

**Electronic Supplementary Information**

**Title: Direct allylic amination of allylic alcohols with aromatic/aliphatic amines using Pd/TPPTS as an aqueous phase recyclable catalyst**

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## Experimental data

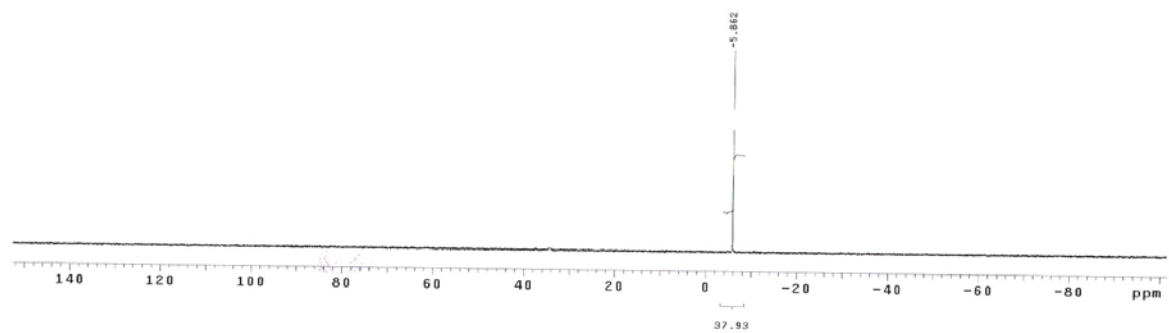
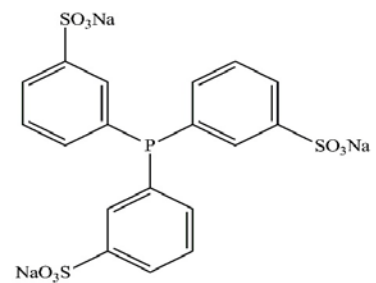
### 1. Table S<sub>1</sub>. Test experiments indicating role of each component<sup>a</sup>

Entry	Pd(OAc) <sub>2</sub> (mol %)	TPPTS (mol %)	PhCOOH (mol %)	GC yield (%)
1	5.0	20	10	98
2	0.0	20	10	00
3	5.0	00	10	05
4	5.0	20	00	98

<sup>a</sup>Reaction conditions: Cinnamyl alcohol (5 mmol), *N*-methyl aniline (6 mmol), water (10 mL), 100 °C, 4 h.

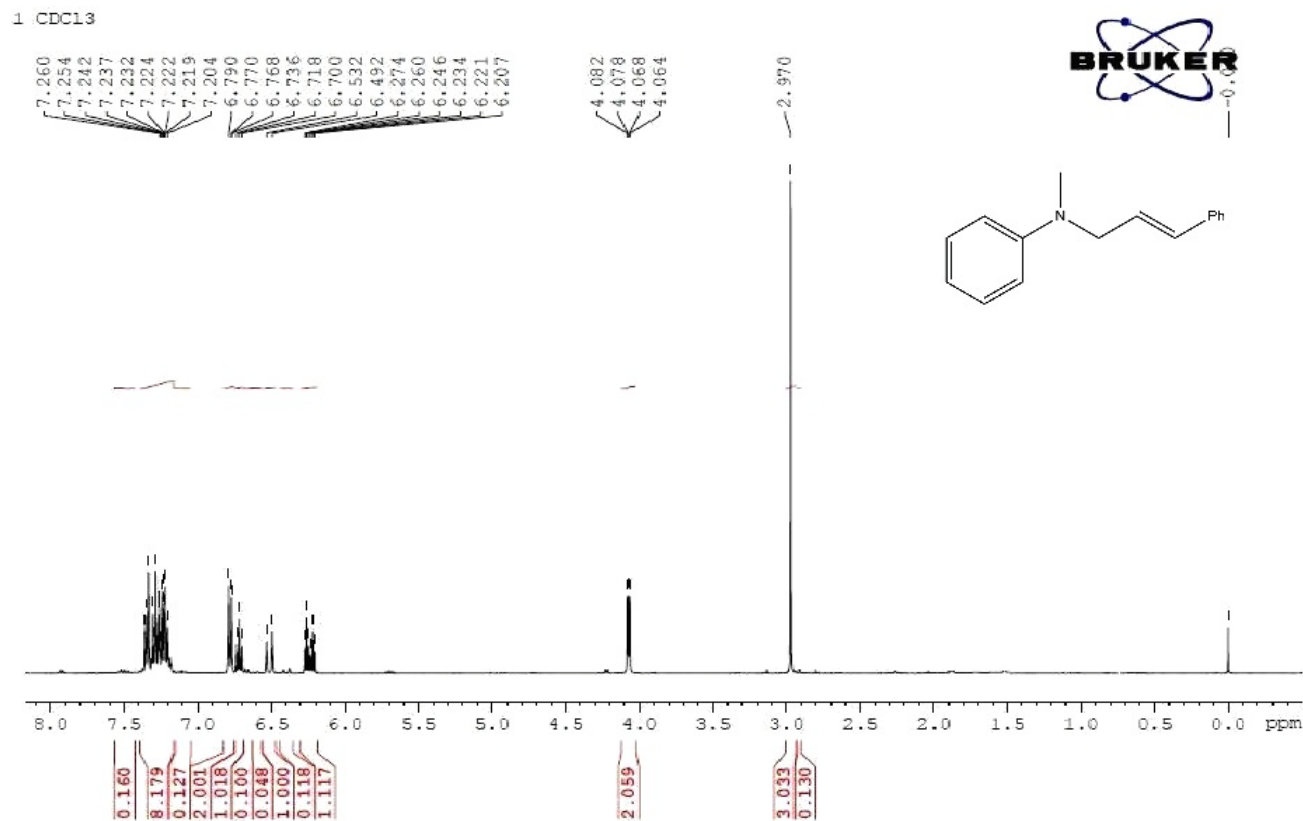
## 2. Copy of $^{31}\text{P}$ NMR, TPPTS ligand

```
TPPTS-1
exp6 PHOSPHORUS
SAMPLE SPECIAL
date Dec 20 2010 temp not used
solvent D2O gain 20
file ACQUISITION exp spin not used
sv 50000.0 pw30 0.000
at 1.280 a1fa 13.800
np 128000 FLAGS 20.000
fb 27600 il n
bs 2 ln n
d1 2.000 dp Y
nt 1600 hs Y
ct 62 PROCESSING nm
TRANSMITTER lb 2.00
tn P31 fn not used
sfrq 121.426 fn DISPLAY
tof 5000.0 sp -12338.3
pwr 8.0 rf1 30886.2
pw DECOUPLER rf2 19800.6
dn H1 rf3 0
dsf 0 rf4 20.5
dm mv rf5 -827.6
dme w wc PLOT 250
dpar 35 sc 9
dsf 7200 vs 73
nm no ph 20
```

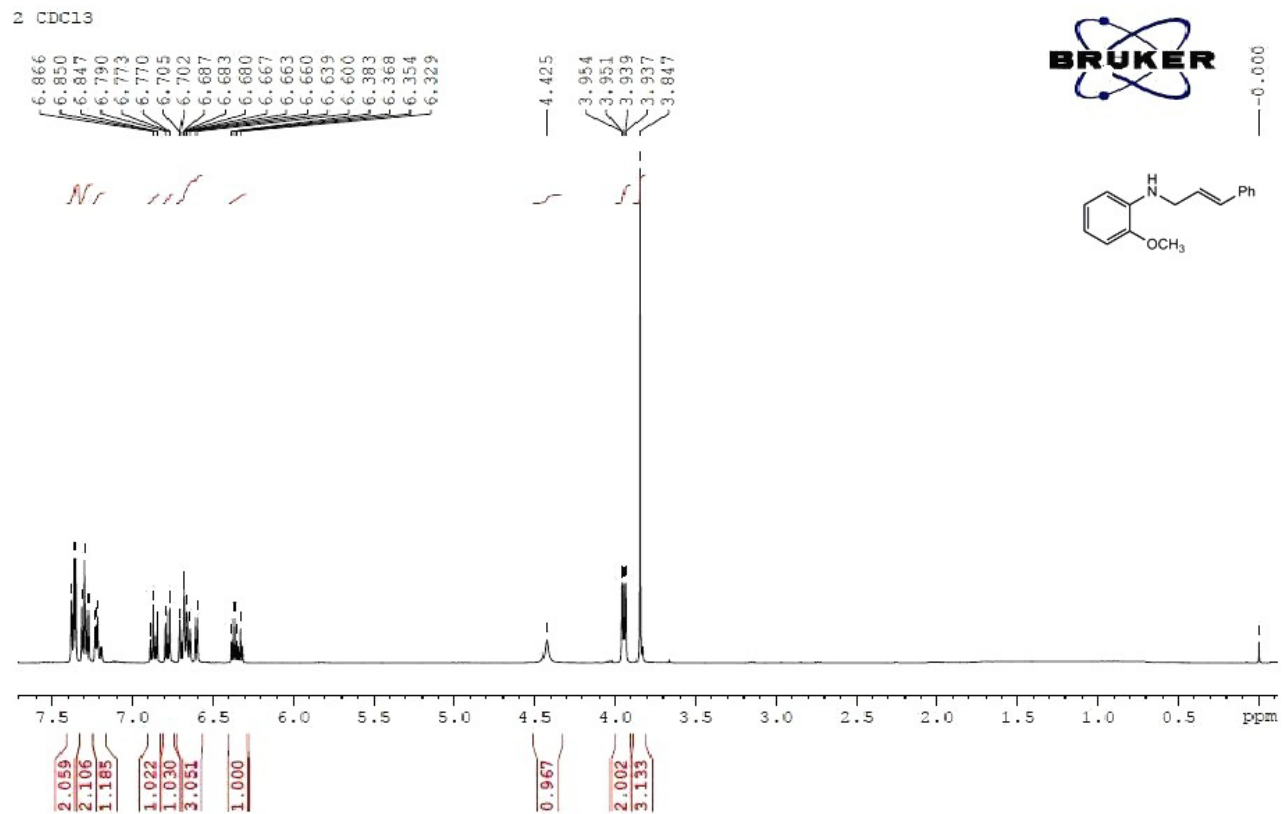


### 3. <sup>1</sup>H NMR Spectral Data

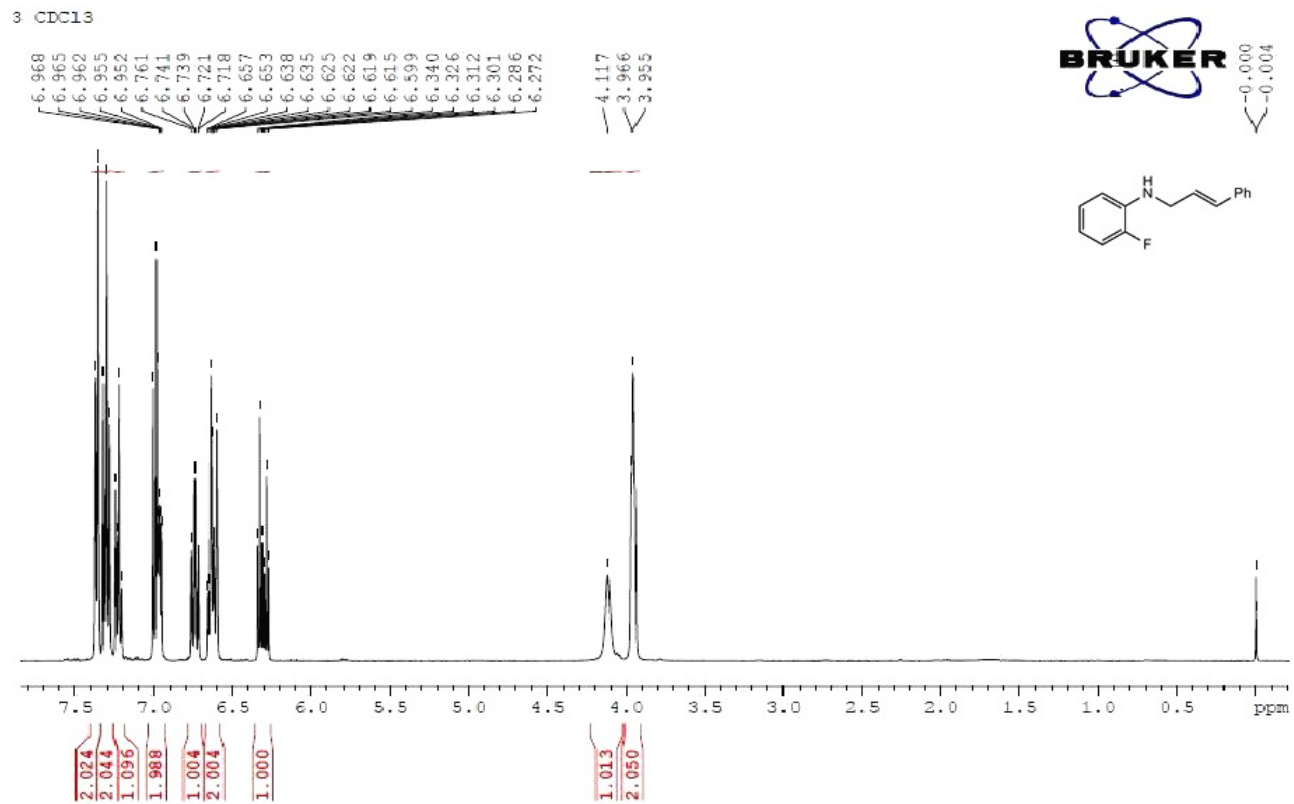
#### 3.1 Copy of <sup>1</sup>H NMR, 3a



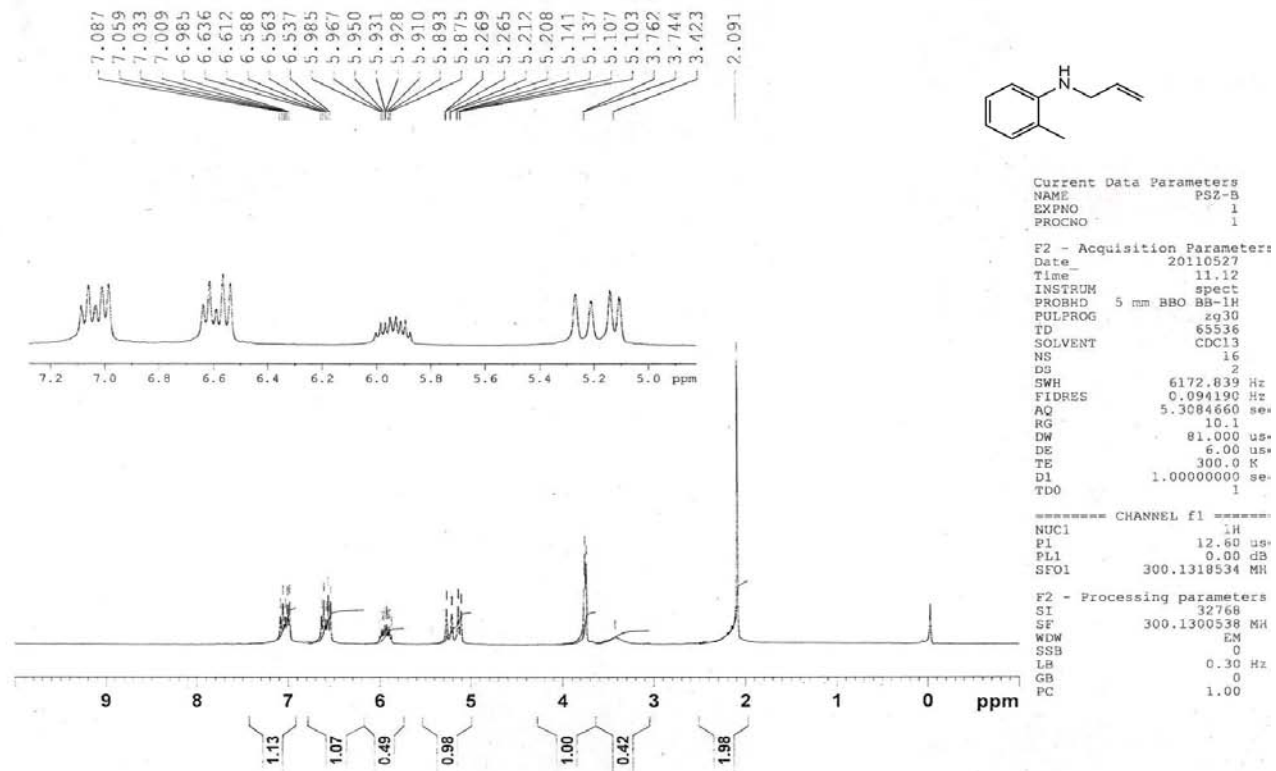
### 3.2 Copy of $^1\text{H}$ NMR, 3c



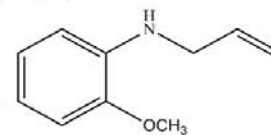
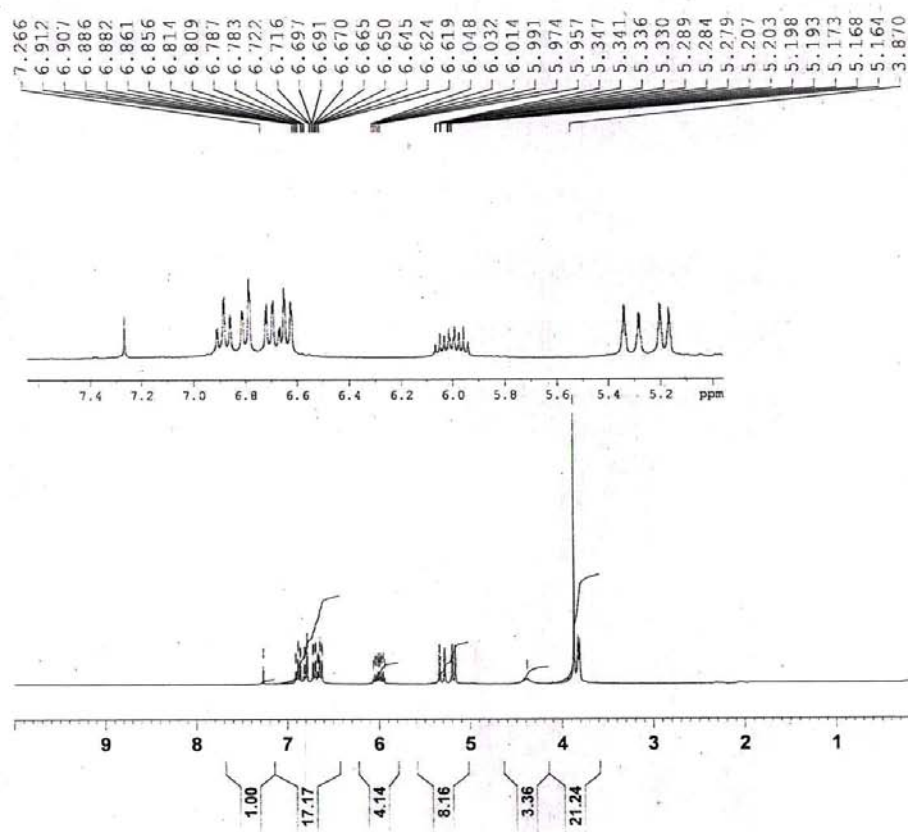
### 3.3 Copy of $^1\text{H}$ NMR, 3d



### 3.4 Copy of $^1\text{H}$ NMR, 6b



### 3.5 Copy of <sup>1</sup>H NMR, 6c



Current Data Parameters  
NAME MS-1  
EXPNO 1  
PROCNO 1

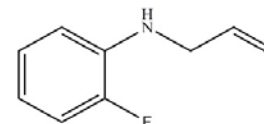
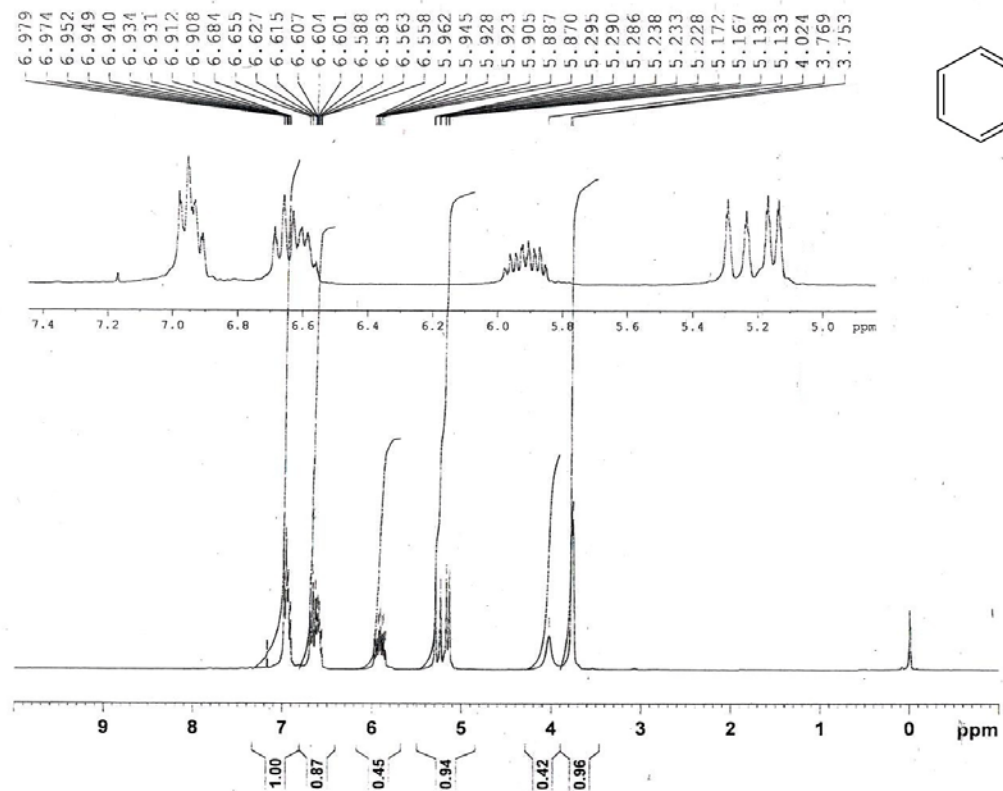
F2 - Acquisition Parameters  
Date\_ 20110530  
Time 14.35  
INSTRUM spect  
PROBHD 5 mm BBO BB-1H  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 6172.839 Hz  
FIDRES 0.094190 Hz  
AQ 5.3084660 sec  
RG 71.8  
DW 81.000 usec  
DE 6.00 usec  
TE 300.0 K  
D1 1.00000000 sec  
TDO 1

----- CHANNEL f1 -----  
NUC1 1H  
P1 12.60 usec  
PLL 0.00 dB  
SFO1 300.1318534 MHz

F2 - Processing parameters:  
SI 32768  
SF 300.1300003 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



### 3.6 Copy of <sup>1</sup>H NMR, 6d



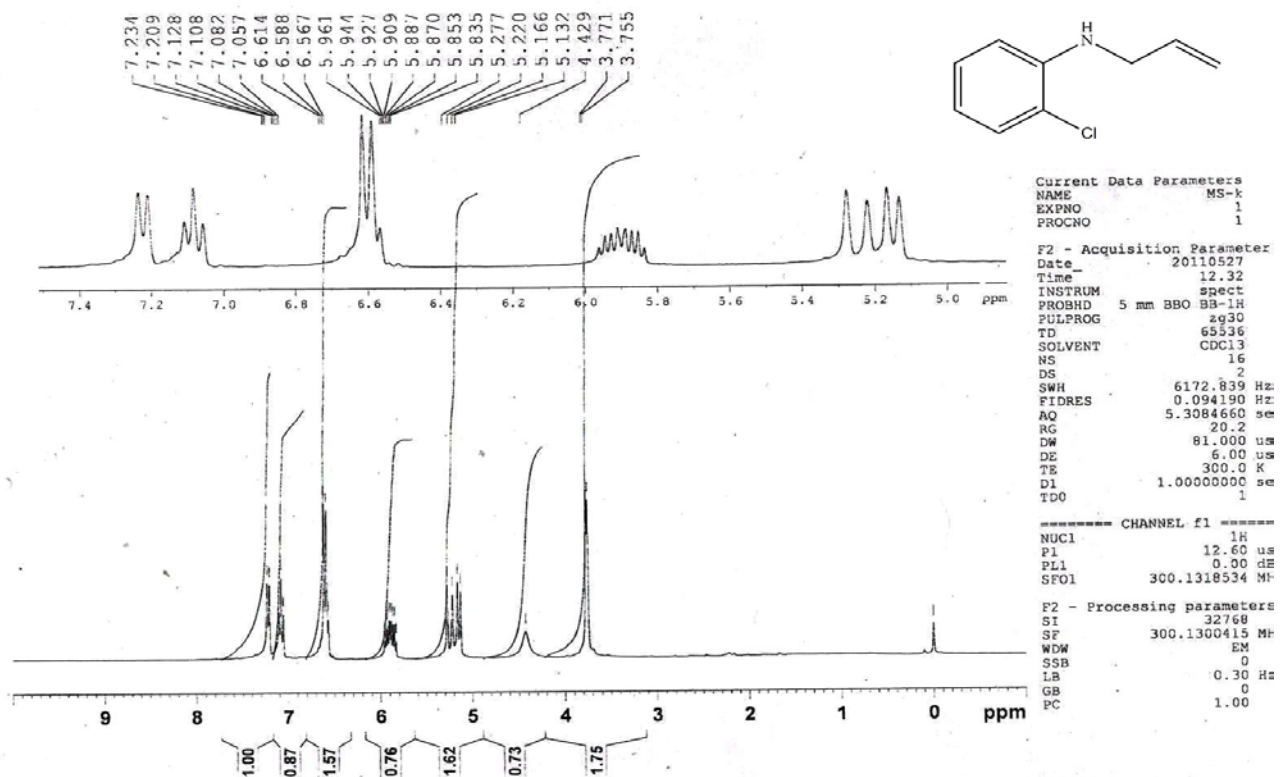
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NAME PSZ-c  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
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PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 6172.839 Hz  
FIDRES 0.094190 Hz  
AQ 5.3084660 se  
RG 25.4  
DW 81.000 us  
DE 6.00 us  
TE 300.0 K  
D1 1.00000000 se  
TDO 1

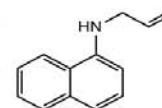
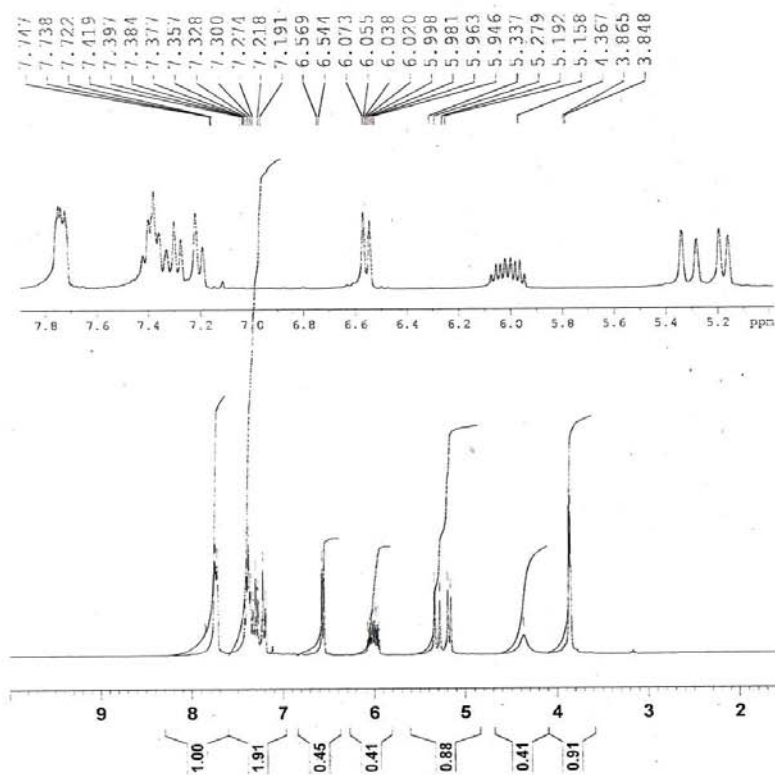
----- CHANNEL f1 -----  
NUC1 1H  
P1 12.60 us  
PL1 0.00 dB  
SFO1 300.1318534 MHz

F2 - Processing parameters:  
SI 32768  
SF 300.1300297 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

### 3.7 Copy of <sup>1</sup>H NMR, 6e



### 3.8 Copy of <sup>1</sup>H NMR, 6f



Current Data Parameters  
NAME PSZ-d  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20110530  
Time 12.44  
INSTRUM spect  
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PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 6172.839 Hz  
FIDRES 0.094190 Hz  
AQ 5.3084660 sec  
RG 32  
DW 81.000 use  
DE 6.00 use  
TE 300.0 K  
D1 1.00000000 sec  
TDC 1

\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
NUC1 1H  
P1 12.60 use  
PL1 0.00 dB  
SF01 300.1318534 MHz

F2 - Processing parameters  
SI 32768  
SF 300.1300461 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00