

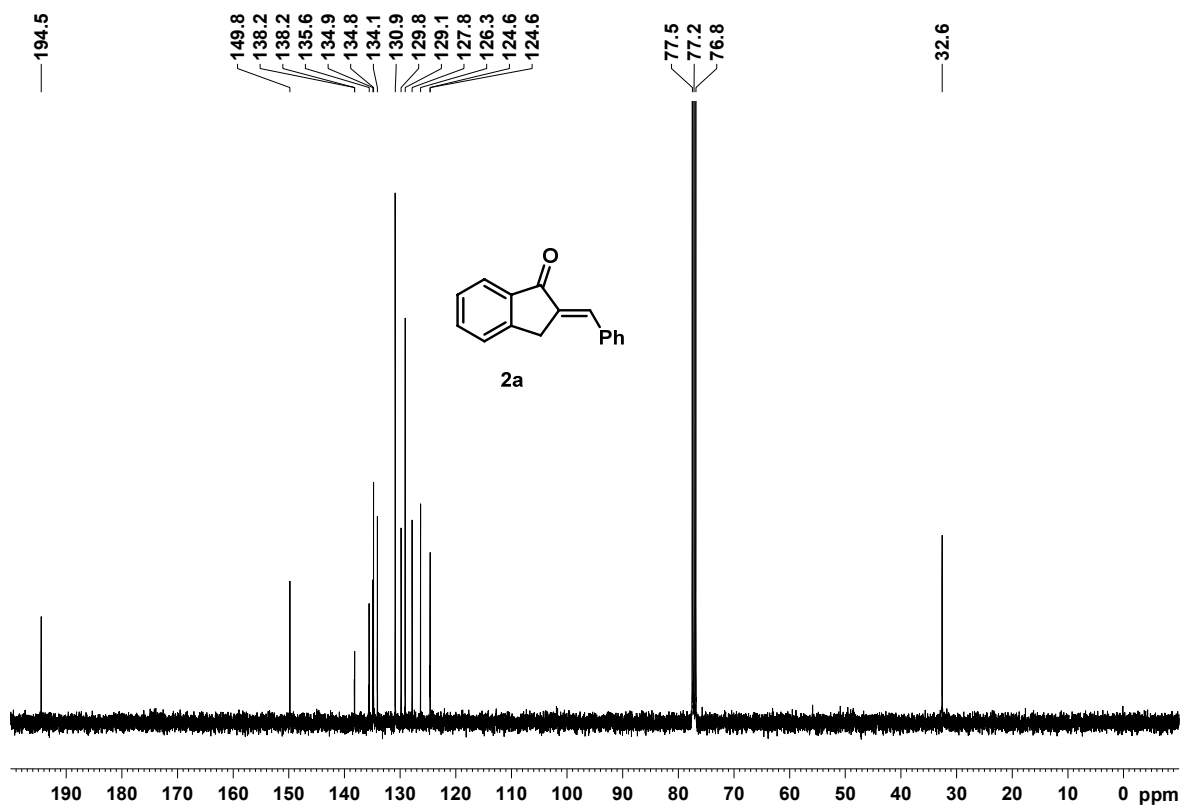
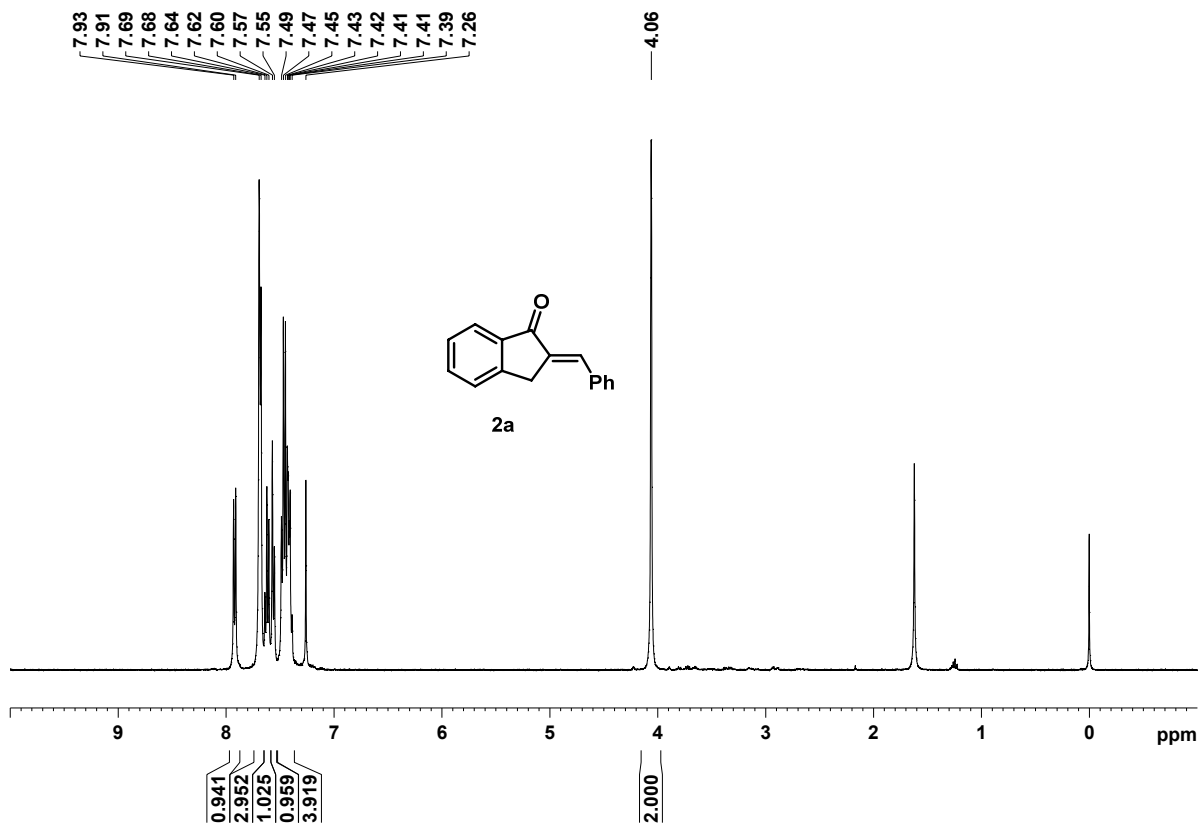
**Catalytic enantioselective cascade Michael/cyclization reaction of
3-isothiocyanato oxindoles with exocyclic α,β -unsaturated ketones en
route to 3,2'-pyrrolidinyl bisprioxindoles**

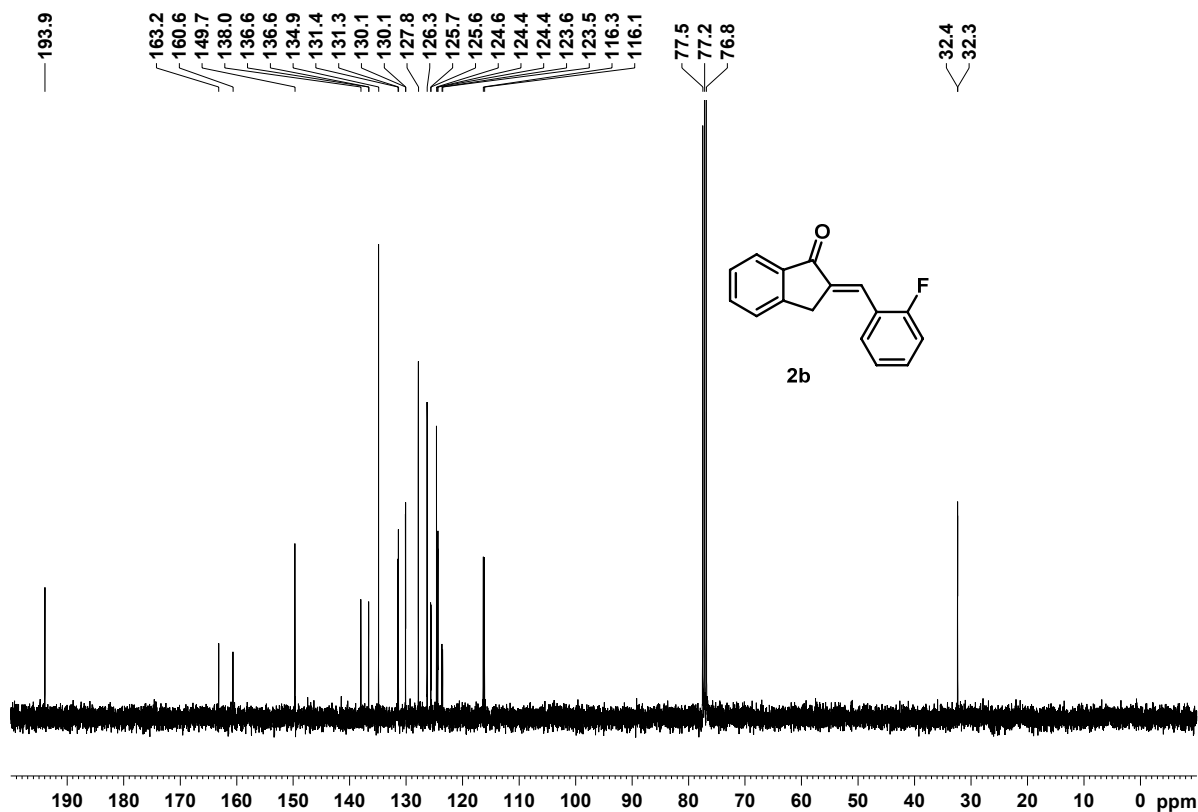
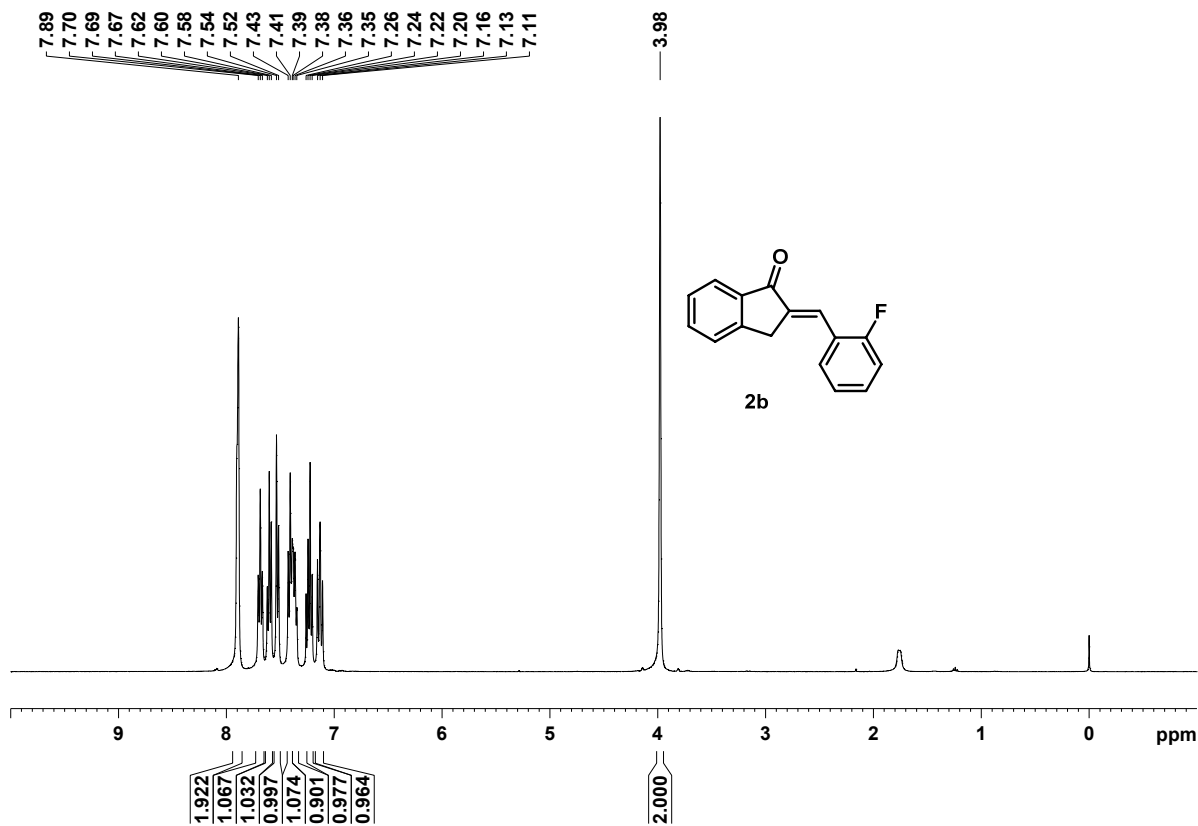
Satavisha Kayal, and Santanu Mukherjee*

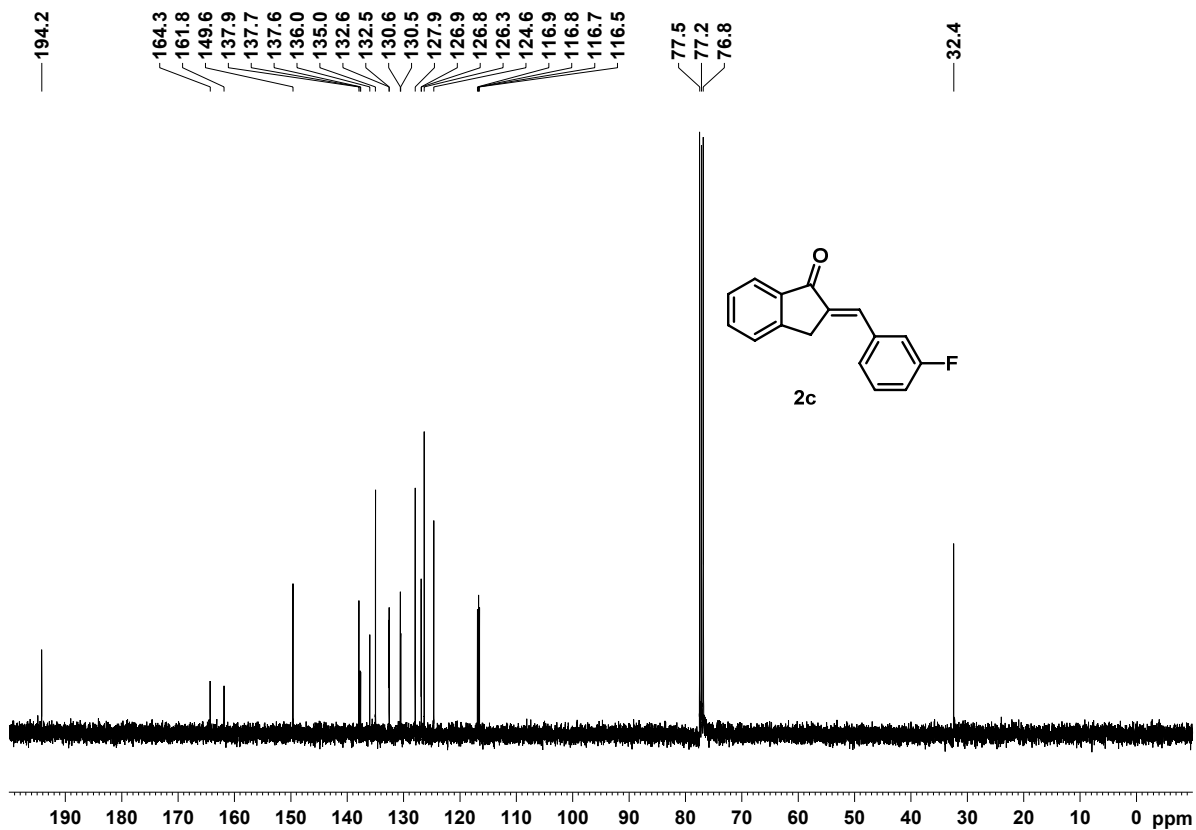
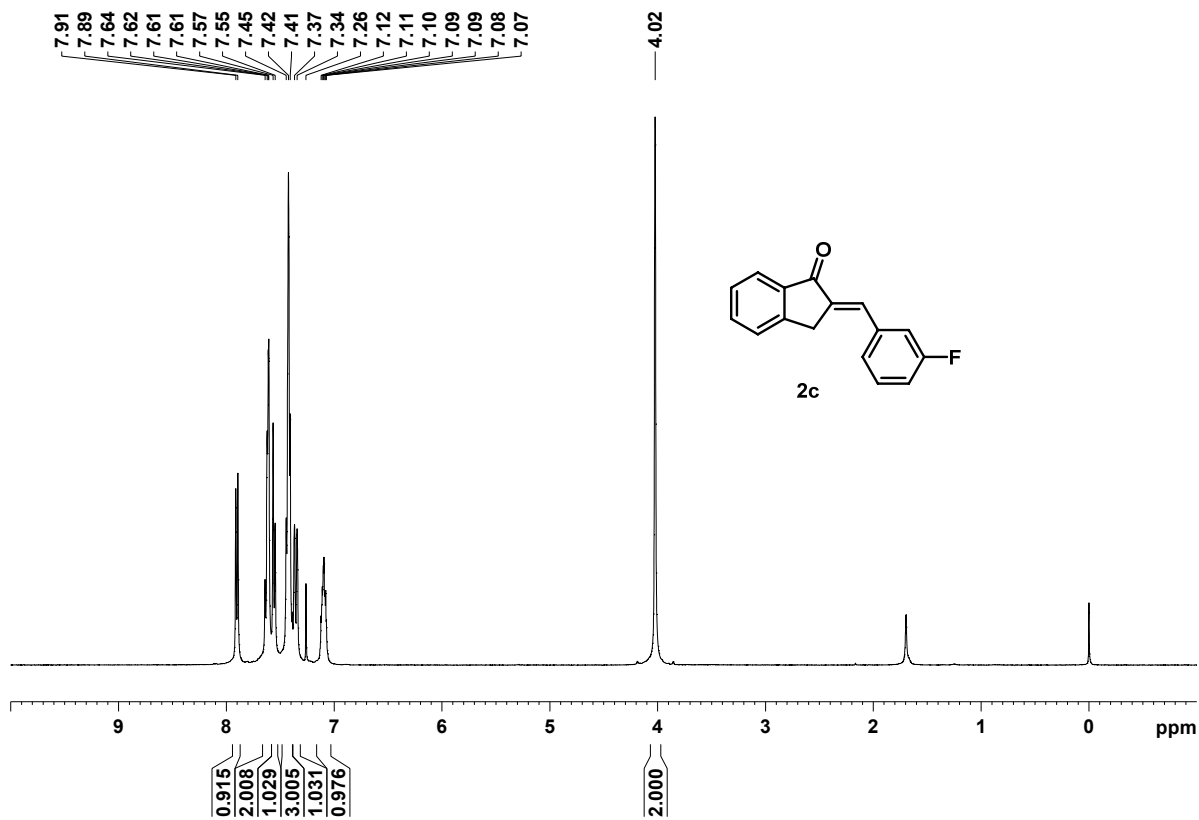
Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, INDIA

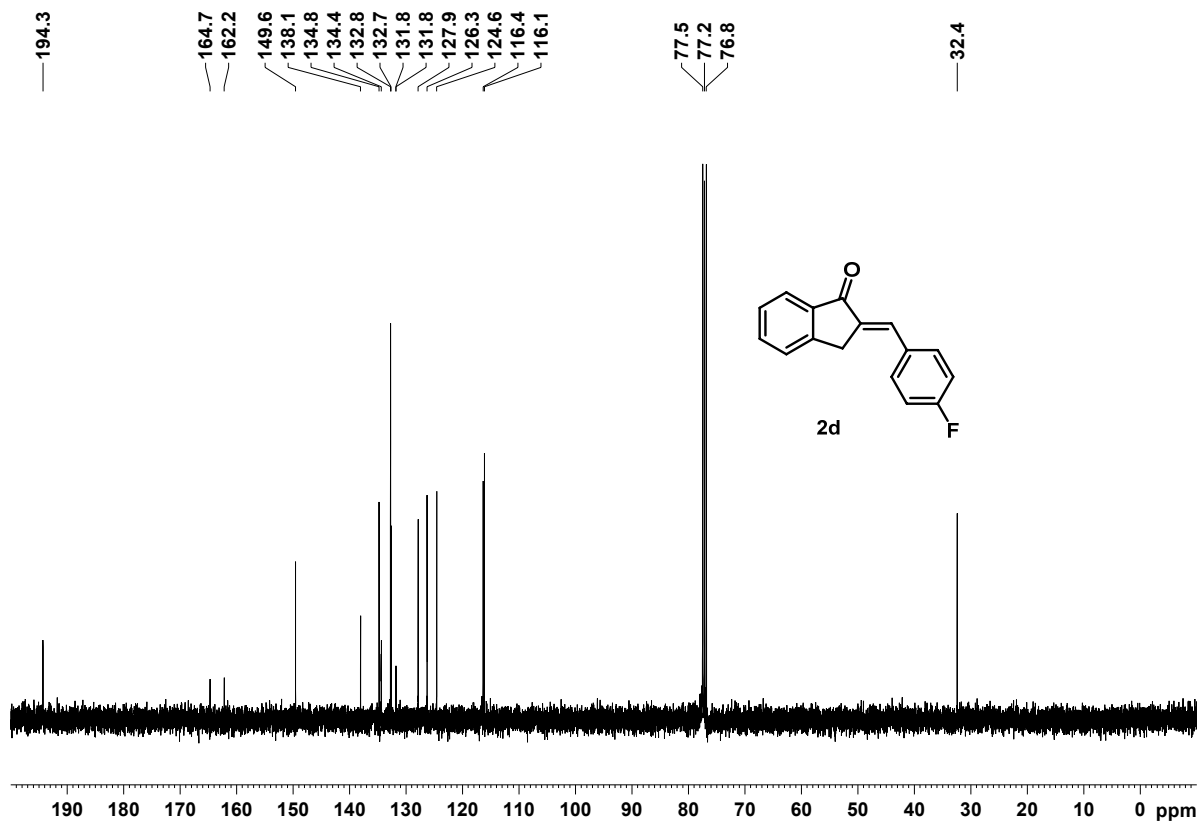
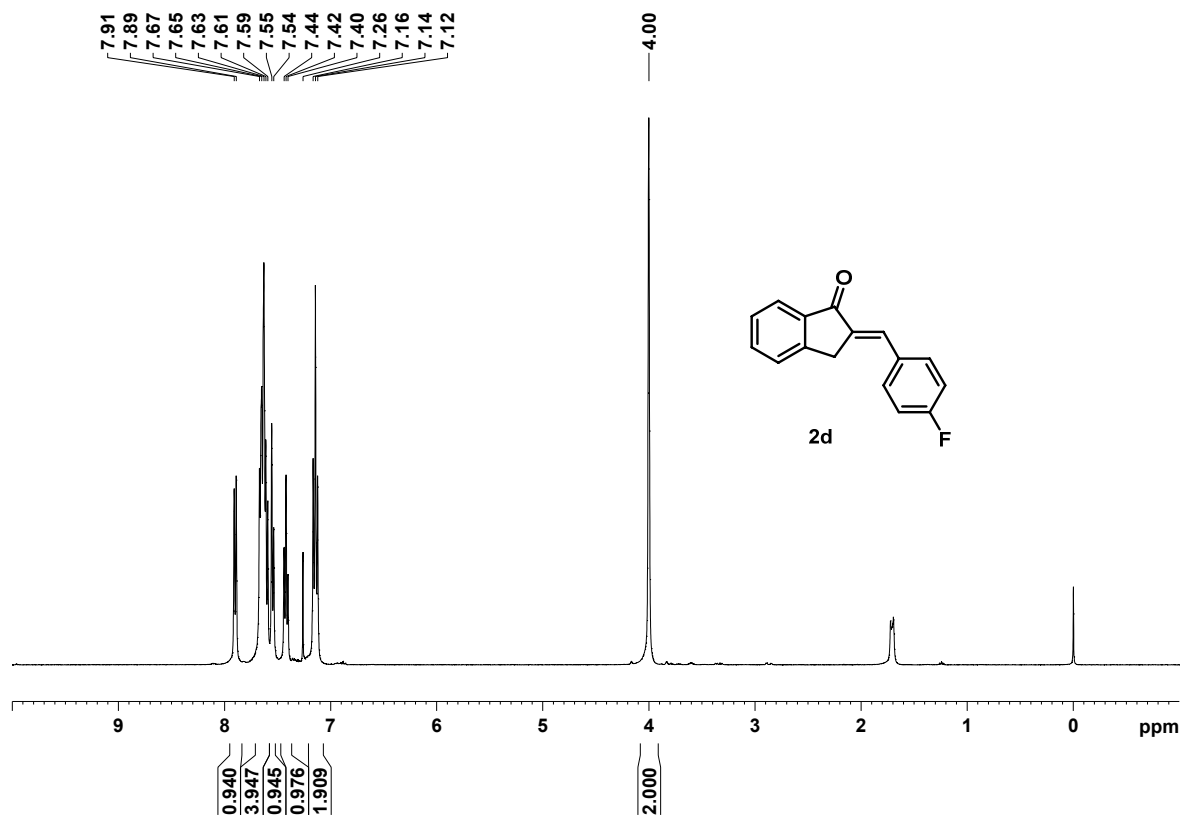
sm@orgchem.iisc.ernet.in

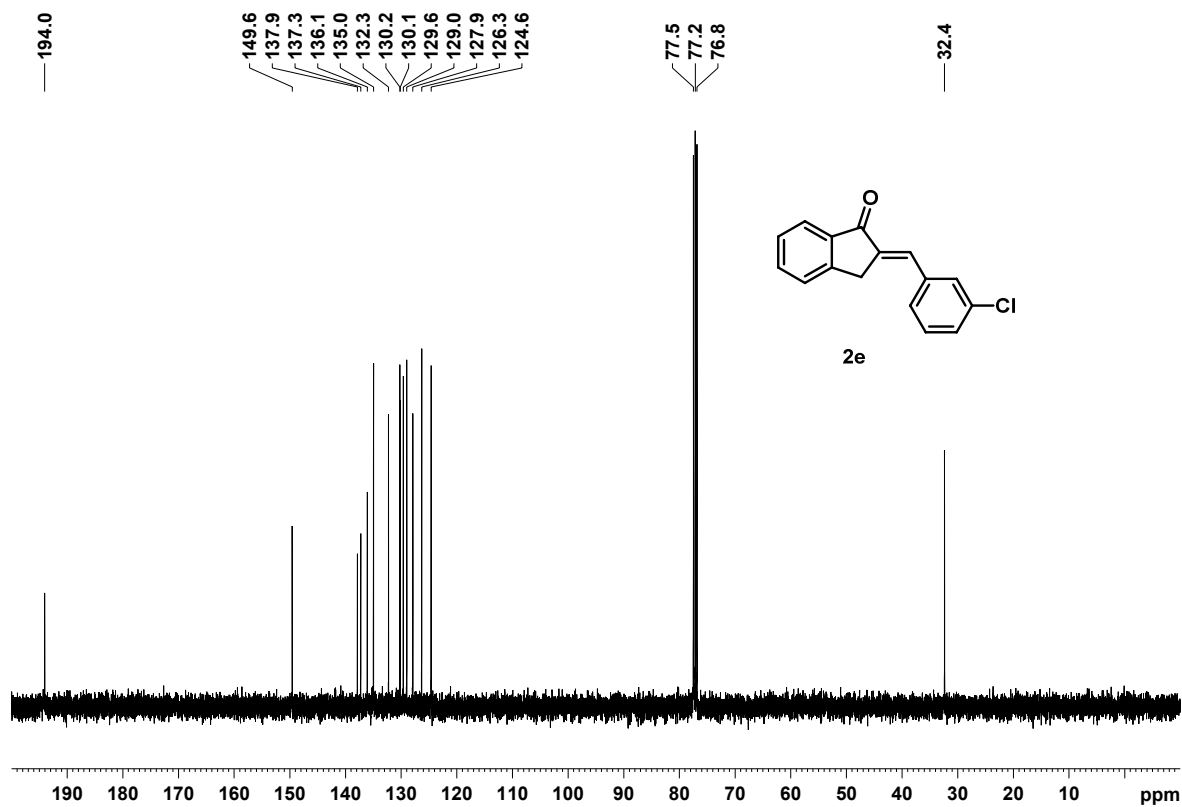
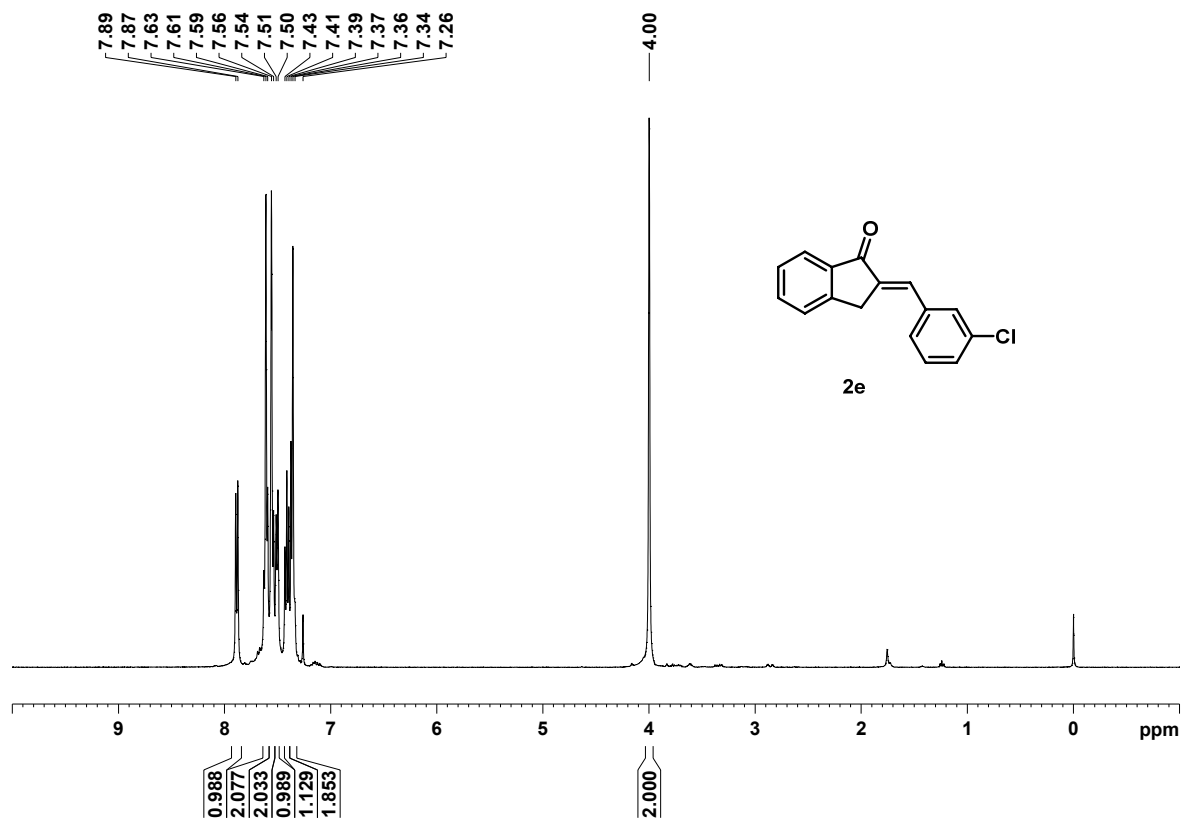
SUPPORTING INFORMATION: PART B

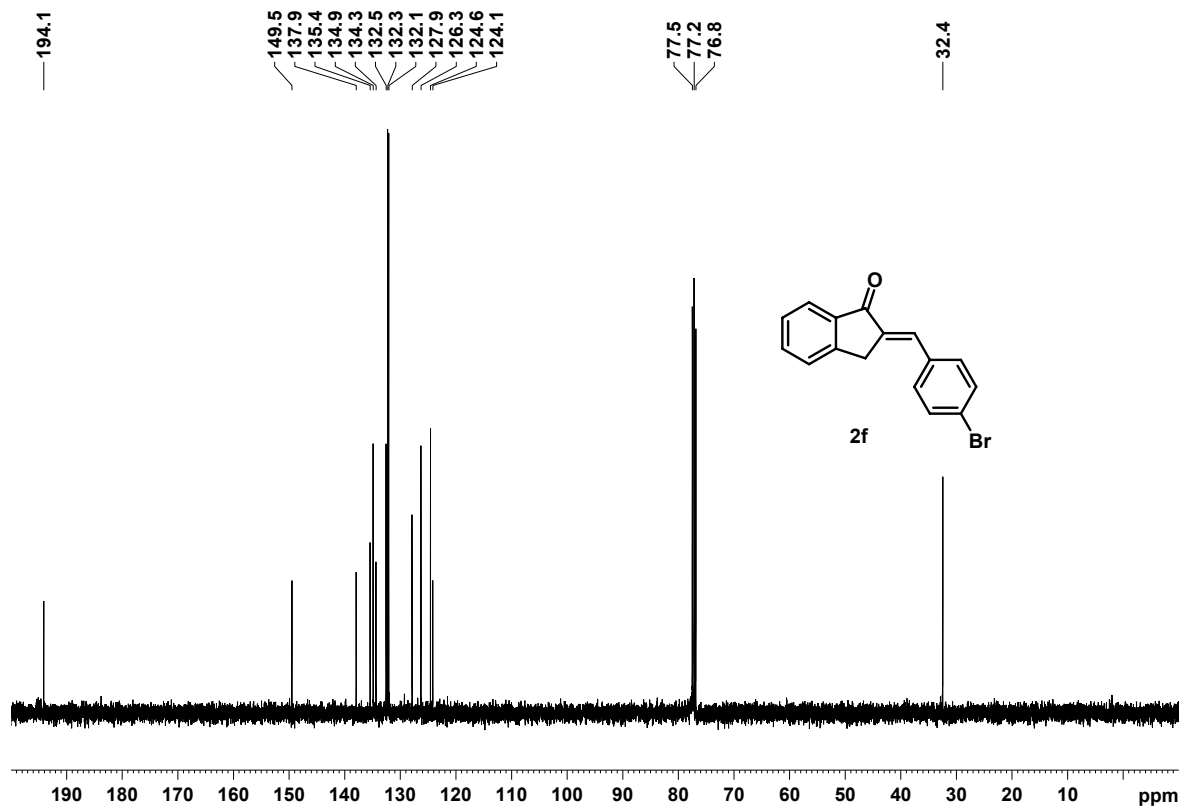
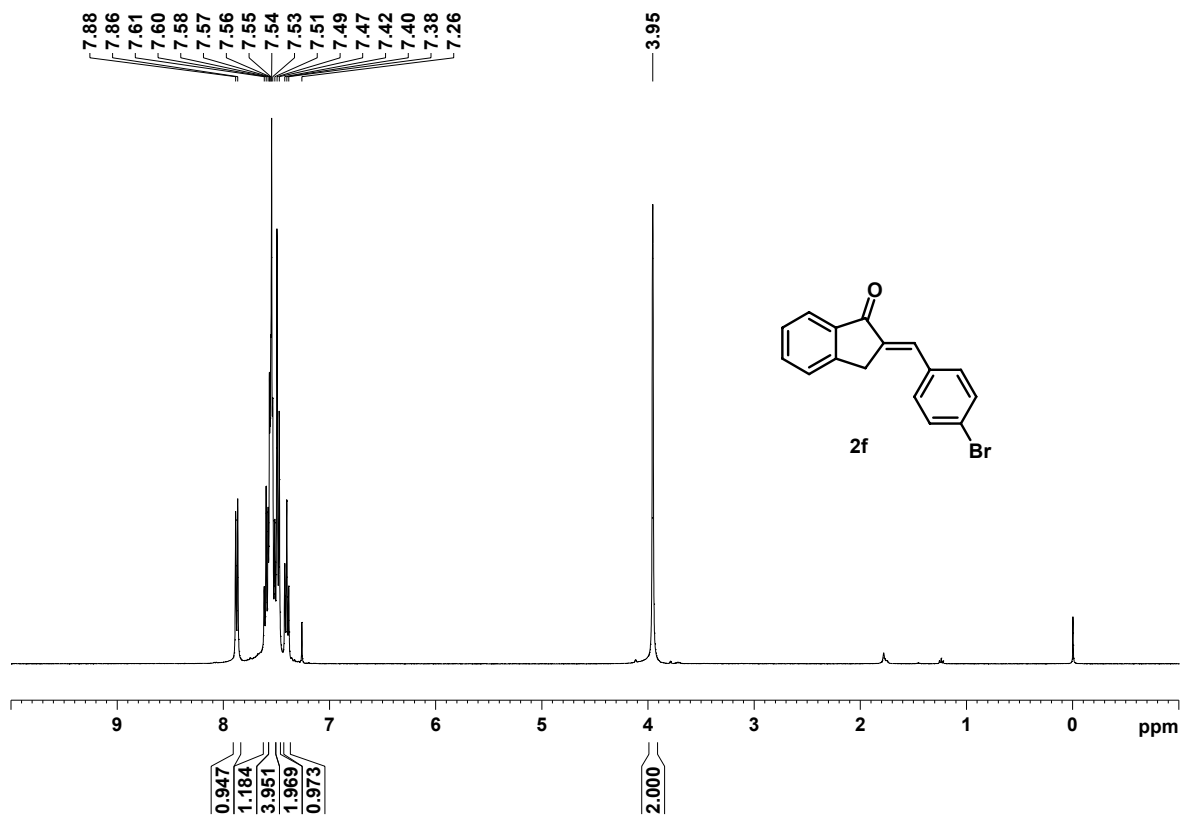


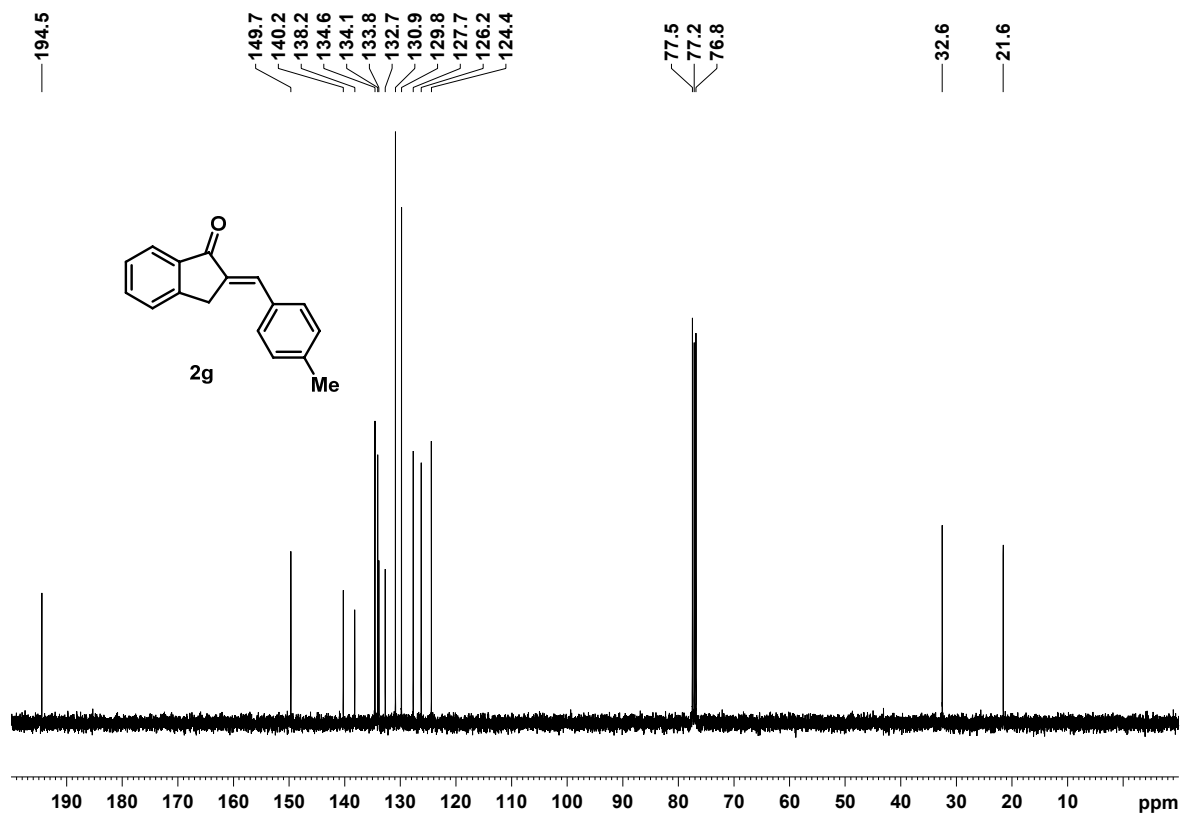
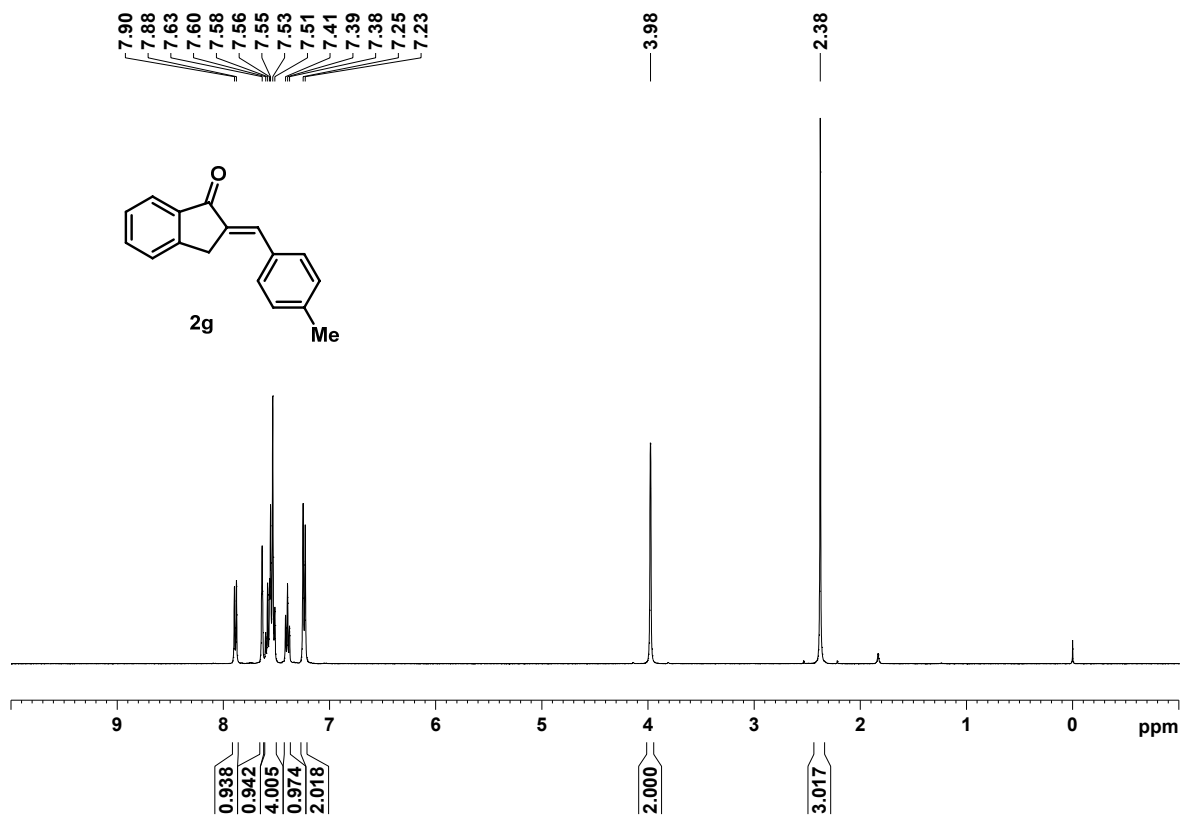


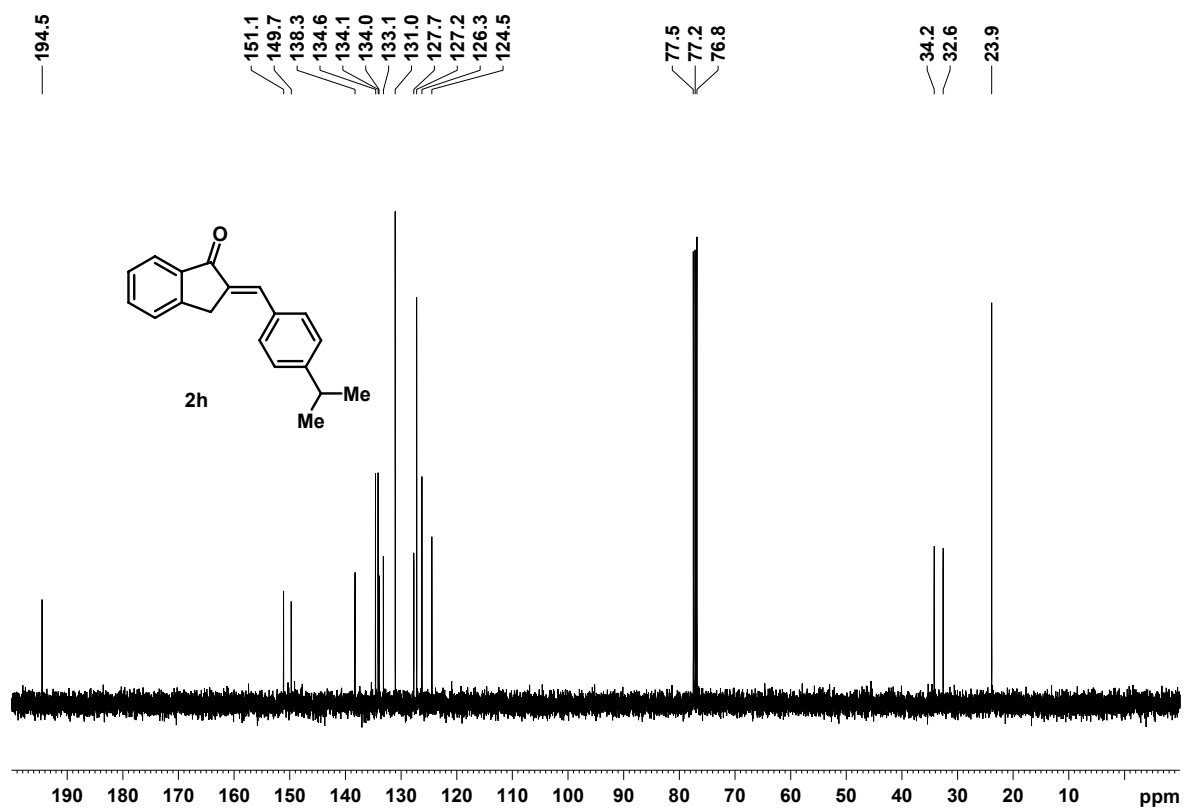
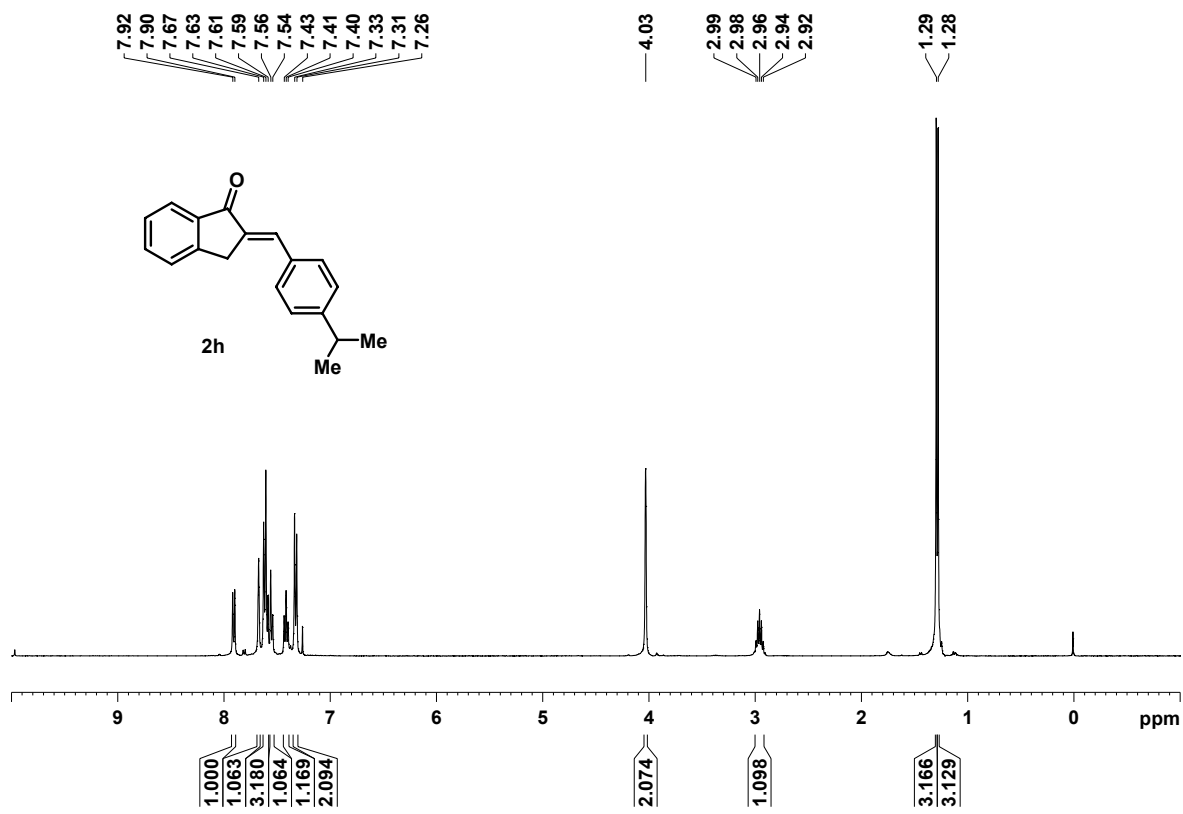


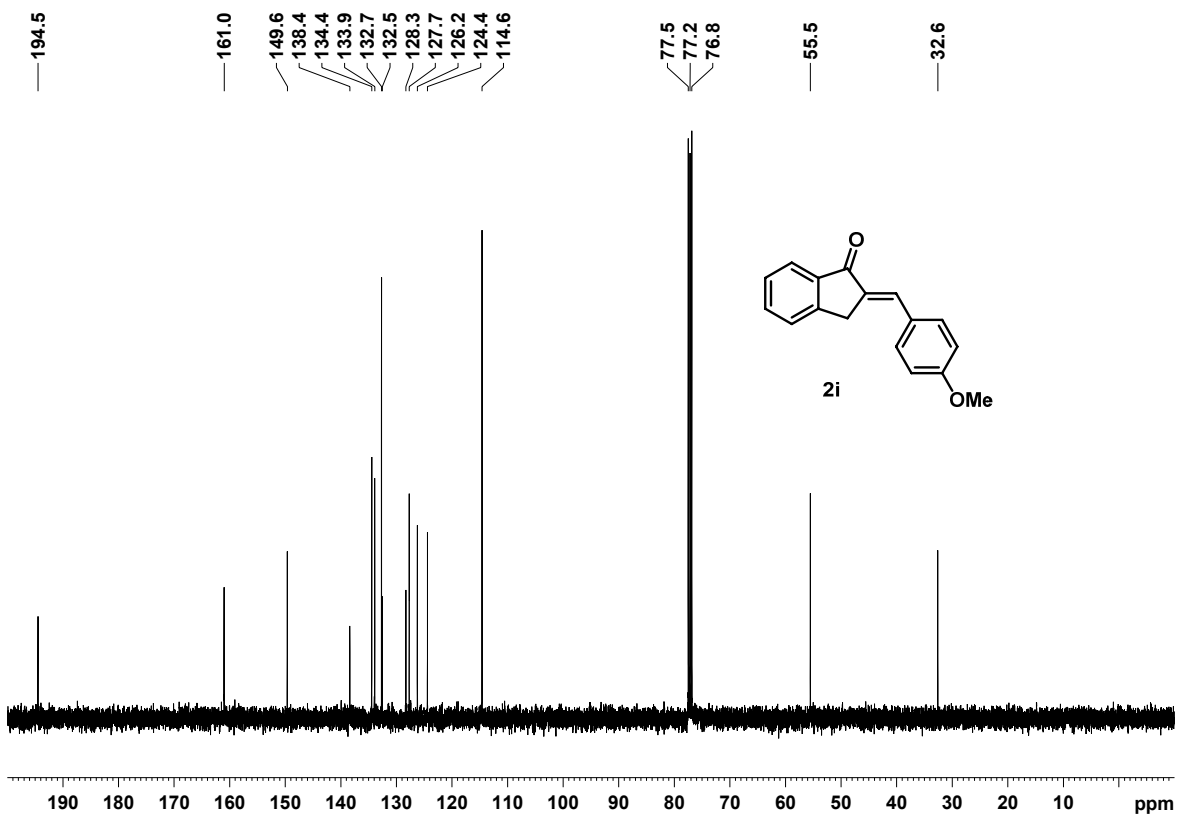
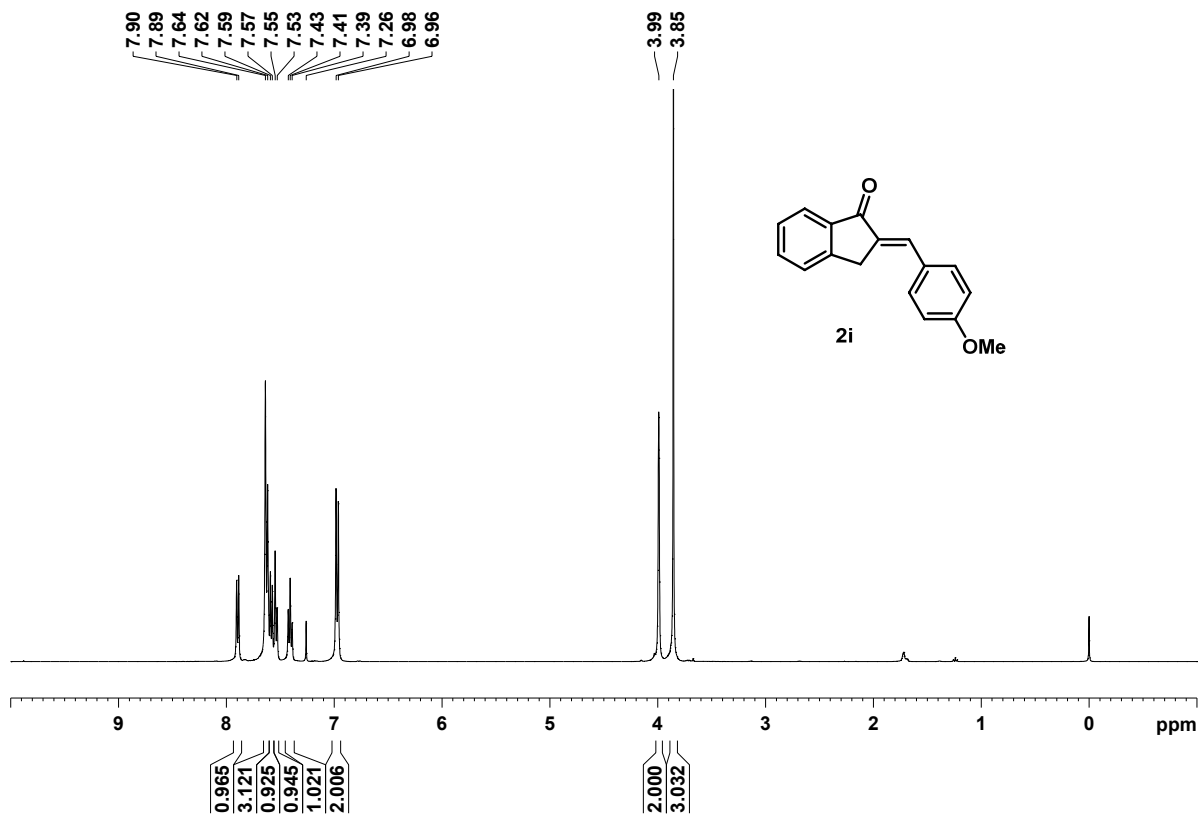


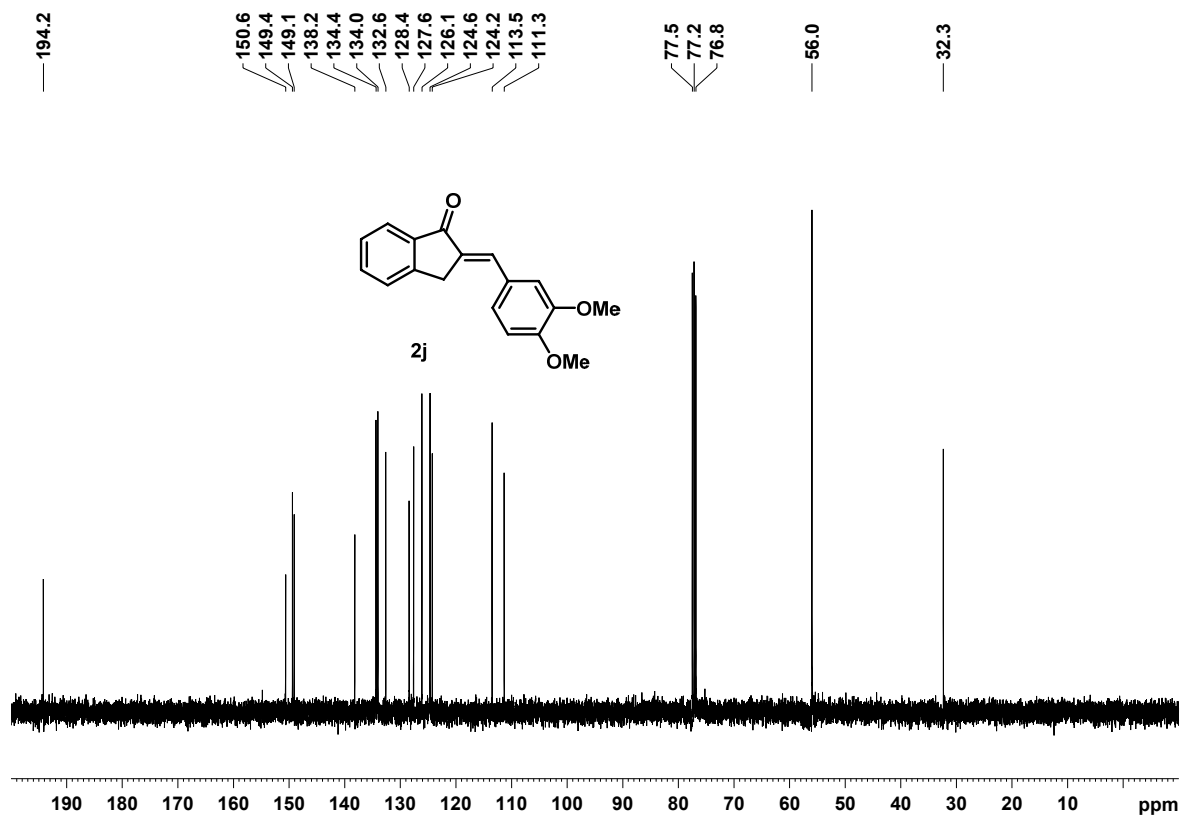
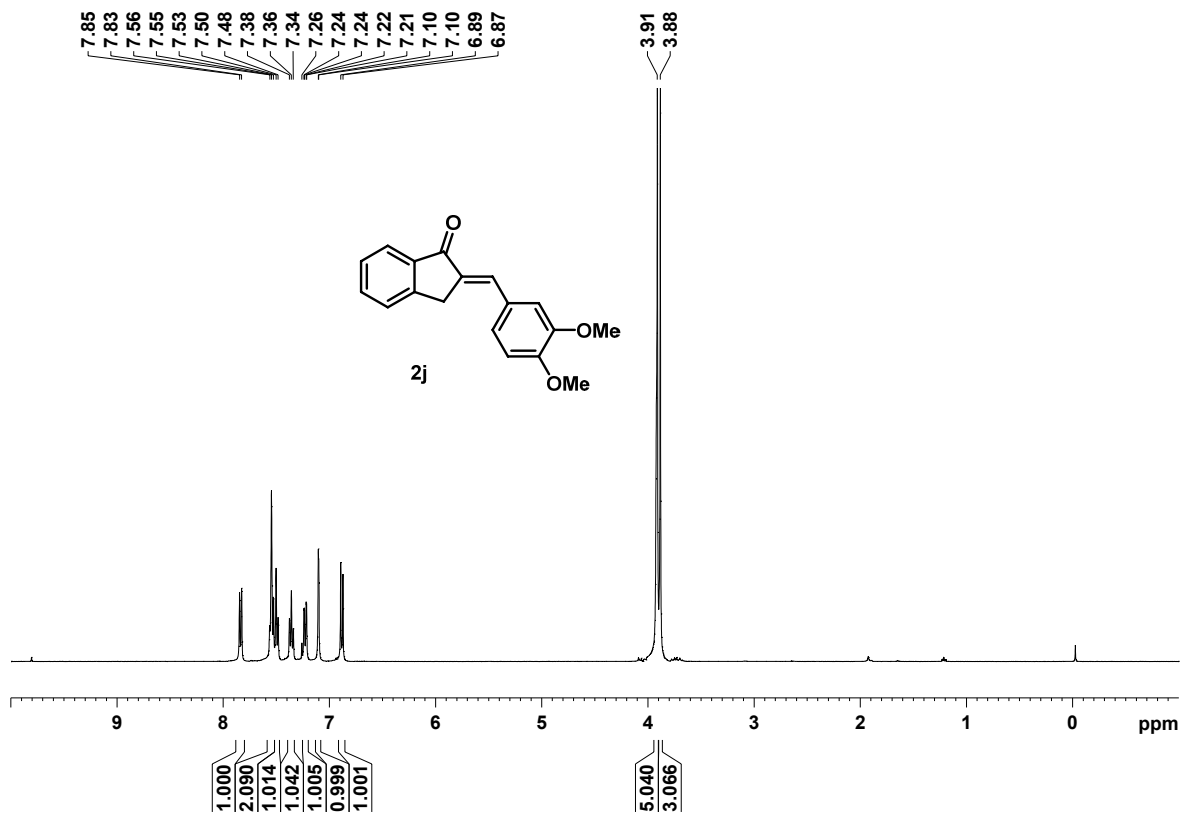


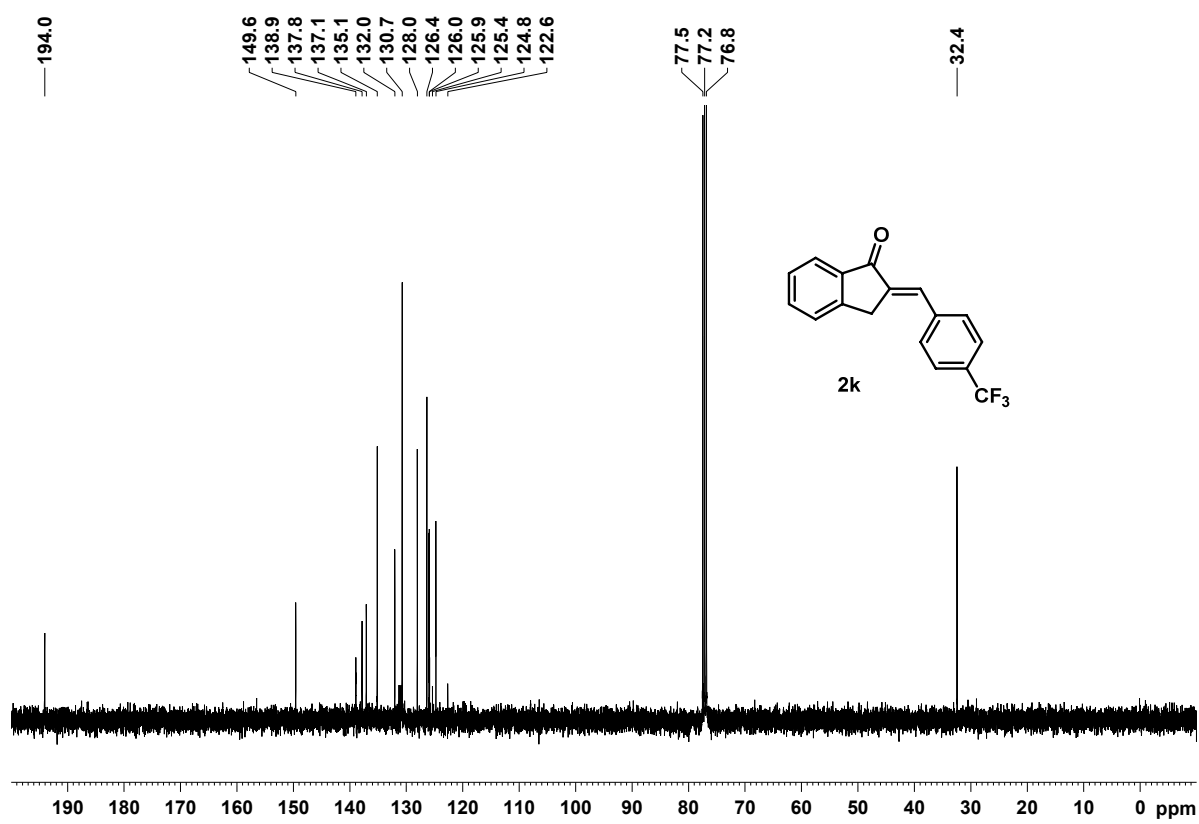
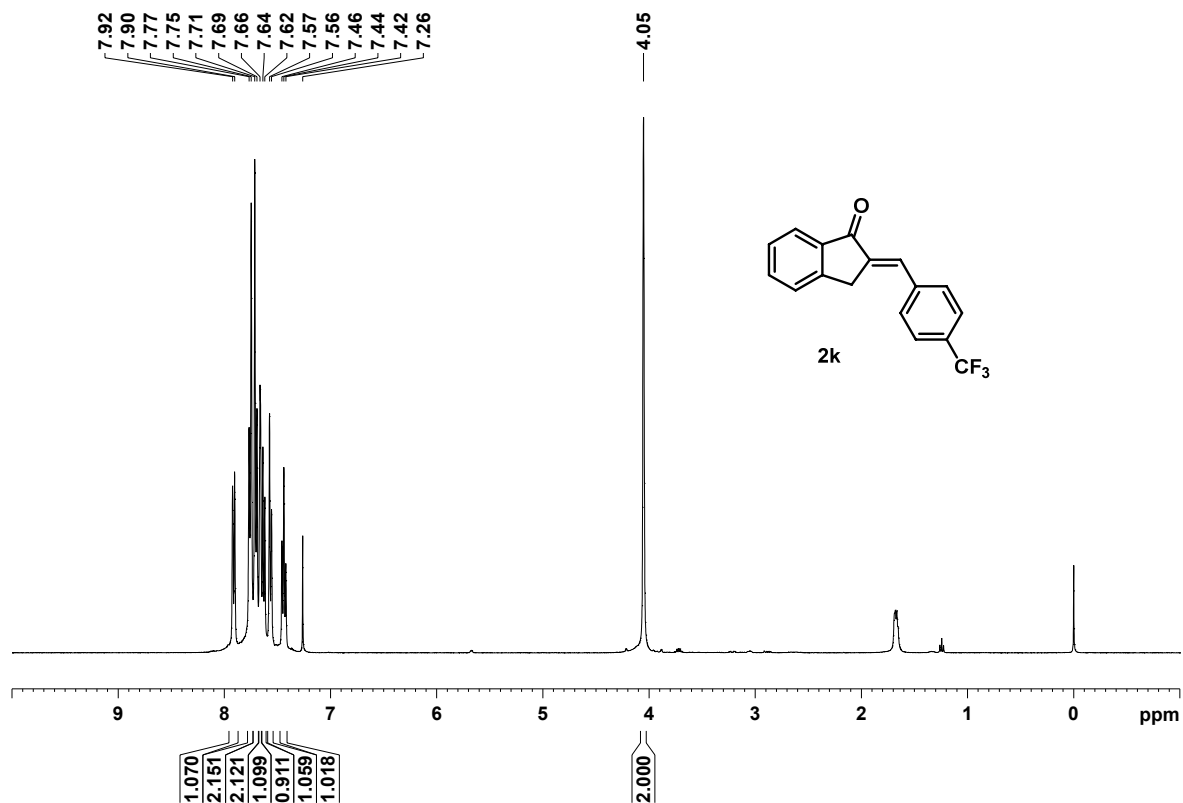


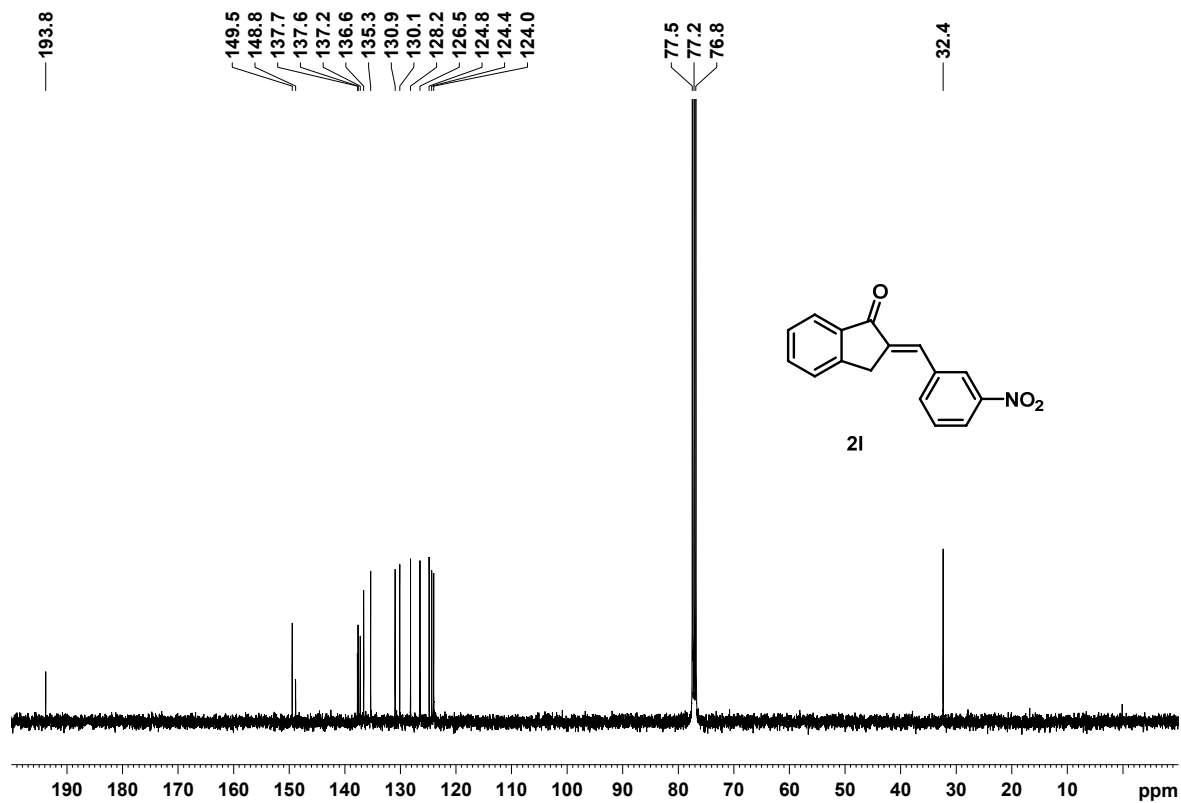
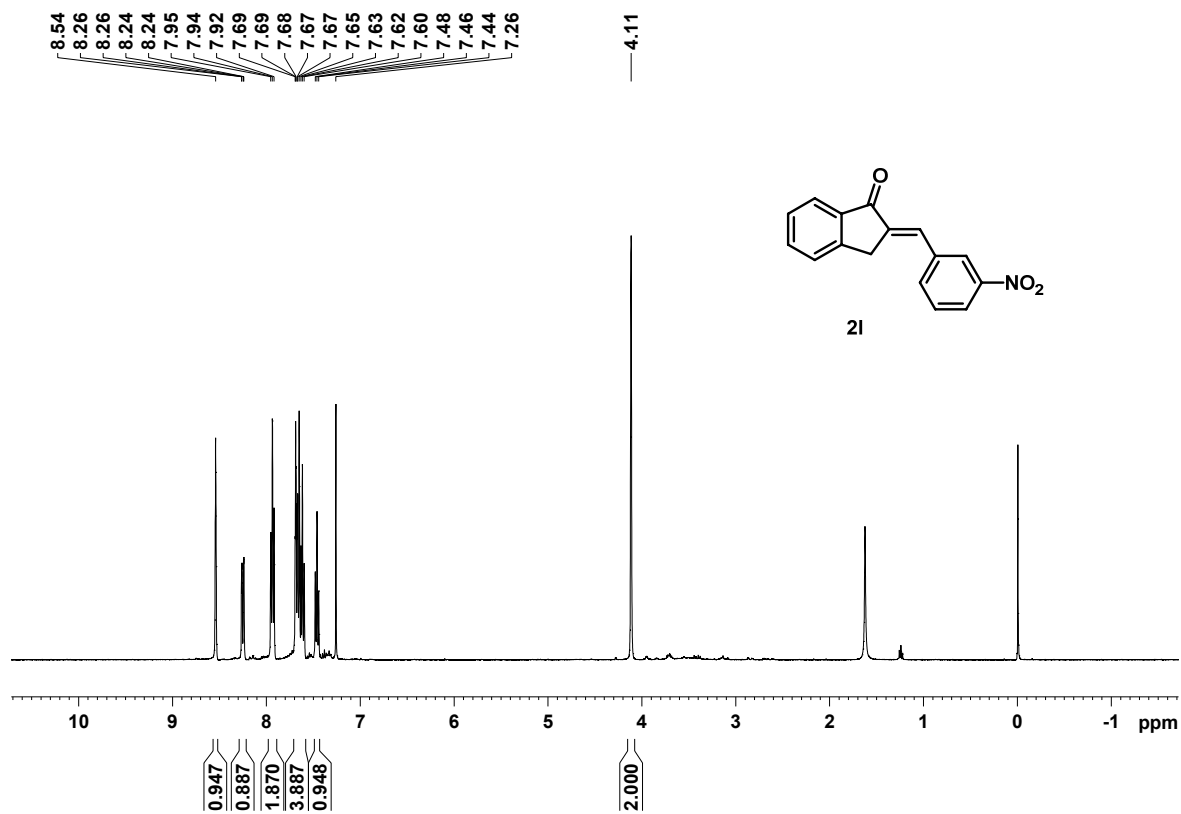


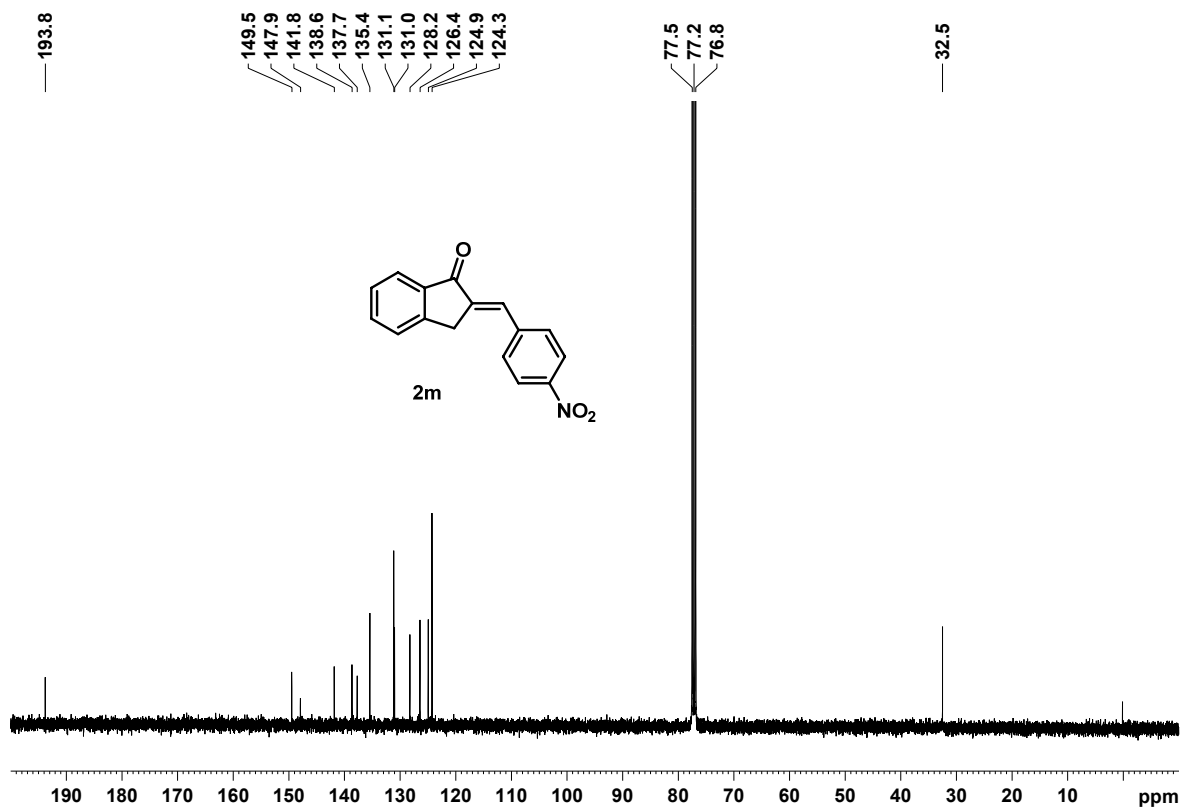
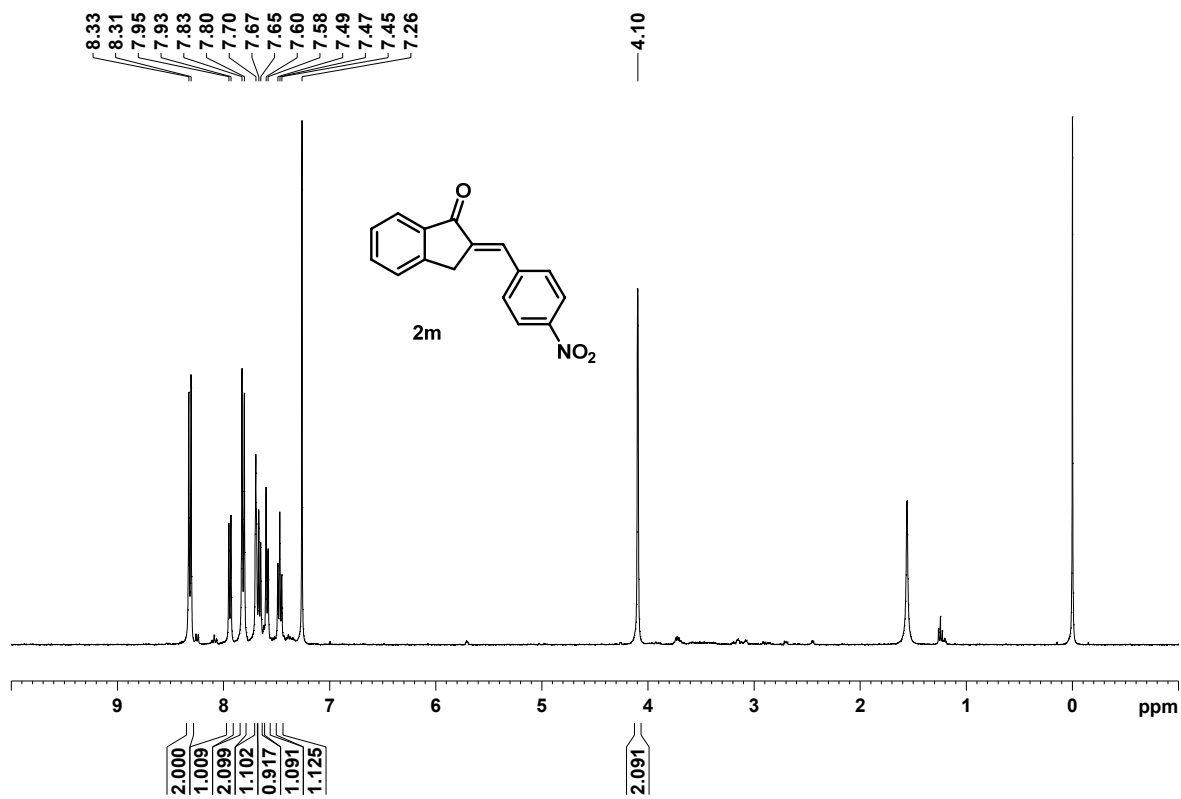


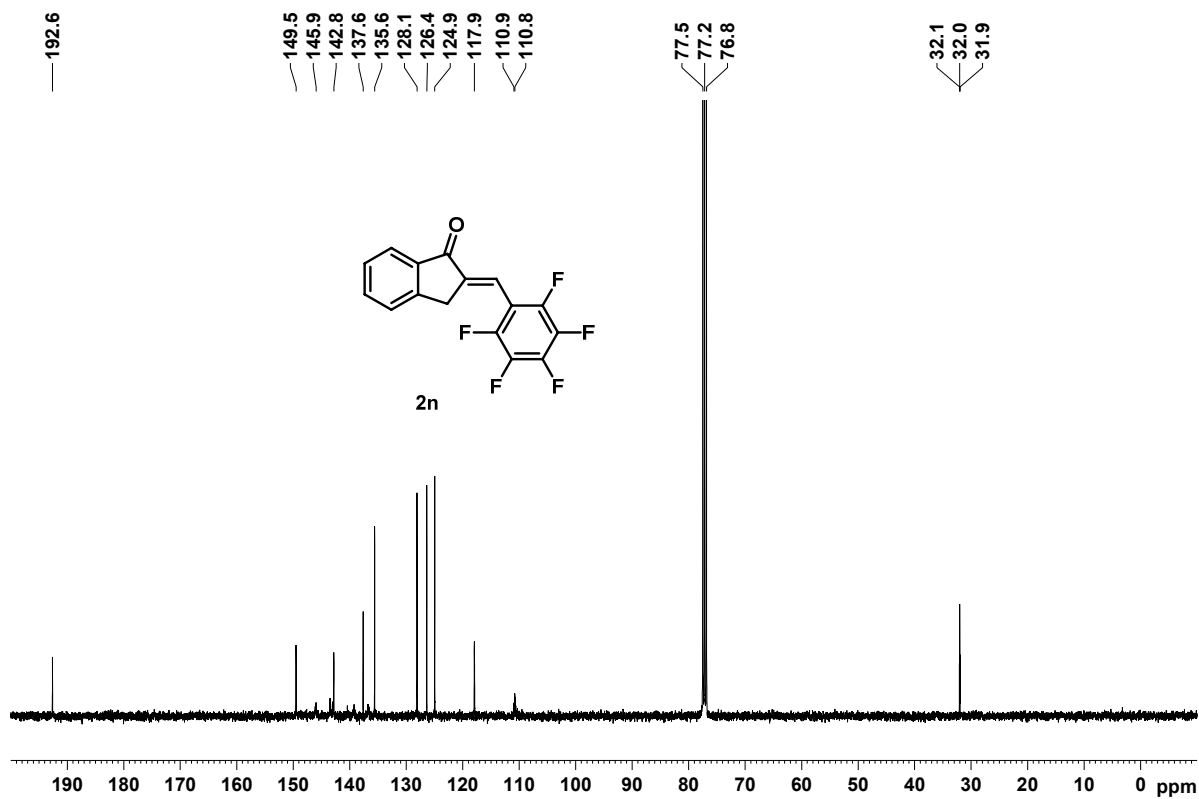
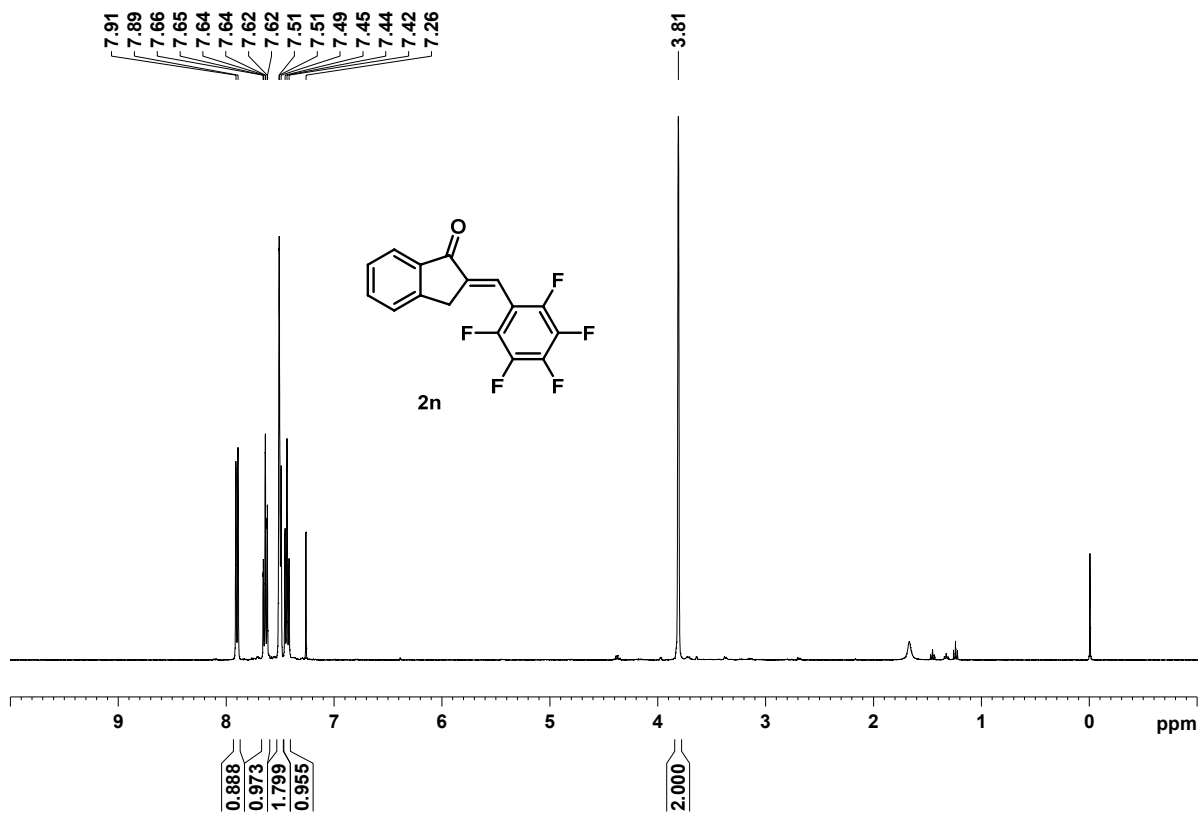


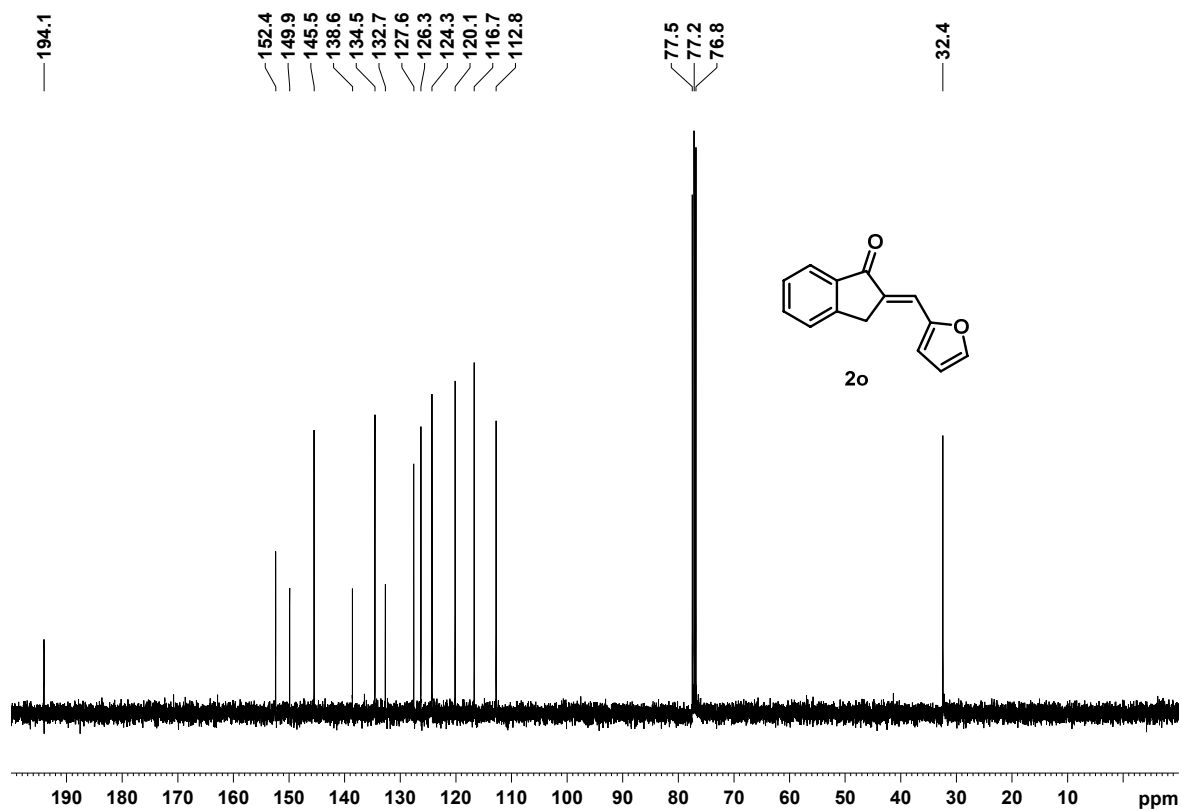
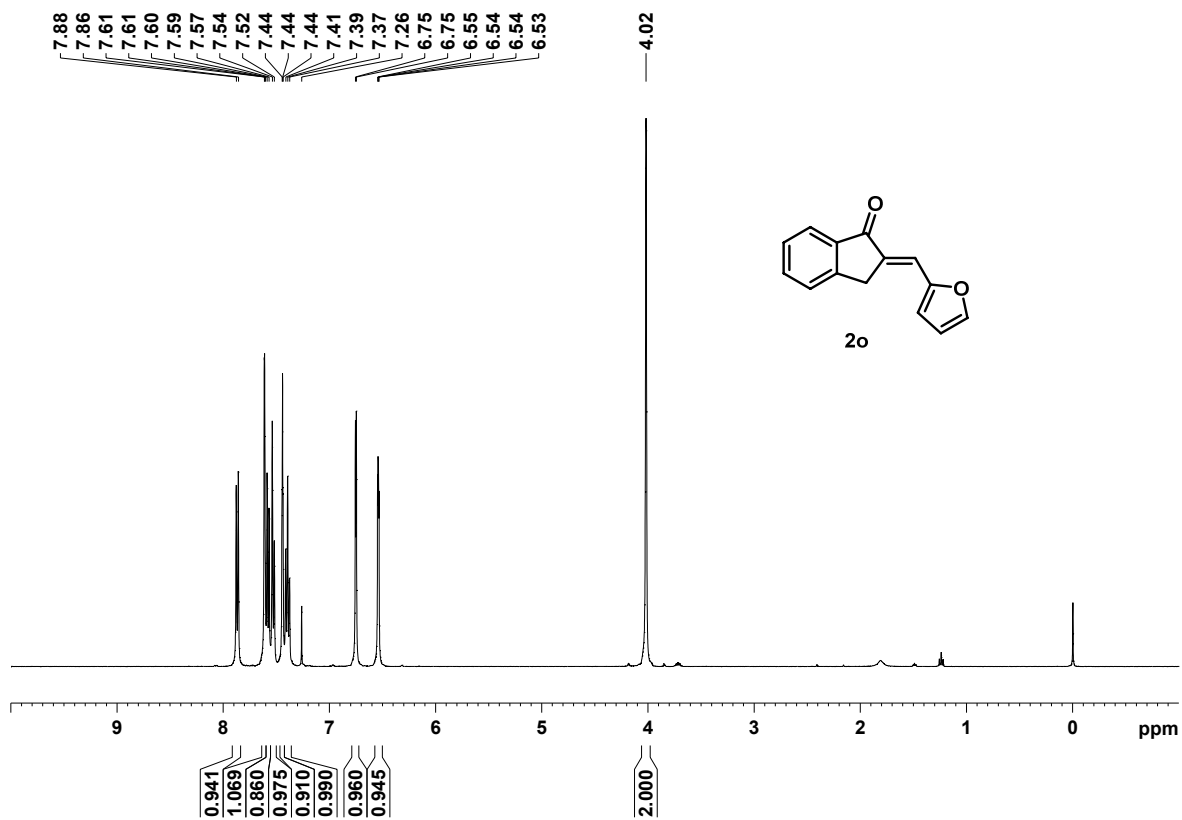


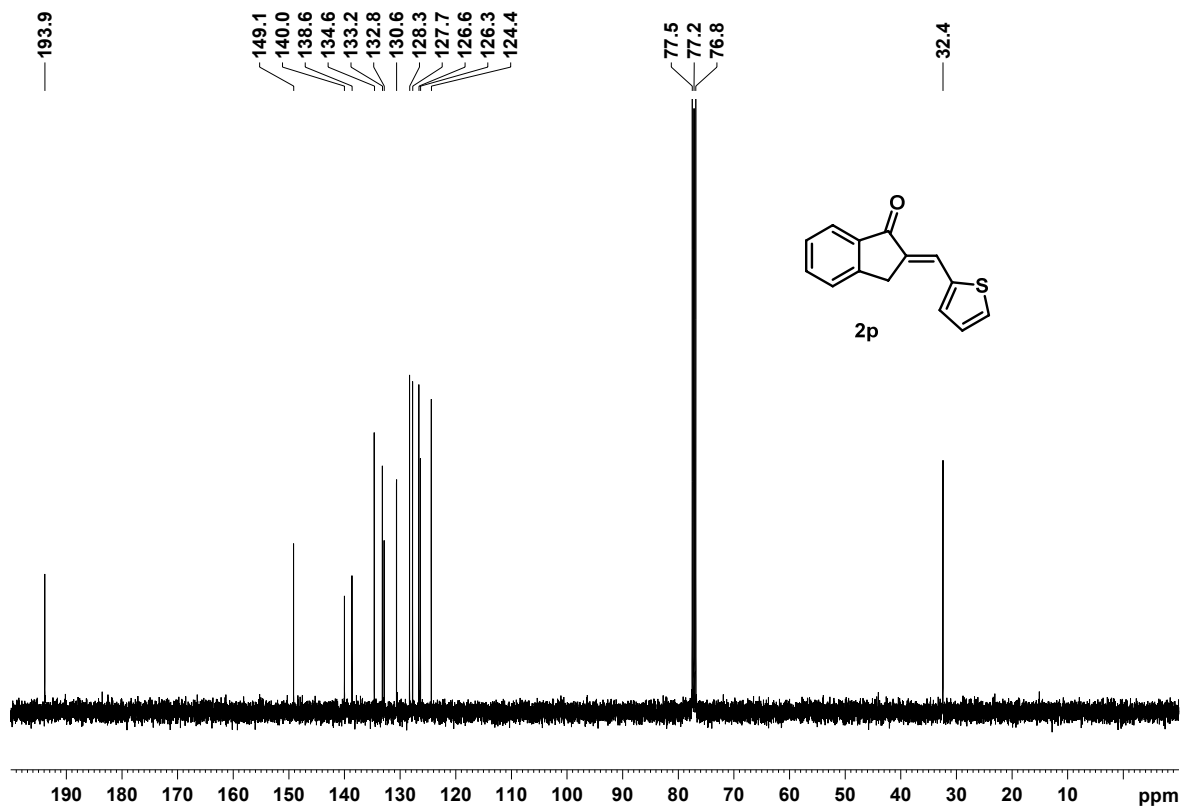
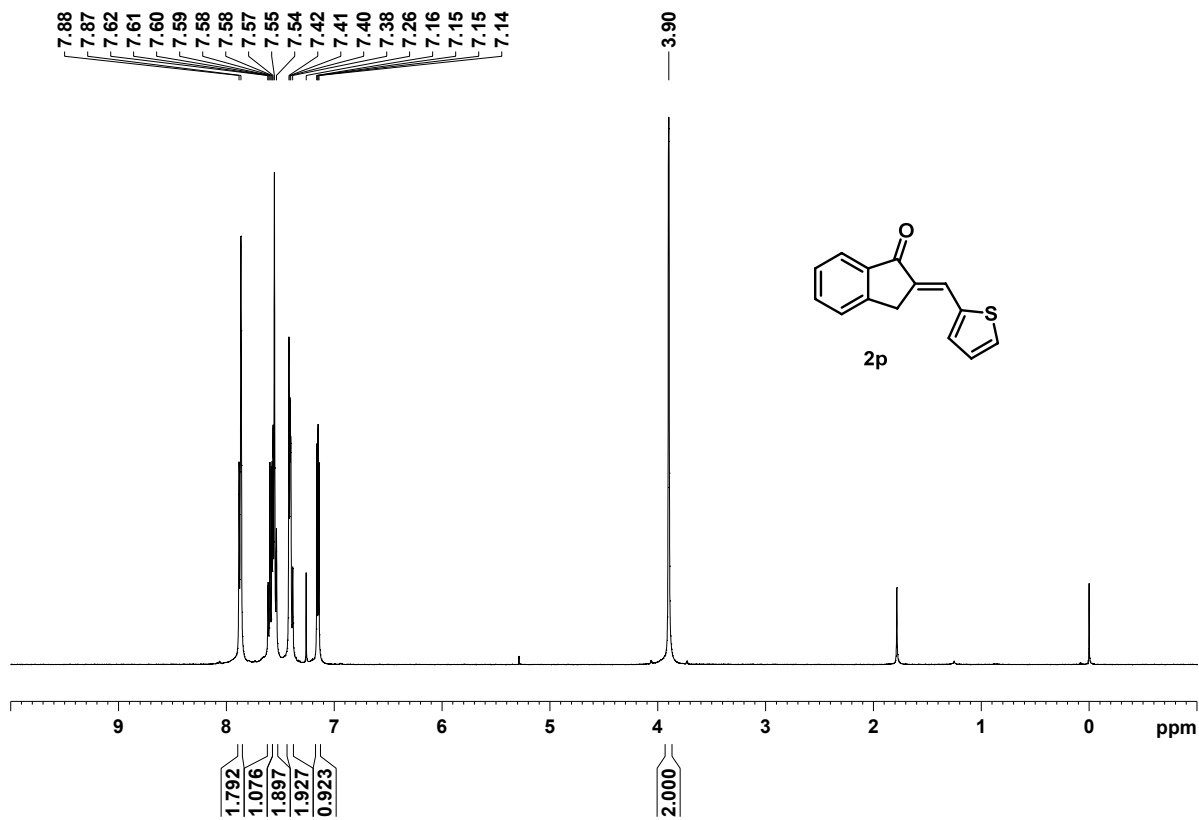


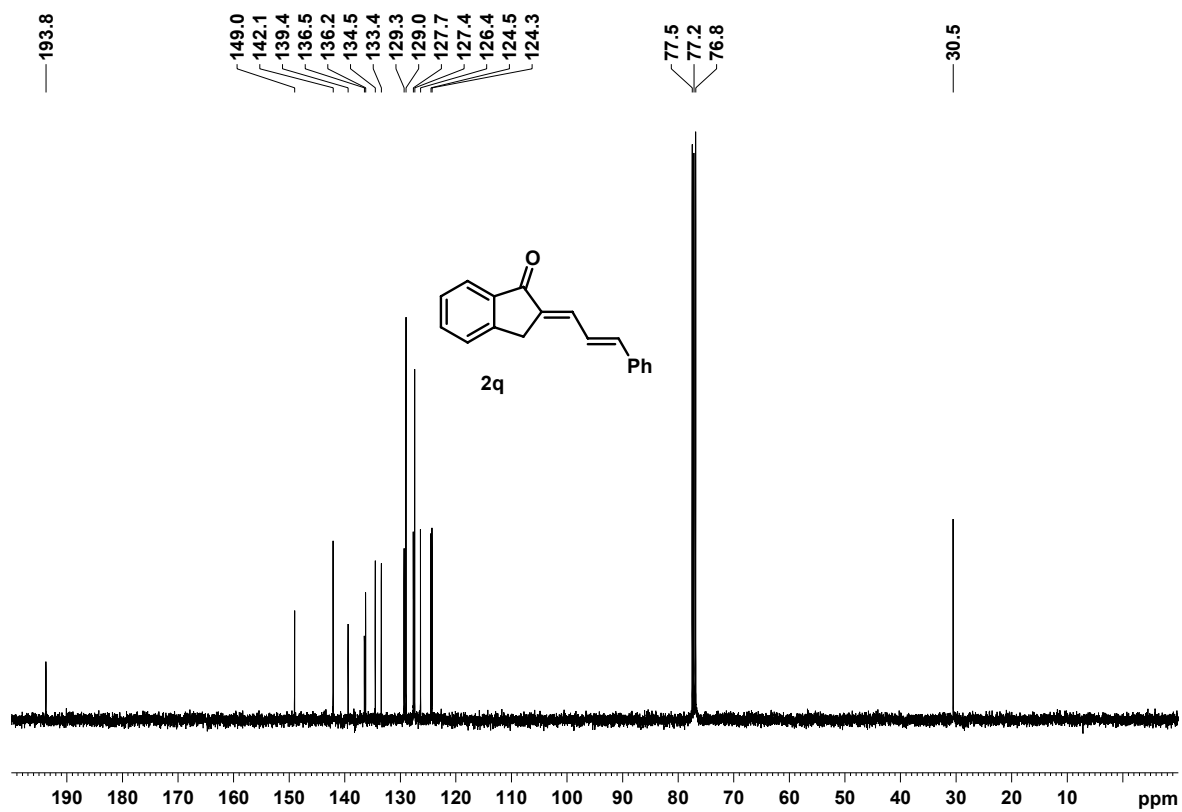
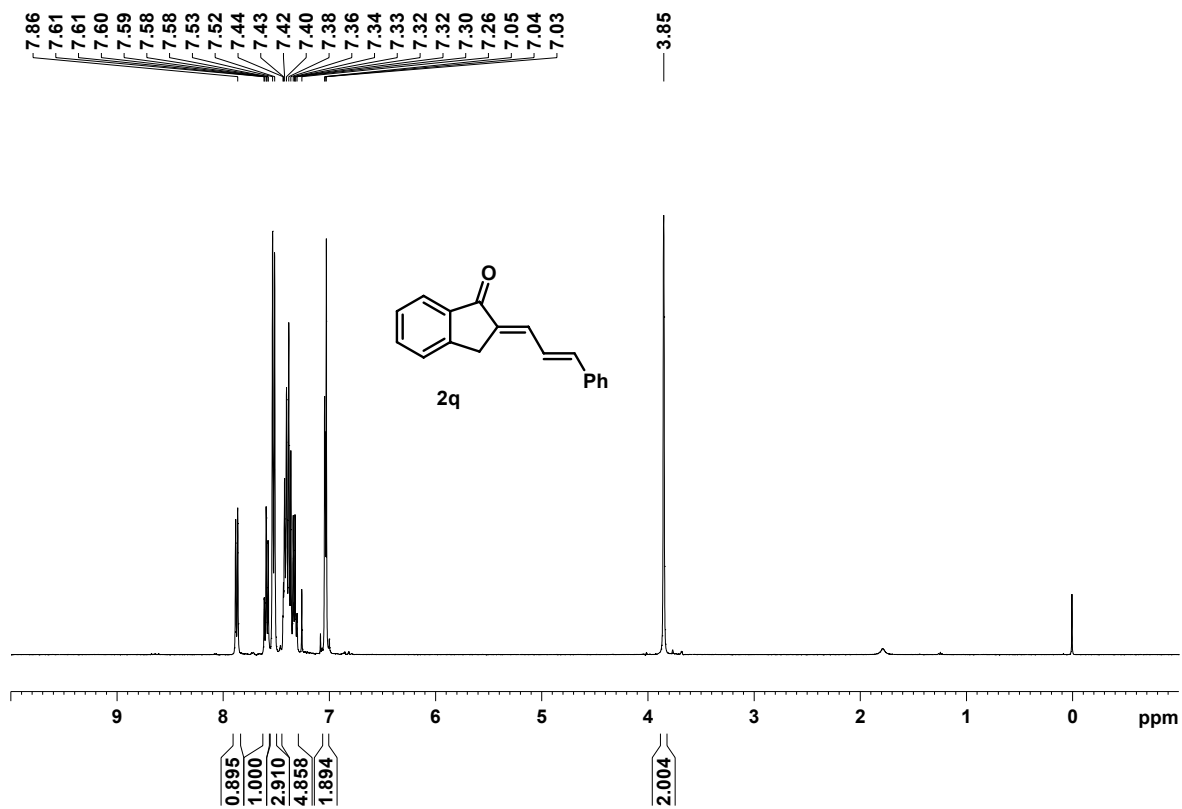


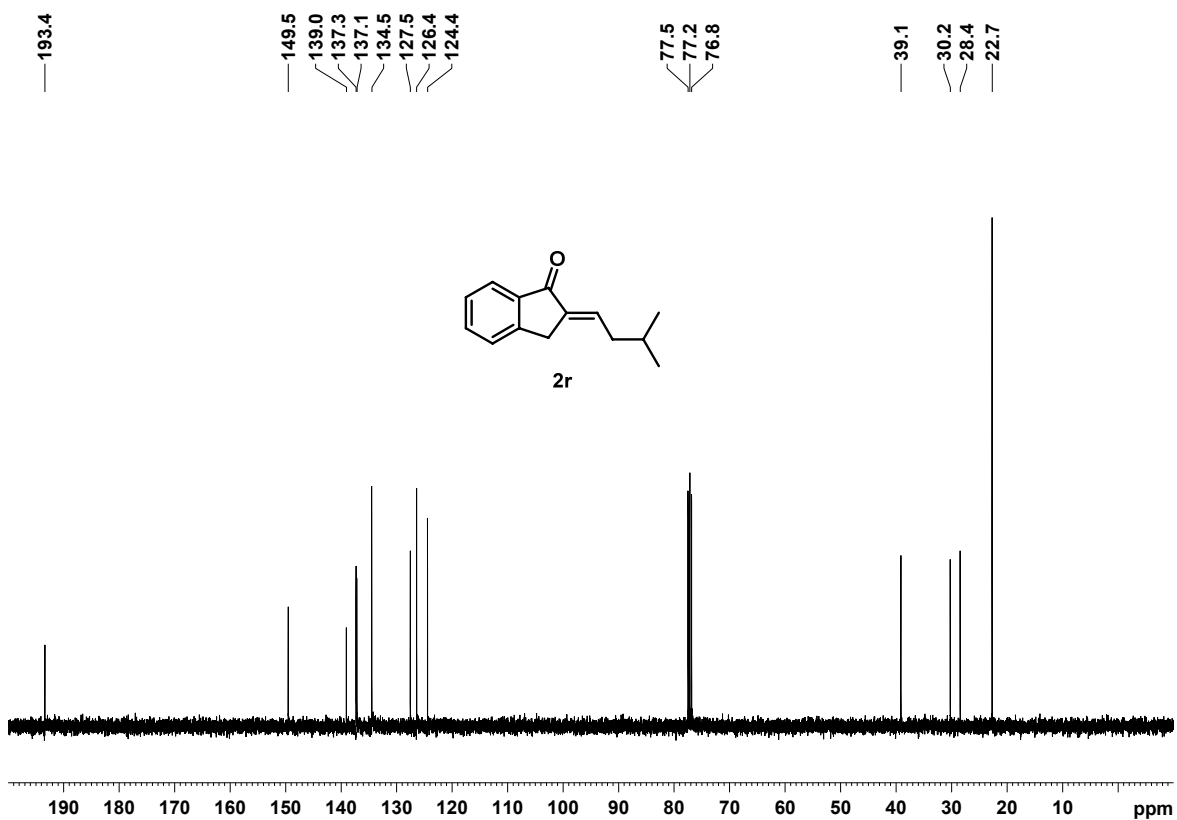
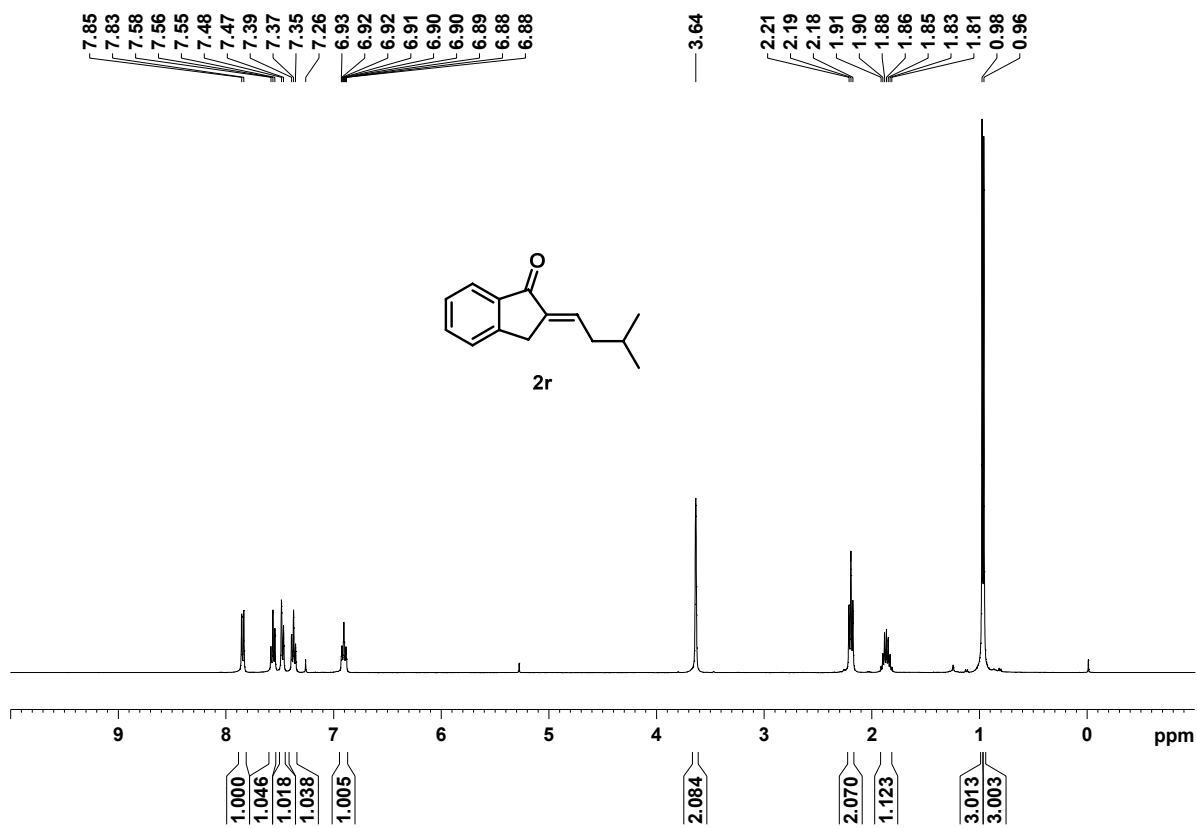


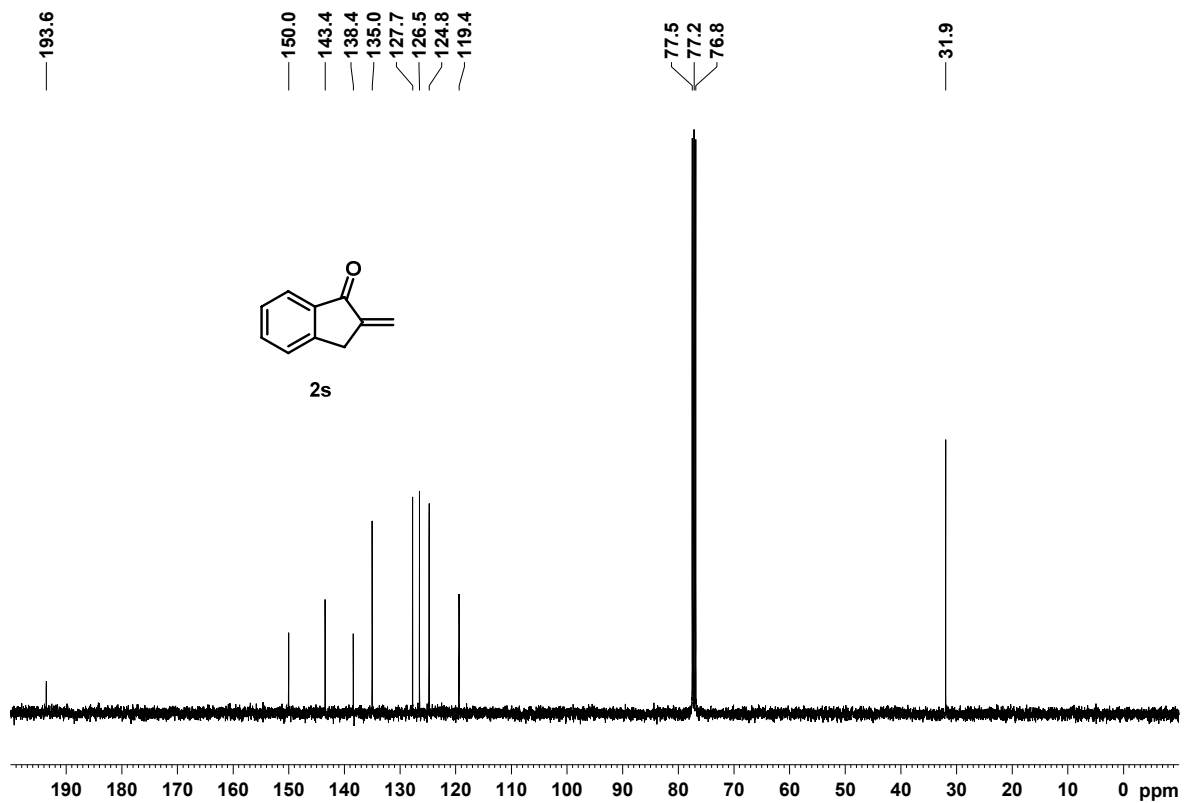
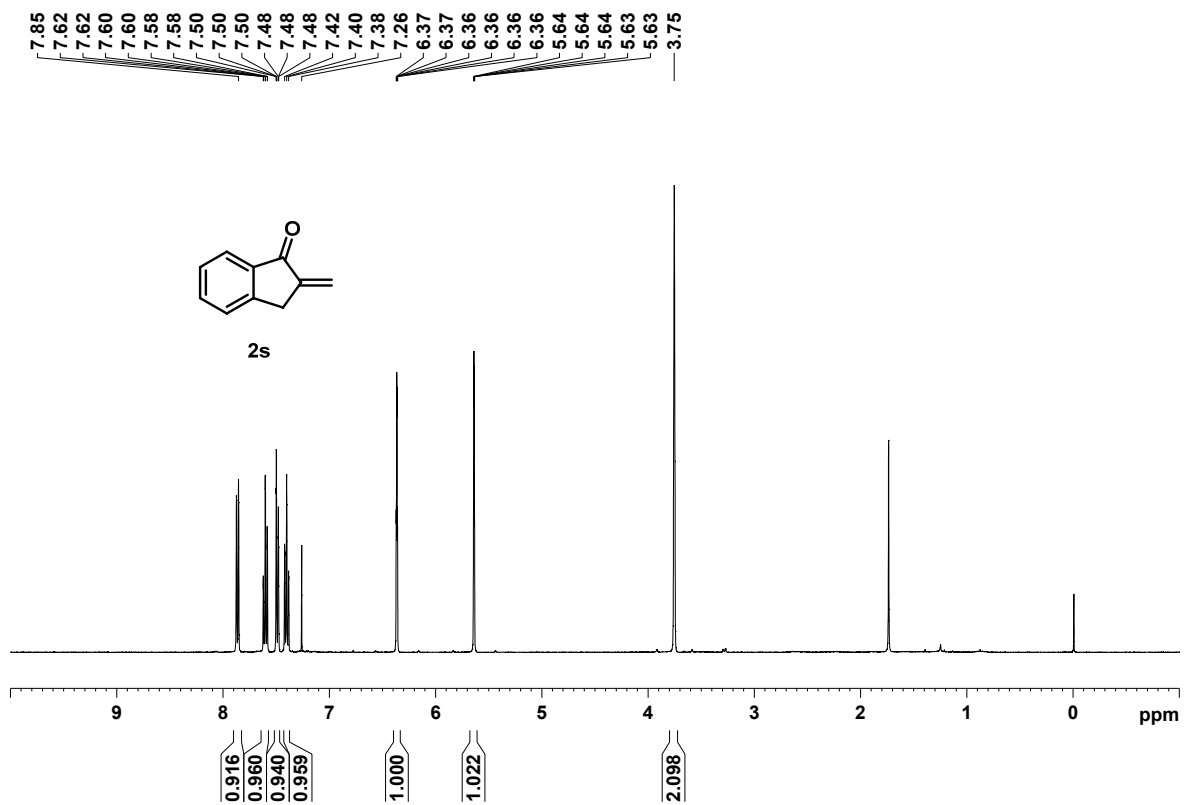


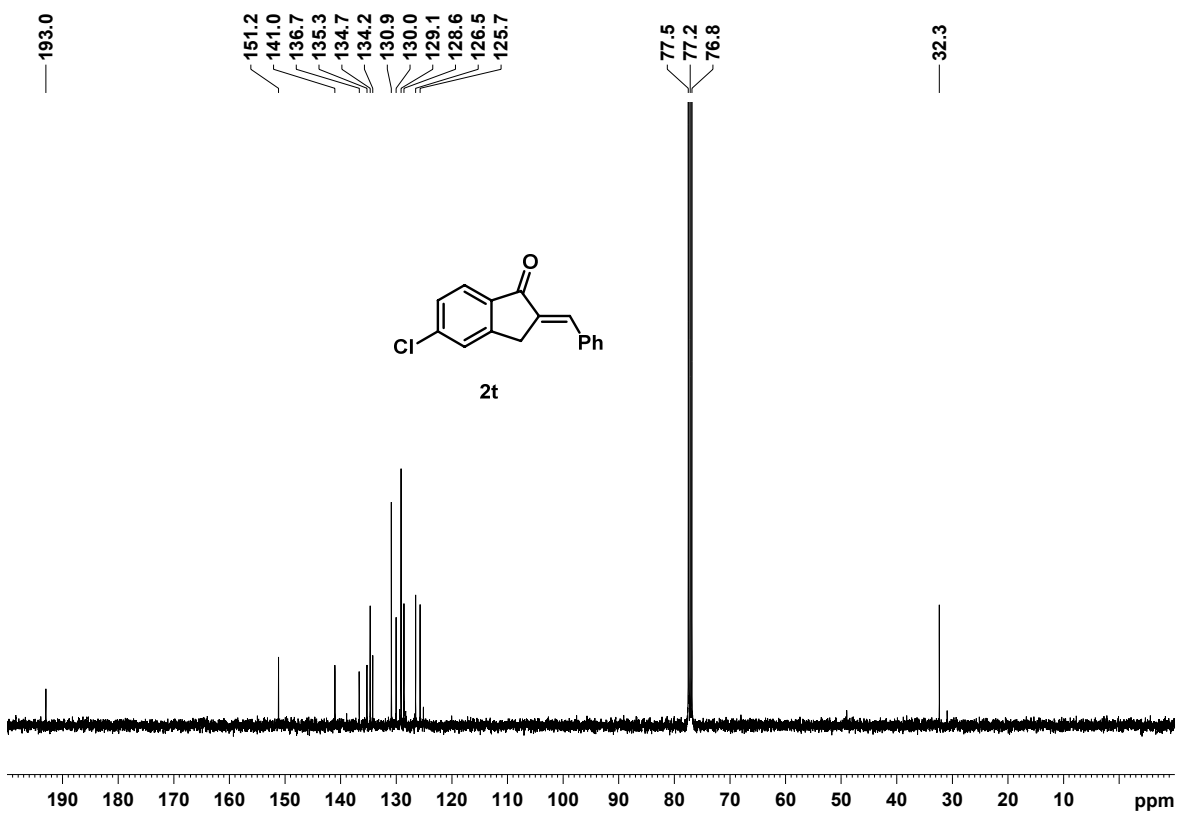
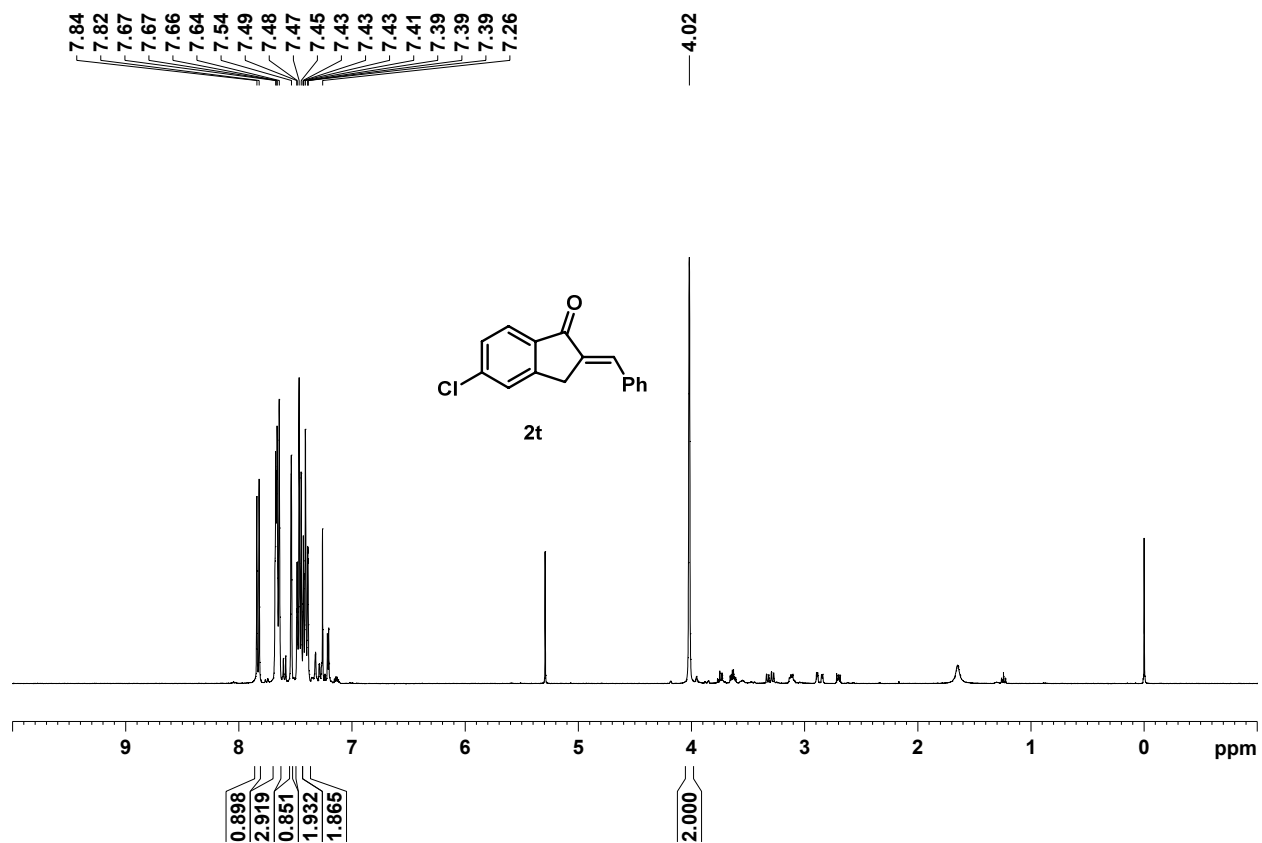


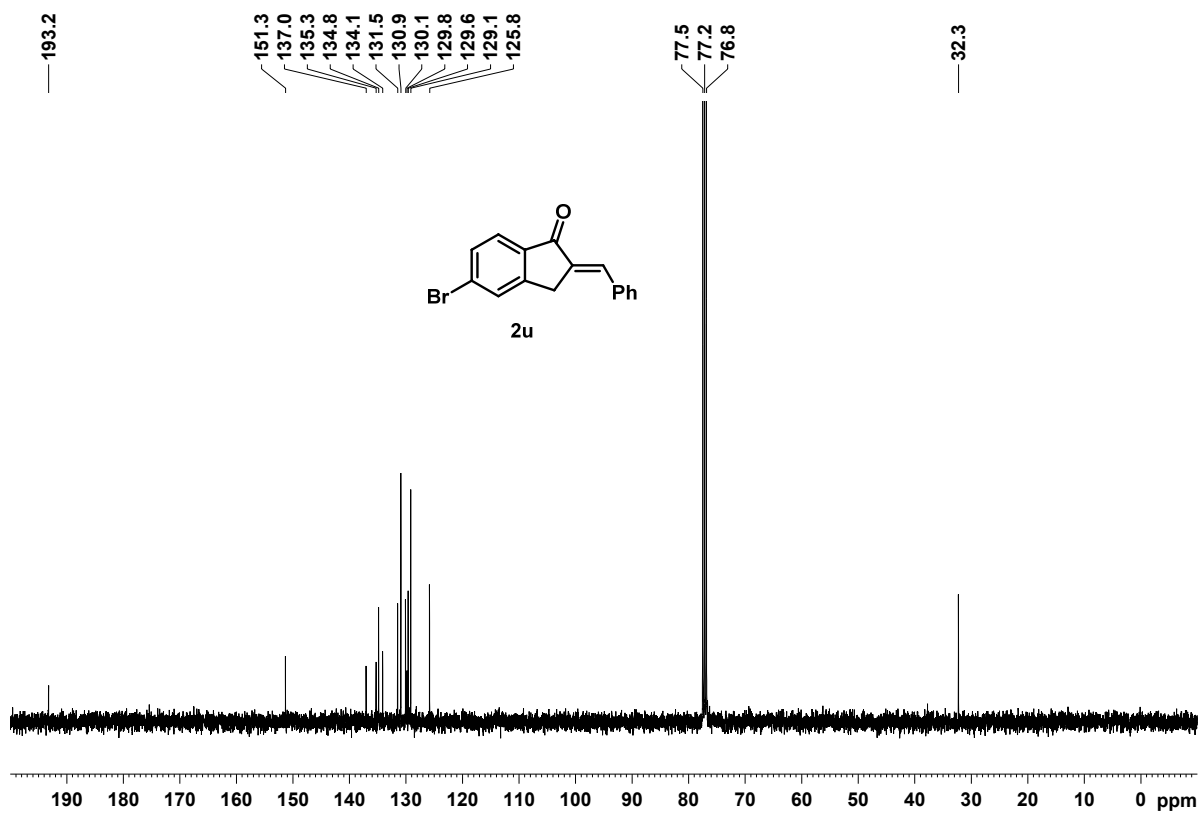
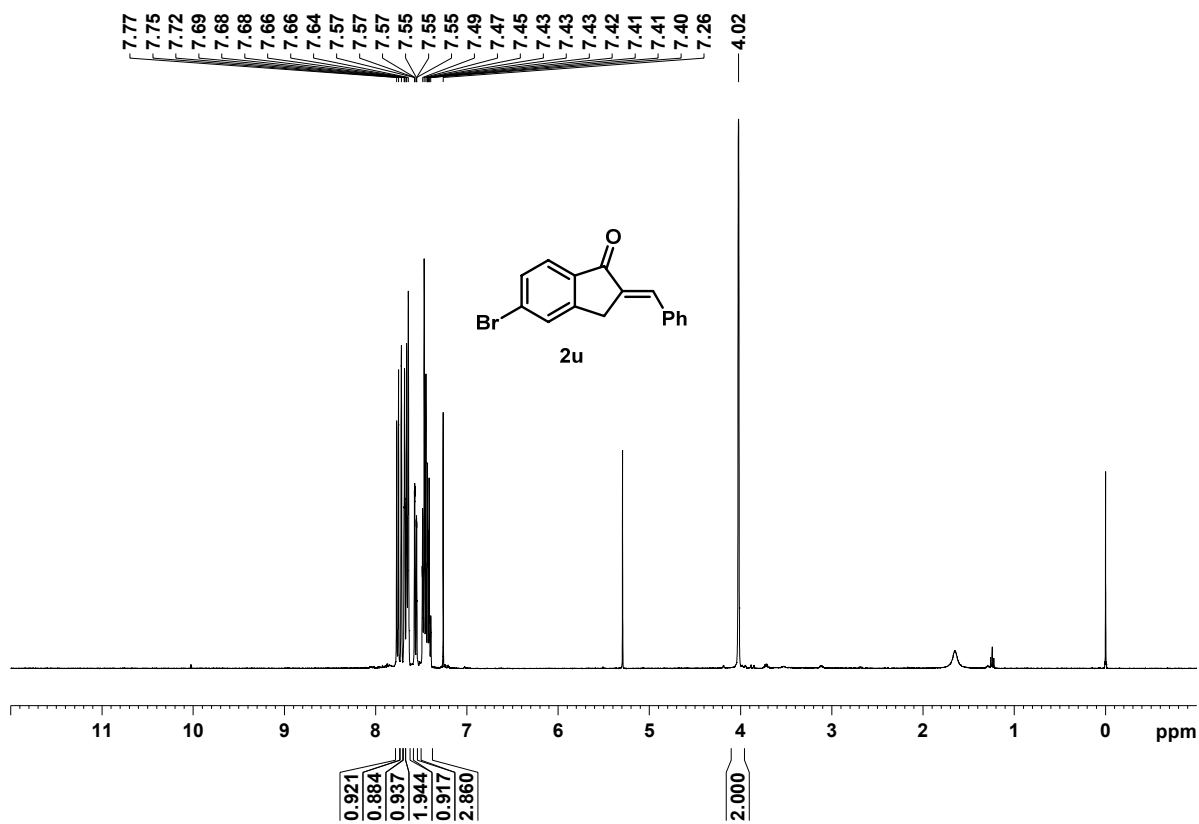


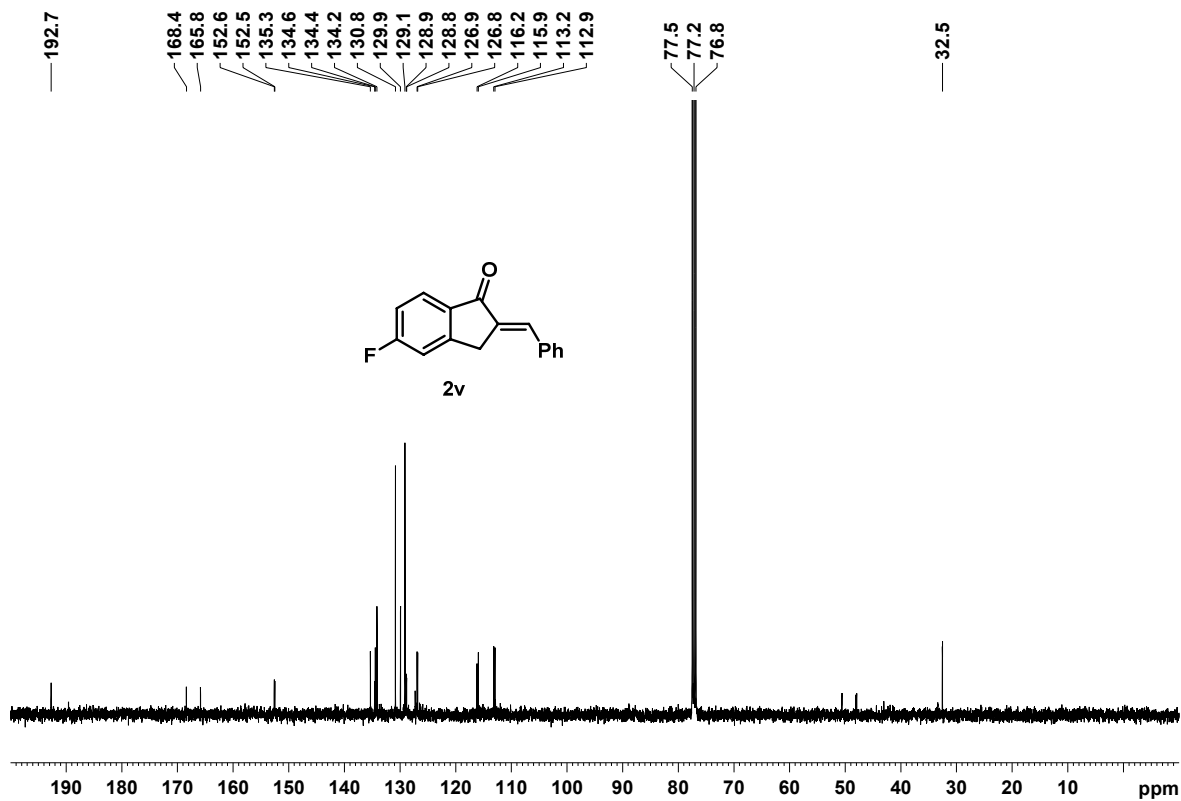
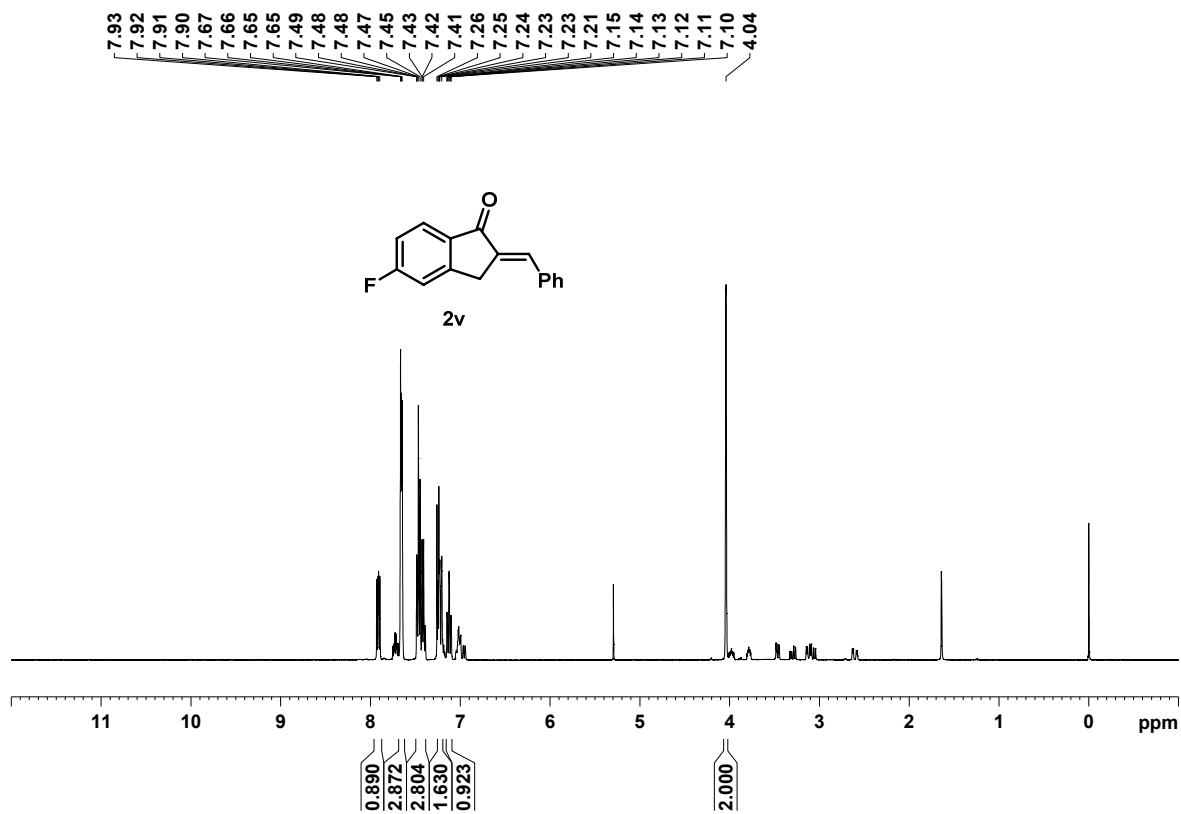


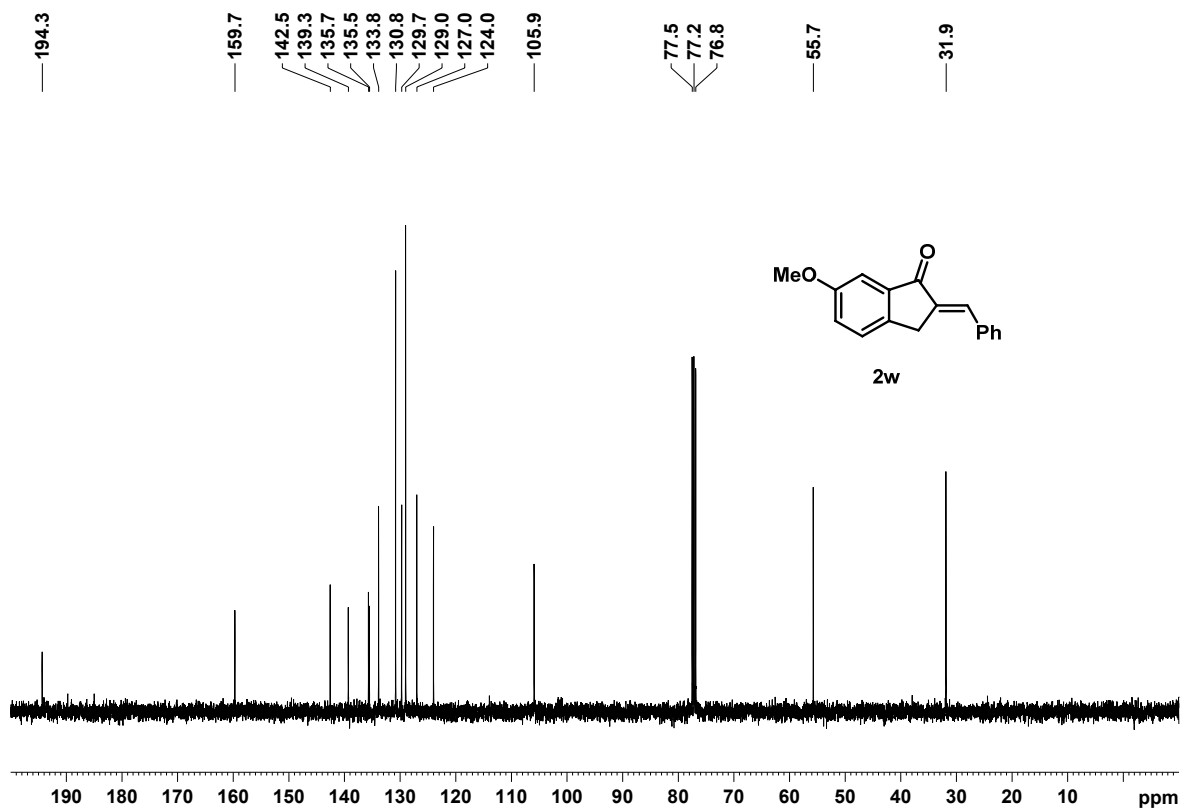
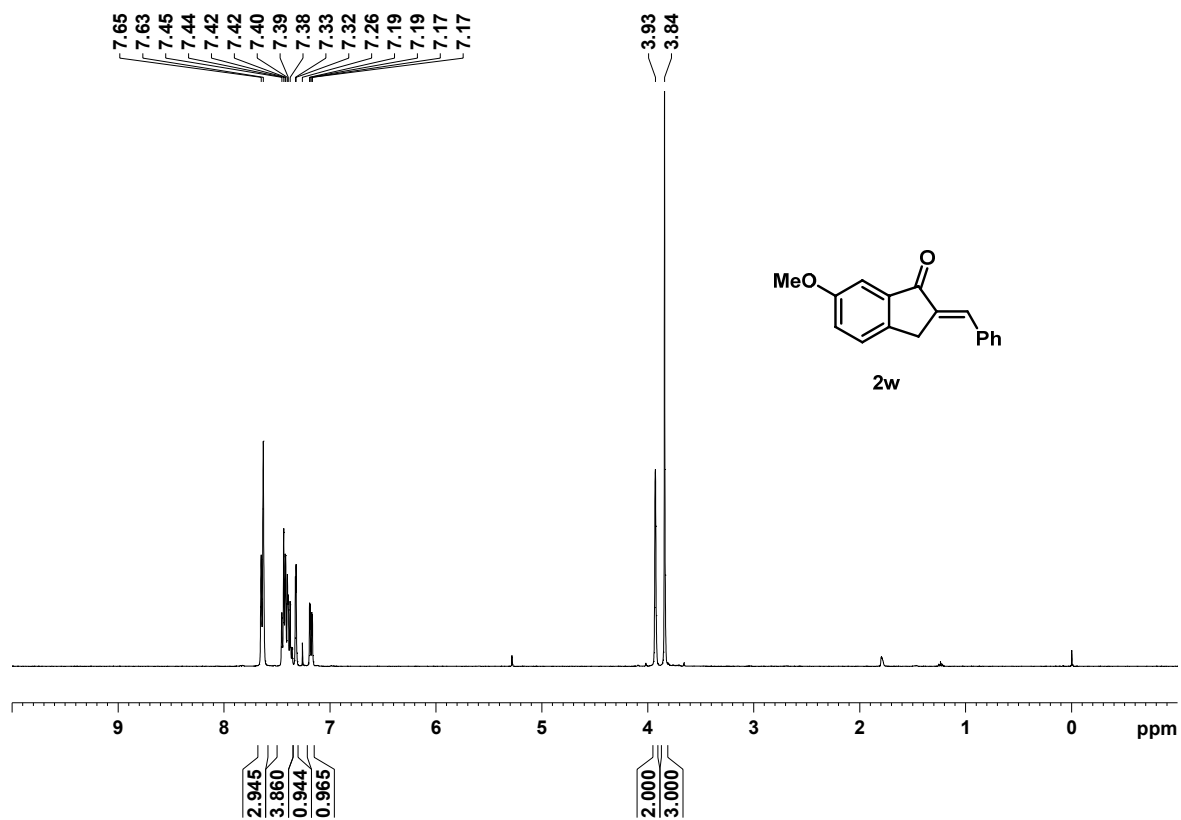


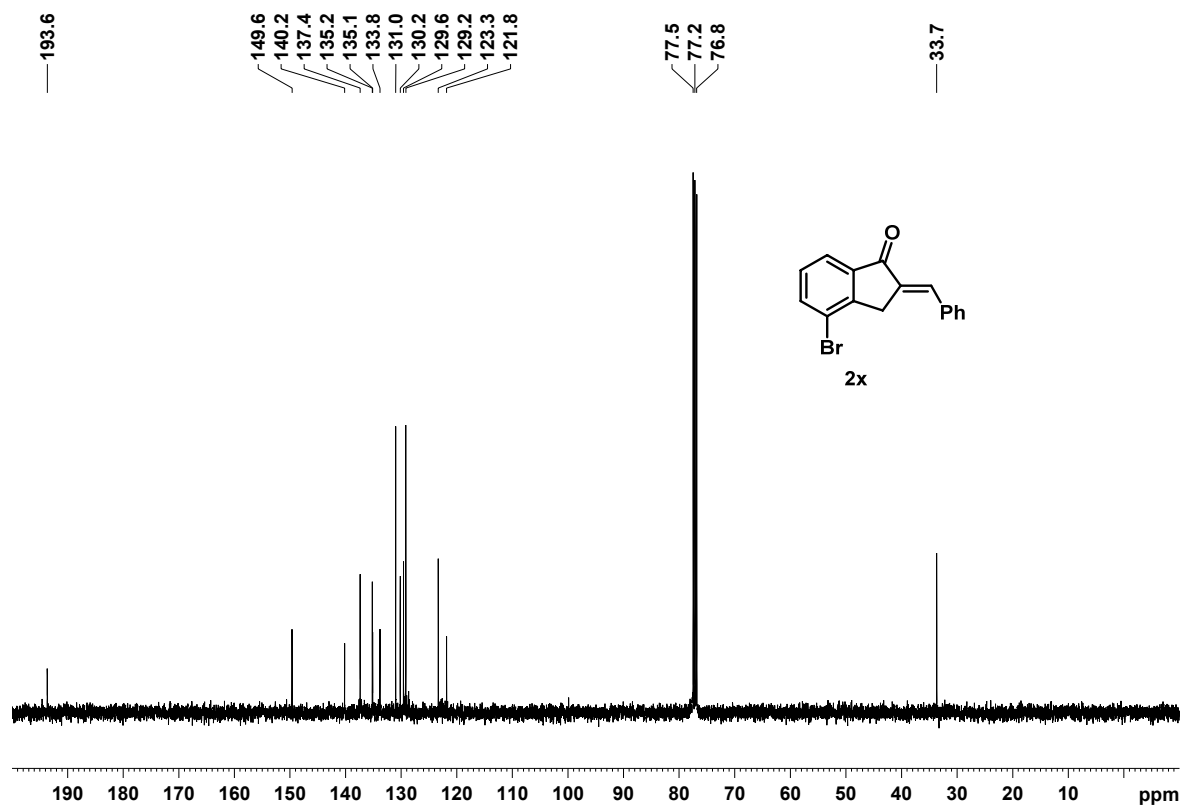
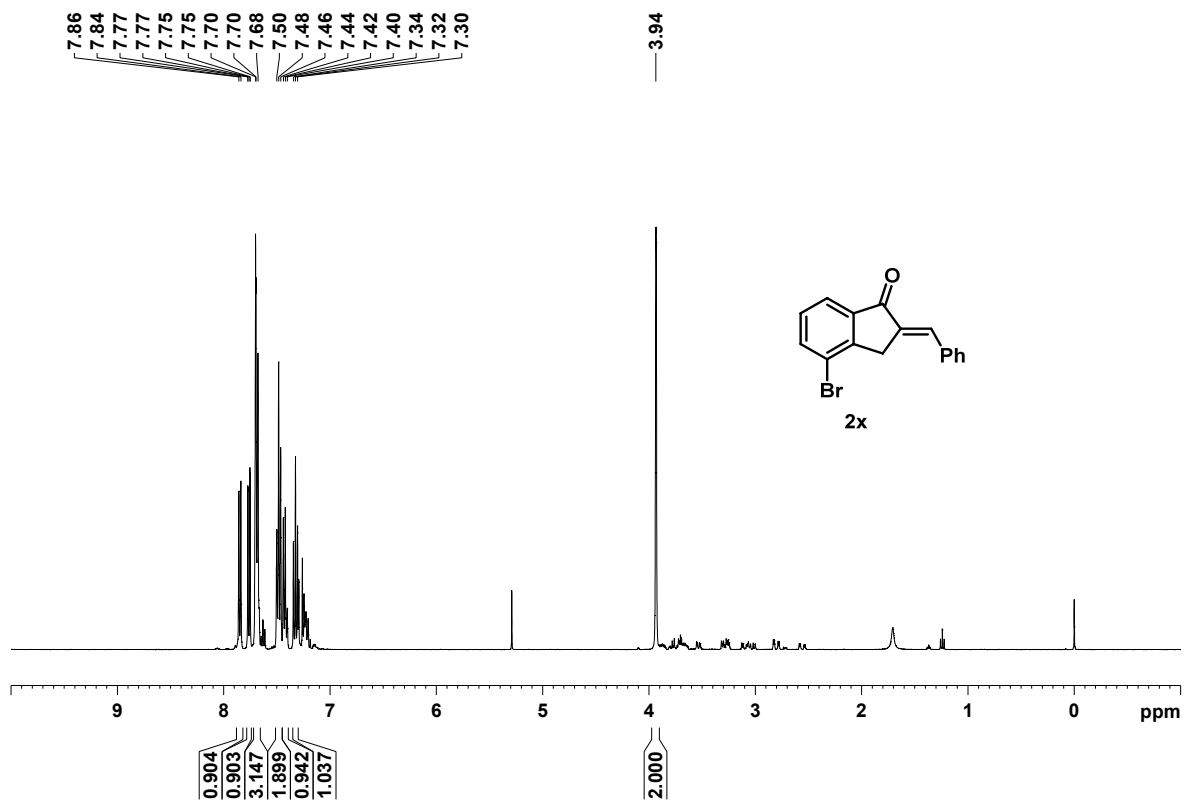


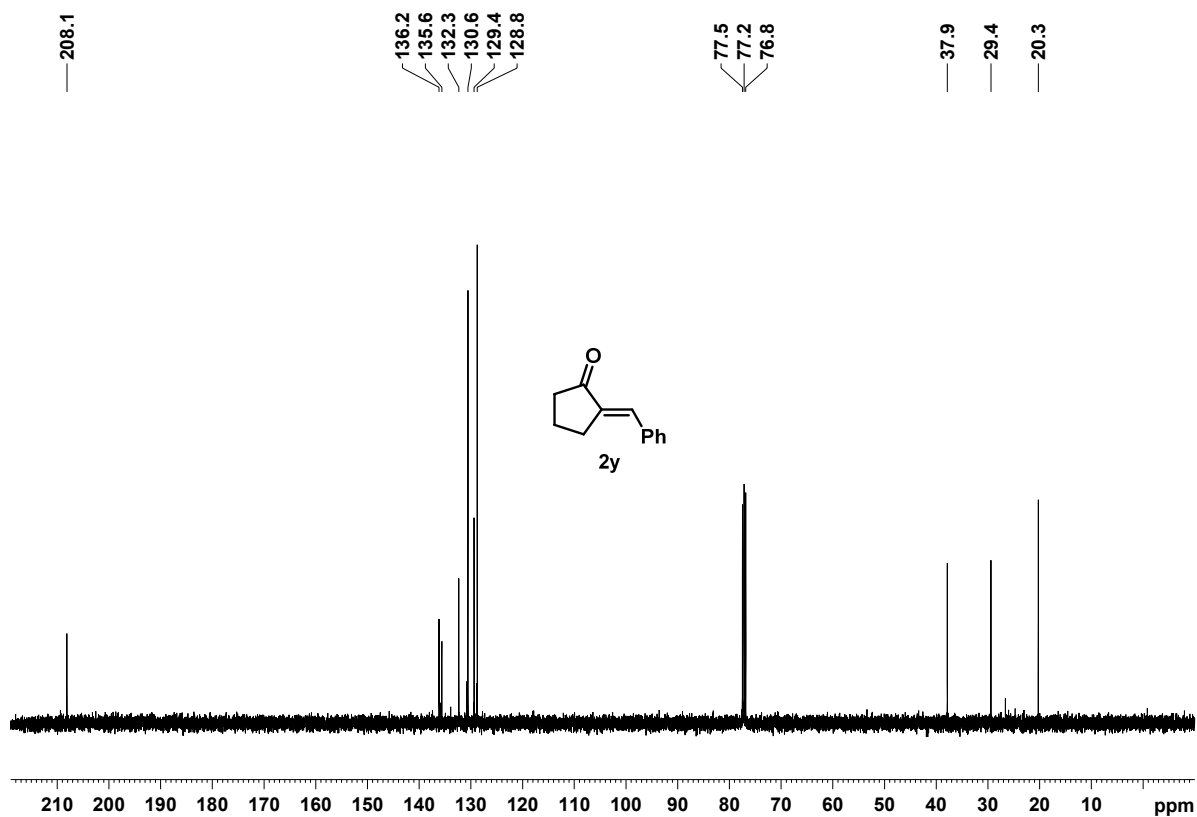
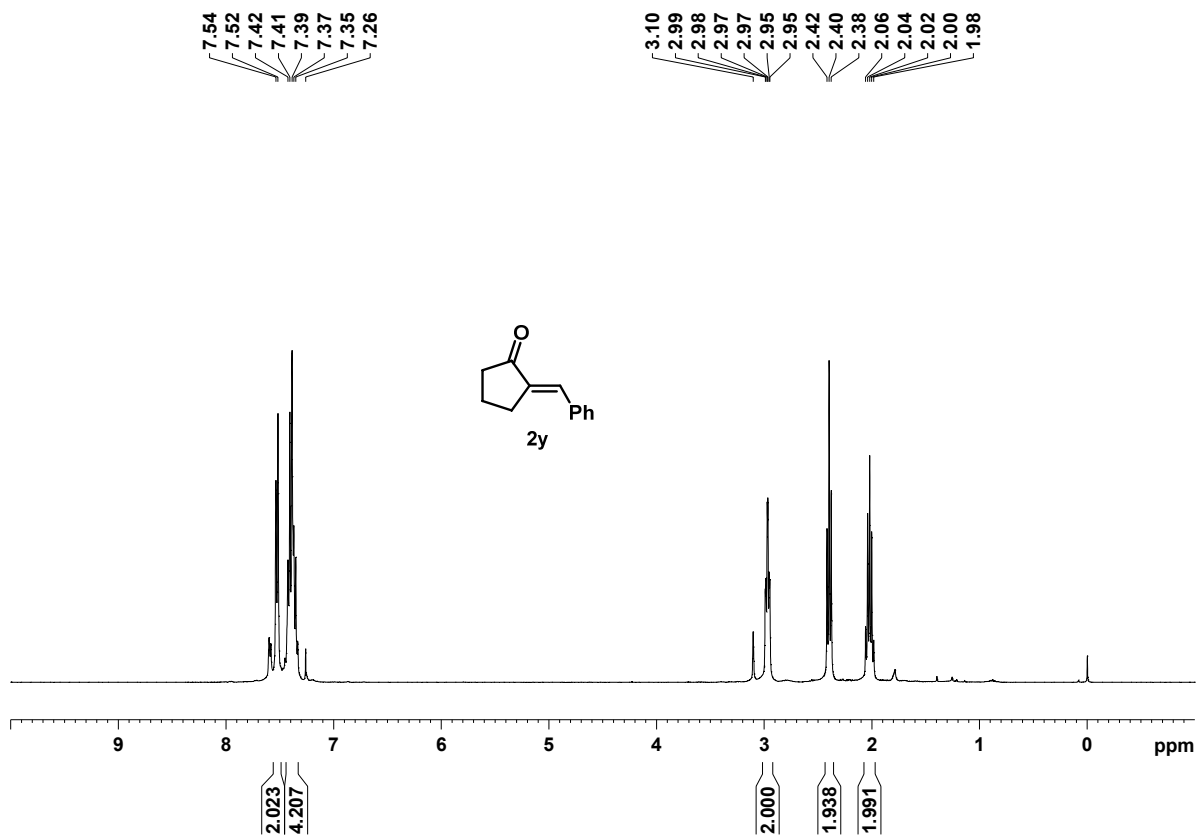


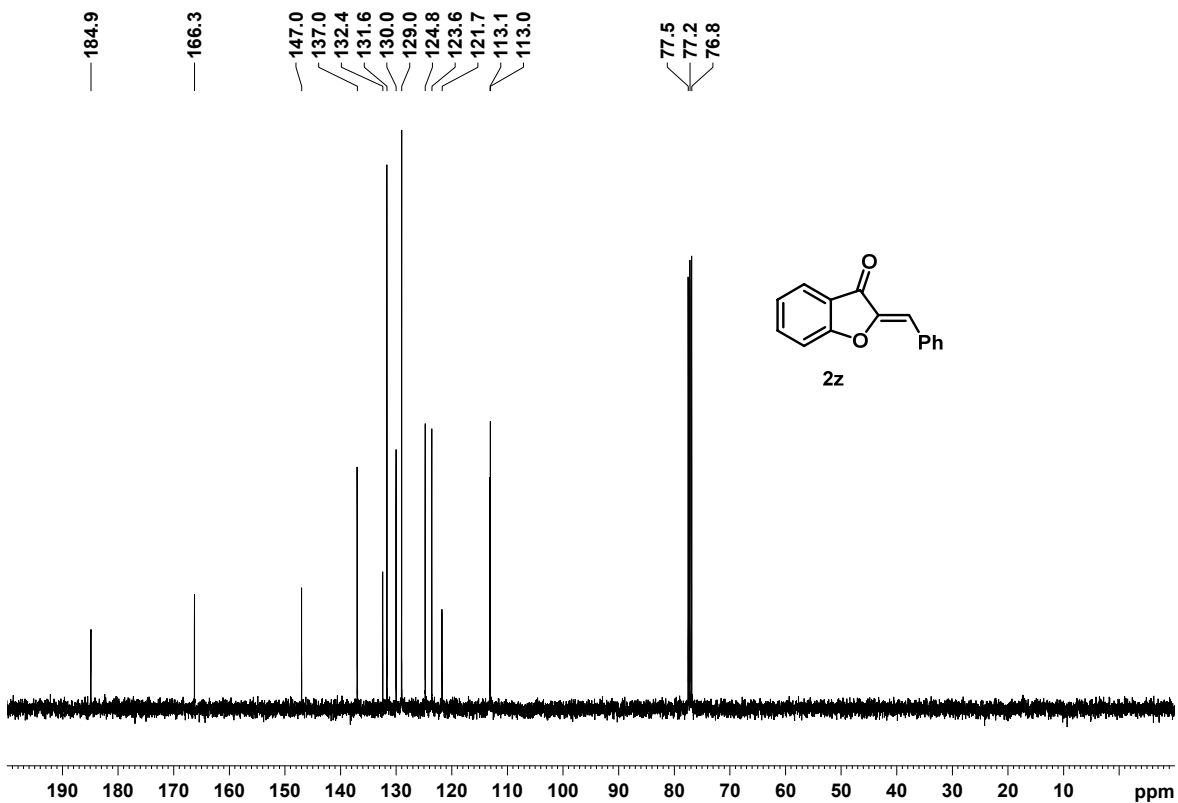
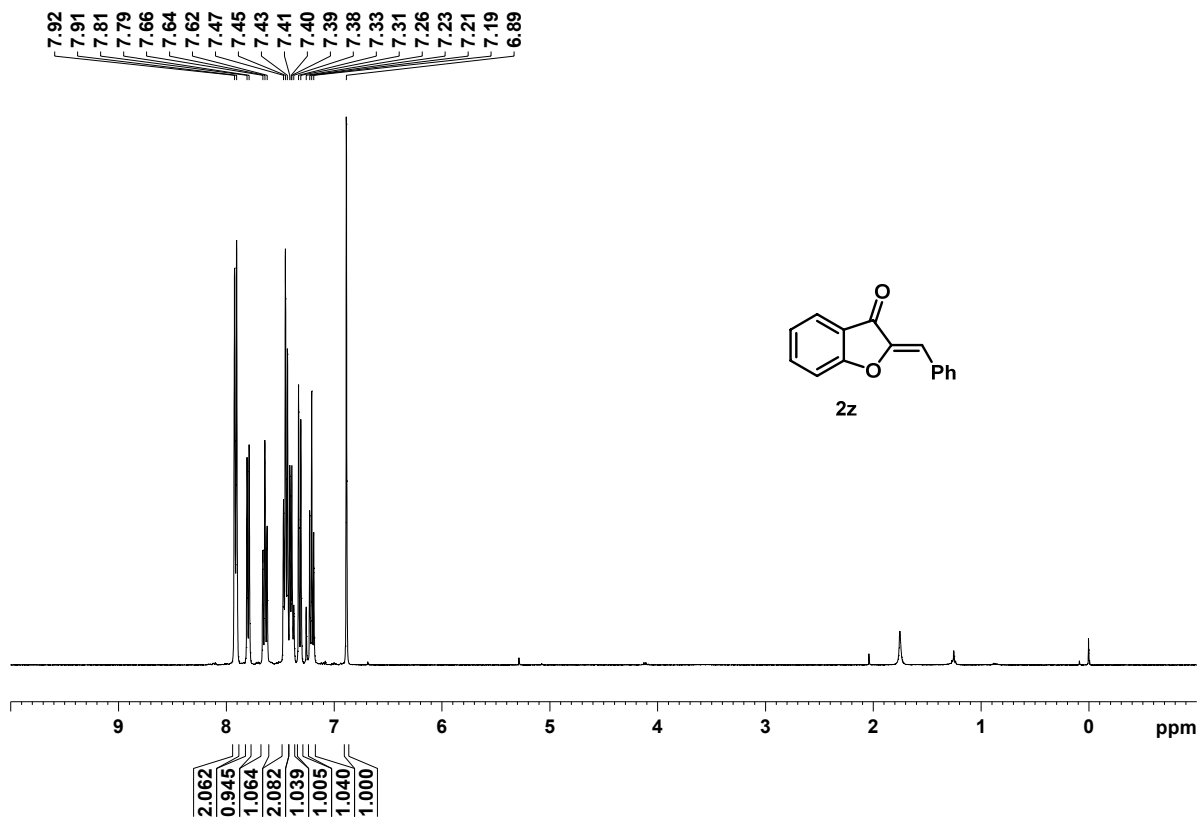


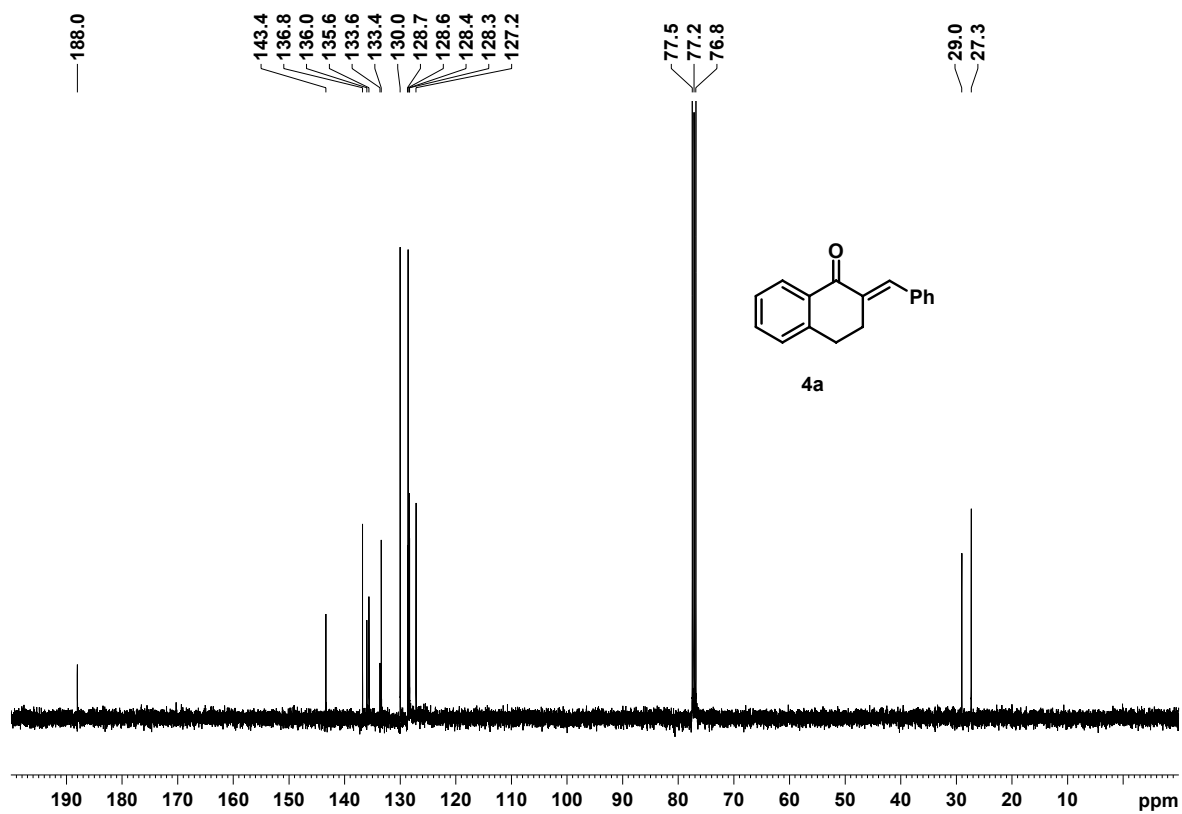
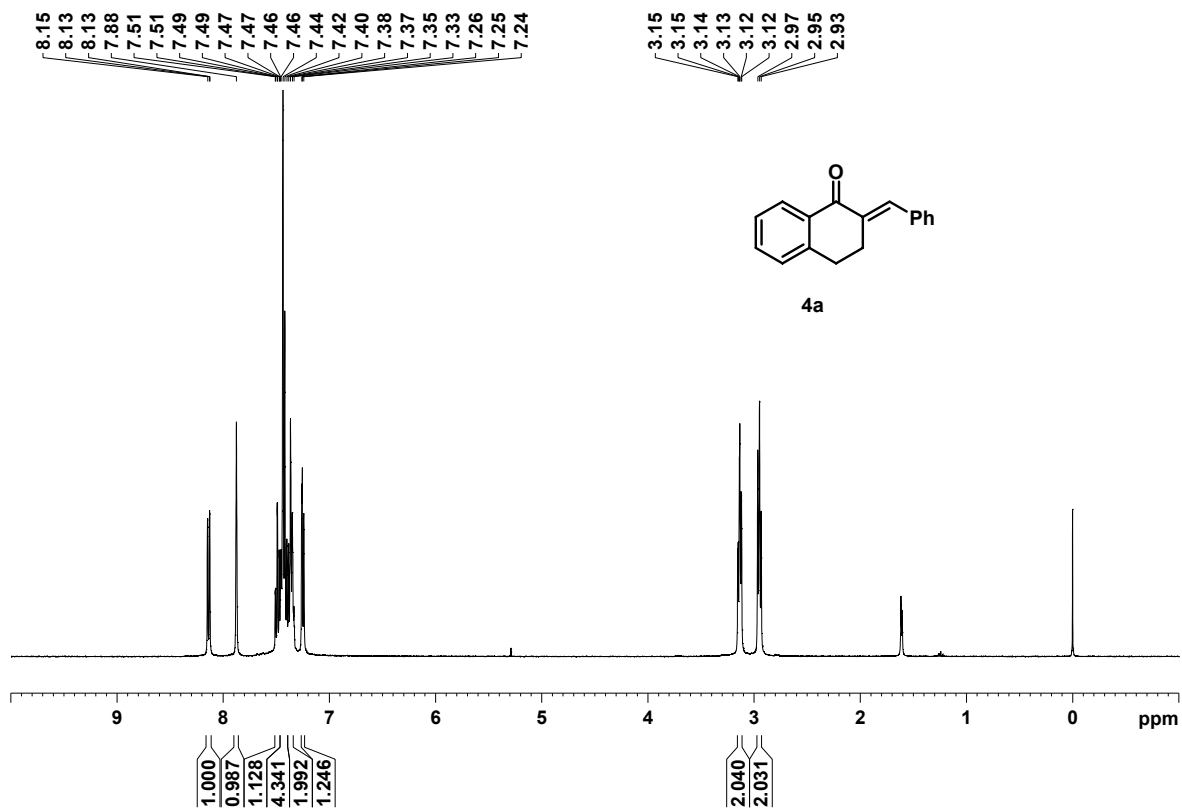


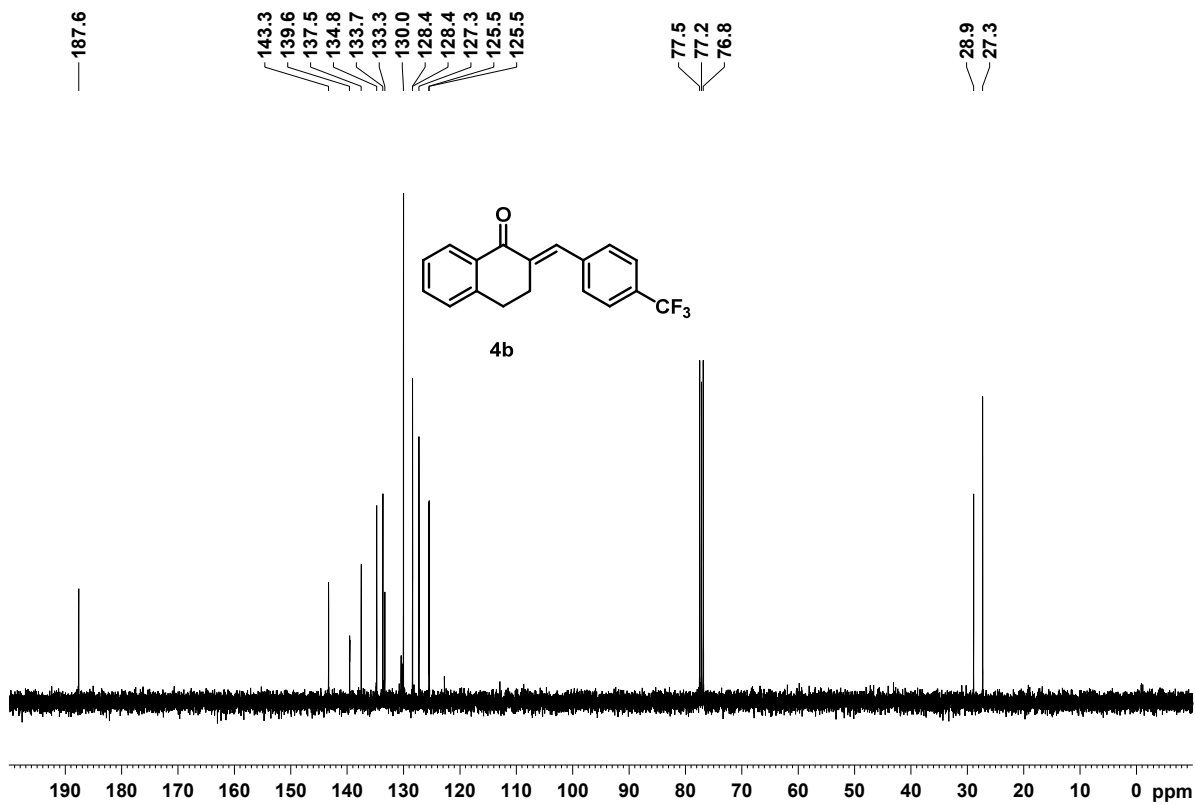
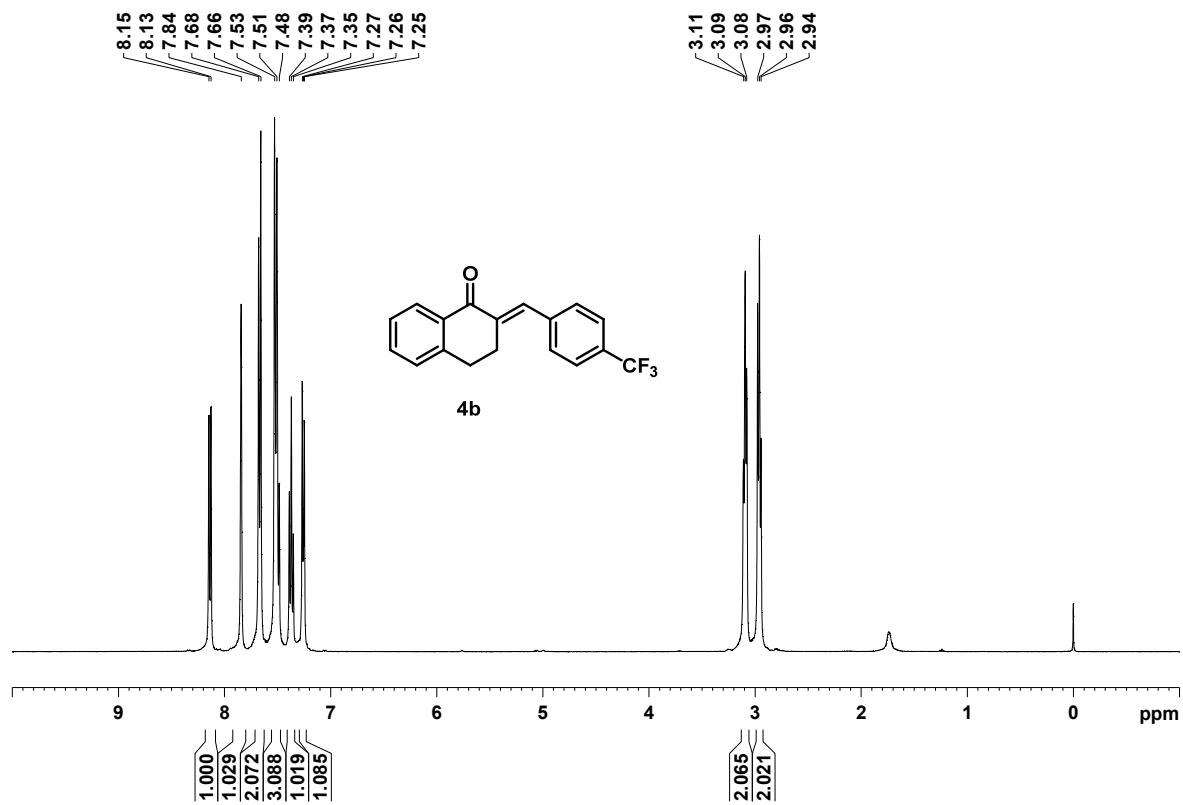


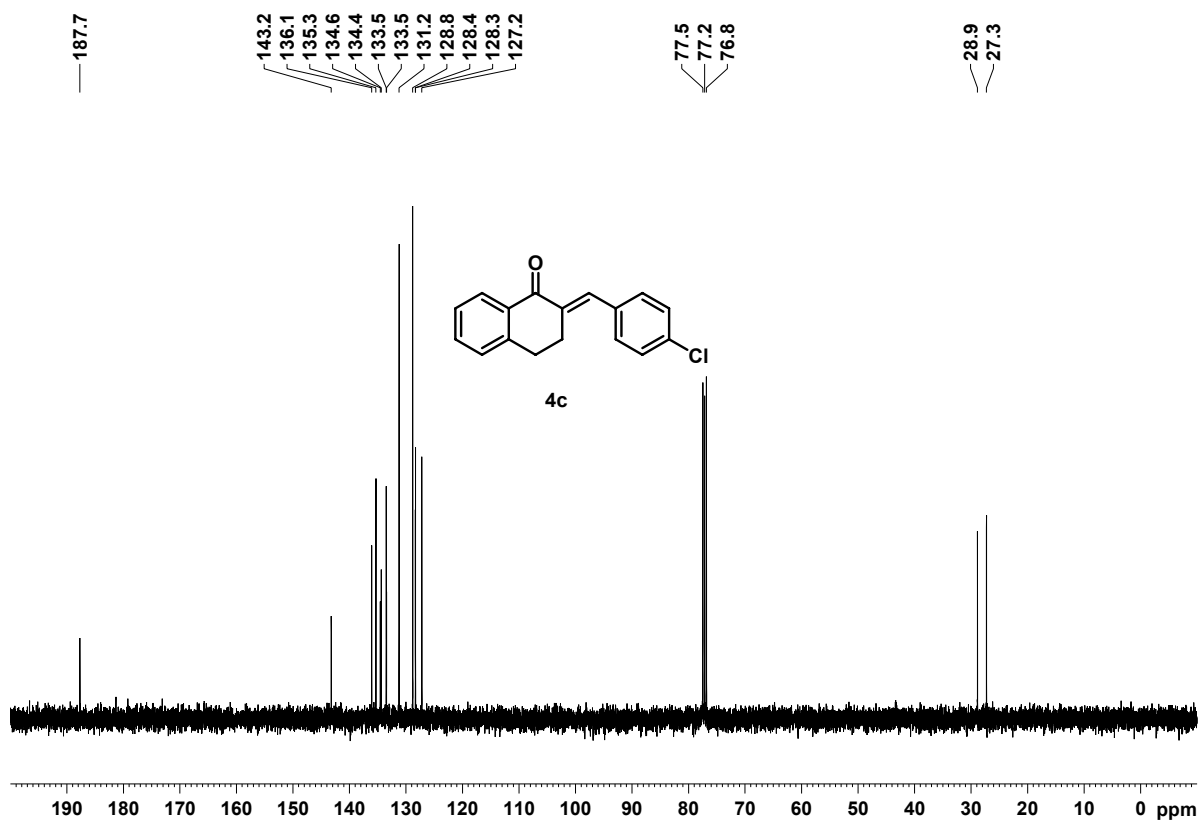
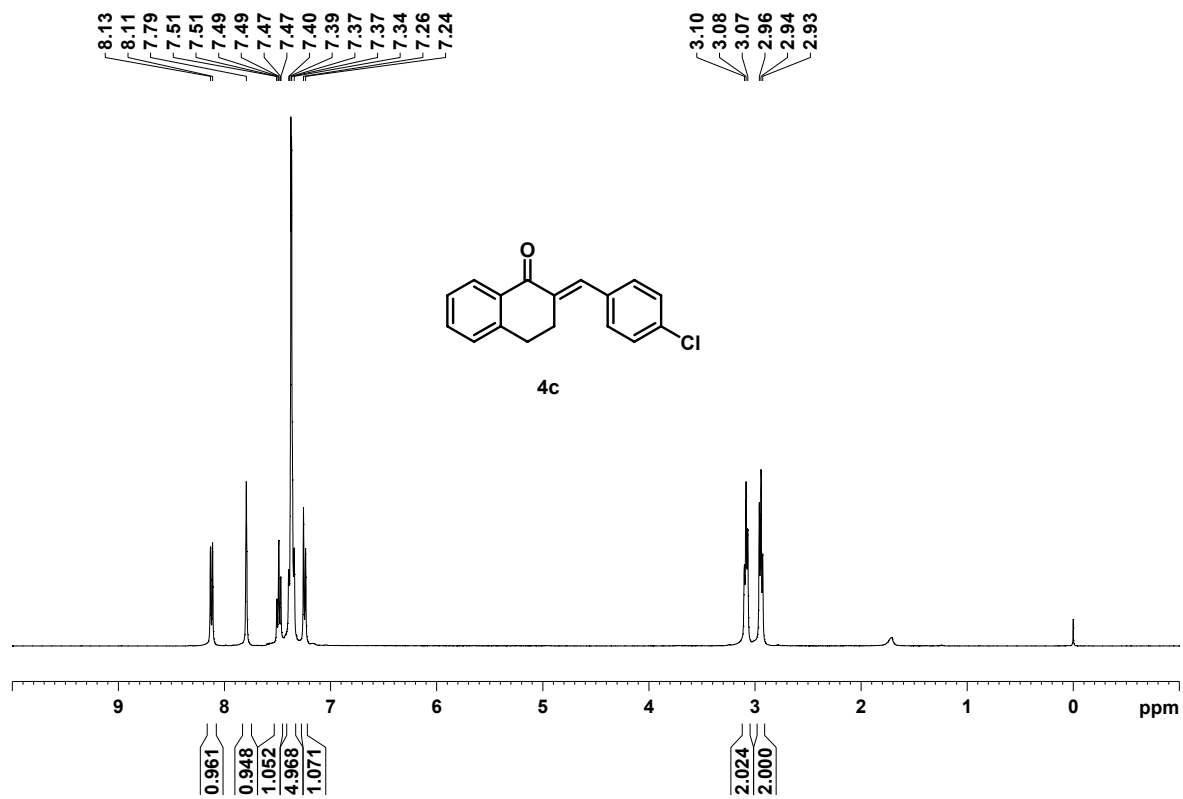


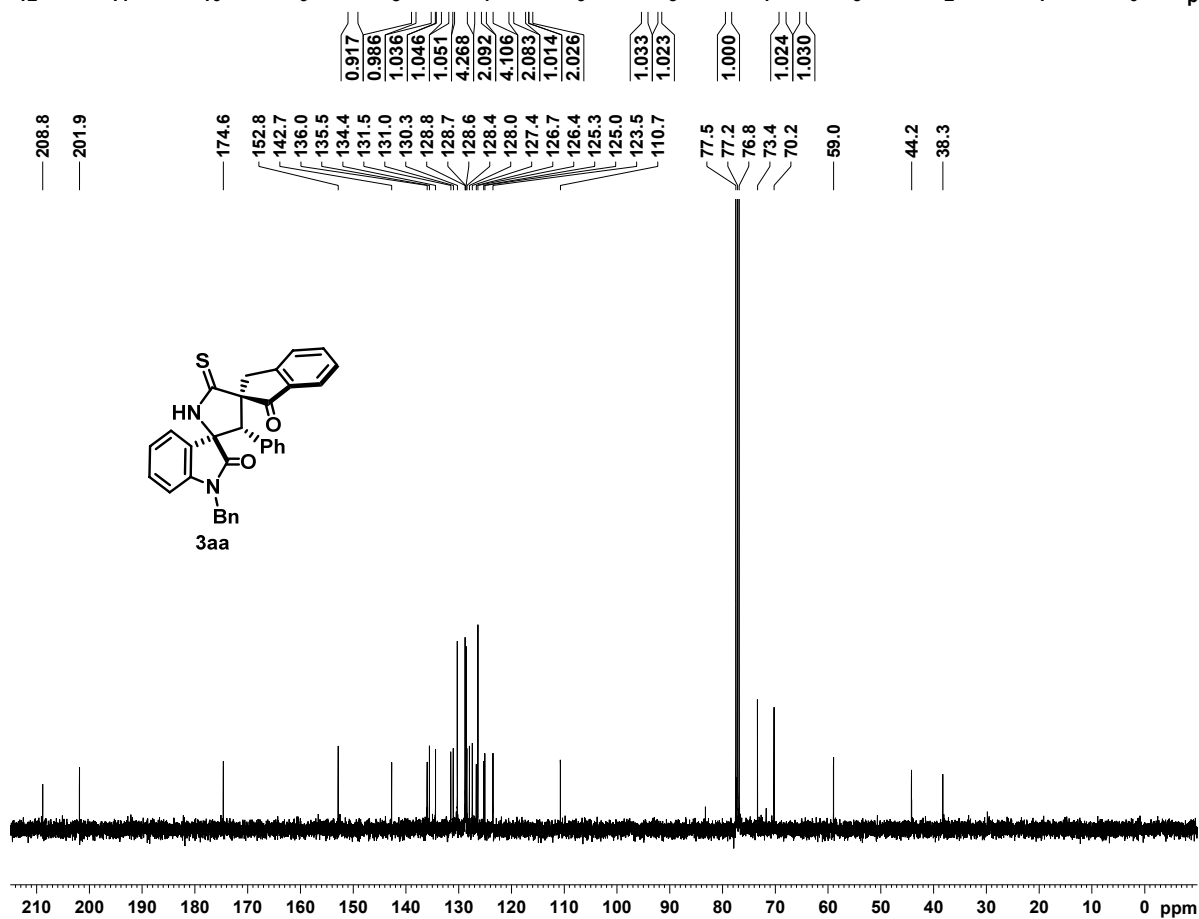
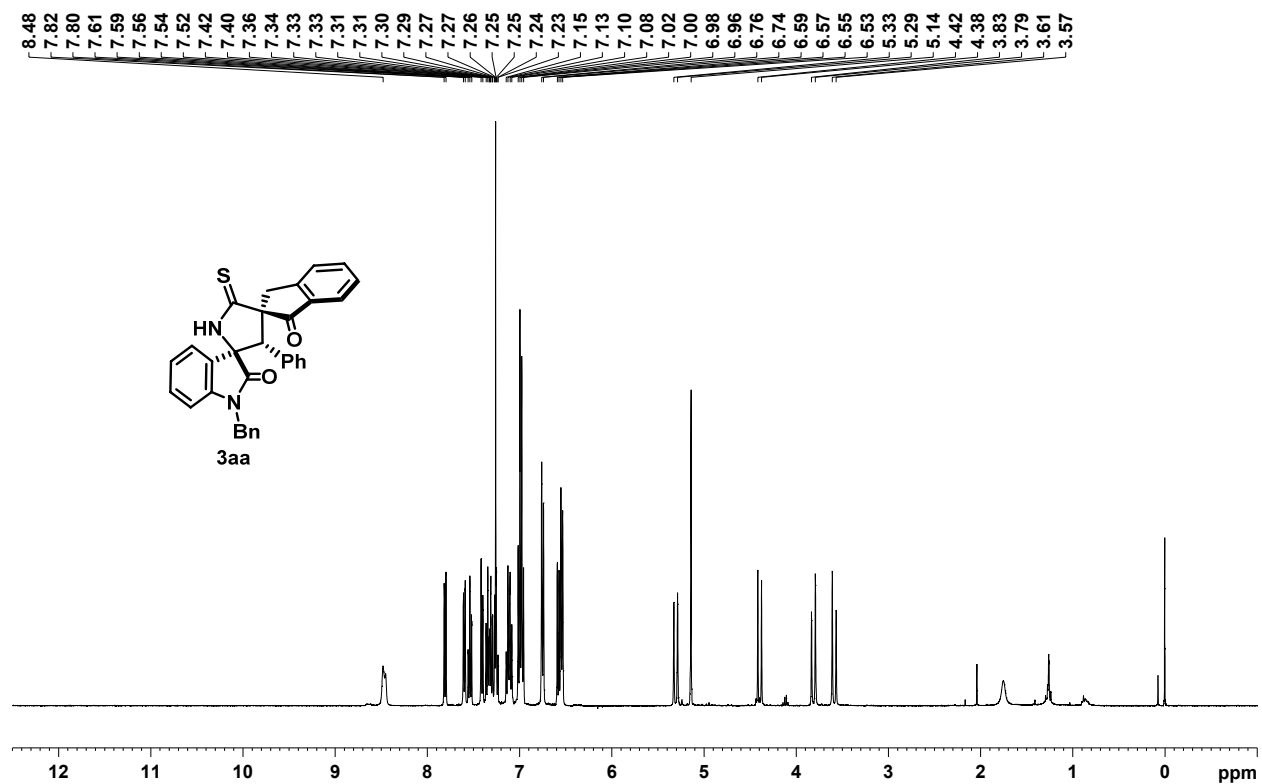


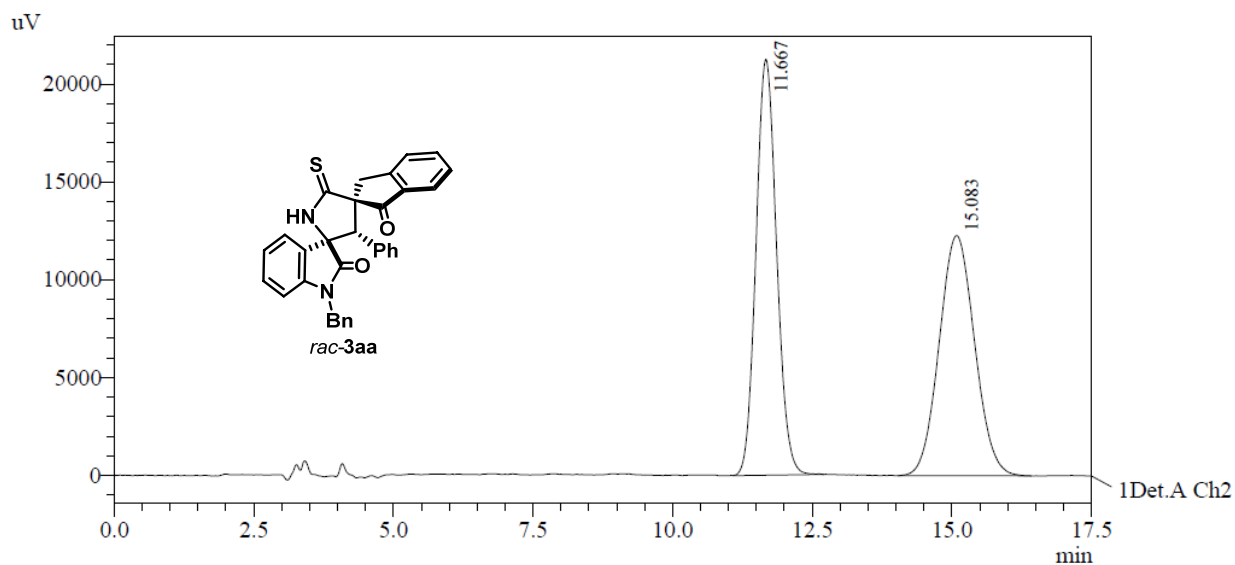










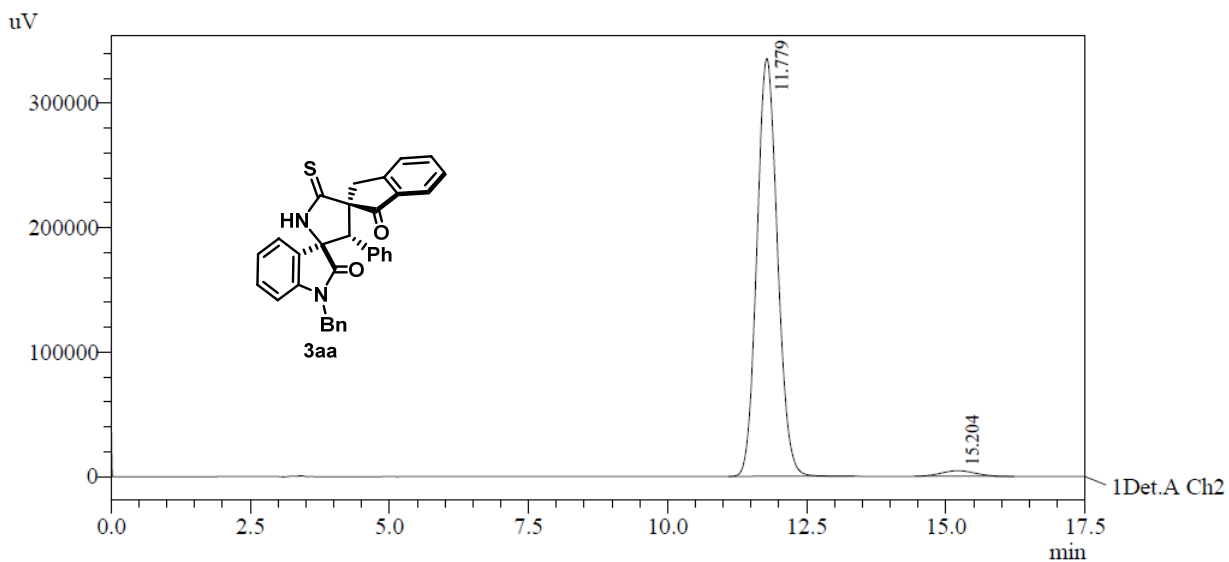


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.667	546490	50.188
2	15.083	542391	49.812
Total		1088881	100.000

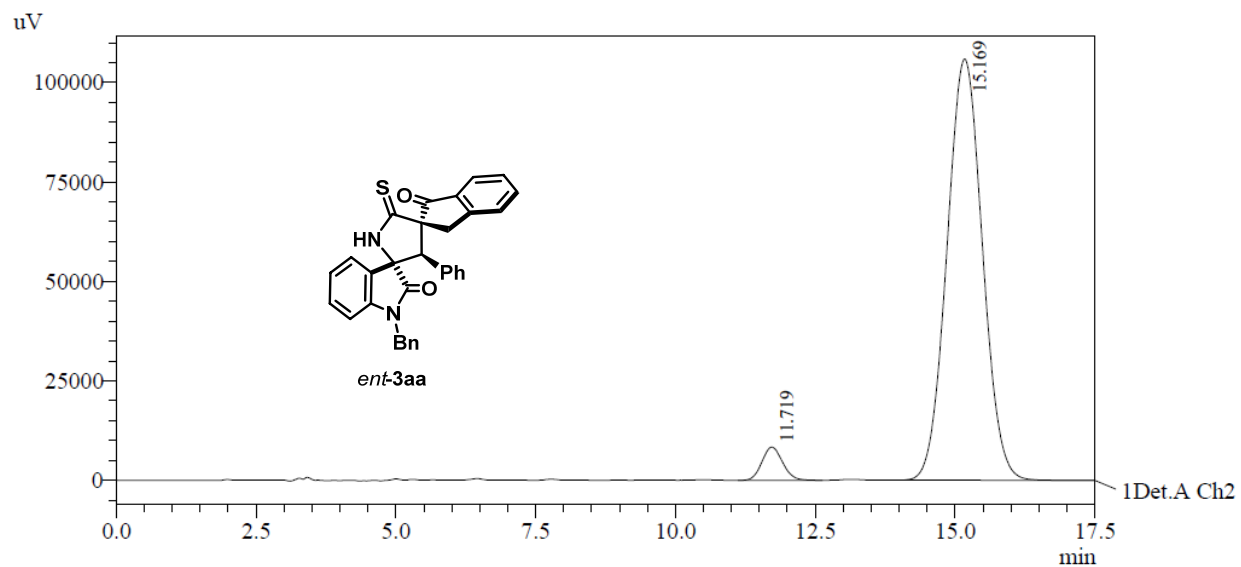
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C



PeakTable

Detector A Ch2 254nm

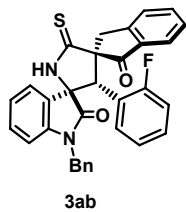
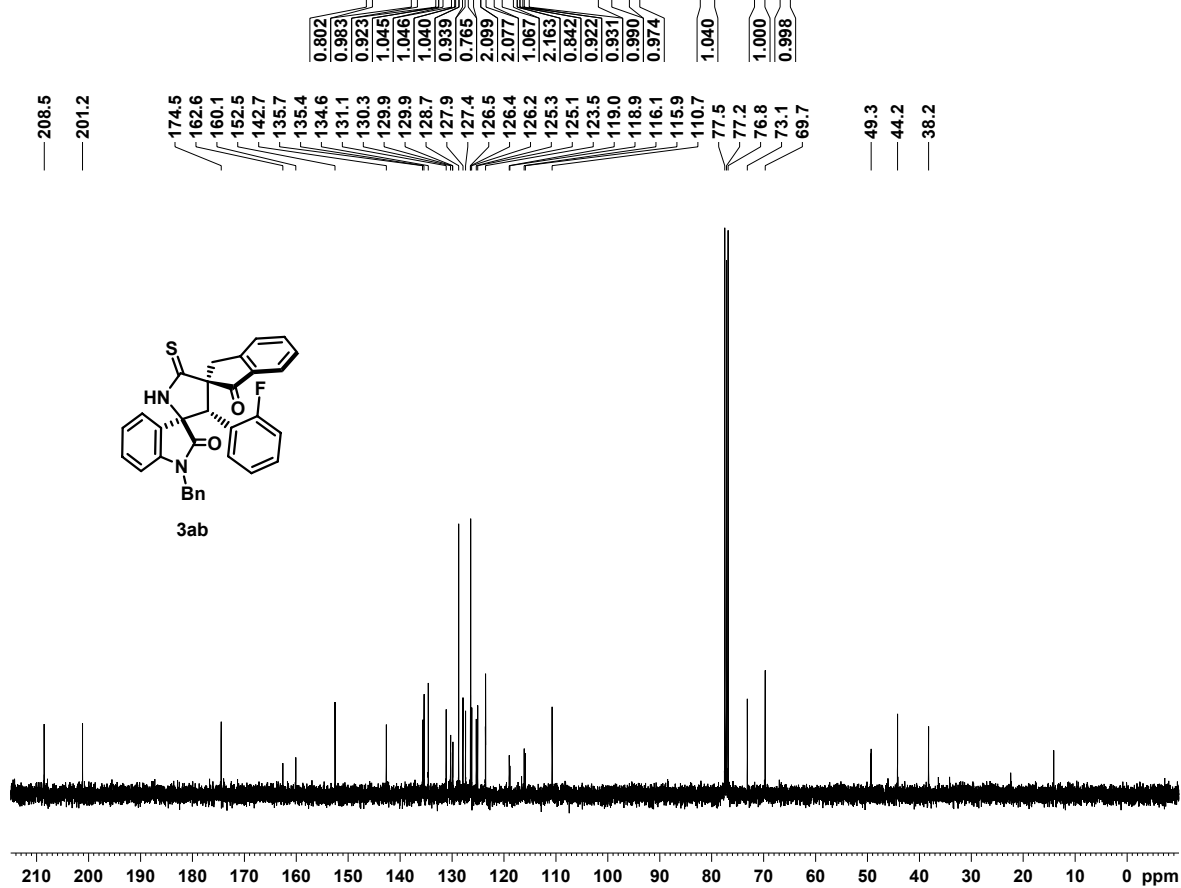
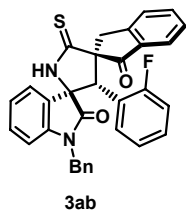
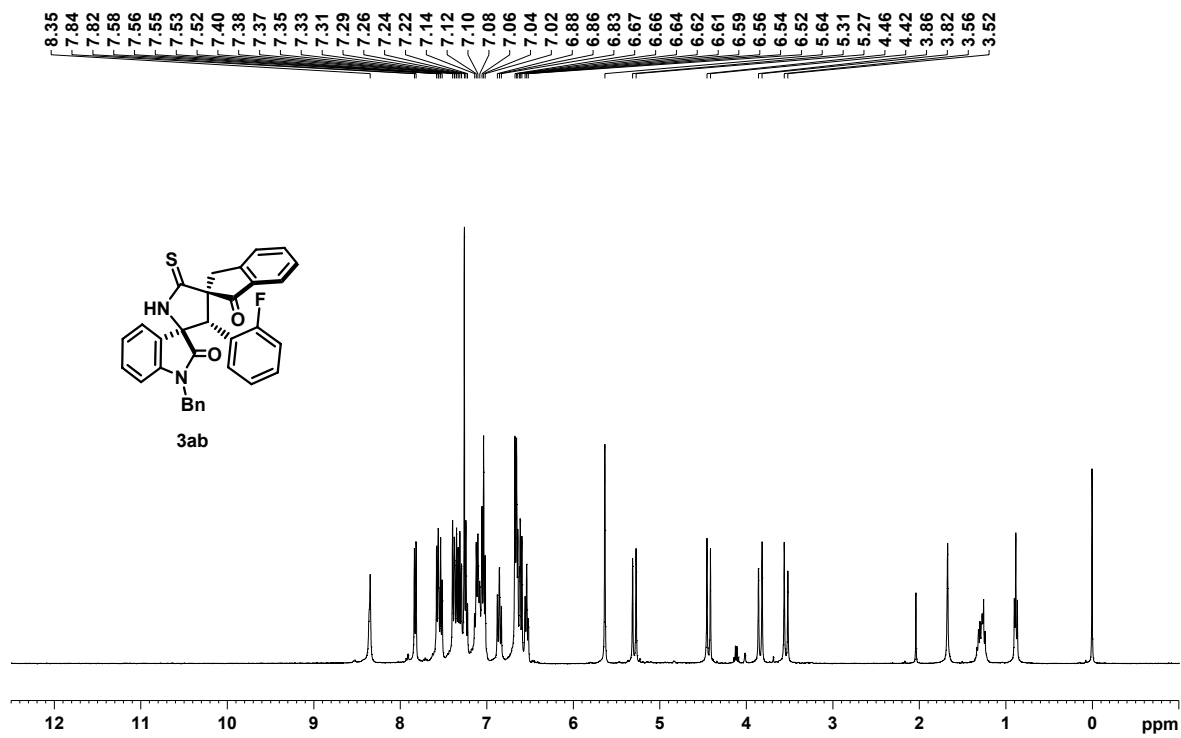
Peak#	Ret. Time	Area	Area %
1	11.779	8654636	97.837
2	15.204	191325	2.163
Total		8845960	100.000

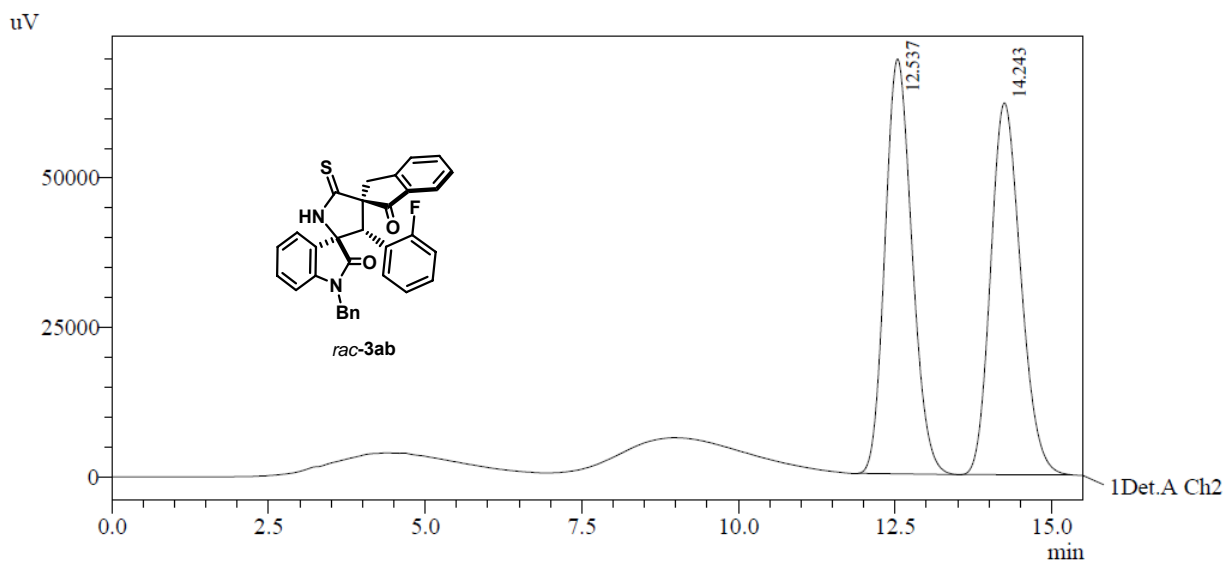


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.719	214116	4.381
2	15.169	4673394	95.619
Total		4887510	100.000



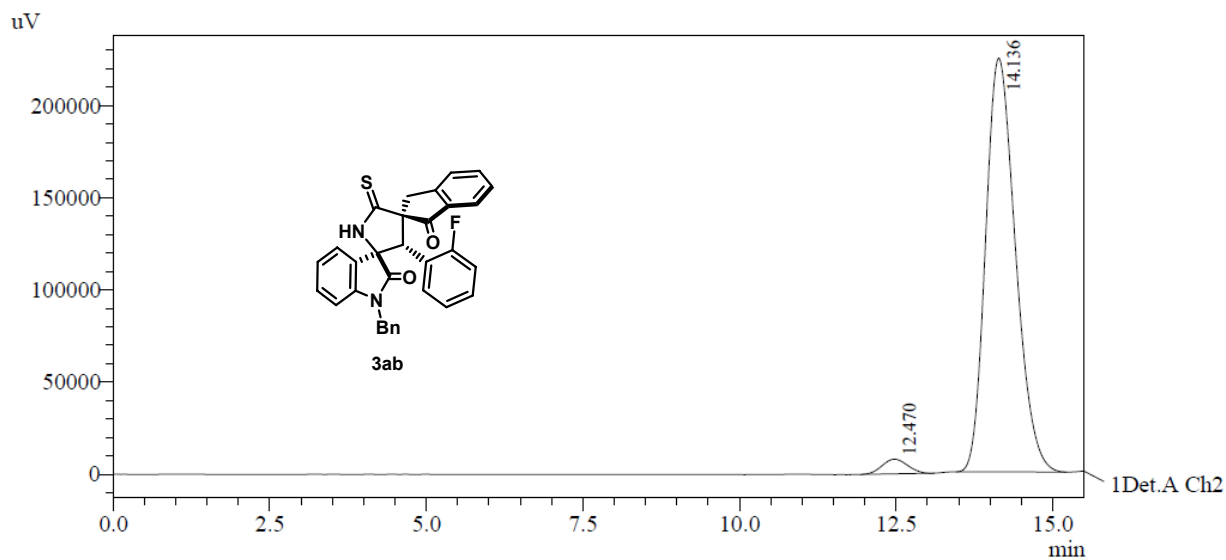


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.537	2085947	50.054
2	14.243	2081483	49.946
Total		4167429	100.000

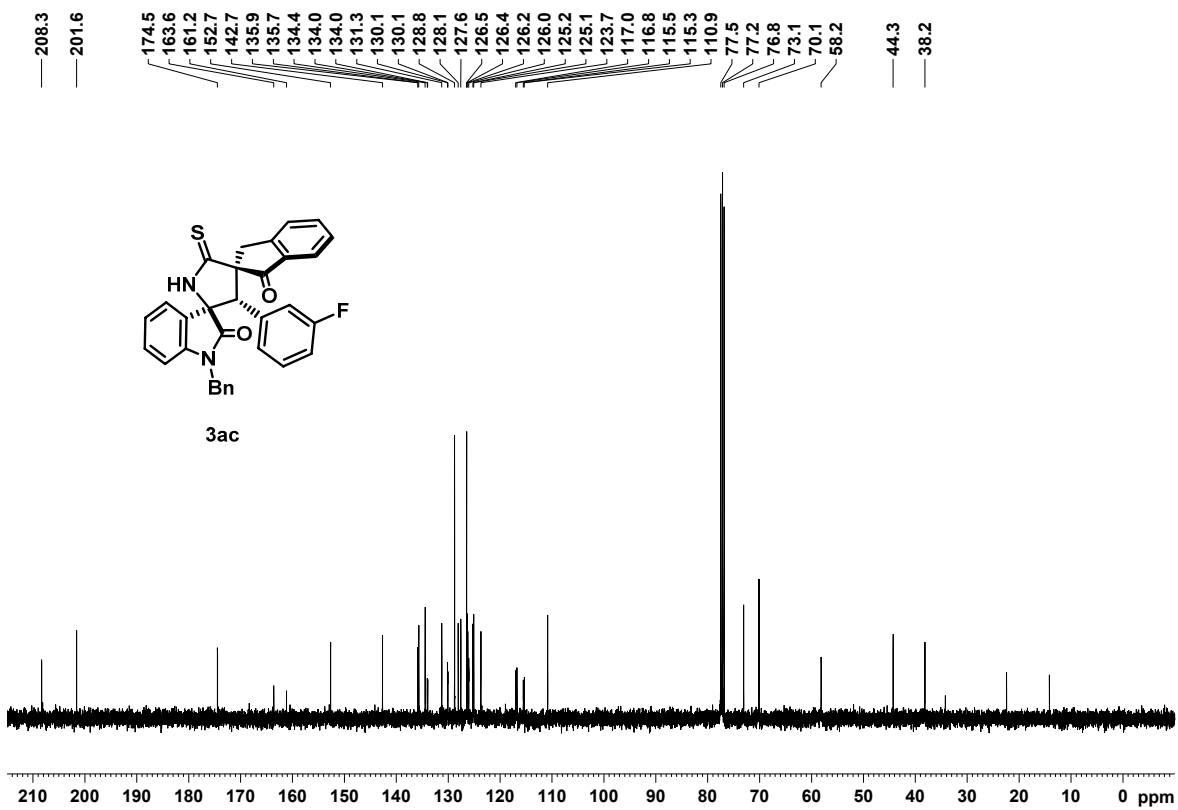
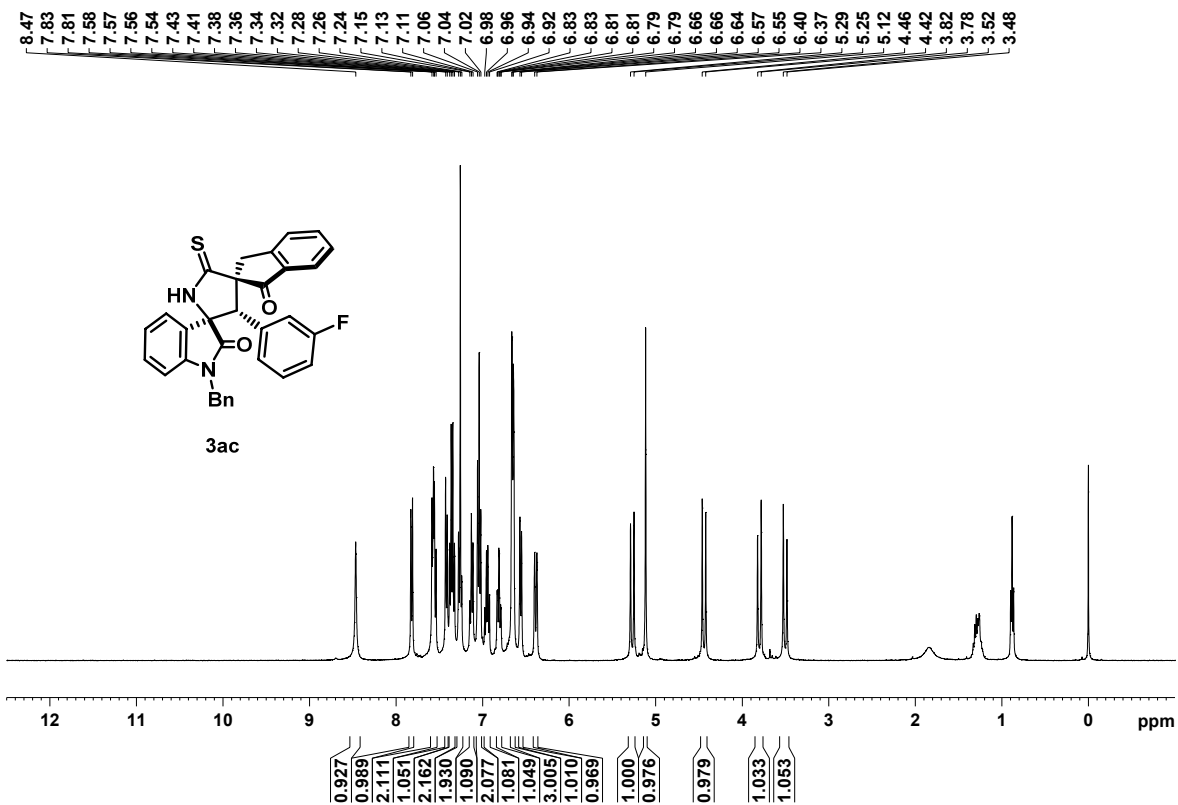
HPLC conditions: Daicel Chiralpak AD-H column; 60:40 *n*-Hexane/ *i*-PrOH, 1.0 mL/min; 20 °C

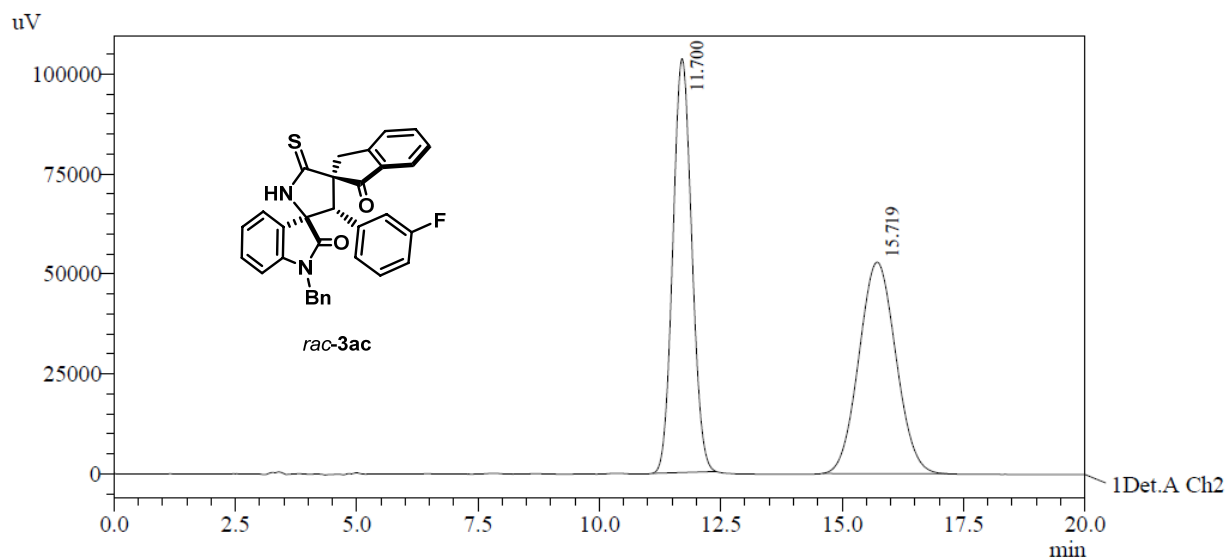


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.470	225349	2.935
2	14.136	7452382	97.065
Total		7677731	100.000



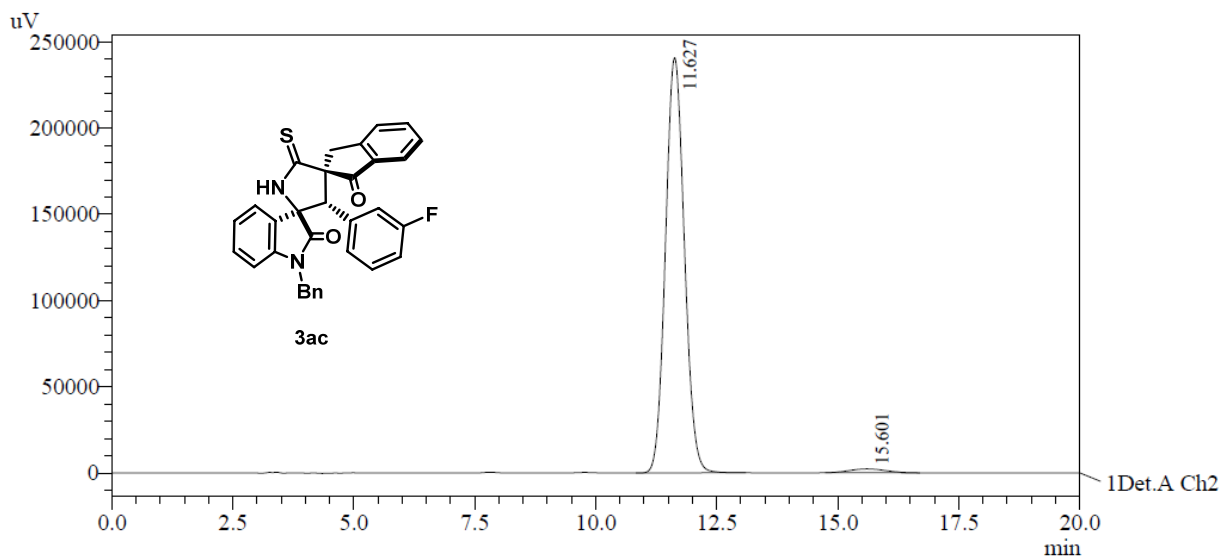


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.700	2811626	50.054
2	15.719	2805614	49.946
Total		5617239	100.000

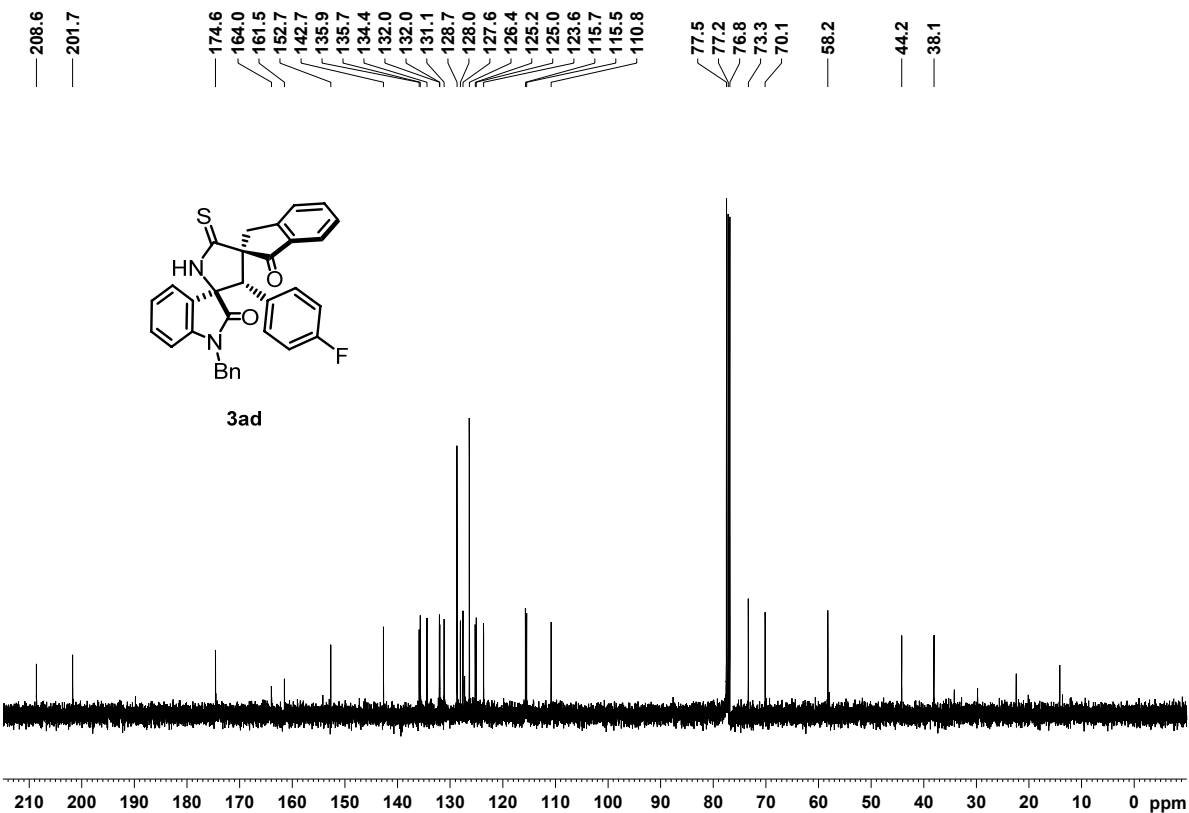
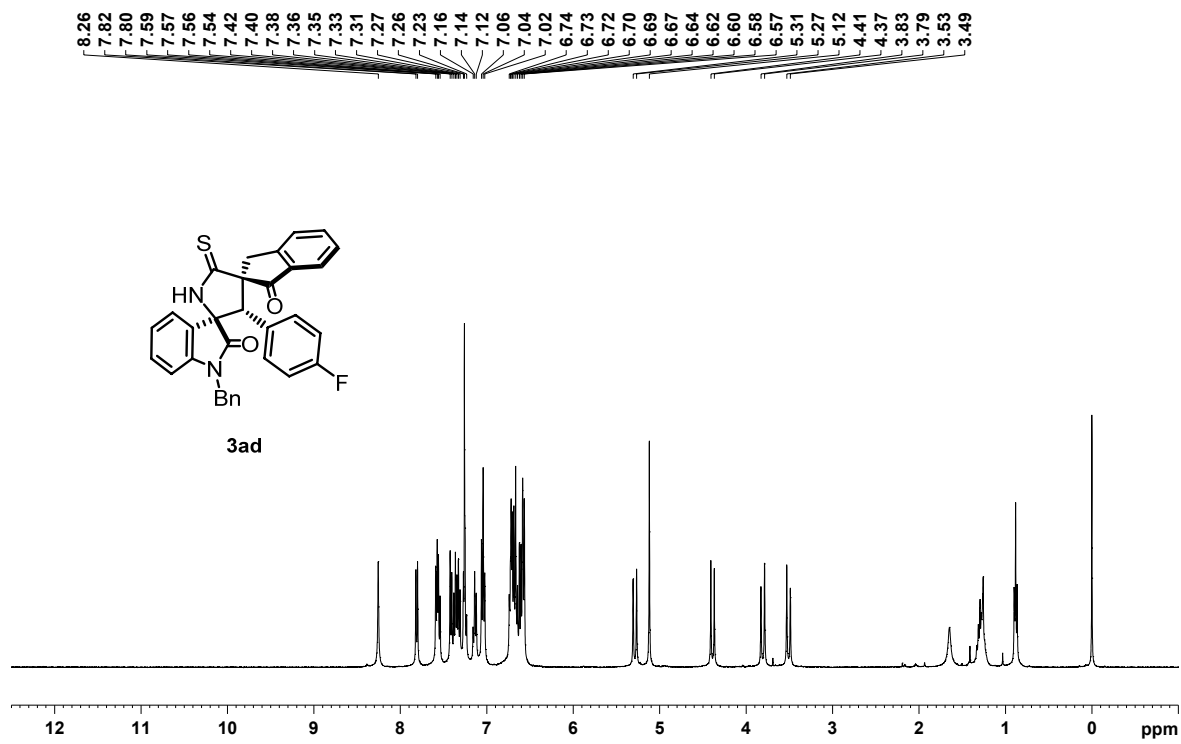
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

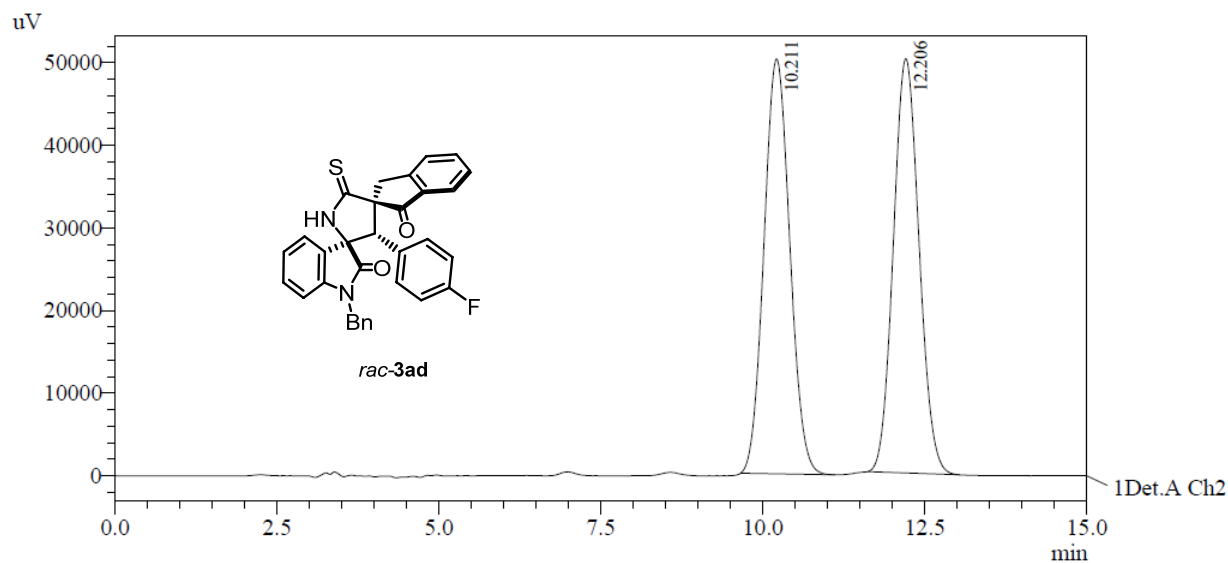


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.627	6546619	98.289
2	15.601	113982	1.711
Total		6660600	100.000



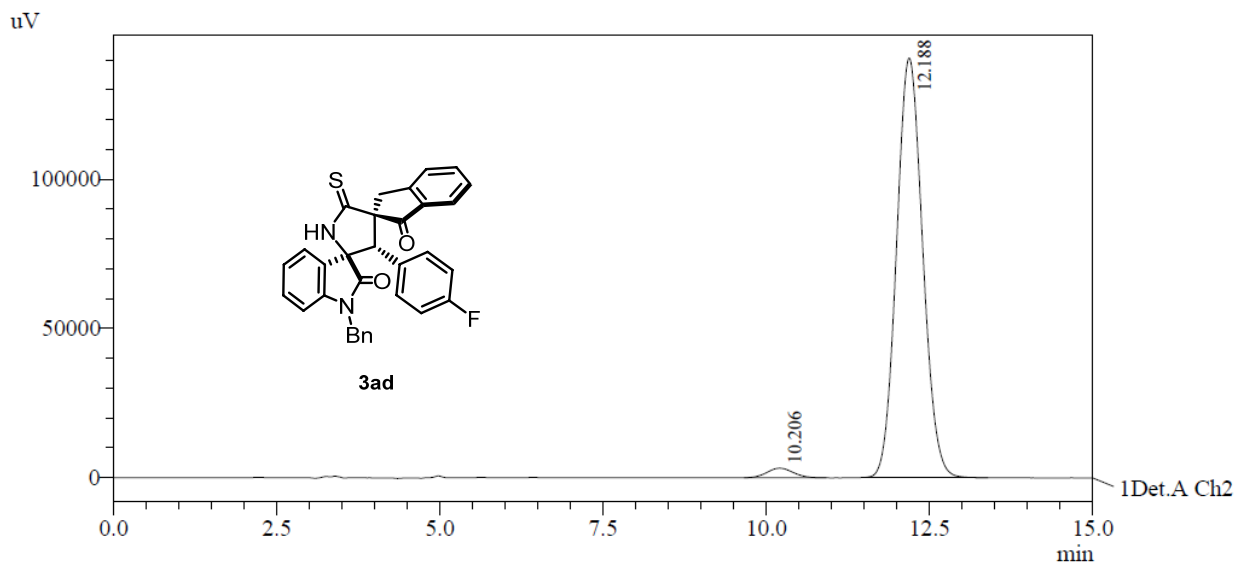


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.211	1393085	50.158
2	12.206	1384292	49.842
Total		2777378	100.000

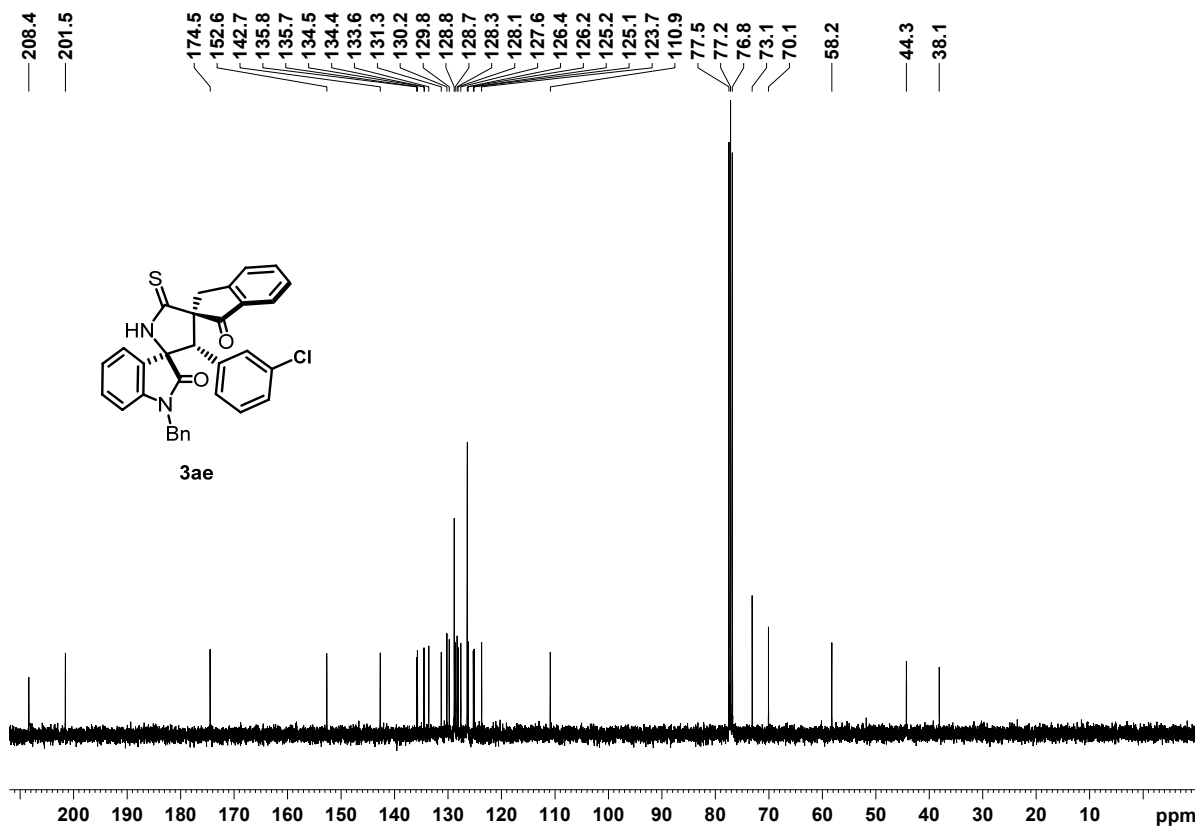
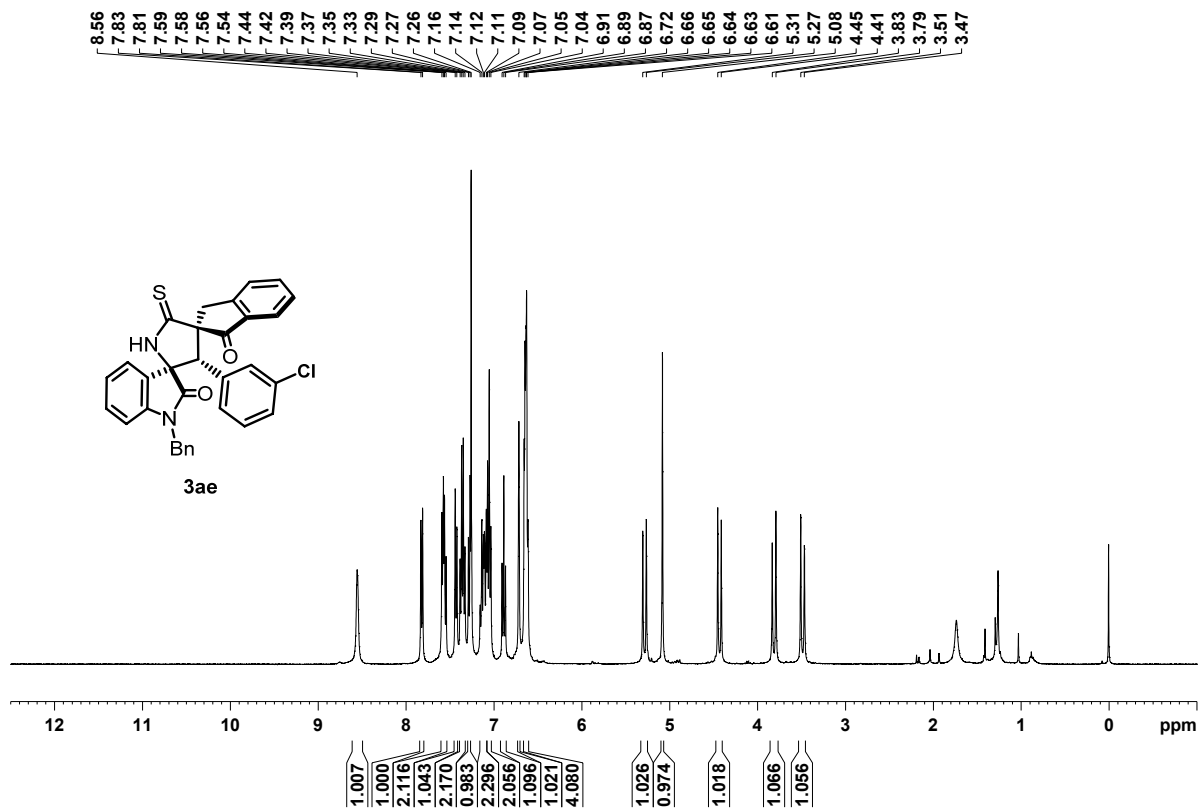
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

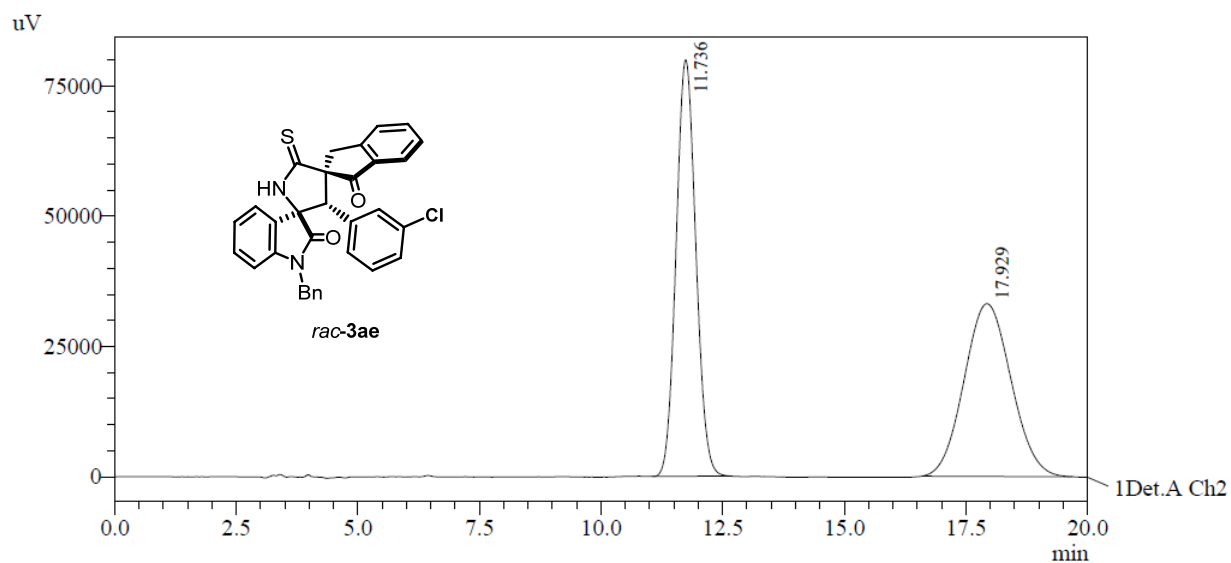


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.206	88534	2.214
2	12.188	3911082	97.786
Total		3999616	100.000



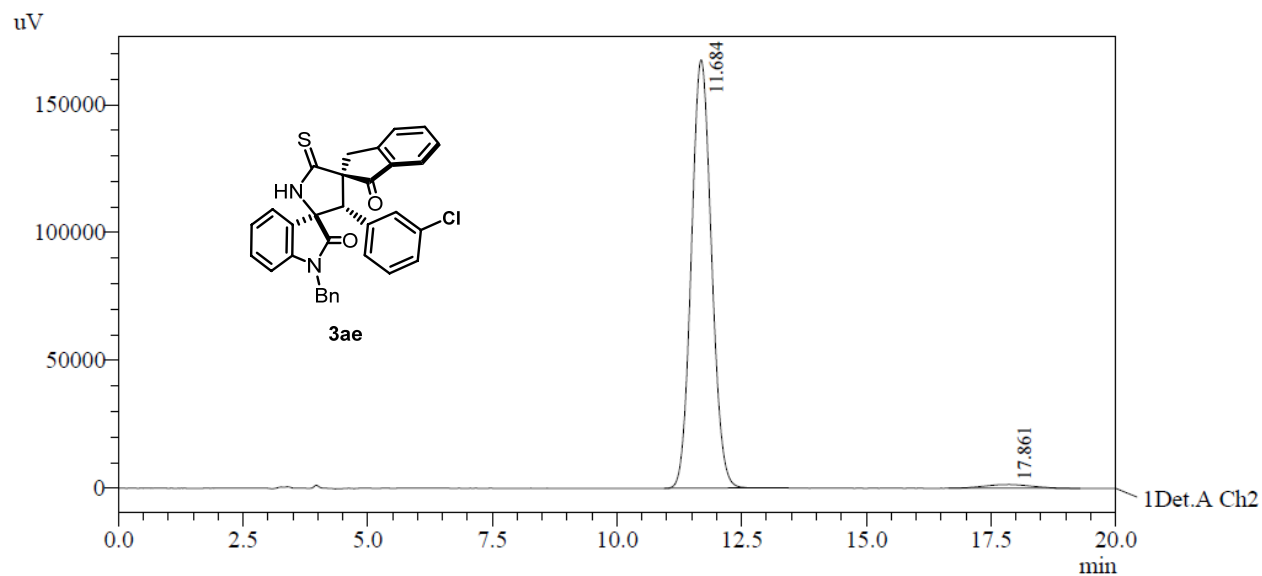


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.736	2255731	50.281
2	17.929	2230551	49.719
Total		4486282	100.000

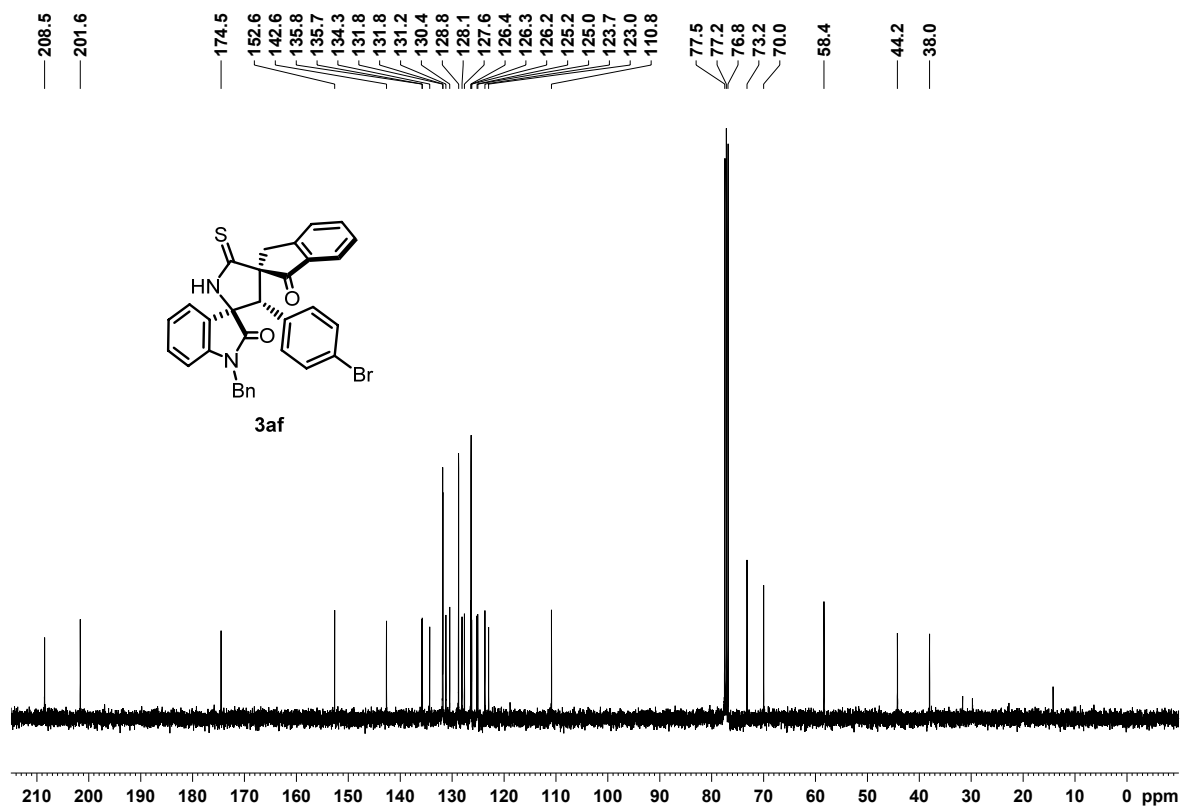
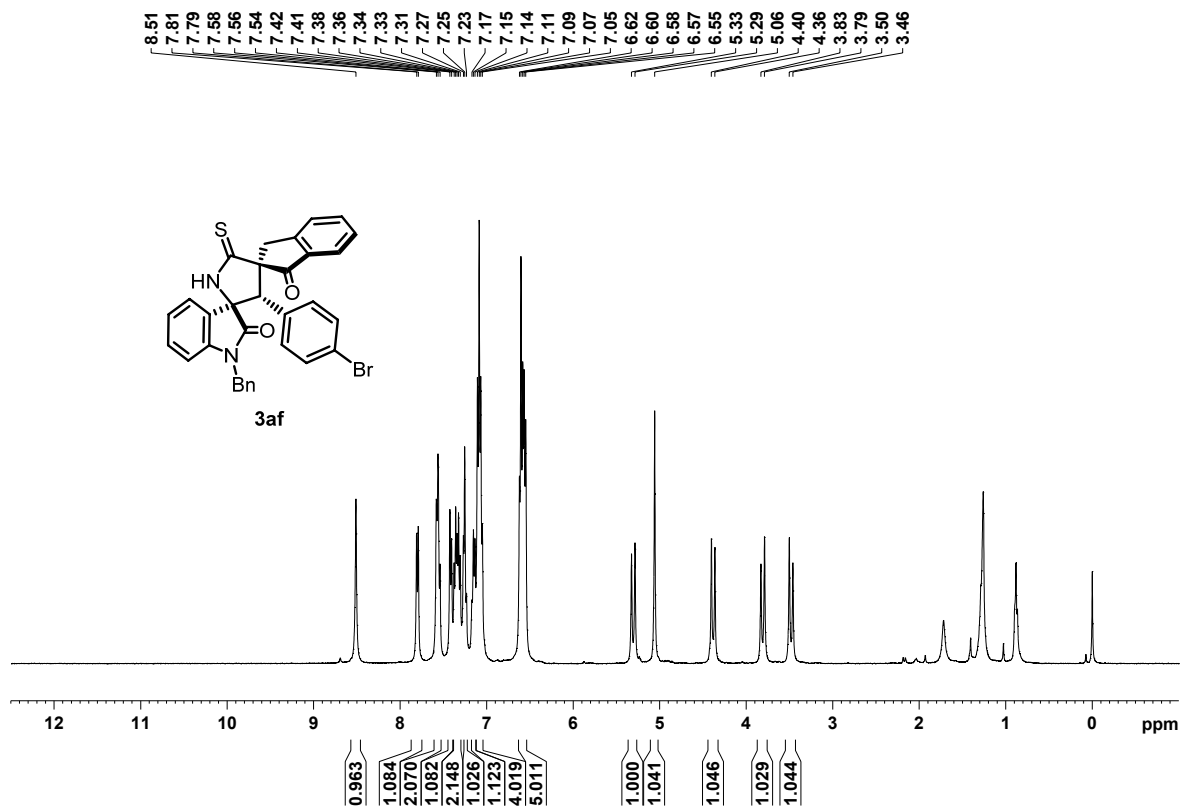
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

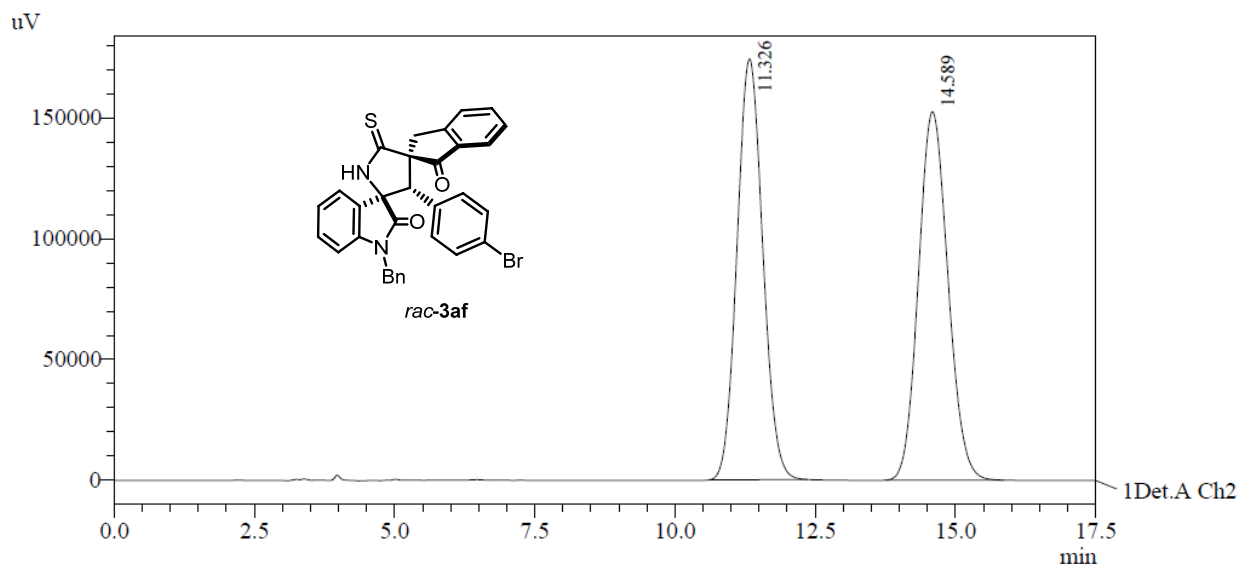


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.684	4704390	98.033
2	17.861	94395	1.967
Total		4798785	100.000



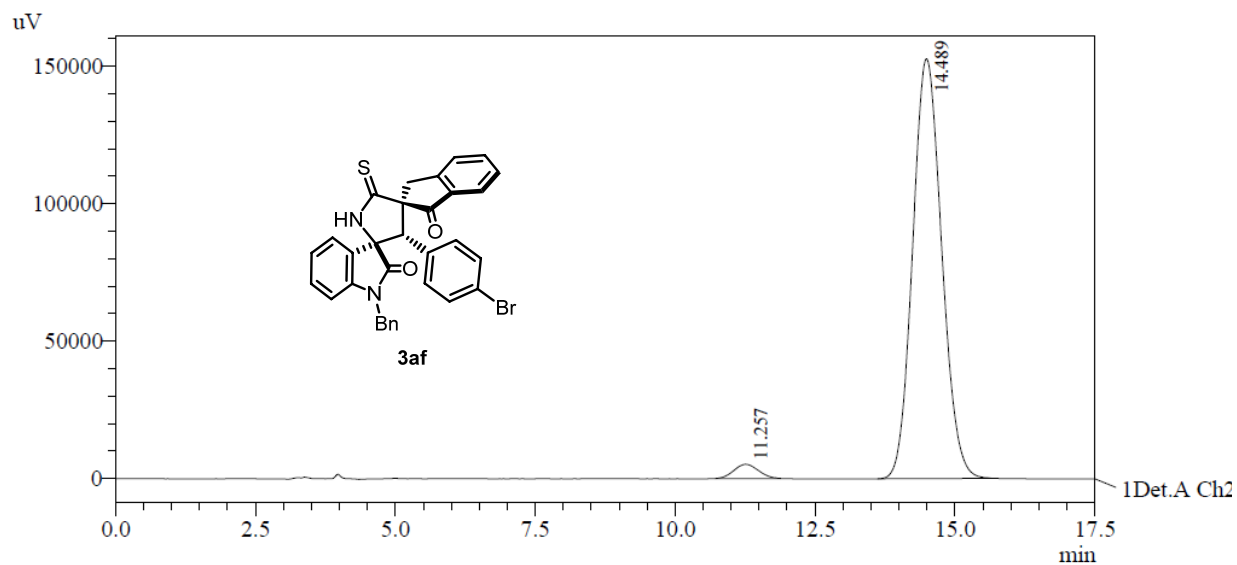


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.326	5564794	49.934
2	14.589	5579499	50.066
Total		11144293	100.000

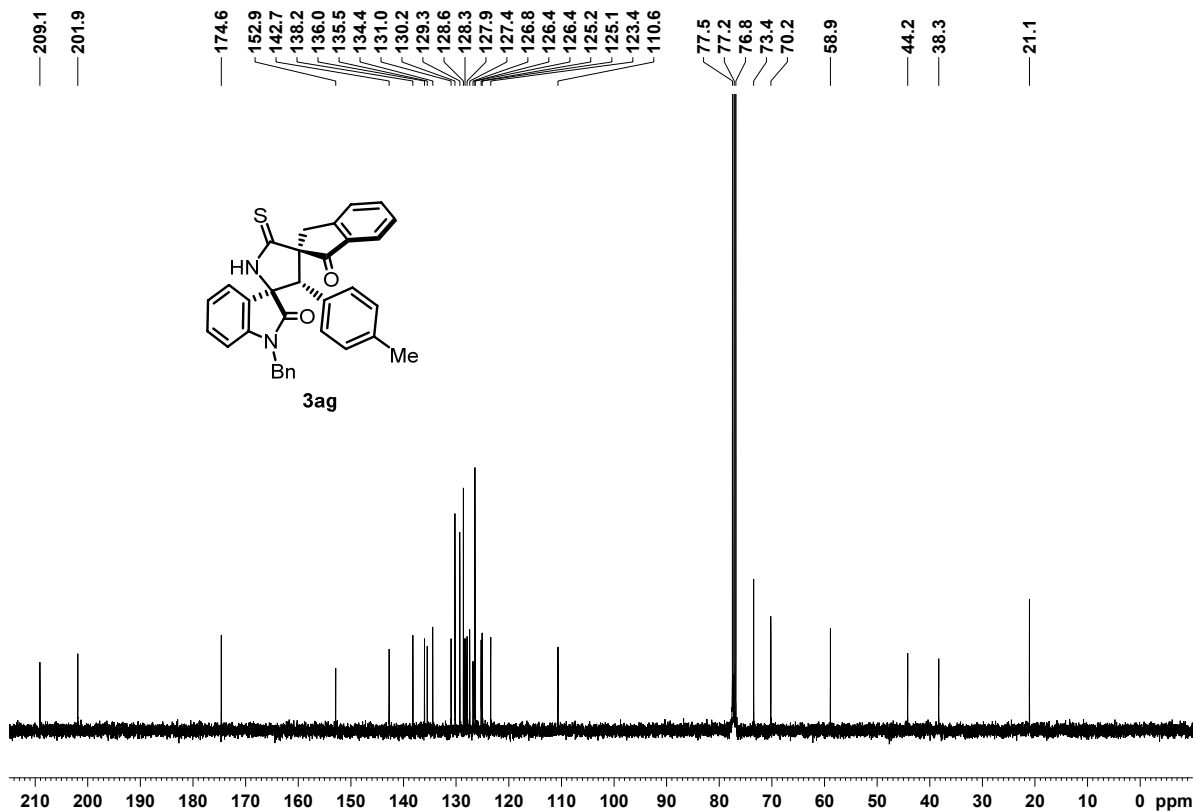
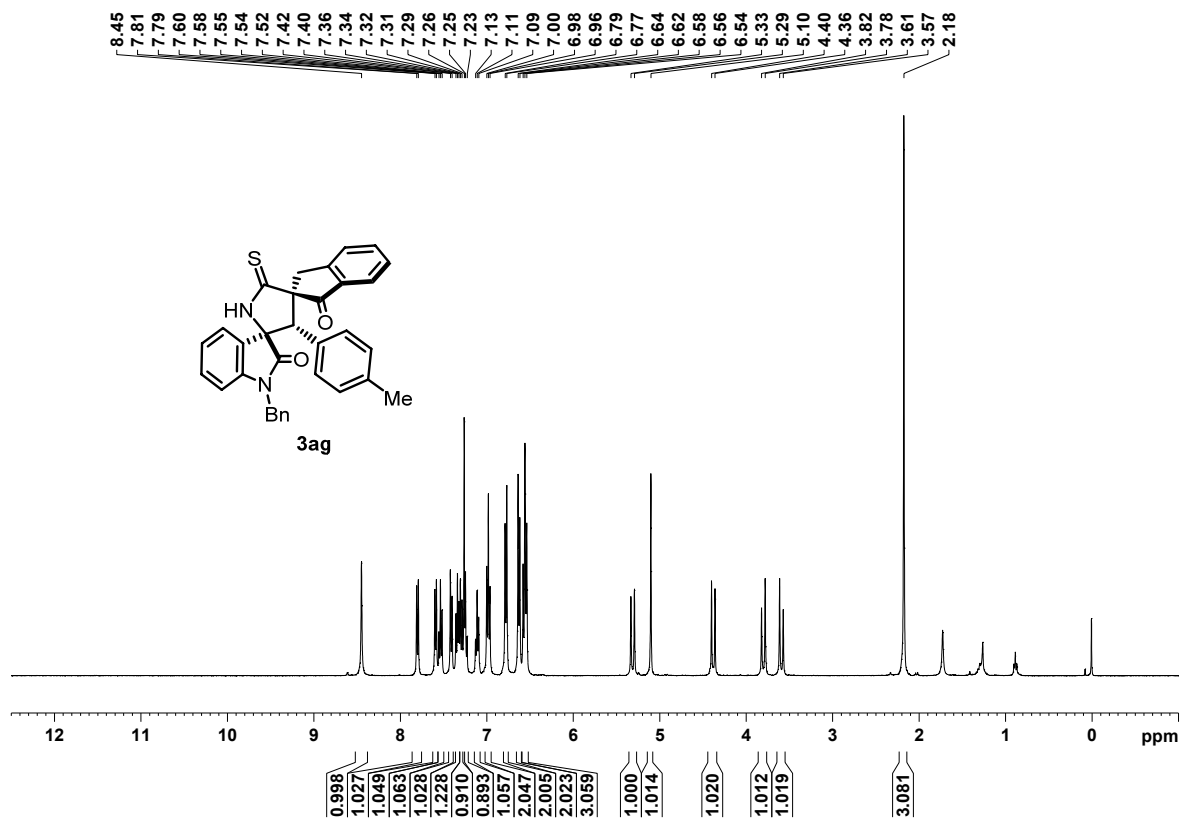
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

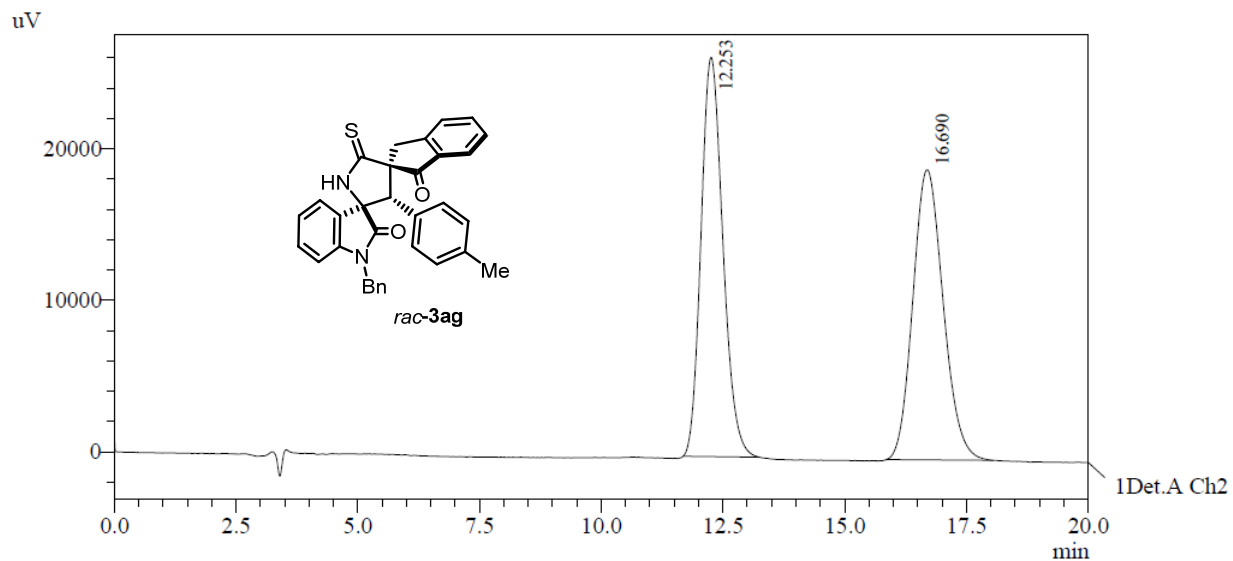


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.257	154743	2.728
2	14.489	5517164	97.272
Total		5671907	100.000



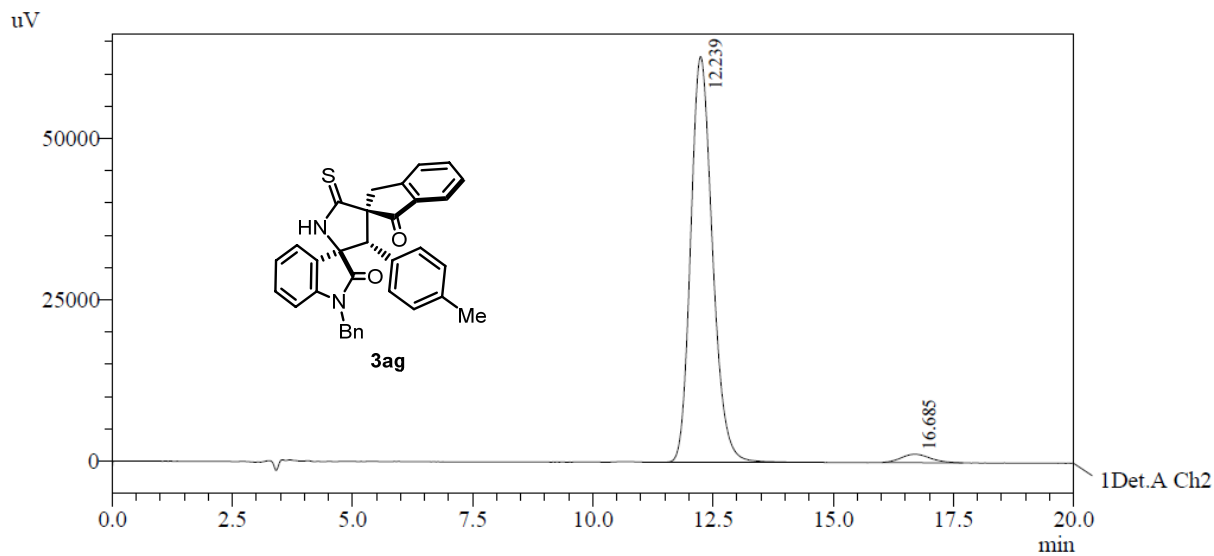


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.253	823158	49.834
2	16.690	828646	50.166
Total		1651803	100.000

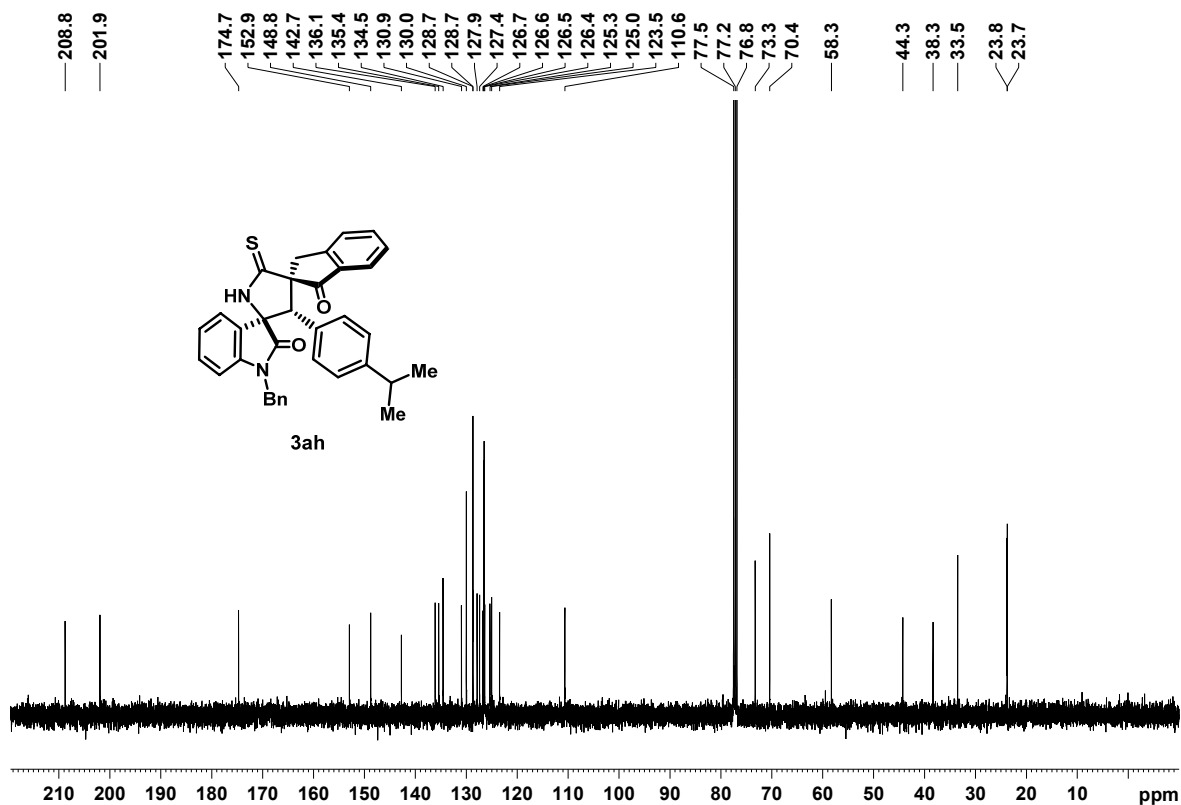
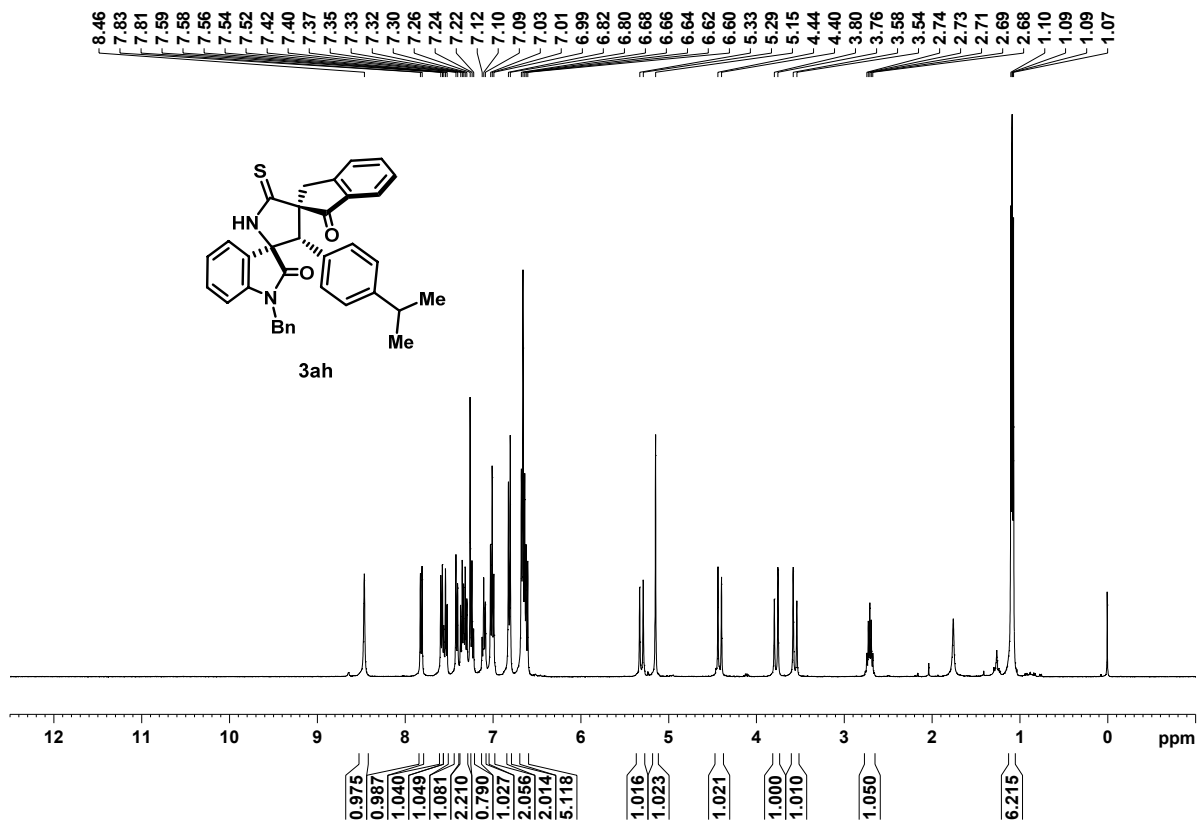
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

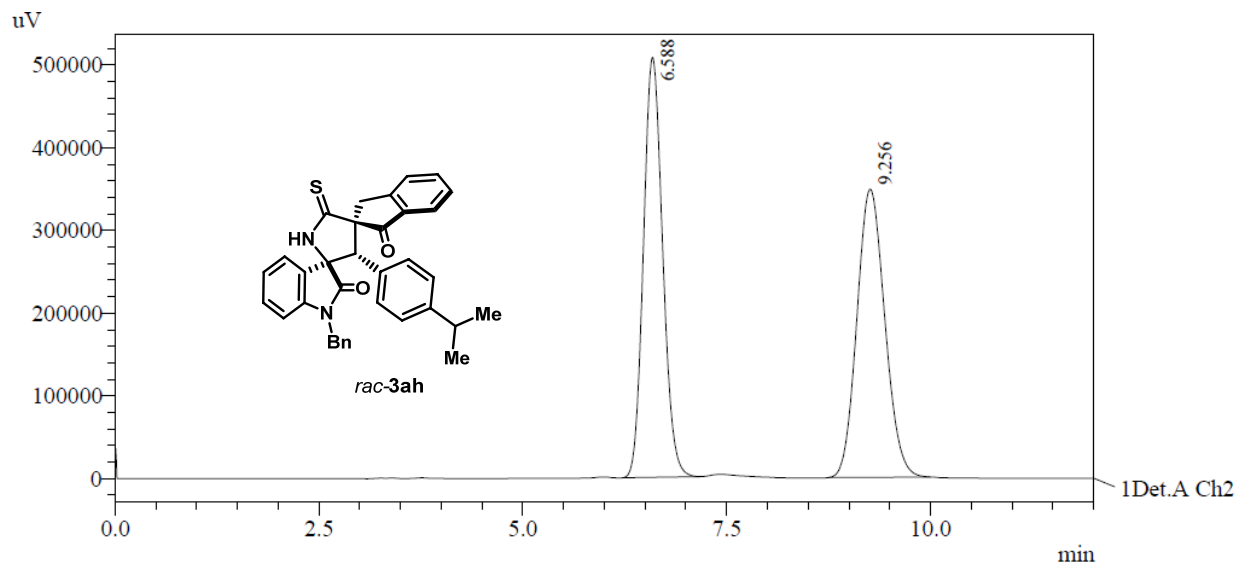


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.239	1986773	97.341
2	16.685	54280	2.659
Total		2041053	100.000



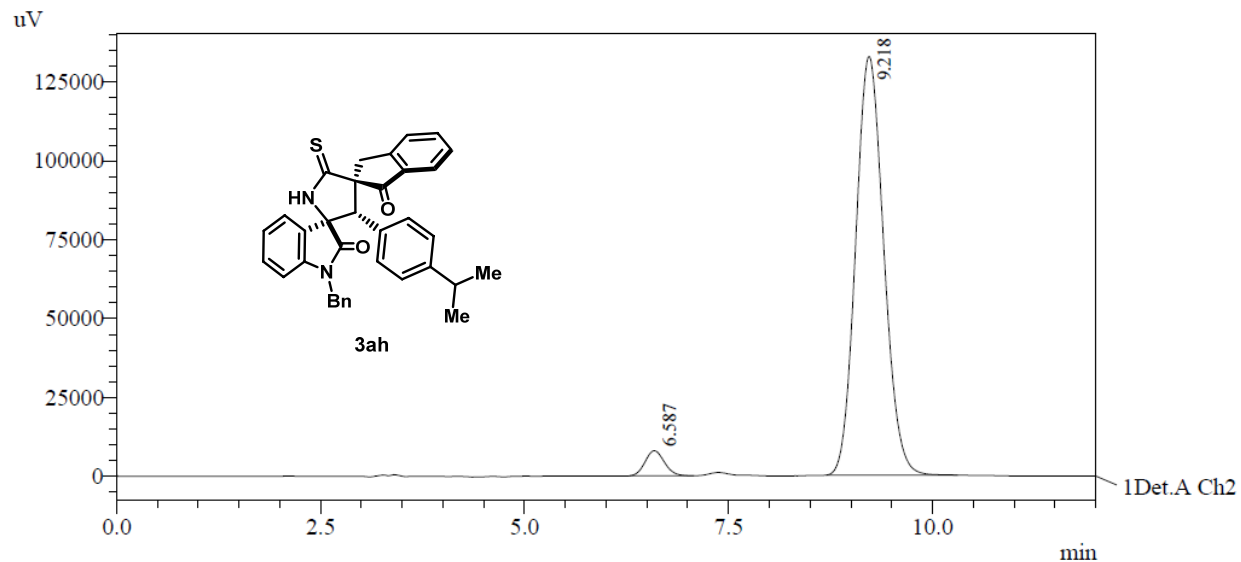


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.588	8303136	50.032
2	9.256	8292588	49.968
Total		16595723	100.000

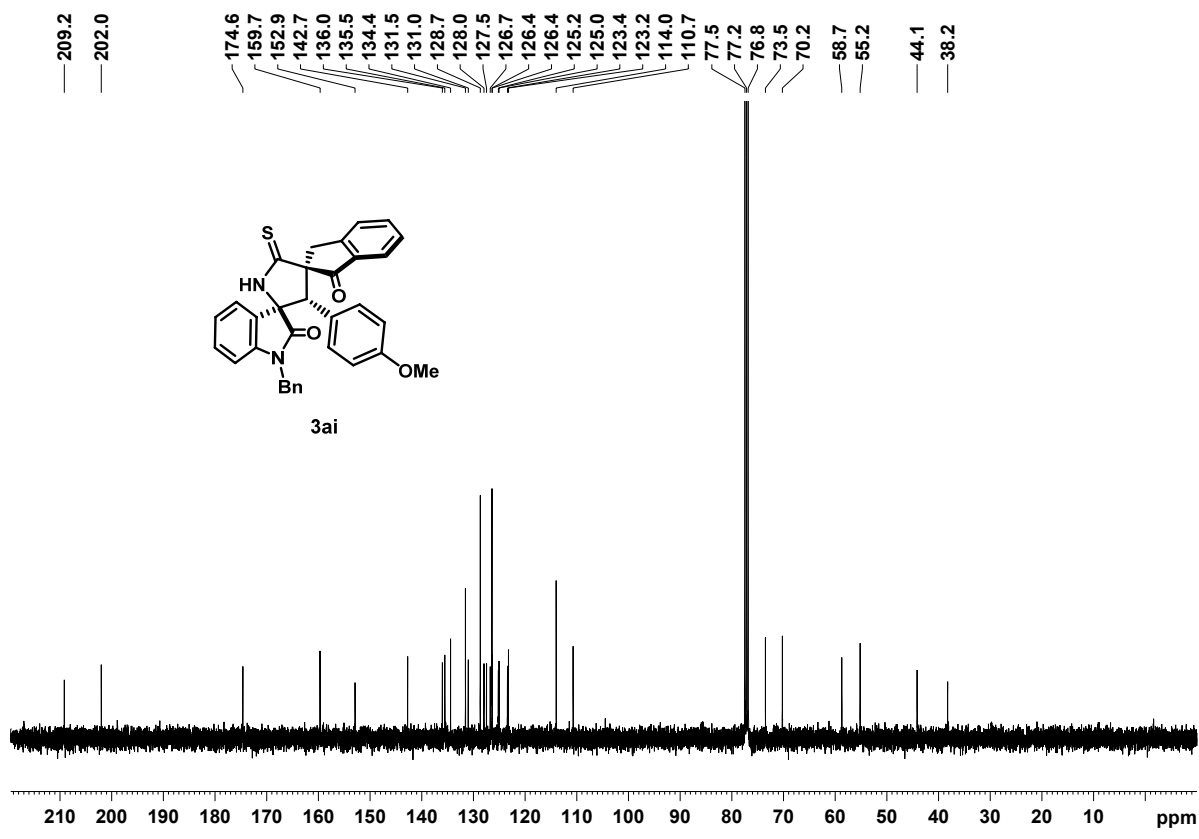
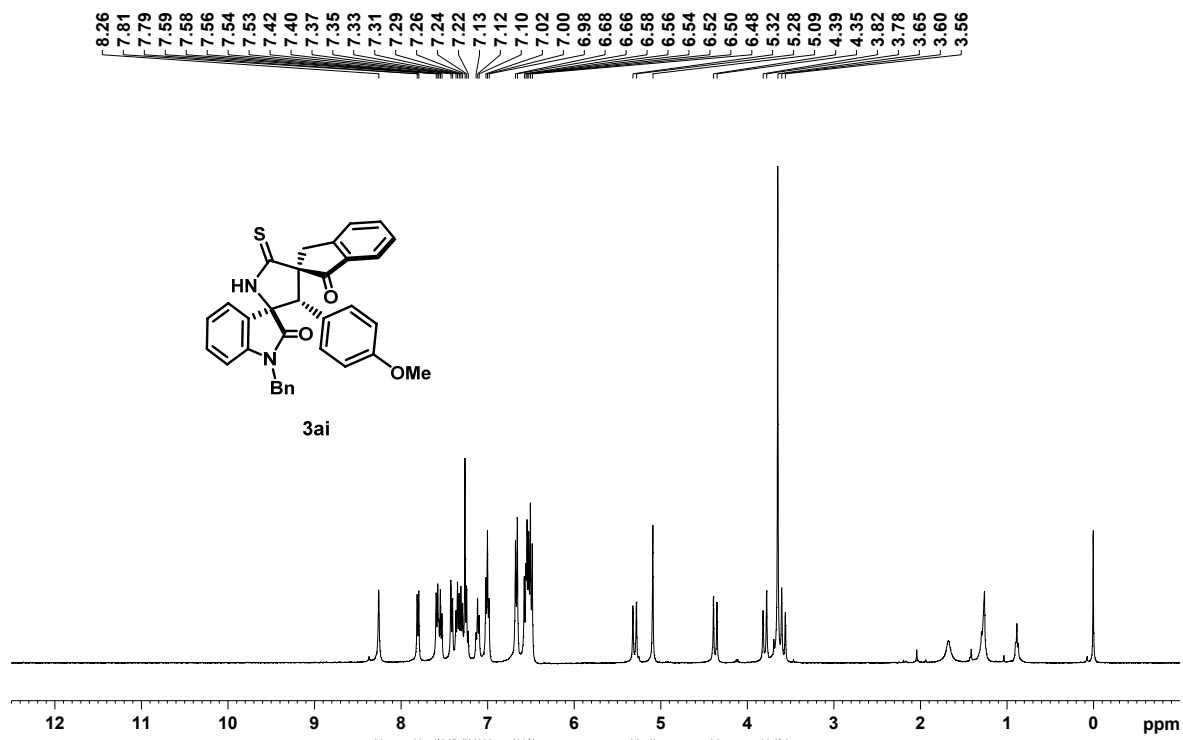
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

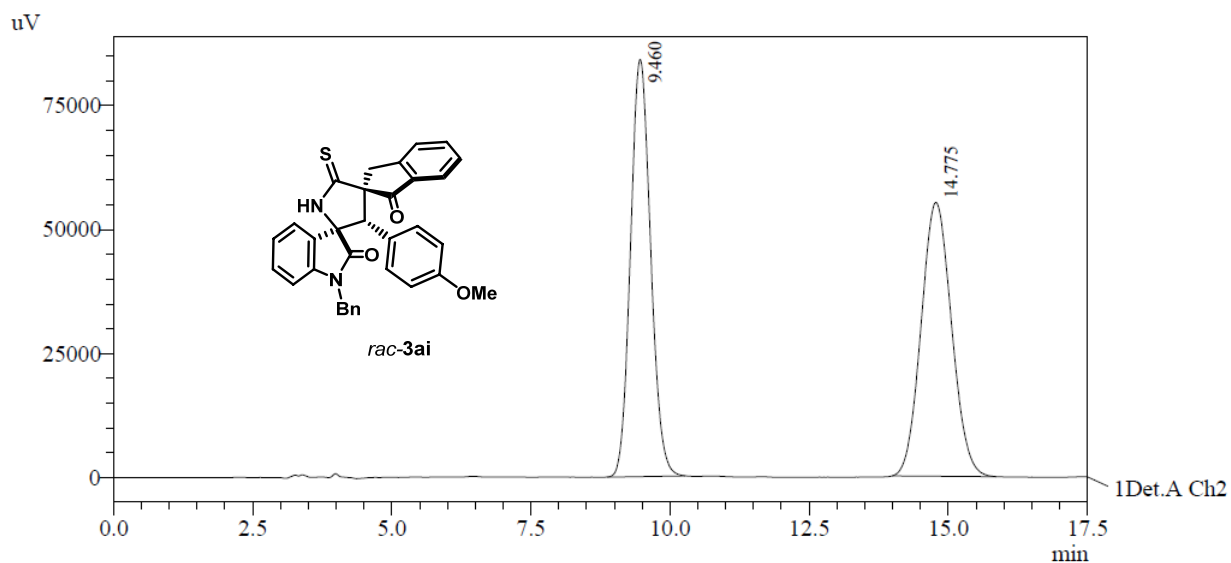


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.587	130773	3.949
2	9.218	3180939	96.051
Total		3311712	100.000



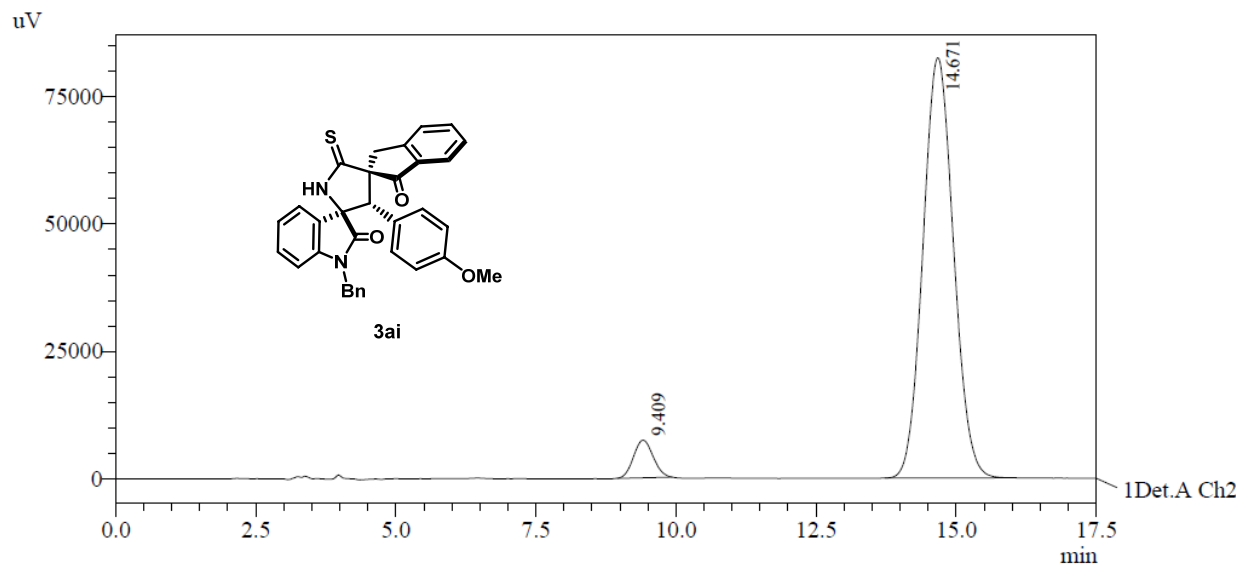


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	9.460	2116922	50.184
2	14.775	2101420	49.816
Total		4218342	100.000

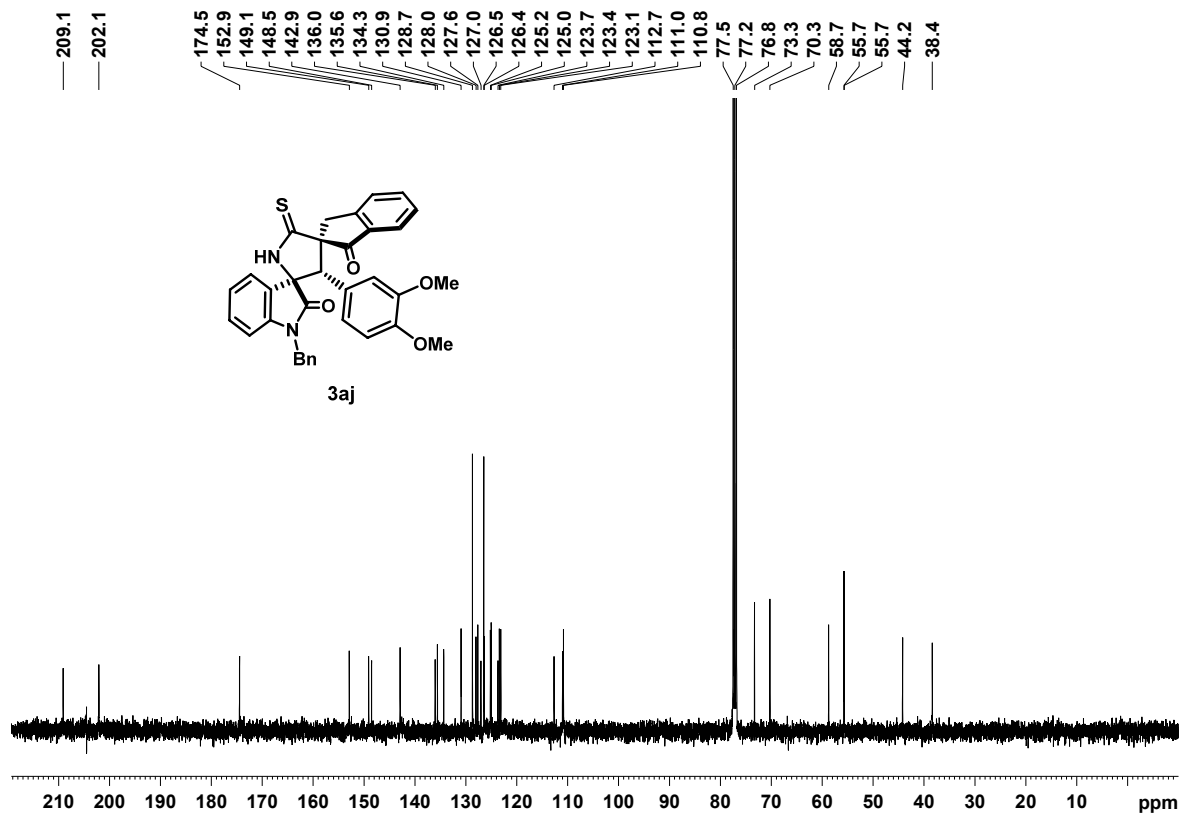
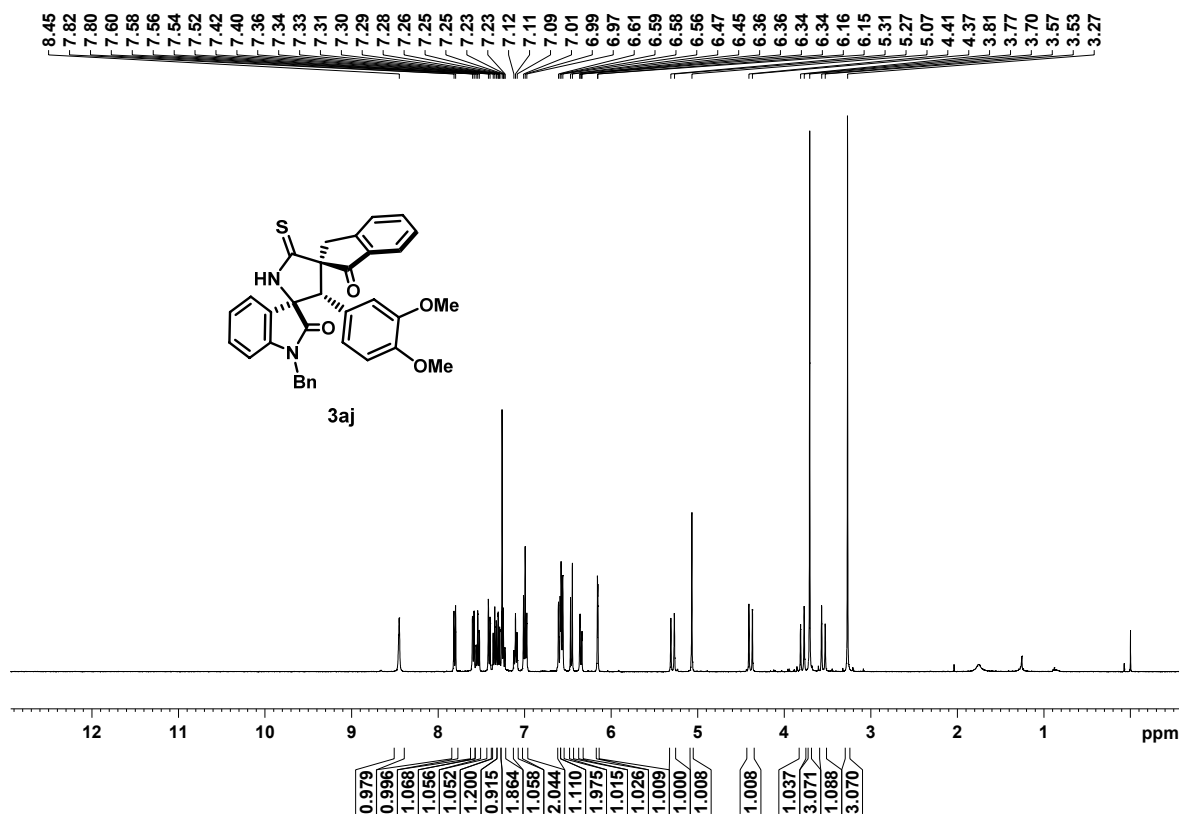
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

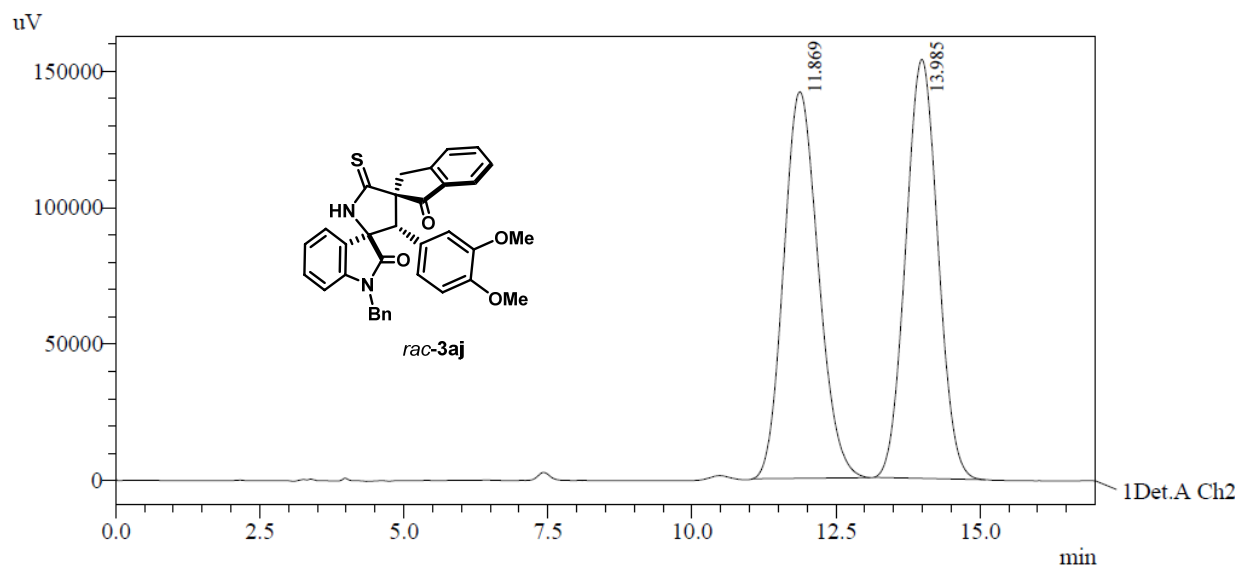


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	9.409	180130	5.435
2	14.671	3134101	94.565
Total		3314231	100.000



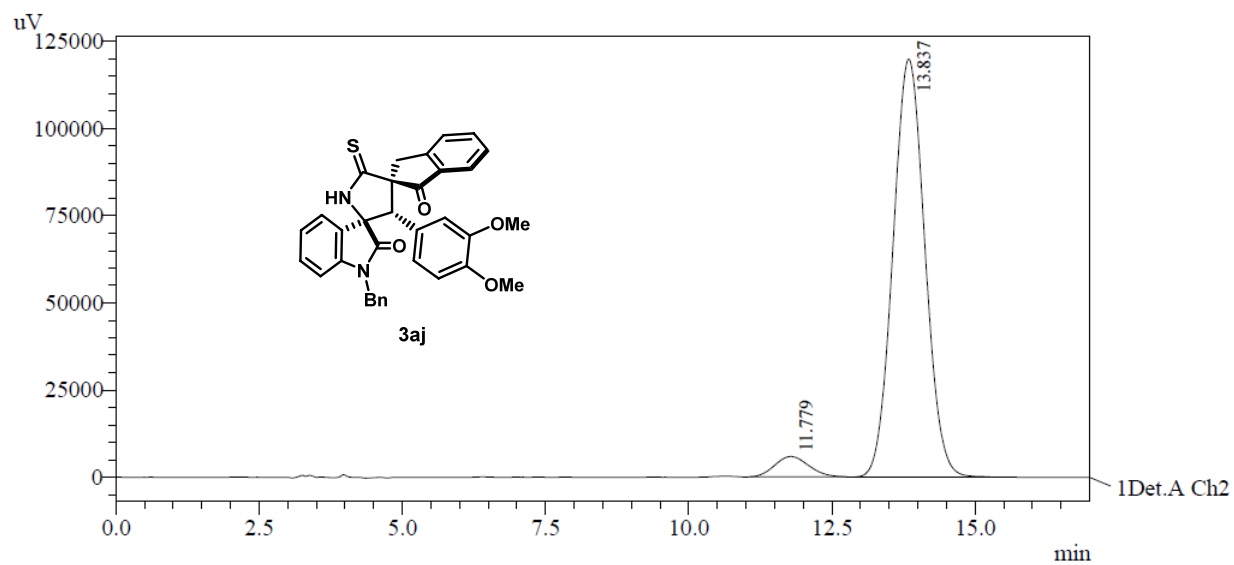


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.869	5953150	49.842
2	13.985	5990808	50.158
Total		11943957	100.000

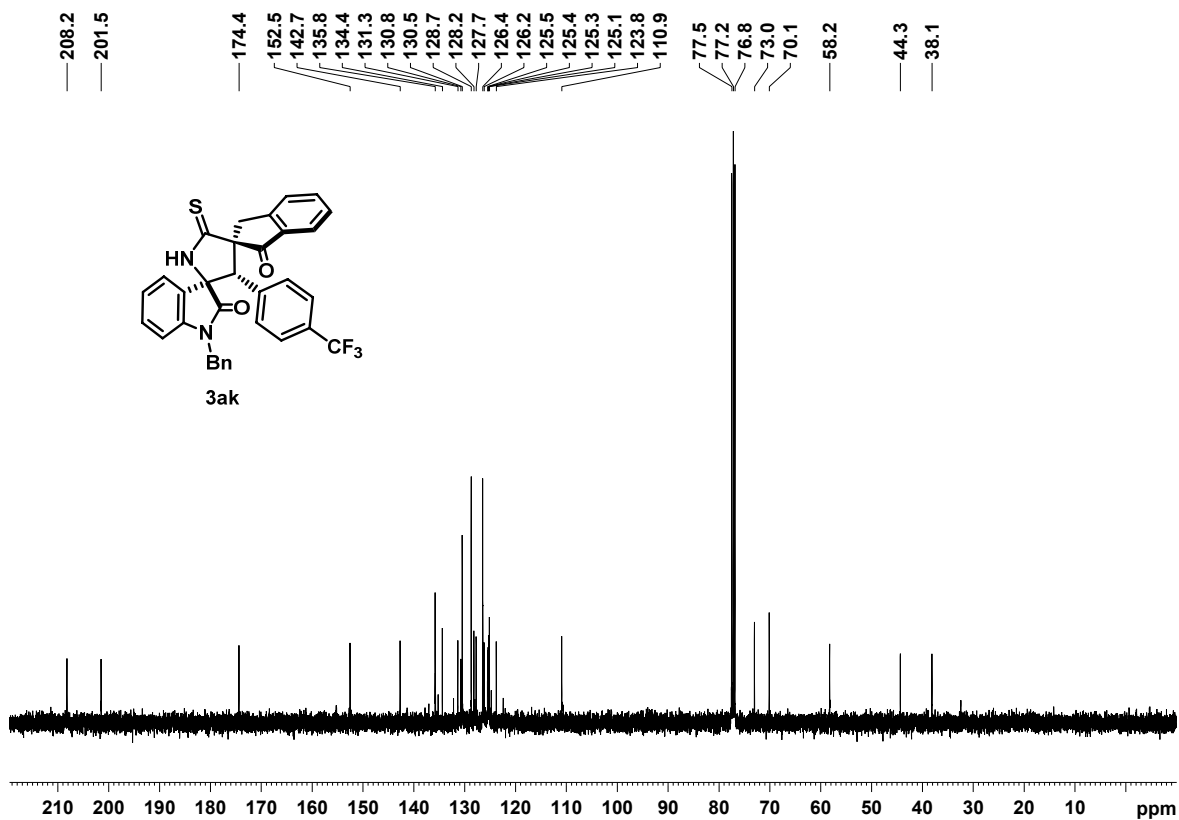
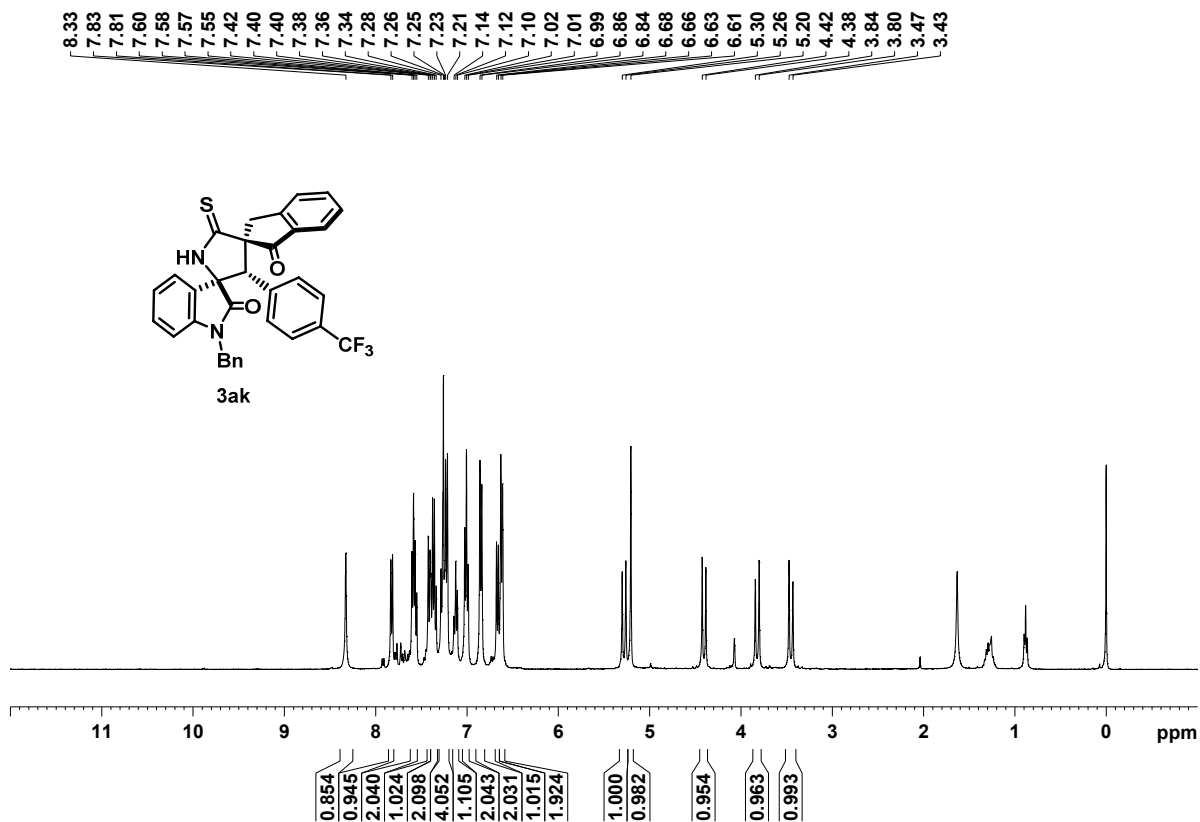
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

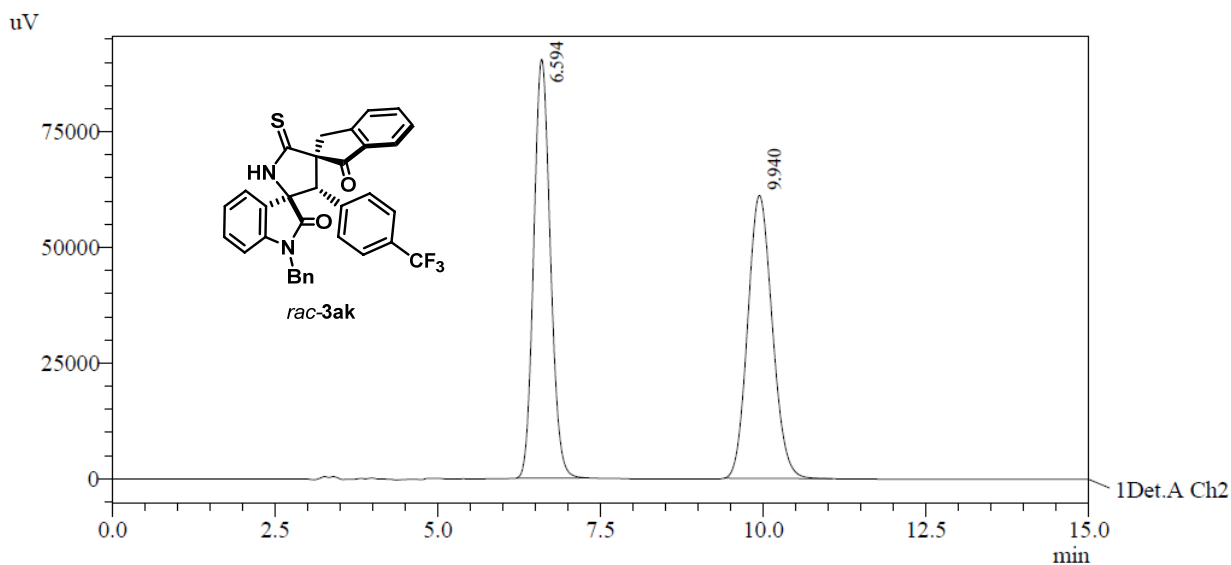


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.779	241026	4.934
2	13.837	4644325	95.066
Total		4885351	100.000



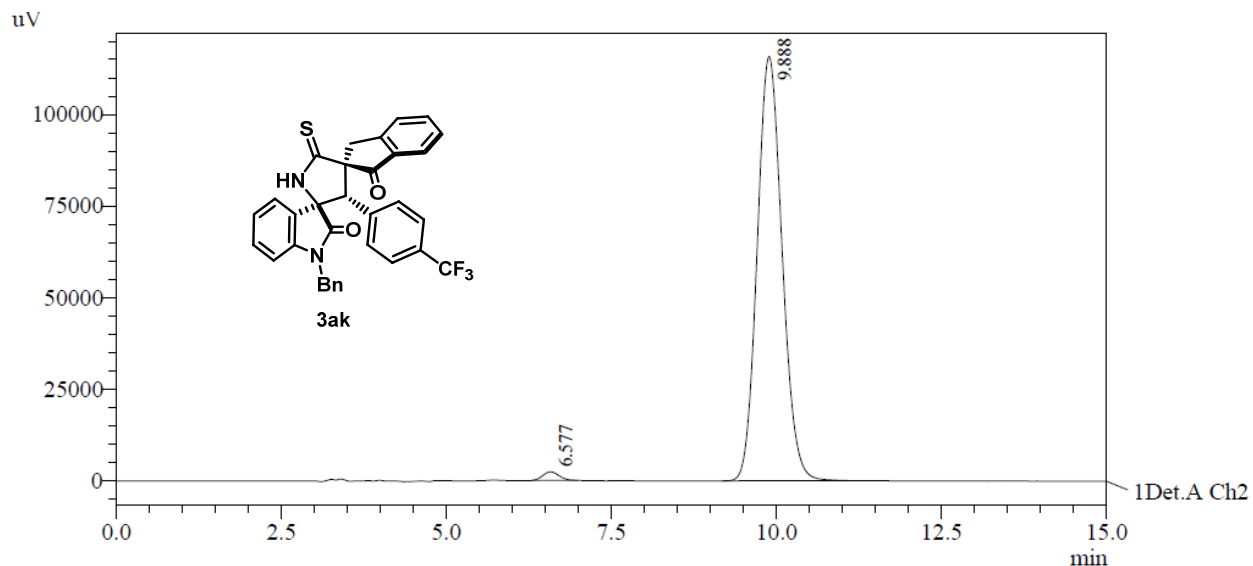


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.594	1608400	50.058
2	9.940	1604693	49.942
Total		3213093	100.000

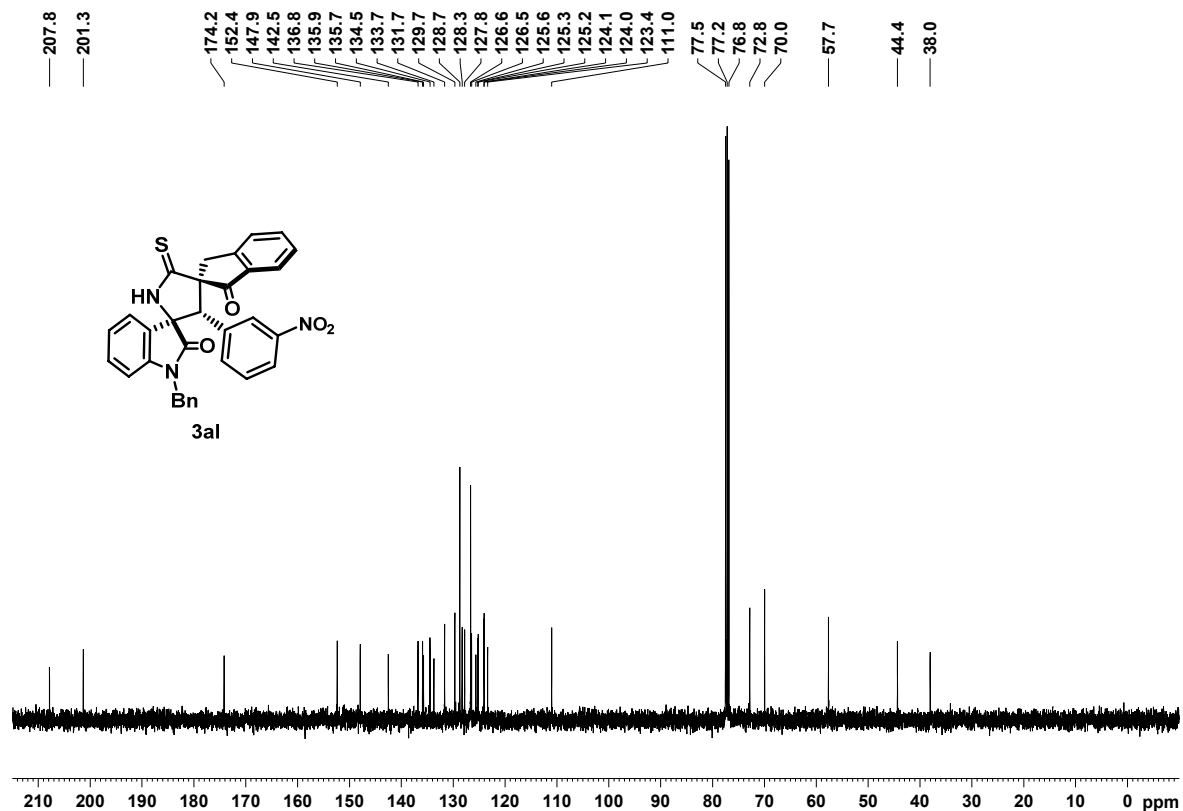
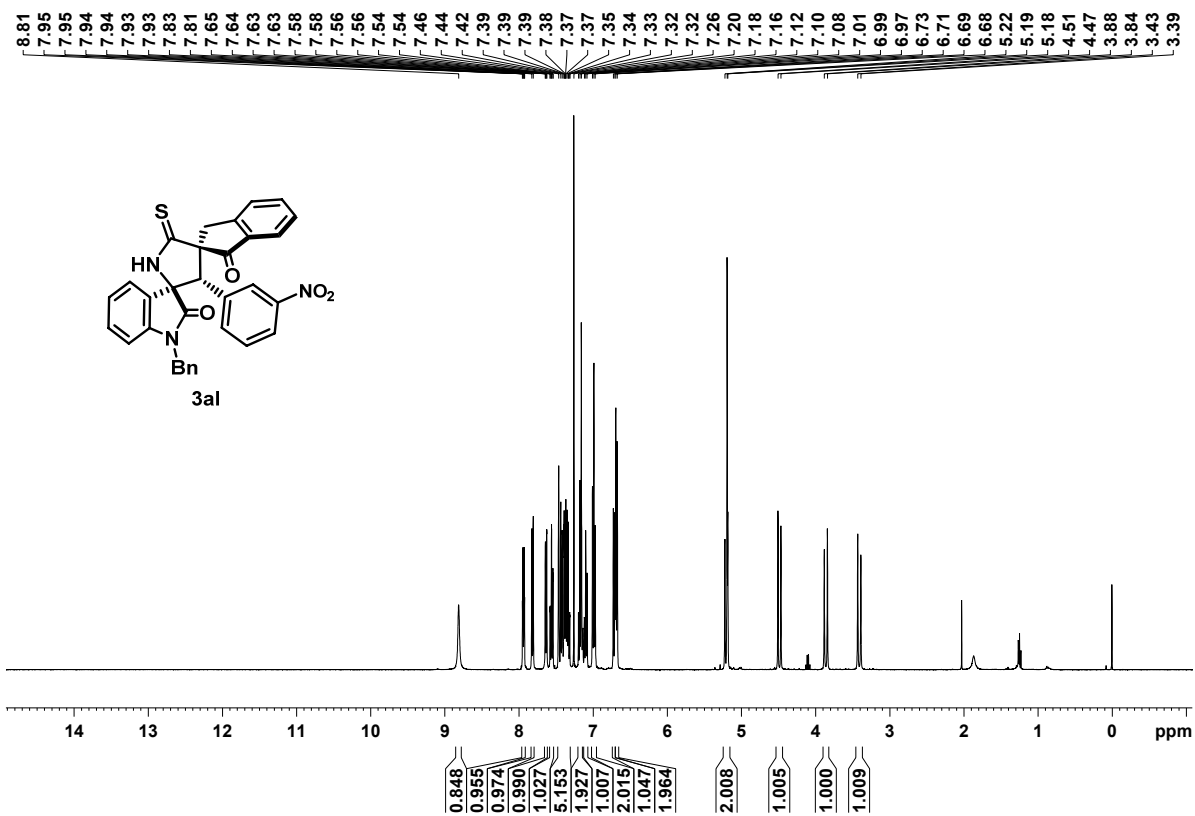
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

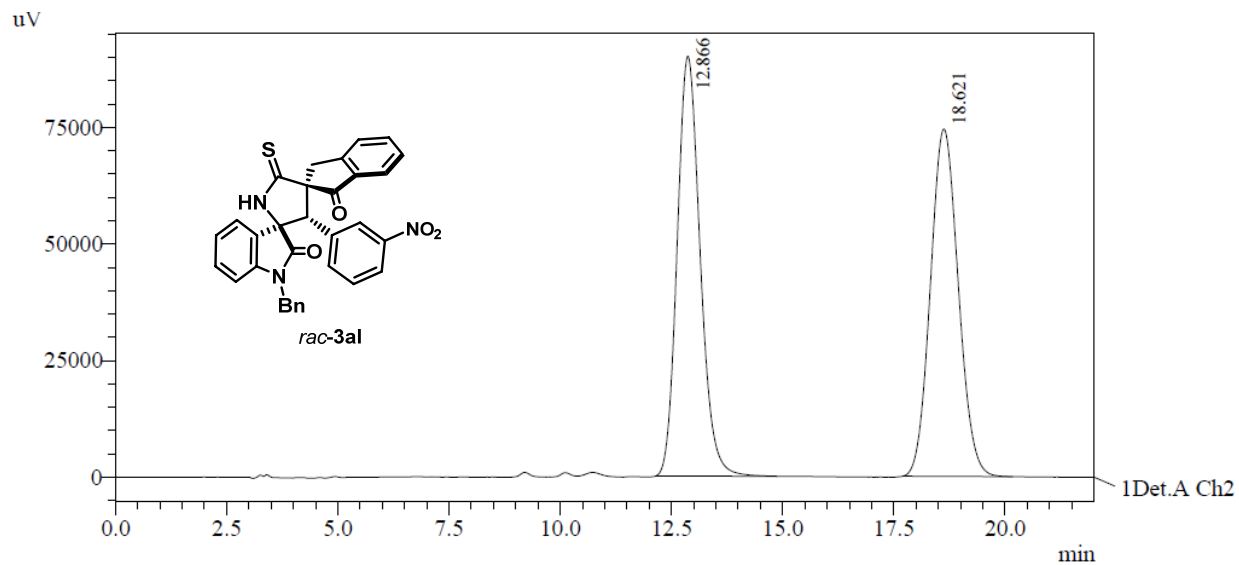


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.577	39955	1.298
2	9.888	3038314	98.702
Total		3078269	100.000



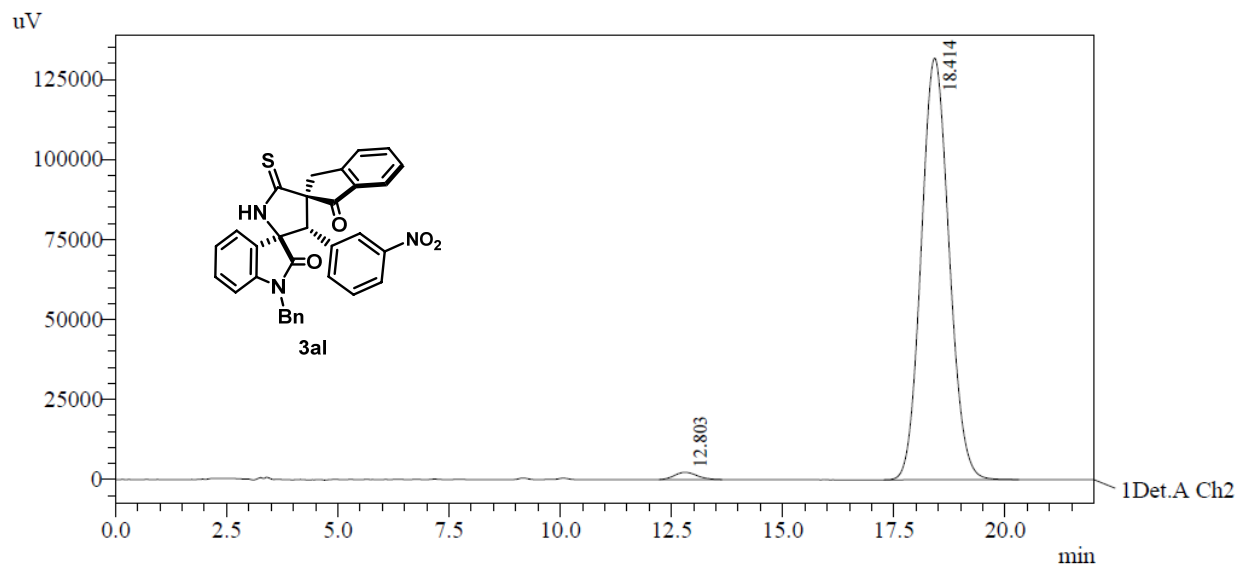


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.866	3237853	49.940
2	18.621	3245575	50.060
Total		6483429	100.000

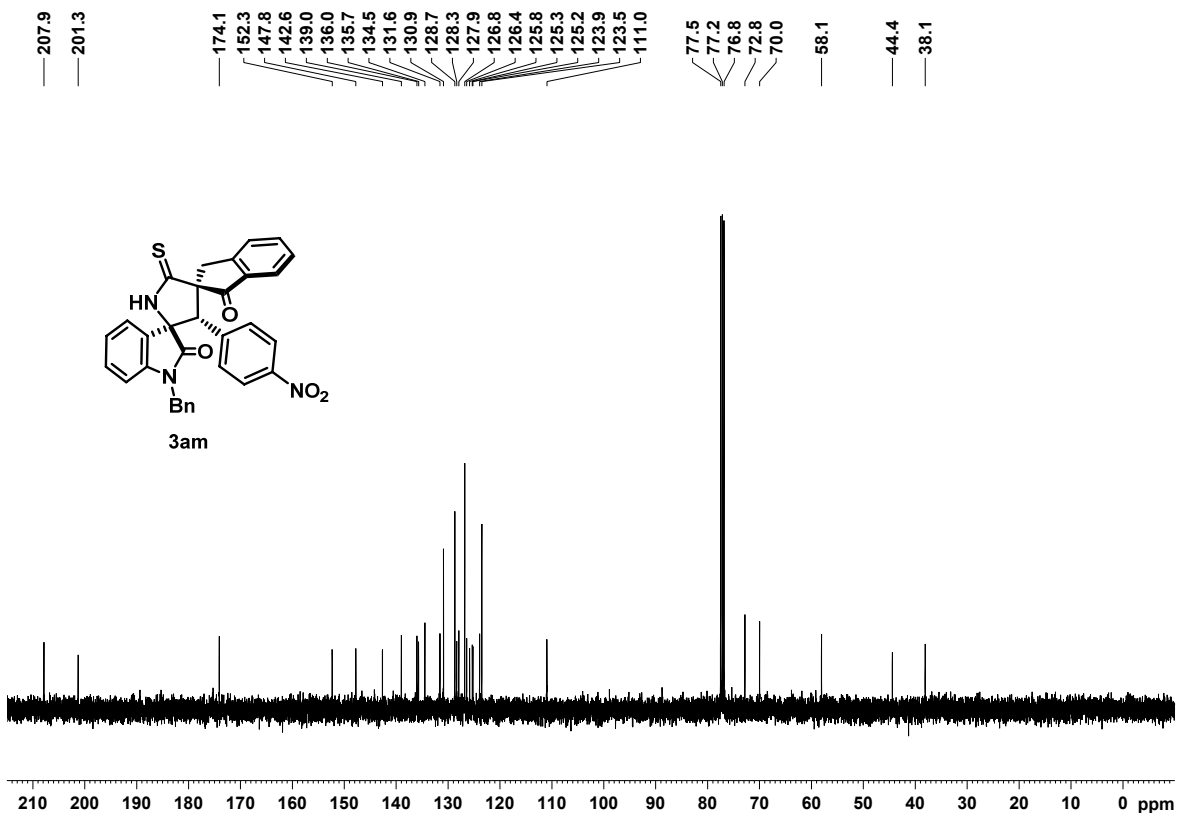
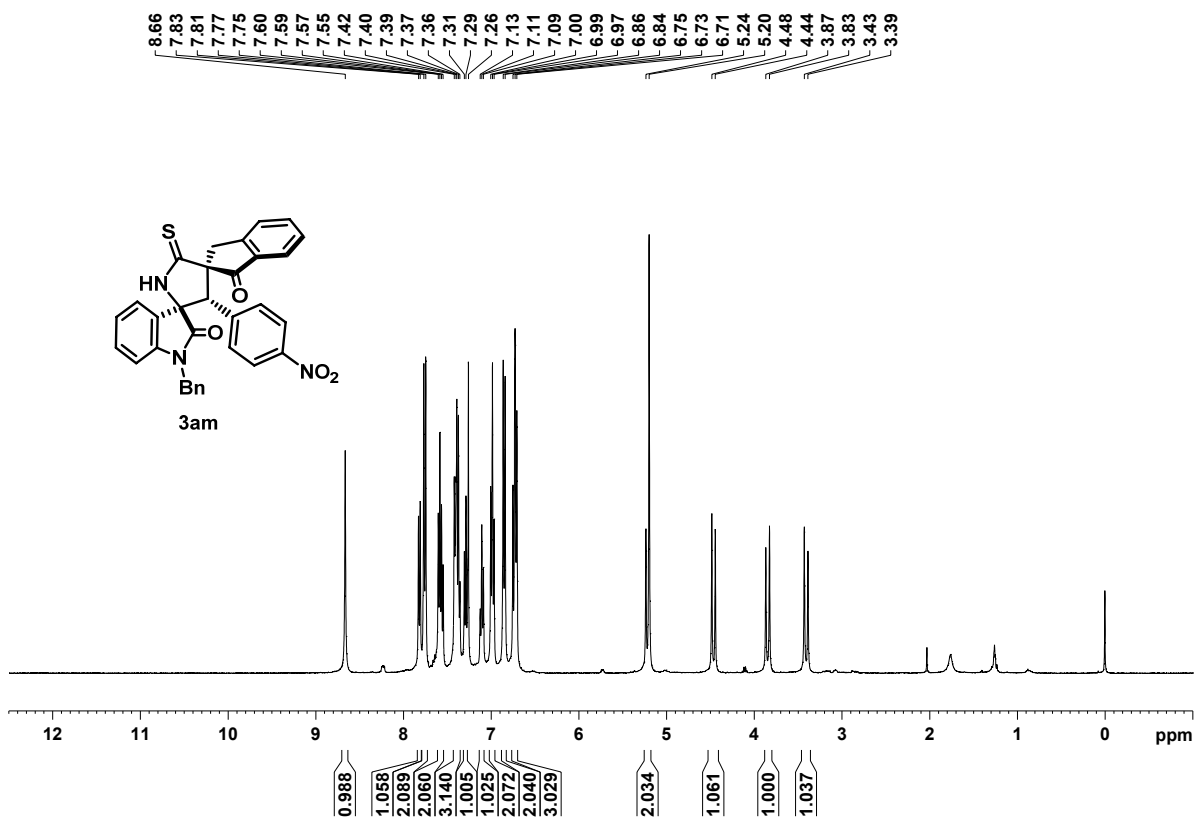
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

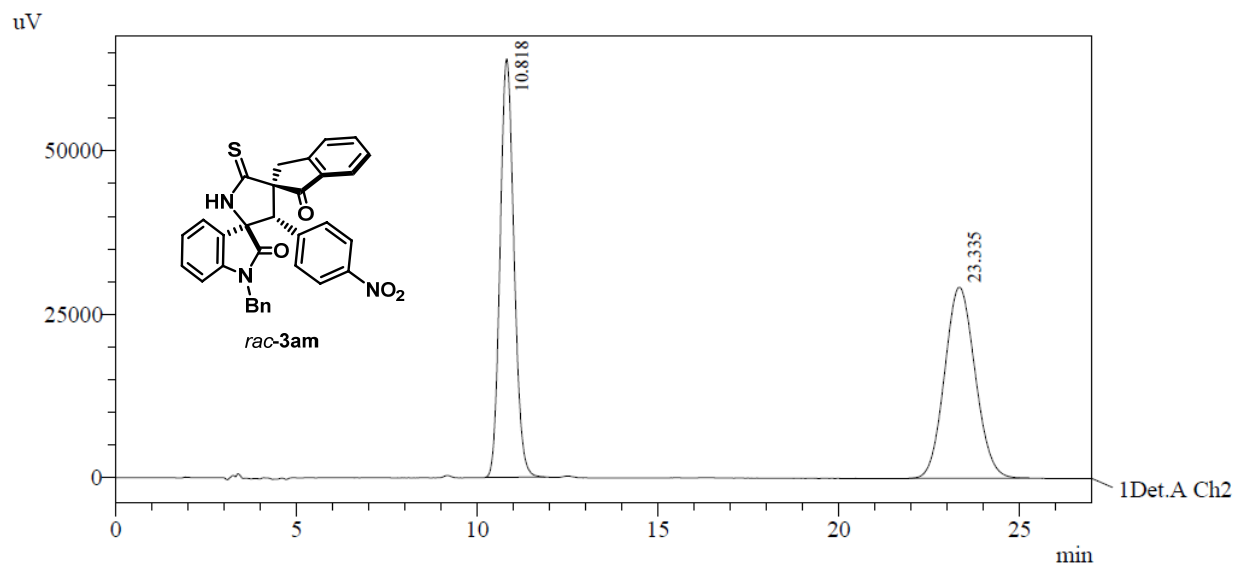


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.803	78805	1.353
2	18.414	5746714	98.647
Total		5825519	100.000



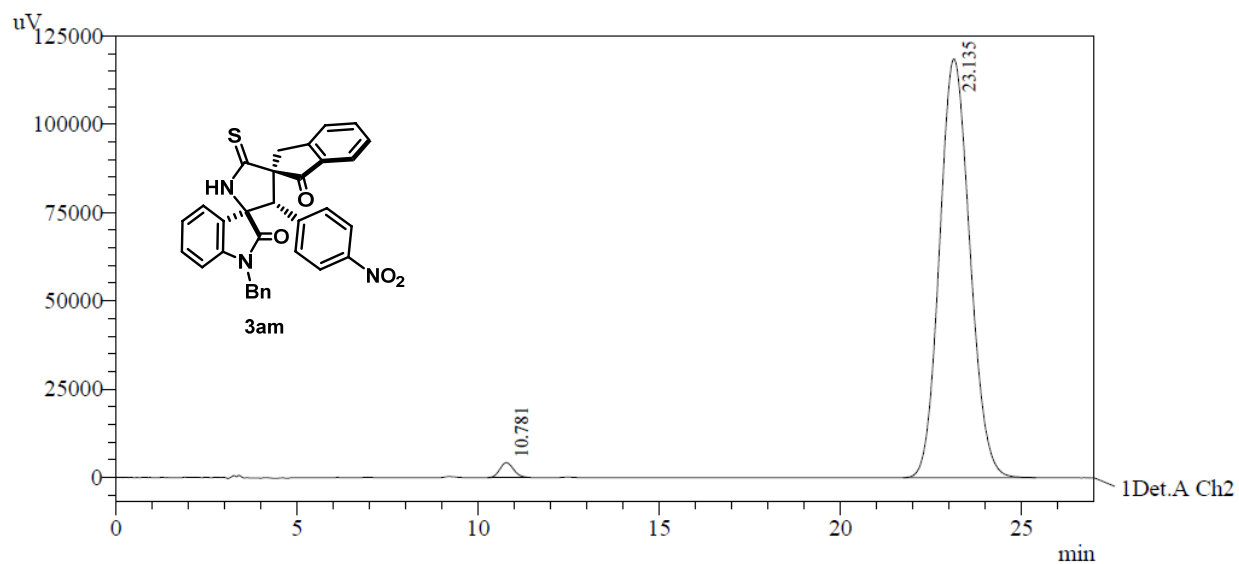


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.818	1716909	49.952
2	23.335	1720200	50.048
Total		3437108	100.000

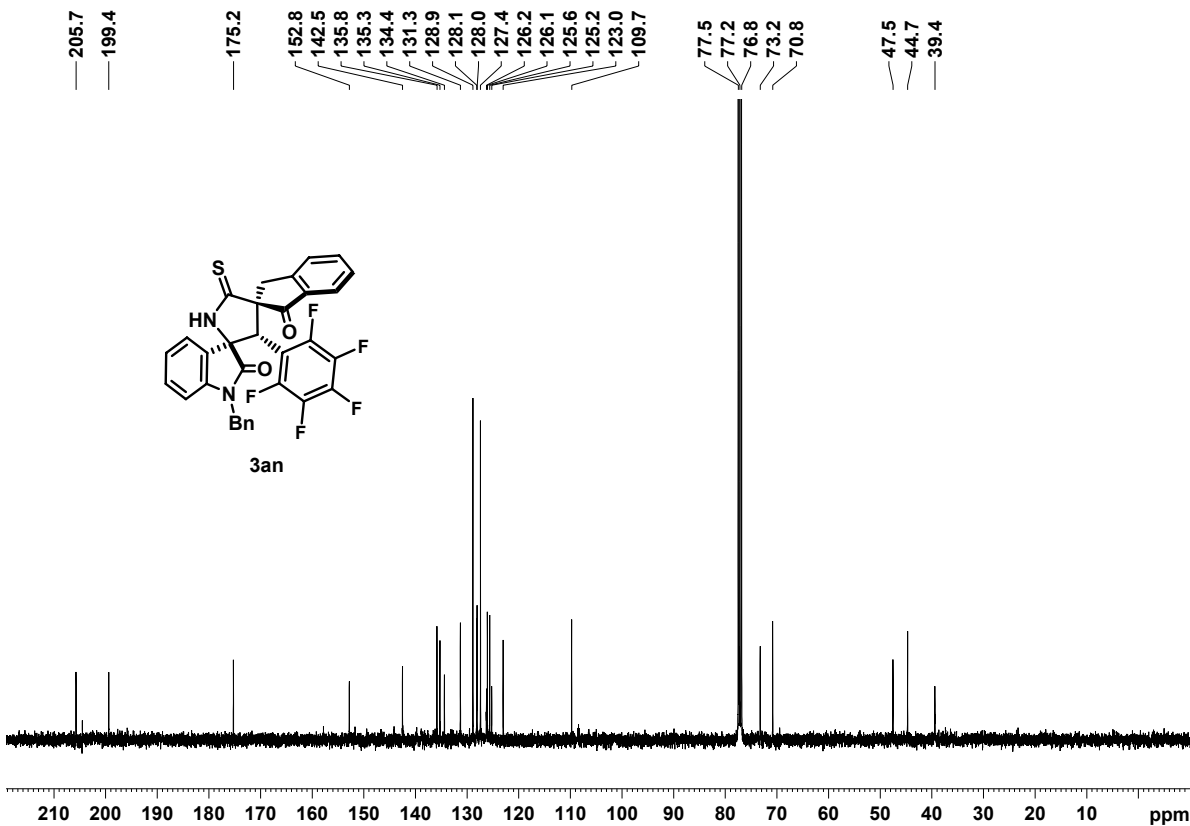
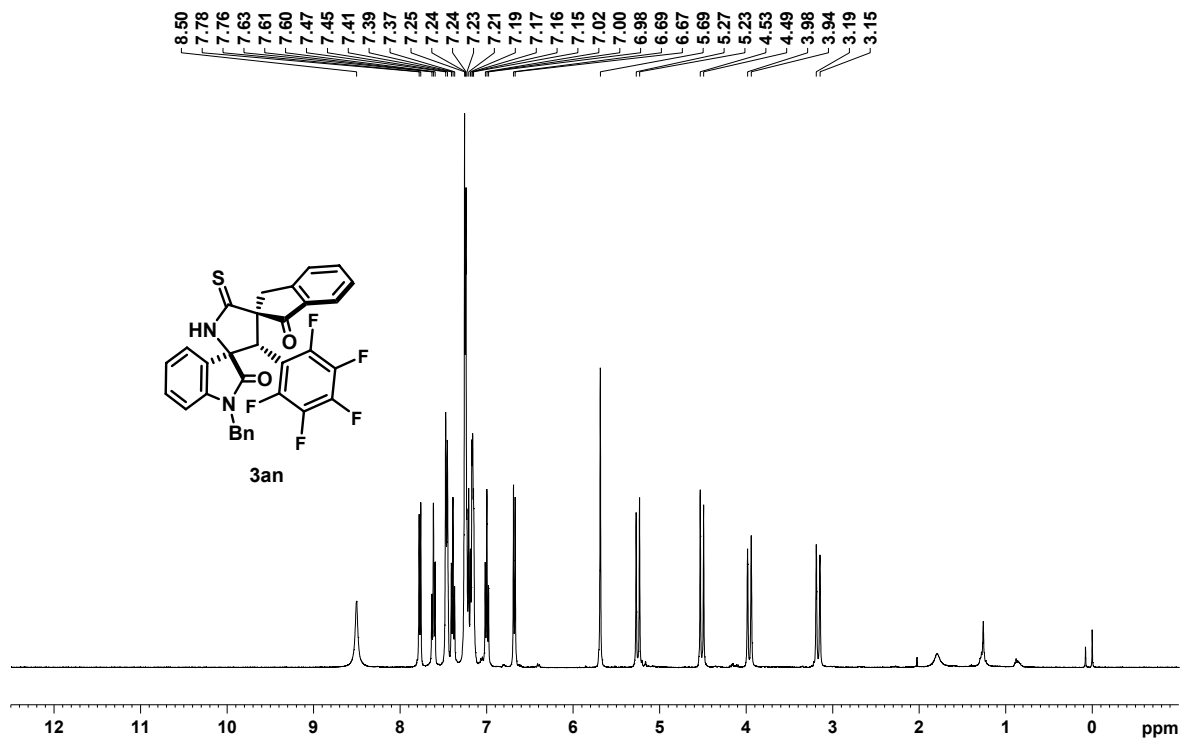
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

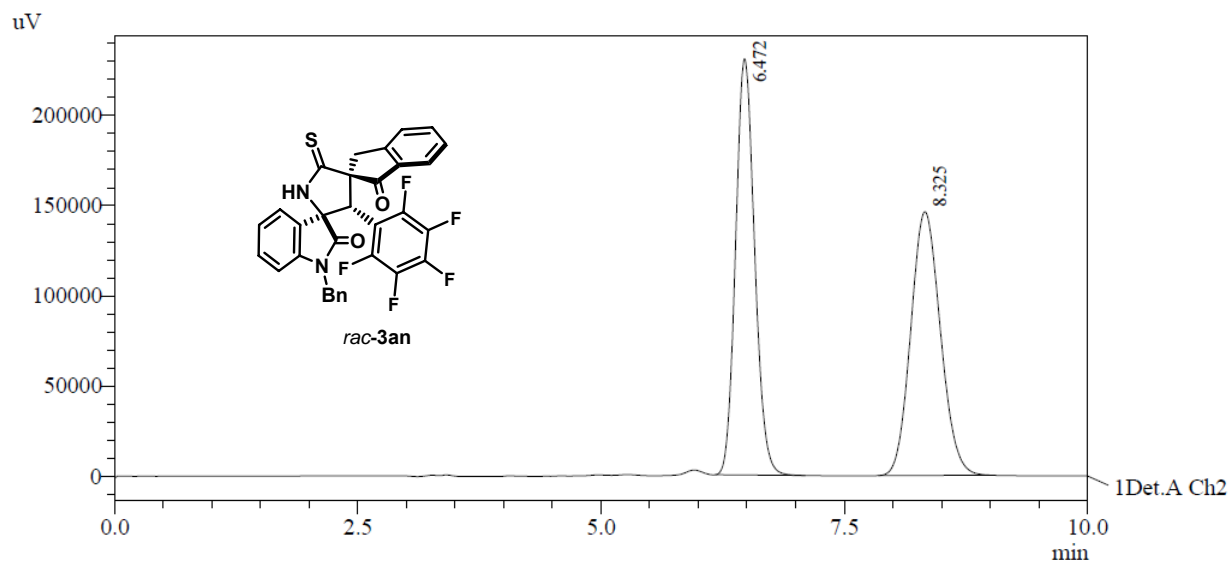


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.781	110448	1.573
2	23.135	6911291	98.427
Total		7021739	100.000



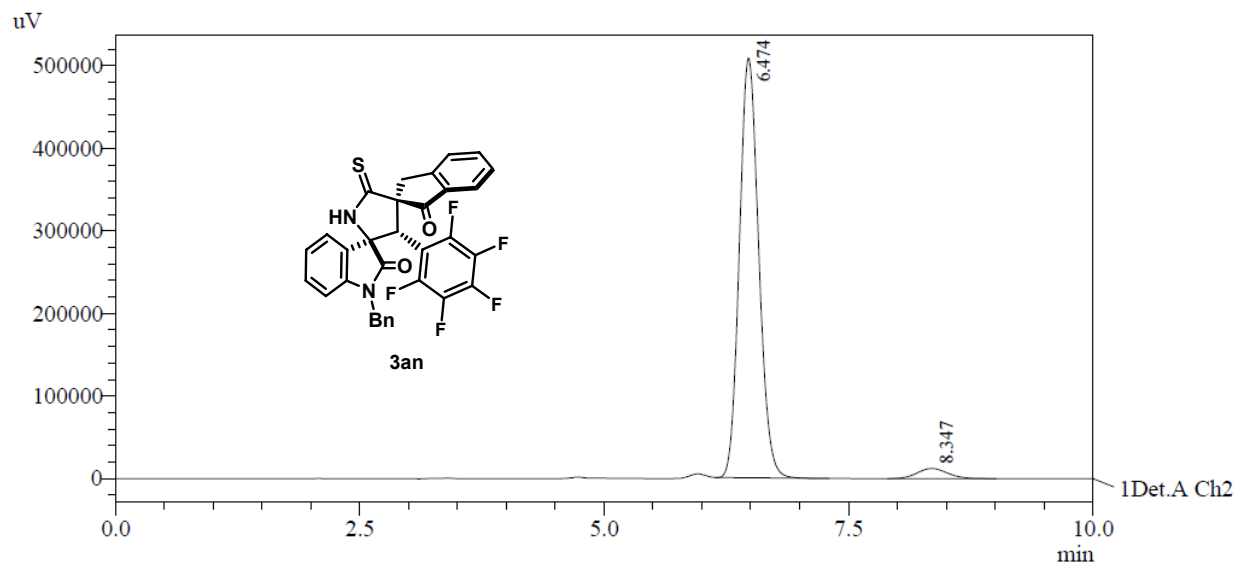


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.472	3145493	50.342
2	8.325	3102694	49.658
Total		6248187	100.000

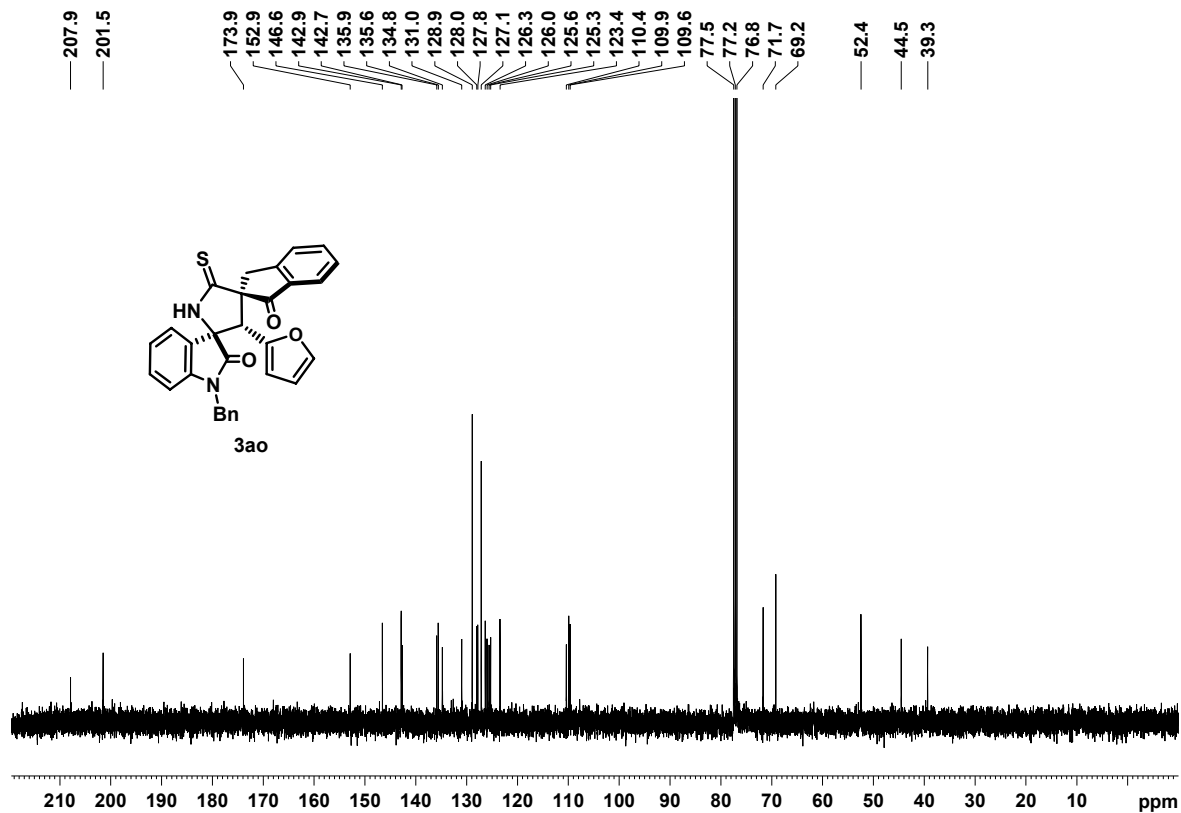
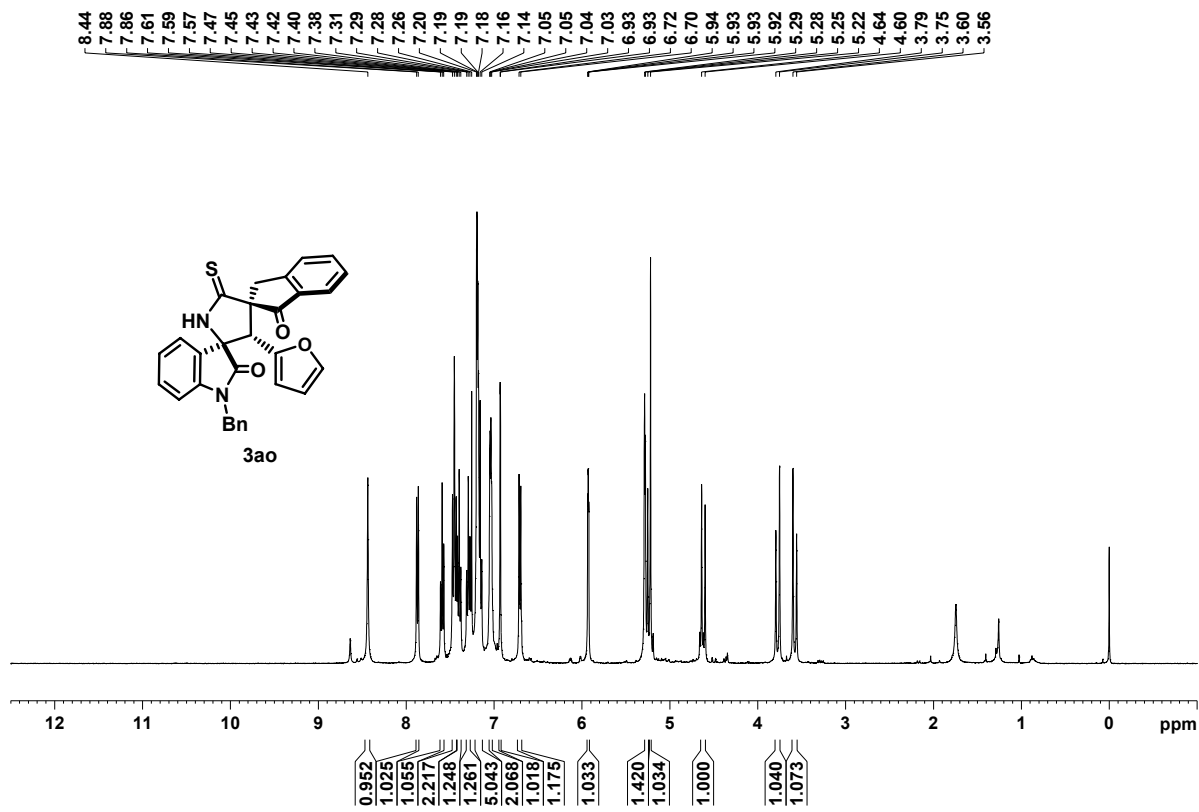
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

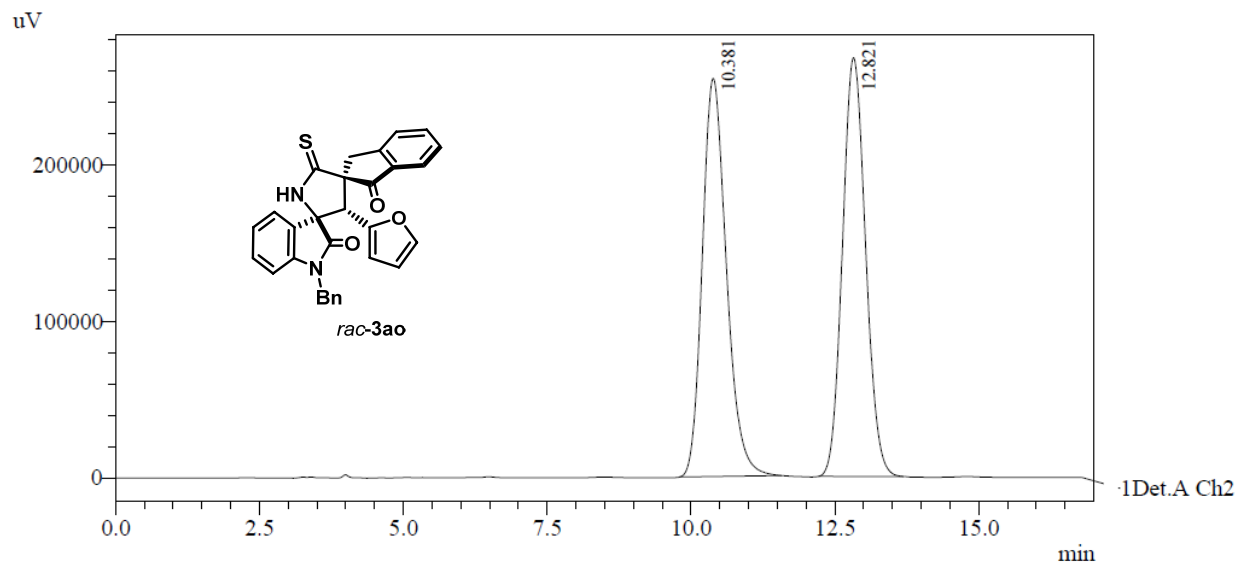


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.474	6996798	96.387
2	8.347	262283	3.613
Total		7259081	100.000



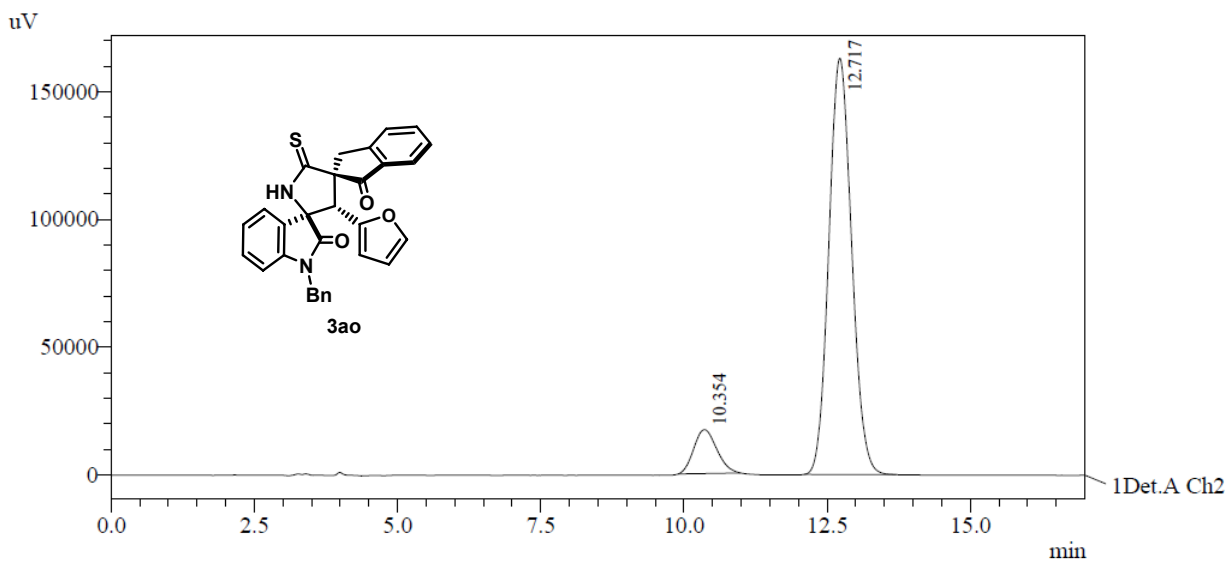


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.381	7416040	49.793
2	12.821	7477676	50.207
Total		14893716	100.000

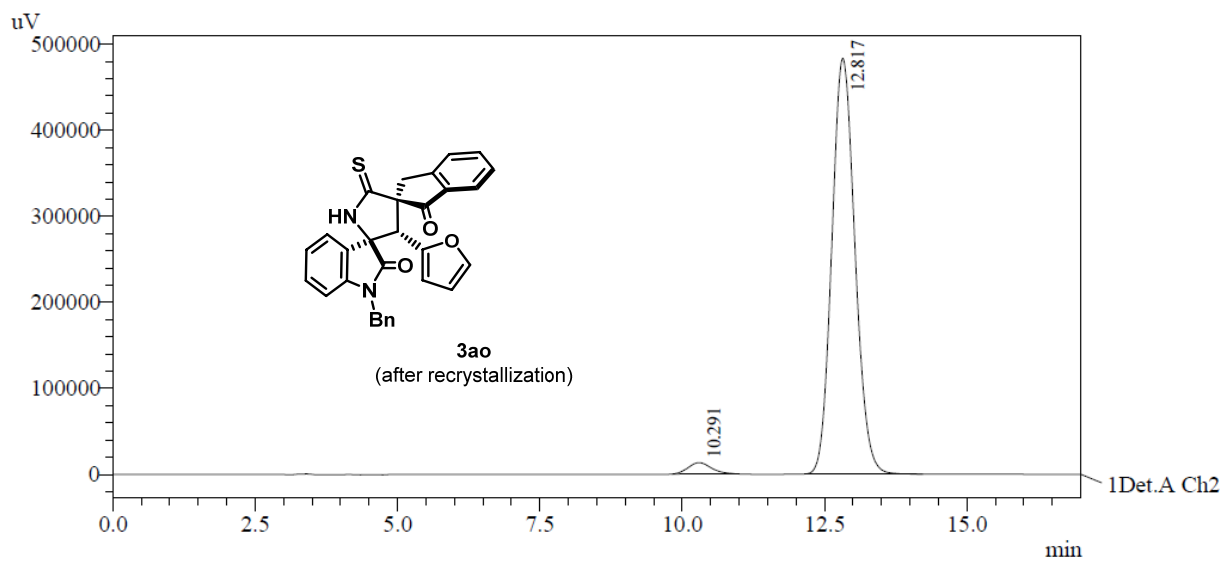
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C



PeakTable

Detector A Ch2 254nm

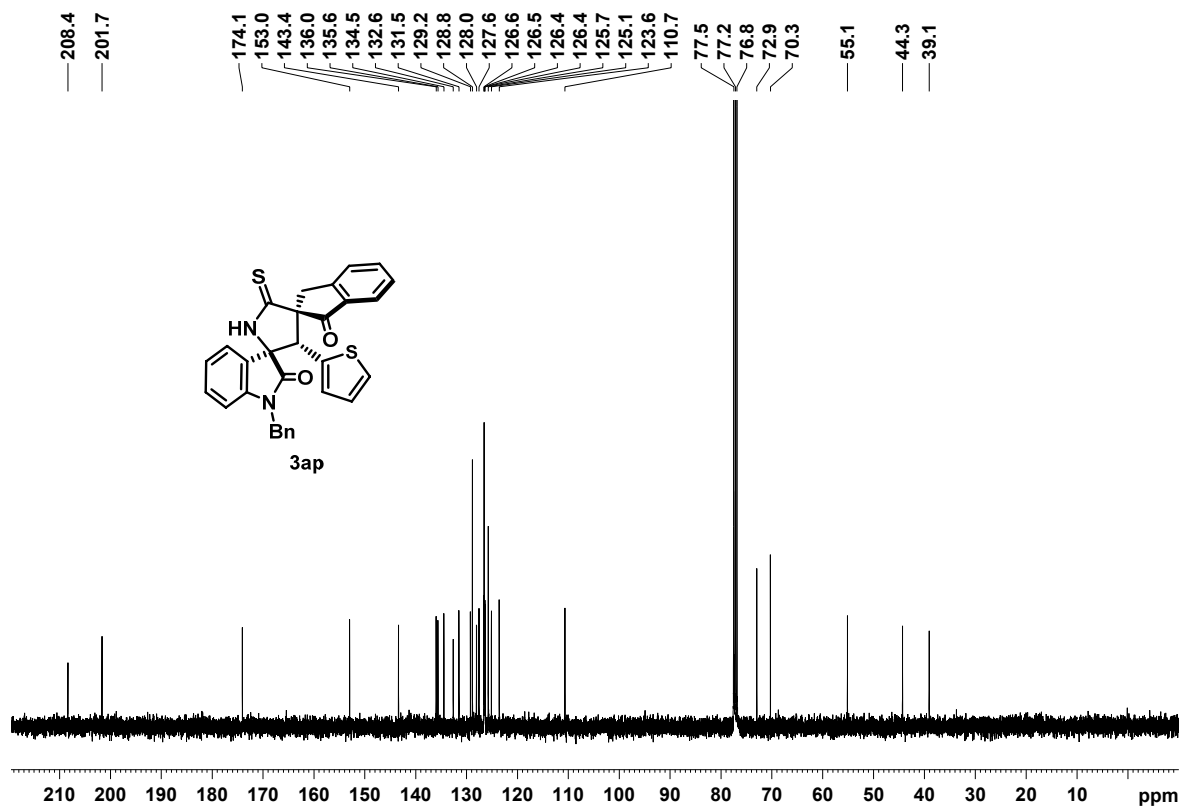
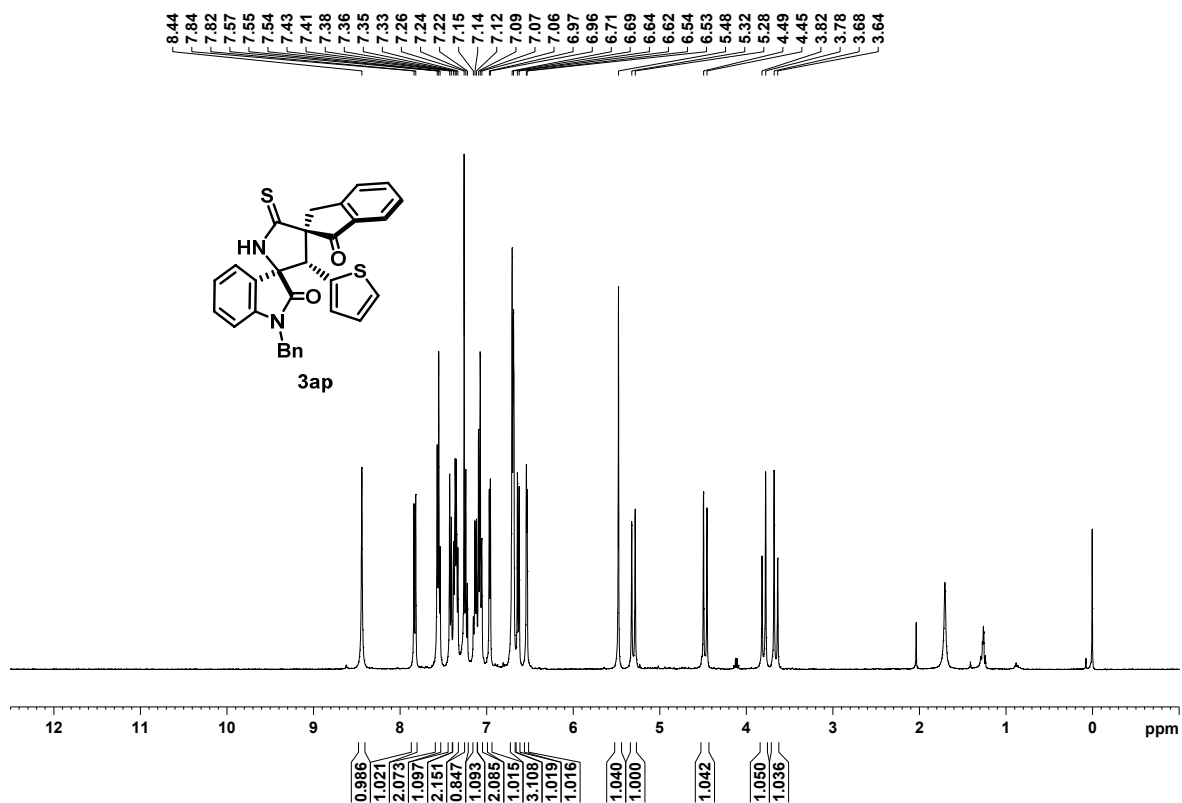
Peak#	Ret. Time	Area	Area %
1	10.354	480751	9.634
2	12.717	4509570	90.366
Total		4990321	100.000

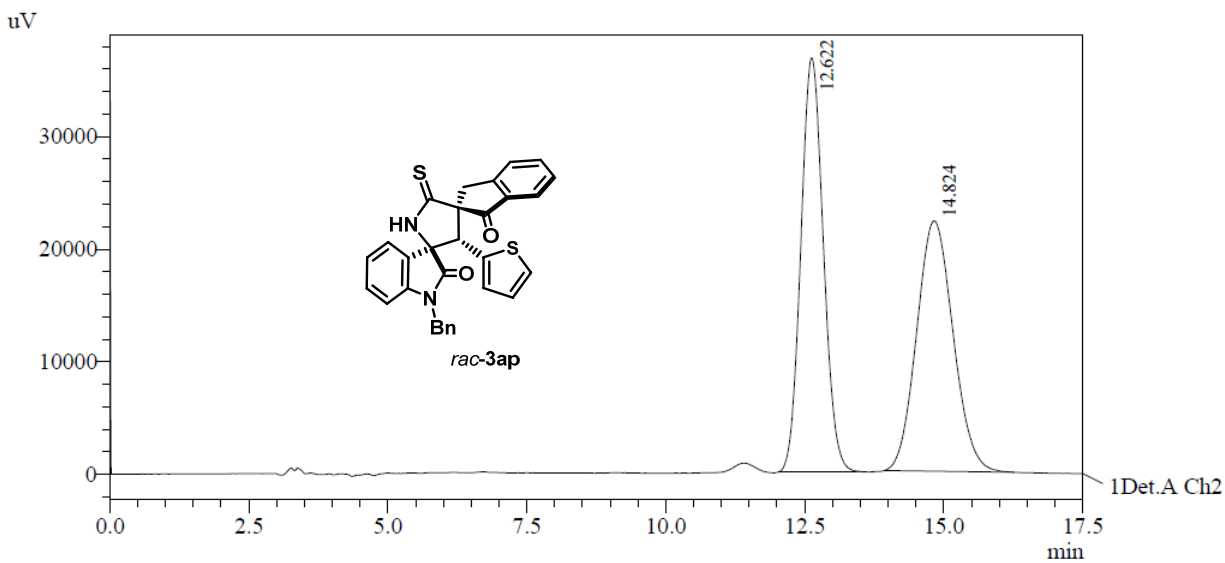


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	10.291	370531	2.645
2	12.817	13637842	97.355
Total		14008373	100.000



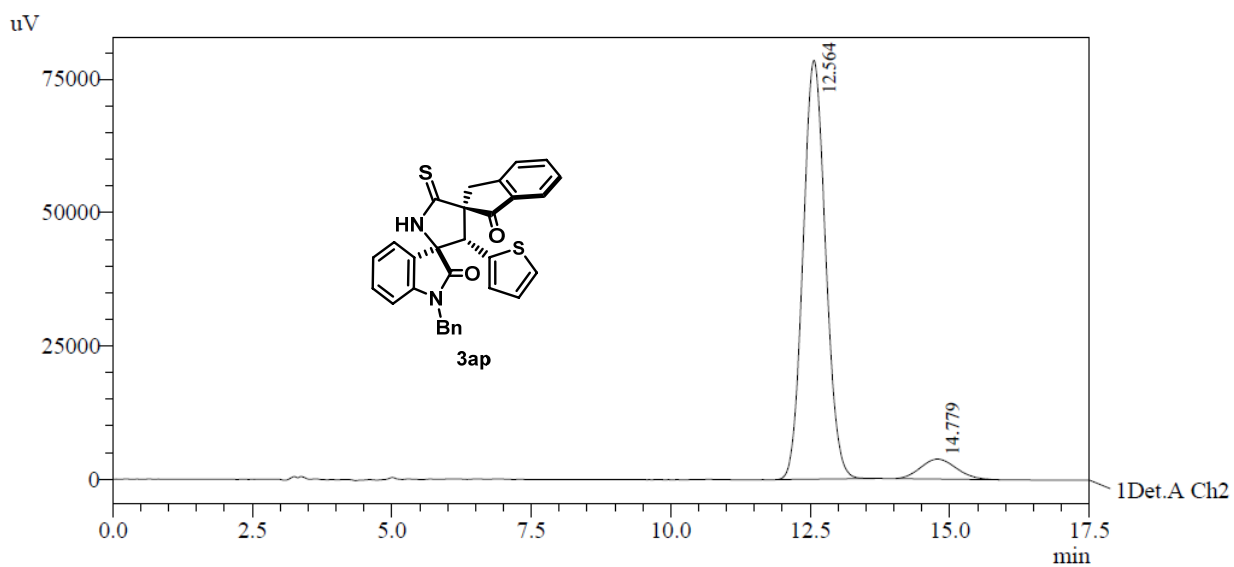


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.622	1034611	50.493
2	14.824	1014425	49.507
Total		2049036	100.000

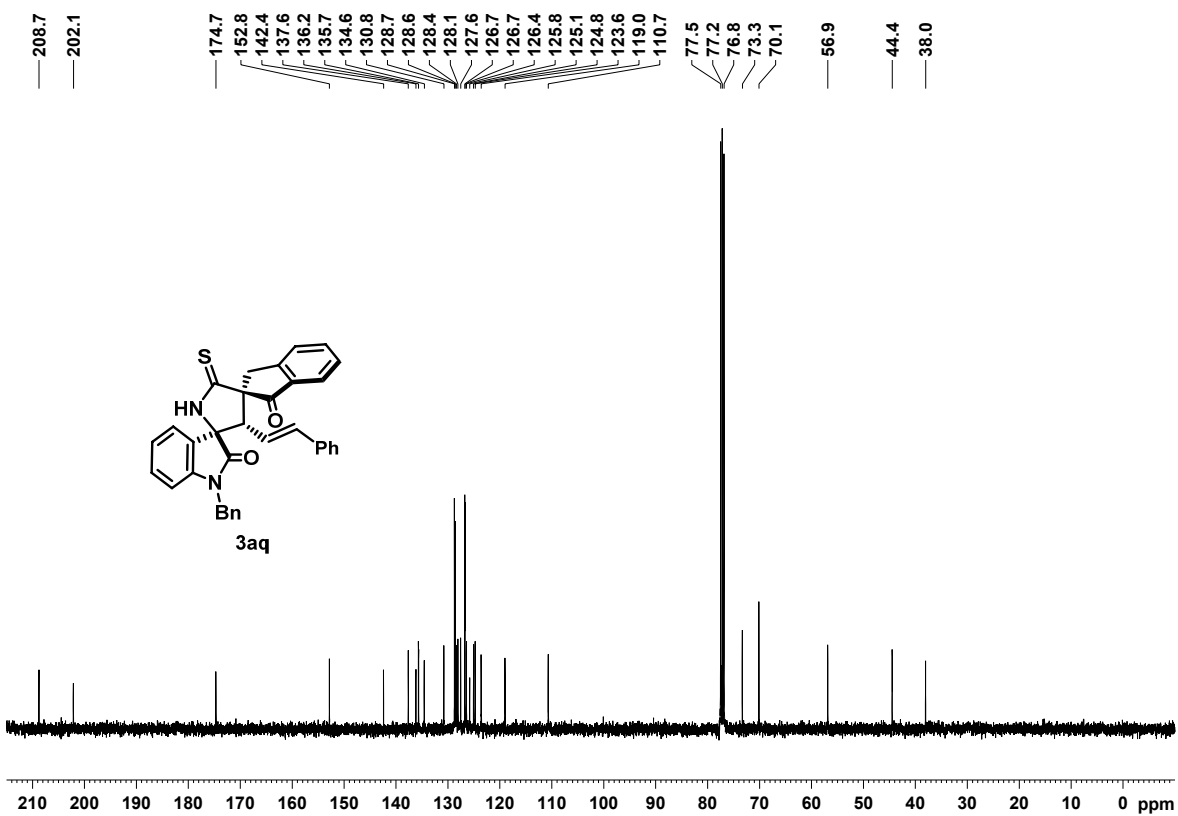
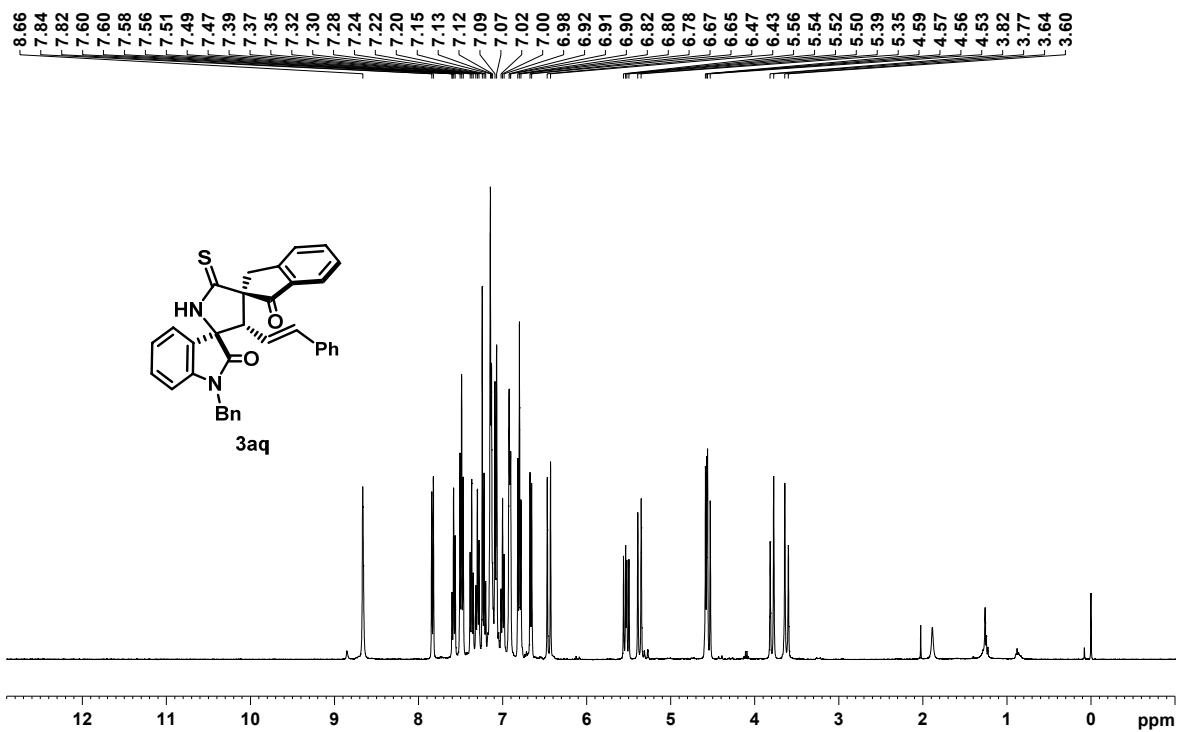
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

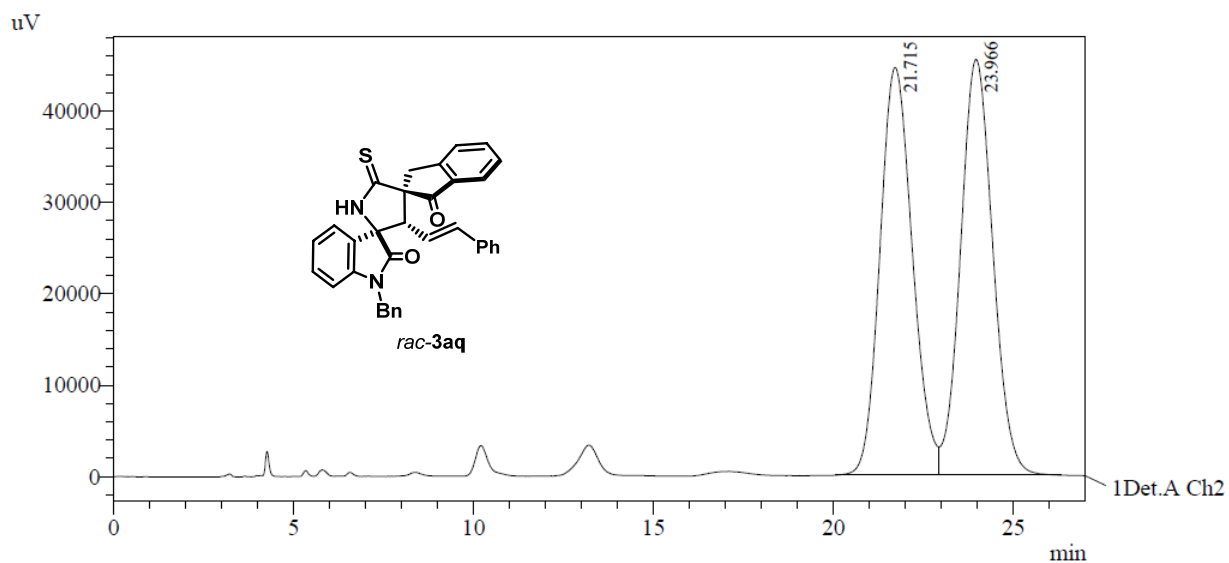


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.564	2206651	93.018
2	14.779	165622	6.982
Total		2372273	100.000



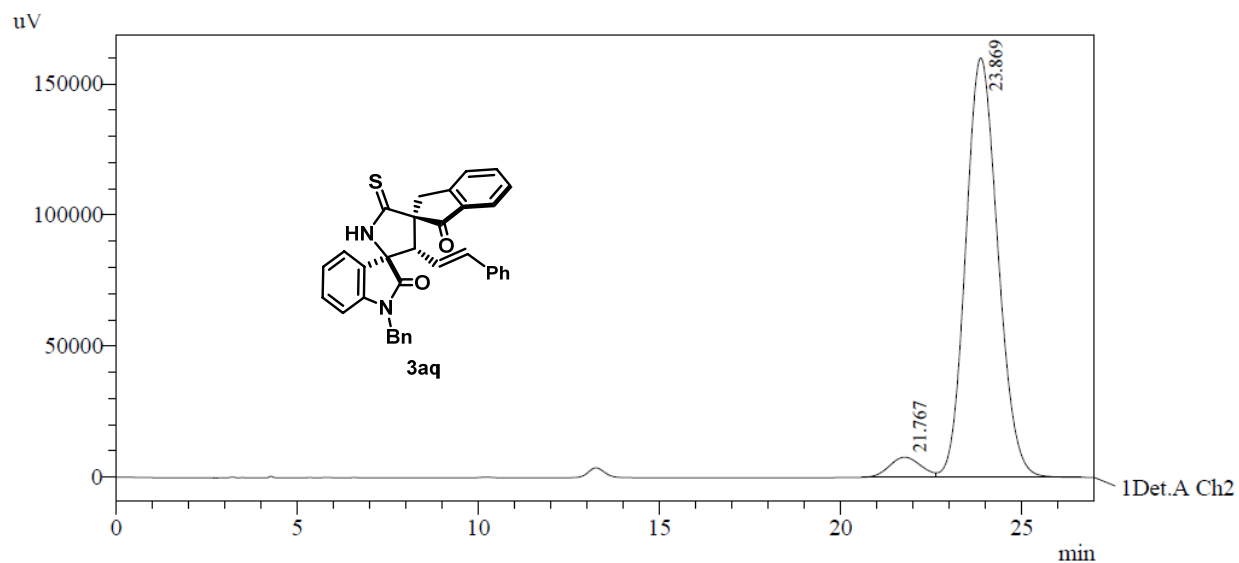


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	21.715	2799765	49.685
2	23.966	2835254	50.315
Total		5635019	100.000

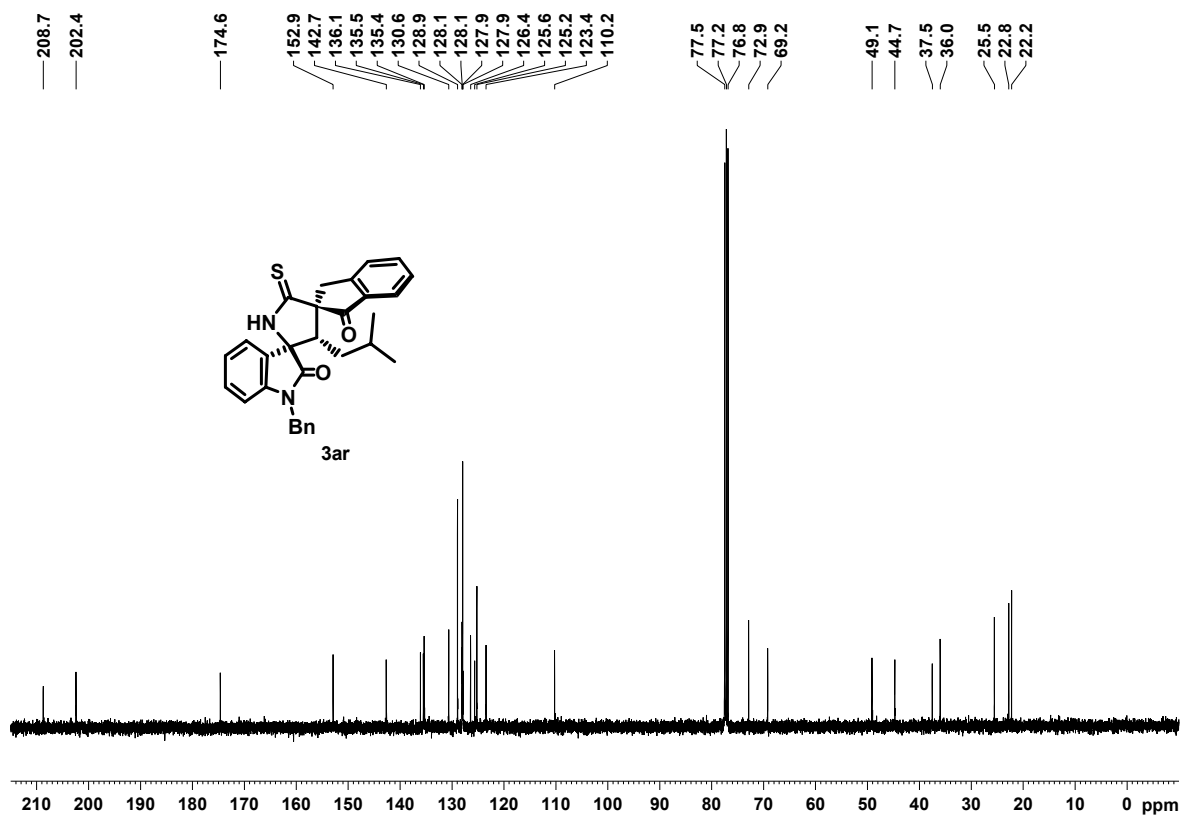
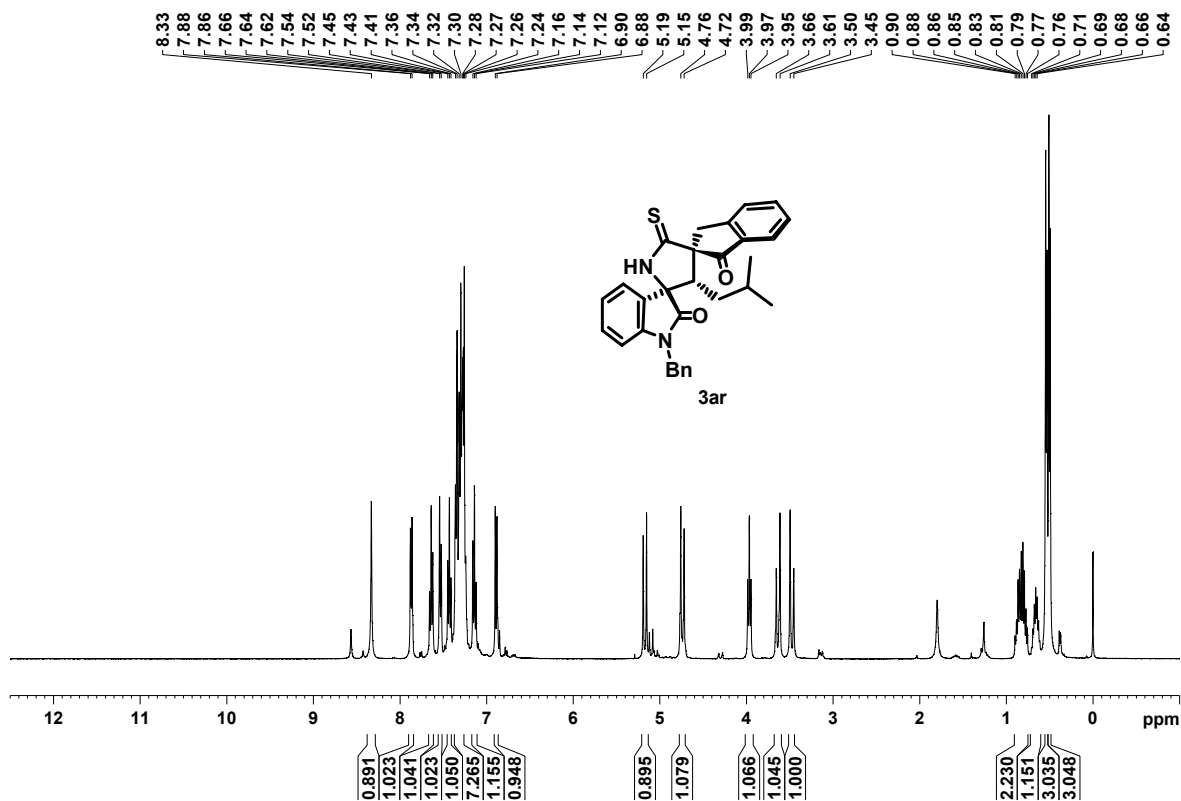
HPLC conditions: Daicel Chiralpak AD-H column; 60:40 *n*-Hexane/ *i*-PrOH, 1.0 mL/min; 20 °C

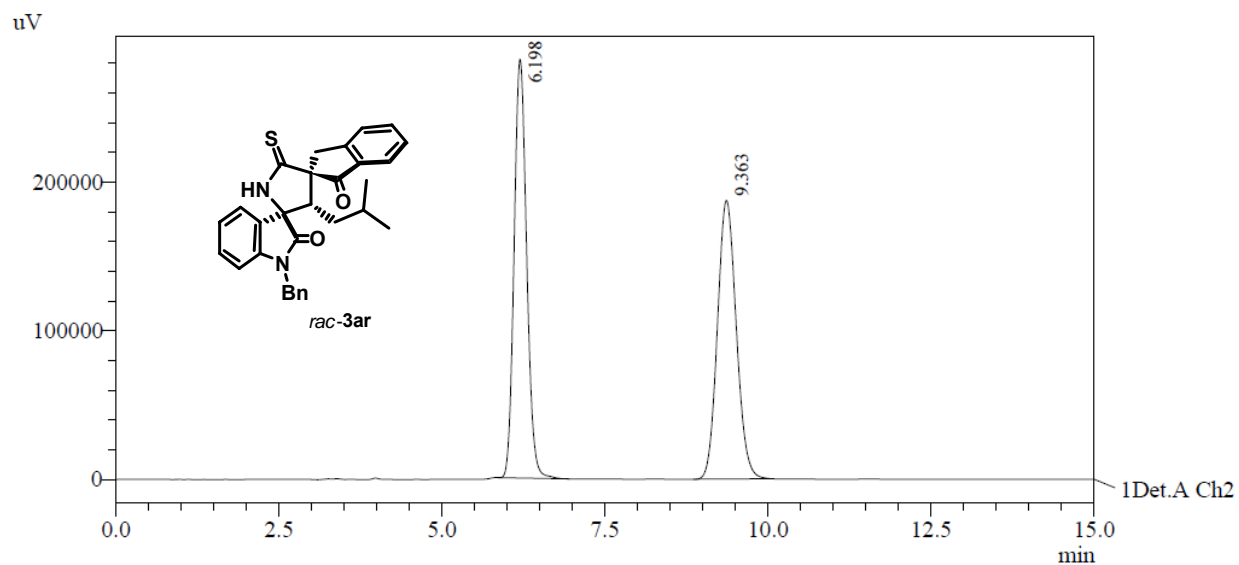


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	21.767	462294	4.470
2	23.869	9879653	95.530
Total		10341947	100.000



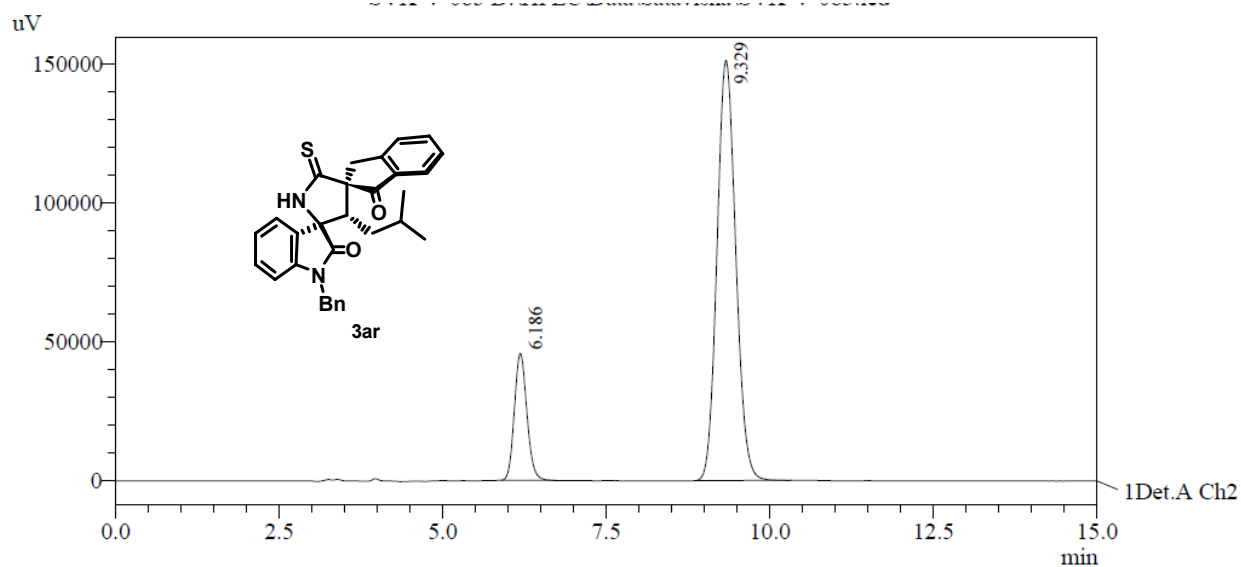


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.198	3764777	49.989
2	9.363	3766375	50.011
Total		7531152	100.000

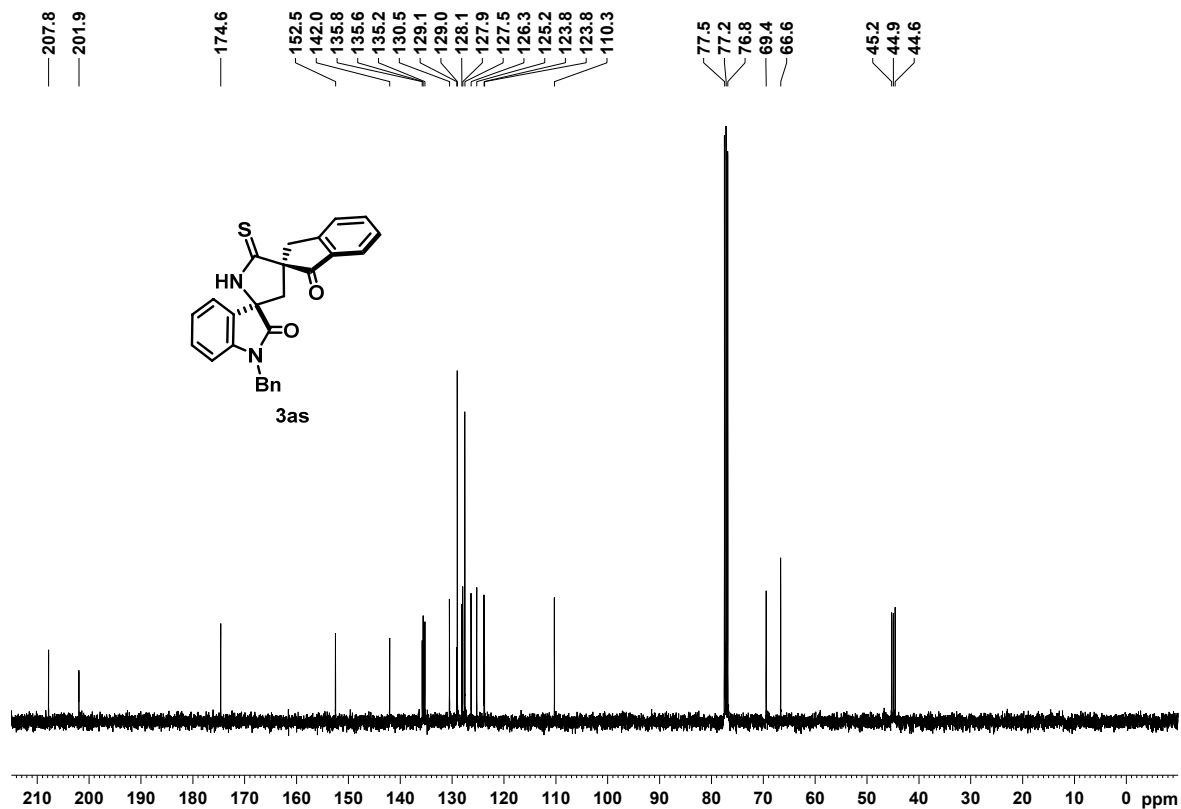
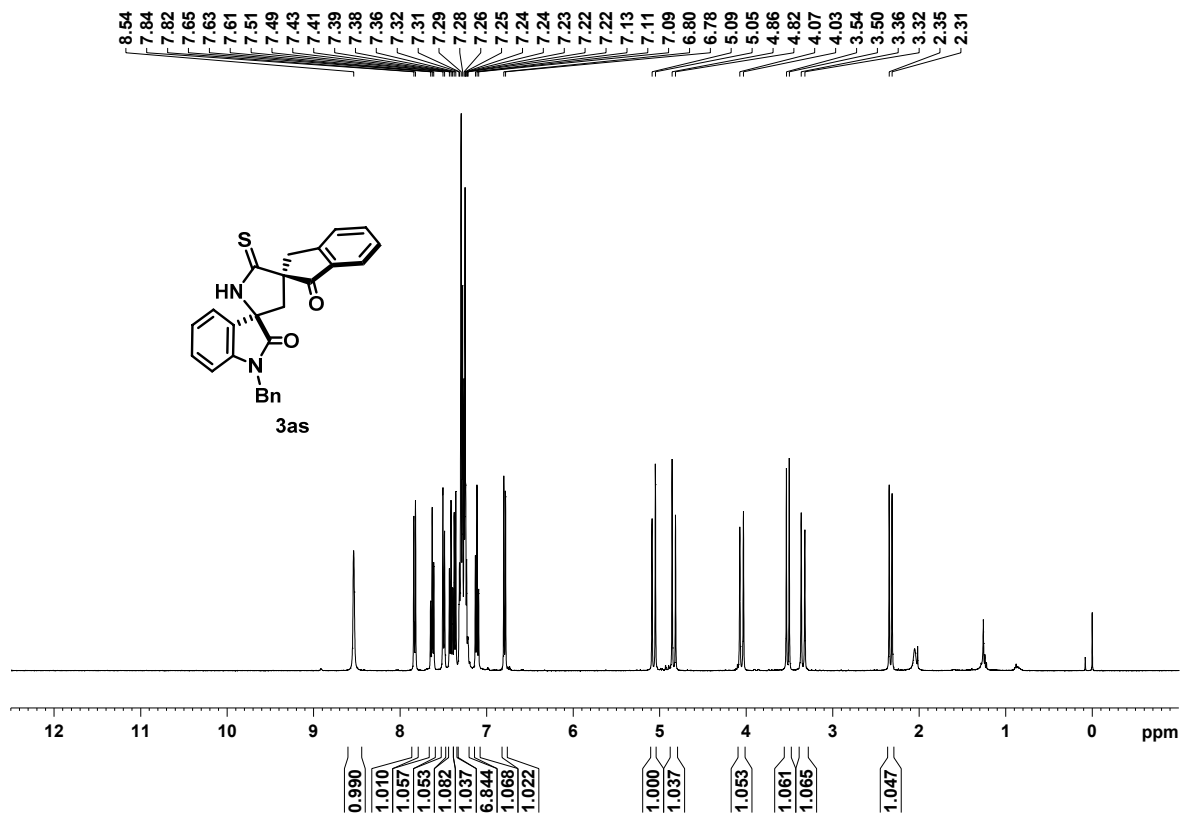
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

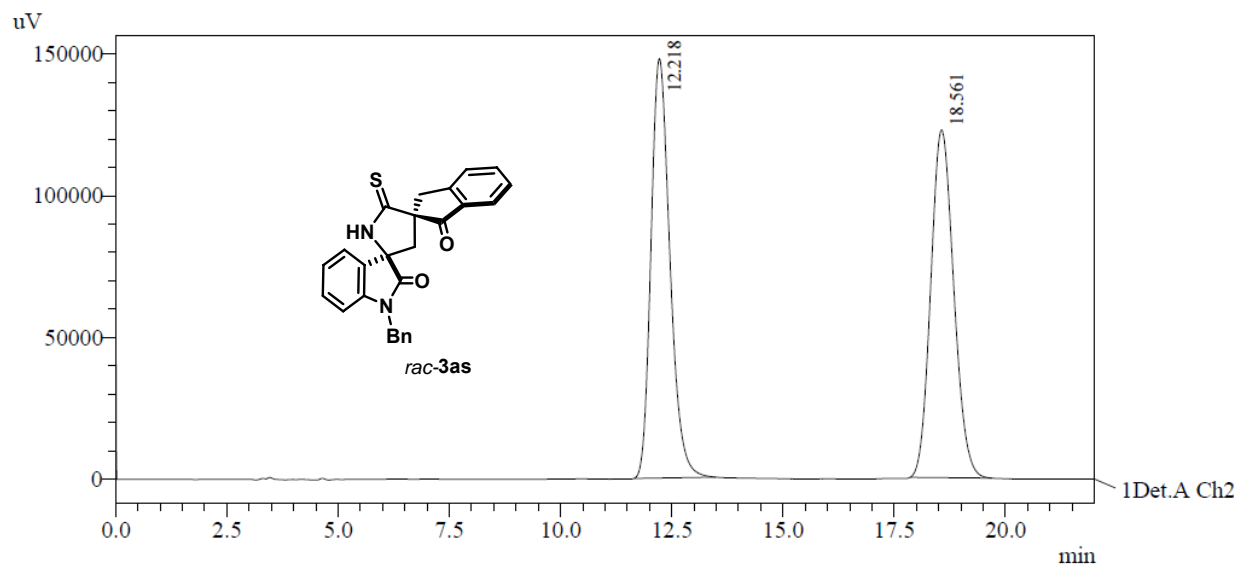


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.186	609749	16.792
2	9.329	3021362	83.208
Total		3631111	100.000



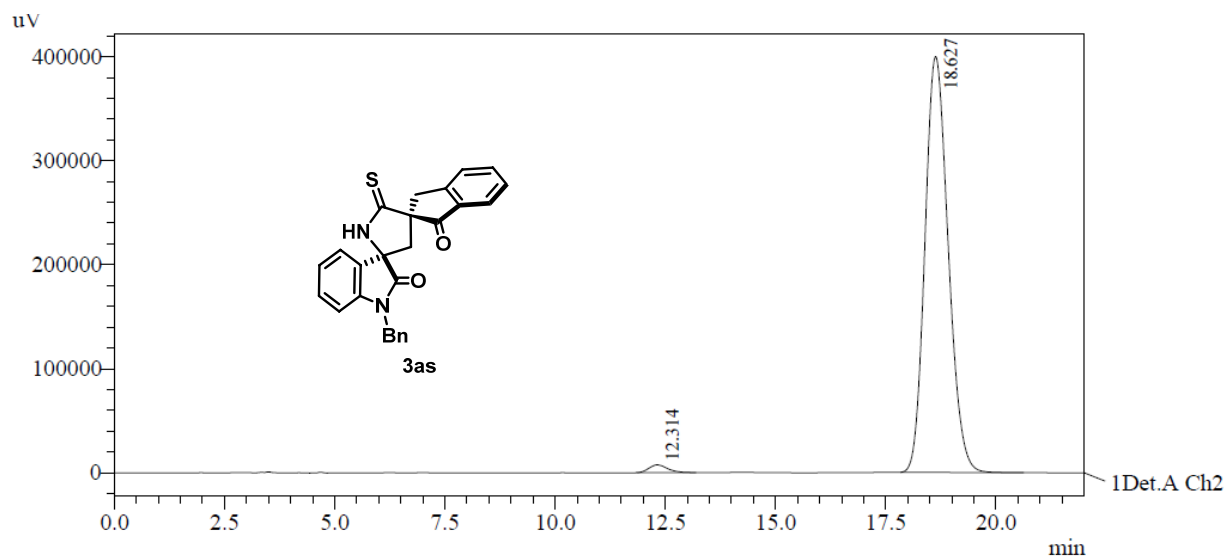


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.218	4379664	49.801
2	18.561	4414597	50.199
Total		8794260	100.000

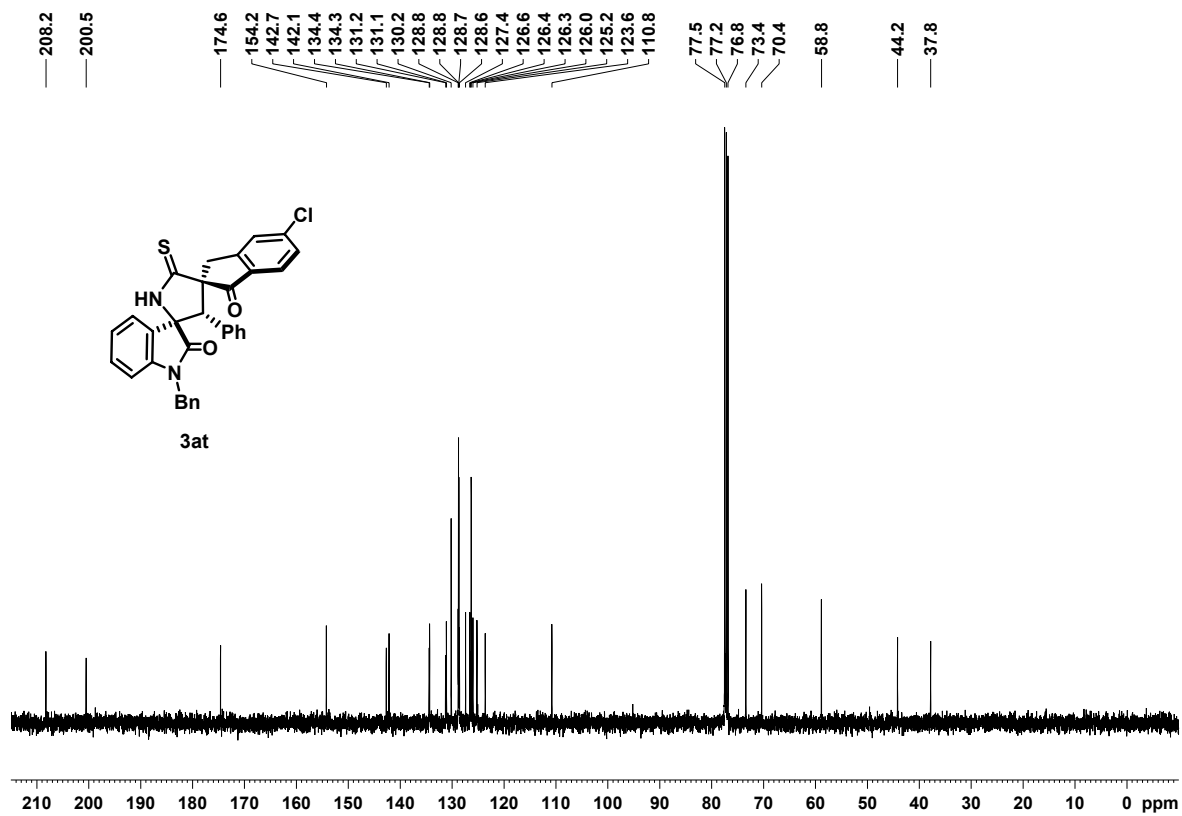
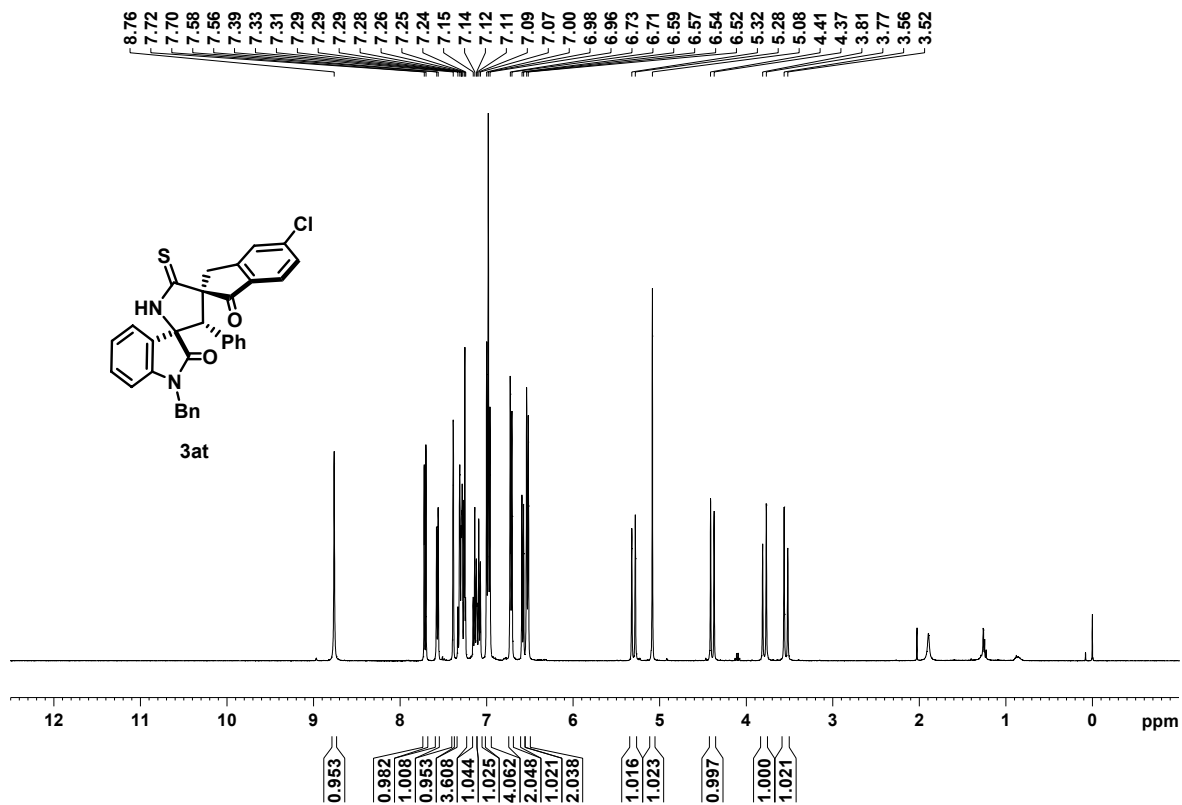
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

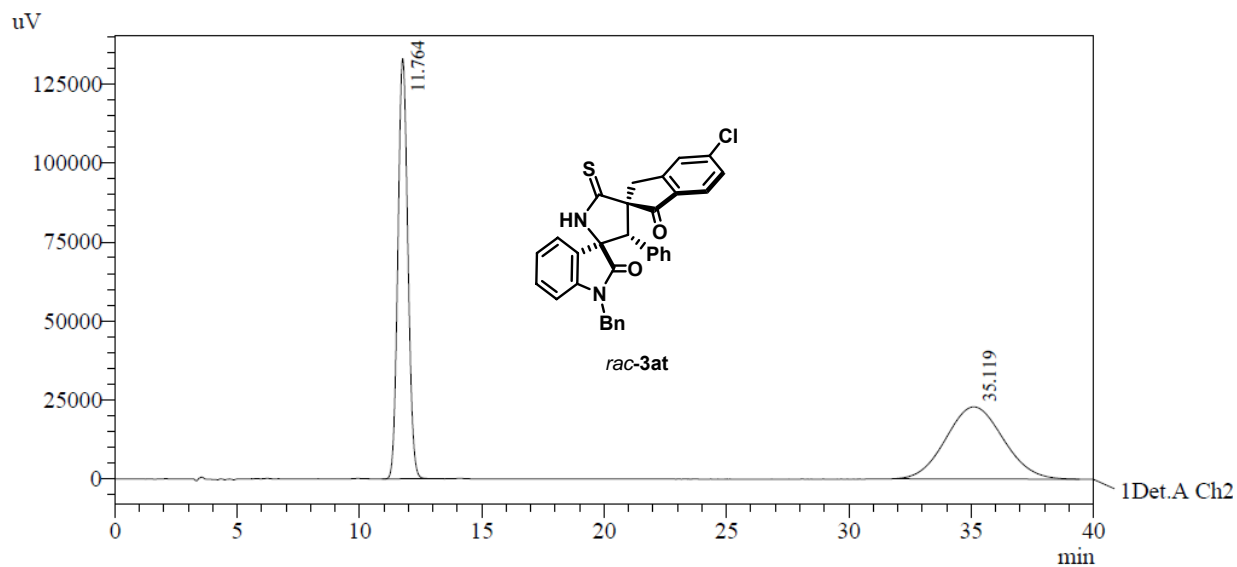


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.314	217920	1.463
2	18.627	14674288	98.537
Total		14892208	100.000



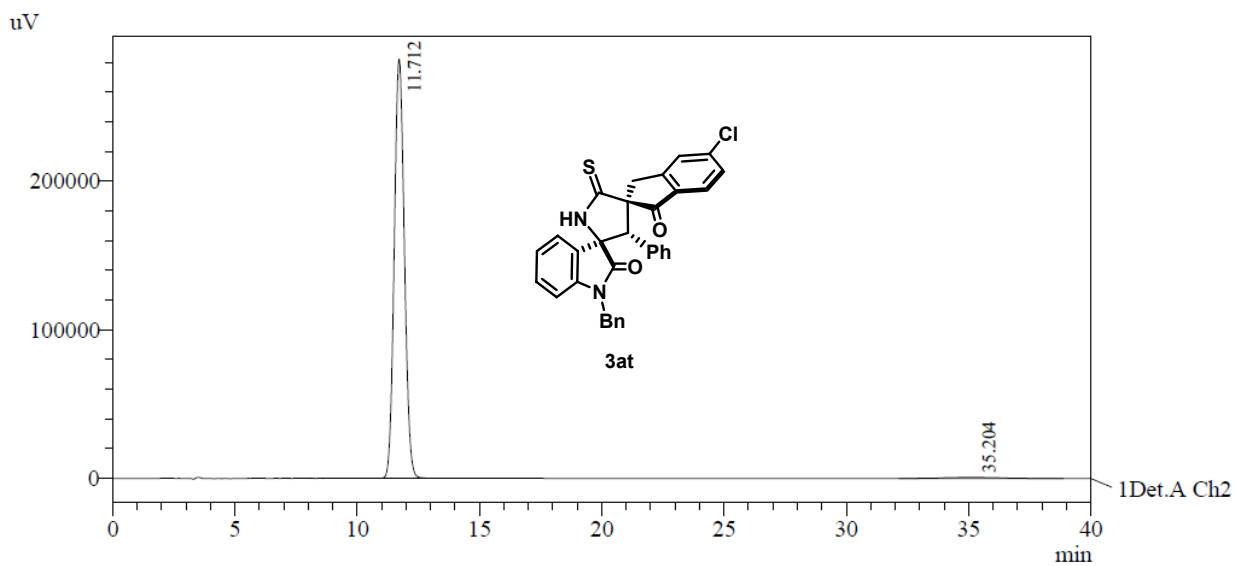


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.764	3771765	50.342
2	35.119	3720493	49.658
Total		7492257	100.000

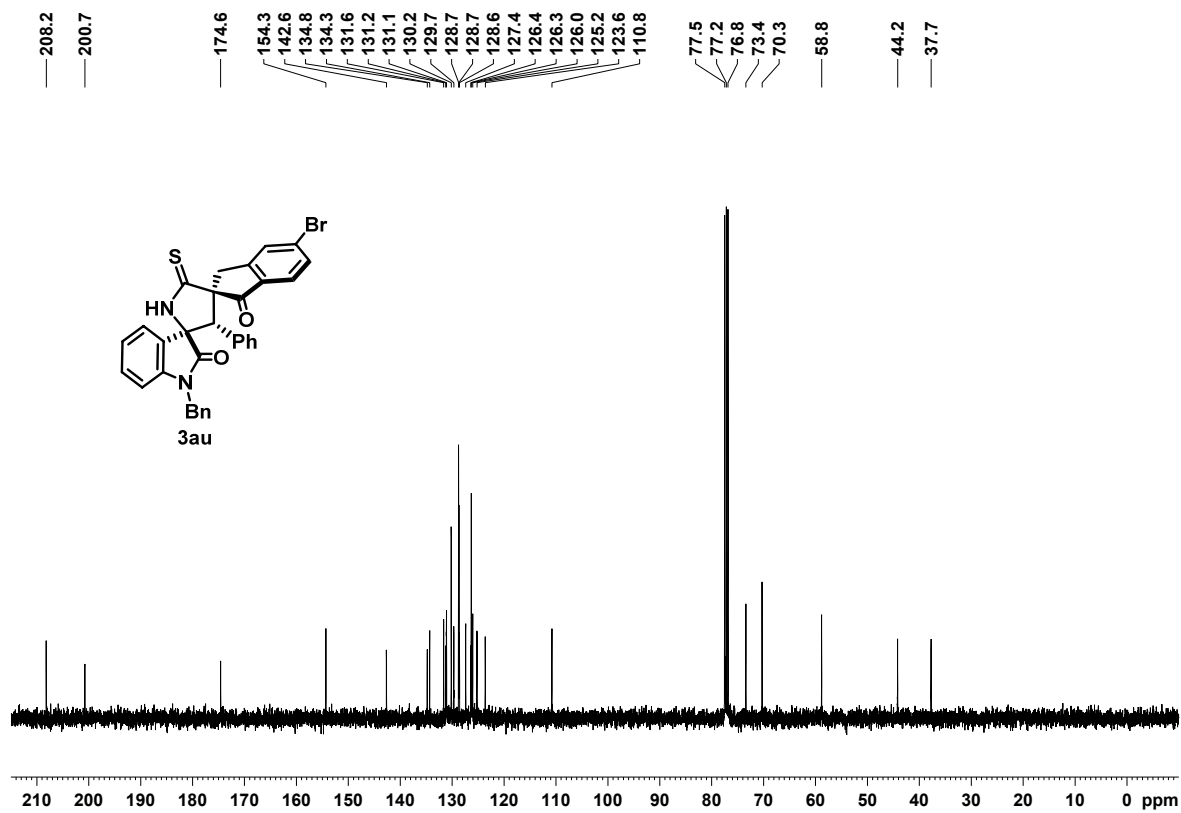
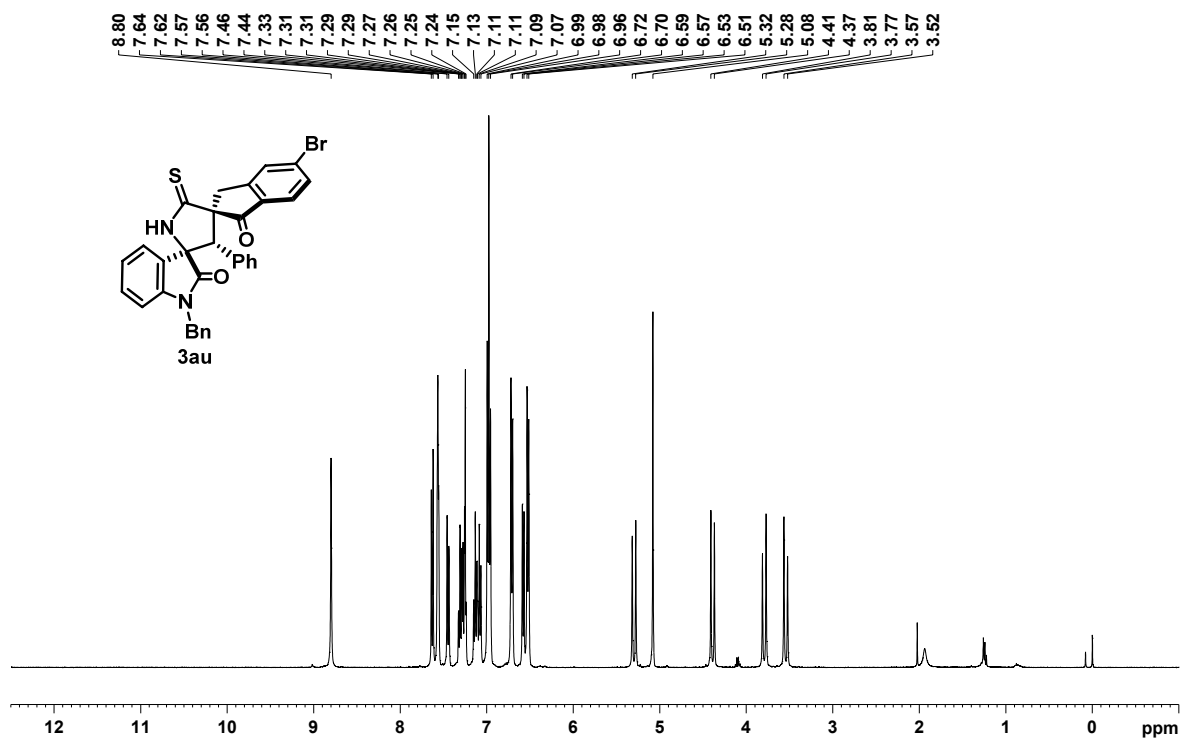
HPLC conditions: Daicel Chiralpak AD-H column; 40:60 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

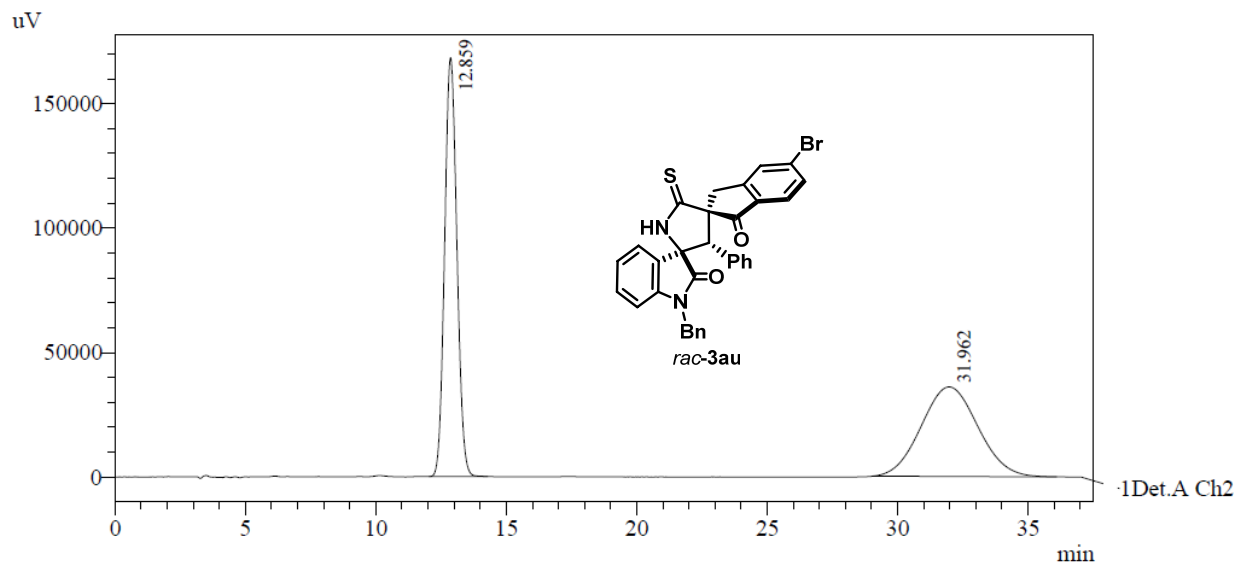


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.712	8130191	98.620
2	35.204	113791	1.380
Total		8243982	100.000



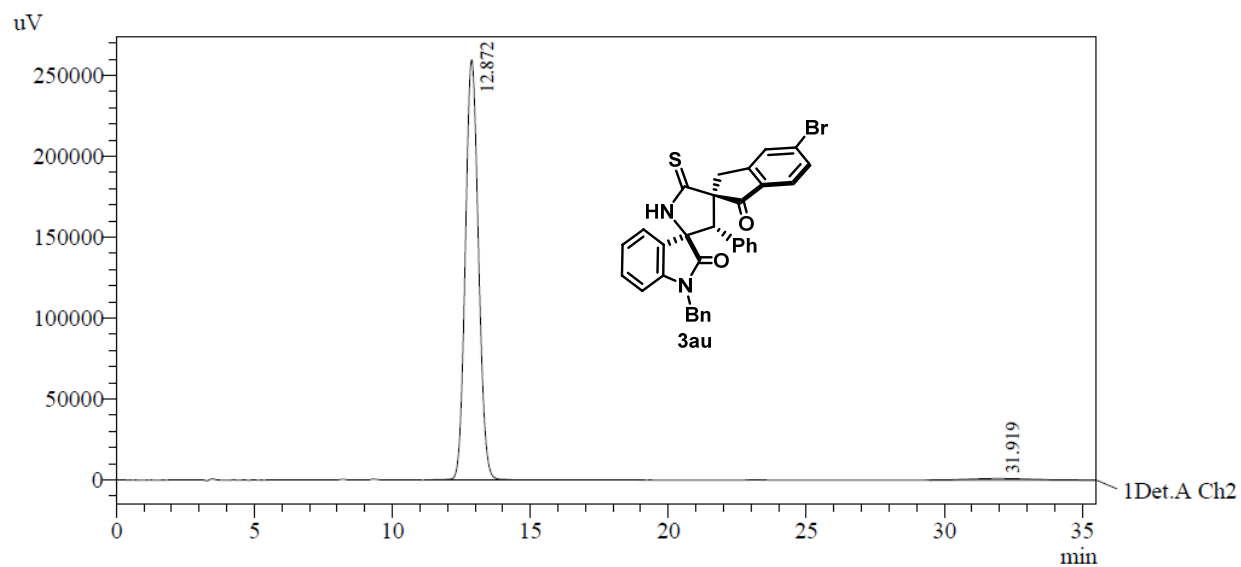


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.859	5515419	50.335
2	31.962	5441979	49.665
Total		10957398	100.000

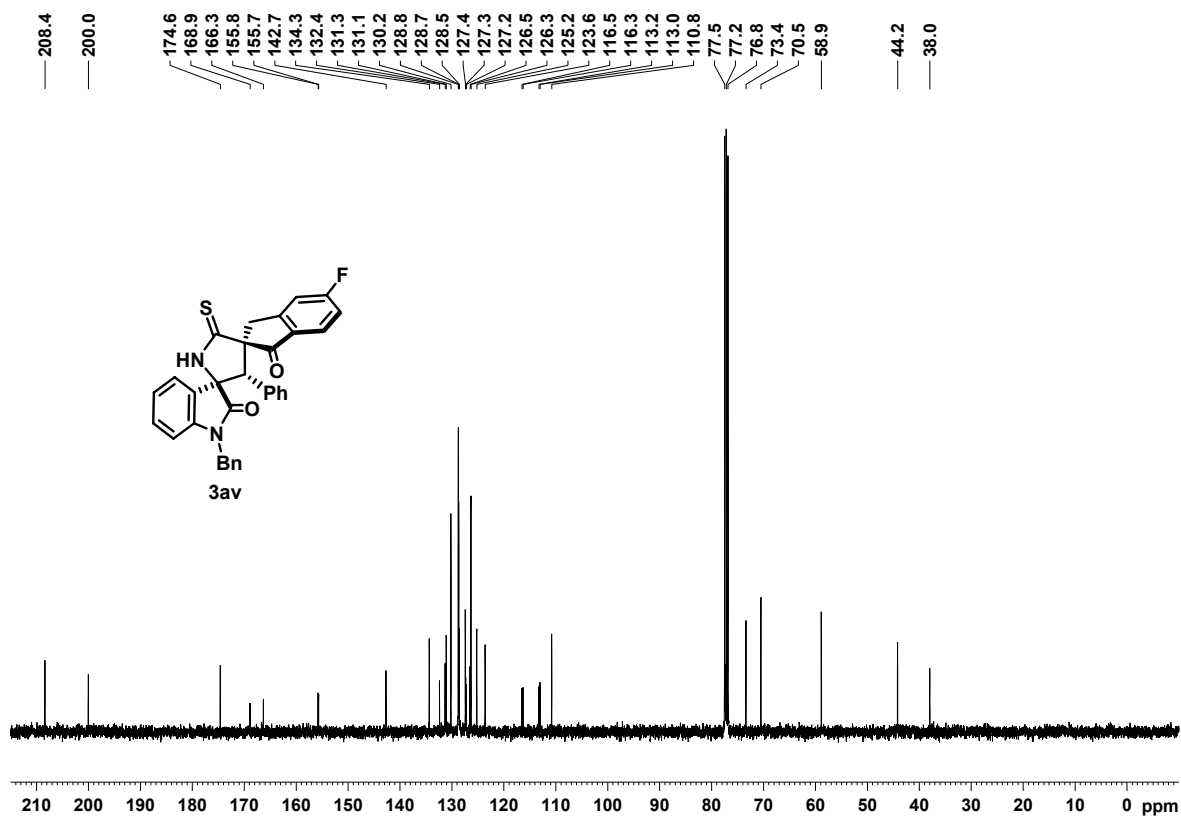
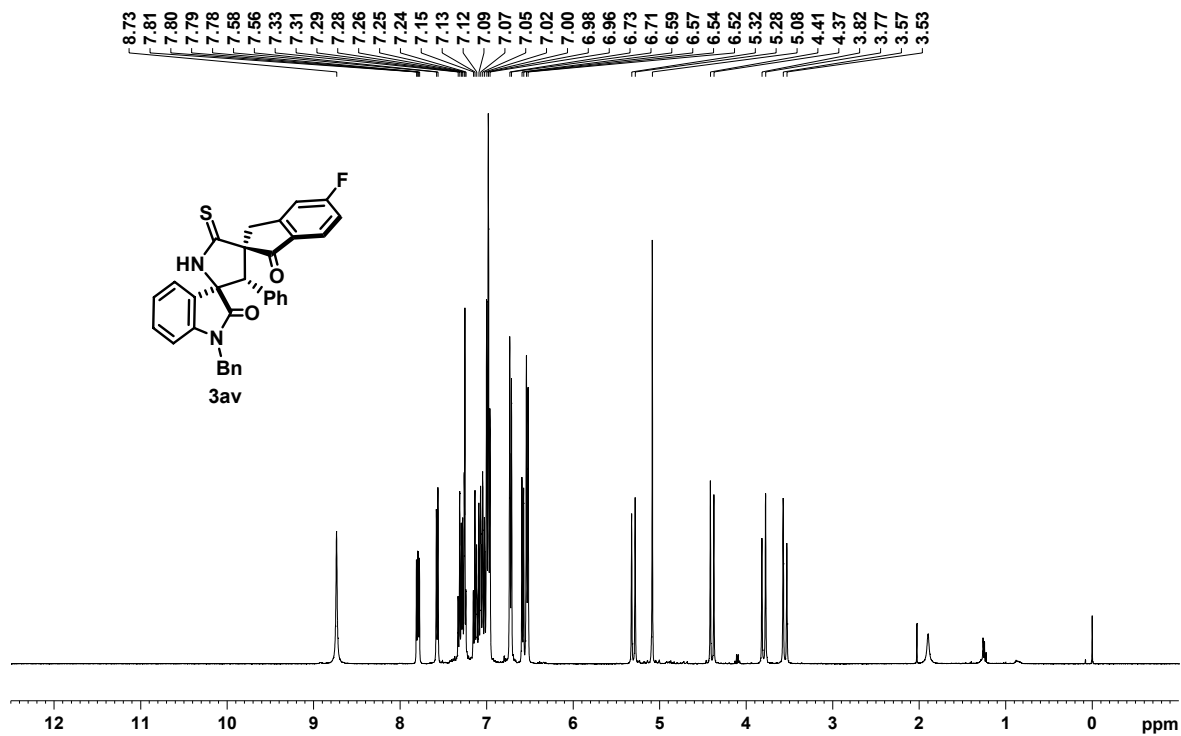
HPLC conditions: Daicel Chiralpak AD-H column; 40:60 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

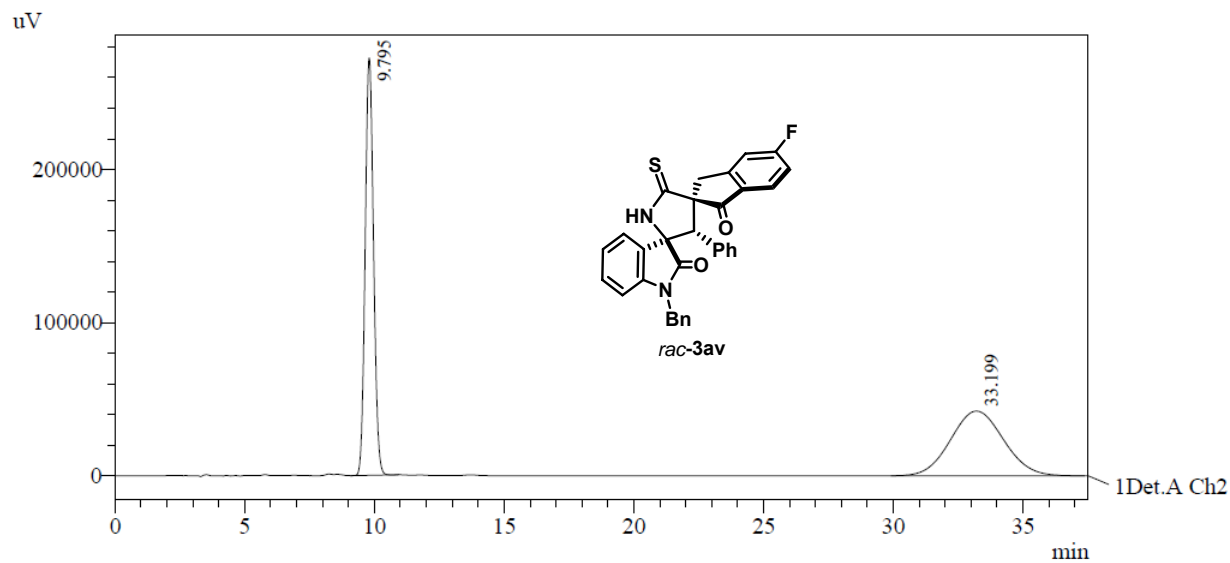


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	12.872	8577117	98.429
2	31.919	136889	1.571
Total		8714006	100.000



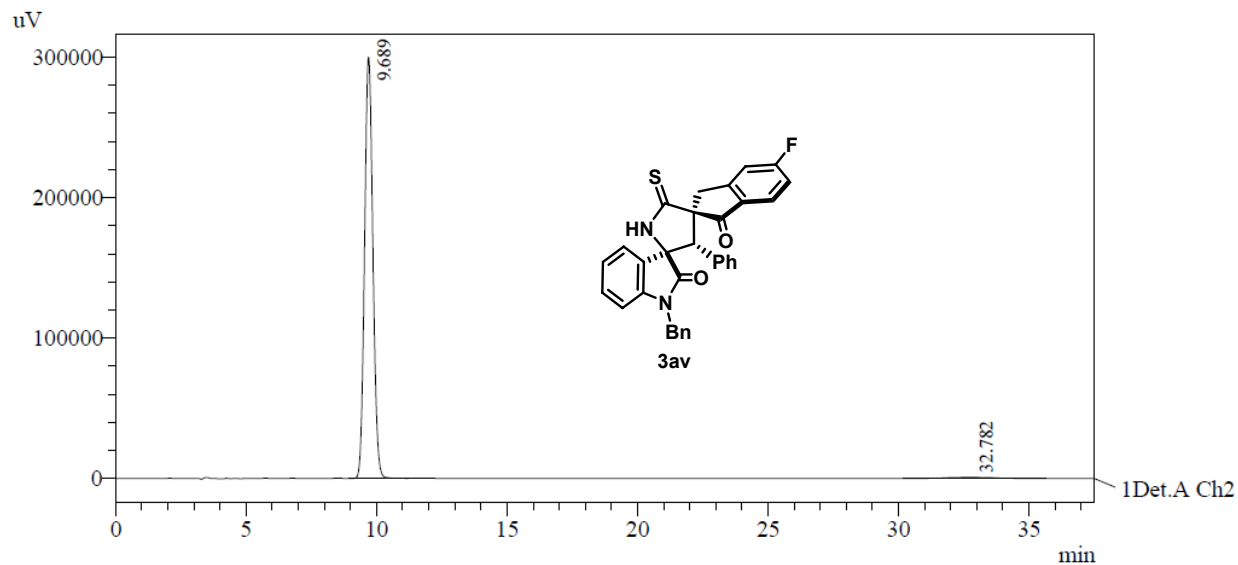


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	9.795	6124926	50.494
2	33.199	6004976	49.506
Total		12129902	100.000

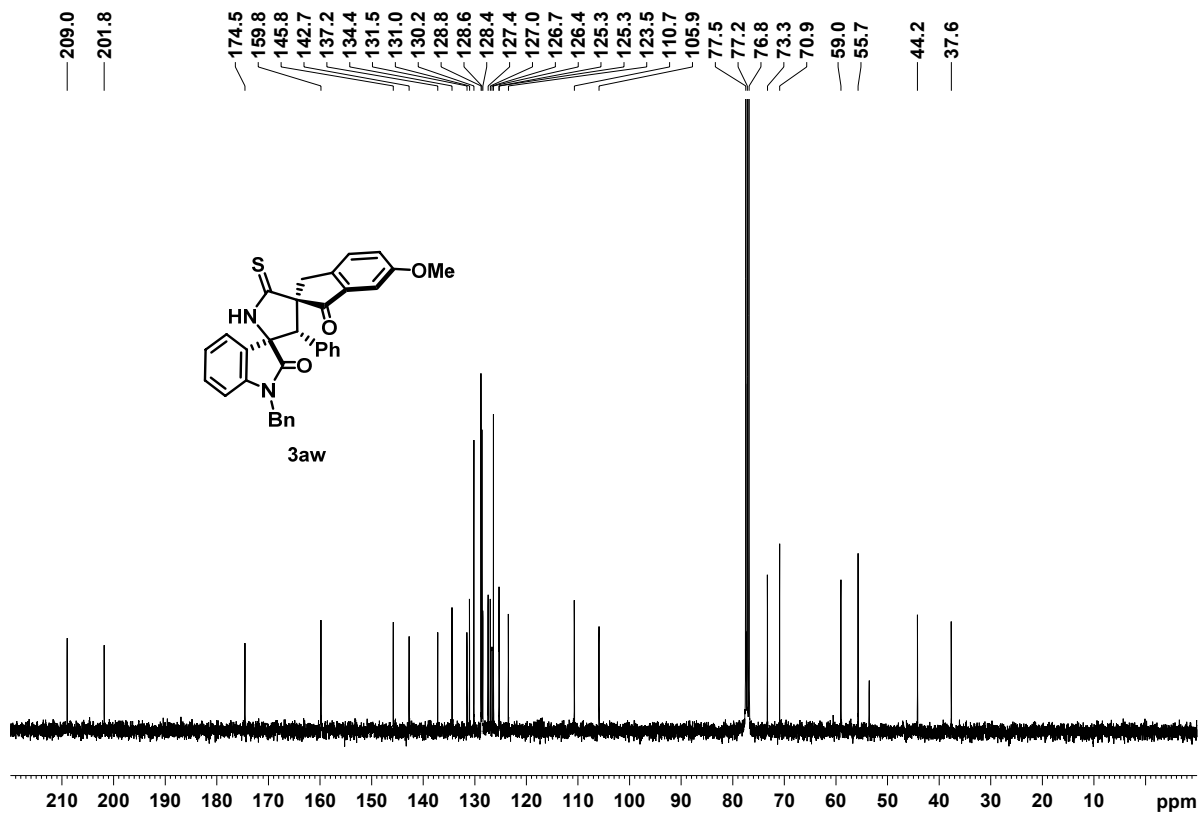
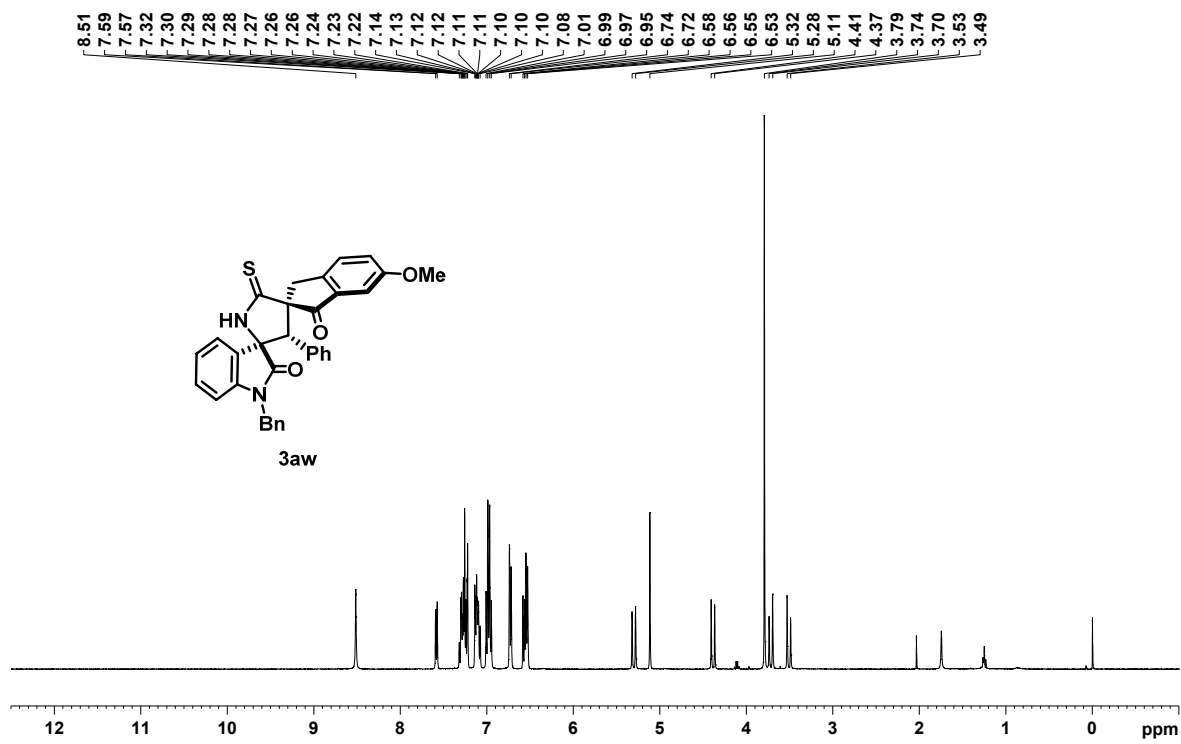
HPLC conditions: Daicel Chiralpak AD-H column; 40:60 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

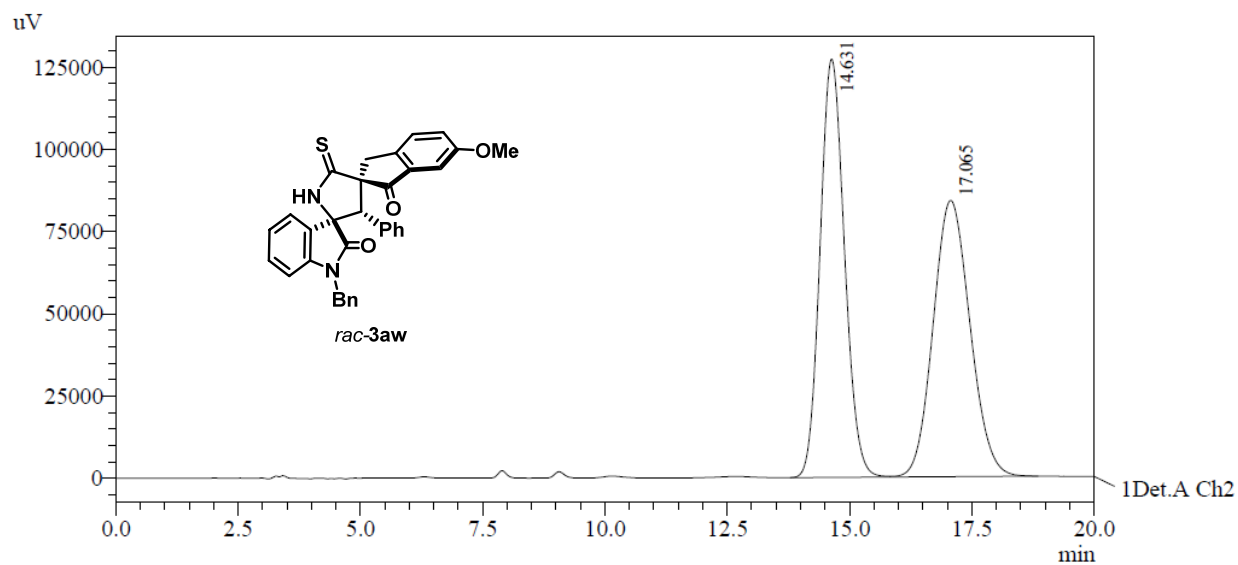


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	9.689	6655194	98.435
2	32.782	105800	1.565
Total		6760994	100.000



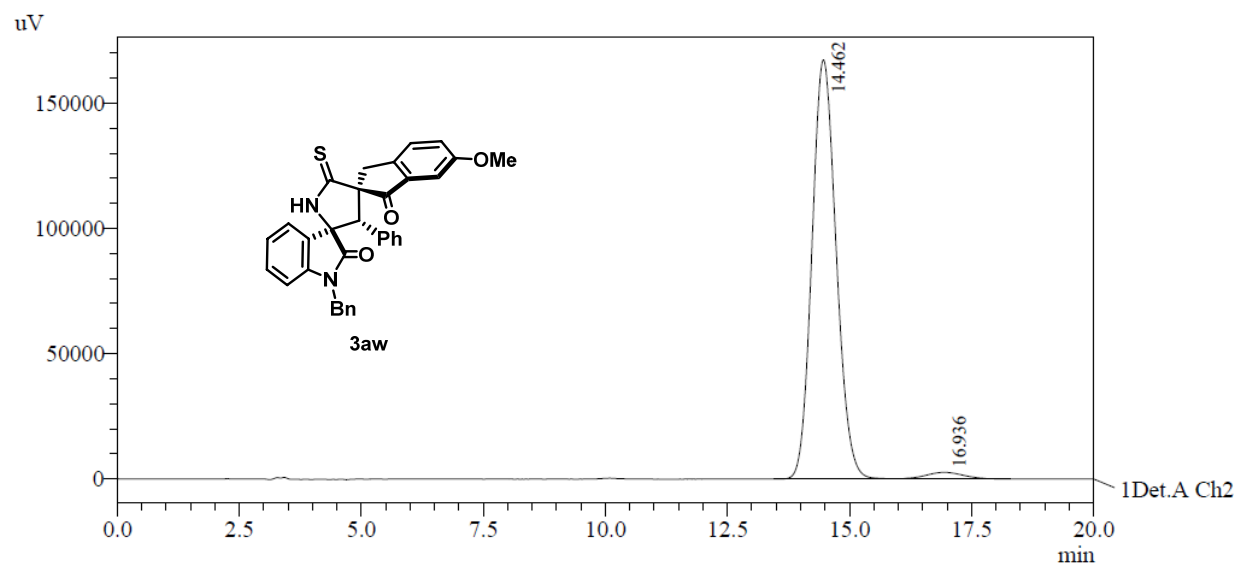


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	14.631	4410234	50.029
2	17.065	4405035	49.971
Total		8815269	100.000

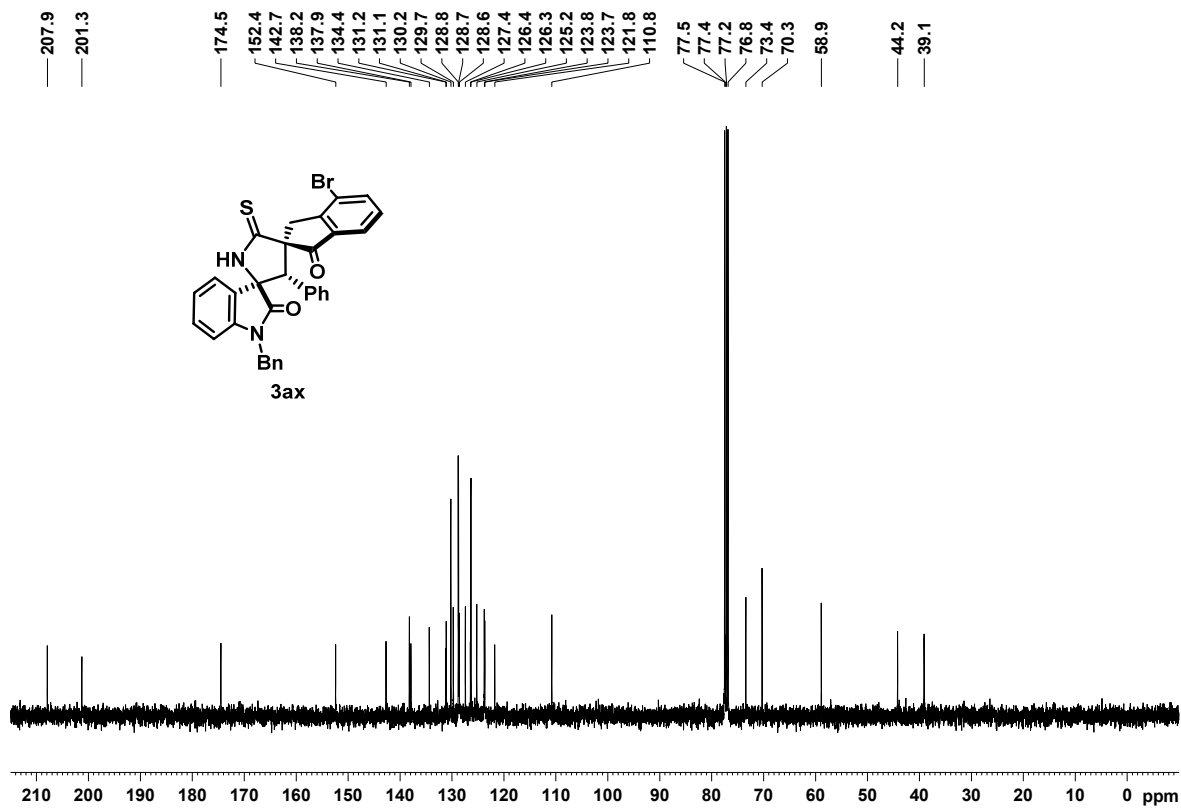
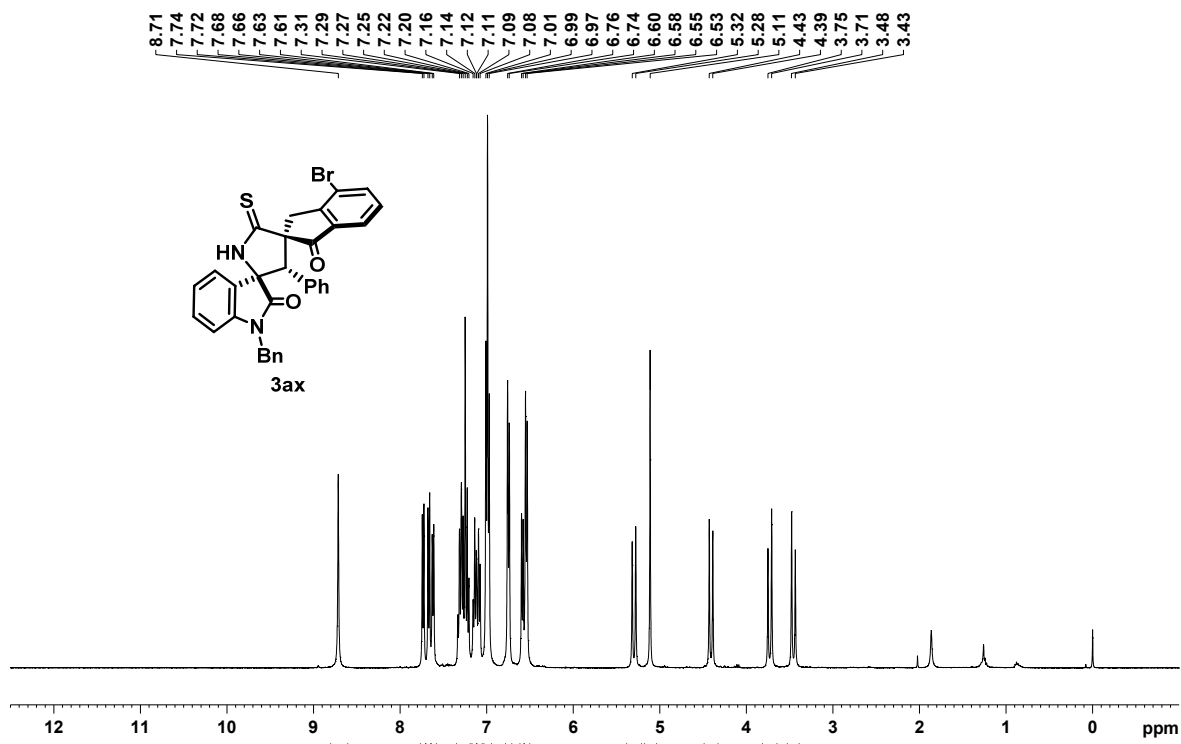
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

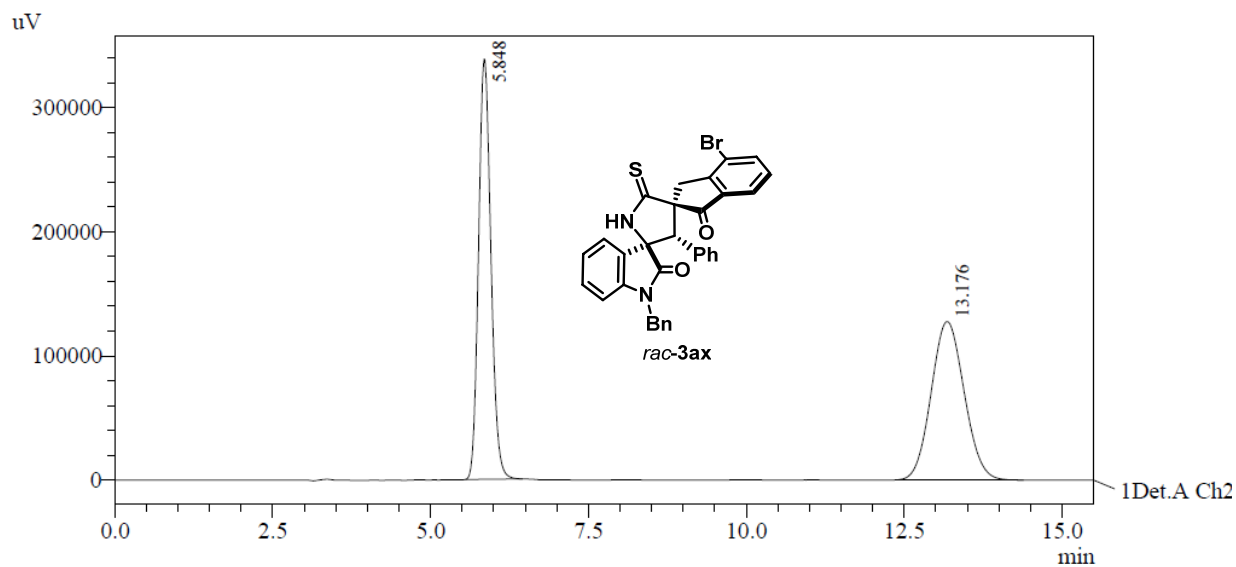


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	14.462	5779770	97.585
2	16.936	143016	2.415
Total		5922787	100.000



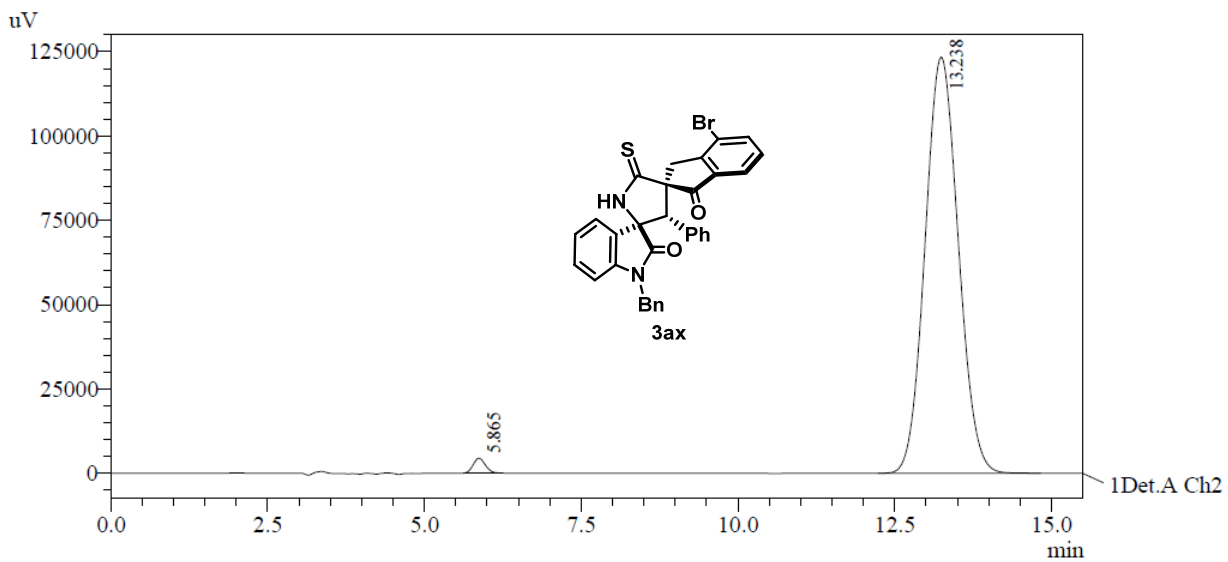


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.848	4615948	49.946
2	13.176	4625906	50.054
Total		9241854	100.000

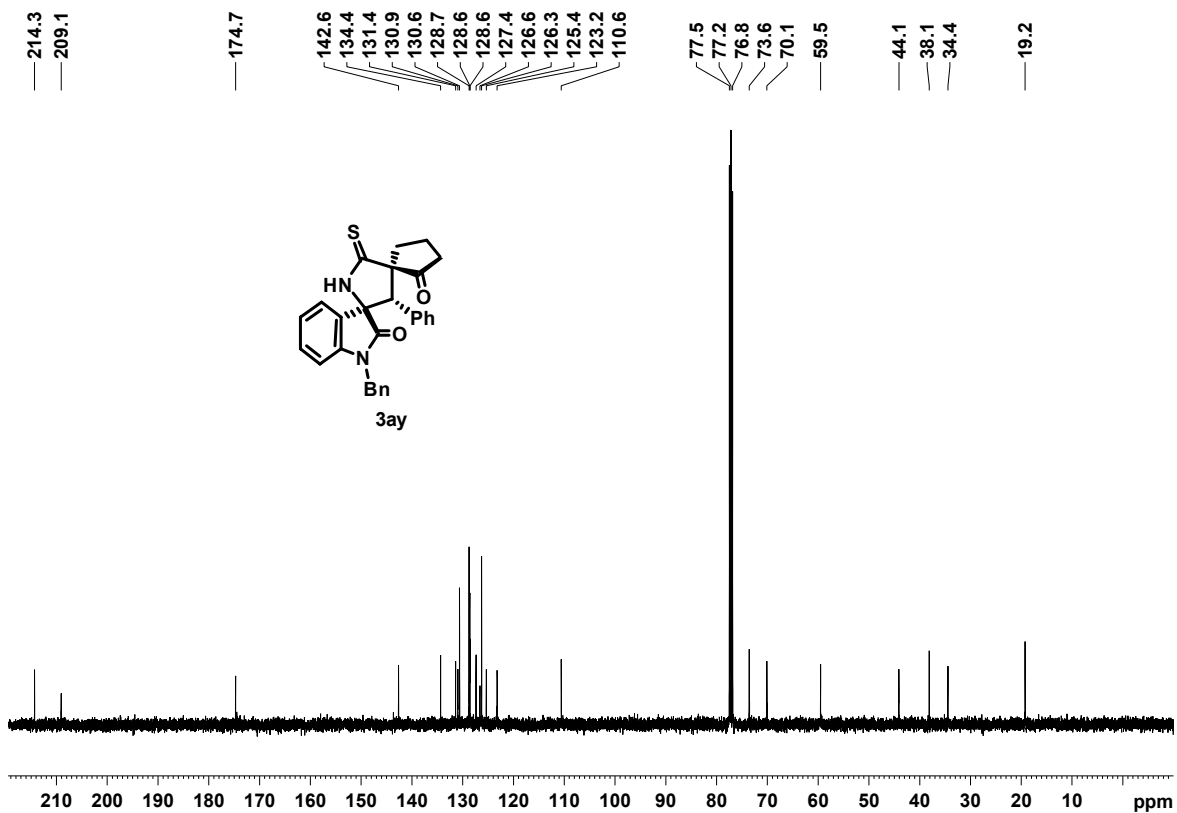
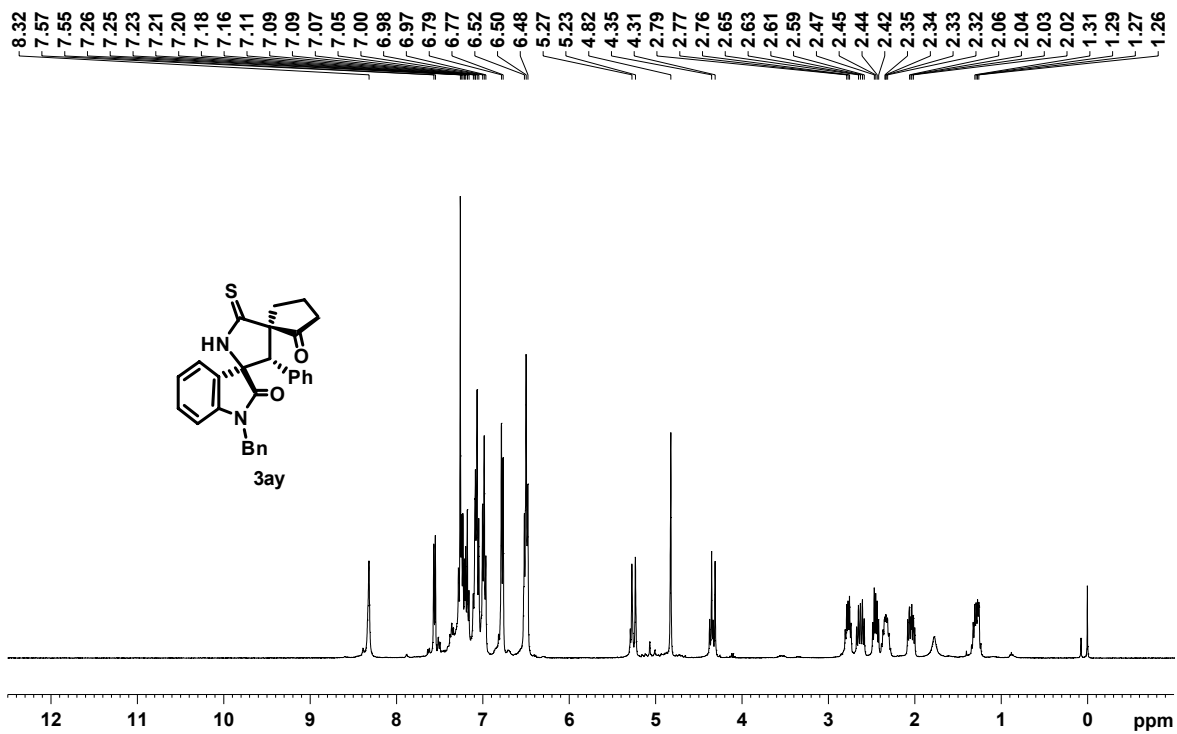
HPLC conditions: Daicel Chiralpak AD-H column; 40:60 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

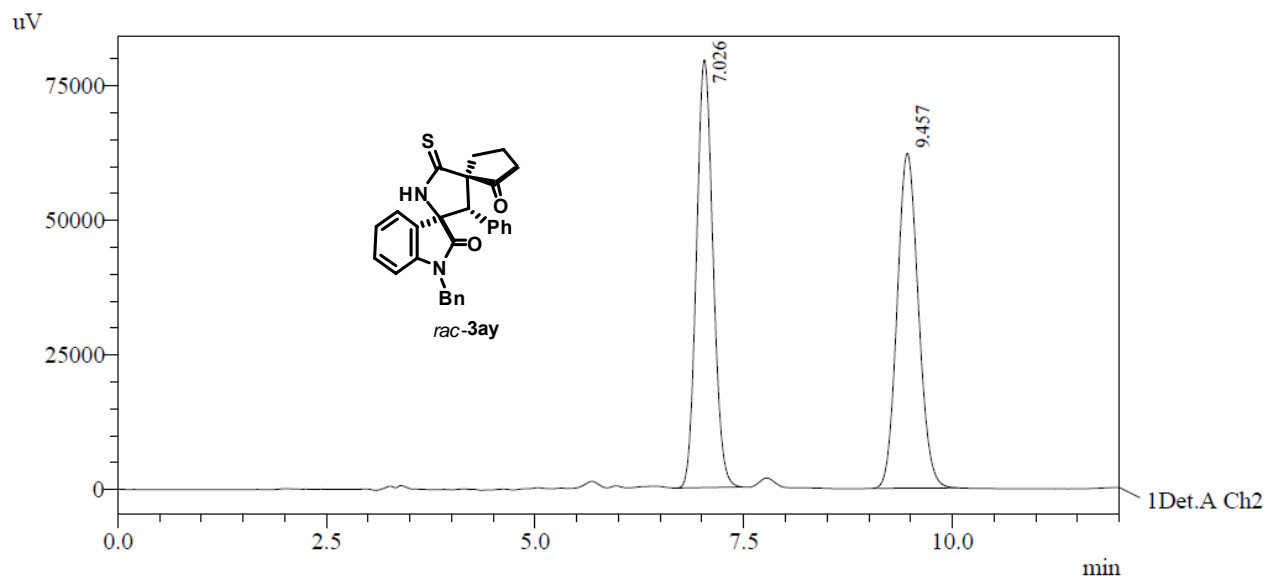


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.865	58765	1.273
2	13.238	4557892	98.727
Total		4616657	100.000



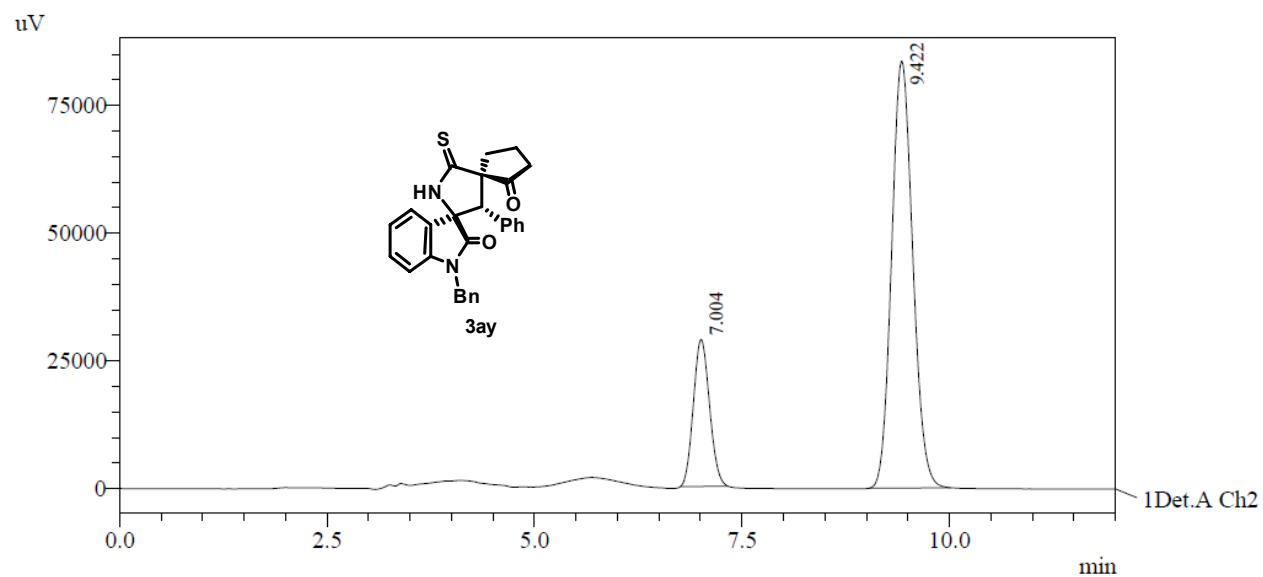


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.026	1096656	49.876
2	9.457	1102118	50.124
Total		2198774	100.000

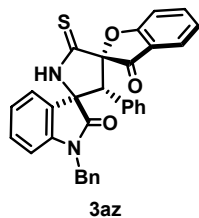
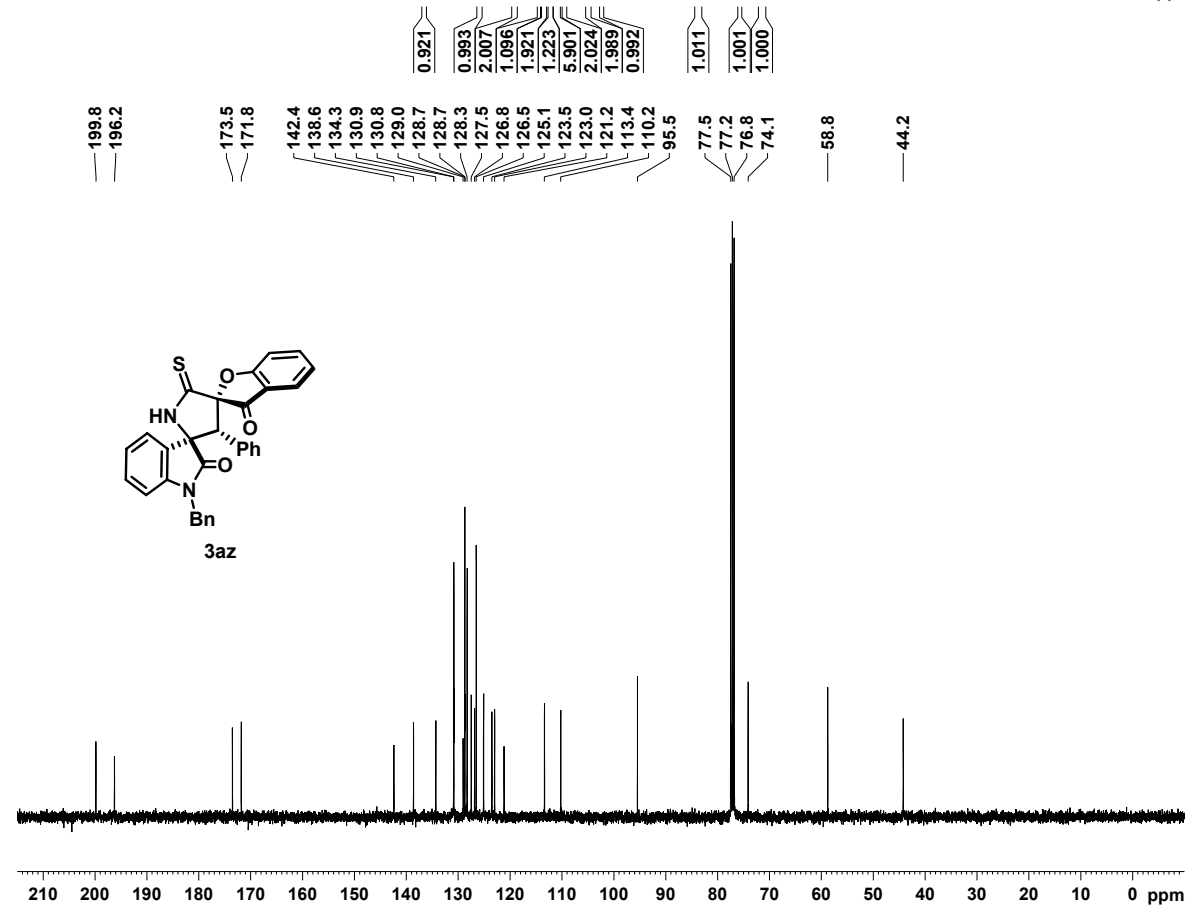
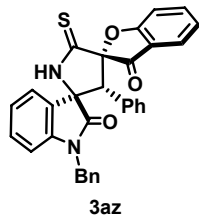
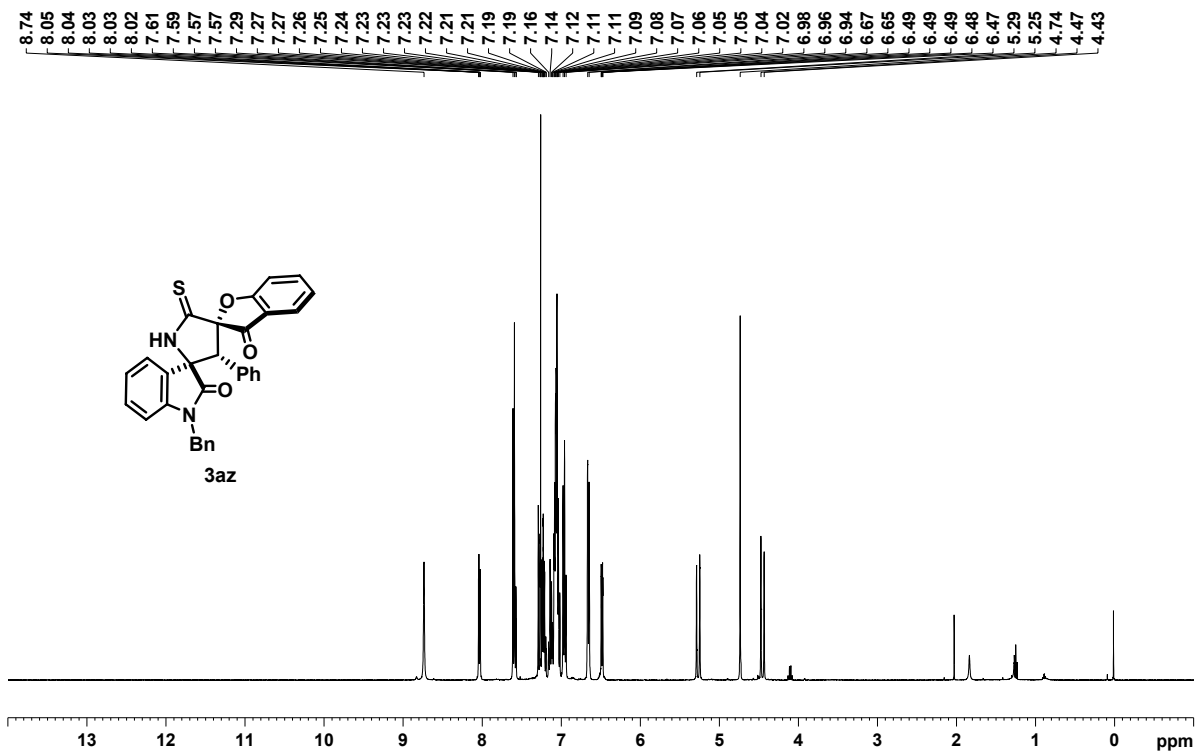
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

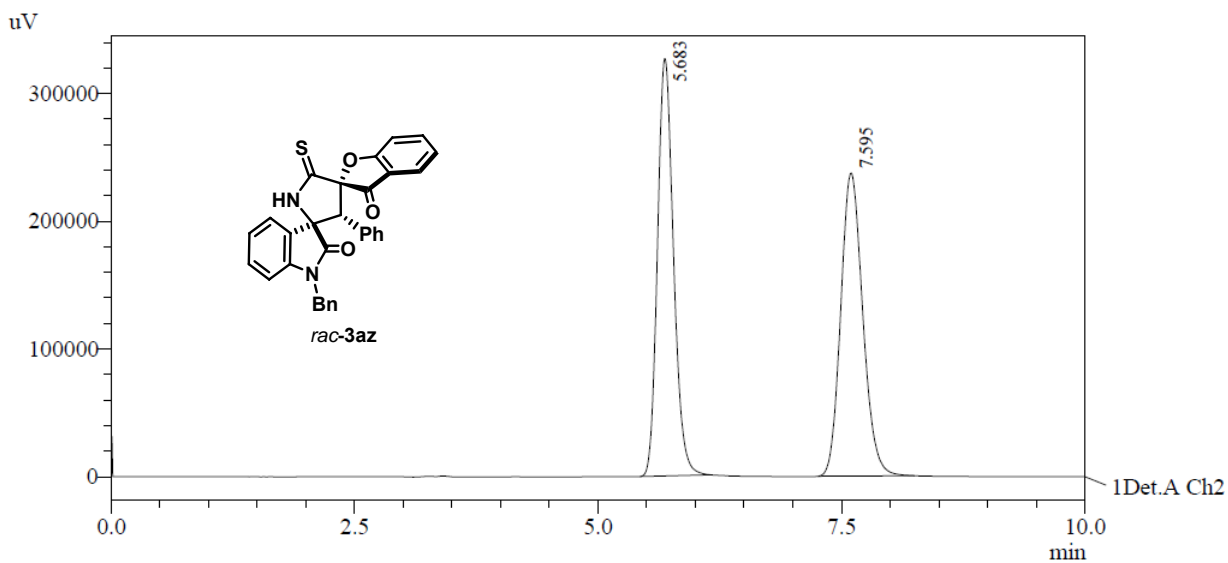


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.004	389896	20.821
2	9.422	1482693	79.179
Total		1872589	100.000



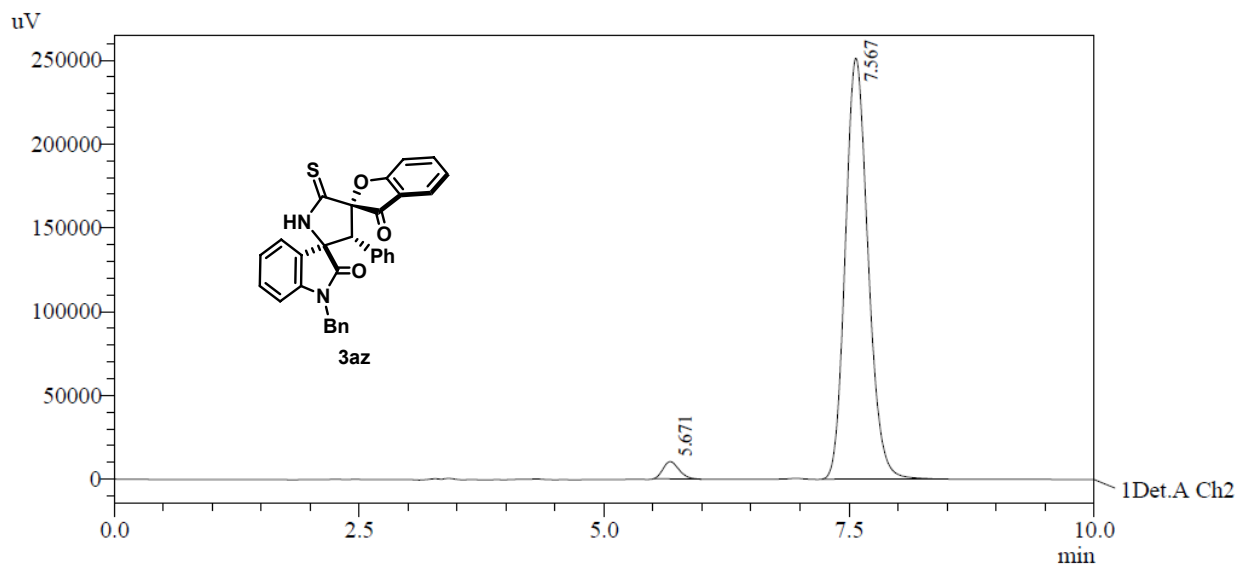


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.683	3743714	50.021
2	7.595	3740512	49.979
Total		7484226	100.000

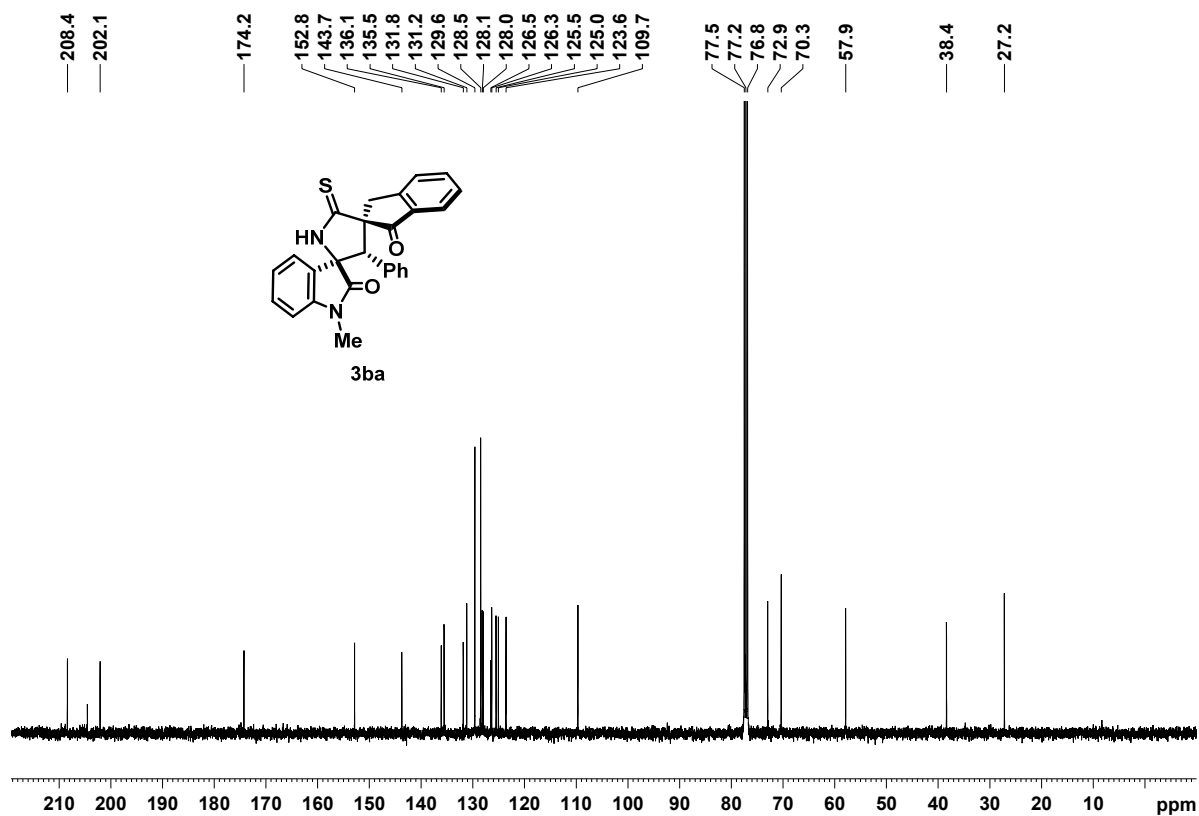
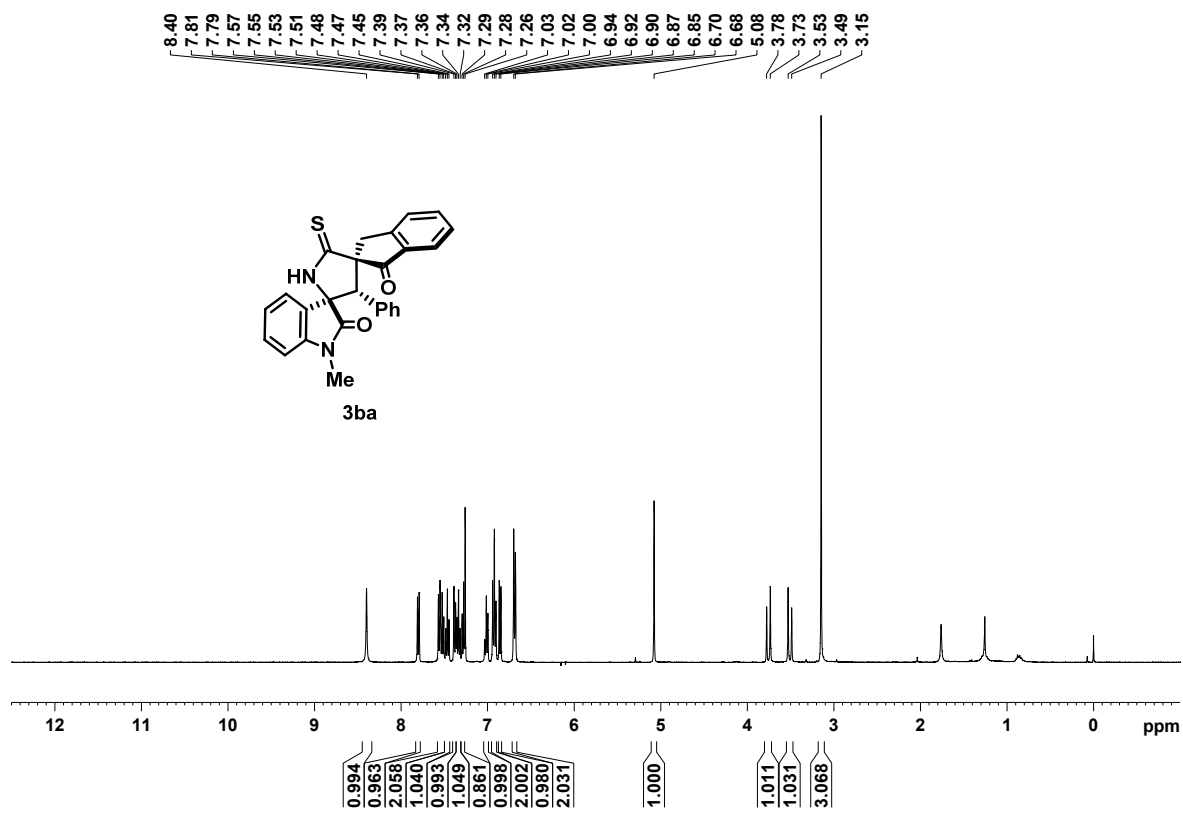
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

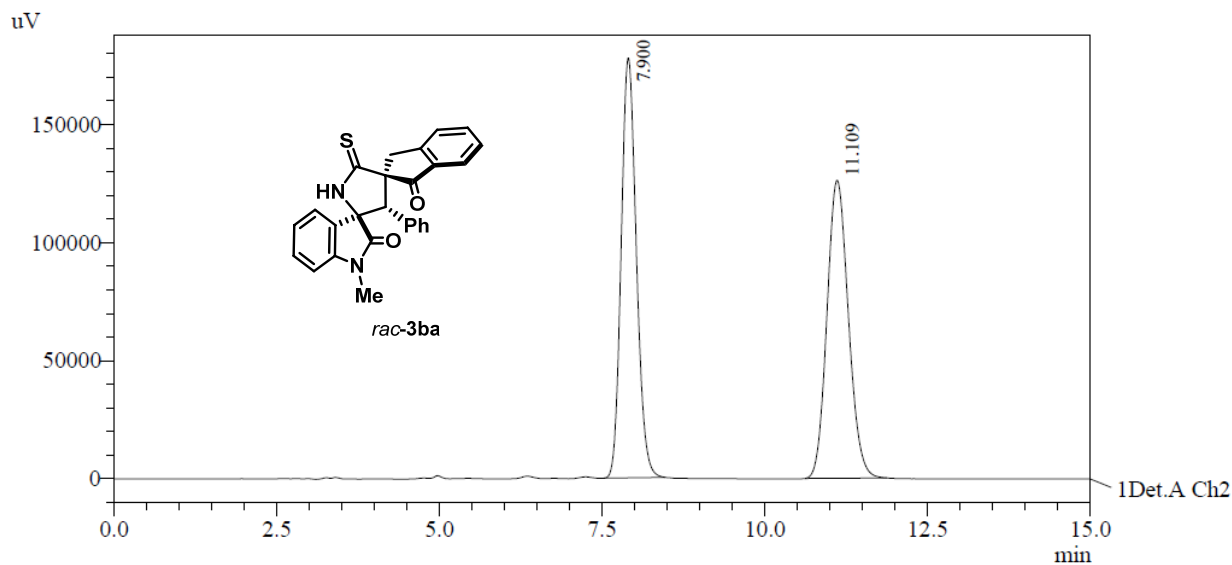


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.671	115757	2.772
2	7.567	4060768	97.228
Total		4176525	100.000



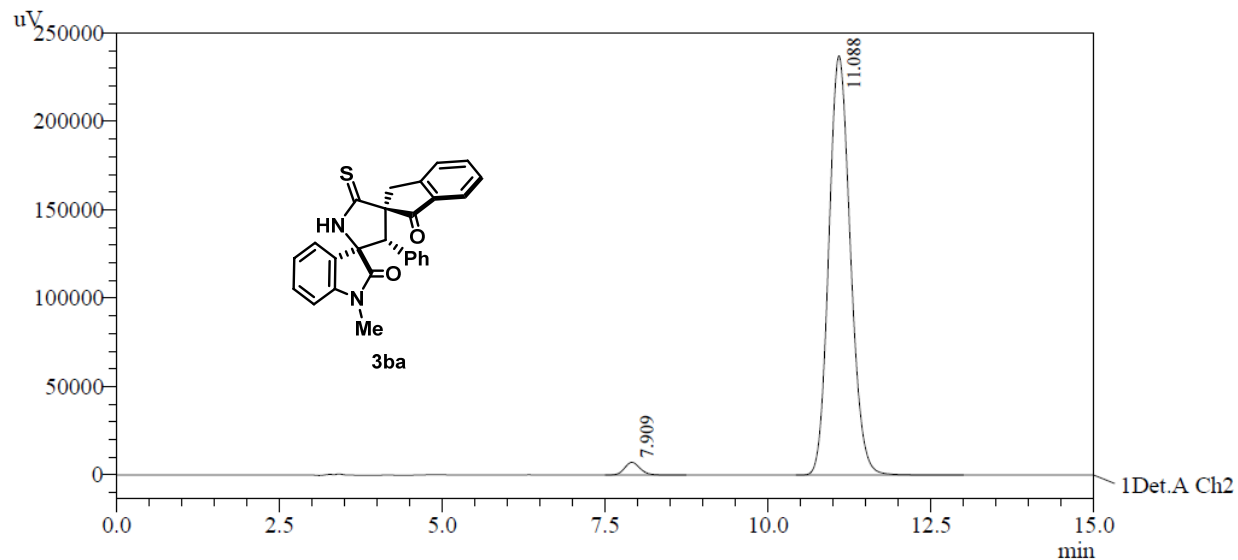


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.900	2883465	49.977
2	11.109	2886116	50.023
Total		5769581	100.000

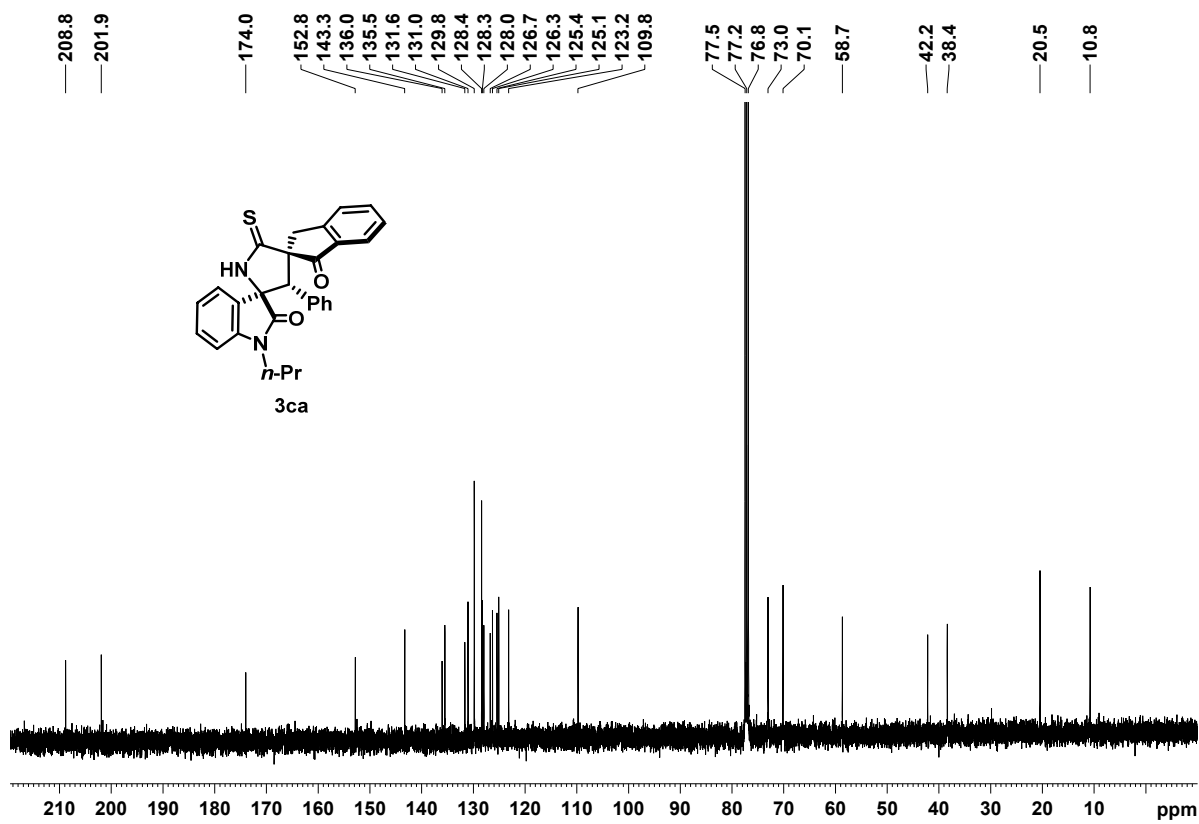
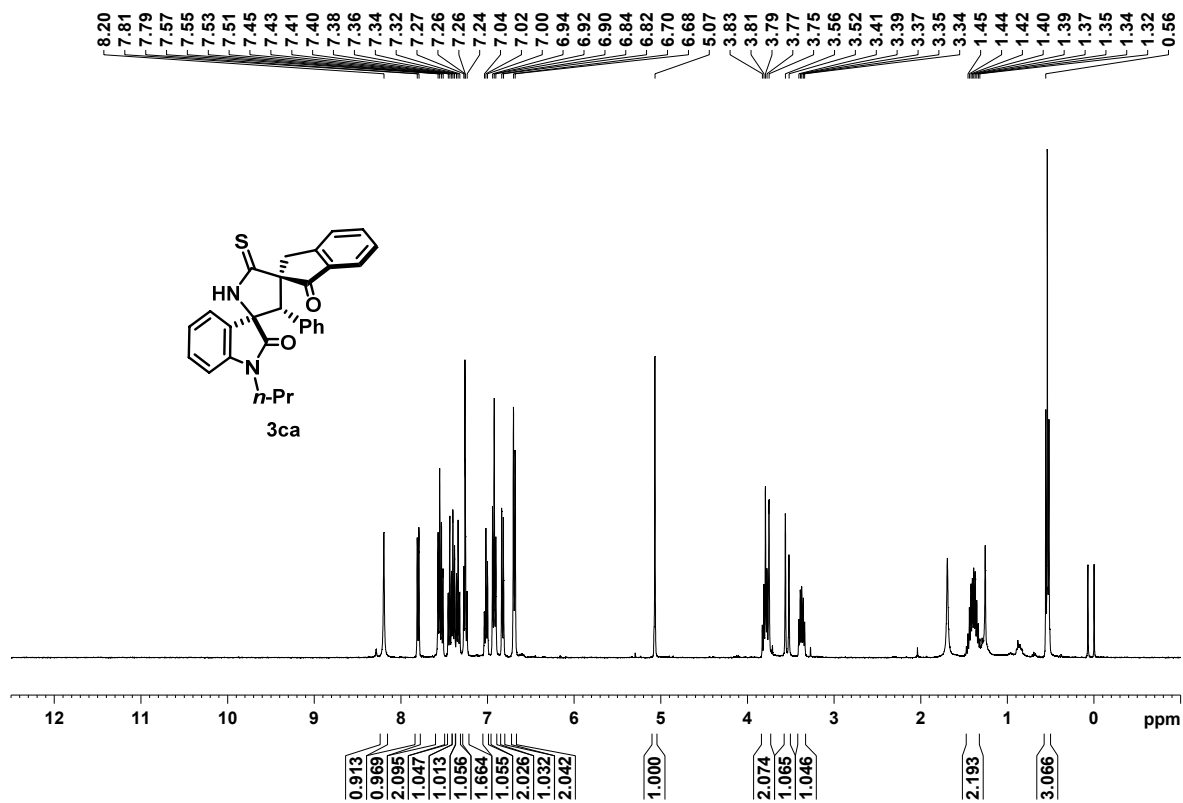
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

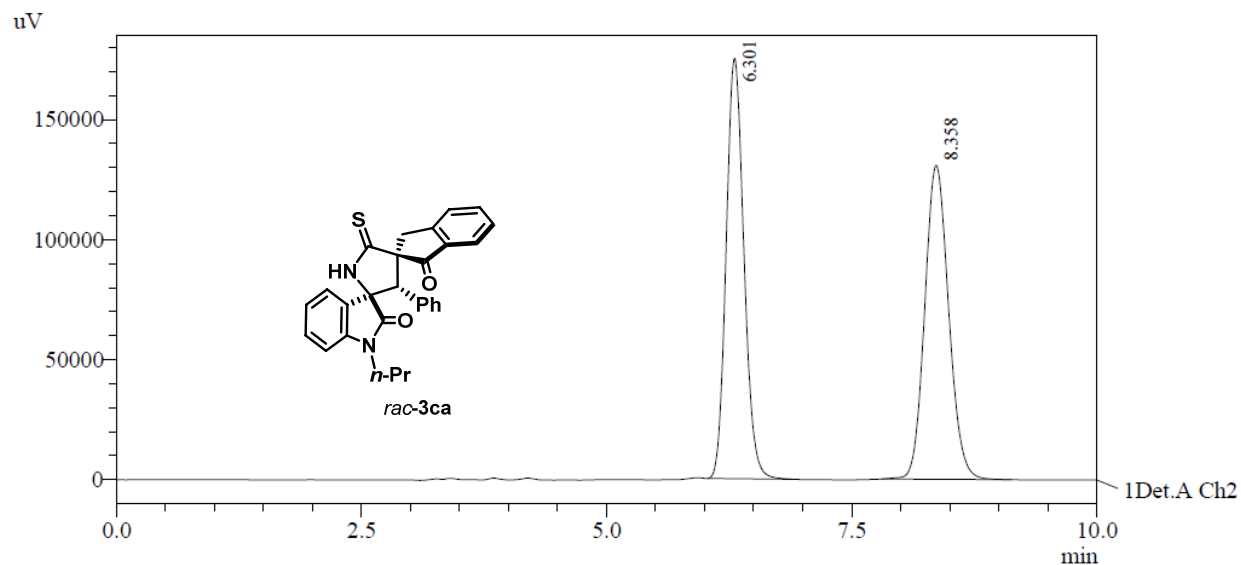


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.909	116912	2.097
2	11.088	5457985	97.903
Total		5574897	100.000



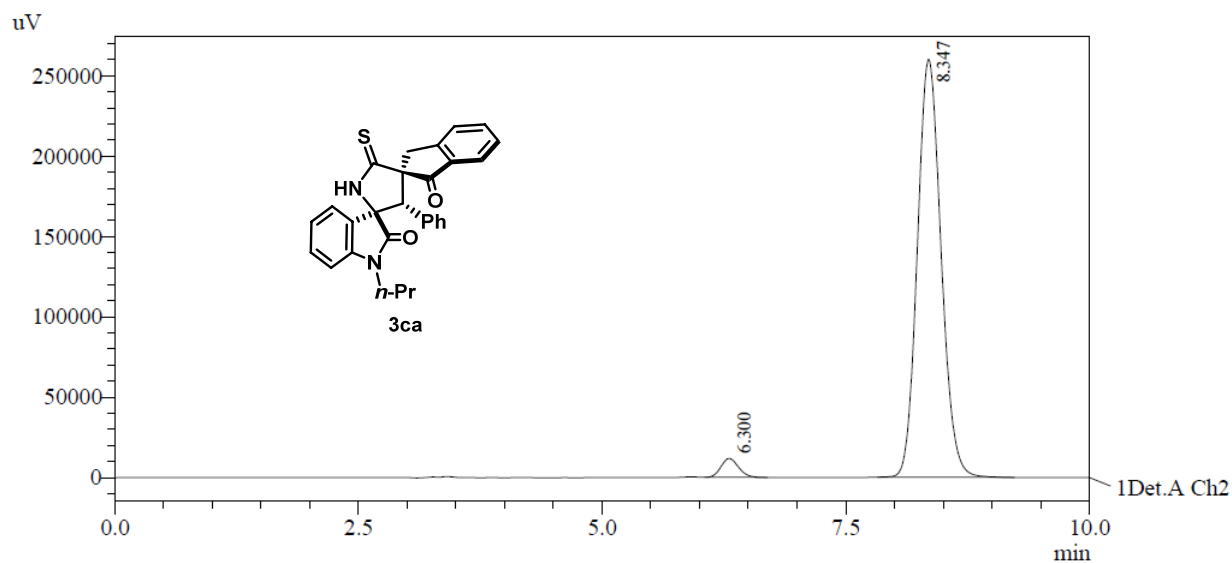


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.301	2206646	49.865
2	8.358	2218636	50.135
Total		4425282	100.000

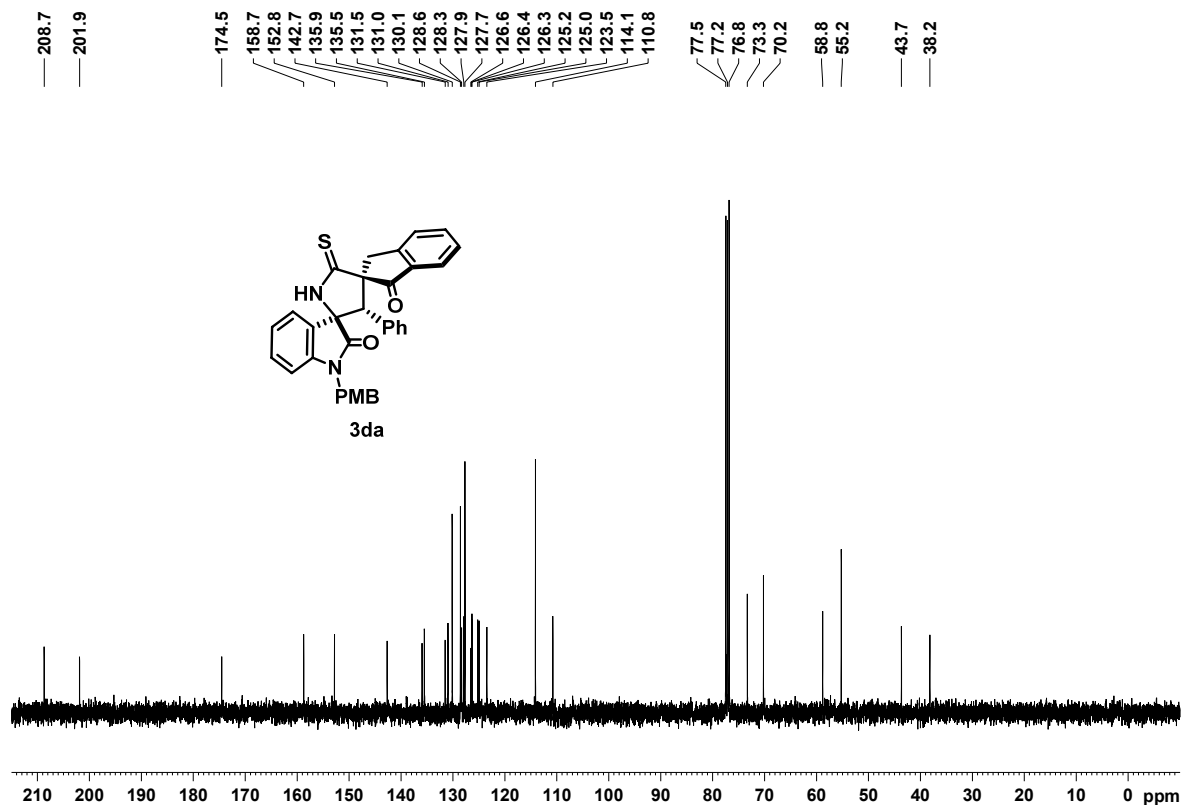
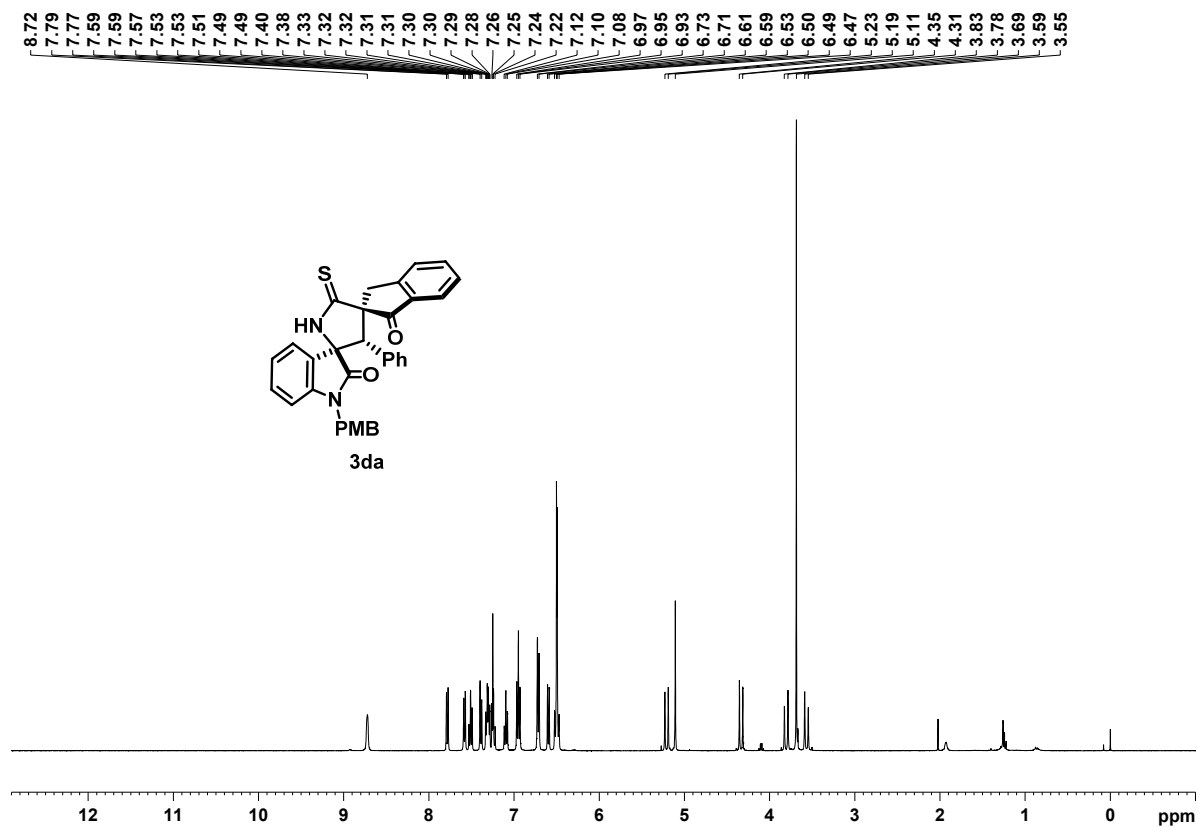
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

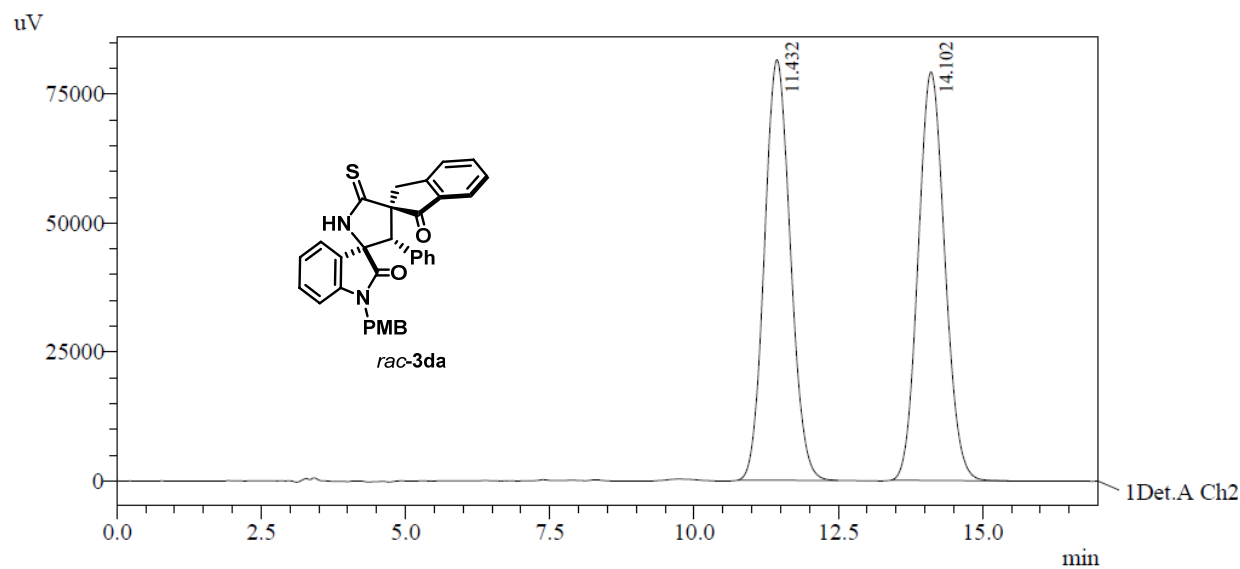


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	6.300	146838	3.224
2	8.347	4407911	96.776
Total		4554749	100.000



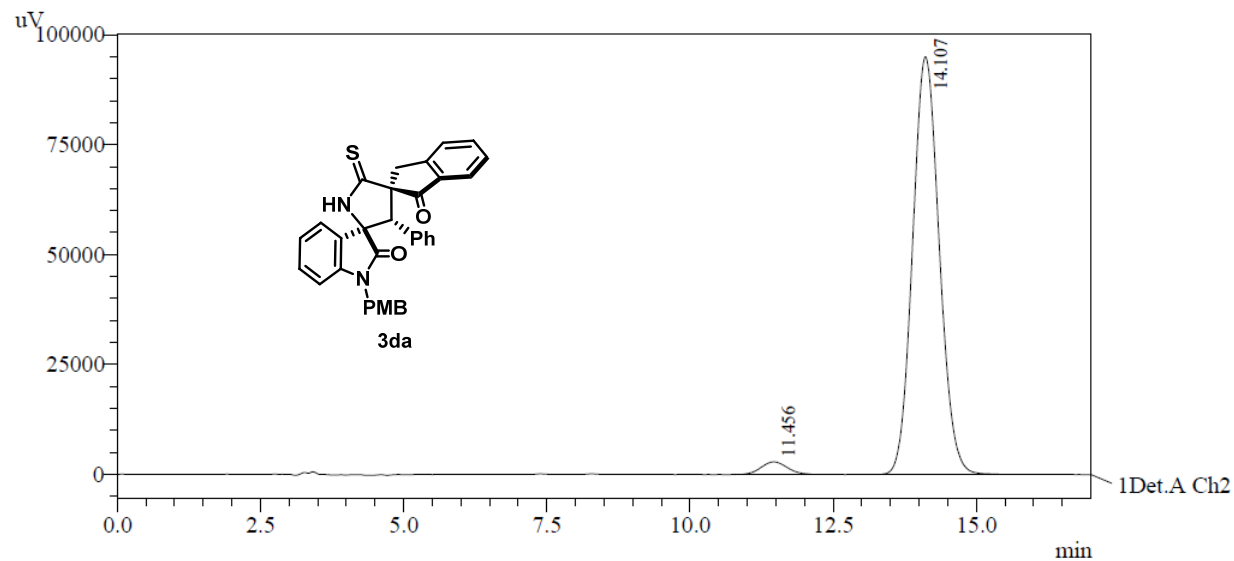


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.432	2552555	50.049
2	14.102	2547562	49.951
Total		5100117	100.000

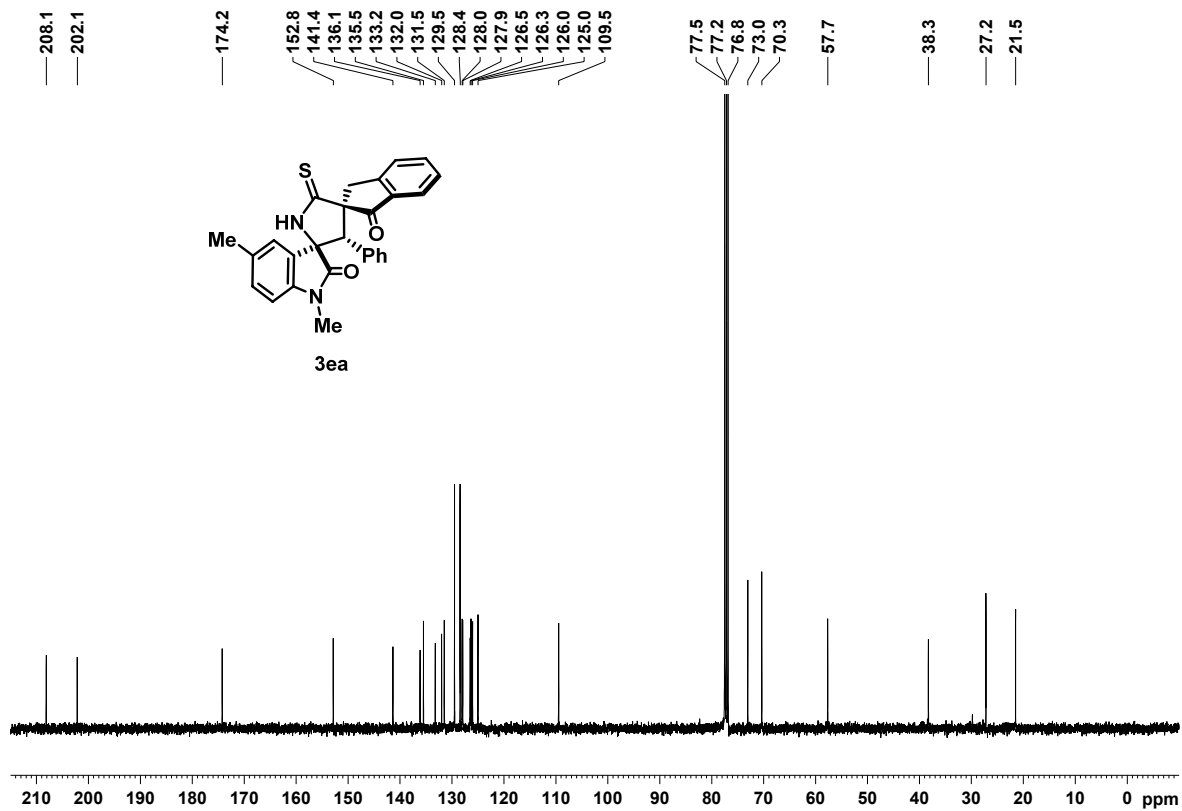
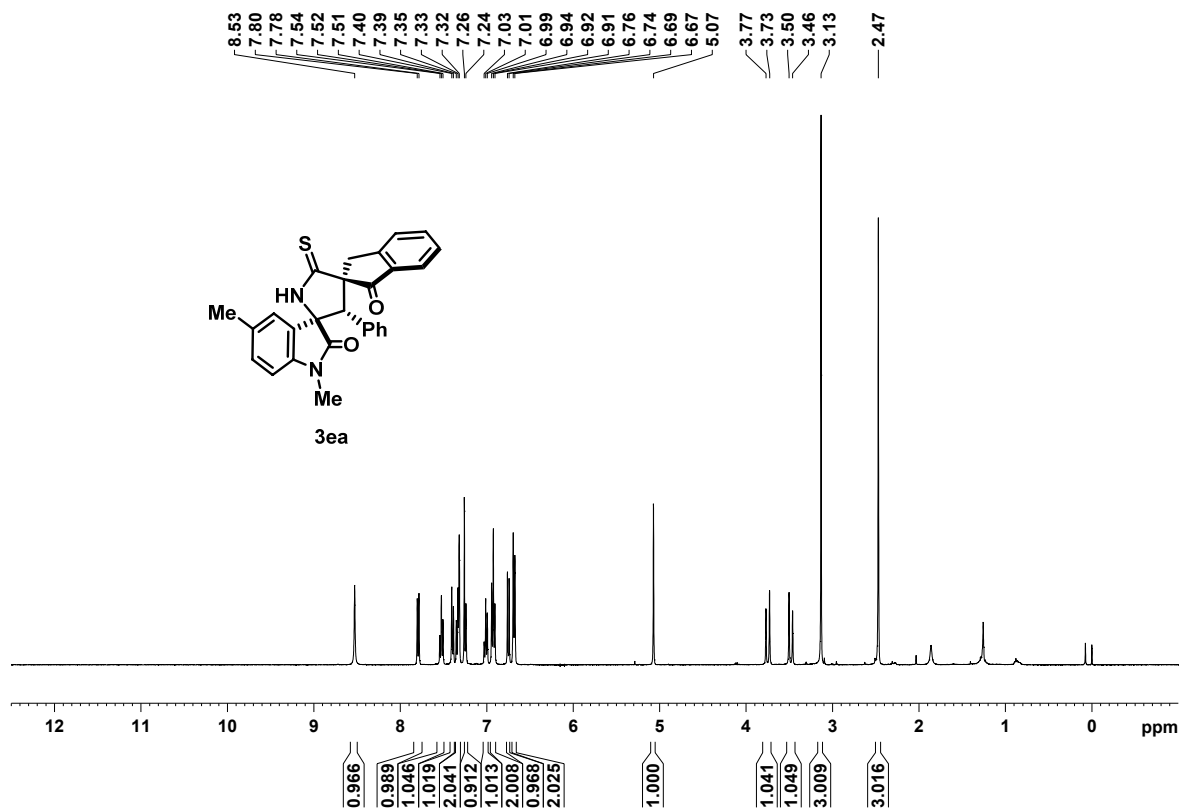
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

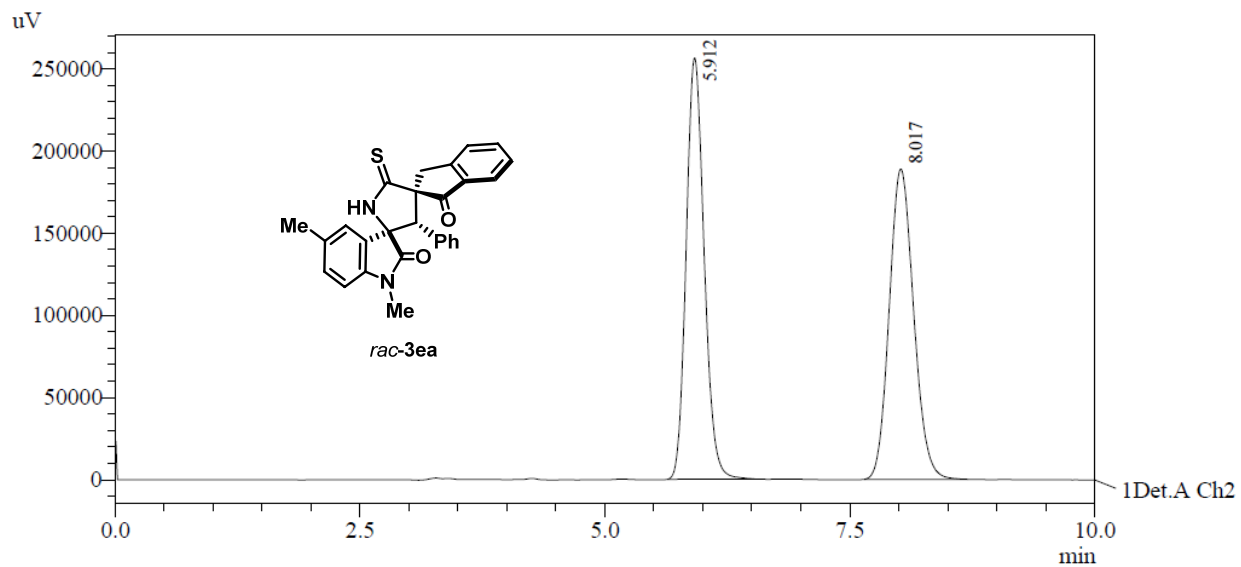


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	11.456	87142	2.754
2	14.107	3076820	97.246
Total		3163962	100.000



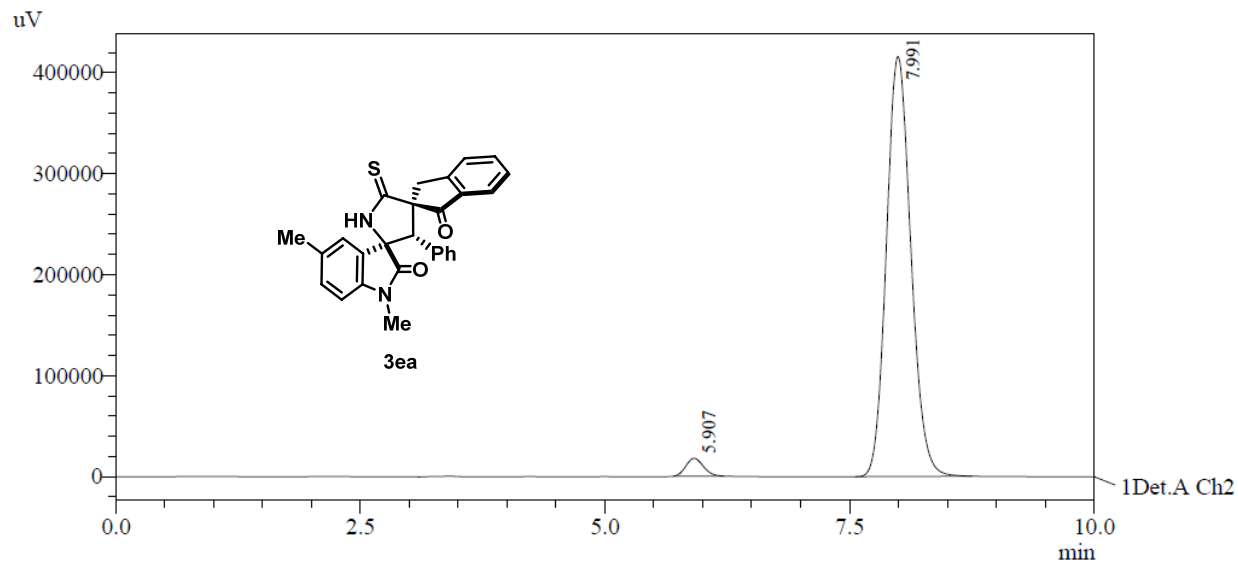


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.912	3279427	50.054
2	8.017	3272348	49.946
Total		6551775	100.000

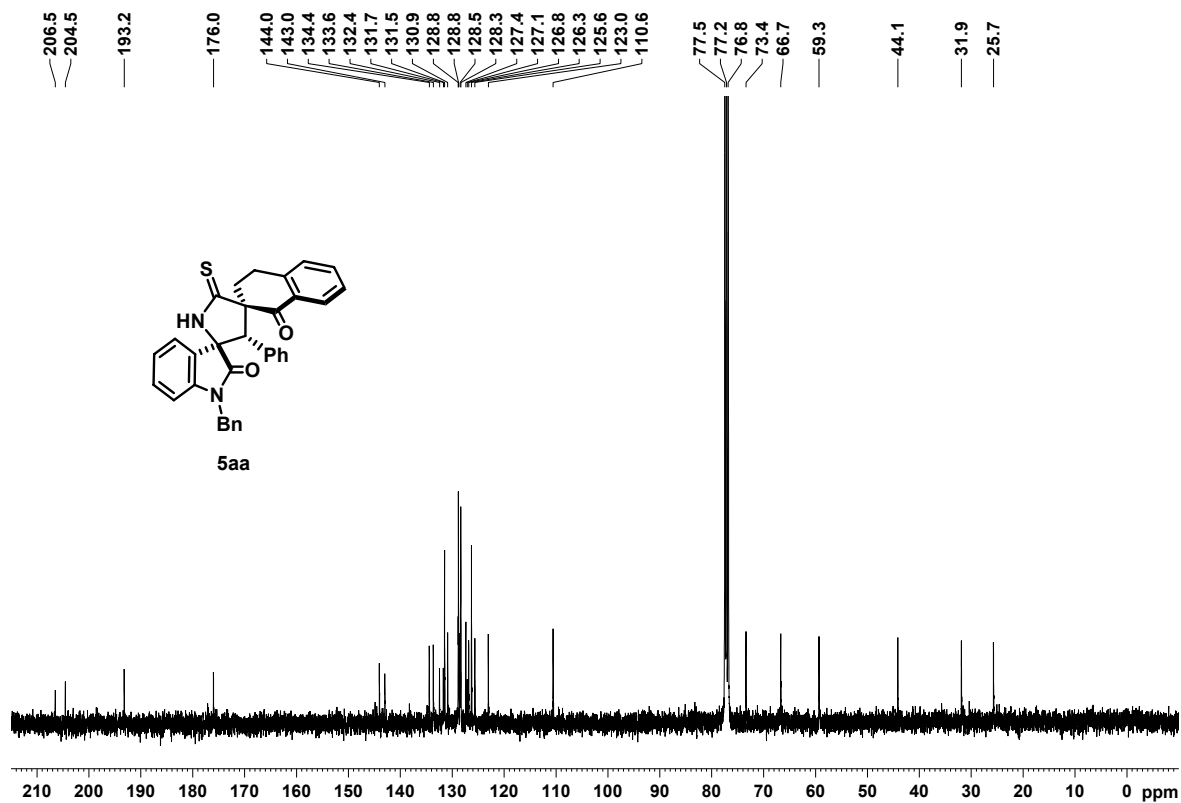
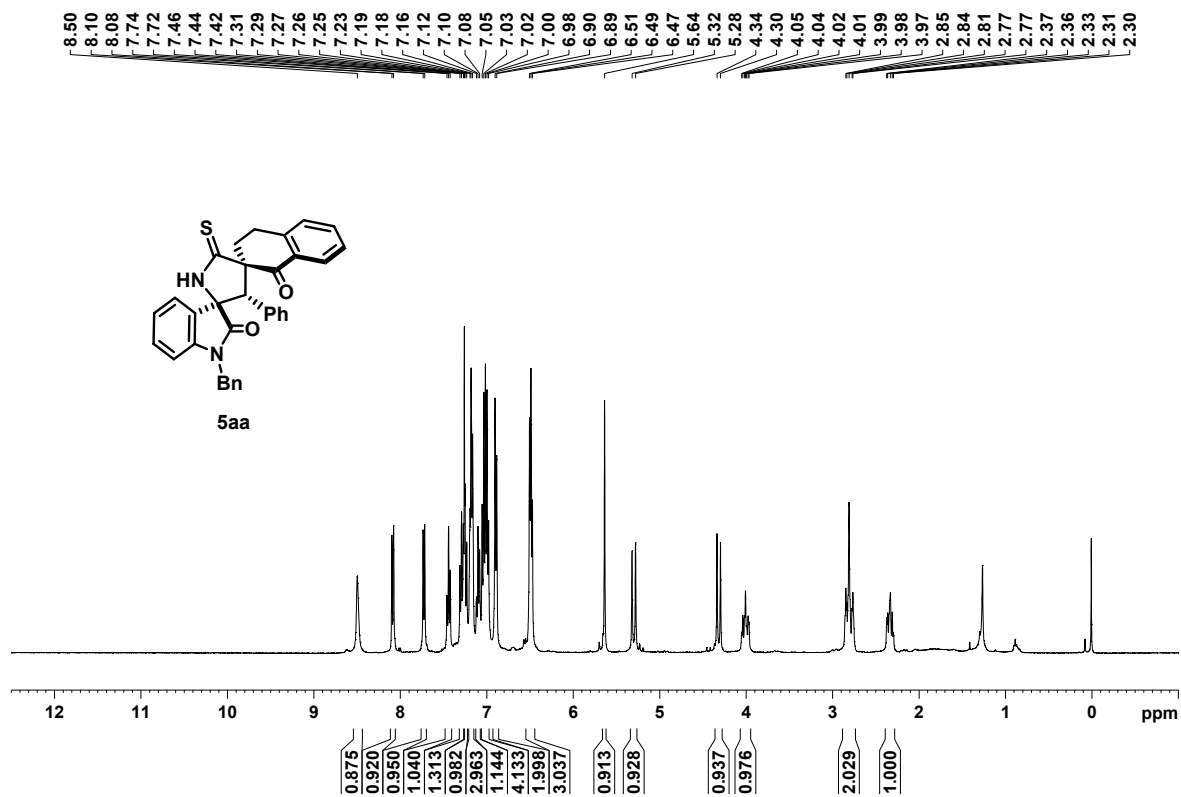
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

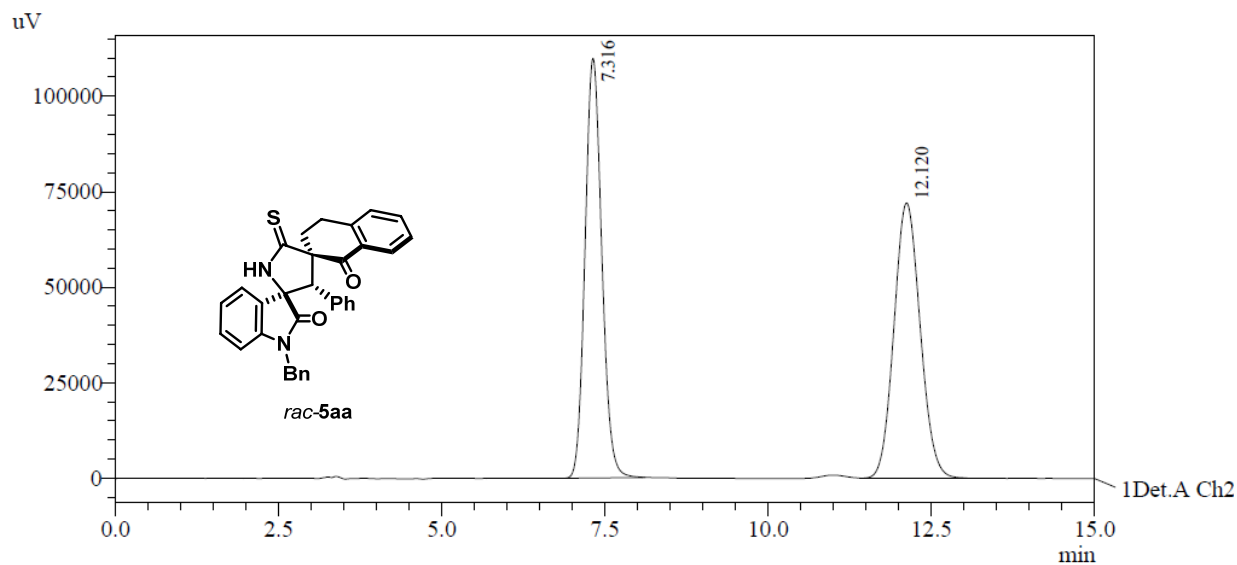


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.907	219153	2.935
2	7.991	7248535	97.065
Total		7467688	100.000



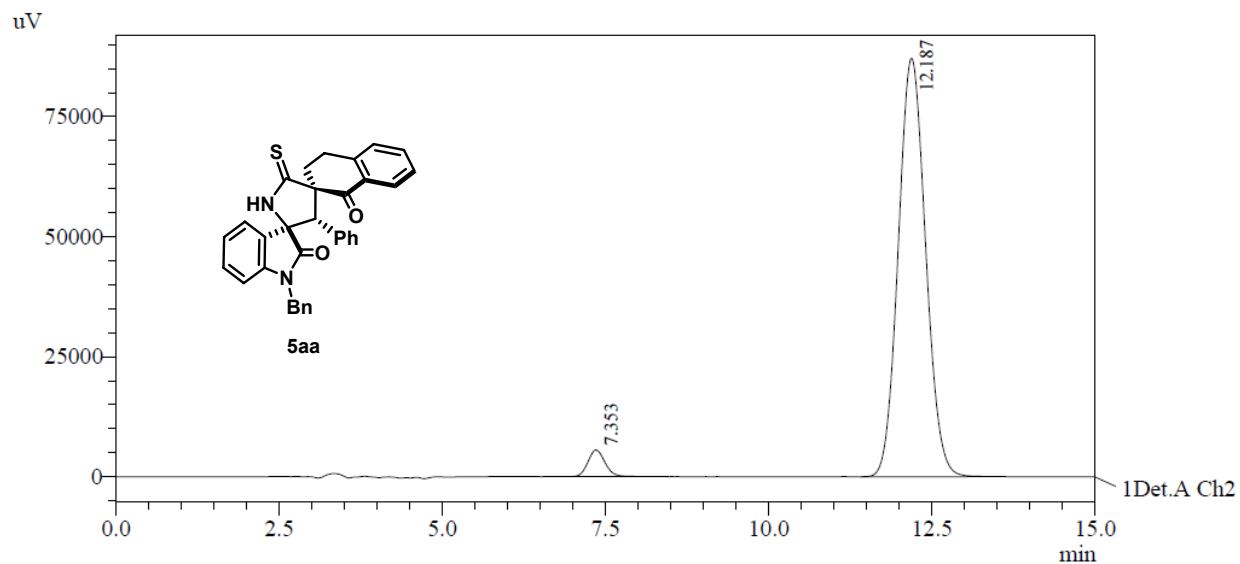


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.316	1959527	49.349
2	12.120	2011234	50.651
Total		3970760	100.000

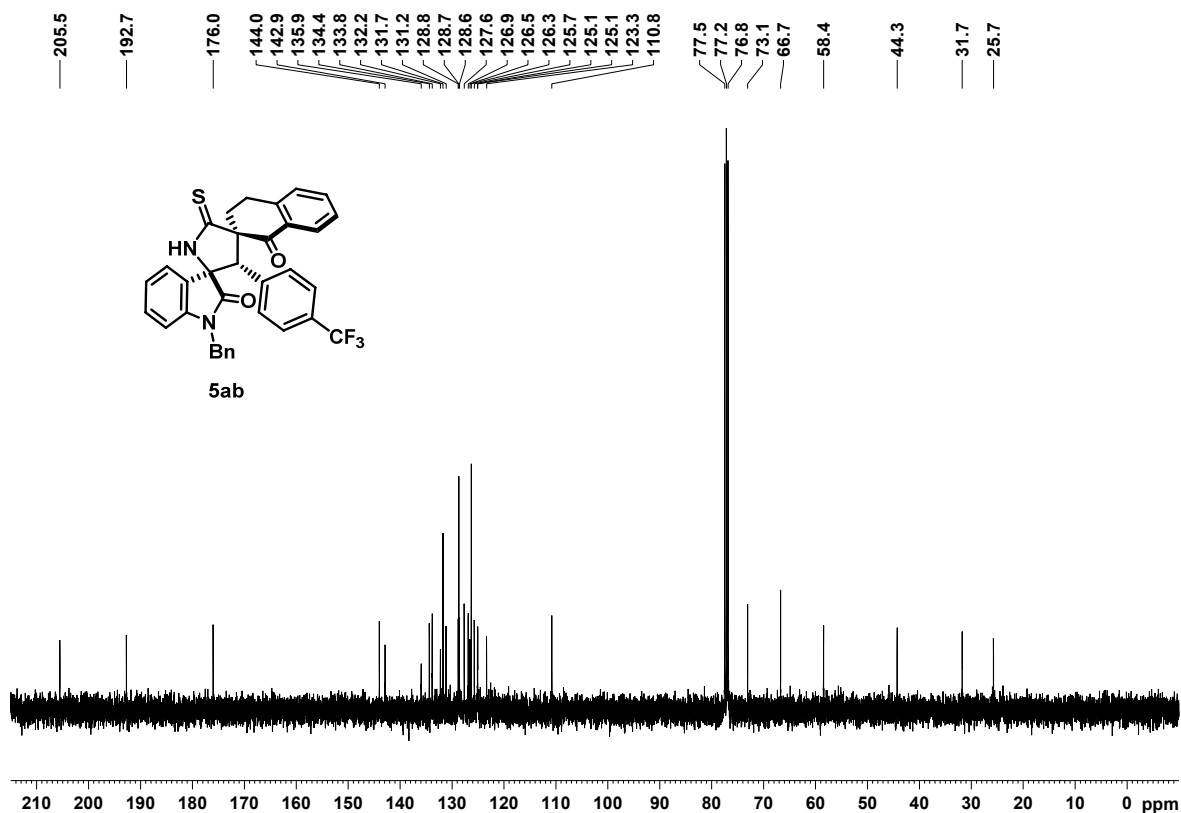
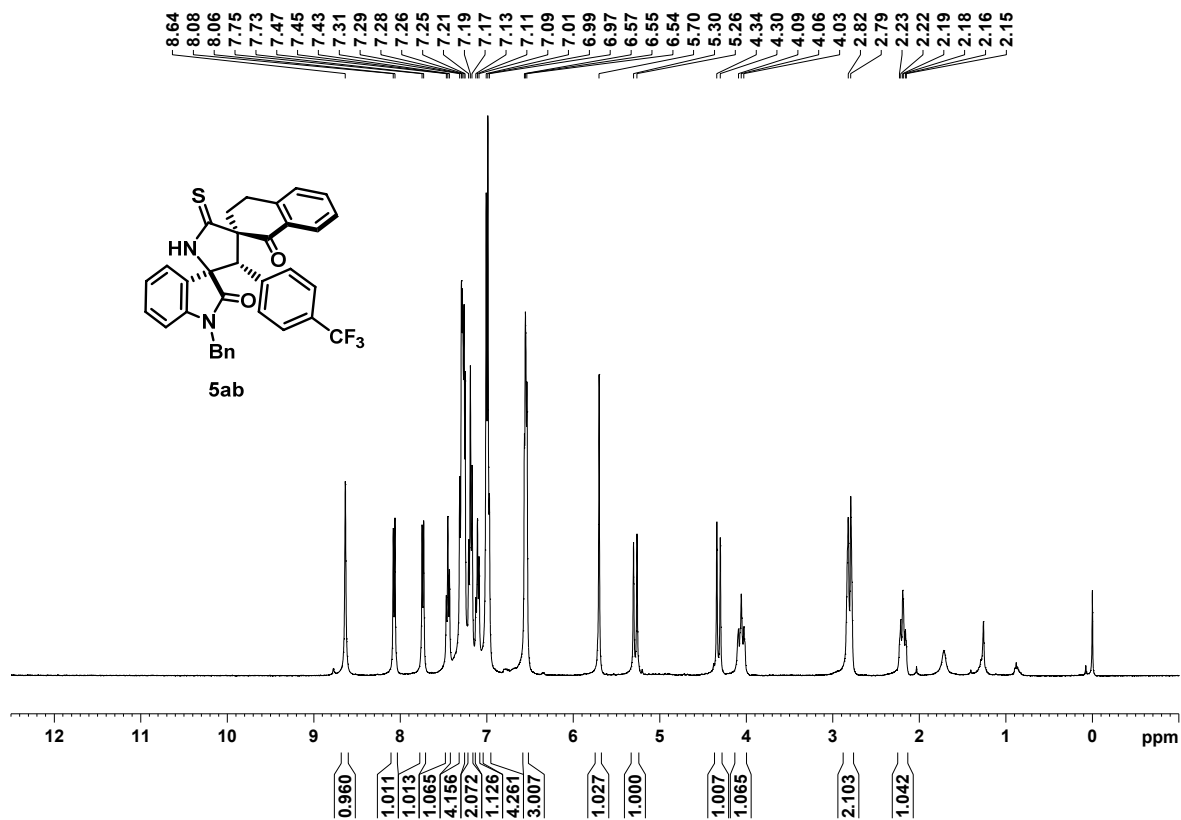
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

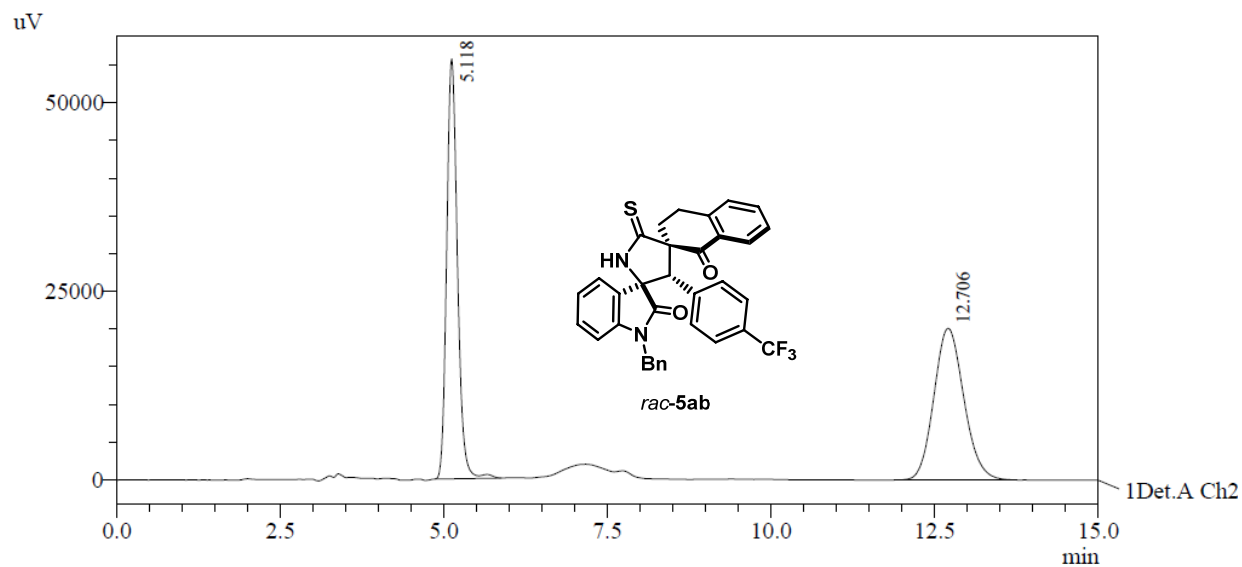


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.353	100886	3.823
2	12.187	2538298	96.177
Total		2639184	100.000



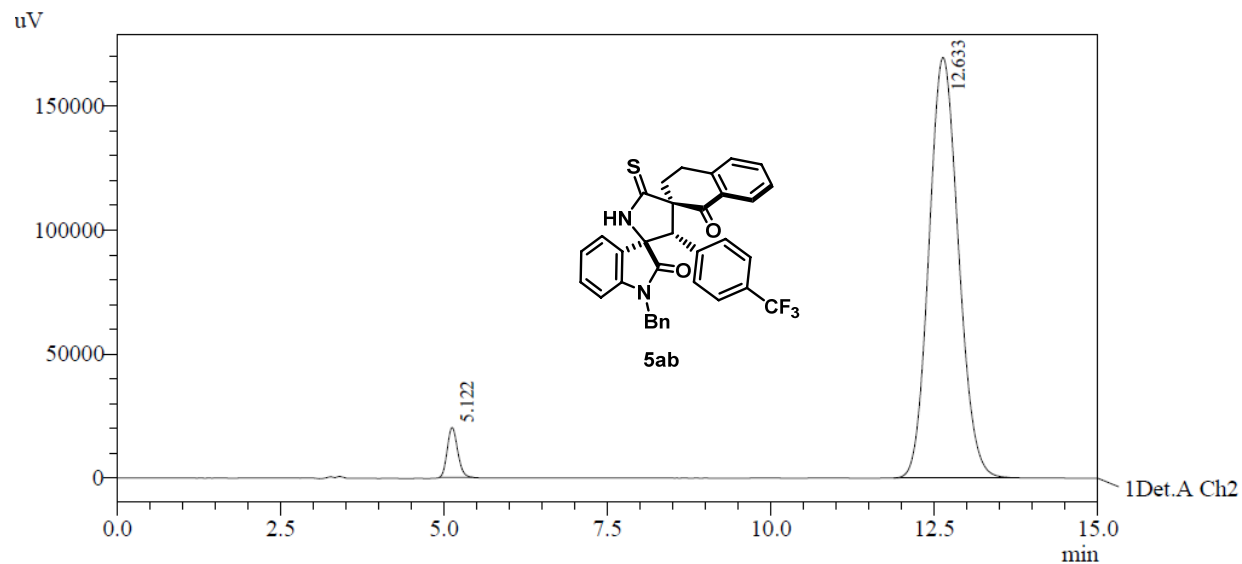


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.118	637460	50.004
2	12.706	637353	49.996
Total		1274812	100.000

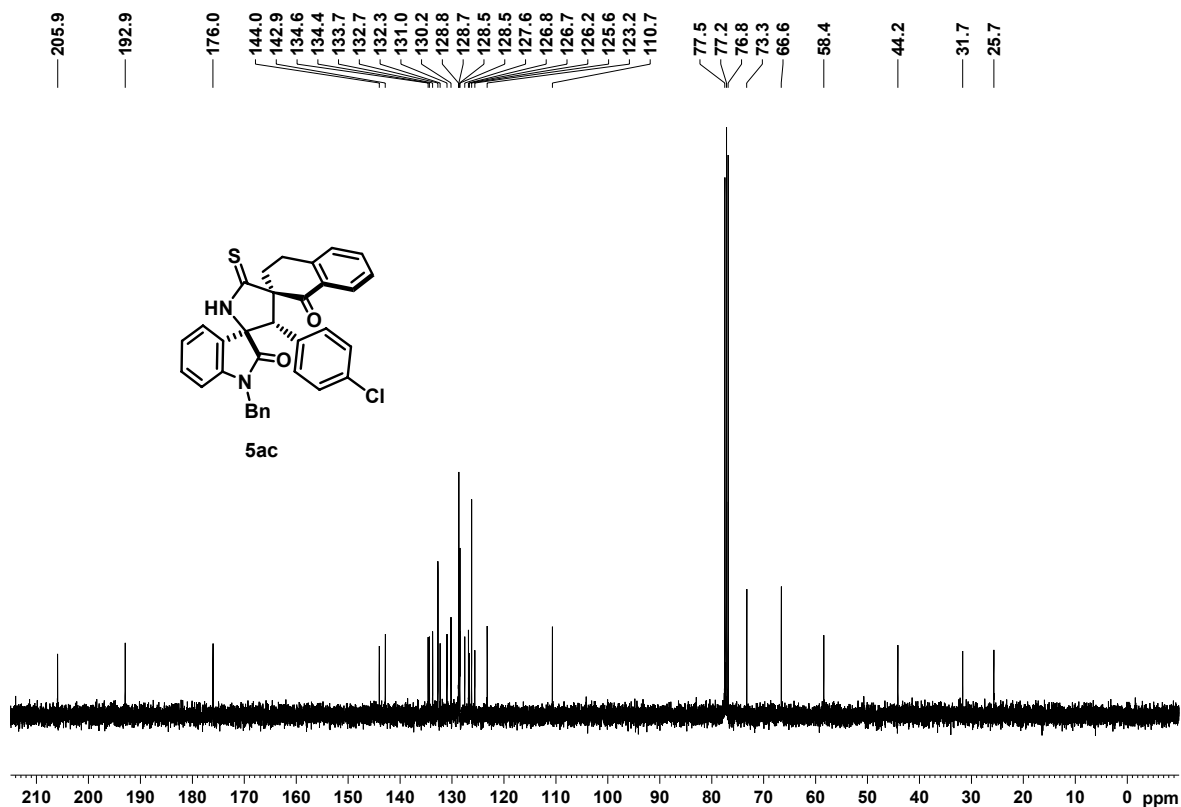
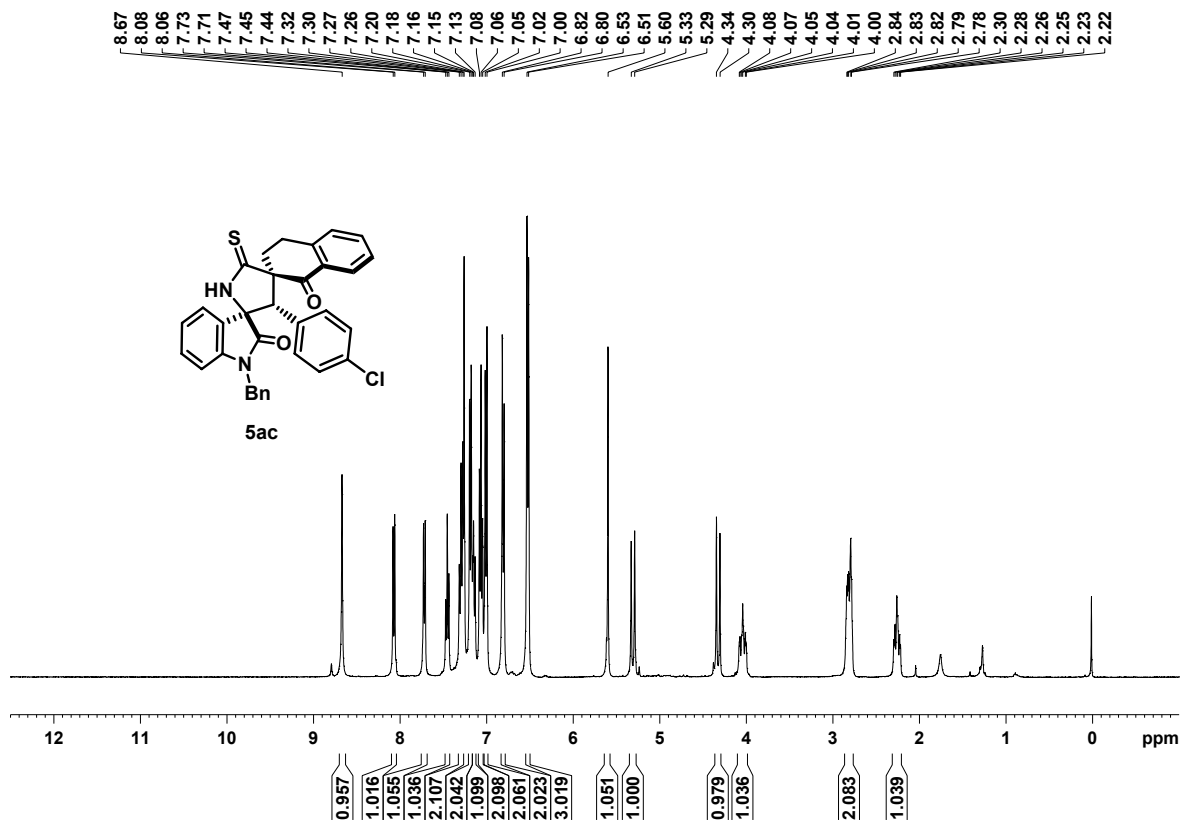
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

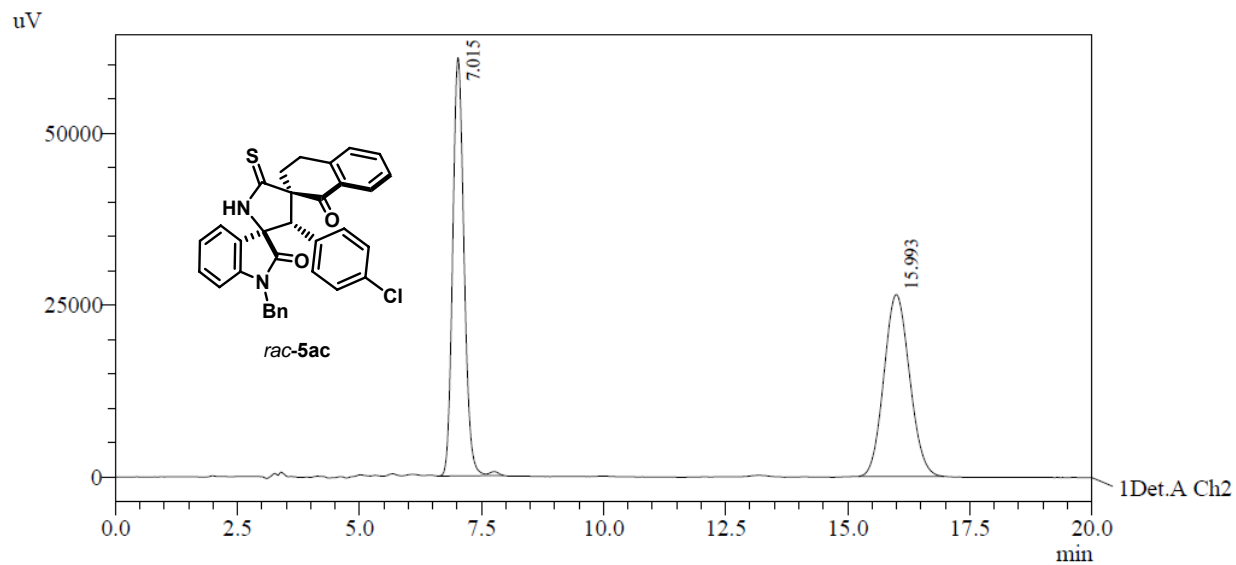


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.122	222097	4.004
2	12.633	5324477	95.996
Total		5546574	100.000



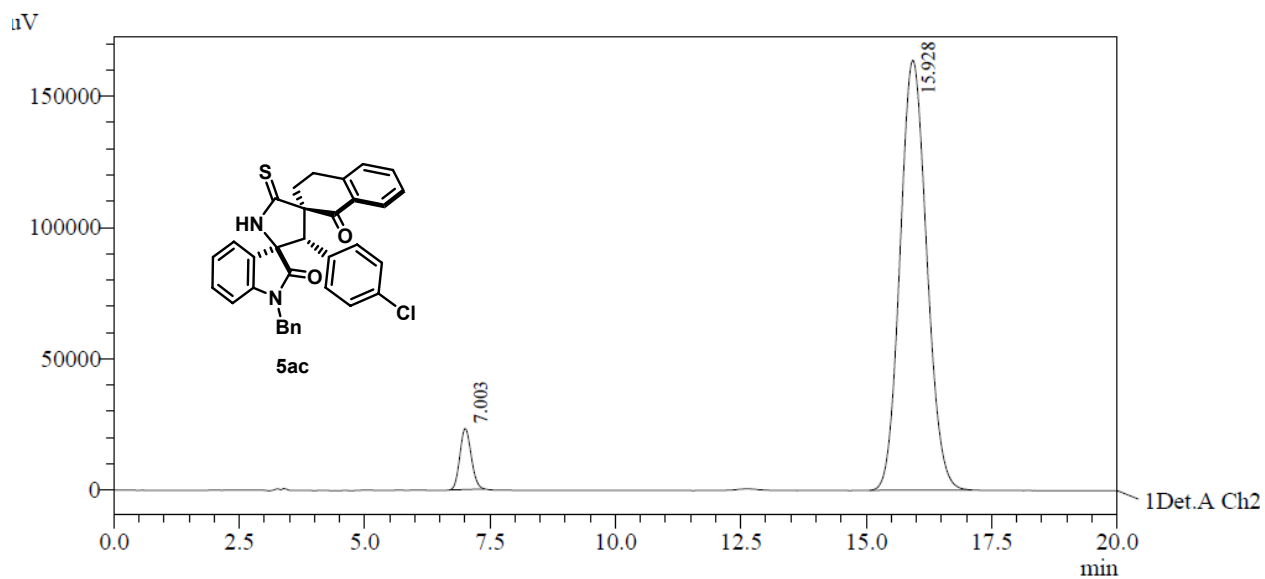


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.015	988817	50.505
2	15.993	969023	49.495
Total		1957840	100.000

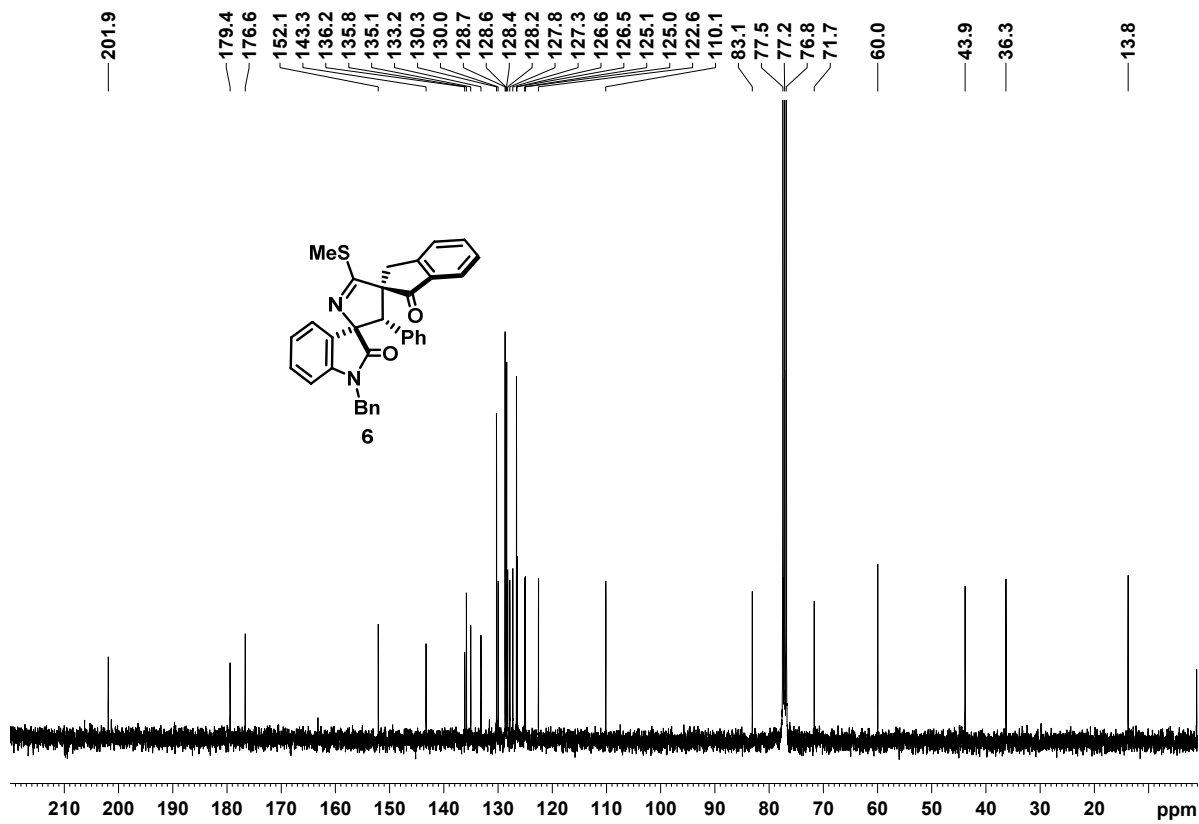
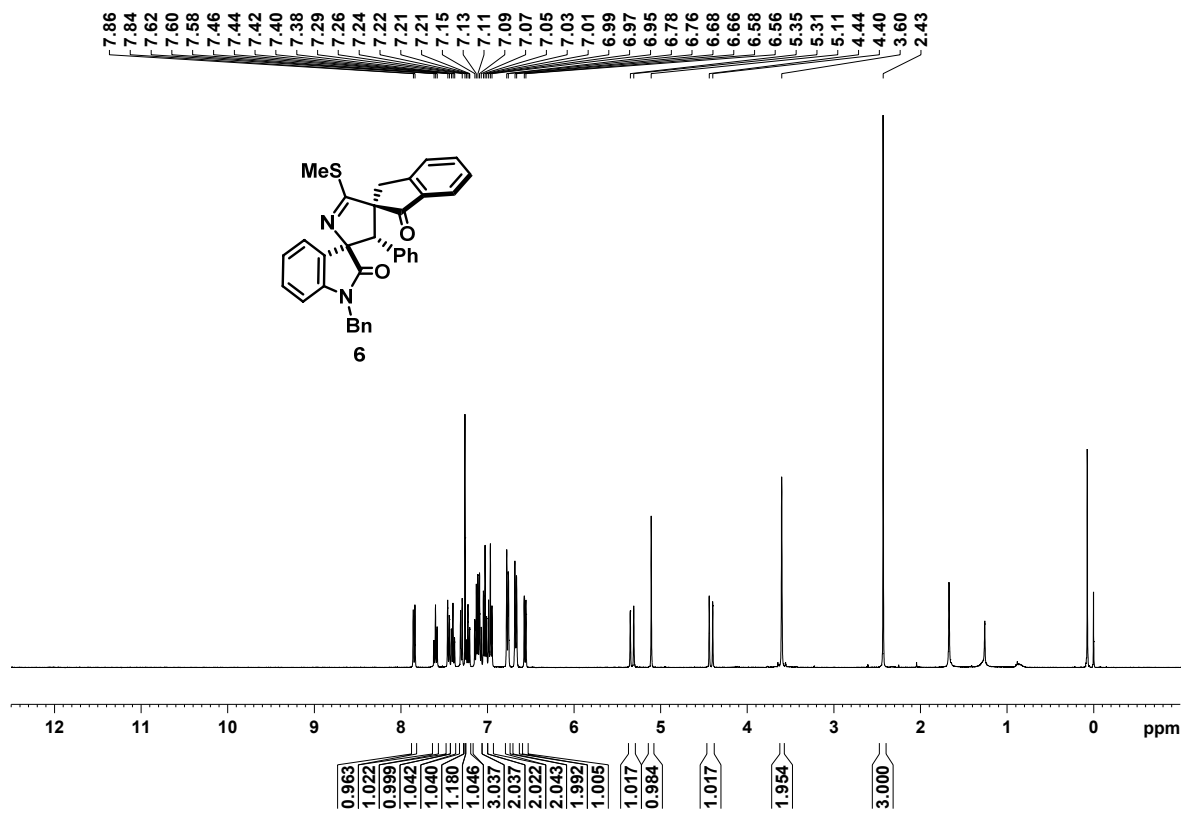
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

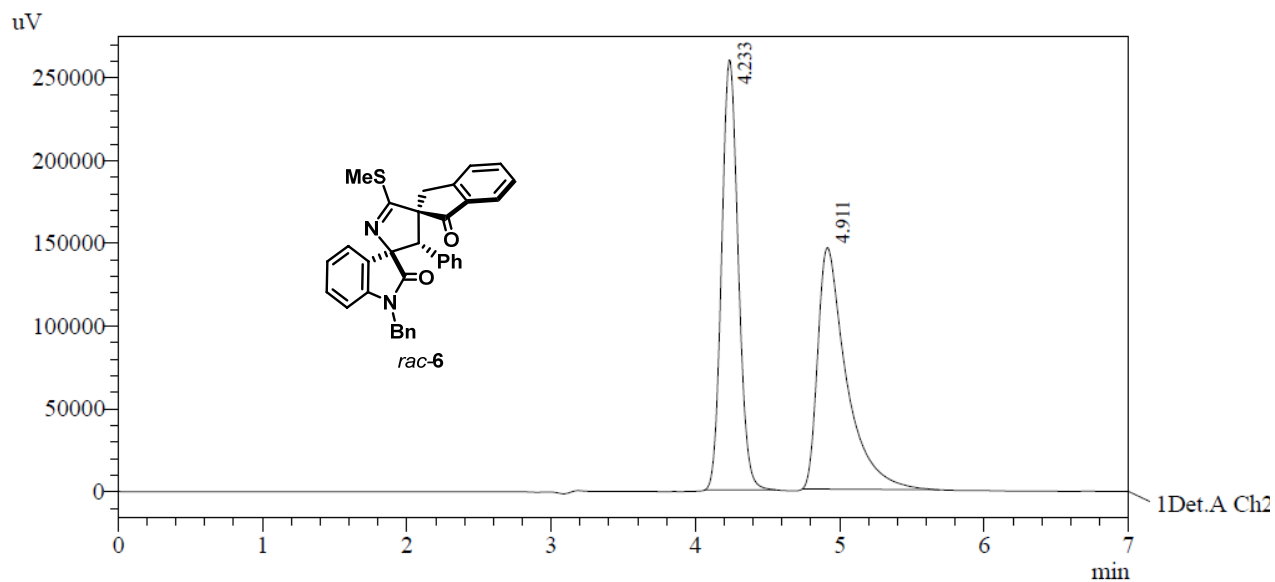


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	7.003	366279	5.699
2	15.928	6061260	94.301
Total		6427540	100.000



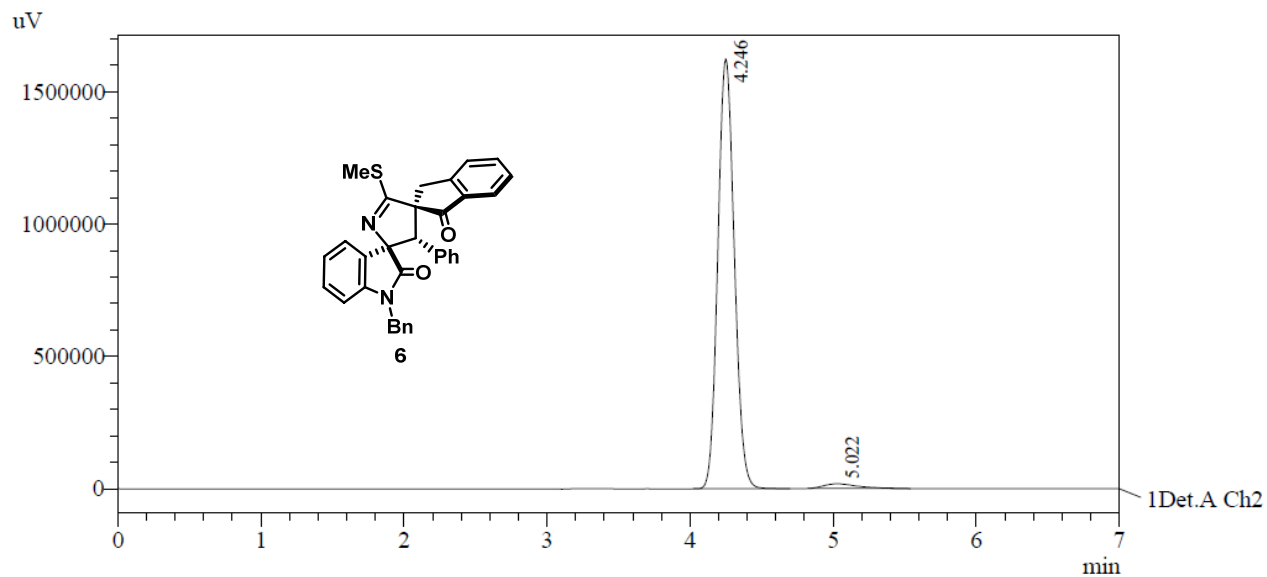


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	4.233	2078223	50.695
2	4.911	2021280	49.305
Total		4099503	100.000

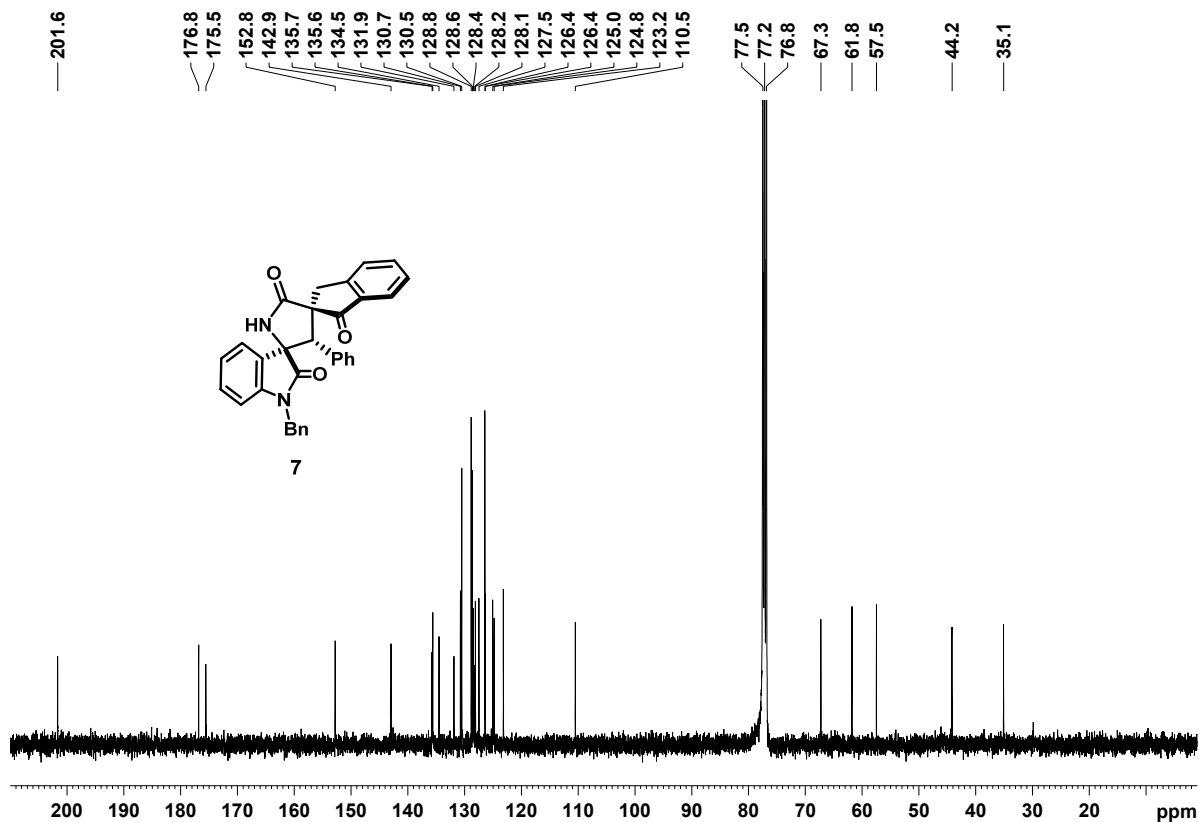
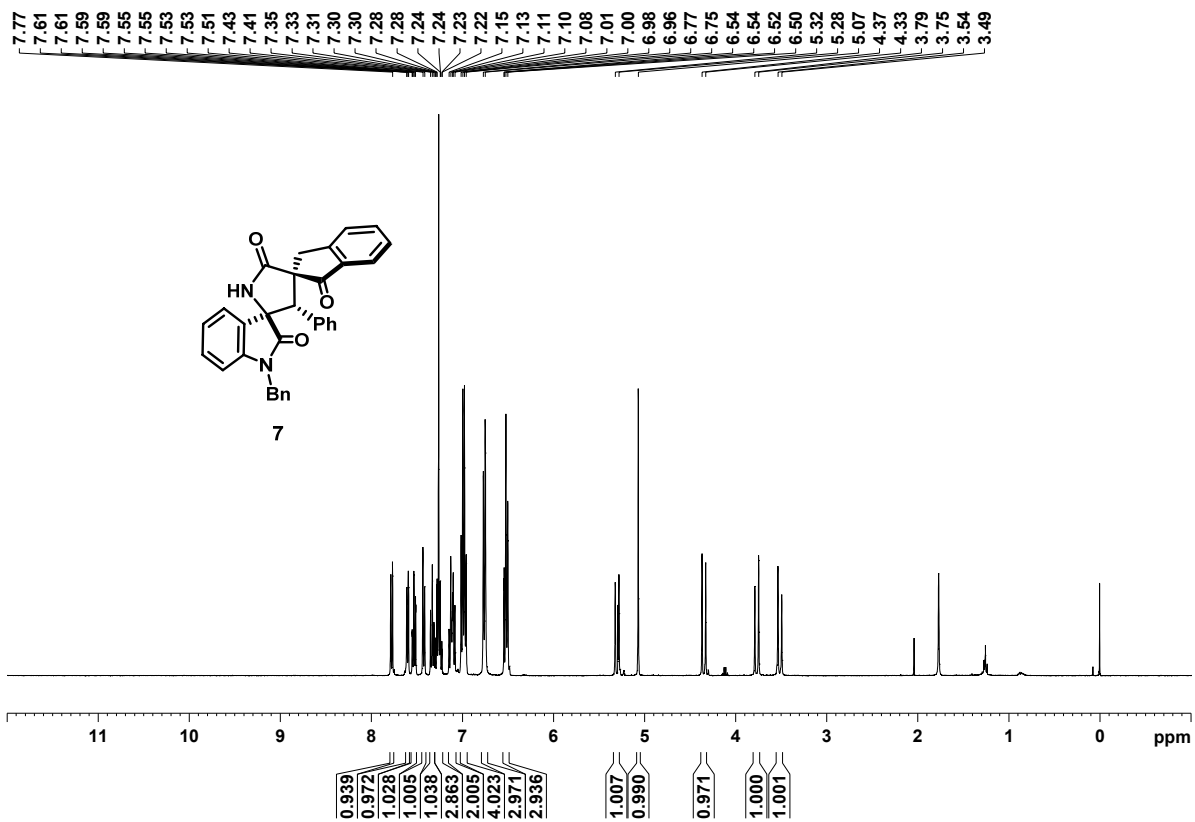
HPLC conditions: Phenomenex Cellulose-1 column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

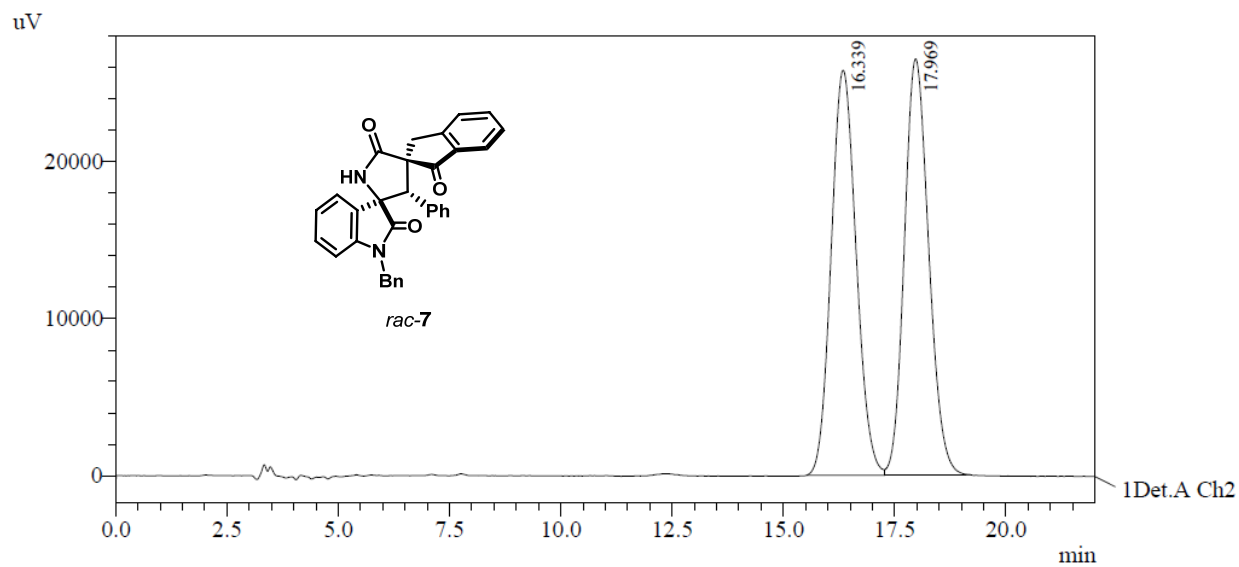


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	4.246	13016467	97.809
2	5.022	291546	2.191
Total		13308012	100.000



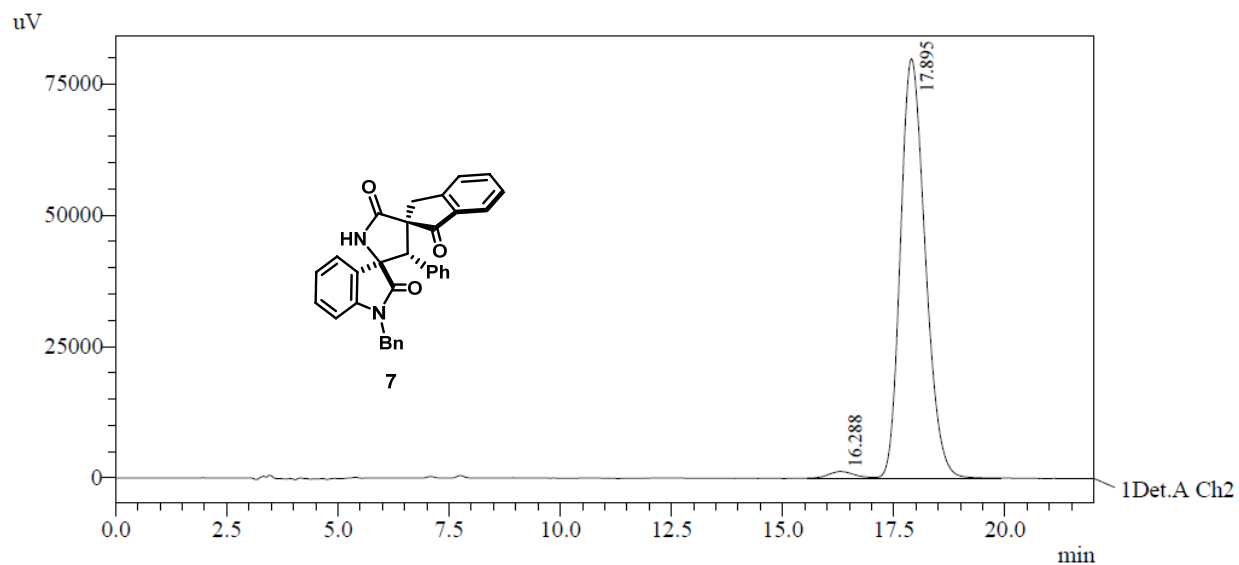


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	16.339	1006117	49.929
2	17.969	1008967	50.071
Total		2015084	100.000

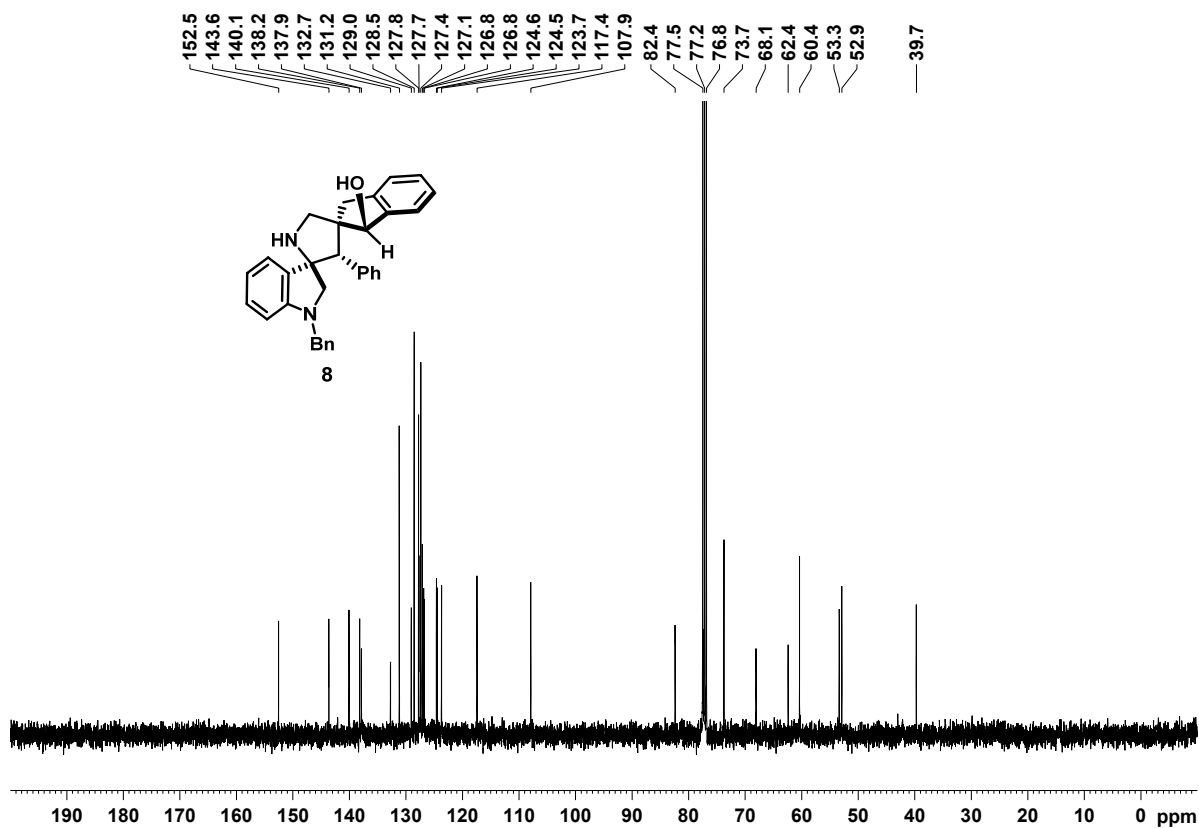
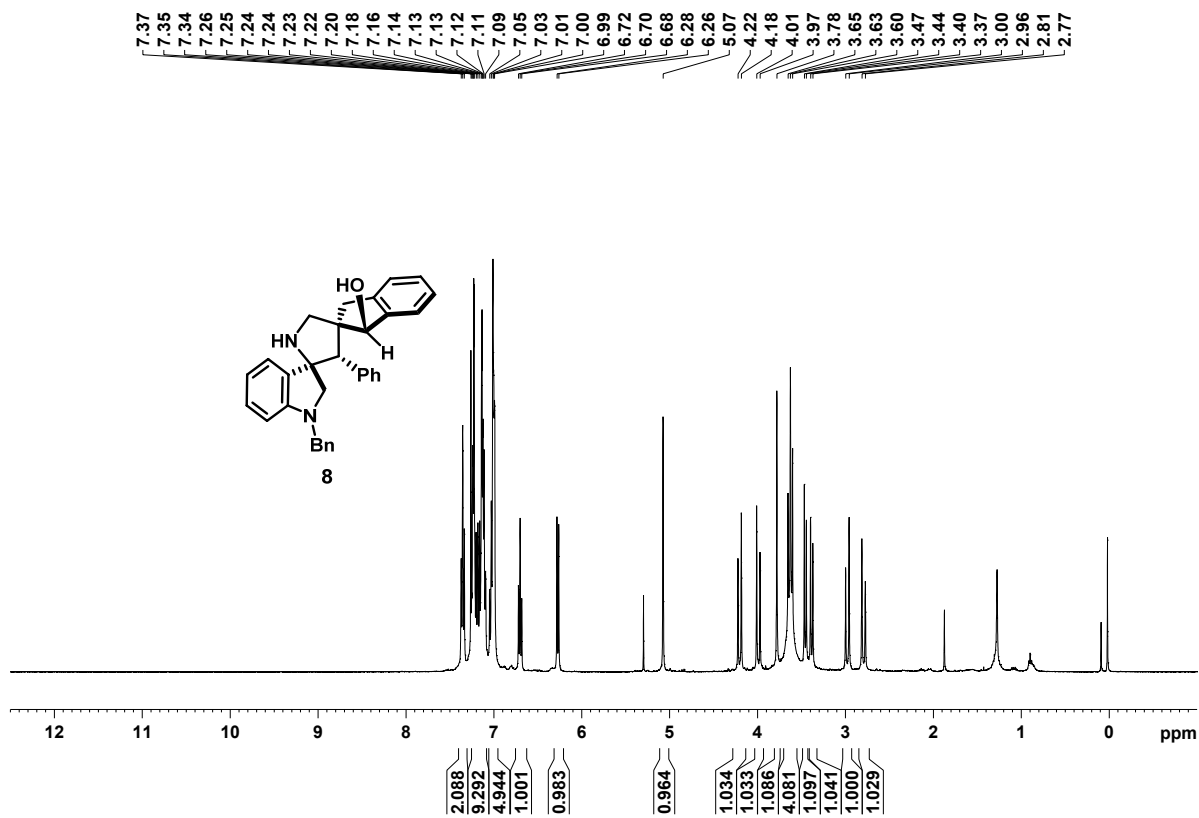
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C



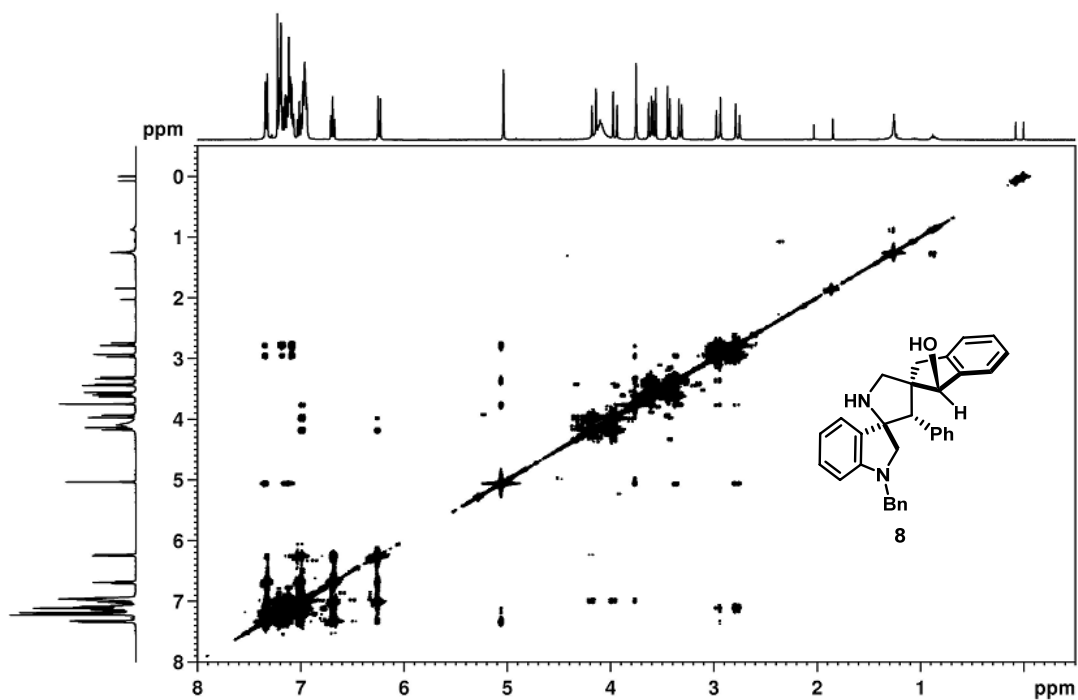
PeakTable

Detector A Ch2 254nm

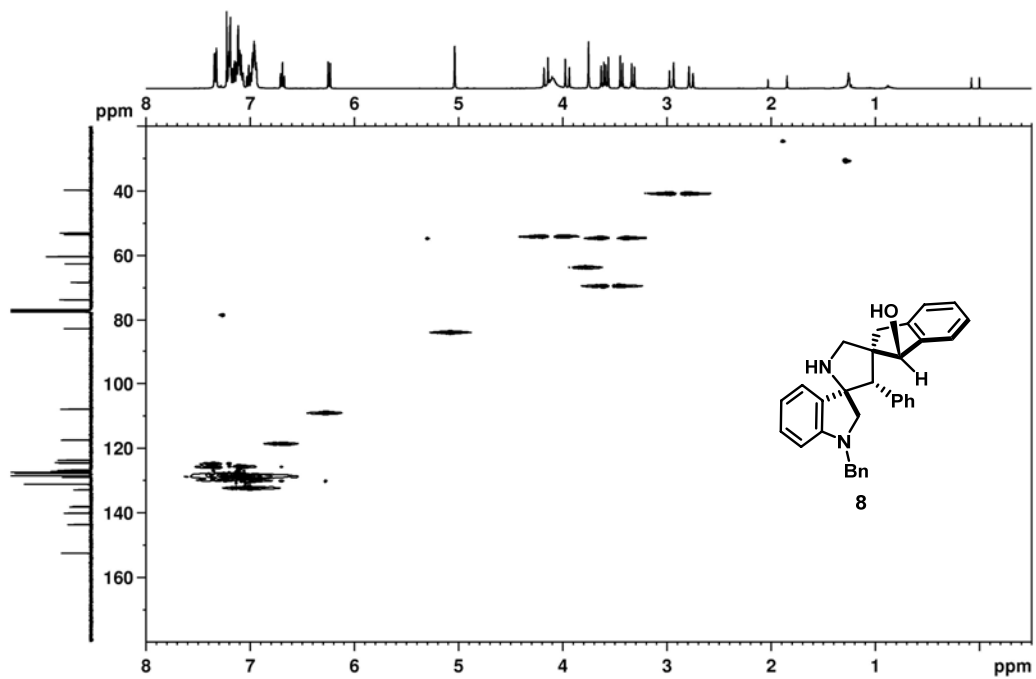
Peak#	Ret. Time	Area	Area %
1	16.288	50922	1.620
2	17.895	3093017	98.380
Total		3143940	100.000



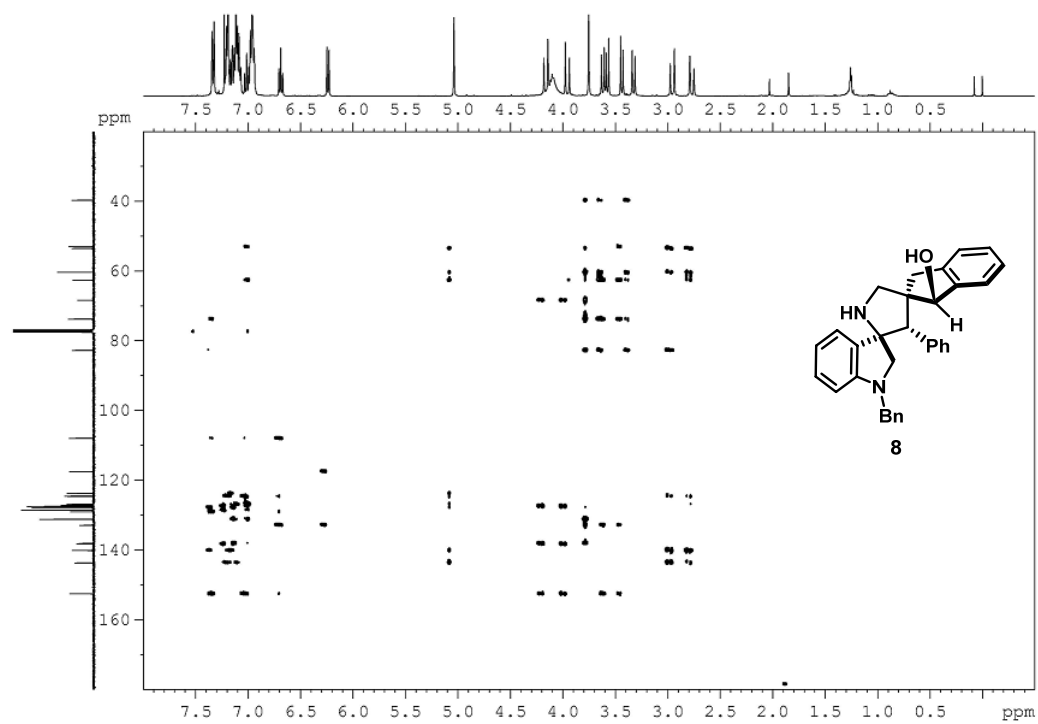
COSY spectra of compound 8



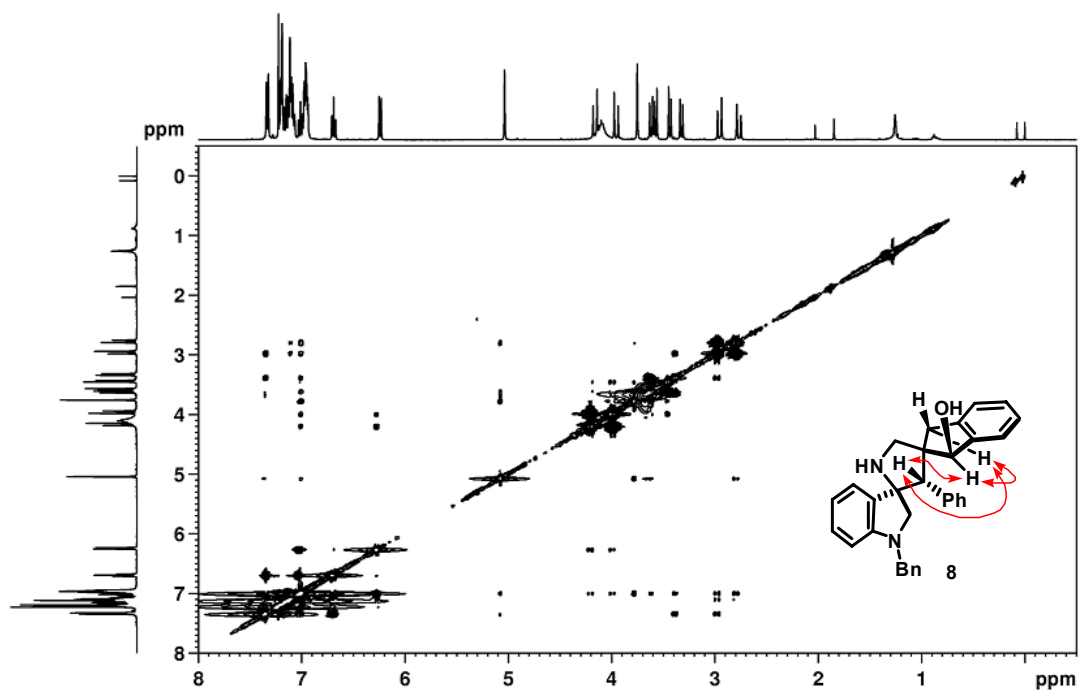
HSQC spectra of compound 8

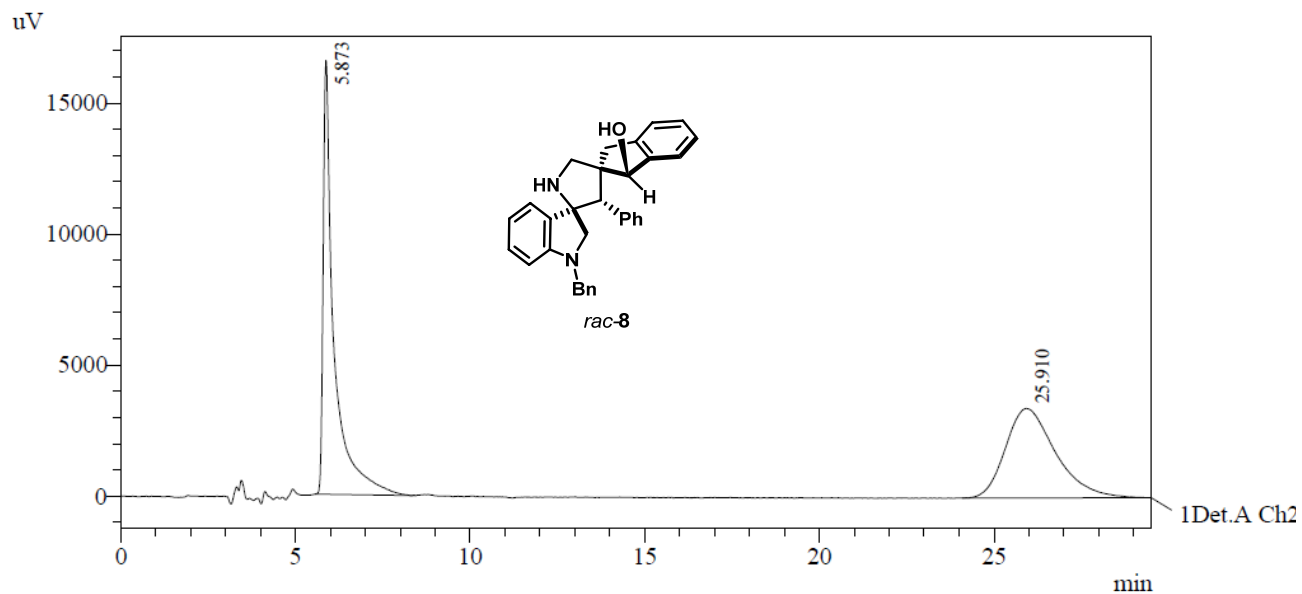


HMBC spectra of compound 8



NOESY spectra of compound 8



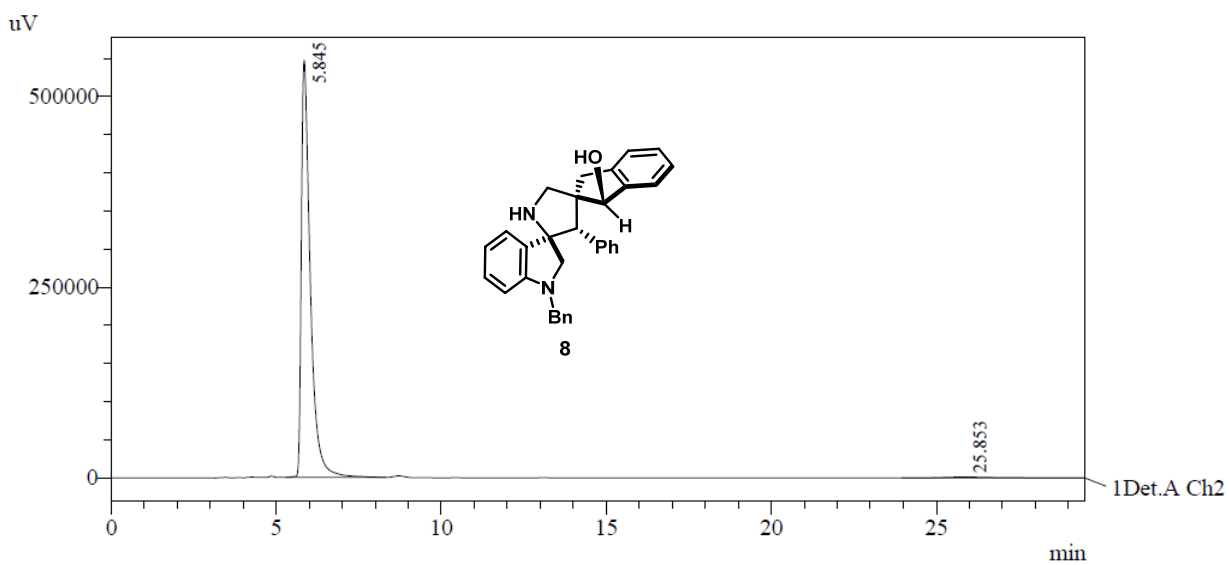


PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.873	354615	51.061
2	25.910	339884	48.939
Total		694500	100.000

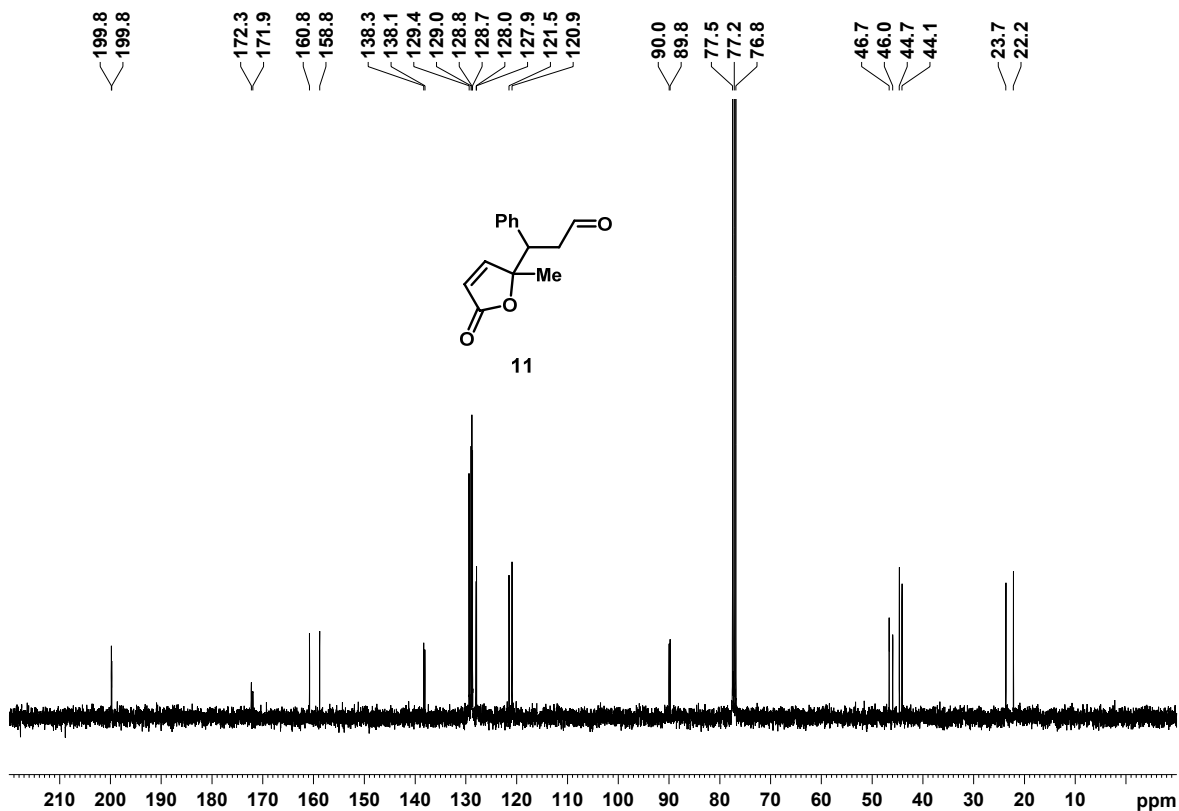
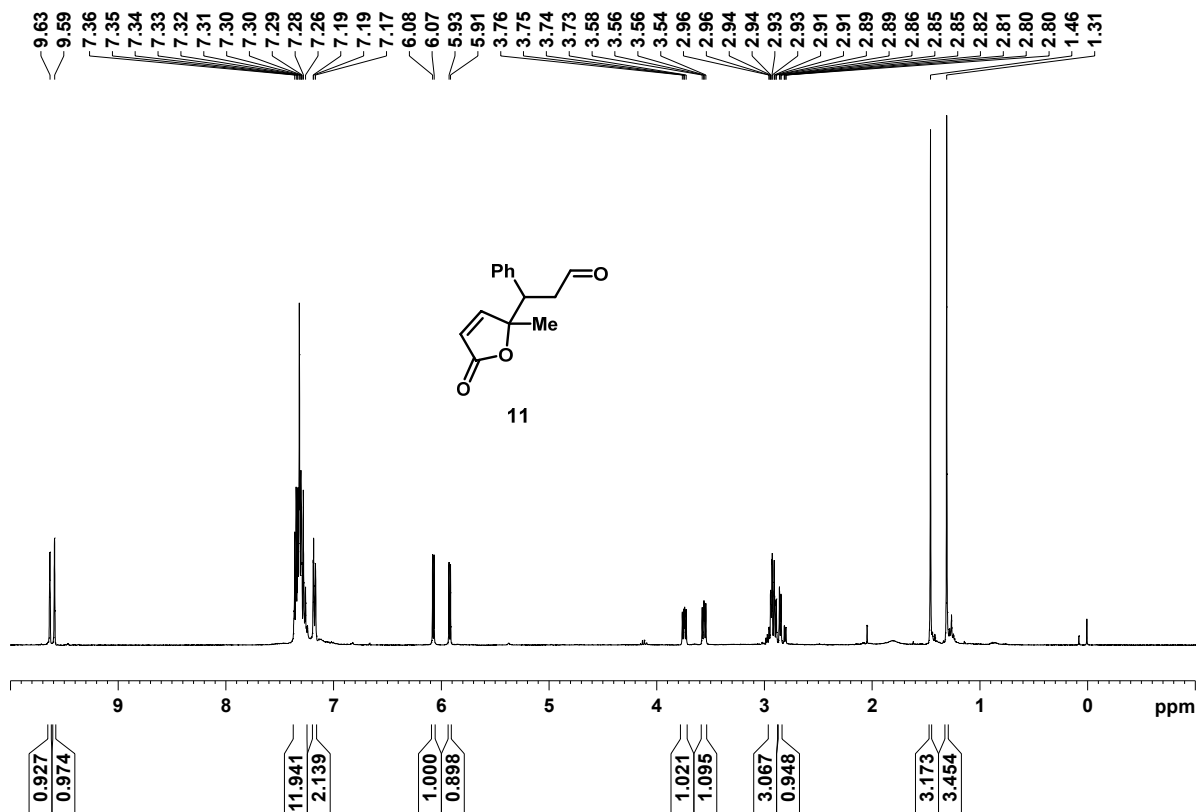
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C

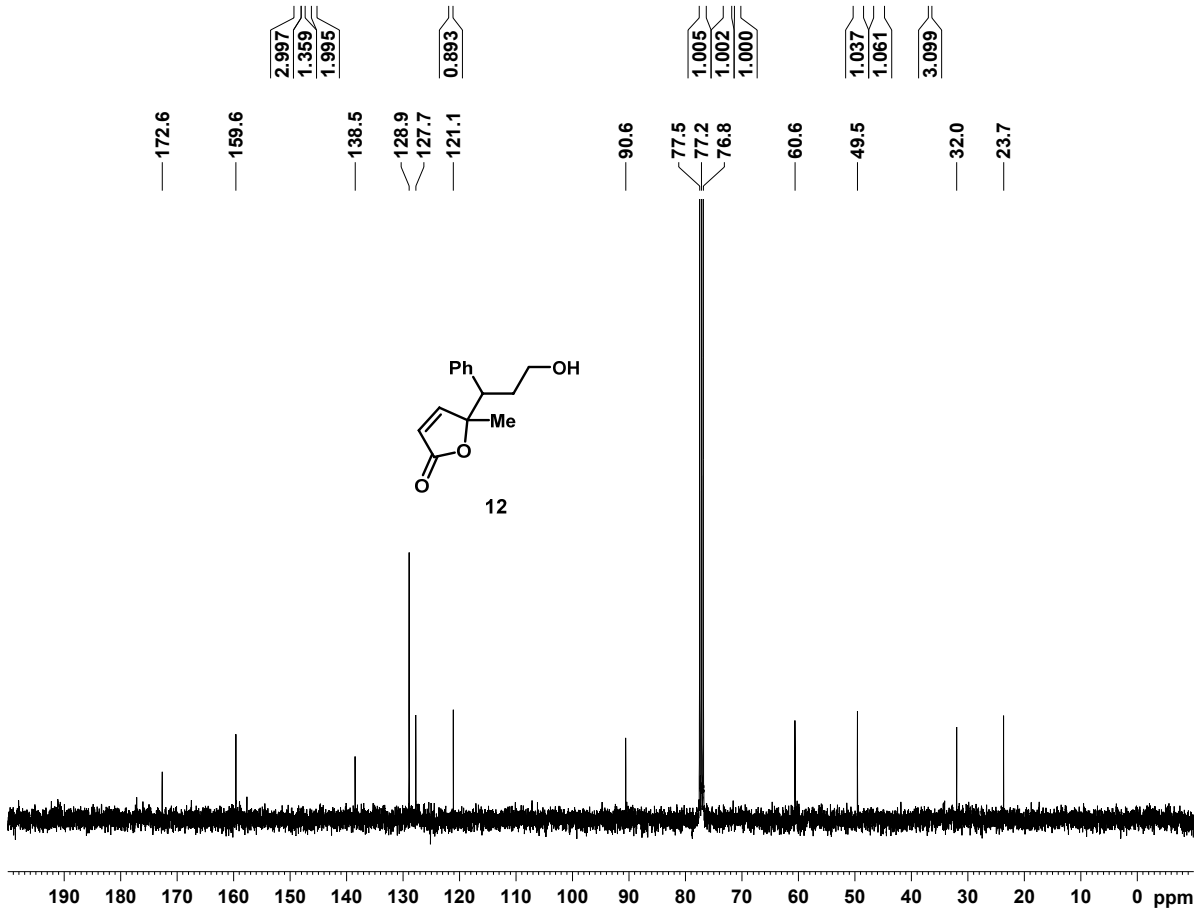
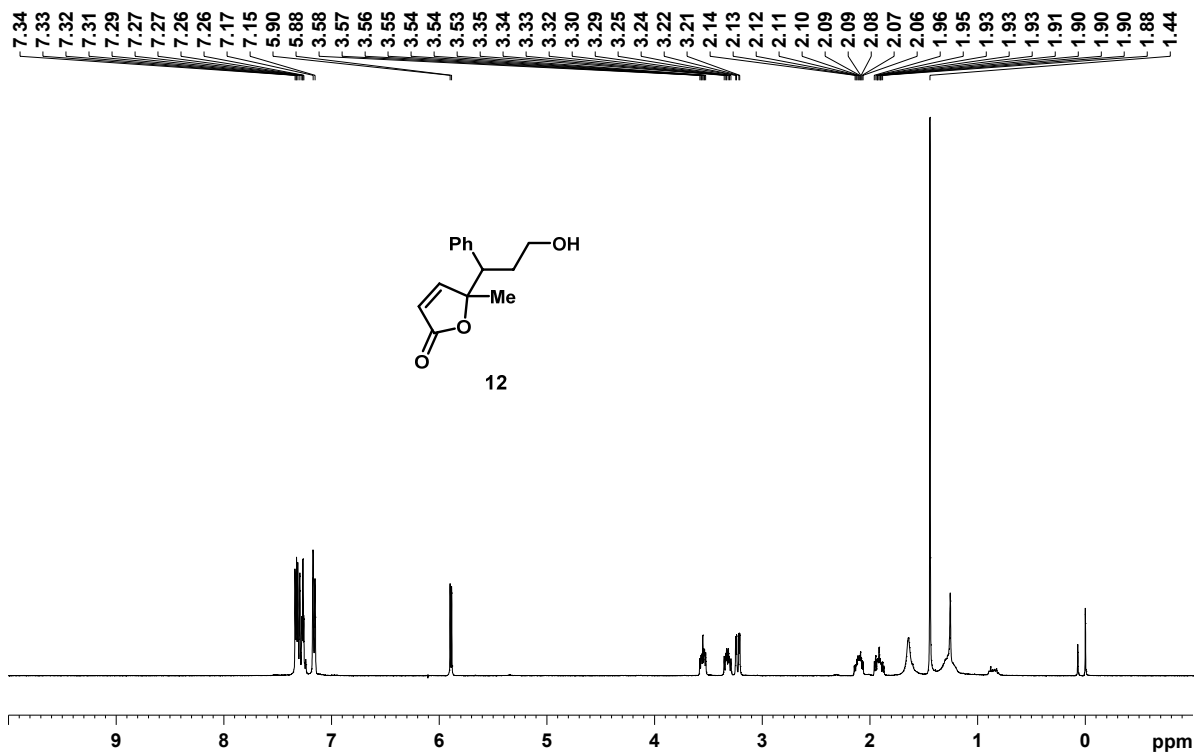


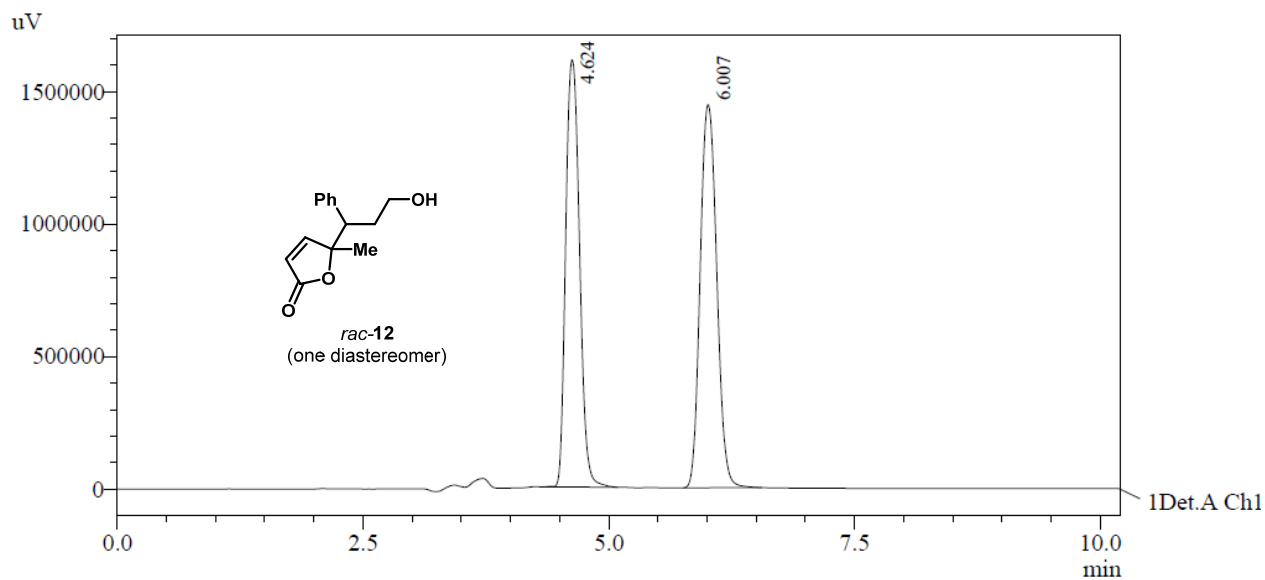
PeakTable

Detector A Ch2 254nm

Peak#	Ret. Time	Area	Area %
1	5.845	10331547	98.701
2	25.853	135995	1.299
Total		10467542	100.000





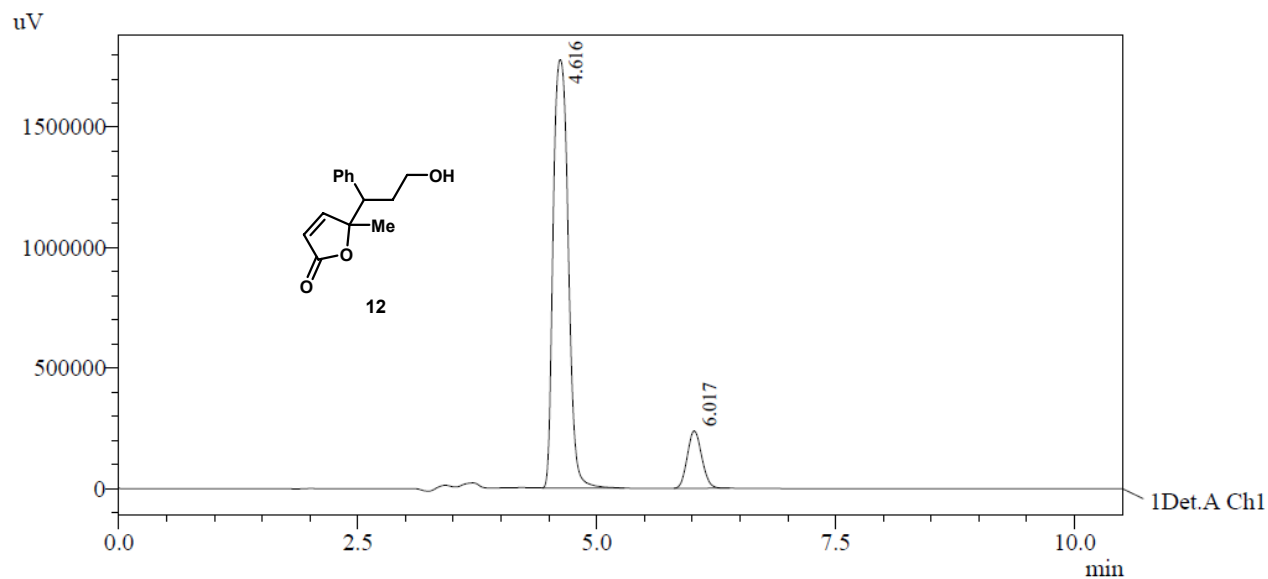


PeakTable

Detector A Ch1 210nm

Peak#	Ret. Time	Area	Area %
1	4.624	15781645	48.203
2	6.007	16958245	51.797
Total		32739890	100.000

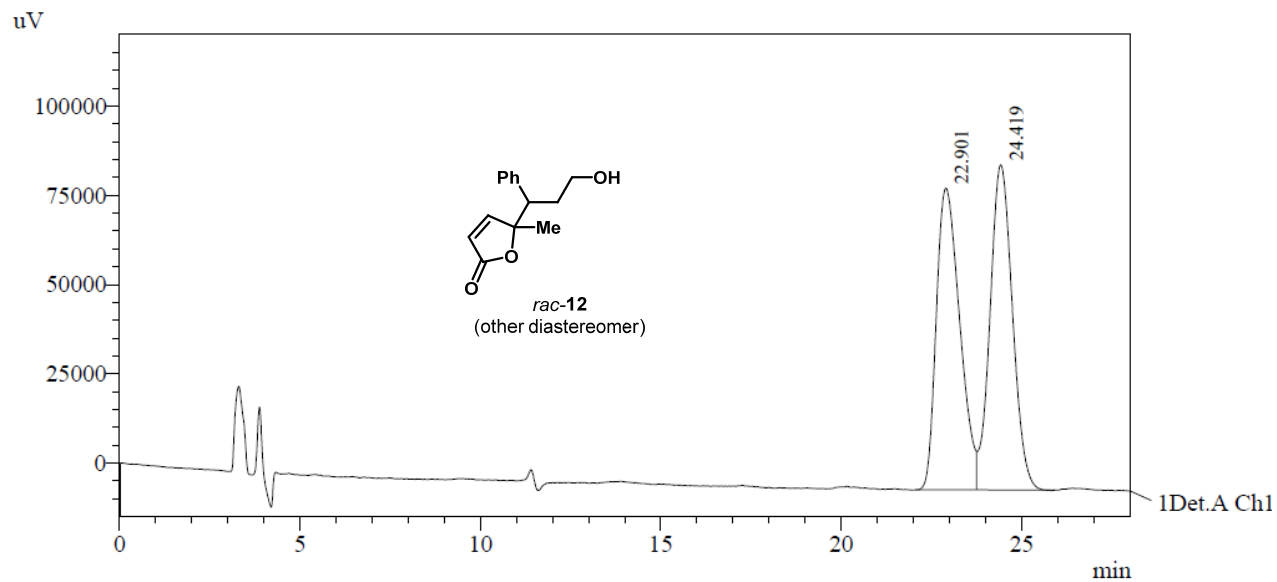
HPLC conditions: Daicel Chiralpak AD-H column; 50:50 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C



PeakTable

Detector A Ch1 210nm

Peak#	Ret. Time	Area	Area %
1	4.616	19465059	88.592
2	6.017	2506566	11.408
Total		21971626	100.000

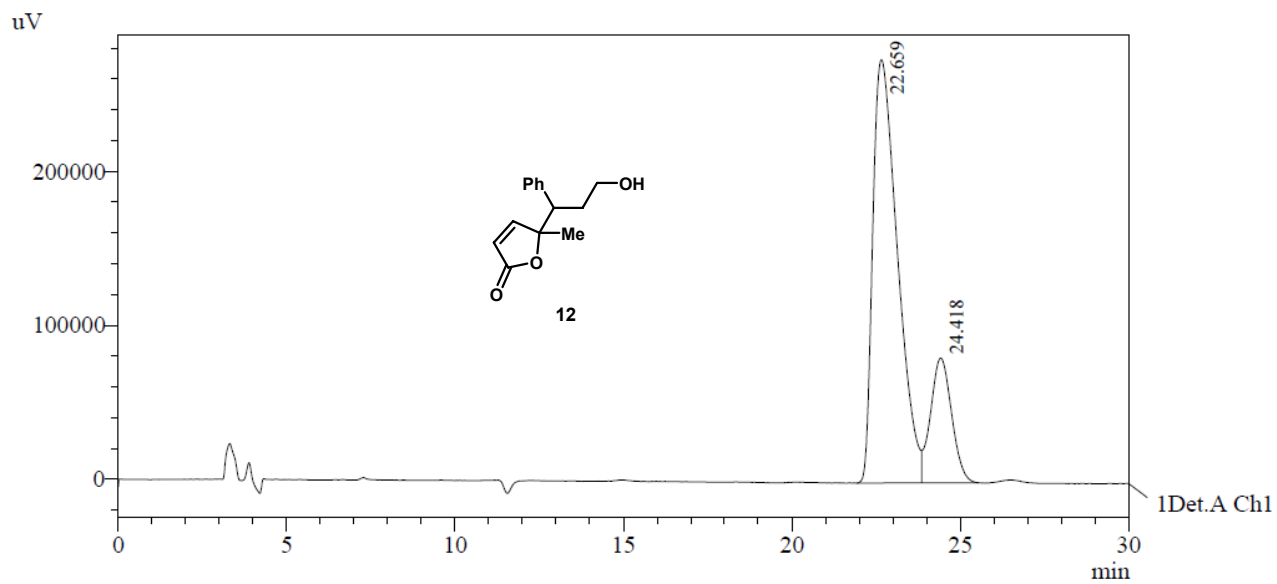


PeakTable

Detector A Ch1 210nm

Peak#	Ret. Time	Area	Area %
1	22.901	3813501	49.104
2	24.419	3952667	50.896
Total		7766168	100.000

HPLC conditions: Daicel Chiralpak AS-H column; 90:10 *n*-Hexane/EtOH, 1.0 mL/min; 20 °C



PeakTable

Detector A Ch1 210nm

Peak#	Ret. Time	Area	Area %
1	22.659	14038257	79.849
2	24.418	3542653	20.151
Total		17580910	100.000