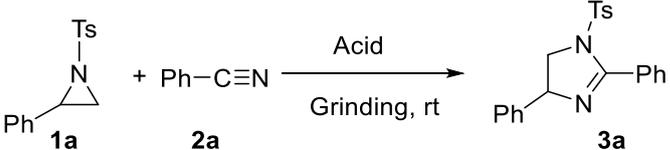


Synthesis of 2-imidazolines by co-grinding of *N*-tosylaziridines and nitriles

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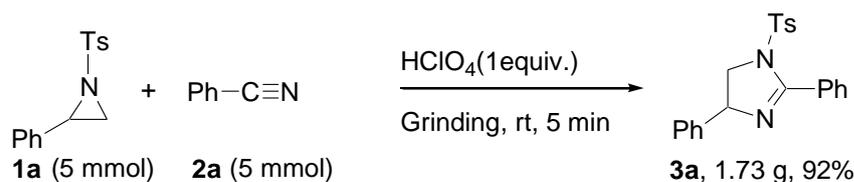
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**Table S1** Optimization of the reaction conditions.<sup>[a]</sup>


Entry	Acids (1 equiv)	Time (min)	Yields <sup>[b]</sup> (%)
1	H <sub>2</sub> SO <sub>4</sub>	10	36
2	HCl	10	15
3	HClO <sub>4</sub>	10	92
4	HBr	10	trace
5	H <sub>3</sub> PO <sub>4</sub>	10	ND
6	AcOH	10	ND
7	TFA	10	ND
8	TsOH	10	ND
9	TfOH	10	84
10	HClO <sub>4</sub>	5	95
11 <sup>[c]</sup>	HClO <sub>4</sub>	5	64

<sup>[a]</sup>Reaction conditions: 0.25 mmol of **1a** and **2a** each were ground on a mortar at room temperature in presence of 1 equiv. of an acid. <sup>[b]</sup>All are isolated yields. <sup>[c]</sup>0.5 equiv of HClO<sub>4</sub> was used.

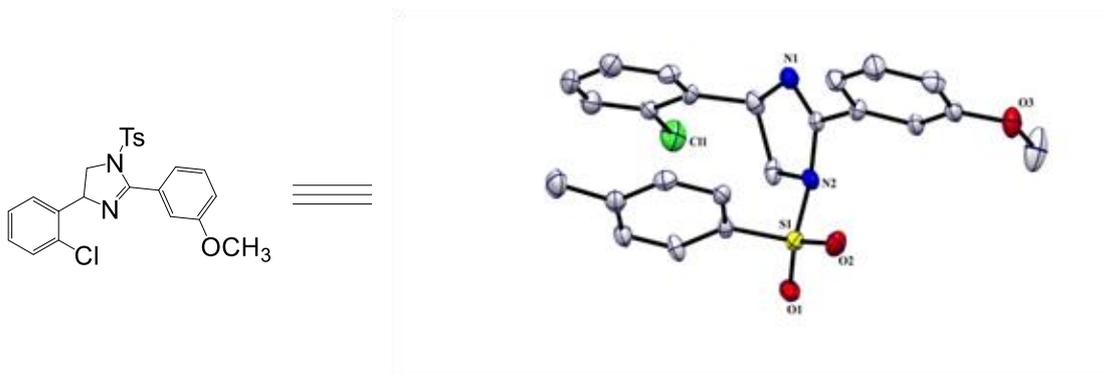


Scheme S1 Gram-scale reaction.

Structure Determination (X-ray crystallographic data of **3l**):

White crystals of **3l** were obtained by crystallization from a solution in dichloromethane/ hexane.

Chemical Formula:  $C_{23}H_{21}ClN_2O_3S$



- ORTEP (with 50% probability) diagram for the structure  
4-(2-chlorophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (**3l**)

<b>Crystal system</b>	<b>Monoclinic</b>	
<b>Formula</b>	<b><math>C_{23}H_{21}ClN_2O_3S</math></b>	
<b>Space group</b>	<b>P 1 2<sub>1</sub> 1</b>	
<b>Wavelength</b>	<b>0.71073 Å</b>	
<b>Unit cell dimensions</b>	<b><math>a = 9.3569(8)</math> Å</b>	<b><math>\alpha = 90^\circ</math></b>
	<b><math>b = 10.1481(8)</math> Å</b>	<b><math>\beta = 90.037(4)^\circ</math></b>
	<b><math>c = 21.9506(18)</math> Å</b>	<b><math>\gamma = 90^\circ</math></b>
<b>R-factor (%)</b>	<b>9.78</b>	
<b>Volume</b>	<b>2084.3(3) Å<sup>3</sup></b>	
<b>Z</b>	<b>2</b>	

## Experimental Section

**General Information:** All reagents were purchased from commercial sources and used without further purification. <sup>1</sup>H NMR spectra were determined on a 400 MHz spectrometer as solutions in CDCl<sub>3</sub>. Chemical shifts are expressed in parts per million (δ), and the signals were reported as s (singlet), d (doublet), t (triplet), m (multiplet), dd (double doublet), and coupling constants (*J*) were given in Hz. <sup>13</sup>C NMR spectra were recorded at 100 MHz in CDCl<sub>3</sub> solution. TLC was done on silica gel coated glass slide. Silica gel (60–120 mesh) was used for column chromatography. Petroleum ether refers to the fraction boiling in the range of 60–80 °C unless otherwise mentioned. Melting points were determined on a glass disk with an electric hot plate. All solvents were dried and distilled before use. Commercially available substrates were freshly distilled before the reaction. All reactions involving moisture sensitive reactants were executed using oven dried glassware. X-ray single crystal data were collected using Mo Kα (λ = 0.71073 Å) radiation with a CCD area detector. All the aziridines were prepared according to the previously reported method.

**General experimental procedure for the synthesis of aziridines (1).** A mixture of olefin (1 mmol), anhydrous chloramine-T (0.228 g, 1 mmol), NBS (20 mol%) acetonitrile (5 ml) was taken in round bottom flask. The resulting mixture was stirred at 25 °C (monitored by TLC). After completion, the reaction mixture was diluted with EtOAc (15 ml) and washed with water and brine. The organic layer was dried over anhydrous Na<sub>2</sub>SO<sub>4</sub>. Evaporation of solvent furnished the crude product which was subjected to column chromatography using petroleum ether–ethyl acetate as the eluent to obtain the pure aziridines.

### 2,4-Diphenyl-1-tosyl-4,5-dihydro-1*H*-imidazole (3a) [S1].

White liquid, 357 mg, yield 95%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.78-7.76 (m, 2H), 7.54-7.51 (m, 1H), 7.45-7.39 (m, 4H), 7.24-7.19 (m, 5H), 6.98-6.96 (m, 2H), 5.01-4.97 (m, 1H), 4.46-4.41 (m, 1H), 3.88-3.83 (m, 1H), 2.42 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.0, 144.8, 141.7, 134.6, 131.3, 130.3, 130.0, 129.9, 128.7, 127.9, 127.8, 127.5, 126.5, 68.0, 57.0, 21.7.

### 2-(3-Methoxyphenyl)-4-phenyl-1-tosyl-4,5-dihydro-1*H*-imidazole (3b).

Yellow liquid, 301 mg, yield 74%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.44-7.42 (m, 2H), 7.34-7.33 (m, 2H), 7.283-7.276 (m, 1H), 7.23-7.19 (m, 5H), 7.08-7.05(m, 1H), 7.00-6.98 (m, 2H), 5.01-4.96 (m, 1H), 4.47-4.41 (m, 1H), 3.89-3.84 (m, 4H), 2.42 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 159.8, 159.0, 144.8, 141.6, 134.7, 131.5, 129.9, 129.0, 128.7, 127.8, 127.6, 126.5, 122.4, 117.6, 115.0, 68.1, 57.1, 55.6, 21.7. Anal. Calcd. for C<sub>23</sub>H<sub>22</sub>N<sub>2</sub>O<sub>3</sub>S: C, 67.96; H, 5.46; N, 6.89%; Found: C, 67.89; H, 5.38; N, 6.80%.

**2-(2-Chlorophenyl)-4-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3c)** [S2].

Colourless liquid, 259 mg, yield 63%;  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz):  $\delta$  7.49-7.46 (m, 3H), 7.41-7.40 (m, 2H), 7.35-7.31 (m, 1H), 7.28-7.22 (m, 5H), 7.17-7.15(m, 2H), 5.27-5.23 (m, 1H), 4.42-4.37 (m, 1H), 3.87-3.82 (m, 1H), 2.42 (s, 3H).  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz):  $\delta$  155.9, 144.8, 141.6, 134.8, 133.7, 131.42, 131.40, 130.0, 129.8, 129.7, 128.8, 127.82, 127.76, 126.7, 126.2, 68.3, 55.7, 21.7.

**2-(3-Chlorophenyl)-4-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3d).**

Yellowish brown gum, 218 mg, yield 53%;  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz):  $\delta$  7.70-7.67 (m, 2H), 7.50-7.47 (m, 1H), 7.44-7.38 (m, 3H), 7.24-7.22 (m, 5H), 7.00-6.97 (m, 2H), 5.03-4.99 (m, 1H), 4.46-4.41 (m, 1H), 3.89-3.84 (m, 1H), 2.43 (s, 3H).  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz):  $\delta$  158.7, 145.1, 141.3, 134.6, 133.9, 132.1, 131.3, 130.0, 129.74, 129.68, 129.2, 128.8, 128.2, 127.7, 126.4, 68.2, 56.9, 21.7. Anal. Calcd. for  $\text{C}_{22}\text{H}_{19}\text{ClN}_2\text{O}_2\text{S}$ : C, 64.30; H, 4.66; N, 6.82%; Found: C, 64.39; H, 4.60; N, 6.92%.

**2-(4-Chlorophenyl)-4-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3e).**

Yellow solid, 267 mg, yield 65%, mp 175-177 °C;  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz):  $\delta$  7.75-7.72 (m, 2H), 7.43-7.39 (m, 4H), 7.22-7.20 (m, 5H), 6.95-6.93(m, 2H), 4.99-4.95 (m, 1H), 4.45-4.40 (m, 1H), 3.87-3.83 (m, 1H), 2.43 (s, 3H).  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz):  $\delta$  159.2, 145.0, 141.4, 137.6, 134.4, 131.4, 130.0, 128.8, 128.7, 128.3, 127.71, 127.67, 126.4, 68.0, 57.0, 21.8. Anal. Calcd. for  $\text{C}_{22}\text{H}_{19}\text{ClN}_2\text{O}_2\text{S}$ : C, 64.30; H, 4.66; N, 6.82%; Found: C, 64.40; H, 4.58; N, 6.75%.

**2-(2-Fluorophenyl)-4-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3f).**

Yellow solid, 241 mg, yield 61%, mp 106-108 °C;  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz):  $\delta$  7.47-7.45 (m, 1H), 7.42-7.38 (m, 3H), 7.18-7.14 (m, 6H), 7.08-7.04 (m, 1H), 6.98-6.95(m, 2H), 5.12-5.08 (m, 1H), 4.32-4.26 (m, 1H), 3.77-3.72 (m, 1H), 2.34 (s, 3H).  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz):  $\delta$  160.8 (d,  $^1J_{\text{C-F}} = 251$  Hz), 154.6, 144.9, 141.7, 134.7, 132.6 (d,  $^6J_{\text{C-F}} = 9$  Hz), 131.4, 130.0, 128.84, 127.8 (d,  $^5J_{\text{C-F}} = 4$  Hz), 126.5, 123.7(d,  $^4J_{\text{C-F}} = 3$  Hz), 119.2 (d,  $^3J_{\text{C-F}} = 14$  Hz), 115.9 (d,  $^2J_{\text{C-F}} = 22$  Hz), 68.3, 55.9, 21.8. Anal. Calcd. for  $\text{C}_{22}\text{H}_{19}\text{FN}_2\text{O}_2\text{S}$ : C, 66.99; H, 4.85; N, 7.10%; Found: C, 66.90; H, 4.76; N, 7.04%.

**2-(3-Methoxyphenyl)-4-(*o*-tolyl)-1-tosyl-4,5-dihydro-1H-imidazole (3g).**

Brown semi-solid, 311 mg, yield 74%, mp 106-108 °C;  $^1\text{H}$  NMR ( $\text{CDCl}_3$ , 400 MHz):  $\delta$  7.43-7.34 (m, 4H), 7.31-7.30 (m, 1H), 7.19 (d,  $J = 8.4$  Hz, 2H), 7.12-7.04(m, 3H), 7.00-6.96 (m,1H), 6.78 (d,  $J = 7.6$  Hz, 1H), 5.14-5.09 (m, 1H), 4.50-4.45 (m, 1H), 3.86 (s, 3H), 3.74-3.69 (m, 1H), 2.41 (s, 3H), 2.24 (s, 3H).  $^{13}\text{C}$  NMR ( $\text{CDCl}_3$ , 100 MHz):  $\delta$  160.0, 159.0, 144.8, 140.0, 134.8, 134.4, 131.6, 130.4, 129.9, 129.0, 127.7, 127.3, 126.4, 125.8, 122.4, 117.6, 115.0, 65.1, 56.5, 55.6, 21.7, 19.5. Anal. Calcd. for  $\text{C}_{24}\text{H}_{24}\text{N}_2\text{O}_3\text{S}$ : C, 68.55; H, 5.75; N, 6.66%; Found: C, 68.49; H, 5.68; N, 6.76%.

**2-(3-Methoxyphenyl)-4-(*m*-tolyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3h).**

Colourless liquid, 212 mg, yield 68%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.45-7.43 (m, 2H), 7.34-7.33 (m, 2H), 7.283-7.278 (m, 1H), 7.22-7.20 (m, 2H), 7.12-7.04 (m, 3H), 6.80 (d, *J* = 8.0 Hz, 2H), 4.96-4.92 (m, 1H), 4.45-4.40 (m, 1H), 3.87-3.82 (m, 4H), 2.42 (s, 3H), 2.27 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 159.7, 159.0, 144.8, 141.5, 138.4, 134.8, 131.5, 129.9, 129.0, 128.6, 128.4, 127.8, 127.2, 123.7, 122.5, 117.6, 115.0, 68.1, 57.0, 55.6, 21.8, 21.5. Anal. Calcd. for C<sub>24</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub>S: C, 68.55; H, 5.75; N, 6.66%; Found: C, 68.67; H, 5.82; N, 6.73%.

**2-(2-Fluorophenyl)-4-(*m*-tolyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3i).**

Yellow gum, 225 mg, yield 55%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.57-7.46 (m, 4H), 7.26-7.21 (m, 3H), 7.17-7.12 (m, 2H), 7.05 (d, *J* = 7.6 Hz, 1H), 6.85-6.84 (m, 2H), 5.16-5.12 (m, 1H), 4.38-4.33 (m, 1H), 3.84-3.79 (m, 1H), 2.43 (s, 3H), 2.27 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.8 (d, <sup>1</sup>*J*<sub>C-F</sub> = 251 Hz), 154.4, 144.8, 141.5, 138.5, 134.6, 132.6 (d, <sup>6</sup>*J*<sub>C-F</sub> = 9 Hz), 131.4, 129.9, 128.6 (d, <sup>5</sup>*J*<sub>C-F</sub> = 20 Hz), 127.8, 127.2, 123.7 (d, <sup>4</sup>*J*<sub>C-F</sub> = 7 Hz), 119.2 (d, <sup>3</sup>*J*<sub>C-F</sub> = 14 Hz), 115.9 (d, <sup>2</sup>*J*<sub>C-F</sub> = 22 Hz), 68.3, 55.9, 21.8, 21.5. Anal. Calcd. for C<sub>23</sub>H<sub>21</sub>FN<sub>2</sub>O<sub>2</sub>S: C, 67.63; H, 5.18; N, 6.86%; Found: C, 67.54; H, 5.12; N, 6.95%.

**4-(2-Chlorophenyl)-2-phenyl-1-tosyl-4,5-dihydro-1*H*-imidazole (3j) [S2].**

Yellow liquid, 378 mg, yield 92%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.83-7.80 (m, 2H), 7.57-7.53 (m, 1H), 7.48-7.44 (m, 2H), 7.37 (d, *J* = 8.4 Hz, 2H), 7.33-7.31 (m, 1H), 7.18-7.13 (m, 3H), 7.05-7.01 (m, 1H), 6.92-6.90 (m, 1H), 5.26-5.22 (m, 1H), 4.61-4.55 (m, 1H), 3.80-3.75 (m, 1H), 2.38 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 155.2, 138.8, 133.7, 128.6, 126.1, 125.5, 124.3, 124.0, 123.9, 123.3, 122.5, 121.9, 121.6, 121.4, 121.0, 59.3, 50.2, 15.7.

**4-(2-Chlorophenyl)-2-(*m*-tolyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3k).**

Yellowish white solid, 331 mg, yield 78%, mp 85-87 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.61-7.58 (m, 2H), 7.40-7.31 (m, 5H), 7.18-7.14 (m, 3H), 7.07-7.03 (m, 1H), 6.96-6.93 (m, 1H), 5.25-5.21 (m, 1H), 4.60-4.55 (m, 1H), 3.80-3.75 (m, 1H), 2.42 (s, 3H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 161.3, 144.7, 139.7, 137.6, 134.7, 132.2, 132.1, 130.35, 130.26, 129.8, 129.3, 128.5, 127.8, 127.6, 127.5, 127.1, 127.0, 65.3, 56.2, 21.7, 21.5. Anal. Calcd. for C<sub>23</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>2</sub>S: C, 65.01; H, 4.98; N, 6.59%; Found: C, 65.11; H, 4.90; N, 6.52%.

**4-(2-Chlorophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3l).**

Off-white solid, 326 mg, yield 74%, mp 88-90 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.41-7.31 (m, 6H), 7.18-7.14 (m, 3H), 7.10-7.02 (m, 2H), 6.94-6.91 (m, 1H), 5.26-5.21 (m, 1H), 4.61-4.56 (m, 1H), 3.87 (s, 3H), 3.80-3.75 (m, 1H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 161.0, 159.0, 144.8, 139.7, 134.6, 132.1, 129.9, 129.3, 129.0, 128.5, 127.6, 127.5, 127.0, 122.4, 117.7, 115.1, 65.3, 56.3, 55.6, 21.7. Anal. Calcd. for C<sub>23</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>3</sub>S: C, 62.65; H, 4.80; N, 6.35%; Found: C, 62.72; H, 4.89; N, 6.42%.

**4-(2-Chlorophenyl)-2-(3-chlorophenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3m).**

Off-white solid, 387 mg, yield 87%, mp 116-118 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.73-7.71 (m, 2H), 7.53-7.50 (m, 1H), 7.43-7.38 (m, 3H), 7.34-7.32 (m, 1H), 7.19-7.16 (m, 3H), 7.08-7.04 (m, 1H), 6.92-6.90 (m, 1H), 5.27-5.23 (m, 1H), 4.61-4.55 (m, 1H), 3.80-3.75 (m, 1H), 2.40 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 159.9, 145.1, 139.4, 134.6, 134.0, 132.2, 132.1, 131.5, 130.0, 129.7, 129.4, 129.3, 128.7, 128.3, 127.6, 127.4, 127.1, 65.6, 56.2, 21.7. Anal. Calcd. for C<sub>22</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S: C, 59.33; H, 4.07; N, 6.29%; Found: C, 59.38; H, 4.14; N, 6.38%.

**4-(2-Chlorophenyl)-2-(4-chlorophenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3n).**

Yellow liquid, 405 mg, yield 91%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.79-7.77 (m, 2H), 7.45-7.43 (m, 2H), 7.37 (d, *J* = 8.4 Hz, 2H), 7.33-7.31 (m, 1H), 7.18-7.14 (m, 3H), 7.05-7.01 (m, 1H), 6.87-6.85 (m, 1H), 5.23-5.19 (m, 1H), 4.59-4.54 (m, 1H), 3.79-3.74 (m, 1H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.3, 145.0, 139.5, 137.8, 134.5, 132.1, 131.4, 130.0, 129.4, 128.8, 128.6, 128.3, 127.6, 127.4, 127.1, 65.5, 56.3, 21.7. Anal. Calcd. for C<sub>22</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S: C, 59.33; H, 4.07; N, 6.29%; Found: C, 59.27; H, 4.01; N, 6.20%.

**4-(2-Chlorophenyl)-2-(2-fluorophenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3o).**

Colourless liquid, 382 mg, yield 89%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.62-7.58 (m, 1H), 7.52-7.50 (m, 1H), 7.42 (d, *J* = 8.0 Hz, 2H), 7.34-7.32 (m, 1H), 7.27-7.25 (m, 1H), 7.19-7.14 (m, 4H), 7.11-7.07 (m, 1H), 7.04-7.02 (m, 1H), 5.50-5.45 (m, 1H), 4.54-4.48 (m, 1H), 3.77-3.72 (m, 1H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.7 (d, <sup>1</sup>*J*<sub>C-F</sub> = 241 Hz), 155.7, 144.9, 139.7, 134.6, 132.7 (d, <sup>6</sup>*J*<sub>C-F</sub> = 9 Hz), 131.5, 129.9, 129.4, 128.7, 127.7 (d, <sup>5</sup>*J*<sub>C-F</sub> = 9 Hz), 127.4 (d, <sup>4</sup>*J*<sub>C-F</sub> = 45 Hz), 123.8 (d, <sup>3</sup>*J*<sub>C-F</sub> = 3 Hz), 116.0 (d, <sup>2</sup>*J*<sub>C-F</sub> = 21 Hz), 65.5, 55.2, 21.7. Anal. Calcd. for C<sub>22</sub>H<sub>18</sub>ClFN<sub>2</sub>O<sub>2</sub>S: C, 61.61; H, 4.23; N, 6.53%; Found: C, 61.53; H, 4.14; N, 6.43%.

**4-(2-Chlorophenyl)-2-(4-fluorophenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3p).**

Yellow gum, 382 mg, yield 89%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.86-7.82 (m, 2H), 7.37-7.30 (m, 3H), 7.18-7.13 (m, 5H), 7.05-7.01 (m, 1H), 6.89-6.86 (m, 1H), 5.23-5.18 (m, 1H), 4.60-4.55 (m, 1H), 3.79-3.75 (m, 1H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 164.8 (d, <sup>1</sup>*J*<sub>C-F</sub> = 250 Hz), 160.2, 144.9, 139.6, 134.5, 132.3, 132.2 (d, <sup>4</sup>*J*<sub>C-F</sub> = 9 Hz), 129.9, 129.4, 128.6, 127.5 (d, <sup>3</sup>*J*<sub>C-F</sub> = 18 Hz), 127.0, 126.4, 115.2 (d, <sup>2</sup>*J*<sub>C-F</sub> = 22 Hz), 65.3, 56.3, 21.7. Anal. Calcd. for C<sub>22</sub>H<sub>18</sub>ClFN<sub>2</sub>O<sub>2</sub>S: C, 61.61; H, 4.23; N, 6.53%; Found: C, 61.70; H, 4.32; N, 6.62%.

**4-(3-Chlorophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3q).**

Off-white solid, 375 mg, yield 85%, mp 158-160 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.40 (d, *J* = 8.4 Hz, 2H), 7.36-7.29 (m, 3H), 7.20-7.16 (m, 4H), 7.09-7.07 (m, 1H), 6.93-6.89 (m, 2H), 5.01-4.97 (m, 1H), 4.47-4.42 (m, 1H), 3.86-3.82 (m, 4H), 2.41 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.5, 159.1, 145.1, 143.8, 134.7, 134.4, 131.3, 130.8, 130.0, 129.9, 129.0, 127.7, 126.6, 124.7, 122.5, 117.7, 115.1, 67.3, 56.8, 55.6, 21.8. Anal. Calcd. for C<sub>23</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>3</sub>S: C, 62.65; H, 4.80; N, 6.35%. Found: C, 62.60; H, 4.84; N, 6.45%.

**4-(4-Chlorophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3r).**

Off-white solid, 357 mg, yield 81%, mp 104-106°C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.39 (d, *J* = 8.4 Hz, 2H), 7.35-7.33 (m, 2H), 7.284-7.277 (m, 1H), 7.18 (d, *J* = 8.0 Hz, 4H), 7.09-7.06 (m, 1H), 6.92 (d, *J* = 8.4 Hz, 2H), 5.00-4.96 (m, 1H), 4.56-4.40 (m, 1H), 3.85-3.81 (m, 4H), 2.43 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.3, 159.1, 145.0, 140.4, 134.6, 133.4, 131.3, 129.9, 129.0, 128.8, 127.8, 127.7, 122.4, 117.7, 115.1, 67.2, 56.9, 55.6, 21.7. Anal. Calcd. for C<sub>23</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>3</sub>S: C, 62.65; H, 4.80; N, 6.35%; Found: C, 62.60; H, 4.85; N, 6.28%.

**4-(3-Bromophenyl)-2-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3s).**

Colourless liquid, 346 mg, yield 76%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.79-7.77 (m, 2H), 7.56-7.52 (m, 1H), 7.47-7.43 (m, 2H), 7.38-7.33 (m, 3H), 7.19 (d, *J* = 8.0 Hz, 2H), 7.12-7.06 (m, 2H), 6.95 (d, *J* = 7.6 Hz, 1H), 5.00-4.96 (m, 1H), 4.46-4.41 (m, 1H), 3.86-3.81 (m, 1H), 2.42 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 154.6, 139.0, 138.1, 128.3, 125.5, 124.6, 124.2, 124.0, 123.9, 123.5, 121.9, 121.7, 121.1, 119.2, 116.9, 61.2, 50.8, 15.9. Anal. Calcd. for C<sub>22</sub>H<sub>19</sub>BrN<sub>2</sub>O<sub>2</sub>S: C, 58.03; H, 4.21; N, 6.15%; Found: C, 58.09; H, 4.27; N, 6.22%.

**4-(3-Bromophenyl)-2-(*p*-tolyl)-1-tosyl-4,5-dihydro-1H-imidazole (3t).**

Yellow liquid, 404 mg, yield 86%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.70 (d, *J* = 8.0 Hz, 2H), 7.38 (d, *J* = 8.4 Hz, 2H), 7.34-7.32 (m, 2H), 6.95-6.84 (m, 1H), 7.27-7.23 (m, 2H), 7.18 (d, *J* = 8.0 Hz, 2H), 7.10-7.05 (m, 2H), 6.93 (d, *J* = 7.6 Hz, 1H), 4.95-4.91 (m, 1H), 4.44-4.39 (m, 1H), 3.84-3.79 (m, 1H), 2.44 (s, 3H), 2.41 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.7, 145.0, 144.2, 142.0, 134.3, 130.5, 130.2, 130.0, 129.9, 129.5, 128.6, 127.7, 127.2, 125.2, 122.9, 67.1, 56.8, 21.85, 21.78. Anal. Calcd. For C<sub>23</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>2</sub>S: C, 58.85; H, 4.51; N, 5.97%; Found: C, 58.76; H, 4.46; N, 5.89%.

**4-(3-Bromophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1H-imidazole (3u).**

Light yellow gum, 408 mg, yield 84%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.40 (d, *J* = 8.4 Hz, 2H), 7.35-7.34 (m, 3H), 7.294-7.287 (m, 1H), 7.25-7.18 (m, 2H), 7.12-7.05 (m, 3H), 6.96 (d, *J* = 8.0 Hz, 1H), 5.00-4.95 (m, 1H), 4.47-4.41 (m, 1H), 3.86-3.81 (m, 4H), 2.41 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.5, 159.0, 145.1, 144.1, 134.4, 131.3, 130.7, 130.3, 130.0, 129.5, 129.1, 127.7, 125.2, 122.9, 122.5, 117.7, 115.1, 67.2, 56.8, 55.6, 21.9. Anal. Calcd. For C<sub>23</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>3</sub>S: C, 56.91; H, 4.36; N, 5.77%; Found: C, 56.84; H, 4.30; N, 5.84%.

**4-(4-Bromophenyl)-2-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (3v) [S2].**

Colourless liquid, 364 mg, yield 80%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.78-7.76 (m, 2H), 7.56-7.52 (m, 1H), 7.46-7.43 (m, 2H), 7.37-7.31 (m, 5H), 7.17 (d, *J* = 8.0 Hz, 2H), 6.86-6.83 (m, 2H), 4.99-4.95 (m, 1H), 4.45-4.40 (m, 1H), 3.85-3.81 (m, 1H), 2.43 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 154.5, 139.0, 134.9, 128.5, 125.8, 125.5, 124.0, 123.9, 122.4, 122.0, 121.9, 121.7, 115.4, 61.1, 50.9, 15.7.

**4-(4-Bromophenyl)-2-(*m*-tolyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3w).**

White gummy mass, 375 mg, yield 80%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.54-7.51 (m, 1H), 7.39-7.31 (m, 7H), 7.18 (d, *J* = 8.4 Hz, 2H), 6.87-6.84 (m, 2H), 4.98-4.94(m, 1H), 4.45-4.39 (m, 1H), 3.85-3.80 (m, 1H), 2.43 (s, 3H), 2.40 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.7, 145.0, 141.0, 137.7, 134.6, 132.3, 131.8, 130.4, 129.9, 128.4, 128.1, 127.8, 127.7, 127.2, 121.4, 67.2, 56.8, 21.8, 21.5. Anal. Calcd. For C<sub>23</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>2</sub>S: C, 58.85; H, 4.51; N, 5.97%; Found: C, 58.92; H, 4.56; N, 5.90%.

**4-(4-Bromophenyl)-2-(3-methoxyphenyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3x).**

Off-white solid, 398 mg, yield 82%, mp 130-132 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.40-7.28 (m, 7H), 7.18 (d, *J* = 8.0 Hz, 2H), 7.09-7.06 (m, 1H), 6.86 (d, *J* = 8.4 Hz, 2H), 4.99-4.95(m, 1H), 4.46-4.40 (m, 1H), 3.86-3.81 (m, 4H), 2.43 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.3, 159.1, 145.0, 140.9, 134.6, 131.8, 131.3, 129.9, 129.0, 128.1, 127.7, 122.4, 121.4, 117.7, 115.1, 67.2, 56.9, 55.6, 21.8. Anal. Calcd. For C<sub>23</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>3</sub>S: C, 56.91; H, 4.36; N, 5.77%; Found: C, 56.84; H, 4.30; N, 5.68%.

**4-(4-Bromophenyl)-2-(2-fluorophenyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3y).**

Colorless liquid, 360 mg, yield 76%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.50-7.42 (m, 2H), 7.37-7.35 (m, 2H), 7.30-7.28 (m, 2H), 7.19-7.13 (m, 3H), 7.11-7.06 (m, 1H), 6.85-6.83 (m, 2H), 5.10-5.05(m, 1H), 4.32-4.27 (m, 1H), 3.73-3.69 (m, 1H), 2.37 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 160.8 (d, <sup>1</sup>*J*<sub>C-F</sub> = 245 Hz), 155.1, 145.1, 140.8, 134.5, 132.8 (d, <sup>6</sup>*J*<sub>C-F</sub> = 7 Hz), 131.9, 131.4 (d, <sup>5</sup>*J*<sub>C-F</sub> = 2 Hz), 129.9, 127.9 (d, <sup>4</sup>*J*<sub>C-F</sub> = 43 Hz), 123.8 (d, <sup>3</sup>*J*<sub>C-F</sub> = 2 Hz), 116.0 (d, <sup>2</sup>*J*<sub>C-F</sub> = 20 Hz), 67.5, 55.7, 21.8. Anal. Calcd. For C<sub>22</sub>H<sub>18</sub>BrFN<sub>2</sub>O<sub>2</sub>S: C, 55.82; H, 3.83; N, 5.92%; Found: C, 55.88; H, 3.87; N, 5.98%.

**4-(4-Bromophenyl)-2-(4-fluorophenyl)-1-tosyl-4,5-dihydro-1*H*-imidazole (3z).**

Off-white solid, 359 mg, yield 74%, mp 205-207 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.82-7.79 (m, 2H), 7.36-7.31 (m, 4H), 7.18-7.11 (m, 4H), 6.83-6.81 (m, 2H), 4.96-4.92 (m, 1H), 4.44-4.39 (m, 1H), 3.85-3.80 (m, 1H), 2.43 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 164.8 (d, <sup>1</sup>*J*<sub>C-F</sub> = 250 Hz), 159.5, 145.2, 140.8, 134.4, 132.3 (d, <sup>4</sup>*J*<sub>C-F</sub> = 8 Hz), 131.7, 129.9, 128.2 (d, <sup>3</sup>*J*<sub>C-F</sub> = 40 Hz), 127.6, 121.4, 115.1 (d, <sup>2</sup>*J*<sub>C-F</sub> = 22 Hz), 67.1, 56.9, 21.7. Anal. Calcd. for C<sub>22</sub>H<sub>18</sub>BrFN<sub>2</sub>O<sub>2</sub>S: C, 55.82; H, 3.83; N, 5.92%; Found: C, 55.74; H, 3.88; N, 5.84%.

**2-Methyl-4-phenyl-1-tosyl-4,5-dihydro-1*H*-imidazole (5a) [S2].**

White solid, 179 mg, yield 57%, mp 100-102 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.67-7.65 (m, 2H), 7.25 (d, *J* = 8.4 Hz, 2H), 7.17-7.15 (m, 3H), 6.96-6.94(m, 2H), 4.91-4.87 (m, 1H), 4.11-4.06 (m, 1H), 3.56-3.51 (m, 1H), 2.36 (s, 3H), 2.30 (d, *J* = 1.2 Hz, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 156.6, 144.9, 141.6, 135.3, 130.2, 128.7, 127.7, 127.3, 126.4, 66.6, 55.6, 21.6, 16.8.

**4-(2-Chlorophenyl)-2-methyl-1-tosyl-4,5-dihydro-1*H*-imidazole (5b) [S2].**

White solid, 293 mg, yield 84%, mp 156-158 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.73-7.71 (d, *J* = 8.0 Hz, 2H), 7.34-7.30 (m, 3H), 7.19-7.16 (m, 2H), 7.10-7.08 (m, 1H), 5.34-5.29 (m, 1H), 4.33-4.28 (m, 1H), 3.55-3.50 (m, 1H), 2.44-2.42 (m, 6H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 157.6, 144.9, 139.8, 135.5, 132.4, 130.2, 129.5, 128.8, 127.6, 127.3, 127.2, 63.9, 54.9, 29.8, 21.7, 17.1.

**2-(3-Chloropropyl)-4-phenyl-1-tosyl-4,5-dihydro-1H-imidazole (5c).**

Yellow liquid, 222 mg, yield 59%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.69-7.67 (m, 2H), 7.27 (d, *J* = 8.0 Hz, 2H), 7.19-7.16 (m, 3H), 6.95-6.92(m, 2H), 4.94-4.90 (m, 1H), 4.12-4.07 (m, 1H), 3.62-3.59 (m, 2H), 3.54-3.50 (m, 1H), 2.87-2.85 (m, 2H), 2.39 (s, 3H), 2.19-2.16 (m, 2H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 158.7, 145.0, 141.8, 135.2, 130.3, 128.9, 127.8, 127.4, 126.5, 67.0, 55.8, 44.5, 29.2, 27.1, 21.8. Anal. Calcd. for C<sub>19</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>2</sub>S: C, 60.55; H, 5.62; N, 7.43%; Found: C, 60.64; H, 5.74; N, 7.50%.

**4-(2-Chlorophenyl)-2-(3-chloropropyl)-1-tosyl-4,5-dihydro-1H-imidazole (5d).**

Brown liquid, 329 mg, yield 80%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.74-7.72 (m, 2H), 7.35-7.31 (m, 3H), 7.20-7.16 (m, 2H), 7.04-7.02 (m,1H), 5.36-5.32 (m, 1H), 4.36-4.30 (m, 1H), 3.74-3.70 (m, 2H), 3.56-3.51 (m, 1H), 3.01-2.98 (m, 2H), 2.44 (s, 3H), 2.33-2.27 (m, 2H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 132.3, 130.7, 130.4, 130.0, 129.9, 129.6, 129.1, 127.6, 127.4, 127.3, 127.2, 63.5, 55.0, 44.4, 29.3, 27.0, 21.8. Anal. Calcd. for C<sub>19</sub>H<sub>20</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>S: C, 55.48; H, 4.90; N, 6.81%; Found: C, 55.40; H, 4.82; N, 6.76%.

**4-(2-Chlorophenyl)-2-styryl-1-tosyl-4,5-dihydro-1H-imidazole (5e).**

Off-white solid, 358 mg, yield 82%, mp 128-130 °C; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.79-7.75 (m, 1H), 7.67-7.62 (m, 4H), 7.48-7.39 (m, 4H), 7.34-7.32 (m,1H), 7.23-7.15 (m, 3H), 7.10-7.06 (m, 1H), 6.95-6.93 (m, 1H), 5.42-5.37 (m, 1H), 4.37-4.32 (m, 1H), 3.61-3.56 (m, 1H), 2.39 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 157.2, 144.8, 141.0, 140.1, 135.5, 134.7, 132.3, 130.1, 129.9, 129.4, 129.1, 128.7, 128.0, 127.7, 127.5, 127.1, 115.3, 64.1, 55.1, 21.7. Anal. Calcd. for C<sub>24</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>2</sub>S: C, 65.97; H, 4.84; N, 6.41%; Found: C, 65.89; H, 4.76; N, 6.37%.

**4-(4-Chlorophenyl)-2-styryl-1-tosyl-4,5-dihydro-1H-imidazole (5f).**

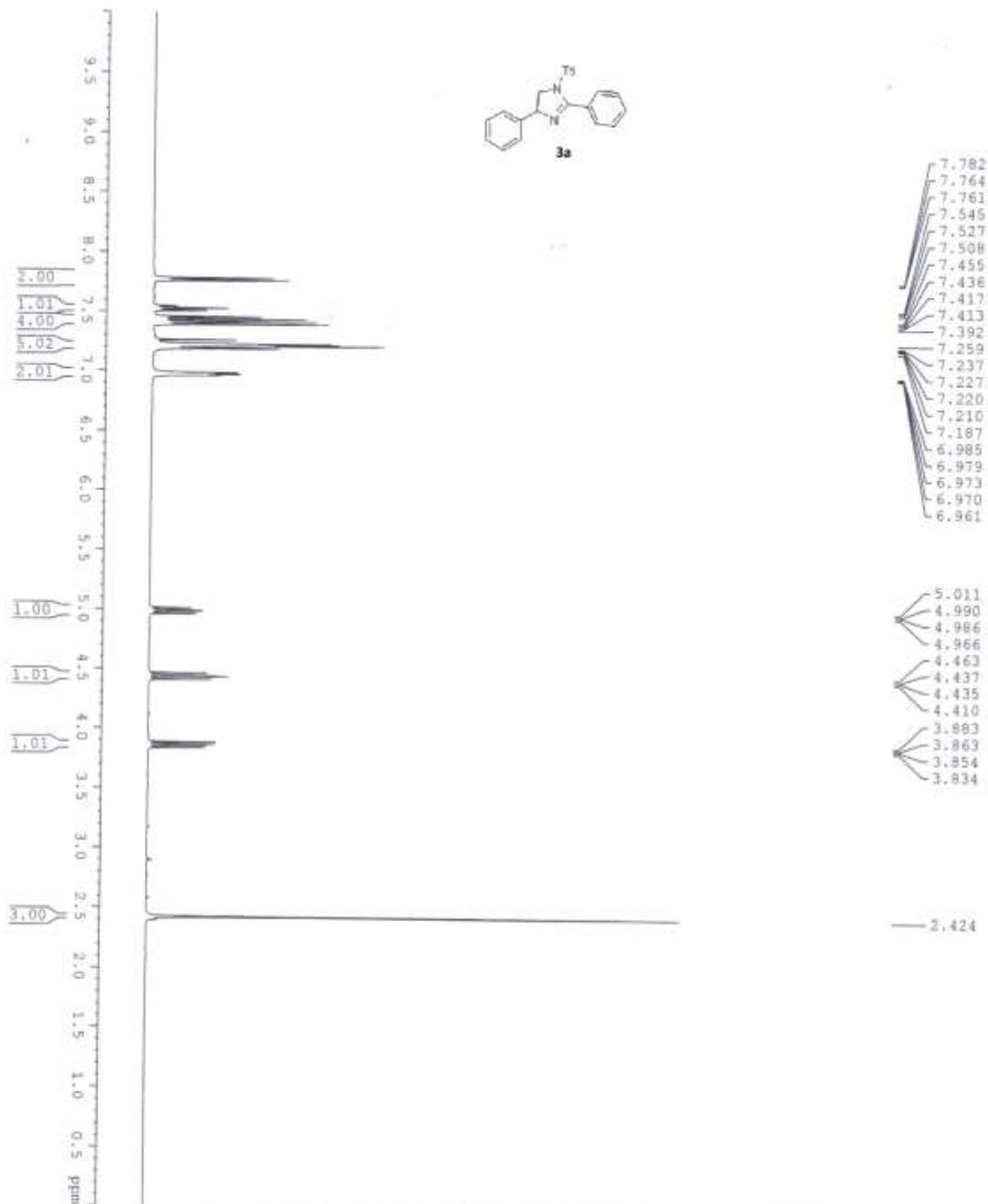
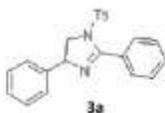
Colourless liquid, 341 mg, yield 78%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.65-7.59 (m, 3H), 7.54-7.52 (m, 2H), 7.40-7.32 (m, 4H), 7.19 (d, *J* = 7.6 Hz, 2H), 7.13-7.10 (m, 2H), 6.83-6.81 (m, 2H), 4.99-4.94 (m, 1H), 4.17-4.12 (m, 1H), 3.55-3.51 (m, 1H), 2.36 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 156.5, 145.0, 141.1, 140.7, 135.4, 134.5, 133.5, 130.2, 130.0, 129.1, 128.9, 128.0, 127.9, 127.6, 115.1, 66.4, 55.8, 21.7. Anal. Calcd. for C<sub>24</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>2</sub>S: C, 65.97; H, 4.84; N, 6.41%; Found: C, 65.90; H, 4.74; N, 6.35%.

**4-(4-Bromophenyl)-2-styryl-1-tosyl-4,5-dihydro-1H-imidazole (5g).**

Yellow liquid, 337 mg, yield 70%; <sup>1</sup>H NMR (CDCl<sub>3</sub>, 400 MHz): δ 7.65-7.58 (m, 3H), 7.54-7.51 (m, 2H), 7.39-7.31 (m, 4H), 7.28-7.24 (m, 2H), 7.19-7.17 (m, 2H), 6.77-6.75 (m, 2H), 4.97-4.92 (m, 1H), 4.16-4.11 (m, 1H), 3.55-3.50 (m, 1H), 2.35 (s, 3H). <sup>13</sup>C NMR (CDCl<sub>3</sub>, 100 MHz): δ 156.5, 145.0, 141.23, 141.17, 135.4, 134.5, 131.8, 130.1, 130.0, 129.0, 128.2, 128.0, 127.5, 121.6, 115.1, 66.4, 55.7, 21.7. Anal. Calcd. For C<sub>24</sub>H<sub>21</sub>BrN<sub>2</sub>O<sub>2</sub>S: C, 59.88; H, 4.40; N, 5.82%; Found: C, 59.80; H, 4.33; N, 5.76%.

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 [S2]. X. Li, X. Yang, H. Chang, Y. Li, B. Ni and W. Wei, *Eur. J. Org. Chem.*, 2011, 3122.



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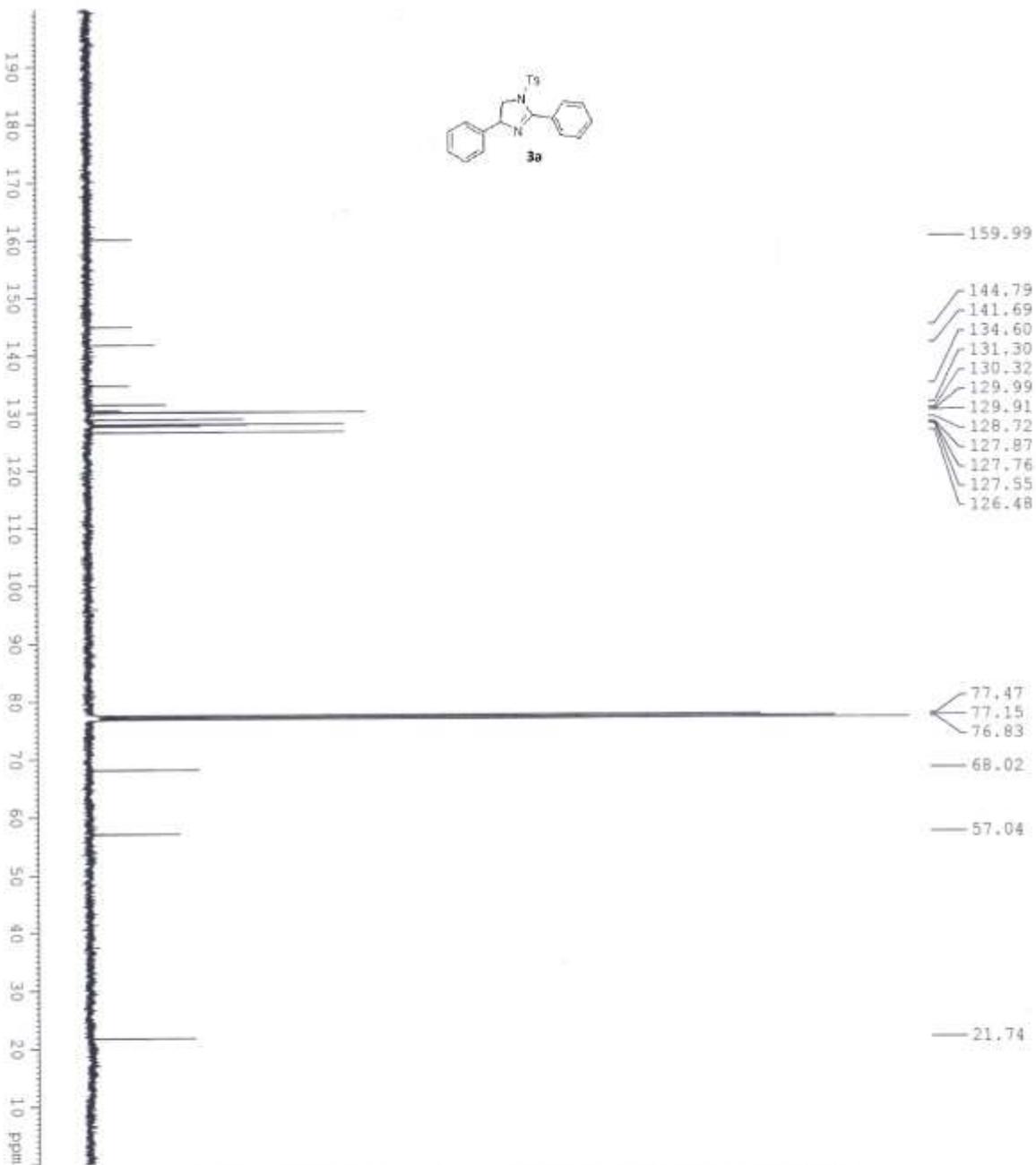
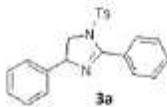
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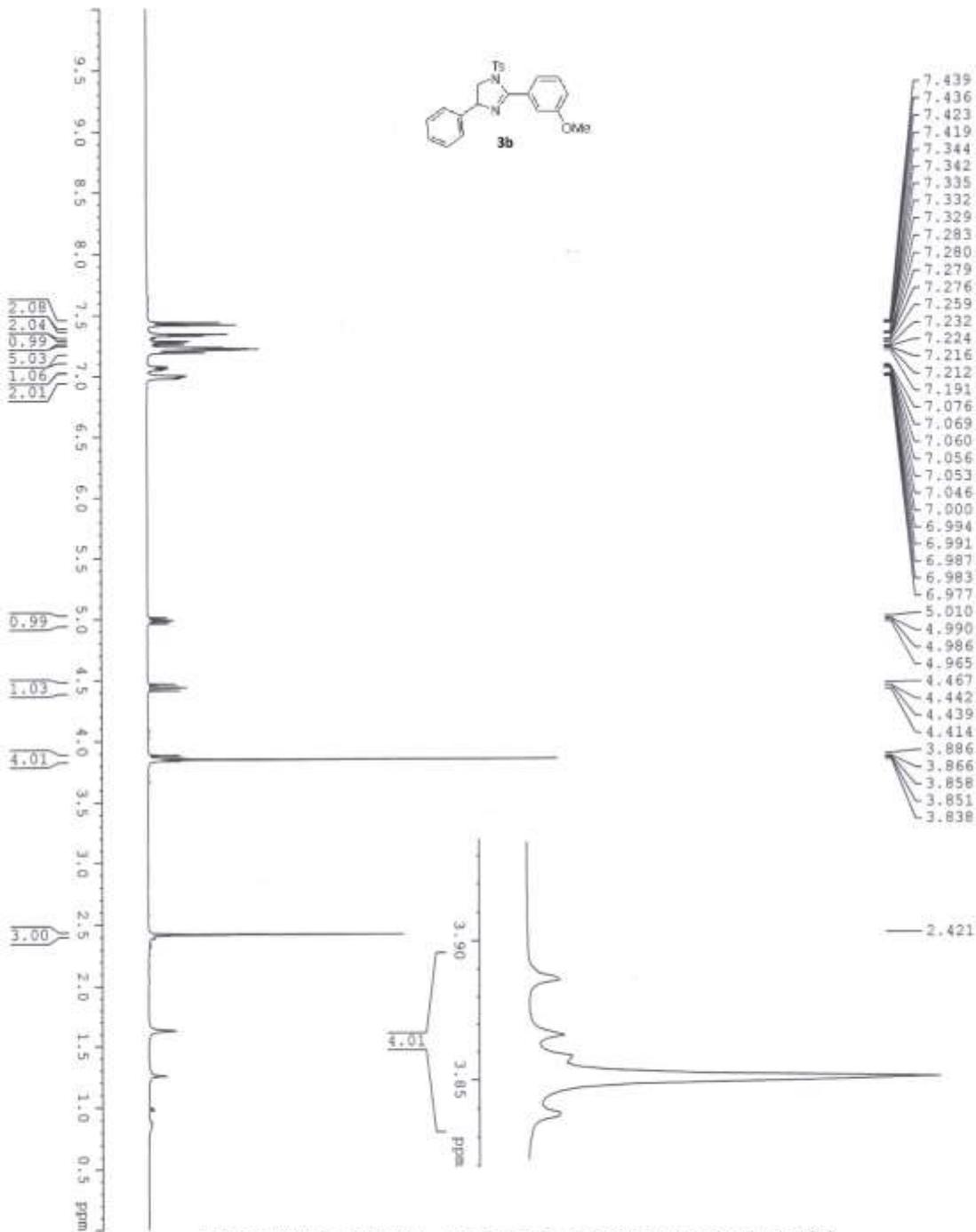
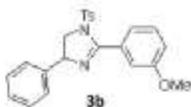


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 SI: 16384  
 SF: 100.617857 MHz  
 WDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.40

CHANNEL F1  
 SF01: 100.627858 MHz  
 NU01: 13C  
 P1: 8.90 usec  
 PLM1: 54.00000000 W

CHANNEL F2  
 SF02: 400.1516006 MHz  
 NU02: 1H  
 CHPROG2: waltz16  
 PCP02: 90.00 usec  
 PLM2: 12.00000000 W  
 PLM13: 0.121251000 W  
 PLM13: 0.16212000 W

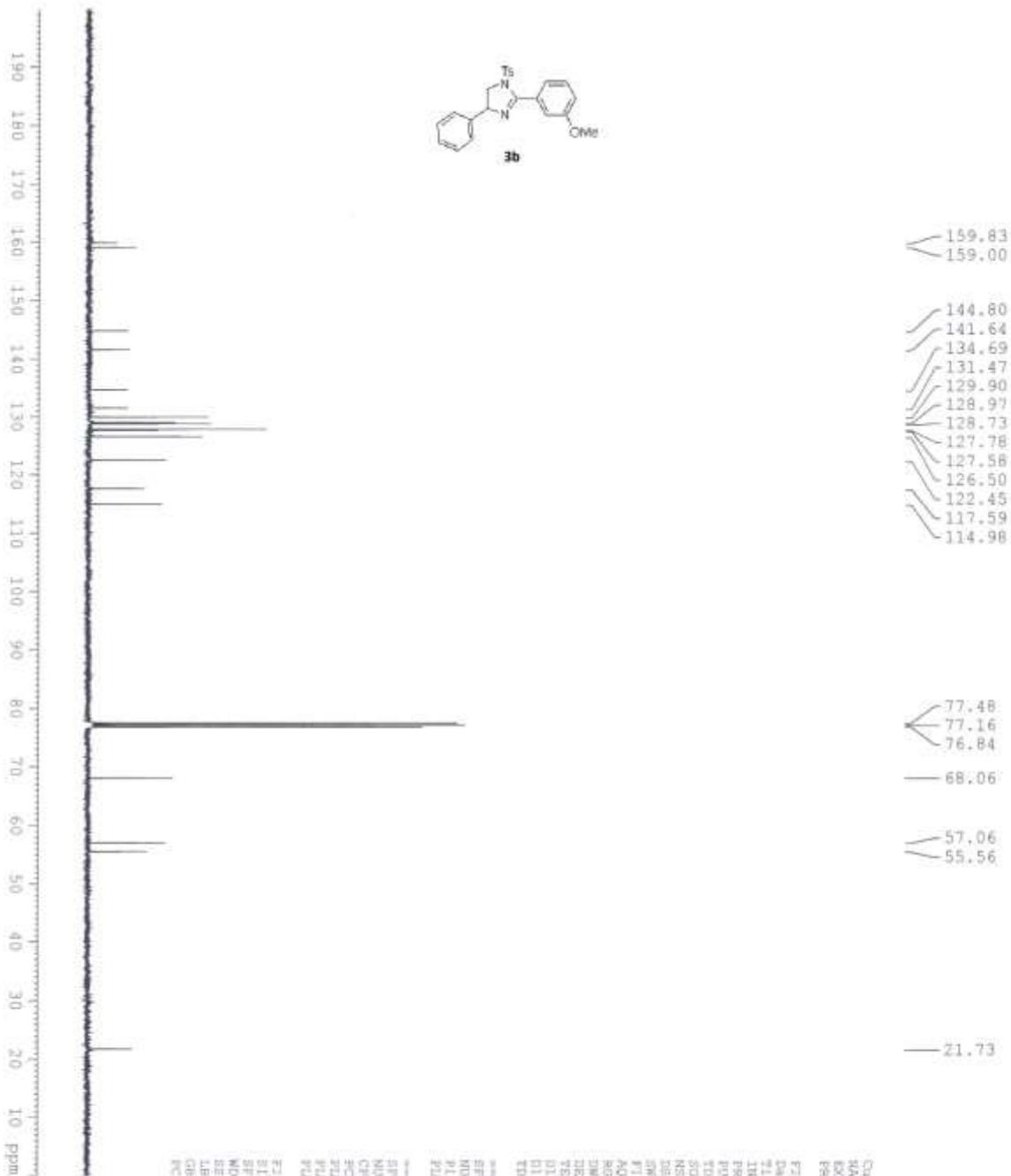
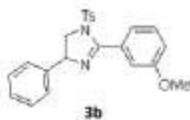


Current Data Parameters  
 NAME Dr. A MAUER 2018  
 EXPNO 289  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180415  
 Time 10.10  
 INSTRUM spect  
 PROSD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 120.16  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 297.1 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL f1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500098 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME: Dr. R. WALTER 2018  
 EXPNO: 250  
 PROCNO: 1

F2 - Acquisition Parameters

Date\_ 20180415  
 Time 10.26  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 32768  
 SFO 400.146  
 SOLVENT CDCl3  
 NS 130  
 DS 2  
 SWH 14038.462 Hz  
 FIDRES 0.733596 Hz  
 AQ 0.641574 sec  
 RG 171.59  
 INJ 17.59  
 DM 20.850 usec  
 DE 6.50 usec  
 TE 300.2 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 ED0 1

CHANNEL F1

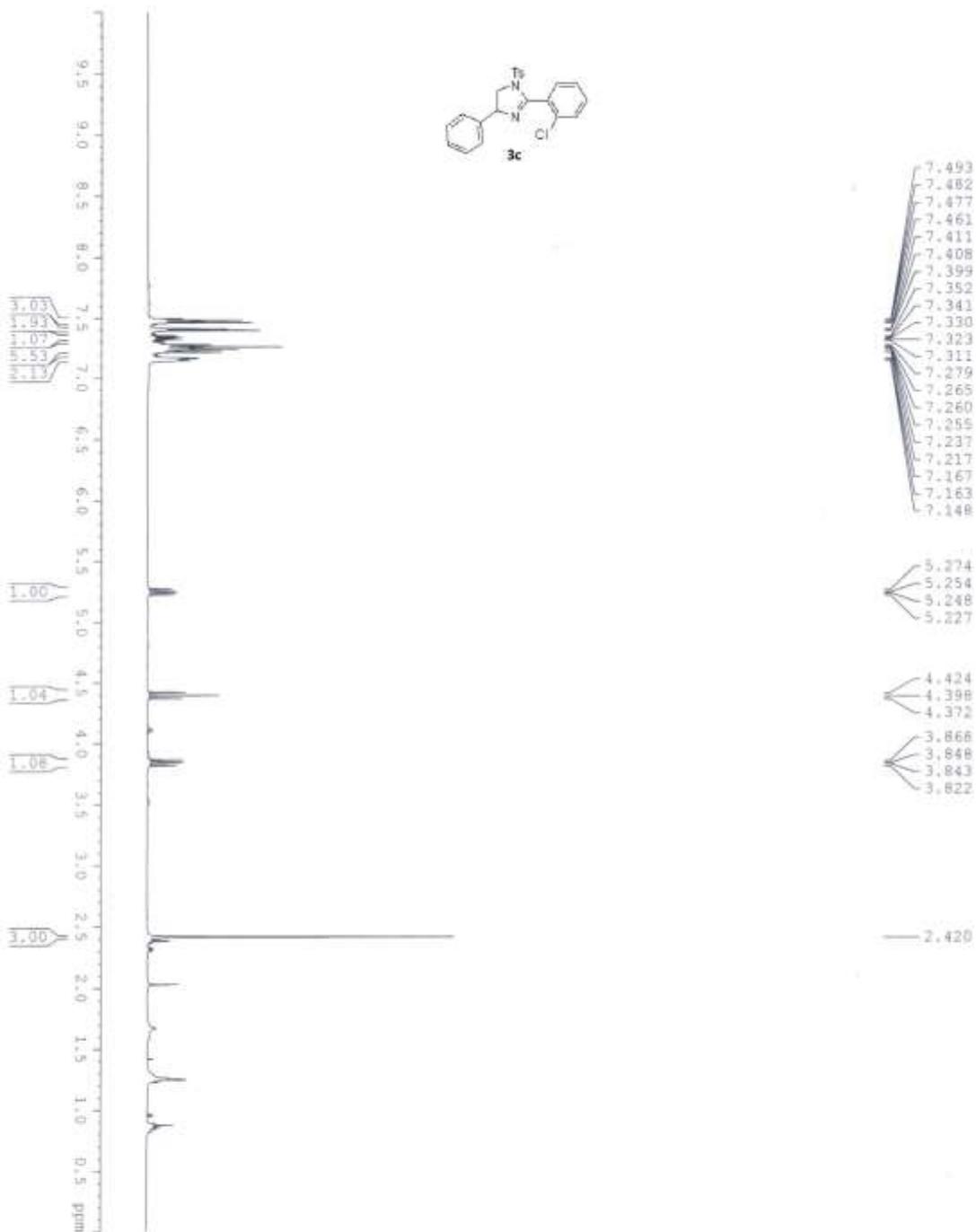
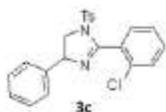
NUC1 13C  
 P1 13C  
 PL 8.90 usec  
 FWHM 54.80000000 W

CHANNEL F2

NUC2 1H  
 P2 1H  
 PL 12.00 usec  
 FWHM2 0.32231000 W  
 FWHM1 0.16212000 W

F2 - Processing Parameters

SI 16384  
 SF 100.617855 MHz  
 MDW 3M  
 SEB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40



7.493
7.482
7.477
7.461
7.411
7.408
7.399
7.352
7.341
7.330
7.323
7.311
7.279
7.265
7.260
7.255
7.237
7.217
7.167
7.163
7.148
5.274
5.254
5.248
5.227
4.424
4.398
4.372
3.866
3.848
3.843
3.822
2.420



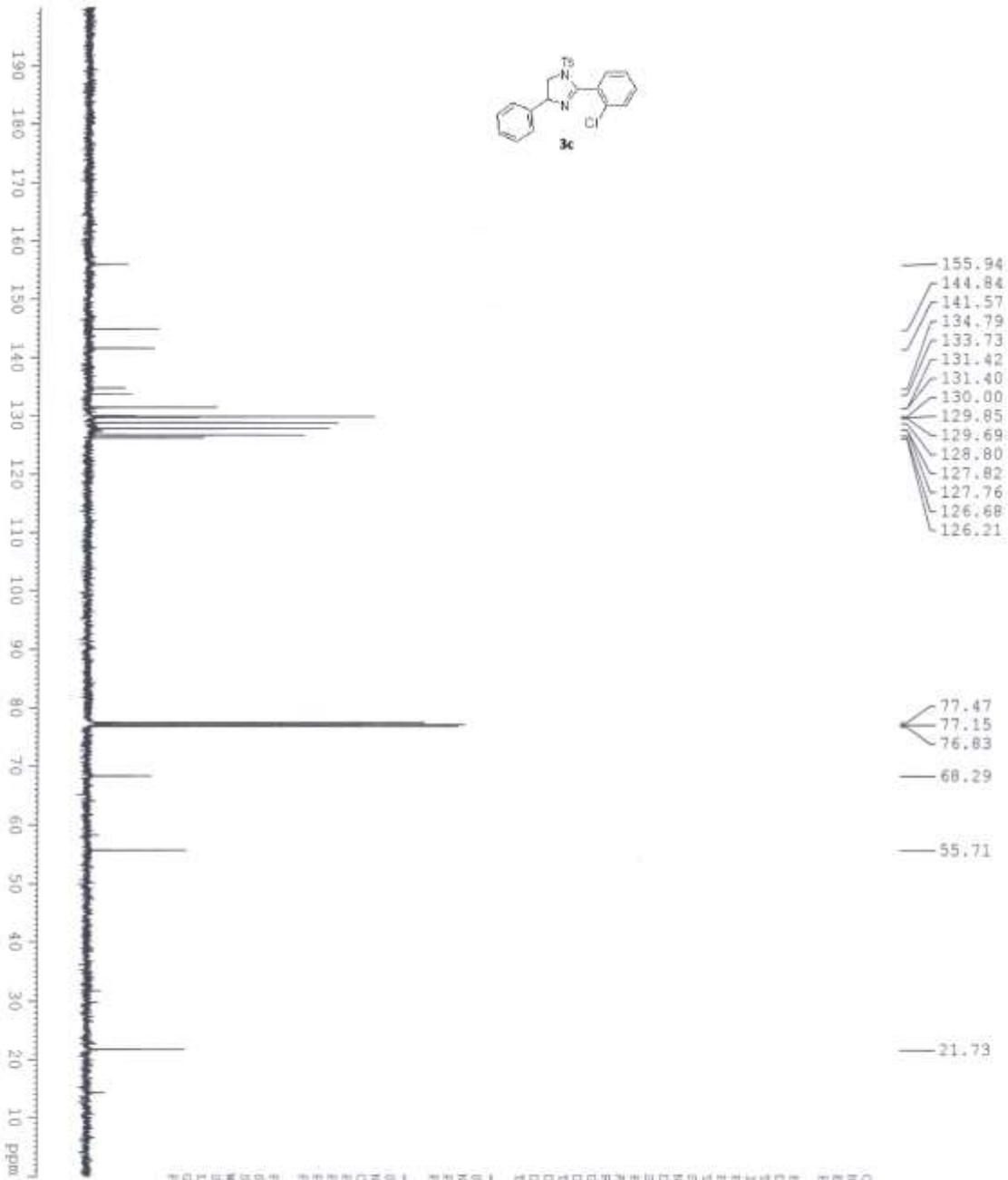
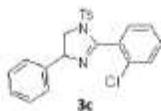
Current Data Parameters  
 NAME Dr. A MAJEE 2017  
 EXPNO 481  
 PROCNO 1

F2 - Acquisition Parameters

Date\_ 20171222  
 Time 17.30  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 20  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 62.69  
 BD 60.800 usec  
 DM 6.50 usec  
 DE 296.4 K  
 D1 1.00000000 sec  
 TDO 1

===== CHANNEL f1 =====  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500145 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME Dr. A. Mayer\_2017  
 EXPNO 983  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20171223  
 Time 11.21  
 INSTRUM spect  
 PROBRD 5 mm WBBO BB/  
 PULPROG zgpg30  
 VD 35768  
 SOLVENT CDCl3  
 NS 100  
 DS 2  
 SWH 24030.461 Hz  
 FREQ 0.133556 Hz  
 AQ 0.6815744 sec  
 RG 186.42  
 CW 20.800 usec  
 DE 6.50 usec  
 TE 295.2 K  
 D1 2.000000000 sec  
 D11 0.030000000 sec  
 TDO 1

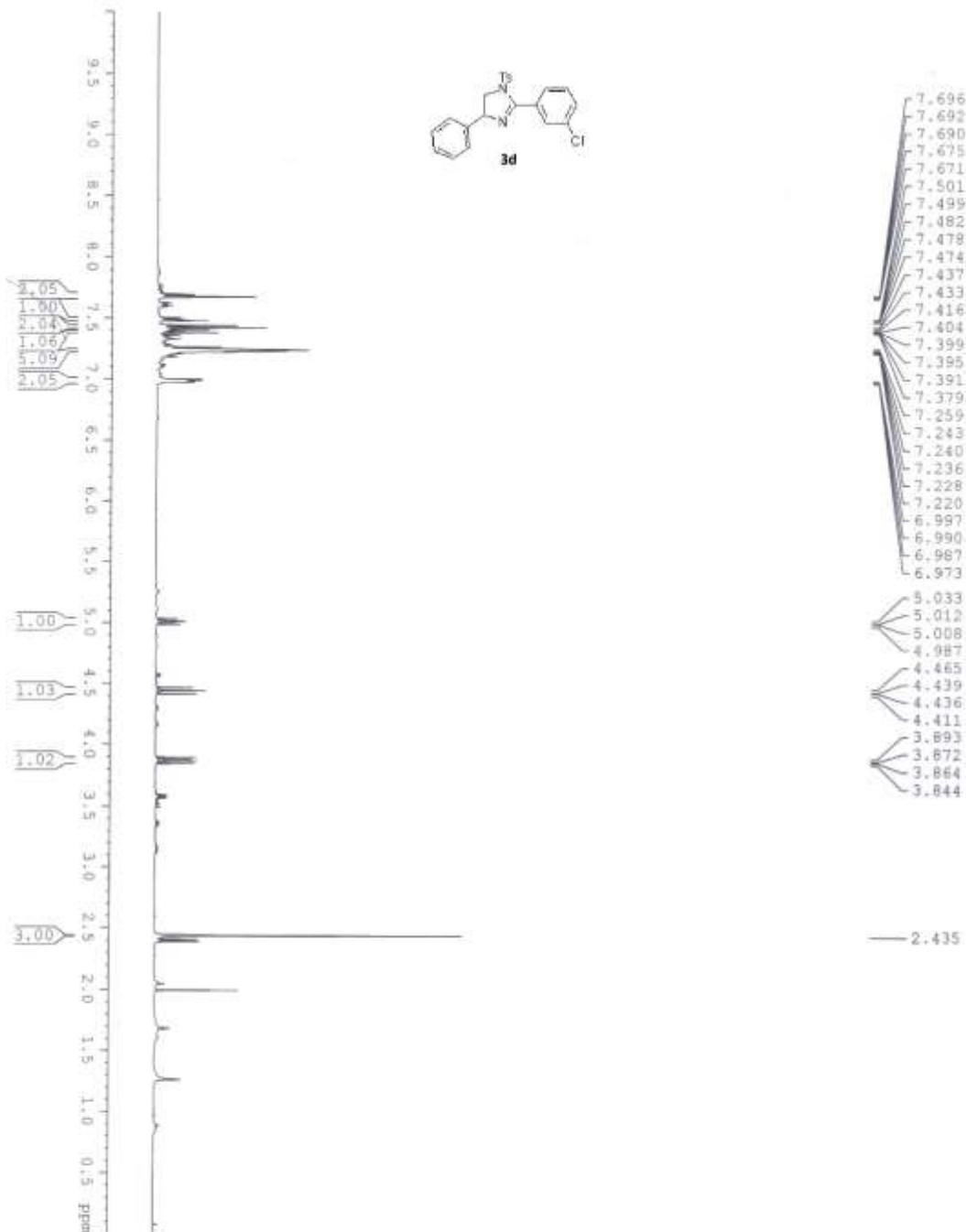
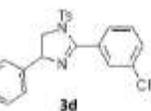
----- CHANNEL f1 -----  
 GPRO1 100.6278588 MHz  
 NUC1 13C  
 P1 0.50 usec  
 PLM1 54.000000000 M

----- CHANNEL f2 -----  
 GPRO2 400.1516006 MHz  
 NUC2 1H  
 CHOPRG12 waltz16  
 PCHP02 90.00 usec  
 PLM2 12.000000000 M  
 PLM12 0.222310000 M  
 PLM13 0.161210000 M

F2 - Processing parameters  
 SI 16384  
 SF 100.6177903 MHz  
 WTM EX  
 SSB 0  
 LB 0 1.00 Hz  
 GB 0  
 PC 1.40



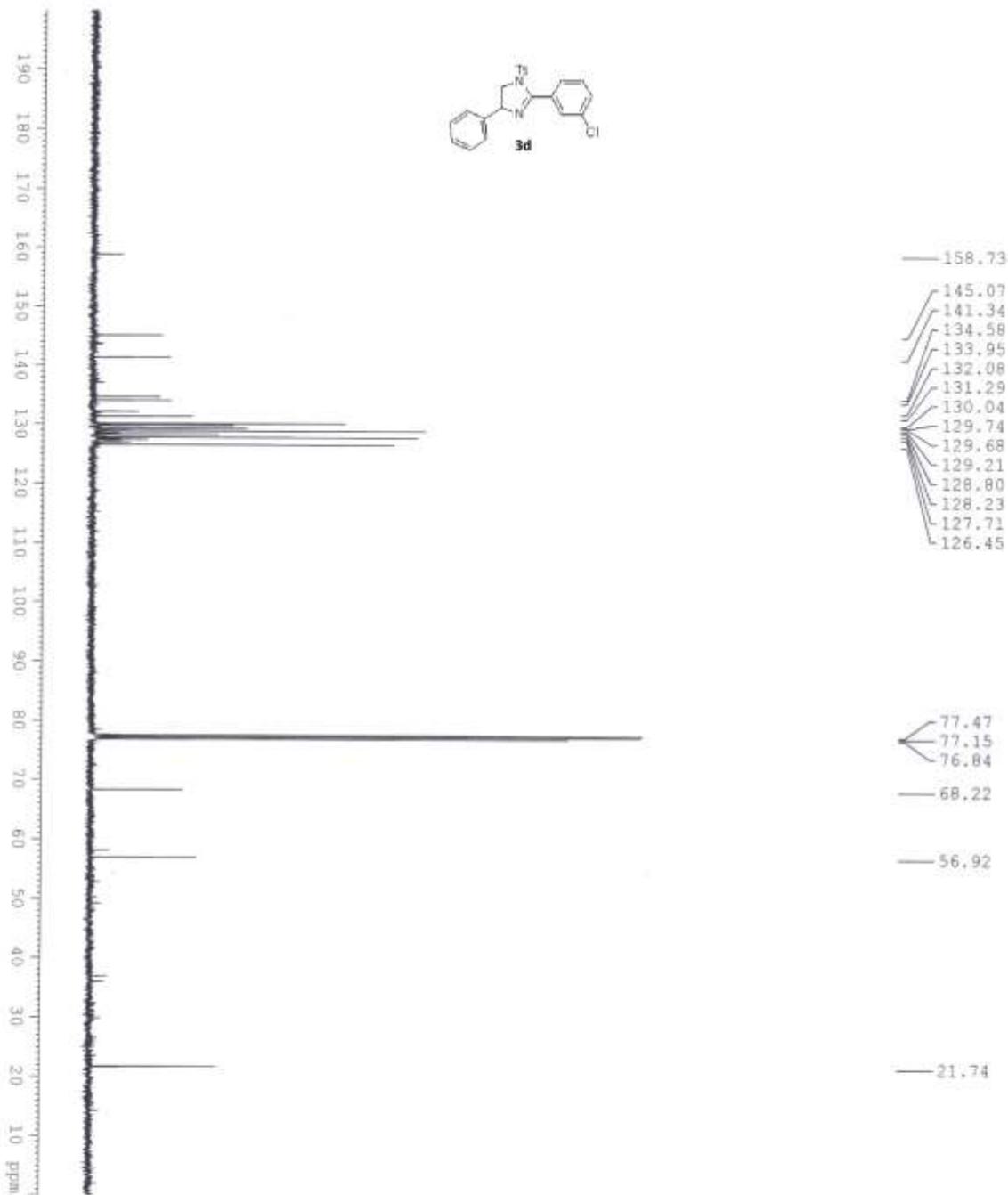
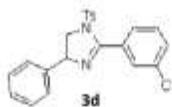
Current Data Parameters  
 NAME: Dr. A MAJEE 2018  
 EXPNO: 176  
 PROCNO: 1



7.696
7.692
7.690
7.675
7.671
7.501
7.499
7.482
7.478
7.474
7.437
7.433
7.416
7.404
7.399
7.395
7.391
7.379
7.259
7.243
7.240
7.236
7.228
7.220
6.997
6.990
6.987
6.973
5.033
5.012
5.008
4.987
4.465
4.439
4.436
4.411
3.893
3.872
3.864
3.844
2.435

F2 - Acquisition Parameters  
 Date\_ 20180618  
 Time 18.18  
 INSTRUM spect  
 PROBDI 5 mm PABBO BB/  
 PULPROG zg30  
 ID 32768  
 SOLVENT CDCl3  
 NS 32  
 DS 1  
 SWH 823.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9322944 sec  
 RG 196.66  
 DE 60.800 usec  
 TE 300.3 K  
 D1 1.00000000 sec  
 TDO 1

===== CHANNEL f1 =====  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLWI 12.00000000 W  
 F2 - Processing parameters  
 SI 16384  
 SF 400.1500096 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



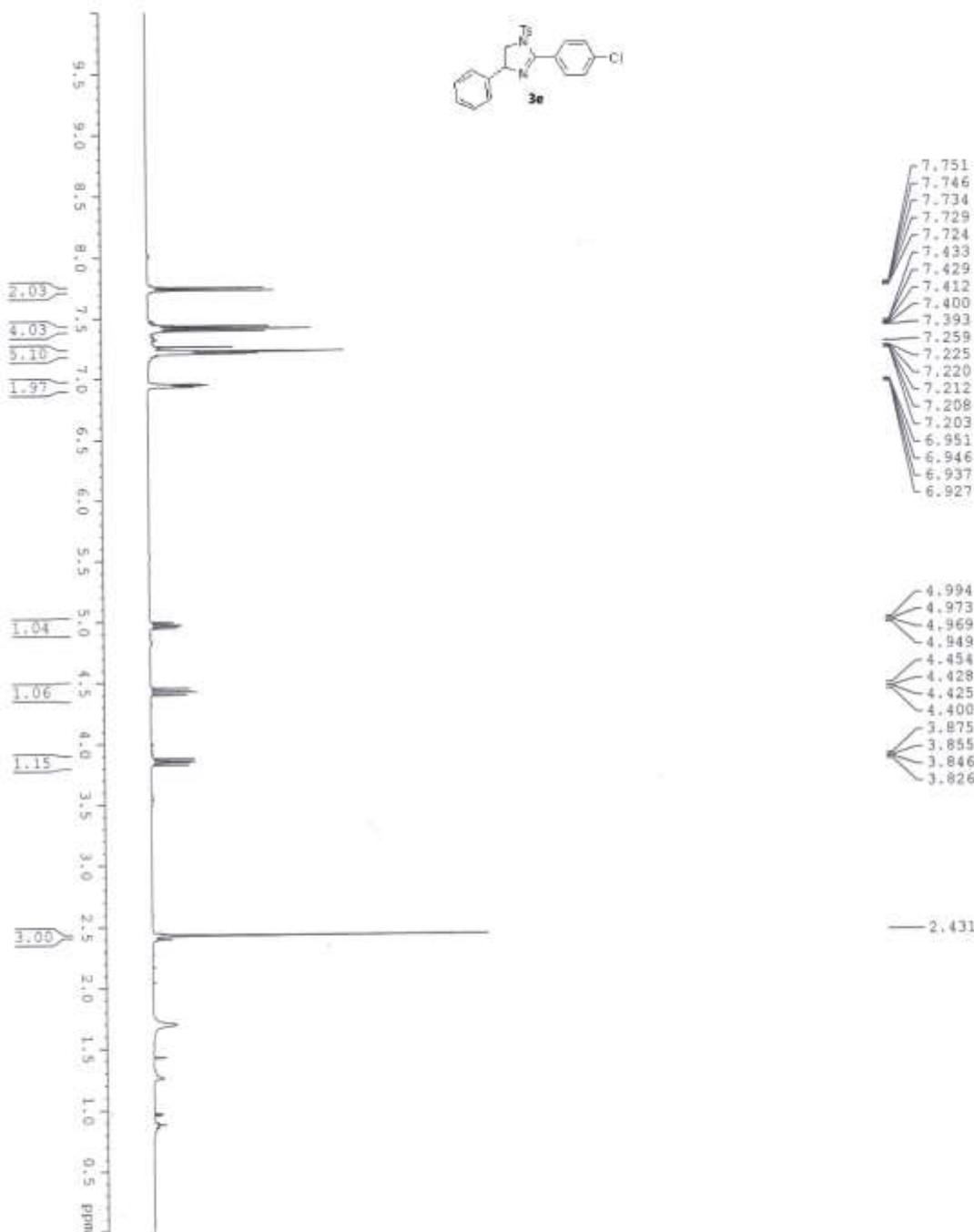
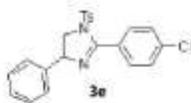
Current Data Parameters  
 NAME: Dr. A. MAJEE, 2018  
 EXPNO: 136  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180618  
 Time: 18:45  
 INSTRUM: spect  
 PROBHD: 5 mm PABBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 480  
 DS: 2  
 SWH: 24038.461 Hz  
 FIDRES: 0.733596 Hz  
 AQ: 0.6815744 sec  
 RG: 186.42  
 SQ: 20.400 usec  
 DE: 6.30 usec  
 TE: 301.0 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 T10: 1

CHANNEL f1  
 NU1: 100.6278288 MHz  
 NUC1: 13C  
 P1: 8.90 usec  
 PLW1: 54.00000000 W

CHANNEL f2  
 NU2: 400.1516006 MHz  
 NUC2: 1H  
 CPDPRG2: waltz16  
 FCH02: 50.00 usec  
 PLW2: 12.00000000 W  
 PLW12: 0.32231000 W  
 PLW13: 0.16212500 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.6177856 MHz  
 NSB: 8M  
 TD: 0  
 DR: 1.00 Hz  
 FC: 1.48



7.751  
7.746  
7.734  
7.729  
7.724  
7.433  
7.429  
7.412  
7.400  
7.393  
7.259  
7.225  
7.220  
7.212  
7.208  
7.203  
6.951  
6.946  
6.937  
6.927

4.994  
4.973  
4.969  
4.949  
4.454  
4.428  
4.425  
4.400  
3.875  
3.855  
3.846  
3.826

2.431



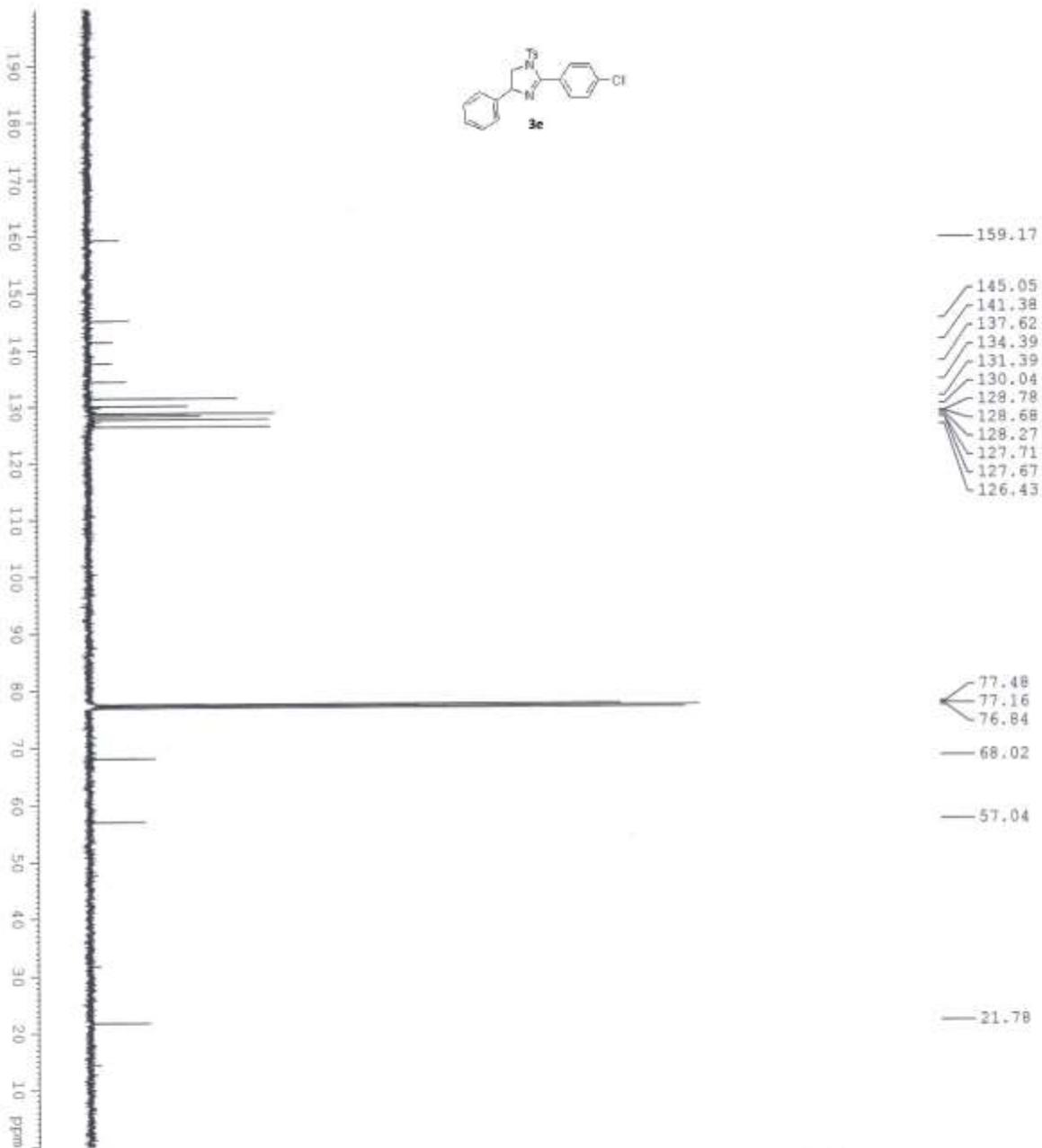
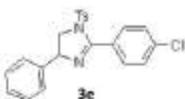
Current Data Parameters  
NAME: DC\_A\_HAUF\_2018  
EXPNO: 127  
PROCNO: 1

F2 - Acquisition Parameters

Date\_: 20180218  
Time: 19.57  
INSTRUM: spect  
PROBHD: 5 mm PABBO BB/  
PULPROG: zg30  
TD: 32768  
SOLVENT: CDCl3  
NS: 12  
DS: 1  
SWH: 8223.685 Hz  
FIDRES: 0.250967 Hz  
AQ: 1.9922944 sec  
RG: 106.66  
RW: 60.800 usec  
DE: 6.50 usec  
TE: 296.0 K  
D1: 1.00000000 sec  
TD0: 1

----- CHANNEL f1 -----  
SFO1: 400.1524711 MHz  
NUC1: 1H  
P1: 14.75 usec  
PLW1: 12.00000000 W

F2 - Processing parameters  
F2: 400.1500097 MHz  
SF: 16384  
WDW: EM  
SSB: 0  
LB: 0.30 Hz  
GB: 0  
PC: 1.00



Current Data Parameters  
 NAME br. A.VBAR.2015  
 EXTNO 125  
 PROCNO 1

F2 - Acquisition Parameters

Date\_ 20140518  
 Time 20:11  
 INSTRUM spect  
 PROBR0 5 mm PABBO 80/  
 PULPROG zgpg30  
 TD 65536  
 FID 45768  
 SOLVENT CDCl3  
 NS 400  
 DS 2  
 SWH 26038.461 Hz  
 FWHZ 0.713566 Hz  
 AQ 0.6815744 sec  
 RG 105.66  
 DM 20.000 umsc  
 DE -6.50 umsc  
 TE 296.7 K  
 D1 3.00000000 sec  
 D11 0.03000000 sec  
 TD0 1

CHANNEL F1

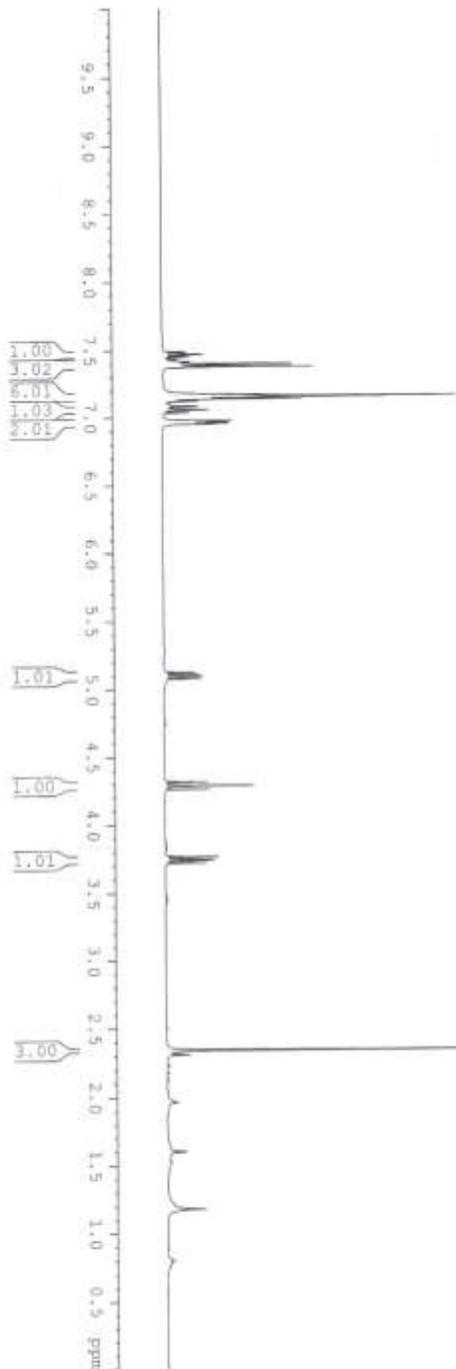
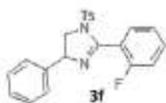
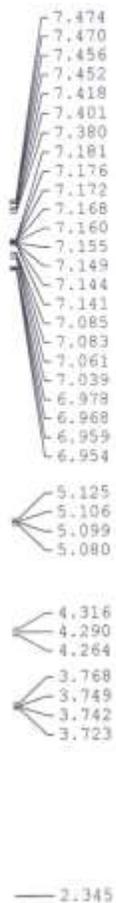
RF01 100.6278588 MHz  
 NUC1 13C  
 P1 8.90 umsc  
 P1M1 54.00000000 W

CHANNEL F2

RF02 400.1516006 MHz  
 NUC2 1H  
 P2 16.00000000 W  
 P2M2 0.32231000 W  
 P1M12 0.32231000 W  
 P1M13 0.16115000 W

F2 - Processing parameters

SI 16384  
 SF 100.6177851 MHz  
 WM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40



Current Data Parameters  
 NAME: Dr. A RAJES 2018  
 EXPNO: 157  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180618  
 Time: 18.54

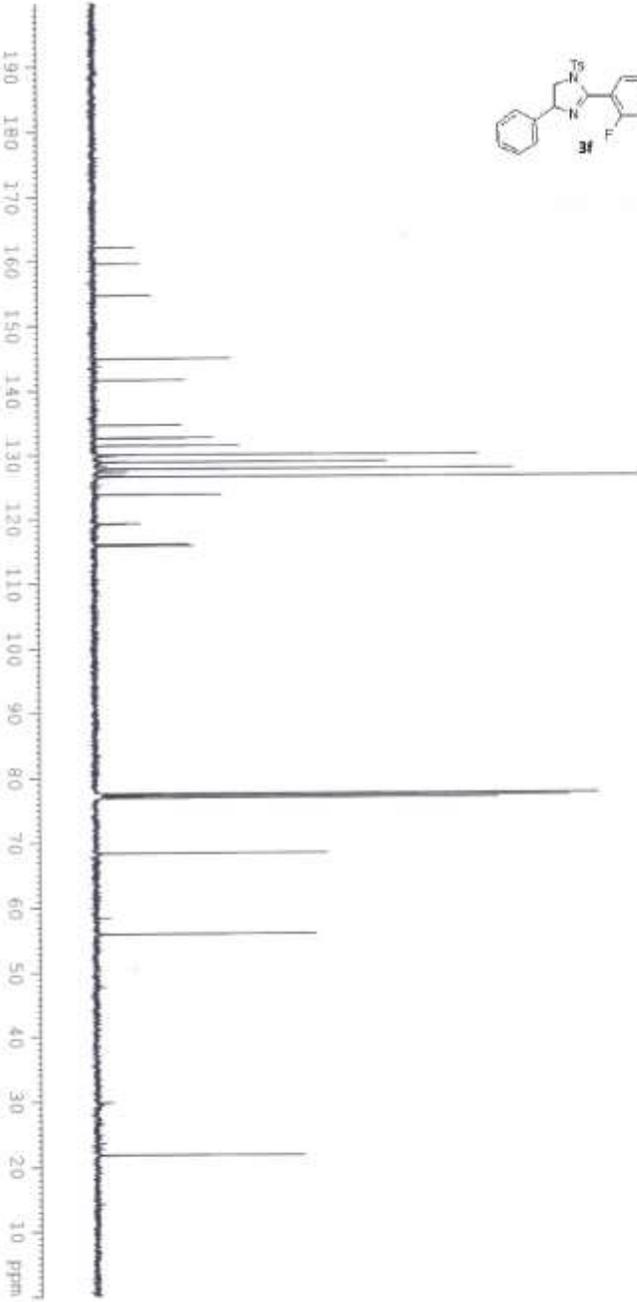
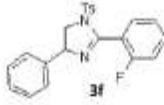
INSTRUM: spect  
 PROBD: 5 mm PABBO BBI/  
 PULPROG: zg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 32  
 DS: 1  
 SWH: 8223.685 MHz  
 FIDRES: 0.230967 Hz  
 AQ: 1.9922944 sec  
 RG: 67.81  
 DW: 60.800 usec  
 DE: 6.50 usec  
 TE: 300.4 K  
 D1: 1.00000000 sec  
 TDO: 1

CHANNEL F1  
 SFO1: 400.1524711 MHz  
 NUC1: 1H  
 P1: 14.75 usec  
 PLW1: 12.00000000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 400.1500428 MHz  
 KDM: ZM  
 SSB: 0  
 LB: 0.30 Hz  
 GB: 0  
 PC: 1.00

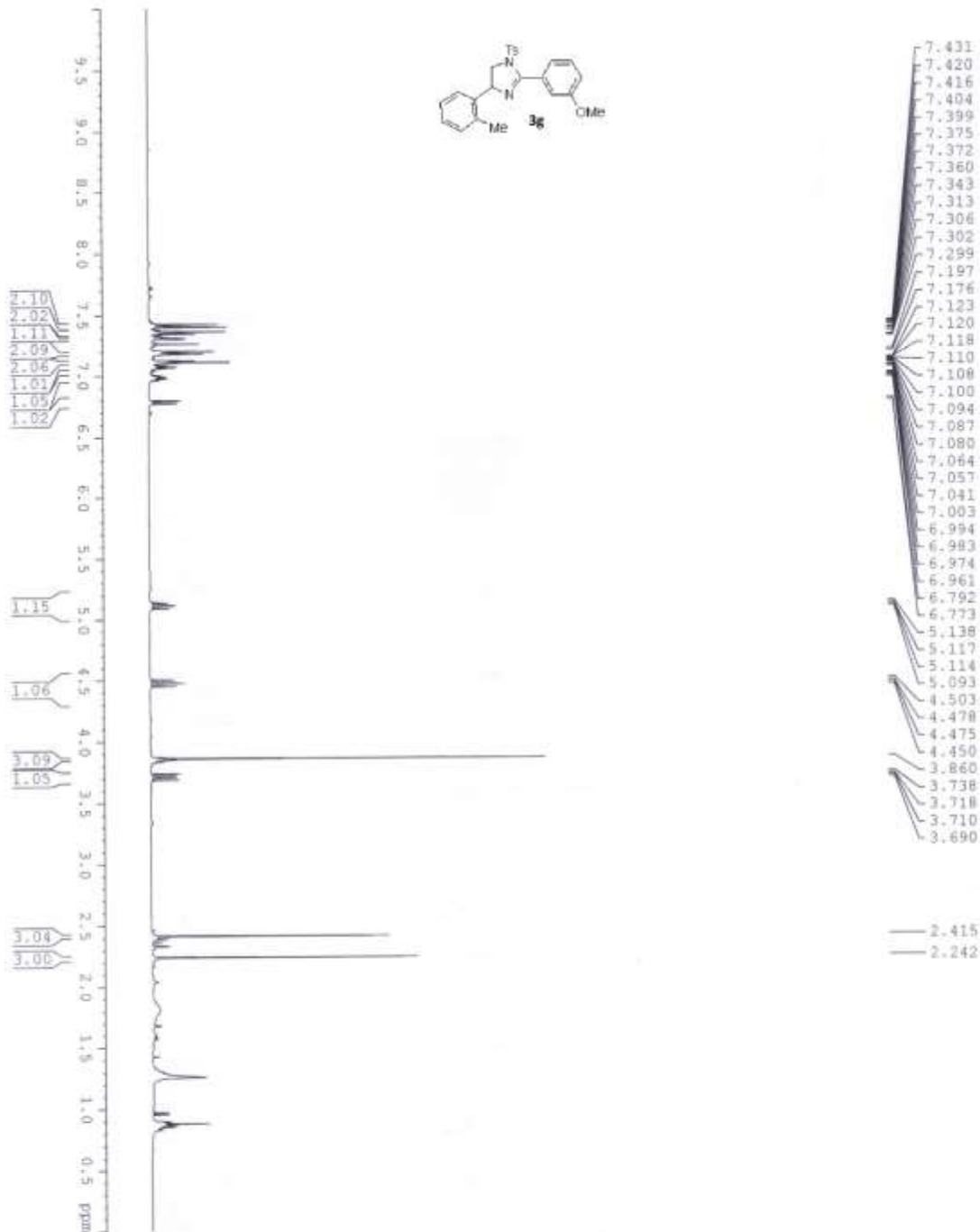
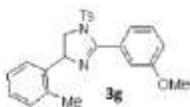


- 162.05
- 159.54
- 154.62
- 144.90
- 141.68
- 134.66
- 132.67
- 132.58
- 131.43
- 129.97
- 128.84
- 127.78
- 127.74
- 126.54
- 123.77
- 123.74
- 119.25
- 119.11
- 116.04
- 115.82
  
- 77.52
- 77.20
- 76.88
- 68.33
  
- 55.94
  
- 21.76



```

Current Data Parameters
NAME      Dr. A NALDE 2018
EXPNO     501
PROCNO    1
----- Acquisition Parameters -----
Date_     20180618
Time      19.28
INSTRUM   spect
PROBHD    5 mm BBO BB/
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         560
DS         2
SWH        24038.461 Hz
FIDRES     0.233596 Hz
AQ         0.6810744 sec
RG         135.1
TM         80.000 used
DE         6.50 dBsec
TE         301.1 K
D1         2.00000000 sec
D11        0.10000000 sec
SFO1      CHANNEL #1 -----
SFO1      100.6278599 MHz
NUC1       13C
P1         8.90 usec
PLM1       54.00000000 W
----- CHANNEL #2 -----
SFO2      400.1516006 MHz
NUC2       1H
P2         18
PLM2       0.00000000 W
----- Processing parameters -----
SI         16384
SF         100.6177829 MHz
WDW        EM
SSB        0
LN         1.00 Hz
GB         0
PC         2.00
  
```



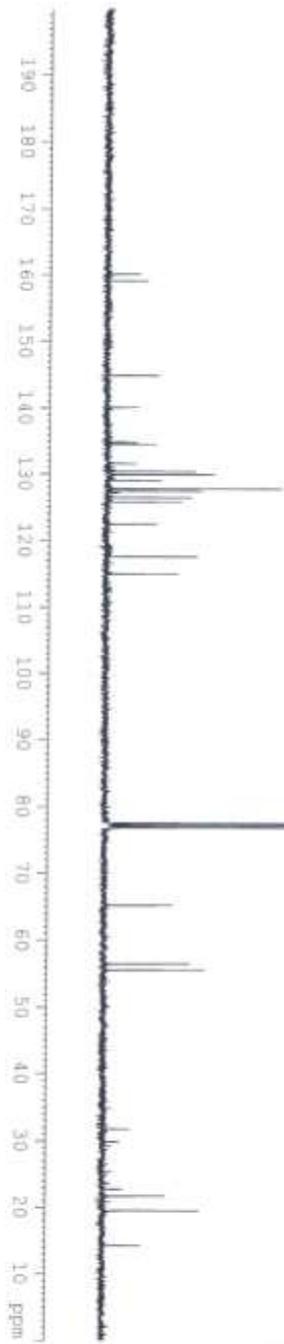
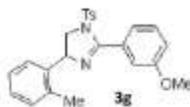
Current Data Parameters  
 NAME Dr. A.MAJE 2018  
 EXNO 359  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180503  
 Time\_ 19.18  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 16  
 DS 1  
 SNR 823.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 93.46  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 297.4 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL f1  
 SE01 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 FLM1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500996 MHz  
 WCN EM  
 SSB 0  
 LB 0  
 GB 0  
 PC 1.00

- 160.05
- 159.05
- 144.83
- 140.03
- 134.80
- 134.45
- 131.56
- 130.36
- 129.87
- 129.00
- 127.75
- 127.34
- 126.41
- 125.77
- 122.44
- 117.59
- 115.02
- 77.48
- 77.16
- 76.84
- 65.15
- 56.49
- 55.57
- 21.73
- 19.51



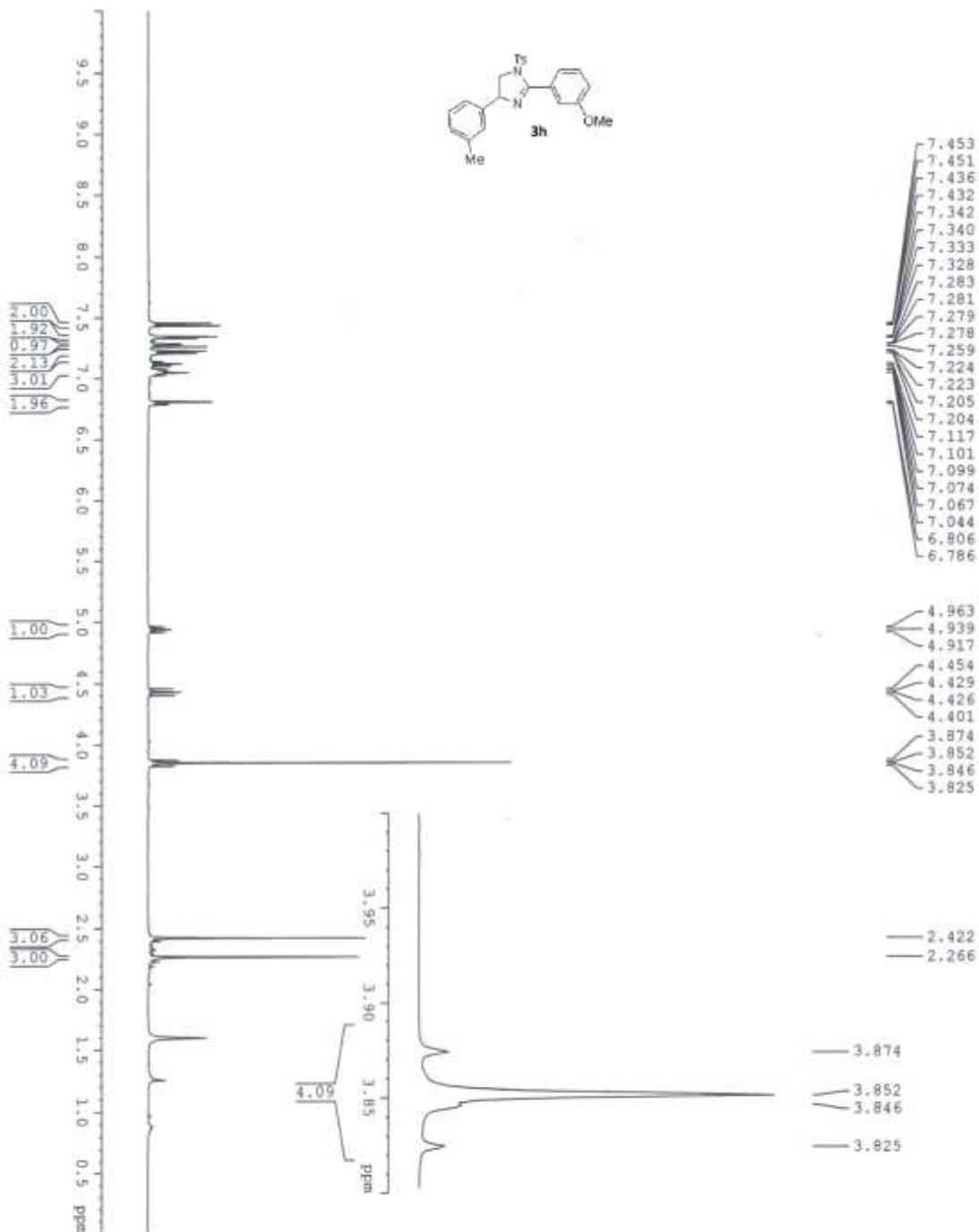
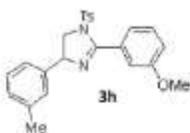
Current Data Parameters  
 NAME Dr. A. MAJEE 2018  
 EXNO 374  
 PROCN 1

F2 - Acquisition Parameters  
 Date\_ 20180507  
 Time 12:30  
 INSTRUM spect  
 PROGRAM 5 nm F4500 RB/  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 436  
 DS 7  
 SWH 24038.461 Hz  
 FIDRES 0.733395 Hz  
 AQ 0.6812744 sec  
 SFO 90  
 P1 166.44  
 PR 20.000 usec  
 DE 8.30 usec  
 TE 299.2 K  
 O1 2.00000000 sec  
 D11 0.03000000 sec  
 SFO 100

CHANNEL F1  
 DFO1 100.6278588 MHz  
 POC1 13C  
 F1 8.90 usec  
 P1M1 34.00000000 M

CHANNEL F2  
 FFO2 400.1518006 MHz  
 POC2 1H  
 CVOFFS012 waitzfc  
 PCPDZ 90.00 usec  
 PLM2 12.00000000 M  
 PLM12 0.3221000 M  
 PLM13 0.16212000 M

F2 - Processing parameters  
 SI 1024  
 SF 100.6177864 MHz  
 BRW 32  
 SSB 0  
 TB 0  
 UB 0  
 PC 1.20



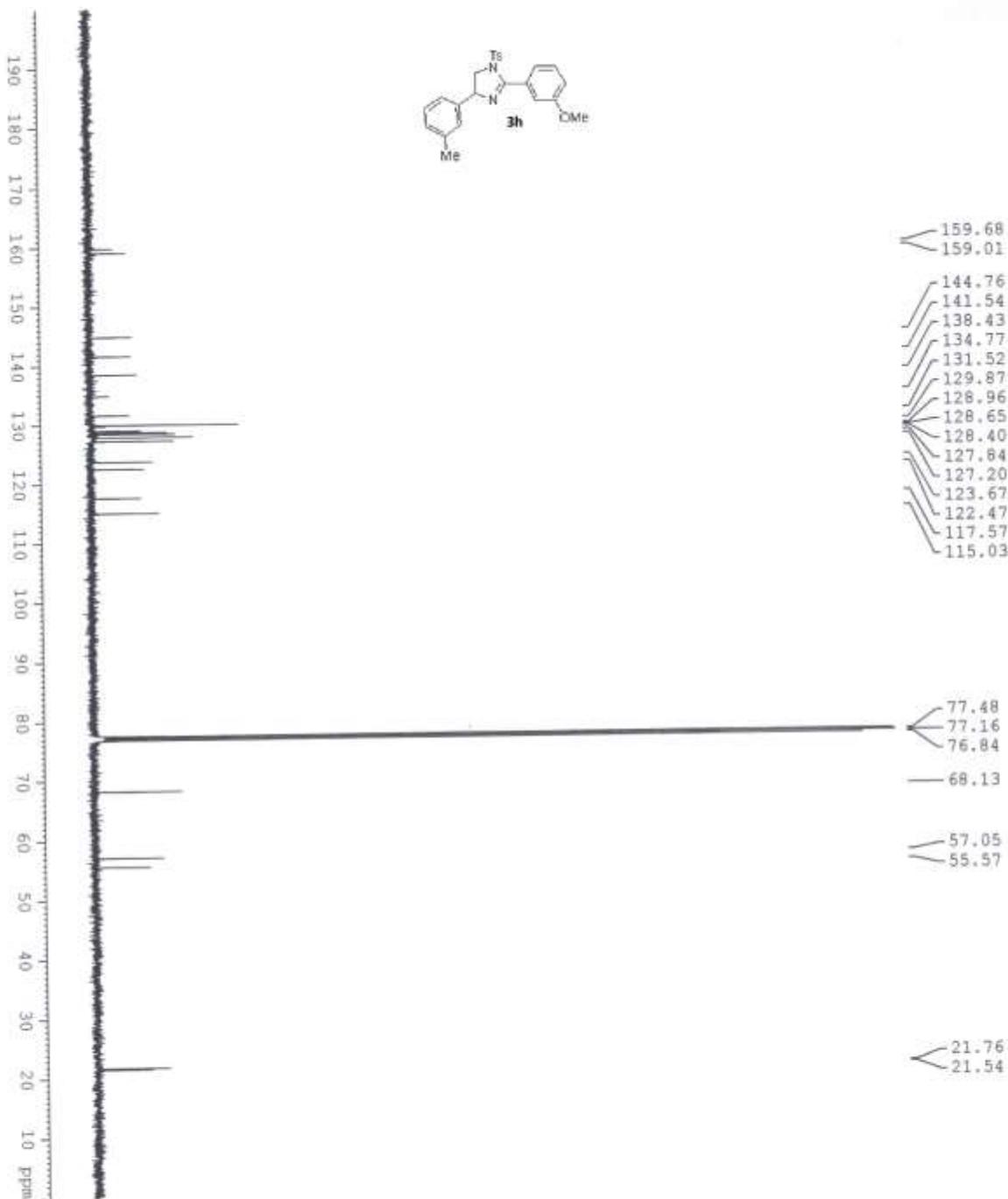
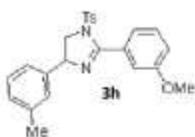
Current Data Parameters  
 NAME: Dt - A MAYEE 2018  
 EXNO: 239  
 PROCNO: 1

F2 - Acquisition Parameters

Date: 20180331  
 Time: 19.02  
 INSTRUM: spect  
 PROBRD: 5 mm PABBO BB/  
 PULPROG: zg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 24  
 DS: 1  
 SMH: 8223.665 Hz  
 FIDRES: 0.250367 Hz  
 AQ: 1.9922944 sec  
 RG: 120.16  
 DW: 60.800 usec  
 DE: 6.50 usec  
 TE: 298.1 K  
 D1: 1.00000000 sec  
 TDO: 1

CHANNEL: f1  
 SFO1: 400.1524711 MHz  
 NUCL1: 1H  
 PL1: 14.75 usec  
 PLW1: 12.00000000 W

F2 - Processing Parameters  
 SI: 16384  
 SF: 400.1500097 MHz  
 WDW: EM  
 SSB: 0  
 LB: 0.30 Hz  
 GB: 0  
 PC: 1.00



- 159.68
- 159.01
- 144.76
- 141.54
- 138.43
- 134.77
- 131.52
- 129.87
- 128.96
- 128.65
- 128.40
- 127.84
- 127.20
- 123.67
- 122.47
- 117.57
- 115.03
- 77.48
- 77.16
- 76.84
- 68.13
- 57.05
- 55.57
- 21.76
- 21.54



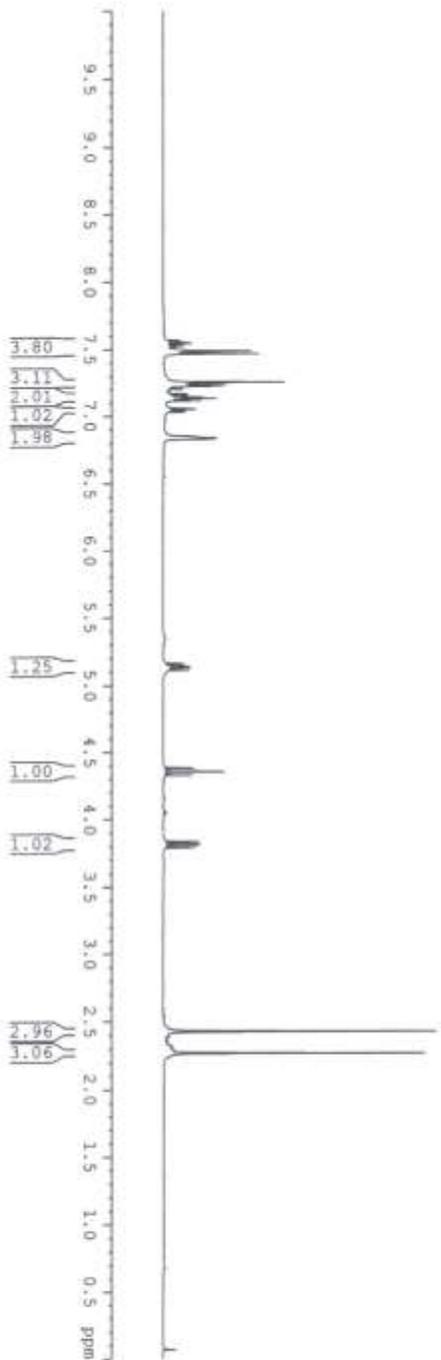
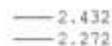
Current Data Parameters  
 NAME: DR. A. RAJEEV.1018  
 EXPNO: 210  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20190331  
 Time: 19.59  
 INSTRUM: spect  
 PROBRD: 5 mm PABBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 640  
 DS: 2  
 SWH: 24038.461 Hz  
 FIDRES: 0.233566 Hz  
 AQ: 0.6815744 sec  
 RG: 120.16  
 OS: 20.000 usec  
 DS: 6.50 usec  
 DE: 298.2 K  
 TE: 2  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TDO: 1

CHANNEL F1  
 SFO1: 100.6278588 MHz  
 NUC1: 13C  
 P1: 8.90 usec  
 PL1: 54.00000000 W

CHANNEL F2  
 SFO2: 400.1516906 MHz  
 NUC2: 1H  
 CPDPRG12: waltz16  
 RFDR2: 90.00 usec  
 FREQ2: 12.00000000 W  
 PL12: 0.32231000 W  
 PL13: 0.18212000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.637843 MHz  
 WDM: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.40



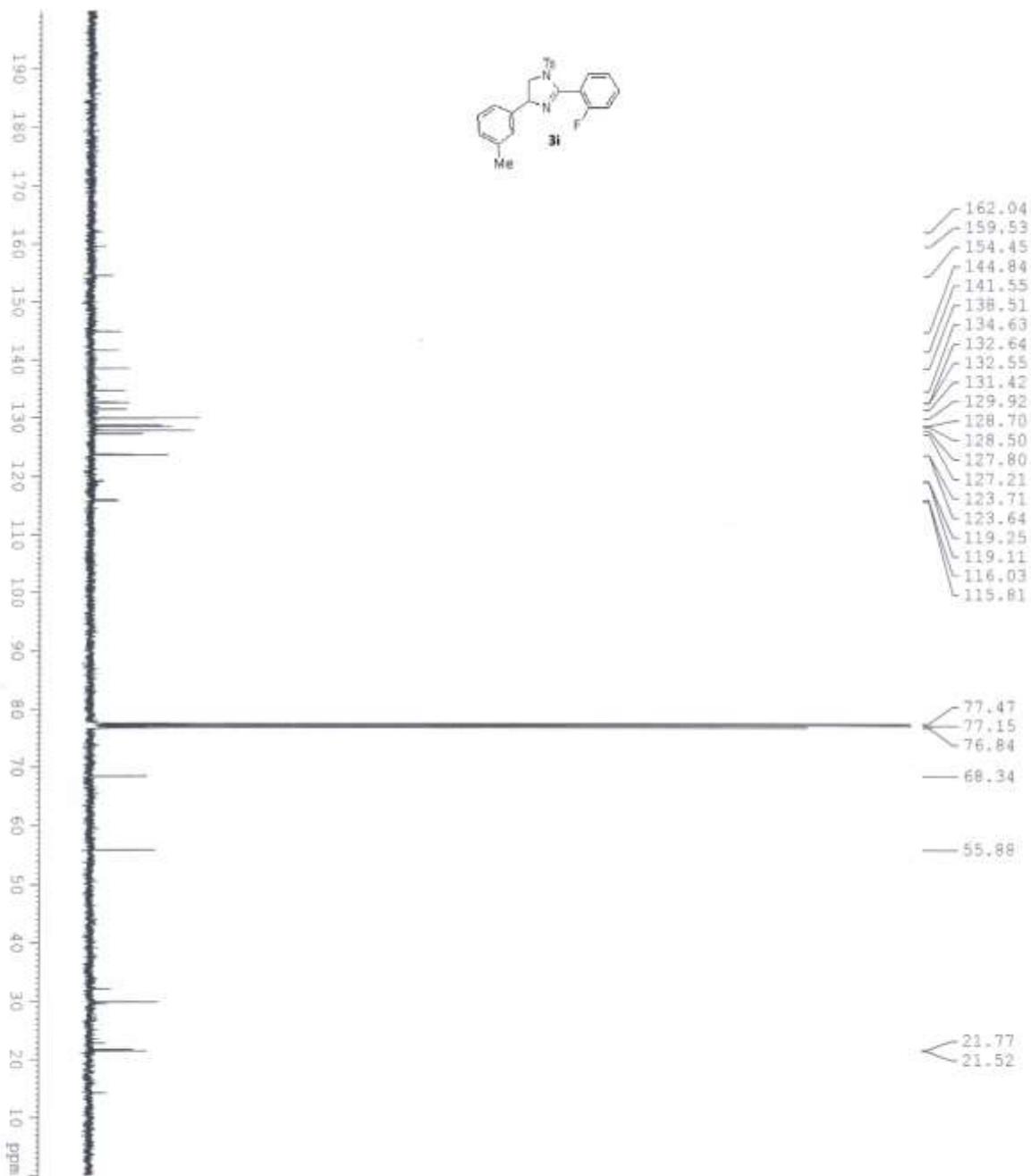
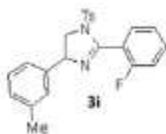
Current Data Parameters  
 NAME Dr. A MALBE 2018  
 EXPNO 275  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180411

Time 10.09  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 12  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9222944 sec  
 RG 135.7  
 DW 60.800 usec  
 DE 5.50 usec  
 TE 296.7 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL F1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500097 MHz  
 KW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
NAME: Dr. A. MULLER, 2018  
EXPER: 278  
PROCNO: 1

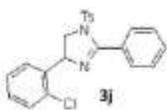
F2 - Acquisition Parameters  
Date\_: 20180411  
Time: 11.12  
INSTRUM: spect  
PROBHD: 5 mm DARRD BB/  
PULPROG: zgpg30  
TD: 32768  
SOLVENT: CDCl3  
NS: 640  
DS: 2  
SWH: 24038.461 Hz  
FIDRES: 0.733596 Hz  
AQ: 0.6815744 sec  
RG: 186.42  
TW: 20.800 usec  
DE: 6.58 usec  
TE: 291.8 K  
D1: 2.00000000 sec  
D11: 0.03000000 sec  
TSD: 1

===== CHANNEL f1 =====  
NUC1: 13C  
P1: 12C  
PL1: 0.00000000 M  
PR1: 34.00000000 M

===== CHANNEL f2 =====  
NUC2: 1H  
P2: 1H  
PL2: 0.00000000 M  
PR2: 0.16210000 M

F2 - Processing parameters  
SI: 32768  
SF: 100.617843 MHz  
WDW: EM  
SSB: 0  
LB: 1.00 Hz  
GB: 0  
PC: 1.40





Current Data Parameters  
 NAME Dr. A. WALTER 2019  
 EXPNO 290  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20190518  
 Time 9.30

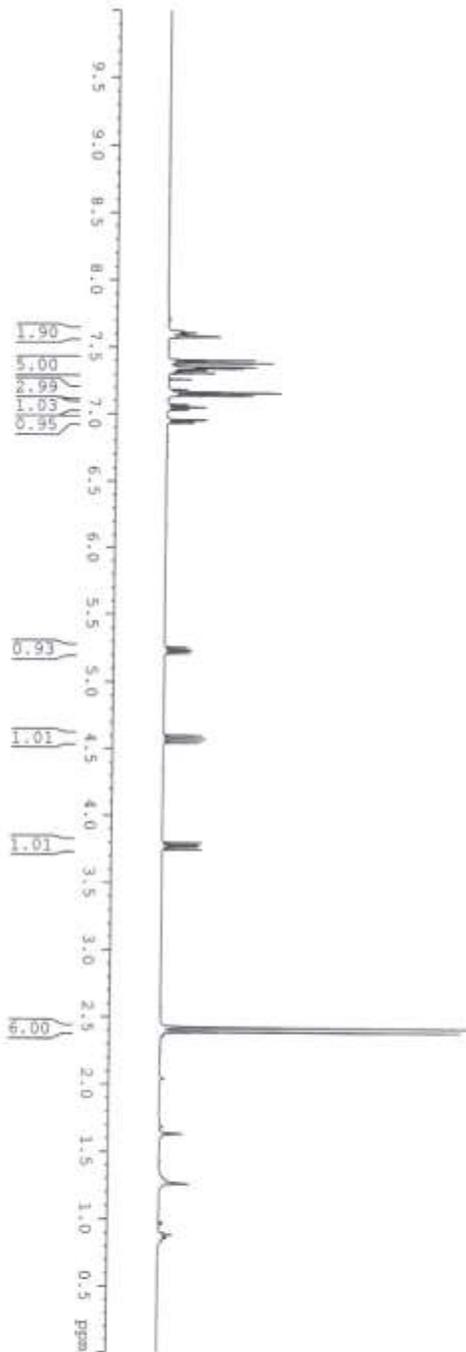
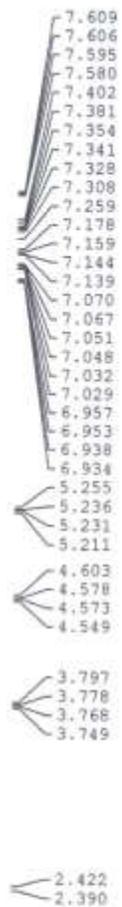
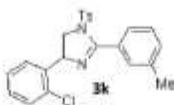
INSTRUM spect  
 PRCBRD 5 mm PABBO BB/  
 WILP1K0G 29P030  
 TD 32768  
 SOLVENT CDCl3  
 NS 248  
 DS 2

SWH 24038.461 Hz  
 FIDRES 0.73396 Hz  
 AQ 0.6815744 sec  
 RG 186.42  
 DW 20.800 usec  
 DE 6.50 usec  
 TE 296.4 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 TSD 1

CHANNEL F1  
 SF01 100.6217580 MHz  
 NUC1 13C  
 P1 8.90 usec  
 PLM1 54.00000000 W

CHANNEL F2  
 SF02 400.1516006 MHz  
 NUC2 1H  
 CPGPRG12 waltz16  
 PCPD2 90.00 usec  
 PLM2 12.00000000 W  
 PLM12 0.32231000 W  
 PLM13 0.16212000 W

F2 - Processing parameters  
 SI 16384  
 SF 100.6183909 MHz  
 MIDW EX  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 2.00



Current Data Parameters  
 NAME Dr. A MAJER 2018  
 EXPRN 189  
 PROCNO 1

F2 - Acquisition Parameters

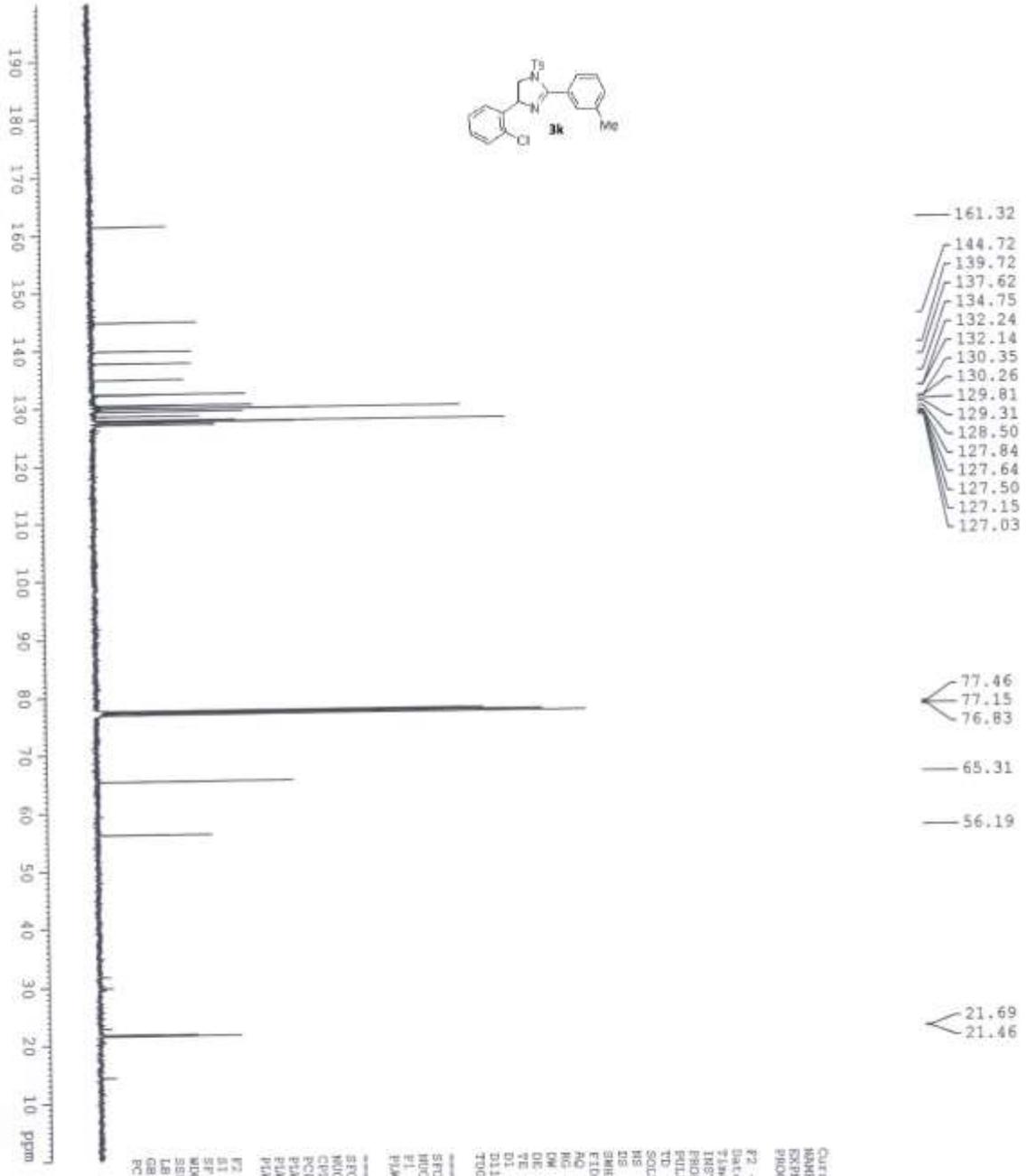
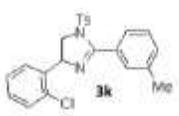
Date\_ 20180320  
 Time 19.16  
 INSTRUM spect  
 PROBRD 5 mm BBOC BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 16  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.2150967 Hz  
 AQ 1.9922944 sec  
 RG 67.81  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 298.1 K  
 D1 1.00000000 sec  
 TD0 1

CHANNEL f1

SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters

SI 16384  
 SK 400.1500096 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



161.32  
 144.72  
 139.72  
 137.62  
 134.75  
 132.24  
 132.14  
 130.35  
 130.26  
 129.81  
 129.31  
 128.50  
 127.84  
 127.64  
 127.50  
 127.15  
 127.03

77.46  
 77.15  
 76.83

68.31

56.19

21.69  
 21.46



Current Data Parameters  
 NAME: Dr. A. MAYER 2018  
 EXPNO: 194  
 PROCNO: 1

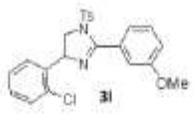
F2 - Acquisition Parameters  
 Date\_: 20180321  
 Time: 19.14  
 INSTRUM: spect  
 PROBRD: 5 mm WBBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 640  
 DS: 2  
 SWH: 24038.461 MHz  
 FIDRES: 0.733596 Hz  
 AQ: 0.6815744 sec  
 RG: 186.42  
 DW: 20.890 usec  
 DE: 6.50 usec  
 TE: 298.2 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 T100: 1

----- CHANNEL f1 -----  
 SFO1: 100.6270588 MHz  
 NUQ1: 13C  
 F1: 8.90 usec  
 P1A1: 54.00000000 W

----- CHANNEL f2 -----  
 SFO2: 400.1516006 MHz  
 NUQ2: 1H  
 GVSFPRG12: waltz16  
 FCFP02: 90.00 usec  
 P1A2: 12.00000000 W  
 P1M12: 0.2221000 M  
 P1M13: 0.1621000 M

F2 - Processing parameters  
 SI: 32768  
 SF: 100.6177873 MHz  
 WDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.40

1H OF VBAR-CN6



Current Data Parameters  
 NAME Dr. A. MAJEE\_2018  
 EXPNO 1  
 PROCNO 1

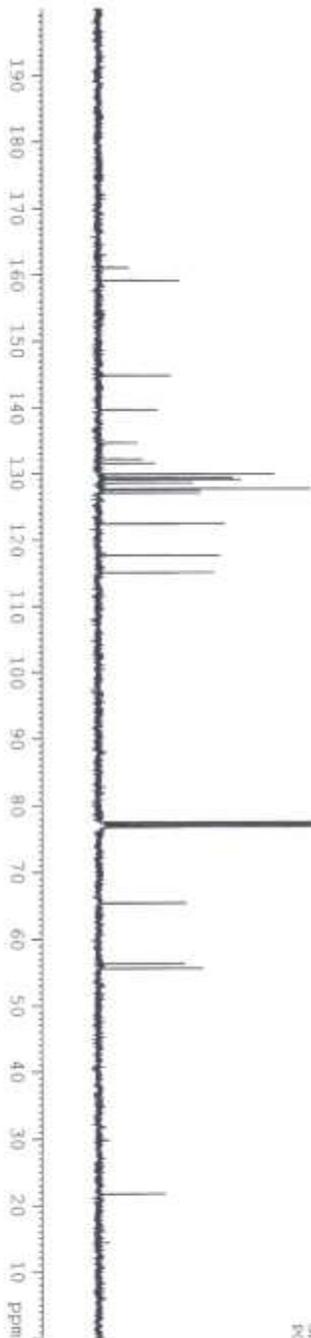
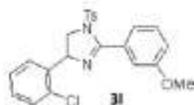
F2 - Acquisition Parameters  
 Date\_ 20180102  
 Time 18:27  
 INSTRUM spect  
 PROBNM 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 17  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 87.66  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 296.0 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL f1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SE 400.1500094 MHz  
 WDM 0  
 SSB 0  
 LB 0  
 GB 0  
 PC 1.00



- 161.02
- 159.04
- 144.81
- 139.66
- 134.64
- 132.14
- 131.50
- 129.86
- 129.34
- 129.05
- 128.55
- 127.65
- 127.49
- 127.05
- 122.43
- 117.67
- 115.09
- 77.48
- 77.16
- 76.84
- 65.35
- 56.27
- 55.58
- 21.71



```

Current Data Parameters
NAME      Dr. A MAJEE 2018
EXPNO     4
PROCNO    1

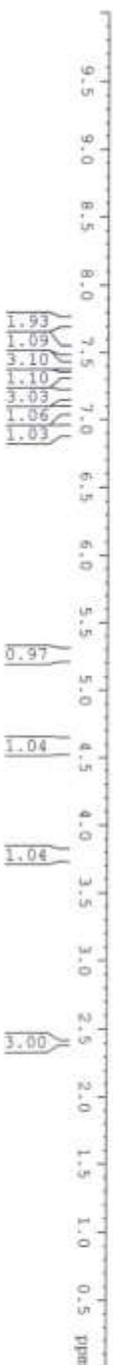
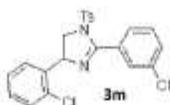
F2 - Acquisition Parameters
Date_     20180102
Time      18.45
INSTRUM   spect
PROBHD    5 mm PABBO BB/
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         320
DS         2
SWH        24038.461 Hz
FIDRES     0.733596 Hz
AQ         0.6815744 sec
RG         87.66
DM         20.800 usec
DE         6.50 usec
TE         296.0 K
D1         2.00000000 sec
D11        0.03000000 sec
TDO        1

----- CHANNEL f1 -----
SFO1      100.6278588 MHz
NUC1       13C
P1         8.50 usec
PL1        0.00000000 W
PT1        54.00000000 W

----- CHANNEL f2 -----
SFO2      400.1516006 MHz
NUC2       1H
P2         16.00 usec
PL2        0.00000000 W
PT2        54.00000000 W

----- CHANNEL f3 -----
SFO3      100.6278588 MHz
NUC3       13C
P3         8.50 usec
PL3        0.00000000 W
PT3        54.00000000 W

F2 - Processing parameters
SI         16384
SF         100.6177860 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         1.40
    
```



Current Data Parameters  
 NAME: DR. A. HAJEB 2018  
 EXPNO: 187  
 PROCNO: 1

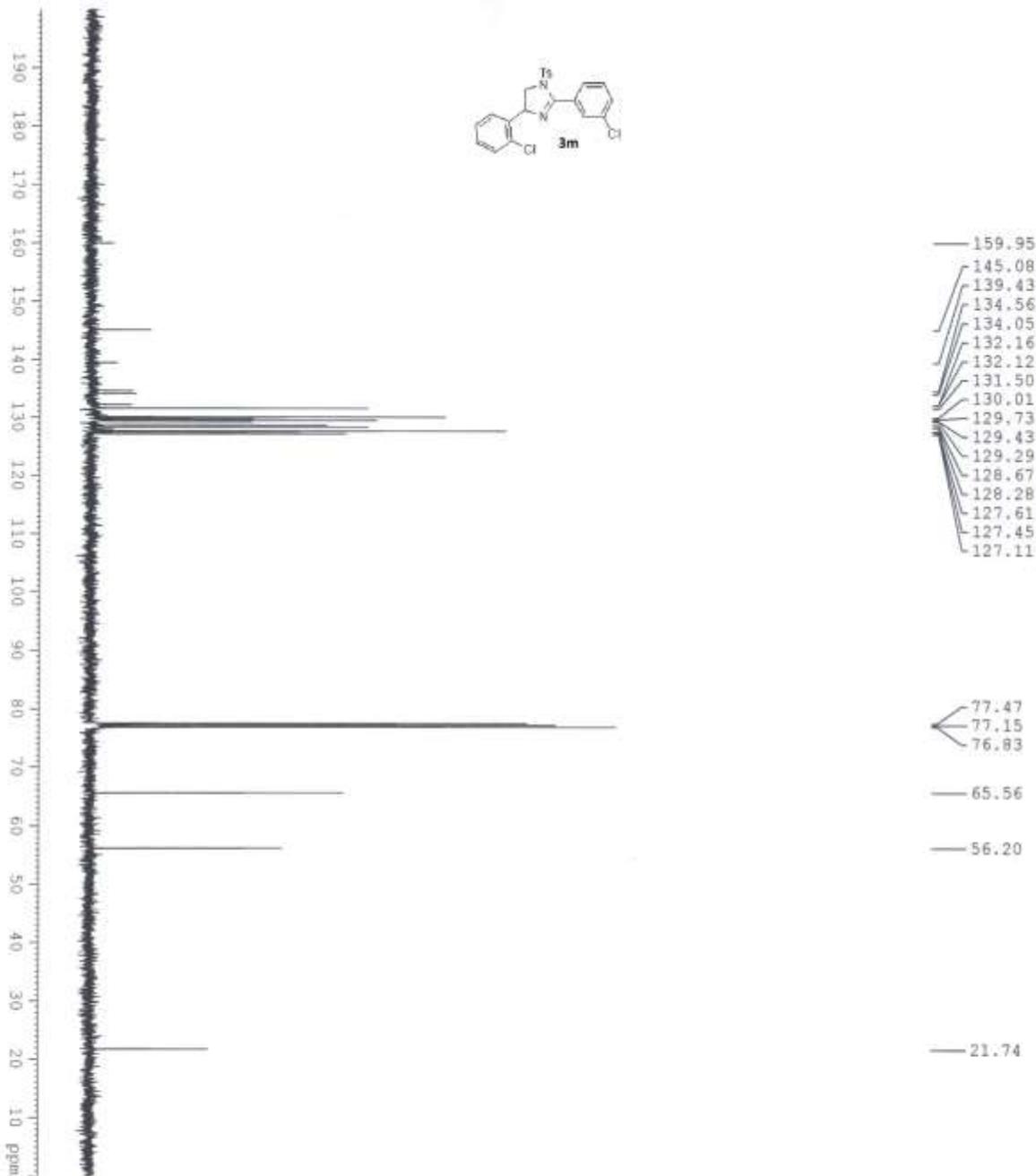
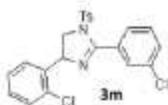
F2 - Acquisition Parameters  
 Date\_ 20180320  
 Time 19.11

INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 12  
 DS 1

SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.5922944 sec  
 RG 168.31  
 DW 60.800 usec  
 DE 5.50 usec  
 TE 298.3 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL F1  
 SFO1 400.1524711 MHR  
 NUC1 1H  
 P1 14.75 usec  
 PLWI 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500097 MHR  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



159.95  
145.08  
139.43  
134.56  
134.05  
132.16  
132.12  
131.50  
130.01  
129.73  
129.43  
129.29  
128.67  
128.28  
127.61  
127.45  
127.11

77.47  
77.15  
76.83

65.56

56.20

21.74



Current Data Parameters  
NAME: DC\_A NMR1 2018  
EXPTNO: 193  
PROCNO: 1

F2 - Acquisition Parameters

Date\_: 20180331  
Time: 11.31  
INSTRUM: spect  
PROBHD: 5 mm PABBO-BB/  
PULPROG: zgpg30  
TD: 65536  
SFO: 125.761  
AQ: 2.00000000 sec  
RG: 655  
DE: 2  
EM: 24038.461 Hz  
FIDRES: 0.733596 Hz  
AQ: 0.682724 sec  
RG: 655  
DS: 2  
SWH: 20.400 usec  
F2: 125.761 MHz  
TE: 300.2 K  
D1: 2.00000000 sec  
D11: 0.02000000 sec  
TD0: 1

CHANNEL f1

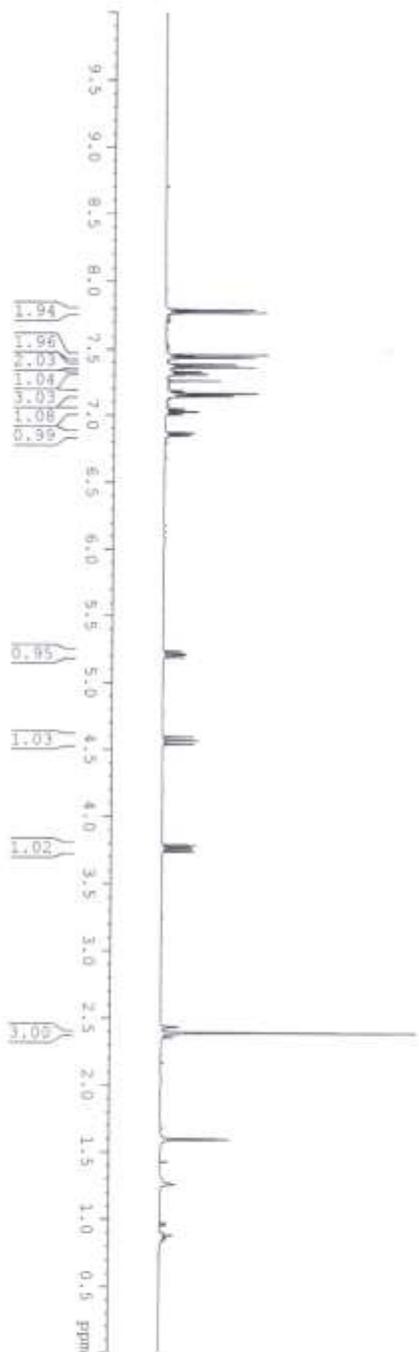
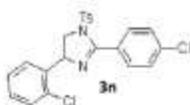
NUC1: 13C  
P1: 120 usec  
PL1: 0 dB  
PL12: 0 dB

CHANNEL f2

NUC2: 1H  
P2: 120 usec  
PL2: 0 dB  
PL22: 0 dB

Processing Parameters

SF: 125.761 MHz  
WDW: EM  
SSB: 0  
GB: 0  
PC: 1.40



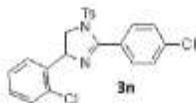
Current Data Parameters  
 NAME: Dr. A RAJEE 201H  
 EXPNO: 343  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180428  
 Time: 22.31  
 INSTRUM: spect  
 PROBAD: 5 mm PABBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 12  
 DS: 1  
 SWH: 8223.685 Hz  
 FIDRES: 0.250967 Hz  
 AQ: 1.9922944 sec  
 RG: 93.46  
 DM: 60.800 usec  
 DE: 6.50 usec  
 TE: 298.0 K  
 D1: 1.00000000 sec  
 TDO: 1

===== CHANNEL f1 =====  
 SECT1: CHANNEL F1  
 NUCL1: 1H  
 P1: 14.75 usec  
 PLW1: 12.00000000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 400.1500097 MHz  
 WDW: EM  
 SSB: 0  
 LB: 0.30 Hz  
 GB: 0  
 PC: 1.00

13C OF VBAR 278/43



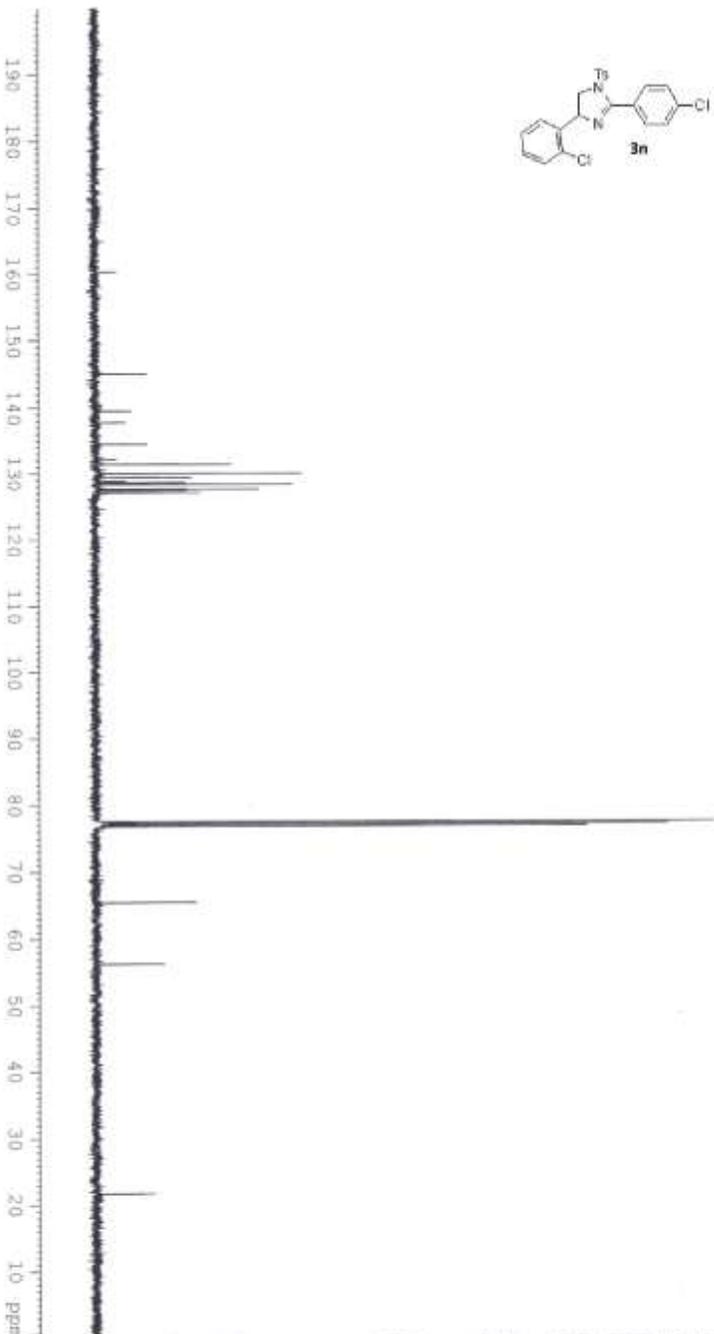
- 160.29
- 145.03
- 139.51
- 137.79
- 134.47
- 132.14
- 131.39
- 129.99
- 129.41
- 128.84
- 128.61
- 128.34
- 127.59
- 127.40
- 127.06

- 77.48
- 77.16
- 76.85

65.48

56.28

21.75



Current Date Parameters  
 NAME: Dr. A. WALTER 2018  
 EXPNO: 344  
 PROCNO: 1



F2 - Acquisition Parameters  
 Date\_ 20180428  
 Time 22:50  
 INSTRUM spect  
 PROBHD 5 mm BBBO BBI  
 PULPROG zgpg30  
 TD 65536  
 TO 12.48  
 SOLVENT CDCl3  
 NS 380  
 DS 2  
 SWH 24938.461 Hz  
 FIDRES 0.733596 Hz  
 AQ 0.681574 sec  
 F2 57.28  
 CW 20.500 usec  
 DE 6.50 usec  
 TE 298.2 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 TDO 1

CHANNEL F1  
 SF01 100.6278588 MHz  
 NU01 13C  
 F1 8.90 usec  
 PL11 54.00000000 W

CHANNEL F2  
 SF02 400.1516016 MHz  
 NU02 1H  
 CPDPRG2 WALTZ16  
 FCF02 90.00 usec  
 PLM2 33.00000000 W  
 PLM3 0.32231000 W  
 PLM13 0.16212000 W

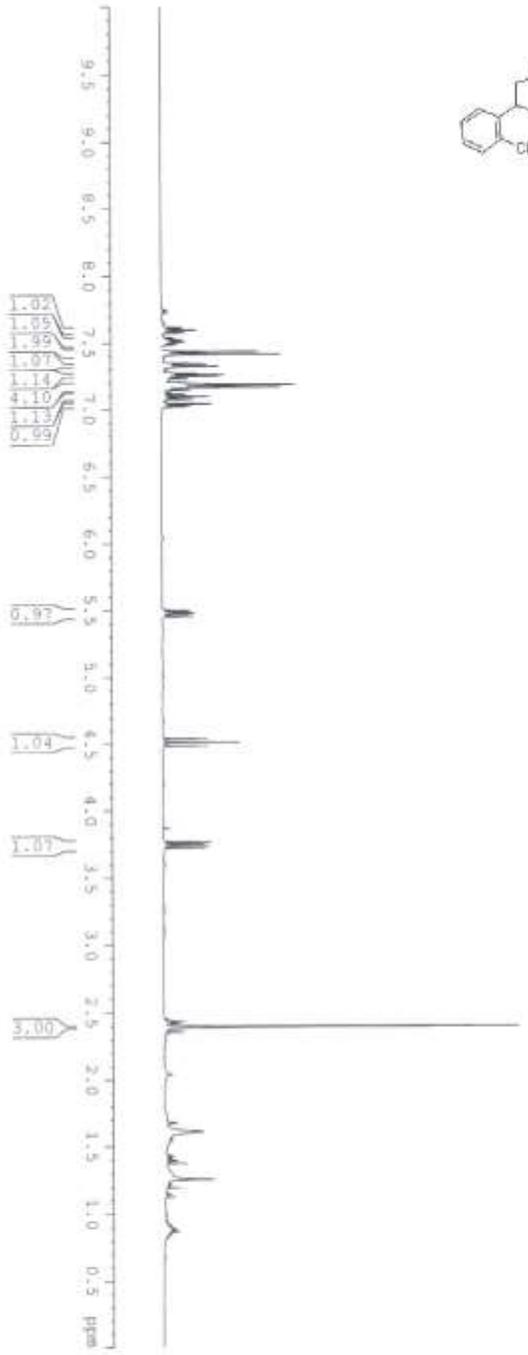
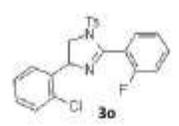
F2 - Processing parameters  
 SI 16384  
 SF 100.6177635 MHz  
 SDW DM  
 SSB 0  
 GB 1.00 Hz  
 DB 0  
 PC 1.40



Current Data Parameters  
 NAME Dr. A.HARJE.2018  
 EXPNO 335  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180426  
 Time 11.43

INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 20  
 DS 1  
 SWH 8223.663 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 93.46  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 298.6 K  
 D1 1.00000000 sec  
 TDO 1



CHANNEL f1  
 SFO1 400.1524711 MHz  
 NUCL1 1H  
 P1 14.75 usec  
 FLM1 12.00000000 W

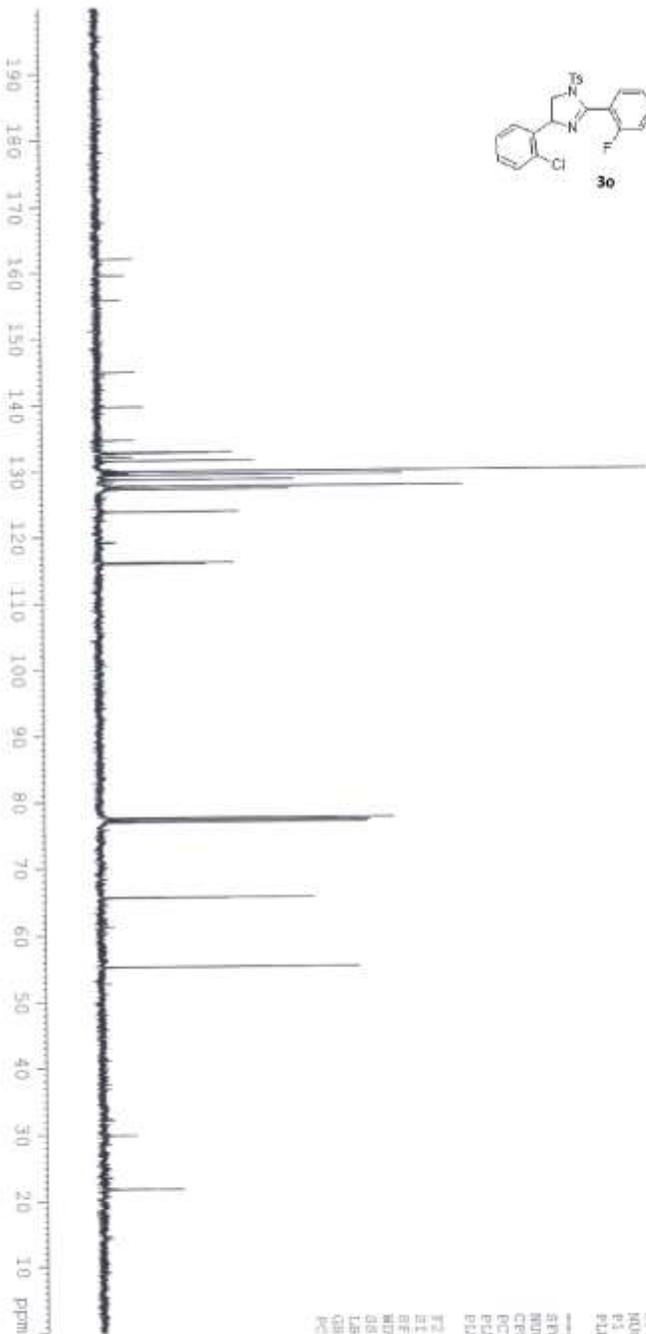
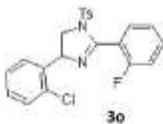
F2 - Processing parameters  
 SI 16184  
 SF 400.1500097 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



- 162.01
- 159.50
- 155.74
- 144.87
- 139.70
- 134.65
- 132.79
- 132.70
- 132.11
- 131.53
- 129.90
- 129.65
- 129.39
- 128.75
- 128.69
- 127.74
- 127.65
- 127.62
- 127.50
- 127.17
- 123.80
- 123.77
- 116.12
- 115.91

- 77.48
- 77.16
- 76.85
- 65.51
- 55.18

- 21.72



```

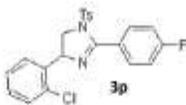
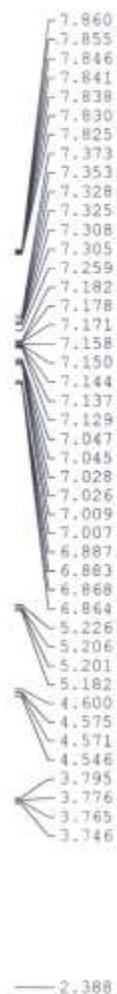
Current Data Parameters
NAME      Dr. A WAHBE 2018
EXPNO    347
PROCNO   1

F2 - Acquisition Parameters
Date_    20180429
Time     11.36
INSTRUM  spect
PROBHD   5 mm VBARBO BB7
PULPROG  zgpg
TD        32768
SOLVENT  CDCl3
NS        640
DS        2
SFR       24038.461 Hz
AQ        0.133596 sec
RG        0.681574 sec
DE        186.42
TE        298.15 K
D1        4.50 usec
D11       2.00000000 sec
D12       0.03000000 sec
D13       1

===== CHANNEL f1 =====
SFO1     100.6278508 MHz
NUC1     13C
P1       8.99 usec
PL1      94.00000000 dB

===== CHANNEL f2 =====
SFO2     400.1516006 MHz
NUC2     1H
P2       12.00000000 usec
PL2      0.32211000 W

F2 - Processing parameters
SI       16384
SF       100.617940 MHz
WDW      EM
SSB      0
LB       0
GB       0
PC       1.00
    
```



Current Data Parameters  
 NAME: Dr. A MAUDE 2016  
 EXPNO: 336  
 PROCNO: 1

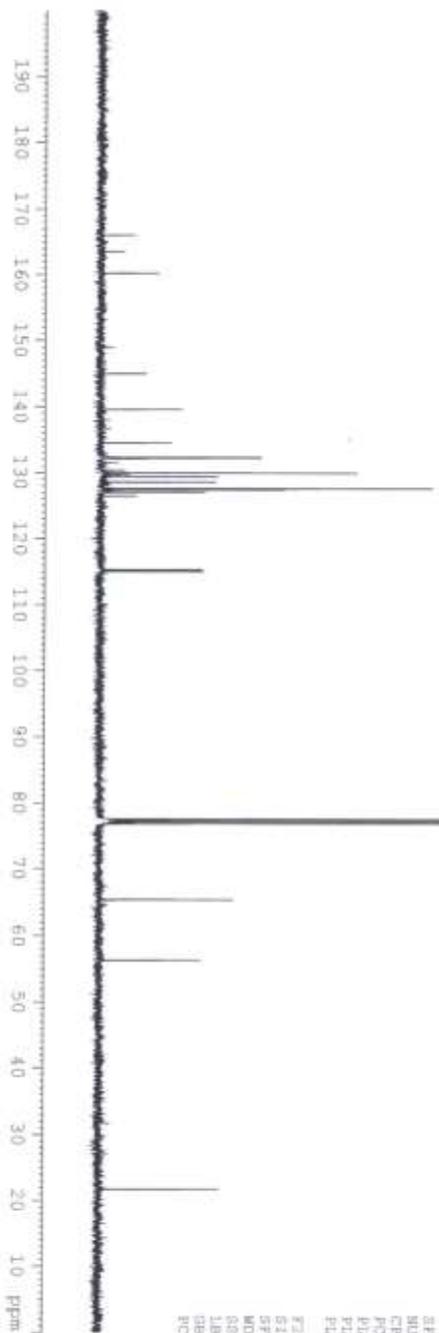
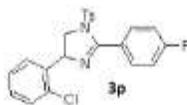
F2 - Acquisition Parameters

Date\_ 20180426  
 Time 11.48  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 24  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9972944 sec  
 RG 93.46  
 BIC 0  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 298.6 K  
 D1 1.00000000 sec  
 TDO 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SEOI 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLWI 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500098 MHz  
 MDW 0  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

- 166.06
- 163.56
- 160.23
- 144.95
- 139.57
- 134.54
- 132.32
- 132.23
- 132.14
- 129.94
- 129.38
- 128.57
- 127.57
- 127.39
- 127.03
- 126.43
- 115.30
- 115.08
- 77.47
- 77.15
- 76.83
- 65.33
- 56.31
- 21.72



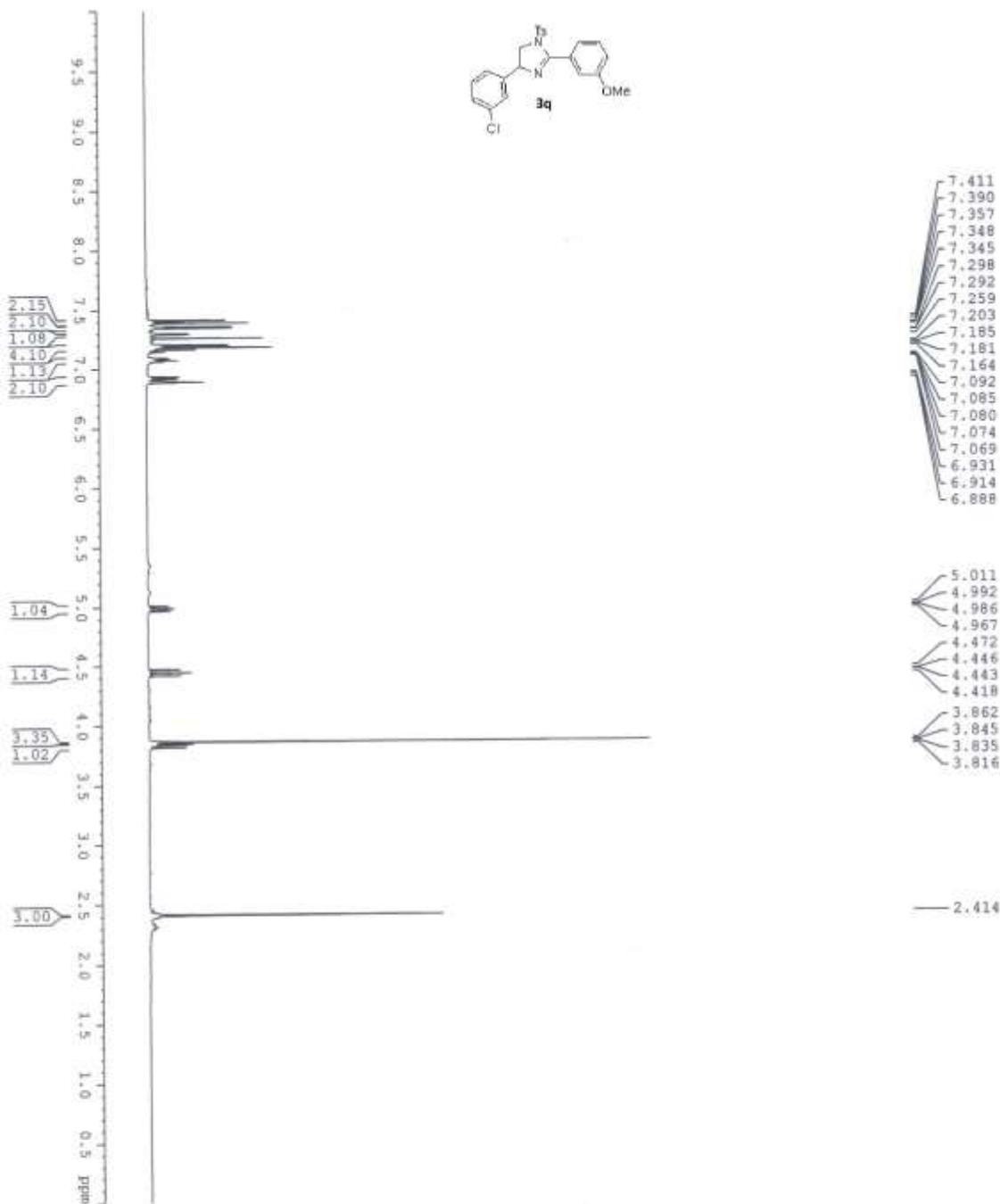
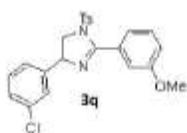
Current Data Parameters  
 NAME: Dr. A RAJEE 2018  
 EXPRNO: 237  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180426  
 Time: 12.19  
 INSTRUM: spect  
 PROBRD: 5 mm BBBO BB/  
 PULPROG: zgpg30  
 TO: 32768  
 SOLVENT: CDCl3  
 NS: 480  
 DS: 2  
 SWH: 24038.463 Hz  
 FIDRES: 0.733596 Hz  
 AQ: 0.6815744 sec  
 RG: 57.28  
 DW: 20.800 usec  
 DE: 6.50 usec  
 TE: 299.4 K  
 O1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TDO: 1

----- CHANNEL f1 -----  
 NU1: 100.6274568 MHz  
 NU2: 13C  
 P1: 8.90 usec  
 PL1: 0.00000000 M  
 PL2: 0.00000000 M

----- CHANNEL f2 -----  
 NU1: 400.1514006 MHz  
 NU2: 1H  
 P1: 12.00 usec  
 PL1: 0.20231000 M  
 PL2: 0.16212000 M

F2 - Processing parameters  
 SI: 16384  
 SF: 100.6177853 MHz  
 KW: 64  
 SFO: 1.00 MHz  
 LB: 0  
 GB: 0  
 PC: 1.40



- 7.411
- 7.390
- 7.357
- 7.348
- 7.345
- 7.298
- 7.292
- 7.259
- 7.203
- 7.185
- 7.181
- 7.164
- 7.092
- 7.085
- 7.080
- 7.074
- 7.069
- 6.931
- 6.914
- 6.888
  
- 5.011
- 4.992
- 4.986
- 4.967
- 4.472
- 4.446
- 4.443
- 4.418
- 3.862
- 3.845
- 3.835
- 3.816
  
- 2.414



Current Data Parameters:  
 NAME Dr. A MAURE, 2018  
 EXPNO 233  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180329  
 Time 17.51

INSTRUM spect  
 PROBD 5 mm RB80 BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 32  
 DS 1  
 SM 823.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 120.16  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 299.0 K  
 D1 1.00000000 sec  
 TPO 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500098 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME: Dr. A. MAJEE\_2018  
 EXPNO: 234  
 PROCNO: 1

F2 - Acquisition Parameters

Date\_ 20180219  
 Time 18.18  
 THERMID spect  
 PULPROG 9 on F2H2O BB/  
 FULPROG zgpg30  
 TD 32768  
 SFOV 512  
 NS 2  
 DS 24038.461 Hz  
 FIDRES 0.733596 Hz  
 AQ 0.5815740 sec  
 RG 81.56  
 DW 20.600 usec  
 DE 4.50 usec  
 TE 300.2 K  
 DEL 0.50000000 sec  
 TDO 1

CHANNEL #1

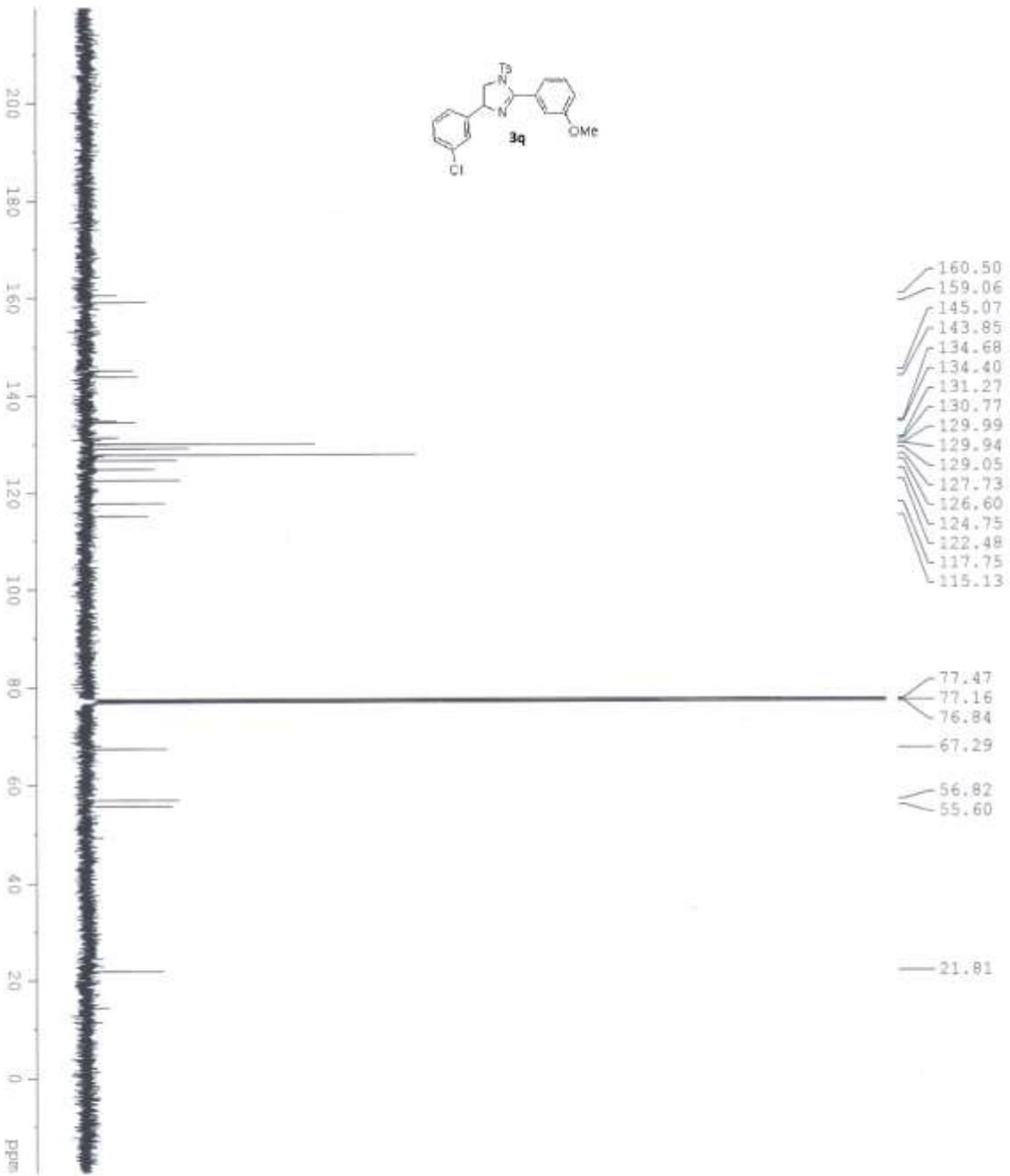
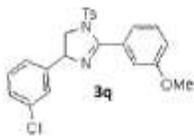
NUC1 13C  
 P1 8.90 usec  
 PL1 54.00000000 W

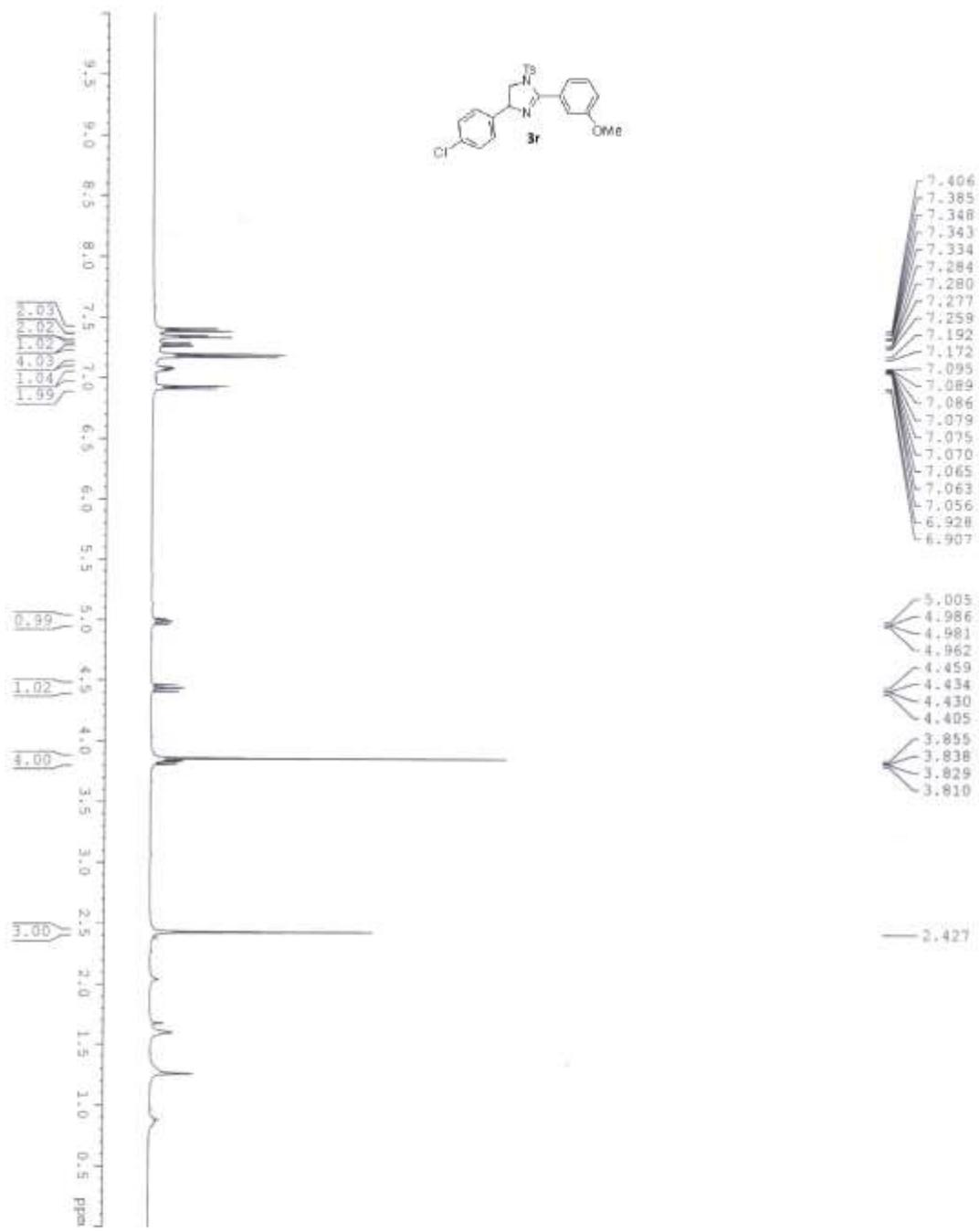
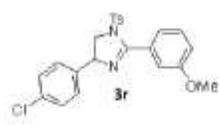
CHANNEL #2

NUC2 1H  
 WALTZ16  
 FCPH2 90.00 usec  
 FLM2 0.3231000 W  
 FWH2 0.16212000 W

F1 - Processing parameters

SI 16384  
 SF 100.617822 MHz  
 WHW 64  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40





Current Data Parameters  
 NAME Dr. A MAITE 2018  
 EXPRD 355  
 PROCNO 1

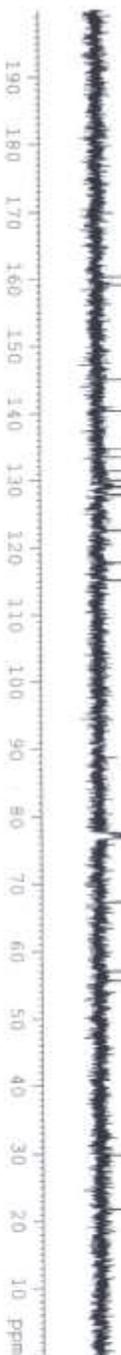
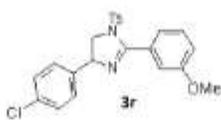
F2 - Acquisition Parameters  
 Date\_ 20180507  
 Time 16.30  
 INSTRM spect  
 PROBD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 24  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9923944 sec  
 RG 93.46  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 298.9 K  
 D1 1.00000000 sec  
 TDD 1

===== CHANNEL F1 =====  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500095 MHz  
 WDW EM  
 SSB 0  
 GB 0  
 PC 1.00



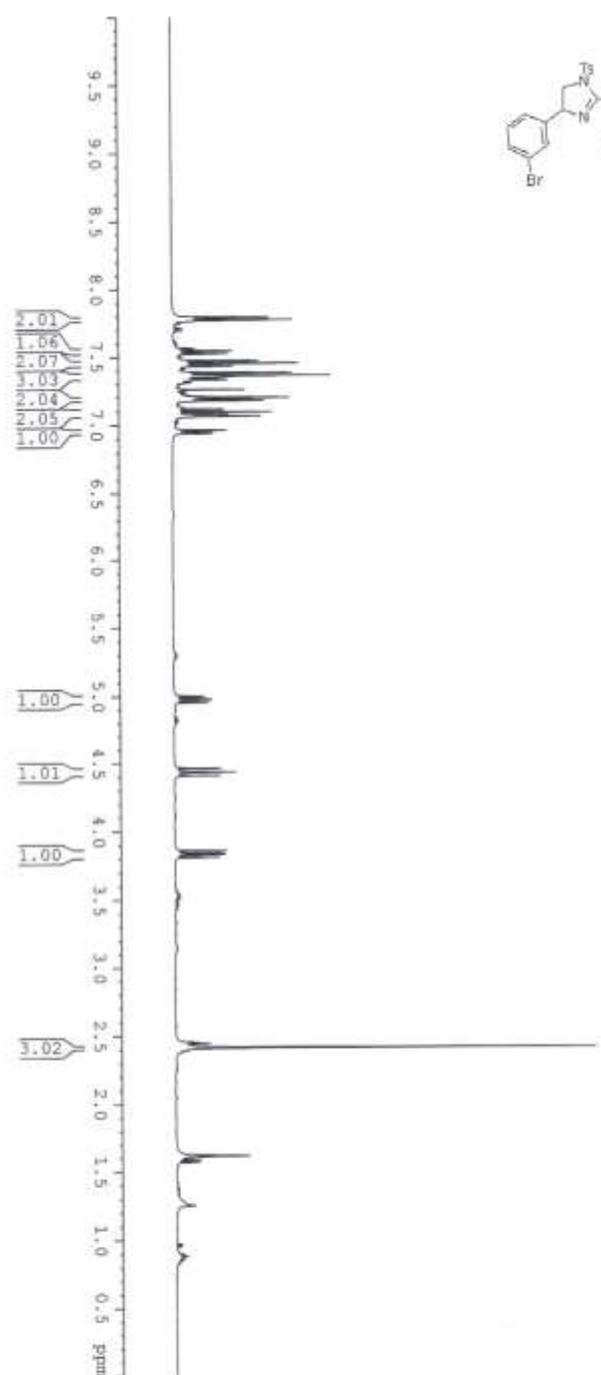
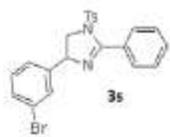
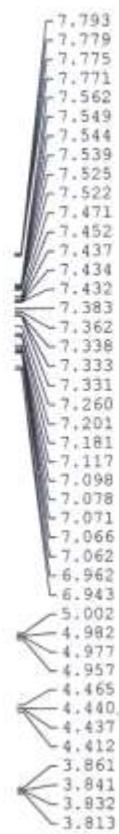
- 160.30
- 159.07
- 145.01
- 140.36
- 134.63
- 133.38
- 131.32
- 129.89
- 129.04
- 128.85
- 127.78
- 127.73
- 122.44
- 117.70
- 115.10
- 77.48
- 77.16
- 76.84
- 67.21
- 56.95
- 55.58
- 22.73



```

Current Data Parameters
NAME      CF. A VBAR 201#
EXPTNO   154
PROCNO    1
----- Acquisition Parameters -----
Date_      20180502
Time       16.44
INSTRUM   spect
PROBHD    5 mm PABBO BB/
PULPROG   zgpg
FIDRES    127.68
AQ        3.2768
SOLVENT   CDCl3
NS        264
DS        2
SWH       24038.461 Hz
FIDRES3   0.713356 Hz
AQ3       0.681574 sec
RG        93.46
PC        20.400 usec
DE        4.50 usec
TE        300.0 K
D1        2.0000000 sec
D11       0.03000000 sec
TD0       1
----- CHANNEL f1 -----
SFO1      100.627858 MHz
NUC1      13C
P1        8.90 usec
PL1       54.00000000 dB
----- CHANNEL f2 -----
SFO2      400.1516006 MHz
NUC2      1H
P2        18
PL2       0
PC1P2     30.00 usec
PC1P22    13.00000000 W
PUM12     0.35231000 W
----- Processing parameters -----
SI        16384
SF        100.6177836 MHz
RG        68
GB        0
GB1       0
GB2       0
GB3       0
PC        1.40
  
```

1H OF VBAR 278/56



Current Data Parameters  
 NAME Dr. A RAJEE 2019  
 EXPRNO 291  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20190518  
 Time 9.35

INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 24  
 DS 1

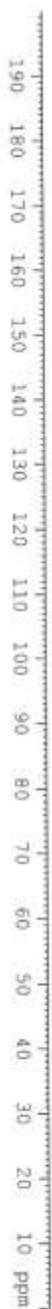
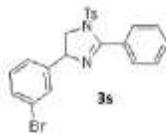
SWH 823.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.922944 sec  
 RG 186.42  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 296.2 K  
 DI 1.00000000 sec  
 TDO 1

CHANNEL F1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLWI 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500092 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00



- 154.65
- 139.04
- 138.13
- 128.26
- 125.51
- 124.61
- 124.25
- 124.02
- 123.95
- 123.47
- 121.93
- 121.66
- 121.11
- 119.17
- 116.89
  
- 71.47
- 71.15
- 70.84
  
- 61.18
  
- 50.76
  
- 15.88



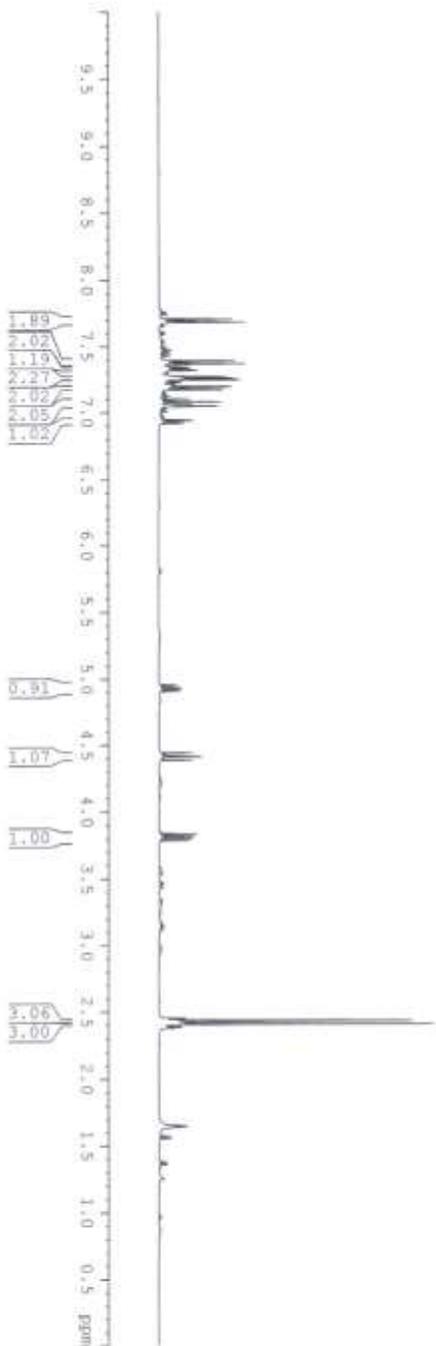
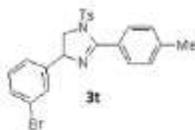
Current Data Parameters  
 NAME Dr. A. NAVE 2019  
 EXPNO 292  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20190518  
 Time 9.52  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 360  
 DS 2  
 SFR 24039.461 Hz  
 FIDRES 0.713256 Hz  
 AQC 0.6919144 sec  
 HE 186.42  
 TE 20.800 usec  
 DE 6.50 usec  
 TD 296.6 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 TD0 1

CHANNEL F1  
 SFO1 100.6278588 MHz  
 NUQ1 13C  
 P1 8.90 usec  
 PLW1 54.00000000 W

CHANNEL F2  
 SFO2 400.1516006 MHz  
 NUQ2 1H  
 CROPRG12 waltz16  
 PCPRG2 90.00 usec  
 PLW2 12.00000000 W  
 PLW13 0.32231000 W  
 PLW15 0.16212000 W

F2 - Processing parameters  
 SI 6584  
 SF 100.6183903 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 2.00



Current Data Parameters  
NAME: Dr. A. MAJEE 2018  
EXPNO: 408  
PROCNO: 1

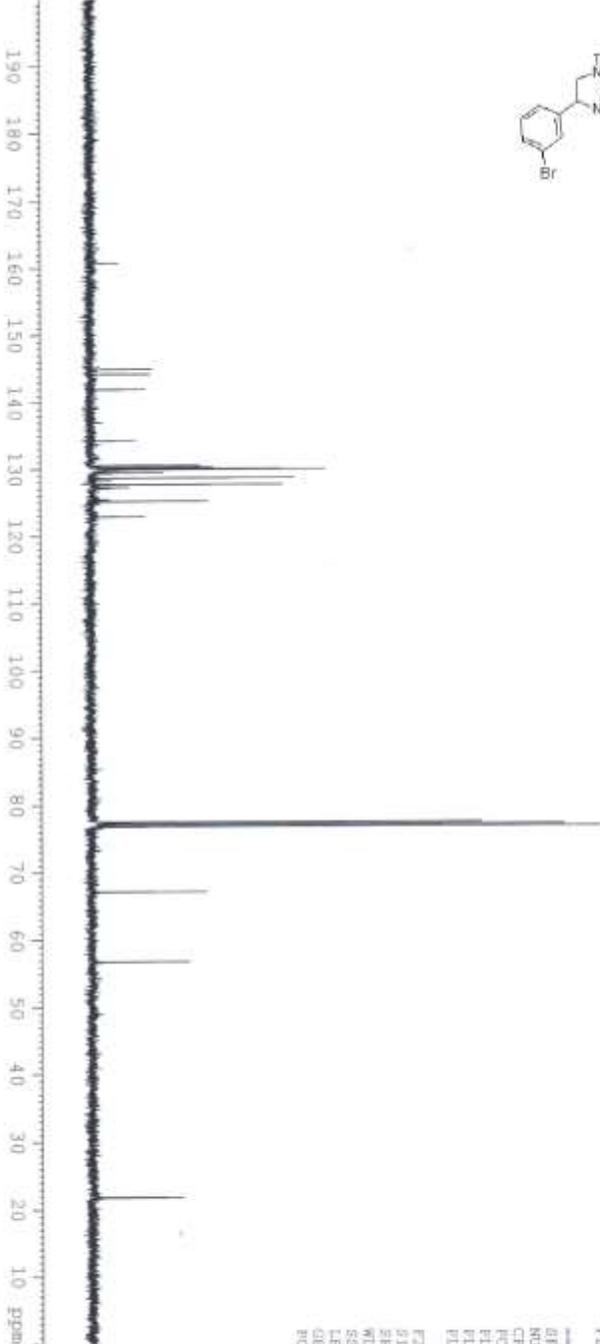
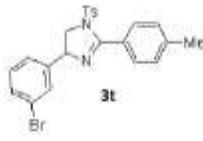
F2 - Acquisition Parameters  
Date\_ 20180519  
Time 10.12  
INSTRUM spect  
PROBHD 5 mm PABBO BB/  
PULPROG zgpg30  
ID zgpg30  
SOLVENT CDCl3  
NS 1  
DS 1  
SWH 8273.885 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 87.65  
DW 40.600 usec  
DE 6.50 usec  
TE 298.6 K  
D1 1.00000000 sec  
TD0 1

----- CHANNEL f1 -----  
SFO1 400.1524711 MHz  
NUC1 1H  
P1 14.75 usec  
PLM1 12.00000000 W

F2 - Processing parameters  
SI 16384  
SF 400.150097 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



- 160.72
- 144.96
- 144.25
- 141.96
- 134.30
- 130.53
- 130.21
- 130.02
- 129.92
- 129.47
- 128.65
- 127.66
- 127.23
- 125.16
- 122.86
  
- 77.47
- 77.16
- 76.84
  
- 67.10
  
- 56.79
  
- 21.85
- 21.78



```

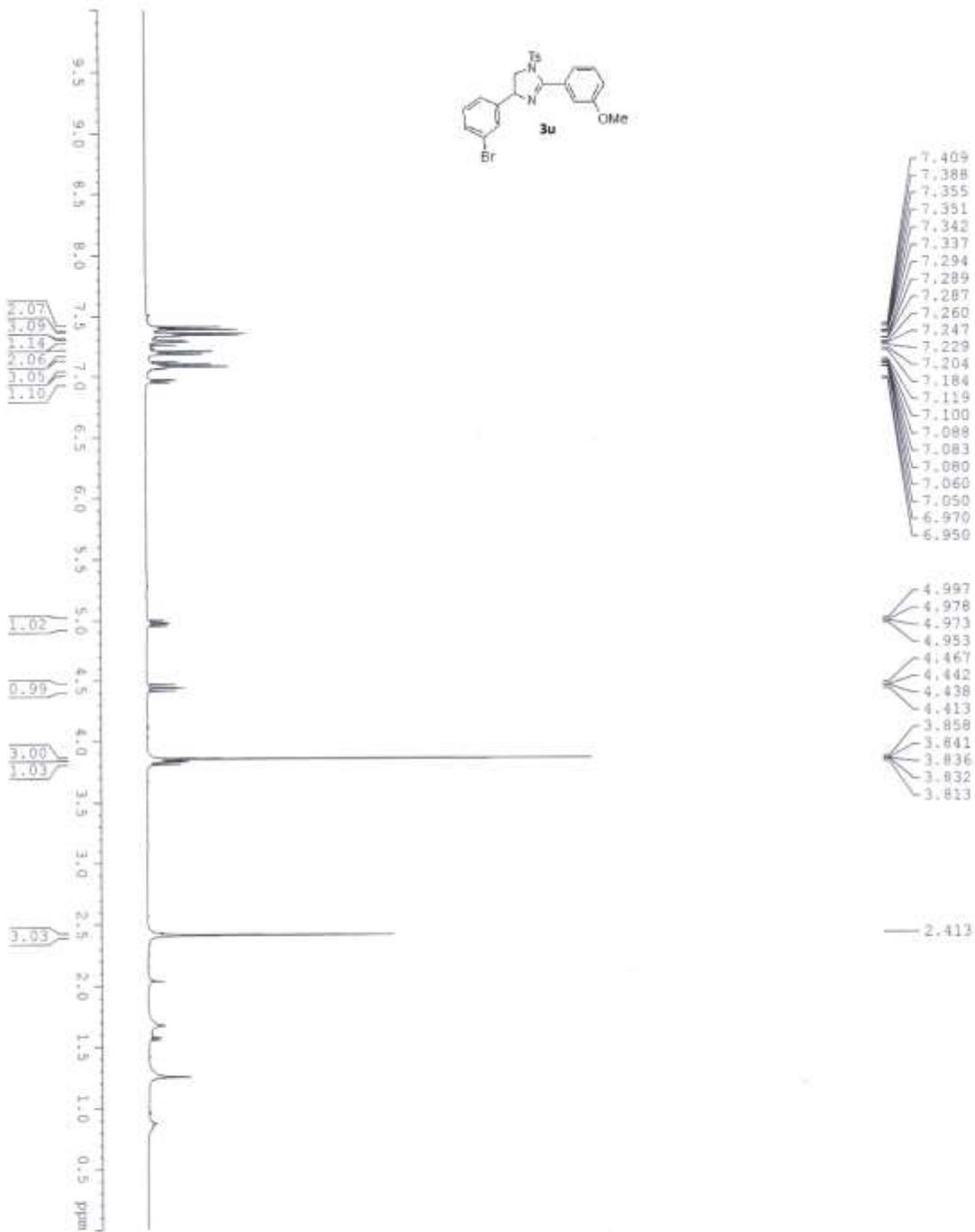
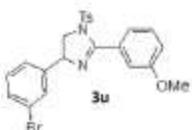
Current Data Parameters
NAME      Dr. A VALPE 2018
EXPNO    409
PROCNO   1

F2 - Acquisition Parameters
Date_    20180519
Time     10:21
INSTRUM spect
PROBHD   5 mm PABBO BB/
PULPROG zgpg30
TD       32768
SOLVENT  CDCl3
NS       160
DS       2
SWH      34038.461 Hz
FIDRES   0.73358 Hz
AQ       0.6815744 sec
RG       87.68
AQ       20.000 usec
DE       6.50 usec
TE       299.1 K
D1       2.00000000 sec
D11      0.03000000 sec
TDO      1

===== CHANNEL f1 =====
NUC1      13C
P1        8.90 usec
PLW1     54.00000000 W

===== CHANNEL f2 =====
NUC2      1H
PCPGM12  waltz16
PCPD2    90.00 usec
PLM2     12.00000000 W
PLM12    0.32231000 W
PLM13    0.16212000 W

F2 - Processing parameters
SI        16384
SF        100.617806 MHz
WDW       RM
SSB       0
LB        1.00 Hz
GB        0
PC        2.00
    
```



- 7.409
- 7.388
- 7.355
- 7.351
- 7.342
- 7.337
- 7.294
- 7.289
- 7.287
- 7.260
- 7.247
- 7.229
- 7.204
- 7.184
- 7.119
- 7.100
- 7.088
- 7.083
- 7.080
- 7.060
- 7.050
- 6.970
- 6.950
- 4.997
- 4.976
- 4.973
- 4.953
- 4.467
- 4.442
- 4.438
- 4.413
- 3.858
- 3.841
- 3.836
- 3.832
- 3.813
- 2.413

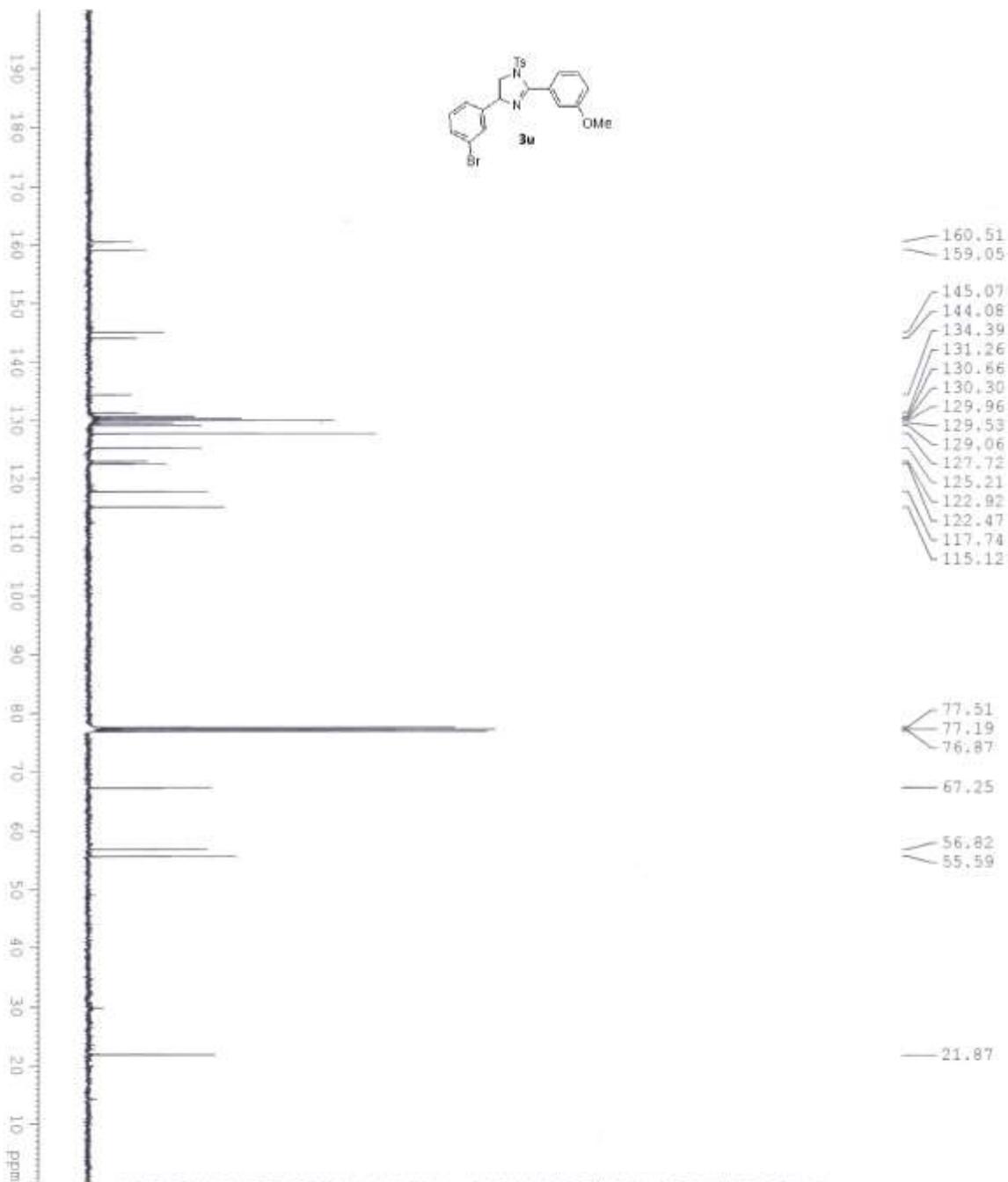
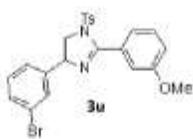


Current Data Parameters  
 NAME: Dr. A. MAJEE 2018  
 EXPNO: 360  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_ : 20180503  
 Time: 19.25  
 INSTRUM: spect  
 PROBHD: 5 mm PABBO BB/  
 PULPROG: zg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 18  
 DS: 1  
 SWH: 823.685 Hz  
 FIDRES: 0.250967 Hz  
 AQ: 1.9922944 sec  
 RG: 93.46  
 CW: 60.800 usec  
 DE: 6.50 usec  
 TE: 297.4 K  
 D1: 1.00000000 sec  
 TDO: 1

CHANNEL f1  
 SFO1: 400.1524711 MHz  
 NUC1: 1H  
 P1: 14.75 usec  
 PLW1: 12.00000000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 400.1500096 MHz  
 MCH: EM  
 SSB: 0  
 LB: 0.30 Hz  
 GB: 0  
 PC: 1.00



Current Data Parameters  
 NAME: Dr - A Master 2018  
 EXPRNO: 381  
 PROCNO: 1

F2 - Acquisition Parameters

Date\_: 20180203  
 Time: 18:20  
 INSTRUM: spect  
 PROBRD: s-m 400MH 8B/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 512  
 DS: 2  
 SWH: 24038.461 MHz  
 FIDRES: 0.1733596 MHz  
 AQ: 0.6835744 sec  
 RG: 93.46  
 CW: 20.800 MHz  
 DE: 5.50 uV  
 TE: 298.1 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TDR: 1

----- CHANNEL f1 -----  
 SFO1 100.6278588 MHz  
 NUC1 13C  
 P1 8.80 uV  
 PLM1 54.00000000 MHz

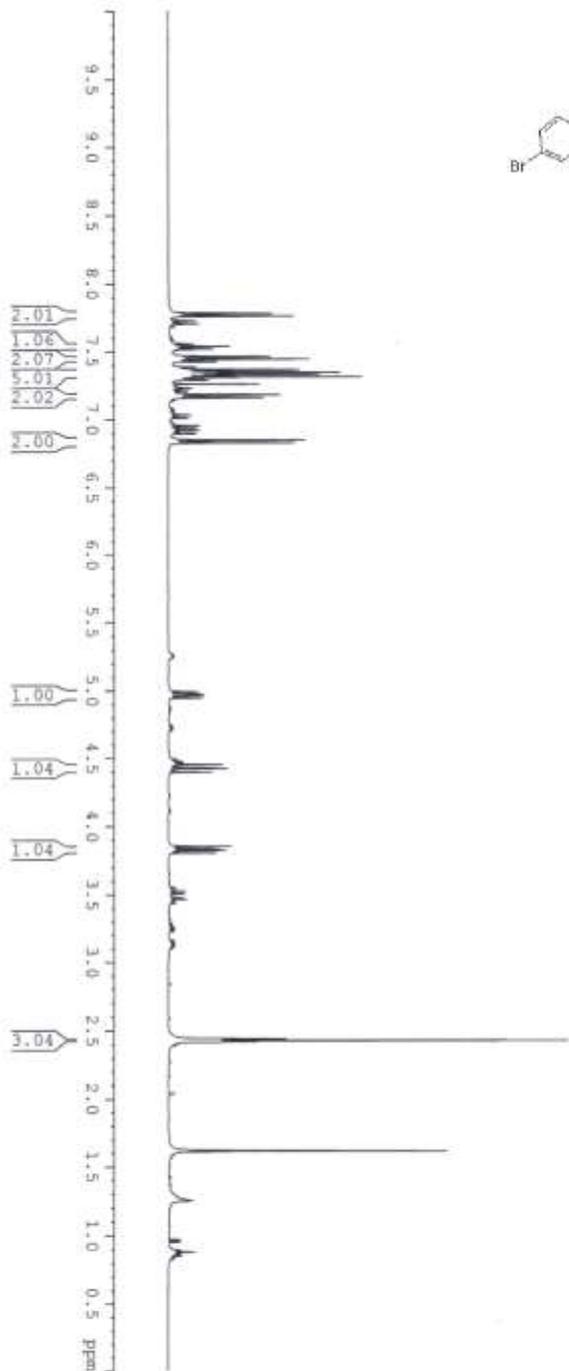
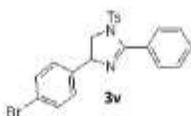
----- CHANNEL f2 -----  
 SFO2 400.1514008 MHz  
 NUC2 1H  
 CPDPRG2 waltz16  
 FCDP2 30.00 uV  
 FPM2 12.00000000 MHz  
 PLM2 0.25231000 MHz  
 PLM12 0.18212000 MHz

F2 - Processing parameters  
 SI 16384  
 SF 100.6177635 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 MHz  
 GB 0  
 PC 1.40

1H OF VBAR 278/57



- 7.782
- 7.769
- 7.765
- 7.761
- 7.558
- 7.539
- 7.534
- 7.524
- 7.520
- 7.518
- 7.464
- 7.445
- 7.426
- 7.367
- 7.346
- 7.334
- 7.313
- 7.259
- 7.181
- 7.161
- 6.856
- 6.851
- 6.847
- 6.834
- 6.830
- 4.993
- 4.974
- 4.968
- 4.950
- 4.453
- 4.428
- 4.425
- 4.400
- 3.855
- 3.836
- 3.826
- 3.808
- 2.430

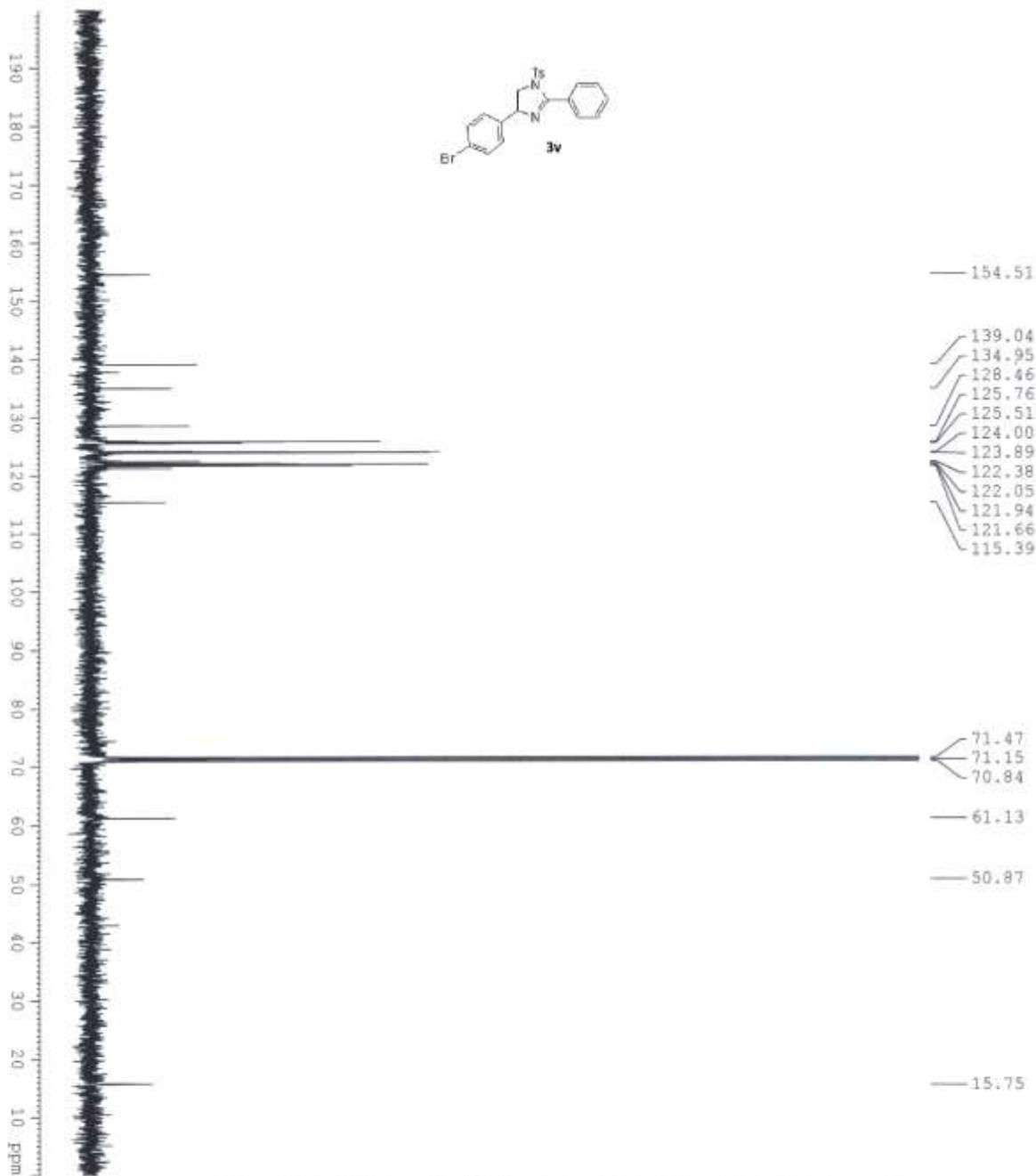
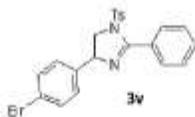


Current Data Parameters  
 NAME: Dr. A MAJE 2019  
 EXPNO: 293  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20190518  
 Time: 9.57  
 INSTRUM: spect  
 PROBRD: 5 mm PABBO BB/  
 PULPROG: zg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 8  
 DS: 1  
 SWH: 8223.685 Hz  
 FIDRES: 0.250967 Hz  
 AQ: 1.9922944 sec  
 RG: 186.42  
 DW: 60.800 usec  
 DE: 6.50 usec  
 TE: 296.4 K  
 D1: 1.00000000 sec  
 TDO: 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SFO1 400.1524711 MHz  
 NUCL1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters  
 S1 16384  
 SF 400.1500093 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00



154.51  
 139.04  
 134.95  
 128.46  
 125.76  
 125.51  
 124.00  
 123.89  
 122.38  
 122.05  
 121.94  
 121.66  
 115.39

71.47  
 71.15  
 70.84  
 61.13  
 50.87

15.75



Current Data Parameters  
 NAME: DR. A.MULIKI.2018  
 EXPTNO: 294  
 PROCNO: 1

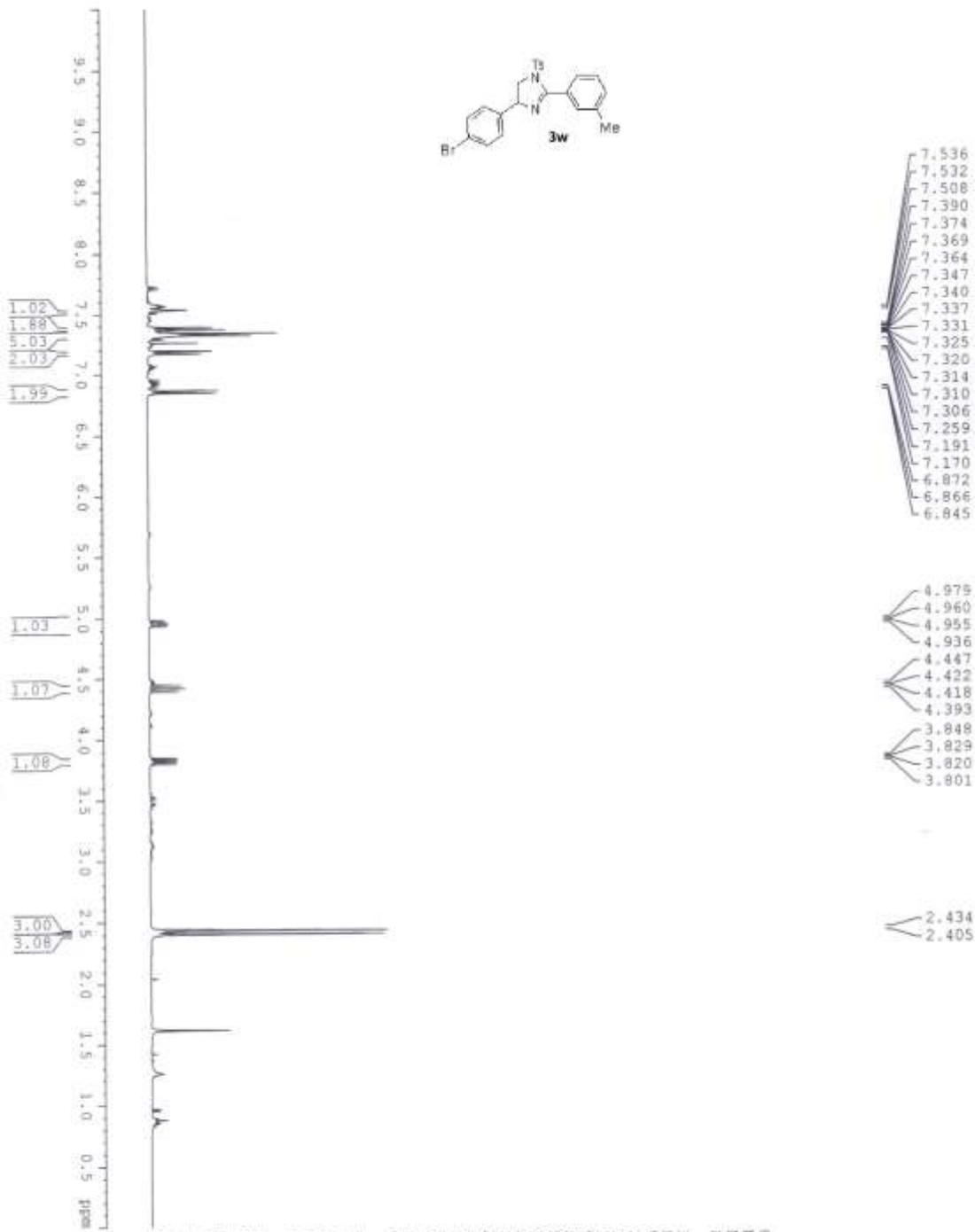
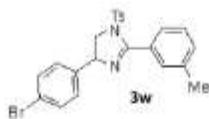
F2 - Acquisition Parameters

Date\_: 20190518  
 Time: 10.12  
 INSTRUM: spect  
 PROBHD: 5 mm EBBB/BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 320  
 DS: 2  
 SWH: 24029.461 Hz  
 FIDRES: 0.713196 Hz  
 AQ: 0.681574 sec  
 RG: 186.42  
 TM: 20.800 usec  
 DE: 6.50 usec  
 TE: 296.7 K  
 D11: 2.00000000 sec  
 TDO: 0.03000000 sec

CHANNEL f1  
 SFO1: 100.627958 MHz  
 NUC1: 13C  
 P1: 8.30 usec  
 PLM1: 54.00000000 W

CHANNEL f2  
 SFO2: 400.1516006 MHz  
 NUC2: 1H  
 CPDPRG2: WALTZ16  
 FCFD2: 90.00 usec  
 PLM2: 12.00000000 W  
 FLM2: 0.32231000 W  
 PLM3: 0.16212000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.618997 MHz  
 WDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 2.00



- 7.536
- 7.532
- 7.508
- 7.390
- 7.374
- 7.369
- 7.364
- 7.347
- 7.340
- 7.337
- 7.331
- 7.325
- 7.320
- 7.314
- 7.310
- 7.306
- 7.259
- 7.191
- 7.170
- 6.872
- 6.866
- 6.845

- 4.975
- 4.960
- 4.955
- 4.936
- 4.447
- 4.422
- 4.418
- 4.393
- 3.848
- 3.829
- 3.820
- 3.801

- 2.434
- 2.405



Current Data Parameters  
 NAME: Dr. A MAJEE 2018  
 EXPNO: 247  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_ 20180403  
 Time\_ 16.44

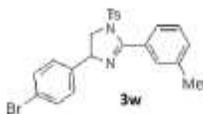
INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 2930  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 93.46  
 DW 60.800 usec  
 DE 6.50 usec  
 TR 296.0 K  
 DI 1.00000000 sec  
 TDO 1

DS 32  
 NS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 93.46  
 DW 60.800 usec  
 DE 6.50 usec  
 TR 296.0 K  
 DI 1.00000000 sec  
 TDO 1

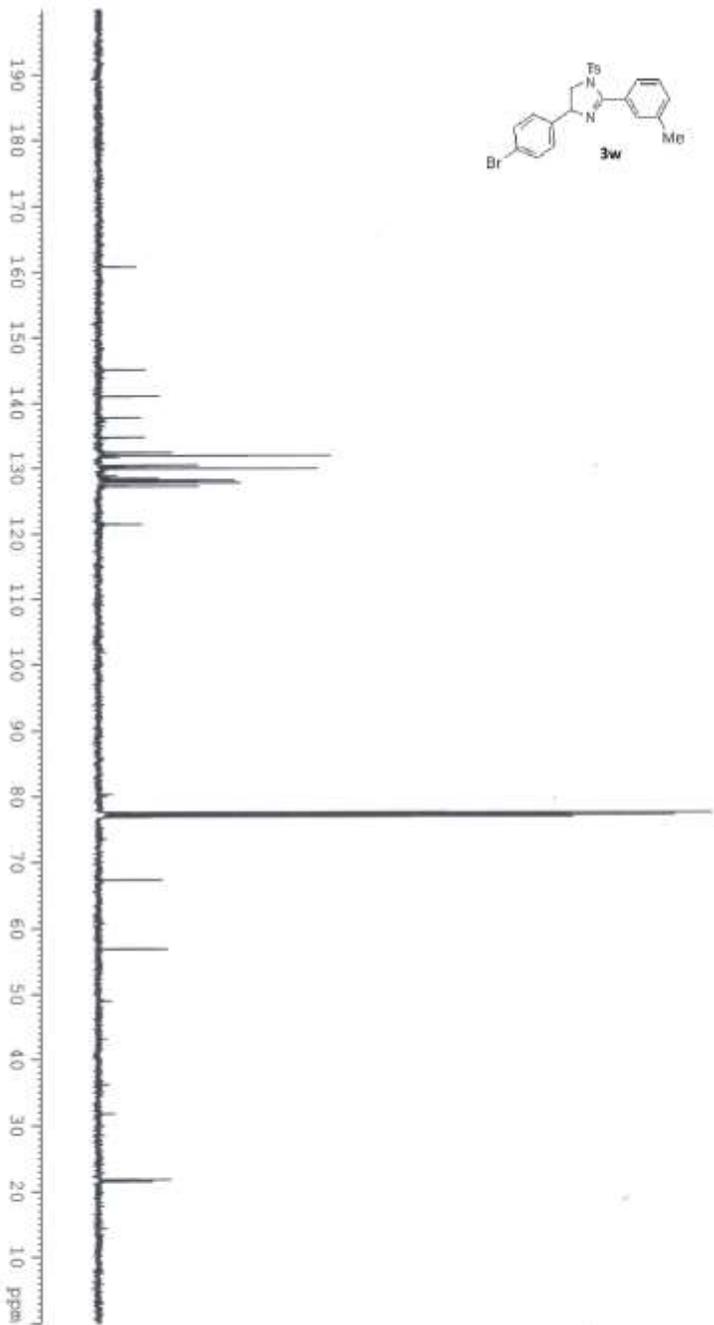
CHANNEL f1

SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PL1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500097 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



- 160.69
- 144.99
- 140.96
- 137.67
- 134.63
- 132.27
- 131.78
- 130.38
- 129.87
- 128.39
- 128.10
- 127.85
- 127.72
- 127.18
- 121.41
  
- 77.49
- 77.17
- 76.85
  
- 67.20
  
- 56.81
  
- 21.77
- 21.48



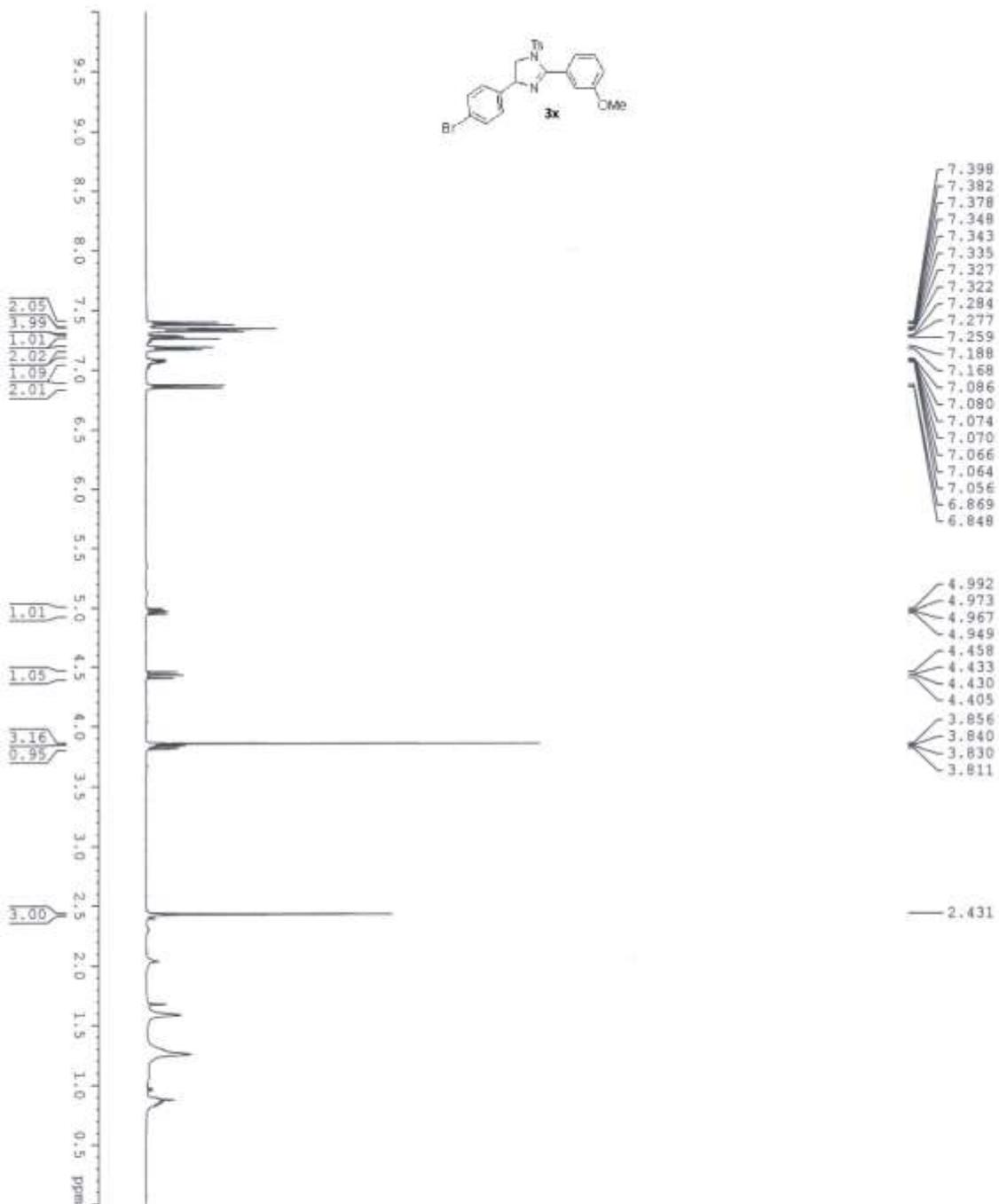
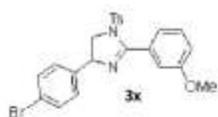
Current Data Parameters  
 NSMR Dr. A. WALTER 2018  
 EXNO 348  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180403  
 Time\_ 11.12  
 INSTRUM spect  
 PROBP05 5 mm BBO BB/  
 PULPROG zgpg30  
 TO 32748  
 SOLVENT CDCl3  
 NS 512  
 DS 2  
 SWH 24038.461 Hz  
 FIDRES 0.733594 Hz  
 AQ 0.681574 sec  
 RG 653.66  
 SQ 20.890 usec  
 DR 8.90 usec  
 TR 2.96.6 K  
 D11 2.00000000 sec  
 D12 0.03000000 sec  
 TDH 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SFO1 100.6278388 MHz  
 NUQ1 13C  
 P1 8.90 usec  
 PL1 54.00000000 W

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 SFO2 400.1516096 MHz  
 NUQ2 1H  
 CPDPRG2 WALTZ16  
 FREQ2 90.00 usec  
 PLM2 12.00000000 W  
 PLM12 0.32231000 W  
 PLM13 0.15212000 W

F2 - Processing parameters  
 SI 16384  
 SF 100.6177943 MHz  
 WGM 0 EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

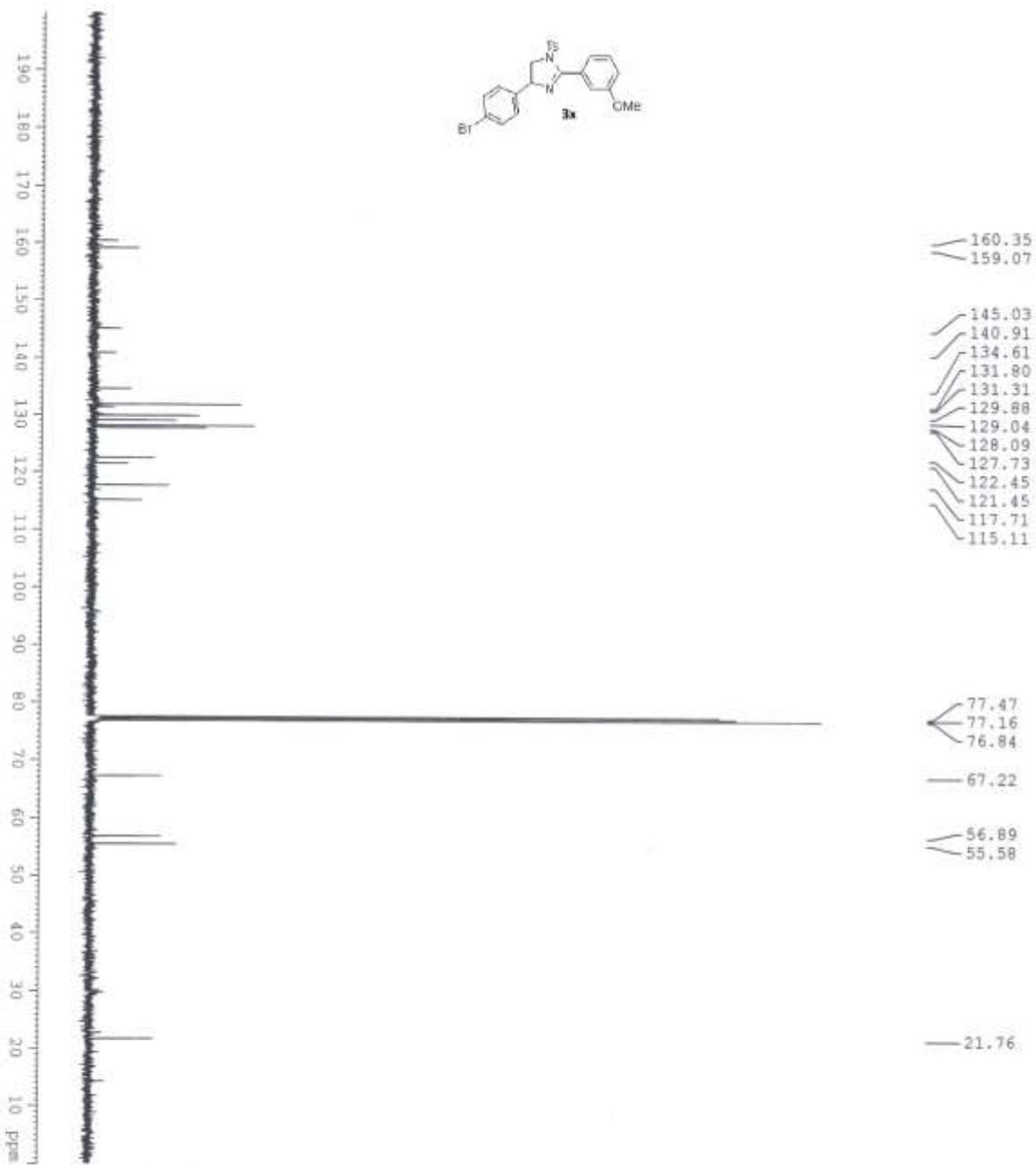
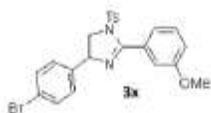


Current Data Parameters  
 NAME: Dr. A MAJEE 2018  
 EXPNO: 235  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_ 20180329  
 Time 18:27  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 32  
 DS 1  
 SMH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 120.16  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 299.1 K  
 D1 1.00000000 sec  
 TDO 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SFO1 400.1524711 MHz  
 NUCL1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500097 MHz  
 SSB EM  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



- 160.35
- 159.07
- 145.03
- 140.91
- 134.61
- 131.80
- 131.31
- 129.88
- 129.04
- 128.09
- 127.73
- 122.45
- 121.45
- 117.71
- 115.11
- 77.47
- 77.16
- 76.84
- 67.22
- 56.89
- 55.58
- 21.76



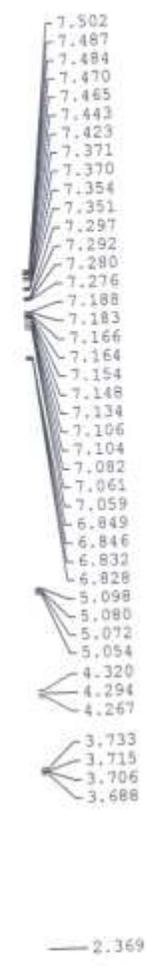
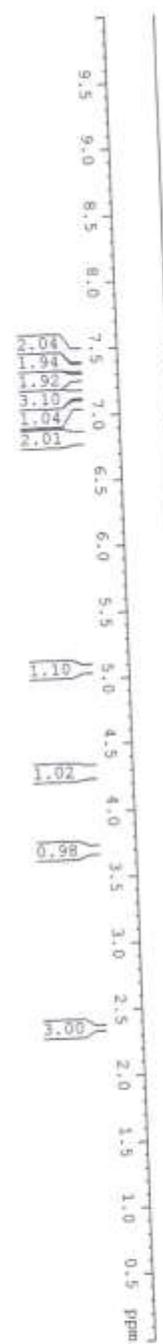
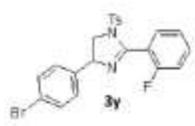
Current Data Parameters  
 NAME: 5r: A MAUDE 2018  
 EXPRNO: 236  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180329  
 Time: 18.55  
 INSTRUM: spect  
 PULPROG: zgpg30  
 FIDRES: 0.094350  
 TD: 32768  
 SFO: 125.761  
 SOLVENT: CDCl3  
 NS: 512  
 DS: 2  
 SWH: 24038.461 Hz  
 FWHM: 0.712396 Hz  
 AQ: 0.6915784 sec  
 ZG: 47.25  
 ZD: 0  
 DE: 20.800 usec  
 QE: 6.50 usec  
 TE: 300.2 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TDO: 1

===== CHANNEL f1 =====  
 SFO1: 100.6178377 MHz  
 NUC1: 13C  
 P1: 8.50 usec  
 PL1: 0.00000000 W

===== CHANNEL f2 =====  
 SFO2: 400.1418006 MHz  
 NUC2: 1H  
 CROSSP: waltz16  
 PCPO2: 90.00 usec  
 PPM2: 12.00000000 W  
 PPM12: 0.32231000 W  
 PPM13: 0.16512000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.6178377 MHz  
 WIDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.40



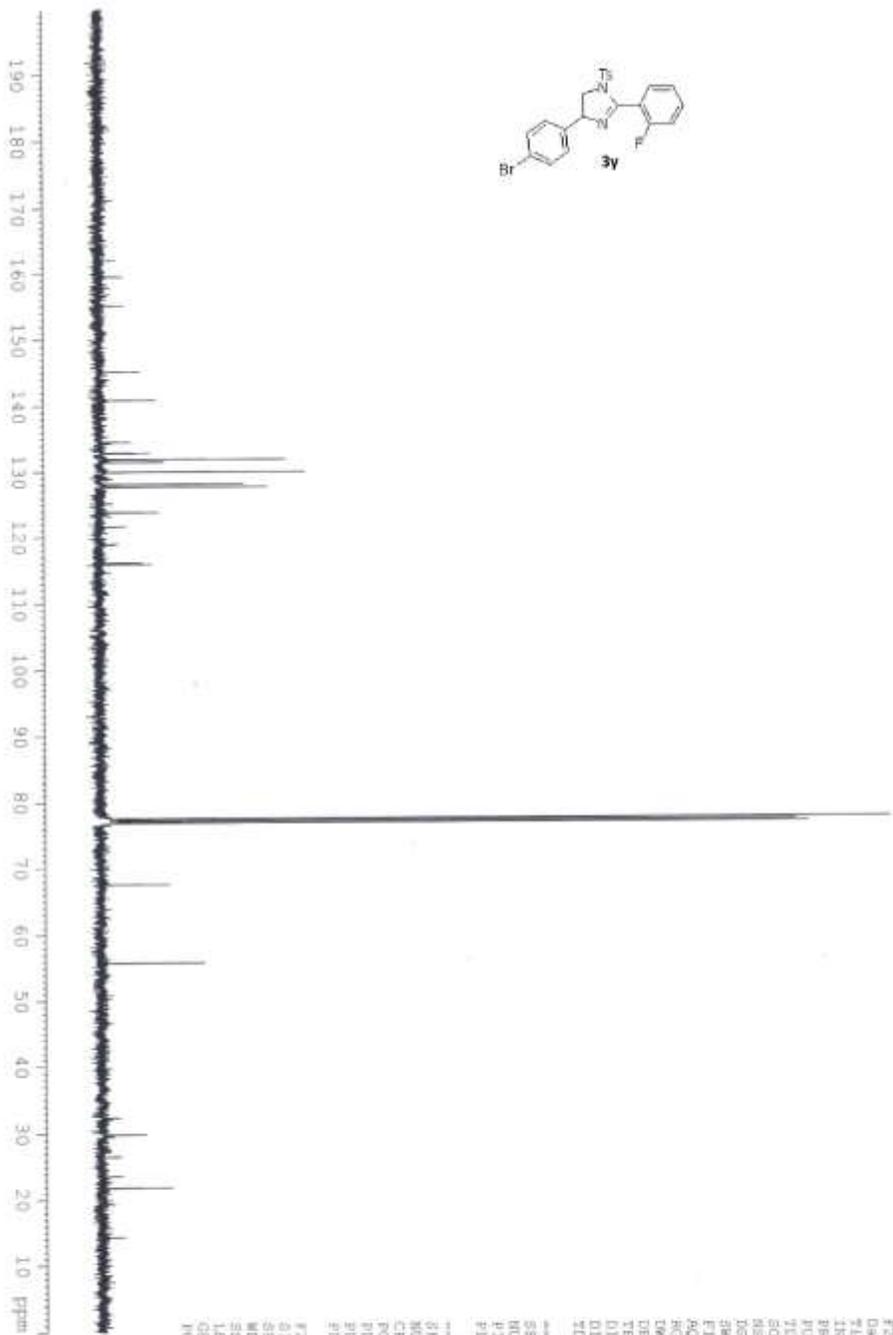
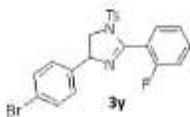
Current Data Parameters  
 NAME Dr. A MAYER 2018  
 EXTNO 281  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180414  
 Time 10.06  
 INSTRUM spect  
 PROBRD 5 mm PABBO BBI/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 12  
 DS 1  
 SWH 823.685 MHz  
 FIDRES 0.250967 Hz  
 FT2RES 1.9922944 sec  
 AQ 87.66  
 RG 60.800 usec  
 DW 6.50 usec  
 DE 297.7 K  
 TE 1.00000000 sec  
 DI 1

CHARREL, FI  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PL1 12.00000000 W  
 FLM1

F2 - Processing parameters  
 SI 16384  
 SF 400.1500383 MHz  
 WDM KM  
 SSB 0  
 LA 0.30 Hz  
 GB 0  
 PC 1.00

- 162.01
- 159.56
- 155.15
- 145.11
- 140.85
- 134.48
- 132.83
- 132.76
- 131.88
- 131.45
- 131.43
- 129.94
- 128.12
- 127.69
- 123.81
- 123.79
- 116.10
- 115.90
- 77.47
- 77.16
- 76.84
- 67.52
- 55.75
- 21.77



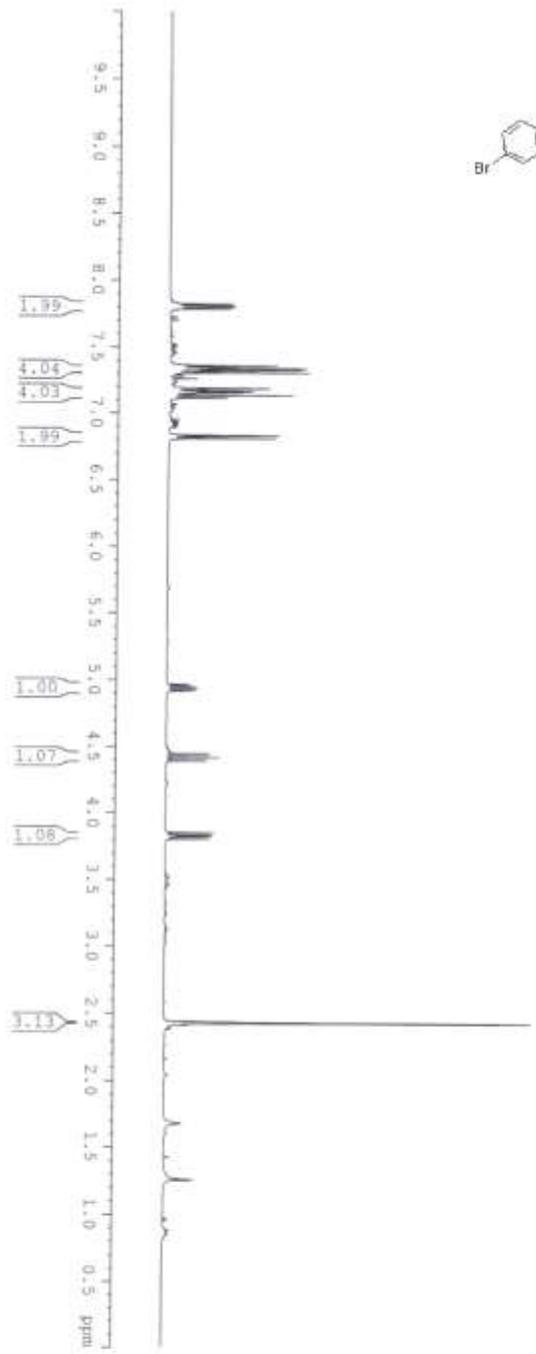
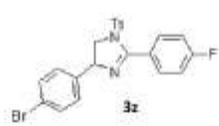
Current Data Parameters  
 NAME Dr. N.MALIK 2018  
 EXPNO 281  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180414  
 Time 11:25  
 INSTRUM spect  
 PROBRD 5 mm EASY BB/  
 PULPROG zgpg30  
 TO 32768  
 SOLVENT CDCl3  
 NS 320  
 DS 2  
 SWH 24028.461 Hz  
 FIDRES 0.733596 Hz  
 AQ 0.6815744 sec  
 RG 67.59  
 TC 59  
 TD 20,800 used  
 DE 6.50 used  
 TE 298.4 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 T100 2

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
 SFO1 100.6214548 MHz  
 PFC1 13C  
 PU1 4.30 used  
 FWH1 34.00000000 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
 SFO2 400.1316006 MHz  
 PFC2 1H  
 PU2 1H  
 WALTZ16  
 CHOPPC12  
 PCPCP2 30.00 used  
 PLM12 12.00000000 MHz  
 PLM13 0.32211000 MHz  
 PLM15 0.16212000 MHz

F2 - Processing parameters  
 SI 16384  
 SF 100.6177443 MHz  
 MDW 8K  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 HC 1.40



Current Data Parameters  
 NAME Dr. A NATURE 2018  
 EXPNO 346  
 PROCNO 1

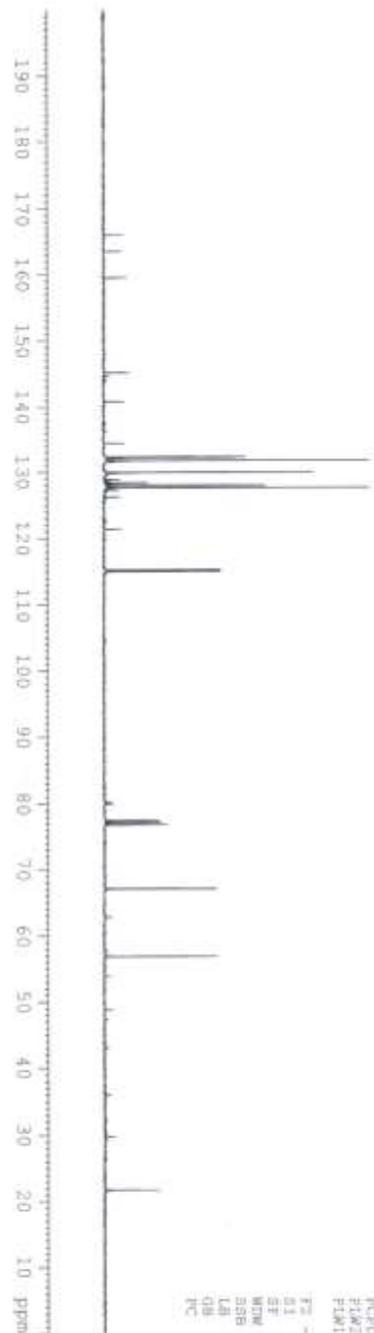
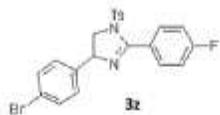
F2 - Acquisition Parameters  
 Date\_ 20180428  
 Time 21.00

INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 12  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 62.69  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 298.2 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL f1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500097 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

- 166.01
- 163.51
- 159.51
- 145.17
- 140.78
- 134.36
- 132.30
- 132.22
- 131.75
- 129.93
- 128.37
- 127.97
- 127.58
- 121.41
- 115.26
- 115.04
- 77.46
- 77.15
- 76.83
- 67.08
- 56.87
- 21.73



Current Data Parameters  
 NAME: DR. A. MAYER 2018  
 EXPRNO: 348  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180429  
 Time: 11.02

INSTRUM: spect  
 PROBRD: 5 mm PABBO BB/  
 PULPROG: zgpg30  
 TE: 300.2K  
 SOLVENT: CDCl3  
 NS: 380  
 DS: 2

SWH: 24038.441 Hz  
 FWHM: 0.723254 Hz  
 AQC: 0.4812774 sec  
 RG: 168.01  
 DW: 10.893 usec  
 DE: 4.35 usec  
 TE: 299.0 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TDD: 1

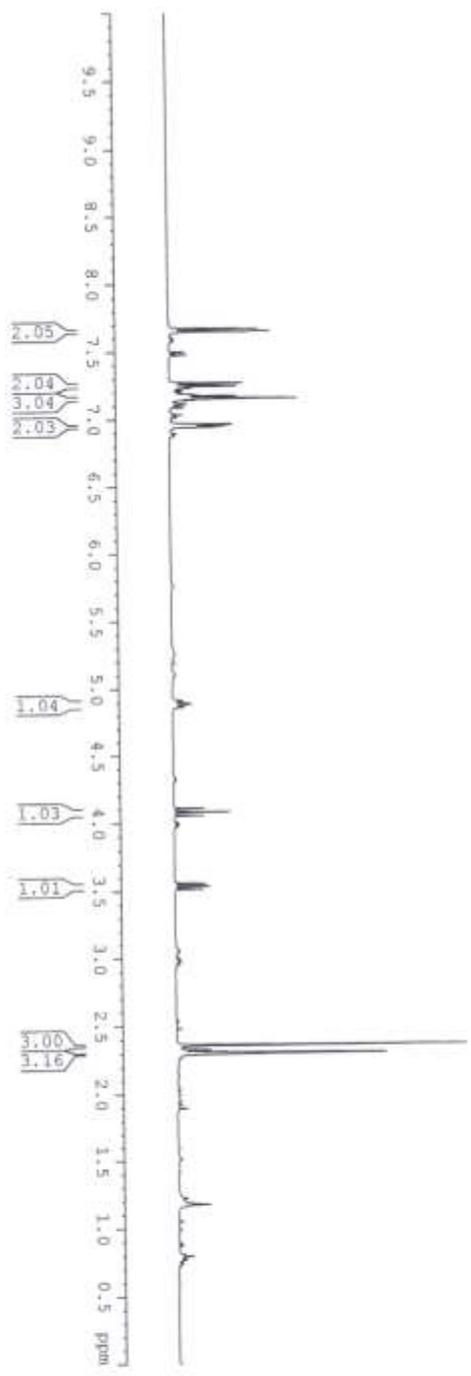
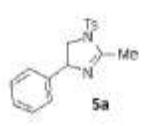
----- CHANNEL f1 -----  
 NU1: 100.6218588 MHz  
 NUC1: 13C  
 P1: 8.50 usec  
 PCW1: 54.00000000 W

----- CHANNEL f2 -----  
 GPRO2: 400.1516004 MHz  
 NUC2: 1H  
 GPCPRG12: VAPLCT16  
 HPCPD2: 50.00 usec  
 PLW2: 12.00000000 W  
 PLW12: 0.122231000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.6177000 MHz  
 WDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.40

1H of VBAR-278/3

- 7.673
- 7.669
- 7.665
- 7.652
- 7.648
- 7.266
- 7.245
- 7.171
- 7.169
- 7.160
- 7.154
- 7.150
- 6.964
- 6.958
- 6.944
- 6.940
  
- 4.911
- 4.888
- 4.867
  
- 4.107
- 4.081
- 4.056
  
- 3.558
- 3.538
- 3.534
- 3.514
  
- 2.362
- 2.305
- 2.302



Current Data Parameters  
 NAME Dr. R MAUER 2018  
 EXPNO 532  
 PROCNO 1

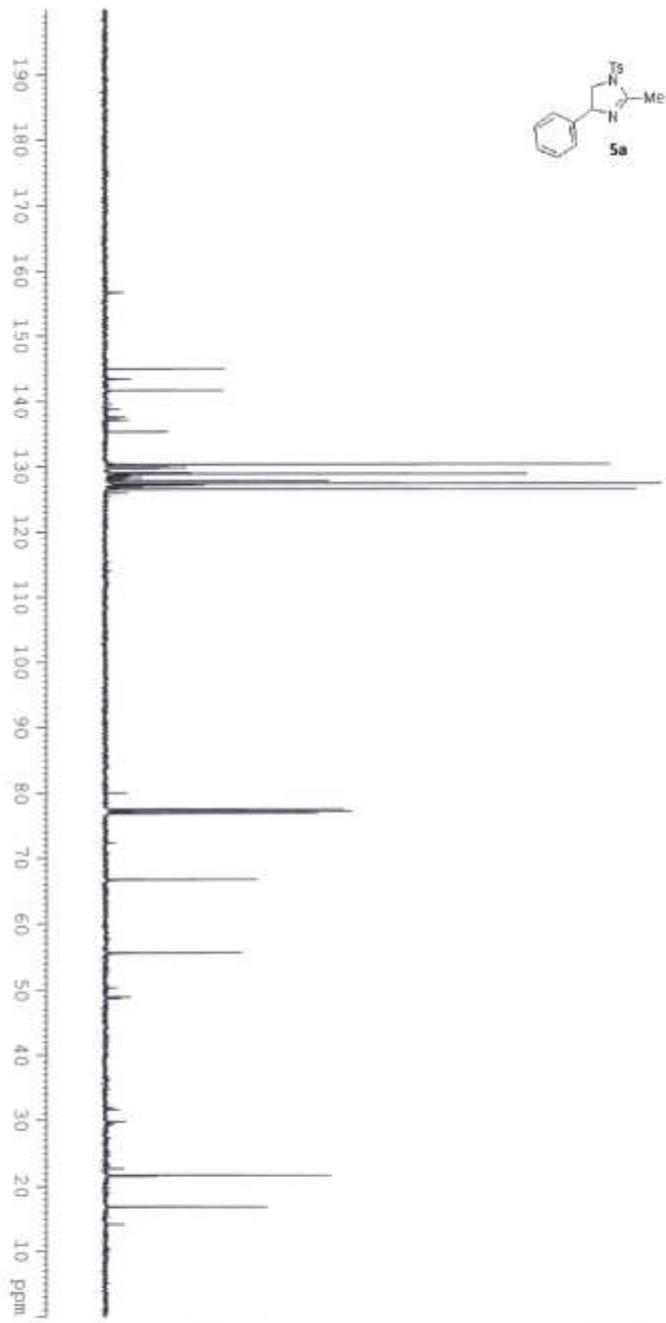
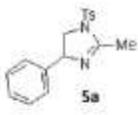
F2 - Acquisition Parameters  
 Date\_ 20180707  
 Time 16:23  
 INSTRUM spect  
 PROBDW 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENTW CDCl3  
 RS 24  
 DS 1  
 SMH 823.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9222944 sec  
 RG 30.11  
 DW 60.800 usec  
 DE 6.50 usec  
 TE 300.7 K  
 DI 1.00000000 sec  
 TDO 1

CHANNEL #1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PL1 12.00000000 W  
 PLWI

F2 - Processing parameters  
 SI 16384  
 SF 400.1500420 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.50



- 156.62
- 144.86
- 141.62
- 135.26
- 130.20
- 128.74
- 127.69
- 127.28
- 126.45
- 77.47
- 77.15
- 76.83
- 66.64
- 55.59
- 21.64
- 16.83



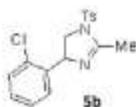
Current Data Parameters  
 NAME Dr. A. KATER 2018  
 EXPRNO 553  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180707  
 Time 16.43  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 320  
 DS 2  
 SWH 24038.461 Hz  
 FIDRES 0.733596 Hz  
 AQ 0.6815748 sec  
 RG 71.59  
 DM 20.800 usec  
 DE 6.50 usec  
 TE 301.5 K  
 O1 2.00000000 sec  
 O11 0.03000000 sec  
 TDO 1

CHANNEL F1  
 SFO1 100.6274588 MHz  
 NUQ1 1JC  
 P1 4.90 usec  
 PLW1 54.00000000 W

CHANNEL F2  
 SFO2 400.1516606 MHz  
 NUQ2 1H  
 CPDPRG12 waltz16  
 PCPDZ 90.00 usec  
 PLW2 12.00000000 W  
 PLW12 0.32231000 W  
 PLW13 0.16217000 W

F2 - Processing parameters  
 S1 16284  
 SF 100.6177921 MHz  
 KW 0 EM  
 SSB 0  
 TB 0  
 DB 0  
 PC 2.00



Current Data Parameters  
NAME Dr. A MAJER 2019  
EXPNO 185  
PROCNO 1

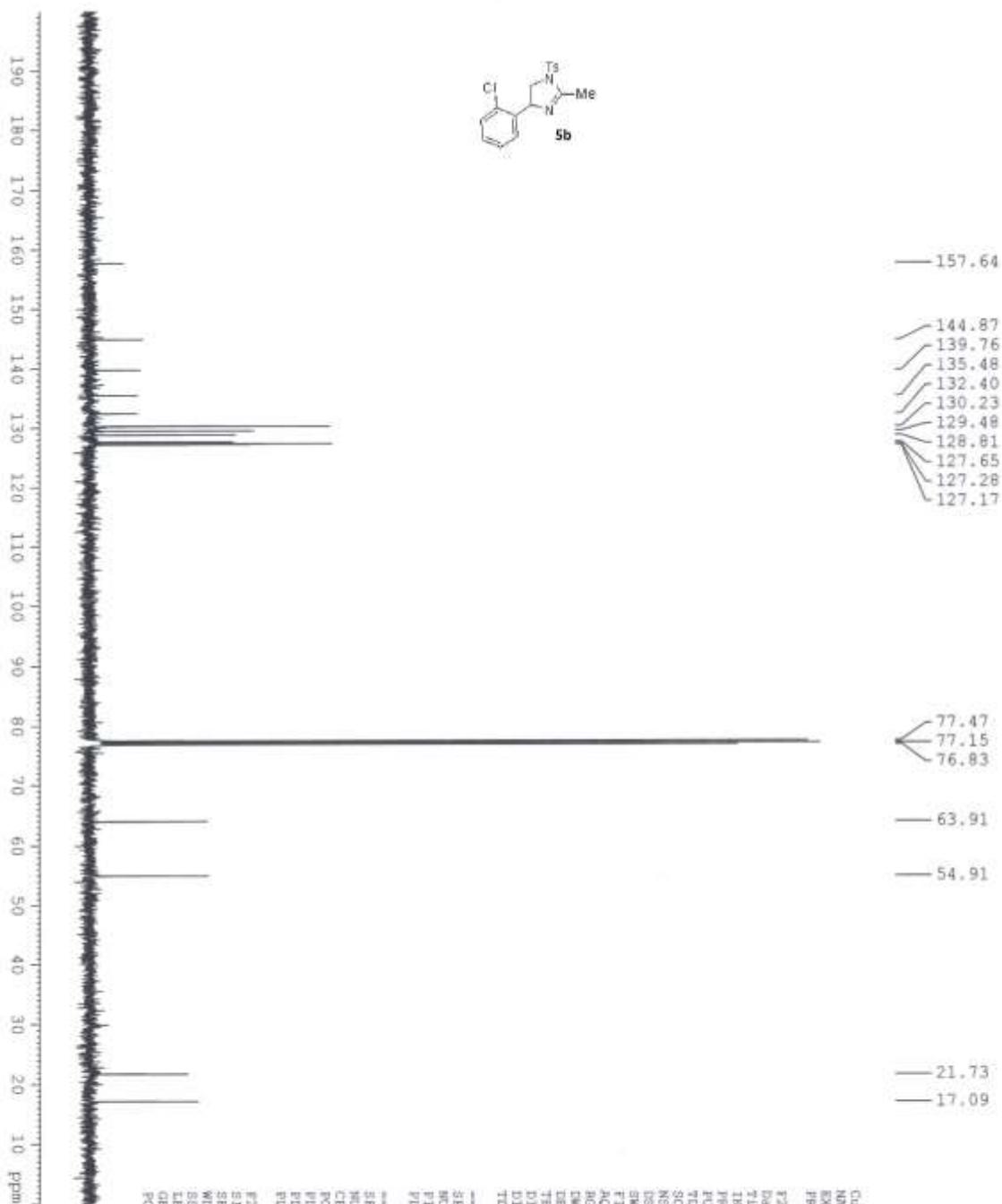
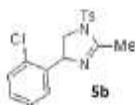
F2 - Acquisition Parameters

Date\_ 20180320  
Time 19.06  
INSTRUM spect  
PROBHD 5 mm PABBO BB/  
PULPROG zg30  
TD 12768  
SOLVENT CDCl3  
NS 20  
DS 1  
SFR 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 53.46  
EW 60.800 usec  
DE 6.50 usec  
TE 298.4 K  
D1 1.00000000 sec  
TDO 1

CHANNEL f1  
SFO1 400.1524711 MHz  
NUC1 1H  
PI 14.75 usec  
PLW1 12.00000000 W

F2 - Processing parameters

SI 16384  
SF 400.1500095 MHz  
WDW SM  
SSB 0  
GB 0.30 Hz  
PC 1.00



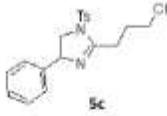
Current Data Parameters  
NAME: Dr. A MOUER 2019  
EXPO: 190  
PROCNO: 1

F2 - Acquisition Parameters  
Date\_: 20180320  
Time: 19.36  
INSTRUM: spect  
PROBHD: 5 mm PABBO BB/  
PULPROG: zgpg30  
TD: 12768  
SOLVENT: CDCl3  
NS: 256  
DS: 2  
SWH: 24038.461 Hz  
FIDRES: 0.73356 Hz  
AQ: 0.6815744 sec  
RG: 53.46  
CW: 20.800 usec  
DE: 6.50 usec  
TE: 298.2 K  
D1: 2.00000000 sec  
D11: 0.03000000 sec  
TDO: 1

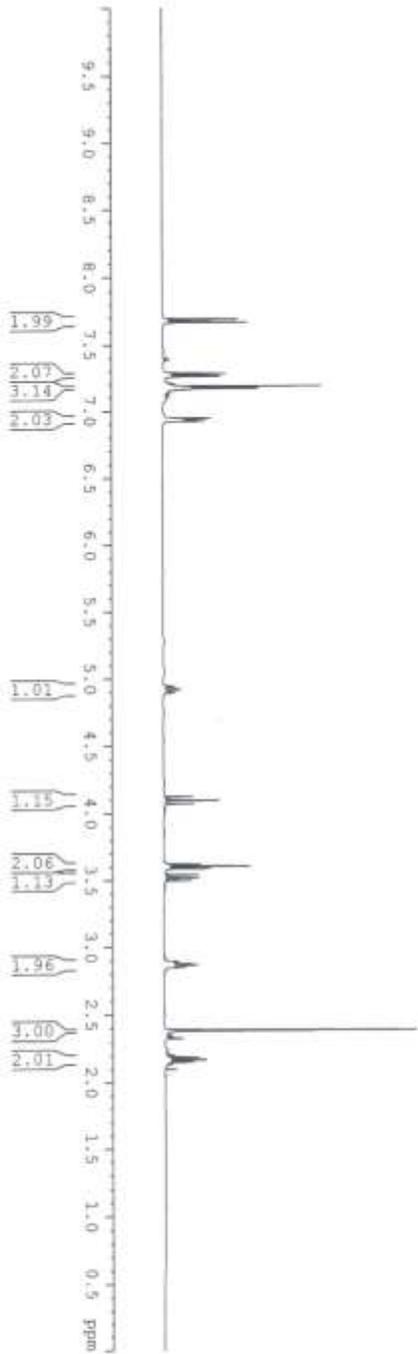
----- CHANNEL F1 -----  
SFO1: 100.6278588 MHz  
NUC1: 13C  
P1: 8.90 usec  
PLM1: 54.00000000 MHz

----- CHANNEL F2 -----  
SFO2: 400.1516056 MHz  
NUC2: 1H  
P2: 11.00 usec  
PLM2: 0.00000000 MHz  
PLM12: 0.32231000 MHz  
PLM13: 0.16212000 MHz

F2 - Processing parameters  
SI: 16384  
SF: 100.6177845 MHz  
WDW: EM  
SSB: 0  
LB: 1.00 Hz  
GB: 0  
PC: 1.40



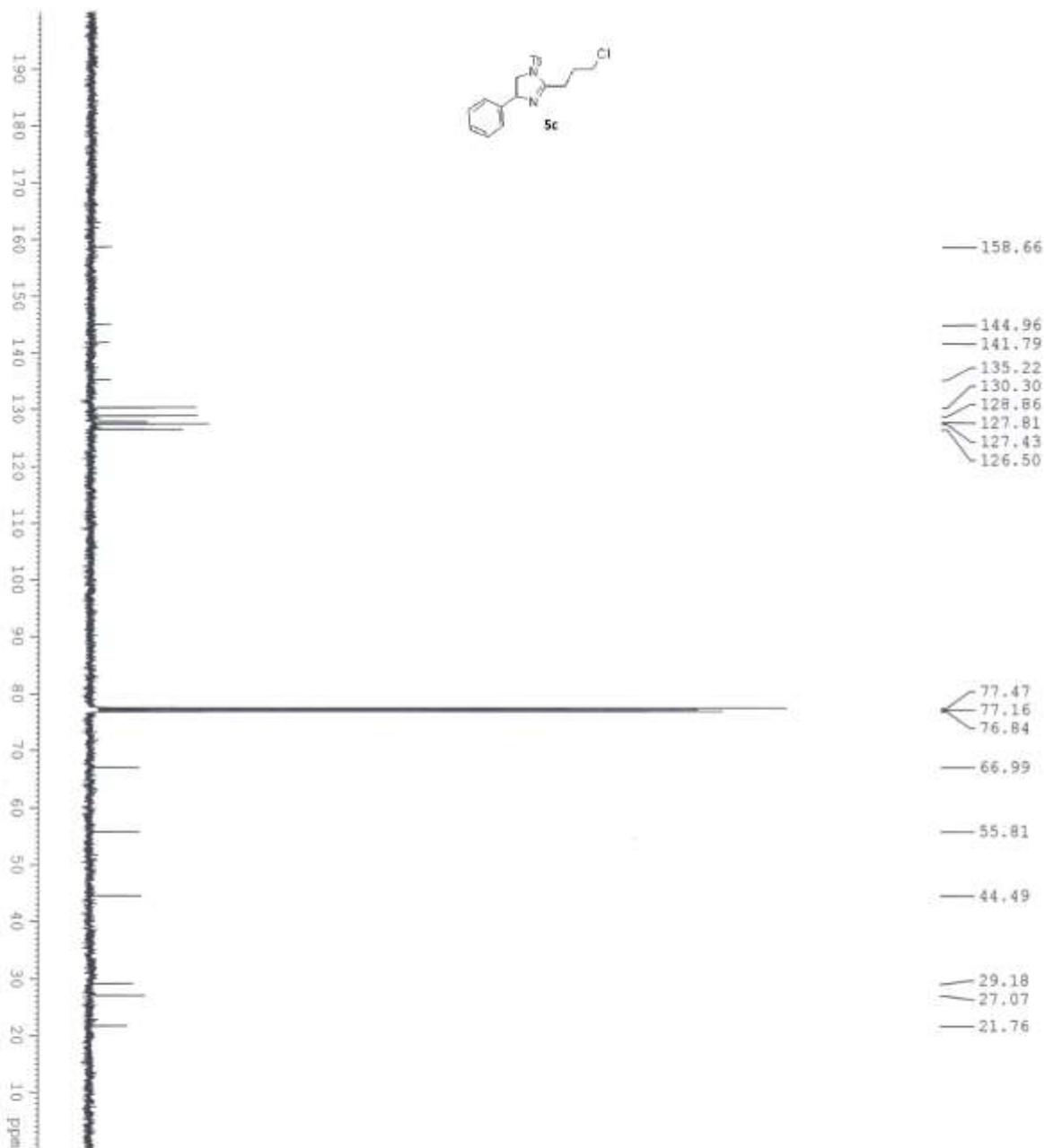
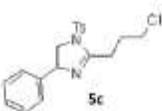
- 7.692
- 7.688
- 7.675
- 7.671
- 7.285
- 7.265
- 7.190
- 7.181
- 7.175
- 7.172
- 7.164
- 6.947
- 6.941
- 6.937
- 6.928
- 6.924
  
- 4.945
- 4.923
- 4.919
- 4.898
  
- 4.122
- 4.096
- 4.071
- 3.622
- 3.606
- 3.591
- 3.545
- 3.525
- 3.520
- 3.500
  
- 2.874
- 2.870
- 2.868
- 2.863
- 2.856
- 2.851
- 2.388
- 2.189
- 2.173
- 2.156



Current Data Parameters  
 NAME: Dr. A MAJES 2018  
 EXPRNO: 211  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 20180324  
 Time: 20.09  
 INSTRUM: spect  
 PROBHD: 5 mm PABBO BB/  
 PULPROG: zg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 16  
 DS: 1  
 SWH: 8223.685 Hz  
 FIDRES: 0.250967 Hz  
 AQ: 1.9922944 sec  
 RG: 120.16  
 DM: 60.800 usec  
 DE: 6.50 usec  
 TE: 299.3 K  
 D1: 1.00000000 sec  
 TDO: 1

\*\*\*\*\* CHANNEL F1 \*\*\*\*\*  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 FWHM 12.00000000 W  
  
 F2 - Processing Parameters  
 SI 16384  
 SF 400.1500373 MHz  
 KW 0 EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

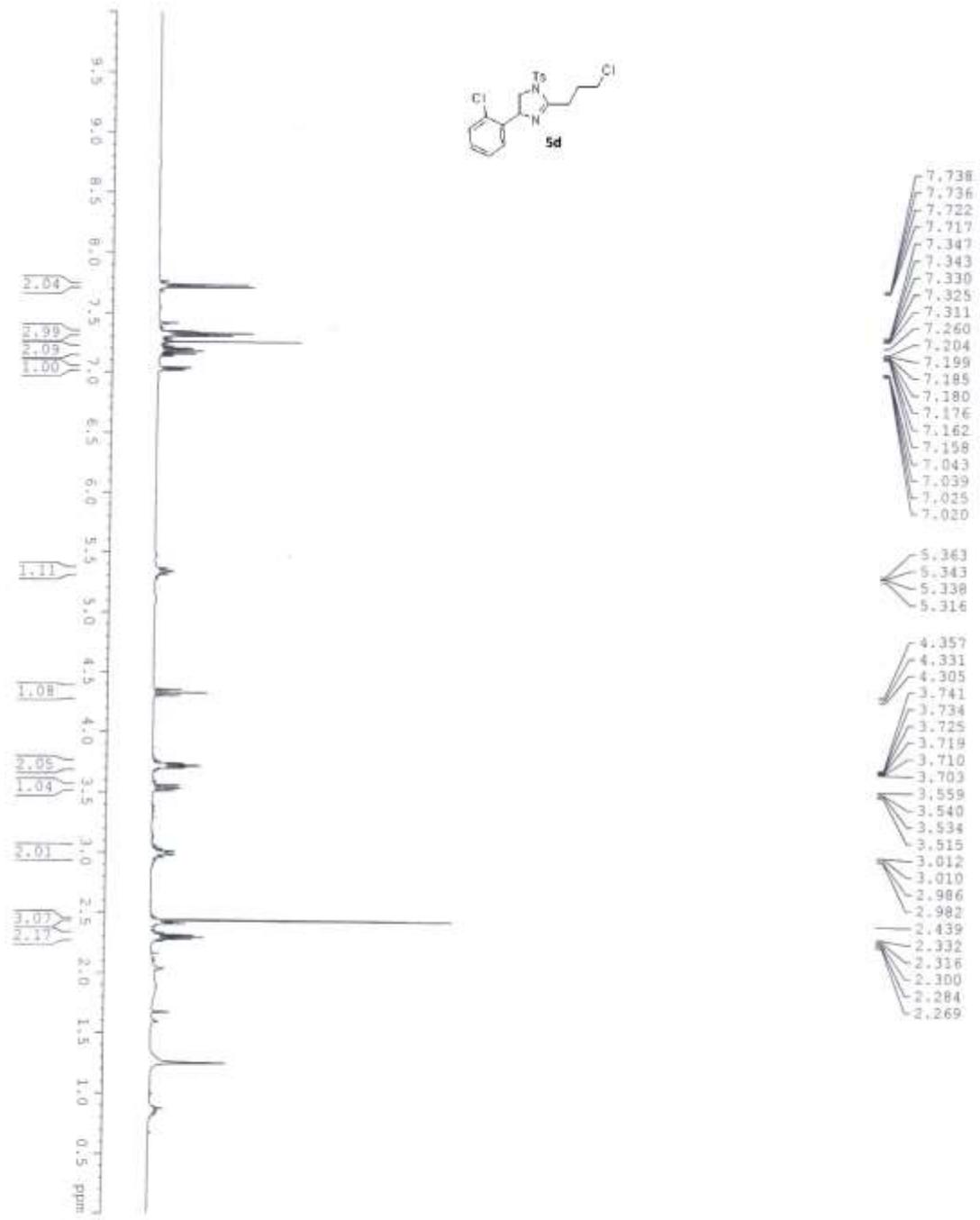
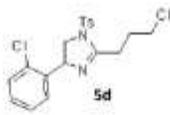


Current Data Parameters  
 NAME: DR - A. MAJBE 2018  
 EXPNO: 212  
 PROCNO: 1  
 F2 - Acquisition Parameters  
 Date\_: 20180124  
 Time: 20.46  
 INSTRUM: spect  
 PROBRD: 5 mm PABBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 512  
 DS: 2  
 SWH: 24038.461 Hz  
 FIDRES: 0.732596 Hz  
 AQ: 0.5815744 sec  
 RG: 185.42  
 DW: 20.800 usec  
 DE: 6.50 usec  
 TE: 298.2 K  
 O1: 2.00000000 sec  
 O11: 0.01000000 sec  
 TDO: 1

===== CHANNEL f1 =====  
 SFO1 100.6279581 MHz  
 RUC1 1XC  
 P1 8.90 usec  
 PL1 04.00000000 W

===== CHANNEL f2 =====  
 SFO2 400.1318000 MHz  
 RUC2 1B  
 CPDPRG2 WALTZ16  
 F2FREQ 40.0100 usec  
 F2PULP 12.00000000 W  
 F2PL1 0.72291800 W  
 F2PL12 0.142311800 W  
 F2PL13 0.142311800 W

F1 - Excussing parameters  
 SI 14384  
 SF 100.6177823 MHz  
 NCP 5M  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 XC 1.40



- 7.738
- 7.736
- 7.722
- 7.717
- 7.347
- 7.343
- 7.330
- 7.325
- 7.311
- 7.260
- 7.204
- 7.199
- 7.185
- 7.180
- 7.176
- 7.162
- 7.158
- 7.043
- 7.039
- 7.025
- 7.020
- 5.363
- 5.343
- 5.338
- 5.316
- 4.357
- 4.331
- 4.305
- 3.741
- 3.734
- 3.725
- 3.718
- 3.710
- 3.703
- 3.559
- 3.540
- 3.534
- 3.515
- 3.012
- 3.010
- 2.986
- 2.982
- 2.439
- 2.332
- 2.326
- 2.325
- 2.300
- 2.284
- 2.269

Current Data Parameters  
 NAME Dr. A WATER 2018  
 EXPR0 345  
 PROCNO 1

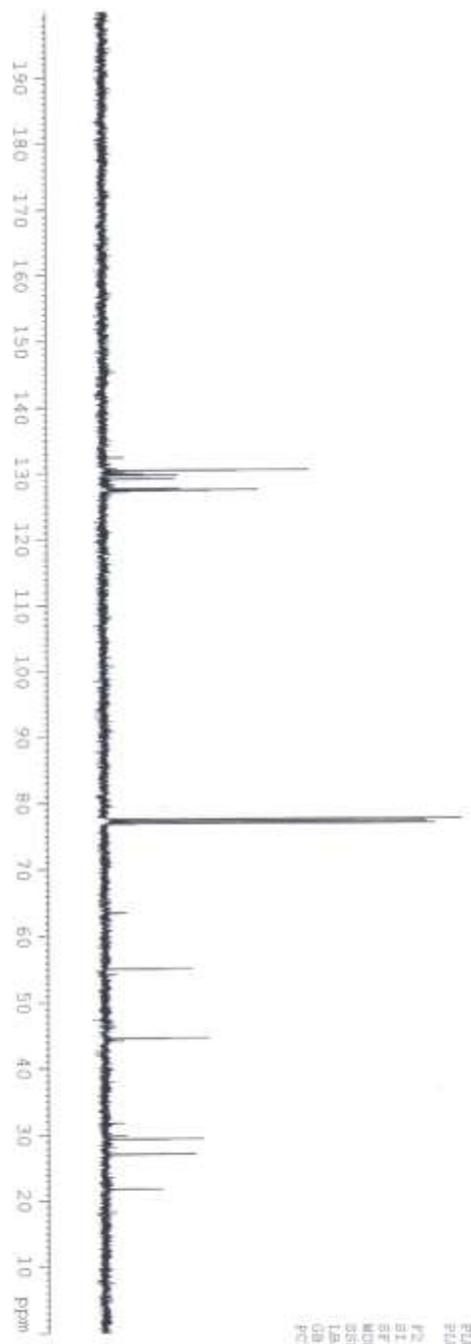
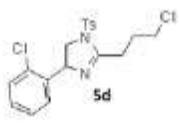
F2 - Acquisition Parameters  
 Date\_ 20180428  
 Time 22.55  
 INSTRUM spect  
 PROBRD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 16  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 168.31  
 LW 60.800 usec  
 OE 6.50 usec  
 ZF 298.2 K  
 D1 1.00000000 sec  
 TDO 1

CHANNEL F1  
 SFO1 400.1524711 MHz  
 NUCL1 1H  
 P1 14.75 usec  
 PLM1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500096 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



- 132.35
- 130.68
- 130.38
- 130.03
- 129.87
- 129.65
- 129.08
- 127.60
- 127.40
- 127.30
- 127.16
  
- 77.48
- 77.16
- 76.85
  
- 63.49
  
- 55.02
  
- 44.45
  
- 29.34
- 27.05
- 21.77



```

Current Data Parameters
NAME      DE_A.NAURE 2018
EXPNO    351
PROCNO   1

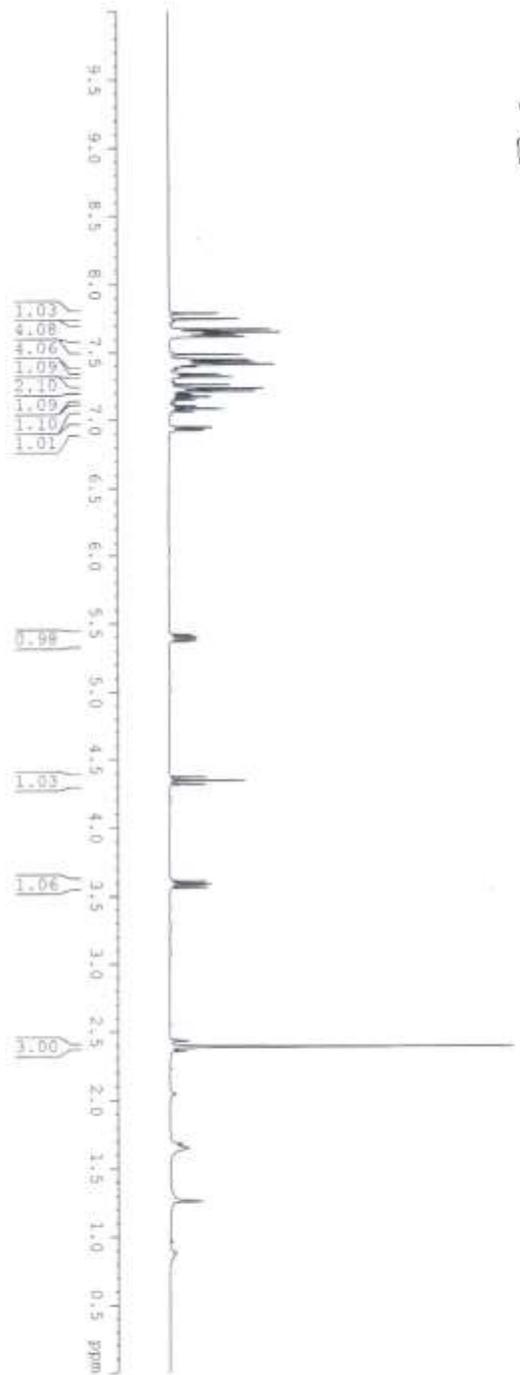
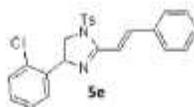
F2 - Acquisition Parameters
Date_    20180429
Time     19.56
INSTRUM spect
PROBHD   5 mm PABBO BB/
PULPROG zgpg30
TD       32768
SFO     125.761 MHz
AQ      0.32231000 W
RG       640
DS       2
SWH     24038.461 Hz
FIDRES  0.733596 Hz
AQ      0.6015744 sec
RG       186.42
DE      6.50 usec
TE      300.2 K
D1      2.00000000 sec
d11     0.03000000 sec
TD0     1

----- CHANNEL f1 -----
NUC1     13C
P1      8.90 usec
PL1     0.00000000 W
F1M1

----- CHANNEL f2 -----
RFQ2     400.1516006 MHz
NUC2     1H
P2      18
PL2     0.00000000 W
F2M2

----- CHANNEL f3 -----
RFQ3     100.6278928 MHz
NUC3     13C
P3      8.90 usec
PL3     0.00000000 W
F3M3

F2 - Processing parameters
SI      16384
SF      100.617925 MHz
WDW     EM
SSB     0
LB      1.00 Hz
GB      0
PC      1.40
    
```

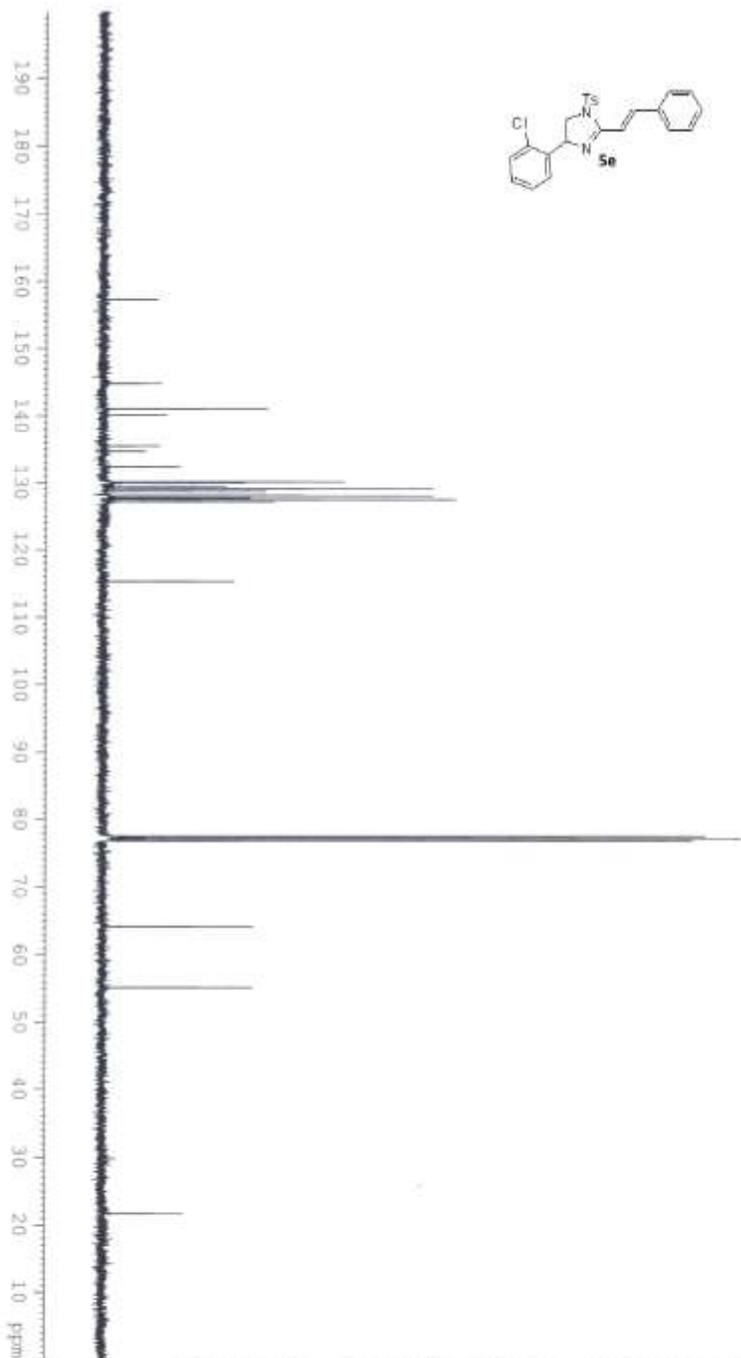
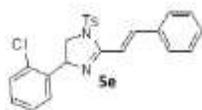


Current Data Parameters  
 NAME Dr. A MAJEE 2018  
 EXNO 412  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180919  
 Time 17.43  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 13  
 DS 1  
 SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922944 sec  
 RG 93.46  
 TM 60.800 usec  
 DR 4.50 usec  
 ZF 299.1 K  
 D1 1.00000000 sec  
 TDO 1

===== CHANNEL f1 =====  
 F101 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PL1 12.00000000 W  
 F2 - Processing parameters  
 SI 16384  
 SF 400.1500094 MHz  
 WVM BM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

- 157.19
- 144.80
- 141.05
- 140.12
- 135.46
- 134.66
- 132.27
- 130.08
- 129.95
- 129.42
- 129.06
- 128.67
- 128.01
- 127.68
- 127.46
- 127.11
- 115.29
  
- 77.47
- 77.15
- 76.83
  
- 64.12
  
- 55.12
  
- 21.69



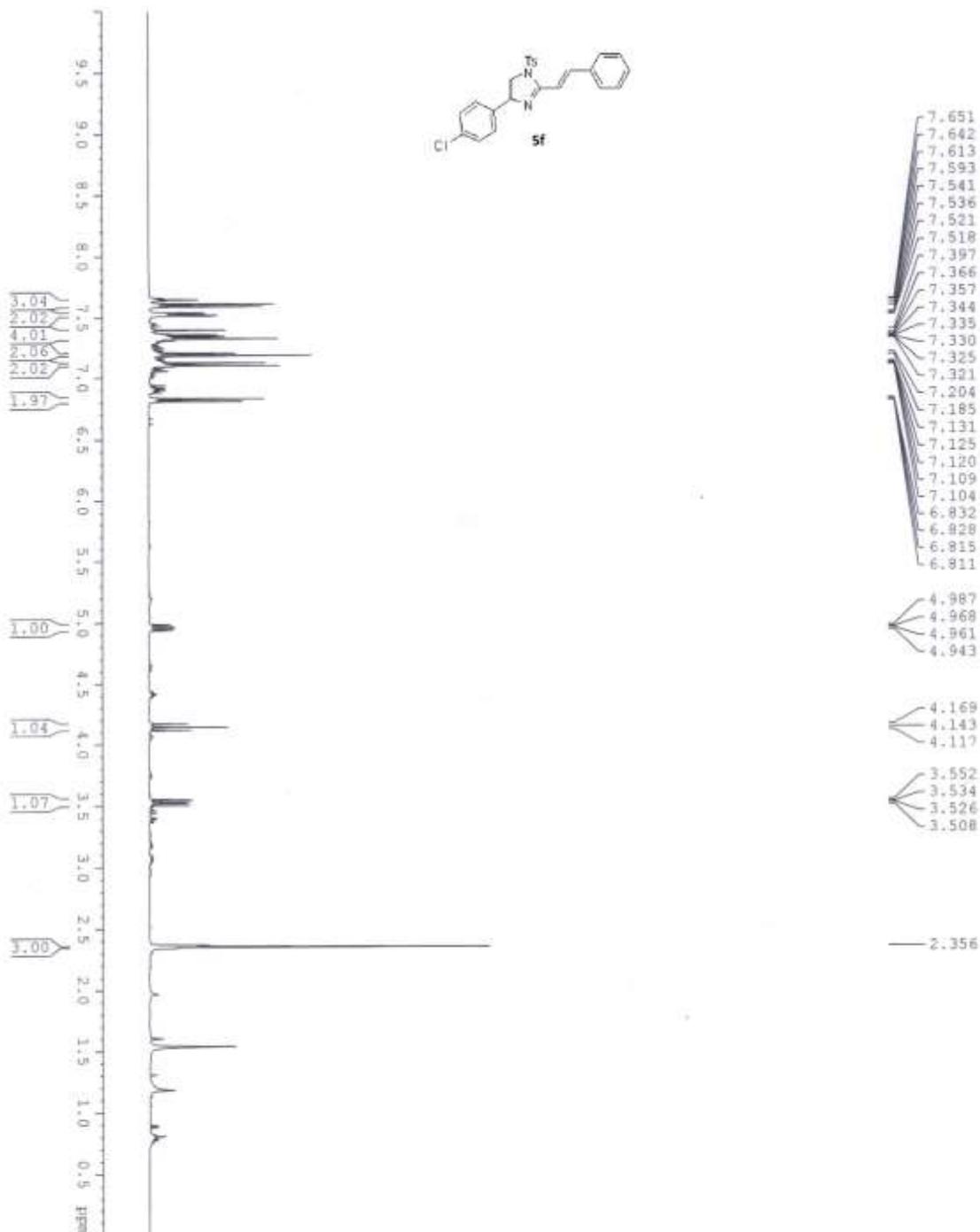
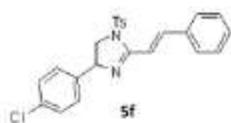
Current Data Parameters  
 NAME: Dr. A. NOLTE 2018  
 EXPRNO: 413  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_ Time: 20180319 13:28  
 INSTRUM: spect  
 PROBU: 5 mm PABBO BBI  
 PULPROG: zgpg30  
 TD: 32768  
 SOLVENT: CDCl3  
 NS: 264  
 DS: 2  
 SWH: 24038.461 Hz  
 FIDRES: 0.733596 Hz  
 AQ: 0.6815744 sec  
 RG: 93.40  
 LW: 20.800 usec  
 DE: 6.50 usec  
 TE: 299.15 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 T00: 1

CHANNEL F1  
 SFO1: 100.627858 MHz  
 NUCL1: 13C  
 EI: 8.00 usec  
 FWH1: 54.00000000 MHz

CHANNEL F2  
 SFO2: 400.1516076 MHz  
 WPC2: 1W  
 CPOWPRG2: waltz16  
 FCFW2: 90.00 usec  
 FLMW2: 12.00000000 MHz  
 FDMW2: 0.52231600 MHz  
 FDMW3: 0.16232000 MHz

F2 - Processing parameters  
 SI: 36384  
 SF: 100.617758 MHz  
 WDW: EM  
 SGB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 2.00



Current Data Parameters  
 NAME Dr. A MAJEE 2018  
 EXPNO 508  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180620  
 Time 12.08

INSTRUM spect  
 PROBD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 32768  
 SOLVENT CDCl3  
 NS 32  
 DS 1

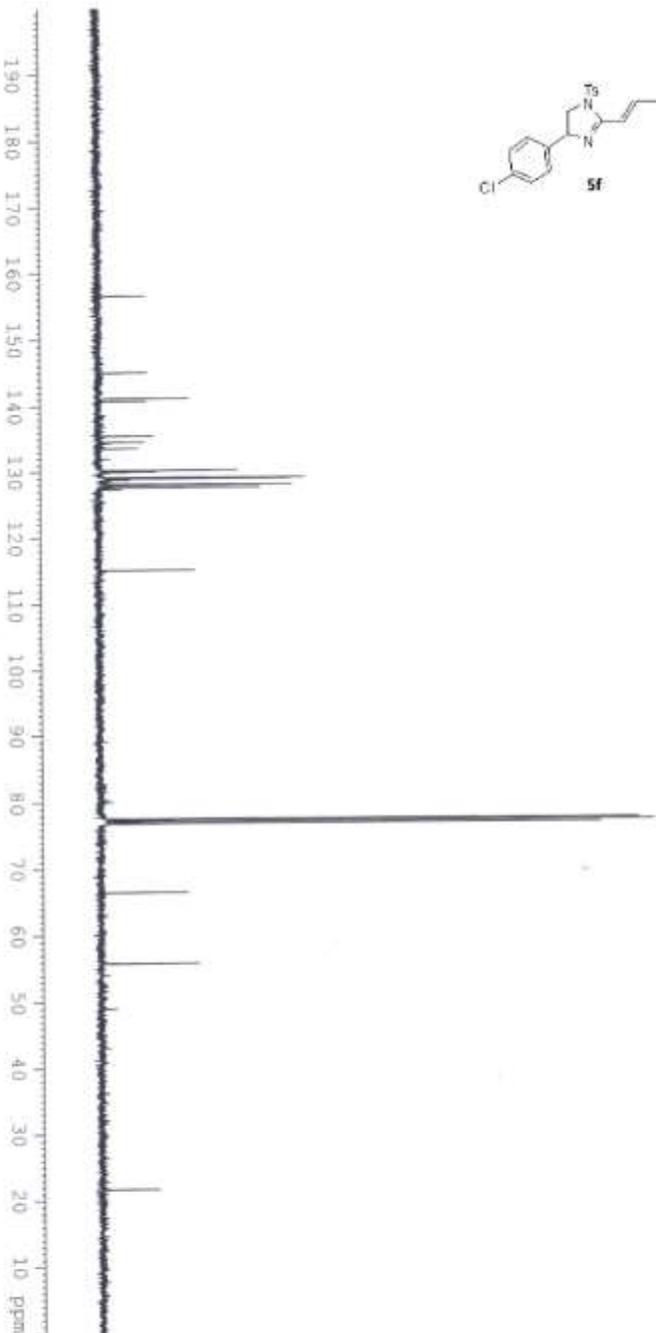
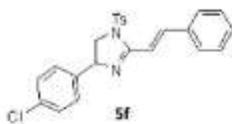
SWH 8223.685 Hz  
 FIDRES 0.250967 Hz  
 AQ 1.9922984 sec  
 RG 87.66  
 CW 60.800 usec  
 DE 5.50 usec  
 TE 300.1 K  
 DI 1.00000000 sec  
 TDO 1

CHANNEL: f1  
 SFO1 400.1524711 MHz  
 NUC1 1H  
 P1 14.75 usec  
 PLW1 12.00000000 W

F2 - Processing parameters  
 SI 16384  
 SF 400.1500393 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



- 156.51
- 145.02
- 141.15
- 140.73
- 135.44
- 134.50
- 133.53
- 130.16
- 129.98
- 129.06
- 128.92
- 128.01
- 127.93
- 127.58
- 115.11
  
- 77.47
- 77.15
- 76.83
  
- 66.41
  
- 55.79
  
- 21.71



Current Data Parameters  
 NAME Dr. A MAJEE 2018  
 EXPTNO 509  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20180620  
 Time 12:22

INSTRUM spect  
 PROBRD 5 mm HAIND BB/  
 PULPROG zgpg30

TD 32768  
 SOLVENT CDCl3

RG 434  
 SWH 24038.461 Hz  
 FIDRES 0.713156 Hz

AQ 0.6815744 sec  
 RG 186.42

DM 20.800 usec  
 DE 6.50 usec

TE 301.4 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
 T00 1

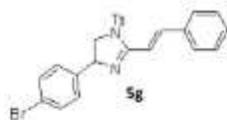
----- CHANNEL f1 -----  
 NUQ1 100.622800 MHz  
 MUTE 13C  
 P1 8.90 usec  
 PLMT 54.00000000 W

----- CHANNEL f2 -----  
 NUQ2 400.1516006 MHz  
 MUTE 1H

CPDPRG2 waltz16  
 FCPD 90.00 usec  
 FLM2 12.00000000 W

RG12 0.32231000 W  
 PLM13 0.16212000 W

F2 - Processing parameters  
 SI 14384  
 SF 100.6177864 MHz  
 WDM EX  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 2.00



Current Data Parameters  
NAME Dr. A MASTER 2018  
EXPNO 510  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20180620  
Time 12:41  
INSTRUM spect  
PROBRD 5 mm PABBO BB/  
PULPROG zgpg30  
TD 32768  
FIDRES 0.250967 Hz  
SOLVENT CDCl3  
NS 32  
DS 1  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9912944 sec  
RG 67.66  
RG 67.66  
AQ 60.800 usec  
DE 6.50 usec  
TE 300.8 K  
D1 1.00000000 sec  
TD0 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
SFO1 400.1524711 MHz  
NUC1 1H  
P1 14.75 usec  
PLW1 12.00000000 W

F2 - Processing parameters  
SI 16384  
SF 400.1500412 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



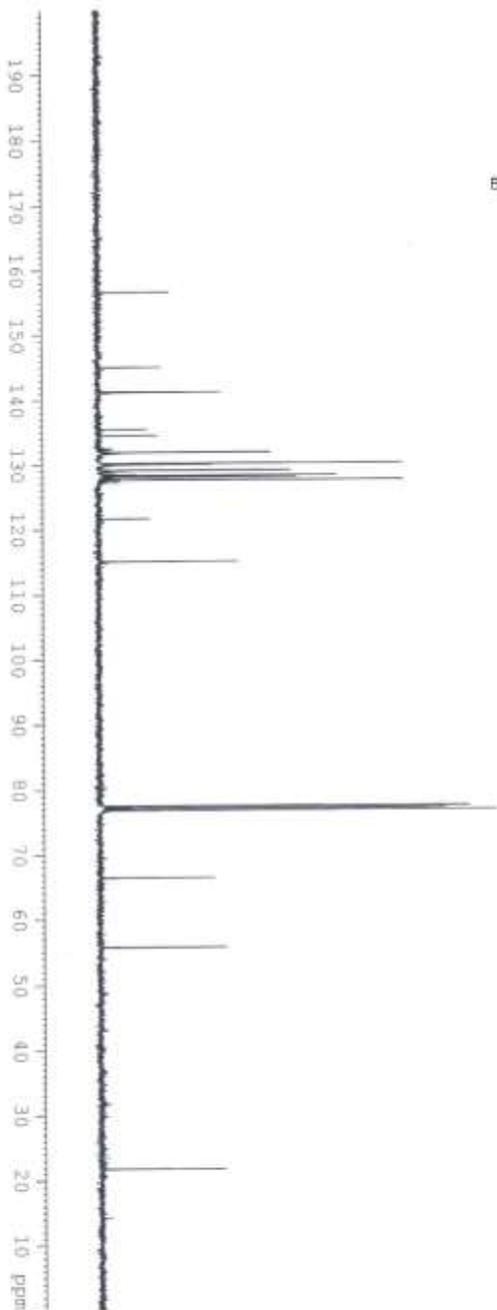
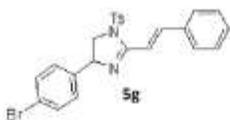
- 156.54
- 145.00
- 141.23
- 141.17
- 135.40
- 134.46
- 131.84
- 130.13
- 129.97
- 129.04
- 128.23
- 127.99
- 127.53
- 121.58
- 115.06

- 77.46
- 77.15
- 76.83

66.39

55.70

21.71



Current Data Parameters  
 NAME: Dr. A. MAJER 2018  
 EXPNO: 511  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_ : 20180620  
 Time: 13.02  
 INSTRUM: spect  
 PROBRD: 5 mm BBBO BB/  
 PULPROG: zgpg30  
 TD: 32768  
 FIDRES: 0.1618  
 SOLVENT: CDCl3  
 NS: 400  
 DS: 2  
 SWH: 24038.461 Hz  
 FIDRES: 0.173596 Hz  
 AQ: 0.6815144 sec  
 RG: 106.66  
 DM: 20.800 usec  
 DE: 5.50 usec  
 TE: 301.5 K  
 D1: 2.00000000 sec  
 D11: 0.03000000 sec  
 TPO: 1

CHANNEL F1  
 SFO1: 100.6278588 MHz  
 NUCL1: 13C  
 P1: 8.90 usec  
 FLM1: 54.00000000 W

CHANNEL F2  
 SFO2: 400.1516006 MHz  
 NUCL2: 1H  
 CPDPRG2: waltz16  
 FREQ2: 90.00 usec  
 P1M2: 12.00000000 W  
 P1M12: 0.32231000 W  
 FLM12: 0.16212000 W

F2 - Processing parameters  
 SI: 16384  
 SF: 100.6177873 MHz  
 WDM: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 2.00