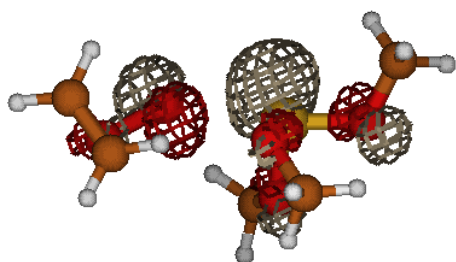


The Mechanistic Significance of *Perepoxide Trapping* Experiments, with Epoxide Detection, in $^1\Delta_g$ Dioxygen Reactions with Alkenes.

Andrea Maranzana, Giovanni Ghigo and Glauco Tonachini*

TOC graphic:



The Mechanistic Significance of *Perepoxide Trapping* Experiments, with Epoxide Detection, in $^1\Delta_g$ Dioxygen Reactions with Alkenes.

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ETHENE :

Ethene Perepoxide 1

1	8	0.000000	0.000000	0.000000
3	8	1.344278	0.000000	-0.599073
4	6	-0.009792	-0.732375	1.286955
5	6	-0.009792	0.732375	1.286955
6	1	0.930571	1.248445	1.415636
7	1	0.930571	-1.248445	1.415636
8	1	-0.932337	-1.278075	1.446660
9	1	-0.932337	1.278075	1.446660

Gauche Diradical 2

1	8	0.000000	0.000000	0.000000
2	8	0.000000	0.000000	1.312270
3	6	1.384457	0.000000	-0.558939
4	6	1.776044	-1.390984	-0.839608
5	1	1.310901	0.616567	-1.454911
6	1	1.994490	0.493363	0.200767
7	1	1.846712	-1.767382	-1.851103
8	1	1.850928	-2.091010	-0.017086

Trimethyl Phosphite (MeO)3P

2	15	0.000000	0.000000	2.000000
3	8	1.648418	0.000000	2.000000
4	8	-0.224638	0.000000	3.633053
5	8	-0.227791	-1.611351	1.740255
6	6	2.338238	1.231388	2.227960
7	6	-1.559101	-0.039619	4.145418
8	6	-0.133345	-2.115521	0.405237

9	1	2.353250	1.467892	3.295238
10	1	3.359694	1.099528	1.871917
11	1	1.873515	2.062533	1.683693
12	1	-1.515571	0.289140	5.183546
13	1	-2.227467	0.627095	3.586973
14	1	-1.953581	-1.058308	4.103605
15	1	-0.664094	-3.067126	0.380476
16	1	-0.590943	-1.431349	-0.319589
17	1	0.912893	-2.276905	0.132534

Ethene Epoxide 3

1	8	0.000000	0.000000	0.000000
2	6	0.000000	0.000000	1.429100
3	6	1.259105	0.000000	0.676004
4	1	-0.347023	-0.918904	1.895841
5	1	-0.347023	0.918904	1.895841
6	1	1.834464	-0.918911	0.591031
7	1	1.834464	0.918911	0.591031

TriMethyl Phosphate (MeO)3P=O

1	8	0.000000	0.000000	0.000000
2	15	0.000000	0.000000	1.477559
3	8	1.437247	0.000000	2.180403
4	8	-0.719155	1.243087	2.183033
5	8	-0.718587	-1.245727	2.179313
6	6	2.474101	0.881145	1.703669
7	6	-2.011181	1.685146	1.720757
8	6	-0.482123	-2.582326	1.693209
9	1	3.395111	0.555244	2.182922
10	1	2.567111	0.809543	0.618645
11	1	2.251862	1.910140	1.994759
12	1	-2.206648	2.630980	2.222038
13	1	-2.002212	1.826029	0.638526

14	1	-2.775939	0.956415	1.998431
15	1	-1.219152	-3.218285	2.179571
16	1	-0.604842	-2.621847	0.609532
17	1	0.523447	-2.907350	1.969304

Complex: Perepoxide 1 + (MeO)3P

1	8	-0.023278	0.073665	-0.019215
2	8	-0.141816	0.237763	1.436464
3	15	4.141001	-0.030478	0.106677
4	6	-0.943627	-0.972786	-0.524068
5	6	0.482379	-1.273751	-0.380297
6	1	-1.620831	-1.274519	0.262114
7	1	0.808177	-1.788027	0.512134
8	1	-1.356347	-0.721314	-1.493928
9	1	1.158863	-1.231321	-1.223318
10	8	3.970507	1.190377	1.211177
11	8	5.570011	0.453452	-0.528785
12	8	3.003517	0.395440	-1.025343
13	6	3.036241	1.023027	2.300763
14	1	3.295246	0.138807	2.892287
15	1	2.005020	0.934449	1.945276
16	1	3.138356	1.908981	2.926919
17	6	6.089356	1.792035	-0.586377
18	1	5.639706	2.346464	-1.414917
19	1	5.904750	2.318923	0.350258
20	1	7.161692	1.701148	-0.758364
21	6	2.720839	1.737533	-1.455079
22	1	2.889824	2.449952	-0.645763
23	1	1.670243	1.771381	-1.744479
24	1	3.343475	1.993569	-2.316776

Complex: gauche Diradical 2 + (MeO)3P

1	6	0.000000	0.000000	0.000000
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2	6	0.000000	0.000000	1.472040
3	8	1.417975	0.000000	-0.474007
4	1	-0.414462	0.912766	-0.428398
5	1	-0.461814	-0.881633	-0.451828
6	1	-0.292762	0.872361	2.040557
7	1	0.434530	-0.841172	1.997341
8	8	1.882325	-1.212024	-0.663546
9	15	-1.727176	-3.364539	-1.579040
10	8	-0.832655	-4.680566	-1.178031
11	6	0.596239	-4.621436	-1.317093
12	1	0.989472	-3.645001	-1.017460
13	1	0.878711	-4.824534	-2.352880
14	1	1.010505	-5.394655	-0.670767
15	8	-1.776131	-3.592314	-3.209104
16	6	-2.503722	-2.666065	-4.020181
17	1	-2.358402	-1.632607	-3.683204
18	1	-3.570951	-2.901378	-4.001990
19	1	-2.127602	-2.763817	-5.038170
20	8	-3.216734	-3.973648	-1.220509
21	6	-3.621468	-4.060816	0.148172
22	1	-3.349930	-3.157869	0.708807
23	1	-4.705488	-4.171583	0.156905
24	1	-3.162909	-4.930059	0.626398

TS O-Transfer 1-3: Perepoxy + (MeO)3P -> Epoxide + (MeO)3P=O

1	8	0.000000	0.000000	0.000000
2	8	0.000000	0.000000	1.512329
4	6	0.700463	-1.213238	-0.490247
5	6	-0.762732	-1.161580	-0.498128
6	1	1.209804	-1.704470	0.330627
7	1	1.248875	-1.013021	-1.403313
8	1	-1.298824	-0.934808	-1.412410
9	1	-1.302610	-1.628544	0.313221
11	15	1.711682	-0.490918	3.257427
12	8	2.664646	0.713828	2.648890
14	8	2.647435	-0.716661	4.643985
15	8	2.303130	-1.733101	2.321722

16	6	2.162666	2.053183	2.690198
17	6	2.086794	-1.512424	5.683722
18	6	3.717641	-1.942453	2.178826
19	1	2.811745	2.653177	2.051114
20	1	1.137816	2.086970	2.311858
21	1	2.203183	2.455879	3.708006
22	1	2.550026	-1.205988	6.623259
23	1	1.000962	-1.373510	5.761703
24	1	2.288453	-2.577930	5.522480
25	1	3.846472	-2.885204	1.645227
26	1	4.167800	-1.124814	1.611420
27	1	4.199285	-2.002203	3.157035

TS O-Transfer 2-3: (1)*H2C-CH2O-O* + (MeO)3P -> Epoxide + (MeO)3P=O

1	8	0.000000	0.000000	0.000000
2	8	0.000000	0.000000	1.405427
4	6	1.365670	0.000000	-0.480584
5	6	1.344593	-0.418508	-1.899581
6	1	1.925242	-0.708641	0.145335
7	1	1.787727	0.998475	-0.338385
8	1	1.821404	0.170623	-2.671199
9	1	0.808492	-1.315631	-2.181735
11	15	-0.394633	1.887285	2.190554
12	8	-1.886188	2.028031	1.557472
14	8	-0.614780	3.074631	3.369895
15	8	0.491162	2.689956	1.088617
16	6	-2.909698	1.074968	1.883034
17	6	0.445492	3.324085	4.296491
18	6	0.035013	3.920162	0.489948
19	1	-3.732851	1.261433	1.194949
20	1	-2.539032	0.056862	1.750984
21	1	-3.257107	1.222313	2.909449
22	1	0.046418	3.987794	5.063401
23	1	0.791855	2.399721	4.770978
24	1	1.295057	3.810968	3.806570
25	1	0.857652	4.284670	-0.123328
26	1	-0.841296	3.728266	-0.130202

27	1	-0.213067	4.654811	1.258843
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TS 1-2: gauche Diradical -> Perepoxide

1	6	0.000000	0.000000	0.000000
2	6	0.000000	0.000000	1.450302
3	8	1.441392	0.000000	0.347570
4	8	2.028714	1.210123	0.169586
5	1	-0.233152	0.912476	-0.535799
6	1	-0.260296	-0.921083	-0.513971
7	1	0.107956	0.936841	1.973929
8	1	-0.071084	-0.921206	2.010355

CIS-BUTENE

Ethene Perepoxide 1

Number	Number	Type	X	Y	Z
1	6	0.000000	0.000000	0.000000	
2	6	0.000000	0.000000	1.474203	
5	8	-1.300925	0.000000	0.737258	
6	8	-1.933486	-1.323998	0.737288	
7	1	0.102271	-0.978868	-0.452670	
8	1	0.102553	-0.978821	1.926908	
9	6	0.248328	1.189399	-0.876531	
10	6	0.248454	1.189498	2.350603	
11	1	0.037744	2.133227	-0.374277	
12	1	1.296434	1.192209	-1.191358	
13	1	-0.372250	1.126107	-1.773149	
14	1	1.296689	1.192792	2.664947	

15	1	0.036754	2.133218	1.848621
16	1	-0.371583	1.125804	3.247583

Gauche Diradical 2

1	6	0.000000	0.000000	0.000000
2	6	0.000000	0.000000	1.480300
3	8	1.461203	0.000000	1.878922
4	8	1.877983	1.174848	2.287391
5	6	-0.103397	-1.219985	-0.847916
6	1	0.857814	-1.755696	-0.901114
7	1	-0.840461	-1.934750	-0.471051
8	1	-0.372824	-0.959771	-1.874410
9	1	0.335295	0.921366	-0.465337
10	6	-0.622367	-1.193044	2.180290
11	1	-0.366492	0.945122	1.884482
12	1	-0.540147	-1.077882	3.262176
13	1	-1.681130	-1.271201	1.919523
14	1	-0.127595	-2.123304	1.894208

Epoxide 3

1	6	0.000000	0.000000	0.000000
2	6	0.000000	0.000000	1.474038
3	8	1.233455	0.000000	0.737147
4	6	-0.290680	-1.198778	-0.864829
5	1	0.336973	-1.173352	-1.760305
6	1	-0.091656	-2.136051	-0.344867
7	1	-1.336449	-1.192562	-1.188021
8	1	-0.208390	0.956943	-0.480577
9	6	-0.291190	-1.198662	2.338886
10	1	-0.208810	0.956819	1.954695
11	1	0.334268	-1.171919	3.235862
12	1	-1.337711	-1.193330	2.659676
13	1	-0.089961	-2.136045	1.819977

TS O-Transfer 1-3: Perepoxy + (MeO)3P -> Epoxide + (MeO)3P=O

1	8	0.000000	0.000000	0.000000
2	8	0.000000	0.000000	1.508400
4	6	0.702430	-1.216645	-0.524850
5	6	-0.769617	-1.161410	-0.531989
6	1	1.144966	-1.729339	0.323068
7	6	1.587948	-0.971389	-1.708198
8	6	-1.632466	-0.865288	-1.721192
9	1	-1.246779	-1.648624	0.309979
11	15	1.674996	-0.459808	3.229437
12	8	2.673847	0.665151	2.538943
14	8	2.616981	-0.630392	4.626158
15	8	2.221168	-1.778273	2.374114
16	6	2.249603	2.030237	2.556621
17	6	2.030815	-1.329486	5.718614
18	6	3.624273	-2.064662	2.271579
19	1	2.903060	2.574539	1.873239
20	1	1.213280	2.110607	2.217682
21	1	2.353192	2.461051	3.558514
22	1	2.508196	-0.977718	6.635224
23	1	0.951002	-1.144758	5.788082
24	1	2.190358	-2.411053	5.631950
25	1	3.715036	-3.028751	1.769010
26	1	4.131791	-1.290096	1.691710
27	1	4.081493	-2.119261	3.261858
28	1	2.499120	-0.463463	-1.385675
29	1	1.875249	-1.934311	-2.141730
30	1	1.108572	-0.373147	-2.482916
31	1	-2.508858	-0.291412	-1.412154
32	1	-1.105488	-0.307430	-2.494702
33	1	-1.982032	-1.808475	-2.152114

TS O-Transfer 2-3: (1)*H2C-CH2O-O* + (MeO)3P -> Epoxide + (MeO)3P=O

1	8	0.000000	0.000000	0.000000
2	8	0.000000	0.000000	1.408100
4	6	1.372929	-0.021199	-0.511301
5	6	1.249135	0.056447	-1.996429
6	6	2.101758	-1.270931	-0.009142
7	1	1.863129	0.875514	-0.124233
8	1	1.657047	0.927860	-2.496816
9	6	0.410639	-0.891103	-2.783494
11	15	-0.411870	1.888223	2.171685
12	8	-1.855894	2.055243	1.442250
14	8	-0.696912	3.068438	3.345664
15	8	0.556342	2.688101	1.140322
16	6	-2.909584	1.110507	1.684594
17	6	0.298831	3.291869	4.347400
18	6	0.158852	3.927260	0.519618
19	1	-3.685632	1.321328	0.950275
20	1	-2.544133	0.090179	1.556876
21	1	-3.318696	1.243566	2.690022
22	1	-0.133568	3.978080	5.075429
23	1	0.574569	2.361648	4.855455
24	1	1.200115	3.743202	3.919859
25	1	1.023805	4.279139	-0.040507
26	1	-0.680915	3.752180	-0.153841
27	1	-0.123286	4.664003	1.274794
28	1	2.065029	-1.301038	1.080523
29	1	1.637702	-2.179665	-0.399261
30	1	3.146645	-1.248194	-0.329053
31	1	0.811057	-1.040315	-3.791456
32	1	0.323296	-1.866425	-2.297936
33	1	-0.615646	-0.511600	-2.902900

TS 1-2: gauche Diradical -> Perepoxide

1	6	0.000000	0.000000	0.000000
2	6	0.000000	0.000000	1.460500
3	8	1.456287	0.000000	0.317990
4	8	2.053015	1.201765	0.097236

5	1	-0.211580	0.957474	-0.466770
6	6	-0.414316	-1.194276	-0.817665
7	1	0.115714	0.972329	1.919426
8	6	-0.122609	-1.207146	2.318902
9	1	0.013507	-1.120188	-1.819416
10	1	-0.090639	-2.134628	-0.371003
11	1	-1.504247	-1.213347	-0.912326
12	1	0.289362	-1.026949	3.312709
13	1	-1.175699	-1.498876	2.438716
14	1	0.396513	-2.063370	1.881175

Ethene Pereperoxide/Peroxyl Diradical Trapping by (MeO) ₃ P										
DFT(B3LYP)/6-311+G(2df,p)//6-311G(d,p) - Thermochemistry DFT(B3LYP)/6-311G(d,p) 298K										
Structure	a.u. 6-311G(d,p)	<S ² >	ΔE	δH BS	δG BS	a.u. 6-311+G(2df,p)	<S ² >	ΔE	ΔH	ΔG
Diradical gauche Spin-contaminated	-228,928630	0,952500		0,062722	0,028920	-228,947719	0,952119			
Diradical gauche Triplet	-228,926973	2,008118		-----	-----	-228,946000	2,009369			
Diradical gauche Spin-Projected	-228,930126	-----		0,062722	0,028920	-228,949268	-----			
(MeO) ₃ P	-686,900509	-----		0,138848	0,090844	-686,952243	-----			
Reagents	-915,830635	-----	0,00	0,201570	0,119764	-915,901511	-----	0,00	0,00	0,00
Spin-contaminated Complex	-915,833954	0,955269	-2,08	0,203780	0,134796	-915,901415	0,955598			
Triplet Complex	-915,832545	2,008247		-----	-----	-915,899984	2,009452			
Complex	-915,835232	-----	-2,88	0,203780	0,134796	-915,902713	-----	-0,75	0,63	8,68
TS O Transfer Spin-contaminated	-915,825823	0,997931	3,02	0,202087	0,138366	-915,892430	0,999699	5,70		
TS O Transfer Triplet	-915,825488	2,012910		-----	-----	-915,892131	2,013792			
TS O Transfer Spin-Projected	-915,826153	-----	2,81	0,202087	0,138366	-915,892725	-----	5,51	5,84	17,19
Epoxide	-153,830128	-----		0,061157	0,032966	-153,844500	-----			
(MeO) ₃ P=O	-762,197765	-----		0,145526	0,096114	-762,266098	-----			
Products	-916,027892	-----	-123,78	0,206683	0,129080	-916,110598	-----	-131,20	-128,00	-125,36
Structure	a.u. 6-311G(d,p)	<S ² >	ΔE	δH BS	δG BS	a.u. 6-311+G(2df,p)	<S ² >	ΔE	ΔH	ΔG
Pereperoxide	-228,912441	-----		0,064981	0,033985	-228,936512	-----			
(MeO) ₃ P	-686,900509	-----		0,138848	0,090844	-686,952243	-----			
Reagentes	-915,812951	-----	0,00	0,203829	0,124829	-915,888755	-----	0,00	0,00	0,00
Complex	-915,829743	-----	-10,54	0,206235	0,143089	-915,896189	-----	-4,67	-3,16	6,79
TS O Transfer	-915,827598	-----	-9,19	0,204778	0,144672	-915,892455	-----	-2,32	-1,73	10,13
Epoxide	-153,830128	-----		0,061157	0,032966	-153,844500	-----			
(MeO) ₃ P=O	-762,197765	-----		0,145526	0,096114	-762,266098	-----			
Products	-916,027892	-----	-134,88	0,206683	0,129080	-916,110598	-----	-139,21	-137,42	-136,54
Pereperoxide v/s Dirad.			11,10	0,002259	0,005065			8,00	9,42	11,17
TS Dir. -> Perepox. Spin-contaminated	-228,905533	0,042783	15,43	0,062632	0,031655	-228,928134	0,000000	13,26		
TS Dir. -> Perepox. Triplet	-228,854658	2,008607				-228,874719	2,009596			
TS Dir. -> Perepox. Spin-Projected	-228,906640		14,74	0,062632	0,031655	-228,928134		13,26	13,21	14,98

cis-Butene Pereperoxide/Peroxyl Diradical Trapping by (MeO)₃P										
DFT(B3LYP)/6-311+G(2df,p)//6-311G(d,p) - Thermochemistry DFT(B3LYP)/6-311G(d,p) 298K										
Structure	a.u. 6-311G(d,p)	<S ² >	ΔE	δH BS	δG BS	a.u. 6-311+G(2df,p)	<S ² >	ΔE	ΔH	ΔG
<i>Diradical gauche Spin-contaminated</i>	-307,589563	0,9209		0,121828	0,080472	-307,611720	0,9172			
<i>Diradical gauche Triplet</i>	-307,586671	2,0086		-----	-----	-307,608694	2,0099			
Diradical gauche Spin-Projected	-307,592011	-----		0,121828	0,080472	-307,614259	-----			
(MeO)₃P	-686,900509	-----		0,138848	0,090844	-686,952243	-----			
Reagents	-994,492521	-----	0,00	0,260676	0,171316	-994,566503	-----	0,00	0,00	0,00
<i>TS O Transfer Spin-contaminated</i>	-994,484763	1,0037	4,87	0,261314	0,190961	-994,553337	1,0045	8,26		
<i>TS O Transfer Triplet</i>	-994,484952	2,0135		-----	-----	-994,553496	2,0144			
TS O Transfer Spin-Projected	-994,484576	-----	4,99	0,261314	0,190961	-994,553179	-----	8,36	8,76	20,69
Epoxide	-232,493176	-----		0,119721	0,084218	-232,509835	-----			
(MeO)₃P=O	-762,197765	-----		0,145526	0,096114	-762,266098	-----			
Products	-994,690941	-----	-124,51	0,265247	0,180332	-994,775933	-----	-131,42	-128,55	-125,76
Structure	a.u. 6-311G(d,p)	<S ² >	ΔE	δH BS	δG BS	a.u. 6-311+G(2df,p)	<S ² >	ΔE	ΔH	ΔG
Pereperoxide	-307,579328	-----		0,123525	0,084897	-307,606719	-----			
(MeO)₃P	-686,900509	-----		0,138848	0,090844	-686,952243	-----			
Reagents	-994,479837	-----	0,00	0,262373	0,175741	-994,558962	-----	0,00	0,00	0,00
TS O Transfer	-994,494451	-----	-9,17	0,263227	0,195227	-994,562234	-----	-2,05	-1,52	10,17
Epoxide	-232,493176	-----		0,119721	0,084218	-232,509835	-----			
(MeO)₃P=O	-762,197765	-----		0,145526	0,096114	-762,266098	-----			
Products	-994,690941	-----	-132,47	0,265247	0,180332	-994,775933	-----	-136,15	-134,35	-133,27
Pereperoxide v/s Dirad.			7,96	0,001697	0,004425			4,73	5,79	7,50
<i>TS Dir. -> Perepox. Spin-contaminated</i>	-307,572158	0,0630	12,46	0,121295	0,081348	-307,598042	0,0000	10,18		
<i>TS Dir. -> Perepox. Triplet</i>	-307,523293	2,0088								
TS Dir. -> Perepox. Spin-Projected	-307,573740		11,47	0,121295	0,081348	-307,598042		10,18	9,84	10,73

```

%chk=tsOtras-eteDir-meo3p_IRC-B
%mem=256MB

-----
#P UB3LYP/6-311G(d,p) IRC(Reverse,RCFC,StepSize=10,MaxPoints=100) Geom
=Check Guess(Read) IOp(1/33=1,6/7=1,6/10=3) GFInput NoSymm
-----

1/10=5,14=-1,18=40,22=2,26=3,29=120002,33=1,38=1,39=10,42=100/1,15;
2/15=1,40=1/2;
3/5=4,6=6,7=101,11=2,24=10,25=1,30=1/1,2,3;
4/5=1,7=2/1;
5/5=2,42=-5/2;
6/7=1,8=2,9=2,10=3,28=1/1;
7/30=1/1,2,3,16;
1/14=-1,22=2,33=1,39=10,42=100/15(1);
99//99;
2/15=1/2;
3/5=4,6=6,7=101,11=2,25=1,30=1/1,2,3;
4/5=5,7=2,16=2/1;
5/5=2,38=4,42=-5/2;
7/30=1/1,2,3,16;
1/14=-1,22=2,33=1,39=10,42=100/15(-5);
2/15=1/2;
6/7=1,8=2,9=2,10=3,19=2,28=1/1;
99/9=1/99;

Leave Link      1 at Thu Aug 22 13:11:13 2002, MaxMem=    33554432 cpu:      0.1
(Enter /progs/g98a11/bin/l101.exe)

-----
IRC(Back) UB3LYP/BS TS O-Tran. (1)*H2C-CH2O-O* + (MeO)3P -> Epoxide +
(MeO)3P=O
-----

Z-Matrix taken from the checkpoint file:
tsOtras-eteDir-meo3p_IRC-B.chk
Charge = 0 Multiplicity = 1
O
O,1,002
X,1,1.,2,90.
C,1,CO4,2,OOC4,3,0.,0
C,4,CC5,1,OCC5,2,DC5,0
H,4,CH6,5,CCH6,1,DH6,0
H,4,CH7,5,CCH7,1,DH7,0
H,5,CH8,4,CCH8,1,DH8,0
H,5,CH9,4,CCH9,1,DH9,0

```

```

X,2,1.,1,90.,3,0.,0
P,2,OP11,10,XOP11,1,DP11,0
O,11,PO12,2,OPO12,10,DO12,0
X,2,1.,1,90.,3,0.,0
O,11,PO14,2,OPO14,12,DO14,0
O,11,PO15,2,OPO15,12,DO15,0
C,12,OC16,11,POC16,2,DC16,0
C,14,OC17,11,POC17,2,DC17,0
C,15,OC18,11,POC18,2,DC18,0
H,16,CH19,12,OCH19,11,DH19,0
H,16,CH20,12,OCH20,19,DH20,0
H,16,CH21,12,OCH21,19,DH21,0
H,17,CH22,14,OCH22,11,DH22,0
H,17,CH23,14,OCH23,22,DH23,0
H,17,CH24,14,OCH24,22,DH24,0
H,18,CH25,15,OCH25,11,DH25,0
H,18,CH26,15,OCH26,25,DH26,0
H,18,CH27,15,OCH27,25,DH27,0

```

Variables:

```

OO2=1.40542735
OP11=2.08182708
CO4=1.4477622
CC5=1.479576
CH6=1.09866642
CH7=1.09330039
CH8=1.08158152
CH9=1.08251835
PO12=1.62644978
PO14=1.68792776
PO15=1.6257855
OC16=1.43592941
OC17=1.43002904
OC18=1.44217996
CH19=1.08894905
CH20=1.09149917
CH21=1.09358602
CH22=1.08991737
CH23=1.09524154
CH24=1.09491511
CH25=1.08890227
CH26=1.0905635
CH27=1.09199431

```

OOC4=109.38713623
OCC5=107.75338589
CCH6=111.78933235
CCH7=112.86499573
CCH8=121.59131958
CCH9=119.43549334
XOP11=100.92716226
OPO12=96.05552212
OPO14=157.80798062
OPO15=95.08763025
POC16=120.52947095
POC17=118.60231487
POC18=122.0173961
OCH19=106.37301397
OCH20=110.46342126
OCH21=110.47560907
OCH22=106.89852154
OCH23=111.58995043
OCH24=111.2803989
OCH25=106.28355619
OCH26=109.88355914
OCH27=110.6979401
DC5=162.72248053
DH6=117.22060157
DH7=-120.05161097
DH8=127.41817411
DH9=-50.24010732
DP11=247.41226808
DO12=-203.2550863
DO14=120.23915703
DO15=-101.79449888
DC16=59.50544664
DC17=56.85666598
DC18=138.2105816
DH19=191.16415484
DH20=119.19944636
DH21=-118.46965592
DH22=189.4782551
DH23=119.03909145
DH24=-119.10360808
DH25=174.37832801
DH26=119.24934535

DH27=-119.49472315

Recover connectivity data from disk.

Leave Link 101 at Thu Aug 22 13:11:13 2002, MaxMem= 33554432 cpu: 0.1

(Enter /progs/g98a11/bin/l115.exe)

IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC

Berny reaction coordinate optimization.

Atom 3 has atomic number -1 -- default mass set to 1.

Atom 10 has atomic number -1 -- default mass set to 1.

Atom 13 has atomic number -1 -- default mass set to 1.

Cartesian force constants read from checkpoint file:

tsOtras-eteDir-meo3p_IRC-B.chk

RC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC-IRC

SUMMARY OF REACTION PATH FOLLOWING:

(Int. Coord: Angstroms, and Degrees)

	ENERGY	RX.COORD	OO2	OP11	CO4
1	-916.02327	-11.19467	2.83715	1.46940	1.42606
2	-916.02293	-11.09471	2.82486	1.46961	1.42589
3	-916.02257	-10.99474	2.81243	1.46967	1.42572
4	-916.02219	-10.89477	2.79982	1.46972	1.42543
5	-916.02179	-10.79479	2.78699	1.46977	1.42504
6	-916.02136	-10.69483	2.77384	1.46981	1.42443
7	-916.02090	-10.59486	2.76072	1.46985	1.42385
8	-916.02042	-10.49492	2.74694	1.46990	1.42265
9	-916.01990	-10.39504	2.73267	1.46998	1.42099
10	-916.01933	-10.29521	2.71795	1.47008	1.41880
11	-916.01868	-10.19541	2.70297	1.47020	1.41629
12	-916.01793	-10.09558	2.68805	1.47031	1.41358
13	-916.01705	-9.99569	2.67341	1.47043	1.41082
14	-916.01603	-9.89576	2.65917	1.47055	1.40819
15	-916.01487	-9.79580	2.64532	1.47067	1.40573
16	-916.01356	-9.69583	2.63181	1.47079	1.40348
17	-916.01211	-9.59585	2.61845	1.47092	1.40127
18	-916.01054	-9.49586	2.60542	1.47105	1.39934
19	-916.00884	-9.39587	2.59250	1.47119	1.39746
20	-916.00703	-9.29588	2.57978	1.47133	1.39581
21	-916.00512	-9.19588	2.56712	1.47148	1.39422
22	-916.00313	-9.09588	2.55458	1.47164	1.39281
23	-916.00105	-8.99589	2.54205	1.47180	1.39144
24	-915.99891	-8.89589	2.52958	1.47198	1.39023

25	-915.99670	-8.79590	2.51711	1.47216	1.38907
26	-915.99443	-8.69590	2.50462	1.47235	1.38799
27	-915.99212	-8.59590	2.49214	1.47256	1.38703
28	-915.98975	-8.49591	2.47964	1.47278	1.38612
29	-915.98735	-8.39591	2.46709	1.47301	1.38527
30	-915.98492	-8.29591	2.45451	1.47326	1.38453
31	-915.98245	-8.19591	2.44189	1.47353	1.38384
32	-915.97995	-8.09592	2.42922	1.47380	1.38319
33	-915.97743	-7.99592	2.41648	1.47410	1.38266
34	-915.97489	-7.89592	2.40371	1.47442	1.38217
35	-915.97232	-7.79592	2.39086	1.47475	1.38174
36	-915.96974	-7.69593	2.37794	1.47510	1.38137
37	-915.96714	-7.59593	2.36496	1.47548	1.38110
38	-915.96452	-7.49593	2.35192	1.47588	1.38088
39	-915.96189	-7.39593	2.33881	1.47629	1.38072
40	-915.95924	-7.29593	2.32562	1.47674	1.38069
41	-915.95657	-7.19594	2.31239	1.47720	1.38069
42	-915.95388	-7.09594	2.29907	1.47769	1.38078
43	-915.95118	-6.99594	2.28568	1.47820	1.38096
44	-915.94846	-6.89594	2.27225	1.47873	1.38123
45	-915.94573	-6.79595	2.25869	1.47931	1.38166
46	-915.94307	-6.69596	2.24494	1.47993	1.38214
47	-915.94051	-6.59598	2.23094	1.48060	1.38263
48	-915.93802	-6.49599	2.21671	1.48132	1.38314
49	-915.93559	-6.39601	2.20226	1.48211	1.38367
50	-915.93320	-6.29602	2.18763	1.48297	1.38420
51	-915.93084	-6.19603	2.17283	1.48391	1.38475
52	-915.92850	-6.09604	2.15788	1.48494	1.38531
53	-915.92616	-5.99605	2.14280	1.48608	1.38588
54	-915.92383	-5.89606	2.12761	1.48734	1.38647
55	-915.92148	-5.79607	2.11232	1.48874	1.38707
56	-915.91911	-5.69608	2.09694	1.49031	1.38769
57	-915.91671	-5.59609	2.08151	1.49195	1.38832
58	-915.91429	-5.49609	2.06600	1.49370	1.38897
59	-915.91183	-5.39610	2.05039	1.49582	1.38966
60	-915.90933	-5.29610	2.03470	1.49822	1.39037
61	-915.90679	-5.19611	2.01895	1.50091	1.39113
62	-915.90420	-5.09611	2.00313	1.50392	1.39192
63	-915.90156	-4.99612	1.98725	1.50728	1.39275
64	-915.89886	-4.89613	1.97131	1.51099	1.39363
65	-915.89610	-4.79613	1.95532	1.51510	1.39456
66	-915.89329	-4.69614	1.93929	1.51960	1.39555

67	-915.89043	-4.59615	1.92323	1.52451	1.39659
68	-915.88750	-4.49615	1.90713	1.52983	1.39769
69	-915.88453	-4.39616	1.89102	1.53555	1.39886
70	-915.88150	-4.29617	1.87490	1.54167	1.40009
71	-915.87844	-4.19617	1.85878	1.54816	1.40137
72	-915.87535	-4.09618	1.84266	1.55502	1.40273
73	-915.87224	-3.99618	1.82656	1.56221	1.40414
74	-915.86914	-3.89619	1.81048	1.56973	1.40562
75	-915.86605	-3.79619	1.79442	1.57754	1.40715
76	-915.86300	-3.69619	1.77840	1.58564	1.40874
77	-915.86002	-3.59620	1.76239	1.59387	1.41036
78	-915.85712	-3.49620	1.74641	1.60234	1.41203
79	-915.85432	-3.39621	1.73048	1.61102	1.41374
80	-915.85167	-3.29621	1.71466	1.62006	1.41550
81	-915.84916	-3.19622	1.69886	1.62921	1.41729
82	-915.84682	-3.09622	1.68314	1.63855	1.41910
83	-915.84467	-2.99622	1.66763	1.64826	1.42093
84	-915.84270	-2.89623	1.65218	1.65808	1.42275
85	-915.84093	-2.79624	1.63688	1.66812	1.42459
86	-915.83936	-2.69625	1.62200	1.67863	1.42637
87	-915.83798	-2.59627	1.60747	1.68946	1.42812
88	-915.83676	-2.49630	1.59306	1.70042	1.42984
89	-915.83570	-2.39633	1.57947	1.71198	1.43144
90	-915.83478	-2.29637	1.56650	1.72396	1.43292
91	-915.83396	-2.19648	1.55427	1.73634	1.43429
92	-915.83324	-2.09664	1.54246	1.74891	1.43557
93	-915.83259	-1.99667	1.53188	1.76206	1.43666
94	-915.83199	-1.89671	1.52213	1.77552	1.43761
95	-915.83143	-1.79674	1.51319	1.78925	1.43844
96	-915.83091	-1.69679	1.50500	1.80318	1.43914
97	-915.83042	-1.59690	1.49743	1.81728	1.43977
98	-915.82995	-1.49708	1.49023	1.83143	1.44032
99	-915.82950	-1.39708	1.48364	1.84576	1.44081
100	-915.82907	-1.29709	1.47743	1.86016	1.44126
101	-915.82867	-1.19711	1.47154	1.87462	1.44168
102	-915.82829	-1.09715	1.46593	1.88912	1.44206
103	-915.82793	-0.99721	1.46054	1.90364	1.44245
104	-915.82760	-0.89746	1.45536	1.91814	1.44281
105	-915.82730	-0.79777	1.45039	1.93264	1.44320
106	-915.82702	-0.69843	1.44549	1.94707	1.44356
107	-915.82677	-0.59843	1.44073	1.96163	1.44395
108	-915.82655	-0.49844	1.43610	1.97618	1.44434

109	-915.82636	-0.39845	1.43156	1.99071	1.44476
110	-915.82620	-0.29846	1.42704	2.00521	1.44520
111	-915.82607	-0.19858	1.42326	2.01959	1.44562
112	-915.82597	-0.09890	1.41839	2.03437	1.44609
113	-915.82582	0.00000	1.40543	2.08183	1.44776
	CC5	CH6	CH7	CH8	CH9
1	1.46831	1.08569	1.08537	1.08831	1.08790
2	1.46829	1.08569	1.08540	1.08834	1.08806
3	1.46829	1.08570	1.08540	1.08837	1.08815
4	1.46825	1.08571	1.08541	1.08831	1.08801
5	1.46815	1.08572	1.08541	1.08838	1.08812
6	1.46794	1.08572	1.08544	1.08822	1.08795
7	1.46777	1.08578	1.08545	1.08828	1.08800
8	1.46724	1.08583	1.08552	1.08817	1.08788
9	1.46640	1.08592	1.08561	1.08805	1.08774
10	1.46519	1.08607	1.08576	1.08778	1.08749
11	1.46382	1.08626	1.08595	1.08750	1.08718
12	1.46232	1.08648	1.08620	1.08717	1.08681
13	1.46081	1.08674	1.08648	1.08679	1.08640
14	1.45944	1.08701	1.08678	1.08642	1.08595
15	1.45825	1.08730	1.08710	1.08595	1.08555
16	1.45725	1.08756	1.08746	1.08599	1.08494
17	1.45631	1.08787	1.08777	1.08526	1.08469
18	1.45564	1.08815	1.08812	1.08522	1.08414
19	1.45503	1.08844	1.08844	1.08465	1.08388
20	1.45466	1.08872	1.08878	1.08461	1.08339
21	1.45435	1.08900	1.08909	1.08414	1.08317
22	1.45424	1.08927	1.08943	1.08416	1.08271
23	1.45419	1.08954	1.08973	1.08374	1.08255
24	1.45430	1.08979	1.09007	1.08384	1.08211
25	1.45450	1.09008	1.09034	1.08328	1.08216
26	1.45475	1.09033	1.09065	1.08333	1.08183
27	1.45515	1.09059	1.09093	1.08305	1.08176
28	1.45559	1.09080	1.09125	1.08338	1.08139
29	1.45610	1.09105	1.09153	1.08321	1.08130
30	1.45671	1.09127	1.09183	1.08341	1.08107
31	1.45738	1.09155	1.09206	1.08305	1.08116
32	1.45808	1.09177	1.09235	1.08323	1.08100
33	1.45887	1.09203	1.09259	1.08309	1.08102
34	1.45968	1.09221	1.09287	1.08351	1.08085
35	1.46056	1.09247	1.09310	1.08340	1.08088
36	1.46146	1.09268	1.09335	1.08358	1.08084

37	1.46244	1.09293	1.09358	1.08358	1.08087
38	1.46343	1.09310	1.09381	1.08397	1.08086
39	1.46447	1.09334	1.09403	1.08402	1.08089
40	1.46556	1.09352	1.09425	1.08433	1.08092
41	1.46670	1.09385	1.09443	1.08417	1.08099
42	1.46786	1.09402	1.09464	1.08450	1.08105
43	1.46909	1.09430	1.09482	1.08454	1.08111
44	1.47038	1.09452	1.09501	1.08473	1.08118
45	1.47176	1.09480	1.09519	1.08477	1.08123
46	1.47310	1.09511	1.09536	1.08474	1.08128
47	1.47433	1.09541	1.09552	1.08472	1.08133
48	1.47543	1.09570	1.09567	1.08471	1.08139
49	1.47643	1.09599	1.09580	1.08469	1.08145
50	1.47732	1.09627	1.09593	1.08468	1.08151
51	1.47810	1.09655	1.09604	1.08467	1.08158
52	1.47879	1.09682	1.09615	1.08465	1.08164
53	1.47938	1.09709	1.09625	1.08464	1.08169
54	1.47990	1.09735	1.09634	1.08462	1.08175
55	1.48034	1.09761	1.09643	1.08459	1.08180
56	1.48071	1.09786	1.09650	1.08457	1.08185
57	1.48104	1.09811	1.09656	1.08454	1.08190
58	1.48132	1.09835	1.09663	1.08451	1.08195
59	1.48152	1.09858	1.09669	1.08448	1.08199
60	1.48167	1.09881	1.09674	1.08444	1.08202
61	1.48179	1.09902	1.09678	1.08440	1.08206
62	1.48187	1.09923	1.09682	1.08436	1.08209
63	1.48192	1.09943	1.09684	1.08432	1.08212
64	1.48195	1.09961	1.09686	1.08428	1.08215
65	1.48195	1.09979	1.09687	1.08423	1.08218
66	1.48194	1.09995	1.09686	1.08419	1.08220
67	1.48191	1.10010	1.09685	1.08414	1.08222
68	1.48187	1.10023	1.09682	1.08409	1.08225
69	1.48183	1.10034	1.09678	1.08404	1.08227
70	1.48179	1.10044	1.09673	1.08399	1.08229
71	1.48175	1.10052	1.09666	1.08394	1.08230
72	1.48171	1.10058	1.09657	1.08388	1.08232
73	1.48168	1.10062	1.09647	1.08382	1.08233
74	1.48165	1.10064	1.09636	1.08376	1.08235
75	1.48164	1.10064	1.09626	1.08371	1.08235
76	1.48163	1.10058	1.09627	1.08373	1.08228
77	1.48164	1.10063	1.09577	1.08348	1.08244
78	1.48165	1.10053	1.09586	1.08352	1.08236

79	1.48168	1.10050	1.09557	1.08339	1.08240
80	1.48171	1.10039	1.09558	1.08338	1.08236
81	1.48177	1.10040	1.09493	1.08316	1.08246
82	1.48182	1.10028	1.09491	1.08312	1.08244
83	1.48189	1.10024	1.09450	1.08298	1.08248
84	1.48195	1.10009	1.09464	1.08296	1.08245
85	1.48202	1.10003	1.09433	1.08284	1.08247
86	1.48210	1.09993	1.09424	1.08276	1.08247
87	1.48218	1.09994	1.09362	1.08263	1.08250
88	1.48224	1.09980	1.09392	1.08259	1.08249
89	1.48231	1.09978	1.09358	1.08249	1.08250
90	1.48235	1.09966	1.09394	1.08245	1.08250
91	1.48242	1.09977	1.09297	1.08232	1.08252
92	1.48244	1.09966	1.09355	1.08230	1.08251
93	1.48245	1.09966	1.09337	1.08223	1.08252
94	1.48245	1.09964	1.09351	1.08219	1.08252
95	1.48244	1.09966	1.09324	1.08214	1.08253
96	1.48239	1.09961	1.09364	1.08211	1.08253
97	1.48236	1.09968	1.09297	1.08206	1.08253
98	1.48229	1.09963	1.09347	1.08203	1.08254
99	1.48222	1.09962	1.09338	1.08200	1.08254
100	1.48212	1.09959	1.09354	1.08197	1.08254
101	1.48203	1.09959	1.09333	1.08194	1.08254
102	1.48190	1.09954	1.09364	1.08191	1.08254
103	1.48179	1.09953	1.09314	1.08189	1.08254
104	1.48163	1.09946	1.09381	1.08186	1.08255
105	1.48151	1.09945	1.09296	1.08183	1.08254
106	1.48134	1.09938	1.09355	1.08181	1.08254
107	1.48118	1.09932	1.09347	1.08178	1.08254
108	1.48102	1.09926	1.09353	1.08176	1.08254
109	1.48083	1.09919	1.09344	1.08173	1.08254
110	1.48068	1.09912	1.09349	1.08171	1.08254
111	1.48045	1.09904	1.09341	1.08169	1.08253
112	1.48024	1.09895	1.09341	1.08166	1.08253
113	1.47958	1.09867	1.09330	1.08158	1.08252
	PO12	PO14	PO15	OC16	OC17
1	1.60035	1.61598	1.60331	1.44383	1.43185
2	1.60047	1.61607	1.60330	1.44388	1.43168
3	1.60057	1.61624	1.60327	1.44391	1.43155
4	1.60065	1.61650	1.60323	1.44392	1.43146
5	1.60070	1.61684	1.60317	1.44390	1.43140
6	1.60072	1.61729	1.60309	1.44385	1.43138

7	1.60073	1.61775	1.60301	1.44379	1.43139
8	1.60069	1.61839	1.60290	1.44369	1.43146
9	1.60061	1.61913	1.60276	1.44355	1.43156
10	1.60051	1.61996	1.60262	1.44339	1.43170
11	1.60039	1.62083	1.60246	1.44321	1.43186
12	1.60026	1.62172	1.60230	1.44303	1.43203
13	1.60012	1.62261	1.60215	1.44284	1.43220
14	1.59998	1.62346	1.60201	1.44267	1.43237
15	1.59984	1.62429	1.60187	1.44250	1.43254
16	1.59970	1.62509	1.60173	1.44233	1.43271
17	1.59956	1.62588	1.60160	1.44217	1.43287
18	1.59943	1.62665	1.60148	1.44201	1.43303
19	1.59930	1.62742	1.60135	1.44186	1.43319
20	1.59916	1.62818	1.60123	1.44171	1.43335
21	1.59903	1.62894	1.60111	1.44155	1.43351
22	1.59889	1.62971	1.60099	1.44141	1.43367
23	1.59876	1.63048	1.60086	1.44126	1.43383
24	1.59862	1.63127	1.60074	1.44111	1.43400
25	1.59848	1.63206	1.60062	1.44097	1.43417
26	1.59834	1.63287	1.60049	1.44082	1.43434
27	1.59820	1.63371	1.60036	1.44067	1.43452
28	1.59806	1.63455	1.60024	1.44052	1.43470
29	1.59791	1.63542	1.60011	1.44038	1.43488
30	1.59776	1.63632	1.59997	1.44023	1.43507
31	1.59761	1.63723	1.59984	1.44008	1.43526
32	1.59746	1.63817	1.59970	1.43993	1.43545
33	1.59731	1.63915	1.59957	1.43978	1.43565
34	1.59716	1.64015	1.59943	1.43963	1.43586
35	1.59700	1.64118	1.59929	1.43948	1.43606
36	1.59685	1.64224	1.59915	1.43933	1.43627
37	1.59669	1.64335	1.59901	1.43919	1.43649
38	1.59654	1.64448	1.59887	1.43904	1.43670
39	1.59639	1.64564	1.59874	1.43889	1.43693
40	1.59624	1.64687	1.59861	1.43875	1.43715
41	1.59610	1.64811	1.59847	1.43861	1.43737
42	1.59596	1.64939	1.59835	1.43847	1.43760
43	1.59583	1.65071	1.59822	1.43833	1.43783
44	1.59570	1.65206	1.59811	1.43820	1.43806
45	1.59559	1.65350	1.59800	1.43807	1.43830
46	1.59549	1.65502	1.59791	1.43794	1.43853
47	1.59541	1.65668	1.59782	1.43780	1.43876
48	1.59534	1.65846	1.59776	1.43766	1.43899

49	1.59530	1.66038	1.59772	1.43753	1.43922
50	1.59529	1.66241	1.59770	1.43739	1.43943
51	1.59531	1.66457	1.59771	1.43726	1.43963
52	1.59537	1.66683	1.59776	1.43713	1.43982
53	1.59547	1.66920	1.59783	1.43700	1.43998
54	1.59561	1.67165	1.59794	1.43688	1.44011
55	1.59579	1.67418	1.59810	1.43678	1.44022
56	1.59602	1.67676	1.59829	1.43668	1.44029
57	1.59627	1.67939	1.59850	1.43658	1.44035
58	1.59657	1.68208	1.59875	1.43650	1.44038
59	1.59694	1.68477	1.59907	1.43643	1.44036
60	1.59736	1.68745	1.59943	1.43638	1.44029
61	1.59782	1.69011	1.59982	1.43633	1.44019
62	1.59832	1.69273	1.60026	1.43629	1.44005
63	1.59886	1.69528	1.60072	1.43626	1.43987
64	1.59943	1.69776	1.60123	1.43624	1.43966
65	1.60003	1.70014	1.60176	1.43622	1.43940
66	1.60066	1.70242	1.60231	1.43620	1.43912
67	1.60130	1.70457	1.60289	1.43619	1.43879
68	1.60197	1.70660	1.60349	1.43618	1.43844
69	1.60265	1.70849	1.60411	1.43616	1.43806
70	1.60334	1.71025	1.60474	1.43615	1.43765
71	1.60404	1.71186	1.60538	1.43613	1.43722
72	1.60474	1.71334	1.60603	1.43610	1.43677
73	1.60545	1.71470	1.60669	1.43607	1.43630
74	1.60615	1.71592	1.60736	1.43604	1.43582
75	1.60686	1.71703	1.60802	1.43600	1.43533
76	1.60757	1.71803	1.60869	1.43596	1.43484
77	1.60828	1.71898	1.60935	1.43591	1.43434
78	1.60898	1.71983	1.61002	1.43586	1.43384
79	1.60968	1.72061	1.61068	1.43580	1.43335
80	1.61038	1.72126	1.61133	1.43575	1.43287
81	1.61106	1.72188	1.61197	1.43569	1.43239
82	1.61175	1.72244	1.61261	1.43563	1.43193
83	1.61241	1.72291	1.61322	1.43558	1.43149
84	1.61307	1.72334	1.61382	1.43553	1.43107
85	1.61372	1.72373	1.61441	1.43548	1.43066
86	1.61434	1.72401	1.61495	1.43544	1.43031
87	1.61493	1.72421	1.61547	1.43540	1.42998
88	1.61552	1.72440	1.61597	1.43537	1.42968
89	1.61605	1.72443	1.61641	1.43536	1.42943
90	1.61654	1.72433	1.61681	1.43536	1.42924

91	1.61698	1.72409	1.61715	1.43536	1.42908
92	1.61741	1.72379	1.61748	1.43538	1.42896
93	1.61777	1.72322	1.61775	1.43542	1.42890
94	1.61809	1.72246	1.61798	1.43547	1.42887
95	1.61839	1.72152	1.61819	1.43552	1.42887
96	1.61865	1.72041	1.61838	1.43558	1.42891
97	1.61891	1.71914	1.61856	1.43564	1.42895
98	1.61915	1.71779	1.61874	1.43571	1.42902
99	1.61940	1.71628	1.61893	1.43577	1.42910
100	1.61966	1.71466	1.61914	1.43584	1.42918
101	1.61993	1.71297	1.61936	1.43589	1.42926
102	1.62021	1.71122	1.61961	1.43595	1.42935
103	1.62052	1.70942	1.61988	1.43599	1.42943
104	1.62086	1.70760	1.62019	1.43603	1.42952
105	1.62122	1.70576	1.62053	1.43605	1.42958
106	1.62159	1.70392	1.62088	1.43608	1.42966
107	1.62200	1.70207	1.62128	1.43610	1.42972
108	1.62244	1.70023	1.62171	1.43611	1.42978
109	1.62292	1.69843	1.62217	1.43609	1.42983
110	1.62339	1.69666	1.62263	1.43612	1.42990
111	1.62407	1.69508	1.62323	1.43604	1.42990
112	1.62447	1.69301	1.62372	1.43606	1.42995
113	1.62645	1.68793	1.62579	1.43593	1.43003
	OC18	CH19	CH20	CH21	CH22
1	1.43763	1.08816	1.09016	1.09253	1.08943
2	1.43742	1.08817	1.09015	1.09254	1.08945
3	1.43721	1.08818	1.09014	1.09256	1.08947
4	1.43697	1.08819	1.09014	1.09258	1.08950
5	1.43672	1.08820	1.09014	1.09259	1.08952
6	1.43645	1.08821	1.09014	1.09261	1.08955
7	1.43618	1.08822	1.09014	1.09263	1.08957
8	1.43588	1.08823	1.09014	1.09266	1.08958
9	1.43558	1.08825	1.09015	1.09268	1.08959
10	1.43528	1.08826	1.09016	1.09270	1.08961
11	1.43498	1.08827	1.09016	1.09273	1.08962
12	1.43471	1.08828	1.09017	1.09275	1.08963
13	1.43446	1.08829	1.09018	1.09277	1.08964
14	1.43423	1.08830	1.09018	1.09279	1.08964
15	1.43403	1.08831	1.09019	1.09281	1.08965
16	1.43384	1.08832	1.09019	1.09284	1.08964
17	1.43366	1.08833	1.09020	1.09285	1.08966
18	1.43350	1.08834	1.09020	1.09287	1.08966

19	1.43335	1.08834	1.09021	1.09289	1.08967
20	1.43321	1.08835	1.09022	1.09291	1.08967
21	1.43307	1.08836	1.09022	1.09292	1.08967
22	1.43295	1.08836	1.09023	1.09294	1.08967
23	1.43283	1.08837	1.09024	1.09295	1.08968
24	1.43271	1.08838	1.09024	1.09297	1.08968
25	1.43261	1.08838	1.09025	1.09298	1.08969
26	1.43250	1.08839	1.09026	1.09300	1.08969
27	1.43241	1.08839	1.09026	1.09301	1.08969
28	1.43231	1.08840	1.09027	1.09303	1.08969
29	1.43223	1.08840	1.09027	1.09304	1.08969
30	1.43215	1.08840	1.09028	1.09306	1.08969
31	1.43208	1.08841	1.09029	1.09307	1.08970
32	1.43201	1.08841	1.09030	1.09308	1.08970
33	1.43195	1.08842	1.09031	1.09309	1.08971
34	1.43189	1.08842	1.09031	1.09311	1.08970
35	1.43185	1.08842	1.09032	1.09312	1.08970
36	1.43181	1.08843	1.09033	1.09314	1.08970
37	1.43178	1.08843	1.09034	1.09315	1.08970
38	1.43176	1.08843	1.09034	1.09317	1.08970
39	1.43174	1.08843	1.09035	1.09318	1.08970
40	1.43175	1.08843	1.09035	1.09319	1.08970
41	1.43175	1.08843	1.09037	1.09320	1.08971
42	1.43177	1.08843	1.09038	1.09321	1.08970
43	1.43180	1.08843	1.09039	1.09322	1.08970
44	1.43184	1.08843	1.09039	1.09324	1.08970
45	1.43190	1.08843	1.09040	1.09324	1.08969
46	1.43197	1.08843	1.09041	1.09325	1.08969
47	1.43205	1.08842	1.09042	1.09326	1.08969
48	1.43215	1.08842	1.09044	1.09327	1.08969
49	1.43225	1.08842	1.09045	1.09328	1.08969
50	1.43238	1.08841	1.09046	1.09329	1.08969
51	1.43251	1.08841	1.09048	1.09330	1.08969
52	1.43266	1.08841	1.09049	1.09332	1.08969
53	1.43283	1.08841	1.09051	1.09333	1.08970
54	1.43302	1.08841	1.09052	1.09334	1.08970
55	1.43322	1.08840	1.09054	1.09336	1.08971
56	1.43344	1.08840	1.09056	1.09337	1.08972
57	1.43366	1.08840	1.09058	1.09339	1.08973
58	1.43391	1.08840	1.09060	1.09340	1.08974
59	1.43417	1.08840	1.09061	1.09341	1.08974
60	1.43444	1.08840	1.09063	1.09343	1.08975

61	1.43472	1.08839	1.09064	1.09344	1.08976
62	1.43501	1.08839	1.09066	1.09345	1.08978
63	1.43530	1.08839	1.09068	1.09346	1.08979
64	1.43560	1.08839	1.09069	1.09347	1.08980
65	1.43589	1.08838	1.09070	1.09348	1.08981
66	1.43618	1.08838	1.09072	1.09349	1.08982
67	1.43646	1.08838	1.09073	1.09350	1.08984
68	1.43674	1.08838	1.09074	1.09350	1.08985
69	1.43700	1.08838	1.09075	1.09351	1.08987
70	1.43726	1.08838	1.09076	1.09351	1.08988
71	1.43750	1.08839	1.09078	1.09351	1.08990
72	1.43773	1.08839	1.09079	1.09351	1.08992
73	1.43794	1.08840	1.09081	1.09351	1.08994
74	1.43814	1.08841	1.09082	1.09351	1.08996
75	1.43832	1.08841	1.09083	1.09351	1.08996
76	1.43850	1.08841	1.09082	1.09353	1.08988
77	1.43866	1.08846	1.09092	1.09348	1.09015
78	1.43881	1.08845	1.09089	1.09350	1.09001
79	1.43896	1.08848	1.09094	1.09348	1.09012
80	1.43909	1.08848	1.09093	1.09349	1.09004
81	1.43921	1.08855	1.09106	1.09345	1.09033
82	1.43934	1.08855	1.09106	1.09345	1.09028
83	1.43945	1.08860	1.09113	1.09343	1.09043
84	1.43957	1.08859	1.09110	1.09344	1.09030
85	1.43969	1.08862	1.09116	1.09343	1.09040
86	1.43981	1.08863	1.09118	1.09342	1.09039
87	1.43993	1.08870	1.09130	1.09340	1.09066
88	1.44007	1.08867	1.09124	1.09341	1.09046
89	1.44021	1.08871	1.09130	1.09339	1.09058
90	1.44037	1.08868	1.09121	1.09340	1.09036
91	1.44052	1.08878	1.09141	1.09337	1.09082
92	1.44071	1.08872	1.09129	1.09339	1.09051
93	1.44089	1.08874	1.09132	1.09338	1.09057
94	1.44107	1.08873	1.09128	1.09338	1.09048
95	1.44125	1.08876	1.09132	1.09337	1.09058
96	1.44143	1.08872	1.09123	1.09338	1.09036
97	1.44158	1.08879	1.09135	1.09337	1.09065
98	1.44175	1.08875	1.09126	1.09337	1.09042
99	1.44189	1.08876	1.09127	1.09337	1.09042
100	1.44201	1.08875	1.09124	1.09338	1.09033
101	1.44212	1.08877	1.09127	1.09338	1.09038
102	1.44221	1.08874	1.09122	1.09339	1.09022

103	1.44228	1.08879	1.09129	1.09339	1.09035
104	1.44234	1.08874	1.09119	1.09341	1.09007
105	1.44237	1.08883	1.09134	1.09341	1.09037
106	1.44241	1.08879	1.09127	1.09342	1.09015
107	1.44243	1.08881	1.09129	1.09344	1.09014
108	1.44243	1.08881	1.09130	1.09345	1.09008
109	1.44241	1.08883	1.09133	1.09347	1.09008
110	1.44243	1.08884	1.09134	1.09348	1.09003
111	1.44232	1.08887	1.09138	1.09350	1.09002
112	1.44234	1.08888	1.09140	1.09352	1.08999
113	1.44218	1.08895	1.09150	1.09359	1.08992
	CH23	CH24	CH25	CH26	CH27
1	1.09230	1.09348	1.08869	1.09048	1.09299
2	1.09230	1.09347	1.08868	1.09048	1.09300
3	1.09230	1.09347	1.08868	1.09049	1.09301
4	1.09230	1.09346	1.08867	1.09050	1.09303
5	1.09231	1.09346	1.08867	1.09051	1.09304
6	1.09231	1.09345	1.08867	1.09051	1.09305
7	1.09231	1.09345	1.08867	1.09052	1.09307
8	1.09231	1.09344	1.08867	1.09054	1.09308
9	1.09230	1.09344	1.08867	1.09055	1.09309
10	1.09231	1.09343	1.08867	1.09056	1.09310
11	1.09231	1.09343	1.08868	1.09057	1.09312
12	1.09231	1.09343	1.08868	1.09058	1.09313
13	1.09231	1.09343	1.08869	1.09059	1.09314
14	1.09231	1.09343	1.08869	1.09060	1.09315
15	1.09231	1.09343	1.08870	1.09061	1.09316
16	1.09231	1.09343	1.08869	1.09062	1.09317
17	1.09231	1.09343	1.08870	1.09063	1.09317
18	1.09231	1.09344	1.08871	1.09064	1.09318
19	1.09231	1.09343	1.08871	1.09064	1.09319
20	1.09231	1.09344	1.08872	1.09065	1.09319
21	1.09232	1.09344	1.08872	1.09066	1.09320
22	1.09232	1.09344	1.08873	1.09066	1.09320
23	1.09232	1.09344	1.08873	1.09067	1.09321
24	1.09232	1.09344	1.08874	1.09067	1.09321
25	1.09232	1.09344	1.08874	1.09068	1.09321
26	1.09232	1.09344	1.08874	1.09068	1.09321
27	1.09232	1.09344	1.08875	1.09069	1.09322
28	1.09232	1.09344	1.08875	1.09069	1.09322
29	1.09232	1.09344	1.08875	1.09070	1.09322
30	1.09232	1.09344	1.08875	1.09070	1.09322

31	1.09233	1.09344	1.08876	1.09070	1.09322
32	1.09233	1.09344	1.08876	1.09071	1.09321
33	1.09233	1.09344	1.08876	1.09071	1.09321
34	1.09233	1.09344	1.08876	1.09071	1.09321
35	1.09233	1.09344	1.08877	1.09071	1.09321
36	1.09232	1.09344	1.08877	1.09072	1.09320
37	1.09232	1.09343	1.08877	1.09072	1.09319
38	1.09232	1.09344	1.08877	1.09072	1.09319
39	1.09232	1.09343	1.08877	1.09072	1.09318
40	1.09232	1.09343	1.08876	1.09072	1.09317
41	1.09232	1.09343	1.08876	1.09071	1.09316
42	1.09232	1.09343	1.08876	1.09072	1.09315
43	1.09232	1.09342	1.08876	1.09071	1.09314
44	1.09232	1.09342	1.08875	1.09071	1.09313
45	1.09231	1.09342	1.08875	1.09071	1.09311
46	1.09231	1.09341	1.08874	1.09070	1.09309
47	1.09230	1.09341	1.08873	1.09069	1.09307
48	1.09230	1.09341	1.08872	1.09069	1.09305
49	1.09230	1.09341	1.08872	1.09068	1.09302
50	1.09230	1.09341	1.08871	1.09067	1.09300
51	1.09230	1.09341	1.08871	1.09067	1.09297
52	1.09231	1.09341	1.08870	1.09066	1.09295
53	1.09231	1.09341	1.08870	1.09065	1.09292
54	1.09232	1.09342	1.08869	1.09064	1.09289
55	1.09232	1.09343	1.08869	1.09063	1.09286
56	1.09233	1.09344	1.08869	1.09063	1.09283
57	1.09235	1.09344	1.08869	1.09062	1.09280
58	1.09236	1.09346	1.08868	1.09061	1.09276
59	1.09237	1.09347	1.08868	1.09060	1.09273
60	1.09239	1.09348	1.08868	1.09059	1.09270
61	1.09240	1.09350	1.08868	1.09058	1.09267
62	1.09242	1.09351	1.08868	1.09058	1.09263
63	1.09244	1.09353	1.08867	1.09057	1.09260
64	1.09247	1.09355	1.08867	1.09056	1.09257
65	1.09250	1.09357	1.08867	1.09055	1.09253
66	1.09253	1.09359	1.08867	1.09054	1.09250
67	1.09256	1.09362	1.08867	1.09054	1.09247
68	1.09260	1.09365	1.08866	1.09053	1.09244
69	1.09264	1.09368	1.08866	1.09053	1.09241
70	1.09270	1.09372	1.08866	1.09052	1.09238
71	1.09275	1.09376	1.08866	1.09052	1.09235
72	1.09282	1.09380	1.08866	1.09052	1.09232

73	1.09289	1.09385	1.08866	1.09052	1.09229
74	1.09297	1.09392	1.08866	1.09052	1.09226
75	1.09306	1.09399	1.08865	1.09053	1.09224
76	1.09314	1.09411	1.08858	1.09056	1.09220
77	1.09328	1.09409	1.08874	1.09050	1.09219
78	1.09336	1.09423	1.08864	1.09055	1.09216
79	1.09349	1.09429	1.08869	1.09054	1.09213
80	1.09358	1.09442	1.08863	1.09057	1.09210
81	1.09377	1.09442	1.08881	1.09053	1.09211
82	1.09386	1.09454	1.08875	1.09055	1.09207
83	1.09402	1.09459	1.08884	1.09054	1.09206
84	1.09408	1.09474	1.08874	1.09057	1.09202
85	1.09422	1.09480	1.08879	1.09057	1.09201
86	1.09431	1.09490	1.08878	1.09058	1.09198
87	1.09450	1.09490	1.08893	1.09057	1.09201
88	1.09450	1.09503	1.08880	1.09058	1.09194
89	1.09462	1.09506	1.08887	1.09058	1.09194
90	1.09458	1.09517	1.08873	1.09058	1.09187
91	1.09486	1.09510	1.08899	1.09057	1.09196
92	1.09475	1.09520	1.08881	1.09057	1.09186
93	1.09482	1.09520	1.08885	1.09056	1.09186
94	1.09481	1.09522	1.08880	1.09055	1.09183
95	1.09490	1.09520	1.08885	1.09054	1.09185
96	1.09479	1.09523	1.08874	1.09052	1.09179
97	1.09500	1.09517	1.08890	1.09052	1.09186
98	1.09488	1.09518	1.08878	1.09050	1.09180
99	1.09492	1.09516	1.08879	1.09050	1.09181
100	1.09489	1.09515	1.08876	1.09048	1.09179
101	1.09495	1.09512	1.08880	1.09048	1.09182
102	1.09487	1.09510	1.08873	1.09047	1.09179
103	1.09501	1.09507	1.08882	1.09048	1.09185
104	1.09483	1.09506	1.08868	1.09046	1.09178
105	1.09512	1.09502	1.08887	1.09048	1.09189
106	1.09498	1.09502	1.08876	1.09047	1.09184
107	1.09502	1.09500	1.08878	1.09047	1.09186
108	1.09501	1.09498	1.08877	1.09048	1.09187
109	1.09506	1.09497	1.08880	1.09048	1.09189
110	1.09507	1.09496	1.08880	1.09049	1.09190
111	1.09512	1.09494	1.08882	1.09050	1.09193
112	1.09513	1.09493	1.08883	1.09051	1.09194
113	1.09524	1.09492	1.08890	1.09056	1.09199
	OOC4	OCC5	CCH6	CCH7	CCH8

1	80.64451	59.12083	120.01426	119.73621	119.78552
2	80.77043	59.12236	120.01437	119.73439	119.79053
3	80.89515	59.12837	120.01058	119.73115	119.79196
4	81.02043	59.14411	120.00761	119.72613	119.79493
5	81.14885	59.17608	119.99985	119.71675	119.79712
6	81.28645	59.23850	119.98795	119.69934	119.80132
7	81.41614	59.28447	119.97560	119.68364	119.80521
8	81.57767	59.42688	119.95401	119.64673	119.81560
9	81.76898	59.65636	119.92198	119.59037	119.83227
10	81.99897	59.99914	119.88415	119.51453	119.86360
11	82.26914	60.46827	119.83208	119.41302	119.90266
12	82.57296	61.04665	119.77371	119.29283	119.95337
13	82.90192	61.71099	119.71284	119.15875	120.01495
14	83.24596	62.43516	119.64739	119.01305	120.07966
15	83.59915	63.19979	119.57784	118.85727	120.14478
16	83.95776	63.99085	119.50261	118.69458	120.20545
17	84.32095	64.79902	119.43055	118.52658	120.27194
18	84.68633	65.62272	119.35002	118.35078	120.32733
19	85.05381	66.45489	119.27103	118.17060	120.38488
20	85.42209	67.29340	119.18437	117.98380	120.43118
21	85.79186	68.13695	119.09877	117.79297	120.47853
22	86.16207	68.98215	119.00586	117.59681	120.51510
23	86.53352	69.83055	118.91390	117.39673	120.55254
24	86.90539	70.67780	118.81473	117.19284	120.58009
25	87.27788	71.52621	118.71551	116.98331	120.60904
26	87.65218	72.37615	118.61272	116.77337	120.63133
27	88.02632	73.22118	118.50588	116.55898	120.65071
28	88.40113	74.06618	118.39486	116.34450	120.66478
29	88.77754	74.91104	118.28371	116.12672	120.68012
30	89.15376	75.74895	118.16623	115.90945	120.69172
31	89.53058	76.58633	118.04808	115.68915	120.70521
32	89.90875	77.42191	117.92648	115.47031	120.71580
33	90.28642	78.24920	117.80010	115.25255	120.72796
34	90.66464	79.07512	117.67042	115.03638	120.73766
35	91.04349	79.89749	117.53804	114.82003	120.75036
36	91.42281	80.71556	117.40249	114.60680	120.76372
37	91.80094	81.52345	117.26065	114.39933	120.77952
38	92.17920	82.32894	117.11548	114.19397	120.79451
39	92.55792	83.13019	116.96755	113.99188	120.81328
40	92.93450	83.91942	116.81105	113.79992	120.83247
41	93.31116	84.70631	116.65232	113.60980	120.85351
42	93.68690	85.48645	116.48746	113.42688	120.87399

43	94.06140	86.25929	116.31679	113.25107	120.89486
44	94.43421	87.02567	116.13904	113.08373	120.91467
45	94.80269	87.77469	115.95163	112.93103	120.92838
46	95.16872	88.50673	115.76372	112.78689	120.94216
47	95.53251	89.21708	115.58057	112.65016	120.95993
48	95.89336	89.90472	115.40247	112.52111	120.98142
49	96.25065	90.56901	115.22962	112.39988	121.00629
50	96.60387	91.20966	115.06214	112.28651	121.03412
51	96.95265	91.82673	114.90008	112.18093	121.06446
52	97.29670	92.42060	114.74340	112.08303	121.09683
53	97.63587	92.99190	114.59203	111.99261	121.13076
54	97.97007	93.54145	114.44587	111.90947	121.16582
55	98.29928	94.07023	114.30476	111.83337	121.20156
56	98.62354	94.57933	114.16856	111.76409	121.23762
57	98.94525	95.07802	114.03475	111.69833	121.27386
58	99.26269	95.55900	113.90565	111.63840	121.31030
59	99.57303	96.01602	113.78320	111.58771	121.34576
60	99.87868	96.45793	113.66508	111.54306	121.38037
61	100.17972	96.88567	113.55116	111.50428	121.41393
62	100.47612	97.30016	113.44133	111.47128	121.44621
63	100.76785	97.70223	113.33549	111.44397	121.47701
64	101.05481	98.09262	113.23354	111.42227	121.50614
65	101.33693	98.47201	113.13538	111.40608	121.53342
66	101.61410	98.84098	113.04090	111.39529	121.55867
67	101.88623	99.20010	112.94999	111.38978	121.58172
68	102.15326	99.54989	112.86250	111.38939	121.60243
69	102.41514	99.89083	112.77829	111.39389	121.62068
70	102.67189	100.22342	112.69719	111.40306	121.63637
71	102.92355	100.54815	112.61900	111.41661	121.64943
72	103.17023	100.86551	112.54355	111.43420	121.65982
73	103.41206	101.17597	112.47062	111.45549	121.66755
74	103.64921	101.48005	112.40004	111.48009	121.67264
75	103.88188	101.77822	112.33165	111.50761	121.67514
76	104.11034	102.07100	112.26545	111.53760	121.67502
77	104.33626	102.36044	112.19919	111.56924	121.67396
78	104.55893	102.64603	112.13600	111.60223	121.67062
79	104.77811	102.92728	112.07353	111.63722	121.66571
80	104.99211	103.20297	112.01424	111.67326	121.65859
81	105.20375	103.47552	111.95390	111.71103	121.64977
82	105.41312	103.74607	111.89684	111.74831	121.64092
83	105.61676	104.00993	111.84116	111.78664	121.63022
84	105.81907	104.27310	111.78803	111.82383	121.62008

85	106.01818	104.53186	111.73507	111.86211	121.60890
86	106.21100	104.78281	111.68613	111.89881	121.59826
87	106.39858	105.02605	111.63807	111.93623	121.58667
88	106.58549	105.26923	111.59391	111.97112	121.57761
89	106.76281	105.49642	111.55254	112.00578	121.56823
90	106.93400	105.71392	111.51719	112.03713	121.56182
91	107.09657	105.91540	111.48091	112.06986	121.55356
92	107.25688	106.11294	111.45238	112.09878	121.54981
93	107.40427	106.28535	111.42772	112.12772	121.54631
94	107.54343	106.44241	111.40863	112.15477	121.54518
95	107.67368	106.58238	111.39280	112.18236	121.54416
96	107.79625	106.70878	111.38399	112.20784	121.54622
97	107.91058	106.81910	111.37603	112.23619	121.54648
98	108.02230	106.92492	111.37392	112.26174	121.55022
99	108.12588	107.01476	111.37522	112.28971	121.55336
100	108.22484	107.09635	111.38072	112.31772	121.55772
101	108.31919	107.16907	111.38840	112.34771	121.56131
102	108.41016	107.23615	111.40090	112.37723	121.56656
103	108.49722	107.29508	111.41389	112.41013	121.56935
104	108.58209	107.35175	111.43392	112.43979	121.57580
105	108.66259	107.39858	111.45303	112.47723	121.57744
106	108.74321	107.44779	111.47644	112.50895	121.58255
107	108.82149	107.49004	111.50184	112.54541	121.58612
108	108.89787	107.52935	111.52962	112.58075	121.58880
109	108.97381	107.56574	111.56030	112.62205	121.59252
110	109.04904	107.60286	111.58928	112.65344	121.59487
111	109.11232	107.62372	111.62354	112.70749	121.59892
112	109.16547	107.67702	111.65532	112.73703	121.59545
113	109.38714	107.75339	111.78933	112.86500	121.59132
	CCH9	XOP11	OPO12	OPO14	OPO15
1	119.73566	109.40028	116.78058	118.44492	112.64636
2	119.73505	109.19504	116.64040	118.76771	112.53864
3	119.73643	108.99390	116.49434	119.11796	112.42155
4	119.73814	108.79712	116.34167	119.49484	112.29490
5	119.74410	108.60478	116.18217	119.89835	112.15870
6	119.75318	108.41760	116.01636	120.32651	112.01407
7	119.76298	108.23093	115.84642	120.77013	111.86380
8	119.78807	108.05555	115.66989	121.24162	111.70518
9	119.83003	107.89012	115.49098	121.72480	111.54327
10	119.89616	107.73885	115.31403	122.20681	111.38252
11	119.98307	107.60631	115.14520	122.66980	111.22896
12	120.08907	107.49352	114.98801	123.10305	111.08624

13	120.20936	107.39916	114.84344	123.50250	110.95552
14	120.33491	107.32103	114.71163	123.86728	110.83666
15	120.45945	107.25541	114.59030	124.20321	110.72758
16	120.58236	107.19947	114.47715	124.51629	110.62621
17	120.70279	107.14824	114.36786	124.81867	110.52855
18	120.81413	107.10496	114.26563	125.10103	110.43747
19	120.92085	107.06442	114.16577	125.37680	110.34864
20	121.01547	107.02823	114.06982	125.64126	110.26342
21	121.10439	106.99358	113.97515	125.90212	110.17942
22	121.18016	106.96106	113.88235	126.15728	110.09713
23	121.24933	106.92929	113.79014	126.41078	110.01540
24	121.30532	106.89820	113.69843	126.66238	109.93407
25	121.35048	106.86706	113.60681	126.91357	109.85281
26	121.39202	106.83628	113.51491	127.16548	109.77126
27	121.41555	106.80443	113.42231	127.41890	109.68893
28	121.43720	106.77252	113.32932	127.67325	109.60620
29	121.44733	106.73968	113.23535	127.93031	109.52249
30	121.44506	106.70505	113.13979	128.19138	109.43708
31	121.43388	106.66944	113.04354	128.45421	109.35099
32	121.41856	106.63289	112.94586	128.72112	109.26343
33	121.38829	106.59354	112.84604	128.99373	109.17358
34	121.35693	106.55366	112.74534	129.26872	109.08283
35	121.31422	106.51157	112.64285	129.54868	108.99019
36	121.26662	106.46788	112.53867	129.83356	108.89574
37	121.20644	106.42085	112.43186	130.12567	108.79840
38	121.14409	106.37293	112.32401	130.42066	108.69995
39	121.07380	106.32274	112.21421	130.72146	108.59937
40	120.99300	106.26913	112.10160	131.03025	108.49557
41	120.90603	106.21384	111.98790	131.34215	108.39059
42	120.81364	106.15662	111.87213	131.66028	108.28324
43	120.71186	106.09659	111.75433	131.98440	108.17354
44	120.60110	106.03474	111.63522	132.31277	108.06211
45	120.47509	105.96787	111.51197	132.65332	107.94609
46	120.34707	105.89605	111.38327	133.01003	107.82456
47	120.22475	105.81817	111.24691	133.38953	107.69552
48	120.10879	105.73459	111.10312	133.79108	107.55909
49	119.99974	105.64575	110.95220	134.21368	107.41547
50	119.89794	105.55214	110.79447	134.65611	107.26489
51	119.80362	105.45431	110.63030	135.11701	107.10757
52	119.71685	105.35279	110.46003	135.59488	106.94374
53	119.63762	105.24814	110.28398	136.08814	106.77359
54	119.56577	105.14092	110.10245	136.59520	106.59729

55	119.50110	105.03167	109.91569	137.11442	106.41497
56	119.44335	104.92093	109.72392	137.64418	106.22675
57	119.38980	104.80916	109.52955	138.18007	106.03547
58	119.34230	104.69627	109.33120	138.72539	105.83918
59	119.30294	104.58368	109.12597	139.27851	105.63428
60	119.26879	104.47169	108.91619	139.83559	105.42361
61	119.23970	104.36070	108.70201	140.39542	105.20725
62	119.21531	104.25119	108.48351	140.95645	104.98526
63	119.19530	104.14365	108.26080	141.51714	104.75772
64	119.17934	104.03855	108.03403	142.07600	104.52478
65	119.16713	103.93632	107.80340	142.63158	104.28667
66	119.15839	103.83737	107.56916	143.18254	104.04368
67	119.15283	103.74206	107.33161	143.72761	103.79618
68	119.15021	103.65070	107.09112	144.26569	103.54461
69	119.15027	103.56352	106.84807	144.79584	103.28947
70	119.15279	103.48070	106.60288	145.31728	103.03131
71	119.15755	103.40235	106.35598	145.82945	102.77070
72	119.16434	103.32849	106.10779	146.33191	102.50826
73	119.17296	103.25910	105.85869	146.82444	102.24457
74	119.18321	103.19412	105.60905	147.30691	101.98023
75	119.19495	103.13349	105.35918	147.77934	101.71583
76	119.20815	103.07732	105.10939	148.24172	101.45194
77	119.22155	103.02172	104.85966	148.69918	101.18822
78	119.23631	102.97156	104.61034	149.14731	100.92580
79	119.25181	102.92353	104.36155	149.58661	100.66514
80	119.26816	102.88105	104.11368	150.01171	100.40853
81	119.28545	102.83836	103.86618	150.43213	100.15311
82	119.30253	102.79967	103.61926	150.84443	99.90088
83	119.32061	102.76248	103.37291	151.24274	99.65516
84	119.33801	102.72814	103.12687	151.63652	99.41138
85	119.35628	102.69279	102.88089	152.02228	99.17251
86	119.37389	102.65748	102.63447	152.39186	98.94351
87	119.39246	102.61915	102.38740	152.75027	98.72189
88	119.40886	102.58232	102.13996	153.10492	98.50354
89	119.42545	102.53813	101.89129	153.43726	98.29977
90	119.43915	102.49150	101.64211	153.75276	98.10668
91	119.45480	102.43640	101.39334	154.04895	97.92539
92	119.46562	102.38013	101.14345	154.33768	97.75036
93	119.47532	102.31424	100.89526	154.59469	97.59224
94	119.48202	102.24485	100.64903	154.83044	97.44486
95	119.48772	102.17095	100.40533	155.04578	97.30710
96	119.48962	102.09690	100.16465	155.24231	97.17753

97	119.49292	102.01941	99.92739	155.42217	97.05460
98	119.49183	101.94355	99.69160	155.59400	96.93506
99	119.49057	101.86753	99.45975	155.74957	96.82046
100	119.48766	101.79361	99.23078	155.89576	96.70856
101	119.48499	101.72040	99.00452	156.03442	96.59858
102	119.48036	101.65048	98.78089	156.16717	96.48997
103	119.47766	101.58043	98.55977	156.29546	96.38223
104	119.47139	101.51575	98.34164	156.42016	96.27541
105	119.47029	101.44917	98.12609	156.54255	96.16927
106	119.46313	101.38749	97.91244	156.66315	96.06346
107	119.45927	101.32633	97.70006	156.78415	95.95695
108	119.45316	101.26767	97.48991	156.90506	95.85058
109	119.45310	101.21070	97.28186	157.02647	95.74470
110	119.44107	101.15721	97.07660	157.14948	95.63826
111	119.44765	101.10558	96.87709	157.27045	95.54233
112	119.44496	101.11371	96.67851	157.39251	95.42213
113	119.43549	100.92716	96.05552	157.80798	95.08763
	POC16	POC17	POC18	OCH19	OCH20
1	119.08550	126.59487	122.20618	106.18707	110.17540
2	119.07778	126.91540	122.14020	106.18868	110.18363
3	119.07903	127.22088	122.07105	106.19019	110.19311
4	119.08901	127.50926	121.99897	106.19133	110.20353
5	119.10746	127.77844	121.92531	106.19208	110.21502
6	119.13414	128.02662	121.85127	106.19273	110.22740
7	119.16483	128.26664	121.77630	106.19289	110.24008
8	119.20551	128.46978	121.70529	106.19265	110.25352
9	119.25196	128.64687	121.63802	106.19226	110.26744
10	119.30211	128.79584	121.57656	106.19176	110.28125
11	119.35288	128.91575	121.52334	106.19112	110.29435
12	119.40240	129.00922	121.47830	106.19042	110.30636
13	119.44962	129.08060	121.44049	106.18974	110.31726
14	119.49363	129.13439	121.40931	106.18907	110.32700
15	119.53479	129.17490	121.38335	106.18842	110.33575
16	119.57365	129.20533	121.36136	106.18780	110.34379
17	119.61148	129.23064	121.34120	106.18722	110.35149
18	119.64711	129.24683	121.32483	106.18667	110.35851
19	119.68201	129.25983	121.30974	106.18613	110.36528
20	119.71561	129.26630	121.29730	106.18563	110.37161
21	119.74879	129.27052	121.28575	106.18512	110.37777
22	119.78124	129.26949	121.27624	106.18466	110.38365
23	119.81349	129.26667	121.26741	106.18419	110.38939
24	119.84540	129.25923	121.26028	106.18376	110.39495

25	119.87726	129.25019	121.25368	106.18337	110.40038
26	119.90906	129.23825	121.24817	106.18296	110.40574
27	119.94083	129.22199	121.24411	106.18261	110.41091
28	119.97264	129.20429	121.24055	106.18227	110.41608
29	120.00456	129.18369	121.23798	106.18195	110.42111
30	120.03660	129.15873	121.23683	106.18170	110.42605
31	120.06877	129.13224	121.23612	106.18150	110.43088
32	120.10106	129.10278	121.23645	106.18129	110.43567
33	120.13349	129.06868	121.23823	106.18121	110.44031
34	120.16599	129.03303	121.24054	106.18113	110.44497
35	120.19864	128.99409	121.24388	106.18115	110.44948
36	120.23132	128.95192	121.24832	106.18121	110.45393
37	120.26393	128.90468	121.25436	106.18146	110.45824
38	120.29657	128.85571	121.26096	106.18175	110.46256
39	120.32914	128.80317	121.26878	106.18213	110.46672
40	120.36132	128.74525	121.27834	106.18275	110.47081
41	120.39348	128.68541	121.28850	106.18345	110.47477
42	120.42529	128.62181	121.29999	106.18429	110.47873
43	120.45671	128.55435	121.31275	106.18533	110.48256
44	120.48748	128.48357	121.32680	106.18649	110.48629
45	120.51742	128.40602	121.34303	106.18808	110.49000
46	120.54715	128.32177	121.36131	106.19001	110.49373
47	120.57679	128.22880	121.38221	106.19234	110.49748
48	120.60598	128.12689	121.40585	106.19510	110.50119
49	120.63434	128.01595	121.43228	106.19831	110.50479
50	120.66148	127.89601	121.46150	106.20198	110.50824
51	120.68705	127.76720	121.49345	106.20612	110.51144
52	120.71071	127.62979	121.52802	106.21071	110.51435
53	120.73216	127.48412	121.56501	106.21575	110.51689
54	120.75118	127.33066	121.60419	106.22119	110.51901
55	120.76758	127.16993	121.64526	106.22701	110.52065
56	120.78123	127.00252	121.68788	106.23314	110.52177
57	120.79349	126.83142	121.73146	106.23949	110.52265
58	120.80243	126.65410	121.77705	106.24597	110.52265
59	120.80729	126.47020	121.82279	106.25259	110.52175
60	120.80956	126.28251	121.86825	106.25924	110.52027
61	120.80932	126.09172	121.91306	106.26582	110.51818
62	120.80680	125.89860	121.95674	106.27228	110.51556
63	120.80227	125.70396	121.99878	106.27854	110.51248
64	120.79599	125.50857	122.03874	106.28456	110.50908
65	120.78827	125.31319	122.07619	106.29030	110.50548
66	120.77939	125.11852	122.11079	106.29575	110.50184

67	120.76962	124.92521	122.14225	106.30089	110.49833
68	120.75920	124.73384	122.17037	106.30573	110.49513
69	120.74836	124.54489	122.19504	106.31028	110.49239
70	120.73729	124.35875	122.21622	106.31457	110.49027
71	120.72615	124.17572	122.23396	106.31862	110.48889
72	120.71504	123.99600	122.24838	106.32246	110.48836
73	120.70408	123.81970	122.25965	106.32613	110.48875
74	120.69334	123.64687	122.26800	106.32965	110.49010
75	120.68288	123.47752	122.27372	106.33305	110.49243
76	120.67276	123.31180	122.27720	106.33637	110.49581
77	120.66281	123.14667	122.27870	106.33962	110.49919
78	120.65309	122.98577	122.27925	106.34279	110.50378
79	120.64359	122.82680	122.27786	106.34573	110.50838
80	120.63495	122.67238	122.27487	106.34854	110.51389
81	120.62662	122.51821	122.27044	106.35138	110.51921
82	120.61856	122.36706	122.26605	106.35394	110.52488
83	120.61179	122.21821	122.26035	106.35631	110.53002
84	120.60541	122.07120	122.25480	106.35870	110.53552
85	120.59954	121.92477	122.24889	106.36074	110.54004
86	120.59564	121.78102	122.24298	106.36248	110.54344
87	120.59315	121.63787	122.23671	106.36408	110.54534
88	120.59080	121.49604	122.23152	106.36526	110.54703
89	120.59116	121.35660	122.22599	106.36601	110.54604
90	120.59334	121.22071	122.22097	106.36624	110.54379
91	120.59761	121.08684	122.21504	106.36650	110.53935
92	120.60205	120.95522	122.21069	106.36600	110.53415
93	120.60874	120.82972	122.20514	106.36502	110.52658
94	120.61654	120.70955	122.19914	106.36359	110.51805
95	120.62510	120.59398	122.19212	106.36192	110.50859
96	120.63393	120.48385	122.18458	106.35990	110.49910
97	120.64280	120.37715	122.17560	106.35821	110.48966
98	120.65145	120.27350	122.16691	106.35602	110.48006
99	120.65897	120.17347	122.15692	106.35413	110.47107
100	120.66543	120.07597	122.14649	106.35238	110.46285
101	120.67062	119.97995	122.13550	106.35097	110.45532
102	120.67428	119.88551	122.12450	106.34977	110.44890
103	120.67630	119.79134	122.11312	106.34909	110.44320
104	120.67642	119.69837	122.10234	106.34859	110.43880
105	120.67443	119.60410	122.09124	106.34889	110.43633
106	120.67192	119.51153	122.08076	106.34906	110.43318
107	120.66639	119.41650	122.07086	106.34993	110.43223
108	120.65878	119.32065	122.06160	106.35121	110.43161

109	120.64931	119.22322	122.05358	106.35314	110.43435
110	120.63791	119.12480	122.04530	106.35449	110.43345
111	120.61878	119.01559	122.04526	106.36149	110.44047
112	120.60830	118.93461	122.03344	106.35972	110.44289
113	120.52947	118.60231	122.01740	106.37301	110.46342
	OCH21	OCH22	OCH23	OCH24	OCH25
1	109.96870	106.08853	110.86609	111.06417	106.31219
2	109.95527	106.07463	110.86744	111.08382	106.32312
3	109.94225	106.06167	110.86818	111.10240	106.33419
4	109.92979	106.04938	110.86857	111.11973	106.34551
5	109.91802	106.03788	110.86856	111.13570	106.35687
6	109.90710	106.02772	110.86835	111.15035	106.36783
7	109.89626	106.01682	110.86780	111.16403	106.37931
8	109.88685	106.00764	110.86720	111.17542	106.38995
9	109.87863	106.00018	110.86681	111.18540	106.39972
10	109.87171	105.99425	110.86678	111.19397	106.40839
11	109.86590	105.98971	110.86679	111.20088	106.41597
12	109.86121	105.98650	110.86700	111.20637	106.42229
13	109.85759	105.98455	110.86751	111.21082	106.42736
14	109.85471	105.98346	110.86805	111.21431	106.43142
15	109.85241	105.98299	110.86857	111.21705	106.43469
16	109.85054	105.98309	110.86912	111.21919	106.43734
17	109.84903	105.98345	110.86978	111.22124	106.43955
18	109.84788	105.98431	110.87035	111.22268	106.44116
19	109.84690	105.98532	110.87093	111.22400	106.44251
20	109.84617	105.98671	110.87140	111.22490	106.44338
21	109.84555	105.98821	110.87186	111.22569	106.44406
22	109.84511	105.99006	110.87221	111.22614	106.44431
23	109.84476	105.99199	110.87254	111.22650	106.44441
24	109.84455	105.99428	110.87275	111.22657	106.44411
25	109.84443	105.99663	110.87293	111.22658	106.44363
26	109.84436	105.99922	110.87303	111.22638	106.44293
27	109.84442	106.00216	110.87300	111.22594	106.44180
28	109.84449	106.00526	110.87291	111.22538	106.44055
29	109.84464	106.00853	110.87274	111.22466	106.43902
30	109.84486	106.01226	110.87244	111.22369	106.43708
31	109.84519	106.01606	110.87210	111.22270	106.43494
32	109.84548	106.02017	110.87164	111.22145	106.43258
33	109.84590	106.02474	110.87104	111.22000	106.42971
34	109.84626	106.02951	110.87037	111.21840	106.42672
35	109.84673	106.03454	110.86960	111.21667	106.42337
36	109.84720	106.03993	110.86872	111.21473	106.41977

37	109.84776	106.04590	110.86770	111.21256	106.41563
38	109.84829	106.05209	110.86660	111.21026	106.41133
39	109.84887	106.05860	110.86539	111.20779	106.40671
40	109.84950	106.06582	110.86402	111.20502	106.40157
41	109.85022	106.07318	110.86259	111.20223	106.39619
42	109.85087	106.08104	110.86102	111.19913	106.39051
43	109.85163	106.08933	110.85933	111.19588	106.38444
44	109.85235	106.09799	110.85747	111.19234	106.37808
45	109.85327	106.10762	110.85545	111.18847	106.37109
46	109.85439	106.11820	110.85349	111.18447	106.36365
47	109.85578	106.13004	110.85172	111.18045	106.35574
48	109.85743	106.14314	110.85021	111.17642	106.34736
49	109.85938	106.15752	110.84897	111.17244	106.33854
50	109.86161	106.17313	110.84806	111.16854	106.32929
51	109.86415	106.18993	110.84752	111.16477	106.31965
52	109.86699	106.20782	110.84740	111.16119	106.30966
53	109.87013	106.22671	110.84774	111.15783	106.29937
54	109.87358	106.24646	110.84860	111.15477	106.28883
55	109.87733	106.26692	110.85006	111.15205	106.27809
56	109.88138	106.28794	110.85218	111.14973	106.26721
57	109.88563	106.30929	110.85468	111.14774	106.25620
58	109.88987	106.33091	110.85755	111.14581	106.24508
59	109.89458	106.35247	110.86173	111.14474	106.23409
60	109.89960	106.37385	110.86687	111.14430	106.22325
61	109.90490	106.39486	110.87306	111.14454	106.21258
62	109.91050	106.41535	110.88040	111.14556	106.20216
63	109.91643	106.43519	110.88903	111.14744	106.19204
64	109.92272	106.45428	110.89906	111.15027	106.18229
65	109.92942	106.47254	110.91061	111.15417	106.17297
66	109.93659	106.48991	110.92378	111.15921	106.16412
67	109.94426	106.50637	110.93869	111.16549	106.15579
68	109.95249	106.52192	110.95538	111.17308	106.14802
69	109.96133	106.53658	110.97392	111.18203	106.14084
70	109.97082	106.55040	110.99430	111.19237	106.13427
71	109.98098	106.56342	111.01650	111.20411	106.12832
72	109.99184	106.57571	111.04045	111.21721	106.12300
73	110.00338	106.58735	111.06605	111.23160	106.11831
74	110.01558	106.59842	111.09315	111.24718	106.11424
75	110.02838	106.60906	111.12156	111.26374	106.11085
76	110.04159	106.61963	111.15102	111.28081	106.10833
77	110.05593	106.62837	111.18143	111.30017	106.10496
78	110.06974	106.63857	111.21214	111.31805	106.10334

79	110.08429	106.64725	111.24349	111.33750	106.10135
80	110.09876	106.65628	111.27471	111.35605	106.10069
81	110.11433	106.66363	111.30625	111.37661	106.09929
82	110.12894	106.67214	111.33732	111.39516	106.09898
83	110.14389	106.67963	111.36720	111.41371	106.09866
84	110.15814	106.68822	111.39638	111.43024	106.09935
85	110.17253	106.69572	111.42494	111.44741	106.09931
86	110.18592	106.70357	111.45077	111.46169	106.09984
87	110.19927	106.71068	111.47463	111.47553	106.09987
88	110.21115	106.71928	111.49773	111.48630	106.10038
89	110.22238	106.72691	111.51708	111.49536	106.10024
90	110.23183	106.73546	111.53367	111.50007	106.10062
91	110.24185	106.74180	111.54726	111.50598	106.10018
92	110.24929	106.75068	111.55960	111.50617	106.09994
93	110.25622	106.75787	111.56809	111.50484	106.09943
94	110.26205	106.76493	111.57430	111.50046	106.09935
95	110.26773	106.77116	111.57843	111.49515	106.09941
96	110.27240	106.77763	111.58100	111.48644	106.10048
97	110.27839	106.78272	111.58215	111.47943	106.10199
98	110.28284	106.78882	111.58284	111.46861	106.10391
99	110.28839	106.79401	111.58256	111.45817	106.10703
100	110.29421	106.79917	111.58193	111.44669	106.11126
101	110.30095	106.80406	111.58102	111.43570	106.11636
102	110.30793	106.80921	111.58018	111.42335	106.12268
103	110.31634	106.81415	111.57914	111.41264	106.12976
104	110.32449	106.81961	111.57835	111.39970	106.13837
105	110.33569	106.82498	111.57815	111.39033	106.14717
106	110.34493	106.83057	111.57764	111.37793	106.15728
107	110.35651	106.83662	111.57771	111.36698	106.16803
108	110.36811	106.84290	111.57779	111.35557	106.18006
109	110.38242	106.84904	111.57860	111.34685	106.19255
110	110.39334	106.85866	111.57931	111.33139	106.20348
111	110.41202	106.86204	111.57824	111.33344	106.22302
112	110.42497	106.86998	111.58300	111.31261	106.23243
113	110.47561	106.89852	111.58995	111.28040	106.28356
	OCH26	OCH27	DC5	DH6	DH7
1	110.02175	110.89544	176.02838	102.90805-102.89544	
2	110.01937	110.90028	175.97606	102.91382-102.90694	
3	110.01692	110.90533	175.92874	102.92116-102.92085	
4	110.01437	110.91058	175.88524	102.94077-102.94499	
5	110.01186	110.91613	175.84525	102.97291-102.98221	
6	110.00945	110.92192	175.80902	103.02810-103.04351	

7	110.00670	110.92803	175.77416	103.08003-103.10120
8	110.00408	110.93468	175.74393	103.21024-103.23642
9	110.00171	110.94158	175.71582	103.40122-103.43086
10	109.99957	110.94865	175.69050	103.67124-103.70140
11	109.99762	110.95568	175.66826	104.01011-104.03856
12	109.99585	110.96240	175.64915	104.40463-104.42710
13	109.99423	110.96864	175.63272	104.83535-104.84625
14	109.99274	110.97440	175.61876	105.28172-105.27647
15	109.99131	110.97973	175.60737	105.73240-105.70757
16	109.98990	110.98466	175.59570	106.18135-106.13087
17	109.98861	110.98945	175.58749	106.63242-106.55659
18	109.98727	110.99387	175.57836	107.07328-106.96475
19	109.98597	110.99819	175.57178	107.51291-107.37163
20	109.98461	111.00227	175.56428	107.94120-107.76091
21	109.98325	111.00628	175.55892	108.36756-108.14789
22	109.98180	111.01011	175.55236	108.78281-108.51809
23	109.98033	111.01391	175.54789	109.19590-108.88571
24	109.97874	111.01758	175.54179	109.59832-109.23742
25	109.97713	111.02120	175.53874	109.99596-109.58501
26	109.97541	111.02479	175.53324	110.39062-109.92503
27	109.97354	111.02827	175.52911	110.77336-110.25136
28	109.97160	111.03172	175.52281	111.15302-110.57211
29	109.96954	111.03514	175.51824	111.52819-110.88690
30	109.96727	111.03846	175.51205	111.89200-111.18821
31	109.96495	111.04175	175.50775	112.25147-111.48597
32	109.96244	111.04501	175.50126	112.60698-111.77674
33	109.95970	111.04814	175.49502	112.94981-112.05624
34	109.95683	111.05124	175.48682	113.28981-112.33132
35	109.95378	111.05427	175.47958	113.62198-112.60029
36	109.95053	111.05726	175.47084	113.94857-112.86328
37	109.94696	111.06006	175.46117	114.26098-113.11700
38	109.94326	111.06281	175.45013	114.56919-113.36690
39	109.93932	111.06549	175.43900	114.87068-113.61263
40	109.93500	111.06791	175.42540	115.15594-113.85059
41	109.93055	111.07026	175.41214	115.43581-114.08699
42	109.92579	111.07245	175.39667	115.70639-114.31846
43	109.92075	111.07445	175.38022	115.96531-114.54694
44	109.91540	111.07621	175.36201	116.21369-114.77310
45	109.90956	111.07757	175.34134	116.44003-114.99466
46	109.90338	111.07889	175.31943	116.65312-115.21043
47	109.89685	111.08037	175.29673	116.85480-115.41798
48	109.88997	111.08200	175.27331	117.04513-115.61742

49	109.88274	111.08373	175.24927	117.22431-115.80895
50	109.87516	111.08554	175.22468	117.39260-115.99282
51	109.86727	111.08739	175.19954	117.55033-116.16934
52	109.85907	111.08922	175.17386	117.69787-116.33885
53	109.85060	111.09100	175.14755	117.83562-116.50168
54	109.84190	111.09268	175.12047	117.96396-116.65820
55	109.83301	111.09419	175.09244	118.08327-116.80875
56	109.82398	111.09549	175.06321	118.19391-116.95363
57	109.81489	111.09670	175.03352	118.29985-117.09578
58	109.80551	111.09765	175.00370	118.39885-117.23308
59	109.79625	111.09802	174.97008	118.48620-117.36320
60	109.78713	111.09796	174.93348	118.56590-117.48870
61	109.77821	111.09741	174.89361	118.63812-117.60983
62	109.76957	111.09632	174.84992	118.70288-117.72670
63	109.76131	111.09465	174.80182	118.76017-117.83941
64	109.75354	111.09238	174.74879	118.80996-117.94802
65	109.74636	111.08948	174.69031	118.85216-118.05260
66	109.73987	111.08594	174.62593	118.88669-118.15318
67	109.73416	111.08176	174.55528	118.91347-118.24982
68	109.72929	111.07695	174.47809	118.93245-118.34259
69	109.72534	111.07154	174.39414	118.94362-118.43158
70	109.72236	111.06555	174.30332	118.94702-118.51693
71	109.72035	111.05902	174.20559	118.94278-118.59880
72	109.71931	111.05200	174.10097	118.93108-118.67739
73	109.71924	111.04451	173.98949	118.91220-118.75291
74	109.72007	111.03662	173.87124	118.88655-118.82559
75	109.72169	111.02834	173.74625	118.85465-118.89559
76	109.72383	111.01967	173.61457	118.81760-118.96272
77	109.72750	111.01116	173.47949	118.77431-119.03128
78	109.73049	111.00199	173.33854	118.73017-119.09497
79	109.73464	110.99272	173.19096	118.67975-119.15932
80	109.73877	110.98305	173.03269	118.62665-119.22041
81	109.74427	110.97369	172.86996	118.56730-119.28432
82	109.74882	110.96368	172.70142	118.51024-119.34424
83	109.75404	110.95371	172.51884	118.44879-119.40560
84	109.75845	110.94351	172.33329	118.39078-119.46389
85	109.76338	110.93312	172.13823	118.32896-119.52438
86	109.76754	110.92253	171.92635	118.27032-119.58366
87	109.77202	110.91202	171.70090	118.20934-119.64581
88	109.77504	110.90084	171.47267	118.15527-119.70322
89	109.77807	110.88972	171.22168	118.10072-119.76342
90	109.77961	110.87824	170.95816	118.05450-119.81916

91	109.78217	110.86739	170.67777	118.00291-119.88125
92	109.78251	110.85557	170.39489	117.96332-119.93412
93	109.78313	110.84420	170.09353	117.92320-119.98715
94	109.78309	110.83289	169.78398	117.88822-120.03514
95	109.78338	110.82201	169.46638	117.85274-120.08135
96	109.78302	110.81127	169.14530	117.82401-120.11938
97	109.78405	110.80141	168.81783	117.78942-120.15835
98	109.78391	110.79133	168.49259	117.76337-120.18907
99	109.78496	110.78210	168.16227	117.73384-120.21612
100	109.78627	110.77327	167.83115	117.70603-120.23731
101	109.78847	110.76505	167.49822	117.67558-120.25577
102	109.79081	110.75716	167.16604	117.64820-120.26678
103	109.79449	110.75003	166.83156	117.61485-120.27741
104	109.79795	110.74293	166.50076	117.59006-120.27910
105	109.80285	110.73698	166.16639	117.55259-120.27886
106	109.80815	110.73114	165.83729	117.52689-120.27477
107	109.81379	110.72566	165.50327	117.49384-120.26558
108	109.82129	110.72160	165.16960	117.46327-120.25383
109	109.82712	110.71446	164.83473	117.42560-120.23440
110	109.83596	110.71692	164.50061	117.39988-120.22111
111	109.84523	110.69765	164.15995	117.34716-120.19116
112	109.85306	110.70776	163.79930	117.32365-120.17272
113	109.88356	110.69794	162.72248	117.22060-120.05161
	DH8	DH9	DP11	DO12 DO14
1	103.64005-103.43027	264.66218-200.00216	116.51477	
2	103.63273-103.42506	264.32324-199.79342	116.48378	
3	103.62660-103.42017	263.97014-199.59215	116.46543	
4	103.61116-103.40374	263.60502-199.39887	116.45971	
5	103.59130-103.38025	263.22825-199.21620	116.46737	
6	103.55685-103.33290	262.84140-199.04428	116.48754	
7	103.53292-103.30576	262.44580-198.87577	116.51484	
8	103.44853-103.20409	262.04342-198.72829	116.55855	
9	103.31641-103.04348	261.64287-198.59780	116.61186	
10	103.11528-102.79616	261.25419-198.48759	116.67209	
11	102.83358-102.43664	260.89100-198.40318	116.73574	
12	102.48122-101.97443	260.56022-198.34262	116.79931	
13	102.07309-101.42566	260.26338-198.30286	116.86064	
14	101.62751-100.80478	259.99872-198.28137	116.91902	
15	101.16092-100.12600	259.76017-198.27416	116.97454	
16	100.68299 -99.40588	259.54218-198.27778	117.02758	
17	100.19552 -98.66222	259.33409-198.28644	117.07942	
18	99.71493 -97.87917	259.14340-198.30477	117.12919	

19	99.23266	-97.07968	258.95859-198.32631	117.17827
20	98.77096	-96.25241	258.78353-198.35417	117.22638
21	98.31220	-95.41268	258.61170-198.38414	117.27420
22	97.88381	-94.55293	258.44481-198.41853	117.32185
23	97.46181	-93.68322	258.27946-198.45441	117.36949
24	97.07798	-92.79927	258.11583-198.49359	117.41753
25	96.70736	-91.90680	257.95270-198.53408	117.46575
26	96.35633	-91.00573	257.78917-198.57620	117.51460
27	96.05410	-90.09599	257.62445-198.62071	117.56439
28	95.76539	-89.18287	257.45911-198.66609	117.61459
29	95.50470	-88.26238	257.29168-198.71284	117.66575
30	95.29790	-87.33940	257.12105-198.76154	117.71833
31	95.10903	-86.41284	256.94911-198.81109	117.77147
32	94.94909	-85.48305	256.77398-198.86173	117.82583
33	94.84538	-84.55305	256.59436-198.91429	117.88192
34	94.75854	-83.62209	256.41290-198.96747	117.93871
35	94.70738	-82.68925	256.22761-199.02208	117.99691
36	94.68834	-81.75607	256.03843-199.07777	118.05651
37	94.72383	-80.82553	255.84365-199.13558	118.11819
38	94.77699	-79.89487	255.64666-199.19411	118.18067
39	94.86164	-78.96362	255.44516-199.25400	118.24477
40	94.99707	-78.03633	255.23755-199.31634	118.31115
41	95.15008	-77.10863	255.02761-199.37969	118.37840
42	95.33232	-76.18223	254.81292-199.44466	118.44739
43	95.54485	-75.25757	254.59372-199.51160	118.51808
44	95.78027	-74.33291	254.37125-199.58065	118.59009
45	96.06340	-73.41697	254.13980-199.65285	118.66530
46	96.38902	-72.51484	253.89622-199.72592	118.74436
47	96.76372	-71.63418	253.63546-199.79883	118.82871
48	97.18302	-70.77753	253.35816-199.87169	118.91827
49	97.64195	-69.94719	253.06515-199.94462	119.01286
50	98.13527	-69.14512	252.75742-200.01778	119.11232
51	98.65765	-68.37291	252.43612-200.09132	119.21642
52	99.20388	-67.63175	252.10248-200.16542	119.32492
53	99.76900	-66.92242	251.75782-200.24023	119.43758
54	100.34836	-66.24535	251.40351-200.31594	119.55414
55	100.93775	-65.60062	251.04097-200.39272	119.67432
56	101.53335	-64.98799	250.67159-200.47070	119.79787
57	102.13313	-64.39166	250.29800-200.54932	119.92334
58	102.73338	-63.82615	249.91771-200.62891	120.05179
59	103.32858	-63.30530	249.53466-200.71085	120.18379
60	103.91875	-62.81337	249.15099-200.79440	120.31792

61	104.50233	-62.34920	248.76778-200.87957	120.45394
62	105.07785	-61.91155	248.38657-200.96634	120.59150
63	105.64414	-61.49914	248.00890-201.05465	120.73024
64	106.20028	-61.11062	247.63624-201.14440	120.86978
65	106.74559	-60.74459	247.27004-201.23544	121.00972
66	107.27965	-60.39964	246.91163-201.32759	121.14965
67	107.80224	-60.07432	246.56221-201.42063	121.28916
68	108.31340	-59.76717	246.22282-201.51432	121.42785
69	108.81335	-59.47672	245.89434-201.60839	121.56529
70	109.30255	-59.20148	245.57746-201.70257	121.70109
71	109.78164	-58.93998	245.27270-201.79658	121.83485
72	110.25145	-58.69076	244.98043-201.89013	121.96619
73	110.71294	-58.45236	244.70088-201.98295	122.09472
74	111.16722	-58.22341	244.43418-202.07476	122.22002
75	111.61545	-58.00258	244.18043-202.16527	122.34170
76	112.05875	-57.78888	243.93970-202.25407	122.45929
77	112.50090	-57.57726	243.70532-202.34285	122.57495
78	112.93855	-57.37232	243.48327-202.42886	122.68603
79	113.37613	-57.16943	243.27354-202.51324	122.79208
80	113.81530	-56.96978	243.08479-202.59324	122.88842
81	114.25690	-56.76891	242.90287-202.67297	122.98180
82	114.70025	-56.56983	242.73374-202.74889	123.06836
83	115.15588	-56.36540	242.58896-202.82007	123.14099
84	115.61270	-56.16242	242.45156-202.88881	123.20957
85	116.08108	-55.95271	242.32967-202.95437	123.26810
86	116.56771	-55.73396	242.23900-203.01219	123.30591
87	117.07060	-55.50502	242.17090-203.06548	123.32821
88	117.57861	-55.27503	242.11122-203.11502	123.34387
89	118.10786	-55.02912	242.09314-203.15547	123.33002
90	118.64448	-54.77797	242.10417-203.18776	123.29546
91	119.18953	-54.51527	242.14609-203.21447	123.23948
92	119.73678	-54.25255	242.20195-203.23510	123.17104
93	120.27213	-53.98676	242.30175-203.24686	123.07416
94	120.79069	-53.72545	242.42849-203.25225	122.96078
95	121.28987	-53.46874	242.57949-203.25335	122.83387
96	121.76233	-53.22367	242.75115-203.24974	122.69696
97	122.21230	-52.98479	242.94035-203.24489	122.55336
98	122.64413	-52.75617	243.13680-203.23710	122.40595
99	123.04224	-52.54120	243.35020-203.22889	122.25583
100	123.41640	-52.33798	243.57262-203.22014	122.10555
101	123.77059	-52.14362	243.80242-203.21214	121.95623
102	124.10371	-51.96103	244.03784-203.20414	121.80890

103	124.42228	-51.78417	244.27795	-203.19817	121.66419
104	124.72039	-51.62082	244.52073	-203.19189	121.52300
105	125.00911	-51.45868	244.76686	-203.18898	121.38532
106	125.28461	-51.30734	245.01230	-203.18483	121.24981
107	125.54772	-51.16187	245.26298	-203.18356	121.11852
108	125.79924	-51.02383	245.51527	-203.18368	120.99104
109	126.04089	-50.89087	245.76901	-203.18496	120.86708
110	126.26891	-50.76459	246.02349	-203.18770	120.74719
111	126.48604	-50.64586	246.29022	-203.19428	120.62460
112	126.68215	-50.61721	246.57066	-203.21138	120.57070
113	127.41817	-50.24011	247.41227	-203.25509	120.23916

	DO15	DC16	DC17	DC18	DH19
1	-121.28745	33.40603	64.26682	164.47258	191.74652
2	-121.27481	33.42188	64.42077	164.06193	192.03776
3	-121.25220	33.45720	64.53407	163.63848	192.32270
4	-121.21849	33.51302	64.60731	163.20318	192.59954
5	-121.17132	33.59168	64.64113	162.75692	192.86606
6	-121.11087	33.69278	64.63743	162.30164	193.12122
7	-121.04248	33.80635	64.61418	161.83884	193.37203
8	-120.95333	33.95194	64.54242	161.37200	193.60060
9	-120.85186	34.11628	64.44201	160.90850	193.81213
10	-120.74103	34.29393	64.32031	160.45922	194.00321
11	-120.62542	34.47676	64.18753	160.03869	194.16965
12	-120.51026	34.65711	64.05132	159.65404	194.31212
13	-120.39874	34.83045	63.91694	159.30644	194.43324
14	-120.29198	34.99490	63.78850	158.99444	194.53562
15	-120.18960	35.15132	63.66622	158.71143	194.62335
16	-120.09092	35.30104	63.54918	158.45125	194.69981
17	-119.99402	35.44768	63.43430	158.20192	194.77093
18	-119.89980	35.58899	63.32473	157.97277	194.83182
19	-119.80647	35.72857	63.21676	157.75036	194.88929
20	-119.71386	35.86606	63.11182	157.54008	194.93997
21	-119.62144	36.00295	63.00769	157.33375	194.98840
22	-119.52830	36.14004	62.90494	157.13455	195.03197
23	-119.43483	36.27732	62.80247	156.93757	195.07397
24	-119.33956	36.41649	62.70018	156.74446	195.11225
25	-119.24360	36.55644	62.59785	156.55248	195.14933
26	-119.14582	36.69855	62.49484	156.36151	195.18440
27	-119.04517	36.84418	62.39097	156.17161	195.21669
28	-118.94339	36.99122	62.28661	155.98177	195.24805
29	-118.83908	37.14150	62.18098	155.79136	195.27786
30	-118.73097	37.29666	62.07370	155.60016	195.30530

31	-118.62141	37.45374	61.96568	155.40837	195.33204
32	-118.50878	37.61477	61.85596	155.21507	195.35737
33	-118.39164	37.78171	61.74409	155.01984	195.38058
34	-118.27279	37.95086	61.63127	154.82362	195.40307
35	-118.15041	38.12469	61.51660	154.62532	195.42428
36	-118.02455	38.30304	61.40007	154.42501	195.44414
37	-117.89341	38.48831	61.28109	154.22190	195.46193
38	-117.76029	38.67616	61.16106	154.01752	195.47903
39	-117.62322	38.86918	61.03899	153.81064	195.49485
40	-117.48040	39.06964	60.91443	153.60063	195.50853
41	-117.33545	39.27295	60.78884	153.38925	195.52158
42	-117.18624	39.48169	60.66123	153.17527	195.53321
43	-117.03283	39.69589	60.53184	152.95884	195.54348
44	-116.87608	39.91428	60.40138	152.74115	195.55231
45	-116.71141	40.14288	60.26729	152.51794	195.55904
46	-116.53758	40.38349	60.12760	152.28590	195.56454
47	-116.35126	40.64049	59.97980	152.04093	195.56884
48	-116.15256	40.91362	59.82447	151.78374	195.57167
49	-115.94172	41.20244	59.66229	151.51520	195.57276
50	-115.71909	41.50638	59.49406	151.23628	195.57185
51	-115.48512	41.82478	59.32064	150.94804	195.56869
52	-115.24033	42.15686	59.14293	150.65159	195.56303
53	-114.98530	42.50183	58.96183	150.34804	195.55462
54	-114.72067	42.85885	58.77825	150.03851	195.54324
55	-114.44711	43.22708	58.59307	149.72409	195.52863
56	-114.16533	43.60564	58.40711	149.40586	195.51061
57	-113.87900	43.98993	58.22037	149.08520	195.49097
58	-113.58530	44.38323	58.03343	148.76149	195.46836
59	-113.28314	44.78771	57.84907	148.43711	195.43949
60	-112.97600	45.19900	57.66690	148.11305	195.40628
61	-112.66462	45.61631	57.48731	147.79004	195.36866
62	-112.34995	46.03872	57.31082	147.46901	195.32647
63	-112.03295	46.46529	57.13787	147.15087	195.27957
64	-111.71461	46.89501	56.96883	146.83646	195.22791
65	-111.39594	47.32690	56.80403	146.52660	195.17145
66	-111.07795	47.75991	56.64372	146.22204	195.11025
67	-110.76162	48.19303	56.48807	145.92343	195.04443
68	-110.44787	48.62527	56.33722	145.63133	194.97417
69	-110.13757	49.05567	56.19123	145.34618	194.89973
70	-109.83148	49.48335	56.05013	145.06829	194.82144
71	-109.53026	49.90748	55.91390	144.79784	194.73966
72	-109.23448	50.32734	55.78250	144.53492	194.65478

73	-108.94459	50.74227	55.65590	144.27947	194.56723
74	-108.66094	51.15171	55.53406	144.03138	194.47744
75	-108.38378	51.55511	55.41692	143.79045	194.38583
76	-108.11336	51.95190	55.30445	143.55650	194.29276
77	-107.84629	52.34609	55.19496	143.32567	194.19935
78	-107.58588	52.73282	55.08939	143.10146	194.10484
79	-107.33197	53.11290	54.98911	142.88270	194.01025
80	-107.08838	53.48049	54.89694	142.67243	193.91564
81	-106.84829	53.84477	54.80817	142.46466	193.82138
82	-106.61446	54.20050	54.72420	142.26175	193.72748
83	-106.39063	54.54209	54.65175	142.06536	193.63526
84	-106.17020	54.87873	54.58185	141.87165	193.54310
85	-105.95568	55.20600	54.52018	141.68097	193.45288
86	-105.75128	55.51429	54.47465	141.49602	193.36532
87	-105.55343	55.80939	54.44192	141.31435	193.28008
88	-105.35828	56.09811	54.41307	141.13397	193.19580
89	-105.17417	56.36124	54.40938	140.95902	193.11591
90	-104.99787	56.60499	54.42241	140.78863	193.03857
91	-104.83028	56.82901	54.45579	140.62268	192.96515
92	-104.66545	57.04155	54.49757	140.45848	192.89300
93	-104.51267	57.22449	54.56701	140.30351	192.82427
94	-104.36757	57.38815	54.65215	140.15575	192.75691
95	-104.22941	57.53491	54.75153	140.01549	192.69041
96	-104.09726	57.66665	54.86090	139.88340	192.62349
97	-103.97032	57.78711	54.97942	139.75860	192.55652
98	-103.84560	57.90093	55.10106	139.63791	192.48877
99	-103.72485	58.00556	55.22799	139.52634	192.41894
100	-103.60621	58.10503	55.35609	139.42080	192.34746
101	-103.48896	58.20105	55.48466	139.32055	192.27446
102	-103.37251	58.29429	55.61155	139.22530	192.19968
103	-103.25644	58.38633	55.73721	139.13403	192.12372
104	-103.14060	58.47664	55.85863	139.04702	192.04620
105	-103.02430	58.56704	55.97816	138.96286	191.96837
106	-102.90878	58.65637	56.09424	138.88108	191.88945
107	-102.79111	58.74715	56.20568	138.80157	191.80921
108	-102.67274	58.83820	56.31220	138.72427	191.72805
109	-102.55355	58.92987	56.41459	138.64779	191.64730
110	-102.43442	59.02217	56.50987	138.57371	191.56569
111	-102.30943	59.10876	56.60791	138.50060	191.48718
112	-102.19178	59.22191	56.63296	138.43638	191.38615
113	-101.79450	59.50545	56.85667	138.21058	191.16415
	DH20	DH21	DH22	DH23	DH24

1	119.48532-118.70682	170.94003	118.98400-118.91130
2	119.49453-118.69932	170.84811	118.95900-118.91584
3	119.50342-118.69106	170.79557	118.93440-118.92107
4	119.51181-118.68188	170.78191	118.91040-118.92673
5	119.51981-118.67180	170.80655	118.88730-118.93277
6	119.52708-118.66104	170.86782	118.86514-118.93927
7	119.53439-118.64949	170.94839	118.84306-118.94578
8	119.54061-118.63696	171.07672	118.82264-118.95273
9	119.54588-118.62410	171.23263	118.80376-118.95986
10	119.54996-118.61124	171.40798	118.78655-118.96691
11	119.55324-118.59874	171.59127	118.77130-118.97379
12	119.55557-118.58700	171.77435	118.75803-118.98031
13	119.55695-118.57622	171.95195	118.74660-118.98635
14	119.55775-118.56640	172.11988	118.73674-118.99197
15	119.55812-118.55737	172.27870	118.72807-118.99727
16	119.55817-118.54898	172.42999	118.72045-119.00229
17	119.55787-118.54102	172.57813	118.71321-119.00712
18	119.55733-118.53364	172.71904	118.70688-119.01177
19	119.55665-118.52650	172.85777	118.70080-119.01634
20	119.55575-118.51974	172.99250	118.69527-119.02087
21	119.55476-118.51314	173.12612	118.68991-119.02536
22	119.55358-118.50679	173.25801	118.68492-119.02990
23	119.55231-118.50056	173.38955	118.68003-119.03443
24	119.55086-118.49448	173.52094	118.67541-119.03908
25	119.54927-118.48855	173.65246	118.67080-119.04376
26	119.54762-118.48261	173.78488	118.66637-119.04853
27	119.54570-118.47686	173.91864	118.66207-119.05349
28	119.54375-118.47109	174.05307	118.65785-119.05853
29	119.54163-118.46540	174.18929	118.65366-119.06369
30	119.53928-118.45979	174.32790	118.64961-119.06910
31	119.53674-118.45433	174.46759	118.64548-119.07459
32	119.53415-118.44878	174.60962	118.64148-119.08027
33	119.53122-118.44344	174.75483	118.63749-119.08624
34	119.52827-118.43801	174.90135	118.63360-119.09234
35	119.52504-118.43276	175.05058	118.62962-119.09864
36	119.52170-118.42748	175.20245	118.62574-119.10516
37	119.51803-118.42243	175.35805	118.62184-119.11204
38	119.51430-118.41736	175.51515	118.61799-119.11905
39	119.51036-118.41240	175.67528	118.61411-119.12630
40	119.50618-118.40763	175.83931	118.61027-119.13394
41	119.50179-118.40306	176.00495	118.60630-119.14170
42	119.49737-118.39848	176.17362	118.60245-119.14975

43	119.49273-118.39416	176.34519	118.59850-119.15806
44	119.48807-118.38996	176.51863	118.59460-119.16659
45	119.48328-118.38613	176.69790	118.59062-119.17558
46	119.47828-118.38239	176.88544	118.58656-119.18505
47	119.47297-118.37863	177.08477	118.58235-119.19515
48	119.46736-118.37492	177.29532	118.57802-119.20584
49	119.46145-118.37132	177.51631	118.57357-119.21711
50	119.45525-118.36789	177.74686	118.56900-119.22890
51	119.44877-118.36471	177.98596	118.56434-119.24115
52	119.44202-118.36182	178.23251	118.55957-119.25378
53	119.43502-118.35930	178.48538	118.55473-119.26670
54	119.42780-118.35720	178.74341	118.54983-119.27983
55	119.42037-118.35556	179.00542	118.54488-119.29303
56	119.41276-118.35442	179.27028	118.53992-119.30619
57	119.40498-118.35363	179.53710	118.53486-119.31937
58	119.39723-118.35320	179.80614	118.52981-119.33253
59	119.38935-118.35361	180.07399	118.52497-119.34493
60	119.38140-118.35460	180.34023	118.52032-119.35669
61	119.37343-118.35617	180.60412	118.51592-119.36767
62	119.36545-118.35834	180.86472	118.51186-119.37772
63	119.35749-118.36112	181.12118	118.50821-119.38668
64	119.34955-118.36451	181.37270	118.50508-119.39438
65	119.34166-118.36852	181.61857	118.50257-119.40071
66	119.33382-118.37317	181.85819	118.50076-119.40553
67	119.32603-118.37846	182.09106	118.49974-119.40875
68	119.31829-118.38439	182.31681	118.49960-119.41031
69	119.31059-118.39095	182.53520	118.50038-119.41017
70	119.30294-118.39813	182.74611	118.50214-119.40832
71	119.29532-118.40591	182.94956	118.50489-119.40479
72	119.28773-118.41427	183.14569	118.50865-119.39964
73	119.28016-118.42315	183.33472	118.51340-119.39296
74	119.27264-118.43250	183.51697	118.51912-119.38488
75	119.26519-118.44222	183.69284	118.52588-119.37557
76	119.25802-118.45208	183.86266	118.53404-119.36526
77	119.24981-118.46298	184.02969	118.54022-119.35387
78	119.24286-118.47314	184.19148	118.54981-119.34227
79	119.23531-118.48398	184.34915	118.55830-119.32971
80	119.22850-118.49423	184.50101	118.56863-119.31689
81	119.22058-118.50537	184.65116	118.57655-119.30355
82	119.21391-118.51558	184.79855	118.58723-119.29036
83	119.20699-118.52565	184.94340	118.59657-119.27748
84	119.20100-118.53474	185.08693	118.60787-119.26502

85	119.19468-118.54416	185.23022	118.61776-119.25261
86	119.18923-118.55211	185.37342	118.62816-119.24154
87	119.18357-118.55977	185.51788	118.63658-119.23146
88	119.17944-118.56615	185.66281	118.64835-119.22163
89	119.17540-118.57157	185.80976	118.65771-119.21363
90	119.17290-118.57493	185.95706	118.66940-119.20668
91	119.16917-118.57858	186.10531	118.67548-119.20155
92	119.16817-118.57988	186.25499	118.68797-119.19636
93	119.16714-118.58019	186.40279	118.69780-119.19272
94	119.16710-118.57900	186.54801	118.70889-119.18960
95	119.16715-118.57718	186.69056	118.71900-119.18716
96	119.16844-118.57367	186.82920	118.73187-119.18454
97	119.16878-118.57055	186.96504	118.74121-119.18276
98	119.17068-118.56588	187.09855	118.75499-119.18025
99	119.17228-118.56107	187.22868	118.76763-119.17785
100	119.17426-118.55567	187.35641	118.78142-119.17506
101	119.17603-118.55031	187.48285	118.79468-119.17227
102	119.17838-118.54429	187.60802	118.80992-119.16877
103	119.18009-118.53882	187.73347	118.82355-119.16568
104	119.18280-118.53227	187.85820	118.84060-119.16139
105	119.18431-118.52786	187.98542	118.85320-119.15821
106	119.18654-118.52070	188.11037	118.87138-119.15319
107	119.18857-118.51521	188.24131	118.88729-119.14890
108	119.19008-118.50823	188.37437	118.90594-119.14350
109	119.19243-118.50475	188.51364	118.91885-119.14010
110	119.19276-118.49528	188.65298	118.94527-119.13271
111	119.19583-118.49728	188.81319	118.94403-119.13475
112	119.19586-118.48625	188.97167	118.97670-119.12253
113	119.19945-118.46966	189.47826	119.03909-119.10361

	DH25	DH26	DH27
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1	177.22289	119.21197-119.30758
2	177.36105	119.21203-119.31563
3	177.50338	119.21162-119.32416
4	177.64860	119.21078-119.33305
5	177.79528	119.20938-119.34239
6	177.94231	119.20752-119.35172
7	178.09028	119.20542-119.36154
8	178.23364	119.20259-119.37109
9	178.37190	119.19925-119.38036
10	178.50151	119.19554-119.38894
11	178.61825	119.19173-119.39657
12	178.72119	119.18796-119.40310

13	178.81099	119.18425-119.40865
14	178.88862	119.18073-119.41329
15	178.95646	119.17740-119.41722
16	179.01665	119.17421-119.42071
17	179.07321	119.17099-119.42389
18	179.12263	119.16790-119.42671
19	179.16968	119.16482-119.42934
20	179.21192	119.16178-119.43177
21	179.25258	119.15873-119.43408
22	179.28978	119.15566-119.43628
23	179.32588	119.15257-119.43841
24	179.35930	119.14942-119.44050
25	179.39186	119.14622-119.44254
26	179.42302	119.14297-119.44457
27	179.45211	119.13960-119.44657
28	179.48057	119.13620-119.44862
29	179.50790	119.13270-119.45062
30	179.53343	119.12907-119.45267
31	179.55841	119.12537-119.45468
32	179.58237	119.12158-119.45675
33	179.60462	119.11762-119.45884
34	179.62634	119.11362-119.46099
35	179.64700	119.10949-119.46314
36	179.66659	119.10525-119.46533
37	179.68438	119.10086-119.46759
38	179.70160	119.09640-119.46991
39	179.71771	119.09183-119.47223
40	179.73188	119.08711-119.47470
41	179.74543	119.08231-119.47715
42	179.75773	119.07742-119.47975
43	179.76870	119.07240-119.48242
44	179.77834	119.06732-119.48521
45	179.78590	119.06201-119.48829
46	179.79220	119.05652-119.49152
47	179.79718	119.05083-119.49484
48	179.80053	119.04497-119.49822
49	179.80193	119.03897-119.50164
50	179.80107	119.03289-119.50506
51	179.79764	119.02677-119.50846
52	179.79132	119.02067-119.51179
53	179.78182	119.01464-119.51504
54	179.76886	119.00875-119.51816

55	179.75215	119.00304-119.52113
56	179.73145	118.99758-119.52392
57	179.70883	118.99222-119.52659
58	179.68260	118.98712-119.52905
59	179.64926	118.98266-119.53113
60	179.61101	118.97865-119.53293
61	179.56780	118.97513-119.53444
62	179.51950	118.97215-119.53566
63	179.46603	118.96972-119.53660
64	179.40739	118.96787-119.53726
65	179.34361	118.96662-119.53768
66	179.27479	118.96596-119.53789
67	179.20110	118.96590-119.53793
68	179.12280	118.96641-119.53783
69	179.04017	118.96748-119.53764
70	178.95356	118.96907-119.53742
71	178.86336	118.97116-119.53719
72	178.76996	118.97370-119.53701
73	178.67379	118.97665-119.53692
74	178.57526	118.97997-119.53695
75	178.47477	118.98365-119.53720
76	178.37275	118.98774-119.53798
77	178.26975	118.99152-119.53723
78	178.16593	118.99604-119.53840
79	178.06125	119.00043-119.53859
80	177.95605	119.00531-119.53971
81	177.85044	119.00986-119.53931
82	177.74493	119.01487-119.54039
83	177.63936	119.01981-119.54060
84	177.53390	119.02512-119.54191
85	177.42868	119.03018-119.54229
86	177.32382	119.03543-119.54284
87	177.21902	119.04048-119.54230
88	177.11473	119.04573-119.54326
89	177.01087	119.05079-119.54279
90	176.90760	119.05606-119.54309
91	176.80480	119.06140-119.54051
92	176.70262	119.06645-119.54066
93	176.60090	119.07165-119.53899
94	176.49963	119.07707-119.53743
95	176.39847	119.08256-119.53511
96	176.29740	119.08833-119.53355

97	176.19592	119.09458-119.53009
98	176.09475	119.10053-119.52849
99	175.99258	119.10706-119.52595
100	175.88994	119.11403-119.52360
101	175.78677	119.12133-119.52084
102	175.68324	119.12909-119.51861
103	175.57939	119.13712-119.51560
104	175.47578	119.14567-119.51367
105	175.37124	119.15579-119.50860
106	175.26924	119.16331-119.50823
107	175.16588	119.17343-119.50479
108	175.06549	119.18087-119.50464
109	174.96192	119.19660-119.49663
110	174.87148	119.19445-119.50420
111	174.76406	119.22948-119.48310
112	174.69725	119.22088-119.49382
113	174.37833	119.24935-119.49472
