

## Supporting Information

*Rec. Nat. Prod.* 10:2 (2015) 128-136

### New Enzyme Inhibitory Constituents from *Tribulus longipetalus*

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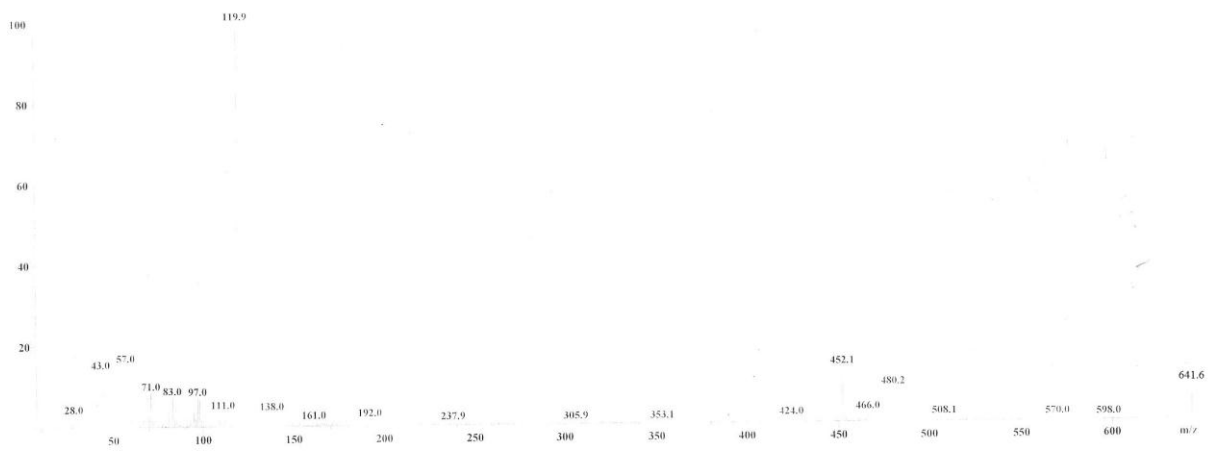
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File: TLC-1 Date Run: 01-18-2012 Time Run: 11:21:50  
Sample: MUHAMMAD AKRAM NAVEED / DR.NAHEED RIAZ THE ISLAMIA UNIVERSITY OF BAHAWALPUR  
Instrument: JEOL JMS600 Run By: mass  
Inlet: Direct Probe Ionization mode: EI+ Printed by: mass

Scan: 49 R.T.: 4:14.7 #Ions: 655  
Base: m/z 120; 16.8%FS TIC: 945345 (Max Inten : 175695)



**S1: EI-MS Spectrum of Compound 1 (longipetalamide A)**

File Name: TLC-1  
 Sample: M. Akram Naveed/Dr. Naheed Riaz, The Islamia University of Bahawalpur  
 Instrument: JEOL JMS600  
 Inlet: Direct Probe

Date Run: 05-02-2012

Time Run: 11:23:17

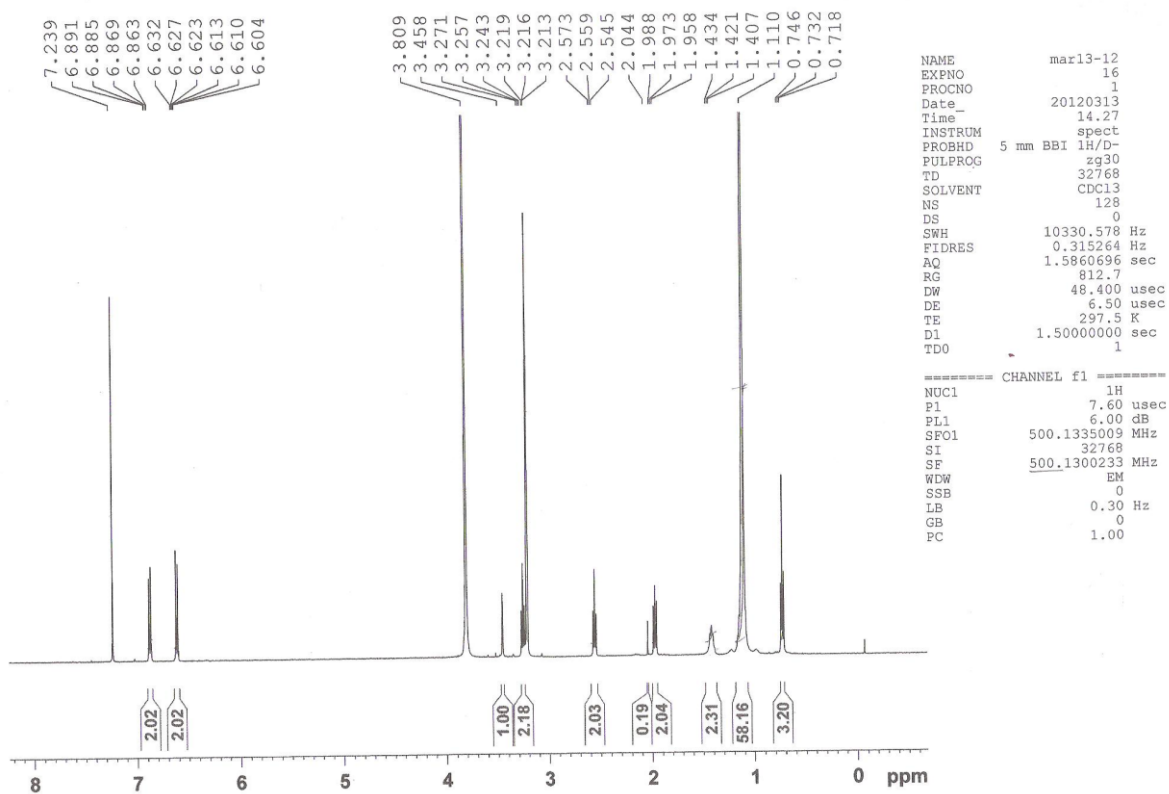
Run By: Lab 102  
 Printed by: Lab 102

Ionization mode: HRMS<sup>+</sup>

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		Mass	[ppm]			
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598.56504	6.1342	698.55630	4.4	0.4	3.4	C <sub>18</sub> H <sub>27</sub> NO <sub>2</sub>
570.52381	5.1356	570.52500	3.3	1.9	5.0	C <sub>18</sub> H <sub>18</sub> NO <sub>2</sub>
508.45105	2.09846	508.45183	2.0	0.3	3.5	C <sub>15</sub> H <sub>16</sub> NO
480.42031	10.6534	480.42053	9.3	3.3	11.0	C <sub>17</sub> H <sub>14</sub> NO
466.40346	5.56479	466.40488	2.7	3.6	3.4	C <sub>12</sub> H <sub>12</sub> NO
452.38765	16.98564	452.38923	11.6	3.9	0.5	C <sub>11</sub> H <sub>10</sub> NO
424.35654	2.89743	424.35793	1.5	0.9	5.0	C <sub>18</sub> H <sub>16</sub> NO
353.27045	4.54289	353.27185	1.8	1.8	2.8	C <sub>14</sub> H <sub>13</sub> NO
305.27093	3.77659	305.271805	1.9	1.7	2.4	C <sub>12</sub> H <sub>12</sub> NO

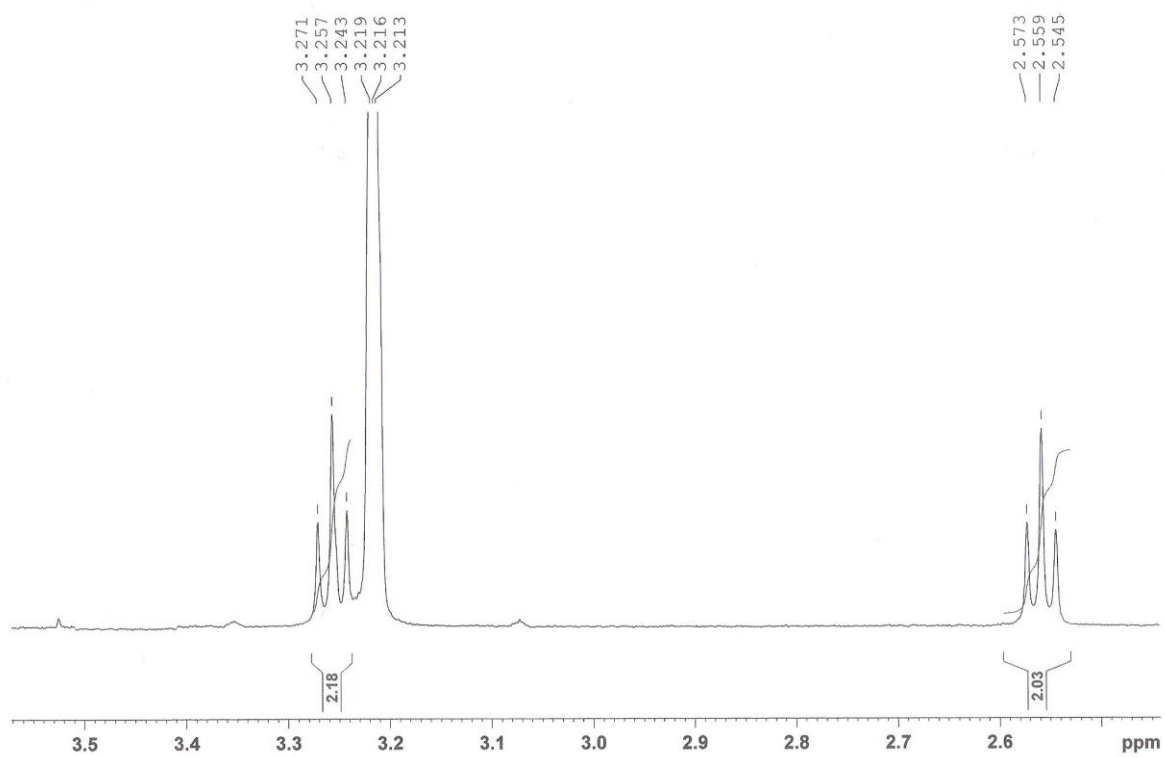
## S2: HR-EI-MS Spectrum of Compound 1 (longipetalamide A)

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCl<sub>3</sub>+CD<sub>3</sub>OD  
I.U.BWP/



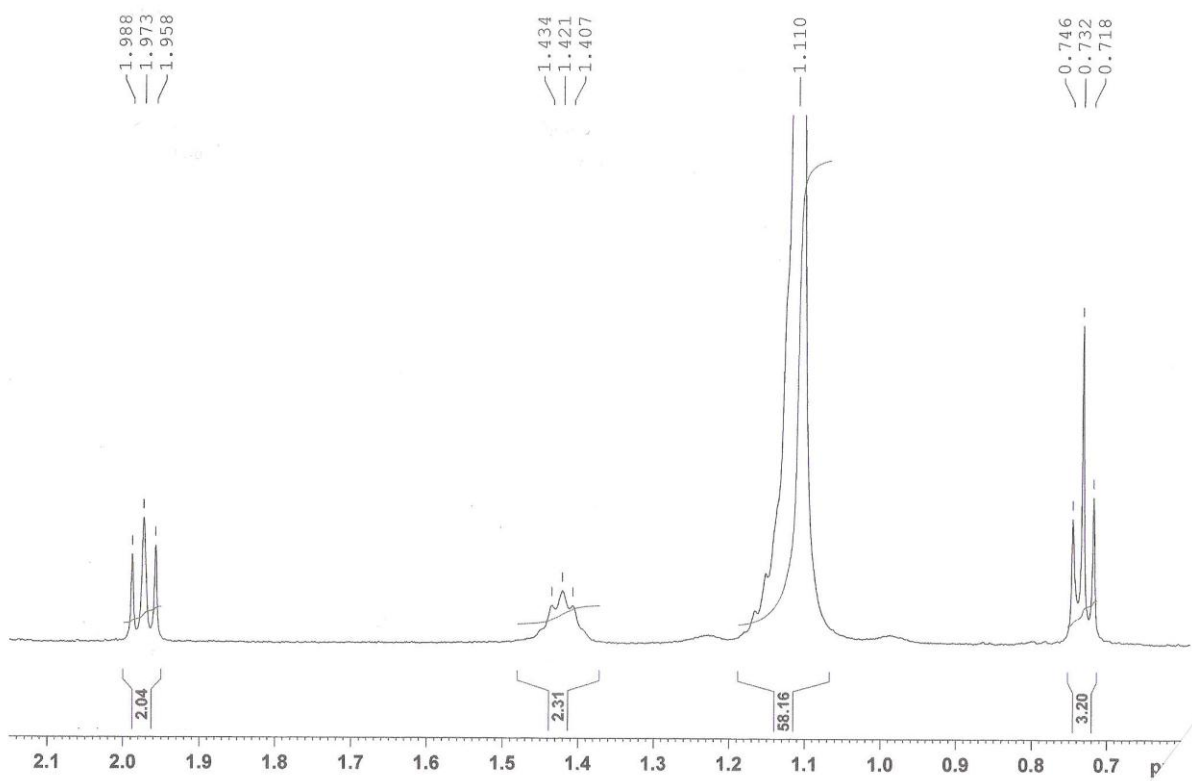
**S3:** <sup>1</sup>H-NMR (500 MHz, CDCl<sub>3</sub>+CD<sub>3</sub>OD) Spectrum of Compound **1** (longipetalamide A)

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCL3+CD3OD  
I.U. BWP/

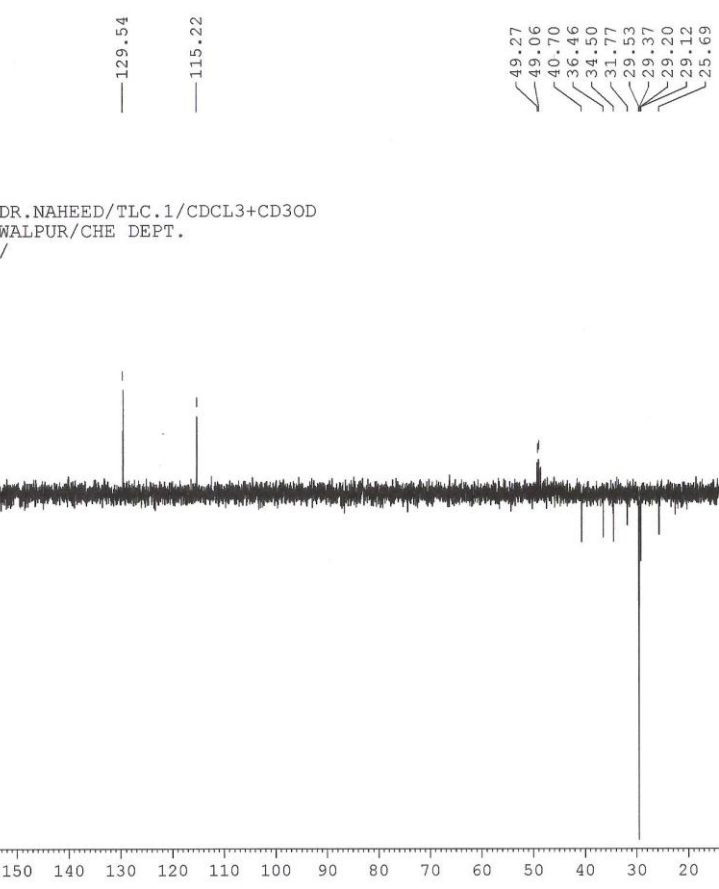
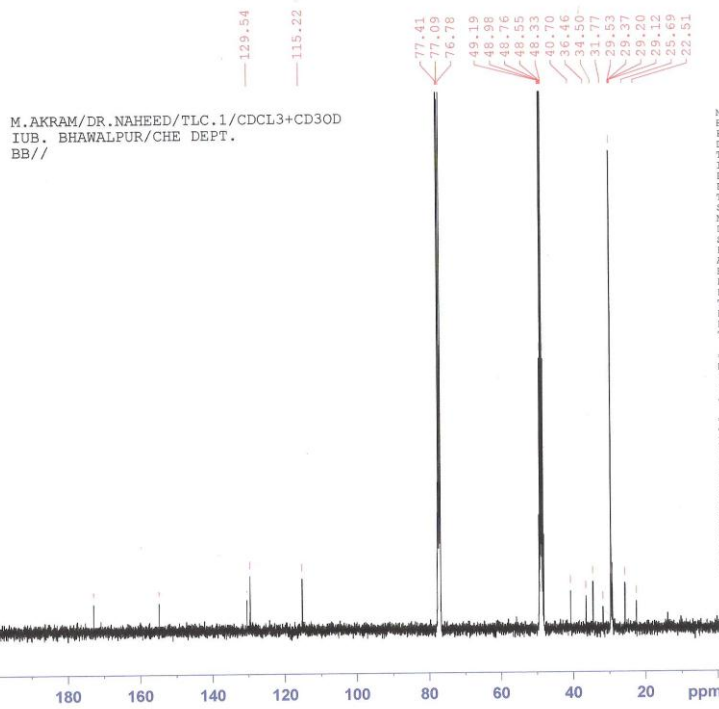


**S4:** <sup>1</sup>H-NMR Spectrum of Compound **1** (longipetalamide A) (From 3.27 to 2.54 ppm)

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCL3+CD3OD  
I.U.BWP/



**S5:** <sup>1</sup>H-NMR Spectrum of Compound **1** (longipetalamide A) (From 1.98 to 0.71 ppm)



```

NAME      march14-12
EXPNO     4
PROCNO    1
Date_     20120315
Time      13.49
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PROBHD    5 mm SEI 1H-13
PULPROG   zgpg
TD         32768
SOLVENT   CDCl3
NS         20480
DS         2
SWH        24154.590 Hz
FIDRES     0.737140 Hz
AQ         0.6783476 sec
RG         32768
WDW        20.700 usec
DE         6.50 usec
TE         293.2 K
D1         1.5000000 sec
D11        0.0300000 sec
TD0        20

===== CHANNEL f1 =====
NUC1       13C
P1         12.00 usec
PL1        -6.00 dB
SF01       100.5991916 MHz

===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2       1H
PCPD2     75.00 usec
PL2        3.00 dB
PL12       20.00 dB
PL13       20.00 dB
SFO2       400.0320001 MHz
SI         16384
SF         100.5876227 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.00

```

```

NAME      march14-12
EXPNO     5
PROCNO    1
Date_     20120316
Time      2.36
INSTRUM   spect
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PULPROG   dept135
TD         32768
SOLVENT   CDCl3
NS         12288
DS         2
SWH        20080.320 Hz
FIDRES     0.612803 Hz
AQ         0.8159732 sec
RG         16384
WDW        24.900 usec
DE         6.50 usec
TE         300.0 K
CNST2     145.0000000
D1         1.5000000 sec
D2         0.00344828 sec
D12        0.00002000 sec
TD0        12

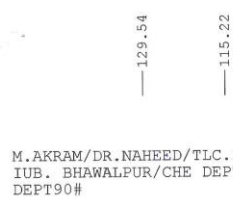
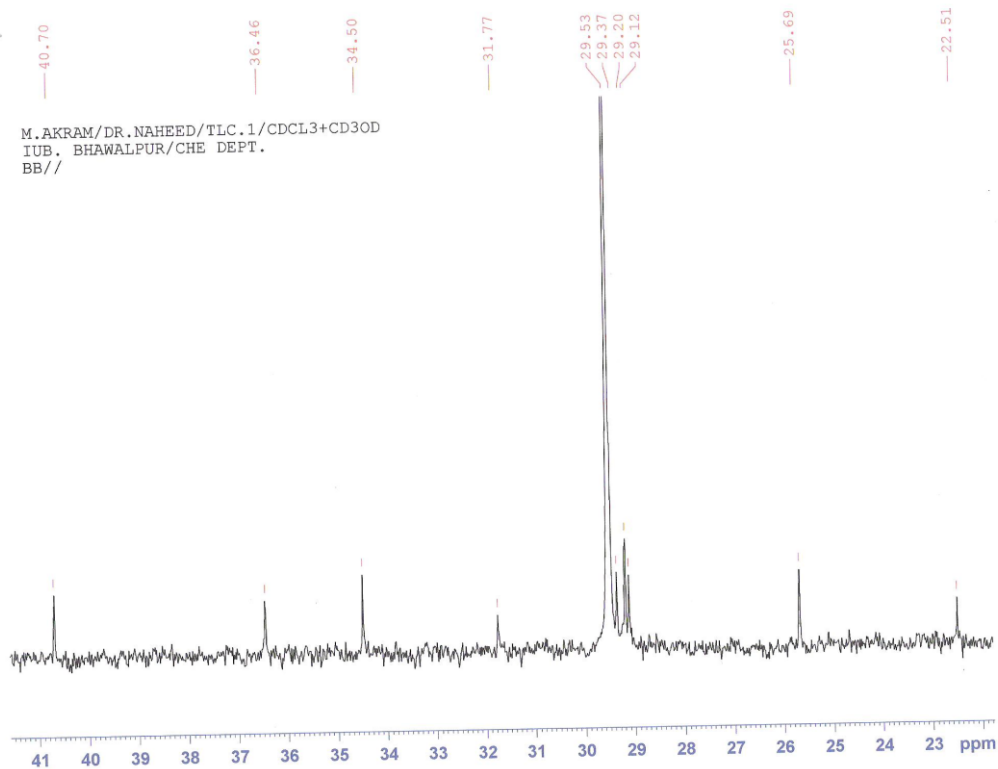
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PL1        -6.00 dB
SF01       100.5971798 MHz

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NUC2       1H
P3         10.50 usec
P4         21.00 usec
PCPD2     75.00 usec
PL2        3.00 dB
PL12       20.00 dB
SFO2       400.0320001 MHz
SI         16384
SF         100.5876227 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.40

```

**S6:** <sup>13</sup>C-NMR + DEPT (100 MHz, CDCl<sub>3</sub>+CD<sub>3</sub>OD) Spectrum of Compound 1 (longipetalamide A)





```

NAME      march14-12
EXPNO     6
PROCNO    1
Date_     20120316
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PULPROG   dept90
TD         32768
SOLVENT   CDCL3
NS         5120
DS         2
SWH        20080.320 Hz
FIDRES     0.612803 Hz
AQ         0.8159732 sec
RG         16384
DW         24.900 usec
DE         4.50 usec
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CNST2     145.0000000
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D2         0.00344828 sec
D12        0.00002000 sec
TDO        5

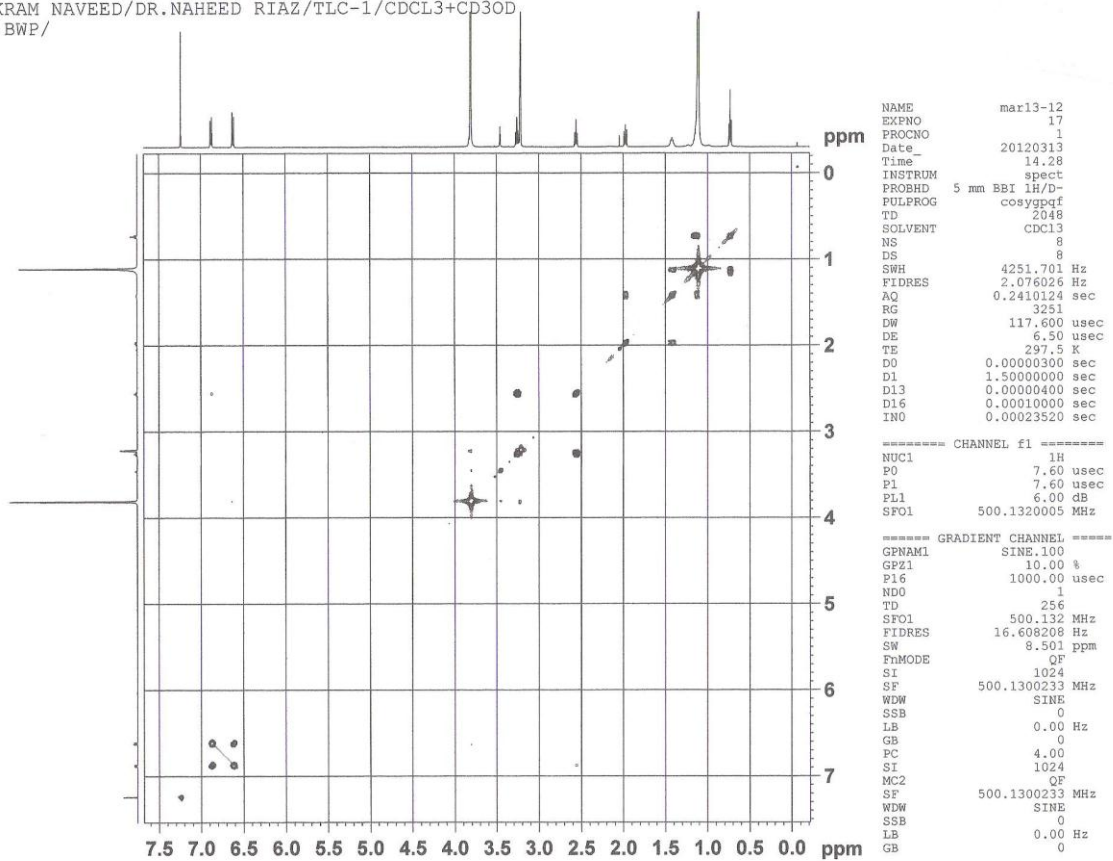
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P2         24.00 usec
PL1        -6.00 dB
SFO1       100.5971798 MHz

----- CHANNEL f2 -----
CFDPRG2    waltz16
NUC2       1H
F3         10.50 usec
P4         21.00 usec
PCPD2     75.00 usec
PL2        3.00 dB
PL12       20.00 dB
SFO2       400.0320001 MHz
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SF         100.5876227 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
EC         1.40

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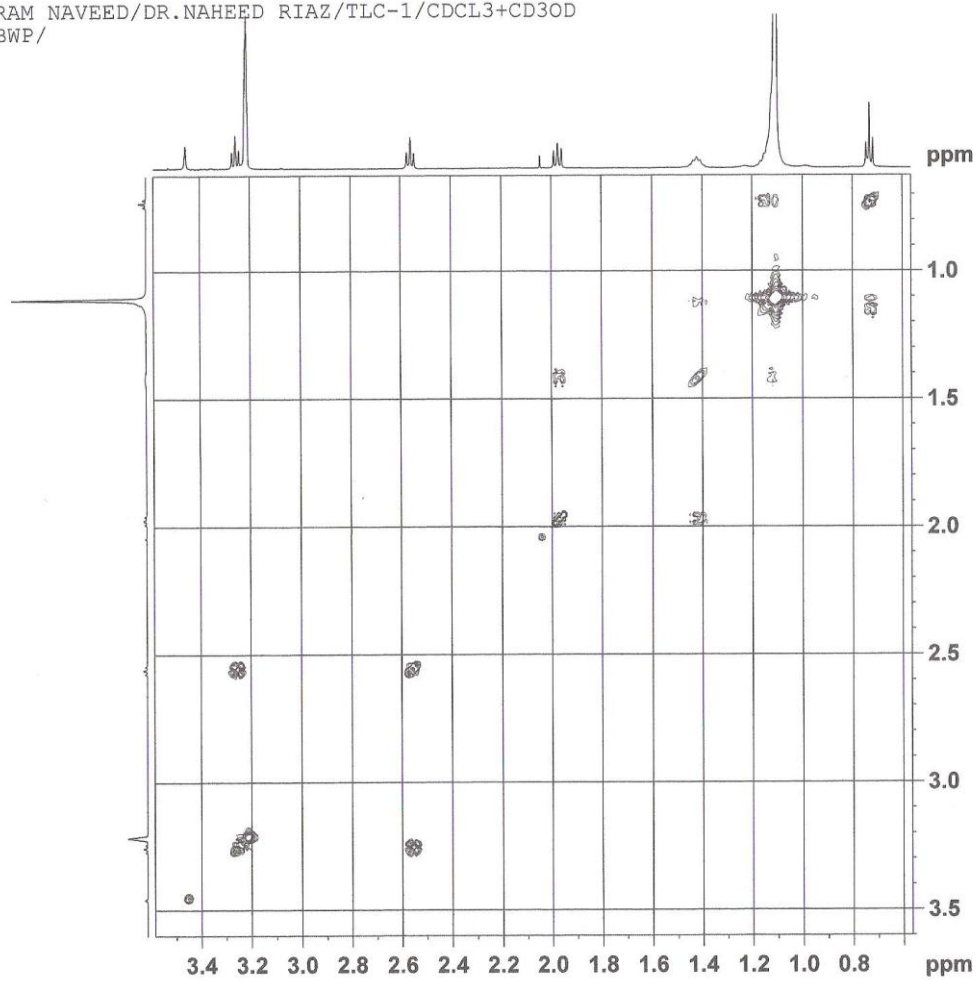
S7:  $^{13}\text{C}$ -NMR + DEPT Spectrum of Compound 1 (longipetalamide A)

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCL3+CD3OD  
I.U.BWP/



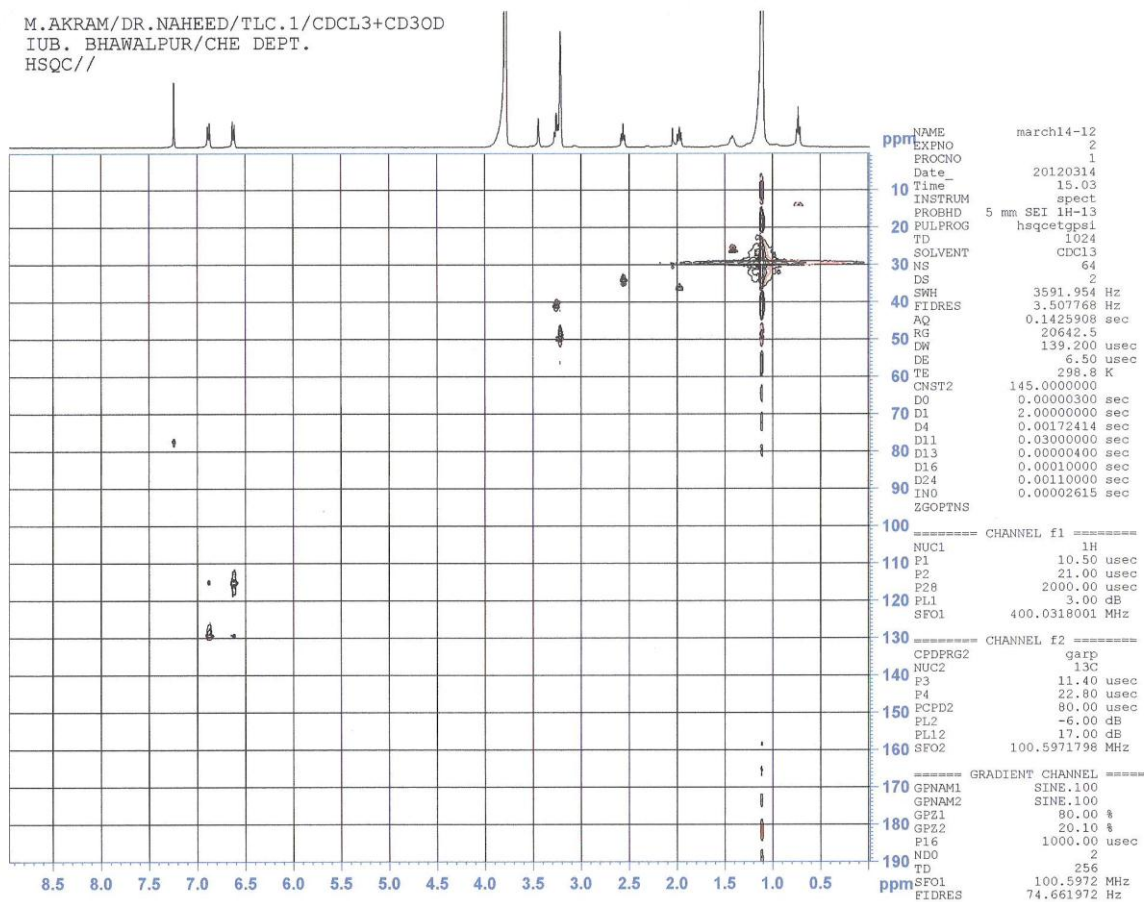
**S8:** COSY (500 MHz) Spectrum of Compound **1** (longipetalamide A)

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCL3+CD3OD  
I.U.BWP/



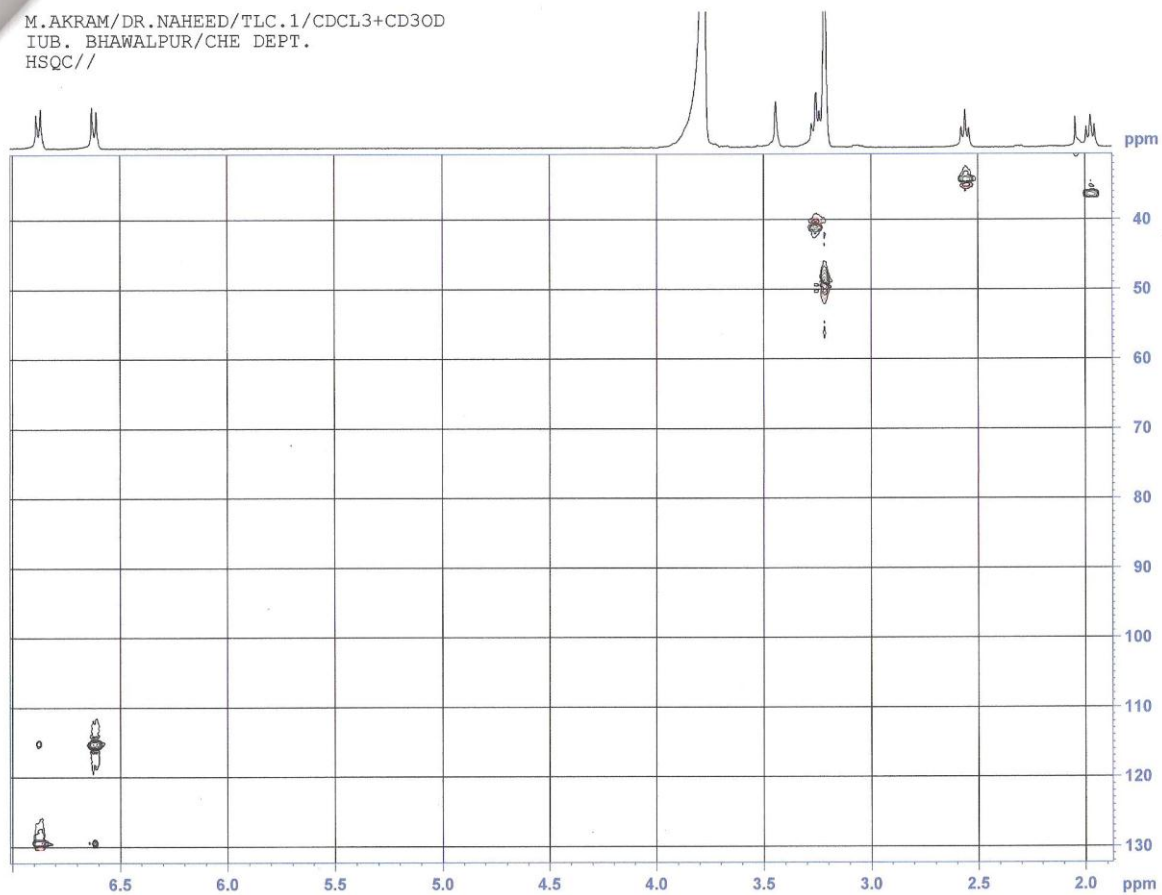
**S9:** COSY Spectrum of Compound **1** (longipetalamide A) (From 3.4 to 0.70 ppm)

M.AKRAM/DR.NAHEED/TLC.1/CDCL3+CD3OD  
 IUB. BHAWALPUR/CHE DEPT.  
 HSQC//



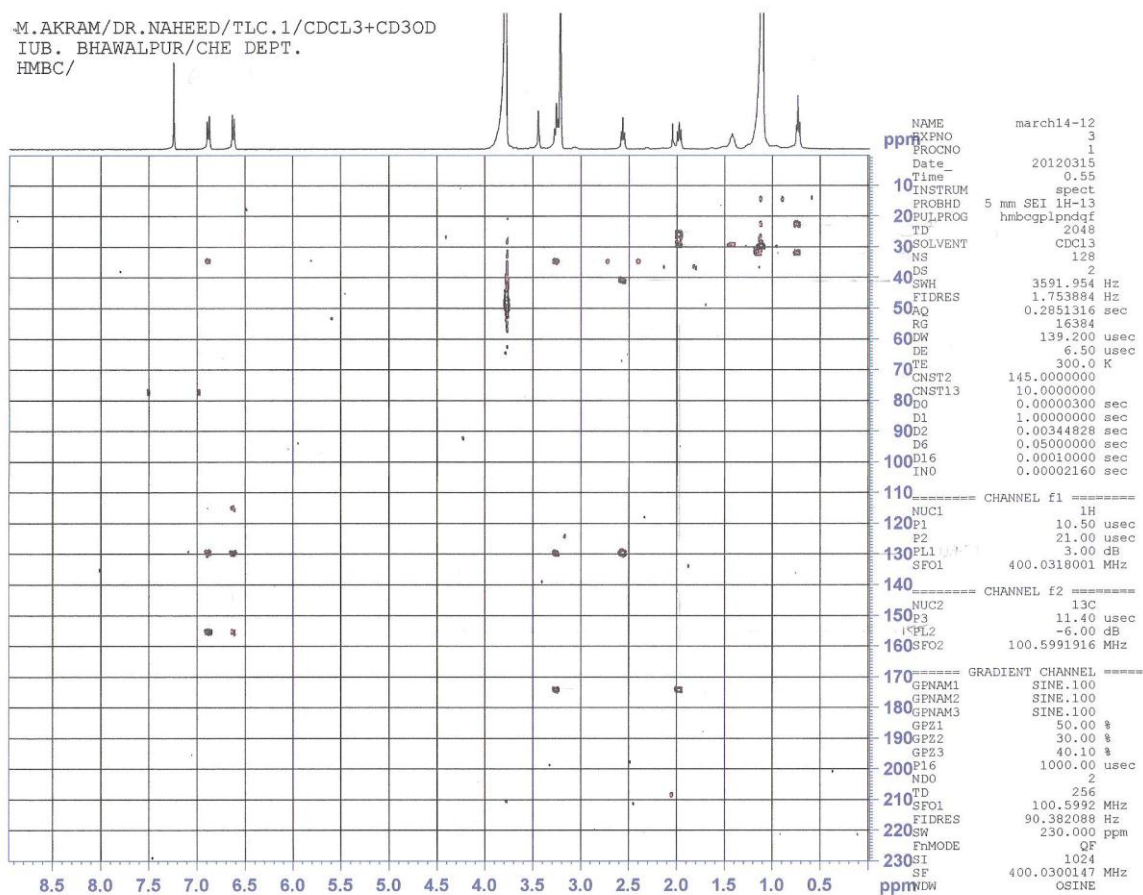
**S10: HSQC (400 MHz) Spectrum of Compound 1 (longipetalamide A)**

M. AKRAM/DR. NAHEED/TLC. 1/CDCL3+CD3OD  
IUB. BHAWALPUR/CHE DEPT.  
HSQC//



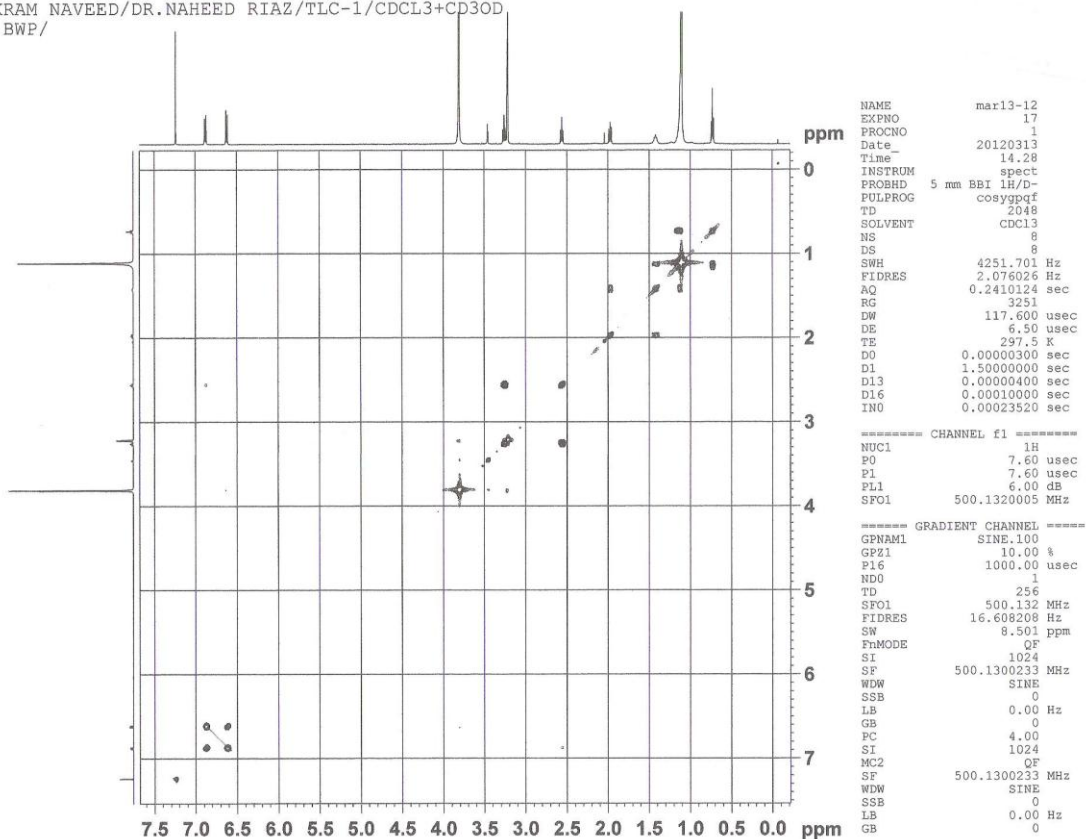
**S11: HSQC Spectrum of Compound 1 (longipetalamide A) (From 30 to 130 ppm)**

M. AKRAM/DR. NAHEED/TLC.1/CDCL3+CD3OD  
 IUB. BHAWALPUR/CHE DEPT.  
 HMBC/



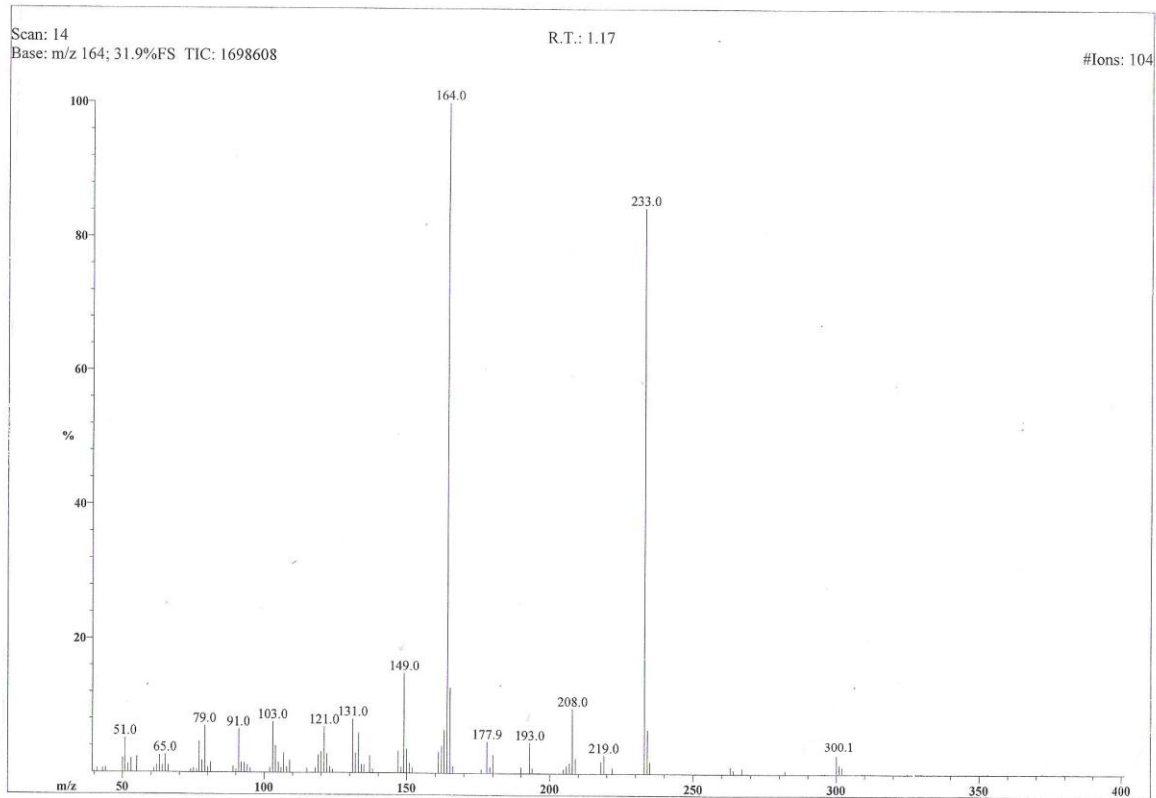
**S12: HMBC Spectrum of Compound 1 (longipetalamide A)**

M.AKRAM NAVEED/DR.NAHEED RIAZ/TLC-1/CDCL3+CD3OD  
I.U.BWP/



**S13:** NOESY Spectrum of Compound **1** (longipetalamide A)

File: TLC-29 A Date Run: 03-06-2013 (Time Run: 12:10:35)  
Sample: M.AKRAM NAVEED/DR.NAHEED RIAZ/ISLAMIA UNIVERSITY/BAHAWALPUR  
Instrument: JEOL JMS 600-H  
Inlet: My Inlet Ionization mode: EI+



**S14: EI-MS Spectrum of Compound 2 (longipetalasin A)**



File Name: TLC-29 A  
Sample: M. Akram Naveed/Dr. Naheed Riaz, The Islamia University of Bahawalpur  
Instrument: JEOL JMS600  
Inlet: Direct Probe

Date Run: 08-07-2013

Time Run: 10:29:55

Ionization mode: HRMS<sup>+</sup>

Run By: Lab 102  
Printed by: Lab 102

Mass	Relative Intensity	Theoretical Delta		Delta	RDB	Composition
		Mass	[ppm]	[mmu]		
300.09909	6.4127	300.09977	5.7	1.8	5.6	C <sub>17</sub> H <sub>16</sub> O <sub>5</sub>
233.05905	83.1287	233.06025	14.5	3.5	13.0	C <sub>16</sub> H <sub>6</sub> O <sub>2</sub>
219.04317	5.9087	219.04460	6.7	7.6	2.5	C <sub>13</sub> H <sub>4</sub> O <sub>2</sub>
208.10856	15.6754	208.10994	2.4	0.9	3.7	C <sub>12</sub> H <sub>16</sub> O <sub>3</sub>
193.08565	5.9845	193.08646	2.1	0.8	7.8	C <sub>11</sub> H <sub>13</sub> O <sub>3</sub>
178.06209	5.56479	178.06299	2.4	0.7	4.7	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>
164.04607	100.0000	164.04734	67.9	10.6	9.0	C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>
149.02254	13.8768	149.02387	1.9	1.6	3.0	C <sub>8</sub> H <sub>5</sub> O <sub>3</sub>

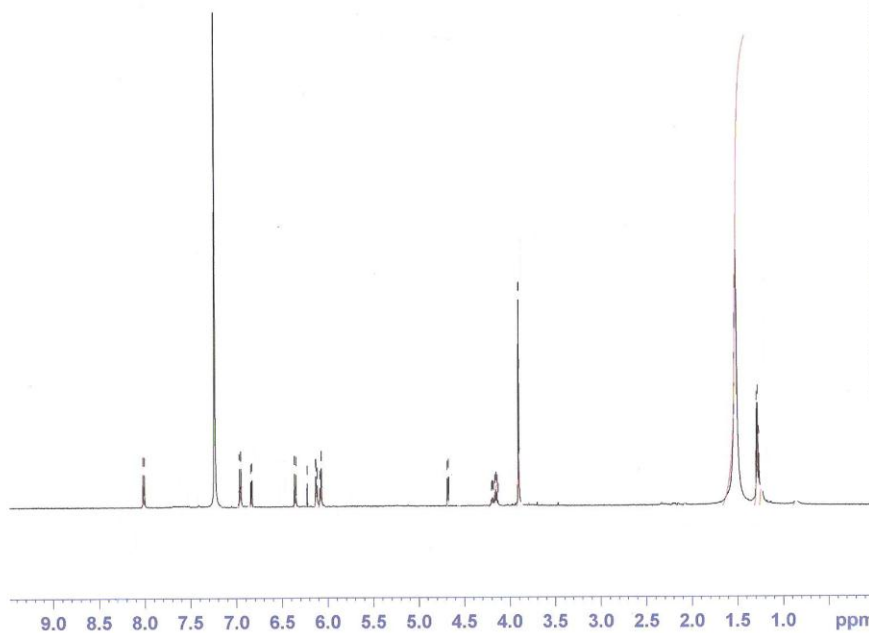
### S15: HR-EI-MS Spectrum of Compound 2 (longipetalasin A)

AKRAM/DR.NAHEED/TLC-29A  
CHEM. DEPT./I.U.BHAWALPUR  
1H

AVANCE AV 600  
LAB. No. 108  
1H-NMR  
**BRUKER**

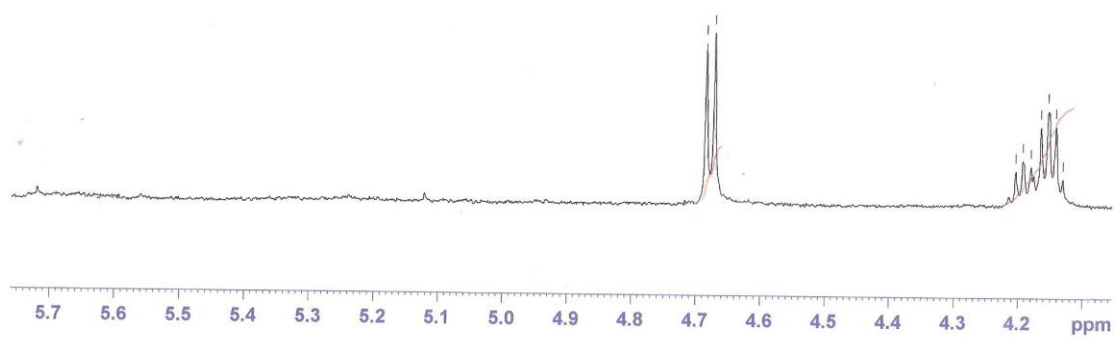
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PROCNO 1  
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Time 11.21  
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TD 32768  
SOLVENT CDCl3  
NS 32  
DS 0  
SWH 9615.385 Hz  
FIDRES 0.293438 Hz  
AQ 1.7040380 sec  
RG 574.7  
DW 52.000 usec  
DE 6.50 usec  
TE 302.5 K  
D1 1.00000000 sec  
TDO 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 7.50 usec  
PL1 0.00 dB  
PL1W 14.56894112 W  
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SI 32768  
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WDW EM  
SSB 0  
LB 0.50 Hz  
GB 0  
PC 1.00



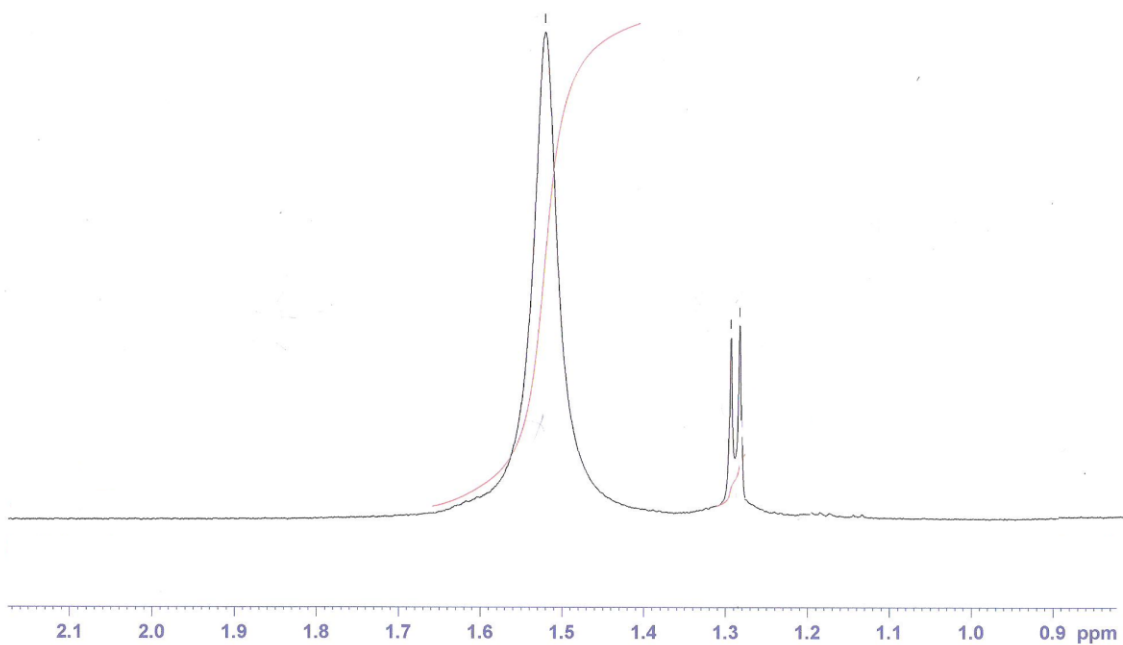
**S16:**  $^1\text{H}$ -NMR (600 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound **1** (longipetalasin A)

AKRAM/DR.NAHEED/TLC-29 A  
CHEM. DEPT./I.U.BHAWALPUR  
1H



**S17:**  $^1\text{H}$ -NMR Spectrum of Compound **2** (longipetalasin A) (From 5.70 to 4.10 ppm)

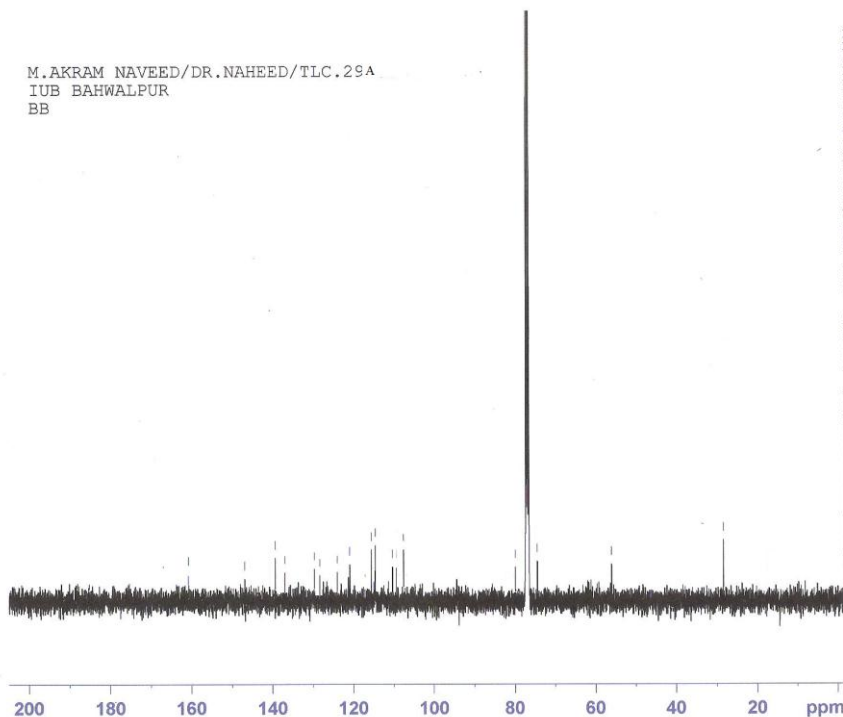
AKRAM/DR.NAHEED/TLC-29A  
CHEM. DEPT./I.U.BHAWALPUR  
1H



**S18:**  $^1\text{H}$ -NMR Spectrum of Compound **2** (longipetalasin A) (From 2.10 to 0.90 ppm)

AVANCE AV-400 MHz  
Lab # 115

M.AKRAM NAVEED/DR.NAHEED/TLC.29A  
IUB BAHWALPUR  
BB



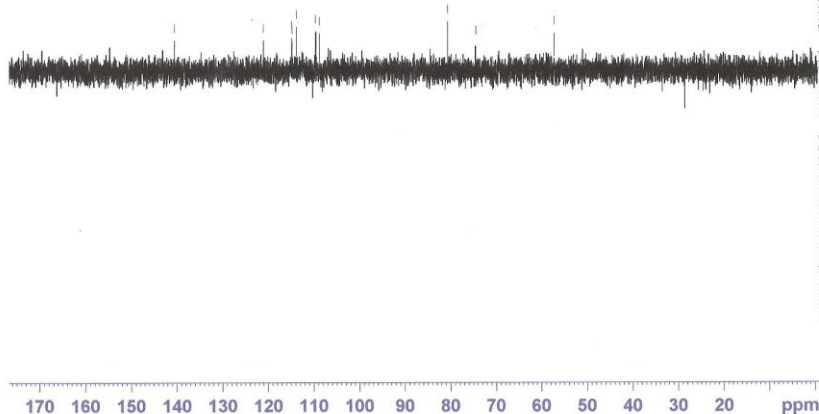
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PROCNO 1  
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PULPROG zgpg  
TD 32768  
SOLVENT CDCl3  
NS 20480  
DS 2  
SMH 24154.590 Hz  
FIDRES 0.737140 Hz  
AQ 0.6783476 sec  
RG 32768  
DM 20.700 usec  
DE 6.50 usec  
TE 298.1 K  
D1 1.5000000 sec  
D11 0.0300000 sec  
TDO 20

===== CHANNEL f1 =====  
NUC1 13C  
P1 12.30 usec  
PL1 -6.00 dB  
SFO1 100.5991916 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 75.00 usec  
PL2 3.00 dB  
PL12 20.00 dB  
PL13 22.00 dB  
SFO2 400.0320001 MHz  
SI 16384  
SF 100.5876227 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.00

AVANCE AV-400 MHz  
Lab # 115

M.AKRAM NAVEED/DR.NAHEED/TLC.29A  
IUB BAHWALPUR  
DEF135#//



NAME april10-13  
EXPNO 4  
PROCNO 1  
Date\_ 20130411  
Time 12.34  
INSTRUM spect  
PROBHD 5 mm SEI 1H-13  
PULPROG dspt135  
TD 32768  
SOLVENT CDCl3  
NS 12288  
DS 2  
SMH 20080.320 Hz  
FIDRES 0.612603 Hz  
AQ 0.819332 sec  
RG 16384  
DM 24.900 usec  
DE 6.50 usec  
TE 299.5 K  
CNST2 145.0000000  
D1 1.5000000 sec  
D2 0.00344628 sec  
D12 0.00002000 sec  
TDO 12

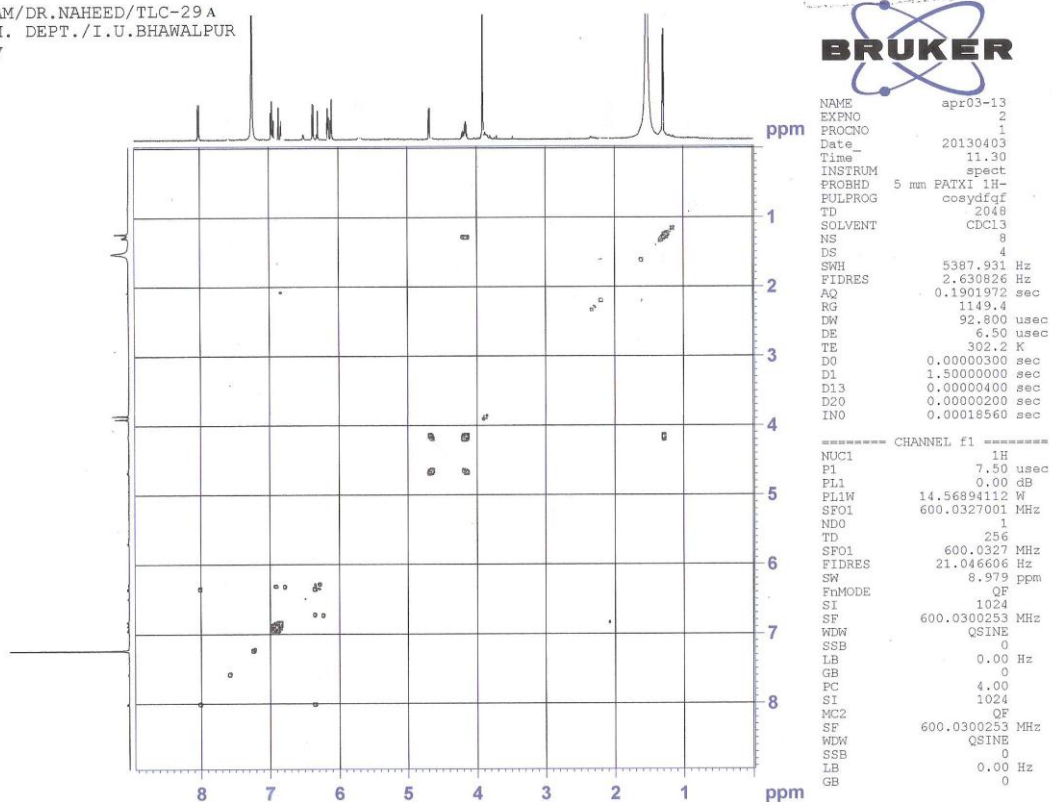
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P1 12.30 usec  
P2 24.60 usec  
PL1 -6.00 dB  
SFO1 100.5971798 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
P3 10.50 usec  
P4 21.00 usec  
PCPD2 75.00 usec  
PL2 3.00 dB  
PL12 20.00 dB  
SFO2 400.0320001 MHz  
SI 16384  
SF 100.5876227 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.00

**S19:**  $^{13}\text{C}$ -NMR + DEPT (100 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 2 (longipetalasin A)

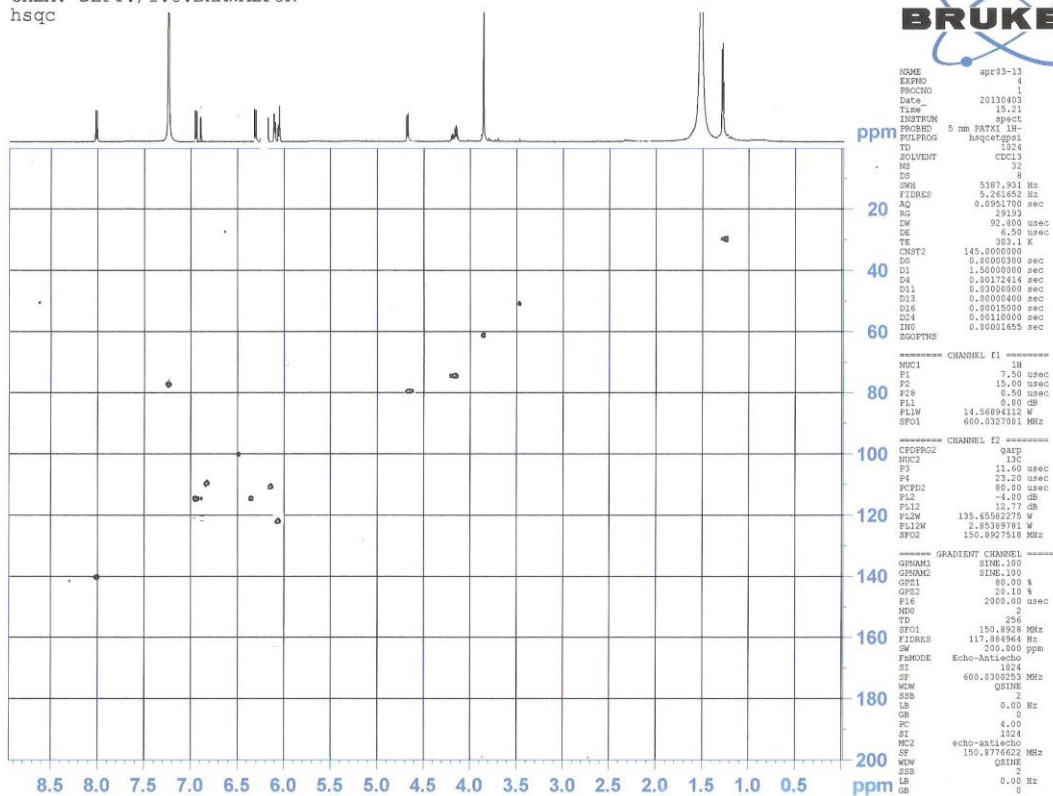
AKRAM/DR.NAHEED/TLC-29 A  
CHEM. DEPT./I.U.BHAWALPUR  
cosy

AVANCE AV 600  
LAS. No. 108  
LC-NMR



**S20:** COSY (600 MHz) Spectrum of Compound **2** (longipetalasin A)

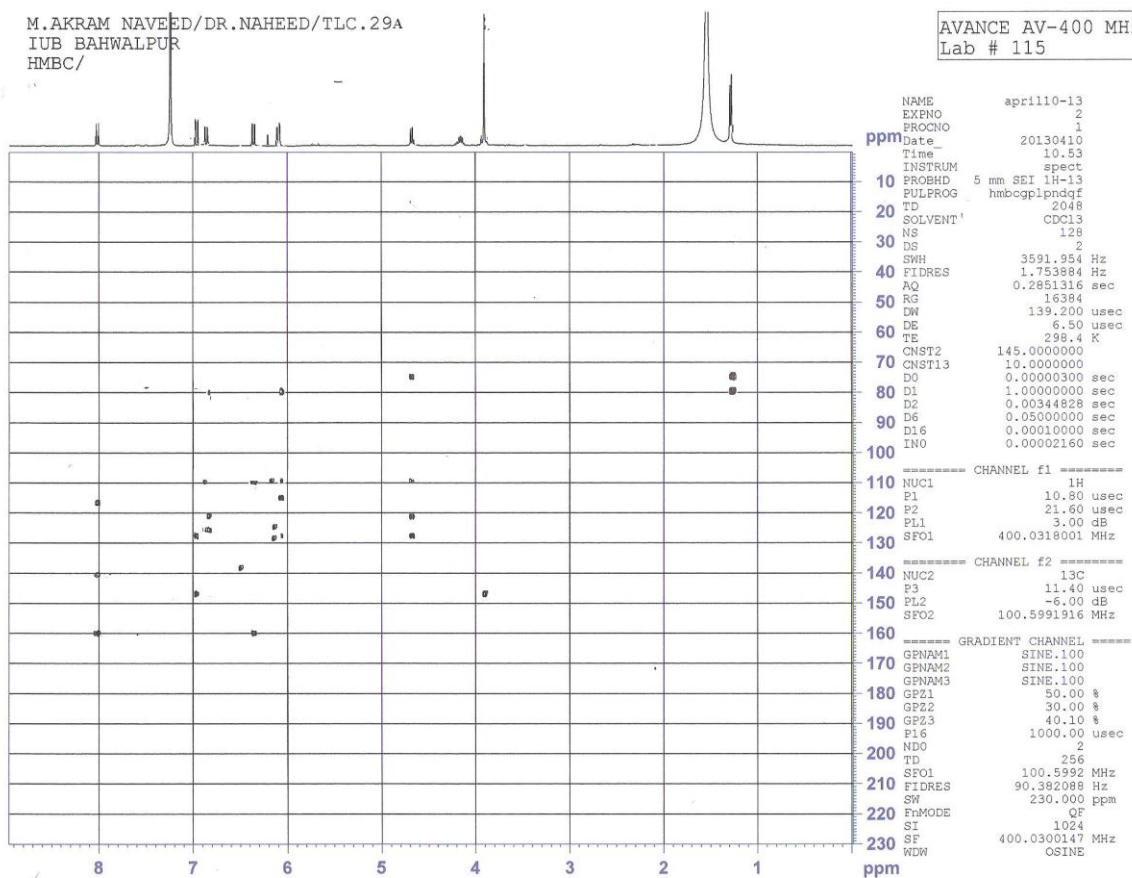
AKRAM/DR. NAHEED/TLC-29A  
 CHEM. DEPT./I.U.BHAWALPUR  
 hsqc



S21: HSQC (600 MHz) Spectrum of Compound 2 (longipetalasin A)

M.AKRAM NAVEED/DR.NAHEED/TLC.29A  
IUB BAHWALPUR  
HMBC/

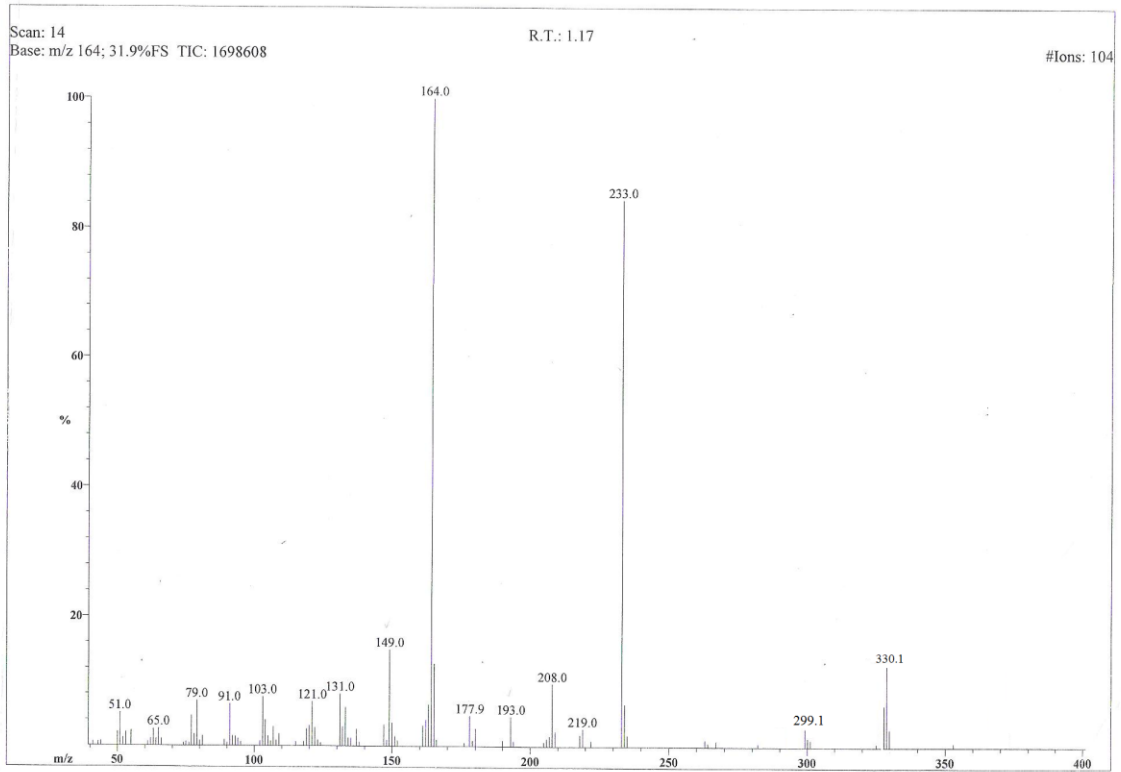
AVANCE AV-400 MHz  
Lab # 115



S22: HMBC (400 MHz) Spectrum of Compound 2 (longipetalasin A)



File: TLC-29 B Date Run: 07-06-2013 (Time Run: 10:34:56)  
Sample: M.AKRAM NAVEED/DR.NAHEED RIAZ/ISLAMIA UNIVERSITY/BAHAWALPUR  
Instrument: JEOL JMS 600-H  
Inlet: My Inlet Ionization mode: EI+



**S23:** EI-MS Spectrum of Compound 3 (longipetalasin B)

File Name: TLC-29 B  
Sample: M. Akram Naveed/Dr. Naheed Riaz, The Islamia University of Bahawalpur  
Instrument: JEOL JMS600  
Inlet: Direct Probe

Date Run: 13-07-2013  
The Islamia University of Bahawalpur

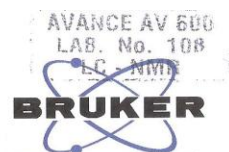
Ionization mode: HRMS<sup>+</sup>

Time Run: 11:25:07  
Run By: Lab 102  
Printed by: Lab 102

Mass	Relative Intensity	Theoretical Delta		Delta	RDB	Composition
		Mass	[ppm]			
330.11051	16.9874	330.11034	6.4	1.9	5.1	C <sub>18</sub> H <sub>18</sub> O <sub>6</sub>
299.09153	5.6712	299.0919	2.3	0.8	4.8	C <sub>17</sub> H <sub>12</sub> O <sub>5</sub>
233.05905	83.1287	233.06025	14.5	3.5	13.0	C <sub>10</sub> H <sub>6</sub> O <sub>2</sub>
219.04317	5.9087	219.04460	6.7	7.6	2.5	C <sub>13</sub> H <sub>2</sub> O <sub>2</sub>
208.10856	15.6754	208.10994	2.4	0.9	3.7	C <sub>12</sub> H <sub>16</sub> O <sub>5</sub>
193.08565	5.9845	193.08646	2.1	0.8	7.8	C <sub>11</sub> H <sub>12</sub> O <sub>5</sub>
178.06209	5.56479	178.06299	2.4	0.7	4.7	C <sub>10</sub> H <sub>10</sub> O <sub>5</sub>
164.04607	100.0000	164.04734	67.9	10.6	9.0	C <sub>9</sub> H <sub>14</sub> O <sub>5</sub>
149.02254	13.8768	149.02387	1.9	1.6	3.0	C <sub>8</sub> H <sub>2</sub> O <sub>5</sub>

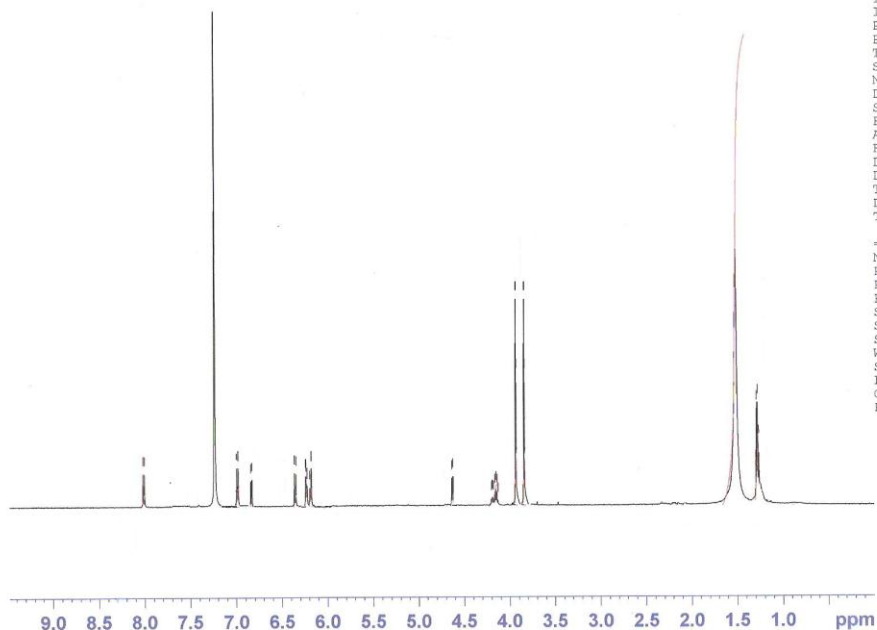
### S24: HR-EI-MS Spectrum of Compound 3 (longipetalasin B)

AKRAM/DR.NAHEED/TLC-29B  
CHEM. DEPT./I.U.BHAWALPUR  
1H



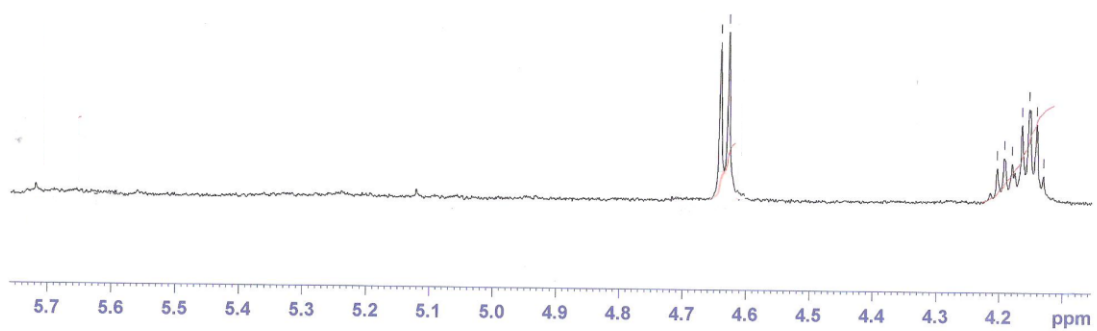
NAME apr04-13  
EXPNO 1  
PROCNO 1  
Date 20130403  
Time 10:55  
INSTRUM spect  
PROBHD 5 mm PATXI 1H-  
PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 32  
DS 0  
SWH 9615.385 Hz  
FIDRES 0.293438 Hz  
AQ 1.7040380 sec  
RG 574.7  
DW 52.000 usec  
DE 6.50 usec  
TE 302.5 K  
D1 1.00000000 sec  
TDO 1

----- CHANNEL f1 -----  
NUC1 1H  
P1 7.50 usec  
PL1 0.00 dB  
PL1W 14.56894112 W  
SFO1 600.0345002 MHz  
SI 32768  
SF 600.0300253 MHz  
WDW EM  
SSB 0  
LB 0.50 Hz  
GB 0  
PC 1.00



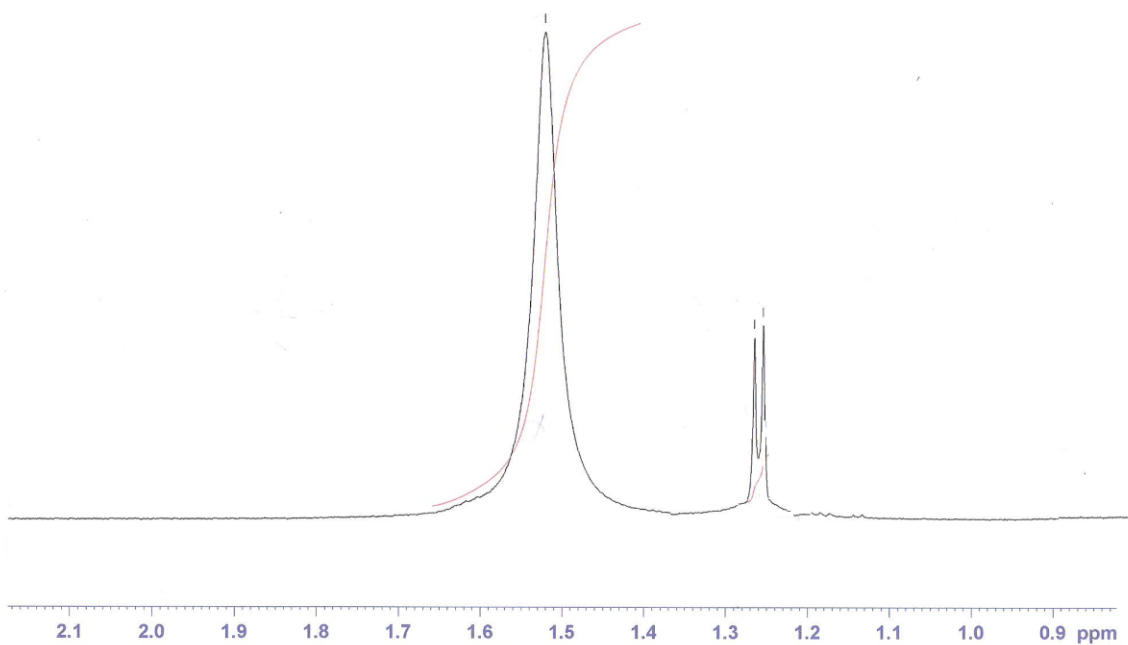
**S25:**  $^1\text{H-NMR}$  (600 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound **3** (longipetalasin B)

AKRAM/DR. NAHEED/TLC-29 B  
CHEM. DEPT./I.U. BHAWALPUR  
1H



**S17:**  $^1\text{H}$ -NMR Spectrum of Compound **3** (longipetalasin B) (From 5.70 to 4.10 ppm)

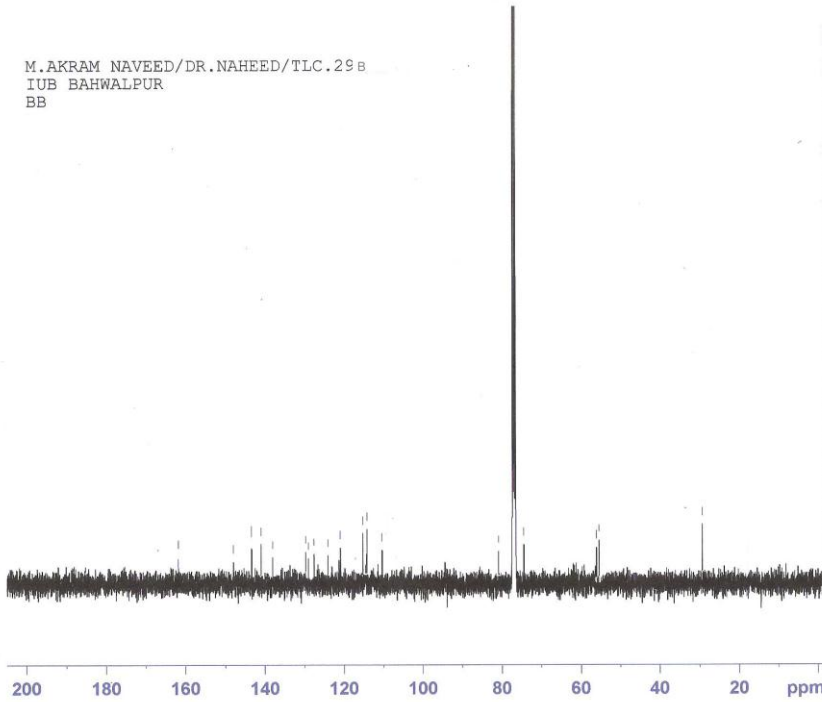
AKRAM/DR.NAHEED/TLC-29 B  
CHEM. DEPT./I.U.BHAWALPUR  
1H



**S27:** <sup>1</sup>H-NMR Spectrum of Compound **3** (longipetalasin B) (From 2.10 to 0.90 ppm)

AVANCE AV-400 MHz  
Lab # 115

M.AKRAM NAVEED/DR.NAHEED/TLC.29B  
IUB BAHWALPUR  
BB

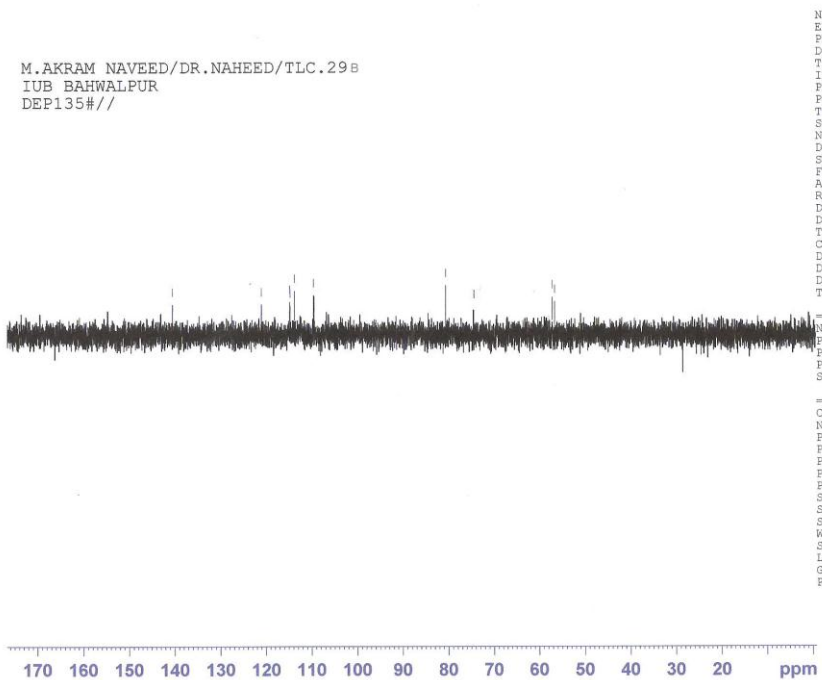


NAME april15-13  
EXPNO 3  
PROCNO 1  
Date\_ 20130415  
Time 10.15  
INSTRUM spect  
PROBHD 5 mm SEI 1H-13  
PULPROG zgpg  
TD 32768  
SOLVENT CDCl3  
NS 20480  
DS 2  
SWH 24154.590 Hz  
FIDRES 0.737140 Hz  
AQ 0.673476 sec  
RG 32768  
DW 20.700 usec  
DE 6.50 usec  
TE 298.1 K  
D1 1.50000000 sec  
D11 0.03000000 sec  
TD0 20

===== CHANNEL f1 =====  
NUC1 13C  
P1 12.30 usec  
PL1 -6.00 dB  
SFO1 100.5991916 MHz  
===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 75.00 usec  
PL2 3.00 dB  
PL12 20.00 dB  
PL13 22.00 dB  
SFO2 400.0320001 MHz  
SI 16384  
SF 100.5876227 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.00

AVANCE AV-400 MHz  
Lab # 115

M.AKRAM NAVEED/DR.NAHEED/TLC.29B  
IUB BAHWALPUR  
DEP135#//



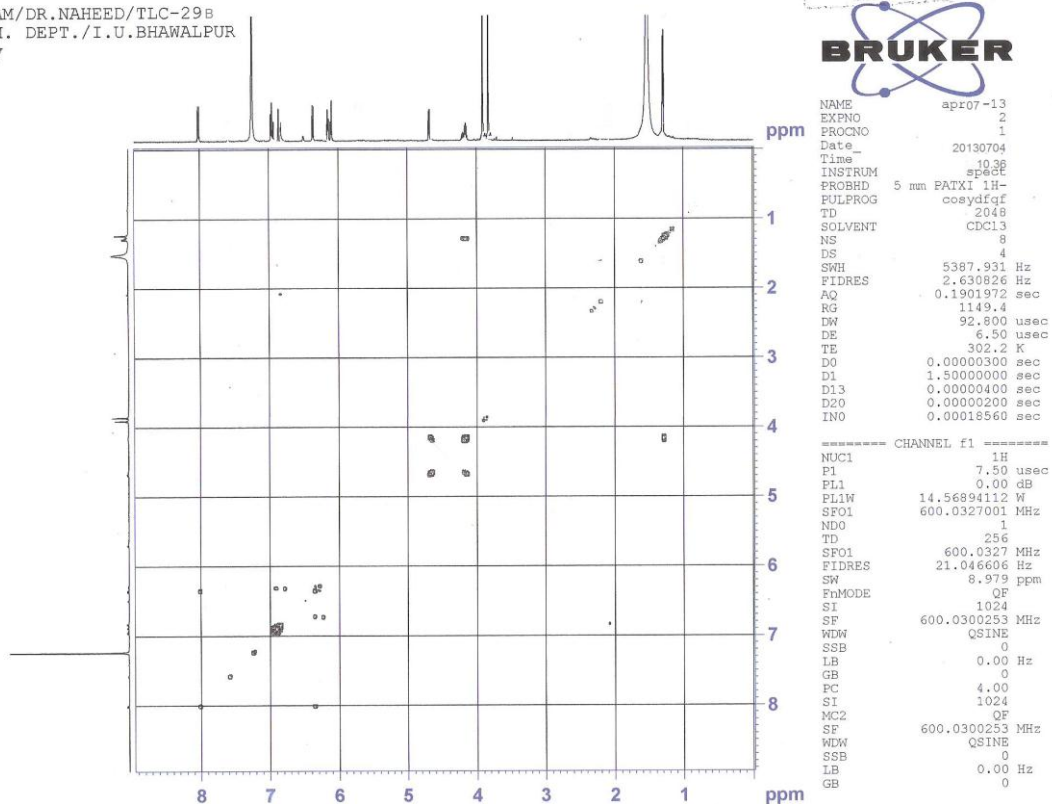
NAME april16-13  
EXPNO 4  
PROCNO 1  
Date\_ 20130417  
Time 14.45  
INSTRUM spect  
PROBHD 5 mm SEI 1H-13  
PULPROG dept135  
TD 32768  
SOLVENT CDCl3  
NS 12288  
DS 2  
SWH 20090.320 Hz  
FIDRES 0.612803 Hz  
AQ 0.8159732 sec  
RG 16384  
DW 24.900 usec  
DE 6.50 usec  
TE 299.5 K  
CNST2 145.0000000  
D1 1.50000000 sec  
D2 0.00344828 sec  
D12 0.00002000 sec  
TD0 12

===== CHANNEL f1 =====  
NUC1 13C  
P1 12.30 usec  
P2 24.60 usec  
PL1 -6.00 dB  
SFO1 100.5971798 MHz  
===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
P3 10.50 usec  
P4 21.00 usec  
PCPD2 75.00 usec  
PL2 3.00 dB  
PL12 20.00 dB  
SFO2 400.0320001 MHz  
SI 16384  
SF 100.5876227 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.00

S28:  $^{13}\text{C}$ -NMR + DEPT (100 MHz,  $\text{CDCl}_3$ ) Spectrum of Compound 3 (longipetalasin B)

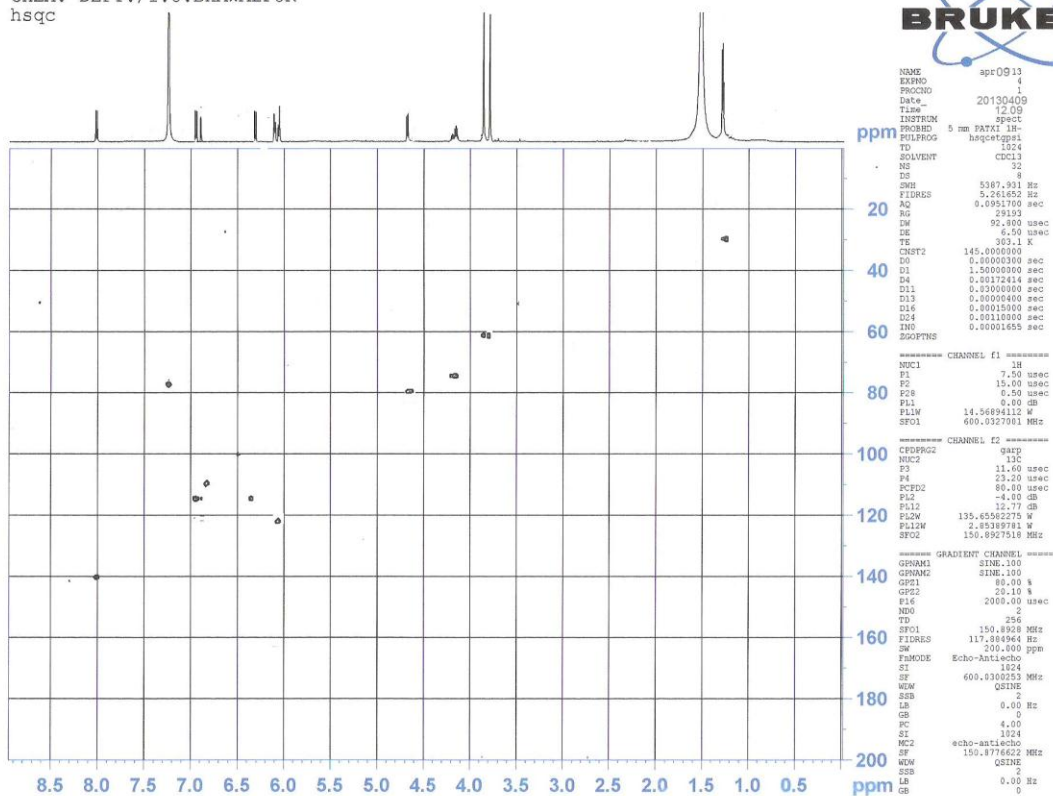
AKRAM/DR.NAHEED/TLC-29B  
CHEM. DEPT./I.U.BHAWALPUR  
cosy

AVANCE AV 500  
LAB. No. 108  
LC - NMR



**S29:** COSY (600 MHz) Spectrum of Compound **3** (longipetalasin B)

AKRAM/DR. NAHEED/TLC-298  
 CHEM. DEPT./I.U.BHAWALPUR  
 hsqc



```

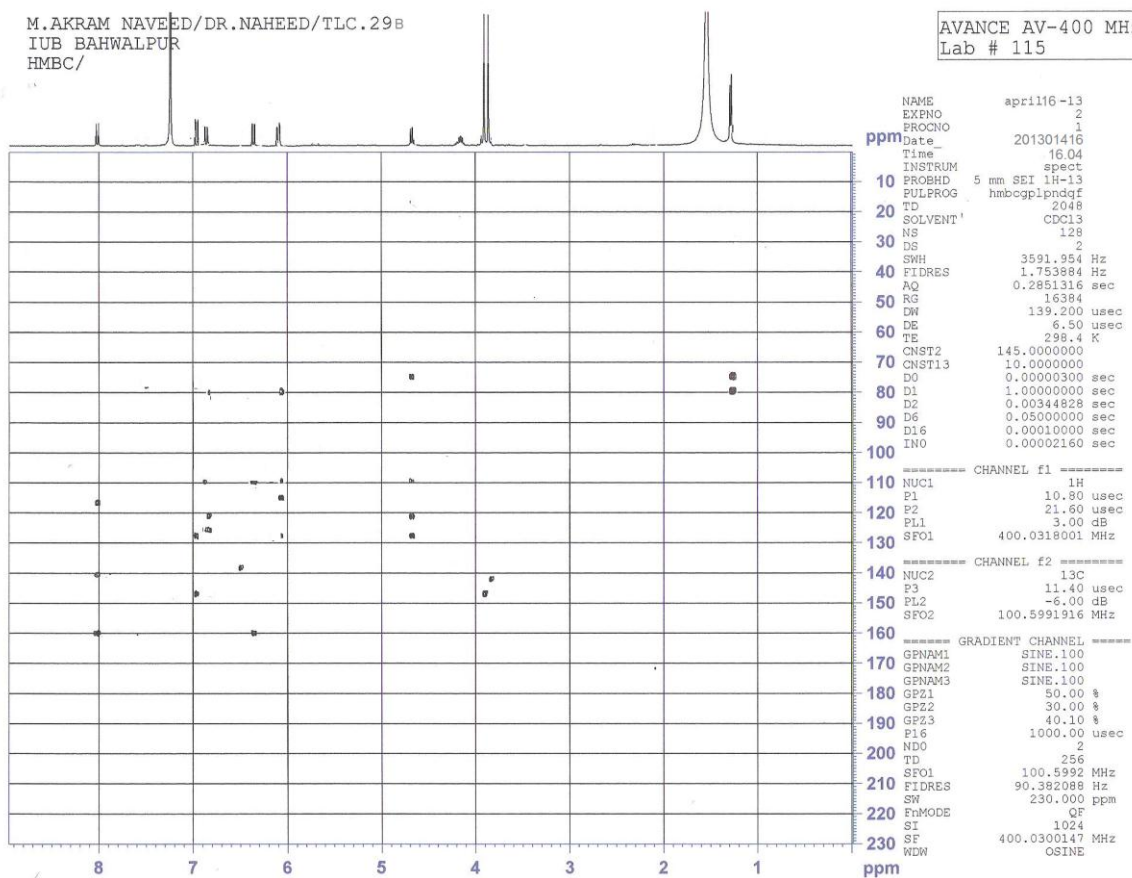
NAME          apr0913
EXPNO         4
PROCNO        1
Date_         20130409
Time          12:09
INSTRUM       spect
PROBHD        5 mm PAKXI 1H-
PULPROG       hsqc4tops1
TD            1024
SOLVENT       CDCl3
NS            32
DS            8
SWH           5387.931 Hz
FIDRES        5.261652 Hz
AQ            0.0951700 sec
RG            29193
DE            92.400 usec
TE            303.1 K
===== CHANNEL f1 =====
NUC1          13C
P1            7.50 usec
P2            15.00 usec
PC1           0.50 usec
PL1           0.00 dB
PL12          14.5689412 W
SFO1          600.0327001 MHz
===== CHANNEL f2 =====
CPDPRG2       gmp
NUC2          13C
P3            11.60 usec
P4            23.20 usec
PCPD2         80.00 usec
PL3           -4.00 dB
PL12          2.8538974 W
PL2W          135.65562275 W
PL12W         2.8538974 W
SFO2          150.8927519 MHz
===== GRADIENT CHANNEL =====
GRNAM1        SINE.100
GRNAM2        SINE.100
GP21          80.00 W
GP22          20.10 W
P16           2000.00 usec
ND0           2
TD            256
SFO1          150.8928 MHz
FIDRES        117.384964 Hz
SW            200.000 ppm
FMODE         Echo-Antiecho
SI            1024
SF            600.030253 MHz
WDW           COSINE
SSB           2
LB            0.00 Hz
GB            0
PC            4.00
SI            1024
MC2           echo-antiecho
SF            150.8776622 MHz
WDW           COSINE
SSB           2
LB            0.00 Hz
GB            0
  
```

**S30: HSQC (600 MHz) Spectrum of Compound 3 (longipetalasin B)**



M.AKRAM NAVEED/DR.NAHEED/TLC.29B  
IUB BAHWALPUR  
HMBC/

AVANCE AV-400 MHz  
Lab # 115



**S31: HMBC (400 MHz) Spectrum of Compound 3 (longipetalasin B)**