

**Organocatalytic Domino Michael /Hemiacetalization of β -Tetralones
and α,β -Unsaturated Aldehydes: Synthesis of
2,3,5,6-Tetrahydro-1-Alkyl/Aryl-1*H*-Benzo[*f*]Chromen-3-*Ol*
Derivatives**

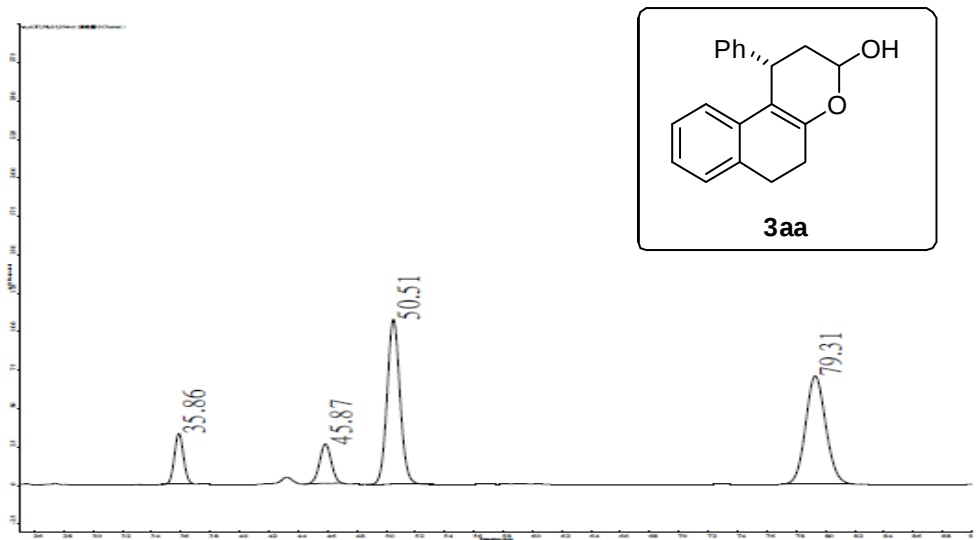
Jung-Hsuan Chen, Chihliang Chang, Hui-Ju Chang and Kwunmin Chen*

Department of Chemistry, National Taiwan Normal University, Taipei, Taiwan 116,

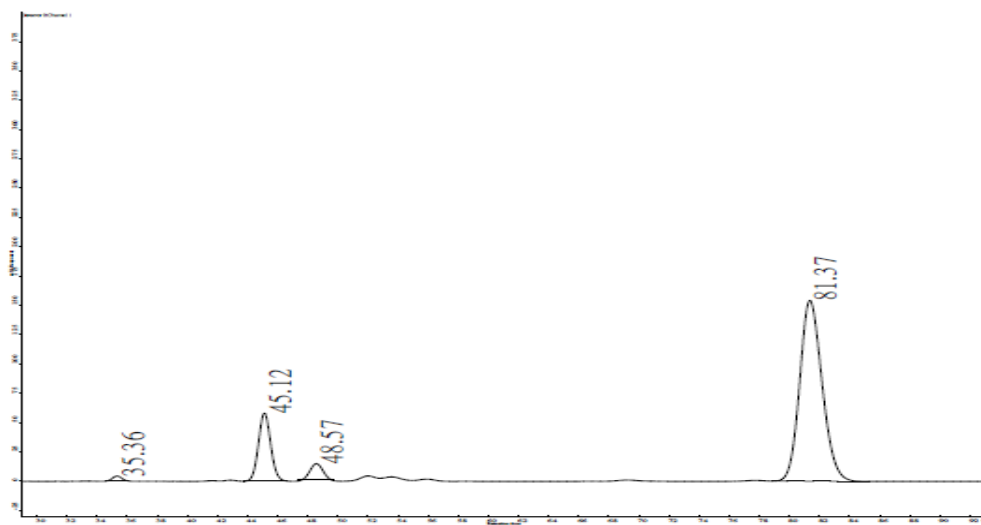
ROC.

Contents

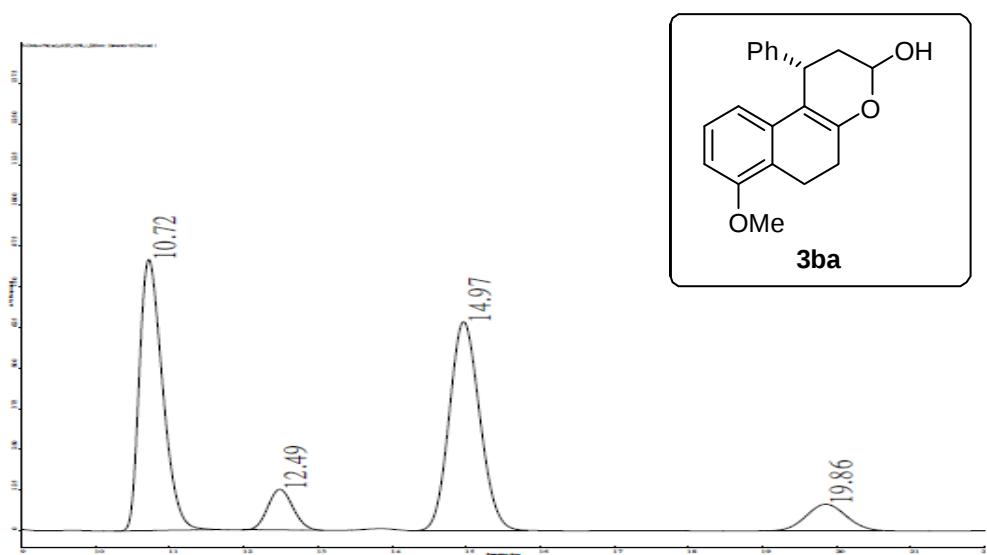
HPLC spectrum of compound 3aa -----	S2
HPLC spectrum of compound 3ba -----	S3
HPLC spectrum of compound 3ca -----	S4
HPLC spectrum of compound 3da -----	S5
HPLC spectrum of compound 3ea -----	S6
HPLC spectrum of compound 3fa -----	S7
HPLC spectrum of compound 3ab -----	S8
HPLC spectrum of compound 3ac -----	S9
HPLC spectrum of compound 3ad -----	S10
HPLC spectrum of compound 3ae -----	S11
HPLC spectrum of compound 3af -----	S12
HPLC spectrum of compound 3ag -----	S13
HPLC spectrum of compound 3bf -----	S14
HPLC spectrum of compound 3df -----	S15
HPLC spectrum of compound 3ef -----	S16
HPLC spectrum of compound 3ff -----	S17
HPLC spectrum of compound 5 -----	S18



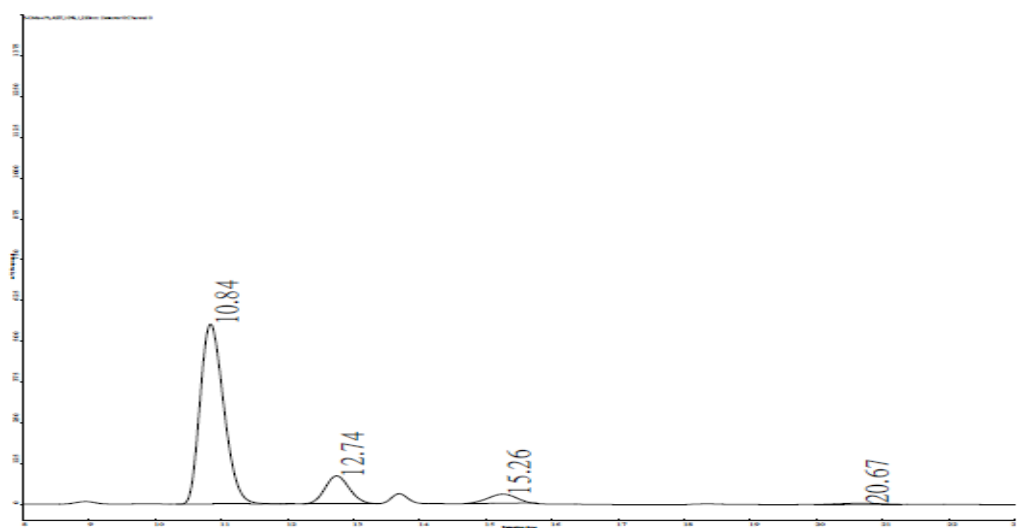
#	成分峰名稱	滯留時間	Area	百分比	濃度
0		35.860	1400.54	8.70	0.00
1		45.869	1413.55	8.78	0.00
2		50.509	6565.81	40.80	0.00
3		79.311	6712.31	41.71	0.00



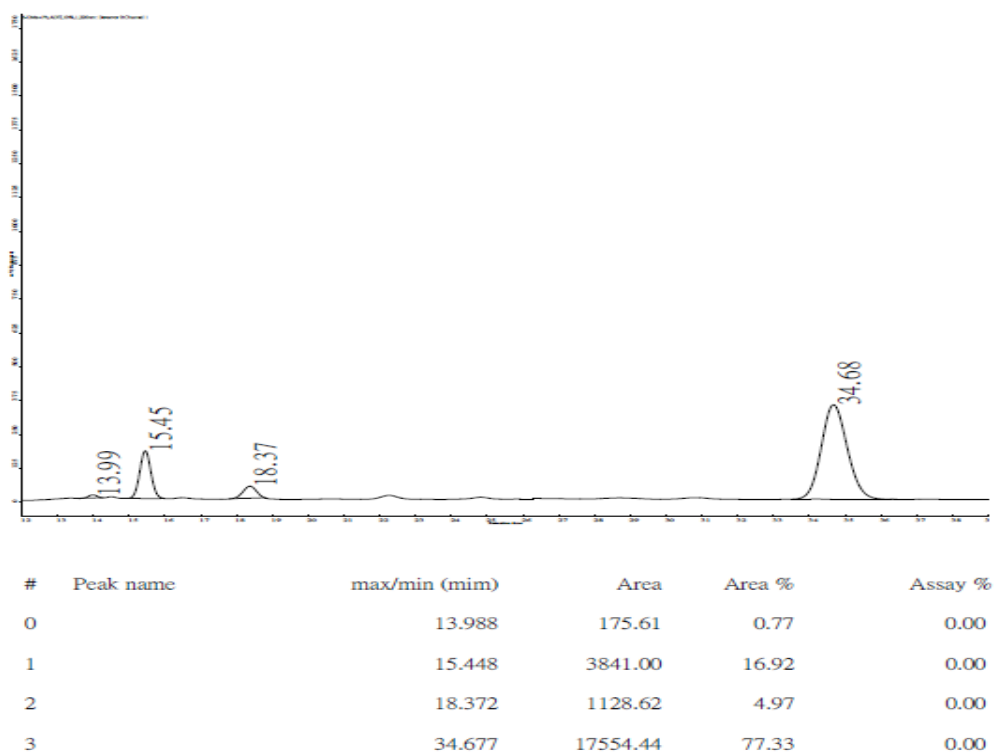
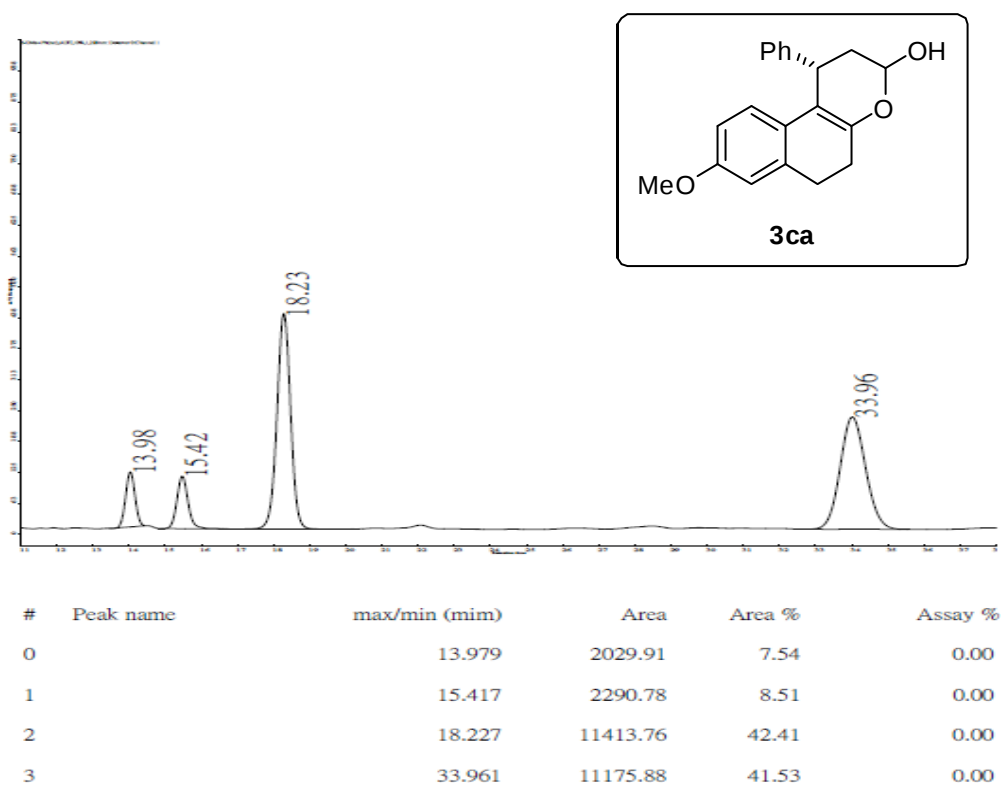
#	Peak name	max/min (min)	Area	Area %	Assay %
0		35.359	169.89	0.84	0.00
1		45.115	3227.49	15.97	0.00
2		48.568	820.46	4.06	0.00
3		81.366	15993.04	79.13	0.00

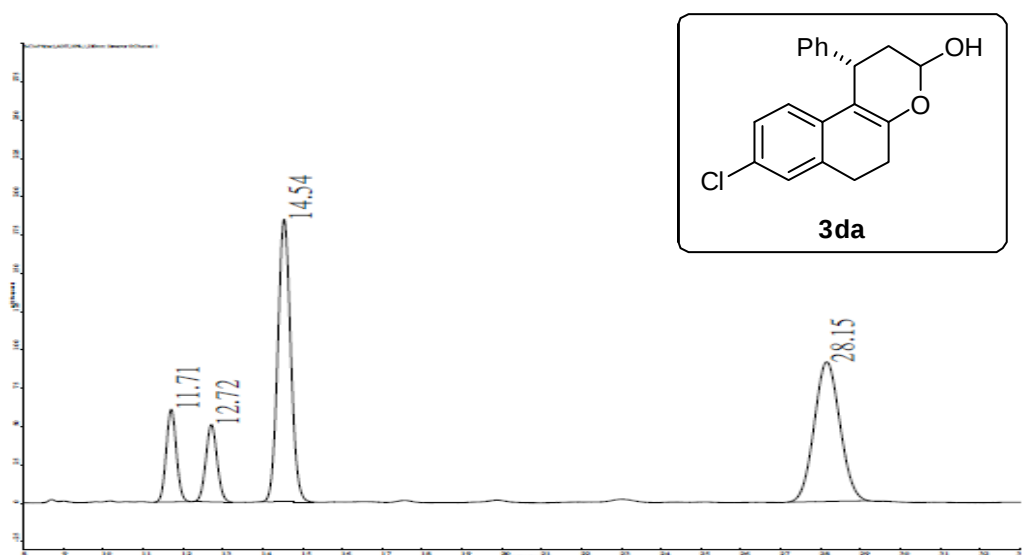


#	Peak name	max/min (mim)	Area	Area %	Assay %
0		10.721	18130.90	42.88	0.00
1		12.488	2926.07	6.92	0.00
2		14.970	18284.82	43.25	0.00
3		19.856	2937.29	6.95	0.00

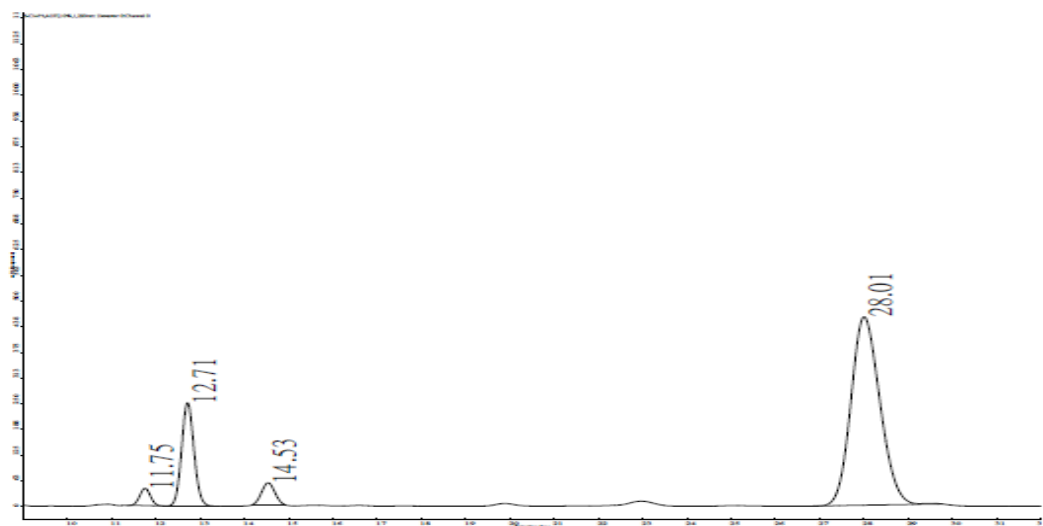


#	Peak name	max/min (mim)	Area	Area %	Assay %
0		10.837	13767.02	81.60	0.00
1		12.744	2155.75	12.78	0.00
2		15.258	826.90	4.90	0.00
3		20.673	121.78	0.72	0.00

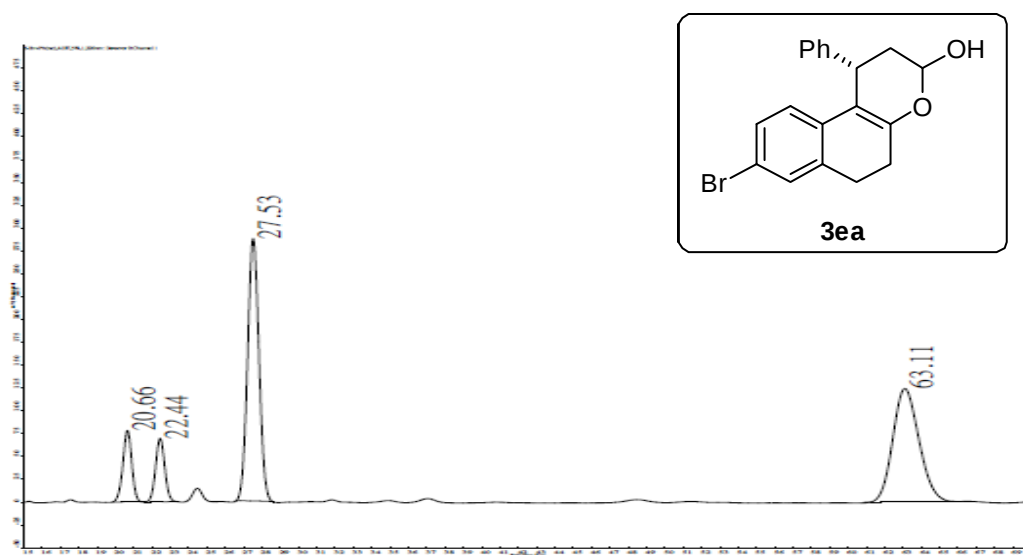




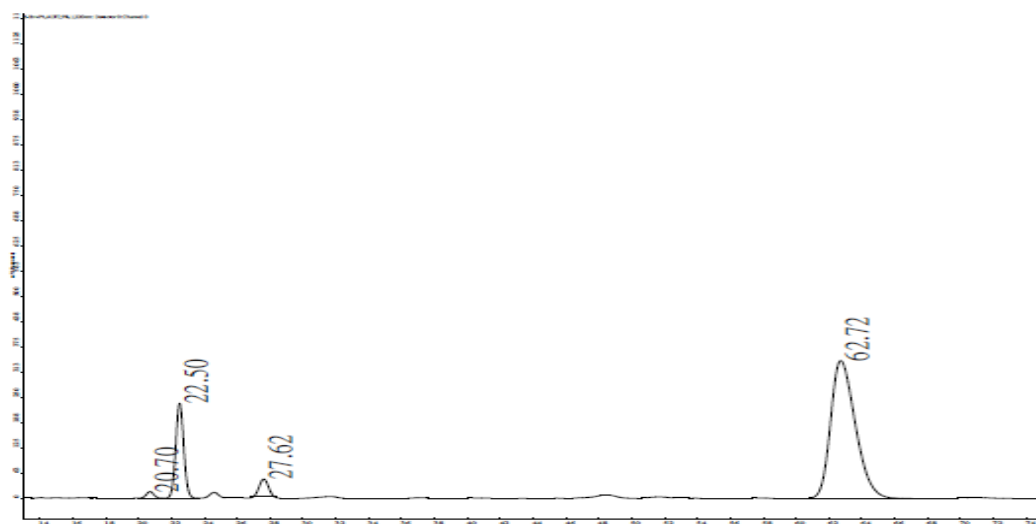
#	Peak name	max/min (min)	Area	Area %	Assay %
0		11.709	1074.73	10.42	0.00
1		12.717	990.50	9.61	0.00
2		14.545	4156.51	40.31	0.00
3		28.146	4088.69	39.66	0.00



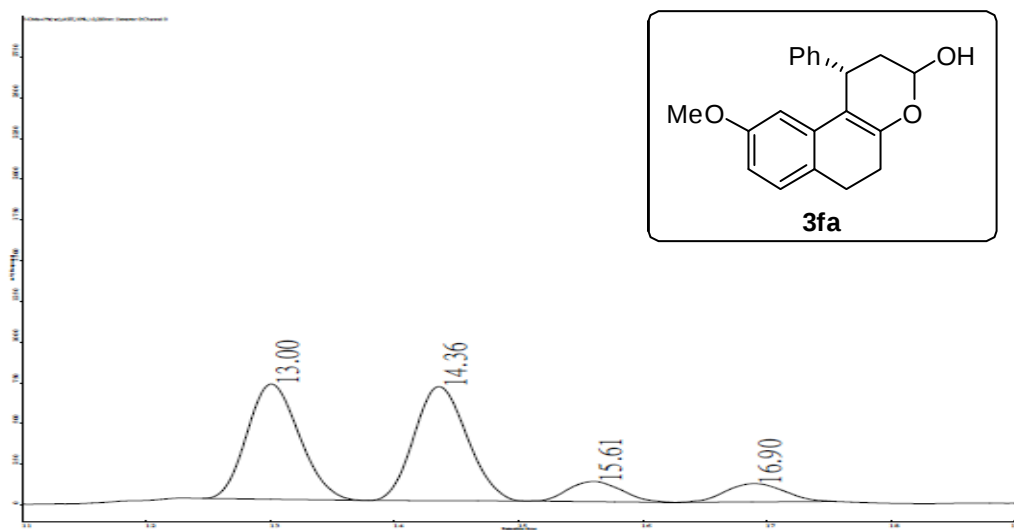
#	Peak name	max/min (min)	Area	Area %	Assay %
0		11.753	702.93	2.54	0.00
1		12.715	4884.12	17.68	0.00
2		14.529	1130.91	4.09	0.00
3		28.010	20903.40	75.68	0.00



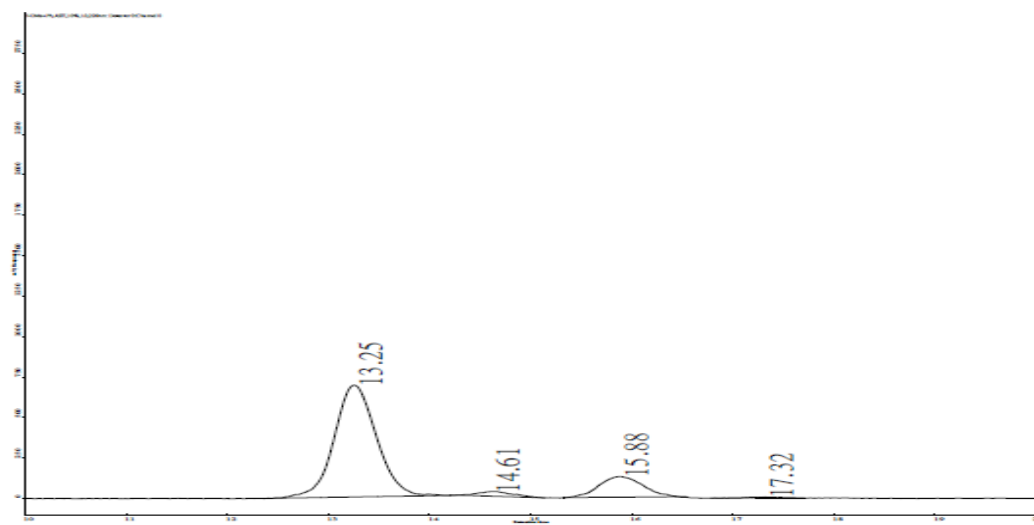
#	Peak name	max/min (min)	Area	Area %	Assay %
0		20.661	2627.64	8.85	0.00
1		22.444	2416.76	8.14	0.00
2		27.526	12381.98	41.69	0.00
3		63.114	12273.09	41.32	0.00



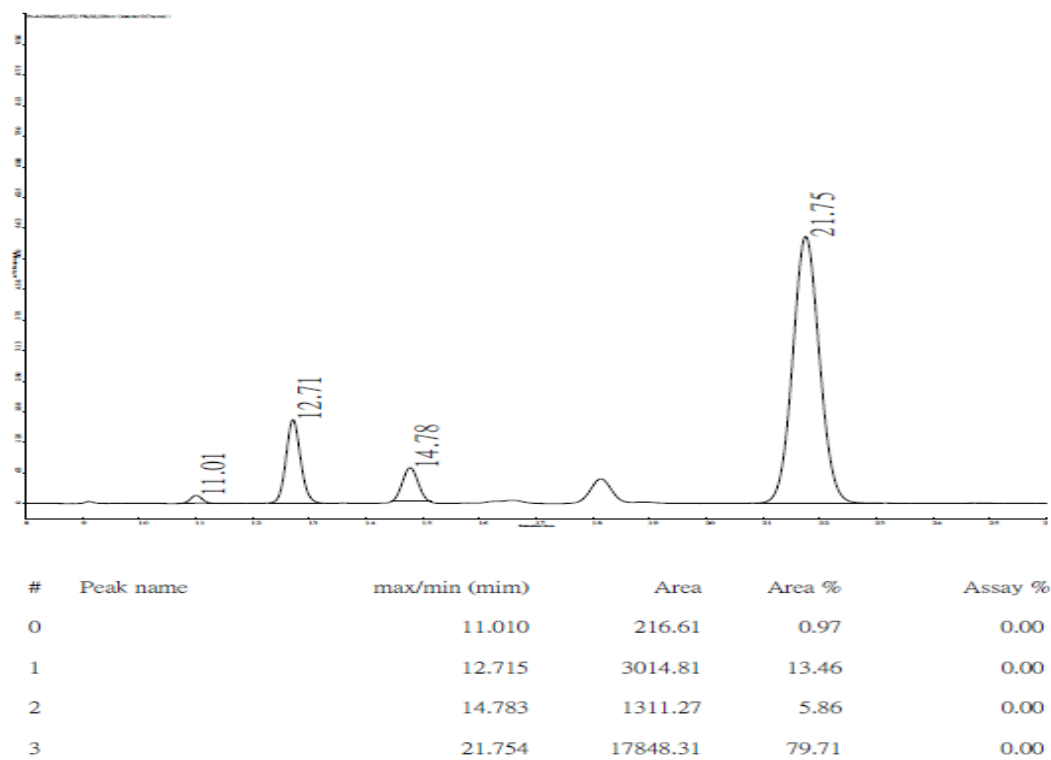
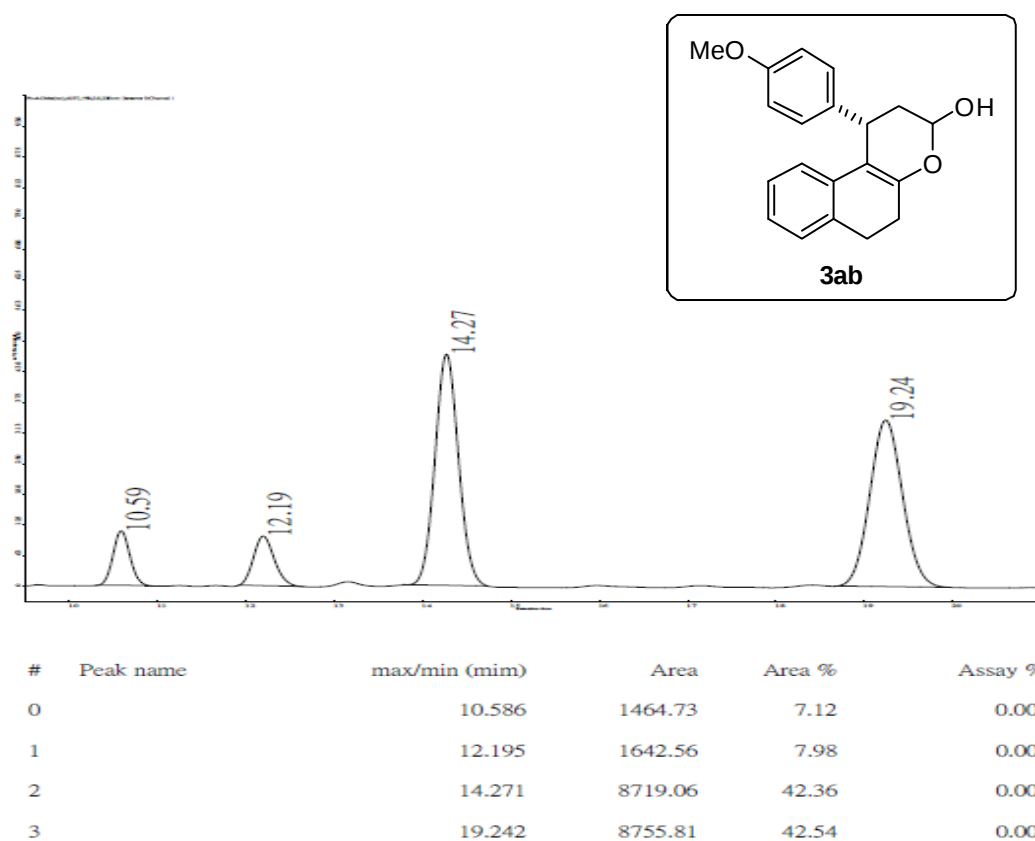
#	Peak name	max/min (min)	Area	Area %	Assay %
0		20.698	520.01	1.13	0.00
1		22.498	8016.13	17.45	0.00
2		27.617	1676.22	3.65	0.00
3		62.722	35718.43	77.77	0.00

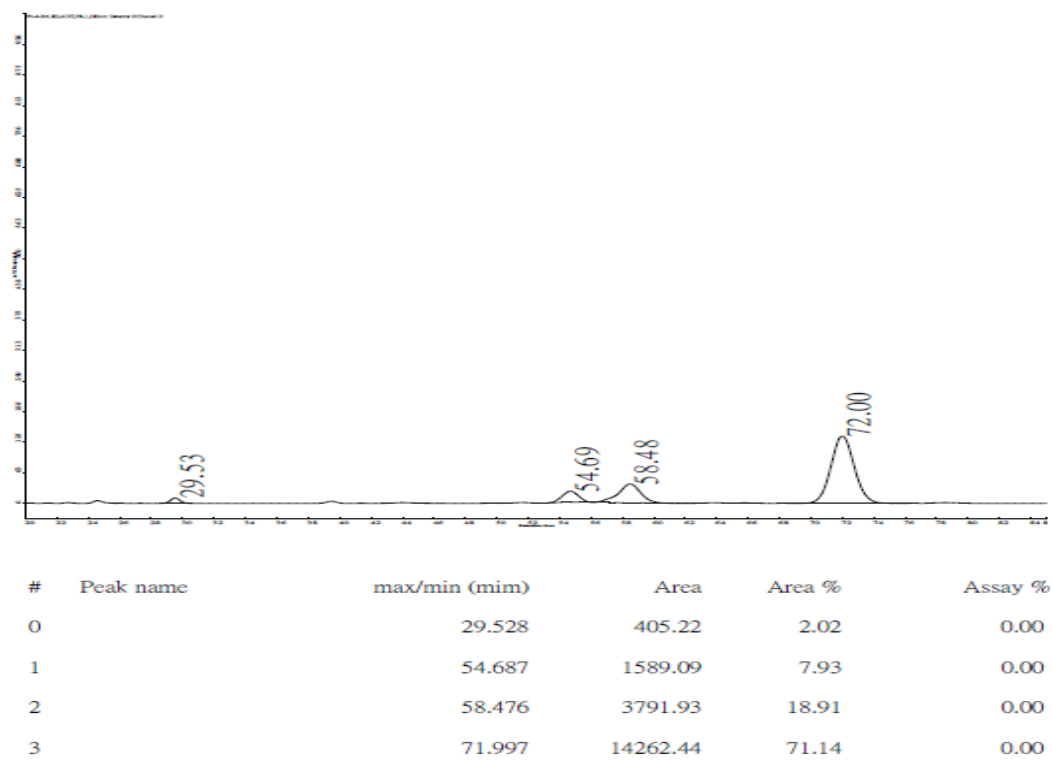
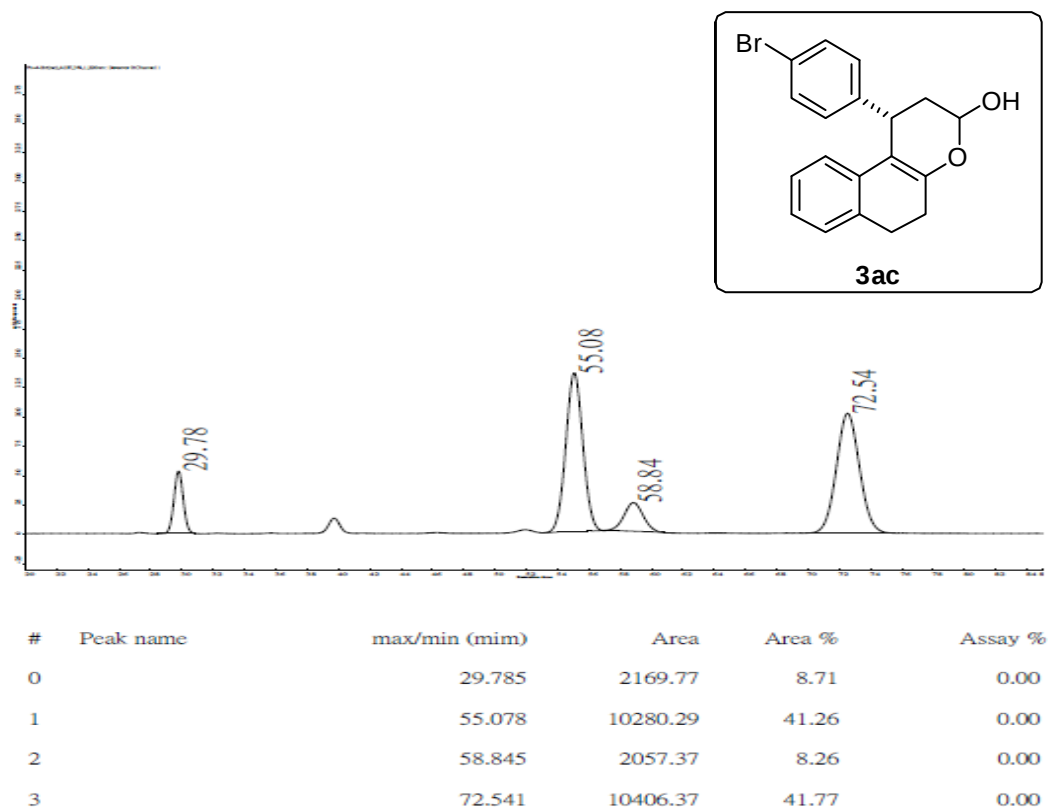


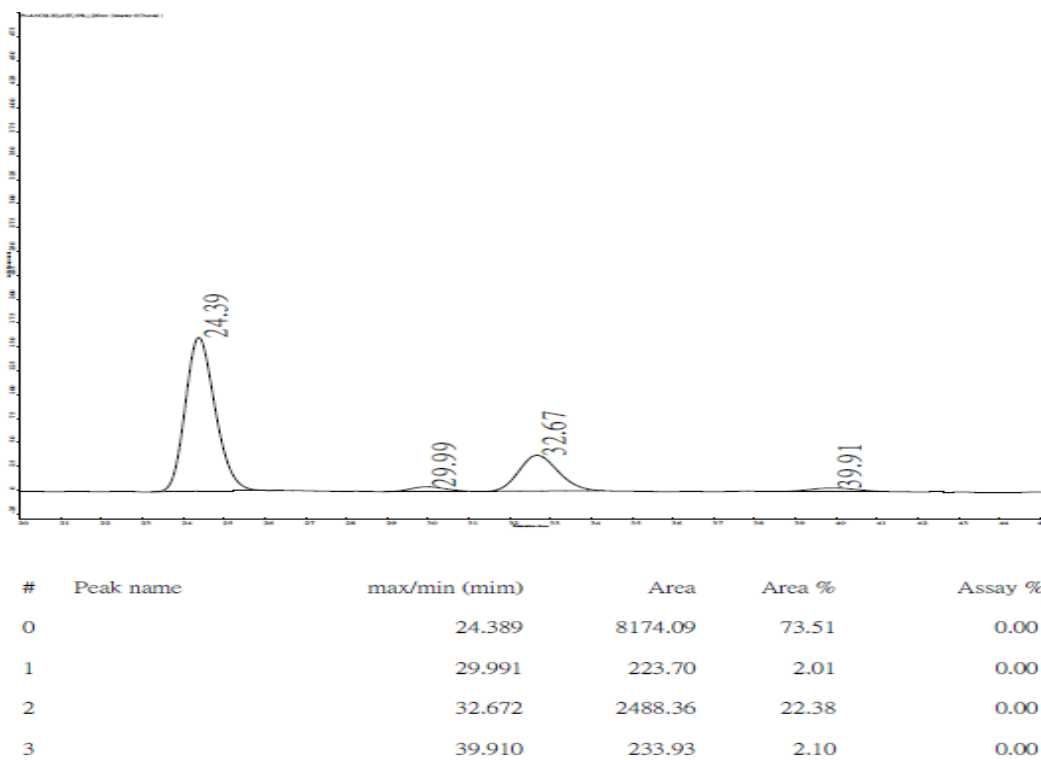
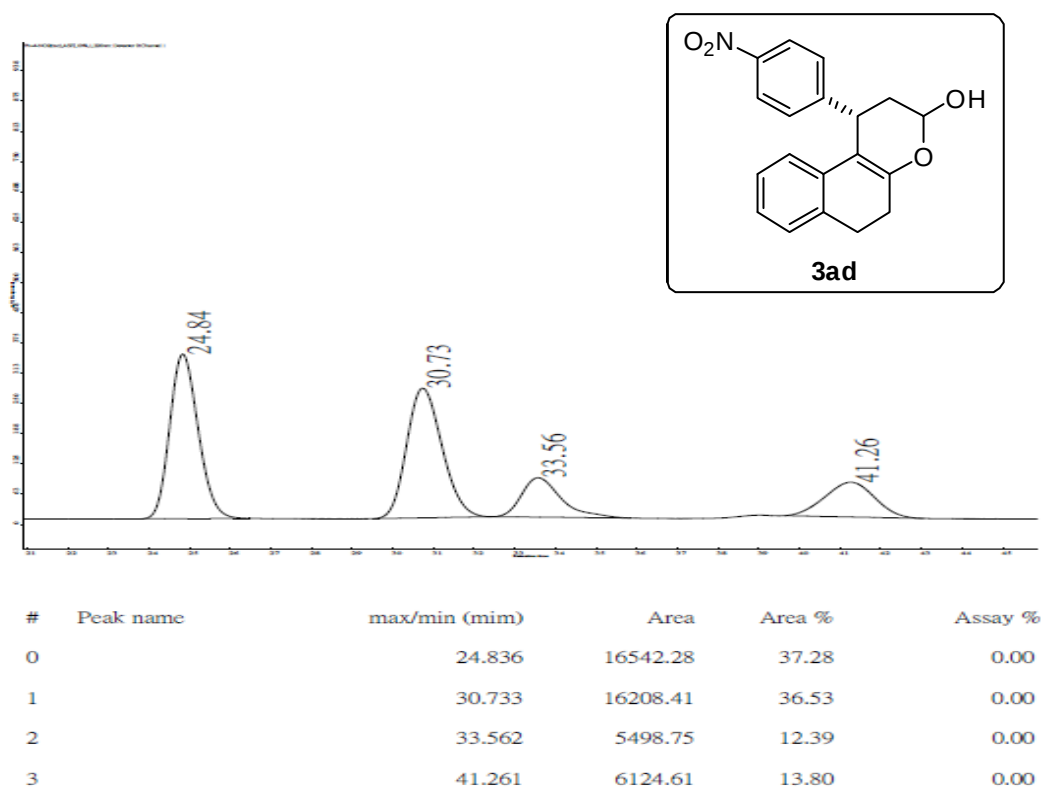
#	Peak name	max/min (min)	Area	Area %	Assay %
0		13.005	20757.61	42.36	0.00
1		14.360	20832.01	42.51	0.00
2		15.608	3712.14	7.58	0.00
3		16.899	3699.45	7.55	0.00

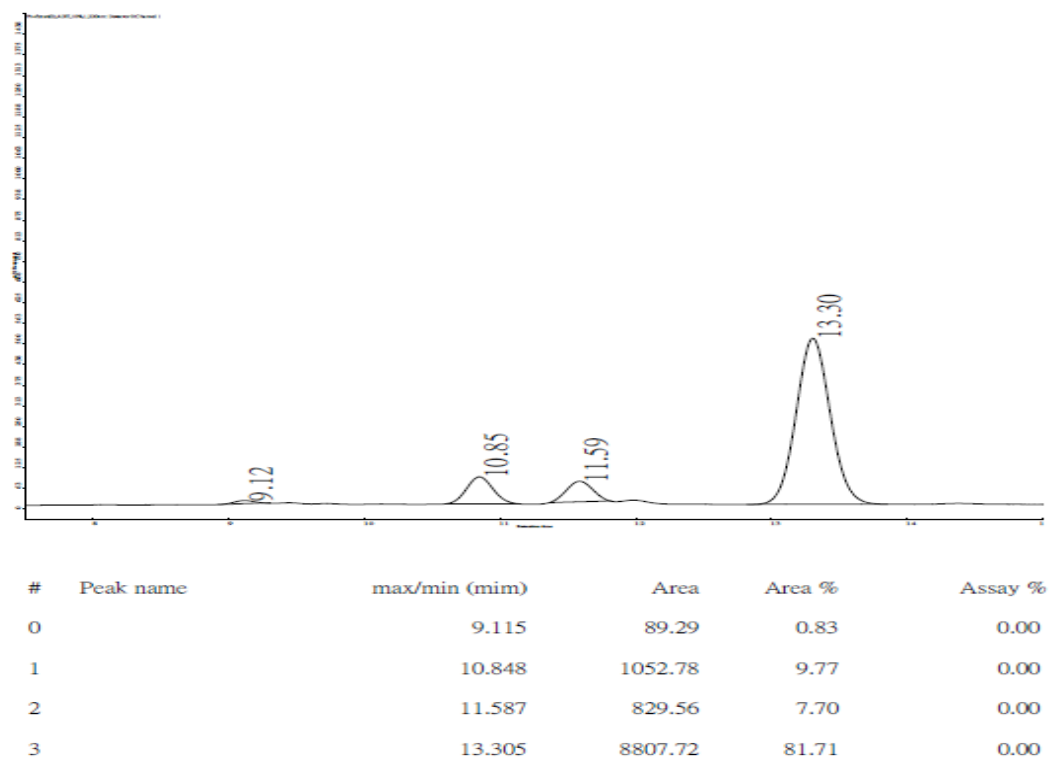
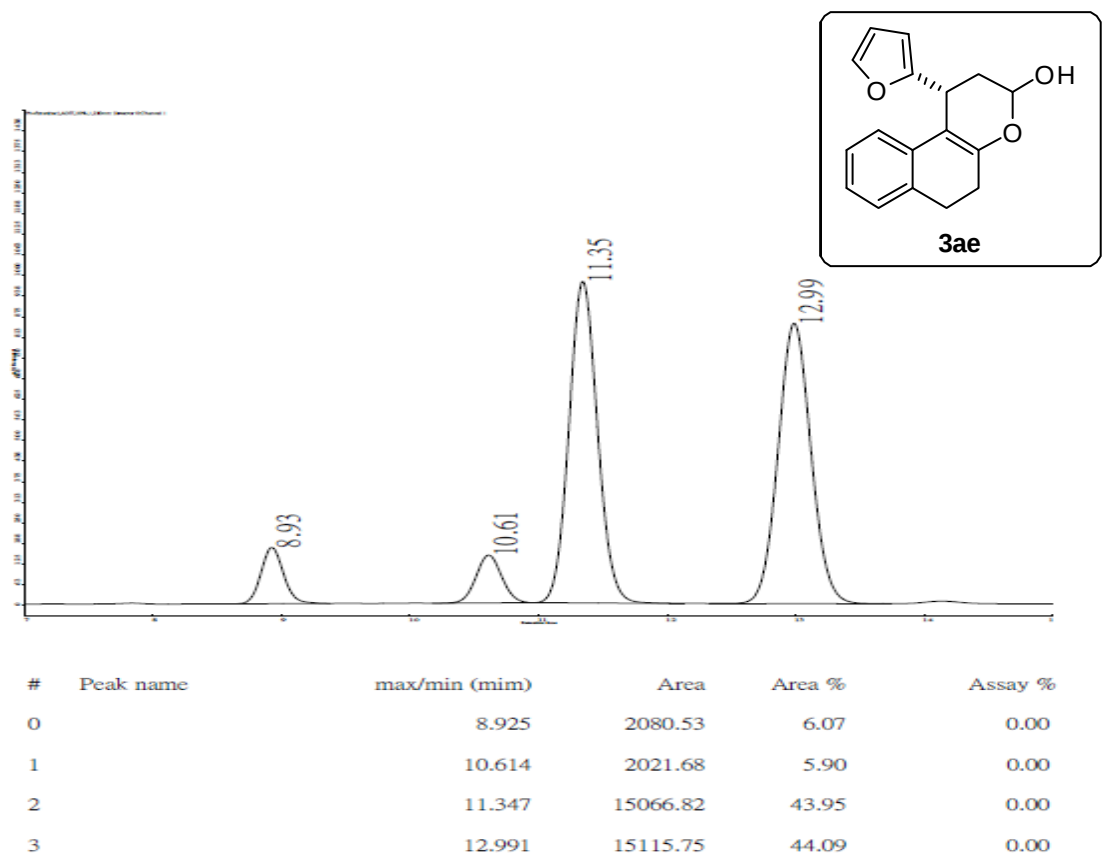


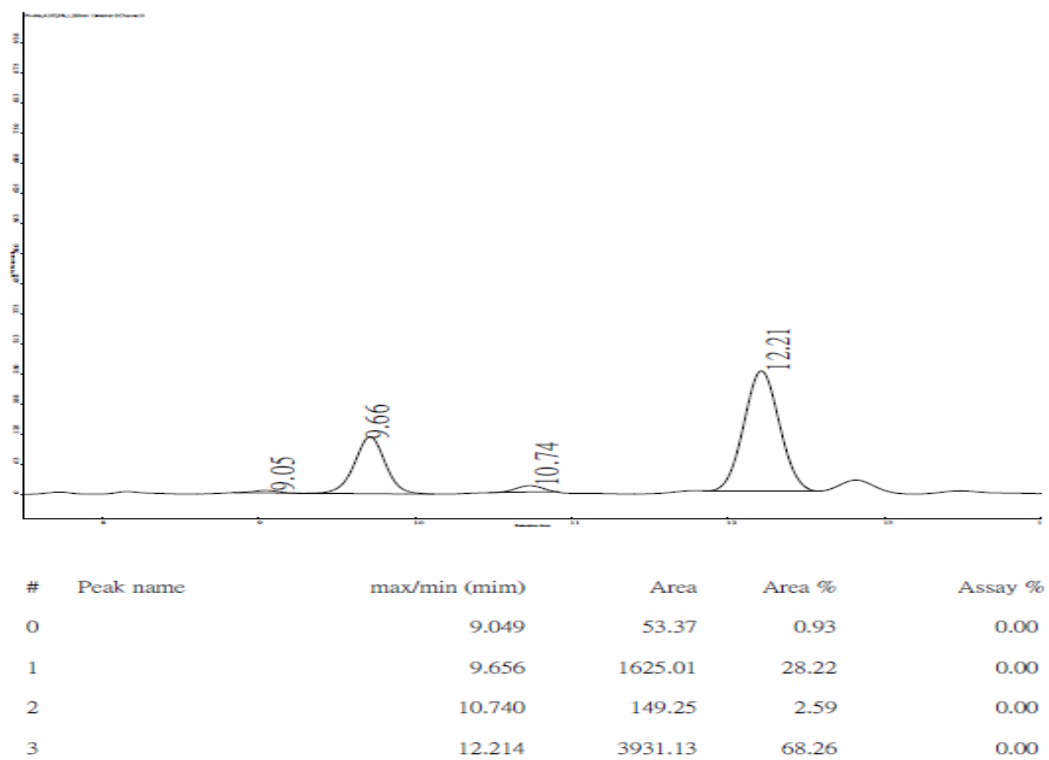
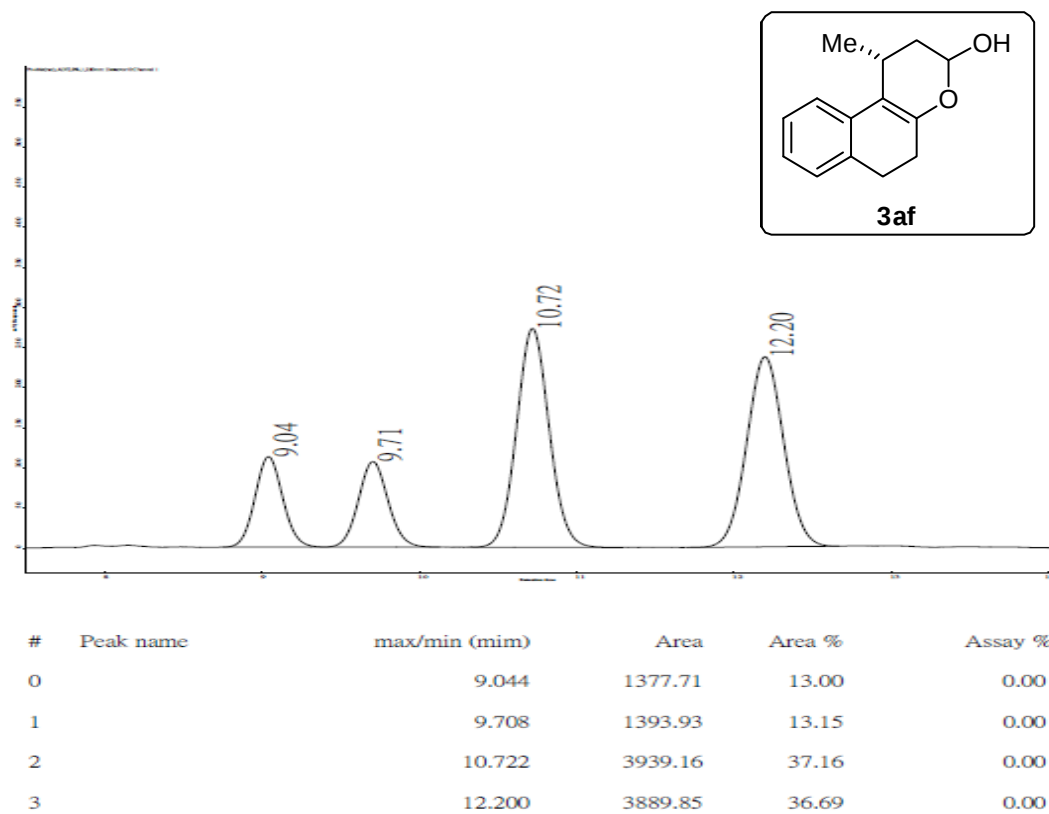
#	Peak name	max/min (min)	面積	Area %	Assay %
0		13.255	20029.61	81.26	0.00
1		14.612	682.44	2.77	0.00
2		15.883	3792.98	15.39	0.00
3		17.318	142.97	0.58	0.00

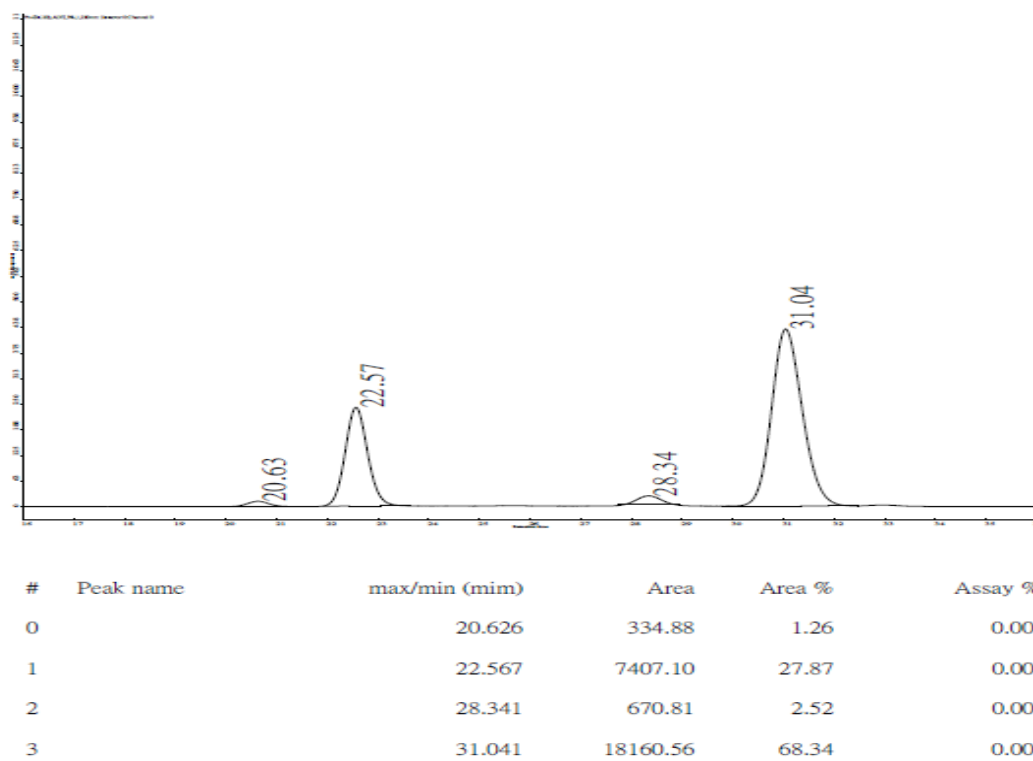
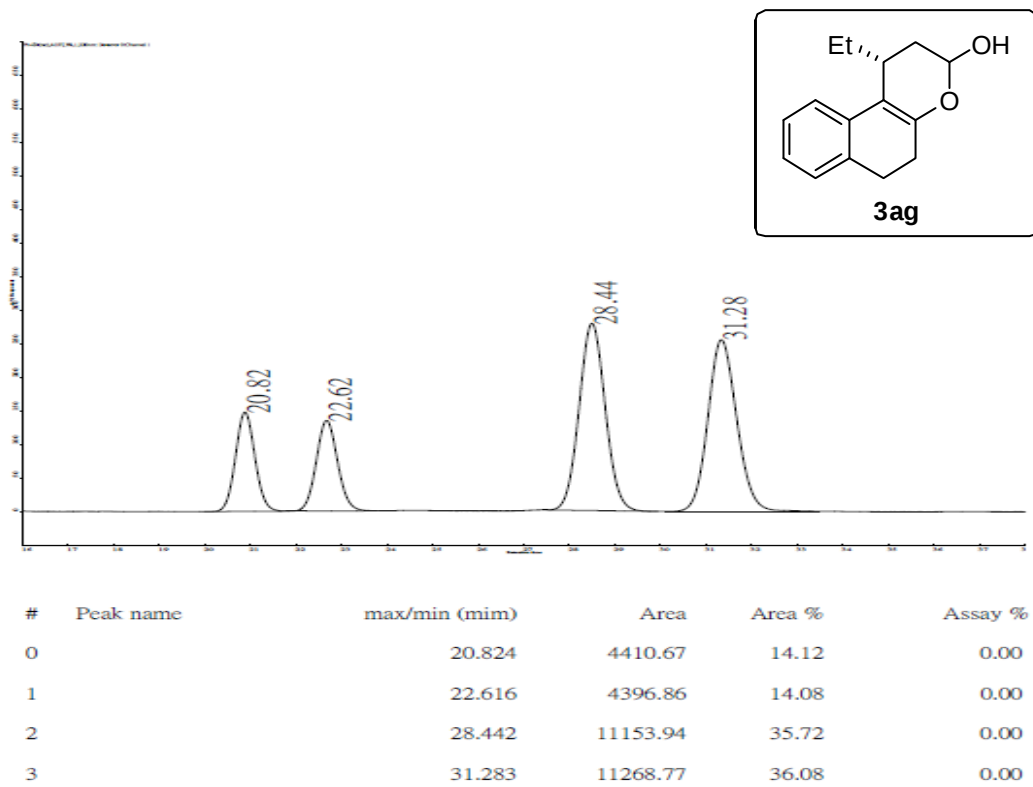


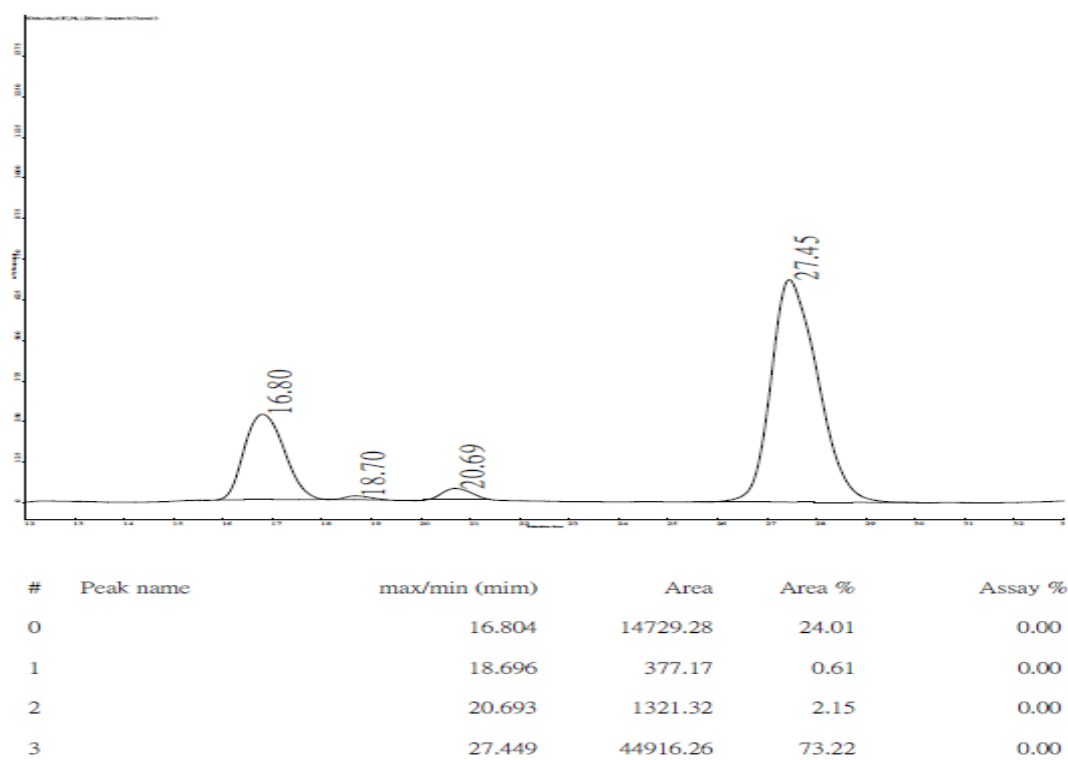
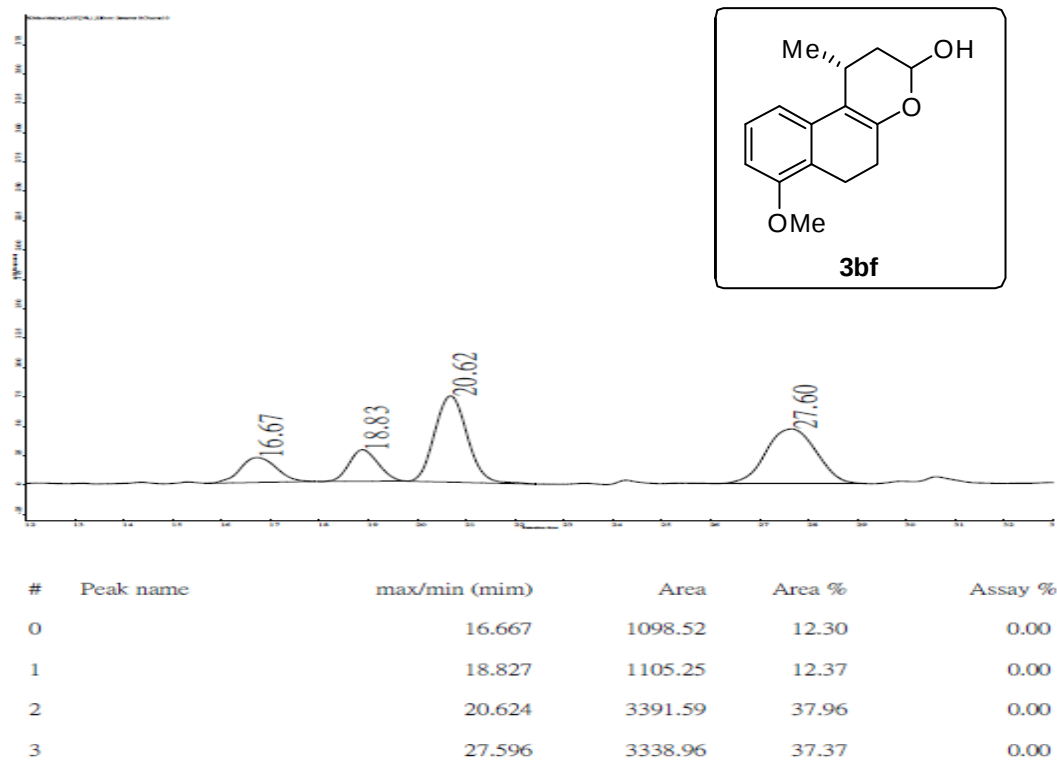


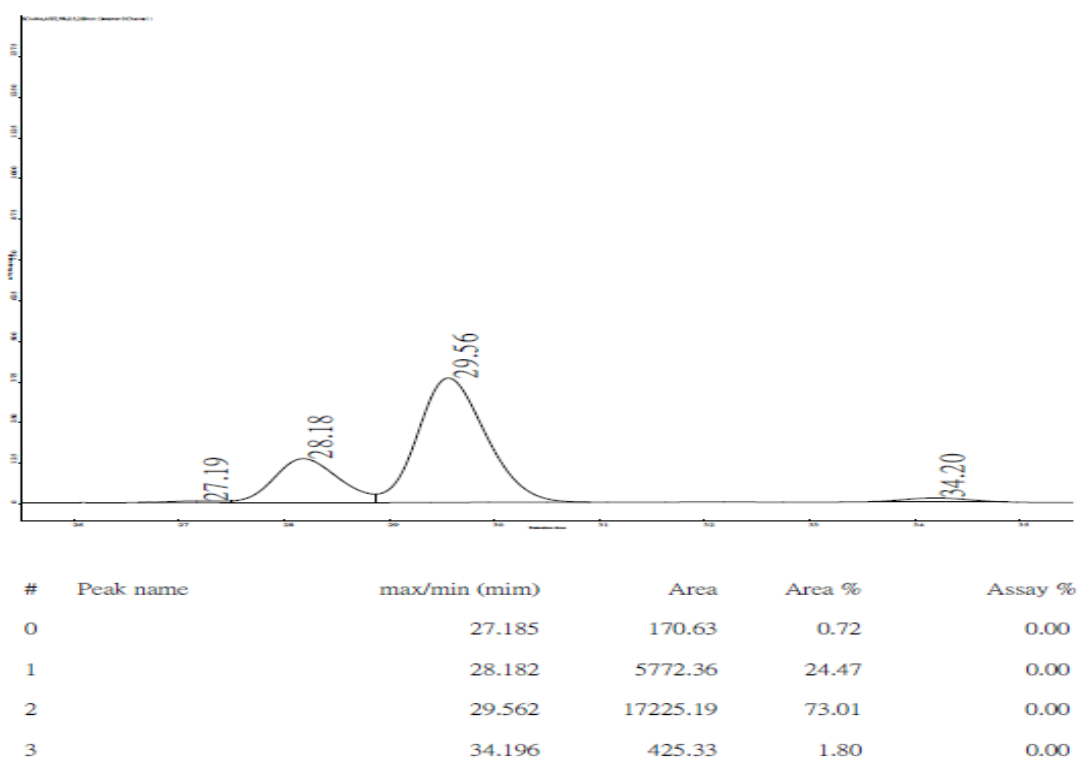
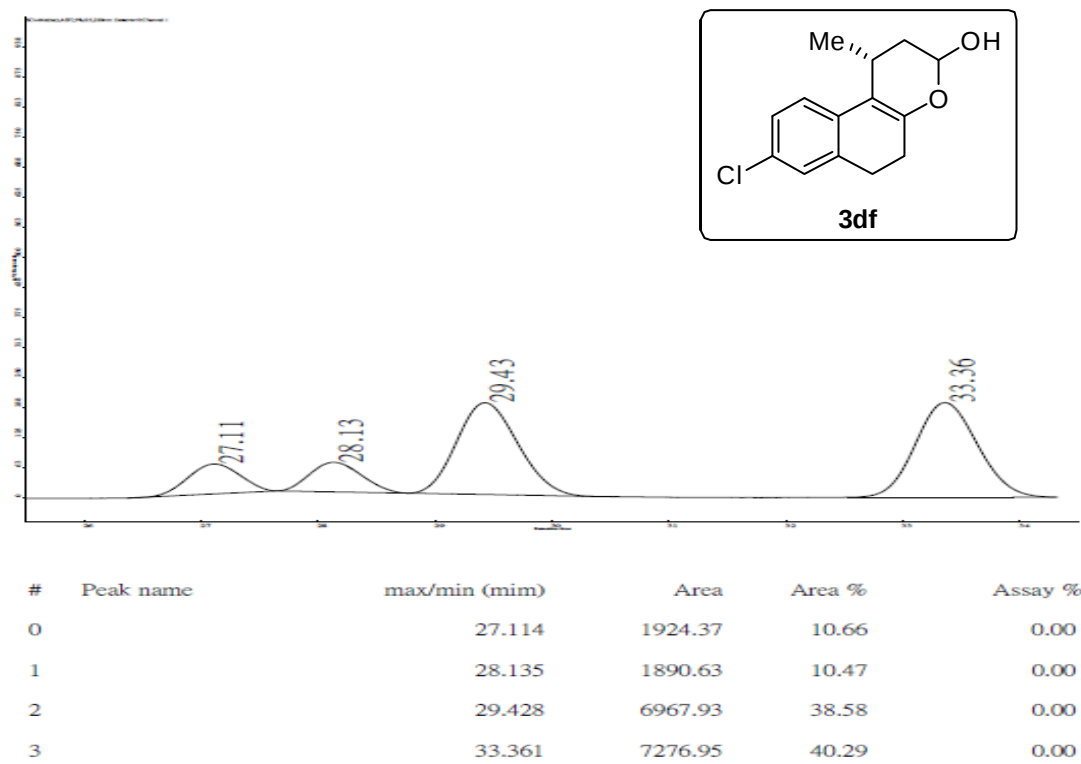


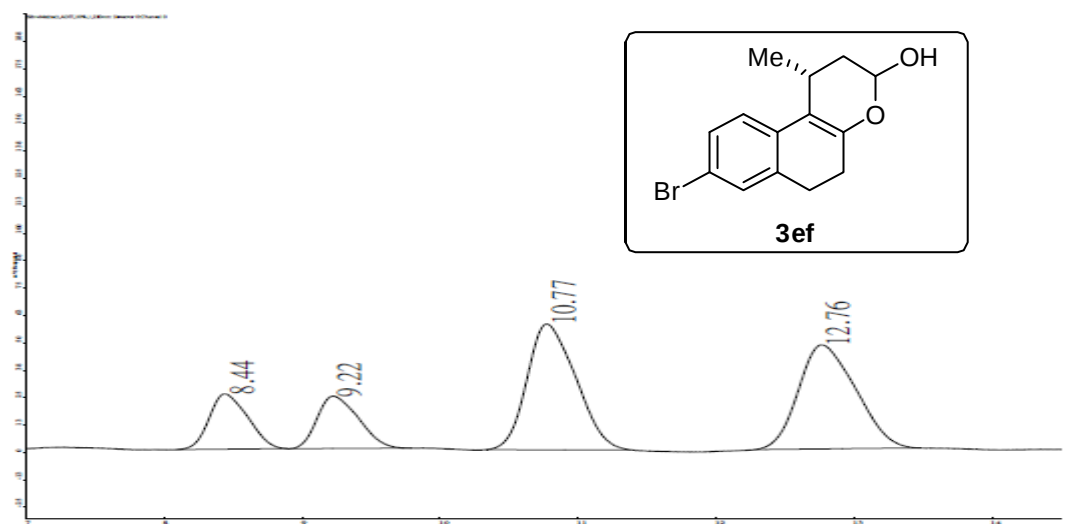




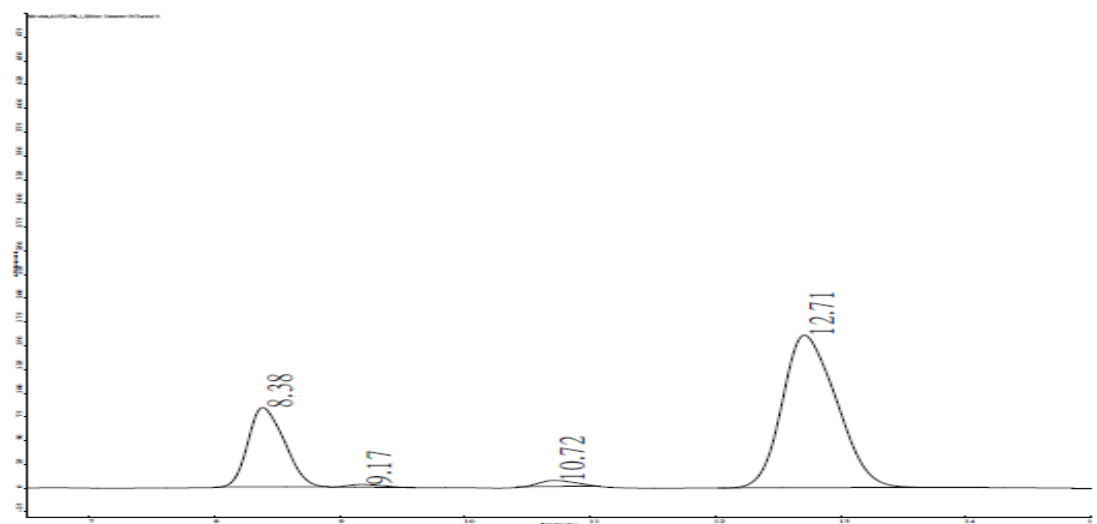




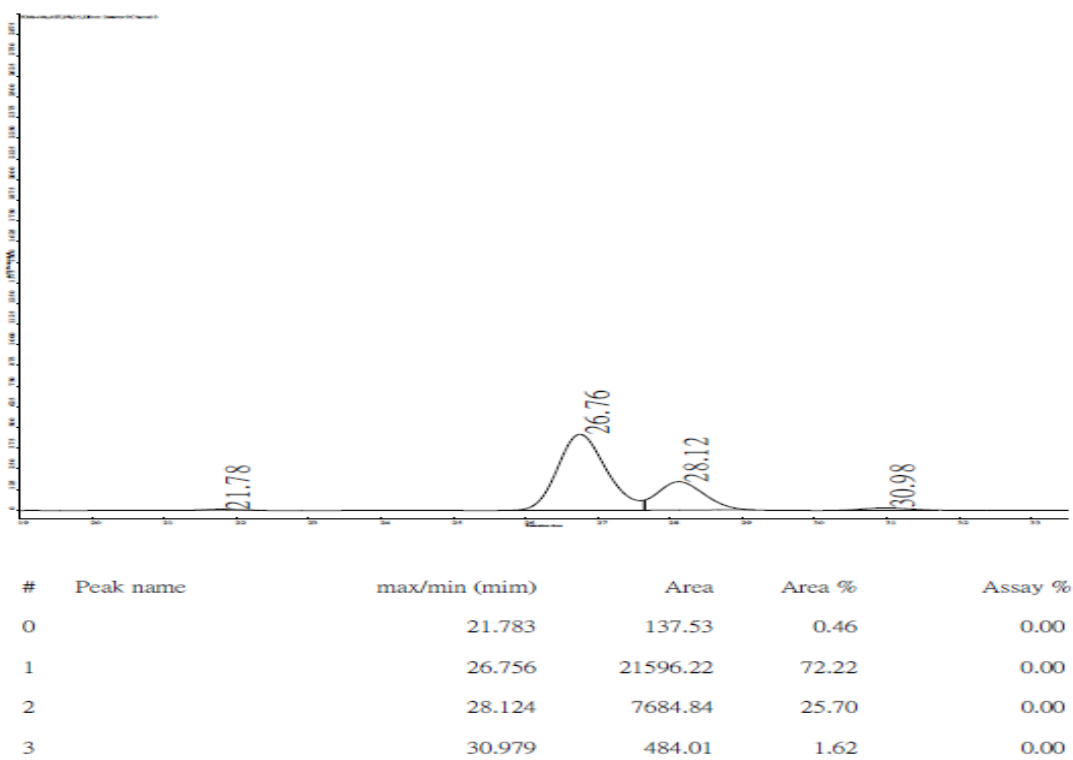
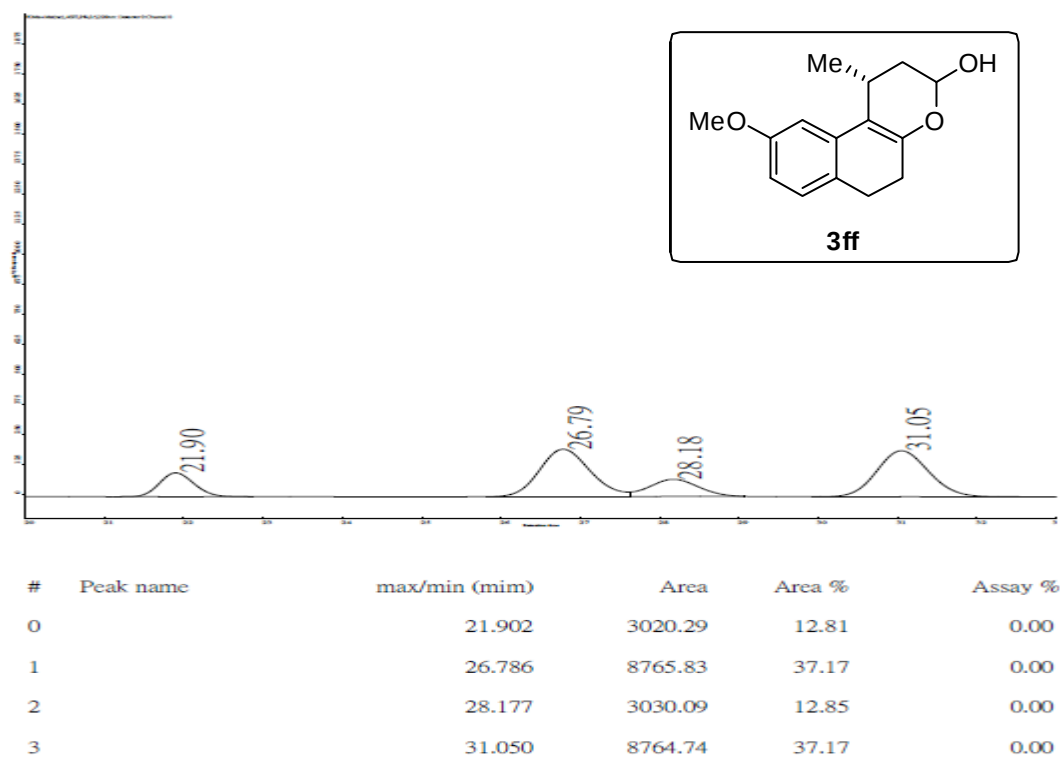


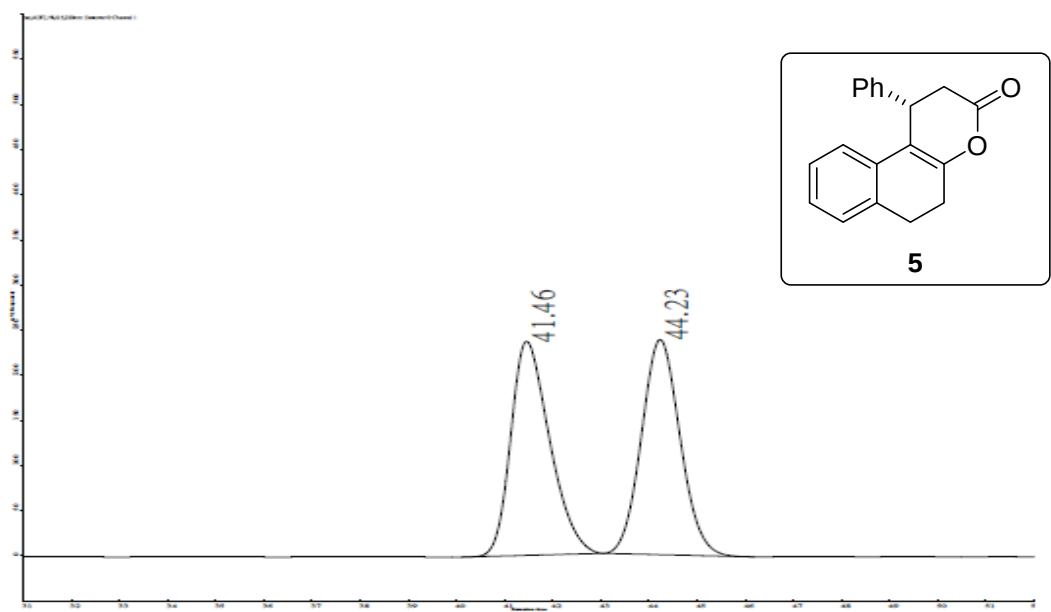


#	Peak name	max/min (min)	Area	Area %	Assay %
0		8.443	487.78	12.98	0.00
1		9.222	496.51	13.21	0.00
2		10.775	1407.85	37.45	0.00
3		12.759	1366.82	36.36	0.00

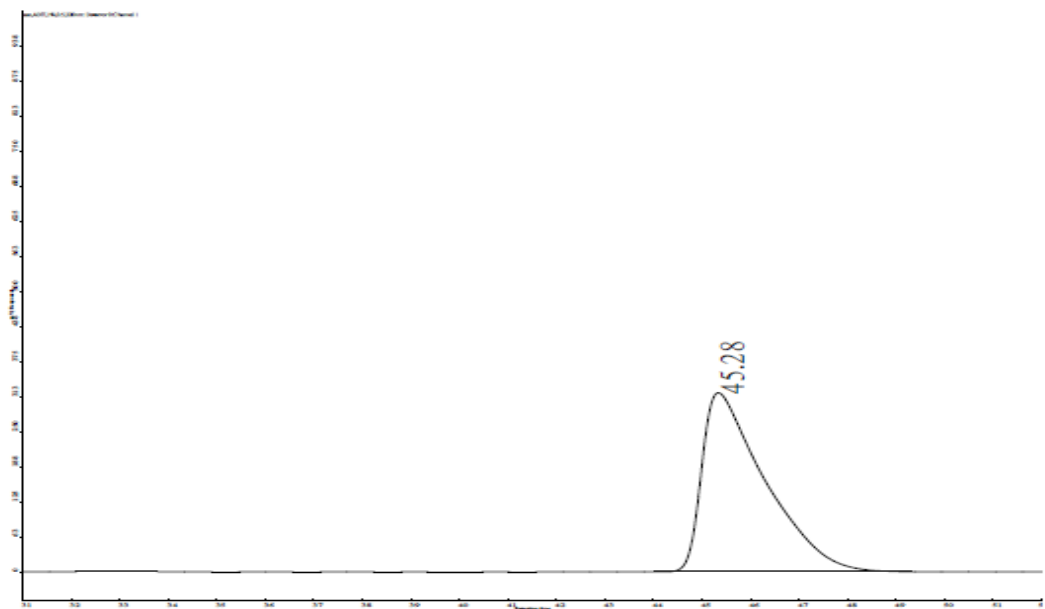


#	Peak name	max/min (min)	Area	Area %	Assay %
0		8.383	1681.89	25.09	0.00
1		9.174	49.69	0.74	0.00
2		10.715	119.32	1.78	0.00
3		12.710	4852.66	72.39	0.00





#	Peak name	max/min (min)	Area	Area %	Assay %
0		41.463	13305.97	49.96	0.00
1		44.235	13325.69	50.04	0.00



#	Peak name	max/min (min)	Area	Area %	Assay %
0		45.283	28799.08	100.00	0.00