

Copies of ^1H and ^{13}C Spectra

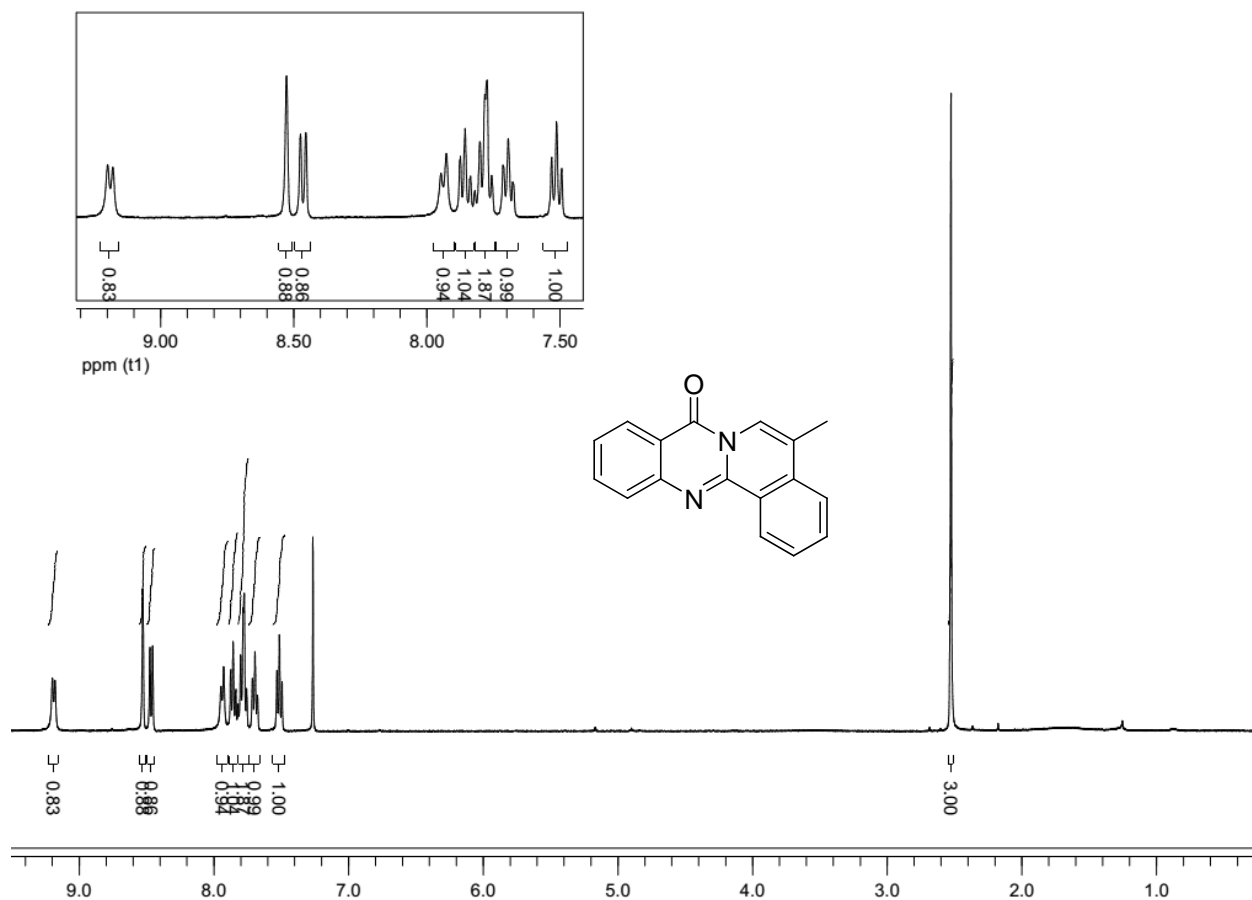


Fig. 1: ^1H NMR spectra of compound **4a** (CDCl_3 , 400 MHz)

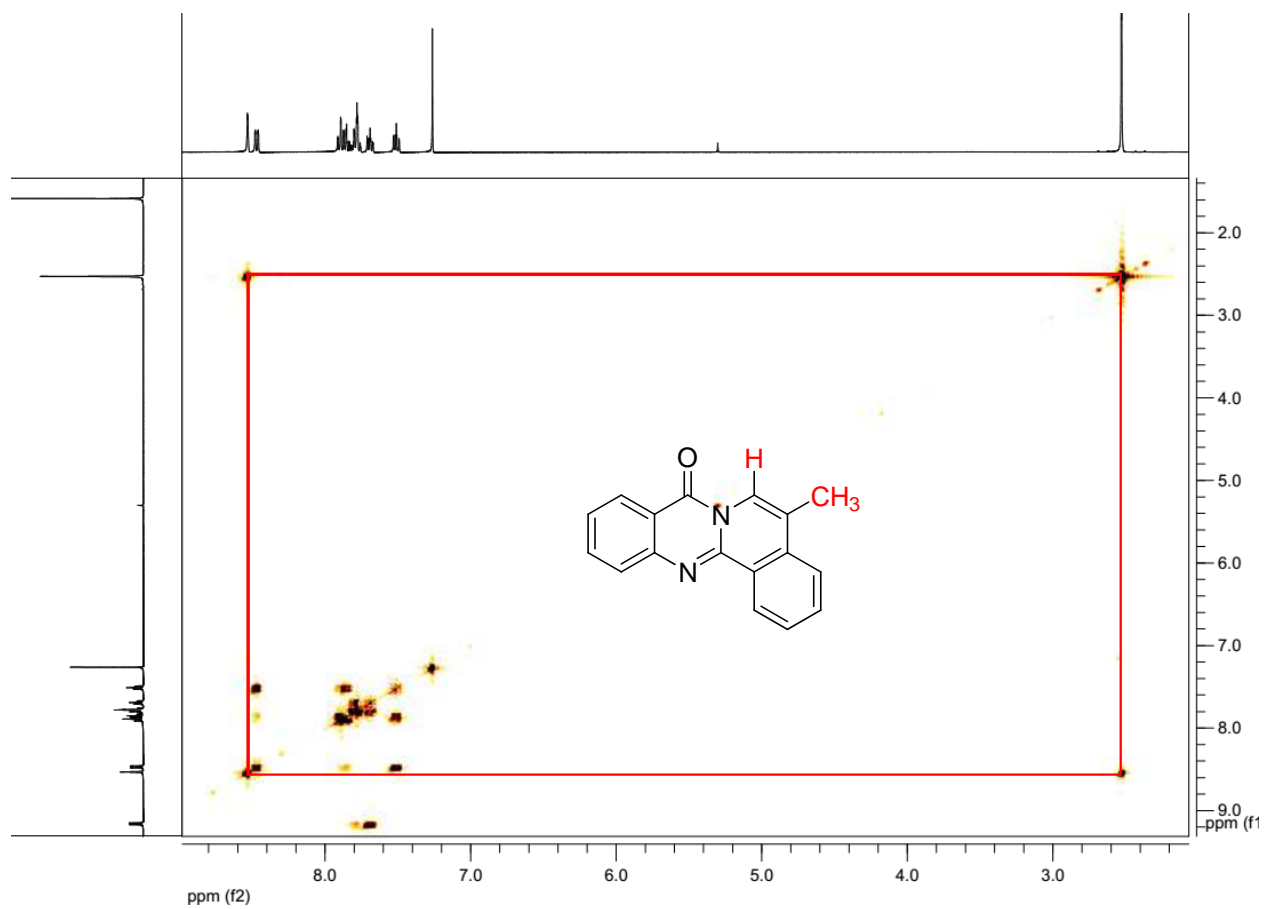


Fig. 2: ^1H - ^1H COSY spectra of compound **4a** (CDCl_3 , 400 MHz)

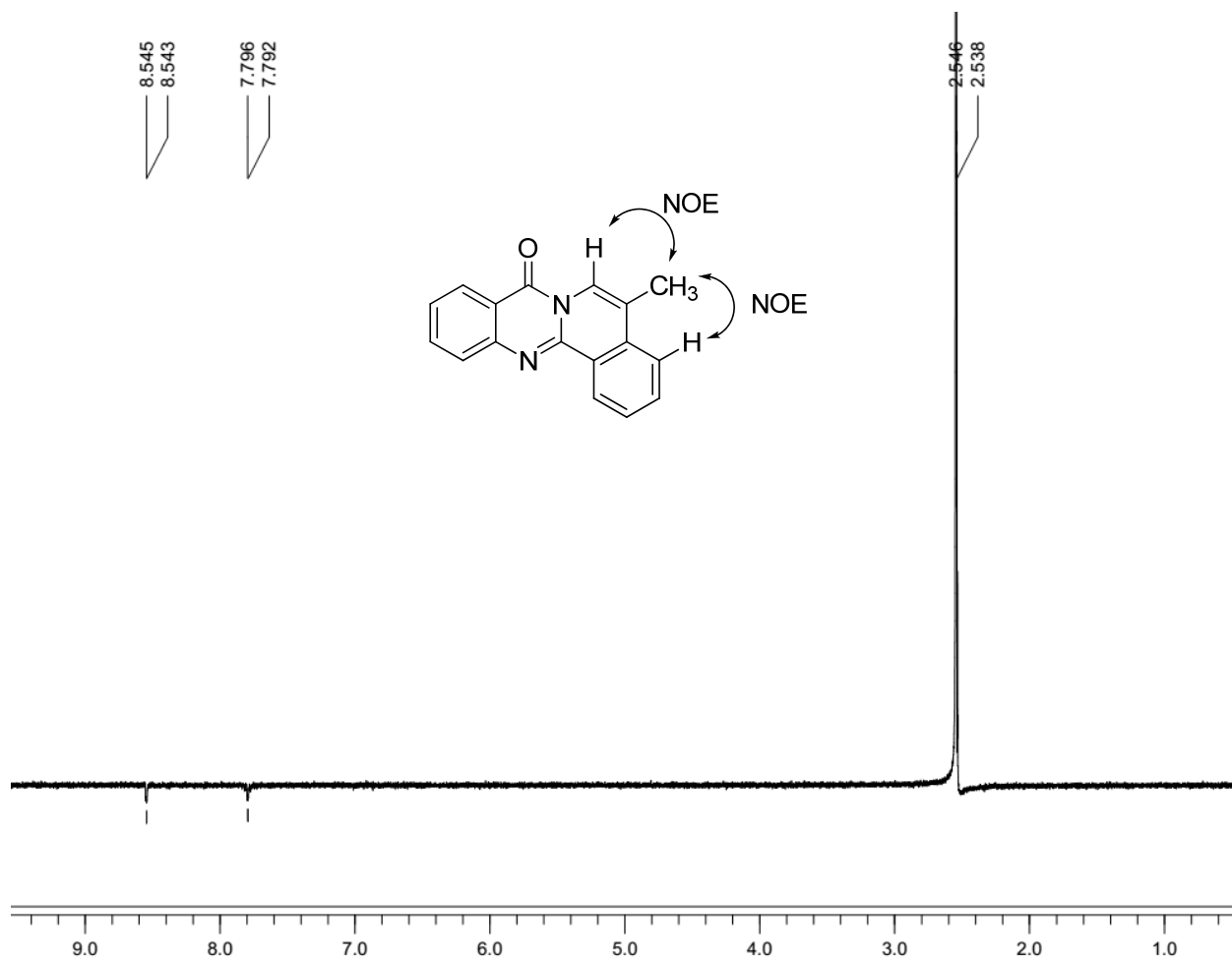


Fig. 3: 1D-NOE spectra of compound **4a** (CDCl₃, 400 MHz)

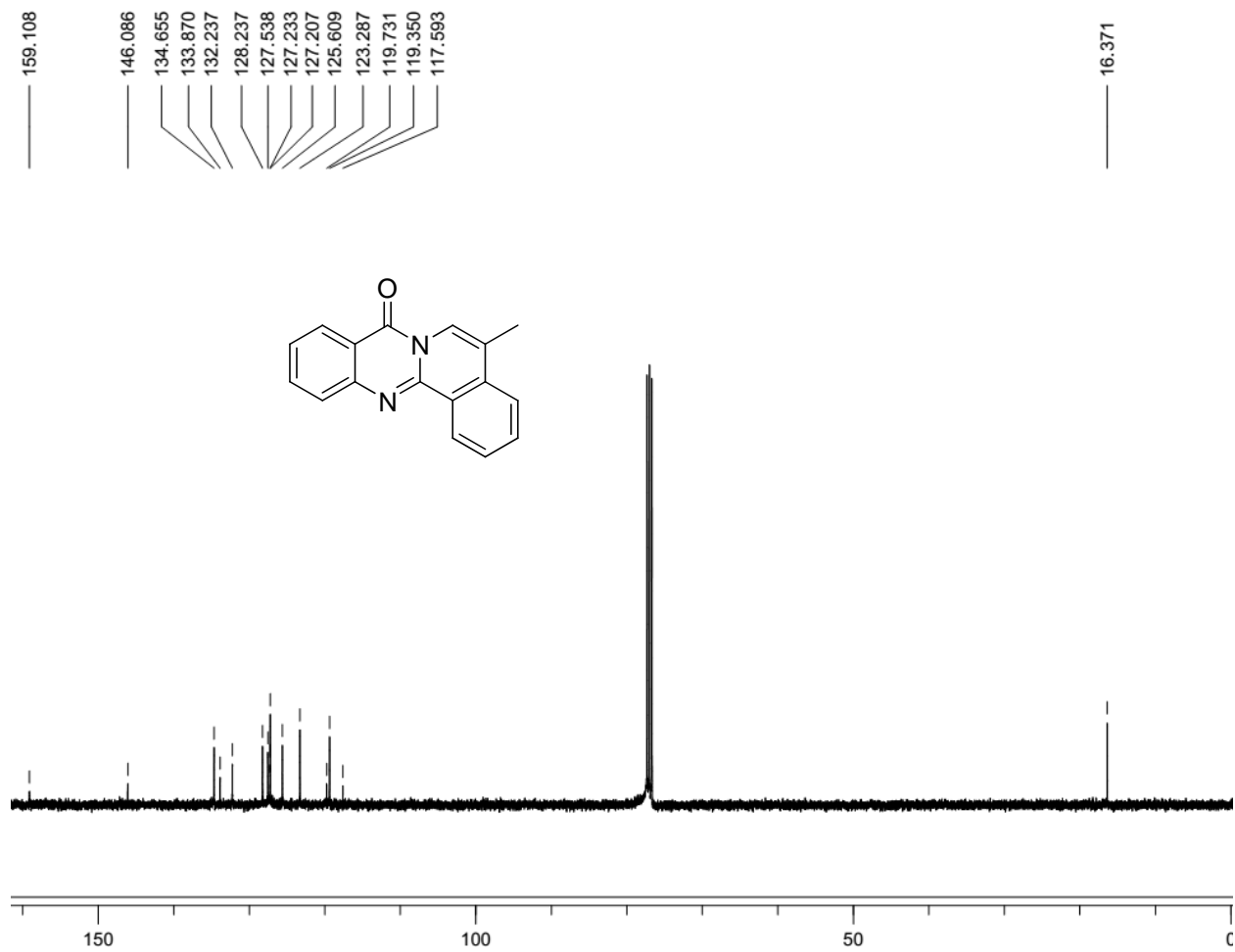


Fig. 4: ^{13}C NMR spectra of compound **4a** (CDCl_3 , 100 MHz)

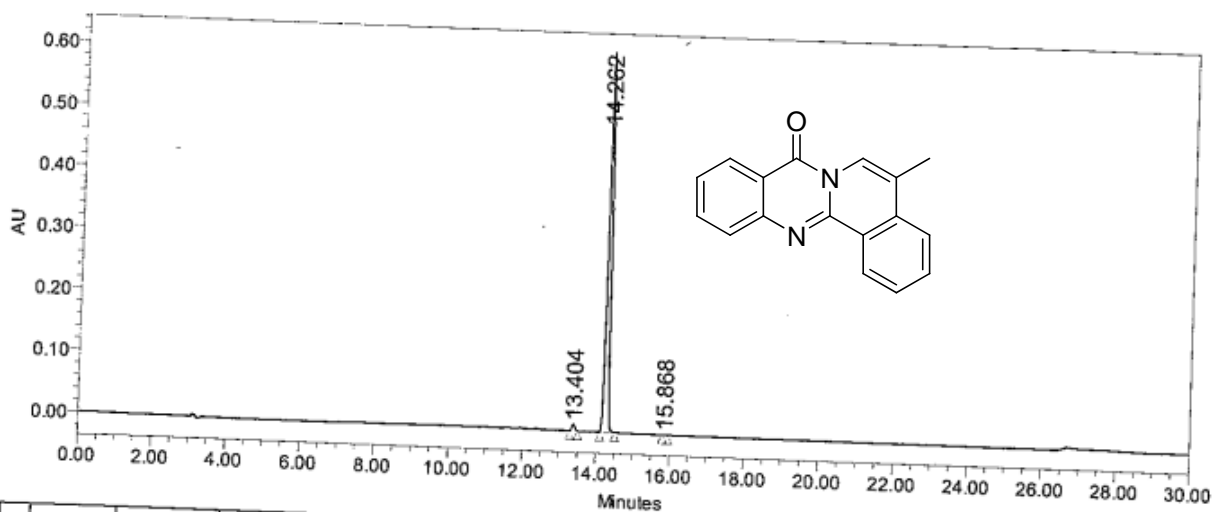
SAMPLE INFORMATION

Sample Name: ILS/ARJ/5/1
 Sample Type: Unknown
 Vial: 27
 Injection #: 1
 Injection Volume: 10.00 μ l
 Run Time: 30.0 Minutes

Sample Set Name: 240214
 Acq. Method Set: CFZ
 Processing Method: CFZ_PRO
 Channel Name: 280.0nm
 Proc. Chnl. Descr.: PDA 280.0 nm

Date Acquired: 2/24/2014 12:13:33 PM IST
 Date Processed: 2/24/2014 12:49:24 PM IST

Column: XTERRA RP-18 250*4.6mm 5 μ m
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml /min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	13.404	59643	1.64	10771
2	14.262	3579738	98.20	613639
3	15.868	6021	0.17	1270

Analysed By *[Signature]* 24/02/14

Fig. 5: HPLC of compound 4a

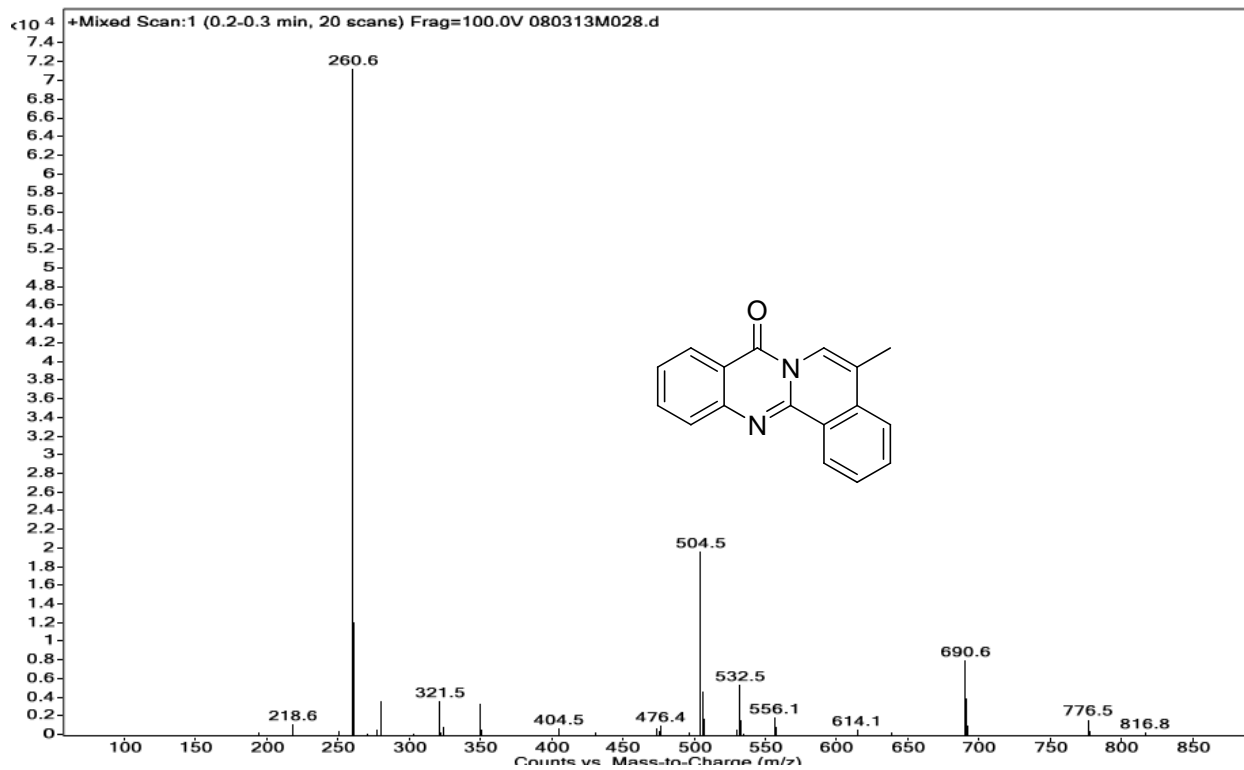


Fig. 6: Mass of compound **4a**

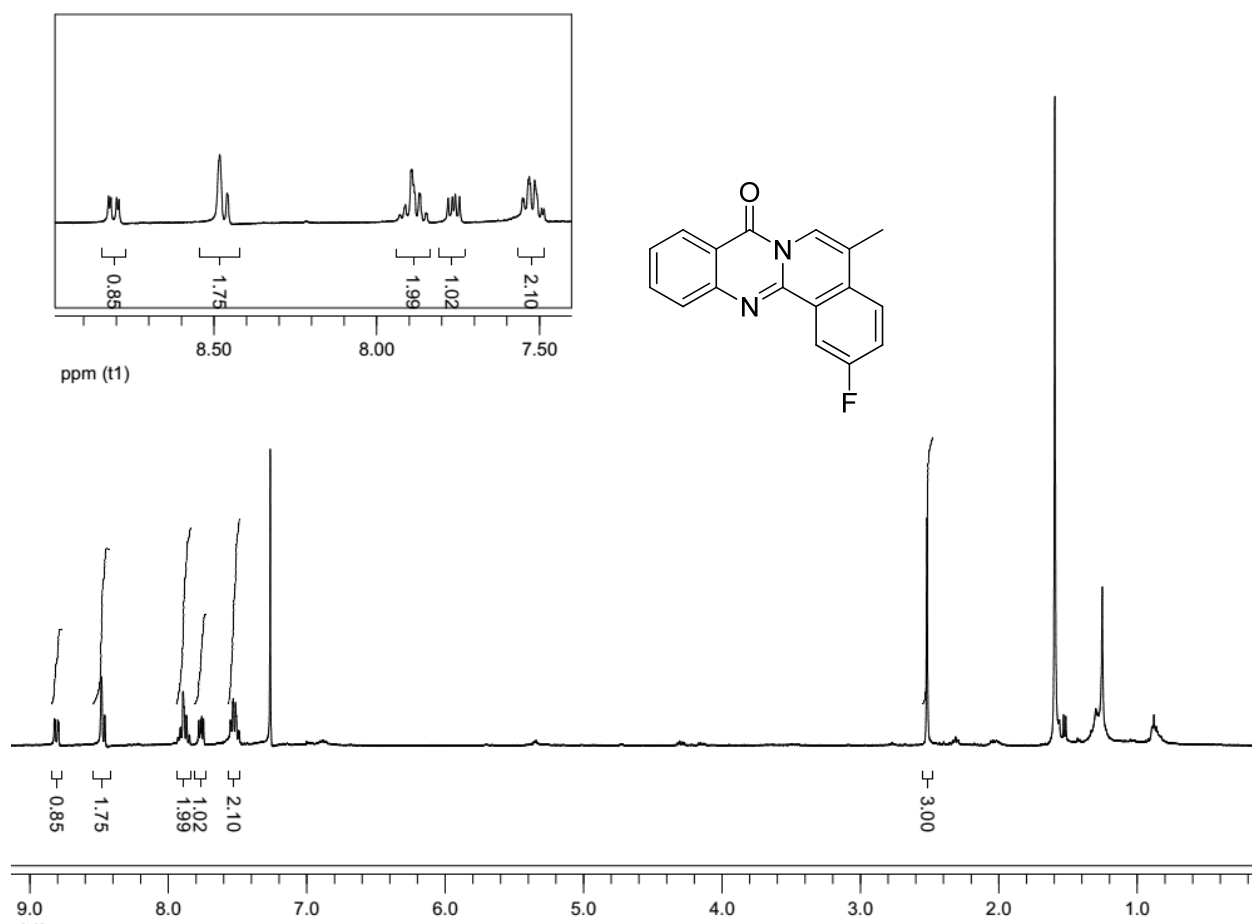


Fig. 7: ^1H NMR spectra of compound **4b** (CDCl_3 , 400 MHz)

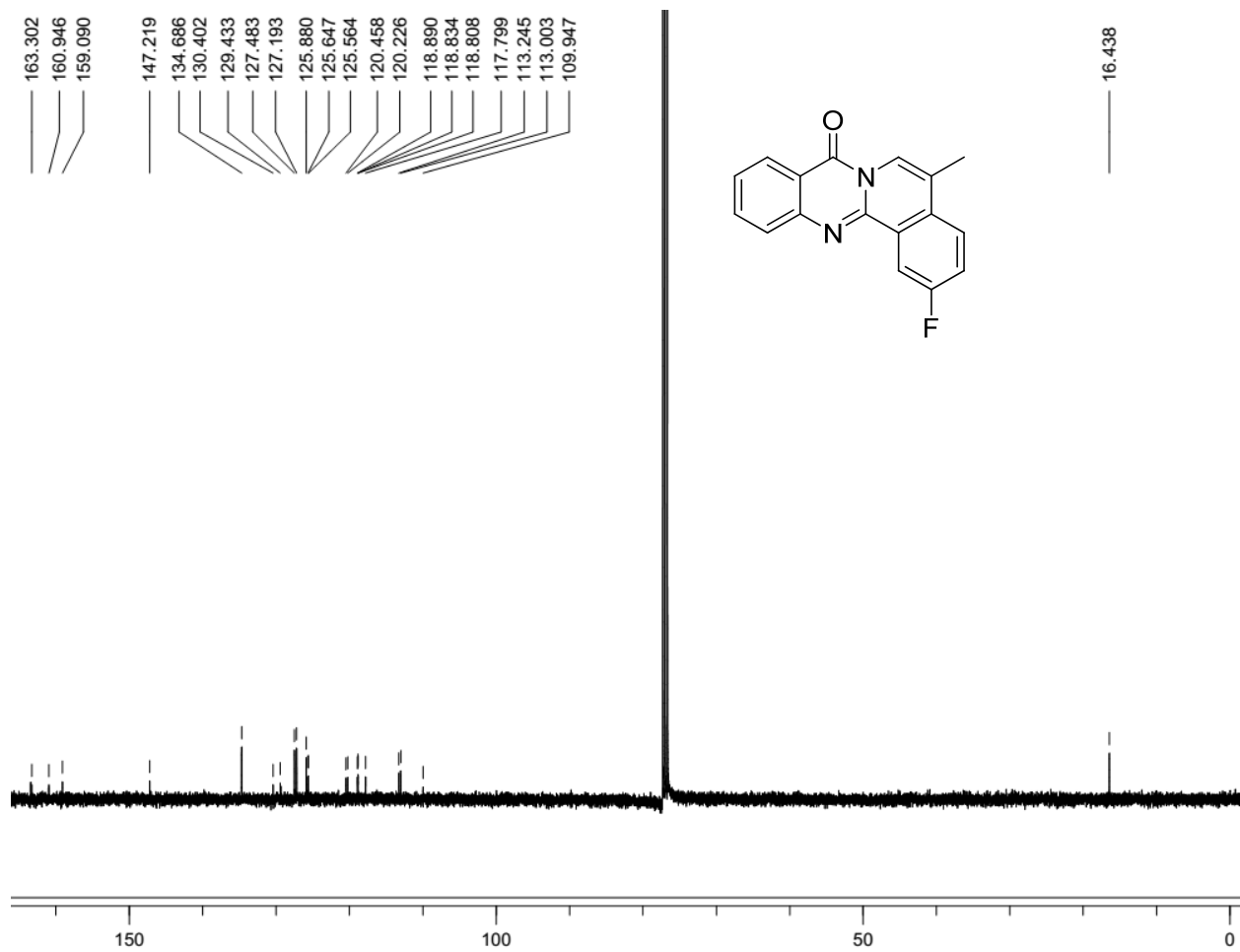
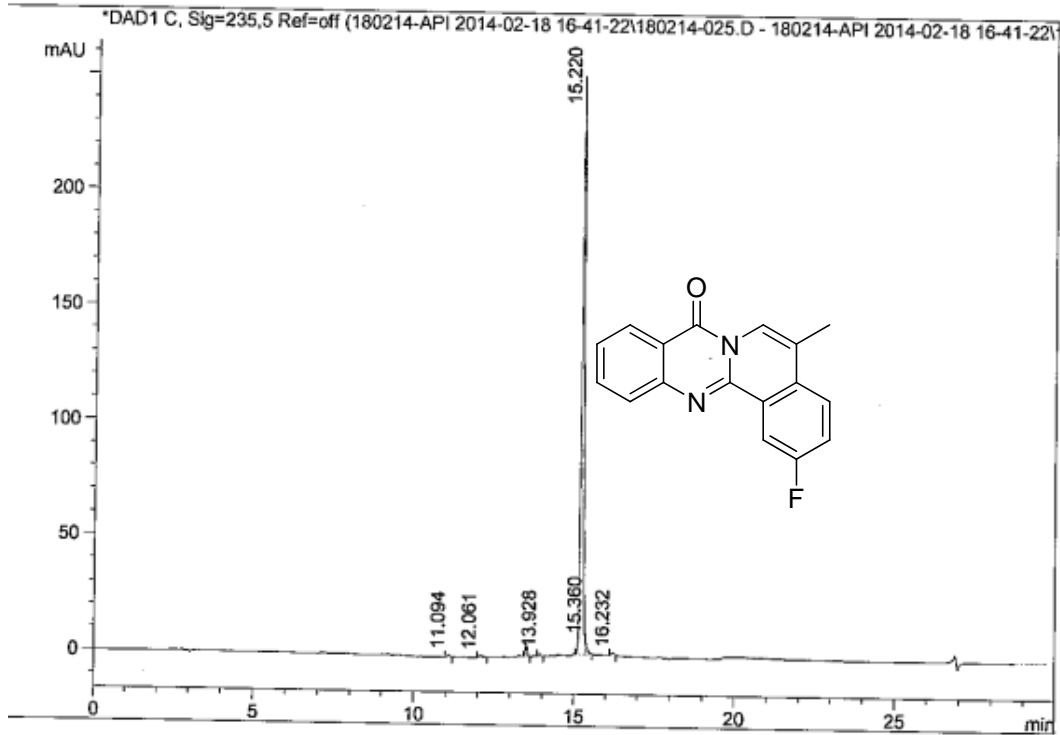


Fig. 8: ^{13}C NMR spectra of compound **4b** (CDCl_3 , 100 MHz)

Injection Date : Wed, 19. Feb. 2014
 Sample Name : ILS-ARJ-5-2
 Acq Operator : RADHA
 Acq. Method : D:\chem32\1\DATA\180214-API 2014-02-18 16-41-22\API ->
 Analysis Method : D:\CHEM32_002\1\METHODS\API MKT.M
 Method Info : Column : X-Terra RP18 250*4.6mm, 5µm
 Mobile phase: A) 0.1%TFA in Water B) ACN (gradient)
 T/B%: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ME0H



Signal 1: DAD1 C, Sig=235,5 Ref=off

Peak #	RT [min]	Area	Area %
1	11.094	5.254	0.370
2	12.061	6.277	0.442
3	13.513	23.071	1.625
4	13.928	6.979	0.492
5	15.220	1350.562	95.117
6	15.360	21.910	1.543
7	16.232	5.846	0.412

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Fig. 9: HPLC of compound 4b

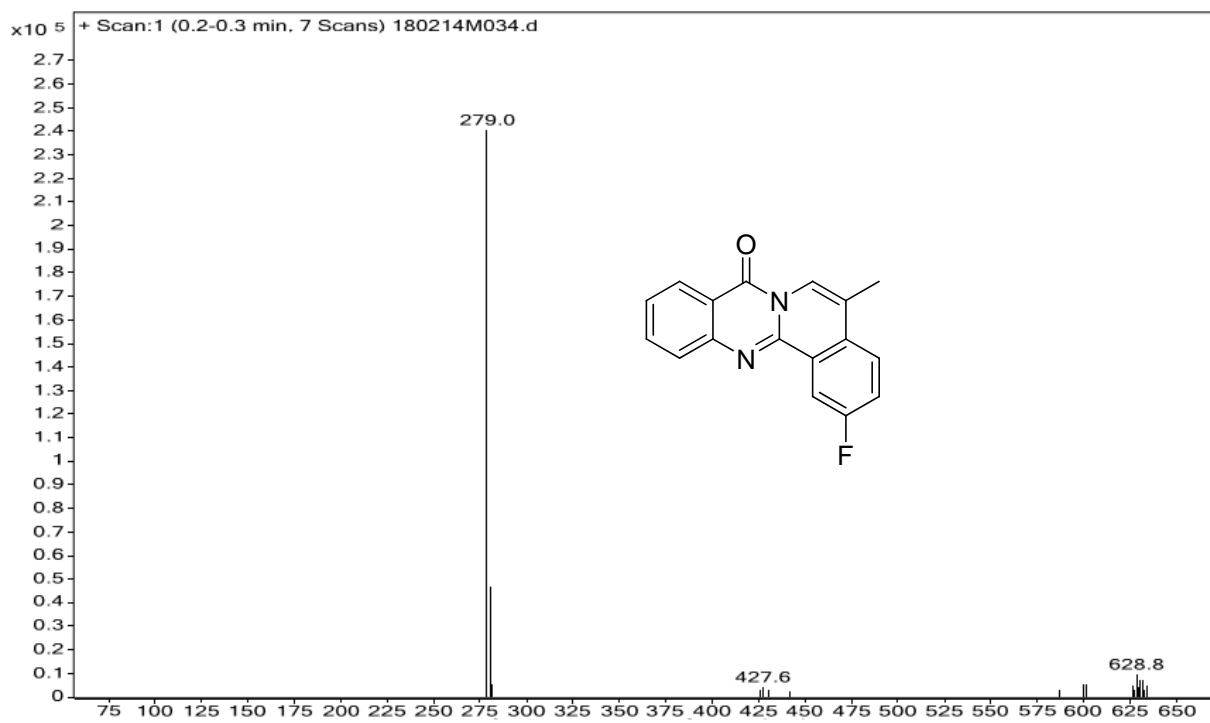


Fig. 10: Mass of compound **4b**

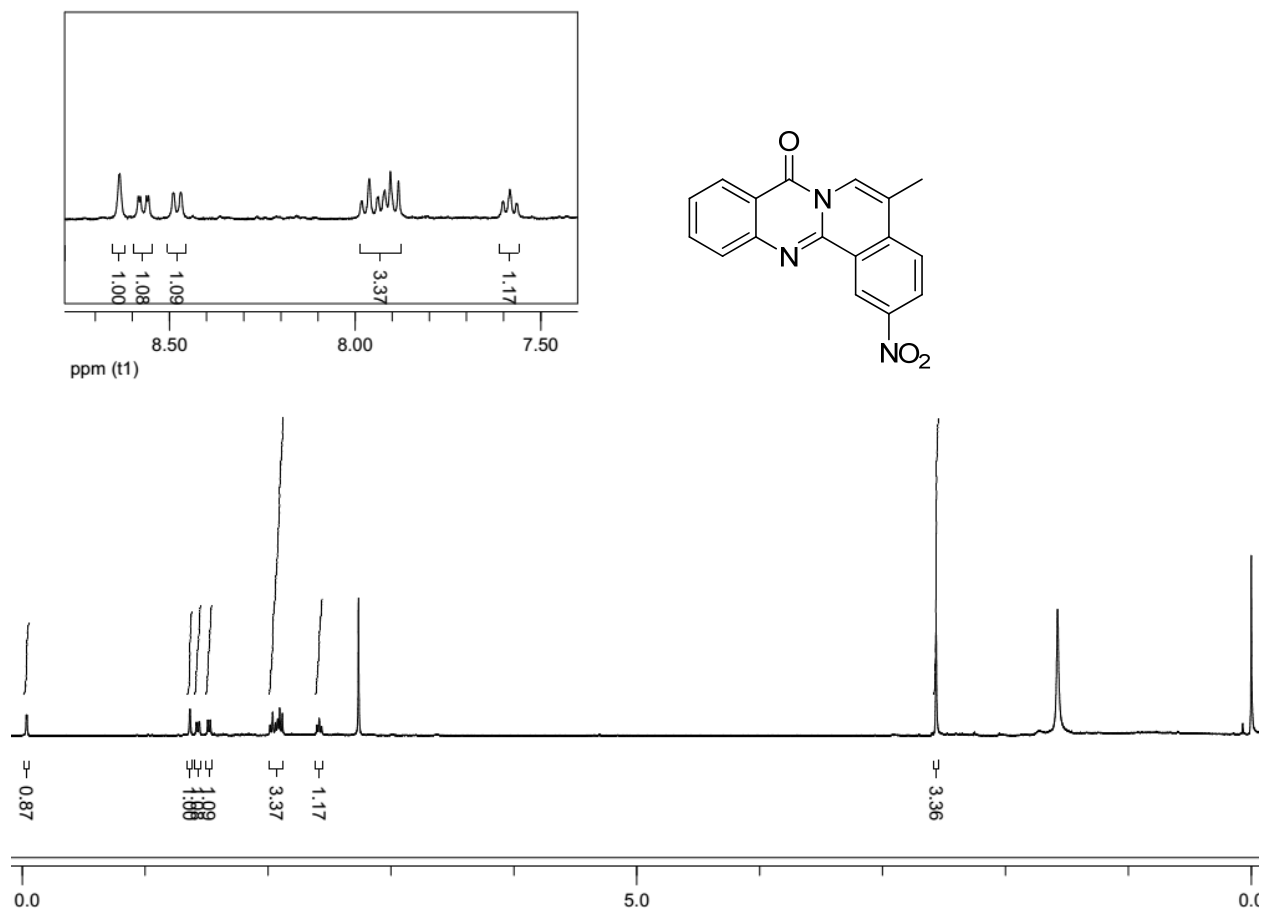


Fig. 11: ^1H NMR spectra of compound **4c** (CDCl_3 , 400 MHz)

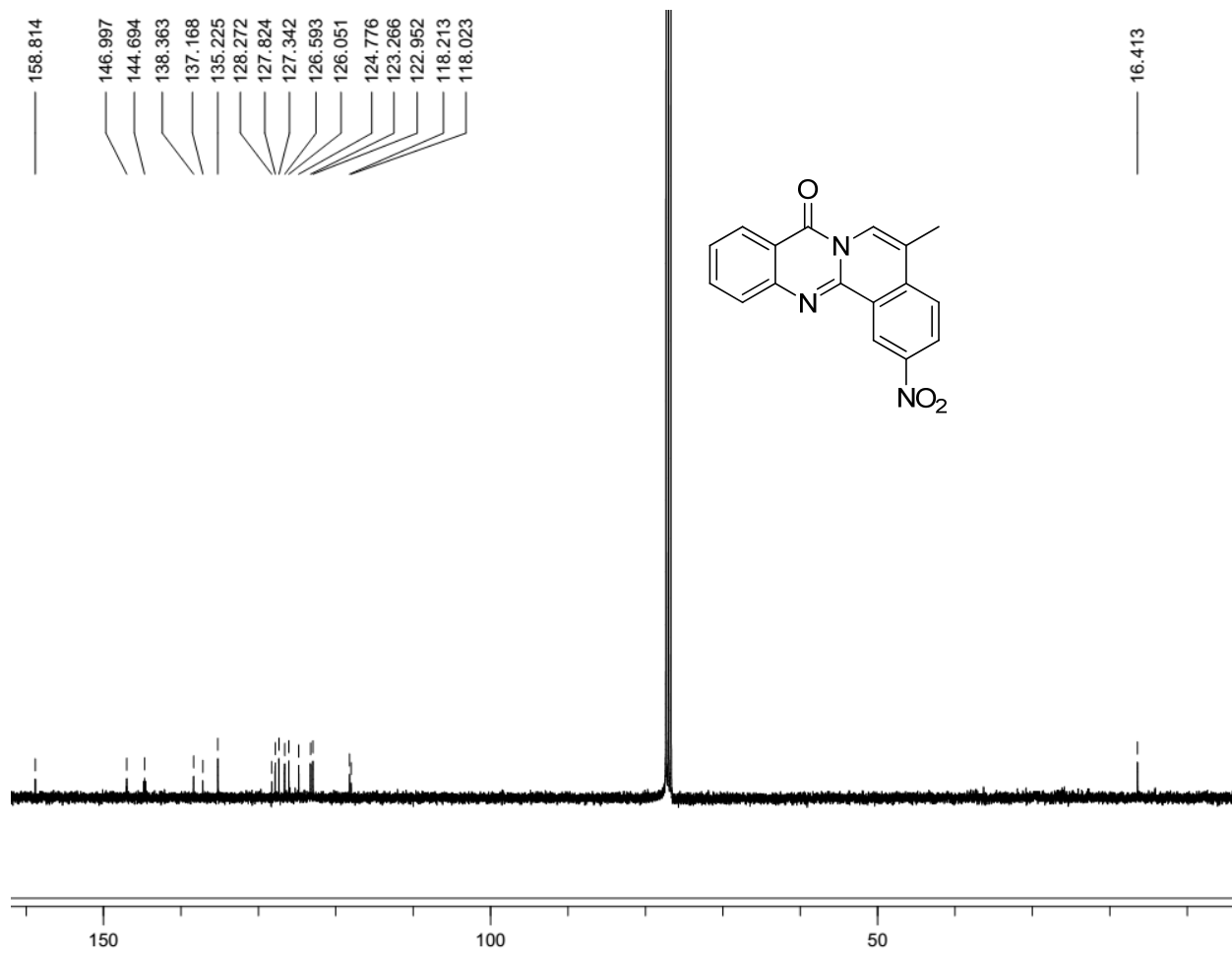
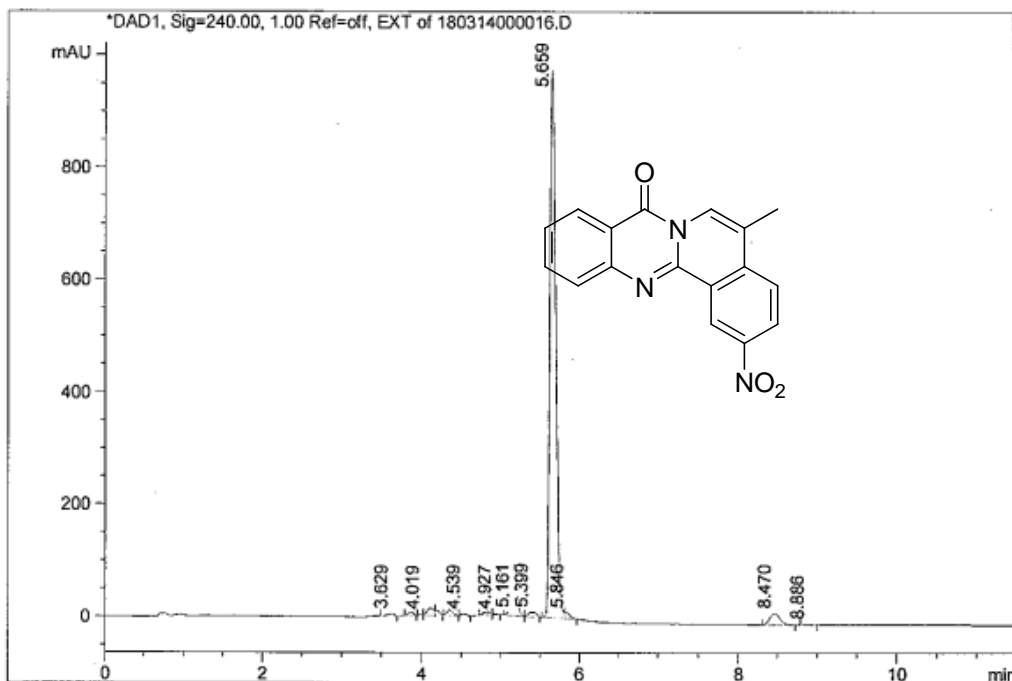


Fig. 12: ^{13}C NMR spectra of compound 4c (CDCl_3 , 100 MHz)

Injection Date : Wed, 19. Mar. 2014
 Sample Name : ILS/ARJ/5/15
 Acq Operator : RADHA
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A20B80.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18-A70B30G.M
 Method Info : Column :Symmetry C-18 75*4.6mm, 3.5µm
 Mobile phase: A) 0.1% TFA in water,B) ACN (gradient)
 T/B%:0/20,1/20,4/98,10/98,10.5/20,12/20.
 FLOW:1.0ml/min Dil: ACN:Water(80:20)

Seq Line : 0
 Location : Vial 24
 Inj. No. : 0
 Inj. Vol. : 0 µl



Signal 1: DAD1, Sig=240.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	3.629	25.202	0.416
2	3.873	23.804	0.393
3	4.019	4.807	0.079
4	4.119	71.525	1.180
5	4.192	25.839	0.426
6	4.361	41.430	0.684
7	4.539	12.341	0.204
8	4.825	29.262	0.483
9	4.927	6.569	0.108
10	5.161	24.979	0.354
11	5.399	48.567	0.801
12	5.659	5987.527	91.288
13	5.846	45.037	0.743
14	8.470	167.897	2.770
15	8.886	4.301	0.071

Fig. 13: HPLC of compound 4c

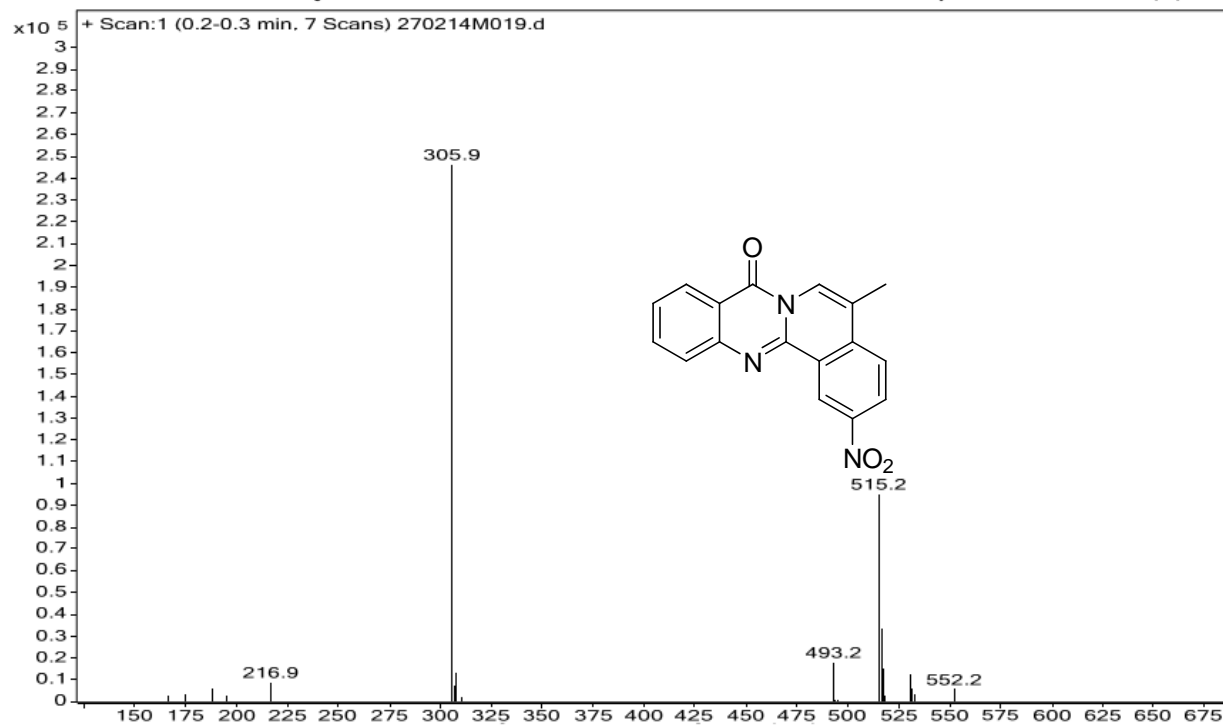


Fig. 14: Mass of compound **4c**

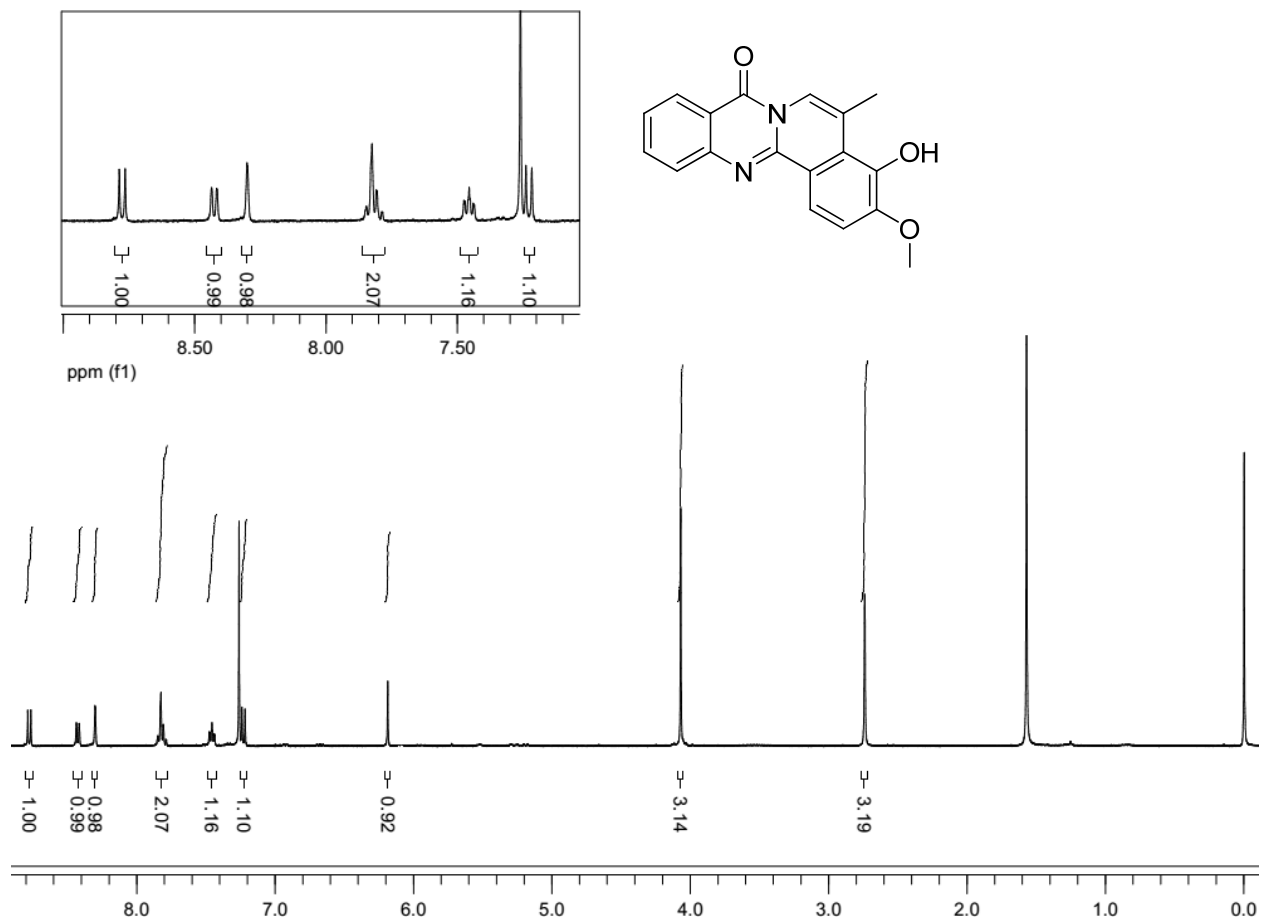


Fig. 15: ^1H NMR spectra of compound **4d** (CDCl_3 , 400 MHz)

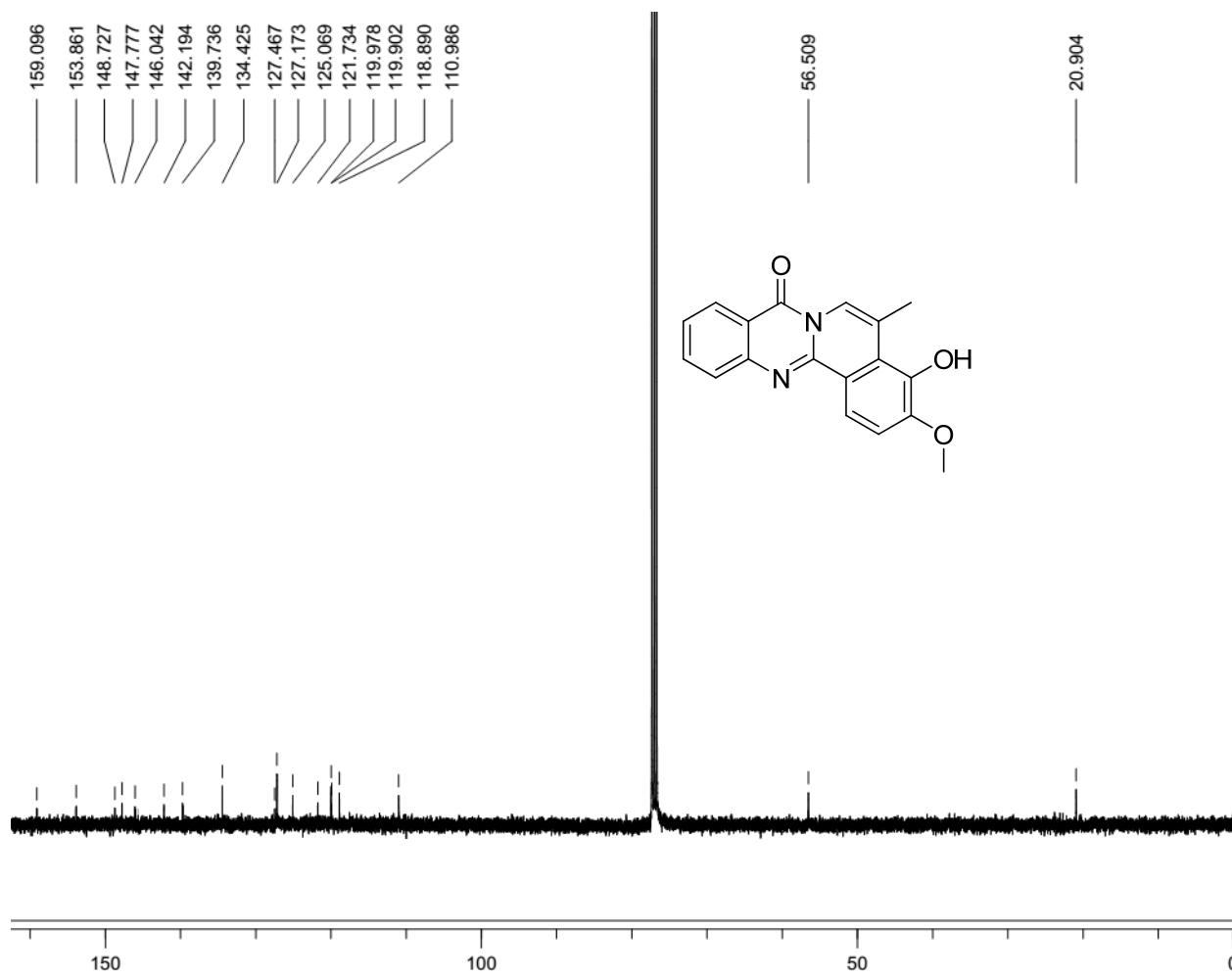
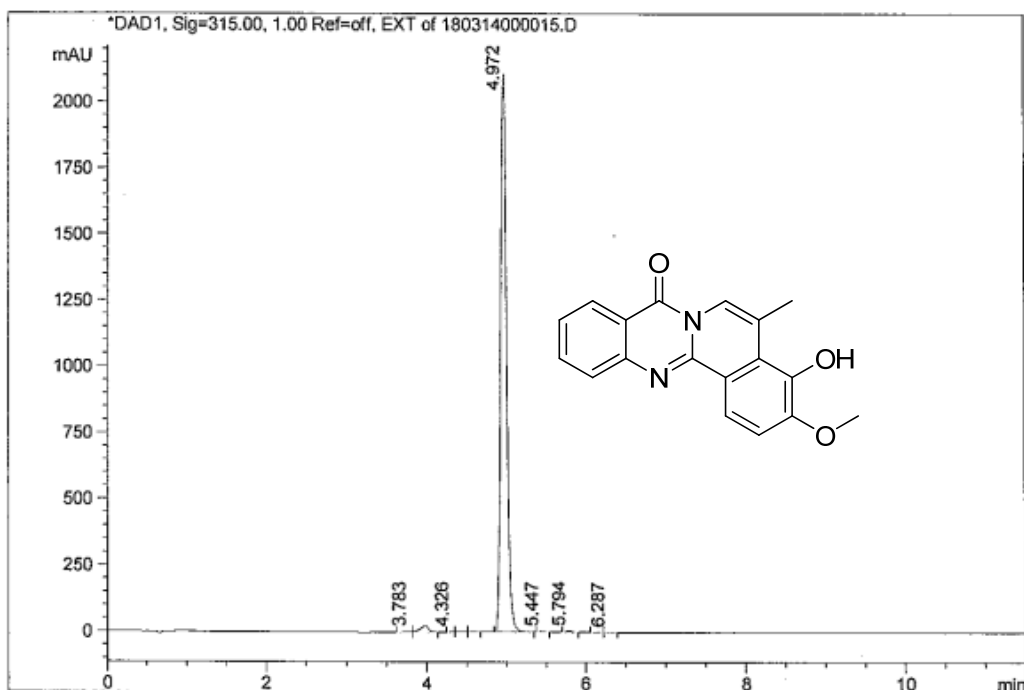


Fig. 16: ^{13}C NMR spectra of compound **4d** (CDCl_3 , 100 MHz)

Injection Date : Wed, 19. Mar. 2014
 Sample Name : ILS/ARJ/5/14
 Acq Operator : RADHA
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A20B80.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18-A70B30G.M
 Method Info : Column :Symmetry C-18 75*4.6mm, 3.5µm
 Mobile phase: A) 0.1% TFA in water,B) ACN (gradient)
 T/B%:0/20,1/20,4/98,10/98,10.5/20,12/20.
 FLOW:1.0ml/min Dil: ACN:Water(80:20)

Seq Line : 0
 Location : Vial 23
 Inj. No. : 0
 Inj. Vol. : 0 µl



Signal 1: DAD1, Sig=315.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	3.783	14.608	0.134
2	3.981	157.912	1.450
3	4.326	1.662	0.015
4	4.440	10.346	0.095
5	4.587	7.519	0.069
6	4.972	10664.799	97.961
7	5.447	4.873	0.045
8	5.794	20.334	0.187
9	6.140	2.189	0.020
10	6.287	2.564	0.024

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Fig. 17: HPLC of compound 4d

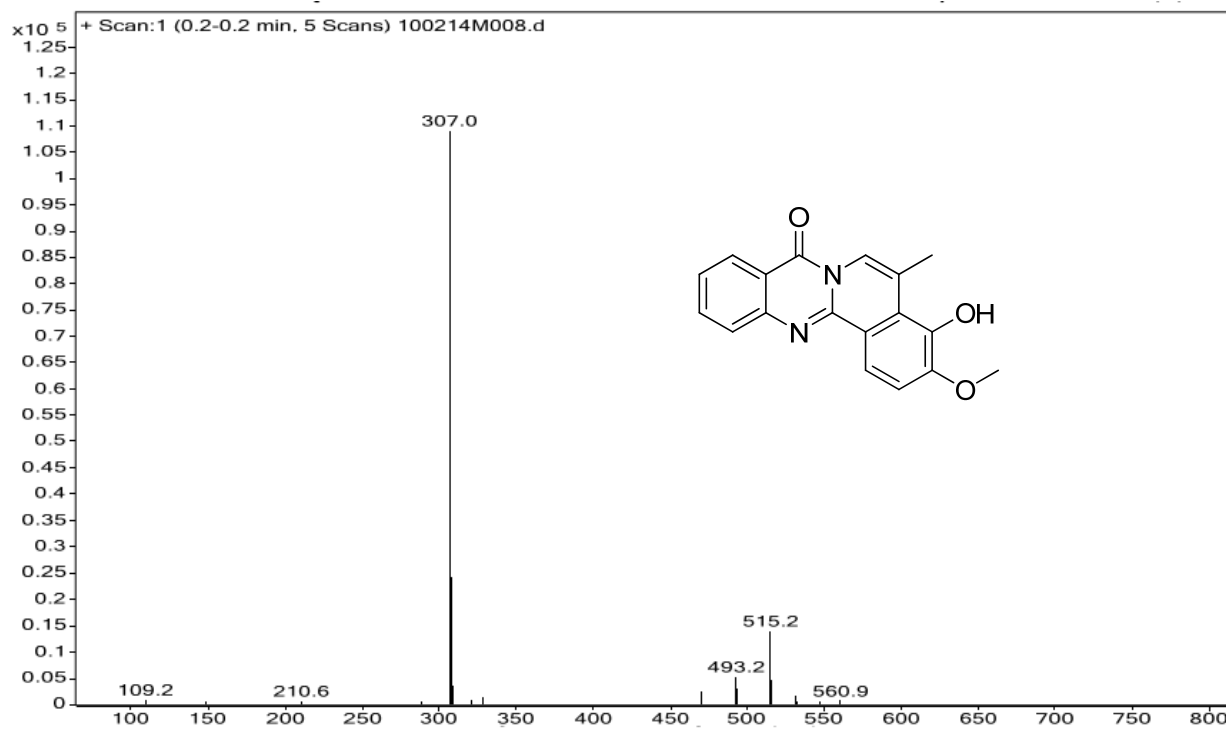


Fig. 18: Mass of compound **4d**

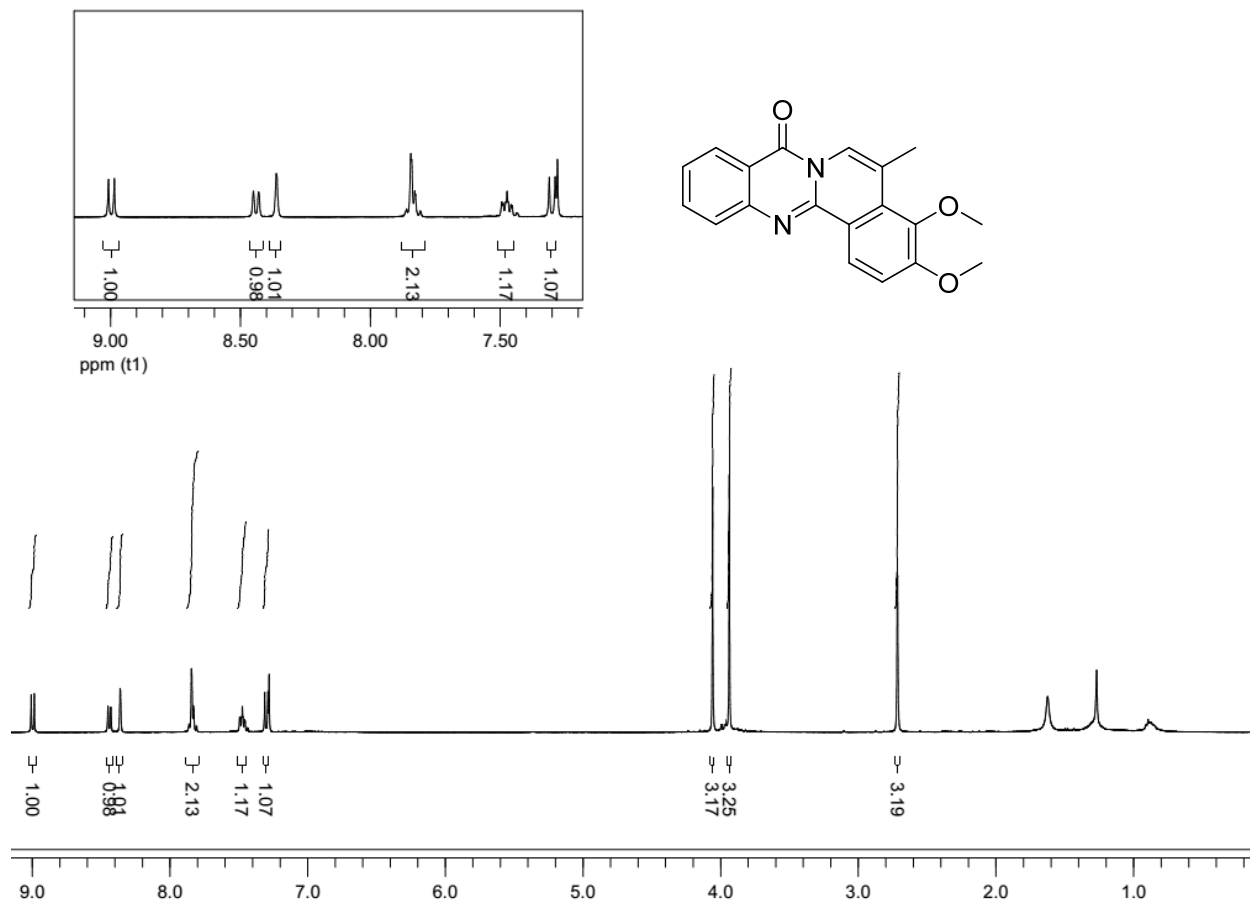


Fig. 19: ^1H NMR spectra of compound **4e** (CDCl_3 , 400 MHz)

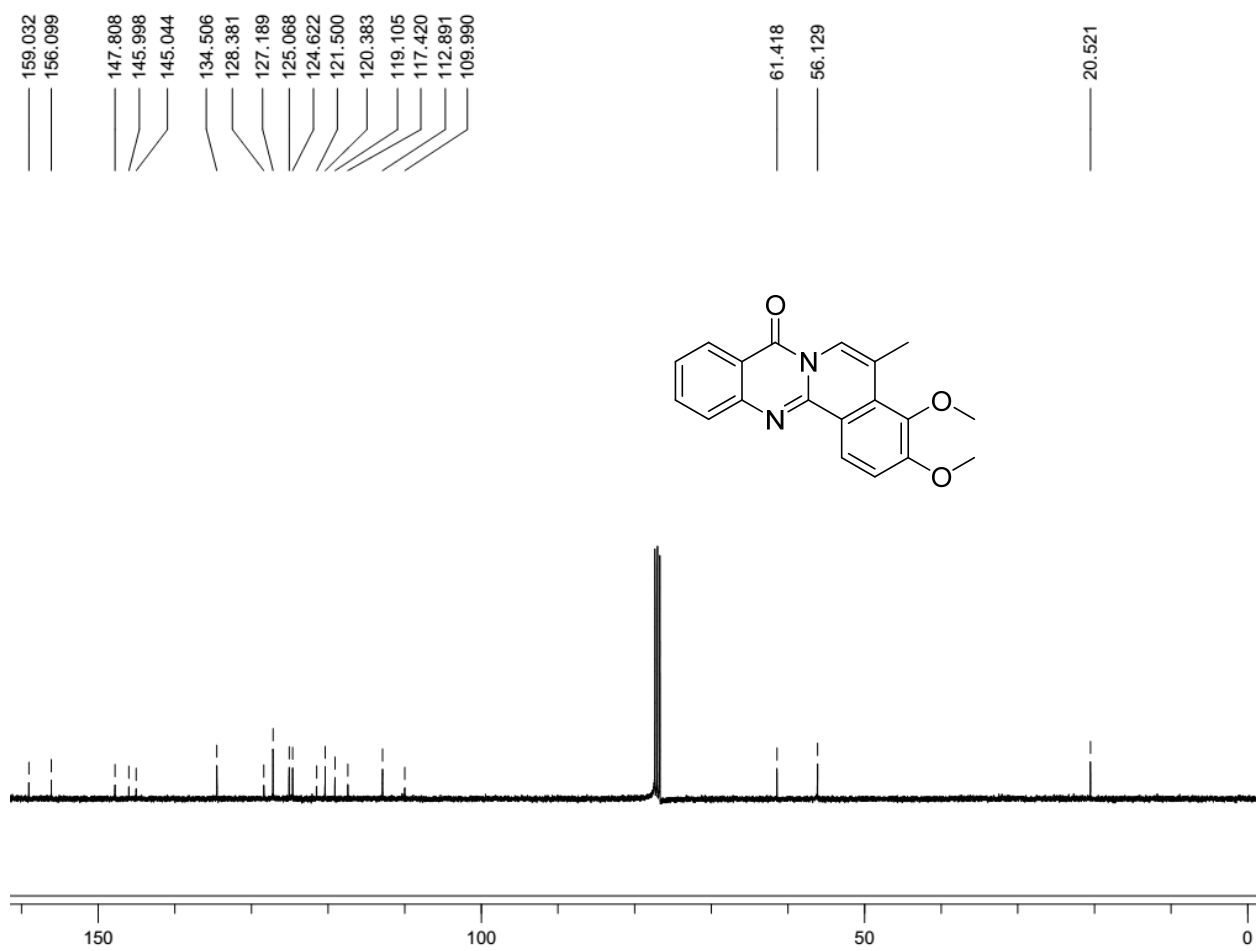
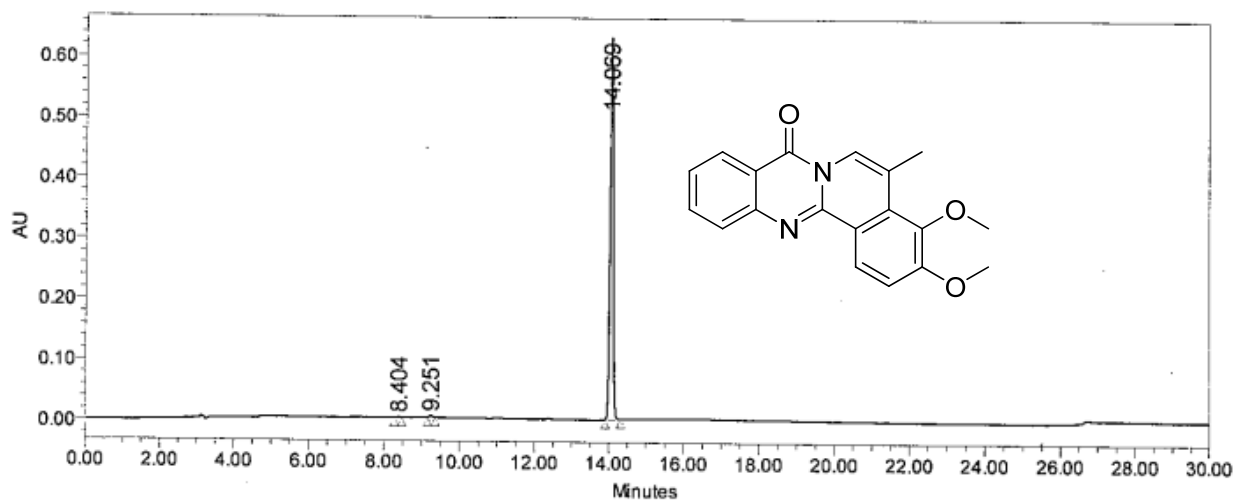


Fig. 20: ^{13}C NMR spectra of compound **4e** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name: ILS/ARJ/5/11	Sample Set Name: 210214_1
Sample Type: Unknown	Acq. Method Set: CFZ
Vial: 36	Processing Method: CFZ_PRO
Injection #: 1	Channel Name: 290.0nm
Injection Volume: 5.00 ul	Proc. Chnl. Descr.: PDA 290.0 nm
Run Time: 30.0 Minutes	
Date Acquired: 2/22/2014 12:44:32 AM IST	
Date Processed: 2/24/2014 11:59:50 AM IST	

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T7%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml /min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	8.404	6251	0.17	1008
2	9.251	18813	0.52	3239
3	14.069	3614887	99.31	628611

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Analysed By

Fig. 21: HPLC of compound 4e

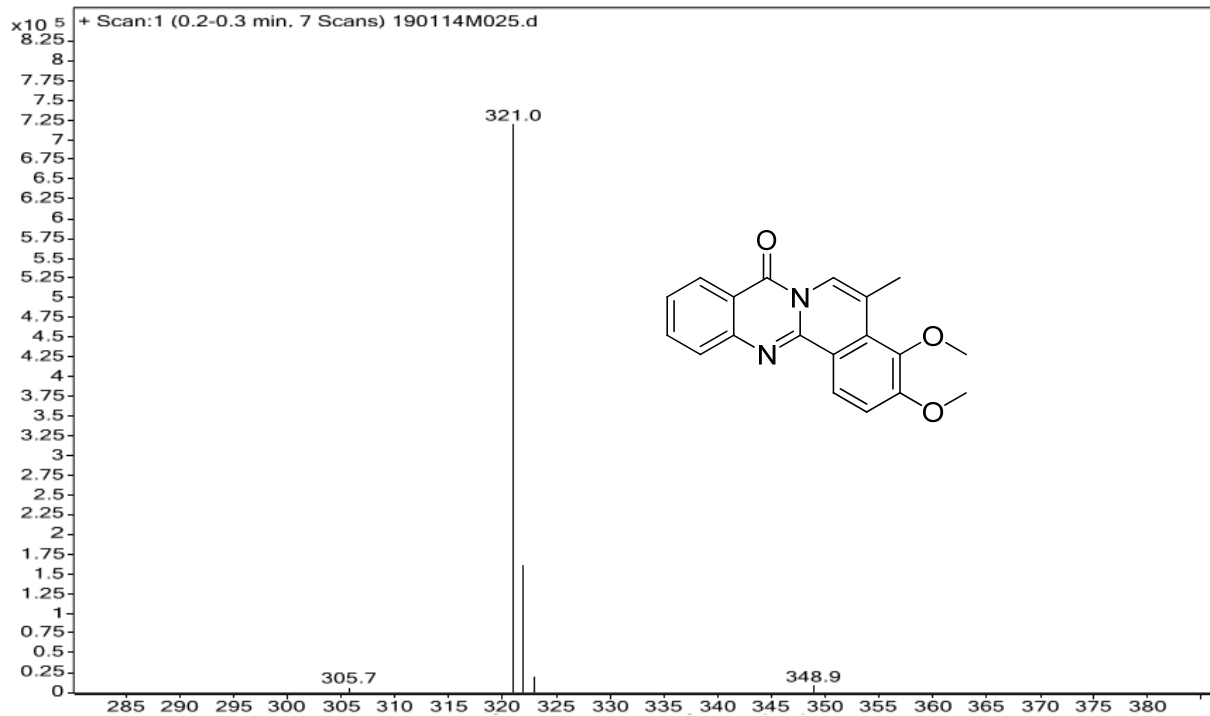


Fig. 22: Mass of compound **4e**

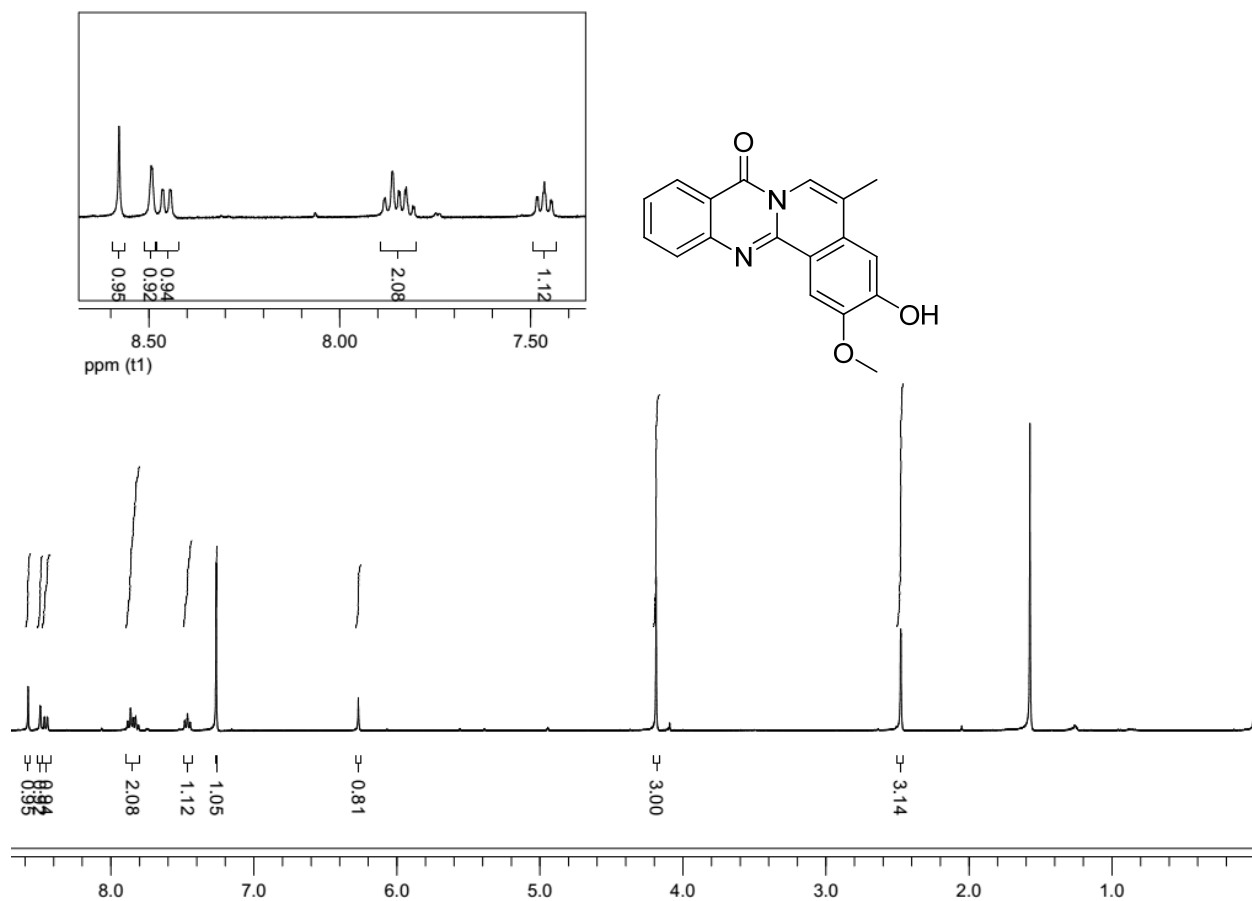


Fig. 23: ^1H NMR spectra of compound **4f** (CDCl₃, 400 MHz)

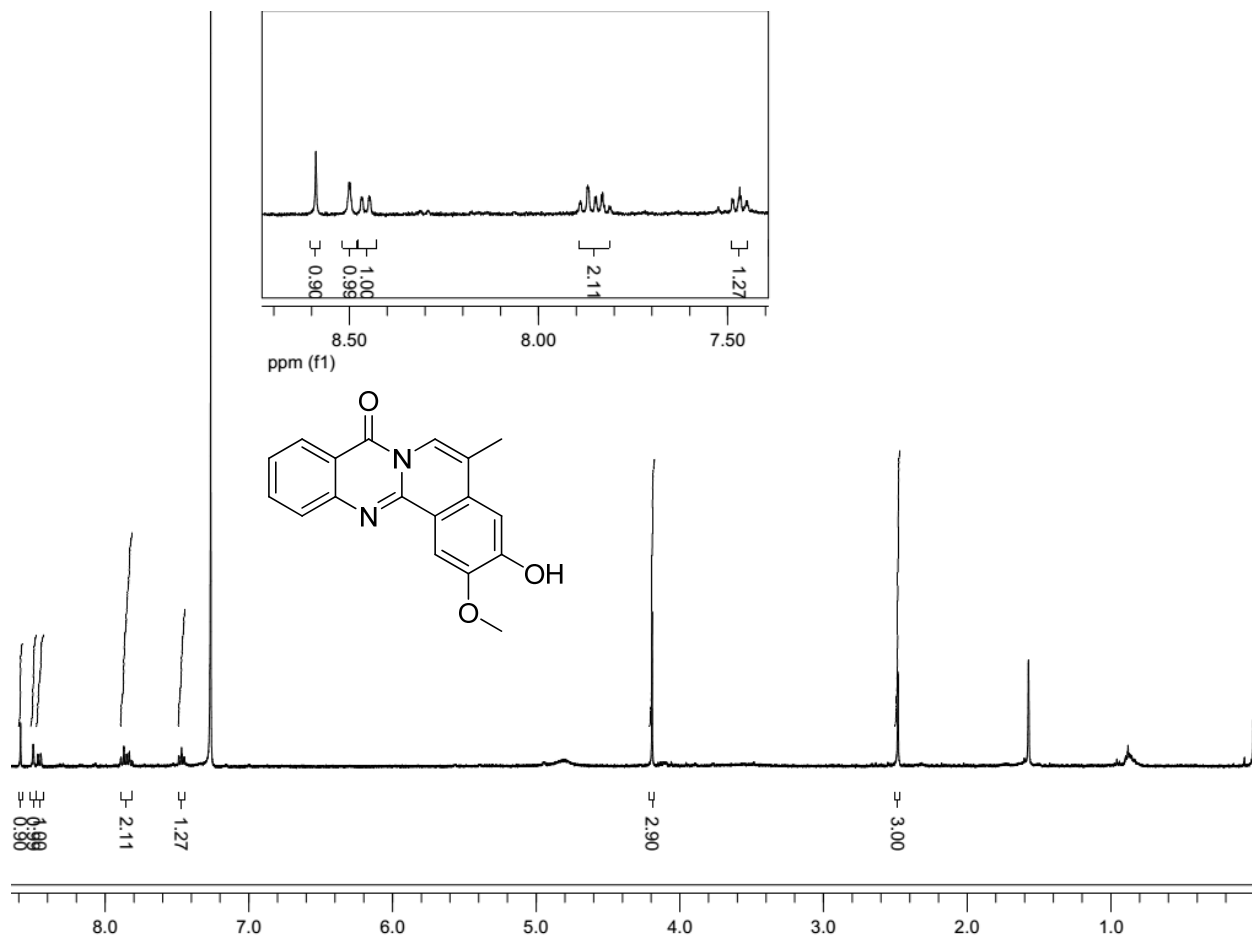


Fig. 24: D₂O exchange spectra of compound **4f** (CDCl₃, 400 MHz)

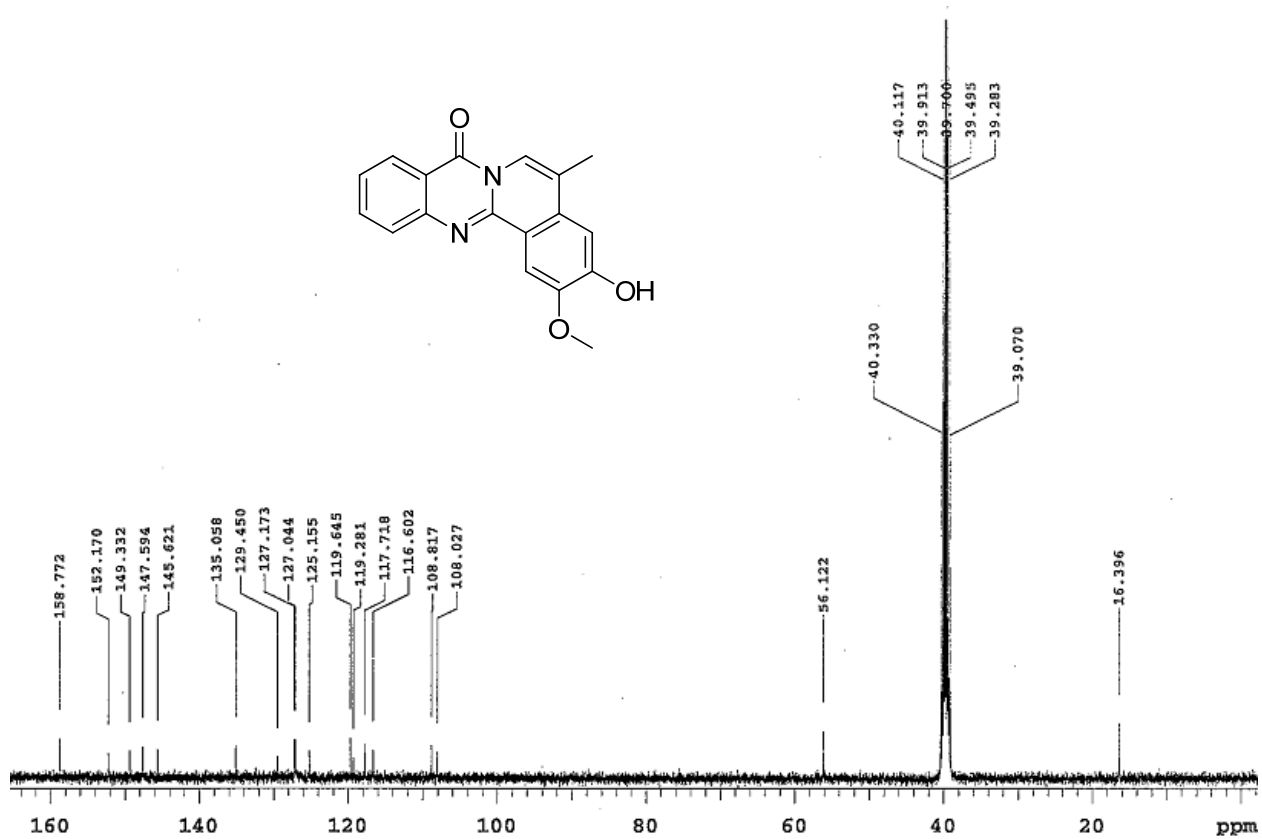
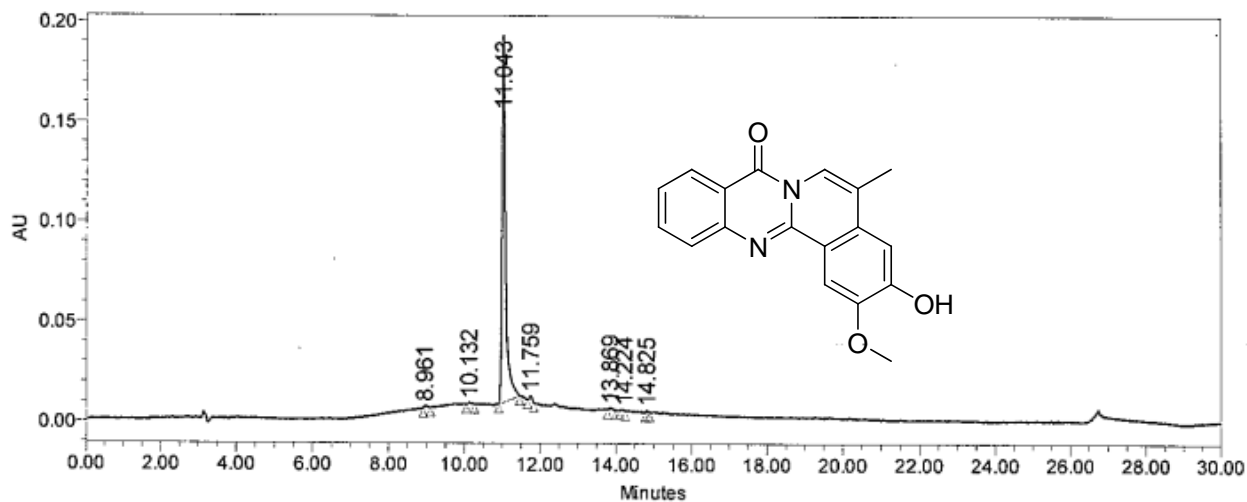


Fig. 25: ¹³C NMR spectra of compound **4f** (DMSO-*d*₆, 100 MHz)

Sample Name:	ILS/ARJ/5/10	Sample Set Name:	240214
Sample Type:	Unknown	Acq. Method Set:	CFZ
Vial:	35	Processing Method:	CFZ_PRO
Injection #:	1	Channel Name:	280.0nm
Injection Volume:	5.00 ul	Proc. Chnl. Descr.:	PDA 280.0 nm
Run Time:	30.0 Minutes		
Date Acquired:	2/24/2014 11:37:36 AM IST		
Date Processed:	2/24/2014 12:51:16 PM IST		

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml /min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	8.961	7878	0.63	1231
2	10.132	6741	0.54	1037
3	11.043	1212492	96.38	183725
4	11.759	13554	1.08	2704
5	13.869	8926	0.71	1238
6	14.224	5084	0.40	843
7	14.825	3320	0.26	1082

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 Analysed By

Fig. 26: HPLC of compound 4f

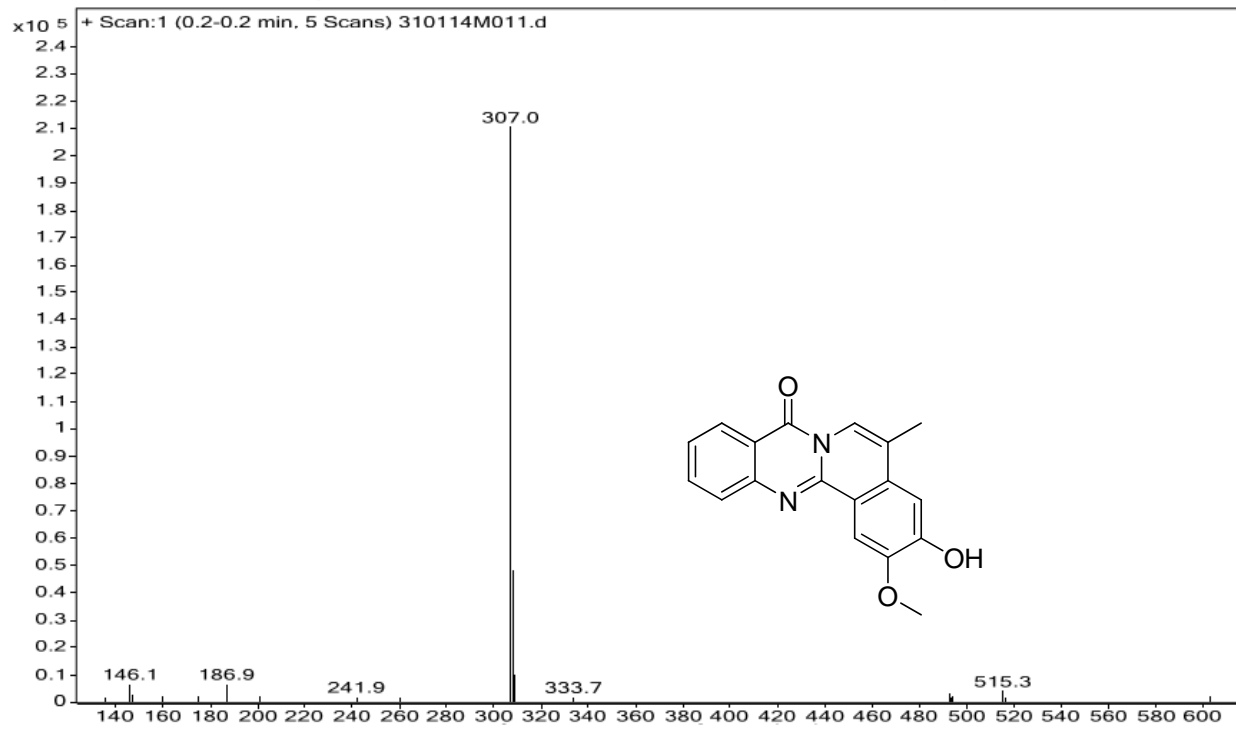


Fig. 27: Mass of compound **4f**

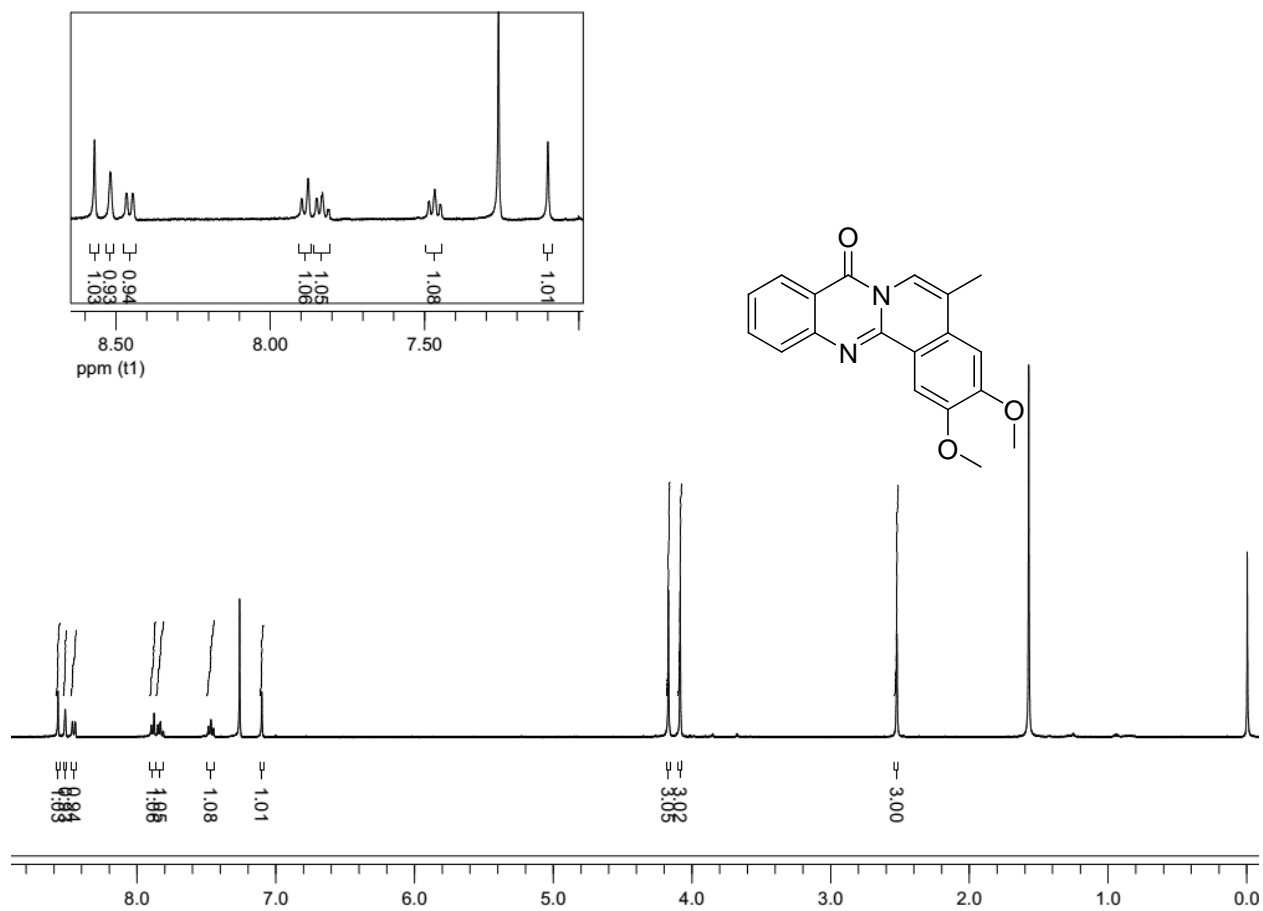


Fig. 28: ^1H NMR spectra of compound **4g** (CDCl_3 , 400 MHz)

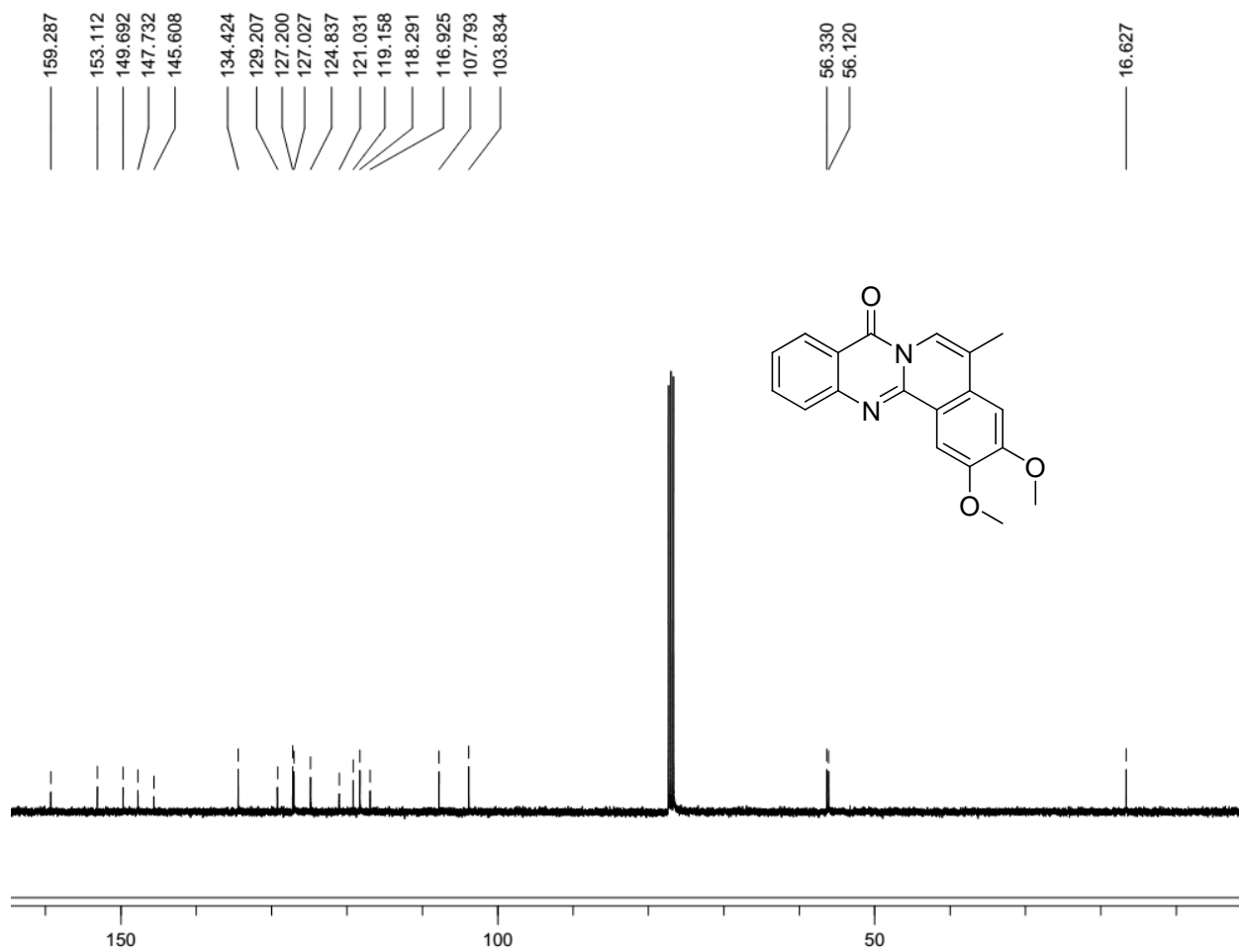
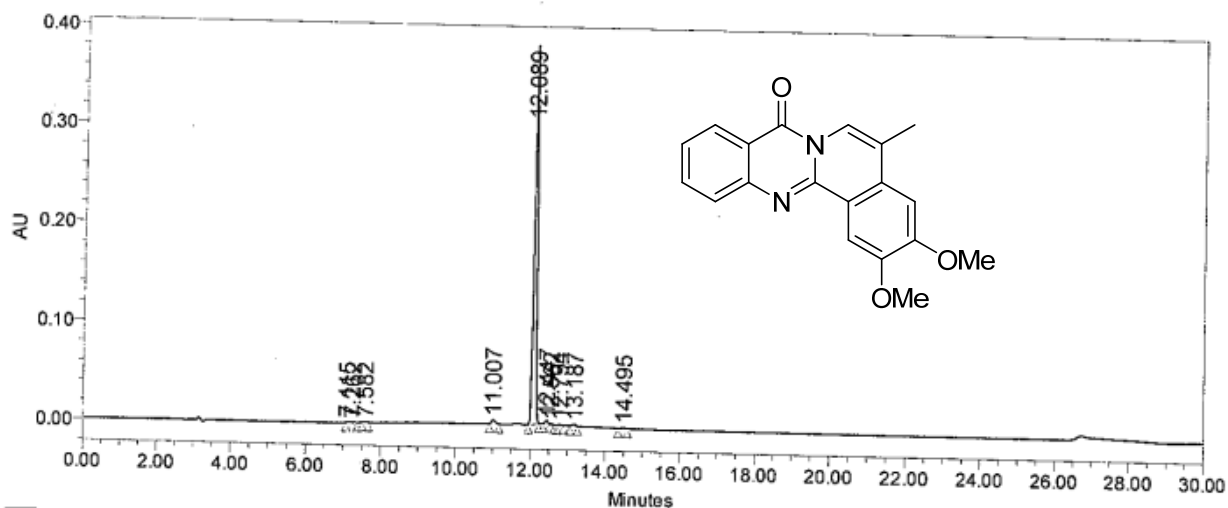


Fig. 29: ^{13}C NMR spectra of compound **4g** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name: ILS/ARJ/5/3	Sample Set Name: 210214_1
Sample Type: Unknown	Acq. Method Set: CFZ
Vial: 28	Processing Method: CFZ_PRO
Injection #: 1	Channel Name: 275.0nm
Injection Volume: 5.00 ul	Proc. Chnl. Descr.: PDA 275.0 nm
Run Time: 30.0 Minutes	
Date Acquired: 2/21/2014 7:58:58 PM IST	
Date Processed: 2/24/2014 11:38:42 AM IST	

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml /min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	7.115	6667	0.32	901
2	7.262	3501	0.17	851
3	7.582	5312	0.25	819
4	11.007	27257	1.29	4274
5	12.089	2011708	95.33	381742
6	12.447	21684	1.03	4054
7	12.562	5996	0.28	1158
8	12.794	6958	0.33	1533
9	13.187	11476	0.54	1760
10	14.495	9621	0.46	1371

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Analysed By

Fig. 30: HPLC of compound **4g**

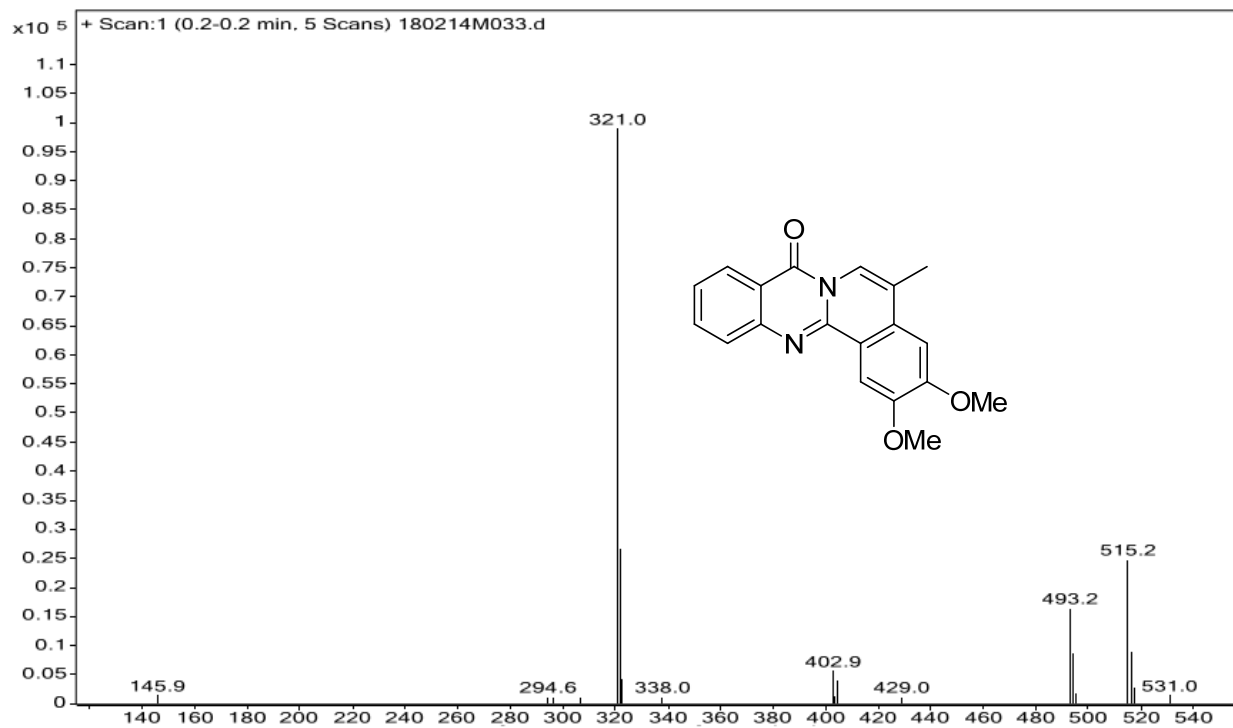


Fig. 31: Mass of compound **4g**

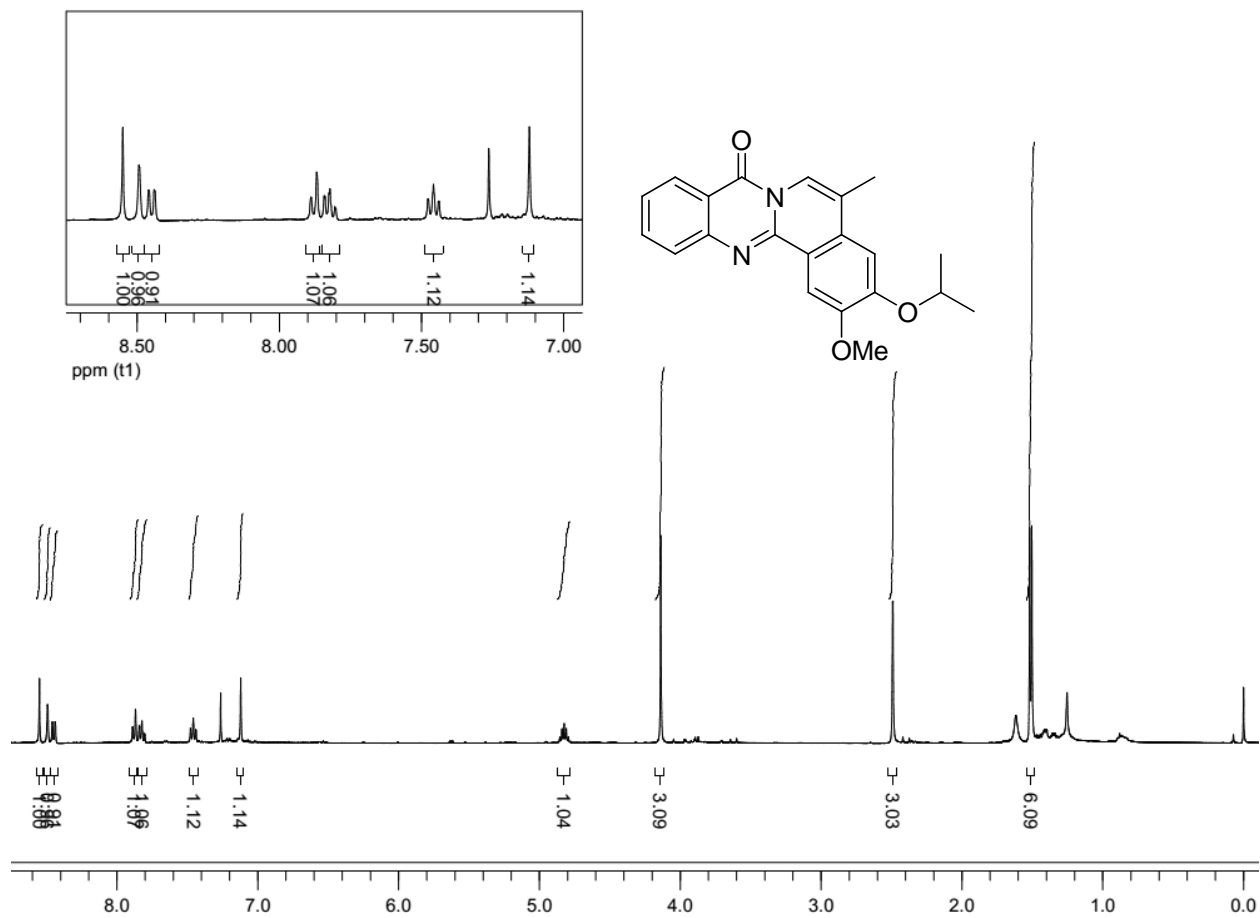


Fig. 32: ^1H NMR spectra of compound **4h** (CDCl_3 , 400 MHz)

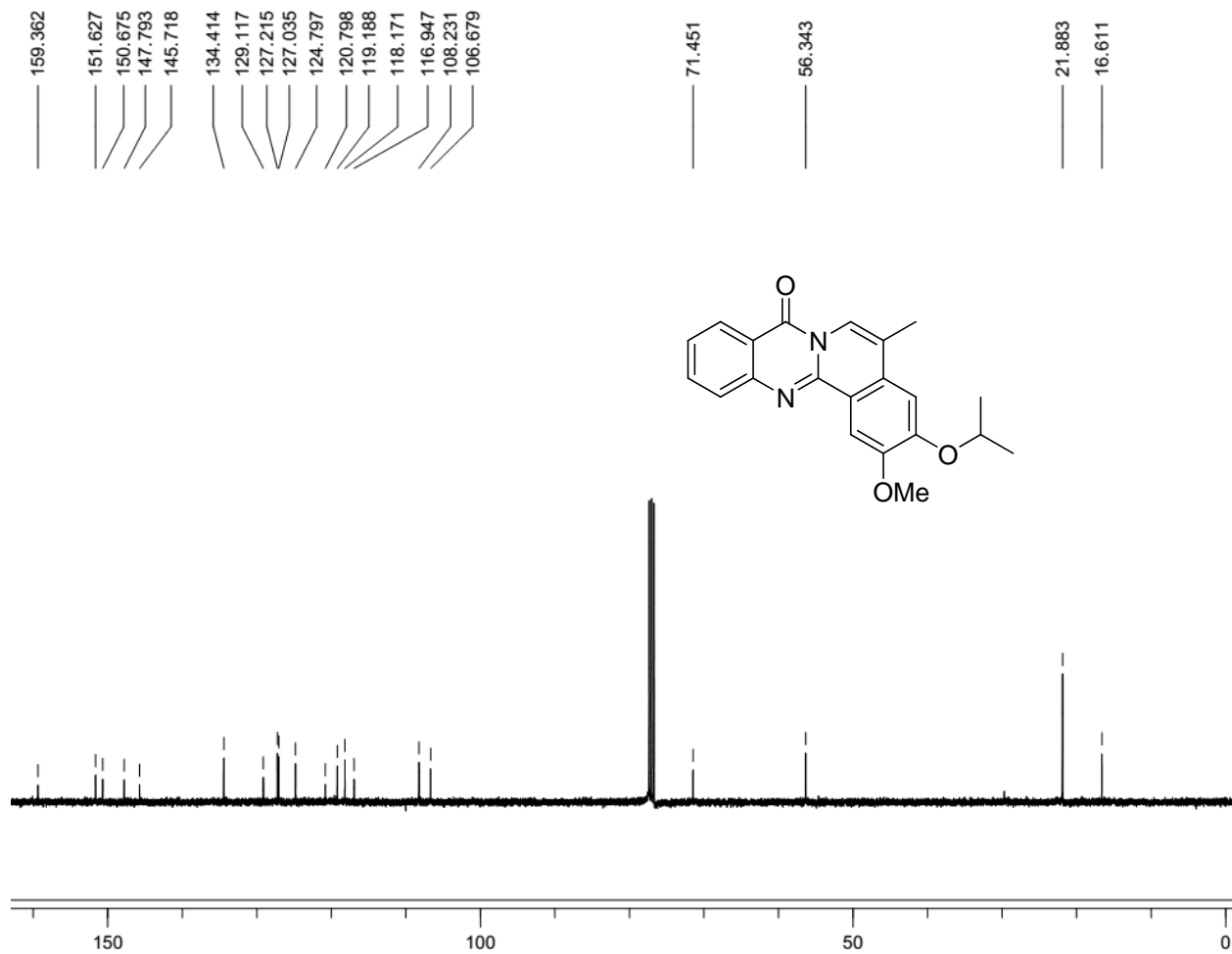
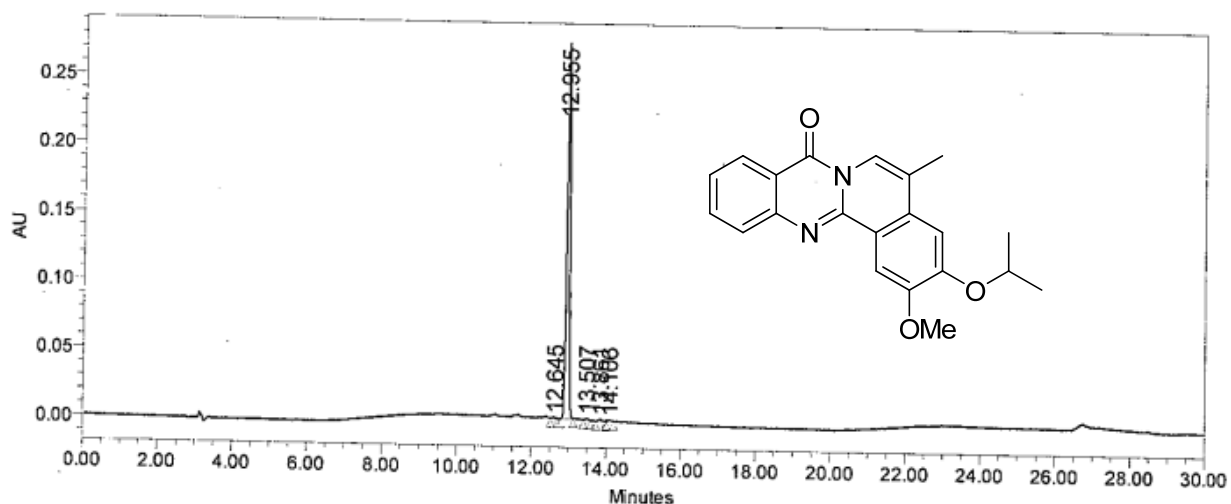


Fig. 33: ^{13}C NMR spectra of compound **4h** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name:	ILS/ARJ/5/9	Sample Set Name:	210214_1
Sample Type:	Unknown	Acq. Method Set:	CFZ
Vial:	34	Processing Method:	CFZ_PRO
Injection #:	1	Channel Name:	280.0nm
Injection Volume:	5.00 ul	Proc. Chnl. Descr.:	PDA 280.0 nm
Run Time:	30.0 Minutes		
Date Acquired: 2/21/2014 11:33:12 PM IST			
Date Processed: 2/24/2014 11:52:31 AM IST			

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	12.645	7085	0.47	1130
2	12.955	1469317	97.64	274357
3	13.507	7735	0.51	1525
4	13.861	13652	0.91	1656
5	14.106	6975	0.46	1150

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 Analysed By

Fig. 34: HPLC of compound **4h**

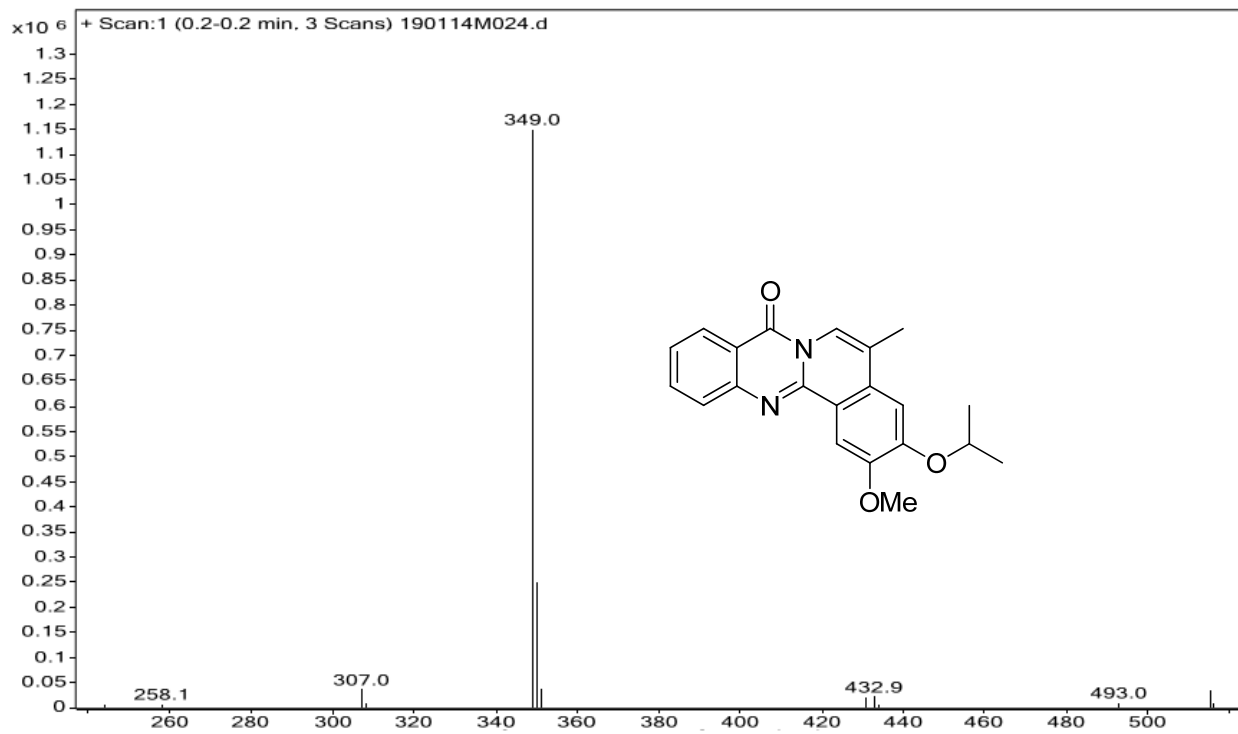


Fig. 35: Mass of compound **4h**

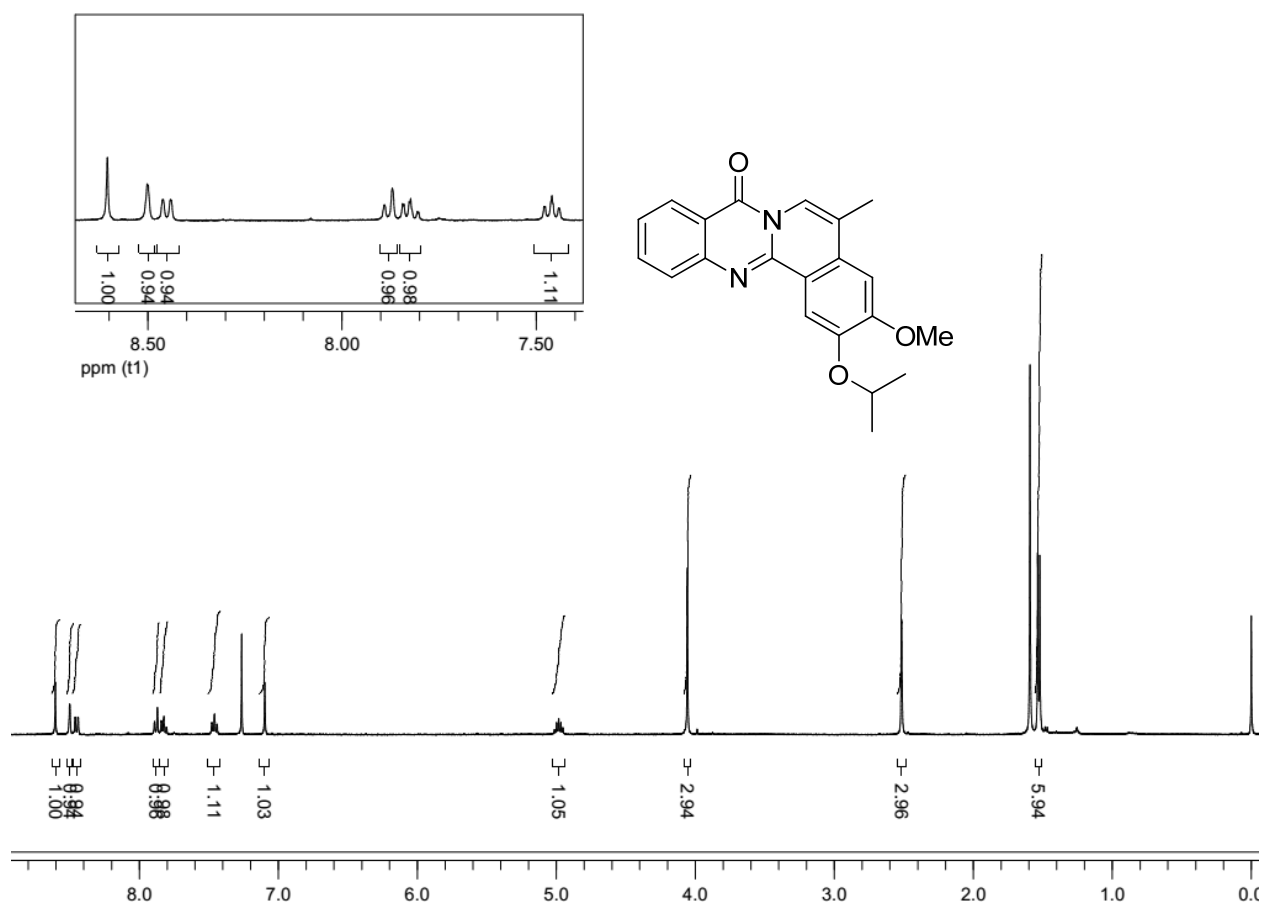


Fig. 36: ¹H NMR spectra of compound **4i** (CDCl₃, 400 MHz)

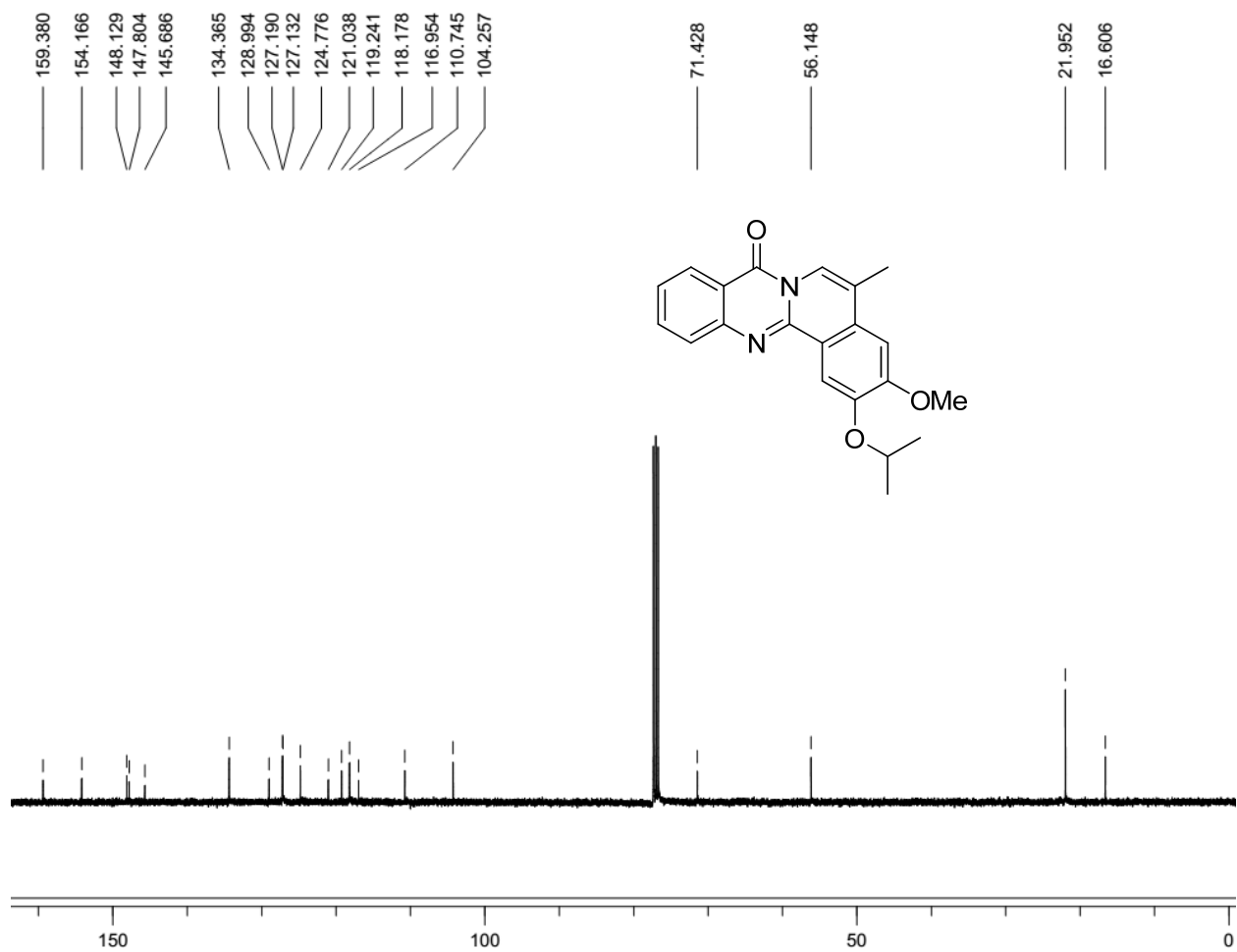
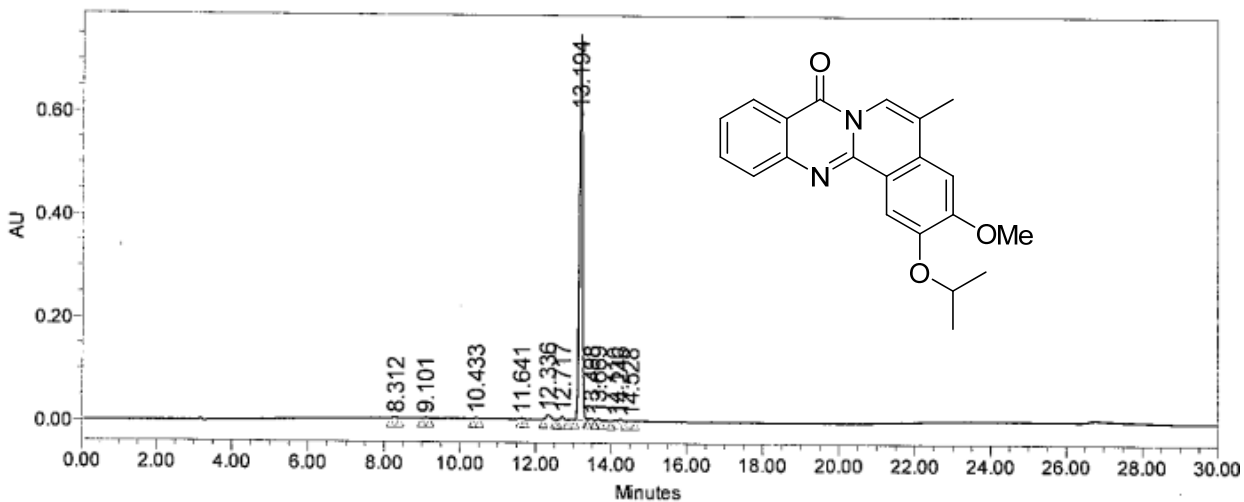


Fig. 37: ^{13}C NMR spectra of compound **4i** (CDCl_3 , 100 MHz)

Sample Name:	ILS/ARJ/5/7	Sample Set Name:	210214_1
Sample Type:	Unknown	Acq. Method Set:	CFZ
Vial:	32	Processing Method:	CFZ_PRO
Injection #:	1	Channel Name:	280.0nm
Injection Volume:	5.00 ul	Proc. Chnl. Descr.:	PDA 280.0 nm
Run Time:	30.0 Minutes		
Date Acquired:	2/21/2014 10:21:46 PM IST		
Date Processed:	2/24/2014 11:48:10 AM IST		

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	8.312	13314	0.32	2010
2	9.101	12744	0.31	2054
3	10.433	12741	0.31	2338
4	11.641	5357	0.13	1433
5	12.336	73027	1.76	8790
6	12.717	39457	0.95	7038
7	13.194	3905451	94.32	744484
8	13.498	15985	0.39	3020
9	13.669	17349	0.42	3161
10	14.110	13534	0.33	2321

	RT	Area	% Area	Height
11	14.246	25763	0.62	4145
12	14.528	6093	0.15	801

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 Analysed By

Fig. 38: HPLC of compound 4i

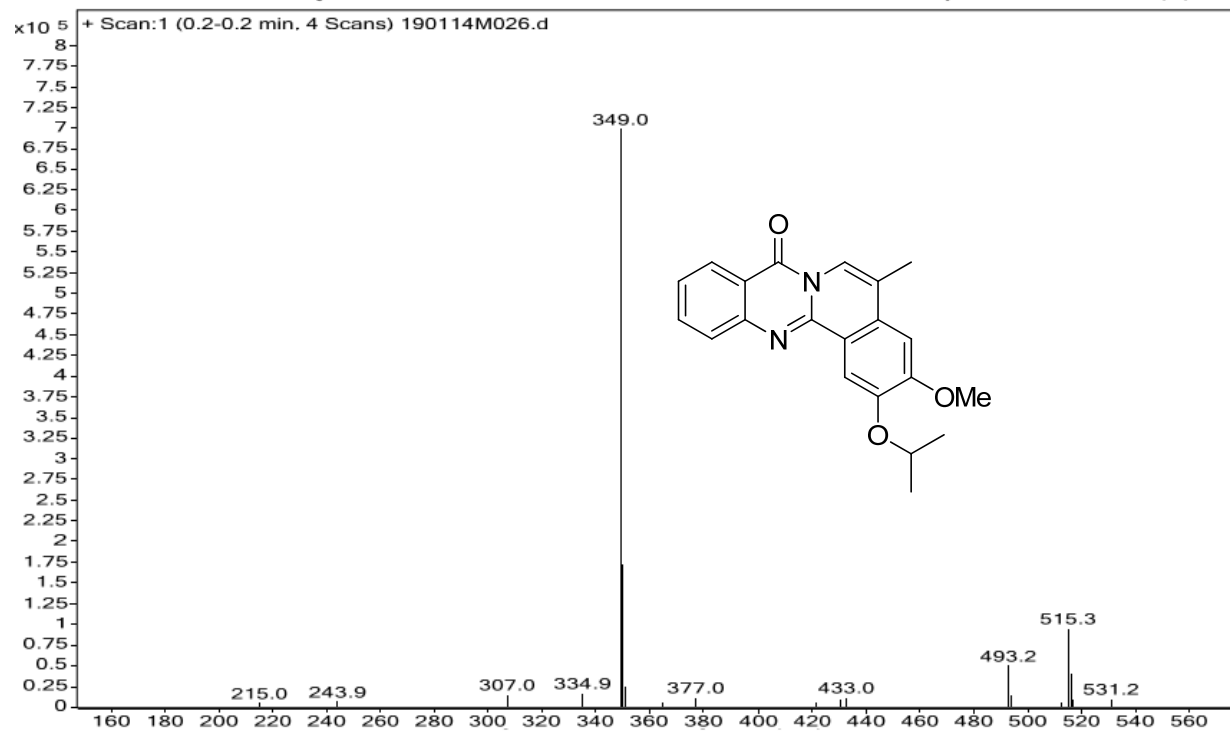


Fig. 39: Mass of compound **4i**

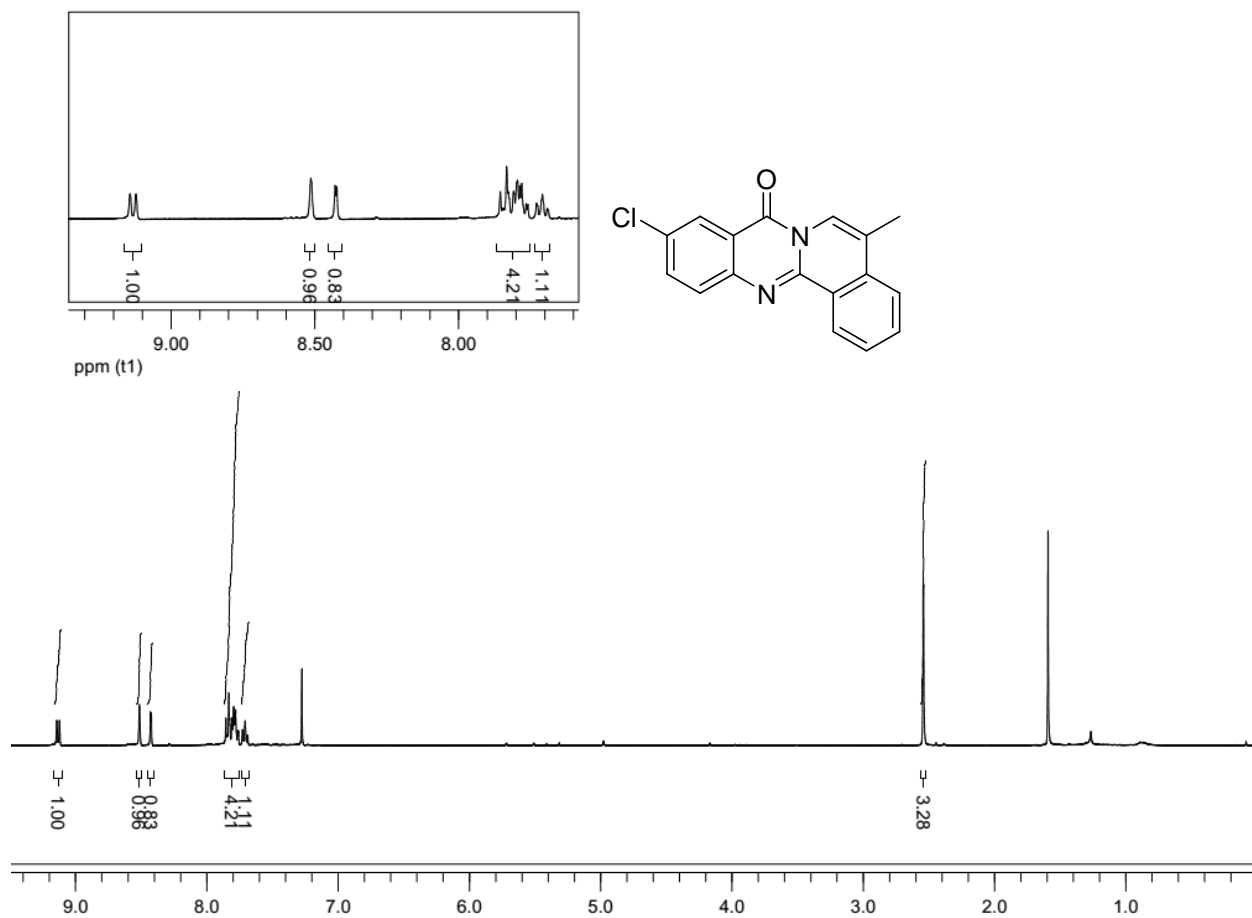


Fig. 40: ^1H NMR spectra of compound **4j** (CDCl_3 , 400 MHz)

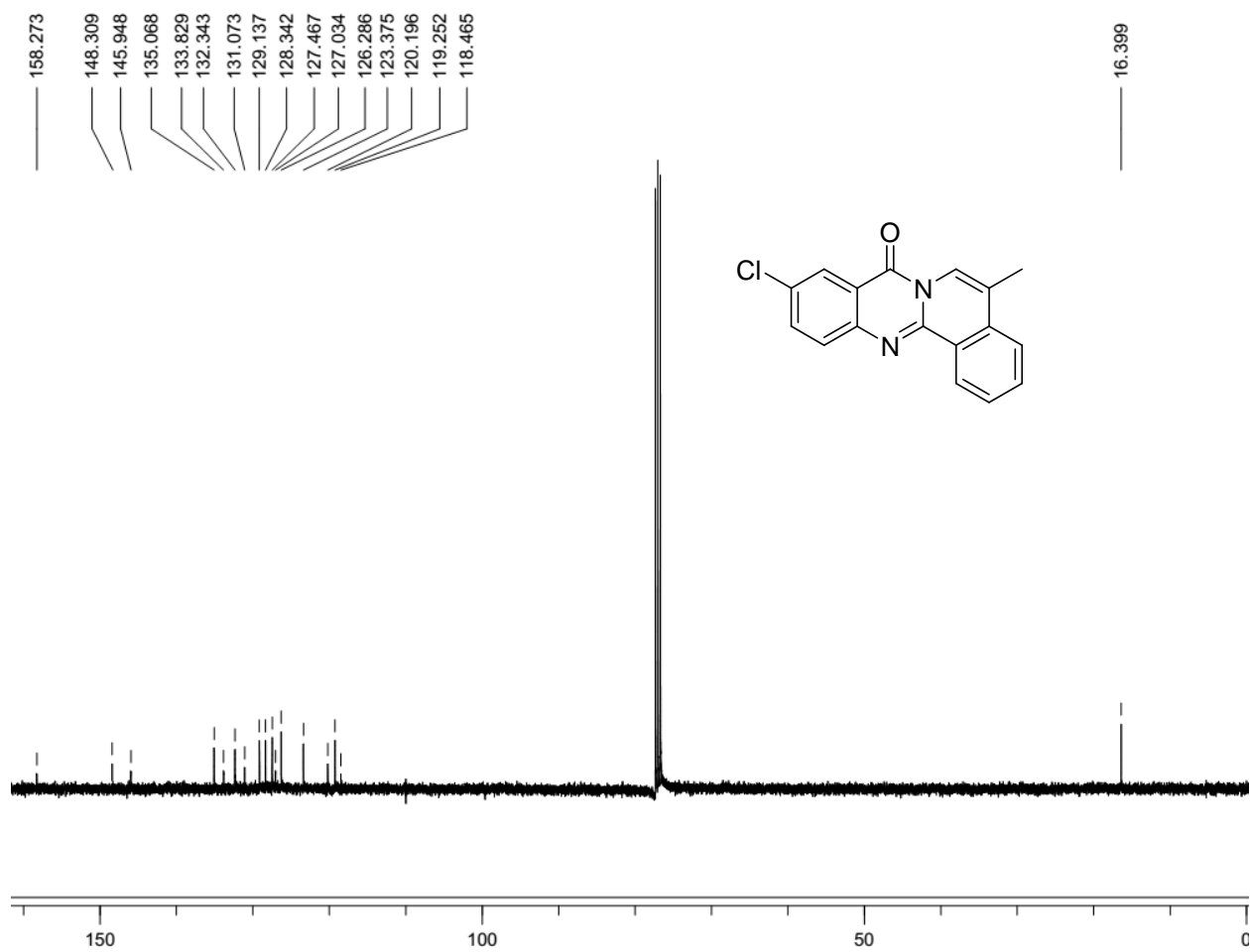
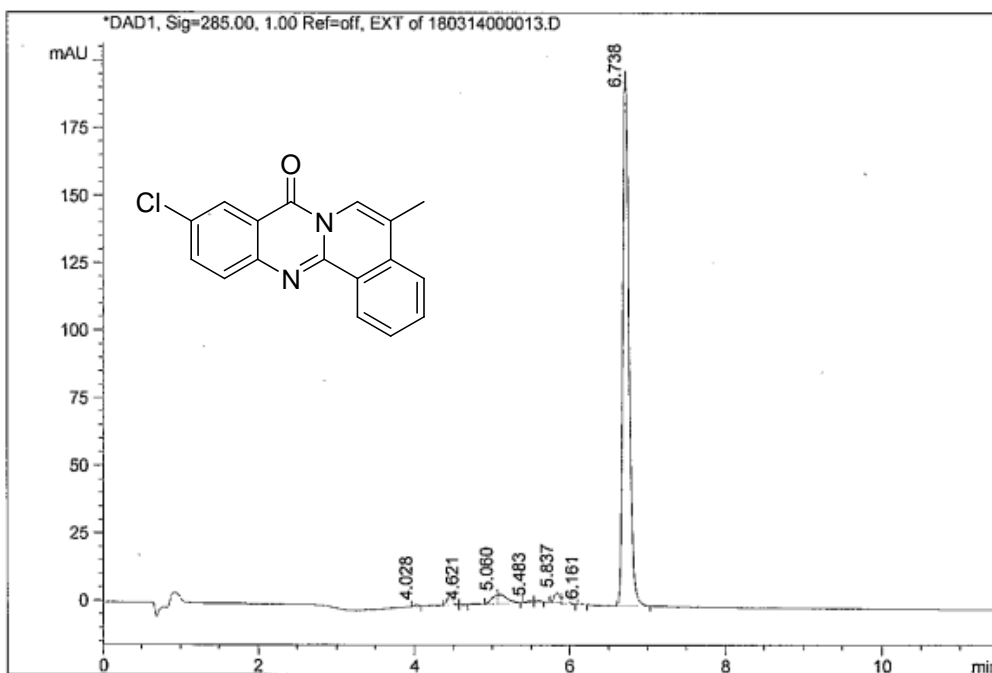


Fig. 41: ^{13}C NMR spectra of compound **4j** (CDCl_3 , 100 MHz)

Injection Date : Wed, 19. Mar. 2014
 Sample Name : ILS/ARJ/5/12
 Acq Operator : RADHA
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A20B80.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18-A70B30G.M
 Method Info : Column :Symmetry C-18 75*4.6mm, 3.5µm
 Mobile phase: A) 0.1% TFA in water,B) ACN (gradient)
 T/B%:0/20,1/20,4/98,10/98,10.5/20,12/20.
 FLOW:1.0ml/min Dil: ACN:Water(80:20)

Seq Line : 0
 Location : Vial 21
 Inj. No. : 0
 Inj. Vol. : 0 µl



Signal 1: DAD1, Sig=285.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	4.028	2.023	0.166
2	4.451	17.173	1.408
3	4.621	0.928	0.076
4	5.060	15.705	1.288
5	5.109	27.077	2.220
6	5.483	1.724	0.141
7	5.590	2.553	0.209
8	5.837	17.519	1.436
9	5.947	20.322	1.666
10	6.161	0.857	0.070
11	6.738	1113.814	91.319

Fig. 42: HPLC of compound 4j

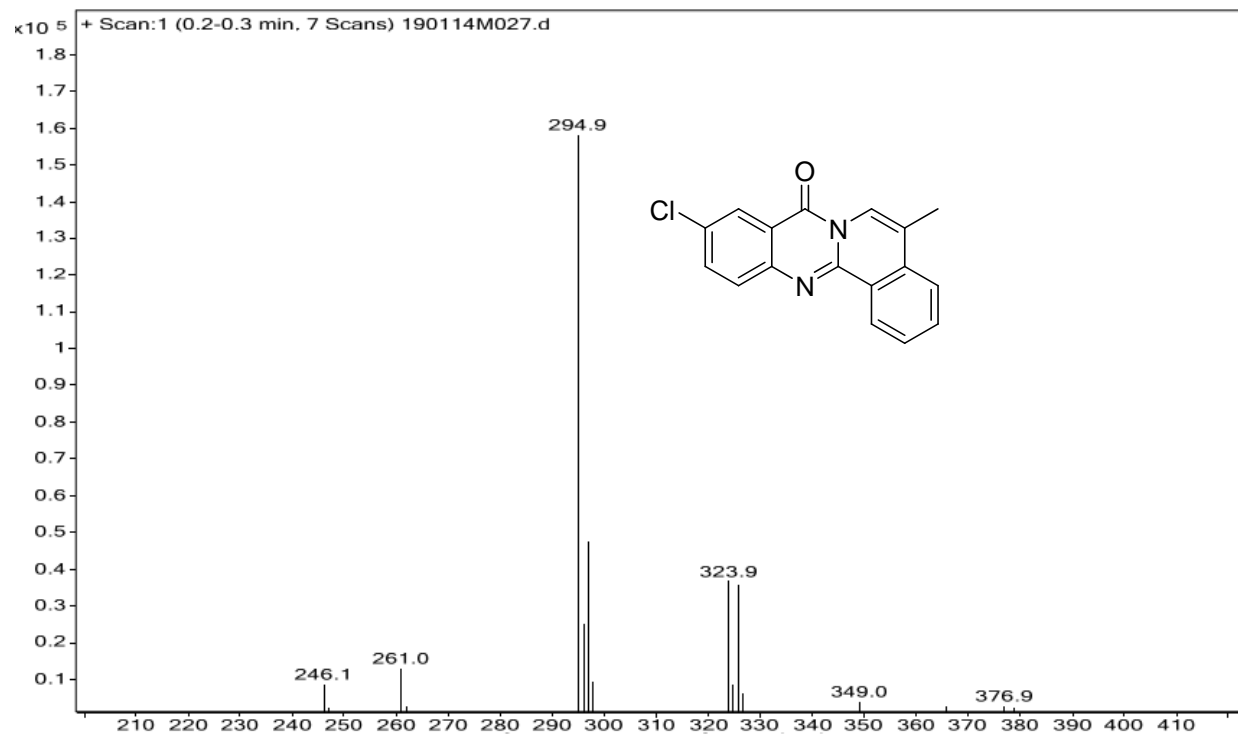


Fig. 43: Mass of compound **4j**

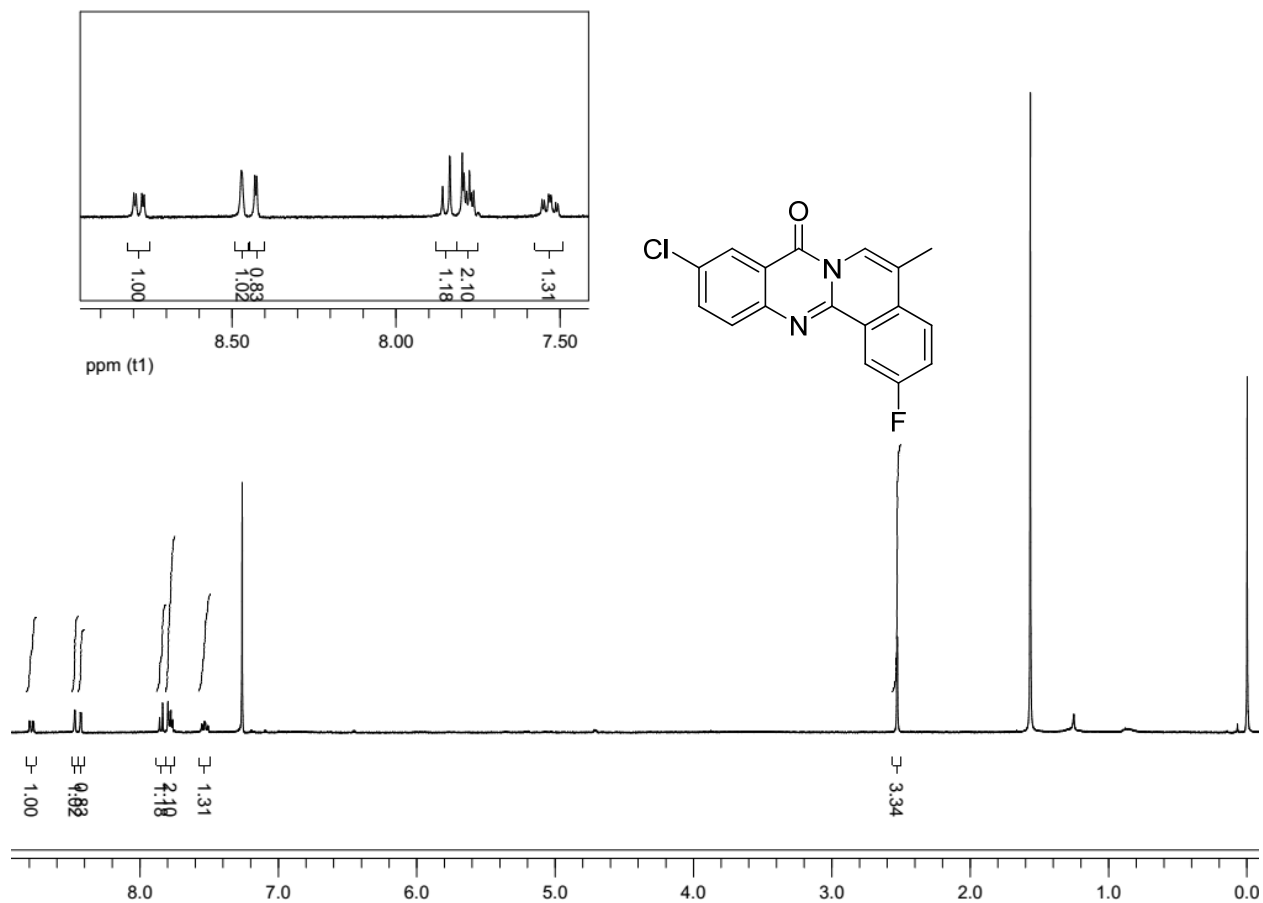


Fig. 44: ¹H NMR spectra of compound **4k** (CDCl₃, 400 MHz)

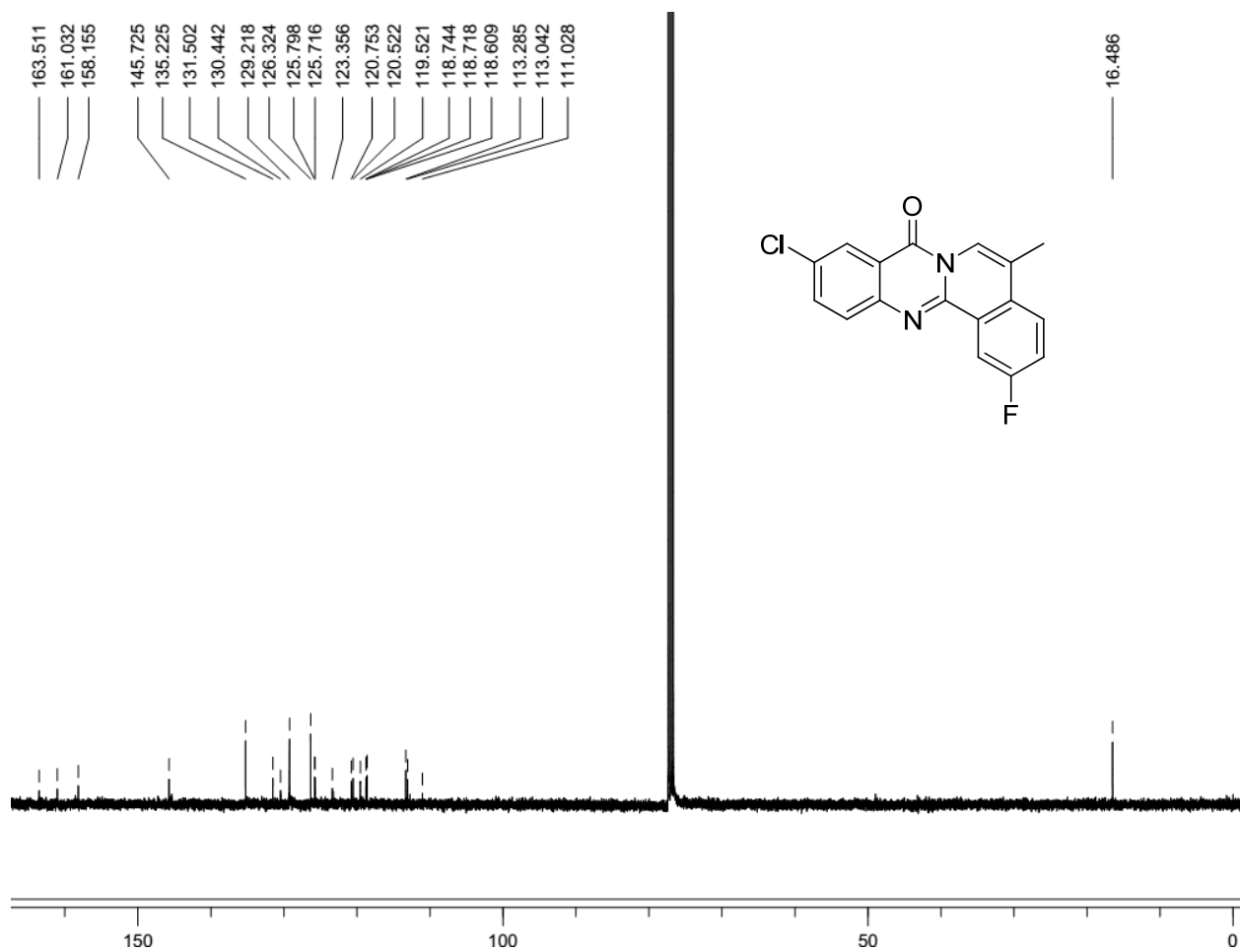
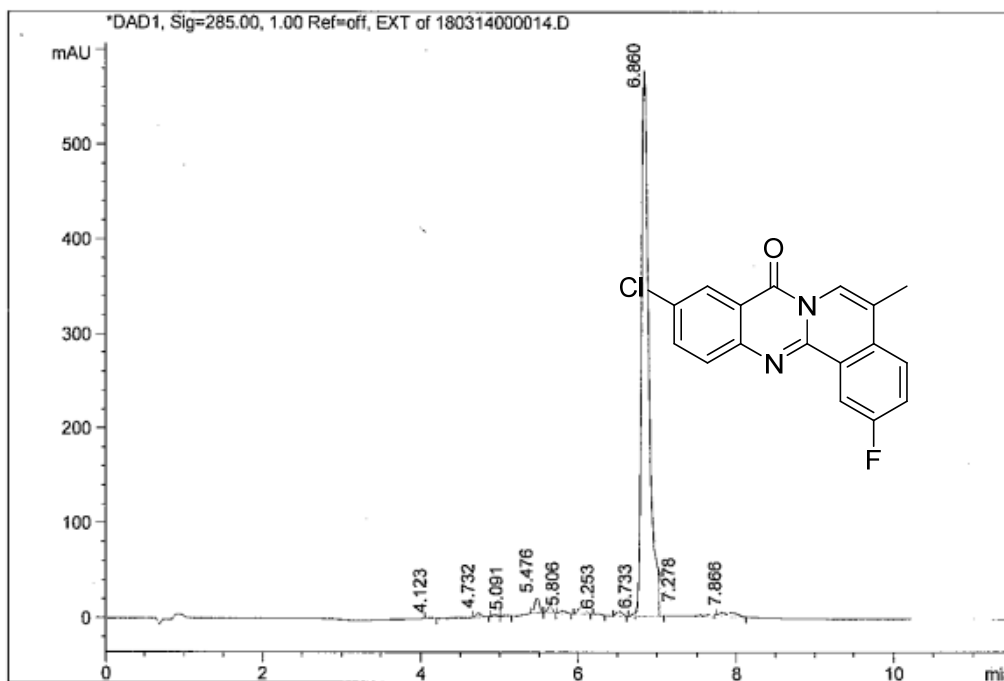


Fig. 45: ^{13}C NMR spectra of compound **4k** (CDCl_3 , 100 MHz)

Injection Date : Wed, 19. Mar. 2014 Location : Vial 22
 Sample Name : ILS/ARJ/5/13 Inj. No. : 0
 Acq Operator : RADHA Inj. Vol. : 0 µl
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A20B80.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18-A70B30G.M
 Method Info : Column :Symmetry C-18 75*4.6mm, 3.5µm
 : Mobile phase: A) 0.1% TFA in water,B) ACN (gradient)
 : T/B%:0/20,1/20,4/98,10/98,10.5/20,12/20.
 : FLOW:1.0ml/min Dil: ACN:Water(80:20)



Signal 1: DAD1, Sig=285.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	4.123	3.570	0.075
2	4.732	19.446	0.406
3	4.932	7.481	0.156
4	5.091	5.208	0.109
5	5.476	66.204	1.383
6	5.643	32.734	0.684
7	5.806	13.061	0.273
8	6.041	46.150	0.964
9	6.253	5.979	0.125
10	6.524	25.533	0.533
11	6.733	11.030	0.230
12	6.860	3595.715	92.094
13	7.278	1.796	0.035
14	7.866	63.376	1.324

Fig. 46: HPLC of compound 4k

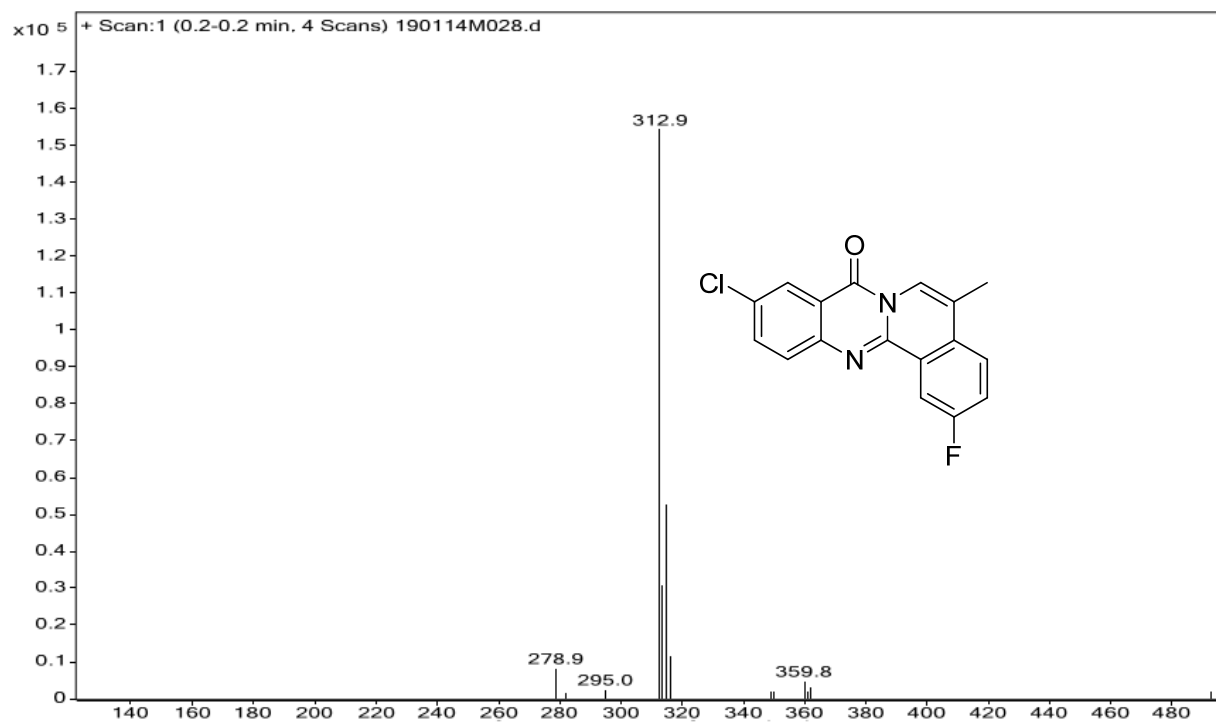


Fig. 47: Mass of compound **4k**

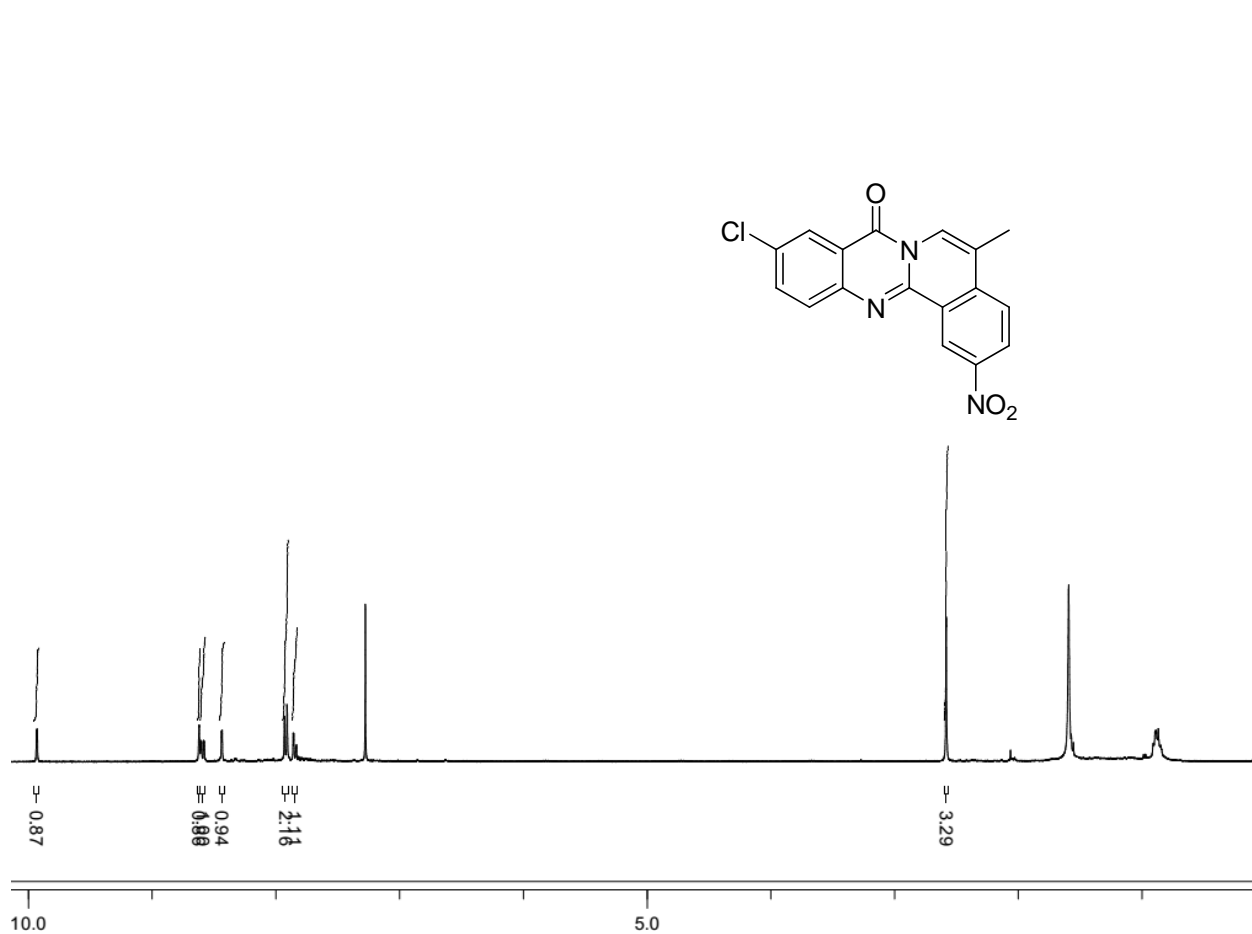


Fig. 48: ^1H NMR spectra of compound **41** (CDCl_3 , 400 MHz)

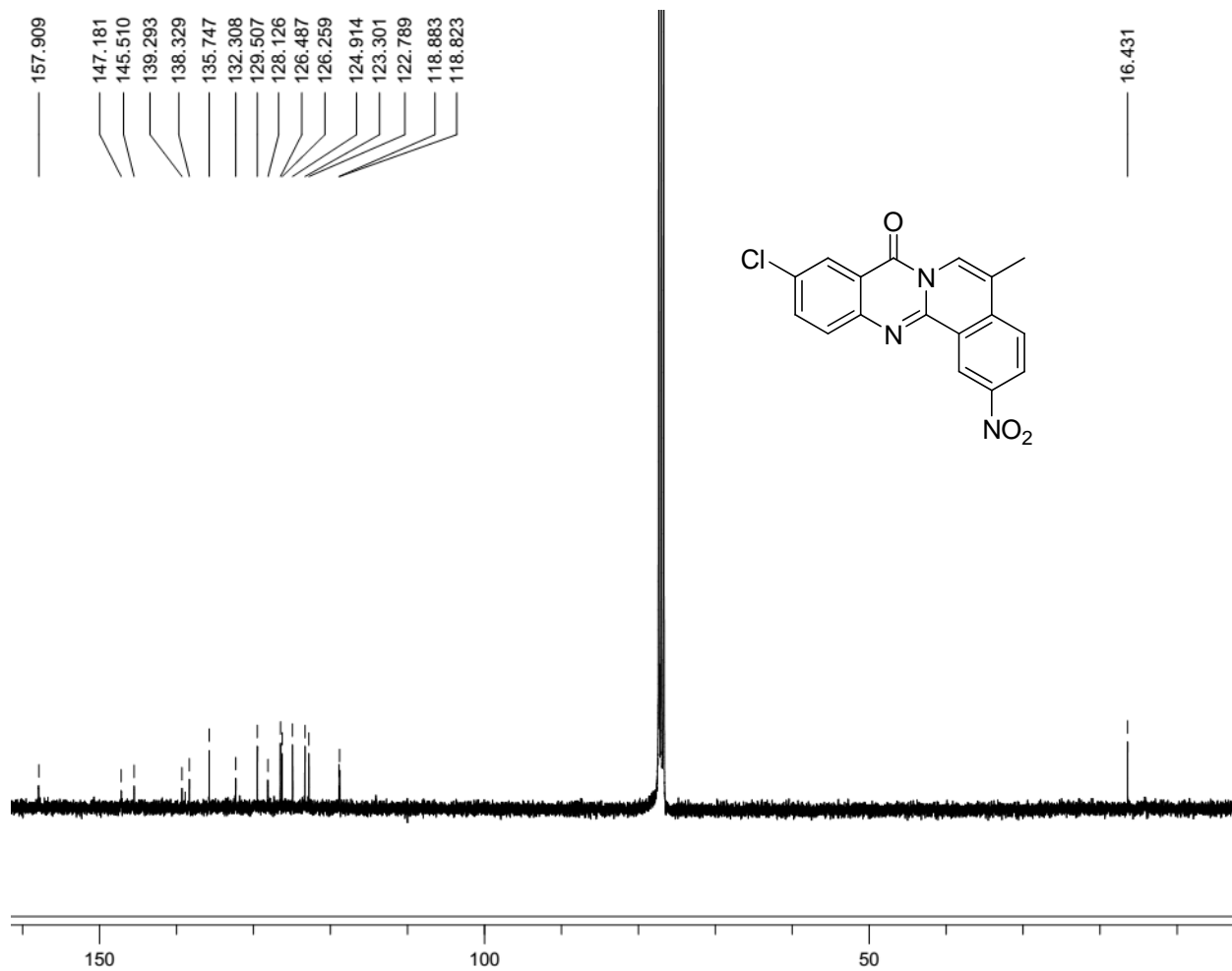
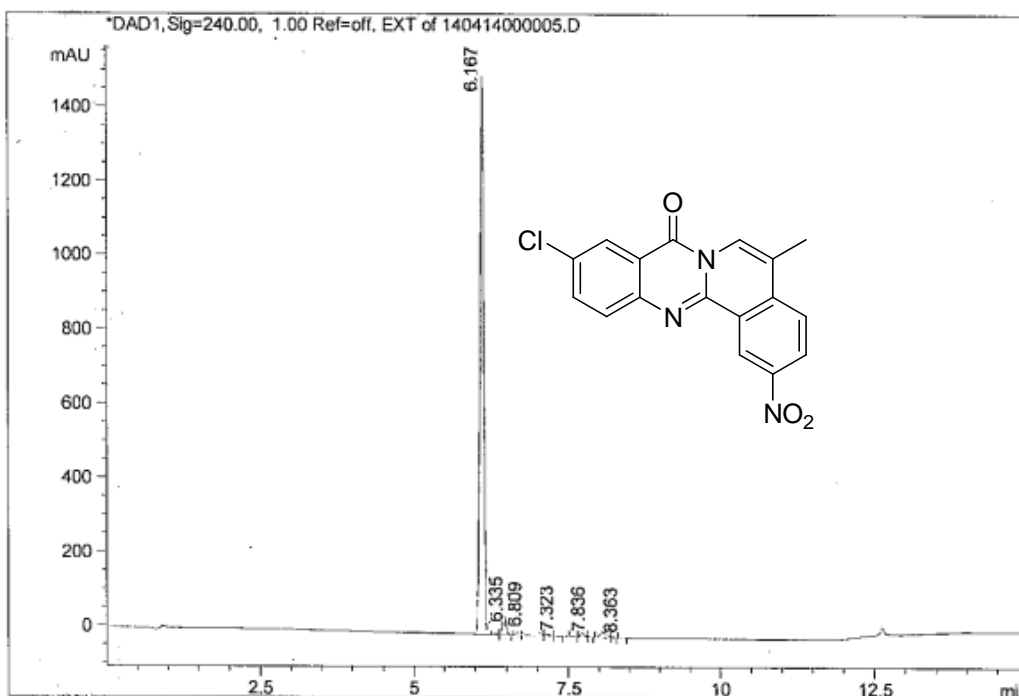


Fig. 49: ^{13}C NMR spectra of compound **4I** (CDCl_3 , 100 MHz)

Inj Date : Mon, 14. Apr. 2014 Acq Operator: SHASHIDHAR
 Sample Name : ILS/ARJ/5/17 Vial 3
 A.R Number : CM14D008 -> Inj. Vol. : 10µL
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A80B20.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18 A80B20.M
 Method Info : Column : Symmetry C-18 75*4.6mm3.5µm
 Mobile phase: A) 0.1% TFA in water , B) ACN
 T/B% : 0/20,1/20,4/98,10/98,10.5/20,12/20.
 Flow: 1.0 ml/min Diluent: ACN:Water(80:20)



Signal 1: DAD1, Sig=240.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	6.167	6501.815	92.296
2	6.335	9.078	0.128
3	6.464	193.773	2.727
4	6.684	29.836	0.420
5	6.809	178.952	2.518
6	7.164	17.489	0.246
7	7.323	6.065	0.085
8	7.579	7.627	0.107
9	7.730	40.471	0.570
10	7.836	2.209	0.031
11	8.052	66.167	0.931

Fig. 50: HPLC of compound 41

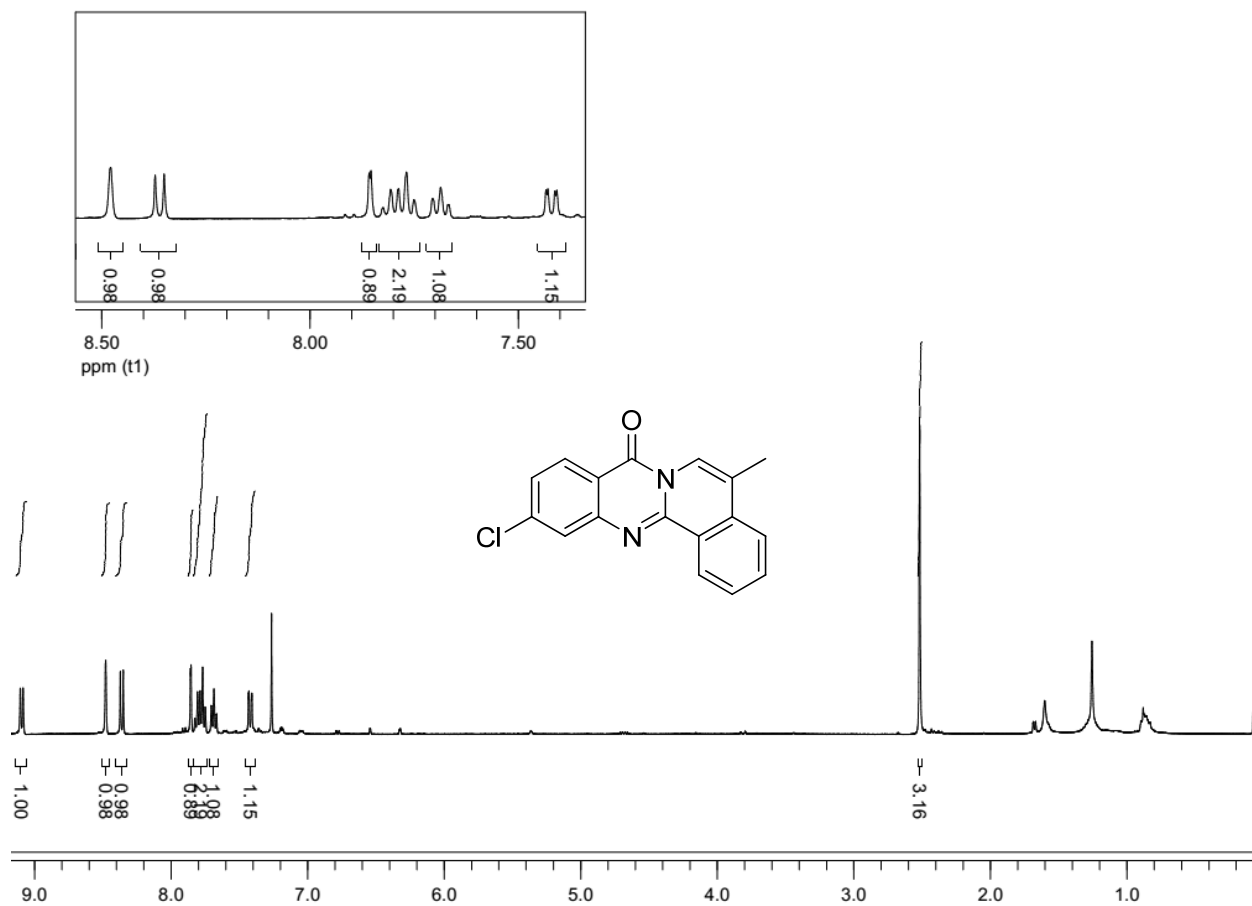


Fig. 52: ^1H NMR spectra of compound **4m** (CDCl_3 , 400 MHz)

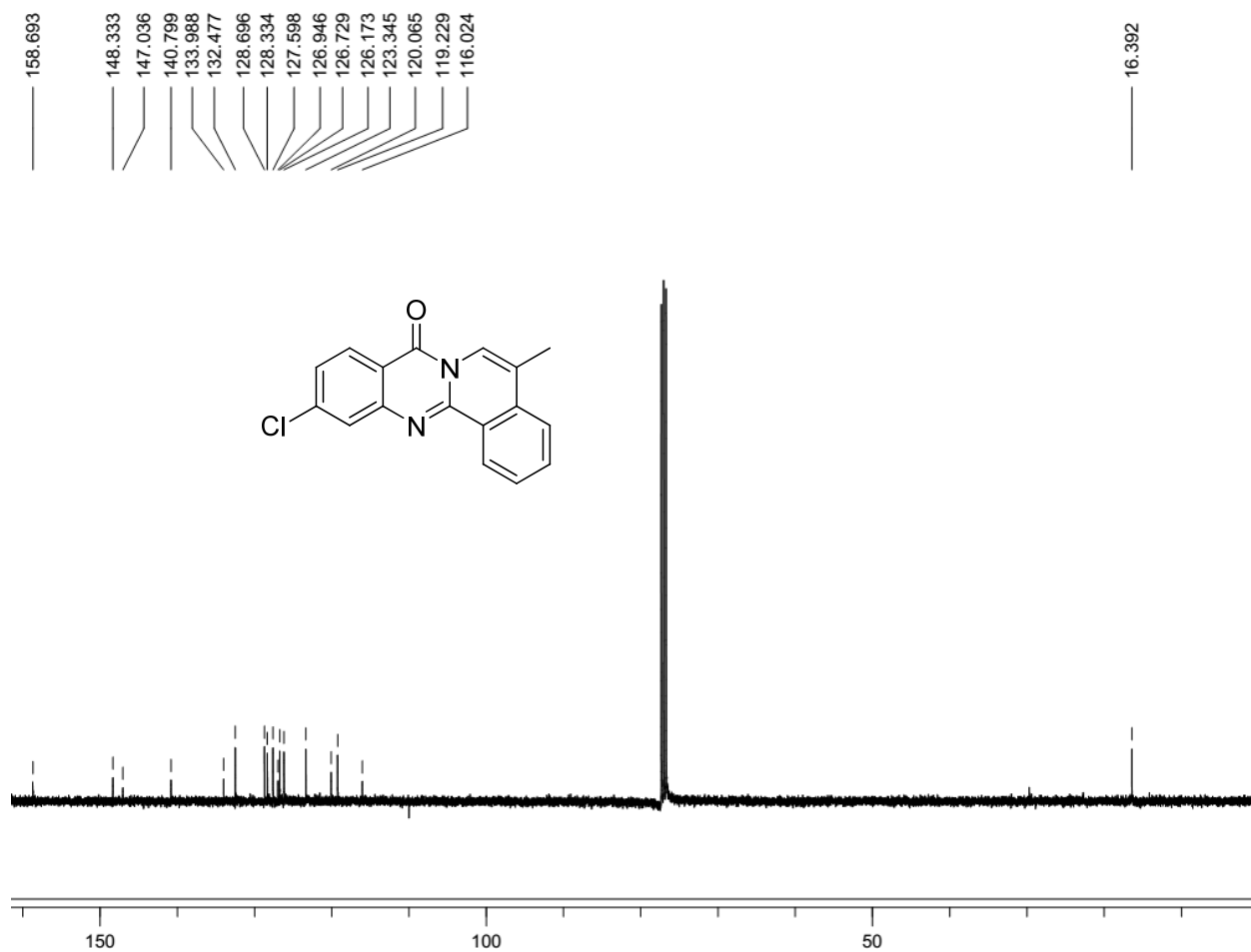
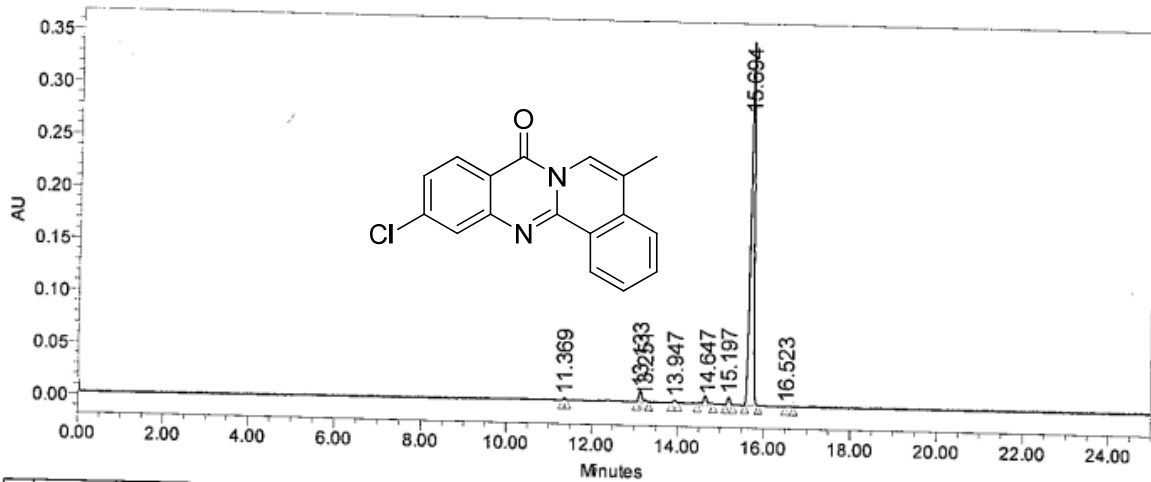


Fig. 53: ^{13}C NMR spectra of compound **4m** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name: ILS/AR/J/5/4	Sample Set Name: 210214_1
Sample Type: Unknown	Acq. Method Set: CFZ
Vial: 29	Processing Method: CFZ_PRO
Injection #: 1	Channel Name: PDA Max Plot 190.0 - 800.0 @2
Injection Volume: 5.00 ul	Proc. Chnl. Descr.: PDA MaxPlot (190.0 nm to 800.0
Run Time: 30.0 Minutes	
Date Acquired: 2/21/2014 8:34:40 PM IST	
Date Processed: 2/24/2014 11:42:25 AM IST	

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	11.369	6594	0.26	2043
2	13.133	48203	1.88	10278
3	13.251	7473	0.29	1724
4	13.947	8836	0.35	2135
5	14.647	31224	1.14	7243
6	15.197	31644	1.24	7308
7	15.694	2434497	95.64	347062
8	16.523	5198	0.20	710

M. 2014-2-14
Analysed By

Fig. 54: HPLC of compound **4m**

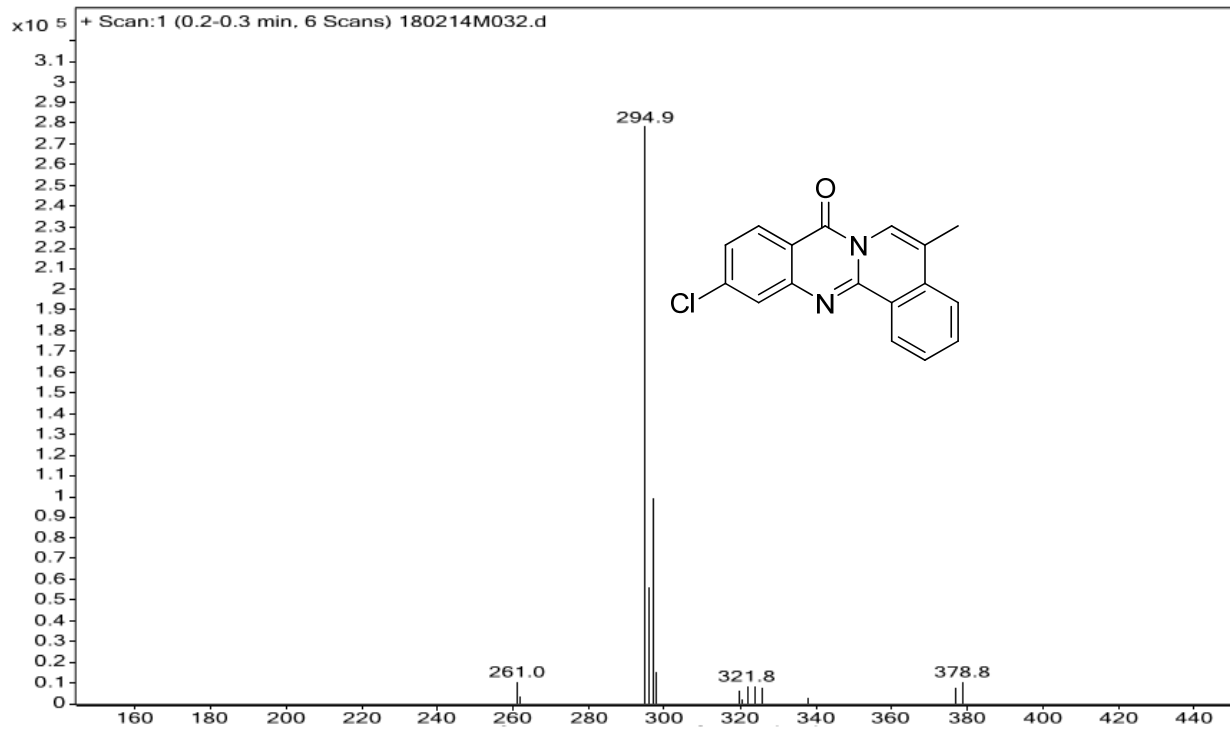


Fig. 55: Mass of compound **4m**

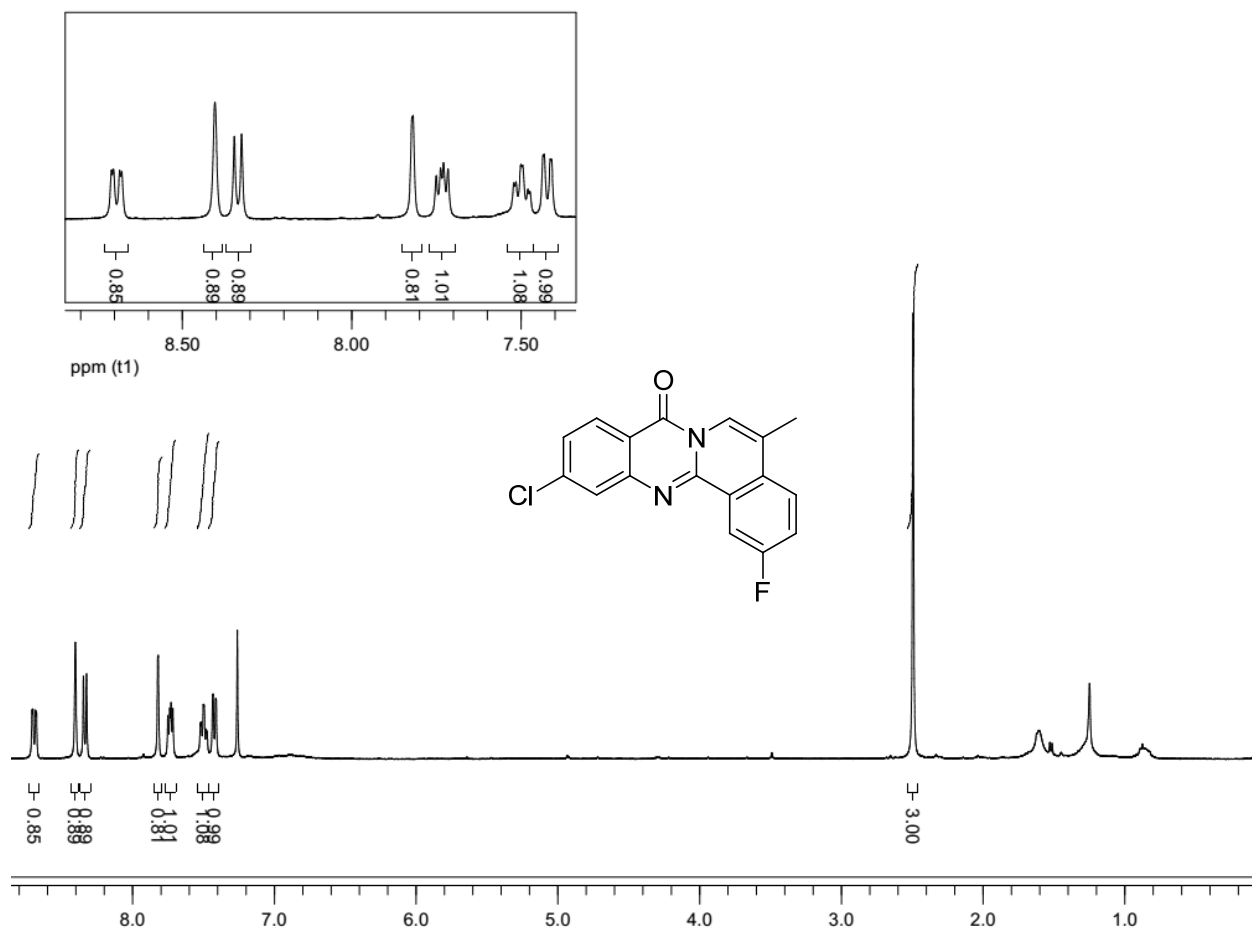


Fig. 56: ^1H NMR spectra of compound **4n** (CDCl_3 , 400 MHz)

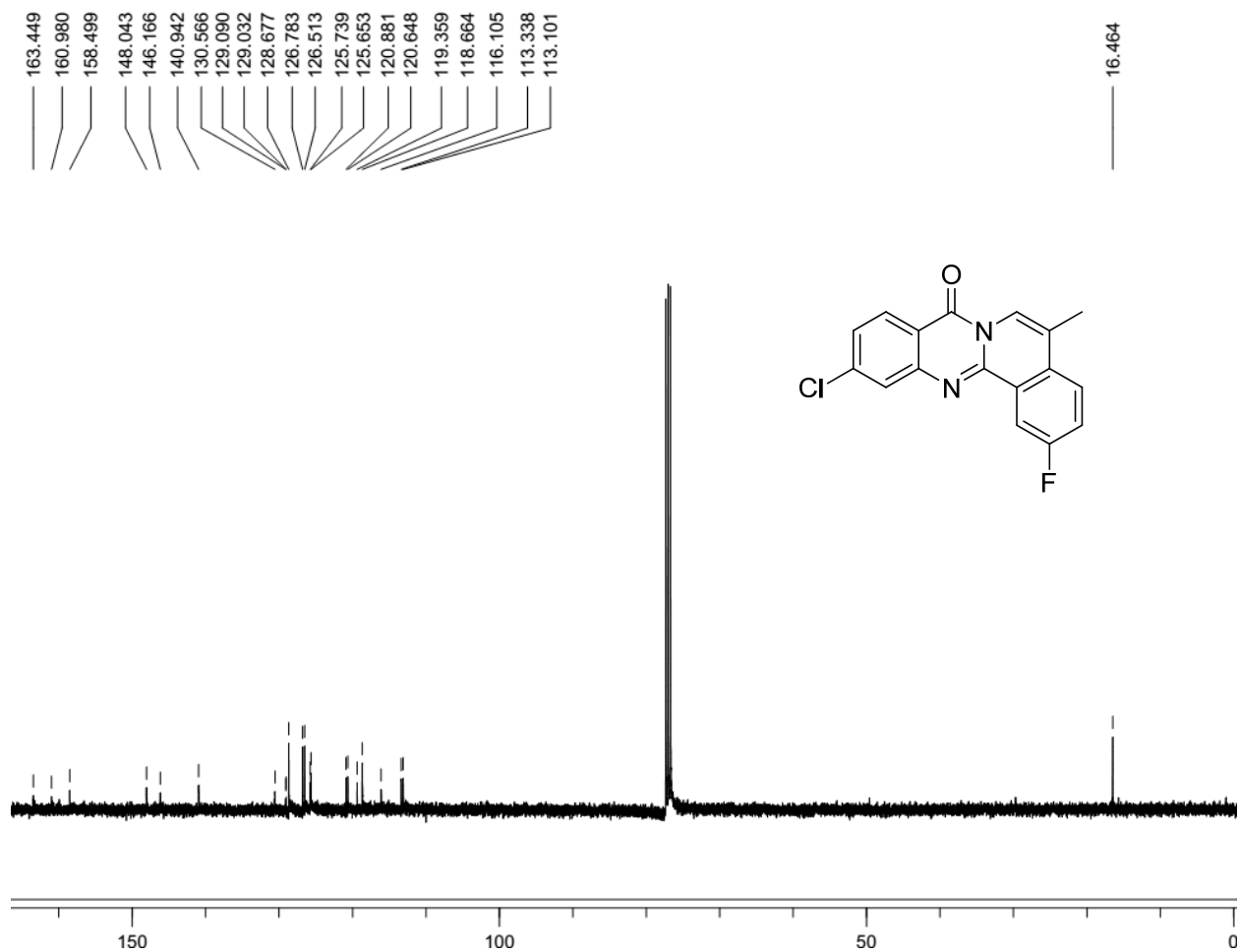
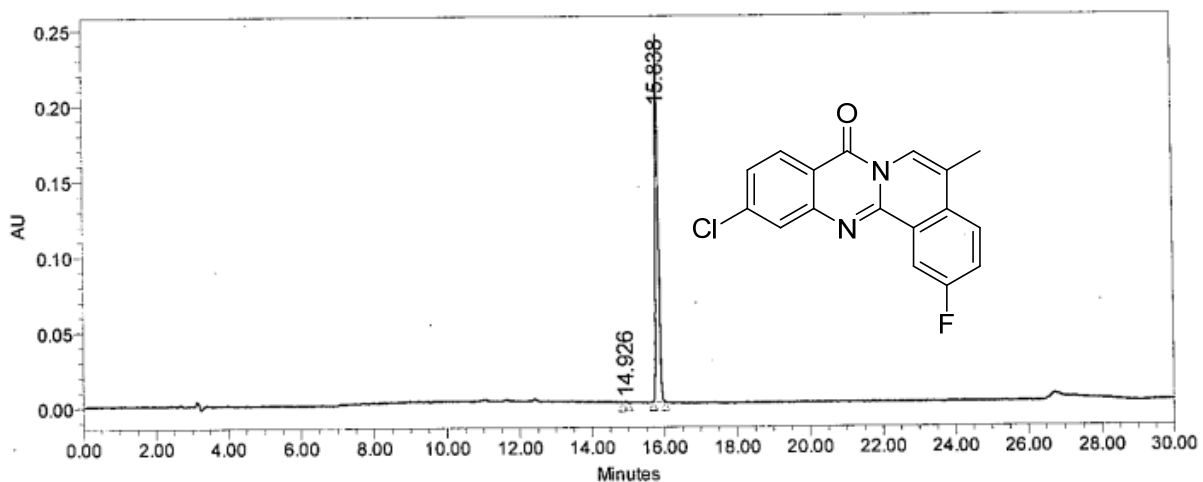


Fig. 57: ^{13}C NMR spectra of compound **4n** (CDCl_3 , 100 MHz)

Sample Name:	ILS/ARJ/5/5	Sample Set Name:	210214_1
Sample Type:	Unknown	Acq. Method Set:	CFZ
Vial:	30	Processing Method:	CFZ_PRO
Injection #:	1	Channel Name:	285.0nm
Injection Volume:	5.00 ul	Proc. Chnl. Descr.:	PDA 285.0 nm
Run Time:	30.0 Minutes		
Date Acquired:	2/21/2014 9:10:24 PM IST		
Date Processed:	2/24/2014 11:43:53 AM IST		

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T7%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml /min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	14.926	5800	0.42	1166
2	15.838	1371486	99.58	243204

Analysed By *M. J. Foster*

Fig. 58: HPLC of compound 4n

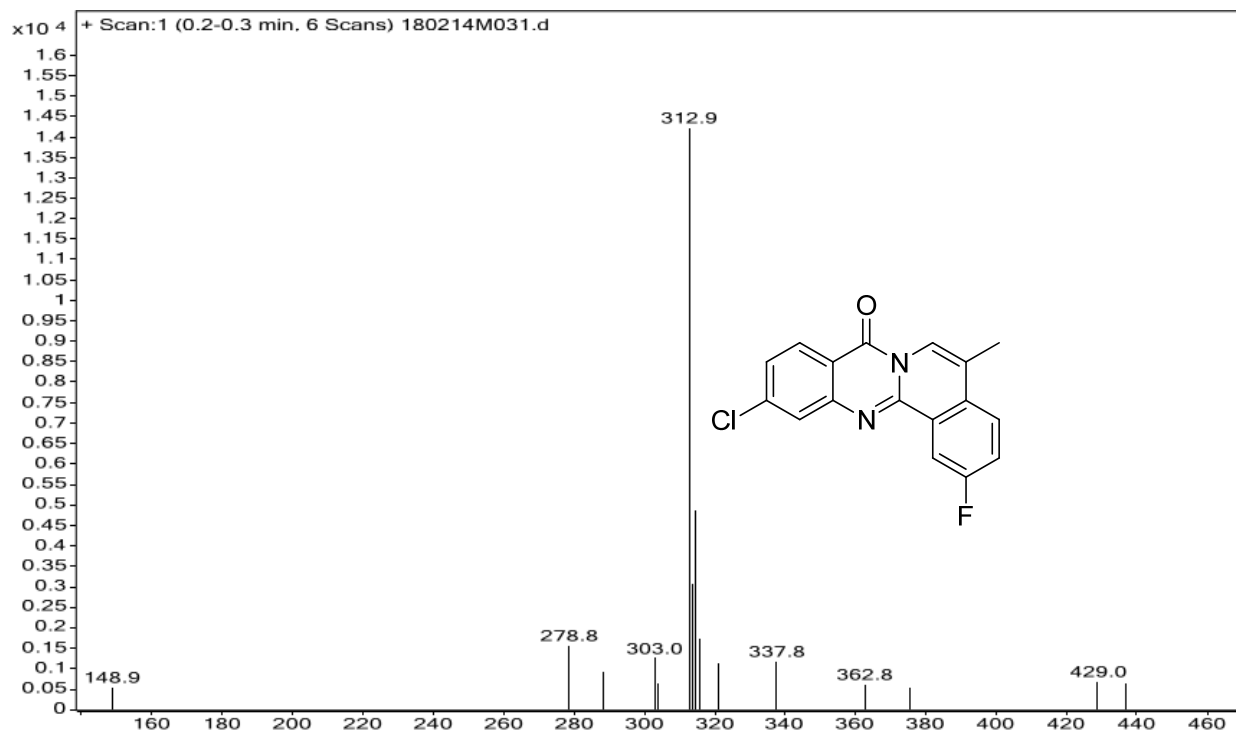


Fig. 59: Mass of compound **4n**

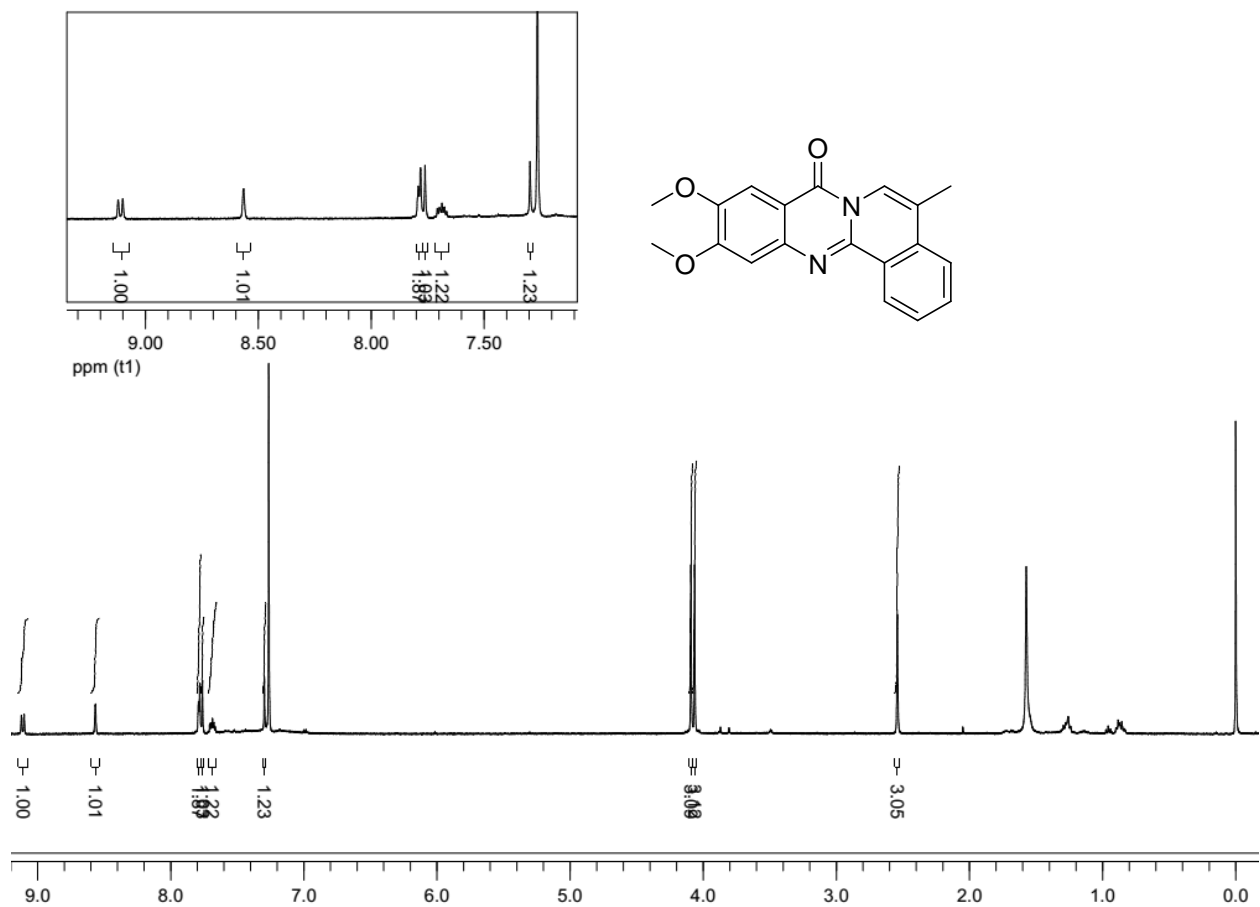


Fig. 60: ^1H NMR spectra of compound **4o** (CDCl_3 , 400 MHz)

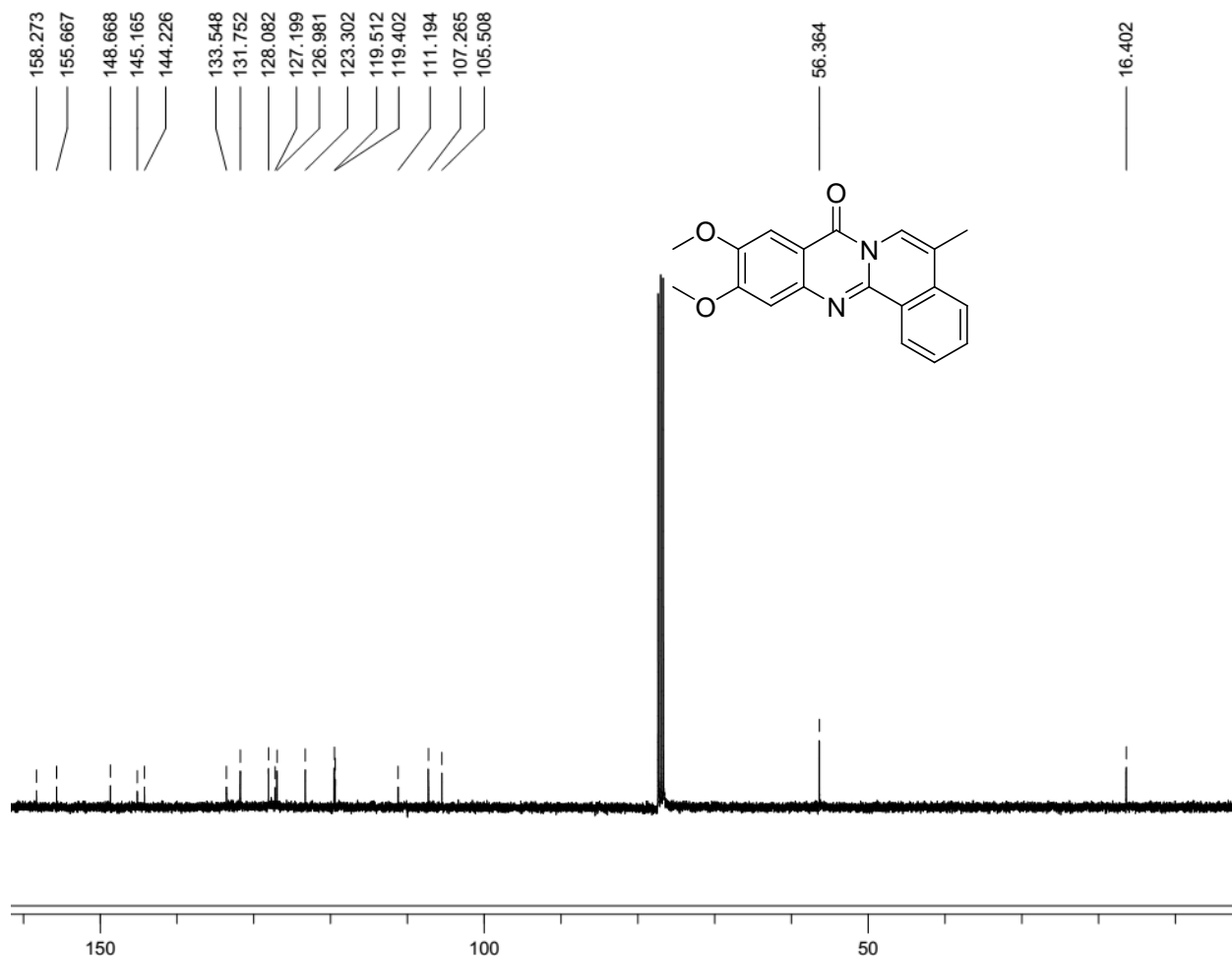
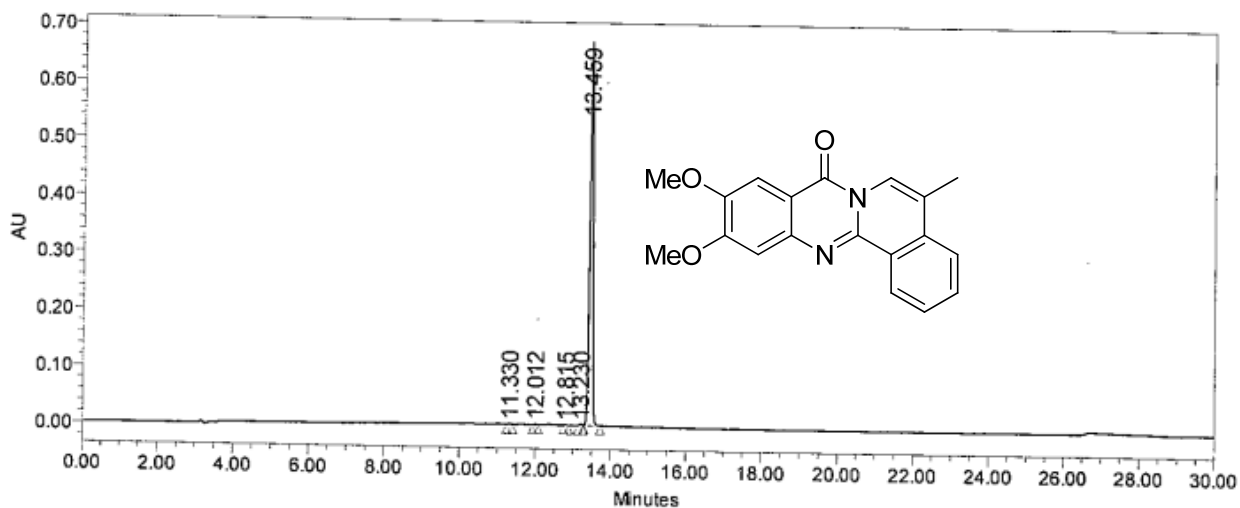


Fig. 61: ^{13}C NMR spectra of compound **4o** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name:	ILS/ARJ/5/6	Sample Set Name:	210214_1
Sample Type:	Unknown	Acq. Method Set:	CFZ
Vial:	31	Processing Method:	CFZ_PRO
Injection #:	1	Channel Name:	285.0nm
Injection Volume:	5.00 ul	Proc. Chnl. Descr.:	PDA 285.0 nm
Run Time:	30.0 Minutes		
Date Acquired:	2/21/2014 9:46:05 PM IST		
Date Processed:	2/24/2014 11:45:55 AM IST		

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	11.330	9221	0.23	1936
2	12.012	8144	0.21	1652
3	12.815	5267	0.13	1257
4	13.230	12278	0.31	2533
5	13.459	3903991	99.11	670715

Analysed By: *[Signature]*
 28/02/14

Fig. 62: HPLC of compound 4o

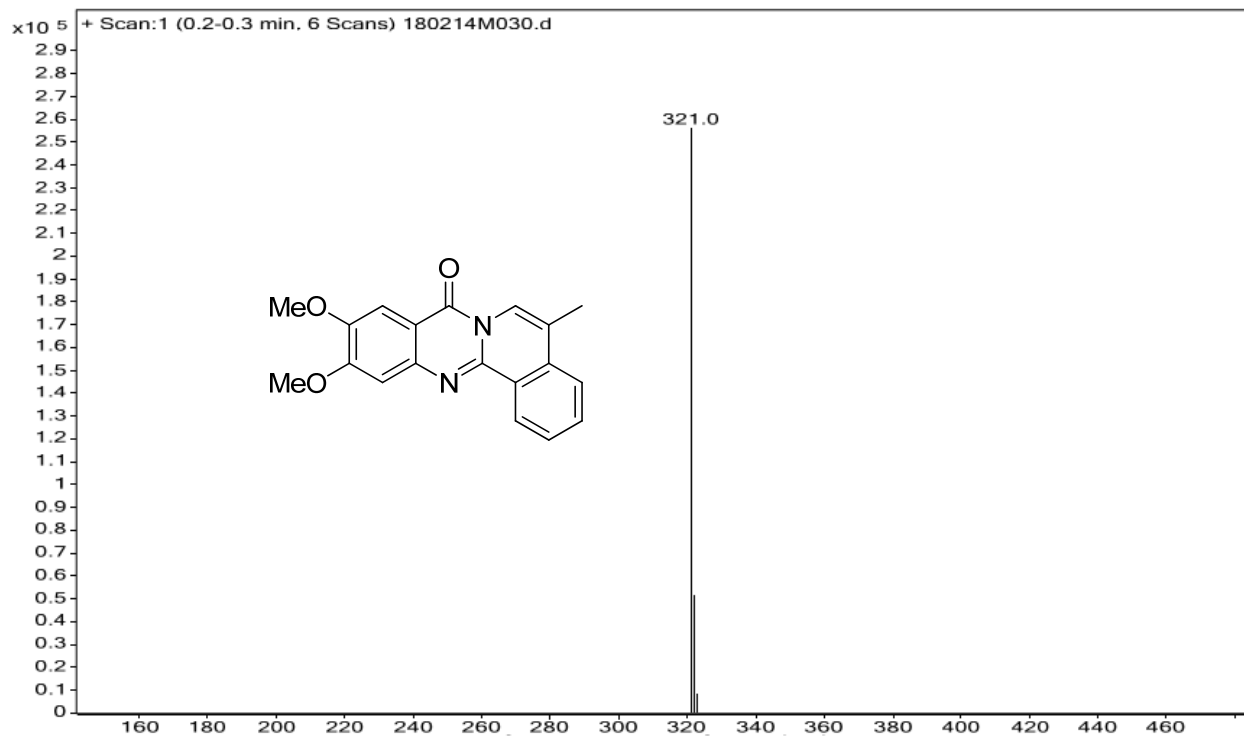


Fig. 63: Mass of compound **4o**

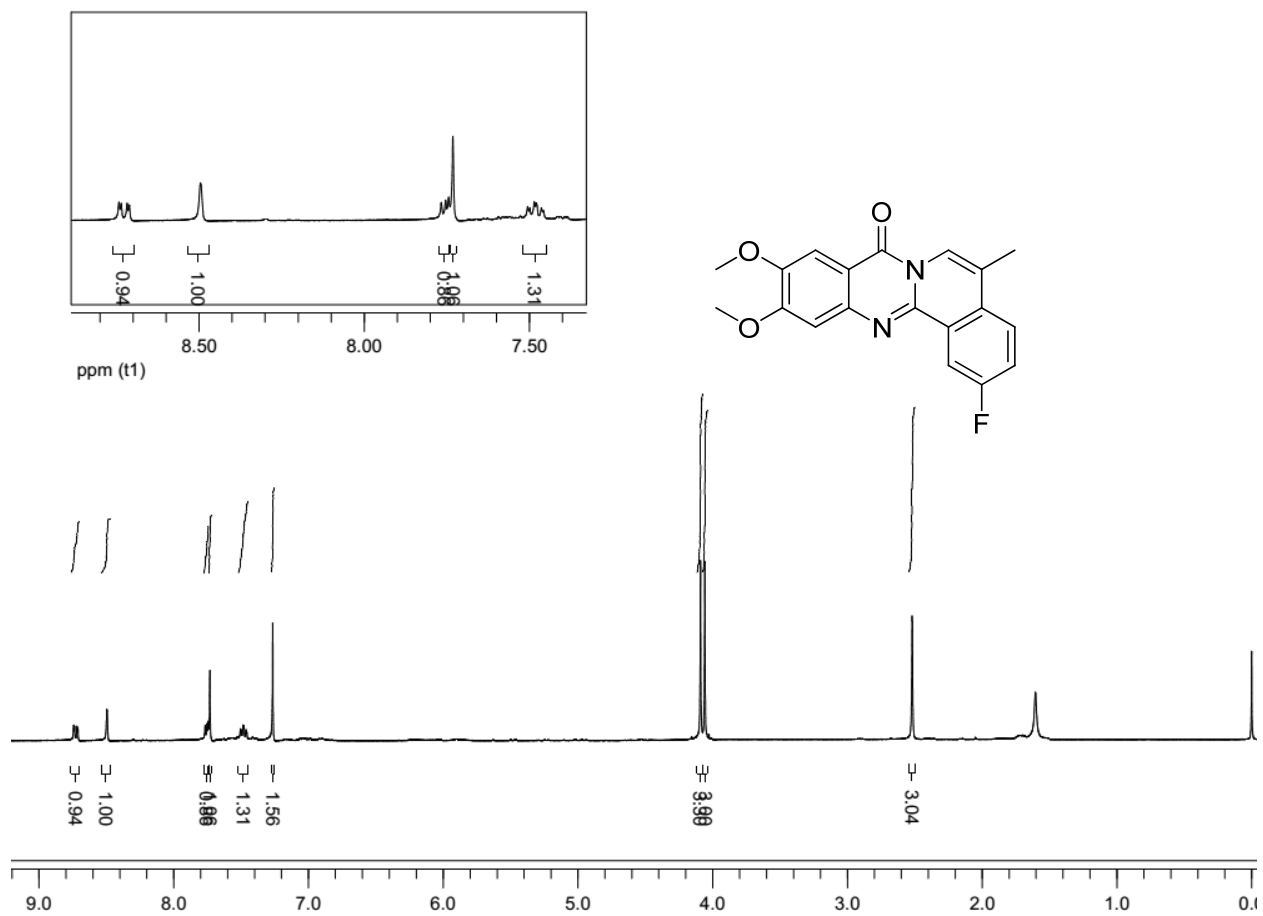


Fig. 64: ^1H NMR spectra of compound **4p** (CDCl_3 , 400 MHz)

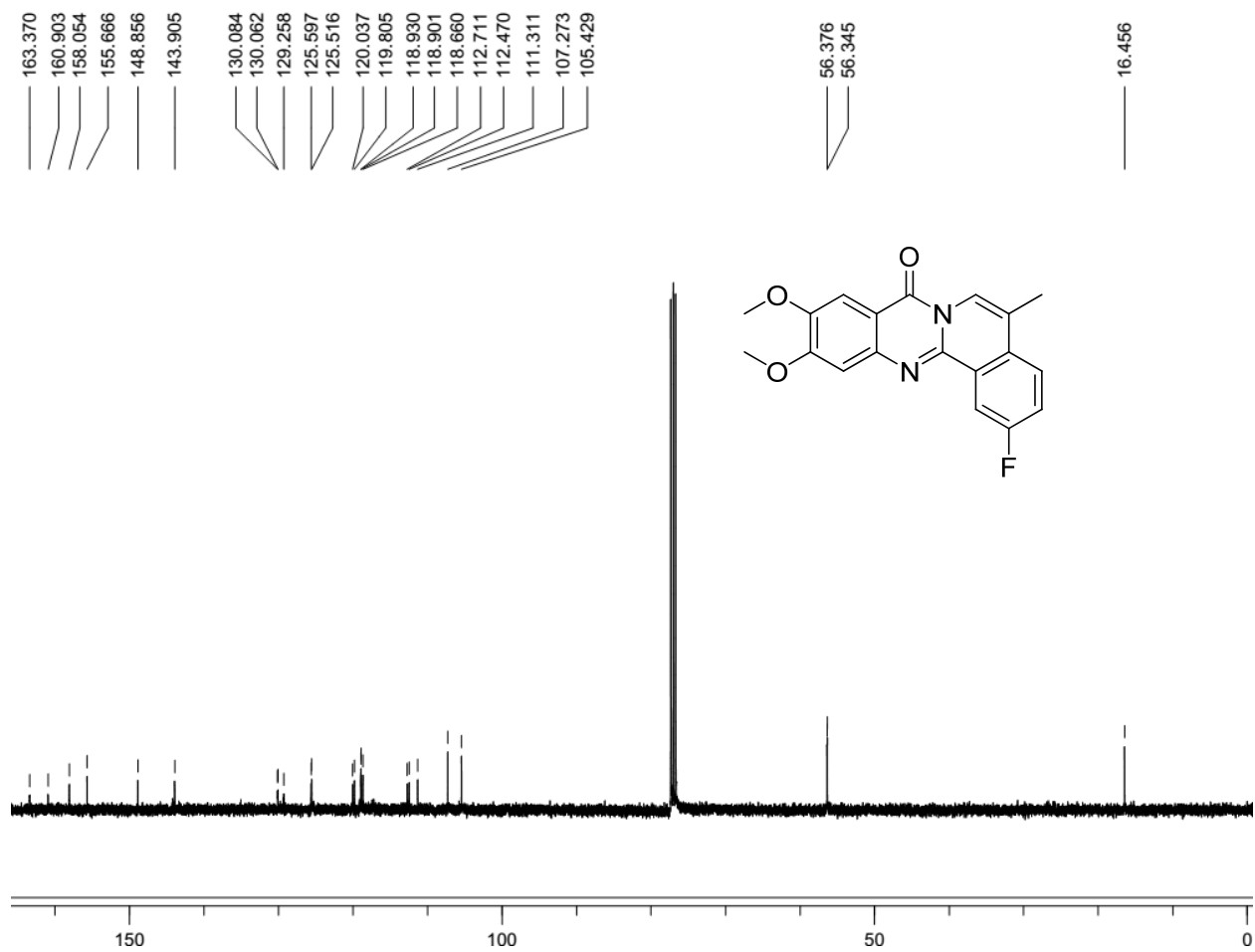
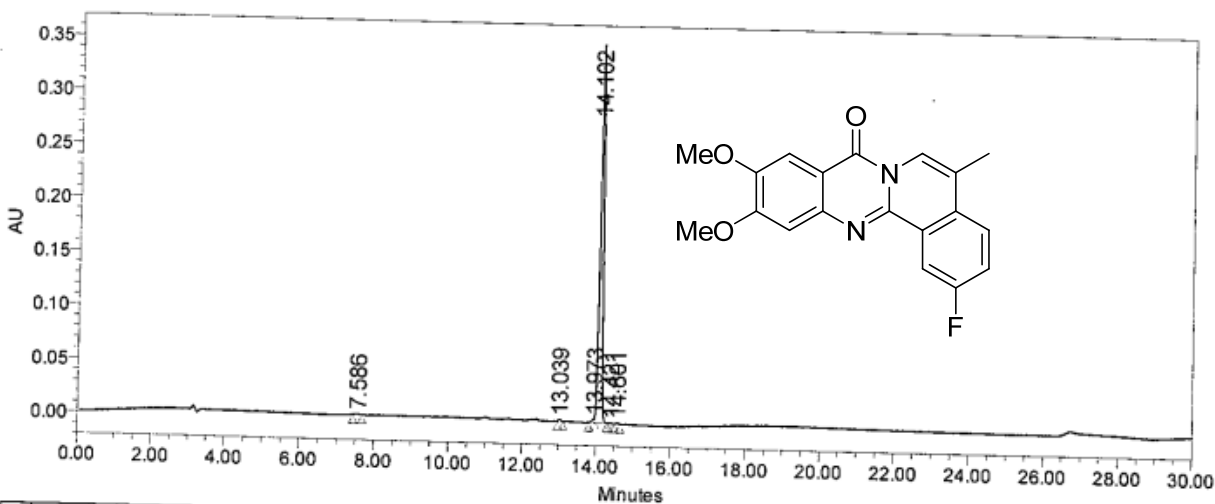


Fig. 65: ^{13}C NMR spectra of compound **4p** (CDCl_3 , 100 MHz)

SAMPLE INFORMATION

Sample Name: ILS/ARJ/5/8	Sample Set Name: 210214_1
Sample Type: Unknown	Acq. Method Set: CFZ
Vial: 33	Processing Method: CFZ_PRO
Injection #: 1	Channel Name: 280.0nm
Injection Volume: 5.00 ul	Proc. Chnl. Descr.: PDA 280.0 nm
Run Time: 30.0 Minutes	
Date Acquired: 2/21/2014 10:57:31 PM IST	
Date Processed: 2/24/2014 11:49:42 AM IST	

Column: X TERRA RP-18 250*4.6mm 5µm
 Mobile phase: A) 0.1% TFA in water B) ACN
 T/%B: 0/20, 3/20, 12/95, 23/95, 25/20, 30/20
 Flow: 1.0 ml/min, Diluent: ACN: WATER (80:20)



	RT	Area	% Area	Height
1	7.586	9268	0.45	1179
2	13.039	10391	0.51	2108
3	13.973	14424	0.71	3361
4	14.102	1996801	97.91	350689
5	14.421	2820	0.14	779
6	14.601	5752	0.28	1289

Analysed By *M. 20/02/14*

Fig. 66: HPLC of compound **4p**

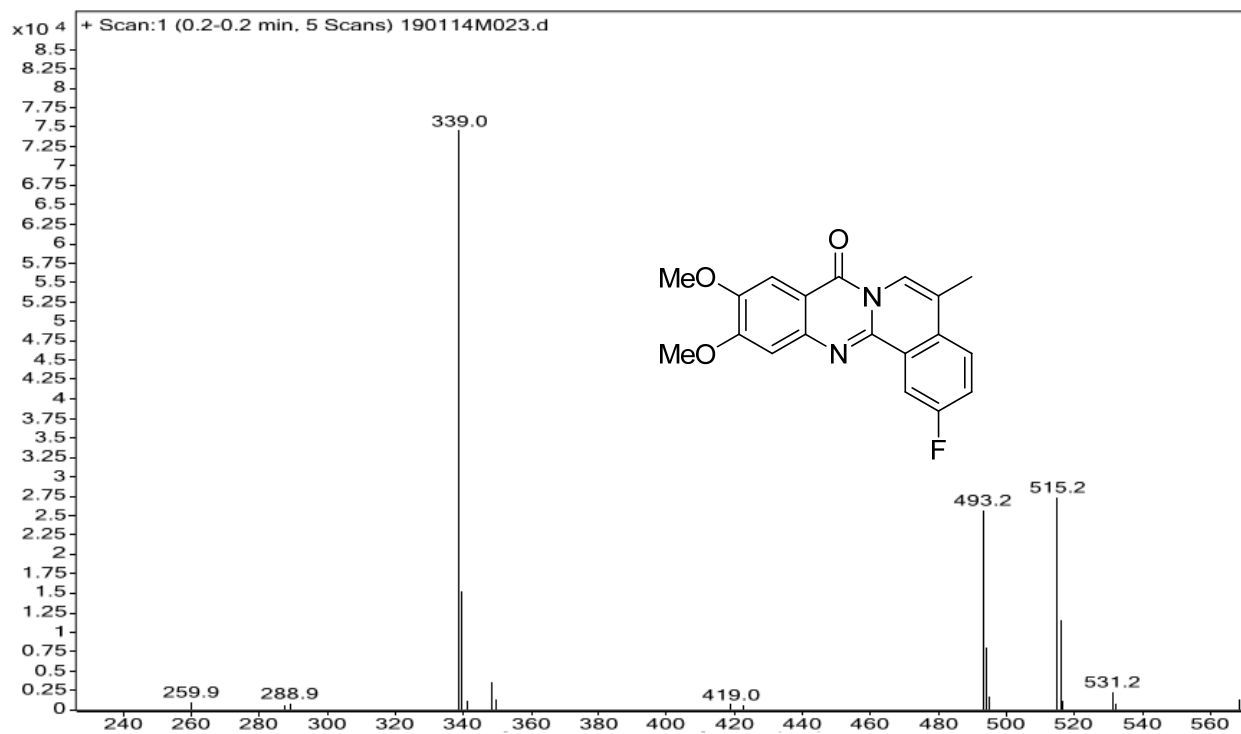


Fig. 67: Mass of compound **4p**

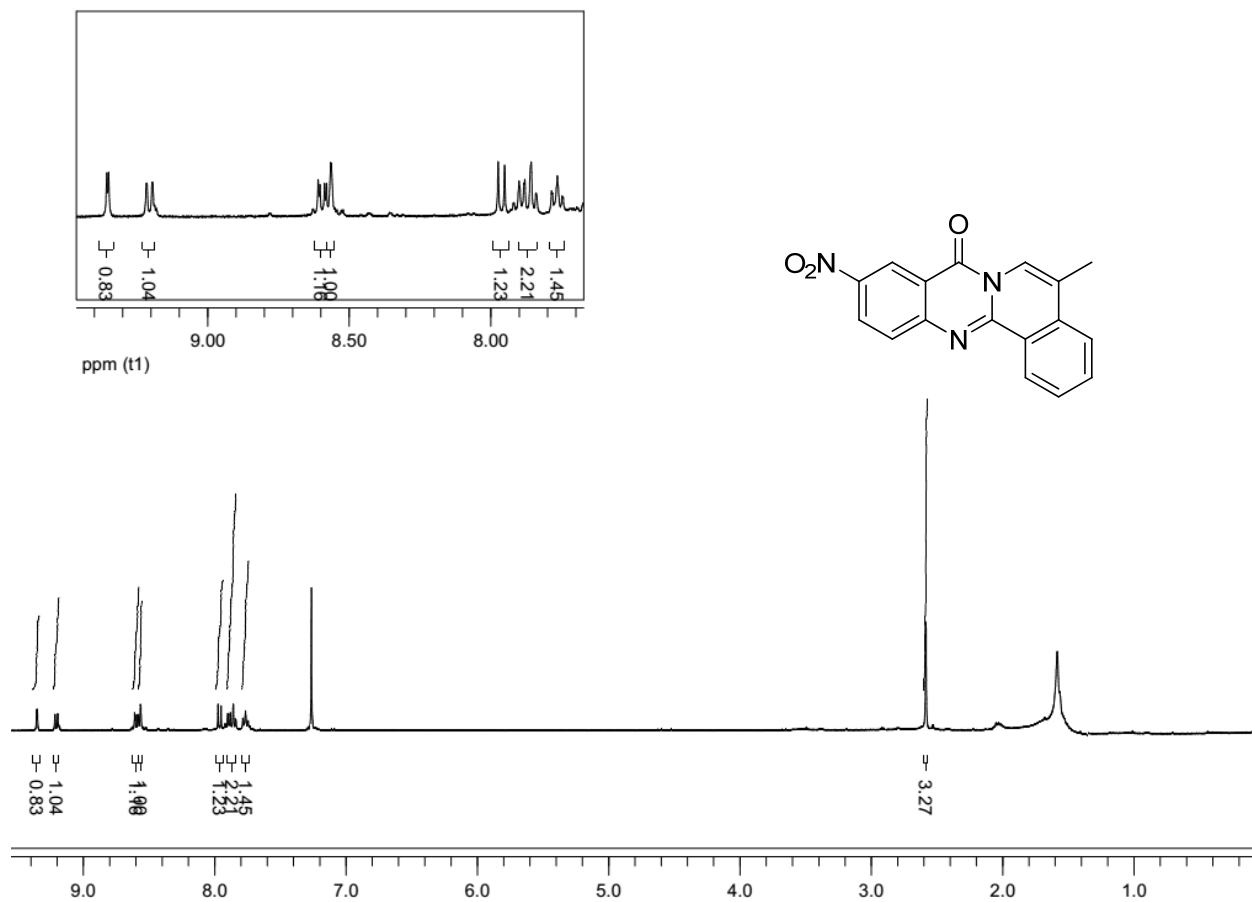


Fig. 68: ¹H NMR spectra of compound **4q** (CDCl₃, 400 MHz)

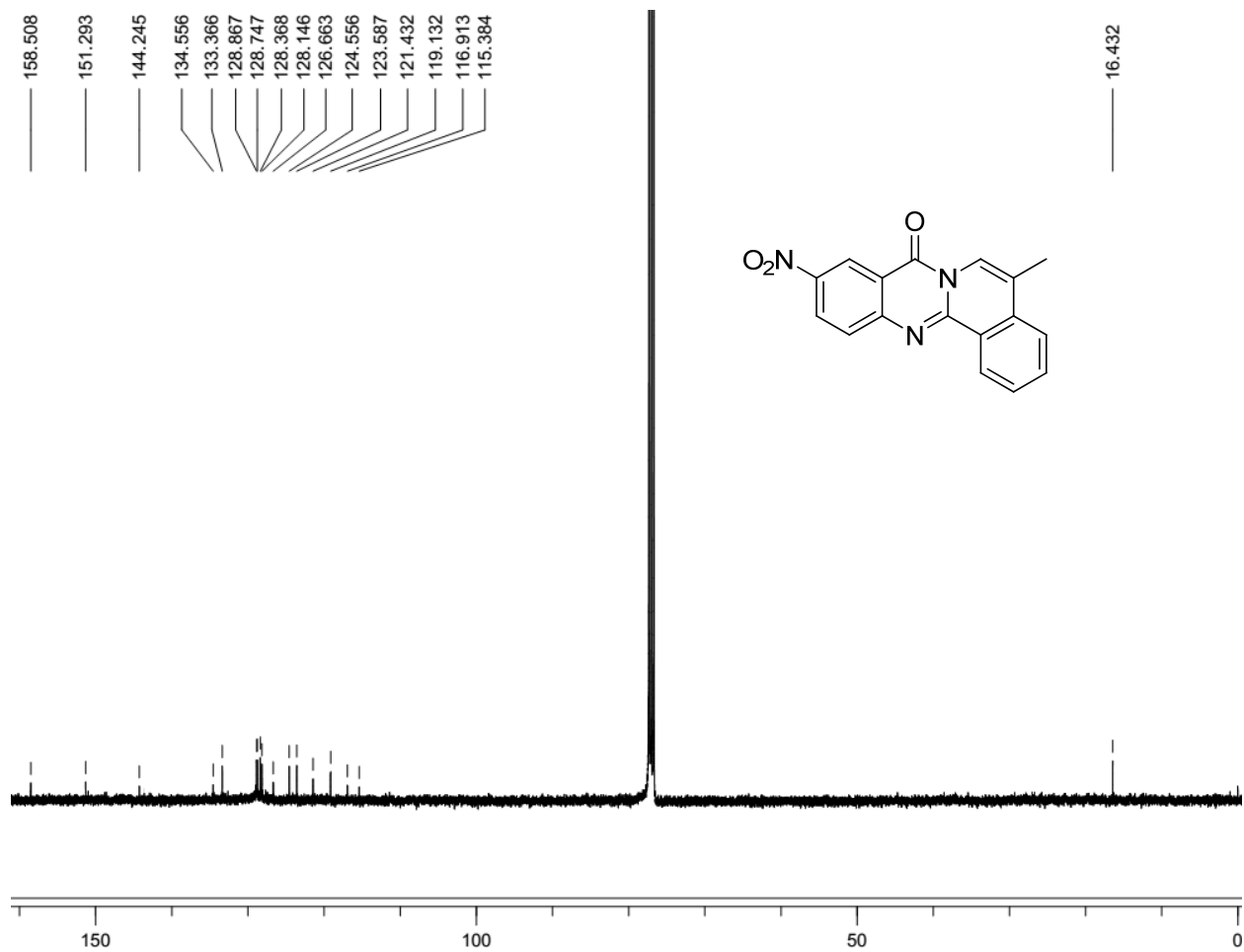
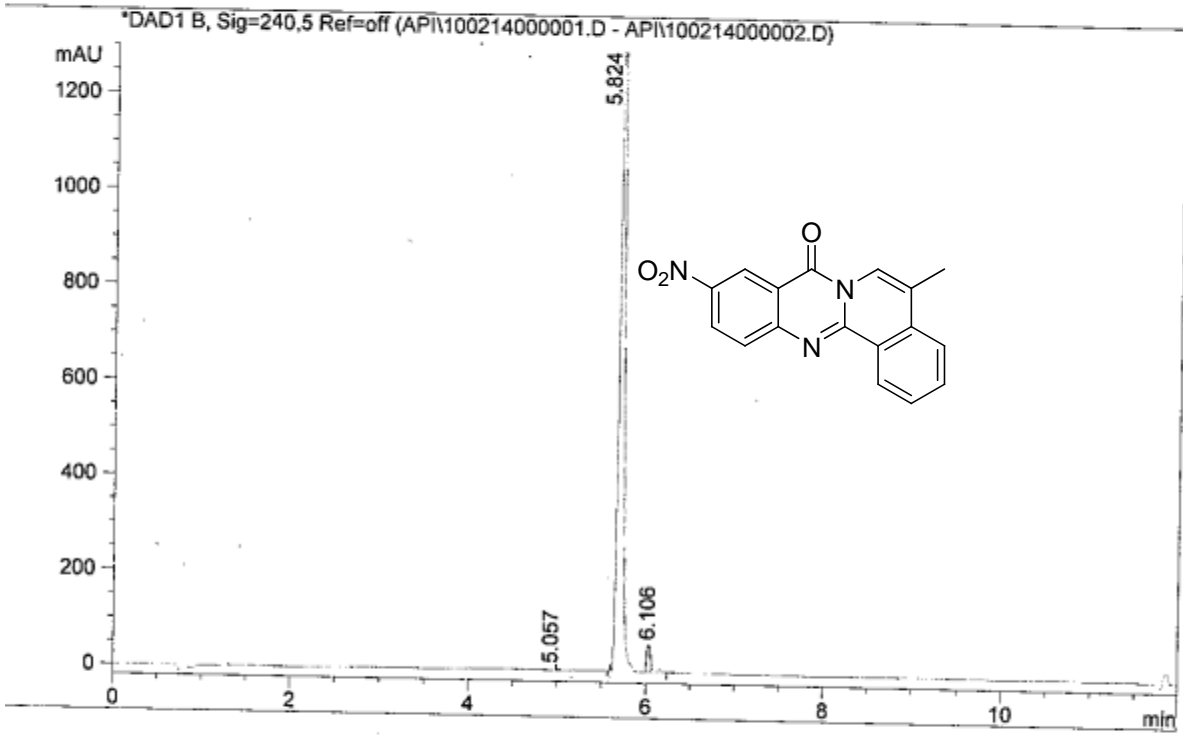


Fig. 69: ^{13}C NMR spectra of compound **4q** (CDCl_3 , 100 MHz)

Injection Date : Mon, 10. Feb. 2014
 Sample Name : ILS-BPS-3-171
 Acq Operator : RADHA
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A80B20GS.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18 A80B20GS.M
 Method Info : Column : Symmetry C-18 75*4.6mm, 3.5µm
 Mobile phase: A) 0.1% HCOOH in Water , B) ACN
 T/B%:0/20,0.5/20,4/98,10/98,10.5/20,12/20
 Flow: 1.0 ml/min, Diluent: ACN:Water(80:20)

Seq Line : 0
 Location : Vial 1
 Inj. No. : 0
 Inj. Vol. : 15 µl



Signal 1: DAD1 B, Sig=240,5 Ref=off

Peak #	RT [min]	Area	Area %
1	5.057	6.209	0.110
2	5.824	5350.146	94.165
3	6.106	280.288	5.724

*** End of Report ***

M
10/02/14

Fig. 70: HPLC of compound 4q

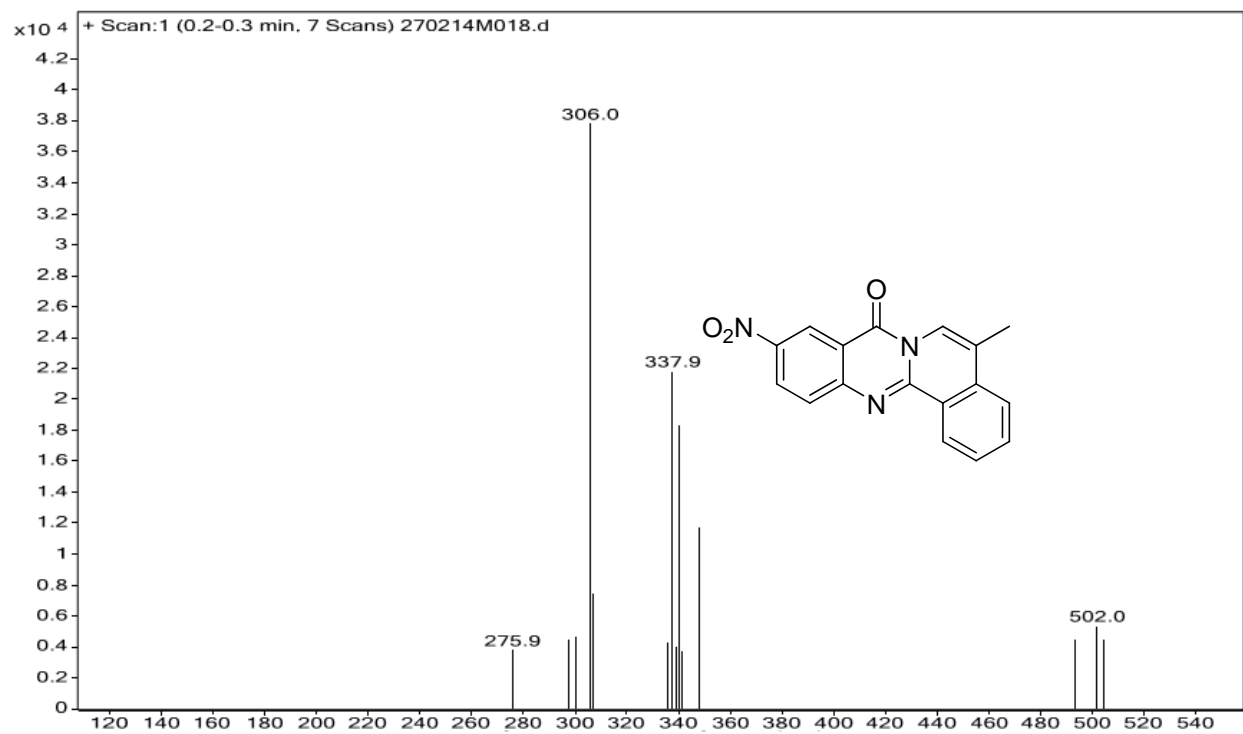


Fig. 71: Mass of compound **4q**

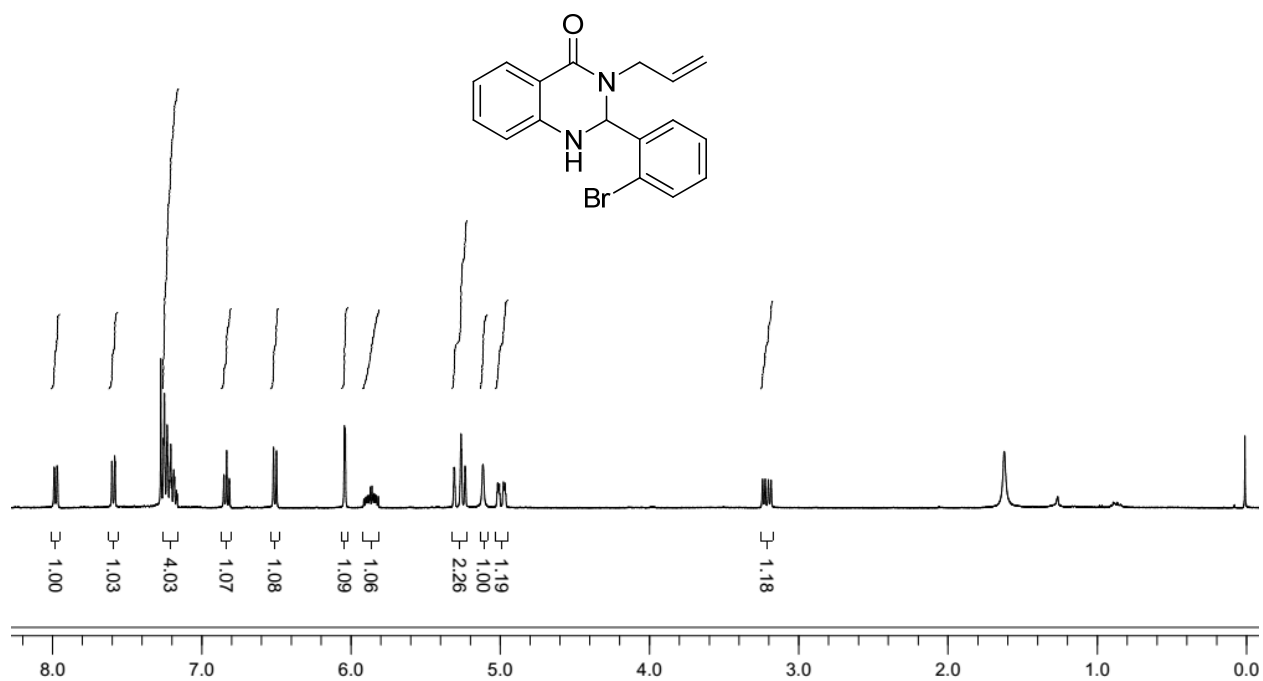


Fig. 72: ¹H NMR spectra of compound **5** (CDCl₃, 400 MHz)

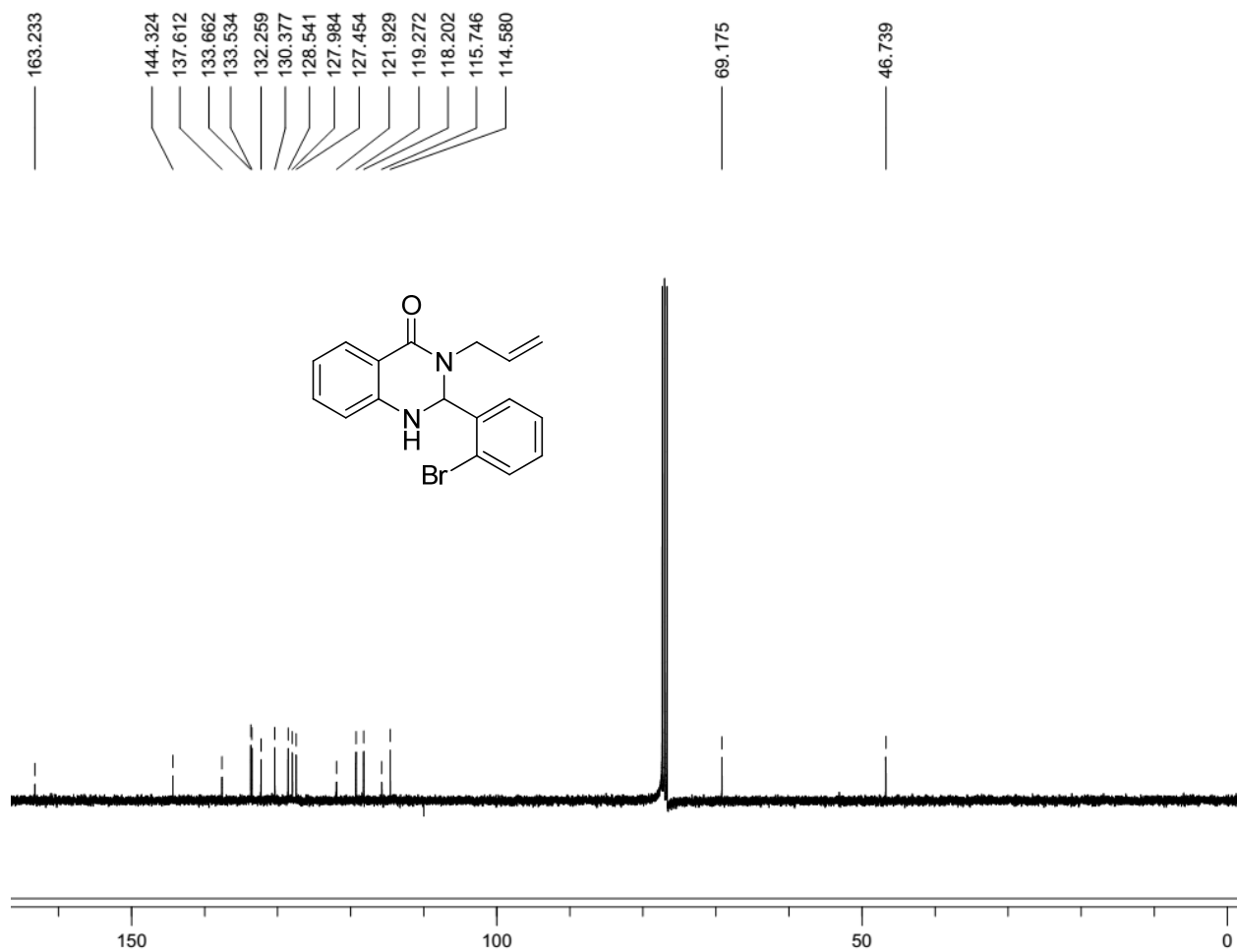


Fig. 73: ^{13}C NMR spectra of compound 5 (CDCl_3 , 100 MHz)

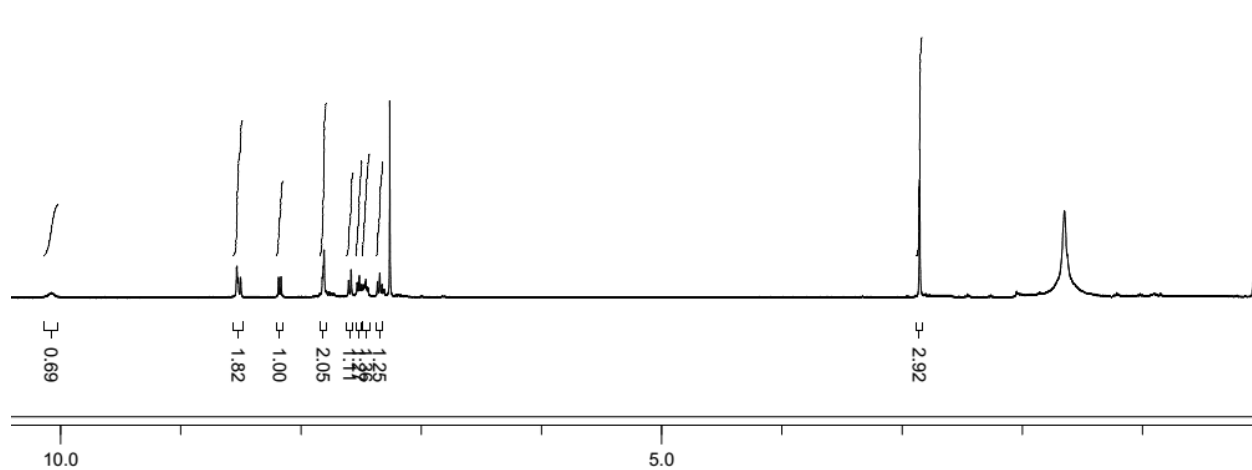
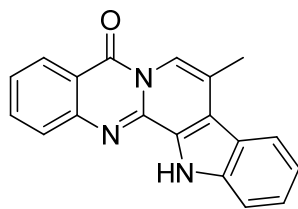


Fig. 74: ^1H NMR spectra of compound **6** (CDCl_3 , 400 MHz)

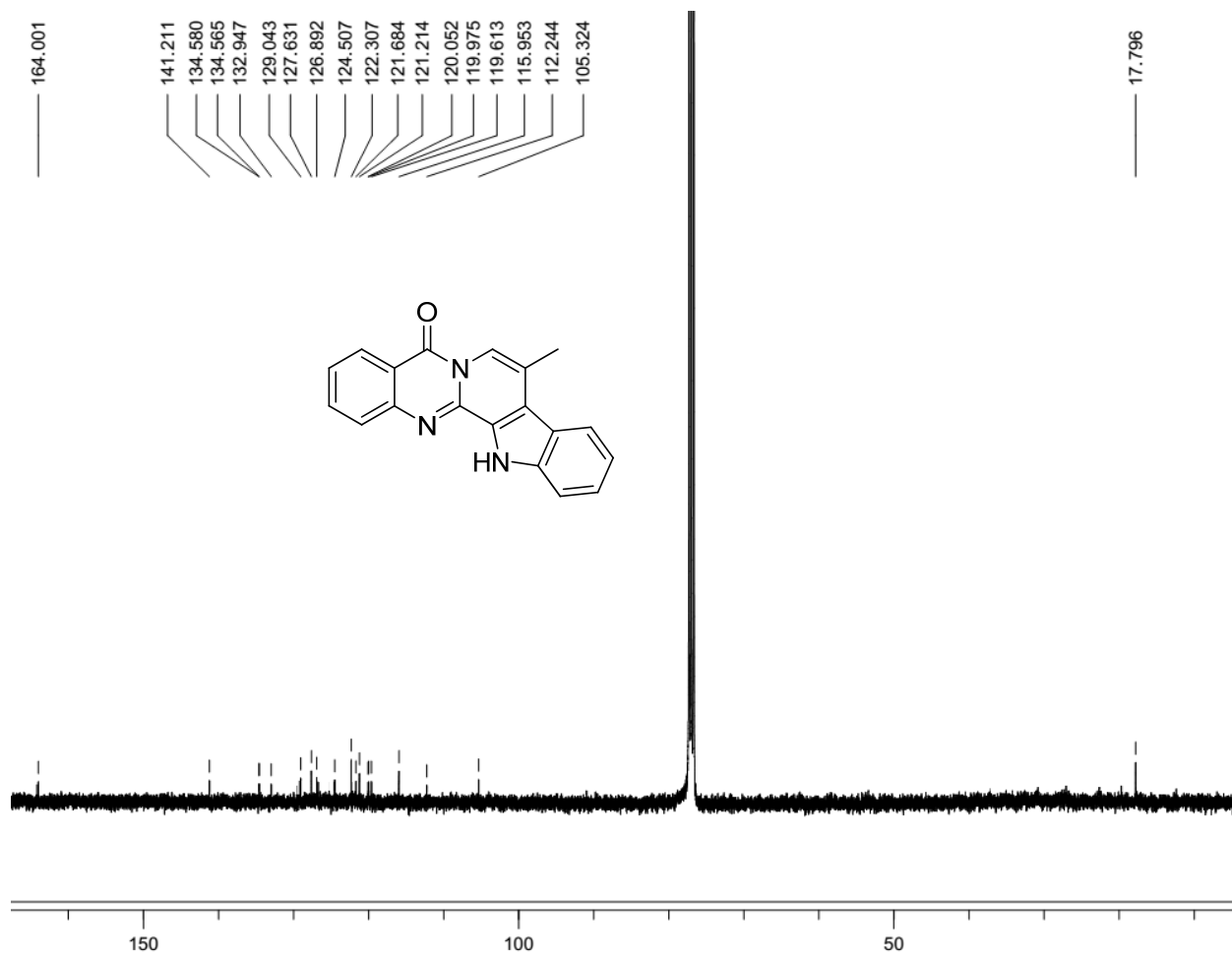
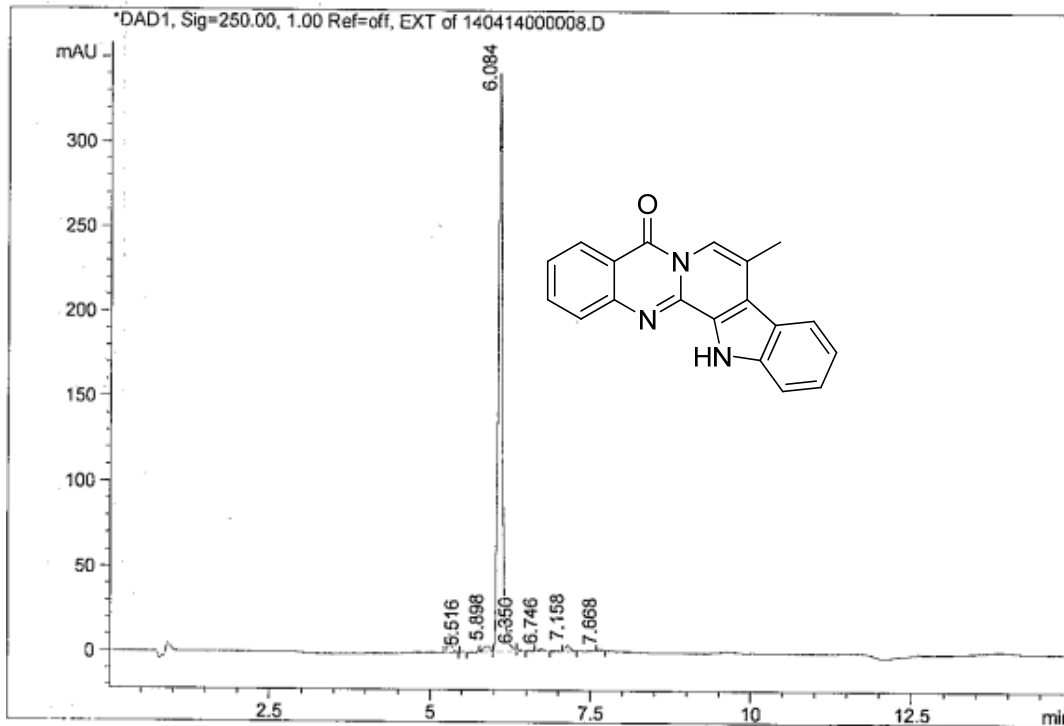


Fig. 75: ^{13}C NMR spectra of compound **6** (CDCl_3 , 100 MHz)

Inj Date : Mon, 14. Apr. 2014 Acq Operator: SHASHIDHAR
 Sample Name : ILS/ARJ/5/26 Vial 5
 A.R Number : CM14D010 -> Inj. Vol. : 10µL
 Acq. Method : D:\CHEM32_002\1\METHODS\C-18 A80B20.M
 Analysis Method : D:\CHEM32_002\1\METHODS\C-18 A80B20.M
 Method Info : Column : Symmetry C-18 75*4.6mm3.5µm
 Mobile phase: A) 0.1% TFA in water , B) ACN
 T/B% : 0/20,1/20,6/98,10/98,12/20,15/20.
 Flow: 1.0 ml/min Diluent: ACN:Water(80:20)



Signal 1: DAD1, Sig=250.00, 1.00 Ref=off, EXT

Peak #	RT [min]	Area	Area %
1	5.308	47.263	2.778
2	5.516	1.210	0.071
3	5.898	21.233	1.248
4	6.084	1601.773	94.132
5	6.350	3.514	0.207
6	6.746	7.196	0.423
7	7.158	16.680	0.980
8	7.668	2.752	0.162

Fig. 76: HPLC of compound 6

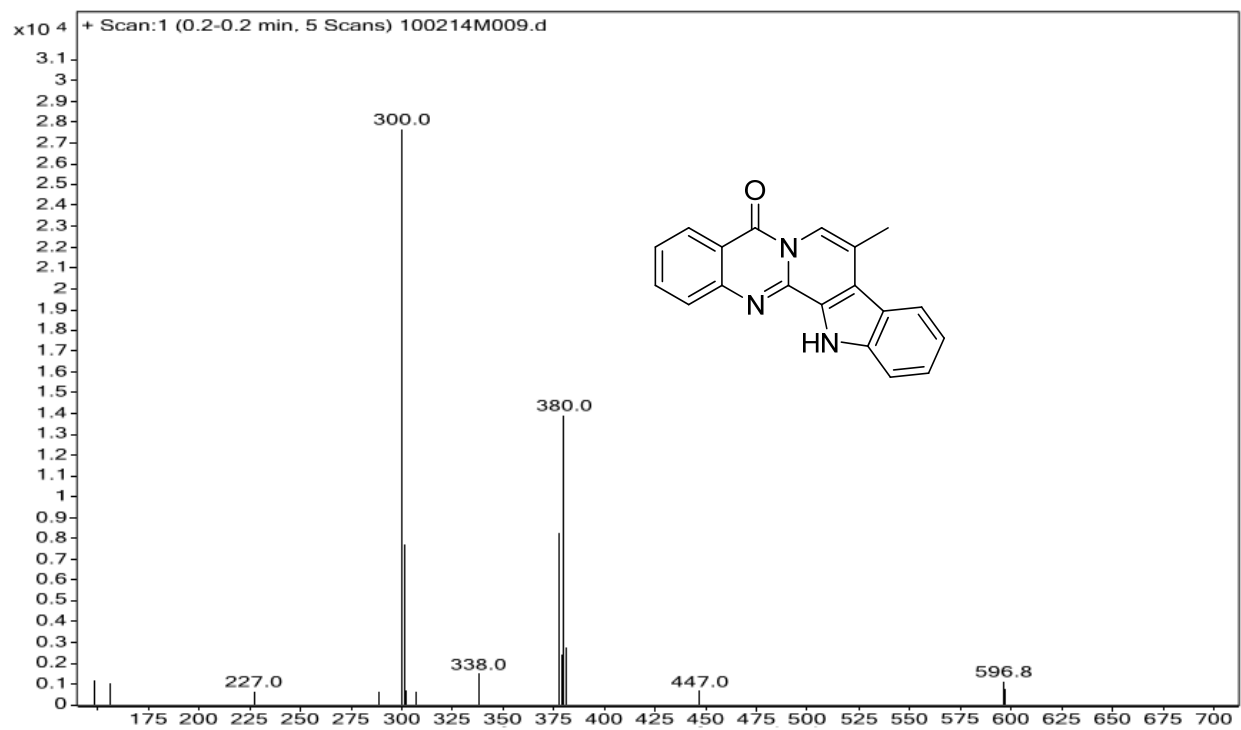


Fig. 77: Mass of compound 6