

Supporting Information 2:

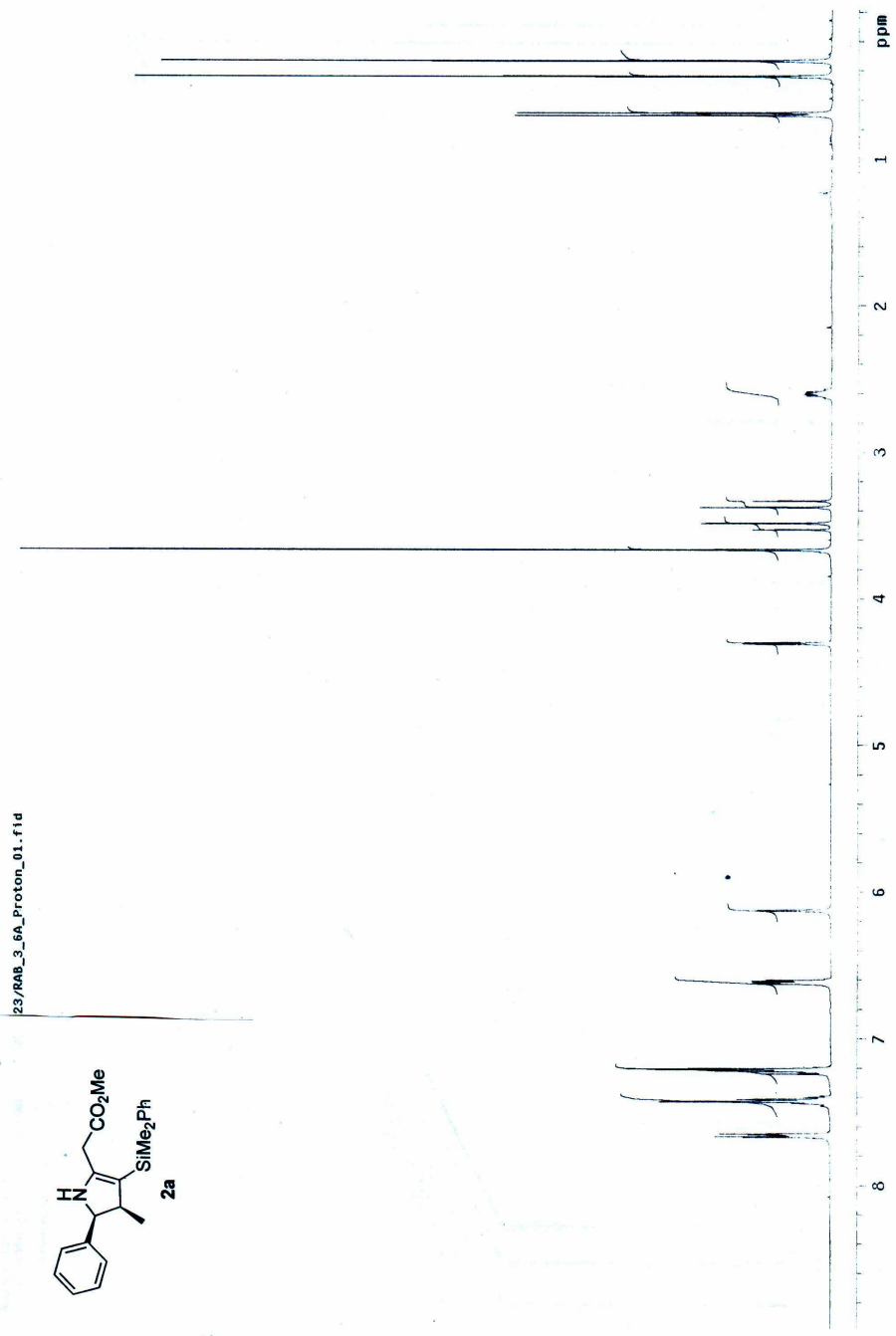
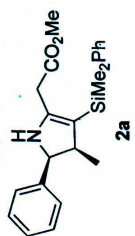
Annulations of Enantioenriched Allenylsilanes with *In Situ* Generated Iminium Ions: Stereoselective Synthesis of Diverse Heterocycles

Ryan A. Brawn and James S. Panek*

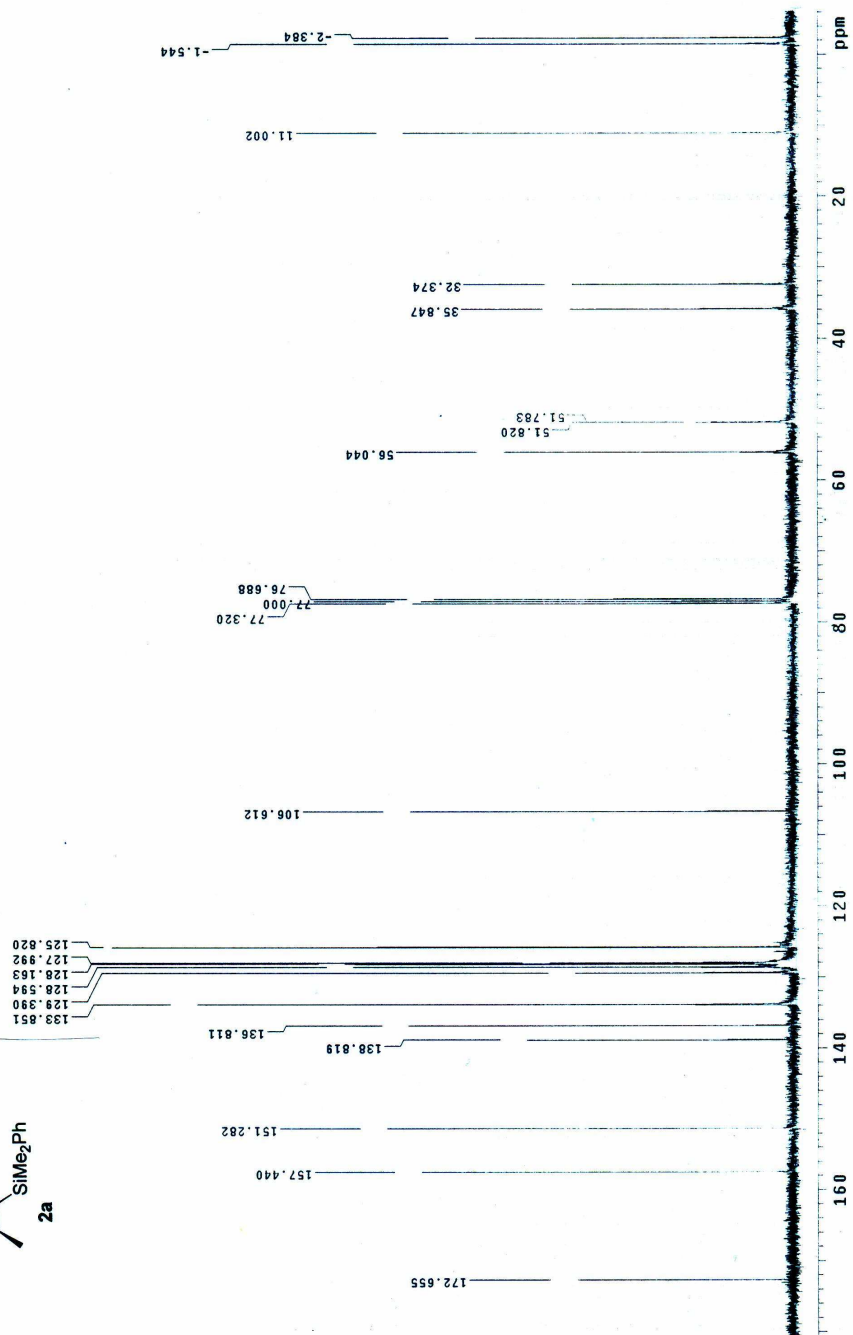
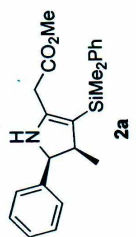
Department of Chemistry and Center for Chemical Methodology and Library Development, Metcalf Center for Science and Engineering, 590 Commonwealth Avenue, Boston University, Boston, Massachusetts 02215

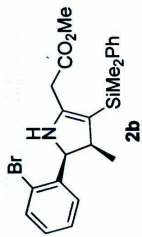
^1H and ^{13}C NMR spectra for all new compounds:

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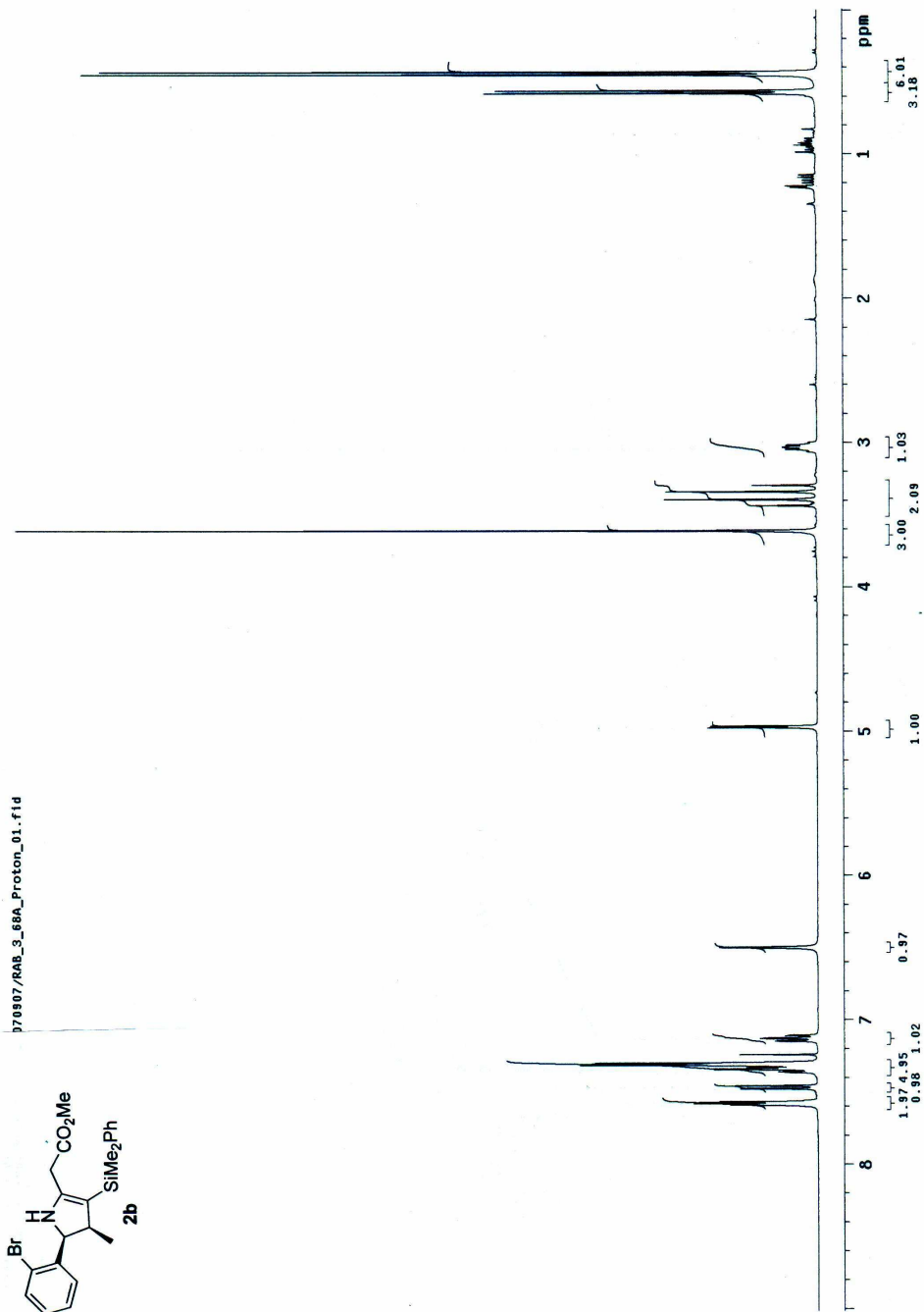


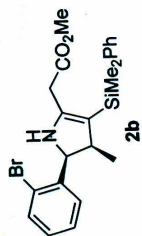
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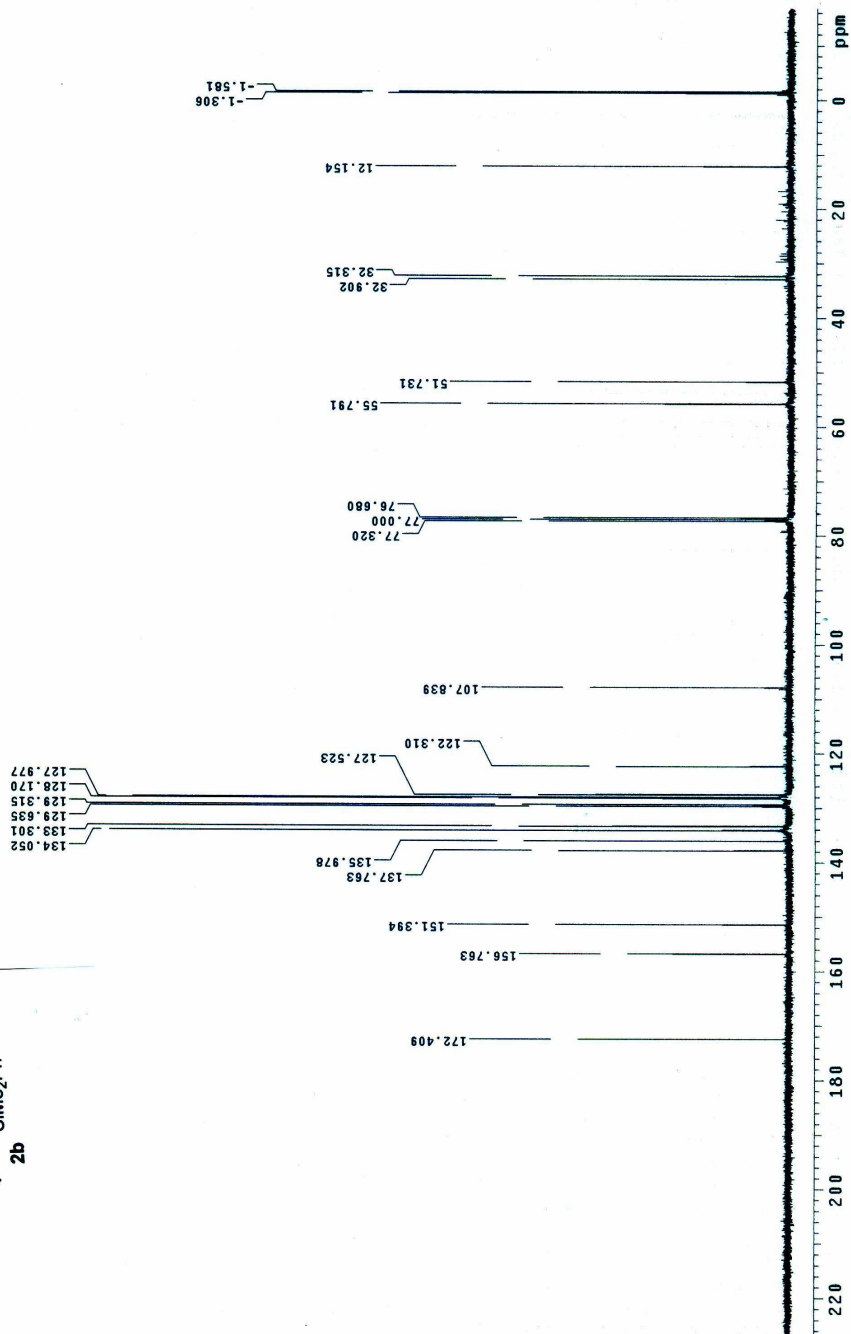


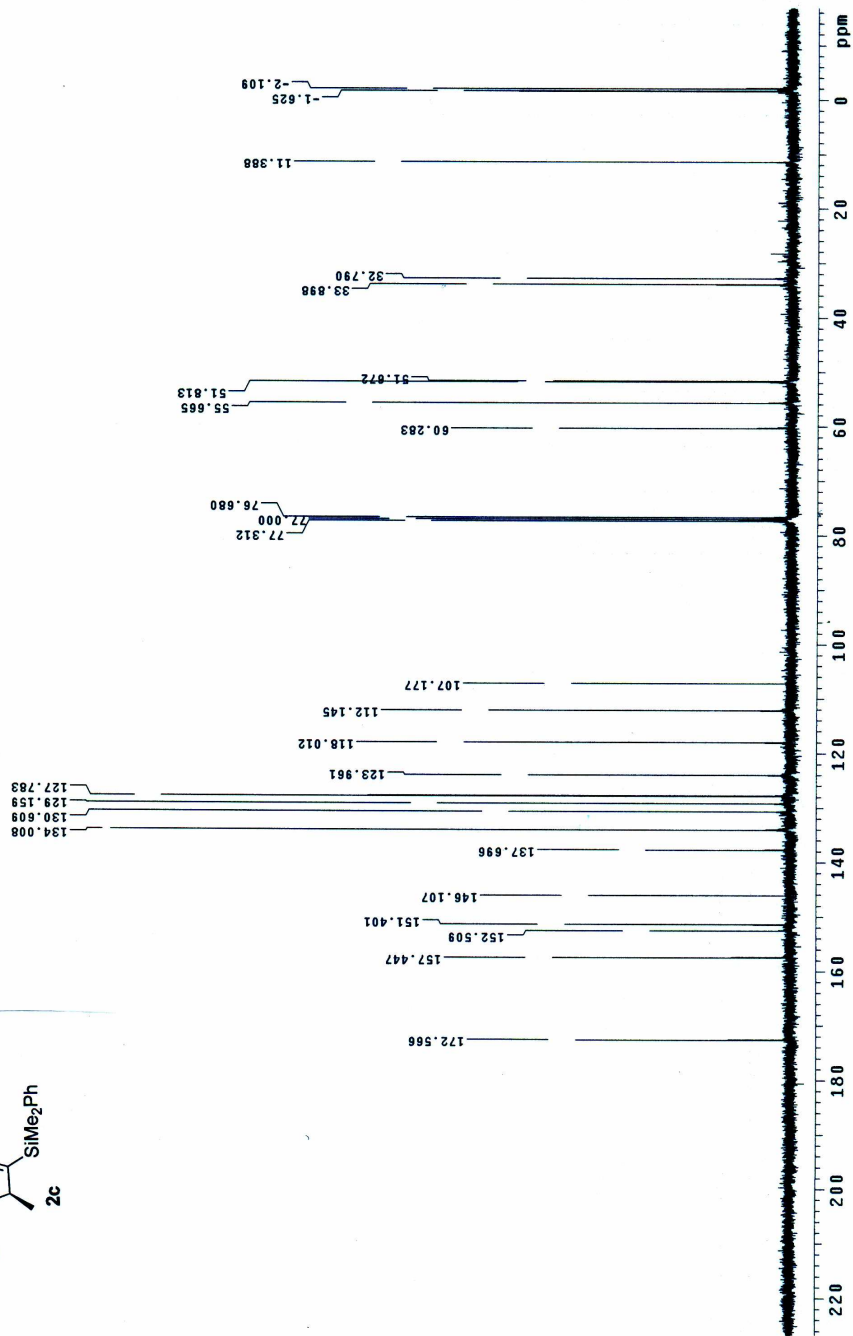
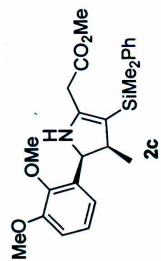
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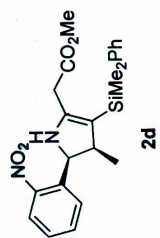




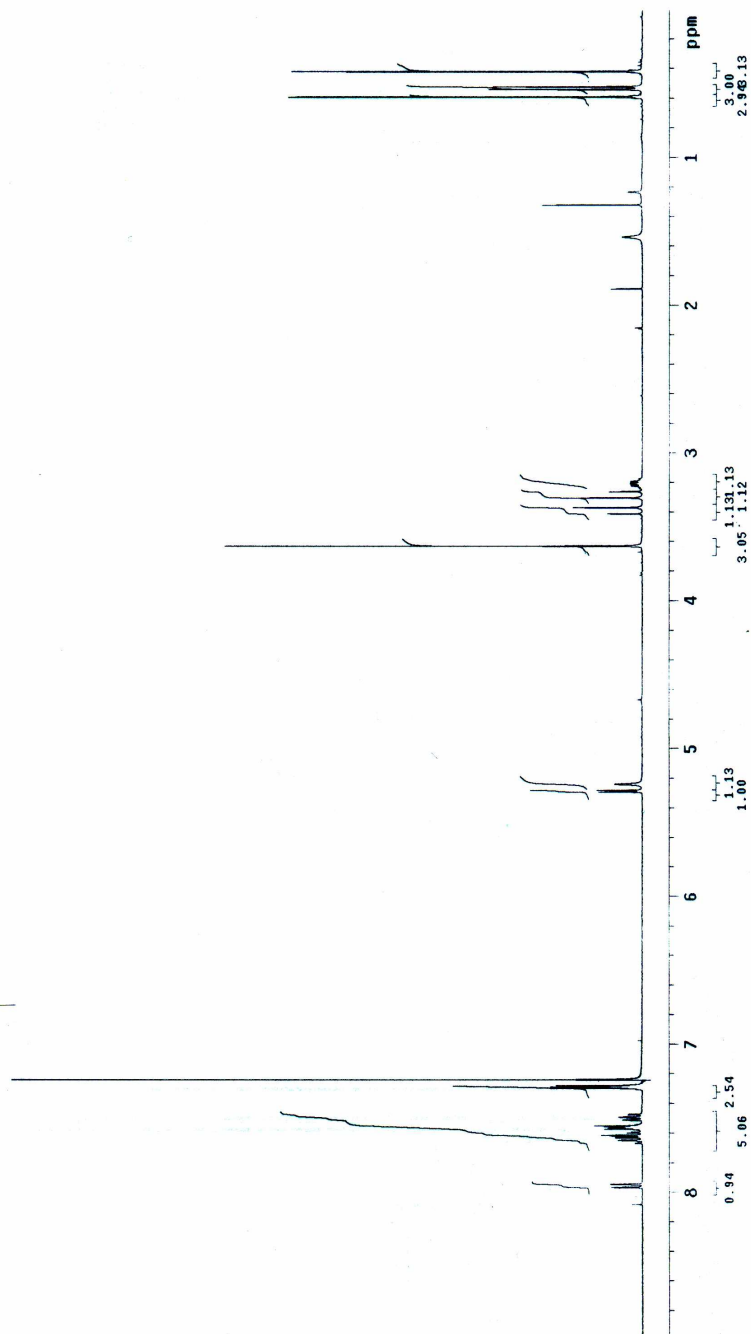
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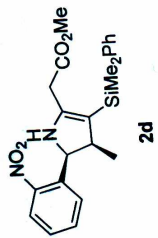




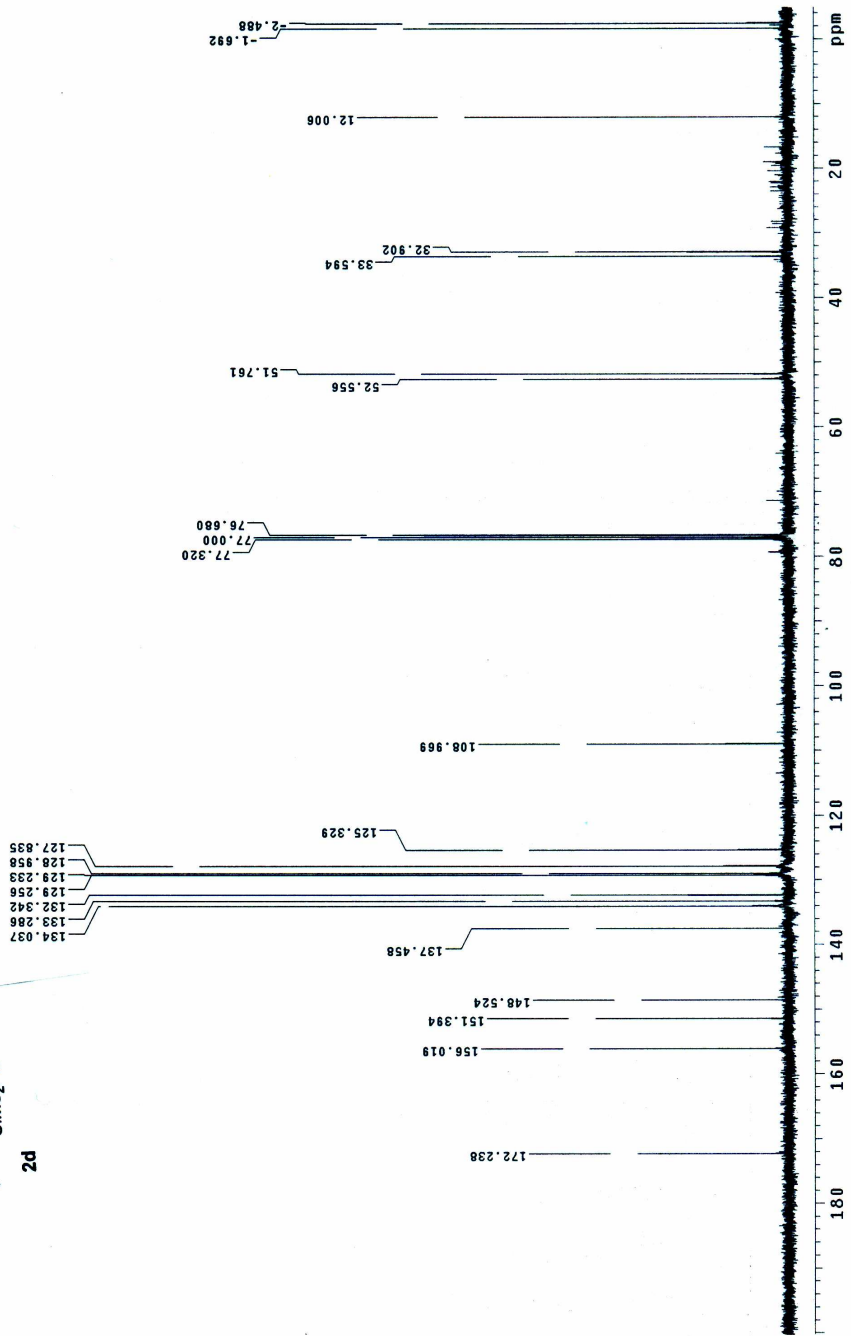


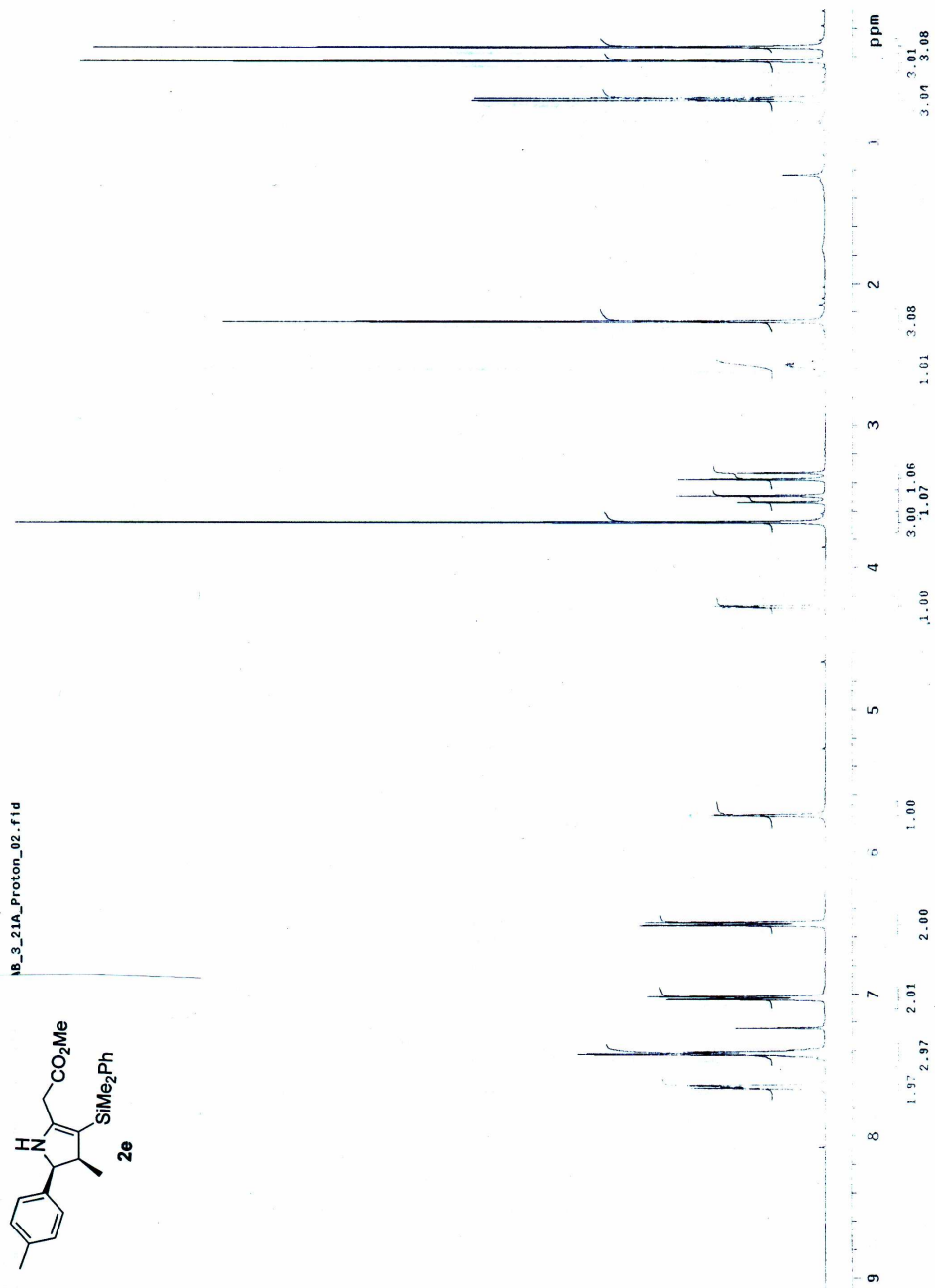
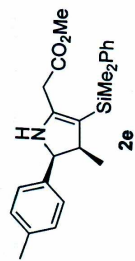
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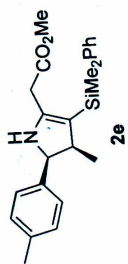




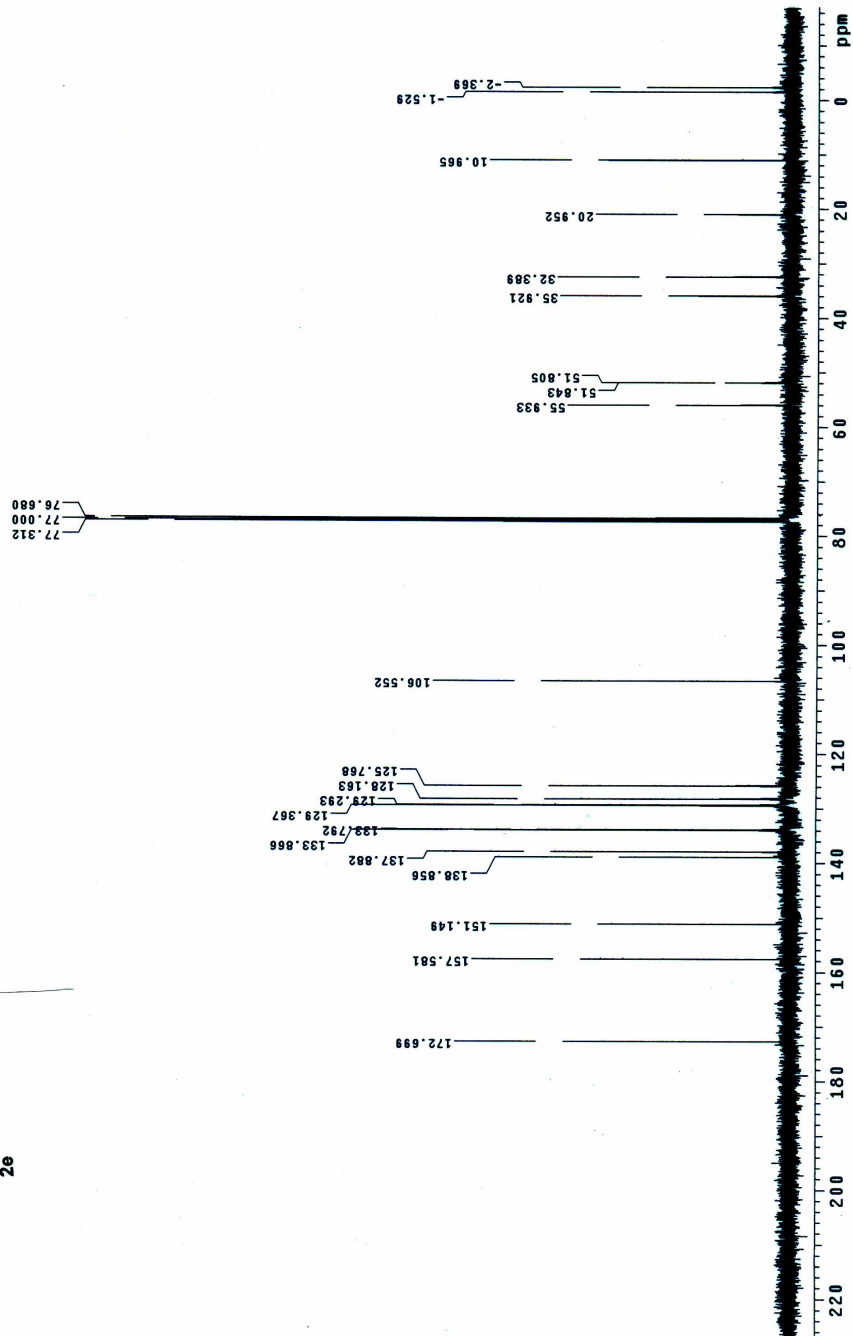
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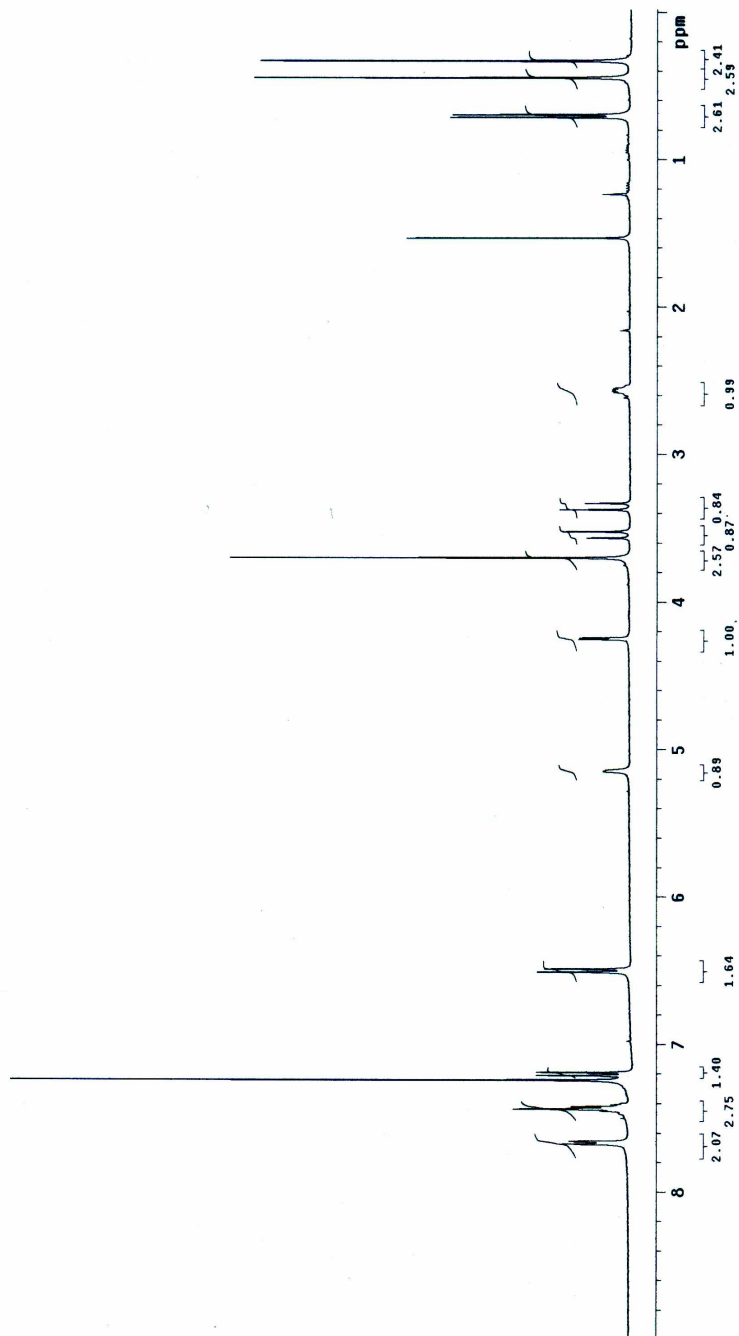
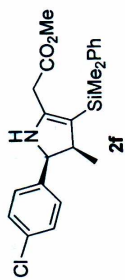


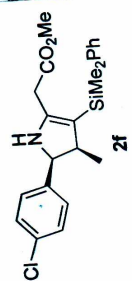


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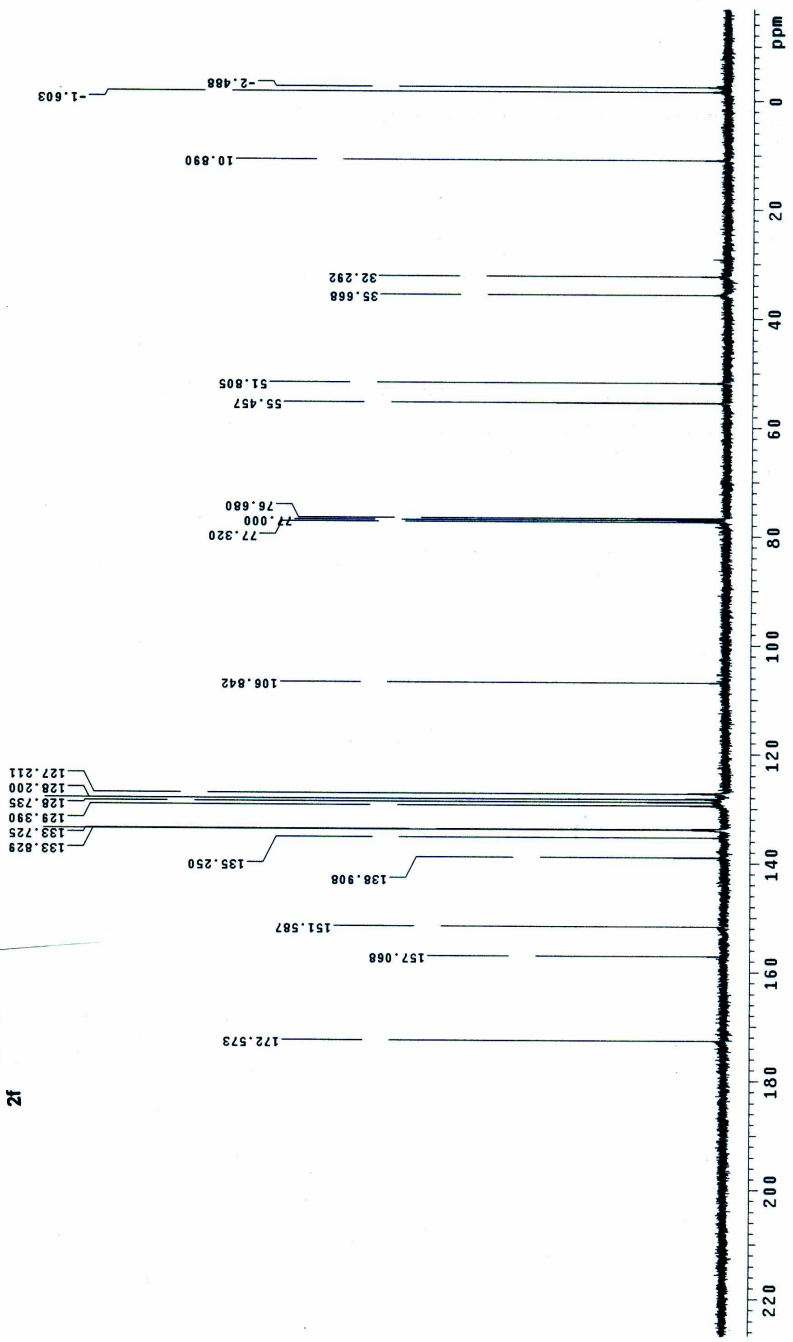


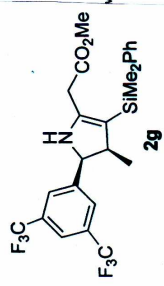
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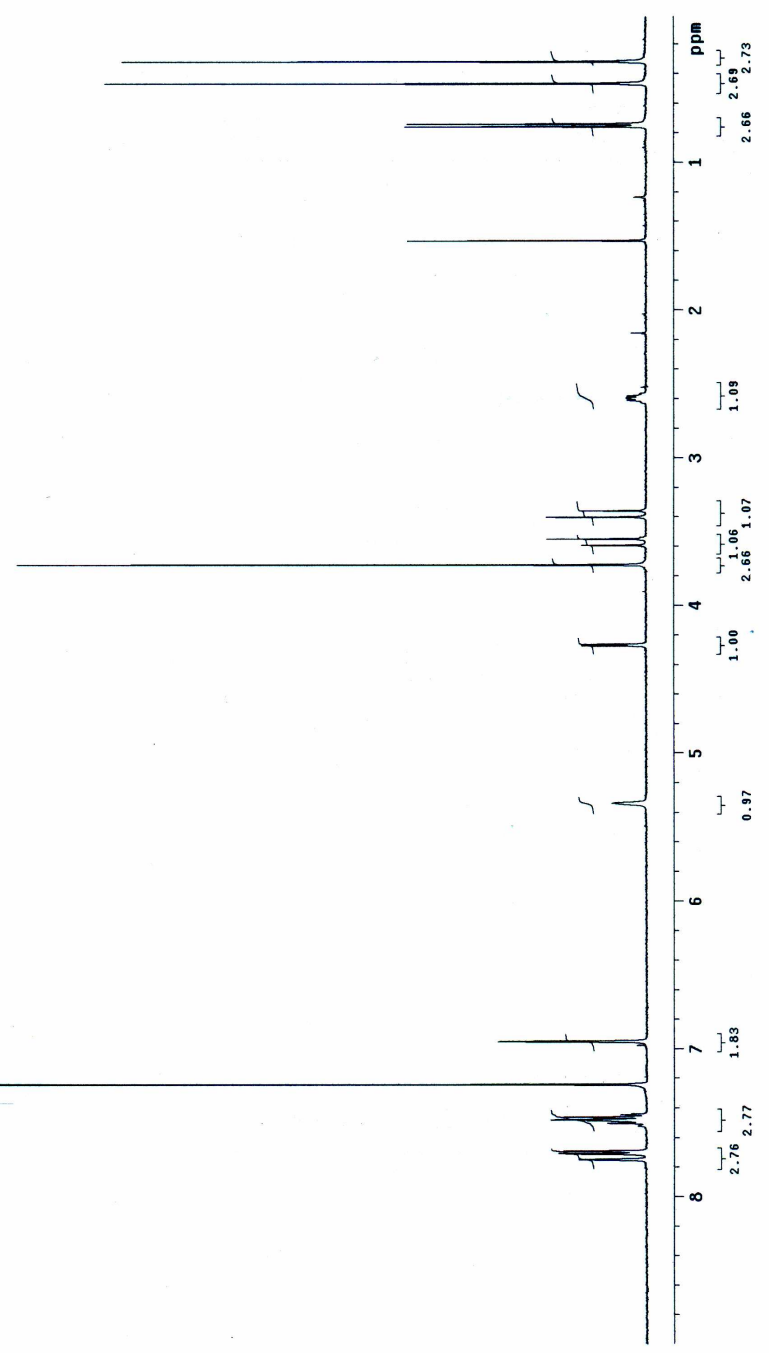


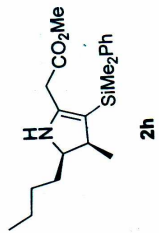
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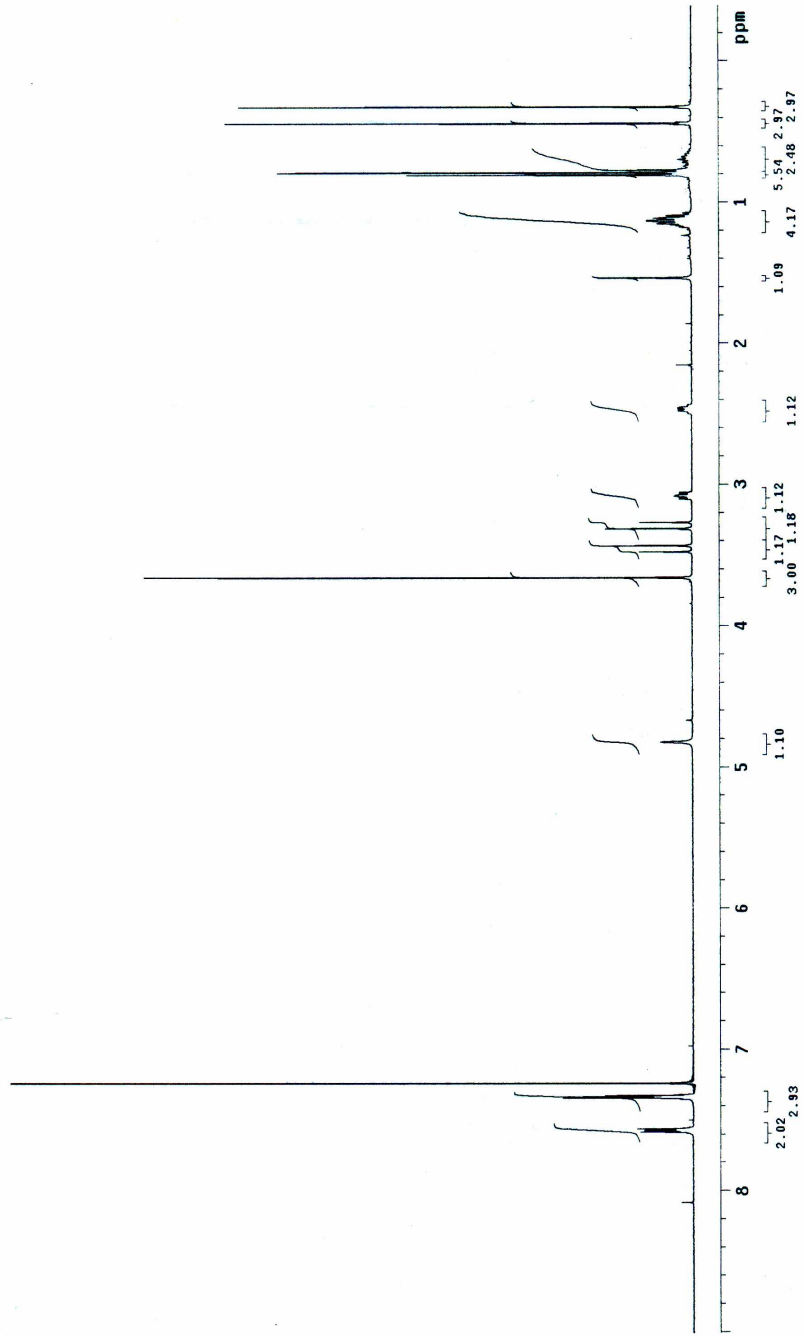


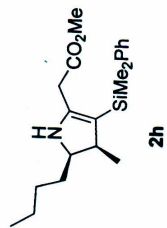
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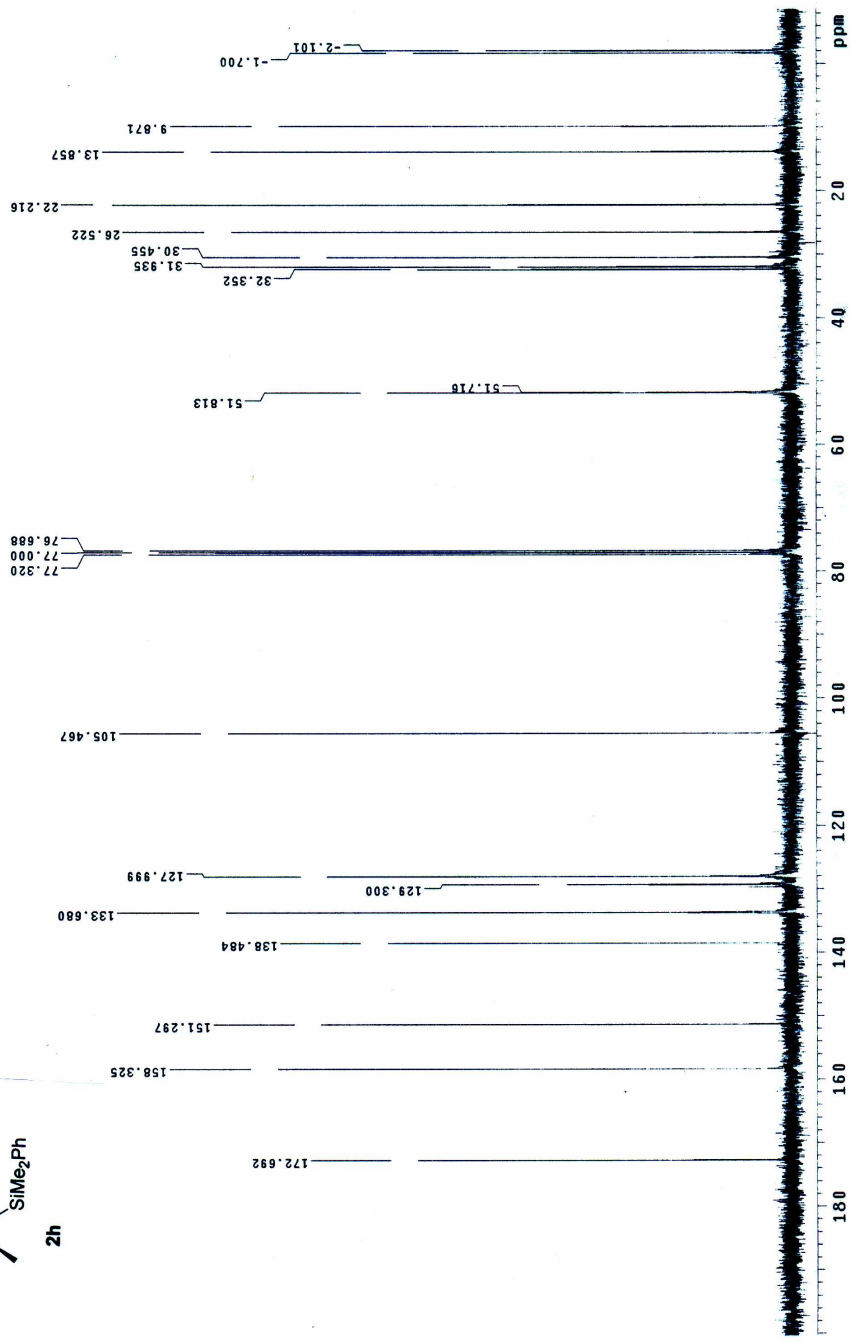


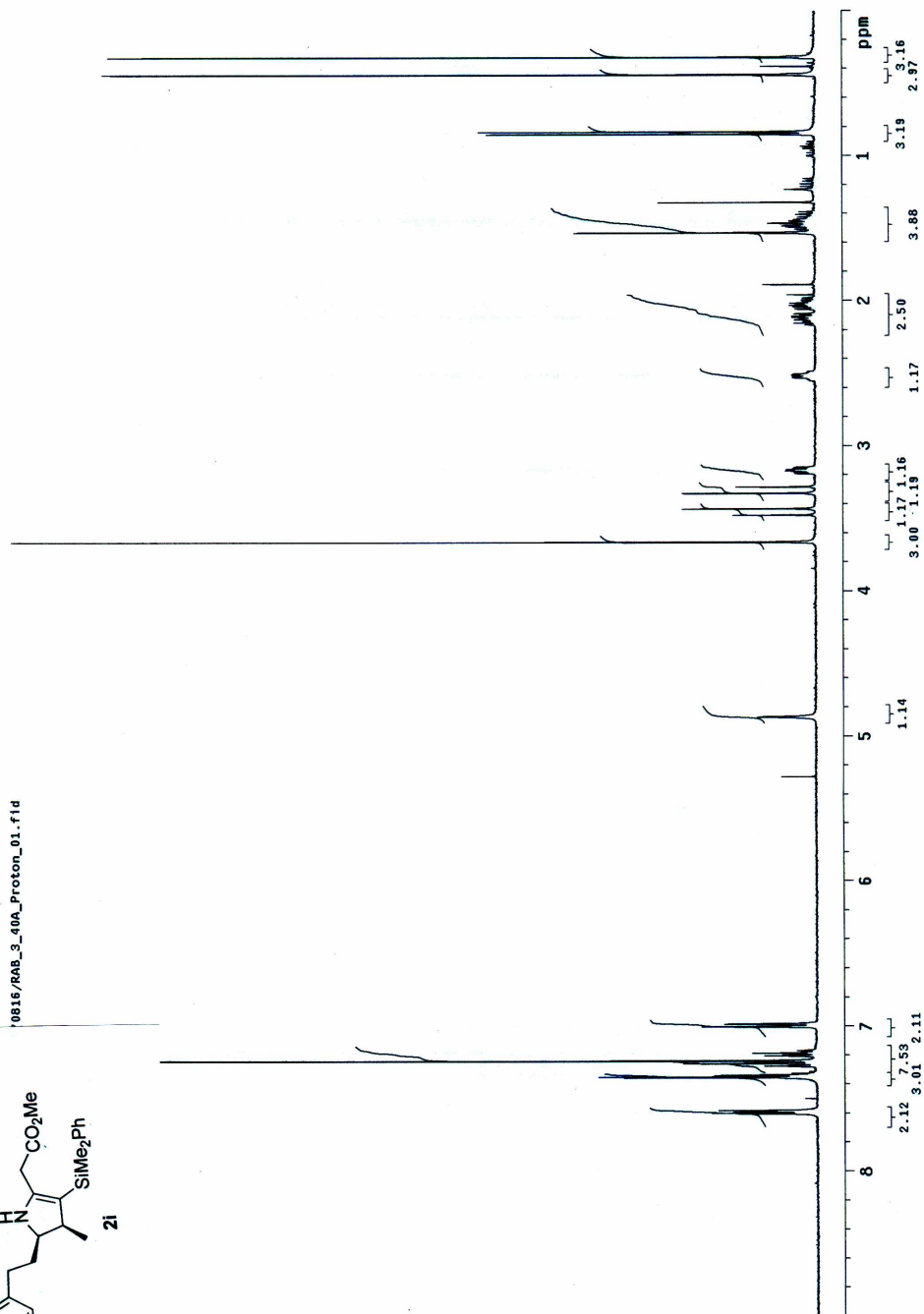
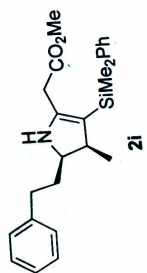
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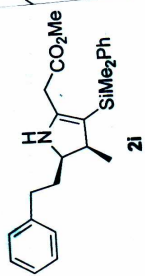




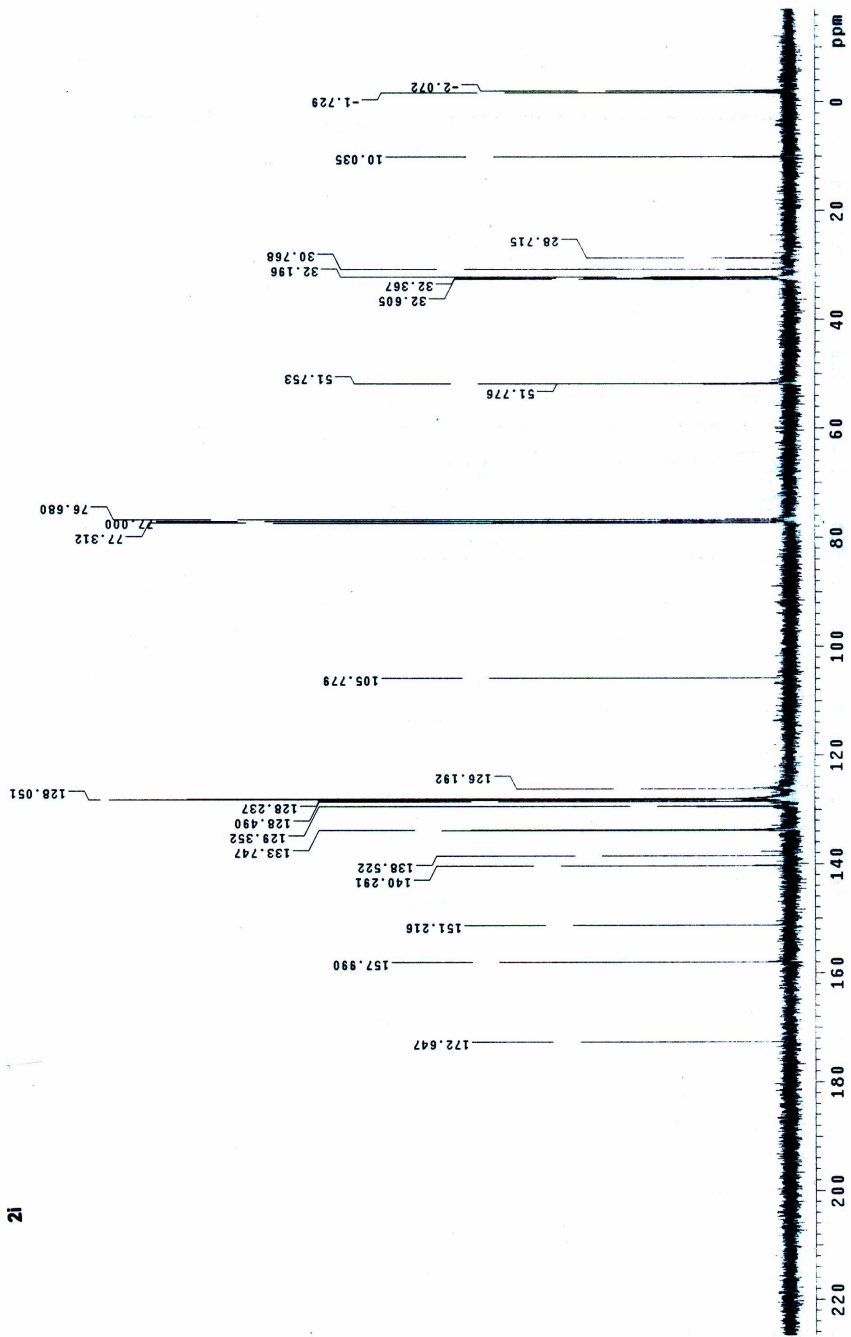
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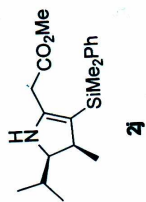




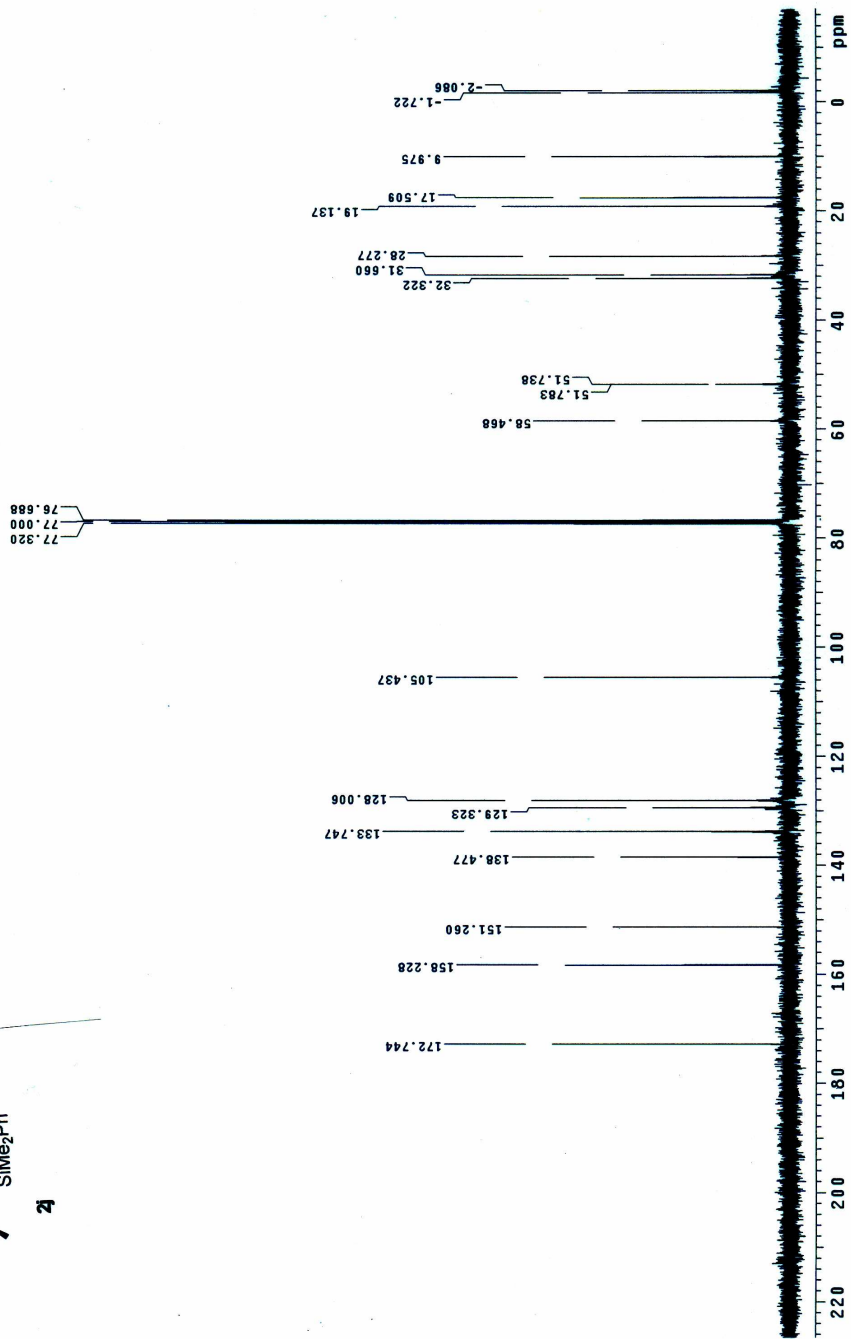


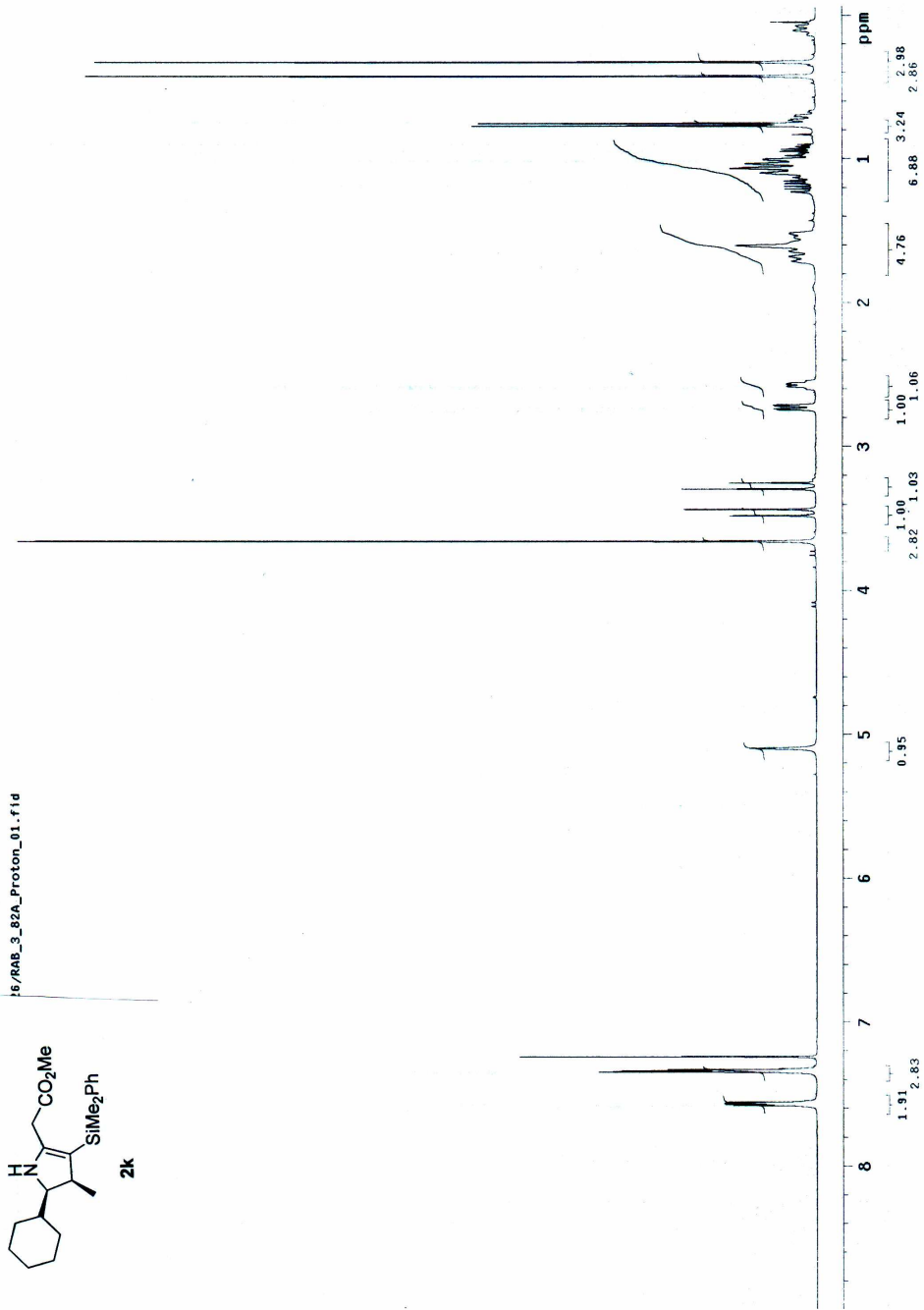
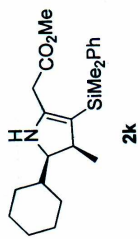
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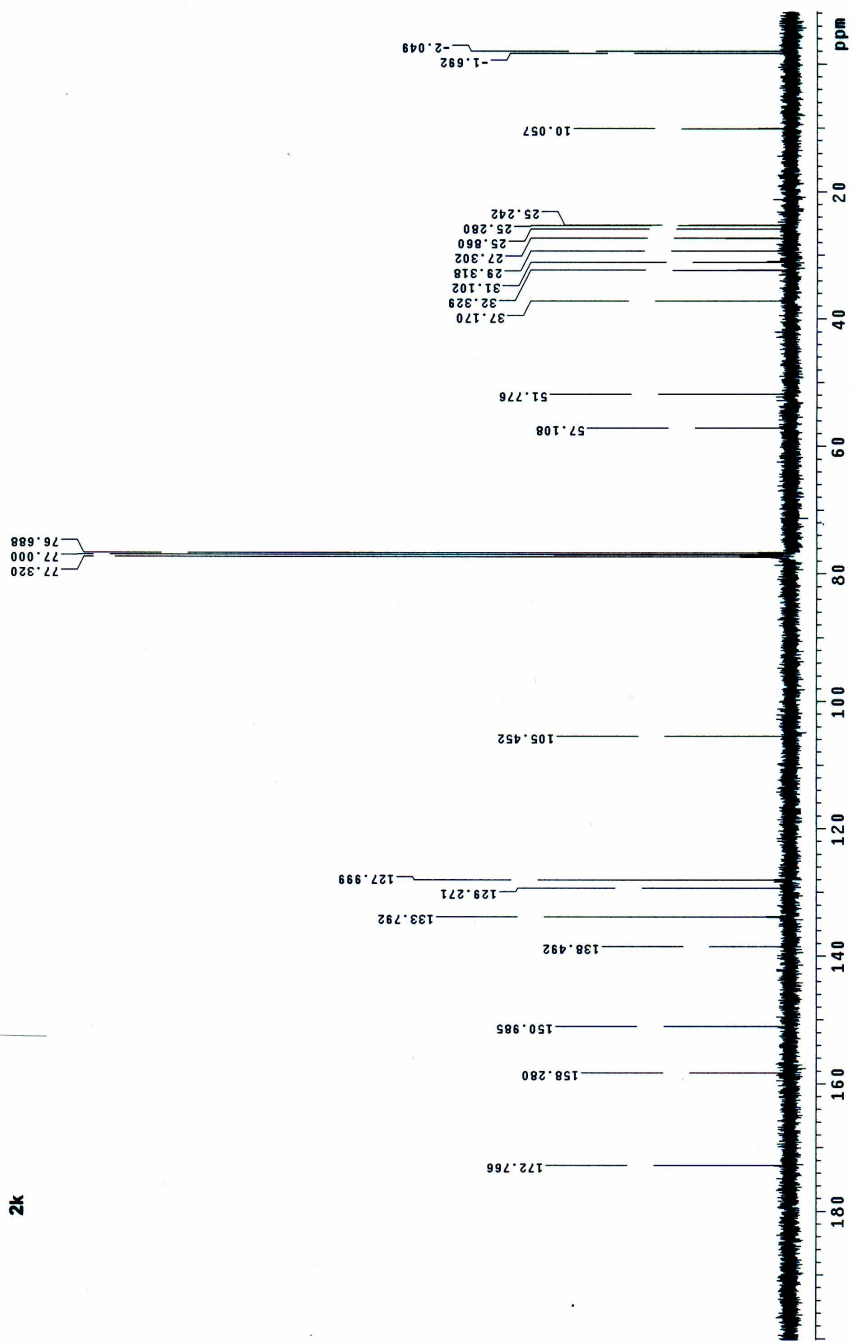
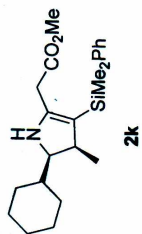


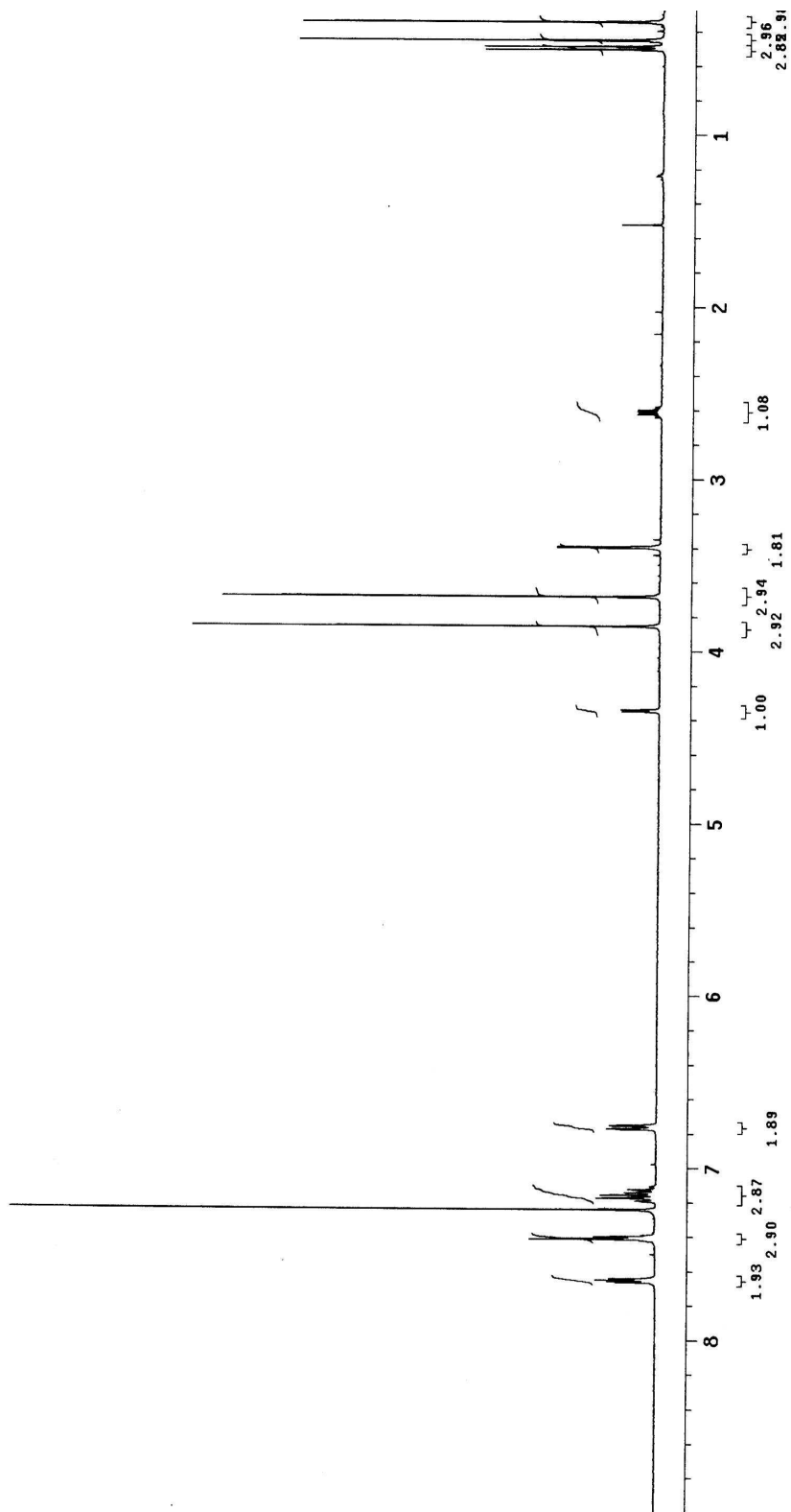
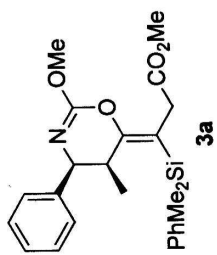


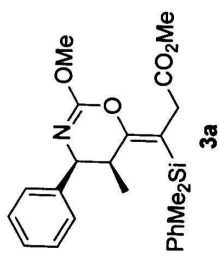
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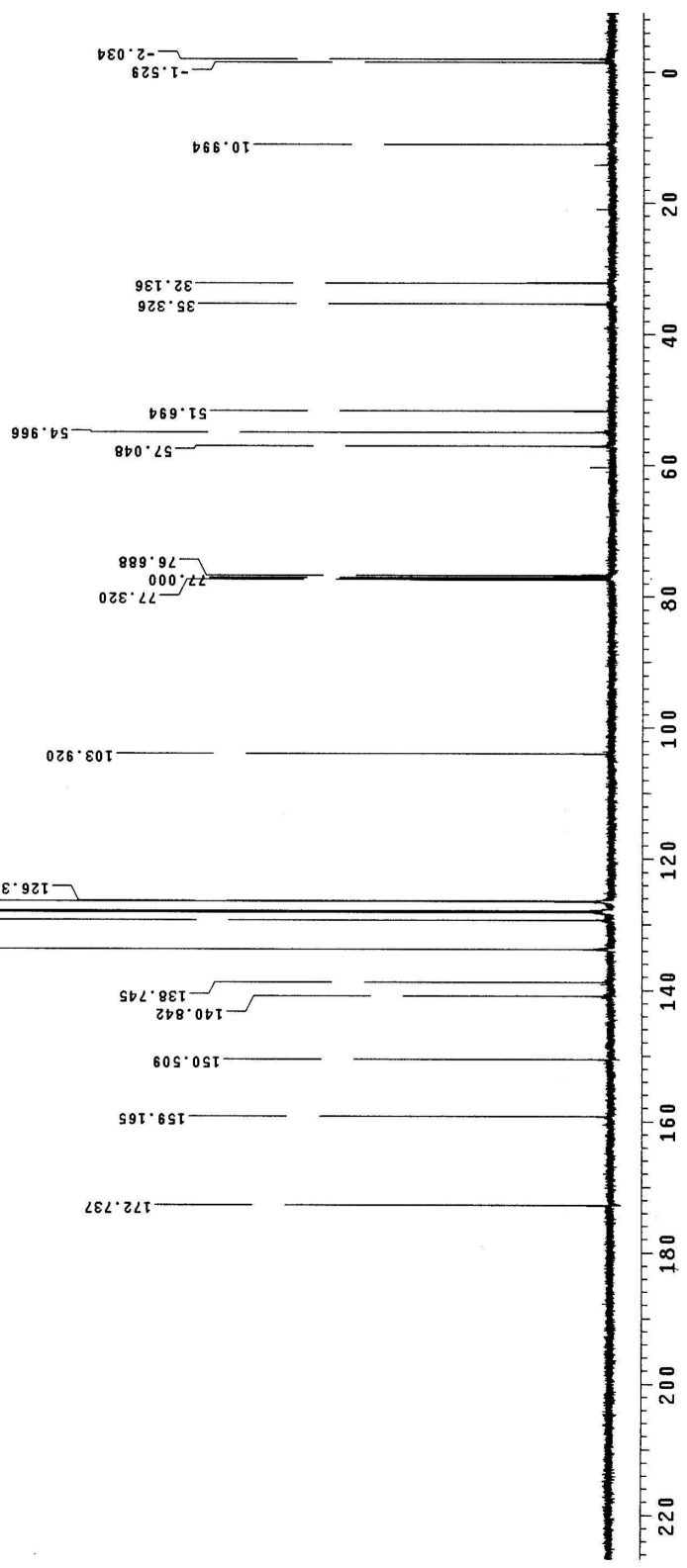


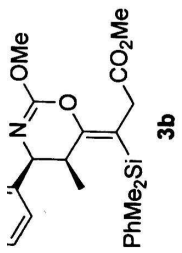






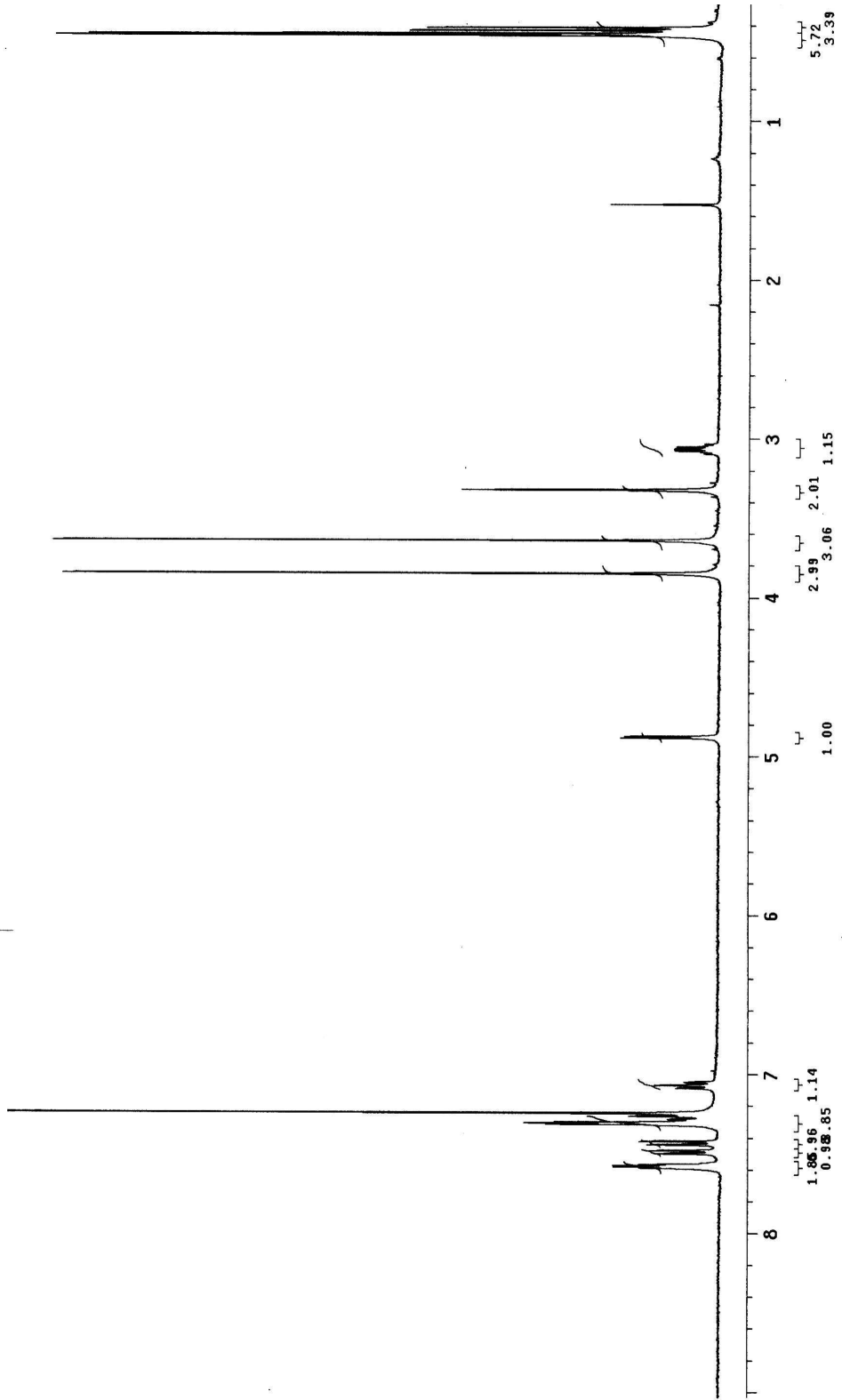
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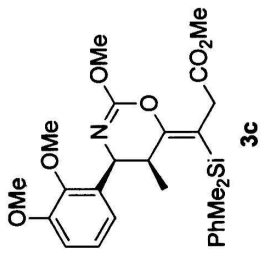




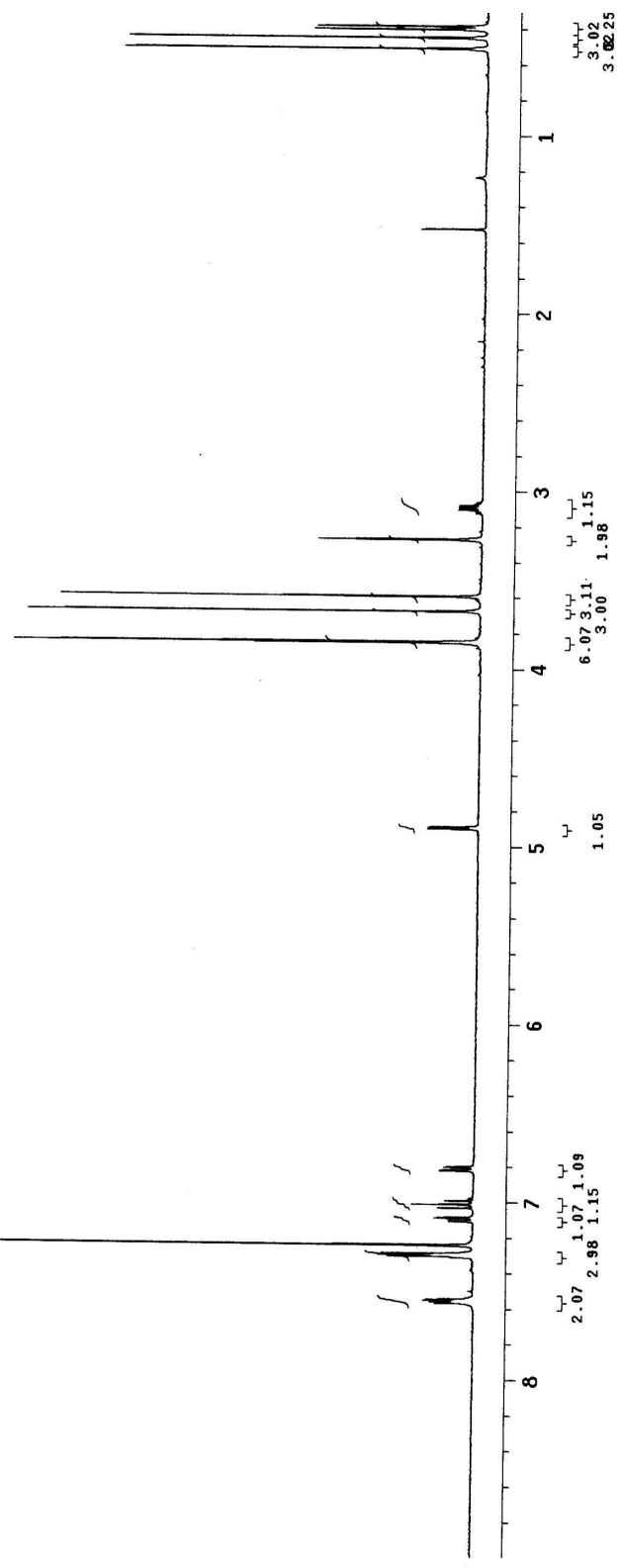
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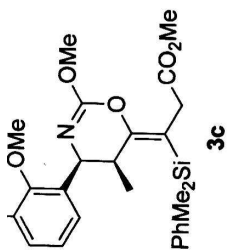
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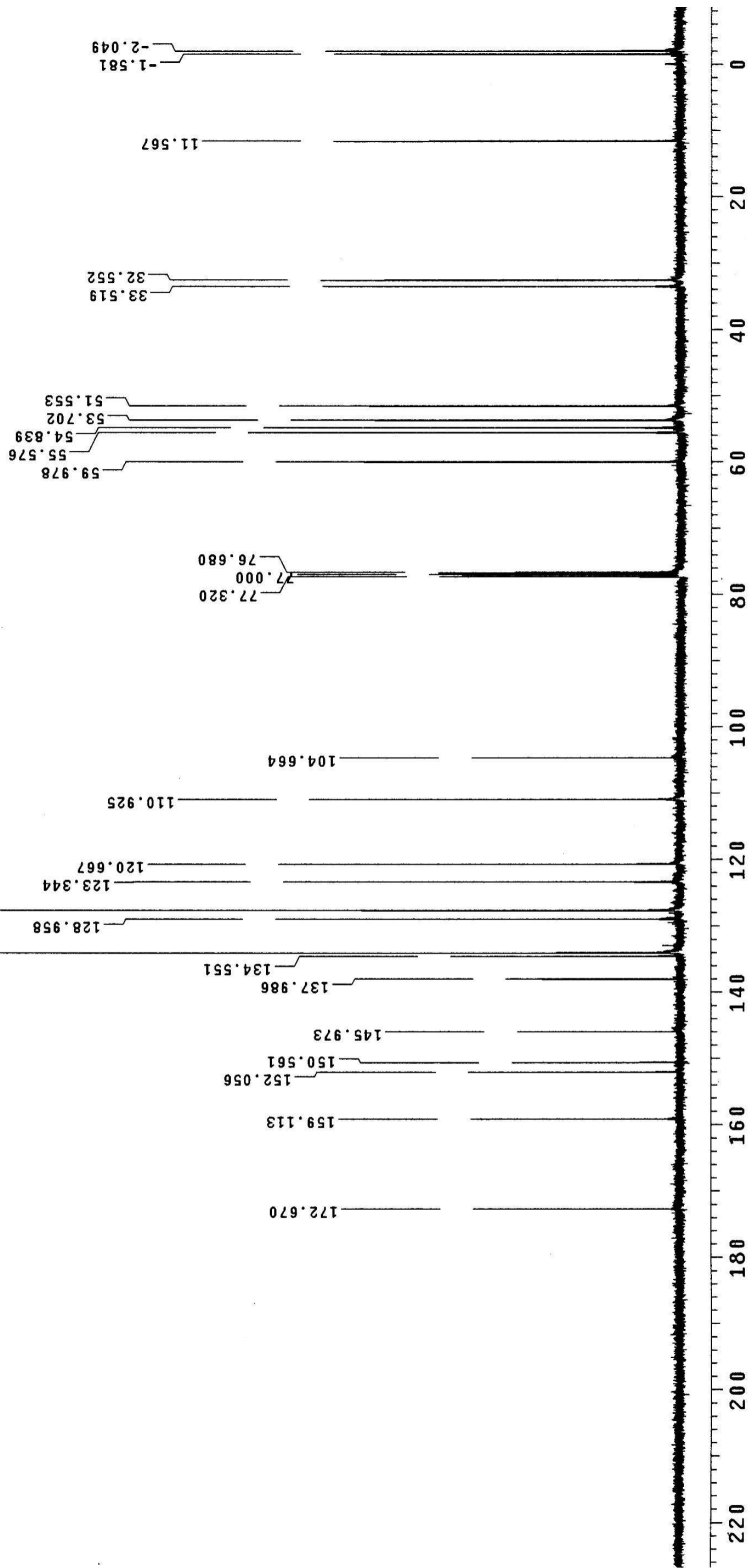


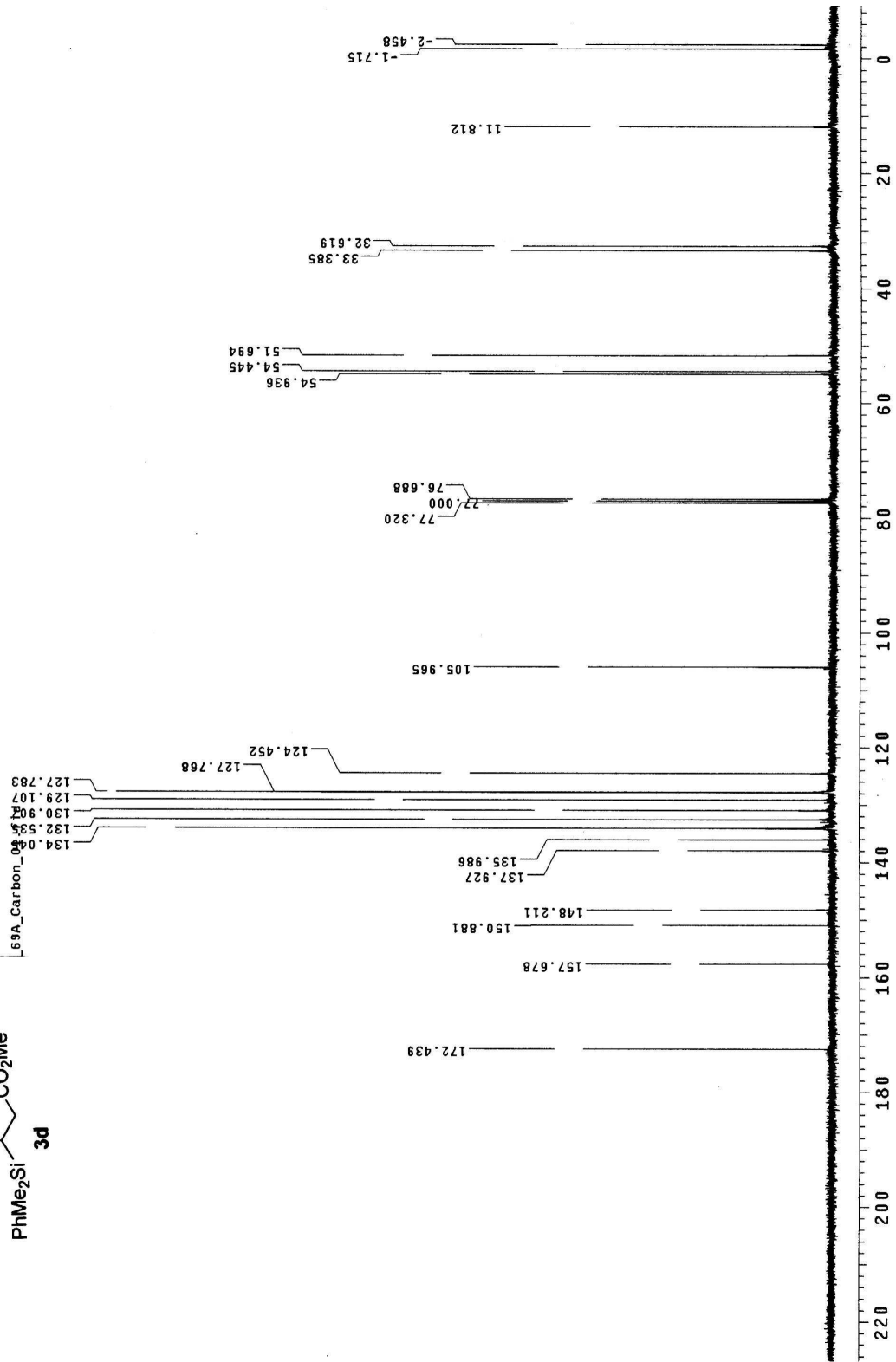
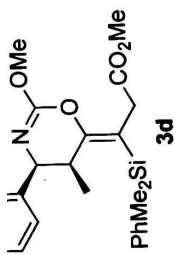
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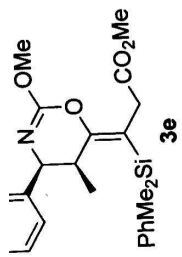




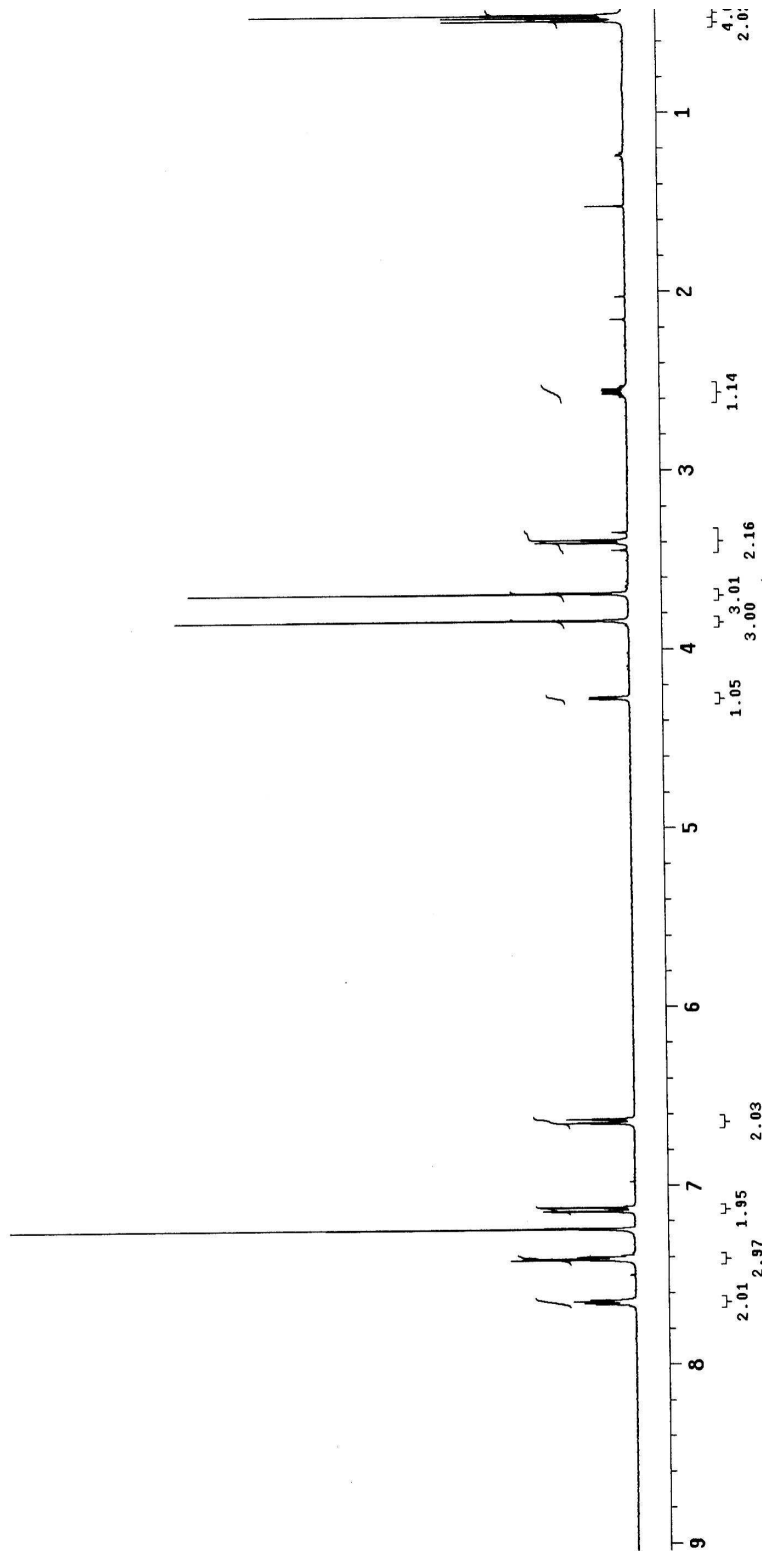
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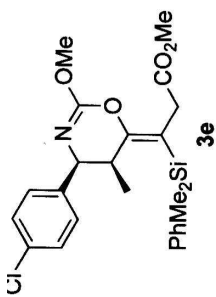




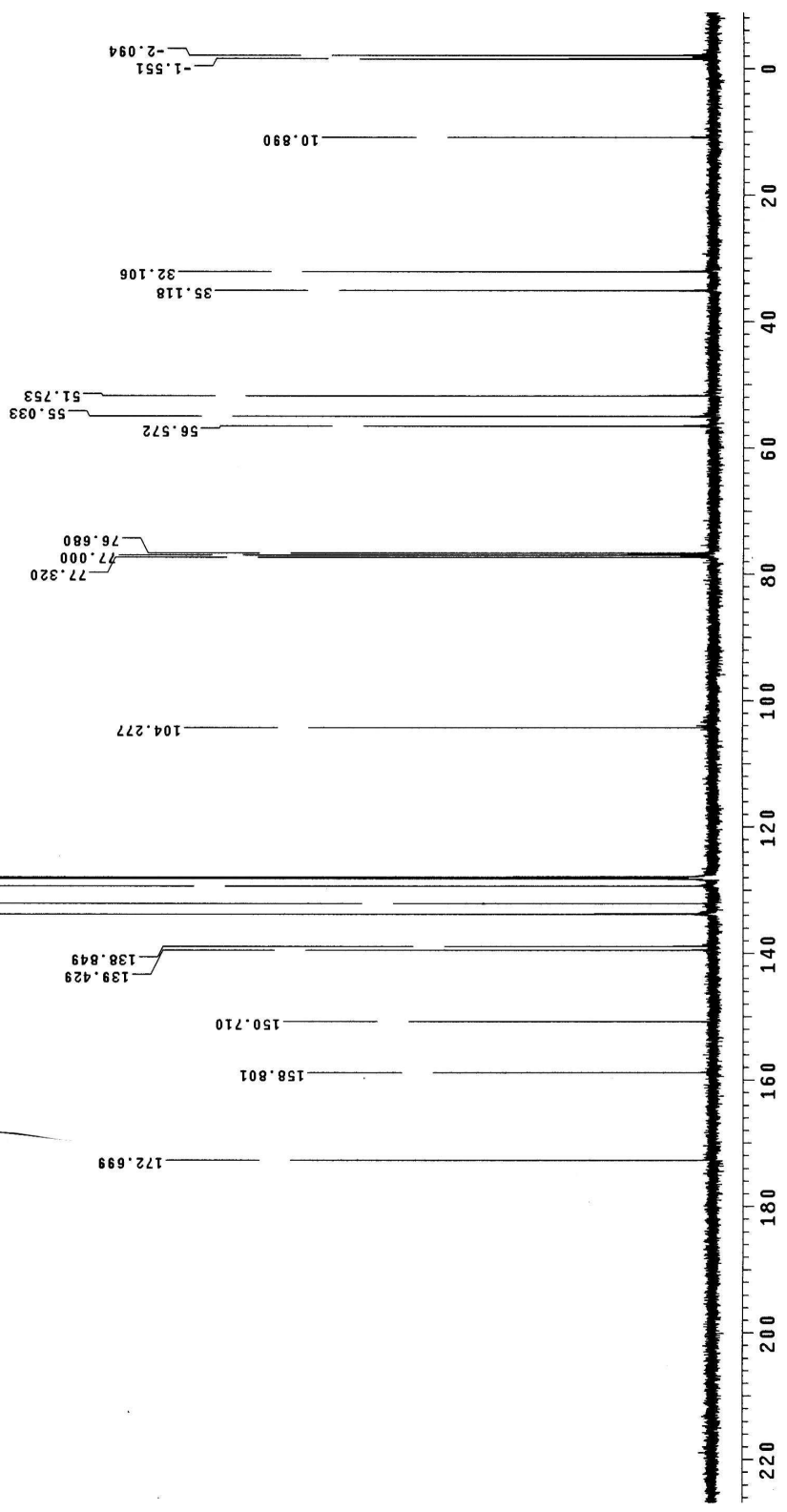


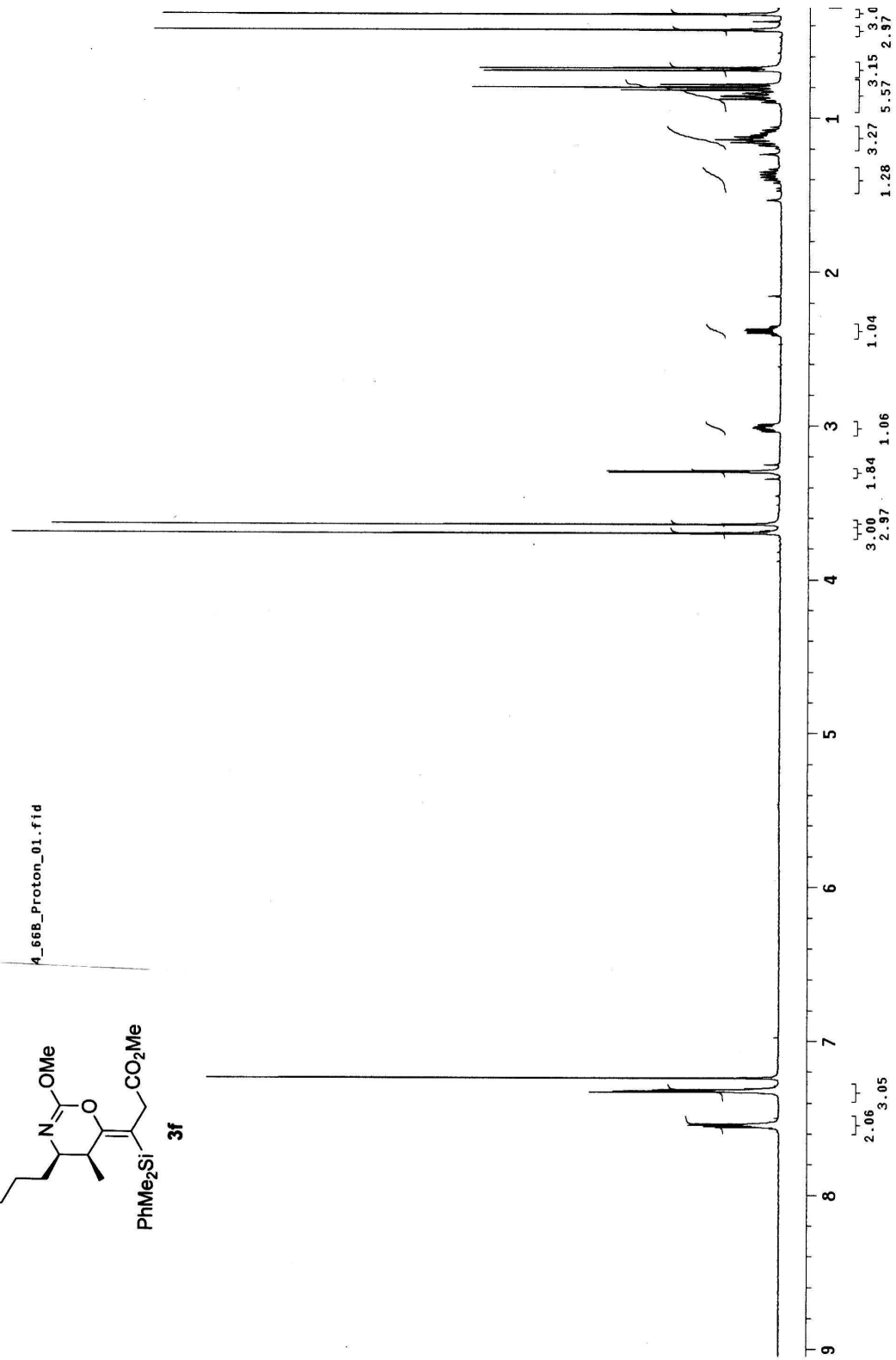
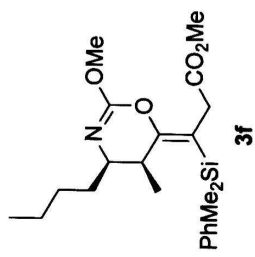
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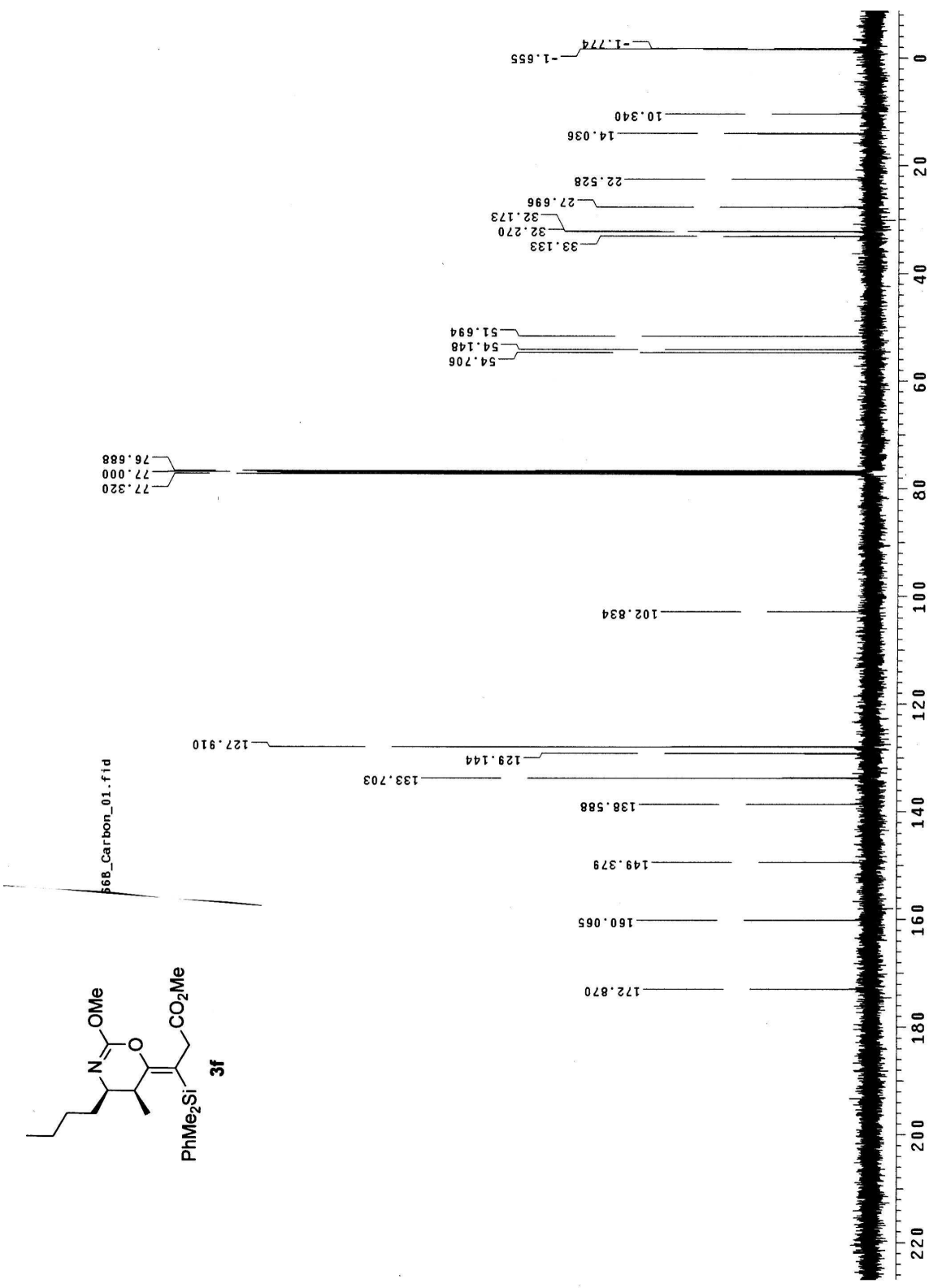


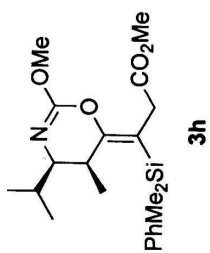


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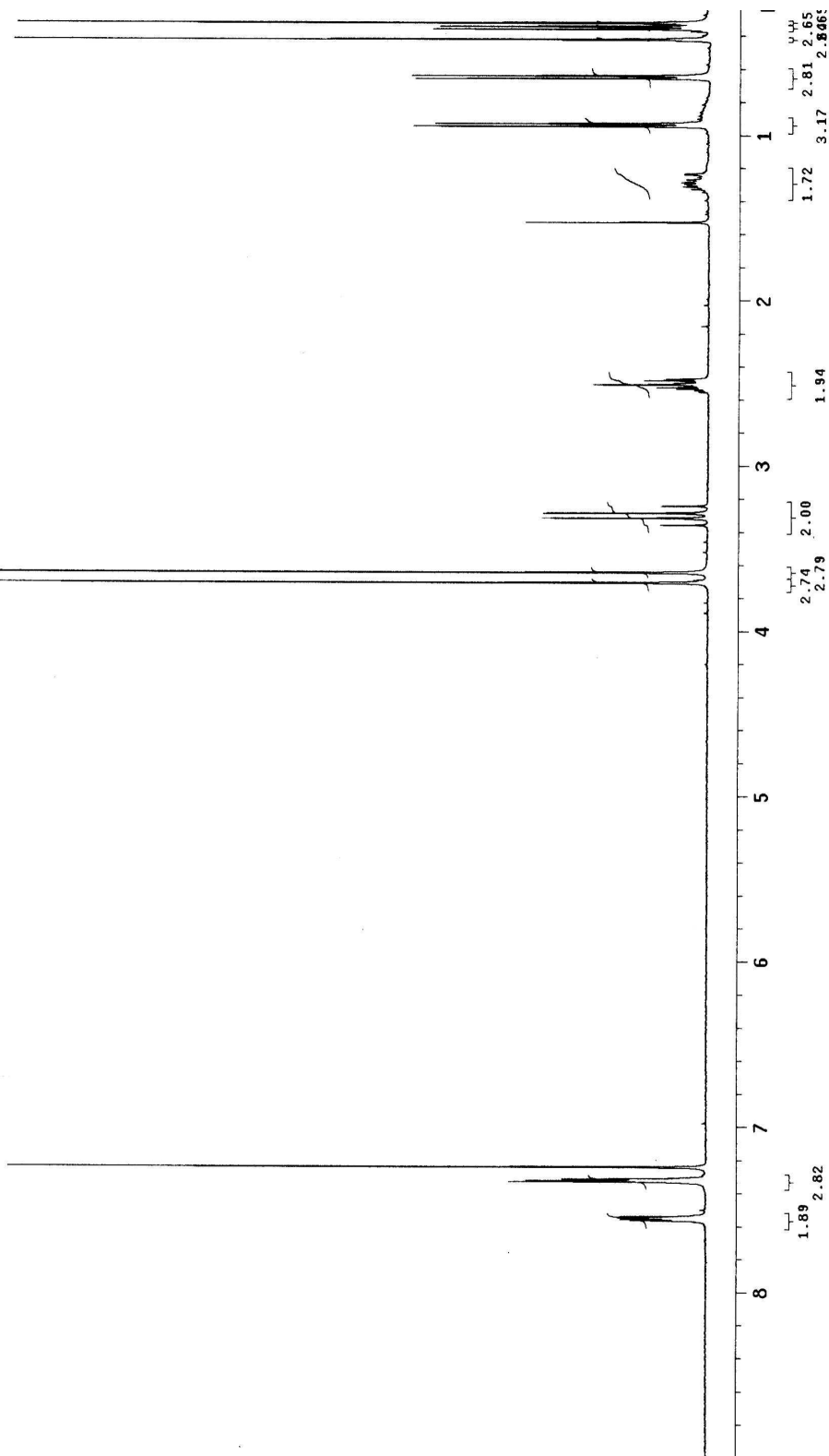


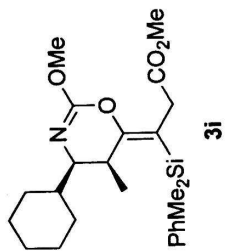




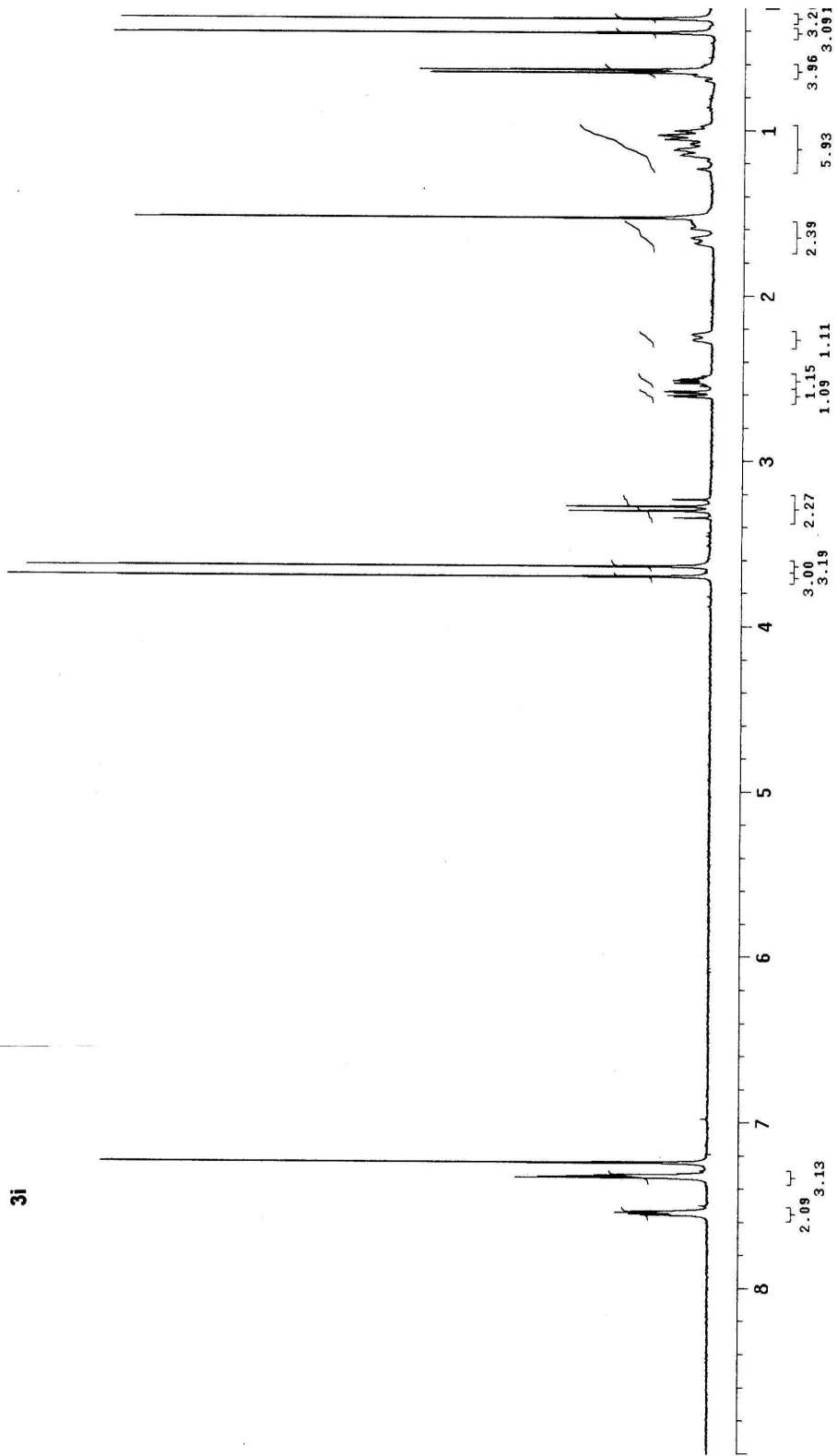


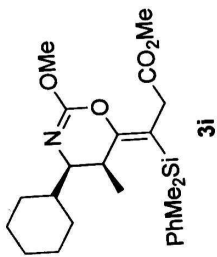
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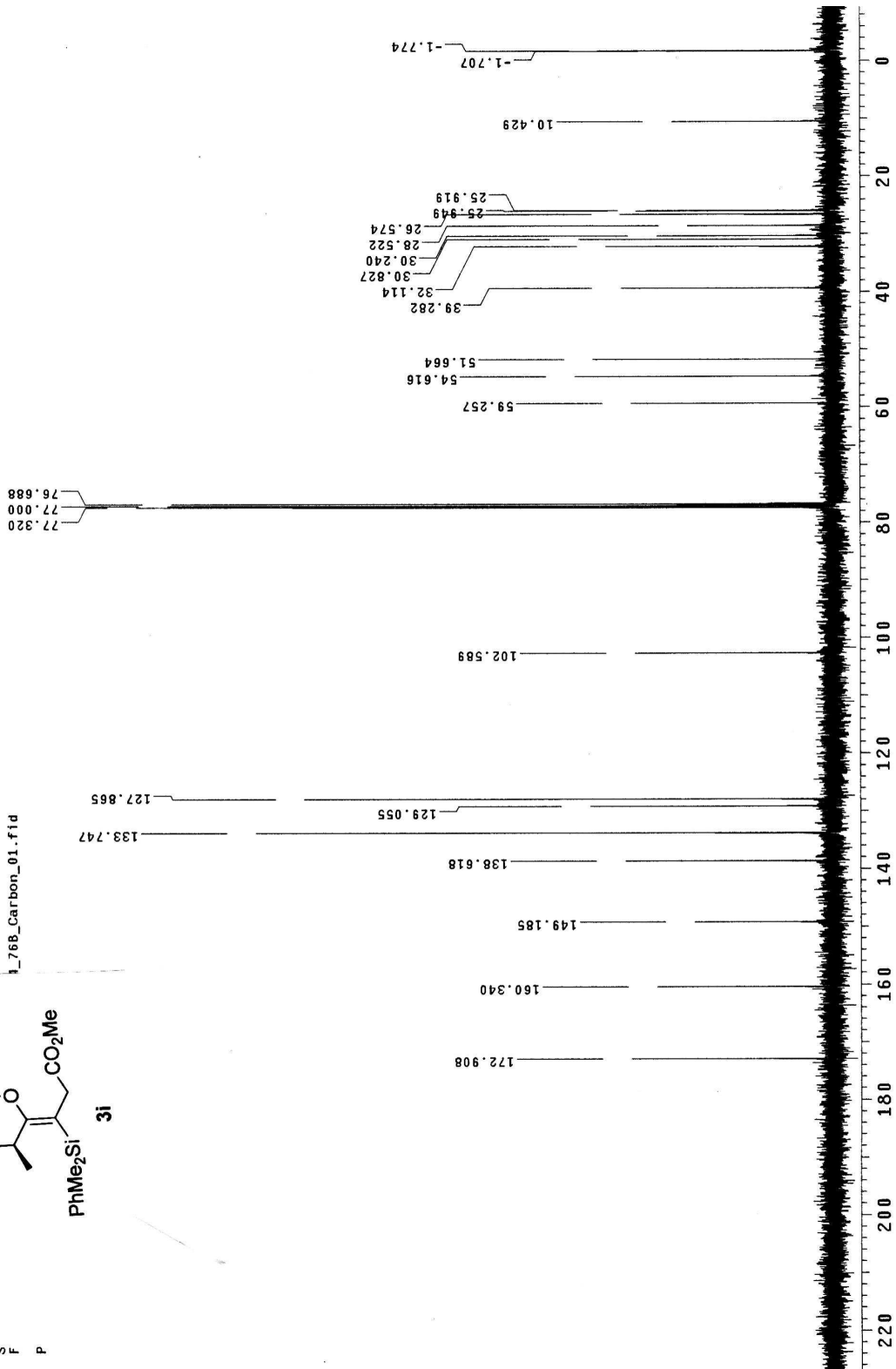


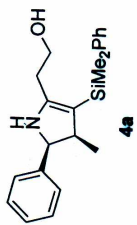
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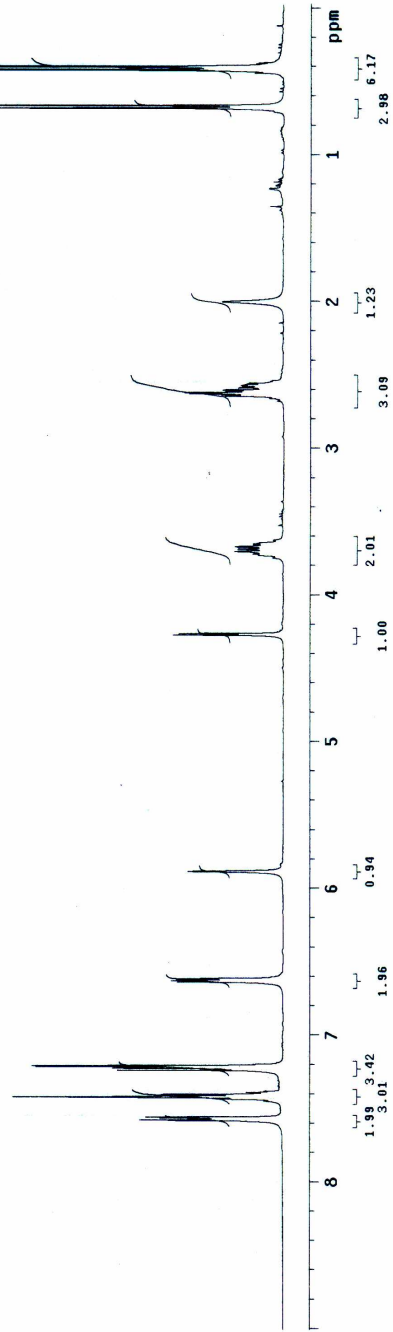


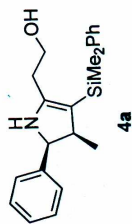
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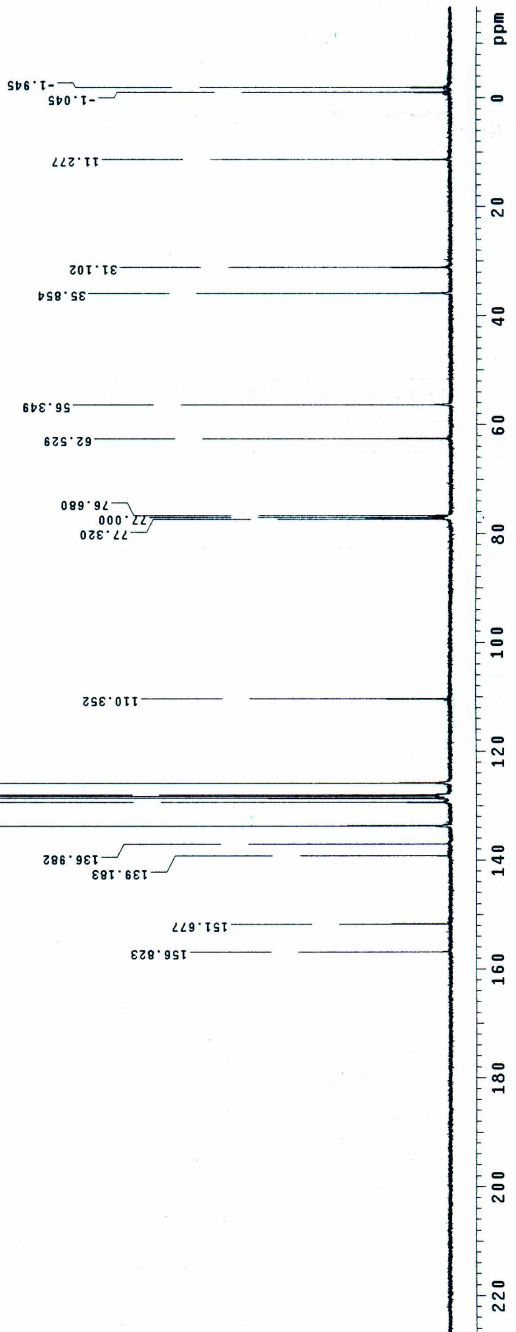


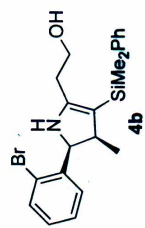
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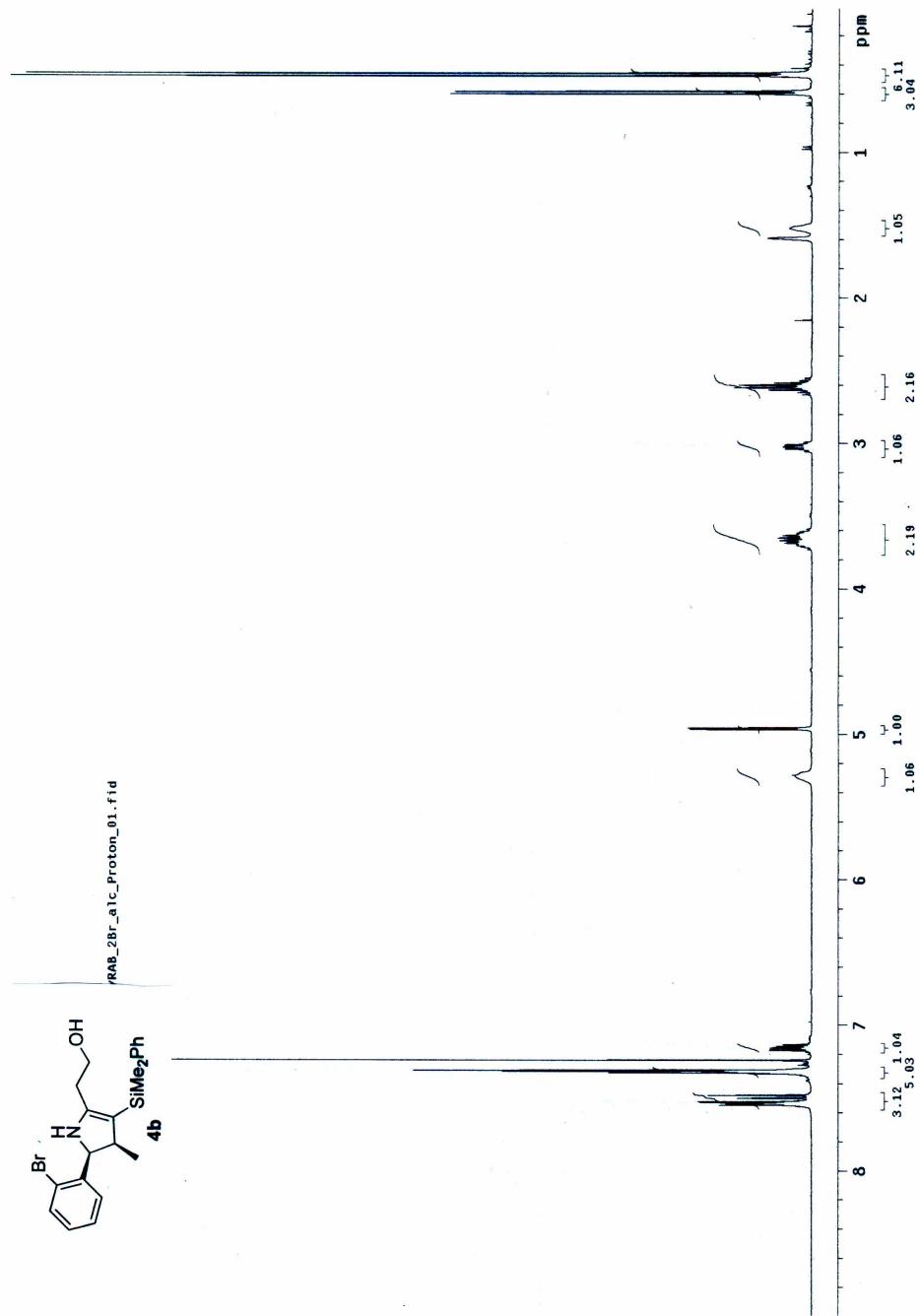


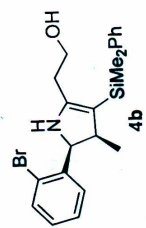
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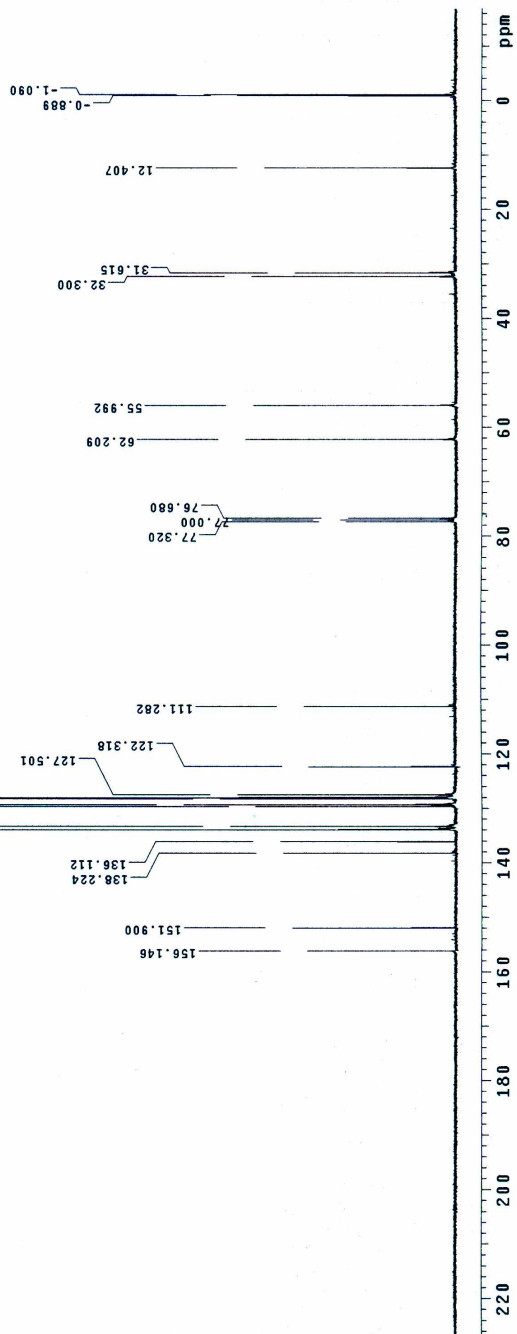


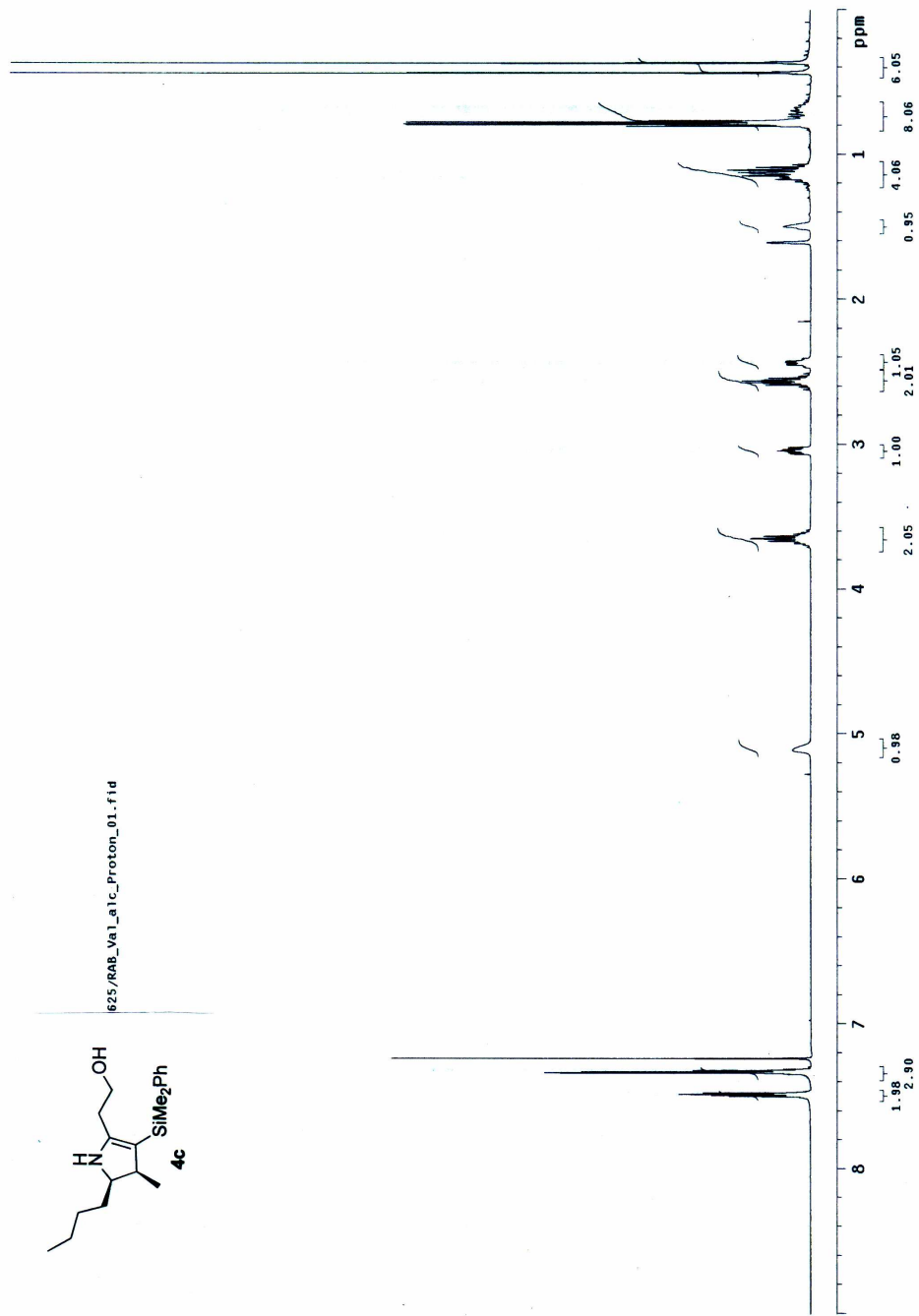
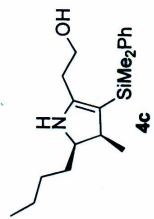
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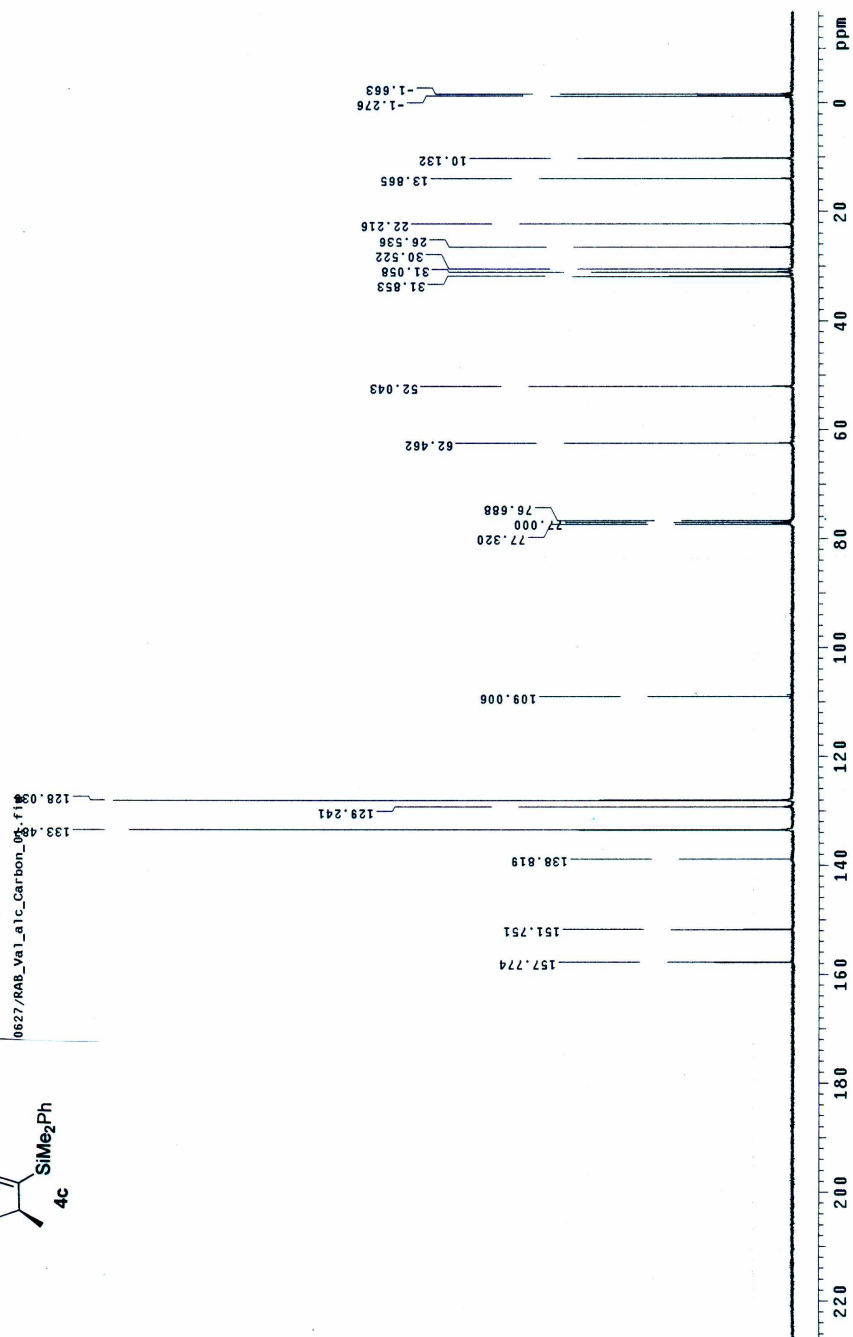
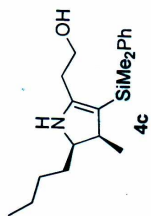


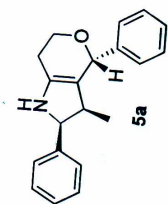


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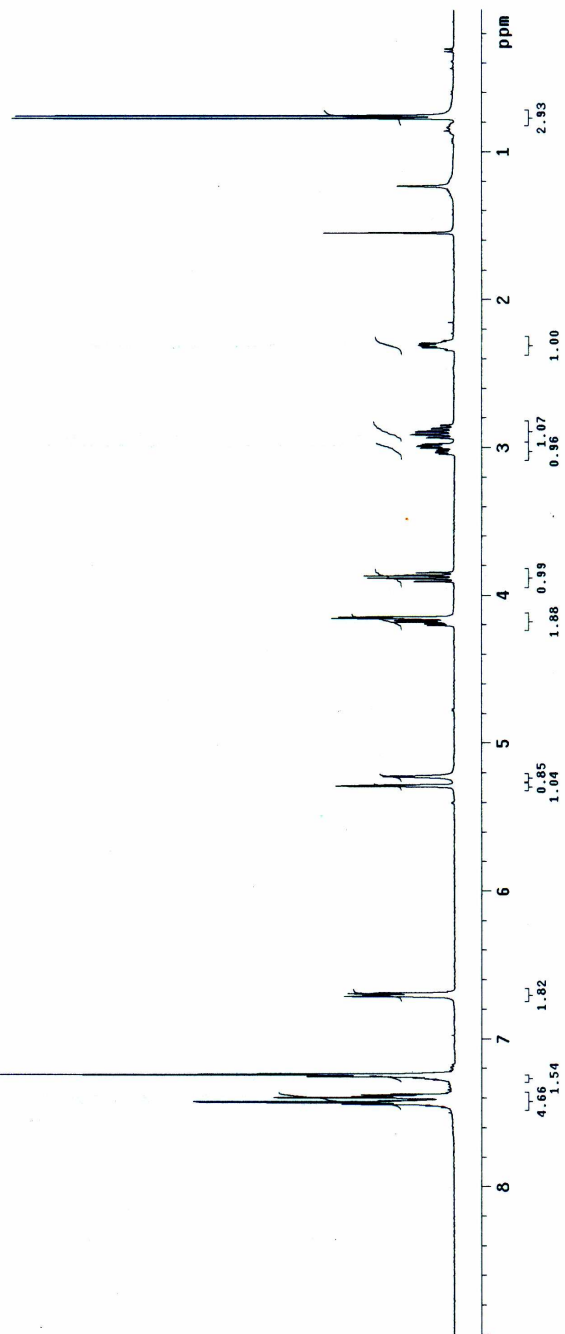


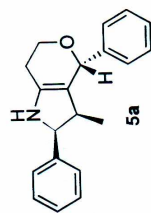




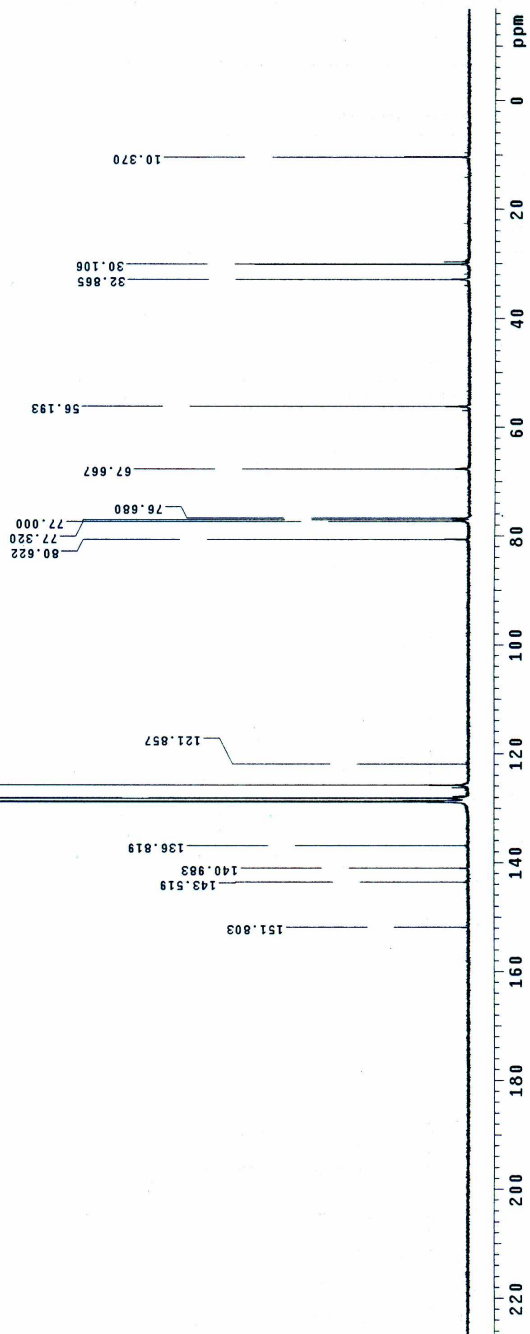


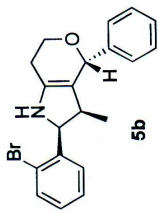
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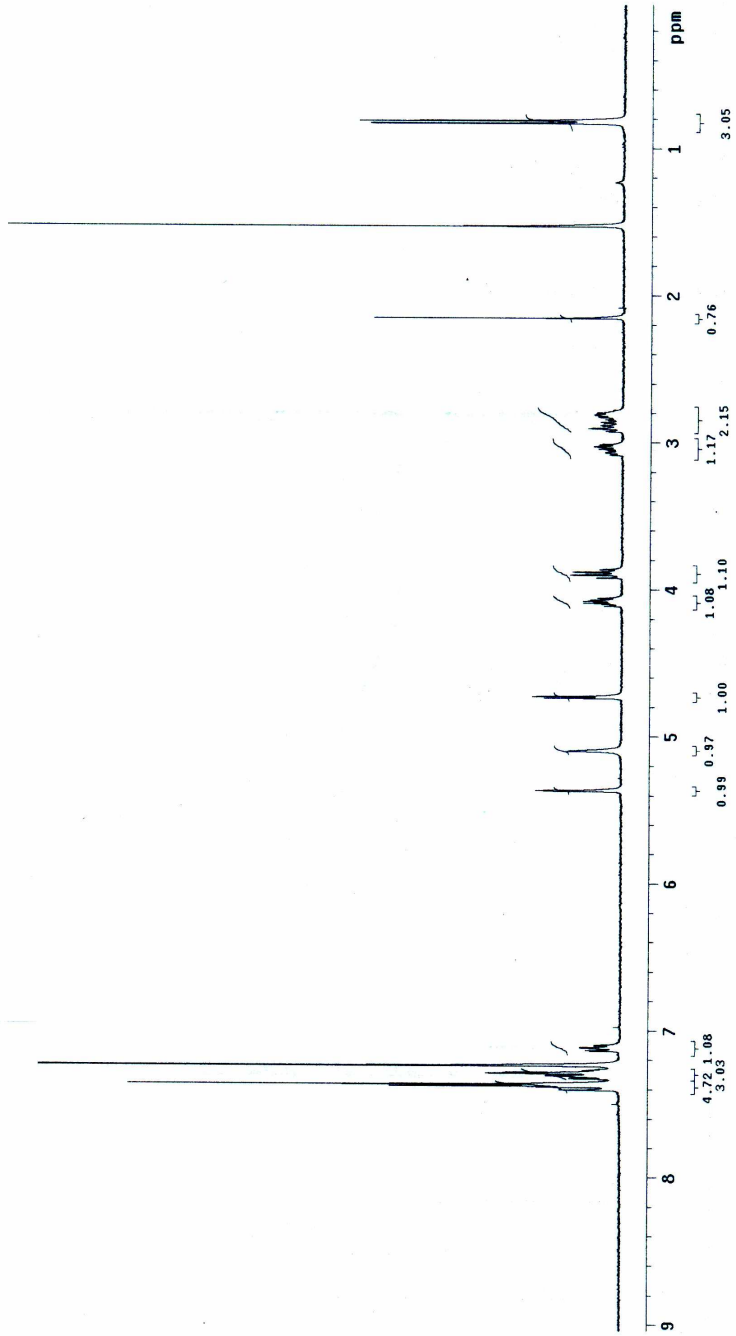


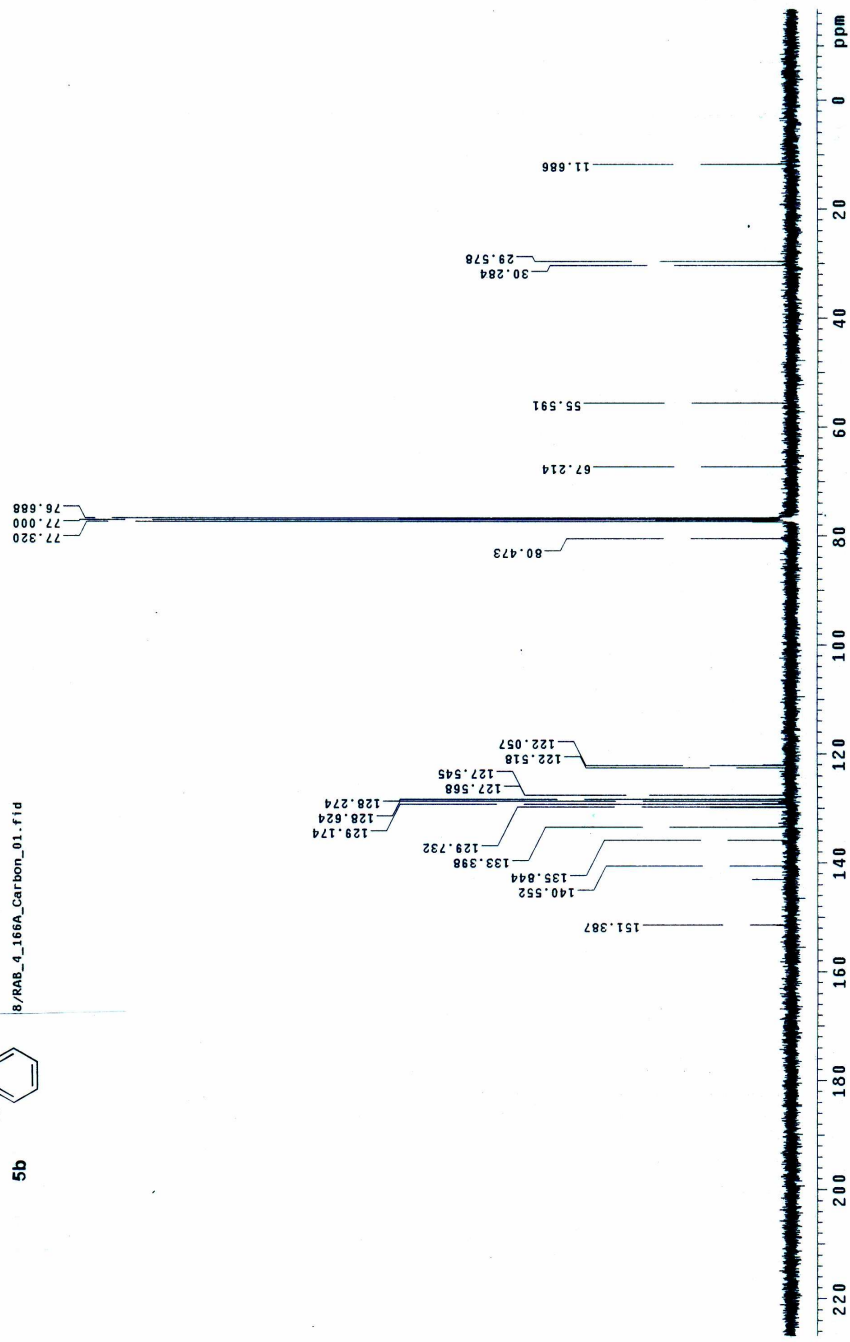
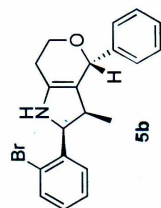
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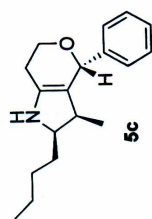




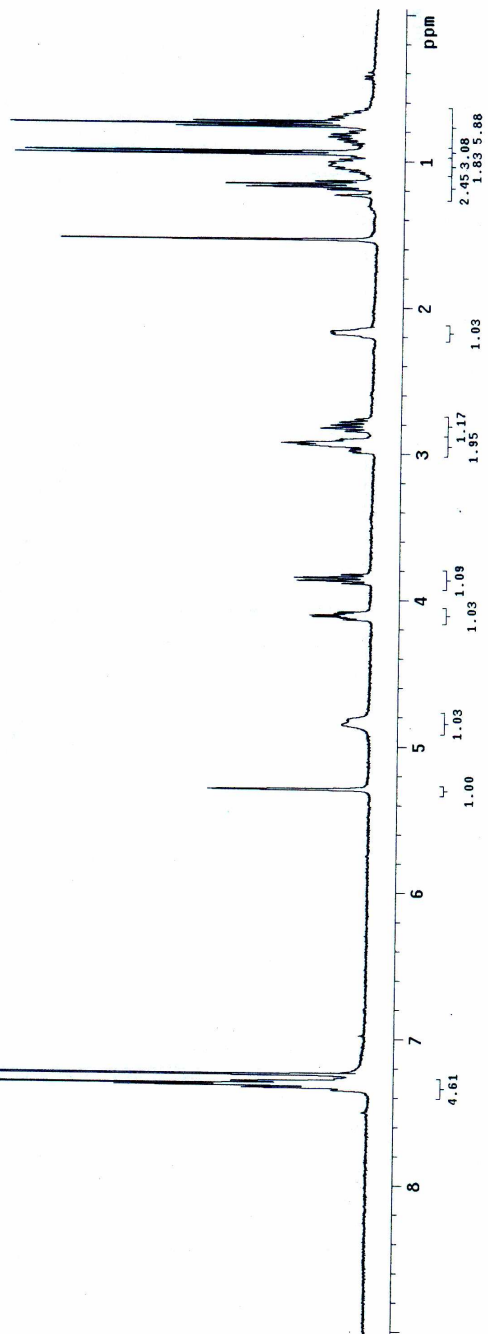
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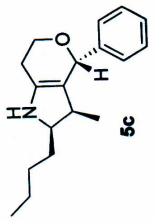
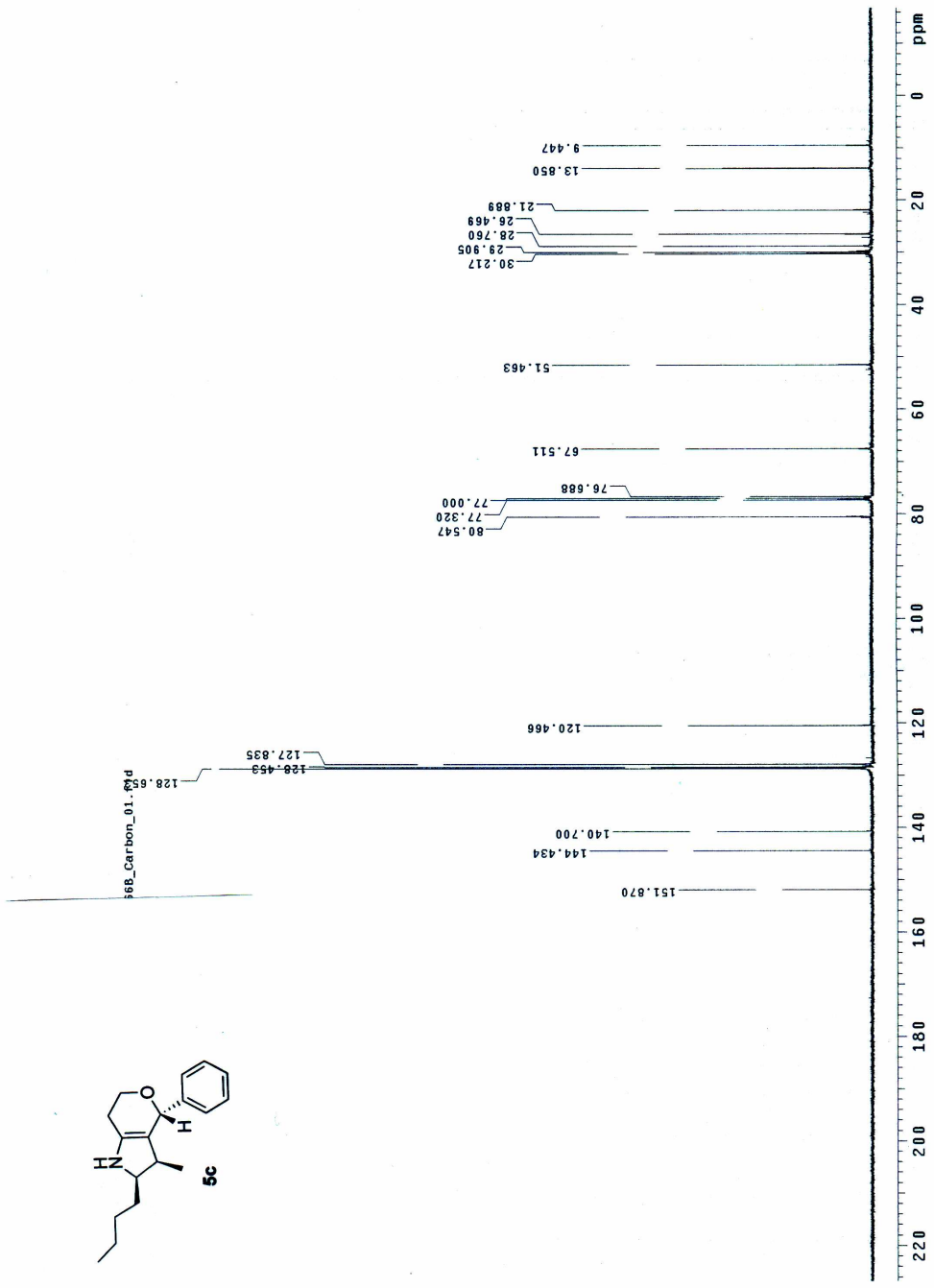


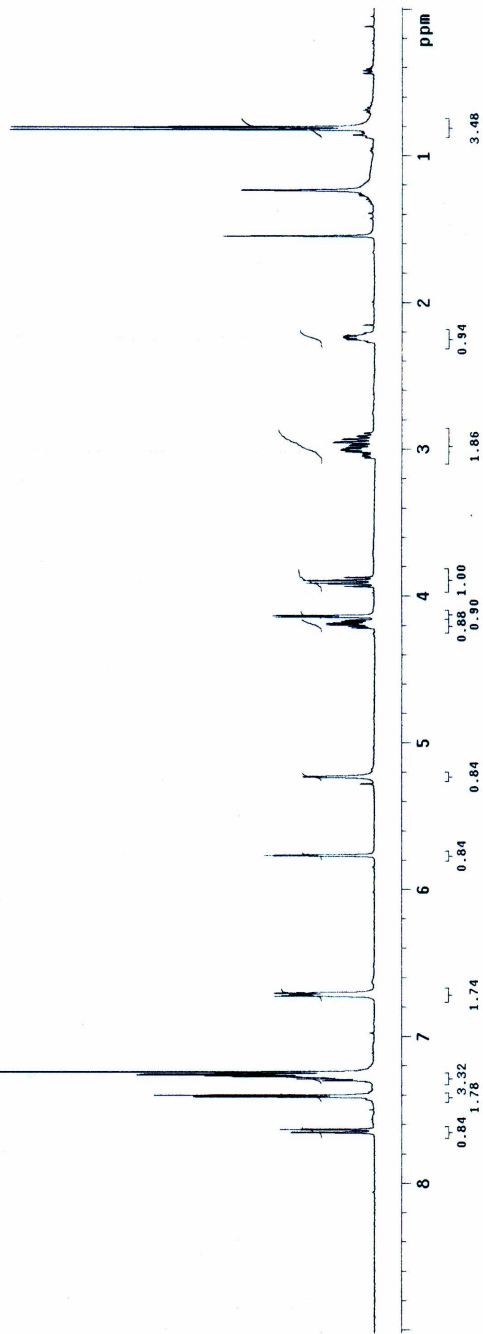
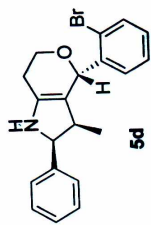


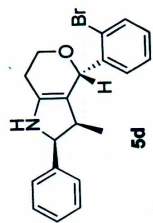


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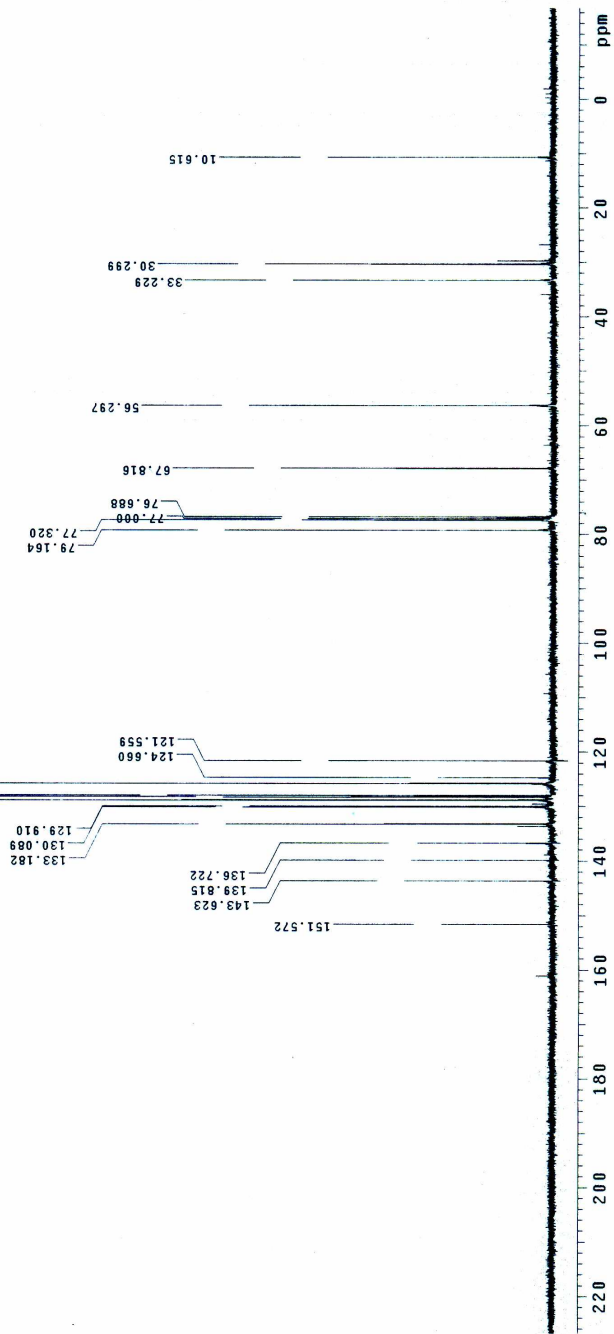


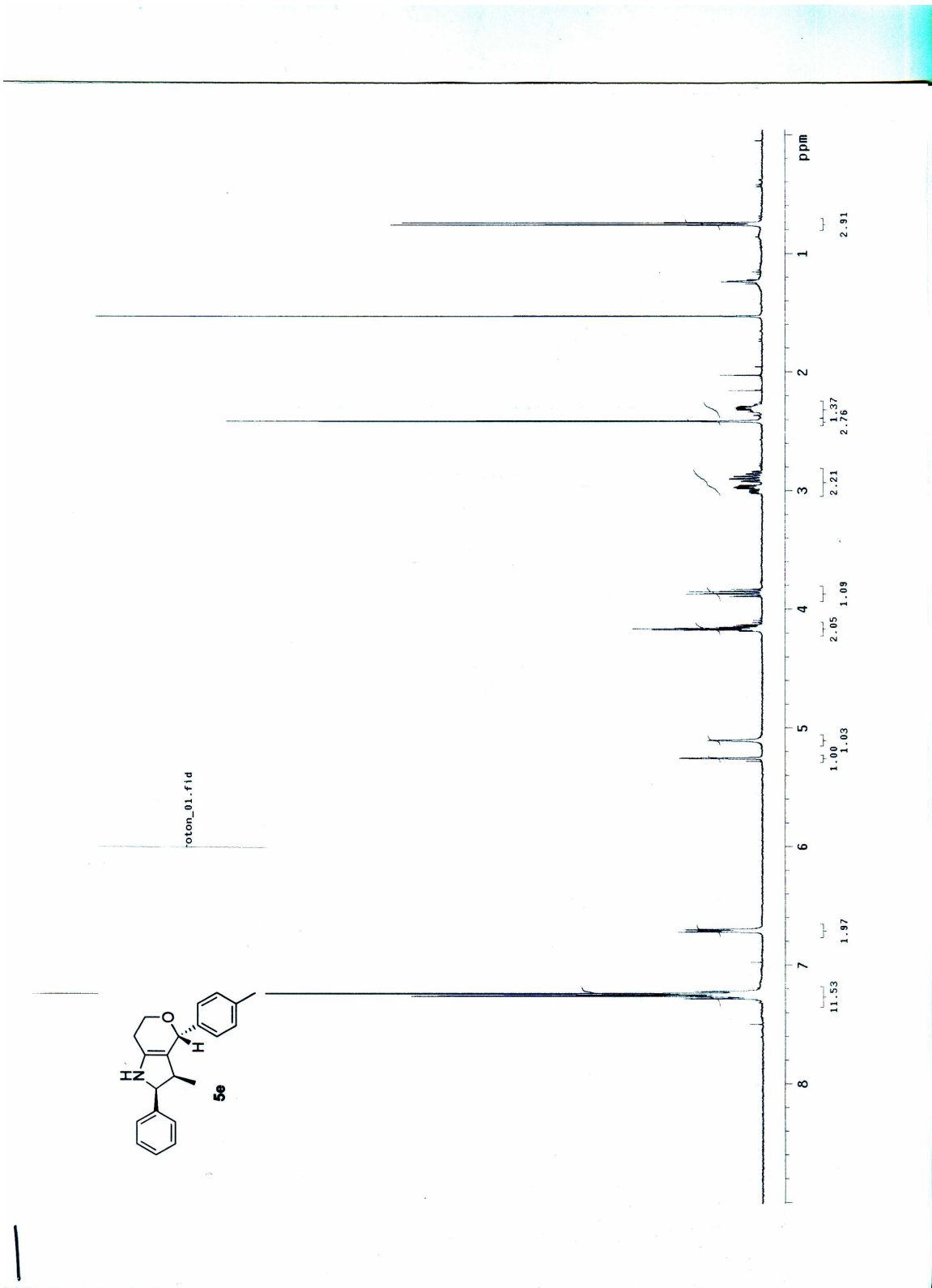


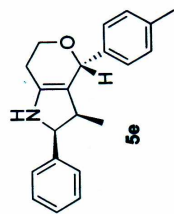




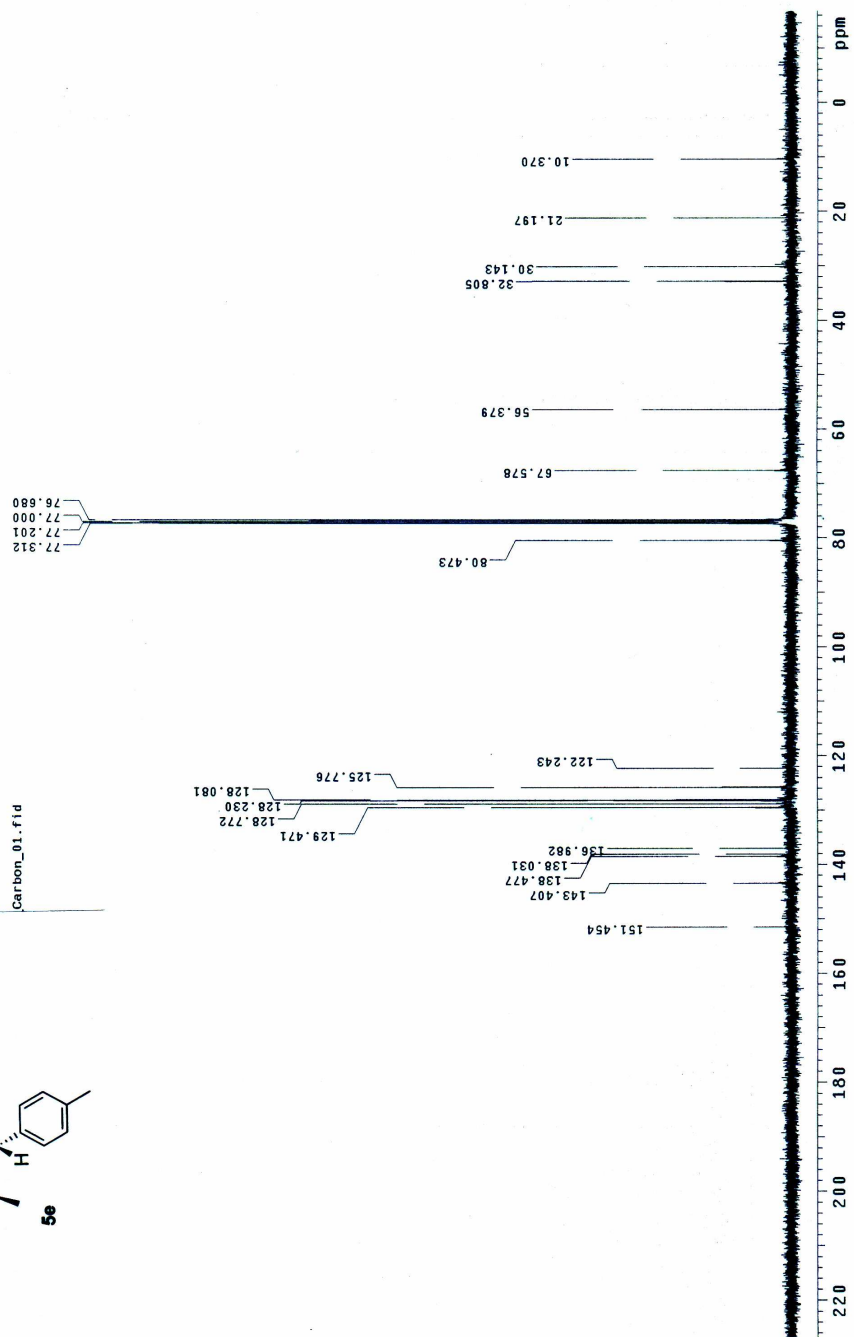
16A_Carbon_01

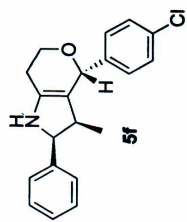




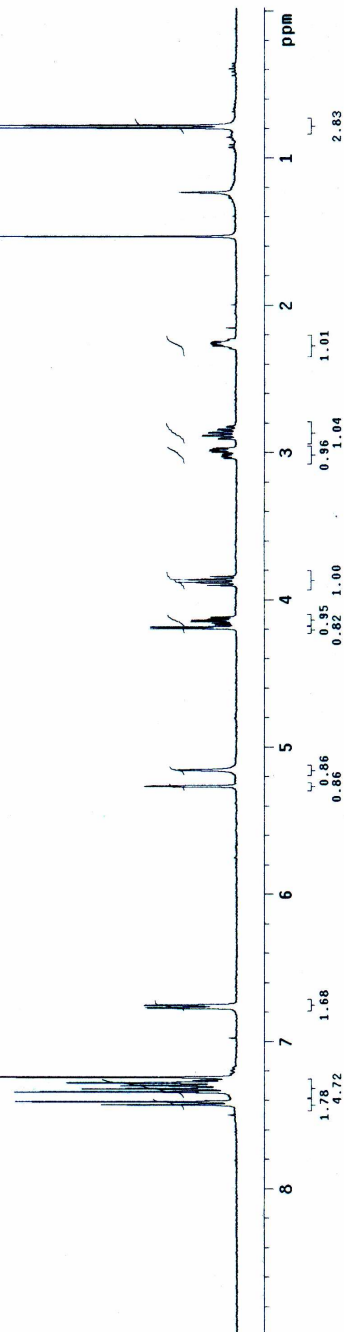


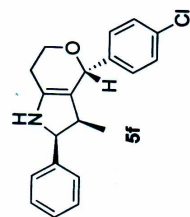
Carbon_01.f1d



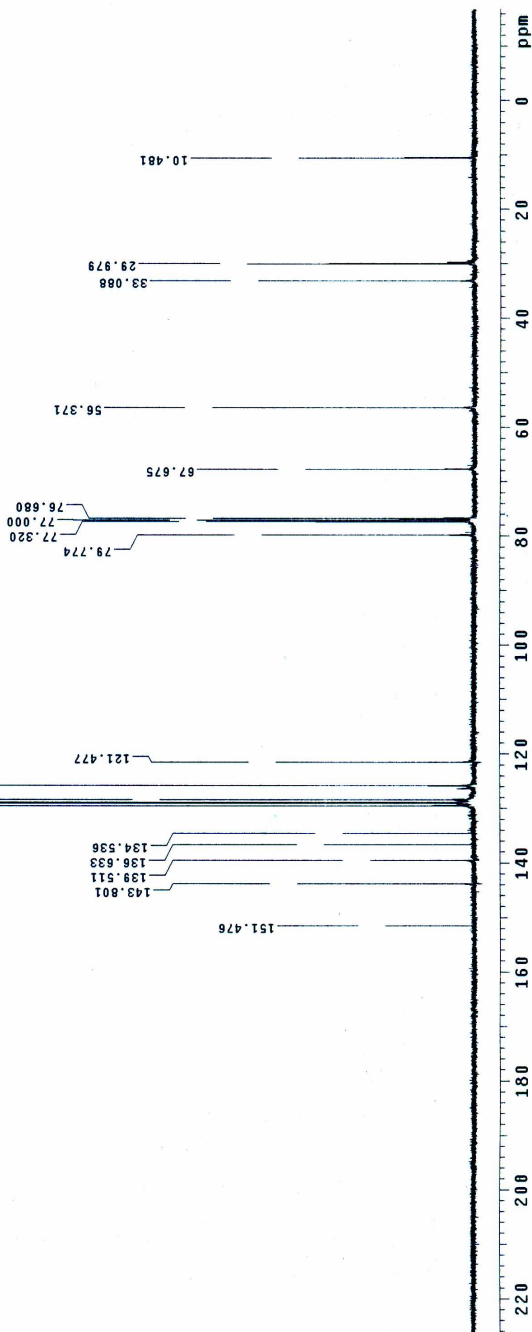


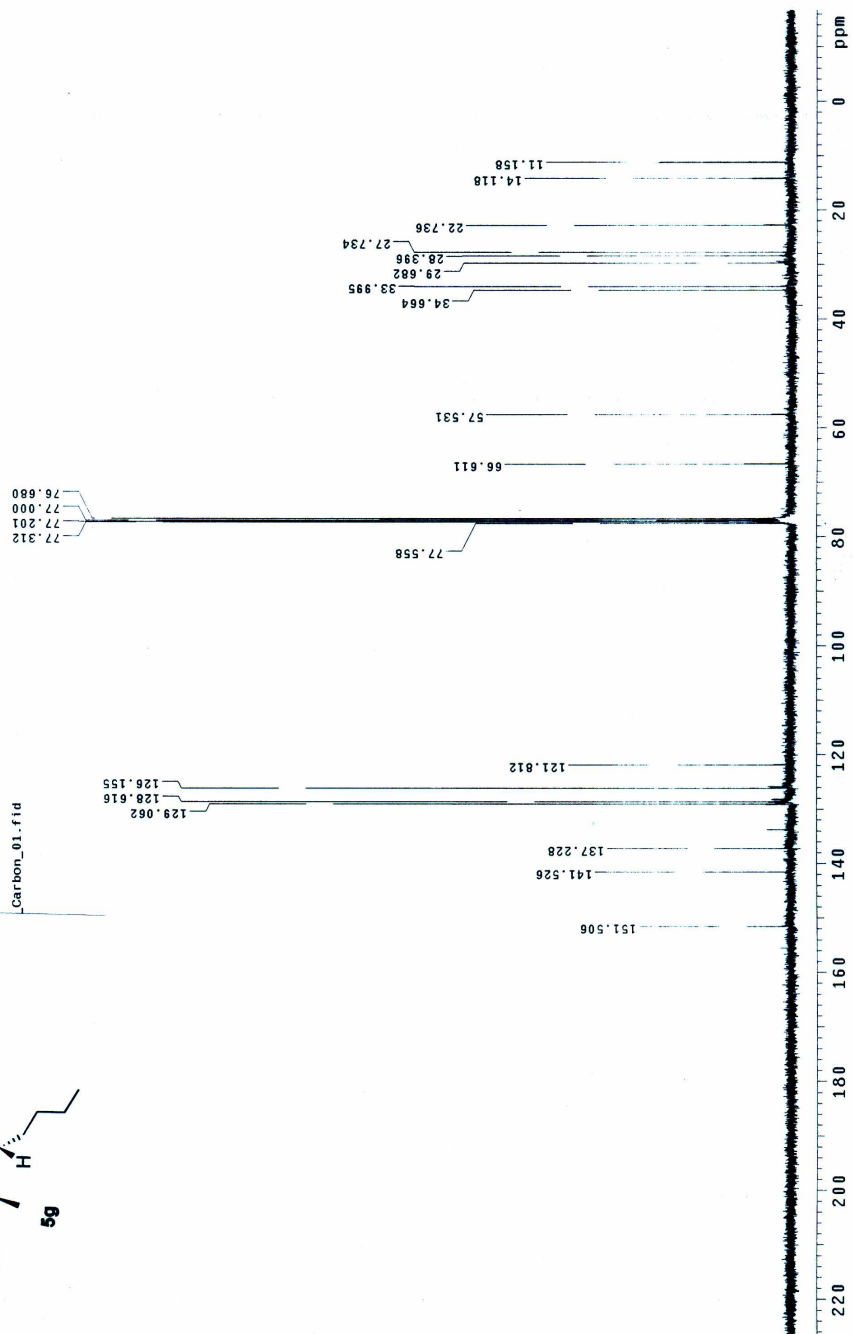
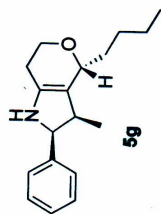
kon_01.f1d

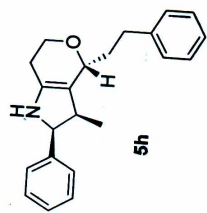




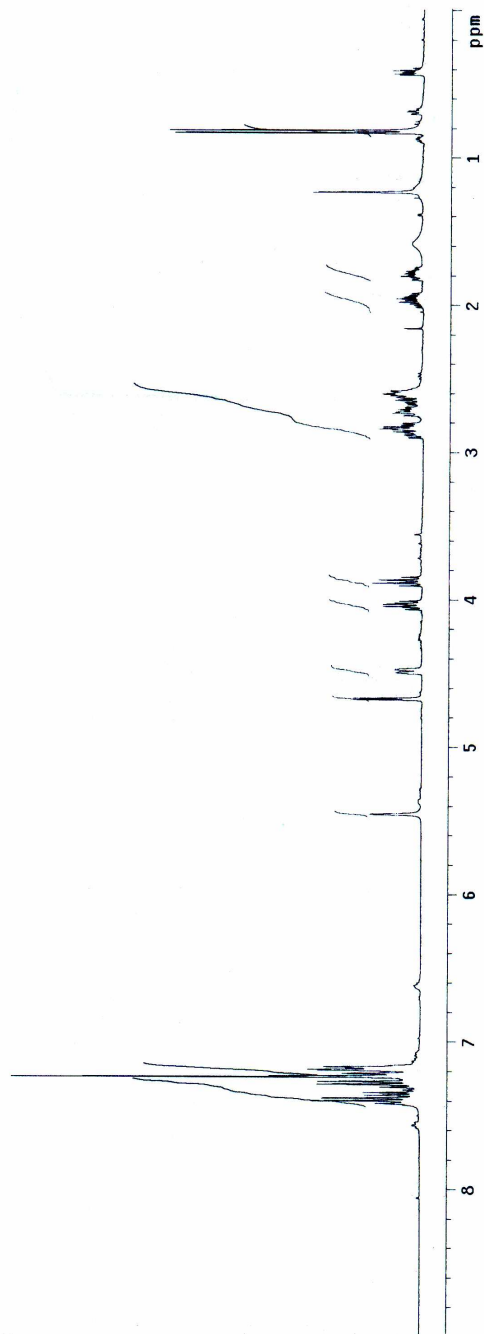
carbon_93313

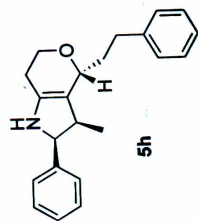




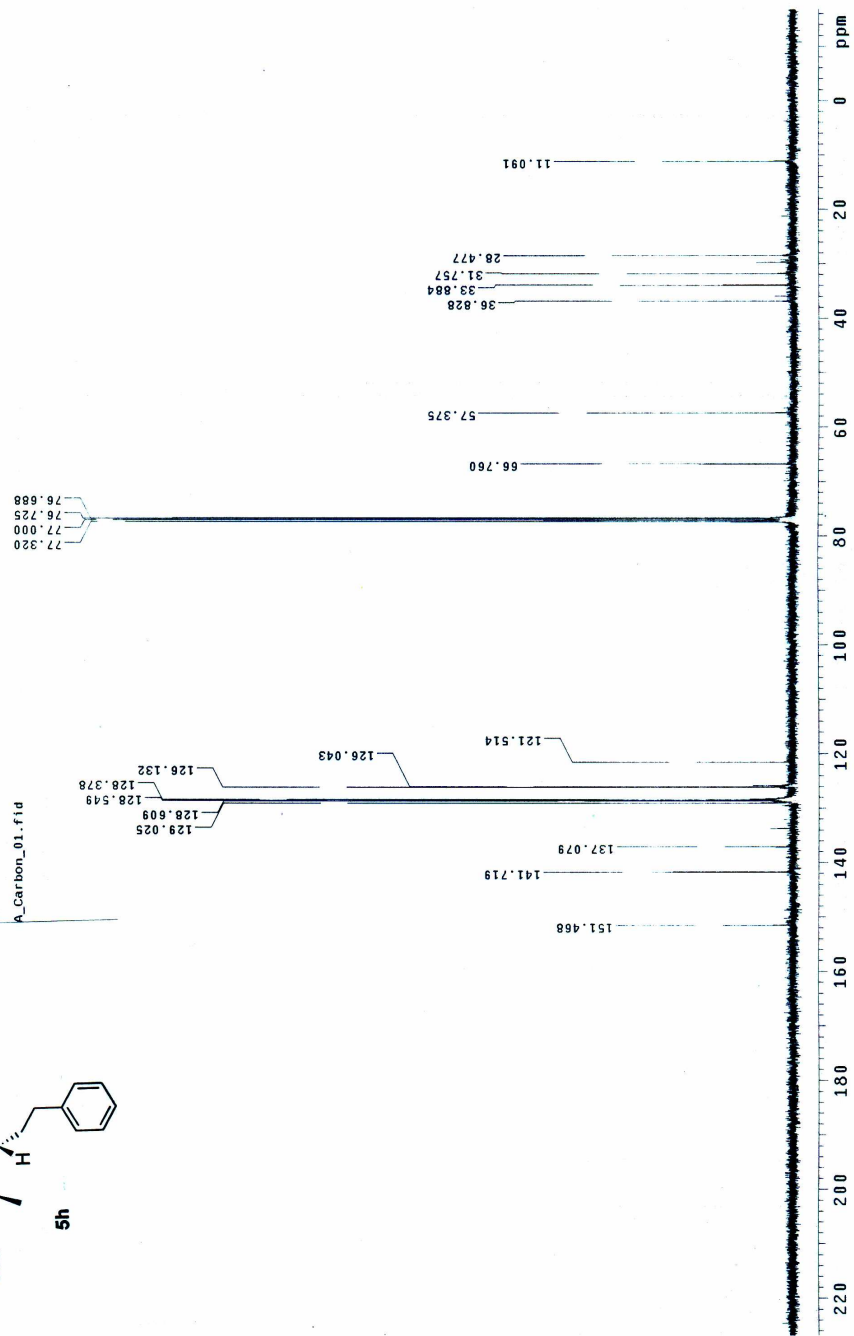


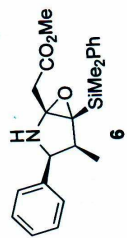
rotor_01.fid



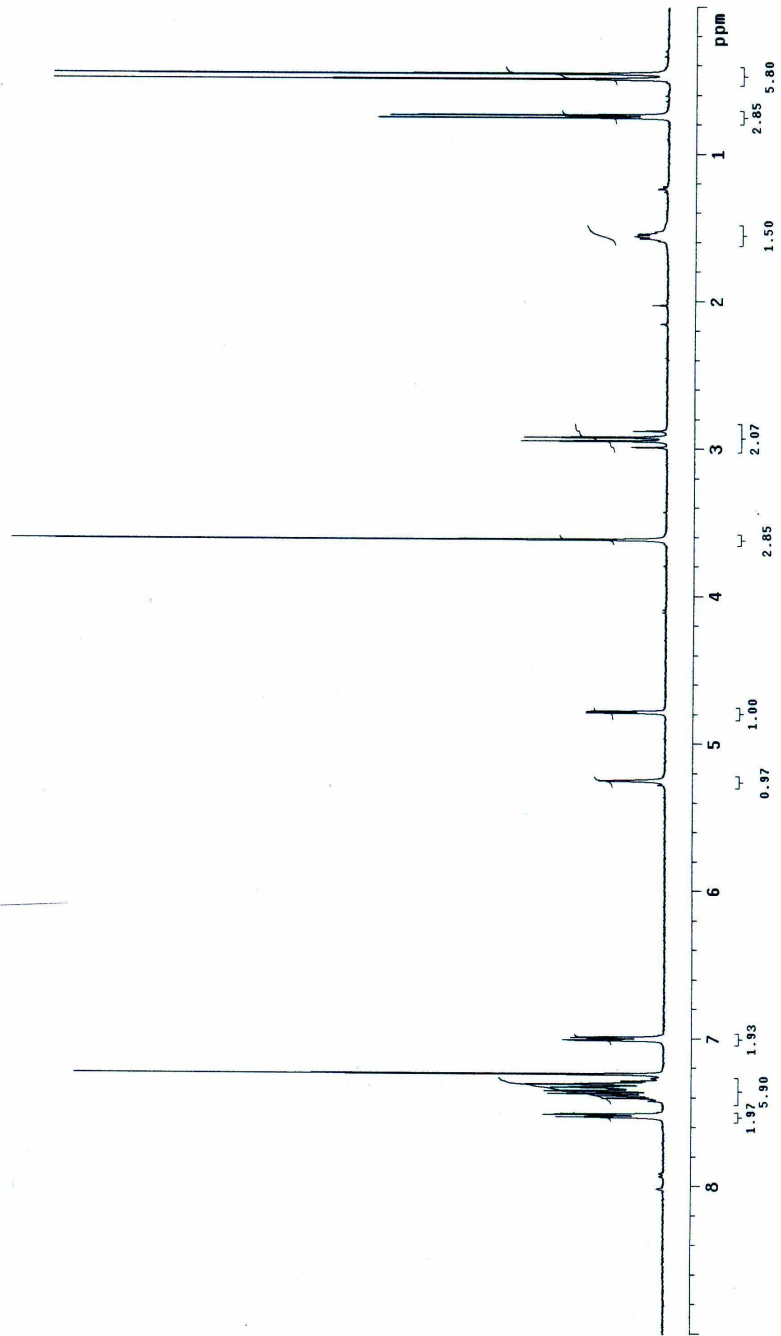


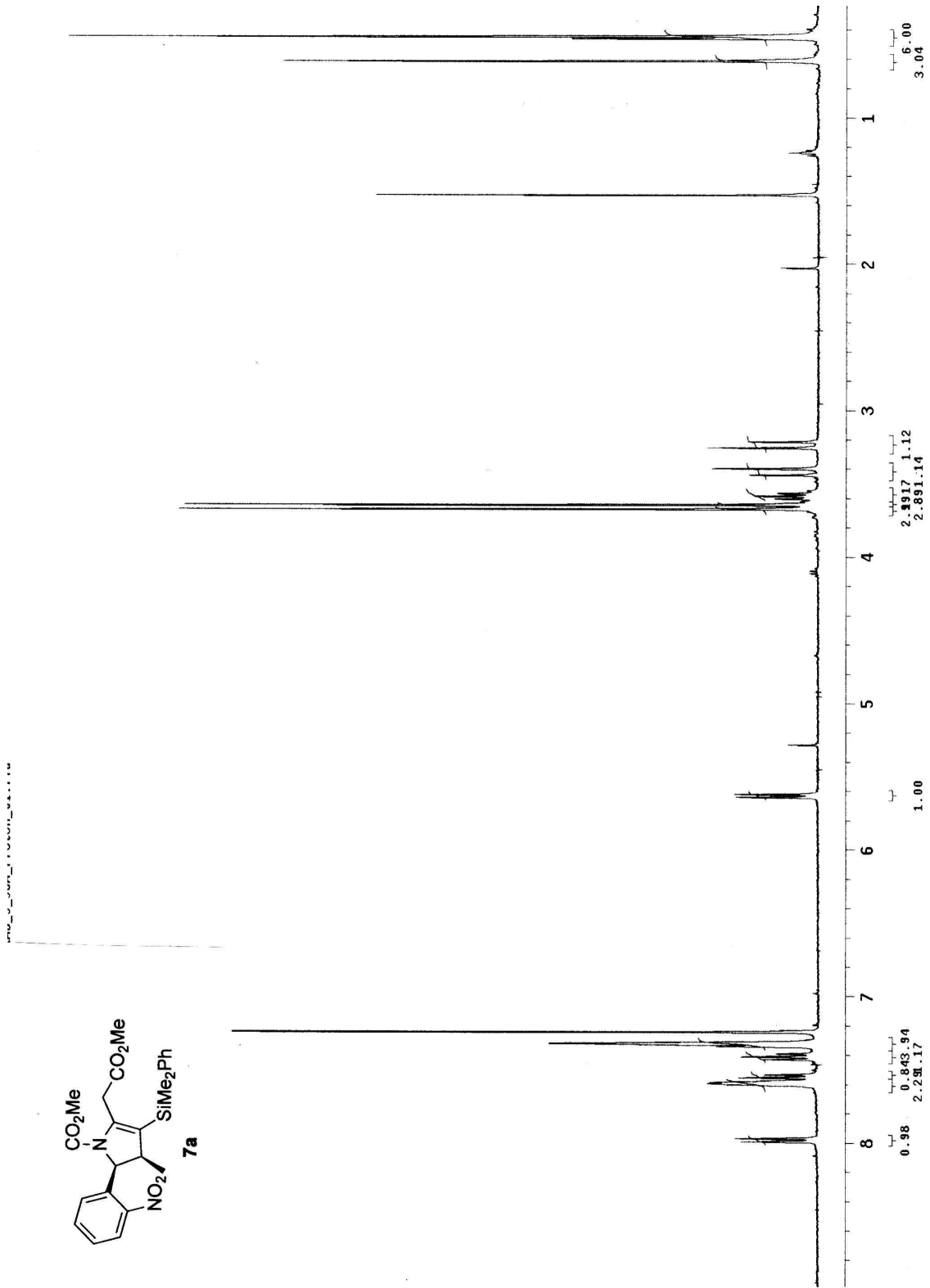
A_Carbon_01.fid

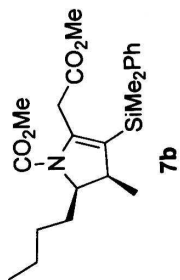
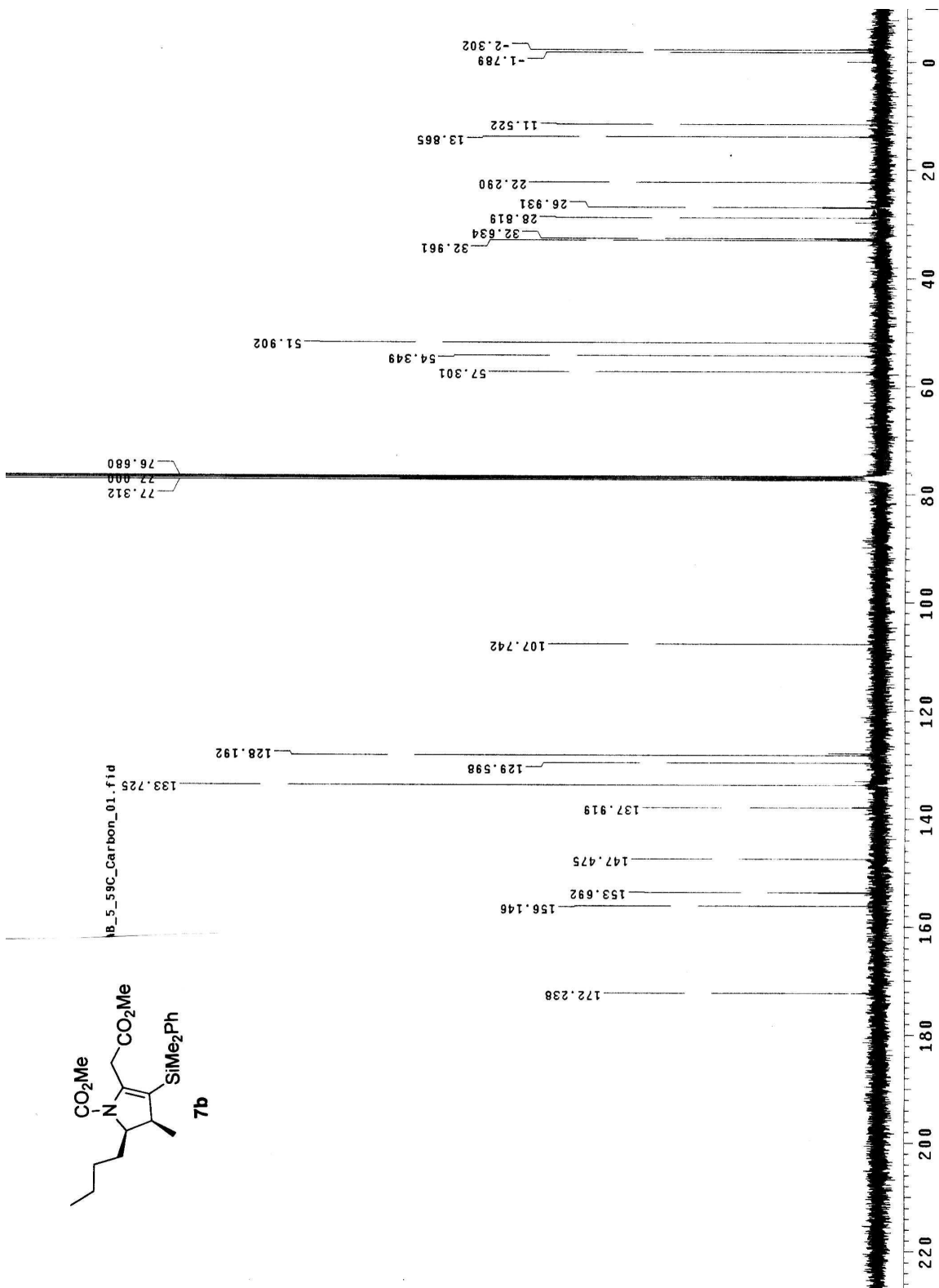


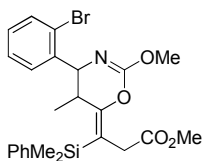


k1de_proton_01.fid







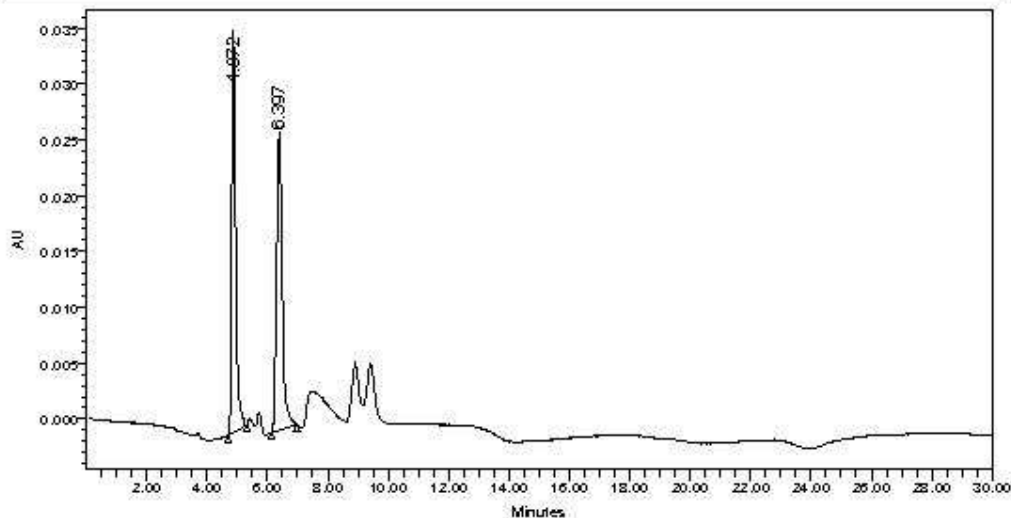


Waters

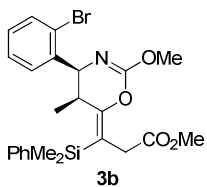
Project Name: Ryan
 Reported by User: Panek_Labs

Breeze

SAMPLE INFORMATION			
Sample Name:	Rac2Br	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/3/2008 10:47:25 AM
Vial:	62	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 11:43:55 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	2Br230 Me



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	4.872	330173	49.34	36088	57.49
2	6.397	339042	50.66	26683	42.51

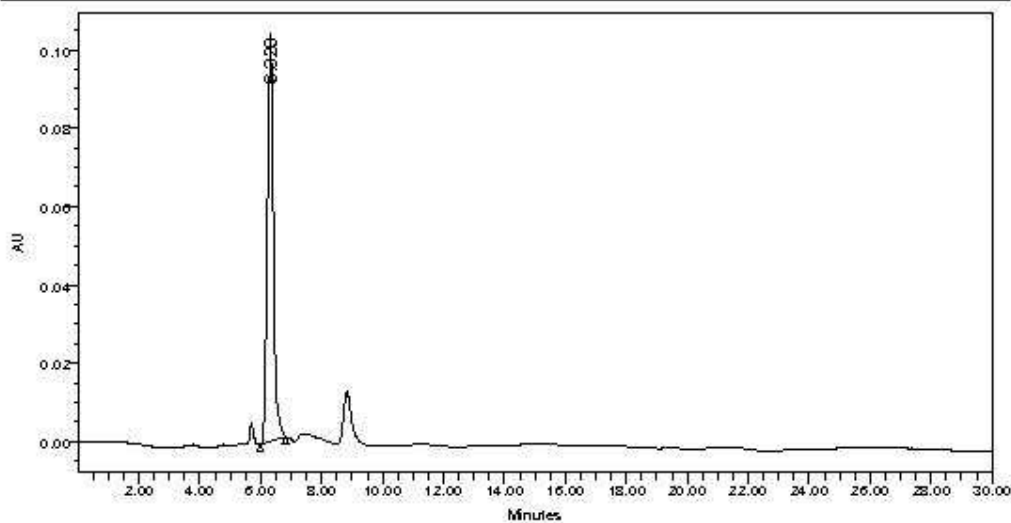


Waters

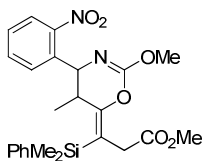
Project Name: Ryan
 Reported by User: Panek_Labs



SAMPLE INFORMATION			
Sample Name:	S2Br	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/3/2008 11:18:51 AM
Vial:	63	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 11:44:51 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCel OD	Sample Set Name:	2Br230Me



RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1 6.320	1406176	100.00	104127	100.00

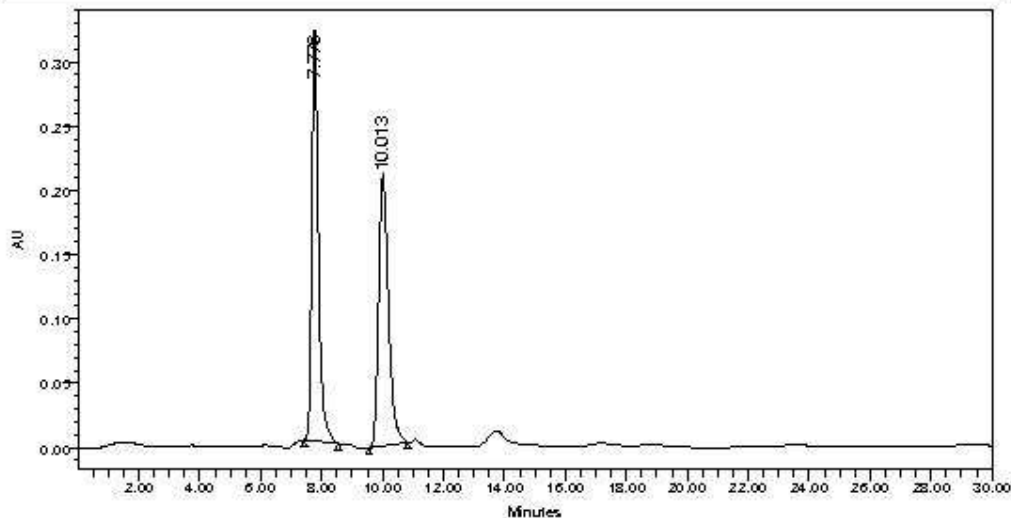


Waters

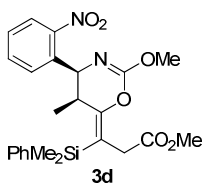
Project Name: Ryan
 Reported by User: Panek_Labs

Breeze

SAMPLE INFORMATION			
Sample Name:	Rac2NO2	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/1/2008 12:57:00 PM
Vial:	64	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 12:52:54 PM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCel OD	Sample Set Name:	2NO223OMe



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	7.776	4811464	50.71	320178	60.24
2	10.013	4676430	49.29	211306	39.76

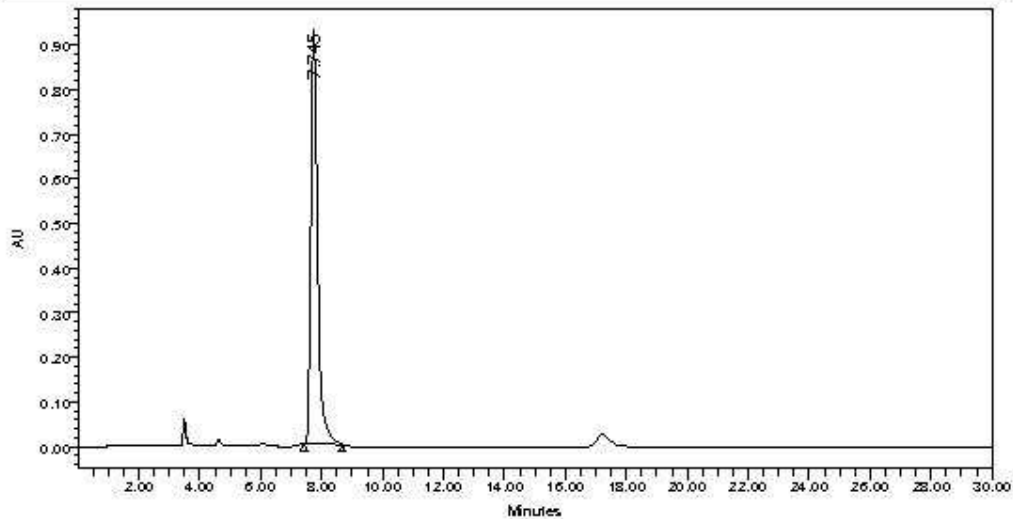


Waters

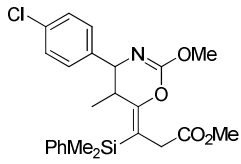
Project Name: Ryan
 Reported by User: Panek_Labs



SAMPLE INFORMATION			
Sample Name:	S2NO2	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/1/2008 1:28:27 PM
Vial:	65	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 12:53:04 PM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc:	
Column Type:	ChiralCel OD	Sample Set Name:	2NO223OMe



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	7.745	14173069	100.00	930029	100.00

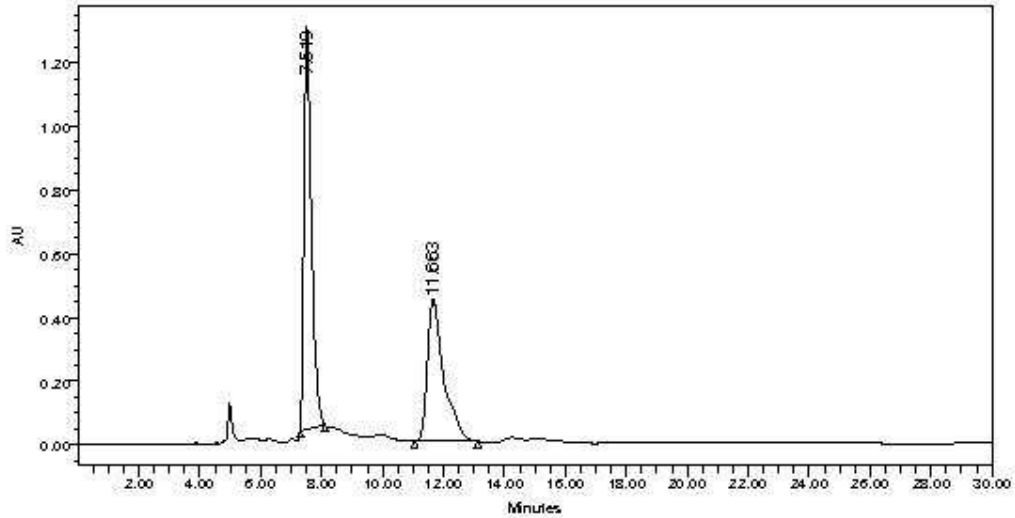


Waters

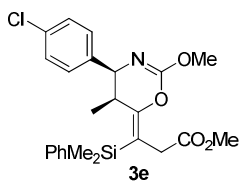
Project Name: Ryan
 Reported by User: Panek_Labs



SAMPLE INFORMATION			
Sample Name:	RAC4Cl	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/9/2008 7:07:11 PM
Vial:	62	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 7:42:27 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	4Cl



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	7.519	20942369	56.11	1263463	74.09
2	11.663	16381527	43.89	441842	25.91

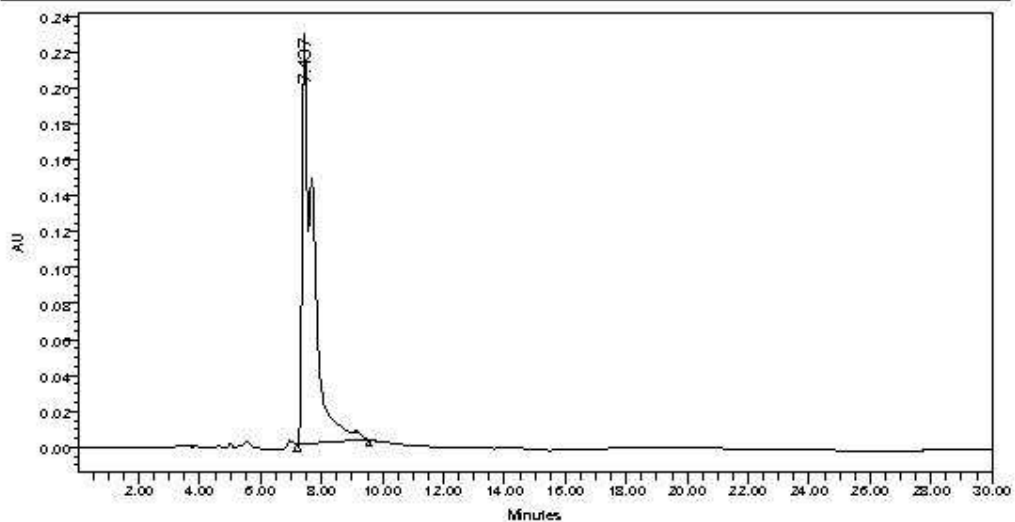


Waters

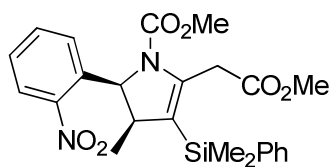
Project Name: Ryan
 Reported by User: Panek_Labs

Breeze

SAMPLE INFORMATION			
Sample Name:	S4Cl	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	10/9/2008 7:38:37 PM
Vial:	63	Acq. Method:	01% IPA
Injection #:	1	Date Processed:	10/10/2008 10:16:19 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 1
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	4Cl



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	7.437	5688478	100.00	228578	100.00



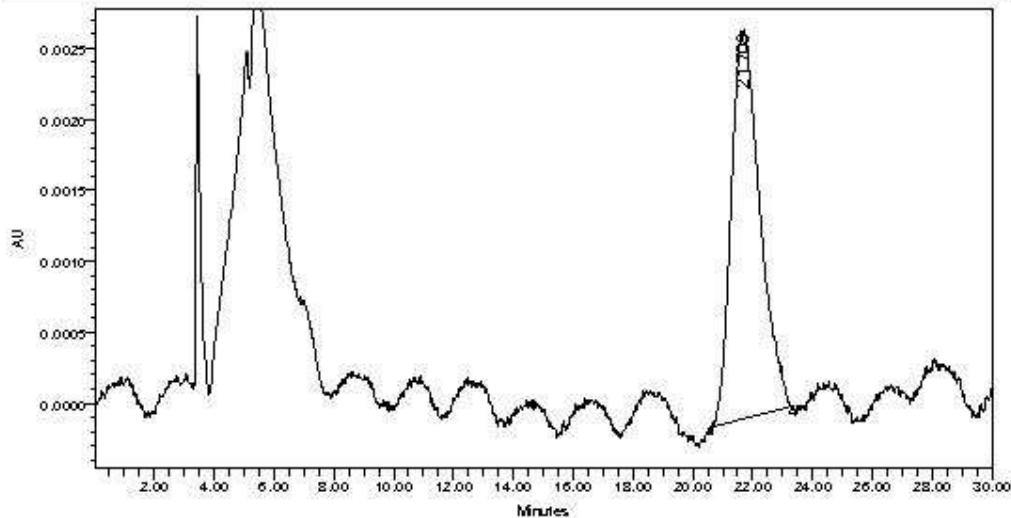
7a

Waters

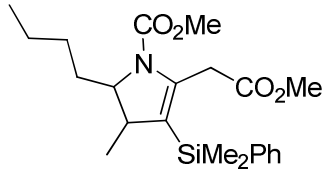
Project Name: Ryan
 Reported by User: Panek_Labs



SAMPLE INFORMATION			
Sample Name:	S2ND2OMe	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	11/4/2008 8:00:37 PM
Vial:	68	Acq. Method:	05% IPA
Injection #:	1	Date Processed:	11/8/2008 10:30:09 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel2
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	bothVal2ND2



	RT (min)	Area ($\mu\text{V} \cdot \text{sec}$)	% Area	Height (μV)	% Height
1	21.708	182208	100.00	2741	100.00

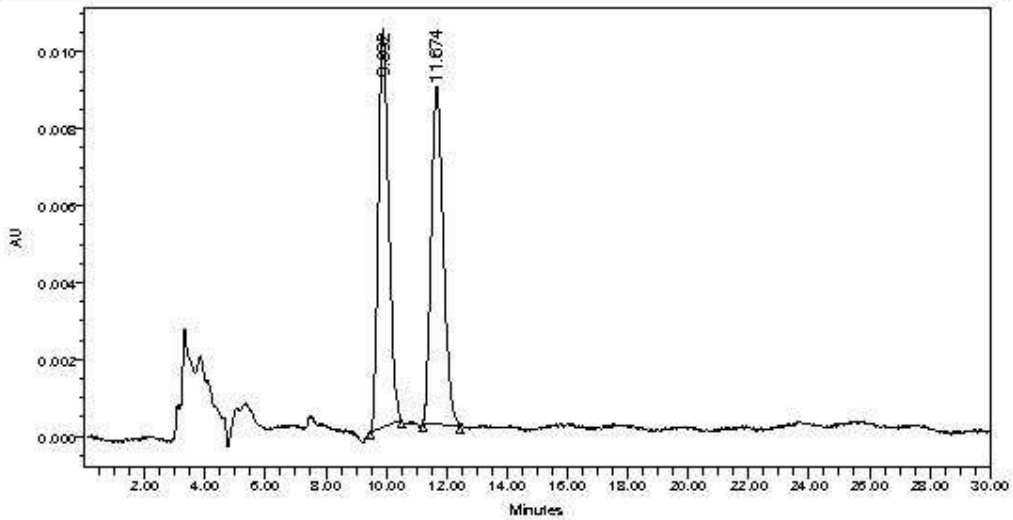


Waters

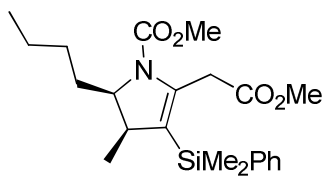
Project Name: Ryan
 Reported by User: Panek_Labs

Breeze

SAMPLE INFORMATION			
Sample Name:	RacVaDMe	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	11/5/2008 8:16:49 AM
Vial:	65	Acq. Method:	10% IPA
Injection #:	1	Date Processed:	11/5/2008 10:32:08 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel2
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	10%



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	9.892	240565	49.77	10383	54.14
2	11.874	242791	50.23	8798	45.86



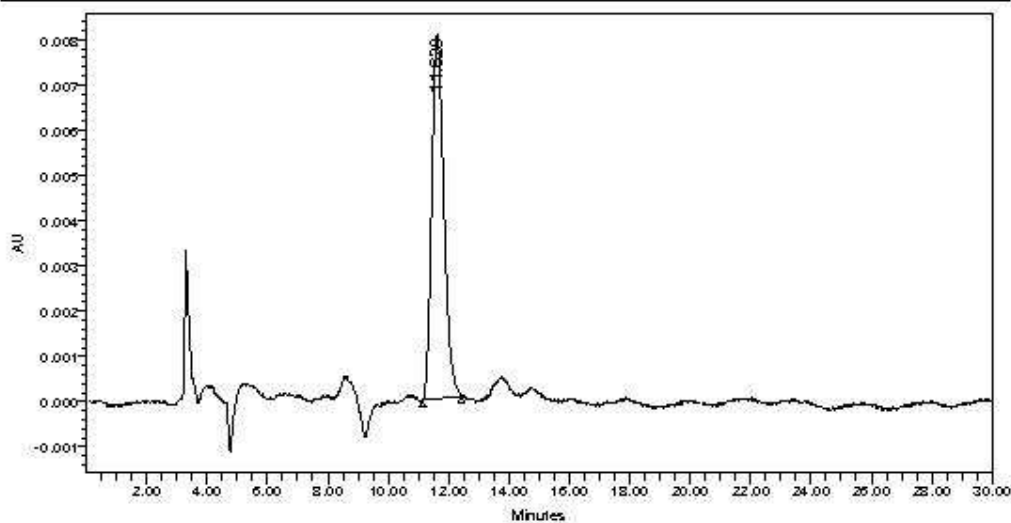
7b

Waters

Project Name: Ryan
 Reported by User: Panek_Labs



SAMPLE INFORMATION			
Sample Name:	SValOMe	Acquired By:	Panek_Labs
Sample Type:	Unknown	Date Acquired:	11/5/2008 8:48:13 AM
Vial:	66	Acq. Method:	10% IPA
Injection #:	1	Date Processed:	11/5/2008 10:32:19 AM
Injection Volume:	10.00 ul	Channel Name:	2487Channel 2
Run Time:	30.00 Minutes	Channel Desc.:	
Column Type:	ChiralCelOD	Sample Set Name:	10%



	RT (min)	Area (μV*sec)	% Area	Height (μV)	% Height
1	11.828	222234	100.00	8055	100.00