3.2

21(1)	4(1)	743.2	731.3	5.9	3.8
21(1)	5(1)	707.8	702.2	31.0	35.3
21(1)	6(1)	650.9	642.1	0.6	3.2
21(1)	7(1)	605.6	598.3	10.7	10.9
21(1)	8(1)	591.2	585.8	69.0	61.5
21(1)	9(1)	577.2	552.1	68.5	68.1
21(1)	10(1)	526.1	522.2	5.6	4.6
21(1)	11(1)	467.7	463.5	8.8	12.4
21(1)	12(1)	409.7	408.0	5.0	4.4
21(1)	13(1)	395.1	360.2	99.1	92.2
21(1)	14(1)	366.7	362.7	1.7	1.9
21(1)	15(1)	317.3	314.6	0.5	0.4
21(1)	16(1)	291.7	289.0	0.9	1.0
21(1)	17(1)	225.4	223.4	1.7	2.4
21(1)	18(1)	197.9	195.2	0.3	0.3
21(1)	19(1)	99.0	99.5	0.0	0.0
21(1)	20(1)	40.3	47.1	0.3	0.3
22(1)	1(1)	3810.8	3621.9	86.9	73.1
22(1)	2(1)	3759.3	3577.0	96.6	79.1
22(1)	3(1)	3220.3	3090.6	0.7	1.5
22(1)	4(1)	3215.0	3074.9	0.1	0.0
22(1)	5(1)	3166.3	3028.9	10.5	12.1
22(1)	6(1)	1799.6	1769.2	413.0	195.9
22(1)	7(1)	1662.9	1616.9	253.4	89.3
22(1)	8(1)	1623.4	1587.0	132.1	98.0
22(1)	9(1)	1538.9	1498.0	43.5	26.8
22(1)	10(1)	1491.0	1455.3	45.3	17.7
22(1)	11(1)	1376.6	1351.2	37.1	25.9
22(1)	12(1)	1356.5	1317.2	10.3	4.5
22(1)	13(1)	1334.2	1298.8	192.1	162.1
22(1)	14(1)	1282.2	1254.2	0.7	0.4
22(1)	15(1)	1228.4	1207.8	20.5	18.1
22(1)	16(1)	1203.6	1173.0	191.7	97.4
22(1)	17(1)	1179.0	1157.0	21.0	20.3
22(1)	18(1)	1151.4	1125.1	331.5	327.1
22(1)	19(1)	1074.4	1048.8	149.3	95.8
22(1)	20(1)	992.6	976.3	36.7	36.6
22(1)	21(1)	982.3	969.4	0.9	0.1
23(1)	1(1)	881.6	875.1	34.1	32.6
23(1)	2(1)	837.5	825.9	3.6	2.5

23(1)	3(1)	783.8	775.5	45.5	21.6
23(1)	4(1)	757.7	747.1	4.0	3.2
23(1)	5(1)	743.2	731.3	5.9	3.8
23(1)	6(1)	707.8	702.2	31.0	35.3
23(1)	7(1)	650.9	642.1	0.6	3.2
23(1)	8(1)	605.6	598.3	10.7	10.9
23(1)	9(1)	591.2	585.8	69.0	61.5
23(1)	10(1)	577.2	552.1	68.5	68.1
23(1)	11(1)	526.1	522.2	5.6	4.6
23(1)	12(1)	467.7	463.5	8.8	12.4
23(1)	13(1)	409.7	408.0	5.0	4.4
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23(1)	15(1)	366.7	362.7	1.7	1.9
23(1)	16(1)	317.3	314.6	0.5	0.4
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23(1)	19(1)	197.9	195.2	0.3	0.3
23(1)	20(1)	99.0	99.5	0.0	0.0
23(1)	21(1)	40.3	47.1	0.3	0.3
23(1)	22(1)	3810.8	3621.9	86.9	73.1
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24(1)	12(1)	1334.2	1298.8	192.1	162.1
24(1)	13(1)	1282.2	1254.2	0.7	0.4
24(1)	14(1)	1228.4	1207.8	20.5	18.1
24(1)	15(1)	1203.6	1173.0	191.7	97.4
24(1)	16(1)	1179.0	1157.0	21.0	20.3
24(1)	17(1)	1151.4	1125.1	331.5	327.1
24(1)	18(1)	1074.4	1048.8	149.3	95.8
24(1)	19(1)	992.6	976.3	36.7	36.6
24(1)	20(1)	982.3	969.4	0.9	0.1

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24(1)	22(1)	837.5	825.9	3.6	2.5
24(1)	23(1)	783.8	775.5	45.5	21.6
25(1)	1(1)	757.7	747.1	4.0	3.2
25(1)	2(1)	743.2	731.3	5.9	3.8
25(1)	3(1)	707.8	702.2	31.0	35.3
25(1)	4(1)	650.9	642.1	0.6	3.2
25(1)	5(1)	605.6	598.3	10.7	10.9
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25(1)	23(1)	3166.3	3028.9	10.5	12.1
25(1)	24(1)	1799.6	1769.2	413.0	195.9
26(1)	1(1)	1662.9	1616.9	253.4	89.3
26(1)	2(1)	1623.4	1587.0	132.1	98.0
26(1)	3(1)	1538.9	1498.0	43.5	26.8
26(1)	4(1)	1491.0	1455.3	45.3	17.7
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26(1)	6(1)	1356.5	1317.2	10.3	4.5
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26(1)	8(1)	1282.2	1254.2	0.7	0.4
26(1)	9(1)	1228.4	1207.8	20.5	18.1
26(1)	10(1)	1203.6	1173.0	191.7	97.4
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26(1)	19(1)	757.7	747.1	4.0	3.2
26(1)	20(1)	743.2	731.3	5.9	3.8
26(1)	21(1)	707.8	702.2	31.0	35.3
26(1)	22(1)	650.9	642.1	0.6	3.2
26(1)	23(1)	605.6	598.3	10.7	10.9
26(1)	24(1)	591.2	585.8	69.0	61.5
26(1)	25(1)	577.2	552.1	68.5	68.1
27(1)	1(1)	526.1	522.2	5.6	4.6
27(1)	2(1)	467.7	463.5	8.8	12.4
27(1)	3(1)	409.7	408.0	5.0	4.4
27(1)	4(1)	395.1	360.2	99.1	92.2
27(1)	5(1)	366.7	362.7	1.7	1.9
27(1)	6(1)	317.3	314.6	0.5	0.4
27(1)	7(1)	291.7	289.0	0.9	1.0
27(1)	8(1)	225.4	223.4	1.7	2.4
27(1)	9(1)	197.9	195.2	0.3	0.3
27(1)	10(1)	99.0	99.5	0.0	0.0
27(1)	11(1)	40.3	47.1	0.3	0.3
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27(1)	16(1)	3166.3	3028.9	10.5	12.1
27(1)	17(1)	1799.6	1769.2	413.0	195.9
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27(1)	23(1)	1356.5	1317.2	10.3	4.5
27(1)	24(1)	1334.2	1298.8	192.1	162.1
27(1)	25(1)	1282.2	1254.2	0.7	0.4
27(1)	26(1)	1228.4	1207.8	20.5	18.1
28(1)	1(1)	1203.6	1173.0	191.7	97.4
28(1)	2(1)	1179.0	1157.0	21.0	20.3

28(1)	3(1)	1151.4	1125.1	331.5	327.1
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28(1)	9(1)	783.8	775.5	45.5	21.6
28(1)	10(1)	757.7	747.1	4.0	3.2
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28(1)	13(1)	650.9	642.1	0.6	3.2
28(1)	14(1)	605.6	598.3	10.7	10.9
28(1)	15(1)	591.2	585.8	69.0	61.5
28(1)	16(1)	577.2	552.1	68.5	68.1
28(1)	17(1)	526.1	522.2	5.6	4.6
28(1)	18(1)	467.7	463.5	8.8	12.4
28(1)	19(1)	409.7	408.0	5.0	4.4
28(1)	20(1)	395.1	360.2	99.1	92.2
28(1)	21(1)	366.7	362.7	1.7	1.9
28(1)	22(1)	317.3	314.6	0.5	0.4
28(1)	23(1)	291.7	289.0	0.9	1.0
28(1)	24(1)	225.4	223.4	1.7	2.4
28(1)	25(1)	197.9	195.2	0.3	0.3
28(1)	26(1)	99.0	99.5	0.0	0.0
28(1)	27(1)	40.3	47.1	0.3	0.3
29(1)	1(1)	3810.8	3621.9	86.9	73.1
29(1)	2(1)	3759.3	3577.0	96.6	79.1
29(1)	3(1)	3220.3	3090.6	0.7	1.5
29(1)	4(1)	3215.0	3074.9	0.1	0.0
29(1)	5(1)	3166.3	3028.9	10.5	12.1
29(1)	6(1)	1799.6	1769.2	413.0	195.9
29(1)	7(1)	1662.9	1616.9	253.4	89.3
29(1)	8(1)	1623.4	1587.0	132.1	98.0
29(1)	9(1)	1538.9	1498.0	43.5	26.8
29(1)	10(1)	1491.0	1455.3	45.3	17.7
29(1)	11(1)	1376.6	1351.2	37.1	25.9
29(1)	12(1)	1356.5	1317.2	10.3	4.5
29(1)	13(1)	1334.2	1298.8	192.1	162.1
29(1)	14(1)	1282.2	1254.2	0.7	0.4
29(1)	15(1)	1228.4	1207.8	20.5	18.1

29(1)	16(1)	1203.6	1173.0	191.7	97.4
29(1)	17(1)	1179.0	1157.0	21.0	20.3
29(1)	18(1)	1151.4	1125.1	331.5	327.1
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29(1)	24(1)	783.8	775.5	45.5	21.6
29(1)	25(1)	757.7	747.1	4.0	3.2
29(1)	26(1)	743.2	731.3	5.9	3.8
29(1)	27(1)	707.8	702.2	31.0	35.3
29(1)	28(1)	650.9	642.1	0.6	3.2
30(1)	1(1)	605.6	598.3	10.7	10.9
30(1)	2(1)	591.2	585.8	69.0	61.5
30(1)	3(1)	577.2	552.1	68.5	68.1
30(1)	4(1)	526.1	522.2	5.6	4.6
30(1)	5(1)	467.7	463.5	8.8	12.4
30(1)	6(1)	409.7	408.0	5.0	4.4
30(1)	7(1)	395.1	360.2	99.1	92.2
30(1)	8(1)	366.7	362.7	1.7	1.9
30(1)	9(1)	317.3	314.6	0.5	0.4
30(1)	10(1)	291.7	289.0	0.9	1.0
30(1)	11(1)	225.4	223.4	1.7	2.4
30(1)	12(1)	197.9	195.2	0.3	0.3
30(1)	13(1)	99.0	99.5	0.0	0.0
30(1)	14(1)	40.3	47.1	0.3	0.3
30(1)	15(1)	3810.8	3621.9	86.9	73.1
30(1)	16(1)	3759.3	3577.0	96.6	79.1
30(1)	17(1)	3220.3	3090.6	0.7	1.5
30(1)	18(1)	3215.0	3074.9	0.1	0.0
30(1)	19(1)	3166.3	3028.9	10.5	12.1
30(1)	20(1)	1799.6	1769.2	413.0	195.9
30(1)	21(1)	1662.9	1616.9	253.4	89.3
30(1)	22(1)	1623.4	1587.0	132.1	98.0
30(1)	23(1)	1538.9	1498.0	43.5	26.8
30(1)	24(1)	1491.0	1455.3	45.3	17.7
30(1)	25(1)	1376.6	1351.2	37.1	25.9
30(1)	26(1)	1356.5	1317.2	10.3	4.5
30(1)	27(1)	1334.2	1298.8	192.1	162.1

30(1)	28(1)	1282.2	1254.2	0.7	0.4
30(1)	29(1)	1228.4	1207.8	20.5	18.1
31(1)	1(1)	1203.6	1173.0	191.7	97.4
31(1)	2(1)	1179.0	1157.0	21.0	20.3
31(1)	3(1)	1151.4	1125.1	331.5	327.1
31(1)	4(1)	1074.4	1048.8	149.3	95.8
31(1)	5(1)	992.6	976.3	36.7	36.6
31(1)	6(1)	982.3	969.4	0.9	0.1
31(1)	7(1)	881.6	875.1	34.1	32.6
31(1)	8(1)	837.5	825.9	3.6	2.5
31(1)	9(1)	783.8	775.5	45.5	21.6
31(1)	10(1)	757.7	747.1	4.0	3.2
31(1)	11(1)	743.2	731.3	5.9	3.8
31(1)	12(1)	707.8	702.2	31.0	35.3
31(1)	13(1)	650.9	642.1	0.6	3.2
31(1)	14(1)	605.6	598.3	10.7	10.9
31(1)	15(1)	591.2	585.8	69.0	61.5
31(1)	16(1)	577.2	552.1	68.5	68.1
31(1)	17(1)	526.1	522.2	5.6	4.6
31(1)	18(1)	467.7	463.5	8.8	12.4
31(1)	19(1)	409.7	408.0	5.0	4.4
31(1)	20(1)	395.1	360.2	99.1	92.2
31(1)	21(1)	366.7	362.7	1.7	1.9
31(1)	22(1)	317.3	314.6	0.5	0.4
31(1)	23(1)	291.7	289.0	0.9	1.0
31(1)	24(1)	225.4	223.4	1.7	2.4
31(1)	25(1)	197.9	195.2	0.3	0.3
31(1)	26(1)	99.0	99.5	0.0	0.0
31(1)	27(1)	40.3	47.1	0.3	0.3
31(1)	28(1)	3810.8	3621.9	86.9	73.1
31(1)	29(1)	3759.3	3577.0	96.6	79.1
31(1)	30(1)	3220.3	3090.6	0.7	1.5
32(1)	1(1)	3215.0	3074.9	0.1	0.0
32(1)	2(1)	3166.3	3028.9	10.5	12.1
32(1)	3(1)	1799.6	1769.2	413.0	195.9
32(1)	4(1)	1662.9	1616.9	253.4	89.3
32(1)	5(1)	1623.4	1587.0	132.1	98.0
32(1)	6(1)	1538.9	1498.0	43.5	26.8
32(1)	7(1)	1491.0	1455.3	45.3	17.7
32(1)	8(1)	1376.6	1351.2	37.1	25.9

32(1)	9(1)	1356.5	1317.2	10.3	4.5
32(1)	10(1)	1334.2	1298.8	192.1	162.1
32(1)	11(1)	1282.2	1254.2	0.7	0.4
32(1)	12(1)	1228.4	1207.8	20.5	18.1
32(1)	13(1)	1203.6	1173.0	191.7	97.4
32(1)	14(1)	1179.0	1157.0	21.0	20.3
32(1)	15(1)	1151.4	1125.1	331.5	327.1
32(1)	16(1)	1074.4	1048.8	149.3	95.8
32(1)	17(1)	992.6	976.3	36.7	36.6
32(1)	18(1)	982.3	969.4	0.9	0.1
32(1)	19(1)	881.6	875.1	34.1	32.6
32(1)	20(1)	837.5	825.9	3.6	2.5
32(1)	21(1)	783.8	775.5	45.5	21.6
32(1)	22(1)	757.7	747.1	4.0	3.2
32(1)	23(1)	743.2	731.3	5.9	3.8
32(1)	24(1)	707.8	702.2	31.0	35.3
32(1)	25(1)	650.9	642.1	0.6	3.2
32(1)	26(1)	605.6	598.3	10.7	10.9
32(1)	27(1)	591.2	585.8	69.0	61.5
32(1)	28(1)	577.2	552.1	68.5	68.1
32(1)	29(1)	526.1	522.2	5.6	4.6
32(1)	30(1)	467.7	463.5	8.8	12.4
32(1)	31(1)	409.7	408.0	5.0	4.4
33(1)	1(1)	395.1	360.2	99.1	92.2
33(1)	2(1)	366.7	362.7	1.7	1.9
33(1)	3(1)	317.3	314.6	0.5	0.4
33(1)	4(1)	291.7	289.0	0.9	1.0
33(1)	5(1)	225.4	223.4	1.7	2.4
33(1)	6(1)	197.9	195.2	0.3	0.3
33(1)	7(1)	99.0	99.5	0.0	0.0
33(1)	8(1)	40.3	47.1	0.3	0.3
33(1)	9(1)	3810.8	3621.9	86.9	73.1
33(1)	10(1)	3759.3	3577.0	96.6	79.1
33(1)	11(1)	3220.3	3090.6	0.7	1.5
33(1)	12(1)	3215.0	3074.9	0.1	0.0
33(1)	13(1)	3166.3	3028.9	10.5	12.1
33(1)	14(1)	1799.6	1769.2	413.0	195.9
33(1)	15(1)	1662.9	1616.9	253.4	89.3
33(1)	16(1)	1623.4	1587.0	132.1	98.0
33(1)	17(1)	1538.9	1498.0	43.5	26.8

33(1)	18(1)	1491.0	1455.3	45.3	17.7
33(1)	19(1)	1376.6	1351.2	37.1	25.9
33(1)	20(1)	1356.5	1317.2	10.3	4.5
33(1)	21(1)	1334.2	1298.8	192.1	162.1
33(1)	22(1)	1282.2	1254.2	0.7	0.4
33(1)	23(1)	1228.4	1207.8	20.5	18.1
33(1)	24(1)	1203.6	1173.0	191.7	97.4
33(1)	25(1)	1179.0	1157.0	21.0	20.3
33(1)	26(1)	1151.4	1125.1	331.5	327.1
33(1)	27(1)	1074.4	1048.8	149.3	95.8
33(1)	28(1)	992.6	976.3	36.7	36.6
33(1)	29(1)	982.3	969.4	0.9	0.1
33(1)	30(1)	881.6	875.1	34.1	32.6
33(1)	31(1)	837.5	825.9	3.6	2.5
33(1)	32(1)	783.8	775.5	45.5	21.6
34(1)	1(1)	757.7	747.1	4.0	3.2
34(1)	2(1)	743.2	731.3	5.9	3.8
34(1)	3(1)	707.8	702.2	31.0	35.3
34(1)	4(1)	650.9	642.1	0.6	3.2
34(1)	5(1)	605.6	598.3	10.7	10.9
34(1)	6(1)	591.2	585.8	69.0	61.5
34(1)	7(1)	577.2	552.1	68.5	68.1
34(1)	8(1)	526.1	522.2	5.6	4.6
34(1)	9(1)	467.7	463.5	8.8	12.4
34(1)	10(1)	409.7	408.0	5.0	4.4
34(1)	11(1)	395.1	360.2	99.1	92.2
34(1)	12(1)	366.7	362.7	1.7	1.9
34(1)	13(1)	317.3	314.6	0.5	0.4
34(1)	14(1)	291.7	289.0	0.9	1.0
34(1)	15(1)	225.4	223.4	1.7	2.4
34(1)	16(1)	197.9	195.2	0.3	0.3
34(1)	17(1)	99.0	99.5	0.0	0.0
34(1)	18(1)	40.3	47.1	0.3	0.3
34(1)	19(1)	3810.8	3621.9	86.9	73.1
34(1)	20(1)	3759.3	3577.0	96.6	79.1
34(1)	21(1)	3220.3	3090.6	0.7	1.5
34(1)	22(1)	3215.0	3074.9	0.1	0.0
34(1)	23(1)	3166.3	3028.9	10.5	12.1
34(1)	24(1)	1799.6	1769.2	413.0	195.9
34(1)	25(1)	1662.9	1616.9	253.4	89.3

34(1)	26(1)	1623.4	1587.0	132.1	98.0
34(1)	27(1)	1538.9	1498.0	43.5	26.8
34(1)	28(1)	1491.0	1455.3	45.3	17.7
34(1)	29(1)	1376.6	1351.2	37.1	25.9
34(1)	30(1)	1356.5	1317.2	10.3	4.5
34(1)	31(1)	1334.2	1298.8	192.1	162.1
34(1)	32(1)	1282.2	1254.2	0.7	0.4
34(1)	33(1)	1228.4	1207.8	20.5	18.1
35(1)	1(1)	1203.6	1173.0	191.7	97.4
35(1)	2(1)	1179.0	1157.0	21.0	20.3
35(1)	3(1)	1151.4	1125.1	331.5	327.1
35(1)	4(1)	1074.4	1048.8	149.3	95.8
35(1)	5(1)	992.6	976.3	36.7	36.6
35(1)	6(1)	982.3	969.4	0.9	0.1
35(1)	7(1)	881.6	875.1	34.1	32.6
35(1)	8(1)	837.5	825.9	3.6	2.5
35(1)	9(1)	783.8	775.5	45.5	21.6
35(1)	10(1)	757.7	747.1	4.0	3.2
35(1)	11(1)	743.2	731.3	5.9	3.8
35(1)	12(1)	707.8	702.2	31.0	35.3
35(1)	13(1)	650.9	642.1	0.6	3.2
35(1)	14(1)	605.6	598.3	10.7	10.9
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35(1)	16(1)	577.2	552.1	68.5	68.1
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35(1)	18(1)	467.7	463.5	8.8	12.4
35(1)	19(1)	409.7	408.0	5.0	4.4
35(1)	20(1)	395.1	360.2	99.1	92.2
35(1)	21(1)	366.7	362.7	1.7	1.9
35(1)	22(1)	317.3	314.6	0.5	0.4
35(1)	23(1)	291.7	289.0	0.9	1.0
35(1)	24(1)	225.4	223.4	1.7	2.4
35(1)	25(1)	197.9	195.2	0.3	0.3
35(1)	26(1)	99.0	99.5	0.0	0.0
35(1)	27(1)	40.3	47.1	0.3	0.3
35(1)	28(1)	3810.8	3621.9	86.9	73.1
35(1)	29(1)	3759.3	3577.0	96.6	79.1
35(1)	30(1)	3220.3	3090.6	0.7	1.5
35(1)	31(1)	3215.0	3074.9	0.1	0.0
35(1)	32(1)	3166.3	3028.9	10.5	12.1

35(1)	33(1)	1799.6	1769.2	413.0	195.9
35(1)	34(1)	1662.9	1616.9	253.4	89.3
36(1)	1(1)	1623.4	1587.0	132.1	98.0
36(1)	2(1)	1538.9	1498.0	43.5	26.8
36(1)	3(1)	1491.0	1455.3	45.3	17.7
36(1)	4(1)	1376.6	1351.2	37.1	25.9
36(1)	5(1)	1356.5	1317.2	10.3	4.5
36(1)	6(1)	1334.2	1298.8	192.1	162.1
36(1)	7(1)	1282.2	1254.2	0.7	0.4
36(1)	8(1)	1228.4	1207.8	20.5	18.1
36(1)	9(1)	1203.6	1173.0	191.7	97.4
36(1)	10(1)	1179.0	1157.0	21.0	20.3
36(1)	11(1)	1151.4	1125.1	331.5	327.1
36(1)	12(1)	1074.4	1048.8	149.3	95.8
36(1)	13(1)	992.6	976.3	36.7	36.6
36(1)	14(1)	982.3	969.4	0.9	0.1
36(1)	15(1)	881.6	875.1	34.1	32.6
36(1)	16(1)	837.5	825.9	3.6	2.5
36(1)	17(1)	783.8	775.5	45.5	21.6
36(1)	18(1)	757.7	747.1	4.0	3.2
36(1)	19(1)	743.2	731.3	5.9	3.8
36(1)	20(1)	707.8	702.2	31.0	35.3
36(1)	21(1)	650.9	642.1	0.6	3.2
36(1)	22(1)	605.6	598.3	10.7	10.9
36(1)	23(1)	591.2	585.8	69.0	61.5
36(1)	24(1)	577.2	552.1	68.5	68.1
36(1)	25(1)	526.1	522.2	5.6	4.6
36(1)	26(1)	467.7	463.5	8.8	12.4
36(1)	27(1)	409.7	408.0	5.0	4.4
36(1)	28(1)	395.1	360.2	99.1	92.2
36(1)	29(1)	366.7	362.7	1.7	1.9
36(1)	30(1)	317.3	314.6	0.5	0.4
36(1)	31(1)	291.7	289.0	0.9	1.0
36(1)	32(1)	225.4	223.4	1.7	2.4
36(1)	33(1)	197.9	195.2	0.3	0.3
36(1)	34(1)	99.0	99.5	0.0	0.0
36(1)	35(1)	40.3	47.1	0.3	0.3
37(1)	1(1)	3810.8	3621.9	86.9	73.1
37(1)	2(1)	3759.3	3577.0	96.6	79.1
37(1)	3(1)	3220.3	3090.6	0.7	1.5

37(1)	4(1)	3215.0	3074.9	0.1	0.0
37(1)	5(1)	3166.3	3028.9	10.5	12.1
37(1)	6(1)	1799.6	1769.2	413.0	195.9
37(1)	7(1)	1662.9	1616.9	253.4	89.3
37(1)	8(1)	1623.4	1587.0	132.1	98.0
37(1)	9(1)	1538.9	1498.0	43.5	26.8
37(1)	10(1)	1491.0	1455.3	45.3	17.7
37(1)	11(1)	1376.6	1351.2	37.1	25.9
37(1)	12(1)	1356.5	1317.2	10.3	4.5
37(1)	13(1)	1334.2	1298.8	192.1	162.1
37(1)	14(1)	1282.2	1254.2	0.7	0.4
37(1)	15(1)	1228.4	1207.8	20.5	18.1
37(1)	16(1)	1203.6	1173.0	191.7	97.4
37(1)	17(1)	1179.0	1157.0	21.0	20.3
37(1)	18(1)	1151.4	1125.1	331.5	327.1
37(1)	19(1)	1074.4	1048.8	149.3	95.8
37(1)	20(1)	992.6	976.3	36.7	36.6
37(1)	21(1)	982.3	969.4	0.9	0.1
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37(1)	23(1)	837.5	825.9	3.6	2.5
37(1)	24(1)	783.8	775.5	45.5	21.6
37(1)	25(1)	757.7	747.1	4.0	3.2
37(1)	26(1)	743.2	731.3	5.9	3.8
37(1)	27(1)	707.8	702.2	31.0	35.3
37(1)	28(1)	650.9	642.1	0.6	3.2
37(1)	29(1)	605.6	598.3	10.7	10.9
37(1)	30(1)	591.2	585.8	69.0	61.5
37(1)	31(1)	577.2	552.1	68.5	68.1
37(1)	32(1)	526.1	522.2	5.6	4.6
37(1)	33(1)	467.7	463.5	8.8	12.4
37(1)	34(1)	409.7	408.0	5.0	4.4
37(1)	35(1)	395.1	360.2	99.1	92.2
37(1)	36(1)	366.7	362.7	1.7	1.9
38(1)	1(1)	317.3	314.6	0.5	0.4
38(1)	2(1)	291.7	289.0	0.9	1.0
38(1)	3(1)	225.4	223.4	1.7	2.4
38(1)	4(1)	197.9	195.2	0.3	0.3
38(1)	5(1)	99.0	99.5	0.0	0.0
38(1)	6(1)	40.3	47.1	0.3	0.3
38(1)	7(1)	3810.8	3621.9	86.9	73.1

38(1)	8(1)	3759.3	3577.0	96.6	79.1
38(1)	9(1)	3220.3	3090.6	0.7	1.5
38(1)	10(1)	3215.0	3074.9	0.1	0.0
38(1)	11(1)	3166.3	3028.9	10.5	12.1
38(1)	12(1)	1799.6	1769.2	413.0	195.9
38(1)	13(1)	1662.9	1616.9	253.4	89.3
38(1)	14(1)	1623.4	1587.0	132.1	98.0
38(1)	15(1)	1538.9	1498.0	43.5	26.8
38(1)	16(1)	1491.0	1455.3	45.3	17.7
38(1)	17(1)	1376.6	1351.2	37.1	25.9
38(1)	18(1)	1356.5	1317.2	10.3	4.5
38(1)	19(1)	1334.2	1298.8	192.1	162.1
38(1)	20(1)	1282.2	1254.2	0.7	0.4
38(1)	21(1)	1228.4	1207.8	20.5	18.1
38(1)	22(1)	1203.6	1173.0	191.7	97.4
38(1)	23(1)	1179.0	1157.0	21.0	20.3
38(1)	24(1)	1151.4	1125.1	331.5	327.1
38(1)	25(1)	1074.4	1048.8	149.3	95.8
38(1)	26(1)	992.6	976.3	36.7	36.6
38(1)	27(1)	982.3	969.4	0.9	0.1
38(1)	28(1)	881.6	875.1	34.1	32.6
38(1)	29(1)	837.5	825.9	3.6	2.5
38(1)	30(1)	783.8	775.5	45.5	21.6
38(1)	31(1)	757.7	747.1	4.0	3.2
38(1)	32(1)	743.2	731.3	5.9	3.8
38(1)	33(1)	707.8	702.2	31.0	35.3
38(1)	34(1)	650.9	642.1	0.6	3.2
38(1)	35(1)	605.6	598.3	10.7	10.9
38(1)	36(1)	591.2	585.8	69.0	61.5
38(1)	37(1)	577.2	552.1	68.5	68.1
39(1)	1(1)	526.1	522.2	5.6	4.6
39(1)	2(1)	467.7	463.5	8.8	12.4
39(1)	3(1)	409.7	408.0	5.0	4.4
39(1)	4(1)	395.1	360.2	99.1	92.2
39(1)	5(1)	366.7	362.7	1.7	1.9
39(1)	6(1)	317.3	314.6	0.5	0.4
39(1)	7(1)	291.7	289.0	0.9	1.0
39(1)	8(1)	225.4	223.4	1.7	2.4
39(1)	9(1)	197.9	195.2	0.3	0.3
39(1)	10(1)	99.0	99.5	0.0	0.0

39(1)	11(1)	40.3	47.1	0.3	0.3
39(1)	12(1)	3810.8	3621.9	86.9	73.1
39(1)	13(1)	3759.3	3577.0	96.6	79.1
39(1)	14(1)	3220.3	3090.6	0.7	1.5
39(1)	15(1)	3215.0	3074.9	0.1	0.0
39(1)	16(1)	3166.3	3028.9	10.5	12.1
39(1)	17(1)	1799.6	1769.2	413.0	195.9
39(1)	18(1)	1662.9	1616.9	253.4	89.3
39(1)	19(1)	1623.4	1587.0	132.1	98.0
39(1)	20(1)	1538.9	1498.0	43.5	26.8
39(1)	21(1)	1491.0	1455.3	45.3	17.7
39(1)	22(1)	1376.6	1351.2	37.1	25.9
39(1)	23(1)	1356.5	1317.2	10.3	4.5
39(1)	24(1)	1334.2	1298.8	192.1	162.1
39(1)	25(1)	1282.2	1254.2	0.7	0.4
39(1)	26(1)	1228.4	1207.8	20.5	18.1
39(1)	27(1)	1203.6	1173.0	191.7	97.4
39(1)	28(1)	1179.0	1157.0	21.0	20.3
39(1)	29(1)	1151.4	1125.1	331.5	327.1
39(1)	30(1)	1074.4	1048.8	149.3	95.8
39(1)	31(1)	992.6	976.3	36.7	36.6
39(1)	32(1)	982.3	969.4	0.9	0.1
39(1)	33(1)	881.6	875.1	34.1	32.6
39(1)	34(1)	837.5	825.9	3.6	2.5
39(1)	35(1)	783.8	775.5	45.5	21.6
39(1)	36(1)	757.7	747.1	4.0	3.2
39(1)	37(1)	743.2	731.3	5.9	3.8
39(1)	38(1)	707.8	702.2	31.0	35.3
40(1)	1(1)	650.9	642.1	0.6	3.2
40(1)	2(1)	605.6	598.3	10.7	10.9
40(1)	3(1)	591.2	585.8	69.0	61.5
40(1)	4(1)	577.2	552.1	68.5	68.1
40(1)	5(1)	526.1	522.2	5.6	4.6
40(1)	6(1)	467.7	463.5	8.8	12.4
40(1)	7(1)	409.7	408.0	5.0	4.4
40(1)	8(1)	395.1	360.2	99.1	92.2
40(1)	9(1)	366.7	362.7	1.7	1.9
40(1)	10(1)	317.3	314.6	0.5	0.4
40(1)	11(1)	291.7	289.0	0.9	1.0
40(1)	12(1)	225.4	223.4	1.7	2.4

40(1)	13(1)	197.9	195.2	0.3	0.3
40(1)	14(1)	99.0	99.5	0.0	0.0
40(1)	15(1)	40.3	47.1	0.3	0.3
40(1)	16(1)	3810.8	3621.9	86.9	73.1
40(1)	17(1)	3759.3	3577.0	96.6	79.1
40(1)	18(1)	3220.3	3090.6	0.7	1.5
40(1)	19(1)	3215.0	3074.9	0.1	0.0
40(1)	20(1)	3166.3	3028.9	10.5	12.1
40(1)	21(1)	1799.6	1769.2	413.0	195.9
40(1)	22(1)	1662.9	1616.9	253.4	89.3
40(1)	23(1)	1623.4	1587.0	132.1	98.0
40(1)	24(1)	1538.9	1498.0	43.5	26.8
40(1)	25(1)	1491.0	1455.3	45.3	17.7
40(1)	26(1)	1376.6	1351.2	37.1	25.9
40(1)	27(1)	1356.5	1317.2	10.3	4.5
40(1)	28(1)	1334.2	1298.8	192.1	162.1
40(1)	29(1)	1282.2	1254.2	0.7	0.4
40(1)	30(1)	1228.4	1207.8	20.5	18.1
40(1)	31(1)	1203.6	1173.0	191.7	97.4
40(1)	32(1)	1179.0	1157.0	21.0	20.3
40(1)	33(1)	1151.4	1125.1	331.5	327.1
40(1)	34(1)	1074.4	1048.8	149.3	95.8
40(1)	35(1)	992.6	976.3	36.7	36.6
40(1)	36(1)	982.3	969.4	0.9	0.1
40(1)	37(1)	881.6	875.1	34.1	32.6
40(1)	38(1)	837.5	825.9	3.6	2.5
40(1)	39(1)	783.8	775.5	45.5	21.6
41(1)	1(1)	757.7	747.1	4.0	3.2
41(1)	2(1)	743.2	731.3	5.9	3.8
41(1)	3(1)	707.8	702.2	31.0	35.3
41(1)	4(1)	650.9	642.1	0.6	3.2
41(1)	5(1)	605.6	598.3	10.7	10.9
41(1)	6(1)	591.2	585.8	69.0	61.5
41(1)	7(1)	577.2	552.1	68.5	68.1
41(1)	8(1)	526.1	522.2	5.6	4.6
41(1)	9(1)	467.7	463.5	8.8	12.4
41(1)	10(1)	409.7	408.0	5.0	4.4
41(1)	11(1)	395.1	360.2	99.1	92.2
41(1)	12(1)	366.7	362.7	1.7	1.9
41(1)	13(1)	317.3	314.6	0.5	0.4

41(1)	14(1)	291.7	289.0	0.9	1.0
41(1)	15(1)	225.4	223.4	1.7	2.4
41(1)	16(1)	197.9	195.2	0.3	0.3
41(1)	17(1)	99.0	99.5	0.0	0.0
41(1)	18(1)	40.3	47.1	0.3	0.3
41(1)	19(1)	3810.8	3621.9	86.9	73.1
41(1)	20(1)	3759.3	3577.0	96.6	79.1
41(1)	21(1)	3220.3	3090.6	0.7	1.5
41(1)	22(1)	3215.0	3074.9	0.1	0.0
41(1)	23(1)	3166.3	3028.9	10.5	12.1
41(1)	24(1)	1799.6	1769.2	413.0	195.9
41(1)	25(1)	1662.9	1616.9	253.4	89.3
41(1)	26(1)	1623.4	1587.0	132.1	98.0
41(1)	27(1)	1538.9	1498.0	43.5	26.8
41(1)	28(1)	1491.0	1455.3	45.3	17.7
41(1)	29(1)	1376.6	1351.2	37.1	25.9
41(1)	30(1)	1356.5	1317.2	10.3	4.5
41(1)	31(1)	1334.2	1298.8	192.1	162.1
41(1)	32(1)	1282.2	1254.2	0.7	0.4
41(1)	33(1)	1228.4	1207.8	20.5	18.1
41(1)	34(1)	1203.6	1173.0	191.7	97.4
41(1)	35(1)	1179.0	1157.0	21.0	20.3
41(1)	36(1)	1151.4	1125.1	331.5	327.1
41(1)	37(1)	1074.4	1048.8	149.3	95.8
41(1)	38(1)	992.6	976.3	36.7	36.6
41(1)	39(1)	982.3	969.4	0.9	0.1
41(1)	40(1)	881.6	875.1	34.1	32.6
42(1)	1(1)	837.5	825.9	3.6	2.5
42(1)	2(1)	783.8	775.5	45.5	21.6
42(1)	3(1)	757.7	747.1	4.0	3.2
42(1)	4(1)	743.2	731.3	5.9	3.8
42(1)	5(1)	707.8	702.2	31.0	35.3
42(1)	6(1)	650.9	642.1	0.6	3.2
42(1)	7(1)	605.6	598.3	10.7	10.9
42(1)	8(1)	591.2	585.8	69.0	61.5
42(1)	9(1)	577.2	552.1	68.5	68.1
42(1)	10(1)	526.1	522.2	5.6	4.6
42(1)	11(1)	467.7	463.5	8.8	12.4
42(1)	12(1)	409.7	408.0	5.0	4.4
42(1)	13(1)	395.1	360.2	99.1	92.2

42(1)	14(1)	366.7	362.7	1.7	1.9
42(1)	15(1)	317.3	314.6	0.5	0.4
42(1)	16(1)	291.7	289.0	0.9	1.0
42(1)	17(1)	225.4	223.4	1.7	2.4
42(1)	18(1)	197.9	195.2	0.3	0.3
42(1)	19(1)	99.0	99.5	0.0	0.0
42(1)	20(1)	40.3	47.1	0.3	0.3
42(1)	21(1)	3810.8	3621.9	86.9	73.1
42(1)	22(1)	3759.3	3577.0	96.6	79.1
42(1)	23(1)	3220.3	3090.6	0.7	1.5
42(1)	24(1)	3215.0	3074.9	0.1	0.0
42(1)	25(1)	3166.3	3028.9	10.5	12.1
42(1)	26(1)	1799.6	1769.2	413.0	195.9
42(1)	27(1)	1662.9	1616.9	253.4	89.3
42(1)	28(1)	1623.4	1587.0	132.1	98.0
42(1)	29(1)	1538.9	1498.0	43.5	26.8
42(1)	30(1)	1491.0	1455.3	45.3	17.7
42(1)	31(1)	1376.6	1351.2	37.1	25.9
42(1)	32(1)	1356.5	1317.2	10.3	4.5
42(1)	33(1)	1334.2	1298.8	192.1	162.1
42(1)	34(1)	1282.2	1254.2	0.7	0.4
42(1)	35(1)	1228.4	1207.8	20.5	18.1
42(1)	36(1)	1203.6	1173.0	191.7	97.4
42(1)	37(1)	1179.0	1157.0	21.0	20.3
42(1)	38(1)	1151.4	1125.1	331.5	327.1
42(1)	39(1)	1074.4	1048.8	149.3	95.8
42(1)	40(1)	992.6	976.3	36.7	36.6
42(1)	41(1)	982.3	969.4	0.9	0.1

Table S13. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **B1** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3811.1	3628.5	85.9	70.3
2(1)	3745.2	3567.4	90.3	76.5
3(1)	3211.6	3086.3	2.8	3.9
4(1)	3198.8	3068.1	0.4	0.5
5(1)	3182.4	3049.1	2.5	3.3
6(1)	1776.7	1742.1	364.6	316.4
7(1)	1660.6	1617.1	321.8	229.1
8(1)	1625.8	1586.5	73.3	54.1
9(1)	1542.2	1508.3	43.3	33.5
10(1)	1489.5	1458.9	52.4	39.1
11(1)	1383.4	1337.9	168.7	94.9
12(1)	1366.3	1336.1	21.6	4.9
13(1)	1345.0	1313.9	32.9	10.7
14(1)	1274.4	1247.2	125.9	72.7
15(1)	1212.5	1181.4	91.8	117.2
16(1)	1202.8	1174.6	247.1	74.0
17(1)	1186.2	1164.0	126.4	149.1
18(1)	1132.0	1116.0	187.6	192.5
19(1)	1106.3	1085.3	13.9	12.3
20(1)	1009.3	987.9	0.4	0.0
21(1)	992.3	977.3	20.9	20.9
22(1)	863.2	851.9	23.1	60.8
23(1)	853.1	849.1	31.3	6.3
24(1)	790.2	778.6	28.1	21.5
25(1)	760.6	747.3	10.3	9.8
26(1)	745.3	733.5	12.1	9.6
27(1)	709.7	703.0	42.7	44.3
28(1)	653.6	644.4	1.9	0.4
29(1)	616.3	609.9	11.3	11.2
30(1)	593.7	586.0	54.3	53.2
31(1)	585.1	578.2	68.1	62.6
32(1)	530.0	525.8	4.1	3.1
33(1)	472.1	466.4	8.1	7.8
34(1)	407.1	404.5	6.5	5.5
35(1)	393.8	351.9	104.7	100.2
36(1)	356.5	353.4	2.6	2.2
37(1)	321.1	317.9	3.4	3.1

38(1)	292.7	290.5	0.0	0.1
39(1)	226.1	222.0	0.4	0.6
40(1)	201.7	197.5	1.1	1.0
41(1)	100.2	99.8	0.5	0.8
42(1)	45.8	39.8	1.7	1.0
1(2)	7622.1	7090.7		6.3
2(2)	7490.5	6970.6		5.8
3(2)	6423.1	6118.2		0.3
4(2)	6397.7	6091.0		0.8
5(2)	6364.8	6002.9		0.6
6(2)	3553.3	3466.1		3.2
7(2)	3321.2	3232.8		0.4
8(2)	3251.7	3168.1		1.4
9(2)	3084.4	3009.9		0.1
10(2)	2978.9	2904.0		0.1
11(2)	2766.9	2693.1		0.3
12(2)	2732.7	2669.5		1.4
13(2)	2690.1	2625.0		0.1
14(2)	2548.8	2492.3		0.1
15(2)	2425.0	2358.3		1.1
16(2)	2405.6	2345.4		0.0
17(2)	2372.5	2321.6		0.8
18(2)	2263.9	2222.2		0.6
19(2)	2212.6	2168.0		0.7
20(2)	2018.6	1970.6		2.8
21(2)	1984.6	1953.5		0.5
22(2)	1726.5	1703.7		0.6
23(2)	1706.2	1700.9		1.4
24(2)	1580.4	1557.3		0.7
25(2)	1521.2	1493.6		0.9
26(2)	1490.7	1466.9		7.4
27(2)	1419.4	1407.5		1.4
28(2)	1307.2	1288.9		1.1
29(2)	1232.7	1219.9		0.6
30(2)	1187.3	1159.2		5.1
31(2)	1170.2	1156.7		0.2
32(2)	1060.0	1051.3		0.1
33(2)	944.1	933.1		0.2
34(2)	814.3	809.0		0.1
35(2)	787.7	677.5		5.2

36(2)		712.9	706.6	0.2
37(2)		642.2	635.9	0.1
38(2)		585.4	581.8	0.1
39(2)		452.2	443.8	0.3
40(2)		403.4	399.1	0.5
41(2)		200.5	201.4	0.0
42(2)		91.7	78.6	0.0
2(1)	1(1)	7556.3	7196.0	0.0
3(1)	1(1)	7022.6	6715.4	0.0
3(1)	2(1)	6956.8	6654.4	0.0
4(1)	1(1)	7009.9	6701.8	0.0
4(1)	2(1)	6944.1	6640.9	0.0
4(1)	3(1)	6410.4	6051.1	0.3
5(1)	1(1)	6993.5	6684.7	0.0
5(1)	2(1)	6927.6	6624.7	0.0
5(1)	3(1)	6394.0	6144.0	0.0
5(1)	4(1)	6381.3	6130.4	0.0
6(1)	1(1)	5587.7	5370.4	0.0
6(1)	2(1)	5521.9	5308.3	1.0
6(1)	3(1)	4988.2	4829.2	0.1
6(1)	4(1)	4975.5	4815.6	0.0
6(1)	5(1)	4959.1	4799.5	0.0
7(1)	1(1)	5471.7	5245.4	0.1
7(1)	2(1)	5405.8	5185.3	0.0
7(1)	3(1)	4872.2	4705.4	0.1
7(1)	4(1)	4859.4	4694.7	0.0
7(1)	5(1)	4843.0	4677.7	0.1
7(1)	6(1)	3437.3	3359.5	0.2
8(1)	1(1)	5436.9	5213.3	0.6
8(1)	2(1)	5371.1	5153.9	0.0
8(1)	3(1)	4837.4	4675.3	0.1
8(1)	4(1)	4824.7	4658.7	0.2
8(1)	5(1)	4808.3	4642.5	0.2
8(1)	6(1)	3402.5	3327.4	0.1
8(1)	7(1)	3286.4	3204.1	0.1
9(1)	1(1)	5353.2	5135.3	0.1
9(1)	2(1)	5287.4	5075.6	0.0
9(1)	3(1)	4753.8	4600.0	0.0
9(1)	4(1)	4741.0	4582.0	0.1
9(1)	5(1)	4724.6	4566.9	0.0

9(1)	6(1)	3318.9	3249.8	0.1
9(1)	7(1)	3202.8	3131.9	0.1
9(1)	8(1)	3168.0	3089.0	0.3
10(1)	1(1)	5300.5	5082.1	0.4
10(1)	2(1)	5234.7	5020.6	0.0
10(1)	3(1)	4701.0	4543.3	0.1
10(1)	4(1)	4688.3	4531.2	0.0
10(1)	5(1)	4671.9	4515.0	0.1
10(1)	6(1)	3266.1	3195.8	0.1
10(1)	7(1)	3150.1	3055.8	0.3
10(1)	8(1)	3115.3	3036.0	0.0
10(1)	9(1)	3031.7	2958.9	0.2
11(1)	1(1)	5194.5	4977.9	0.2
11(1)	2(1)	5128.7	4905.4	0.8
11(1)	3(1)	4595.0	4436.1	0.0
11(1)	4(1)	4582.3	4423.1	0.0
11(1)	5(1)	4565.9	4407.1	0.0
11(1)	6(1)	3160.1	3088.3	1.0
11(1)	7(1)	3044.0	2965.6	0.4
11(1)	8(1)	3009.3	2935.2	0.0
11(1)	9(1)	2925.6	2856.6	0.1
11(1)	10(1)	2872.9	2801.6	0.3
12(1)	1(1)	5177.4	4964.8	0.2
12(1)	2(1)	5111.6	4903.1	0.0
12(1)	3(1)	4577.9	4425.2	0.0
12(1)	4(1)	4565.2	4411.4	0.0
12(1)	5(1)	4548.8	4396.0	0.1
12(1)	6(1)	3143.0	3077.9	0.0
12(1)	7(1)	3026.9	2942.4	0.2
12(1)	8(1)	2992.2	2915.0	0.0
12(1)	9(1)	2908.5	2838.9	1.4
12(1)	10(1)	2855.8	2785.2	0.7
12(1)	11(1)	2749.8	2684.9	0.5
13(1)	1(1)	5156.1	4937.4	0.3
13(1)	2(1)	5090.3	4880.7	0.1
13(1)	3(1)	4556.6	4399.9	0.1
13(1)	4(1)	4543.9	4387.3	0.1
13(1)	5(1)	4527.4	4372.0	0.2
13(1)	6(1)	3121.7	3056.1	0.1
13(1)	7(1)	3005.6	2927.3	0.0

13(1)	8(1)	2970.9	2898.9	0.2
13(1)	9(1)	2887.2	2819.0	0.4
13(1)	10(1)	2834.5	2764.6	0.4
13(1)	11(1)	2728.5	2662.5	0.6
13(1)	12(1)	2711.4	2648.5	0.8
14(1)	1(1)	5085.4	4875.9	0.2
14(1)	2(1)	5019.6	4814.2	0.1
14(1)	3(1)	4485.9	4329.7	0.0
14(1)	4(1)	4473.2	4317.2	0.1
14(1)	5(1)	4456.8	4300.8	0.0
14(1)	6(1)	3051.0	2988.7	0.1
14(1)	7(1)	2935.0	2861.9	0.3
14(1)	8(1)	2900.2	2830.7	0.0
14(1)	9(1)	2816.6	2752.8	0.2
14(1)	10(1)	2763.8	2699.1	0.0
14(1)	11(1)	2657.8	2596.3	0.1
14(1)	12(1)	2640.7	2581.5	0.5
14(1)	13(1)	2619.4	2559.8	0.2
15(1)	1(1)	5023.6	4809.5	0.1
15(1)	2(1)	4957.8	4740.5	0.4
15(1)	3(1)	4424.1	4266.1	0.0
15(1)	4(1)	4411.4	4252.2	0.1
15(1)	5(1)	4394.9	4238.0	0.1
15(1)	6(1)	2989.2	2920.5	0.3
15(1)	7(1)	2873.1	2796.8	0.1
15(1)	8(1)	2838.4	2767.9	0.0
15(1)	9(1)	2754.7	2688.2	0.4
15(1)	10(1)	2702.0	2633.1	0.0
15(1)	11(1)	2596.0	2524.2	0.6
15(1)	12(1)	2578.9	2515.7	0.1
15(1)	13(1)	2557.6	2494.3	0.1
15(1)	14(1)	2486.9	2428.0	0.3
16(1)	1(1)	5013.8	4802.3	0.7
16(1)	2(1)	4948.0	4741.9	0.0
16(1)	3(1)	4414.4	4259.2	0.1
16(1)	4(1)	4401.6	4246.2	0.0
16(1)	5(1)	4385.2	4230.8	0.0
16(1)	6(1)	2979.5	2916.3	0.1
16(1)	7(1)	2863.4	2789.6	0.2
16(1)	8(1)	2828.6	2757.9	0.0

16(1)	9(1)	2745.0	2680.1	0.5
16(1)	10(1)	2692.3	2624.7	0.7
16(1)	11(1)	2586.2	2523.8	0.0
16(1)	12(1)	2569.1	2508.0	1.6
16(1)	13(1)	2547.8	2484.1	2.0
16(1)	14(1)	2477.2	2419.5	0.9
16(1)	15(1)	2415.3	2355.3	0.3
17(1)	1(1)	4997.3	4785.9	0.4
17(1)	2(1)	4931.5	4729.6	0.0
17(1)	3(1)	4397.8	4249.0	0.0
17(1)	4(1)	4385.1	4235.3	0.0
17(1)	5(1)	4368.6	4213.5	0.1
17(1)	6(1)	2962.9	2904.3	0.0
17(1)	7(1)	2846.8	2778.7	0.0
17(1)	8(1)	2812.1	2744.7	0.3
17(1)	9(1)	2728.4	2668.9	0.3
17(1)	10(1)	2675.7	2613.2	0.1
17(1)	11(1)	2569.7	2511.2	0.0
17(1)	12(1)	2552.6	2497.6	0.3
17(1)	13(1)	2531.3	2473.6	0.6
17(1)	14(1)	2460.6	2408.4	0.1
17(1)	15(1)	2398.7	2342.4	1.0
17(1)	16(1)	2389.0	2332.0	0.9
18(1)	1(1)	4943.0	4739.9	0.0
18(1)	2(1)	4877.2	4678.2	0.1
18(1)	3(1)	4343.5	4194.2	0.0
18(1)	4(1)	4330.8	4179.6	0.1
18(1)	5(1)	4314.4	4167.9	0.1
18(1)	6(1)	2908.6	2852.5	0.2
18(1)	7(1)	2792.5	2726.0	0.4
18(1)	8(1)	2757.8	2695.3	0.0
18(1)	9(1)	2674.1	2618.2	0.1
18(1)	10(1)	2621.4	2563.0	0.4
18(1)	11(1)	2515.4	2457.6	0.4
18(1)	12(1)	2498.3	2445.6	0.0
18(1)	13(1)	2477.0	2424.4	0.1
18(1)	14(1)	2406.3	2358.1	0.4
18(1)	15(1)	2344.5	2290.2	0.1
18(1)	16(1)	2334.7	2285.8	0.1
18(1)	17(1)	2318.2	2273.6	0.5

19(1)	1(1)	4917.3	4713.7	0.0
19(1)	2(1)	4851.5	4653.8	0.0
19(1)	3(1)	4317.9	4171.5	0.1
19(1)	4(1)	4305.1	4157.9	0.1
19(1)	5(1)	4288.7	4142.2	0.1
19(1)	6(1)	2883.0	2825.7	0.4
19(1)	7(1)	2766.9	2700.7	0.0
19(1)	8(1)	2732.1	2669.8	0.0
19(1)	9(1)	2648.5	2592.4	0.1
19(1)	10(1)	2595.8	2537.5	0.1
19(1)	11(1)	2489.7	2430.3	1.0
19(1)	12(1)	2472.6	2419.5	0.0
19(1)	13(1)	2451.3	2398.5	0.6
19(1)	14(1)	2380.7	2331.8	0.1
19(1)	15(1)	2318.8	2264.1	0.6
19(1)	16(1)	2309.1	2259.2	0.1
19(1)	17(1)	2292.5	2247.4	0.3
19(1)	18(1)	2238.2	2194.5	0.5
20(1)	1(1)	4820.3	4616.3	0.0
20(1)	2(1)	4754.5	4555.3	0.0
20(1)	3(1)	4220.8	4064.4	0.0
20(1)	4(1)	4208.1	4052.1	0.0
20(1)	5(1)	4191.7	4044.9	0.0
20(1)	6(1)	2785.9	2730.1	0.0
20(1)	7(1)	2669.9	2603.7	0.0
20(1)	8(1)	2635.1	2573.0	0.0
20(1)	9(1)	2551.5	2495.5	0.0
20(1)	10(1)	2498.7	2440.8	0.0
20(1)	11(1)	2392.7	2337.7	0.0
20(1)	12(1)	2375.6	2322.8	0.0
20(1)	13(1)	2354.3	2302.4	0.0
20(1)	14(1)	2283.7	2234.3	0.0
20(1)	15(1)	2221.8	2168.6	0.0
20(1)	16(1)	2212.1	2162.4	0.0
20(1)	17(1)	2195.5	2150.4	0.0
20(1)	18(1)	2141.2	2098.8	0.0
20(1)	19(1)	2115.6	2072.1	0.0
21(1)	1(1)	4803.3	4605.1	0.0
21(1)	2(1)	4737.5	4544.7	0.0
21(1)	3(1)	4203.9	4062.8	0.1

21(1)	4(1)	4191.1	4049.2	0.2
21(1)	5(1)	4174.7	4032.3	0.2
21(1)	6(1)	2769.0	2719.1	0.0
21(1)	7(1)	2652.9	2592.8	0.0
21(1)	8(1)	2618.1	2559.8	0.0
21(1)	9(1)	2534.5	2483.5	0.3
21(1)	10(1)	2481.8	2429.6	0.5
21(1)	11(1)	2375.7	2327.2	0.0
21(1)	12(1)	2358.6	2312.5	0.3
21(1)	13(1)	2337.3	2290.3	0.4
21(1)	14(1)	2266.7	2224.1	0.2
21(1)	15(1)	2204.8	2158.6	0.1
21(1)	16(1)	2195.1	2150.9	0.8
21(1)	17(1)	2178.5	2138.8	0.2
21(1)	18(1)	2124.2	2088.8	0.3
21(1)	19(1)	2098.6	2062.4	0.2
21(1)	20(1)	2001.6	1965.2	0.0
22(1)	1(1)	4674.3	4480.0	0.0
22(1)	2(1)	4608.5	4419.3	0.0
22(1)	3(1)	4074.8	3933.0	0.0
22(1)	4(1)	4062.1	3918.7	0.0
22(1)	5(1)	4045.6	3907.7	0.0
22(1)	6(1)	2639.9	2593.5	0.0
22(1)	7(1)	2523.8	2468.1	0.0
22(1)	8(1)	2489.1	2436.7	0.0
22(1)	9(1)	2405.4	2359.2	0.0
22(1)	10(1)	2352.7	2305.2	0.0
22(1)	11(1)	2246.7	2201.2	0.0
22(1)	12(1)	2229.6	2188.5	0.0
22(1)	13(1)	2208.3	2167.0	0.0
22(1)	14(1)	2137.6	2099.3	0.0
22(1)	15(1)	2075.8	2032.7	0.0
22(1)	16(1)	2066.0	2025.5	0.0
22(1)	17(1)	2049.5	2013.3	0.0
22(1)	18(1)	1995.2	1964.1	0.0
22(1)	19(1)	1969.5	1936.8	0.0
22(1)	20(1)	1872.5	1837.5	0.7
22(1)	21(1)	1855.5	1828.5	0.0
23(1)	1(1)	4664.1	4476.7	0.0
23(1)	2(1)	4598.3	4416.5	0.0

23(1)	3(1)	4064.6	3935.6	0.0
23(1)	4(1)	4051.9	3922.0	0.0
23(1)	5(1)	4035.5	3894.7	0.0
23(1)	6(1)	2629.7	2590.8	0.0
23(1)	7(1)	2513.7	2465.0	0.0
23(1)	8(1)	2478.9	2433.5	0.0
23(1)	9(1)	2395.3	2358.3	0.0
23(1)	10(1)	2342.5	2301.0	0.0
23(1)	11(1)	2236.5	2198.5	0.0
23(1)	12(1)	2219.4	2184.5	0.0
23(1)	13(1)	2198.1	2162.8	0.0
23(1)	14(1)	2127.5	2096.6	0.0
23(1)	15(1)	2065.6	2029.5	0.0
23(1)	16(1)	2055.9	2022.6	0.0
23(1)	17(1)	2039.3	2011.7	0.0
23(1)	18(1)	1985.0	1960.0	0.0
23(1)	19(1)	1959.4	1933.7	0.0
23(1)	20(1)	1862.4	1837.7	0.4
23(1)	21(1)	1845.4	1826.1	0.0
23(1)	22(1)	1716.3	1702.2	0.2
24(1)	1(1)	4601.2	4406.7	0.0
24(1)	2(1)	4535.4	4346.0	0.0
24(1)	3(1)	4001.8	3863.8	0.0
24(1)	4(1)	3989.0	3850.3	0.0
24(1)	5(1)	3972.6	3834.1	0.0
24(1)	6(1)	2566.9	2518.3	0.0
24(1)	7(1)	2450.8	2396.0	0.0
24(1)	8(1)	2416.0	2364.1	0.0
24(1)	9(1)	2332.4	2286.3	0.0
24(1)	10(1)	2279.7	2232.1	0.0
24(1)	11(1)	2173.6	2124.2	0.0
24(1)	12(1)	2156.5	2113.6	0.0
24(1)	13(1)	2135.2	2091.8	0.0
24(1)	14(1)	2064.6	2026.7	0.0
24(1)	15(1)	2002.7	1956.5	0.0
24(1)	16(1)	1993.0	1953.3	0.0
24(1)	17(1)	1976.4	1941.0	0.0
24(1)	18(1)	1922.1	1889.5	0.0
24(1)	19(1)	1896.5	1862.9	0.0
24(1)	20(1)	1799.5	1765.5	0.1

24(1)	21(1)	1782.5	1755.8	0.0
24(1)	22(1)	1653.4	1630.0	11.1
24(1)	23(1)	1643.3	1627.7	6.0
25(1)	1(1)	4571.6	4375.6	0.0
25(1)	2(1)	4505.8	4314.2	0.0
25(1)	3(1)	3972.1	3833.8	0.0
25(1)	4(1)	3959.4	3820.4	0.1
25(1)	5(1)	3943.0	3804.4	0.1
25(1)	6(1)	2537.2	2488.6	0.1
25(1)	7(1)	2421.2	2363.9	1.1
25(1)	8(1)	2386.4	2332.5	0.3
25(1)	9(1)	2302.8	2254.8	0.1
25(1)	10(1)	2250.0	2200.1	0.1
25(1)	11(1)	2144.0	2097.1	0.1
25(1)	12(1)	2126.9	2079.2	0.3
25(1)	13(1)	2105.6	2060.4	0.3
25(1)	14(1)	2035.0	1993.7	0.4
25(1)	15(1)	1973.1	1928.3	0.4
25(1)	16(1)	1963.4	1921.3	0.6
25(1)	17(1)	1946.8	1909.9	0.2
25(1)	18(1)	1892.5	1858.2	0.7
25(1)	19(1)	1866.9	1831.2	0.4
25(1)	20(1)	1769.9	1734.9	0.0
25(1)	21(1)	1752.9	1724.3	0.3
25(1)	22(1)	1623.8	1599.0	0.0
25(1)	23(1)	1613.7	1596.2	0.0
25(1)	24(1)	1550.8	1525.4	0.0
26(1)	1(1)	4556.4	4361.8	0.0
26(1)	2(1)	4490.6	4298.5	0.1
26(1)	3(1)	3956.9	3820.1	0.0
26(1)	4(1)	3944.2	3806.6	0.1
26(1)	5(1)	3927.7	3790.5	0.0
26(1)	6(1)	2522.0	2473.6	0.1
26(1)	7(1)	2405.9	2350.1	0.0
26(1)	8(1)	2371.2	2318.9	0.1
26(1)	9(1)	2287.5	2240.7	0.2
26(1)	10(1)	2234.8	2186.3	0.3
26(1)	11(1)	2128.8	2083.1	0.3
26(1)	12(1)	2111.7	2069.6	0.1
26(1)	13(1)	2090.4	2046.2	0.0

26(1)	14(1)	2019.7	1980.6	0.0
26(1)	15(1)	1957.9	1913.9	2.3
26(1)	16(1)	1948.1	1907.5	0.7
26(1)	17(1)	1931.6	1896.2	0.2
26(1)	18(1)	1877.3	1844.1	0.3
26(1)	19(1)	1851.6	1818.9	1.1
26(1)	20(1)	1754.6	1721.1	0.0
26(1)	21(1)	1737.6	1710.7	0.0
26(1)	22(1)	1608.6	1585.0	0.0
26(1)	23(1)	1598.4	1582.5	0.0
26(1)	24(1)	1535.5	1511.4	0.0
26(1)	25(1)	1505.9	1480.7	1.4
27(1)	1(1)	4520.7	4331.1	0.0
27(1)	2(1)	4454.9	4270.7	0.1
27(1)	3(1)	3921.3	3789.5	0.0
27(1)	4(1)	3908.5	3775.9	0.0
27(1)	5(1)	3892.1	3758.0	0.0
27(1)	6(1)	2486.4	2444.2	0.0
27(1)	7(1)	2370.3	2319.4	0.0
27(1)	8(1)	2335.5	2288.2	0.0
27(1)	9(1)	2251.9	2210.3	0.0
27(1)	10(1)	2199.2	2156.2	0.0
27(1)	11(1)	2093.1	2055.7	0.0
27(1)	12(1)	2076.0	2039.0	0.0
27(1)	13(1)	2054.7	2017.6	0.0
27(1)	14(1)	1984.1	1948.9	0.0
27(1)	15(1)	1922.2	1881.4	0.0
27(1)	16(1)	1912.5	1877.5	0.0
27(1)	17(1)	1895.9	1865.7	0.0
27(1)	18(1)	1841.6	1813.1	0.0
27(1)	19(1)	1816.0	1787.6	0.0
27(1)	20(1)	1719.0	1691.7	0.0
27(1)	21(1)	1702.0	1679.5	0.0
27(1)	22(1)	1572.9	1555.5	0.3
27(1)	23(1)	1562.8	1552.9	1.3
27(1)	24(1)	1499.9	1482.4	0.4
27(1)	25(1)	1470.3	1450.0	0.0
27(1)	26(1)	1455.0	1436.3	0.0
28(1)	1(1)	4464.6	4272.9	0.0
28(1)	2(1)	4398.8	4212.0	0.1

28(1)	3(1)	3865.1	3730.4	0.0
28(1)	4(1)	3852.4	3716.7	0.0
28(1)	5(1)	3836.0	3701.2	0.0
28(1)	6(1)	2430.2	2386.3	0.0
28(1)	7(1)	2314.2	2261.1	0.0
28(1)	8(1)	2279.4	2229.1	0.0
28(1)	9(1)	2195.8	2153.8	0.0
28(1)	10(1)	2143.0	2096.8	0.0
28(1)	11(1)	2037.0	1996.0	0.0
28(1)	12(1)	2019.9	1980.6	0.0
28(1)	13(1)	1998.6	1958.2	0.0
28(1)	14(1)	1928.0	1892.0	0.0
28(1)	15(1)	1866.1	1824.4	0.0
28(1)	16(1)	1856.4	1818.6	0.0
28(1)	17(1)	1839.8	1808.5	0.0
28(1)	18(1)	1785.5	1755.5	0.0
28(1)	19(1)	1759.9	1728.9	0.0
28(1)	20(1)	1662.9	1632.6	0.1
28(1)	21(1)	1645.9	1620.5	0.0
28(1)	22(1)	1516.8	1496.0	1.3
28(1)	23(1)	1506.7	1493.5	3.9
28(1)	24(1)	1443.8	1424.0	0.8
28(1)	25(1)	1414.2	1391.3	0.0
28(1)	26(1)	1398.9	1377.6	0.0
28(1)	27(1)	1363.3	1344.7	30.3
29(1)	1(1)	4427.4	4238.5	0.0
29(1)	2(1)	4361.6	4176.9	0.0
29(1)	3(1)	3827.9	3696.7	0.0
29(1)	4(1)	3815.2	3683.2	0.0
29(1)	5(1)	3798.7	3666.8	0.1
29(1)	6(1)	2393.0	2348.9	0.0
29(1)	7(1)	2276.9	2226.8	0.0
29(1)	8(1)	2242.2	2195.5	0.0
29(1)	9(1)	2158.5	2116.9	0.0
29(1)	10(1)	2105.8	2063.4	0.0
29(1)	11(1)	1999.8	1961.0	0.1
29(1)	12(1)	1982.7	1944.1	0.1
29(1)	13(1)	1961.4	1922.8	0.0
29(1)	14(1)	1890.7	1857.3	0.2
29(1)	15(1)	1828.9	1791.1	3.2

29(1)	16(1)	1819.1	1784.4	0.3
29(1)	17(1)	1802.6	1772.7	1.2
29(1)	18(1)	1748.3	1720.9	0.5
29(1)	19(1)	1722.6	1694.5	0.6
29(1)	20(1)	1625.6	1597.6	0.0
29(1)	21(1)	1608.6	1587.2	0.9
29(1)	22(1)	1479.6	1461.8	0.0
29(1)	23(1)	1469.4	1459.1	0.0
29(1)	24(1)	1406.5	1388.5	0.0
29(1)	25(1)	1376.9	1358.4	23.6
29(1)	26(1)	1361.7	1342.1	11.2
29(1)	27(1)	1326.0	1312.9	0.0
29(1)	28(1)	1269.9	1254.1	0.0
30(1)	1(1)	4404.7	4214.3	0.0
30(1)	2(1)	4338.9	4153.4	0.9
30(1)	3(1)	3805.2	3672.9	0.0
30(1)	4(1)	3792.5	3659.3	0.0
30(1)	5(1)	3776.1	3643.0	0.0
30(1)	6(1)	2370.3	2327.8	0.0
30(1)	7(1)	2254.2	2203.4	0.0
30(1)	8(1)	2219.5	2172.2	0.0
30(1)	9(1)	2135.8	2094.2	0.0
30(1)	10(1)	2083.1	2039.8	0.0
30(1)	11(1)	1977.1	1939.8	0.0
30(1)	12(1)	1960.0	1921.1	0.0
30(1)	13(1)	1938.7	1900.4	0.0
30(1)	14(1)	1868.0	1832.4	0.0
30(1)	15(1)	1806.2	1769.7	0.0
30(1)	16(1)	1796.4	1760.8	0.0
30(1)	17(1)	1779.9	1748.6	0.0
30(1)	18(1)	1725.6	1696.9	0.0
30(1)	19(1)	1699.9	1669.4	0.0
30(1)	20(1)	1602.9	1574.4	0.1
30(1)	21(1)	1585.9	1563.5	0.0
30(1)	22(1)	1456.9	1438.7	0.3
30(1)	23(1)	1446.7	1435.8	0.6
30(1)	24(1)	1383.8	1378.8	7.2
30(1)	25(1)	1354.2	1333.3	0.0
30(1)	26(1)	1339.0	1320.1	0.0
30(1)	27(1)	1303.3	1282.7	70.9

30(1)	28(1)	1247.2	1227.4	4.6
30(1)	29(1)	1210.0	1195.7	0.0
31(1)	1(1)	4396.2	4206.7	0.0
31(1)	2(1)	4330.3	4144.9	0.1
31(1)	3(1)	3796.7	3665.4	0.1
31(1)	4(1)	3784.0	3651.7	0.0
31(1)	5(1)	3767.5	3635.6	0.0
31(1)	6(1)	2361.8	2319.3	0.0
31(1)	7(1)	2245.7	2195.0	0.0
31(1)	8(1)	2211.0	2163.6	0.0
31(1)	9(1)	2127.3	2085.7	0.1
31(1)	10(1)	2074.6	2031.7	0.1
31(1)	11(1)	1968.6	1927.1	0.2
31(1)	12(1)	1951.5	1913.8	0.3
31(1)	13(1)	1930.1	1891.9	0.0
31(1)	14(1)	1859.5	1825.6	0.1
31(1)	15(1)	1797.6	1759.8	3.0
31(1)	16(1)	1787.9	1753.3	1.1
31(1)	17(1)	1771.3	1741.1	2.5
31(1)	18(1)	1717.1	1690.0	0.4
31(1)	19(1)	1691.4	1663.2	3.5
31(1)	20(1)	1594.4	1566.2	0.0
31(1)	21(1)	1577.4	1555.4	0.9
31(1)	22(1)	1448.3	1430.3	0.0
31(1)	23(1)	1438.2	1427.5	0.0
31(1)	24(1)	1375.3	1356.9	0.0
31(1)	25(1)	1345.7	1325.8	26.7
31(1)	26(1)	1330.5	1311.5	1.2
31(1)	27(1)	1294.8	1281.6	0.0
31(1)	28(1)	1238.7	1223.0	0.0
31(1)	29(1)	1201.5	1188.0	77.6
31(1)	30(1)	1178.8	1165.0	0.0
32(1)	1(1)	4341.0	4154.1	0.0
32(1)	2(1)	4275.2	4093.2	0.0
32(1)	3(1)	3741.6	3612.6	0.0
32(1)	4(1)	3728.8	3599.1	0.0
32(1)	5(1)	3712.4	3583.0	0.1
32(1)	6(1)	2306.7	2267.5	0.0
32(1)	7(1)	2190.6	2141.8	0.4
32(1)	8(1)	2155.8	2110.2	0.1

32(1)	9(1)	2072.2	2033.2	0.0
32(1)	10(1)	2019.5	1978.0	0.0
32(1)	11(1)	1913.4	1875.7	0.1
32(1)	12(1)	1896.3	1860.8	0.2
32(1)	13(1)	1875.0	1839.4	0.0
32(1)	14(1)	1804.4	1772.9	0.3
32(1)	15(1)	1742.5	1707.2	0.2
32(1)	16(1)	1732.8	1699.6	0.4
32(1)	17(1)	1716.2	1688.6	1.5
32(1)	18(1)	1661.9	1638.5	0.9
32(1)	19(1)	1636.3	1611.7	9.1
32(1)	20(1)	1539.3	1513.7	0.0
32(1)	21(1)	1522.3	1503.4	3.7
32(1)	22(1)	1393.2	1377.6	0.0
32(1)	23(1)	1383.1	1374.8	0.0
32(1)	24(1)	1320.2	1304.3	0.0
32(1)	25(1)	1290.6	1273.2	0.8
32(1)	26(1)	1275.3	1259.4	0.1
32(1)	27(1)	1239.7	1228.8	0.0
32(1)	28(1)	1183.6	1170.0	0.0
32(1)	29(1)	1146.3	1135.7	2.5
32(1)	30(1)	1123.6	1112.0	0.0
32(1)	31(1)	1115.1	1104.2	0.0
33(1)	1(1)	4283.1	4094.9	0.0
33(1)	2(1)	4217.3	4033.8	0.0
33(1)	3(1)	3683.6	3552.7	0.0
33(1)	4(1)	3670.9	3539.2	0.0
33(1)	5(1)	3654.5	3523.4	0.0
33(1)	6(1)	2248.7	2208.2	0.0
33(1)	7(1)	2132.7	2083.0	0.0
33(1)	8(1)	2097.9	2051.7	0.0
33(1)	9(1)	2014.2	1973.9	0.0
33(1)	10(1)	1961.5	1920.1	0.0
33(1)	11(1)	1855.5	1816.5	0.0
33(1)	12(1)	1838.4	1801.4	0.0
33(1)	13(1)	1817.1	1781.3	0.0
33(1)	14(1)	1746.4	1713.8	0.0
33(1)	15(1)	1684.6	1647.5	0.0
33(1)	16(1)	1674.8	1640.7	0.0
33(1)	17(1)	1658.3	1629.4	0.0

33(1)	18(1)	1604.0	1576.7	0.0
33(1)	19(1)	1578.3	1551.1	0.0
33(1)	20(1)	1481.3	1448.5	0.4
33(1)	21(1)	1464.3	1443.6	0.0
33(1)	22(1)	1335.3	1316.8	3.2
33(1)	23(1)	1325.1	1315.3	1.4
33(1)	24(1)	1262.2	1243.6	6.5
33(1)	25(1)	1232.6	1213.0	0.0
33(1)	26(1)	1217.4	1199.0	0.0
33(1)	27(1)	1181.7	1169.9	18.9
33(1)	28(1)	1125.6	1105.9	2.7
33(1)	29(1)	1088.4	1076.5	0.0
33(1)	30(1)	1065.7	1052.3	0.1
33(1)	31(1)	1057.2	1044.8	0.0
33(1)	32(1)	1002.0	992.5	0.0
34(1)	1(1)	4218.2	4032.9	0.0
34(1)	2(1)	4152.4	3971.6	0.0
34(1)	3(1)	3618.7	3491.4	0.0
34(1)	4(1)	3606.0	3477.9	0.0
34(1)	5(1)	3589.5	3461.6	0.0
34(1)	6(1)	2183.8	2145.6	0.0
34(1)	7(1)	2067.7	2020.8	0.0
34(1)	8(1)	2033.0	1991.7	0.0
34(1)	9(1)	1949.3	1912.3	0.1
34(1)	10(1)	1896.6	1857.9	0.3
34(1)	11(1)	1790.6	1753.8	3.0
34(1)	12(1)	1773.5	1741.0	1.1
34(1)	13(1)	1752.2	1718.3	0.8
34(1)	14(1)	1681.5	1651.9	0.0
34(1)	15(1)	1619.7	1584.7	9.9
34(1)	16(1)	1609.9	1578.5	1.0
34(1)	17(1)	1593.4	1567.6	1.9
34(1)	18(1)	1539.1	1515.8	1.4
34(1)	19(1)	1513.4	1489.4	0.6
34(1)	20(1)	1416.4	1392.3	0.0
34(1)	21(1)	1399.4	1381.7	0.4
34(1)	22(1)	1270.4	1256.4	0.0
34(1)	23(1)	1260.2	1253.8	0.0
34(1)	24(1)	1197.3	1183.0	0.0
34(1)	25(1)	1167.7	1150.3	1.6

34(1)	26(1)	1152.5	1137.8	1.8
34(1)	27(1)	1116.8	1107.7	0.0
34(1)	28(1)	1060.7	1048.9	0.0
34(1)	29(1)	1023.5	1014.7	0.2
34(1)	30(1)	1000.8	990.9	0.0
34(1)	31(1)	992.2	982.8	0.0
34(1)	32(1)	937.1	930.3	0.1
34(1)	33(1)	879.2	871.1	0.0
35(1)	1(1)	4204.9	3973.4	1.3
35(1)	2(1)	4139.1	3919.1	0.0
35(1)	3(1)	3605.4	3438.8	0.0
35(1)	4(1)	3592.7	3425.2	0.0
35(1)	5(1)	3576.3	3412.0	0.0
35(1)	6(1)	2170.5	2093.9	0.0
35(1)	7(1)	2054.4	1968.9	0.0
35(1)	8(1)	2019.7	1936.5	0.0
35(1)	9(1)	1936.0	1859.2	0.0
35(1)	10(1)	1883.3	1802.7	0.0
35(1)	11(1)	1777.3	1701.5	0.0
35(1)	12(1)	1760.2	1685.1	0.0
35(1)	13(1)	1738.9	1668.0	0.0
35(1)	14(1)	1668.2	1598.7	0.0
35(1)	15(1)	1606.4	1532.4	0.0
35(1)	16(1)	1596.6	1522.6	0.1
35(1)	17(1)	1580.1	1518.9	0.0
35(1)	18(1)	1525.8	1463.6	0.0
35(1)	19(1)	1500.1	1437.4	0.0
35(1)	20(1)	1403.1	1339.4	0.1
35(1)	21(1)	1386.1	1329.1	0.0
35(1)	22(1)	1257.1	1206.2	1.0
35(1)	23(1)	1246.9	1206.2	2.1
35(1)	24(1)	1184.0	1130.6	0.6
35(1)	25(1)	1154.4	1095.7	0.0
35(1)	26(1)	1139.2	1083.4	0.0
35(1)	27(1)	1103.5	1055.1	0.5
35(1)	28(1)	1047.4	992.1	3.8
35(1)	29(1)	1010.2	960.7	0.1
35(1)	30(1)	987.5	937.9	0.2
35(1)	31(1)	979.0	929.9	0.0
35(1)	32(1)	923.8	876.9	0.0

35(1)	33(1)	865.9	818.3	0.0
35(1)	34(1)	801.0	755.2	0.5
36(1)	1(1)	4167.5	3981.9	0.0
36(1)	2(1)	4101.7	3920.8	0.0
36(1)	3(1)	3568.0	3440.3	0.0
36(1)	4(1)	3555.3	3426.8	0.0
36(1)	5(1)	3538.9	3410.5	0.0
36(1)	6(1)	2133.1	2095.6	0.2
36(1)	7(1)	2017.1	1970.8	0.3
36(1)	8(1)	1982.3	1939.2	0.0
36(1)	9(1)	1898.6	1861.0	0.1
36(1)	10(1)	1845.9	1806.8	0.3
36(1)	11(1)	1739.9	1702.1	0.8
36(1)	12(1)	1722.8	1689.2	0.4
36(1)	13(1)	1701.5	1667.5	0.6
36(1)	14(1)	1630.8	1600.9	3.1
36(1)	15(1)	1569.0	1535.1	0.1
36(1)	16(1)	1559.2	1527.9	0.8
36(1)	17(1)	1542.7	1516.3	0.2
36(1)	18(1)	1488.4	1465.2	0.3
36(1)	19(1)	1462.8	1439.0	0.5
36(1)	20(1)	1365.7	1341.2	0.0
36(1)	21(1)	1348.8	1330.9	0.6
36(1)	22(1)	1219.7	1205.1	0.0
36(1)	23(1)	1209.5	1202.7	0.0
36(1)	24(1)	1146.6	1131.7	0.0
36(1)	25(1)	1117.0	1100.0	4.1
36(1)	26(1)	1101.8	1085.0	3.1
36(1)	27(1)	1066.1	1056.6	0.0
36(1)	28(1)	1010.0	998.0	0.1
36(1)	29(1)	972.8	963.2	0.1
36(1)	30(1)	950.1	939.8	0.0
36(1)	31(1)	941.6	931.7	0.0
36(1)	32(1)	886.4	879.0	0.0
36(1)	33(1)	828.5	819.7	0.0
36(1)	34(1)	763.6	759.0	3.1
36(1)	35(1)	750.3	704.4	0.0
37(1)	1(1)	4132.2	3946.2	0.0
37(1)	2(1)	4066.3	3885.3	0.0
37(1)	3(1)	3532.7	3405.0	0.0

37(1)	4(1)	3520.0	3391.4	0.0
37(1)	5(1)	3503.5	3375.1	0.0
37(1)	6(1)	2097.8	2059.5	0.0
37(1)	7(1)	1981.7	1933.7	0.0
37(1)	8(1)	1947.0	1903.0	0.0
37(1)	9(1)	1863.3	1826.8	0.3
37(1)	10(1)	1810.6	1771.1	0.0
37(1)	11(1)	1704.6	1667.9	0.1
37(1)	12(1)	1687.5	1656.5	27.0
37(1)	13(1)	1666.1	1631.9	3.4
37(1)	14(1)	1595.5	1565.1	0.2
37(1)	15(1)	1533.6	1499.3	3.9
37(1)	16(1)	1523.9	1491.8	0.6
37(1)	17(1)	1507.3	1480.8	0.4
37(1)	18(1)	1453.1	1429.5	0.5
37(1)	19(1)	1427.4	1403.1	0.1
37(1)	20(1)	1330.4	1306.0	0.0
37(1)	21(1)	1313.4	1294.6	0.7
37(1)	22(1)	1184.3	1169.9	0.0
37(1)	23(1)	1174.2	1167.3	0.0
37(1)	24(1)	1111.3	1096.4	0.0
37(1)	25(1)	1081.7	1065.1	0.0
37(1)	26(1)	1066.5	1051.1	0.3
37(1)	27(1)	1030.8	1021.1	0.0
37(1)	28(1)	974.7	962.3	0.0
37(1)	29(1)	937.5	927.7	0.0
37(1)	30(1)	914.8	904.5	0.0
37(1)	31(1)	906.2	896.4	0.0
37(1)	32(1)	851.1	844.8	0.0
37(1)	33(1)	793.2	784.3	0.0
37(1)	34(1)	728.2	722.4	0.2
37(1)	35(1)	715.0	669.0	0.6
37(1)	36(1)	677.6	670.9	0.0
38(1)	1(1)	4103.7	3918.6	0.0
38(1)	2(1)	4037.9	3858.2	0.1
38(1)	3(1)	3504.3	3377.4	0.0
38(1)	4(1)	3491.5	3363.8	0.0
38(1)	5(1)	3475.1	3347.7	0.0
38(1)	6(1)	2069.4	2032.0	0.0
38(1)	7(1)	1953.3	1907.7	0.0

38(1)	8(1)	1918.5	1876.5	0.0
38(1)	9(1)	1834.9	1798.5	0.0
38(1)	10(1)	1782.2	1744.1	0.0
38(1)	11(1)	1676.1	1640.3	0.0
38(1)	12(1)	1659.0	1626.4	0.0
38(1)	13(1)	1637.7	1605.0	0.0
38(1)	14(1)	1567.1	1536.6	0.0
38(1)	15(1)	1505.2	1471.8	0.0
38(1)	16(1)	1495.5	1465.2	0.1
38(1)	17(1)	1478.9	1453.4	0.0
38(1)	18(1)	1424.6	1401.6	0.0
38(1)	19(1)	1399.0	1376.1	0.0
38(1)	20(1)	1302.0	1279.5	3.0
38(1)	21(1)	1285.0	1267.6	0.0
38(1)	22(1)	1155.9	1141.9	0.1
38(1)	23(1)	1145.8	1139.5	3.5
38(1)	24(1)	1082.9	1068.3	2.4
38(1)	25(1)	1053.3	1037.8	0.0
38(1)	26(1)	1038.0	1023.1	0.0
38(1)	27(1)	1002.4	993.7	0.3
38(1)	28(1)	946.3	935.2	0.1
38(1)	29(1)	909.0	900.4	0.0
38(1)	30(1)	886.3	877.4	0.1
38(1)	31(1)	877.8	869.2	0.1
38(1)	32(1)	822.7	815.8	0.1
38(1)	33(1)	764.8	758.0	0.9
38(1)	34(1)	699.8	696.6	0.0
38(1)	35(1)	686.5	642.7	0.4
38(1)	36(1)	649.2	644.4	0.0
38(1)	37(1)	613.8	608.2	0.0
39(1)	1(1)	4037.1	3850.2	0.0
39(1)	2(1)	3971.3	3789.6	0.0
39(1)	3(1)	3437.7	3308.9	0.0
39(1)	4(1)	3424.9	3295.3	0.0
39(1)	5(1)	3408.5	3279.0	0.0
39(1)	6(1)	2002.8	1963.8	0.0
39(1)	7(1)	1886.7	1839.2	0.0
39(1)	8(1)	1851.9	1808.0	0.0
39(1)	9(1)	1768.3	1730.0	0.0
39(1)	10(1)	1715.6	1675.6	0.1

39(1)	11(1)	1609.5	1571.9	0.0
39(1)	12(1)	1592.4	1557.5	0.0
39(1)	13(1)	1571.1	1536.0	0.1
39(1)	14(1)	1500.5	1469.2	0.0
39(1)	15(1)	1438.6	1403.3	0.0
39(1)	16(1)	1428.9	1396.1	0.0
39(1)	17(1)	1412.3	1384.5	0.1
39(1)	18(1)	1358.0	1333.5	0.0
39(1)	19(1)	1332.4	1307.3	0.0
39(1)	20(1)	1235.4	1209.9	0.2
39(1)	21(1)	1218.4	1199.2	0.0
39(1)	22(1)	1089.3	1073.6	0.1
39(1)	23(1)	1079.2	1071.7	0.1
39(1)	24(1)	1016.3	1000.6	0.0
39(1)	25(1)	986.7	969.3	0.0
39(1)	26(1)	971.4	955.7	0.0
39(1)	27(1)	935.8	925.4	0.1
39(1)	28(1)	879.7	866.1	0.0
39(1)	29(1)	842.4	831.9	0.2
39(1)	30(1)	819.7	808.5	0.0
39(1)	31(1)	811.2	800.9	0.0
39(1)	32(1)	756.1	749.0	0.0
39(1)	33(1)	698.1	688.1	0.0
39(1)	34(1)	633.2	626.0	0.0
39(1)	35(1)	619.9	572.0	0.7
39(1)	36(1)	582.5	575.2	0.8
39(1)	37(1)	547.2	539.3	0.0
39(1)	38(1)	518.8	512.2	0.5
40(1)	1(1)	4012.8	3827.8	0.0
40(1)	2(1)	3946.9	3766.9	0.0
40(1)	3(1)	3413.3	3286.6	0.0
40(1)	4(1)	3400.6	3273.0	0.0
40(1)	5(1)	3384.1	3256.6	0.0
40(1)	6(1)	1978.4	1940.7	0.4
40(1)	7(1)	1862.3	1817.0	0.0
40(1)	8(1)	1827.6	1785.6	0.3
40(1)	9(1)	1743.9	1707.5	1.0
40(1)	10(1)	1691.2	1653.2	3.8
40(1)	11(1)	1585.2	1548.7	1.4
40(1)	12(1)	1568.1	1534.9	1.6

40(1)	13(1)	1546.7	1513.6	0.0
40(1)	14(1)	1476.1	1446.6	0.2
40(1)	15(1)	1414.2	1380.7	1.3
40(1)	16(1)	1404.5	1374.7	0.0
40(1)	17(1)	1387.9	1362.0	1.6
40(1)	18(1)	1333.7	1310.9	0.2
40(1)	19(1)	1308.0	1284.4	0.2
40(1)	20(1)	1211.0	1187.8	0.0
40(1)	21(1)	1194.0	1176.6	15.7
40(1)	22(1)	1064.9	1051.4	0.0
40(1)	23(1)	1054.8	1048.9	0.0
40(1)	24(1)	991.9	978.0	0.0
40(1)	25(1)	962.3	946.2	0.0
40(1)	26(1)	947.0	932.7	0.1
40(1)	27(1)	911.4	903.2	0.0
40(1)	28(1)	855.3	844.1	0.1
40(1)	29(1)	818.0	809.7	0.1
40(1)	30(1)	795.4	786.5	0.0
40(1)	31(1)	786.8	778.0	0.1
40(1)	32(1)	731.7	725.9	0.0
40(1)	33(1)	673.8	665.8	0.1
40(1)	34(1)	608.8	604.0	0.3
40(1)	35(1)	595.6	550.9	0.0
40(1)	36(1)	558.2	552.6	0.0
40(1)	37(1)	522.8	516.0	0.8
40(1)	38(1)	494.4	490.5	0.0
40(1)	39(1)	427.8	421.0	0.0
41(1)	1(1)	3911.3	3728.3	0.1
41(1)	2(1)	3845.5	3668.0	0.1
41(1)	3(1)	3311.8	3186.8	0.0
41(1)	4(1)	3299.1	3173.2	0.0
41(1)	5(1)	3282.6	3157.1	0.0
41(1)	6(1)	1876.9	1841.0	0.1
41(1)	7(1)	1760.8	1717.3	0.1
41(1)	8(1)	1726.1	1686.1	0.0
41(1)	9(1)	1642.4	1608.0	0.1
41(1)	10(1)	1589.7	1553.6	0.0
41(1)	11(1)	1483.7	1449.6	0.0
41(1)	12(1)	1466.6	1435.8	0.0
41(1)	13(1)	1445.3	1414.2	0.0

41(1)	14(1)	1374.6	1347.2	0.0
41(1)	15(1)	1312.8	1281.3	0.0
41(1)	16(1)	1303.0	1274.4	0.2
41(1)	17(1)	1286.5	1262.5	0.0
41(1)	18(1)	1232.2	1211.6	0.0
41(1)	19(1)	1206.5	1184.7	0.0
41(1)	20(1)	1109.5	1088.3	6.3
41(1)	21(1)	1092.5	1077.1	0.0
41(1)	22(1)	963.5	951.8	0.3
41(1)	23(1)	953.3	949.3	0.0
41(1)	24(1)	890.4	878.4	0.2
41(1)	25(1)	860.8	846.8	2.0
41(1)	26(1)	845.6	833.8	0.0
41(1)	27(1)	809.9	803.4	0.0
41(1)	28(1)	753.8	744.5	0.1
41(1)	29(1)	716.6	710.5	0.9
41(1)	30(1)	693.9	688.0	0.1
41(1)	31(1)	685.3	678.5	0.0
41(1)	32(1)	630.2	625.6	0.0
41(1)	33(1)	572.3	565.9	1.5
41(1)	34(1)	507.4	504.9	0.0
41(1)	35(1)	494.1	451.4	0.3
41(1)	36(1)	456.7	453.3	0.0
41(1)	37(1)	421.3	417.9	0.0
41(1)	38(1)	392.9	389.6	0.5
41(1)	39(1)	326.3	321.6	0.0
41(1)	40(1)	301.9	298.2	0.0
42(1)	1(1)	3856.9	3667.3	0.0
42(1)	2(1)	3791.1	3608.9	0.0
42(1)	3(1)	3257.4	3126.6	0.0
42(1)	4(1)	3244.7	3113.0	0.0
42(1)	5(1)	3228.3	3096.9	0.0
42(1)	6(1)	1822.5	1780.0	1.6
42(1)	7(1)	1706.4	1657.4	0.0
42(1)	8(1)	1671.7	1626.5	0.1
42(1)	9(1)	1588.0	1548.0	0.1
42(1)	10(1)	1535.3	1493.5	0.0
42(1)	11(1)	1429.3	1388.6	0.1
42(1)	12(1)	1412.2	1375.6	0.0
42(1)	13(1)	1390.9	1354.2	0.0

42(1)	14(1)	1320.2	1287.1	0.0
42(1)	15(1)	1258.4	1221.5	0.5
42(1)	16(1)	1248.6	1214.3	0.0
42(1)	17(1)	1232.1	1202.5	0.1
42(1)	18(1)	1177.8	1152.0	0.3
42(1)	19(1)	1152.1	1125.6	0.5
42(1)	20(1)	1055.1	1027.1	0.0
42(1)	21(1)	1038.1	1017.8	0.0
42(1)	22(1)	909.1	891.4	0.1
42(1)	23(1)	898.9	889.9	0.0
42(1)	24(1)	836.0	818.4	0.1
42(1)	25(1)	806.4	786.9	0.0
42(1)	26(1)	791.2	773.1	0.0
42(1)	27(1)	755.5	745.1	0.7
42(1)	28(1)	699.4	684.4	0.1
42(1)	29(1)	662.2	649.1	0.6
42(1)	30(1)	639.5	630.7	1.0
42(1)	31(1)	631.0	617.3	0.5
42(1)	32(1)	575.8	565.9	0.0
42(1)	33(1)	517.9	506.3	0.1
42(1)	34(1)	453.0	443.7	0.0
42(1)	35(1)	439.7	382.9	0.0
42(1)	36(1)	402.3	395.3	0.0
42(1)	37(1)	367.0	357.4	0.0
42(1)	38(1)	338.5	327.6	0.1
42(1)	39(1)	271.9	259.3	0.0
42(1)	40(1)	247.6	236.9	0.0
42(1)	41(1)	146.1	138.5	0.0

Table S14. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **B2** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3810.8	3620.6	85.6	69.9
2(1)	3759.2	3576.0	97.1	79.7
3(1)	3221.8	3093.0	0.9	1.7
4(1)	3201.6	3073.3	1.4	2.6
5(1)	3183.2	3048.9	2.2	3.7
6(1)	1798.3	1768.7	409.0	111.0
7(1)	1660.7	1616.4	311.7	157.8
8(1)	1626.5	1589.1	46.2	31.5
9(1)	1544.9	1508.6	48.2	23.0
10(1)	1479.4	1447.2	50.3	30.7
11(1)	1374.6	1352.3	139.1	94.7
12(1)	1357.1	1320.8	9.3	20.4
13(1)	1348.8	1307.7	35.7	12.5
14(1)	1284.5	1256.1	26.6	31.1
15(1)	1211.2	1175.6	70.6	89.8
16(1)	1203.0	1178.6	120.0	15.7
17(1)	1184.4	1158.4	246.8	254.4
18(1)	1149.8	1126.6	156.2	110.1
19(1)	1076.1	1050.1	180.4	19.0
20(1)	996.1	977.8	0.1	0.1
21(1)	993.7	978.1	19.2	17.6
22(1)	859.2	850.1	43.1	120.5
23(1)	855.7	844.5	11.0	28.1
24(1)	788.6	778.3	22.4	18.4
25(1)	760.2	747.8	6.4	9.8
26(1)	744.6	731.8	9.0	5.3
27(1)	706.3	697.3	36.9	32.9
28(1)	649.7	640.7	0.5	1.4
29(1)	603.1	594.5	28.0	22.2
30(1)	593.3	588.3	48.2	41.3
31(1)	577.6	549.5	61.0	66.1
32(1)	526.6	521.9	1.2	1.4
33(1)	466.0	460.0	14.8	18.8
34(1)	409.9	407.2	3.9	3.7
35(1)	393.9	339.5	105.2	100.0
36(1)	366.9	362.2	5.1	4.7
37(1)	316.2	311.8	3.1	2.9

38(1)	290.9	287.1	0.0	0.0
39(1)	226.5	221.0	0.5	0.6
40(1)	197.6	195.9	1.8	1.9
41(1)	99.1	96.3	0.7	1.0
42(1)	40.9	41.8	1.0	1.2
1(2)	7621.6	7072.5		6.3
2(2)	7518.4	6987.6		5.5
3(2)	6443.5	6105.7		0.5
4(2)	6403.2	6067.8		0.9
5(2)	6366.4	6000.1		0.6
6(2)	3596.7	3519.2		3.5
7(2)	3321.3	3229.9		0.5
8(2)	3252.9	3173.7		1.3
9(2)	3089.8	3010.1		0.1
10(2)	2958.7	2889.9		0.1
11(2)	2749.2	2684.2		0.2
12(2)	2714.1	2647.8		0.1
13(2)	2697.5	2633.3		0.1
14(2)	2568.9	2515.1		0.1
15(2)	2422.3	2347.7		0.3
16(2)	2405.9	2355.4		0.5
17(2)	2368.7	2312.4		0.6
18(2)	2299.6	2253.0		0.1
19(2)	2152.3	2096.7		1.7
20(2)	1992.2	1953.3		3.1
21(2)	1987.5	1955.1		0.4
22(2)	1718.4	1702.2		0.4
23(2)	1711.4	1689.2		0.2
24(2)	1577.1	1556.9		0.2
25(2)	1520.3	1494.7		1.0
26(2)	1489.3	1463.1		0.2
27(2)	1412.5	1395.6		0.4
28(2)	1299.5	1281.5		0.0
29(2)	1206.2	1188.3		3.8
30(2)	1186.7	1176.6		8.4
31(2)	1155.3	1080.3		30.7
32(2)	1053.2	1043.6		0.2
33(2)	932.0	919.4		0.1
34(2)	819.9	814.5		0.1
35(2)	787.7	648.2		5.7

36(2)		733.7	724.1	0.6
37(2)		632.3	623.7	0.1
38(2)		581.8	574.2	1.0
39(2)		452.9	441.8	0.3
40(2)		395.1	390.1	0.1
41(2)		198.3	191.1	0.0
42(2)		81.8	86.4	0.0
2(1)	1(1)	7570.0	7196.5	0.0
3(1)	1(1)	7032.6	6716.4	0.0
3(1)	2(1)	6981.0	6671.6	0.0
4(1)	1(1)	7012.4	6698.2	0.0
4(1)	2(1)	6960.8	6653.7	0.0
4(1)	3(1)	6423.4	6126.9	0.2
5(1)	1(1)	6994.0	6675.7	0.0
5(1)	2(1)	6942.4	6632.2	0.0
5(1)	3(1)	6404.9	6152.2	0.0
5(1)	4(1)	6384.8	6133.9	0.0
6(1)	1(1)	5609.1	5389.1	0.0
6(1)	2(1)	5557.6	5343.3	0.9
6(1)	3(1)	5020.1	4864.3	0.0
6(1)	4(1)	4999.9	4846.5	0.0
6(1)	5(1)	4981.5	4825.0	0.0
7(1)	1(1)	5471.5	5235.9	0.1
7(1)	2(1)	5419.9	5192.2	0.0
7(1)	3(1)	4882.4	4710.3	0.1
7(1)	4(1)	4862.3	4699.7	0.1
7(1)	5(1)	4843.8	4674.3	0.1
7(1)	6(1)	3459.0	3384.7	0.3
8(1)	1(1)	5437.3	5207.8	0.6
8(1)	2(1)	5385.7	5165.0	0.0
8(1)	3(1)	4848.2	4686.2	0.1
8(1)	4(1)	4828.1	4665.4	0.2
8(1)	5(1)	4809.7	4643.9	0.2
8(1)	6(1)	3424.8	3356.9	0.1
8(1)	7(1)	3287.1	3205.6	0.0
9(1)	1(1)	5355.7	5127.5	0.1
9(1)	2(1)	5304.1	5084.4	0.0
9(1)	3(1)	4766.7	4610.6	0.0
9(1)	4(1)	4746.5	4585.5	0.0
9(1)	5(1)	4728.1	4565.9	0.0

9(1)	6(1)	3343.2	3276.9	0.1
9(1)	7(1)	3205.6	3132.8	0.1
9(1)	8(1)	3171.4	3090.5	0.1
10(1)	1(1)	5290.2	5067.1	0.5
10(1)	2(1)	5238.6	5023.1	0.0
10(1)	3(1)	4701.1	4542.9	0.0
10(1)	4(1)	4681.0	4531.4	0.0
10(1)	5(1)	4662.6	4506.4	0.1
10(1)	6(1)	3277.7	3215.7	0.0
10(1)	7(1)	3140.0	3047.1	0.2
10(1)	8(1)	3105.8	3031.7	0.0
10(1)	9(1)	3024.3	2952.6	0.0
11(1)	1(1)	5185.4	4963.4	0.2
11(1)	2(1)	5133.8	4913.6	0.3
11(1)	3(1)	4596.3	4442.6	0.0
11(1)	4(1)	4576.2	4422.1	0.0
11(1)	5(1)	4557.8	4401.8	0.0
11(1)	6(1)	3172.9	3111.1	0.9
11(1)	7(1)	3035.2	2953.1	0.7
11(1)	8(1)	3001.1	2927.9	0.1
11(1)	9(1)	2919.5	2847.2	0.6
11(1)	10(1)	2854.0	2788.9	0.5
12(1)	1(1)	5167.9	4946.0	0.0
12(1)	2(1)	5116.3	4897.3	0.3
12(1)	3(1)	4578.8	4419.9	0.0
12(1)	4(1)	4558.7	4404.7	0.1
12(1)	5(1)	4540.3	4382.7	0.2
12(1)	6(1)	3155.4	3092.9	0.2
12(1)	7(1)	3017.7	2934.3	0.0
12(1)	8(1)	2983.5	2910.9	0.0
12(1)	9(1)	2902.0	2830.4	0.9
12(1)	10(1)	2836.4	2768.8	0.2
12(1)	11(1)	2731.7	2666.1	1.5
13(1)	1(1)	5159.6	4933.4	0.3
13(1)	2(1)	5108.0	4889.8	0.3
13(1)	3(1)	4570.5	4413.9	0.1
13(1)	4(1)	4550.4	4395.9	0.1
13(1)	5(1)	4532.0	4374.5	0.1
13(1)	6(1)	3147.1	3085.9	0.4
13(1)	7(1)	3009.4	2930.0	0.0

13(1)	8(1)	2975.2	2905.2	0.1
13(1)	9(1)	2893.7	2823.2	0.5
13(1)	10(1)	2828.1	2762.5	0.7
13(1)	11(1)	2723.4	2658.4	1.6
13(1)	12(1)	2705.8	2641.4	0.3
14(1)	1(1)	5095.3	4879.4	0.1
14(1)	2(1)	5043.7	4835.1	0.0
14(1)	3(1)	4506.2	4348.6	0.0
14(1)	4(1)	4486.1	4335.4	0.1
14(1)	5(1)	4467.7	4311.5	0.1
14(1)	6(1)	3082.8	3027.1	0.0
14(1)	7(1)	2945.1	2871.9	0.1
14(1)	8(1)	2910.9	2844.9	0.0
14(1)	9(1)	2829.4	2764.3	0.2
14(1)	10(1)	2763.8	2703.8	0.0
14(1)	11(1)	2659.1	2600.8	0.3
14(1)	12(1)	2641.5	2582.5	0.2
14(1)	13(1)	2633.2	2575.3	0.2
15(1)	1(1)	5022.0	4793.7	0.6
15(1)	2(1)	4970.4	4746.8	0.3
15(1)	3(1)	4432.9	4269.7	0.1
15(1)	4(1)	4412.8	4252.1	0.0
15(1)	5(1)	4394.4	4231.0	0.0
15(1)	6(1)	3009.5	2941.9	0.1
15(1)	7(1)	2871.8	2789.5	0.0
15(1)	8(1)	2837.6	2763.4	0.1
15(1)	9(1)	2756.1	2682.1	0.8
15(1)	10(1)	2690.5	2620.1	0.4
15(1)	11(1)	2585.8	2515.9	0.1
15(1)	12(1)	2568.2	2498.7	0.9
15(1)	13(1)	2559.9	2489.5	0.9
15(1)	14(1)	2495.6	2432.7	0.6
16(1)	1(1)	5013.8	4799.1	0.1
16(1)	2(1)	4962.2	4752.3	0.1
16(1)	3(1)	4424.7	4273.2	0.0
16(1)	4(1)	4404.6	4253.4	0.0
16(1)	5(1)	4386.1	4233.1	0.1
16(1)	6(1)	3001.3	2947.0	0.0
16(1)	7(1)	2863.6	2791.5	0.3
16(1)	8(1)	2829.4	2766.3	0.0

16(1)	9(1)	2747.9	2683.8	0.2
16(1)	10(1)	2682.3	2622.8	0.2
16(1)	11(1)	2577.5	2520.0	0.2
16(1)	12(1)	2560.0	2500.5	1.0
16(1)	13(1)	2551.7	2494.5	0.5
16(1)	14(1)	2487.4	2436.0	0.3
16(1)	15(1)	2414.1	2351.7	0.2
17(1)	1(1)	4995.2	4772.3	0.5
17(1)	2(1)	4943.6	4732.3	0.1
17(1)	3(1)	4406.1	4254.2	0.0
17(1)	4(1)	4386.0	4235.6	0.0
17(1)	5(1)	4367.5	4210.0	0.0
17(1)	6(1)	2982.7	2927.1	0.1
17(1)	7(1)	2845.0	2772.7	0.1
17(1)	8(1)	2810.8	2742.6	0.2
17(1)	9(1)	2729.3	2664.2	0.2
17(1)	10(1)	2663.7	2602.0	0.1
17(1)	11(1)	2559.0	2499.9	0.6
17(1)	12(1)	2541.4	2482.9	0.9
17(1)	13(1)	2533.1	2472.3	0.3
17(1)	14(1)	2468.8	2415.6	0.1
17(1)	15(1)	2395.5	2327.4	2.0
17(1)	16(1)	2387.3	2335.4	1.1
18(1)	1(1)	4960.6	4747.2	0.0
18(1)	2(1)	4909.0	4702.3	0.1
18(1)	3(1)	4371.5	4220.6	0.0
18(1)	4(1)	4351.4	4197.5	0.1
18(1)	5(1)	4333.0	4181.8	0.1
18(1)	6(1)	2948.1	2894.7	0.2
18(1)	7(1)	2810.4	2739.5	0.5
18(1)	8(1)	2776.3	2713.8	0.0
18(1)	9(1)	2694.7	2632.8	0.1
18(1)	10(1)	2629.2	2571.2	0.5
18(1)	11(1)	2524.4	2468.2	0.0
18(1)	12(1)	2506.9	2449.5	0.3
18(1)	13(1)	2498.5	2443.7	0.4
18(1)	14(1)	2434.2	2385.0	0.2
18(1)	15(1)	2361.0	2300.5	0.2
18(1)	16(1)	2352.7	2304.0	0.2
18(1)	17(1)	2334.1	2284.3	0.6

19(1)	1(1)	4886.9	4671.1	0.0
19(1)	2(1)	4835.3	4628.1	0.1
19(1)	3(1)	4297.9	4146.1	0.2
19(1)	4(1)	4277.7	4127.8	0.1
19(1)	5(1)	4259.3	4106.3	0.1
19(1)	6(1)	2874.5	2817.9	0.3
19(1)	7(1)	2736.8	2664.6	0.0
19(1)	8(1)	2702.6	2638.6	0.0
19(1)	9(1)	2621.0	2558.3	0.1
19(1)	10(1)	2555.5	2497.2	0.2
19(1)	11(1)	2450.7	2390.0	0.5
19(1)	12(1)	2433.2	2373.7	0.3
19(1)	13(1)	2424.9	2366.5	0.3
19(1)	14(1)	2360.6	2308.7	0.0
19(1)	15(1)	2287.3	2224.5	0.1
19(1)	16(1)	2279.1	2228.4	0.2
19(1)	17(1)	2260.5	2208.1	0.2
19(1)	18(1)	2225.9	2174.9	1.0
20(1)	1(1)	4806.9	4598.3	0.0
20(1)	2(1)	4755.3	4553.5	0.0
20(1)	3(1)	4217.9	4060.6	0.0
20(1)	4(1)	4197.7	4048.4	0.0
20(1)	5(1)	4179.3	4033.9	0.0
20(1)	6(1)	2794.4	2746.4	0.0
20(1)	7(1)	2656.7	2592.4	0.0
20(1)	8(1)	2622.6	2565.2	0.0
20(1)	9(1)	2541.0	2485.5	0.0
20(1)	10(1)	2475.5	2426.1	0.0
20(1)	11(1)	2370.7	2321.3	0.0
20(1)	12(1)	2353.2	2302.5	0.0
20(1)	13(1)	2344.9	2296.1	0.0
20(1)	14(1)	2280.6	2236.5	0.0
20(1)	15(1)	2207.3	2153.3	0.0
20(1)	16(1)	2199.0	2155.5	0.0
20(1)	17(1)	2180.5	2135.7	0.0
20(1)	18(1)	2145.9	2103.9	0.0
20(1)	19(1)	2072.2	2028.6	0.0
21(1)	1(1)	4804.6	4597.9	0.0
21(1)	2(1)	4753.0	4554.1	0.0
21(1)	3(1)	4215.5	4072.9	0.0

21(1)	4(1)	4195.3	4054.6	0.3
21(1)	5(1)	4176.9	4031.9	0.2
21(1)	6(1)	2792.1	2746.8	0.0
21(1)	7(1)	2654.4	2592.0	0.0
21(1)	8(1)	2620.2	2563.4	0.0
21(1)	9(1)	2538.6	2484.4	0.3
21(1)	10(1)	2473.1	2423.9	0.6
21(1)	11(1)	2368.3	2321.5	0.0
21(1)	12(1)	2350.8	2302.0	0.4
21(1)	13(1)	2342.5	2294.4	0.3
21(1)	14(1)	2278.2	2236.3	0.2
21(1)	15(1)	2204.9	2153.0	0.5
21(1)	16(1)	2196.7	2155.9	0.3
21(1)	17(1)	2178.1	2135.2	0.3
21(1)	18(1)	2143.5	2104.6	0.5
21(1)	19(1)	2069.9	2028.4	0.3
21(1)	20(1)	1989.8	1955.9	0.0
22(1)	1(1)	4670.0	4470.0	0.0
22(1)	2(1)	4618.4	4425.9	0.0
22(1)	3(1)	4081.0	3943.6	0.0
22(1)	4(1)	4060.8	3921.8	0.0
22(1)	5(1)	4042.4	3899.9	0.0
22(1)	6(1)	2657.5	2618.7	0.0
22(1)	7(1)	2519.9	2464.3	0.0
22(1)	8(1)	2485.7	2437.1	0.0
22(1)	9(1)	2404.1	2358.1	0.0
22(1)	10(1)	2338.6	2296.5	0.0
22(1)	11(1)	2233.8	2193.6	0.0
22(1)	12(1)	2216.3	2175.6	0.0
22(1)	13(1)	2208.0	2168.3	0.0
22(1)	14(1)	2143.7	2109.3	0.0
22(1)	15(1)	2070.4	2022.9	0.0
22(1)	16(1)	2062.2	2028.7	0.0
22(1)	17(1)	2043.6	2006.4	0.0
22(1)	18(1)	2009.0	1977.3	0.0
22(1)	19(1)	1935.3	1900.3	0.0
22(1)	20(1)	1855.3	1827.6	0.4
22(1)	21(1)	1852.9	1827.4	0.0
23(1)	1(1)	4666.5	4464.4	0.0
23(1)	2(1)	4614.9	4420.3	0.0

23(1)	3(1)	4077.4	3939.1	0.0
23(1)	4(1)	4057.3	3919.4	0.0
23(1)	5(1)	4038.9	3893.1	0.0
23(1)	6(1)	2654.0	2612.8	0.0
23(1)	7(1)	2516.3	2459.1	0.0
23(1)	8(1)	2482.2	2432.1	0.0
23(1)	9(1)	2400.6	2353.0	0.0
23(1)	10(1)	2335.1	2289.9	0.0
23(1)	11(1)	2230.3	2187.4	0.0
23(1)	12(1)	2212.8	2169.2	0.0
23(1)	13(1)	2204.5	2161.9	0.0
23(1)	14(1)	2140.2	2102.8	0.0
23(1)	15(1)	2066.9	2019.1	0.0
23(1)	16(1)	2058.6	2023.0	0.0
23(1)	17(1)	2040.0	2002.6	0.0
23(1)	18(1)	2005.5	1972.0	0.0
23(1)	19(1)	1931.8	1894.4	0.0
23(1)	20(1)	1851.8	1821.3	0.7
23(1)	21(1)	1849.4	1822.4	0.0
23(1)	22(1)	1714.9	1694.9	2.8
24(1)	1(1)	4599.4	4398.4	0.0
24(1)	2(1)	4547.8	4354.1	0.0
24(1)	3(1)	4010.3	3872.2	0.0
24(1)	4(1)	3990.2	3854.2	0.0
24(1)	5(1)	3971.7	3832.3	0.0
24(1)	6(1)	2586.9	2545.1	0.0
24(1)	7(1)	2449.2	2394.1	0.0
24(1)	8(1)	2415.0	2366.5	0.0
24(1)	9(1)	2333.5	2286.1	0.0
24(1)	10(1)	2267.9	2225.4	0.0
24(1)	11(1)	2163.2	2120.3	0.0
24(1)	12(1)	2145.6	2103.0	0.0
24(1)	13(1)	2137.3	2095.6	0.0
24(1)	14(1)	2073.0	2037.9	0.0
24(1)	15(1)	1999.7	1952.3	0.0
24(1)	16(1)	1991.5	1956.2	0.0
24(1)	17(1)	1972.9	1935.9	0.0
24(1)	18(1)	1938.3	1904.9	0.0
24(1)	19(1)	1864.7	1827.5	0.0
24(1)	20(1)	1784.7	1755.3	5.2

24(1)	21(1)	1782.3	1756.3	0.0
24(1)	22(1)	1647.8	1628.5	1.0
24(1)	23(1)	1644.3	1622.2	5.9
25(1)	1(1)	4571.0	4368.1	0.0
25(1)	2(1)	4519.4	4323.5	0.0
25(1)	3(1)	3981.9	3843.0	0.1
25(1)	4(1)	3961.8	3825.6	0.1
25(1)	5(1)	3943.4	3804.0	0.0
25(1)	6(1)	2558.5	2516.3	0.0
25(1)	7(1)	2420.8	2362.7	1.1
25(1)	8(1)	2386.6	2335.6	0.3
25(1)	9(1)	2305.1	2255.3	0.1
25(1)	10(1)	2239.5	2193.9	0.1
25(1)	11(1)	2134.8	2090.8	0.2
25(1)	12(1)	2117.2	2071.8	0.3
25(1)	13(1)	2108.9	2064.9	0.2
25(1)	14(1)	2044.6	2005.8	0.2
25(1)	15(1)	1971.3	1923.1	0.2
25(1)	16(1)	1963.1	1925.9	0.8
25(1)	17(1)	1944.5	1905.9	0.3
25(1)	18(1)	1909.9	1874.2	0.7
25(1)	19(1)	1836.3	1797.8	0.3
25(1)	20(1)	1756.3	1725.3	0.0
25(1)	21(1)	1753.9	1725.6	0.2
25(1)	22(1)	1619.4	1597.6	0.0
25(1)	23(1)	1615.9	1592.1	0.0
25(1)	24(1)	1548.7	1525.7	0.0
26(1)	1(1)	4555.5	4352.1	0.0
26(1)	2(1)	4503.9	4305.2	0.1
26(1)	3(1)	3966.4	3827.7	0.0
26(1)	4(1)	3946.2	3809.4	0.1
26(1)	5(1)	3927.8	3787.7	0.0
26(1)	6(1)	2543.0	2498.4	0.1
26(1)	7(1)	2405.3	2347.1	0.0
26(1)	8(1)	2371.1	2319.9	0.0
26(1)	9(1)	2289.5	2239.2	0.3
26(1)	10(1)	2224.0	2178.5	0.0
26(1)	11(1)	2119.2	2075.3	0.4
26(1)	12(1)	2101.7	2056.2	0.2
26(1)	13(1)	2093.4	2050.2	0.1

26(1)	14(1)	2029.1	1990.4	0.1
26(1)	15(1)	1955.8	1906.8	2.5
26(1)	16(1)	1947.6	1909.8	0.2
26(1)	17(1)	1929.0	1890.0	0.5
26(1)	18(1)	1894.4	1857.2	0.3
26(1)	19(1)	1820.8	1780.3	3.9
26(1)	20(1)	1740.7	1709.5	0.0
26(1)	21(1)	1738.4	1709.8	0.1
26(1)	22(1)	1603.9	1581.7	0.0
26(1)	23(1)	1600.3	1576.0	0.0
26(1)	24(1)	1533.2	1509.4	0.0
26(1)	25(1)	1504.8	1479.4	0.3
27(1)	1(1)	4517.1	4317.5	0.0
27(1)	2(1)	4465.5	4273.1	0.0
27(1)	3(1)	3928.0	3792.9	0.0
27(1)	4(1)	3907.9	3774.3	0.0
27(1)	5(1)	3889.4	3751.1	0.0
27(1)	6(1)	2504.6	2465.2	0.0
27(1)	7(1)	2366.9	2312.1	0.0
27(1)	8(1)	2332.7	2285.1	0.0
27(1)	9(1)	2251.2	2204.6	0.0
27(1)	10(1)	2185.6	2143.7	0.0
27(1)	11(1)	2080.8	2041.4	0.0
27(1)	12(1)	2063.3	2022.6	0.0
27(1)	13(1)	2055.0	2015.7	0.0
27(1)	14(1)	1990.7	1955.6	0.0
27(1)	15(1)	1917.4	1870.9	0.0
27(1)	16(1)	1909.2	1874.9	0.0
27(1)	17(1)	1890.6	1855.1	0.0
27(1)	18(1)	1856.0	1821.9	0.0
27(1)	19(1)	1782.4	1746.7	0.0
27(1)	20(1)	1702.3	1676.1	0.1
27(1)	21(1)	1700.0	1674.1	0.0
27(1)	22(1)	1565.5	1548.0	0.4
27(1)	23(1)	1561.9	1542.0	1.1
27(1)	24(1)	1494.8	1476.1	2.0
27(1)	25(1)	1466.4	1444.9	0.0
27(1)	26(1)	1450.9	1428.7	0.0
28(1)	1(1)	4460.5	4261.1	0.0
28(1)	2(1)	4409.0	4216.5	0.0

28(1)	3(1)	3871.5	3736.2	0.0
28(1)	4(1)	3851.3	3717.0	0.0
28(1)	5(1)	3832.9	3696.4	0.0
28(1)	6(1)	2448.1	2409.2	0.0
28(1)	7(1)	2310.4	2256.1	0.0
28(1)	8(1)	2276.2	2227.7	0.0
28(1)	9(1)	2194.6	2150.0	0.0
28(1)	10(1)	2129.1	2086.4	0.0
28(1)	11(1)	2024.3	1983.8	0.0
28(1)	12(1)	2006.8	1965.1	0.0
28(1)	13(1)	1998.5	1958.1	0.0
28(1)	14(1)	1934.2	1898.8	0.0
28(1)	15(1)	1860.9	1814.5	0.0
28(1)	16(1)	1852.7	1818.2	0.0
28(1)	17(1)	1834.1	1800.6	0.0
28(1)	18(1)	1799.5	1767.0	0.0
28(1)	19(1)	1725.9	1690.7	0.0
28(1)	20(1)	1645.8	1618.4	12.3
28(1)	21(1)	1643.5	1617.4	0.0
28(1)	22(1)	1508.9	1490.3	2.8
28(1)	23(1)	1505.4	1485.0	6.2
28(1)	24(1)	1438.3	1419.8	1.6
28(1)	25(1)	1409.9	1388.0	0.0
28(1)	26(1)	1394.4	1371.9	0.0
28(1)	27(1)	1356.0	1340.8	1.2
29(1)	1(1)	4413.9	4214.7	0.0
29(1)	2(1)	4362.3	4170.1	0.0
29(1)	3(1)	3824.8	3690.5	0.0
29(1)	4(1)	3804.7	3672.0	0.1
29(1)	5(1)	3786.3	3650.6	0.0
29(1)	6(1)	2401.4	2360.9	0.1
29(1)	7(1)	2263.7	2209.8	0.0
29(1)	8(1)	2229.6	2182.8	0.0
29(1)	9(1)	2148.0	2101.7	0.1
29(1)	10(1)	2082.5	2041.2	0.0
29(1)	11(1)	1977.7	1939.3	0.1
29(1)	12(1)	1960.2	1919.3	0.1
29(1)	13(1)	1951.9	1912.2	0.1
29(1)	14(1)	1887.6	1852.9	0.0
29(1)	15(1)	1814.3	1771.1	15.4

29(1)	16(1)	1806.0	1773.5	40.4
29(1)	17(1)	1787.4	1752.2	19.6
29(1)	18(1)	1752.9	1721.1	1.0
29(1)	19(1)	1679.2	1644.7	1.3
29(1)	20(1)	1599.2	1572.2	0.0
29(1)	21(1)	1596.8	1571.9	1.6
29(1)	22(1)	1462.3	1444.6	0.0
29(1)	23(1)	1458.8	1439.0	0.0
29(1)	24(1)	1391.6	1372.8	0.0
29(1)	25(1)	1363.3	1341.4	6.8
29(1)	26(1)	1347.7	1325.4	3.8
29(1)	27(1)	1309.3	1291.9	0.0
29(1)	28(1)	1252.8	1236.3	0.0
30(1)	1(1)	4404.2	4208.9	0.0
30(1)	2(1)	4352.6	4163.0	0.1
30(1)	3(1)	3815.1	3684.3	0.0
30(1)	4(1)	3794.9	3666.0	0.0
30(1)	5(1)	3776.5	3644.4	0.1
30(1)	6(1)	2391.7	2355.5	0.0
30(1)	7(1)	2254.0	2203.2	0.0
30(1)	8(1)	2219.8	2176.3	0.0
30(1)	9(1)	2138.2	2095.6	0.0
30(1)	10(1)	2072.7	2035.1	0.0
30(1)	11(1)	1967.9	1931.0	0.2
30(1)	12(1)	1950.4	1912.8	0.2
30(1)	13(1)	1942.1	1906.8	0.1
30(1)	14(1)	1877.8	1847.1	0.0
30(1)	15(1)	1804.5	1764.5	52.9
30(1)	16(1)	1796.3	1766.5	147.7
30(1)	17(1)	1777.7	1746.3	2.1
30(1)	18(1)	1743.1	1714.5	0.3
30(1)	19(1)	1669.5	1638.4	17.9
30(1)	20(1)	1589.4	1566.1	0.0
30(1)	21(1)	1587.1	1566.5	0.8
30(1)	22(1)	1452.5	1438.3	0.0
30(1)	23(1)	1449.0	1432.8	0.0
30(1)	24(1)	1381.9	1366.6	0.0
30(1)	25(1)	1353.5	1337.3	1.4
30(1)	26(1)	1338.0	1319.2	3.0
30(1)	27(1)	1299.6	1285.7	0.0

30(1)	28(1)	1243.1	1228.8	0.0
30(1)	29(1)	1196.4	1182.8	0.6
31(1)	1(1)	4388.5	4169.9	0.0
31(1)	2(1)	4336.9	4122.0	1.1
31(1)	3(1)	3799.4	3645.6	0.0
31(1)	4(1)	3779.2	3627.3	0.0
31(1)	5(1)	3760.8	3605.5	0.0
31(1)	6(1)	2376.0	2318.1	0.1
31(1)	7(1)	2238.3	2165.4	0.0
31(1)	8(1)	2204.1	2138.2	0.0
31(1)	9(1)	2122.5	2057.3	0.0
31(1)	10(1)	2057.0	1996.7	0.0
31(1)	11(1)	1952.2	1894.5	0.0
31(1)	12(1)	1934.7	1876.0	0.0
31(1)	13(1)	1926.4	1869.9	0.0
31(1)	14(1)	1862.1	1807.8	0.0
31(1)	15(1)	1788.8	1723.5	0.0
31(1)	16(1)	1780.6	1727.4	0.0
31(1)	17(1)	1762.0	1708.9	0.0
31(1)	18(1)	1727.4	1672.2	0.0
31(1)	19(1)	1653.8	1596.5	0.0
31(1)	20(1)	1573.7	1527.7	0.0
31(1)	21(1)	1571.4	1527.3	0.0
31(1)	22(1)	1436.8	1399.8	0.1
31(1)	23(1)	1433.3	1395.1	0.2
31(1)	24(1)	1366.2	1332.5	3.3
31(1)	25(1)	1337.8	1297.1	0.0
31(1)	26(1)	1322.3	1281.0	0.0
31(1)	27(1)	1283.9	1239.7	29.2
31(1)	28(1)	1227.4	1189.5	13.6
31(1)	29(1)	1180.7	1143.5	0.0
31(1)	30(1)	1171.0	1138.6	0.0
32(1)	1(1)	4337.4	4142.1	0.0
32(1)	2(1)	4285.8	4097.6	0.0
32(1)	3(1)	3748.4	3617.7	0.0
32(1)	4(1)	3728.2	3599.5	0.0
32(1)	5(1)	3709.8	3578.1	0.1
32(1)	6(1)	2324.9	2290.6	0.0
32(1)	7(1)	2187.3	2135.9	0.4
32(1)	8(1)	2153.1	2110.1	0.1

32(1)	9(1)	2071.5	2029.5	0.0
32(1)	10(1)	2006.0	1967.4	0.0
32(1)	11(1)	1901.2	1864.9	0.2
32(1)	12(1)	1883.7	1846.7	0.1
32(1)	13(1)	1875.4	1839.3	0.0
32(1)	14(1)	1811.1	1780.8	0.7
32(1)	15(1)	1737.8	1697.0	0.4
32(1)	16(1)	1729.6	1700.1	0.1
32(1)	17(1)	1711.0	1680.2	1.4
32(1)	18(1)	1676.4	1649.7	7.6
32(1)	19(1)	1602.7	1572.0	0.9
32(1)	20(1)	1522.7	1499.6	0.0
32(1)	21(1)	1520.4	1500.3	1.2
32(1)	22(1)	1385.8	1371.8	0.0
32(1)	23(1)	1382.3	1366.4	0.0
32(1)	24(1)	1315.2	1300.2	0.0
32(1)	25(1)	1286.8	1270.5	0.3
32(1)	26(1)	1271.3	1253.5	0.1
32(1)	27(1)	1232.9	1219.0	0.0
32(1)	28(1)	1176.3	1162.3	0.0
32(1)	29(1)	1129.7	1116.2	0.0
32(1)	30(1)	1120.0	1110.2	0.2
32(1)	31(1)	1104.3	1071.2	0.0
33(1)	1(1)	4276.8	4079.9	0.0
33(1)	2(1)	4225.2	4034.9	0.1
33(1)	3(1)	3687.7	3554.4	0.0
33(1)	4(1)	3667.6	3536.8	0.0
33(1)	5(1)	3649.2	3515.3	0.0
33(1)	6(1)	2264.3	2228.0	0.0
33(1)	7(1)	2126.6	2074.4	0.0
33(1)	8(1)	2092.5	2047.4	0.0
33(1)	9(1)	2010.9	1967.0	0.0
33(1)	10(1)	1945.4	1908.4	0.0
33(1)	11(1)	1840.6	1802.4	0.0
33(1)	12(1)	1823.1	1784.5	0.0
33(1)	13(1)	1814.8	1777.7	0.0
33(1)	14(1)	1750.4	1717.7	0.0
33(1)	15(1)	1677.2	1634.8	0.0
33(1)	16(1)	1668.9	1637.7	0.0
33(1)	17(1)	1650.3	1618.1	0.0

33(1)	18(1)	1615.8	1584.6	0.0
33(1)	19(1)	1542.1	1509.5	0.0
33(1)	20(1)	1462.1	1435.5	10.1
33(1)	21(1)	1459.7	1437.2	0.0
33(1)	22(1)	1325.2	1308.7	0.5
33(1)	23(1)	1321.7	1303.8	2.4
33(1)	24(1)	1254.5	1236.4	0.7
33(1)	25(1)	1226.2	1206.6	0.0
33(1)	26(1)	1210.6	1189.8	0.0
33(1)	27(1)	1172.2	1158.0	17.4
33(1)	28(1)	1115.7	1098.7	0.8
33(1)	29(1)	1069.1	1053.6	0.0
33(1)	30(1)	1059.3	1047.9	0.0
33(1)	31(1)	1043.6	1008.4	0.5
33(1)	32(1)	992.6	981.3	0.0
34(1)	1(1)	4220.7	4027.5	0.0
34(1)	2(1)	4169.2	3982.6	0.0
34(1)	3(1)	3631.7	3503.2	0.0
34(1)	4(1)	3611.5	3485.1	0.0
34(1)	5(1)	3593.1	3463.4	0.0
34(1)	6(1)	2208.3	2175.4	0.0
34(1)	7(1)	2070.6	2022.4	0.0
34(1)	8(1)	2036.4	1997.6	0.0
34(1)	9(1)	1954.8	1915.1	0.1
34(1)	10(1)	1889.3	1853.9	0.3
34(1)	11(1)	1784.5	1750.8	2.4
34(1)	12(1)	1767.0	1732.3	5.4
34(1)	13(1)	1758.7	1725.2	2.1
34(1)	14(1)	1694.4	1666.1	0.1
34(1)	15(1)	1621.1	1580.8	14.9
34(1)	16(1)	1612.9	1585.7	0.7
34(1)	17(1)	1594.3	1565.5	1.2
34(1)	18(1)	1559.7	1533.5	0.4
34(1)	19(1)	1486.1	1457.5	0.8
34(1)	20(1)	1406.0	1385.0	0.0
34(1)	21(1)	1403.7	1385.2	0.6
34(1)	22(1)	1269.1	1257.4	0.0
34(1)	23(1)	1265.6	1251.8	0.0
34(1)	24(1)	1198.5	1185.6	0.0
34(1)	25(1)	1170.1	1154.2	2.8

34(1)	26(1)	1154.6	1139.0	11.9
34(1)	27(1)	1116.2	1104.5	0.0
34(1)	28(1)	1059.7	1047.9	0.0
34(1)	29(1)	1013.0	1000.9	0.1
34(1)	30(1)	1003.3	995.4	0.1
34(1)	31(1)	987.6	956.6	0.0
34(1)	32(1)	936.5	929.1	0.0
34(1)	33(1)	875.9	866.9	0.0
35(1)	1(1)	4204.7	3946.9	1.4
35(1)	2(1)	4153.1	3915.2	0.0
35(1)	3(1)	3615.6	3435.4	0.0
35(1)	4(1)	3595.4	3417.3	0.0
35(1)	5(1)	3577.0	3398.7	0.0
35(1)	6(1)	2192.2	2108.4	0.0
35(1)	7(1)	2054.5	1954.9	0.0
35(1)	8(1)	2020.3	1926.4	0.0
35(1)	9(1)	1938.8	1846.9	0.0
35(1)	10(1)	1873.2	1783.4	0.0
35(1)	11(1)	1768.4	1682.1	0.0
35(1)	12(1)	1750.9	1662.2	0.0
35(1)	13(1)	1742.6	1659.6	0.0
35(1)	14(1)	1678.3	1597.5	0.0
35(1)	15(1)	1605.0	1511.7	0.0
35(1)	16(1)	1596.8	1516.3	0.0
35(1)	17(1)	1578.2	1500.4	0.0
35(1)	18(1)	1543.6	1466.0	0.0
35(1)	19(1)	1470.0	1390.0	0.0
35(1)	20(1)	1389.9	1317.3	0.3
35(1)	21(1)	1387.6	1317.3	0.0
35(1)	22(1)	1253.1	1194.5	6.7
35(1)	23(1)	1249.5	1186.8	0.9
35(1)	24(1)	1182.4	1117.9	0.1
35(1)	25(1)	1154.0	1082.9	0.0
35(1)	26(1)	1138.5	1069.3	0.0
35(1)	27(1)	1100.1	1036.9	1.3
35(1)	28(1)	1043.6	975.6	4.4
35(1)	29(1)	996.9	933.2	0.0
35(1)	30(1)	987.2	926.4	0.0
35(1)	31(1)	971.5	888.7	0.0
35(1)	32(1)	920.5	860.5	0.0

35(1)	33(1)	859.8	798.4	0.0
35(1)	34(1)	803.8	745.6	0.2
36(1)	1(1)	4177.7	3982.7	0.0
36(1)	2(1)	4126.1	3938.0	0.0
36(1)	3(1)	3588.6	3458.2	0.0
36(1)	4(1)	3568.5	3440.0	0.0
36(1)	5(1)	3550.0	3418.4	0.0
36(1)	6(1)	2165.2	2130.5	0.2
36(1)	7(1)	2027.5	1977.7	0.4
36(1)	8(1)	1993.3	1950.7	0.0
36(1)	9(1)	1911.8	1869.0	0.1
36(1)	10(1)	1846.2	1809.1	0.2
36(1)	11(1)	1741.5	1706.5	1.4
36(1)	12(1)	1723.9	1686.7	0.1
36(1)	13(1)	1715.6	1679.2	0.7
36(1)	14(1)	1651.3	1620.8	4.8
36(1)	15(1)	1578.0	1538.1	0.6
36(1)	16(1)	1569.8	1541.0	0.5
36(1)	17(1)	1551.2	1521.5	6.9
36(1)	18(1)	1516.6	1489.3	0.4
36(1)	19(1)	1443.0	1412.6	0.1
36(1)	20(1)	1363.0	1340.0	0.0
36(1)	21(1)	1360.6	1341.1	12.4
36(1)	22(1)	1226.1	1212.3	0.0
36(1)	23(1)	1222.6	1206.8	0.0
36(1)	24(1)	1155.4	1140.6	0.0
36(1)	25(1)	1127.0	1109.4	2.3
36(1)	26(1)	1111.5	1094.0	1.6
36(1)	27(1)	1073.1	1059.5	0.0
36(1)	28(1)	1016.6	1002.9	0.0
36(1)	29(1)	969.9	956.4	0.0
36(1)	30(1)	960.2	950.6	0.0
36(1)	31(1)	944.5	911.4	0.0
36(1)	32(1)	893.5	884.1	0.0
36(1)	33(1)	832.8	821.5	0.0
36(1)	34(1)	776.8	769.8	0.1
36(1)	35(1)	760.7	700.4	0.0
37(1)	1(1)	4127.0	3932.0	0.0
37(1)	2(1)	4075.4	3887.6	0.0
37(1)	3(1)	3537.9	3408.1	0.0

37(1)	4(1)	3517.8	3389.8	0.0
37(1)	5(1)	3499.3	3368.0	0.0
37(1)	6(1)	2114.5	2081.2	0.1
37(1)	7(1)	1976.8	1925.2	0.0
37(1)	8(1)	1942.6	1899.5	0.0
37(1)	9(1)	1861.1	1820.7	0.5
37(1)	10(1)	1795.5	1758.0	66.4
37(1)	11(1)	1690.8	1656.3	6.7
37(1)	12(1)	1673.2	1639.3	45.5
37(1)	13(1)	1664.9	1630.1	19.7
37(1)	14(1)	1600.6	1570.4	0.2
37(1)	15(1)	1527.3	1486.6	1.3
37(1)	16(1)	1519.1	1490.5	0.1
37(1)	17(1)	1500.5	1470.2	0.3
37(1)	18(1)	1465.9	1438.5	0.8
37(1)	19(1)	1392.3	1362.2	0.4
37(1)	20(1)	1312.3	1289.6	0.0
37(1)	21(1)	1309.9	1289.5	0.9
37(1)	22(1)	1175.4	1161.8	0.0
37(1)	23(1)	1171.8	1156.4	0.0
37(1)	24(1)	1104.7	1090.2	0.0
37(1)	25(1)	1076.3	1059.9	258.2
37(1)	26(1)	1060.8	1043.4	0.3
37(1)	27(1)	1022.4	1008.9	0.0
37(1)	28(1)	965.9	952.4	0.0
37(1)	29(1)	919.2	906.3	0.0
37(1)	30(1)	909.5	900.2	0.0
37(1)	31(1)	893.8	861.0	0.0
37(1)	32(1)	842.8	834.3	0.0
37(1)	33(1)	782.1	771.1	0.2
37(1)	34(1)	726.1	719.1	0.0
37(1)	35(1)	710.0	650.1	1.0
37(1)	36(1)	683.0	673.9	0.1
38(1)	1(1)	4101.7	3907.0	0.0
38(1)	2(1)	4050.1	3862.8	0.1
38(1)	3(1)	3512.7	3383.0	0.0
38(1)	4(1)	3492.5	3364.8	0.0
38(1)	5(1)	3474.1	3343.3	0.0
38(1)	6(1)	2089.2	2055.7	0.0
38(1)	7(1)	1951.6	1902.8	0.0

38(1)	8(1)	1917.4	1875.7	0.0
38(1)	9(1)	1835.8	1795.2	0.0
38(1)	10(1)	1770.3	1734.0	0.0
38(1)	11(1)	1665.5	1630.8	0.0
38(1)	12(1)	1648.0	1612.4	0.0
38(1)	13(1)	1639.7	1605.3	0.0
38(1)	14(1)	1575.4	1545.6	0.0
38(1)	15(1)	1502.1	1462.5	0.0
38(1)	16(1)	1493.9	1465.7	0.0
38(1)	17(1)	1475.3	1445.5	0.0
38(1)	18(1)	1440.7	1414.4	0.0
38(1)	19(1)	1367.0	1337.6	0.0
38(1)	20(1)	1287.0	1267.3	0.5
38(1)	21(1)	1284.7	1264.7	0.0
38(1)	22(1)	1150.1	1137.2	0.0
38(1)	23(1)	1146.6	1130.3	29.3
38(1)	24(1)	1079.5	1065.8	0.8
38(1)	25(1)	1051.1	1035.1	0.0
38(1)	26(1)	1035.6	1017.4	0.0
38(1)	27(1)	997.2	984.7	3.2
38(1)	28(1)	940.6	927.9	0.1
38(1)	29(1)	894.0	881.9	0.0
38(1)	30(1)	884.3	875.9	0.0
38(1)	31(1)	868.5	835.9	0.1
38(1)	32(1)	817.5	808.8	0.1
38(1)	33(1)	756.9	748.0	0.3
38(1)	34(1)	700.8	695.4	0.0
38(1)	35(1)	684.8	626.2	0.4
38(1)	36(1)	657.8	648.5	0.0
38(1)	37(1)	607.1	598.3	0.0
39(1)	1(1)	4037.3	3841.3	0.0
39(1)	2(1)	3985.7	3796.9	0.0
39(1)	3(1)	3448.2	3316.9	0.0
39(1)	4(1)	3428.1	3298.8	0.0
39(1)	5(1)	3409.6	3277.1	0.0
39(1)	6(1)	2024.8	1989.8	0.0
39(1)	7(1)	1887.1	1836.7	0.0
39(1)	8(1)	1852.9	1809.7	0.0
39(1)	9(1)	1771.4	1729.2	0.0
39(1)	10(1)	1705.8	1668.0	0.1

39(1)	11(1)	1601.1	1564.7	0.0
39(1)	12(1)	1583.5	1546.1	0.1
39(1)	13(1)	1575.2	1539.1	0.0
39(1)	14(1)	1510.9	1479.7	0.0
39(1)	15(1)	1437.6	1396.3	0.0
39(1)	16(1)	1429.4	1399.4	0.0
39(1)	17(1)	1410.8	1379.3	0.0
39(1)	18(1)	1376.2	1347.7	0.0
39(1)	19(1)	1302.6	1271.5	0.0
39(1)	20(1)	1222.6	1198.8	0.9
39(1)	21(1)	1220.2	1199.0	0.0
39(1)	22(1)	1085.7	1071.1	1.9
39(1)	23(1)	1082.2	1065.7	2.1
39(1)	24(1)	1015.0	999.5	0.1
39(1)	25(1)	986.6	969.0	0.0
39(1)	26(1)	971.1	952.9	0.0
39(1)	27(1)	932.7	918.3	0.1
39(1)	28(1)	876.2	861.2	0.0
39(1)	29(1)	829.5	815.9	0.0
39(1)	30(1)	819.8	809.6	0.1
39(1)	31(1)	804.1	770.2	0.0
39(1)	32(1)	753.1	744.2	0.0
39(1)	33(1)	692.4	680.1	0.0
39(1)	34(1)	636.4	627.8	0.0
39(1)	35(1)	620.3	558.8	0.1
39(1)	36(1)	593.3	583.0	0.1
39(1)	37(1)	542.6	532.3	0.0
39(1)	38(1)	517.4	507.8	0.2
40(1)	1(1)	4008.4	3815.0	0.0
40(1)	2(1)	3956.8	3770.6	0.1
40(1)	3(1)	3419.3	3291.5	0.0
40(1)	4(1)	3399.2	3272.8	0.0
40(1)	5(1)	3380.8	3251.1	0.0
40(1)	6(1)	1995.9	1963.3	0.3
40(1)	7(1)	1858.2	1810.6	0.0
40(1)	8(1)	1824.0	1783.9	1.2
40(1)	9(1)	1742.5	1702.5	0.2
40(1)	10(1)	1676.9	1642.3	12.4
40(1)	11(1)	1572.2	1538.2	0.6
40(1)	12(1)	1554.6	1520.0	0.4

40(1)	13(1)	1546.3	1513.6	13.6
40(1)	14(1)	1482.0	1453.7	4.1
40(1)	15(1)	1408.7	1370.4	0.0
40(1)	16(1)	1400.5	1373.9	0.0
40(1)	17(1)	1381.9	1353.1	0.3
40(1)	18(1)	1347.4	1321.2	15.4
40(1)	19(1)	1273.7	1245.0	0.2
40(1)	20(1)	1193.7	1172.9	0.0
40(1)	21(1)	1191.3	1173.0	4.5
40(1)	22(1)	1056.8	1045.1	0.0
40(1)	23(1)	1053.3	1039.8	0.0
40(1)	24(1)	986.1	973.4	0.0
40(1)	25(1)	957.7	942.4	0.0
40(1)	26(1)	942.2	926.4	0.0
40(1)	27(1)	903.8	892.6	0.0
40(1)	28(1)	847.3	835.6	0.0
40(1)	29(1)	800.7	788.5	0.0
40(1)	30(1)	790.9	783.2	0.0
40(1)	31(1)	775.2	744.4	0.0
40(1)	32(1)	724.2	716.8	0.0
40(1)	33(1)	663.6	654.1	0.0
40(1)	34(1)	607.5	603.3	6.7
40(1)	35(1)	591.4	532.3	0.0
40(1)	36(1)	564.4	556.9	0.0
40(1)	37(1)	513.7	506.0	0.1
40(1)	38(1)	488.5	482.6	0.1
40(1)	39(1)	424.0	415.5	0.0
41(1)	1(1)	3909.9	3716.4	0.1
41(1)	2(1)	3858.4	3672.0	0.1
41(1)	3(1)	3320.9	3192.0	0.0
41(1)	4(1)	3300.7	3174.2	0.0
41(1)	5(1)	3282.3	3152.5	0.0
41(1)	6(1)	1897.5	1865.1	0.0
41(1)	7(1)	1759.8	1712.3	0.1
41(1)	8(1)	1725.6	1685.4	0.0
41(1)	9(1)	1644.0	1604.7	0.1
41(1)	10(1)	1578.5	1543.5	0.0
41(1)	11(1)	1473.7	1440.1	0.0
41(1)	12(1)	1456.2	1421.6	0.0
41(1)	13(1)	1447.9	1414.7	0.0

41(1)	14(1)	1383.6	1355.0	0.0
41(1)	15(1)	1310.3	1271.8	0.3
41(1)	16(1)	1302.1	1275.0	0.0
41(1)	17(1)	1283.5	1254.7	0.0
41(1)	18(1)	1248.9	1223.2	0.0
41(1)	19(1)	1175.3	1147.0	0.1
41(1)	20(1)	1095.2	1074.1	0.6
41(1)	21(1)	1092.9	1074.5	0.0
41(1)	22(1)	958.3	946.2	0.3
41(1)	23(1)	954.8	940.9	0.1
41(1)	24(1)	887.7	874.8	0.1
41(1)	25(1)	859.3	843.9	0.0
41(1)	26(1)	843.8	828.0	0.0
41(1)	27(1)	805.4	793.8	0.0
41(1)	28(1)	748.9	736.7	0.2
41(1)	29(1)	702.2	690.7	0.0
41(1)	30(1)	692.5	684.6	0.1
41(1)	31(1)	676.8	645.5	0.0
41(1)	32(1)	625.8	618.0	0.0
41(1)	33(1)	565.1	555.4	0.1
41(1)	34(1)	509.1	503.7	0.0
41(1)	35(1)	493.0	433.5	0.2
41(1)	36(1)	466.0	457.9	0.0
41(1)	37(1)	415.3	408.3	0.0
41(1)	38(1)	390.0	383.6	0.0
41(1)	39(1)	325.6	316.8	0.0
41(1)	40(1)	296.7	290.5	0.0
42(1)	1(1)	3851.7	3661.9	0.0
42(1)	2(1)	3800.1	3616.3	0.0
42(1)	3(1)	3262.7	3137.0	0.0
42(1)	4(1)	3242.5	3119.9	0.0
42(1)	5(1)	3224.1	3098.1	0.0
42(1)	6(1)	1839.2	1811.2	2.0
42(1)	7(1)	1701.6	1658.4	0.0
42(1)	8(1)	1667.4	1631.3	0.1
42(1)	9(1)	1585.8	1550.5	0.0
42(1)	10(1)	1520.3	1489.1	0.0
42(1)	11(1)	1415.5	1385.8	0.1
42(1)	12(1)	1398.0	1367.0	0.1
42(1)	13(1)	1389.7	1360.2	0.0

42(1)	14(1)	1325.4	1300.5	0.1
42(1)	15(1)	1252.1	1217.7	0.1
42(1)	16(1)	1243.9	1220.5	0.2
42(1)	17(1)	1225.3	1201.1	0.1
42(1)	18(1)	1190.7	1168.8	0.3
42(1)	19(1)	1117.0	1092.5	0.6
42(1)	20(1)	1037.0	1019.8	0.4
42(1)	21(1)	1034.6	1020.2	0.0
42(1)	22(1)	900.1	892.2	0.1
42(1)	23(1)	896.6	886.8	0.0
42(1)	24(1)	829.5	820.8	0.2
42(1)	25(1)	801.1	790.8	0.0
42(1)	26(1)	785.5	773.6	0.0
42(1)	27(1)	747.2	740.5	0.1
42(1)	28(1)	690.6	683.8	0.0
42(1)	29(1)	644.0	634.1	1.3
42(1)	30(1)	634.2	631.4	0.1
42(1)	31(1)	618.5	589.9	2.1
42(1)	32(1)	567.5	563.9	0.0
42(1)	33(1)	506.9	502.1	0.1
42(1)	34(1)	450.8	451.0	0.2
42(1)	35(1)	434.7	376.1	0.0
42(1)	36(1)	407.8	404.4	0.0
42(1)	37(1)	357.1	353.0	0.0
42(1)	38(1)	331.8	327.4	0.0
42(1)	39(1)	267.4	260.3	0.0
42(1)	40(1)	238.5	235.6	0.0
42(1)	41(1)	140.0	138.7	0.0

Table S15. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **C1** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3811.9	3631.4	90.1	75.7
2(1)	3757.7	3577.3	112.1	98.3
3(1)	3211.7	3088.9	3.1	1.1
4(1)	3199.3	3069.5	0.5	0.6
5(1)	3186.4	3052.1	1.4	3.0
6(1)	1813.9	1778.4	323.6	228.3
7(1)	1666.0	1624.3	259.2	195.6
8(1)	1621.6	1585.0	92.7	63.0
9(1)	1537.8	1503.4	42.8	33.4
10(1)	1481.1	1444.7	34.6	27.1
11(1)	1364.9	1336.3	24.7	124.9
12(1)	1359.5	1301.3	572.9	242.7
13(1)	1342.6	1309.6	19.4	14.9
14(1)	1270.1	1243.7	133.8	100.5
15(1)	1236.7	1211.1	18.2	6.7
16(1)	1192.8	1163.8	260.9	224.7
17(1)	1171.6	1153.3	22.1	15.3
18(1)	1136.7	1118.2	53.5	51.5
19(1)	1088.9	1081.9	5.3	3.2
20(1)	1013.0	991.1	0.5	0.2
21(1)	983.8	967.5	24.4	12.0
22(1)	867.6	854.9	29.6	35.6
23(1)	843.9	843.9	27.3	19.8
24(1)	776.8	773.2	7.5	5.8
25(1)	767.1	753.3	14.2	12.8
26(1)	752.8	739.6	3.3	6.7
27(1)	692.3	690.5	6.7	4.5
28(1)	639.8	629.5	11.2	5.4
29(1)	621.2	614.3	7.6	6.9
30(1)	588.9	582.8	11.8	11.8
31(1)	564.9	545.3	87.0	90.2
32(1)	526.6	522.0	4.3	3.8
33(1)	470.3	463.5	4.2	3.2
34(1)	416.1	413.7	19.5	17.4
35(1)	386.5	356.7	98.5	94.3
36(1)	364.5	361.8	0.7	0.8
37(1)	332.9	329.5	8.1	7.2

38(1)	293.9	292.7	5.0	5.6
39(1)	229.2	225.3	0.4	0.5
40(1)	220.6	216.8	5.8	5.6
41(1)	100.6	103.0	0.8	0.6
42(1)	63.8	69.1	2.8	2.7
1(2)	7623.7	7096.6		6.2
2(2)	7515.3	6976.9		2.1
3(2)	6423.3	6120.9		0.3
4(2)	6398.7	6092.7		0.8
5(2)	6372.8	6014.0		0.6
6(2)	3627.9	3538.6		4.9
7(2)	3332.0	3245.6		0.3
8(2)	3243.1	3166.5		1.4
9(2)	3075.6	3000.7		0.1
10(2)	2962.2	2893.3		0.1
11(2)	2729.8	2671.2		2.0
12(2)	2719.1	2616.6		0.8
13(2)	2685.2	2621.6		0.1
14(2)	2540.2	2485.0		0.1
15(2)	2473.4	2419.0		0.3
16(2)	2385.7	2319.4		1.3
17(2)	2343.1	2304.0		0.1
18(2)	2273.4	2231.9		0.5
19(2)	2177.8	2131.1		0.7
20(2)	2026.1	1977.1		2.3
21(2)	1967.5	1933.7		0.4
22(2)	1735.1	1709.4		0.8
23(2)	1687.7	1692.8		0.7
24(2)	1553.5	1547.3		0.8
25(2)	1534.1	1512.4		0.9
26(2)	1505.7	1478.8		0.3
27(2)	1384.5	1382.9		0.4
28(2)	1279.6	1259.1		4.1
29(2)	1242.4	1228.9		0.3
30(2)	1177.8	1166.4		1.0
31(2)	1129.9	1045.6		11.3
32(2)	1053.2	1043.6		0.2
33(2)	940.6	927.2		0.4
34(2)	832.2	827.6		0.1
35(2)	773.0	688.7		5.3

36(2)		728.9	723.5	0.1
37(2)		665.8	658.9	0.0
38(2)		587.7	586.6	0.0
39(2)		458.4	450.3	0.2
40(2)		441.2	434.0	0.1
41(2)		201.2	205.7	0.1
42(2)		127.5	140.3	0.0
2(1)	1(1)	7569.5	7208.7	0.0
3(1)	1(1)	7023.5	6720.2	0.0
3(1)	2(1)	6969.3	6666.0	0.0
4(1)	1(1)	7011.2	6706.1	0.0
4(1)	2(1)	6957.0	6652.0	0.0
4(1)	3(1)	6411.0	6057.6	0.3
5(1)	1(1)	6998.3	6692.9	0.0
5(1)	2(1)	6944.1	6639.9	0.0
5(1)	3(1)	6398.1	6151.1	0.0
5(1)	4(1)	6385.7	6137.0	0.0
6(1)	1(1)	5625.8	5409.7	0.0
6(1)	2(1)	5571.6	5352.5	0.1
6(1)	3(1)	5025.6	4867.7	0.1
6(1)	4(1)	5013.3	4853.6	0.0
6(1)	5(1)	5000.3	4841.2	0.0
7(1)	1(1)	5477.9	5254.9	0.0
7(1)	2(1)	5423.7	5202.4	0.0
7(1)	3(1)	4877.7	4717.0	0.1
7(1)	4(1)	4865.3	4703.8	0.0
7(1)	5(1)	4852.4	4689.3	0.1
7(1)	6(1)	3479.9	3402.7	0.0
8(1)	1(1)	5433.4	5215.2	0.7
8(1)	2(1)	5379.2	5162.0	0.0
8(1)	3(1)	4833.2	4674.6	0.1
8(1)	4(1)	4820.9	4658.5	0.2
8(1)	5(1)	4808.0	4646.5	0.2
8(1)	6(1)	3435.5	3362.7	0.1
8(1)	7(1)	3287.6	3209.6	0.4
9(1)	1(1)	5349.7	5133.3	0.1
9(1)	2(1)	5295.5	5080.8	0.0
9(1)	3(1)	4749.5	4598.7	0.0
9(1)	4(1)	4737.1	4578.8	0.1
9(1)	5(1)	4724.2	4566.7	0.0

9(1)	6(1)	3351.7	3281.7	0.0
9(1)	7(1)	3203.8	3130.3	0.9
9(1)	8(1)	3159.4	3085.7	0.3
10(1)	1(1)	5293.0	5079.7	0.4
10(1)	2(1)	5238.8	5025.7	0.0
10(1)	3(1)	4692.8	4540.4	0.1
10(1)	4(1)	4680.4	4528.5	0.0
10(1)	5(1)	4667.5	4515.9	0.1
10(1)	6(1)	3295.0	3227.1	0.1
10(1)	7(1)	3147.1	3055.5	0.2
10(1)	8(1)	3102.7	3029.7	0.0
10(1)	9(1)	3018.9	2948.6	0.1
11(1)	1(1)	5176.8	4966.3	0.4
11(1)	2(1)	5122.6	4913.8	0.1
11(1)	3(1)	4576.6	4427.7	0.0
11(1)	4(1)	4564.2	4412.9	0.0
11(1)	5(1)	4551.3	4400.7	0.0
11(1)	6(1)	3178.9	3114.0	0.0
11(1)	7(1)	3030.9	2952.0	0.1
11(1)	8(1)	2986.5	2913.3	0.1
11(1)	9(1)	2902.7	2834.6	1.4
11(1)	10(1)	2846.0	2780.6	0.7
12(1)	1(1)	5171.4	4948.5	0.1
12(1)	2(1)	5117.2	4898.8	1.2
12(1)	3(1)	4571.2	4406.0	0.0
12(1)	4(1)	4558.9	4391.9	0.0
12(1)	5(1)	4545.9	4379.7	0.0
12(1)	6(1)	3173.5	3091.5	0.1
12(1)	7(1)	3025.5	2940.7	0.3
12(1)	8(1)	2981.1	2901.7	0.0
12(1)	9(1)	2897.3	2819.7	0.1
12(1)	10(1)	2840.6	2765.5	0.1
12(1)	11(1)	2724.4	2650.9	0.0
13(1)	1(1)	5154.4	4939.7	0.2
13(1)	2(1)	5100.3	4889.5	0.0
13(1)	3(1)	4554.2	4398.3	0.2
13(1)	4(1)	4541.9	4386.5	0.1
13(1)	5(1)	4529.0	4375.2	0.2
13(1)	6(1)	3156.5	3090.7	0.0
13(1)	7(1)	3008.6	2932.2	0.0

13(1)	8(1)	2964.2	2895.6	0.1
13(1)	9(1)	2880.4	2811.8	0.4
13(1)	10(1)	2823.7	2757.5	0.3
13(1)	11(1)	2707.5	2645.7	0.2
13(1)	12(1)	2702.1	2629.2	0.1
14(1)	1(1)	5082.0	4875.1	0.2
14(1)	2(1)	5027.8	4819.3	0.3
14(1)	3(1)	4481.8	4329.5	0.0
14(1)	4(1)	4469.5	4316.4	0.1
14(1)	5(1)	4456.5	4302.2	0.1
14(1)	6(1)	3084.1	3021.1	0.0
14(1)	7(1)	2936.1	2864.9	0.3
14(1)	8(1)	2891.7	2825.8	0.0
14(1)	9(1)	2807.9	2743.7	0.3
14(1)	10(1)	2751.2	2689.7	0.1
14(1)	11(1)	2635.0	2577.3	0.3
14(1)	12(1)	2629.6	2558.7	0.6
14(1)	13(1)	2612.7	2553.6	0.8
15(1)	1(1)	5048.6	4842.4	0.0
15(1)	2(1)	4994.4	4784.6	1.0
15(1)	3(1)	4448.3	4297.5	0.0
15(1)	4(1)	4436.0	4283.5	0.1
15(1)	5(1)	4423.1	4272.6	0.0
15(1)	6(1)	3050.6	2983.2	0.1
15(1)	7(1)	2902.7	2833.5	0.1
15(1)	8(1)	2858.3	2795.5	0.0
15(1)	9(1)	2774.5	2713.0	0.3
15(1)	10(1)	2717.8	2658.4	0.0
15(1)	11(1)	2601.6	2545.4	0.2
15(1)	12(1)	2596.2	2516.8	2.0
15(1)	13(1)	2579.3	2522.7	0.0
15(1)	14(1)	2506.8	2453.1	0.6
16(1)	1(1)	5004.7	4789.6	1.1
16(1)	2(1)	4950.5	4740.9	0.0
16(1)	3(1)	4404.5	4250.9	0.0
16(1)	4(1)	4392.2	4237.0	0.0
16(1)	5(1)	4379.2	4226.0	0.0
16(1)	6(1)	3006.8	2942.2	0.0
16(1)	7(1)	2858.8	2786.6	0.1
16(1)	8(1)	2814.4	2744.1	0.2

16(1)	9(1)	2730.6	2665.6	0.4
16(1)	10(1)	2673.9	2608.9	0.4
16(1)	11(1)	2557.7	2495.7	0.7
16(1)	12(1)	2552.4	2480.6	0.0
16(1)	13(1)	2535.4	2472.9	2.6
16(1)	14(1)	2462.9	2405.8	0.4
16(1)	15(1)	2429.5	2374.5	0.2
17(1)	1(1)	4983.4	4783.9	0.0
17(1)	2(1)	4929.2	4728.4	0.2
17(1)	3(1)	4383.2	4239.3	0.1
17(1)	4(1)	4370.9	4225.8	0.0
17(1)	5(1)	4358.0	4209.1	0.0
17(1)	6(1)	2985.5	2931.3	0.0
17(1)	7(1)	2837.6	2775.1	0.1
17(1)	8(1)	2793.1	2735.7	0.1
17(1)	9(1)	2709.4	2653.9	0.3
17(1)	10(1)	2652.7	2599.3	0.0
17(1)	11(1)	2536.5	2488.1	0.2
17(1)	12(1)	2531.1	2469.6	0.1
17(1)	13(1)	2514.1	2463.1	0.2
17(1)	14(1)	2441.7	2393.9	0.4
17(1)	15(1)	2408.2	2363.7	0.7
17(1)	16(1)	2364.4	2315.7	0.5
18(1)	1(1)	4948.6	4747.4	0.0
18(1)	2(1)	4894.4	4693.0	0.2
18(1)	3(1)	4348.4	4201.1	0.0
18(1)	4(1)	4336.1	4185.7	0.1
18(1)	5(1)	4323.1	4177.7	0.1
18(1)	6(1)	2950.7	2893.5	0.1
18(1)	7(1)	2802.7	2737.7	0.2
18(1)	8(1)	2758.3	2698.3	0.0
18(1)	9(1)	2674.5	2617.9	0.0
18(1)	10(1)	2617.8	2562.9	0.2
18(1)	11(1)	2501.6	2450.9	0.1
18(1)	12(1)	2496.2	2431.5	0.8
18(1)	13(1)	2479.3	2426.8	0.0
18(1)	14(1)	2406.8	2358.9	0.2
18(1)	15(1)	2373.4	2326.1	0.0
18(1)	16(1)	2329.5	2279.1	0.4
18(1)	17(1)	2308.3	2269.8	0.2

19(1)	1(1)	4900.8	4697.7	0.0
19(1)	2(1)	4846.6	4641.7	0.2
19(1)	3(1)	4300.6	4154.8	0.1
19(1)	4(1)	4288.2	4140.6	0.1
19(1)	5(1)	4275.3	4128.4	0.3
19(1)	6(1)	2902.8	2843.4	0.3
19(1)	7(1)	2754.9	2688.8	0.0
19(1)	8(1)	2710.5	2651.8	0.0
19(1)	9(1)	2626.7	2568.7	0.1
19(1)	10(1)	2570.0	2513.7	0.2
19(1)	11(1)	2453.8	2400.7	0.1
19(1)	12(1)	2448.4	2381.1	1.6
19(1)	13(1)	2431.5	2377.8	0.3
19(1)	14(1)	2359.0	2309.0	0.2
19(1)	15(1)	2325.6	2274.8	0.4
19(1)	16(1)	2281.7	2229.6	0.1
19(1)	17(1)	2260.5	2218.1	0.2
19(1)	18(1)	2225.6	2180.9	0.2
20(1)	1(1)	4824.9	4622.4	0.0
20(1)	2(1)	4770.7	4568.4	0.0
20(1)	3(1)	4224.7	4069.4	0.0
20(1)	4(1)	4212.4	4057.1	0.0
20(1)	5(1)	4199.4	4053.3	0.0
20(1)	6(1)	2827.0	2769.6	0.0
20(1)	7(1)	2679.0	2614.0	0.0
20(1)	8(1)	2634.6	2574.7	0.0
20(1)	9(1)	2550.8	2493.9	0.0
20(1)	10(1)	2494.1	2438.9	0.0
20(1)	11(1)	2377.9	2326.2	0.0
20(1)	12(1)	2372.6	2308.1	0.0
20(1)	13(1)	2355.6	2304.0	0.0
20(1)	14(1)	2283.2	2234.0	0.0
20(1)	15(1)	2249.7	2201.3	0.0
20(1)	16(1)	2205.9	2154.9	0.0
20(1)	17(1)	2184.6	2144.1	0.0
20(1)	18(1)	2149.8	2106.6	0.0
20(1)	19(1)	2101.9	2057.0	0.0
21(1)	1(1)	4795.6	4598.2	0.0
21(1)	2(1)	4741.4	4544.0	0.0
21(1)	3(1)	4195.4	4054.9	0.0

21(1)	4(1)	4183.1	4040.9	0.2
21(1)	5(1)	4170.1	4028.1	0.1
21(1)	6(1)	2797.7	2745.7	0.0
21(1)	7(1)	2649.8	2589.7	0.0
21(1)	8(1)	2605.3	2548.8	0.0
21(1)	9(1)	2521.6	2468.8	0.3
21(1)	10(1)	2464.9	2414.7	0.5
21(1)	11(1)	2348.7	2303.6	0.1
21(1)	12(1)	2343.3	2284.8	0.1
21(1)	13(1)	2326.3	2277.5	0.5
21(1)	14(1)	2253.9	2210.3	0.4
21(1)	15(1)	2220.4	2178.4	0.0
21(1)	16(1)	2176.6	2129.9	0.6
21(1)	17(1)	2155.3	2119.3	0.2
21(1)	18(1)	2120.5	2083.6	0.1
21(1)	19(1)	2072.6	2033.1	0.4
21(1)	20(1)	1996.8	1958.4	0.0
22(1)	1(1)	4679.4	4485.9	0.0
22(1)	2(1)	4625.2	4432.5	0.0
22(1)	3(1)	4079.2	3938.0	0.0
22(1)	4(1)	4066.9	3922.6	0.0
22(1)	5(1)	4053.9	3916.4	0.0
22(1)	6(1)	2681.5	2633.2	0.0
22(1)	7(1)	2533.6	2477.8	0.0
22(1)	8(1)	2489.1	2438.5	0.0
22(1)	9(1)	2405.4	2357.2	0.0
22(1)	10(1)	2348.7	2303.3	0.0
22(1)	11(1)	2232.5	2191.4	0.0
22(1)	12(1)	2227.1	2171.5	0.0
22(1)	13(1)	2210.1	2168.0	0.0
22(1)	14(1)	2137.7	2098.5	0.0
22(1)	15(1)	2104.2	2065.6	0.0
22(1)	16(1)	2060.4	2016.7	0.0
22(1)	17(1)	2039.1	2008.2	0.0
22(1)	18(1)	2004.3	1972.1	0.0
22(1)	19(1)	1956.4	1920.8	0.0
22(1)	20(1)	1880.6	1843.0	0.7
22(1)	21(1)	1851.3	1821.8	0.0
23(1)	1(1)	4655.7	4474.3	0.0
23(1)	2(1)	4601.5	4420.8	0.0

23(1)	3(1)	4055.5	3932.4	0.0
23(1)	4(1)	4043.2	3918.3	0.0
23(1)	5(1)	4030.3	3893.9	0.0
23(1)	6(1)	2657.8	2622.2	0.0
23(1)	7(1)	2509.9	2466.4	0.0
23(1)	8(1)	2465.4	2426.9	0.0
23(1)	9(1)	2381.7	2348.0	0.0
23(1)	10(1)	2325.0	2291.3	0.0
23(1)	11(1)	2208.8	2179.8	0.0
23(1)	12(1)	2203.4	2160.6	0.0
23(1)	13(1)	2186.4	2156.1	0.0
23(1)	14(1)	2114.0	2087.8	0.0
23(1)	15(1)	2080.5	2055.3	0.0
23(1)	16(1)	2036.7	2004.9	0.0
23(1)	17(1)	2015.4	1997.6	0.0
23(1)	18(1)	1980.6	1960.0	0.0
23(1)	19(1)	1932.8	1909.9	0.0
23(1)	20(1)	1856.9	1836.2	0.4
23(1)	21(1)	1827.6	1810.9	0.0
23(1)	22(1)	1711.4	1700.3	0.4
24(1)	1(1)	4588.6	4404.3	0.0
24(1)	2(1)	4534.4	4350.4	0.0
24(1)	3(1)	3988.4	3860.8	0.0
24(1)	4(1)	3976.1	3846.9	0.0
24(1)	5(1)	3963.2	3834.3	0.0
24(1)	6(1)	2590.7	2549.3	0.0
24(1)	7(1)	2442.8	2397.1	0.0
24(1)	8(1)	2398.3	2357.6	0.0
24(1)	9(1)	2314.6	2276.1	0.0
24(1)	10(1)	2257.9	2222.2	0.0
24(1)	11(1)	2141.7	2110.1	0.0
24(1)	12(1)	2136.3	2087.5	0.0
24(1)	13(1)	2119.3	2085.8	0.0
24(1)	14(1)	2046.9	2016.8	0.0
24(1)	15(1)	2013.5	1979.5	0.0
24(1)	16(1)	1969.6	1937.2	0.0
24(1)	17(1)	1948.3	1926.3	0.0
24(1)	18(1)	1913.5	1889.1	0.0
24(1)	19(1)	1865.7	1838.8	0.0
24(1)	20(1)	1789.8	1763.8	1.2

24(1)	21(1)	1760.5	1740.6	0.0
24(1)	22(1)	1644.3	1628.3	0.6
24(1)	23(1)	1620.6	1618.8	0.3
25(1)	1(1)	4578.9	4387.9	0.0
25(1)	2(1)	4524.7	4331.7	0.5
25(1)	3(1)	3978.7	3845.3	0.0
25(1)	4(1)	3966.4	3831.2	0.0
25(1)	5(1)	3953.4	3818.6	0.1
25(1)	6(1)	2581.0	2531.2	0.1
25(1)	7(1)	2433.1	2380.4	0.2
25(1)	8(1)	2388.6	2341.1	0.0
25(1)	9(1)	2304.9	2259.4	0.1
25(1)	10(1)	2248.2	2205.0	0.3
25(1)	11(1)	2132.0	2092.5	0.0
25(1)	12(1)	2126.6	2072.3	0.9
25(1)	13(1)	2109.6	2068.7	0.1
25(1)	14(1)	2037.2	1999.9	0.3
25(1)	15(1)	2003.7	1967.0	2.4
25(1)	16(1)	1959.9	1920.2	0.1
25(1)	17(1)	1938.6	1909.9	1.1
25(1)	18(1)	1903.8	1872.2	1.1
25(1)	19(1)	1855.9	1820.6	0.4
25(1)	20(1)	1780.1	1747.3	0.0
25(1)	21(1)	1750.8	1723.5	0.1
25(1)	22(1)	1634.6	1611.2	0.0
25(1)	23(1)	1610.9	1600.3	0.0
25(1)	24(1)	1543.8	1529.1	0.0
26(1)	1(1)	4564.7	4370.7	0.0
26(1)	2(1)	4510.5	4316.6	0.0
26(1)	3(1)	3964.5	3827.9	0.1
26(1)	4(1)	3952.2	3814.1	0.2
26(1)	5(1)	3939.2	3802.2	0.0
26(1)	6(1)	2566.8	2517.8	0.0
26(1)	7(1)	2418.8	2362.5	0.8
26(1)	8(1)	2374.4	2323.4	0.3
26(1)	9(1)	2290.6	2241.8	0.2
26(1)	10(1)	2233.9	2187.4	0.0
26(1)	11(1)	2117.7	2073.7	0.1
26(1)	12(1)	2112.4	2056.5	0.0
26(1)	13(1)	2095.4	2050.7	0.4

26(1)	14(1)	2023.0	1981.6	0.3
26(1)	15(1)	1989.5	1950.3	0.1
26(1)	16(1)	1945.7	1903.2	0.4
26(1)	17(1)	1924.4	1893.1	0.4
26(1)	18(1)	1889.6	1855.3	0.0
26(1)	19(1)	1841.7	1805.7	0.9
26(1)	20(1)	1765.9	1730.2	0.0
26(1)	21(1)	1736.6	1706.8	0.2
26(1)	22(1)	1620.4	1594.0	0.0
26(1)	23(1)	1596.7	1583.4	0.0
26(1)	24(1)	1529.6	1512.5	0.0
26(1)	25(1)	1519.9	1495.8	0.8
27(1)	1(1)	4504.1	4321.6	0.0
27(1)	2(1)	4449.9	4267.5	0.0
27(1)	3(1)	3903.9	3778.7	0.0
27(1)	4(1)	3891.6	3764.5	0.0
27(1)	5(1)	3878.7	3751.0	0.0
27(1)	6(1)	2506.2	2468.1	0.0
27(1)	7(1)	2358.3	2313.6	0.0
27(1)	8(1)	2313.8	2274.2	0.0
27(1)	9(1)	2230.1	2193.0	0.0
27(1)	10(1)	2173.4	2139.0	0.0
27(1)	11(1)	2057.2	2024.9	0.0
27(1)	12(1)	2051.8	2007.6	0.0
27(1)	13(1)	2034.8	2002.8	0.0
27(1)	14(1)	1962.4	1934.0	0.0
27(1)	15(1)	1928.9	1900.5	0.0
27(1)	16(1)	1885.1	1854.5	0.0
27(1)	17(1)	1863.8	1843.6	0.0
27(1)	18(1)	1829.0	1804.6	0.0
27(1)	19(1)	1781.2	1756.5	0.0
27(1)	20(1)	1705.3	1682.8	0.1
27(1)	21(1)	1676.0	1656.4	0.0
27(1)	22(1)	1559.8	1546.1	0.6
27(1)	23(1)	1536.1	1537.1	3.6
27(1)	24(1)	1469.0	1465.1	3.4
27(1)	25(1)	1459.3	1446.9	0.0
27(1)	26(1)	1445.1	1429.6	0.0
28(1)	1(1)	4451.7	4260.8	0.0
28(1)	2(1)	4397.5	4206.6	0.0

28(1)	3(1)	3851.5	3717.8	0.0
28(1)	4(1)	3839.1	3703.6	0.0
28(1)	5(1)	3826.2	3691.5	0.0
28(1)	6(1)	2453.7	2407.5	0.0
28(1)	7(1)	2305.8	2252.9	0.0
28(1)	8(1)	2261.4	2213.0	0.0
28(1)	9(1)	2177.6	2133.4	0.0
28(1)	10(1)	2120.9	2077.3	0.0
28(1)	11(1)	2004.7	1964.6	0.0
28(1)	12(1)	1999.3	1945.5	0.0
28(1)	13(1)	1982.4	1941.2	0.0
28(1)	14(1)	1909.9	1872.6	0.0
28(1)	15(1)	1876.5	1842.9	0.0
28(1)	16(1)	1832.6	1794.3	0.0
28(1)	17(1)	1811.4	1780.7	0.0
28(1)	18(1)	1776.5	1745.8	0.0
28(1)	19(1)	1728.7	1694.4	0.0
28(1)	20(1)	1652.8	1620.5	3.9
28(1)	21(1)	1623.5	1595.9	0.0
28(1)	22(1)	1507.3	1484.5	0.6
28(1)	23(1)	1483.7	1475.1	6.1
28(1)	24(1)	1416.6	1404.7	3.5
28(1)	25(1)	1406.8	1385.7	0.0
28(1)	26(1)	1392.6	1368.7	0.0
28(1)	27(1)	1332.1	1321.1	5.5
29(1)	1(1)	4433.0	4245.8	0.0
29(1)	2(1)	4378.8	4191.1	0.1
29(1)	3(1)	3832.8	3703.1	0.0
29(1)	4(1)	3820.5	3689.0	0.0
29(1)	5(1)	3807.6	3676.4	0.0
29(1)	6(1)	2435.1	2390.5	0.0
29(1)	7(1)	2287.2	2238.0	0.0
29(1)	8(1)	2242.7	2198.4	0.0
29(1)	9(1)	2159.0	2116.5	0.0
29(1)	10(1)	2102.3	2062.8	0.1
29(1)	11(1)	1986.1	1949.1	0.0
29(1)	12(1)	1980.7	1930.2	0.0
29(1)	13(1)	1963.8	1926.0	0.0
29(1)	14(1)	1891.3	1857.8	0.0
29(1)	15(1)	1857.9	1823.9	0.0

29(1)	16(1)	1814.0	1777.9	0.5
29(1)	17(1)	1792.7	1767.7	0.4
29(1)	18(1)	1757.9	1730.2	0.3
29(1)	19(1)	1710.1	1680.1	0.1
29(1)	20(1)	1634.2	1605.2	0.0
29(1)	21(1)	1604.9	1581.2	0.2
29(1)	22(1)	1488.7	1469.2	0.0
29(1)	23(1)	1465.0	1458.0	0.0
29(1)	24(1)	1397.9	1387.6	0.0
29(1)	25(1)	1388.2	1372.2	22.5
29(1)	26(1)	1374.0	1354.8	11.0
29(1)	27(1)	1313.4	1305.8	0.0
29(1)	28(1)	1261.0	1243.4	0.0
30(1)	1(1)	4400.8	4214.5	0.0
30(1)	2(1)	4346.6	4159.8	0.4
30(1)	3(1)	3800.6	3672.2	0.0
30(1)	4(1)	3788.2	3658.0	0.0
30(1)	5(1)	3775.3	3645.7	0.0
30(1)	6(1)	2402.8	2359.0	0.0
30(1)	7(1)	2254.9	2206.5	0.0
30(1)	8(1)	2210.5	2167.2	0.0
30(1)	9(1)	2126.7	2085.6	0.1
30(1)	10(1)	2070.0	2031.7	0.0
30(1)	11(1)	1953.8	1919.8	0.3
30(1)	12(1)	1948.4	1901.1	0.2
30(1)	13(1)	1931.5	1895.3	0.1
30(1)	14(1)	1859.0	1826.8	0.7
30(1)	15(1)	1825.6	1796.6	73.2
30(1)	16(1)	1781.7	1746.9	0.7
30(1)	17(1)	1760.5	1736.4	0.5
30(1)	18(1)	1725.6	1699.8	0.4
30(1)	19(1)	1677.8	1649.3	5.9
30(1)	20(1)	1601.9	1574.2	0.0
30(1)	21(1)	1572.6	1550.3	0.8
30(1)	22(1)	1456.5	1438.2	0.0
30(1)	23(1)	1432.8	1427.3	0.0
30(1)	24(1)	1365.7	1356.4	0.0
30(1)	25(1)	1356.0	1337.4	224.3
30(1)	26(1)	1341.7	1322.8	1.1
30(1)	27(1)	1281.2	1273.9	0.0

30(1)	28(1)	1228.7	1212.5	0.0
30(1)	29(1)	1210.1	1197.6	0.8
31(1)	1(1)	4376.8	4176.4	0.0
31(1)	2(1)	4322.6	4126.8	0.7
31(1)	3(1)	3776.6	3634.2	0.0
31(1)	4(1)	3764.3	3620.2	0.0
31(1)	5(1)	3751.3	3607.4	0.0
31(1)	6(1)	2378.9	2323.7	0.0
31(1)	7(1)	2230.9	2169.0	0.0
31(1)	8(1)	2186.5	2130.7	0.0
31(1)	9(1)	2102.7	2049.0	0.0
31(1)	10(1)	2046.0	1994.6	0.0
31(1)	11(1)	1929.8	1881.8	0.0
31(1)	12(1)	1924.5	1855.0	0.3
31(1)	13(1)	1907.5	1858.2	0.0
31(1)	14(1)	1835.1	1791.7	0.0
31(1)	15(1)	1801.6	1765.4	0.0
31(1)	16(1)	1757.8	1709.5	0.0
31(1)	17(1)	1736.5	1708.2	0.0
31(1)	18(1)	1701.7	1659.9	0.0
31(1)	19(1)	1653.8	1611.0	0.0
31(1)	20(1)	1578.0	1536.5	0.3
31(1)	21(1)	1548.7	1513.2	0.0
31(1)	22(1)	1432.5	1400.8	2.5
31(1)	23(1)	1408.8	1393.0	3.1
31(1)	24(1)	1341.7	1336.7	1.7
31(1)	25(1)	1332.0	1301.7	0.0
31(1)	26(1)	1317.8	1285.2	0.0
31(1)	27(1)	1257.2	1235.4	1.9
31(1)	28(1)	1204.7	1168.9	3.7
31(1)	29(1)	1186.1	1159.7	0.0
31(1)	30(1)	1153.8	1128.2	0.0
32(1)	1(1)	4338.5	4153.3	0.0
32(1)	2(1)	4284.3	4099.0	0.1
32(1)	3(1)	3738.3	3610.8	0.0
32(1)	4(1)	3725.9	3596.8	0.0
32(1)	5(1)	3713.0	3584.5	0.1
32(1)	6(1)	2340.6	2300.2	0.0
32(1)	7(1)	2192.6	2145.0	0.3
32(1)	8(1)	2148.2	2107.8	0.2

32(1)	9(1)	2064.4	2024.7	0.1
32(1)	10(1)	2007.7	1969.1	0.0
32(1)	11(1)	1891.5	1857.2	0.1
32(1)	12(1)	1886.1	1839.5	0.0
32(1)	13(1)	1869.2	1834.1	0.1
32(1)	14(1)	1796.7	1764.9	0.3
32(1)	15(1)	1763.3	1732.9	0.2
32(1)	16(1)	1719.4	1685.6	0.4
32(1)	17(1)	1698.2	1675.0	1.1
32(1)	18(1)	1663.3	1639.5	1.0
32(1)	19(1)	1615.5	1586.5	23.5
32(1)	20(1)	1539.6	1512.9	0.0
32(1)	21(1)	1510.4	1489.6	3.3
32(1)	22(1)	1394.2	1376.9	0.0
32(1)	23(1)	1370.5	1365.8	0.0
32(1)	24(1)	1303.4	1295.1	0.0
32(1)	25(1)	1293.7	1278.4	2.4
32(1)	26(1)	1279.4	1262.2	9.4
32(1)	27(1)	1218.9	1212.3	0.0
32(1)	28(1)	1166.4	1151.2	0.0
32(1)	29(1)	1147.8	1136.3	0.1
32(1)	30(1)	1115.5	1105.3	0.2
32(1)	31(1)	1091.5	1067.6	0.0
33(1)	1(1)	4282.1	4094.8	0.0
33(1)	2(1)	4227.9	4040.7	0.0
33(1)	3(1)	3681.9	3551.8	0.0
33(1)	4(1)	3669.6	3537.8	0.0
33(1)	5(1)	3656.7	3525.7	0.0
33(1)	6(1)	2284.2	2241.7	0.0
33(1)	7(1)	2136.3	2086.8	0.0
33(1)	8(1)	2091.8	2047.3	0.0
33(1)	9(1)	2008.1	1966.2	0.0
33(1)	10(1)	1951.4	1912.0	0.0
33(1)	11(1)	1835.2	1798.3	0.0
33(1)	12(1)	1829.8	1780.7	0.0
33(1)	13(1)	1812.9	1775.8	0.0
33(1)	14(1)	1740.4	1707.0	0.0
33(1)	15(1)	1707.0	1671.9	0.0
33(1)	16(1)	1663.1	1627.1	0.0
33(1)	17(1)	1641.8	1616.7	0.0

33(1)	18(1)	1607.0	1578.2	0.0
33(1)	19(1)	1559.2	1529.1	0.0
33(1)	20(1)	1483.3	1457.0	0.5
33(1)	21(1)	1454.0	1430.9	0.0
33(1)	22(1)	1337.8	1320.6	4.1
33(1)	23(1)	1314.1	1307.4	0.3
33(1)	24(1)	1247.0	1238.6	7.7
33(1)	25(1)	1237.3	1219.8	0.0
33(1)	26(1)	1223.1	1202.6	0.0
33(1)	27(1)	1162.5	1156.7	12.9
33(1)	28(1)	1110.1	1092.1	1.9
33(1)	29(1)	1091.5	1077.8	0.0
33(1)	30(1)	1059.2	1046.7	0.0
33(1)	31(1)	1035.2	1009.2	0.2
33(1)	32(1)	996.9	985.4	0.0
34(1)	1(1)	4227.9	4045.1	0.0
34(1)	2(1)	4173.7	3991.5	0.2
34(1)	3(1)	3627.7	3502.7	0.0
34(1)	4(1)	3615.4	3488.6	0.0
34(1)	5(1)	3602.5	3476.1	0.0
34(1)	6(1)	2230.0	2191.9	0.0
34(1)	7(1)	2082.1	2037.2	0.0
34(1)	8(1)	2037.6	1999.2	0.0
34(1)	9(1)	1953.9	1916.6	0.0
34(1)	10(1)	1897.2	1862.3	0.2
34(1)	11(1)	1781.0	1750.6	1.2
34(1)	12(1)	1775.6	1729.7	6.4
34(1)	13(1)	1758.7	1725.7	0.1
34(1)	14(1)	1686.2	1657.3	0.0
34(1)	15(1)	1652.8	1624.1	1.1
34(1)	16(1)	1608.9	1576.8	3.6
34(1)	17(1)	1587.6	1567.9	0.6
34(1)	18(1)	1552.8	1530.0	0.0
34(1)	19(1)	1505.0	1479.8	0.4
34(1)	20(1)	1429.1	1404.6	0.0
34(1)	21(1)	1399.8	1381.1	0.5
34(1)	22(1)	1283.6	1268.6	0.0
34(1)	23(1)	1259.9	1257.8	0.0
34(1)	24(1)	1192.8	1186.9	0.0
34(1)	25(1)	1183.1	1169.7	3.8

34(1)	26(1)	1168.9	1152.2	3.3
34(1)	27(1)	1108.3	1104.1	0.0
34(1)	28(1)	1055.9	1043.0	0.0
34(1)	29(1)	1037.3	1027.6	0.1
34(1)	30(1)	1005.0	997.0	0.0
34(1)	31(1)	981.0	957.8	0.0
34(1)	32(1)	942.7	935.9	0.0
34(1)	33(1)	886.4	876.3	0.0
35(1)	1(1)	4198.4	3981.1	1.4
35(1)	2(1)	4144.2	3933.3	0.0
35(1)	3(1)	3598.1	3445.7	0.0
35(1)	4(1)	3585.8	3431.7	0.0
35(1)	5(1)	3572.9	3422.1	0.0
35(1)	6(1)	2200.4	2135.5	0.0
35(1)	7(1)	2052.5	1980.5	0.0
35(1)	8(1)	2008.1	1940.4	0.0
35(1)	9(1)	1924.3	1859.5	0.0
35(1)	10(1)	1867.6	1802.6	0.0
35(1)	11(1)	1751.4	1691.8	0.0
35(1)	12(1)	1746.0	1673.8	0.0
35(1)	13(1)	1729.1	1669.4	0.0
35(1)	14(1)	1656.6	1599.2	0.0
35(1)	15(1)	1623.2	1568.4	0.0
35(1)	16(1)	1579.3	1521.7	0.1
35(1)	17(1)	1558.0	1509.8	0.0
35(1)	18(1)	1523.2	1473.5	0.0
35(1)	19(1)	1475.4	1423.7	0.0
35(1)	20(1)	1399.5	1347.9	0.0
35(1)	21(1)	1370.2	1324.2	0.0
35(1)	22(1)	1254.0	1214.3	0.7
35(1)	23(1)	1230.3	1206.5	22.8
35(1)	24(1)	1163.3	1130.3	1.4
35(1)	25(1)	1153.5	1112.8	0.0
35(1)	26(1)	1139.3	1090.2	0.0
35(1)	27(1)	1078.7	1047.3	1.6
35(1)	28(1)	1026.3	983.0	2.8
35(1)	29(1)	1007.7	969.9	0.0
35(1)	30(1)	975.4	939.9	0.0
35(1)	31(1)	951.4	902.0	0.1
35(1)	32(1)	913.1	878.9	0.0

35(1)	33(1)	856.8	820.3	0.1
35(1)	34(1)	802.6	770.1	0.2
36(1)	1(1)	4176.3	3993.3	0.0
36(1)	2(1)	4122.1	3939.4	0.1
36(1)	3(1)	3576.1	3450.6	0.0
36(1)	4(1)	3563.8	3436.6	0.0
36(1)	5(1)	3550.9	3424.2	0.0
36(1)	6(1)	2178.4	2140.4	0.0
36(1)	7(1)	2030.5	1985.7	0.3
36(1)	8(1)	1986.0	1946.4	0.1
36(1)	9(1)	1902.3	1864.8	0.1
36(1)	10(1)	1845.6	1810.2	0.3
36(1)	11(1)	1729.4	1698.5	2.1
36(1)	12(1)	1724.0	1678.1	1.0
36(1)	13(1)	1707.1	1673.2	0.7
36(1)	14(1)	1634.6	1605.2	0.2
36(1)	15(1)	1601.2	1572.7	1.3
36(1)	16(1)	1557.3	1525.7	1.0
36(1)	17(1)	1536.0	1515.5	0.1
36(1)	18(1)	1501.2	1478.2	0.1
36(1)	19(1)	1453.4	1427.7	0.5
36(1)	20(1)	1377.5	1352.7	0.0
36(1)	21(1)	1348.2	1328.4	7.8
36(1)	22(1)	1232.0	1216.6	0.0
36(1)	23(1)	1208.3	1205.6	0.0
36(1)	24(1)	1141.2	1134.9	0.0
36(1)	25(1)	1131.5	1117.6	1.2
36(1)	26(1)	1117.3	1101.0	0.2
36(1)	27(1)	1056.7	1052.2	0.0
36(1)	28(1)	1004.3	991.2	0.0
36(1)	29(1)	985.7	976.7	10.1
36(1)	30(1)	953.4	944.8	0.0
36(1)	31(1)	929.4	906.1	0.0
36(1)	32(1)	891.1	883.8	0.0
36(1)	33(1)	834.8	825.1	0.0
36(1)	34(1)	780.6	775.8	0.0
36(1)	35(1)	751.0	718.3	0.0
37(1)	1(1)	4144.7	3960.7	0.0
37(1)	2(1)	4090.5	3907.8	0.8
37(1)	3(1)	3544.5	3418.5	0.0

37(1)	4(1)	3532.2	3404.5	0.0
37(1)	5(1)	3519.3	3391.9	0.0
37(1)	6(1)	2146.8	2107.6	0.0
37(1)	7(1)	1998.9	1953.0	0.0
37(1)	8(1)	1954.4	1913.5	0.0
37(1)	9(1)	1870.7	1833.3	0.2
37(1)	10(1)	1814.0	1778.2	0.0
37(1)	11(1)	1697.8	1667.1	8.0
37(1)	12(1)	1692.4	1646.2	0.1
37(1)	13(1)	1675.5	1641.9	4.6
37(1)	14(1)	1603.0	1572.9	1.2
37(1)	15(1)	1569.6	1540.3	0.1
37(1)	16(1)	1525.7	1493.1	1.3
37(1)	17(1)	1504.4	1482.6	0.6
37(1)	18(1)	1469.6	1445.3	2.7
37(1)	19(1)	1421.8	1395.4	0.1
37(1)	20(1)	1345.9	1320.5	0.0
37(1)	21(1)	1316.6	1296.2	0.9
37(1)	22(1)	1200.4	1184.4	0.0
37(1)	23(1)	1176.7	1173.5	0.0
37(1)	24(1)	1109.6	1102.6	0.0
37(1)	25(1)	1099.9	1086.3	0.2
37(1)	26(1)	1085.7	1068.9	0.1
37(1)	27(1)	1025.1	1020.0	0.0
37(1)	28(1)	972.7	958.7	0.0
37(1)	29(1)	954.1	943.7	0.0
37(1)	30(1)	921.8	913.0	0.0
37(1)	31(1)	897.8	873.6	0.0
37(1)	32(1)	859.5	851.3	0.0
37(1)	33(1)	803.2	793.0	0.0
37(1)	34(1)	749.0	743.1	0.1
37(1)	35(1)	719.4	686.4	0.0
37(1)	36(1)	697.4	691.0	0.0
38(1)	1(1)	4105.7	3923.6	0.0
38(1)	2(1)	4051.5	3870.2	0.0
38(1)	3(1)	3505.5	3381.5	0.0
38(1)	4(1)	3493.2	3367.4	0.0
38(1)	5(1)	3480.3	3355.1	0.0
38(1)	6(1)	2107.8	2071.0	0.0
38(1)	7(1)	1959.9	1916.7	0.0

38(1)	8(1)	1915.4	1877.3	0.0
38(1)	9(1)	1831.7	1795.9	0.0
38(1)	10(1)	1775.0	1741.1	0.0
38(1)	11(1)	1658.8	1628.7	0.0
38(1)	12(1)	1653.4	1609.8	0.0
38(1)	13(1)	1636.4	1605.5	0.0
38(1)	14(1)	1564.0	1535.5	0.0
38(1)	15(1)	1530.5	1503.5	0.0
38(1)	16(1)	1486.7	1457.0	0.1
38(1)	17(1)	1465.4	1445.9	0.0
38(1)	18(1)	1430.6	1408.7	0.0
38(1)	19(1)	1382.8	1359.4	0.0
38(1)	20(1)	1306.9	1284.3	2.0
38(1)	21(1)	1277.6	1259.6	0.0
38(1)	22(1)	1161.4	1146.9	1.0
38(1)	23(1)	1137.7	1136.8	0.0
38(1)	24(1)	1070.6	1066.1	0.9
38(1)	25(1)	1060.9	1049.1	0.0
38(1)	26(1)	1046.7	1032.2	0.0
38(1)	27(1)	986.1	983.8	4.2
38(1)	28(1)	933.7	922.5	0.4
38(1)	29(1)	915.0	906.9	0.0
38(1)	30(1)	882.8	876.2	0.1
38(1)	31(1)	858.8	838.2	0.9
38(1)	32(1)	820.5	814.5	0.1
38(1)	33(1)	764.1	759.8	0.2
38(1)	34(1)	709.9	707.7	0.0
38(1)	35(1)	680.3	650.2	0.3
38(1)	36(1)	658.3	655.1	0.0
38(1)	37(1)	626.7	622.0	0.0
39(1)	1(1)	4041.1	3856.6	0.0
39(1)	2(1)	3986.9	3802.7	0.0
39(1)	3(1)	3440.9	3314.2	0.0
39(1)	4(1)	3428.6	3300.1	0.0
39(1)	5(1)	3415.6	3287.6	0.0
39(1)	6(1)	2043.2	2003.7	0.0
39(1)	7(1)	1895.2	1849.5	0.0
39(1)	8(1)	1850.8	1810.0	0.0
39(1)	9(1)	1767.0	1728.6	0.0
39(1)	10(1)	1710.3	1673.9	0.1

39(1)	11(1)	1594.1	1561.1	0.0
39(1)	12(1)	1588.7	1542.4	0.0
39(1)	13(1)	1571.8	1537.6	0.1
39(1)	14(1)	1499.3	1468.8	0.0
39(1)	15(1)	1465.9	1436.1	0.0
39(1)	16(1)	1422.0	1389.0	0.0
39(1)	17(1)	1400.8	1378.3	0.1
39(1)	18(1)	1365.9	1341.5	0.0
39(1)	19(1)	1318.1	1291.5	0.0
39(1)	20(1)	1242.3	1216.1	0.1
39(1)	21(1)	1213.0	1192.6	0.0
39(1)	22(1)	1096.8	1080.0	0.0
39(1)	23(1)	1073.1	1069.4	0.2
39(1)	24(1)	1006.0	998.7	0.0
39(1)	25(1)	996.3	981.7	0.0
39(1)	26(1)	982.1	965.2	0.0
39(1)	27(1)	921.5	915.7	0.1
39(1)	28(1)	869.0	854.3	0.0
39(1)	29(1)	850.4	839.7	0.6
39(1)	30(1)	818.1	809.2	0.0
39(1)	31(1)	794.2	771.1	0.0
39(1)	32(1)	755.8	748.9	0.0
39(1)	33(1)	699.5	688.4	0.0
39(1)	34(1)	645.3	638.8	0.2
39(1)	35(1)	615.7	581.7	0.2
39(1)	36(1)	593.7	586.9	0.0
39(1)	37(1)	562.1	554.5	0.0
39(1)	38(1)	523.1	517.4	0.5
40(1)	1(1)	4032.4	3848.2	0.0
40(1)	2(1)	3978.3	3794.7	1.2
40(1)	3(1)	3432.2	3305.9	0.0
40(1)	4(1)	3419.9	3291.8	0.0
40(1)	5(1)	3407.0	3279.2	0.0
40(1)	6(1)	2034.5	1994.7	0.2
40(1)	7(1)	1886.6	1841.3	0.0
40(1)	8(1)	1842.2	1801.8	0.4
40(1)	9(1)	1758.4	1720.2	0.4
40(1)	10(1)	1701.7	1665.9	3.6
40(1)	11(1)	1585.5	1552.2	3.9
40(1)	12(1)	1580.1	1533.7	0.7

40(1)	13(1)	1563.2	1529.3	0.0
40(1)	14(1)	1490.7	1460.2	0.1
40(1)	15(1)	1457.3	1427.6	2.1
40(1)	16(1)	1413.4	1380.5	0.1
40(1)	17(1)	1392.1	1370.0	0.1
40(1)	18(1)	1357.3	1332.1	144.0
40(1)	19(1)	1309.5	1283.2	0.6
40(1)	20(1)	1233.6	1207.8	0.0
40(1)	21(1)	1204.3	1184.6	3.6
40(1)	22(1)	1088.1	1071.3	0.0
40(1)	23(1)	1064.4	1060.6	0.0
40(1)	24(1)	997.4	989.5	0.0
40(1)	25(1)	987.6	973.4	1.0
40(1)	26(1)	973.4	956.2	0.0
40(1)	27(1)	912.8	908.0	0.0
40(1)	28(1)	860.4	845.9	0.0
40(1)	29(1)	841.8	830.8	0.0
40(1)	30(1)	809.5	800.6	0.0
40(1)	31(1)	785.5	760.0	0.1
40(1)	32(1)	747.2	738.7	0.0
40(1)	33(1)	690.9	679.0	4.5
40(1)	34(1)	636.7	630.9	0.3
40(1)	35(1)	607.1	574.6	0.0
40(1)	36(1)	585.1	578.4	0.0
40(1)	37(1)	553.5	546.3	0.3
40(1)	38(1)	514.4	509.8	0.0
40(1)	39(1)	449.8	441.7	0.0
41(1)	1(1)	3912.4	3734.7	0.1
41(1)	2(1)	3858.3	3680.6	0.1
41(1)	3(1)	3312.2	3191.9	0.0
41(1)	4(1)	3299.9	3177.9	0.0
41(1)	5(1)	3287.0	3165.5	0.0
41(1)	6(1)	1914.5	1881.4	0.1
41(1)	7(1)	1766.6	1727.5	0.1
41(1)	8(1)	1722.2	1688.1	0.0
41(1)	9(1)	1638.4	1606.6	0.1
41(1)	10(1)	1581.7	1551.8	0.0
41(1)	11(1)	1465.5	1439.0	0.0
41(1)	12(1)	1460.1	1420.1	0.0
41(1)	13(1)	1443.2	1415.7	0.0

41(1)	14(1)	1370.7	1346.8	0.0
41(1)	15(1)	1337.3	1314.3	0.0
41(1)	16(1)	1293.4	1266.9	0.2
41(1)	17(1)	1272.1	1256.7	0.0
41(1)	18(1)	1237.3	1219.6	0.0
41(1)	19(1)	1189.5	1169.5	0.0
41(1)	20(1)	1113.6	1093.6	0.0
41(1)	21(1)	1084.3	1070.4	0.0
41(1)	22(1)	968.1	957.7	0.2
41(1)	23(1)	944.4	946.7	0.0
41(1)	24(1)	877.4	876.4	0.2
41(1)	25(1)	867.6	859.7	0.0
41(1)	26(1)	853.4	842.7	0.1
41(1)	27(1)	792.8	793.1	0.1
41(1)	28(1)	740.4	732.1	0.0
41(1)	29(1)	721.8	718.0	0.0
41(1)	30(1)	689.5	687.1	0.0
41(1)	31(1)	665.5	649.4	0.3
41(1)	32(1)	627.2	625.0	0.0
41(1)	33(1)	570.9	566.0	0.1
41(1)	34(1)	516.7	517.1	0.0
41(1)	35(1)	487.1	462.2	0.3
41(1)	36(1)	465.1	464.9	0.0
41(1)	37(1)	433.5	432.6	0.0
41(1)	38(1)	394.4	395.6	0.8
41(1)	39(1)	329.8	328.1	0.0
41(1)	40(1)	321.2	319.7	0.0
42(1)	1(1)	3875.6	3700.3	0.0
42(1)	2(1)	3821.4	3649.0	0.0
42(1)	3(1)	3275.4	3158.0	0.0
42(1)	4(1)	3263.1	3144.0	0.0
42(1)	5(1)	3250.2	3131.6	0.0
42(1)	6(1)	1877.7	1847.9	0.8
42(1)	7(1)	1729.8	1693.9	0.0
42(1)	8(1)	1685.3	1654.7	0.0
42(1)	9(1)	1601.6	1573.0	0.0
42(1)	10(1)	1544.9	1518.4	0.0
42(1)	11(1)	1428.7	1405.3	0.1
42(1)	12(1)	1423.3	1385.2	1.2
42(1)	13(1)	1406.3	1382.3	0.0

42(1)	14(1)	1333.9	1313.2	0.0
42(1)	15(1)	1300.4	1279.8	0.0
42(1)	16(1)	1256.6	1233.3	0.0
42(1)	17(1)	1235.3	1223.1	0.0
42(1)	18(1)	1200.5	1185.5	0.0
42(1)	19(1)	1152.7	1136.0	0.2
42(1)	20(1)	1076.8	1059.2	0.1
42(1)	21(1)	1047.5	1037.4	0.0
42(1)	22(1)	931.3	923.8	0.0
42(1)	23(1)	907.6	913.3	0.0
42(1)	24(1)	840.5	843.5	0.0
42(1)	25(1)	830.8	825.9	0.0
42(1)	26(1)	816.6	809.1	0.0
42(1)	27(1)	756.0	761.5	0.1
42(1)	28(1)	703.6	698.3	0.0
42(1)	29(1)	684.9	682.0	2.1
42(1)	30(1)	652.7	653.1	0.2
42(1)	31(1)	628.7	618.0	0.5
42(1)	32(1)	590.4	591.1	0.0
42(1)	33(1)	534.0	531.8	0.3
42(1)	34(1)	479.8	485.3	0.5
42(1)	35(1)	450.2	424.0	0.0
42(1)	36(1)	428.2	432.7	0.0
42(1)	37(1)	396.6	399.0	0.0
42(1)	38(1)	357.6	359.1	0.4
42(1)	39(1)	293.0	292.4	0.0
42(1)	40(1)	284.3	282.3	0.0
42(1)	41(1)	164.3	172.8	0.0

Table S16. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **C2** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3811.6	3637.1	86.4	73.2
2(1)	3798.5	3611.3	33.3	26.7
3(1)	3206.8	3086.7	1.4	2.4
4(1)	3183.4	3056.8	1.6	2.5
5(1)	3172.0	3036.5	3.7	5.0
6(1)	1835.9	1800.5	357.4	87.4
7(1)	1660.4	1614.9	250.2	126.1
8(1)	1626.9	1585.4	50.8	15.5
9(1)	1542.8	1508.6	56.8	29.7
10(1)	1478.5	1446.7	43.1	12.7
11(1)	1361.4	1328.6	46.2	26.6
12(1)	1352.1	1320.4	51.3	59.6
13(1)	1307.6	1273.8	385.1	184.3
14(1)	1282.4	1256.3	86.3	75.6
15(1)	1213.9	1182.0	159.4	167.7
16(1)	1198.3	1171.7	48.5	58.7
17(1)	1186.3	1161.1	146.7	77.0
18(1)	1148.1	1129.3	57.7	60.8
19(1)	1073.0	1051.1	64.3	62.1
20(1)	993.2	976.4	17.1	19.6
21(1)	980.2	962.5	2.2	1.0
22(1)	861.7	854.9	49.1	46.7
23(1)	849.2	836.4	3.7	2.7
24(1)	784.2	772.4	8.5	7.2
25(1)	766.0	756.7	4.5	4.2
26(1)	754.1	739.8	9.7	13.4
27(1)	708.3	698.2	11.1	10.5
28(1)	649.5	639.5	5.2	5.0
29(1)	601.1	594.6	15.7	14.5
30(1)	584.1	575.5	3.6	5.8
31(1)	525.6	520.2	8.0	6.9
32(1)	497.7	457.4	90.0	75.2
33(1)	472.0	462.6	5.6	6.3
34(1)	430.2	424.3	7.6	11.1
35(1)	384.7	379.8	100.3	95.6
36(1)	362.9	360.1	3.8	3.6
37(1)	308.2	304.2	4.5	4.2

38(1)	267.9	263.5	7.5	6.2
39(1)	228.6	223.6	1.3	1.1
40(1)	179.3	175.9	4.9	4.5
41(1)	95.4	90.3	0.8	0.7
42(1)	62.2	51.9	4.9	4.7
1(2)	7623.1	7109.5		6.1
2(2)	7596.9	7054.7		3.1
3(2)	6413.5	6073.9		0.7
4(2)	6366.7	6008.3		0.6
5(2)	6343.9	5993.9		0.7
6(2)	3671.8	3582.3		5.1
7(2)	3320.9	3232.0		0.5
8(2)	3253.8	3167.8		0.8
9(2)	3085.6	3008.4		0.0
10(2)	2957.0	2888.9		0.1
11(2)	2722.7	2662.2		1.7
12(2)	2704.2	2638.6		0.1
13(2)	2615.2	2530.2		0.1
14(2)	2564.9	2510.8		0.1
15(2)	2427.8	2356.4		0.2
16(2)	2396.6	2339.9		0.4
17(2)	2372.5	2317.4		0.9
18(2)	2296.3	2258.1		0.2
19(2)	2146.0	2097.7		1.4
20(2)	1986.3	1951.5		0.3
21(2)	1960.4	1924.0		2.9
22(2)	1723.5	1713.0		0.8
23(2)	1698.5	1672.1		1.6
24(2)	1568.4	1544.3		0.4
25(2)	1532.0	1507.9		3.3
26(2)	1508.1	1479.4		0.1
27(2)	1416.5	1394.3		0.1
28(2)	1299.0	1278.9		7.9
29(2)	1202.2	1190.1		11.0
30(2)	1168.1	1150.3		0.1
31(2)	1051.2	1040.3		0.1
32(2)	995.4	880.8		3.3
33(2)	944.0	925.4		0.1
34(2)	860.4	847.7		1.2
35(2)	769.3	747.9		4.4

36(2)		725.9	717.7	0.1
37(2)		616.3	608.2	0.1
38(2)		535.9	526.5	0.3
39(2)		457.1	446.9	0.2
40(2)		358.7	351.8	0.0
41(2)		190.8	180.6	0.0
42(2)		124.4	102.8	0.0
2(1)	1(1)	7610.0	7248.2	0.0
3(1)	1(1)	7018.3	6724.4	0.0
3(1)	2(1)	7005.2	6698.6	0.0
4(1)	1(1)	6994.9	6695.4	0.0
4(1)	2(1)	6981.8	6670.5	0.0
4(1)	3(1)	6390.1	6146.4	0.0
5(1)	1(1)	6983.5	6685.4	0.0
5(1)	2(1)	6970.4	6659.1	0.0
5(1)	3(1)	6378.7	6118.2	0.1
5(1)	4(1)	6355.3	6106.4	0.0
6(1)	1(1)	5647.5	5437.8	0.0
6(1)	2(1)	5634.4	5408.9	0.1
6(1)	3(1)	5042.7	4888.2	0.0
6(1)	4(1)	5019.2	4860.0	0.0
6(1)	5(1)	5007.8	4849.1	0.0
7(1)	1(1)	5472.0	5253.6	0.0
7(1)	2(1)	5458.9	5228.7	0.0
7(1)	3(1)	4867.2	4709.9	0.1
7(1)	4(1)	4843.8	4678.1	0.1
7(1)	5(1)	4832.4	4666.6	0.1
7(1)	6(1)	3496.3	3418.1	0.1
8(1)	1(1)	5438.5	5221.8	0.6
8(1)	2(1)	5425.4	5197.4	0.0
8(1)	3(1)	4833.7	4674.1	0.1
8(1)	4(1)	4810.3	4643.8	0.2
8(1)	5(1)	4798.9	4633.1	0.1
8(1)	6(1)	3462.8	3386.5	0.0
8(1)	7(1)	3287.4	3203.5	0.2
9(1)	1(1)	5354.4	5144.3	0.1
9(1)	2(1)	5341.3	5119.6	0.0
9(1)	3(1)	4749.6	4597.0	0.0
9(1)	4(1)	4726.2	4569.6	0.0
9(1)	5(1)	4714.8	4561.7	0.0

9(1)	6(1)	3378.7	3309.0	0.0
9(1)	7(1)	3203.3	3131.0	0.1
9(1)	8(1)	3169.7	3093.9	0.1
10(1)	1(1)	5290.1	5083.4	0.5
10(1)	2(1)	5277.0	5057.9	0.0
10(1)	3(1)	4685.3	4540.4	0.1
10(1)	4(1)	4661.9	4509.0	0.1
10(1)	5(1)	4650.5	4494.9	0.0
10(1)	6(1)	3314.4	3247.1	0.0
10(1)	7(1)	3138.9	3048.5	0.1
10(1)	8(1)	3105.4	3028.3	0.1
10(1)	9(1)	3021.3	2952.2	0.0
11(1)	1(1)	5172.9	4965.6	0.5
11(1)	2(1)	5159.8	4943.4	0.0
11(1)	3(1)	4568.1	4419.9	0.0
11(1)	4(1)	4544.7	4393.2	0.1
11(1)	5(1)	4533.3	4384.8	0.0
11(1)	6(1)	3197.2	3133.0	0.0
11(1)	7(1)	3021.8	2938.6	0.7
11(1)	8(1)	2988.3	2909.8	0.2
11(1)	9(1)	2904.2	2834.5	0.8
11(1)	10(1)	2839.9	2775.2	0.9
12(1)	1(1)	5163.7	4957.0	0.1
12(1)	2(1)	5150.6	4932.7	0.0
12(1)	3(1)	4558.9	4410.6	0.2
12(1)	4(1)	4535.5	4381.6	0.3
12(1)	5(1)	4524.1	4368.3	0.0
12(1)	6(1)	3188.0	3122.6	0.0
12(1)	7(1)	3012.6	2933.1	0.1
12(1)	8(1)	2979.0	2904.7	0.0
12(1)	9(1)	2894.9	2825.9	0.4
12(1)	10(1)	2830.6	2763.5	0.1
12(1)	11(1)	2713.5	2652.1	0.5
13(1)	1(1)	5119.2	4907.1	0.0
13(1)	2(1)	5106.1	4879.3	0.9
13(1)	3(1)	4514.4	4357.2	0.1
13(1)	4(1)	4491.0	4328.4	0.0
13(1)	5(1)	4479.6	4319.3	0.0
13(1)	6(1)	3143.5	3069.4	0.1
13(1)	7(1)	2968.0	2886.3	0.1

13(1)	8(1)	2934.5	2856.1	0.0
13(1)	9(1)	2850.4	2777.4	0.3
13(1)	10(1)	2786.1	2716.2	0.0
13(1)	11(1)	2669.0	2601.2	0.1
13(1)	12(1)	2659.7	2591.6	0.1
14(1)	1(1)	5094.0	4894.3	0.1
14(1)	2(1)	5080.9	4868.1	0.0
14(1)	3(1)	4489.2	4343.8	0.0
14(1)	4(1)	4465.8	4314.4	0.0
14(1)	5(1)	4454.4	4300.2	0.1
14(1)	6(1)	3118.3	3057.4	0.0
14(1)	7(1)	2942.9	2871.3	0.2
14(1)	8(1)	2909.4	2839.8	0.0
14(1)	9(1)	2825.3	2762.0	0.1
14(1)	10(1)	2761.0	2701.9	0.1
14(1)	11(1)	2643.8	2586.6	0.3
14(1)	12(1)	2634.6	2577.4	0.4
14(1)	13(1)	2590.1	2526.7	0.1
15(1)	1(1)	5025.4	4816.2	0.6
15(1)	2(1)	5012.4	4785.2	0.5
15(1)	3(1)	4420.6	4266.9	0.0
15(1)	4(1)	4397.2	4236.8	0.0
15(1)	5(1)	4385.8	4227.7	0.0
15(1)	6(1)	3049.8	2978.9	0.0
15(1)	7(1)	2874.3	2794.8	0.0
15(1)	8(1)	2840.8	2763.5	0.0
15(1)	9(1)	2756.7	2686.6	0.7
15(1)	10(1)	2692.4	2624.0	0.4
15(1)	11(1)	2575.2	2509.1	0.0
15(1)	12(1)	2566.0	2499.4	2.0
15(1)	13(1)	2521.5	2442.4	0.8
15(1)	14(1)	2496.3	2435.8	0.3
16(1)	1(1)	5009.8	4807.8	0.0
16(1)	2(1)	4996.7	4778.2	0.3
16(1)	3(1)	4405.0	4255.3	0.0
16(1)	4(1)	4381.6	4228.9	0.1
16(1)	5(1)	4370.2	4218.4	0.0
16(1)	6(1)	3034.2	2970.4	0.0
16(1)	7(1)	2858.7	2785.6	0.2
16(1)	8(1)	2825.2	2755.8	0.0

16(1)	9(1)	2741.1	2676.4	0.2
16(1)	10(1)	2676.8	2614.9	0.2
16(1)	11(1)	2559.6	2501.7	0.0
16(1)	12(1)	2550.4	2488.8	1.0
16(1)	13(1)	2505.9	2436.2	0.3
16(1)	14(1)	2480.7	2426.8	0.5
16(1)	15(1)	2412.2	2347.1	0.1
17(1)	1(1)	4997.8	4792.5	0.6
17(1)	2(1)	4984.7	4770.8	0.1
17(1)	3(1)	4393.0	4247.7	0.0
17(1)	4(1)	4369.6	4216.8	0.0
17(1)	5(1)	4358.2	4209.7	0.0
17(1)	6(1)	3022.1	2961.2	0.0
17(1)	7(1)	2846.7	2777.2	0.1
17(1)	8(1)	2813.2	2742.7	0.3
17(1)	9(1)	2729.1	2667.8	0.1
17(1)	10(1)	2664.8	2604.2	0.2
17(1)	11(1)	2547.6	2489.1	0.2
17(1)	12(1)	2538.4	2482.0	1.6
17(1)	13(1)	2493.9	2428.8	0.4
17(1)	14(1)	2468.7	2417.6	0.1
17(1)	15(1)	2400.1	2335.3	0.9
17(1)	16(1)	2384.5	2330.9	0.9
18(1)	1(1)	4959.7	4766.4	0.0
18(1)	2(1)	4946.6	4739.0	0.1
18(1)	3(1)	4354.9	4209.2	0.0
18(1)	4(1)	4331.5	4187.3	0.1
18(1)	5(1)	4320.1	4176.4	0.0
18(1)	6(1)	2984.0	2929.3	0.0
18(1)	7(1)	2808.6	2743.2	0.4
18(1)	8(1)	2775.1	2713.2	0.0
18(1)	9(1)	2691.0	2635.6	0.1
18(1)	10(1)	2626.7	2573.1	0.5
18(1)	11(1)	2509.5	2460.1	0.1
18(1)	12(1)	2500.3	2447.8	0.2
18(1)	13(1)	2455.8	2397.8	0.5
18(1)	14(1)	2430.6	2386.1	0.5
18(1)	15(1)	2362.0	2308.1	0.0
18(1)	16(1)	2346.4	2299.1	0.0
18(1)	17(1)	2334.4	2290.0	0.4

19(1)	1(1)	4884.6	4688.2	0.0
19(1)	2(1)	4871.5	4660.4	0.2
19(1)	3(1)	4279.8	4138.0	0.0
19(1)	4(1)	4256.3	4109.7	0.2
19(1)	5(1)	4244.9	4099.6	0.2
19(1)	6(1)	2908.9	2849.1	0.2
19(1)	7(1)	2733.4	2666.4	0.0
19(1)	8(1)	2699.9	2636.2	0.0
19(1)	9(1)	2615.8	2558.4	0.0
19(1)	10(1)	2551.5	2497.3	0.2
19(1)	11(1)	2434.3	2381.4	0.2
19(1)	12(1)	2425.1	2372.3	0.0
19(1)	13(1)	2380.6	2315.2	2.2
19(1)	14(1)	2355.4	2307.7	0.1
19(1)	15(1)	2286.9	2229.4	0.3
19(1)	16(1)	2271.3	2220.9	0.0
19(1)	17(1)	2259.2	2211.6	0.0
19(1)	18(1)	2221.1	2178.7	0.5
20(1)	1(1)	4804.7	4612.9	0.0
20(1)	2(1)	4791.6	4587.4	0.0
20(1)	3(1)	4199.9	4062.2	0.2
20(1)	4(1)	4176.5	4033.3	0.2
20(1)	5(1)	4165.1	4023.5	0.1
20(1)	6(1)	2829.0	2777.1	0.0
20(1)	7(1)	2653.6	2591.5	0.0
20(1)	8(1)	2620.1	2558.7	0.0
20(1)	9(1)	2536.0	2482.8	0.2
20(1)	10(1)	2471.7	2421.6	0.6
20(1)	11(1)	2354.5	2307.5	0.0
20(1)	12(1)	2345.3	2296.1	0.5
20(1)	13(1)	2300.8	2246.4	0.0
20(1)	14(1)	2275.6	2233.0	0.2
20(1)	15(1)	2207.0	2155.5	0.4
20(1)	16(1)	2191.4	2146.4	0.1
20(1)	17(1)	2179.4	2136.5	0.3
20(1)	18(1)	2141.3	2105.3	0.4
20(1)	19(1)	2066.1	2027.1	0.2
21(1)	1(1)	4791.8	4599.5	0.0
21(1)	2(1)	4778.7	4573.9	0.0
21(1)	3(1)	4187.0	4043.5	0.0

21(1)	4(1)	4163.6	4021.4	0.0
21(1)	5(1)	4152.2	3999.7	0.0
21(1)	6(1)	2816.1	2762.8	0.0
21(1)	7(1)	2640.6	2578.0	0.0
21(1)	8(1)	2607.1	2547.3	0.0
21(1)	9(1)	2523.0	2470.2	0.0
21(1)	10(1)	2458.7	2409.7	0.0
21(1)	11(1)	2341.6	2294.2	0.0
21(1)	12(1)	2332.3	2283.5	0.0
21(1)	13(1)	2287.8	2232.8	0.0
21(1)	14(1)	2262.6	2219.7	0.0
21(1)	15(1)	2194.1	2142.5	0.0
21(1)	16(1)	2178.5	2132.6	0.0
21(1)	17(1)	2166.5	2123.4	0.0
21(1)	18(1)	2128.3	2091.3	0.0
21(1)	19(1)	2053.2	2013.7	0.1
21(1)	20(1)	1973.4	1938.7	0.3
22(1)	1(1)	4673.3	4491.2	0.0
22(1)	2(1)	4660.2	4466.2	0.0
22(1)	3(1)	4068.5	3941.1	0.0
22(1)	4(1)	4045.1	3902.2	0.0
22(1)	5(1)	4033.7	3902.8	0.0
22(1)	6(1)	2697.6	2655.6	0.0
22(1)	7(1)	2522.2	2470.2	0.0
22(1)	8(1)	2488.7	2438.7	0.0
22(1)	9(1)	2404.6	2364.5	0.0
22(1)	10(1)	2340.2	2300.2	0.0
22(1)	11(1)	2223.1	2187.0	0.0
22(1)	12(1)	2213.9	2176.0	0.0
22(1)	13(1)	2169.3	2125.0	0.0
22(1)	14(1)	2144.2	2112.4	0.0
22(1)	15(1)	2075.6	2032.0	0.0
22(1)	16(1)	2060.0	2025.9	0.0
22(1)	17(1)	2048.0	2014.2	0.0
22(1)	18(1)	2009.9	1984.3	0.0
22(1)	19(1)	1934.7	1905.4	0.0
22(1)	20(1)	1854.9	1830.7	0.0
22(1)	21(1)	1841.9	1819.2	0.2
23(1)	1(1)	4660.8	4473.2	0.0
23(1)	2(1)	4647.7	4447.6	0.0

23(1)	3(1)	4056.0	3916.6	0.0
23(1)	4(1)	4032.6	3894.5	0.0
23(1)	5(1)	4021.2	3881.6	0.0
23(1)	6(1)	2685.1	2636.5	0.0
23(1)	7(1)	2509.7	2452.0	0.0
23(1)	8(1)	2476.2	2421.1	0.0
23(1)	9(1)	2392.1	2343.6	0.0
23(1)	10(1)	2327.7	2282.0	0.0
23(1)	11(1)	2210.6	2168.5	0.0
23(1)	12(1)	2201.3	2159.0	0.0
23(1)	13(1)	2156.8	2105.2	0.0
23(1)	14(1)	2131.7	2092.9	0.0
23(1)	15(1)	2063.1	2015.6	0.0
23(1)	16(1)	2047.5	2007.2	0.0
23(1)	17(1)	2035.5	1996.8	0.0
23(1)	18(1)	1997.4	1966.7	0.0
23(1)	19(1)	1922.2	1887.0	0.1
23(1)	20(1)	1842.4	1812.3	0.0
23(1)	21(1)	1829.4	1796.1	0.9
23(1)	22(1)	1711.0	1692.1	1.3
24(1)	1(1)	4595.8	4409.2	0.0
24(1)	2(1)	4582.7	4383.6	0.0
24(1)	3(1)	3991.0	3858.6	0.0
24(1)	4(1)	3967.6	3830.2	0.0
24(1)	5(1)	3956.2	3819.5	0.0
24(1)	6(1)	2620.1	2570.9	0.1
24(1)	7(1)	2444.6	2389.1	0.1
24(1)	8(1)	2411.1	2357.6	0.0
24(1)	9(1)	2327.0	2280.2	0.0
24(1)	10(1)	2262.7	2218.7	0.0
24(1)	11(1)	2145.6	2104.0	0.0
24(1)	12(1)	2136.3	2093.8	0.0
24(1)	13(1)	2091.8	2040.8	0.1
24(1)	14(1)	2066.6	2029.7	0.0
24(1)	15(1)	1998.1	1950.0	0.0
24(1)	16(1)	1982.5	1941.6	0.1
24(1)	17(1)	1970.5	1933.2	0.1
24(1)	18(1)	1932.3	1901.7	0.0
24(1)	19(1)	1857.2	1822.0	0.1
24(1)	20(1)	1777.4	1748.5	0.1

24(1)	21(1)	1764.4	1734.2	0.6
24(1)	22(1)	1645.9	1627.2	0.9
24(1)	23(1)	1633.4	1609.2	1.0
25(1)	1(1)	4577.6	4391.7	0.0
25(1)	2(1)	4564.5	4365.2	0.1
25(1)	3(1)	3972.8	3841.9	0.0
25(1)	4(1)	3949.4	3813.5	0.0
25(1)	5(1)	3938.0	3802.6	0.1
25(1)	6(1)	2601.9	2552.7	0.1
25(1)	7(1)	2426.4	2371.2	0.7
25(1)	8(1)	2392.9	2339.4	0.2
25(1)	9(1)	2308.8	2262.9	0.1
25(1)	10(1)	2244.5	2200.8	0.0
25(1)	11(1)	2127.4	2085.7	0.1
25(1)	12(1)	2118.1	2075.2	0.3
25(1)	13(1)	2073.6	2023.7	0.5
25(1)	14(1)	2048.4	2011.0	0.3
25(1)	15(1)	1979.9	1934.3	0.3
25(1)	16(1)	1964.3	1925.2	1.3
25(1)	17(1)	1952.3	1915.7	0.6
25(1)	18(1)	1914.1	1883.5	1.3
25(1)	19(1)	1839.0	1805.2	112.2
25(1)	20(1)	1759.2	1730.7	0.1
25(1)	21(1)	1746.2	1716.8	0.0
25(1)	22(1)	1627.7	1609.7	24.4
25(1)	23(1)	1615.2	1590.5	0.2
25(1)	24(1)	1550.2	1526.4	0.1
26(1)	1(1)	4565.6	4376.7	0.0
26(1)	2(1)	4552.5	4350.2	0.0
26(1)	3(1)	3960.8	3827.1	0.1
26(1)	4(1)	3937.4	3799.1	0.0
26(1)	5(1)	3926.0	3787.8	0.2
26(1)	6(1)	2589.9	2539.0	0.0
26(1)	7(1)	2414.5	2356.1	0.3
26(1)	8(1)	2381.0	2325.0	0.1
26(1)	9(1)	2296.9	2247.3	0.2
26(1)	10(1)	2232.6	2185.8	0.1
26(1)	11(1)	2115.4	2071.3	0.0
26(1)	12(1)	2106.2	2060.2	0.2
26(1)	13(1)	2061.7	2008.4	0.8

26(1)	14(1)	2036.5	1997.8	0.0
26(1)	15(1)	1967.9	1919.4	2.2
26(1)	16(1)	1952.3	1910.2	0.1
26(1)	17(1)	1940.3	1902.3	0.3
26(1)	18(1)	1902.2	1868.5	0.1
26(1)	19(1)	1827.0	1788.8	18.7
26(1)	20(1)	1747.2	1716.0	0.0
26(1)	21(1)	1734.3	1702.0	0.0
26(1)	22(1)	1615.8	1594.6	0.0
26(1)	23(1)	1603.3	1575.8	0.0
26(1)	24(1)	1538.3	1511.8	0.1
26(1)	25(1)	1520.1	1493.7	0.4
27(1)	1(1)	4519.8	4334.1	0.0
27(1)	2(1)	4506.7	4308.7	0.0
27(1)	3(1)	3915.0	3784.1	0.0
27(1)	4(1)	3891.6	3754.9	0.0
27(1)	5(1)	3880.2	3745.3	0.0
27(1)	6(1)	2544.1	2496.8	0.0
27(1)	7(1)	2368.7	2313.3	0.0
27(1)	8(1)	2335.2	2282.4	0.0
27(1)	9(1)	2251.1	2204.4	0.0
27(1)	10(1)	2186.8	2143.4	0.0
27(1)	11(1)	2069.6	2028.2	0.0
27(1)	12(1)	2060.4	2017.7	0.0
27(1)	13(1)	2015.9	1967.4	0.0
27(1)	14(1)	1990.7	1954.0	0.0
27(1)	15(1)	1922.1	1876.6	0.1
27(1)	16(1)	1906.5	1867.8	0.1
27(1)	17(1)	1894.5	1857.8	0.2
27(1)	18(1)	1856.4	1825.7	0.4
27(1)	19(1)	1781.2	1746.9	1.3
27(1)	20(1)	1701.4	1673.3	0.3
27(1)	21(1)	1688.5	1660.7	0.1
27(1)	22(1)	1570.0	1552.7	0.5
27(1)	23(1)	1557.5	1534.1	2.1
27(1)	24(1)	1492.5	1469.7	1.9
27(1)	25(1)	1474.3	1451.0	2.8
27(1)	26(1)	1462.3	1436.8	0.4
28(1)	1(1)	4461.1	4276.6	0.0
28(1)	2(1)	4448.0	4250.7	0.0

28(1)	3(1)	3856.3	3725.4	0.0
28(1)	4(1)	3832.8	3698.2	0.0
28(1)	5(1)	3821.4	3687.4	0.0
28(1)	6(1)	2485.4	2439.9	0.0
28(1)	7(1)	2309.9	2255.9	0.0
28(1)	8(1)	2276.4	2224.1	0.0
28(1)	9(1)	2192.3	2149.0	0.0
28(1)	10(1)	2128.0	2084.6	0.0
28(1)	11(1)	2010.8	1971.1	0.0
28(1)	12(1)	2001.6	1958.9	0.0
28(1)	13(1)	1957.1	1909.8	0.0
28(1)	14(1)	1931.9	1896.2	0.0
28(1)	15(1)	1863.4	1819.0	0.4
28(1)	16(1)	1847.8	1810.0	2.0
28(1)	17(1)	1835.7	1802.7	0.0
28(1)	18(1)	1797.6	1769.1	0.1
28(1)	19(1)	1722.5	1690.1	0.1
28(1)	20(1)	1642.6	1614.3	0.9
28(1)	21(1)	1629.7	1602.5	3.0
28(1)	22(1)	1511.2	1493.6	8.4
28(1)	23(1)	1498.7	1476.0	1.3
28(1)	24(1)	1433.7	1412.1	0.5
28(1)	25(1)	1415.5	1393.8	0.3
28(1)	26(1)	1403.5	1379.0	0.3
28(1)	27(1)	1357.7	1337.8	1.7
29(1)	1(1)	4412.7	4231.8	0.0
29(1)	2(1)	4399.6	4204.8	0.1
29(1)	3(1)	3807.9	3681.8	0.1
29(1)	4(1)	3784.5	3653.7	0.0
29(1)	5(1)	3773.1	3643.0	0.0
29(1)	6(1)	2437.0	2393.5	0.0
29(1)	7(1)	2261.5	2210.7	0.0
29(1)	8(1)	2228.0	2179.6	0.0
29(1)	9(1)	2143.9	2102.2	0.1
29(1)	10(1)	2079.6	2040.7	0.0
29(1)	11(1)	1962.5	1926.1	0.0
29(1)	12(1)	1953.2	1915.4	0.0
29(1)	13(1)	1908.7	1863.7	0.2
29(1)	14(1)	1883.5	1851.6	0.0
29(1)	15(1)	1815.0	1774.6	6.6

29(1)	16(1)	1799.4	1763.5	0.7
29(1)	17(1)	1787.4	1755.8	0.2
29(1)	18(1)	1749.2	1723.6	0.2
29(1)	19(1)	1674.1	1645.2	7.4
29(1)	20(1)	1594.3	1570.9	0.1
29(1)	21(1)	1581.3	1556.8	0.1
29(1)	22(1)	1462.8	1449.4	0.0
29(1)	23(1)	1450.3	1430.8	0.0
29(1)	24(1)	1385.3	1367.0	0.5
29(1)	25(1)	1367.1	1349.6	1.9
29(1)	26(1)	1355.2	1335.5	3.4
29(1)	27(1)	1309.4	1291.8	51.7
29(1)	28(1)	1250.6	1233.8	0.1
30(1)	1(1)	4395.6	4212.8	0.0
30(1)	2(1)	4382.5	4186.1	0.0
30(1)	3(1)	3790.8	3662.8	0.0
30(1)	4(1)	3767.4	3634.6	0.0
30(1)	5(1)	3756.0	3624.2	0.0
30(1)	6(1)	2419.9	2376.4	0.0
30(1)	7(1)	2244.5	2192.3	0.0
30(1)	8(1)	2211.0	2160.9	0.0
30(1)	9(1)	2126.9	2082.6	0.0
30(1)	10(1)	2062.6	2021.8	0.0
30(1)	11(1)	1945.4	1907.3	0.0
30(1)	12(1)	1936.2	1895.9	0.1
30(1)	13(1)	1891.7	1844.6	0.0
30(1)	14(1)	1866.5	1832.3	0.1
30(1)	15(1)	1797.9	1754.7	1.5
30(1)	16(1)	1782.3	1745.7	0.4
30(1)	17(1)	1770.3	1736.7	0.3
30(1)	18(1)	1732.2	1704.2	0.1
30(1)	19(1)	1657.0	1626.3	8.4
30(1)	20(1)	1577.2	1551.2	1.4
30(1)	21(1)	1564.3	1537.9	0.0
30(1)	22(1)	1445.8	1430.4	0.2
30(1)	23(1)	1433.3	1411.8	0.1
30(1)	24(1)	1368.3	1348.4	6.3
30(1)	25(1)	1350.1	1329.8	0.6
30(1)	26(1)	1338.1	1314.8	1.5
30(1)	27(1)	1292.3	1273.6	0.4

30(1)	28(1)	1233.5	1215.3	0.3
30(1)	29(1)	1185.2	1170.2	0.2
31(1)	1(1)	4337.2	4157.3	0.0
31(1)	2(1)	4324.1	4131.4	0.0
31(1)	3(1)	3732.4	3607.5	0.0
31(1)	4(1)	3708.9	3579.5	0.1
31(1)	5(1)	3697.5	3568.6	0.0
31(1)	6(1)	2361.5	2322.1	0.0
31(1)	7(1)	2186.0	2135.7	0.3
31(1)	8(1)	2152.5	2105.4	0.1
31(1)	9(1)	2068.4	2027.9	0.0
31(1)	10(1)	2004.1	1965.2	0.0
31(1)	11(1)	1886.9	1851.4	0.1
31(1)	12(1)	1877.7	1841.2	0.1
31(1)	13(1)	1833.2	1788.9	166.2
31(1)	14(1)	1808.0	1778.2	0.2
31(1)	15(1)	1739.5	1699.7	0.1
31(1)	16(1)	1723.9	1690.8	0.2
31(1)	17(1)	1711.8	1681.6	0.9
31(1)	18(1)	1673.7	1650.5	8.0
31(1)	19(1)	1598.6	1570.7	0.5
31(1)	20(1)	1518.7	1496.7	1.1
31(1)	21(1)	1505.8	1482.6	0.1
31(1)	22(1)	1387.3	1374.9	0.0
31(1)	23(1)	1374.8	1356.5	0.1
31(1)	24(1)	1309.8	1292.4	3.0
31(1)	25(1)	1291.6	1274.8	5.8
31(1)	26(1)	1279.6	1258.7	35.6
31(1)	27(1)	1233.8	1217.2	0.0
31(1)	28(1)	1175.1	1159.3	0.3
31(1)	29(1)	1126.7	1114.9	0.1
31(1)	30(1)	1109.6	1095.9	0.5
32(1)	1(1)	4309.3	4094.5	0.0
32(1)	2(1)	4296.2	4058.8	1.4
32(1)	3(1)	3704.5	3544.8	0.0
32(1)	4(1)	3681.1	3516.7	0.0
32(1)	5(1)	3669.7	3505.0	0.2
32(1)	6(1)	2333.6	2256.7	0.0
32(1)	7(1)	2158.2	2074.8	0.0
32(1)	8(1)	2124.6	2043.6	0.0

32(1)	9(1)	2040.5	1965.9	0.0
32(1)	10(1)	1976.2	1904.5	0.0
32(1)	11(1)	1859.1	1789.8	0.2
32(1)	12(1)	1849.8	1779.6	0.2
32(1)	13(1)	1805.3	1723.8	2.0
32(1)	14(1)	1780.2	1714.5	0.2
32(1)	15(1)	1711.6	1639.0	0.5
32(1)	16(1)	1696.0	1629.5	0.1
32(1)	17(1)	1684.0	1619.2	0.0
32(1)	18(1)	1645.9	1588.4	0.0
32(1)	19(1)	1570.7	1510.3	0.2
32(1)	20(1)	1490.9	1431.4	0.0
32(1)	21(1)	1477.9	1418.0	27.1
32(1)	22(1)	1359.5	1312.0	0.1
32(1)	23(1)	1346.9	1294.7	8.0
32(1)	24(1)	1281.9	1227.9	0.7
32(1)	25(1)	1263.7	1211.8	1.5
32(1)	26(1)	1251.8	1197.1	1.0
32(1)	27(1)	1206.0	1148.9	20.5
32(1)	28(1)	1147.2	1096.7	2.3
32(1)	29(1)	1098.8	1052.3	0.4
32(1)	30(1)	1081.8	1032.4	0.1
32(1)	31(1)	1023.3	977.5	0.0
33(1)	1(1)	4283.6	4099.7	0.0
33(1)	2(1)	4270.5	4074.0	0.0
33(1)	3(1)	3678.8	3549.7	0.0
33(1)	4(1)	3655.4	3521.7	0.0
33(1)	5(1)	3644.0	3510.4	0.0
33(1)	6(1)	2307.9	2263.1	0.0
33(1)	7(1)	2132.5	2078.9	0.0
33(1)	8(1)	2098.9	2047.7	0.0
33(1)	9(1)	2014.8	1970.0	0.0
33(1)	10(1)	1950.5	1910.1	0.0
33(1)	11(1)	1833.4	1793.5	1.9
33(1)	12(1)	1824.1	1784.3	0.0
33(1)	13(1)	1779.6	1733.0	0.1
33(1)	14(1)	1754.5	1719.3	0.0
33(1)	15(1)	1685.9	1642.4	0.0
33(1)	16(1)	1670.3	1633.4	2.7
33(1)	17(1)	1658.3	1624.0	14.8

33(1)	18(1)	1620.2	1591.5	0.2
33(1)	19(1)	1545.0	1514.0	5.3
33(1)	20(1)	1465.2	1438.5	0.4
33(1)	21(1)	1452.2	1424.2	3.7
33(1)	22(1)	1333.8	1317.0	2.6
33(1)	23(1)	1321.3	1298.4	0.4
33(1)	24(1)	1256.2	1233.7	1.8
33(1)	25(1)	1238.0	1216.7	0.1
33(1)	26(1)	1226.1	1202.7	0.1
33(1)	27(1)	1180.3	1160.4	4.6
33(1)	28(1)	1121.5	1100.7	0.4
33(1)	29(1)	1073.1	1057.0	0.0
33(1)	30(1)	1056.1	1037.9	1.6
33(1)	31(1)	997.6	982.8	0.6
33(1)	32(1)	969.7	918.1	0.5
34(1)	1(1)	4241.8	4061.2	0.0
34(1)	2(1)	4228.7	4035.1	0.0
34(1)	3(1)	3637.0	3511.6	0.0
34(1)	4(1)	3613.5	3483.5	0.0
34(1)	5(1)	3602.1	3472.6	0.0
34(1)	6(1)	2266.1	2223.8	0.0
34(1)	7(1)	2090.6	2041.1	0.0
34(1)	8(1)	2057.1	2010.0	0.0
34(1)	9(1)	1973.0	1932.2	0.0
34(1)	10(1)	1908.7	1870.7	0.2
34(1)	11(1)	1791.5	1756.6	0.7
34(1)	12(1)	1782.3	1745.7	0.3
34(1)	13(1)	1737.8	1694.3	0.9
34(1)	14(1)	1712.6	1681.2	0.2
34(1)	15(1)	1644.1	1604.2	0.3
34(1)	16(1)	1628.5	1595.1	3.3
34(1)	17(1)	1616.4	1586.4	1.8
34(1)	18(1)	1578.3	1554.0	0.4
34(1)	19(1)	1503.2	1474.8	0.1
34(1)	20(1)	1423.3	1400.7	0.0
34(1)	21(1)	1410.4	1386.6	0.9
34(1)	22(1)	1291.9	1279.2	2.6
34(1)	23(1)	1279.4	1261.6	4.4
34(1)	24(1)	1214.4	1196.9	0.3
34(1)	25(1)	1196.2	1178.8	0.7

34(1)	26(1)	1184.2	1162.6	87.4
34(1)	27(1)	1138.4	1120.2	1.0
34(1)	28(1)	1079.7	1063.3	0.0
34(1)	29(1)	1031.3	1018.7	0.0
34(1)	30(1)	1014.2	1000.1	0.1
34(1)	31(1)	955.8	944.5	0.1
34(1)	32(1)	927.9	877.8	0.8
34(1)	33(1)	902.2	885.8	0.0
35(1)	1(1)	4196.2	4018.8	1.5
35(1)	2(1)	4183.1	3990.7	0.0
35(1)	3(1)	3591.4	3467.4	0.0
35(1)	4(1)	3568.0	3442.3	0.0
35(1)	5(1)	3556.6	3428.2	0.0
35(1)	6(1)	2220.5	2180.9	0.0
35(1)	7(1)	2045.1	1996.6	0.0
35(1)	8(1)	2011.6	1964.5	0.0
35(1)	9(1)	1927.5	1887.6	0.0
35(1)	10(1)	1863.2	1823.6	0.0
35(1)	11(1)	1746.0	1713.2	0.0
35(1)	12(1)	1736.8	1699.1	0.0
35(1)	13(1)	1692.3	1650.4	0.0
35(1)	14(1)	1667.1	1636.9	0.0
35(1)	15(1)	1598.5	1556.3	0.0
35(1)	16(1)	1582.9	1549.9	0.0
35(1)	17(1)	1570.9	1546.7	0.0
35(1)	18(1)	1532.8	1509.3	0.0
35(1)	19(1)	1457.6	1431.4	0.0
35(1)	20(1)	1377.8	1356.3	0.0
35(1)	21(1)	1364.9	1343.0	4.7
35(1)	22(1)	1246.4	1242.7	32.0
35(1)	23(1)	1233.9	1217.9	3.1
35(1)	24(1)	1168.9	1152.9	2.9
35(1)	25(1)	1150.7	1134.4	0.0
35(1)	26(1)	1138.7	1113.2	0.0
35(1)	27(1)	1092.9	1077.5	0.6
35(1)	28(1)	1034.1	1015.5	3.9
35(1)	29(1)	985.8	974.7	0.0
35(1)	30(1)	968.7	955.3	0.0
35(1)	31(1)	910.3	900.4	0.0
35(1)	32(1)	882.4	838.8	0.0

35(1)	33(1)	856.7	842.6	1.3
35(1)	34(1)	814.8	804.7	0.1
36(1)	1(1)	4174.5	3996.2	0.0
36(1)	2(1)	4161.4	3969.9	0.0
36(1)	3(1)	3569.7	3446.3	0.0
36(1)	4(1)	3546.3	3418.1	0.0
36(1)	5(1)	3534.9	3407.3	0.0
36(1)	6(1)	2198.8	2159.2	0.1
36(1)	7(1)	2023.4	1974.9	0.3
36(1)	8(1)	1989.9	1944.6	0.0
36(1)	9(1)	1905.8	1866.2	0.1
36(1)	10(1)	1841.5	1805.3	2.8
36(1)	11(1)	1724.3	1691.9	3.9
36(1)	12(1)	1715.1	1679.6	0.6
36(1)	13(1)	1670.6	1629.0	3.2
36(1)	14(1)	1645.4	1616.0	0.3
36(1)	15(1)	1576.8	1539.0	0.2
36(1)	16(1)	1561.2	1530.0	0.6
36(1)	17(1)	1549.2	1520.8	4.4
36(1)	18(1)	1511.1	1488.5	0.3
36(1)	19(1)	1435.9	1409.6	0.1
36(1)	20(1)	1356.1	1339.0	0.8
36(1)	21(1)	1343.2	1321.1	0.3
36(1)	22(1)	1224.7	1213.8	0.2
36(1)	23(1)	1212.2	1194.9	10.9
36(1)	24(1)	1147.2	1130.9	6.9
36(1)	25(1)	1129.0	1112.8	1.7
36(1)	26(1)	1117.0	1098.4	0.1
36(1)	27(1)	1071.2	1055.7	0.0
36(1)	28(1)	1012.4	998.3	0.0
36(1)	29(1)	964.0	953.5	0.0
36(1)	30(1)	947.0	934.2	0.0
36(1)	31(1)	888.5	879.2	0.0
36(1)	32(1)	860.7	816.5	0.1
36(1)	33(1)	835.0	821.4	0.0
36(1)	34(1)	793.1	783.8	0.1
36(1)	35(1)	747.6	739.1	0.1
37(1)	1(1)	4119.7	3941.3	0.0
37(1)	2(1)	4106.6	3915.1	0.0
37(1)	3(1)	3514.9	3391.6	0.0

37(1)	4(1)	3491.5	3363.4	0.0
37(1)	5(1)	3480.1	3352.9	0.0
37(1)	6(1)	2144.0	2104.9	0.1
37(1)	7(1)	1968.6	1919.6	0.0
37(1)	8(1)	1935.1	1888.7	0.0
37(1)	9(1)	1851.0	1813.0	3.2
37(1)	10(1)	1786.7	1750.2	0.2
37(1)	11(1)	1669.5	1638.9	54.5
37(1)	12(1)	1660.3	1627.6	0.6
37(1)	13(1)	1615.8	1574.1	0.8
37(1)	14(1)	1590.6	1560.4	0.5
37(1)	15(1)	1522.0	1483.4	1.4
37(1)	16(1)	1506.4	1475.3	0.0
37(1)	17(1)	1494.4	1465.5	0.2
37(1)	18(1)	1456.3	1433.1	0.5
37(1)	19(1)	1381.1	1355.2	0.5
37(1)	20(1)	1301.3	1279.9	4.9
37(1)	21(1)	1288.4	1267.0	4.7
37(1)	22(1)	1169.9	1159.1	0.0
37(1)	23(1)	1157.4	1140.5	0.0
37(1)	24(1)	1092.4	1076.4	0.2
37(1)	25(1)	1074.2	1058.5	0.2
37(1)	26(1)	1062.2	1043.6	0.1
37(1)	27(1)	1016.4	1001.4	0.1
37(1)	28(1)	957.6	943.5	0.0
37(1)	29(1)	909.3	898.7	0.0
37(1)	30(1)	892.2	879.3	0.0
37(1)	31(1)	833.7	824.6	0.0
37(1)	32(1)	805.9	762.4	0.2
37(1)	33(1)	780.2	766.4	0.0
37(1)	34(1)	738.3	728.8	0.0
37(1)	35(1)	692.8	684.5	0.0
37(1)	36(1)	671.1	662.8	0.0
38(1)	1(1)	4079.5	3900.6	0.0
38(1)	2(1)	4066.4	3874.2	0.1
38(1)	3(1)	3474.7	3350.7	0.0
38(1)	4(1)	3451.3	3322.8	0.0
38(1)	5(1)	3439.9	3311.8	0.0
38(1)	6(1)	2103.8	2064.2	0.1
38(1)	7(1)	1928.4	1880.6	0.0

38(1)	8(1)	1894.9	1848.6	0.0
38(1)	9(1)	1810.8	1771.5	0.1
38(1)	10(1)	1746.4	1709.8	0.0
38(1)	11(1)	1629.3	1596.2	16.0
38(1)	12(1)	1620.1	1584.5	0.4
38(1)	13(1)	1575.5	1533.4	0.1
38(1)	14(1)	1550.4	1520.5	0.0
38(1)	15(1)	1481.8	1443.1	0.2
38(1)	16(1)	1466.2	1434.0	0.0
38(1)	17(1)	1454.2	1424.9	0.0
38(1)	18(1)	1416.1	1392.3	0.1
38(1)	19(1)	1340.9	1314.7	0.9
38(1)	20(1)	1261.1	1239.5	0.4
38(1)	21(1)	1248.1	1225.4	1.8
38(1)	22(1)	1129.7	1118.3	0.3
38(1)	23(1)	1117.2	1099.2	0.0
38(1)	24(1)	1052.1	1035.0	1.3
38(1)	25(1)	1033.9	1018.2	0.1
38(1)	26(1)	1022.0	1003.4	0.1
38(1)	27(1)	976.2	960.9	0.4
38(1)	28(1)	917.4	903.1	0.2
38(1)	29(1)	869.0	858.0	0.3
38(1)	30(1)	852.0	838.1	0.0
38(1)	31(1)	793.5	783.1	0.3
38(1)	32(1)	765.7	722.0	0.2
38(1)	33(1)	740.0	725.7	0.4
38(1)	34(1)	698.1	688.5	0.0
38(1)	35(1)	652.6	644.8	0.3
38(1)	36(1)	630.9	621.7	0.0
38(1)	37(1)	576.1	566.8	0.0
39(1)	1(1)	4040.1	3860.8	0.0
39(1)	2(1)	4027.0	3834.7	0.0
39(1)	3(1)	3435.3	3311.0	0.0
39(1)	4(1)	3411.9	3282.7	0.0
39(1)	5(1)	3400.5	3272.0	0.0
39(1)	6(1)	2064.4	2024.0	0.0
39(1)	7(1)	1889.0	1840.7	0.0
39(1)	8(1)	1855.5	1809.4	0.0
39(1)	9(1)	1771.4	1731.8	0.0
39(1)	10(1)	1707.1	1669.9	0.1

39(1)	11(1)	1589.9	1555.5	0.0
39(1)	12(1)	1580.7	1544.7	0.1
39(1)	13(1)	1536.2	1493.7	0.0
39(1)	14(1)	1511.0	1480.5	0.0
39(1)	15(1)	1442.4	1403.4	0.0
39(1)	16(1)	1426.8	1394.1	0.0
39(1)	17(1)	1414.8	1384.8	0.0
39(1)	18(1)	1376.7	1352.6	0.0
39(1)	19(1)	1301.5	1274.4	2.2
39(1)	20(1)	1221.7	1199.8	0.0
39(1)	21(1)	1208.8	1185.4	1.5
39(1)	22(1)	1090.3	1078.7	0.0
39(1)	23(1)	1077.8	1059.8	2.8
39(1)	24(1)	1012.8	995.8	0.0
39(1)	25(1)	994.6	978.2	0.0
39(1)	26(1)	982.6	963.6	0.0
39(1)	27(1)	936.8	920.6	0.1
39(1)	28(1)	878.0	862.5	0.0
39(1)	29(1)	829.7	818.3	0.0
39(1)	30(1)	812.6	799.1	0.0
39(1)	31(1)	754.1	745.0	0.0
39(1)	32(1)	726.3	681.3	0.0
39(1)	33(1)	700.6	685.8	0.0
39(1)	34(1)	658.7	647.6	0.1
39(1)	35(1)	613.2	603.6	0.3
39(1)	36(1)	591.5	582.0	0.0
39(1)	37(1)	536.7	527.2	0.0
39(1)	38(1)	496.5	487.1	0.1
40(1)	1(1)	3990.9	3813.3	0.0
40(1)	2(1)	3977.8	3786.5	0.0
40(1)	3(1)	3386.1	3263.3	0.0
40(1)	4(1)	3362.7	3235.2	0.0
40(1)	5(1)	3351.3	3225.1	0.0
40(1)	6(1)	2015.2	1976.4	0.2
40(1)	7(1)	1839.8	1793.6	0.9
40(1)	8(1)	1806.3	1761.9	0.5
40(1)	9(1)	1722.2	1684.3	0.0
40(1)	10(1)	1657.8	1623.1	0.0
40(1)	11(1)	1540.7	1507.3	3.3
40(1)	12(1)	1531.4	1497.1	0.0

40(1)	13(1)	1486.9	1445.1	0.6
40(1)	14(1)	1461.8	1432.6	0.3
40(1)	15(1)	1393.2	1355.6	0.0
40(1)	16(1)	1377.6	1346.9	0.3
40(1)	17(1)	1365.6	1337.2	0.1
40(1)	18(1)	1327.5	1304.8	0.3
40(1)	19(1)	1252.3	1226.7	1.2
40(1)	20(1)	1172.5	1152.2	1.0
40(1)	21(1)	1159.5	1138.5	0.0
40(1)	22(1)	1041.1	1030.5	0.0
40(1)	23(1)	1028.6	1012.2	0.0
40(1)	24(1)	963.5	948.0	0.1
40(1)	25(1)	945.3	929.9	0.0
40(1)	26(1)	933.4	915.3	0.0
40(1)	27(1)	887.6	873.5	0.0
40(1)	28(1)	828.8	815.1	0.0
40(1)	29(1)	780.4	770.6	0.3
40(1)	30(1)	763.4	750.8	0.3
40(1)	31(1)	704.9	695.9	0.0
40(1)	32(1)	677.1	634.3	0.4
40(1)	33(1)	651.4	638.5	0.0
40(1)	34(1)	609.5	600.8	0.2
40(1)	35(1)	564.0	557.0	0.0
40(1)	36(1)	542.3	534.7	0.0
40(1)	37(1)	487.5	479.9	0.9
40(1)	38(1)	447.3	438.4	0.0
40(1)	39(1)	407.9	399.0	0.0
41(1)	1(1)	3907.0	3727.8	0.1
41(1)	2(1)	3893.9	3701.4	0.0
41(1)	3(1)	3302.2	3177.8	0.0
41(1)	4(1)	3278.7	3149.7	0.0
41(1)	5(1)	3267.3	3138.6	0.0
41(1)	6(1)	1931.3	1890.3	0.2
41(1)	7(1)	1755.8	1707.8	0.1
41(1)	8(1)	1722.3	1676.5	0.0
41(1)	9(1)	1638.2	1598.7	0.3
41(1)	10(1)	1573.9	1537.0	0.0
41(1)	11(1)	1456.7	1422.7	0.0
41(1)	12(1)	1447.5	1411.8	0.0
41(1)	13(1)	1403.0	1359.9	0.4

41(1)	14(1)	1377.8	1347.1	0.0
41(1)	15(1)	1309.3	1270.1	54.5
41(1)	16(1)	1293.7	1260.8	0.6
41(1)	17(1)	1281.6	1251.7	0.1
41(1)	18(1)	1243.5	1219.5	0.0
41(1)	19(1)	1168.4	1141.4	0.1
41(1)	20(1)	1088.5	1066.6	0.0
41(1)	21(1)	1075.6	1051.9	0.0
41(1)	22(1)	957.1	944.9	0.1
41(1)	23(1)	944.6	926.3	0.2
41(1)	24(1)	879.6	862.2	0.1
41(1)	25(1)	861.4	845.0	0.0
41(1)	26(1)	849.4	830.1	0.0
41(1)	27(1)	803.6	787.0	0.0
41(1)	28(1)	744.9	729.3	0.0
41(1)	29(1)	696.5	684.7	0.0
41(1)	30(1)	679.4	665.9	0.0
41(1)	31(1)	621.0	610.2	0.0
41(1)	32(1)	593.1	548.2	0.1
41(1)	33(1)	567.4	552.2	0.1
41(1)	34(1)	525.6	514.6	0.0
41(1)	35(1)	480.1	471.5	0.3
41(1)	36(1)	458.3	448.8	0.0
41(1)	37(1)	403.5	394.5	0.0
41(1)	38(1)	363.3	352.7	0.0
41(1)	39(1)	323.9	313.7	0.0
41(1)	40(1)	274.7	264.6	0.0
42(1)	1(1)	3873.8	3689.0	0.0
42(1)	2(1)	3860.7	3663.4	0.1
42(1)	3(1)	3269.0	3139.6	0.0
42(1)	4(1)	3245.5	3111.5	0.0
42(1)	5(1)	3234.1	3100.2	0.0
42(1)	6(1)	1898.1	1851.6	1.3
42(1)	7(1)	1722.6	1669.6	0.1
42(1)	8(1)	1689.1	1638.6	0.1
42(1)	9(1)	1605.0	1560.4	0.1
42(1)	10(1)	1540.7	1498.8	0.0
42(1)	11(1)	1423.6	1384.9	0.0
42(1)	12(1)	1414.3	1373.7	0.1
42(1)	13(1)	1369.8	1321.3	0.9

42(1)	14(1)	1344.6	1308.3	0.3
42(1)	15(1)	1276.1	1231.2	0.1
42(1)	16(1)	1260.5	1222.3	0.1
42(1)	17(1)	1248.4	1213.2	0.1
42(1)	18(1)	1210.3	1181.3	2.6
42(1)	19(1)	1135.2	1103.1	0.3
42(1)	20(1)	1055.3	1028.8	0.0
42(1)	21(1)	1042.4	1012.0	0.0
42(1)	22(1)	923.9	905.5	0.0
42(1)	23(1)	911.4	888.6	0.0
42(1)	24(1)	846.4	822.9	1.3
42(1)	25(1)	828.2	806.4	0.0
42(1)	26(1)	816.2	791.5	0.0
42(1)	27(1)	770.4	748.1	0.1
42(1)	28(1)	711.7	689.5	0.0
42(1)	29(1)	663.3	647.0	0.0
42(1)	30(1)	646.2	626.7	0.3
42(1)	31(1)	587.8	571.8	0.0
42(1)	32(1)	559.9	510.0	1.7
42(1)	33(1)	534.2	512.4	0.4
42(1)	34(1)	492.4	477.3	0.4
42(1)	35(1)	446.9	429.3	0.1
42(1)	36(1)	425.1	409.9	0.4
42(1)	37(1)	370.4	354.9	0.1
42(1)	38(1)	330.1	314.7	0.0
42(1)	39(1)	290.7	274.0	0.0
42(1)	40(1)	241.5	227.3	0.0
42(1)	41(1)	157.6	141.3	0.0

Table S17. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **C2*** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3811.6	3638.0	86.4	73.9
2(1)	3798.5	3610.9	33.3	26.3
3(1)	3206.8	3086.6	1.4	2.3
4(1)	3183.4	3056.8	1.6	2.3
5(1)	3172.0	3036.5	3.7	5.2
6(1)	1835.9	1800.8	357.4	88.0
7(1)	1660.4	1615.1	250.2	126.0
8(1)	1626.9	1585.2	50.8	15.5
9(1)	1542.8	1508.7	56.8	30.0
10(1)	1478.5	1446.6	43.1	12.3
11(1)	1361.4	1328.1	46.2	26.5
12(1)	1352.1	1320.5	51.3	58.8
13(1)	1307.6	1273.8	385.1	187.2
14(1)	1282.4	1256.6	86.3	72.9
15(1)	1213.9	1181.9	159.4	156.9
16(1)	1198.3	1171.8	48.5	45.7
17(1)	1186.3	1161.0	146.7	73.2
18(1)	1148.1	1129.3	57.7	59.4
19(1)	1073.0	1051.1	64.3	63.9
20(1)	993.2	975.9	17.1	18.9
21(1)	980.2	963.4	2.2	1.0
22(1)	861.7	855.8	49.1	46.0
23(1)	849.2	836.2	3.7	2.0
24(1)	784.2	772.0	8.5	6.5
25(1)	766.0	753.4	4.5	4.5
26(1)	754.1	740.0	9.7	13.5
27(1)	708.3	698.7	11.1	11.0
28(1)	649.5	640.3	5.2	4.9
29(1)	601.1	594.6	15.7	14.9
30(1)	584.1	575.6	3.6	6.1
31(1)	525.6	520.2	8.0	6.7
32(1)	497.7	452.5	90.0	74.6
33(1)	472.0	463.1	5.6	6.9
34(1)	430.2	424.2	7.6	13.0
35(1)	384.7	386.9	100.3	95.0
36(1)	362.9	359.8	3.8	3.5
37(1)	308.2	304.2	4.5	4.2

38(1)	267.9	264.1	7.5	6.2
39(1)	228.6	224.6	1.3	1.1
40(1)	179.3	175.8	4.9	4.7
41(1)	95.4	87.6	0.8	0.8
42(1)	62.2	51.4	4.9	4.6
1(2)	7623.1	7111.3		6.1
2(2)	7596.9	7053.9		3.1
3(2)	6413.5	6073.7		0.7
4(2)	6366.7	6008.1		0.6
5(2)	6343.9	5994.2		0.7
6(2)	3671.8	3582.7		5.1
7(2)	3320.9	3232.4		0.5
8(2)	3253.8	3167.1		0.8
9(2)	3085.6	3008.7		0.0
10(2)	2957.0	2888.7		0.1
11(2)	2722.7	2661.2		1.7
12(2)	2704.2	2638.8		0.1
13(2)	2615.2	2530.9		0.1
14(2)	2564.9	2511.9		0.1
15(2)	2427.8	2357.1		0.2
16(2)	2396.6	2340.5		0.4
17(2)	2372.5	2317.2		0.9
18(2)	2296.3	2258.1		0.2
19(2)	2146.0	2097.7		1.4
20(2)	1986.3	1950.7		0.3
21(2)	1960.4	1925.8		2.9
22(2)	1723.5	1714.7		0.8
23(2)	1698.5	1671.6		1.6
24(2)	1568.4	1543.4		0.4
25(2)	1532.0	1508.0		3.3
26(2)	1508.1	1479.6		0.1
27(2)	1416.5	1395.0		0.1
28(2)	1299.0	1280.6		7.9
29(2)	1202.2	1189.9		11.0
30(2)	1168.1	1150.4		0.1
31(2)	1051.2	1040.3		0.1
32(2)	995.4	871.1		3.2
33(2)	944.0	926.4		0.1
34(2)	860.4	847.4		1.2
35(2)	769.3	765.9		4.5

36(2)		725.9	717.9	0.1
37(2)		616.3	608.2	0.1
38(2)		535.9	527.7	0.3
39(2)		457.1	448.9	0.2
40(2)		358.7	351.6	0.0
41(2)		190.8	175.2	0.0
42(2)		124.4	100.5	0.0
2(1)	1(1)	7610.0	7248.7	0.0
3(1)	1(1)	7018.3	6725.2	0.0
3(1)	2(1)	7005.2	6698.1	0.0
4(1)	1(1)	6994.9	6696.2	0.0
4(1)	2(1)	6981.8	6670.1	0.0
4(1)	3(1)	6390.1	6146.1	0.0
5(1)	1(1)	6983.5	6686.4	0.0
5(1)	2(1)	6970.4	6658.9	0.0
5(1)	3(1)	6378.7	6118.3	0.1
5(1)	4(1)	6355.3	6106.4	0.0
6(1)	1(1)	5647.5	5438.9	0.0
6(1)	2(1)	5634.4	5408.7	0.1
6(1)	3(1)	5042.7	4888.3	0.0
6(1)	4(1)	5019.2	4860.1	0.0
6(1)	5(1)	5007.8	4849.4	0.0
7(1)	1(1)	5472.0	5254.7	0.0
7(1)	2(1)	5458.9	5228.6	0.0
7(1)	3(1)	4867.2	4710.0	0.1
7(1)	4(1)	4843.8	4678.2	0.1
7(1)	5(1)	4832.4	4667.0	0.1
7(1)	6(1)	3496.3	3418.5	0.1
8(1)	1(1)	5438.5	5222.3	0.6
8(1)	2(1)	5425.4	5196.7	0.0
8(1)	3(1)	4833.7	4673.6	0.1
8(1)	4(1)	4810.3	4643.4	0.2
8(1)	5(1)	4798.9	4632.9	0.1
8(1)	6(1)	3462.8	3386.4	0.0
8(1)	7(1)	3287.4	3203.3	0.2
9(1)	1(1)	5354.4	5145.3	0.1
9(1)	2(1)	5341.3	5119.3	0.0
9(1)	3(1)	4749.6	4597.0	0.0
9(1)	4(1)	4726.2	4569.6	0.0
9(1)	5(1)	4714.8	4561.9	0.0

9(1)	6(1)	3378.7	3309.3	0.0
9(1)	7(1)	3203.3	3131.3	0.1
9(1)	8(1)	3169.7	3093.7	0.1
10(1)	1(1)	5290.1	5084.1	0.5
10(1)	2(1)	5277.0	5057.4	0.0
10(1)	3(1)	4685.3	4540.2	0.1
10(1)	4(1)	4661.9	4508.8	0.1
10(1)	5(1)	4650.5	4495.0	0.0
10(1)	6(1)	3314.4	3247.2	0.0
10(1)	7(1)	3138.9	3048.6	0.1
10(1)	8(1)	3105.4	3027.8	0.1
10(1)	9(1)	3021.3	2952.2	0.0
11(1)	1(1)	5172.9	4965.9	0.5
11(1)	2(1)	5159.8	4942.5	0.0
11(1)	3(1)	4568.1	4419.2	0.0
11(1)	4(1)	4544.7	4392.6	0.1
11(1)	5(1)	4533.3	4384.5	0.0
11(1)	6(1)	3197.2	3132.7	0.0
11(1)	7(1)	3021.8	2938.3	0.7
11(1)	8(1)	2988.3	2909.0	0.2
11(1)	9(1)	2904.2	2834.1	0.8
11(1)	10(1)	2839.9	2774.6	0.9
12(1)	1(1)	5163.7	4957.9	0.1
12(1)	2(1)	5150.6	4932.5	0.0
12(1)	3(1)	4558.9	4410.6	0.2
12(1)	4(1)	4535.5	4381.6	0.3
12(1)	5(1)	4524.1	4368.6	0.0
12(1)	6(1)	3188.0	3122.9	0.0
12(1)	7(1)	3012.6	2933.5	0.1
12(1)	8(1)	2979.0	2904.4	0.0
12(1)	9(1)	2894.9	2826.1	0.4
12(1)	10(1)	2830.6	2763.5	0.1
12(1)	11(1)	2713.5	2651.7	0.5
13(1)	1(1)	5119.2	4908.3	0.0
13(1)	2(1)	5106.1	4879.3	0.9
13(1)	3(1)	4514.4	4357.5	0.1
13(1)	4(1)	4491.0	4328.7	0.0
13(1)	5(1)	4479.6	4319.8	0.0
13(1)	6(1)	3143.5	3070.0	0.1
13(1)	7(1)	2968.0	2886.9	0.1

13(1)	8(1)	2934.5	2856.1	0.0
13(1)	9(1)	2850.4	2777.9	0.3
13(1)	10(1)	2786.1	2716.5	0.0
13(1)	11(1)	2669.0	2601.0	0.1
13(1)	12(1)	2659.7	2592.1	0.1
14(1)	1(1)	5094.0	4895.8	0.1
14(1)	2(1)	5080.9	4868.3	0.0
14(1)	3(1)	4489.2	4344.3	0.0
14(1)	4(1)	4465.8	4314.9	0.0
14(1)	5(1)	4454.4	4300.9	0.1
14(1)	6(1)	3118.3	3058.2	0.0
14(1)	7(1)	2942.9	2872.1	0.2
14(1)	8(1)	2909.4	2840.1	0.0
14(1)	9(1)	2825.3	2762.7	0.1
14(1)	10(1)	2761.0	2702.4	0.1
14(1)	11(1)	2643.8	2586.7	0.3
14(1)	12(1)	2634.6	2578.1	0.4
14(1)	13(1)	2590.1	2527.7	0.1
15(1)	1(1)	5025.4	4817.4	0.6
15(1)	2(1)	5012.4	4785.2	0.5
15(1)	3(1)	4420.6	4267.2	0.0
15(1)	4(1)	4397.2	4237.1	0.0
15(1)	5(1)	4385.8	4228.1	0.0
15(1)	6(1)	3049.8	2979.4	0.0
15(1)	7(1)	2874.3	2795.3	0.0
15(1)	8(1)	2840.8	2763.5	0.0
15(1)	9(1)	2756.7	2687.1	0.7
15(1)	10(1)	2692.4	2624.2	0.4
15(1)	11(1)	2575.2	2509.0	0.0
15(1)	12(1)	2566.0	2499.8	2.0
15(1)	13(1)	2521.5	2443.1	0.8
15(1)	14(1)	2496.3	2436.7	0.3
16(1)	1(1)	5009.8	4809.0	0.0
16(1)	2(1)	4996.7	4778.1	0.3
16(1)	3(1)	4405.0	4255.4	0.0
16(1)	4(1)	4381.6	4229.1	0.1
16(1)	5(1)	4370.2	4218.8	0.0
16(1)	6(1)	3034.2	2970.9	0.0
16(1)	7(1)	2858.7	2786.1	0.2
16(1)	8(1)	2825.2	2755.7	0.0

16(1)	9(1)	2741.1	2676.8	0.2
16(1)	10(1)	2676.8	2615.1	0.2
16(1)	11(1)	2559.6	2501.5	0.0
16(1)	12(1)	2550.4	2489.3	1.0
16(1)	13(1)	2505.9	2436.8	0.3
16(1)	14(1)	2480.7	2427.7	0.5
16(1)	15(1)	2412.2	2347.7	0.1
17(1)	1(1)	4997.8	4793.3	0.6
17(1)	2(1)	4984.7	4770.4	0.1
17(1)	3(1)	4393.0	4247.6	0.0
17(1)	4(1)	4369.6	4216.7	0.0
17(1)	5(1)	4358.2	4209.7	0.0
17(1)	6(1)	3022.1	2961.3	0.0
17(1)	7(1)	2846.7	2777.4	0.1
17(1)	8(1)	2813.2	2742.2	0.3
17(1)	9(1)	2729.1	2667.9	0.1
17(1)	10(1)	2664.8	2604.0	0.2
17(1)	11(1)	2547.6	2488.5	0.2
17(1)	12(1)	2538.4	2482.0	1.6
17(1)	13(1)	2493.9	2429.1	0.4
17(1)	14(1)	2468.7	2418.1	0.1
17(1)	15(1)	2400.1	2335.5	0.9
17(1)	16(1)	2384.5	2331.1	0.9
18(1)	1(1)	4959.7	4767.3	0.0
18(1)	2(1)	4946.6	4738.6	0.1
18(1)	3(1)	4354.9	4209.1	0.0
18(1)	4(1)	4331.5	4187.2	0.1
18(1)	5(1)	4320.1	4176.6	0.0
18(1)	6(1)	2984.0	2929.5	0.0
18(1)	7(1)	2808.6	2743.5	0.4
18(1)	8(1)	2775.1	2712.8	0.0
18(1)	9(1)	2691.0	2635.7	0.1
18(1)	10(1)	2626.7	2573.0	0.5
18(1)	11(1)	2509.5	2459.6	0.1
18(1)	12(1)	2500.3	2448.0	0.2
18(1)	13(1)	2455.8	2398.2	0.5
18(1)	14(1)	2430.6	2386.7	0.5
18(1)	15(1)	2362.0	2308.4	0.0
18(1)	16(1)	2346.4	2299.4	0.0
18(1)	17(1)	2334.4	2290.0	0.4

19(1)	1(1)	4884.6	4689.0	0.0
19(1)	2(1)	4871.5	4660.0	0.2
19(1)	3(1)	4279.8	4137.9	0.0
19(1)	4(1)	4256.3	4109.6	0.2
19(1)	5(1)	4244.9	4099.7	0.2
19(1)	6(1)	2908.9	2849.3	0.2
19(1)	7(1)	2733.4	2666.6	0.0
19(1)	8(1)	2699.9	2635.8	0.0
19(1)	9(1)	2615.8	2558.5	0.0
19(1)	10(1)	2551.5	2497.2	0.2
19(1)	11(1)	2434.3	2380.9	0.2
19(1)	12(1)	2425.1	2372.5	0.0
19(1)	13(1)	2380.6	2315.6	2.2
19(1)	14(1)	2355.4	2308.3	0.1
19(1)	15(1)	2286.9	2229.7	0.3
19(1)	16(1)	2271.3	2221.1	0.0
19(1)	17(1)	2259.2	2211.5	0.0
19(1)	18(1)	2221.1	2178.7	0.5
20(1)	1(1)	4804.7	4613.3	0.0
20(1)	2(1)	4791.6	4586.6	0.0
20(1)	3(1)	4199.9	4061.7	0.2
20(1)	4(1)	4176.5	4032.8	0.2
20(1)	5(1)	4165.1	4023.2	0.1
20(1)	6(1)	2829.0	2776.9	0.0
20(1)	7(1)	2653.6	2591.3	0.0
20(1)	8(1)	2620.1	2557.9	0.0
20(1)	9(1)	2536.0	2482.5	0.2
20(1)	10(1)	2471.7	2421.0	0.6
20(1)	11(1)	2354.5	2306.6	0.0
20(1)	12(1)	2345.3	2295.8	0.5
20(1)	13(1)	2300.8	2246.4	0.0
20(1)	14(1)	2275.6	2233.1	0.2
20(1)	15(1)	2207.0	2155.4	0.4
20(1)	16(1)	2191.4	2146.2	0.1
20(1)	17(1)	2179.4	2136.0	0.3
20(1)	18(1)	2141.3	2104.9	0.4
20(1)	19(1)	2066.1	2026.7	0.2
21(1)	1(1)	4791.8	4601.2	0.0
21(1)	2(1)	4778.7	4574.4	0.0
21(1)	3(1)	4187.0	4044.3	0.0

21(1)	4(1)	4163.6	4022.1	0.0
21(1)	5(1)	4152.2	4000.7	0.0
21(1)	6(1)	2816.1	2763.9	0.0
21(1)	7(1)	2640.6	2579.1	0.0
21(1)	8(1)	2607.1	2547.8	0.0
21(1)	9(1)	2523.0	2471.2	0.0
21(1)	10(1)	2458.7	2410.5	0.0
21(1)	11(1)	2341.6	2294.6	0.0
21(1)	12(1)	2332.3	2284.5	0.0
21(1)	13(1)	2287.8	2234.1	0.0
21(1)	14(1)	2262.6	2221.2	0.0
21(1)	15(1)	2194.1	2143.7	0.0
21(1)	16(1)	2178.5	2133.8	0.0
21(1)	17(1)	2166.5	2124.1	0.0
21(1)	18(1)	2128.3	2092.2	0.0
21(1)	19(1)	2053.2	2014.5	0.1
21(1)	20(1)	1973.4	1939.2	0.3
22(1)	1(1)	4673.3	4492.9	0.0
22(1)	2(1)	4660.2	4466.7	0.0
22(1)	3(1)	4068.5	3941.8	0.0
22(1)	4(1)	4045.1	3902.9	0.0
22(1)	5(1)	4033.7	3903.9	0.0
22(1)	6(1)	2697.6	2656.7	0.0
22(1)	7(1)	2522.2	2471.3	0.0
22(1)	8(1)	2488.7	2439.2	0.0
22(1)	9(1)	2404.6	2365.5	0.0
22(1)	10(1)	2340.2	2300.9	0.0
22(1)	11(1)	2223.1	2187.3	0.0
22(1)	12(1)	2213.9	2177.0	0.0
22(1)	13(1)	2169.3	2126.3	0.0
22(1)	14(1)	2144.2	2113.9	0.0
22(1)	15(1)	2075.6	2033.2	0.0
22(1)	16(1)	2060.0	2027.1	0.0
22(1)	17(1)	2048.0	2015.0	0.0
22(1)	18(1)	2009.9	1985.2	0.0
22(1)	19(1)	1934.7	1906.3	0.0
22(1)	20(1)	1854.9	1831.2	0.0
22(1)	21(1)	1841.9	1821.0	0.2
23(1)	1(1)	4660.8	4473.8	0.0
23(1)	2(1)	4647.7	4447.0	0.0

23(1)	3(1)	4056.0	3916.3	0.0
23(1)	4(1)	4032.6	3894.2	0.0
23(1)	5(1)	4021.2	3881.5	0.0
23(1)	6(1)	2685.1	2636.5	0.0
23(1)	7(1)	2509.7	2452.0	0.0
23(1)	8(1)	2476.2	2420.5	0.0
23(1)	9(1)	2392.1	2343.5	0.0
23(1)	10(1)	2327.7	2281.6	0.0
23(1)	11(1)	2210.6	2167.7	0.0
23(1)	12(1)	2201.3	2158.9	0.0
23(1)	13(1)	2156.8	2105.3	0.0
23(1)	14(1)	2131.7	2093.3	0.0
23(1)	15(1)	2063.1	2015.7	0.0
23(1)	16(1)	2047.5	2007.2	0.0
23(1)	17(1)	2035.5	1996.5	0.0
23(1)	18(1)	1997.4	1966.5	0.0
23(1)	19(1)	1922.2	1886.7	0.1
23(1)	20(1)	1842.4	1811.6	0.0
23(1)	21(1)	1829.4	1796.7	0.9
23(1)	22(1)	1711.0	1692.6	1.3
24(1)	1(1)	4595.8	4409.7	0.0
24(1)	2(1)	4582.7	4382.8	0.0
24(1)	3(1)	3991.0	3858.1	0.0
24(1)	4(1)	3967.6	3829.7	0.0
24(1)	5(1)	3956.2	3819.2	0.0
24(1)	6(1)	2620.1	2570.6	0.1
24(1)	7(1)	2444.6	2389.0	0.1
24(1)	8(1)	2411.1	2356.8	0.0
24(1)	9(1)	2327.0	2279.9	0.0
24(1)	10(1)	2262.7	2218.2	0.0
24(1)	11(1)	2145.6	2103.1	0.0
24(1)	12(1)	2136.3	2093.5	0.0
24(1)	13(1)	2091.8	2040.8	0.1
24(1)	14(1)	2066.6	2029.9	0.0
24(1)	15(1)	1998.1	1950.0	0.0
24(1)	16(1)	1982.5	1941.4	0.1
24(1)	17(1)	1970.5	1932.7	0.1
24(1)	18(1)	1932.3	1901.2	0.0
24(1)	19(1)	1857.2	1821.6	0.1
24(1)	20(1)	1777.4	1747.7	0.1

24(1)	21(1)	1764.4	1734.6	0.6
24(1)	22(1)	1645.9	1627.7	0.9
24(1)	23(1)	1633.4	1608.4	1.0
25(1)	1(1)	4577.6	4392.6	0.0
25(1)	2(1)	4564.5	4364.8	0.1
25(1)	3(1)	3972.8	3841.8	0.0
25(1)	4(1)	3949.4	3813.4	0.0
25(1)	5(1)	3938.0	3802.7	0.1
25(1)	6(1)	2601.9	2552.9	0.1
25(1)	7(1)	2426.4	2371.5	0.7
25(1)	8(1)	2392.9	2339.1	0.2
25(1)	9(1)	2308.8	2263.0	0.1
25(1)	10(1)	2244.5	2200.8	0.0
25(1)	11(1)	2127.4	2085.2	0.1
25(1)	12(1)	2118.1	2075.4	0.3
25(1)	13(1)	2073.6	2024.1	0.5
25(1)	14(1)	2048.4	2011.7	0.3
25(1)	15(1)	1979.9	1934.6	0.3
25(1)	16(1)	1964.3	1925.6	1.3
25(1)	17(1)	1952.3	1915.6	0.6
25(1)	18(1)	1914.1	1883.5	1.3
25(1)	19(1)	1839.0	1805.2	112.2
25(1)	20(1)	1759.2	1730.3	0.1
25(1)	21(1)	1746.2	1717.7	0.0
25(1)	22(1)	1627.7	1610.6	24.4
25(1)	23(1)	1615.2	1590.3	0.2
25(1)	24(1)	1550.2	1526.0	0.1
26(1)	1(1)	4565.6	4377.7	0.0
26(1)	2(1)	4552.5	4349.9	0.0
26(1)	3(1)	3960.8	3827.1	0.1
26(1)	4(1)	3937.4	3799.1	0.0
26(1)	5(1)	3926.0	3788.0	0.2
26(1)	6(1)	2589.9	2539.3	0.0
26(1)	7(1)	2414.5	2356.4	0.3
26(1)	8(1)	2381.0	2324.7	0.1
26(1)	9(1)	2296.9	2247.5	0.2
26(1)	10(1)	2232.6	2185.8	0.1
26(1)	11(1)	2115.4	2070.9	0.0
26(1)	12(1)	2106.2	2060.4	0.2
26(1)	13(1)	2061.7	2008.9	0.8

26(1)	14(1)	2036.5	1998.5	0.0
26(1)	15(1)	1967.9	1919.9	2.2
26(1)	16(1)	1952.3	1910.6	0.1
26(1)	17(1)	1940.3	1902.3	0.3
26(1)	18(1)	1902.2	1868.6	0.1
26(1)	19(1)	1827.0	1788.9	18.7
26(1)	20(1)	1747.2	1715.7	0.0
26(1)	21(1)	1734.3	1703.0	0.0
26(1)	22(1)	1615.8	1595.6	0.0
26(1)	23(1)	1603.3	1575.7	0.0
26(1)	24(1)	1538.3	1511.5	0.1
26(1)	25(1)	1520.1	1493.9	0.4
27(1)	1(1)	4519.8	4335.5	0.0
27(1)	2(1)	4506.7	4308.7	0.0
27(1)	3(1)	3915.0	3784.3	0.0
27(1)	4(1)	3891.6	3755.2	0.0
27(1)	5(1)	3880.2	3745.8	0.0
27(1)	6(1)	2544.1	2497.3	0.0
27(1)	7(1)	2368.7	2313.9	0.0
27(1)	8(1)	2335.2	2282.4	0.0
27(1)	9(1)	2251.1	2204.9	0.0
27(1)	10(1)	2186.8	2143.7	0.0
27(1)	11(1)	2069.6	2028.1	0.0
27(1)	12(1)	2060.4	2018.3	0.0
27(1)	13(1)	2015.9	1968.2	0.0
27(1)	14(1)	1990.7	1955.0	0.0
27(1)	15(1)	1922.1	1877.4	0.1
27(1)	16(1)	1906.5	1868.5	0.1
27(1)	17(1)	1894.5	1858.2	0.2
27(1)	18(1)	1856.4	1826.1	0.4
27(1)	19(1)	1781.2	1747.2	1.3
27(1)	20(1)	1701.4	1673.3	0.3
27(1)	21(1)	1688.5	1661.9	0.1
27(1)	22(1)	1570.0	1554.0	0.5
27(1)	23(1)	1557.5	1534.1	2.1
27(1)	24(1)	1492.5	1469.6	1.9
27(1)	25(1)	1474.3	1451.4	2.8
27(1)	26(1)	1462.3	1437.3	0.4
28(1)	1(1)	4461.1	4278.3	0.0
28(1)	2(1)	4448.0	4251.2	0.0

28(1)	3(1)	3856.3	3726.1	0.0
28(1)	4(1)	3832.8	3699.0	0.0
28(1)	5(1)	3821.4	3688.4	0.0
28(1)	6(1)	2485.4	2441.0	0.0
28(1)	7(1)	2309.9	2257.0	0.0
28(1)	8(1)	2276.4	2224.6	0.0
28(1)	9(1)	2192.3	2150.0	0.0
28(1)	10(1)	2128.0	2085.3	0.0
28(1)	11(1)	2010.8	1971.4	0.0
28(1)	12(1)	2001.6	1959.9	0.0
28(1)	13(1)	1957.1	1911.0	0.0
28(1)	14(1)	1931.9	1897.7	0.0
28(1)	15(1)	1863.4	1820.2	0.4
28(1)	16(1)	1847.8	1811.1	2.0
28(1)	17(1)	1835.7	1803.4	0.0
28(1)	18(1)	1797.6	1769.9	0.1
28(1)	19(1)	1722.5	1690.9	0.1
28(1)	20(1)	1642.6	1614.8	0.9
28(1)	21(1)	1629.7	1604.1	3.0
28(1)	22(1)	1511.2	1495.2	8.4
28(1)	23(1)	1498.7	1476.6	1.3
28(1)	24(1)	1433.7	1412.6	0.5
28(1)	25(1)	1415.5	1394.7	0.3
28(1)	26(1)	1403.5	1380.0	0.3
28(1)	27(1)	1357.7	1339.0	1.7
29(1)	1(1)	4412.7	4232.6	0.0
29(1)	2(1)	4399.6	4204.4	0.1
29(1)	3(1)	3807.9	3681.6	0.1
29(1)	4(1)	3784.5	3653.6	0.0
29(1)	5(1)	3773.1	3643.1	0.0
29(1)	6(1)	2437.0	2393.7	0.0
29(1)	7(1)	2261.5	2210.9	0.0
29(1)	8(1)	2228.0	2179.2	0.0
29(1)	9(1)	2143.9	2102.2	0.1
29(1)	10(1)	2079.6	2040.5	0.0
29(1)	11(1)	1962.5	1925.6	0.0
29(1)	12(1)	1953.2	1915.5	0.0
29(1)	13(1)	1908.7	1864.0	0.2
29(1)	14(1)	1883.5	1852.1	0.0
29(1)	15(1)	1815.0	1774.9	6.6

29(1)	16(1)	1799.4	1763.7	0.7
29(1)	17(1)	1787.4	1755.7	0.2
29(1)	18(1)	1749.2	1723.6	0.2
29(1)	19(1)	1674.1	1645.1	7.4
29(1)	20(1)	1594.3	1570.4	0.1
29(1)	21(1)	1581.3	1557.6	0.1
29(1)	22(1)	1462.8	1450.2	0.0
29(1)	23(1)	1450.3	1430.6	0.0
29(1)	24(1)	1385.3	1366.5	0.5
29(1)	25(1)	1367.1	1349.5	1.9
29(1)	26(1)	1355.2	1335.6	3.4
29(1)	27(1)	1309.4	1292.1	51.7
29(1)	28(1)	1250.6	1234.6	0.1
30(1)	1(1)	4395.6	4213.7	0.0
30(1)	2(1)	4382.5	4185.9	0.0
30(1)	3(1)	3790.8	3662.8	0.0
30(1)	4(1)	3767.4	3634.6	0.0
30(1)	5(1)	3756.0	3624.4	0.0
30(1)	6(1)	2419.9	2376.7	0.0
30(1)	7(1)	2244.5	2192.6	0.0
30(1)	8(1)	2211.0	2160.7	0.0
30(1)	9(1)	2126.9	2082.8	0.0
30(1)	10(1)	2062.6	2021.8	0.0
30(1)	11(1)	1945.4	1906.9	0.0
30(1)	12(1)	1936.2	1896.1	0.1
30(1)	13(1)	1891.7	1845.1	0.0
30(1)	14(1)	1866.5	1833.0	0.1
30(1)	15(1)	1797.9	1755.1	1.5
30(1)	16(1)	1782.3	1746.1	0.4
30(1)	17(1)	1770.3	1736.7	0.3
30(1)	18(1)	1732.2	1704.3	0.1
30(1)	19(1)	1657.0	1626.4	8.4
30(1)	20(1)	1577.2	1550.9	1.4
30(1)	21(1)	1564.3	1538.8	0.0
30(1)	22(1)	1445.8	1431.3	0.2
30(1)	23(1)	1433.3	1411.7	0.1
30(1)	24(1)	1368.3	1348.1	6.2
30(1)	25(1)	1350.1	1329.9	0.6
30(1)	26(1)	1338.1	1315.0	1.5
30(1)	27(1)	1292.3	1274.1	0.4

30(1)	28(1)	1233.5	1216.2	0.3
30(1)	29(1)	1185.2	1170.2	0.2
31(1)	1(1)	4337.2	4158.1	0.0
31(1)	2(1)	4324.1	4131.0	0.0
31(1)	3(1)	3732.4	3607.4	0.0
31(1)	4(1)	3708.9	3579.3	0.1
31(1)	5(1)	3697.5	3568.7	0.0
31(1)	6(1)	2361.5	2322.3	0.0
31(1)	7(1)	2186.0	2135.9	0.3
31(1)	8(1)	2152.5	2105.1	0.1
31(1)	9(1)	2068.4	2028.0	0.0
31(1)	10(1)	2004.1	1965.1	0.0
31(1)	11(1)	1886.9	1850.9	0.1
31(1)	12(1)	1877.7	1841.3	0.1
31(1)	13(1)	1833.2	1789.3	166.2
31(1)	14(1)	1808.0	1778.8	0.2
31(1)	15(1)	1739.5	1700.0	0.1
31(1)	16(1)	1723.9	1691.0	0.2
31(1)	17(1)	1711.8	1681.5	0.9
31(1)	18(1)	1673.7	1650.5	8.0
31(1)	19(1)	1598.6	1570.7	0.5
31(1)	20(1)	1518.7	1496.3	1.1
31(1)	21(1)	1505.8	1483.4	0.1
31(1)	22(1)	1387.3	1375.7	0.0
31(1)	23(1)	1374.8	1356.3	0.1
31(1)	24(1)	1309.8	1292.0	3.0
31(1)	25(1)	1291.6	1274.8	5.8
31(1)	26(1)	1279.6	1258.8	35.6
31(1)	27(1)	1233.8	1217.6	0.0
31(1)	28(1)	1175.1	1160.1	0.3
31(1)	29(1)	1126.7	1114.8	0.1
31(1)	30(1)	1109.6	1096.0	0.5
32(1)	1(1)	4309.3	4090.4	0.0
32(1)	2(1)	4296.2	4053.6	1.4
32(1)	3(1)	3704.5	3539.8	0.0
32(1)	4(1)	3681.1	3511.7	0.0
32(1)	5(1)	3669.7	3500.2	0.2
32(1)	6(1)	2333.6	2252.0	0.0
32(1)	7(1)	2158.2	2070.1	0.0
32(1)	8(1)	2124.6	2038.4	0.0

32(1)	9(1)	2040.5	1961.1	0.0
32(1)	10(1)	1976.2	1899.5	0.0
32(1)	11(1)	1859.1	1784.4	0.2
32(1)	12(1)	1849.8	1774.9	0.2
32(1)	13(1)	1805.3	1719.2	2.0
32(1)	14(1)	1780.2	1710.2	0.2
32(1)	15(1)	1711.6	1634.4	0.5
32(1)	16(1)	1696.0	1624.9	0.1
32(1)	17(1)	1684.0	1614.2	0.0
32(1)	18(1)	1645.9	1583.5	0.0
32(1)	19(1)	1570.7	1505.4	0.2
32(1)	20(1)	1490.9	1426.1	0.0
32(1)	21(1)	1477.9	1414.0	27.1
32(1)	22(1)	1359.5	1308.1	0.1
32(1)	23(1)	1346.9	1289.5	7.9
32(1)	24(1)	1281.9	1223.3	0.7
32(1)	25(1)	1263.7	1206.9	1.4
32(1)	26(1)	1251.8	1192.3	1.0
32(1)	27(1)	1206.0	1144.6	20.5
32(1)	28(1)	1147.2	1092.5	2.3
32(1)	29(1)	1098.8	1047.4	0.4
32(1)	30(1)	1081.8	1027.6	0.1
32(1)	31(1)	1023.3	972.5	0.0
33(1)	1(1)	4283.6	4101.1	0.0
33(1)	2(1)	4270.5	4074.1	0.0
33(1)	3(1)	3678.8	3550.1	0.0
33(1)	4(1)	3655.4	3522.1	0.0
33(1)	5(1)	3644.0	3511.1	0.0
33(1)	6(1)	2307.9	2263.8	0.0
33(1)	7(1)	2132.5	2079.7	0.0
33(1)	8(1)	2098.9	2047.8	0.0
33(1)	9(1)	2014.8	1970.6	0.0
33(1)	10(1)	1950.5	1910.5	0.0
33(1)	11(1)	1833.4	1793.6	1.9
33(1)	12(1)	1824.1	1784.9	0.0
33(1)	13(1)	1779.6	1733.9	0.1
33(1)	14(1)	1754.5	1720.4	0.0
33(1)	15(1)	1685.9	1643.3	0.0
33(1)	16(1)	1670.3	1634.1	2.7
33(1)	17(1)	1658.3	1624.5	14.9

33(1)	18(1)	1620.2	1591.9	0.2
33(1)	19(1)	1545.0	1514.5	5.3
33(1)	20(1)	1465.2	1438.5	0.4
33(1)	21(1)	1452.2	1425.5	3.7
33(1)	22(1)	1333.8	1318.4	2.6
33(1)	23(1)	1321.3	1298.7	0.4
33(1)	24(1)	1256.2	1233.7	1.8
33(1)	25(1)	1238.0	1217.2	0.1
33(1)	26(1)	1226.1	1203.3	0.1
33(1)	27(1)	1180.3	1161.2	4.6
33(1)	28(1)	1121.5	1102.1	0.4
33(1)	29(1)	1073.1	1057.3	0.0
33(1)	30(1)	1056.1	1038.5	1.6
33(1)	31(1)	997.6	983.3	0.6
33(1)	32(1)	969.7	913.7	0.5
34(1)	1(1)	4241.8	4062.0	0.0
34(1)	2(1)	4228.7	4034.6	0.0
34(1)	3(1)	3637.0	3511.4	0.0
34(1)	4(1)	3613.5	3483.3	0.0
34(1)	5(1)	3602.1	3472.6	0.0
34(1)	6(1)	2266.1	2223.9	0.0
34(1)	7(1)	2090.6	2041.2	0.0
34(1)	8(1)	2057.1	2009.6	0.0
34(1)	9(1)	1973.0	1932.2	0.0
34(1)	10(1)	1908.7	1870.5	0.2
34(1)	11(1)	1791.5	1756.0	0.7
34(1)	12(1)	1782.3	1745.7	0.3
34(1)	13(1)	1737.8	1694.6	0.9
34(1)	14(1)	1712.6	1681.7	0.2
34(1)	15(1)	1644.1	1604.5	0.3
34(1)	16(1)	1628.5	1595.2	3.3
34(1)	17(1)	1616.4	1586.2	1.8
34(1)	18(1)	1578.3	1553.9	0.4
34(1)	19(1)	1503.2	1474.7	0.1
34(1)	20(1)	1423.3	1400.2	0.0
34(1)	21(1)	1410.4	1387.4	0.9
34(1)	22(1)	1291.9	1280.0	2.6
34(1)	23(1)	1279.4	1261.5	4.4
34(1)	24(1)	1214.4	1196.4	0.3
34(1)	25(1)	1196.2	1178.7	0.7

34(1)	26(1)	1184.2	1162.6	87.4
34(1)	27(1)	1138.4	1120.5	1.0
34(1)	28(1)	1079.7	1064.0	0.0
34(1)	29(1)	1031.3	1018.6	0.0
34(1)	30(1)	1014.2	1000.1	0.1
34(1)	31(1)	955.8	944.3	0.1
34(1)	32(1)	927.9	872.8	0.8
34(1)	33(1)	902.2	886.2	0.0
35(1)	1(1)	4196.2	4026.9	1.5
35(1)	2(1)	4183.1	3997.6	0.0
35(1)	3(1)	3591.4	3474.4	0.0
35(1)	4(1)	3568.0	3449.3	0.0
35(1)	5(1)	3556.6	3435.5	0.0
35(1)	6(1)	2220.5	2188.3	0.0
35(1)	7(1)	2045.1	2004.0	0.0
35(1)	8(1)	2011.6	1971.3	0.0
35(1)	9(1)	1927.5	1894.9	0.0
35(1)	10(1)	1863.2	1830.7	0.0
35(1)	11(1)	1746.0	1719.9	0.0
35(1)	12(1)	1736.8	1706.4	0.0
35(1)	13(1)	1692.3	1657.9	0.0
35(1)	14(1)	1667.1	1644.7	0.0
35(1)	15(1)	1598.5	1563.8	0.0
35(1)	16(1)	1582.9	1557.4	0.0
35(1)	17(1)	1570.9	1553.8	0.0
35(1)	18(1)	1532.8	1516.4	0.0
35(1)	19(1)	1457.6	1438.6	0.0
35(1)	20(1)	1377.8	1363.1	0.0
35(1)	21(1)	1364.9	1351.1	4.8
35(1)	22(1)	1246.4	1250.6	32.2
35(1)	23(1)	1233.9	1225.1	3.1
35(1)	24(1)	1168.9	1159.9	2.9
35(1)	25(1)	1150.7	1141.6	0.0
35(1)	26(1)	1138.7	1120.5	0.0
35(1)	27(1)	1092.9	1085.8	0.6
35(1)	28(1)	1034.1	1023.8	4.0
35(1)	29(1)	985.8	981.8	0.0
35(1)	30(1)	968.7	962.5	0.0
35(1)	31(1)	910.3	907.6	0.0
35(1)	32(1)	882.4	840.1	0.0

35(1)	33(1)	856.7	850.5	1.4
35(1)	34(1)	814.8	811.8	0.1
36(1)	1(1)	4174.5	3997.1	0.0
36(1)	2(1)	4161.4	3969.7	0.0
36(1)	3(1)	3569.7	3446.2	0.0
36(1)	4(1)	3546.3	3418.0	0.0
36(1)	5(1)	3534.9	3407.5	0.0
36(1)	6(1)	2198.8	2159.5	0.1
36(1)	7(1)	2023.4	1975.2	0.3
36(1)	8(1)	1989.9	1944.3	0.0
36(1)	9(1)	1905.8	1866.4	0.1
36(1)	10(1)	1841.5	1805.3	2.8
36(1)	11(1)	1724.3	1691.5	3.9
36(1)	12(1)	1715.1	1679.8	0.6
36(1)	13(1)	1670.6	1629.4	3.2
36(1)	14(1)	1645.4	1616.7	0.3
36(1)	15(1)	1576.8	1539.5	0.2
36(1)	16(1)	1561.2	1530.4	0.6
36(1)	17(1)	1549.2	1520.8	4.4
36(1)	18(1)	1511.1	1488.6	0.3
36(1)	19(1)	1435.9	1409.7	0.1
36(1)	20(1)	1356.1	1338.6	0.8
36(1)	21(1)	1343.2	1322.1	0.3
36(1)	22(1)	1224.7	1214.7	0.2
36(1)	23(1)	1212.2	1194.8	10.9
36(1)	24(1)	1147.2	1130.6	6.9
36(1)	25(1)	1129.0	1112.9	1.7
36(1)	26(1)	1117.0	1098.6	0.1
36(1)	27(1)	1071.2	1056.4	0.0
36(1)	28(1)	1012.4	999.2	0.0
36(1)	29(1)	964.0	953.5	0.0
36(1)	30(1)	947.0	934.4	0.0
36(1)	31(1)	888.5	879.3	0.0
36(1)	32(1)	860.7	811.7	0.1
36(1)	33(1)	835.0	822.1	0.0
36(1)	34(1)	793.1	783.7	0.1
36(1)	35(1)	747.6	746.4	0.1
37(1)	1(1)	4119.7	3942.1	0.0
37(1)	2(1)	4106.6	3914.7	0.0
37(1)	3(1)	3514.9	3391.5	0.0

37(1)	4(1)	3491.5	3363.3	0.0
37(1)	5(1)	3480.1	3353.0	0.0
37(1)	6(1)	2144.0	2105.1	0.1
37(1)	7(1)	1968.6	1919.9	0.0
37(1)	8(1)	1935.1	1888.4	0.0
37(1)	9(1)	1851.0	1813.1	3.2
37(1)	10(1)	1786.7	1750.1	0.2
37(1)	11(1)	1669.5	1638.4	54.5
37(1)	12(1)	1660.3	1627.7	0.6
37(1)	13(1)	1615.8	1574.5	0.8
37(1)	14(1)	1590.6	1561.0	0.5
37(1)	15(1)	1522.0	1483.8	1.4
37(1)	16(1)	1506.4	1475.6	0.0
37(1)	17(1)	1494.4	1465.5	0.2
37(1)	18(1)	1456.3	1433.1	0.5
37(1)	19(1)	1381.1	1355.2	0.5
37(1)	20(1)	1301.3	1279.5	4.9
37(1)	21(1)	1288.4	1267.9	4.7
37(1)	22(1)	1169.9	1160.0	0.0
37(1)	23(1)	1157.4	1140.2	0.0
37(1)	24(1)	1092.4	1076.0	0.2
37(1)	25(1)	1074.2	1058.5	0.2
37(1)	26(1)	1062.2	1043.7	0.1
37(1)	27(1)	1016.4	1001.8	0.1
37(1)	28(1)	957.6	944.4	0.0
37(1)	29(1)	909.3	898.7	0.0
37(1)	30(1)	892.2	879.4	0.0
37(1)	31(1)	833.7	824.6	0.0
37(1)	32(1)	805.9	757.5	0.2
37(1)	33(1)	780.2	766.9	0.0
37(1)	34(1)	738.3	728.7	0.0
37(1)	35(1)	692.8	691.7	0.0
37(1)	36(1)	671.1	662.9	0.0
38(1)	1(1)	4079.5	3901.9	0.0
38(1)	2(1)	4066.4	3874.6	0.1
38(1)	3(1)	3474.7	3351.3	0.0
38(1)	4(1)	3451.3	3323.2	0.0
38(1)	5(1)	3439.9	3312.7	0.0
38(1)	6(1)	2103.8	2065.0	0.1
38(1)	7(1)	1928.4	1881.4	0.0

38(1)	8(1)	1894.9	1848.9	0.0
38(1)	9(1)	1810.8	1772.4	0.1
38(1)	10(1)	1746.4	1710.4	0.0
38(1)	11(1)	1629.3	1596.2	16.0
38(1)	12(1)	1620.1	1585.4	0.4
38(1)	13(1)	1575.5	1534.4	0.1
38(1)	14(1)	1550.4	1522.0	0.0
38(1)	15(1)	1481.8	1444.1	0.2
38(1)	16(1)	1466.2	1435.0	0.0
38(1)	17(1)	1454.2	1425.3	0.0
38(1)	18(1)	1416.1	1393.0	0.1
38(1)	19(1)	1340.9	1315.4	0.9
38(1)	20(1)	1261.1	1239.7	0.4
38(1)	21(1)	1248.1	1227.3	1.8
38(1)	22(1)	1129.7	1119.6	0.3
38(1)	23(1)	1117.2	1099.6	0.0
38(1)	24(1)	1052.1	1035.3	1.3
38(1)	25(1)	1033.9	1018.8	0.1
38(1)	26(1)	1022.0	1004.3	0.1
38(1)	27(1)	976.2	962.1	0.4
38(1)	28(1)	917.4	904.4	0.2
38(1)	29(1)	869.0	858.6	0.3
38(1)	30(1)	852.0	839.0	0.0
38(1)	31(1)	793.5	783.7	0.3
38(1)	32(1)	765.7	718.2	0.2
38(1)	33(1)	740.0	727.0	0.4
38(1)	34(1)	698.1	689.0	0.0
38(1)	35(1)	652.6	651.6	0.3
38(1)	36(1)	630.9	622.4	0.0
38(1)	37(1)	576.1	567.5	0.0
39(1)	1(1)	4040.1	3862.7	0.0
39(1)	2(1)	4027.0	3835.4	0.0
39(1)	3(1)	3435.3	3312.0	0.0
39(1)	4(1)	3411.9	3283.6	0.0
39(1)	5(1)	3400.5	3273.1	0.0
39(1)	6(1)	2064.4	2025.2	0.0
39(1)	7(1)	1889.0	1841.8	0.0
39(1)	8(1)	1855.5	1810.0	0.0
39(1)	9(1)	1771.4	1732.9	0.0
39(1)	10(1)	1707.1	1670.9	0.1

39(1)	11(1)	1589.9	1556.0	0.0
39(1)	12(1)	1580.7	1545.9	0.1
39(1)	13(1)	1536.2	1495.0	0.0
39(1)	14(1)	1511.0	1482.1	0.0
39(1)	15(1)	1442.4	1404.7	0.0
39(1)	16(1)	1426.8	1395.5	0.0
39(1)	17(1)	1414.8	1385.7	0.0
39(1)	18(1)	1376.7	1353.8	0.0
39(1)	19(1)	1301.5	1275.3	2.2
39(1)	20(1)	1221.7	1200.4	0.0
39(1)	21(1)	1208.8	1187.5	1.5
39(1)	22(1)	1090.3	1080.5	0.0
39(1)	23(1)	1077.8	1060.7	2.8
39(1)	24(1)	1012.8	996.5	0.0
39(1)	25(1)	994.6	979.2	0.0
39(1)	26(1)	982.6	964.7	0.0
39(1)	27(1)	936.8	922.1	0.1
39(1)	28(1)	878.0	864.2	0.0
39(1)	29(1)	829.7	819.2	0.0
39(1)	30(1)	812.6	800.2	0.0
39(1)	31(1)	754.1	745.9	0.0
39(1)	32(1)	726.3	677.5	0.0
39(1)	33(1)	700.6	687.4	0.0
39(1)	34(1)	658.7	648.5	0.1
39(1)	35(1)	613.2	612.2	0.3
39(1)	36(1)	591.5	583.1	0.0
39(1)	37(1)	536.7	528.2	0.0
39(1)	38(1)	496.5	488.7	0.1
40(1)	1(1)	3990.9	3814.0	0.0
40(1)	2(1)	3977.8	3786.0	0.0
40(1)	3(1)	3386.1	3263.1	0.0
40(1)	4(1)	3362.7	3235.0	0.0
40(1)	5(1)	3351.3	3225.1	0.0
40(1)	6(1)	2015.2	1976.5	0.2
40(1)	7(1)	1839.8	1793.7	0.9
40(1)	8(1)	1806.3	1761.4	0.5
40(1)	9(1)	1722.2	1684.3	0.0
40(1)	10(1)	1657.8	1622.9	0.0
40(1)	11(1)	1540.7	1506.6	3.3
40(1)	12(1)	1531.4	1497.1	0.0

40(1)	13(1)	1486.9	1445.4	0.6
40(1)	14(1)	1461.8	1433.1	0.3
40(1)	15(1)	1393.2	1355.8	0.0
40(1)	16(1)	1377.6	1347.0	0.3
40(1)	17(1)	1365.6	1337.0	0.1
40(1)	18(1)	1327.5	1304.7	0.3
40(1)	19(1)	1252.3	1226.6	1.2
40(1)	20(1)	1172.5	1151.7	1.0
40(1)	21(1)	1159.5	1139.2	0.0
40(1)	22(1)	1041.1	1031.2	0.0
40(1)	23(1)	1028.6	1011.8	0.0
40(1)	24(1)	963.5	947.4	0.1
40(1)	25(1)	945.3	929.8	0.0
40(1)	26(1)	933.4	915.3	0.0
40(1)	27(1)	887.6	873.7	0.0
40(1)	28(1)	828.8	815.8	0.0
40(1)	29(1)	780.4	770.4	0.3
40(1)	30(1)	763.4	750.8	0.3
40(1)	31(1)	704.9	695.8	0.0
40(1)	32(1)	677.1	629.3	0.4
40(1)	33(1)	651.4	638.9	0.0
40(1)	34(1)	609.5	600.6	0.2
40(1)	35(1)	564.0	564.0	0.0
40(1)	36(1)	542.3	534.7	0.0
40(1)	37(1)	487.5	479.7	0.9
40(1)	38(1)	447.3	439.0	0.0
40(1)	39(1)	407.9	399.8	0.0
41(1)	1(1)	3907.0	3726.5	0.1
41(1)	2(1)	3893.9	3698.0	0.0
41(1)	3(1)	3302.2	3174.8	0.0
41(1)	4(1)	3278.7	3146.9	0.0
41(1)	5(1)	3267.3	3136.0	0.0
41(1)	6(1)	1931.3	1887.8	0.2
41(1)	7(1)	1755.8	1705.4	0.1
41(1)	8(1)	1722.3	1673.1	0.0
41(1)	9(1)	1638.2	1596.0	0.3
41(1)	10(1)	1573.9	1534.1	0.0
41(1)	11(1)	1456.7	1419.3	0.0
41(1)	12(1)	1447.5	1409.1	0.0
41(1)	13(1)	1403.0	1357.7	0.4

41(1)	14(1)	1377.8	1345.1	0.0
41(1)	15(1)	1309.3	1268.0	54.3
41(1)	16(1)	1293.7	1258.3	0.6
41(1)	17(1)	1281.6	1248.8	0.1
41(1)	18(1)	1243.5	1216.6	0.0
41(1)	19(1)	1168.4	1138.6	0.1
41(1)	20(1)	1088.5	1063.3	0.0
41(1)	21(1)	1075.6	1049.9	0.0
41(1)	22(1)	957.1	943.1	0.1
41(1)	23(1)	944.6	923.1	0.2
41(1)	24(1)	879.6	858.7	0.1
41(1)	25(1)	861.4	842.2	0.0
41(1)	26(1)	849.4	827.4	0.0
41(1)	27(1)	803.6	784.4	0.0
41(1)	28(1)	744.9	727.8	0.0
41(1)	29(1)	696.5	681.8	0.0
41(1)	30(1)	679.4	663.2	0.0
41(1)	31(1)	621.0	607.4	0.0
41(1)	32(1)	593.1	537.4	0.1
41(1)	33(1)	567.4	550.1	0.1
41(1)	34(1)	525.6	511.5	0.0
41(1)	35(1)	480.1	480.8	0.3
41(1)	36(1)	458.3	446.1	0.0
41(1)	37(1)	403.5	391.7	0.0
41(1)	38(1)	363.3	350.6	0.0
41(1)	39(1)	323.9	312.1	0.0
41(1)	40(1)	274.7	261.7	0.0
42(1)	1(1)	3873.8	3690.4	0.0
42(1)	2(1)	3860.7	3661.9	0.1
42(1)	3(1)	3269.0	3138.8	0.0
42(1)	4(1)	3245.5	3110.6	0.0
42(1)	5(1)	3234.1	3100.0	0.0
42(1)	6(1)	1898.1	1851.8	1.3
42(1)	7(1)	1722.6	1669.6	0.1
42(1)	8(1)	1689.1	1637.3	0.1
42(1)	9(1)	1605.0	1560.1	0.1
42(1)	10(1)	1540.7	1498.0	0.0
42(1)	11(1)	1423.6	1383.3	0.0
42(1)	12(1)	1414.3	1373.4	0.1
42(1)	13(1)	1369.8	1321.7	0.9

42(1)	14(1)	1344.6	1309.0	0.3
42(1)	15(1)	1276.1	1231.5	0.1
42(1)	16(1)	1260.5	1222.6	0.1
42(1)	17(1)	1248.4	1212.6	0.1
42(1)	18(1)	1210.3	1180.8	2.6
42(1)	19(1)	1135.2	1102.5	0.3
42(1)	20(1)	1055.3	1027.1	0.0
42(1)	21(1)	1042.4	1013.5	0.0
42(1)	22(1)	923.9	907.3	0.0
42(1)	23(1)	911.4	887.7	0.0
42(1)	24(1)	846.4	821.8	1.3
42(1)	25(1)	828.2	806.0	0.0
42(1)	26(1)	816.2	791.2	0.0
42(1)	27(1)	770.4	748.8	0.1
42(1)	28(1)	711.7	691.0	0.0
42(1)	29(1)	663.3	646.5	0.0
42(1)	30(1)	646.2	626.3	0.3
42(1)	31(1)	587.8	571.3	0.0
42(1)	32(1)	559.9	498.5	1.6
42(1)	33(1)	534.2	513.4	0.4
42(1)	34(1)	492.4	476.5	0.4
42(1)	35(1)	446.9	445.1	0.2
42(1)	36(1)	425.1	409.4	0.4
42(1)	37(1)	370.4	354.4	0.1
42(1)	38(1)	330.1	315.4	0.0
42(1)	39(1)	290.7	274.5	0.0
42(1)	40(1)	241.5	226.5	0.0
42(1)	41(1)	157.6	130.5	0.0

Table S18. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **D1** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3809.8	3626.8	91.6	77.4
2(1)	3753.4	3573.8	118.2	102.6
3(1)	3216.3	3089.9	0.4	1.2
4(1)	3207.1	3074.7	3.0	3.9
5(1)	3167.2	3030.1	8.7	11.0
6(1)	1812.9	1778.2	322.8	256.6
7(1)	1663.2	1619.1	295.5	139.9
8(1)	1626.2	1590.5	40.4	26.9
9(1)	1534.4	1499.6	20.7	16.1
10(1)	1486.6	1451.6	115.7	81.1
11(1)	1365.7	1333.0	93.0	34.0
12(1)	1361.5	1307.8	450.2	790.3
13(1)	1331.2	1298.8	131.6	246.6
14(1)	1272.5	1248.8	38.7	25.5
15(1)	1237.8	1213.2	18.4	9.5
16(1)	1205.1	1182.4	100.0	84.5
17(1)	1161.2	1139.6	32.0	10.4
18(1)	1143.8	1122.1	185.5	97.3
19(1)	1089.6	1060.9	12.8	0.0
20(1)	1000.8	983.0	1.5	0.7
21(1)	983.2	968.3	47.9	18.4
22(1)	872.2	872.4	37.0	40.8
23(1)	841.7	832.5	10.4	6.3
24(1)	774.8	772.8	20.1	14.7
25(1)	766.3	754.4	11.5	11.3
26(1)	750.5	739.4	2.7	2.3
27(1)	693.4	692.1	3.5	8.6
28(1)	642.3	632.5	21.0	10.3
29(1)	618.4	612.0	20.6	19.6
30(1)	591.1	585.5	2.3	2.3
31(1)	569.3	549.4	77.8	89.9
32(1)	526.6	521.7	11.5	9.5
33(1)	472.2	465.4	0.8	1.5
34(1)	415.9	412.6	1.1	1.2
35(1)	395.1	368.9	100.2	94.3
36(1)	364.0	361.8	4.7	2.2
37(1)	334.7	330.7	0.6	0.6

38(1)	294.7	294.7	1.8	1.6
39(1)	228.3	224.9	1.7	1.6
40(1)	220.9	218.3	14.2	13.4
41(1)	100.6	100.8	3.0	2.9
42(1)	64.3	65.0	4.6	4.6
1(2)	7619.7	7087.1		6.2
2(2)	7506.8	6969.8		2.2
3(2)	6432.6	6075.5		0.8
4(2)	6414.3	6059.0		0.5
5(2)	6334.3	5970.7		0.7
6(2)	3625.9	3538.2		4.9
7(2)	3326.5	3235.3		0.5
8(2)	3252.3	3175.4		1.1
9(2)	3068.8	2993.1		0.2
10(2)	2973.1	2901.3		0.0
11(2)	2731.4	2662.8		1.5
12(2)	2723.0	2633.8		1.0
13(2)	2662.4	2593.3		0.8
14(2)	2544.9	2489.5		0.0
15(2)	2475.6	2423.3		0.1
16(2)	2410.3	2352.3		1.8
17(2)	2322.5	2272.5		0.1
18(2)	2287.6	2239.8		0.7
19(2)	2179.3	2120.0		0.7
20(2)	2001.6	1962.0		3.0
21(2)	1966.4	1935.4		0.4
22(2)	1744.4	1749.6		1.2
23(2)	1683.5	1665.1		4.3
24(2)	1549.6	1547.1		0.4
25(2)	1532.6	1511.6		3.5
26(2)	1500.9	1478.5		0.3
27(2)	1386.8	1386.2		0.5
28(2)	1284.5	1265.1		1.4
29(2)	1236.9	1224.1		0.0
30(2)	1182.3	1170.9		0.0
31(2)	1138.6	1077.9		0.4
32(2)	1053.3	1043.0		0.2
33(2)	944.5	931.1		0.5
34(2)	831.9	825.3		0.1
35(2)	790.2	715.4		9.4

36(2)		728.1	723.5	0.0
37(2)		669.4	661.2	0.0
38(2)		589.4	589.3	0.6
39(2)		456.7	449.6	0.3
40(2)		441.8	437.0	0.0
41(2)		201.1	201.3	0.2
42(2)		128.6	131.5	0.0
2(1)	1(1)	7563.2	7200.6	0.0
3(1)	1(1)	7026.1	6718.4	0.0
3(1)	2(1)	6969.7	6665.5	0.0
4(1)	1(1)	7017.0	6708.1	0.0
4(1)	2(1)	6960.5	6655.0	0.0
4(1)	3(1)	6423.5	6171.0	0.0
5(1)	1(1)	6977.0	6665.4	0.0
5(1)	2(1)	6920.6	6613.7	0.0
5(1)	3(1)	6383.5	6131.4	0.0
5(1)	4(1)	6374.3	6111.4	0.1
6(1)	1(1)	5622.8	5405.0	0.0
6(1)	2(1)	5566.3	5348.8	0.1
6(1)	3(1)	5029.2	4869.9	0.0
6(1)	4(1)	5020.1	4860.1	0.1
6(1)	5(1)	4980.1	4818.1	0.0
7(1)	1(1)	5473.1	5245.0	0.0
7(1)	2(1)	5416.6	5193.1	0.0
7(1)	3(1)	4879.5	4713.2	0.0
7(1)	4(1)	4870.4	4702.3	0.0
7(1)	5(1)	4830.4	4659.5	0.2
7(1)	6(1)	3476.2	3396.7	0.1
8(1)	1(1)	5436.0	5215.3	0.6
8(1)	2(1)	5379.6	5164.1	0.0
8(1)	3(1)	4842.5	4680.6	0.2
8(1)	4(1)	4833.3	4672.4	0.2
8(1)	5(1)	4793.3	4630.6	0.1
8(1)	6(1)	3439.1	3367.9	0.0
8(1)	7(1)	3289.4	3208.2	0.1
9(1)	1(1)	5344.2	5125.5	0.0
9(1)	2(1)	5287.8	5073.9	0.0
9(1)	3(1)	4750.7	4592.0	0.1
9(1)	4(1)	4741.5	4583.9	0.0
9(1)	5(1)	4701.5	4540.9	0.1

9(1)	6(1)	3347.3	3278.0	0.0
9(1)	7(1)	3197.6	3127.4	0.0
9(1)	8(1)	3160.6	3085.1	0.2
10(1)	1(1)	5296.4	5078.0	0.6
10(1)	2(1)	5240.0	5026.1	0.0
10(1)	3(1)	4702.9	4549.9	0.1
10(1)	4(1)	4693.7	4536.1	0.0
10(1)	5(1)	4653.7	4495.2	0.0
10(1)	6(1)	3299.5	3230.7	0.1
10(1)	7(1)	3149.8	3061.1	0.1
10(1)	8(1)	3112.7	3038.8	0.3
10(1)	9(1)	3020.9	2948.3	0.0
11(1)	1(1)	5175.5	4957.8	0.2
11(1)	2(1)	5119.1	4908.0	0.4
11(1)	3(1)	4582.0	4425.3	0.0
11(1)	4(1)	4572.8	4416.7	0.0
11(1)	5(1)	4532.8	4374.5	0.0
11(1)	6(1)	3178.6	3109.5	0.1
11(1)	7(1)	3028.9	2945.4	0.0
11(1)	8(1)	2991.9	2917.9	0.2
11(1)	9(1)	2900.1	2829.2	0.6
11(1)	10(1)	2852.2	2782.8	1.0
12(1)	1(1)	5171.3	4947.6	0.1
12(1)	2(1)	5114.9	4898.6	0.8
12(1)	3(1)	4577.8	4413.2	0.0
12(1)	4(1)	4568.6	4402.4	0.0
12(1)	5(1)	4528.6	4363.2	0.0
12(1)	6(1)	3174.4	3096.9	0.1
12(1)	7(1)	3024.7	2936.2	0.4
12(1)	8(1)	2987.7	2908.9	0.1
12(1)	9(1)	2895.9	2818.6	0.3
12(1)	10(1)	2848.0	2772.1	0.3
12(1)	11(1)	2727.2	2645.8	0.1
13(1)	1(1)	5141.0	4926.3	0.6
13(1)	2(1)	5084.6	4872.5	0.1
13(1)	3(1)	4547.5	4389.8	0.2
13(1)	4(1)	4538.3	4377.2	0.1
13(1)	5(1)	4498.4	4337.9	0.1
13(1)	6(1)	3144.1	3076.4	0.0
13(1)	7(1)	2994.4	2912.6	0.1

13(1)	8(1)	2957.4	2887.3	0.1
13(1)	9(1)	2865.6	2793.9	0.8
13(1)	10(1)	2817.8	2748.0	0.0
13(1)	11(1)	2696.9	2629.0	0.0
13(1)	12(1)	2692.7	2617.3	0.4
14(1)	1(1)	5082.3	4870.3	0.1
14(1)	2(1)	5025.9	4817.6	0.5
14(1)	3(1)	4488.8	4335.4	0.1
14(1)	4(1)	4479.6	4324.0	0.1
14(1)	5(1)	4439.6	4285.5	0.0
14(1)	6(1)	3085.4	3022.6	0.0
14(1)	7(1)	2935.7	2861.1	0.3
14(1)	8(1)	2898.6	2834.4	0.0
14(1)	9(1)	2806.9	2742.5	0.1
14(1)	10(1)	2759.0	2695.8	0.1
14(1)	11(1)	2638.2	2576.2	0.7
14(1)	12(1)	2634.0	2563.6	0.2
14(1)	13(1)	2603.7	2541.6	0.8
15(1)	1(1)	5047.6	4839.3	0.0
15(1)	2(1)	4991.2	4783.9	0.8
15(1)	3(1)	4454.1	4302.2	0.1
15(1)	4(1)	4444.9	4288.4	0.1
15(1)	5(1)	4404.9	4251.5	0.0
15(1)	6(1)	3050.7	2986.2	0.1
15(1)	7(1)	2901.0	2829.3	0.1
15(1)	8(1)	2864.0	2802.3	0.0
15(1)	9(1)	2772.2	2710.5	0.3
15(1)	10(1)	2724.3	2664.3	0.0
15(1)	11(1)	2603.5	2541.5	0.5
15(1)	12(1)	2599.3	2527.6	1.1
15(1)	13(1)	2569.0	2510.0	0.1
15(1)	14(1)	2510.3	2456.1	0.4
16(1)	1(1)	5015.0	4798.3	0.9
16(1)	2(1)	4958.5	4751.2	0.1
16(1)	3(1)	4421.5	4270.9	0.0
16(1)	4(1)	4412.3	4259.4	0.0
16(1)	5(1)	4372.3	4216.8	0.0
16(1)	6(1)	3018.1	2957.0	0.0
16(1)	7(1)	2868.4	2796.4	0.1
16(1)	8(1)	2831.3	2764.9	0.1

16(1)	9(1)	2739.5	2676.2	0.1
16(1)	10(1)	2691.7	2628.5	0.0
16(1)	11(1)	2570.8	2508.3	0.2
16(1)	12(1)	2566.6	2499.0	0.8
16(1)	13(1)	2536.4	2473.8	0.3
16(1)	14(1)	2477.6	2422.9	1.1
16(1)	15(1)	2442.9	2390.9	0.7
17(1)	1(1)	4971.1	4763.7	0.0
17(1)	2(1)	4914.6	4709.0	0.2
17(1)	3(1)	4377.5	4221.4	0.1
17(1)	4(1)	4368.4	4213.5	0.1
17(1)	5(1)	4328.4	4174.5	0.0
17(1)	6(1)	2974.2	2914.6	0.0
17(1)	7(1)	2824.5	2752.2	0.2
17(1)	8(1)	2787.4	2725.7	0.1
17(1)	9(1)	2695.6	2634.4	0.4
17(1)	10(1)	2647.8	2585.9	0.1
17(1)	11(1)	2526.9	2468.4	0.0
17(1)	12(1)	2522.7	2457.0	0.3
17(1)	13(1)	2492.4	2432.6	0.7
17(1)	14(1)	2433.7	2380.8	0.4
17(1)	15(1)	2399.0	2348.8	0.5
17(1)	16(1)	2366.4	2313.9	0.1
18(1)	1(1)	4953.6	4746.7	0.3
18(1)	2(1)	4897.2	4693.9	0.2
18(1)	3(1)	4360.1	4209.3	0.0
18(1)	4(1)	4350.9	4200.5	0.0
18(1)	5(1)	4311.0	4155.6	0.0
18(1)	6(1)	2956.7	2897.4	0.1
18(1)	7(1)	2807.0	2733.7	0.4
18(1)	8(1)	2770.0	2708.4	0.0
18(1)	9(1)	2678.2	2617.9	0.1
18(1)	10(1)	2630.4	2571.8	0.5
18(1)	11(1)	2509.5	2451.4	0.4
18(1)	12(1)	2505.3	2437.6	0.5
18(1)	13(1)	2475.0	2417.2	0.3
18(1)	14(1)	2416.3	2365.0	0.9
18(1)	15(1)	2381.6	2331.8	0.1
18(1)	16(1)	2349.0	2297.4	0.1
18(1)	17(1)	2305.0	2257.1	0.0

19(1)	1(1)	4899.5	4687.5	0.0
19(1)	2(1)	4843.0	4632.6	0.2
19(1)	3(1)	4305.9	4151.6	0.2
19(1)	4(1)	4296.8	4141.7	0.1
19(1)	5(1)	4256.8	4100.3	0.1
19(1)	6(1)	2902.6	2837.6	0.2
19(1)	7(1)	2752.9	2677.6	0.1
19(1)	8(1)	2715.8	2651.1	0.0
19(1)	9(1)	2624.0	2559.6	0.1
19(1)	10(1)	2576.2	2512.0	0.4
19(1)	11(1)	2455.3	2391.8	0.6
19(1)	12(1)	2451.1	2379.5	1.0
19(1)	13(1)	2420.8	2358.3	0.5
19(1)	14(1)	2362.1	2305.6	0.4
19(1)	15(1)	2327.4	2271.0	0.3
19(1)	16(1)	2294.8	2238.7	0.1
19(1)	17(1)	2250.9	2196.7	0.1
19(1)	18(1)	2233.4	2179.0	0.2
20(1)	1(1)	4810.6	4609.5	0.0
20(1)	2(1)	4754.2	4556.9	0.0
20(1)	3(1)	4217.1	4074.3	0.0
20(1)	4(1)	4207.9	4050.5	0.1
20(1)	5(1)	4167.9	4018.2	0.0
20(1)	6(1)	2813.7	2761.3	0.0
20(1)	7(1)	2664.0	2600.4	0.0
20(1)	8(1)	2627.0	2572.3	0.0
20(1)	9(1)	2535.2	2482.3	0.0
20(1)	10(1)	2487.3	2436.4	0.0
20(1)	11(1)	2366.5	2315.1	0.0
20(1)	12(1)	2362.3	2303.6	0.0
20(1)	13(1)	2332.0	2282.1	0.0
20(1)	14(1)	2273.3	2227.7	0.0
20(1)	15(1)	2238.6	2195.1	0.0
20(1)	16(1)	2205.9	2162.0	0.0
20(1)	17(1)	2162.0	2119.6	0.0
20(1)	18(1)	2144.6	2102.6	0.0
20(1)	19(1)	2090.4	2043.3	0.0
21(1)	1(1)	4793.0	4595.1	0.0
21(1)	2(1)	4736.6	4541.4	0.0
21(1)	3(1)	4199.5	4057.8	0.0

21(1)	4(1)	4190.3	4048.0	0.0
21(1)	5(1)	4150.4	4006.9	0.3
21(1)	6(1)	2796.1	2746.3	0.0
21(1)	7(1)	2646.4	2585.2	0.1
21(1)	8(1)	2609.4	2554.8	0.0
21(1)	9(1)	2517.6	2466.2	0.6
21(1)	10(1)	2469.8	2419.2	0.1
21(1)	11(1)	2348.9	2300.8	0.2
21(1)	12(1)	2344.7	2289.6	0.1
21(1)	13(1)	2314.4	2264.9	0.9
21(1)	14(1)	2255.7	2213.3	0.3
21(1)	15(1)	2221.0	2180.6	0.0
21(1)	16(1)	2188.4	2145.9	0.1
21(1)	17(1)	2144.4	2104.2	0.2
21(1)	18(1)	2127.0	2088.3	0.2
21(1)	19(1)	2072.8	2028.4	0.4
21(1)	20(1)	1984.0	1951.3	0.0
22(1)	1(1)	4682.0	4498.9	0.0
22(1)	2(1)	4625.6	4445.8	0.0
22(1)	3(1)	4088.5	3949.5	0.0
22(1)	4(1)	4079.3	3953.5	0.0
22(1)	5(1)	4039.3	3911.7	0.0
22(1)	6(1)	2685.1	2650.6	0.0
22(1)	7(1)	2535.4	2489.3	0.0
22(1)	8(1)	2498.4	2460.8	0.0
22(1)	9(1)	2406.6	2373.7	0.0
22(1)	10(1)	2358.7	2322.6	0.0
22(1)	11(1)	2237.9	2205.5	0.0
22(1)	12(1)	2233.7	2193.6	0.0
22(1)	13(1)	2203.4	2170.4	0.0
22(1)	14(1)	2144.7	2118.8	0.0
22(1)	15(1)	2110.0	2085.0	0.0
22(1)	16(1)	2077.3	2049.7	0.0
22(1)	17(1)	2033.4	2008.8	0.0
22(1)	18(1)	2016.0	1992.7	0.0
22(1)	19(1)	1961.8	1932.7	0.0
22(1)	20(1)	1873.0	1857.8	0.4
22(1)	21(1)	1855.4	1840.2	0.0
23(1)	1(1)	4651.6	4458.4	0.0
23(1)	2(1)	4595.1	4406.5	0.0

23(1)	3(1)	4058.0	3923.7	0.0
23(1)	4(1)	4048.9	3911.9	0.0
23(1)	5(1)	4008.9	3862.3	0.0
23(1)	6(1)	2654.7	2610.1	0.0
23(1)	7(1)	2505.0	2449.0	0.0
23(1)	8(1)	2467.9	2421.7	0.0
23(1)	9(1)	2376.1	2331.3	0.0
23(1)	10(1)	2328.3	2284.9	0.0
23(1)	11(1)	2207.4	2164.6	0.0
23(1)	12(1)	2203.2	2152.7	0.0
23(1)	13(1)	2172.9	2132.6	0.0
23(1)	14(1)	2114.2	2078.1	0.0
23(1)	15(1)	2079.5	2044.5	0.0
23(1)	16(1)	2046.9	2009.0	0.0
23(1)	17(1)	2003.0	1969.3	0.0
23(1)	18(1)	1985.5	1953.5	0.0
23(1)	19(1)	1931.4	1892.9	0.0
23(1)	20(1)	1842.5	1814.5	1.2
23(1)	21(1)	1824.9	1800.2	0.0
23(1)	22(1)	1713.9	1706.5	1.1
24(1)	1(1)	4584.6	4399.4	0.0
24(1)	2(1)	4528.2	4346.6	0.0
24(1)	3(1)	3991.1	3863.7	0.0
24(1)	4(1)	3981.9	3852.7	0.0
24(1)	5(1)	3942.0	3810.8	0.0
24(1)	6(1)	2587.7	2548.9	0.0
24(1)	7(1)	2438.0	2391.1	0.0
24(1)	8(1)	2401.0	2362.3	0.0
24(1)	9(1)	2309.2	2272.2	0.0
24(1)	10(1)	2261.4	2225.9	0.0
24(1)	11(1)	2140.5	2108.0	0.0
24(1)	12(1)	2136.3	2092.6	0.0
24(1)	13(1)	2106.0	2070.3	0.0
24(1)	14(1)	2047.3	2018.2	0.0
24(1)	15(1)	2012.6	1981.6	0.0
24(1)	16(1)	1980.0	1953.0	0.0
24(1)	17(1)	1936.0	1909.3	0.0
24(1)	18(1)	1918.6	1892.5	0.0
24(1)	19(1)	1864.4	1832.8	0.0
24(1)	20(1)	1775.6	1756.0	0.9

24(1)	21(1)	1758.0	1740.9	0.0
24(1)	22(1)	1647.0	1647.4	0.3
24(1)	23(1)	1616.5	1606.4	2.7
25(1)	1(1)	4576.2	4383.0	0.0
25(1)	2(1)	4519.7	4327.9	0.5
25(1)	3(1)	3982.6	3847.5	0.1
25(1)	4(1)	3973.5	3837.5	0.0
25(1)	5(1)	3933.5	3796.0	0.0
25(1)	6(1)	2579.3	2530.6	0.1
25(1)	7(1)	2429.6	2374.6	0.2
25(1)	8(1)	2392.5	2346.0	0.0
25(1)	9(1)	2300.7	2256.0	0.2
25(1)	10(1)	2252.9	2208.8	0.1
25(1)	11(1)	2132.0	2088.0	0.5
25(1)	12(1)	2127.8	2074.5	0.6
25(1)	13(1)	2097.5	2054.6	0.1
25(1)	14(1)	2038.8	2001.8	0.4
25(1)	15(1)	2004.1	1968.3	1.7
25(1)	16(1)	1971.5	1935.3	0.5
25(1)	17(1)	1927.5	1893.3	1.2
25(1)	18(1)	1910.1	1875.7	0.9
25(1)	19(1)	1855.9	1814.9	0.3
25(1)	20(1)	1767.1	1739.0	0.0
25(1)	21(1)	1749.5	1724.2	0.1
25(1)	22(1)	1638.5	1628.6	0.0
25(1)	23(1)	1608.1	1588.3	0.0
25(1)	24(1)	1541.1	1528.4	0.0
26(1)	1(1)	4560.3	4366.3	0.0
26(1)	2(1)	4503.9	4313.0	0.0
26(1)	3(1)	3966.8	3831.2	0.0
26(1)	4(1)	3957.6	3819.9	0.2
26(1)	5(1)	3917.6	3779.5	0.1
26(1)	6(1)	2563.4	2517.5	0.0
26(1)	7(1)	2413.7	2357.1	0.8
26(1)	8(1)	2376.6	2328.6	0.4
26(1)	9(1)	2284.8	2237.9	0.1
26(1)	10(1)	2237.0	2191.3	0.1
26(1)	11(1)	2116.1	2069.4	0.1
26(1)	12(1)	2111.9	2060.0	0.1
26(1)	13(1)	2081.7	2036.6	0.7

26(1)	14(1)	2022.9	1983.6	0.2
26(1)	15(1)	1988.2	1951.5	0.0
26(1)	16(1)	1955.6	1918.1	0.1
26(1)	17(1)	1911.7	1875.8	0.4
26(1)	18(1)	1894.3	1859.3	0.2
26(1)	19(1)	1840.1	1799.9	1.0
26(1)	20(1)	1751.2	1722.0	0.0
26(1)	21(1)	1733.7	1707.4	0.2
26(1)	22(1)	1622.6	1611.8	0.0
26(1)	23(1)	1592.2	1571.4	0.0
26(1)	24(1)	1525.3	1511.9	0.0
26(1)	25(1)	1516.8	1495.4	0.2
27(1)	1(1)	4503.3	4318.7	0.0
27(1)	2(1)	4446.8	4265.5	0.0
27(1)	3(1)	3909.7	3781.8	0.0
27(1)	4(1)	3900.6	3773.0	0.0
27(1)	5(1)	3860.6	3730.7	0.0
27(1)	6(1)	2506.4	2469.2	0.0
27(1)	7(1)	2356.7	2309.5	0.0
27(1)	8(1)	2319.6	2280.9	0.0
27(1)	9(1)	2227.8	2191.1	0.0
27(1)	10(1)	2180.0	2144.7	0.0
27(1)	11(1)	2059.1	2023.5	0.0
27(1)	12(1)	2054.9	2012.4	0.0
27(1)	13(1)	2024.6	1990.1	0.0
27(1)	14(1)	1965.9	1937.7	0.0
27(1)	15(1)	1931.2	1903.5	0.0
27(1)	16(1)	1898.6	1871.2	0.0
27(1)	17(1)	1854.6	1828.4	0.0
27(1)	18(1)	1837.2	1810.5	0.0
27(1)	19(1)	1783.0	1753.1	0.0
27(1)	20(1)	1694.2	1676.7	0.2
27(1)	21(1)	1676.6	1659.0	0.0
27(1)	22(1)	1565.6	1567.3	0.6
27(1)	23(1)	1535.2	1525.3	0.3
27(1)	24(1)	1468.2	1467.2	6.1
27(1)	25(1)	1459.7	1448.1	0.0
27(1)	26(1)	1443.9	1431.0	0.0
28(1)	1(1)	4452.1	4259.3	0.0
28(1)	2(1)	4395.7	4206.3	0.1

28(1)	3(1)	3858.6	3723.7	0.0
28(1)	4(1)	3849.4	3713.7	0.0
28(1)	5(1)	3809.4	3671.2	0.0
28(1)	6(1)	2455.2	2410.4	0.0
28(1)	7(1)	2305.5	2250.8	0.0
28(1)	8(1)	2268.4	2221.3	0.0
28(1)	9(1)	2176.7	2133.8	0.0
28(1)	10(1)	2128.8	2083.0	0.0
28(1)	11(1)	2008.0	1964.0	0.0
28(1)	12(1)	2003.8	1953.2	0.0
28(1)	13(1)	1973.5	1930.0	0.0
28(1)	14(1)	1914.7	1878.7	0.0
28(1)	15(1)	1880.1	1847.2	0.0
28(1)	16(1)	1847.4	1812.1	0.0
28(1)	17(1)	1803.5	1767.9	0.0
28(1)	18(1)	1786.1	1753.0	0.0
28(1)	19(1)	1731.9	1692.1	0.0
28(1)	20(1)	1643.1	1615.3	9.6
28(1)	21(1)	1625.5	1599.8	0.0
28(1)	22(1)	1514.5	1505.8	1.0
28(1)	23(1)	1484.0	1466.6	0.9
28(1)	24(1)	1417.1	1407.2	3.3
28(1)	25(1)	1408.6	1388.5	0.0
28(1)	26(1)	1392.7	1371.7	0.0
28(1)	27(1)	1335.7	1325.7	12.3
29(1)	1(1)	4428.3	4238.6	0.0
29(1)	2(1)	4371.8	4185.3	0.1
29(1)	3(1)	3834.7	3703.3	0.1
29(1)	4(1)	3825.6	3693.3	0.0
29(1)	5(1)	3785.6	3651.8	0.0
29(1)	6(1)	2431.4	2388.0	0.0
29(1)	7(1)	2281.7	2229.9	0.0
29(1)	8(1)	2244.6	2201.4	0.0
29(1)	9(1)	2152.8	2110.7	0.0
29(1)	10(1)	2105.0	2064.6	0.0
29(1)	11(1)	1984.1	1942.8	0.0
29(1)	12(1)	1979.9	1931.4	0.0
29(1)	13(1)	1949.6	1909.9	0.0
29(1)	14(1)	1890.9	1857.7	0.1
29(1)	15(1)	1856.2	1824.2	0.0

29(1)	16(1)	1823.6	1790.9	0.7
29(1)	17(1)	1779.7	1749.0	0.9
29(1)	18(1)	1762.2	1731.7	0.3
29(1)	19(1)	1708.1	1672.2	0.2
29(1)	20(1)	1619.2	1594.8	0.0
29(1)	21(1)	1601.6	1581.1	0.0
29(1)	22(1)	1490.6	1484.6	0.0
29(1)	23(1)	1460.2	1444.4	0.0
29(1)	24(1)	1393.2	1384.9	0.0
29(1)	25(1)	1384.8	1369.9	40.8
29(1)	26(1)	1368.9	1353.5	47.4
29(1)	27(1)	1311.9	1304.5	0.0
29(1)	28(1)	1260.7	1244.3	0.0
30(1)	1(1)	4401.0	4212.5	0.0
30(1)	2(1)	4344.5	4158.5	0.4
30(1)	3(1)	3807.4	3677.1	0.0
30(1)	4(1)	3798.3	3666.9	0.0
30(1)	5(1)	3758.3	3625.3	0.0
30(1)	6(1)	2404.1	2361.8	0.0
30(1)	7(1)	2254.4	2203.2	0.0
30(1)	8(1)	2217.3	2175.0	0.0
30(1)	9(1)	2125.5	2084.0	0.1
30(1)	10(1)	2077.7	2038.0	0.0
30(1)	11(1)	1956.8	1917.7	0.1
30(1)	12(1)	1952.6	1906.1	0.4
30(1)	13(1)	1922.3	1883.5	0.1
30(1)	14(1)	1863.6	1831.3	1.1
30(1)	15(1)	1828.9	1799.5	35.2
30(1)	16(1)	1796.3	1764.4	1.2
30(1)	17(1)	1752.4	1722.3	0.5
30(1)	18(1)	1734.9	1706.1	0.7
30(1)	19(1)	1680.8	1645.9	3.4
30(1)	20(1)	1591.9	1568.3	0.0
30(1)	21(1)	1574.3	1553.2	0.9
30(1)	22(1)	1463.3	1458.0	0.0
30(1)	23(1)	1432.9	1417.8	0.0
30(1)	24(1)	1365.9	1358.2	0.0
30(1)	25(1)	1357.5	1342.7	0.1
30(1)	26(1)	1341.6	1324.7	5.4
30(1)	27(1)	1284.6	1277.5	0.0

30(1)	28(1)	1233.4	1217.8	0.0
30(1)	29(1)	1209.6	1197.5	0.7
31(1)	1(1)	4379.1	4176.1	0.0
31(1)	2(1)	4322.7	4128.9	0.7
31(1)	3(1)	3785.6	3640.8	0.0
31(1)	4(1)	3776.4	3630.8	0.0
31(1)	5(1)	3736.4	3589.2	0.0
31(1)	6(1)	2382.2	2327.5	0.0
31(1)	7(1)	2232.5	2167.9	0.0
31(1)	8(1)	2195.5	2139.7	0.0
31(1)	9(1)	2103.7	2049.2	0.0
31(1)	10(1)	2055.8	2002.8	0.0
31(1)	11(1)	1935.0	1883.8	0.1
31(1)	12(1)	1930.8	1865.4	0.2
31(1)	13(1)	1900.5	1846.3	0.0
31(1)	14(1)	1841.7	1799.2	0.0
31(1)	15(1)	1807.1	1768.5	0.0
31(1)	16(1)	1774.4	1733.7	0.0
31(1)	17(1)	1730.5	1685.8	0.0
31(1)	18(1)	1713.1	1667.9	0.0
31(1)	19(1)	1658.9	1595.7	0.0
31(1)	20(1)	1570.1	1532.6	0.2
31(1)	21(1)	1552.5	1517.9	0.0
31(1)	22(1)	1441.5	1424.4	0.4
31(1)	23(1)	1411.0	1384.3	12.5
31(1)	24(1)	1344.1	1335.6	7.0
31(1)	25(1)	1335.6	1305.5	0.0
31(1)	26(1)	1319.7	1289.0	0.0
31(1)	27(1)	1262.7	1240.8	2.0
31(1)	28(1)	1211.6	1172.3	0.1
31(1)	29(1)	1187.7	1161.3	0.0
31(1)	30(1)	1160.4	1134.3	0.0
32(1)	1(1)	4336.5	4148.4	0.0
32(1)	2(1)	4280.0	4095.1	0.1
32(1)	3(1)	3742.9	3613.4	0.0
32(1)	4(1)	3733.8	3603.0	0.0
32(1)	5(1)	3693.8	3561.4	0.0
32(1)	6(1)	2339.6	2299.6	0.0
32(1)	7(1)	2189.9	2136.5	0.3
32(1)	8(1)	2152.8	2112.7	0.0

32(1)	9(1)	2061.0	2021.1	0.0
32(1)	10(1)	2013.2	1972.4	0.1
32(1)	11(1)	1892.3	1854.2	0.0
32(1)	12(1)	1888.1	1842.9	0.0
32(1)	13(1)	1857.8	1820.1	0.1
32(1)	14(1)	1799.1	1766.5	0.2
32(1)	15(1)	1764.4	1734.0	0.6
32(1)	16(1)	1731.8	1700.6	0.7
32(1)	17(1)	1687.9	1658.6	1.6
32(1)	18(1)	1670.4	1644.9	101.5
32(1)	19(1)	1616.3	1581.2	4.8
32(1)	20(1)	1527.4	1504.6	0.0
32(1)	21(1)	1509.8	1490.2	8.9
32(1)	22(1)	1398.8	1393.9	0.0
32(1)	23(1)	1368.4	1354.0	0.0
32(1)	24(1)	1301.4	1294.3	0.0
32(1)	25(1)	1293.0	1277.8	1.6
32(1)	26(1)	1277.1	1262.0	4.7
32(1)	27(1)	1220.0	1213.4	0.0
32(1)	28(1)	1168.9	1153.9	0.0
32(1)	29(1)	1145.1	1134.2	67.4
32(1)	30(1)	1117.8	1107.2	0.4
32(1)	31(1)	1095.9	1071.2	0.0
33(1)	1(1)	4282.1	4092.1	0.0
33(1)	2(1)	4225.6	4039.1	0.0
33(1)	3(1)	3688.5	3556.8	0.0
33(1)	4(1)	3679.4	3546.0	0.0
33(1)	5(1)	3639.4	3505.0	0.0
33(1)	6(1)	2285.2	2243.4	0.0
33(1)	7(1)	2135.5	2083.1	0.0
33(1)	8(1)	2098.4	2054.8	0.0
33(1)	9(1)	2006.6	1964.7	0.0
33(1)	10(1)	1958.8	1919.3	0.0
33(1)	11(1)	1837.9	1797.2	0.0
33(1)	12(1)	1833.7	1786.4	0.0
33(1)	13(1)	1803.4	1765.3	0.0
33(1)	14(1)	1744.7	1711.1	0.0
33(1)	15(1)	1710.0	1675.2	0.0
33(1)	16(1)	1677.4	1644.4	0.0
33(1)	17(1)	1633.5	1602.0	0.0

33(1)	18(1)	1616.0	1584.6	0.0
33(1)	19(1)	1561.9	1525.5	0.0
33(1)	20(1)	1473.0	1446.4	11.1
33(1)	21(1)	1455.4	1433.6	0.0
33(1)	22(1)	1344.4	1337.5	1.6
33(1)	23(1)	1314.0	1296.2	6.2
33(1)	24(1)	1247.0	1240.3	12.4
33(1)	25(1)	1238.6	1221.4	0.0
33(1)	26(1)	1222.7	1204.5	0.0
33(1)	27(1)	1165.6	1159.8	15.7
33(1)	28(1)	1114.5	1096.9	6.0
33(1)	29(1)	1090.7	1077.5	0.0
33(1)	30(1)	1063.4	1050.8	0.0
33(1)	31(1)	1041.5	1015.0	0.3
33(1)	32(1)	998.9	987.1	0.0
34(1)	1(1)	4225.8	4039.3	0.0
34(1)	2(1)	4169.3	3987.0	0.2
34(1)	3(1)	3632.3	3504.3	0.0
34(1)	4(1)	3623.1	3494.0	0.0
34(1)	5(1)	3583.1	3452.4	0.0
34(1)	6(1)	2228.9	2190.6	0.0
34(1)	7(1)	2079.2	2030.6	0.0
34(1)	8(1)	2042.1	2002.8	0.0
34(1)	9(1)	1950.3	1912.1	0.0
34(1)	10(1)	1902.5	1865.1	0.1
34(1)	11(1)	1781.6	1745.4	6.8
34(1)	12(1)	1777.4	1733.2	2.1
34(1)	13(1)	1747.1	1710.7	0.6
34(1)	14(1)	1688.4	1658.3	0.7
34(1)	15(1)	1653.7	1624.6	0.3
34(1)	16(1)	1621.1	1591.2	6.8
34(1)	17(1)	1577.2	1549.5	0.1
34(1)	18(1)	1559.7	1533.0	0.1
34(1)	19(1)	1505.6	1473.1	0.0
34(1)	20(1)	1416.7	1395.3	0.0
34(1)	21(1)	1399.1	1380.8	0.7
34(1)	22(1)	1288.1	1285.1	0.0
34(1)	23(1)	1257.7	1245.0	0.0
34(1)	24(1)	1190.7	1185.2	0.0
34(1)	25(1)	1182.3	1168.3	0.7

34(1)	26(1)	1166.4	1151.9	3.0
34(1)	27(1)	1109.4	1104.3	0.0
34(1)	28(1)	1058.2	1045.0	0.0
34(1)	29(1)	1034.4	1024.3	0.0
34(1)	30(1)	1007.1	998.1	0.0
34(1)	31(1)	985.2	960.4	0.0
34(1)	32(1)	942.6	934.4	0.0
34(1)	33(1)	888.2	877.0	0.1
35(1)	1(1)	4204.9	3987.3	1.4
35(1)	2(1)	4148.5	3942.4	0.0
35(1)	3(1)	3611.4	3460.7	0.0
35(1)	4(1)	3602.2	3450.3	0.0
35(1)	5(1)	3562.2	3412.3	0.0
35(1)	6(1)	2208.0	2147.6	0.0
35(1)	7(1)	2058.3	1987.4	0.0
35(1)	8(1)	2021.3	1957.6	0.0
35(1)	9(1)	1929.5	1868.3	0.0
35(1)	10(1)	1881.6	1819.2	0.0
35(1)	11(1)	1760.8	1702.2	0.0
35(1)	12(1)	1756.6	1690.0	0.0
35(1)	13(1)	1726.3	1662.9	0.0
35(1)	14(1)	1667.6	1616.3	0.0
35(1)	15(1)	1632.9	1581.3	0.0
35(1)	16(1)	1600.2	1552.2	0.0
35(1)	17(1)	1556.3	1504.9	0.0
35(1)	18(1)	1538.9	1488.0	0.0
35(1)	19(1)	1484.7	1430.7	0.0
35(1)	20(1)	1395.9	1353.4	0.1
35(1)	21(1)	1378.3	1337.0	0.0
35(1)	22(1)	1267.3	1241.7	0.7
35(1)	23(1)	1236.8	1206.1	12.7
35(1)	24(1)	1169.9	1141.4	4.8
35(1)	25(1)	1161.4	1124.9	0.0
35(1)	26(1)	1145.5	1106.1	0.0
35(1)	27(1)	1088.5	1059.6	20.3
35(1)	28(1)	1037.4	999.5	2.2
35(1)	29(1)	1013.5	980.7	0.0
35(1)	30(1)	986.2	953.7	0.0
35(1)	31(1)	964.4	917.7	0.3
35(1)	32(1)	921.7	890.4	0.1

35(1)	33(1)	867.3	833.5	0.5
35(1)	34(1)	811.0	781.0	0.0
36(1)	1(1)	4173.9	3988.5	0.0
36(1)	2(1)	4117.4	3935.9	0.1
36(1)	3(1)	3580.3	3453.5	0.0
36(1)	4(1)	3571.2	3443.1	0.0
36(1)	5(1)	3531.2	3401.7	0.0
36(1)	6(1)	2177.0	2140.1	0.0
36(1)	7(1)	2027.3	1980.0	0.3
36(1)	8(1)	1990.2	1951.8	0.0
36(1)	9(1)	1898.4	1861.3	0.1
36(1)	10(1)	1850.6	1814.2	0.2
36(1)	11(1)	1729.7	1694.5	1.5
36(1)	12(1)	1725.5	1682.6	0.9
36(1)	13(1)	1695.2	1659.9	1.5
36(1)	14(1)	1636.5	1607.4	0.7
36(1)	15(1)	1601.8	1574.2	0.9
36(1)	16(1)	1569.2	1540.7	0.2
36(1)	17(1)	1525.3	1498.9	0.1
36(1)	18(1)	1507.8	1482.3	0.7
36(1)	19(1)	1453.7	1422.2	1.2
36(1)	20(1)	1364.8	1344.7	0.0
36(1)	21(1)	1347.2	1330.5	2.4
36(1)	22(1)	1236.2	1234.2	0.0
36(1)	23(1)	1205.8	1194.2	0.0
36(1)	24(1)	1138.8	1134.5	0.0
36(1)	25(1)	1130.3	1117.3	0.4
36(1)	26(1)	1114.5	1101.0	0.1
36(1)	27(1)	1057.4	1053.6	0.0
36(1)	28(1)	1006.3	994.2	0.0
36(1)	29(1)	982.5	973.1	36.0
36(1)	30(1)	955.2	947.1	0.0
36(1)	31(1)	933.3	910.0	0.0
36(1)	32(1)	890.7	883.5	0.0
36(1)	33(1)	836.3	827.1	0.0
36(1)	34(1)	780.0	774.7	0.0
36(1)	35(1)	759.1	730.8	0.0
37(1)	1(1)	4144.5	3957.6	0.0
37(1)	2(1)	4088.1	3905.5	0.8
37(1)	3(1)	3551.0	3422.3	0.0

37(1)	4(1)	3541.8	3412.2	0.0
37(1)	5(1)	3501.9	3370.6	0.0
37(1)	6(1)	2147.6	2108.5	0.0
37(1)	7(1)	1997.9	1948.4	0.0
37(1)	8(1)	1960.9	1920.5	0.0
37(1)	9(1)	1869.1	1829.4	0.2
37(1)	10(1)	1821.3	1783.0	0.4
37(1)	11(1)	1700.4	1664.2	2.7
37(1)	12(1)	1696.2	1652.1	5.7
37(1)	13(1)	1665.9	1629.1	11.6
37(1)	14(1)	1607.2	1575.8	0.3
37(1)	15(1)	1572.5	1543.1	0.1
37(1)	16(1)	1539.8	1510.5	1.7
37(1)	17(1)	1495.9	1467.9	4.8
37(1)	18(1)	1478.5	1450.8	7.1
37(1)	19(1)	1424.3	1391.0	0.1
37(1)	20(1)	1335.5	1313.7	0.0
37(1)	21(1)	1317.9	1298.5	0.4
37(1)	22(1)	1206.9	1203.1	0.0
37(1)	23(1)	1176.4	1162.9	0.0
37(1)	24(1)	1109.5	1103.3	0.0
37(1)	25(1)	1101.0	1087.0	0.3
37(1)	26(1)	1085.1	1069.9	0.2
37(1)	27(1)	1028.1	1022.5	0.0
37(1)	28(1)	977.0	963.1	0.0
37(1)	29(1)	953.1	942.6	0.0
37(1)	30(1)	925.8	916.4	0.0
37(1)	31(1)	904.0	878.4	0.0
37(1)	32(1)	861.3	852.1	0.0
37(1)	33(1)	806.9	796.1	0.0
37(1)	34(1)	750.6	743.2	0.2
37(1)	35(1)	729.8	699.6	0.0
37(1)	36(1)	698.7	692.2	0.0
38(1)	1(1)	4104.6	3921.4	0.0
38(1)	2(1)	4048.1	3868.8	0.0
38(1)	3(1)	3511.0	3386.3	0.0
38(1)	4(1)	3501.9	3376.0	0.0
38(1)	5(1)	3461.9	3334.5	0.0
38(1)	6(1)	2107.7	2072.6	0.0
38(1)	7(1)	1958.0	1913.2	0.0

38(1)	8(1)	1920.9	1884.6	0.0
38(1)	9(1)	1829.1	1794.2	0.0
38(1)	10(1)	1781.3	1747.3	0.0
38(1)	11(1)	1660.4	1627.4	0.0
38(1)	12(1)	1656.2	1615.8	0.0
38(1)	13(1)	1625.9	1593.5	0.0
38(1)	14(1)	1567.2	1539.6	0.0
38(1)	15(1)	1532.5	1507.1	0.0
38(1)	16(1)	1499.9	1474.0	0.0
38(1)	17(1)	1455.9	1430.1	0.0
38(1)	18(1)	1438.5	1415.4	0.0
38(1)	19(1)	1384.3	1355.7	0.0
38(1)	20(1)	1295.5	1278.7	2.8
38(1)	21(1)	1277.9	1262.8	0.0
38(1)	22(1)	1166.9	1168.2	13.9
38(1)	23(1)	1136.5	1126.1	26.7
38(1)	24(1)	1069.5	1067.8	0.4
38(1)	25(1)	1061.0	1050.8	0.0
38(1)	26(1)	1045.2	1034.1	0.0
38(1)	27(1)	988.1	986.8	0.9
38(1)	28(1)	937.0	927.5	0.5
38(1)	29(1)	913.2	906.6	0.0
38(1)	30(1)	885.9	881.9	0.0
38(1)	31(1)	864.0	845.1	0.9
38(1)	32(1)	821.4	816.1	0.0
38(1)	33(1)	767.0	762.1	0.0
38(1)	34(1)	710.7	708.9	0.0
38(1)	35(1)	689.8	665.2	0.3
38(1)	36(1)	658.7	658.0	0.0
38(1)	37(1)	629.4	625.3	0.0
39(1)	1(1)	4038.2	3851.6	0.1
39(1)	2(1)	3981.7	3798.8	0.0
39(1)	3(1)	3444.7	3316.4	0.0
39(1)	4(1)	3435.5	3306.2	0.0
39(1)	5(1)	3395.5	3264.8	0.0
39(1)	6(1)	2041.3	2003.1	0.0
39(1)	7(1)	1891.6	1843.4	0.0
39(1)	8(1)	1854.5	1815.1	0.0
39(1)	9(1)	1762.7	1724.7	0.0
39(1)	10(1)	1714.9	1677.6	0.0

39(1)	11(1)	1594.0	1557.7	0.0
39(1)	12(1)	1589.8	1545.9	0.0
39(1)	13(1)	1559.5	1523.4	0.2
39(1)	14(1)	1500.8	1470.7	0.0
39(1)	15(1)	1466.1	1437.3	0.0
39(1)	16(1)	1433.5	1403.8	0.1
39(1)	17(1)	1389.6	1361.6	0.0
39(1)	18(1)	1372.1	1345.3	0.0
39(1)	19(1)	1318.0	1285.6	0.0
39(1)	20(1)	1229.1	1207.8	0.4
39(1)	21(1)	1211.5	1193.1	0.0
39(1)	22(1)	1100.5	1098.0	0.0
39(1)	23(1)	1070.1	1057.0	0.1
39(1)	24(1)	1003.1	997.8	0.0
39(1)	25(1)	994.7	981.0	0.0
39(1)	26(1)	978.8	964.8	0.0
39(1)	27(1)	921.8	916.8	0.1
39(1)	28(1)	870.6	857.1	0.0
39(1)	29(1)	846.8	837.1	0.4
39(1)	30(1)	819.5	811.0	0.0
39(1)	31(1)	797.6	774.3	0.0
39(1)	32(1)	755.0	748.2	0.0
39(1)	33(1)	700.6	689.9	0.0
39(1)	34(1)	644.3	637.3	0.0
39(1)	35(1)	623.4	594.5	0.3
39(1)	36(1)	592.4	586.3	0.0
39(1)	37(1)	563.0	555.4	0.0
39(1)	38(1)	523.1	519.1	0.5
40(1)	1(1)	4030.7	3845.2	0.0
40(1)	2(1)	3974.3	3792.8	1.2
40(1)	3(1)	3437.2	3309.9	0.0
40(1)	4(1)	3428.0	3300.1	0.0
40(1)	5(1)	3388.0	3258.2	0.0
40(1)	6(1)	2033.8	1996.0	0.2
40(1)	7(1)	1884.1	1837.5	0.0
40(1)	8(1)	1847.1	1808.5	0.2
40(1)	9(1)	1755.3	1718.0	0.3
40(1)	10(1)	1707.4	1671.3	3.0
40(1)	11(1)	1586.6	1550.5	2.7
40(1)	12(1)	1582.4	1537.3	0.6

40(1)	13(1)	1552.1	1517.0	0.1
40(1)	14(1)	1493.3	1463.8	0.1
40(1)	15(1)	1458.7	1431.0	0.5
40(1)	16(1)	1426.0	1397.3	0.6
40(1)	17(1)	1382.1	1355.3	0.3
40(1)	18(1)	1364.7	1339.6	372.6
40(1)	19(1)	1310.5	1279.1	0.2
40(1)	20(1)	1221.7	1201.4	0.0
40(1)	21(1)	1204.1	1187.0	0.4
40(1)	22(1)	1093.1	1090.7	0.0
40(1)	23(1)	1062.6	1050.6	0.0
40(1)	24(1)	995.7	990.8	0.0
40(1)	25(1)	987.2	974.6	1.4
40(1)	26(1)	971.3	957.6	0.1
40(1)	27(1)	914.3	910.2	0.0
40(1)	28(1)	863.2	850.6	0.0
40(1)	29(1)	839.3	830.1	0.0
40(1)	30(1)	812.0	804.3	0.0
40(1)	31(1)	790.2	765.7	0.1
40(1)	32(1)	747.5	739.8	0.0
40(1)	33(1)	693.1	683.2	0.0
40(1)	34(1)	636.8	631.2	0.4
40(1)	35(1)	616.0	587.8	0.0
40(1)	36(1)	584.9	580.0	0.0
40(1)	37(1)	555.6	548.9	0.5
40(1)	38(1)	515.6	513.3	0.0
40(1)	39(1)	449.2	442.7	0.0
41(1)	1(1)	3910.4	3727.7	0.0
41(1)	2(1)	3854.0	3674.8	0.1
41(1)	3(1)	3316.9	3192.5	0.0
41(1)	4(1)	3307.7	3182.1	0.0
41(1)	5(1)	3267.7	3140.8	0.0
41(1)	6(1)	1913.5	1878.9	0.2
41(1)	7(1)	1763.8	1719.7	0.1
41(1)	8(1)	1726.7	1691.1	0.0
41(1)	9(1)	1635.0	1600.8	0.1
41(1)	10(1)	1587.1	1553.7	0.0
41(1)	11(1)	1466.3	1433.7	0.0
41(1)	12(1)	1462.1	1422.1	0.0
41(1)	13(1)	1431.8	1399.6	0.1

41(1)	14(1)	1373.0	1346.8	0.0
41(1)	15(1)	1338.4	1313.4	0.0
41(1)	16(1)	1305.7	1279.9	0.0
41(1)	17(1)	1261.8	1237.8	0.0
41(1)	18(1)	1244.4	1221.2	0.0
41(1)	19(1)	1190.2	1161.6	0.0
41(1)	20(1)	1101.4	1083.4	0.0
41(1)	21(1)	1083.8	1069.1	0.0
41(1)	22(1)	972.8	972.9	0.1
41(1)	23(1)	942.3	933.1	0.1
41(1)	24(1)	875.4	873.8	0.1
41(1)	25(1)	866.9	857.2	0.0
41(1)	26(1)	851.0	840.4	0.0
41(1)	27(1)	794.0	792.4	0.1
41(1)	28(1)	742.8	733.0	0.0
41(1)	29(1)	719.0	713.6	0.0
41(1)	30(1)	691.7	686.7	0.0
41(1)	31(1)	669.8	650.1	0.3
41(1)	32(1)	627.2	622.7	0.0
41(1)	33(1)	572.8	565.8	0.1
41(1)	34(1)	516.5	514.3	0.0
41(1)	35(1)	495.7	470.6	0.3
41(1)	36(1)	464.6	462.7	0.0
41(1)	37(1)	435.3	431.8	0.0
41(1)	38(1)	395.3	395.3	0.4
41(1)	39(1)	328.9	325.5	0.0
41(1)	40(1)	321.4	319.2	0.0
42(1)	1(1)	3874.1	3691.6	0.0
42(1)	2(1)	3817.7	3641.2	0.0
42(1)	3(1)	3280.6	3156.8	0.0
42(1)	4(1)	3271.4	3146.3	0.0
42(1)	5(1)	3231.5	3104.9	0.0
42(1)	6(1)	1877.2	1843.6	0.8
42(1)	7(1)	1727.5	1684.3	0.0
42(1)	8(1)	1690.5	1656.0	0.0
42(1)	9(1)	1598.7	1565.3	0.0
42(1)	10(1)	1550.9	1518.2	0.0
42(1)	11(1)	1430.0	1397.8	0.5
42(1)	12(1)	1425.8	1385.4	0.8
42(1)	13(1)	1395.5	1363.8	0.0

42(1)	14(1)	1336.8	1311.3	0.0
42(1)	15(1)	1302.1	1277.5	0.0
42(1)	16(1)	1269.4	1244.4	0.0
42(1)	17(1)	1225.5	1202.1	0.0
42(1)	18(1)	1208.1	1185.4	0.0
42(1)	19(1)	1153.9	1126.2	0.2
42(1)	20(1)	1065.1	1046.6	0.0
42(1)	21(1)	1047.5	1034.0	0.0
42(1)	22(1)	936.5	937.4	0.0
42(1)	23(1)	906.0	897.4	0.0
42(1)	24(1)	839.1	838.7	0.1
42(1)	25(1)	830.6	821.6	0.0
42(1)	26(1)	814.7	804.9	0.0
42(1)	27(1)	757.7	758.2	0.1
42(1)	28(1)	706.6	697.1	0.0
42(1)	29(1)	682.7	676.1	1.0
42(1)	30(1)	655.4	650.3	0.3
42(1)	31(1)	633.6	615.7	0.3
42(1)	32(1)	590.9	586.8	0.0
42(1)	33(1)	536.5	529.6	0.3
42(1)	34(1)	480.2	478.8	0.2
42(1)	35(1)	459.4	431.6	0.0
42(1)	36(1)	428.3	429.3	0.0
42(1)	37(1)	399.0	394.4	0.0
42(1)	38(1)	359.0	356.2	2.5
42(1)	39(1)	292.6	287.6	0.0
42(1)	40(1)	285.2	282.0	0.0
42(1)	41(1)	164.9	165.9	0.0

Table S19. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **D2** as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm^{-1})	ν_{anharm} (cm^{-1})	I_{harm} (km mol^{-1})	I_{anharm} (km mol^{-1})
1(1)	3811.9	3636.2	87.4	72.6
2(1)	3798.7	3611.4	31.0	26.1
3(1)	3214.5	3084.8	0.3	0.1
4(1)	3180.0	3043.2	4.4	5.5
5(1)	3164.4	3037.4	8.1	6.3
6(1)	1837.4	1804.5	357.5	272.8
7(1)	1661.8	1615.7	220.6	71.0
8(1)	1623.6	1586.7	96.7	65.1
9(1)	1537.9	1499.2	44.1	30.8
10(1)	1490.1	1454.9	54.5	15.5
11(1)	1360.8	1328.4	21.7	0.7
12(1)	1341.8	1311.1	40.9	19.2
13(1)	1302.0	1267.7	587.6	214.0
14(1)	1282.6	1260.2	15.4	23.7
15(1)	1228.1	1211.2	26.1	31.6
16(1)	1202.4	1176.5	27.4	20.0
17(1)	1178.2	1156.7	42.5	16.4
18(1)	1150.4	1127.7	201.0	103.9
19(1)	1071.1	1049.5	49.6	47.3
20(1)	991.5	975.1	36.2	38.8
21(1)	965.9	952.9	2.7	1.4
22(1)	885.2	881.2	29.9	34.2
23(1)	828.5	820.0	12.1	10.0
24(1)	781.4	774.1	20.9	13.5
25(1)	763.9	751.8	8.7	8.5
26(1)	752.1	739.7	10.4	4.3
27(1)	710.1	705.3	8.5	11.9
28(1)	650.1	641.5	8.7	8.2
29(1)	600.6	594.2	16.4	16.4
30(1)	584.0	576.2	1.9	3.1
31(1)	525.5	520.0	4.3	4.1
32(1)	498.4	454.7	92.2	81.9
33(1)	473.8	466.9	0.9	1.5
34(1)	431.0	425.7	13.4	16.5
35(1)	385.2	375.5	97.8	92.1
36(1)	362.6	361.3	3.0	2.8
37(1)	308.6	305.1	1.7	1.5

38(1)	267.3	264.7	5.0	4.8
39(1)	227.6	225.9	1.2	0.9
40(1)	178.4	177.0	3.0	2.8
41(1)	95.2	93.2	1.8	1.6
42(1)	62.3	60.9	3.4	3.8
1(2)	7623.8	7107.5		6.1
2(2)	7597.3	7054.7		3.1
3(2)	6429.0	6070.1		0.7
4(2)	6360.0	6054.7		0.3
5(2)	6328.7	6030.5		0.8
6(2)	3674.7	3587.9		5.1
7(2)	3323.6	3234.7		0.5
8(2)	3247.3	3168.2		0.7
9(2)	3075.9	2996.4		0.1
10(2)	2980.2	2908.4		0.1
11(2)	2721.6	2662.0		1.8
12(2)	2683.5	2618.2		0.8
13(2)	2604.1	2519.6		0.1
14(2)	2565.3	2516.6		0.2
15(2)	2456.2	2400.5		1.8
16(2)	2404.8	2336.9		0.8
17(2)	2356.4	2312.1		0.2
18(2)	2300.9	2255.0		0.2
19(2)	2142.3	2094.3		1.5
20(2)	1983.1	1949.0		0.3
21(2)	1931.7	1905.5		3.7
22(2)	1770.4	1764.7		1.1
23(2)	1657.0	1641.0		2.3
24(2)	1562.8	1548.6		0.9
25(2)	1527.8	1502.6		1.1
26(2)	1504.2	1479.2		0.5
27(2)	1420.1	1406.6		0.1
28(2)	1300.2	1282.7		89.1
29(2)	1201.2	1187.6		14.1
30(2)	1168.1	1151.6		0.4
31(2)	1050.9	1039.8		0.1
32(2)	996.9	873.2		1.2
33(2)	947.7	934.1		0.1
34(2)	862.0	850.6		0.1
35(2)	770.3	739.1		14.9

36(2)		725.2	717.3	0.1
37(2)		617.2	610.0	0.1
38(2)		534.6	529.2	0.3
39(2)		455.3	451.4	0.3
40(2)		356.8	354.1	0.1
41(2)		190.4	186.5	0.0
42(2)		124.6	120.3	0.0
2(1)	1(1)	7610.6	7247.3	0.0
3(1)	1(1)	7026.4	6725.4	0.0
3(1)	2(1)	7013.1	6700.7	0.0
4(1)	1(1)	6991.9	6693.2	0.0
4(1)	2(1)	6978.7	6668.6	0.0
4(1)	3(1)	6394.5	6146.7	0.0
5(1)	1(1)	6976.3	6680.7	0.0
5(1)	2(1)	6963.0	6656.7	0.0
5(1)	3(1)	6378.8	6134.7	0.0
5(1)	4(1)	6344.4	5999.4	0.2
6(1)	1(1)	5649.3	5439.7	0.0
6(1)	2(1)	5636.0	5411.8	0.1
6(1)	3(1)	5051.8	4892.9	0.0
6(1)	4(1)	5017.4	4861.2	0.0
6(1)	5(1)	5001.7	4849.0	0.0
7(1)	1(1)	5473.7	5253.4	0.0
7(1)	2(1)	5460.5	5229.9	0.0
7(1)	3(1)	4876.3	4710.1	0.0
7(1)	4(1)	4841.8	4676.3	0.1
7(1)	5(1)	4826.2	4667.1	0.2
7(1)	6(1)	3499.2	3421.8	0.1
8(1)	1(1)	5435.6	5221.5	0.6
8(1)	2(1)	5422.3	5198.1	0.0
8(1)	3(1)	4838.1	4674.2	0.2
8(1)	4(1)	4803.7	4643.4	0.1
8(1)	5(1)	4788.0	4633.6	0.2
8(1)	6(1)	3461.0	3389.7	0.0
8(1)	7(1)	3285.5	3203.7	0.5
9(1)	1(1)	5349.9	5137.5	0.0
9(1)	2(1)	5336.6	5113.7	0.0
9(1)	3(1)	4752.4	4591.7	0.0
9(1)	4(1)	4718.0	4566.0	0.0
9(1)	5(1)	4702.3	4548.6	0.1

9(1)	6(1)	3375.3	3305.5	0.0
9(1)	7(1)	3199.8	3129.6	0.0
9(1)	8(1)	3161.6	3090.3	0.0
10(1)	1(1)	5302.0	5090.1	0.6
10(1)	2(1)	5288.7	5067.7	0.0
10(1)	3(1)	4704.6	4549.8	0.1
10(1)	4(1)	4670.1	4513.8	0.0
10(1)	5(1)	4654.4	4508.7	0.0
10(1)	6(1)	3327.4	3259.7	0.0
10(1)	7(1)	3151.9	3067.8	1.9
10(1)	8(1)	3113.7	3036.8	0.4
10(1)	9(1)	3028.0	2954.5	0.0
11(1)	1(1)	5172.7	4966.3	0.3
11(1)	2(1)	5159.5	4943.1	0.0
11(1)	3(1)	4575.3	4422.5	0.0
11(1)	4(1)	4540.8	4393.1	0.0
11(1)	5(1)	4525.2	4380.1	0.0
11(1)	6(1)	3198.2	3135.3	0.0
11(1)	7(1)	3022.6	2940.4	0.0
11(1)	8(1)	2984.4	2909.9	0.3
11(1)	9(1)	2898.8	2828.0	0.6
11(1)	10(1)	2850.9	2783.6	1.3
12(1)	1(1)	5153.7	4947.8	0.4
12(1)	2(1)	5140.4	4922.3	0.0
12(1)	3(1)	4556.2	4400.2	0.3
12(1)	4(1)	4521.8	4367.4	0.1
12(1)	5(1)	4506.1	4357.0	0.1
12(1)	6(1)	3179.1	3114.4	0.8
12(1)	7(1)	3003.6	2925.0	0.0
12(1)	8(1)	2965.4	2895.7	0.0
12(1)	9(1)	2879.7	2809.4	0.7
12(1)	10(1)	2831.8	2763.1	0.0
12(1)	11(1)	2702.6	2639.6	0.1
13(1)	1(1)	5113.9	4900.9	0.1
13(1)	2(1)	5100.7	4873.2	1.0
13(1)	3(1)	4516.5	4352.8	0.0
13(1)	4(1)	4482.0	4322.6	0.0
13(1)	5(1)	4466.4	4310.4	0.0
13(1)	6(1)	3139.4	3065.8	0.2
13(1)	7(1)	2963.8	2880.9	0.2

13(1)	8(1)	2925.7	2850.7	0.0
13(1)	9(1)	2840.0	2765.6	0.0
13(1)	10(1)	2792.1	2720.3	0.1
13(1)	11(1)	2662.8	2595.2	0.1
13(1)	12(1)	2643.8	2574.1	0.3
14(1)	1(1)	5094.6	4895.7	0.0
14(1)	2(1)	5081.3	4871.1	0.0
14(1)	3(1)	4497.1	4347.0	0.1
14(1)	4(1)	4462.7	4313.5	0.0
14(1)	5(1)	4447.0	4303.1	0.0
14(1)	6(1)	3120.0	3063.2	0.0
14(1)	7(1)	2944.5	2873.8	0.1
14(1)	8(1)	2906.3	2845.0	0.1
14(1)	9(1)	2820.6	2758.2	0.1
14(1)	10(1)	2772.7	2714.2	0.0
14(1)	11(1)	2643.4	2589.6	0.3
14(1)	12(1)	2624.4	2569.6	0.1
14(1)	13(1)	2584.7	2524.1	0.1
15(1)	1(1)	5040.0	4830.5	0.7
15(1)	2(1)	5026.7	4813.6	0.0
15(1)	3(1)	4442.6	4292.0	0.0
15(1)	4(1)	4408.1	4259.2	0.0
15(1)	5(1)	4392.4	4247.6	0.0
15(1)	6(1)	3065.4	3006.3	0.0
15(1)	7(1)	2889.9	2818.3	0.1
15(1)	8(1)	2851.7	2785.7	0.1
15(1)	9(1)	2766.0	2702.9	0.0
15(1)	10(1)	2718.2	2654.7	0.0
15(1)	11(1)	2588.9	2531.1	0.6
15(1)	12(1)	2569.8	2509.7	1.2
15(1)	13(1)	2530.1	2466.5	0.0
15(1)	14(1)	2510.7	2461.1	0.2
16(1)	1(1)	5014.3	4807.5	0.0
16(1)	2(1)	5001.1	4772.0	0.9
16(1)	3(1)	4416.9	4259.4	0.0
16(1)	4(1)	4382.4	4228.6	0.0
16(1)	5(1)	4366.8	4216.1	0.0
16(1)	6(1)	3039.8	2971.2	0.0
16(1)	7(1)	2864.2	2787.8	0.0
16(1)	8(1)	2826.1	2757.2	0.0

16(1)	9(1)	2740.4	2672.1	0.2
16(1)	10(1)	2692.5	2626.8	0.0
16(1)	11(1)	2563.2	2501.2	0.2
16(1)	12(1)	2544.2	2481.3	0.0
16(1)	13(1)	2504.4	2423.5	1.3
16(1)	14(1)	2485.1	2431.0	0.1
16(1)	15(1)	2430.5	2373.4	0.2
17(1)	1(1)	4990.1	4791.5	0.2
17(1)	2(1)	4976.9	4767.4	0.0
17(1)	3(1)	4392.7	4240.9	0.0
17(1)	4(1)	4358.2	4211.5	0.0
17(1)	5(1)	4342.6	4198.2	0.0
17(1)	6(1)	3015.6	2960.2	0.0
17(1)	7(1)	2840.0	2772.1	0.1
17(1)	8(1)	2801.8	2741.0	0.1
17(1)	9(1)	2716.2	2656.5	0.4
17(1)	10(1)	2668.3	2610.1	0.1
17(1)	11(1)	2539.0	2486.5	0.2
17(1)	12(1)	2520.0	2464.1	0.7
17(1)	13(1)	2480.2	2420.6	0.3
17(1)	14(1)	2460.8	2416.5	0.3
17(1)	15(1)	2406.3	2355.4	0.9
17(1)	16(1)	2380.6	2327.4	0.0
18(1)	1(1)	4962.4	4763.5	0.4
18(1)	2(1)	4949.1	4737.9	0.1
18(1)	3(1)	4364.9	4212.9	0.1
18(1)	4(1)	4330.5	4184.3	0.0
18(1)	5(1)	4314.8	4171.5	0.0
18(1)	6(1)	2987.8	2930.8	0.0
18(1)	7(1)	2812.3	2742.0	0.6
18(1)	8(1)	2774.1	2712.4	0.1
18(1)	9(1)	2688.4	2628.0	0.2
18(1)	10(1)	2640.5	2581.5	1.2
18(1)	11(1)	2511.2	2457.7	0.0
18(1)	12(1)	2492.2	2435.7	0.8
18(1)	13(1)	2452.5	2391.0	0.5
18(1)	14(1)	2433.1	2387.2	0.9
18(1)	15(1)	2378.5	2327.3	0.2
18(1)	16(1)	2352.9	2298.2	0.4
18(1)	17(1)	2328.6	2283.0	0.0

19(1)	1(1)	4883.1	4685.3	0.0
19(1)	2(1)	4869.8	4658.9	0.2
19(1)	3(1)	4285.6	4138.1	0.1
19(1)	4(1)	4251.2	4106.9	0.1
19(1)	5(1)	4235.5	4094.7	0.2
19(1)	6(1)	2908.5	2851.0	0.2
19(1)	7(1)	2733.0	2666.1	0.0
19(1)	8(1)	2694.8	2634.4	0.0
19(1)	9(1)	2609.1	2550.9	0.0
19(1)	10(1)	2561.2	2505.3	0.2
19(1)	11(1)	2432.0	2379.0	0.1
19(1)	12(1)	2412.9	2360.0	0.2
19(1)	13(1)	2373.2	2308.6	2.4
19(1)	14(1)	2353.8	2309.0	0.0
19(1)	15(1)	2299.2	2251.6	0.1
19(1)	16(1)	2273.6	2217.8	0.1
19(1)	17(1)	2249.4	2205.8	0.0
19(1)	18(1)	2221.6	2175.7	0.6
20(1)	1(1)	4803.5	4611.3	0.0
20(1)	2(1)	4790.2	4586.3	0.0
20(1)	3(1)	4206.0	4061.6	0.1
20(1)	4(1)	4171.6	4031.5	0.1
20(1)	5(1)	4155.9	4019.2	0.3
20(1)	6(1)	2828.9	2778.7	0.0
20(1)	7(1)	2653.4	2591.3	0.0
20(1)	8(1)	2615.2	2557.8	0.0
20(1)	9(1)	2529.5	2475.5	0.4
20(1)	10(1)	2481.6	2429.4	0.2
20(1)	11(1)	2352.3	2305.6	0.3
20(1)	12(1)	2333.3	2284.4	0.7
20(1)	13(1)	2293.6	2239.9	0.2
20(1)	14(1)	2274.2	2234.5	0.2
20(1)	15(1)	2219.6	2176.0	0.1
20(1)	16(1)	2194.0	2146.0	0.0
20(1)	17(1)	2169.7	2131.2	0.1
20(1)	18(1)	2142.0	2102.3	0.6
20(1)	19(1)	2062.7	2024.1	0.3
21(1)	1(1)	4777.8	4588.7	0.0
21(1)	2(1)	4764.5	4564.6	0.0
21(1)	3(1)	4180.3	4041.8	0.0

21(1)	4(1)	4145.9	4000.4	0.0
21(1)	5(1)	4130.2	3991.1	0.0
21(1)	6(1)	2803.2	2756.1	0.0
21(1)	7(1)	2627.7	2569.6	0.0
21(1)	8(1)	2589.5	2539.0	0.0
21(1)	9(1)	2503.8	2454.6	0.0
21(1)	10(1)	2455.9	2409.0	0.0
21(1)	11(1)	2326.7	2284.3	0.0
21(1)	12(1)	2307.6	2263.7	0.0
21(1)	13(1)	2267.9	2217.7	0.0
21(1)	14(1)	2248.5	2213.6	0.0
21(1)	15(1)	2193.9	2155.5	0.0
21(1)	16(1)	2168.3	2123.6	0.0
21(1)	17(1)	2144.1	2108.8	0.0
21(1)	18(1)	2116.3	2080.6	0.0
21(1)	19(1)	2037.0	2002.6	0.1
21(1)	20(1)	1957.4	1928.1	0.1
22(1)	1(1)	4697.1	4517.1	0.0
22(1)	2(1)	4683.9	4492.6	0.0
22(1)	3(1)	4099.7	3956.4	0.0
22(1)	4(1)	4065.2	3938.4	0.0
22(1)	5(1)	4049.6	3926.3	0.0
22(1)	6(1)	2722.6	2684.8	0.0
22(1)	7(1)	2547.0	2497.2	0.0
22(1)	8(1)	2508.9	2466.4	0.0
22(1)	9(1)	2423.2	2382.9	0.0
22(1)	10(1)	2375.3	2335.9	0.0
22(1)	11(1)	2246.0	2212.6	0.0
22(1)	12(1)	2227.0	2191.7	0.0
22(1)	13(1)	2187.2	2145.6	0.0
22(1)	14(1)	2167.9	2142.0	0.0
22(1)	15(1)	2113.3	2082.4	0.0
22(1)	16(1)	2087.6	2052.2	0.0
22(1)	17(1)	2063.4	2038.4	0.0
22(1)	18(1)	2035.7	2009.4	0.0
22(1)	19(1)	1956.4	1930.1	0.0
22(1)	20(1)	1876.7	1856.0	0.0
22(1)	21(1)	1851.1	1836.4	0.8
23(1)	1(1)	4640.4	4455.2	0.0
23(1)	2(1)	4627.1	4431.1	0.0

23(1)	3(1)	4043.0	3909.0	0.0
23(1)	4(1)	4008.5	3873.4	0.0
23(1)	5(1)	3992.8	3859.8	0.0
23(1)	6(1)	2665.8	2622.6	0.0
23(1)	7(1)	2490.3	2437.3	0.0
23(1)	8(1)	2452.1	2405.4	0.0
23(1)	9(1)	2366.4	2321.2	0.0
23(1)	10(1)	2318.6	2276.7	0.0
23(1)	11(1)	2189.3	2151.5	0.0
23(1)	12(1)	2170.2	2131.5	0.0
23(1)	13(1)	2130.5	2080.8	0.0
23(1)	14(1)	2111.1	2078.8	0.0
23(1)	15(1)	2056.6	2022.0	0.0
23(1)	16(1)	2030.9	1989.4	0.0
23(1)	17(1)	2006.7	1976.2	0.0
23(1)	18(1)	1978.9	1947.5	0.0
23(1)	19(1)	1899.6	1868.8	0.2
23(1)	20(1)	1820.0	1794.4	0.0
23(1)	21(1)	1794.3	1772.8	0.5
23(1)	22(1)	1713.7	1702.4	0.4
24(1)	1(1)	4593.3	4410.0	0.0
24(1)	2(1)	4580.1	4385.5	0.0
24(1)	3(1)	3995.9	3862.5	0.0
24(1)	4(1)	3961.4	3829.7	0.0
24(1)	5(1)	3945.8	3817.5	0.0
24(1)	6(1)	2618.8	2575.8	0.1
24(1)	7(1)	2443.2	2391.9	0.1
24(1)	8(1)	2405.0	2359.9	0.0
24(1)	9(1)	2319.4	2276.0	0.0
24(1)	10(1)	2271.5	2229.6	0.0
24(1)	11(1)	2142.2	2104.9	0.0
24(1)	12(1)	2123.2	2085.5	0.0
24(1)	13(1)	2083.4	2037.4	0.1
24(1)	14(1)	2064.0	2035.6	0.0
24(1)	15(1)	2009.5	1977.7	0.0
24(1)	16(1)	1983.8	1941.9	0.2
24(1)	17(1)	1959.6	1932.1	0.0
24(1)	18(1)	1931.8	1901.1	0.0
24(1)	19(1)	1852.6	1822.3	0.3
24(1)	20(1)	1772.9	1748.9	0.1

24(1)	21(1)	1747.3	1727.2	0.9
24(1)	22(1)	1666.6	1656.2	1.2
24(1)	23(1)	1609.9	1594.2	3.0
25(1)	1(1)	4575.8	4387.9	0.0
25(1)	2(1)	4562.6	4362.4	0.1
25(1)	3(1)	3978.4	3840.7	0.1
25(1)	4(1)	3943.9	3809.0	0.1
25(1)	5(1)	3928.2	3797.1	0.0
25(1)	6(1)	2601.3	2553.6	0.1
25(1)	7(1)	2425.7	2369.6	0.5
25(1)	8(1)	2387.5	2337.4	0.3
25(1)	9(1)	2301.8	2253.9	0.1
25(1)	10(1)	2254.0	2207.7	0.1
25(1)	11(1)	2124.7	2082.5	0.2
25(1)	12(1)	2105.7	2061.9	0.1
25(1)	13(1)	2065.9	2015.3	0.7
25(1)	14(1)	2046.5	2011.2	0.1
25(1)	15(1)	1992.0	1954.1	0.1
25(1)	16(1)	1966.3	1923.4	1.9
25(1)	17(1)	1942.1	1908.4	0.1
25(1)	18(1)	1914.3	1880.1	1.8
25(1)	19(1)	1835.0	1798.7	0.2
25(1)	20(1)	1755.4	1726.6	0.1
25(1)	21(1)	1729.7	1704.7	0.0
25(1)	22(1)	1649.1	1633.0	0.0
25(1)	23(1)	1592.4	1571.3	0.2
25(1)	24(1)	1545.3	1525.6	0.0
26(1)	1(1)	4564.0	4375.9	0.0
26(1)	2(1)	4550.8	4350.2	0.0
26(1)	3(1)	3966.6	3829.0	0.0
26(1)	4(1)	3932.1	3796.9	0.1
26(1)	5(1)	3916.5	3785.1	0.2
26(1)	6(1)	2589.5	2541.6	0.0
26(1)	7(1)	2413.9	2357.2	0.3
26(1)	8(1)	2375.8	2325.2	0.3
26(1)	9(1)	2290.1	2241.0	0.2
26(1)	10(1)	2242.2	2195.3	0.1
26(1)	11(1)	2112.9	2070.4	0.2
26(1)	12(1)	2093.9	2049.7	0.7
26(1)	13(1)	2054.1	2003.0	0.3

26(1)	14(1)	2034.8	1999.9	0.1
26(1)	15(1)	1980.2	1942.0	0.4
26(1)	16(1)	1954.5	1910.9	1.4
26(1)	17(1)	1930.3	1895.7	0.5
26(1)	18(1)	1902.6	1867.1	0.0
26(1)	19(1)	1823.3	1787.4	7.0
26(1)	20(1)	1743.7	1714.6	0.0
26(1)	21(1)	1718.0	1692.5	0.0
26(1)	22(1)	1637.3	1620.9	0.0
26(1)	23(1)	1580.6	1559.2	0.0
26(1)	24(1)	1533.5	1513.4	0.2
26(1)	25(1)	1516.0	1490.9	0.3
27(1)	1(1)	4522.0	4339.4	0.0
27(1)	2(1)	4508.7	4314.9	0.0
27(1)	3(1)	3924.5	3791.4	0.0
27(1)	4(1)	3890.1	3760.4	0.0
27(1)	5(1)	3874.4	3748.3	0.0
27(1)	6(1)	2547.4	2505.5	0.0
27(1)	7(1)	2371.9	2320.5	0.0
27(1)	8(1)	2333.7	2288.7	0.0
27(1)	9(1)	2248.0	2205.0	0.0
27(1)	10(1)	2200.1	2158.6	0.0
27(1)	11(1)	2070.9	2034.2	0.0
27(1)	12(1)	2051.8	2014.1	0.0
27(1)	13(1)	2012.1	1968.4	0.0
27(1)	14(1)	1992.7	1963.2	0.0
27(1)	15(1)	1938.1	1906.1	0.0
27(1)	16(1)	1912.5	1873.6	0.3
27(1)	17(1)	1888.3	1858.2	0.0
27(1)	18(1)	1860.5	1830.6	0.2
27(1)	19(1)	1781.2	1751.2	1.2
27(1)	20(1)	1701.6	1678.1	0.3
27(1)	21(1)	1675.9	1657.5	0.0
27(1)	22(1)	1595.3	1585.7	1.1
27(1)	23(1)	1538.5	1523.4	0.2
27(1)	24(1)	1491.5	1478.8	34.1
27(1)	25(1)	1473.9	1454.5	1.0
27(1)	26(1)	1462.2	1442.8	0.2
28(1)	1(1)	4462.0	4277.4	0.0
28(1)	2(1)	4448.8	4252.8	0.0

28(1)	3(1)	3864.6	3730.2	0.0
28(1)	4(1)	3830.1	3698.1	0.0
28(1)	5(1)	3814.5	3685.7	0.0
28(1)	6(1)	2487.5	2444.8	0.0
28(1)	7(1)	2311.9	2259.1	0.0
28(1)	8(1)	2273.7	2227.1	0.0
28(1)	9(1)	2188.1	2142.7	0.0
28(1)	10(1)	2140.2	2097.4	0.0
28(1)	11(1)	2010.9	1973.0	0.0
28(1)	12(1)	1991.9	1951.3	0.0
28(1)	13(1)	1952.1	1906.5	0.0
28(1)	14(1)	1932.7	1901.3	0.0
28(1)	15(1)	1878.2	1844.2	0.0
28(1)	16(1)	1852.5	1813.0	2.4
28(1)	17(1)	1828.3	1798.4	0.2
28(1)	18(1)	1800.5	1769.7	0.1
28(1)	19(1)	1721.3	1690.5	0.1
28(1)	20(1)	1641.6	1615.1	0.1
28(1)	21(1)	1616.0	1593.4	4.9
28(1)	22(1)	1535.3	1526.8	0.2
28(1)	23(1)	1478.6	1460.1	6.4
28(1)	24(1)	1431.5	1415.9	0.3
28(1)	25(1)	1414.0	1393.1	0.2
28(1)	26(1)	1402.2	1381.0	0.2
28(1)	27(1)	1360.2	1344.6	28.7
29(1)	1(1)	4412.5	4230.3	0.0
29(1)	2(1)	4399.3	4204.4	0.1
29(1)	3(1)	3815.1	3683.2	0.0
29(1)	4(1)	3780.6	3651.6	0.0
29(1)	5(1)	3764.9	3639.5	0.0
29(1)	6(1)	2437.9	2395.8	0.0
29(1)	7(1)	2262.4	2211.4	0.0
29(1)	8(1)	2224.2	2179.7	0.0
29(1)	9(1)	2138.5	2095.6	0.1
29(1)	10(1)	2090.7	2050.2	0.0
29(1)	11(1)	1961.4	1925.3	0.1
29(1)	12(1)	1942.4	1903.7	0.1
29(1)	13(1)	1902.6	1857.9	0.1
29(1)	14(1)	1883.2	1854.0	0.0
29(1)	15(1)	1828.7	1796.7	3.0

29(1)	16(1)	1803.0	1766.8	2.7
29(1)	17(1)	1778.8	1750.6	0.3
29(1)	18(1)	1751.0	1721.7	0.3
29(1)	19(1)	1671.7	1642.9	7.6
29(1)	20(1)	1592.1	1569.0	1.1
29(1)	21(1)	1566.4	1546.9	0.1
29(1)	22(1)	1485.8	1475.2	2.7
29(1)	23(1)	1429.1	1413.9	0.0
29(1)	24(1)	1382.0	1368.4	0.3
29(1)	25(1)	1364.5	1346.4	1.7
29(1)	26(1)	1352.7	1334.6	13.8
29(1)	27(1)	1310.6	1297.4	2.2
29(1)	28(1)	1250.7	1235.5	0.0
30(1)	1(1)	4396.0	4212.3	0.0
30(1)	2(1)	4382.7	4186.8	0.0
30(1)	3(1)	3798.5	3665.2	0.0
30(1)	4(1)	3764.1	3633.8	0.0
30(1)	5(1)	3748.4	3621.7	0.0
30(1)	6(1)	2421.4	2379.9	0.0
30(1)	7(1)	2245.9	2193.6	0.0
30(1)	8(1)	2207.7	2162.3	0.0
30(1)	9(1)	2122.0	2077.2	0.0
30(1)	10(1)	2074.1	2032.2	0.0
30(1)	11(1)	1944.8	1907.1	0.0
30(1)	12(1)	1925.8	1886.8	0.1
30(1)	13(1)	1886.1	1839.9	0.0
30(1)	14(1)	1866.7	1835.8	0.0
30(1)	15(1)	1812.1	1778.2	0.6
30(1)	16(1)	1786.5	1746.9	1.8
30(1)	17(1)	1762.2	1732.4	0.1
30(1)	18(1)	1734.5	1703.6	0.1
30(1)	19(1)	1655.2	1625.4	0.4
30(1)	20(1)	1575.6	1550.7	1.3
30(1)	21(1)	1549.9	1529.0	0.0
30(1)	22(1)	1469.2	1457.3	1.3
30(1)	23(1)	1412.5	1396.0	0.1
30(1)	24(1)	1365.4	1351.0	3.6
30(1)	25(1)	1347.9	1327.4	3.3
30(1)	26(1)	1336.2	1314.7	8.1
30(1)	27(1)	1294.1	1280.4	0.0

30(1)	28(1)	1234.1	1217.6	0.2
30(1)	29(1)	1184.6	1170.2	3.1
31(1)	1(1)	4337.4	4155.9	0.0
31(1)	2(1)	4324.1	4131.3	0.0
31(1)	3(1)	3739.9	3609.2	0.0
31(1)	4(1)	3705.5	3577.4	0.0
31(1)	5(1)	3689.8	3565.3	0.0
31(1)	6(1)	2362.8	2323.8	0.0
31(1)	7(1)	2187.3	2135.4	0.2
31(1)	8(1)	2149.1	2106.0	0.0
31(1)	9(1)	2063.4	2021.8	0.0
31(1)	10(1)	2015.5	1974.2	0.1
31(1)	11(1)	1886.3	1850.9	0.1
31(1)	12(1)	1867.2	1830.6	0.2
31(1)	13(1)	1827.5	1784.0	12.4
31(1)	14(1)	1808.1	1780.1	0.1
31(1)	15(1)	1753.5	1721.9	0.3
31(1)	16(1)	1727.9	1691.1	0.3
31(1)	17(1)	1703.7	1677.2	0.8
31(1)	18(1)	1675.9	1649.9	21.9
31(1)	19(1)	1596.6	1568.7	0.6
31(1)	20(1)	1517.0	1495.5	4.7
31(1)	21(1)	1491.3	1472.8	0.0
31(1)	22(1)	1410.7	1401.1	0.0
31(1)	23(1)	1353.9	1339.6	0.1
31(1)	24(1)	1306.9	1294.0	0.1
31(1)	25(1)	1289.4	1271.9	5.5
31(1)	26(1)	1277.6	1258.8	4.7
31(1)	27(1)	1235.5	1223.3	0.1
31(1)	28(1)	1175.6	1160.8	4.8
31(1)	29(1)	1126.1	1114.2	0.0
31(1)	30(1)	1109.5	1096.3	0.5
32(1)	1(1)	4310.3	4090.7	0.0
32(1)	2(1)	4297.1	4056.6	1.4
32(1)	3(1)	3712.9	3544.0	0.0
32(1)	4(1)	3678.4	3511.7	0.1
32(1)	5(1)	3662.8	3499.8	0.1
32(1)	6(1)	2335.8	2256.9	0.0
32(1)	7(1)	2160.2	2073.3	0.0
32(1)	8(1)	2122.1	2041.1	0.0

32(1)	9(1)	2036.4	1957.2	0.0
32(1)	10(1)	1988.5	1910.9	0.0
32(1)	11(1)	1859.2	1786.5	0.2
32(1)	12(1)	1840.2	1766.0	4.7
32(1)	13(1)	1800.5	1714.4	1.8
32(1)	14(1)	1781.1	1715.6	0.1
32(1)	15(1)	1726.5	1657.7	0.1
32(1)	16(1)	1700.8	1629.7	0.3
32(1)	17(1)	1676.6	1612.1	0.1
32(1)	18(1)	1648.9	1584.1	0.7
32(1)	19(1)	1569.6	1506.1	0.3
32(1)	20(1)	1490.0	1429.0	0.1
32(1)	21(1)	1464.3	1405.5	0.3
32(1)	22(1)	1383.6	1335.9	0.0
32(1)	23(1)	1326.9	1278.4	66.5
32(1)	24(1)	1279.8	1226.2	5.1
32(1)	25(1)	1262.3	1206.3	2.2
32(1)	26(1)	1250.5	1194.3	0.7
32(1)	27(1)	1208.5	1149.9	9.2
32(1)	28(1)	1148.5	1095.9	1.7
32(1)	29(1)	1099.0	1049.3	0.4
32(1)	30(1)	1082.5	1030.2	0.1
32(1)	31(1)	1023.9	974.4	0.0
33(1)	1(1)	4285.8	4103.0	0.0
33(1)	2(1)	4272.5	4078.5	0.0
33(1)	3(1)	3688.3	3556.0	0.0
33(1)	4(1)	3653.9	3524.0	0.0
33(1)	5(1)	3638.2	3512.0	0.0
33(1)	6(1)	2311.2	2270.3	0.0
33(1)	7(1)	2135.7	2084.3	0.0
33(1)	8(1)	2097.5	2052.6	0.0
33(1)	9(1)	2011.8	1968.6	0.0
33(1)	10(1)	1963.9	1923.3	0.0
33(1)	11(1)	1834.6	1797.3	0.0
33(1)	12(1)	1815.6	1778.2	0.0
33(1)	13(1)	1775.9	1731.7	0.1
33(1)	14(1)	1756.5	1726.0	0.0
33(1)	15(1)	1701.9	1669.4	0.0
33(1)	16(1)	1676.3	1638.4	0.6
33(1)	17(1)	1652.1	1621.7	1.5

33(1)	18(1)	1624.3	1594.7	0.0
33(1)	19(1)	1545.0	1516.4	0.3
33(1)	20(1)	1465.4	1441.6	0.1
33(1)	21(1)	1439.7	1418.9	0.9
33(1)	22(1)	1359.1	1347.8	1.0
33(1)	23(1)	1302.3	1287.1	1.5
33(1)	24(1)	1255.2	1240.1	0.7
33(1)	25(1)	1237.7	1218.4	0.0
33(1)	26(1)	1226.0	1206.9	0.2
33(1)	27(1)	1183.9	1172.5	3.4
33(1)	28(1)	1123.9	1107.2	3.6
33(1)	29(1)	1074.4	1060.9	3.1
33(1)	30(1)	1057.9	1043.0	1.9
33(1)	31(1)	999.3	986.9	0.6
33(1)	32(1)	972.3	921.4	0.1
34(1)	1(1)	4242.9	4061.8	0.0
34(1)	2(1)	4229.7	4036.8	0.0
34(1)	3(1)	3645.5	3515.0	0.0
34(1)	4(1)	3611.0	3483.1	0.0
34(1)	5(1)	3595.4	3471.1	0.0
34(1)	6(1)	2268.4	2228.2	0.0
34(1)	7(1)	2092.8	2043.7	0.0
34(1)	8(1)	2054.7	2011.7	0.0
34(1)	9(1)	1969.0	1927.7	0.0
34(1)	10(1)	1921.1	1881.6	0.1
34(1)	11(1)	1791.8	1757.7	0.9
34(1)	12(1)	1772.8	1736.5	0.1
34(1)	13(1)	1733.0	1690.2	1.1
34(1)	14(1)	1713.7	1685.7	0.1
34(1)	15(1)	1659.1	1628.5	0.1
34(1)	16(1)	1633.4	1597.1	0.2
34(1)	17(1)	1609.2	1582.1	2.7
34(1)	18(1)	1581.5	1553.9	0.0
34(1)	19(1)	1502.2	1474.8	0.9
34(1)	20(1)	1422.6	1400.9	0.2
34(1)	21(1)	1396.9	1378.8	0.8
34(1)	22(1)	1316.2	1307.1	0.1
34(1)	23(1)	1259.5	1245.5	2.3
34(1)	24(1)	1212.4	1199.6	1.0
34(1)	25(1)	1194.9	1177.0	0.2

34(1)	26(1)	1183.1	1165.4	5.5
34(1)	27(1)	1141.1	1128.0	2.5
34(1)	28(1)	1081.1	1067.0	0.1
34(1)	29(1)	1031.6	1019.9	0.0
34(1)	30(1)	1015.1	1002.2	0.1
34(1)	31(1)	956.5	945.7	0.1
34(1)	32(1)	929.4	876.9	0.9
34(1)	33(1)	904.9	891.8	0.1
35(1)	1(1)	4197.1	4013.1	1.4
35(1)	2(1)	4183.8	3986.7	0.0
35(1)	3(1)	3599.7	3465.0	0.0
35(1)	4(1)	3565.2	3434.2	0.0
35(1)	5(1)	3549.5	3423.2	0.0
35(1)	6(1)	2222.5	2179.5	0.0
35(1)	7(1)	2047.0	1993.3	0.0
35(1)	8(1)	2008.8	1960.9	0.0
35(1)	9(1)	1923.1	1877.6	0.0
35(1)	10(1)	1875.3	1829.4	0.0
35(1)	11(1)	1746.0	1707.8	0.0
35(1)	12(1)	1726.9	1682.2	0.0
35(1)	13(1)	1687.2	1639.9	0.0
35(1)	14(1)	1667.8	1635.9	0.2
35(1)	15(1)	1613.3	1585.1	0.0
35(1)	16(1)	1587.6	1546.2	0.0
35(1)	17(1)	1563.4	1534.3	0.0
35(1)	18(1)	1535.6	1502.4	0.0
35(1)	19(1)	1456.3	1425.5	0.0
35(1)	20(1)	1376.7	1350.6	0.0
35(1)	21(1)	1351.0	1330.2	2.4
35(1)	22(1)	1270.4	1260.0	0.5
35(1)	23(1)	1213.7	1191.2	3.0
35(1)	24(1)	1166.6	1149.4	2.7
35(1)	25(1)	1149.1	1124.6	111.7
35(1)	26(1)	1137.3	1111.3	0.0
35(1)	27(1)	1095.2	1078.9	0.8
35(1)	28(1)	1035.3	1014.5	2.2
35(1)	29(1)	985.8	969.7	0.2
35(1)	30(1)	969.2	951.4	0.1
35(1)	31(1)	910.6	895.1	0.1
35(1)	32(1)	883.6	829.1	0.0

35(1)	33(1)	859.0	841.7	0.3
35(1)	34(1)	816.2	800.7	0.2
36(1)	1(1)	4174.5	3994.6	0.0
36(1)	2(1)	4161.3	3970.0	0.0
36(1)	3(1)	3577.1	3448.1	0.0
36(1)	4(1)	3542.6	3416.2	0.0
36(1)	5(1)	3527.0	3404.1	0.0
36(1)	6(1)	2200.0	2162.0	0.1
36(1)	7(1)	2024.4	1974.9	0.2
36(1)	8(1)	1986.2	1945.0	0.0
36(1)	9(1)	1900.6	1860.4	0.1
36(1)	10(1)	1852.7	1814.8	0.2
36(1)	11(1)	1723.4	1691.1	3.9
36(1)	12(1)	1704.4	1669.0	0.1
36(1)	13(1)	1664.6	1624.0	69.1
36(1)	14(1)	1645.2	1618.8	0.4
36(1)	15(1)	1590.7	1560.8	0.9
36(1)	16(1)	1565.0	1530.6	0.4
36(1)	17(1)	1540.8	1515.5	0.1
36(1)	18(1)	1513.0	1487.0	0.8
36(1)	19(1)	1433.8	1407.8	0.4
36(1)	20(1)	1354.1	1337.3	1.9
36(1)	21(1)	1328.5	1311.5	0.0
36(1)	22(1)	1247.8	1240.1	0.0
36(1)	23(1)	1191.1	1178.5	0.1
36(1)	24(1)	1144.0	1132.5	0.8
36(1)	25(1)	1126.5	1109.9	1.7
36(1)	26(1)	1114.7	1098.2	0.2
36(1)	27(1)	1072.7	1061.9	0.0
36(1)	28(1)	1012.7	1000.1	0.0
36(1)	29(1)	963.2	952.8	0.0
36(1)	30(1)	946.6	934.8	0.0
36(1)	31(1)	888.1	878.8	0.0
36(1)	32(1)	861.0	813.6	0.1
36(1)	33(1)	836.4	825.7	0.0
36(1)	34(1)	793.6	785.0	0.0
36(1)	35(1)	747.8	734.3	0.0
37(1)	1(1)	4120.5	3941.3	0.0
37(1)	2(1)	4107.2	3916.1	0.0
37(1)	3(1)	3523.1	3394.4	0.0

37(1)	4(1)	3488.6	3362.8	0.0
37(1)	5(1)	3472.9	3350.7	0.0
37(1)	6(1)	2145.9	2108.6	0.1
37(1)	7(1)	1970.4	1924.1	0.0
37(1)	8(1)	1932.2	1891.2	0.1
37(1)	9(1)	1846.5	1807.6	9.9
37(1)	10(1)	1798.7	1761.0	0.1
37(1)	11(1)	1669.4	1638.5	1.3
37(1)	12(1)	1650.3	1615.2	12.7
37(1)	13(1)	1610.6	1570.1	0.4
37(1)	14(1)	1591.2	1565.1	0.3
37(1)	15(1)	1536.7	1507.9	0.1
37(1)	16(1)	1511.0	1476.3	0.9
37(1)	17(1)	1486.8	1463.3	0.1
37(1)	18(1)	1459.0	1432.9	0.1
37(1)	19(1)	1379.7	1354.5	0.1
37(1)	20(1)	1300.1	1279.2	187.8
37(1)	21(1)	1274.4	1257.8	1.4
37(1)	22(1)	1193.8	1186.5	0.1
37(1)	23(1)	1137.1	1124.8	0.1
37(1)	24(1)	1090.0	1079.0	0.2
37(1)	25(1)	1072.5	1056.6	0.2
37(1)	26(1)	1060.7	1044.5	0.0
37(1)	27(1)	1018.6	1008.6	0.0
37(1)	28(1)	958.7	946.3	0.0
37(1)	29(1)	909.2	899.1	0.0
37(1)	30(1)	892.6	881.0	0.0
37(1)	31(1)	834.0	825.2	0.0
37(1)	32(1)	807.0	760.6	0.1
37(1)	33(1)	782.4	772.0	0.0
37(1)	34(1)	739.6	731.2	0.0
37(1)	35(1)	693.8	680.3	0.0
37(1)	36(1)	671.2	663.6	0.0
38(1)	1(1)	4079.2	3900.8	0.0
38(1)	2(1)	4065.9	3875.8	0.1
38(1)	3(1)	3481.8	3353.9	0.0
38(1)	4(1)	3447.3	3322.2	0.0
38(1)	5(1)	3431.6	3310.2	0.0
38(1)	6(1)	2104.6	2068.4	0.1
38(1)	7(1)	1929.1	1882.9	0.0

38(1)	8(1)	1890.9	1850.4	0.0
38(1)	9(1)	1805.2	1766.8	0.1
38(1)	10(1)	1757.4	1720.8	0.0
38(1)	11(1)	1628.1	1596.6	11.1
38(1)	12(1)	1609.1	1575.5	0.0
38(1)	13(1)	1569.3	1529.4	0.1
38(1)	14(1)	1549.9	1524.9	0.0
38(1)	15(1)	1495.4	1466.9	0.1
38(1)	16(1)	1469.7	1436.1	0.1
38(1)	17(1)	1445.5	1421.1	0.1
38(1)	18(1)	1417.7	1392.3	0.1
38(1)	19(1)	1338.4	1314.4	0.4
38(1)	20(1)	1258.8	1239.5	0.2
38(1)	21(1)	1233.1	1218.1	1.0
38(1)	22(1)	1152.5	1145.8	0.3
38(1)	23(1)	1095.8	1084.2	0.3
38(1)	24(1)	1048.7	1038.4	0.6
38(1)	25(1)	1031.2	1016.6	0.1
38(1)	26(1)	1019.4	1004.9	0.1
38(1)	27(1)	977.3	968.7	0.7
38(1)	28(1)	917.4	906.3	0.2
38(1)	29(1)	867.9	858.6	0.0
38(1)	30(1)	851.3	840.0	0.0
38(1)	31(1)	792.8	783.8	0.3
38(1)	32(1)	765.7	721.2	0.9
38(1)	33(1)	741.1	731.4	0.5
38(1)	34(1)	698.3	691.3	0.0
38(1)	35(1)	652.5	641.3	0.3
38(1)	36(1)	629.9	623.1	0.0
38(1)	37(1)	575.9	569.1	0.0
39(1)	1(1)	4039.6	3862.1	0.1
39(1)	2(1)	4026.3	3837.2	0.0
39(1)	3(1)	3442.1	3315.0	0.0
39(1)	4(1)	3407.7	3283.4	0.0
39(1)	5(1)	3392.0	3271.4	0.0
39(1)	6(1)	2065.0	2029.3	0.0
39(1)	7(1)	1889.5	1843.7	0.0
39(1)	8(1)	1851.3	1812.2	0.0
39(1)	9(1)	1765.6	1728.1	0.0
39(1)	10(1)	1717.7	1681.9	0.1

39(1)	11(1)	1588.4	1557.4	0.0
39(1)	12(1)	1569.4	1536.6	0.1
39(1)	13(1)	1529.7	1490.5	0.0
39(1)	14(1)	1510.3	1485.8	0.0
39(1)	15(1)	1455.7	1428.2	0.1
39(1)	16(1)	1430.1	1397.0	0.0
39(1)	17(1)	1405.8	1382.6	0.0
39(1)	18(1)	1378.1	1353.7	0.0
39(1)	19(1)	1298.8	1275.1	9.3
39(1)	20(1)	1219.2	1200.8	0.0
39(1)	21(1)	1193.5	1178.7	0.1
39(1)	22(1)	1112.9	1107.7	0.1
39(1)	23(1)	1056.1	1045.5	0.1
39(1)	24(1)	1009.0	1000.1	0.0
39(1)	25(1)	991.5	977.7	0.0
39(1)	26(1)	979.8	965.6	0.0
39(1)	27(1)	937.7	929.5	0.0
39(1)	28(1)	877.7	866.8	0.0
39(1)	29(1)	828.2	820.1	0.0
39(1)	30(1)	811.7	802.3	0.0
39(1)	31(1)	753.1	747.2	2.4
39(1)	32(1)	726.1	680.8	0.0
39(1)	33(1)	701.5	692.6	0.0
39(1)	34(1)	658.7	651.6	0.2
39(1)	35(1)	612.8	601.1	0.4
39(1)	36(1)	590.2	584.0	0.0
39(1)	37(1)	536.2	530.7	0.0
39(1)	38(1)	494.9	490.7	0.0
40(1)	1(1)	3990.3	3813.2	0.0
40(1)	2(1)	3977.0	3787.7	0.0
40(1)	3(1)	3392.9	3266.3	0.0
40(1)	4(1)	3358.4	3235.0	0.0
40(1)	5(1)	3342.7	3222.7	0.0
40(1)	6(1)	2015.7	1980.4	0.2
40(1)	7(1)	1840.2	1794.6	12.1
40(1)	8(1)	1802.0	1763.5	0.2
40(1)	9(1)	1716.3	1679.0	0.0
40(1)	10(1)	1668.5	1634.2	39.0
40(1)	11(1)	1539.2	1508.4	9.6
40(1)	12(1)	1520.1	1487.7	0.4

40(1)	13(1)	1480.4	1440.9	1.5
40(1)	14(1)	1461.0	1436.8	0.0
40(1)	15(1)	1406.5	1379.5	0.0
40(1)	16(1)	1380.8	1348.3	0.4
40(1)	17(1)	1356.6	1333.9	1.6
40(1)	18(1)	1328.8	1304.8	0.6
40(1)	19(1)	1249.5	1226.2	0.8
40(1)	20(1)	1169.9	1151.9	3.1
40(1)	21(1)	1144.2	1130.3	0.4
40(1)	22(1)	1063.6	1058.3	0.0
40(1)	23(1)	1006.9	996.7	0.0
40(1)	24(1)	959.8	951.0	0.0
40(1)	25(1)	942.3	928.4	0.0
40(1)	26(1)	930.5	916.4	0.0
40(1)	27(1)	888.4	880.9	0.0
40(1)	28(1)	828.5	818.0	0.0
40(1)	29(1)	779.0	771.1	1.3
40(1)	30(1)	762.4	752.6	0.2
40(1)	31(1)	703.8	697.1	0.0
40(1)	32(1)	676.8	632.8	0.5
40(1)	33(1)	652.2	644.0	0.0
40(1)	34(1)	609.4	603.5	0.0
40(1)	35(1)	563.6	553.0	0.0
40(1)	36(1)	541.0	535.6	0.0
40(1)	37(1)	487.0	481.9	0.8
40(1)	38(1)	445.7	440.9	0.0
40(1)	39(1)	406.0	402.2	0.0
41(1)	1(1)	3907.1	3729.5	0.0
41(1)	2(1)	3893.9	3704.6	0.0
41(1)	3(1)	3309.7	3182.6	0.0
41(1)	4(1)	3275.2	3150.7	0.0
41(1)	5(1)	3259.6	3138.7	0.0
41(1)	6(1)	1932.6	1896.4	0.2
41(1)	7(1)	1757.0	1711.6	0.1
41(1)	8(1)	1718.8	1679.8	0.0
41(1)	9(1)	1633.2	1595.5	0.2
41(1)	10(1)	1585.3	1549.6	0.0
41(1)	11(1)	1456.0	1425.0	0.1
41(1)	12(1)	1437.0	1404.2	0.2
41(1)	13(1)	1397.2	1357.9	0.3

41(1)	14(1)	1377.8	1353.2	0.0
41(1)	15(1)	1323.3	1295.8	0.0
41(1)	16(1)	1297.6	1264.0	24.3
41(1)	17(1)	1273.4	1249.8	0.1
41(1)	18(1)	1245.6	1221.1	0.1
41(1)	19(1)	1166.4	1142.6	0.1
41(1)	20(1)	1086.7	1068.3	0.0
41(1)	21(1)	1061.1	1045.6	0.0
41(1)	22(1)	980.4	974.4	0.0
41(1)	23(1)	923.7	912.9	0.2
41(1)	24(1)	876.6	867.1	0.1
41(1)	25(1)	859.1	844.9	0.0
41(1)	26(1)	847.3	833.0	0.0
41(1)	27(1)	805.3	796.5	0.0
41(1)	28(1)	745.3	734.4	0.1
41(1)	29(1)	695.8	687.1	0.0
41(1)	30(1)	679.2	669.5	0.0
41(1)	31(1)	620.7	612.9	0.0
41(1)	32(1)	593.6	548.7	0.1
41(1)	33(1)	569.1	559.7	0.1
41(1)	34(1)	526.2	519.1	0.0
41(1)	35(1)	480.4	467.8	0.2
41(1)	36(1)	457.8	452.0	0.0
41(1)	37(1)	403.8	398.4	0.0
41(1)	38(1)	362.5	355.5	0.0
41(1)	39(1)	322.8	318.9	0.0
41(1)	40(1)	273.6	270.5	0.0
42(1)	1(1)	3874.2	3697.8	0.0
42(1)	2(1)	3861.0	3672.0	0.1
42(1)	3(1)	3276.8	3150.1	0.0
42(1)	4(1)	3242.3	3118.4	0.0
42(1)	5(1)	3226.7	3106.4	0.0
42(1)	6(1)	1899.7	1864.3	1.3
42(1)	7(1)	1724.1	1679.7	0.0
42(1)	8(1)	1685.9	1647.6	0.1
42(1)	9(1)	1600.2	1563.6	0.2
42(1)	10(1)	1552.4	1517.0	0.1
42(1)	11(1)	1423.1	1392.5	0.1
42(1)	12(1)	1404.1	1372.3	0.2
42(1)	13(1)	1364.3	1325.5	1.1

42(1)	14(1)	1344.9	1321.6	0.5
42(1)	15(1)	1290.4	1263.6	1.5
42(1)	16(1)	1264.7	1231.8	0.1
42(1)	17(1)	1240.5	1217.7	0.2
42(1)	18(1)	1212.7	1189.1	0.1
42(1)	19(1)	1133.5	1110.3	0.5
42(1)	20(1)	1053.8	1035.9	0.0
42(1)	21(1)	1028.2	1013.2	0.0
42(1)	22(1)	947.5	942.5	0.0
42(1)	23(1)	890.8	880.5	0.0
42(1)	24(1)	843.7	835.3	0.0
42(1)	25(1)	826.2	812.6	0.0
42(1)	26(1)	814.4	800.4	0.0
42(1)	27(1)	772.4	765.0	0.7
42(1)	28(1)	712.4	700.6	0.0
42(1)	29(1)	662.9	655.5	0.0
42(1)	30(1)	646.3	636.7	0.1
42(1)	31(1)	587.8	580.5	0.0
42(1)	32(1)	560.7	510.5	1.5
42(1)	33(1)	536.1	527.5	0.1
42(1)	34(1)	493.3	487.6	0.3
42(1)	35(1)	447.5	441.3	0.0
42(1)	36(1)	424.9	418.7	0.8
42(1)	37(1)	370.9	364.7	0.0
42(1)	38(1)	329.6	325.7	0.0
42(1)	39(1)	289.9	287.5	0.0
42(1)	40(1)	240.7	237.6	0.0
42(1)	41(1)	157.5	154.5	0.0

Table S20. Harmonic and anharmonic vibrational frequencies and their intensities of conformer **D2**^{*} as computed at the B3LYP/cc-pVTZ level of theory.

Mode (quanta)	ν_{harm} (cm ⁻¹)	ν_{anharm} (cm ⁻¹)	I_{harm} (km mol ⁻¹)	I_{anharm} (km mol ⁻¹)
1(1)	3811.9	3637.1	87.4	72.9
2(1)	3798.7	3610.6	31.0	25.6
3(1)	3214.5	3085.1	0.3	0.1
4(1)	3180.0	3043.4	4.4	6.0
5(1)	3164.4	3037.6	8.1	6.4
6(1)	1837.4	1806.0	357.5	279.4
7(1)	1661.8	1616.1	220.6	72.4
8(1)	1623.6	1587.0	96.7	63.7
9(1)	1537.9	1499.6	44.1	30.8
10(1)	1490.1	1455.2	54.5	15.4
11(1)	1360.8	1328.1	21.7	0.9
12(1)	1341.8	1312.0	40.9	18.5
13(1)	1302.0	1267.9	587.6	214.2
14(1)	1282.6	1260.7	15.4	23.2
15(1)	1228.1	1194.6	26.1	30.9
16(1)	1202.4	1176.2	27.4	19.0
17(1)	1178.2	1157.0	42.5	15.2
18(1)	1150.4	1128.0	201.0	104.6
19(1)	1071.1	1049.5	49.6	49.4
20(1)	991.5	975.2	36.2	38.3
21(1)	965.9	953.8	2.7	1.6
22(1)	885.2	879.5	29.9	34.2
23(1)	828.5	819.8	12.1	10.5
24(1)	781.4	774.2	20.9	13.9
25(1)	763.9	751.9	8.7	9.4
26(1)	752.1	740.2	10.4	4.7
27(1)	710.1	705.0	8.5	11.1
28(1)	650.1	640.8	8.7	8.4
29(1)	600.6	594.4	16.4	16.7
30(1)	584.0	576.0	1.9	3.4
31(1)	525.5	520.2	4.3	5.0
32(1)	498.4	445.3	92.2	82.0
33(1)	473.8	467.1	0.9	1.8
34(1)	431.0	425.5	13.4	20.1
35(1)	385.2	382.2	97.8	91.3
36(1)	362.6	360.9	3.0	2.7
37(1)	308.6	305.2	1.7	1.7

38(1)	267.3	264.5	5.0	5.2
39(1)	227.6	226.0	1.2	0.7
40(1)	178.4	175.9	3.0	3.2
41(1)	95.2	92.1	1.8	1.9
42(1)	62.3	61.5	3.4	4.1
1(2)	7623.8	7109.4		6.1
2(2)	7597.3	7053.1		3.1
3(2)	6429.0	6070.4		0.7
4(2)	6360.0	6054.5		0.3
5(2)	6328.7	6030.6		0.8
6(2)	3674.7	3591.4		5.1
7(2)	3323.6	3235.7		0.5
8(2)	3247.3	3168.7		0.7
9(2)	3075.9	2997.9		0.1
10(2)	2980.2	2908.9		0.1
11(2)	2721.6	2660.8		1.8
12(2)	2683.5	2620.0		0.8
13(2)	2604.0	2521.2		0.1
14(2)	2565.3	2517.6		0.2
15(2)	2456.2	2400.8		1.8
16(2)	2404.8	2339.6		0.8
17(2)	2356.4	2312.7		0.2
18(2)	2300.9	2255.6		0.2
19(2)	2142.3	2094.5		1.5
20(2)	1983.1	1949.2		0.3
21(2)	1931.7	1907.3		3.7
22(2)	1770.4	1761.3		1.1
23(2)	1657.0	1640.8		2.3
24(2)	1562.8	1548.8		0.9
25(2)	1527.8	1502.7		1.1
26(2)	1504.2	1480.1		0.5
27(2)	1420.1	1405.7		0.1
28(2)	1300.2	1281.5		89.3
29(2)	1201.2	1188.1		14.1
30(2)	1168.1	1151.2		0.4
31(2)	1050.9	1040.2		0.1
32(2)	996.9	854.1		1.2
33(2)	947.7	934.5		0.1
34(2)	862.0	850.2		0.1
35(2)	770.4	752.8		15.2

36(2)		725.2	717.9	0.1
37(2)		617.2	610.3	0.1
38(2)		534.6	528.6	0.3
39(2)		455.3	451.7	0.3
40(2)		356.8	352.0	0.1
41(2)		190.4	184.2	0.0
42(2)		124.6	121.5	0.0
2(1)	1(1)	7610.6	7247.4	0.0
3(1)	1(1)	7026.4	6726.5	0.0
3(1)	2(1)	7013.1	6700.0	0.0
4(1)	1(1)	6991.9	6694.1	0.0
4(1)	2(1)	6978.7	6667.7	0.0
4(1)	3(1)	6394.5	6146.8	0.0
5(1)	1(1)	6976.3	6681.7	0.0
5(1)	2(1)	6963.0	6655.9	0.0
5(1)	3(1)	6378.8	6134.9	0.0
5(1)	4(1)	6344.4	5999.3	0.2
6(1)	1(1)	5649.3	5442.4	0.0
6(1)	2(1)	5636.0	5412.7	0.1
6(1)	3(1)	5051.8	4894.8	0.0
6(1)	4(1)	5017.4	4862.9	0.0
6(1)	5(1)	5001.7	4850.8	0.0
7(1)	1(1)	5473.7	5254.9	0.0
7(1)	2(1)	5460.5	5229.5	0.0
7(1)	3(1)	4876.3	4710.7	0.0
7(1)	4(1)	4841.8	4676.7	0.1
7(1)	5(1)	4826.2	4667.6	0.2
7(1)	6(1)	3499.2	3424.1	0.1
8(1)	1(1)	5435.6	5222.7	0.6
8(1)	2(1)	5422.3	5197.5	0.0
8(1)	3(1)	4838.1	4674.6	0.2
8(1)	4(1)	4803.7	4643.5	0.1
8(1)	5(1)	4788.0	4633.9	0.2
8(1)	6(1)	3461.0	3391.7	0.0
8(1)	7(1)	3285.5	3204.4	0.5
9(1)	1(1)	5349.9	5139.2	0.0
9(1)	2(1)	5336.6	5113.5	0.0
9(1)	3(1)	4752.4	4592.6	0.0
9(1)	4(1)	4718.0	4566.6	0.0
9(1)	5(1)	4702.3	4549.4	0.1

9(1)	6(1)	3375.3	3308.0	0.0
9(1)	7(1)	3199.8	3130.7	0.0
9(1)	8(1)	3161.6	3091.0	0.0
10(1)	1(1)	5302.0	5091.3	0.6
10(1)	2(1)	5288.7	5067.1	0.0
10(1)	3(1)	4704.6	4550.2	0.1
10(1)	4(1)	4670.1	4513.9	0.0
10(1)	5(1)	4654.4	4508.9	0.0
10(1)	6(1)	3327.4	3261.7	0.0
10(1)	7(1)	3151.9	3068.4	1.9
10(1)	8(1)	3113.7	3037.2	0.4
10(1)	9(1)	3028.0	2955.4	0.0
11(1)	1(1)	5172.7	4966.7	0.3
11(1)	2(1)	5159.5	4941.7	0.0
11(1)	3(1)	4575.3	4422.1	0.0
11(1)	4(1)	4540.8	4392.4	0.0
11(1)	5(1)	4525.2	4379.5	0.0
11(1)	6(1)	3198.2	3136.5	0.0
11(1)	7(1)	3022.6	2940.4	0.0
11(1)	8(1)	2984.4	2909.5	0.3
11(1)	9(1)	2898.8	2828.1	0.6
11(1)	10(1)	2850.9	2783.3	1.3
12(1)	1(1)	5153.7	4949.6	0.4
12(1)	2(1)	5140.4	4922.3	0.0
12(1)	3(1)	4556.2	4401.2	0.3
12(1)	4(1)	4521.8	4368.2	0.1
12(1)	5(1)	4506.1	4357.9	0.1
12(1)	6(1)	3179.1	3117.1	0.8
12(1)	7(1)	3003.6	2926.4	0.0
12(1)	8(1)	2965.4	2896.8	0.0
12(1)	9(1)	2879.7	2811.0	0.7
12(1)	10(1)	2831.8	2764.3	0.0
12(1)	11(1)	2702.6	2639.9	0.1
13(1)	1(1)	5113.9	4902.6	0.1
13(1)	2(1)	5100.7	4873.2	1.0
13(1)	3(1)	4516.5	4353.8	0.0
13(1)	4(1)	4482.0	4323.3	0.0
13(1)	5(1)	4466.4	4311.2	0.0
13(1)	6(1)	3139.4	3068.3	0.2
13(1)	7(1)	2963.8	2882.3	0.2

13(1)	8(1)	2925.7	2851.7	0.0
13(1)	9(1)	2840.0	2767.2	0.0
13(1)	10(1)	2792.1	2721.3	0.1
13(1)	11(1)	2662.8	2595.4	0.1
13(1)	12(1)	2643.8	2575.8	0.3
14(1)	1(1)	5094.6	4897.2	0.0
14(1)	2(1)	5081.3	4870.8	0.0
14(1)	3(1)	4497.1	4347.7	0.1
14(1)	4(1)	4462.7	4313.9	0.0
14(1)	5(1)	4447.0	4303.7	0.0
14(1)	6(1)	3120.0	3065.4	0.0
14(1)	7(1)	2944.5	2874.8	0.1
14(1)	8(1)	2906.3	2845.7	0.1
14(1)	9(1)	2820.6	2759.4	0.1
14(1)	10(1)	2772.7	2714.9	0.0
14(1)	11(1)	2643.4	2589.5	0.3
14(1)	12(1)	2624.4	2571.0	0.1
14(1)	13(1)	2584.7	2525.4	0.1
15(1)	1(1)	5040.0	4831.6	0.7
15(1)	2(1)	5026.7	4812.9	0.0
15(1)	3(1)	4442.6	4292.2	0.0
15(1)	4(1)	4408.1	4259.3	0.0
15(1)	5(1)	4392.4	4247.8	0.0
15(1)	6(1)	3065.4	3008.1	0.0
15(1)	7(1)	2889.9	2819.0	0.1
15(1)	8(1)	2851.7	2786.1	0.1
15(1)	9(1)	2766.0	2703.8	0.0
15(1)	10(1)	2718.2	2655.0	0.0
15(1)	11(1)	2588.9	2530.7	0.6
15(1)	12(1)	2569.8	2510.7	1.2
15(1)	13(1)	2530.1	2467.4	0.0
15(1)	14(1)	2510.7	2461.7	0.2
16(1)	1(1)	5014.3	4809.8	0.0
16(1)	2(1)	5001.1	4772.5	0.9
16(1)	3(1)	4416.9	4260.8	0.0
16(1)	4(1)	4382.4	4229.9	0.0
16(1)	5(1)	4366.8	4217.5	0.0
16(1)	6(1)	3039.8	2974.3	0.0
16(1)	7(1)	2864.2	2789.6	0.0
16(1)	8(1)	2826.1	2758.8	0.0

16(1)	9(1)	2740.4	2674.2	0.2
16(1)	10(1)	2692.5	2628.3	0.0
16(1)	11(1)	2563.2	2501.9	0.2
16(1)	12(1)	2544.2	2483.6	0.0
16(1)	13(1)	2504.4	2425.7	1.3
16(1)	14(1)	2485.1	2432.8	0.1
16(1)	15(1)	2430.5	2374.9	0.2
17(1)	1(1)	4990.1	4792.8	0.2
17(1)	2(1)	4976.9	4766.9	0.0
17(1)	3(1)	4392.7	4241.3	0.0
17(1)	4(1)	4358.2	4211.7	0.0
17(1)	5(1)	4342.6	4198.6	0.0
17(1)	6(1)	3015.6	2962.2	0.0
17(1)	7(1)	2840.0	2773.0	0.1
17(1)	8(1)	2801.8	2741.5	0.1
17(1)	9(1)	2716.2	2657.5	0.4
17(1)	10(1)	2668.3	2610.6	0.1
17(1)	11(1)	2539.0	2486.2	0.2
17(1)	12(1)	2520.0	2465.3	0.7
17(1)	13(1)	2480.2	2421.7	0.3
17(1)	14(1)	2460.8	2417.3	0.3
17(1)	15(1)	2406.3	2355.9	0.9
17(1)	16(1)	2380.6	2329.0	0.0
18(1)	1(1)	4962.3	4764.8	0.4
18(1)	2(1)	4949.1	4737.4	0.1
18(1)	3(1)	4364.9	4213.3	0.1
18(1)	4(1)	4330.5	4184.6	0.0
18(1)	5(1)	4314.8	4171.8	0.0
18(1)	6(1)	2987.8	2932.9	0.0
18(1)	7(1)	2812.3	2742.9	0.6
18(1)	8(1)	2774.1	2713.0	0.1
18(1)	9(1)	2688.4	2629.1	0.2
18(1)	10(1)	2640.5	2582.0	1.2
18(1)	11(1)	2511.2	2457.4	0.0
18(1)	12(1)	2492.2	2436.9	0.8
18(1)	13(1)	2452.5	2392.1	0.5
18(1)	14(1)	2433.1	2388.1	0.9
18(1)	15(1)	2378.5	2327.8	0.2
18(1)	16(1)	2352.9	2299.9	0.4
18(1)	17(1)	2328.6	2283.6	0.0

19(1)	1(1)	4883.1	4686.4	0.0
19(1)	2(1)	4869.8	4658.1	0.2
19(1)	3(1)	4285.6	4138.3	0.1
19(1)	4(1)	4251.2	4106.8	0.1
19(1)	5(1)	4235.5	4094.8	0.2
19(1)	6(1)	2908.5	2852.9	0.2
19(1)	7(1)	2733.0	2666.7	0.0
19(1)	8(1)	2694.8	2634.7	0.0
19(1)	9(1)	2609.1	2551.7	0.0
19(1)	10(1)	2561.2	2505.6	0.2
19(1)	11(1)	2432.0	2378.5	0.1
19(1)	12(1)	2412.9	2361.0	0.2
19(1)	13(1)	2373.2	2309.5	2.4
19(1)	14(1)	2353.8	2309.6	0.0
19(1)	15(1)	2299.2	2251.8	0.1
19(1)	16(1)	2273.6	2219.3	0.1
19(1)	17(1)	2249.4	2206.2	0.0
19(1)	18(1)	2221.6	2176.1	0.6
20(1)	1(1)	4803.4	4612.3	0.0
20(1)	2(1)	4790.2	4585.5	0.0
20(1)	3(1)	4206.0	4061.9	0.1
20(1)	4(1)	4171.6	4031.5	0.1
20(1)	5(1)	4155.9	4019.3	0.3
20(1)	6(1)	2828.9	2780.5	0.0
20(1)	7(1)	2653.4	2591.9	0.0
20(1)	8(1)	2615.2	2558.2	0.0
20(1)	9(1)	2529.5	2476.3	0.4
20(1)	10(1)	2481.6	2429.7	0.2
20(1)	11(1)	2352.3	2305.1	0.3
20(1)	12(1)	2333.3	2285.4	0.7
20(1)	13(1)	2293.6	2240.9	0.2
20(1)	14(1)	2274.2	2235.1	0.2
20(1)	15(1)	2219.6	2176.2	0.1
20(1)	16(1)	2194.0	2147.5	0.0
20(1)	17(1)	2169.7	2131.6	0.1
20(1)	18(1)	2142.0	2102.7	0.6
20(1)	19(1)	2062.7	2024.3	0.3
21(1)	1(1)	4777.8	4590.6	0.0
21(1)	2(1)	4764.5	4564.7	0.0
21(1)	3(1)	4180.3	4042.8	0.0

21(1)	4(1)	4145.9	4001.2	0.0
21(1)	5(1)	4130.2	3992.1	0.0
21(1)	6(1)	2803.2	2758.8	0.0
21(1)	7(1)	2627.7	2571.0	0.0
21(1)	8(1)	2589.5	2540.2	0.0
21(1)	9(1)	2503.8	2456.2	0.0
21(1)	10(1)	2455.9	2410.1	0.0
21(1)	11(1)	2326.7	2284.6	0.0
21(1)	12(1)	2307.6	2265.6	0.0
21(1)	13(1)	2267.9	2219.4	0.0
21(1)	14(1)	2248.5	2215.0	0.0
21(1)	15(1)	2193.9	2156.5	0.0
21(1)	16(1)	2168.3	2125.9	0.0
21(1)	17(1)	2144.1	2110.0	0.0
21(1)	18(1)	2116.3	2081.9	0.0
21(1)	19(1)	2037.0	2003.6	0.1
21(1)	20(1)	1957.4	1929.1	0.1
22(1)	1(1)	4697.1	4516.3	0.0
22(1)	2(1)	4683.9	4490.1	0.0
22(1)	3(1)	4099.7	3954.8	0.0
22(1)	4(1)	4065.2	3936.6	0.0
22(1)	5(1)	4049.6	3924.7	0.0
22(1)	6(1)	2722.6	2684.9	0.0
22(1)	7(1)	2547.0	2496.0	0.0
22(1)	8(1)	2508.9	2464.9	0.0
22(1)	9(1)	2423.2	2381.9	0.0
22(1)	10(1)	2375.3	2334.4	0.0
22(1)	11(1)	2246.0	2210.2	0.0
22(1)	12(1)	2227.0	2190.9	0.0
22(1)	13(1)	2187.2	2144.7	0.0
22(1)	14(1)	2167.9	2140.7	0.0
22(1)	15(1)	2113.3	2080.8	0.0
22(1)	16(1)	2087.6	2051.9	0.0
22(1)	17(1)	2063.4	2037.0	0.0
22(1)	18(1)	2035.7	2008.0	0.0
22(1)	19(1)	1956.4	1928.5	0.0
22(1)	20(1)	1876.8	1854.4	0.0
22(1)	21(1)	1851.1	1835.6	0.8
23(1)	1(1)	4640.4	4456.1	0.0
23(1)	2(1)	4627.1	4430.2	0.0

23(1)	3(1)	4043.0	3909.0	0.0
23(1)	4(1)	4008.5	3873.2	0.0
23(1)	5(1)	3992.8	3859.8	0.0
23(1)	6(1)	2665.8	2624.3	0.0
23(1)	7(1)	2490.3	2437.7	0.0
23(1)	8(1)	2452.1	2405.5	0.0
23(1)	9(1)	2366.4	2321.8	0.0
23(1)	10(1)	2318.6	2276.8	0.0
23(1)	11(1)	2189.3	2150.8	0.0
23(1)	12(1)	2170.2	2132.3	0.0
23(1)	13(1)	2130.5	2081.5	0.0
23(1)	14(1)	2111.1	2079.2	0.0
23(1)	15(1)	2056.6	2022.0	0.0
23(1)	16(1)	2030.9	1990.6	0.0
23(1)	17(1)	2006.7	1976.4	0.0
23(1)	18(1)	1978.9	1947.7	0.0
23(1)	19(1)	1899.6	1868.8	0.2
23(1)	20(1)	1820.0	1794.4	0.0
23(1)	21(1)	1794.3	1773.6	0.5
23(1)	22(1)	1713.7	1700.6	0.4
24(1)	1(1)	4593.3	4411.1	0.0
24(1)	2(1)	4580.1	4384.8	0.0
24(1)	3(1)	3995.9	3862.8	0.0
24(1)	4(1)	3961.4	3829.7	0.0
24(1)	5(1)	3945.8	3817.6	0.0
24(1)	6(1)	2618.8	2577.7	0.1
24(1)	7(1)	2443.2	2392.5	0.1
24(1)	8(1)	2405.0	2360.2	0.0
24(1)	9(1)	2319.4	2276.9	0.0
24(1)	10(1)	2271.5	2229.9	0.0
24(1)	11(1)	2142.2	2104.3	0.0
24(1)	12(1)	2123.2	2086.5	0.0
24(1)	13(1)	2083.4	2038.3	0.1
24(1)	14(1)	2064.0	2036.2	0.0
24(1)	15(1)	2009.5	1977.9	0.0
24(1)	16(1)	1983.8	1943.3	0.2
24(1)	17(1)	1959.6	1932.6	0.0
24(1)	18(1)	1931.8	1901.6	0.0
24(1)	19(1)	1852.6	1822.5	0.3
24(1)	20(1)	1772.9	1749.1	0.1

24(1)	21(1)	1747.3	1728.3	0.9
24(1)	22(1)	1666.6	1654.6	1.2
24(1)	23(1)	1609.9	1594.2	3.0
25(1)	1(1)	4575.8	4389.0	0.0
25(1)	2(1)	4562.6	4361.6	0.1
25(1)	3(1)	3978.4	3840.9	0.1
25(1)	4(1)	3943.9	3809.0	0.1
25(1)	5(1)	3928.2	3797.2	0.0
25(1)	6(1)	2601.2	2555.5	0.1
25(1)	7(1)	2425.7	2370.2	0.5
25(1)	8(1)	2387.5	2337.7	0.3
25(1)	9(1)	2301.8	2254.7	0.1
25(1)	10(1)	2254.0	2207.9	0.1
25(1)	11(1)	2124.7	2081.9	0.2
25(1)	12(1)	2105.7	2062.9	0.1
25(1)	13(1)	2065.9	2016.2	0.7
25(1)	14(1)	2046.5	2011.7	0.1
25(1)	15(1)	1992.0	1954.3	0.1
25(1)	16(1)	1966.3	1924.8	1.9
25(1)	17(1)	1942.1	1908.7	0.1
25(1)	18(1)	1914.3	1880.5	1.8
25(1)	19(1)	1835.0	1799.1	0.2
25(1)	20(1)	1755.4	1726.8	0.1
25(1)	21(1)	1729.7	1705.7	0.0
25(1)	22(1)	1649.1	1631.3	0.0
25(1)	23(1)	1592.4	1571.3	0.2
25(1)	24(1)	1545.3	1525.8	0.0
26(1)	1(1)	4564.0	4377.3	0.0
26(1)	2(1)	4550.8	4349.8	0.0
26(1)	3(1)	3966.6	3829.6	0.0
26(1)	4(1)	3932.1	3797.2	0.1
26(1)	5(1)	3916.5	3785.5	0.2
26(1)	6(1)	2589.5	2543.8	0.0
26(1)	7(1)	2413.9	2358.2	0.3
26(1)	8(1)	2375.8	2325.9	0.3
26(1)	9(1)	2290.1	2242.2	0.2
26(1)	10(1)	2242.2	2196.0	0.1
26(1)	11(1)	2112.9	2070.3	0.2
26(1)	12(1)	2093.9	2051.0	0.7
26(1)	13(1)	2054.1	2004.3	0.3

26(1)	14(1)	2034.8	2000.8	0.1
26(1)	15(1)	1980.2	1942.6	0.4
26(1)	16(1)	1954.5	1912.8	1.4
26(1)	17(1)	1930.3	1896.5	0.5
26(1)	18(1)	1902.6	1867.9	0.0
26(1)	19(1)	1823.3	1787.9	7.0
26(1)	20(1)	1743.7	1715.1	0.0
26(1)	21(1)	1718.0	1693.8	0.0
26(1)	22(1)	1637.3	1619.6	0.0
26(1)	23(1)	1580.6	1559.5	0.0
26(1)	24(1)	1533.5	1514.0	0.2
26(1)	25(1)	1516.0	1491.4	0.3
27(1)	1(1)	4522.0	4340.0	0.0
27(1)	2(1)	4508.7	4313.6	0.0
27(1)	3(1)	3924.5	3791.1	0.0
27(1)	4(1)	3890.1	3759.9	0.0
27(1)	5(1)	3874.4	3747.9	0.0
27(1)	6(1)	2547.4	2506.9	0.0
27(1)	7(1)	2371.9	2320.6	0.0
27(1)	8(1)	2333.7	2288.5	0.0
27(1)	9(1)	2248.0	2205.3	0.0
27(1)	10(1)	2200.1	2158.4	0.0
27(1)	11(1)	2070.9	2033.1	0.0
27(1)	12(1)	2051.8	2014.6	0.0
27(1)	13(1)	2012.1	1968.8	0.0
27(1)	14(1)	1992.7	1963.3	0.0
27(1)	15(1)	1938.1	1905.8	0.0
27(1)	16(1)	1912.5	1874.5	0.3
27(1)	17(1)	1888.3	1858.0	0.0
27(1)	18(1)	1860.5	1830.5	0.2
27(1)	19(1)	1781.2	1750.8	1.2
27(1)	20(1)	1701.6	1677.8	0.3
27(1)	21(1)	1675.9	1658.0	0.0
27(1)	22(1)	1595.3	1583.5	1.0
27(1)	23(1)	1538.5	1522.5	0.2
27(1)	24(1)	1491.5	1478.5	34.1
27(1)	25(1)	1473.9	1454.1	1.0
27(1)	26(1)	1462.2	1442.8	0.2
28(1)	1(1)	4462.0	4277.8	0.0
28(1)	2(1)	4448.8	4251.3	0.0

28(1)	3(1)	3864.6	3729.7	0.0
28(1)	4(1)	3830.1	3697.3	0.0
28(1)	5(1)	3814.5	3685.1	0.0
28(1)	6(1)	2487.5	2446.0	0.0
28(1)	7(1)	2311.9	2259.0	0.0
28(1)	8(1)	2273.7	2226.7	0.0
28(1)	9(1)	2188.1	2142.8	0.0
28(1)	10(1)	2140.2	2097.0	0.0
28(1)	11(1)	2010.9	1971.7	0.0
28(1)	12(1)	1991.9	1951.6	0.0
28(1)	13(1)	1952.1	1906.7	0.0
28(1)	14(1)	1932.7	1901.2	0.0
28(1)	15(1)	1878.2	1843.7	0.0
28(1)	16(1)	1852.5	1813.7	2.4
28(1)	17(1)	1828.3	1798.1	0.2
28(1)	18(1)	1800.5	1769.4	0.1
28(1)	19(1)	1721.3	1690.0	0.1
28(1)	20(1)	1641.6	1614.5	0.1
28(1)	21(1)	1616.0	1593.7	4.9
28(1)	22(1)	1535.3	1525.1	0.2
28(1)	23(1)	1478.6	1459.3	6.4
28(1)	24(1)	1431.5	1415.4	0.3
28(1)	25(1)	1414.0	1392.5	0.2
28(1)	26(1)	1402.2	1380.8	0.2
28(1)	27(1)	1360.2	1343.5	28.5
29(1)	1(1)	4412.5	4231.5	0.0
29(1)	2(1)	4399.3	4203.8	0.1
29(1)	3(1)	3815.1	3683.6	0.0
29(1)	4(1)	3780.6	3651.8	0.0
29(1)	5(1)	3764.9	3639.8	0.0
29(1)	6(1)	2437.9	2397.9	0.0
29(1)	7(1)	2262.4	2212.2	0.0
29(1)	8(1)	2224.2	2180.2	0.0
29(1)	9(1)	2138.5	2096.6	0.1
29(1)	10(1)	2090.7	2050.6	0.0
29(1)	11(1)	1961.4	1924.9	0.1
29(1)	12(1)	1942.4	1904.9	0.1
29(1)	13(1)	1902.6	1859.0	0.1
29(1)	14(1)	1883.2	1854.8	0.0
29(1)	15(1)	1828.7	1797.1	3.0

29(1)	16(1)	1803.0	1768.5	2.7
29(1)	17(1)	1778.8	1751.1	0.3
29(1)	18(1)	1751.0	1722.3	0.3
29(1)	19(1)	1671.7	1643.3	7.6
29(1)	20(1)	1592.1	1569.3	1.1
29(1)	21(1)	1566.4	1548.1	0.1
29(1)	22(1)	1485.8	1473.7	2.7
29(1)	23(1)	1429.1	1414.0	0.0
29(1)	24(1)	1382.0	1368.7	0.3
29(1)	25(1)	1364.5	1346.7	1.7
29(1)	26(1)	1352.7	1335.3	13.8
29(1)	27(1)	1310.6	1297.2	2.2
29(1)	28(1)	1250.7	1235.0	0.0
30(1)	1(1)	4395.9	4213.1	0.0
30(1)	2(1)	4382.7	4185.8	0.0
30(1)	3(1)	3798.5	3665.2	0.0
30(1)	4(1)	3764.1	3633.5	0.0
30(1)	5(1)	3748.4	3621.5	0.0
30(1)	6(1)	2421.4	2381.5	0.0
30(1)	7(1)	2245.9	2193.9	0.0
30(1)	8(1)	2207.7	2162.3	0.0
30(1)	9(1)	2122.0	2077.8	0.0
30(1)	10(1)	2074.1	2032.2	0.0
30(1)	11(1)	1944.8	1906.3	0.0
30(1)	12(1)	1925.8	1887.5	0.1
30(1)	13(1)	1886.1	1840.5	0.0
30(1)	14(1)	1866.7	1836.1	0.0
30(1)	15(1)	1812.1	1778.1	0.6
30(1)	16(1)	1786.5	1748.1	1.8
30(1)	17(1)	1762.2	1732.5	0.1
30(1)	18(1)	1734.5	1703.7	0.1
30(1)	19(1)	1655.2	1625.3	0.4
30(1)	20(1)	1575.6	1550.6	1.3
30(1)	21(1)	1549.9	1529.8	0.0
30(1)	22(1)	1469.3	1455.4	1.3
30(1)	23(1)	1412.5	1395.6	0.1
30(1)	24(1)	1365.4	1350.9	3.6
30(1)	25(1)	1347.9	1327.2	3.3
30(1)	26(1)	1336.2	1315.0	8.1
30(1)	27(1)	1294.1	1279.8	0.0

30(1)	28(1)	1234.1	1216.7	0.2
30(1)	29(1)	1184.6	1170.2	3.1
31(1)	1(1)	4337.4	4157.1	0.0
31(1)	2(1)	4324.1	4130.6	0.0
31(1)	3(1)	3739.9	3609.6	0.0
31(1)	4(1)	3705.5	3577.5	0.0
31(1)	5(1)	3689.8	3565.5	0.0
31(1)	6(1)	2362.8	2325.7	0.0
31(1)	7(1)	2187.3	2136.1	0.2
31(1)	8(1)	2149.1	2106.4	0.0
31(1)	9(1)	2063.4	2022.7	0.0
31(1)	10(1)	2015.5	1974.6	0.1
31(1)	11(1)	1886.3	1850.5	0.1
31(1)	12(1)	1867.2	1831.7	0.2
31(1)	13(1)	1827.5	1785.0	12.4
31(1)	14(1)	1808.1	1780.8	0.1
31(1)	15(1)	1753.5	1722.3	0.3
31(1)	16(1)	1727.9	1692.7	0.3
31(1)	17(1)	1703.7	1677.7	0.8
31(1)	18(1)	1675.9	1650.4	21.9
31(1)	19(1)	1596.6	1568.9	0.6
31(1)	20(1)	1517.0	1495.7	4.7
31(1)	21(1)	1491.3	1473.9	0.0
31(1)	22(1)	1410.7	1399.5	0.0
31(1)	23(1)	1353.9	1339.7	0.1
31(1)	24(1)	1306.9	1294.3	0.1
31(1)	25(1)	1289.4	1272.1	5.5
31(1)	26(1)	1277.6	1259.4	4.7
31(1)	27(1)	1235.5	1223.0	0.1
31(1)	28(1)	1175.6	1160.2	4.8
31(1)	29(1)	1126.1	1114.6	0.0
31(1)	30(1)	1109.5	1096.3	0.5
32(1)	1(1)	4310.3	4082.3	0.0
32(1)	2(1)	4297.1	4046.3	1.4
32(1)	3(1)	3712.9	3534.8	0.0
32(1)	4(1)	3678.4	3502.1	0.1
32(1)	5(1)	3662.8	3490.4	0.1
32(1)	6(1)	2335.8	2249.2	0.0
32(1)	7(1)	2160.2	2064.4	0.0
32(1)	8(1)	2122.1	2031.9	0.0

32(1)	9(1)	2036.4	1948.4	0.0
32(1)	10(1)	1988.5	1901.7	0.0
32(1)	11(1)	1859.2	1776.4	0.2
32(1)	12(1)	1840.2	1757.4	4.6
32(1)	13(1)	1800.5	1705.8	1.8
32(1)	14(1)	1781.1	1706.6	0.1
32(1)	15(1)	1726.5	1648.3	0.1
32(1)	16(1)	1700.8	1621.5	0.3
32(1)	17(1)	1676.6	1602.9	0.1
32(1)	18(1)	1648.9	1574.9	0.7
32(1)	19(1)	1569.6	1496.7	0.3
32(1)	20(1)	1490.0	1419.5	0.1
32(1)	21(1)	1464.3	1396.9	0.3
32(1)	22(1)	1383.6	1324.5	0.0
32(1)	23(1)	1326.9	1268.7	66.0
32(1)	24(1)	1279.8	1217.3	5.0
32(1)	25(1)	1262.3	1196.7	2.2
32(1)	26(1)	1250.5	1185.1	0.6
32(1)	27(1)	1208.5	1141.4	9.1
32(1)	28(1)	1148.5	1085.6	1.6
32(1)	29(1)	1099.0	1039.8	0.4
32(1)	30(1)	1082.5	1020.2	0.1
32(1)	31(1)	1023.9	964.8	0.0
33(1)	1(1)	4285.8	4104.1	0.0
33(1)	2(1)	4272.5	4077.8	0.0
33(1)	3(1)	3688.3	3556.4	0.0
33(1)	4(1)	3653.9	3524.1	0.0
33(1)	5(1)	3638.2	3512.3	0.0
33(1)	6(1)	2311.2	2272.3	0.0
33(1)	7(1)	2135.7	2085.0	0.0
33(1)	8(1)	2097.5	2053.0	0.0
33(1)	9(1)	2011.8	1969.5	0.0
33(1)	10(1)	1963.9	1923.7	0.0
33(1)	11(1)	1834.6	1796.8	0.0
33(1)	12(1)	1815.6	1779.3	0.0
33(1)	13(1)	1775.9	1732.8	0.1
33(1)	14(1)	1756.5	1726.7	0.0
33(1)	15(1)	1701.9	1669.7	0.0
33(1)	16(1)	1676.3	1640.0	0.6
33(1)	17(1)	1652.1	1622.2	1.5

33(1)	18(1)	1624.3	1595.2	0.0
33(1)	19(1)	1545.0	1516.6	0.3
33(1)	20(1)	1465.4	1441.9	0.1
33(1)	21(1)	1439.7	1420.0	0.9
33(1)	22(1)	1359.1	1346.2	1.0
33(1)	23(1)	1302.3	1287.1	1.5
33(1)	24(1)	1255.2	1240.4	0.7
33(1)	25(1)	1237.7	1218.6	0.0
33(1)	26(1)	1226.0	1207.6	0.2
33(1)	27(1)	1183.9	1172.2	3.4
33(1)	28(1)	1123.9	1106.7	3.6
33(1)	29(1)	1074.4	1061.5	3.1
33(1)	30(1)	1057.9	1042.9	1.9
33(1)	31(1)	999.3	987.3	0.6
33(1)	32(1)	972.3	911.7	0.1
34(1)	1(1)	4242.9	4062.6	0.0
34(1)	2(1)	4229.7	4035.7	0.0
34(1)	3(1)	3645.5	3515.0	0.0
34(1)	4(1)	3611.0	3482.8	0.0
34(1)	5(1)	3595.4	3470.9	0.0
34(1)	6(1)	2268.4	2229.8	0.0
34(1)	7(1)	2092.8	2044.0	0.0
34(1)	8(1)	2054.7	2011.8	0.0
34(1)	9(1)	1969.0	1928.2	0.0
34(1)	10(1)	1921.1	1881.6	0.1
34(1)	11(1)	1791.8	1756.8	0.9
34(1)	12(1)	1772.8	1737.2	0.1
34(1)	13(1)	1733.0	1690.8	1.1
34(1)	14(1)	1713.7	1686.0	0.1
34(1)	15(1)	1659.1	1628.4	0.1
34(1)	16(1)	1633.4	1598.3	0.2
34(1)	17(1)	1609.2	1582.2	2.7
34(1)	18(1)	1581.5	1554.0	0.0
34(1)	19(1)	1502.2	1474.7	0.9
34(1)	20(1)	1422.6	1400.8	0.2
34(1)	21(1)	1396.9	1379.5	0.8
34(1)	22(1)	1316.2	1305.1	0.1
34(1)	23(1)	1259.5	1245.2	2.3
34(1)	24(1)	1212.4	1199.5	1.0
34(1)	25(1)	1194.9	1176.8	0.2

34(1)	26(1)	1183.1	1165.7	5.5
34(1)	27(1)	1141.1	1127.3	2.5
34(1)	28(1)	1081.1	1066.2	0.1
34(1)	29(1)	1031.6	1020.0	0.0
34(1)	30(1)	1015.1	1001.8	0.1
34(1)	31(1)	956.5	945.7	0.1
34(1)	32(1)	929.4	866.8	0.9
34(1)	33(1)	904.9	891.8	0.1
35(1)	1(1)	4197.1	4020.8	1.4
35(1)	2(1)	4183.8	3992.5	0.0
35(1)	3(1)	3599.7	3471.9	0.0
35(1)	4(1)	3565.2	3440.8	0.0
35(1)	5(1)	3549.5	3429.9	0.0
35(1)	6(1)	2222.5	2188.1	0.0
35(1)	7(1)	2047.0	2000.6	0.0
35(1)	8(1)	2008.8	1967.9	0.0
35(1)	9(1)	1923.1	1885.1	0.0
35(1)	10(1)	1875.3	1836.4	0.0
35(1)	11(1)	1746.0	1713.9	0.0
35(1)	12(1)	1727.0	1690.0	0.0
35(1)	13(1)	1687.2	1647.5	0.0
35(1)	14(1)	1667.8	1643.2	0.2
35(1)	15(1)	1613.3	1592.0	0.0
35(1)	16(1)	1587.6	1554.4	0.0
35(1)	17(1)	1563.4	1541.4	0.0
35(1)	18(1)	1535.6	1509.5	0.0
35(1)	19(1)	1456.3	1432.3	0.0
35(1)	20(1)	1376.7	1357.5	0.0
35(1)	21(1)	1351.0	1337.9	2.4
35(1)	22(1)	1270.4	1265.1	0.5
35(1)	23(1)	1213.7	1214.7	3.0
35(1)	24(1)	1166.6	1156.4	2.7
35(1)	25(1)	1149.1	1131.5	113.4
35(1)	26(1)	1137.3	1118.7	0.0
35(1)	27(1)	1095.2	1085.3	0.8
35(1)	28(1)	1035.3	1020.7	2.2
35(1)	29(1)	985.8	976.9	0.2
35(1)	30(1)	969.2	958.1	0.1
35(1)	31(1)	910.6	902.2	0.1
35(1)	32(1)	883.6	826.1	0.0

35(1)	33(1)	859.0	848.8	0.3
35(1)	34(1)	816.2	807.5	0.2
36(1)	1(1)	4174.5	3995.9	0.0
36(1)	2(1)	4161.3	3969.3	0.0
36(1)	3(1)	3577.1	3448.5	0.0
36(1)	4(1)	3542.6	3416.4	0.0
36(1)	5(1)	3527.0	3404.4	0.0
36(1)	6(1)	2200.0	2164.1	0.1
36(1)	7(1)	2024.4	1975.7	0.2
36(1)	8(1)	1986.2	1945.5	0.0
36(1)	9(1)	1900.6	1861.4	0.1
36(1)	10(1)	1852.7	1815.3	0.2
36(1)	11(1)	1723.4	1690.8	3.9
36(1)	12(1)	1704.4	1670.2	0.1
36(1)	13(1)	1664.6	1625.1	69.3
36(1)	14(1)	1645.2	1619.6	0.4
36(1)	15(1)	1590.7	1561.2	0.9
36(1)	16(1)	1565.0	1532.2	0.4
36(1)	17(1)	1540.8	1516.1	0.1
36(1)	18(1)	1513.0	1487.6	0.8
36(1)	19(1)	1433.8	1408.1	0.4
36(1)	20(1)	1354.1	1337.4	1.9
36(1)	21(1)	1328.5	1312.8	0.0
36(1)	22(1)	1247.8	1238.6	0.0
36(1)	23(1)	1191.1	1178.6	0.1
36(1)	24(1)	1144.0	1132.9	0.8
36(1)	25(1)	1126.5	1110.3	1.7
36(1)	26(1)	1114.7	1098.9	0.2
36(1)	27(1)	1072.7	1061.7	0.0
36(1)	28(1)	1012.7	999.7	0.0
36(1)	29(1)	963.2	953.4	0.0
36(1)	30(1)	946.6	934.8	0.0
36(1)	31(1)	888.1	879.2	0.0
36(1)	32(1)	861.0	803.9	0.1
36(1)	33(1)	836.5	826.2	0.0
36(1)	34(1)	793.6	785.0	0.0
36(1)	35(1)	747.8	741.6	0.0
37(1)	1(1)	4120.5	3942.4	0.0
37(1)	2(1)	4107.2	3915.3	0.0
37(1)	3(1)	3523.1	3394.6	0.0

37(1)	4(1)	3488.6	3362.8	0.0
37(1)	5(1)	3472.9	3350.8	0.0
37(1)	6(1)	2145.9	2110.6	0.1
37(1)	7(1)	1970.4	1924.7	0.0
37(1)	8(1)	1932.2	1891.6	0.1
37(1)	9(1)	1846.5	1808.5	9.9
37(1)	10(1)	1798.7	1761.4	0.1
37(1)	11(1)	1669.4	1638.1	1.3
37(1)	12(1)	1650.3	1616.2	12.7
37(1)	13(1)	1610.6	1571.0	0.4
37(1)	14(1)	1591.2	1565.7	0.3
37(1)	15(1)	1536.7	1508.1	0.1
37(1)	16(1)	1511.0	1477.9	0.9
37(1)	17(1)	1486.8	1463.7	0.1
37(1)	18(1)	1459.0	1433.4	0.1
37(1)	19(1)	1379.7	1354.7	0.1
37(1)	20(1)	1300.1	1279.4	188.3
37(1)	21(1)	1274.4	1258.9	1.4
37(1)	22(1)	1193.8	1184.8	0.1
37(1)	23(1)	1137.1	1124.8	0.1
37(1)	24(1)	1090.0	1079.3	0.2
37(1)	25(1)	1072.5	1056.8	0.2
37(1)	26(1)	1060.7	1045.0	0.0
37(1)	27(1)	1018.6	1008.3	0.0
37(1)	28(1)	958.7	945.8	0.0
37(1)	29(1)	909.2	899.5	0.0
37(1)	30(1)	892.6	880.9	0.0
37(1)	31(1)	834.0	825.5	0.0
37(1)	32(1)	807.0	750.6	0.1
37(1)	33(1)	782.4	772.3	0.0
37(1)	34(1)	739.6	731.1	0.0
37(1)	35(1)	693.8	687.6	0.0
37(1)	36(1)	671.2	664.0	0.0
38(1)	1(1)	4079.2	3901.6	0.0
38(1)	2(1)	4065.9	3874.7	0.1
38(1)	3(1)	3481.8	3353.8	0.0
38(1)	4(1)	3447.3	3321.9	0.0
38(1)	5(1)	3431.6	3310.0	0.0
38(1)	6(1)	2104.6	2070.0	0.1
38(1)	7(1)	1929.1	1883.2	0.0

38(1)	8(1)	1890.9	1850.4	0.0
38(1)	9(1)	1805.2	1767.4	0.1
38(1)	10(1)	1757.4	1720.8	0.0
38(1)	11(1)	1628.1	1595.7	11.1
38(1)	12(1)	1609.1	1576.2	0.0
38(1)	13(1)	1569.3	1530.0	0.1
38(1)	14(1)	1549.9	1525.2	0.0
38(1)	15(1)	1495.4	1466.8	0.1
38(1)	16(1)	1469.7	1437.3	0.1
38(1)	17(1)	1445.5	1421.2	0.1
38(1)	18(1)	1417.7	1392.4	0.1
38(1)	19(1)	1338.4	1314.2	0.4
38(1)	20(1)	1258.8	1239.4	0.2
38(1)	21(1)	1233.1	1218.8	1.0
38(1)	22(1)	1152.5	1143.8	0.3
38(1)	23(1)	1095.8	1083.8	0.3
38(1)	24(1)	1048.7	1038.2	0.6
38(1)	25(1)	1031.2	1016.4	0.1
38(1)	26(1)	1019.4	1005.1	0.1
38(1)	27(1)	977.3	967.9	0.7
38(1)	28(1)	917.4	905.3	0.2
38(1)	29(1)	867.9	858.6	0.0
38(1)	30(1)	851.3	839.6	0.0
38(1)	31(1)	792.8	783.7	0.3
38(1)	32(1)	765.7	710.8	0.9
38(1)	33(1)	741.1	731.3	0.5
38(1)	34(1)	698.3	690.8	0.0
38(1)	35(1)	652.5	648.3	0.3
38(1)	36(1)	629.9	623.1	0.0
38(1)	37(1)	575.9	569.0	0.0
39(1)	1(1)	4039.6	3863.3	0.1
39(1)	2(1)	4026.3	3836.5	0.0
39(1)	3(1)	3442.1	3315.3	0.0
39(1)	4(1)	3407.7	3283.5	0.0
39(1)	5(1)	3392.0	3271.6	0.0
39(1)	6(1)	2065.0	2031.4	0.0
39(1)	7(1)	1889.5	1844.5	0.0
39(1)	8(1)	1851.3	1812.7	0.0
39(1)	9(1)	1765.6	1729.0	0.0
39(1)	10(1)	1717.7	1682.3	0.1

39(1)	11(1)	1588.4	1556.9	0.0
39(1)	12(1)	1569.4	1537.7	0.1
39(1)	13(1)	1529.7	1491.5	0.0
39(1)	14(1)	1510.3	1486.6	0.0
39(1)	15(1)	1455.7	1428.5	0.1
39(1)	16(1)	1430.1	1398.6	0.0
39(1)	17(1)	1405.8	1383.0	0.0
39(1)	18(1)	1378.1	1354.2	0.0
39(1)	19(1)	1298.8	1275.4	9.3
39(1)	20(1)	1219.2	1201.1	0.0
39(1)	21(1)	1193.5	1179.8	0.1
39(1)	22(1)	1112.9	1106.0	0.1
39(1)	23(1)	1056.1	1045.5	0.1
39(1)	24(1)	1009.0	1000.4	0.0
39(1)	25(1)	991.5	978.0	0.0
39(1)	26(1)	979.8	966.3	0.0
39(1)	27(1)	937.7	929.2	0.0
39(1)	28(1)	877.7	866.3	0.0
39(1)	29(1)	828.2	820.5	0.0
39(1)	30(1)	811.7	802.2	0.0
39(1)	31(1)	753.1	747.5	2.4
39(1)	32(1)	726.1	670.6	0.0
39(1)	33(1)	701.5	693.0	0.0
39(1)	34(1)	658.7	651.6	0.2
39(1)	35(1)	612.8	608.6	0.4
39(1)	36(1)	590.2	584.5	0.0
39(1)	37(1)	536.2	531.0	0.0
39(1)	38(1)	494.9	490.6	0.0
40(1)	1(1)	3990.3	3813.2	0.0
40(1)	2(1)	3977.0	3785.7	0.0
40(1)	3(1)	3392.9	3265.4	0.0
40(1)	4(1)	3358.4	3233.8	0.0
40(1)	5(1)	3342.7	3221.7	0.0
40(1)	6(1)	2015.7	1981.3	0.2
40(1)	7(1)	1840.2	1794.1	12.1
40(1)	8(1)	1802.0	1762.7	0.2
40(1)	9(1)	1716.3	1678.8	0.0
40(1)	10(1)	1668.5	1633.4	39.0
40(1)	11(1)	1539.2	1506.5	9.5
40(1)	12(1)	1520.1	1487.7	0.4

40(1)	13(1)	1480.4	1440.7	1.5
40(1)	14(1)	1461.0	1436.3	0.0
40(1)	15(1)	1406.5	1378.6	0.0
40(1)	16(1)	1380.8	1348.7	0.4
40(1)	17(1)	1356.6	1333.2	1.6
40(1)	18(1)	1328.8	1304.1	0.6
40(1)	19(1)	1249.5	1225.2	0.8
40(1)	20(1)	1169.9	1150.9	3.1
40(1)	21(1)	1144.2	1130.3	0.4
40(1)	22(1)	1063.6	1055.1	0.0
40(1)	23(1)	1006.9	995.5	0.0
40(1)	24(1)	959.8	950.1	0.0
40(1)	25(1)	942.3	927.4	0.0
40(1)	26(1)	930.5	915.8	0.0
40(1)	27(1)	888.4	879.4	0.0
40(1)	28(1)	828.5	816.4	0.0
40(1)	29(1)	779.0	770.3	1.3
40(1)	30(1)	762.4	751.3	0.2
40(1)	31(1)	703.8	696.2	0.0
40(1)	32(1)	676.8	621.2	0.5
40(1)	33(1)	652.2	643.1	0.0
40(1)	34(1)	609.4	602.2	0.0
40(1)	35(1)	563.6	559.5	0.0
40(1)	36(1)	541.0	534.9	0.0
40(1)	37(1)	487.0	481.0	0.7
40(1)	38(1)	445.7	439.6	0.0
40(1)	39(1)	406.0	401.3	0.0
41(1)	1(1)	3907.1	3729.5	0.0
41(1)	2(1)	3893.9	3702.4	0.0
41(1)	3(1)	3309.7	3181.7	0.0
41(1)	4(1)	3275.2	3149.5	0.0
41(1)	5(1)	3259.6	3137.6	0.0
41(1)	6(1)	1932.6	1897.5	0.2
41(1)	7(1)	1757.0	1711.1	0.1
41(1)	8(1)	1718.8	1678.9	0.0
41(1)	9(1)	1633.2	1595.3	0.2
41(1)	10(1)	1585.3	1548.7	0.0
41(1)	11(1)	1456.0	1423.1	0.1
41(1)	12(1)	1437.0	1404.1	0.2
41(1)	13(1)	1397.2	1357.8	0.3

41(1)	14(1)	1377.8	1352.8	0.0
41(1)	15(1)	1323.3	1294.8	0.0
41(1)	16(1)	1297.6	1264.5	24.4
41(1)	17(1)	1273.4	1249.0	0.1
41(1)	18(1)	1245.6	1220.4	0.1
41(1)	19(1)	1166.4	1141.6	0.1
41(1)	20(1)	1086.7	1067.3	0.0
41(1)	21(1)	1061.1	1045.6	0.0
41(1)	22(1)	980.4	971.2	0.0
41(1)	23(1)	923.7	911.6	0.2
41(1)	24(1)	876.6	866.1	0.1
41(1)	25(1)	859.1	843.9	0.0
41(1)	26(1)	847.3	832.4	0.0
41(1)	27(1)	805.3	794.9	0.0
41(1)	28(1)	745.3	732.5	0.1
41(1)	29(1)	695.8	686.3	0.0
41(1)	30(1)	679.2	668.2	0.0
41(1)	31(1)	620.7	612.0	0.0
41(1)	32(1)	593.6	535.9	0.1
41(1)	33(1)	569.1	558.8	0.1
41(1)	34(1)	526.2	517.7	0.0
41(1)	35(1)	480.4	474.9	0.2
41(1)	36(1)	457.8	451.2	0.0
41(1)	37(1)	403.8	397.5	0.0
41(1)	38(1)	362.5	354.7	0.0
41(1)	39(1)	322.9	317.9	0.0
41(1)	40(1)	273.6	266.4	0.0
42(1)	1(1)	3874.2	3699.9	0.0
42(1)	2(1)	3861.0	3671.5	0.1
42(1)	3(1)	3276.8	3150.9	0.0
42(1)	4(1)	3242.3	3118.9	0.0
42(1)	5(1)	3226.7	3107.1	0.0
42(1)	6(1)	1899.7	1867.4	1.3
42(1)	7(1)	1724.1	1681.3	0.0
42(1)	8(1)	1685.9	1648.5	0.1
42(1)	9(1)	1600.2	1565.5	0.2
42(1)	10(1)	1552.4	1518.0	0.1
42(1)	11(1)	1423.1	1392.4	0.1
42(1)	12(1)	1404.1	1374.4	0.2
42(1)	13(1)	1364.3	1327.3	1.1

42(1)	14(1)	1344.9	1322.7	0.5
42(1)	15(1)	1290.4	1264.4	1.5
42(1)	16(1)	1264.7	1234.4	0.1
42(1)	17(1)	1240.5	1218.6	0.2
42(1)	18(1)	1212.7	1190.2	0.1
42(1)	19(1)	1133.4	1111.0	0.5
42(1)	20(1)	1053.8	1036.6	0.0
42(1)	21(1)	1028.2	1015.1	0.0
42(1)	22(1)	947.5	940.8	0.0
42(1)	23(1)	890.8	881.0	0.0
42(1)	24(1)	843.7	836.0	0.0
42(1)	25(1)	826.2	813.3	0.0
42(1)	26(1)	814.4	801.7	0.0
42(1)	27(1)	772.4	765.0	0.7
42(1)	28(1)	712.4	700.3	0.0
42(1)	29(1)	662.9	656.4	0.0
42(1)	30(1)	646.3	637.0	0.1
42(1)	31(1)	587.8	581.4	0.0
42(1)	32(1)	560.7	498.1	1.4
42(1)	33(1)	536.1	528.3	0.1
42(1)	34(1)	493.3	488.0	0.3
42(1)	35(1)	447.5	451.8	0.0
42(1)	36(1)	424.9	419.6	0.8
42(1)	37(1)	370.9	365.5	0.0
42(1)	38(1)	329.6	325.9	0.0
42(1)	39(1)	289.9	288.4	0.0
42(1)	40(1)	240.7	237.1	0.0
42(1)	41(1)	157.5	154.0	0.0

Table S21. Geometry of TS **A1–A2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.196291	−0.124674	0.008547
C	1.445429	1.047817	0.020588
C	0.069659	0.948268	−0.002596
C	−0.598301	−0.268371	−0.038656
C	0.173310	−1.426207	−0.046135
C	1.558954	−1.364130	−0.024666
H	1.926817	2.013701	0.048038
H	−0.316228	−2.389951	−0.073768
H	2.142733	−2.275901	−0.034042
C	−2.092854	−0.322375	−0.112459
O	−2.734488	−0.295556	−1.128042
O	−2.655054	−0.425820	1.112026
H	−3.615474	−0.451704	0.978497
F	−0.655822	2.082256	0.012858
O	3.550557	0.006985	0.031077
H	3.961509	−0.863299	0.017320

Table S22. Geometry of TS (**A1–A2**)* in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.196291	−0.124674	0.008547
C	−1.445429	1.047817	0.020588
C	−0.069659	0.948268	−0.002596
C	0.598301	−0.268371	−0.038656
C	−0.173310	−1.426207	−0.046135
C	−1.558954	−1.364130	−0.024666
H	−1.926817	2.013701	0.048038
H	0.316228	−2.389951	−0.073768
H	−2.142733	−2.275901	−0.034042
C	2.092854	−0.322375	−0.112459
O	2.734488	−0.295556	−1.128042
O	2.655054	−0.425820	1.112026
H	3.615474	−0.451704	0.978497
F	0.655822	2.082256	0.012858
O	−3.550557	0.006985	0.031077
H	−3.961509	−0.863299	0.017320

Table S23. Geometry of TS **A1–B1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.189857	−0.140984	−0.010942
C	1.449159	1.033274	−0.009805
C	0.066452	0.962295	−0.004096
C	−0.613892	−0.258359	−0.000448
C	0.165924	−1.421867	−0.007698
C	1.546571	−1.376905	−0.014151
H	1.937981	1.996149	−0.025820
H	−0.356343	−2.367471	−0.009645
H	2.136553	−2.281806	−0.032396
C	−2.088966	−0.436822	0.006045
O	−2.630250	−1.517409	0.010702
O	−2.791208	0.714818	0.007250
H	−3.724713	0.456536	0.010843
F	−0.598046	2.125032	−0.003005
O	3.565985	−0.077104	−0.077647
H	3.942084	−0.054926	0.808196

Table S24. Geometry of TS (**A1–B1**)^{*} in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.189857	−0.140984	−0.010942
C	−1.449159	1.033274	−0.009805
C	−0.066452	0.962295	−0.004096
C	0.613892	−0.258359	−0.000448
C	−0.165924	−1.421867	−0.007698
C	−1.546571	−1.376905	−0.014151
H	−1.937981	1.996149	−0.025820
H	0.356343	−2.367471	−0.009645
H	−2.136553	−2.281806	−0.032396
C	2.088966	−0.436822	0.006045
O	2.630250	−1.517409	0.010702
O	2.791208	0.714818	0.007250
H	3.724713	0.456536	0.010843
F	0.598046	2.125032	−0.003005
O	−3.565985	−0.077104	−0.077647
H	−3.942084	−0.054926	0.808196

Table S25. Geometry of TS **A1–D1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.191591	−0.103588	−0.018805
C	−1.424365	1.055892	0.034943
C	−0.048505	0.947442	0.044633
C	0.615120	−0.283299	0.004976
C	−0.191950	−1.428079	−0.027296
C	−1.569435	−1.354733	−0.046937
H	−1.894264	2.026912	0.075891
H	0.306215	−2.386662	−0.044735
H	−2.165323	−2.257999	−0.084855
C	2.087151	−0.468795	0.003413
O	2.611857	−1.526595	0.221271
O	2.824352	0.634358	−0.369060
H	3.085530	1.162594	0.392718
F	0.643992	2.095658	0.134709
O	−3.539132	0.045231	−0.034091
H	−3.963251	−0.818761	−0.065913

Table S26. Geometry of TS (**A1–D1**)* in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.191591	−0.103588	−0.018805
C	1.424365	1.055892	0.034943
C	0.048505	0.947442	0.044633
C	−0.615120	−0.283299	0.004976
C	0.191950	−1.428079	−0.027296
C	1.569435	−1.354733	−0.046937
H	1.894264	2.026912	0.075891
H	−0.306215	−2.386662	−0.044735
H	2.165323	−2.257999	−0.084855
C	−2.087151	−0.468795	0.003413
O	−2.611857	−1.526595	0.221271
O	−2.824352	0.634358	−0.369060
H	−3.085530	1.162594	0.392718
F	−0.643992	2.095658	0.134708
O	3.539132	0.045231	−0.034091
H	3.963251	−0.818761	−0.065913

Table S27. Geometry of TS **A2–B2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.180567	−0.186414	−0.010218
C	1.484872	1.015324	−0.012417
C	0.101101	0.996032	−0.006370
C	−0.626440	−0.199286	−0.000071
C	0.108480	−1.392296	−0.004934
C	1.491357	−1.396431	−0.010546
H	2.009238	1.959226	−0.030816
H	−0.431281	−2.326389	−0.005544
H	2.047127	−2.322807	−0.026629
C	−2.109048	−0.207627	0.007838
O	−2.829511	0.757376	0.023472
O	−2.610661	−1.473192	−0.002977
H	−3.573201	−1.374692	0.003769
F	−0.523960	2.175995	−0.008858
O	3.558136	−0.174764	−0.076737
H	3.934717	−0.170462	0.809177

Table S28. Geometry of TS (**A2–B2**)^{*} in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.180567	−0.186414	−0.010218
C	−1.484872	1.015324	−0.012417
C	−0.101101	0.996032	−0.006370
C	0.626440	−0.199286	−0.000071
C	−0.108480	−1.392296	−0.004934
C	−1.491357	−1.396431	−0.010546
H	−2.009238	1.959226	−0.030816
H	0.431281	−2.326389	−0.005544
H	−2.047127	−2.322807	−0.026629
C	2.109048	−0.207627	0.007838
O	2.829511	0.757376	0.023472
O	2.610661	−1.473192	−0.002977
H	3.573201	−1.374692	0.003769
F	0.523960	2.175995	−0.008858
O	−3.558136	−0.174764	−0.076737
H	−3.934717	−0.170462	0.809177

Table S29. Geometry of TS **A2–D2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.179539	−0.172012	−0.006687
C	1.479918	1.030419	0.045793
C	0.100688	1.005527	0.034828
C	−0.634733	−0.188928	−0.015634
C	0.105279	−1.377217	−0.061749
C	1.487014	−1.383002	−0.061885
H	2.005198	1.972346	0.093845
H	−0.434832	−2.309862	−0.116223
H	2.029420	−2.318878	−0.109207
C	−2.115159	−0.201136	−0.043456
O	−2.815100	0.751763	−0.226467
O	−2.669869	−1.473216	0.094340
H	−2.765613	−1.697074	1.026540
F	−0.527150	2.181719	0.095408
O	3.533310	−0.100692	−0.000220
H	3.908179	−0.986742	−0.042099

Table S30. Geometry of TS (**A2–D2**)^{*} in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.179539	−0.172012	−0.006687
C	−1.479918	1.030419	0.045793
C	−0.100688	1.005527	0.034828
C	0.634733	−0.188928	−0.015634
C	−0.105279	−1.377217	−0.061749
C	−1.487014	−1.383002	−0.061885
H	−2.005198	1.972346	0.093845
H	0.434832	−2.309862	−0.116223
H	−2.029420	−2.318878	−0.109207
C	2.115159	−0.201136	−0.043456
O	2.815100	0.751763	−0.226467
O	2.669869	−1.473216	0.094340
H	2.765613	−1.697074	1.026540
F	0.527150	2.181719	0.095408
O	−3.533310	−0.100692	−0.000220
H	−3.908179	−0.986742	−0.042099

Table S31. Geometry of TS **B1–B2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.195572	−0.159192	0.008400
C	1.456837	1.021100	0.018295
C	0.076630	0.939049	−0.004498
C	−0.601699	−0.267793	−0.038409
C	0.161148	−1.435468	−0.044034
C	1.544561	−1.391754	−0.022536
H	1.930216	1.993565	0.044024
H	−0.340101	−2.393252	−0.070275
H	2.133009	−2.297341	−0.029975
C	−2.096671	−0.307935	−0.111759
O	−2.738206	−0.282176	−1.127457
O	−2.659649	−0.397609	1.113428
H	−3.620214	−0.418196	0.980017
F	−0.630964	2.085145	0.009175
O	3.556234	−0.167030	0.028509
H	3.890464	0.735397	0.045034

Table S32. Geometry of TS (**B1–B2**)* in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.195572	−0.159192	0.008400
C	−1.456837	1.021100	0.018295
C	−0.076630	0.939049	−0.004498
C	0.601699	−0.267793	−0.038409
C	−0.161148	−1.435468	−0.044034
C	−1.544561	−1.391754	−0.022536
H	−1.930216	1.993565	0.044024
H	0.340101	−2.393252	−0.070275
H	−2.133009	−2.297341	−0.029975
C	2.096671	−0.307935	−0.111759
O	2.738206	−0.282176	−1.127457
O	2.659649	−0.397609	1.113428
H	3.620214	−0.418196	0.980017
F	0.630964	2.085145	0.009175
O	−3.556234	−0.167030	0.028509
H	−3.890464	0.735397	0.045034

Table S33. Geometry of TS **B1–C1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	–2.191183	–0.140837	–0.018538
C	–1.436434	1.027451	0.032562
C	–0.056265	0.937721	0.042017
C	0.618868	–0.283196	0.004713
C	–0.178780	–1.438513	–0.025329
C	–1.554876	–1.384688	–0.044248
H	–1.899418	2.004419	0.072723
H	0.331444	–2.390740	–0.041735
H	–2.154370	–2.282340	–0.079777
C	2.092682	–0.452129	0.002806
O	2.629109	–1.506239	0.208319
O	2.818997	0.664257	–0.353846
H	3.067912	1.187437	0.415455
F	0.616864	2.098300	0.128407
O	–3.546733	–0.129837	–0.037419
H	–3.872405	0.776225	–0.022642

Table S34. Geometry of TS (**B1–C1**)^{*} in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.191183	–0.140837	–0.018538
C	1.436434	1.027451	0.032562
C	0.056265	0.937721	0.042017
C	–0.618868	–0.283196	0.004713
C	0.178780	–1.438513	–0.025329
C	1.554876	–1.384688	–0.044248
H	1.899418	2.004419	0.072723
H	–0.331444	–2.390740	–0.041735
H	2.154370	–2.282340	–0.079777
C	–2.092682	–0.452129	0.002806
O	–2.629109	–1.506239	0.208319
O	–2.818997	0.664257	–0.353846
H	–3.067912	1.187437	0.415455
F	–0.616864	2.098300	0.128407
O	3.546733	–0.129837	–0.037419
H	3.872405	0.776225	–0.022642

Table S35. Geometry of TS **B2–C2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.177649	−0.209692	−0.006883
C	1.491057	1.000907	0.042386
C	0.108831	0.994968	0.031511
C	−0.637760	−0.188819	−0.016606
C	0.092049	−1.387023	−0.060766
C	1.471247	−1.412403	−0.059925
H	2.009871	1.949184	0.089270
H	−0.459734	−2.312896	−0.114200
H	2.017379	−2.343070	−0.104227
C	−2.118239	−0.182845	−0.040549
O	−2.806675	0.781283	−0.209885
O	−2.687935	−1.448790	0.083789
H	−2.786515	−1.682726	1.013215
F	−0.499331	2.182214	0.089146
O	3.531614	−0.276309	−0.004841
H	3.907950	0.609547	0.026104

Table S36. Geometry of TS (**B2–C2**)* in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.177649	−0.209692	−0.006883
C	−1.491057	1.000907	0.042386
C	−0.108831	0.994968	0.031511
C	0.637760	−0.188819	−0.016606
C	−0.092049	−1.387023	−0.060766
C	−1.471247	−1.412403	−0.059925
H	−2.009871	1.949184	0.089270
H	0.459734	−2.312896	−0.114200
H	−2.017379	−2.343070	−0.104227
C	2.118239	−0.182845	−0.040549
O	2.806675	0.781283	−0.209885
O	2.687935	−1.448790	0.083789
H	2.786515	−1.682726	1.013215
F	0.499331	2.182214	0.089146
O	−3.531614	−0.276309	−0.004841
H	−3.907950	0.609547	0.026104

Table S37. Geometry of TS **C1–C2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.184661	−0.159373	0.001864
C	1.447751	1.022302	0.022149
C	0.067244	0.943696	−0.000912
C	−0.616111	−0.262038	−0.041547
C	0.147622	−1.431694	−0.059389
C	1.530968	−1.390858	−0.037761
H	1.923287	1.993589	0.053190
H	−0.354852	−2.388544	−0.105104
H	2.117932	−2.297236	−0.058009
C	−2.118223	−0.305666	−0.125579
O	−2.738370	−0.255056	−1.145975
O	−2.755223	−0.438228	1.066091
H	−2.107723	−0.445843	1.781370
F	−0.636469	2.091284	0.024329
O	3.544029	−0.170719	0.020472
H	3.882624	0.730294	0.031928

Table S38. Geometry of TS (**C1–C2**)^{*} (or alternatively **C1–C2**^{*}) in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.184661	−0.159373	0.001864
C	−1.447751	1.022302	0.022149
C	−0.067244	0.943696	−0.000912
C	0.616111	−0.262038	−0.041547
C	−0.147622	−1.431694	−0.059389
C	−1.530968	−1.390858	−0.037761
H	−1.923287	1.993589	0.053190
H	0.354852	−2.388544	−0.105104
H	−2.117932	−2.297236	−0.058009
C	2.118223	−0.305666	−0.125579
O	2.738370	−0.255056	−1.145975
O	2.755223	−0.438228	1.066091
H	2.107723	−0.445843	1.781370
F	0.636469	2.091284	0.024329
O	−3.544029	−0.170719	0.020472
H	−3.882624	0.730294	0.031928

Table S39. Geometry of TS **C1–D1** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.186148	−0.134145	−0.010351
C	1.437720	1.037357	−0.007834
C	0.061473	0.938886	−0.002913
C	−0.622993	−0.273106	−0.000861
C	0.165658	−1.429279	−0.009465
C	1.547038	−1.371974	−0.015811
H	1.916730	2.005004	−0.023033
H	−0.352006	−2.377493	−0.012248
H	2.142909	−2.273085	−0.035082
C	−2.114359	−0.454980	0.006540
O	−2.619458	−1.545399	0.015848
O	−2.885214	0.649813	0.003412
H	−2.344391	1.450503	−0.005193
F	−0.634623	2.112638	−0.001559
O	3.560314	−0.062517	−0.078318
H	3.939118	−0.030408	0.806226

Table S40. Geometry of TS **(C1–D1)*** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.186148	−0.134145	−0.010351
C	−1.437720	1.037357	−0.007834
C	−0.061473	0.938886	−0.002913
C	0.622993	−0.273106	−0.000861
C	−0.165658	−1.429279	−0.009465
C	−1.547038	−1.371974	−0.015811
H	−1.916730	2.005004	−0.023033
H	0.352006	−2.377493	−0.012248
H	−2.142909	−2.273085	−0.035082
C	2.114359	−0.454980	0.006540
O	2.619458	−1.545399	0.015848
O	2.885214	0.649813	0.003412
H	2.344391	1.450503	−0.005193
F	0.634623	2.112638	−0.001559
O	−3.560314	−0.062517	−0.078318
H	−3.939118	−0.030408	0.806226

Table S41. Geometry of TS **C2–C2*** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.185548	−0.191196	0.000002
C	1.475356	1.003862	−0.000002
C	0.091606	0.976847	−0.000002
C	−0.643407	−0.216600	0.000000
C	0.116966	−1.396320	0.000005
C	1.496816	−1.404239	0.000005
H	1.974354	1.963847	−0.000005
H	−0.370593	−2.362825	0.000008
H	2.053174	−2.329642	0.000009
C	−2.137842	−0.195693	0.000000
O	−2.800753	0.803228	0.000008
O	−2.769470	−1.402599	−0.000009
H	−2.145549	−2.134396	−0.000018
F	−0.520409	2.160637	−0.000007
O	3.540017	−0.237715	0.000003
H	3.903687	0.653999	0.000000

Table S42. Geometry of TS **(C2–D2)₁** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.173149	−0.169988	0.011735
C	1.462884	1.017443	−0.121211
C	0.080479	0.981613	−0.099250
C	−0.631438	−0.211648	0.030691
C	0.112948	−1.389938	0.148284
C	1.498640	−1.379680	0.146040
H	1.977496	1.957857	−0.252525
H	−0.405417	−2.330772	0.280759
H	2.064362	−2.295095	0.241883
C	−2.126089	−0.218376	0.104224
O	−2.779876	0.602842	0.678419
O	−2.733527	−1.269299	−0.513919
H	−2.096256	−1.760120	−1.045493
F	−0.576310	2.137129	−0.244168
O	3.550145	−0.149463	−0.060680
H	3.929233	−0.055223	0.819255

Table S43. Geometry of TS (C2–D2)₂ in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	–2.173373	–0.167147	–0.032572
C	–1.462925	1.020256	0.098734
C	–0.080313	0.983049	0.089816
C	0.631949	–0.211422	–0.029967
C	–0.113213	–1.388235	–0.158872
C	–1.498799	–1.376636	–0.168748
H	–1.977277	1.965001	0.195705
H	0.404581	–2.328762	–0.295880
H	–2.064491	–2.287663	–0.299766
C	2.127200	–0.219520	–0.089521
O	2.788962	0.611681	–0.639465
O	2.726971	–1.283488	0.514663
H	2.083088	–1.785775	1.026977
F	0.575123	2.139018	0.234885
O	–3.550401	–0.132054	–0.097308
H	–3.929436	–0.225150	0.782654

Table S44. Geometry of TS (C2*–D2*)₁ (or alternatively (C2–D2)₁*) in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	–2.173149	–0.169991	0.011750
C	–1.462887	1.017462	–0.121010
C	–0.080482	0.981629	–0.099084
C	0.631438	–0.211654	0.030644
C	–0.112945	–1.389963	0.148056
C	–1.498637	–1.379705	0.145842
H	–1.977502	1.957898	–0.252158
H	0.405423	–2.330819	0.280363
H	–2.064358	–2.295135	0.241544
C	2.126091	–0.218393	0.104144
O	2.779889	0.602731	0.678461
O	2.733516	–1.269213	–0.514186
H	2.096233	–1.759948	–1.045825
F	0.576305	2.137170	–0.243821
O	–3.550142	–0.149454	–0.060639
H	–3.929218	–0.055340	0.819315

Table S45. Geometry of TS (**C2**^{*}–**D2**^{*})₂ (or alternatively (**C2**–**D2**)₂^{*}) in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.173373	–0.167147	–0.032571
C	1.462925	1.020256	0.098736
C	0.080313	0.983048	0.089817
C	–0.631949	–0.211422	–0.029967
C	0.113214	–1.388235	–0.158873
C	1.498799	–1.376636	–0.168748
H	1.977277	1.965000	0.195708
H	–0.404581	–2.328762	–0.295882
H	2.064492	–2.287663	–0.299767
C	–2.127200	–0.219520	–0.089522
O	–2.788961	0.611676	–0.639475
O	–2.726971	–1.283482	0.514670
H	–2.083088	–1.785766	1.026987
F	–0.575124	2.139017	0.234887
O	3.550399	–0.132054	–0.097309
H	3.929436	–0.225144	0.782652

Table S46. Geometry of TS **D1**–**D2** in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	–2.185266	–0.126106	0.001505
C	–1.437056	1.048321	0.028583
C	–0.060896	0.953737	0.004665
C	0.613061	–0.261197	–0.042312
C	–0.158581	–1.421516	–0.065973
C	–1.544326	–1.363756	–0.044893
H	–1.921640	2.012401	0.064575
H	0.332986	–2.383765	–0.116341
H	–2.125590	–2.276782	–0.070650
C	2.114653	–0.318061	–0.127368
O	2.735471	–0.250605	–1.146339
O	2.749982	–0.485083	1.060988
H	2.102808	–0.495161	1.776523
F	0.659602	2.089713	0.035992
O	–3.538538	0.002507	0.023667
H	–3.949840	–0.867207	–0.009809

Table S47. Geometry of TS (**D1–D2**)^{*} (or alternatively **D1–D2**^{*}) in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	2.185266	−0.126106	0.001505
C	1.437056	1.048321	0.028583
C	0.060896	0.953737	0.004665
C	−0.613061	−0.261197	−0.042312
C	0.158581	−1.421516	−0.065973
C	1.544326	−1.363756	−0.044893
H	1.921640	2.012401	0.064575
H	−0.332986	−2.383765	−0.116341
H	2.125590	−2.276782	−0.070650
C	−2.114653	−0.318061	−0.127368
O	−2.735471	−0.250605	−1.146339
O	−2.749982	−0.485083	1.060988
H	−2.102808	−0.495161	1.776523
F	−0.659602	2.089713	0.035992
O	3.538538	0.002507	0.023667
H	3.949840	−0.867207	−0.009809

Table S48. Geometry of TS **D2–D2**^{*} in Cartesian coordinates in Å as obtained at the B3LYP/cc-pVTZ level of theory.

C	−2.187387	−0.154869	0.000000
C	−1.464271	1.032113	0.000002
C	−0.083921	0.986862	0.000001
C	0.640374	−0.217270	−0.000002
C	−0.129972	−1.386765	−0.000003
C	−1.512460	−1.375754	−0.000003
H	−1.970054	1.985909	0.000004
H	0.345011	−2.359396	−0.000006
H	−2.064376	−2.306829	−0.000005
C	2.135222	−0.213503	−0.000001
O	2.809693	0.777298	−0.000007
O	2.753846	−1.427811	0.000007
H	2.122270	−2.152819	0.000009
F	0.546797	2.160046	0.000002
O	−3.539559	−0.060939	0.000000
H	−3.931365	−0.940552	0.000005

Table S49. Torsional angles (in degrees) and harmonic zero-point energy corrected relative energy values (in kJ mol⁻¹) of the 2-F-4-OH-benzoic acid TSs.

TS	Torsional angles ^a			$\Delta E_{\text{harm}, \rightarrow}^b$	$\Delta E_{\text{harm}, \leftarrow}^b$
	φ_1	φ_2	φ_3		
A1A2	-179.83157	87.13487	179.80905	22.0	18.7
(A1A2)*	179.83157	-87.13487	-179.80905	22.0	18.7
A1B1	91.21986	-179.90381	179.95462	18.1	17.4
(A1B1)*	-91.21986	179.90381	-179.95462	18.1	17.4
A1D1	-179.62300	165.52406	92.73905	44.0	36.7
(A1D1)*	179.62300	-165.52406	-92.73905	44.0	36.7
A2B2	91.60152	-0.81339	179.96917	17.8	17.6
(A2B2)*	-91.60152	0.81339	-179.96917	17.9	17.6
A2D2	-179.81865	11.81146	86.19866	44.8	17.9
(A2D2)*	179.81865	-11.81146	-86.19866	44.8	17.9
B1B2	-0.27988	87.45222	179.99565	21.8	19.0
(B1B2)*	0.27988	-87.45222	-179.99565	21.8	19.0
B1C1	0.75461	166.35334	92.35919	44.2	36.0
(B1C1)*	-0.75461	-166.35334	-92.35919	44.2	36.0
B2C2	-0.52450	11.08327	86.33061	44.7	18.3
(B2C2)*	0.52450	-11.08327	-86.33061	44.7	18.3
C1C2	-1.04758	86.03680	2.30296	28.0	6.9
C1C2*=(C1C2)*	1.04758	-86.03680	-2.30296	28.0	6.9
C1D1	90.70146	-179.54965	0.10544	16.5	18.1
(C1D1)*	-90.70146	179.54965	-0.10544	16.4	18.1
C2C2*	0.00000	-0.00056	0.00000	5.2	5.2
(C2D2) ₁	92.40716	-37.85138	-10.56429	16.4	16.2
(C2D2) ₂	-91.82766	-36.46006	-10.26111	17.1	16.9
(C2*D2*) ₁ =(C2D2) ₁ *	-92.40586	37.85135	10.56408	16.4	16.2
(C2*D2*) ₂ =(C2D2) ₂ *	91.82729	36.46067	10.26098	17.2	16.9
D1D2	179.27192	-85.01465	-2.79718	29.1	6.2
D1D2*=(D1D2)*	-179.27192	85.01465	2.79718	29.1	6.2
D2D2*	-179.99959	-0.00054	0.00000	4.3	4.3

^a The torsional angles are defined in Scheme 1.

^b with respect to the lower-energy conformer

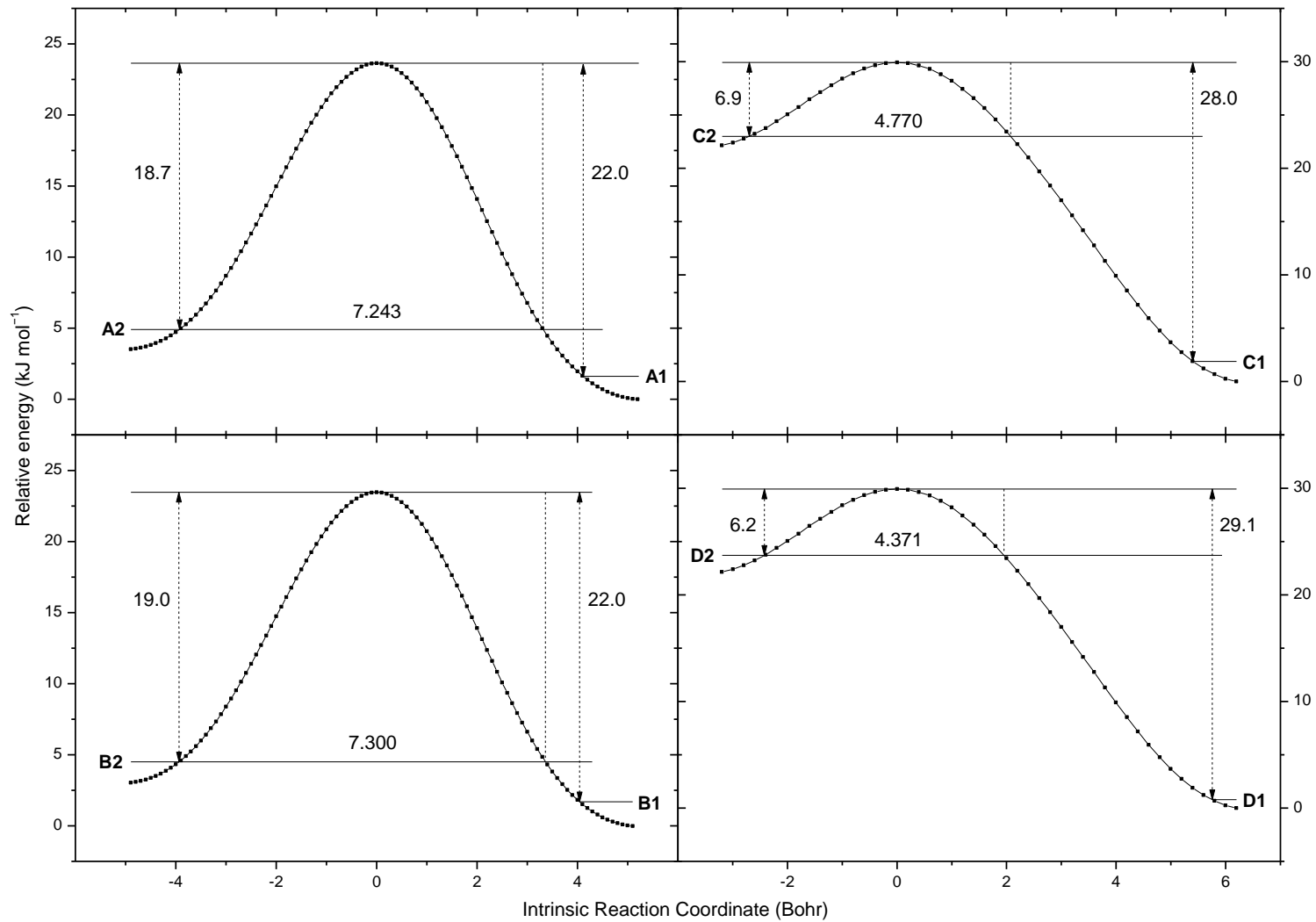


Figure S1. IRC profiles of the processes involving the rotation of the COOH group as obtained at the B3LYP/cc-pVTZ level of theory.

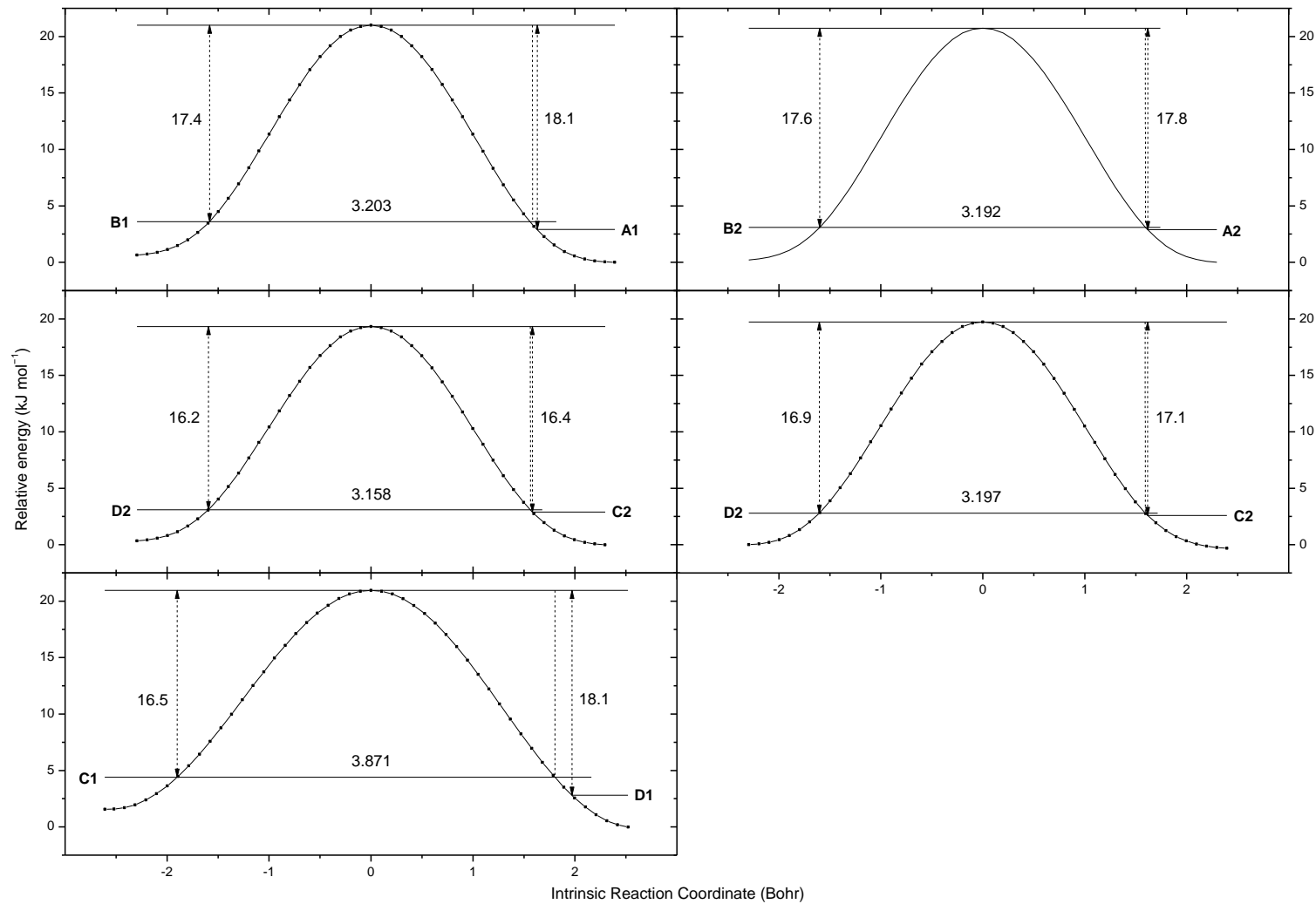


Figure S2. IRC profiles of the processes involving the rotation of the 4-OH group as obtained at the B3LYP/cc-pVTZ level of theory.

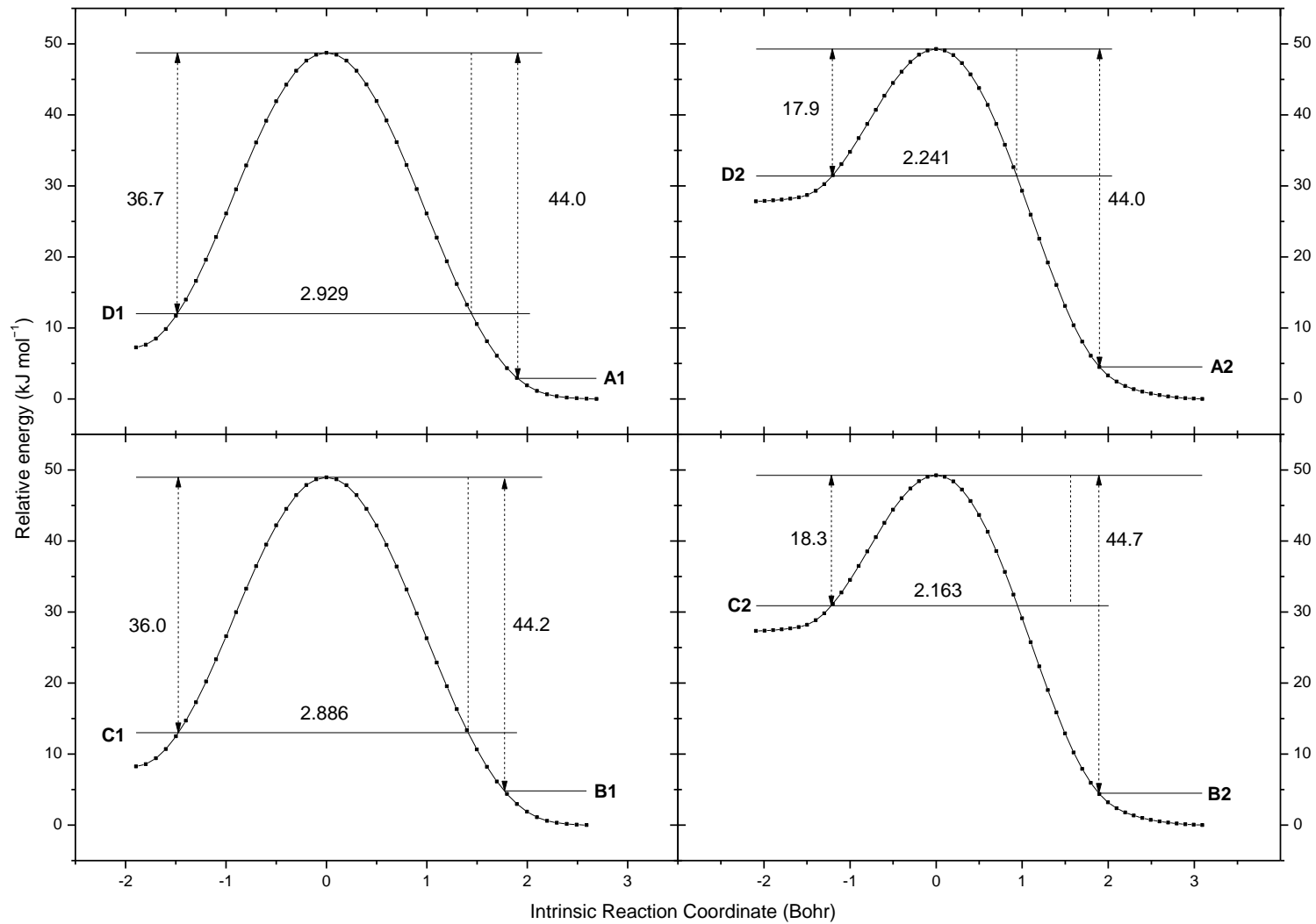


Figure S3. IRC profiles of the processes involving the rotation of the OH group in the COOH moiety as obtained at the B3LYP/cc-pVTZ level of theory.

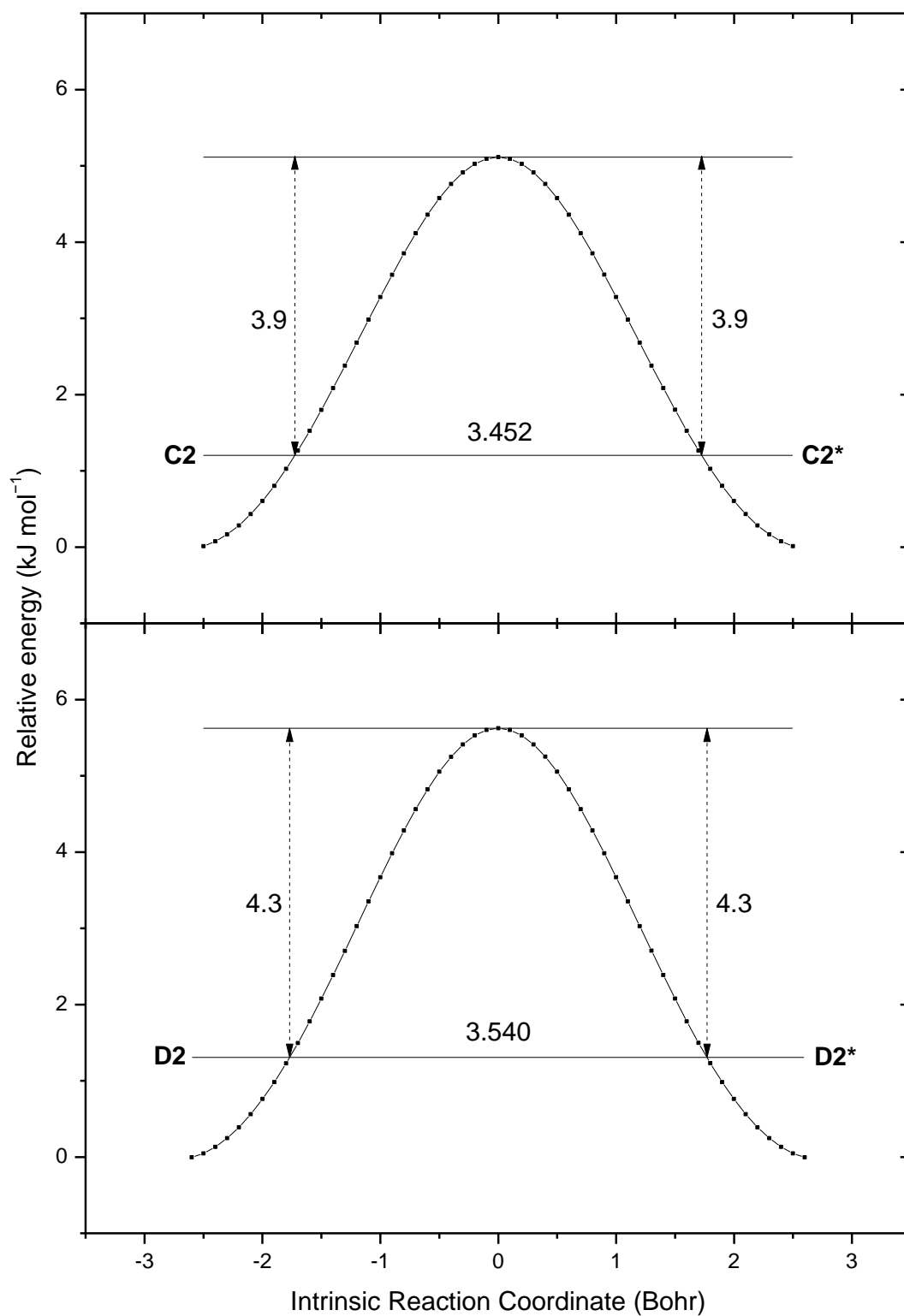


Figure S4. IRC profiles of the inversion processes as obtained at the B3LYP/cc-pVTZ level of theory.