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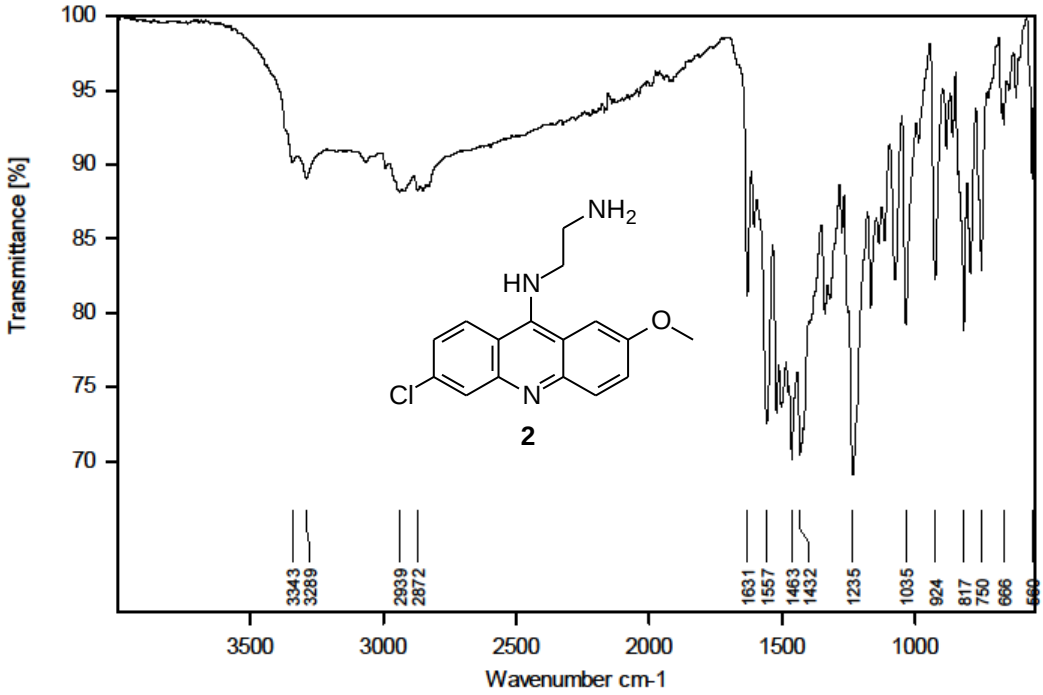
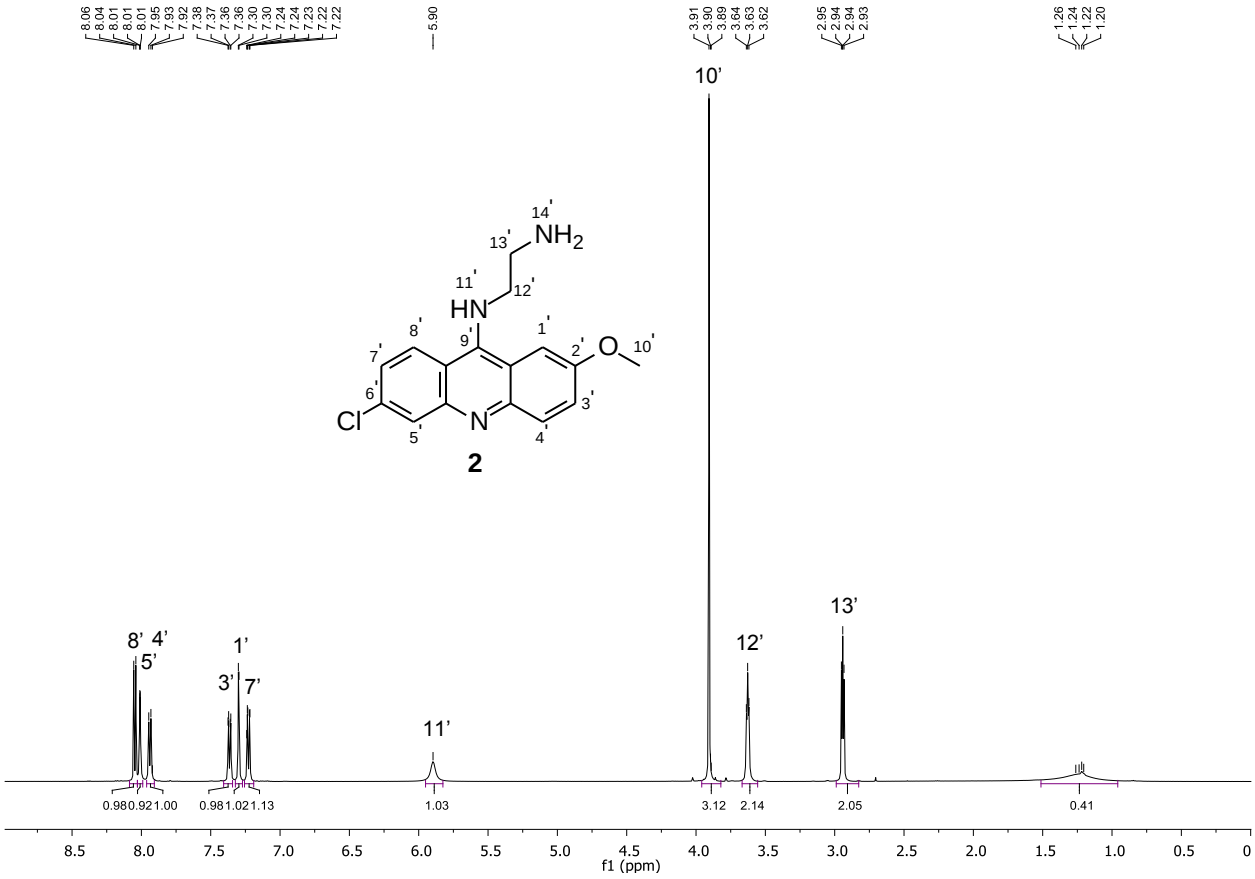
APPENDIX A: SPECTRA

Compound 2:

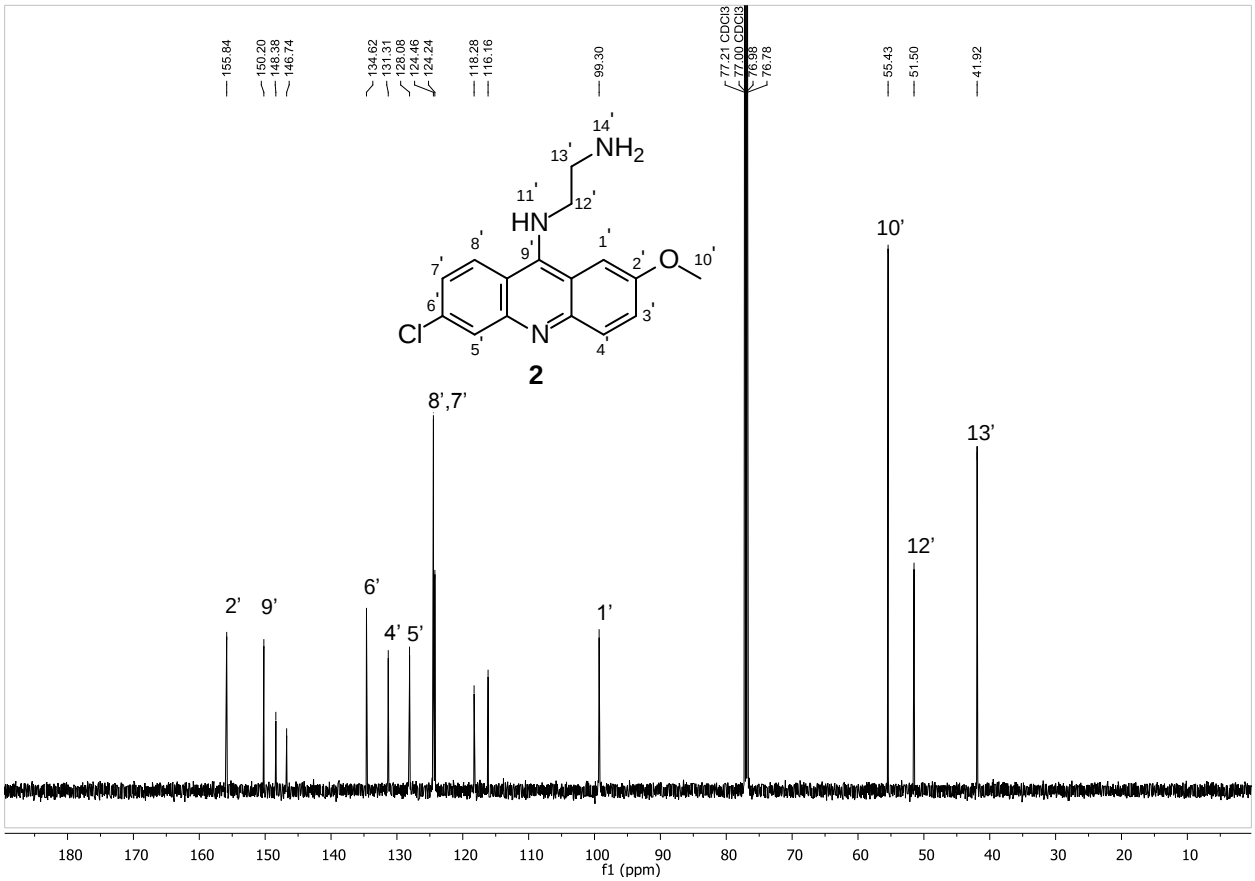
IR



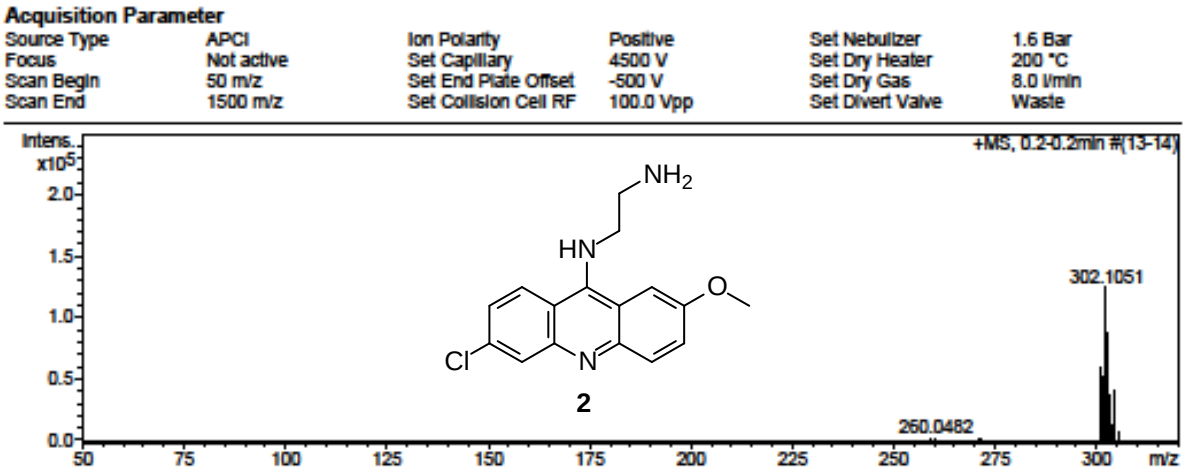
^{1}H NMR



^{13}C NMR


155.84
150.20
148.38
146.74
134.62
131.31
128.08
124.46
124.24
118.28
116.16
99.30
77.21 CDCl3
77.00 CDCl3
76.78
55.43
51.50
41.92
NH2
HN
Cl
N
O
2
8',7'
10'
13'
12'
6'
2' 9'
4' 5'
1'
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10
f1 (ppm)

HRMS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Scan End 1500 m/z
Ion Polarity Positive
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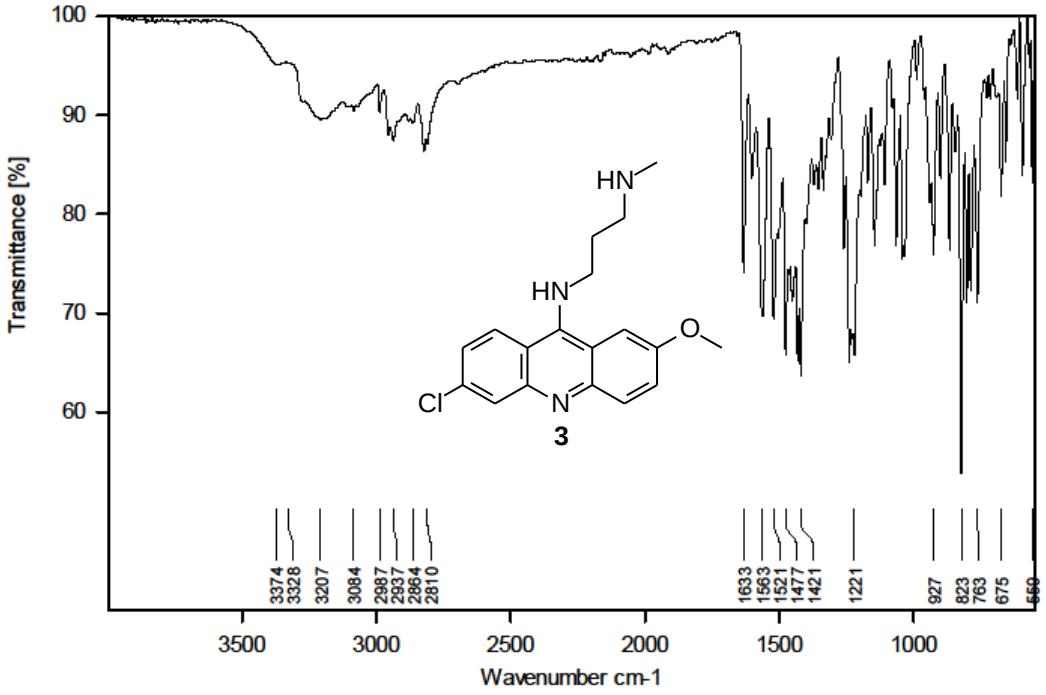
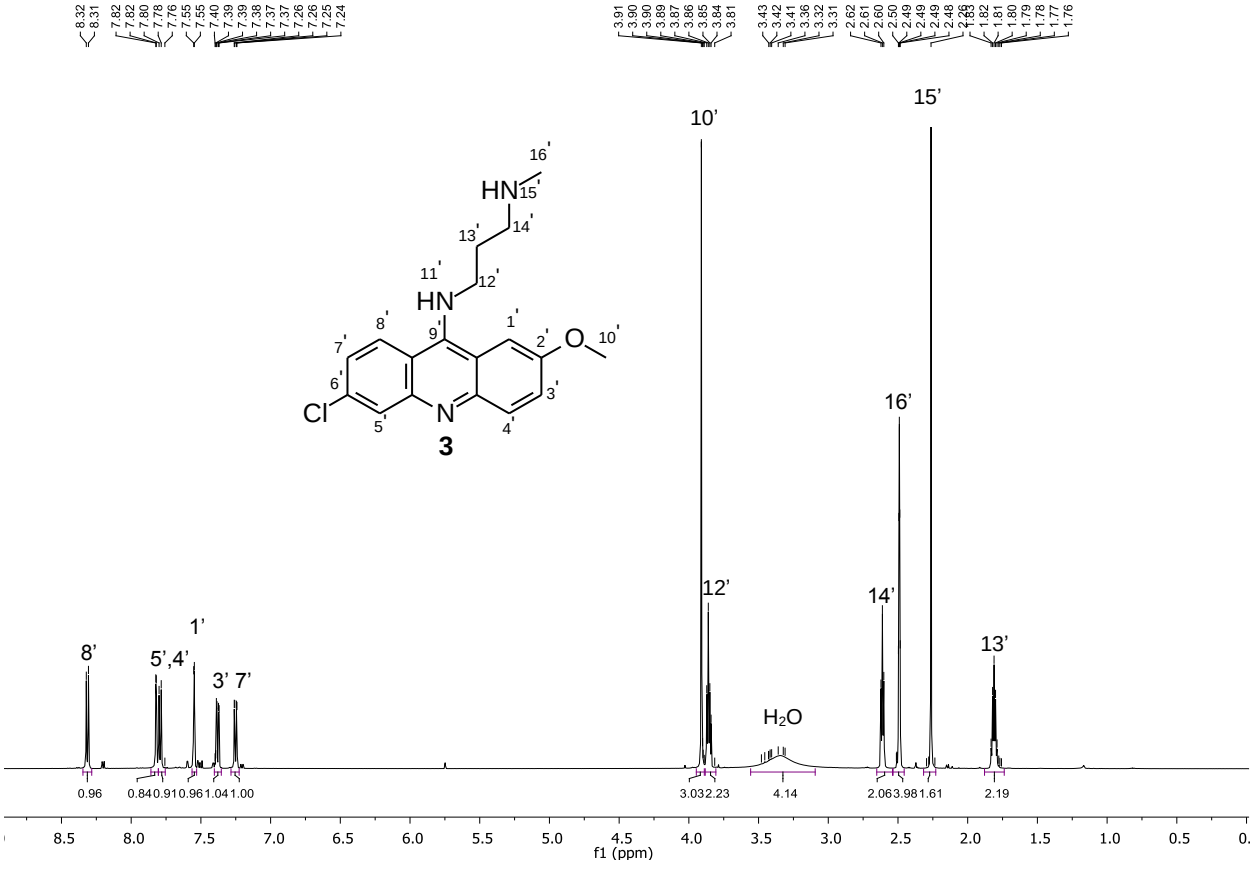
Set End Plate Offset -500 V
Set Collision Cell RF 100.0 Vpp
Set Nebulizer 1.6 Bar
Set Dry Heater 200 °C
Set Dry Gas 8.0 l/min
Set Divert Valve Waste
Intens.
x10^5
2.0
1.5
1.0
0.5
0.0
+MS, 0.2-0.2min #(13-14)
NH2
HN
Cl
N
O
2
302.1051
260.0482
50 75 100 125 150 175 200 225 250 275 300 m/z

Compound 3:

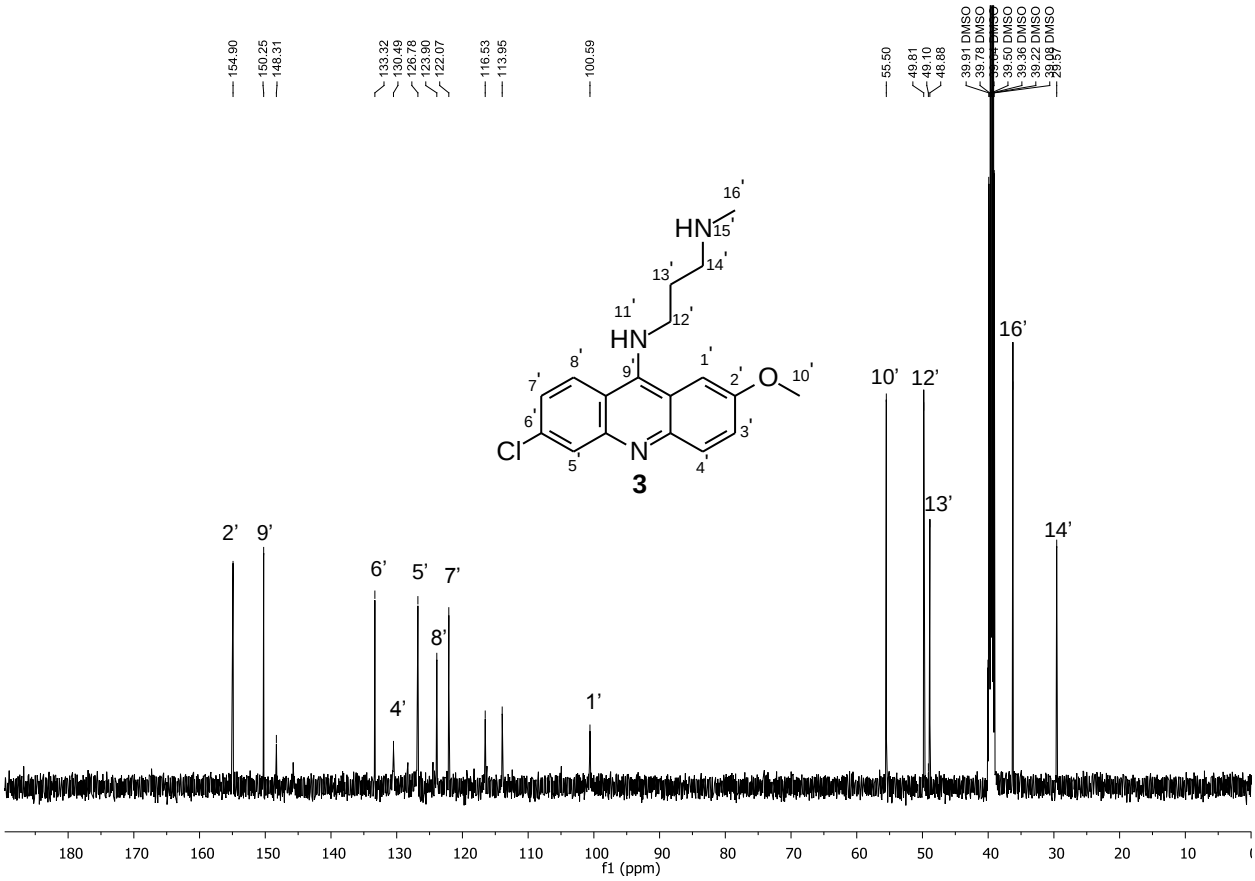
IR



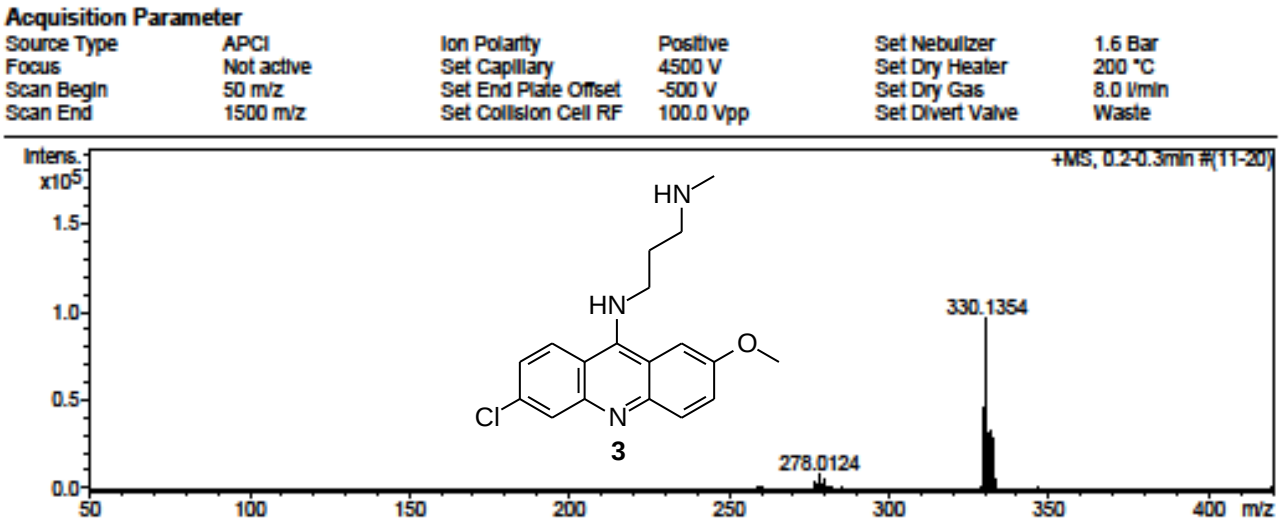
^{1}H NMR



^{13}C NMR


154.90
150.25
148.31
133.32
130.49
126.78
123.90
122.07
116.53
113.95
100.59
55.50
49.81
49.10
48.88
39.91 DMSO
39.78 DMSO
39.64 DMSO
39.50 DMSO
39.36 DMSO
39.22 DMSO
39.09 DMSO
38.97 DMSO
HN
HN
Cl
N
O
3
2’ 9’
6’ 5’ 7’
8’
4’
1’
10’ 12’
13’
16’
14’
180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10
f1 (ppm)

HRMS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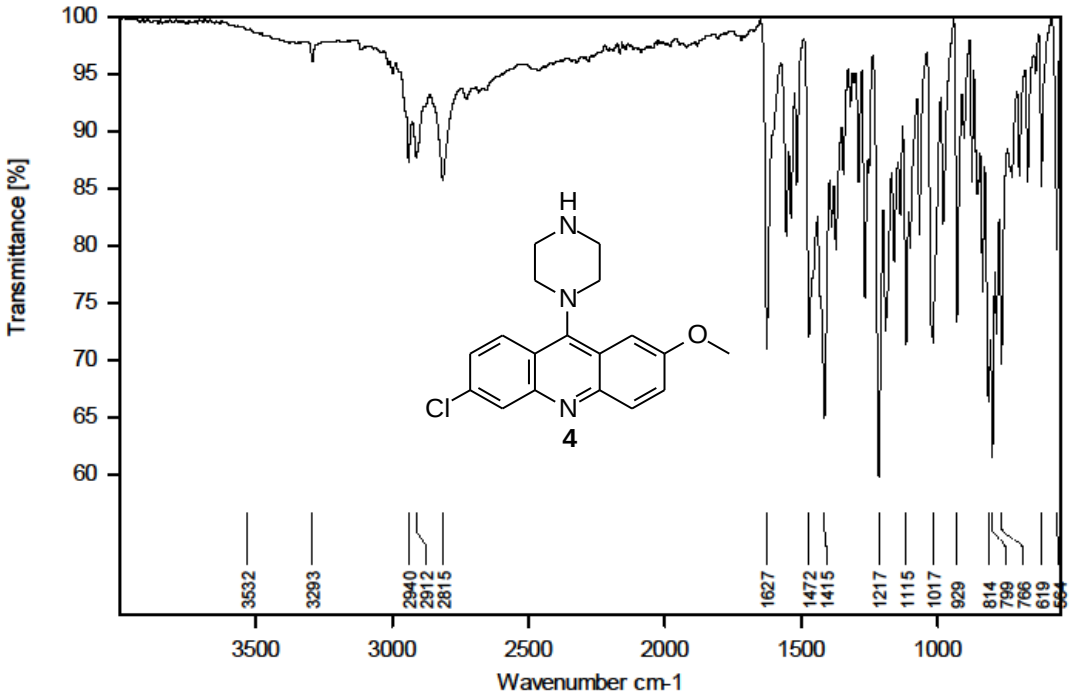
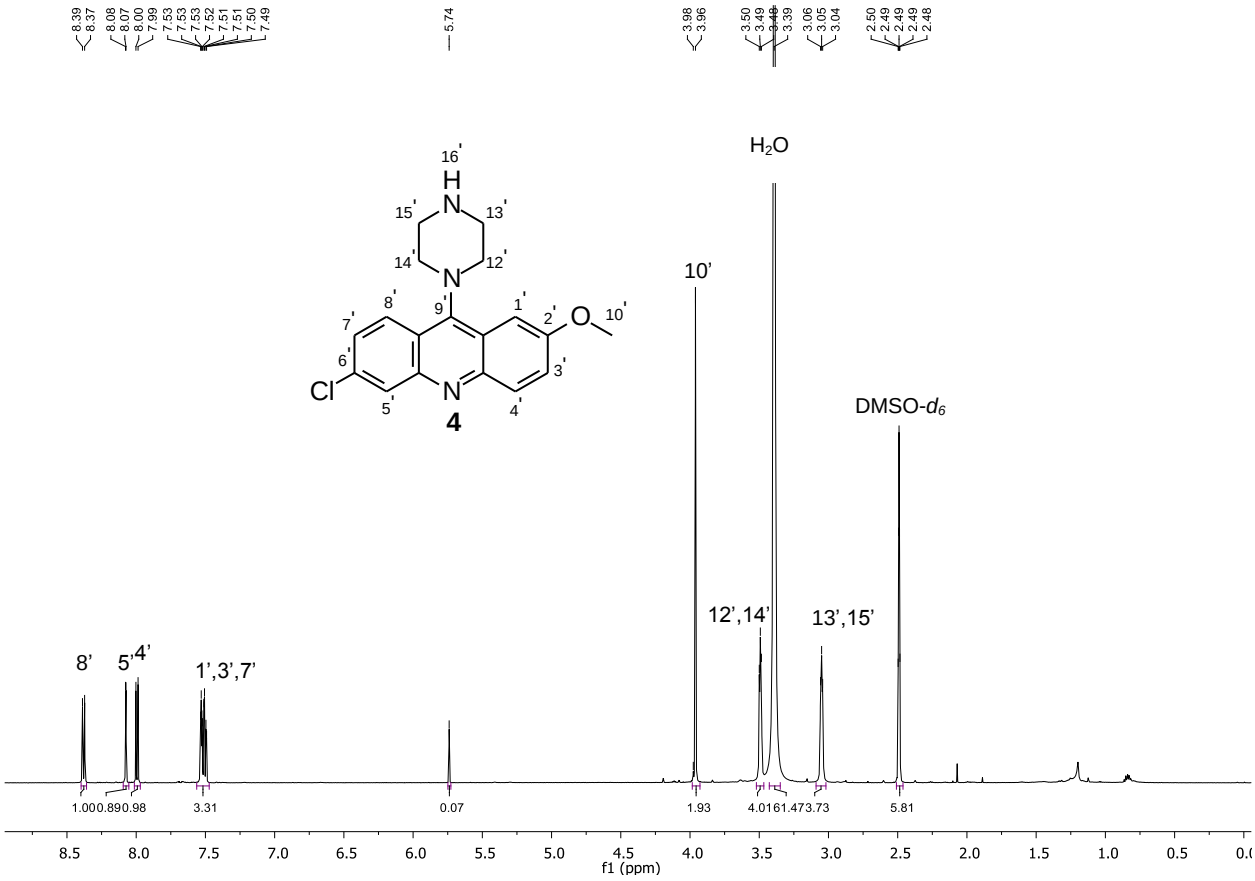
Set End Plate Offset -500 V
Set Dry Gas 8.0 l/min
Scan End 1500 m/z
Set Collision Cell RF 100.0 Vpp
Set Divert Valve Waste
Intens.
x10^5
+MS, 0.2-0.3min #(11-20)
HN
HN
Cl
N
O
3
330.1354
278.0124
0.0 0.5 1.0 1.5
50 100 150 200 250 300 350 400 m/z

Compound 4:

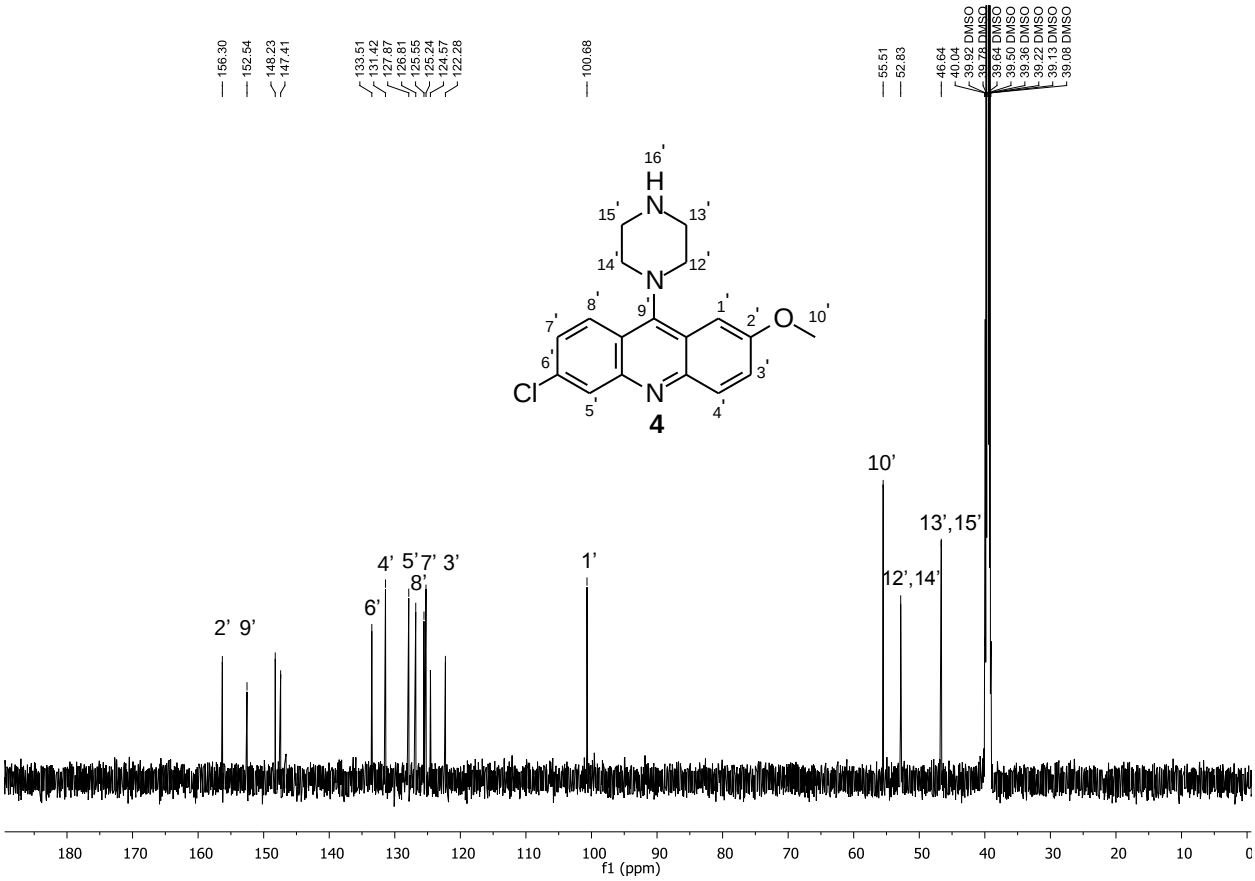
IR



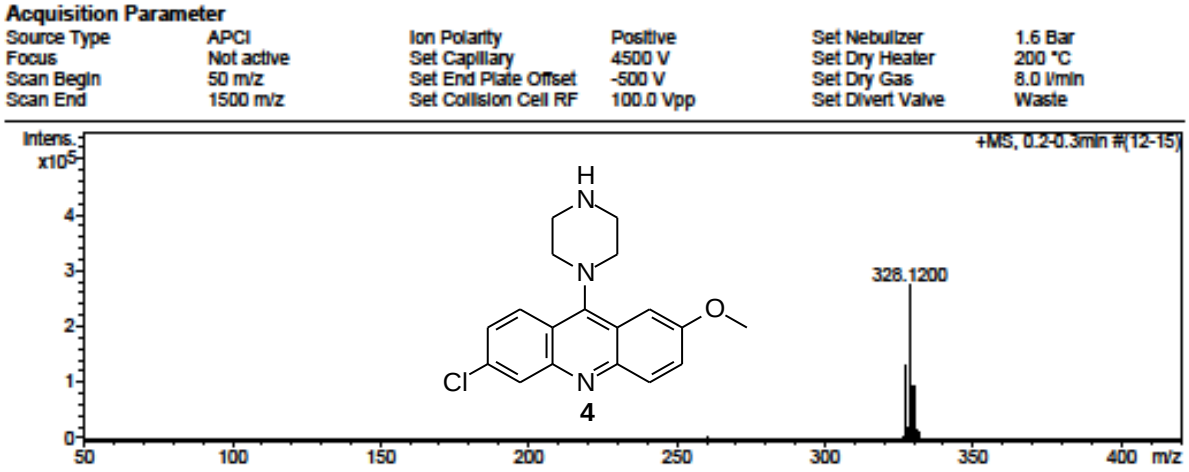
^{1}H NMR



^{13}C NMR


156.30
152.54
148.23
147.41
133.51
131.42
127.87
126.81
125.55
125.24
124.57
122.28
100.68
55.51
52.83
46.64
40.04
39.92 DMSO
39.78 DMSO
39.64 DMSO
39.50 DMSO
39.36 DMSO
39.22 DMSO
39.13 DMSO
39.08 DMSO
4
10’
13’,15’
12’,14’
4’ 5’ 7’ 3’
8’
6’
2’ 9’
1’
f1 (ppm)

HRMS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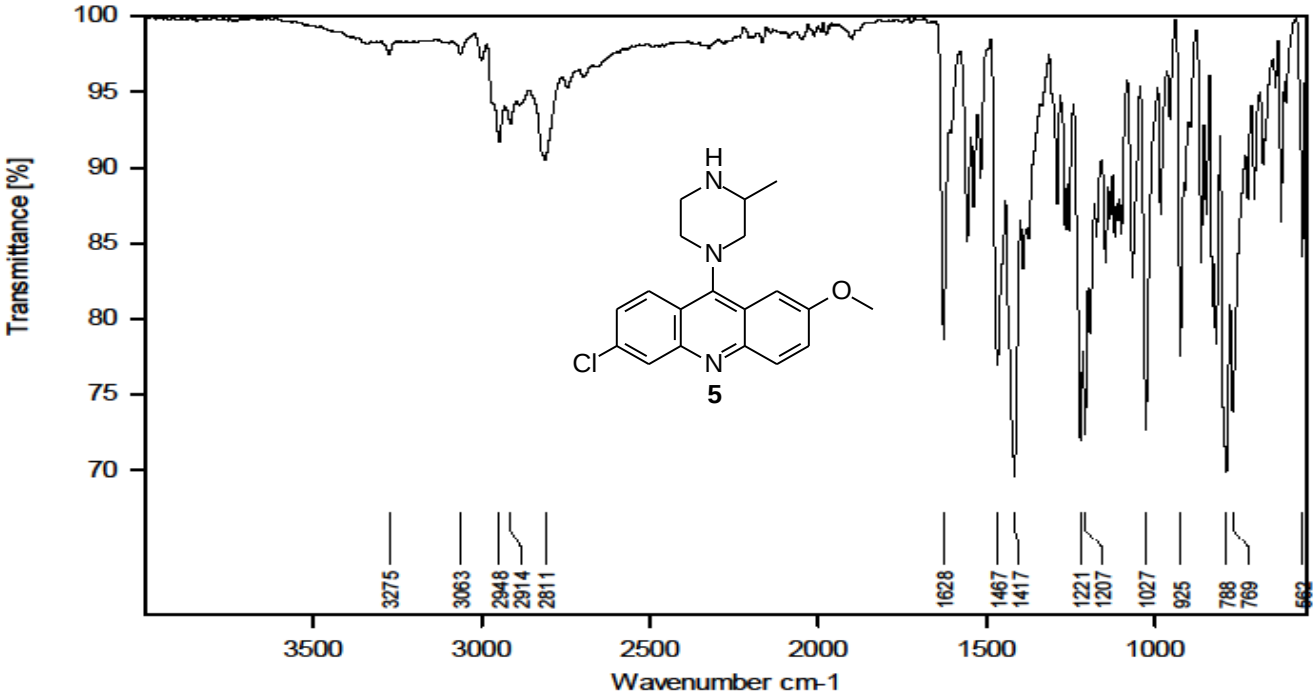
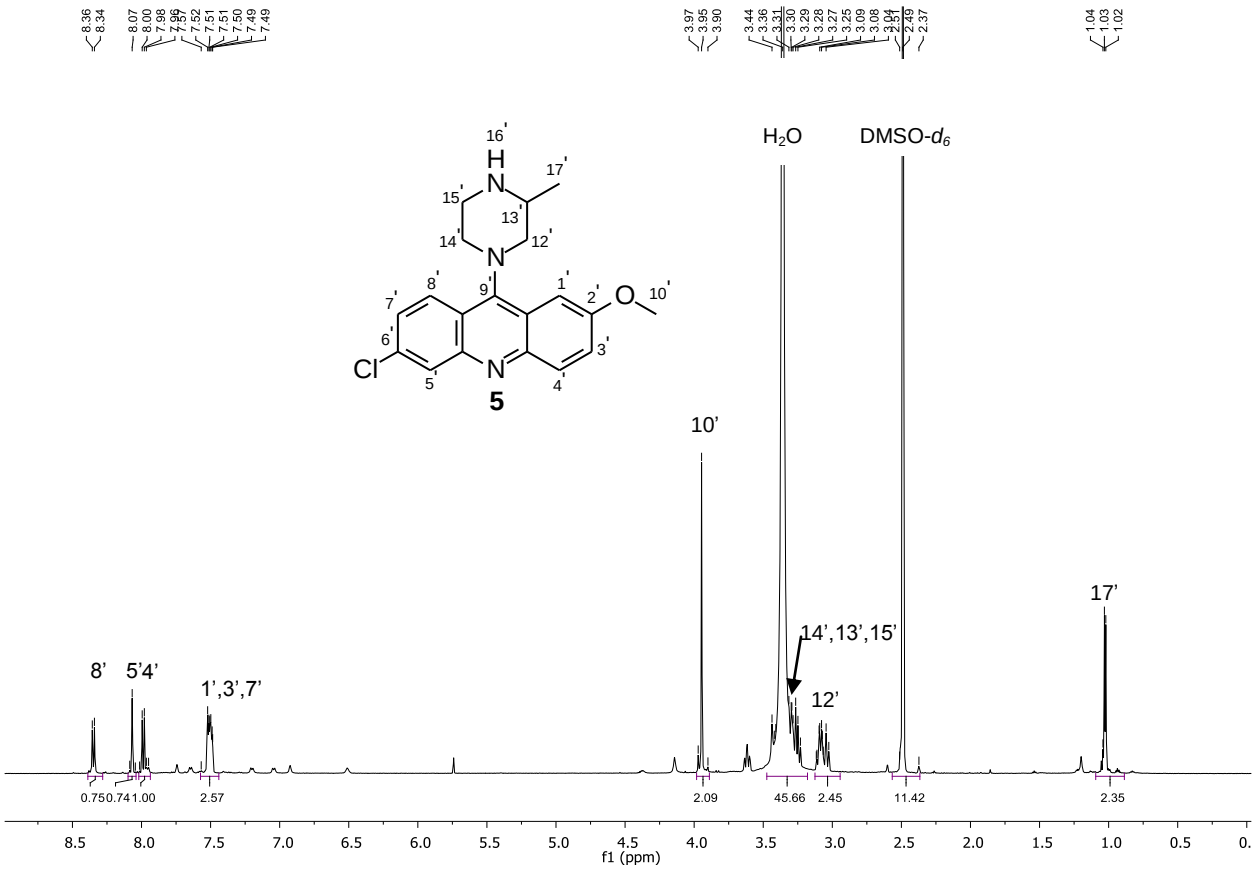
Set End Plate Offset -500 V
Set Dry Gas 8.0 l/min
Scan End 1500 m/z
Set Collision Cell RF 100.0 Vpp
Set Divert Valve Waste
Intens.
x10^5
+MS, 0.2-0.3min #(12-15)
326.1200
4
m/z

Compound 5:

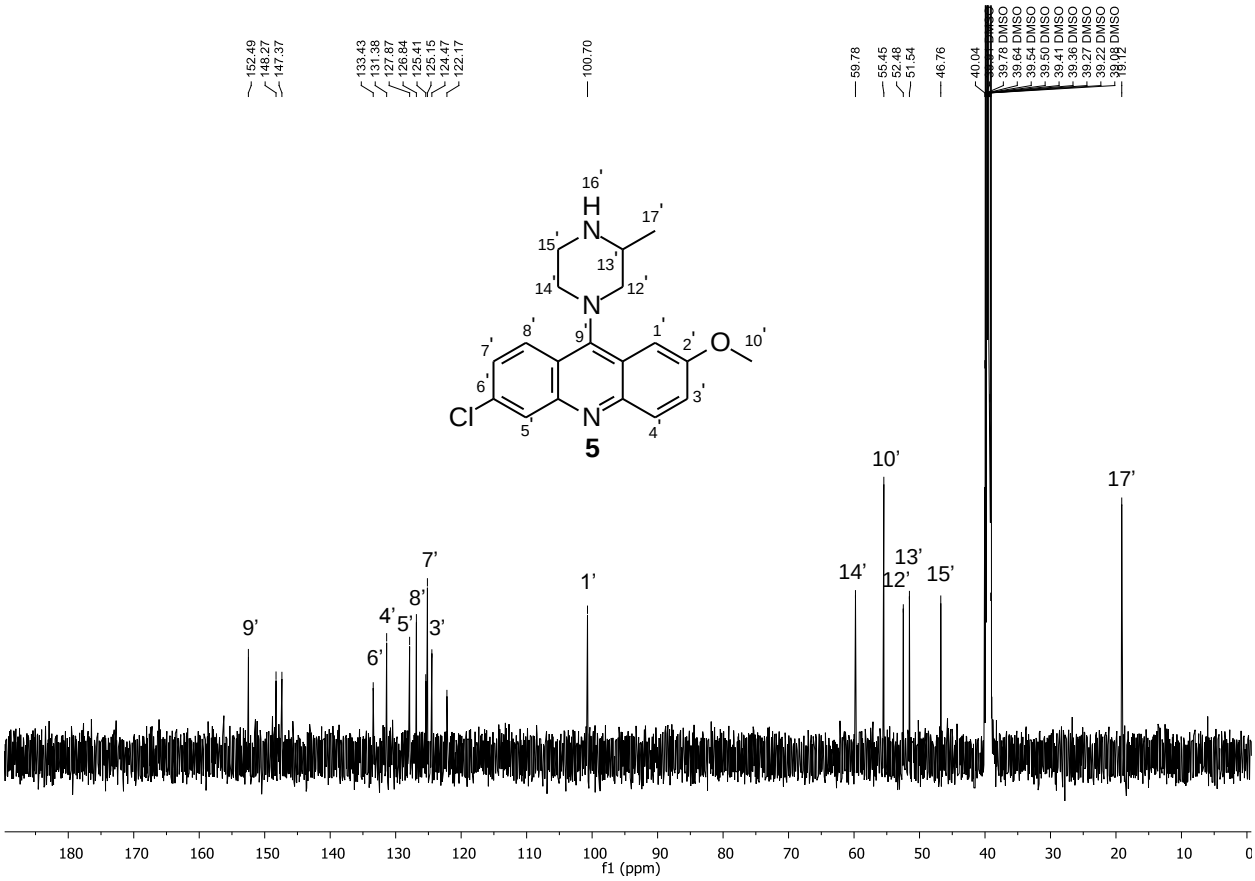
IR



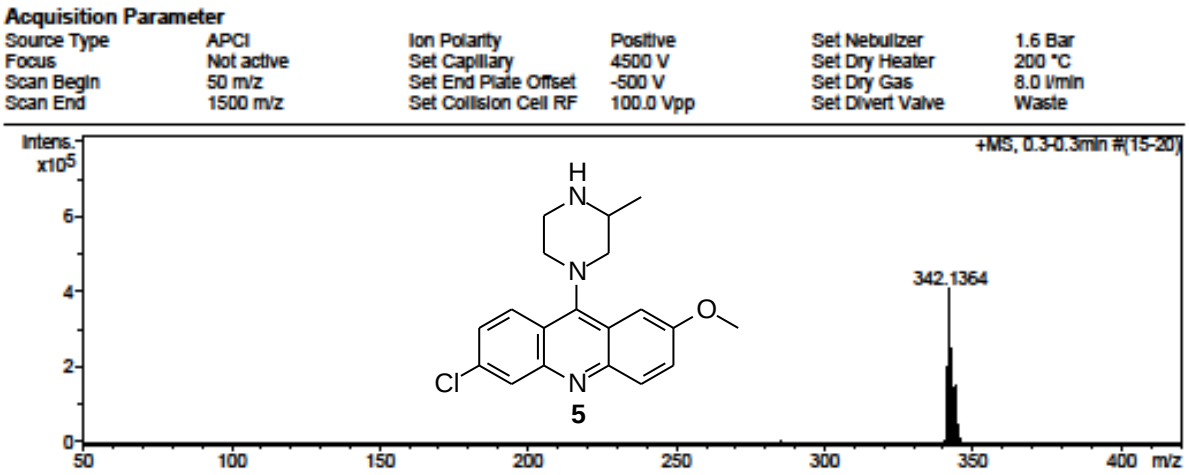
^{1}H NMR



^{13}C NMR


152.49
148.27
147.37
133.43
131.38
127.87
126.84
126.41
125.15
124.47
122.17
100.70
59.78
55.45
52.48
51.54
46.76
40.04
39.78 DMSO
39.64 DMSO
39.54 DMSO
39.50 DMSO
39.41 DMSO
39.36 DMSO
39.27 DMSO
39.22 DMSO
39.08 DMSO
18.12
5
9'
6'
4'
5'
8'
7'
3'
1'
14'
12'
13'
15'
10'
17'
f1 (ppm)

HRMS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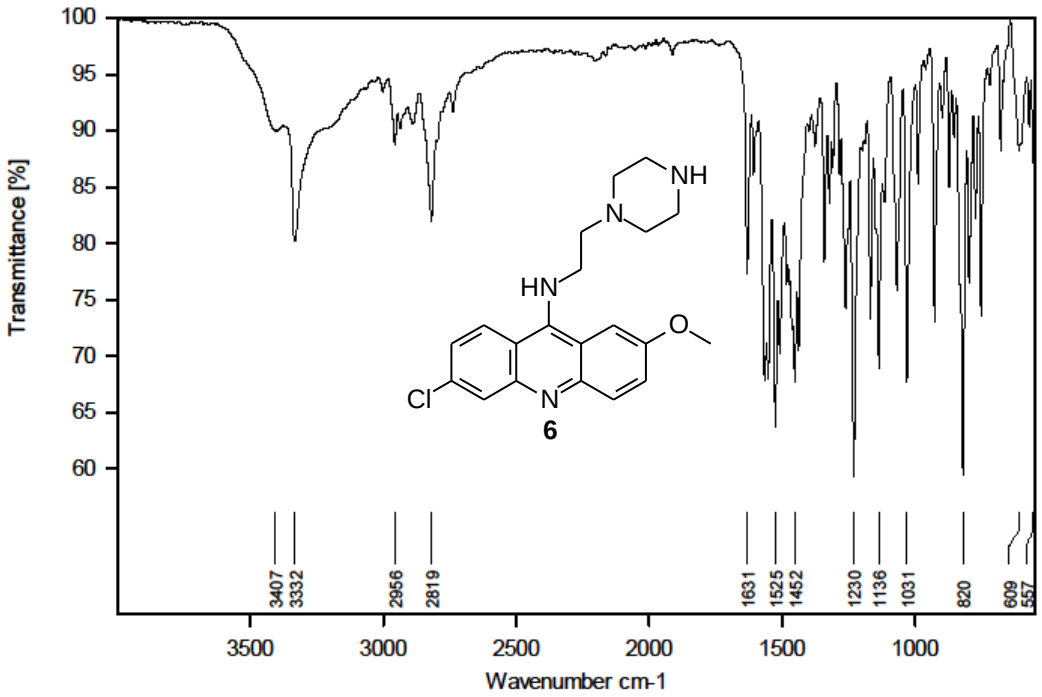
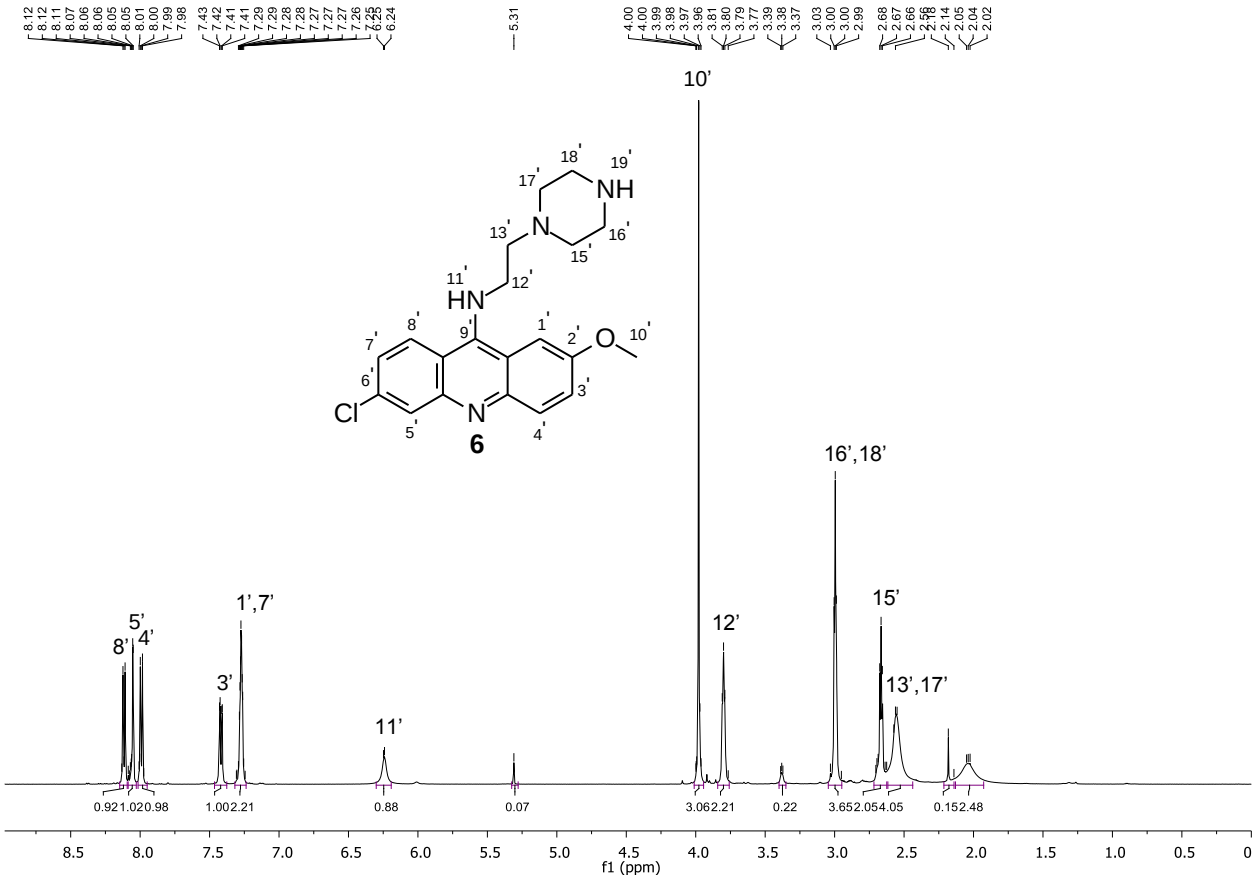
Set Collision Cell RF 100.0 Vpp
Set Nebulizer 1.6 Bar
Set Dry Heater 200 °C
Set Dry Gas 8.0 l/min
Set Divert Valve Waste
Intens.
x10^5
+MS, 0.3-0.3min #(15-20)
342.1364
5
m/z

Compound 6:

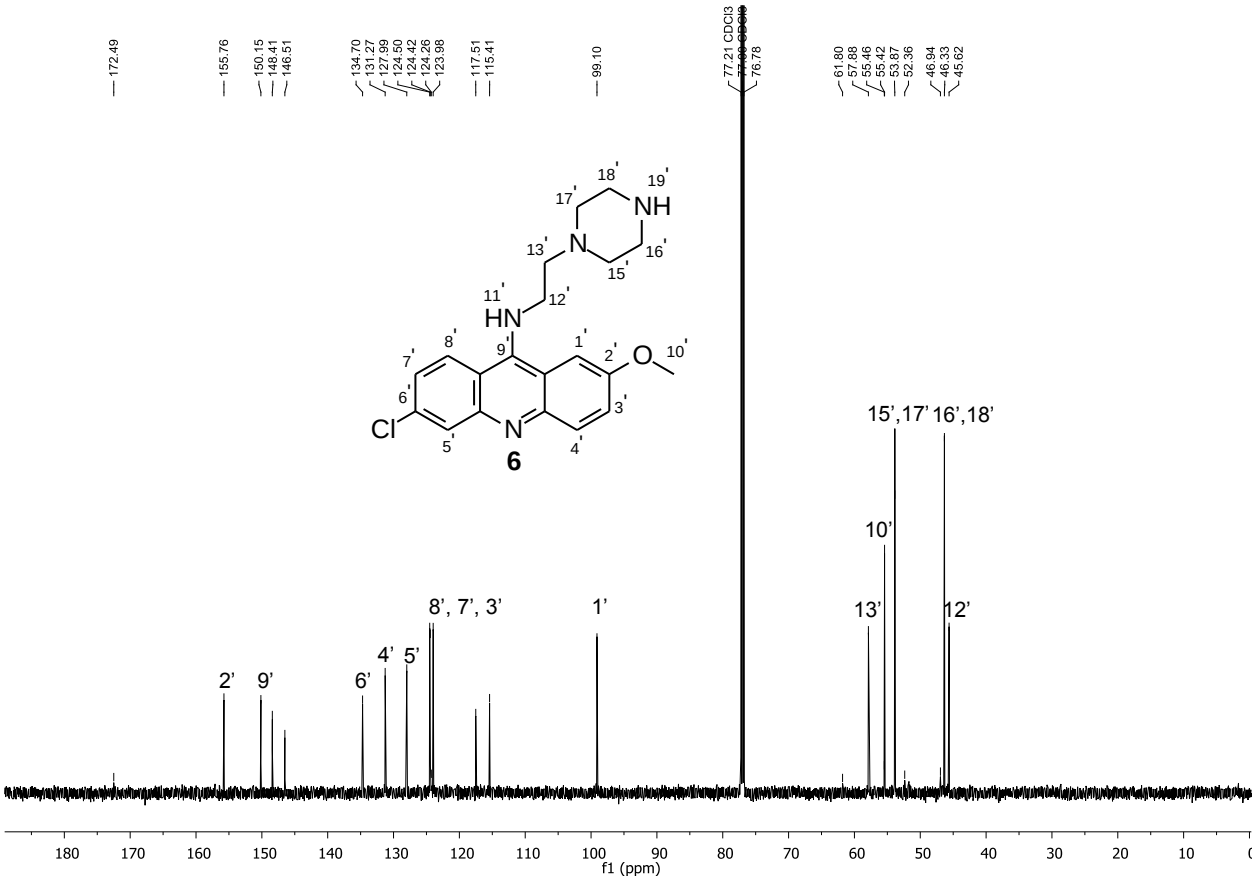
IR



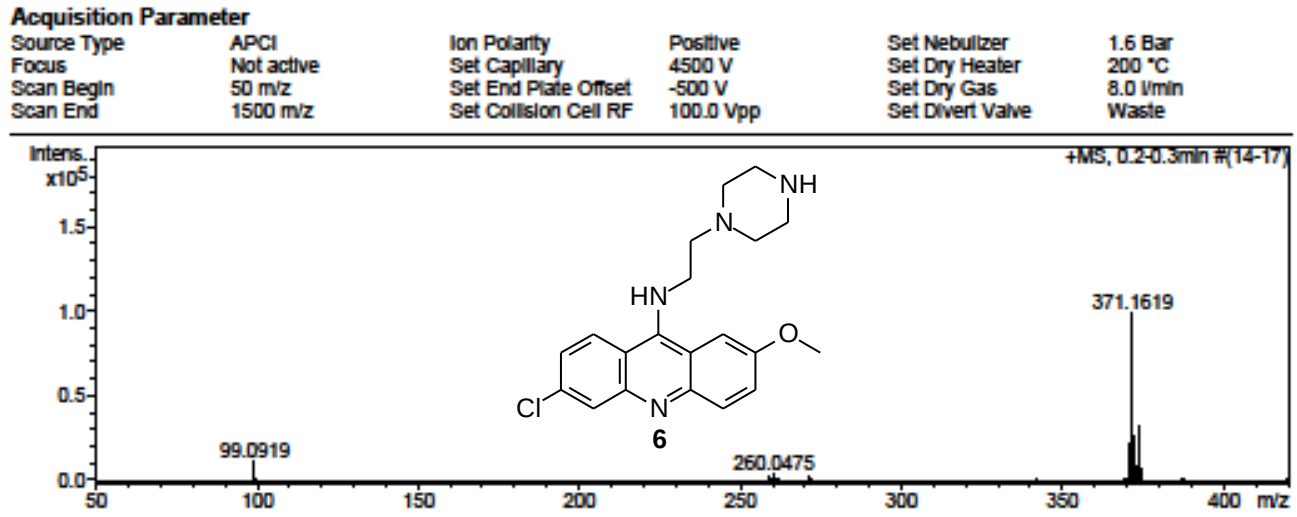
^{1}H NMR



^{13}C NMR


172.49
155.76
150.15
148.41
146.51
134.70
131.27
127.99
124.50
124.42
124.26
123.98
117.51
115.41
99.10
77.21 CDCl3
76.78
61.80
57.88
55.46
55.42
53.87
52.36
46.94
46.33
45.62
6
15',17'
16',18'
10'
13'
12'
8', 7', 3'
1'
4' 5'
2'
9'
6'
f1 (ppm)

HRMS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Scan End 1500 m/z
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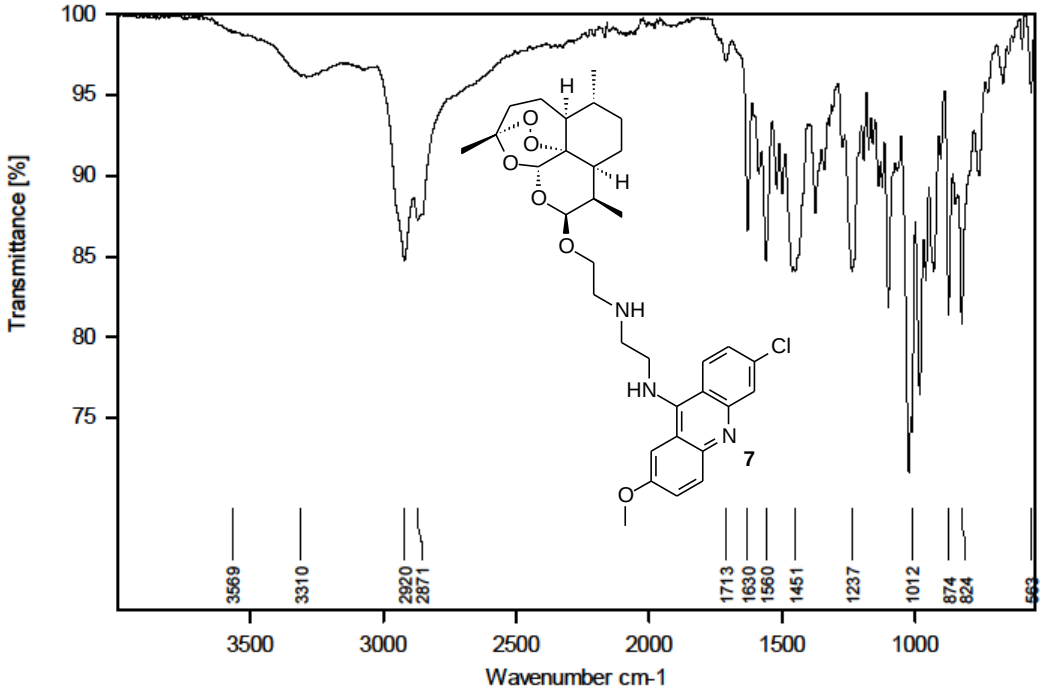
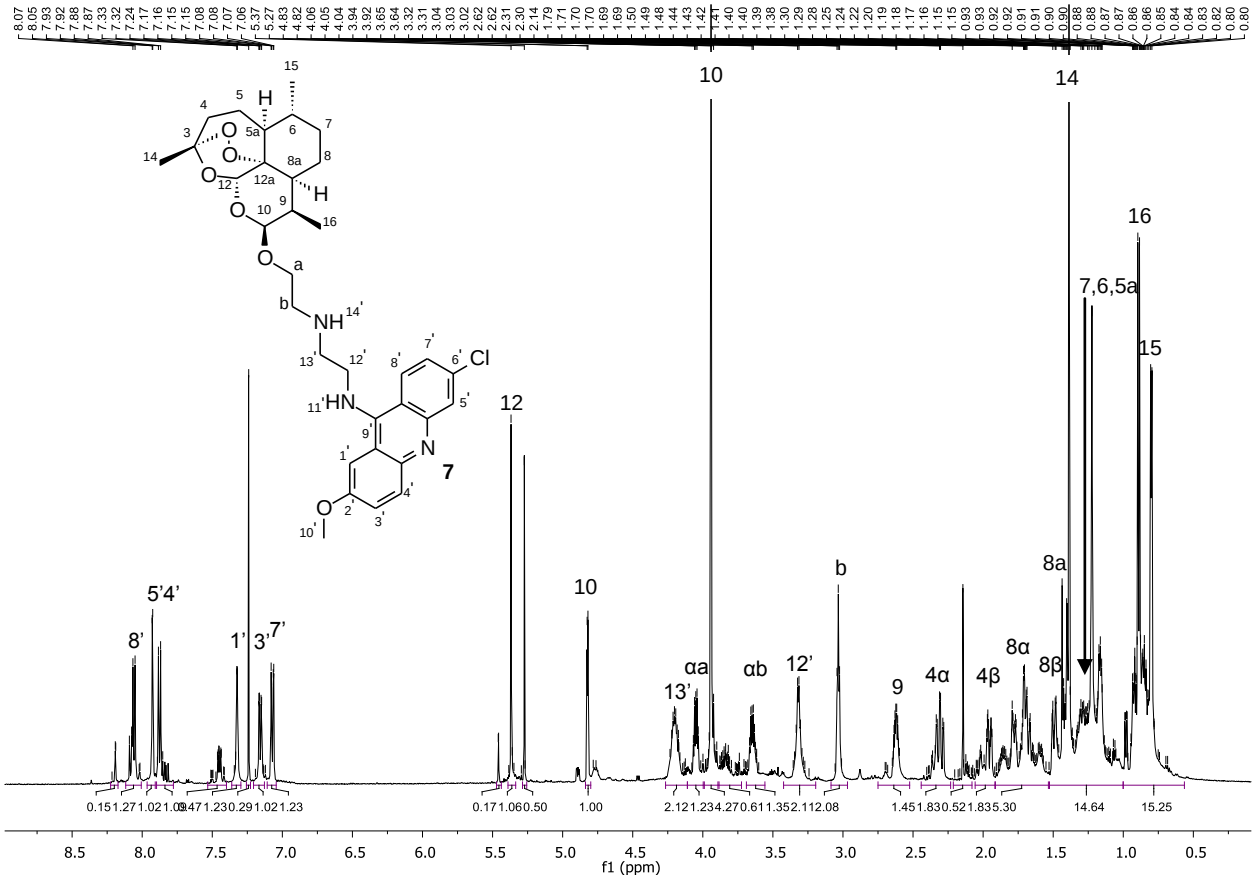
Set End Plate Offset -500 V
Set Collision Cell RF 100.0 Vpp
Set Nebulizer 1.6 Bar
Set Dry Heater 200 °C
Set Dry Gas 8.0 l/min
Set Divert Valve Waste
Intens.
x10^5
+MS, 0.2-0.3min #(14-17)
371.1619
99.0919
260.0475
6
m/z

Compound 7:

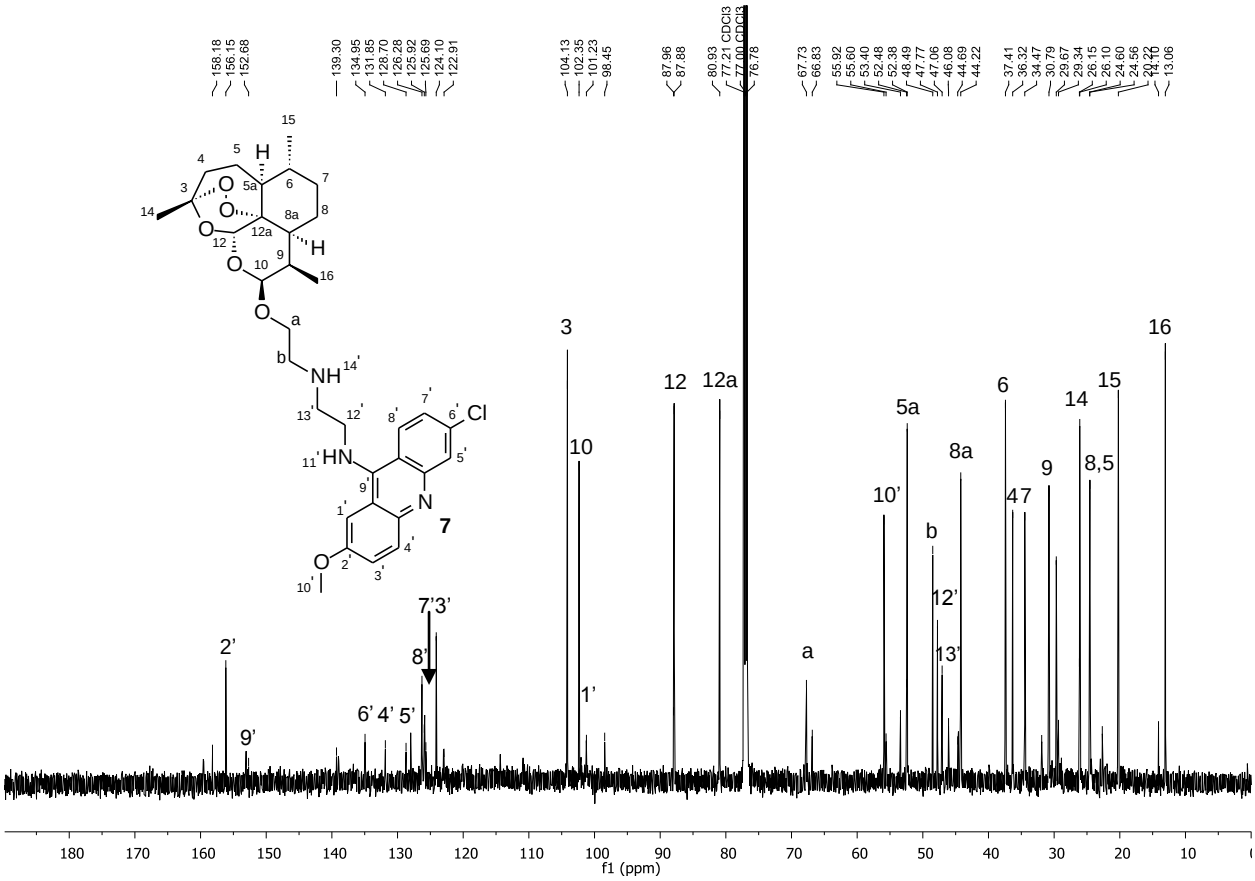
IR



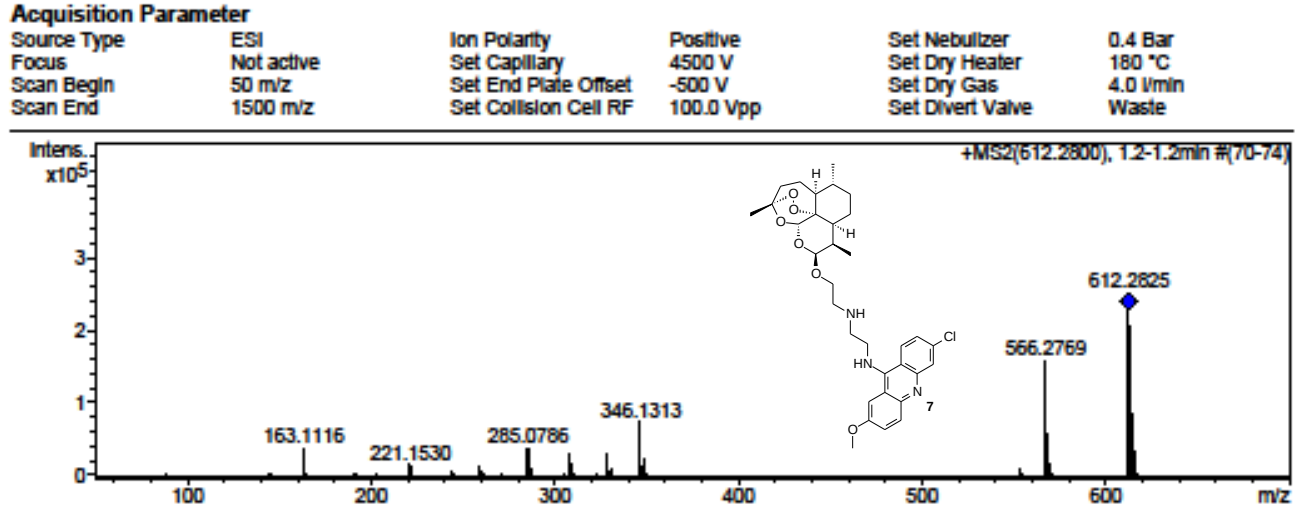
^{1}H NMR



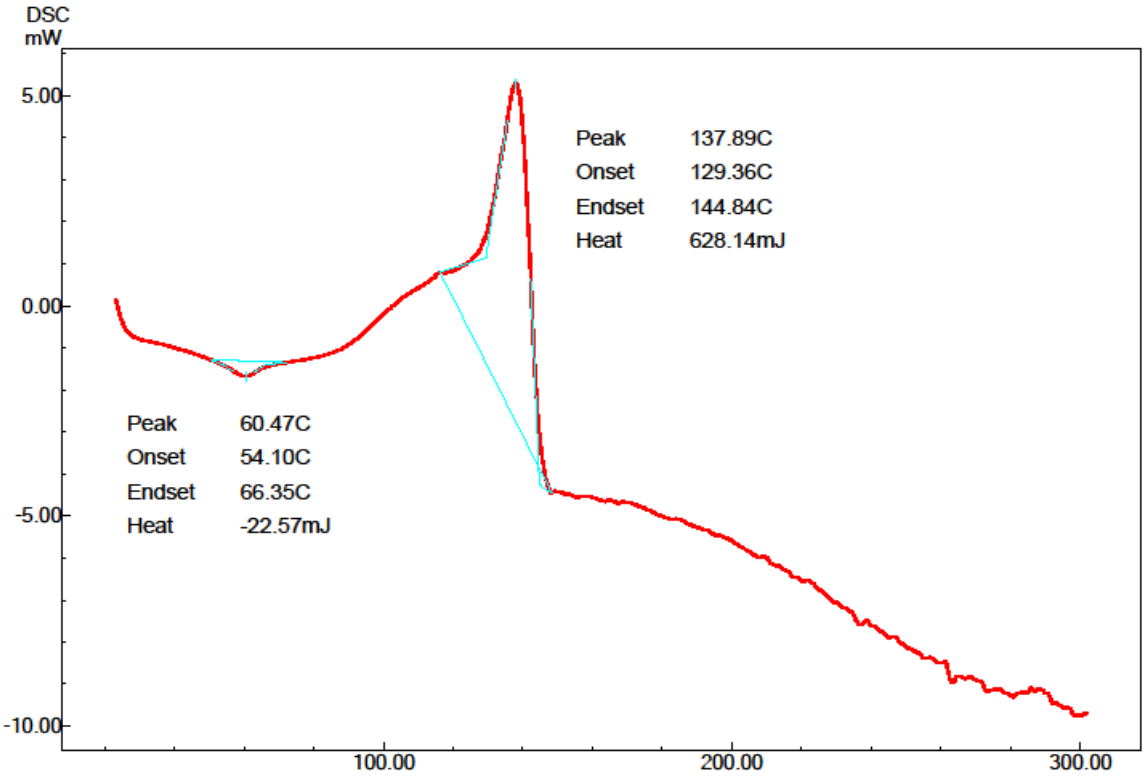
^{13}C NMR


158.18
156.15
152.68
139.30
134.95
131.85
128.70
126.28
125.92
125.69
124.10
122.91
104.13
102.35
101.23
98.45
87.96
87.88
80.93
77.21 CDCl3
77.00 CDCl3
76.78
67.73
66.83
55.92
55.60
53.40
52.48
52.38
49.49
47.77
47.06
46.08
44.69
44.22
37.41
36.32
34.47
30.79
29.67
29.34
26.15
26.10
24.60
24.56
22.12
21.41
13.06
3
12
12a
10
16
6
15
14
5a
8a
9
8,5
4 7
10'
b
12'
13'
a
2'
9'
7'3'
8'
6' 4' 5'
1'
f1 (ppm)

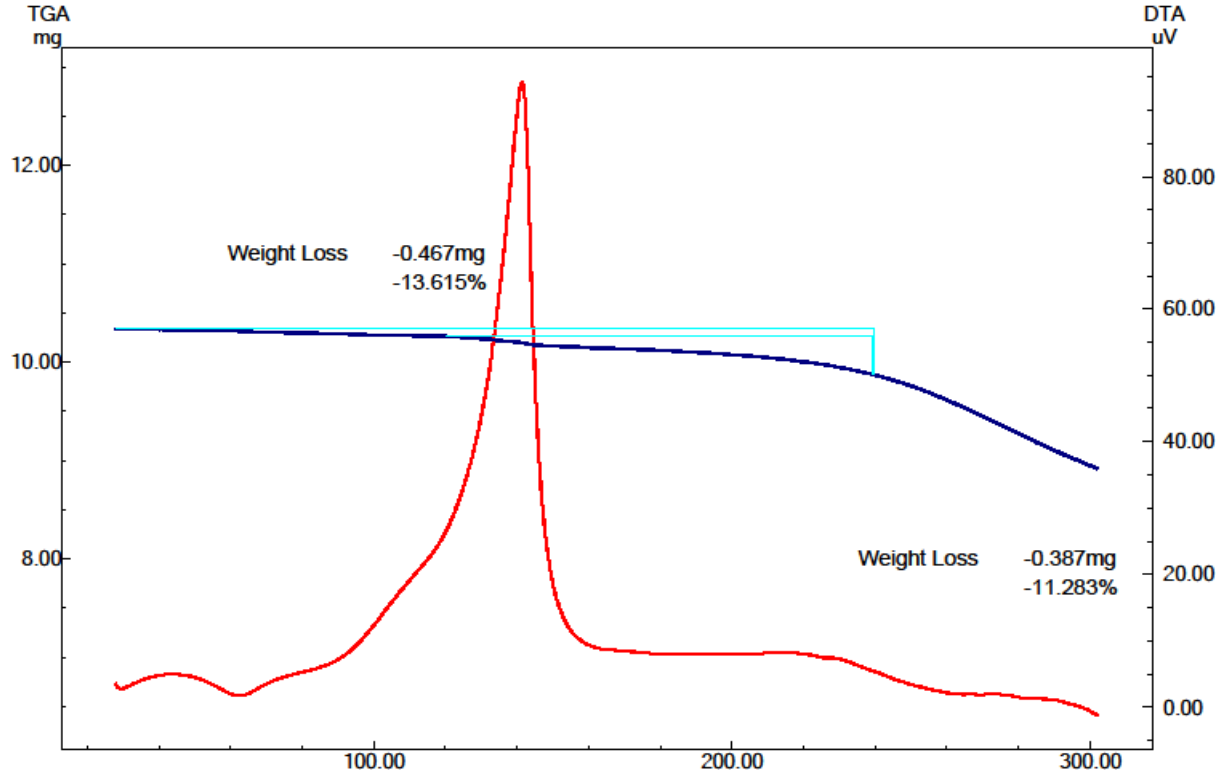
HRMS


Acquisition Parameter
Source Type ESI
Focus Not active
Scan Begin 50 m/z
Scan End 1500 m/z
Ion Polarity Positive
Set Capillary 4500 V
Set End Plate Offset -500 V
Set Collision Cell RF 100.0 Vpp
Set Nebulizer 0.4 Bar
Set Dry Heater 180 °C
Set Dry Gas 4.0 l/min
Set Divert Valve Waste
Intens.
x10^5
+MS2(612.2800), 1.2-1.2min #(70-74)
612.2625
566.2769
346.1313
285.0786
221.1530
163.1116
m/z

DSC

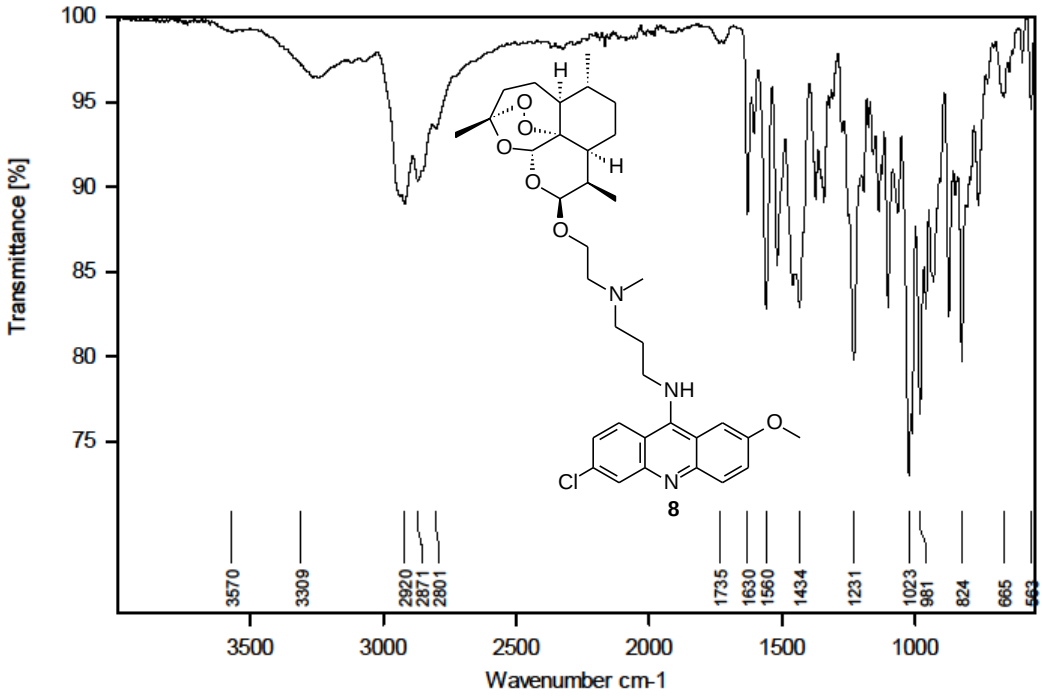

DSC
mW
5.00
0.00
-5.00
-10.00
100.00
200.00
300.00
Peak 137.89C
Onset 129.36C
Endset 144.84C
Heat 628.14mJ
Peak 60.47C
Onset 54.10C
Endset 66.35C
Heat -22.57mJ

TGA

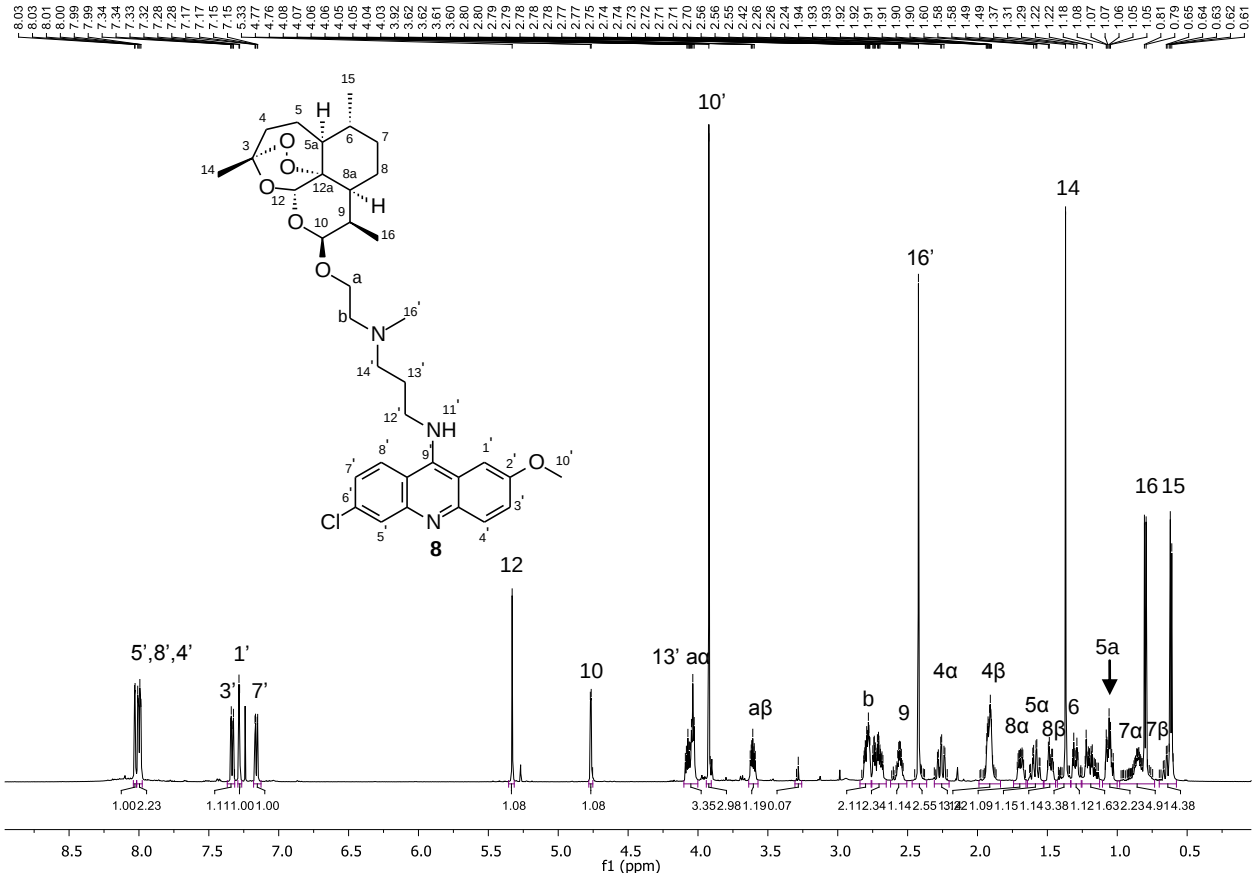

TGA
mg
DTA
uV
12.00
10.00
8.00
80.00
60.00
40.00
20.00
0.00
100.00
200.00
300.00
Weight Loss -0.467mg
-13.615%
Weight Loss -0.387mg
-11.283%

Compound 8:

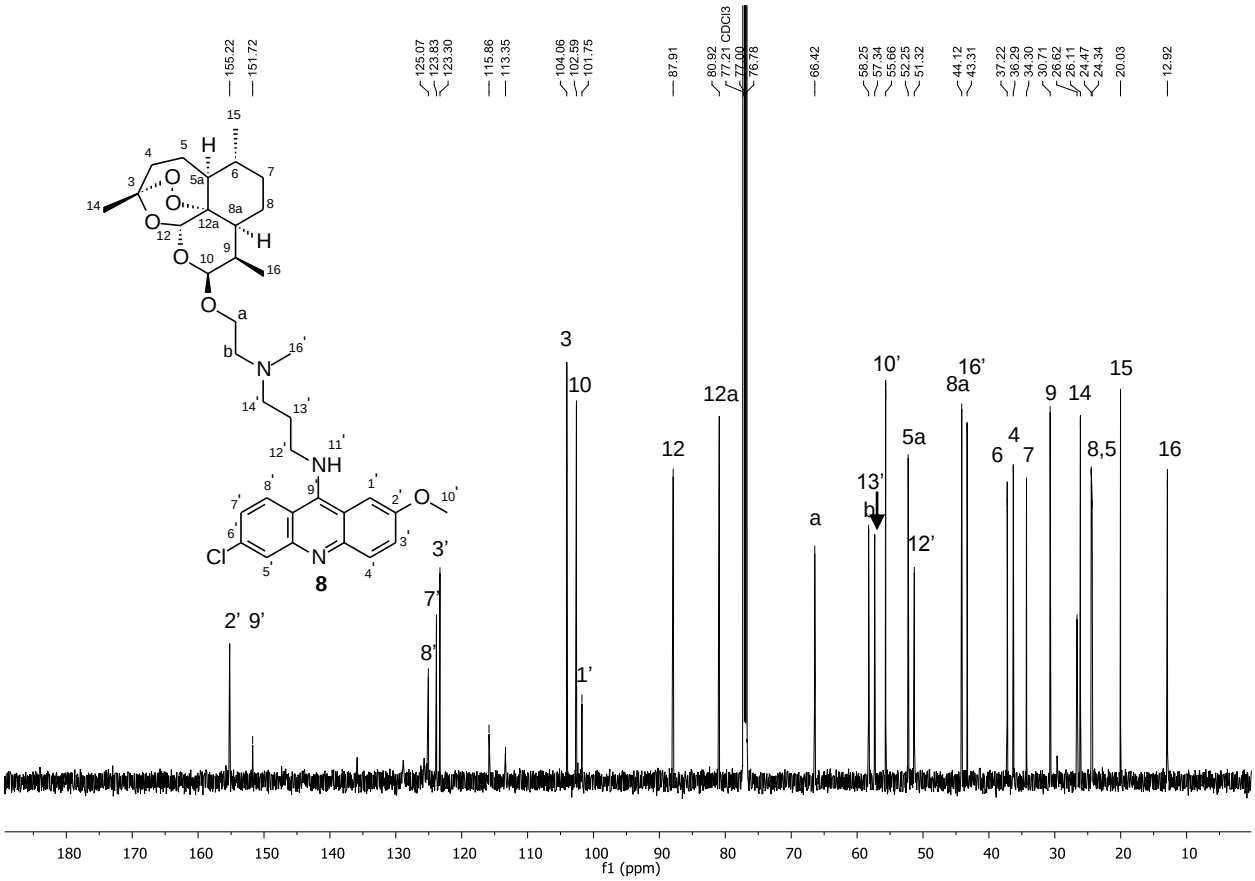
IR



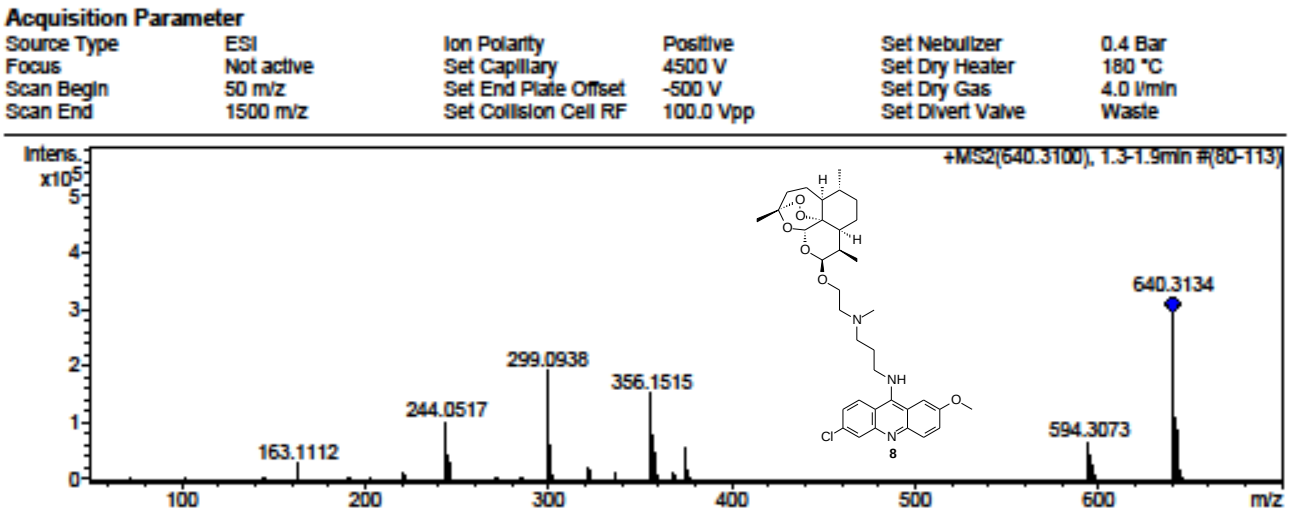
^{1}H NMR



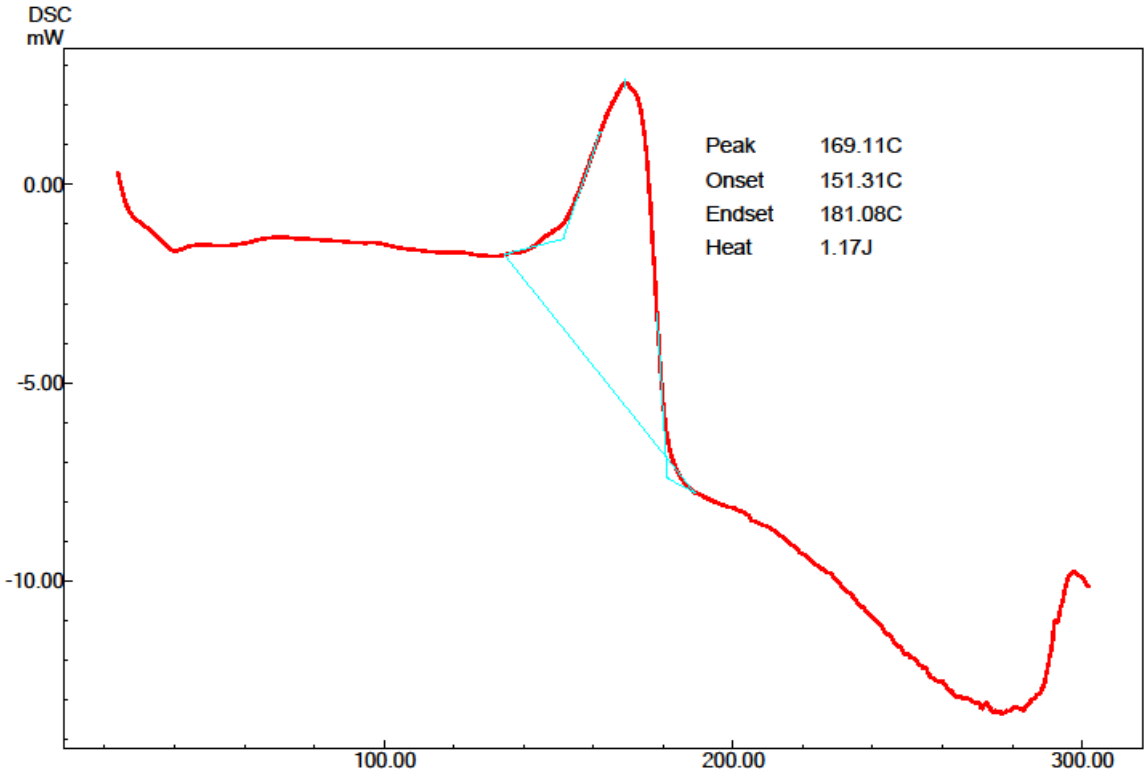
^{13}C NMR


155.22
151.72
125.07
123.83
123.30
115.86
113.35
104.06
102.59
101.75
87.91
80.92
77.21 CDCl3
76.78
66.42
58.25
57.34
55.66
52.25
51.32
44.12
43.31
37.22
36.29
34.30
30.71
26.62
26.11
24.47
24.34
20.03
12.92
f1 (ppm)

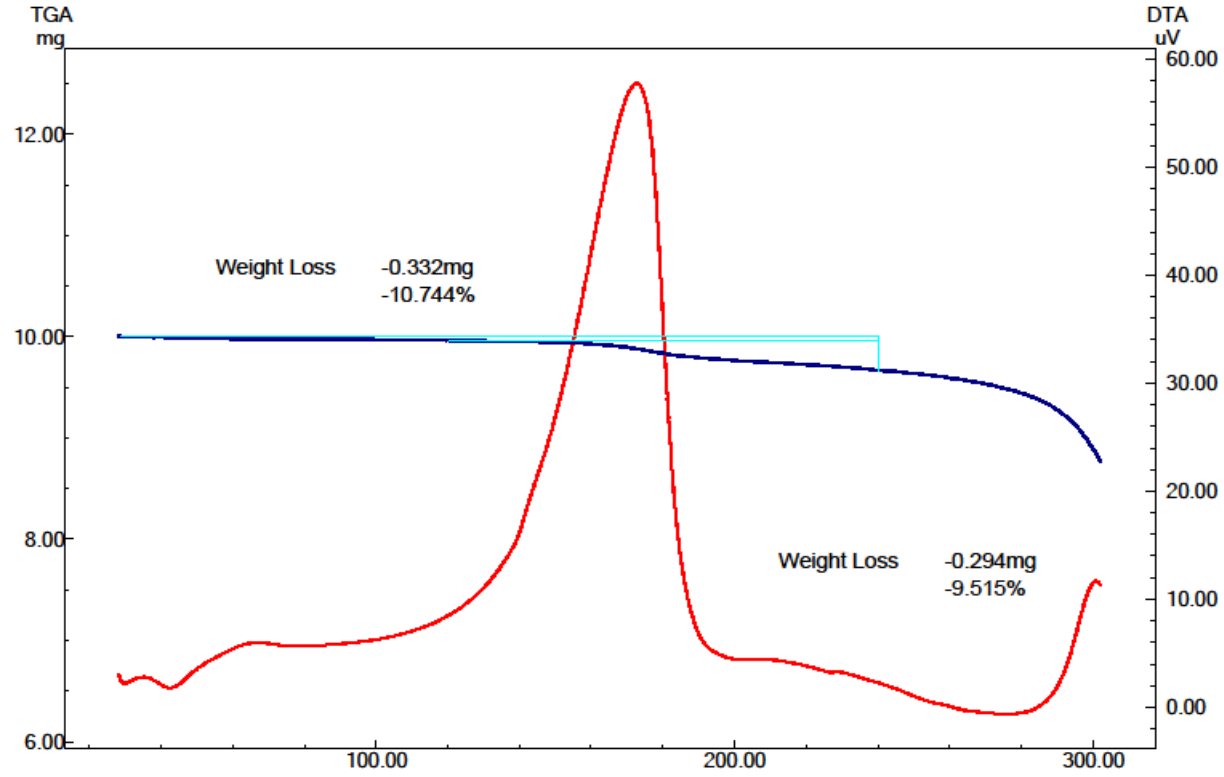
HRMS


Acquisition Parameter
Source Type ESI
Ion Polarity Positive
Set Nebulizer 0.4 Bar
Focus Not active
Set Capillary 4500 V
Set Dry Heater 180 °C
Scan Begin 50 m/z
Set End Plate Offset -500 V
Set Dry Gas 4.0 l/min
Scan End 1500 m/z
Set Collision Cell RF 100.0 Vpp
Set Divert Valve Waste
Intens.
x10^5
+MS2(640.3100), 1.3-1.9min #(80-113)
640.3134
299.0938
356.1515
244.0517
163.1112
594.3073
m/z

DSC

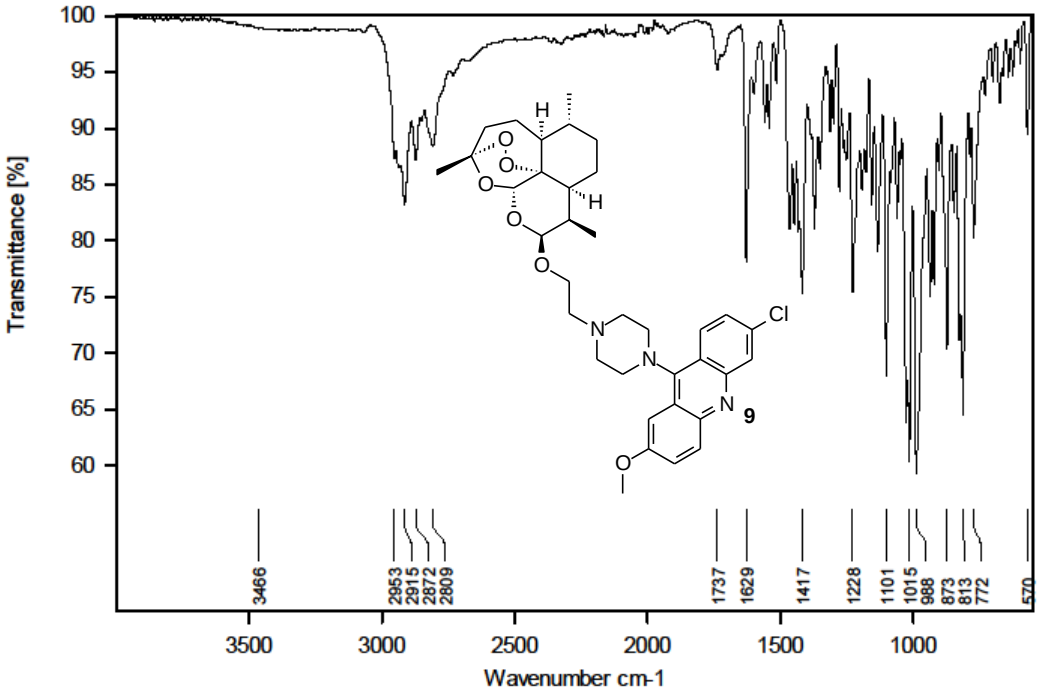

DSC
mW
0.00
-5.00
-10.00
Peak 169.11C
Onset 151.31C
Endset 181.08C
Heat 1.17J
100.00
200.00
300.00

TGA

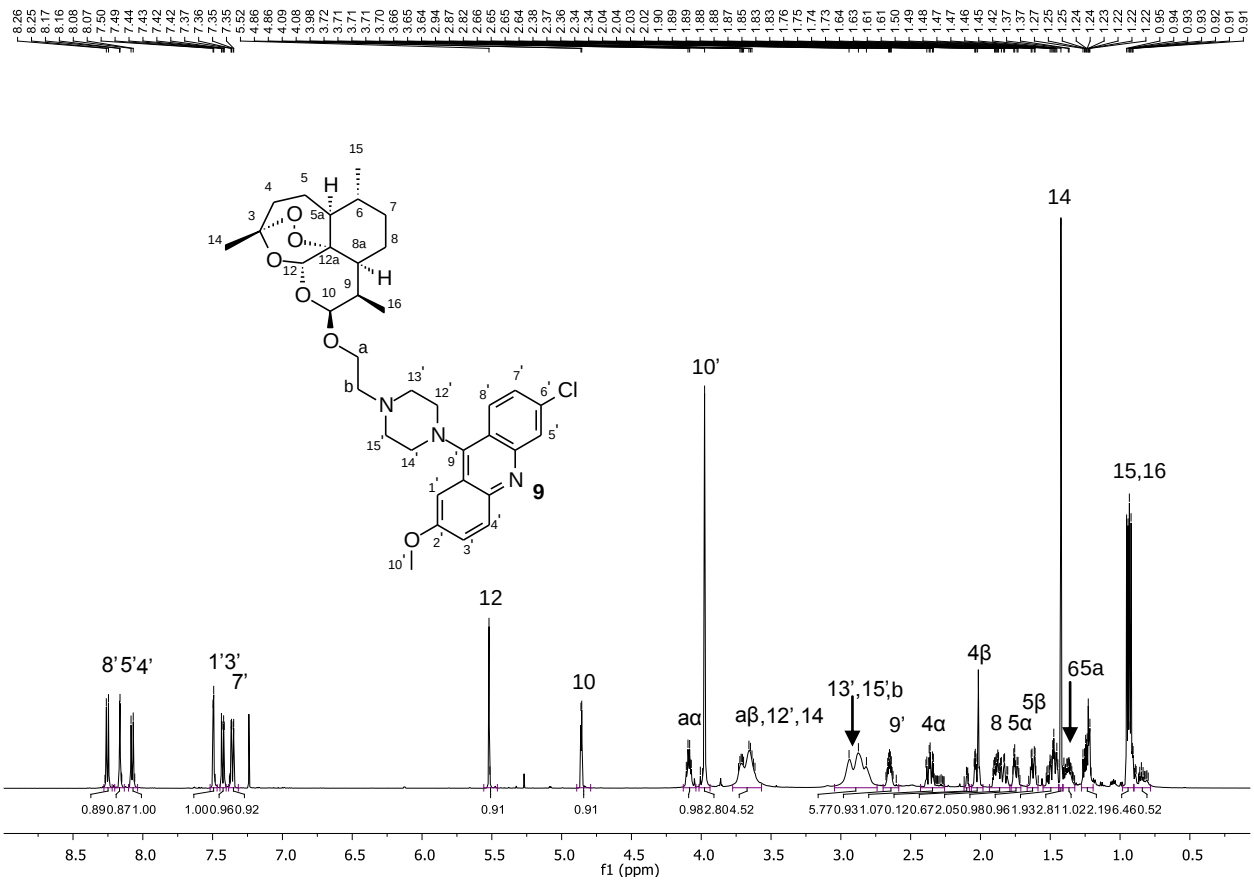

TGA
mg
DTA
uV
12.00
10.00
8.00
6.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Weight Loss -0.332mg
-10.744%
Weight Loss -0.294mg
-9.515%
100.00
200.00
300.00

Compound 9:

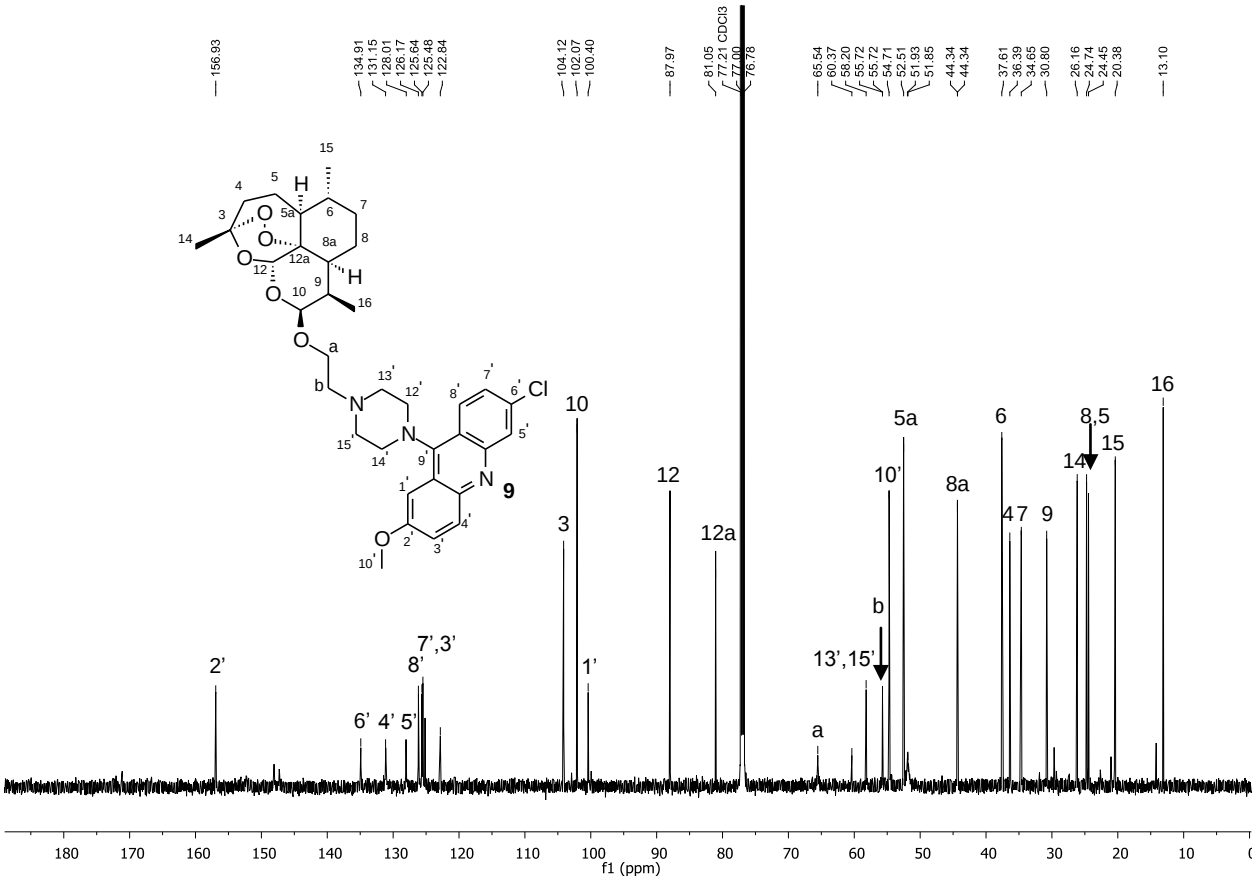
IR



^{1}H NMR



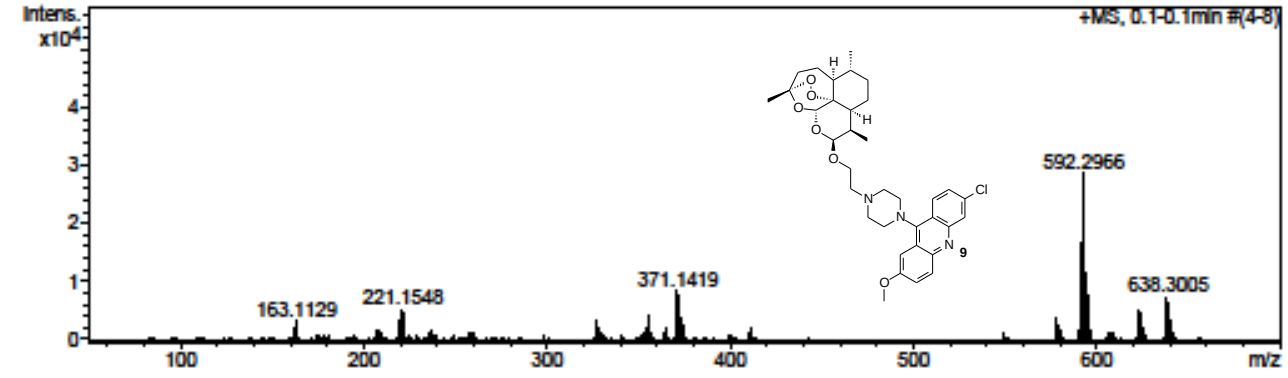
^{13}C NMR



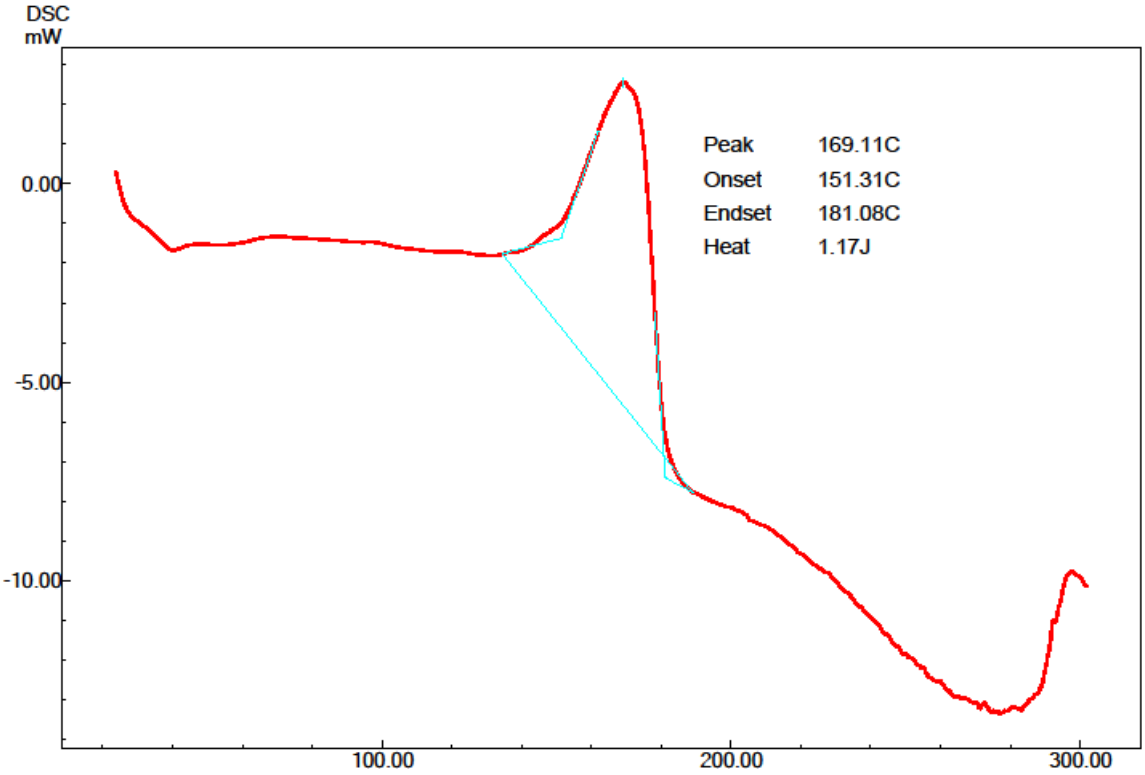
HRMS

Acquisition Parameter

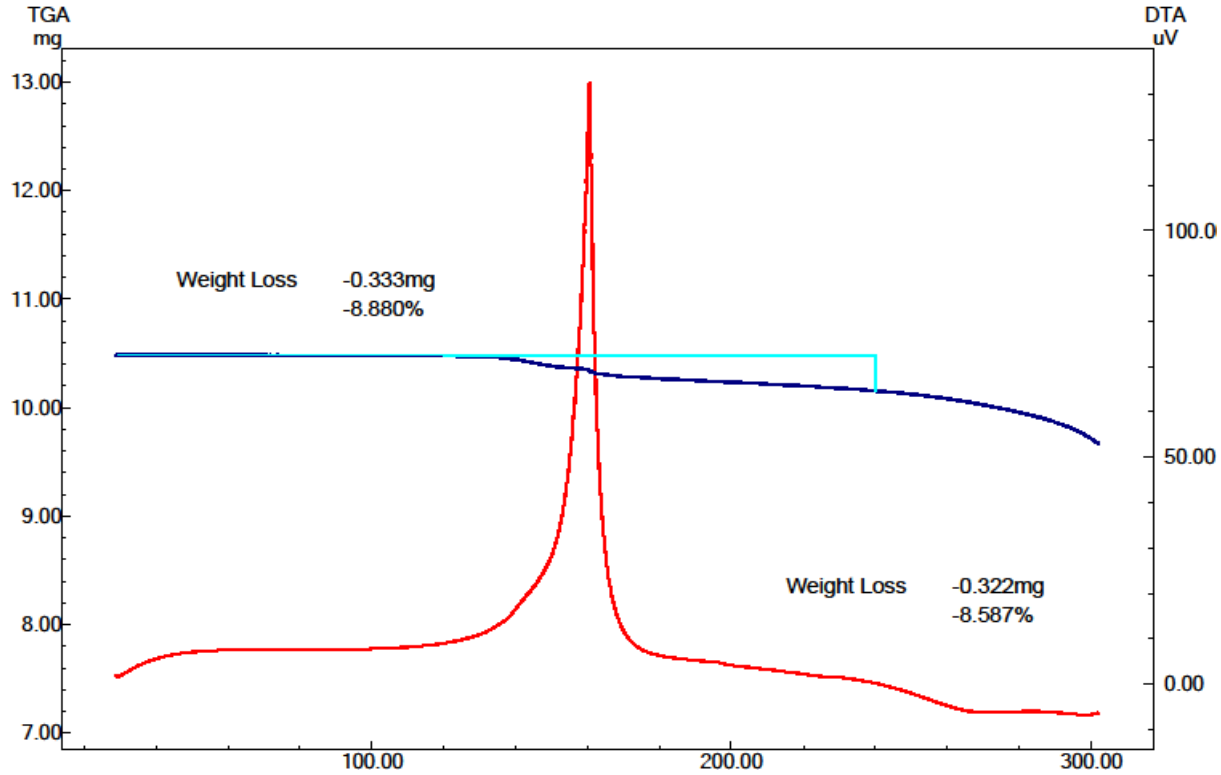
Source Type	APCI	Ion Polarity	Positive	Set Nebulizer	1.6 Bar
Focus	Not active	Set Capillary	4500 V	Set Dry Heater	200 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	8.0 l/min
Scan End	1500 m/z	Set Collision Cell RF	100.0 Vpp	Set Divert Valve	Waste



DSC

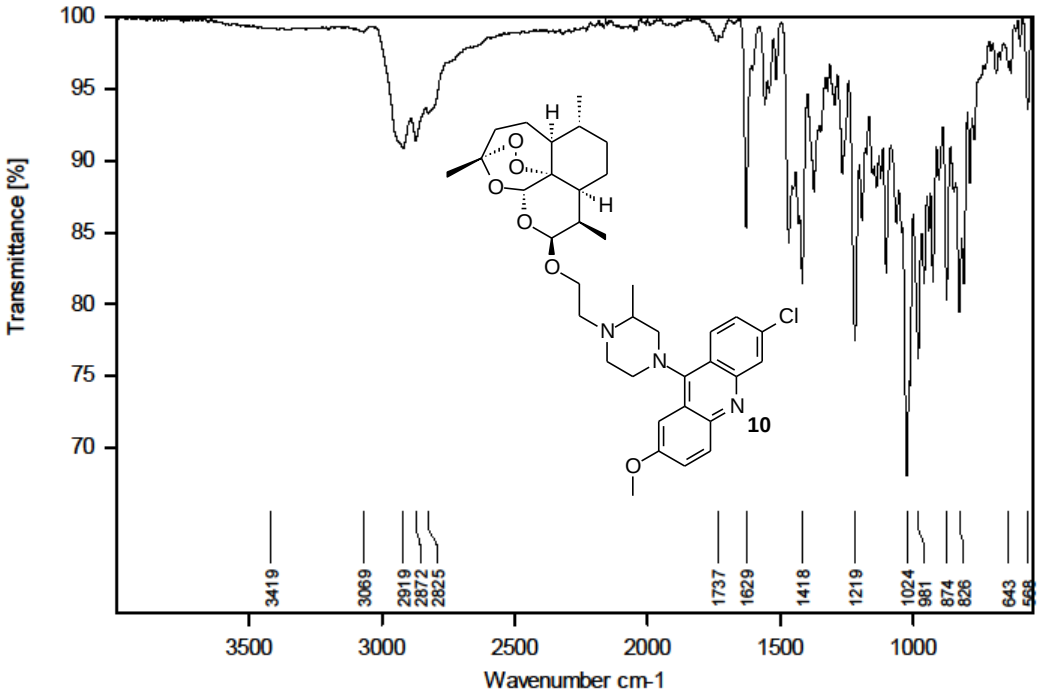

DSC
mW
0.00
-5.00
-10.00
100.00
200.00
300.00
Peak 169.11C
Onset 151.31C
Endset 181.08C
Heat 1.17J

TGA

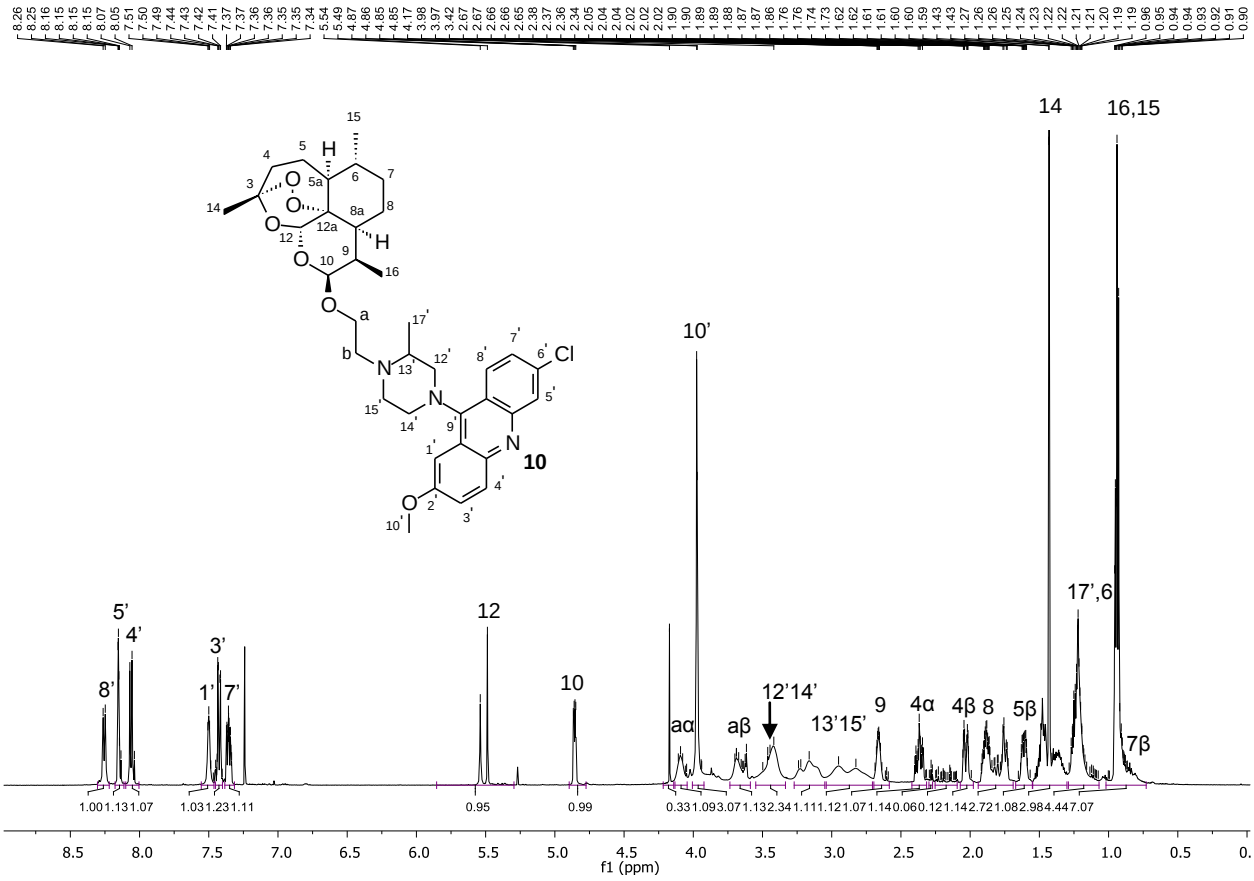

TGA
mg
DTA
uV
13.00
12.00
11.00
10.00
9.00
8.00
7.00
100.0
50.00
0.00
100.00
200.00
300.00
Weight Loss -0.333mg
-8.880%
Weight Loss -0.322mg
-8.587%

Compound 10:

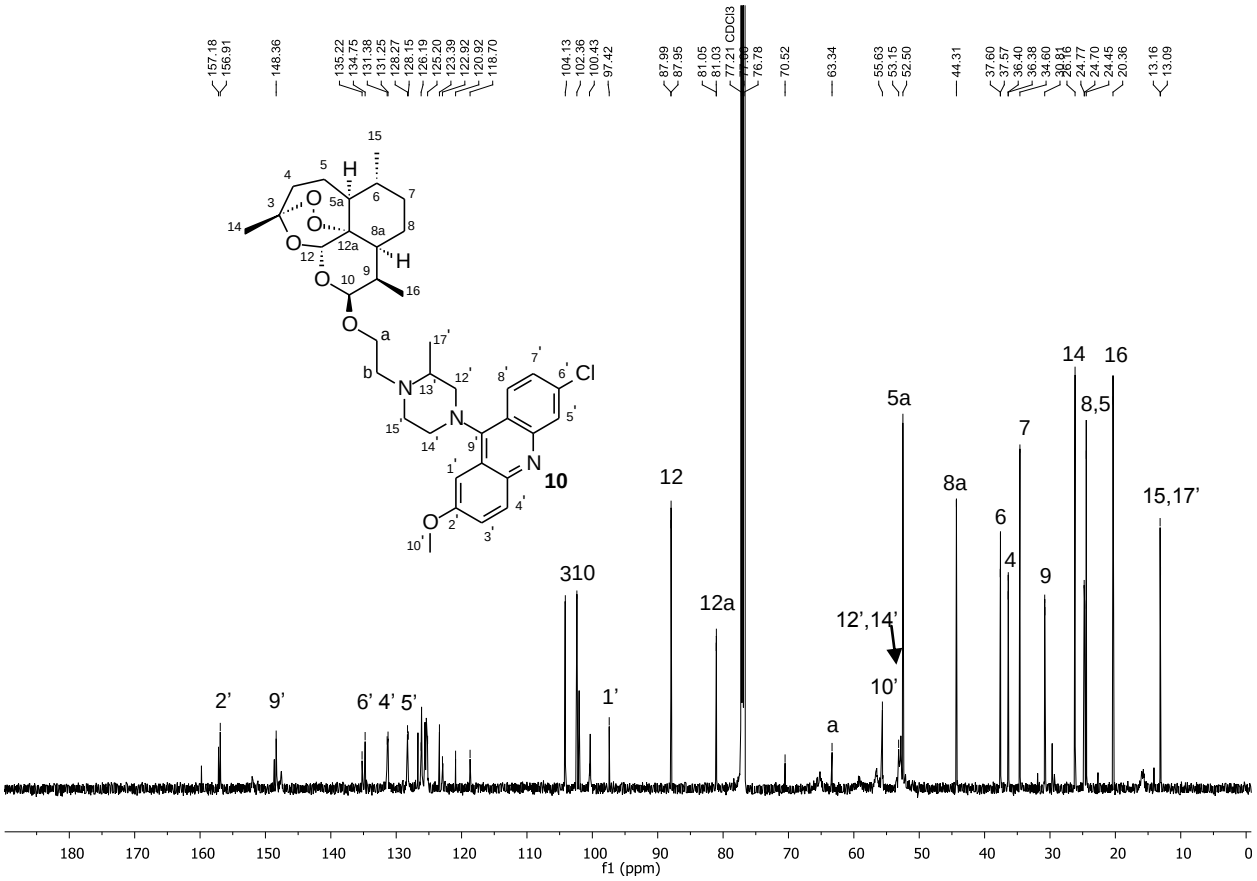
IR



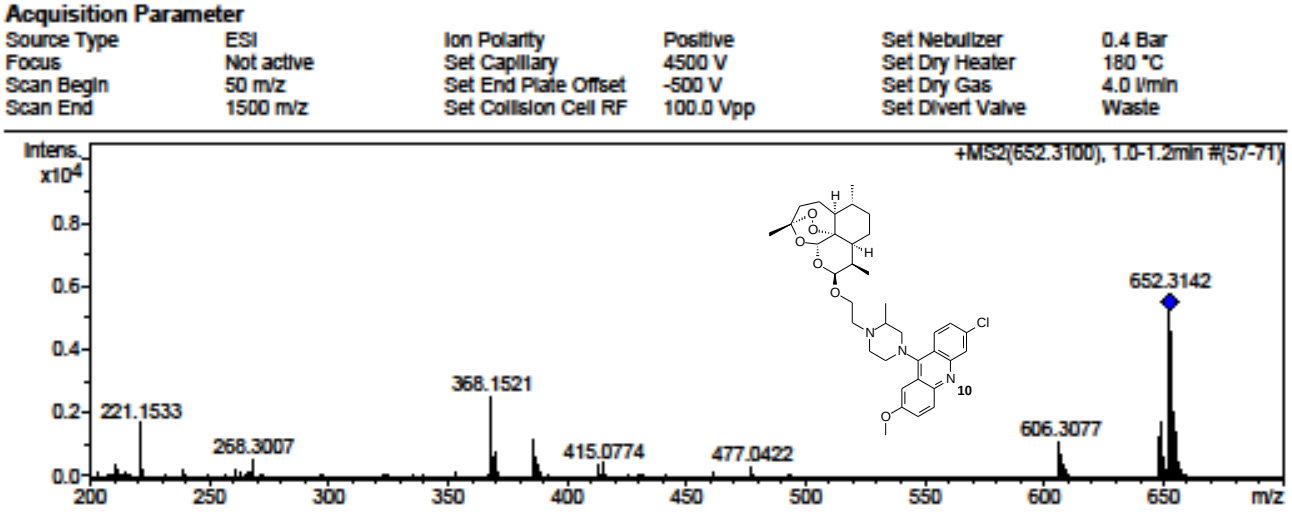
^{1}H NMR



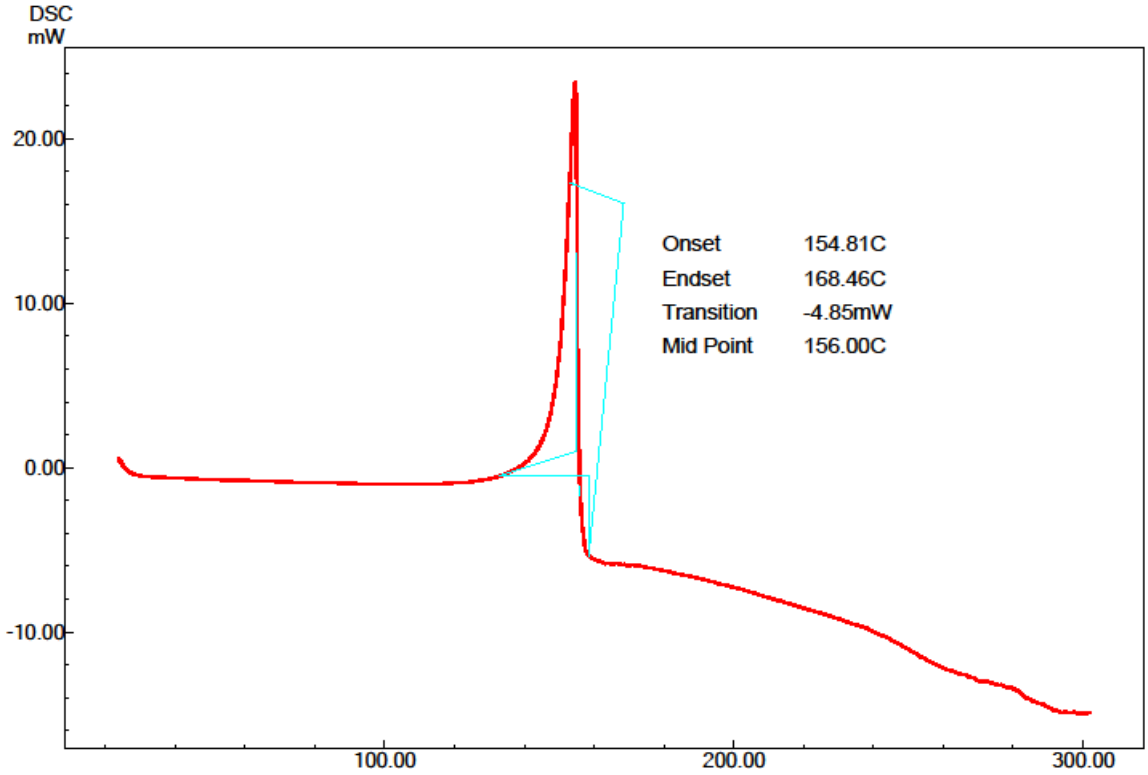
^{13}C NMR


157.18
156.91
148.36
135.22
134.75
131.38
131.25
128.27
128.15
126.19
125.20
123.39
122.92
120.92
118.70
104.13
102.36
100.43
97.42
87.99
87.95
81.05
81.03
77.21 CDCl3
76.78
70.52
63.34
55.63
53.15
52.50
44.31
37.60
37.57
36.40
36.38
34.60
28.16
24.77
24.70
24.45
20.36
13.16
13.09
10
2'
9'
6' 4' 5'
310
1'
12
12a
a
12',14'
10'
5a
8a
6
4
7
9
14
16
8,5
15,17'
f1 (ppm)

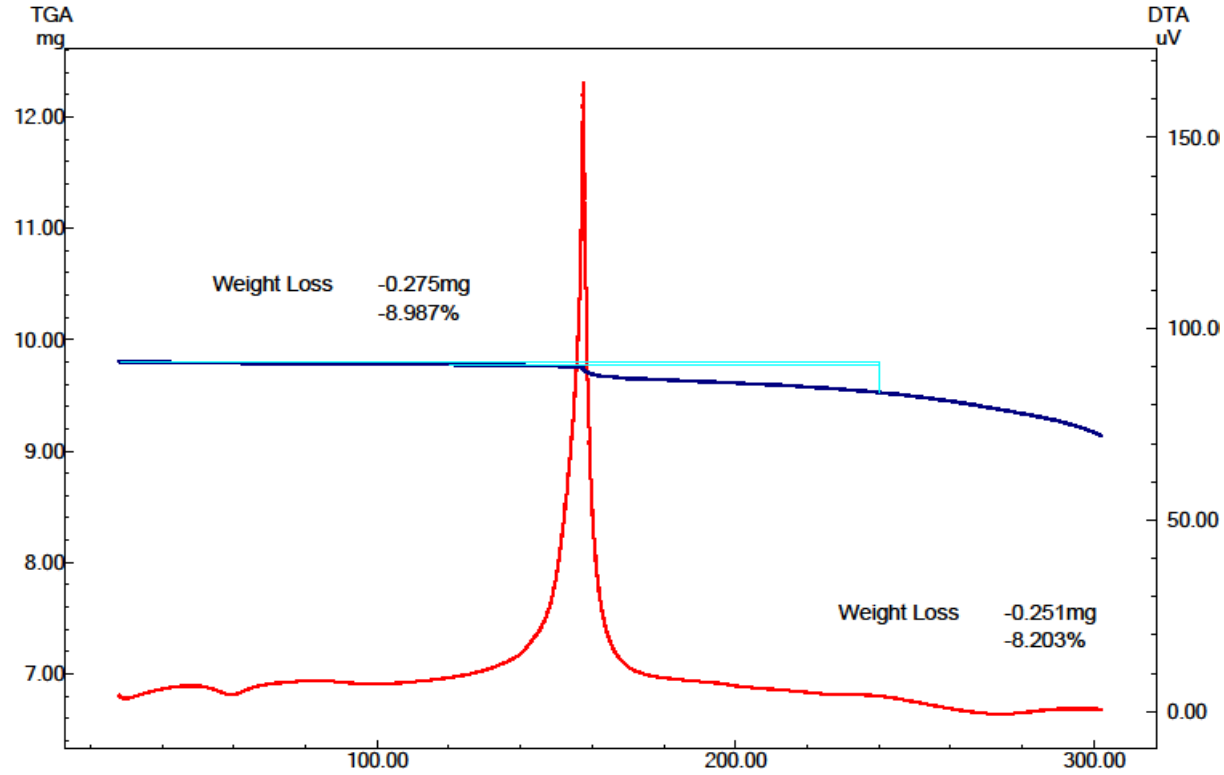
HRMS


Acquisition Parameter
Source Type ESI
Focus Not active
Scan Begin 50 m/z
Scan End 1500 m/z
Ion Polarity Positive
Set Capillary 4500 V
Set End Plate Offset -500 V
Set Collision Cell RF 100.0 Vpp
Set Nebulizer 0.4 Bar
Set Dry Heater 180 °C
Set Dry Gas 4.0 l/min
Set Divert Valve Waste
Intens.
x10^4
+MS2(652.3100), 1.0-1.2min #(57-71)
652.3142
368.1521
221.1533
268.3007
415.0774
477.0422
606.3077
m/z

DSC

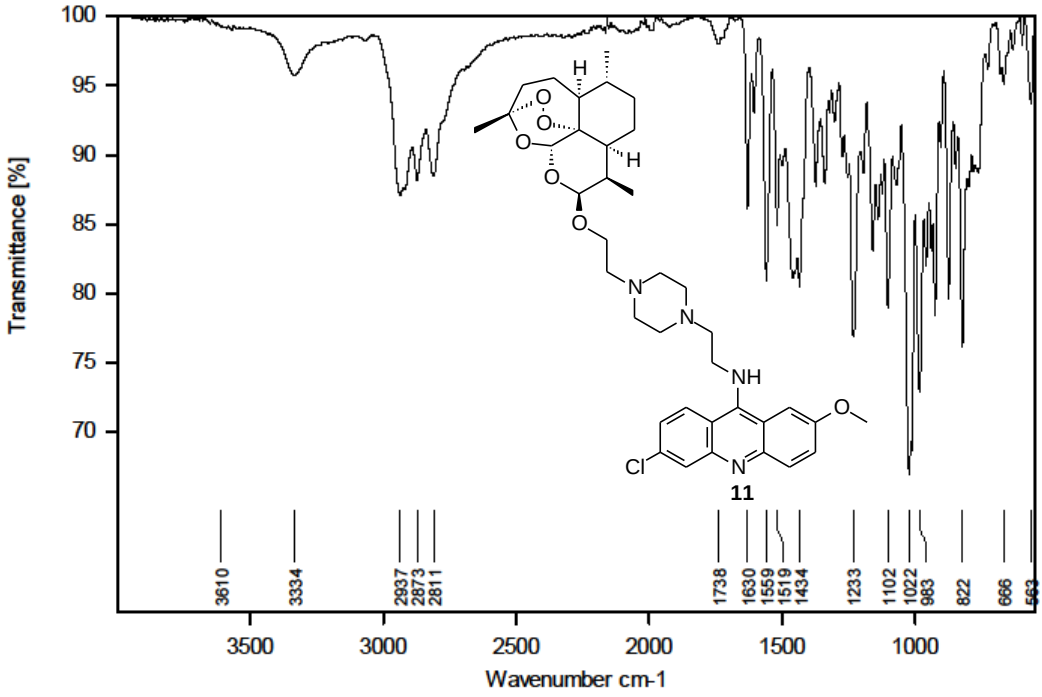

DSC
mW
20.00
10.00
0.00
-10.00
100.00
200.00
300.00
Onset 154.81C
Endset 168.46C
Transition -4.85mW
Mid Point 156.00C

TGA

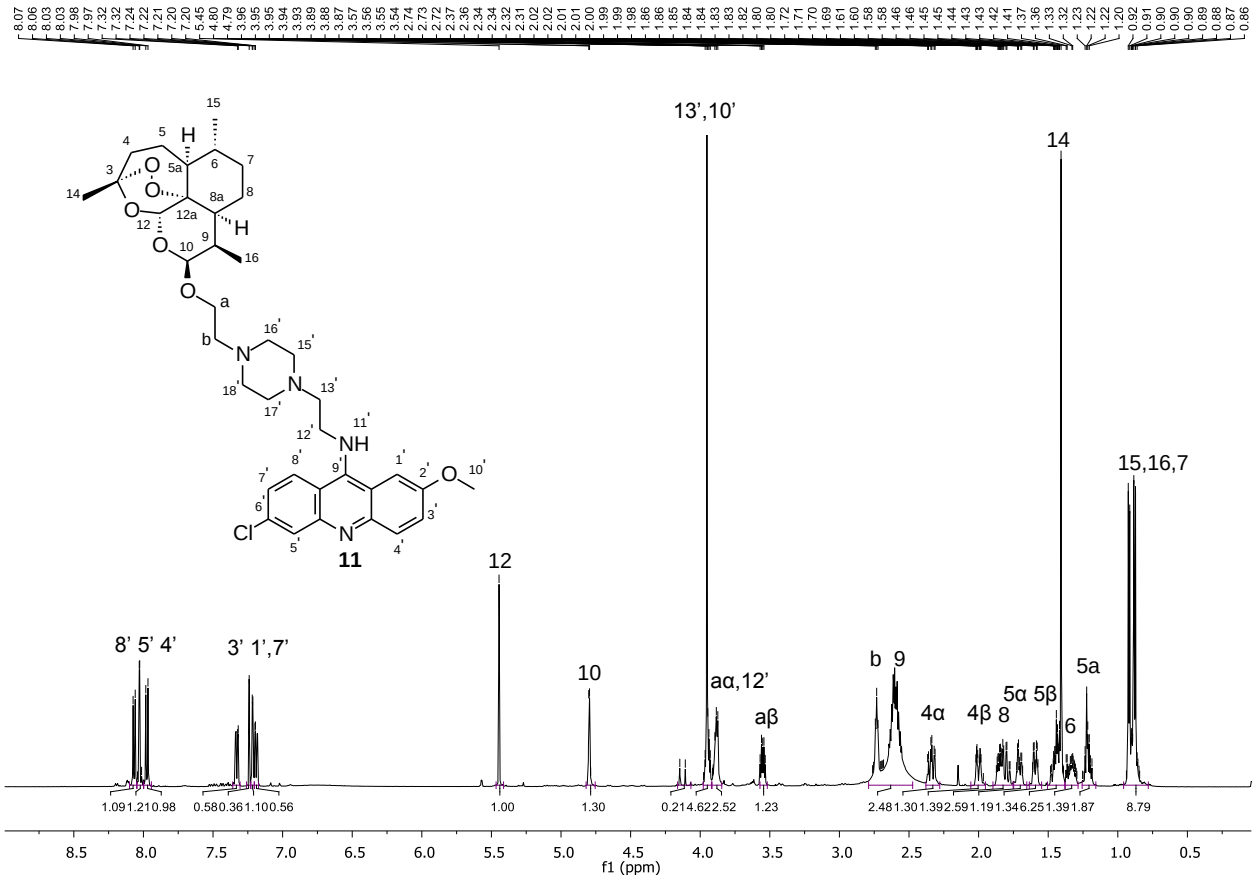

TGA
mg
DTA
uV
12.00
11.00
10.00
9.00
8.00
7.00
150.0
100.0
50.00
0.00
100.00
200.00
300.00
Weight Loss -0.275mg
-8.987%
Weight Loss -0.251mg
-8.203%

Compound 11:

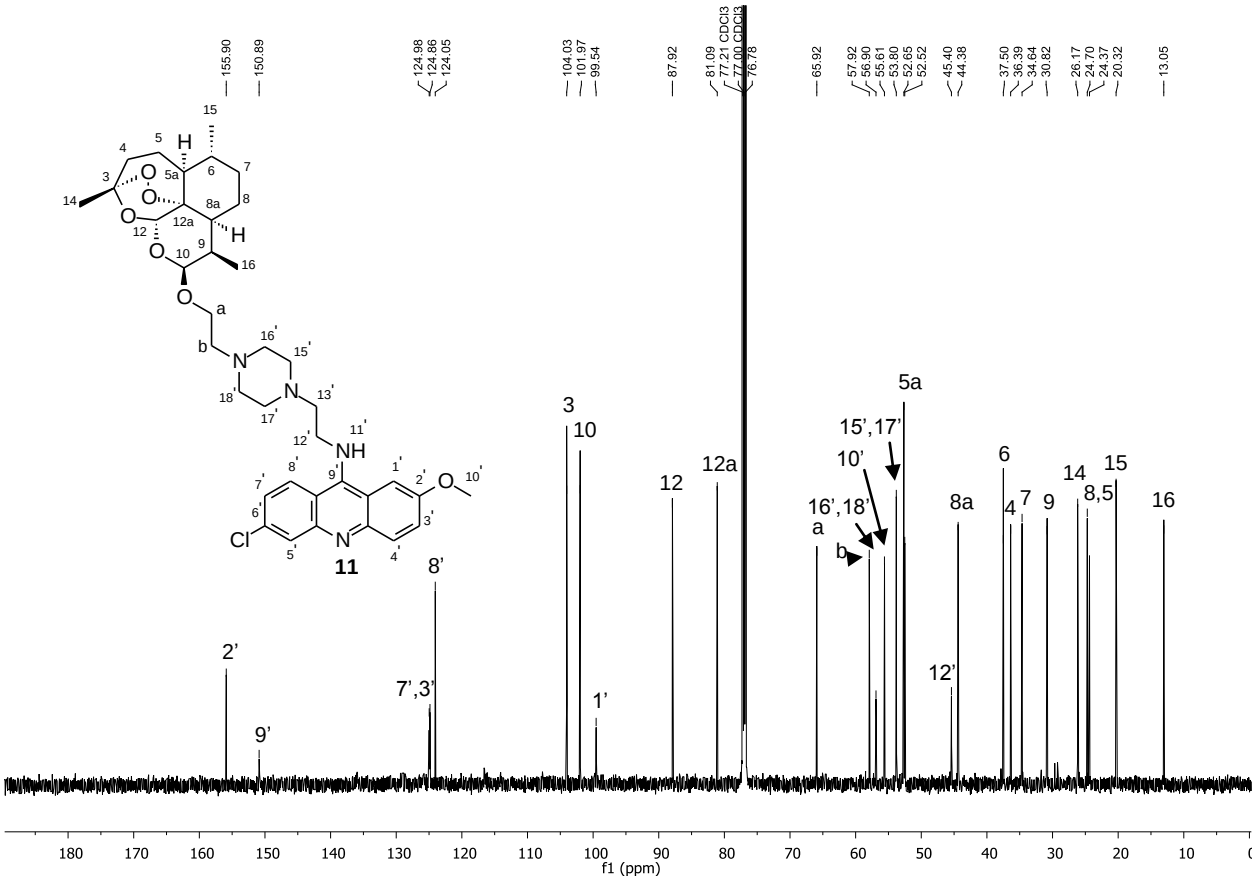
IR



^{1}H NMR



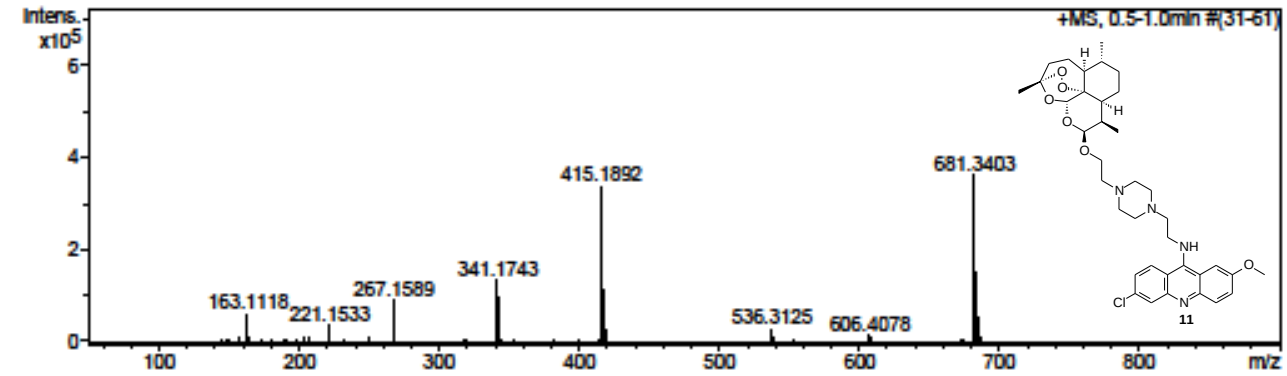
^{13}C NMR



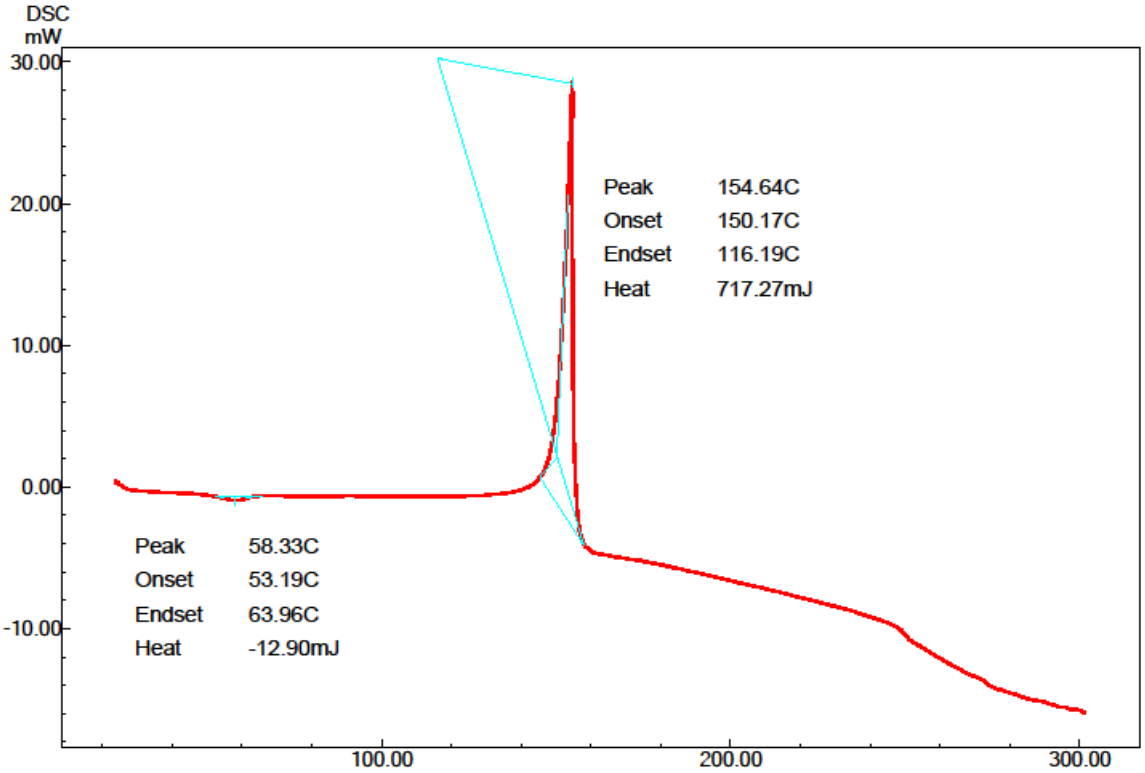
HRMS

Acquisition Parameter

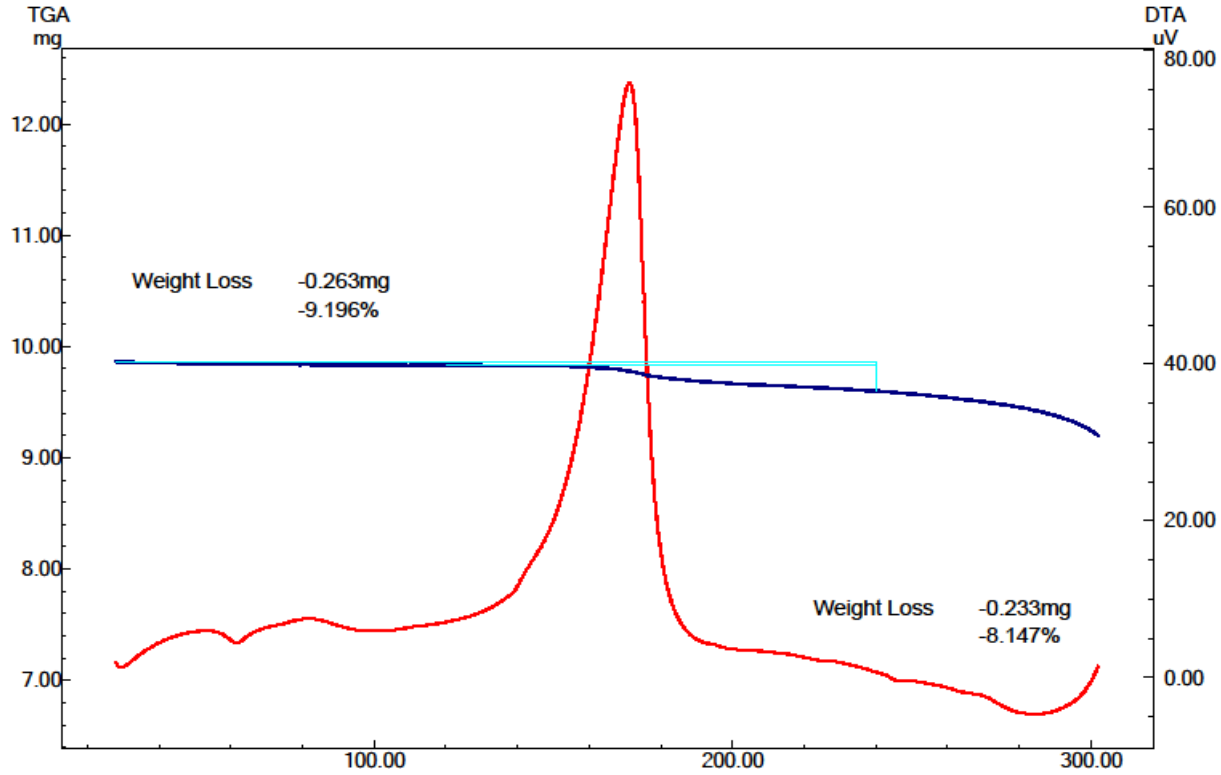
Source Type	ESI	Ion Polarity	Positive	Set Nebulizer	0.4 Bar
Focus	Not active	Set Capillary	4500 V	Set Dry Heater	180 °C
Scan Begin	50 m/z	Set End Plate Offset	-500 V	Set Dry Gas	4.0 l/min
Scan End	1500 m/z	Set Collision Cell RF	100.0 Vpp	Set Divert Valve	Waste



DSC


DSC
mW
30.00
20.00
10.00
0.00
-10.00
Peak 154.64C
Onset 150.17C
Endset 116.19C
Heat 717.27mJ
Peak 58.33C
Onset 53.19C
Endset 63.96C
Heat -12.90mJ
100.00
200.00
300.00

TGA


TGA
mg
DTA
uV
12.00
11.00
10.00
9.00
8.00
7.00
80.00
60.00
40.00
20.00
0.00
Weight Loss -0.263mg
-9.196%
Weight Loss -0.233mg
-8.147%
100.00
200.00
300.00

APPENDIX B: GUIDE FOR AUTHORS

EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES

Official Journal of the European Federation for Pharmaceutical Sciences (EUFEPS)

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

ISSN: 0928-0987

DESCRIPTION

The *European Journal of Pharmaceutical Sciences* is the official journal of the European Federation for Pharmaceutical Sciences (EUFEPS). The journal publishes research reports, review articles and scientific commentaries on all aspects of the pharmaceutical sciences with strong emphasis on originality and scientific quality. The Editors welcome articles in this multidisciplinary field, ranging from drug discovery, over drug delivery to drug development. More specifically, the Journal publishes reports in **medicinal chemistry**, **pharmacology**, **drug absorption** and **metabolism**, **pharmacokinetics** and **pharmacodynamics**, **pharmaceutical** and **biomedical** analysis, **drug delivery** including **gene delivery**, **drug targeting**, **pharmaceutical technology**, **pharmaceutical biotechnology** and clinical **drug evaluation.** Scientific commentaries and review articles are generally by invitation only or by consent of the Editors. Proceedings of scientific meetings may be published as special issues or supplements to the Journal. Manuscripts submitted to the Journal are only accepted on the understanding that (a) they are subject to editorial review (generally by two independent referees); (b) they have not been, and will not be, published in whole or in part in any other journal; (c) the recommendations of the Declarations of Helsinki and Tokyo, for humans, and the European Community guidelines as accepted principles for the use of experimental animals have been adhered to.

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EDITORIAL BOARD

GUIDE FOR AUTHORS

INTRODUCTION

Manuscripts submitted to the journal are accepted on the understanding that: (1) they are subject to editorial review, (2) they have not been and will not be published in whole or in part in any other journal and (3) the recommendations of the Declarations of Helsinki and Tokyo, for humans, and the European Community guidelines as accepted principles for the use of experimental animals, have been adhered to. *The European Journal of Pharmaceutical Sciences* will, therefore, only consider manuscripts that describe experiments which have been carried out under approval of an institutional or local ethics committee.

Types of Paper

Research articles

Review articles

The manuscript of a review article should be arranged as described for research articles but according to the following sections: title page, abstract and keywords (indexing terms, normally 3-6 items), Introduction, Specific sections determined by the author, Conclusions, Acknowledgements, References, Figure legends and Figures, Tables. Sections ranging from the Introduction to the Conclusions should be numbered. Subdivisions within a section should also be numbered within that section: 2.1., 2.2., 2.3. etc. All pages should be numbered consecutively, the title page being p.1.

Commentaries and Mini-reviews

One page suggestions for comprehensive reviews, commentaries or mini-reviews should be sent to the Editor-in-Chief at ejps@sdu.dk for consideration. Please see detailed information on commentaries and mini-reviews below.

Commentaries (Guidance)

The definition of a Commentary for EJPS is three-fold. Firstly, it can be an argued piece of provocative scientific writing purporting to take a balanced position on a controversial pharmaceutical science topic. A second option is for the author to approach the topic from a particular viewpoint on one side of an argument. A third option is to provide a topical update on a hot topic in Pharmaceutical Sciences and this can be more informative than controversial.

Commentaries will be commissioned by the editors in advance or invited from non-commissioned authors if they wish to initially submit a one page summary of the intended Commentary to the editors in advance. All manuscripts will be assessed by 2-3 independent referees.

The journal is looking for a stimulating and provoking essays, with referenced material, but without an extensive reference list. Commentaries can contain one summary figure and/or table and should have no more than 30 references to preferably recent peer-reviewed material. The word count should be approximately 2,000 words maximum.
The commentary should have a short abstract summary of 150 to 200 words and 4-5 key words should be included, The text should be broken down into 4-5 numbered sections beginning with an Introduction and ending with a Conclusions section. A model of the structures is to be found in Eur. J. Pharm. Sci. 19, 1-11 by R.D. Combes

Mini-review (Guidance)

Mini-reviews are thought provoking reviews of contemporary pharmaceutical research. Themes are as described in the Scope of the Journal section.

Mini-reviews will usually be commissioned by the editors in advance, but contributions are invited from non-commissioned authors if they wish to initially submit a one page summary of the intended review to the editors in advance. All manuscripts will be assessed by 2-3 independent referees.

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1 kilogramkg gramg milligrammg microgramμg nanogramng mole (gram-molecule)mol millimolemmol micromoleμmol nanomolenmol picomolepmol femtomolefmol equivalenteq

Units of time

1 hourh minutemin seconds millisecondms microsecondμs

Units of volume

1 litrel millilitreml microlitreμl

Units of length

1 metrem centimetrecm millimetremm micrometreμm nanometrenm

Units of concentration

1 molar (mol/l)M millimolarmM micromolarμM nanomolarnM picomolarpM

Units of heat, energy, electricity

1 jouleJ degree Celsius (centigrade)°C coulombC ampereA voltV ohmΩ siemensS

Units of radiation

1 curieCi counts per minutecpm disintegrations per minutedpm becquerelBq

Miscellaneous

1 gravity*g* dissociation constant*K*d median dosesLD50, ED50 probability*P* routes of drug administrationi.v., i.p., s.c., i.m. square centimetrecm2 standard deviationS.D. standard error of the meanS.E.M. Svedberg unit of sedimentation coefficientS Hill coefficient*n*H

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