

Supplementary material

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In the Tables, E_{rel} is calculated relative to the global minimum (EQ1), and E_a is calculated relative to the lowest of the two energy minimum it connects.

Table S1: Transition structures for Ace-Gly-NHMe.

TSi	Connecting		Class		E_{rel} (kJ/mol)	E_a (kJ/mol)	ω_1	ϕ	ψ	ω_2
	EQi	EQj	EQi	EQj						
1	1	2	TT	TT	3.9	3.9	178.4	112.0	-82.3	179.8
2	1*	2*	TT	TT	3.9	3.9	-178.4	-112.0	82.3	-179.8
3	1	1*	TT	TT	13.5	13.5	-180.0	180.0	180.0	-180.0
4	1*	2*	TT	TT	24.6	24.6	174.7	-128.2	-67.3	179.1
5	1	2	TT	TT	24.6	24.6	-174.7	128.2	67.3	-179.1
6	3	3*	TC	TC	25.1	11.8	-180.0	180.0	180.0	0.0
7	4	5	CT	CT	26.8	12.9	3.0	122.1	-87.2	179.5
8	4*	5*	CT	CT	26.8	12.9	-3.0	-122.1	87.2	-179.5
9	2	6	TT	TT	27.7	24.0	-175.0	31.9	-18.5	179.1
10	2*	6	TT	TT	27.7	24.0	175.0	-31.9	18.5	-179.1
11	4*	5*	CT	CT	31.5	17.5	-0.4	-119.1	-88.7	179.4
12	4	5	CT	CT	31.5	17.5	0.4	119.1	88.7	-179.4
13	2	2*	TT	TT	32.0	28.4	175.5	-172.0	-50.2	179.0
14	2	2*	TT	TT	32.0	28.4	-175.5	172.0	50.2	-179.0
15	5	5*	CT	CT	34.4	11.7	0.0	-180.0	-180.0	-180.0
16	4	4*	CT	CT	39.9	25.9	3.6	172.7	36.4	-178.6
17	4	4*	CT	CT	39.9	25.9	-3.6	-172.7	-36.4	178.6
18	7	8*	CC	CC	44.5	9.6	0.5	119.7	105.2	-1.2
19	7*	8	CC	CC	44.5	9.6	-0.5	-119.7	-105.2	1.2
20	7	7*	CC	CC	45.2	10.4	0.0	180.0	-180.0	0.0
21	7	8*	CC	CC	49.6	14.8	0.4	115.5	10.3	1.5
22	7*	8	CC	CC	49.6	14.8	-0.4	-115.5	-10.3	-1.5
23	4	5*	CT	CT	54.2	40.2	-10.2	-33.5	129.7	-179.8
24	4*	5	CT	CT	54.2	40.2	10.2	33.5	-129.7	179.8
25	7	8	CC	CC	57.1	22.3	-0.4	-177.1	-73.3	-1.5
26	7*	8*	CC	CC	57.1	22.3	0.4	177.1	73.3	1.5
27	3	3*	TC	TC	63.0	49.7	-178.7	49.0	47.7	4.1

28	3	3*	TC	TC	63.0	49.7	178.7	-49.0	-47.7	-4.1
29	8*	9	CC	CC	64.0	20.0	12.2	33.0	62.8	1.2
30	8	9*	CC	CC	64.0	20.0	-12.3	-32.2	-63.3	-1.1
31	7	9*	CC	CC	68.1	33.3	10.8	27.9	-124.8	1.3
32	7*	9	CC	CC	68.1	33.3	-10.8	-27.9	124.8	-1.3
33	2*	4*	TT	CT	79.5	75.8	-108.6	-107.2	43.4	-179.3
34	2	4	TT	CT	79.5	75.8	108.6	107.2	-43.4	179.3
35	1*	5*	TT	CT	83.4	83.4	-107.6	-120.0	156.9	-179.7
36	1	5	TT	CT	83.4	83.4	107.6	120.0	-156.9	179.7
37	1	3	TT	TC	89.4	89.4	-175.6	125.0	-148.8	109.3
38	1*	3*	TT	TC	89.4	89.4	175.6	-125.0	148.8	-109.3
39	1	3	TT	TC	89.7	89.7	-175.6	125.5	-149.9	-106.4
40	1*	3*	TT	TC	89.7	89.7	175.6	-125.5	149.9	106.4
41	2	4	TT	CT	91.5	87.9	-110.6	119.0	-4.0	-179.9
42	2*	4*	TT	CT	91.5	87.9	110.6	-119.0	4.0	179.9
43	1	5	TT	CT	92.9	92.9	-65.2	120.0	-178.0	180.0
44	1*	5*	TT	CT	92.9	92.9	65.2	-120.0	178.0	-180.0
45	3	7	TC	CC	95.2	81.9	108.3	121.5	-166.6	0.2
46	3*	7*	TC	CC	95.2	81.9	-108.3	-121.5	166.6	-0.2
47	2	3	TT	TC	97.2	93.6	-178.0	120.3	1.0	-112.2
48	2*	3*	TT	TC	97.2	93.6	178.0	-120.3	-1.0	112.2
49	2	3	TT	TC	97.3	93.7	-177.7	121.9	2.3	105.6
50	2*	3*	TT	TC	97.3	93.7	177.7	-121.9	-2.3	-105.6
51	2	4*	TT	CT	100.5	96.8	-104.3	-5.5	-32.5	-179.3
52	2*	4	TT	CT	100.5	96.8	104.3	5.5	32.5	179.3
53	2	4	TT	CT	101.5	97.9	115.3	126.9	36.4	-178.1
54	2*	4*	TT	CT	101.5	97.9	-115.3	-126.9	-36.4	178.1
55	3	7	TC	CC	104.2	90.9	-65.3	120.2	-179.0	-0.2
56	3*	7*	TC	CC	104.2	90.9	65.3	-120.2	179.0	0.2
57	4	7	CT	CC	107.3	93.3	3.7	121.8	10.4	-110.1
58	4*	7*	CT	CC	107.3	93.3	-3.7	-121.8	-10.4	110.1
59	4	8*	CT	CC	107.6	93.6	3.8	123.0	9.2	106.3
60	4*	8	CT	CC	107.6	93.6	-3.8	-123.0	-9.2	-106.3
61	5	7	CT	CC	108.7	86.1	4.6	125.4	-142.5	109.7
62	5*	7*	CT	CC	108.7	86.1	-4.6	-125.4	142.5	-109.7
63	5	7	CT	CC	109.1	86.4	4.8	126.2	-144.1	-108.1
64	5*	7*	CT	CC	109.1	86.4	-4.8	-126.2	144.1	108.1
65	2	5*	TT	CT	118.7	115.0	-109.1	5.5	51.5	-178.9
66	2*	5	TT	CT	118.7	115.0	109.1	-5.5	-51.5	178.9
67	2	3*	TT	TC	121.7	118.1	179.3	5.6	47.6	66.2
68	2*	3	TT	TC	121.7	118.1	-179.3	-5.6	-47.6	-66.2
69	3	8	TC	CC	122.9	109.6	-105.2	5.7	-94.1	3.0
70	3*	8*	TC	CC	122.9	109.6	105.2	-5.7	94.1	-3.0
71	3	6	TC	TT	123.5	110.2	-176.3	6.9	-79.2	-98.4
72	3*	6	TC	TT	123.5	110.2	176.3	-6.9	79.2	98.4
73	3	7*	TC	CC	135.0	121.7	-111.4	0.7	83.2	2.2
74	3*	7	TC	CC	135.0	121.7	111.4	-0.7	-83.2	-2.2

A* indicates the mirror image of minimum.

Table S2: Transition structures for Ace-Ala-NHMe

TSi	Connecting		Class		E _{rel} (kJ/mol)	E _a (kJ/mol)	ω_1	ϕ	ψ	ω_2
	EQi	EQj	EQi	EQj						
1	1	2	TT	TT	8.3	8.3	175.5	-117.8	139.1	179.8
2	1	4	TT	TT	12.8	12.8	-177.7	-130.5	41.8	-179.6
3	1	4	TT	TT	13.5	13.5	-177.9	-134.3	40.3	-179.6
4	5	8	CT	CT	22.3	6.2	-2.3	-121.8	15.5	-179.7
5	6	7	TC	TC	22.8	4.0	174.9	-116.7	144.9	-0.9
6	4	10	TT	TT	27.8	14.9	178.1	-149.2	-25.8	178.9
7	2	10	TT	TT	27.8	23.7	175.8	-155.1	-86.0	179.5
8	9	12	CT	CT	30.8	5.7	-4.8	-114.3	140.5	180.0
9	8	9	CT	CT	31.6	10.3	-1.7	-144.1	91.4	-179.5
10	5	12	CT	CT	34.1	18.0	-4.8	-102.3	82.9	-179.2
11	3	10	TT	TT	36.1	25.7	178.5	133.6	-39.6	179.7
12	2	3	TT	TT	36.2	32.1	-174.4	126.2	-153.1	-179.6
13	1	3	TT	TT	37.7	37.7	-176.3	12.0	-9.0	179.7
14	8	9	CT	CT	39.5	18.2	-0.5	-145.3	-103.8	179.6
15	5	12	CT	CT	42.6	26.5	-3.3	-91.5	-114.8	179.9
16	13	14	CC	CC	44.1	5.2	-4.9	-115.3	145.4	0.1
17	13	15	CC	CC	45.4	6.5	-2.0	-143.2	101.1	-2.3
18	11	16	CT	CT	48.8	20.8	-0.5	85.1	108.1	-179.9
19	11	16	CT	CT	50.1	22.1	-0.3	91.7	-87.2	179.2
20	8	11	CT	CT	51.0	29.7	5.6	128.8	-20.3	179.5
21	20	21	TC	TC	51.9	0.7	-178.3	102.1	-82.6	1.6
22	7	18	TC	TC	52.1	31.2	-178.5	-100.1	5.3	2.6
23	17	18	TC	TC	53.2	6.5	178.1	-116.1	-36.0	-5.4
24	6	23	TC	TC	57.0	38.1	-172.5	117.3	154.3	-1.7
25	19	22	CC	CC	57.1	9.1	-2.1	-118.4	-37.4	-4.3
26	15	22	CC	CC	57.3	13.3	-1.3	-140.7	-9.3	-1.8
27	20	21	TC	TC	57.8	6.6	-177.3	104.4	-80.6	0.7
28	15	19	CC	CC	59.1	15.2	-2.3	-110.6	7.5	2.5
29	6	17	TC	TC	59.3	40.5	174.9	-147.8	-120.6	4.4
30	21	24	TC	TC	60.2	9.0	176.0	93.7	-4.0	-2.8
31	11	12	CT	CT	61.2	33.1	9.9	3.5	80.3	-179.5
32	17	21	TC	TC	62.6	15.9	179.8	137.1	-46.5	-3.8
33	20	23	TC	TC	62.9	11.7	-176.9	91.7	-143.1	0.4
34	9	16	CT	CT	63.6	38.5	4.2	124.2	162.5	-179.9
35	25	26	CC	CC	64.5	7.8	-0.2	85.2	109.8	-0.7
36	7	24	TC	TC	66.7	45.9	179.3	16.7	68.1	0.6
37	13	22	CC	CC	74.2	35.3	-0.1	-141.4	-126.0	2.6

38	13	26	CC	CC	78.3	39.4	3.0	123.7	143.9	-1.1
39	18	20	TC	TC	78.8	32.3	-174.8	28.0	-91.5	3.0
40	22	25	CC	CC	79.9	26.9	6.5	128.4	-45.9	-3.9
41	1	8	TT	CT	80.1	80.1	-109.7	-94.0	36.4	-179.5
42	15	25	CC	CC	80.8	36.8	4.2	126.5	71.8	3.0
43	26	27	CC	CC	82.1	20.9	-3.9	88.2	-139.5	0.2
44	25	27	CC	CC	82.5	25.8	9.5	109.6	-98.1	2.6
45	3	11	TT	CT	86.4	76.0	108.0	87.7	-28.9	179.3
46	1	9	TT	CT	88.0	88.0	-108.0	-103.1	143.5	-179.6
47	2	6	TT	TC	94.5	90.4	177.8	-151.6	158.5	-108.1
48	2	6	TT	TC	94.7	90.6	177.9	-151.4	156.8	106.2
49	1	7	TT	TC	95.7	95.7	175.8	-86.2	132.5	-110.3
50	1	7	TT	TC	96.7	96.7	175.8	-87.7	134.4	104.2
51	1	5	TT	CT	98.2	98.2	110.2	-89.5	-12.0	179.7
52	2	12	TT	CT	98.8	94.7	63.9	-100.1	157.0	-180.0
53	1	11	TT	CT	100.8	100.8	101.7	-25.9	62.9	179.9
54	1	7	TT	TC	100.9	100.9	177.4	-78.5	112.3	72.9
55	4	5	TT	CT	100.9	88.1	110.3	-137.0	10.7	-180.0
56	7	13	TC	CC	101.5	80.6	-108.5	-103.3	147.1	-1.1
57	1	18	TT	TC	101.6	101.6	179.1	-80.5	-4.2	-103.1
58	4	17	TT	TC	102.0	89.2	178.0	-150.0	-1.7	-107.9
59	19	27	CC	CC	102.1	54.1	5.8	29.5	-108.5	2.3
60	4	7	TT	TC	102.4	89.6	177.8	-149.9	-3.7	111.2
61	4	8	TT	CT	103.3	90.5	-113.7	-153.3	-28.6	178.9
62	1	12	TT	CT	103.3	103.3	104.3	-69.1	130.1	-179.9
63	3	9	TT	CT	104.8	94.4	107.8	97.0	-138.1	179.5
64	3	11	TT	CT	107.8	97.4	-109.8	92.8	5.7	-179.8
65	8	22	CT	CC	111.2	89.8	-1.8	-146.2	-5.1	-107.5
66	2	16	TT	CT	111.3	107.2	-65.5	96.7	-170.2	-179.8
67	8	15	CT	CC	111.4	90.1	-2.2	-145.8	-7.7	109.9
68	7	15	TC	CC	111.7	90.9	-108.0	-137.5	69.2	1.7
69	3	21	TT	TC	112.0	101.5	178.7	82.1	2.7	-111.0
70	5	10	CT	TT	112.0	95.8	72.0	-158.1	-41.0	179.2
71	5	19	CT	CC	112.3	96.2	-4.0	-89.2	-16.5	107.0
72	6	14	TC	CC	112.3	93.5	64.4	-99.1	152.0	-0.8
73	9	13	CT	CC	112.5	87.4	-1.7	-148.0	152.6	-108.9
74	9	13	CT	CC	112.7	87.6	-1.6	-147.9	150.7	107.5
75	5	19	CT	CC	112.8	96.6	-3.4	-85.7	-12.6	-106.6
76	3	24	TT	TC	112.9	102.5	178.1	77.9	5.3	101.9
77	12	14	CT	CC	116.1	86.9	-4.3	-95.4	141.3	-108.9

78	12	14	CT	CC	116.2	87.0	-3.7	-91.7	132.4	108.7
79	3	20	TT	TC	117.0	106.6	-178.8	81.7	-127.3	110.1
80	7	14	TC	CC	117.4	96.6	104.6	-74.7	142.6	-0.7
81	7	25	TC	CC	117.5	96.6	104.2	-64.6	109.4	-2.4
82	3	23	TT	TC	118.3	107.9	-178.6	82.6	-132.9	-103.5
83	11	25	CT	CC	124.7	96.6	-2.4	83.0	14.2	106.5
84	18	22	TC	CC	127.6	81.2	-112.3	-144.0	-41.9	-6.5
85	18	22	TC	CC	127.9	81.4	-114.7	-82.1	-32.2	-4.2
86	13	23	CC	TC	129.0	90.1	113.4	115.5	165.7	-1.7
87	6	26	TC	CC	130.2	111.4	-68.2	101.5	154.8	-1.5
88	20	22	TC	CC	131.3	80.1	110.4	97.8	-102.2	3.6
89	18	19	TC	CC	132.0	85.6	-82.8	-30.1	-65.9	-1.8
90	15	24	CC	TC	133.3	89.3	114.9	85.6	46.5	5.4
91	16	26	CT	CC	133.5	87.3	-2.7	83.8	154.3	108.1
92	16	26	CT	CC	133.7	87.6	-2.6	84.1	153.8	-108.8
93	17	19	TC	CC	134.9	88.3	74.2	-148.1	-45.5	-5.4
94	17	19	TC	CC	136.0	89.4	108.1	-142.2	-43.6	-4.0
95	21	22	TC	CC	136.6	85.4	107.8	126.1	-49.7	-5.5
96	6	25	TC	CC	138.0	119.1	-74.7	94.5	76.3	2.6
97	21	27	TC	CC	143.0	91.8	-102.0	93.7	-91.6	-0.4

Table S3: Equilibrium structures for Ace-Ser-NHMe

EQi	E_{rel}(kJ/mol)	Class	ω₁	φ	ψ	ω₂	χ₁	χ₂
1	0.0	TT	-179.5	-77.7	61.6	-180.0	54.4	67.1
2	10.9	TT	175.7	-158.7	-173.9	-179.2	-165.6	80.3
3	13.4	TT	175.5	-158.9	178.0	-178.8	-174.6	169.0
4	14.2	TT	176.9	-163.3	158.6	-179.9	-86.1	49.3
5	14.6	TT	-176.2	-73.9	49.5	-179.8	-52.7	-65.9
6	16.5	TT	-176.6	96.3	-117.6	179.7	78.8	-60.8
7	17.3	TT	-178.7	-78.9	60.0	179.8	-175.6	-63.6
8	18.9	TT	176.0	-154.6	168.6	179.9	60.9	-61.2
9	20.3	TT	-174.9	-71.4	49.2	-180.0	-50.3	-170.4
10	20.3	TT	177.4	-154.4	155.3	-179.3	176.7	-78.6
11	21.4	TT	176.7	83.0	-48.7	179.7	76.2	-51.7
12	22.4	TT	174.2	-155.6	-114.4	-179.5	61.3	-71.6
13	23.5	TT	179.6	-81.6	68.5	179.8	-66.3	49.6
14	25.8	TT	173.8	78.8	-31.1	179.2	-160.5	-54.4
15	26.2	TC	177.3	-83.7	116.6	-2.0	49.6	54.9
16	27.0	TC	177.1	-163.3	155.3	-0.9	-86.6	49.2
17	27.2	TT	-178.4	-142.4	47.0	-179.6	-178.7	-58.3
18	27.7	CT	-2.9	-83.1	-3.5	179.4	53.9	75.7
19	28.0	TT	176.3	76.0	-44.0	179.4	-55.3	69.9
20	29.5	TT	-173.6	97.8	-168.2	-179.7	-164.7	174.1
21	29.7	TT	178.1	-152.7	-76.6	178.6	60.7	-166.7
22	30.6	TT	-178.8	-141.7	18.9	-179.4	50.0	-73.7
23	31.4	TT	-173.8	96.8	-157.0	179.8	-163.0	79.0
24	31.1	CT	-2.8	-81.6	-11.4	179.4	48.1	173.3
25	32.2	TT	178.5	-151.7	168.9	-180.0	64.6	-166.5
26	32.7	TC	176.6	-153.8	159.3	-0.6	60.5	-59.7
27	33.9	TT	171.7	73.8	-36.0	179.0	-62.2	176.7
28	34.0	TT	171.6	73.0	-37.8	179.2	-66.3	-69.9
29	34.3	TC	177.9	-155.0	147.0	0.4	-161.9	75.7
30	34.7	TT	177.0	80.3	-57.7	-179.9	-167.4	58.0
31	35.1	CT	-0.3	-141.1	28.9	-179.5	-170.9	-58.3
32	36.0	CT	0.6	-132.8	22.5	-179.6	64.7	71.1
33	36.4	TC	-178.7	-147.6	142.9	-0.2	58.5	48.7
34	36.5	TC	178.4	-153.0	142.4	-1.1	177.0	-72.6
35	36.6	TC	177.7	-155.6	143.7	0.0	-175.6	176.2
36	36.9	CT	0.0	-149.5	173.2	-178.9	-168.7	178.7
37	37.4	CT	-3.0	-89.2	5.5	179.8	-169.2	-53.8
38	37.9	CT	-0.7	-78.7	-8.6	179.6	-52.8	-64.2

39	38.2	TT	177.5	81.0	-59.0	179.8	-162.2	-174.9
40	40.1	CT	-0.5	-150.8	-173.2	-179.2	-164.4	81.0
41	40.9	CT	-0.2	-148.2	149.6	-179.4	-177.0	-80.3
42	41.4	TC	176.1	-90.8	119.6	-1.7	-177.4	-71.7
43	41.8	TC	175.0	-92.8	121.3	-2.7	-68.0	49.8
44	41.4	CT	-3.1	-90.9	3.0	179.8	-63.3	53.9
45	42.1	TT	175.0	-169.5	-43.7	178.8	-82.2	46.3
46	42.0	CT	1.5	-145.6	-88.0	179.0	54.7	-70.3
47	42.1	CT	2.0	-137.8	9.9	-179.4	50.7	-69.2
48	42.3	CT	-2.0	-80.4	116.3	-179.5	50.2	53.1
49	42.4	CT	-3.7	81.8	12.9	-179.9	-161.2	-57.0
50	42.5	TC	178.5	-82.9	120.3	-2.9	-57.0	-57.3
51	42.6	CT	0.0	-129.1	24.4	-179.7	-59.7	64.3
52	43.4	TC	-179.5	-142.7	82.4	1.1	176.4	-67.0
53	44.2	CT	-0.9	-79.9	-5.2	179.6	-54.6	-172.0
54	45.8	CT	-0.2	-135.2	140.9	-179.9	-65.2	66.5
55	46.0	TC	179.2	-150.6	159.6	-1.1	63.5	-168.7
56	46.2	CT	-0.5	-149.8	166.5	179.9	60.0	-56.3
57	47.8	CT	-3.4	-97.1	131.1	-179.6	-67.4	59.9
58	48.7	CT	-1.5	-88.3	170.9	-178.7	-168.1	177.5
59	48.8	CT	-3.0	-90.9	128.9	-179.3	-176.7	-77.9
60	48.9	CT	1.4	-141.5	-61.8	177.7	59.1	-172.3
61	49.0	TC	-179.6	-76.9	119.7	-2.5	-59.2	-176.9
62	49.5	CT	-4.4	78.3	14.5	-179.9	-53.7	60.9
63	49.7	CT	0.3	-132.0	24.6	-179.7	-66.3	178.3
64	50.1	CT	-0.7	-88.6	-164.9	-178.9	-165.0	79.0
65	50.7	CT	-5.1	85.5	8.7	-179.8	95.1	62.5
66	52.4	TC	174.6	-89.9	149.4	-1.9	46.1	173.0
67	52.2	TC	-179.7	-76.8	-22.0	-4.4	54.3	74.7
68	54.1	TC	-174.8	94.5	170.6	1.1	84.5	-60.6
69	53.9	TC	-174.4	-131.0	56.7	4.3	51.0	161.5
70	53.9	CT	-2.8	-76.3	-23.0	179.6	-178.7	48.2
71	53.9	TC	179.7	-144.0	58.0	4.3	48.0	-66.3
72	55.1	TC	176.0	-151.9	-37.6	-8.1	50.3	-72.8
73	55.1	TC	-179.5	106.5	-52.4	-5.2	75.9	-59.5
74	55.5	CT	-2.4	82.5	6.6	-180.0	-50.7	-64.2
75	55.4	TC	178.8	-79.3	-23.5	-6.6	47.2	172.1
76	55.5	CC	-0.2	-147.8	139.9	-0.6	-176.4	-75.6
77	55.7	CC	-1.6	-79.8	128.2	0.8	50.1	50.5
78	55.7	CT	-5.6	82.5	178.0	-179.1	-161.1	173.2

79	55.8	CT	-5.0	82.0	-167.1	-179.6	-159.0	78.5
80	56.3	CC	-0.7	-143.6	62.3	2.6	-176.5	-66.1
81	56.7	CT	0.7	-142.3	139.1	-179.8	-84.0	167.6
82	56.8	CC	0.0	-148.6	141.8	0.7	-167.7	-175.4
83	57.5	CT	-4.0	78.7	14.2	-179.9	-56.4	-178.8
84	58.1	TC	-179.7	-146.4	-33.4	-7.9	60.4	-177.4
85	58.3	CC	-0.2	-135.7	147.4	0.1	-65.0	65.8
86	58.4	CC	-0.4	-140.0	62.7	1.4	62.8	60.9
87	58.6	TC	178.2	77.7	44.8	5.1	-166.4	-65.9
88	58.9	CC	-0.3	-149.1	156.9	-0.6	59.4	-54.9
89	58.9	TC	-177.6	-64.0	-33.1	-5.2	-49.9	-64.7
90	58.9	CT	0.1	-75.2	126.8	-179.6	-58.1	-60.0
91	58.8	CT	-0.8	-79.5	122.5	-179.4	-67.4	174.3
92	59.7	TC	-178.8	-143.9	-30.7	-6.6	67.0	76.1
93	60.2	CC	-3.2	-95.6	139.3	0.7	-67.0	58.7
94	60.5	TC	174.8	-161.1	-61.1	-5.9	-83.2	44.9
95	61.1	CT	0.0	-146.8	-52.8	178.7	179.3	57.9
96	60.9	CT	-0.5	-141.1	29.4	-179.5	-159.0	62.2
97	61.3	CC	-0.6	-149.5	144.8	0.8	-161.0	77.4
98	61.6	CC	-2.7	-89.6	134.9	1.3	-175.7	-76.2
99	62.1	TC	175.9	-152.9	-66.6	-6.8	174.3	63.4
100	62.5	CC	-0.4	-133.3	82.6	-0.7	-63.8	67.0
101	62.6	CT	-2.6	-82.5	-12.0	179.5	-161.7	-171.8
102	62.6	CC	-3.3	-74.8	-25.6	-3.6	55.3	73.3
103	62.8	CT	-3.8	86.2	144.7	-179.5	-166.1	-81.3
104	63.2	TC	-173.9	97.2	139.9	0.1	-160.3	-174.9
105	63.0	CT	-0.7	-140.7	136.1	-179.9	-77.1	-68.4
106	63.2	CC	-0.9	-146.4	138.4	0.3	56.6	44.2
107	63.6	CC	-2.8	-92.5	138.1	2.3	-168.9	-176.4
108	63.7	TC	-175.3	95.7	135.4	-1.6	-167.4	-79.5
109	64.2	CT	0.6	-144.9	169.7	-180.0	65.6	-165.5
110	64.7	CT	-8.0	86.3	-5.9	179.9	83.3	166.9
111	64.6	CC	-3.6	-75.6	-26.8	-5.8	49.2	176.6
112	64.7	TC	-177.8	105.5	-61.5	-2.1	-52.2	71.9
113	64.7	TC	179.7	76.0	48.2	4.4	-54.1	74.2
114	65.3	TC	-177.1	100.6	-97.8	0.3	-170.0	64.8
115	65.4	CT	-3.8	86.6	-4.8	179.8	-158.9	53.7
116	65.8	TC	-178.3	99.8	-97.9	3.6	-169.0	-64.0
117	65.9	TC	-176.3	102.1	-91.8	1.8	-57.5	69.9
118	66.3	CT	-10.8	79.0	1.5	180.0	70.0	-69.9

119	66.3	CT	-8.6	84.8	-122.4	179.9	84.8	-75.1
120	66.5	CT	-1.4	-81.5	164.4	-179.8	51.0	-180.0
121	66.2	TC	-179.9	104.0	-64.7	-1.8	-162.0	-60.3
122	66.2	CT	-4.2	83.1	147.1	180.0	-58.8	60.8
123	67.4	CC	-2.5	-91.1	139.6	1.7	-163.9	76.6
124	68.1	TC	-175.9	-55.7	-35.8	-4.6	-43.8	-165.2
125	68.1	CC	1.1	-143.5	-34.7	-7.1	51.1	-67.2
126	68.4	TC	-177.1	100.2	-99.2	1.4	-169.2	176.7
127	68.3	CT	-5.9	90.3	-111.4	179.0	91.6	-173.1
128	69.1	TC	-173.9	93.3	156.8	1.2	-146.8	80.3
129	68.8	CC	-1.4	-65.1	-36.2	-3.9	-50.5	-62.5
130	69.3	CT	0.6	-146.8	-57.8	178.6	-175.0	177.0
131	69.1	CC	-2.9	75.9	51.4	3.3	-167.3	-65.8
132	69.6	CT	-6.6	47.9	-110.4	179.8	65.2	-71.0
133	70.0	TC	175.2	65.9	47.2	4.1	-62.9	173.1
134	70.7	TC	176.6	-155.0	-40.8	-8.1	-172.0	-44.7
135	70.9	CC	0.0	-142.5	45.1	5.9	49.4	-60.9
136	71.0	CC	0.4	-136.5	74.2	0.4	-72.9	172.9
137	70.9	CC	0.2	-76.6	136.0	-0.2	-57.1	-57.9
138	71.4	TC	-178.9	-72.0	-27.4	-7.0	-165.5	-45.4
139	71.9	CC	-4.5	-79.0	-29.6	-5.7	43.6	-92.7
140	72.0	CC	-0.6	-79.4	132.2	0.3	-66.5	174.0
141	73.5	TC	174.7	-155.0	-71.0	-5.0	170.9	160.7
142	73.4	CC	0.7	-138.8	-29.4	-5.6	65.4	73.1
143	73.7	CC	1.9	-137.8	-31.3	-6.9	59.8	-178.6
144	73.9	CC	-2.8	72.6	55.7	2.3	-56.1	62.7
145	74.2	CC	-3.8	-78.5	-34.1	-3.9	-64.7	49.9
146	74.2	CC	-3.4	-73.7	-32.2	-5.7	-165.9	-50.8
147	74.6	CC	-0.5	-136.5	65.7	1.2	-72.6	-71.3
148	75.3	TC	174.1	63.9	43.8	4.3	-66.1	-75.1
149	75.3	CC	-0.6	-142.7	148.1	-0.2	-78.1	-65.9
150	75.8	CC	0.0	-146.7	-37.6	-7.4	-164.4	-51.6
151	76.3	TC	175.9	51.0	52.6	2.7	53.6	39.7
152	76.3	CC	1.0	-137.6	37.1	6.2	55.4	168.8
153	76.6	TC	178.3	-68.2	-38.9	-4.7	-179.6	46.0
154	76.8	CC	-1.3	-63.0	-36.2	-3.8	-51.0	-170.7
155	77.1	CC	0.6	-144.3	158.1	-0.8	63.9	-168.4
156	77.9	CC	-1.7	-81.8	155.0	-1.4	48.5	177.8
157	78.6	CC	0.5	-144.3	-61.7	-7.2	175.8	59.2
158	78.3	CC	-2.1	86.8	129.3	-0.3	-164.4	-75.2

159	78.6	CC	-4.8	-65.3	-43.0	-2.6	-178.2	53.9
160	78.5	CT	-3.1	89.0	-106.5	179.5	-162.6	-57.7
161	79.0	CC	1.0	-132.2	-38.9	-5.1	-60.2	61.2
162	79.0	TC	177.7	100.2	-72.5	0.2	-66.5	166.0
163	79.3	TC	177.4	98.5	-76.8	0.8	-71.7	-64.9
164	79.3	CC	-3.7	83.3	143.5	-0.9	-58.5	60.1
165	79.4	TC	178.3	95.4	-99.7	2.7	-67.0	164.8
166	79.4	CC	-2.2	86.7	132.7	1.0	-157.4	-177.3
167	80.0	CC	-5.9	76.4	45.9	3.3	85.9	55.1
168	80.0	TC	177.6	94.1	-100.3	2.3	-68.1	-63.2
169	82.5	CC	-2.3	86.3	137.4	1.0	-151.3	77.4
170	83.2	CC	-2.3	80.4	75.2	1.2	-155.3	-167.6
171	83.5	CC	-2.5	71.5	53.7	2.4	-61.6	176.2
172	84.4	CC	-3.9	52.3	59.2	1.5	-65.7	174.8
173	84.9	CC	0.6	-136.1	-39.8	-5.6	-70.8	-66.5
174	84.9	CC	-1.6	73.7	49.8	2.8	-56.3	-65.3
175	87.1	CC	1.1	-143.8	-64.9	-5.4	179.6	174.7
176	87.5	CC	-3.5	53.8	55.7	1.8	-65.0	-70.5
177	87.5	CC	-2.2	81.3	76.5	0.5	-153.0	72.1
178	87.7	CC	0.8	-144.5	-48.8	-3.2	-172.2	178.3
179	87.8	TC	179.3	83.6	154.4	-2.1	-70.3	-64.4
180	88.7	CC	-4.5	-68.3	-43.1	-0.9	-169.6	178.0
181	88.7	CC	1.4	-135.9	-38.4	-5.5	-68.2	-180.0
182	89.6	CC	-5.5	86.6	156.6	2.7	101.1	-58.8
183	92.4	TC	179.1	-67.2	-40.2	-2.9	-169.3	178.4
184	93.0	TC	-179.7	107.0	-54.0	-4.7	97.7	60.8
185	94.1	CC	-3.9	83.0	142.0	-0.9	-67.4	167.7
186	94.6	CC	-1.7	85.5	141.4	-0.7	-51.1	-52.2
187	97.4	CC	-3.9	46.4	51.7	3.4	51.3	-59.6
188	98.5	CC	-3.4	96.8	-119.0	-1.0	-161.0	66.2
189	101.0	CC	8.2	110.6	-69.7	-1.7	-170.0	58.3
190	101.6	CC	-9.8	74.7	29.2	5.7	71.9	163.8
191	101.5	CC	-6.2	86.4	162.7	1.9	101.4	-170.1
192	103.5	CC	-6.6	89.7	-122.5	0.8	-56.0	55.4
193	104.2	CC	6.6	111.7	-43.7	-7.8	86.0	171.6
194	105.4	CC	-4.5	95.1	-120.5	-0.8	-160.5	166.8
195	105.7	CC	7.2	109.0	-62.9	-3.2	-60.6	52.4
196	105.9	CC	-1.0	99.8	-116.7	2.7	-160.4	-57.1
197	108.8	CC	-13.3	87.6	-124.4	1.6	65.8	-67.8
198	110.6	CC	8.6	110.0	-74.3	1.0	-167.9	173.9

199	112.3	CC	0.1	99.9	-116.4	1.1	-52.4	-53.6
200	117.7	CC	-10.9	95.4	-122.7	1.4	72.3	-165.8
201	120.0	CC	-5.5	92.3	-120.1	0.5	-58.6	177.0
202	125.8	CC	-11.0	92.4	-124.1	1.0	68.3	57.2

Table S4: Transition structures for Ace-Ser-NHMe

TSi	Connecting		Class		E _{rel} (kJ/mol)	E _a (kJ/mol)	ω_1	ϕ	ψ	ω_2	χ_1	χ_2
	EQi	EQj	EQi	EQj								
1	2	3	tt	tt	15.1	4.2	175.4	-159.4	-177.6	-179.0	-171.0	130.5
2	2	4	tt	tt	21.2	10.4	176.5	-160.1	166.3	-179.7	-121.0	67.7
3	5	9	tt	tt	22.4	7.7	-175.0	-71.4	47.2	-179.8	-51.2	-130.0
4	6	11	tt	tt	22.4	6.0	179.7	88.0	-71.4	179.1	75.3	-56.5
5	3	10	tt	tt	22.6	9.2	176.6	-156.3	163.5	-178.8	179.7	-117.2
6	8	12	tt	tt	22.9	4.0	173.9	-155.9	-141.6	-178.9	65.4	-67.8
7	5	13	tt	tt	25.8	11.1	-179.7	-79.6	62.1	179.9	-59.5	7.6
8	1	8	tt	tt	28.3	28.3	179.0	-152.4	148.7	179.6	63.9	-1.3
9	7	17	tt	tt	28.3	11.0	-177.5	-123.4	53.1	-179.7	-178.8	-60.5
10	7	10	tt	tt	28.6	11.4	176.4	-113.2	128.1	-179.6	-179.4	-73.4
11	10	17	tt	tt	29.0	8.7	-179.4	-143.5	86.4	-179.7	176.2	-68.0
12	4	13	tt	tt	29.5	15.2	174.6	-115.8	133.9	-180.0	-70.2	48.1
13	1	9	tt	tt	30.2	30.2	-176.3	-67.3	33.2	-179.4	-1.3	178.8
14	12	21	tt	tt	30.5	8.1	177.0	-153.7	-89.8	179.3	60.7	-137.2
15	9	13	tt	tt	31.3	11.1	-177.0	-77.1	61.9	179.7	-58.7	115.0
16	6	12	tt	tt	31.4	14.9	178.1	148.8	-103.2	179.8	52.6	-75.2
17	8	25	tt	tt	32.6	13.7	177.8	-152.8	171.1	180.0	64.5	-142.8
18	18	24	ct	ct	33.4	5.7	-2.9	-82.3	-7.8	179.3	50.3	130.9
19	3	20	tt	tt	33.8	20.3	-173.9	128.9	-166.2	-179.1	-175.6	170.7
20	20	23	tt	tt	33.9	4.4	-173.3	98.2	-162.3	-180.0	-163.4	120.4
21	1	22	tt	tt	34.3	34.3	-176.4	-136.6	14.4	-179.6	51.6	-120.3
22	1	22	tt	tt	34.4	34.4	-178.8	-112.0	11.6	-179.9	44.0	-89.7
23	4	5	tt	tt	34.8	20.6	178.5	-120.2	128.0	-180.0	-57.4	-41.5
24	1	21	tt	tt	35.2	35.2	-178.1	-141.6	-29.9	178.5	58.3	-180.0
25	2	23	tt	tt	35.7	24.8	-173.7	127.9	-156.3	-179.7	-173.0	82.1
26	8	10	tt	tt	35.8	16.9	176.1	-153.6	162.5	-179.5	121.5	-67.1
27	16	29	tc	tc	35.9	8.9	176.9	-158.1	159.6	1.8	-133.1	70.2
28	18	32	ct	ct	36.0	8.3	0.7	-128.5	20.8	-179.7	63.9	71.9
29	12	22	tt	tt	36.2	13.8	178.3	-147.7	-19.4	179.1	52.0	-75.9
30	19	27	tt	tt	36.2	8.2	173.1	75.1	-38.6	179.1	-59.0	134.0
31	1	5	tt	tt	37.0	37.0	-178.7	-77.0	43.5	-179.6	10.2	-86.5
32	15	33	tc	tc	37.0	10.8	-178.0	-137.2	124.6	-1.2	57.8	49.2
33	1	5	tt	tt	37.2	37.2	-177.8	-82.8	9.4	180.0	8.1	-85.3
34	14	30	tt	tt	37.7	11.9	175.2	79.1	-47.7	179.9	-170.4	14.7
35	1	25	tt	tt	38.6	38.6	-179.6	-148.4	158.9	-179.9	61.5	128.7
36	31	37	ct	ct	39.1	4.0	-2.4	-112.6	18.8	-180.0	-170.7	-56.3
37	27	28	tt	tt	39.2	5.3	171.1	72.9	-34.9	179.0	-65.5	-123.6

38	29	35	tc	tc	39.5	5.2	177.7	-155.9	144.8	0.1	-170.3	128.8
39	1	21	tt	tt	39.9	39.9	179.3	-151.2	-49.8	177.8	64.8	113.9
40	14	39	tt	tt	40.1	14.3	176.7	80.3	-55.8	179.6	-161.9	-135.1
41	14	28	tt	tt	40.3	14.5	173.7	75.3	-38.9	179.2	-107.0	-68.1
42	23	30	tt	tt	40.4	9.0	-178.6	87.6	-101.0	179.4	-168.3	66.3
43	8	22	tt	tt	40.7	21.9	179.8	-143.8	84.0	-179.6	47.9	-62.9
44	5	7	tt	tt	40.8	26.2	-177.9	-75.3	55.0	180.0	-115.5	-70.2
45	1	25	tt	tt	40.9	40.9	176.6	-109.0	150.7	-179.9	51.5	178.3
46	2	10	tt	tt	40.9	30.0	178.9	-150.7	140.5	179.2	-177.7	1.4
47	26	33	tc	tc	41.1	8.4	179.0	-152.8	149.4	-0.3	63.5	-0.3
48	34	35	tc	tc	41.8	5.2	178.0	-154.5	142.5	0.0	-180.0	-125.3
49	4	8	tt	tt	42.3	28.1	175.4	-154.1	158.4	179.9	-3.2	-53.5
50	36	40	ct	ct	42.3	5.4	-0.3	-150.1	-178.1	-179.1	-166.0	119.8
51	1	12	tt	tt	42.7	42.7	176.3	-105.2	-52.8	178.0	44.2	-100.2
52	2	7	tt	tt	43.0	32.2	179.4	-81.7	73.6	179.8	-169.0	10.9
53	34	42	tc	tc	43.1	6.6	175.8	-112.4	135.1	-0.5	-178.3	-71.8
54	36	41	ct	ct	43.2	6.2	-0.1	-148.9	158.8	-179.0	-173.4	-119.2
55	16	43	tc	tc	43.2	16.2	173.7	-113.3	143.0	-0.5	-69.2	47.4
56	44	51	ct	ct	43.2	1.8	-2.3	-115.6	18.3	-179.9	-60.9	60.1
57	20	39	tt	tt	43.4	14.0	-178.4	88.2	-100.8	179.5	-167.4	176.7
58	30	39	tt	tt	43.6	8.9	178.0	81.3	-61.3	-180.0	-163.0	125.9
59	34	52	tc	tc	43.6	7.1	-180.0	-143.3	98.2	-0.8	176.7	-70.2
60	3	25	tt	tt	43.7	30.3	174.9	-153.8	-178.8	-178.7	115.4	-167.5
61	42	52	tc	tc	44.0	2.6	179.7	-123.8	94.7	-0.6	177.6	-69.6
62	24	47	ct	ct	44.1	13.0	0.3	-116.0	2.6	-179.8	46.8	-79.7
63	19	28	tt	tt	44.3	16.3	174.3	74.9	-44.3	179.5	-59.4	-5.9
64	1	8	tt	tt	44.4	44.4	175.0	-95.4	108.6	-179.8	33.2	-75.5
65	18	48	ct	ct	44.5	16.8	-3.3	-92.7	81.9	-179.1	52.7	61.5
66	1	22	tt	tt	44.8	44.8	-177.9	-142.6	30.6	-179.5	58.5	-6.5
67	5	22	tt	tt	44.8	30.2	-177.2	-134.7	20.9	-179.7	-1.5	-63.2
68	4	45	tt	tt	44.9	30.6	176.0	-156.9	-18.6	178.8	-78.7	38.0
69	31	41	ct	ct	45.3	10.2	-0.3	-145.1	97.1	-179.4	-178.3	-73.8
70	11	19	tt	tt	45.5	24.1	177.5	73.0	-41.9	179.4	6.7	52.6
71	4	45	tt	tt	46.1	31.9	174.2	-162.6	-91.4	179.6	-82.1	44.6
72	38	53	ct	ct	46.4	8.5	-0.7	-79.0	-6.7	179.6	-54.4	-130.7
73	19	30	tt	tt	46.5	18.5	177.3	77.8	-53.6	179.8	-116.0	68.2
74	38	44	ct	ct	46.6	8.6	-2.0	-83.6	-4.5	179.7	-55.0	0.3
75	26	55	tc	tc	46.6	13.9	178.4	-151.9	161.2	-0.6	63.5	-141.0
76	43	50	tc	tc	46.9	5.1	176.0	-89.4	121.0	-2.9	-59.2	-5.5
77	4	19	tt	tt	47.0	32.8	-173.5	96.2	-147.1	-179.9	-52.2	70.7

78	46	47	ct	ct	47.2	5.2	1.9	-142.3	-28.3	178.7	51.7	-71.2
79	19	45	tt	tt	47.2	19.2	178.7	135.5	-31.5	179.4	-71.8	70.4
80	27	39	tt	tt	47.4	13.5	175.7	77.3	-47.8	179.4	-115.4	-174.7
81	3	9	tt	tt	47.5	34.0	179.3	-78.9	81.9	179.8	-121.5	-173.9
82	54	57	ct	ct	48.0	2.2	-4.0	-109.6	132.7	-179.7	-66.5	61.5
83	16	50	tc	tc	48.5	21.5	177.3	-117.4	140.1	-1.0	-56.9	-40.7
84	24	46	ct	ct	48.5	17.4	-0.2	-110.8	-73.1	178.1	47.8	-82.1
85	46	56	ct	ct	48.8	6.8	-0.2	-149.0	-155.1	-179.2	64.7	-62.0
86	24	38	ct	ct	48.9	17.8	-1.6	-81.8	-10.0	179.7	-0.6	-73.2
87	36	58	ct	ct	48.9	12.0	-2.5	-101.5	166.0	-178.9	-168.8	178.7
88	26	34	tc	tc	49.2	16.4	176.8	-153.3	154.4	2.4	123.9	-65.4
89	1	7	tt	tt	49.2	49.2	176.1	-88.6	115.4	-180.0	114.6	-38.3
90	41	59	ct	ct	49.3	8.4	-3.7	-107.4	130.9	-179.4	-177.2	-78.1
91	1	17	tt	tt	49.3	49.3	-177.4	-139.1	15.9	-179.6	140.8	24.2
92	35	42	tc	tc	49.6	13.0	175.0	-94.3	130.4	-0.1	-173.3	-132.7
93	2	17	tt	tt	49.6	38.8	-177.7	-139.3	16.0	-179.7	178.8	33.2
94	24	60	ct	ct	49.7	18.6	2.2	-127.6	-54.3	177.6	56.7	-174.5
95	51	54	ct	ct	49.7	7.1	-0.3	-132.1	87.7	-179.3	-64.3	67.4
96	1	2	tt	tt	50.0	50.0	177.9	-150.4	155.0	179.7	122.8	63.0
97	31	59	ct	ct	50.5	15.3	-3.6	-105.7	94.0	-179.1	179.9	-73.7
98	46	60	ct	ct	50.6	8.5	2.0	-141.9	-71.5	178.1	57.8	-134.2
99	53	63	ct	ct	51.1	6.9	-2.7	-116.0	17.8	180.0	-64.1	-179.5
100	40	64	ct	ct	51.1	11.0	-1.1	-107.4	-165.9	-179.0	-166.1	79.9
101	24	53	ct	ct	51.4	20.3	-0.6	-76.4	-10.6	179.5	-10.8	-174.4
102	5	28	tt	tt	51.5	36.8	178.6	20.3	-7.0	178.9	-63.1	-76.8
103	33	55	tc	tc	51.6	15.2	-179.3	-147.9	154.2	-2.0	60.6	129.9
104	44	53	ct	ct	51.8	10.4	-2.0	-85.1	-0.4	179.6	-60.5	123.2
105	9	27	tt	tt	51.9	31.6	178.8	19.8	-3.3	178.5	-56.9	-175.5
106	11	14	tt	tt	52.1	30.7	176.2	80.5	-54.0	179.9	133.8	-67.3
107	50	61	tc	tc	52.5	10.0	-179.8	-77.3	119.4	-2.6	-58.6	-128.4
108	51	63	ct	ct	52.7	10.0	0.8	-132.4	26.5	-179.7	-64.9	132.0
109	4	10	tt	tt	52.8	38.6	-179.5	-139.4	136.8	179.9	-112.6	-61.0
110	15	66	tc	tc	52.8	26.6	175.3	-85.3	133.3	-3.1	41.5	165.6
111	58	64	ct	ct	53.0	4.3	-0.8	-88.3	-172.5	-178.8	-166.1	122.3
112	12	45	tt	tt	53.1	30.8	173.6	-156.9	-49.1	178.7	-12.9	-52.3
113	55	66	tc	tc	53.2	7.2	176.6	-109.8	153.1	-1.9	51.9	179.1
114	58	59	ct	ct	53.2	4.5	-2.8	-91.5	141.8	-179.2	-172.3	-126.7
115	29	34	tc	tc	53.5	19.1	178.9	-151.3	141.2	-3.9	-179.3	2.9
116	40	54	ct	ct	53.7	13.6	-1.9	-153.4	157.5	-179.8	-107.5	74.0
117	16	26	tc	tc	53.9	26.9	175.3	-154.3	158.7	-0.5	-3.5	-53.3

118	15	69	tc	tc	54.0	27.8	-174.3	-129.2	58.0	4.1	50.8	153.9
119	37	70	ct	ct	54.3	16.9	-3.0	-77.4	-18.7	179.7	178.3	27.6
120	31	38	ct	ct	54.4	19.2	-0.2	-140.6	19.8	-179.6	-105.2	-73.2
121	1	11	tt	tt	54.4	54.4	179.6	19.7	-7.3	178.8	56.4	59.1
122	32	56	ct	ct	54.4	18.5	-1.4	-149.7	145.7	179.8	61.1	0.0
123	26	71	tc	tc	54.6	21.8	179.5	-143.6	86.6	-0.7	47.9	-62.3
124	43	61	tc	tc	54.6	12.9	178.8	-83.4	120.6	-2.5	-64.4	126.1
125	15	69	tc	tc	54.7	28.5	-174.5	-130.6	56.8	4.3	50.9	161.5
126	38	63	ct	ct	54.8	16.8	-0.2	-131.0	20.7	-179.7	-68.1	-123.6
127	1	4	tt	tt	54.9	54.9	179.1	-140.4	143.2	179.9	-5.5	47.1
128	7	14	tt	tt	55.1	37.8	-177.0	13.1	1.4	178.4	-157.0	-52.7
129	15	67	tc	tc	55.2	29.0	-176.6	-97.1	5.9	0.8	56.6	76.5
130	6	20	tt	tt	55.4	39.0	-177.0	88.5	-165.6	-178.7	144.6	-83.7
131	37	38	ct	ct	56.2	18.8	-3.0	-82.8	-3.8	179.6	-114.2	-68.8
132	1	2	tt	tt	56.5	56.5	175.9	-154.6	-54.6	178.3	124.4	68.0
133	14	17	tt	tt	56.6	30.7	177.3	150.7	-25.0	179.3	-178.4	-46.3
134	36	81	ct	ct	56.8	19.8	0.4	-145.8	142.6	-179.8	-90.9	169.4
135	32	47	ct	ct	56.8	20.8	-0.4	-140.0	18.2	-179.4	56.0	-1.5
136	11	30	tt	tt	57.0	35.7	174.7	80.2	-46.9	179.5	121.7	58.1
137	2	17	tt	tt	57.1	46.2	175.1	-156.9	-93.3	179.7	-179.4	-53.1
138	2	45	tt	tt	57.1	46.3	174.8	-162.0	-51.9	178.9	-128.3	64.1
139	54	81	ct	ct	57.4	11.6	1.0	-140.1	138.8	-179.9	-78.5	140.3
140	4	23	tt	tt	57.6	43.3	-176.5	86.6	174.5	-179.8	-100.0	75.0
141	67	75	tc	tc	57.7	5.5	179.4	-78.8	-22.1	-6.2	50.3	129.9
142	2	30	tt	tt	57.9	47.1	-180.0	138.2	-59.4	179.7	176.3	63.1
143	9	19	tt	tt	58.3	38.1	-176.1	11.3	-2.6	178.8	-47.4	86.2
144	63	81	ct	ct	58.5	8.8	0.2	-137.0	96.3	-179.3	-76.0	170.6
145	35	55	tc	tc	58.6	22.0	176.4	-153.0	159.5	1.6	119.5	-170.4
146	78	79	ct	ct	59.1	3.3	-5.4	82.0	-174.0	-179.4	-159.8	124.1
147	76	80	cc	cc	59.6	4.1	-0.5	-144.8	105.2	-0.9	-177.5	-74.5
148	31	63	ct	ct	59.7	24.5	-0.8	-144.3	32.2	-179.5	-120.3	-170.1
149	1	11	tt	tt	59.7	59.7	-173.5	12.2	-13.0	-179.9	61.4	-43.1
150	76	82	cc	cc	60.1	4.6	-0.1	-148.4	140.3	0.6	-172.1	-126.6
151	26	50	tc	tc	60.2	27.4	175.0	-90.6	121.2	-3.3	6.6	-67.6
152	36	81	ct	ct	60.3	23.3	0.3	-148.3	141.9	-179.8	-83.6	167.0
153	26	50	tc	tc	60.5	27.8	174.5	-91.5	136.5	-2.0	3.5	-64.6
154	15	92	tc	tc	60.5	34.4	-177.0	-138.0	-15.1	-5.1	65.4	76.5
155	41	56	ct	ct	60.6	19.7	-2.1	-150.6	158.1	-179.7	119.1	-64.9
156	85	93	cc	cc	60.6	2.3	-4.1	-111.2	141.9	0.5	-65.9	60.8
157	15	61	tc	tc	60.7	34.5	179.0	-75.4	118.9	-2.8	-4.9	175.0

158	69	71	tc	tc	60.8	6.9	-177.3	-140.2	53.4	5.0	49.9	-125.3
159	57	91	ct	ct	60.9	13.1	-2.2	-87.6	124.1	-179.5	-70.5	134.8
160	62	83	ct	ct	60.9	11.4	-4.8	77.7	16.3	-179.8	-57.0	132.5
161	69	75	tc	tc	61.0	7.0	-176.6	-107.2	12.6	3.9	51.5	167.8
162	81	91	ct	ct	61.1	4.3	-4.3	-111.2	119.8	-179.5	-74.3	168.6
163	62	74	ct	ct	61.1	11.6	-1.8	82.5	6.8	-180.0	-45.6	-9.9
164	75	84	tc	tc	61.1	5.7	-178.0	-119.9	-24.4	-6.9	54.8	176.8
165	31	96	ct	ct	61.1	26.0	0.6	-137.5	13.6	-179.6	-169.4	51.0
166	72	84	tc	tc	61.2	6.1	178.5	-149.4	-35.3	-7.9	56.4	-129.2
167	63	91	ct	ct	61.3	11.6	-4.1	-100.4	85.1	-179.1	-70.1	174.6
168	31	32	ct	ct	61.4	26.2	0.8	-137.6	9.8	-179.6	137.6	29.9
169	29	33	tc	tc	61.4	27.1	177.9	-150.9	155.3	-2.7	124.7	59.5
170	42	50	tc	tc	61.6	20.2	177.4	-85.8	120.3	-3.1	-117.2	-67.0
171	74	83	ct	ct	61.8	6.3	-3.4	80.2	10.6	-179.9	-56.1	-124.2
172	69	84	tc	tc	61.9	7.9	-177.0	-137.9	-4.5	-1.7	58.7	176.5
173	57	90	ct	ct	61.9	14.1	-0.7	-80.9	132.0	-179.6	-56.5	-15.7
174	71	72	tc	tc	62.1	8.2	178.4	-145.7	-0.5	0.8	53.4	-72.2
175	26	68	tc	tc	62.1	29.4	-173.8	129.4	165.5	-0.6	63.8	-70.4
176	40	95	ct	ct	62.3	22.2	0.7	-145.0	-80.6	178.8	177.8	63.7
177	40	96	ct	ct	62.4	22.2	-0.8	-144.6	67.6	-179.3	-160.4	70.1
178	76	98	cc	cc	62.4	6.9	-3.8	-109.7	135.0	0.9	-176.5	-76.3
179	38	90	ct	ct	62.5	24.6	-3.5	-92.8	83.4	-179.1	-63.3	-64.1
180	85	100	cc	cc	62.5	4.2	-1.1	-132.8	94.6	-1.8	-64.3	66.8
181	57	64	ct	ct	62.6	14.8	-2.2	-89.4	147.1	-179.7	-119.9	73.0
182	31	95	ct	ct	62.7	27.6	1.3	-140.0	-27.8	179.2	176.6	46.0
183	18	37	ct	ct	62.8	35.2	-3.6	-81.0	-8.3	179.9	132.0	44.7
184	37	101	ct	ct	62.9	25.5	-2.7	-86.2	-3.3	179.6	-157.9	-150.5
185	47	56	ct	ct	63.1	21.0	0.2	-144.4	90.1	-179.4	48.2	-54.2
186	15	43	tc	tc	63.1	36.9	-179.7	-73.0	121.2	-3.0	-19.6	95.4
187	48	56	ct	ct	63.3	20.9	-2.0	-87.7	163.6	179.9	65.9	-59.5
188	49	74	ct	ct	63.3	20.9	-4.4	80.1	7.7	180.0	-99.5	-71.8
189	86	106	cc	cc	63.4	5.0	-0.8	-143.6	121.3	-1.0	57.2	45.7
190	84	92	tc	tc	63.4	5.4	-178.7	-144.0	-31.0	-7.7	64.2	122.9
191	15	42	tc	tc	63.6	37.4	175.8	-95.2	121.4	-2.1	116.1	-44.3
192	41	105	ct	ct	63.6	22.8	-1.3	-151.1	140.2	180.0	-98.9	-73.2
193	51	96	ct	ct	63.7	21.1	-0.8	-142.5	29.2	-179.5	-124.4	70.3
194	35	61	tc	tc	63.7	27.1	177.0	-86.0	122.8	-2.0	-116.4	179.1
195	32	51	ct	ct	63.7	27.8	-2.8	-142.9	23.2	-179.5	1.6	58.9
196	77	86	cc	cc	63.9	8.1	-2.1	-121.1	112.2	-1.1	55.1	50.8
197	82	97	cc	cc	63.9	7.1	-0.3	-148.9	143.7	0.8	-163.0	118.5

198	38	105	ct	ct	63.9	26.0	-0.9	-137.0	103.0	-179.5	-75.9	-71.0
199	49	103	ct	ct	63.9	21.5	-1.8	86.5	113.2	-179.6	-164.8	-76.5
200	82	107	cc	cc	64.0	7.3	-3.7	-107.9	138.7	2.1	-169.4	-176.5
201	68	73	tc	tc	64.2	10.2	-175.9	102.4	-135.2	3.4	73.9	-52.3
202	44	70	ct	ct	64.3	22.9	-2.6	-83.5	-7.0	179.7	-126.3	64.1
203	56	109	ct	ct	64.4	18.2	0.7	-145.2	171.9	-180.0	66.4	-147.5
204	78	103	ct	ct	64.5	8.7	-4.7	84.9	157.0	-179.0	-163.9	-115.9
205	40	41	ct	ct	64.6	24.5	-0.4	-147.8	137.2	179.5	-171.9	4.5
206	90	105	ct	ct	65.1	6.3	-4.2	-118.3	122.0	-179.6	-68.9	-64.6
207	65	110	ct	ct	65.3	14.5	-7.3	86.5	-4.4	179.9	85.0	141.0
208	49	115	ct	ct	65.6	23.2	-4.5	87.7	-9.9	179.7	-167.3	39.1
209	85	97	cc	cc	65.6	7.3	-2.0	-153.9	156.9	0.7	-109.5	73.0
210	90	91	ct	ct	65.6	6.8	-0.1	-74.8	121.3	-179.4	-64.0	-121.9
211	26	72	tc	tc	65.7	33.0	173.7	-147.1	-119.1	5.7	51.5	-65.9
212	49	65	ct	ct	65.8	23.3	-5.9	85.5	-2.6	179.9	150.5	27.2
213	112	117	tc	tc	66.1	1.4	-176.5	104.8	-80.6	0.6	-55.8	70.9
214	64	70	ct	ct	66.3	16.3	-3.3	-86.6	-87.6	178.4	177.5	64.5
215	53	101	ct	ct	66.3	22.1	-2.9	-88.0	2.6	179.6	-124.4	-168.7
216	35	104	tc	tc	66.4	29.8	-173.4	123.1	139.3	0.0	-173.8	-176.8
217	88	106	cc	cc	66.5	7.6	-1.5	-150.1	147.8	0.1	60.2	2.0
218	98	107	cc	cc	66.7	5.0	-2.8	-91.1	136.1	2.3	-172.1	-129.0
219	104	108	tc	tc	66.8	3.6	-174.7	96.4	136.4	-0.4	-164.6	-124.0
220	70	101	ct	ct	66.8	12.9	-2.5	-78.0	-23.1	179.5	-168.8	130.5
221	58	91	ct	ct	66.9	18.2	-3.0	-91.5	131.6	-179.5	-113.3	173.6
222	116	121	tc	tc	67.0	1.2	-178.8	102.8	-80.6	2.1	-168.1	-64.4
223	62	122	ct	ct	67.2	17.7	-2.0	83.9	114.5	-179.9	-57.5	61.3
224	16	33	tc	tc	67.4	40.4	178.1	-142.2	152.1	-0.4	-4.9	40.3
225	34	108	tc	tc	67.4	30.9	-173.8	123.2	137.6	-1.1	-178.3	-79.0
226	32	54	ct	ct	67.4	31.5	-3.3	-151.1	145.2	180.0	0.0	47.6
227	72	75	tc	tc	67.8	12.7	177.5	-104.5	-26.4	-6.8	43.5	-90.8
228	16	89	tc	tc	67.8	40.8	-174.5	-100.3	14.0	4.1	-51.0	-59.8
229	102	111	cc	cc	68.0	5.3	-3.4	-75.7	-25.5	-5.5	52.1	127.5
230	97	123	cc	cc	68.1	6.8	-3.6	-110.3	140.7	1.6	-164.5	77.3
231	48	120	ct	ct	68.4	26.0	-1.9	-79.0	148.7	-179.6	46.0	141.2
232	24	120	ct	ct	68.5	37.4	-0.8	-88.3	-157.1	-179.3	58.8	-169.8
233	54	105	ct	ct	68.6	22.7	-2.1	-131.6	139.5	-180.0	-63.1	-17.3
234	87	108	tc	tc	68.6	10.0	-176.8	92.6	102.5	1.3	-167.4	-78.5
235	72	73	tc	tc	68.7	13.6	179.5	143.3	-37.5	-7.1	53.1	-74.0
236	16	94	tc	tc	68.7	41.7	176.3	-152.6	-7.5	-2.3	-77.1	36.2
237	89	124	tc	tc	68.9	10.0	-176.1	-57.4	-35.1	-4.8	-45.5	-136.3

238	87	121	tc	tc	69.1	10.5	177.6	103.9	-31.4	-9.1	-157.2	-50.5
239	49	83	ct	ct	69.4	26.9	-4.2	79.2	15.7	-179.9	-111.4	-171.3
240	62	115	ct	ct	69.6	20.1	-3.9	80.6	11.7	-179.9	-117.1	68.9
241	36	130	ct	ct	69.7	32.8	1.1	-145.0	-77.1	178.8	-179.3	173.1
242	32	109	ct	ct	69.7	33.8	-0.1	-144.6	158.1	-179.9	59.9	131.3
243	109	120	ct	ct	69.8	5.6	0.3	-113.6	165.5	-179.9	57.5	-172.6
244	16	113	tc	tc	69.8	42.9	-173.3	116.0	84.0	2.1	-61.9	75.0
245	56	120	ct	ct	69.9	23.7	-1.3	-86.8	172.3	-179.9	54.3	-128.7
246	107	123	cc	cc	70.2	6.5	-2.6	-92.4	139.6	2.1	-165.3	119.2
247	72	94	tc	tc	70.2	15.1	174.4	-153.7	-50.9	-5.9	-13.2	-51.8
248	11	28	tt	tt	70.3	48.9	176.5	66.2	-44.0	179.7	5.9	-44.7
249	82	85	cc	cc	70.3	13.6	1.1	-141.5	148.3	0.1	-80.6	140.7
250	119	132	ct	ct	70.4	4.2	-10.9	61.1	-113.5	179.8	70.6	-74.5
251	104	128	tc	tc	70.8	7.6	-173.5	95.2	153.7	1.5	-150.8	115.8
252	75	89	tc	tc	70.9	15.5	177.6	-74.1	-38.6	-6.9	4.2	-80.8
253	119	127	ct	ct	71.0	4.8	-7.5	87.7	-116.7	179.4	88.6	-128.2
254	59	64	ct	ct	71.1	22.3	-2.9	-91.2	129.1	179.9	-171.8	3.8
255	86	102	cc	cc	71.4	12.9	1.0	-107.4	14.6	1.5	60.2	74.8
256	75	124	tc	tc	71.4	16.0	-178.5	-59.3	-38.6	-5.7	-10.6	-171.8
257	36	46	ct	ct	71.5	34.6	-1.4	-146.1	-143.0	-178.7	118.1	-167.9
258	36	40	ct	ct	71.5	34.6	-0.8	-150.7	-150.5	-178.9	-151.6	-46.7
259	94	112	tc	tc	71.6	11.1	-179.7	136.2	-47.0	-3.9	-70.9	70.1
260	119	132	ct	ct	71.7	5.4	-11.5	62.2	-118.0	-179.9	70.7	-72.5
261	51	54	ct	ct	71.7	29.1	2.6	-132.4	-105.7	179.7	-63.7	61.4
262	110	118	ct	ct	71.7	7.0	-10.4	82.8	-3.5	179.9	76.1	-124.4
263	113	133	tc	tc	71.8	7.1	176.5	69.6	47.8	4.1	-59.5	134.0
264	16	99	tc	tc	71.9	44.9	174.1	-148.7	-123.1	2.7	-165.8	68.7
265	95	130	ct	ct	72.0	10.9	0.7	-145.9	-64.8	178.7	-178.5	131.7
266	59	90	ct	ct	72.0	23.2	-3.0	-88.4	122.0	-179.5	-113.5	-75.4
267	112	113	tc	tc	72.1	7.4	178.6	97.7	-8.6	-4.4	-49.6	74.1
268	31	130	ct	ct	72.2	37.0	1.2	-141.7	-26.4	179.0	-165.8	-176.3
269	111	139	cc	cc	72.2	7.6	-4.1	-77.5	-28.9	-5.7	44.9	-111.0
270	114	126	tc	tc	72.3	7.0	-176.8	100.3	-99.5	1.0	-168.9	125.4
271	24	132	ct	ct	72.5	41.4	6.1	17.9	-102.6	179.5	62.0	-65.2
272	12	17	tt	tt	72.5	50.1	174.1	-157.2	-48.4	179.0	125.3	-68.4
273	82	136	cc	cc	72.6	15.8	-0.4	-136.8	109.7	-1.8	-76.0	168.8
274	99	134	tc	tc	72.6	10.5	176.8	-153.6	-41.5	-8.4	-178.0	-6.7
275	100	136	cc	cc	72.6	10.1	0.6	-136.1	78.1	-0.1	-71.0	135.5
276	89	94	tc	tc	72.6	13.7	-179.2	-119.5	-34.4	-5.8	-51.4	-49.6
277	1	11	tt	tt	72.6	72.6	-176.3	126.4	-34.3	179.0	77.3	69.6

278	52	134	tc	tc	72.7	29.3	178.0	-149.5	-17.7	-6.9	-170.5	-40.0
279	76	88	cc	cc	72.8	17.4	-2.0	-150.6	153.8	3.0	121.2	-64.3
280	94	112	tc	tc	72.9	12.4	-179.2	135.0	-62.5	-4.0	-70.6	70.7
281	116	121	tc	tc	72.9	7.1	-177.5	104.9	-81.0	1.4	-166.5	-64.8
282	16	128	tc	tc	73.0	46.0	-176.5	87.0	160.6	-0.8	-102.4	75.6
283	52	87	tc	tc	73.0	29.7	-175.8	127.7	76.4	4.3	179.4	-72.4
284	52	138	tc	tc	73.0	29.7	-177.6	-93.9	-0.8	-0.7	-166.4	-47.6
285	31	130	ct	ct	73.1	37.9	0.1	-148.3	-48.0	178.3	-168.8	-132.3
286	125	135	cc	cc	73.3	5.1	0.7	-140.4	3.9	2.4	53.2	-66.5
287	48	59	ct	ct	73.4	31.1	-2.7	-89.5	130.7	-179.9	115.9	-50.5
288	93	137	cc	cc	73.5	13.3	-0.6	-81.2	139.9	0.2	-55.9	-15.9
289	48	57	ct	ct	73.7	31.3	-0.3	-61.0	128.3	-179.5	-14.6	84.9
290	79	115	ct	ct	73.7	17.9	-2.2	82.9	83.1	-179.2	-152.9	73.9
291	99	141	tc	tc	73.7	11.6	174.9	-154.6	-71.1	-5.1	171.5	141.6
292	29	128	tc	tc	73.7	39.4	-172.4	121.5	142.0	0.0	-168.5	83.7
293	79	122	ct	ct	73.8	18.0	-5.2	81.5	159.0	-179.8	-102.6	72.5
294	116	126	tc	tc	73.9	8.0	-177.7	100.5	-97.1	2.4	-168.9	-125.9
295	110	127	ct	ct	73.9	9.2	-2.1	95.1	-64.5	178.3	88.5	174.4
296	94	99	tc	tc	73.9	13.4	175.4	-157.7	-52.7	-4.2	-129.5	63.5
297	93	140	cc	cc	74.0	13.8	-1.5	-85.4	134.0	0.6	-69.4	135.0
298	114	121	tc	tc	74.1	8.7	-179.5	104.8	-63.0	-3.8	-166.3	3.7
299	102	142	cc	cc	74.1	11.4	1.4	-125.4	-24.2	-5.0	63.1	74.5
300	86	142	cc	cc	74.1	15.7	0.8	-135.5	-13.0	-4.0	64.7	73.5
301	16	94	tc	tc	74.3	47.3	172.7	-153.1	-126.6	4.2	-75.4	38.6
302	111	143	cc	cc	74.3	9.8	2.5	-124.5	-27.5	-6.3	57.3	-179.5
303	65	118	ct	ct	74.5	23.7	-6.5	86.8	0.8	179.9	88.4	-12.4
304	93	123	cc	cc	74.5	14.3	-2.2	-88.9	150.2	2.1	-120.9	72.1
305	56	90	ct	ct	74.5	28.4	-1.4	-86.1	137.1	-179.7	1.2	-61.0
306	31	49	ct	ct	74.6	39.4	4.5	138.2	-14.2	179.2	-176.0	-46.9
307	92	99	tc	tc	74.6	14.9	176.8	-150.8	-47.9	-9.1	121.7	66.9
308	125	139	cc	cc	74.6	6.5	-0.7	-109.8	-28.4	-5.8	46.2	-79.9
309	58	101	ct	ct	74.7	26.0	-3.2	-87.3	-86.1	178.5	178.9	167.1
310	82	140	cc	cc	74.8	18.1	-4.5	-112.3	130.1	-0.1	-73.9	167.3
311	24	109	ct	ct	74.9	43.8	0.9	-138.9	102.5	-179.4	50.1	171.4
312	49	79	ct	ct	74.9	32.5	-0.8	93.9	-75.4	179.3	-166.9	61.6
313	77	88	cc	cc	74.9	19.2	-2.5	-90.5	153.8	-0.3	66.3	-55.7
314	114	116	tc	tc	75.2	9.9	-178.0	100.4	-96.2	0.5	-169.8	-1.3
315	40	79	ct	ct	75.5	35.3	6.4	129.0	-156.1	-179.7	-172.5	76.0
316	76	149	cc	cc	75.7	20.2	-1.7	-153.5	151.6	-0.3	-100.7	-69.7
317	88	135	cc	cc	76.0	17.1	0.1	-143.8	95.0	-2.4	48.9	-53.7

318	80	150	cc	cc	76.3	20.0	-0.2	-144.8	-22.5	-6.8	-164.0	-49.1
319	18	65	ct	ct	76.3	48.6	9.8	129.4	-17.2	179.0	69.7	69.4
320	16	117	tc	tc	76.4	49.4	-174.4	95.3	-141.4	0.8	-50.5	69.7
321	36	78	ct	ct	76.4	39.5	6.8	127.9	-171.4	-178.9	-172.8	172.5
322	114	128	tc	tc	76.5	11.2	-175.1	95.2	-143.6	-1.2	-151.9	71.0
323	76	97	cc	cc	76.6	21.2	-0.5	-147.9	138.6	-2.7	-173.0	5.8
324	86	152	cc	cc	76.7	18.2	0.7	-138.0	40.8	5.7	55.9	146.3
325	61	133	tc	tc	76.8	27.7	176.6	21.8	65.4	0.8	-60.8	178.8
326	125	143	cc	cc	76.8	8.7	2.2	-139.1	-32.5	-6.9	57.5	-131.1
327	73	151	tc	tc	76.9	21.8	176.9	61.1	45.4	4.5	56.5	9.2
328	49	59	ct	ct	77.0	34.6	9.8	1.9	78.9	-179.7	-173.1	-69.3
329	129	139	cc	cc	77.1	8.3	-3.6	-71.2	-43.6	-4.6	-1.0	-72.4
330	91	120	ct	ct	77.2	18.4	-0.6	-70.0	122.2	-179.4	-1.2	170.7
331	143	152	cc	cc	77.3	3.6	1.6	-133.1	5.3	1.7	58.4	175.9
332	72	92	tc	tc	77.3	22.2	178.1	-149.8	-31.9	-5.1	60.6	2.9
333	88	155	cc	cc	77.5	18.6	0.8	-144.6	159.8	-0.3	65.1	-145.6
334	129	145	cc	cc	77.6	8.8	-3.0	-73.1	-34.8	-3.9	-55.7	3.4
335	147	149	cc	cc	77.6	3.0	-1.6	-135.8	112.6	-2.1	-74.1	-68.8
336	65	127	ct	ct	77.7	27.0	-2.5	94.2	-83.2	177.8	92.5	117.4
337	74	118	ct	ct	77.7	22.2	-4.4	73.7	6.0	-180.0	11.3	-57.1
338	48	65	ct	ct	77.8	35.4	11.4	6.4	74.4	-179.4	63.2	58.0
339	138	153	tc	tc	77.8	6.5	179.2	-67.8	-35.1	-5.9	-178.2	13.7
340	133	148	tc	tc	77.9	7.9	174.1	63.7	44.8	4.2	-66.4	-116.8
341	42	87	tc	tc	78.0	36.5	-179.7	12.1	69.9	1.1	-171.5	-67.2
342	80	147	cc	cc	78.0	21.7	-2.0	-146.2	64.2	1.6	-107.2	-75.2
343	15	151	tc	tc	78.0	51.8	176.2	25.5	65.2	0.3	57.2	53.7
344	137	149	cc	cc	78.0	7.1	-4.3	-118.5	138.6	0.0	-67.1	-61.3
345	104	126	tc	tc	78.1	14.9	-175.4	95.7	-141.4	-1.1	-153.9	171.7
346	142	143	cc	cc	78.3	4.9	1.3	-137.8	-29.6	-6.9	62.7	125.3
347	136	147	cc	cc	78.3	7.4	0.0	-136.8	67.3	1.1	-74.7	-119.2
348	16	104	tc	tc	78.5	51.6	-178.9	85.4	153.8	-1.9	-90.4	164.4
349	129	154	cc	cc	78.6	9.8	-1.2	-63.3	-36.2	-3.9	-50.9	-132.8
350	49	160	ct	ct	78.6	36.2	-2.1	90.8	-96.4	179.3	-162.6	-58.9
351	80	146	cc	cc	78.6	22.3	-1.3	-102.7	2.0	-0.4	-166.3	-51.7
352	32	40	ct	ct	78.6	42.7	-2.2	-149.1	153.9	179.7	123.0	58.1
353	137	140	cc	cc	78.6	7.7	-0.1	-76.5	132.0	-0.1	-63.2	-122.8
354	89	94	tc	tc	78.8	19.9	176.7	-113.5	-33.4	-5.6	-63.5	27.3
355	83	91	ct	ct	78.9	21.4	7.2	8.4	75.2	-179.4	-62.4	175.5
356	85	106	cc	cc	79.0	20.7	-3.4	-151.3	152.6	0.0	0.0	45.7
357	99	153	tc	tc	79.0	16.9	177.5	-102.7	-39.8	-4.7	179.2	51.3

358	112	162	tc	tc	79.1	14.4	178.1	100.9	-70.7	-0.2	-64.5	150.2
359	61	124	tc	tc	79.3	30.3	-172.0	-99.4	17.9	4.4	-48.9	-165.3
360	118	119	ct	ct	79.3	13.0	-3.4	94.3	-65.3	178.7	83.2	-80.6
361	131	158	cc	cc	79.4	10.3	-1.4	86.2	110.4	0.9	-164.3	-75.1
362	57	62	ct	ct	79.5	31.7	7.1	1.7	85.7	-179.4	-56.3	83.3
363	24	37	ct	ct	79.5	48.4	-4.0	-73.7	-21.4	179.4	124.7	-55.7
364	117	165	tc	tc	79.5	13.6	178.9	96.2	-99.2	2.7	-66.0	149.2
365	99	114	tc	tc	79.5	17.4	-179.0	141.6	-67.8	-4.6	174.8	63.7
366	77	156	cc	cc	79.6	23.9	-1.8	-79.9	151.7	-0.9	46.5	139.9
367	162	165	tc	tc	79.7	0.7	178.5	98.1	-89.7	2.8	-68.6	166.1
368	78	127	ct	ct	79.8	24.0	-5.7	86.9	-135.9	179.6	135.4	179.6
369	145	161	cc	cc	79.9	5.6	-1.4	-117.5	-35.2	-4.6	-61.5	57.1
370	107	140	cc	cc	79.9	16.3	-2.6	-88.9	141.4	1.5	-111.8	172.3
371	86	135	cc	cc	80.0	21.5	-2.6	-145.7	60.4	2.4	51.5	-5.2
372	163	168	tc	tc	80.2	0.8	177.8	96.3	-93.6	2.6	-70.1	-63.8
373	103	119	ct	ct	80.3	17.5	-6.4	84.1	176.9	-178.2	133.9	-71.3
374	68	108	tc	tc	80.4	26.3	-177.1	88.7	148.5	0.9	141.5	-71.0
375	85	149	cc	cc	80.5	22.2	-1.9	-133.2	147.4	0.1	-63.7	-16.8
376	100	145	cc	cc	80.6	18.1	-1.8	-107.8	2.1	0.8	-61.0	55.9
377	100	161	cc	cc	80.8	18.3	0.2	-129.0	-14.3	-3.1	-59.7	61.4
378	31	49	ct	ct	80.8	45.7	6.2	130.1	55.4	-178.5	-177.8	-65.4
379	50	148	tc	tc	80.9	38.4	175.4	24.0	62.9	0.7	-64.3	-78.0
380	83	122	ct	ct	81.1	23.6	-4.1	83.5	138.5	-180.0	-66.6	143.2
381	61	113	tc	tc	81.3	32.2	-179.5	11.8	71.7	0.4	-54.0	87.9
382	135	152	cc	cc	81.4	10.5	1.6	-138.2	33.3	6.7	54.4	-129.5
383	79	160	ct	ct	81.5	25.7	-4.2	84.7	-130.1	179.7	-162.5	-16.4
384	111	154	cc	cc	81.5	16.9	-2.6	-61.5	-42.1	-4.1	-11.9	-172.0
385	78	83	ct	ct	81.6	25.9	-5.0	81.6	147.6	-179.9	-90.6	168.0
386	155	156	cc	cc	81.6	4.5	0.1	-115.3	155.8	-1.3	56.1	-174.3
387	112	114	tc	tc	81.7	16.9	-178.8	99.2	-76.4	2.1	-114.7	69.4
388	146	159	cc	cc	81.7	7.5	-4.3	-68.3	-37.6	-4.6	-177.2	9.7
389	88	156	cc	cc	81.8	22.9	-1.8	-87.3	156.8	-1.3	50.8	-128.2
390	106	155	cc	cc	81.9	18.7	0.0	-144.2	153.0	-1.6	58.8	132.5
391	98	123	cc	cc	82.2	20.5	-2.5	-89.8	134.6	-1.2	-172.2	4.4
392	121	163	tc	tc	82.2	15.9	178.7	98.1	-76.7	0.5	-103.3	-64.9
393	24	101	ct	ct	82.2	51.1	-4.3	-69.4	-31.5	179.3	131.7	168.1
394	87	148	tc	tc	82.3	23.8	176.2	73.2	38.5	5.4	-103.3	-77.2
395	65	119	ct	ct	82.4	31.6	-3.0	87.7	116.4	179.8	97.3	-11.7
396	89	124	tc	tc	82.4	23.5	-176.4	-56.0	-36.6	-4.4	-50.7	101.3
397	144	164	cc	cc	82.5	8.6	-1.5	83.4	111.9	-0.1	-56.8	60.5

398	150	157	cc	cc	82.5	6.7	0.2	-144.9	-41.4	-6.9	-177.6	7.2
399	41	103	ct	ct	82.6	41.7	4.9	126.6	146.6	-179.2	-176.9	-79.8
400	89	138	tc	tc	82.6	23.7	-178.7	-55.7	-38.9	-5.5	-117.9	-60.4
401	100	147	cc	cc	82.9	20.5	-1.6	-130.6	74.7	0.2	-61.9	-12.7
402	134	141	tc	tc	83.0	12.3	174.8	-155.4	-67.1	-4.4	174.2	-124.0
403	60	110	ct	ct	83.0	34.2	10.5	126.7	-26.6	179.1	68.7	168.2
404	158	166	cc	cc	83.1	4.8	-2.1	86.8	130.4	0.9	-160.8	-126.7
405	121	134	tc	tc	83.2	16.9	178.6	147.2	-43.3	-6.0	-177.9	-51.1
406	133	162	tc	tc	83.2	13.2	174.1	101.4	-32.2	-7.7	-61.2	166.8
407	84	141	tc	tc	83.3	25.2	175.4	-152.9	-53.3	-7.0	126.8	167.8
408	62	65	ct	ct	83.3	33.8	-3.4	71.1	13.5	-180.0	12.0	65.5
409	87	133	tc	tc	83.5	24.9	178.6	77.3	50.7	4.1	-112.6	-173.8
410	58	64	ct	ct	83.5	34.8	-1.0	-91.1	-153.8	-178.9	-151.7	-58.1
411	31	46	ct	ct	83.5	48.4	-2.3	-149.9	-43.4	178.7	124.9	-65.8
412	46	119	ct	ct	83.5	41.5	11.7	128.2	-120.0	-179.9	71.8	-66.0
413	131	170	cc	cc	83.6	14.5	-2.4	79.3	70.8	1.4	-156.7	-143.5
414	166	170	cc	cc	83.7	4.3	-1.5	84.5	96.1	0.7	-157.1	-171.8
415	17	28	tt	tt	83.9	56.7	176.6	147.3	-32.8	179.3	-96.3	-61.2
416	31	74	ct	ct	84.2	49.1	6.3	132.1	-19.0	179.2	-80.2	-65.7
417	65	79	ct	ct	84.3	33.5	-3.9	90.0	-105.5	177.8	131.0	77.1
418	121	134	tc	tc	84.3	18.0	178.5	148.0	-63.7	-4.0	175.7	-60.8
419	148	163	tc	tc	84.6	9.3	173.3	100.4	-31.2	-7.6	-66.5	-68.7
420	171	172	cc	cc	84.7	1.2	-3.8	58.5	57.0	1.8	-63.9	175.2
421	114	117	tc	tc	84.8	19.4	-177.6	99.5	-94.9	1.6	-114.3	69.6
422	163	168	tc	tc	84.9	5.5	177.2	93.6	-93.8	1.7	-77.0	-65.0
423	98	137	cc	cc	84.9	23.3	-2.3	-85.3	132.7	0.1	-113.0	-73.4
424	162	165	tc	tc	85.1	6.1	178.0	95.5	-92.2	2.4	-73.5	170.5
425	145	154	cc	cc	85.1	10.9	-2.1	-66.5	-35.9	-3.7	-58.4	121.2
426	24	127	ct	ct	85.2	54.1	7.1	18.4	-97.9	179.3	66.9	-158.8
427	126	141	tc	tc	85.2	16.8	179.6	146.3	-69.5	-3.0	173.1	170.3
428	157	159	cc	cc	85.4	6.8	-0.5	-111.4	-42.9	-3.5	179.6	55.0
429	166	169	cc	cc	85.4	6.0	-2.4	86.5	135.5	1.0	-153.5	120.6
430	46	118	ct	ct	85.5	43.5	11.5	126.0	-23.4	179.4	68.1	-65.3
431	117	168	tc	tc	85.6	19.7	179.4	94.7	-101.1	2.6	-63.7	-11.4
432	86	100	cc	cc	85.6	27.2	-3.6	-146.8	80.8	-0.7	-1.5	56.6
433	144	171	cc	cc	85.6	11.7	-3.0	71.4	55.2	2.2	-61.0	135.4
434	78	160	ct	ct	85.7	29.9	-4.5	84.2	-146.3	-180.0	-154.5	-90.7
435	88	137	cc	cc	85.7	26.8	-1.1	-85.1	150.3	0.2	0.3	-60.6
436	126	162	tc	tc	85.7	17.3	179.9	98.5	-77.1	2.1	-110.4	178.3
437	129	173	cc	cc	85.8	17.0	-1.5	-121.5	-35.4	-5.0	-63.8	-64.2

438	129	147	cc	cc	85.9	17.1	-0.8	-111.1	15.9	3.6	-58.7	-64.7
439	83	110	ct	ct	85.9	28.4	-3.9	74.1	7.6	180.0	11.3	-178.8
440	162	163	tc	tc	85.9	6.9	177.0	98.7	-75.8	0.7	-71.4	-123.2
441	73	112	tc	tc	85.9	30.8	-179.3	92.7	-81.8	2.0	11.5	38.7
442	79	103	ct	ct	85.9	30.1	-1.6	86.8	117.3	179.6	-160.5	4.7
443	77	98	cc	cc	86.1	30.3	-2.7	-87.5	135.7	2.3	118.4	-54.5
444	108	116	tc	tc	86.1	22.4	-176.8	89.2	-154.2	-1.3	-147.2	-68.7
445	150	173	cc	cc	86.2	10.4	-1.7	-152.2	-46.3	-6.3	-103.5	-65.5
446	49	95	ct	ct	86.2	43.7	7.9	130.2	-34.6	179.5	178.0	47.4
447	112	163	tc	tc	86.2	21.4	179.2	99.8	-74.2	0.6	-63.9	-10.0
448	77	93	cc	cc	86.2	30.5	0.2	-62.9	137.2	0.1	-14.2	83.7
449	171	172	cc	cc	86.3	2.8	-4.5	62.0	54.9	2.3	-66.2	175.4
450	82	155	cc	cc	86.4	29.6	-1.6	-148.9	160.0	2.3	116.0	-161.8
451	113	148	tc	tc	86.4	21.7	176.5	69.0	44.1	4.5	-59.3	-8.3
452	144	172	cc	cc	86.4	12.5	-4.5	52.8	60.4	1.4	-63.9	134.8
453	147	173	cc	cc	86.8	12.1	-0.1	-131.3	-12.5	-2.7	-68.5	-68.5
454	165	168	tc	tc	86.8	7.4	177.2	94.2	-100.2	2.6	-69.1	-122.6
455	113	151	tc	tc	86.9	22.1	-179.5	69.0	45.8	4.9	7.9	55.2
456	164	169	cc	cc	86.9	7.6	-4.5	81.9	154.8	0.7	-107.5	72.3
457	88	125	cc	cc	87.0	28.0	1.7	-140.5	-124.6	4.0	53.0	-60.2
458	129	146	cc	cc	87.1	18.3	-4.2	-62.8	-42.0	-4.3	-115.7	-63.7
459	81	109	ct	ct	87.5	30.7	-2.8	-148.3	141.5	-179.9	-0.9	168.1
460	174	176	cc	cc	87.5	2.6	-3.4	55.1	55.2	1.9	-64.3	-70.1
461	67	153	tc	tc	87.6	35.4	177.2	-62.2	-39.1	-8.9	129.7	58.1
462	116	168	tc	tc	87.6	21.8	179.8	97.9	-95.5	0.7	-107.5	-64.9
463	169	177	cc	cc	87.7	5.2	-1.5	84.4	93.7	-0.2	-154.4	73.7
464	125	142	cc	cc	87.9	19.8	-1.6	-146.1	-30.2	-4.6	55.5	6.5
465	108	128	tc	tc	88.3	24.6	-174.5	96.2	139.9	-2.3	-161.6	3.9
466	73	116	tc	tc	88.3	33.2	-179.6	102.1	-70.5	0.4	134.6	-71.6
467	113	128	tc	tc	88.4	23.7	-179.6	80.7	54.1	3.6	-118.9	75.8
468	71	73	tc	tc	88.5	34.6	-175.0	132.0	50.5	7.5	58.1	-69.4
469	72	134	tc	tc	88.7	33.6	175.0	-153.3	-50.9	-3.8	122.9	-64.1
470	152	155	cc	cc	88.7	12.4	0.9	-137.5	106.7	-2.7	50.6	173.5
471	174	176	cc	cc	88.9	4.0	-4.1	60.8	52.2	2.5	-65.8	-70.0
472	108	179	tc	tc	88.9	25.2	-179.8	82.8	158.8	-1.7	-93.9	-69.7
473	142	157	cc	cc	89.0	15.6	-1.4	-146.5	-46.5	-8.8	122.8	64.2
474	97	106	cc	cc	89.1	27.8	-2.2	-149.5	155.0	-2.3	124.7	54.7
475	51	62	ct	ct	89.2	46.6	6.5	133.4	-19.8	179.2	-79.8	60.6
476	49	58	ct	ct	89.3	46.9	7.0	10.5	89.0	-179.3	-159.1	-163.4
477	144	174	cc	cc	89.4	15.5	-0.9	76.6	51.3	2.8	-48.0	-14.7

478	157	175	cc	cc	89.5	10.8	1.1	-143.6	-65.9	-5.7	177.5	131.8
479	70	79	ct	ct	89.5	35.6	10.7	4.7	-118.3	178.6	-174.3	68.9
480	126	165	tc	tc	89.6	21.2	-179.1	98.3	-96.0	1.8	-110.6	175.5
481	16	68	tc	tc	89.7	62.7	-177.9	76.7	157.7	-1.7	21.6	34.8
482	136	154	cc	cc	89.7	18.8	-0.9	-106.4	9.3	1.9	-61.3	-177.4
483	136	181	cc	cc	89.7	18.8	0.9	-133.2	-18.0	-4.1	-66.7	-179.8
484	171	174	cc	cc	89.9	6.3	-2.1	72.0	50.9	2.7	-61.8	-120.3
485	140	156	cc	cc	90.0	18.0	-0.3	-71.3	134.5	-0.3	-1.2	172.5
486	49	110	ct	ct	90.0	47.6	-6.2	88.0	-19.3	179.5	148.0	169.1
487	102	145	cc	cc	90.1	27.5	-2.8	-55.4	-43.0	-3.4	-16.9	89.3
488	94	134	tc	tc	90.1	29.6	179.2	-146.7	-49.4	-6.3	-112.1	-50.9
489	63	83	ct	ct	90.3	40.6	6.4	132.8	-16.5	179.1	-80.1	-169.8
490	34	134	tc	tc	90.5	53.9	174.0	-150.1	-132.6	5.7	-164.6	-49.0
491	145	159	cc	cc	90.9	16.6	-4.4	-66.2	-46.2	-2.6	-121.7	62.4
492	98	131	cc	cc	90.9	29.2	9.4	1.2	81.6	0.0	-173.3	-69.8
493	154	181	cc	cc	91.0	14.1	-2.0	-117.0	-32.0	-4.8	-65.1	-178.3
494	16	179	tc	tc	91.0	64.0	-178.8	85.6	160.6	-0.9	-61.7	-19.7
495	150	175	cc	cc	91.0	15.2	0.5	-145.8	-46.3	-3.5	-166.7	-133.1
496	89	153	tc	tc	91.1	32.2	178.6	-67.0	-41.2	-4.8	-120.4	54.5
497	157	161	cc	cc	91.2	12.5	-1.9	-152.7	-52.1	-4.6	-116.4	64.3
498	1	18	tt	ct	91.2	91.2	-101.8	-82.7	26.0	-179.5	59.7	73.6
499	16	179	tc	tc	91.2	64.2	179.2	83.4	152.0	-2.4	-79.1	-111.8
500	170	177	cc	cc	91.2	8.0	-2.1	82.1	81.3	0.6	-153.1	119.7
501	159	180	cc	cc	91.3	12.7	-4.6	-67.6	-44.2	-1.1	-172.5	132.4
502	172	176	cc	cc	91.3	6.9	-3.6	52.8	56.7	1.8	-67.3	-119.3
503	161	181	cc	cc	91.5	12.5	2.0	-135.8	-38.8	-5.3	-67.6	134.5
504	77	167	cc	cc	91.5	35.7	10.4	7.7	77.9	-0.7	62.6	57.1
505	146	180	cc	cc	91.5	17.3	-4.3	-69.2	-41.3	-1.4	-166.1	-135.8
506	87	128	tc	tc	91.6	33.1	179.4	82.3	50.4	3.9	-158.2	16.5
507	102	159	cc	cc	91.8	29.1	-6.4	-60.1	-43.7	-7.0	126.4	61.9
508	150	175	cc	cc	91.9	16.2	0.8	-144.8	-60.7	-5.2	-174.8	-129.6
509	173	181	cc	cc	92.4	7.5	1.0	-135.9	-38.4	-5.7	-69.5	-128.3
510	48	118	ct	ct	92.6	50.2	12.5	3.4	73.5	-179.6	54.8	-44.7
511	140	172	cc	cc	92.9	20.9	6.2	9.6	78.3	-0.5	-62.9	175.0
512	131	174	cc	cc	92.9	23.8	-2.6	74.6	50.3	2.8	-102.3	-74.7
513	131	176	cc	cc	93.1	24.0	-4.9	63.9	54.0	2.2	-102.9	-75.2
514	121	128	tc	tc	93.3	27.1	177.7	92.2	5.4	0.7	-150.7	58.7
515	135	147	cc	cc	93.3	22.4	-1.2	-136.1	55.6	3.4	-9.8	-46.7
516	170	172	cc	cc	93.3	10.2	-5.2	66.1	64.3	1.3	-110.5	-178.4
517	144	177	cc	cc	93.4	19.5	-2.8	77.3	63.3	1.5	-115.6	72.7

518	40	122	ct	ct	93.5	53.4	2.9	128.7	148.6	-179.9	-82.4	62.8
519	170	171	cc	cc	93.5	10.4	-3.0	75.4	59.4	1.9	-109.0	-177.9
520	114	184	tc	tc	94.0	28.7	-179.1	105.2	-61.3	-4.7	118.4	62.3
521	175	181	cc	cc	94.0	7.0	-0.9	-152.3	-49.7	-4.9	-119.0	-176.3
522	153	183	tc	tc	94.3	17.7	178.2	-69.9	-40.7	-3.1	-173.5	137.4
523	138	183	tc	tc	94.4	23.0	-179.9	-65.5	-38.9	-3.2	-164.4	-140.4
524	125	161	cc	cc	94.5	26.4	-2.7	-145.4	-50.0	-6.0	-4.3	18.2
525	164	185	cc	cc	94.5	15.2	-4.3	82.8	142.9	-0.9	-67.8	143.8
526	148	179	tc	tc	94.7	19.3	178.3	80.9	113.1	-0.3	-69.5	-69.8
527	175	180	cc	cc	94.7	7.6	-0.8	-111.3	-43.7	-1.8	-172.0	176.9
528	166	185	cc	cc	94.7	15.3	-4.9	81.3	147.8	-0.7	-89.8	167.7
529	158	182	cc	cc	94.8	16.5	-4.6	85.4	146.8	2.5	134.4	-64.6
530	141	183	tc	tc	95.1	21.6	177.1	-102.4	-41.5	-3.0	-175.8	170.7
531	97	157	cc	cc	95.3	34.0	0.8	-141.6	-127.5	0.8	-163.0	67.2
532	80	131	cc	cc	95.4	39.1	5.6	128.5	65.9	4.3	-178.9	-68.0
533	164	186	cc	cc	95.5	16.2	-1.7	85.4	142.4	-0.7	-48.7	-23.1
534	78	101	ct	ct	95.6	39.9	10.9	0.4	-122.1	178.9	-175.7	165.7
535	171	185	cc	cc	95.7	12.2	-1.5	84.2	117.0	-0.1	-61.3	171.3
536	73	184	tc	tc	96.0	40.9	176.8	103.5	-54.6	-2.5	83.8	25.9
537	64	115	ct	ct	96.2	46.1	7.8	10.7	88.5	-179.4	-157.0	72.3
538	73	126	tc	tc	96.3	41.2	-177.9	104.5	-66.5	-3.0	125.5	-167.5
539	174	186	cc	cc	96.4	11.5	-0.3	85.5	115.0	-0.5	-52.0	-55.9
540	131	177	cc	cc	96.4	27.3	-2.6	78.2	59.9	1.3	-159.3	11.6
541	167	182	cc	cc	96.7	16.7	-3.3	88.0	126.2	1.1	92.1	3.5
542	7	31	tt	ct	96.9	79.6	-109.6	-96.8	40.9	-179.8	-172.9	-61.2
543	49	130	ct	ct	96.9	54.5	7.2	130.4	-38.6	179.3	-176.3	-179.3
544	137	176	cc	cc	97.0	26.1	7.3	10.1	76.7	-0.5	-64.6	-74.1
545	154	180	cc	cc	97.2	20.4	-4.3	-64.8	-44.7	-2.9	-120.9	-175.9
546	168	179	tc	tc	97.5	17.5	178.7	79.4	-155.8	-1.3	-54.0	-57.4
547	76	158	cc	cc	97.5	42.0	3.7	126.0	131.4	0.3	-176.9	-75.0
548	65	79	ct	ct	97.7	47.0	-4.9	85.4	147.2	179.5	137.1	60.0
549	158	182	cc	cc	98.1	19.8	-9.3	80.2	147.5	2.7	132.0	-63.1
550	143	175	cc	cc	98.3	24.6	-0.9	-146.1	-51.8	-6.7	126.6	172.5
551	73	184	tc	tc	98.4	43.3	175.0	99.2	-13.8	-7.2	95.2	58.6
552	136	152	cc	cc	98.5	27.5	-2.9	-142.1	55.1	3.2	-1.9	171.5
553	80	175	cc	cc	98.8	42.4	-0.5	-143.4	-7.3	-1.0	-151.8	-167.8
554	158	169	cc	cc	98.8	20.5	-1.8	86.9	127.6	-2.1	-161.1	4.8
555	124	183	tc	tc	98.9	30.8	-178.7	-54.5	-42.6	-4.1	-124.9	-167.7
556	63	83	ct	ct	98.9	49.2	5.1	129.3	64.6	-178.4	-79.4	-177.2
557	131	167	cc	cc	99.0	29.9	-3.7	80.7	63.3	1.2	127.7	-10.7

558	31	74	ct	ct	99.2	64.1	5.3	131.2	53.8	-178.3	-78.0	-67.8
559	82	155	cc	cc	99.3	42.5	-3.0	-148.9	151.5	-0.4	-2.0	169.6
560	125	150	cc	cc	99.4	31.3	-1.5	-147.5	-48.9	-3.5	122.3	-63.2
561	89	168	tc	tc	99.6	40.7	-178.9	33.4	-92.8	2.6	-70.0	-68.8
562	1	24	tt	ct	100.1	100.1	-104.7	-75.0	11.5	-179.0	50.1	165.6
563	92	184	tc	tc	100.4	40.6	-175.6	131.3	-40.5	-5.8	78.4	66.4
564	82	175	cc	cc	100.5	43.7	1.5	-141.0	-125.5	0.8	-164.0	168.6
565	172	185	cc	cc	100.6	16.2	-8.4	69.9	120.3	0.4	-76.9	169.4
566	1	18	tt	ct	100.8	100.8	109.8	-132.4	11.6	179.8	58.1	76.7
567	85	161	cc	cc	100.9	42.5	4.1	-130.4	-123.5	2.0	-61.1	61.6
568	82	166	cc	cc	101.1	44.3	2.9	127.1	133.3	1.3	-173.0	-173.7
569	13	51	tt	ct	101.1	77.6	-110.7	-96.8	43.1	-179.8	-59.7	57.7
570	73	184	tc	tc	101.2	46.1	-178.0	108.6	-52.8	-6.1	98.0	124.0
571	37	160	ct	ct	101.3	64.0	6.2	17.4	-101.5	179.6	-167.8	-55.9
572	167	190	cc	cc	101.7	21.7	-9.4	74.5	30.0	5.6	72.5	150.0
573	117	124	tc	tc	101.8	35.9	-172.4	21.4	-88.1	2.9	-63.8	74.3
574	1	15	tt	tc	101.9	101.9	177.8	-75.7	117.5	101.5	50.0	54.1
575	1	15	tt	tc	101.9	101.9	177.5	-80.3	122.1	-110.3	50.0	53.5
576	169	188	cc	cc	101.9	19.4	-4.7	88.6	-141.1	-1.7	-151.6	68.6
577	158	186	cc	cc	102.2	23.9	-3.8	81.2	149.0	-0.3	-100.9	-69.4
578	75	138	tc	tc	102.3	46.9	178.5	-50.6	-45.8	-2.1	125.2	-47.9
579	124	165	tc	tc	102.4	34.2	-177.3	30.8	-92.0	3.0	-67.5	-179.3
580	86	167	cc	cc	102.4	44.0	9.0	126.8	58.7	3.9	70.7	54.3
581	116	138	tc	tc	102.5	36.6	-173.5	24.4	-90.9	4.5	-173.9	-59.1
582	73	75	tc	tc	102.5	47.4	-171.6	28.6	-94.9	3.0	48.1	-34.6
583	185	186	cc	cc	102.6	8.5	-2.4	84.5	139.4	-0.8	-60.0	-119.8
584	188	189	cc	cc	102.6	4.1	9.3	110.0	-91.0	0.5	-171.2	62.4
585	1	15	tt	tc	102.6	102.6	178.4	-71.1	95.3	67.7	50.6	58.8
586	182	191	cc	cc	102.6	13.0	-6.3	86.2	163.0	2.3	101.8	-137.8
587	77	123	cc	cc	102.6	46.9	-2.3	-87.6	153.1	-1.4	124.1	54.9
588	38	74	ct	ct	102.7	64.7	3.7	25.0	-100.8	179.6	-64.1	-65.3
589	143	181	cc	cc	102.8	29.0	-1.8	-144.3	-47.2	-5.8	-11.1	-176.1
590	1	24	tt	ct	102.8	102.8	110.7	-136.3	-0.8	179.9	50.0	177.4
591	139	146	cc	cc	102.8	30.9	-6.6	-57.2	-46.8	-0.9	123.3	-56.3
592	2	40	tt	ct	103.0	92.1	-106.2	-143.4	-167.6	-179.1	-167.9	77.5
593	5	38	tt	ct	103.1	88.5	-71.9	-78.6	6.6	-179.8	-55.2	-73.2
594	14	49	tt	ct	103.1	77.3	107.1	87.3	-19.6	178.9	-163.9	-50.4
595	34	179	tc	tc	103.2	66.6	-175.3	126.6	152.1	-1.8	-84.1	-55.4
596	119	122	ct	ct	103.2	37.0	-5.5	69.5	165.3	-179.9	7.6	-44.4
597	111	180	cc	cc	103.3	38.8	-7.1	-56.9	-49.1	-4.8	129.3	168.7

598	107	170	cc	cc	103.4	39.7	7.7	8.2	85.6	-1.0	-159.3	-162.5
599	3	36	tt	ct	103.5	90.0	-108.4	-139.6	-178.5	-178.7	-172.9	175.1
600	8	26	tt	tc	103.9	85.0	176.1	-155.1	171.5	109.6	60.5	-62.6
601	190	193	cc	cc	104.2	2.6	5.7	110.9	-38.6	-7.8	86.8	170.8
602	114	153	tc	tc	104.4	39.1	-173.7	25.3	-90.4	0.8	-176.3	58.2
603	8	26	tt	tc	104.5	85.6	176.1	-155.0	171.1	-106.2	60.3	-62.9
604	76	150	cc	cc	104.5	49.0	0.3	-143.3	-134.1	3.7	-157.4	-56.8
605	9	53	tt	ct	104.6	84.3	-65.1	-80.1	7.3	180.0	-51.2	-172.7
606	75	183	tc	tc	104.7	49.3	176.0	-60.9	-46.2	-6.8	133.7	159.8
607	164	192	cc	cc	104.9	25.6	-6.0	84.0	-139.0	0.2	-53.0	54.5
608	131	189	cc	cc	105.0	35.9	3.9	108.5	-33.7	-4.1	-169.2	32.8
609	97	169	cc	cc	105.8	44.4	2.1	128.3	134.8	0.5	-171.1	76.1
610	77	187	cc	cc	105.9	50.1	11.4	5.6	77.5	-0.3	54.1	-44.6
611	144	195	cc	cc	105.9	32.0	6.2	109.3	-53.2	-5.5	-60.0	52.5
612	166	191	cc	cc	106.0	26.6	-5.1	85.2	151.8	1.5	131.8	-169.0
613	97	164	cc	cc	106.0	44.7	2.5	128.4	146.0	-0.4	-82.7	62.2
614	4	16	tt	tc	106.1	91.9	177.1	-162.1	153.1	106.8	-83.0	45.1
615	167	187	cc	cc	106.3	26.3	0.5	39.7	60.6	1.6	53.9	-3.6
616	142	167	cc	cc	106.4	33.0	11.0	129.9	-37.2	-5.9	72.3	67.4
617	5	38	tt	ct	106.4	91.7	109.9	-95.8	-5.6	179.6	-49.7	-64.5
618	4	16	tt	tc	106.4	92.2	176.9	-162.5	157.3	-107.7	-83.0	45.3
619	131	150	cc	cc	106.4	37.3	6.3	132.3	-40.5	-6.6	-172.4	-47.8
620	3	36	tt	ct	106.5	93.0	69.3	-145.0	-173.0	-179.1	-173.0	172.9
621	13	54	tt	ct	106.7	83.1	-109.3	-101.2	137.4	-179.3	-64.5	59.9
622	188	194	cc	cc	106.7	8.2	-4.4	95.2	-120.6	-0.9	-160.3	131.9
623	11	65	tt	ct	107.0	85.6	109.1	84.0	-23.5	178.9	69.8	60.7
624	1	67	tt	tc	107.1	107.1	179.3	-81.8	8.7	-101.7	55.8	76.5
625	134	163	tc	tc	107.2	36.4	178.0	144.9	-50.3	-4.5	-95.6	-59.5
626	131	196	cc	cc	107.3	38.2	9.3	109.4	-96.6	3.7	-167.9	-59.3
627	2	29	tt	tc	107.3	96.4	177.9	-154.5	151.9	-103.1	-172.2	70.4
628	1	15	tt	tc	107.4	107.4	179.4	-86.0	14.2	108.2	56.5	77.8
629	2	29	tt	tc	107.5	96.6	177.9	-154.3	150.3	108.4	-168.4	69.8
630	7	41	tt	ct	107.6	90.3	-108.7	-104.6	140.3	-179.0	-177.5	-76.9
631	12	47	tt	ct	107.6	85.2	114.3	-150.2	2.1	-179.8	37.9	-86.9
632	174	187	cc	cc	107.6	22.8	-2.5	59.4	50.5	3.2	6.5	-47.1
633	166	194	cc	cc	107.8	28.3	-5.2	88.3	-139.5	-1.9	-153.3	165.7
634	144	167	cc	cc	107.9	34.0	-0.5	53.3	59.5	1.4	9.3	62.5
635	11	46	tt	ct	107.9	86.5	100.7	96.2	-33.3	179.5	75.2	-52.9
636	1	47	tt	ct	107.9	107.9	-112.3	-88.5	23.0	-178.8	46.4	-73.4
637	111	156	cc	cc	108.2	43.6	1.6	-96.9	-120.4	3.2	50.3	-163.5

638	6	46	tt	ct	108.6	92.1	96.7	107.3	-126.5	179.9	76.3	-56.1
639	2	40	tt	ct	108.6	97.7	68.1	-143.6	-164.8	-179.4	-168.0	83.7
640	157	189	cc	cc	108.8	30.2	8.3	132.9	-51.0	-2.9	178.7	53.4
641	28	74	tt	ct	108.9	74.9	106.9	87.7	-25.9	179.0	-61.8	-64.1
642	19	62	tt	ct	109.0	81.0	106.9	85.8	-24.8	178.9	-61.9	55.7
643	28	74	tt	ct	109.1	75.1	107.2	87.7	-25.9	179.0	-61.7	-64.5
644	166	191	cc	cc	109.1	29.7	-10.1	80.5	153.9	1.6	127.8	-169.3
645	192	195	cc	cc	109.2	5.7	7.1	107.1	-95.7	3.3	-60.6	53.2
646	6	46	tt	ct	109.3	92.9	104.0	-178.5	-80.1	178.8	46.6	-74.6
647	9	63	tt	ct	109.3	89.1	-107.5	-96.1	39.8	-179.8	-63.2	-178.5
648	8	56	tt	ct	109.4	90.6	-106.3	-138.9	175.3	-179.8	61.5	-51.5
649	4	54	tt	ct	109.4	95.2	98.4	-160.1	145.9	179.9	-73.9	62.6
650	123	177	cc	cc	109.5	42.1	8.4	8.8	85.4	-1.8	-157.6	70.6
651	8	56	tt	ct	109.6	90.7	-106.4	-139.2	175.3	-179.8	61.6	-51.0
652	4	54	tt	ct	109.7	95.5	98.4	-159.7	145.4	179.9	-73.8	62.4
653	22	72	tt	tc	109.8	79.2	177.3	-152.3	-9.6	-111.9	53.2	-69.6
654	88	182	cc	cc	109.9	51.0	7.7	123.2	151.7	0.4	79.2	-44.5
655	85	144	cc	cc	110.1	51.7	3.4	129.8	81.0	2.0	-79.4	64.7
656	20	36	tt	ct	110.1	80.7	104.7	108.0	-167.2	-179.6	-170.9	174.7
657	22	71	tt	tc	110.2	79.6	176.9	-152.5	-10.6	107.3	53.7	-69.9
658	23	40	tt	ct	110.4	79.1	106.5	102.9	-156.3	179.7	-168.2	76.4
659	2	29	tt	tc	110.5	99.7	177.3	-156.4	161.2	-72.0	-170.1	77.1
660	19	62	tt	ct	110.6	82.6	-113.0	89.8	14.3	-179.8	-51.1	74.3
661	182	197	cc	cc	110.6	21.0	-12.3	82.3	-141.0	2.0	71.8	-66.3
662	1	69	tt	tc	110.8	110.8	177.9	-86.6	-0.4	106.2	48.9	171.7
663	6	132	tt	ct	111.0	94.6	-100.4	80.9	-105.8	179.3	68.7	-70.3
664	4	44	tt	ct	111.2	96.9	110.3	-144.4	19.0	-180.0	-71.9	50.4
665	1	75	tt	tc	111.2	111.2	177.9	-82.1	-2.1	-104.7	47.9	171.5
666	12	46	tt	ct	111.2	88.8	71.6	-151.2	-106.0	180.0	58.0	-67.8
667	194	198	cc	cc	111.2	5.8	9.3	109.7	-88.5	2.3	-170.0	171.8
668	188	196	cc	cc	111.3	12.7	-2.1	98.4	-117.5	0.5	-161.5	-5.9
669	1	33	tt	tc	111.4	111.4	-178.3	-145.7	136.3	106.3	58.8	48.0
670	143	193	cc	cc	111.5	37.8	11.2	130.6	-38.2	-7.3	70.4	170.9
671	34	148	tc	tc	111.6	75.1	-177.7	131.3	81.0	2.2	-86.4	-65.5
672	126	183	tc	tc	111.7	43.3	-171.9	21.5	-89.8	2.0	-173.9	177.4
673	174	195	cc	cc	112.0	27.1	6.8	109.4	-60.7	-3.9	-56.7	-4.7
674	1	15	tt	tc	112.2	112.2	-178.2	-144.4	132.6	-109.1	58.5	47.8
675	1	48	tt	ct	112.3	112.3	99.7	-90.4	99.6	-179.3	49.0	56.1
676	1	92	tt	tc	112.3	112.3	-178.8	-144.6	8.8	-105.9	68.1	74.5
677	189	198	cc	cc	112.6	11.6	8.7	110.0	-75.4	0.8	-168.8	133.5

678	150	174	cc	cc	112.6	36.9	6.7	131.0	-45.3	-4.6	-78.6	-62.4
679	136	171	cc	cc	112.9	42.0	4.2	127.9	74.9	2.8	-79.9	-178.3
680	3	35	tt	tc	113.0	99.6	177.0	-157.6	159.0	-66.9	-179.7	170.9
681	174	199	cc	cc	113.1	28.2	7.7	108.2	-101.1	2.1	-57.5	-56.2
682	1	15	tt	tc	113.3	113.3	-178.4	-141.8	15.6	110.7	68.2	74.4
683	3	35	tt	tc	113.3	99.9	177.5	-156.0	148.0	-101.4	-179.2	171.3
684	80	174	cc	cc	113.5	57.2	4.1	129.3	69.0	3.1	-78.6	-66.4
685	182	187	cc	cc	113.5	23.9	-10.5	60.5	111.0	-0.8	65.1	-56.7
686	82	185	cc	cc	113.6	56.9	3.5	124.9	141.9	-0.3	-81.1	175.7
687	1	84	tt	tc	113.8	113.8	-179.1	-147.0	-6.7	-110.1	59.7	-178.9
688	149	173	cc	cc	113.8	38.5	2.2	-133.0	-130.6	1.5	-62.2	-60.5
689	27	83	tt	ct	114.0	80.0	104.8	87.6	-22.9	178.9	-62.3	-175.2
690	2	79	tt	ct	114.0	103.1	-63.7	95.8	-161.8	-179.7	-165.7	80.7
691	158	196	cc	cc	114.0	35.7	-4.4	86.5	-147.7	-0.2	-147.9	-58.7
692	1	65	tt	ct	114.0	114.0	95.3	-31.5	69.3	-179.7	61.8	58.8
693	30	49	tt	ct	114.1	79.4	107.1	92.8	-39.2	179.7	-174.0	49.9
694	3	78	tt	ct	114.1	100.7	-64.1	95.7	-170.4	-179.2	-169.5	169.2
695	14	49	tt	ct	114.2	88.4	-111.2	88.5	17.6	-179.7	-165.5	-57.6
696	1	69	tt	tc	114.3	114.3	-179.4	-147.0	-7.5	107.1	60.2	-178.6
697	17	37	tt	ct	114.4	87.2	110.7	-144.2	23.0	-180.0	-173.4	-53.7
698	3	35	tt	tc	114.4	101.0	177.7	-155.2	143.0	107.8	-176.3	170.9
699	192	199	cc	cc	114.5	11.0	-1.3	97.4	-119.3	1.1	-49.9	-15.2
700	8	56	tt	ct	114.6	95.7	104.8	166.8	169.8	179.8	52.4	-67.0
701	194	196	cc	cc	114.9	9.5	-2.9	97.6	-118.3	0.3	-159.7	-121.4
702	164	182	cc	cc	114.9	35.6	-5.3	70.9	156.6	-0.8	10.0	-45.8
703	76	186	cc	cc	115.0	59.6	2.6	126.5	143.5	-0.6	-78.2	-59.3
704	131	198	cc	cc	115.3	46.2	8.3	110.2	-70.4	0.4	-165.7	-130.5
705	5	89	tt	tc	115.7	101.0	-177.8	-73.1	-4.8	-101.6	-51.2	-63.4
706	7	49	tt	ct	115.9	98.6	102.0	-23.8	60.3	179.6	-171.1	-63.7
707	186	199	cc	cc	116.1	21.5	-3.1	88.4	-142.0	-0.3	-46.1	-48.3
708	4	94	tt	tc	116.2	102.0	176.1	-159.0	1.0	-108.5	-78.9	40.2
709	82	181	cc	cc	116.2	59.4	3.7	-133.6	-129.3	1.6	-65.7	168.5
710	144	161	cc	cc	116.4	42.5	7.0	132.4	-46.6	-3.9	-79.5	57.2
711	131	198	cc	cc	116.4	47.3	3.6	107.9	-35.5	-3.2	-157.7	-178.5
712	25	55	tt	tc	116.5	84.3	178.5	-152.0	173.1	109.6	64.6	-165.2
713	10	41	tt	ct	116.5	96.2	76.0	-146.0	164.0	-179.1	179.1	-87.6
714	25	55	tt	tc	116.6	84.4	178.4	-152.1	174.0	-106.8	65.2	-166.4
715	10	41	tt	ct	116.6	96.3	97.3	-164.5	152.9	-179.4	178.8	-82.1
716	14	87	tt	tc	116.7	90.8	178.5	84.0	11.0	-110.0	-162.1	-58.2
717	5	16	tt	tc	116.7	102.1	-178.5	-81.6	1.2	108.5	-51.3	-61.6

718	4	16	tt	tc	117.0	102.8	175.8	-158.9	-1.4	111.7	-79.0	40.4
719	10	34	tt	tc	117.1	96.7	178.8	-151.6	133.0	106.7	174.7	-74.2
720	5	50	tt	tc	117.1	102.5	178.7	-78.1	129.2	-111.4	-55.8	-57.1
721	5	50	tt	tc	117.2	102.6	179.2	-74.4	125.4	102.6	-55.8	-58.2
722	12	46	tt	ct	117.2	94.8	-111.1	-148.9	-41.1	178.6	52.3	-64.3
723	167	189	cc	cc	117.3	37.3	4.2	107.9	-69.5	-5.2	143.1	63.9
724	9	83	tt	ct	117.4	97.2	98.4	-32.4	66.8	-179.8	-58.8	-179.8
725	11	118	tt	ct	117.6	96.2	-105.8	92.7	-5.0	-179.9	66.3	-70.4
726	10	34	tt	tc	117.7	97.4	178.5	-151.9	136.9	-105.8	174.7	-77.3
727	14	87	tt	tc	117.7	91.9	178.1	80.8	13.7	103.8	-162.8	-58.9
728	3	78	tt	ct	117.8	104.3	-98.5	90.4	-174.3	-179.2	-167.2	173.3
729	5	89	tt	tc	117.9	103.3	-176.5	-64.6	-6.1	-77.0	-50.6	-66.6
730	139	197	cc	cc	118.2	46.3	6.7	29.7	-111.8	3.4	52.5	-57.2
731	13	43	tt	tc	118.3	94.8	175.3	-88.5	129.2	-109.4	-67.7	47.8
732	197	200	cc	cc	118.4	9.6	-12.2	93.0	-123.6	1.5	70.6	-137.9
733	17	134	tt	tc	118.5	91.3	177.4	-152.8	7.8	-105.9	-174.2	-47.5
734	11	73	tt	tc	118.6	97.2	179.7	89.7	-17.9	-112.5	77.4	-53.3
735	13	43	tt	tc	118.7	95.2	175.3	-90.3	132.4	104.4	-67.6	47.6
736	5	74	tt	ct	118.8	104.2	96.1	-35.2	66.8	-179.8	-60.5	-73.7
737	5	90	tt	ct	119.0	104.4	100.0	-69.0	86.5	-179.3	-58.6	-68.9
738	7	42	tt	tc	119.1	101.9	178.7	-72.8	99.7	67.6	-179.2	-72.0
739	193	200	cc	cc	119.2	15.0	1.4	109.4	-107.2	1.3	80.9	-174.5
740	1	24	tt	ct	119.2	119.2	-86.6	-36.9	-17.3	-179.1	62.2	-43.6
741	5	50	tt	tc	119.2	104.6	-179.6	-66.9	95.1	67.3	-56.5	-63.8
742	43	85	tc	cc	119.4	77.6	-109.9	-102.2	145.0	-0.8	-64.0	59.1
743	17	52	tt	tc	119.4	92.2	177.3	-152.0	8.1	113.0	-174.0	-47.4
744	175	198	cc	cc	119.5	32.4	8.1	133.4	-53.2	-0.7	-178.0	176.9
745	175	198	cc	cc	119.6	32.5	7.9	134.1	-68.5	-2.3	179.3	174.1
746	7	42	tt	tc	119.7	102.5	177.5	-80.7	117.3	102.0	-179.7	-72.8
747	1	18	tt	ct	119.8	119.8	-111.5	-157.8	-24.1	178.5	61.3	72.0
748	11	73	tt	tc	119.9	98.5	-179.8	90.5	-18.3	101.3	77.7	-54.2
749	10	34	tt	tc	120.1	99.8	177.0	-154.9	168.4	101.0	-169.0	-49.0
750	191	200	cc	cc	120.1	18.5	-11.2	88.5	-142.7	2.3	78.9	-163.1
751	7	42	tt	tc	120.1	102.9	176.7	-87.4	120.3	-107.2	180.0	-75.0
752	9	81	tt	ct	120.2	100.0	-109.1	-102.4	127.3	-179.2	-74.0	170.1
753	171	181	cc	cc	120.3	36.7	7.1	130.4	-44.9	-4.4	-78.2	-170.4
754	13	62	tt	ct	120.5	97.0	104.1	-25.8	64.6	179.8	-53.2	80.3
755	6	68	tt	tc	120.9	104.4	-175.0	96.1	-170.6	-100.7	79.4	-59.7
756	42	76	tc	cc	121.0	79.6	-109.1	-103.0	139.3	-1.1	-176.9	-74.3
757	6	68	tt	tc	121.1	104.7	-174.8	96.6	-176.8	112.1	78.5	-58.7

758	4	122	tt	ct	121.2	107.0	-105.6	92.5	144.9	179.8	-56.8	71.4
759	1	60	tt	ct	121.2	121.2	-109.0	-152.9	-41.3	178.4	58.5	178.9
760	42	76	tc	cc	121.3	79.9	-109.0	-102.6	138.6	-1.1	-176.9	-74.3
761	192	201	cc	cc	121.3	17.8	-7.4	89.4	-120.8	0.5	-60.4	141.7
762	5	105	tt	ct	121.5	106.9	-105.6	-102.7	129.7	-179.3	-69.1	-61.5
763	7	52	tt	tc	121.5	104.3	179.6	-85.5	7.7	110.9	-169.7	-50.4
764	171	201	cc	cc	121.6	38.1	7.7	108.0	-101.4	2.6	-60.5	-176.5
765	2	96	tt	ct	121.6	110.7	-107.1	-102.3	52.4	-179.9	-161.1	63.6
766	5	105	tt	ct	121.7	107.1	-105.8	-101.7	128.2	-179.3	-68.5	-60.9
767	7	138	tt	tc	121.8	104.5	179.9	-81.5	4.2	-101.7	-169.4	-49.6
768	16	85	tc	cc	122.0	95.0	98.0	-160.4	148.8	0.0	-73.9	62.5
769	39	49	tt	ct	122.3	84.2	104.9	93.8	-40.4	179.4	-165.9	-174.9
770	13	43	tt	tc	122.4	98.9	176.6	-83.0	117.2	75.8	-68.9	51.3
771	7	42	tt	tc	122.5	105.2	176.3	-90.5	120.8	-77.1	178.7	-77.7
772	189	195	cc	cc	122.5	21.6	5.5	105.9	-79.8	1.5	-106.0	64.1
773	9	61	tt	tc	122.7	102.5	-178.4	-60.3	92.2	65.2	-55.8	-175.6
774	15	86	tc	cc	123.1	96.9	-105.7	-86.9	110.7	-3.1	53.6	53.1
775	19	112	tt	tc	123.2	95.2	-179.8	83.3	7.1	-110.7	-52.0	72.1
776	26	88	tc	cc	123.2	90.5	-106.5	-135.7	162.6	-0.6	60.9	-49.5
777	35	82	tc	cc	123.4	86.8	-109.9	-104.5	142.1	0.4	-170.6	-176.9
778	185	201	cc	cc	123.4	29.3	-5.5	83.7	-143.1	-0.3	-53.9	172.8
779	6	68	tt	tc	123.5	107.1	-175.1	95.6	-154.7	-70.1	80.9	-61.7
780	188	192	cc	cc	123.6	25.0	-10.2	91.6	-110.2	-0.1	-110.7	66.3
781	1	24	tt	ct	123.6	123.6	111.9	-78.3	-20.9	179.5	54.9	-61.7
782	3	35	tt	tc	123.8	110.3	175.3	-93.2	131.3	105.8	-173.0	179.1
783	199	201	cc	cc	123.9	11.6	-0.9	98.8	-116.8	1.0	-55.9	-129.3
784	3	35	tt	tc	123.9	110.5	174.7	-92.6	133.0	-73.2	-173.5	-179.4
785	19	113	tt	tc	124.5	96.5	179.6	79.8	10.4	103.8	-52.7	71.8
786	15	86	tc	cc	124.8	98.6	-104.7	-140.5	66.2	2.1	61.5	58.3
787	47	125	ct	cc	124.9	82.9	0.2	-146.1	-13.1	-110.3	53.0	-64.1
788	1	15	tt	tc	125.0	125.0	174.5	-86.5	151.9	-112.0	48.0	176.5
789	2	99	tt	tc	125.1	114.2	178.3	-150.8	-23.4	-113.0	176.4	54.4
790	6	73	tt	tc	125.1	108.7	-178.7	98.8	-90.2	69.9	77.6	-57.7
791	2	52	tt	tc	125.2	114.3	177.9	-151.0	-23.8	106.6	176.3	54.8
792	9	124	tt	tc	125.2	105.0	-175.8	-68.7	-4.9	-99.5	-46.9	-165.6
793	17	31	tt	ct	125.2	98.0	-115.1	-156.6	-13.5	178.6	-170.4	-46.3
794	47	135	ct	cc	125.3	83.2	-0.3	-145.9	-14.5	106.8	53.7	-64.5
795	17	31	tt	ct	125.3	98.1	-115.3	-156.2	-13.6	178.6	-170.3	-46.3
796	9	61	tt	tc	125.3	105.0	-179.4	-72.7	127.5	-110.8	-56.9	-176.0
797	19	83	tt	ct	125.3	97.3	-113.3	67.3	28.1	-179.6	-58.4	162.0

798	1	66	tt	tc	125.4	125.4	174.8	-86.5	149.1	105.4	47.3	175.4
799	52	80	tc	cc	125.5	82.1	-109.1	-139.3	66.0	3.4	-179.1	-65.0
800	15	77	tc	cc	125.5	99.3	99.2	-88.7	107.7	-0.8	48.4	53.8
801	155	191	cc	cc	125.5	48.4	8.0	127.1	161.1	-0.6	76.4	-177.1
802	9	124	tt	tc	125.6	105.3	-175.0	-56.0	-11.0	-69.1	-44.9	-165.9
803	29	97	tc	cc	125.7	91.4	-107.7	-105.8	143.9	0.1	-165.6	74.1
804	3	58	tt	ct	125.7	112.3	106.2	-80.2	160.4	-178.9	-168.0	-179.7
805	159	188	cc	cc	125.8	47.2	5.4	29.7	-107.0	0.1	-169.1	64.1
806	193	198	cc	cc	126.1	21.9	3.9	107.3	-77.5	-1.8	144.8	168.9
807	15	77	tc	cc	126.4	100.2	104.0	-125.5	97.8	-0.1	52.8	57.6
808	145	192	cc	cc	126.5	52.3	5.3	25.8	-106.5	2.5	-61.7	69.3
809	167	202	cc	cc	126.7	46.7	-3.8	104.6	-114.7	1.8	76.8	68.8
810	3	103	tt	ct	127.0	113.6	-66.9	99.6	164.6	-178.9	-175.4	-92.2
811	31	80	ct	cc	127.1	91.9	-0.8	-147.0	6.3	-105.9	-168.2	-53.3
812	18	102	ct	cc	127.2	99.5	-2.7	-85.9	8.2	-107.3	56.8	75.4
813	9	61	tt	tc	127.2	106.9	-176.3	-78.9	3.9	108.2	-48.0	-165.4
814	13	16	tt	tc	127.2	103.7	177.9	-86.8	2.6	111.6	-62.4	35.1
815	10	103	tt	ct	127.2	106.9	-104.5	91.2	151.9	-179.3	-172.4	-85.7
816	197	202	cc	cc	127.2	18.4	-11.7	88.7	-125.5	0.5	66.7	20.0
817	73	112	tc	tc	127.2	72.1	173.9	85.1	-87.5	3.2	12.5	168.3
818	5	89	tt	tc	127.4	112.8	178.0	-85.2	0.1	-103.4	-62.5	34.6
819	16	93	tc	cc	127.5	100.6	64.8	-109.5	154.0	-0.5	-67.5	53.2
820	15	86	tc	cc	127.9	101.7	-72.4	-136.7	63.6	-0.2	58.0	64.9
821	26	88	tc	cc	128.0	95.2	105.2	175.1	156.9	-1.4	48.5	-67.5
822	31	80	ct	cc	128.0	92.8	-1.0	-146.2	6.5	111.0	-168.1	-53.2
823	15	106	tc	cc	128.2	102.0	-104.4	-137.2	146.5	-0.8	54.9	41.4
824	26	88	tc	cc	128.2	95.5	104.6	178.6	156.1	-1.6	47.7	-67.7
825	15	106	tc	cc	128.4	102.2	-104.2	-132.9	145.8	-0.7	54.7	41.3
826	25	109	tt	ct	128.4	96.2	-104.7	-141.4	-177.4	-179.6	67.7	-167.5
827	196	199	cc	cc	128.4	22.6	-9.7	91.9	-107.1	-0.6	-107.7	-62.6
828	48	77	ct	cc	128.6	86.3	-2.7	-83.8	116.1	108.3	50.5	52.9
829	56	88	ct	cc	128.7	82.6	-0.5	-150.0	168.8	110.5	60.1	-57.7
830	18	86	ct	cc	129.0	101.3	-3.8	-90.0	5.0	104.4	56.9	77.7
831	44	45	ct	tt	129.2	87.7	68.6	-154.3	-37.7	178.8	-65.1	62.1
832	18	86	ct	cc	129.2	101.5	-3.2	-95.4	45.4	103.9	58.2	69.9
833	4	40	tt	ct	129.2	115.0	106.0	106.8	179.9	-179.9	-69.9	62.1
834	56	88	ct	cc	129.3	83.1	-0.5	-149.8	168.0	-106.9	59.8	-57.9
835	24	111	ct	cc	129.4	98.3	-3.1	-88.8	-10.7	101.8	51.4	178.2
836	24	111	ct	cc	129.5	98.4	-2.9	-85.1	-7.1	-107.8	50.0	177.3
837	5	31	tt	ct	129.5	114.9	-112.5	-151.6	-24.0	178.6	-70.0	-59.6

838	1	118	tt	ct	129.6	129.6	102.4	-16.4	44.6	179.6	56.0	-46.9
839	18	86	ct	cc	129.6	101.9	-4.4	-94.6	83.0	-107.8	53.3	61.0
840	20	116	tt	tc	129.7	100.2	-178.1	85.4	-144.0	113.4	-164.6	-71.7
841	14	108	tt	tc	129.9	104.1	-178.1	86.8	-144.9	-106.2	-164.2	-68.7
842	17	95	tt	ct	130.1	102.9	-111.0	-151.4	-39.3	179.1	177.2	53.6
843	8	120	tt	ct	130.3	111.4	104.7	-143.6	165.5	179.9	57.7	-166.8
844	26	88	tc	cc	130.4	97.6	75.5	-146.6	166.4	0.3	58.6	-60.8
845	8	120	tt	ct	130.4	111.5	104.8	-143.3	165.3	180.0	57.7	-166.9
846	19	117	tt	tc	130.5	102.5	-177.0	83.7	-133.5	111.1	-54.6	69.2
847	32	142	ct	cc	130.6	94.7	-0.5	-142.2	6.0	-106.4	67.0	72.5
848	185	191	cc	cc	131.1	37.0	-4.9	73.6	151.5	-1.1	13.6	-179.9
849	171	198	cc	cc	131.1	47.6	6.3	106.3	-76.3	0.4	-103.7	-178.3
850	35	82	tc	cc	131.1	94.5	100.0	-165.3	141.2	0.8	-173.7	-179.7
851	146	196	cc	cc	131.2	57.0	4.1	31.4	-108.1	3.9	-167.0	-57.1
852	35	82	tc	cc	131.2	94.6	99.8	-164.2	141.0	0.8	-173.5	-179.8
853	20	126	tt	tc	131.4	101.9	-177.5	89.5	-121.8	104.5	-161.7	-178.1
854	27	133	tt	tc	131.4	97.5	174.6	71.4	14.8	102.0	-62.4	174.1
855	16	19	tc	tt	131.5	104.5	-176.2	88.2	-139.3	-106.3	-53.4	70.0
856	27	133	tt	tc	131.6	97.7	175.2	79.9	9.8	-108.3	-62.3	172.2
857	32	86	ct	cc	131.7	95.8	-0.4	-140.8	9.9	108.5	67.4	73.2
858	34	76	tc	cc	131.9	95.4	101.4	-165.3	139.8	-0.1	178.2	-76.2
859	129	199	cc	cc	132.0	63.2	2.2	34.8	-109.2	1.9	-65.1	-64.6
860	194	201	cc	cc	132.2	26.9	-10.6	90.3	-110.0	0.2	-108.1	172.5
861	180	194	cc	cc	132.3	43.6	5.4	28.7	-107.4	0.7	-168.4	168.7
862	50	137	tc	cc	132.3	89.8	103.3	-77.4	105.9	-1.3	-57.8	-65.3
863	35	107	tc	cc	132.3	95.7	64.6	-104.2	144.9	0.7	-171.9	178.6
864	1	65	tt	ct	132.5	132.5	-108.2	105.5	3.2	-180.0	81.5	68.1
865	23	114	tt	tc	132.5	101.1	-177.5	90.3	-116.7	102.9	-160.8	71.0
866	36	82	ct	cc	132.5	95.5	-0.1	-147.3	139.6	-103.8	-172.2	-178.4
867	14	31	tt	ct	132.5	106.7	71.1	-172.2	-22.6	179.1	-169.8	-51.8
868	36	82	ct	cc	132.7	95.8	0.0	-147.4	137.0	109.3	-170.2	-178.5
869	40	97	ct	cc	132.8	92.6	-0.5	-148.2	144.9	109.9	-167.7	69.7
870	41	76	ct	cc	132.8	91.9	-0.2	-145.7	124.0	108.0	-179.3	-76.7
871	40	97	ct	cc	132.8	92.7	-0.5	-148.1	146.4	-104.5	-170.5	70.1
872	7	70	tt	ct	133.1	115.8	110.5	-86.6	-25.6	179.6	-179.1	47.7
873	23	114	tt	tc	133.1	101.8	-177.8	92.8	-110.8	73.4	-166.3	70.8
874	24	143	ct	cc	133.2	102.1	0.6	-141.0	-9.5	-108.8	59.7	-178.6
875	24	135	ct	cc	133.2	102.1	-4.0	-101.2	-15.1	104.6	48.6	-80.3
876	54	85	ct	cc	133.3	87.5	-0.6	-134.6	138.5	107.8	-63.5	64.6
877	54	85	ct	cc	133.3	87.5	-1.0	-134.3	138.4	-108.9	-63.9	64.7

878	24	152	ct	cc	133.4	102.3	0.1	-140.6	-11.0	105.6	60.4	-178.2
879	20	104	tt	tc	133.5	104.1	-177.5	90.2	-125.2	-106.6	-159.3	-178.3
880	37	146	ct	cc	133.5	96.2	-2.8	-89.2	6.5	-106.9	-169.4	-53.6
881	41	80	ct	cc	133.6	92.7	-0.4	-145.3	123.2	-107.3	-179.1	-78.6
882	34	98	tc	cc	133.6	97.1	65.7	-102.2	142.9	-0.5	-178.7	-76.8
883	24	139	ct	cc	133.8	102.7	-3.9	-99.0	-14.3	-108.2	46.4	-80.5
884	54	85	ct	cc	133.9	88.1	-0.8	-134.0	137.0	-109.1	-63.6	64.6
885	61	140	tc	cc	133.9	84.9	105.8	-65.3	104.9	-1.3	-58.5	179.8
886	61	82	tc	cc	134.0	85.0	-110.2	-104.3	140.4	-1.3	-73.6	169.0
887	7	153	tt	tc	134.1	116.8	178.0	-79.2	-23.6	-106.6	178.5	44.1
888	29	123	tc	cc	134.1	99.8	63.7	-102.4	146.8	0.7	-163.9	78.2
889	37	80	ct	cc	134.1	96.8	-4.3	-96.9	3.6	107.6	-169.7	-52.9
890	27	133	tt	tc	134.2	100.3	172.9	66.6	10.7	77.2	-61.6	176.8
891	16	164	tc	cc	134.3	107.3	-105.7	92.4	143.8	-0.5	-56.9	71.2
892	23	114	tt	tc	134.3	102.9	-178.0	89.6	-113.1	-104.7	-158.4	70.0
893	50	149	tc	cc	134.3	91.8	-106.3	-105.8	143.9	-1.1	-68.1	-59.0
894	12	110	tt	ct	134.3	111.9	-103.5	109.0	-20.0	179.7	73.3	-165.5
895	28	148	tt	tc	134.4	100.3	174.0	70.9	10.1	100.5	-66.7	-72.4
896	197	199	cc	cc	134.6	25.8	-9.8	87.7	-107.3	-0.4	-0.2	-48.3
897	29	97	tc	cc	134.6	100.3	97.8	-157.1	142.6	0.9	-163.4	81.3
898	28	148	tt	tc	134.6	100.6	174.6	78.7	4.2	-109.1	-67.1	-71.5
899	29	97	tc	cc	134.7	100.3	97.4	-157.4	143.1	1.0	-163.1	81.2
900	154	201	cc	cc	134.8	57.9	1.2	34.4	-109.7	2.3	-65.2	174.6
901	29	97	tc	cc	134.8	100.5	97.5	-157.0	142.8	0.9	-163.4	81.2
902	57	85	ct	cc	134.9	87.1	-5.0	-105.0	124.7	-108.3	-66.2	59.4
903	57	93	ct	cc	134.9	87.1	-4.0	-99.2	127.5	108.6	-66.7	58.4
904	5	51	tt	ct	135.0	120.4	-113.6	-150.5	-25.1	178.5	-74.2	54.9
905	111	200	cc	cc	135.0	70.4	7.8	29.8	-111.5	3.4	55.1	-158.5
906	32	106	ct	cc	135.1	99.1	-0.7	-143.6	124.9	107.2	57.6	45.3
907	51	161	ct	cc	135.1	92.5	-0.1	-133.8	-2.8	-106.4	-59.5	62.4
908	32	86	ct	cc	135.5	99.6	-0.9	-142.0	117.9	-109.9	57.8	46.3
909	42	131	tc	cc	135.5	94.1	105.9	-51.0	104.5	-0.7	-175.0	-72.5
910	42	131	tc	cc	135.6	94.2	106.1	-54.4	105.1	-0.7	-175.3	-72.6
911	42	131	tc	cc	135.6	94.2	105.3	-46.8	103.5	-0.7	-174.6	-72.3
912	2	95	tt	ct	135.7	124.8	72.6	-151.9	-56.0	179.2	179.7	62.9
913	52	80	tc	cc	135.8	92.4	107.2	-153.8	76.6	1.0	177.4	-67.6
914	51	100	ct	cc	135.9	93.3	-0.3	-132.9	-2.7	111.0	-59.6	62.3
915	25	120	tt	ct	136.1	103.8	68.8	-92.8	164.3	-179.9	58.0	-169.3
916	38	129	ct	cc	136.1	98.1	-0.9	-79.0	-10.1	-106.9	-53.7	-61.5
917	44	145	ct	cc	136.2	94.8	-3.4	-91.8	-6.5	-106.7	-63.3	52.4

918	44	100	ct	cc	136.2	94.8	-4.2	-94.5	-8.4	108.7	-63.1	52.9
919	113	144	tc	cc	136.3	71.5	-112.9	84.0	57.3	2.6	-51.4	75.4
920	36	82	ct	cc	136.3	99.4	0.0	-148.6	150.3	-73.4	-173.0	-179.6
921	113	144	tc	cc	136.4	71.7	-113.0	83.4	57.4	2.7	-51.1	75.6
922	28	148	tt	tc	136.7	102.6	172.5	66.3	7.6	76.0	-66.2	-73.8
923	174	197	cc	cc	136.8	51.9	-5.2	97.2	-90.8	2.5	10.2	-55.4
924	84	111	tc	cc	136.9	78.8	111.1	-136.7	-28.6	-6.1	52.6	-177.4
925	59	98	ct	cc	136.9	88.1	-4.3	-96.9	101.5	108.6	179.0	-75.2
926	72	125	tc	cc	136.9	81.8	112.0	-154.8	-40.7	-6.4	37.5	-78.8
927	49	131	ct	cc	137.2	94.8	-3.5	84.8	25.6	-106.5	-162.4	-60.0
928	50	80	tc	cc	137.3	94.8	-106.2	-138.7	65.7	2.5	-70.5	-64.0
929	38	129	ct	cc	137.4	99.5	-2.2	-83.7	-15.0	106.0	-54.6	-60.7
930	20	104	tt	tc	137.6	108.1	-174.0	97.0	155.3	-102.0	-161.9	-178.9
931	20	104	tt	tc	137.7	108.2	-173.2	98.4	168.1	-67.3	-163.7	177.3
932	72	125	tc	cc	137.7	82.6	111.1	-154.4	-57.0	-7.2	33.5	-75.0
933	43	144	tc	cc	138.0	96.3	108.9	-44.0	106.8	-2.3	-54.7	84.1
934	49	131	ct	cc	138.1	95.7	-3.4	83.1	24.2	106.5	-162.9	-59.7
935	71	135	tc	cc	138.8	84.9	-108.1	-139.7	56.8	6.2	50.1	-48.2
936	92	102	tc	cc	139.0	79.3	110.5	-130.4	-21.2	-4.6	58.4	77.4
937	64	97	ct	cc	139.4	89.3	-4.1	-103.6	138.8	-105.3	-170.3	71.1
938	58	107	ct	cc	139.4	90.7	-3.8	-98.6	128.6	110.5	-171.5	-178.3
939	23	128	tt	tc	139.5	108.2	-173.8	95.6	169.6	-101.6	-158.2	71.8
940	2	141	tt	tc	139.6	128.7	177.3	-153.5	-25.5	-113.6	-179.2	166.7
941	64	123	ct	cc	139.7	89.6	-3.3	-95.2	135.9	110.8	-168.1	70.6
942	80	87	cc	tc	140.1	83.8	112.9	92.8	49.5	6.5	-170.9	-64.6
943	87	131	tc	cc	140.4	81.8	-110.9	81.5	53.8	3.5	-170.0	-67.3
944	71	135	tc	cc	140.4	86.5	110.9	-155.6	53.5	3.7	36.2	-77.2
945	31	80	ct	cc	140.5	105.4	-0.6	-143.8	-28.1	107.1	177.7	51.9
946	89	129	tc	cc	140.6	81.7	111.7	-90.7	-33.9	-5.1	-49.4	-63.1
947	95	157	ct	cc	140.6	79.5	0.0	-143.9	-27.4	-110.8	177.7	51.2
948	35	107	tc	cc	141.4	104.8	106.7	-72.0	136.8	1.2	-167.6	-174.5
949	72	125	tc	cc	141.9	86.8	-111.2	-143.7	-34.3	-8.7	53.4	-59.8
950	38	173	ct	cc	142.7	104.8	-0.5	-138.1	-5.3	-106.6	-72.5	-68.6
951	67	102	tc	cc	142.7	90.5	-105.6	-75.3	-28.9	-3.3	59.3	74.8
952	70	159	ct	cc	142.7	88.8	-3.9	-83.0	-44.0	105.4	-178.5	58.5
953	55	155	tc	cc	142.8	96.9	-104.3	-136.9	165.4	-0.6	66.1	-171.0
954	26	156	tc	cc	142.9	110.1	105.1	-143.5	154.7	-1.3	55.3	-169.2
955	27	165	tt	tc	143.0	109.1	178.2	76.1	-129.0	112.1	-64.4	164.1
956	26	156	tc	cc	143.0	110.3	105.4	-143.7	154.3	-1.5	55.3	-169.1
957	70	159	ct	cc	143.0	89.1	-3.9	-82.8	-42.6	-107.3	179.8	57.7

958	53	154	ct	cc	143.3	99.0	-1.2	-80.1	-4.3	-106.6	-56.9	-173.4
959	38	147	ct	cc	143.5	105.5	-0.8	-137.3	-5.8	109.9	-72.3	-68.5
960	34	158	tc	cc	143.5	107.0	-106.2	89.5	132.2	0.2	-171.8	-77.7
961	35	166	tc	cc	143.6	107.0	-104.9	89.9	134.4	1.2	-165.2	-176.0
962	16	27	tc	tt	144.0	117.0	177.9	74.5	-125.9	-103.5	-64.6	165.0
963	62	144	ct	cc	144.2	94.6	-4.3	80.1	31.2	-106.6	-54.4	59.3
964	75	111	tc	cc	144.5	89.1	-108.2	-74.6	-29.4	-5.4	52.4	176.7
965	73	125	tc	cc	144.5	89.4	105.4	131.1	-38.0	-9.1	65.5	-58.9
966	90	137	ct	cc	144.5	85.7	-0.1	-77.4	131.1	108.7	-57.7	-57.8
967	68	182	tc	cc	144.6	90.5	-101.4	85.5	157.9	0.6	72.3	-67.6
968	63	181	ct	cc	144.6	94.9	0.5	-137.1	1.0	-105.7	-69.0	178.5
969	53	154	ct	cc	144.7	100.5	-2.8	-85.6	-8.7	106.5	-58.9	-174.3
970	90	137	ct	cc	144.8	85.9	1.0	-71.3	144.8	-110.4	-55.9	-57.9
971	62	144	ct	cc	144.9	95.3	-4.0	78.8	27.5	107.0	-54.4	59.3
972	75	111	tc	cc	145.0	89.6	-113.5	-38.2	-57.5	-4.3	46.5	178.7
973	63	136	ct	cc	145.3	95.6	0.4	-136.1	2.0	110.4	-68.7	178.4
974	81	82	ct	cc	145.5	88.8	0.3	-139.3	133.6	107.2	-77.2	167.5
975	35	166	tc	cc	145.6	109.0	-73.4	101.2	137.2	0.3	-167.0	-179.9
976	88	109	cc	ct	145.9	87.0	0.5	-144.9	172.0	111.0	65.2	-164.8
977	67	142	tc	cc	145.9	93.7	-110.0	-147.1	-32.1	-7.4	63.8	70.0
978	109	155	ct	cc	146.0	81.8	0.5	-145.0	173.2	-107.1	65.8	-166.0
979	65	167	ct	cc	146.0	95.3	-3.8	89.1	19.9	-108.0	95.9	59.3
980	81	136	ct	cc	146.0	89.3	0.1	-138.7	131.6	-109.3	-76.9	167.7
981	28	168	tt	tc	146.1	112.1	177.5	74.6	-126.8	112.4	-64.9	-63.7
982	34	158	tc	cc	146.2	109.7	-76.4	101.0	134.9	-0.5	-174.0	-75.9
983	94	145	tc	cc	146.5	86.0	107.0	-147.3	-45.0	-4.3	-72.1	51.9
984	28	168	tt	tc	146.7	112.7	177.0	71.9	-121.0	-100.5	-65.1	-63.8
985	75	125	tc	cc	146.7	91.3	-115.4	-84.4	-26.7	-5.7	46.1	-73.9
986	133	140	tc	cc	146.8	76.8	-115.0	45.9	66.9	3.0	-58.3	169.6
987	65	167	ct	cc	146.9	96.1	-4.5	87.3	17.6	105.3	95.7	60.3
988	89	129	tc	cc	147.1	88.2	-72.5	-73.2	-35.5	-3.4	-55.9	-72.2
989	90	147	ct	cc	147.1	88.3	-5.5	-95.8	108.7	-107.1	-63.6	-59.4
990	91	140	ct	cc	147.2	88.3	-2.5	-86.8	118.5	108.2	-68.0	174.3
991	26	182	tc	cc	147.5	114.8	-69.9	96.2	165.9	0.4	79.0	-71.9
992	91	136	ct	cc	147.6	88.8	-5.3	-98.8	101.0	-107.3	-70.9	173.3
993	120	156	ct	cc	147.9	81.5	-1.1	-83.3	179.5	-108.1	54.8	-175.4
994	105	149	ct	cc	148.0	85.0	-0.8	-140.2	139.6	107.6	-76.1	-65.2
995	55	156	tc	cc	148.2	102.3	70.6	-88.8	156.2	-1.6	54.9	-173.4
996	84	143	tc	cc	148.3	90.2	-108.9	-146.0	-33.9	-9.0	60.3	178.2
997	61	136	tc	cc	148.4	99.4	-69.2	-91.4	95.8	-1.0	-60.5	-178.4

998	120	156	ct	cc	148.5	82.1	-1.1	-84.2	-178.3	110.0	54.9	-174.0
999	29	169	tc	cc	148.6	114.2	-66.5	102.1	151.5	1.3	-155.0	79.4
1000	114	157	tc	cc	148.6	83.2	109.2	99.8	-102.5	1.7	-172.8	63.4
1001	105	149	ct	cc	148.6	85.6	-0.9	-139.9	140.1	-110.5	-75.9	-65.3
1002	114	157	tc	cc	148.7	83.3	109.0	99.9	-102.3	1.6	-172.9	63.4
1003	91	140	ct	cc	148.7	89.9	0.7	-71.4	140.6	-109.8	-62.5	176.6
1004	89	129	tc	cc	148.8	89.9	-87.5	-35.2	-61.1	-3.1	-57.3	-68.6
1005	100	113	cc	tc	148.9	86.5	113.4	84.6	51.3	5.1	-61.7	60.0
1006	86	151	cc	tc	148.9	90.5	113.4	73.9	48.3	2.8	71.2	54.2
1007	31	80	ct	cc	149.1	113.9	-0.4	-144.7	-29.0	108.7	-170.1	-179.6
1008	130	175	ct	cc	149.2	79.9	0.0	-145.4	-23.1	-109.8	-167.2	-177.7
1009	73	197	tc	cc	149.5	94.4	-100.3	95.5	-91.6	-1.3	58.6	-62.9
1010	7	183	tt	tc	149.7	132.5	178.6	-79.0	-21.4	-105.4	-169.3	178.8
1011	124	154	tc	cc	149.8	81.7	-69.0	-72.2	-35.4	-3.4	-51.5	-172.3
1012	7	52	tt	tc	149.9	132.6	178.2	-85.1	-20.7	110.1	-169.7	178.0
1013	29	169	tc	cc	150.4	116.1	-99.9	94.1	136.7	0.9	-160.7	82.8
1014	167	195	cc	cc	150.6	70.5	-3.4	97.9	-94.8	3.0	15.4	51.1
1015	99	157	tc	cc	150.6	88.5	-109.8	-147.1	-61.0	-6.6	175.5	58.7
1016	99	157	tc	cc	150.7	88.6	-110.2	-146.3	-50.5	-6.2	176.5	55.9
1017	171	193	cc	cc	150.8	67.3	-2.4	100.2	-86.9	1.6	11.9	-167.9
1018	200	201	cc	cc	150.8	33.1	-9.7	88.2	-105.8	-0.5	1.3	-166.4
1019	124	154	tc	cc	150.9	82.7	112.7	-84.2	-35.9	-5.2	-45.5	-165.7
1020	116	150	tc	cc	151.0	85.2	108.0	99.8	-102.3	5.2	-171.8	-60.1
1021	52	150	tc	cc	151.6	108.3	-113.3	-143.9	-35.7	-9.1	-167.7	-47.0
1022	134	150	tc	cc	151.8	81.0	-113.1	-144.5	-35.8	-9.1	-167.8	-46.9
1023	112	192	tc	cc	151.8	87.0	-103.0	97.2	-90.6	-0.7	-55.3	70.3
1024	101	180	ct	cc	152.2	89.6	-3.9	-83.7	-49.5	-106.6	-176.6	172.8
1025	89	161	tc	cc	152.2	93.3	-116.3	-84.8	-29.9	-4.6	-59.9	49.9
1026	20	58	tt	ct	152.3	122.8	-85.2	-10.4	-135.8	179.1	-172.4	170.5
1027	74	174	ct	cc	152.3	96.8	-1.7	85.6	18.2	-107.6	-49.5	-60.7
1028	117	161	tc	cc	152.4	86.5	108.1	96.4	-102.2	3.8	-66.3	54.5
1029	138	150	tc	cc	152.8	81.5	-114.4	-88.2	-23.4	-5.9	-166.6	-47.8
1030	74	174	ct	cc	153.0	97.5	-2.2	83.3	13.8	105.9	-49.9	-61.1
1031	79	169	ct	cc	153.0	97.2	-2.6	86.3	137.2	110.7	-157.2	70.0
1032	75	139	tc	cc	153.1	97.7	-77.0	-23.5	-64.5	-3.7	55.0	-46.4
1033	79	169	ct	cc	153.5	97.7	-2.7	86.4	138.3	-104.6	-159.1	70.5
1034	99	159	tc	cc	153.5	91.4	104.4	-147.8	-67.9	-5.9	174.1	63.6
1035	122	164	ct	cc	153.7	87.5	-3.3	83.2	141.9	107.8	-56.2	58.4
1036	78	166	ct	cc	154.0	98.2	-1.8	86.4	121.2	110.1	-159.7	-179.0
1037	99	157	tc	cc	154.0	91.9	75.5	-146.8	-66.3	-5.9	176.5	63.8

1038	78	166	ct	cc	154.2	98.4	-1.9	86.5	123.6	-104.7	-160.7	-179.2
1039	73	187	tc	cc	154.2	99.1	-108.5	86.5	40.1	6.3	65.8	-63.5
1040	46	142	ct	cc	154.2	112.2	0.7	-141.8	-130.2	106.8	63.6	65.0
1041	137	148	cc	tc	154.3	83.4	-113.2	33.7	71.1	3.4	-61.5	-77.7
1042	133	136	tc	cc	154.4	84.4	112.1	92.2	51.0	5.7	-64.5	178.2
1043	122	164	ct	cc	154.6	88.3	-3.5	83.2	144.4	-109.4	-56.5	58.4
1044	133	136	tc	cc	154.6	84.6	111.5	92.0	51.0	5.7	-65.1	179.2
1045	121	150	tc	cc	154.6	88.4	107.1	129.9	-44.1	-8.7	-168.0	-53.5
1046	83	171	ct	cc	154.6	97.1	-4.0	80.8	29.4	-106.2	-57.5	179.1
1047	80	148	cc	tc	154.8	98.4	113.7	87.5	45.3	5.4	-62.1	-65.5
1048	126	175	tc	cc	154.8	86.4	107.5	100.3	-103.0	2.6	-172.4	173.5
1049	80	148	cc	tc	154.9	98.6	113.3	87.6	45.6	5.5	-62.8	-65.8
1050	126	175	tc	cc	154.9	86.4	107.5	100.4	-103.0	2.6	-172.4	173.6
1051	73	125	tc	cc	155.2	100.1	103.5	110.3	-93.2	1.1	67.5	-48.5
1052	83	171	ct	cc	155.3	97.8	-3.8	79.0	26.6	106.1	-57.9	179.1
1053	78	158	ct	cc	156.0	100.2	-4.6	82.5	174.6	105.6	-156.5	-55.8
1054	134	150	tc	cc	156.4	85.6	74.4	-153.6	-42.3	-7.1	-168.5	-53.8
1055	114	188	tc	cc	156.4	91.1	-102.1	96.6	-93.0	-2.4	-175.3	65.4
1056	150	168	cc	tc	156.6	80.8	109.5	98.8	-100.8	3.1	-65.2	-58.5
1057	15	167	tc	cc	156.6	130.4	-74.0	105.0	58.6	4.7	78.1	54.8
1058	49	189	ct	cc	157.3	114.9	-1.0	91.6	-51.1	-108.4	-166.9	58.0
1059	79	188	ct	cc	157.4	101.5	-0.8	91.7	-80.5	-110.2	-164.5	64.1
1060	124	145	tc	cc	157.4	89.3	-72.9	-32.2	-54.8	-0.4	-47.6	82.7
1061	117	145	tc	cc	157.5	91.5	-72.0	-28.7	-63.3	-2.3	-51.6	82.2
1062	76	179	cc	tc	157.5	102.0	113.0	108.9	164.3	-2.1	-68.0	-57.3
1063	49	189	ct	cc	157.6	115.2	-0.5	92.8	-73.4	104.3	-164.9	63.2
1064	138	146	tc	cc	157.6	86.3	112.0	-84.9	-35.7	-6.6	-166.6	-48.8
1065	138	146	tc	cc	157.7	86.3	-79.4	-29.8	-64.6	-2.1	-166.1	-58.0
1066	138	146	tc	cc	157.8	86.5	-78.7	-35.3	-54.4	-1.2	-160.4	-55.8
1067	134	146	tc	cc	157.9	87.1	109.4	-146.0	-36.6	-6.5	-169.5	-46.0
1068	78	158	ct	cc	158.0	102.2	-4.4	83.0	173.0	-113.7	-155.5	-57.3
1069	153	159	tc	cc	158.2	81.6	-108.0	-27.1	-70.1	-2.2	-178.7	56.1
1070	26	191	tc	cc	158.4	125.7	-62.1	102.7	171.9	0.3	86.6	-156.4
1071	117	161	tc	cc	158.6	92.6	108.5	103.8	-83.2	3.9	-69.6	56.6
1072	78	166	ct	cc	158.7	103.0	-3.6	85.9	144.5	-74.0	-162.1	177.6
1073	153	157	tc	cc	158.9	82.2	-115.4	-80.8	-38.0	-3.8	-179.2	49.7
1074	73	135	tc	cc	159.1	104.0	105.3	105.6	39.4	8.5	71.9	-37.3
1075	153	159	tc	cc	159.4	82.8	110.2	-49.5	-60.2	-6.2	179.5	55.2
1076	110	190	ct	cc	159.8	95.1	-6.6	86.8	-12.5	104.6	86.7	171.3
1077	141	175	tc	cc	160.3	86.8	73.0	-148.0	-69.7	-3.8	177.2	172.0

1078	116	196	tc	cc	160.3	94.5	-102.3	92.9	-93.1	0.9	-172.4	-61.8
1079	150	163	cc	tc	160.4	84.6	109.0	109.0	-75.4	1.2	-68.8	-61.5
1080	110	193	ct	cc	160.5	95.8	-4.0	92.2	-16.9	-107.6	89.0	170.9
1081	119	182	ct	cc	160.5	94.3	-5.9	86.1	154.5	111.2	94.8	-59.0
1082	126	194	tc	cc	160.8	92.4	-101.9	95.3	-94.5	-1.1	-174.2	172.2
1083	119	182	ct	cc	161.3	95.0	-5.8	86.1	156.7	-105.2	95.5	-60.6
1084	141	175	tc	cc	161.6	88.1	96.5	-153.4	-70.9	-4.7	174.5	168.7
1085	149	179	cc	tc	162.0	86.7	116.2	152.1	153.5	-1.4	-86.9	-62.0
1086	141	175	tc	cc	162.2	88.7	-111.1	-147.7	-67.7	-4.2	175.1	169.7
1087	78	166	ct	cc	162.9	107.1	-3.1	88.8	-109.4	-111.5	-160.6	174.9
1088	165	181	tc	cc	162.9	83.5	107.2	100.3	-100.0	3.3	-68.1	-179.9
1089	78	194	ct	cc	163.6	107.8	-3.8	88.0	-136.3	103.3	-157.6	176.6
1090	78	198	ct	cc	163.6	107.8	0.1	94.5	-98.7	101.6	-162.8	175.4
1091	124	181	tc	cc	164.1	96.0	-115.6	-136.9	-37.9	-7.7	-66.8	-172.6
1092	162	181	tc	cc	164.2	85.2	106.9	126.5	-48.6	-6.2	-71.5	176.8
1093	126	175	tc	cc	164.4	96.0	106.1	128.7	-56.2	-2.3	-173.7	-179.8
1094	97	128	cc	tc	164.5	103.2	114.4	95.9	69.5	4.2	-158.3	69.7
1095	73	142	tc	cc	166.0	110.9	108.5	114.3	-43.5	-6.4	72.8	56.1
1096	74	186	ct	cc	166.2	110.7	-1.7	85.3	139.7	108.2	-50.9	-53.9
1097	74	174	ct	cc	167.1	111.6	-1.7	85.5	140.4	-110.4	-51.2	-54.0
1098	180	183	cc	tc	167.2	78.6	-78.4	-23.8	-70.6	-0.4	-172.4	-179.9
1099	137	179	cc	tc	168.3	97.4	-115.7	55.0	146.1	-0.6	-67.0	-73.4
1100	117	154	tc	cc	169.5	103.6	-108.7	73.6	-90.8	-0.4	-66.5	163.8
1101	127	191	ct	cc	170.4	102.0	-7.0	85.0	171.6	-104.0	94.9	-174.3
1102	127	191	ct	cc	171.0	102.6	-7.5	85.1	165.6	111.4	92.1	-172.6
1103	73	143	tc	cc	171.3	116.2	117.1	96.6	-101.6	3.0	62.0	-173.3
1104	180	183	cc	tc	171.6	82.9	112.8	-42.9	-63.7	-4.5	-176.4	174.6
1105	129	163	cc	tc	171.7	102.9	-110.4	64.6	-90.8	-0.4	-70.0	-69.0
1106	69	190	tc	cc	175.3	121.4	-77.4	103.5	21.3	6.3	74.5	-178.2
1107	16	176	tc	cc	176.5	149.5	-76.3	93.9	67.5	3.6	-67.9	-56.3
1108	67	167	tc	cc	194.7	142.5	96.4	27.8	-59.6	-0.7	69.9	70.3

Table S5: Equilibrium structures for Ace-Cys-NHMe

EQi	E_{rel}(kJ/mol)	Class	ω₁	φ	ψ	ω₂	χ₁	χ₂
1	0.0	TT	-179.4	-77.4	55.6	-179.8	50.4	65.3
2	7.1	TT	176.8	-156.1	164.4	-179.6	-159.1	69.5
3	9.9	TT	-178.8	-77.0	45.2	-179.4	45.7	172.6
4	11.0	TT	-175.7	-135.8	32.0	-179.5	59.2	66.9
5	11.1	TT	177.9	-153.4	147.6	-179.7	-173.3	-69.0
6	11.4	TT	177.1	-153.7	164.5	179.7	57.4	-59.1
7	11.8	TT	-179.9	-149.9	148.3	179.7	55.8	49.2
8	12.1	TT	-179.8	-80.6	67.9	179.7	-168.0	-64.6
9	12.8	TT	-177.1	-77.1	56.3	-180.0	-57.1	-59.9
10	16.1	TT	-176.6	-76.3	57.0	179.9	-56.7	-176.5
11	16.1	TT	-175.7	-135.5	19.8	-179.5	54.1	177.0
12	16.9	TT	175.7	78.7	-45.6	179.6	-157.0	-52.6
13	17.2	TT	-179.3	-80.4	65.7	179.8	-66.6	51.2
14	17.6	TT	178.8	-151.9	163.2	179.7	58.5	-175.6
15	17.7	TT	-179.6	-80.1	50.7	-179.6	42.1	-80.9
16	17.8	TT	-177.9	-140.9	23.0	-179.3	51.9	-68.7
17	21.1	CT	-3.1	-82.8	-5.4	179.7	51.9	67.5
18	22.4	TT	177.2	79.8	-56.8	-179.9	-160.6	56.1
19	23.0	TT	175.9	-157.2	-53.8	178.5	49.5	-69.9
20	23.1	TT	175.3	75.8	-43.7	179.5	-59.3	66.4
21	23.7	CT	-3.0	-82.0	-9.3	179.9	48.6	177.9
22	24.5	TT	177.9	-154.5	-47.4	178.3	54.7	-176.8
23	24.6	TT	177.3	80.0	-56.4	180.0	-157.8	-178.3
24	24.8	TT	173.0	74.5	-40.6	179.4	-65.3	-63.6
25	24.9	TC	-180.0	-150.5	149.2	-1.2	55.5	49.3
26	25.2	TC	177.7	-152.9	156.0	-1.7	56.2	-58.7
27	25.5	TT	173.0	74.8	-39.5	179.3	-62.8	179.5
28	26.3	TC	176.3	-85.1	120.8	-3.2	43.7	54.3
29	26.8	TC	178.5	-152.8	135.3	-2.0	-164.2	67.5
30	27.0	CT	0.3	-135.7	18.7	-179.5	59.9	66.7
31	27.5	TT	173.9	78.5	-41.7	179.8	83.5	-50.0
32	27.8	TC	178.6	-151.8	133.9	-2.2	-174.9	-65.7
33	28.2	CT	-3.3	-84.3	-8.6	-180.0	46.2	-79.0
34	28.7	TC	178.3	-153.5	134.7	-1.8	-170.9	178.1
35	29.2	TT	-174.8	92.5	-154.4	179.7	-155.2	65.9
36	29.6	TT	-174.5	92.9	-165.9	180.0	-154.9	176.4
37	30.0	TC	177.4	-157.3	157.7	0.2	-110.6	58.2
38	30.0	CT	1.2	-137.8	12.9	-179.3	52.2	-65.1

39	30.2	TC	175.6	-91.8	123.1	-2.2	-171.2	-65.9
40	30.5	TC	-176.5	-135.4	73.9	1.1	53.3	60.6
41	31.2	CT	-0.6	-149.8	155.8	-179.6	-160.7	-179.7
42	31.3	CT	-0.8	-141.9	29.7	-179.5	-159.1	-60.3
43	31.3	TC	179.3	-151.1	155.2	-2.0	57.0	-176.1
44	31.4	CT	1.3	-131.1	9.6	-179.5	54.8	177.8
45	32.0	TC	174.6	-96.9	127.8	-1.9	-166.1	63.0
46	32.2	CT	-2.9	-85.7	-3.0	179.8	-160.4	-53.8
47	32.3	CT	-0.6	-148.4	143.9	-179.8	-168.0	-70.6
48	32.8	CT	-1.0	-150.7	161.8	-179.6	-156.7	69.3
49	33.5	TC	174.8	-94.9	127.1	-1.5	-168.1	-179.6
50	34.9	CT	-2.0	-81.8	-5.8	179.7	-58.5	-60.5
51	35.8	CT	-2.9	-88.1	0.0	179.8	-65.2	53.7
52	37.3	CT	-2.9	82.1	11.4	-179.9	-150.9	-58.0
53	37.4	TC	176.0	-91.1	120.2	-2.8	-69.9	51.3
54	37.5	CT	-0.2	-147.5	-42.8	178.3	50.3	-64.6
55	37.5	TC	177.8	-87.0	120.1	-2.9	-61.5	-55.3
56	37.6	TT	-177.6	99.4	-115.7	179.7	84.1	-57.8
57	37.6	TT	-174.4	95.2	158.6	-179.7	-159.1	-80.9
58	37.7	TT	175.4	-158.8	-59.8	179.3	-174.7	58.6
59	38.1	CT	-2.3	-83.2	-3.3	179.7	-59.8	-177.0
60	38.7	TT	171.5	65.5	-34.8	179.3	74.2	52.1
61	38.9	CT	-3.1	-91.5	131.2	-179.6	-170.3	-69.9
62	38.9	CT	-0.8	-149.5	162.5	179.7	55.7	-54.9
63	39.3	TC	174.6	-93.8	147.7	-1.9	44.5	179.2
64	39.4	TT	175.3	-162.2	-42.5	178.8	-169.2	-46.1
65	39.8	CT	-2.9	-92.3	139.9	-179.7	-165.2	-179.5
66	40.0	TC	-179.1	-142.5	60.2	3.6	47.9	-64.6
67	40.0	CT	-1.2	-147.1	143.8	179.8	53.7	46.3
68	40.3	TC	-176.6	-138.6	57.2	4.1	50.1	176.7
69	40.8	CT	-2.3	-81.0	132.2	-179.8	46.5	49.9
70	41.2	TC	178.6	-84.5	120.1	-2.7	-63.8	-179.0
71	41.4	CT	-2.7	-91.2	141.7	-179.9	-162.6	68.6
72	42.2	CT	-1.1	-143.9	38.8	-179.5	-150.1	-174.2
73	42.7	CT	-2.6	-79.8	-17.8	179.7	-162.2	54.8
74	43.3	CT	-1.2	-143.0	34.2	-179.5	-150.7	61.4
75	44.1	CT	-3.6	80.1	11.7	-179.9	-54.6	58.8
76	44.6	TT	174.9	-160.6	-63.3	179.4	-176.7	173.3
77	45.5	CT	-3.2	-93.8	127.7	-179.7	-70.7	58.0
78	45.5	TT	172.5	73.4	-42.8	179.8	84.0	179.5

79	45.8	CT	-2.9	-124.0	134.7	-179.9	-71.3	62.5
80	45.9	CT	-2.8	-84.2	-7.6	179.7	-154.6	-177.6
81	47.0	CT	-2.2	81.6	8.2	-179.9	-53.6	-61.2
82	47.1	TT	175.5	-162.2	-44.5	178.8	-101.9	54.1
83	47.2	TC	-179.6	-80.5	-17.0	-3.6	52.6	67.4
84	47.3	CC	-0.7	-147.8	131.6	-1.6	-169.0	-67.6
85	47.9	TC	177.5	-149.5	-27.7	-6.7	53.6	-68.3
86	48.3	CT	-2.8	80.3	11.5	-179.9	-55.3	-178.1
87	48.4	CT	-0.7	-146.5	161.7	179.8	57.8	-176.8
88	48.5	CC	-0.6	-148.5	133.0	-1.0	-163.7	-178.1
89	48.6	TC	179.8	-146.5	-25.1	-6.5	58.1	-179.1
90	48.7	TC	-179.7	-145.2	-22.6	-5.8	61.8	68.2
91	49.1	CT	-2.9	81.9	12.0	-179.9	-143.9	60.6
92	49.4	CT	-3.0	80.5	17.8	-179.8	-143.0	-175.1
93	49.5	TC	179.5	-82.0	-18.1	-4.6	48.3	177.2
94	50.3	CC	-0.9	-148.9	134.0	-1.2	-161.1	67.4
95	50.4	CT	-5.1	89.9	-1.1	-179.9	101.9	57.5
96	50.6	CC	-1.0	-144.2	74.8	0.8	-168.6	-66.6
97	51.4	CT	-0.4	-148.0	-50.8	178.8	-169.6	55.4
98	51.5	CT	-2.7	-87.9	123.0	-179.5	-72.1	177.5
99	51.5	CT	-3.6	84.6	157.5	-179.5	-151.4	178.3
100	51.5	CC	-2.7	-90.8	131.1	0.6	-170.1	-68.6
101	51.6	CC	-0.6	-148.8	154.2	-1.5	54.2	-54.4
102	51.7	CT	-2.0	-84.7	125.0	-179.6	-66.4	-58.9
103	51.7	CT	-4.0	83.1	169.5	-179.5	-148.4	68.7
104	52.0	CC	-1.0	-141.0	55.5	3.0	56.3	62.0
105	52.4	CC	-1.3	-147.6	147.3	-0.6	53.6	46.5
106	53.0	CC	-2.1	-81.4	139.9	0.0	47.3	48.7
107	53.0	CC	-2.8	-92.1	132.0	1.0	-166.0	-179.1
108	53.2	CT	-2.1	86.6	135.2	-179.9	-157.6	-70.6
109	53.4	CT	-1.9	-82.3	155.8	-180.0	48.4	-179.3
110	53.8	CT	-2.7	-127.2	131.1	-179.9	-78.3	-62.6
111	54.3	CC	-2.6	-91.2	132.5	0.6	-163.8	66.9
112	55.0	TT	-178.7	86.4	174.1	-180.0	-68.0	172.0
113	55.1	TC	179.4	80.4	49.3	4.5	-157.4	-65.7
114	55.6	CT	-0.3	-148.7	-49.6	178.7	-164.6	179.7
115	55.9	TC	-179.4	104.0	-64.0	-1.6	-156.9	-54.3
116	56.0	TC	178.5	-86.0	-19.3	-4.6	44.8	-82.0
117	56.0	TC	-177.6	100.4	-96.4	2.6	-165.0	-59.6
118	56.0	TC	-177.1	100.9	-96.2	1.2	-165.6	58.6

119	56.2	TC	175.6	-153.6	-65.3	-5.9	-178.8	57.9
120	56.8	CC	-2.8	-78.1	-20.2	-3.4	53.1	66.1
121	57.5	TC	-175.0	95.1	125.2	-1.6	-161.5	-69.6
122	57.7	CC	-0.6	-142.6	48.3	5.1	49.7	-59.6
123	57.8	TC	-178.5	103.7	-70.7	0.6	-162.5	56.0
124	57.8	CC	-2.9	-92.5	137.5	0.5	-70.3	57.2
125	58.0	TC	-174.4	95.6	127.2	-1.1	-157.9	-177.5
126	58.3	CC	-2.5	-125.4	145.3	0.2	-71.9	62.4
127	58.4	TC	-177.1	100.5	-97.2	1.9	-165.1	177.3
128	58.6	CC	-2.9	-78.3	-21.1	-4.3	49.6	179.2
129	58.8	TC	-178.0	-64.7	-33.9	-5.1	-52.6	-59.8
130	58.9	TC	176.1	-155.8	-44.0	-6.3	-166.4	-45.6
131	59.7	CC	0.4	-142.6	-25.5	-5.6	53.2	-63.9
132	60.3	TC	175.7	-155.2	-59.8	-7.1	-173.2	-50.6
133	60.3	CT	-5.6	91.4	-9.4	-179.9	97.8	173.2
134	60.6	TC	-178.6	103.5	-70.6	1.3	-160.5	179.1
135	61.0	CT	-5.5	91.2	-7.8	-180.0	98.3	-62.6
136	61.1	CC	-0.6	-146.0	153.6	-1.7	56.1	-177.3
137	61.3	TC	-174.2	95.2	128.6	-1.4	-155.4	69.4
138	61.5	CC	-0.5	-140.2	44.4	5.5	52.8	176.3
139	61.6	CC	-2.5	-127.0	85.1	-1.5	-69.9	63.3
140	61.7	CC	0.1	-139.6	-21.3	-4.8	61.0	66.2
141	61.8	TC	178.3	73.4	46.3	4.5	-58.4	69.2
142	61.9	CC	-3.5	-80.5	-22.4	-4.2	46.2	-77.1
143	62.1	TC	-179.3	102.2	-69.4	-0.5	-61.0	67.7
144	62.4	TC	-178.2	98.9	-97.1	2.5	-63.2	65.9
145	62.8	TC	-179.8	-70.1	-33.7	-5.5	-160.3	-46.5
146	62.8	CC	-2.0	77.0	56.4	2.4	-157.8	-65.6
147	62.9	CC	0.5	-139.5	-23.4	-5.5	58.0	180.0
148	63.1	TC	-173.5	99.5	166.3	0.6	92.9	-63.3
149	63.1	TC	-175.0	93.4	148.7	-2.1	-62.0	69.5
150	63.1	TC	175.0	-155.0	-67.2	-5.0	178.9	172.3
151	63.3	TC	179.9	107.5	-43.4	-6.1	88.0	-63.0
152	63.3	TC	-178.7	85.6	63.5	3.0	-152.7	-173.3
153	63.6	TC	176.0	69.2	45.9	4.3	-62.9	177.7
154	63.7	CT	-3.2	84.3	142.8	179.9	-59.6	58.7
155	63.9	CC	-1.5	-83.5	135.0	0.1	-64.9	-57.5
156	64.1	TC	176.0	-156.7	-54.0	-5.3	-102.2	53.1
157	64.2	CC	-3.8	-72.3	-36.7	-3.9	-161.3	-49.8
158	64.2	CC	-2.0	-85.7	134.2	0.4	-70.9	177.3

159	64.3	TC	-177.0	-60.4	-35.2	-4.9	-48.5	-174.1
160	64.8	CT	-3.4	86.3	-122.6	179.7	-156.7	-52.8
161	64.8	CC	-2.0	-83.1	151.7	-1.2	47.0	-179.5
162	65.5	CC	-0.4	-147.5	-41.9	-5.9	-158.9	-50.2
163	65.8	TC	175.6	68.3	44.1	4.4	-64.4	-66.0
164	66.1	CC	-1.8	-128.9	81.2	-0.9	-77.5	178.1
165	66.4	CC	-2.5	-66.7	-36.8	-3.7	-56.0	-58.9
166	66.7	TC	-178.8	84.9	59.7	3.0	-151.3	64.6
167	67.0	TC	178.6	100.0	-75.1	0.6	-70.0	-60.5
168	67.2	TC	-179.8	-73.0	-31.7	-5.4	-65.4	42.8
169	67.3	CC	-1.9	-128.7	78.6	-0.6	-76.7	-63.9
170	67.7	TC	179.2	96.8	-98.4	2.5	-67.9	-59.7
171	68.0	TC	178.6	100.5	-73.5	0.4	-67.5	177.2
172	68.0	TC	178.7	-70.9	-38.8	-3.4	-165.8	49.4
173	68.4	CC	-0.8	86.4	117.7	-0.2	-158.2	-67.7
174	68.5	CC	-3.6	-75.2	-35.1	-3.8	-66.5	51.5
175	68.5	TC	179.3	96.9	-98.6	2.7	-67.2	176.5
176	68.7	CC	-4.3	-69.3	-41.9	-1.5	-165.5	54.3
177	69.5	CC	0.0	-145.5	-47.0	-3.7	-166.6	54.5
178	69.8	CC	-1.0	86.4	121.0	0.1	-154.7	-178.7
179	69.8	CC	-2.2	73.9	54.1	2.4	-57.3	60.3
180	69.9	CC	-1.9	79.1	69.5	1.3	-152.7	-176.0
181	70.2	CC	0.3	-144.8	-60.9	-6.2	-174.1	55.2
182	70.7	CC	-2.6	-66.7	-36.4	-3.8	-57.2	-176.4
183	70.7	TC	179.1	-131.3	-40.8	-5.8	-52.3	-40.5
184	71.0	CC	-0.9	86.4	122.3	-0.3	-152.8	67.8
185	71.1	CC	-1.9	79.1	68.0	1.1	-151.8	64.3
186	71.5	CT	-1.0	85.3	133.4	179.8	-56.2	-56.4
187	73.3	CT	-4.4	84.1	-122.5	179.6	-56.9	55.1
188	73.4	CC	-4.2	-70.4	-41.6	-1.4	-161.6	179.0
189	73.6	CC	0.0	-146.6	-46.6	-3.5	-159.9	179.8
190	73.6	TC	-179.0	87.0	151.3	-2.3	-70.5	-59.9
191	73.7	CT	-6.1	87.9	159.5	179.7	107.0	-57.3
192	74.7	CC	0.4	-145.1	-60.9	-5.6	-169.6	178.0
193	74.9	CC	-1.6	73.2	53.2	2.4	-60.1	179.8
194	75.1	CC	-1.2	74.0	51.5	2.6	-57.6	-61.3
195	75.3	TC	179.4	-69.0	-38.7	-3.3	-160.7	179.6
196	76.1	CT	-7.6	94.0	-129.4	-180.0	93.6	-65.8
197	76.5	CC	-3.0	84.2	141.9	-1.0	-60.2	58.5
198	77.6	CT	-6.0	88.6	156.6	179.8	103.1	48.7

199	78.3	TC	-179.5	108.4	-44.2	-6.8	98.3	59.1
200	79.8	CT	-6.6	87.9	167.3	180.0	106.3	-176.7
201	80.4	TC	-178.0	109.9	-45.0	-6.3	96.6	-173.6
202	83.6	TC	-170.9	106.2	164.3	-0.6	95.1	44.4
203	83.9	CC	4.3	29.2	63.6	1.3	59.1	60.9
204	84.1	CC	-1.4	84.8	140.4	-0.8	-56.6	-55.6
205	84.2	CC	-2.6	84.1	140.8	-0.9	-63.8	177.3
206	85.4	CC	-9.4	75.5	36.0	5.0	87.0	55.6
207	85.9	CC	-5.6	87.9	153.4	1.7	108.2	-56.1
208	89.8	CC	-5.6	88.4	154.2	0.1	105.4	49.9
209	89.9	CC	2.5	33.0	59.4	2.2	51.7	-55.9
210	91.8	CC	-1.9	98.5	-117.0	0.0	-155.1	59.7
211	92.2	CC	8.0	110.2	-69.0	-0.7	-163.3	54.6
212	92.5	CC	-6.0	88.0	156.1	1.2	107.7	-177.2
213	94.4	CC	-0.9	99.5	-116.1	1.7	-155.3	-55.9
214	94.8	CC	2.4	34.1	57.3	2.5	53.1	176.3
215	95.8	CC	-2.5	97.5	-117.8	0.3	-154.6	173.4
216	96.0	CC	-2.6	103.4	-15.4	-3.3	99.7	173.2
217	96.5	CC	-3.7	101.8	-12.0	-2.0	100.0	-63.2
218	97.5	CC	8.1	109.9	-69.9	0.1	-161.5	177.3
219	99.1	CC	7.5	109.2	-63.8	-3.2	-63.9	54.1
220	99.3	CC	-4.6	93.9	-120.4	0.8	-56.7	54.9
221	103.4	CC	-0.3	99.1	-117.3	1.0	-55.4	-55.1
222	107.5	CC	-2.0	97.0	-118.6	0.9	-57.1	-179.0
223	111.4	TC	175.7	77.1	-92.2	3.9	20.5	-179.9
224	117.9	CC	-15.7	83.6	-123.3	2.0	59.3	-61.9
225	119.3	CC	-4.8	51.0	-117.7	3.3	47.8	-55.9
226	124.0	CC	-15.3	88.6	-123.4	1.7	63.7	-173.2
227	127.3	CC	-14.8	85.9	-123.8	1.7	60.5	55.9

Table S5: Transition structures for Ace-Cys-NHMe

TSi	Connecting		Class		E _{rel} (kJ/mol)	E _a (kJ/mol)	ω_1	ϕ	ψ	ω_2	χ_1	χ_2
	EQi	EQj	EQi	EQj								
1	1	4	TT	TT	11.2	11.2	-175.4	-124.3	33.1	-179.6	57.3	67.4
2	1	3	TT	TT	11.4	11.4	-178.8	-76.9	46.8	-179.5	46.6	136.0
3	1	7	TT	TT	15.9	15.9	178.9	-117.6	129.9	179.9	49.5	51.5
4	3	11	TT	TT	16.4	6.6	-175.8	-122.9	18.2	-179.6	52.1	176.3
5	4	7	TT	TT	16.9	5.9	-177.2	-134.8	93.9	-179.7	51.6	56.4
6	6	7	TT	TT	17.3	5.9	178.3	-153.3	157.2	179.6	60.3	-5.0
7	8	5	TT	TT	17.7	5.7	175.6	-112.8	130.9	-179.9	-172.7	-66.9
8	3	15	TT	TT	18.8	9.0	-179.2	-78.5	47.3	-179.5	43.6	-111.9
9	4	11	TT	TT	19.3	8.3	-175.4	-134.5	22.3	-179.5	55.3	129.4
10	9	13	TT	TT	19.6	6.9	-178.8	-79.0	61.5	179.9	-60.7	4.7
11	9	10	TT	TT	20.3	7.5	-176.5	-76.3	55.7	180.0	-57.1	-124.3
12	6	14	TT	TT	20.6	9.2	178.2	-153.1	164.9	179.7	58.1	-128.8
13	15	16	TT	TT	20.8	3.1	-178.2	-112.4	18.1	-179.7	47.1	-76.1
14	11	16	TT	TT	22.3	6.2	-176.6	-138.4	20.2	-179.4	52.9	-120.5
15	1	15	TT	TT	22.5	22.5	-177.9	-69.6	36.4	-179.2	57.0	-33.7
16	14	7	TT	TT	23.3	11.5	179.4	-150.7	159.4	179.8	57.3	125.4
17	13	10	TT	TT	23.5	6.4	-177.3	-77.7	60.7	179.8	-58.8	117.4
18	6	19	TT	TT	24.1	12.7	175.4	-153.8	-91.6	179.6	50.7	-66.7
19	2	5	TT	TT	24.1	17.0	178.5	-151.5	139.4	179.3	-170.6	-0.7
20	12	18	TT	TT	25.2	8.2	176.4	79.3	-52.7	-179.9	-163.0	12.5
21	11	22	TT	TT	25.6	9.5	-180.0	-147.5	-28.1	178.7	56.7	-179.3
22	19	16	TT	TT	26.0	8.2	178.5	-148.8	-22.7	179.1	53.6	-70.1
23	2	8	TT	TT	26.1	19.0	179.1	-81.8	75.9	179.7	-164.8	4.8
24	2	13	TT	TT	26.7	19.5	175.8	-119.8	133.3	179.9	-76.1	47.9
25	3	10	TT	TT	26.8	16.9	-176.5	-72.7	41.2	-179.6	-4.7	180.0
26	3	14	TT	TT	26.8	16.9	175.9	-106.2	144.5	180.0	46.1	179.7
27	6	16	TT	TT	27.0	15.6	-179.1	-142.0	88.6	-179.6	45.0	-62.5
28	9	15	TT	TT	27.3	14.6	-178.5	-77.9	53.8	-179.9	-1.8	-66.4
29	6	15	TT	TT	27.5	16.1	175.0	-93.6	118.0	-179.9	34.3	-69.5
30	17	30	CT	CT	27.5	6.4	0.1	-122.4	13.8	-179.7	57.9	67.7
31	17	21	CT	CT	27.6	6.5	-3.0	-82.5	-7.3	179.8	49.9	126.6
32	4	16	TT	TT	27.7	16.7	-177.6	-141.9	27.2	-179.4	57.0	-6.2
33	12	23	TT	TT	28.3	11.4	176.9	79.6	-54.5	179.8	-157.6	-128.3
34	19	22	TT	TT	28.3	5.4	177.1	-156.4	-50.6	178.4	52.3	-125.0
35	14	22	TT	TT	28.9	11.2	176.8	-150.9	-109.9	-179.7	56.9	-170.7
36	11	14	TT	TT	29.1	13.0	-177.2	-137.2	95.9	-179.7	45.9	178.0
37	12	24	TT	TT	29.5	12.5	174.7	75.5	-42.1	179.4	-103.9	-62.3

38	20	27	TT	TT	29.6	6.4	173.8	75.6	-41.1	179.3	-60.5	126.7
39	8	9	TT	TT	29.6	17.5	-179.4	-77.9	66.1	179.8	-114.9	-64.1
40	2	9	TT	TT	29.8	22.6	178.0	-130.4	137.5	179.9	-61.8	-28.4
41	25	28	TC	TC	29.9	5.0	177.7	-115.5	141.6	-1.1	50.1	50.8
42	18	23	TT	TT	30.3	7.8	177.5	80.1	-57.5	-179.9	-158.2	122.6
43	29	37	TC	TC	30.3	3.5	177.4	-156.8	154.7	0.8	-126.6	63.1
44	1	13	TT	TT	30.3	30.3	-176.3	-72.3	45.4	-179.9	-12.4	82.1
45	33	21	CT	CT	30.4	6.6	-3.0	-82.7	-9.6	179.9	47.3	-117.3
46	25	26	TC	TC	30.5	5.6	178.5	-153.1	152.9	-1.4	60.1	-6.3
47	2	13	TT	TT	30.5	23.4	178.2	-81.1	81.8	179.8	-119.2	59.1
48	2	13	TT	TT	30.6	23.4	175.9	-89.3	115.7	-179.9	-116.2	59.5
49	28	40	TC	TC	30.7	4.4	-177.3	-123.9	85.6	-0.6	49.7	59.5
50	24	27	TT	TT	30.8	6.1	172.7	74.5	-39.1	179.3	-64.7	-121.8
51	4	22	TT	TT	31.0	20.0	178.4	-153.1	-41.2	178.2	57.3	119.9
52	18	35	TT	TT	31.3	8.8	-177.6	89.2	-113.5	179.7	-162.0	61.4
53	44	21	CT	CT	31.4	7.7	1.2	-128.0	8.6	-179.5	54.3	177.9
54	39	32	TC	TC	31.8	1.6	176.0	-116.7	129.6	-1.5	-172.7	-65.7
55	33	38	CT	CT	31.8	3.6	-0.3	-116.8	5.8	-179.6	48.9	-71.3
56	29	45	TC	TC	32.3	5.5	174.8	-111.0	130.9	-1.5	-166.1	64.0
57	6	5	TT	TT	32.4	21.0	176.9	-151.5	153.6	179.7	122.4	-58.4
58	29	34	TC	TC	32.9	6.0	178.3	-153.9	135.1	-1.9	-168.2	124.8
59	20	24	TT	TT	32.9	9.7	174.4	75.6	-44.0	179.5	-61.9	-1.2
60	18	20	TT	TT	33.0	10.5	176.5	76.8	-49.2	179.7	-109.8	63.7
61	23	36	TT	TT	33.3	8.7	-177.7	89.2	-112.3	179.7	-161.9	177.0
62	23	27	TT	TT	33.7	9.1	175.7	76.4	-46.1	179.5	-109.8	-177.2
63	32	34	TC	TC	34.0	6.2	178.4	-152.8	134.0	-1.6	-173.0	-123.9
64	34	49	TC	TC	34.1	5.4	175.0	-112.9	130.8	-1.0	-169.3	179.6
65	43	26	TC	TC	34.4	9.2	178.7	-152.2	156.1	-1.8	56.6	-128.4
66	35	36	TT	TT	34.4	5.2	-174.4	93.1	-161.1	179.8	-154.6	121.1
67	30	44	CT	CT	34.9	7.9	0.9	-132.8	12.3	-179.5	56.2	128.5
68	42	46	CT	CT	35.1	3.8	-2.5	-114.0	17.0	-180.0	-159.8	-57.9
69	6	9	TT	TT	36.4	25.1	177.4	-140.5	145.9	179.8	-13.9	-52.0
70	25	43	TC	TC	36.6	11.7	179.8	-150.2	153.5	-2.1	56.1	126.1
71	41	47	CT	CT	36.7	5.4	-0.6	-149.3	150.3	-179.6	-163.9	-121.3
72	44	38	CT	CT	36.7	5.3	1.6	-133.1	9.6	-179.4	54.2	-123.9
73	41	48	CT	CT	37.1	5.9	-0.7	-150.1	159.2	-179.6	-158.5	120.0
74	39	49	TC	TC	37.5	7.3	175.3	-93.0	124.8	-1.6	-169.3	-127.7
75	54	38	CT	CT	37.6	7.5	0.4	-145.2	-34.7	178.5	51.6	-65.3
76	31	56	TT	TT	37.6	10.1	-178.7	97.3	-105.6	179.3	83.4	-56.9
77	42	47	CT	CT	37.9	6.6	-0.8	-145.1	89.0	-179.5	-170.1	-67.9

78	2	58	TT	TT	38.0	30.9	175.3	-157.0	-77.8	179.6	-176.0	60.2
79	2	35	TT	TT	38.4	31.3	-174.6	131.3	-161.2	-179.7	-165.9	67.9
80	29	32	TC	TC	38.5	11.7	178.8	-150.9	133.1	-3.5	-172.8	1.7
81	57	36	TT	TT	38.5	9.0	-174.5	93.7	172.8	-179.6	-156.4	-110.3
82	45	49	TC	TC	38.7	6.6	174.5	-97.1	128.4	-1.5	-167.3	122.9
83	61	47	CT	CT	39.4	7.1	-4.1	-109.0	132.7	-179.7	-170.9	-69.8
84	43	63	TC	TC	39.5	8.2	175.4	-105.2	149.9	-1.9	47.0	-179.8
85	2	7	TT	TT	39.5	32.4	177.4	-150.3	152.4	179.5	124.7	57.3
86	31	60	TT	TT	39.7	12.2	172.3	61.9	-30.6	179.4	64.2	25.7
87	41	65	CT	CT	40.1	8.8	-3.9	-106.5	141.1	-179.8	-165.7	-179.6
88	37	53	TC	TC	40.3	10.3	174.8	-116.9	143.3	-0.6	-74.9	48.1
89	39	45	TC	TC	40.4	10.2	175.4	-92.9	122.9	-3.6	-169.1	1.4
90	30	38	CT	CT	40.6	13.6	-0.2	-138.9	16.4	-179.3	56.3	-3.1
91	50	51	CT	CT	40.7	5.8	-2.2	-83.3	-4.5	179.7	-57.3	-2.1
92	5	64	TT	TT	41.0	29.9	177.3	-152.6	-22.7	178.9	-164.5	-44.5
93	9	5	TT	TT	41.2	28.4	-175.8	-130.7	34.2	-179.8	-108.0	-60.0
94	66	26	TC	TC	41.3	16.1	-179.5	-141.6	95.3	-1.9	44.7	-61.9
95	53	55	TC	TC	41.5	4.1	176.5	-89.9	120.3	-2.9	-63.2	-2.8
96	48	71	CT	CT	41.9	9.0	-3.9	-107.8	143.2	-179.9	-163.1	69.0
97	13	7	TT	TT	42.0	30.3	178.8	-131.7	136.8	179.9	-13.6	57.2
98	33	50	CT	CT	42.2	14.0	-1.8	-81.1	-8.8	179.8	-9.9	-61.6
99	50	59	CT	CT	42.2	7.3	-2.2	-82.5	-4.3	179.7	-60.1	-124.4
100	28	63	TC	TC	42.6	16.4	175.0	-89.2	141.5	-2.1	42.4	131.9
101	40	68	TC	TC	42.9	12.3	-176.2	-137.4	58.2	3.8	50.7	133.1
102	58	64	TT	TT	43.0	5.3	175.5	-159.9	-48.2	179.1	-175.8	2.9
103	37	55	TC	TC	43.1	13.1	177.4	-125.2	143.5	-0.8	-61.1	-39.6
104	57	5	TT	TT	43.1	32.0	-173.4	125.6	152.1	-179.4	-172.6	-74.4
105	30	67	CT	CT	43.1	16.1	-0.9	-143.0	99.1	-179.5	50.9	53.3
106	2	64	TT	TT	43.3	36.2	174.9	-157.3	-88.9	179.6	-175.2	-53.7
107	41	72	CT	CT	43.6	12.4	-0.9	-145.4	73.1	-179.4	-159.5	-174.9
108	19	31	TT	TT	43.7	20.7	-178.3	129.6	-34.5	179.6	68.2	-73.2
109	43	68	TC	TC	43.8	12.6	-177.8	-135.6	103.3	-2.7	45.5	178.6
110	17	69	CT	CT	44.1	23.0	-3.5	-94.2	88.2	-179.1	44.7	59.8
111	42	72	CT	CT	44.2	13.0	-1.2	-143.9	38.4	-179.5	-151.5	-134.2
112	51	59	CT	CT	44.3	8.4	-2.6	-84.9	-1.8	179.7	-61.9	122.2
113	61	65	CT	CT	44.3	5.4	-3.0	-91.9	135.5	-179.6	-167.5	-124.9
114	6	56	TT	TT	44.5	33.1	-173.4	130.3	-141.1	-179.0	70.0	-70.0
115	62	67	CT	CT	44.6	5.7	-1.9	-150.3	154.6	179.7	57.3	-3.0
116	46	73	CT	CT	44.7	12.5	-2.7	-78.9	-19.1	179.7	-167.5	16.9
117	69	67	CT	CT	44.8	3.9	-2.0	-115.8	133.7	-180.0	49.7	49.1

118	46	50	CT	CT	44.9	12.7	-3.2	-83.8	-3.8	179.7	-111.3	-63.9
119	26	32	TC	TC	45.1	19.9	177.1	-151.7	151.0	1.1	124.6	-58.5
120	21	59	CT	CT	45.1	21.4	-1.8	-79.2	-8.7	179.7	-13.2	-178.0
121	42	50	CT	CT	45.3	14.0	0.7	-130.8	16.8	-179.8	-98.7	-65.7
122	2	58	TT	TT	45.3	38.2	179.0	-145.4	-19.3	179.4	-162.7	55.5
123	54	62	CT	CT	45.4	8.0	0.0	-146.5	-137.0	-179.4	58.5	-59.5
124	1	60	TT	TT	45.5	45.5	-178.7	20.0	-10.9	179.3	59.9	57.2
125	48	74	CT	CT	45.7	12.9	-1.1	-145.3	75.1	-179.4	-160.0	64.2
126	65	71	CT	CT	45.7	6.0	-2.8	-92.0	142.4	-179.8	-163.5	119.5
127	12	31	TT	TT	45.9	29.0	176.0	81.0	-51.5	-179.9	133.2	-62.8
128	66	68	TC	TC	46.0	6.0	-177.6	-140.7	57.6	4.0	49.2	-122.6
129	77	79	CT	CT	46.0	0.6	-4.6	-112.6	130.4	-179.8	-70.7	60.6
130	55	70	TC	TC	46.0	8.5	178.6	-84.7	120.0	-2.8	-63.4	-123.8
131	12	57	TT	TT	46.1	29.2	-176.8	92.0	94.2	-179.7	-161.6	-70.3
132	53	70	TC	TC	46.6	9.2	178.0	-86.6	120.4	-2.7	-65.5	123.4
133	47	48	CT	CT	46.6	14.3	-0.8	-148.6	137.4	179.5	-164.5	0.8
134	18	60	TT	TT	46.7	24.2	175.5	81.6	-47.2	180.0	128.2	53.3
135	12	64	TT	TT	47.1	30.2	177.6	145.1	-39.0	179.7	-175.8	-47.0
136	58	76	TT	TT	47.1	9.4	175.0	-159.7	-67.1	179.5	-176.3	129.3
137	20	31	TT	TT	47.3	24.1	176.9	65.2	-38.4	179.5	12.8	49.1
138	73	74	CT	CT	47.5	4.8	-2.2	-114.4	16.5	-179.9	-152.3	59.7
139	9	24	TT	TT	47.6	34.8	-178.7	16.1	-7.2	179.1	-63.0	-67.7
140	72	59	CT	CT	47.7	5.5	0.7	-134.9	22.6	-179.7	-104.1	-177.3
141	26	55	TC	TC	47.8	22.6	176.4	-87.7	120.9	-3.2	-6.8	-59.8
142	58	82	TT	TT	47.8	10.1	175.0	-163.2	-45.9	178.8	-118.9	60.3
143	42	74	CT	CT	47.9	16.6	-0.9	-141.7	28.3	-179.5	-154.9	11.7
144	72	80	CT	CT	47.9	5.7	-2.8	-110.3	20.0	180.0	-150.6	-175.5
145	39	55	TC	TC	47.9	17.7	176.7	-88.1	120.8	-3.0	-113.2	-61.4
146	79	48	CT	CT	48.0	15.1	0.3	-137.0	145.6	180.0	-97.7	68.9
147	77	51	CT	CT	48.1	12.3	-2.9	-119.7	89.0	-179.3	-70.1	62.4
148	37	32	TC	TC	48.2	18.2	179.2	-145.0	153.2	-0.2	-103.3	-48.6
149	31	78	TT	TT	48.2	20.7	174.1	79.5	-45.9	179.8	90.8	-136.3
150	51	74	CT	CT	48.2	12.4	0.7	-135.4	21.9	-179.7	-110.4	66.4
151	2	82	TT	TT	48.3	41.2	177.1	-152.3	-26.0	178.7	-95.7	47.6
152	46	80	CT	CT	48.3	16.1	-2.9	-86.4	-2.1	179.7	-152.7	-134.7
153	73	51	CT	CT	48.4	12.6	-2.9	-85.0	-3.1	179.7	-119.7	61.1
154	10	27	TT	TT	48.6	32.5	-178.6	15.8	-5.0	178.9	-58.6	-177.7
155	15	31	TT	TT	48.7	31.0	-175.0	15.5	-12.9	-179.9	62.9	-45.8
156	17	51	CT	CT	48.7	27.6	-2.0	-79.3	-7.2	179.7	-16.4	76.8
157	18	58	TT	TT	48.8	26.4	178.9	141.0	-55.9	179.9	179.5	57.0

158	37	26	TC	TC	48.9	23.8	176.9	-141.2	150.8	-0.7	-15.5	-51.0
159	40	90	TC	TC	49.2	18.6	-178.6	-142.2	-10.1	-3.5	62.0	68.5
160	72	74	CT	CT	49.2	7.0	-1.1	-143.4	37.1	-179.5	-149.4	120.0
161	49	70	TC	TC	49.4	15.9	176.6	-87.8	122.6	-2.4	-112.0	-179.8
162	60	78	TT	TT	49.4	10.7	171.8	69.8	-39.1	179.6	80.0	127.2
163	40	83	TC	TC	49.7	19.1	-177.6	-101.8	5.5	1.5	55.8	69.1
164	59	80	CT	CT	50.3	12.2	-3.2	-86.4	-0.2	179.7	-117.9	-176.4
165	68	89	TC	TC	50.4	10.0	-178.5	-142.0	-4.3	-1.4	58.5	179.1
166	62	38	CT	CT	50.5	20.4	-0.3	-144.4	95.2	-179.5	44.5	-54.9
167	34	70	TC	TC	50.7	22.0	178.6	-131.9	147.4	-0.5	-85.0	177.3
168	66	85	TC	TC	50.9	10.9	179.3	-145.1	-2.8	-0.4	55.8	-68.3
169	43	34	TC	TC	50.9	19.7	176.8	-151.7	153.6	0.3	123.6	-177.1
170	76	64	TT	TT	51.1	11.6	175.0	-161.4	-56.2	179.1	-174.0	-124.6
171	84	96	CC	CC	51.1	3.8	-1.0	-144.5	96.5	-1.3	-170.3	-68.1
172	28	53	TC	TC	51.2	24.9	178.2	-83.0	122.2	-3.1	-18.7	77.2
173	73	80	CT	CT	51.2	8.5	-2.6	-82.3	-12.6	179.7	-157.2	123.6
174	62	87	CT	CT	51.3	12.4	-0.3	-146.6	163.6	179.7	58.8	-131.2
175	25	29	TC	TC	51.5	26.6	177.5	-150.8	151.3	-1.7	126.8	55.0
176	52	92	CT	CT	51.5	14.3	-2.9	80.3	18.4	-179.8	-143.8	-134.6
177	2	12	TT	TT	51.9	44.8	-179.2	142.3	-126.9	-180.0	-171.5	-46.1
178	8	12	TT	TT	51.9	39.9	-175.8	11.2	-5.3	179.2	-143.7	-55.1
179	2	82	TT	TT	52.0	44.8	174.9	-154.7	-100.2	179.7	-97.6	50.7
180	84	100	CC	CC	52.2	4.9	-4.2	-112.3	129.6	-0.2	-170.9	-68.5
181	61	71	CT	CT	52.3	13.4	-3.1	-91.9	128.3	179.8	-167.9	1.7
182	13	20	TT	TT	52.4	35.3	-176.2	11.9	-5.0	179.1	-52.3	76.3
183	75	81	CT	CT	52.5	8.4	-1.7	82.1	8.0	-179.9	-50.2	-5.9
184	52	81	CT	CT	52.5	15.2	-4.4	80.2	7.7	180.0	-96.1	-65.1
185	78	23	TT	TT	52.5	27.9	176.9	82.7	-54.0	-179.9	129.1	-177.7
186	41	98	CT	CT	52.6	21.4	-5.1	-111.0	123.4	-179.6	-76.5	176.4
187	76	23	TT	TT	52.6	28.0	178.2	144.4	-57.5	179.8	179.3	175.6
188	77	71	CT	CT	52.7	7.2	-2.9	-91.1	136.7	-179.8	-114.0	65.5
189	89	93	TC	TC	52.7	4.1	-178.8	-116.0	-13.8	-4.2	53.5	178.3
190	68	93	TC	TC	52.8	12.5	-178.1	-109.5	4.4	1.6	52.9	176.8
191	84	88	CC	CC	52.9	5.6	-0.7	-148.3	132.0	-1.0	-166.2	-124.0
192	41	59	CT	CT	53.0	21.8	-2.5	-124.4	94.2	-179.3	-77.8	177.5
193	52	91	CT	CT	53.1	15.8	-3.0	83.6	5.5	180.0	-149.0	13.6
194	4	58	TT	TT	53.1	42.1	175.1	-154.7	-45.6	178.8	126.7	58.4
195	75	86	CT	CT	53.2	9.1	-3.4	79.7	12.6	-179.9	-56.0	126.8
196	3	78	TT	TT	53.2	43.4	-178.9	21.6	-14.2	179.8	59.8	175.4
197	86	81	CT	CT	53.3	4.9	-2.6	80.9	9.8	-179.9	-55.5	-121.6

198	85	89	TC	TC	53.3	5.3	178.8	-148.3	-26.5	-6.6	55.9	-123.6
199	87	67	CT	CT	53.4	13.4	-1.0	-146.7	157.5	179.9	55.4	126.9
200	98	59	CT	CT	53.4	15.3	-4.8	-105.2	87.8	-179.1	-73.3	178.1
201	20	82	TT	TT	53.4	30.3	177.8	140.3	-33.7	179.5	-86.7	70.5
202	83	93	TC	TC	53.4	6.2	179.9	-81.8	-17.1	-4.6	50.2	125.9
203	62	69	CT	CT	53.5	14.6	-1.4	-72.9	159.7	179.8	61.7	-41.2
204	30	51	CT	CT	53.5	26.5	-3.1	-135.6	19.3	-179.6	-6.1	58.2
205	97	74	CT	CT	53.5	10.1	0.5	-141.5	-25.8	179.3	-163.5	53.6
206	88	107	CC	CC	53.6	5.2	-4.2	-112.1	131.2	0.3	-166.7	-178.9
207	4	5	TT	TT	53.8	42.8	-177.9	-138.0	1.6	-179.7	143.1	30.3
208	110	47	CT	CT	53.9	21.6	-1.2	-132.6	134.8	-180.0	-88.1	-63.5
209	89	90	TC	TC	53.9	5.3	-179.7	-145.4	-23.4	-6.5	60.0	122.6
210	52	108	CT	CT	54.0	16.7	-1.1	85.9	108.4	-179.8	-158.7	-68.7
211	50	102	CT	CT	54.1	19.1	-4.8	-99.6	86.3	-179.1	-69.9	-61.8
212	110	102	CT	CT	54.1	0.3	-5.1	-115.5	125.0	-179.7	-73.6	-61.6
213	44	87	CT	CT	54.2	22.8	0.4	-143.6	-141.3	-179.4	61.9	-171.7
214	42	97	CT	CT	54.2	22.9	-0.4	-147.6	-43.9	178.8	-170.8	11.9
215	75	91	CT	CT	54.6	10.6	-4.1	80.5	9.9	-180.0	-106.2	64.2
216	97	48	CT	CT	54.6	21.8	0.5	-144.9	-92.3	179.4	-173.1	59.4
217	50	110	CT	CT	54.6	19.7	-3.5	-121.9	97.7	-179.3	-75.7	-63.6
218	88	94	CC	CC	54.8	6.3	-0.7	-148.6	133.7	-1.1	-161.8	119.7
219	112	27	TT	TT	55.1	29.6	-178.9	84.5	-172.4	-180.0	-65.4	172.0
220	77	102	CT	CT	55.1	9.6	-1.8	-84.7	128.7	-179.7	-62.7	-11.2
221	77	98	CT	CT	55.2	9.7	-3.1	-90.7	124.4	-179.6	-72.8	127.7
222	25	53	TC	TC	55.2	30.3	178.1	-135.0	147.5	-0.6	-14.3	54.4
223	94	111	CC	CC	55.2	5.0	-4.1	-113.4	131.8	-0.1	-164.6	67.2
224	87	109	CT	CT	55.5	7.1	-1.4	-110.4	156.0	179.9	51.4	-177.7
225	98	65	CT	CT	55.6	15.8	-3.4	-92.7	129.8	-179.7	-109.5	177.8
226	91	92	CT	CT	55.7	6.6	-3.1	81.0	15.7	-179.8	-142.6	121.9
227	112	36	TT	TT	55.7	26.2	-178.5	85.6	169.9	-179.9	-86.9	174.4
228	86	92	CT	CT	55.7	7.4	-4.2	79.7	11.6	-180.0	-103.1	-176.7
229	1	8	TT	TT	56.1	56.1	-179.2	-75.1	-12.5	179.8	135.9	39.2
230	4	60	TT	TT	56.4	45.4	-176.5	127.1	-28.7	179.4	77.1	62.6
231	20	112	TT	TT	56.5	33.3	-177.8	88.2	174.5	-180.0	-64.7	135.6
232	99	103	CT	CT	56.5	5.0	-3.9	83.8	163.5	-179.5	-149.8	121.5
233	99	92	CT	CT	56.6	5.2	-1.4	83.8	92.7	-179.6	-154.3	-177.0
234	8	12	TT	TT	56.7	44.6	-179.0	11.5	49.1	179.7	-154.1	-64.0
235	85	116	TC	TC	56.8	8.9	178.9	-107.5	-16.6	-4.3	47.8	-77.5
236	72	114	CT	CT	56.9	14.7	0.0	-144.8	-27.7	178.9	-156.5	-178.6
237	101	105	CC	CC	57.0	5.3	-1.8	-149.9	151.2	-1.1	56.9	-3.9

238	44	87	CT	CT	57.0	25.6	-0.6	-142.1	100.6	-179.5	45.6	177.5
239	69	109	CT	CT	57.1	16.3	-2.1	-81.5	148.2	-179.8	45.6	131.1
240	116	93	TC	TC	57.2	7.6	179.0	-83.6	-18.9	-4.6	46.0	-113.4
241	115	117	TC	TC	57.2	1.2	-178.1	103.7	-79.7	1.3	-163.0	-58.7
242	104	105	CC	CC	57.2	5.2	-1.1	-142.5	106.3	-2.4	50.6	51.6
243	100	107	CC	CC	57.3	5.8	-2.8	-91.5	131.3	1.1	-167.9	-125.6
244	106	105	CC	CC	57.4	4.4	-2.1	-116.3	143.2	0.1	50.8	48.4
245	99	108	CT	CT	57.5	6.0	-2.9	85.7	147.4	-179.6	-154.1	-120.8
246	109	21	CT	CT	57.7	34.0	-3.1	-91.5	95.5	-179.2	37.1	175.8
247	62	47	CT	CT	57.7	25.4	-2.3	-149.4	152.0	179.7	120.4	-57.6
248	61	102	CT	CT	57.8	18.9	-3.4	-91.1	124.8	-179.6	-110.4	-66.5
249	62	109	CT	CT	57.9	19.0	-1.8	-84.9	158.8	179.9	49.2	-124.5
250	118	123	TC	TC	57.9	1.9	-178.1	103.7	-75.6	0.9	-164.2	56.4
251	98	102	CT	CT	58.0	6.5	-2.5	-86.5	122.2	-179.5	-71.1	-120.0
252	91	103	CT	CT	58.3	9.2	-1.3	84.0	93.3	-179.7	-153.2	66.7
253	41	114	CT	CT	58.6	27.4	0.7	-144.9	-90.8	179.4	-172.1	176.0
254	124	126	CC	CC	58.6	0.8	-4.6	-113.2	141.1	0.3	-70.5	60.1
255	76	22	TT	TT	59.0	34.6	174.5	-155.5	-53.5	178.9	128.1	174.8
256	107	111	CC	CC	59.1	6.0	-2.7	-92.0	132.5	0.8	-164.5	119.7
257	31	24	TT	TT	59.2	31.7	176.5	62.4	-39.6	179.7	11.0	-54.3
258	126	94	CC	CC	59.6	9.3	0.3	-135.4	151.2	0.4	-94.7	68.0
259	42	114	CT	CT	59.8	28.6	-0.5	-149.4	-45.0	178.5	-161.2	-127.8
260	84	94	CC	CC	60.0	12.7	-0.8	-148.0	131.1	-2.5	-166.7	3.3
261	97	114	CT	CT	60.2	8.7	-0.2	-148.2	-51.8	178.8	-166.6	124.8
262	130	132	TC	TC	60.3	1.4	175.7	-155.3	-56.3	-7.3	-171.9	-49.3
263	113	121	TC	TC	60.4	5.3	-176.5	92.2	97.6	1.1	-161.6	-70.1
264	79	67	CT	CT	60.6	20.6	-4.2	-142.8	141.8	179.9	-9.3	51.7
265	134	127	TC	TC	60.6	0.0	-178.2	103.6	-75.2	1.7	-162.4	178.7
266	78	27	TT	TT	60.7	35.3	174.6	60.4	-34.0	179.3	14.2	176.5
267	85	90	TC	TC	60.9	13.0	178.4	-148.8	-24.2	-5.2	59.0	0.0
268	121	32	TC	TC	61.2	33.4	-174.1	122.1	127.8	-1.3	-173.9	-69.4
269	115	123	TC	TC	61.4	5.5	-179.1	104.1	-65.9	-1.5	-162.0	6.2
270	34	125	TC	TC	61.5	32.8	-174.0	122.2	128.8	-1.1	-171.4	-179.0
271	130	132	TC	TC	61.6	2.8	175.9	-156.1	-55.0	-7.1	-168.3	-48.8
272	124	139	CC	CC	61.7	3.8	-3.1	-126.6	91.6	-2.1	-70.4	63.3
273	17	73	CT	CT	61.8	40.7	-4.1	-75.3	-18.7	180.0	131.4	45.6
274	119	130	TC	TC	61.9	5.8	176.2	-154.1	-46.4	-5.9	-174.2	2.5
275	112	27	TT	TT	61.9	36.5	-180.0	85.3	108.2	-180.0	-67.5	173.6
276	19	64	TT	TT	61.9	38.9	174.3	-155.7	-45.9	179.1	125.4	-61.1
277	122	131	CC	CC	62.0	4.3	0.2	-140.2	0.4	0.9	55.3	-64.1

278	118	117	TC	TC	62.1	6.1	-177.3	101.5	-93.7	0.5	-165.3	-1.4
279	104	140	CC	CC	62.2	10.1	0.0	-137.9	-7.8	-2.4	61.5	66.6
280	121	125	TC	TC	62.4	4.9	-174.8	95.1	125.9	-1.0	-159.9	-123.2
281	115	117	TC	TC	62.6	6.7	-176.7	106.6	-77.1	0.0	-159.2	-57.8
282	95	133	CT	CT	62.7	12.3	-5.4	91.3	-8.1	-179.9	98.1	130.2
283	143	144	TC	TC	62.8	0.7	-178.3	101.4	-84.9	1.9	-63.6	66.6
284	120	128	CC	CC	63.0	6.2	-2.8	-78.5	-20.3	-4.4	51.1	125.1
285	62	102	CT	CT	63.1	24.2	-1.4	-83.7	129.3	-179.7	-7.9	-55.4
286	83	116	TC	TC	63.1	15.8	-178.7	-68.8	-21.4	-3.7	56.8	-17.4
287	118	127	TC	TC	63.2	7.2	-177.0	100.5	-97.4	1.7	-164.9	121.8
288	118	123	TC	TC	63.4	7.3	-176.3	106.4	-77.7	0.6	-162.1	57.1
289	152	125	TC	TC	63.5	5.5	-176.8	90.7	84.1	1.7	-156.1	-174.6
290	120	140	CC	CC	63.5	6.7	0.2	-119.8	-14.2	-3.4	58.5	67.2
291	30	42	CT	CT	63.6	36.6	1.7	-135.6	-3.1	-179.7	140.0	33.7
292	113	115	TC	TC	63.6	8.5	176.6	96.9	-11.1	-4.8	-147.3	-53.0
293	104	120	CC	CC	63.6	11.5	0.0	-113.2	6.5	1.1	58.3	67.9
294	104	138	CC	CC	63.9	11.9	-0.7	-140.5	46.2	5.1	53.2	133.1
295	69	77	CT	CT	64.0	23.2	-1.2	-76.9	128.1	-179.6	-14.7	73.4
296	117	127	TC	TC	64.1	8.0	-177.4	100.7	-96.1	2.2	-164.7	-124.1
297	101	136	CC	CC	64.1	12.5	-0.2	-146.0	154.6	-1.5	57.1	-130.8
298	101	122	CC	CC	64.1	12.5	-0.3	-143.8	101.1	-2.5	44.6	-54.7
299	75	154	CT	CT	64.1	20.1	-1.4	84.7	117.8	180.0	-58.7	59.0
300	100	111	CC	CC	64.1	12.6	-2.6	-90.9	131.0	-0.5	-168.0	2.2
301	65	80	CT	CT	64.2	24.4	-2.9	-91.7	-97.9	179.1	-173.4	173.3
302	124	111	CC	CC	64.2	6.4	-2.6	-89.5	145.3	1.3	-113.2	64.8
303	116	129	TC	TC	64.3	8.3	179.2	-68.2	-39.5	-6.1	-7.9	-67.0
304	138	147	CC	CC	64.6	3.1	0.3	-137.2	0.6	0.4	58.5	178.7
305	128	142	CC	CC	64.6	6.0	-3.0	-79.1	-21.7	-4.2	47.9	-118.7
306	119	156	TC	TC	64.6	8.5	175.6	-158.1	-52.9	-4.9	-119.0	59.3
307	29	137	TC	TC	64.8	38.0	-173.5	121.2	129.0	-1.5	-169.2	69.8
308	128	147	CC	CC	64.8	6.2	0.6	-119.1	-17.7	-4.3	55.2	179.8
309	131	142	CC	CC	64.9	5.1	-0.9	-112.1	-18.9	-4.0	49.4	-71.8
310	125	137	TC	TC	65.0	7.0	-174.1	95.7	128.1	-1.3	-156.0	117.7
311	91	103	CT	CT	65.1	16.0	-0.4	93.1	-80.1	179.5	-160.3	58.0
312	113	152	TC	TC	65.3	10.2	-179.4	83.6	59.1	3.3	-153.5	-133.1
313	115	134	TC	TC	65.3	9.4	-179.0	103.4	-69.4	1.1	-159.9	-126.1
314	95	135	CT	CT	65.4	15.0	-4.8	91.3	-5.7	179.9	100.8	-13.1
315	101	106	CC	CC	65.4	13.8	-1.7	-75.0	152.8	-1.3	60.6	-41.0
316	119	150	TC	TC	65.6	9.4	175.1	-154.7	-67.2	-5.1	179.9	128.6
317	41	87	CT	CT	65.6	34.4	-2.2	-148.7	159.1	179.8	119.1	-174.5

318	134	123	TC	TC	65.6	5.1	-178.4	103.6	-71.5	1.3	-160.8	122.4
319	52	160	CT	CT	65.7	28.5	-1.2	91.4	-91.3	179.4	-158.8	-56.1
320	88	158	CC	CC	65.7	17.3	-5.2	-112.1	134.8	0.0	-76.4	176.1
321	136	105	CC	CC	65.8	13.4	-1.0	-146.4	152.0	-1.7	54.1	127.5
322	104	122	CC	CC	65.9	13.8	-2.5	-144.4	53.4	3.9	50.5	-2.6
323	56	57	TT	TT	65.9	28.4	-176.5	90.2	162.9	-179.0	140.6	-66.6
324	130	32	TC	TC	65.9	38.2	178.3	-147.1	-8.4	-2.1	-159.1	-47.3
325	85	26	TC	TC	66.0	40.8	174.7	-145.4	-119.1	5.9	45.8	-62.0
326	134	127	TC	TC	66.0	5.4	-176.4	106.2	-78.0	1.3	-160.7	178.4
327	149	137	TC	TC	66.2	3.1	-177.2	87.5	155.8	-1.6	-92.3	68.2
328	148	26	TC	TC	66.2	41.0	-170.8	122.3	165.1	-0.4	77.2	-68.6
329	37	149	TC	TC	66.2	36.2	-172.4	118.6	149.3	-2.0	-75.0	72.4
330	129	55	TC	TC	66.3	28.7	-175.5	-99.4	9.5	3.3	-54.0	-56.9
331	30	97	CT	CT	66.3	39.3	-2.2	-147.6	-36.7	178.8	129.4	54.2
332	62	110	CT	CT	66.3	27.4	-3.6	-136.5	141.0	179.9	-16.1	-50.1
333	2	18	TT	TT	66.4	59.3	-174.4	8.7	-15.3	-179.6	-142.1	53.5
334	159	93	TC	TC	66.5	16.9	-178.8	-60.8	-39.3	-5.5	-16.4	-176.2
335	164	88	CC	CC	66.5	18.0	-3.1	-127.7	100.3	-2.1	-79.2	177.3
336	8	15	TT	TT	66.6	54.5	-178.9	-72.7	-15.4	179.4	128.8	-46.0
337	24	64	TT	TT	66.6	41.8	176.7	142.7	-32.6	179.4	-97.5	-59.4
338	98	109	CT	CT	66.6	15.2	-1.2	-77.5	125.7	-179.6	-7.7	177.3
339	122	138	CC	CC	66.7	8.9	0.0	-140.4	44.4	5.6	52.5	-125.6
340	48	67	CT	CT	66.8	33.9	-2.4	-148.8	151.4	179.6	123.9	54.2
341	84	155	CC	CC	66.9	19.6	-5.2	-115.6	138.5	0.0	-72.7	-60.1
342	133	135	CT	CT	66.9	6.6	-6.3	90.7	-8.8	-179.9	97.3	-122.3
343	160	103	CT	CT	67.0	15.2	-3.8	82.6	-151.5	-179.9	-151.6	-12.5
344	124	155	CC	CC	67.1	9.2	-1.5	-84.2	137.1	0.2	-62.0	-11.2
345	137	166	TC	TC	67.1	5.8	-176.6	91.0	84.5	1.3	-155.2	66.6
346	154	103	CT	CT	67.2	15.4	-4.9	81.8	152.9	180.0	-93.9	65.6
347	136	161	CC	CC	67.2	6.1	-1.5	-112.0	152.4	-1.2	50.6	-177.9
348	164	88	CC	CC	67.3	18.9	-0.5	-138.0	85.9	-1.2	-102.4	179.9
349	129	159	TC	TC	67.4	8.6	-177.2	-61.5	-34.8	-5.0	-50.1	-127.3
350	131	147	CC	CC	67.4	7.6	0.9	-139.9	-24.1	-5.5	56.9	-125.8
351	141	153	TC	TC	67.4	5.7	176.9	71.5	46.3	4.4	-60.3	126.4
352	52	95	CT	CT	67.6	30.3	-6.0	86.9	-13.6	179.7	153.2	29.3
353	140	147	CC	CC	67.7	6.0	0.3	-139.4	-22.1	-5.6	59.4	123.8
354	129	168	TC	TC	67.7	8.9	-179.7	-71.8	-31.9	-5.3	-61.0	15.6
355	167	170	TC	TC	67.8	0.8	179.3	98.4	-91.9	2.6	-69.7	-59.9
356	124	158	CC	CC	67.8	10.0	-2.5	-88.7	135.4	0.5	-71.9	128.0
357	107	158	CC	CC	67.9	14.8	-3.0	-89.9	141.3	1.0	-106.9	177.3

358	155	169	CC	CC	68.0	4.1	-3.8	-126.6	102.2	-2.3	-77.3	-63.2
359	108	160	CT	CT	68.1	14.9	-3.9	81.0	-167.0	-179.6	-142.4	-61.6
360	96	169	CC	CC	68.2	17.6	-0.4	-136.7	79.0	-0.6	-98.6	-65.5
361	106	161	CC	CC	68.5	15.5	-2.1	-82.2	149.7	-0.9	45.8	130.7
362	146	173	CC	CC	68.6	5.7	-0.8	85.6	106.8	0.4	-158.5	-67.9
363	130	145	TC	TC	68.7	9.8	178.1	-113.3	-34.9	-5.9	-164.4	-45.2
364	171	175	TC	TC	68.7	0.7	179.4	98.9	-90.1	2.7	-68.9	176.9
365	143	144	TC	TC	68.7	6.6	-177.7	102.8	-83.8	1.2	-63.2	66.7
366	145	32	TC	TC	68.8	41.0	-178.3	-100.2	2.2	1.6	-155.9	-52.6
367	141	143	TC	TC	68.9	7.1	176.4	97.2	-13.4	-5.3	-57.0	69.4
368	115	167	TC	TC	69.2	13.3	179.4	98.2	-77.7	1.1	-100.5	-59.6
369	101	161	CC	CC	69.4	17.7	-2.1	-85.6	152.6	-1.2	47.4	-124.4
370	96	162	CC	CC	69.4	18.8	-1.0	-143.8	-10.4	-2.4	-153.3	-51.9
371	145	172	TC	TC	69.4	6.7	179.1	-69.1	-38.0	-4.0	-168.1	14.4
372	143	123	TC	TC	69.5	11.7	-179.3	98.7	-77.4	1.9	-107.9	64.5
373	84	101	CC	CC	69.5	22.2	-2.3	-149.6	150.8	1.7	122.5	-58.1
374	120	142	CC	CC	69.6	12.8	-2.5	-71.0	-22.5	-3.2	55.6	-9.7
375	42	52	CT	CT	69.6	38.4	4.9	135.1	-25.1	179.4	-171.8	-45.9
376	99	92	CT	CT	69.6	18.2	-0.3	93.0	-79.1	179.5	-159.1	177.1
377	139	164	CC	CC	69.9	8.3	-1.8	-128.6	83.4	-1.2	-75.8	127.8
378	41	87	CT	CT	70.0	38.8	-4.3	-141.1	138.8	-180.0	-9.5	175.5
379	150	132	TC	TC	70.0	6.9	175.1	-155.1	-65.2	-5.0	-178.4	-123.9
380	33	46	CT	CT	70.1	41.9	-4.2	-72.4	-23.7	179.7	126.9	-53.9
381	37	119	TC	TC	70.2	40.2	173.6	-149.2	-128.3	4.2	-153.1	62.3
382	100	155	CC	CC	70.2	18.7	-2.9	-88.6	135.8	0.3	-109.1	-65.2
383	181	177	CC	CC	70.2	0.1	0.2	-144.9	-56.0	-5.7	-172.7	54.6
384	153	163	TC	TC	70.3	6.7	175.6	68.3	44.7	4.4	-64.8	-118.5
385	143	171	TC	TC	70.6	8.4	179.2	101.4	-71.4	0.0	-64.8	132.8
386	155	158	CC	CC	70.7	6.7	-1.8	-84.4	133.7	0.2	-69.4	-120.4
387	119	90	TC	TC	70.7	22.0	176.1	-150.6	-45.9	-8.5	124.4	59.4
388	165	142	CC	CC	70.8	8.8	-3.5	-67.1	-43.7	-3.9	-12.5	-61.6
389	129	183	TC	TC	70.8	12.0	179.8	-124.0	-37.8	-5.8	-54.0	-46.3
390	119	172	TC	TC	70.8	14.7	177.3	-106.1	-40.2	-3.5	-168.6	51.8
391	130	150	TC	TC	71.0	12.1	175.5	-155.5	-48.9	-3.9	-170.8	-125.8
392	144	175	TC	TC	71.0	8.6	-179.9	97.9	-97.9	2.6	-65.6	132.5
393	136	138	CC	CC	71.1	10.0	-0.6	-141.2	105.7	-2.6	45.8	178.2
394	52	61	CT	CT	71.1	33.8	9.2	4.3	82.0	-179.6	-162.9	-67.6
395	30	95	CT	CT	71.1	44.1	12.1	126.7	-17.1	179.4	76.1	62.3
396	180	178	CC	CC	71.1	1.3	-0.9	84.6	98.4	0.5	-154.9	-177.4
397	156	183	TC	TC	71.2	7.1	178.1	-136.4	-42.3	-5.9	-60.1	-14.0

398	141	149	TC	TC	71.2	9.4	-176.6	89.5	104.0	0.0	-59.6	71.0
399	157	176	CC	CC	71.2	7.0	-4.3	-69.1	-40.6	-2.4	-168.7	11.8
400	152	166	TC	TC	71.3	8.0	-178.1	87.1	66.6	2.8	-152.0	117.6
401	119	118	TC	TC	71.4	15.2	179.9	143.8	-66.8	-3.8	177.3	57.2
402	85	183	TC	TC	71.4	23.4	177.4	-137.3	-46.1	-5.7	-30.5	-46.9
403	186	81	CT	CT	71.5	24.5	-0.7	85.4	128.5	179.9	-56.2	-56.7
404	129	183	TC	TC	71.5	12.7	179.0	-131.6	-40.9	-5.8	-52.4	-40.1
405	157	162	CC	CC	71.6	7.4	-1.8	-115.6	-36.6	-4.7	-162.6	-49.6
406	121	137	TC	TC	71.7	14.2	-174.7	95.3	125.3	-2.5	-159.5	3.7
407	69	95	CT	CT	71.7	30.9	13.6	4.0	72.2	-179.5	58.4	58.6
408	53	168	TC	TC	71.8	34.4	-178.0	-98.9	4.7	2.2	-63.4	44.5
409	181	177	CC	CC	71.9	1.8	0.1	-145.9	-55.9	-5.2	-167.4	55.5
410	113	163	TC	TC	72.0	16.9	177.3	74.5	41.0	5.1	-102.0	-68.3
411	134	171	TC	TC	72.0	11.4	179.9	98.3	-77.7	1.9	-105.3	-179.7
412	162	177	CC	CC	72.0	6.5	0.0	-145.3	-45.2	-4.7	-169.4	11.3
413	165	174	CC	CC	72.1	5.8	-2.9	-70.4	-36.1	-3.8	-57.3	0.3
414	86	99	CT	CT	72.2	23.9	-4.4	82.1	146.5	180.0	-85.5	176.8
415	29	119	TC	TC	72.3	45.5	178.1	-147.1	-5.0	-0.3	-149.6	58.5
416	131	140	CC	CC	72.4	12.6	-0.9	-143.1	-22.4	-4.2	57.2	1.5
417	129	145	TC	TC	72.4	13.6	-179.2	-57.7	-39.3	-5.3	-113.3	-57.9
418	115	130	TC	TC	72.4	16.5	178.8	146.0	-46.1	-4.0	-174.3	-48.0
419	164	169	CC	CC	72.5	6.3	-1.6	-129.2	78.9	-0.5	-78.9	-119.4
420	185	184	CC	CC	72.5	1.4	-0.9	84.7	98.5	0.1	-153.9	66.3
421	159	70	TC	TC	72.5	31.3	-174.3	-98.2	11.2	3.4	-52.5	-174.4
422	21	80	CT	CT	72.5	48.8	-4.3	-70.7	-27.7	179.9	130.4	175.4
423	126	105	CC	CC	72.5	20.1	-4.2	-143.0	149.4	-0.1	-9.9	50.7
424	146	180	CC	CC	72.5	9.7	-1.9	78.3	66.0	1.5	-153.7	-131.6
425	83	168	TC	TC	72.6	25.3	-177.7	-54.1	-40.3	-4.7	-24.4	80.3
426	42	38	CT	CT	72.6	41.4	1.3	-136.2	-0.5	-179.8	130.8	-48.7
427	118	137	TC	TC	72.6	16.6	-175.5	91.9	-147.5	-1.9	-142.0	62.8
428	152	153	TC	TC	72.7	9.4	178.4	76.5	47.2	4.5	-107.4	-177.4
429	113	166	TC	TC	72.7	17.6	-179.9	82.3	53.7	3.5	-153.2	8.8
430	159	168	TC	TC	72.8	8.6	-177.1	-59.7	-35.7	-4.8	-49.1	114.1
431	167	163	TC	TC	72.9	5.8	174.3	99.8	-25.2	-7.0	-64.8	-63.4
432	85	151	TC	TC	72.9	25.0	-177.7	135.7	-31.7	-6.4	67.4	-72.8
433	167	170	TC	TC	72.9	5.9	178.7	96.1	-92.4	1.9	-77.0	-60.3
434	117	132	TC	TC	73.0	16.9	178.8	146.5	-63.6	-4.2	179.2	-55.8
435	153	171	TC	TC	73.1	9.4	174.9	101.0	-28.7	-7.5	-62.6	177.7
436	44	114	CT	CT	73.3	41.8	-2.1	-148.7	-48.8	178.7	128.6	177.0
437	144	170	TC	TC	73.3	10.9	-179.8	97.1	-99.2	2.6	-65.6	-4.9

438	143	167	TC	TC	73.3	11.2	179.6	100.6	-74.1	0.6	-66.1	-3.9
439	154	187	CT	CT	73.3	9.7	-4.5	82.9	-130.0	179.7	-56.5	55.2
440	118	144	TC	TC	73.3	17.3	-178.1	99.2	-95.0	1.6	-109.6	64.3
441	42	38	CT	CT	73.4	42.2	-2.5	-148.9	-41.5	178.9	126.2	-59.6
442	75	187	CT	CT	73.6	29.6	-2.2	89.3	-95.0	179.4	-56.8	54.2
443	70	153	TC	TC	73.8	32.6	178.1	18.0	67.7	0.6	-62.2	179.8
444	167	171	TC	TC	73.9	6.8	178.4	100.1	-74.2	0.4	-69.3	-121.5
445	141	163	TC	TC	74.0	12.2	177.0	71.5	44.7	4.5	-61.2	-3.2
446	121	190	TC	TC	74.0	16.4	-179.0	85.3	154.9	-2.0	-86.6	-61.1
447	125	127	TC	TC	74.0	16.0	-175.7	92.1	-146.8	-1.8	-143.0	174.2
448	170	117	TC	TC	74.0	18.0	-179.4	98.6	-95.2	1.1	-105.6	-59.4
449	139	169	CC	CC	74.1	12.4	-3.4	-126.0	82.3	-1.1	-69.8	-6.3
450	171	175	TC	TC	74.1	6.1	178.9	96.9	-91.5	2.3	-74.1	177.8
451	39	113	TC	TC	74.2	43.9	-179.7	14.2	70.9	0.7	-161.0	-66.7
452	154	186	CT	CT	74.2	10.5	-1.5	85.3	140.7	179.8	-54.1	-12.4
453	173	178	CC	CC	74.2	5.9	-0.9	86.3	119.2	0.3	-156.3	-124.7
454	86	154	CT	CT	74.3	25.9	-2.7	84.4	137.4	179.9	-62.9	130.9
455	81	135	CT	CT	74.3	27.4	-4.1	64.5	14.0	-179.9	16.0	-53.8
456	141	166	TC	TC	74.4	12.6	179.2	78.0	47.6	4.4	-109.7	67.1
457	156	168	TC	TC	74.4	10.3	177.7	-116.6	-35.4	-5.7	-69.8	38.6
458	108	47	CT	CT	74.5	42.2	2.9	127.3	132.2	-179.8	-172.6	-69.3
459	165	182	CC	CC	74.5	8.2	-2.5	-66.6	-36.4	-3.8	-57.2	-125.5
460	170	175	TC	TC	74.6	6.9	179.0	96.7	-98.5	2.6	-68.1	-121.3
461	182	128	CC	CC	74.6	16.1	-3.3	-63.2	-43.0	-3.7	-16.6	-176.8
462	192	189	CC	CC	74.8	0.1	0.3	-145.3	-56.6	-5.3	-167.6	178.4
463	101	155	CC	CC	74.9	23.3	-1.3	-83.3	138.1	0.0	-7.4	-55.4
464	150	127	TC	TC	75.1	16.8	179.2	146.5	-67.3	-3.1	176.6	174.4
465	86	98	CT	CT	75.3	26.9	8.7	5.6	77.6	-179.4	-64.8	178.3
466	55	163	TC	TC	75.3	37.8	177.5	19.2	66.6	0.5	-64.2	-67.6
467	108	186	CT	CT	75.4	22.2	-4.0	81.7	147.1	179.9	-92.9	-62.8
468	157	165	CC	CC	75.5	11.3	-4.3	-64.3	-42.7	-3.9	-111.0	-60.0
469	41	99	CT	CT	75.6	44.4	3.0	128.8	146.7	-179.4	-168.5	-179.5
470	75	77	CT	CT	75.7	31.6	8.5	2.4	82.6	-179.5	-60.4	74.6
471	176	177	CC	CC	75.7	7.0	-1.2	-113.6	-42.5	-2.4	-168.2	54.5
472	178	184	CC	CC	75.7	5.9	-1.0	86.4	122.0	-0.1	-153.4	120.5
473	52	135	CT	CT	75.9	38.6	-5.3	87.0	-11.7	179.6	141.9	-46.6
474	192	189	CC	CC	76.1	1.4	0.2	-146.5	-56.4	-5.0	-162.8	179.0
475	106	124	CC	CC	76.2	23.2	-1.1	-77.7	134.5	-0.1	-14.1	72.7
476	127	175	TC	TC	76.2	17.8	-178.9	98.5	-95.6	1.7	-107.7	179.1
477	139	174	CC	CC	76.2	14.6	-2.2	-109.0	3.2	1.2	-64.3	56.7

478	42	52	CT	CT	76.3	45.1	4.2	129.8	75.4	-178.8	-174.2	-67.1
479	44	133	CT	CT	76.3	44.9	12.3	125.5	-22.0	179.6	74.7	172.7
480	31	56	TT	TT	76.3	48.8	-177.5	98.1	80.9	-179.1	84.9	-53.6
481	44	72	CT	CT	76.4	44.9	2.1	-136.3	-15.9	-179.9	135.8	177.5
482	130	183	TC	TC	76.4	17.5	179.0	-144.1	-49.4	-6.0	-98.9	-50.2
483	180	185	CC	CC	76.4	6.6	-1.9	79.4	70.4	1.2	-151.8	120.1
484	134	152	TC	TC	76.5	16.0	176.9	96.3	-9.7	-4.2	-140.5	-175.4
485	191	196	CT	CT	76.5	2.9	-6.7	92.9	-154.4	-178.9	98.7	-62.8
486	75	95	CT	CT	76.6	32.5	-2.9	61.6	19.5	-179.9	16.4	63.8
487	150	89	TC	TC	76.7	28.1	175.3	-151.7	-49.2	-7.0	126.2	174.9
488	123	166	TC	TC	76.8	18.9	177.2	94.4	-4.2	-2.6	-141.5	59.4
489	91	97	CT	CT	76.8	27.7	6.4	130.7	-37.8	179.6	-175.3	51.1
490	48	103	CT	CT	76.8	43.9	4.9	131.3	-165.0	-179.6	-164.5	65.0
491	53	141	TC	TC	76.9	39.5	179.9	13.3	70.6	0.4	-58.0	77.3
492	25	90	TC	TC	77.0	52.1	177.4	-143.4	-112.4	4.6	44.1	55.2
493	144	149	TC	TC	77.0	14.6	-176.4	88.0	-150.5	-0.7	-51.9	67.1
494	182	174	CC	CC	77.1	6.3	-2.9	-68.2	-36.2	-3.7	-60.2	121.9
495	172	168	TC	TC	77.1	9.1	179.4	-64.0	-40.0	-5.1	-115.7	54.2
496	143	156	TC	TC	77.1	15.0	179.4	139.8	-49.7	-3.8	-85.7	70.4
497	54	135	CT	CT	77.1	39.6	13.5	124.6	-20.4	179.7	75.5	-60.6
498	121	117	TC	TC	77.4	19.8	-176.3	89.1	-152.3	-1.8	-139.4	-58.6
499	157	188	CC	CC	77.5	13.2	-4.1	-70.6	-40.7	-1.8	-160.2	-129.4
500	176	174	CC	CC	77.5	8.8	-4.3	-66.4	-44.8	-3.1	-115.7	59.4
501	136	88	CC	CC	77.5	29.0	-2.1	-148.8	153.9	0.9	121.0	-174.6
502	150	34	TC	TC	77.6	48.9	172.9	-150.5	-129.6	3.9	-155.5	167.4
503	143	156	TC	TC	77.6	15.5	179.6	139.0	-62.4	-3.8	-85.3	70.3
504	149	190	TC	TC	77.7	14.6	-177.7	88.8	151.5	-2.1	-66.2	-10.0
505	162	189	CC	CC	77.8	12.3	-0.2	-147.2	-45.8	-4.0	-157.9	-127.9
506	176	188	CC	CC	77.8	9.1	-4.2	-70.4	-41.9	-1.3	-162.7	125.0
507	104	139	CC	CC	77.9	25.9	-4.2	-138.9	85.8	-1.5	-9.6	56.7
508	94	105	CC	CC	77.9	27.6	-2.4	-149.1	151.1	-1.1	125.8	52.1
509	146	185	CC	CC	77.9	15.1	-1.9	78.1	62.3	1.2	-153.9	6.1
510	120	174	CC	CC	78.2	21.4	-3.4	-59.8	-43.4	-3.5	-19.2	74.2
511	108	191	CT	CT	78.2	25.0	-4.6	85.7	146.0	179.8	135.3	-58.6
512	177	189	CC	CC	78.3	8.8	0.0	-146.1	-47.0	-3.4	-161.8	124.5
513	86	133	CT	CT	78.6	30.2	-3.4	63.8	14.8	-179.9	16.9	-179.4
514	196	135	CT	CT	78.6	17.6	-4.1	97.0	-85.9	178.5	94.0	-72.5
515	145	195	TC	TC	78.7	15.9	179.9	-68.1	-38.0	-3.7	-158.4	-131.7
516	85	132	TC	TC	78.9	30.9	175.3	-151.5	-47.4	-5.6	123.3	-58.8
517	161	158	CC	CC	78.9	14.1	-1.1	-77.9	134.1	-0.2	-7.2	177.7

518	150	195	TC	TC	79.0	15.9	177.2	-107.4	-40.3	-3.3	-166.5	176.7
519	165	169	CC	CC	79.0	12.6	-2.5	-110.7	7.1	2.2	-65.2	-62.3
520	186	81	CT	CT	79.0	32.0	-2.9	82.5	-147.5	180.0	-52.3	-53.8
521	181	192	CC	CC	79.0	8.9	0.5	-144.7	-61.8	-5.7	-171.4	124.8
522	179	193	CC	CC	79.0	9.2	-2.0	73.0	54.1	2.3	-60.1	128.1
523	162	165	CC	CC	79.1	13.6	1.0	-131.9	-43.1	-5.3	-89.5	-61.4
524	197	184	CC	CC	79.1	8.1	-4.6	81.9	150.3	-0.4	-94.7	65.3
525	179	197	CC	CC	79.1	9.3	-0.8	84.1	112.7	-0.3	-58.1	58.6
526	191	198	CT	CT	79.3	5.7	-5.1	89.4	142.9	179.5	102.4	10.3
527	172	195	TC	TC	79.3	11.3	178.9	-70.7	-38.9	-3.3	-162.8	127.0
528	91	71	CT	CT	79.4	38.0	8.3	8.6	86.1	-179.6	-155.3	64.4
529	32	132	TC	TC	79.5	51.8	173.5	-150.3	-133.9	5.4	-151.8	-51.3
530	33	196	CT	CT	79.6	51.4	-9.0	57.5	-121.3	-179.9	65.9	-63.5
531	42	81	CT	CT	80.0	48.7	6.1	132.9	-19.4	179.2	-93.5	-60.9
532	179	194	CC	CC	80.1	10.3	-0.7	75.9	52.5	2.6	-52.8	-8.0
533	133	92	CT	CT	80.1	30.7	-6.0	87.7	-20.3	179.7	149.5	175.8
534	188	189	CC	CC	80.1	6.7	-1.4	-113.6	-42.3	-2.2	-163.7	178.6
535	174	177	CC	CC	80.3	11.8	1.2	-138.2	-48.6	-5.0	-100.9	64.9
536	94	177	CC	CC	80.6	30.4	-1.4	-143.4	-4.8	0.0	-147.5	57.4
537	179	185	CC	CC	80.7	10.8	-2.5	76.3	58.0	1.9	-107.4	65.8
538	133	200	CT	CT	80.8	20.5	-6.9	91.0	-164.6	-178.9	101.7	-175.4
539	193	194	CC	CC	80.8	5.9	-1.5	73.4	51.9	2.6	-60.3	-119.7
540	173	184	CC	CC	80.8	12.5	-0.8	86.3	115.8	-1.2	-156.7	3.4
541	28	151	TC	TC	80.9	54.7	176.9	52.1	44.0	5.0	62.1	-3.5
542	163	190	TC	TC	81.1	15.3	179.9	83.8	109.8	-0.3	-66.7	-62.5
543	146	194	CC	CC	81.1	18.3	-2.4	74.8	52.7	2.4	-100.3	-66.4
544	164	182	CC	CC	81.1	15.0	-2.6	-108.2	4.5	1.4	-65.3	-178.5
545	182	188	CC	CC	81.2	10.5	-4.4	-65.6	-44.0	-3.3	-115.0	-178.0
546	151	201	TC	TC	81.3	18.0	-177.8	110.2	-44.5	-6.2	95.7	-142.8
547	159	195	TC	TC	81.3	17.1	-179.2	-57.6	-41.0	-4.8	-118.2	-175.3
548	108	191	CT	CT	81.5	28.3	-9.3	80.7	145.5	179.7	132.3	-57.0
549	146	194	CC	CC	81.5	18.7	-4.7	62.9	56.9	1.7	-100.2	-66.8
550	133	196	CT	CT	81.6	21.3	-8.4	92.9	-115.7	179.3	92.4	-124.3
551	180	193	CC	CC	81.7	11.8	-2.5	75.3	56.9	2.0	-103.9	-178.8
552	180	193	CC	CC	81.8	11.9	-4.8	64.0	61.6	1.3	-104.3	-179.3
553	95	198	CT	CT	81.9	31.5	-5.7	88.0	95.7	-179.5	95.9	29.3
554	121	148	TC	TC	81.9	24.3	-176.8	89.6	142.8	0.1	141.3	-64.3
555	92	114	CT	CT	82.0	32.6	5.9	131.4	-37.3	179.5	-173.0	179.6
556	136	88	CC	CC	82.1	33.6	-4.4	-141.4	148.3	-0.3	-10.8	175.9
557	88	189	CC	CC	82.1	33.6	-1.2	-144.8	-9.1	-1.9	-142.5	-176.4

558	122	169	CC	CC	82.1	24.4	-2.9	-134.6	63.9	1.7	-13.2	-53.8
559	182	189	CC	CC	82.6	11.9	1.3	-135.4	-45.0	-5.2	-93.6	-178.4
560	35	7	TT	TT	82.7	71.0	-175.8	92.5	152.1	179.4	138.4	51.1
561	75	97	CT	CT	83.1	39.0	5.4	134.7	-20.5	179.2	-94.3	58.0
562	191	200	CT	CT	83.1	9.5	-6.7	87.6	167.9	-180.0	106.3	-128.4
563	151	117	TC	TC	83.2	27.2	-179.8	103.7	-64.8	-2.1	135.2	-66.4
564	118	199	TC	TC	83.4	27.4	-179.5	105.0	-60.0	-5.4	129.9	57.4
565	156	90	TC	TC	83.6	34.8	177.9	-134.8	-47.8	-5.8	-19.4	45.5
566	152	49	TC	TC	83.6	50.1	-179.4	16.2	72.9	0.3	-152.9	-171.8
567	181	140	CC	CC	83.6	21.9	-1.8	-146.1	-44.7	-8.0	125.1	57.6
568	151	199	TC	TC	83.7	20.4	179.4	107.4	-45.4	-4.4	95.8	5.8
569	25	202	TC	TC	83.7	58.8	-169.2	113.2	164.2	-0.5	89.5	45.4
570	100	101	CC	CC	83.9	32.4	-2.6	-88.3	146.3	2.2	118.6	-53.3
571	32	190	TC	TC	83.9	56.2	-174.5	123.9	151.5	-1.9	-85.9	-56.2
572	86	114	CT	CT	84.0	35.6	6.2	133.6	-18.5	179.2	-92.6	-173.3
573	148	202	TC	TC	84.0	21.0	-171.6	104.9	162.8	0.3	95.2	23.0
574	164	138	CC	CC	84.1	22.7	-4.0	-137.2	61.3	2.0	-9.0	176.6
575	178	205	CC	CC	84.5	14.7	-4.2	82.3	145.4	-1.0	-80.4	176.8
576	99	200	CT	CT	84.5	33.1	-5.4	85.4	154.1	-179.9	135.0	-176.7
577	150	159	TC	TC	84.6	21.5	179.4	-139.6	-46.3	-6.0	-89.2	-178.3
578	100	146	CC	CC	84.6	33.1	9.2	3.6	82.8	-0.7	-163.0	-67.6
579	195	34	TC	TC	84.7	56.0	-178.8	-100.6	0.4	1.2	-148.9	-177.5
580	83	172	TC	TC	84.7	37.5	177.3	-57.1	-40.9	-7.5	130.8	53.4
581	140	174	CC	CC	85.2	23.4	-2.8	-139.6	-48.7	-5.5	-12.6	46.0
582	201	89	TC	TC	85.2	36.6	-174.8	130.7	-33.8	-6.9	77.5	-171.9
583	131	165	CC	CC	85.2	25.5	-2.1	-129.6	-45.7	-4.9	-22.5	-56.5
584	199	90	TC	TC	85.5	36.7	-175.6	132.1	-32.6	-6.8	77.3	61.6
585	1	17	TT	CT	85.5	85.5	-105.5	-85.8	25.8	-179.2	56.1	68.2
586	106	203	CC	CC	85.7	32.7	12.4	6.5	76.5	-0.3	57.3	58.0
587	37	156	TC	TC	85.8	55.8	174.9	-142.2	-132.3	3.9	-77.6	33.3
588	170	190	TC	TC	85.8	18.1	-179.5	82.3	-155.4	-1.3	-53.8	-57.1
589	193	205	CC	CC	85.9	11.0	-0.3	84.5	115.4	-0.3	-59.6	178.3
590	204	194	CC	CC	86.0	10.9	0.2	84.7	114.7	-0.4	-56.0	-57.0
591	73	103	CT	CT	86.1	43.4	8.8	11.3	-109.7	179.1	-164.1	59.9
592	45	166	TC	TC	86.2	54.2	-179.9	17.3	72.1	0.1	-153.5	60.9
593	199	201	TC	TC	86.3	8.0	-178.6	109.3	-44.6	-6.8	97.5	123.2
594	28	199	TC	TC	86.4	60.2	173.4	85.1	17.5	3.1	91.7	53.3
595	103	198	CT	CT	86.6	34.9	-4.6	85.5	142.7	179.4	139.2	55.6
596	101	131	CC	CC	86.7	35.1	0.7	-140.0	-124.0	3.8	46.4	-55.4
597	200	198	CT	CT	86.7	7.0	-6.2	88.3	160.3	179.7	105.5	119.6

598	197	204	CC	CC	86.8	10.3	-1.3	85.1	140.7	-0.8	-54.5	-12.2
599	173	204	CC	CC	87.0	18.7	-4.1	81.4	149.3	-0.5	-92.7	-60.2
600	203	206	CC	CC	87.1	3.2	-2.5	49.3	50.8	3.2	65.8	61.0
601	201	127	TC	TC	87.1	28.8	-178.9	104.9	-62.9	-3.7	130.9	-177.8
602	197	205	CC	CC	87.2	10.7	-3.2	83.8	141.8	-1.0	-65.2	131.1
603	203	206	CC	CC	87.6	3.7	-1.2	46.6	52.9	2.6	67.8	59.3
604	120	176	CC	CC	87.8	31.1	-6.7	-58.0	-42.8	-6.0	126.8	56.2
605	99	200	CT	CT	87.8	36.4	-10.2	80.5	155.5	-179.9	133.3	-176.6
606	158	193	CC	CC	88.9	24.6	8.1	5.8	80.2	-0.8	-65.0	178.2
607	84	173	CC	CC	88.9	41.5	2.4	126.8	121.4	0.1	-173.4	-68.0
608	46	160	CT	CT	88.9	56.7	7.1	15.7	-103.6	179.5	-162.7	-54.7
609	148	151	TC	TC	89.0	26.0	-178.3	103.9	-134.1	3.3	73.8	-44.5
610	124	179	CC	CC	89.1	31.3	8.4	0.9	84.0	-1.1	-60.2	74.6
611	96	146	CC	CC	89.4	38.8	3.8	129.0	80.6	2.4	-174.4	-67.7
612	154	48	CT	CT	89.6	56.7	2.9	128.2	147.1	180.0	-91.1	60.8
613	130	167	TC	TC	89.8	30.9	178.3	141.5	-51.7	-4.0	-96.8	-57.9
614	192	147	CC	CC	90.0	27.1	-1.5	-145.9	-47.9	-6.6	126.2	177.0
615	131	162	CC	CC	90.0	30.3	-1.8	-146.4	-45.9	-5.2	123.4	-58.3
616	99	80	CT	CT	90.0	44.2	8.9	10.4	-110.3	179.2	-163.6	174.2
617	54	196	CT	CT	90.1	52.6	14.3	127.2	-140.1	-179.1	76.3	-57.1
618	155	194	CC	CC	90.1	26.2	8.6	6.2	79.3	-0.8	-65.6	-65.2
619	28	141	TC	TC	90.2	63.9	179.6	55.1	48.9	4.3	9.0	56.5
620	148	151	TC	TC	90.5	27.4	-177.0	98.3	83.5	0.5	84.7	-54.2
621	180	107	CC	CC	90.6	37.6	8.3	7.1	85.0	-1.1	-155.9	-175.3
622	181	94	CC	CC	90.7	40.4	-0.3	-143.0	-131.2	2.2	-149.6	60.5
623	150	171	TC	TC	90.9	27.8	177.6	143.9	-51.7	-3.8	-97.3	171.8
624	204	205	CC	CC	91.0	6.8	-1.9	84.5	139.9	-0.9	-60.8	-119.0
625	173	207	CC	CC	91.1	22.7	-4.3	85.4	140.9	1.4	138.3	-58.6
626	3	21	TT	CT	91.3	81.5	-106.4	-81.9	17.5	-178.8	51.2	175.6
627	88	178	CC	CC	91.6	43.1	1.9	127.5	123.3	0.2	-171.2	-177.7
628	207	208	CC	CC	91.8	5.9	-5.1	88.9	147.2	1.2	104.1	10.3
629	129	170	TC	TC	92.4	33.6	-176.8	30.3	-91.5	2.8	-71.6	-62.9
630	8	42	TT	CT	92.5	80.4	-109.3	-98.4	44.3	-179.8	-163.3	-62.8
631	111	185	CC	CC	92.6	38.2	8.7	7.2	84.5	-1.5	-155.6	63.7
632	148	125	TC	TC	92.8	34.8	-175.3	92.6	146.8	-0.8	135.6	-168.1
633	116	145	TC	TC	92.9	36.9	178.0	-51.3	-43.7	-4.0	127.4	-48.2
634	94	184	CC	CC	93.2	42.9	1.6	128.0	123.7	-0.3	-170.5	66.4
635	41	86	CT	CT	93.2	62.0	3.3	126.3	137.9	179.9	-89.6	-179.4
636	106	209	CC	CC	93.5	40.4	12.3	3.0	77.8	-0.1	53.2	-49.0
637	67	198	CT	CT	93.5	53.5	8.8	123.3	158.4	179.9	79.2	42.6

638	143	151	TC	TC	93.5	31.3	177.7	84.8	-91.2	3.6	28.0	25.3
639	32	163	TC	TC	93.5	65.7	-177.0	128.5	83.4	1.8	-87.4	-61.0
640	192	88	CC	CC	93.6	45.1	0.1	-142.7	-130.4	2.3	-150.1	173.6
641	41	86	CT	CT	93.6	62.4	4.0	130.7	73.2	-178.6	-90.2	-176.5
642	187	51	CT	CT	93.7	57.8	6.0	16.6	-100.7	179.5	-61.5	67.3
643	42	81	CT	CT	93.8	62.5	4.4	131.7	65.6	-178.4	-89.9	-62.1
644	145	117	TC	TC	93.8	37.8	-173.4	24.9	-90.1	3.5	-168.6	-57.3
645	15	38	TT	CT	93.9	76.2	-110.4	-89.4	25.4	-178.8	48.5	-67.9
646	84	162	CC	CC	94.1	46.8	-0.6	-144.0	-134.4	3.7	-146.2	-55.4
647	157	142	CC	CC	94.2	30.0	-6.9	-56.6	-44.1	-2.9	124.3	-53.8
648	210	211	CC	CC	94.5	2.8	9.6	109.8	-92.8	1.7	-165.8	57.3
649	50	81	CT	CT	94.6	59.7	5.0	22.2	-100.7	179.5	-65.7	-60.9
650	186	47	CT	CT	94.7	62.4	2.6	127.2	135.8	179.8	-89.1	-59.0
651	159	175	TC	TC	94.7	30.5	-176.0	28.9	-91.2	3.0	-69.8	-179.1
652	195	93	TC	TC	94.9	45.4	176.8	-55.2	-44.5	-6.0	132.0	173.5
653	144	168	TC	TC	95.0	32.5	-173.7	24.4	-89.4	2.9	-68.4	69.4
654	188	128	CC	CC	95.1	36.5	-7.1	-56.3	-45.7	-4.5	127.9	175.4
655	118	172	TC	TC	95.3	39.3	-173.4	25.1	-90.0	2.0	-169.7	54.2
656	146	211	CC	CC	95.5	32.7	7.5	110.7	-62.8	-3.3	-163.0	6.1
657	202	137	TC	TC	95.7	34.4	-176.2	91.7	144.3	-3.1	140.5	45.0
658	136	147	CC	CC	95.8	34.7	1.1	-137.9	-124.9	3.8	48.7	-171.3
659	207	212	CC	CC	95.9	10.0	-6.0	87.9	156.2	1.4	107.9	-128.7
660	211	185	CC	CC	96.1	24.9	3.6	107.5	-35.5	-3.2	-154.1	52.6
661	4	17	TT	CT	96.1	85.1	109.7	-136.2	8.8	-180.0	57.8	68.6
662	13	51	TT	CT	96.2	79.0	-109.8	-96.4	41.4	-179.7	-62.1	57.6
663	146	213	CC	CC	96.2	33.4	9.5	109.4	-95.3	2.9	-164.3	-56.8
664	6	26	TT	TC	96.4	85.1	176.9	-154.1	170.0	108.1	58.7	-60.3
665	12	52	TT	CT	96.5	79.6	106.9	89.2	-27.8	179.2	-158.4	-49.2
666	203	209	CC	CC	96.5	12.6	5.9	27.7	64.4	1.4	51.8	-1.1
667	105	140	CC	CC	96.6	44.2	-1.3	-140.8	-121.3	2.8	44.1	49.0
668	203	214	CC	CC	97.0	13.1	2.8	33.2	58.0	2.4	53.6	134.8
669	191	135	CT	CT	97.1	36.2	-9.4	55.3	125.1	179.5	67.7	-57.0
670	8	47	TT	CT	97.2	85.1	-108.2	-103.4	138.2	-179.3	-171.3	-68.8
671	146	162	CC	CC	97.2	34.3	5.7	133.5	-45.8	-3.9	-170.7	-46.5
672	206	208	CC	CC	97.3	11.9	-5.1	88.4	98.1	-1.1	96.3	27.0
673	209	217	CC	CC	97.5	7.5	-11.2	86.7	14.3	4.7	91.8	-60.5
674	6	26	TT	TC	97.5	86.2	177.0	-154.1	169.5	-107.8	58.1	-60.4
675	33	81	CT	CT	97.8	69.5	-4.5	66.1	-92.5	179.6	5.3	-51.2
676	212	178	CC	CC	98.0	28.2	-4.7	85.3	143.7	0.4	137.8	-176.9
677	210	184	CC	CC	98.0	27.0	-4.0	87.4	-144.4	-1.6	-141.0	61.6

678	11	21	TT	CT	98.1	82.0	109.9	-137.7	2.1	-179.8	53.3	179.7
679	9	50	TT	CT	98.1	85.3	-107.4	-94.7	36.4	-179.6	-63.0	-61.8
680	2	48	TT	CT	98.3	91.2	-106.9	-135.4	170.7	-179.3	-159.1	67.0
681	206	216	CC	CC	98.5	13.1	-3.6	101.9	-11.6	-2.7	100.2	129.9
682	2	48	TT	CT	98.7	91.6	-107.8	-109.9	151.2	-179.5	-163.5	67.3
683	184	208	CC	CC	98.8	27.8	-4.5	85.0	140.5	-1.6	142.5	52.6
684	212	208	CC	CC	99.1	6.6	-5.8	88.3	154.4	0.4	106.9	120.5
685	161	214	CC	CC	99.1	34.3	13.2	2.9	76.4	0.3	52.0	174.9
686	179	219	CC	CC	99.2	29.4	6.5	109.5	-55.5	-5.3	-63.3	54.2
687	25	7	TC	TT	99.3	87.6	179.7	-150.6	154.1	106.2	57.6	48.7
688	210	213	CC	CC	99.3	7.6	-1.1	99.5	-115.7	0.2	-155.8	-3.9
689	210	215	CC	CC	99.3	7.6	-2.5	97.4	-118.0	0.2	-154.4	124.1
690	195	127	TC	TC	99.4	41.1	-172.6	23.2	-89.7	2.7	-168.4	177.5
691	218	215	CC	CC	99.4	1.9	9.7	109.7	-91.7	2.5	-165.3	175.5
692	85	16	TC	TT	99.4	81.7	178.0	-151.4	-5.6	-109.9	54.0	-66.0
693	2	29	TT	TC	99.5	92.3	177.9	-153.7	147.0	-104.7	-167.6	64.2
694	83	151	TC	TC	99.7	52.5	-175.2	32.7	-95.0	3.7	33.2	39.0
695	10	59	TT	CT	99.8	83.7	-108.3	-96.1	39.9	-179.7	-63.7	-178.7
696	179	203	CC	CC	99.8	30.0	2.4	48.8	60.1	1.4	8.5	61.8
697	186	191	CT	CT	100.0	28.5	-4.4	64.8	164.3	-179.9	15.7	-48.4
698	211	177	CC	CC	100.0	30.5	7.0	133.6	-51.2	-1.5	-175.7	51.8
699	209	214	CC	CC	100.0	10.1	1.7	34.8	57.0	2.6	53.2	-125.6
700	33	16	CT	TT	100.4	82.6	111.2	-145.3	4.2	-179.7	47.3	-80.2
701	209	194	CC	CC	100.4	25.3	1.0	52.7	55.9	2.1	7.2	-49.2
702	25	7	TC	TT	100.4	88.6	179.8	-150.2	152.5	-109.2	56.1	48.8
703	4	90	TT	TC	100.5	89.5	179.9	-148.1	2.8	-107.3	61.9	69.5
704	1	28	TT	TC	100.5	100.5	176.2	-80.3	130.4	-111.2	45.8	51.7
705	2	29	TT	TC	100.5	93.4	177.8	-153.6	147.3	106.0	-161.1	63.8
706	66	16	TC	TT	100.7	82.9	177.7	-151.6	-7.9	108.7	54.7	-66.1
707	1	28	TT	TC	100.8	100.8	176.4	-79.5	131.0	103.5	46.1	51.6
708	1	83	TT	TC	100.9	100.9	178.7	-81.5	4.8	-102.5	53.1	70.0
709	180	218	CC	CC	101.0	31.1	4.7	108.4	-39.8	-3.6	-152.3	179.8
710	11	89	TT	TC	101.0	84.9	179.9	-149.0	-3.8	-109.1	57.2	-179.3
711	31	54	TT	CT	101.0	73.5	106.2	92.4	-30.8	179.6	79.4	-49.2
712	206	140	CC	CC	101.2	39.5	13.3	128.7	-31.7	-6.9	78.5	61.3
713	60	95	TT	CT	101.2	62.5	109.4	85.0	-25.3	179.2	77.2	58.2
714	206	217	CC	CC	101.3	15.9	-4.8	99.4	-5.6	-0.7	101.1	-10.9
715	197	94	CC	CC	101.4	51.1	2.9	127.5	146.6	-0.5	-91.1	60.5
716	211	218	CC	CC	101.5	9.3	8.1	109.9	-70.6	0.2	-162.1	125.6
717	1	40	TT	TC	101.5	101.5	178.6	-85.5	5.5	109.1	53.3	71.5

718	178	215	CC	CC	101.6	31.8	-4.2	87.3	-143.9	-1.6	-141.9	172.3
719	116	151	TC	TC	101.8	45.8	-174.9	37.0	-98.1	4.0	39.0	-42.2
720	24	81	TT	CT	102.0	77.2	106.2	87.1	-25.2	179.0	-66.3	-61.1
721	210	211	CC	CC	102.0	10.2	2.4	104.4	-90.9	1.4	-153.5	58.0
722	4	40	TT	TC	102.3	91.3	179.8	-147.3	2.9	110.8	62.0	70.4
723	154	198	CT	CT	102.3	38.6	-4.1	64.9	156.7	-179.9	21.3	56.1
724	11	68	TT	TC	102.3	86.2	179.6	-149.0	-6.1	108.6	57.8	-179.2
725	126	174	CC	CC	102.3	44.0	3.3	-122.6	-127.2	1.3	-63.1	58.7
726	14	43	TT	TC	102.5	84.9	178.4	-152.3	170.0	107.9	60.3	-174.4
727	146	218	CC	CC	102.5	39.7	7.9	110.0	-68.1	-0.3	-160.2	-126.9
728	6	62	TT	CT	102.6	91.2	-105.8	-139.0	171.0	179.9	58.1	-50.0
729	20	75	TT	CT	102.7	79.5	106.3	86.2	-24.6	179.0	-66.4	56.1
730	216	217	CC	CC	102.7	6.6	-2.6	103.4	-15.7	-3.1	99.7	-122.7
731	219	220	CC	CC	102.7	3.6	6.9	107.3	-98.4	3.4	-62.2	54.0
732	197	220	CC	CC	102.8	26.3	-4.8	84.6	-143.8	-0.3	-52.1	54.3
733	3	93	TT	TC	102.9	93.1	178.0	-81.9	-0.7	-103.9	48.1	177.3
734	3	68	TT	TC	103.0	93.1	177.8	-86.3	-1.7	107.6	49.3	177.4
735	213	215	CC	CC	103.1	8.6	-1.7	98.6	-116.8	0.7	-154.5	-122.2
736	148	149	TC	TC	103.1	40.1	-179.4	69.9	154.4	-2.5	29.6	28.8
737	14	43	TT	TC	103.4	85.8	178.4	-152.4	170.4	-108.4	60.0	-174.9
738	10	59	TT	CT	103.4	87.4	-74.9	-79.9	10.0	-179.8	-55.2	-176.6
739	173	213	CC	CC	103.6	35.2	-3.9	86.0	-148.1	-0.7	-138.7	-54.8
740	2	74	TT	CT	103.8	96.7	-107.9	-100.8	50.0	-180.0	-157.6	59.7
741	13	79	TT	CT	103.9	86.7	-108.5	-101.0	135.1	-179.4	-68.9	59.4
742	18	91	TT	CT	104.0	81.6	106.1	92.4	-39.1	179.7	-163.8	53.0
743	1	67	TT	CT	104.2	104.2	-105.7	-101.1	137.0	-179.5	47.9	48.4
744	1	28	TT	TC	104.2	104.2	177.6	-70.8	98.6	69.0	44.3	57.9
745	7	67	TT	CT	104.2	92.5	-104.6	-137.5	153.2	180.0	53.8	46.1
746	214	193	CC	CC	104.5	29.5	2.0	50.3	56.3	2.0	9.6	179.0
747	194	221	CC	CC	104.6	29.5	7.7	107.8	-100.8	2.8	-61.2	-56.0
748	219	194	CC	CC	104.7	29.6	7.5	109.4	-63.2	-3.4	-62.1	-2.5
749	206	209	CC	CC	104.7	19.3	-6.5	86.1	73.1	0.1	98.3	-40.5
750	33	187	CT	CT	104.8	76.6	-2.7	58.8	-102.0	179.5	9.8	49.0
751	86	27	CT	TT	104.9	79.4	105.3	86.8	-23.5	178.9	-66.0	-176.7
752	150	34	TC	TC	105.1	76.4	178.8	-130.0	-124.3	3.5	-66.3	-178.6
753	216	147	CC	CC	105.1	42.2	13.3	128.9	-32.9	-6.9	77.2	173.6
754	88	205	CC	CC	105.4	56.9	3.8	125.6	144.4	-0.5	-89.5	-179.7
755	28	163	TC	TC	105.5	79.2	177.9	48.3	49.0	4.2	9.6	-52.9
756	131	217	CC	CC	105.5	45.8	14.6	127.3	-33.1	-6.3	78.2	-61.5
757	179	94	CC	CC	105.6	55.3	2.2	131.5	82.1	1.6	-91.8	61.2

758	218	189	CC	CC	105.6	32.0	6.7	134.0	-51.3	-0.8	-173.7	178.1
759	2	48	TT	CT	105.8	98.7	70.1	-141.6	179.0	-179.5	-158.5	70.7
760	5	32	TT	TC	105.8	94.7	178.2	-152.3	139.8	-107.1	-174.6	-69.4
761	101	207	CC	CC	106.1	54.5	9.5	123.5	156.4	0.5	85.1	-48.3
762	5	32	TT	TC	106.3	95.2	178.7	-151.2	131.0	106.2	-174.0	-67.2
763	2	45	TT	TC	106.3	99.2	175.0	-90.9	132.9	-107.8	-168.3	60.6
764	104	206	CC	CC	106.4	54.4	11.8	127.1	46.7	6.2	73.5	55.1
765	84	204	CC	CC	106.5	59.2	3.1	126.7	145.1	-0.6	-88.9	-56.8
766	192	218	CC	CC	106.5	31.8	6.6	134.0	-65.9	-2.3	-176.6	176.9
767	151	167	TC	TC	106.7	43.4	178.3	83.4	-87.9	3.4	7.4	-47.9
768	54	16	CT	TT	106.7	88.9	-111.8	-151.7	-30.4	178.8	53.2	-59.6
769	105	208	CC	CC	106.8	54.4	7.7	122.6	140.5	-1.0	77.4	33.5
770	220	221	CC	CC	106.8	7.5	-0.8	98.4	-118.4	1.1	-53.9	-8.1
771	88	193	CC	CC	107.0	58.6	3.4	129.7	78.5	2.2	-90.1	-176.7
772	2	71	TT	CT	107.1	100.0	63.1	-112.3	167.5	-179.5	-160.5	70.3
773	96	194	CC	CC	107.2	56.6	3.3	130.2	76.2	2.3	-89.9	-61.2
774	4	30	TT	CT	107.3	96.3	-111.0	-155.2	-24.7	178.7	57.7	66.2
775	5	32	TT	TC	107.3	96.2	177.6	-154.1	154.3	102.1	-160.5	-51.4
776	2	45	TT	TC	107.6	100.5	175.3	-93.3	129.0	105.0	-165.9	60.5
777	162	194	CC	CC	107.6	42.1	6.7	131.5	-48.2	-4.1	-91.1	-58.4
778	1	95	TT	CT	107.7	107.7	98.5	-21.3	56.4	179.9	60.2	60.6
779	44	78	CT	TT	107.7	76.3	110.8	86.0	-29.1	179.6	76.7	175.8
780	23	92	TT	CT	107.9	83.3	105.5	92.2	-37.5	179.5	-159.7	-178.1
781	151	93	TC	TC	108.3	58.7	-179.9	45.4	-100.0	3.9	36.6	-177.4
782	204	221	CC	CC	108.5	24.3	-2.9	86.2	-145.2	-0.6	-49.3	-53.3
783	15	66	TT	TC	108.5	90.8	176.8	-89.4	-4.2	108.8	46.6	-79.5
784	15	116	TT	TC	108.6	90.9	176.9	-88.0	-2.6	-105.0	44.8	-79.4
785	8	39	TT	TC	108.6	96.6	176.9	-84.5	119.2	102.8	-172.4	-67.9
786	8	39	TT	TC	108.7	96.6	176.2	-87.7	124.4	-108.2	-172.8	-69.7
787	5	47	TT	CT	108.8	97.7	97.9	-161.1	144.0	-179.8	-172.1	-70.4
788	11	44	TT	CT	108.8	92.7	-110.5	-154.1	-30.5	178.8	54.7	178.8
789	61	5	CT	TT	109.0	97.9	64.7	-102.6	147.8	-179.5	-171.5	-71.4
790	222	193	CC	CC	109.1	34.1	7.7	107.7	-100.7	3.0	-62.1	-177.3
791	9	50	TT	CT	109.3	96.6	109.4	-90.7	-8.6	179.6	-53.4	-58.0
792	146	206	CC	CC	109.5	46.7	-6.5	99.5	-19.6	-0.5	160.7	31.2
793	35	48	TT	CT	109.5	80.3	105.3	102.5	-158.7	179.7	-159.6	65.0
794	219	177	CC	CC	109.7	40.3	6.0	133.1	-49.5	-3.6	-93.0	57.0
795	8	39	TT	TC	109.8	97.7	177.9	-76.9	108.2	71.3	-172.1	-68.9
796	41	10	CT	TT	110.0	94.0	-108.2	-101.8	130.2	-179.3	-74.9	177.2
797	9	47	TT	CT	110.1	97.3	-106.6	-102.1	131.4	-179.4	-71.9	-59.7

798	39	84	TC	CC	110.5	80.3	-108.5	-101.0	132.1	-2.4	-171.2	-67.1
799	211	219	CC	CC	110.6	18.5	6.7	106.8	-77.0	0.5	-102.0	60.9
800	41	36	CT	TT	110.7	79.5	104.5	106.1	-168.0	-179.9	-160.6	176.9
801	46	5	CT	TT	110.9	99.8	109.9	-143.3	21.6	-180.0	-160.8	-56.8
802	8	52	TT	CT	111.3	99.2	102.7	-28.1	68.9	179.8	-161.5	-65.0
803	220	222	CC	CC	111.3	12.0	-4.0	94.5	-119.8	0.7	-58.2	130.5
804	6	62	TT	CT	111.4	100.0	72.4	-143.5	178.6	179.8	58.7	-59.5
805	223	171	TC	TC	111.5	43.5	176.1	77.9	-91.3	3.7	14.3	179.8
806	201	223	TC	TC	111.5	31.2	174.5	81.8	-92.3	3.9	32.8	-179.2
807	201	223	TC	TC	111.5	31.2	176.1	72.3	-95.1	3.3	18.8	-179.6
808	151	201	TC	TC	111.6	48.3	174.1	77.0	-105.9	3.0	46.0	126.2
809	6	62	TT	CT	111.7	100.3	97.7	-162.0	161.5	179.6	52.6	-66.4
810	207	209	CC	CC	111.8	25.9	-4.7	47.4	125.4	0.2	62.7	-56.1
811	14	87	TT	CT	111.8	94.2	-104.7	-140.3	171.1	180.0	58.8	-177.4
812	12	52	TT	CT	111.9	95.0	-110.4	87.7	17.3	-179.7	-156.0	-58.3
813	222	221	CC	CC	112.2	4.6	-0.8	98.5	-117.6	1.0	-56.6	-123.9
814	222	205	CC	CC	112.2	28.0	-3.7	84.9	-145.2	-0.5	-51.9	179.3
815	189	193	CC	CC	112.3	38.7	6.7	131.7	-48.2	-3.9	-90.7	-173.9
816	206	211	CC	CC	112.4	27.0	3.9	108.4	-65.4	-5.3	147.3	56.5
817	69	7	CT	TT	112.4	100.6	103.8	-141.9	133.5	179.7	54.3	49.7
818	1	69	TT	CT	112.5	112.5	98.3	-80.0	125.5	-179.8	45.0	50.2
819	49	88	TC	CC	112.5	79.0	-109.0	-101.7	133.8	-1.8	-167.6	-179.1
820	130	5	TC	TT	112.6	101.5	177.2	-153.2	-0.7	-107.9	-163.9	-49.5
821	19	38	TT	CT	112.6	89.6	74.0	-156.4	-46.3	178.8	49.4	-64.8
822	3	63	TT	TC	112.7	102.9	174.9	-88.3	146.5	105.1	45.6	179.8
823	204	207	CC	CC	112.8	28.6	-5.3	66.1	152.0	-1.8	21.2	-50.0
824	12	115	TT	TC	112.9	96.0	179.3	84.4	6.8	-110.8	-152.5	-57.6
825	9	55	TT	TC	112.9	100.1	178.2	-81.7	128.4	-111.0	-60.0	-55.2
826	210	220	CC	CC	113.0	21.2	-10.1	91.5	-108.7	0.1	-107.2	62.0
827	45	94	TC	CC	113.1	81.0	-107.9	-102.1	134.4	-2.0	-165.6	65.2
828	9	55	TT	TC	113.2	100.4	178.7	-78.9	126.6	102.9	-60.0	-55.6
829	5	32	TT	TC	113.5	102.4	176.9	-153.1	-2.3	112.0	-163.7	-49.1
830	86	10	CT	TT	113.7	97.7	99.4	-27.3	63.8	-180.0	-60.9	-179.7
831	9	81	TT	CT	113.8	101.0	98.1	-27.8	63.1	-179.9	-62.2	-65.5
832	13	53	TT	TC	113.9	96.7	176.5	-86.3	128.1	-110.0	-69.3	50.0
833	2	103	TT	CT	114.0	106.9	-63.9	96.7	-171.1	-179.7	-155.3	68.3
834	12	113	TT	TC	114.1	97.2	179.0	82.1	10.4	103.7	-152.8	-58.6
835	136	212	CC	CC	114.1	53.0	9.2	125.2	159.2	-0.3	83.2	179.9
836	13	53	TT	TC	114.3	97.1	176.6	-86.4	129.6	103.7	-69.4	50.1
837	9	129	TT	TC	114.7	102.0	-178.3	-75.7	-4.0	-101.9	-54.0	-59.0

838	20	75	TT	CT	114.8	91.7	-111.9	87.3	13.6	-179.8	-59.0	73.4
839	213	221	CC	CC	114.8	20.4	-9.9	91.4	-107.2	-0.4	-105.3	-58.5
840	8	46	TT	CT	114.9	102.8	110.5	-92.3	-9.1	179.6	-162.1	-51.0
841	197	208	CC	CC	114.9	38.4	-4.6	65.7	148.7	-1.5	24.4	56.8
842	131	38	CC	CT	114.9	84.9	-0.6	-146.2	-7.8	-108.7	52.8	-61.2
843	9	55	TT	TC	115.3	102.5	-179.1	-83.1	1.3	109.6	-54.4	-58.0
844	13	75	TT	CT	115.5	98.3	102.7	-24.6	62.4	179.8	-56.6	73.1
845	9	55	TT	TC	115.5	102.7	-179.9	-70.8	99.0	68.5	-60.8	-58.7
846	15	135	TT	CT	115.7	98.0	101.5	-16.1	45.5	179.7	57.4	-50.9
847	56	54	TT	CT	115.8	78.3	105.3	103.4	-138.4	-179.8	78.8	-47.4
848	122	38	CC	CT	115.9	85.9	-1.0	-146.0	-11.4	107.8	53.8	-61.6
849	2	71	TT	CT	115.9	108.8	104.0	-77.0	139.9	-180.0	-161.4	66.2
850	2	77	TT	CT	116.3	109.2	64.8	-103.6	151.7	-179.9	-72.9	52.7
851	101	26	CC	TC	116.5	91.3	-105.8	-135.9	159.3	-1.9	56.9	-49.0
852	53	126	TC	CC	116.6	79.2	-109.2	-102.2	143.8	-1.0	-68.7	59.0
853	8	145	TT	TC	116.7	104.7	179.5	-80.2	-5.4	-103.0	-160.9	-50.5
854	8	32	TT	TC	116.8	104.7	179.0	-85.1	-0.7	111.2	-160.3	-51.8
855	2	79	TT	CT	116.8	109.7	74.1	-139.1	160.1	180.0	-81.0	61.0
856	2	79	TT	CT	116.8	109.7	96.2	-157.6	149.3	179.8	-89.9	66.4
857	28	105	TC	CC	116.9	90.7	-106.3	-103.2	144.9	-1.1	48.8	47.5
858	28	105	TC	CC	117.0	90.7	-104.9	-136.1	150.9	-1.8	53.1	45.9
859	13	53	TT	TC	117.3	100.1	178.3	-77.4	107.5	71.6	-70.5	52.7
860	2	51	TT	CT	117.4	110.2	110.8	-137.2	14.1	179.9	-84.9	52.9
861	10	70	TT	TC	117.4	101.3	179.8	-74.9	122.6	101.9	-61.1	-178.8
862	31	135	TT	CT	117.4	89.9	-107.4	98.4	-6.4	-179.7	75.9	-72.0
863	10	70	TT	TC	117.5	101.4	179.0	-79.9	127.5	-110.5	-61.6	-178.8
864	42	5	CT	TT	117.6	106.5	-114.3	-153.5	-25.0	178.8	-164.0	-46.9
865	10	70	TT	TC	117.9	101.8	-179.3	-68.4	97.5	67.2	-61.6	-178.5
866	222	215	CC	CC	117.9	22.0	-10.2	90.6	-108.7	0.1	-105.8	177.8
867	40	104	TC	CC	117.9	87.3	-105.7	-140.4	61.4	3.8	54.8	60.1
868	58	119	TT	TC	118.0	80.3	177.7	-151.9	-19.2	-111.7	-166.5	57.0
869	30	140	CT	CC	118.1	91.1	-1.0	-143.7	0.5	-107.0	60.8	67.8
870	146	217	CC	CC	118.4	55.6	-7.3	97.1	-14.6	0.4	150.2	-46.9
871	2	29	TT	TC	118.5	111.4	177.3	-152.2	-20.5	108.7	-166.6	57.0
872	216	218	CC	CC	118.8	22.7	4.2	108.1	-70.4	-2.9	147.2	174.8
873	3	133	TT	CT	118.8	109.0	98.5	-15.6	44.5	179.8	57.0	173.4
874	146	217	CC	CC	119.0	56.1	3.9	108.2	-66.6	-2.2	145.1	-57.2
875	17	120	CT	CC	119.1	97.9	-3.0	-85.8	3.4	-107.4	53.6	68.9
876	14	109	TT	CT	119.3	101.7	102.3	-146.7	158.2	179.7	57.3	-173.9
877	39	96	TC	CC	119.4	89.2	-108.1	-138.4	76.1	0.8	-170.6	-65.5

878	212	214	CC	CC	119.4	26.9	-6.8	51.4	122.8	-0.1	65.5	-179.5
879	44	147	CT	CC	119.5	88.1	-0.6	-143.4	-5.9	-108.1	56.7	179.9
880	225	142	CC	CC	119.5	57.6	4.3	37.3	-114.7	3.8	47.1	-54.2
881	176	210	CC	CC	119.5	50.8	5.0	30.7	-107.0	1.1	-161.3	58.0
882	30	104	CT	CC	119.8	92.8	-1.2	-143.0	-0.7	109.0	60.8	68.9
883	20	143	TT	TC	119.9	96.7	178.7	82.2	6.1	-110.4	-57.4	67.9
884	2	156	TT	TC	120.0	112.9	177.5	-151.2	0.0	-107.6	-94.1	47.1
885	159	10	TC	TT	120.2	104.1	-177.3	-73.6	-3.6	-101.0	-51.8	-174.5
886	207	224	CC	CC	120.3	34.5	-14.2	76.5	-140.4	1.9	64.8	-61.3
887	225	224	CC	CC	120.4	1.0	-12.3	65.2	-124.7	2.5	52.4	-58.1
888	18	118	TT	TC	120.4	97.9	-177.7	88.1	-120.7	106.2	-157.5	63.4
889	35	118	TT	TC	120.4	91.1	-177.6	87.2	-126.1	106.8	-156.2	65.2
890	2	73	TT	CT	120.4	113.3	108.7	-142.7	22.3	-180.0	-149.3	63.8
891	44	138	CT	CC	120.5	89.0	-1.0	-143.1	-9.5	107.2	57.6	-179.8
892	21	128	CT	CC	120.5	96.7	-3.1	-85.4	-3.6	-107.7	49.3	179.5
893	21	128	CT	CC	120.5	96.8	-3.5	-89.1	-11.2	103.5	50.7	-180.0
894	17	104	CT	CC	120.5	99.4	-3.9	-89.1	-4.3	105.6	53.2	70.6
895	23	127	TT	TC	120.6	96.0	-177.7	87.7	-123.2	106.7	-157.6	179.8
896	2	37	TT	TC	120.7	113.6	177.2	-151.0	-1.5	112.1	-94.4	47.3
897	207	225	CC	CC	120.8	34.9	-5.4	49.6	-133.5	1.8	53.2	-56.5
898	108	5	CT	TT	120.8	109.7	-104.3	90.2	138.1	-180.0	-164.6	-71.3
899	20	141	TT	TC	120.9	97.7	178.1	77.7	9.5	102.9	-57.6	67.6
900	108	5	CT	TT	120.9	109.8	-68.8	101.2	151.6	-179.6	-164.4	-73.9
901	13	53	TT	TC	121.0	103.8	179.1	-85.3	1.8	111.2	-64.3	44.7
902	212	205	CC	CC	121.0	36.8	-4.9	66.2	150.0	-1.9	23.5	-178.8
903	4	95	TT	CT	121.0	110.0	-108.2	104.9	-1.8	-179.8	82.1	63.2
904	12	117	TT	TC	121.1	104.2	-177.8	85.3	-133.6	112.6	-157.2	-69.3
905	13	168	TT	TC	121.1	103.9	179.4	-81.9	-1.4	-102.8	-64.5	44.6
906	13	51	TT	CT	121.2	104.0	110.9	-84.0	-11.1	179.6	-52.5	80.3
907	157	213	CC	CC	121.3	57.1	4.6	31.3	-107.4	2.7	-160.7	-56.6
908	42	162	CT	CC	121.5	90.2	-1.3	-147.9	-2.3	-107.1	-157.9	-53.5
909	62	101	CT	CC	121.5	82.6	-0.9	-149.5	167.8	109.0	57.7	-56.3
910	48	94	CT	CC	121.7	88.9	-0.9	-148.1	141.4	-106.1	-165.5	63.6
911	58	97	TT	CT	121.7	84.0	-111.8	-151.1	-40.1	179.2	-171.3	53.6
912	12	121	TT	TC	121.9	105.0	-177.1	87.1	-147.3	-104.1	-154.1	-66.0
913	220	174	CC	CC	122.0	53.5	4.5	29.3	-107.2	2.3	-64.5	66.1
914	41	88	CT	CC	122.0	90.8	-0.7	-147.7	138.2	-105.7	-166.6	-179.7
915	33	122	CT	CC	122.1	93.8	-4.1	-94.5	-12.9	104.9	48.1	-73.7
916	86	27	CT	TT	122.1	96.6	-112.4	78.8	18.9	-179.7	-64.9	174.7
917	48	94	CT	CC	122.2	89.4	-0.9	-148.1	135.3	107.7	-160.5	63.7

918	48	94	CT	CC	122.3	89.4	-1.0	-148.6	140.3	106.5	-158.7	63.4
919	42	96	CT	CC	122.3	91.0	-1.6	-147.4	-4.0	110.8	-157.6	-53.2
920	14	109	TT	CT	122.3	104.7	66.6	-95.8	161.6	179.9	54.0	-175.1
921	216	218	CC	CC	122.4	26.4	-3.7	103.4	-30.8	-1.3	157.8	175.6
922	41	88	CT	CC	122.5	91.3	-0.7	-147.5	131.2	107.9	-163.2	-179.7
923	33	142	CT	CC	122.5	94.3	-3.6	-90.7	-6.6	-107.5	45.9	-74.1
924	62	101	CT	CC	122.5	83.6	-0.9	-149.4	166.5	-108.5	56.7	-56.2
925	35	137	TT	TC	122.7	93.4	-177.4	88.2	-127.5	-103.5	-152.2	63.6
926	35	137	TT	TC	122.7	93.4	-177.3	89.0	-136.1	-104.5	-151.2	63.7
927	35	137	TT	TC	122.7	93.4	-176.5	88.8	-131.8	-103.7	-151.7	63.6
928	84	47	CC	CT	122.8	90.5	-0.7	-146.2	123.8	107.5	-169.8	-69.3
929	36	125	TT	TC	122.8	93.3	-177.2	88.3	-132.6	-104.4	-152.5	179.5
930	84	55	CC	TC	122.9	85.4	-107.3	-103.9	143.2	-1.2	-71.5	-58.4
931	35	118	TT	TC	123.0	93.7	-178.3	87.9	-113.6	-104.0	-154.9	62.5
932	2	73	TT	CT	123.1	116.0	110.9	-86.8	-24.1	179.6	-165.2	52.5
933	27	153	TT	TC	123.2	97.8	176.2	81.0	7.1	-109.3	-62.5	178.0
934	84	47	CC	CT	123.2	90.9	-0.9	-146.7	132.2	-108.4	-169.3	-70.3
935	12	42	TT	CT	123.2	106.3	71.1	-163.6	-34.3	179.2	-165.1	-50.0
936	70	88	TC	CC	123.2	82.0	-109.1	-103.5	142.2	-1.2	-74.9	176.9
937	188	215	CC	CC	123.2	49.8	5.1	30.1	-107.3	1.5	-161.0	173.4
938	100	32	CC	TC	123.5	95.7	66.1	-100.0	135.4	-1.5	-172.2	-68.2
939	27	153	TT	TC	123.6	98.1	175.6	74.3	11.4	102.2	-62.5	178.4
940	4	17	TT	CT	123.6	112.6	72.7	-149.4	-36.5	178.5	62.6	68.1
941	23	92	TT	CT	123.6	99.0	-110.7	84.5	26.9	-179.6	-149.3	-175.0
942	34	107	TC	CC	123.7	95.0	65.5	-101.0	136.5	-1.0	-168.5	178.7
943	165	221	CC	CC	123.9	57.5	3.1	33.7	-108.3	1.9	-67.1	-60.4
944	29	111	TC	CC	123.9	97.1	65.2	-100.0	137.1	-1.2	-164.6	67.8
945	24	163	TT	TC	124.1	99.3	176.0	80.6	4.2	-109.7	-64.7	-64.4
946	84	32	CC	TC	124.1	96.3	101.2	-160.4	130.9	-1.2	-173.8	-67.5
947	19	33	TT	CT	124.2	101.2	-76.0	92.3	-123.9	-180.0	73.5	-70.3
948	34	88	TC	CC	124.4	95.7	100.4	-160.9	132.0	-0.9	-169.1	179.5
949	24	163	TT	TC	124.5	99.7	175.4	74.2	8.7	101.5	-64.7	-64.8
950	101	26	CC	TC	124.5	99.3	100.3	-162.0	152.7	-1.4	50.3	-67.1
951	133	22	CT	TT	124.5	100.1	-105.9	107.4	-12.5	-179.8	78.4	-177.5
952	67	105	CT	CC	124.7	84.7	-1.2	-146.6	146.2	107.4	55.1	45.5
953	134	23	TC	TT	124.8	100.1	179.9	84.6	12.1	-110.7	-144.3	-174.1
954	24	81	TT	CT	124.8	100.0	-112.6	80.5	14.2	-179.7	-68.0	-66.8
955	217	224	CC	CC	125.2	28.7	-2.2	110.2	-107.8	1.8	81.8	-64.4
956	2	172	TT	TC	125.3	118.2	178.2	-81.1	-20.8	-105.6	-166.3	50.6
957	66	122	TC	CC	125.3	85.3	-107.3	-139.8	56.5	6.0	49.6	-51.5

958	18	91	TT	CT	125.4	103.0	-110.3	87.6	18.5	-179.7	-150.2	61.6
959	25	106	TC	CC	125.5	100.6	103.7	-143.2	144.3	0.0	55.3	49.9
960	31	151	TT	TC	125.5	98.0	178.7	89.8	-12.6	-112.3	87.5	-55.9
961	40	104	TC	CC	125.5	95.0	106.0	-145.7	62.7	1.6	55.1	62.9
962	29	111	TC	CC	125.5	98.7	99.7	-157.0	132.2	-1.0	-164.4	69.9
963	67	105	CT	CC	125.6	85.6	-1.3	-146.5	145.2	-110.0	54.1	45.5
964	43	136	TC	CC	125.7	94.5	-104.4	-137.1	158.5	-2.3	56.8	-178.1
965	2	29	TT	TC	125.7	118.6	178.0	-85.9	-17.9	110.1	-164.4	51.2
966	152	23	TC	TT	125.8	101.1	179.8	83.0	17.3	105.2	-144.8	-173.7
967	9	42	TT	CT	125.8	113.1	-114.9	-147.3	-25.0	178.5	-82.3	-56.9
968	25	106	TC	CC	125.8	100.9	98.5	-84.5	141.6	-0.5	46.4	47.8
969	18	123	TT	TC	125.9	103.4	-180.0	84.9	2.5	-112.0	-146.4	60.4
970	28	106	TC	CC	126.0	99.7	99.0	-78.4	108.2	-1.7	43.4	53.9
971	182	222	CC	CC	126.2	55.5	2.8	33.4	-108.5	2.2	-67.0	178.7
972	69	106	CT	CC	126.3	85.5	-2.7	-83.8	134.1	108.6	47.2	49.2
973	58	73	TT	CT	126.4	88.7	71.8	-154.6	-51.5	179.4	-172.1	58.0
974	212	226	CC	CC	126.4	33.9	-14.8	83.3	-141.7	2.1	71.9	-172.1
975	20	48	TT	CT	126.5	103.4	105.6	106.8	179.1	-179.9	-75.7	59.3
976	61	100	CT	CC	126.5	87.6	-4.2	-95.6	114.5	109.0	-173.2	-70.8
977	39	100	TC	CC	126.6	96.4	104.8	-60.4	112.4	-1.7	-167.6	-67.4
978	226	224	CC	CC	126.7	8.8	-15.7	87.4	-123.7	1.8	62.8	-128.4
979	69	106	CT	CC	127.0	86.1	-1.8	-80.4	144.9	-110.2	48.4	47.5
980	216	226	CC	CC	127.1	31.0	-4.4	108.7	-110.9	1.8	80.8	-177.8
981	18	166	TT	TC	127.2	104.7	179.9	83.4	8.5	103.9	-145.6	61.0
982	71	94	CT	CC	127.2	85.8	-4.9	-105.0	132.5	-106.4	-167.9	63.9
983	71	111	CT	CC	127.3	85.9	-3.8	-95.1	125.5	109.4	-165.3	63.9
984	61	96	CT	CC	127.3	88.4	-5.3	-103.9	113.7	-107.1	-173.6	-71.7
985	46	157	CT	CC	127.3	95.1	-3.4	-86.8	-13.1	-106.4	-163.0	-51.0
986	106	26	CC	TC	127.4	102.2	63.5	-105.1	157.8	-1.8	50.6	-59.8
987	65	88	CT	CC	127.4	87.6	-4.9	-107.4	128.6	-106.0	-169.3	180.0
988	65	107	CT	CC	127.5	87.7	-4.0	-96.3	122.6	109.6	-167.5	-179.8
989	31	151	TT	TC	127.5	100.0	179.3	91.1	-13.5	101.6	87.8	-56.9
990	46	96	CT	CC	127.6	95.4	-4.0	-90.8	-14.7	108.0	-162.9	-50.8
991	2	154	TT	CT	127.6	120.5	-68.7	99.1	161.9	-180.0	-67.2	60.7
992	2	97	TT	CT	127.7	120.6	-111.9	-157.3	-22.7	178.7	-92.6	50.1
993	18	103	TT	CT	127.8	105.3	-101.8	87.0	-86.6	179.4	-167.8	59.6
994	2	154	TT	CT	127.8	120.7	-105.2	89.5	145.7	179.7	-65.2	71.0
995	24	163	TT	TC	128.1	103.3	173.3	70.0	4.1	76.0	-64.7	-65.8
996	9	102	TT	CT	128.1	115.3	67.5	-93.7	143.1	-179.8	-64.5	-47.2
997	20	144	TT	TC	128.1	105.0	-178.8	80.7	-128.6	111.5	-59.0	65.6

998	37	124	TC	CC	128.2	98.2	64.9	-103.7	152.1	-0.5	-73.5	52.7
999	226	128	CC	CC	128.2	69.7	5.6	36.9	-114.2	3.7	47.9	-171.7
1000	37	126	TC	CC	128.6	98.6	96.4	-158.9	152.1	-0.1	-92.4	67.4
1001	208	227	CC	CC	128.6	38.9	-14.1	80.6	-137.6	1.2	65.6	51.6
1002	37	126	TC	CC	128.9	98.9	79.9	-144.6	154.5	-1.0	-85.2	63.3
1003	68	138	TC	CC	129.1	88.7	-105.2	-140.2	54.1	6.4	50.4	174.8
1004	20	149	TT	TC	129.2	106.1	-178.9	81.2	-130.4	-104.4	-59.0	65.7
1005	224	227	CC	CC	129.3	11.3	-14.7	83.9	-123.7	1.6	59.5	13.1
1006	12	160	TT	CT	129.3	112.4	-67.5	92.7	-139.2	-179.9	-157.0	-44.1
1007	212	226	CC	CC	129.5	37.0	-7.1	53.2	-134.5	2.0	55.8	-170.2
1008	45	111	TC	CC	129.6	97.5	104.1	-76.3	128.2	-0.9	-163.0	64.4
1009	49	107	TC	CC	129.7	96.2	105.6	-70.8	126.8	-0.6	-164.4	-178.0
1010	72	76	CT	TT	129.8	87.6	71.3	-156.9	-50.3	179.3	-169.4	177.8
1011	155	55	CC	TC	129.9	92.4	103.7	-68.2	106.3	-1.7	-61.7	-60.0
1012	120	227	CC	CC	130.1	73.3	-5.5	54.6	-116.4	2.9	46.5	55.0
1013	120	208	CC	CC	130.5	73.7	-3.0	48.1	-128.8	1.4	49.9	53.1
1014	87	136	CT	CC	130.7	82.3	-0.7	-146.4	168.1	109.0	60.2	-175.4
1015	96	55	CC	TC	130.7	93.2	-106.4	-135.4	70.9	0.9	-80.5	-60.3
1016	120	227	CC	CC	130.7	74.0	-9.5	61.9	-126.0	1.9	50.3	53.9
1017	206	227	CC	CC	130.8	45.4	-5.8	107.2	-112.7	2.1	78.8	65.1
1018	97	177	CT	CC	131.0	79.5	-0.7	-145.6	-23.8	-109.9	-165.4	54.9
1019	56	148	TT	TC	131.0	93.5	-173.5	102.1	-176.6	-102.6	87.7	-63.5
1020	82	51	TT	CT	131.1	95.2	69.8	-154.2	-37.0	178.9	-80.1	64.8
1021	70	193	TC	CC	131.2	90.0	104.9	-58.0	105.5	-1.8	-62.4	179.6
1022	74	94	CT	CC	131.3	87.9	-1.3	-145.5	-25.5	108.8	-165.5	55.0
1023	41	112	CT	TT	131.3	100.1	107.9	112.3	172.3	-179.8	-77.7	176.0
1024	51	174	CT	CC	131.5	95.6	-3.2	-89.2	-7.2	-106.6	-65.7	53.1
1025	139	51	CC	CT	131.6	95.7	-4.2	-92.8	-9.7	108.3	-65.8	53.7
1026	87	136	CT	CC	131.6	83.1	-0.8	-146.4	167.9	-108.9	59.7	-176.0
1027	52	146	CT	CC	131.7	94.4	-2.7	84.5	28.9	-106.7	-152.7	-61.5
1028	66	122	TC	CC	131.7	91.7	108.1	-152.1	55.5	3.4	44.7	-74.3
1029	133	22	CT	TT	131.8	107.3	-70.1	99.9	-135.3	-179.5	81.3	-169.2
1030	43	161	TC	CC	131.9	100.7	102.8	-146.7	151.6	-1.4	55.7	-174.2
1031	10	114	TT	CT	132.0	115.9	-117.2	-145.0	-24.4	178.4	-80.2	-175.7
1032	77	124	CT	CC	132.2	86.7	-4.0	-96.3	124.8	108.5	-70.1	57.3
1033	50	165	CT	CC	132.2	97.3	-2.3	-82.4	-9.4	-106.6	-59.9	-59.2
1034	77	124	CT	CC	132.2	86.8	-5.6	-103.5	120.7	-108.4	-70.1	58.3
1035	41	23	CT	TT	132.3	107.7	112.7	96.7	57.9	-178.0	-155.5	-172.8
1036	89	128	TC	CC	132.4	83.8	109.8	-137.8	-21.5	-4.8	55.7	-178.5
1037	52	146	CT	CC	132.4	95.1	-2.5	83.0	28.6	106.7	-153.3	-61.4

1038	120	90	CC	TC	132.5	83.8	109.8	-135.1	-17.2	-4.0	59.1	68.1
1039	79	126	CT	CC	132.5	86.7	-3.5	-122.5	132.6	107.8	-70.0	61.2
1040	56	148	TT	TC	132.8	95.3	-173.0	103.4	170.9	111.2	86.5	-62.9
1041	50	165	CT	CC	132.9	98.0	-3.3	-86.5	-13.0	106.9	-61.1	-59.2
1042	51	174	CT	CC	132.9	97.1	-2.4	-122.7	-4.8	-106.1	-65.2	59.2
1043	85	131	TC	CC	132.9	85.0	-111.2	-144.2	-26.5	-7.9	54.7	-57.9
1044	73	176	CT	CC	133.0	90.3	-3.9	-84.1	-42.8	107.1	-170.6	55.9
1045	85	142	TC	CC	133.3	85.3	110.1	-146.2	-26.9	-5.1	48.5	-78.3
1046	73	176	CT	CC	133.3	90.6	-3.9	-83.4	-42.3	-104.8	-174.0	55.2
1047	68	138	TC	CC	133.4	93.0	107.1	-146.6	45.6	5.0	52.4	179.8
1048	139	51	CC	CT	133.4	97.6	-3.2	-118.7	-3.0	110.3	-65.4	58.6
1049	53	179	TC	CC	133.4	96.0	107.1	-46.2	106.0	-2.2	-59.2	76.0
1050	72	189	CT	CC	133.6	91.4	-1.4	-148.8	-3.3	-107.5	-148.4	-176.7
1051	27	175	TT	TC	133.8	108.3	178.9	78.0	-127.3	112.0	-63.8	175.6
1052	7	198	TT	CT	133.9	122.2	-66.7	103.3	-179.1	-179.9	85.4	51.8
1053	90	140	TC	CC	134.0	85.2	-110.4	-145.6	-25.0	-7.3	59.7	64.8
1054	170	24	TC	TT	134.3	109.5	178.6	77.8	-125.8	112.0	-63.7	-59.8
1055	72	88	CT	CC	134.3	92.1	-1.6	-147.9	-10.6	110.9	-151.4	-177.6
1056	18	48	TT	CT	134.3	111.9	113.3	95.2	53.6	-177.8	-154.1	62.8
1057	43	161	TC	CC	134.7	103.4	67.5	-93.2	154.9	-1.8	51.9	-175.7
1058	53	124	TC	CC	135.2	97.8	103.9	-77.3	109.3	-1.6	-75.6	54.7
1059	170	24	TC	TT	135.2	110.4	178.3	75.8	-123.8	-101.8	-63.8	-59.9
1060	53	124	TC	CC	135.4	98.0	103.0	-84.4	142.7	-0.1	-76.0	47.6
1061	83	140	TC	CC	135.6	88.3	-108.7	-88.0	-19.3	-3.3	55.9	67.8
1062	182	59	CC	CT	135.7	97.7	-2.5	-83.7	-5.7	-106.5	-61.8	-177.5
1063	89	147	TC	CC	135.8	87.2	-109.8	-144.9	-26.4	-8.1	57.5	178.6
1064	113	146	TC	CC	136.3	81.2	-109.9	81.1	61.6	2.2	-163.0	-66.5
1065	173	32	CC	TC	136.4	108.6	-105.5	88.1	122.2	-0.3	-165.7	-68.8
1066	164	59	CC	CT	136.4	98.3	-3.7	-88.2	-9.6	107.3	-63.3	-177.8
1067	109	161	CT	CC	136.6	83.1	-1.7	-81.8	164.9	-109.9	51.5	-177.6
1068	96	113	CC	TC	136.7	86.0	113.3	92.3	53.5	5.8	-162.0	-64.7
1069	109	161	CT	CC	136.9	83.5	-1.5	-83.4	171.9	106.7	54.3	-176.4
1070	50	169	CT	CC	136.9	102.0	-3.1	-122.0	-5.3	109.9	-71.1	-62.6
1071	34	178	TC	CC	137.1	108.4	-104.6	88.2	124.0	0.0	-162.0	-178.6
1072	93	147	TC	CC	137.1	87.6	-109.3	-87.0	-20.2	-4.0	52.0	179.1
1073	116	131	TC	CC	137.2	81.2	-113.2	-91.3	-19.2	-3.8	48.6	-66.7
1074	101	148	CC	TC	137.2	85.6	109.6	111.7	171.5	-0.5	83.0	-52.4
1075	155	102	CC	CT	137.6	85.9	-3.1	-88.4	124.5	108.5	-66.7	-57.7
1076	220	227	CC	CC	137.8	38.4	-9.0	77.0	-107.2	0.1	6.2	52.5
1077	86	112	CT	TT	137.9	89.6	-110.8	79.1	140.3	179.7	-72.8	169.5

1078	28	209	TC	CC	138.0	111.7	105.0	-40.1	110.0	-3.9	52.4	-35.7
1079	188	80	CC	CT	138.1	92.3	-3.9	-84.7	-36.2	-105.9	-168.6	177.6
1080	188	80	CC	CT	138.2	92.3	-4.0	-84.0	-43.3	-104.4	-171.5	176.7
1081	182	59	CC	CT	138.3	100.2	-1.9	-125.2	-2.7	-105.8	-70.8	-179.4
1082	102	169	CT	CC	138.4	86.7	-6.1	-98.9	111.4	-108.0	-69.9	-59.0
1083	173	32	CC	TC	138.4	110.6	-78.9	99.5	123.6	-0.4	-167.0	-68.0
1084	98	158	CT	CC	138.6	87.2	-3.9	-91.8	119.2	108.3	-71.8	177.7
1085	98	164	CT	CC	138.8	87.3	-6.1	-100.5	108.2	-108.0	-73.5	177.6
1086	164	59	CC	CT	138.8	100.7	-2.2	-123.5	-0.9	110.1	-70.5	-179.4
1087	34	178	TC	CC	138.9	110.2	-78.7	99.4	125.1	-0.2	-163.1	179.9
1088	60	199	TT	TC	139.0	100.2	178.2	88.3	-2.4	-111.7	97.8	55.6
1089	155	102	CC	CT	139.0	87.3	-2.4	-87.3	139.1	-110.0	-65.4	-57.2
1090	41	88	CT	CC	139.0	107.8	-2.2	-127.9	130.9	107.5	-80.8	176.4
1091	75	179	CT	CC	139.3	95.2	-3.4	82.4	26.5	-106.8	-55.0	57.6
1092	84	110	CC	CT	139.4	92.1	-3.0	-126.4	133.1	107.7	-77.2	-60.7
1093	41	88	CT	CC	139.4	108.2	-3.2	-124.9	126.0	-109.6	-78.5	176.5
1094	28	60	TC	TT	139.5	113.2	175.2	39.4	25.4	66.5	62.0	56.1
1095	102	169	CT	CC	139.8	88.1	-4.4	-121.6	127.4	-110.3	-74.6	-60.6
1096	155	102	CC	CT	139.8	88.1	-4.3	-121.9	127.9	-110.3	-74.9	-60.6
1097	222	226	CC	CC	139.8	32.2	-8.9	81.2	-106.1	-0.3	2.8	-173.3
1098	75	179	CT	CC	140.0	95.9	-3.3	80.7	23.3	106.7	-55.1	57.7
1099	28	60	TC	TT	140.0	113.7	176.3	46.1	30.2	98.6	61.9	50.9
1100	155	55	CC	TC	140.1	102.6	66.5	-95.5	147.5	-0.4	-65.2	-46.5
1101	29	184	TC	CC	140.1	113.3	-102.8	90.0	124.6	-0.4	-160.4	69.7
1102	29	184	TC	CC	140.3	113.5	-73.5	101.7	126.4	-0.9	-160.3	69.4
1103	180	92	CC	CT	140.6	91.2	-1.7	80.5	56.3	-107.0	-151.0	-176.2
1104	37	197	TC	CC	140.6	110.6	-105.2	89.6	143.9	-0.7	-66.0	71.0
1105	141	179	TC	CC	140.7	78.9	-112.3	77.5	56.1	2.7	-57.9	74.6
1106	118	181	TC	CC	141.0	85.0	108.9	99.7	-101.3	2.5	-167.5	57.8
1107	60	199	TT	TC	141.2	102.5	178.7	89.9	-0.1	101.7	98.0	56.0
1108	91	185	CT	CC	141.3	92.2	-1.9	81.2	51.4	-107.6	-149.3	63.8
1109	180	92	CC	CT	141.3	91.9	-2.0	81.3	59.3	108.2	-151.8	-176.3
1110	103	184	CT	CC	141.4	89.7	-0.9	86.0	114.5	109.0	-153.9	64.6
1111	37	197	TC	CC	141.5	111.5	-72.5	100.4	148.0	-1.8	-68.9	61.6
1112	130	162	TC	CC	141.5	82.6	-112.8	-144.2	-40.8	-7.1	-162.9	-46.9
1113	99	178	CT	CC	141.6	90.1	-0.9	85.1	103.3	109.5	-156.0	-178.7
1114	162	117	CC	TC	141.7	85.7	108.4	99.5	-101.4	4.1	-167.2	-57.7
1115	103	184	CT	CC	141.9	90.1	-1.5	86.3	129.0	-106.5	-155.4	64.2
1116	91	185	CT	CC	142.0	92.9	-2.0	81.7	53.2	107.8	-150.0	63.8
1117	99	180	CT	CC	142.5	91.0	-0.9	85.9	116.2	-106.6	-156.8	-179.6

1118	129	165	TC	CC	142.7	83.9	111.2	-84.6	-37.2	-4.7	-52.3	-57.3
1119	119	177	TC	CC	143.1	87.0	-111.1	-145.5	-47.4	-4.5	-171.1	53.2
1120	81	194	CT	CC	143.3	96.3	-1.7	84.5	20.8	-107.2	-53.1	-59.4
1121	119	181	TC	CC	143.3	87.2	-110.5	-146.7	-60.8	-5.6	-176.6	54.7
1122	145	162	TC	CC	143.5	80.7	-115.4	-83.9	-32.1	-4.9	-161.4	-48.3
1123	81	194	CT	CC	144.0	97.0	-2.0	82.3	17.0	106.2	-53.4	-59.6
1124	141	94	TC	CC	144.0	93.7	113.0	85.8	50.1	5.2	-65.4	58.4
1125	186	5	CT	TT	144.2	133.1	-67.8	99.8	165.2	-179.9	-74.1	-51.8
1126	108	173	CT	CC	144.5	91.3	-3.3	84.0	157.4	104.0	-146.9	-53.2
1127	86	193	CT	CC	144.7	96.4	-2.6	83.0	25.4	-106.6	-55.6	-178.7
1128	192	127	CC	TC	144.8	86.5	108.1	99.8	-101.8	3.1	-167.3	176.1
1129	207	26	CC	TC	144.9	119.7	-74.2	97.6	164.2	0.3	86.6	-66.4
1130	115	162	TC	CC	145.3	89.4	106.7	131.0	-46.9	-6.6	-164.9	-50.0
1131	130	162	TC	CC	145.4	86.5	74.2	-152.3	-44.5	-5.7	-163.0	-50.5
1132	86	193	CT	CC	145.4	97.1	-2.6	81.0	22.9	106.3	-56.1	-178.8
1133	129	165	TC	CC	145.5	86.7	-82.1	-33.0	-63.1	-2.5	-62.3	-63.4
1134	129	165	TC	CC	145.7	86.9	-75.7	-63.6	-41.1	-2.6	-58.7	-64.1
1135	152	88	TC	CC	145.8	97.3	113.1	95.0	66.1	4.9	-157.3	-173.3
1136	95	206	CT	CC	145.8	95.4	-2.8	94.3	4.3	-108.4	102.0	57.3
1137	129	165	TC	CC	145.8	87.0	-79.9	-42.0	-51.4	-1.0	-59.7	-64.1
1138	131	151	CC	TC	145.8	86.1	107.8	119.5	-35.0	-9.3	78.1	-54.0
1139	153	158	TC	CC	146.0	82.3	-113.4	58.2	62.4	2.7	-63.5	174.6
1140	119	181	TC	CC	146.0	89.8	74.2	-147.7	-64.9	-4.9	-176.4	57.9
1141	96	163	CC	TC	146.3	95.7	113.1	87.2	47.2	5.3	-65.0	-61.7
1142	78	201	TT	TC	146.4	100.9	-178.2	96.6	-15.5	-112.6	96.0	-174.8
1143	88	153	CC	TC	146.5	98.0	112.4	88.7	49.7	5.4	-65.9	-179.4
1144	95	206	CT	CC	146.5	96.1	-4.9	90.5	0.3	105.7	102.4	58.4
1145	210	103	CC	CT	146.8	95.1	-0.6	91.1	-85.8	-108.9	-158.3	59.7
1146	144	177	TC	CC	146.9	84.4	108.2	97.4	-101.3	3.6	-69.4	54.9
1147	168	174	TC	CC	146.9	79.7	-115.3	-84.7	-30.4	-4.6	-63.0	52.9
1148	91	211	CT	CC	146.9	97.8	-0.4	91.3	-46.8	-106.7	-158.7	56.0
1149	129	165	TC	CC	147.1	88.3	-111.0	-80.0	-32.3	-4.2	-62.1	-59.2
1150	119	177	TC	CC	147.1	91.0	74.0	-148.9	-50.3	-4.0	-171.1	56.8
1151	119	176	TC	CC	147.2	91.0	97.6	-151.6	-66.5	-5.4	-178.3	57.7
1152	119	177	TC	CC	147.2	91.0	97.7	-151.5	-66.6	-5.4	-178.3	57.7
1153	130	157	TC	CC	147.3	88.4	106.1	-148.9	-44.2	-4.6	-164.3	-47.2
1154	91	211	CT	CC	147.4	98.3	0.3	92.8	-82.1	105.2	-159.3	59.4
1155	145	157	TC	CC	147.7	84.9	111.7	-82.9	-38.8	-4.7	-162.1	-48.4
1156	145	157	TC	CC	147.7	84.9	-79.4	-29.6	-64.0	-2.1	-159.4	-53.8
1157	94	166	CC	TC	147.7	97.5	114.0	93.6	61.6	4.8	-155.8	63.0

1158	145	157	TC	CC	147.7	85.0	-78.9	-33.4	-56.2	-0.4	-154.7	-52.3
1159	119	176	TC	CC	147.8	91.6	105.9	-146.6	-51.0	-2.7	-172.8	56.2
1160	84	190	CC	TC	147.8	100.5	111.7	114.4	159.1	-2.5	-78.2	-57.5
1161	159	182	TC	CC	147.9	83.6	-77.2	-42.6	-50.7	-1.0	-56.7	-177.4
1162	159	182	TC	CC	147.9	83.7	-74.7	-57.5	-43.8	-2.1	-55.9	-176.8
1163	159	182	TC	CC	147.9	83.7	-78.1	-33.6	-62.4	-2.6	-60.1	-177.9
1164	78	201	TT	TC	148.1	102.6	-177.1	98.6	-16.3	100.5	95.8	-174.1
1165	162	170	CC	TC	148.3	82.8	108.9	98.7	-100.7	3.2	-68.5	-57.3
1166	123	177	TC	CC	148.4	90.6	106.7	127.0	-55.1	-3.1	-169.8	53.7
1167	118	177	TC	CC	148.4	92.4	108.6	108.9	-78.3	2.4	-171.4	54.6
1168	129	162	TC	CC	148.5	89.7	-112.4	-138.8	-41.7	-7.2	-80.3	-56.6
1169	210	103	CC	CT	148.6	96.8	-3.2	86.9	-139.4	105.8	-151.3	63.4
1170	159	182	TC	CC	148.9	84.6	111.7	-80.7	-38.5	-4.7	-49.7	-174.5
1171	116	142	TC	CC	148.9	92.9	-80.1	-27.8	-58.7	-3.8	52.4	-46.8
1172	116	142	TC	CC	148.9	93.0	108.2	-43.5	-54.3	-7.5	46.8	-54.9
1173	172	177	TC	CC	148.9	81.0	-116.2	-86.7	-37.6	-3.6	-166.3	52.1
1174	118	210	TC	CC	149.3	93.3	-101.4	95.0	-92.3	-1.4	-169.9	58.5
1175	28	104	TC	CC	149.3	123.0	113.3	80.7	34.7	4.2	76.2	54.9
1176	155	163	CC	TC	149.6	85.6	-113.1	53.3	64.0	2.8	-65.4	-66.8
1177	25	208	TC	CC	149.6	124.7	-66.8	106.6	164.8	-1.1	88.7	53.5
1178	150	192	TC	CC	149.8	86.7	73.3	-148.8	-65.8	-4.1	-175.1	175.8
1179	172	176	TC	CC	149.9	81.9	-105.0	-27.7	-69.3	-0.8	-168.7	52.8
1180	150	189	TC	CC	149.9	86.9	-112.3	-145.1	-47.0	-4.1	-167.7	177.7
1181	172	176	TC	CC	149.9	81.9	-82.2	-26.5	-68.4	-1.1	-168.4	53.4
1182	150	192	TC	CC	150.0	87.0	-111.4	-146.8	-62.8	-4.7	-176.1	175.9
1183	154	197	CT	CC	150.3	86.6	-2.3	84.3	136.7	107.7	-57.6	57.5
1184	99	178	CT	CC	150.6	99.1	-2.6	87.7	-115.4	-108.0	-152.8	176.8
1185	156	177	TC	CC	150.7	86.6	-111.3	-145.9	-46.2	-6.2	-90.6	52.0
1186	117	213	TC	CC	150.7	94.6	-101.5	93.4	-92.4	-0.1	-168.4	-58.0
1187	43	212	TC	CC	150.7	119.4	-65.0	105.1	167.9	-0.4	90.7	-173.5
1188	99	215	CT	CC	150.7	99.3	-3.6	85.6	-143.7	105.4	-151.1	177.5
1189	168	174	TC	CC	150.8	83.5	-74.9	-28.9	-64.4	-2.1	-57.0	75.7
1190	168	174	TC	CC	150.9	83.7	-75.3	-32.3	-55.7	-0.3	-51.7	76.0
1191	119	176	TC	CC	151.0	94.8	111.0	-81.9	-42.6	-2.3	-166.5	52.5
1192	150	189	TC	CC	151.0	87.9	73.3	-150.3	-50.0	-3.4	-167.3	177.0
1193	154	197	CT	CC	151.0	87.4	-2.8	84.1	142.7	-109.9	-57.8	57.4
1194	99	218	CT	CC	151.1	99.6	0.6	93.7	-94.9	103.8	-158.6	177.4
1195	156	174	TC	CC	151.1	87.0	73.4	-146.8	-48.4	-5.5	-80.3	62.7
1196	172	176	TC	CC	151.1	83.1	110.8	-53.7	-58.2	-5.0	-170.9	52.2
1197	218	92	CC	CT	151.4	102.0	-0.5	91.4	-39.2	-104.9	-154.6	179.0

1198	144	177	TC	CC	151.6	89.2	108.3	104.4	-82.6	3.6	-74.0	56.2
1199	159	182	TC	CC	151.7	87.4	-111.9	-81.7	-31.0	-4.3	-62.4	-176.4
1200	168	174	TC	CC	151.8	84.5	-108.0	-34.3	-64.4	-1.7	-68.4	51.3
1201	175	189	TC	CC	151.9	83.4	108.0	99.1	-100.5	3.4	-69.3	-178.8
1202	162	167	CC	TC	152.0	86.4	108.3	106.6	-79.5	2.4	-73.9	-58.7
1203	127	215	TC	CC	152.3	93.9	-101.2	94.4	-93.1	-0.7	-169.2	175.3
1204	134	189	TC	CC	152.3	91.7	106.1	130.0	-52.9	-3.1	-167.8	179.6
1205	156	174	TC	CC	152.3	88.2	105.3	-146.5	-49.6	-4.2	-87.6	59.2
1206	127	189	TC	CC	152.8	94.5	107.9	109.2	-78.8	3.5	-170.2	177.8
1207	150	188	TC	CC	153.2	90.1	100.7	-152.4	-50.8	-2.6	-170.2	175.5
1208	144	220	TC	CC	153.4	91.0	-103.6	93.3	-91.1	-0.5	-63.6	70.0
1209	148	105	TC	CC	153.7	101.3	119.8	102.8	173.4	-2.2	86.8	35.6
1210	168	174	TC	CC	153.9	86.7	112.8	-75.3	-41.1	-4.4	-46.1	77.4
1211	133	216	CT	CC	154.1	93.8	-3.4	94.5	-15.8	-107.4	99.2	174.4
1212	188	195	CC	TC	154.2	80.8	-78.8	-26.1	-68.0	-0.4	-163.4	179.8
1213	127	189	TC	CC	154.3	95.9	104.9	150.2	-59.9	-5.7	-176.0	177.5
1214	168	174	TC	CC	154.4	87.1	111.7	-46.9	-57.6	-6.1	-56.2	72.9
1215	135	217	CT	CC	154.4	93.4	-3.5	94.5	-15.9	-106.9	98.7	-64.5
1216	195	189	TC	CC	154.6	79.3	-117.1	-86.3	-37.3	-3.6	-161.8	179.0
1217	159	189	TC	CC	154.6	90.3	-114.6	-132.3	-39.2	-7.6	-75.1	-176.4
1218	133	216	CT	CC	154.7	94.4	-5.2	90.7	-16.5	105.8	99.3	174.7
1219	135	217	CT	CC	155.0	94.0	-5.1	91.0	-17.3	107.3	98.8	-64.5
1220	66	209	TC	CC	155.0	115.0	-107.1	96.0	32.7	6.7	74.5	-68.4
1221	40	206	TC	CC	155.0	124.4	-81.4	100.8	45.2	5.7	78.9	56.5
1222	202	7	TC	TT	155.3	143.6	-171.6	107.5	-168.6	-108.7	92.1	61.5
1223	171	189	TC	CC	155.6	87.6	107.5	107.7	-78.3	2.4	-73.4	-178.1
1224	199	140	TC	CC	155.7	94.0	109.9	114.8	-34.7	-9.2	82.4	58.3
1225	171	189	TC	CC	155.7	87.8	106.2	125.7	-52.1	-5.3	-77.9	-179.1
1226	204	190	CC	TC	155.8	82.2	-110.5	78.6	145.3	-0.7	-74.3	-62.0
1227	186	204	CT	CC	156.4	84.9	-0.9	84.9	132.8	107.9	-55.7	-56.2
1228	186	194	CT	CC	157.2	85.7	-1.2	84.9	138.0	-110.4	-55.8	-56.2
1229	188	195	CC	TC	157.6	84.2	111.9	-49.4	-59.7	-4.4	-167.1	177.8
1230	150	188	TC	CC	157.7	94.6	112.2	-80.7	-42.8	-2.1	-163.0	178.4
1231	191	207	CT	CC	157.7	84.1	-5.5	88.6	145.5	110.2	104.4	-55.5
1232	204	32	CC	TC	157.8	130.1	-70.1	101.4	150.6	-2.1	-79.9	-54.0
1233	191	207	CT	CC	158.1	84.4	-5.7	88.1	154.5	-106.4	105.4	-58.2
1234	136	148	CC	TC	158.2	97.1	118.1	106.2	173.3	-1.2	90.3	-171.2
1235	201	147	TC	CC	159.8	96.9	110.9	116.1	-37.9	-9.2	82.7	179.4
1236	165	167	CC	TC	161.8	95.4	-105.8	82.1	-90.5	-0.8	-73.0	-61.4
1237	182	171	CC	TC	162.0	91.3	-105.3	82.8	-90.8	-0.5	-71.0	174.7

1238	198	208	CT	CC	162.6	84.9	-5.6	89.2	142.9	109.0	99.7	41.9
1239	95	203	CT	CC	163.2	112.8	4.4	32.7	81.2	-109.3	57.9	57.4
1240	200	212	CT	CC	163.3	83.5	-6.3	87.9	161.7	-105.9	105.0	-178.8
1241	216	89	CC	TC	163.3	114.7	-97.6	136.2	-29.2	-6.9	76.9	178.1
1242	200	212	CT	CC	164.0	84.3	-6.2	88.7	150.6	110.4	103.1	-178.2
1243	86	205	CT	CC	164.3	115.9	-2.6	85.5	-119.2	-108.3	-57.2	-180.0
1244	198	208	CT	CC	164.4	86.8	-5.9	89.1	152.0	-110.4	101.7	54.9
1245	33	225	CT	CC	168.2	140.0	-1.8	40.4	-147.2	109.0	56.9	-58.5
1246	33	207	CT	CC	168.9	140.7	-1.5	38.2	-142.5	-104.3	61.4	-59.9
1247	196	206	CT	CC	170.8	94.7	-5.4	96.9	-141.6	107.8	94.8	55.4
1248	226	89	CC	TC	175.7	127.1	-99.7	114.0	-72.8	-4.2	79.9	-173.6
1249	133	212	CT	CC	175.8	115.5	-3.6	42.2	-148.0	-104.3	66.2	-175.8
1250	83	206	TC	CC	191.2	143.9	88.5	32.2	-53.6	-3.4	75.6	63.9
1251	216	93	CC	TC	192.9	143.4	85.6	34.1	-56.1	-4.1	72.6	179.1