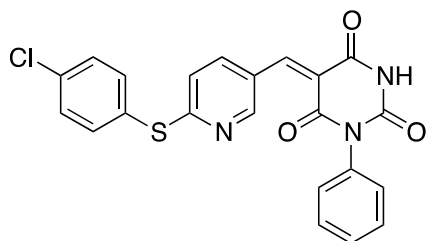


Suppl. Mass spectrum and ¹H NMR Spectrum of 46

Display Report

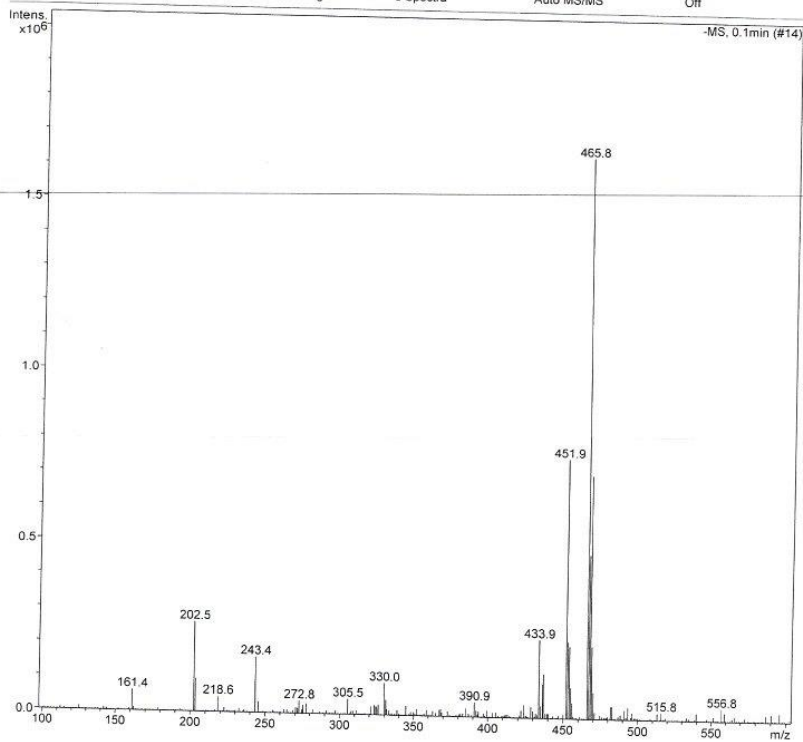
Analysis Info

Analysis Name 102213-2.d
Method Copy of XQ Default.ms
Sample Name ss-ii-119
Comment ss-ii-119

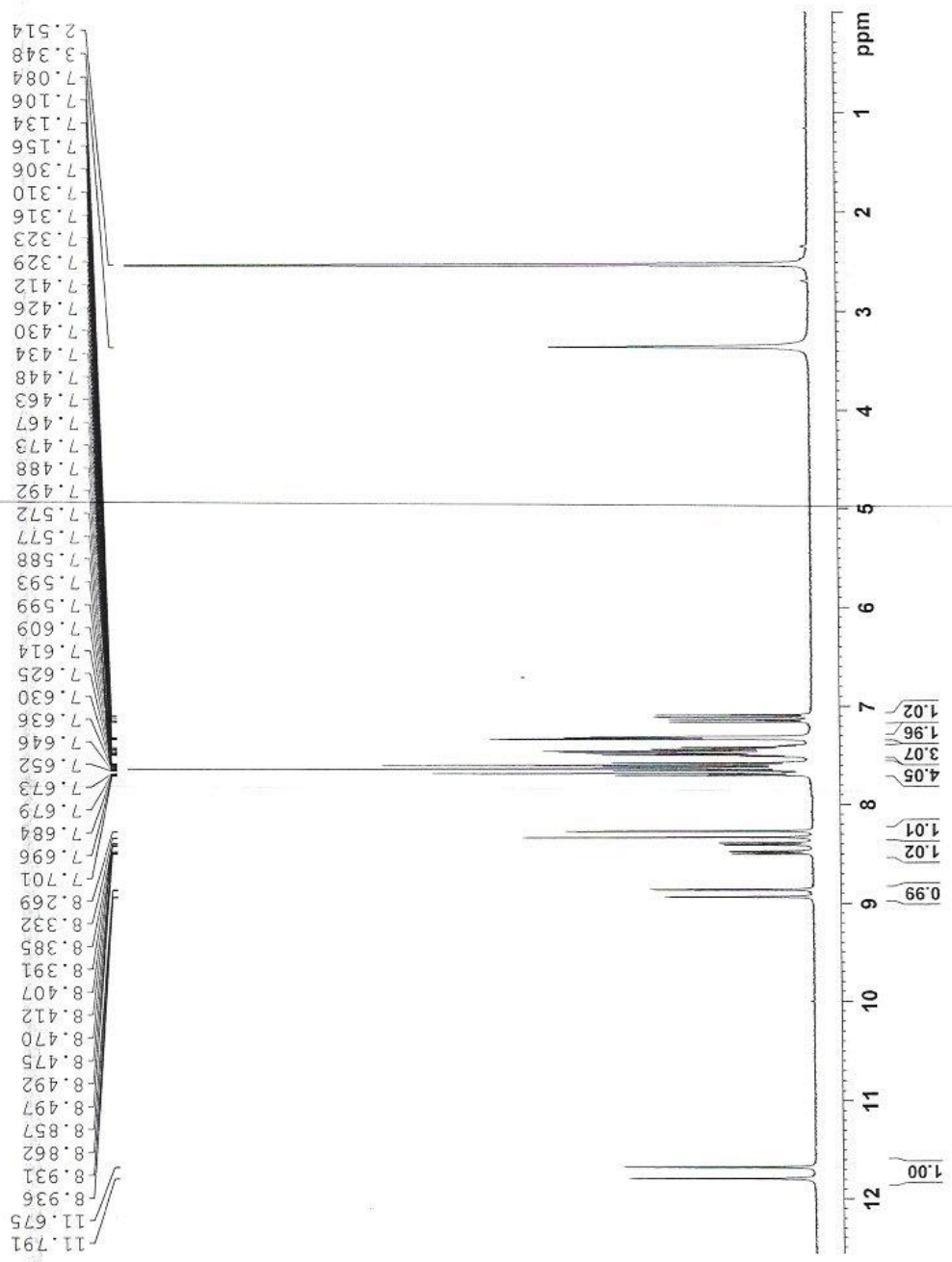
Acquisition Date 10/22/13 23:41:33
Operator Administrator
Instrument Esquire-LC_00018

Acquisition Parameter

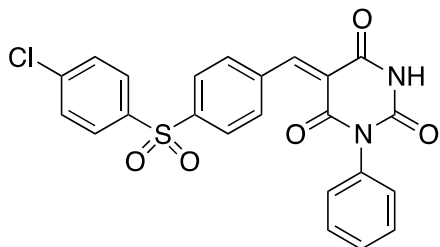
Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	600.00 m/z
Capillary Exit	-118.0 Volt	Skim 1	-41.7 Volt	Trap Drive	44.9
Accumulation Time	2677 μ s	Averages	5 Spectra	Auto MS/MS	Off



PharmSci Buolanwini
SS-II-119



Suppl. Mass spectrum and ¹H NMR Spectrum of 47



Display Report

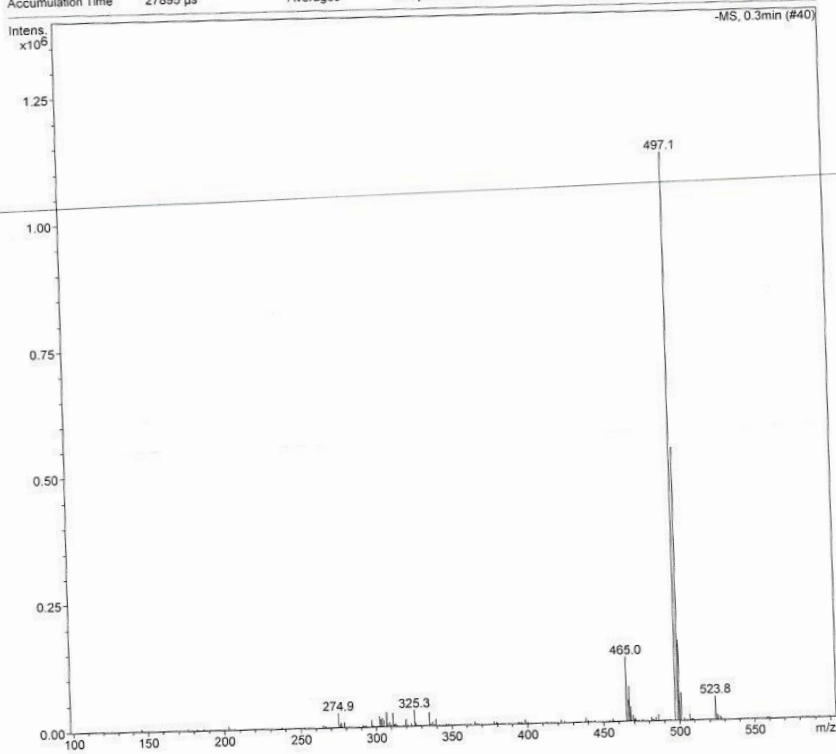
Analysis Info

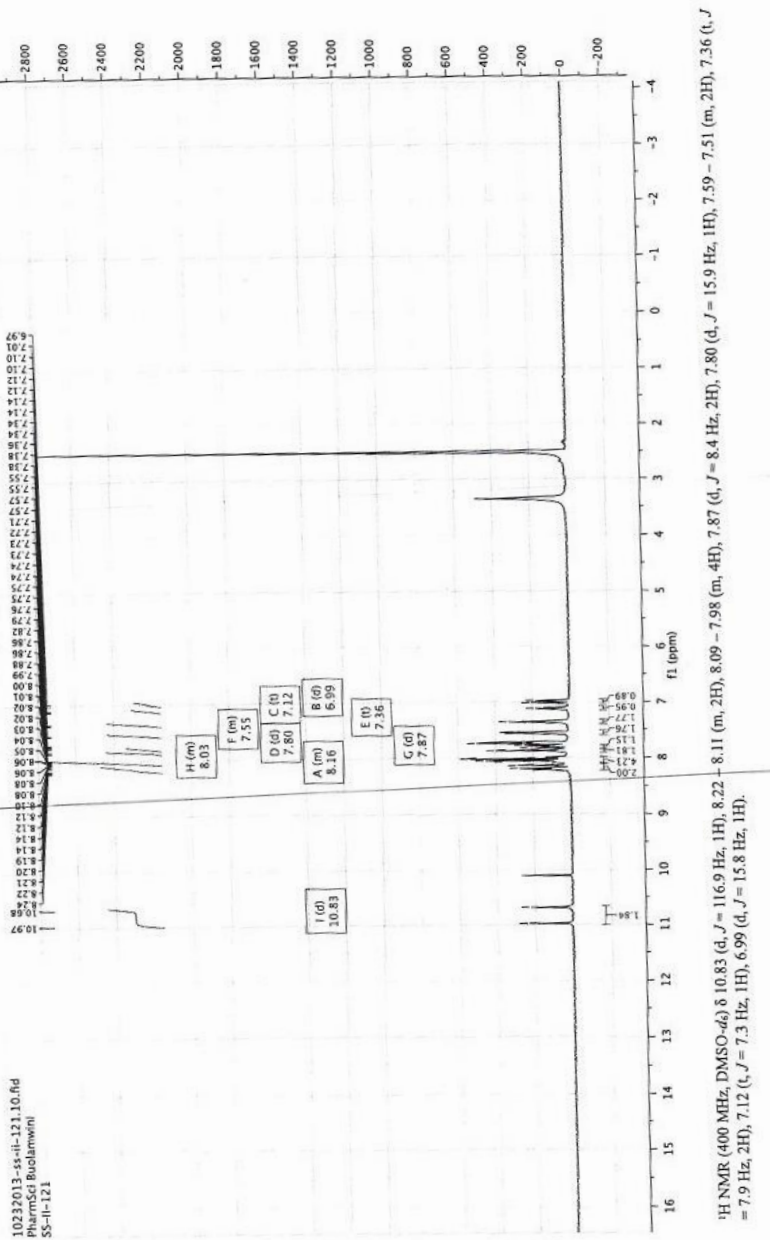
Analysis Name 102413-1.d
Method Copy of XQ Default.ms
Sample Name ss-ii-121-re
Comment ss-ii-121-re

Acquisition Date 10/24/13 15:34:18
Operator Administrator
Instrument Esquire-LC_00018

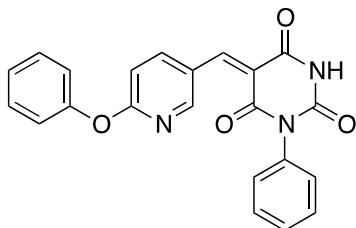
Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	600.00 m/z
Capillary Exit	-118.0 Volt	Skim 1	-41.7 Volt	Trap Drive	41.0
Accumulation Time	27899 µs	Averages	5 Spectra	Auto MS/MS	Off





Suppl. Mass spectrum and ¹H NMR Spectrum of 48



Display Report

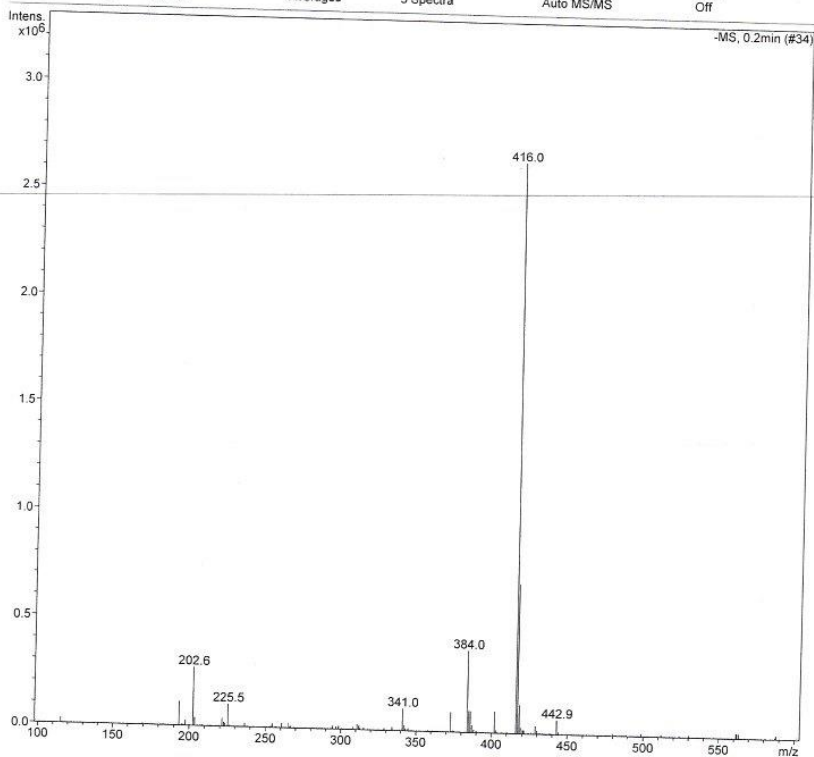
Analysis Info

Analysis Name 102213-3.d
Method Copy of XQ Default.ms
Sample Name ss-ii-123
Comment ss-ii-123

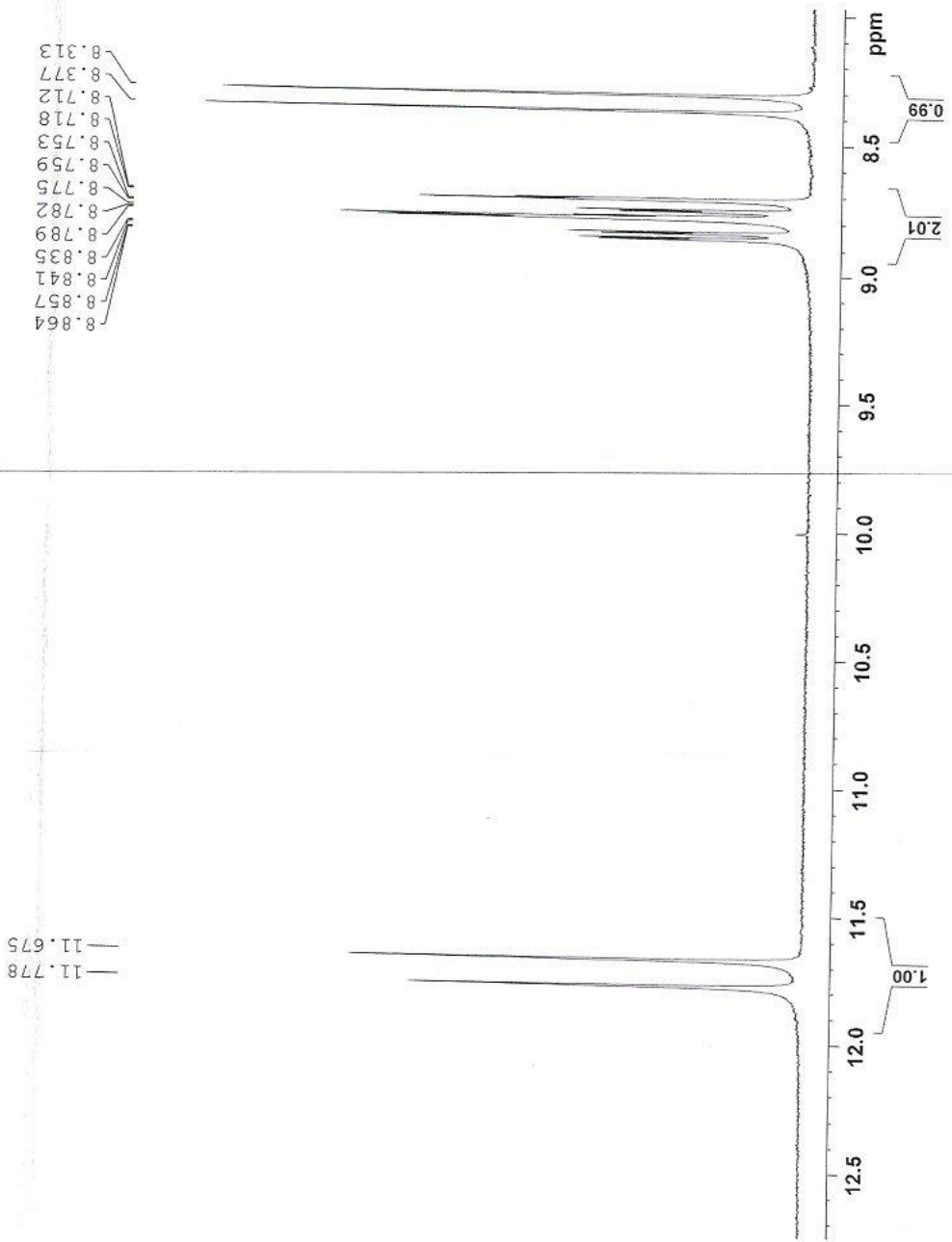
Acquisition Date 10/22/13 23:45:27
Operator Administrator
Instrument Esquire-LC_00018

Acquisition Parameter

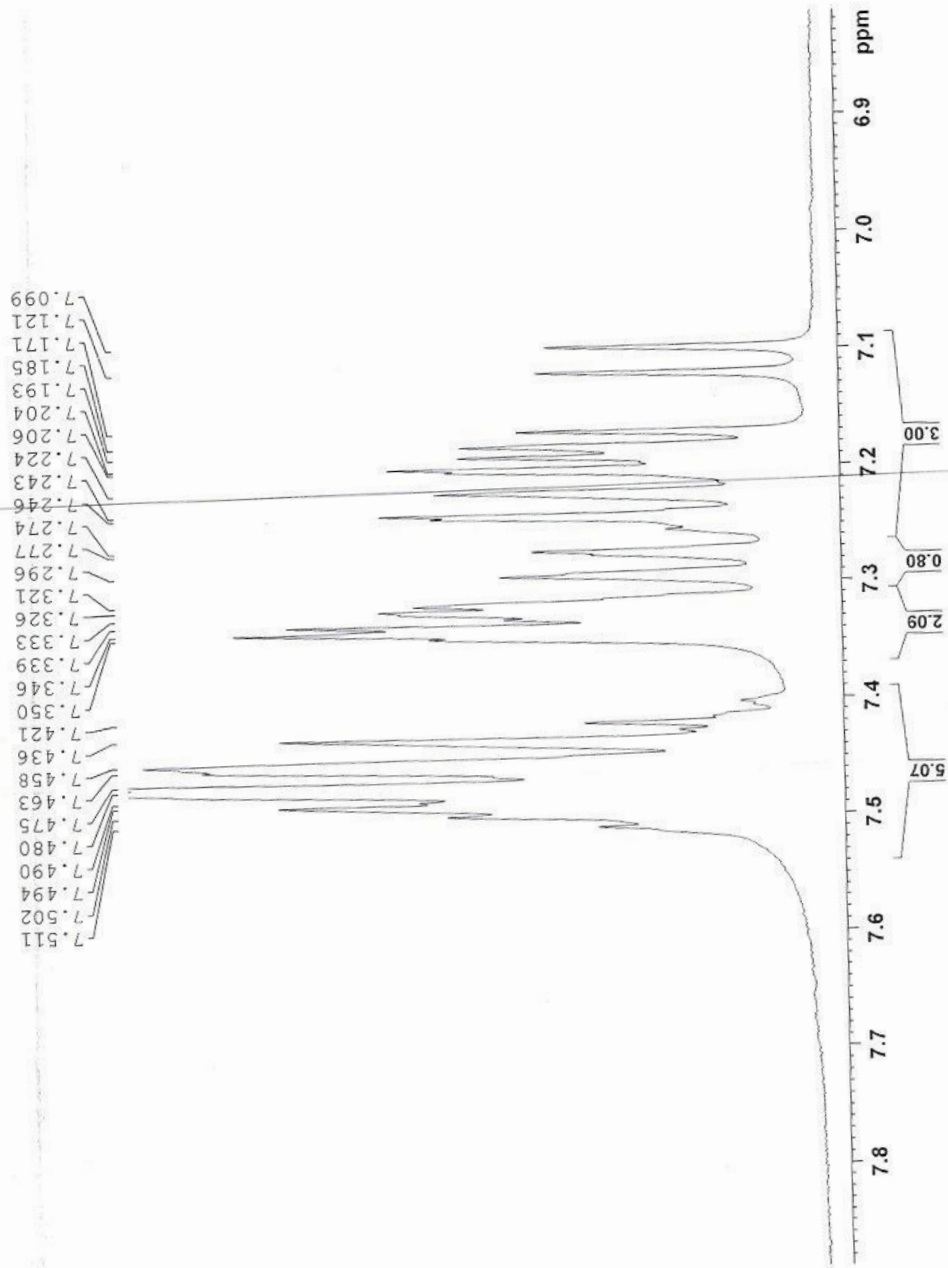
Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	600.00 m/z
Capillary Exit	-111.9 Volt	Skim 1	-37.5 Volt	Trap Drive	42.6
Accumulation Time	2638 μs	Averages	5 Spectra	Auto MS/MS	Off



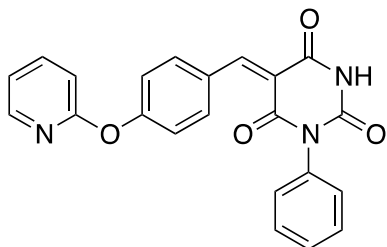
PharmSci Buolamwini
SS-II-123



PharmSci Buolamwini
SS-II-123



Suppl. Mass spectrum and ¹H NMR Spectrum of 49



Display Report

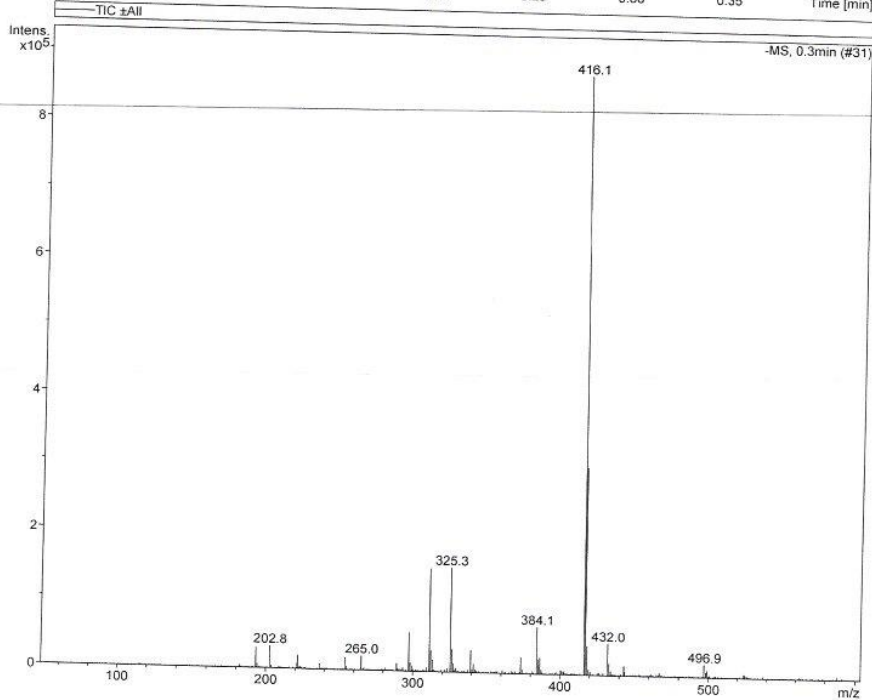
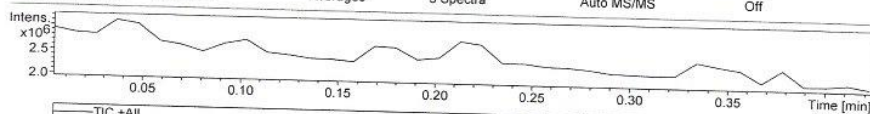
Analysis Info

Analysis Name 102313-3.d
Method Copy of XQ Default.ms
Sample Name SS-II-127
Comment SS-II-127

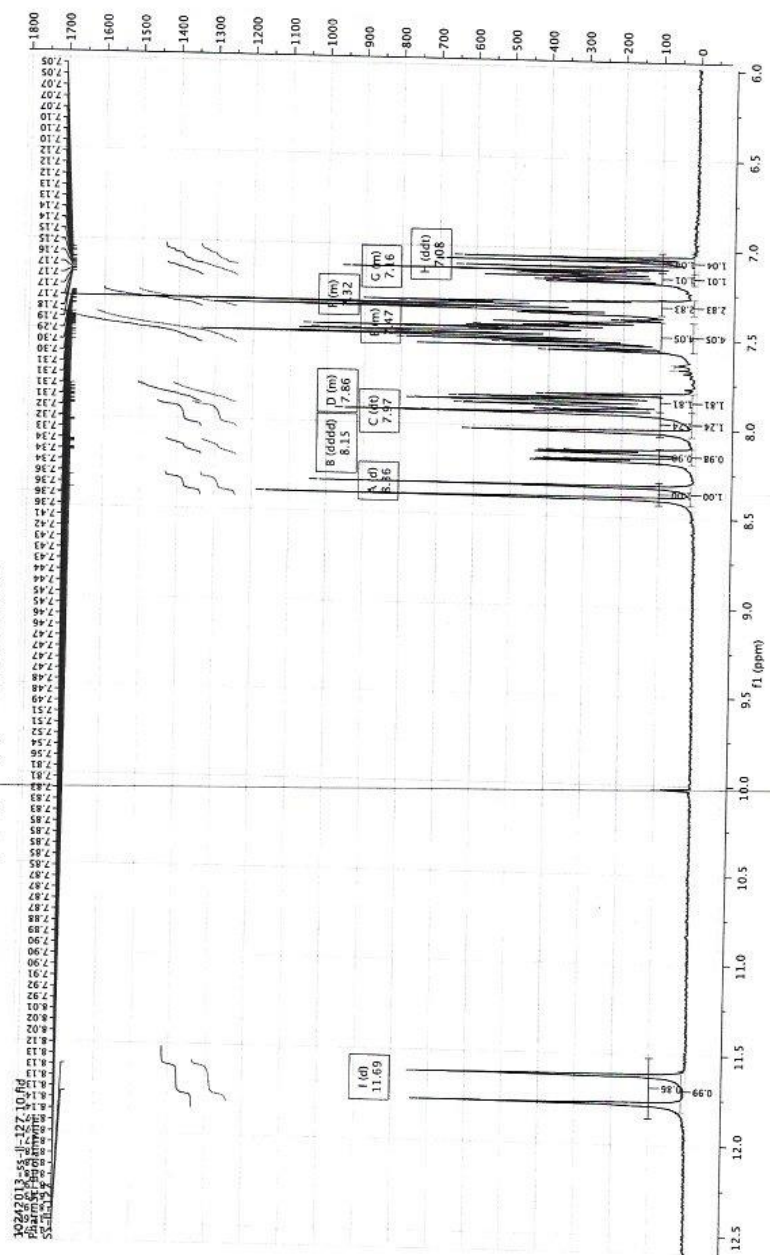
Acquisition Date 10/24/13 00:40:17
Operator Administrator
Instrument Esquire-LC_00018

Acquisition Parameter

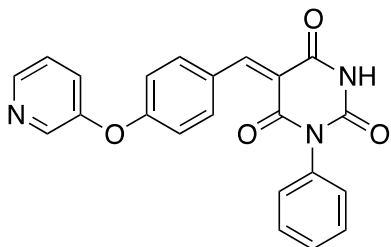
Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	600.00 m/z
Capillary Exit	-111.9 Volt	Skim 1	-37.5 Volt	Trap Drive	42.6
Accumulation Time	50000 µs	Averages	5 Spectra	Auto MS/MS	Off



¹H NMR (400 MHz, DMSO-d₆) δ 11.69 (d, J = 63.4 Hz, 1H), 8.36 (d, J = 27.1 Hz, 1H), 8.15 (dddd, J = 18.6, 4.9, 2.1, 0.8 Hz, 1H), 7.97 (dt, J = 39.2, 2.0 Hz, 2H), 7.90 - 7.80 (m, 2H), 7.57 - 7.40 (m, 4H), 7.37 - 7.28 (m, 3H), 7.19 - 7.13 (m, 1H), 7.08 (dd, J = 21.5, 8.3, 0.8 Hz, 1H).



Suppl. Mass spectrum and ¹H NMR Spectrum of 50



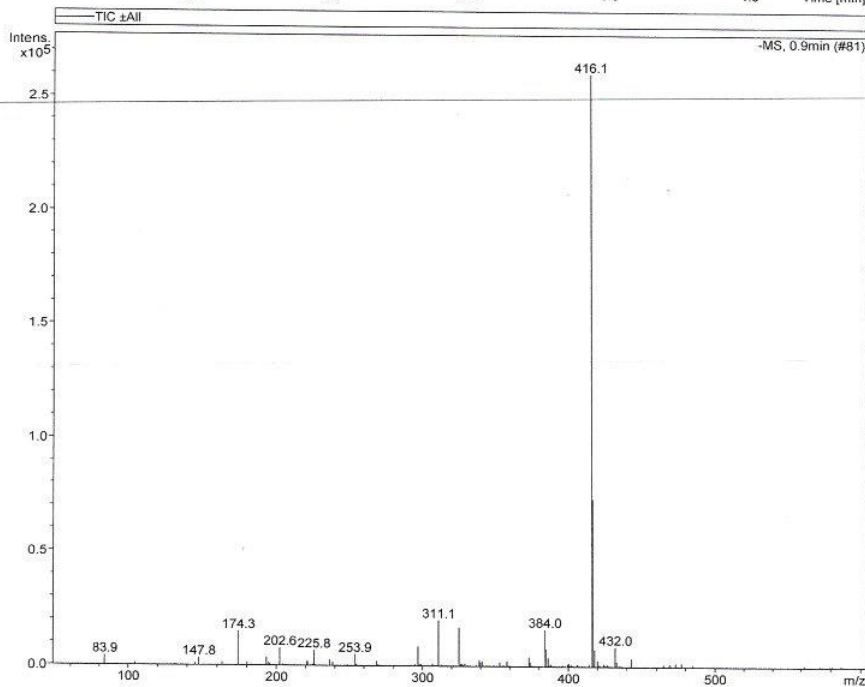
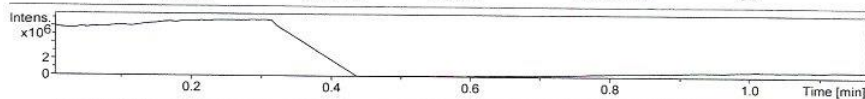
Display Report

Analysis Info

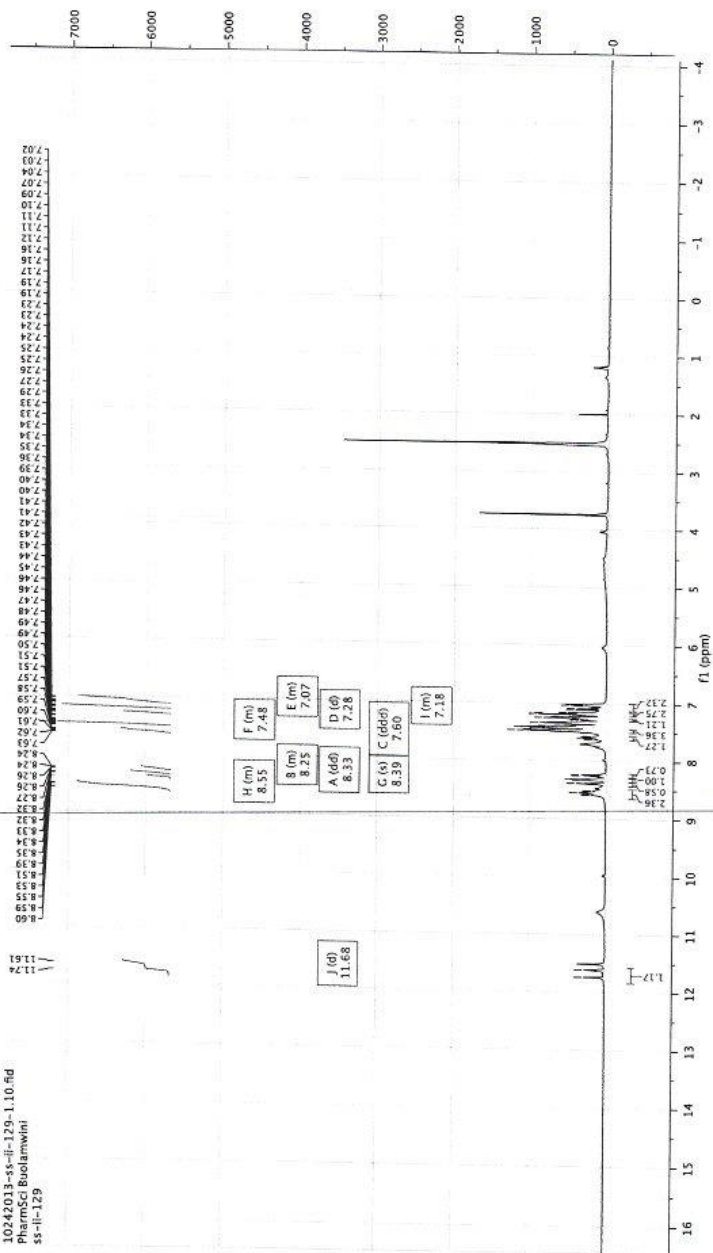
Analysis Name	102413-3.d	Acquisition Date	10/24/13 17:15:35
Method	Copy of Copy of CJJ.M	Operator	Default
Sample Name	sws-ii-129RE	Instrument	Esquire-LC_00018
Comment	ss-ii-129RE		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Positive	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	600.00 m/z
Capillary Exit	112.0 Volt	Skim 1	37.6 Volt	Trap Drive	37.2
Accumulation Time	29862 μs	Averages	5 Spectra	Auto MS/MS	Off

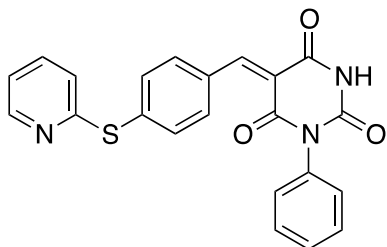


10242013-s-jl-129-1.10.fid
 PharmSci Bolarwin
 55-ll-129



¹H NMR (400 MHz, DMSO-d₆) δ 11.68 (d, *J* = 50.7 Hz, 1H), 8.65 - 8.49 (m, 2H), 8.39 (s, 1H), 8.33 (dd, *J* = 6.6, 2.3 Hz, 1H), 8.28 - 8.21 (m, 1H), 7.60 (ddd, *J* = 12.9, 8.4, 4.8 Hz, 1H), 7.51 - 7.44 (m, 3H), 7.28 (d, *J* = 8.2 Hz, 1H), 7.21 - 7.15 (m, 2H), 7.13 - 7.00 (m, 2H).

Suppl. Mass spectrum and ¹H NMR Spectrum of 51



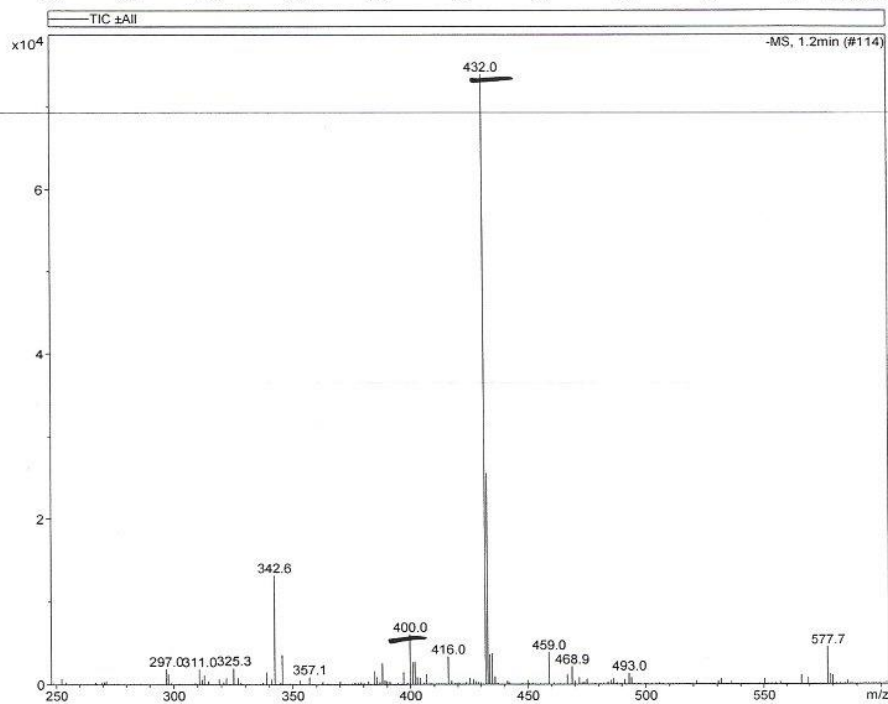
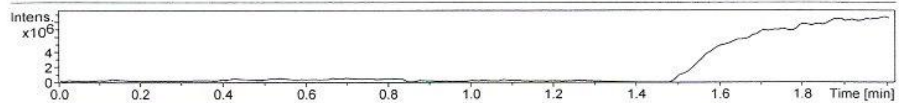
Display Report

Analysis Info

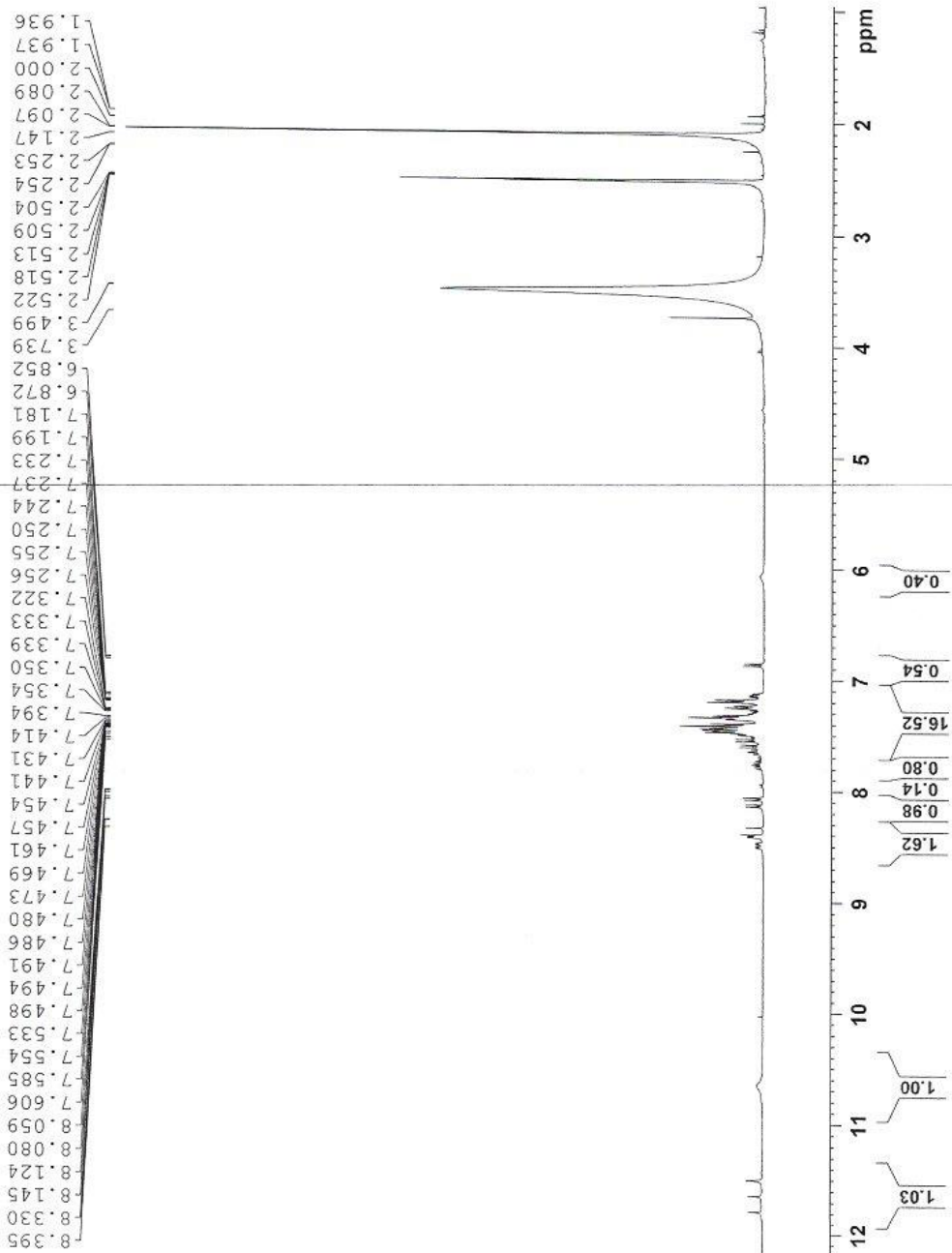
Analysis Name	102413-2.d	Acquisition Date	10/24/13 17:12:14
Method	Copy of Copy of C.JJ.M	Operator	Default
Sample Name	sws-ii-125RE	Instrument	Esquire-LC_00018
Comment	ss-ii-125RE		

Acquisition Parameter

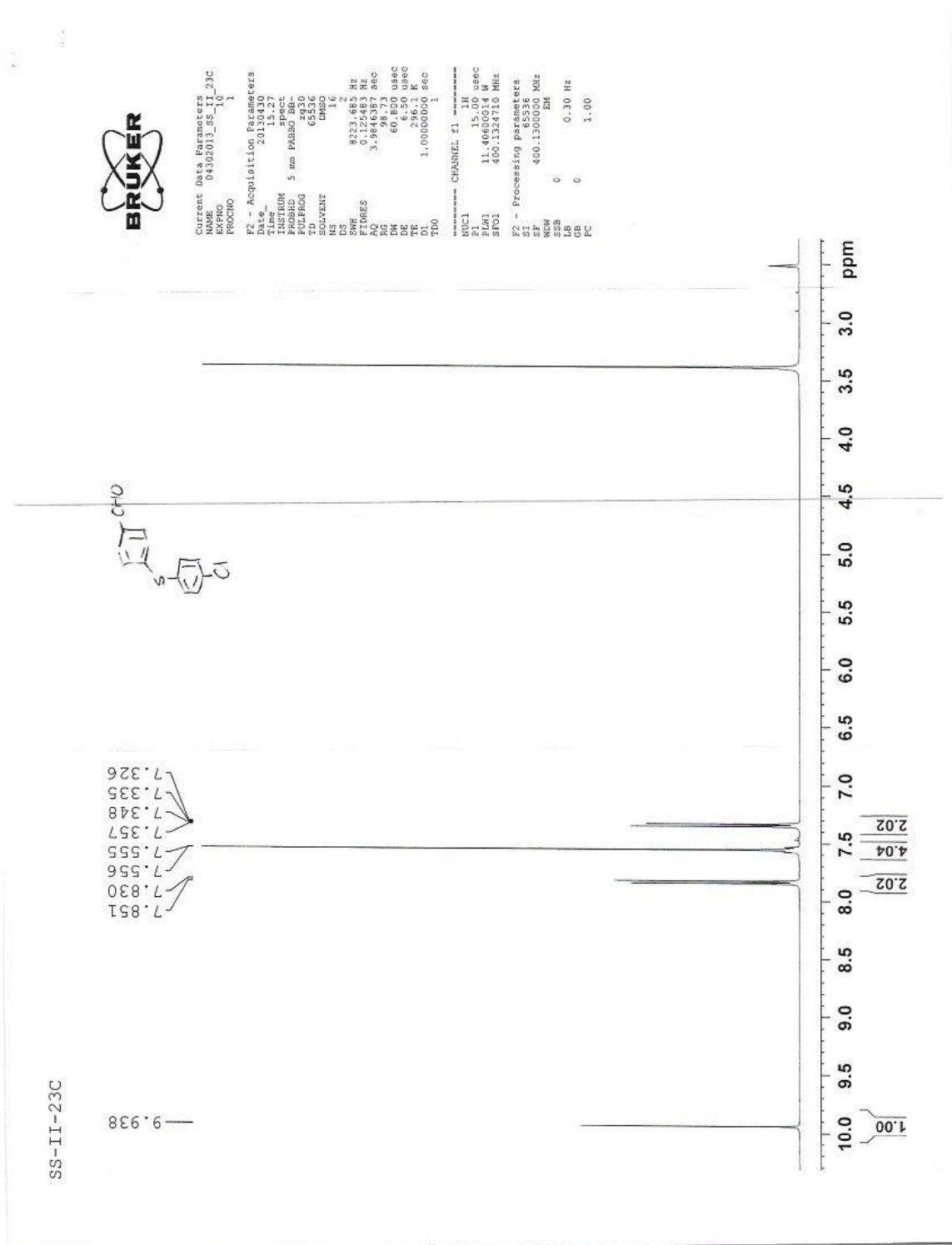
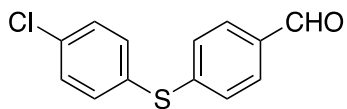
Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	500.00 m/z
Capillary Exit	-113.1 Volt	Skim 1	-38.4 Volt	Trap Drive	43.1
Accumulation Time	50000 μ s	Averages	5 Spectra	Auto MS/MS	Off



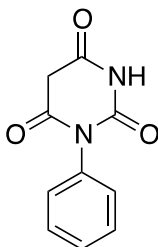
PharmSci_Buolamwini
SS-II-125



Suppl. ¹H NMR Spectrum of 52



Suppl. Mass spectrum and ¹H NMR Spectrum of 53



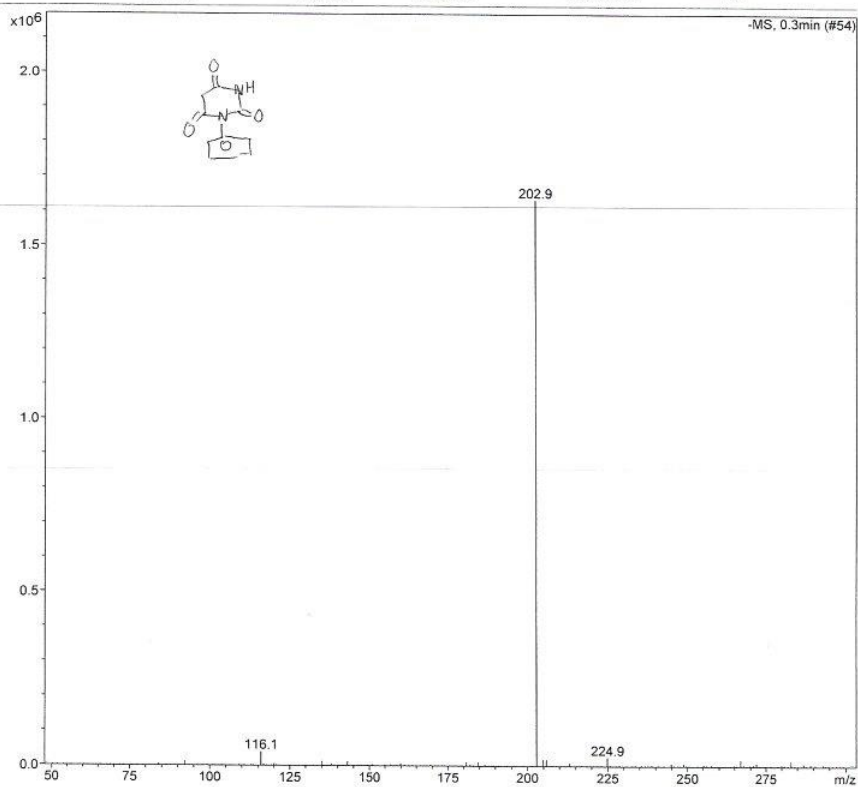
Display Report

Analysis Info

Analysis Name	020513.d	Acquisition Date	02/05/13 10:24:32
Method	Copy(2) of rgupte.MS	Operator	Default
Sample Name	ss-II-9	Instrument	Esquire-LC_00018
Comment	ss-II-9 phenyl barbiturate		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	400.00 m/z
Capillary Exit	-96.4 Volt	Skim 1	-26.4 Volt	Trap Drive	29.3
Accumulation Time	8522 μs	Averages	5 Spectra	Auto MS/MS	Off



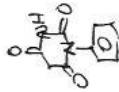


Current Data Parameters
NAME 03132013-AA112A
EXPNO 10
PROCNO 1

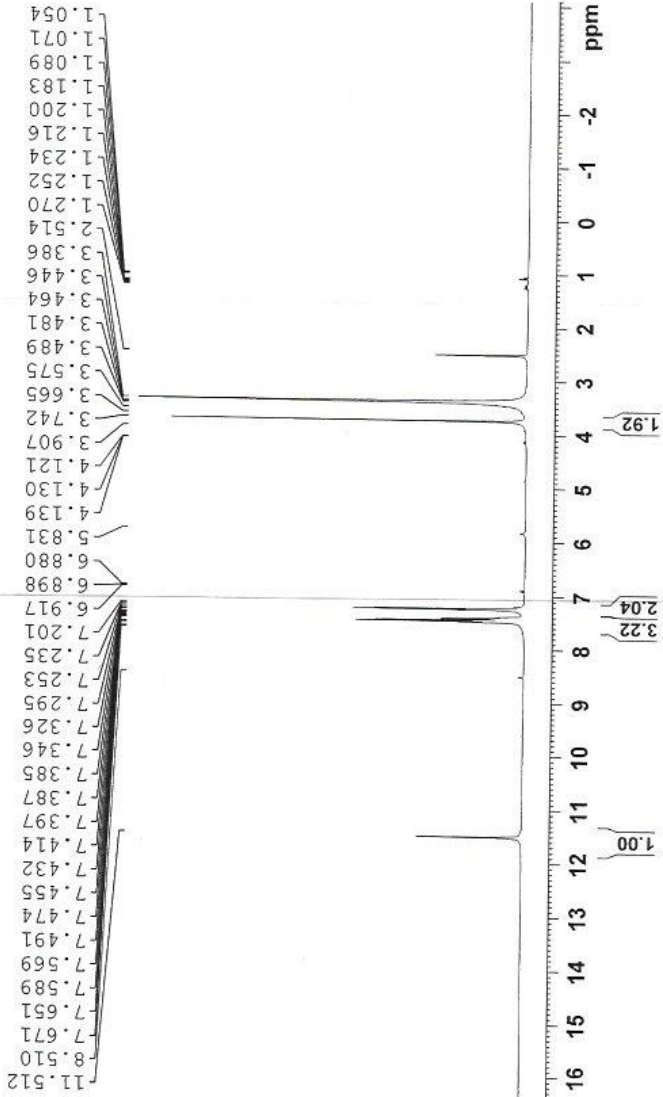
F2 - Acquisition Parameters
Date_ 20130313
Time 11:01:11
INSTRUM spect
PROBHD 5 mm F4BBO BB-
PULPROG zgpg30
PC 652346
SOLVENT H₂O
NS 18416
DS 2
SWH 822.665 Hz
FIDRES 0.384387 Hz
AQ 1.984387 sec
RG 119.4
DN 60.800 usec
TE 28.50 usec
TD 1
TDO 1.0000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 15.00 usec
PL1 11.4060014 W
SFO1 400.1324710 MHz

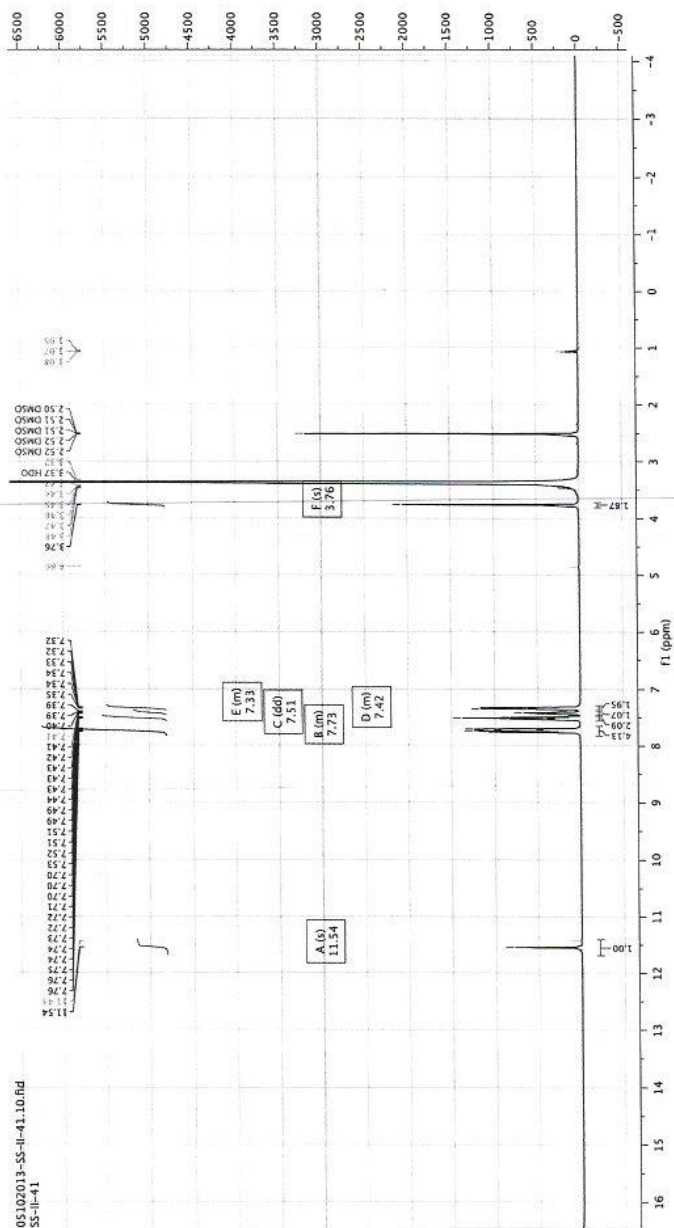
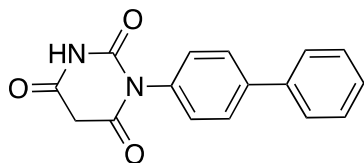
F2 - Processing parameters
SI 65536
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0
GB 0
PC 1.00



SS-II-3-A

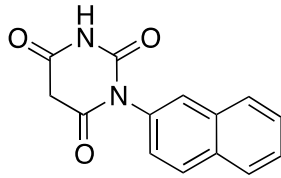


Suppl. ^1H NMR Spectrum of 54



^1H NMR (400 MHz, DMSO-d_6) δ 11.54 (s, 1H), 7.83 - 7.65 (m, 4H), 7.51 (dd, $J = 8.4, 6.9$ Hz, 2H), 7.46 - 7.38 (m, 1H), 7.37 - 7.28 (m, 2H), 3.76 (s, 2H).

Suppl. Mass spectrum of 55



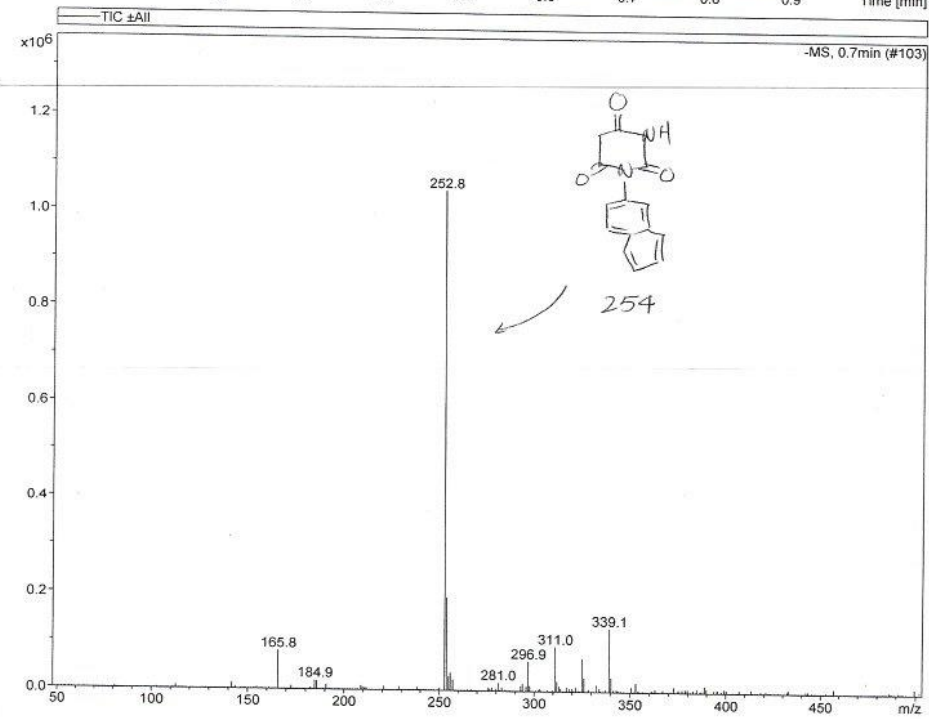
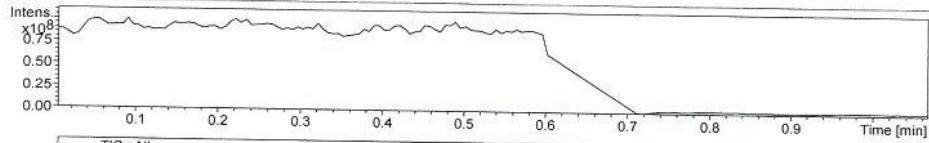
Display Report

Analysis Info

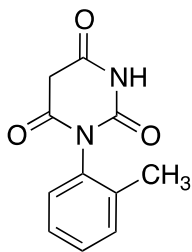
Analysis Name	042313-1.d	Acquisition Date	04/23/13 11:46:49
Method	Copy of XQ Default.ms	Operator	Administrator
Sample Name	SS-II-31	Instrument	Esquire-LC_00018
Comment	ss-ii-31		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Positive	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	500.00 m/z
Capillary Exit	101.0 Volt	Skim 1	29.8 Volt	Trap Drive	31.8
Accumulation Time	213 μ s	Averages	5 Spectra	Auto MS/MS	Off

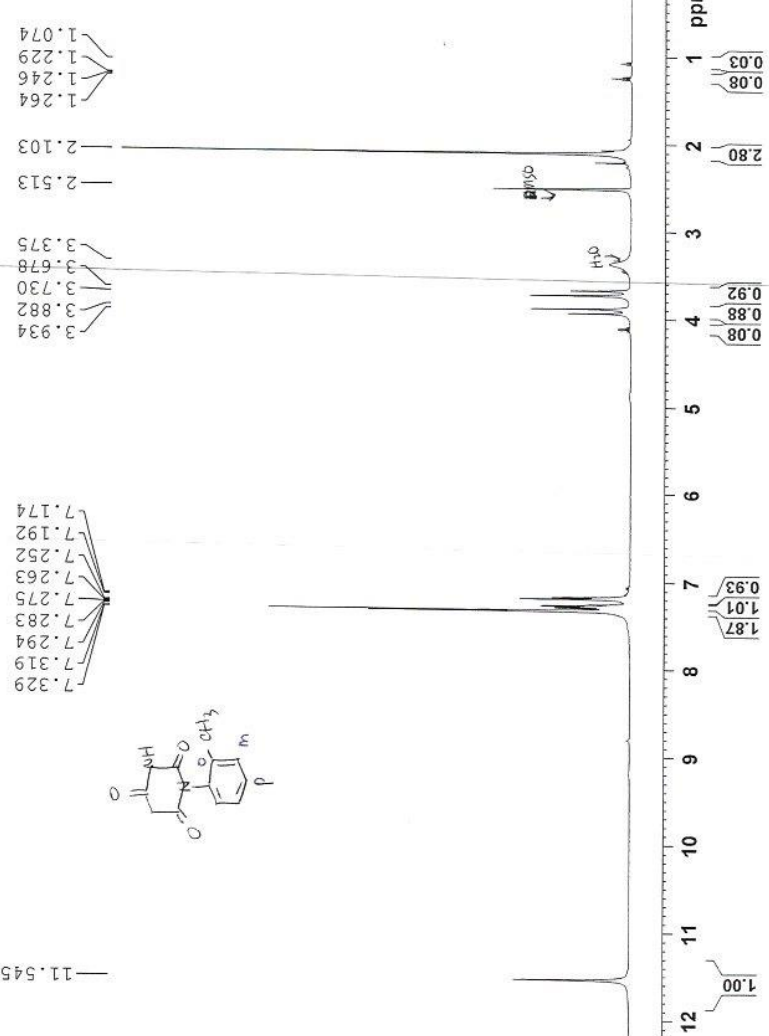


Suppl. ¹H NMR Spectrum of 56



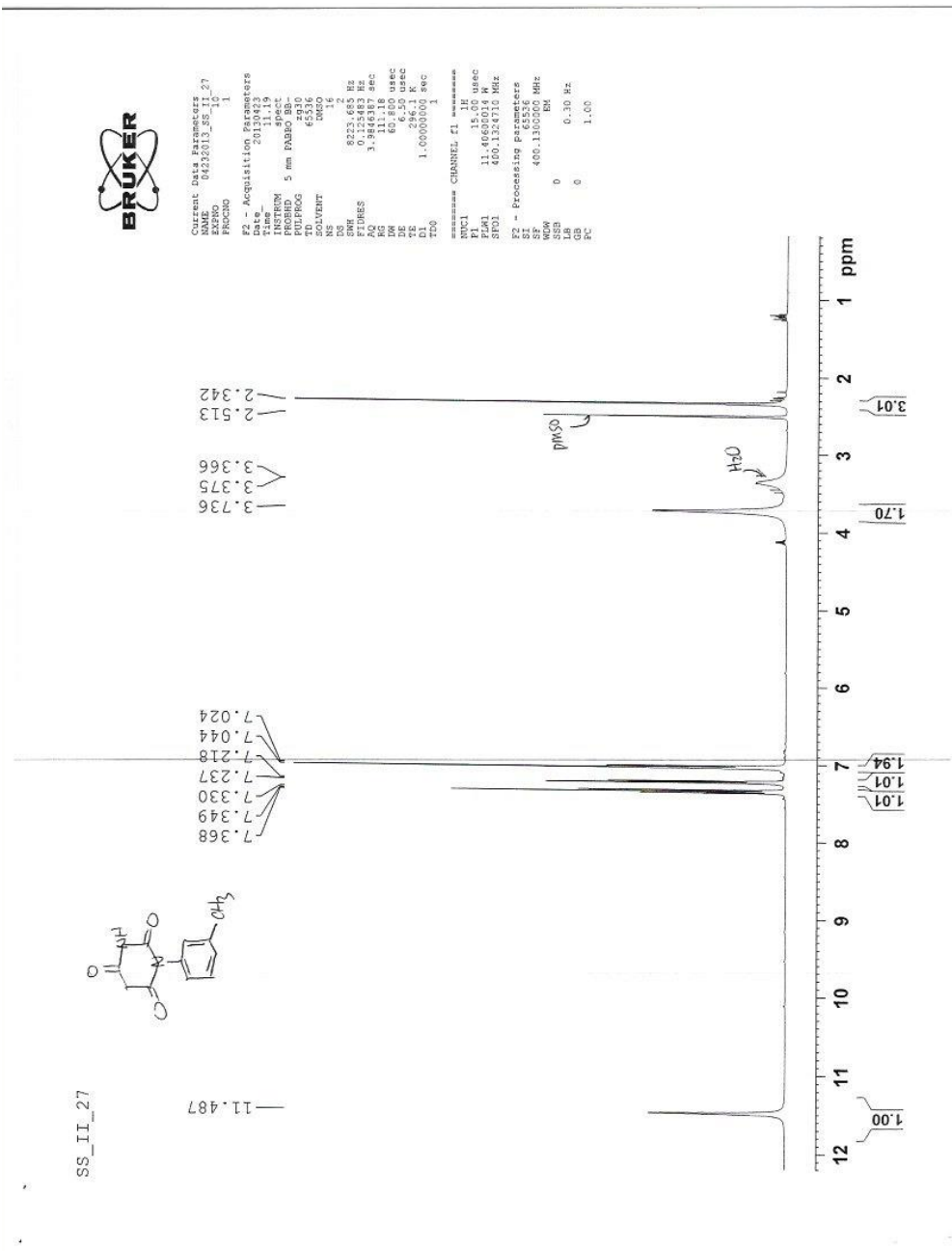
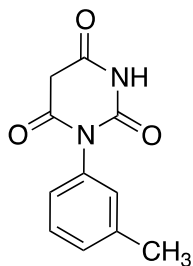
Current Data Parameters
 NAME: 04232013_SS_II_24
 PROCNO: 1
 F2 - Acquisition Parameters
 Date_ Time: 20130423 11:10
 INSTRUM: spect
 PROGRAM: zgpg30
 PULPROG: zgpg30
 3D: 65536
 SOLVENT: CDCl3
 NS: 19
 DS: 2
 SWH: 6293.485 Hz
 FIDRES: 0.115485 Hz
 AQ: 3.98846387 sec
 RG: 117.4 USBC
 DE: 6.240 USBC
 TE: 296.1 K
 TD0: 1.00000000 sec
 ===== CHANNEL f1 =====
 NUC1: 1H
 P1: 15.00 uSBC
 PL1: 11.4660014 W
 SFO1: 400.1326710 MHz
 F2 - Processing parameters
 SI: 65536
 SF: 400.1300000 MHz
 NI: 655
 NR: 0
 DS: 0
 GB: 0
 PC: 1.00

SS_II_24 (49)

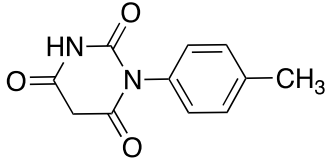


(56) 49

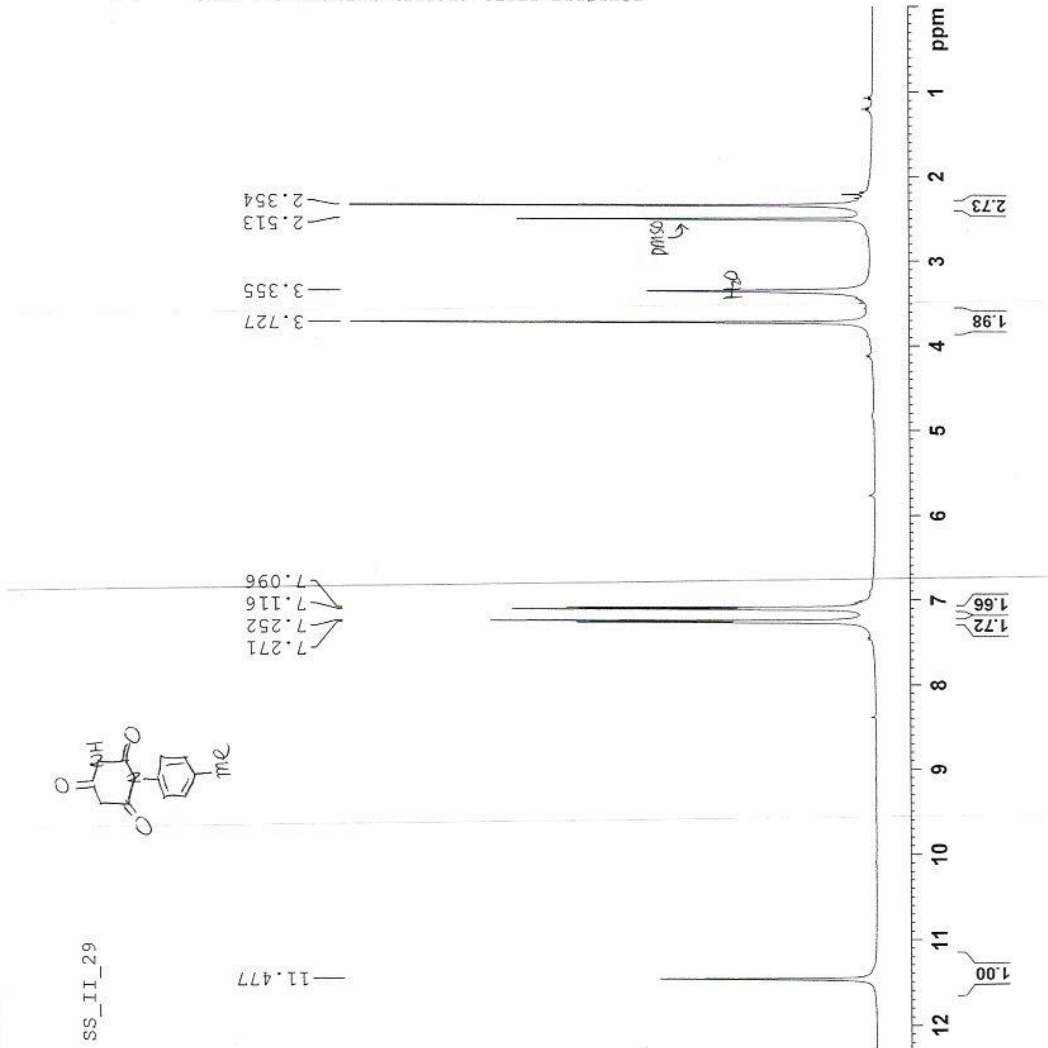
Suppl. ¹H NMR Spectrum of 57



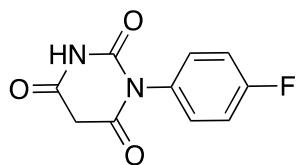
Suppl. NMR Spectrum of 58



Current Data Parameters
 EXPNO 04232011_S_10_29
 PROCNO 1
 F2 - Acquisition Parameters
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 Time 11.25
 Folder 11020130423
 PROBRD 5 mm PABBO-BB-
 PULPROG zg30
 TD 65536
 SCALED 1.16
 DS 2
 SWH 6575.652 Hz
 FWHM 0.725493 Hz
 AQ 3.2484387 sec
 RG 175.02 usec
 DE 8.50 usec
 TE 296.1 K
 D1 1.0000000 sec
 D11 1
 ===== CHANNEL f1 =====
 NUC1 13C
 P1 15.00 usec
 PL1 0 dB
 FREQ1 101.626125 MHz
 SFO1 400.1324710 MHz
 F2 - Processing parameters
 SI 65536
 SF 400.1300000 MHz
 SSB 0
 LB 0 D.30 Hz
 GB 0
 PC 1.00



Suppl. Mass spectrum and ¹H NMR Spectrum of 59



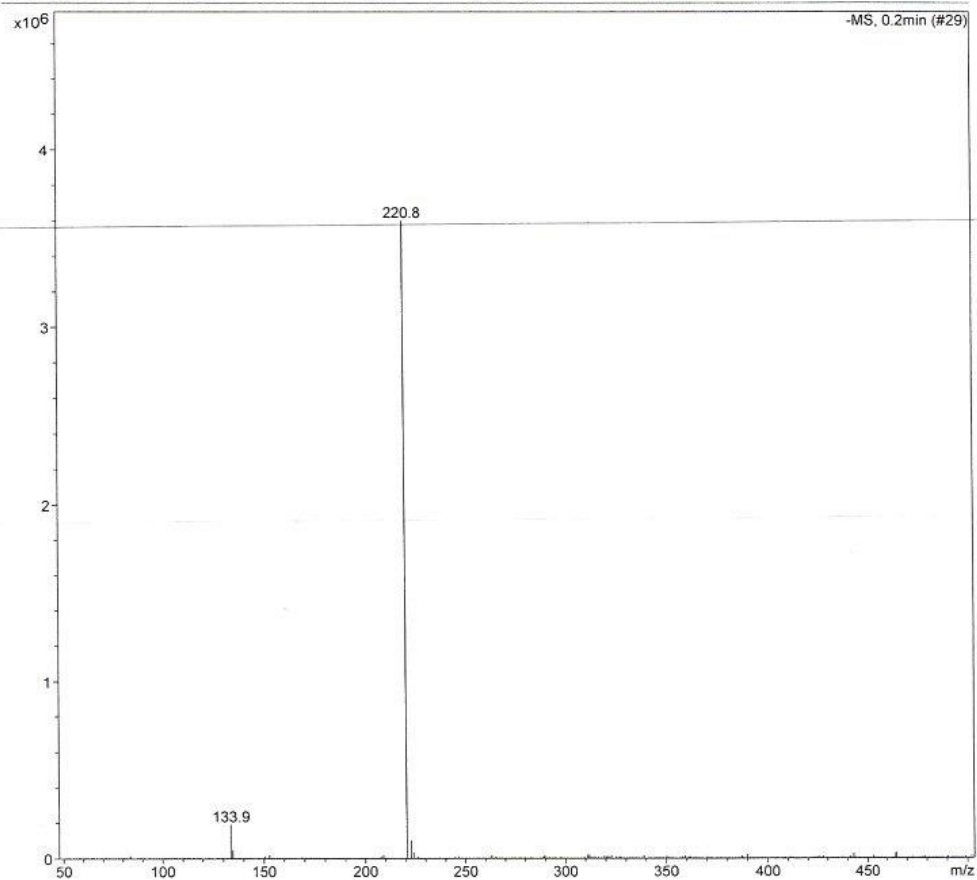
Display Report

Analysis Info

Analysis Name	032713.d	Acquisition Date	03/27/13 10:35:39
Method	Copy(2) of rgupte.MS	Operator	Default
Sample Name	ss-II-15	Instrument	Esquire-LC_00018
Comment	ss-II-15		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	500.00 m/z
Capillary Exit	-98.1 Volt	Skim 1	-27.6 Volt	Trap Drive	30.2
Accumulation Time	3934 μ s	Averages	5 Spectra	Auto MS/MS	Off



PharmSci Buolamwini
SS-II-15 (SS-II-15) Old Batch

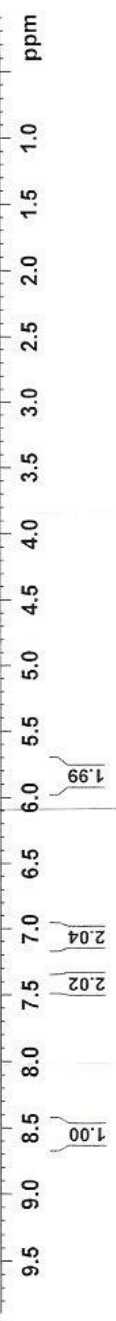
2.518
2.513

3.355

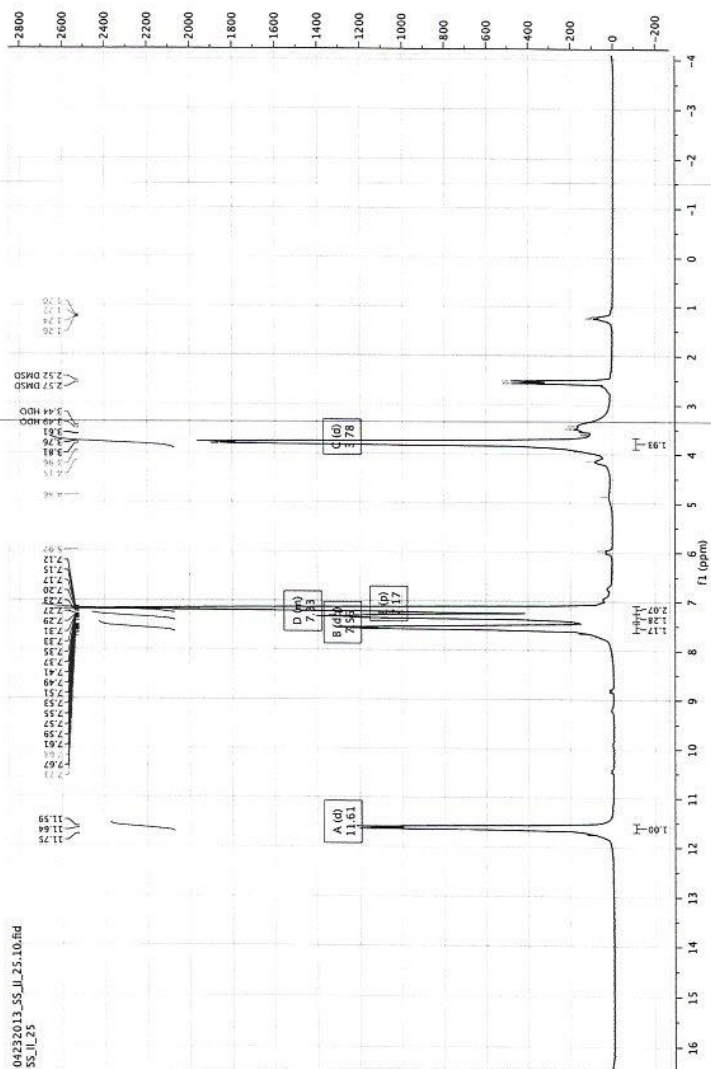
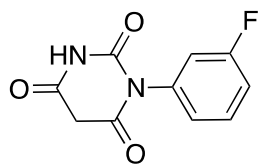
5.833

7.419
7.406
7.396
7.383
7.076
7.054
7.031

8.547

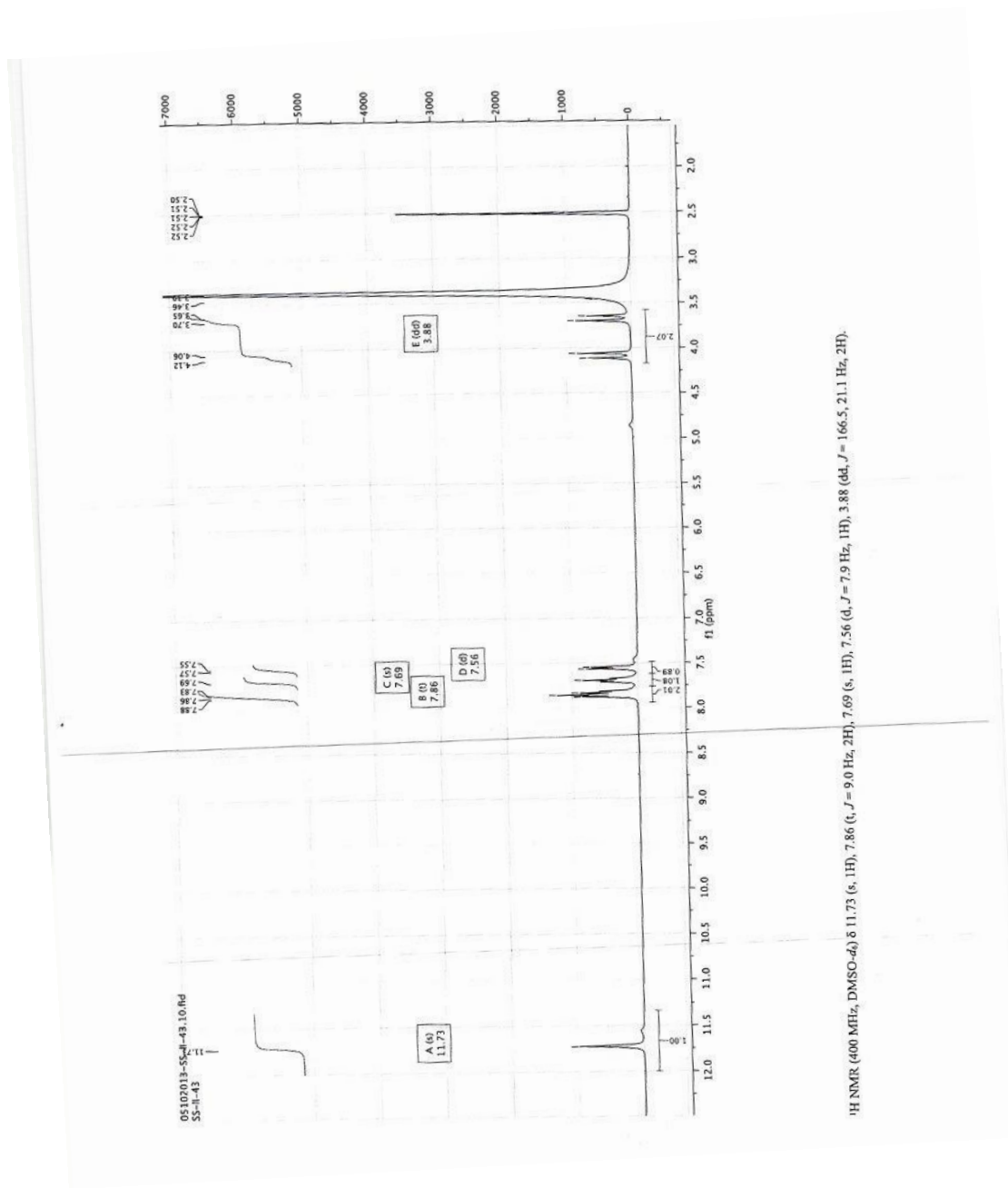
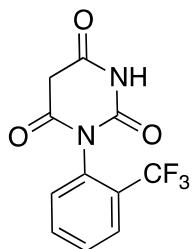


Suppl. ¹H NMR Spectrum of 60

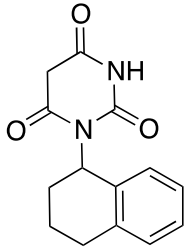


¹H NMR (400 MHz, DMSO-d₆) δ 11.61 (d, *J* = 19.0 Hz, 1H), 7.56 (dd, *J* = 15.7, 8.0 Hz, 1H), 7.40–7.25 (m, 1H), 7.17 (p, *J* = 11.6, 10.7 Hz, 2H), 3.78 (d, *J* = 18.4 Hz, 2H).

Suppl. ¹H NMR Spectrum of 61



Suppl. Mass spectrum of 62



(62) 55

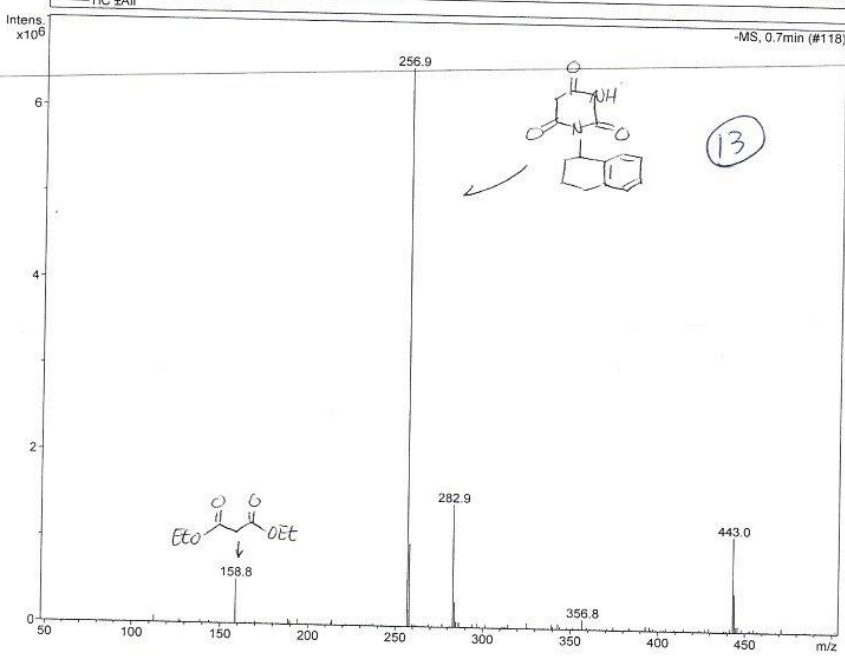
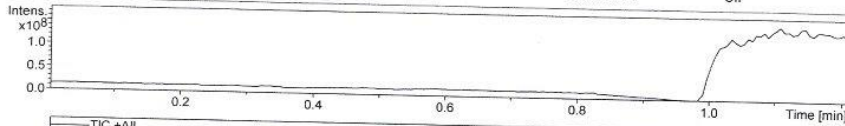
Display Report

Analysis Info

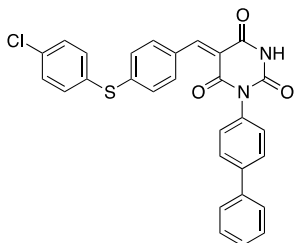
Analysis Name	042313-2.d	Acquisition Date	04/23/13 11:50:56
Method	Copy of XQ Default.ms	Operator	Administrator
Sample Name	SS-II-35	Instrument	Esquire-LC_00018
Comment	ss-ii-35		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	500.00 m/z
Capillary Exit	-101.4 Volt	Skim 1	-30.1 Volt	Trap Drive	39.0
Accumulation Time	1321 µs	Averages	5 Spectra	Auto MS/MS	Off



Suppl. Mass spectrum and ¹H NMR Spectrum of 63



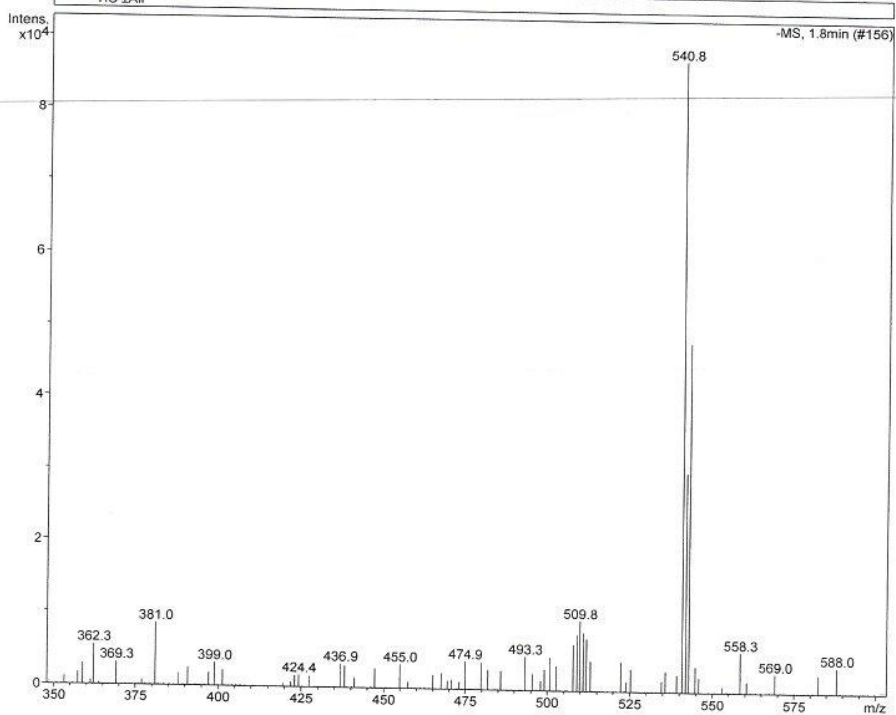
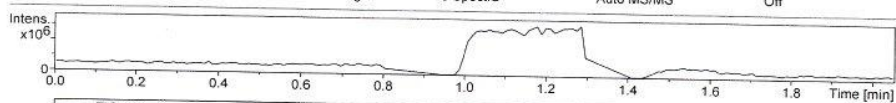
Display Report

Analysis Info

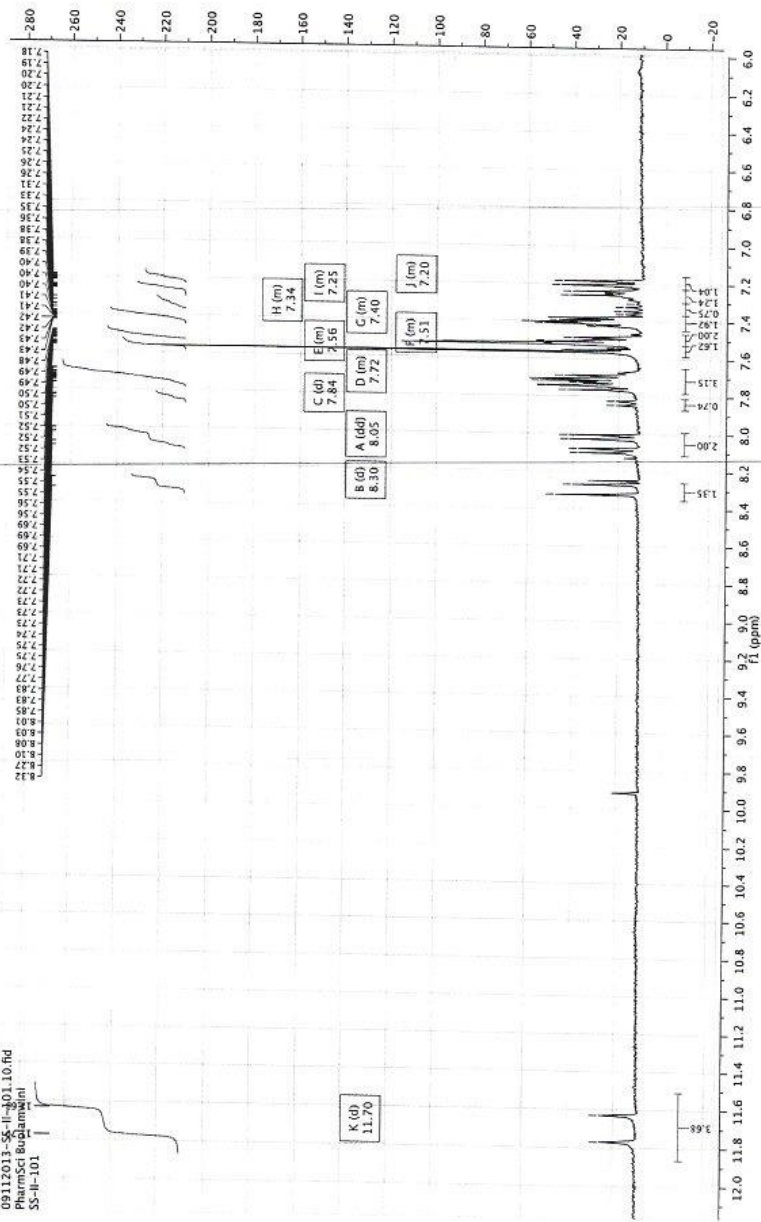
Analysis Name	092613-2.d	Acquisition Date	09/26/13 17:25:05
Method	Copy(2) of CJJ-2.M	Operator	Administrator
Sample Name	SS-II-101	Instrument	Esquire-LC_00018
Comment	SS-II-101		

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	600.00 m/z
Capillary Exit	-121.2 Volt	Skim 1	-43.7 Volt	Trap Drive	46.2
Accumulation Time	50000 µs	Averages	5 Spectra	Auto MS/MS	Off

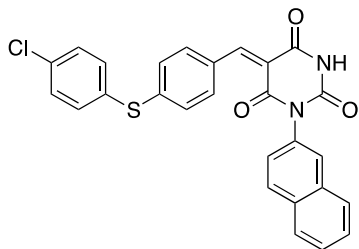


09112011-55-1-301.10.fid
PharmSci-BuGuanidine
35-10-101



¹H NMR (400 MHz, DMSO-d₆) δ 11.70 (d, *J* = 56.1 Hz, 1H), 8.30 (d, *J* = 21.4 Hz, 1H), 8.05 (dd, *J* = 29.4, 8.6 Hz, 2H), 7.84 (d, *J* = 8.4 Hz, 1H), 7.78 – 7.65 (m, 5H), 7.59 – 7.53 (m, 2H), 7.53 – 7.47 (m, 2H), 7.45 – 7.37 (m, 2H), 7.37 – 7.30 (m, 1H), 7.30 – 7.23 (m, 1H), 7.23 – 7.16 (m, 1H).

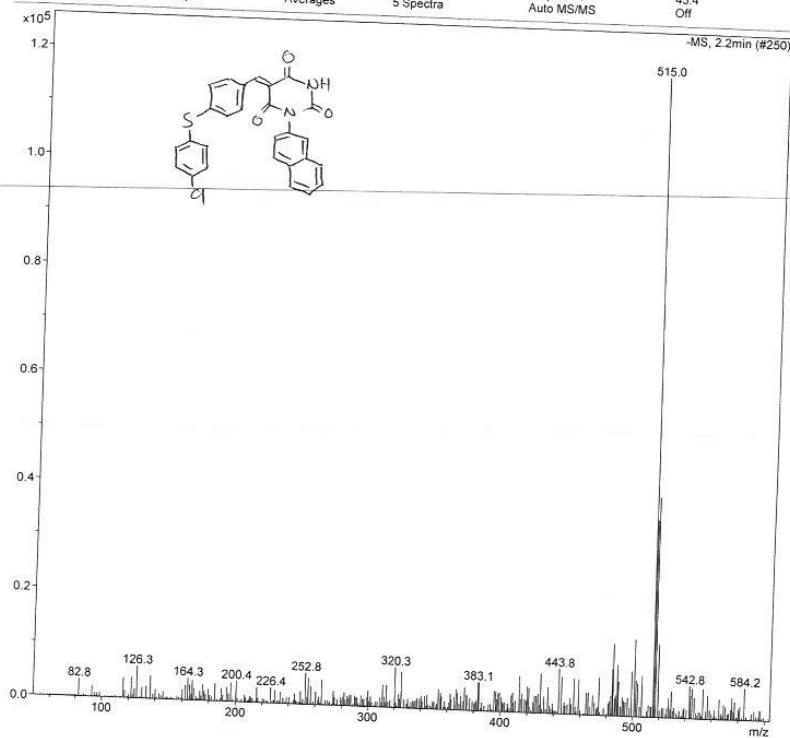
Suppl. Mass spectrum and ¹H NMR Spectrum of 64

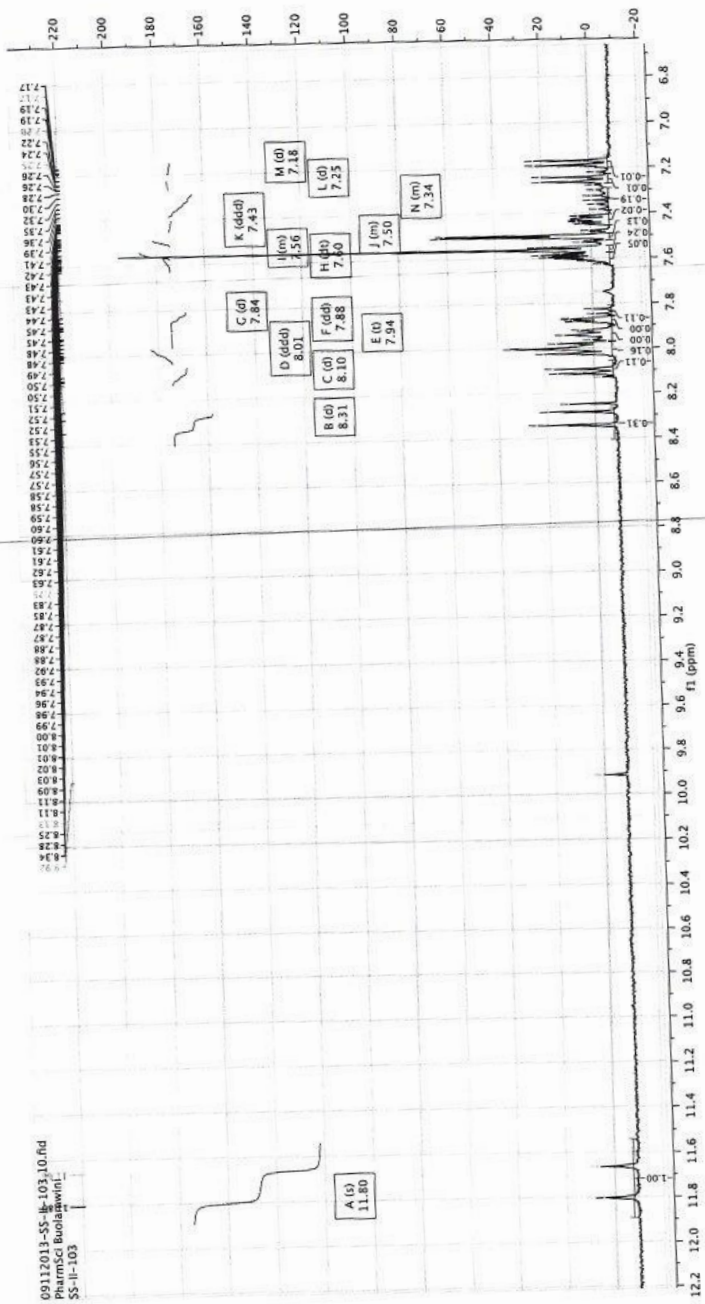


Display Report

Analysis Info
 Analysis Name 090613-1.d
 Method Copy of Copy of C.J.J.M
 Sample Name SS-II-103
 Comment SS-II-103
 Acquisition Date 09/06/13 16:31:32
 Operator Default
 Instrument Esquire-LC_00018

Acquisition Parameter
 Ion Source Type ESI
 Mass Range Mode Std/Normal
 Capillary Exit -119.3 Volt
 Accumulation Time 18065 μs
 Ion Polarity Negative
 Scan Begin 50.00 m/z
 Skim 1 -42.5 Volt
 Averages 5 Spectra
 Alternating Ion Polarity n/a
 Scan End 600.00 m/z
 Trap Drive 45.4
 Auto MS/MS Off

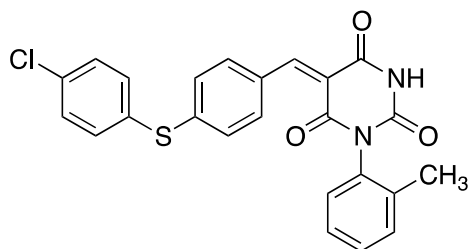




J = 5.5 Hz

¹H NMR (400 MHz, DMSO-*d*₆) δ 11.80 (d, 1H), 8.31 (d, *J* = 23.7 Hz, 1H), 8.10 (d, *J* = 8.7 Hz, 0H), 8.01 (ddd, *J* = 10.1, 7.3, 3.6 Hz, 2H), 7.94 (t, *J* = 8.6 Hz, 2H), 7.88 (dd, *J* = 5.1, 2.0 Hz, 1H), 7.60 (dt, *J* = 6.6, 3.2 Hz, 1H), 7.58 – 7.54 (m, 3H), 7.52 – 7.49 (m, 2H), 7.43 (ddd, *J* = 8.7, 4.9, 2.0 Hz, 1H), 7.25 (d, *J* = 8.6 Hz, 1H), 7.18 (d, *J* = 8.6 Hz, 1H).

Suppl. Mass spectrum and ¹H NMR Spectrum of 65



Display Report

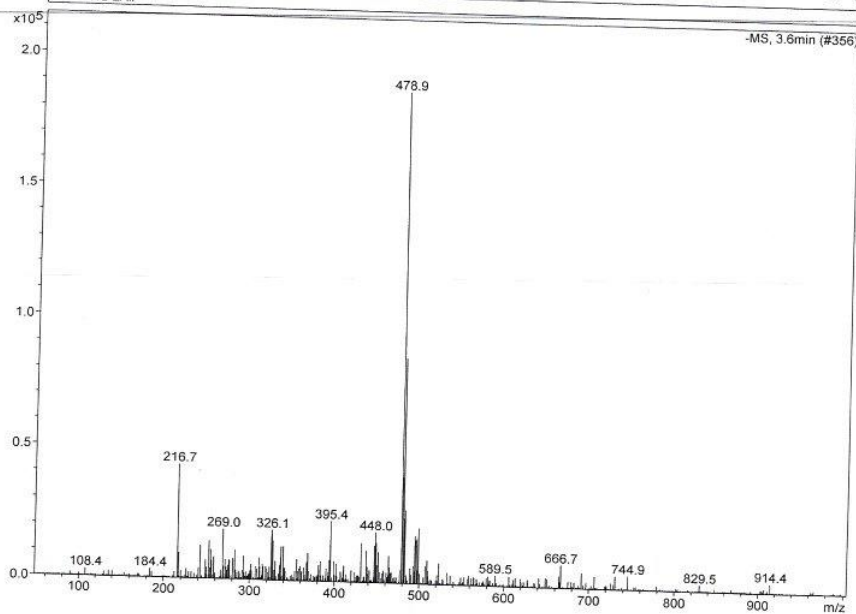
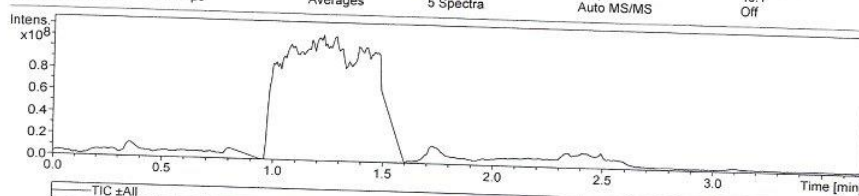
Analysis Info

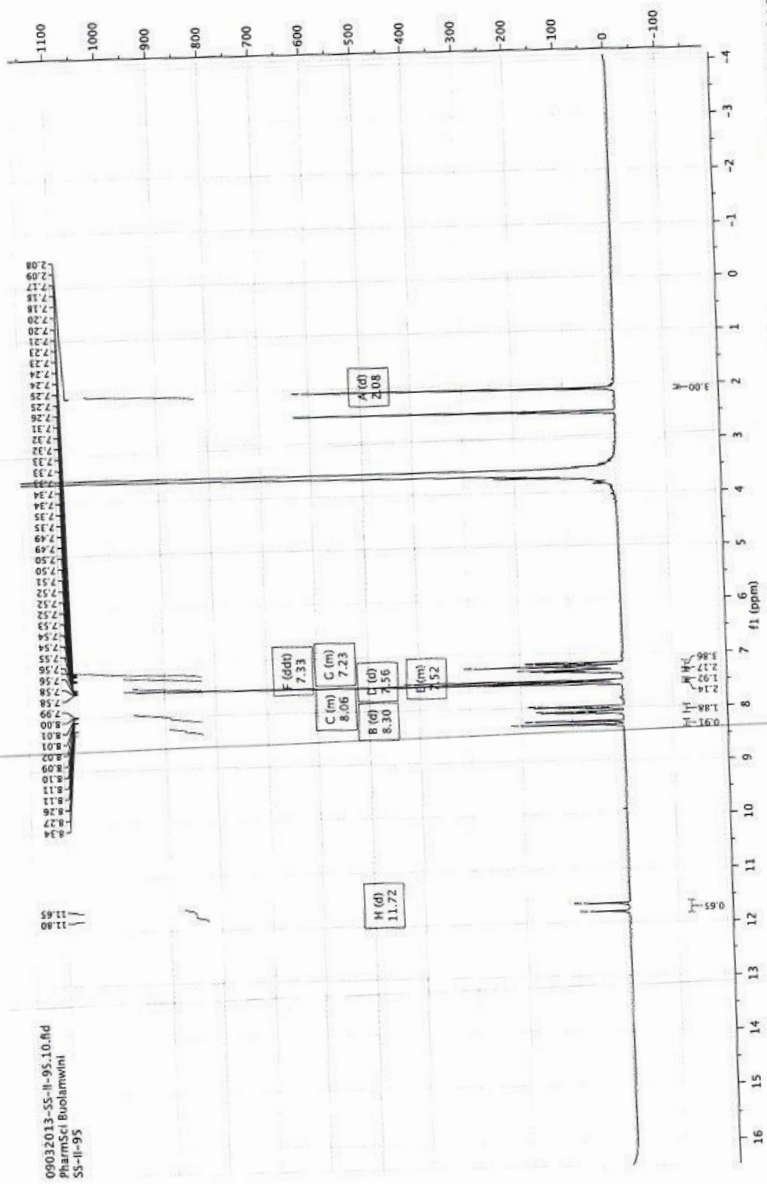
Analysis Name 061713.d
 Method Copy of XQ Default.ms
 Sample Name ss-ii-53
 Comment ss-ii-53

Acquisition Date 06/17/13 16:27:42
 Operator Default
 Instrument Esquire-LC_00018

Acquisition Parameter

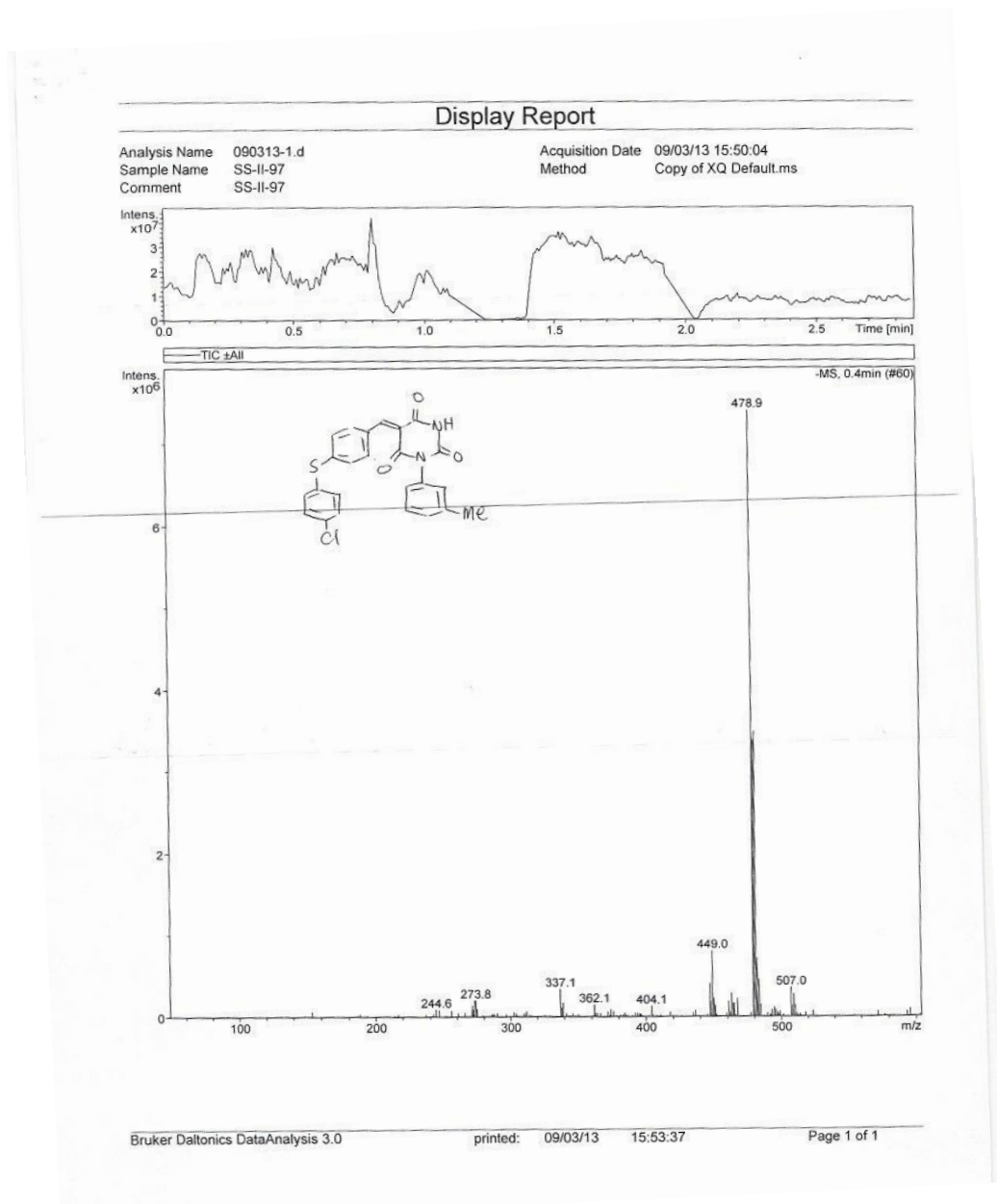
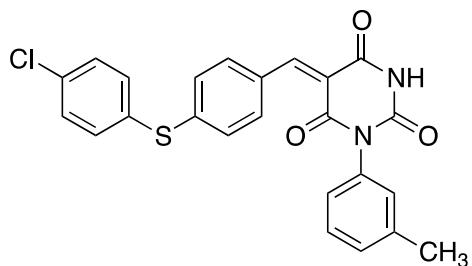
Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	600.00 m/z
Capillary Exit	-116.7 Volt	Skim 1	-40.8 Volt	Trap Drive	40.1
Accumulation Time	4207 μs	Averages	5 Spectra	Auto MS/MS	Off

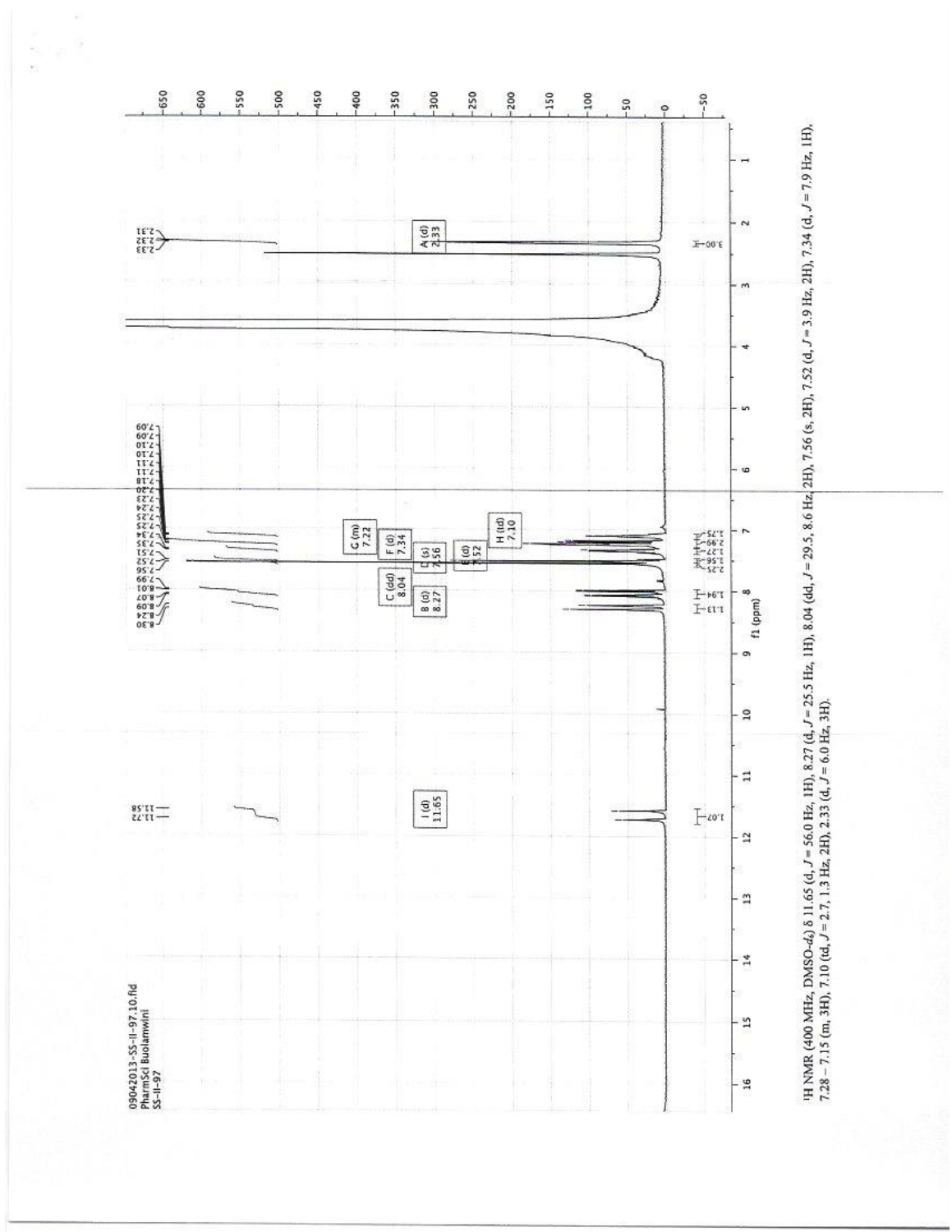




¹H NMR (400 MHz, DMSO-*d*₆) δ 11.72 (d, *J* = 58.8 Hz, 1H), 8.30 (d, *J* = 25.8 Hz, 1H), 8.13 – 7.97 (m, 2H), 7.56 (d, *J* = 2.0 Hz, 2H), 7.53 – 7.48 (m, 2H), 7.33 (ddt, *J* = 7.9, 4.7, 2.1 Hz, 2H), 7.29 – 7.15 (m, 4H), 2.08 (d, *J* = 5.3 Hz, 3H).

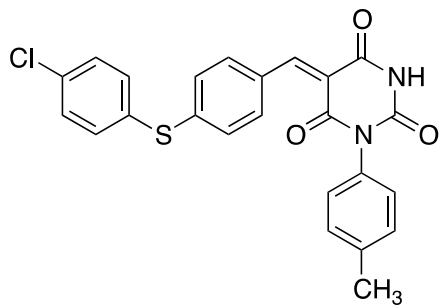
Suppl. Mass spectrum and ¹H NMR Spectrum of 66





¹H NMR (400 MHz, DMSO-*d*₆) δ 11.65 (d, *J* = 56.0 Hz, 1H), 8.27 (d, *J* = 25.5 Hz, 1H), 8.04 (dd, *J* = 29.5, 8.6 Hz, 2H), 7.52 (d, *J* = 3.9 Hz, 2H), 7.34 (d, *J* = 7.9 Hz, 1H), 7.28 – 7.15 (m, 3H), 7.10 (td, *J* = 2.7, 1.3 Hz, 2H), 2.33 (d, *J* = 6.0 Hz, 3H).

Suppl. Mass spectrum and ¹H NMR Spectrum of 67



Display Report

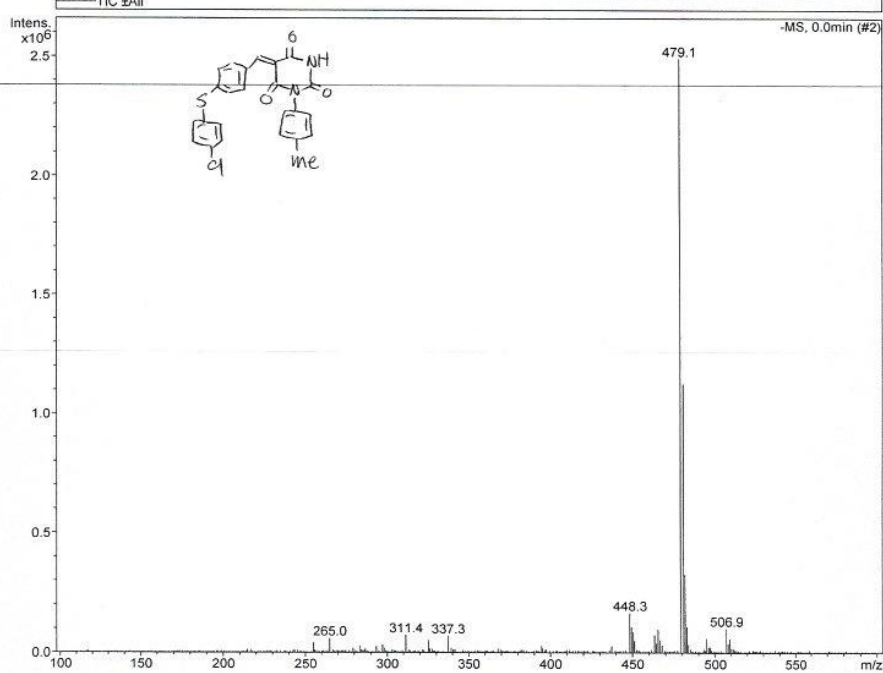
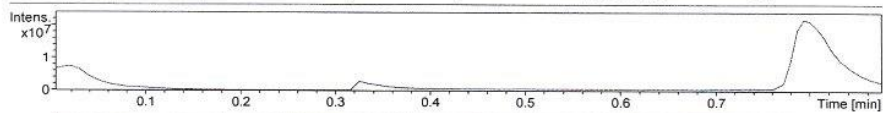
Analysis Info

Analysis Name 090413-2.d
Method Copy of XQ Default.ms
Sample Name SS-II-99
Comment SS-II-99

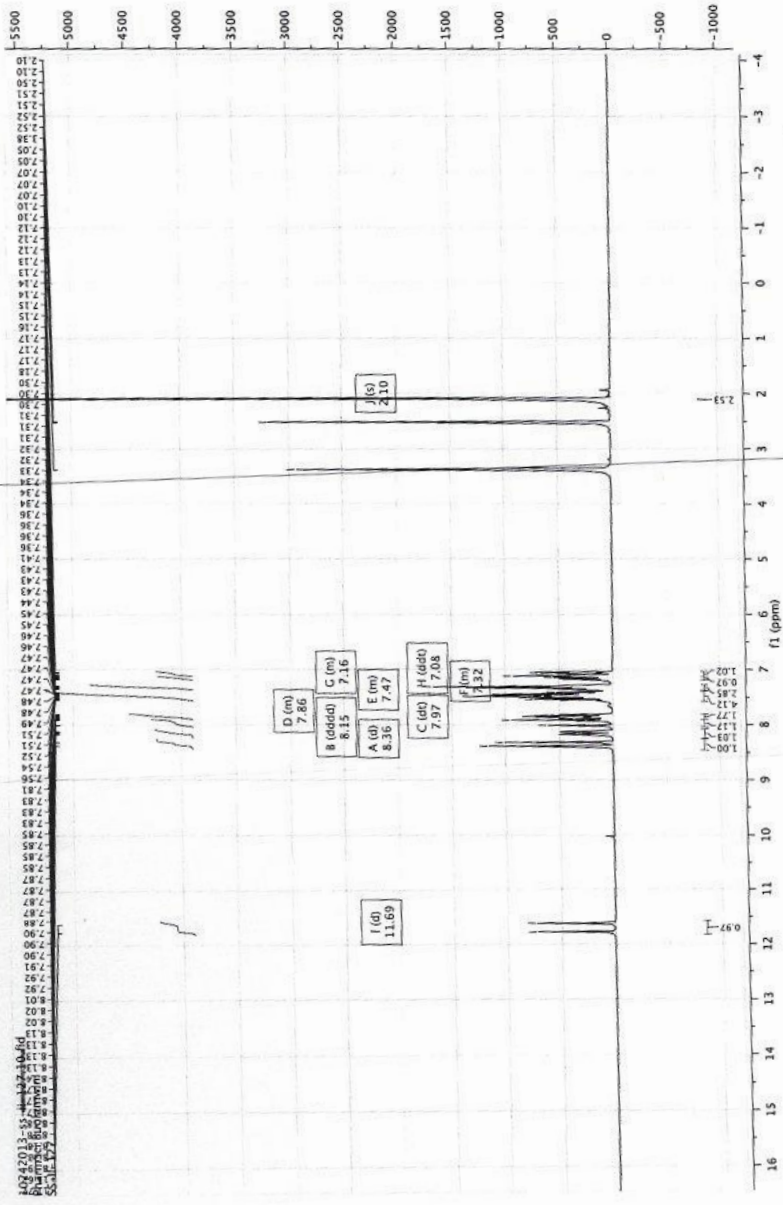
Acquisition Date 09/04/13 15:30:43
Operator Administrator
Instrument Esquire-LC_00018

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	100.00 m/z	Scan End	600.00 m/z
Capillary Exit	-116.7 Volt	Skim 1	-40.8 Volt	Trap Drive	44.4
Accumulation Time	26734 μs	Averages	5 Spectra	Auto MS/MS	Off

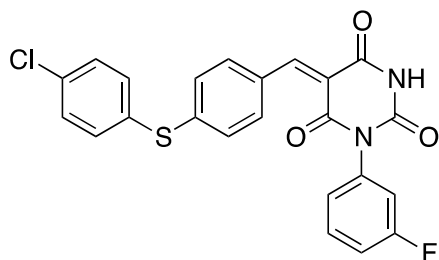


SS-11-99



^1H NMR (400 MHz, DMSO- d_6) δ 11.69 (d, $J = 63.4$ Hz, 1H), 8.36 (d, $J = 27.1$ Hz, 1H), 8.15 (dddd, $J = 18.6, 4.9, 2.1, 0.8$ Hz, 1H), 7.97 (dt, $J = 39.1, 2.0$ Hz, 1H), 7.91 - 7.80 (m, 2H), 7.57 - 7.39 (m, 4H), 7.37 - 7.27 (m, 2H), 7.20 - 7.13 (m, 1H), 7.08 (dtt, $J = 21.5, 8.3, 0.8$ Hz, 1H), 2.10 (s, 3H).

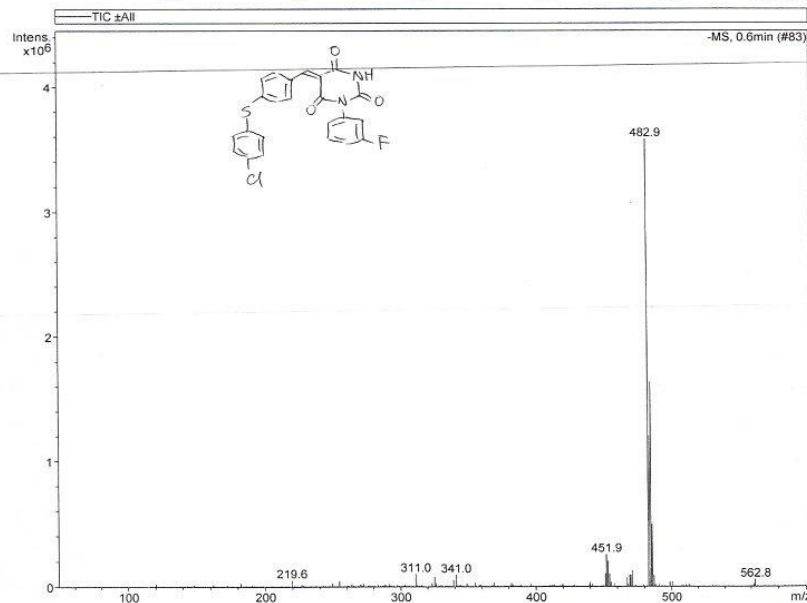
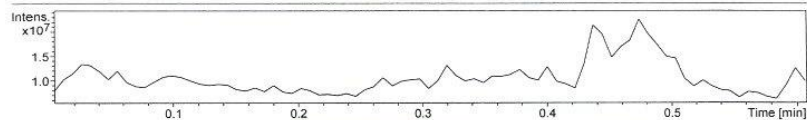
Suppl. Mass spectrum and ¹H NMR Spectrum of **68**



Display Report

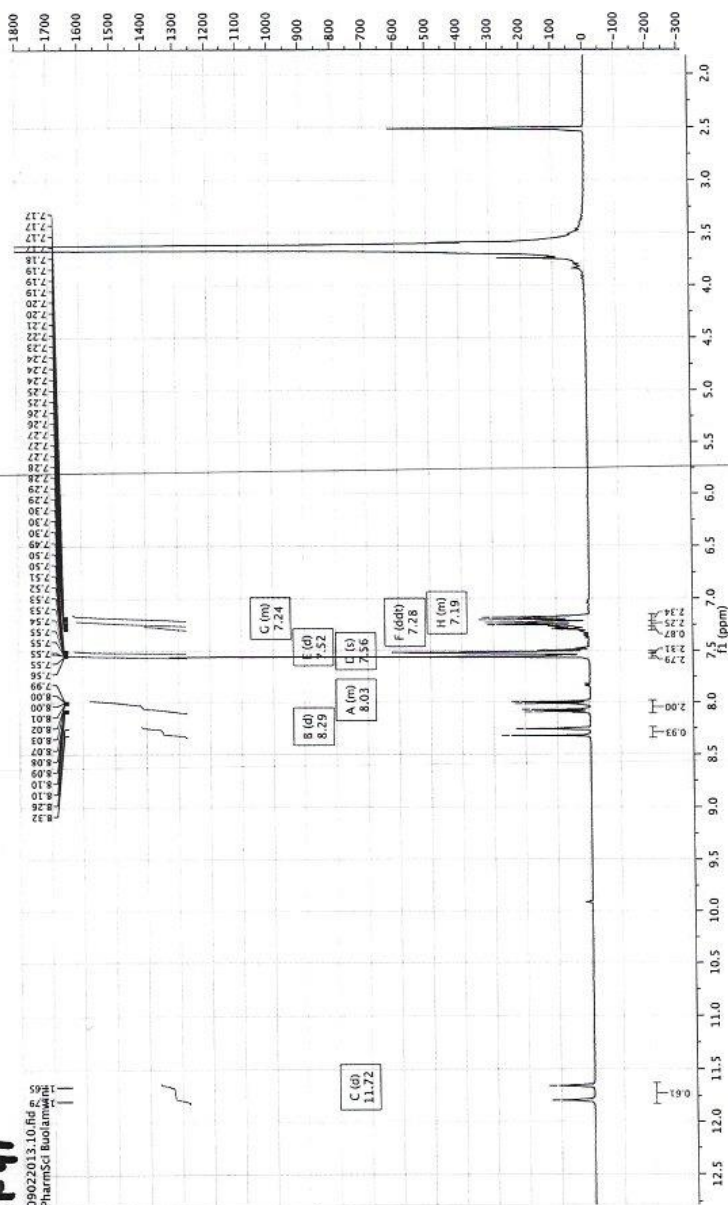
Analysis Info		Acquisition Date	09/02/13 14:37:38
Analysis Name	090213-1.d	Operator	Default
Method	Copy of Copy of C.JJ.M	Instrument	Esquire-LC_00018
Sample Name	ss-ii-91		
Comment	SS-II-91		

Acquisition Parameter			
Ion Source Type	ESI	Ion Polarity	Negative
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z
Capillary Exit	-117.0 Volt	Skim 1	-41.0 Volt
Accumulation Time	2129 μs	Averages	5 Spectra
		Alternating Ion Polarity	n/a
		Scan End	600.00 m/z
		Trap Drive	40.3
		Auto MS/MS	Off



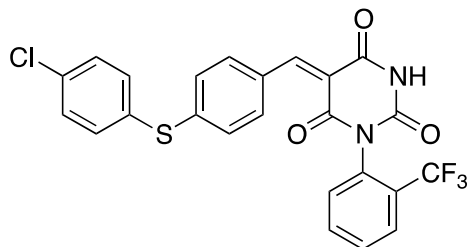
SS-11-91

09022013.10.Fid
PharmSci Buolam



¹H NMR (400 MHz, DMSO-d₆) δ 11.72 (d, J = 55.8 Hz, 1H), 8.29 (d, J = 26.0 Hz, 1H), 8.11 – 7.98 (m, 2H), 7.56 (s, 3H), 7.52 (d, J = 3.3 Hz, 2H), 7.28 (ddt, J = 8.9, 2.5, 1.2 Hz, 1H), 7.26 – 7.21 (m, 2H), 7.21 – 7.15 (m, 2H).

Suppl. Mass spectrum and ¹H NMR Spectrum of 69



Display Report

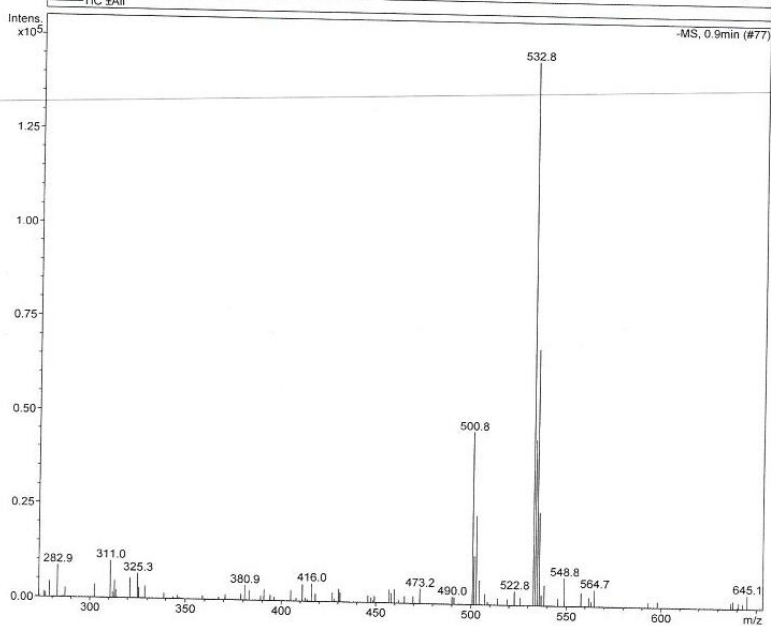
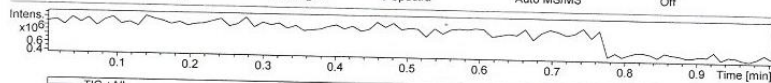
Analysis Info

Analysis Name 092613-4.d
Method Copy(2) of C.JJ-2.M
Sample Name SS-II-109
Comment SS-II-109

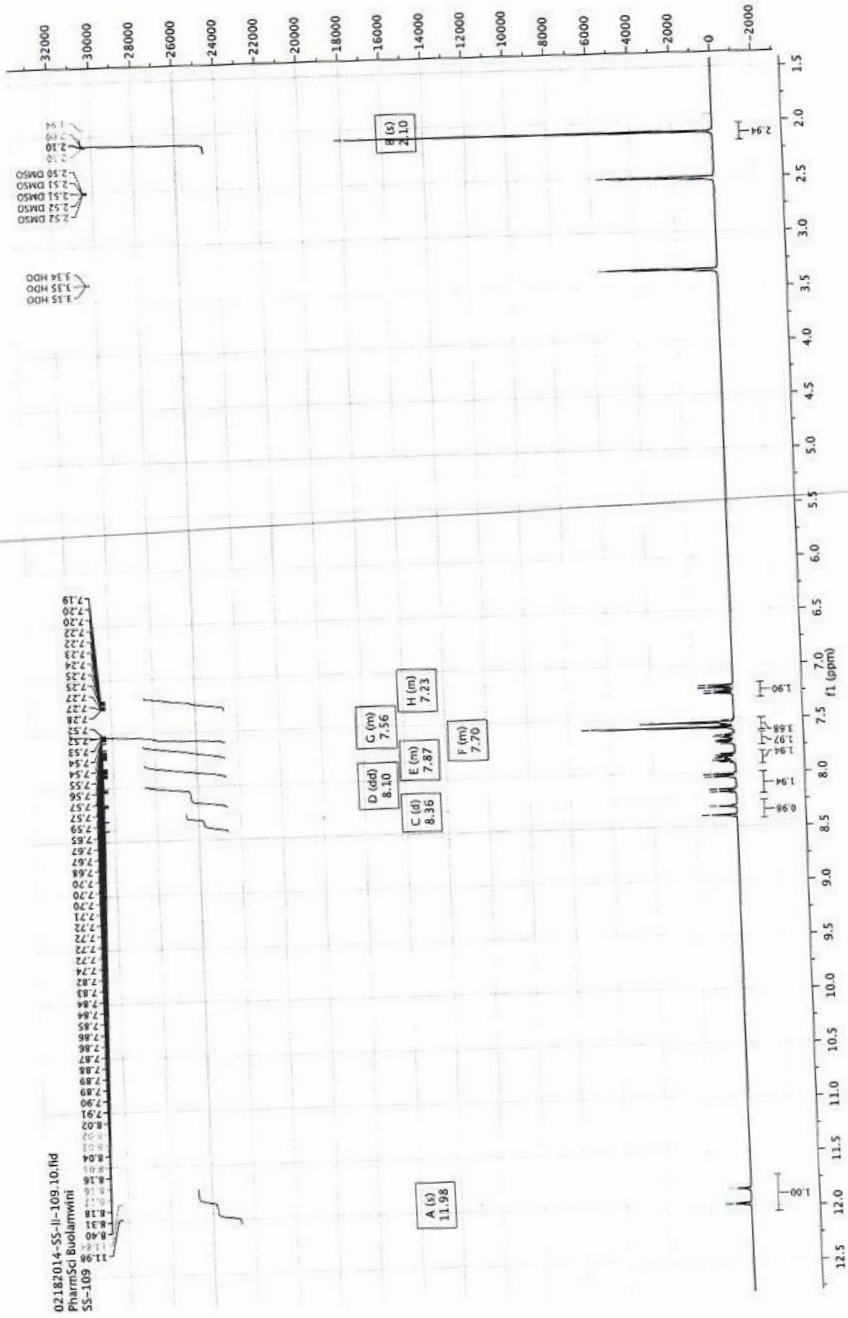
Acquisition Date 09/26/13 17:40:23
Operator Administrator
Instrument Esquire-LC_00018

Acquisition Parameter

Ion Source Type	ESI	Ion Polarity	Negative	Alternating Ion Polarity	n/a
Mass Range Mode	Std/Normal	Scan Begin	50.00 m/z	Scan End	650.00 m/z
Capillary Exit	-120.6 Volt	Skim 1	-43.4 Volt	Trap Drive	45.9
Accumulation Time	50000 µs	Averages	5 Spectra	Auto MS/MS	Off



¹H NMR (400 MHz, DMSO-d₆) δ 11.98 (s, 1H), 8.36 (d, J = 33.9 Hz, 1H), 8.10 (dd, J = 56.0, 8.6 Hz, 2H), 7.92 – 7.80 (m, 2H), 7.75 – 7.63 (m, 2H), 7.61 – 7.50 (m, 4H), 7.31 – 7.17 (m, 2H), 2.10 (s, 3H).



Suppl. Mass spectrum of 70

