

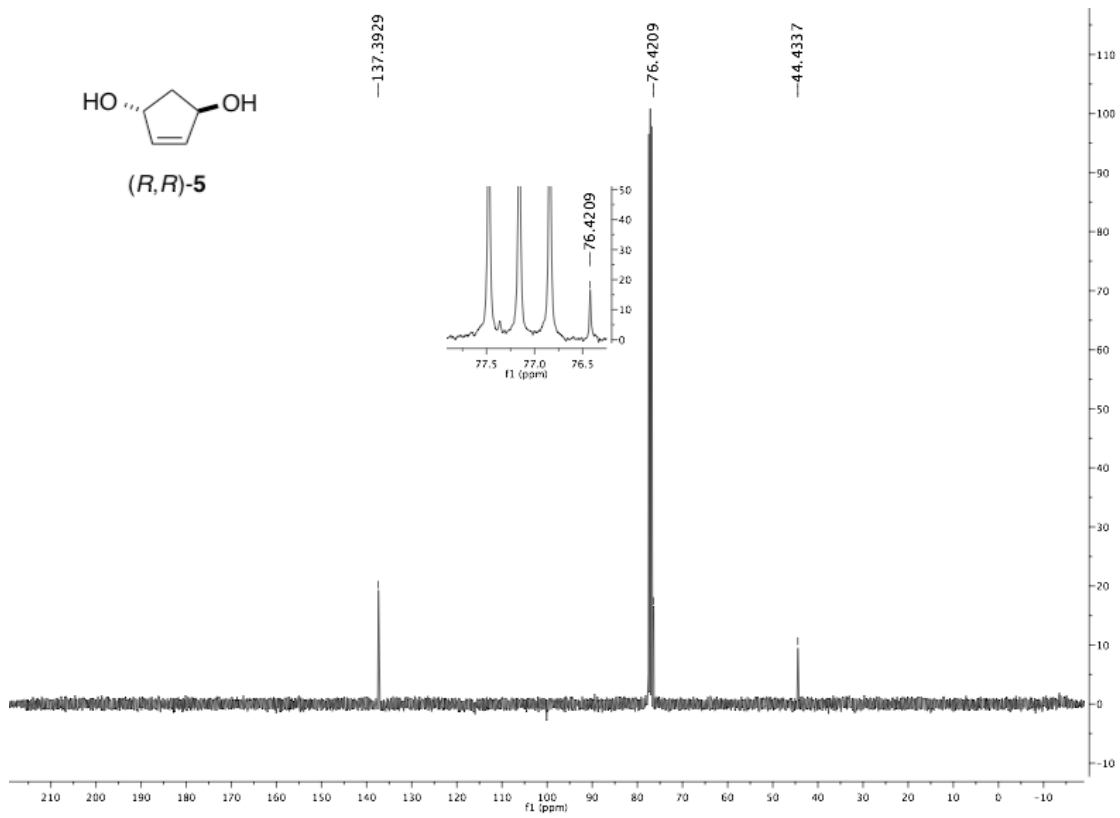
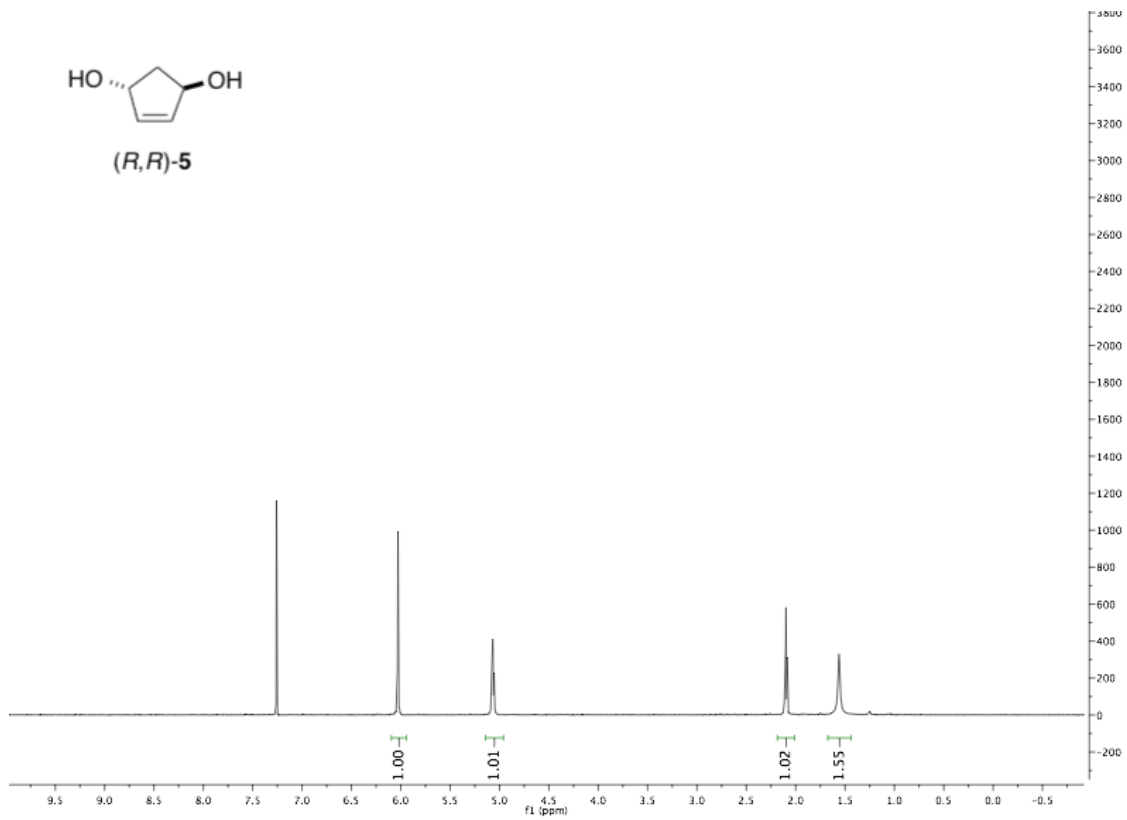
Stereodivergent Synthesis of Enantioenriched 4-Hydroxy-2-cyclopentenones

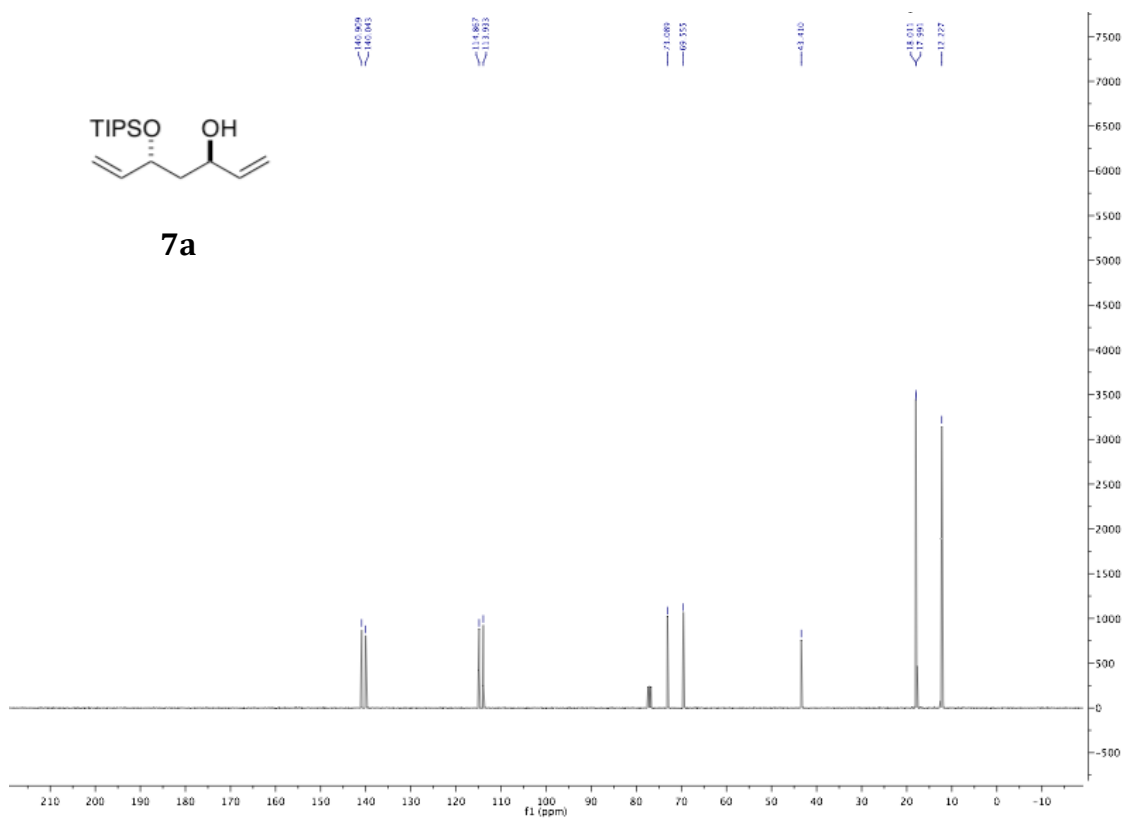
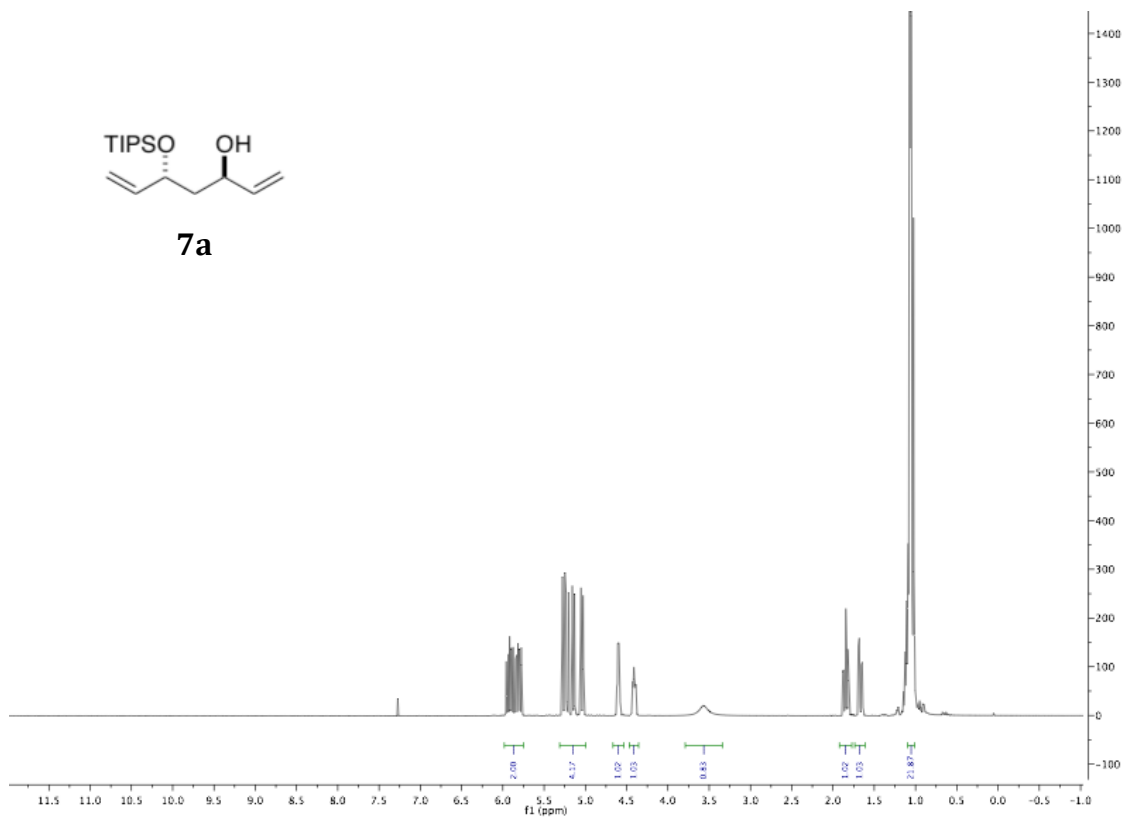
Gurpreet Singh, Angelica Meyer, and Jeffrey Aubé*

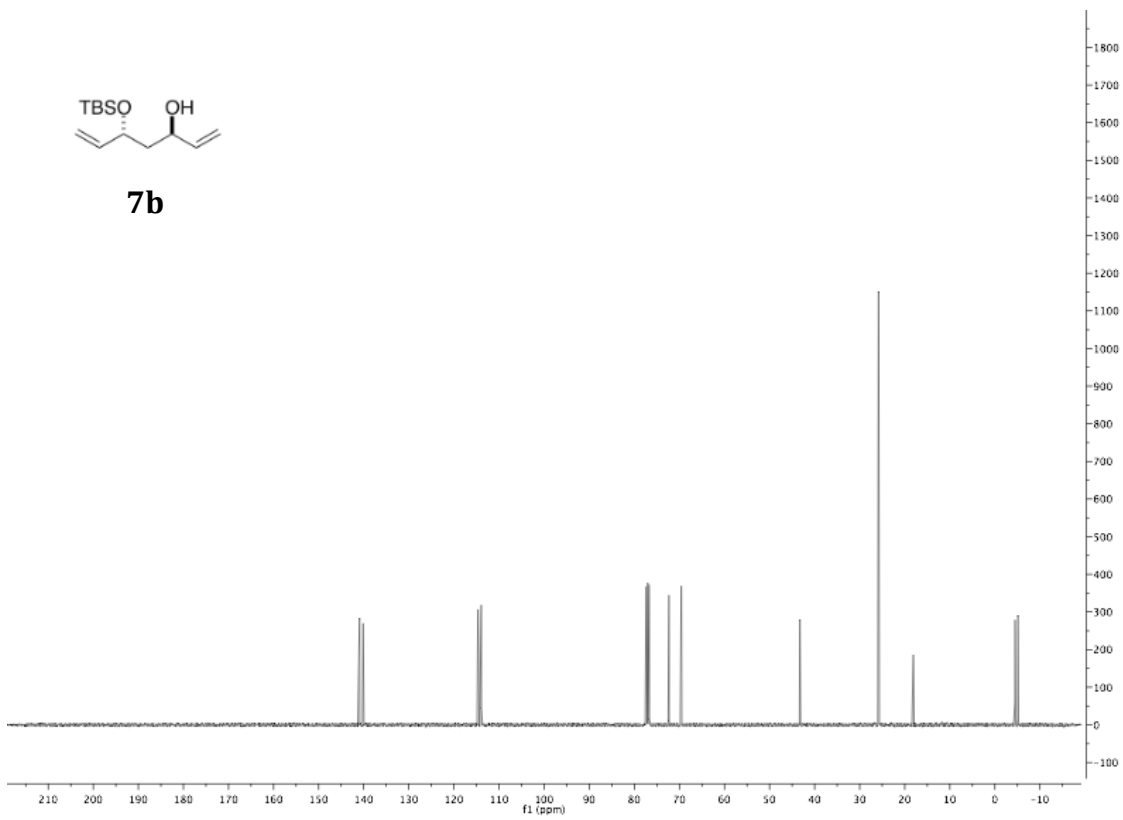
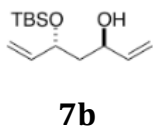
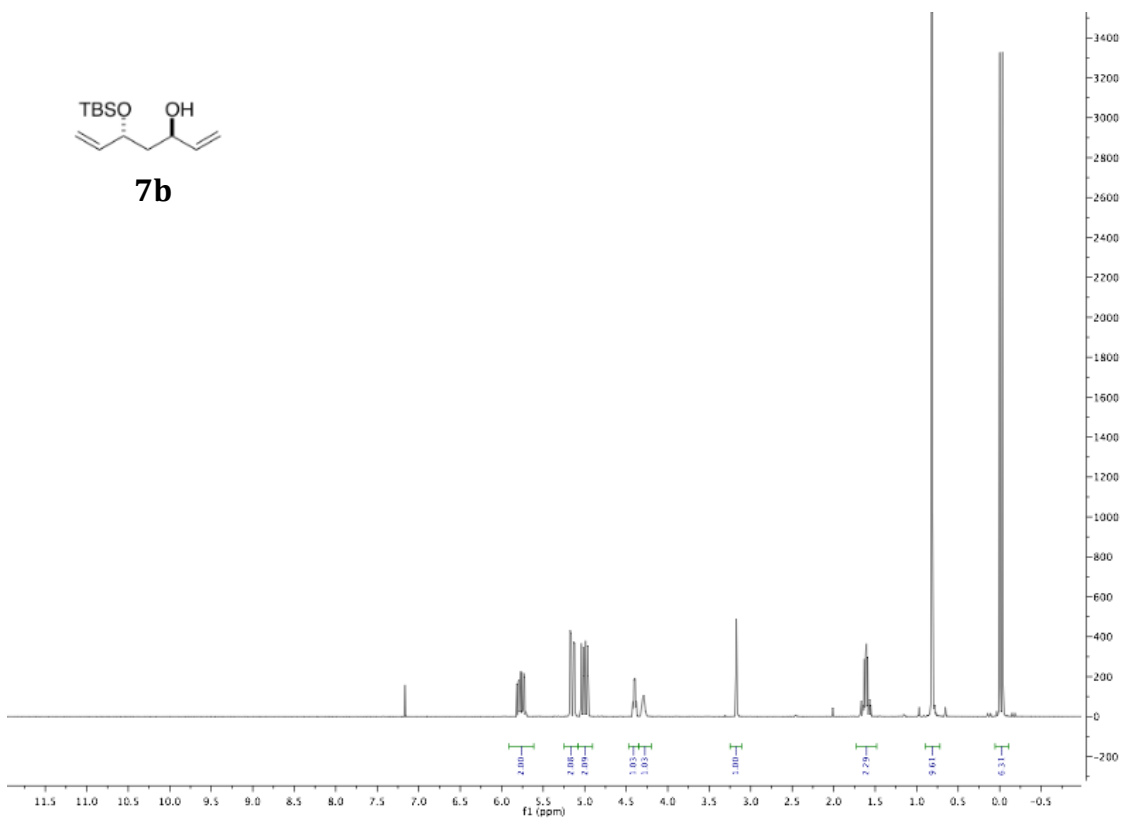
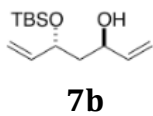
*Department of Medicinal Chemistry, 1251 Wescoe Hall Drive, Malott Hall, Room 4070,
University of Kansas, Lawrence, Kansas 66045-7582*

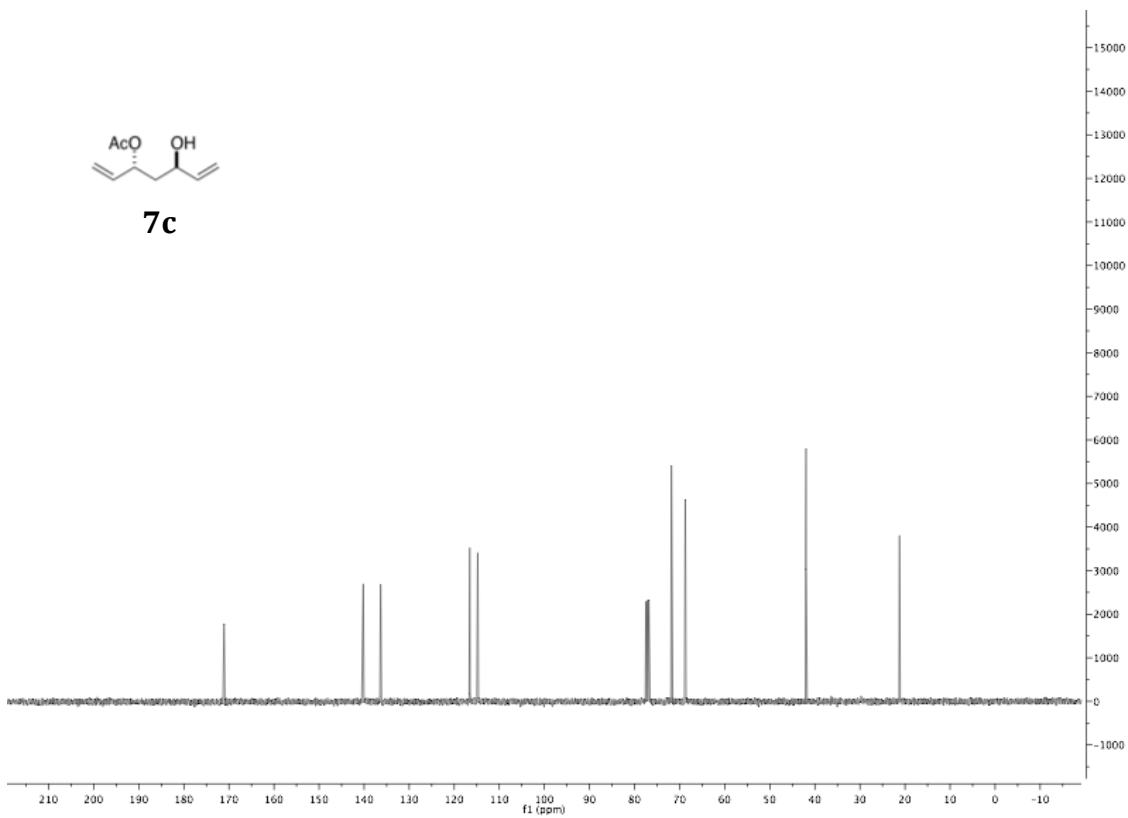
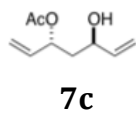
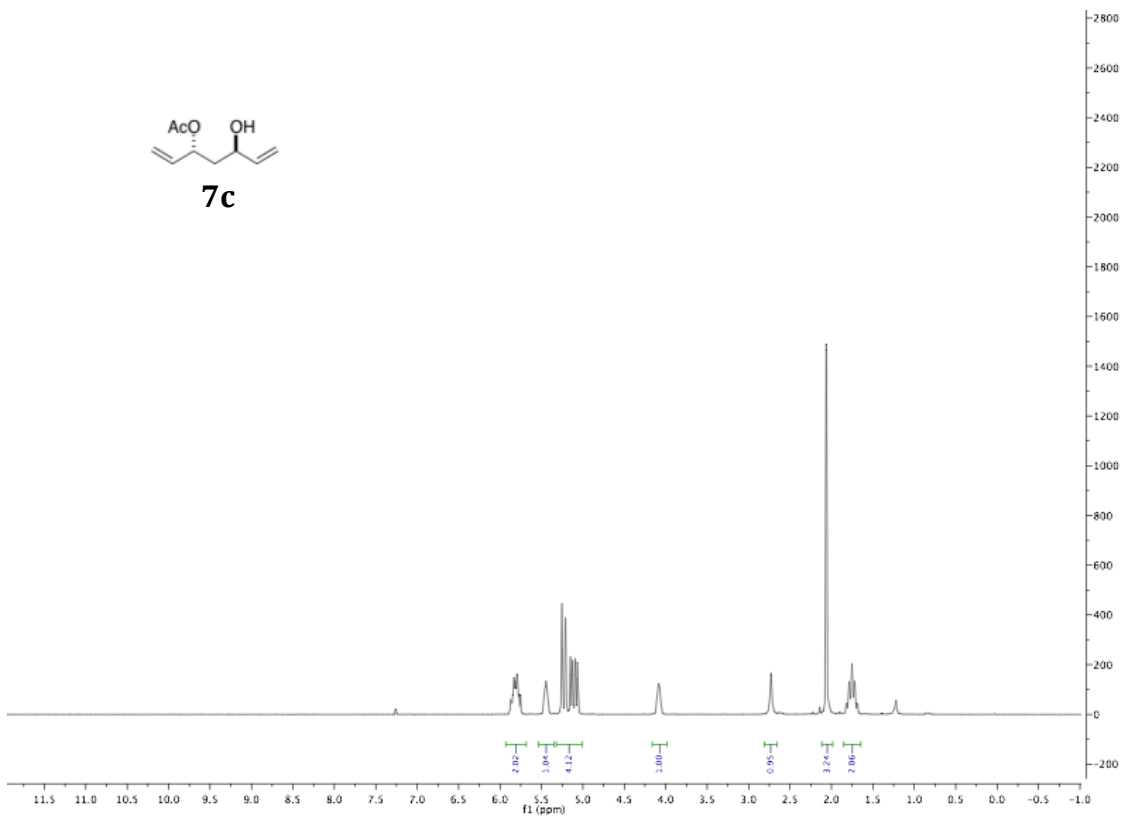
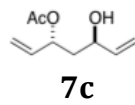
Supporting Information

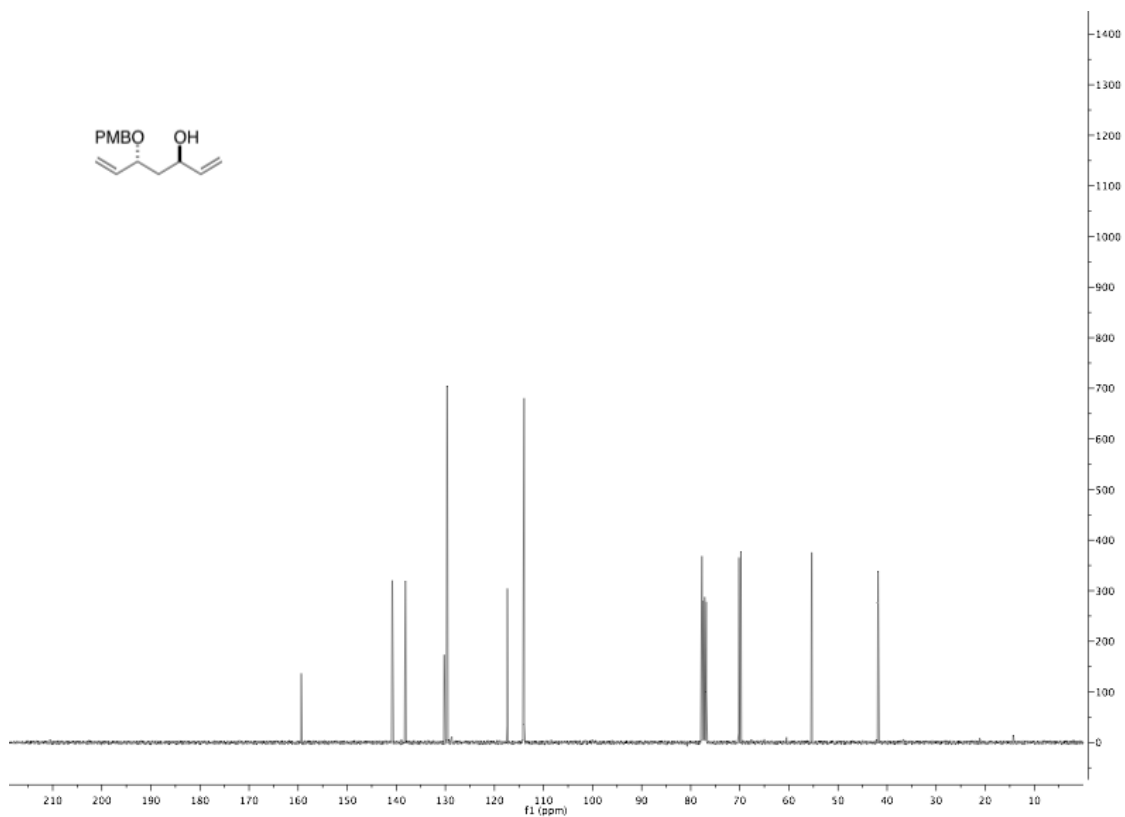
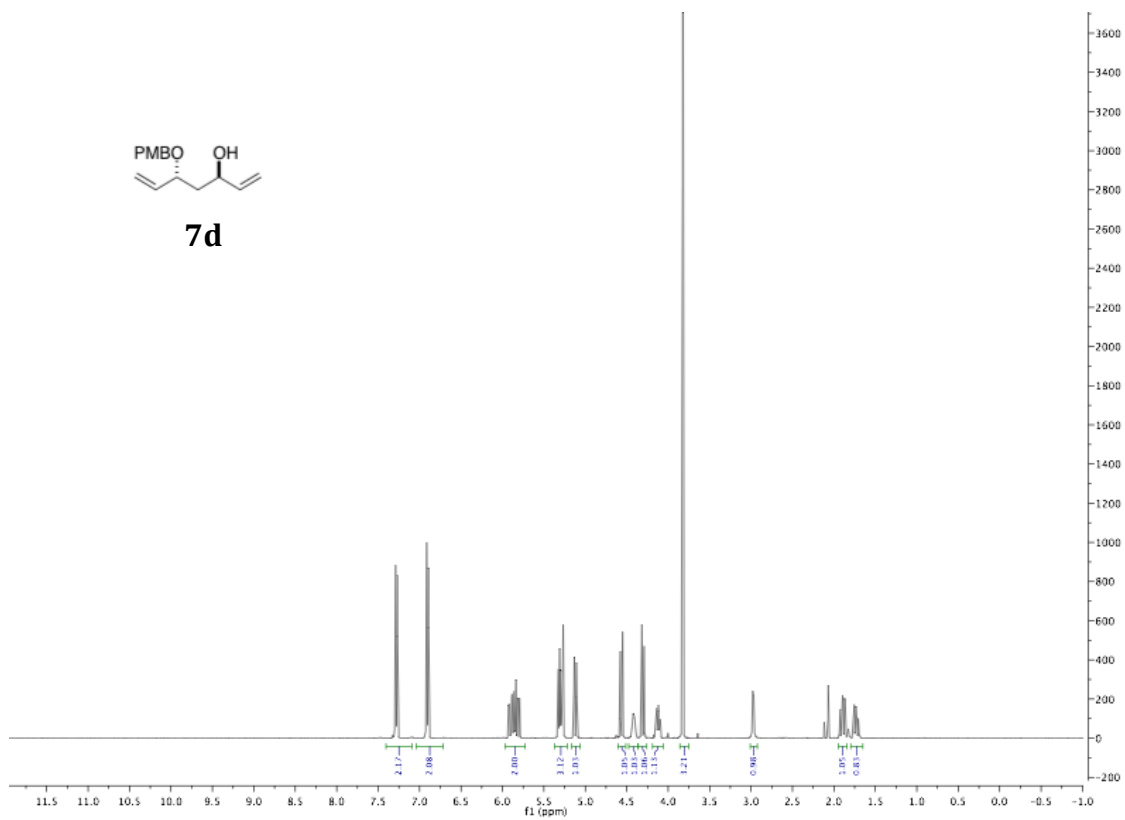
1. Copies of ^1H and ^{13}C -NMR spectra S2
2. GC and HPLC chromatograms S23

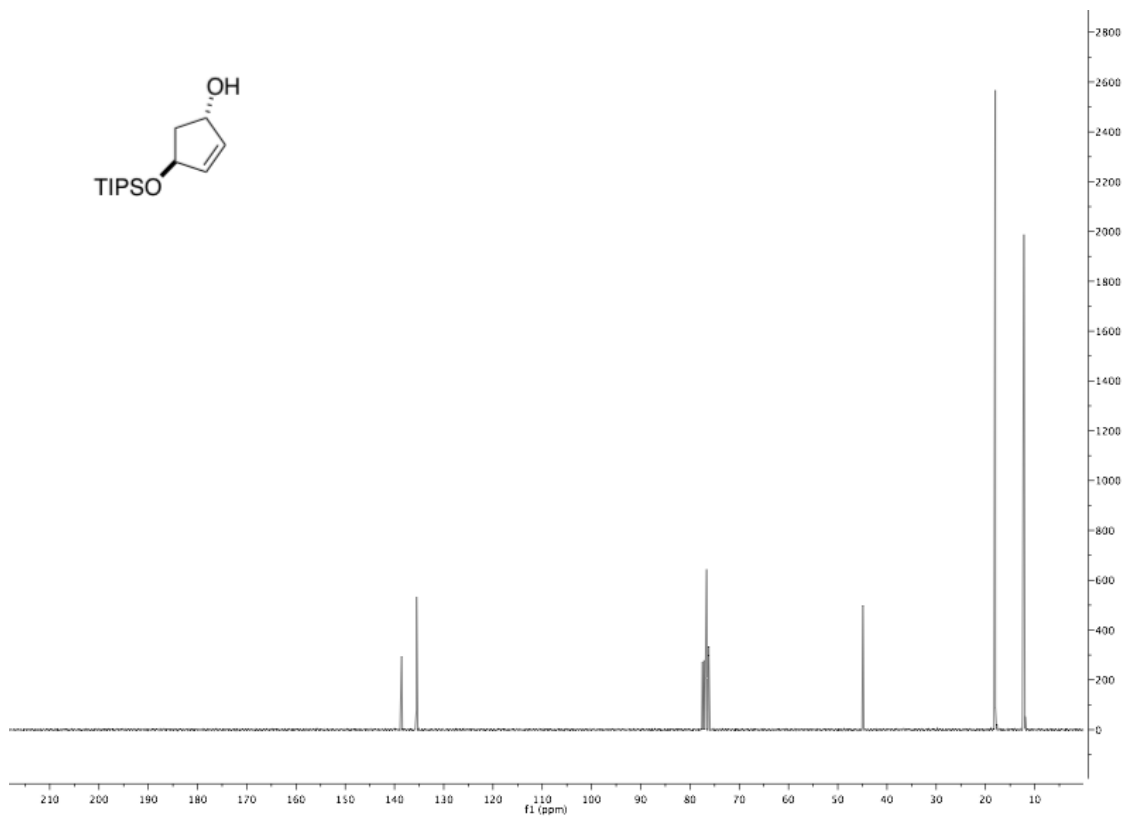
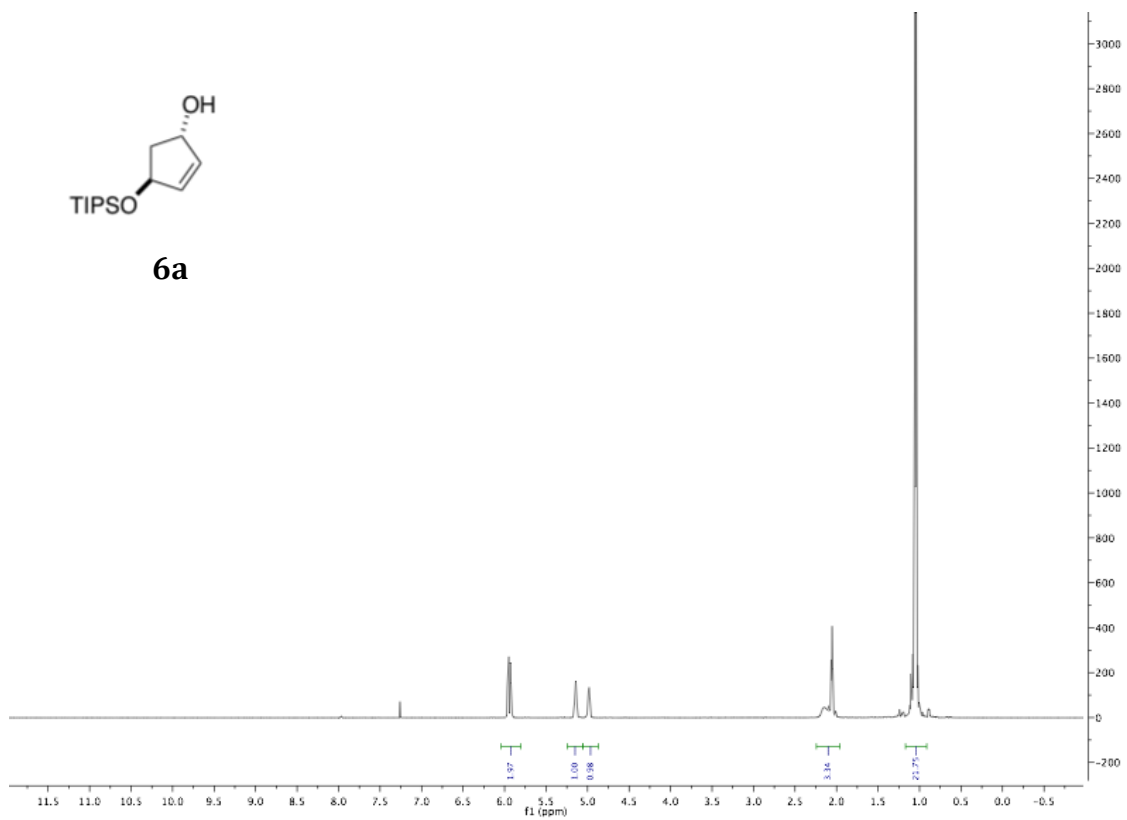


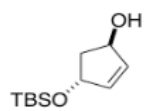




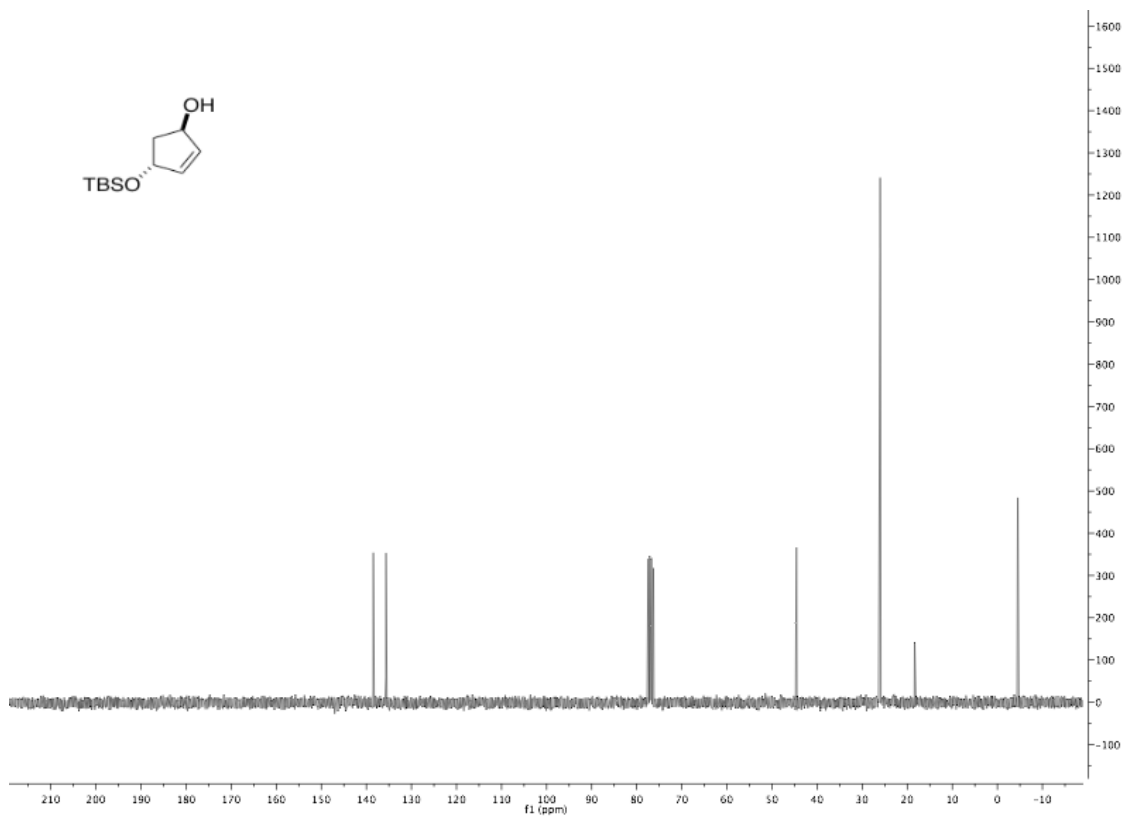
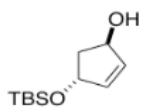
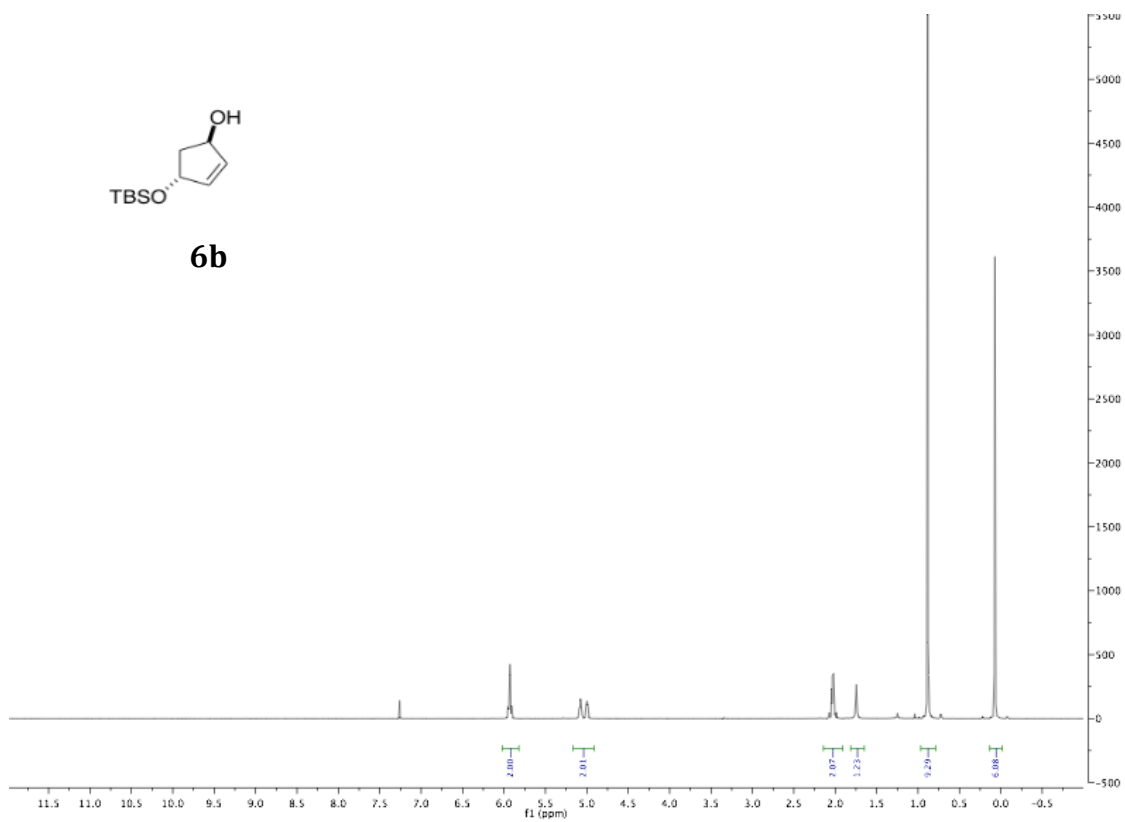


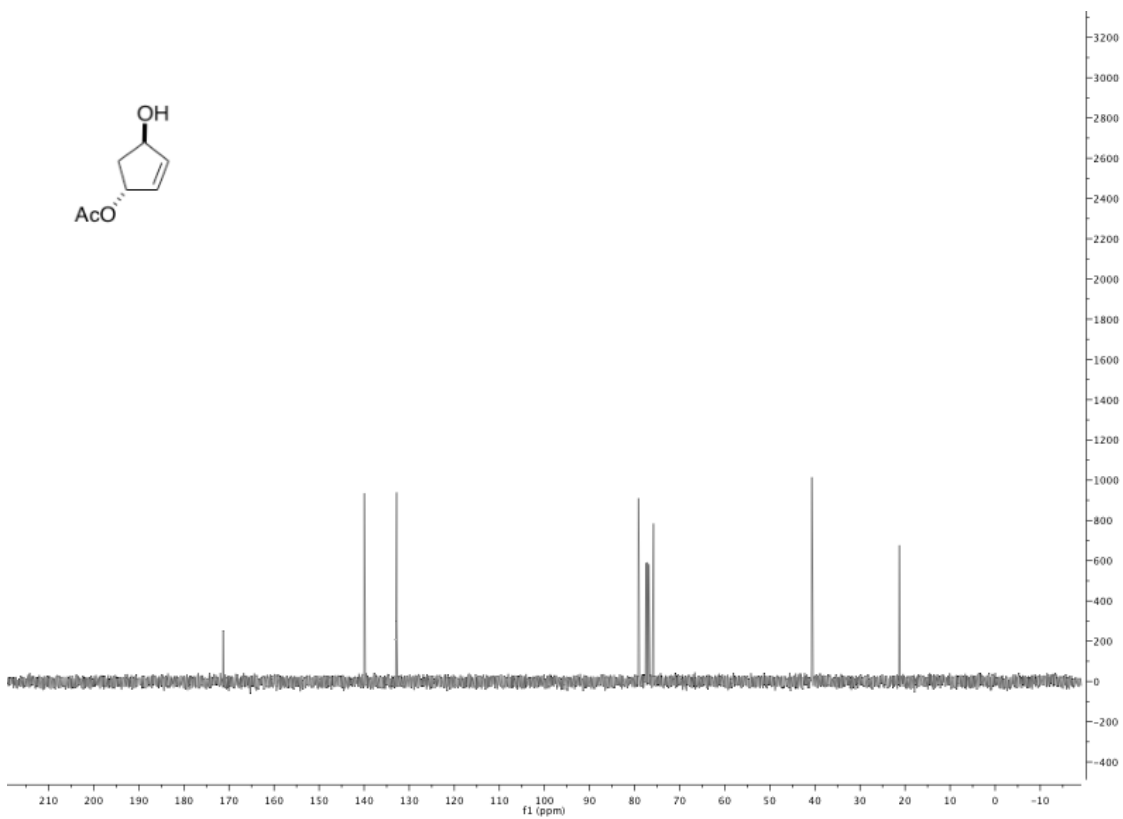
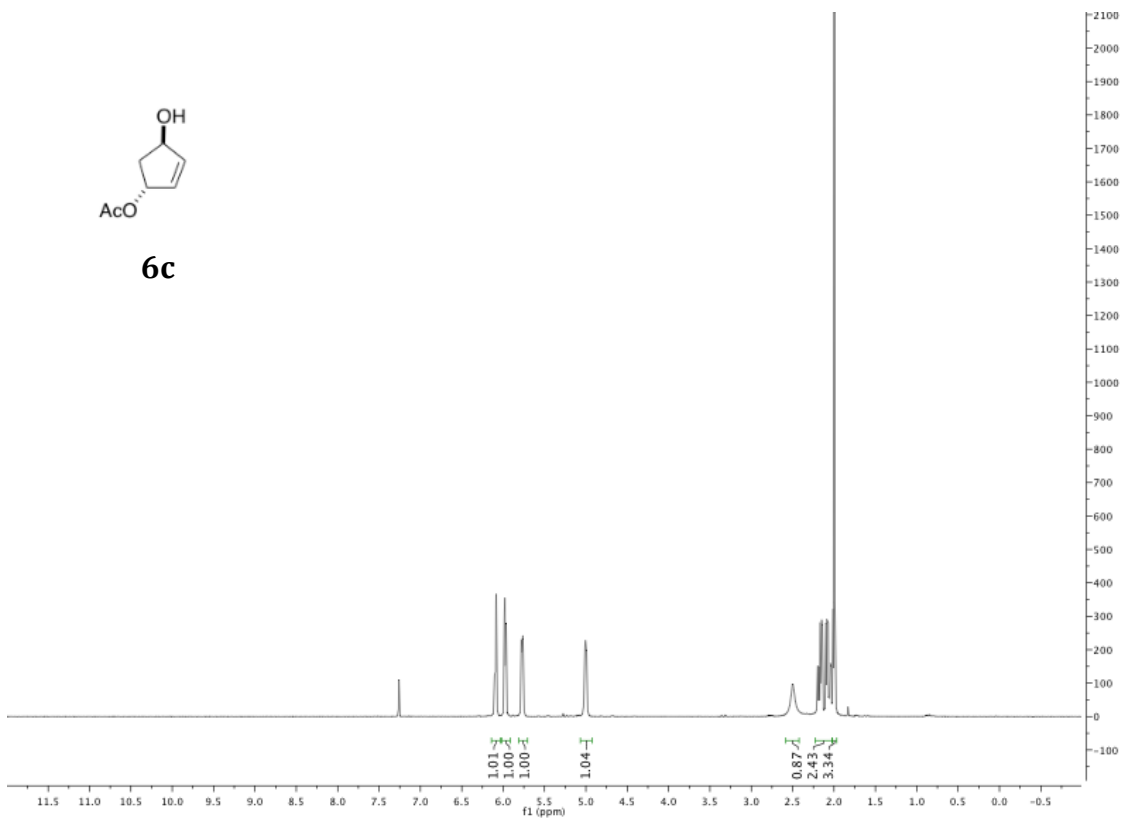


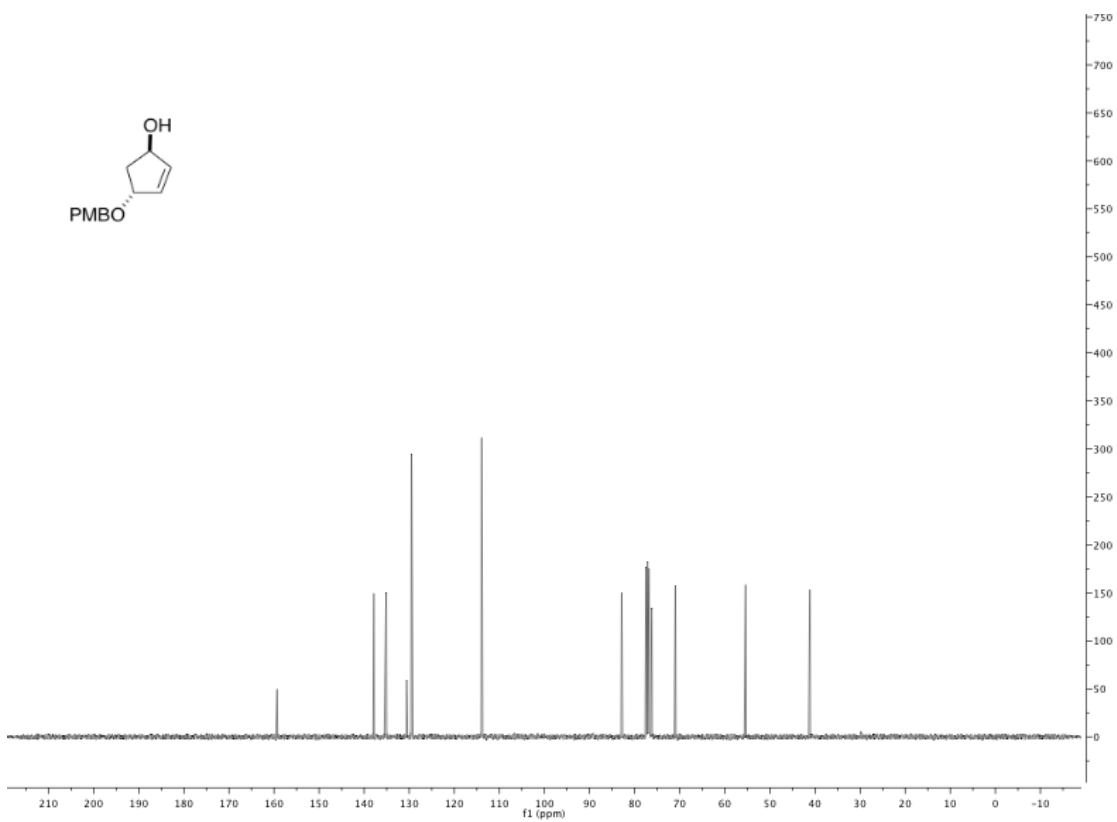
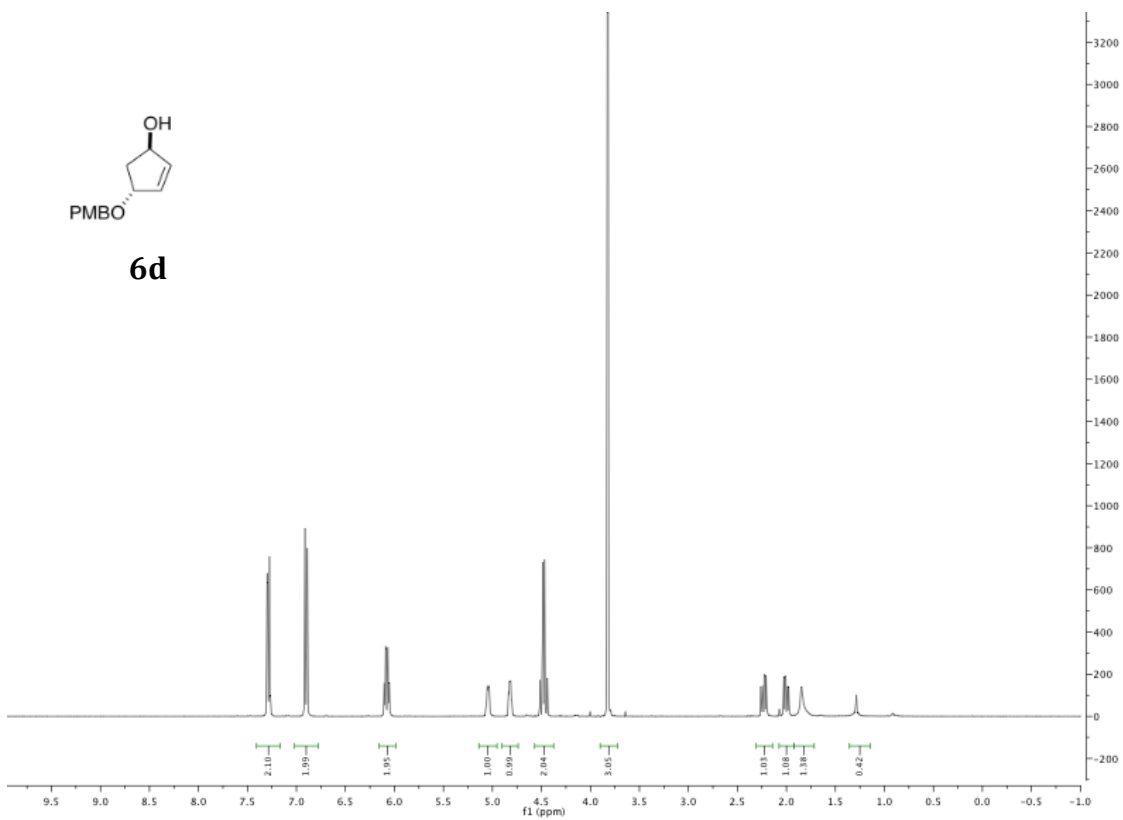


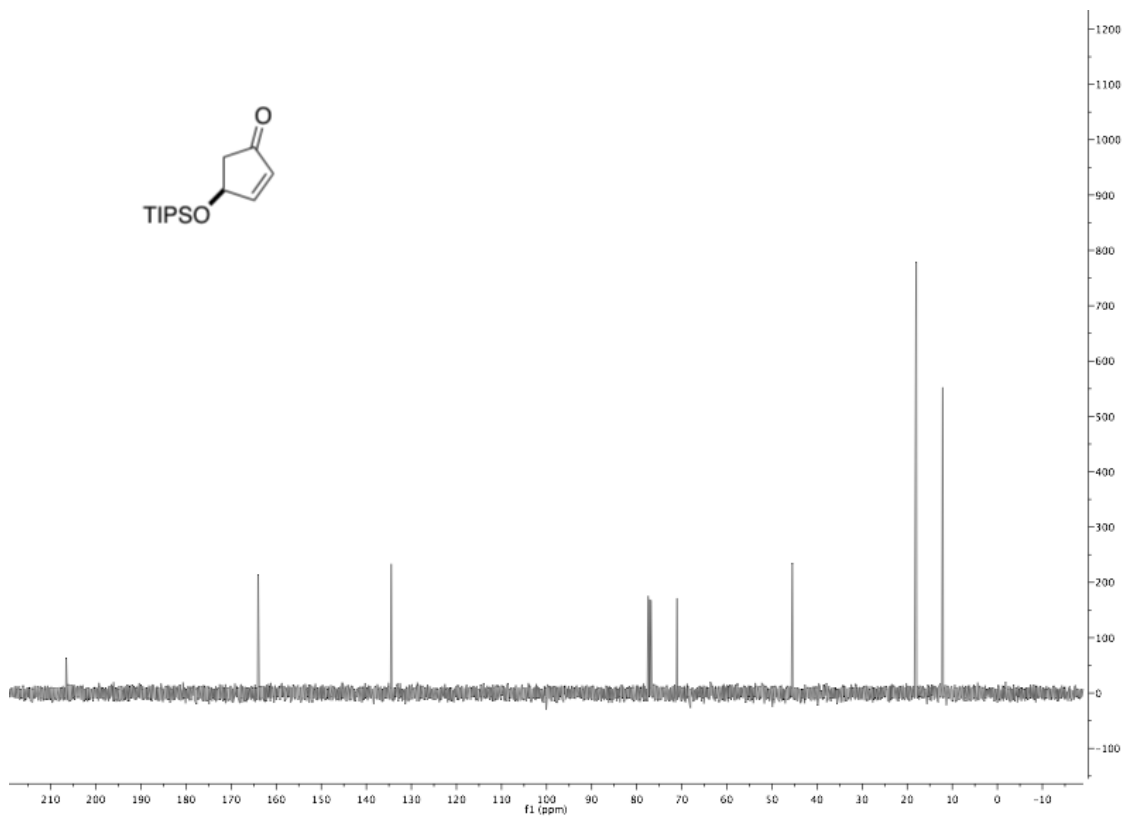
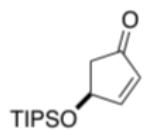
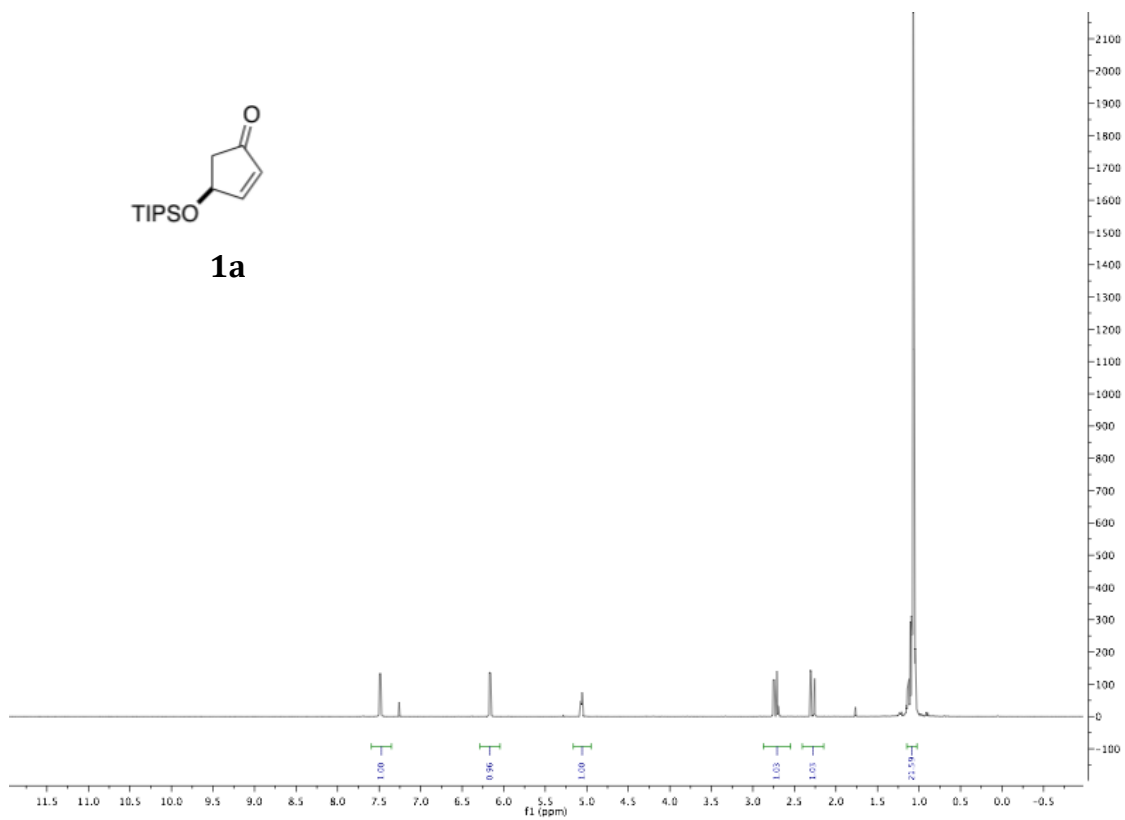
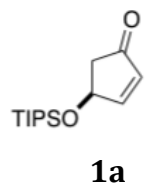


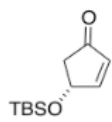
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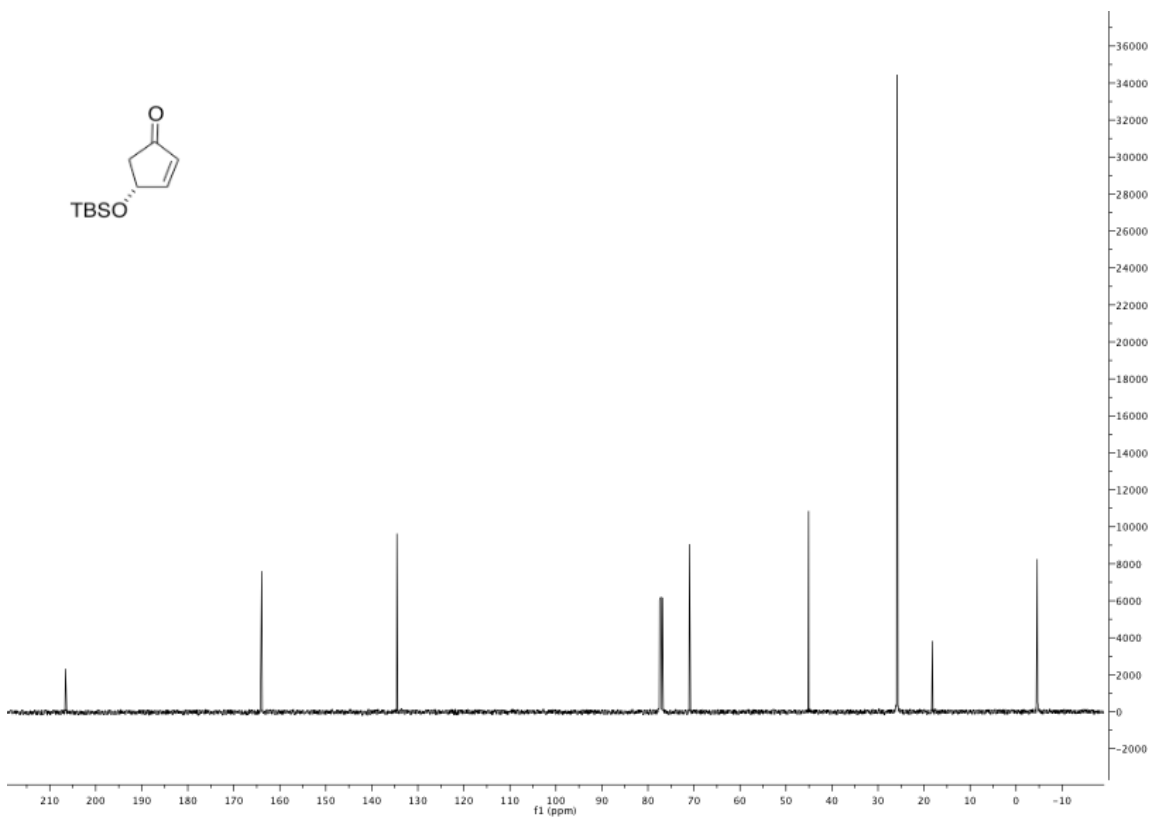
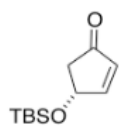
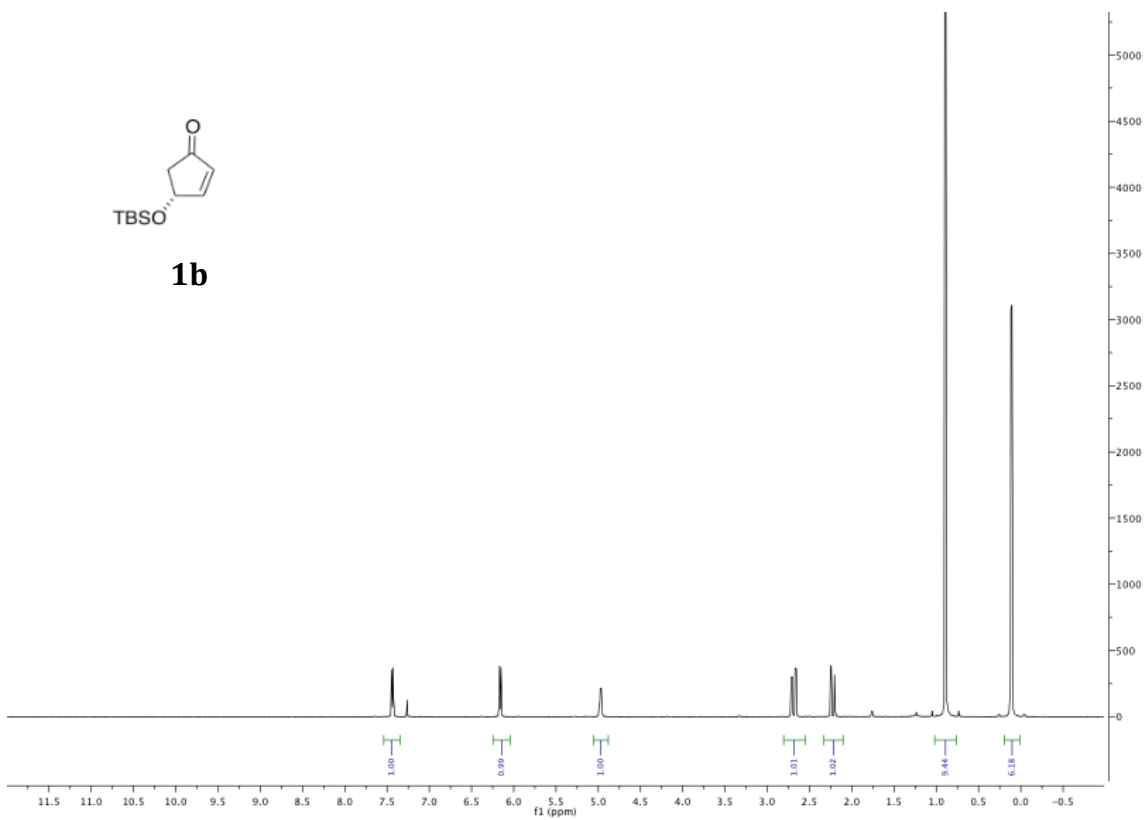


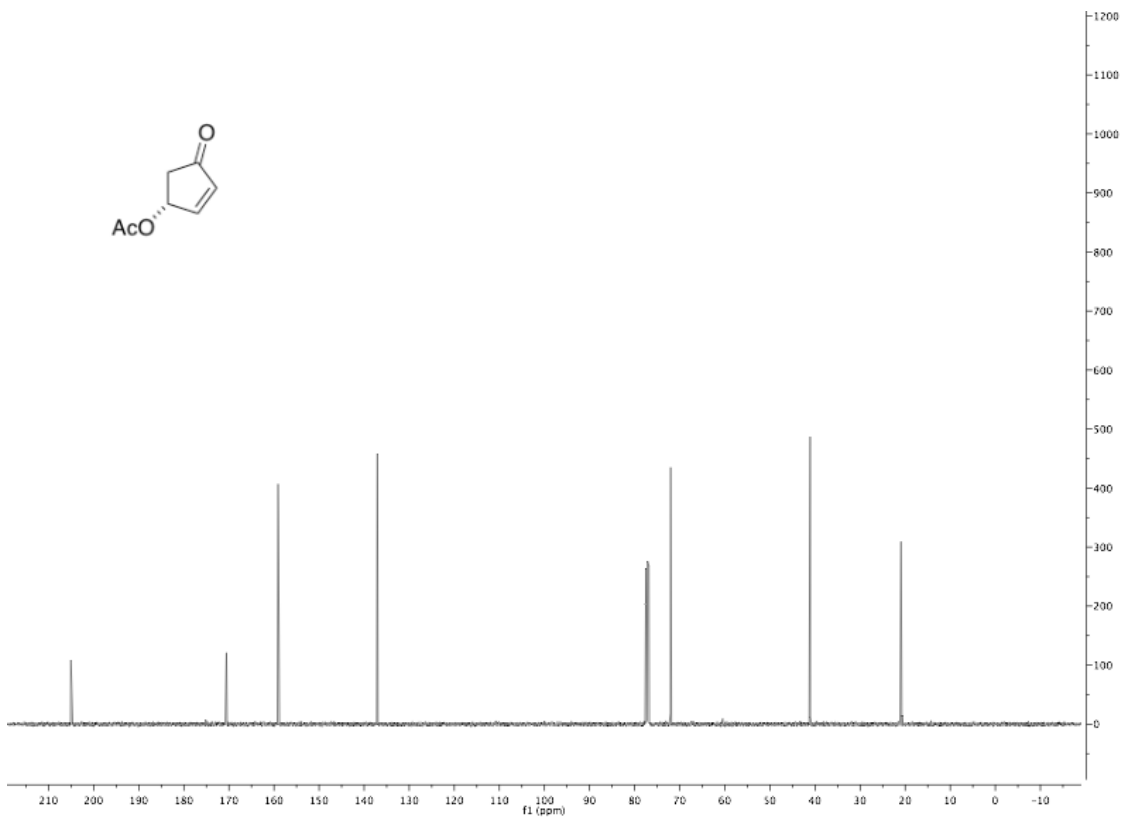
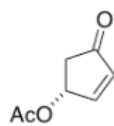
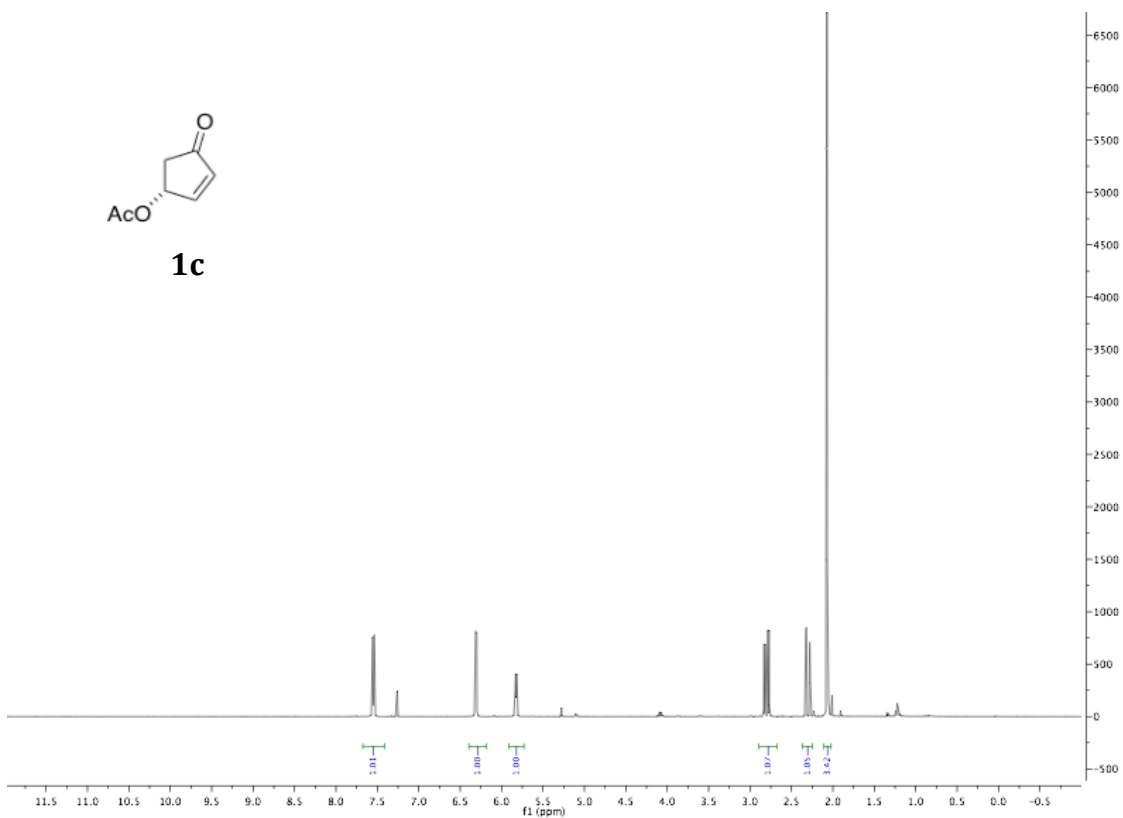
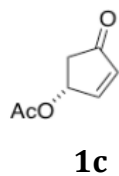


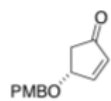




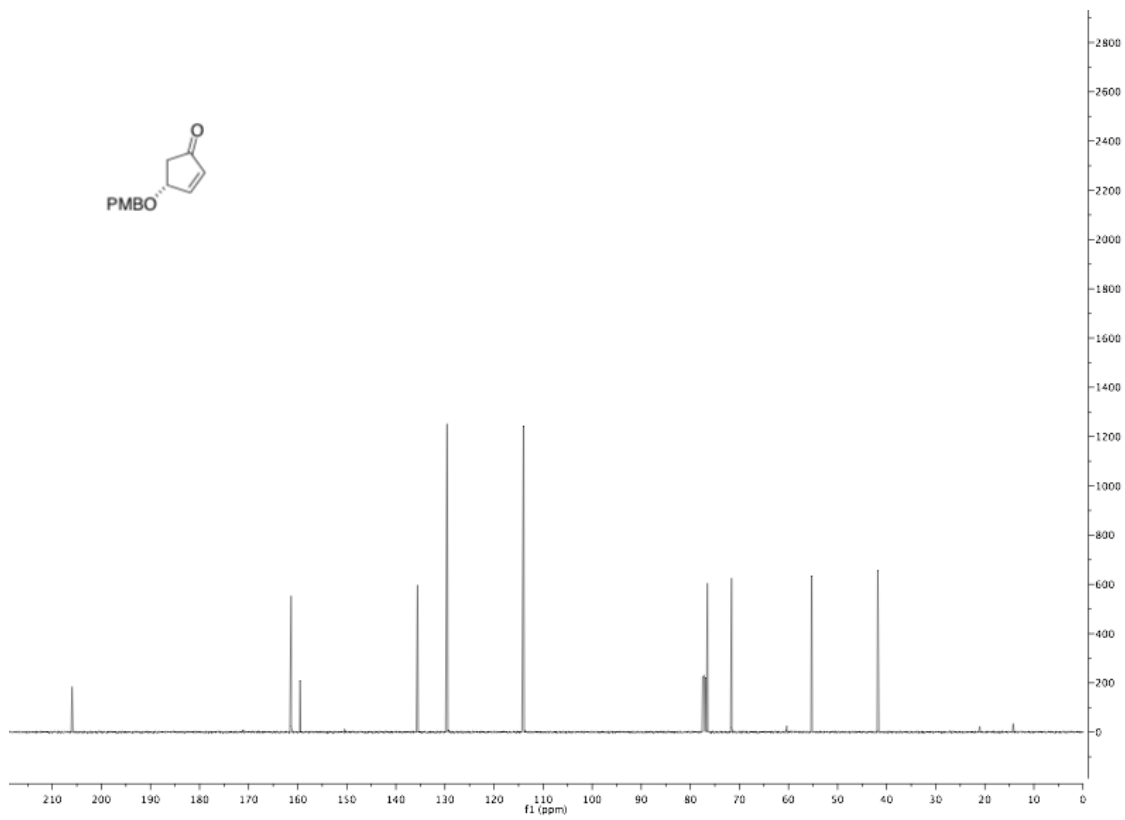
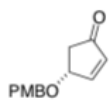
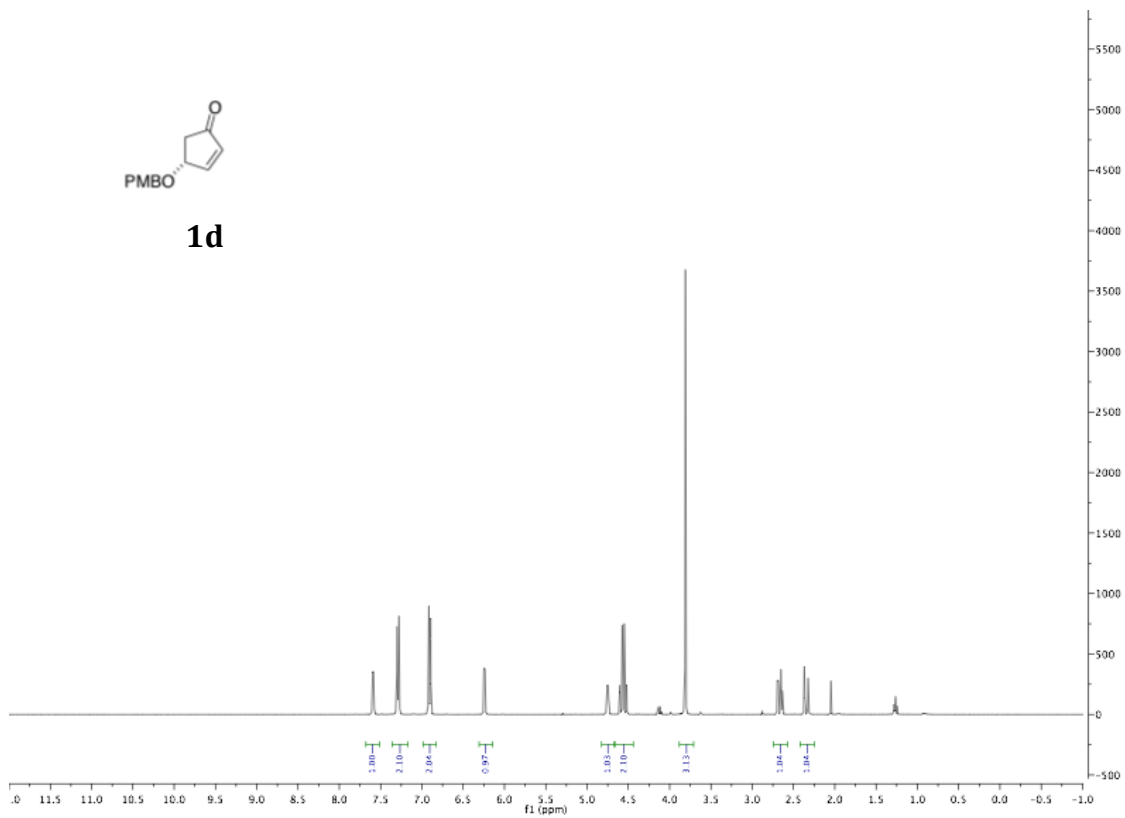
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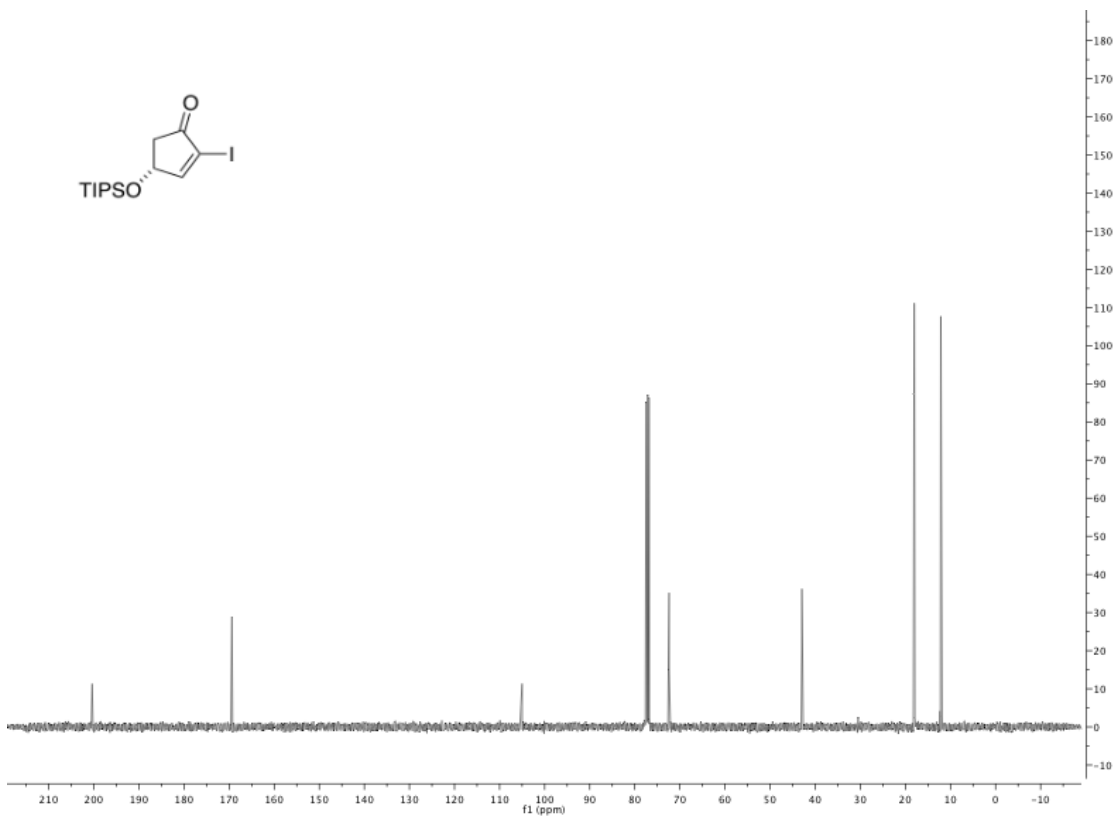
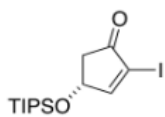
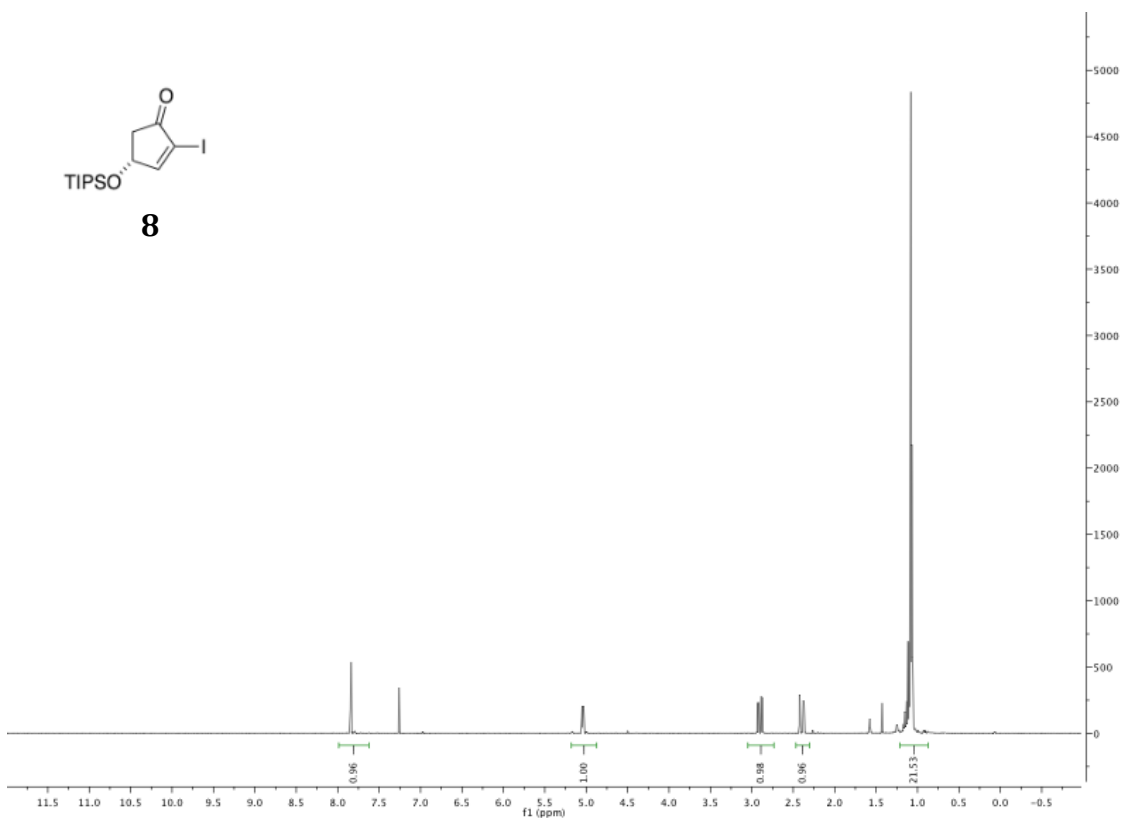
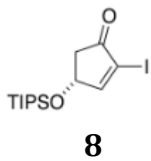




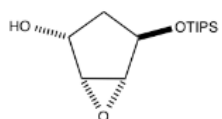


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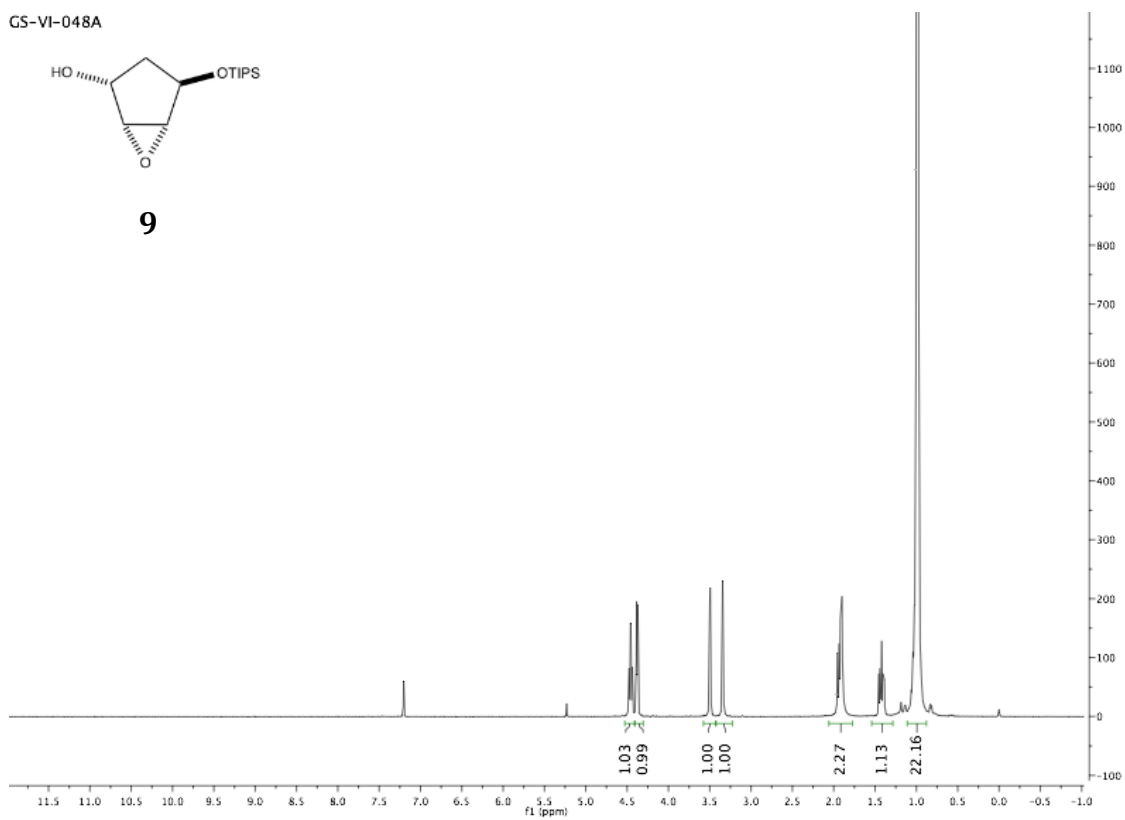




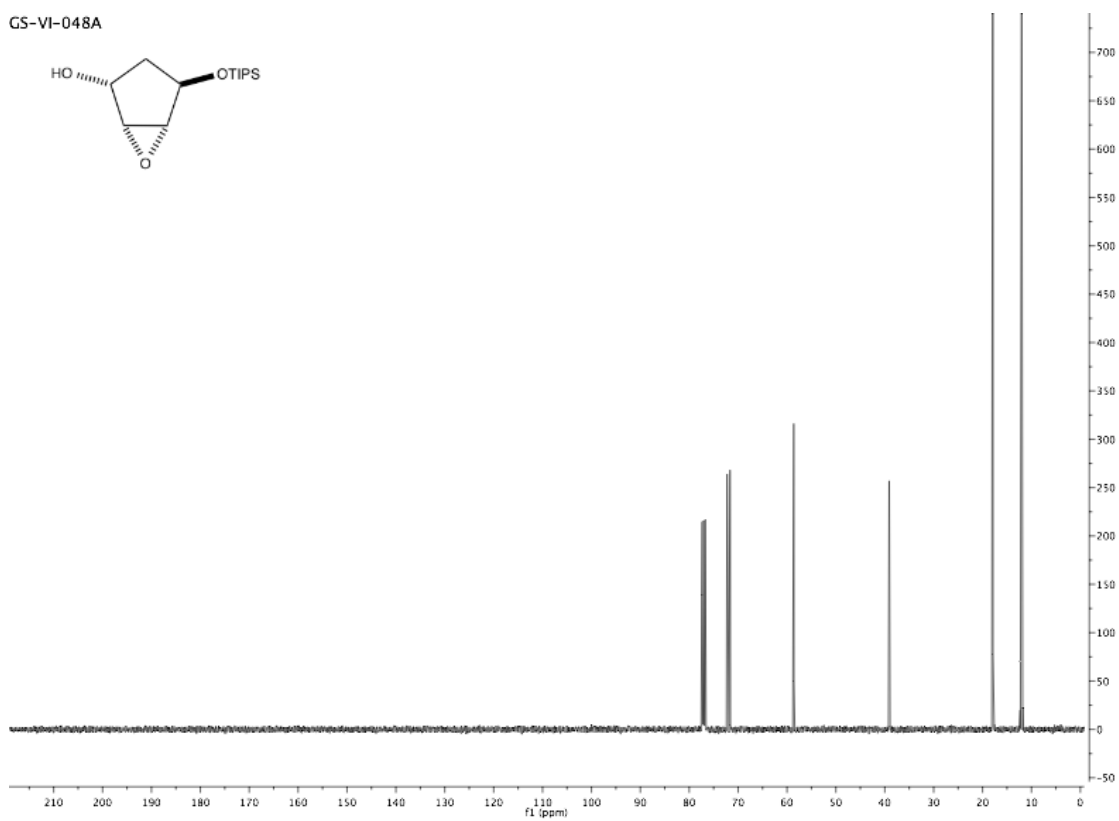
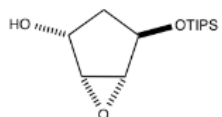
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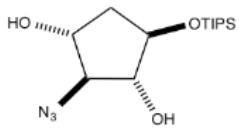


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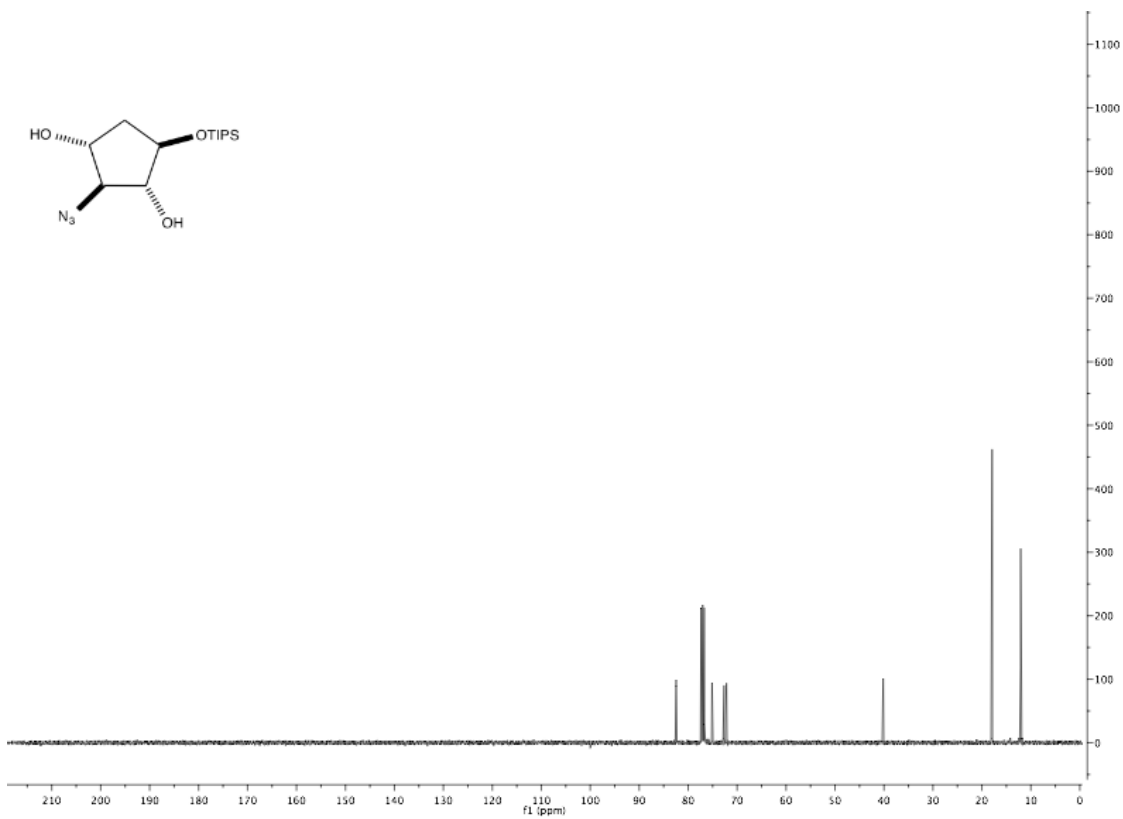
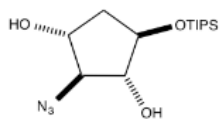
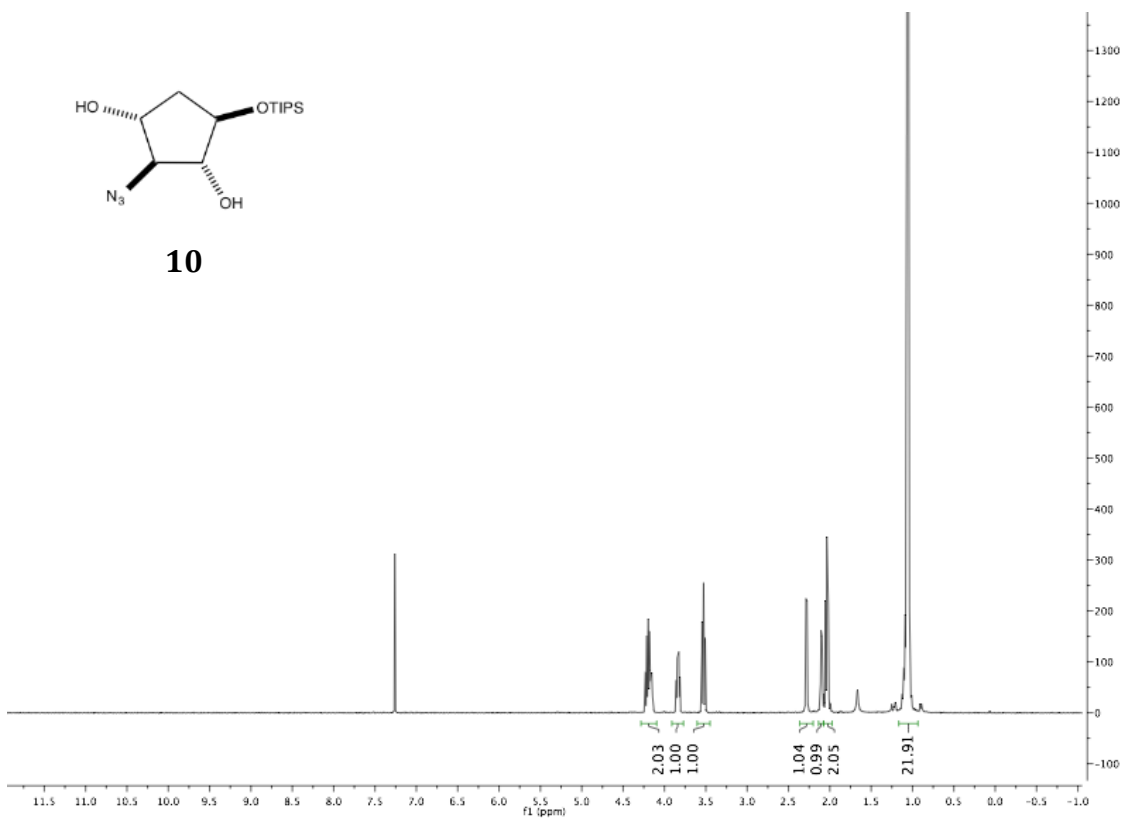


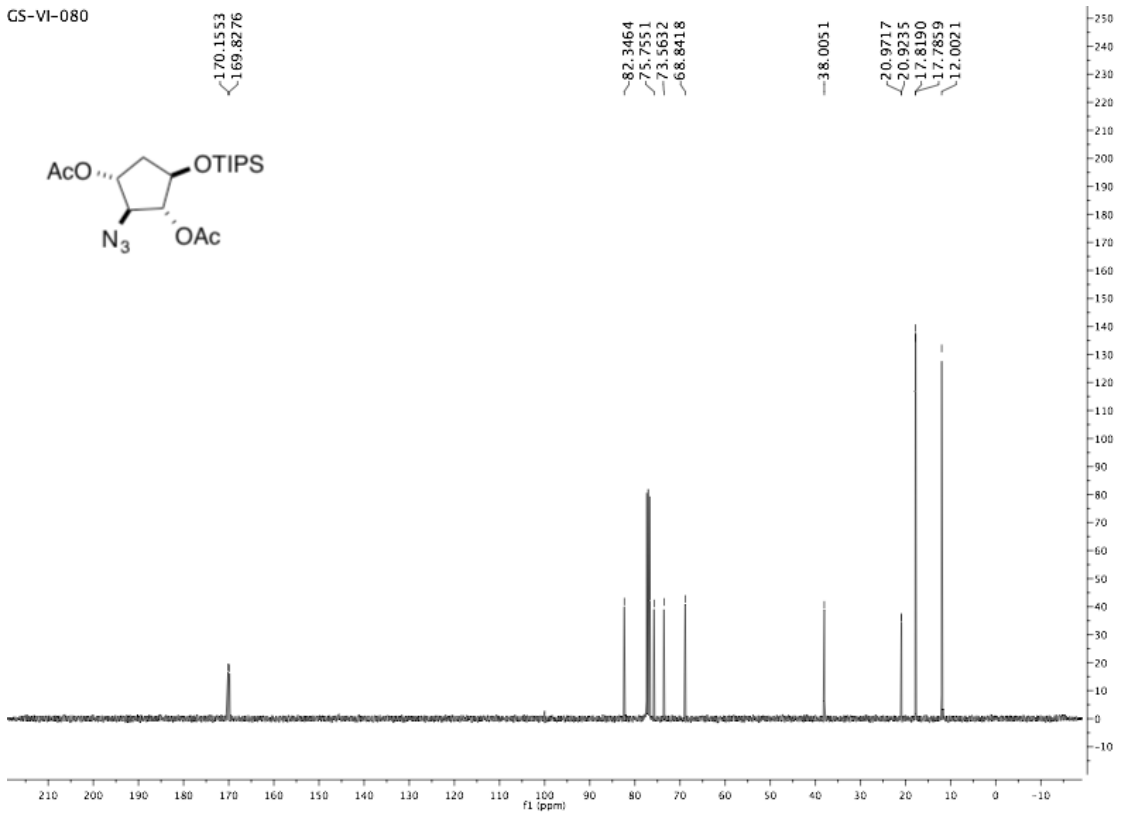
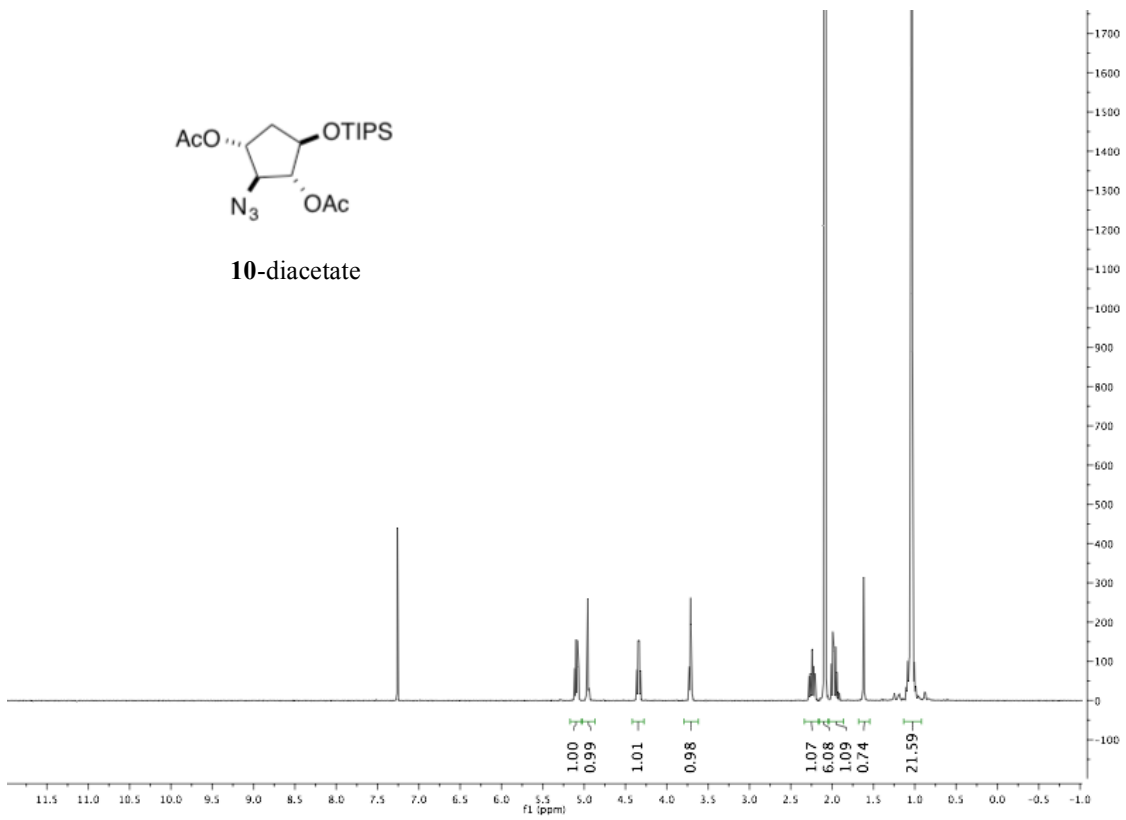
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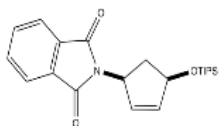


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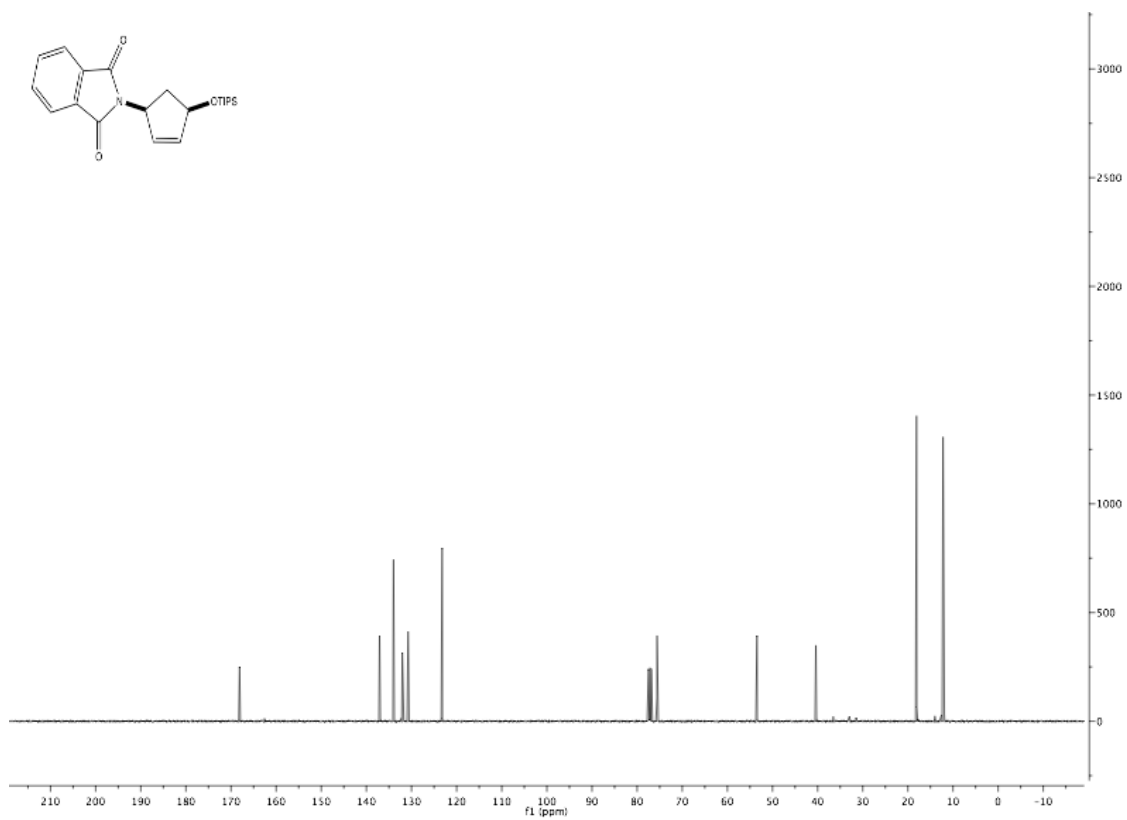
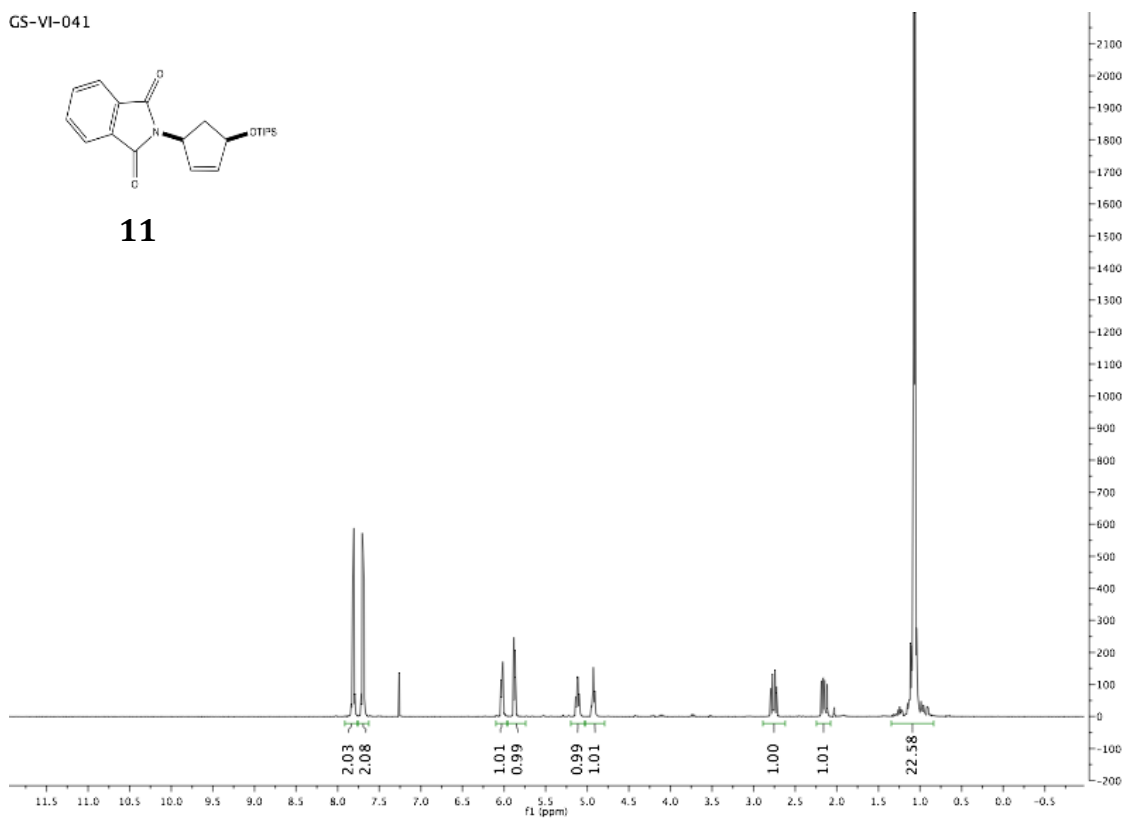


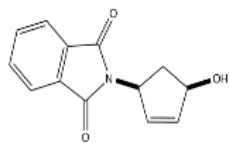


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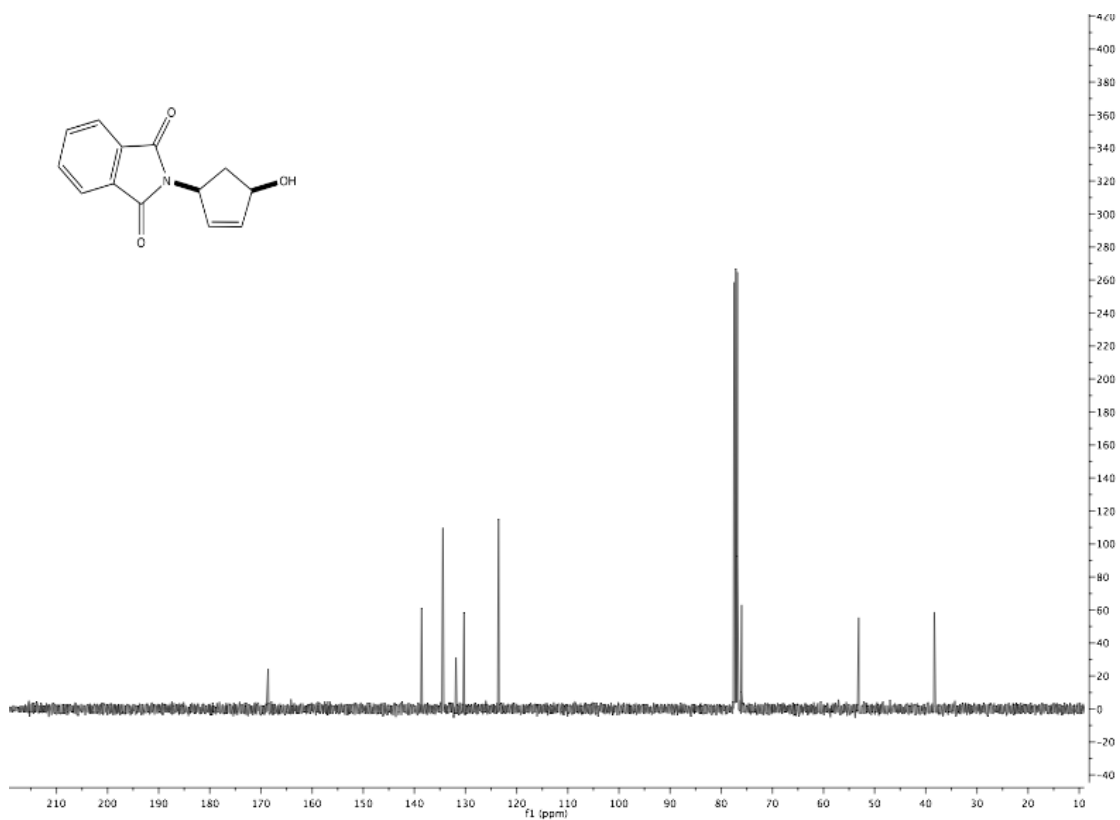
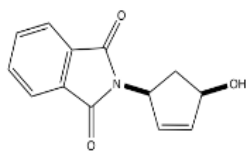
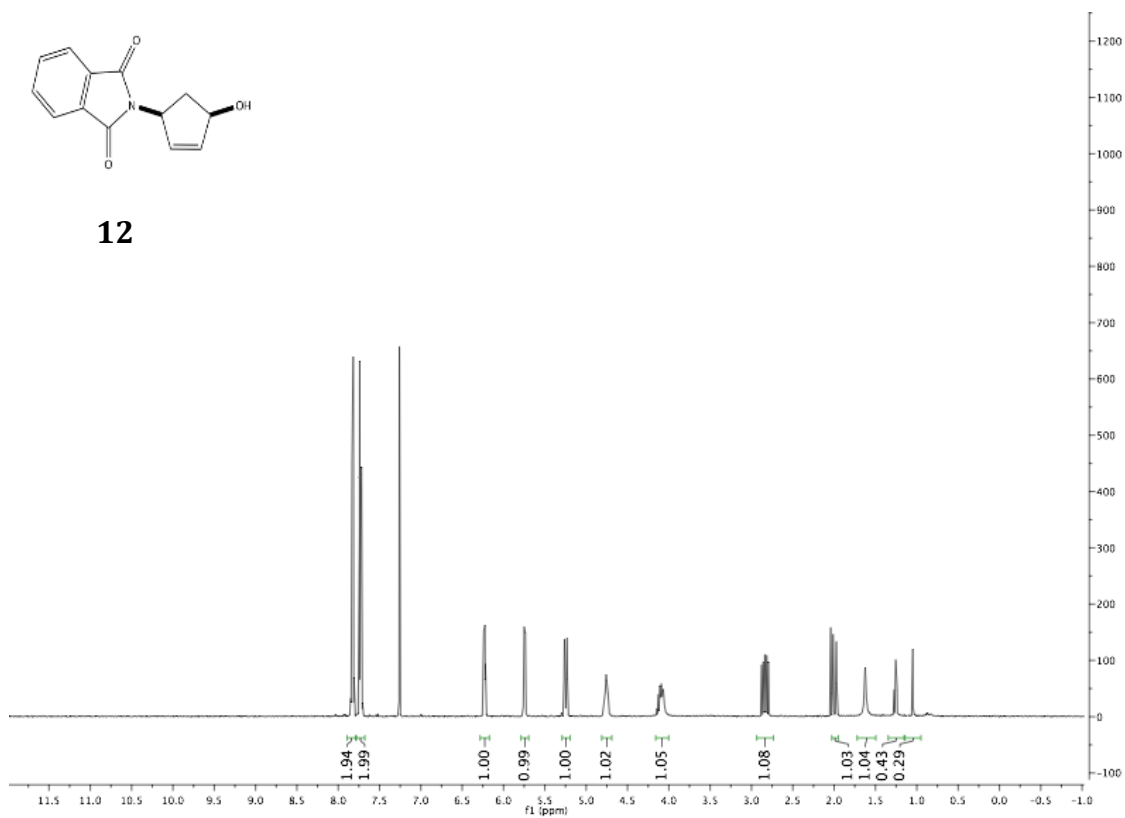


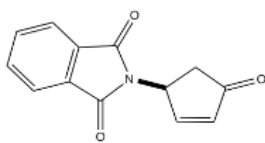
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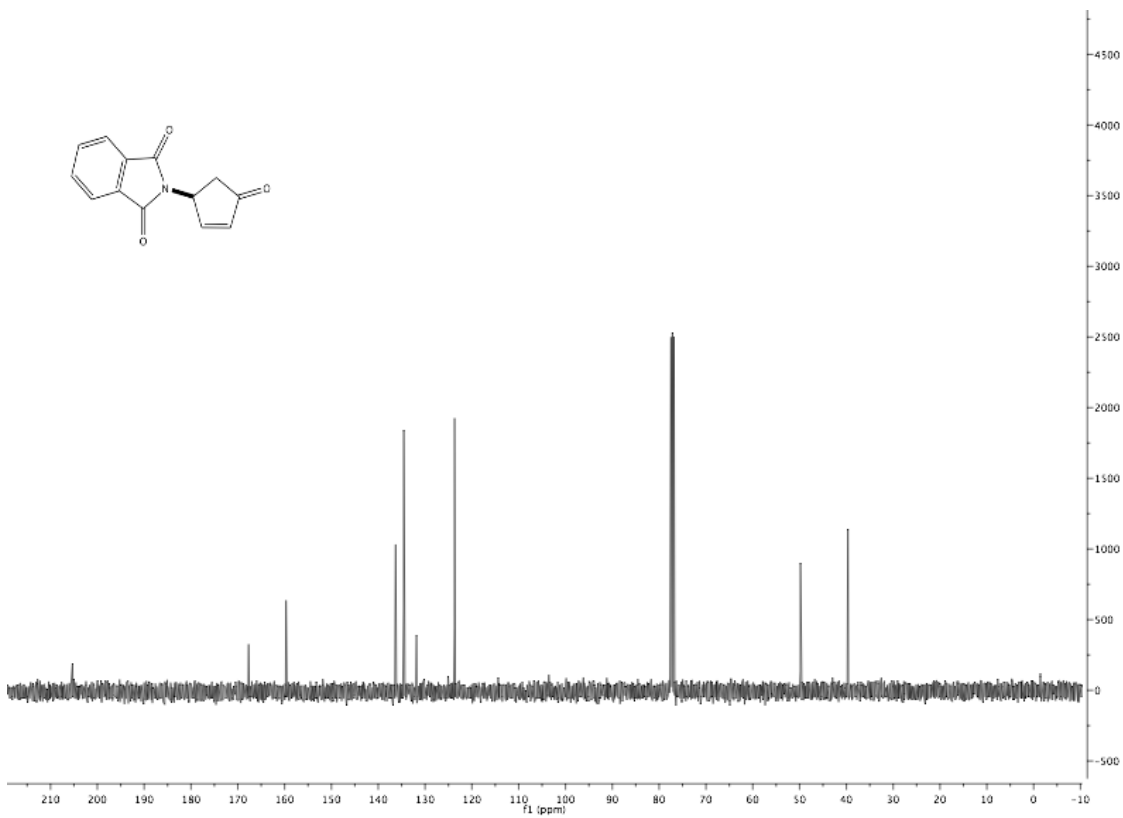
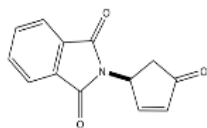
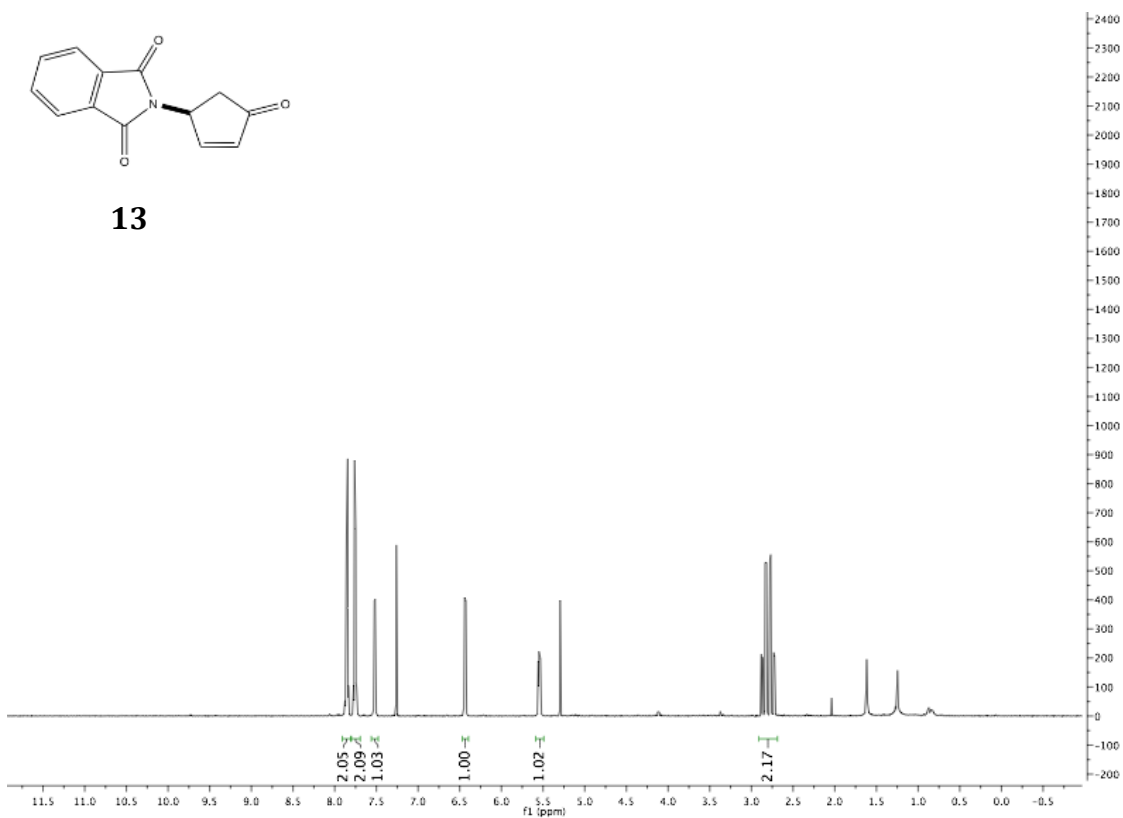


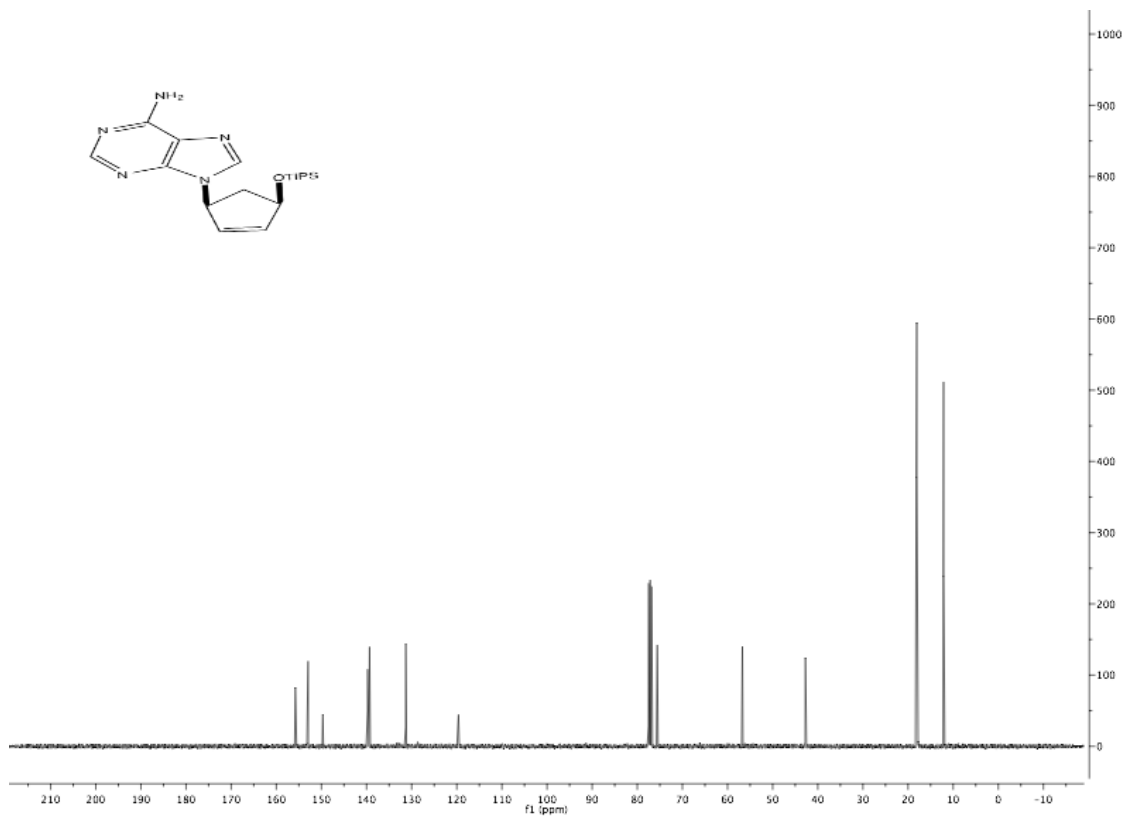
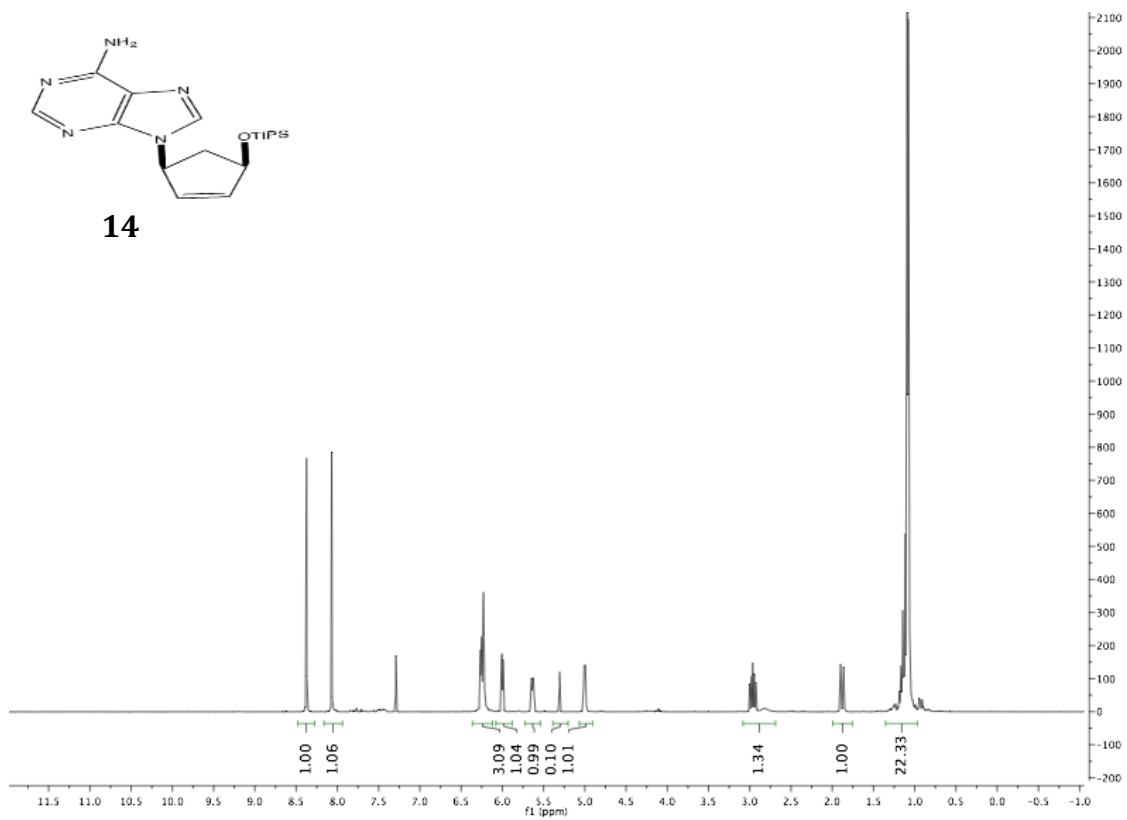
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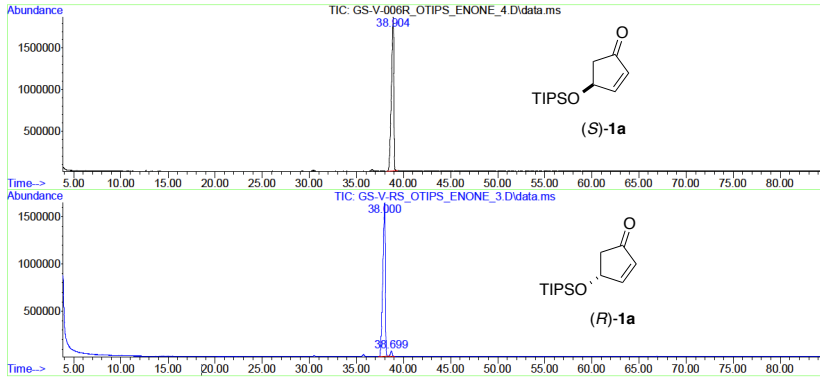


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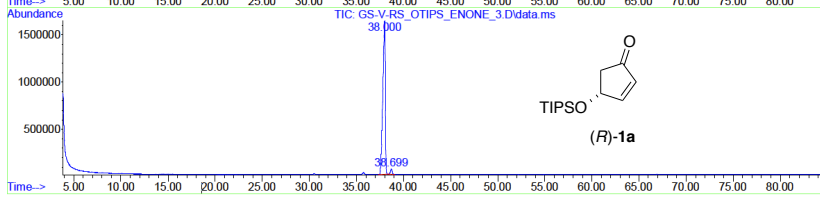




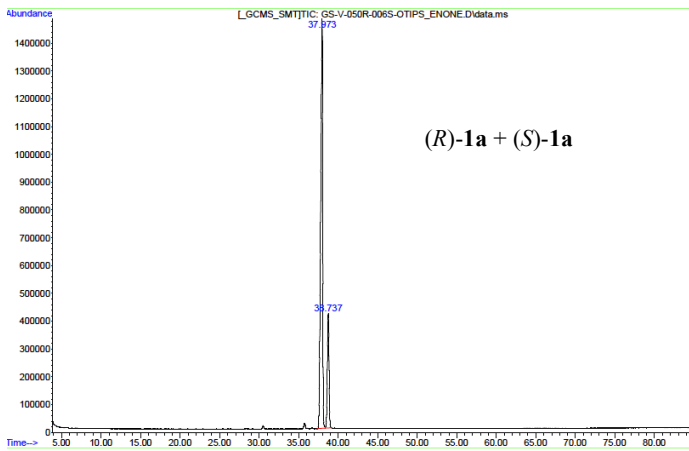
GC chromatogram of (S)-1a and (R)-1a



peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	38.904	5957	6071	6150	BB 2	1839688	327261151	100.00%	100.000%

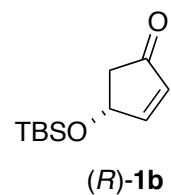
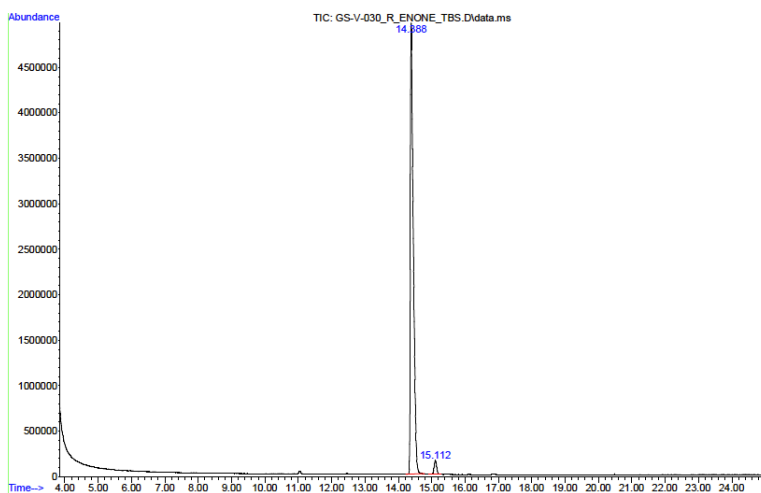


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	38.000	5805	5914	5991	BB 2	1599592	297669467	100.00%	97.561%
2	38.699	5995	6035	6092	BB 2	54935	7440532	2.50%	2.439%

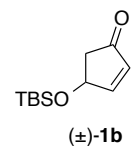
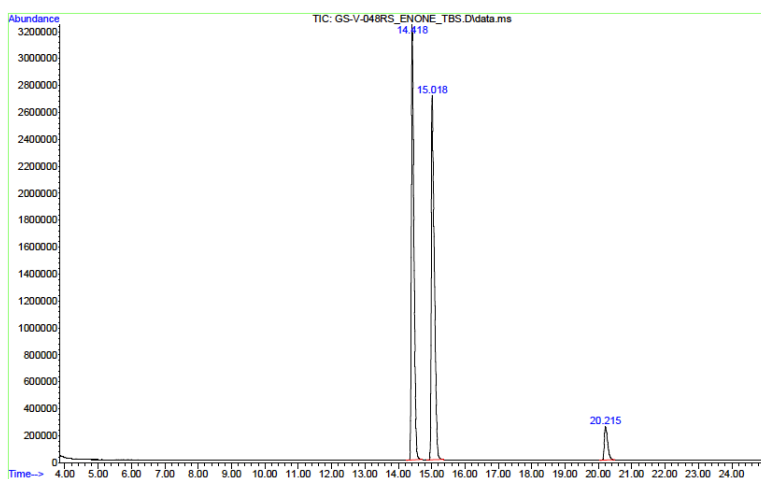


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	37.973	5800	5910	5981	BV 3	1471503	261217225	100.00%	81.327%
2	38.737	5981	6042	6115	VB 5	412102	59977695	22.96%	18.673%

GC chromatogram of **1b**

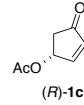
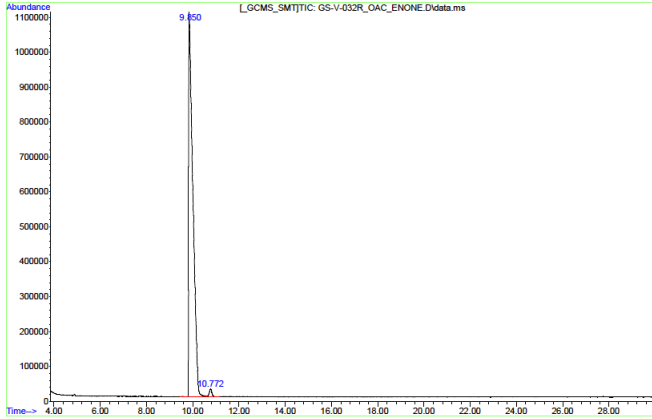


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. %	% of total
1	14.388	1800	1827	1892	BB 2	4944348	305058683	100.00%	97.546%
2	15.112	1919	1952	1979	BB 2	146863	7674271	2.52%	2.454%

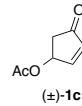
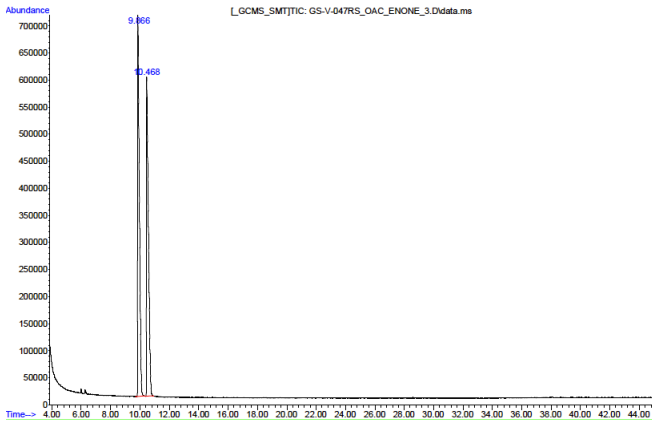


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. %	% of total
1	6.316	402	429	469	BB 2	240953	14619082	8.50%	3.965%
2	14.463	1813	1840	1893	BB	3123610	172049179	100.00%	46.666%
3	15.062	1916	1943	2003	BB	2746590	166065398	96.52%	45.043%
4	20.263	2814	2844	2891	BB 2	234482	15949623	9.27%	4.326%

GC chromatogram of 1c

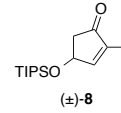
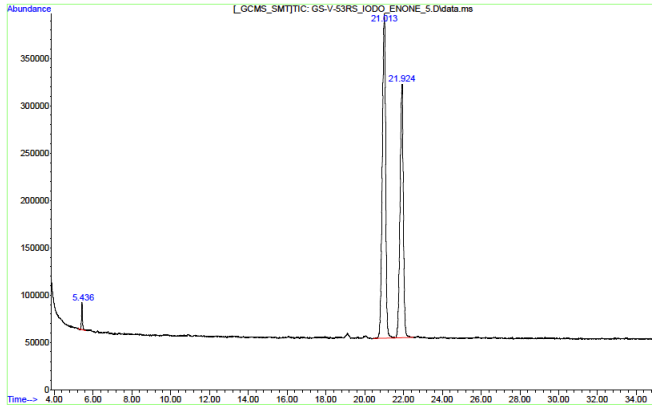


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. %	% of max.	% of total
1	9.850	970	1041	1172	BV 3	1081939	136228481	100.00%	100.00%	98.697%
2	10.772	1172	1201	1267	VB 5	21548	1798473	1.32%	1.32%	1.303%

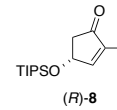
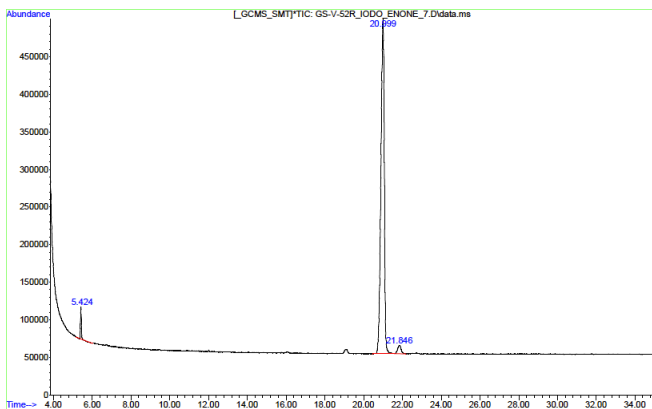


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. %	% of max.	% of total
1	9.866	1017	1044	1115	BB	690231	55329375	100.00%	100.00%	50.490%
2	10.468	1123	1148	1224	BB 2	583137	54255073	98.06%	98.06%	49.510%

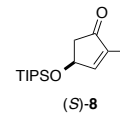
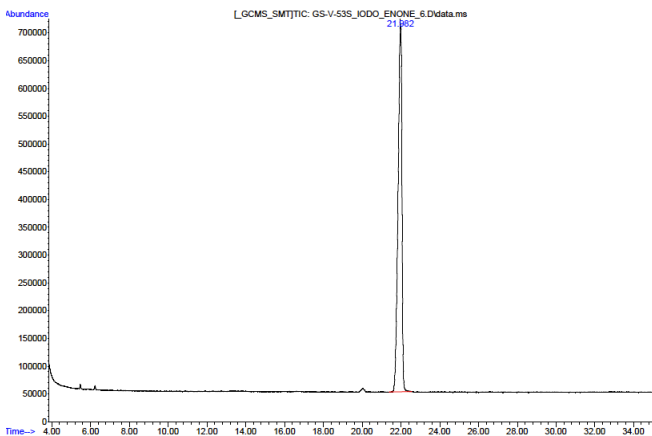
GC chromatogram of 8



peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	5.436	243	277	307	BB 4	28666	1022072	2.49%	1.395%
2	21.013	2878	2974	3070	BV 7	339928	41094767	100.00%	56.071%
3	21.924	3070	3131	3228	PB 5	265233	31173342	75.86%	42.534%

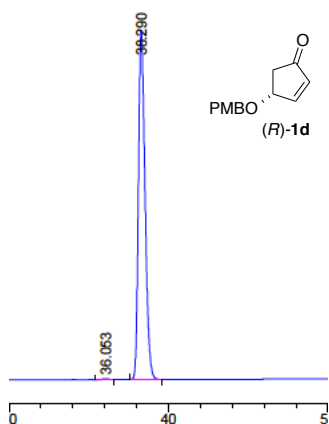


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	5.424	232	275	377	BB 3	42640	1302933	2.41%	2.293%
2	20.999	2883	2971	3072	BV 4	445472	54120454	100.00%	95.252%
3	21.846	3072	3118	3173	VB 4	11022	1394992	2.58%	2.455%

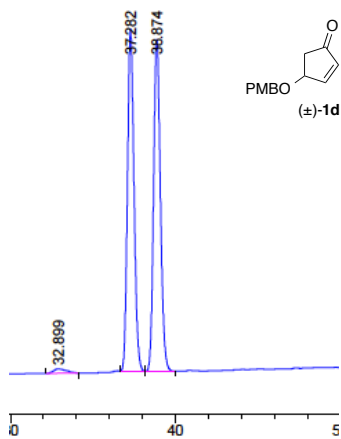


peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max	% of total
1	21.982	3040	3141	3240	BB 4	653248	90964863	100.00%	100.000%

HPLC Chromatogram of (R)-1d



Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	3.386	BB	0.0752	12.46296	2.51992	0.0407
2	3.642	BB	0.1774	59.09811	4.39170	0.1932
3	6.174	BB	0.1012	27.63714	4.21924	0.0904
4	9.018	BB	0.4737	81.68941	2.34333	0.2671
5	9.792	BB	0.1420	361.46484	38.33886	1.1817
6	36.053	BB	0.3634	55.81043	2.25170	0.1825
7	38.290	BB	0.4421	2.84251e4	987.47791	92.9284
8	54.313	BB	0.3528	1564.89624	56.40389	5.1160



Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	3.384	BB	0.0785	12.86811	2.51901	0.0822
2	3.654	BB	0.1706	58.71095	4.56074	0.3749
3	9.779	BB	0.1165	360.63791	46.61044	2.3031
4	11.111	BB	0.7730	120.21245	1.84212	0.7677
5	15.064	BB	0.3652	608.60156	27.42497	3.8866
6	32.899	BB	0.7198	145.78445	2.74620	0.9310
7	37.282	BB	0.4251	6076.44141	221.33643	38.8052
8	38.874	BB	0.4415	6139.93311	214.63957	39.2107
9	54.310	BB	0.3267	2135.62842	83.32566	13.6385