

**Organocatalytic Domino Michael/Cyclization Reaction: Efficient
Synthesis of Multi-functionalized Polyheterocyclic Spirooxindoles
with Multiple Stereocenters**

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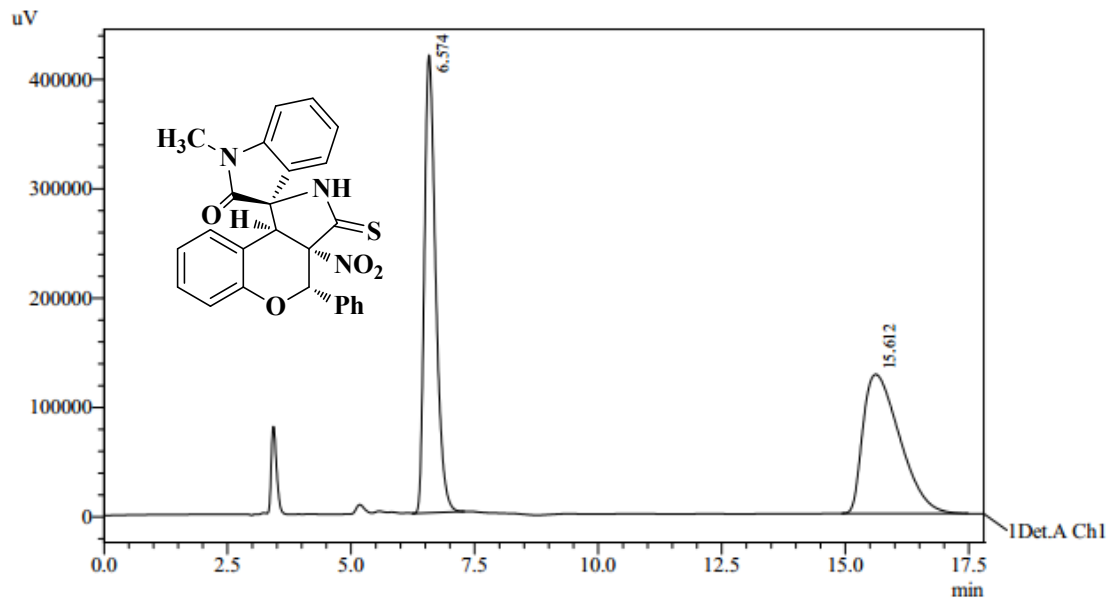
Fax: (+86)-579-8228-2610; E-mail address: xiejw@zjnu.cn

Supporting Information

HPLC spectra..... 2

4. HPLC spectra

4aa

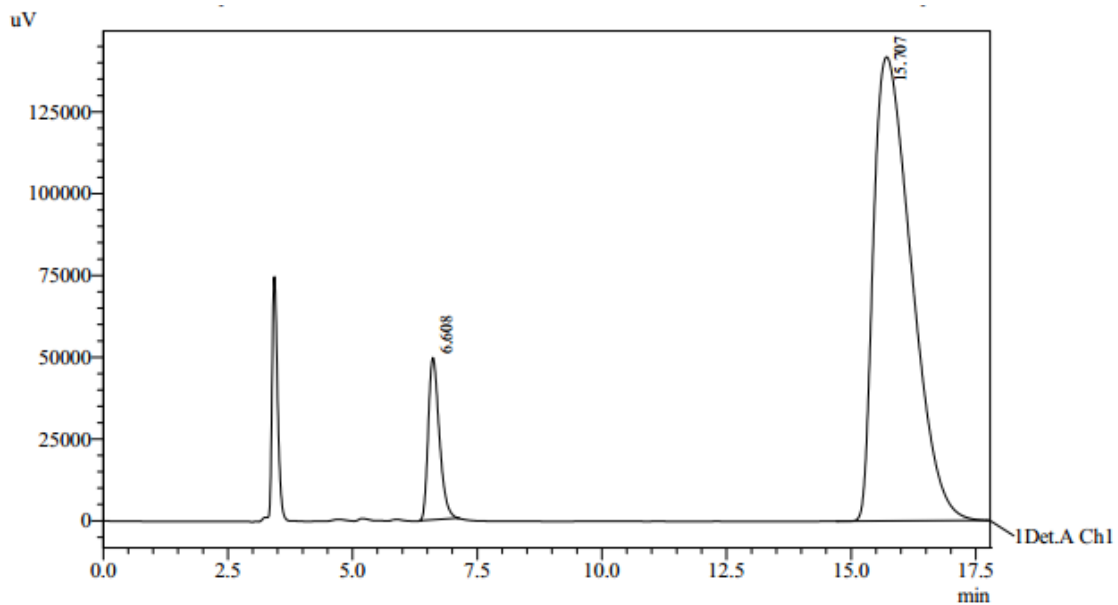


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.574	6650428	418696	50.175	76.697
2	15.612	6604127	127214	49.825	23.303
Total		13254555	545910	100.000	100.000



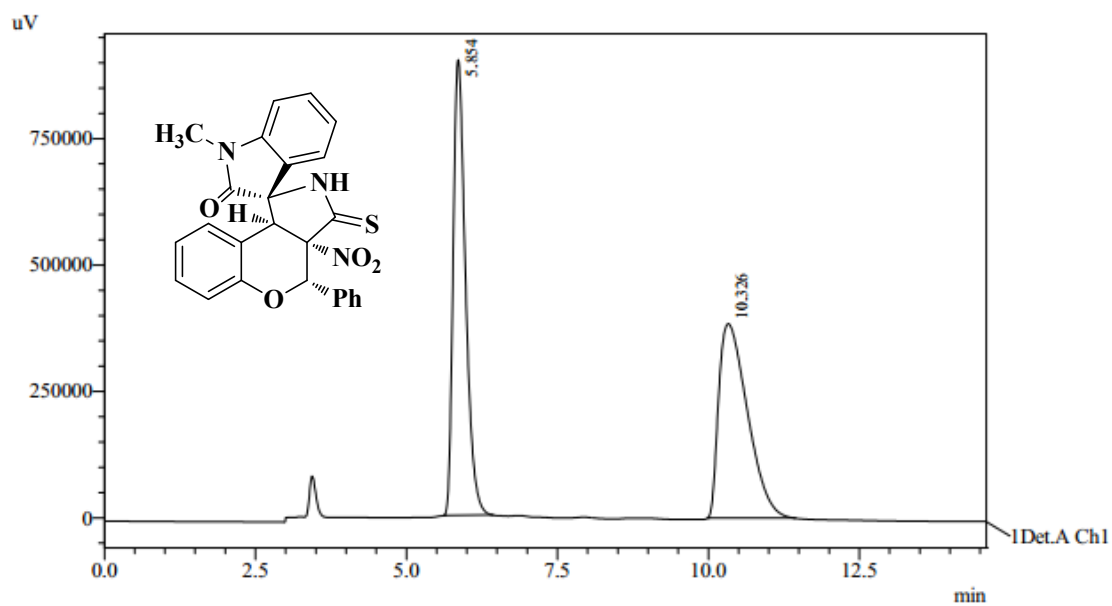
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.608	767500	49519	9.306	25.879
2	15.707	7480298	141826	90.694	74.121
Total		8247798	191345	100.000	100.000

5aa

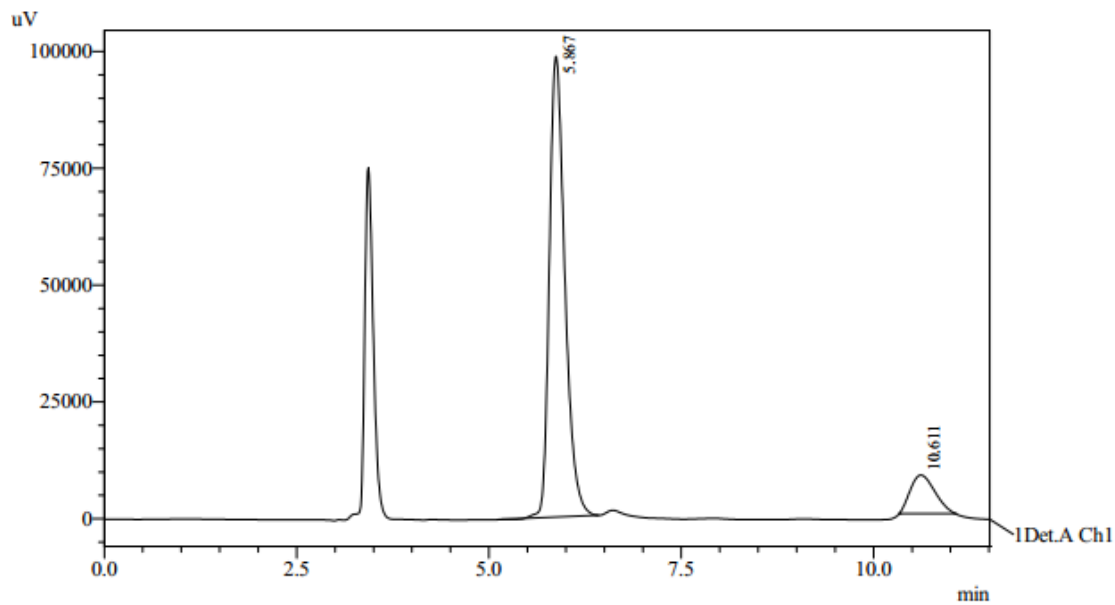


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.854	12837999	900945	50.204	70.107
2	10.326	12733440	384147	49.796	29.893
Total		25571439	1285092	100.000	100.000



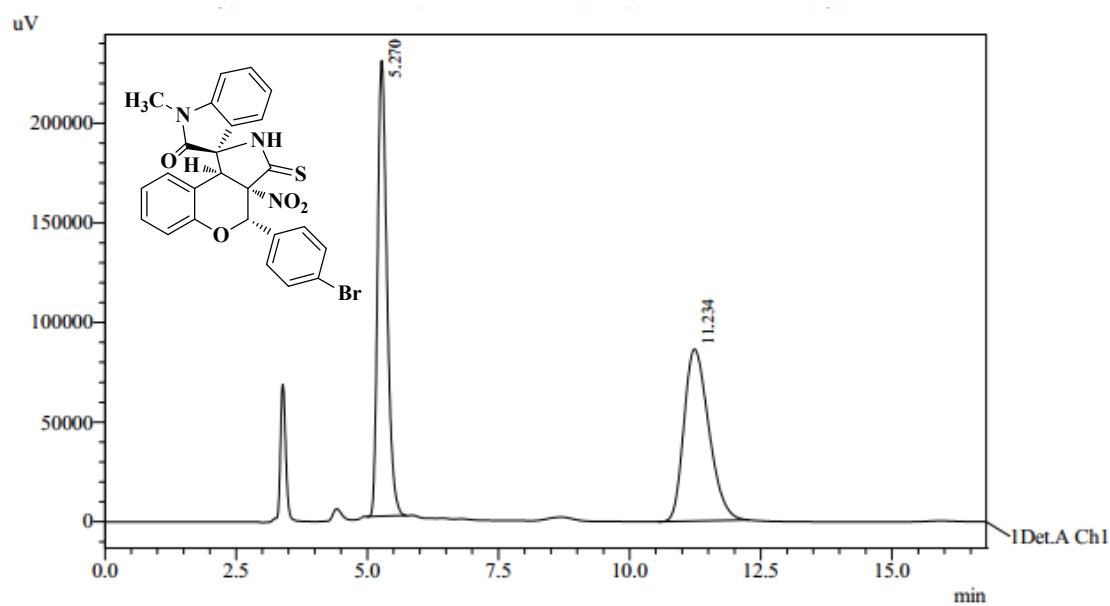
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

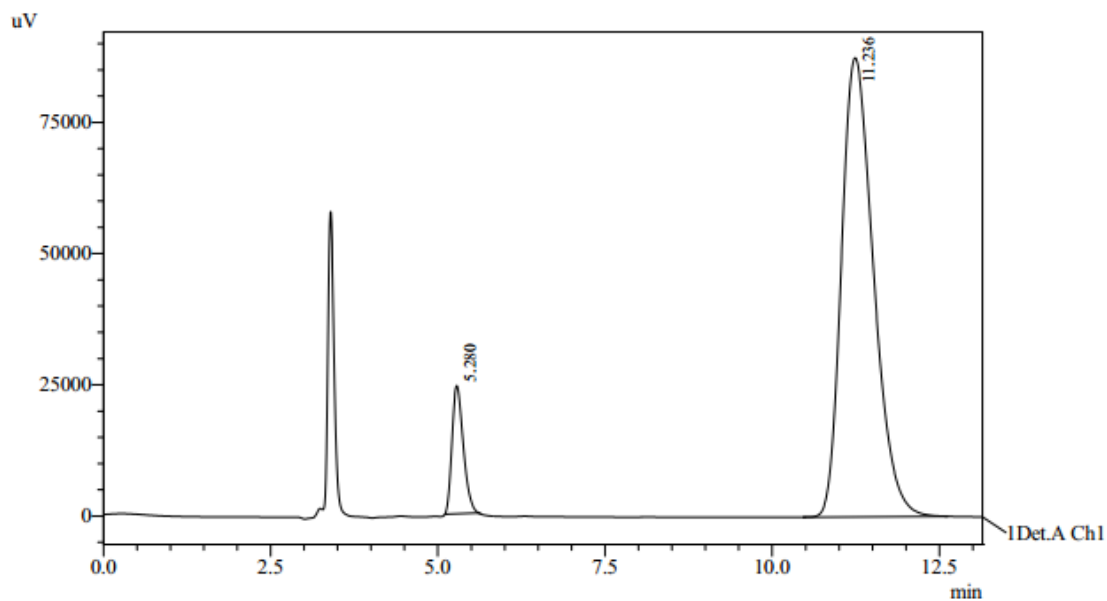
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.867	1384391	98632	88.289	92.290
2	10.611	183632	8240	11.711	7.710
Total		1568023	106872	100.000	100.000

4ab



PeakTable

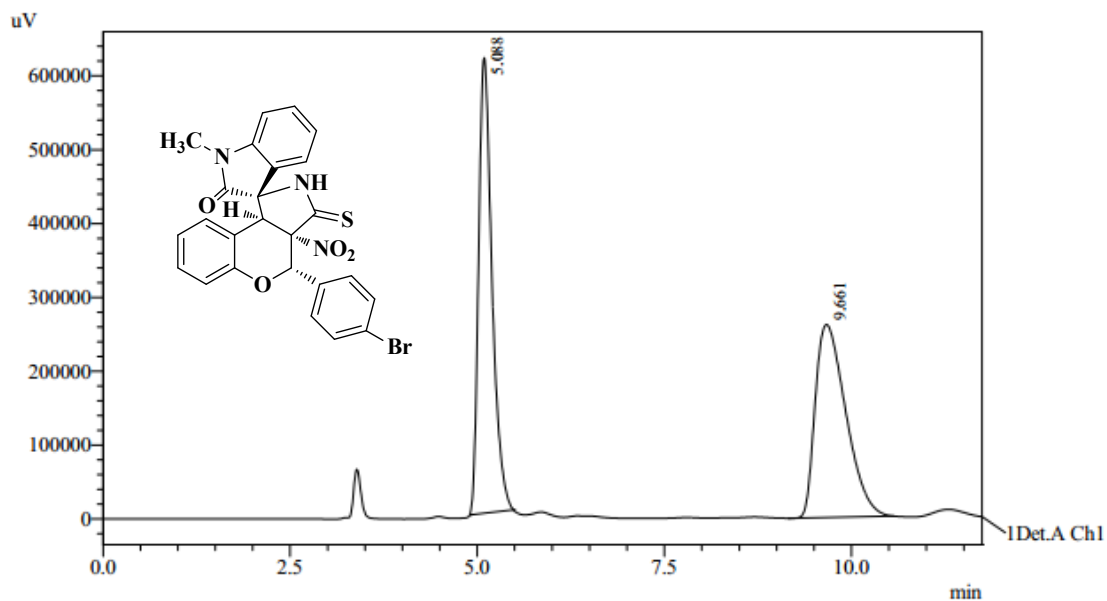
Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.270	2838017	228667	49.917	72.635
2	11.234	2847462	86147	50.083	27.365
Total		5685480	314814	100.000	100.000



PeakTable

Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.280	287771	24405	8.999	21.818
2	11.236	2910177	87451	91.001	78.182
Total		3197947	111856	100.000	100.000

5ab

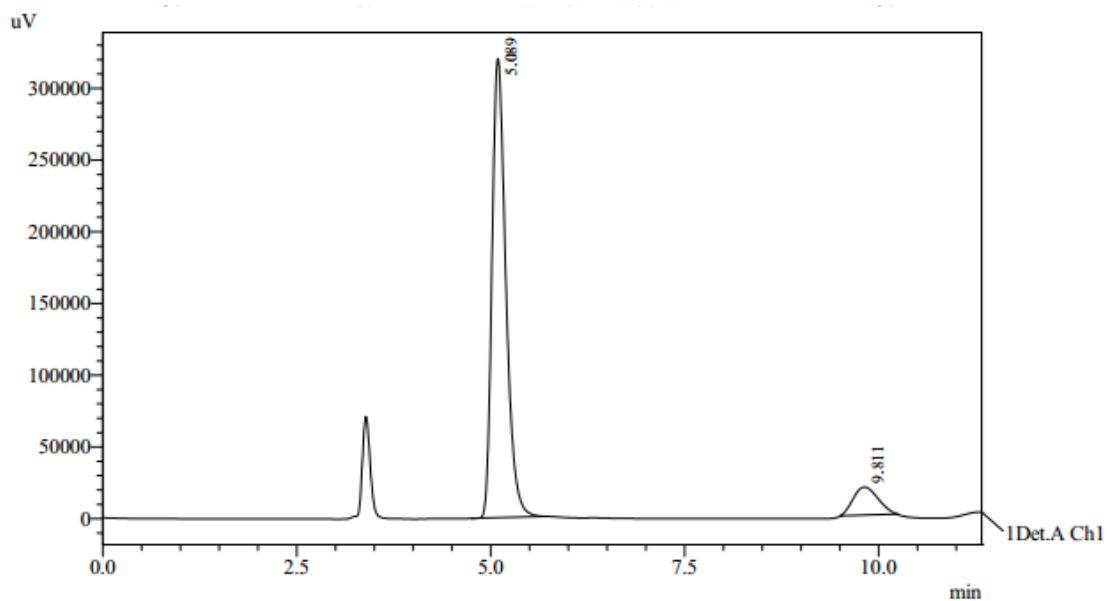


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.088	7673108	617291	50.798	70.259
2	9.661	7432092	261304	49.202	29.741
Total		15105200	878595	100.000	100.000



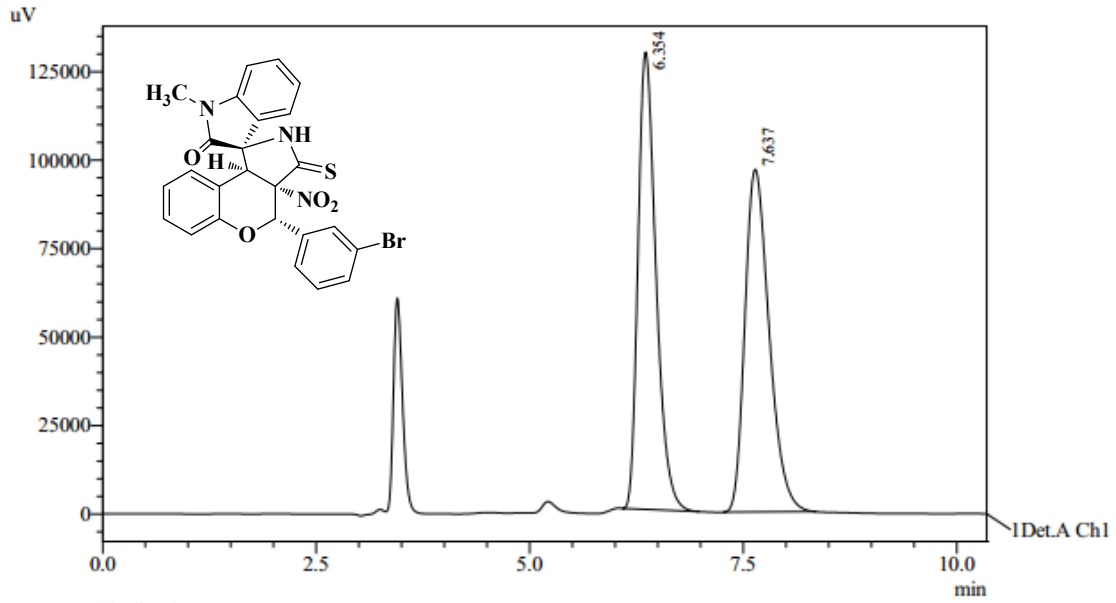
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.089	3967702	320287	90.136	94.246
2	9.811	434180	19554	9.864	5.754
Total		4401882	339841	100.000	100.000

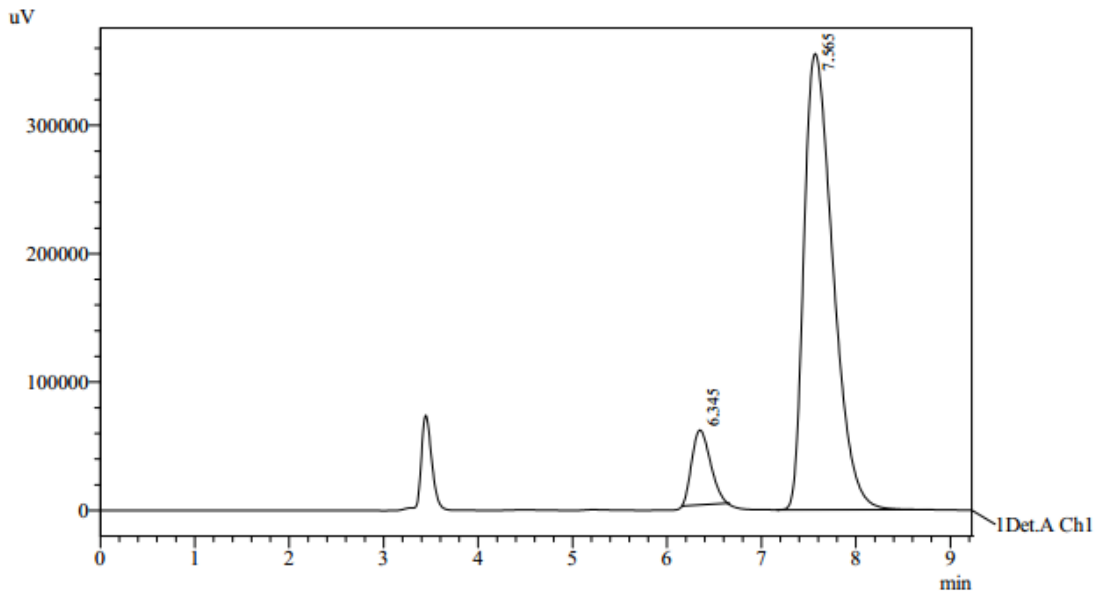
4ac



PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.354	1890667	129253	49.760	57.168
2	7.637	1908937	96842	50.240	42.832
Total		3799604	226095	100.000	100.000

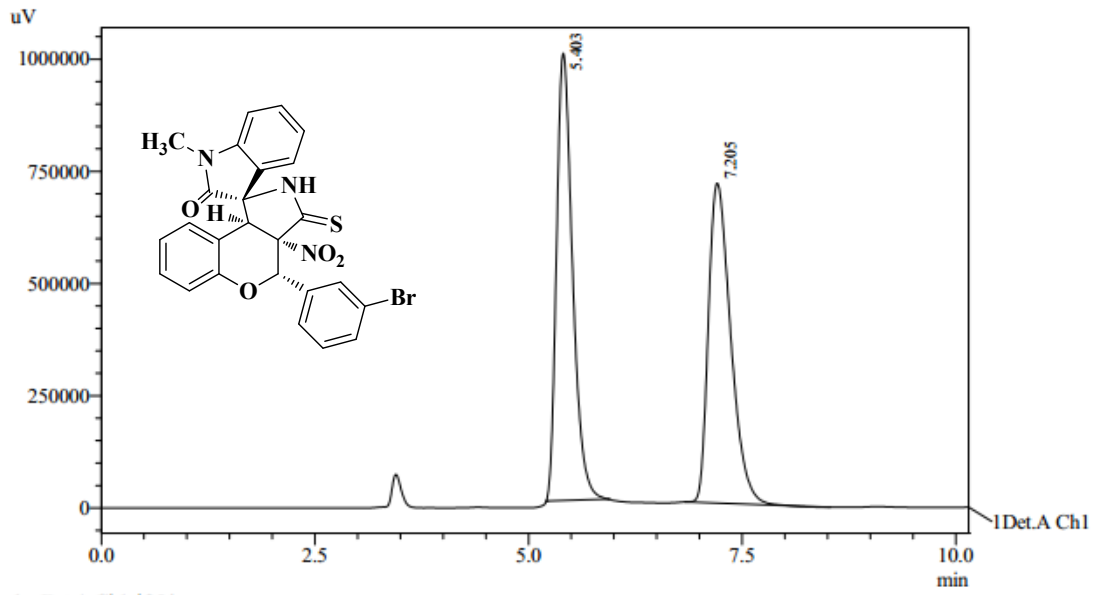


PeakTable

Detector A Ch1 254nm

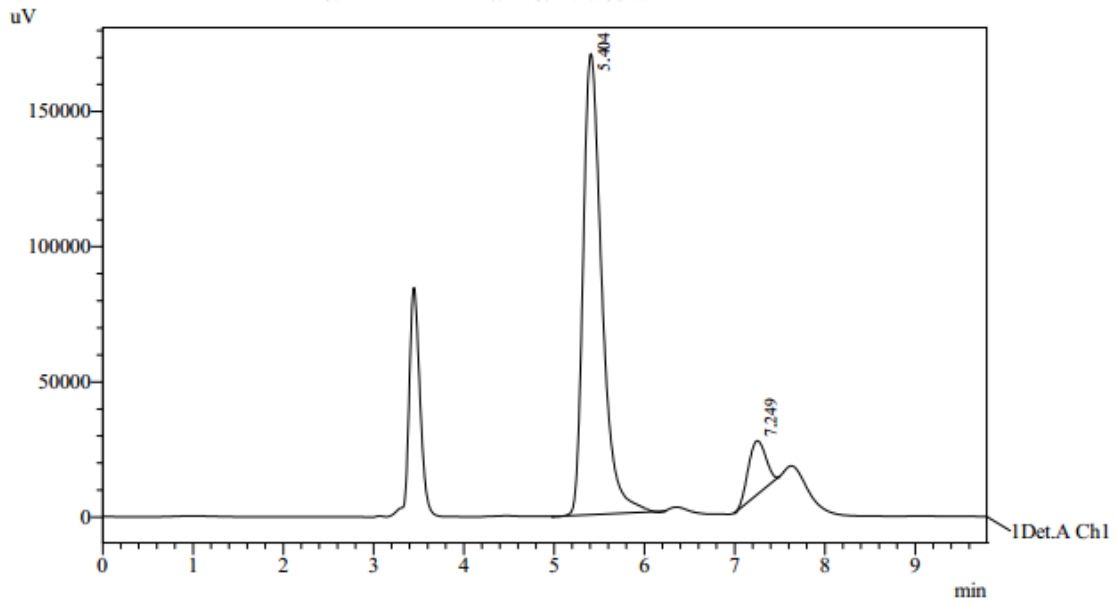
Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.345	799018	58228	9.521	14.076
2	7.565	7592995	355450	90.479	85.924
Total		8392013	413677	100.000	100.000

5ac



Detector A Ch1 254nm

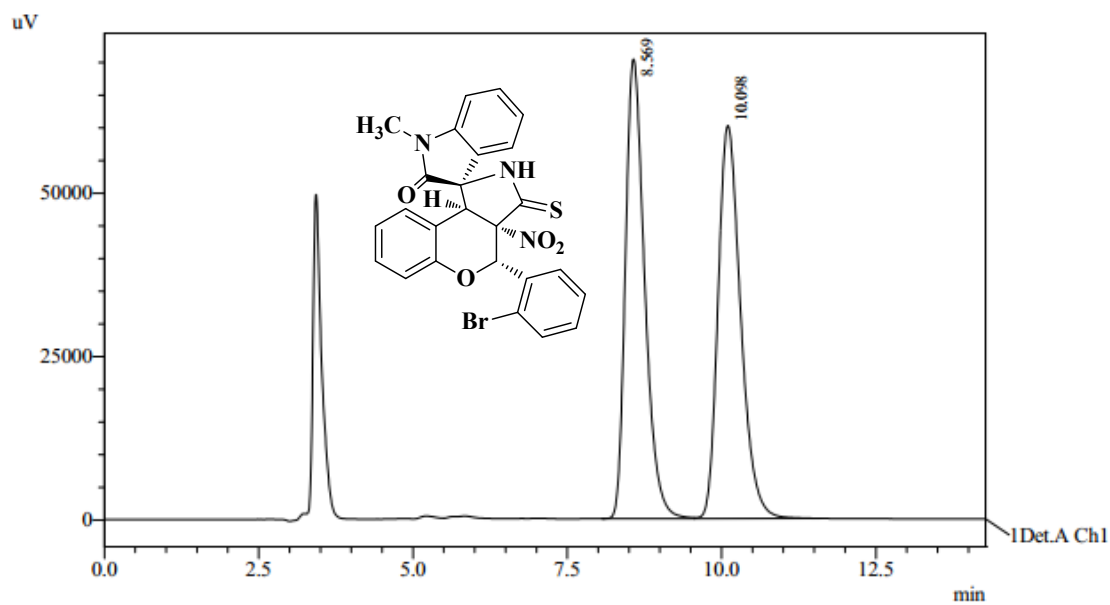
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.403	12980317	997053	50.141	58.304
2	7.205	12907371	713028	49.859	41.696
Total		25887688	1710080	100.000	100.000



Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.404	2456423	170532	90.093	89.578
2	7.249	270131	19841	9.907	10.422
Total		2726555	190373	100.000	100.000

4ad

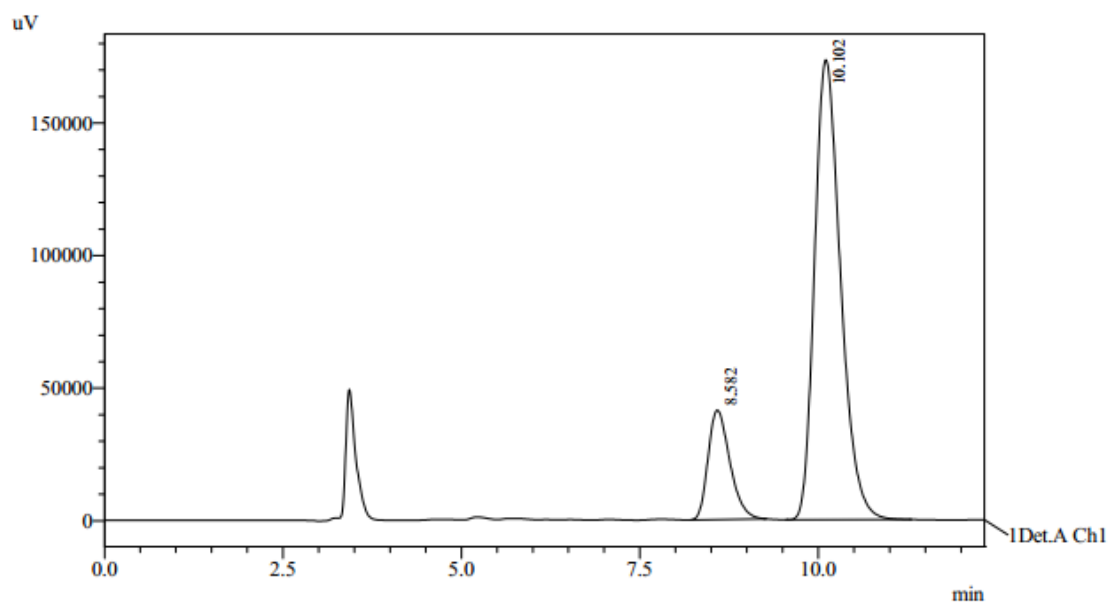


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	8.569	1521352	70291	49.828	53.908
2	10.098	1531881	60100	50.172	46.092
Total		3053233	130391	100.000	100.000



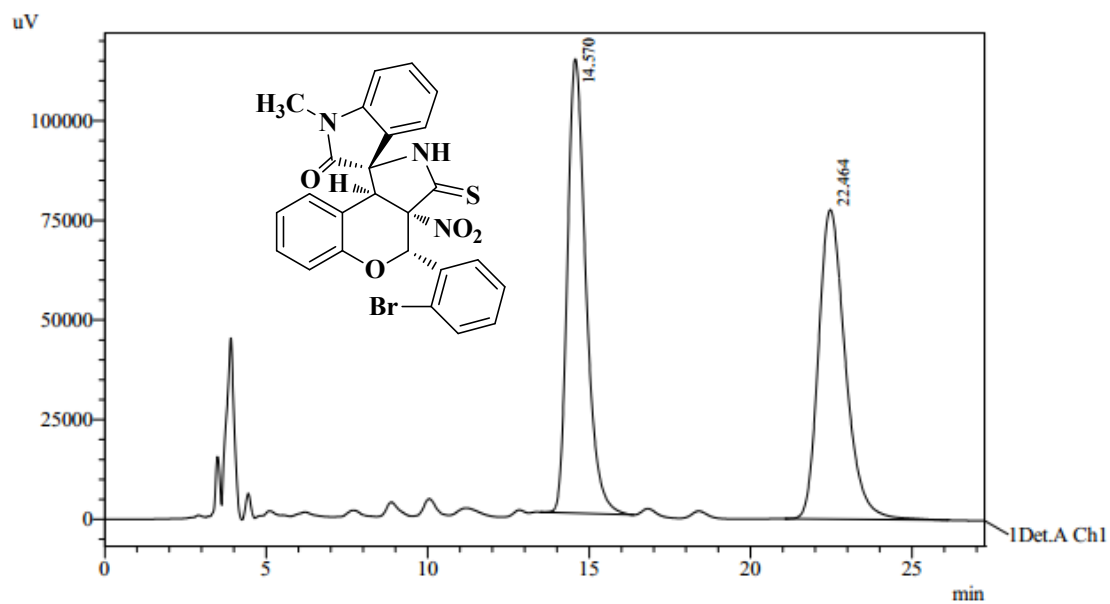
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	8.582	876029	41212	16.599	19.195
2	10.102	4401430	173490	83.401	80.805
Total		5277458	214702	100.000	100.000

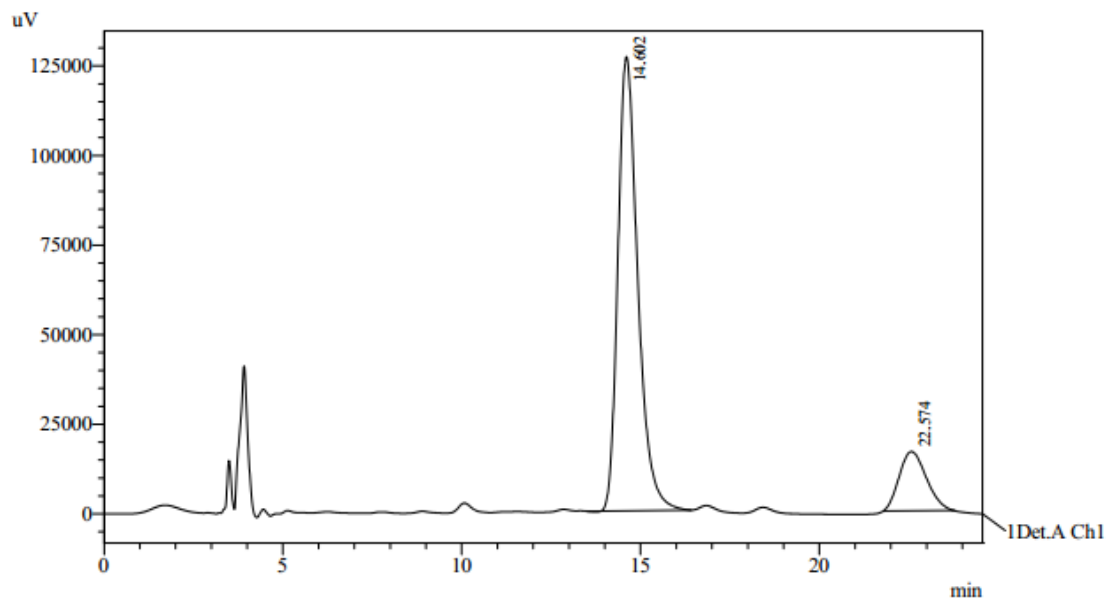
5ad



PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	14.570	4538845	113990	50.288	59.480
2	22.464	4486903	77654	49.712	40.520
Total		9025747	191644	100.000	100.000

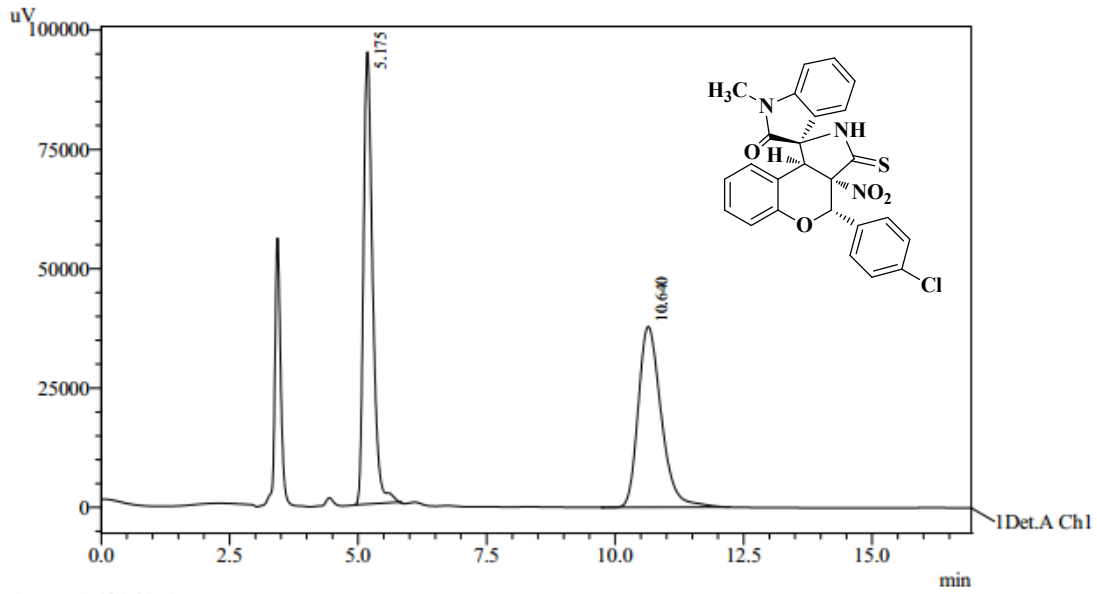


PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	14.602	4904745	126752	84.896	88.475
2	22.574	872636	16512	15.104	11.525
Total		5777381	143264	100.000	100.000

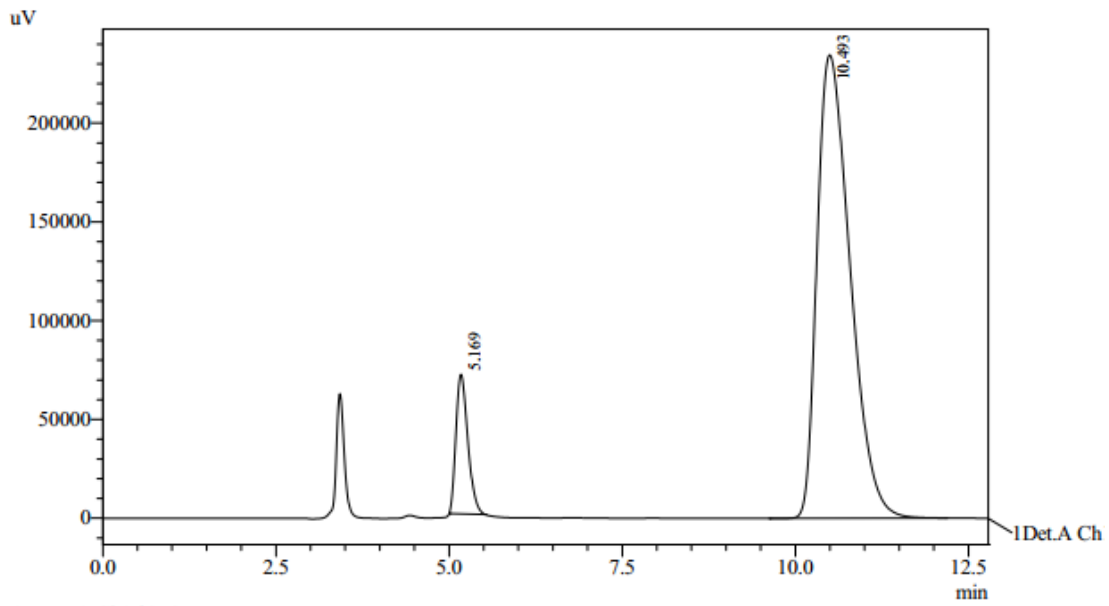
4ac



1 Det.A Ch1 / 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.175	1171289	94744	49.813	71.442
2	10.640	1180066	37872	50.187	28.558
Total		2351355	132616	100.000	100.000

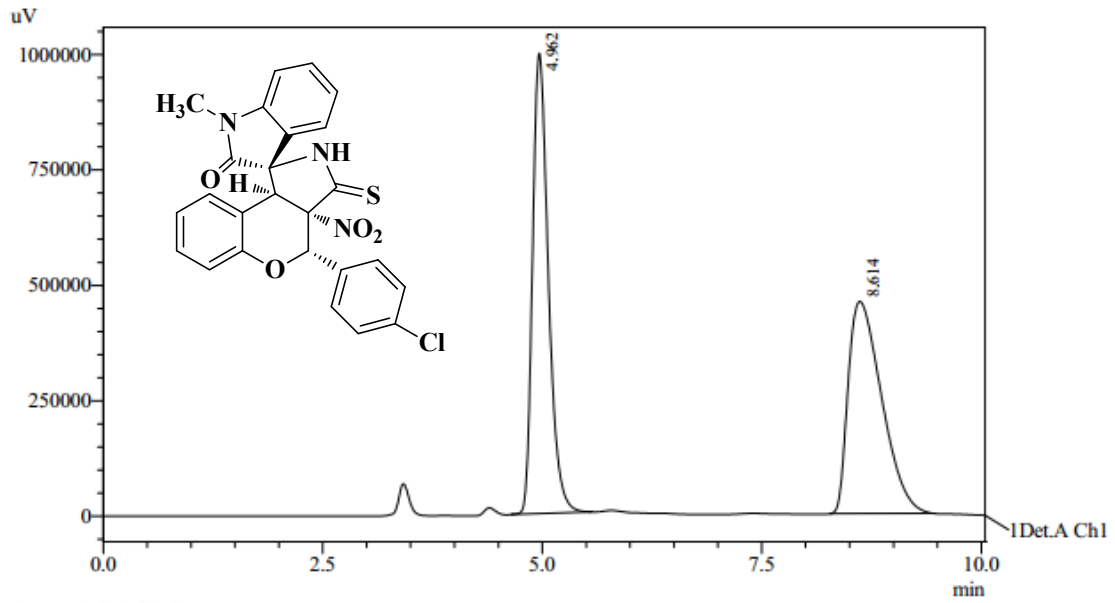


1 Det.A Ch1 / 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.169	850850	70582	9.847	23.135
2	10.493	7790284	234499	90.153	76.865
Total		8641134	305081	100.000	100.000

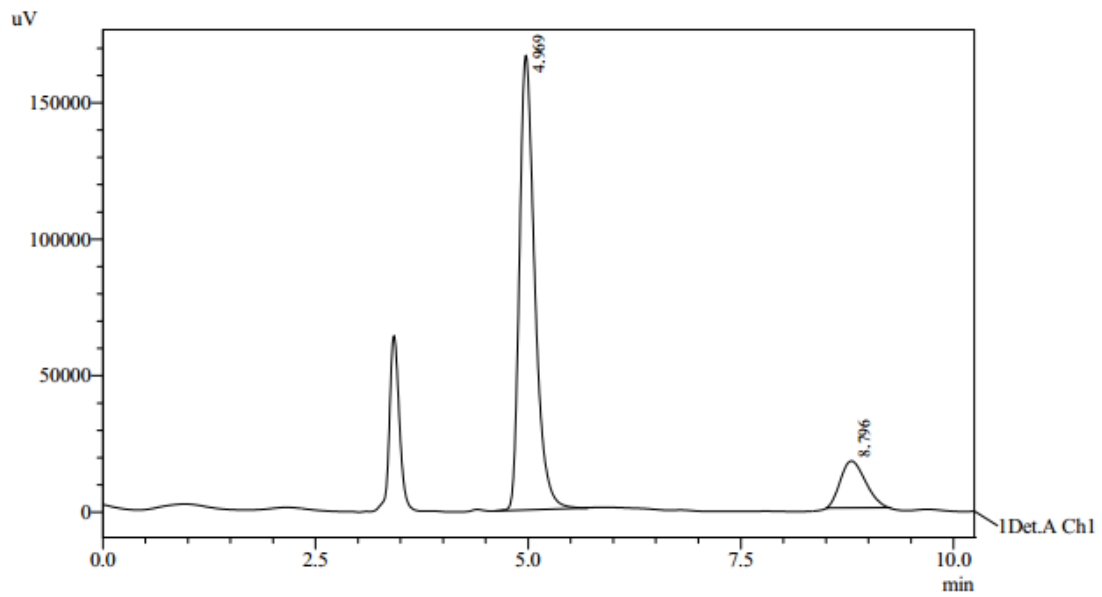
5ac



1 Det.A Ch1 / 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.962	12491677	998019	50.595	68.466
2	8.614	12197709	459665	49.405	31.534
Total		24689386	1457683	100.000	100.000

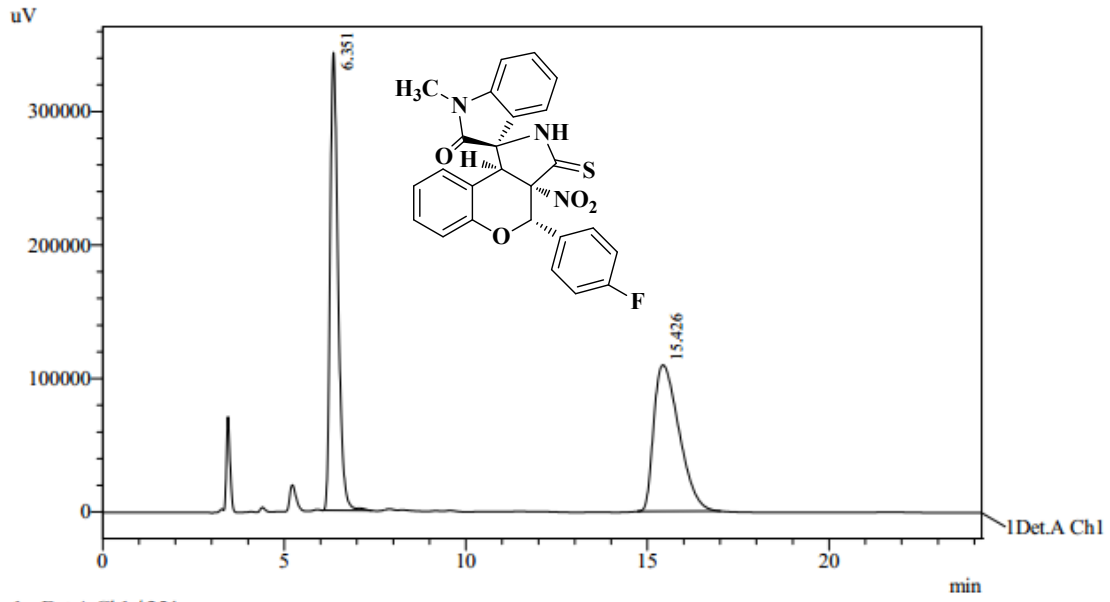


1 Det.A Ch1 / 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.969	2086742	166588	85.533	90.675
2	8.796	352963	17131	14.467	9.325
Total		2439705	183719	100.000	100.000

4af

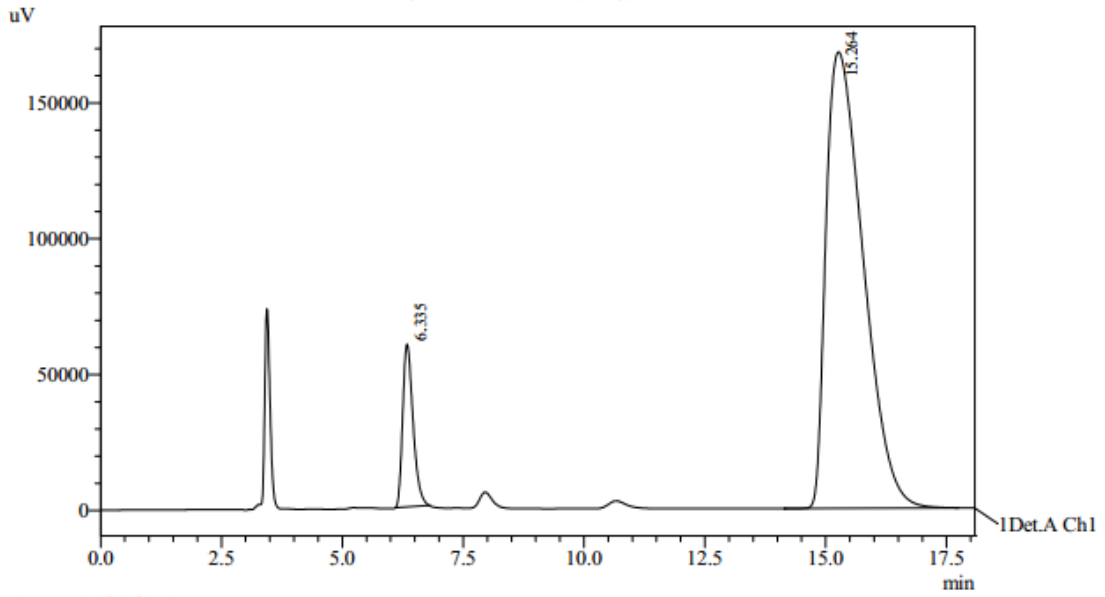


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.351	5209900	343000	49.448	75.779
2	15.426	5326246	109629	50.552	24.221
Total		10536146	452630	100.000	100.000



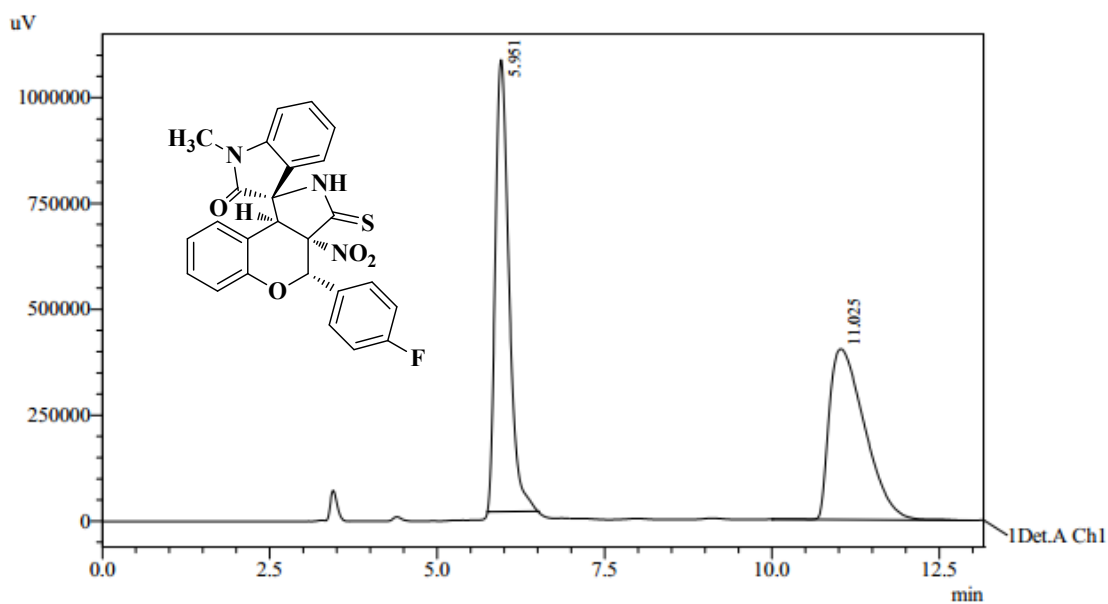
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.335	894015	59902	9.049	26.292
2	15.264	8985964	167932	90.951	73.708
Total		9879979	227834	100.000	100.000

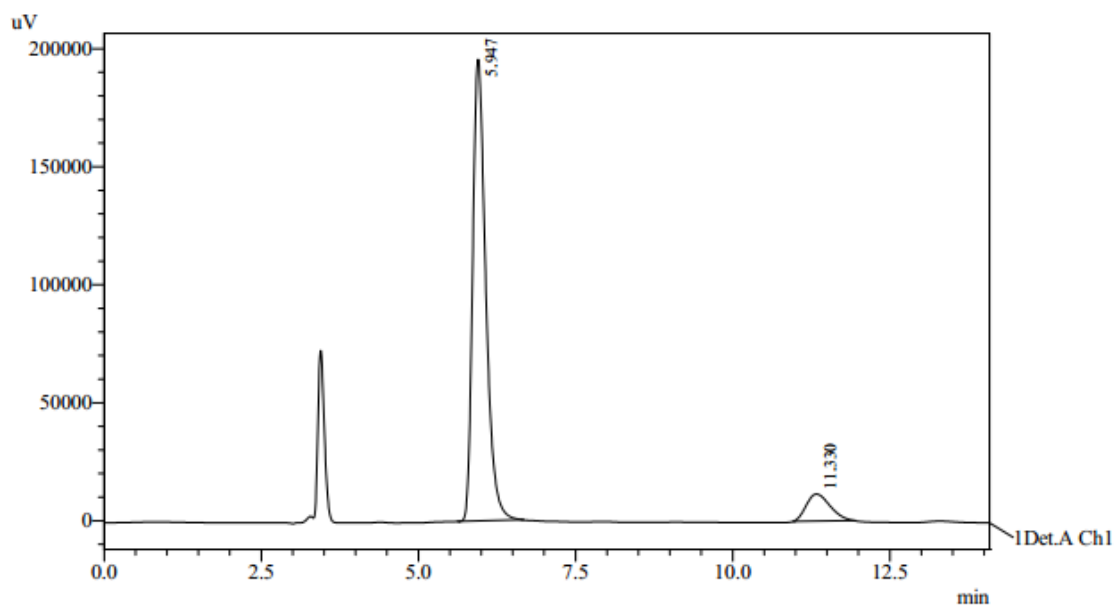
5af



1 Det.A Ch1 / 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.951	15082259	1067203	50.367	72.594
2	11.025	14862756	402892	49.633	27.406
Total		29945016	1470095	100.000	100.000

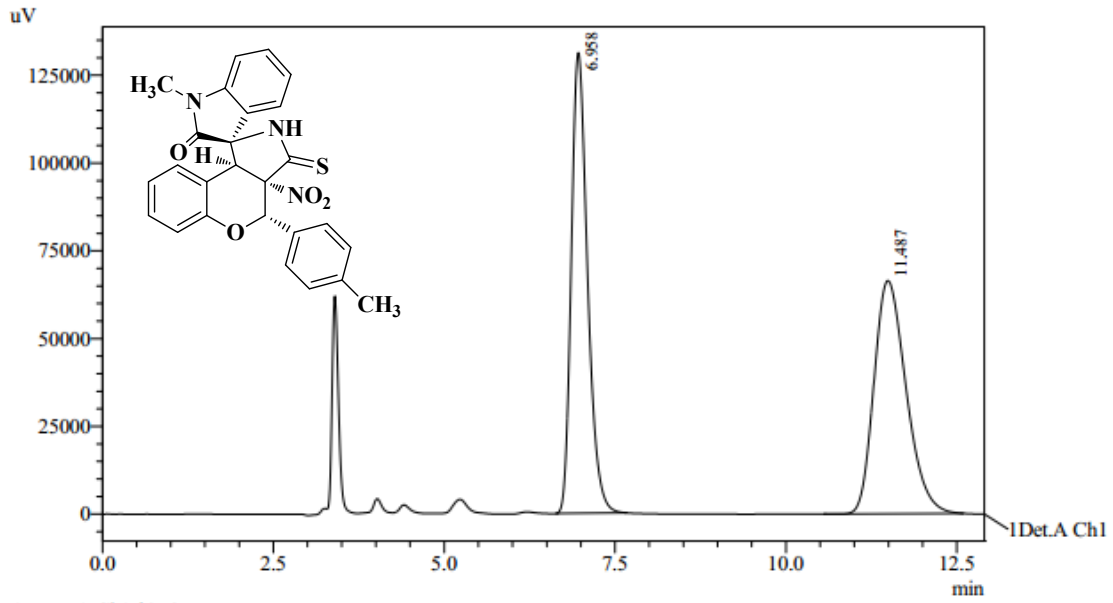


1 Det.A Ch1 / 254nm

PeakTable

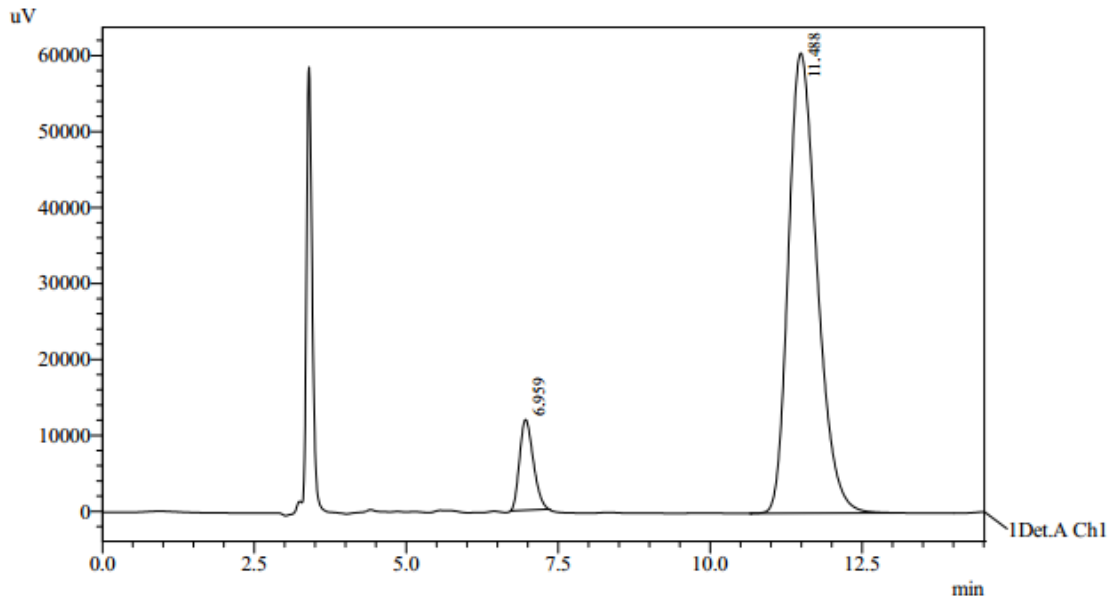
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.947	2832395	195560	90.393	94.471
2	11.330	301038	11446	9.607	5.529
Total		3133433	207006	100.000	100.000

4ag



PeakTable

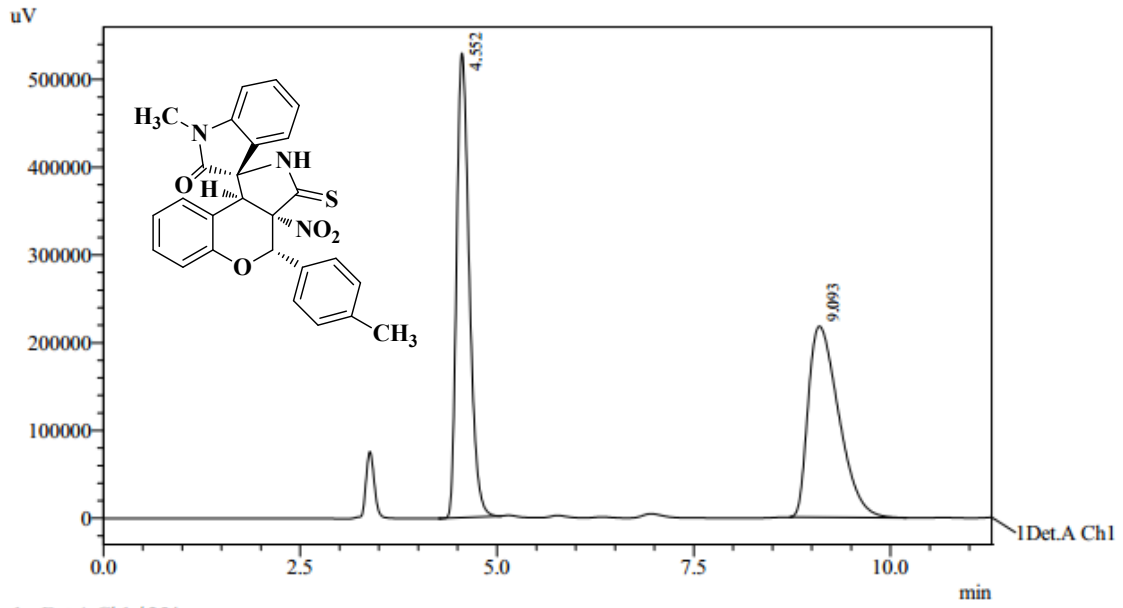
Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.958	2167193	131205	49.979	66.394
2	11.487	2169009	66411	50.021	33.606
Total		4336202	197616	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.959	187853	11922	8.640	16.446
2	11.488	1986424	60571	91.360	83.554
Total		2174277	72493	100.000	100.000

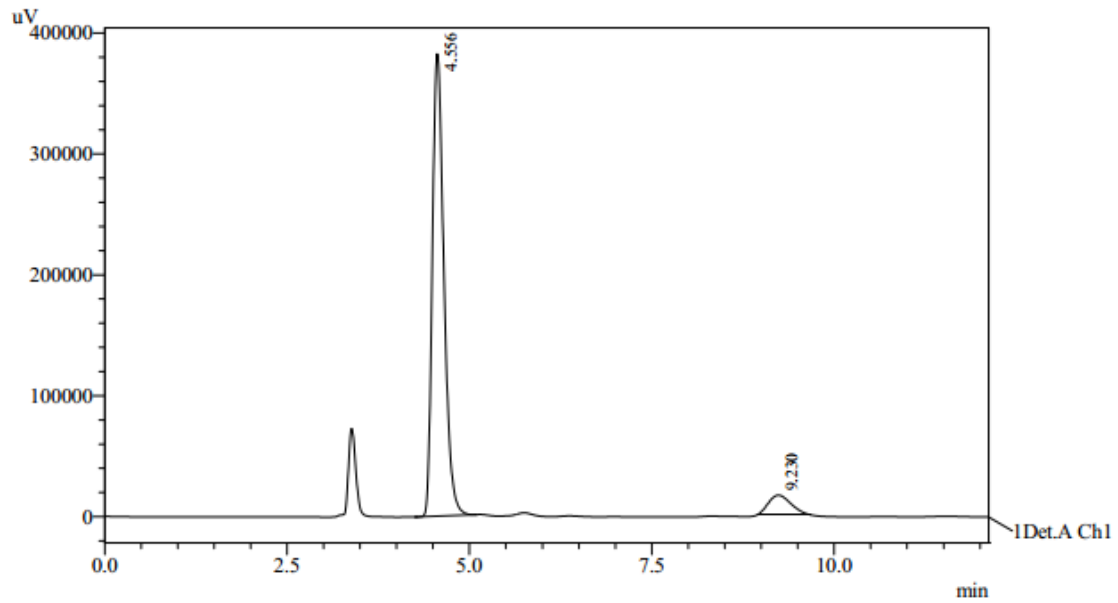
5ag



PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.552	5920881	529293	50.121	70.853
2	9.093	5892228	217739	49.879	29.147
Total		11813109	747033	100.000	100.000

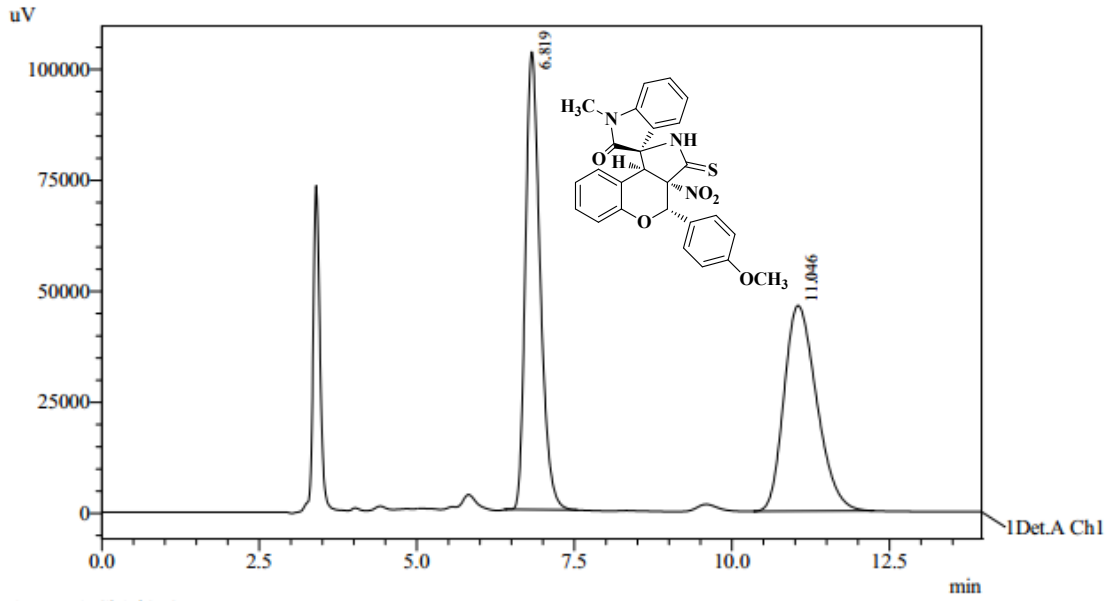


PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.556	4215202	382392	92.699	96.040
2	9.230	332004	15768	7.301	3.960
Total		4547205	398161	100.000	100.000

4ah

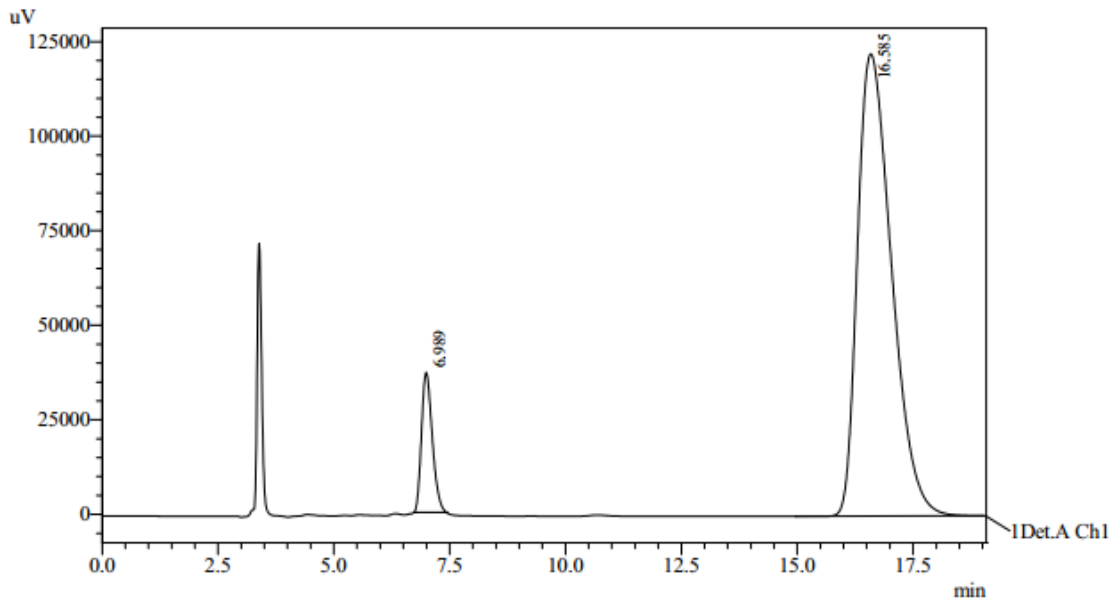


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.819	1671998	103151	49.975	69.012
2	11.046	1673664	46317	50.025	30.988
Total		3345663	149469	100.000	100.000



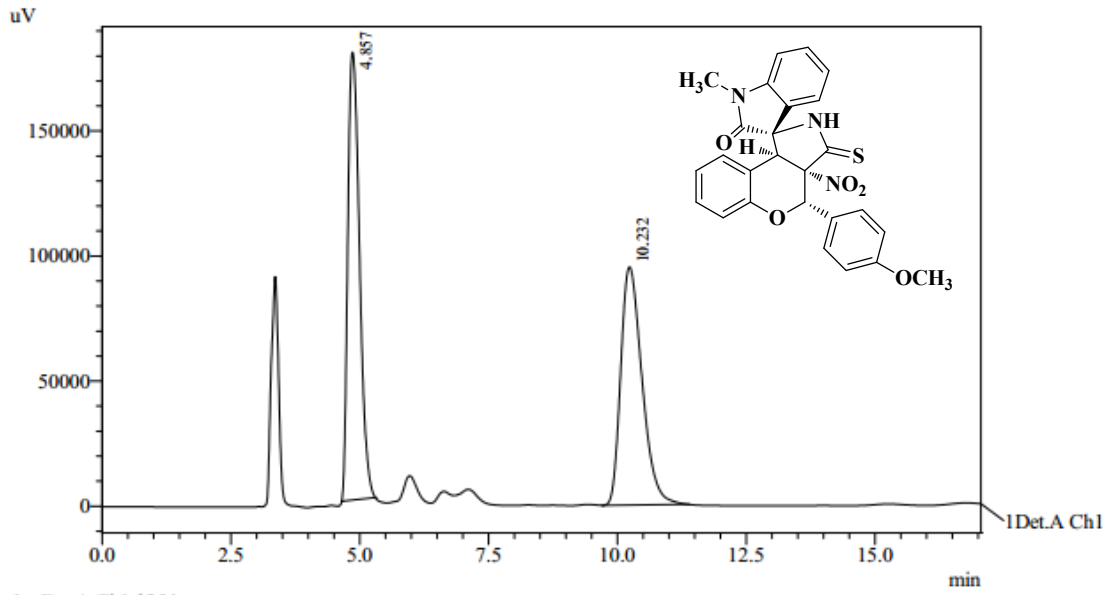
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.989	599198	36948	8.754	23.215
2	16.585	6245266	122208	91.246	76.785
Total		6844465	159156	100.000	100.000

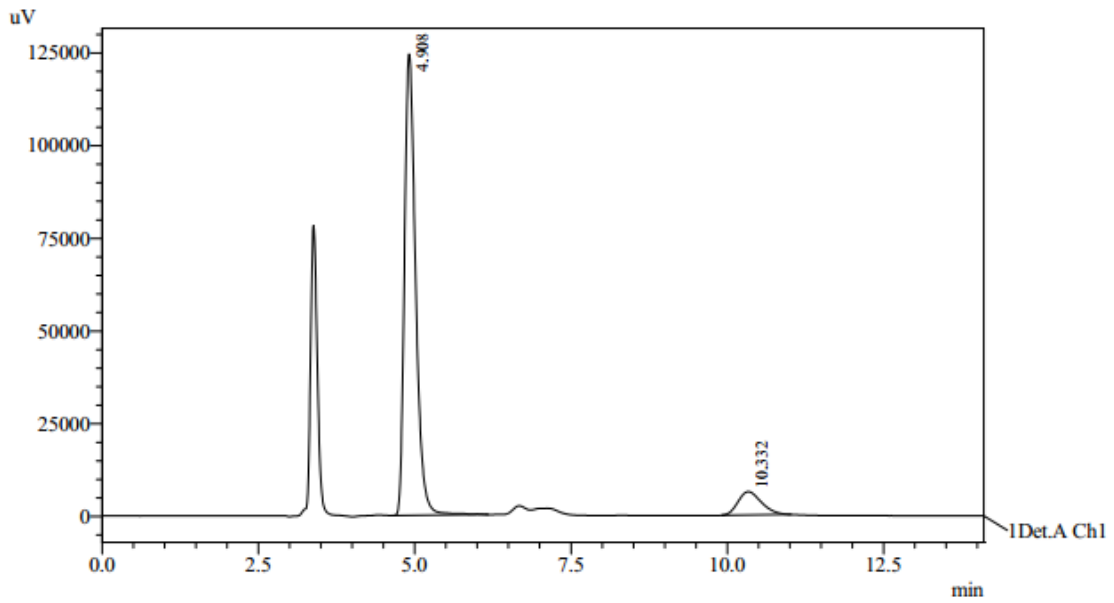
5ah



Detector A Ch1 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.857	2812828	179057	50.703	65.302
2	10.232	2734860	95143	49.297	34.698
Total		5547688	274200	100.000	100.000

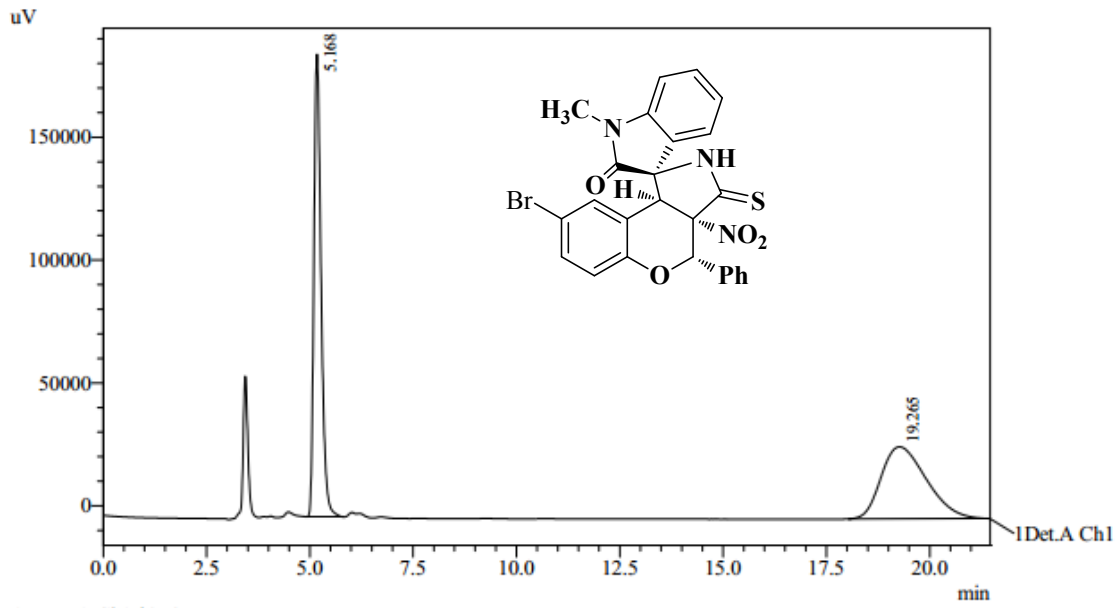


Detector A Ch1 254nm

PeakTable

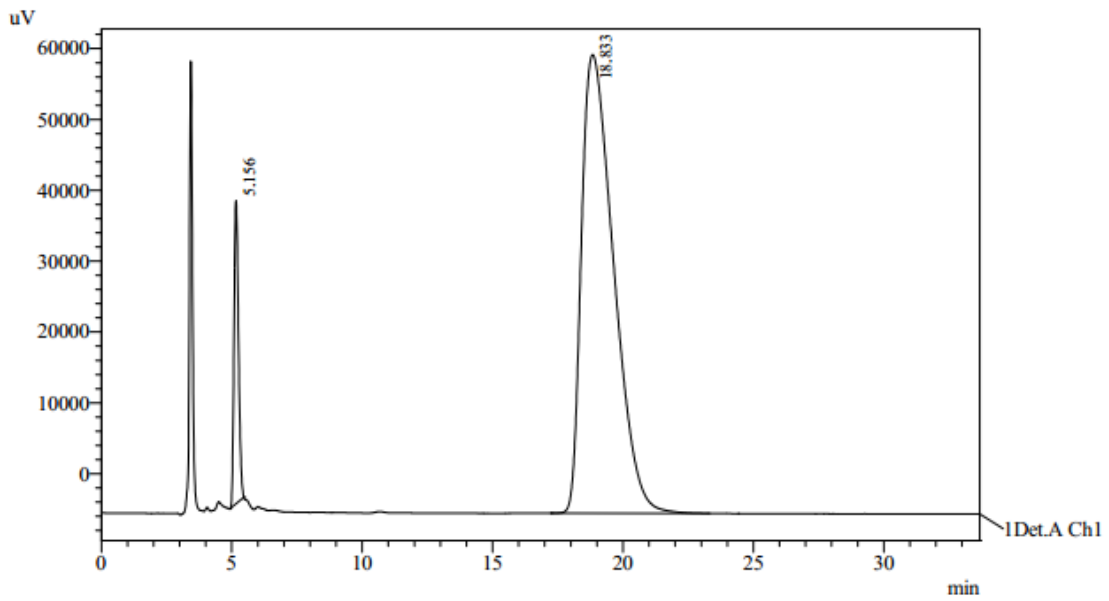
Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.908	1547034	124401	90.460	95.198
2	10.332	163154	6274	9.540	4.802
Total		1710188	130676	100.000	100.000

4ai



PeakTable

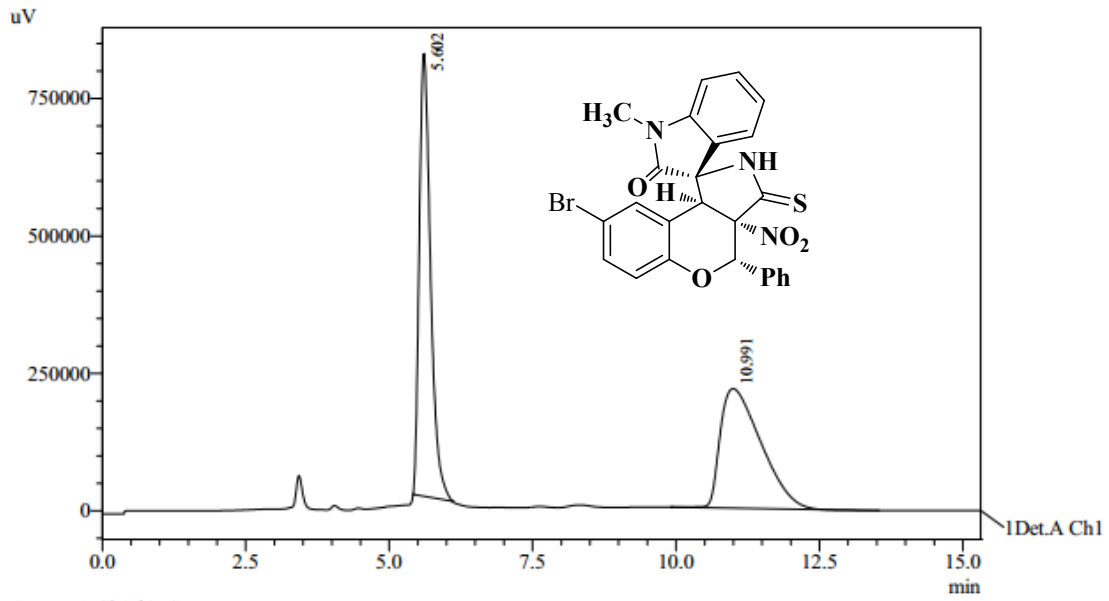
Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.168	2274208	188200	50.555	86.541
2	19.265	2224263	29269	49.445	13.459
Total		4498471	217469	100.000	100.000



PeakTable

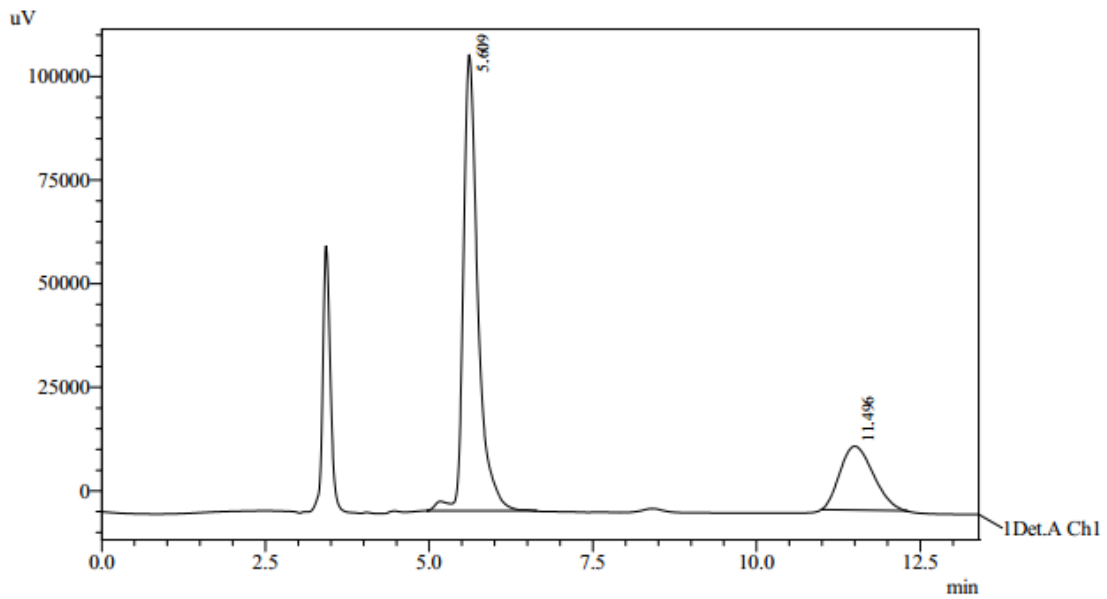
Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.156	510068	42740	8.423	39.774
2	18.833	5545281	64718	91.577	60.226
Total		6055349	107458	100.000	100.000

5ai



PeakTable

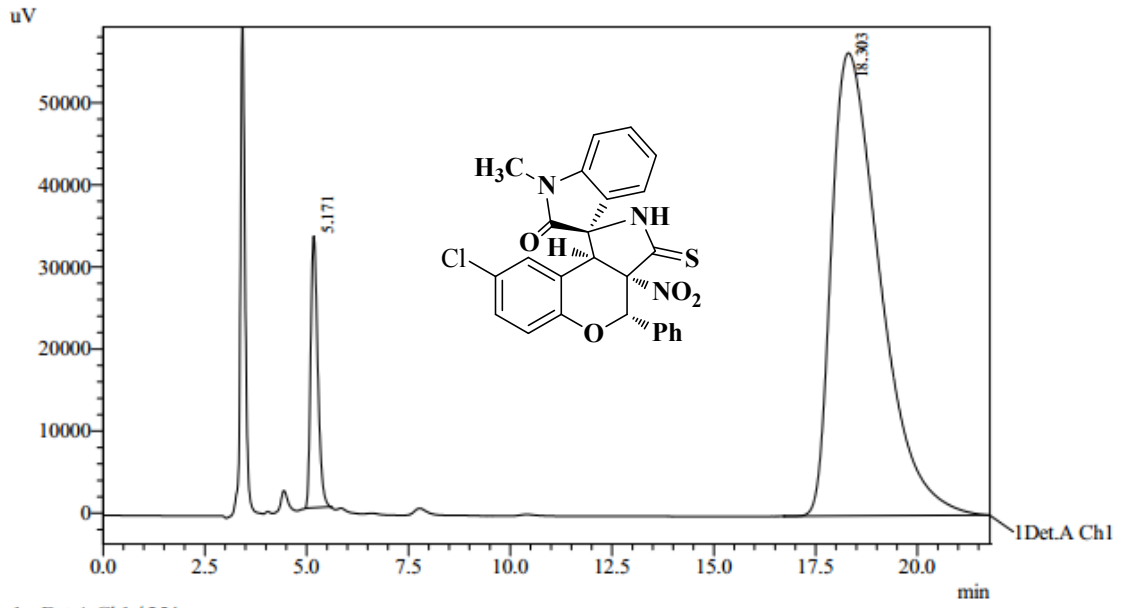
Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.602	11021988	805671	50.712	78.754
2	10.991	10712339	217354	49.288	21.246
Total		21734327	1023025	100.000	100.000



PeakTable

Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.609	1706073	109994	75.692	87.712
2	11.496	547898	15410	24.308	12.288
Total		2253971	125404	100.000	100.000

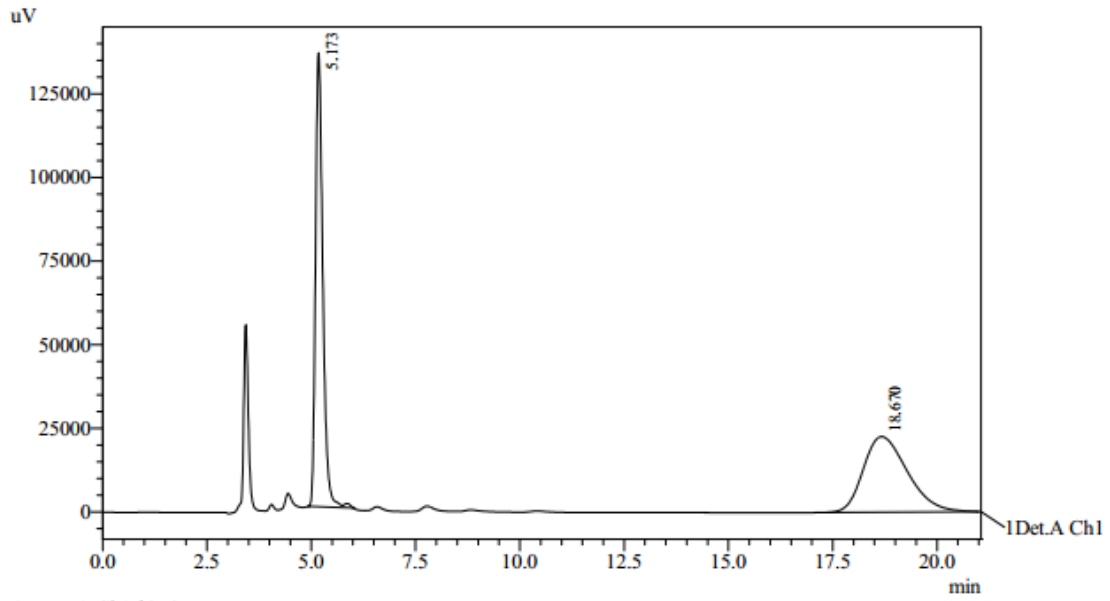
4aj



Detector A Ch1 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.171	400854	33077	7.921	36.967
2	18.303	4659506	56400	92.079	63.033
Total		5060360	89476	100.000	100.000

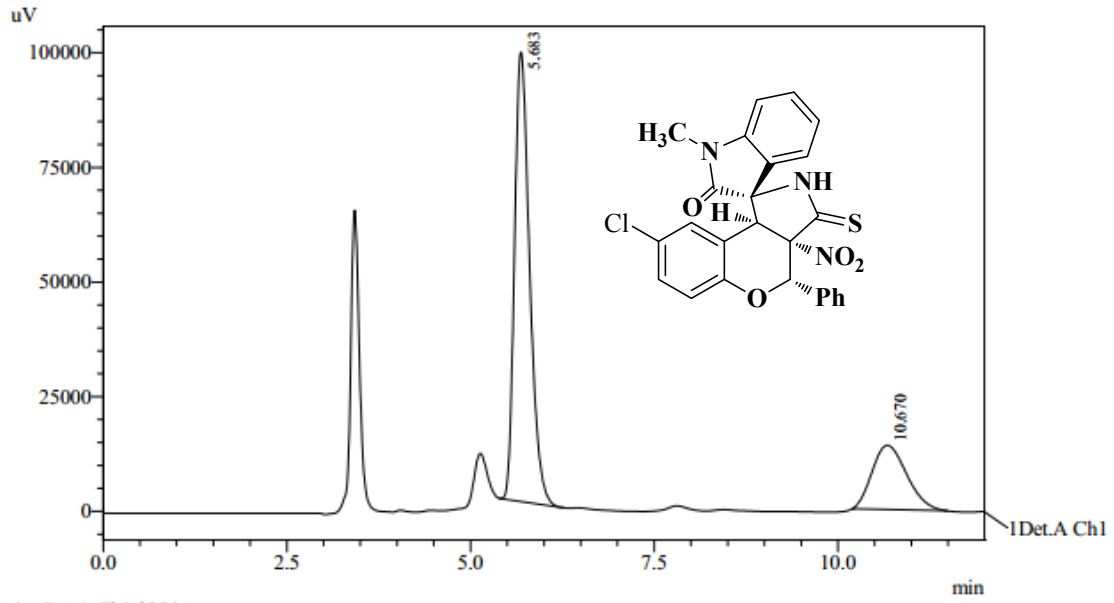


Detector A Ch1 254nm

PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.173	1662097	135710	50.044	85.731
2	18.670	1659201	22587	49.956	14.269
Total		3321297	158297	100.000	100.000

5aj

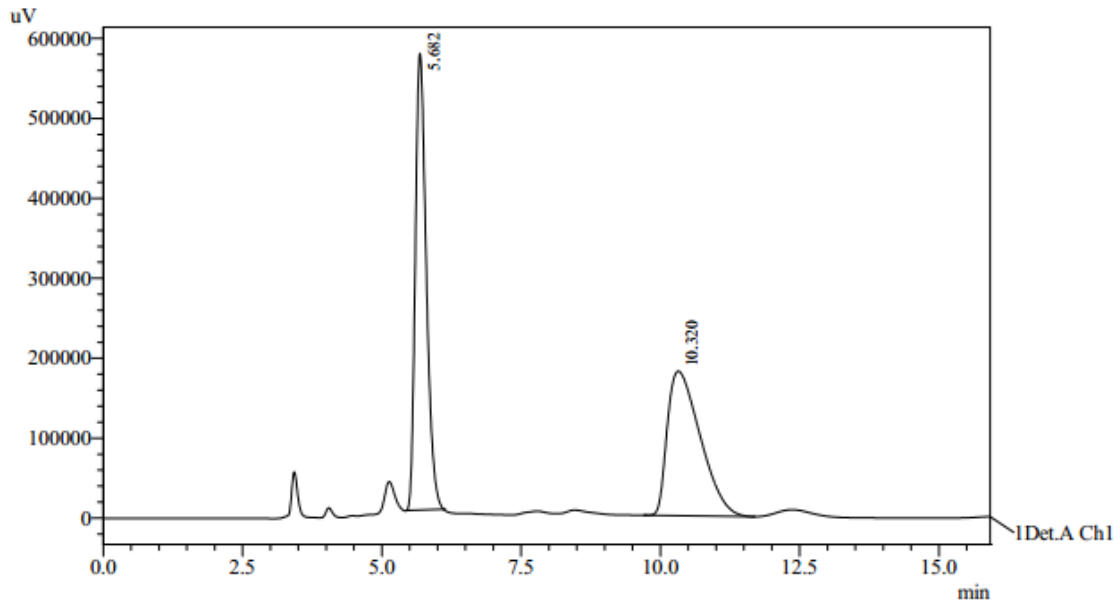


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.683	1402944	98060	75.375	87.530
2	10.670	458348	13970	24.625	12.470
Total		1861292	112030	100.000	100.000



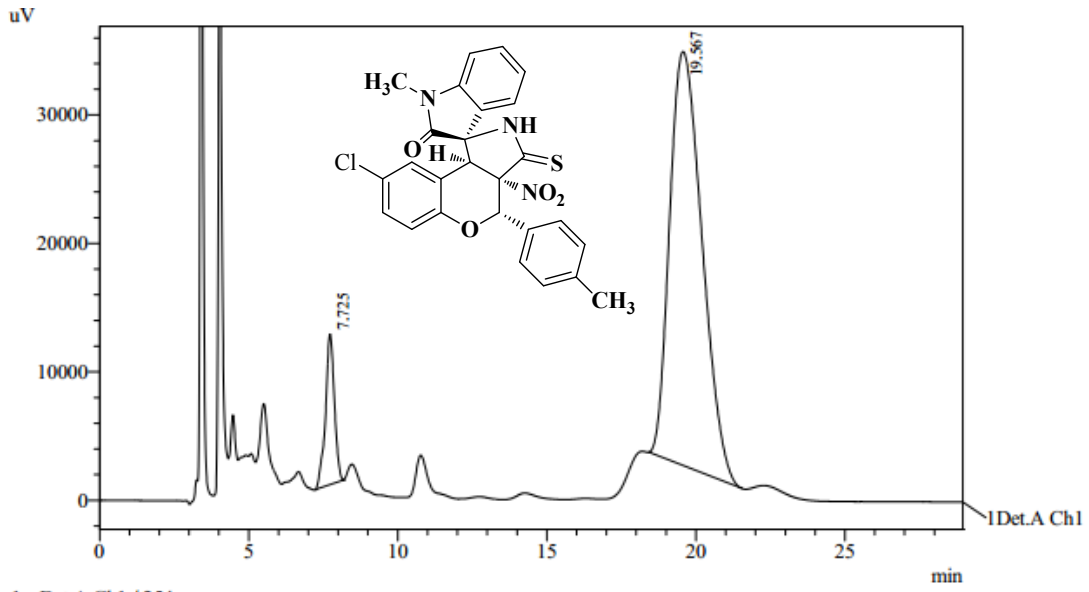
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.682	7814380	571436	51.225	75.963
2	10.320	7440665	180815	48.775	24.037
Total		15255045	752251	100.000	100.000

4ak

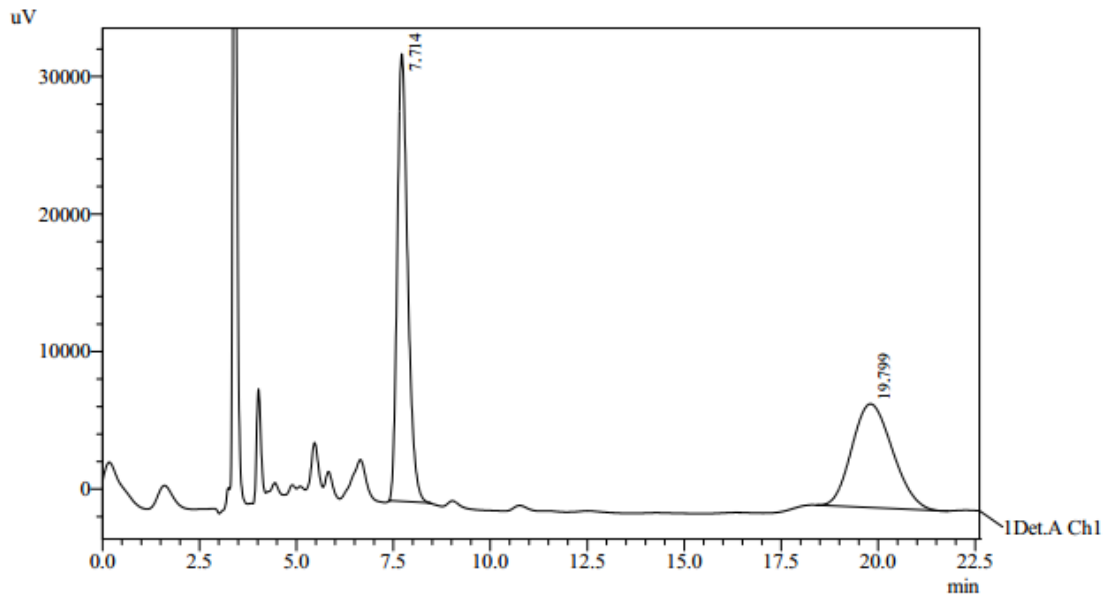


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	7.725	243794	11701	9.104	26.648
2	19.567	2434090	32208	90.896	73.352
Total		2677884	43909	100.000	100.000



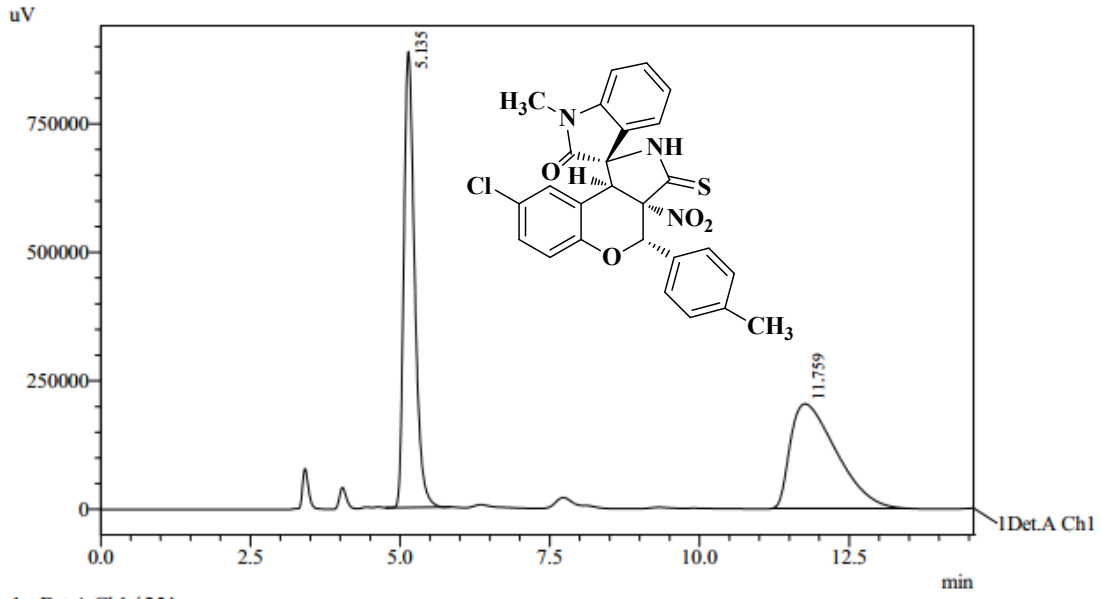
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

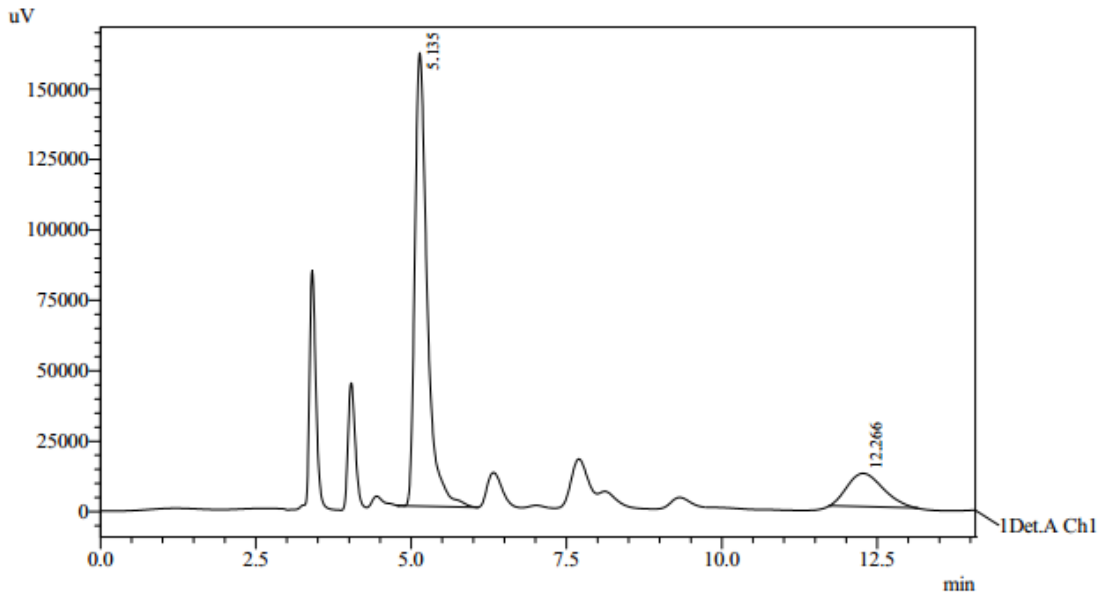
Peak#	Ret. Time	Area	Height	Area %	Height %
1	7.714	612717	32531	52.751	81.214
2	19.799	548800	7525	47.249	18.786
Total		1161517	40057	100.000	100.000

5ak



PeakTable

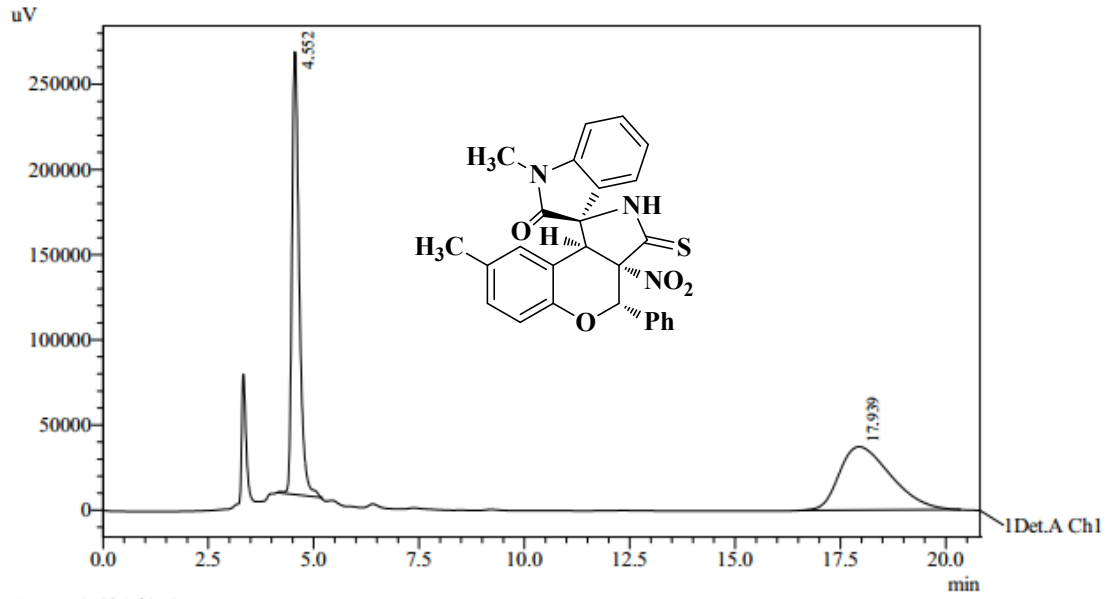
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.135	11109147	887491	50.554	81.365
2	11.759	10865485	203262	49.446	18.635
Total		21974631	1090752	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.135	2230908	160915	82.434	93.167
2	12.266	475394	11801	17.566	6.833
Total		2706301	172716	100.000	100.000

4a1

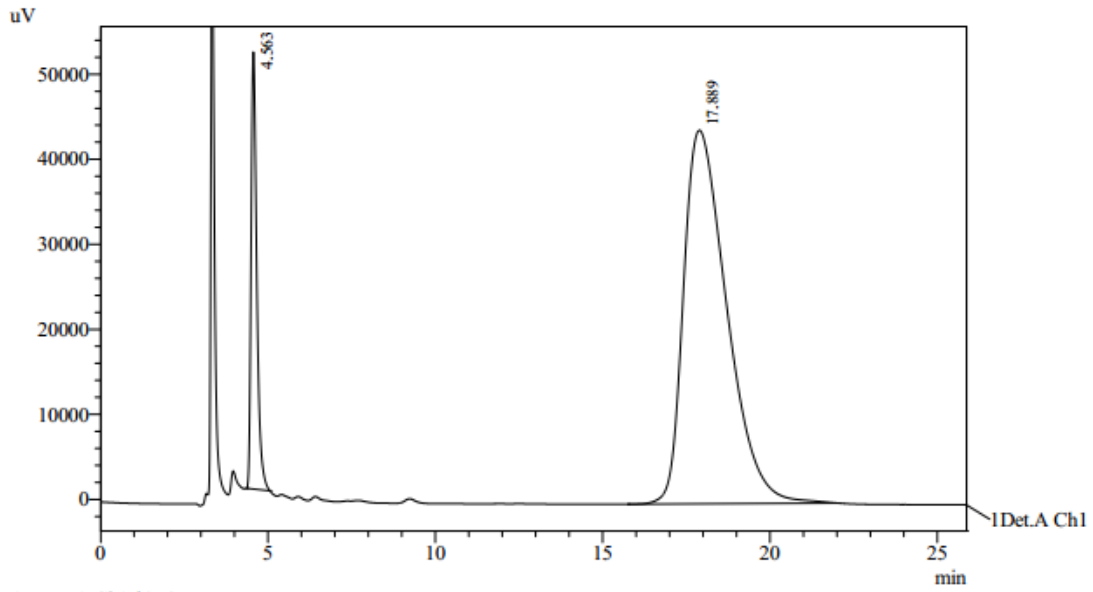


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.552	3140760	260071	49.764	87.473
2	17.939	3170509	37243	50.236	12.527
Total		6311270	297314	100.000	100.000



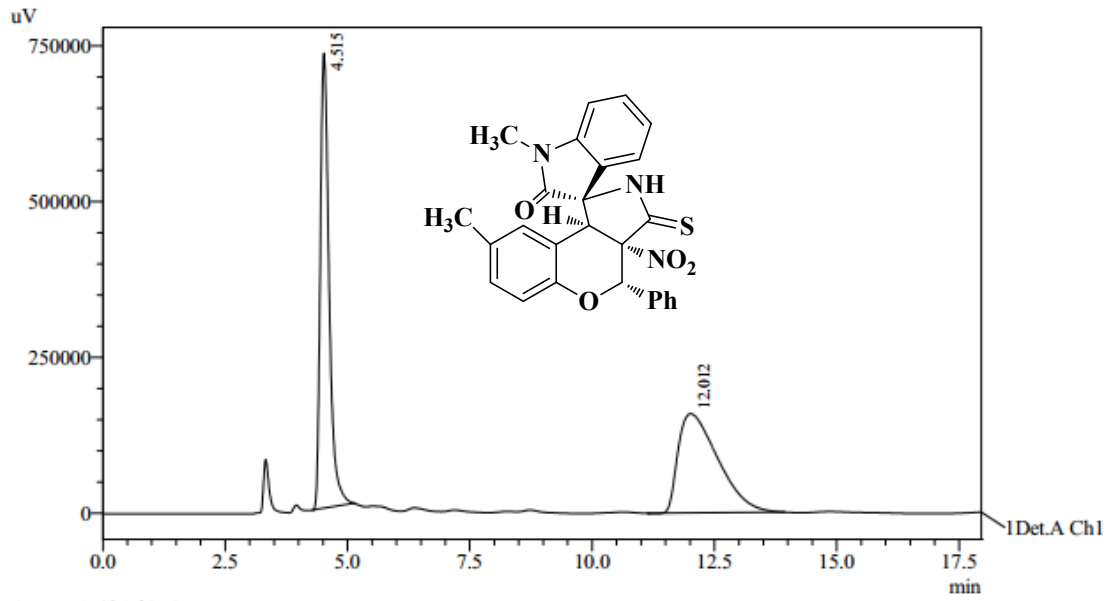
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.563	603837	51399	13.284	53.916
2	17.889	3941620	43932	86.716	46.084
Total		4545456	95331	100.000	100.000

5al

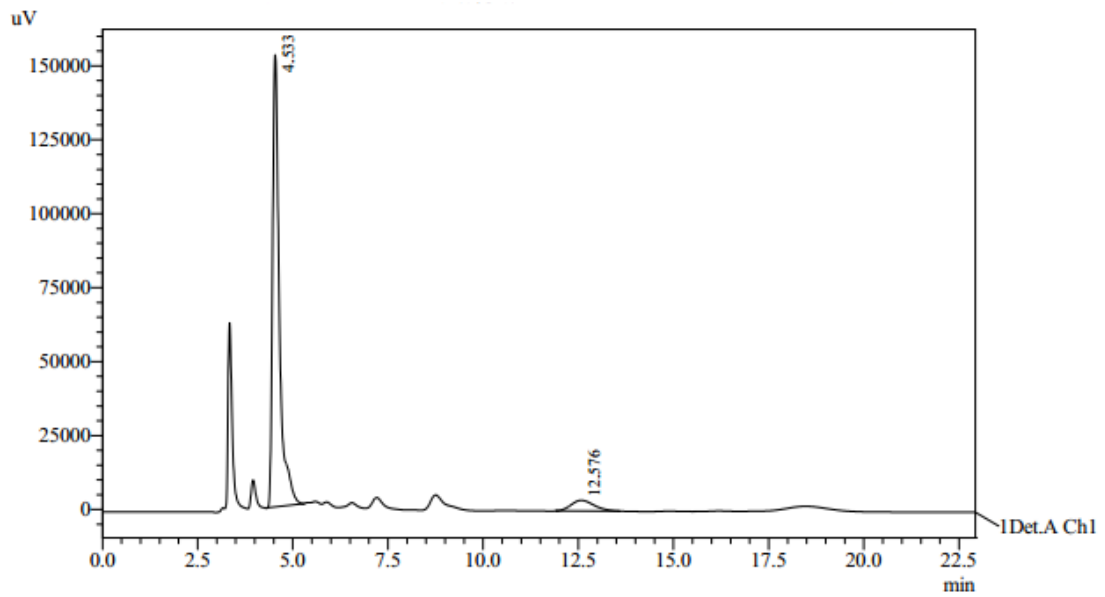


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.515	9138333	729816	50.374	82.100
2	12.012	9002479	159120	49.626	17.900
Total		18140812	888936	100.000	100.000



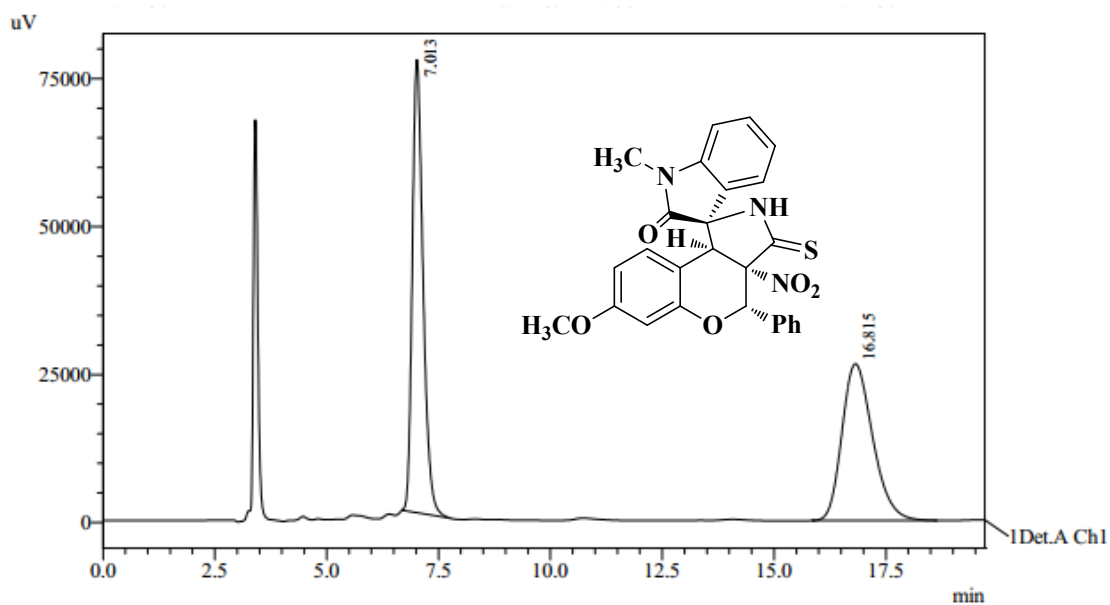
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

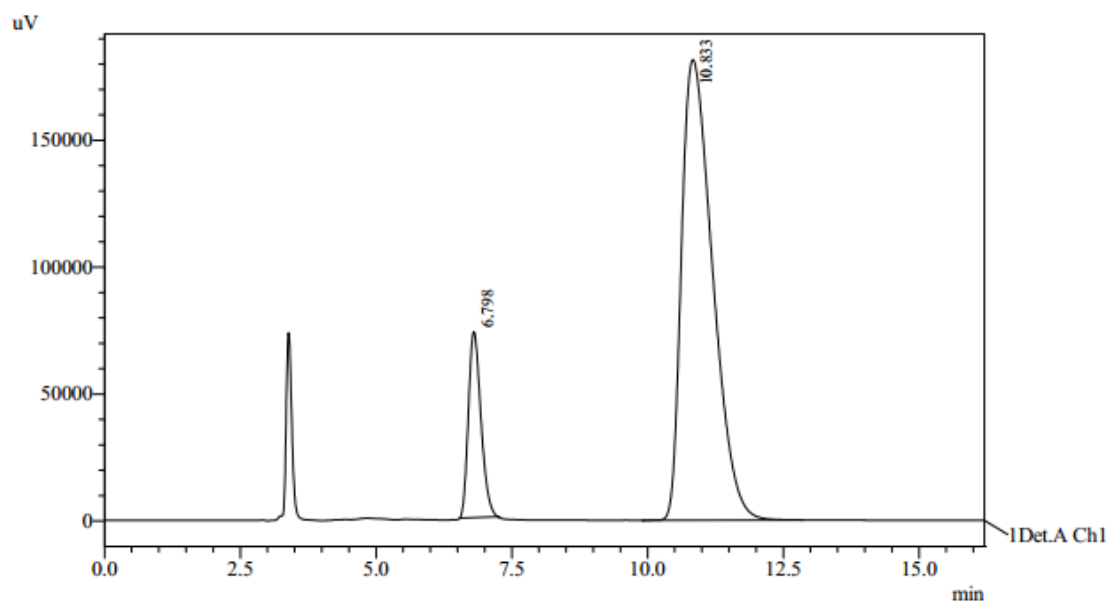
Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.533	1899865	152792	92.729	97.717
2	12.576	148965	3570	7.271	2.283
Total		2048830	156362	100.000	100.000

4am



PeakTable

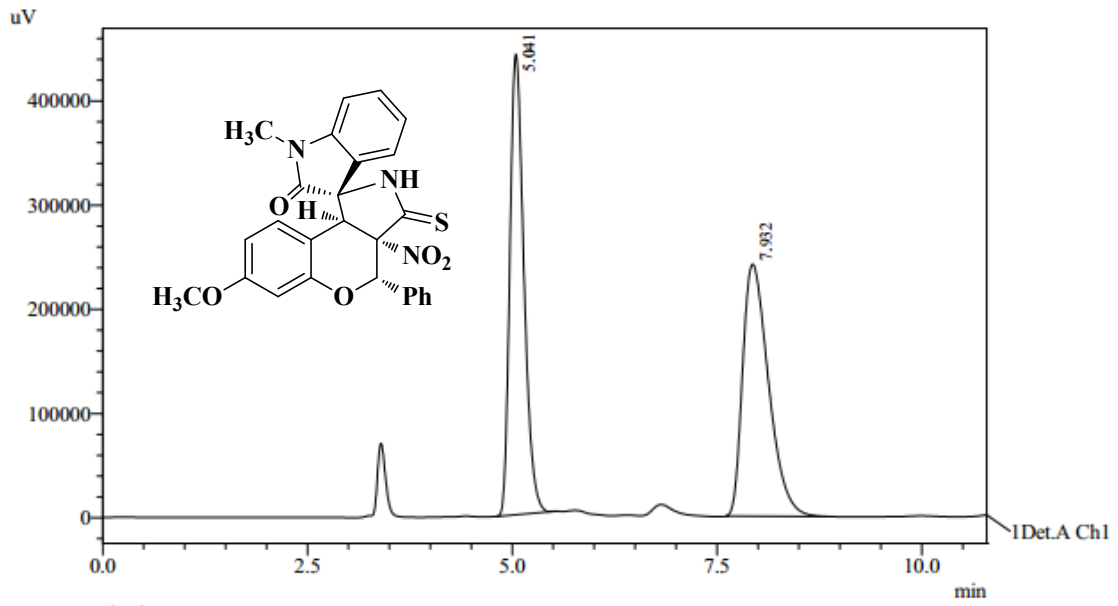
Peak#	Ret. Time	Area	Height	Area %	Height %
1	7.013	1279788	76586	50.263	74.313
2	16.815	1266418	26472	49.737	25.687
Total		2546206	103059	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.798	1174196	73256	14.009	28.765
2	10.833	7207533	181414	85.991	71.235
Total		8381729	254670	100.000	100.000

5am

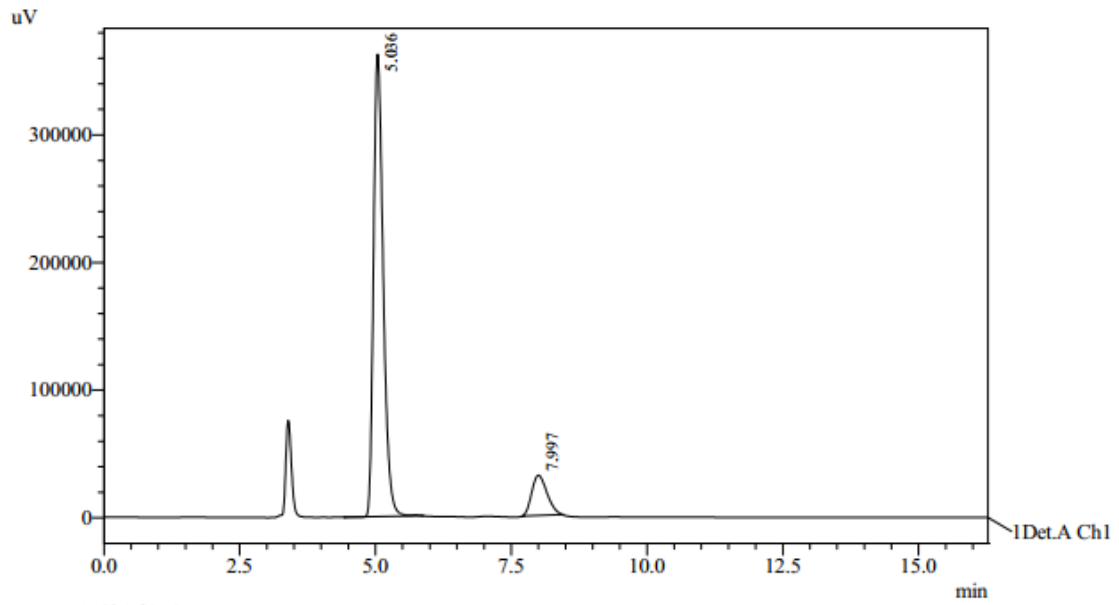


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.041	5249377	442080	49.621	64.641
2	7.932	5329599	241820	50.379	35.359
Total		10578975	683901	100.000	100.000



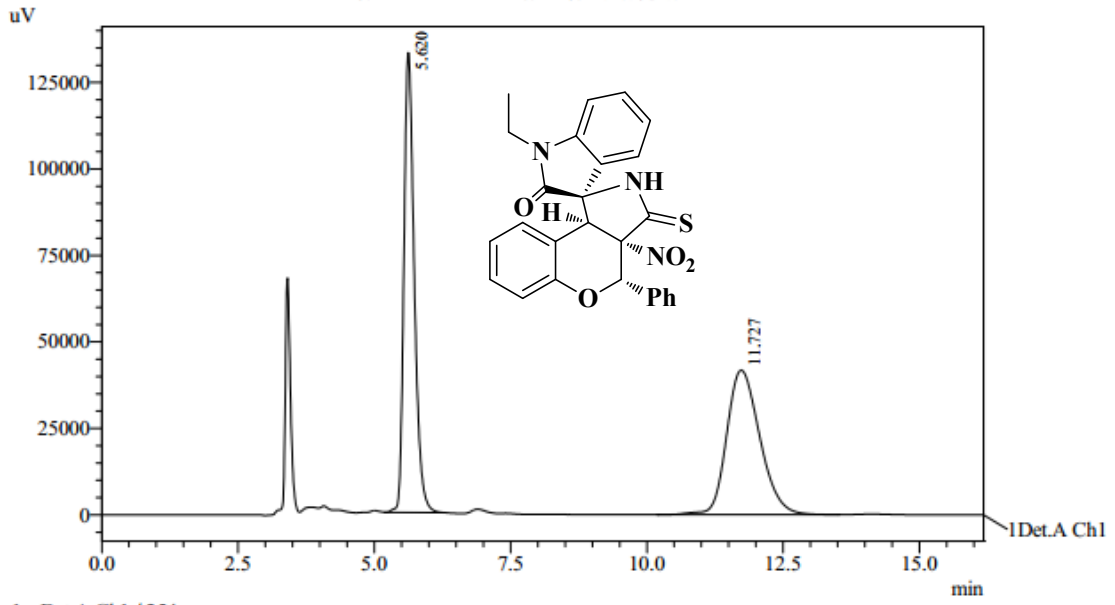
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.036	4486906	362246	87.964	92.023
2	7.997	613909	31402	12.036	7.977
Total		5100815	393648	100.000	100.000

4ba

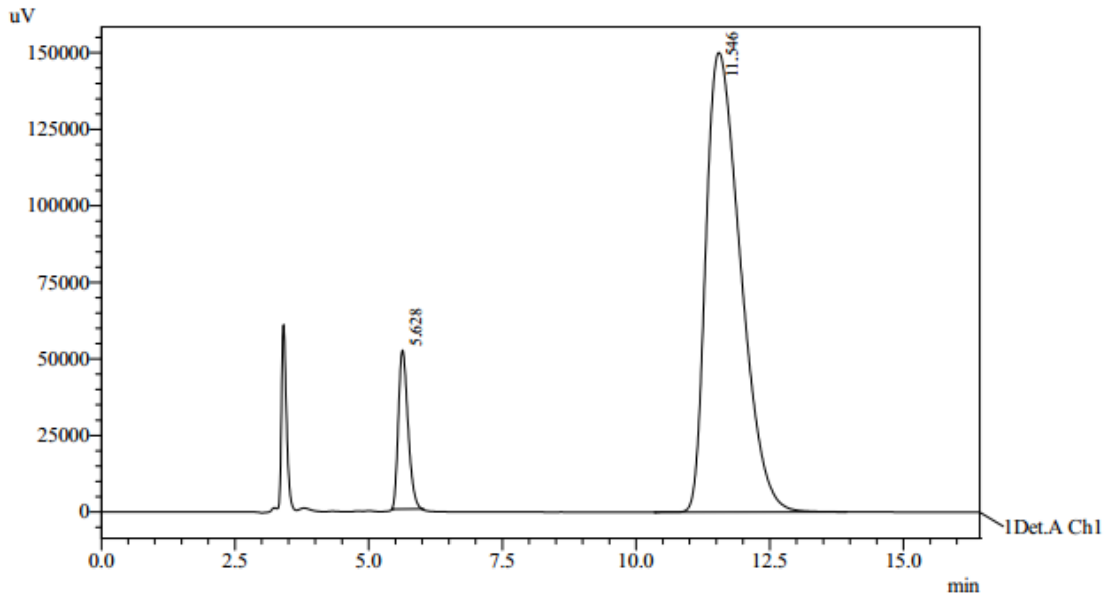


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.620	1760315	132968	49.832	76.085
2	11.727	1772169	41794	50.168	23.915
Total		3532484	174762	100.000	100.000



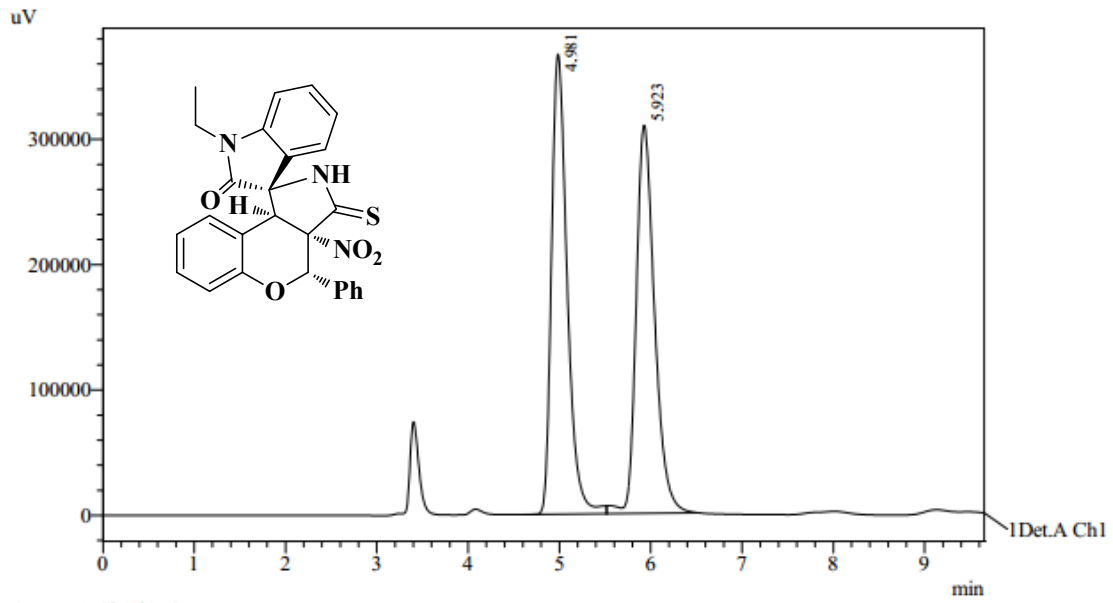
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.628	652428	51959	8.822	25.720
2	11.546	6742868	150058	91.178	74.280
Total		7395296	202017	100.000	100.000

5ba

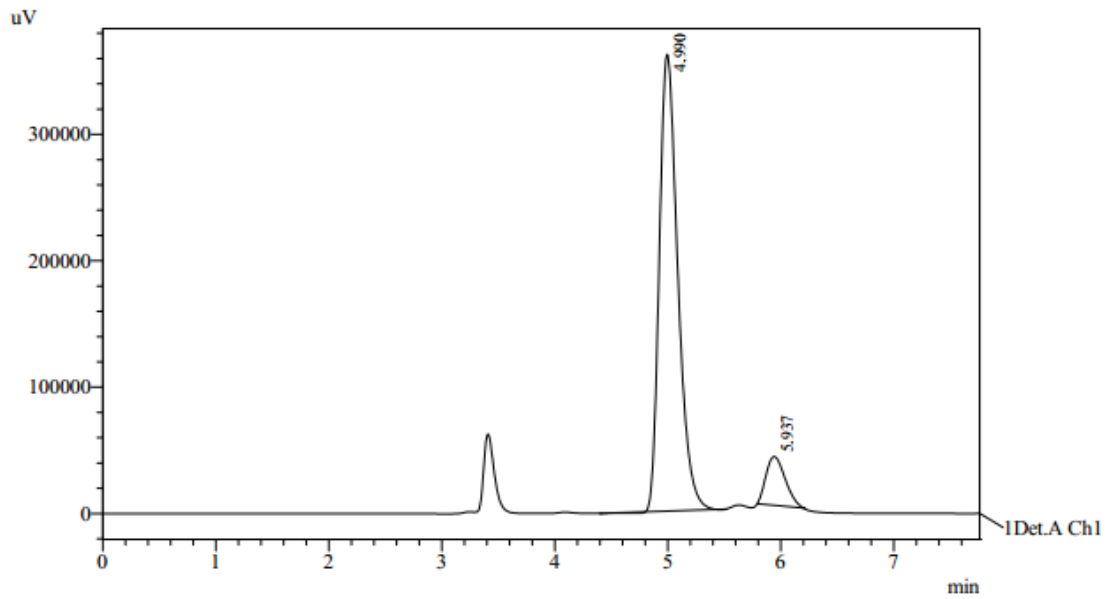


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.981	4383876	367136	50.196	54.245
2	5.923	4349677	309672	49.804	45.755
Total		8733552	676808	100.000	100.000



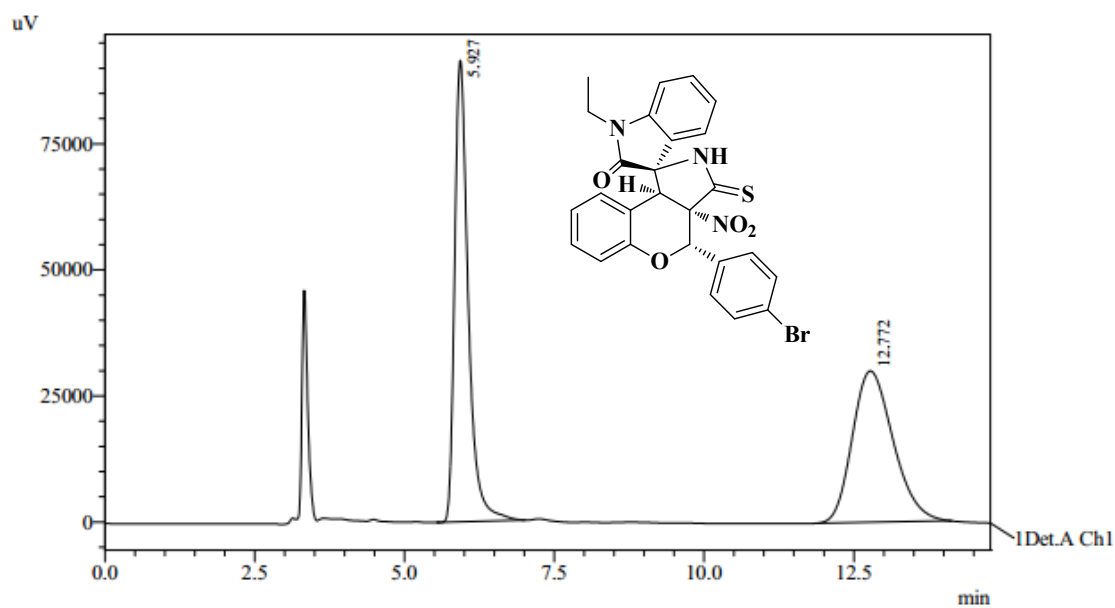
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

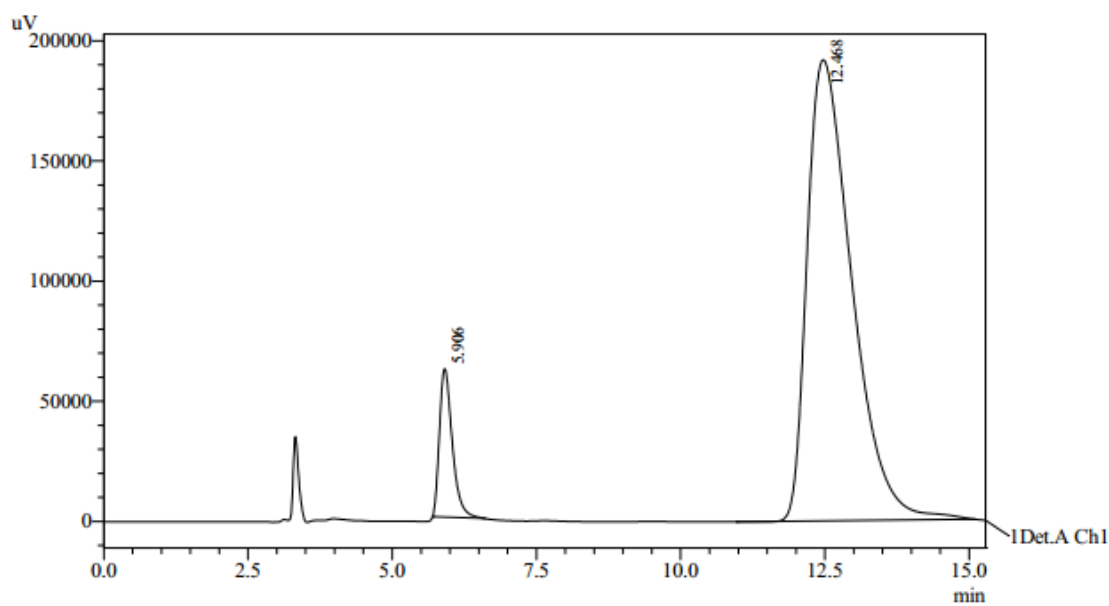
Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.990	4093370	361456	89.984	90.351
2	5.937	455606	38601	10.016	9.649
Total		4548976	400057	100.000	100.000

4bb



PeakTable

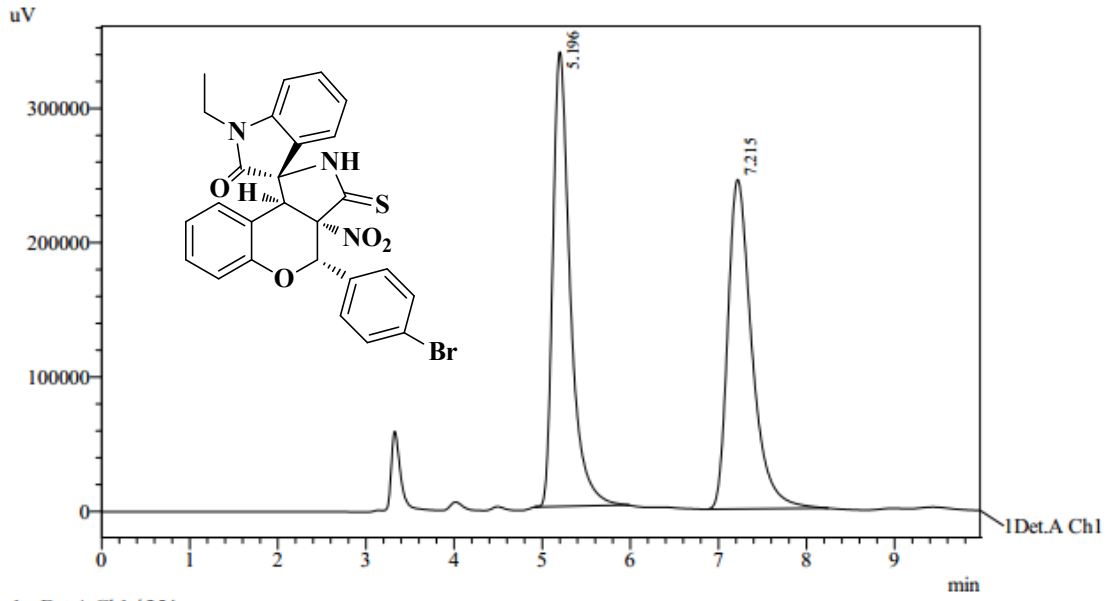
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.927	1442496	91514	50.287	75.306
2	12.772	1426033	30010	49.713	24.694
Total		2868529	121524	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.906	956521	61695	8.472	24.332
2	12.468	10333937	191856	91.528	75.668
Total		11290458	253550	100.000	100.000

5bb

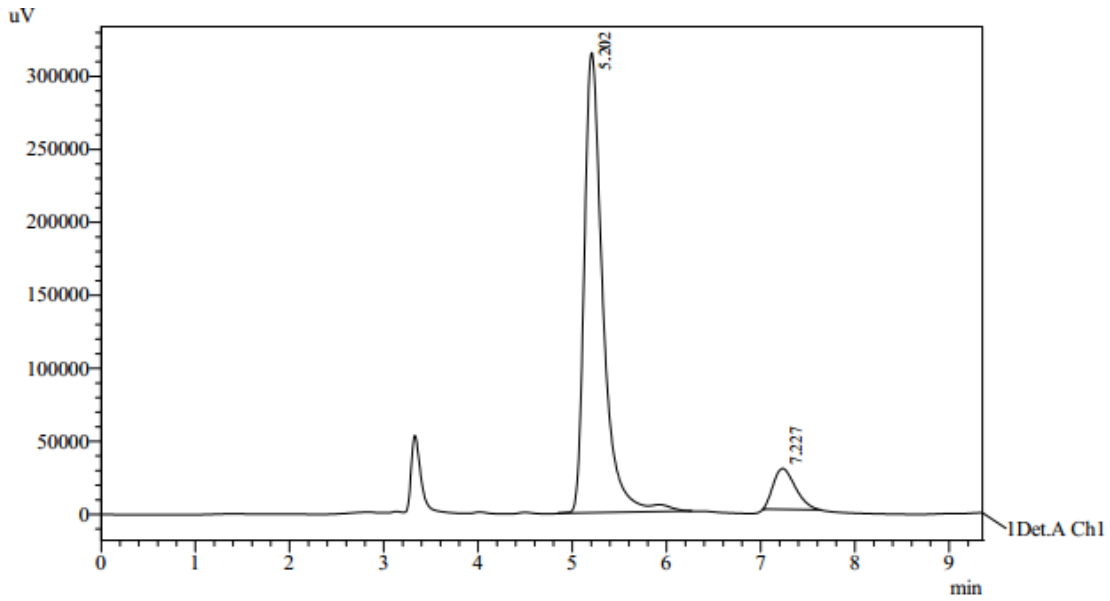


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.196	4631966	338359	49.912	57.986
2	7.215	4648210	245159	50.088	42.014
Total		9280176	583518	100.000	100.000



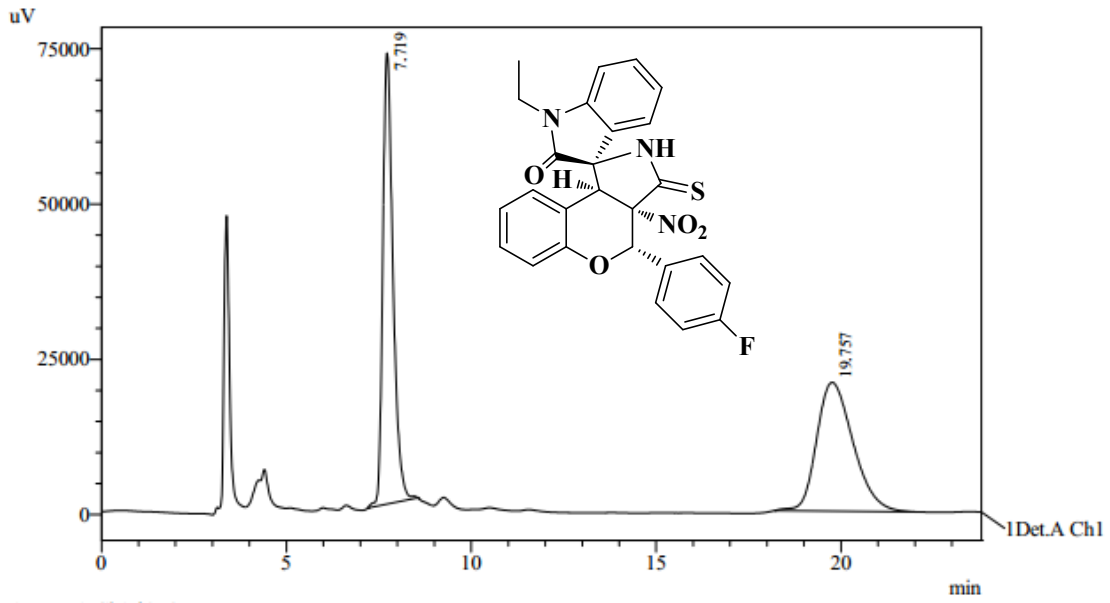
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

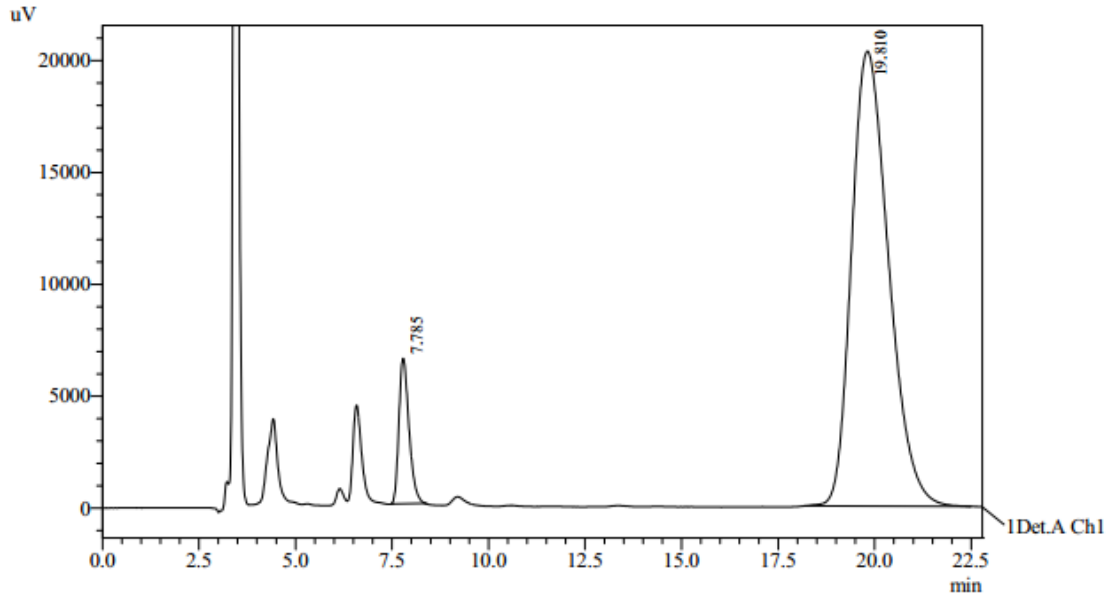
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.202	4316637	315218	90.417	91.856
2	7.227	457516	27946	9.583	8.144
Total		4774152	343164	100.000	100.000

4bf



PeakTable

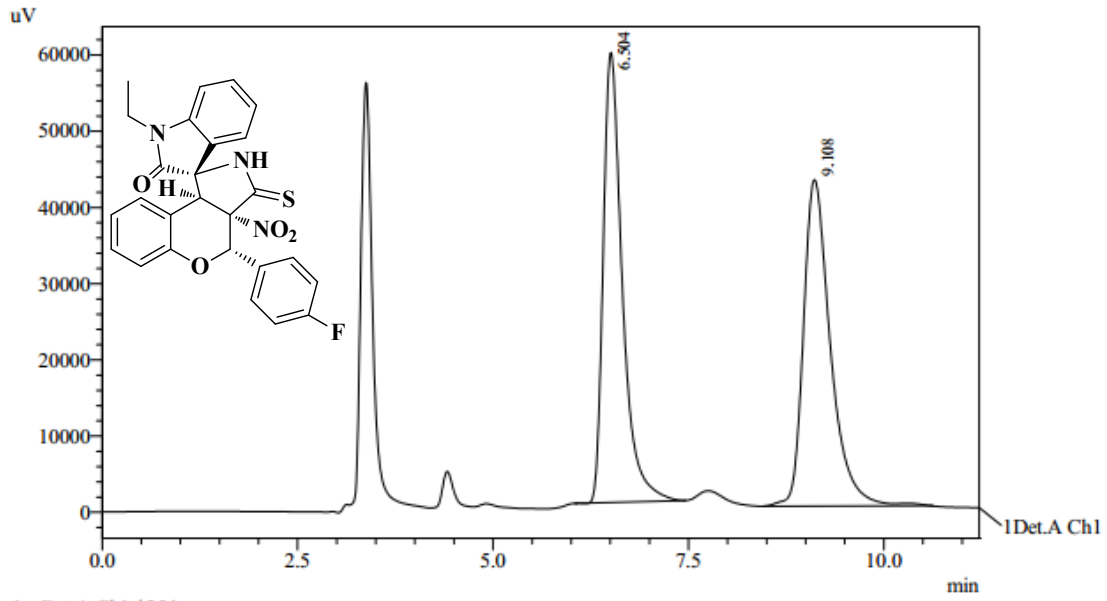
Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	7.719	1395023	72612	49.555	77.802
2	19.757	1420098	20718	50.445	22.198
Total		2815121	93330	100.000	100.000



PeakTable

Detector A Ch1 254nm					
Peak#	Ret. Time	Area	Height	Area %	Height %
1	7.785	118330	6495	7.999	24.207
2	19.810	1360917	20335	92.001	75.793
Total		1479247	26830	100.000	100.000

5bf

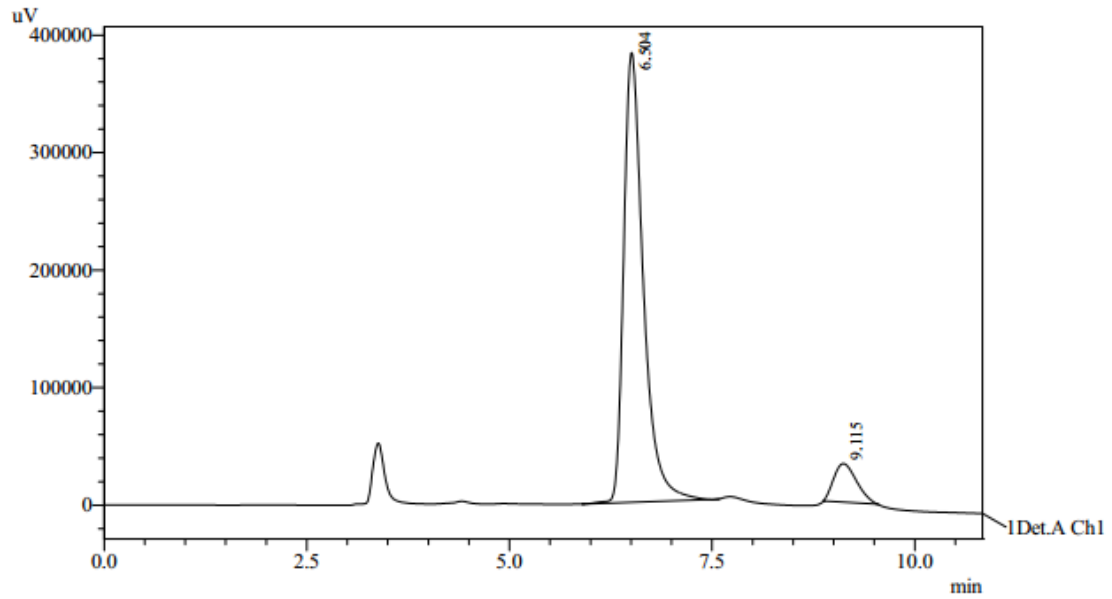


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.504	1003211	59050	49.343	57.971
2	9.108	1029913	42811	50.657	42.029
Total		2033124	101860	100.000	100.000



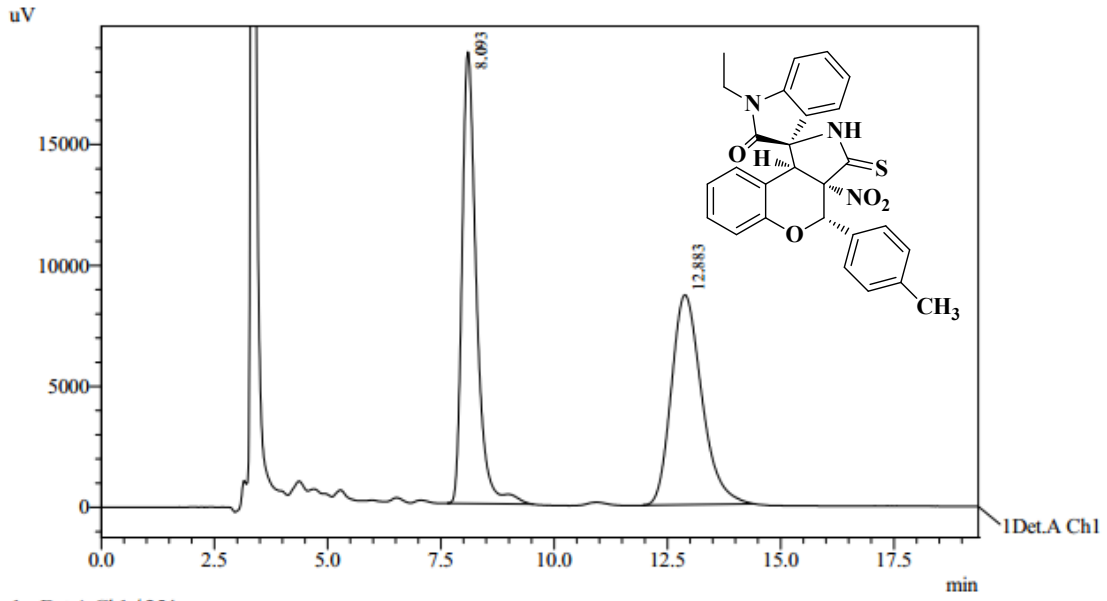
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

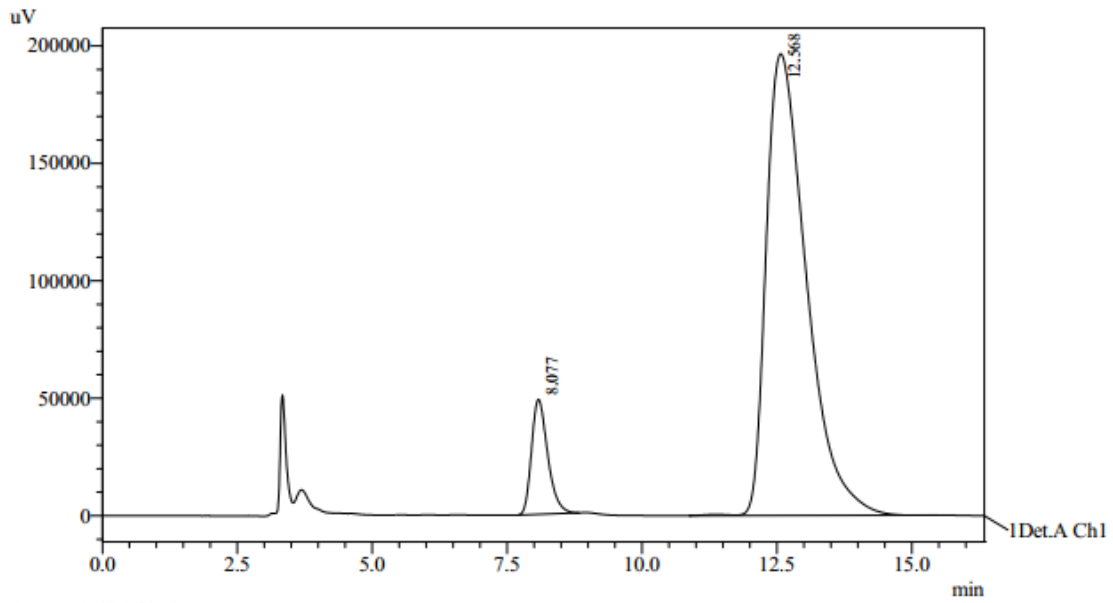
Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.504	6455799	382875	90.988	92.146
2	9.115	639407	32633	9.012	7.854
Total		7095206	415508	100.000	100.000

4bj



PeakTable

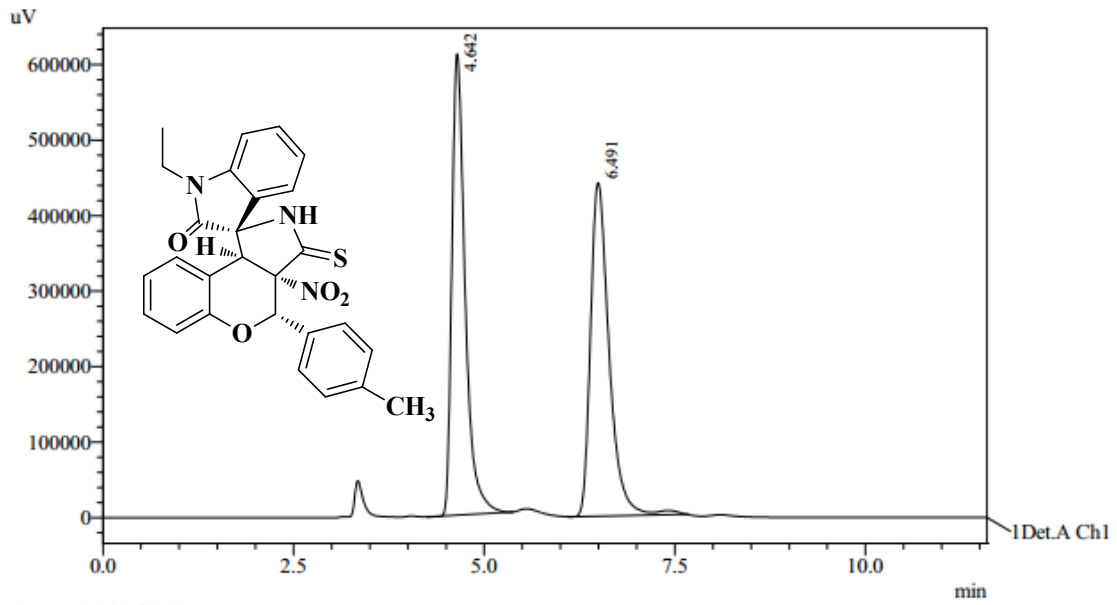
Peak#	Ret. Time	Area	Height	Area %	Height %
1	8.093	411614	18669	50.335	68.272
2	12.883	406140	8676	49.665	31.728
Total		817754	27345	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	8.077	1021917	48920	9.129	19.933
2	12.568	10171675	196500	90.871	80.067
Total		11193592	245420	100.000	100.000

5bj

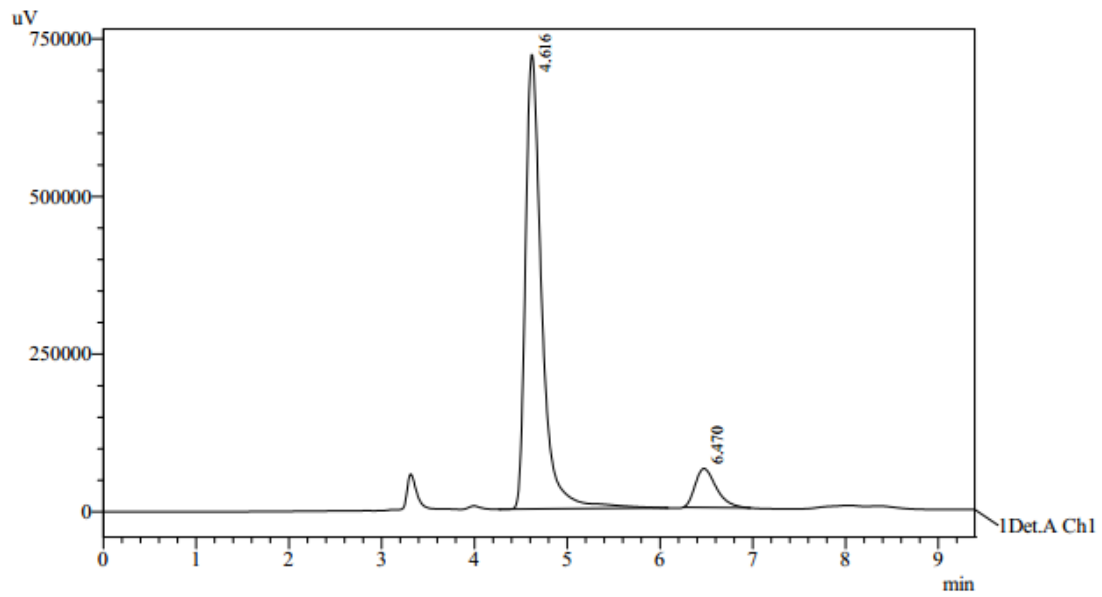


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.642	7401273	610966	49.626	58.045
2	6.491	7512822	441602	50.374	41.955
Total		14914095	1052568	100.000	100.000



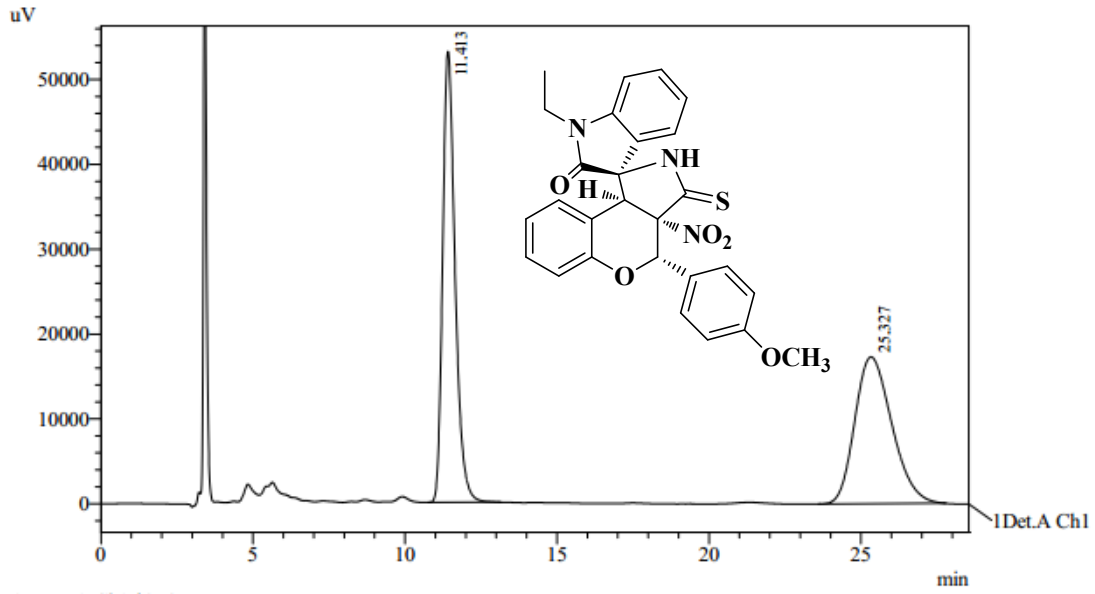
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.616	8822995	720753	90.012	92.111
2	6.470	979065	61731	9.988	7.889
Total		9802060	782484	100.000	100.000

4bk

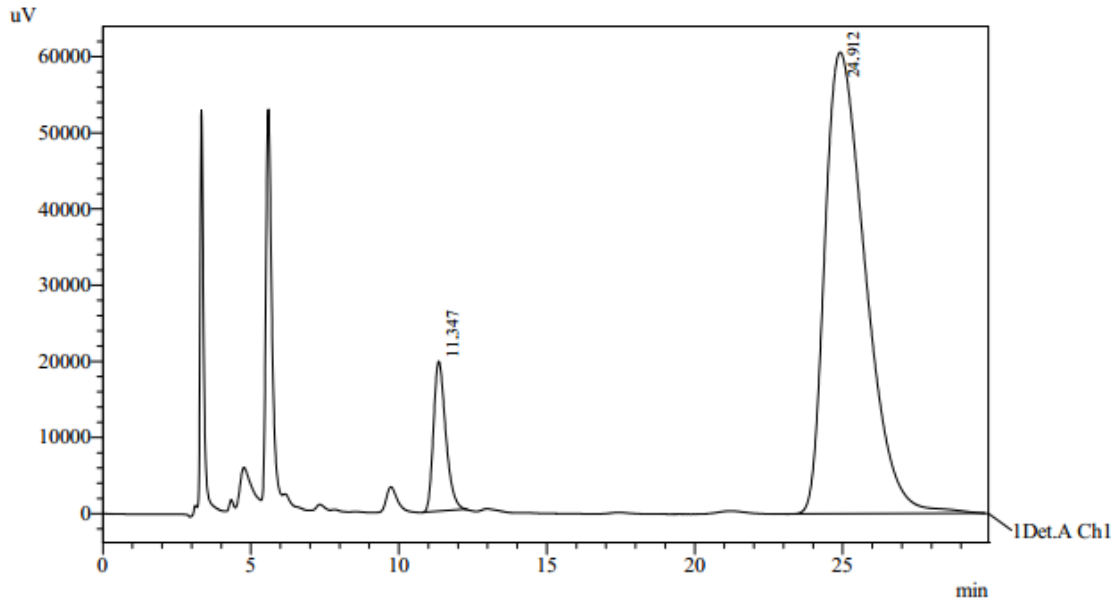


1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	11.413	1507359	53143	50.677	75.436
2	25.327	1467096	17305	49.323	24.564
Total		2974455	70448	100.000	100.000



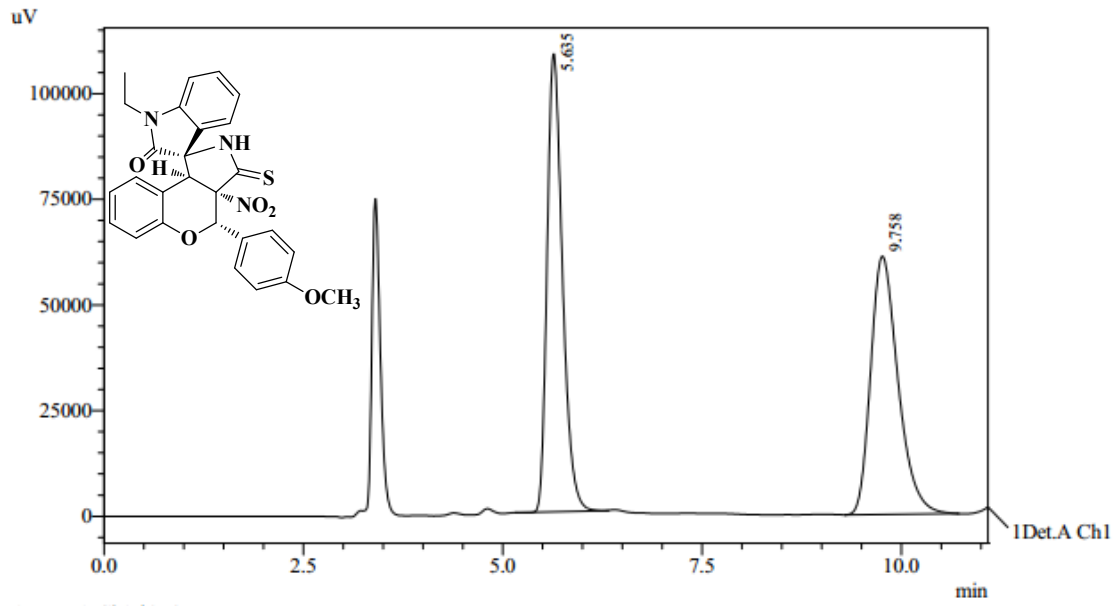
1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

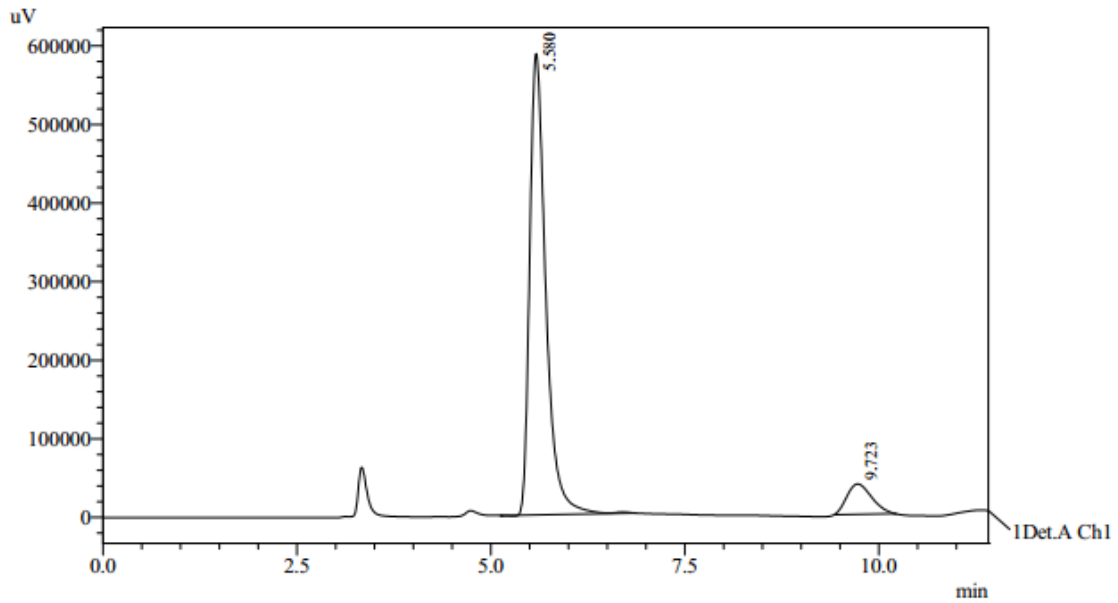
Peak#	Ret. Time	Area	Height	Area %	Height %
1	11.347	569037	19687	8.996	24.524
2	24.912	5756610	60589	91.004	75.476
Total		6325647	80276	100.000	100.000

5bk



PeakTable

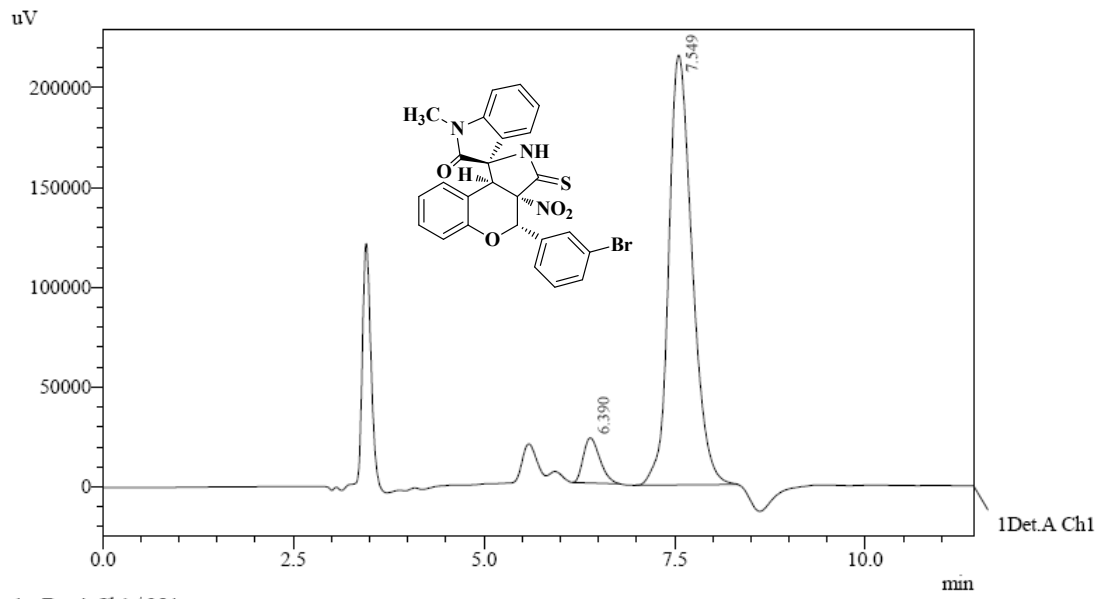
Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.635	1447413	108375	49.792	63.951
2	9.758	1459532	61092	50.208	36.049
Total		2906945	169467	100.000	100.000



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.580	8458807	587097	90.861	93.850
2	9.723	850779	38471	9.139	6.150
Total		9309586	625568	100.000	100.000

4ac



1 Det.A Ch1 / 254nm

PeakTable

Detector A Ch1 254nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.390	340922	22579	6.897	9.488
2	7.549	4601913	215394	93.103	90.512
Total		4942835	237973	100.000	100.000