

# *Supplementary Information*

Concise preparation of fluorine-containing carbocycles involving Diels-Alder reaction using fluorinated alkene or diene derivatives

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**Cartesian coordinates and calculated potential energies (atomic units) of the optimized structures**

**(E)-1-Phenylbuta-1,3-diene (2A)**

E = -387.15145104H

C	2.442748	-1.226916	0.152565
C	1.058331	-1.118164	0.115090
C	0.435072	0.134859	-0.028316
C	1.258728	1.270053	-0.116261
C	2.645989	1.162225	-0.077102
C	3.245567	-0.088150	0.055348
H	2.900835	-2.203366	0.265644
H	0.455805	-2.013964	0.209432
H	0.799257	2.247627	-0.220981
H	3.257840	2.054518	-0.149506
H	4.325441	-0.177024	0.088179
C	-1.952913	-0.652401	-0.195931
H	-1.637995	-1.686714	-0.308930
C	-3.398577	-0.431471	-0.223815
H	-3.975160	-1.185915	-0.755402
C	-1.018972	0.310555	-0.085082
H	-1.354477	1.345035	-0.060953
C	-4.062009	0.576667	0.356416
H	-3.557685	1.329557	0.952754
H	-5.137659	0.666698	0.262299

**Methyl  $\alpha,\beta$ -trifluoroacrylate**

E = -604.34789888H

C	-1.269183	1.040139	0.000000
C	0.000000	0.618013	0.000000
F	-2.327418	0.274124	0.000000
F	-1.588474	2.315872	0.000000
F	0.963126	1.558215	0.000000
C	0.407977	-0.804605	0.000000
O	-0.367426	-1.729914	0.000000
O	1.742646	-0.913846	0.000000
C	2.258946	-2.260998	0.000000
H	1.923185	-2.793972	0.890007
H	1.923185	-2.793972	-0.890007
H	3.340330	-2.151166	0.000000

**Int-EndoA**

E = -991.50170766H

C	0.878108	1.491892	0.236779
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C	-2.136048	-0.955256	0.479787
C	-3.239688	-0.262895	0.181830
C	-1.663148	3.240690	0.330831
C	0.209375	2.024346	-0.803436
C	-1.111133	2.650056	-0.737377
H	0.388747	1.477002	1.208198
F	-1.825655	-1.086682	1.784863
C	-1.230110	-1.562534	-0.519898
F	-3.691630	-0.029427	-1.022154
F	-4.011432	0.269576	1.104875
H	-2.659467	3.663998	0.283271
H	-1.135844	3.337069	1.274069
H	0.645591	1.969851	-1.797433
H	-1.674890	2.640976	-1.667791
O	-1.408955	-1.510177	-1.713324
O	-0.202034	-2.170334	0.083737
C	0.771222	-2.774528	-0.793474
H	1.223112	-2.014929	-1.431309
H	0.299203	-3.539811	-1.410433
H	1.515961	-3.211656	-0.133731
C	3.075815	0.960436	-0.895728
C	4.323277	0.348637	-0.872498
C	4.744993	-0.356253	0.257215
C	3.904648	-0.438538	1.365654
C	2.653822	0.172076	1.340863
C	2.209102	0.877737	0.209700
H	2.778347	1.520084	-1.774802
H	4.976042	0.429432	-1.734757
H	5.721545	-0.826652	0.273983
H	4.223201	-0.976760	2.251511
H	2.003397	0.099077	2.206170

**TS-EndoA**

E = -991.47006195H

C	-0.420128	-1.420003	0.161341
C	1.583745	0.747375	0.503015
C	2.764673	0.045196	0.228310
C	2.492258	-1.917209	0.184805
C	0.265884	-1.959967	-0.898778
C	1.650577	-2.218950	-0.884885
H	0.073992	-1.356901	1.124127
F	1.277529	0.850769	1.819028
C	0.735445	1.406531	-0.474426
F	3.371973	0.245933	-0.946267
F	3.680225	0.030456	1.224939
H	3.533836	-2.209181	0.102582
H	2.105439	-1.961010	1.198165
H	-0.249956	-2.114512	-1.840032
H	2.104968	-2.52175	-1.822660

O	0.884535	1.335467	-1.678941
O	-0.226672	2.142400	0.129865
C	-1.084195	2.883073	-0.754903
H	-1.639626	2.207542	-1.406442
H	-0.500043	3.573527	-1.365209
H	-1.764181	3.428706	-0.104348
C	-2.605220	-0.948322	-0.998049
C	-3.929498	-0.537732	-0.935290
C	-4.492324	-0.151680	0.284062
C	-3.716258	-0.176556	1.442142
C	-2.390591	-0.588977	1.381957
C	-1.808688	-0.991456	0.164212
H	-2.184047	-1.228474	-1.955697
H	-4.527512	-0.513072	-1.839289
H	-5.526710	0.169749	0.327726
H	-4.143821	0.127986	2.390511
H	-1.786861	-0.597905	2.282808

**P-EndoA**

E = -991.55434120H

C	-0.191455	-1.161100	0.012562
C	0.790635	-0.031287	0.455134
C	2.297447	-0.510976	0.337468
C	2.485478	-1.925963	-0.198992
C	0.292296	-1.807945	-1.266912
C	1.564534	-2.187900	-1.360221
H	-0.071911	-1.902678	0.814291
F	0.537657	0.229807	1.792845
C	0.599919	1.265587	-0.360701
F	2.977458	0.363507	-0.485783
F	2.894076	-0.406100	1.560130
H	3.538848	-2.039320	-0.459559
H	2.278546	-2.615760	0.628757
H	-0.410529	-1.962591	-2.075554
H	1.954710	-2.665761	-2.250640
O	0.388692	1.270961	-1.546187
O	0.714068	2.348128	0.404701
C	0.586361	3.614710	-0.275294
H	-0.397174	3.695160	-0.738945
H	1.359271	3.709969	-1.038444
H	0.710939	4.367629	0.498812
C	-2.297400	-0.205480	-1.087019
C	-3.643081	0.152951	-1.029315
C	-4.367012	-0.013745	0.149551
C	-3.736063	-0.543610	1.273098
C	-2.392314	-0.905289	1.212789
C	-1.653607	-0.740561	0.035120

H	-1.744183	-0.050678	-2.004669
H	-4.124915	0.564720	-1.909208
H	-5.414073	0.264588	0.191435
H	-4.288975	-0.680138	2.195710
H	-1.909771	-1.319134	2.091568

**Int-ExoA**

E = -991.50211930H

C	0.974073	-1.484073	-0.164364
C	-2.445596	0.912010	0.334407
C	-3.147946	0.077904	-0.439240
C	-1.495894	-3.316987	-0.382254
C	0.422738	-2.234845	0.807843
C	-0.879590	-2.897122	0.730711
C	2.285795	-0.829595	-0.142344
H	0.392418	-1.304764	-1.065331
C	-1.237367	1.643336	-0.104947
F	-2.868807	1.082060	1.601326
F	-4.215374	-0.557182	-0.007279
F	-2.884982	-0.206887	-1.687472
H	-2.471742	-3.786024	-0.338091
H	-1.041061	-3.223764	-1.362689
H	0.949302	-2.354056	1.751384
H	-1.367649	-3.078807	1.686283
C	2.600214	0.086469	-1.161463
C	3.829302	0.740441	-1.188604
C	4.775740	0.493421	-0.196270
C	3.256767	-1.073439	0.846141
H	1.862911	0.292117	-1.929944
H	4.047606	1.441411	-1.986770
C	4.481590	-0.417804	0.820795
H	5.735236	0.997657	-0.216337
H	3.058387	-1.790838	1.633895
H	5.216119	-0.624107	1.591524
O	-0.743609	2.384580	0.892625
H	1.264633	2.449435	0.326446
O	-0.772703	1.571160	-1.218575
H	0.270999	3.818184	-0.237213
H	0.687843	3.675052	1.500219
C	0.454833	3.130395	0.588763

**TS-ExoA**

E = -991.46975456H

C	0.475373	-1.255062	-0.618358
C	-1.600932	0.562653	0.575055
C	-2.762564	-0.007487	0.035022

C	-2.413854	-1.629881	-1.033964	H	-1.707065	-3.778358	-0.582540
C	-0.238675	-2.285777	-0.057959	C	2.433051	0.176359	-1.174935
C	-1.614414	-2.495364	-0.287579	C	3.772152	0.458101	-0.907296
C	1.856891	-0.907023	-0.333590	C	4.363167	-0.009272	0.264004
H	0.020108	-0.681355	-1.417894	C	2.270762	-1.040525	0.895876
C	-0.787868	1.590727	-0.044618	H	1.977474	0.544258	-2.087977
F	-1.283175	0.120996	1.810788	H	4.351754	1.038721	-1.616318
F	-3.631062	-0.516743	0.935058	C	3.607727	-0.759196	1.164846
F	-3.431865	0.673208	-0.908215	H	5.404757	0.206868	0.473609
H	-3.445515	-1.918373	-1.206497	H	1.690778	-1.616573	1.607221
H	-1.971921	-1.069482	-1.851424	H	4.059456	-1.124292	2.080479
H	0.249568	-2.942480	0.654393	O	-0.752898	2.345334	0.667819
H	-2.098222	-3.288175	0.273990	H	0.163059	3.947405	-0.307703
C	2.531834	-0.044058	-1.219028	O	-0.684588	1.700434	-1.489715
C	3.861363	0.301921	-1.007346	H	-1.618255	3.940757	-0.361423
C	4.543082	-0.195545	0.102634	H	-0.773570	4.301500	1.178899
C	2.557791	-1.389500	0.789426	C	-0.744606	3.728954	0.255431
H	2.001346	0.344583	-2.081764				
H	4.366398	0.958772	-1.706482				
C	3.883859	-1.038660	1.000845				
H	5.578985	0.075222	0.272169				
H	2.055081	-2.024760	1.508501				
H	4.406960	-1.415067	1.872572				
O	0.083700	2.128621	0.836943				
H	1.499681	2.878877	-0.504771				
O	-0.885933	1.939642	-1.207689				
H	0.258575	4.040792	0.020450				
H	1.521460	3.504082	1.171442				
C	0.889827	3.208739	0.336562				

#### P-ExoA

E = -991.55715818H

C	0.213875	-0.887873	-0.598809
C	-0.776304	-0.001221	0.221482
C	-2.263519	-0.538921	0.129779
C	-2.467119	-1.682025	-0.852669
C	-0.147593	-2.354965	-0.481542
C	-1.413702	-2.736557	-0.631610
C	1.666847	-0.575577	-0.278475
H	0.040078	-0.586798	-1.637831
C	-0.728425	1.448231	-0.310380
F	-0.412850	-0.017884	1.554872
F	-2.651790	-0.949157	1.371737
F	-3.109457	0.500938	-0.199590
H	-3.480509	-2.060599	-0.710885
H	-2.407372	-1.266698	-1.865697
H	0.648296	-3.070489	-0.312028

#### Into-EndoB

E = -991.50110640H

C	-1.307265	2.744757	-0.914727
C	-1.974208	-1.048200	-0.608760
C	-0.794514	-1.621608	-0.349057
C	1.459741	1.538919	-0.272440
C	-0.717495	2.626842	0.282142
C	0.474425	1.838820	0.595078
H	-2.178767	3.374259	-1.049798
H	-0.951006	2.211916	-1.790032
F	-2.325529	-0.918527	-1.902874
C	-2.905828	-0.546616	0.423164
F	-0.298002	-1.834692	0.840764
F	0.006147	-2.051426	-1.298717
H	1.393906	1.947102	-1.278788
H	-1.165402	3.144550	1.127971
H	0.555269	1.511496	1.628204
O	-2.681959	-0.576634	1.609956
O	-4.023635	-0.067328	-0.138901
C	-5.004455	0.459294	0.776476
H	-4.582494	1.287883	1.346119
H	-5.338645	-0.319398	1.462935
H	-5.825348	0.799831	0.150314
C	4.835703	-0.037509	-0.792483
C	3.666796	0.691476	-0.991848
C	2.662220	0.742654	-0.010488
C	2.868482	0.021144	1.179604
C	4.035808	-0.704784	1.379845
C	5.026928	-0.738111	0.396300

H	5.595836	-0.058663	-1.565432
H	3.525477	1.236297	-1.919738
H	2.107159	0.019423	1.950562
H	4.172564	-1.254712	2.304413
H	5.934636	-1.308947	0.555437

C	-0.867306	0.569620	0.726543
C	0.368482	2.705640	0.242356
C	-0.742369	2.075616	0.618489
H	1.806043	2.059166	-1.226126
H	2.506246	2.490449	0.323527
F	1.797225	0.464809	1.661792
C	2.798349	-0.236295	-0.404123
F	0.079094	-0.026029	-1.394118
F	0.318591	-1.444181	0.262231
H	-0.710982	0.289915	1.774376
H	0.381138	3.790449	0.203062
H	-1.625415	2.643794	0.891293
O	3.136615	-0.031877	-1.542763
O	3.346233	-1.135299	0.410237
C	4.409022	-1.931318	-0.155859
H	5.229523	-1.290407	-0.480030
H	4.036848	-2.503510	-1.006086
H	4.727851	-2.592603	0.645749
C	-4.094907	-1.467709	0.691123
C	-2.848862	-0.965002	1.060545
C	-2.228853	0.034376	0.304860
C	-2.882478	0.523121	-0.831123
C	-4.127982	0.021829	-1.202310
C	-4.738048	-0.974971	-0.442338
H	-4.561988	-2.241996	1.289375
H	-2.352542	-1.353566	1.943604
H	-2.414053	1.296321	-1.428985
H	-4.621537	0.409649	-2.086436
H	-5.708390	-1.363333	-0.730612

**TS-EndoB**

E = -991.46066420H

C	1.651441	1.209196	1.705790
C	1.626855	-0.617247	0.255809
C	0.324337	-0.701269	-0.271318
C	-1.029270	0.638292	0.812970
C	0.898573	2.140020	1.021427
C	-0.406093	1.868601	0.594821
H	2.702979	1.389371	1.898619
H	1.196736	0.459759	2.339370
F	1.887982	-1.550060	1.209370
C	2.771333	-0.085648	-0.506167
F	0.086382	-0.289819	-1.515055
F	-0.361707	-1.821109	-0.002333
H	-0.748926	0.086333	1.705382
H	1.383138	3.032398	0.640314
H	-0.883926	2.586816	-0.062844
O	2.679147	0.713481	-1.409350
O	3.933060	-0.603736	-0.060306
C	5.115177	-0.155116	-0.749234
H	5.226895	0.925924	-0.653238
H	5.063701	-0.417723	-1.806513
H	5.941153	-0.671428	-0.265566
C	-4.464418	-0.901962	0.591443
C	-3.181522	-0.584421	1.026564
C	-2.378695	0.318467	0.312729
C	-2.892768	0.874229	-0.870124
C	-4.173688	0.554849	-1.306670
C	-4.966532	-0.331458	-0.576786
H	-5.070121	-1.597168	1.161734
H	-2.794610	-1.036486	1.933676
H	-2.281255	1.543585	-1.463627
H	-4.551893	0.991001	-2.224444
H	-5.963834	-0.580662	-0.920992

**Int-ExoB**

E = -991.50101391H

C	-1.382553	1.613787	-0.106271
C	0.692529	-1.601453	-0.040521
C	1.907949	-1.238120	0.383788
C	1.376248	2.997332	-0.107465
C	-0.696612	2.074258	0.957182
C	0.493568	2.922843	0.897749
C	-2.572022	0.757236	-0.092635
H	-1.053956	1.921006	-1.096527
F	0.212292	-1.395144	-1.237310
F	-0.163765	-2.232309	0.731220
F	2.234365	-1.542133	1.654716
C	2.905706	-0.528663	-0.444048
H	2.213077	3.684565	-0.060185
H	1.303193	2.375923	-0.993618
H	-1.053240	1.845054	1.958199
H	0.668717	3.536569	1.779033

**P-EndoB**

E = -991.56731719H

C	1.643092	2.006884	-0.145690
C	1.650259	0.537914	0.273285
C	0.276648	-0.107757	-0.039365

C	-3.078066	0.150989	1.071798
C	-4.218663	-0.640540	1.026432
C	-4.883053	-0.856369	-0.182981
C	-3.249557	0.522988	-1.301285
H	-2.572245	0.292077	2.019801
H	-4.589578	-1.098545	1.936735
C	-4.391014	-0.272089	-1.347919
H	-5.770713	-1.477806	-0.214723
H	-2.871667	0.974181	-2.212924
H	-4.894938	-0.435825	-2.293953
C	5.091637	0.347780	-0.468529
H	5.378053	-0.214732	-1.357775
H	4.761059	1.344896	-0.760810
H	5.918847	0.406400	0.234364
O	4.041108	-0.338853	0.240818
O	2.713990	-0.177067	-1.584195

**TS-ExoB**

E = -991.46088134H

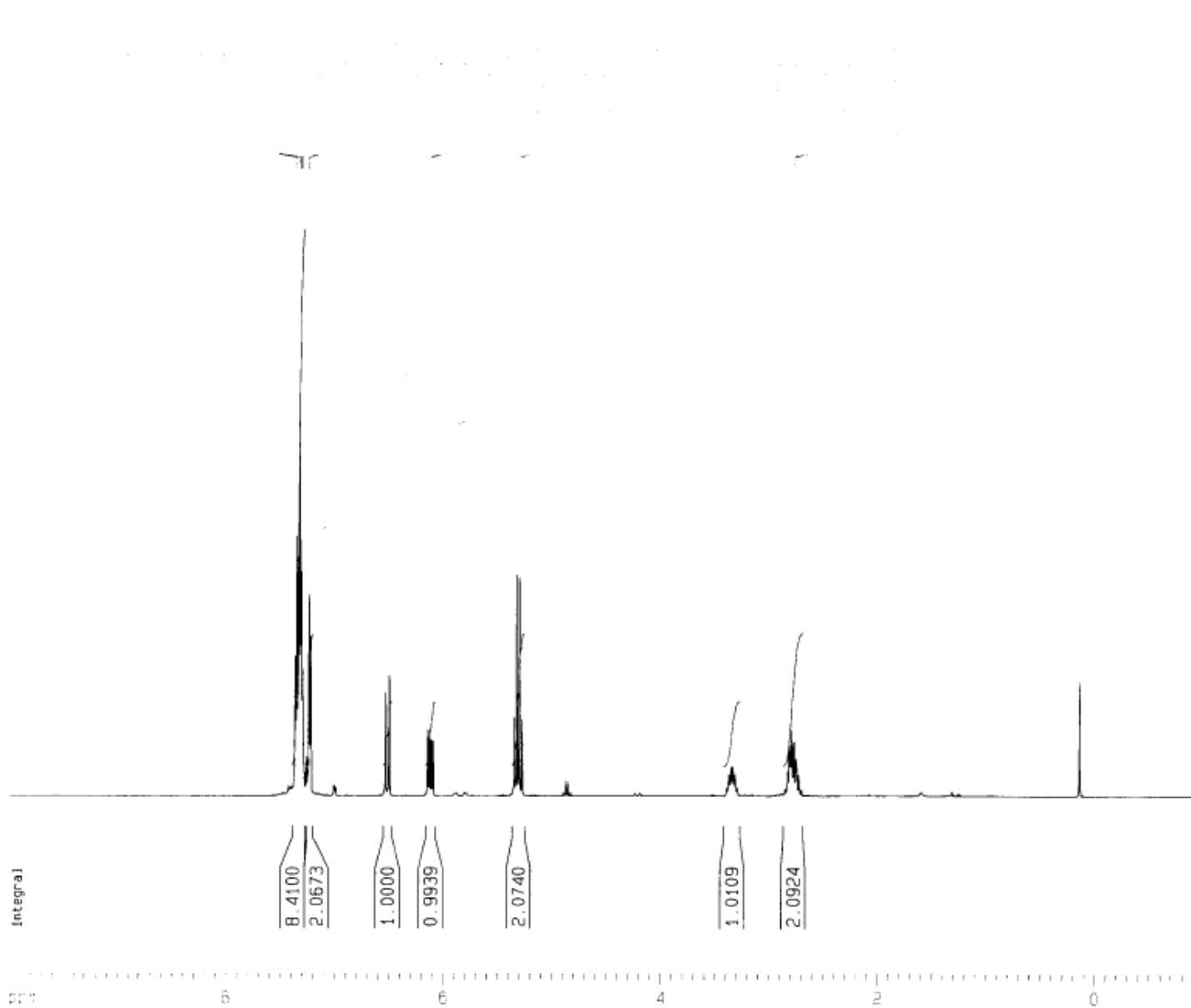
C	-1.008127	0.649766	-0.790446
C	0.364662	-0.285419	0.671620
C	1.679454	0.182363	0.487193
C	1.661632	1.543097	-1.382658
C	-0.627094	1.988507	-0.695279
C	0.675813	2.418368	-0.974115
C	-2.348810	0.156048	-0.433419
H	-0.489778	0.032360	-1.517345
F	0.054703	-1.545181	0.361522
F	-0.260466	0.091732	1.792157
F	2.045404	1.135495	1.380735
C	2.741653	-0.663526	-0.087103
H	2.689708	1.882026	-1.447527
H	1.433079	0.649318	-1.947593
H	-1.312676	2.700380	-0.247789
H	0.954229	3.425826	-0.683020
C	-3.154644	0.788923	0.527247
C	-4.418498	0.295659	0.830761
C	-4.902156	-0.845507	0.189531
C	-2.842643	-1.000178	-1.057795
H	-2.784805	1.660450	1.054345
H	-5.025313	0.796344	1.576877
C	-4.107783	-1.493539	-0.754563
H	-5.886750	-1.229782	0.430608
H	-2.226516	-1.511635	-1.789511
H	-4.471748	-2.384931	-1.252860
C	5.053968	-1.120261	-0.088549
H	4.917276	-2.178218	0.138025
H	5.144716	-0.992197	-1.168026

H	5.931400	-0.728911	0.420820
O	3.947295	-0.350356	0.419805
O	2.548437	-1.517801	-0.923717

**P-ExoB**

E = -991.56504280H

C	-0.622607	0.047132	-0.643432
C	0.207672	0.127585	0.645883
C	1.674371	0.584626	0.445095
C	1.710735	1.941868	-0.280221
C	-0.361196	1.256515	-1.512302
C	0.679793	2.072957	-1.367356
C	-2.099321	-0.193012	-0.356790
H	-0.237138	-0.826216	-1.178384
F	0.209291	-1.089741	1.282179
F	-0.358929	1.017610	1.523337
F	2.229920	0.754026	1.706637
C	2.485237	-0.476584	-0.321464
H	1.546450	2.703092	0.490625
H	2.717163	2.115458	-0.673400
H	-1.068035	1.419486	-2.319063
H	0.810618	2.903101	-2.054413
C	-2.962771	0.861355	-0.041825
C	-4.312048	0.622309	0.208000
C	-4.817834	-0.675373	0.146937
C	-2.616419	-1.490313	-0.416582
H	-2.577490	1.873056	0.011220
H	-4.968424	1.450301	0.451766
C	-3.965881	-1.732230	-0.166377
H	-5.868551	-0.860565	0.339879
H	-1.957972	-2.317078	-0.660920
H	-4.350112	-2.744774	-0.218710
C	4.498325	-1.690450	-0.405884
H	3.991979	-2.654277	-0.461895
H	4.742255	-1.348639	-1.412189
H	5.392536	-1.759285	0.208190
O	3.656089	-0.725187	0.260684
O	2.108393	-0.978442	-1.352456



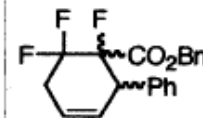
Current Data Parameters  
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 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20041209  
 Time 9.20  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 45.3  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 297.3 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWAK 0.01500000 sec

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

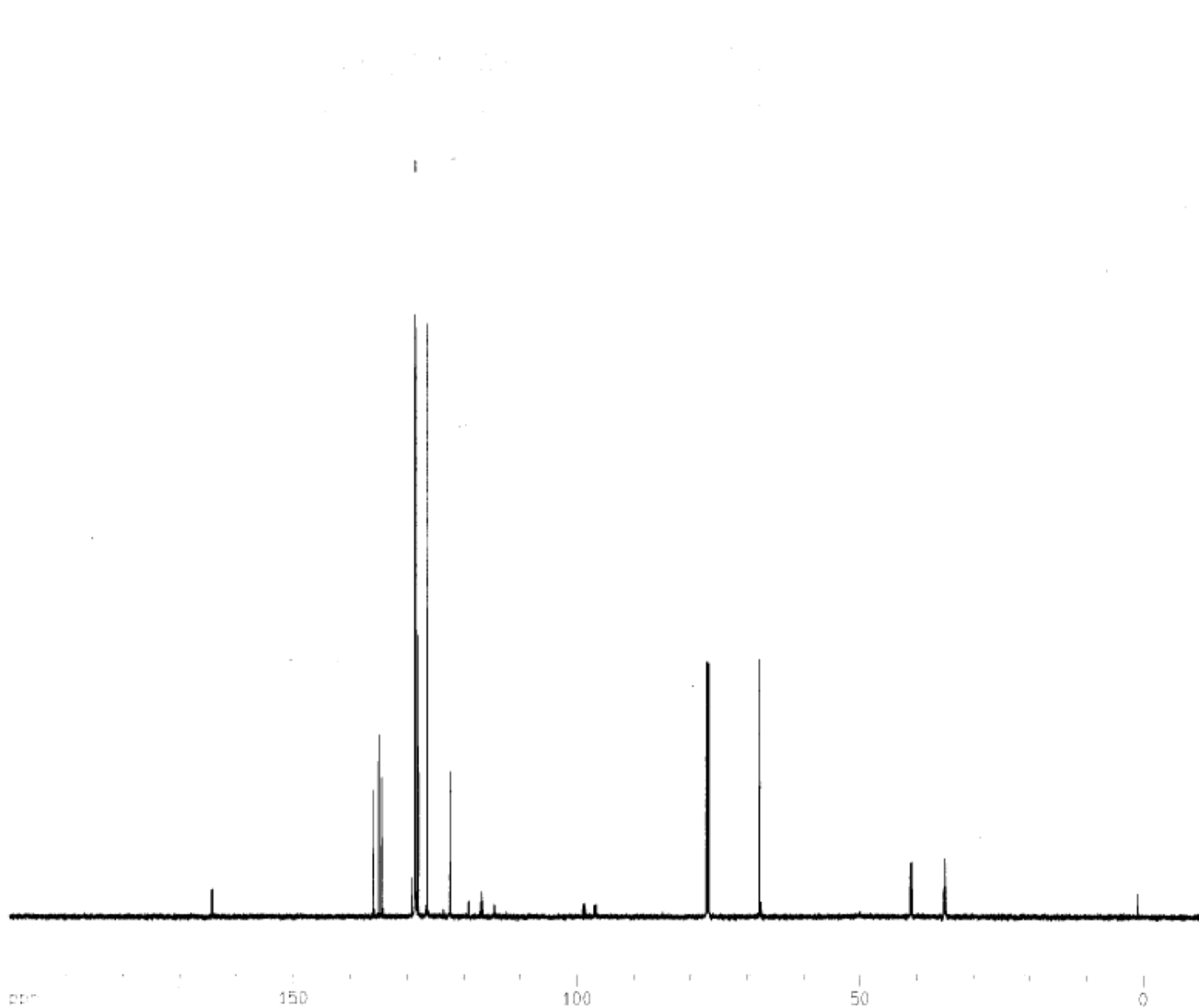
F2 - Processing parameters  
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 SSB 0  
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 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 6.76 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPHCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



less polar

3aA



Current Data Parameters  
 NAME hondo-04.12.9  
 EXPNO 2  
 PROCNO 1

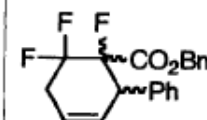
F2 - Acquisition Parameters  
 Date\_ 20041209  
 Time 9.28  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 2048  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 298.3 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

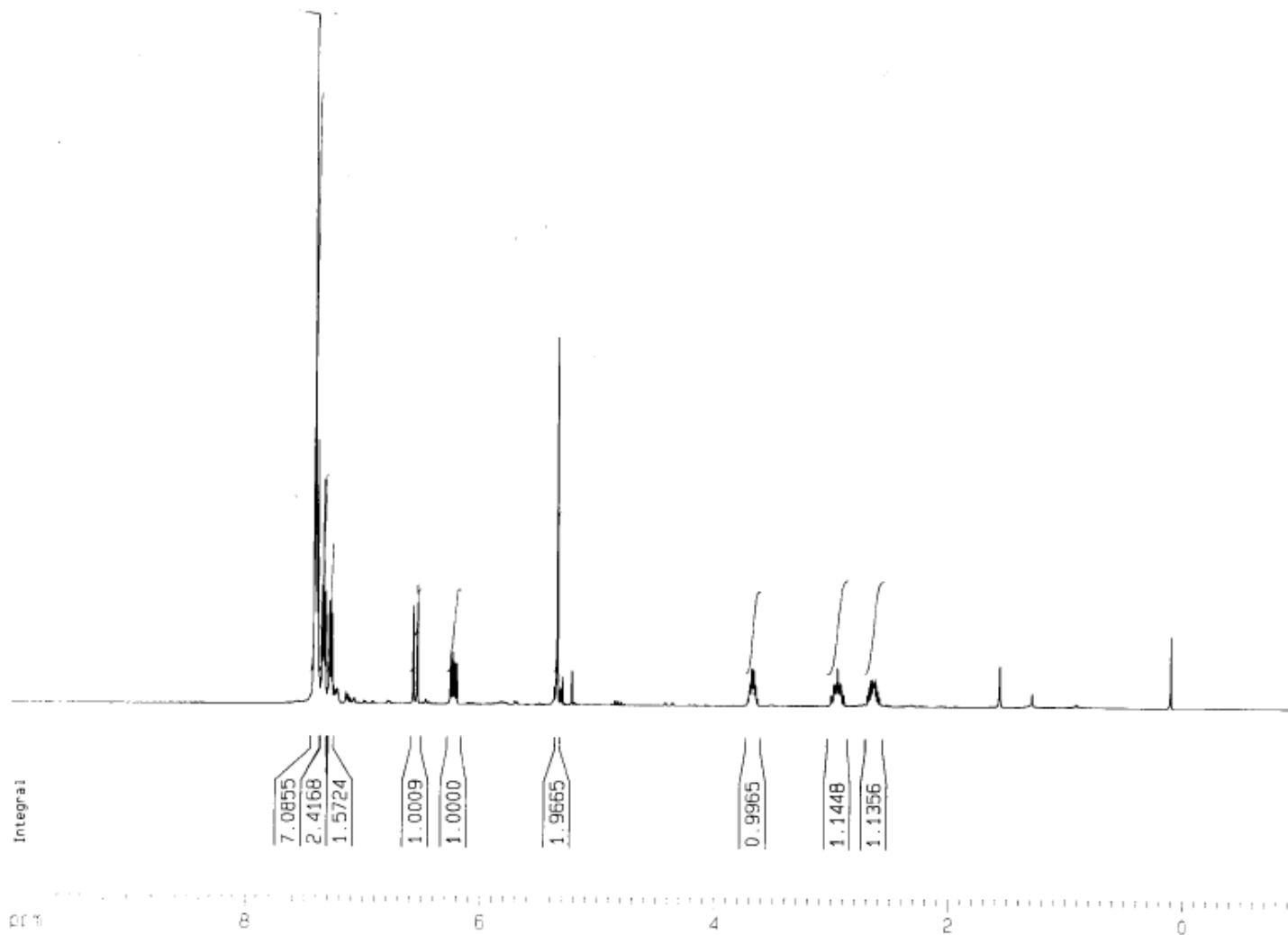
F2 - Processing parameters  
 SI 32768  
 SF 125.7578024 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 0.10

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.28 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 1320.45691 Hz/cm



less polar  
**3aA**





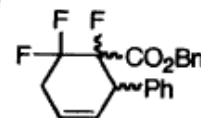
Current Data Parameters  
 NAME hondo-04.11.25  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20041125  
 Time 11.28  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 128  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 297.8 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

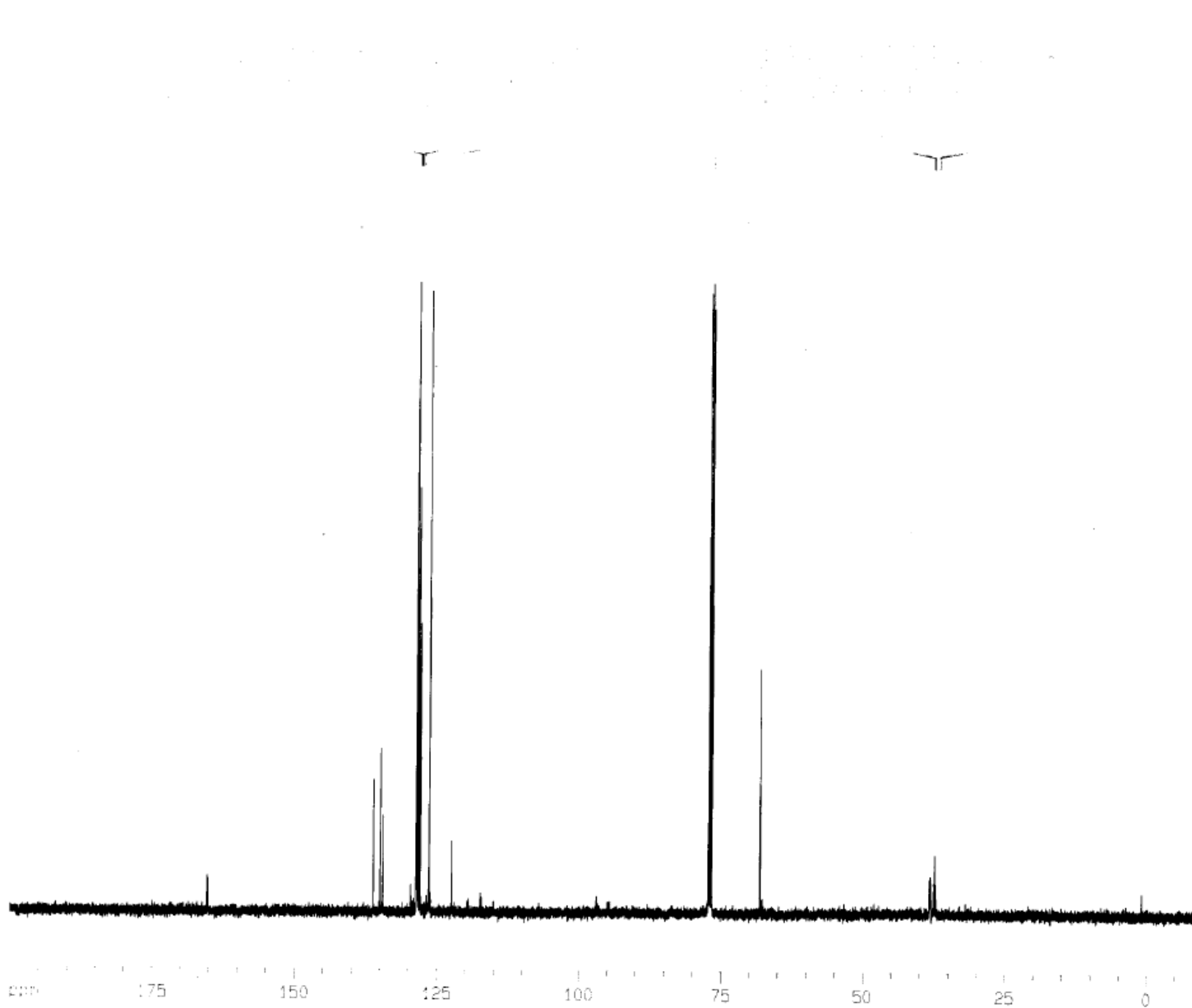
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300115 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.95 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



more polar  
**3aA**



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Current Data Parameters
NAME      hondo-04.11.25
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20041125
Time      11.37
INSTRUM   drx500
PROBHD    5 mm Multinucl
PULPROG   zgpg30
TD         65536
SOLVENT   CDCl3
NS         256
DS         2
SWH        30030.029 Hz
FIDRES     0.458222 Hz
AQ         1.0912244 sec
RG         3649.1
DW         16.650 usec
DE         6.00 usec
TE         298.5 K
D1         0.50000000 sec
d11        0.03000000 sec
MCREST    0.00000000 sec
MCRWK     0.01500000 sec

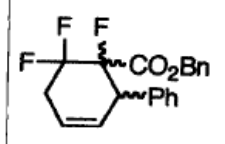
===== CHANNEL f1 =====
NUC1       13C
P1         5.70 usec
PL1        -2.00 dB
SF01       125.7703643 MHz

===== CHANNEL f2 =====
CPOPRG2   waltz16
NUC2       1H
PCPD2     100.00 usec
PL2        -6.00 dB
PL12       13.74 dB
PL13       13.74 dB
SF02       500.1320005 MHz

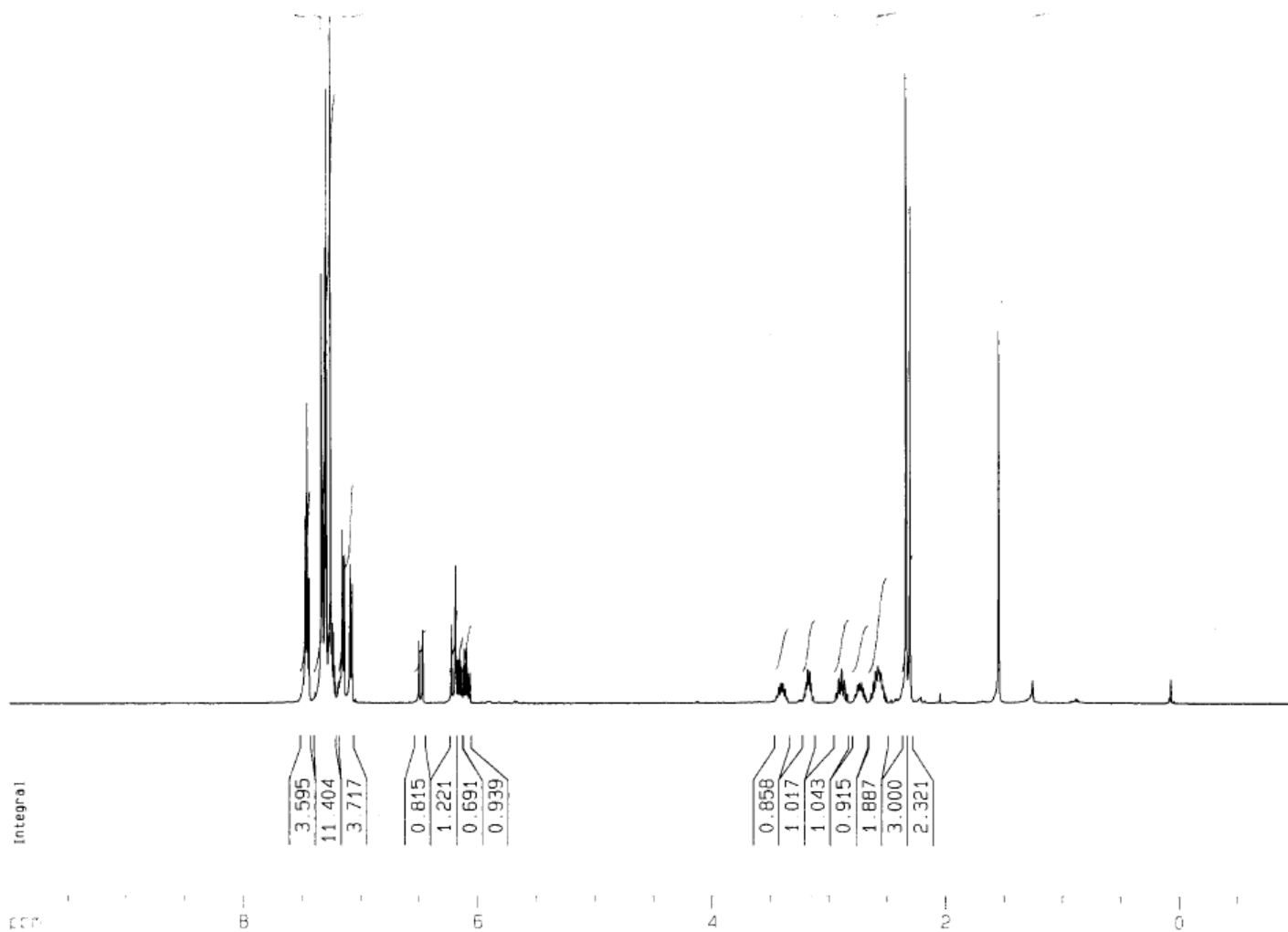
F2 - Processing parameters
SI         32768
SF         125.7577969 MHz
WDW        EM
SSB         0
LB         1.00 Hz
GB         0
PC         0.10

1D NMR plot parameters
CX         20.00 cm
CY         10.60 cm
F1P        200.000 ppm
F1         25151.56 Hz
F2P        -10.000 ppm
F2         -1257.58 Hz
PPMCM      10.50000 ppm/cm
HZCM       1320.45679 Hz/cm

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more polar  
3aA



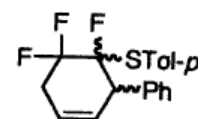
Current Data Parameters  
 NAME hondo-7-2-1  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20070201  
 Time 12.26  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 812.7  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 294.2 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

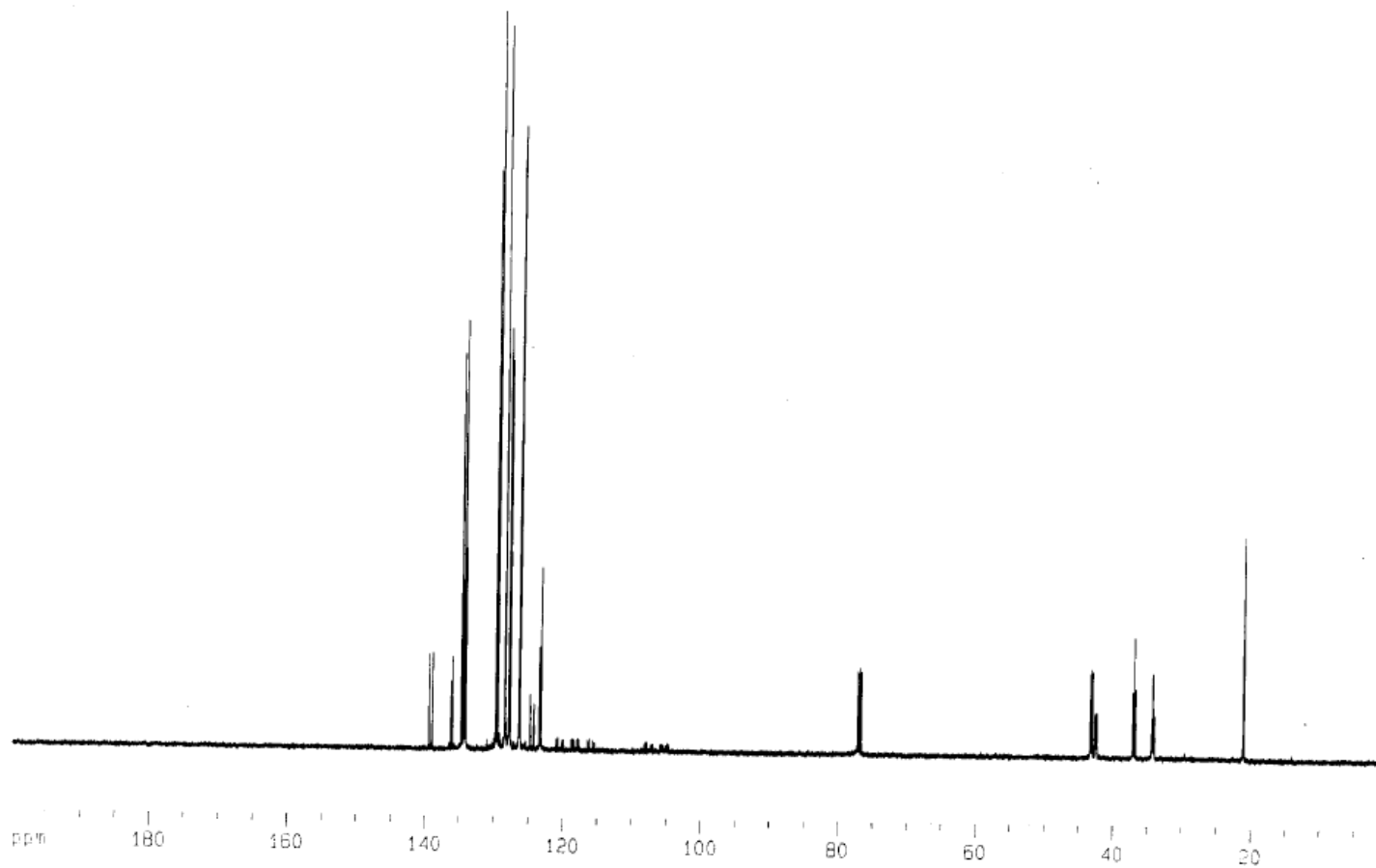
==== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.92 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



3bA



Current Data Parameters  
 NAME hondo-7-2-5  
 EXPNO 2  
 PROCNO 1

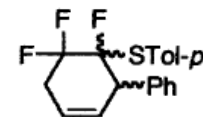
F2 - Acquisition Parameters  
 Date\_ 20070205  
 Time 15.35  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 OS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 293.7 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SFO1 125.7703643 MHz

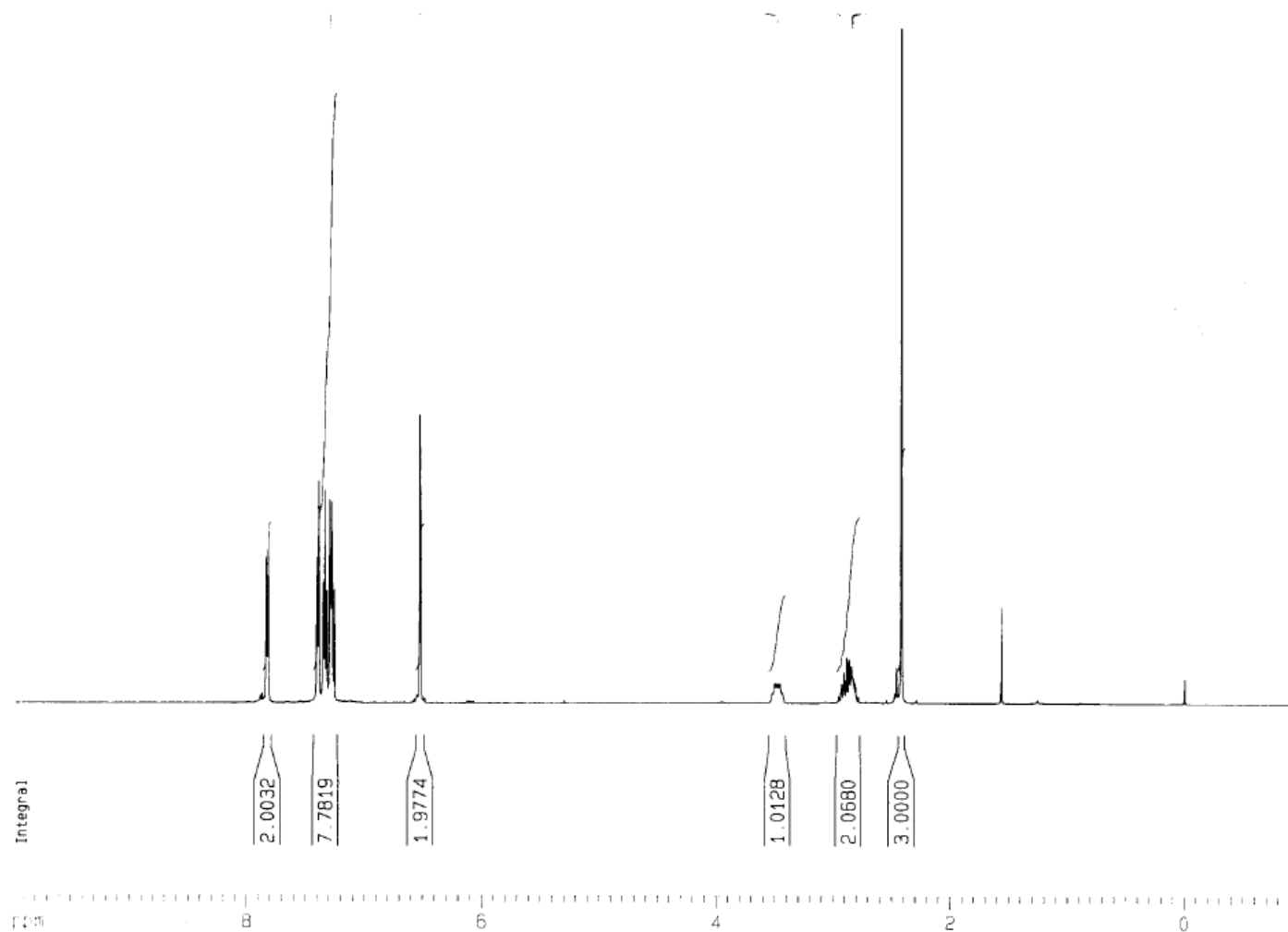
----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578079 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.79 cm  
 F1P 199.900 ppm  
 F1 25138.98 Hz  
 F2P -0.100 ppm  
 F2 -12.58 Hz  
 PPMCM 10.00000 ppm/cm  
 HZCM 1257.57800 Hz/cm



3bA



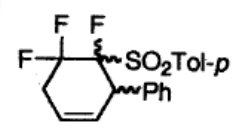
Current Data Parameters  
 NAME hondo-7-1-7  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20070107  
 Time 20.37  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 228.1  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 293.1 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

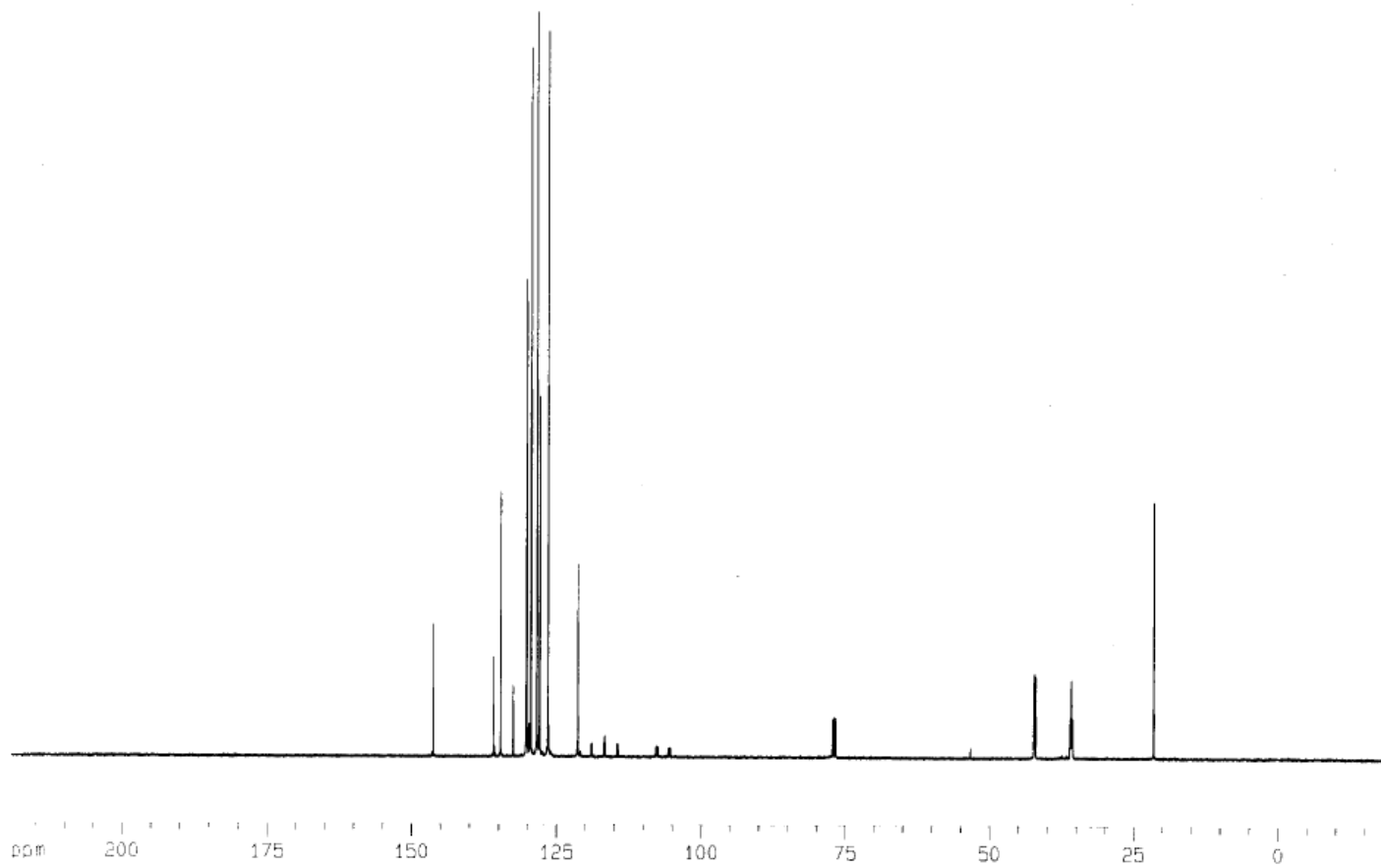
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300153 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.94 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



less polar  
**3dA**



Current Data Parameters  
 NAME hondo-7-1-7  
 EXPNO 3  
 PROCNO 1

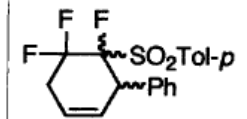
F2 - Acquisition Parameters  
 Date\_ 20070107  
 Time 20.49  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDC13  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 293.5 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SFO1 125.7703643 MHz

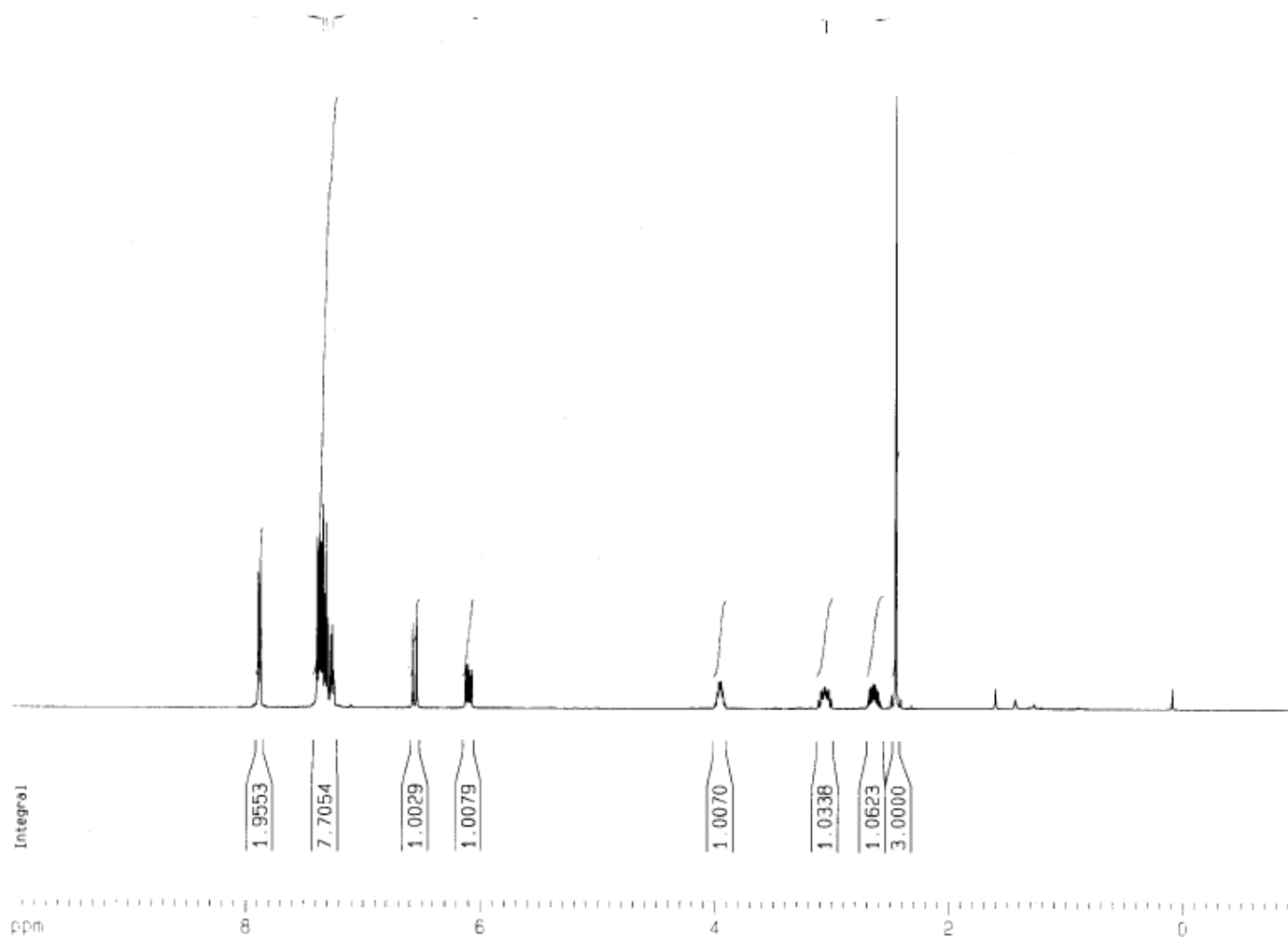
\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578125 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.83 cm  
 F1P 219.206 ppm  
 F1 27566.83 Hz  
 F2P -19.587 ppm  
 F2 -2463.20 Hz  
 PPMCM 11.93963 ppm/cm  
 HZCM 1501.50146 Hz/cm



less polar  
 3dA



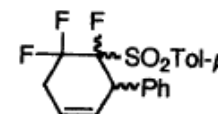
Current Data Parameters  
 NAME shimoj1-5-5-23  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20060523  
 Time 14.47  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT COC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 128  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 298.5 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

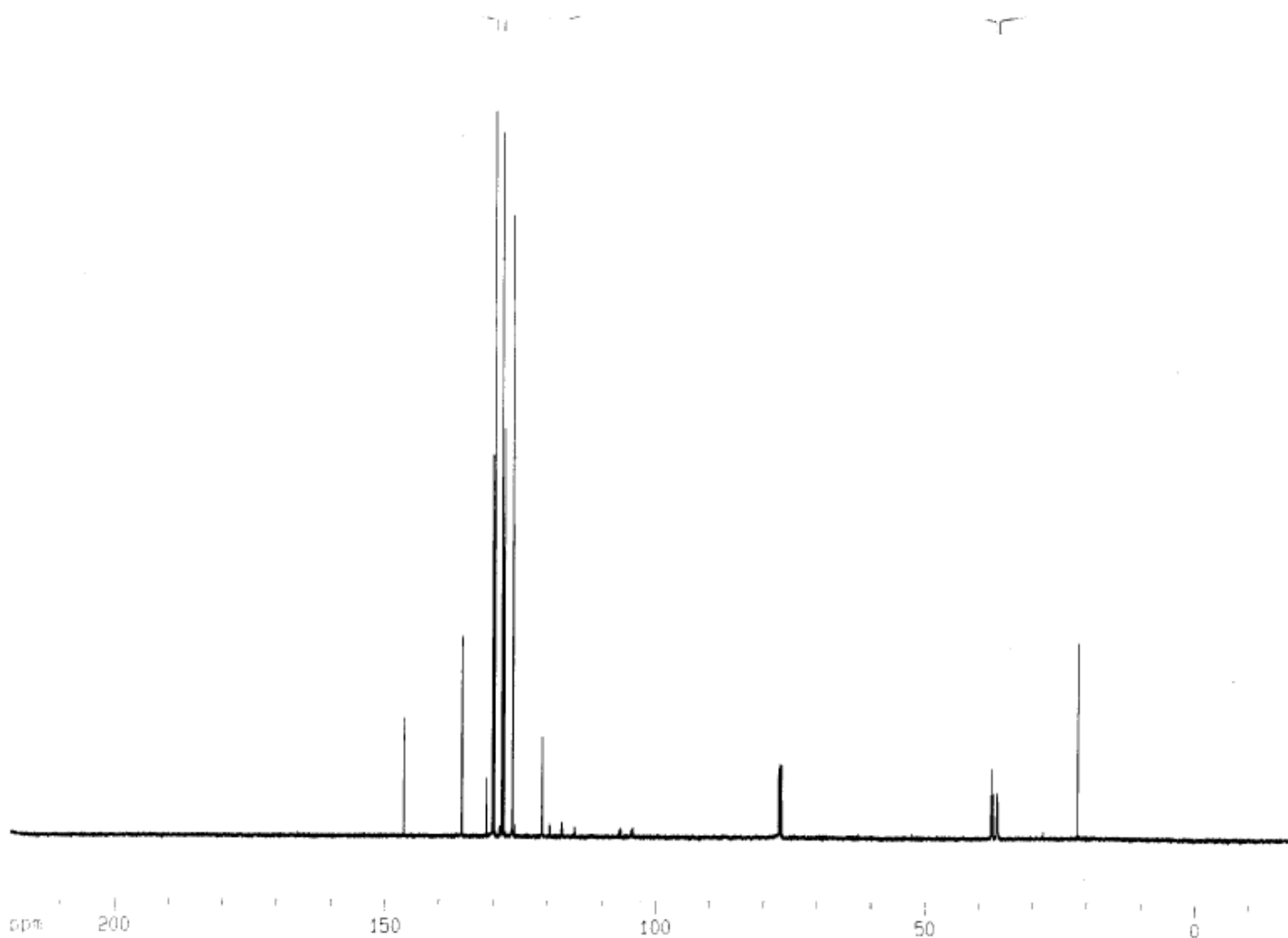
----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300165 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 9.68 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



more polar  
 3dA



Current Data Parameters  
 NAME shinoji-6-5-23  
 EXPNO 2  
 PROCNO 1

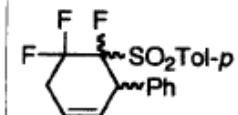
F2 - Acquisition Parameters  
 Date\_ 20060523  
 Time 15.01  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDC13  
 NS 256  
 DS 2  
 SMH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 298.8 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCMRK 0.0150000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SFO1 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577978 MHz  
 WDM EH  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 0.00

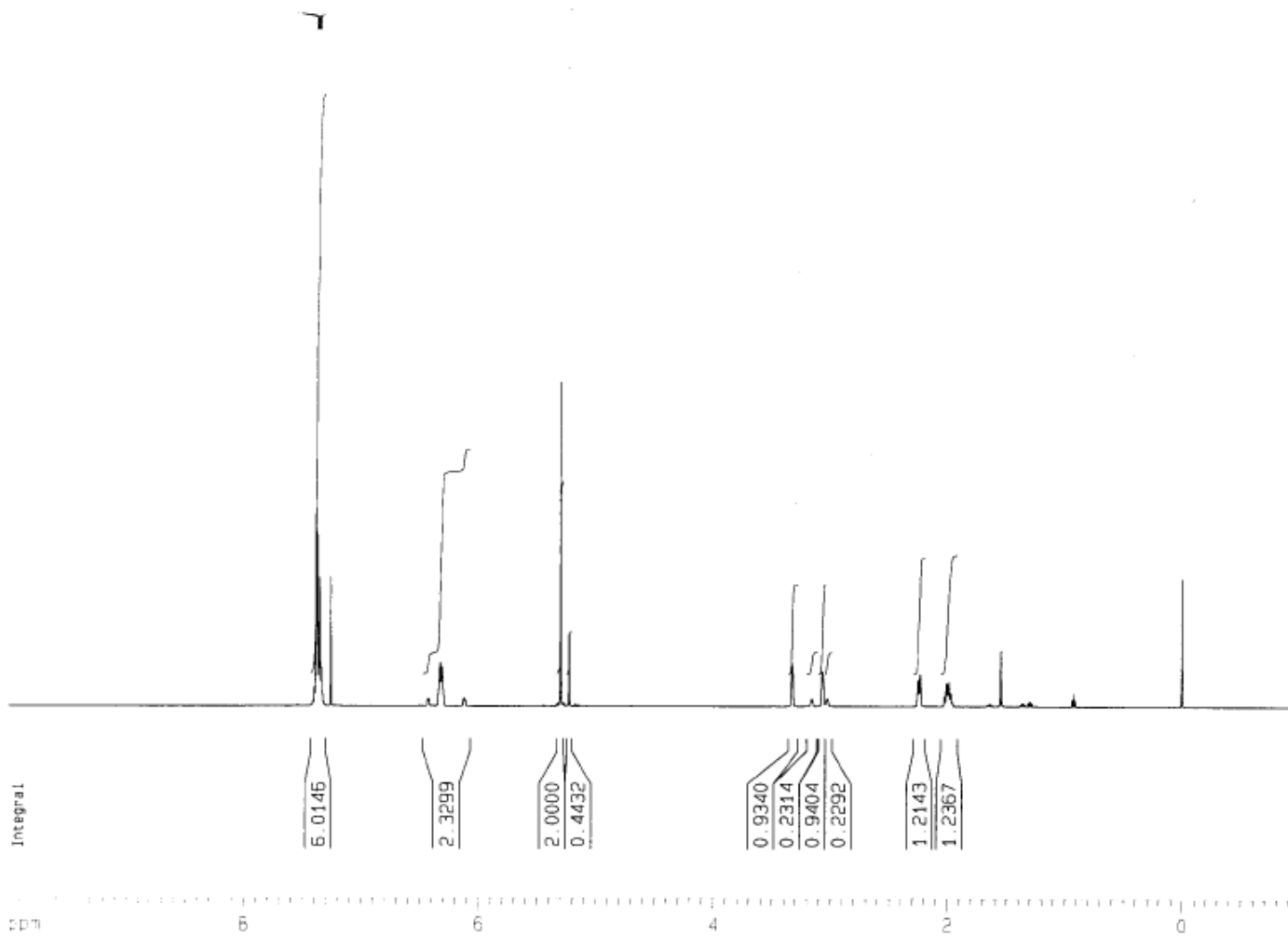
1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.29 cm  
 F1P 219.322 ppm  
 F1 27581.50 Hz  
 F2P -19.470 ppm  
 F2 -2448.53 Hz  
 PPMM 11.93963 ppm/cm  
 HZCM 1501.50146 Hz/cm



more polar

3dA





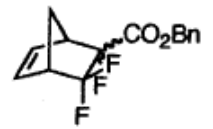
Current Data Parameters  
 NAME hondo-04.12.10  
 EXPNO 3  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20041210  
 Time 16.03  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 406.4  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCNRK 0.01500000 sec

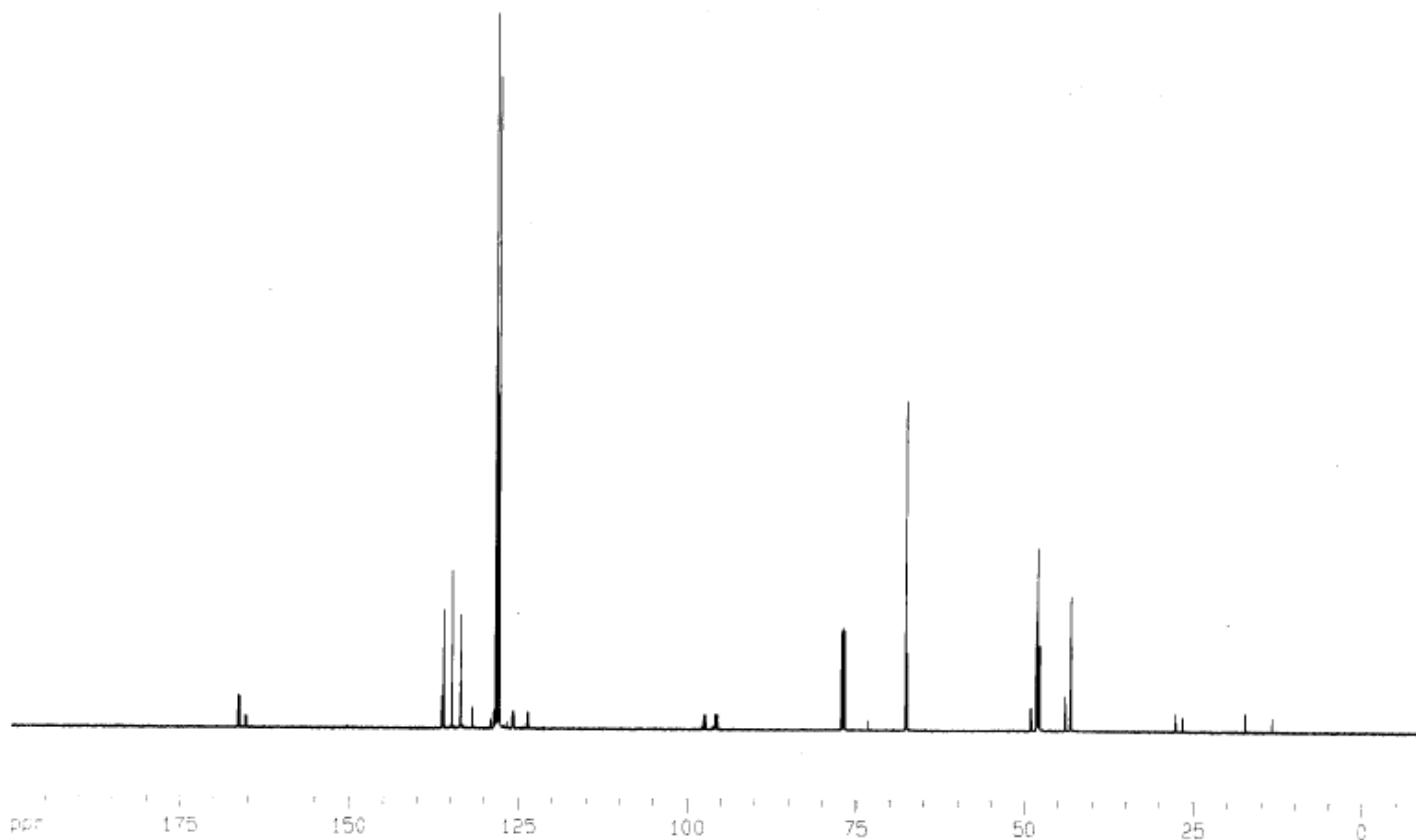
----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300156 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 5.05 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



3aB



Current Data Parameters  
 NAME hondo-04.12.10  
 EXPNO 2  
 PROCNO 1

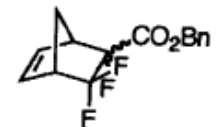
F2 - Acquisition Parameters  
 Date\_ 20041210  
 Time 12.43  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 4597.6  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 298.4 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCMRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

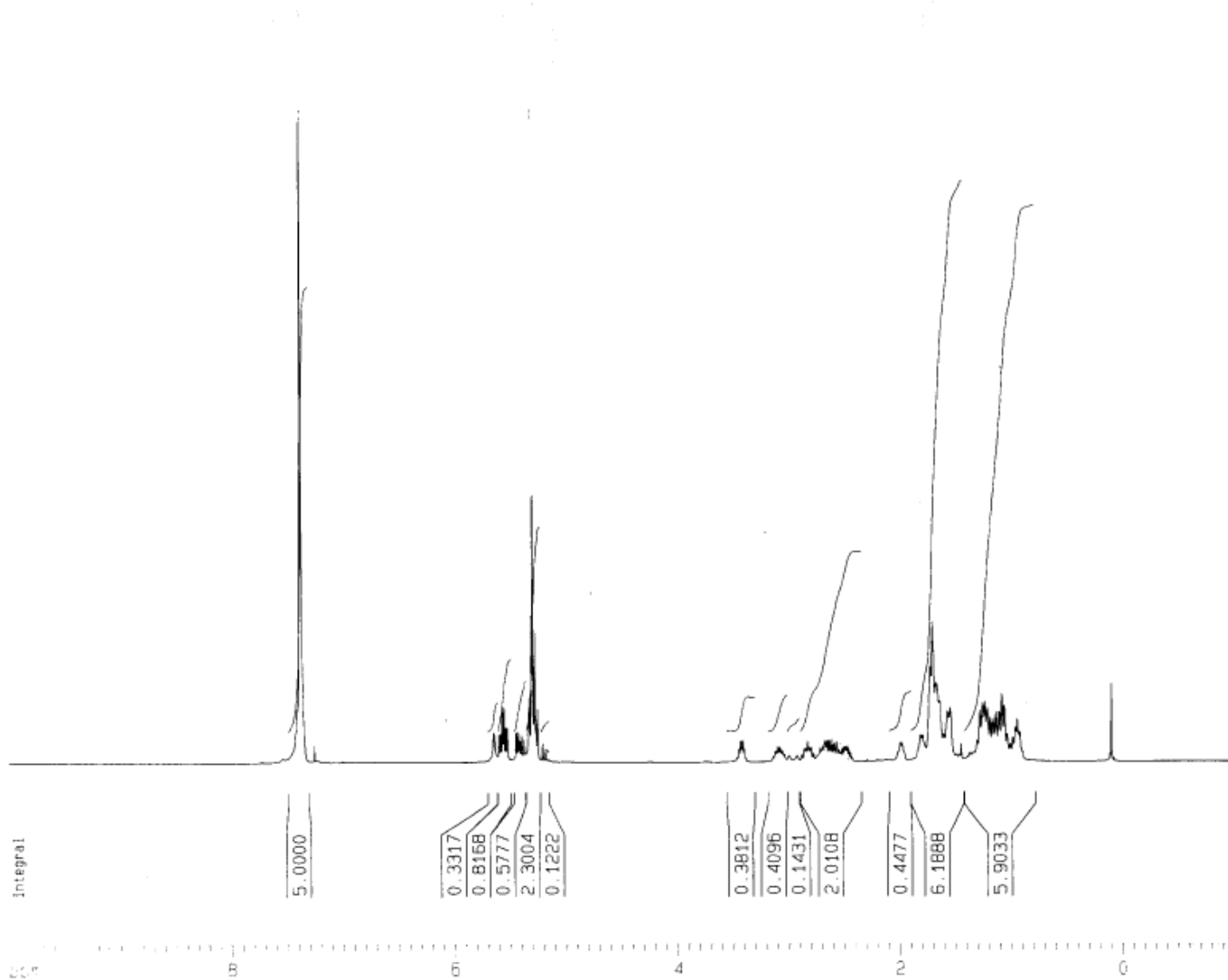
----- CHANNEL f2 -----  
 CPROG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578189 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.31 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 1320.45703 Hz/cm



**3aB**



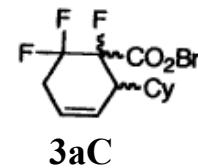
Current Data Parameters  
 NAME honda-05.2.17  
 EXPNO 1  
 PROCNO 1

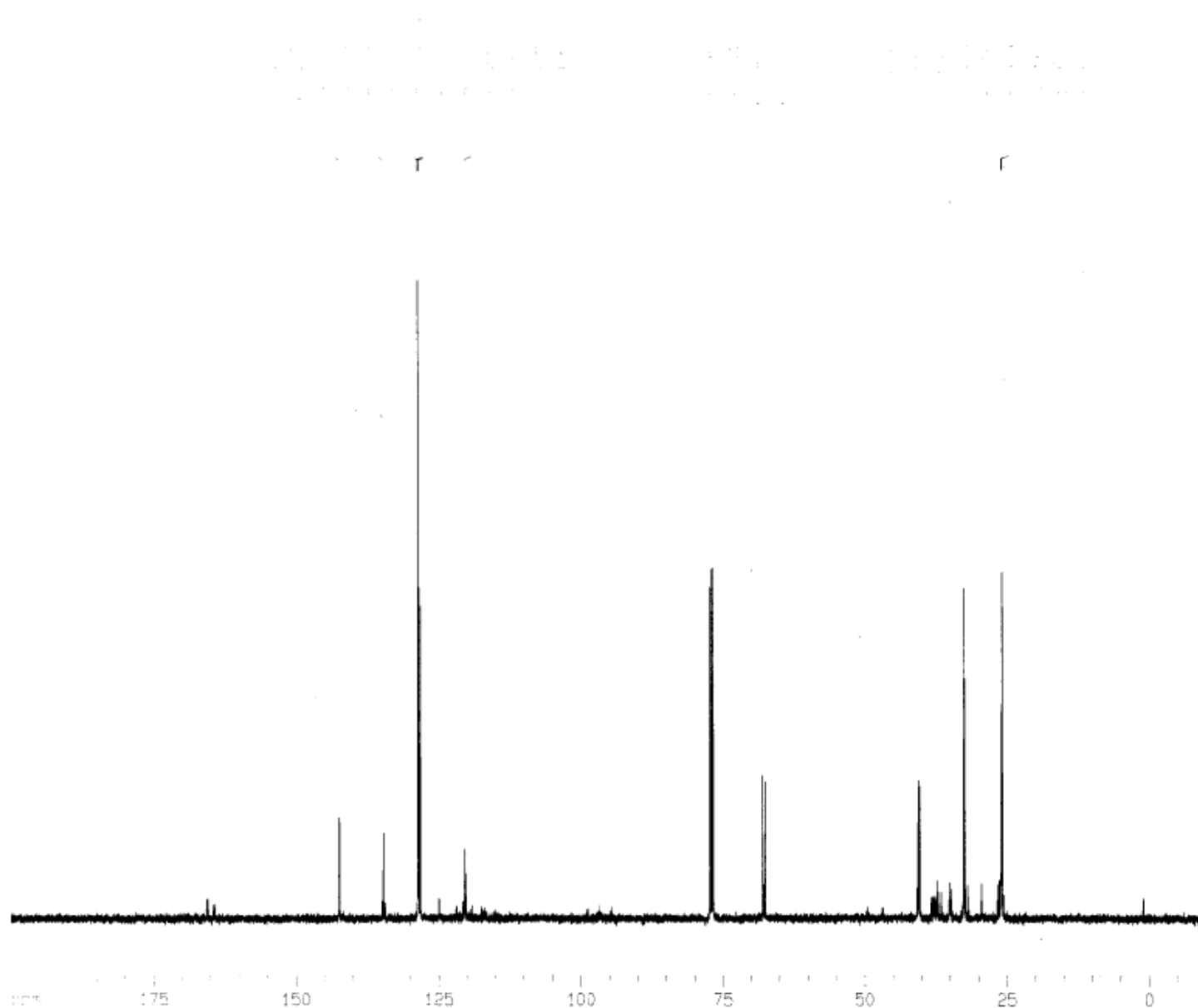
F2 - Acquisition Parameters  
 Date\_ 20050217  
 Time 17.47  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 35.9  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.9 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWAK 0.01500000 sec

==== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.93 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME hondo-05.2.17  
 EXPNO 2  
 PROCNO 1

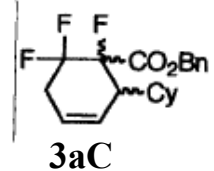
F2 - Acquisition Parameters  
 Date\_ 20050217  
 Time 17.55  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPRG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 296.9 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRR 0.0150000 sec

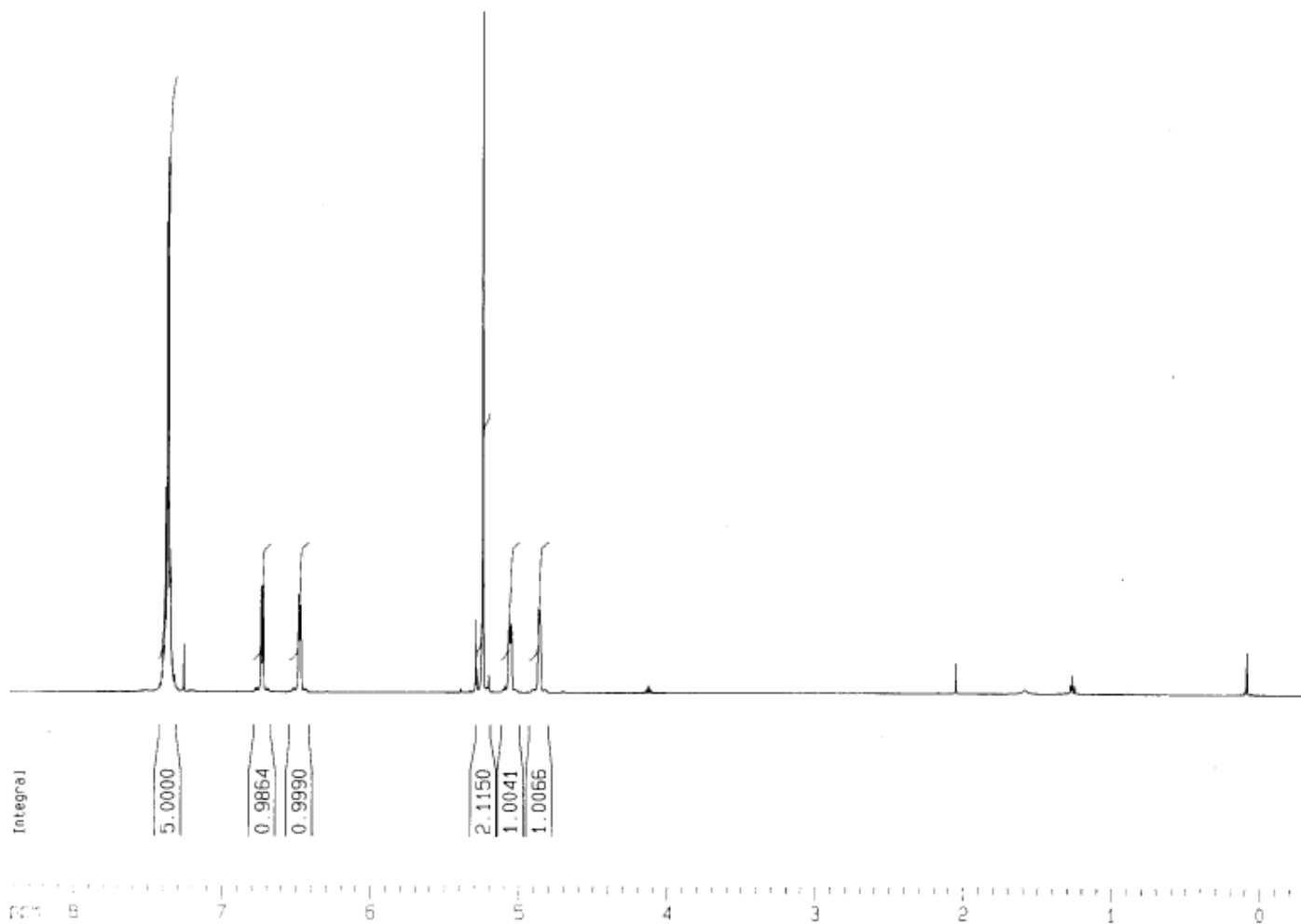
===== CHANNEL f1 =====  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

===== CHANNEL f2 =====  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577997 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.68 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCN 10.50000 ppm/cm  
 HZCM 1320.45679 Hz/cm





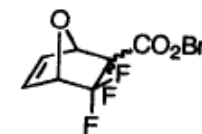
Current Data Parameters  
 NAME Hondou  
 EXPNO 3  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050213  
 Time 19.24  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 128  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.4 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

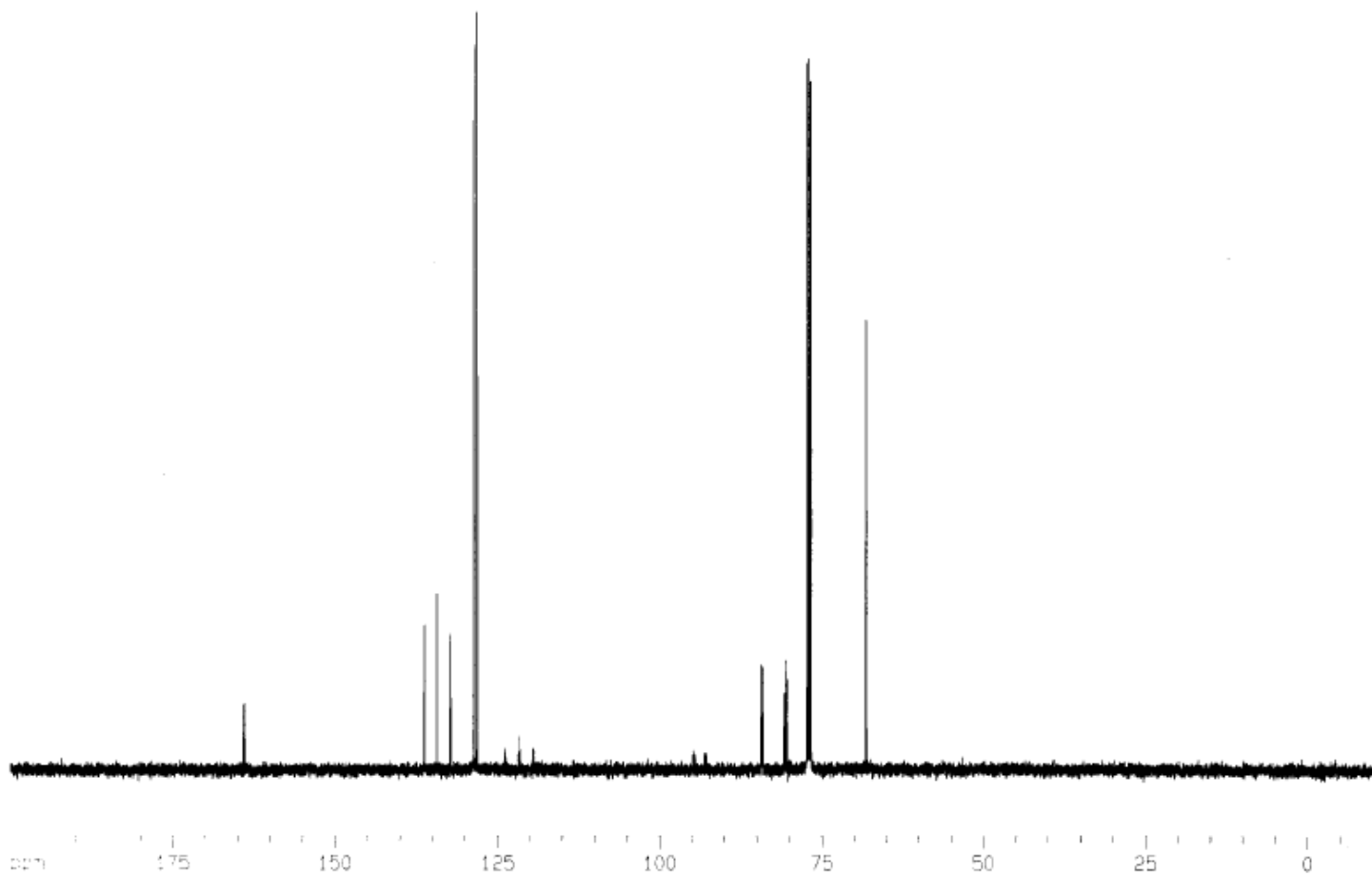
F2 - Processing parameters  
 SI 32768  
 SF 500.1300134 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.78 cm  
 F1P 8.433 ppm  
 F1 4217.61 Hz  
 F2P -0.318 ppm  
 F2 -159.21 Hz  
 PPMCM 0.43757 ppm/cm  
 HZCM 218.84090 Hz/cm



less polar

3aD



Current Data Parameters  
 NAME Hondou  
 EXPNO 4  
 PROCNO 1

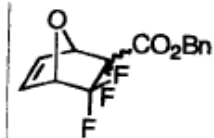
F2 - Acquisition Parameters  
 Date\_ 20050213  
 Time 19.32  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SMH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 4597.6  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 296.4 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

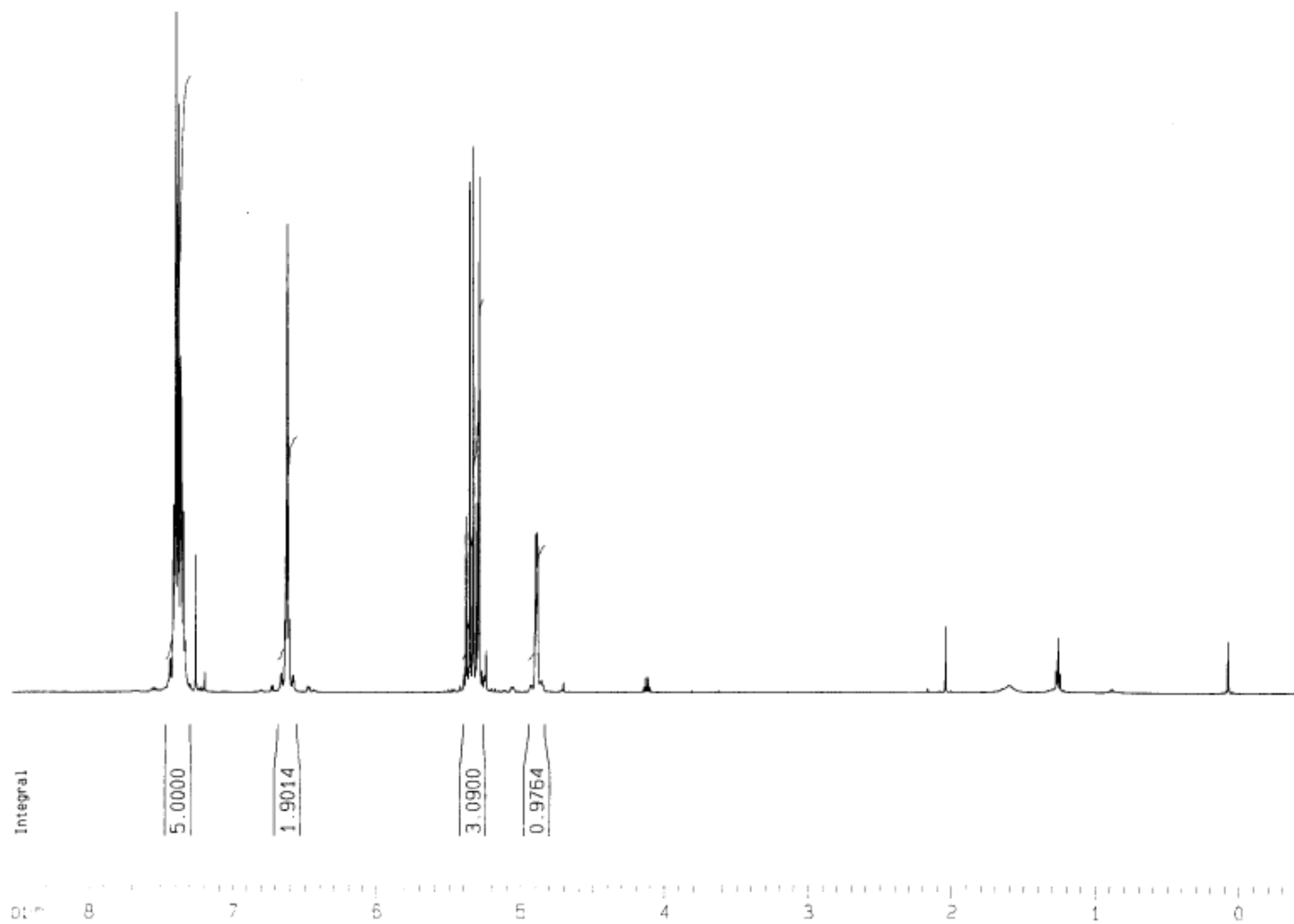
----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577969 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.49 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.56 Hz  
 PPMM 10.50000 ppm/cm  
 HZCM 1320.45679 Hz/cm



less polar  
**3aD**



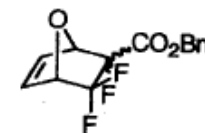
Current Data Parameters  
 NAME Hondou  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050213  
 Time 19.10  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TO 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 181  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.2 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

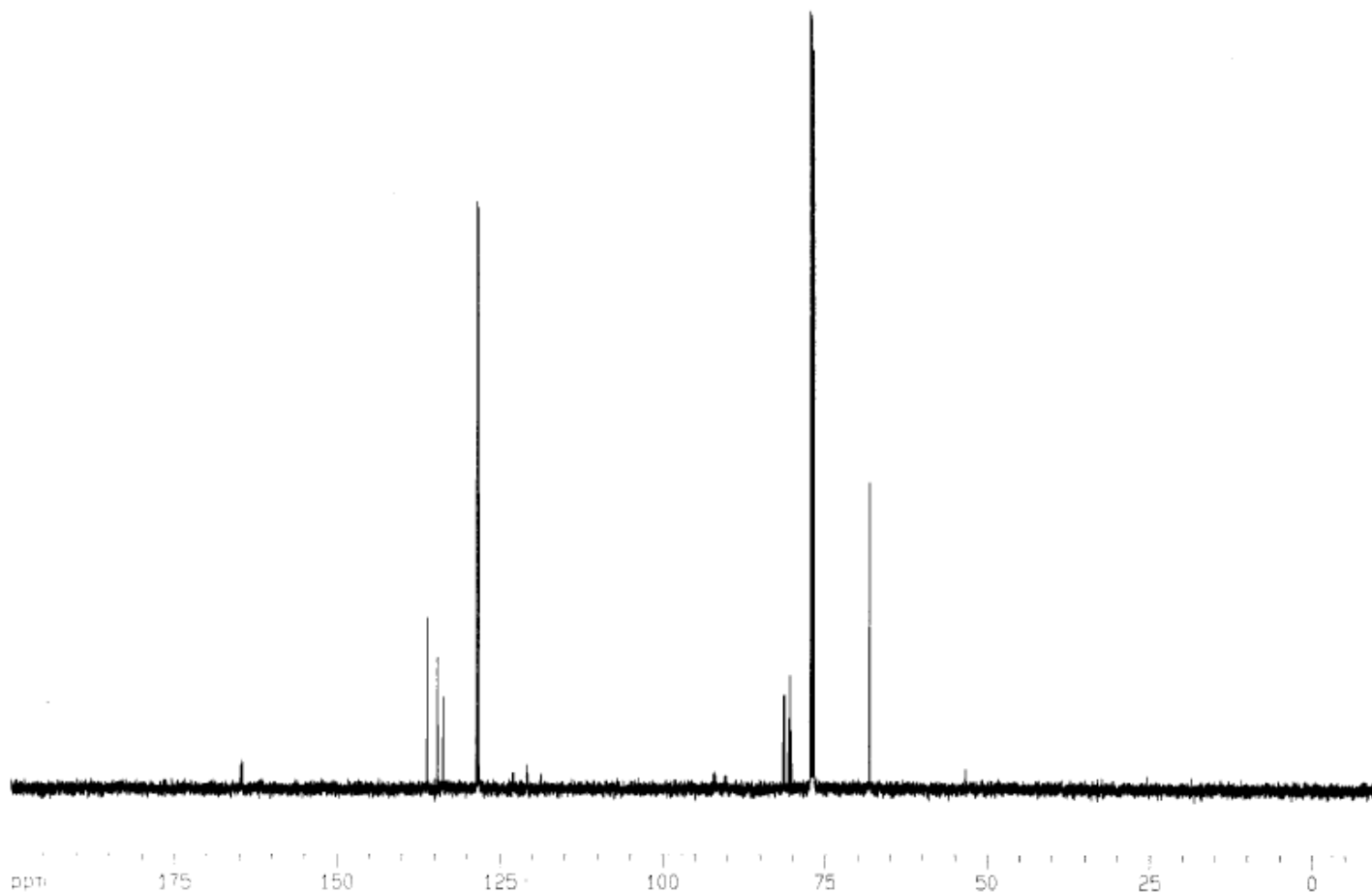
F2 - Processing parameters  
 SI 32768  
 SF 500.1300137 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.01 cm  
 F1P 8.540 ppm  
 F1 4270.93 Hz  
 F2P -0.469 ppm  
 F2 -234.61 Hz  
 PPMCM 0.45044 ppm/cm  
 HZCM 225.27739 Hz/cm



more polar

3aD



Current Data Parameters  
 NAME Hondou  
 EXPNO 2  
 PROCNO 1

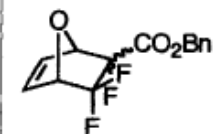
F2 - Acquisition Parameters  
 Date\_ 20050213  
 Time 19.18  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDC13  
 NS 256  
 DS 2  
 SMH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 2298.8  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 296.3 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SFO1 125.7703643 MHz

----- CHANNEL f2 -----  
 CPOPRG2 waltz16  
 NUC2 1H  
 PCPO2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SFO2 500.1320005 MHz

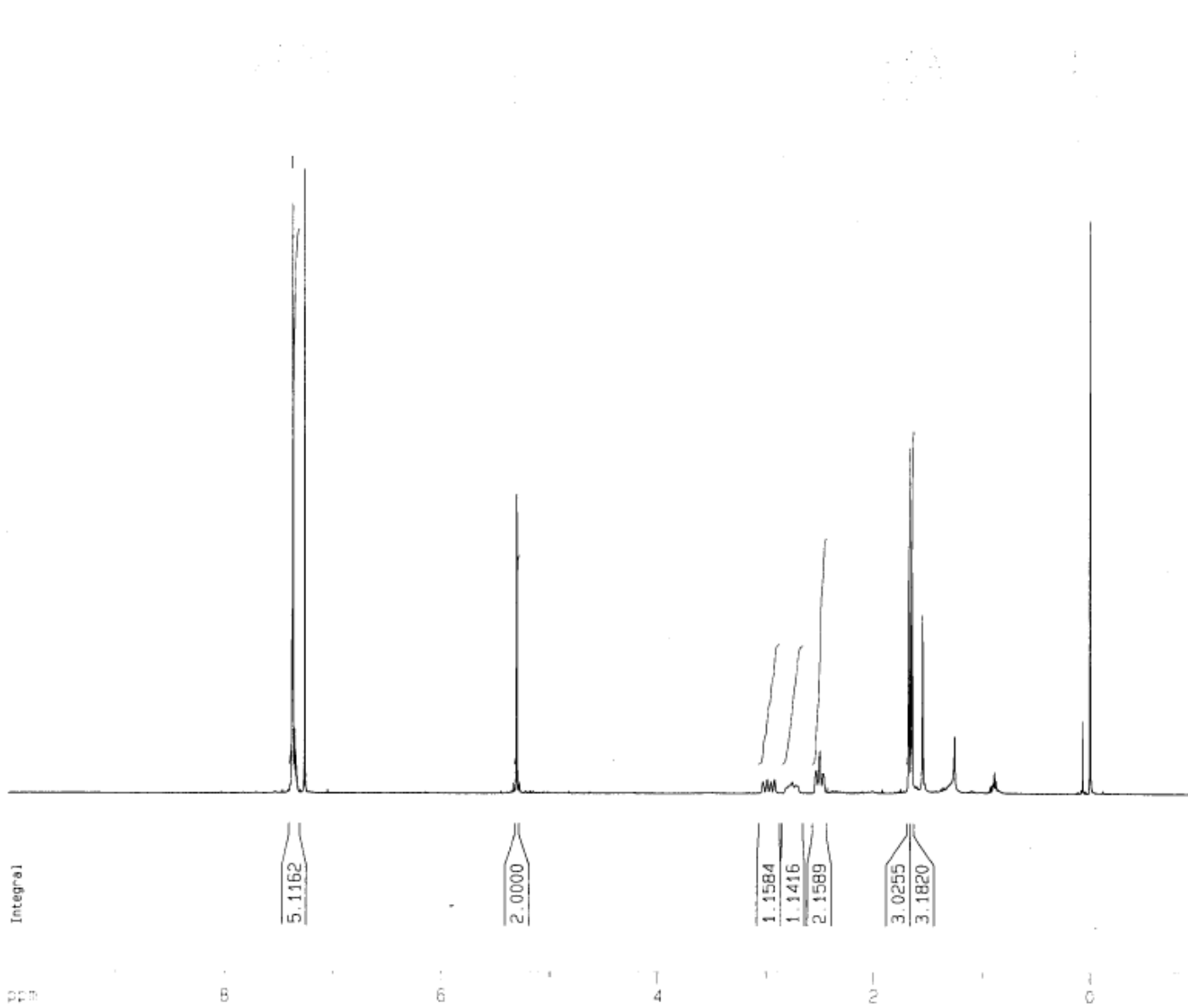
F2 - Processing parameters  
 SI 32768  
 SF 125.7577960 MHz  
 MDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.46 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 1320.45679 Hz/cm



more polar  
**3aD**





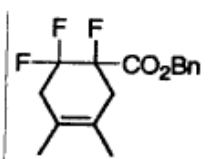
Current Data Parameters  
 NAME hondo-05.1.21  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050121  
 Time 16.39  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT 020  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 724.1  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.5 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

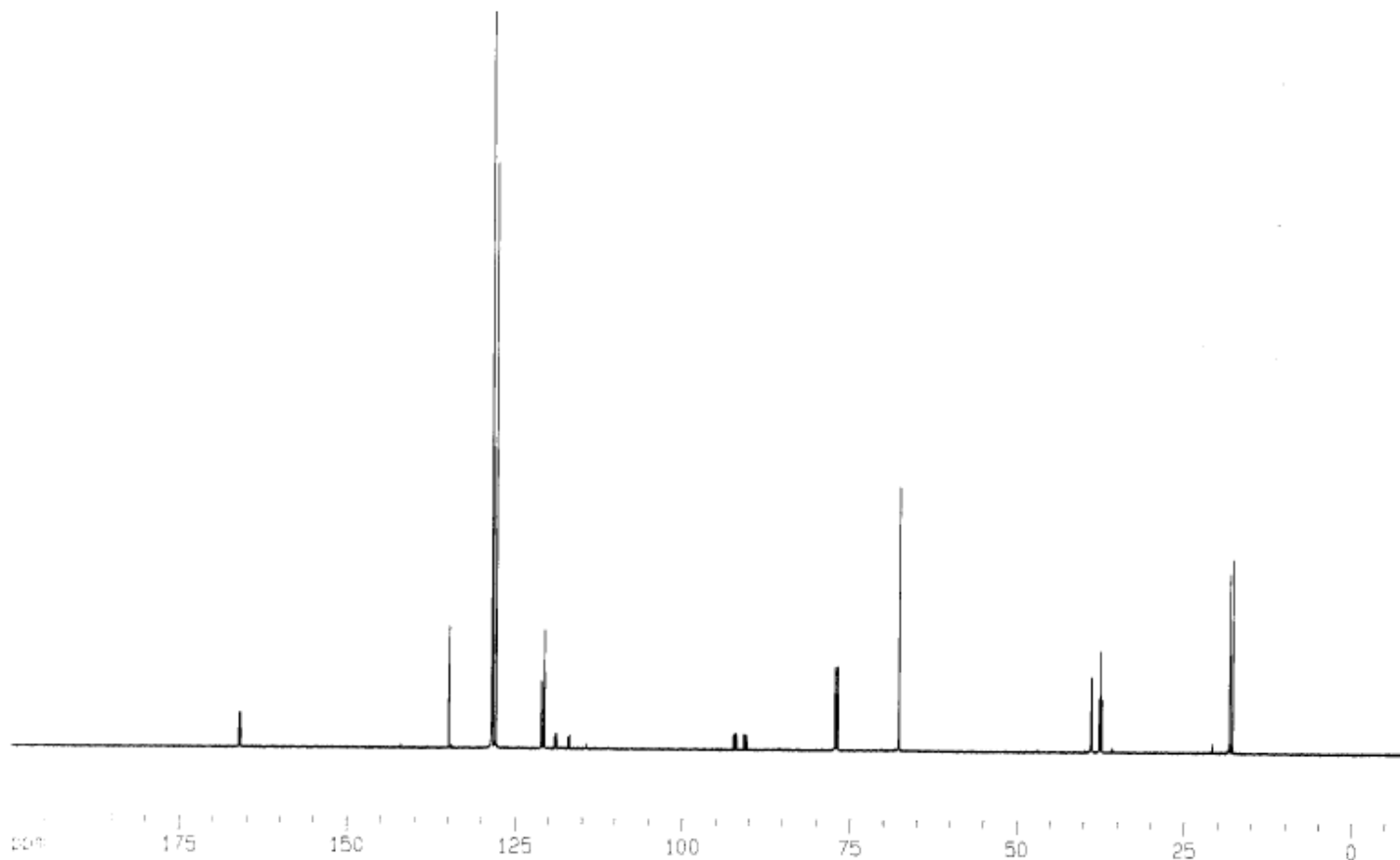
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300134 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.57 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



**3aE**



Current Data Parameters  
 NAME hondo-05.3.4-Y  
 EXPNO 2  
 PROCNO 1

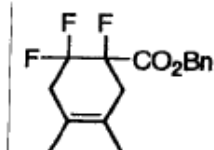
F2 - Acquisition Parameters  
 Date\_ 20050304  
 Time 19.55  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 296.6 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCMRK 0.0150000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

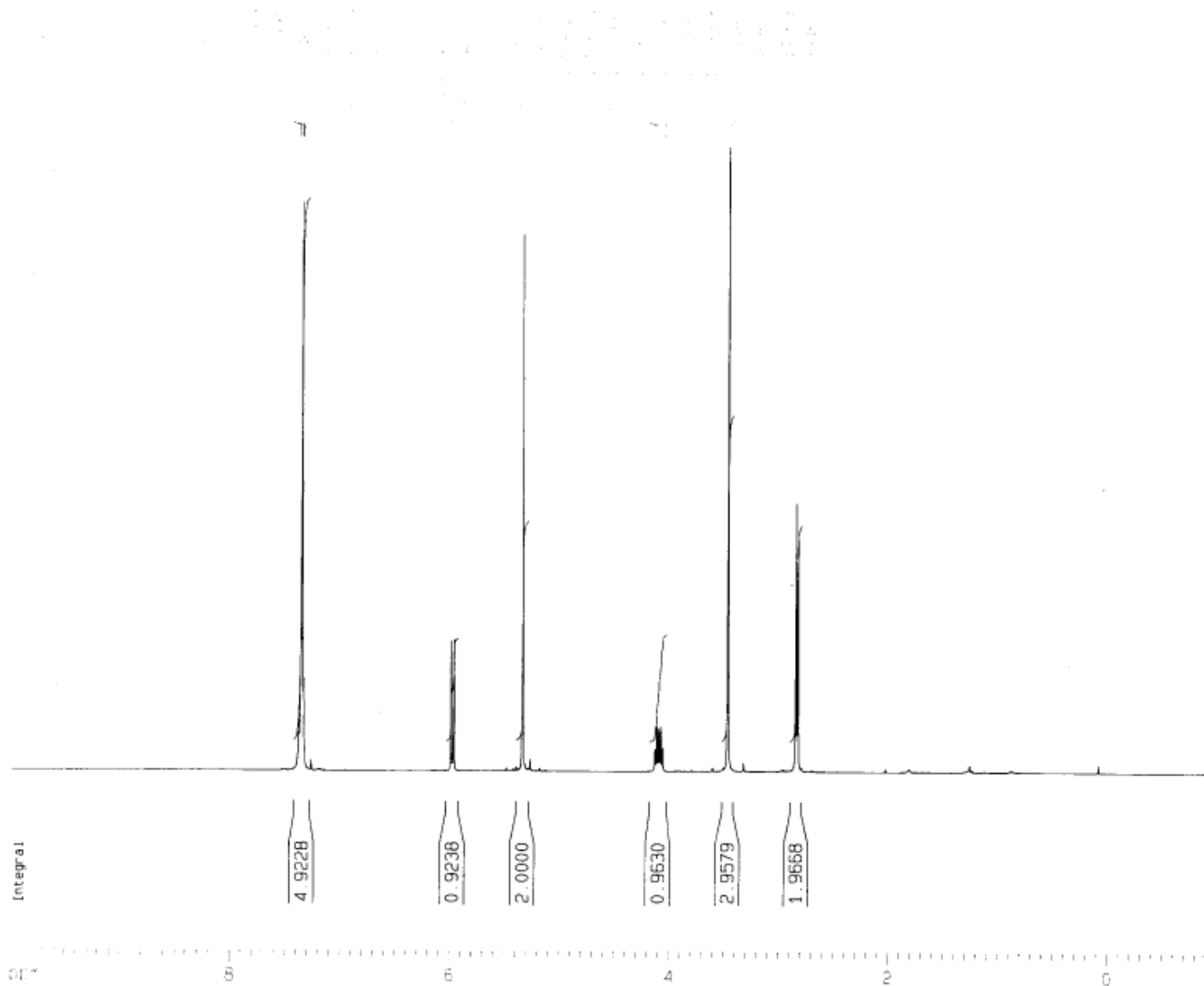
\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPOPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 S1 32768  
 SF 125.7578180 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.52 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPNM 10.50000 ppm/cm  
 HZCM 1320.45703 Hz/cm



**3aE**



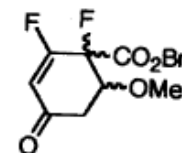
Current Data Parameters  
 NAME 05.1.25-g  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050125  
 Time 18.26  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 35.9  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.6 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWAK 0.01500000 sec

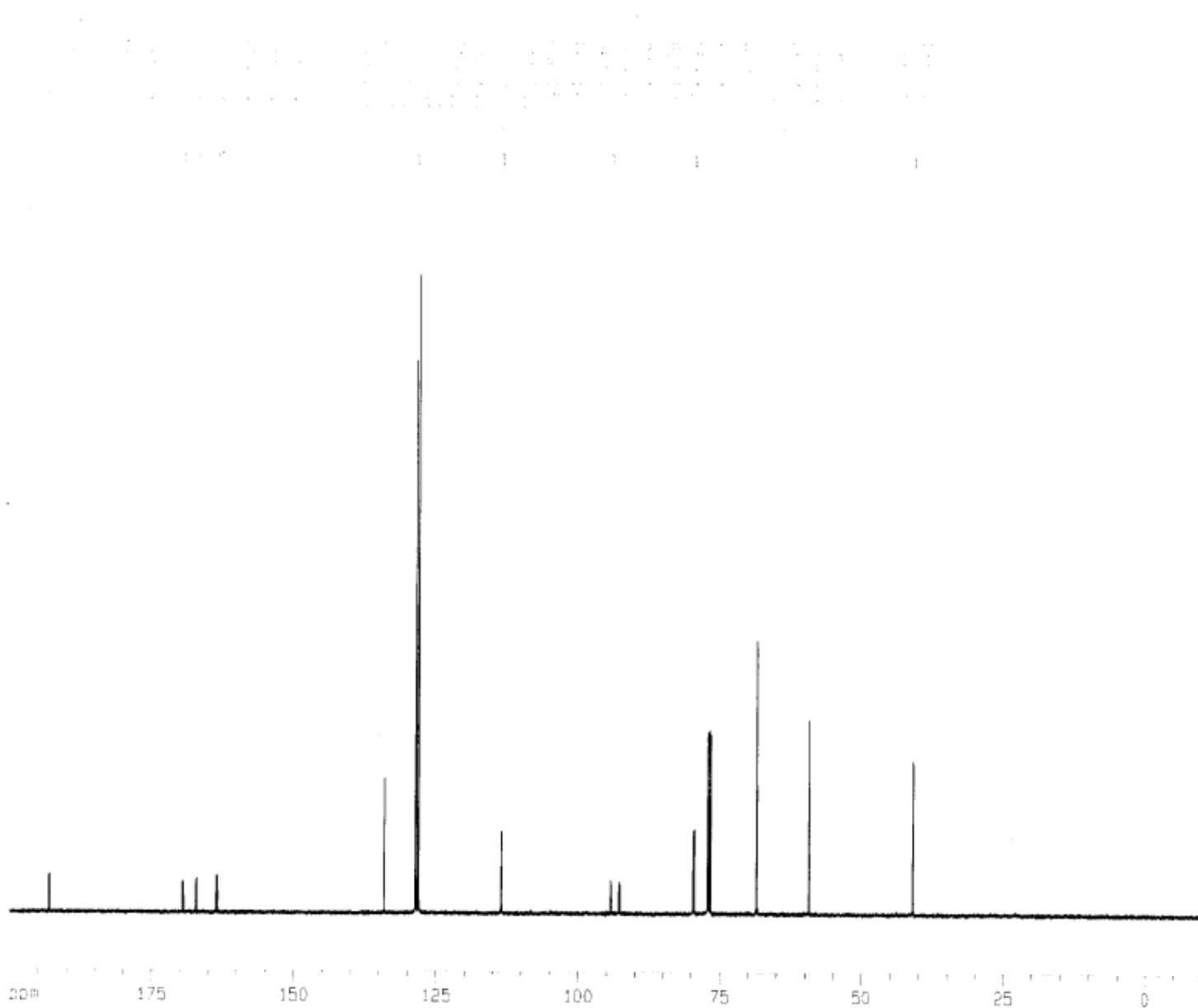
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300127 MHz  
 HDW EM  
 SSB 0  
 LB 0.30 Hz  
 SB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.39 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



less polar  
 3aF



Current Data Parameters  
 NAME 05.1.25-g  
 EXPNO 2  
 PROCNO 1

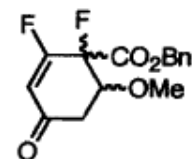
F2 - Acquisition Parameters  
 Date\_ 20050125  
 Time 18.34  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 296.6 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCMRK 0.0150000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

----- CHANNEL f2 -----  
 CPOPRG2 wa1tz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

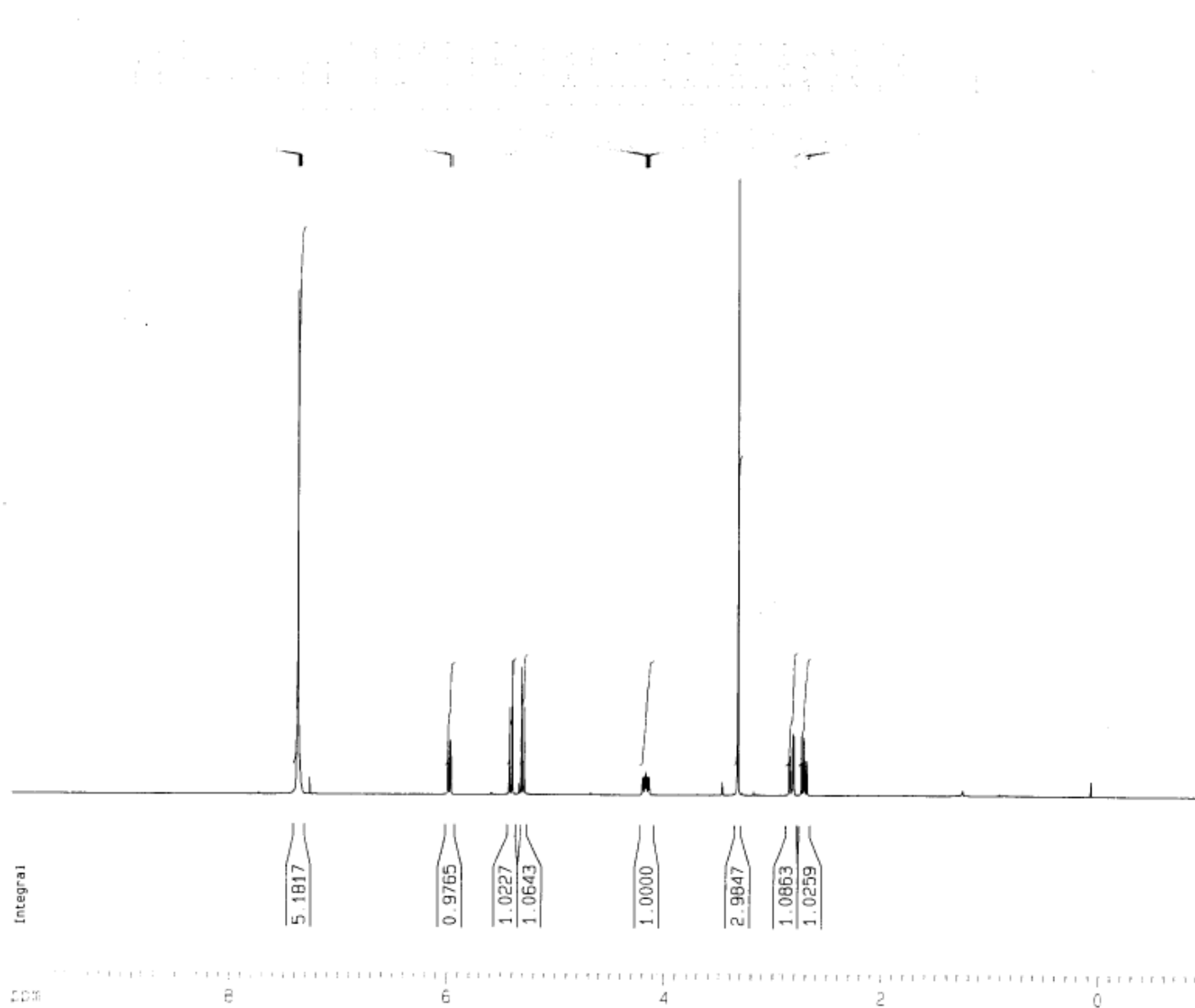
F2 - Processing parameters  
 SI 32768  
 SF 125.7578070 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

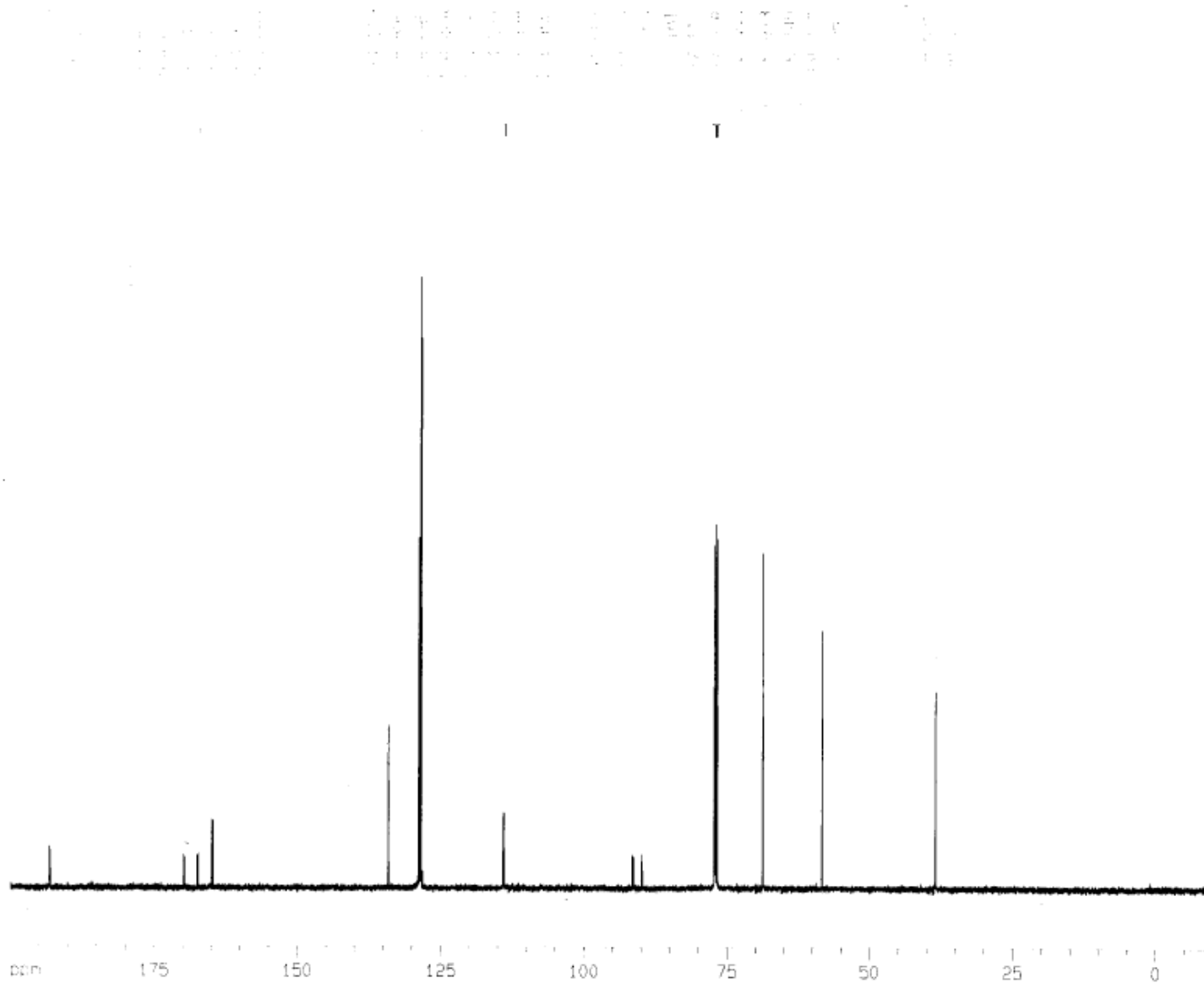
1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.77 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 1320.45691 Hz/cm



less polar

3aF





Current Data Parameters

NAME 05.1.25-y  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050125  
 Time 19.40  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDC13  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 296.6 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCNRK 0.01500000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*

NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SF01 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*

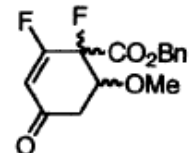
CPOPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters

SI 32768  
 SF 125.7578024 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

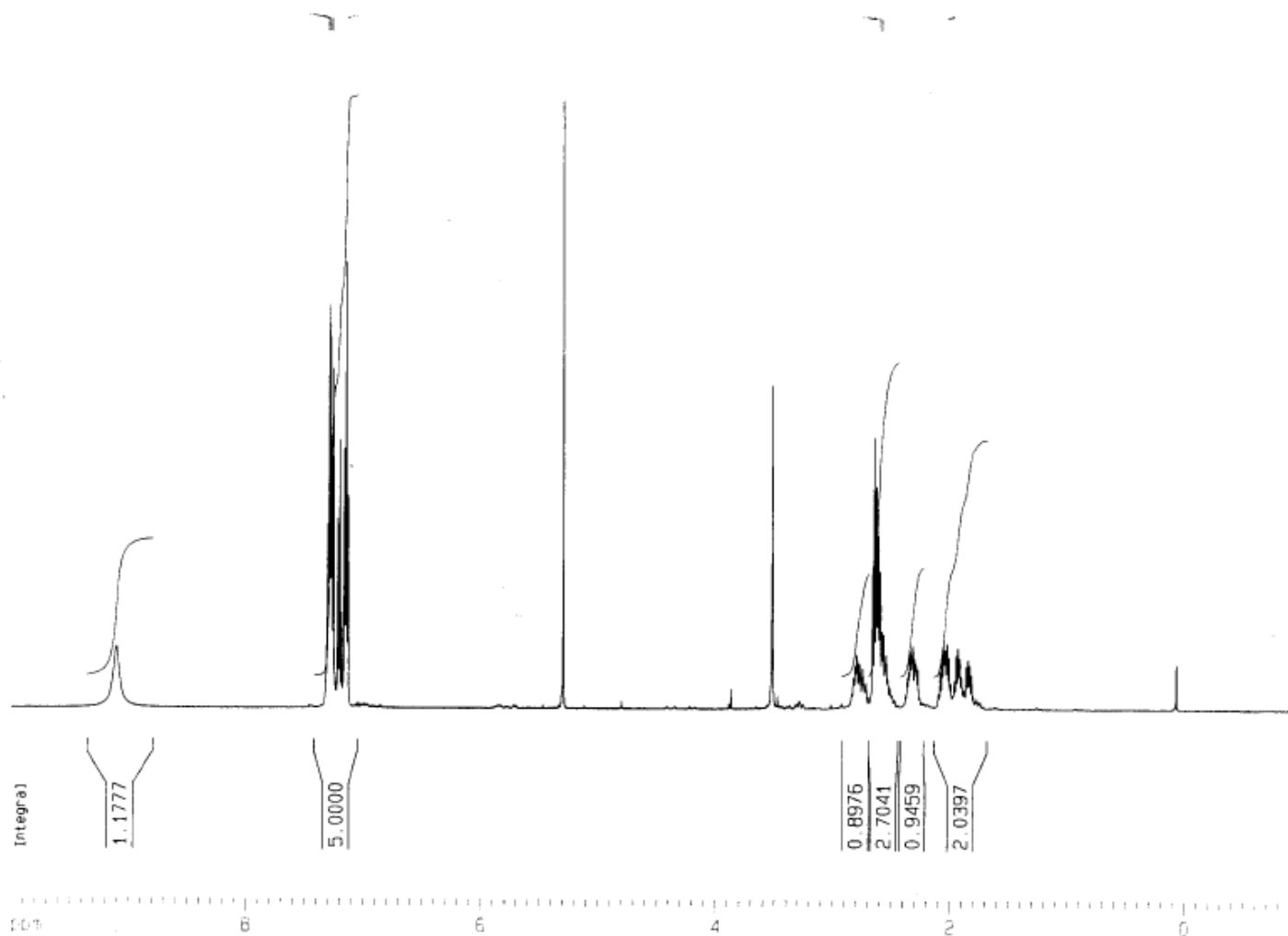
1D NMR plot parameters

CX 20.00 cm  
 CY 10.73 cm  
 F1P 200.000 ppm  
 F1 25151.56 Hz  
 F2P -10.000 ppm  
 F2 -1257.58 Hz  
 PPMCH 10.50000 ppm/cm  
 HZCH 1320.45691 Hz/cm



more polar

3aF



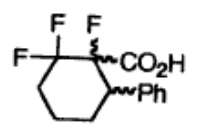
Current Data Parameters  
 NAME yamada-05.2.9  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050209  
 Time 21.20  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 287.4  
 DM 48.400 usec  
 DE 6.00 usec  
 TE 295.6 K  
 O1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCNRK 0.01500000 sec

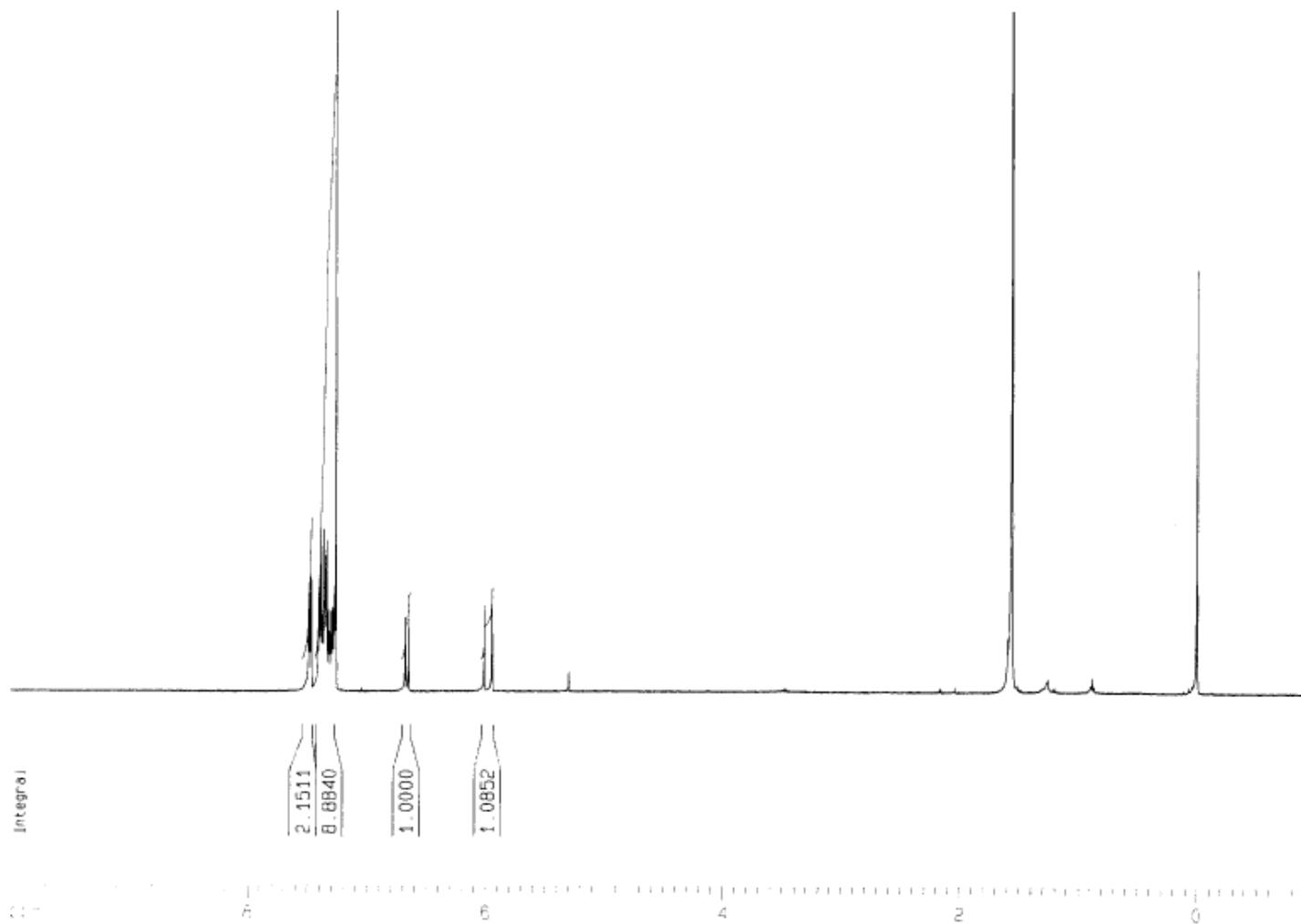
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300137 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 9.41 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



4



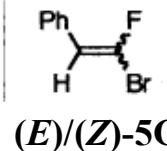
Current Data Parameters  
 NAME hondo-5-9-16  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050916  
 Time 16.52  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TO 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 1024  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 299.9 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

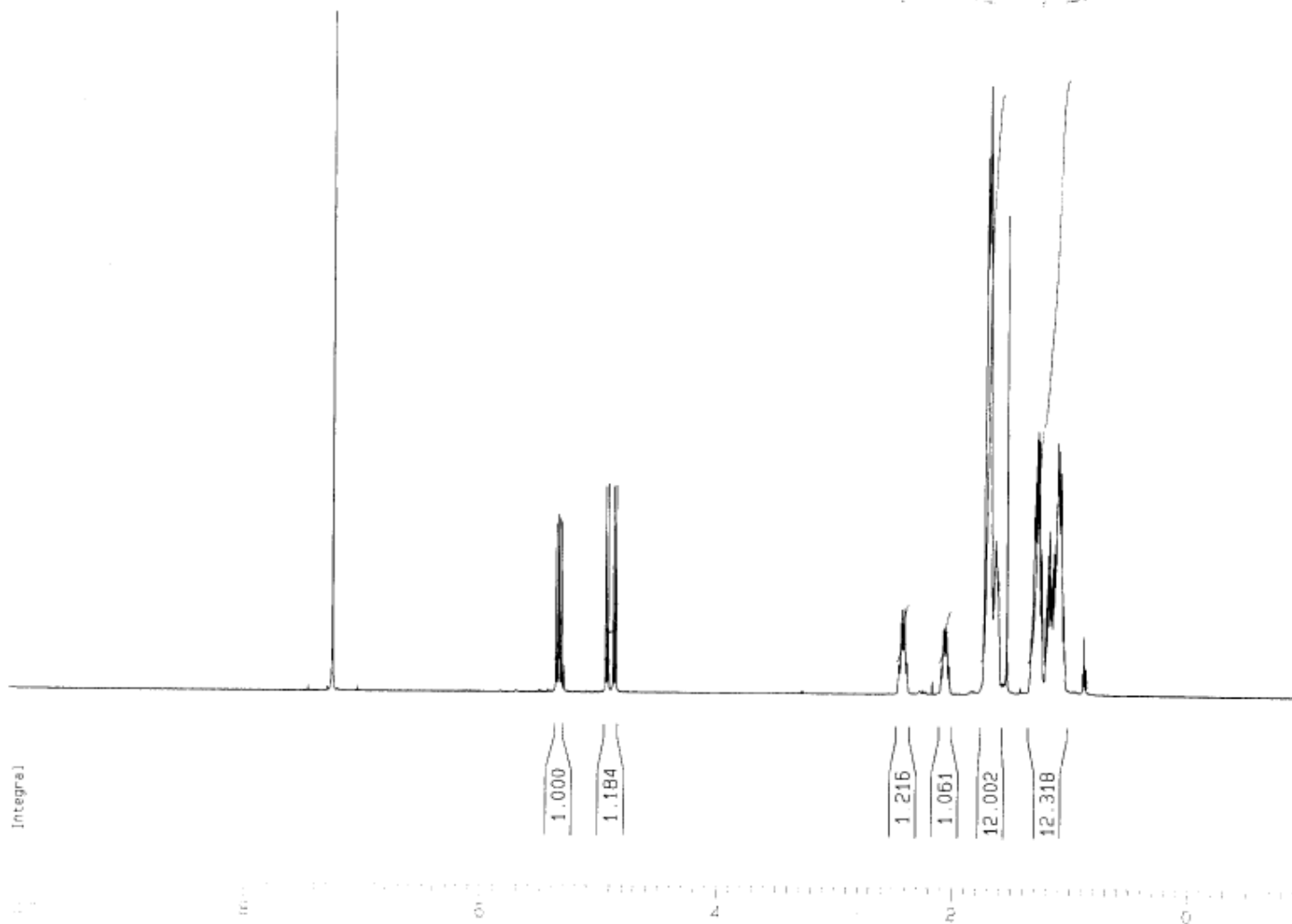
----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDN EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 36.75 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm







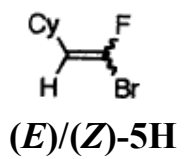
Current Data Parameters  
 NAME honda-5-2-2  
 EXPNO 1  
 PROCNO 1

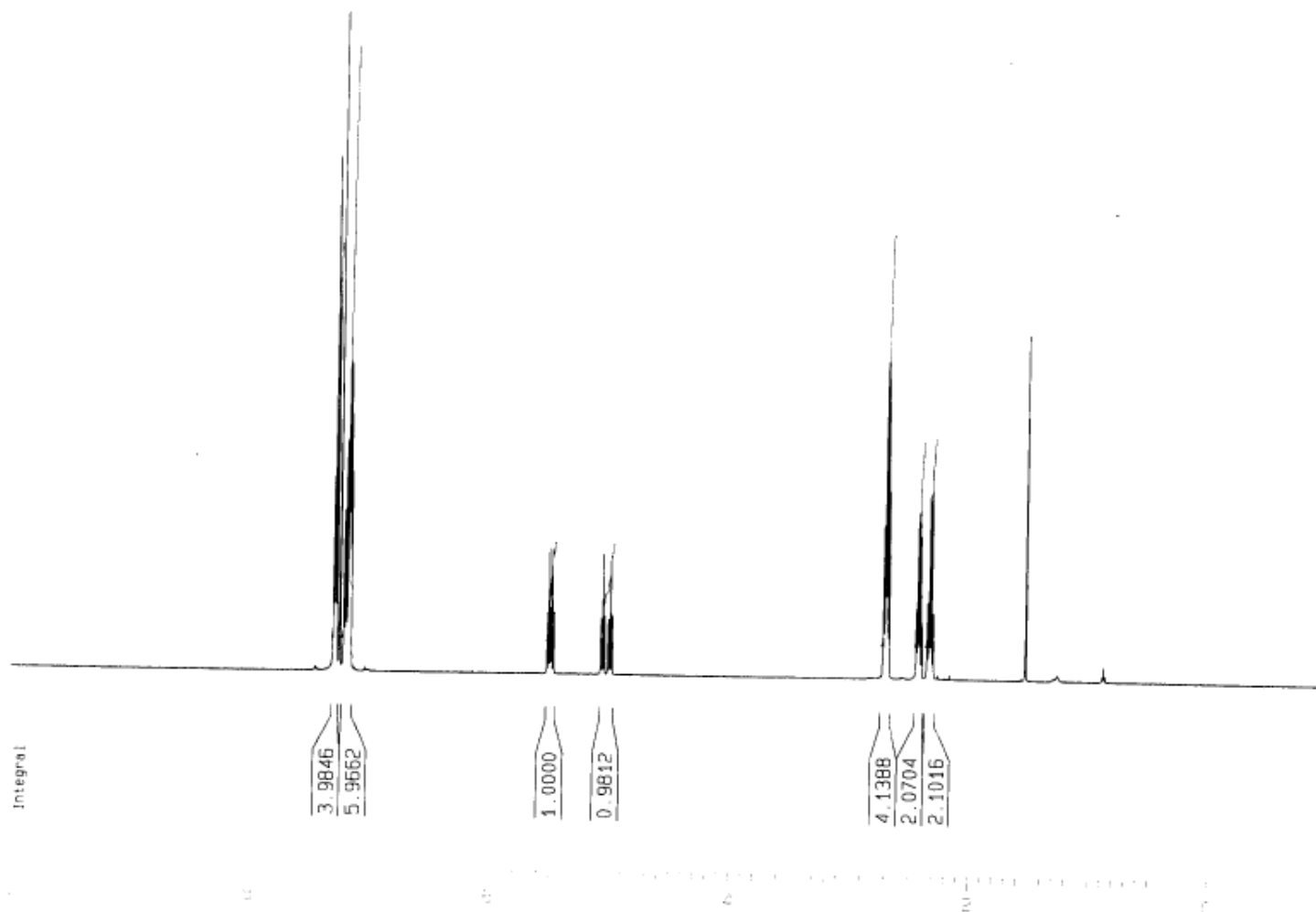
F2 - Acquisition Parameters  
 Date\_ 20060202  
 Time 15.11  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 456.1  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 295.1 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 14.39 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





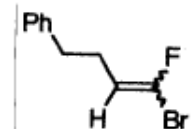
Current Data Parameters  
 NAME honda-5-12-2  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20051202  
 Time 14.49  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 724.1  
 JW 48.400 usec  
 DE 6.00 usec  
 TE 297.0 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWPK 0.01500000 sec

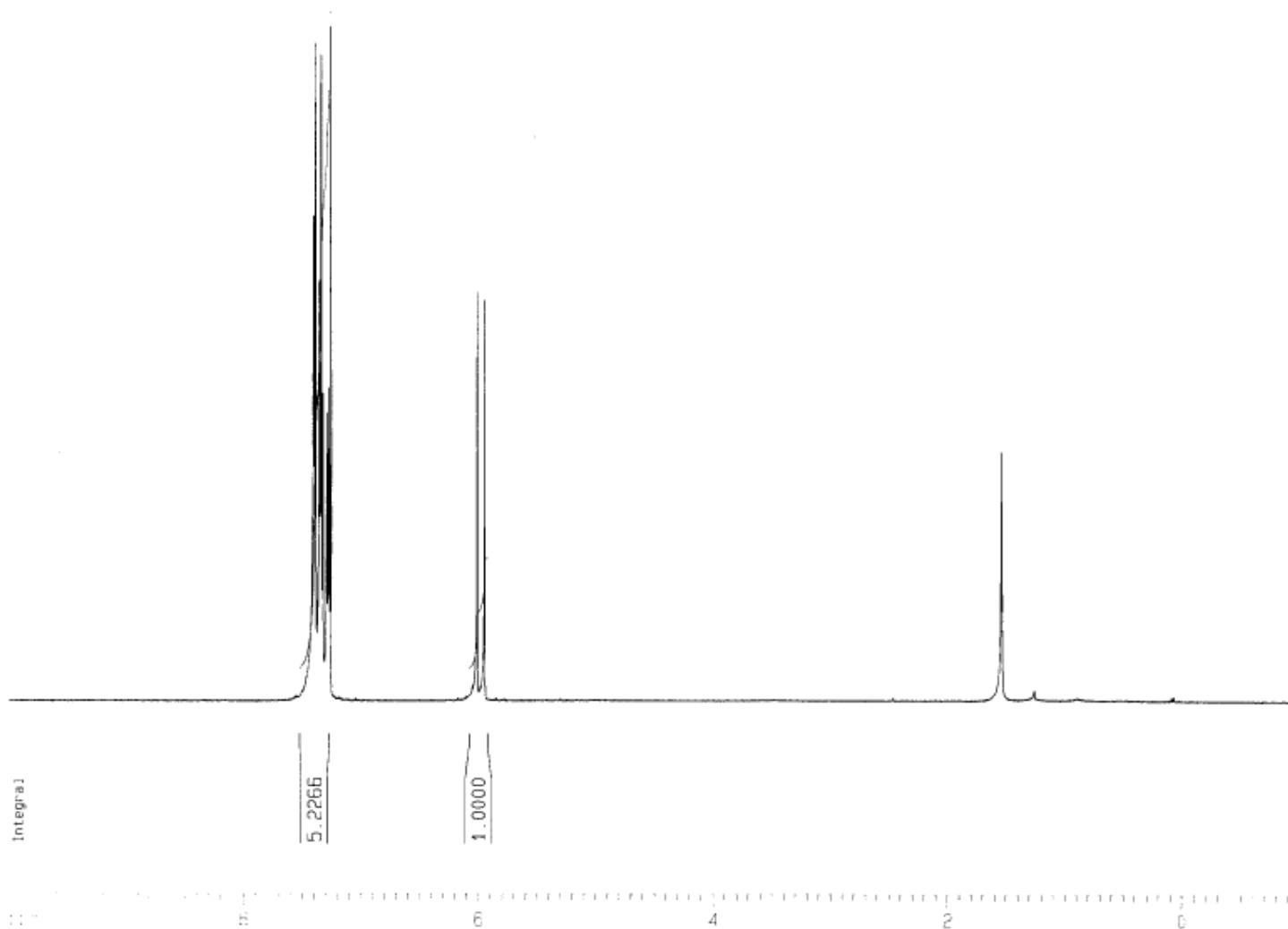
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.18 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



**(E)/(Z)-5I**



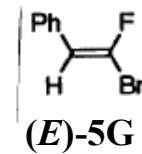
Current Data Parameters  
 NAME hondo-5-9-26  
 EXPNO 1  
 PRDCND 1

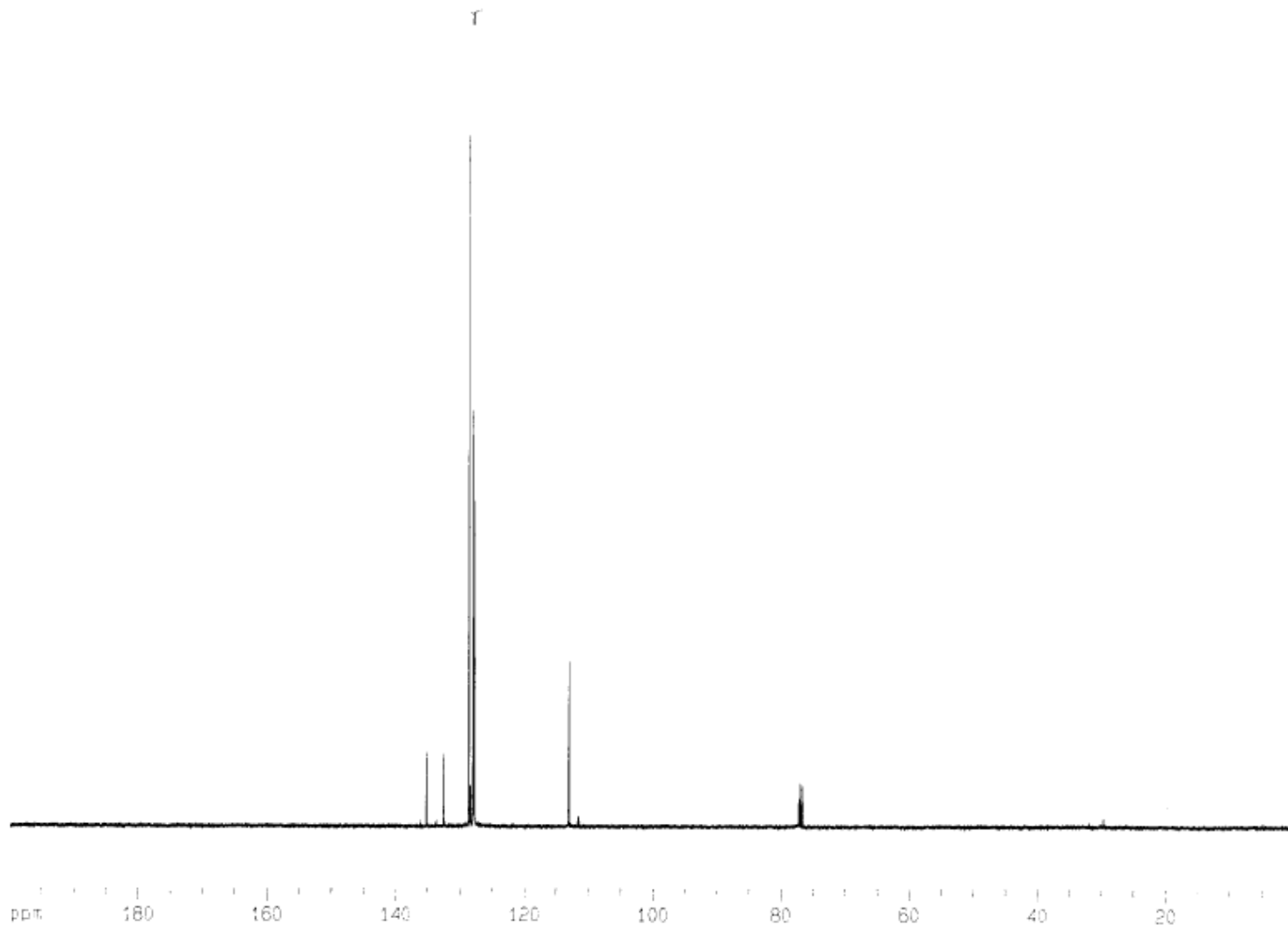
F2 - Acquisition Parameters  
 Date\_ 20050926  
 Time 19.33  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 812.7  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 299.8 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300127 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.93 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME hondo-6-8-28  
 EXPNO 2  
 PROCNO 1

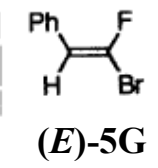
F2 - Acquisition Parameters  
 Date\_ 20060828  
 Time 19.30  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 1290.2  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 301.6 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCKRK 0.01500000 sec

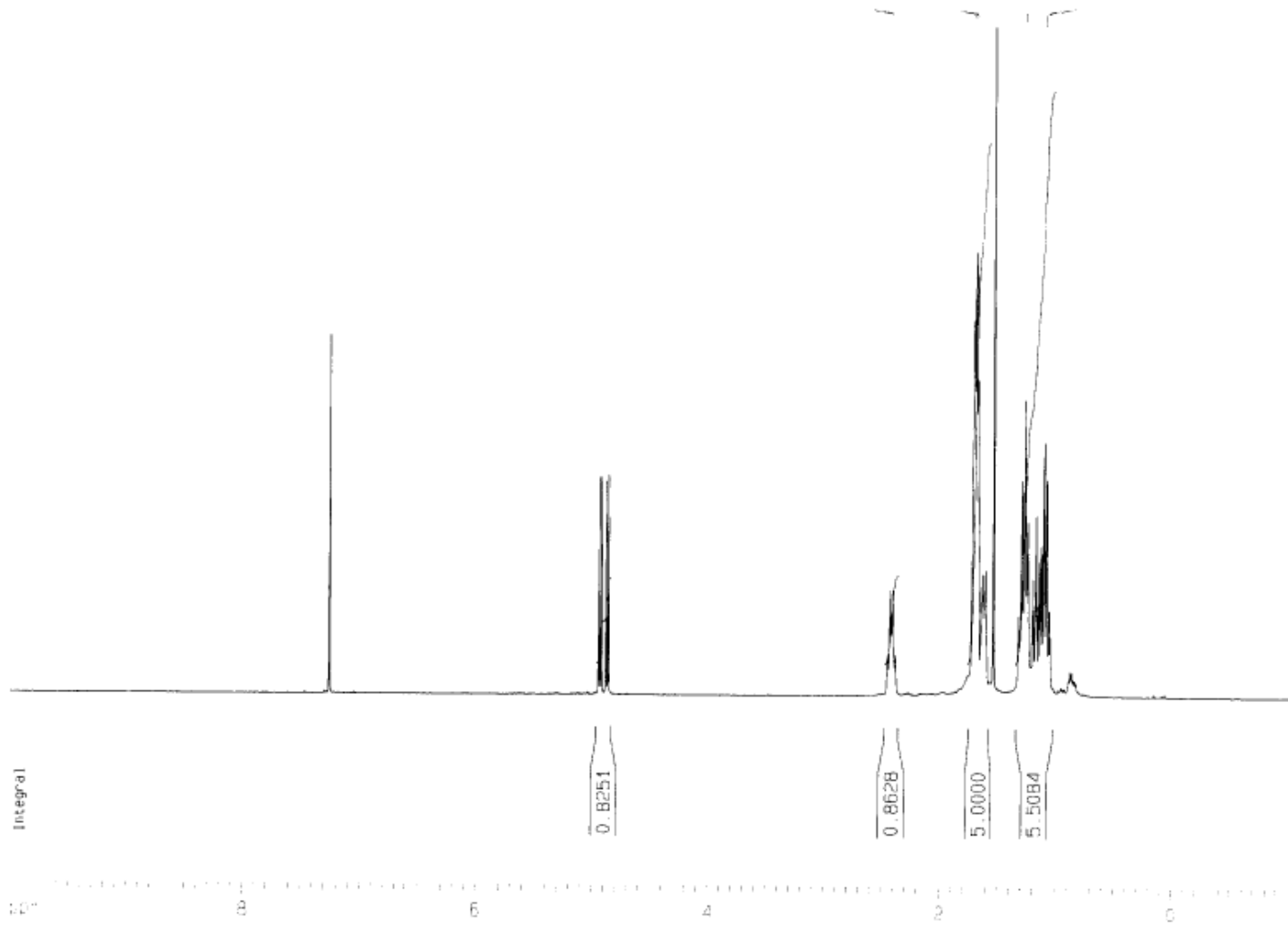
----- CHANNEL f1 -----  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SF01 125.7703643 MHz

----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577960 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.05 cm  
 F1P 199.900 ppm  
 F1 25138.99 Hz  
 F2P -0.100 ppm  
 F2 -12.58 Hz  
 PPMCN 10.00000 ppm/cm  
 HZCM 1257.57800 Hz/cm





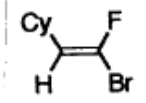
Current Data Parameters  
 NAME Hondo-6-9-6  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20060906  
 Time 17.35  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 406.4  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 300.5 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

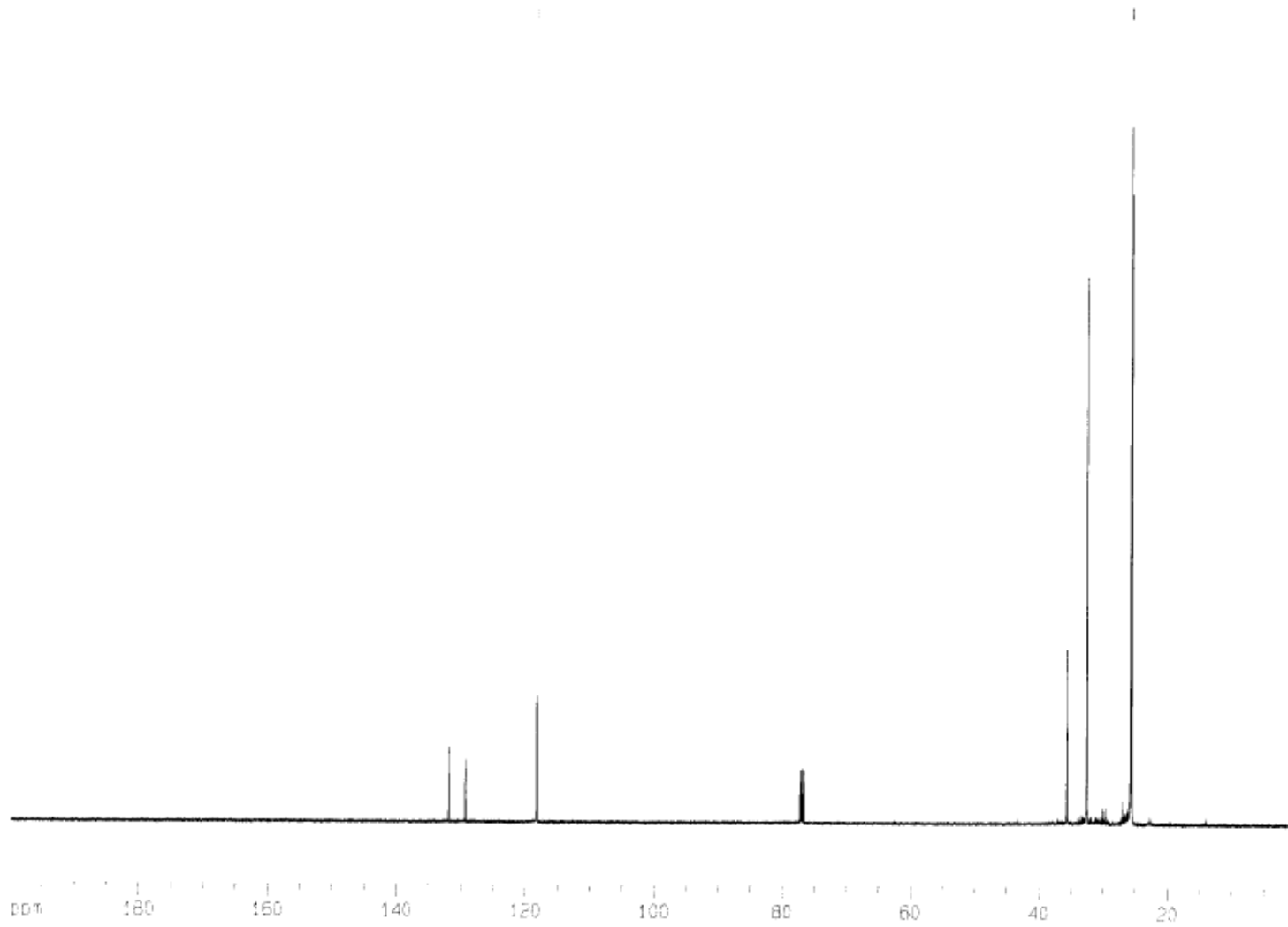
==== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300127 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.98 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



**(E)-5H**



Current Data Parameters  
 NAME Hondo-6-9-6  
 EXPNO 2  
 PROCNO 1

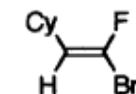
F2 - Acquisition Parameters  
 Date\_ 20060906  
 Time 17.50  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TO 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 1625.5  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 300.9 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.01500000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SF01 125.7703643 MHz

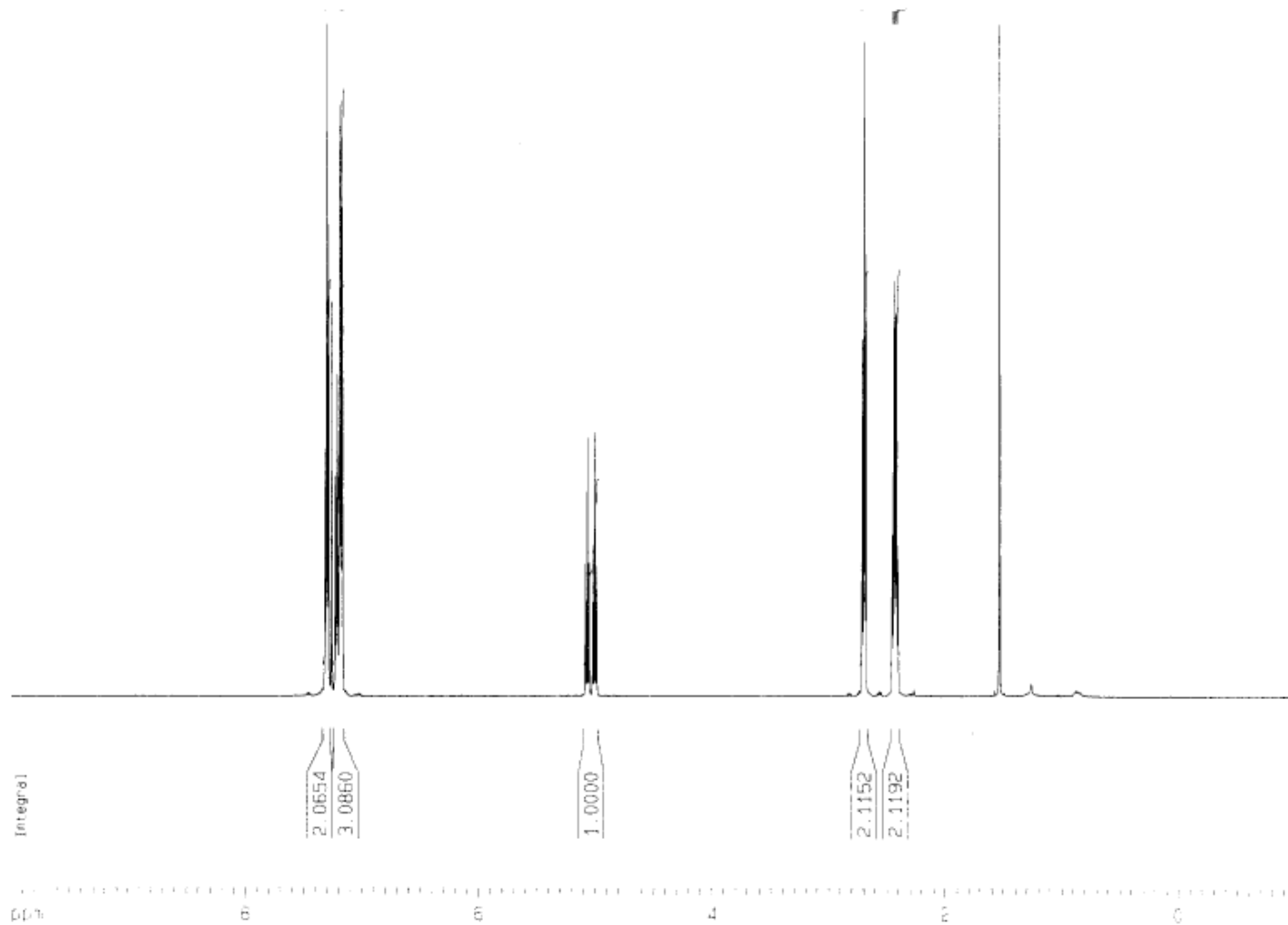
\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577905 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.87 cm  
 F1P 199.900 ppm  
 F1 25138.98 Hz  
 F2P -0.100 ppm  
 F2 -12.58 Hz  
 PPMCM 10.00000 ppm/cm  
 HZCM 1257.57788 Hz/cm



**(E)-5H**



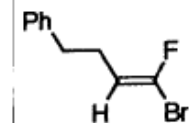
Current Data Parameters  
 NAME hondo-6-9-5  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20060905  
 Time 17.04  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 645.1  
 CW 48.400 usec  
 CE 6.00 usec  
 TE 300.3 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWRK 0.0150000 sec

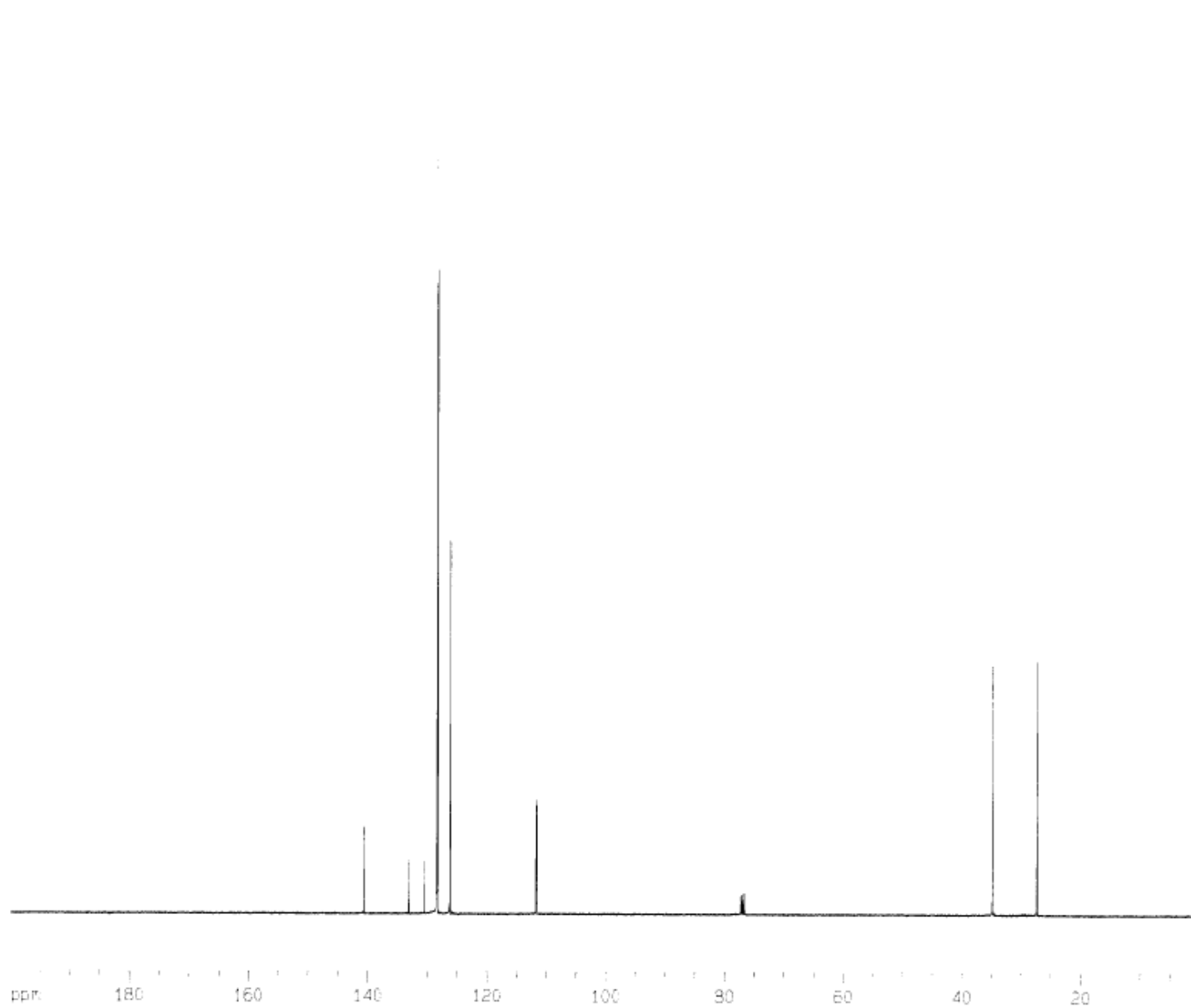
\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.94 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



**(E)-5I**



Current Data Parameters  
 NAME honda-6-9-5  
 EXPNO 3  
 PROCNO 1

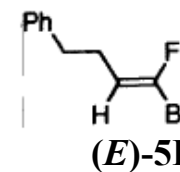
F2 - Acquisition Parameters  
 Date\_ 20060905  
 Time 17 15  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 CW 16.650 usec  
 DE 6.00 usec  
 TE 300.6 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 VCREST 0.00000000 sec  
 VCMW 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SFO1 125.7703643 MHz

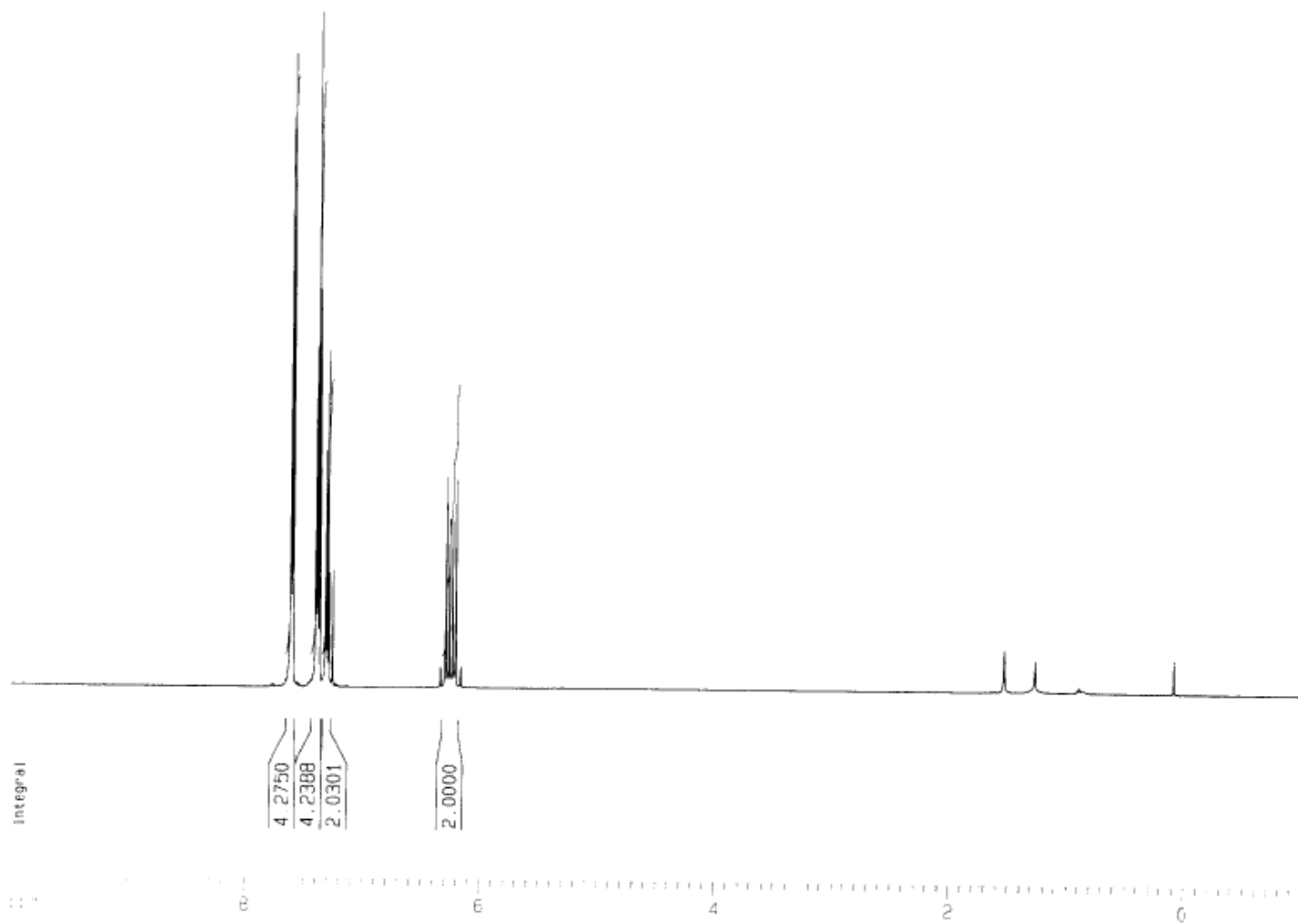
----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578042 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.83 cm  
 F1P 199.900 ppm  
 F1 25138.98 Hz  
 F2P -0.100 ppm  
 F2 -12.58 Hz  
 PPMCM 10.00000 ppm/cm  
 HZCM 1257.57800 Hz/cm







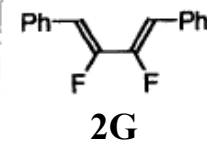
Current Data Parameters  
 NAME hondo-5-9-28  
 EXPNO 1  
 PROCNO 1

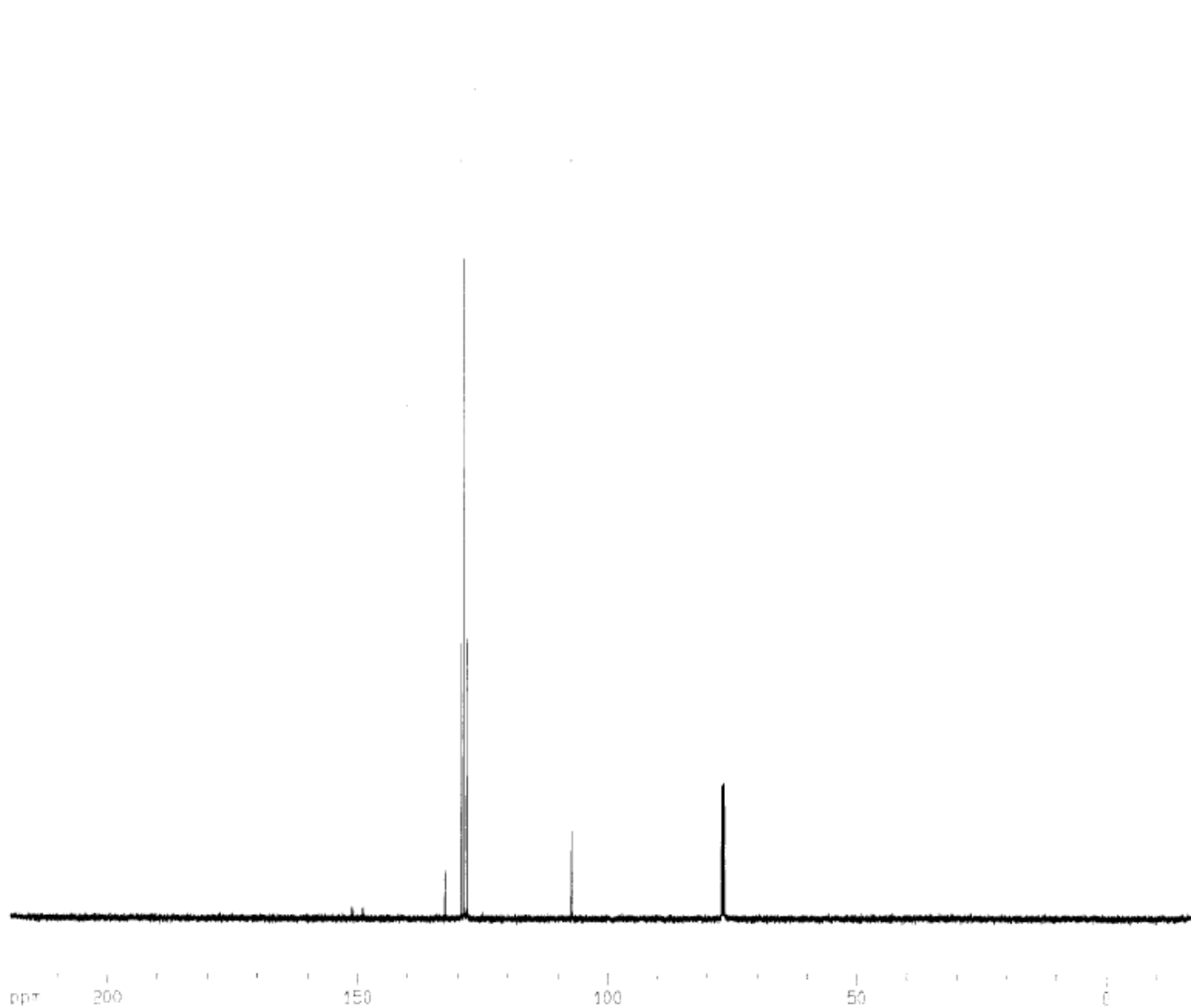
F2 - Acquisition Parameters  
 Date\_ 20050928  
 Time 17.44  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 322.5  
 DM 48.400 usec  
 DE 6.00 usec  
 TE 299.5 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRR 0.01500000 sec

==== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300131 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.61 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





```

Current Data Parameters
NAME      hondo-6-B-28
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20060828
Time      19.19
INSTRUM   drx500
PROBHD    5 mm Multinucl
PULPROG   zgpg30
TD         65536
SOLVENT   CDCl3
NS         256
DS         2
SWH        30030.029 Hz
FIDRES     0.458222 Hz
AQ         1.0912244 sec
RG         3649.1
CW         16.550 usec
DE         6.00 usec
TE         301.5 K
D1         0.50000000 sec
d11        0.03000000 sec
MCREST    0.00000000 sec
MCWRK     0.01500000 sec

===== CHANNEL f1 =====
NUC1       13C
P1         11.00 usec
PL1        -3.00 dB
SFO1       125.7703643 MHz

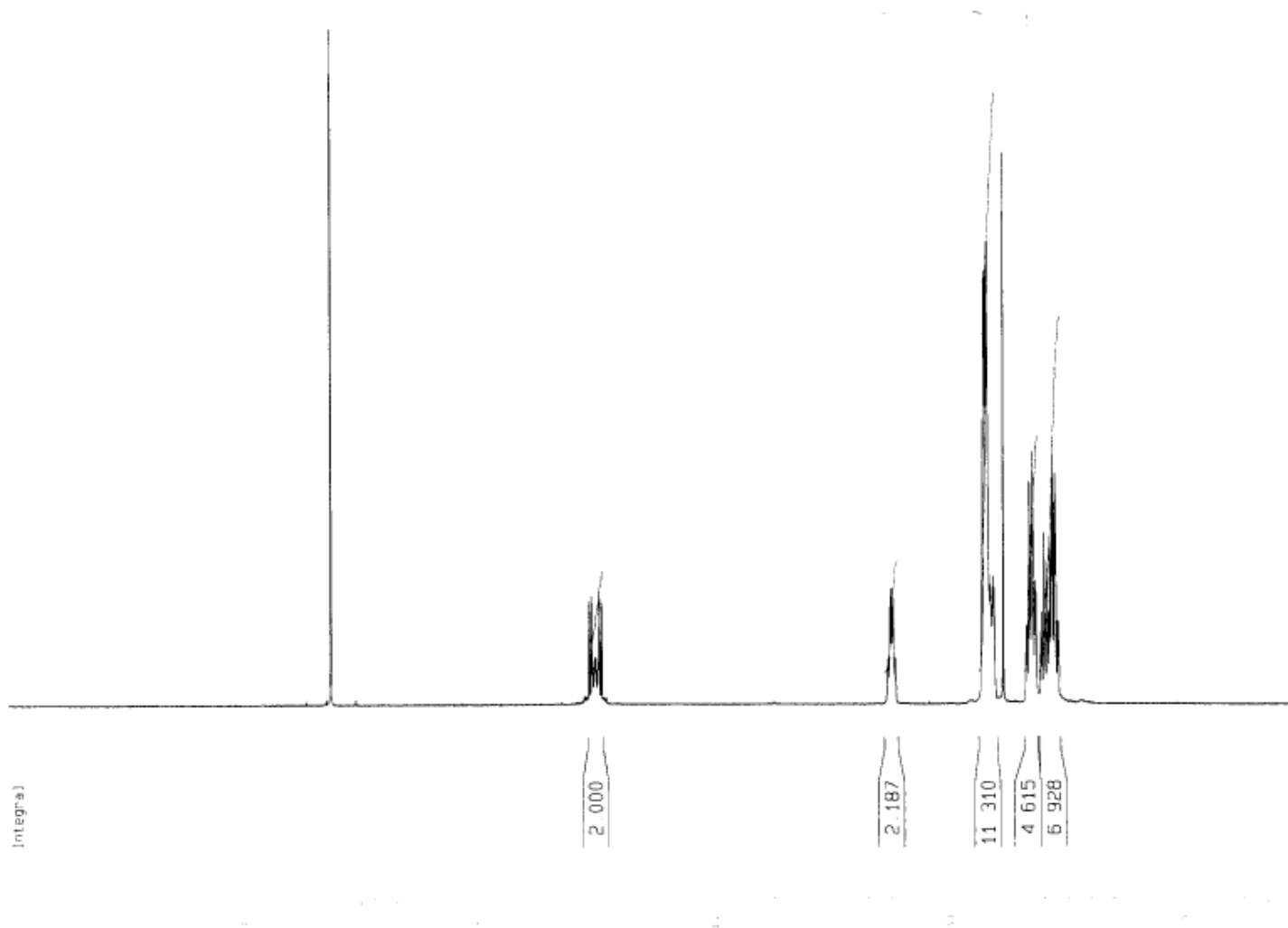
===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2       1H
PCPD2      100.00 usec
PL2         -6.00 dB
PL12        17.00 dB
PL13        19.00 dB
SFO2       500.1320005 MHz

F2 - Processing parameters
SI         32768
SF         125.7577932 MHz
WDW        EM
SSB         0
LB          1.00 Hz
GB          0
PC          0.00

1D NMR plot parameters
CX         20.00 cm
CY         11.05 cm
F1P        219.359 ppm
F1         27586.10 Hz
F2P        -19.434 ppm
F2         -2443.93 Hz
PPMCM      11.93963 ppm/cm
HZCM       1501.50146 Hz/cm

```





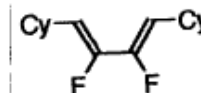
Current Data Parameters  
 NAME Hondo-6-2-7  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20060207  
 Time 18.57  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 645.1  
 DM 48.400 usec  
 DE 6.00 usec  
 TE 294.8 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWAK 0.0150000 sec

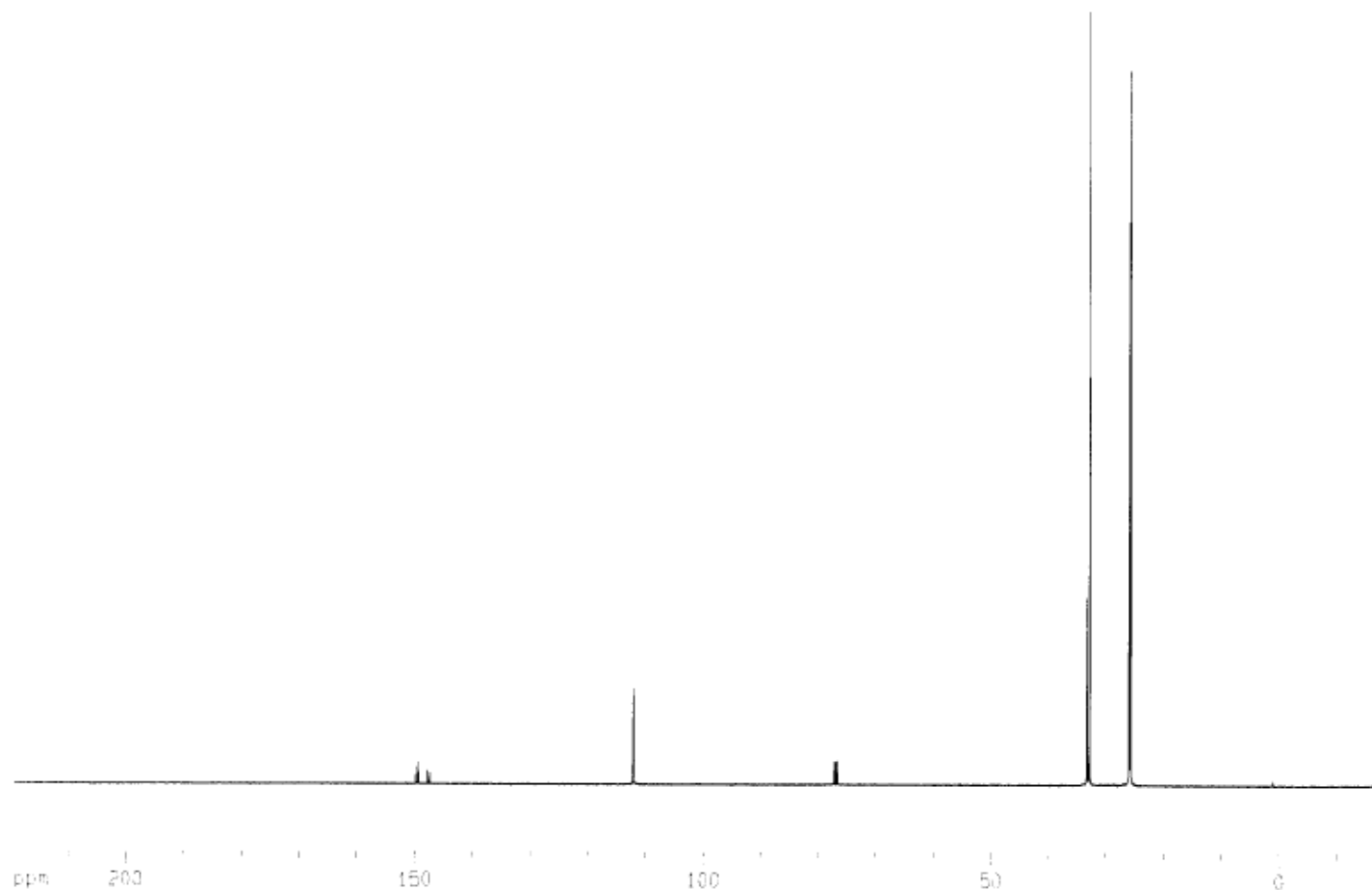
----- CHANNEL f1 -----  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SF01 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300134 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 15.18 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



2H



```

Current Data Parameters
NAME      honda-6-9-11
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20060911
Time      20.32
INSTRUM   drx500
PROBHD    5 mm Multinucl
PULPROG   zgpg30
TD         65536
SOLVENT   CDCl3
NS         256
DS         2
SWH        30030.029 Hz
FIDRES     0.458222 Hz
AQ         1.0912244 sec
RG         3649.1
DM         16.650 usec
DE         6.00 usec
TE         304.2 K
D1         0.50000000 sec
d11        0.03000000 sec
MCREST     0.00000000 sec
MCWRK     0.01500000 sec

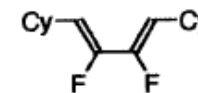
***** CHANNEL f1 *****
NUC1       13C
P1         11.00 usec
PL1        -3.00 dB
SF01       125.7703643 MHz

***** CHANNEL f2 *****
CPDPRG2    waltz16
NUC2       1H
PCPD2      100.00 usec
PL2         -6.00 dB
PL12        17.00 dB
PL13        19.00 dB
SF02       500.1320005 MHz

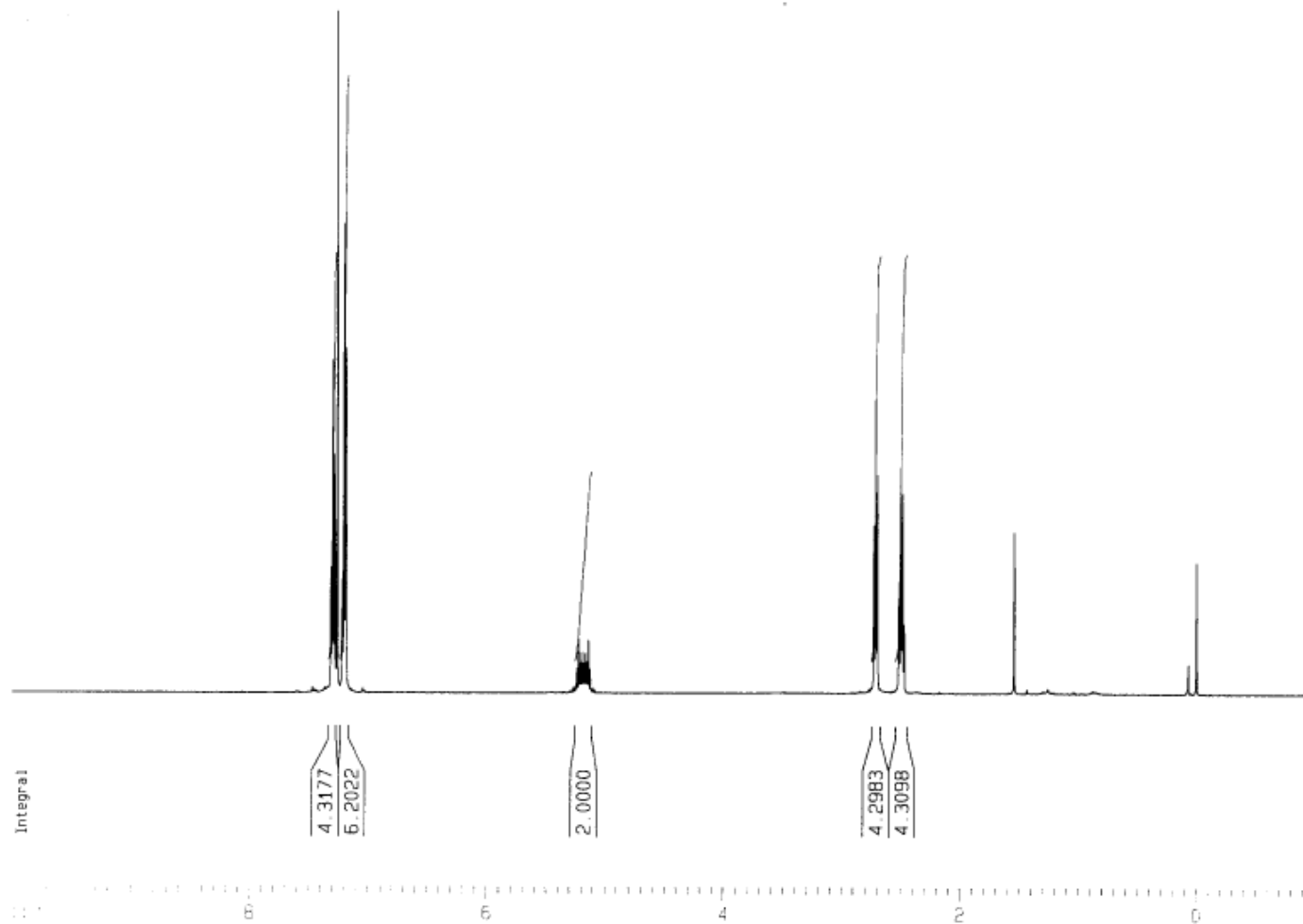
F2 - Processing parameters
SI         32768
SF         125.7577866 MHz
WDW        EM
SSB         0
_LB         1.00 Hz
GB          0
PC          1.40

1D NMR plot parameters
CX         20.00 cm
CY         11.27 cm
F1P        219.410 ppm
F1         27592.50 Hz
F2P        -19.383 ppm
F2         -2437.54 Hz
PPMCM      11.93963 ppm/cm
HZCM       1501.50159 Hz/cm

```



**2H**



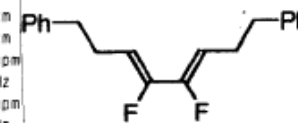
Current Data Parameters  
 NAME hondo-5-12-20  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20051220  
 Time 20.06  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 812.7  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 294.1 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

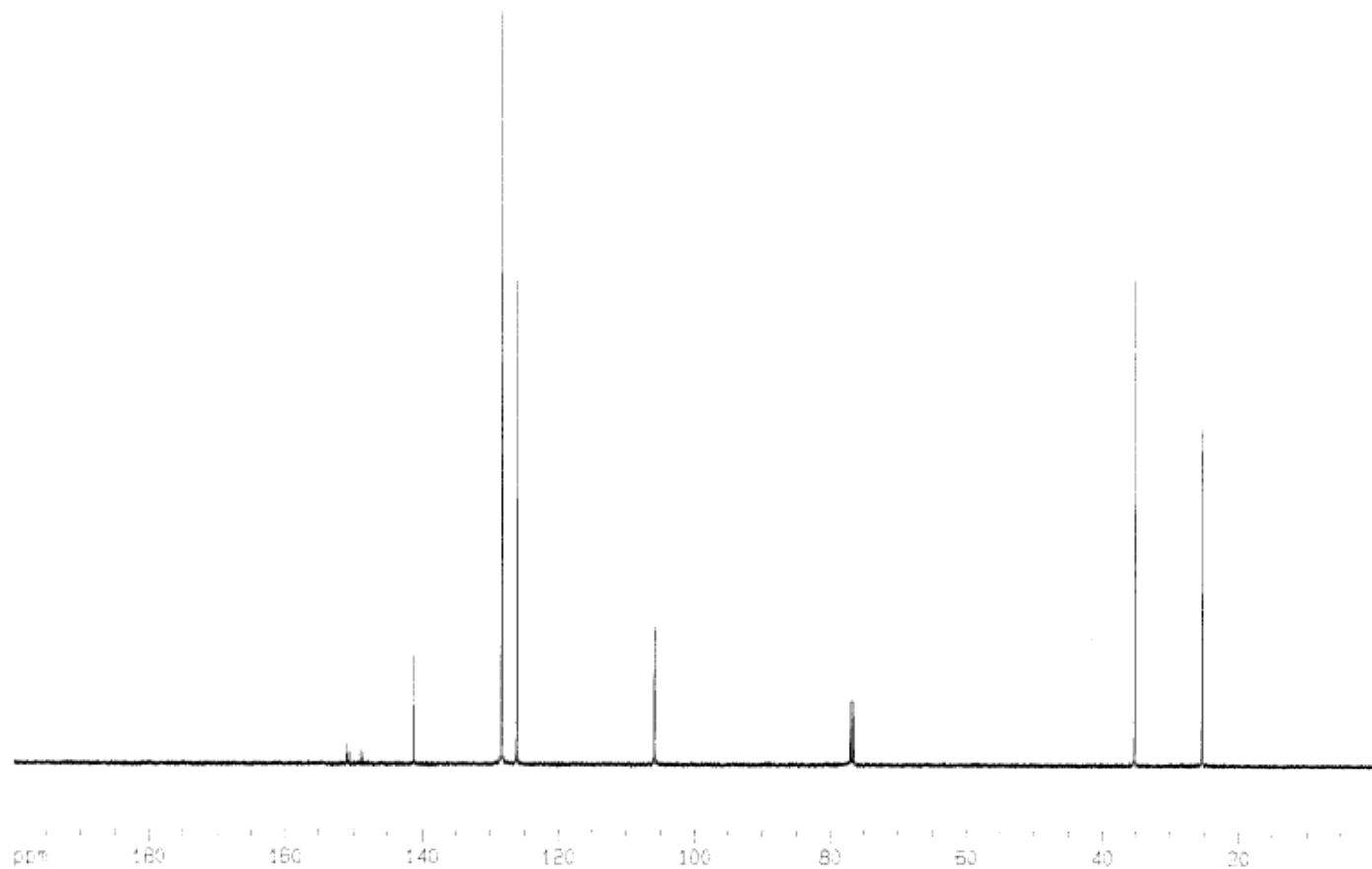
===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300137 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.08 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm



**2I**



Current Data Parameters  
 NAME honda-6-B-31  
 EXPNO 4  
 PROCNO 1

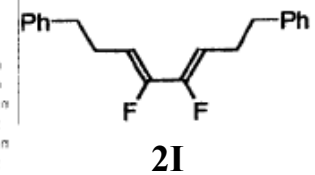
F2 - Acquisition Parameters  
 Date\_ 20060831  
 Time 18.21  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TO 65536  
 SOLVENT CDCl3  
 VS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 1290.2  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 301.0 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

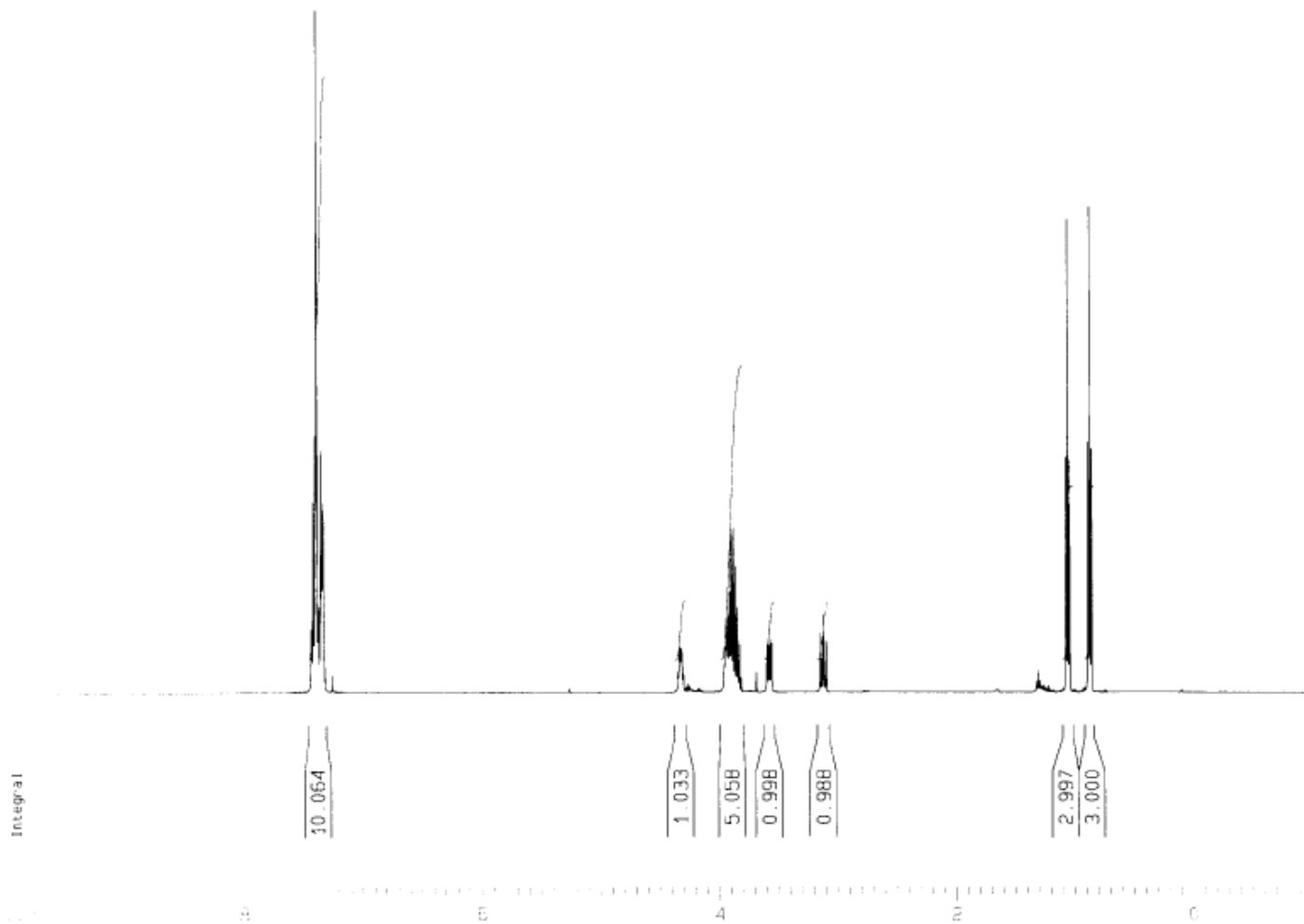
----- CHANNEL f1 -----  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SFO1 125.7703643 MHz

----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577978 MHz  
 wDK EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.28 cm  
 F1P 199.900 ppm  
 F1 25138.98 Hz  
 F2P -0.100 ppm  
 F2 -12.58 Hz  
 FPMCM 10.00000 ppm/cm  
 FZCM 1257.57800 Hz/cm





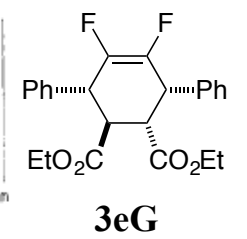
Current Data Parameters  
 NAME hondo-5-11-23  
 EXPNO 3  
 PROCNO 1

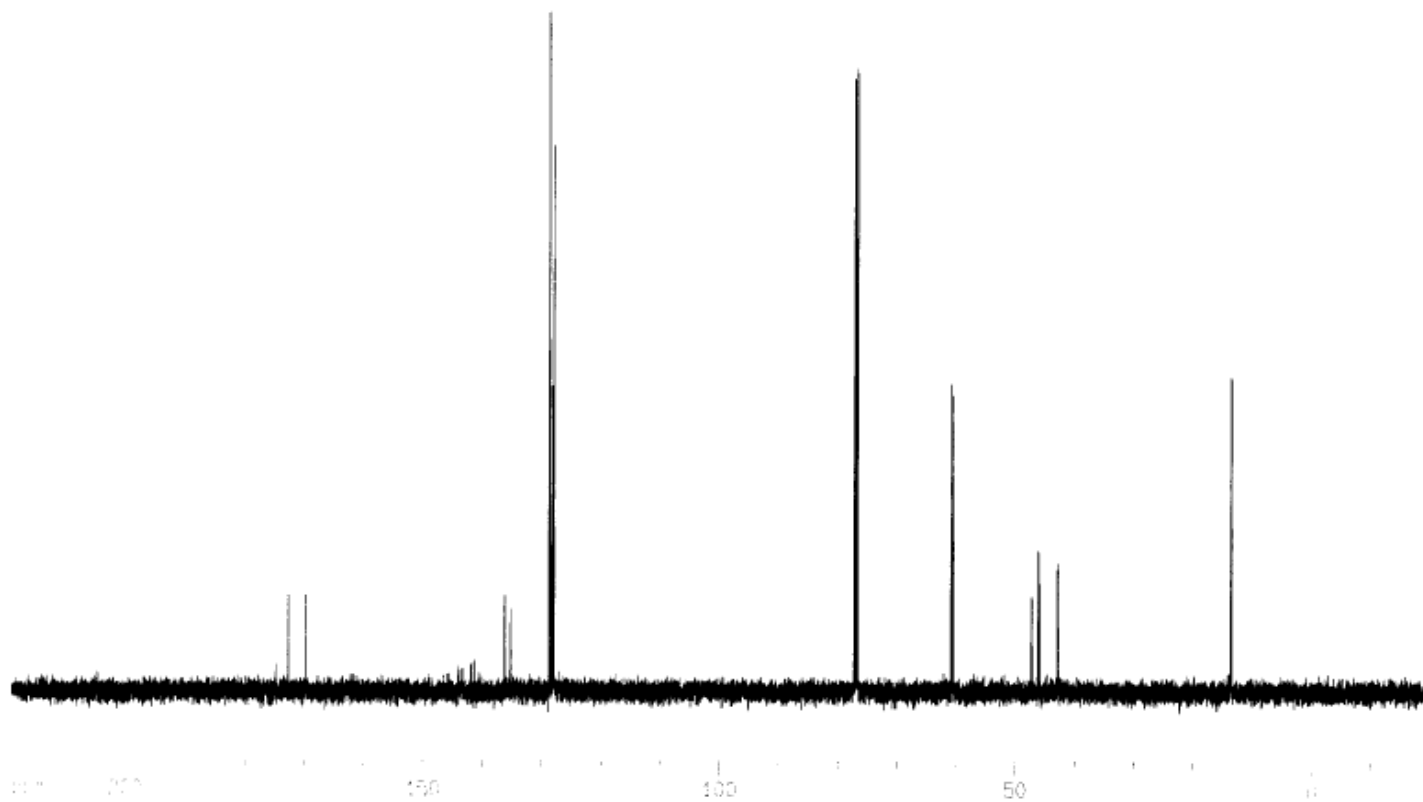
F2 - Acquisition Parameters  
 Date\_ 20051123  
 Time 20.50  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 FD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 45.3  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 296.6 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300124 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.77 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME hondo-5-11-23  
 EXPNO 4  
 PROCNO 1

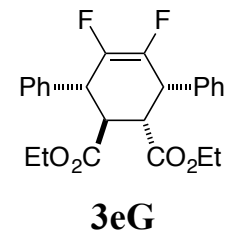
F2 - Acquisition Parameters  
 Date\_ 20051123  
 Time 21.06  
 INSTRUM dx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SMH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 297.3 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRR 0.0150000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SFO1 125.7703643 MHz

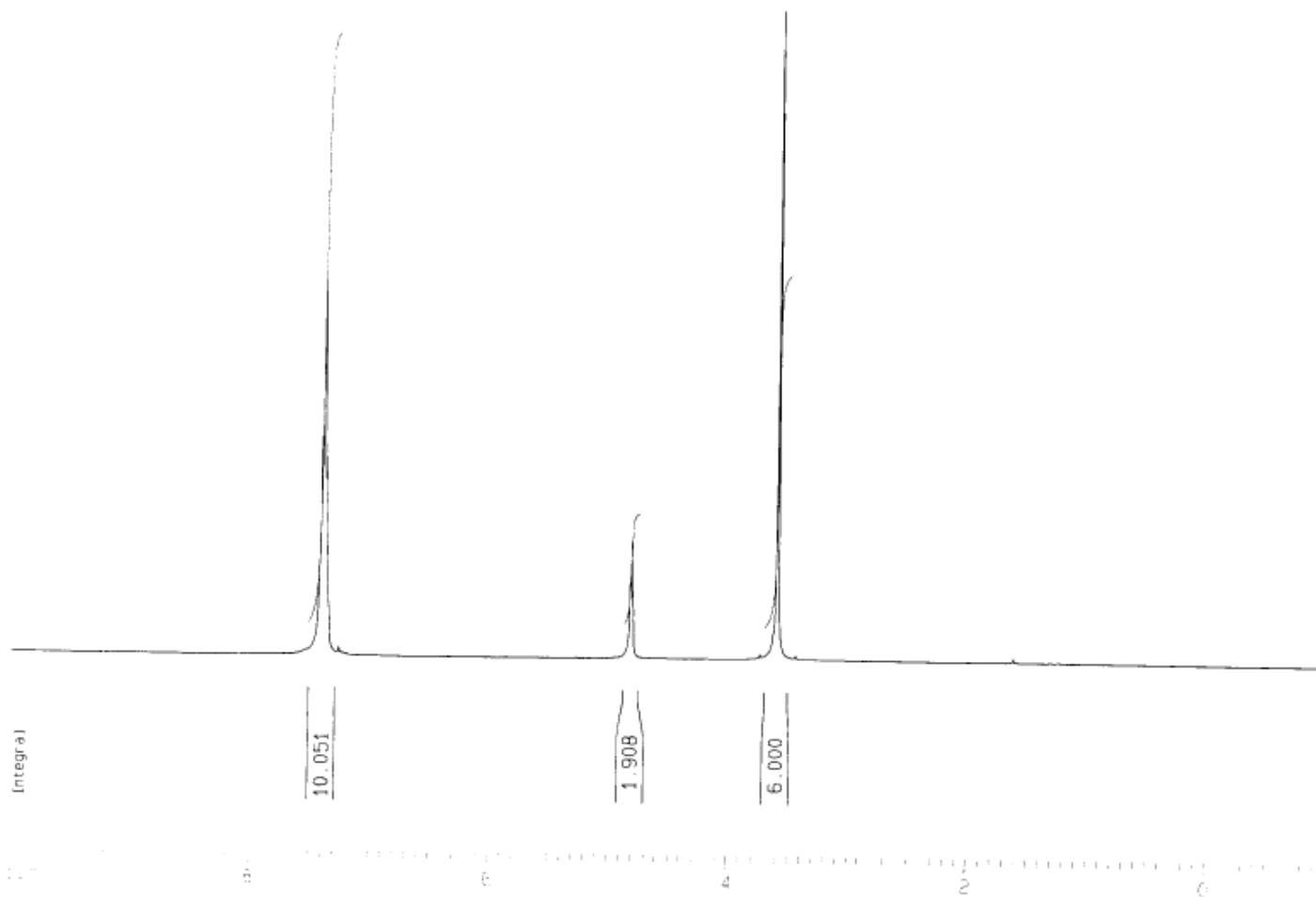
----- CHANNEL f2 -----  
 CPDPRG2 wa1tz15  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578033 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 0.10

1D NMR plot parameters  
 CX 20.00 cm  
 CY 9.62 cm  
 F1P 219.279 ppm  
 F1 27575.99 Hz  
 F2P -19.514 ppm  
 F2 -2454.04 Hz  
 PPMCM 11.93963 ppm/cm  
 HZCM 1501.50159 Hz/cm







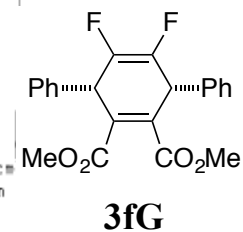
Current Data Parameters  
 NAME hondo-5-11-30  
 EXPNO 1  
 PROCNO 1

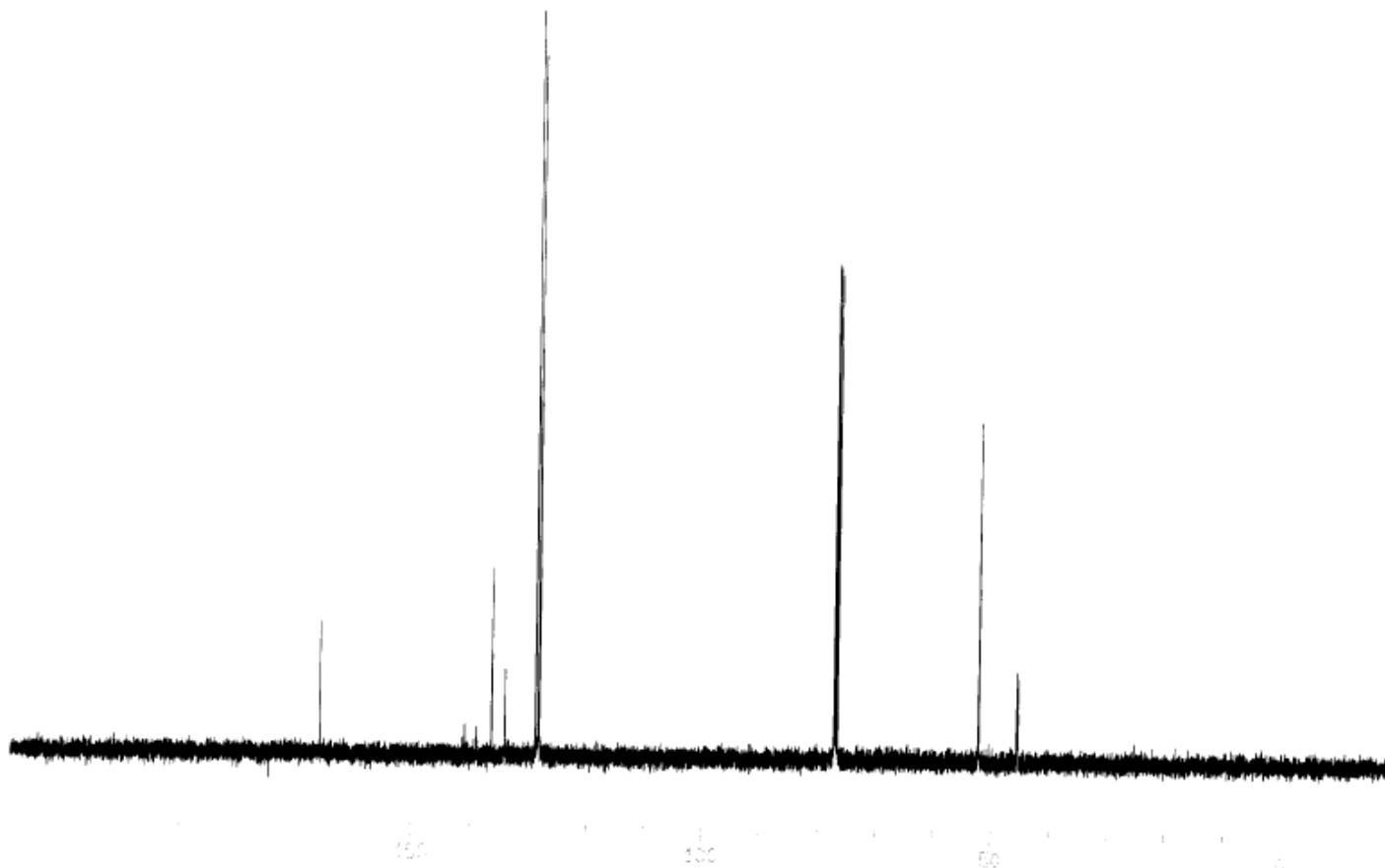
F2 - Acquisition Parameters  
 Date\_ 20051130  
 Time 21.35  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 57  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 297.1 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

==== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -5.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300121 MHz  
 HDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 9.92 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME hondo-5-11-30  
 EXPNO 2  
 PROCNO 1

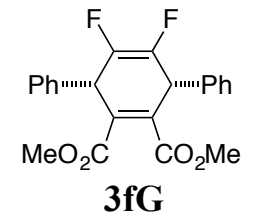
F2 - Acquisition Parameters  
 Date\_ 20051130  
 Time 21.48  
 INSTRUM drx500  
 PROBHD 5 mm Multinuc1  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 4096  
 DW 16.650 usec  
 DE 6.00 usec  
 TE 297.9 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCWRX 0.0150000 sec

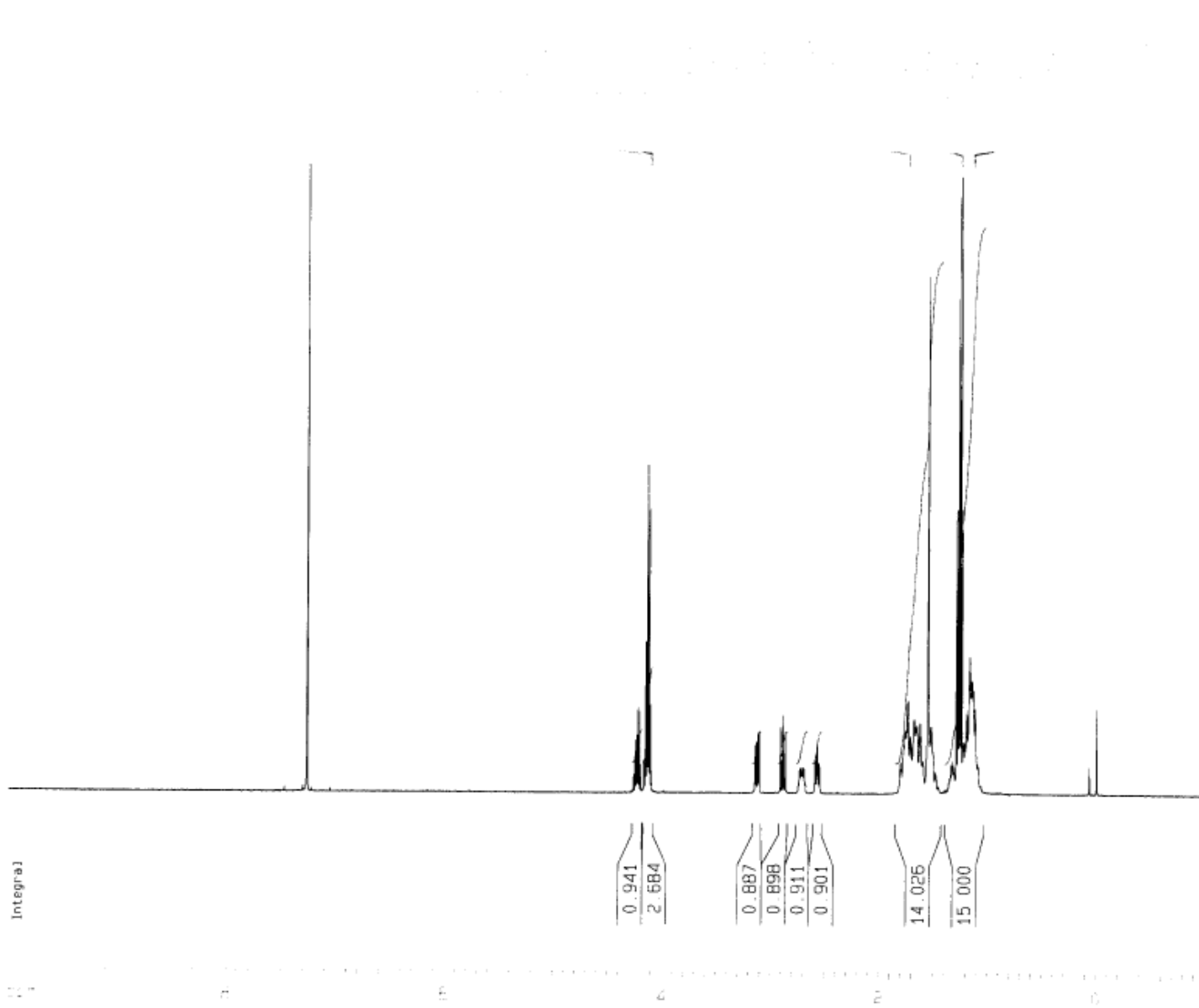
\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 5.70 usec  
 PL1 -2.00 dB  
 SFO1 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578033 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.90 cm  
 F1P 219.279 ppm  
 F1 27575.99 Hz  
 F2P -19.514 ppm  
 F2 -2454.04 Hz  
 PRNCD 11.93963 ppm/cm  
 HZCM 1501.50159 Hz/cm





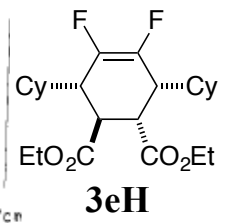
Current Data Parameters  
 NAME hondo-6-5-29  
 EXPNO 1  
 PROCNO 1

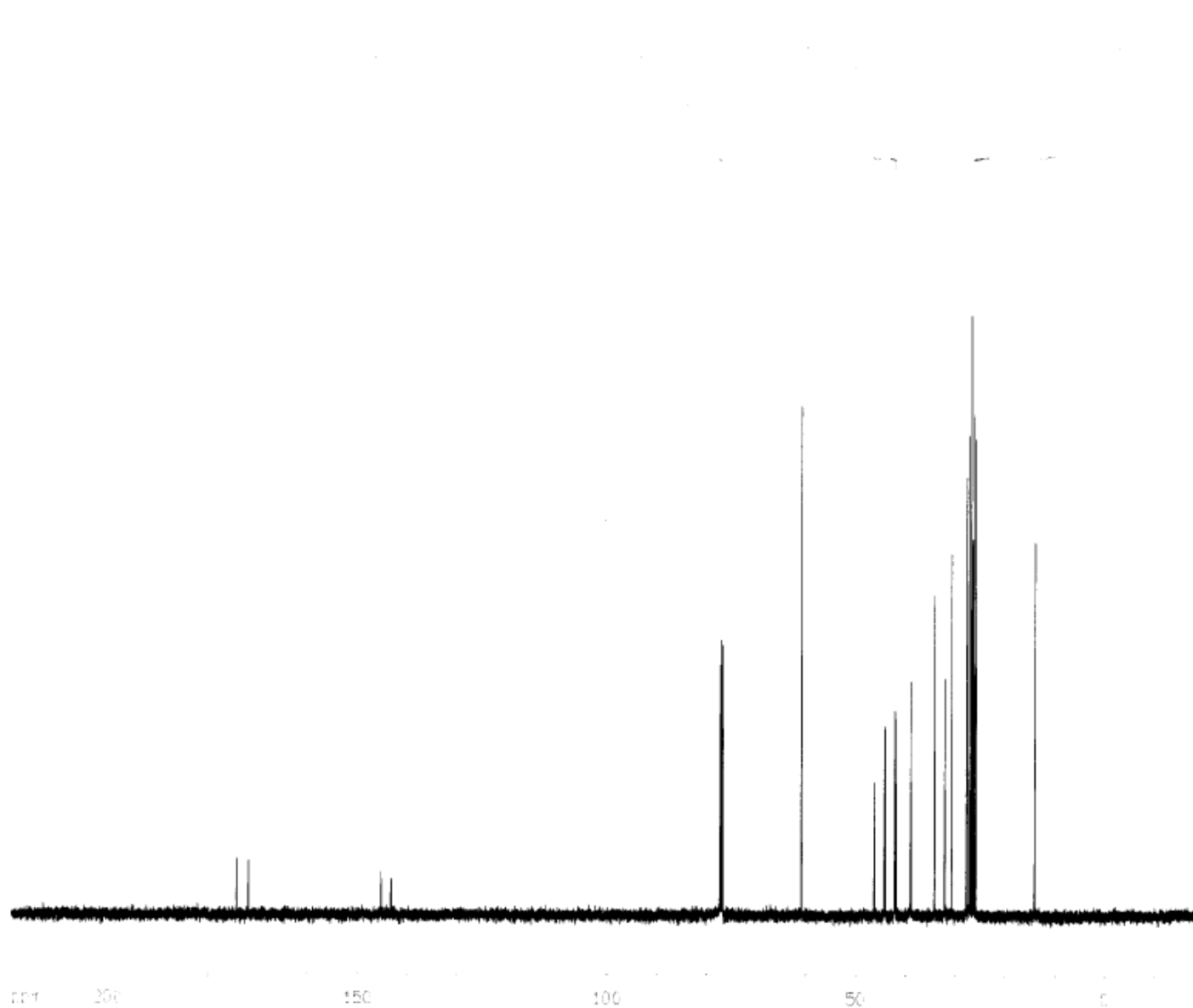
F2 - Acquisition Parameters  
 Date\_ 20060529  
 Time 17.04  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPRDG 2930  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 645.1  
 DW 48 400 usec  
 DE 6.00 usec  
 TE 297.7 K  
 D1 1.00000000 sec  
 MCREST 0.00000000 sec  
 MCMRK 0.01500000 sec

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.00 usec  
 PL1 -6.00 dB  
 SFO1 500 1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300125 MHz  
 wDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.21 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 -HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME hondo-6-5-26  
 EXPNO 2  
 PROCNO 1

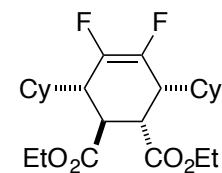
F2 - Acquisition Parameters  
 Date\_ 20060526  
 Time 20.25  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TO 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 1024  
 DM 16.650 usec  
 DE 6.00 usec  
 TE 298.4 K  
 D1 0.50000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCWRK 0.01500000 sec

----- CHANNEL f1 -----  
 NUC1 13C  
 P1 11.00 usec  
 PL1 -3.00 dB  
 SF01 125.7703643 MHz

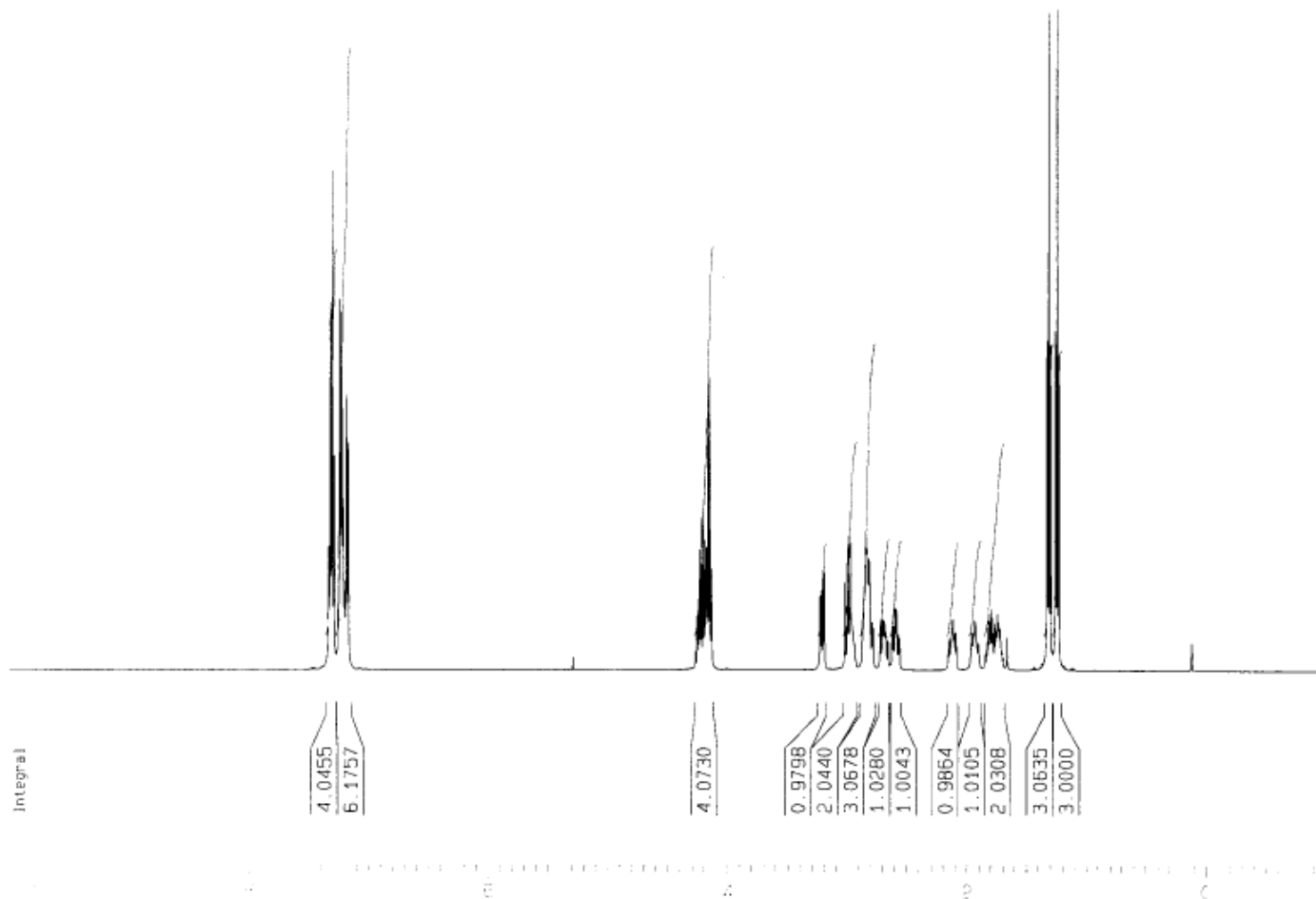
----- CHANNEL f2 -----  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCP02 100.00 usec  
 PL2 -6.00 dB  
 PL12 17.00 dB  
 PL13 19.00 dB  
 SF02 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7577923 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.24 cm  
 F1P 219.366 ppm  
 F1 27587.00 Hz  
 F2P -19.426 ppm  
 F2 -2443.03 Hz  
 PPMCM 11.93963 ppm/cm  
 HZCM 1501.50146 Hz/cm



3eH



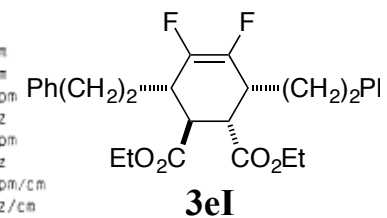
Current Data Parameters  
 NAME hondo-6-1-26  
 EXPNO 3  
 PROCNO 1

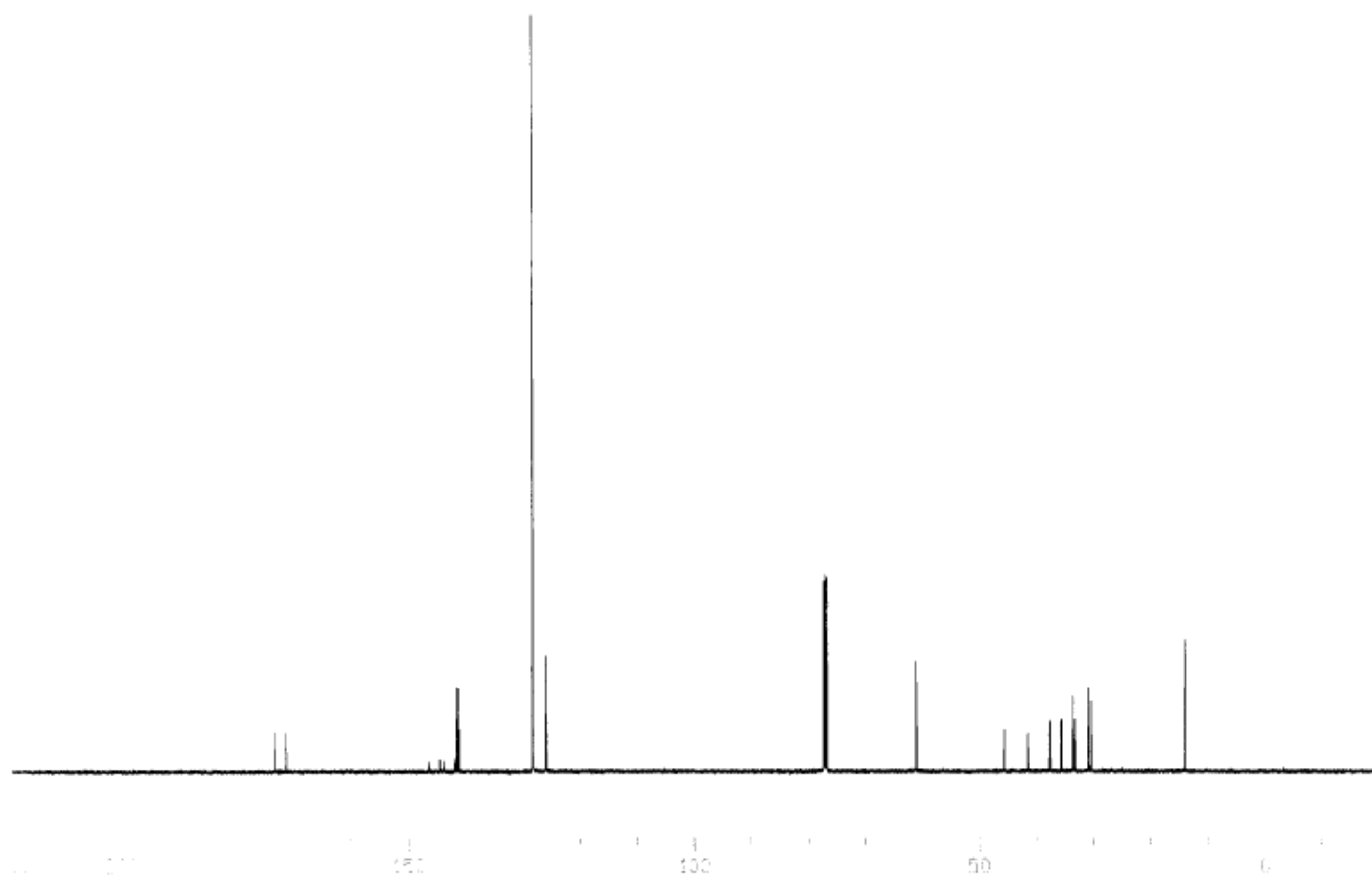
F2 - Acquisition Parameters  
 Date\_ 20060126  
 Time 21.33  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719923 sec  
 RG 40.3  
 DW 48.400 usec  
 DE 6.00 usec  
 TE 294.4 K  
 D1 1.0000000 sec  
 MCREST 0.0000000 sec  
 MCWAK 0.0150000 sec

===== CHANNEL f1 =====  
 NUC1 1H  
 P1 10.30 usec  
 PL1 -6.00 dB  
 SFO1 500.1330885 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1300124 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 CY 10.20 cm  
 F1P 10.000 ppm  
 F1 5001.30 Hz  
 F2P -1.000 ppm  
 F2 -500.13 Hz  
 PPMCM 0.55000 ppm/cm  
 HZCM 275.07150 Hz/cm





Current Data Parameters  
 NAME nondo-5-1-26  
 EXPNO 4  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20050126  
 Time 21.44  
 INSTRUM drx500  
 PROBHD 5 mm Multinucl  
 PULPROG zgpg30  
 TO 65536  
 SOLVENT CDCl3  
 NS 256  
 DS 2  
 SWH 30030.029 Hz  
 FIDRES 0.458222 Hz  
 AQ 1.0912244 sec  
 RG 3649.1  
 DW 16.650 usec  
 DE 5.00 usec  
 TE 295.4 K  
 D1 0.5000000 sec  
 d11 0.0300000 sec  
 MCREST 0.0000000 sec  
 MCMRK 0.0150000 sec

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 NUC1 13C  
 P1 18.50 usec  
 PL1 -6.00 dB  
 SFO1 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 CPDPRG2 waltz16  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 -6.00 dB  
 PL12 13.74 dB  
 PL13 13.74 dB  
 SFO2 500.1320005 MHz

F2 - Processing parameters  
 SI 32768  
 SF 125.7578042 MHz  
 NDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 CY 11.18 cm  
 F1P 219.271 ppm  
 F1 27575.08 Hz  
 F2P -19.521 ppm  
 F2 -2454.95 Hz  
 RFMCM 11.93963 ppm/cm  
 HZCM 1501.50134 Hz/cm

