

Supporting Information
for
A novel and practical asymmetric synthesis of eptazocine hydrobromide

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Email: Weicheng Zhou* - zhouweicheng58@163.com

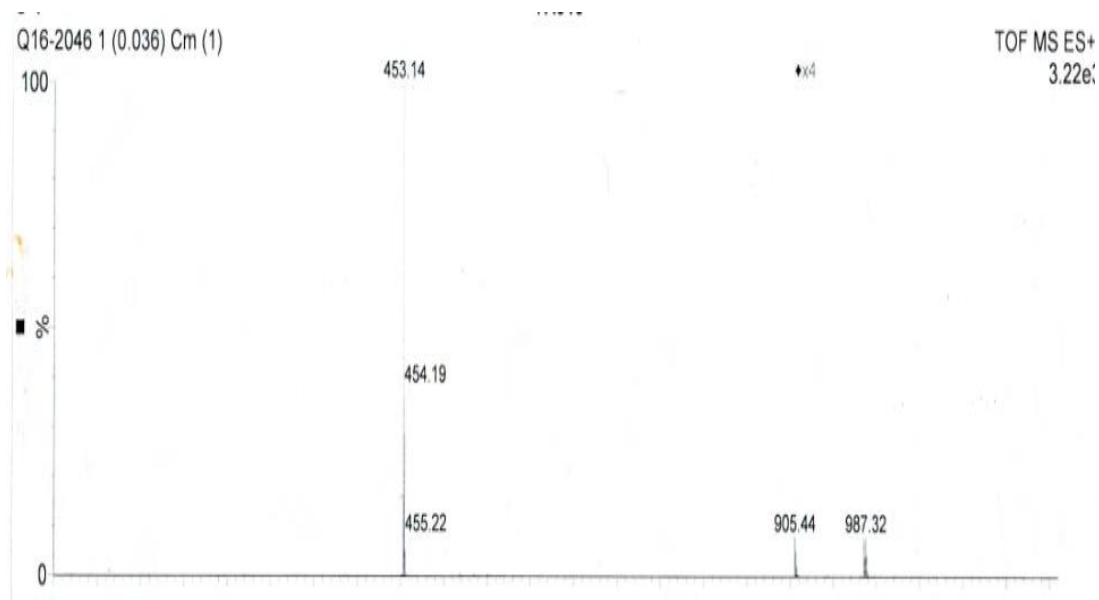
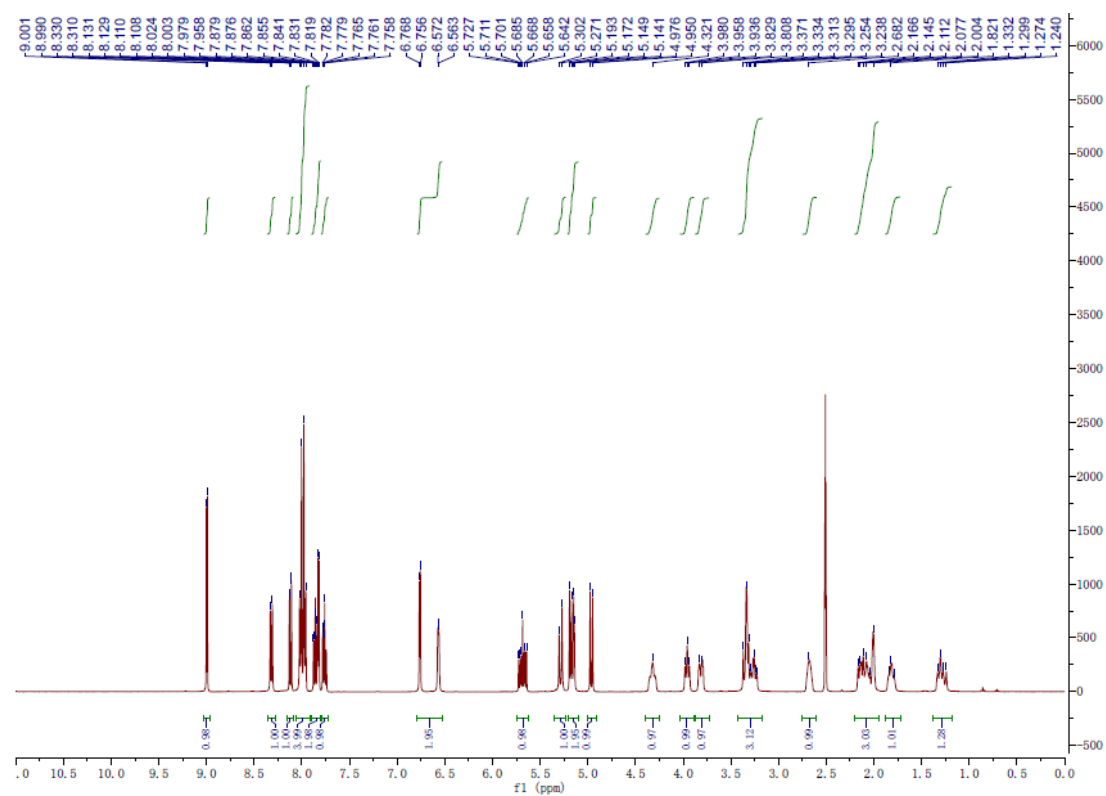
* Corresponding author

**¹H NMR and MS spectra of 3, 4, 8–15, ¹³C NMR spectra of 4, 12, 13,
chiral HPLC chromatograms of 4, ¹H NMR, MS and HPLC
chromatograms of 1**

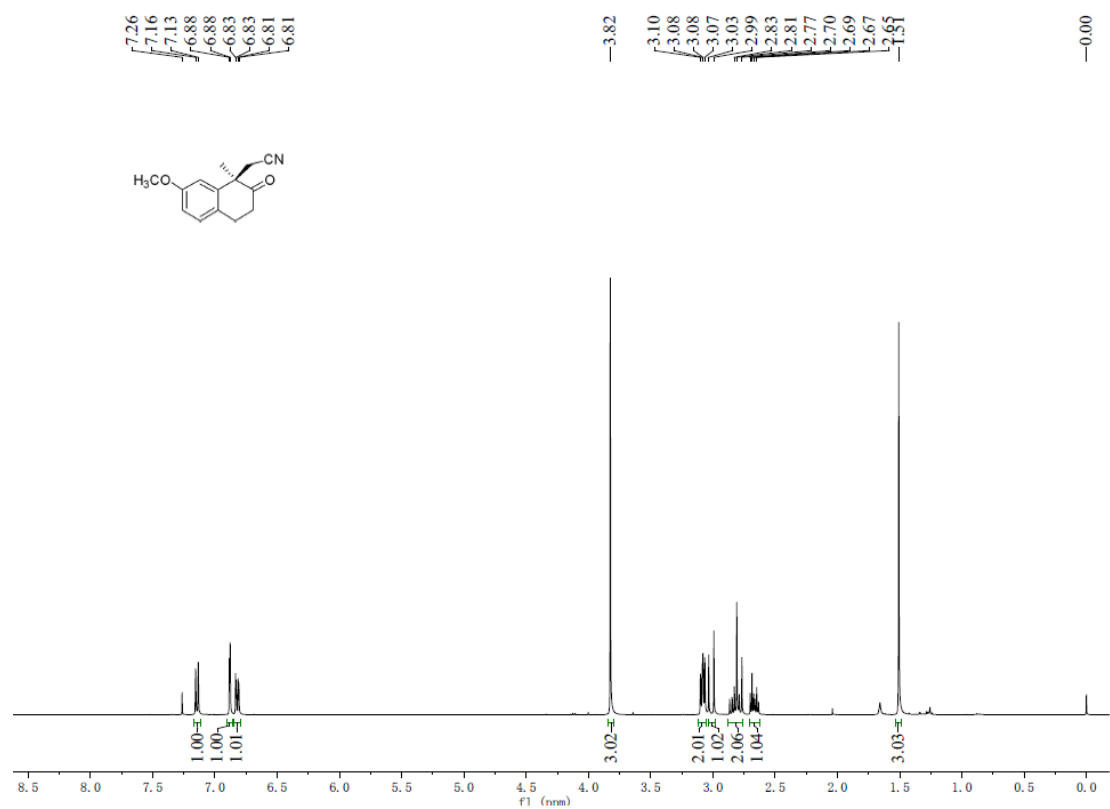
Table of Contents

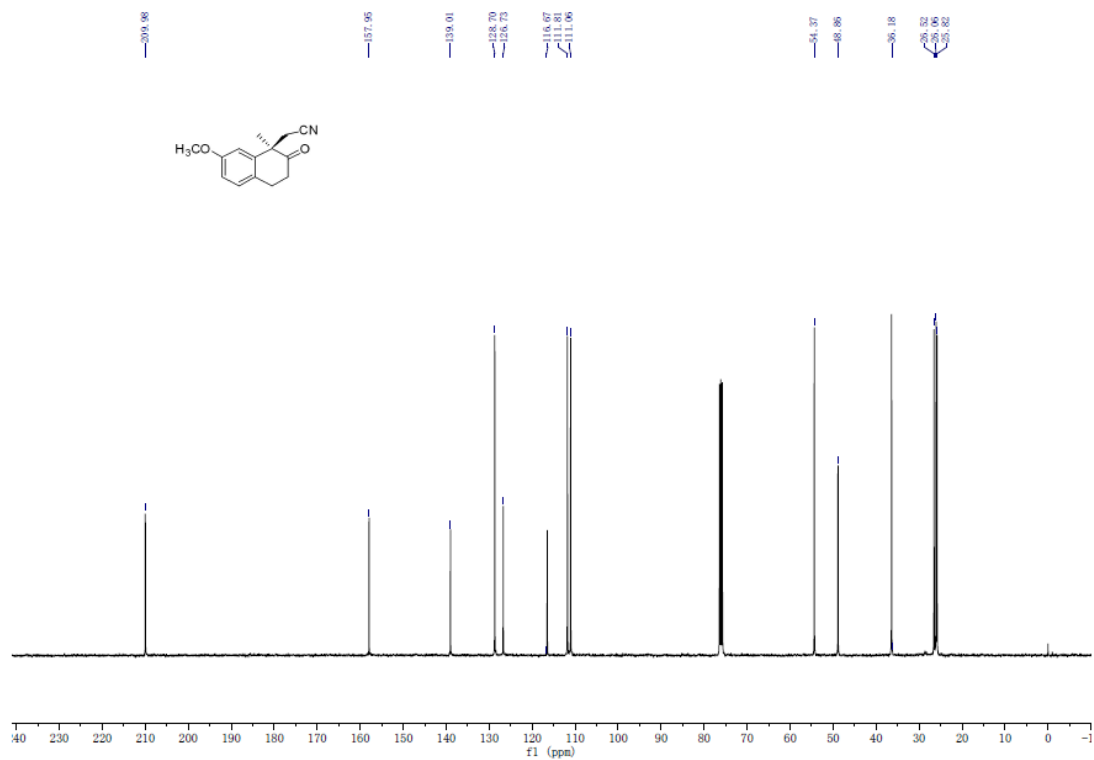
¹ H NMR and MS data of 3 , 4 , 8–15	S2–S14
¹³ C NMR spectra of 4 , 12 , 13	S5, S10–S11
Chiral HPLC chromatograms of 4	S15
¹ H NMR, MS and HPLC chromatograms of 1	S16–S17

¹H NMR and MS data of catalyst 3:

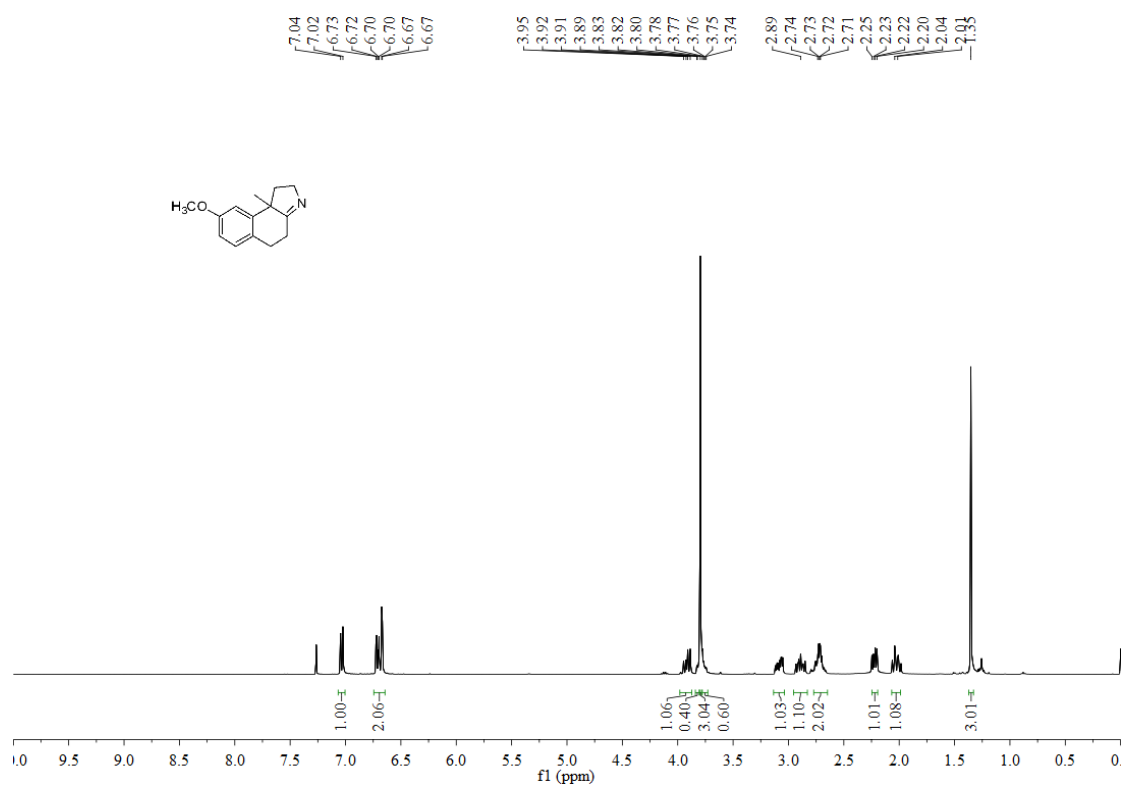


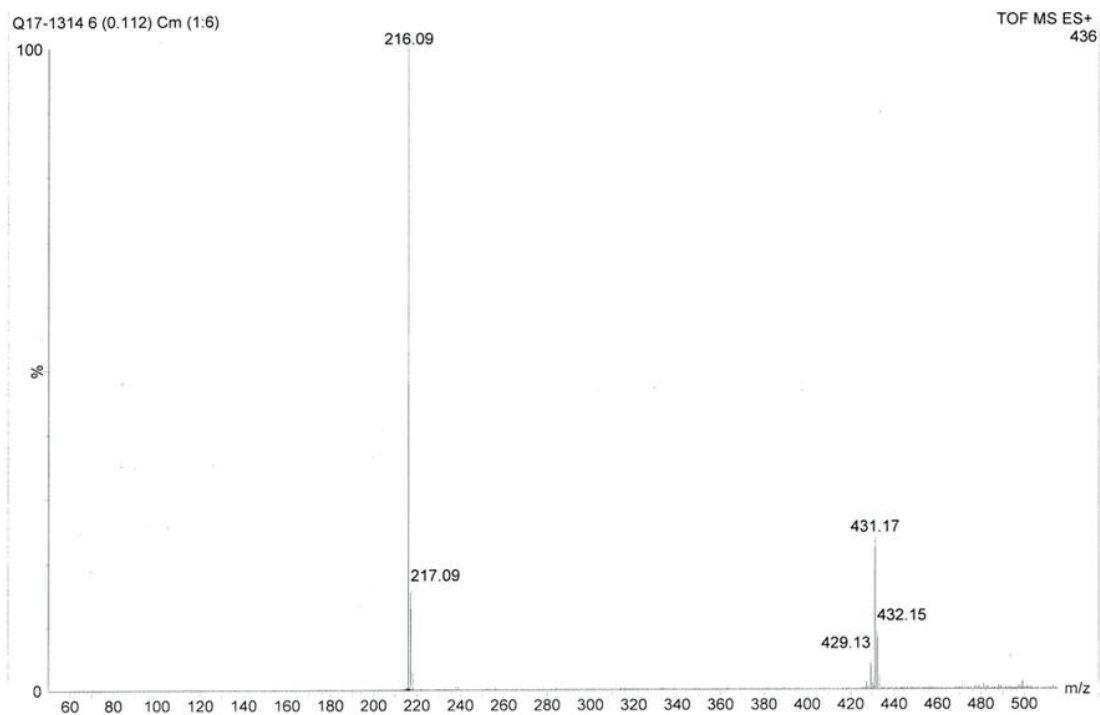
^1H NMR, ^{13}C NMR and MS data of 4:



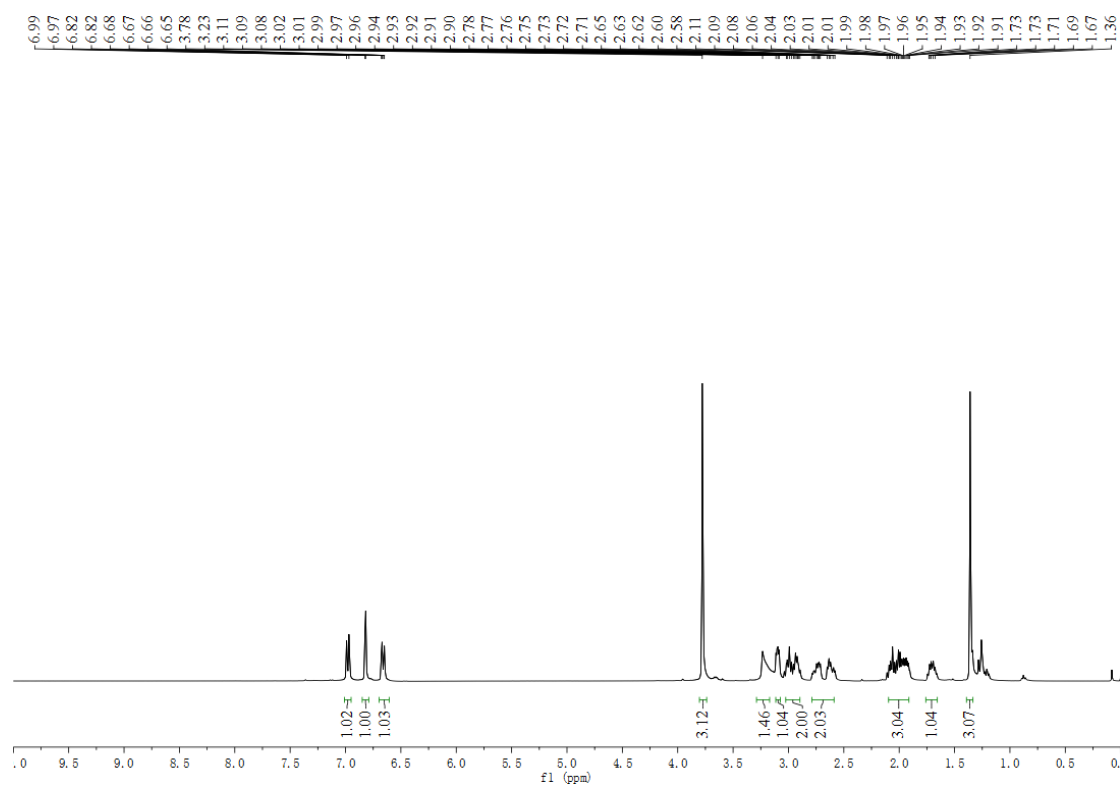


¹H NMR and MS data of 9:





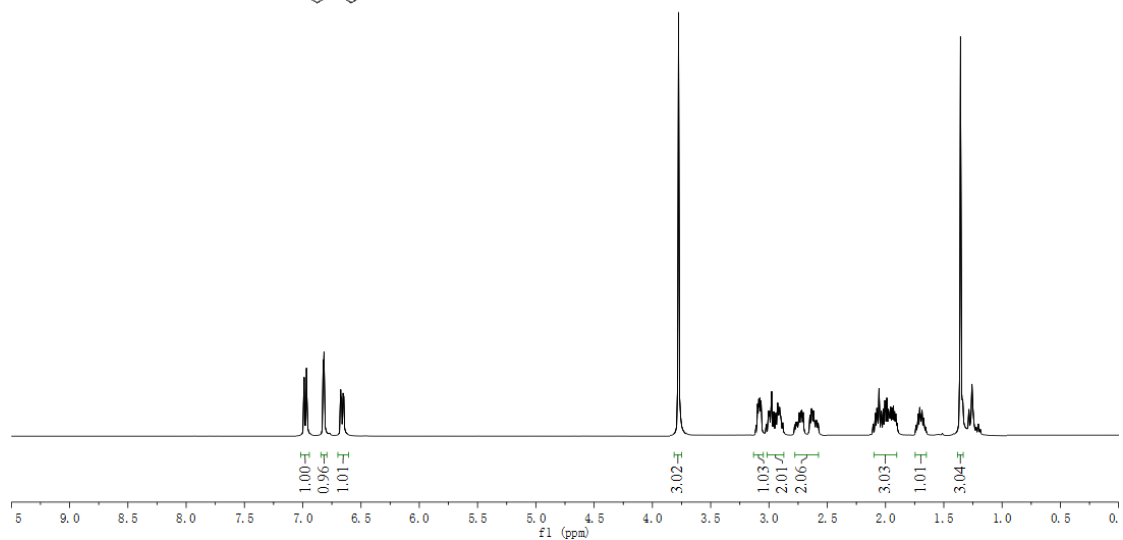
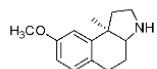
^1H NMR and MS data of 10:



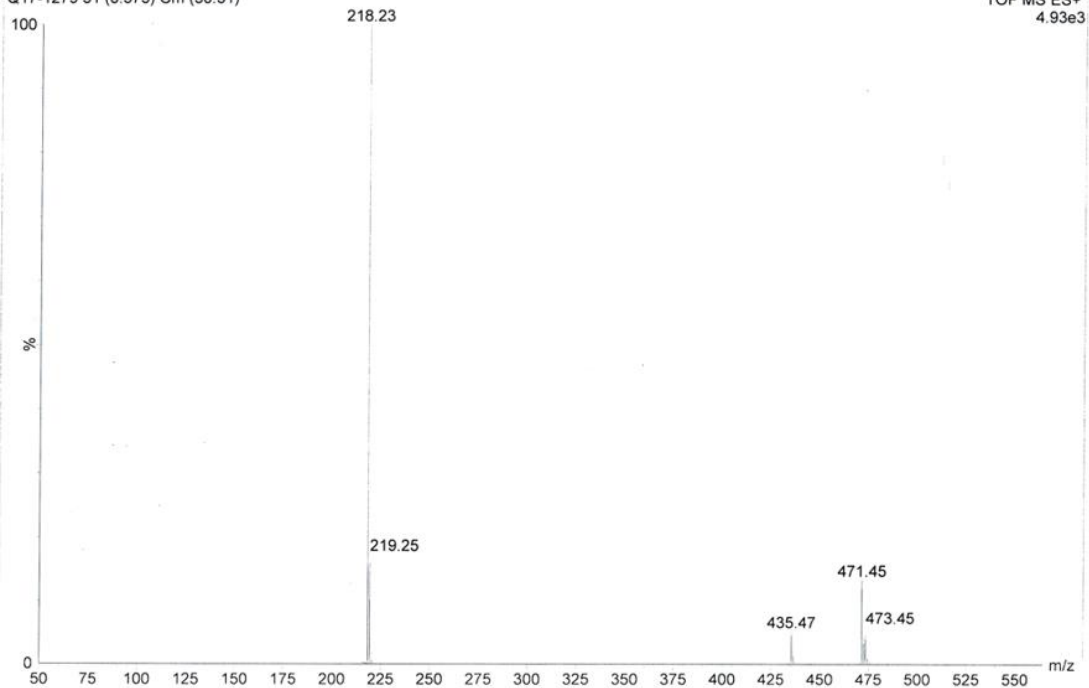
NO.: 201710939
 Solvent: CDCl₃-D₂O
 Sample Name: ET-M2

6.99
 6.97
 6.82
 6.67
 6.65
 6.65

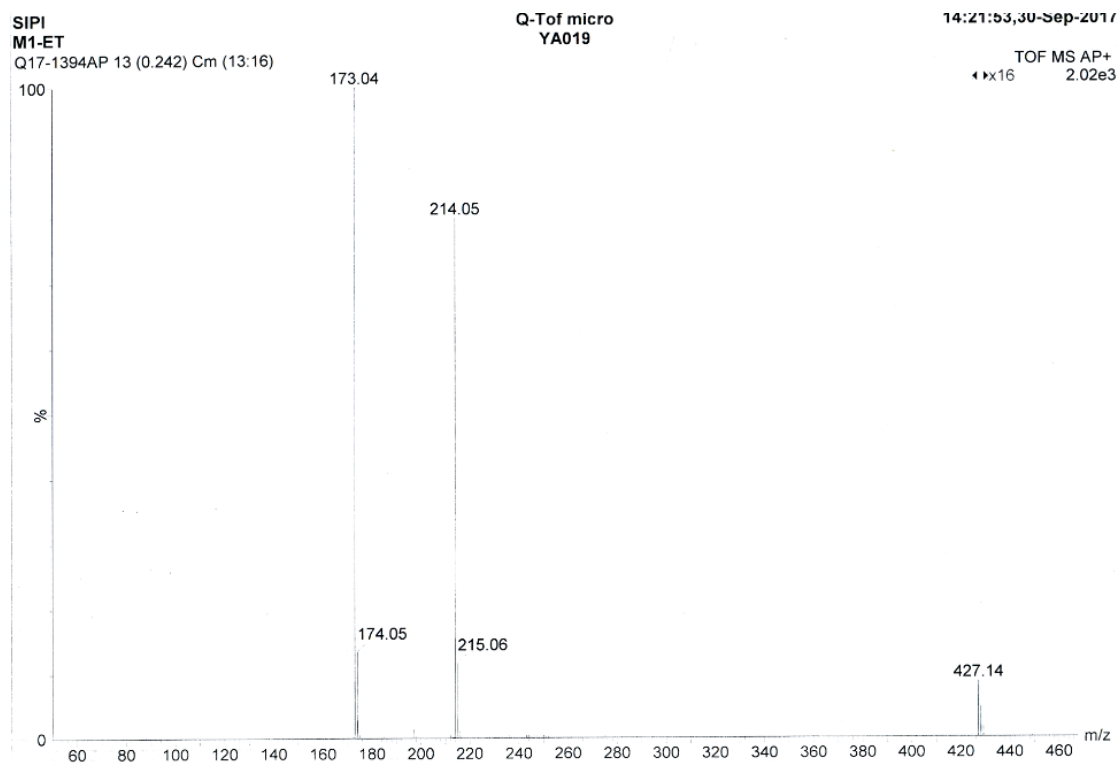
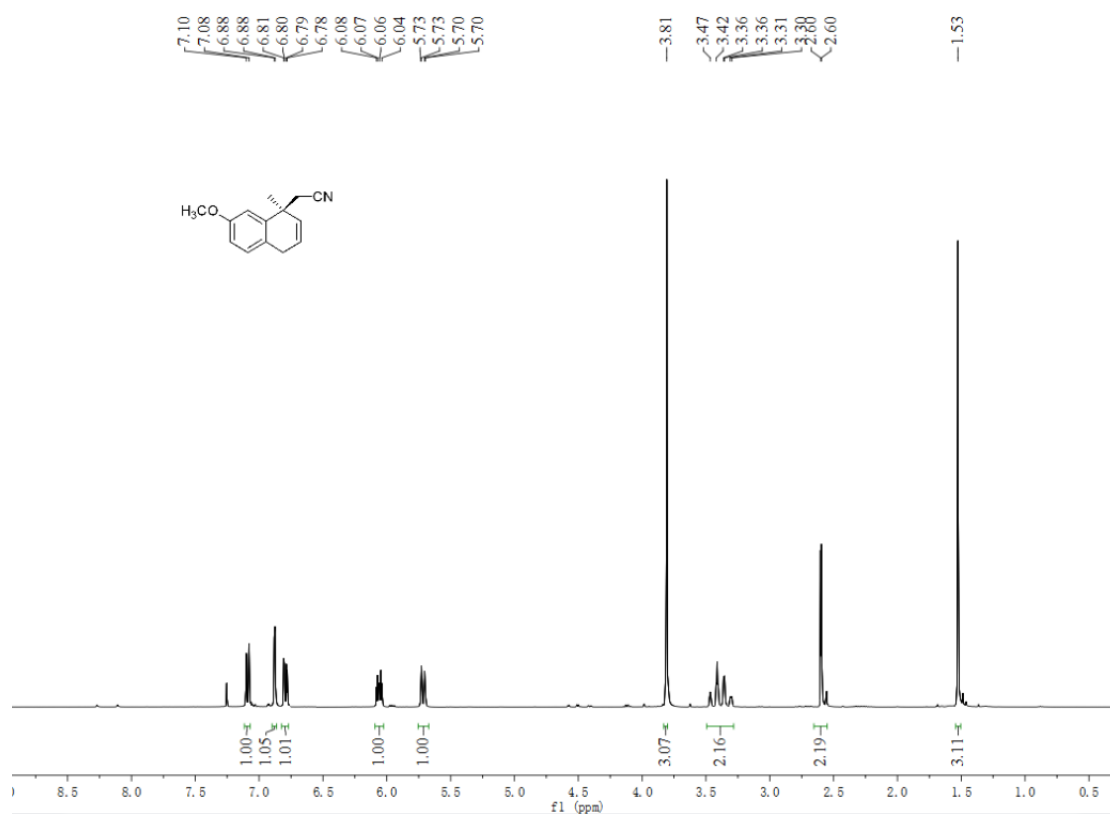
3.78
 3.10
 3.09
 3.08
 3.07
 2.98
 2.93
 2.91
 2.64
 2.09
 2.07
 2.06
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 1.97
 1.96
 1.93
 1.92
 1.71
 1.69
 1.26



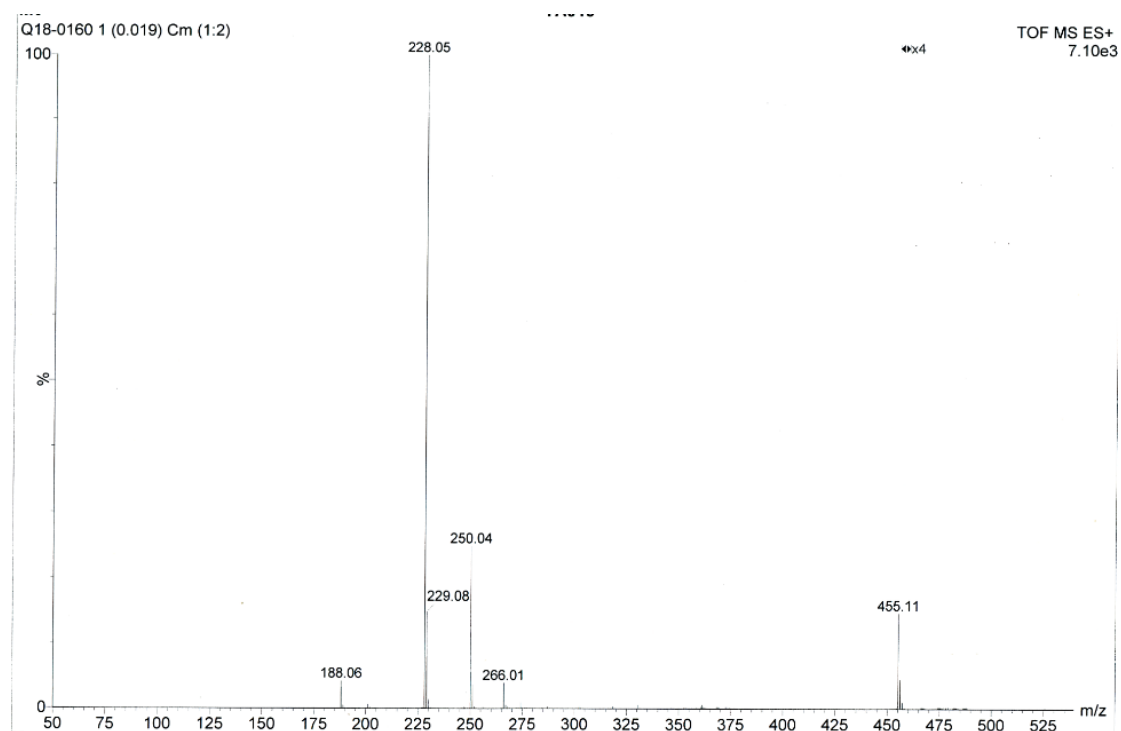
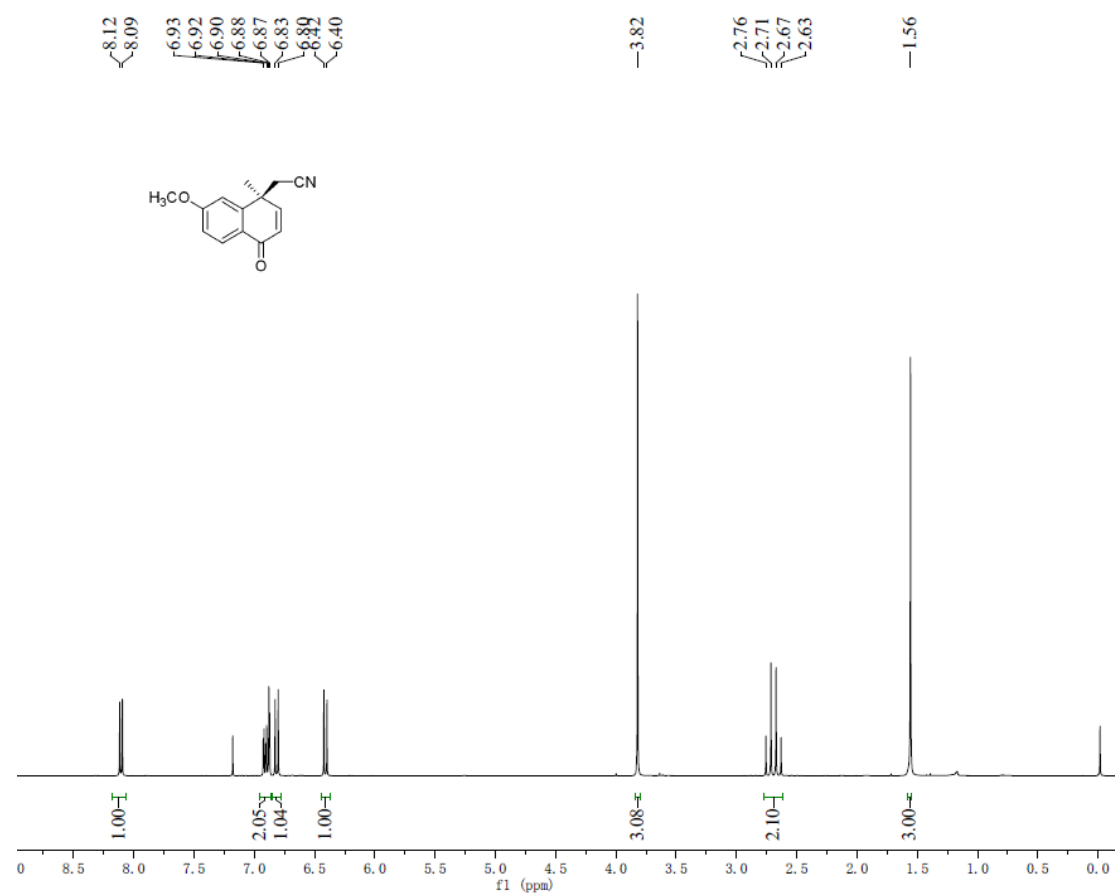
Q17-1279 31 (0.575) Cm (30:31)

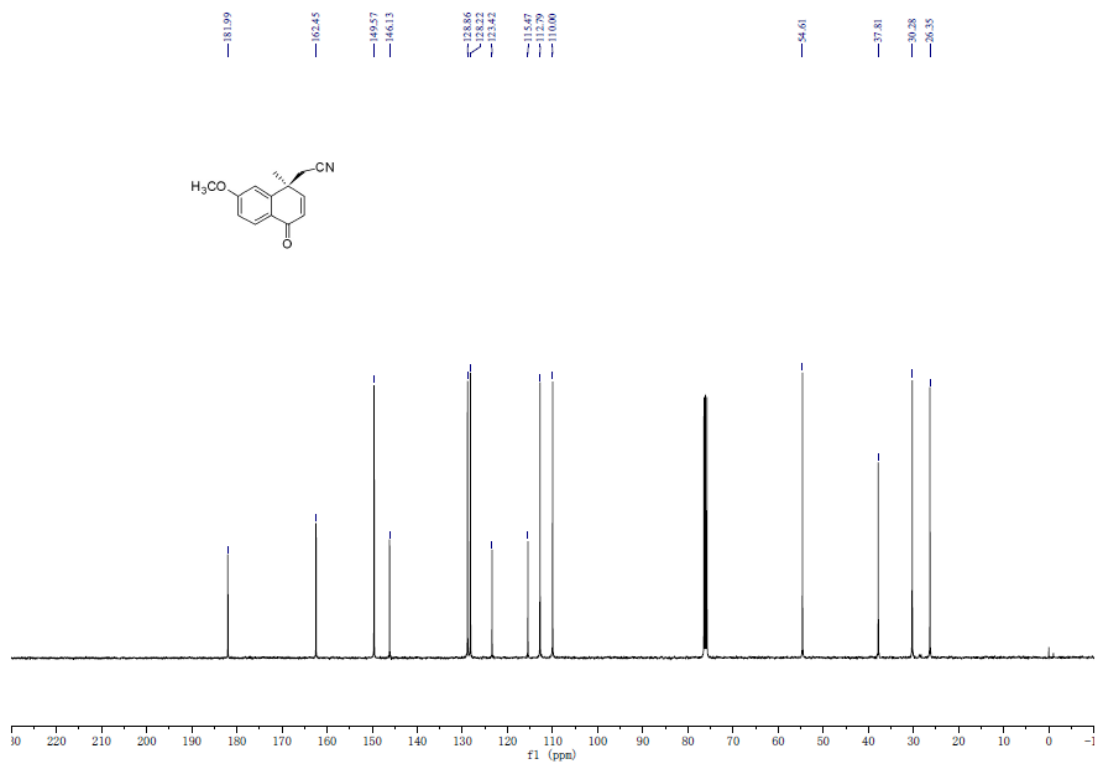


¹H NMR and MS data of 11:

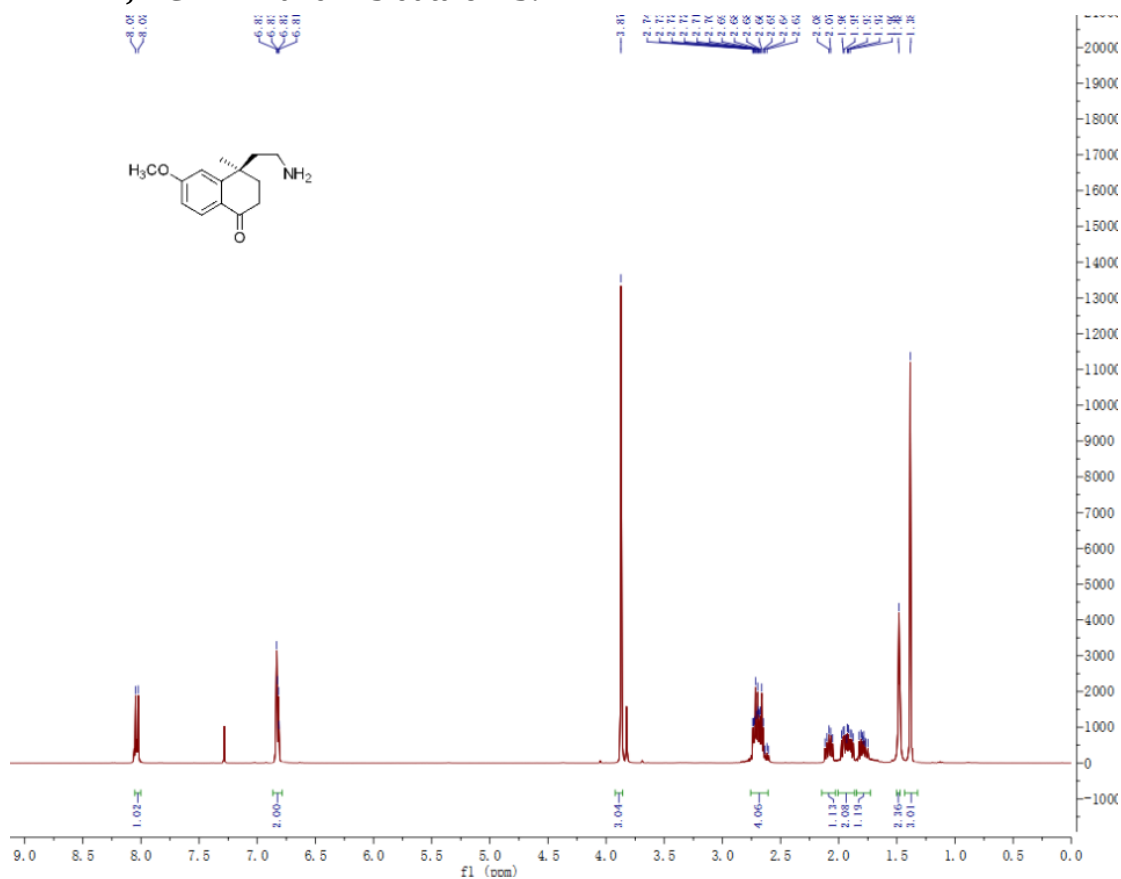


^1H NMR, ^{13}C NMR and MS data of 12:





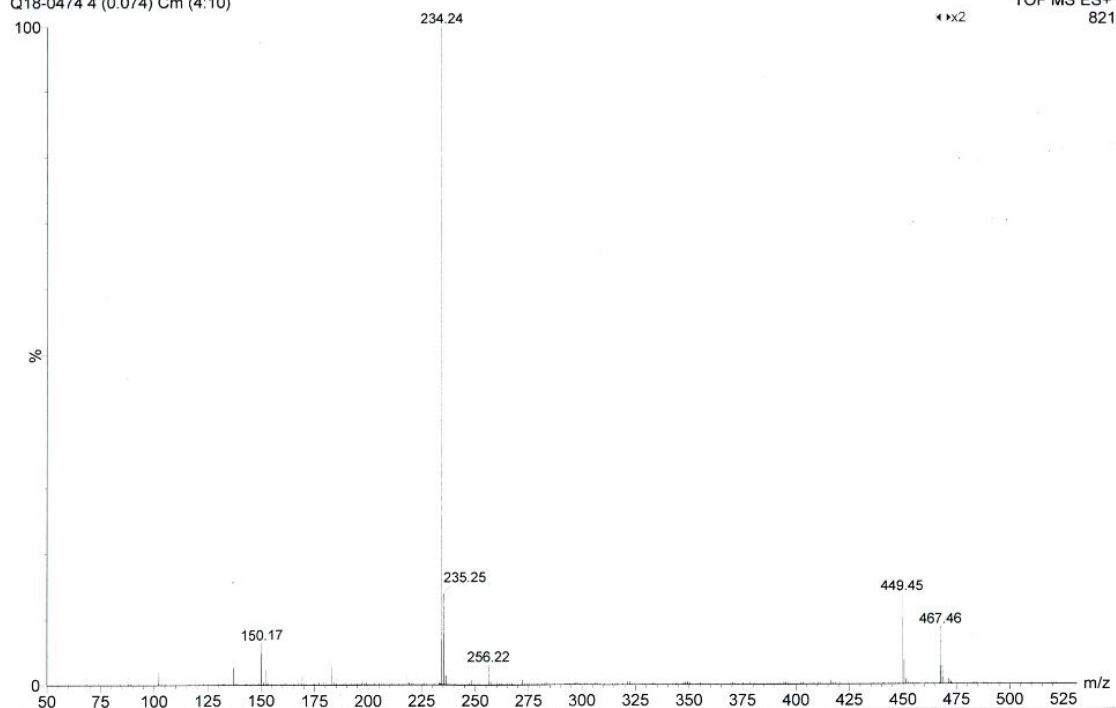
¹H NMR, ¹³C NMR and MS data of 13:



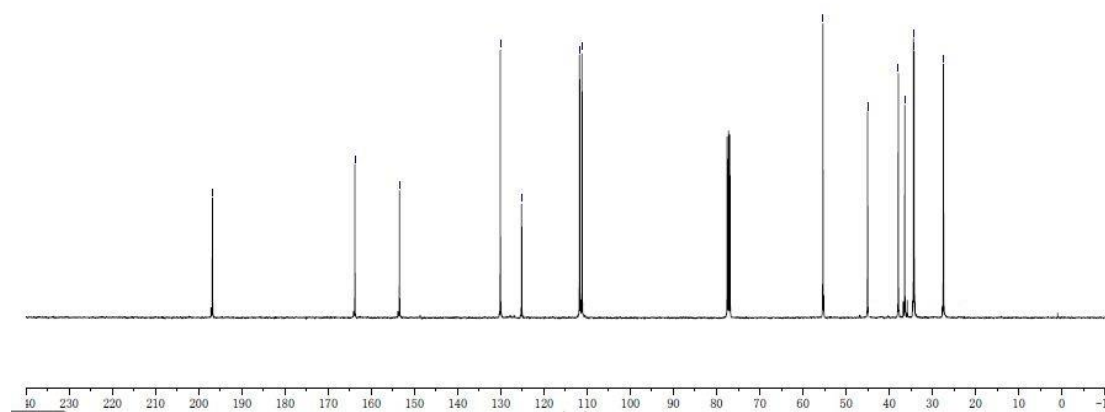
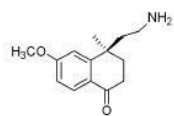
m4-180503
Q18-0474 4 (0.074) Cm (4:10)

YA019

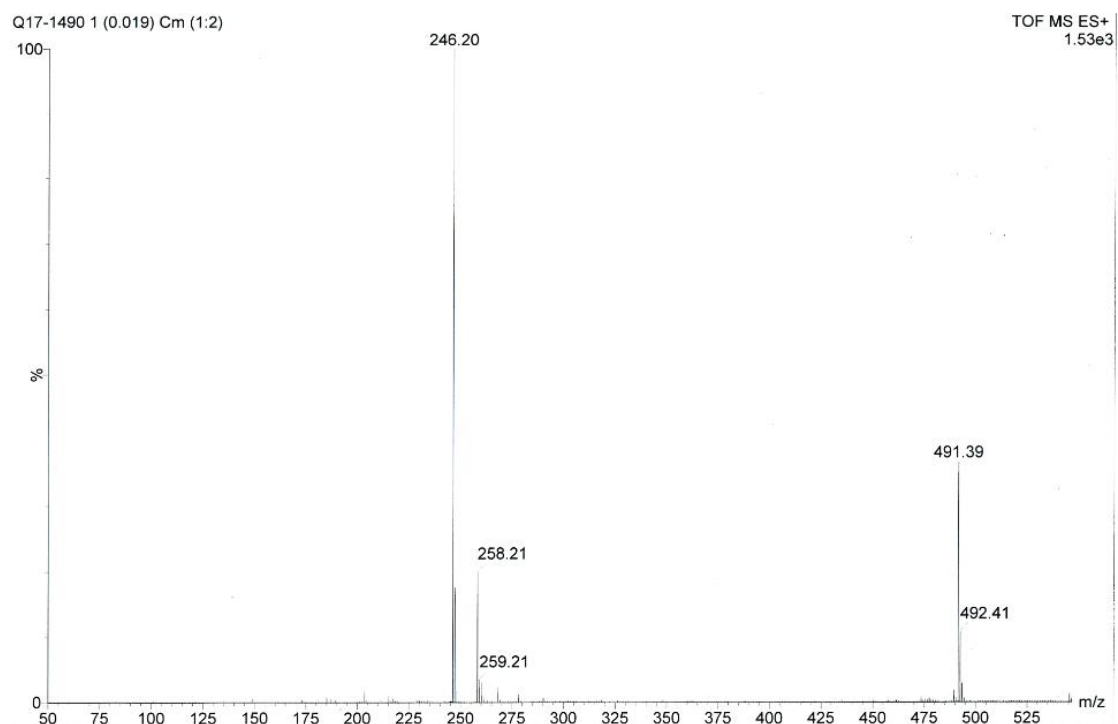
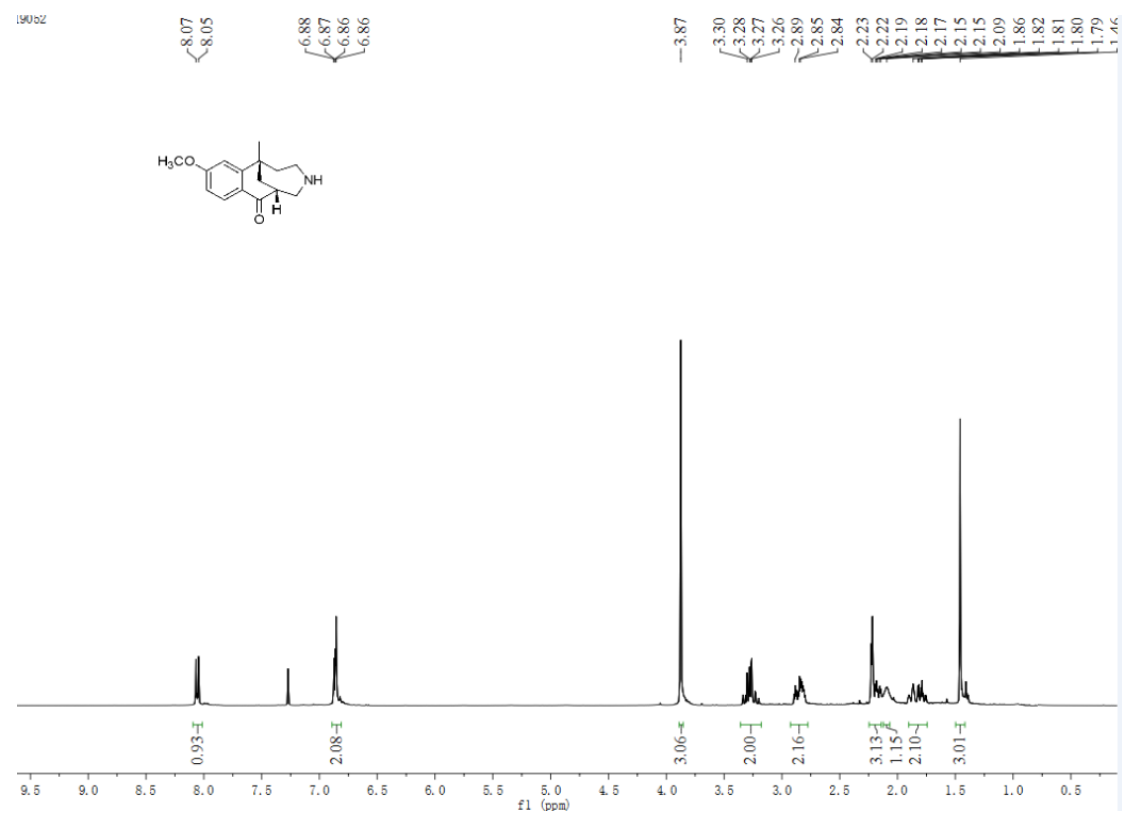
TOF MS ES+
821



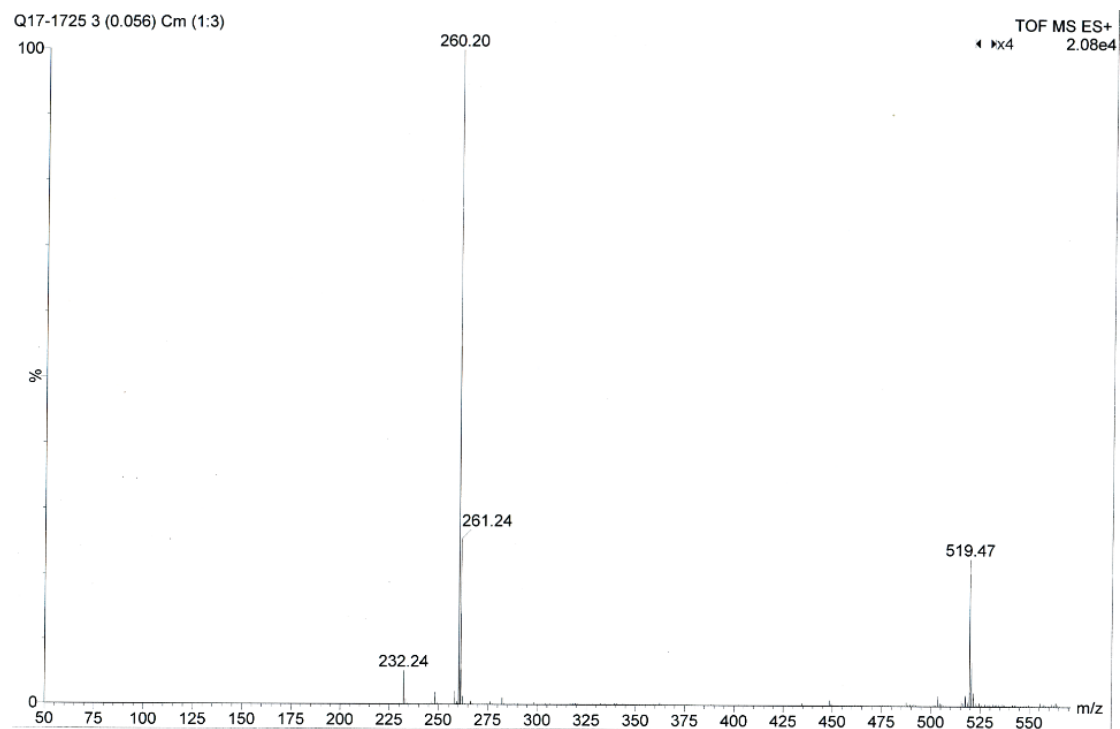
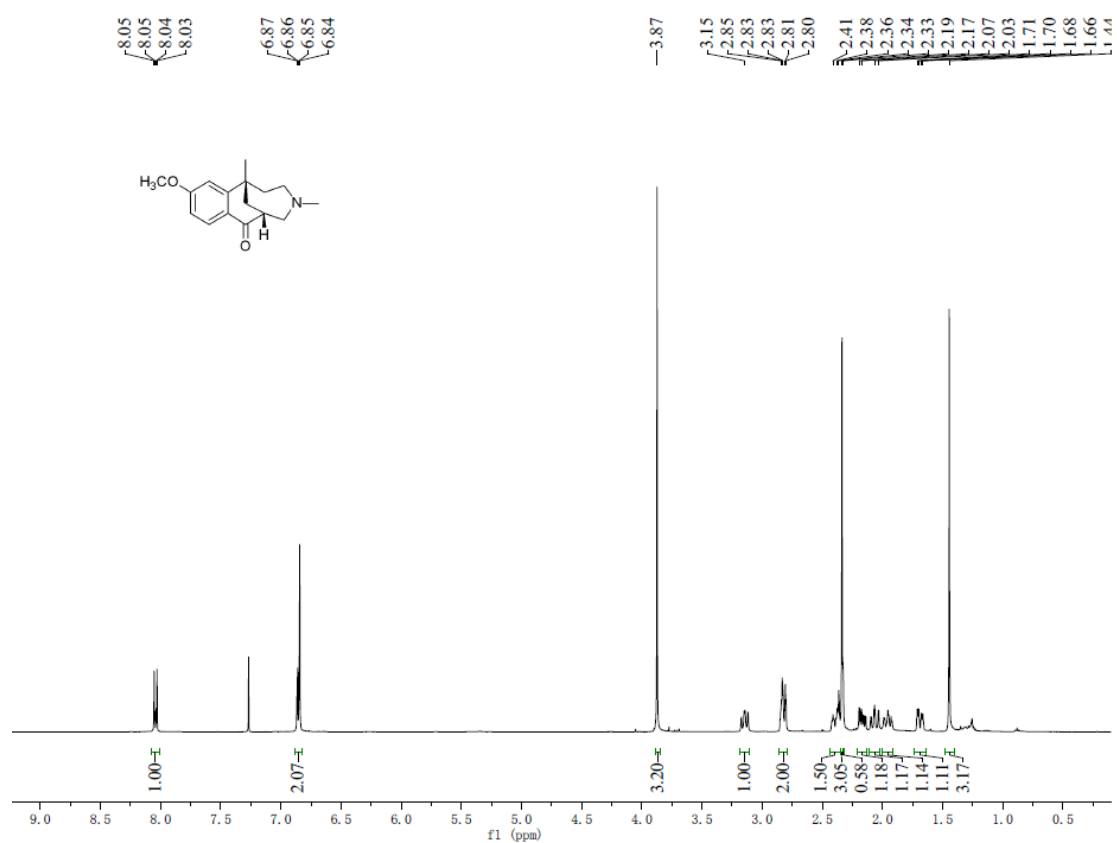
196.80 163.80 153.46 130.11 125.16 111.74 111.16 55.35 45.01 37.90 36.40 34.36 34.25 27.44



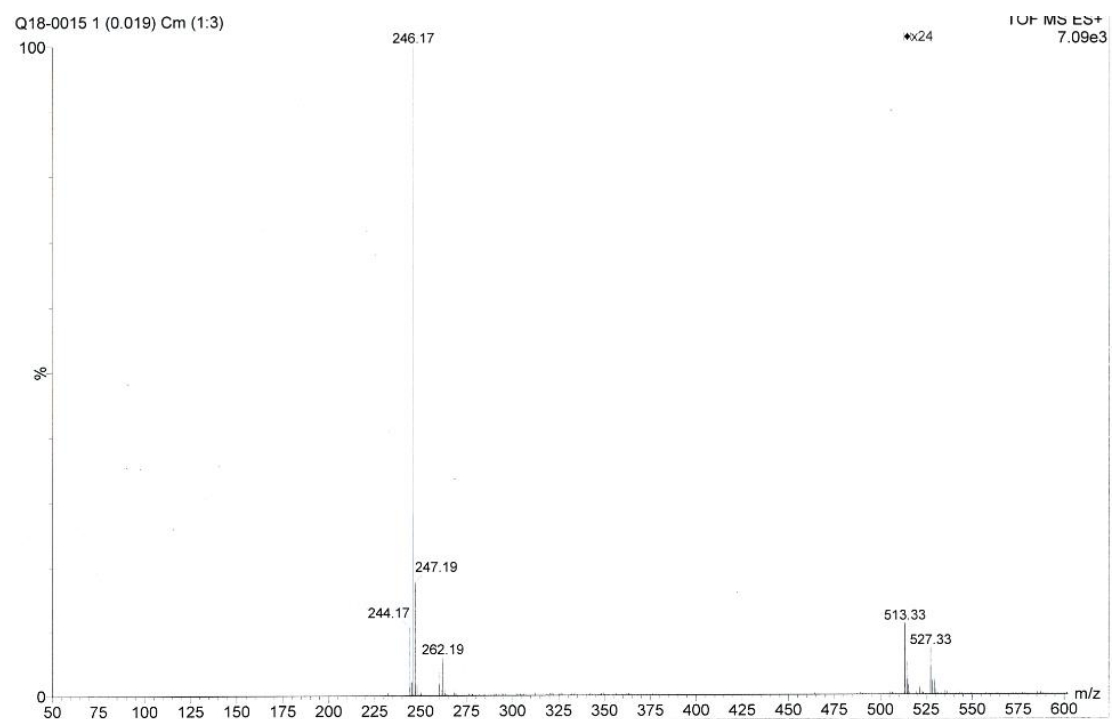
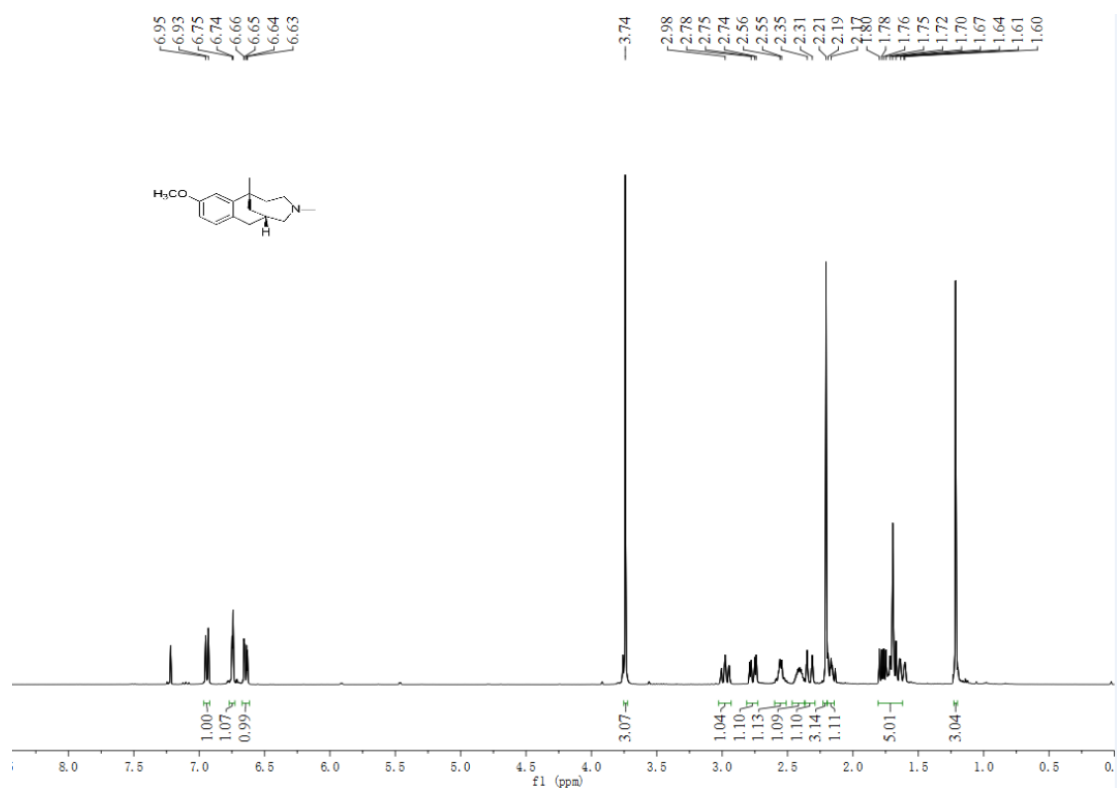
¹H NMR and MS data of 14:



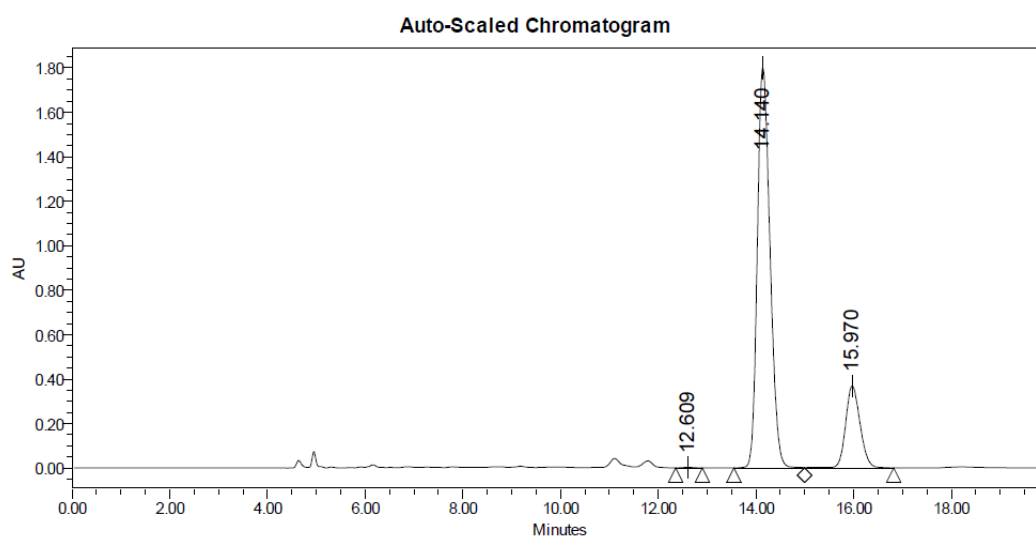
¹H NMR and MS data of 15:



¹H NMR and MS data of 8:

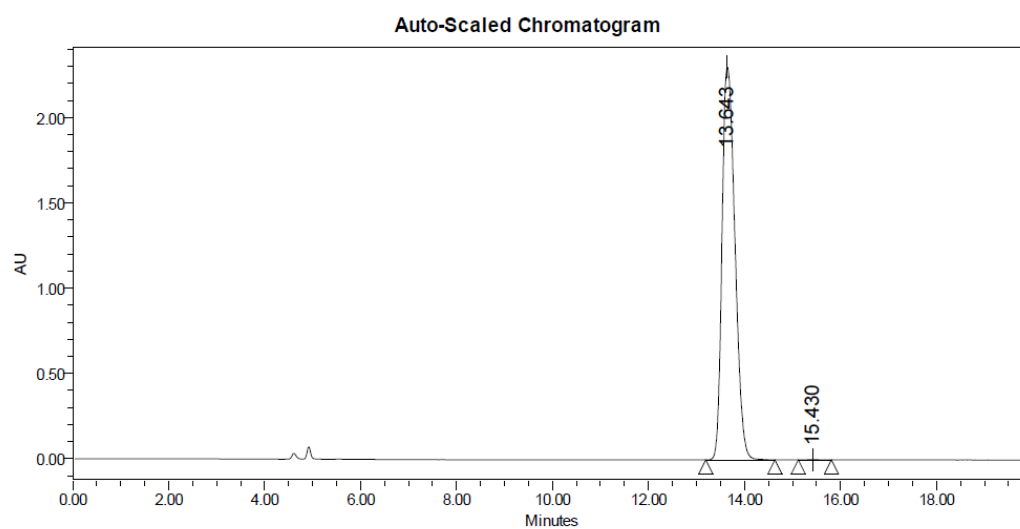


Chiral HPLC chromatograms of 4:



Peak Results

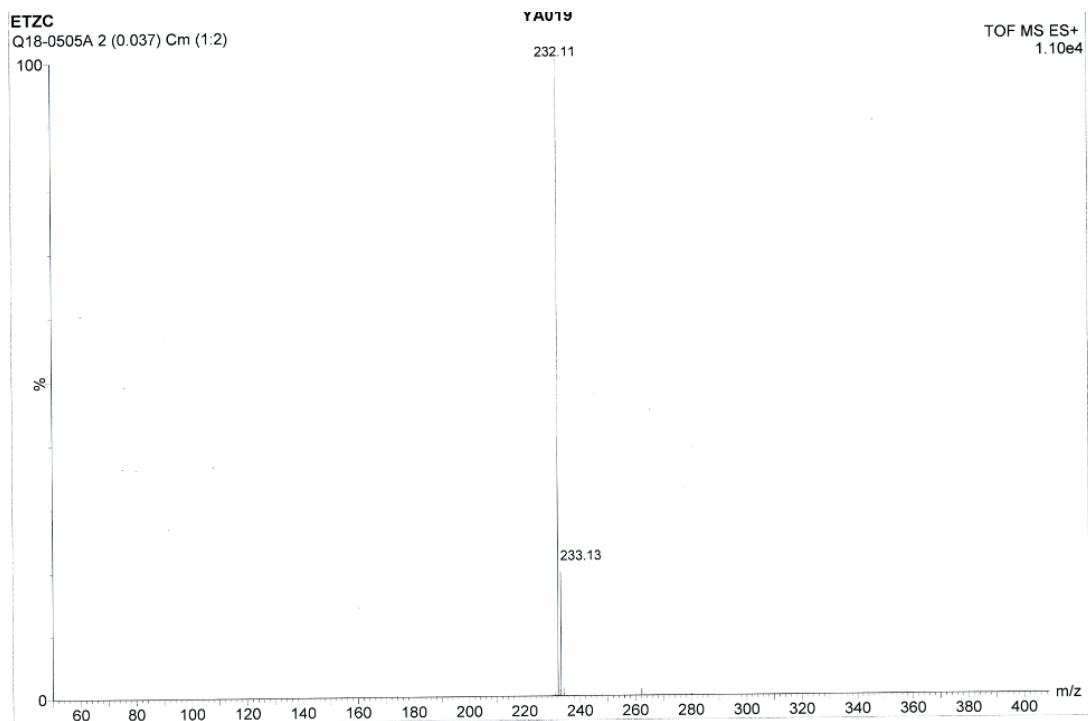
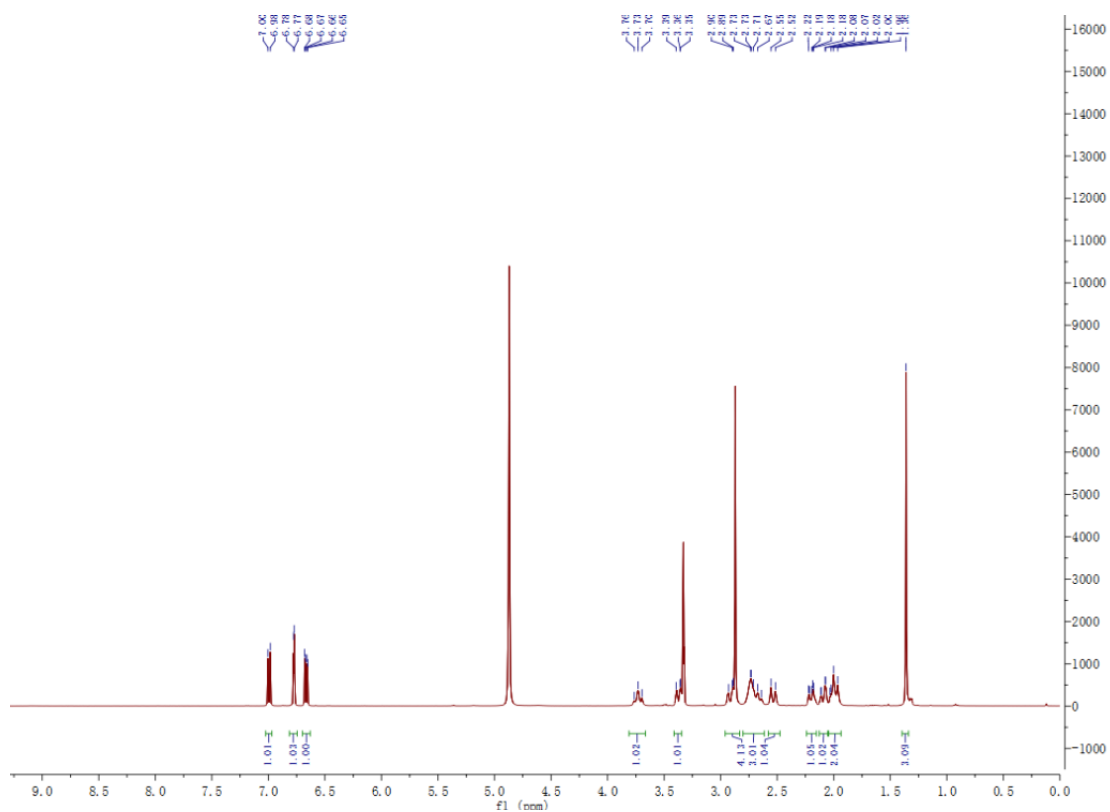
	Name	RT	Area	Height	% Area	USP Resolution	USP Tailing
1		12.609	21228	1346	0.05		1.043953e+000
2		14.140	32376946	1797718	81.11	3.372077e+000	1.225841e+000
3		15.970	7518065	368115	18.83	3.556414e+000	1.146943e+000

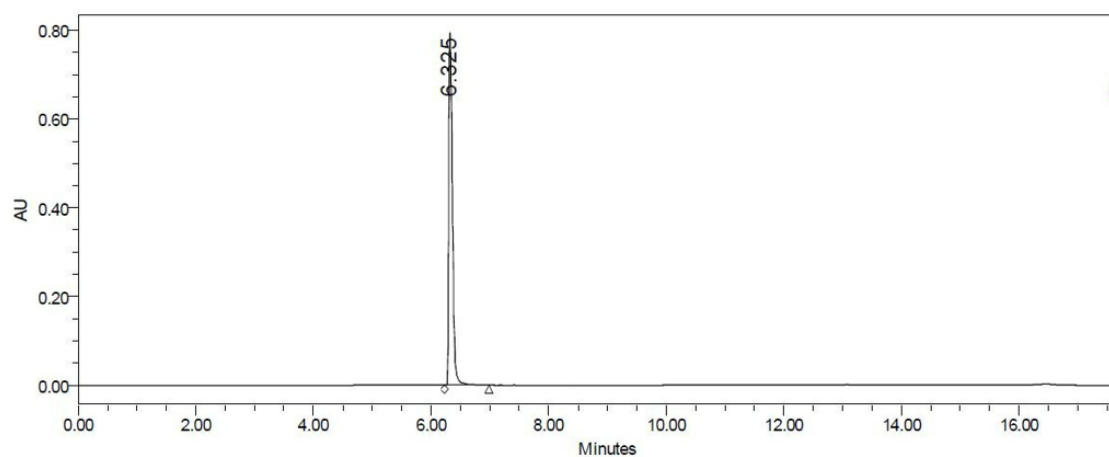


Peak Results

	Name	RT	Area	Height	% Area	USP Resolution	USP Tailing
1		13.643	43093919	2305575	99.92		1.299486e+000
2		15.430	34779	1900	0.08	3.556622e+000	1.083278e+000

^1H NMR, MS and HPLC chromatograms of eptazocine hydrobromide (1):





	RT	Area	% Area	Height
1	6.325	3368142	100.00	793764