

# Supplementary Information

## Synthesis of Unsymmetrical Aryl-Ethylnylated Benzenes via Regiocontrolled Sonogashira Reaction of 1,3,5-Tribromobenzene

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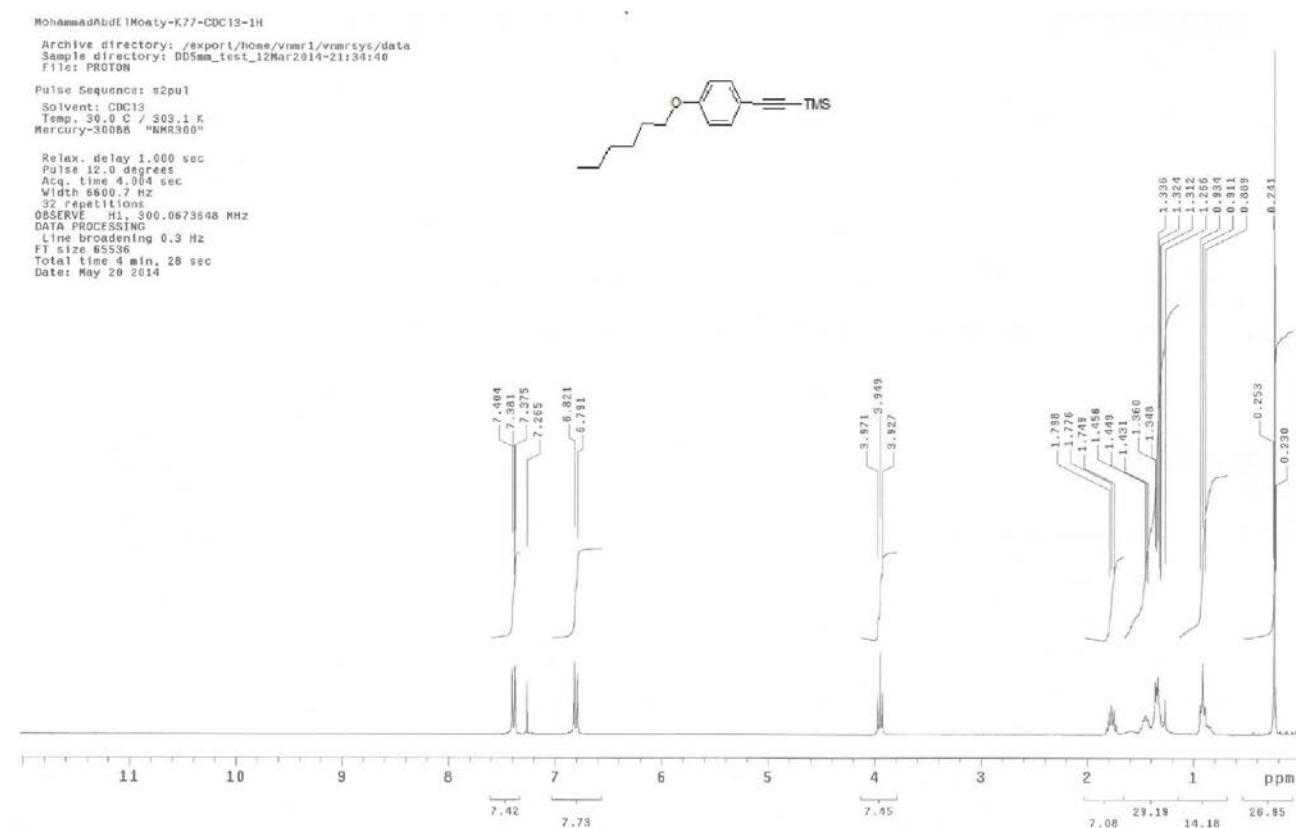


Figure S1. <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of compound 2a.

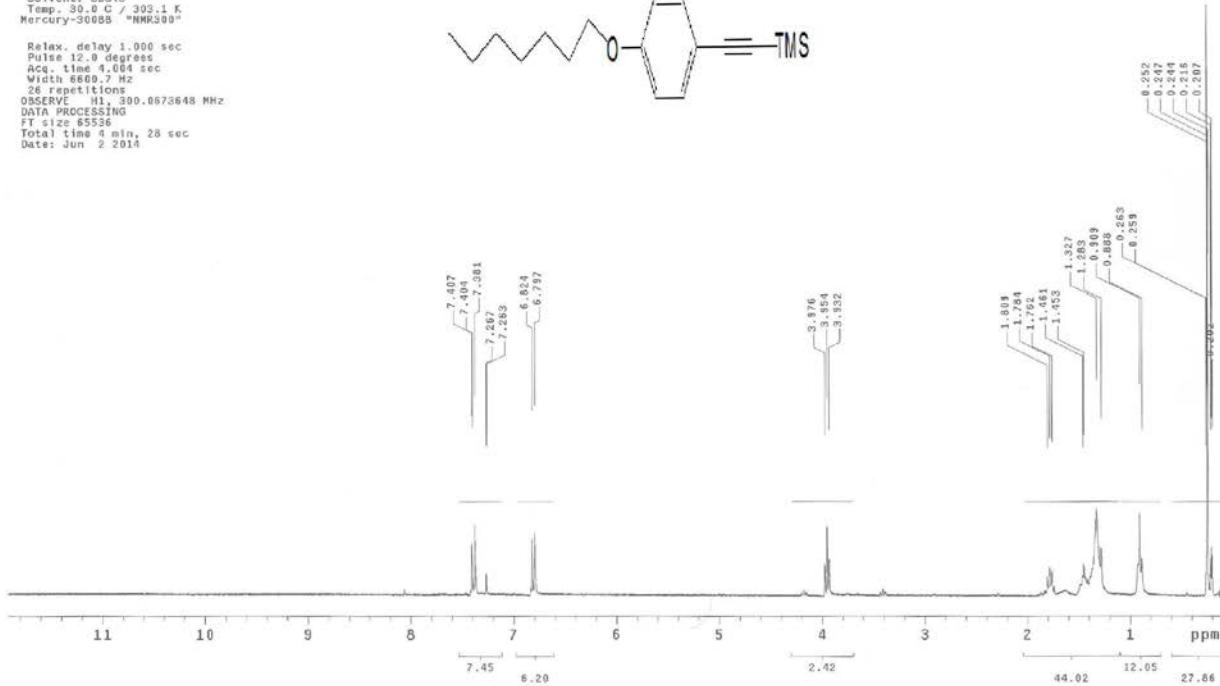
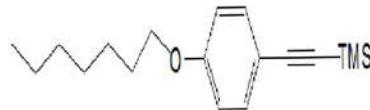
MohamadAbdelmoaty-1K7-CDCL3-H  
Archive directory: /export/home/vnmr1/vnmrsys/data  
Sample directory: DD5mm\_test\_12Mar2014-21:34:40  
File: noout

```

Pulse: PRGRM
Pulse Sequence: s2pul
Solvent: CDCl3
Temp. 30.8 °C / .303.1 K
Mercury-30088 "NMR300"

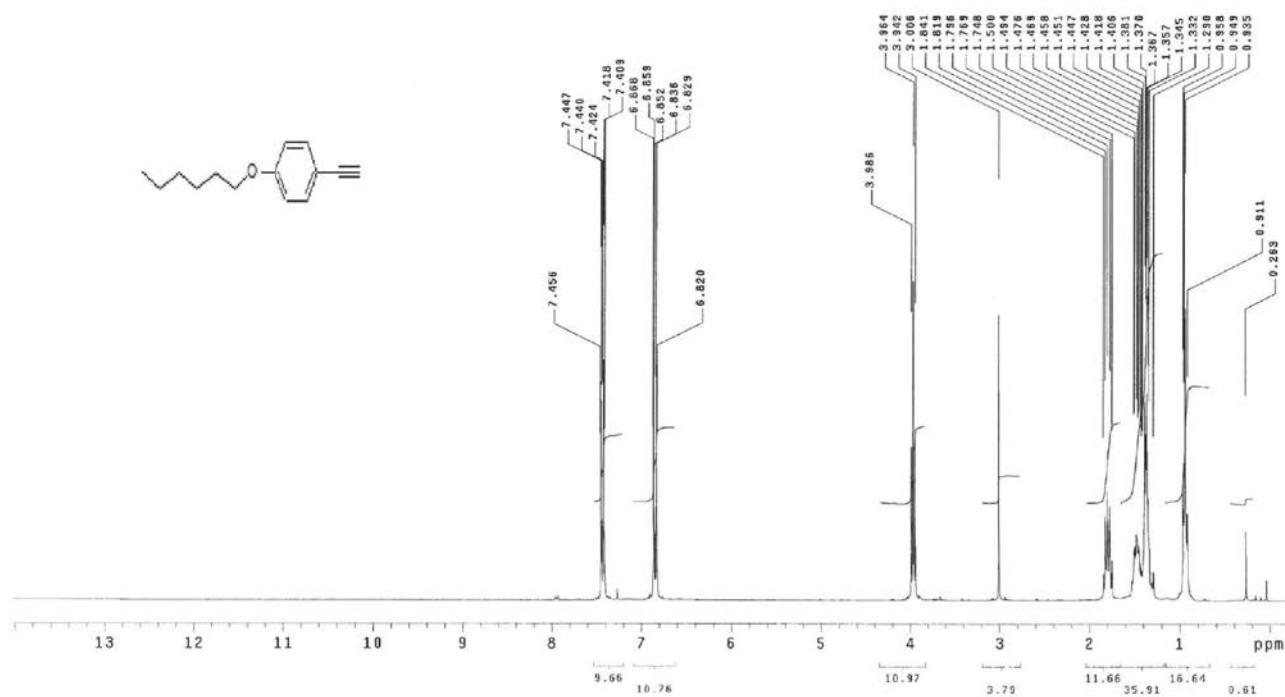
Relax. delay 1.000 sec
Pulse 90 degrees
Acq time 4.000 sec
Width 6600.7 Hz
26 repetition
OBSERVE H1, 300.0673648 MHz
DATA PROCESSING
FT size 65536
Total time 4 min, 28 sec
Date: June 2 2014

```

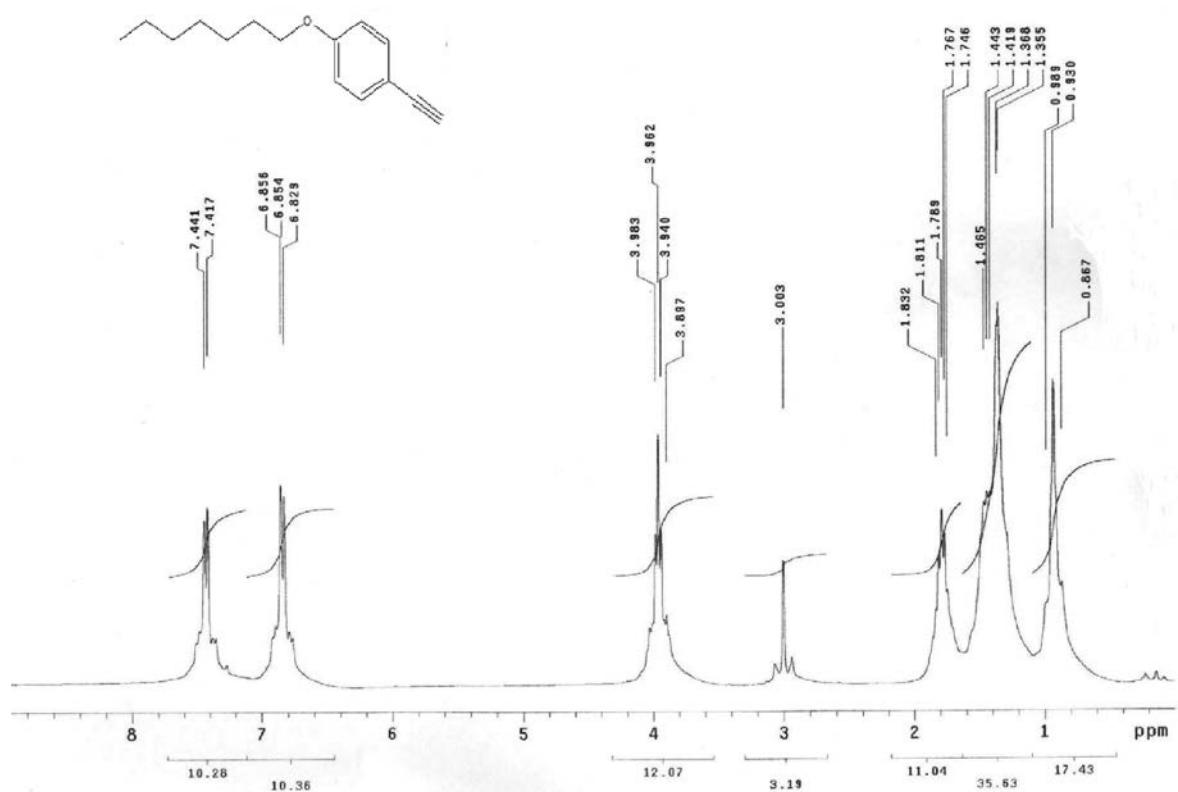


**Figure S2.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **2b**.

**Figure S3.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **2c**.



**Figure S4.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **3a**.

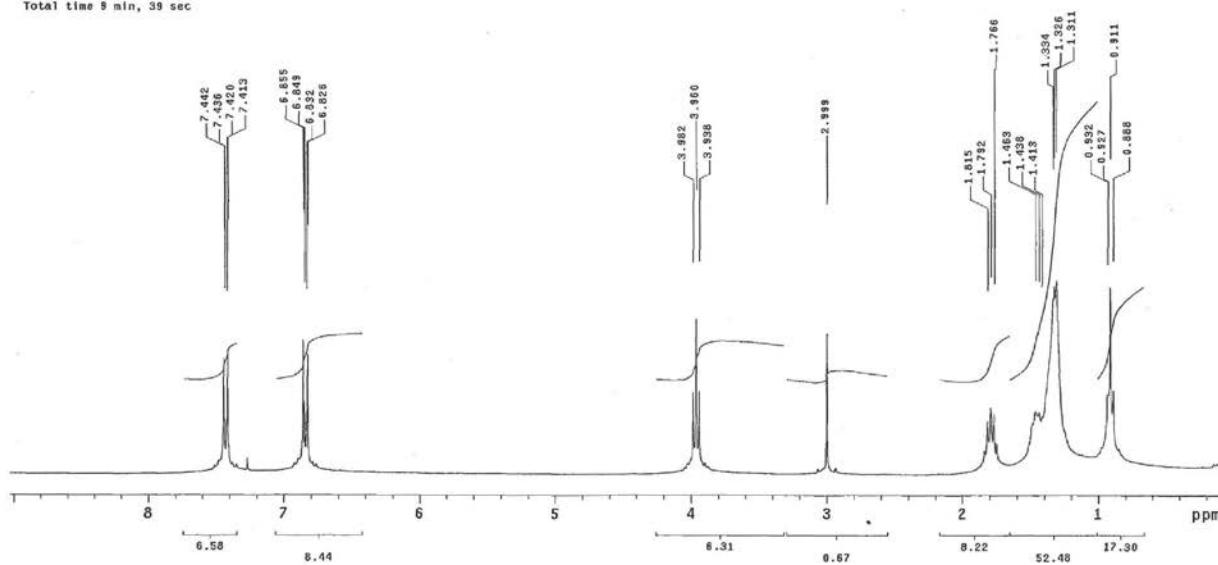
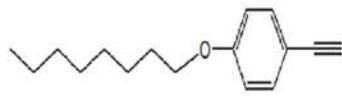


**Figure S5.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **3b**.

```
Mohmabd/bdElmosty-MK-CDCL3-H
Archive directory: /export/home/vnmrl/vnmrsts/data
Sample directory: 0D55_mtest_12Mar2014-21:34:48
P1 file: PROTON

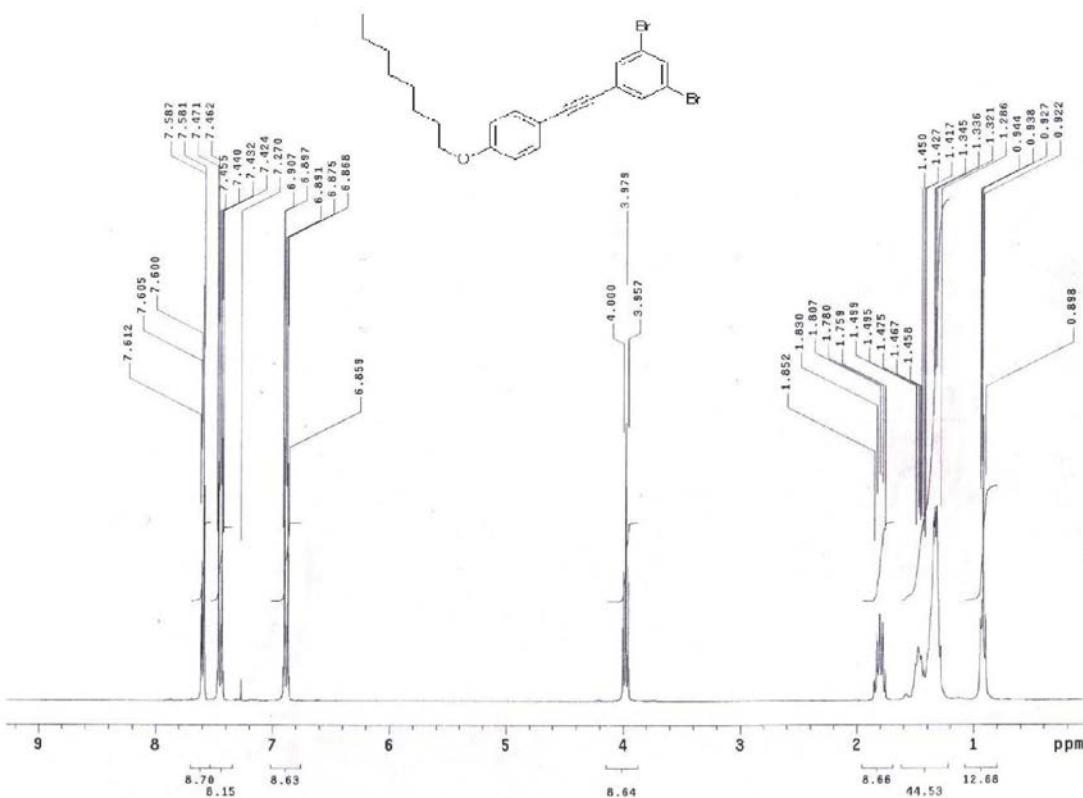
Pulse Sequence: s2pul
Solvent: CDCl3
Temp: 30.0 C / 303.1 K
Mercury-300BB "NMR-300" B

Relax, delay 1,000 sec
Pulse 45.0 degrees
Acq. time 4.000 sec
Width 8000.0 Hz
23 repetition
OBSERVE H1 300.0873640 MHz
DATA PROCESSING
FT size 65536
Total time 8 min, 39 sec
```

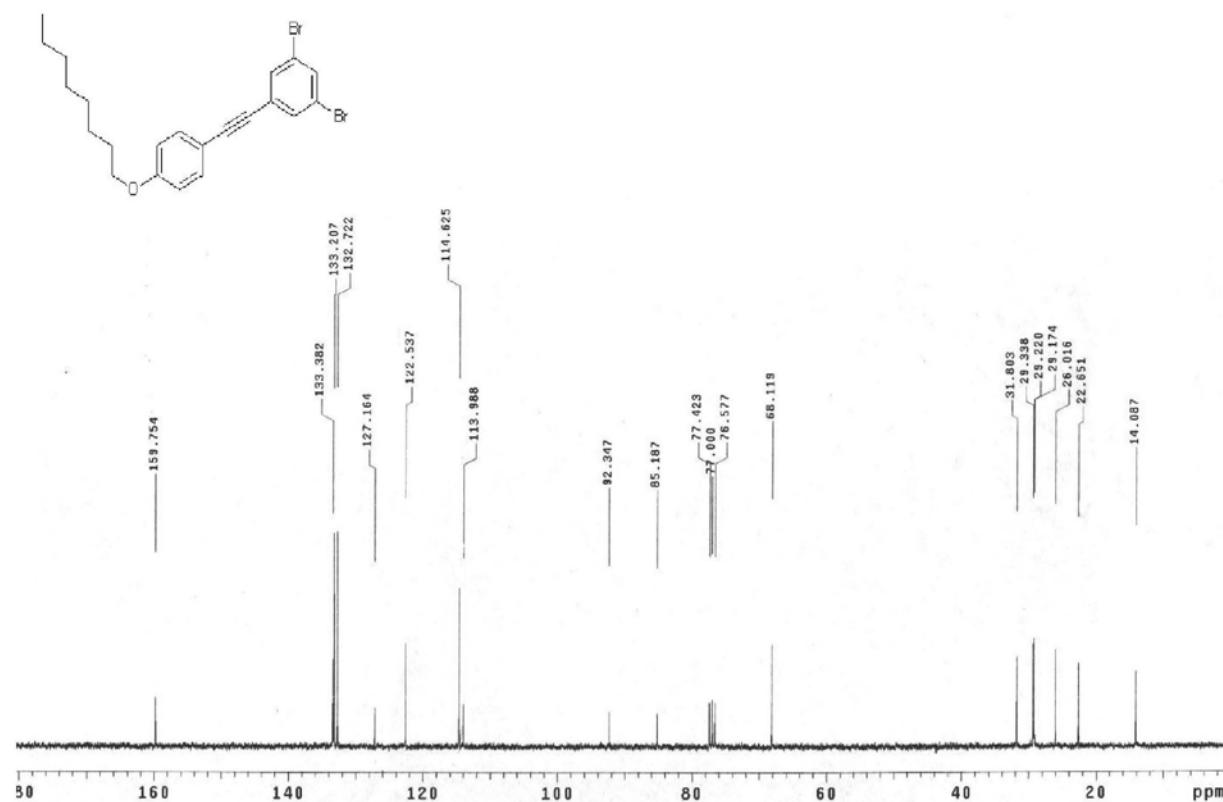


**Figure S6.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound 3c.

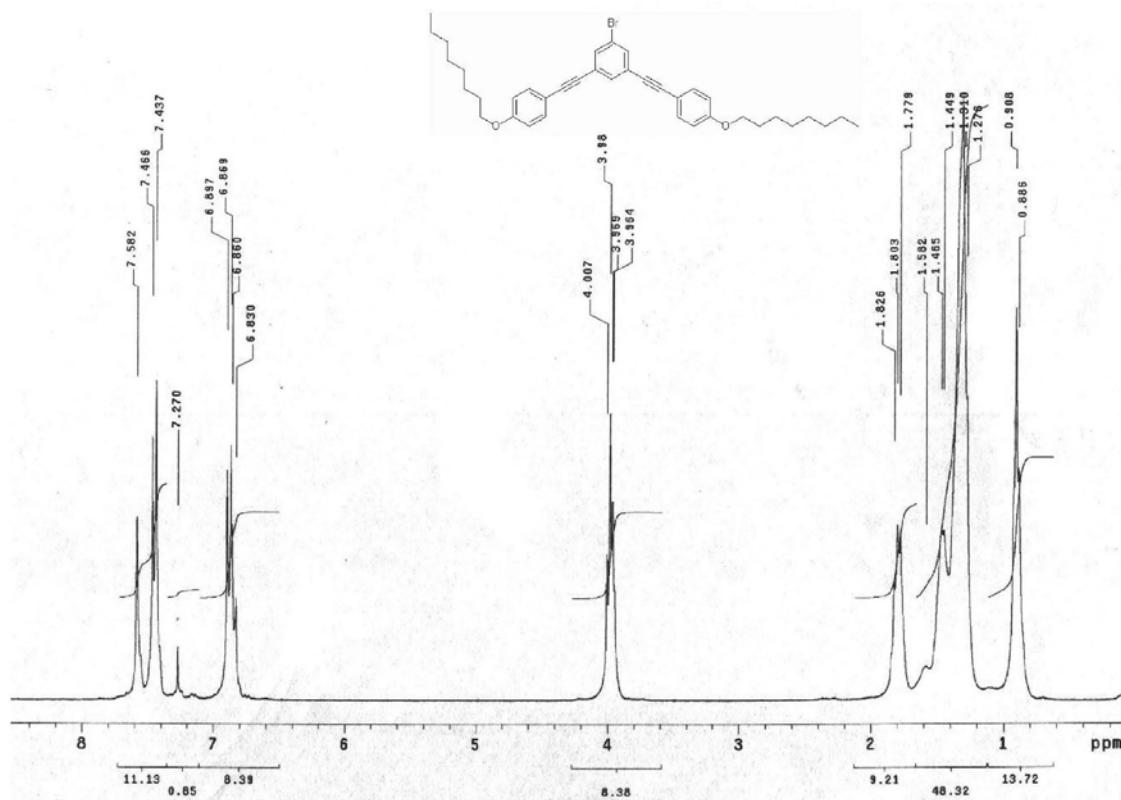
7.587  
7.581  
7.471  
7.462  
7.455  
7.449  
7.432  
7.432  
7.432  
7.270  
9.087  
8.897  
1.75  
8.868



**Figure S7.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **5c**.



**Figure S8.** <sup>13</sup>C NMR spectrum (75 MHz, CDCl<sub>3</sub>) of compound 5c.



**Figure S9.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of compound 6c.

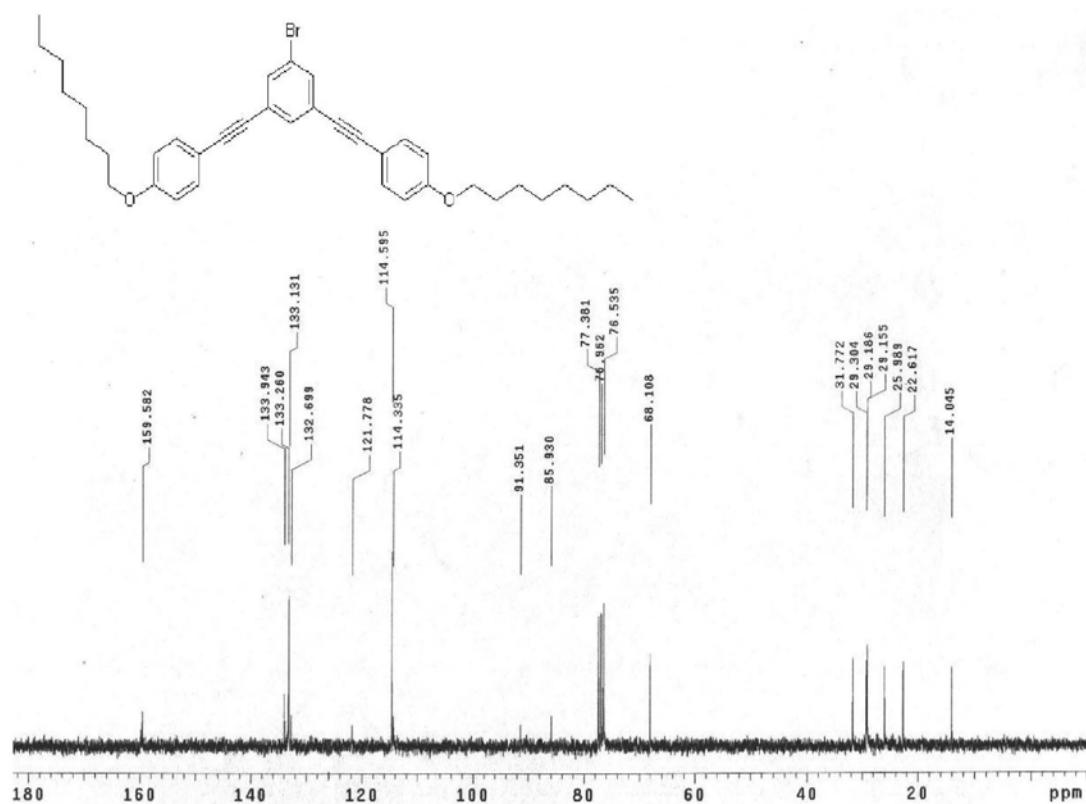


Figure S10. <sup>13</sup>C NMR spectrum (75 MHz, CDCl<sub>3</sub>) of compound 6c.

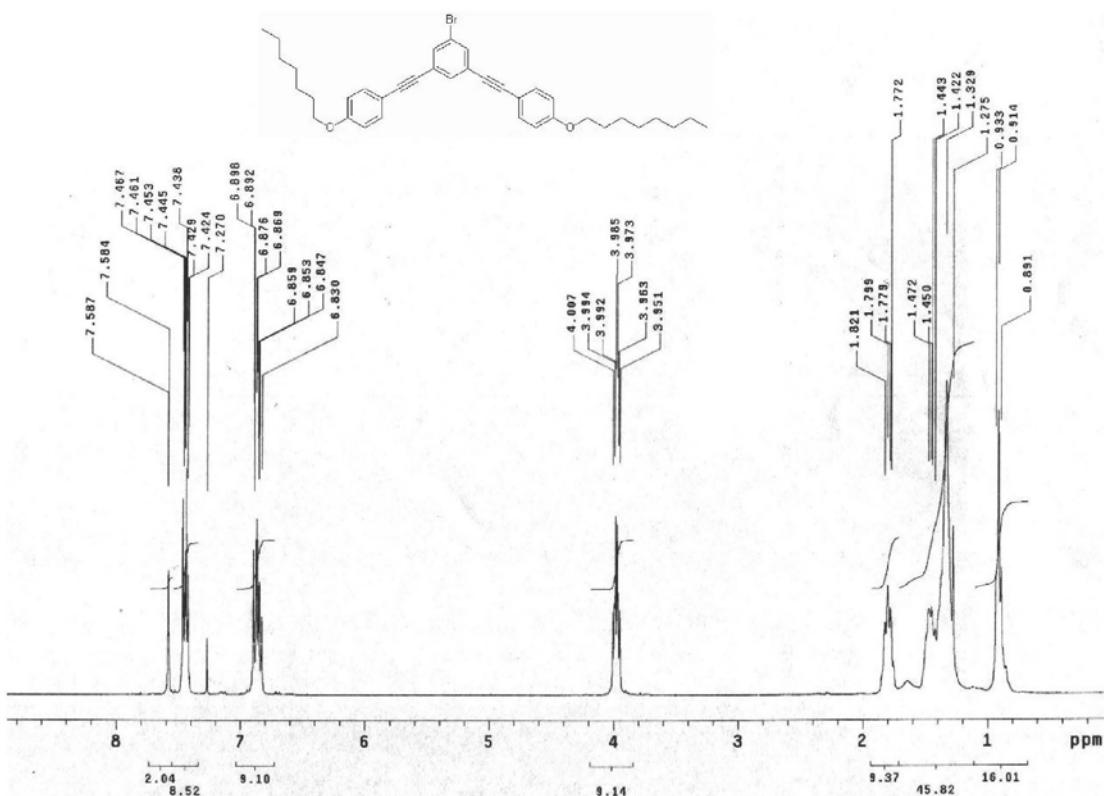
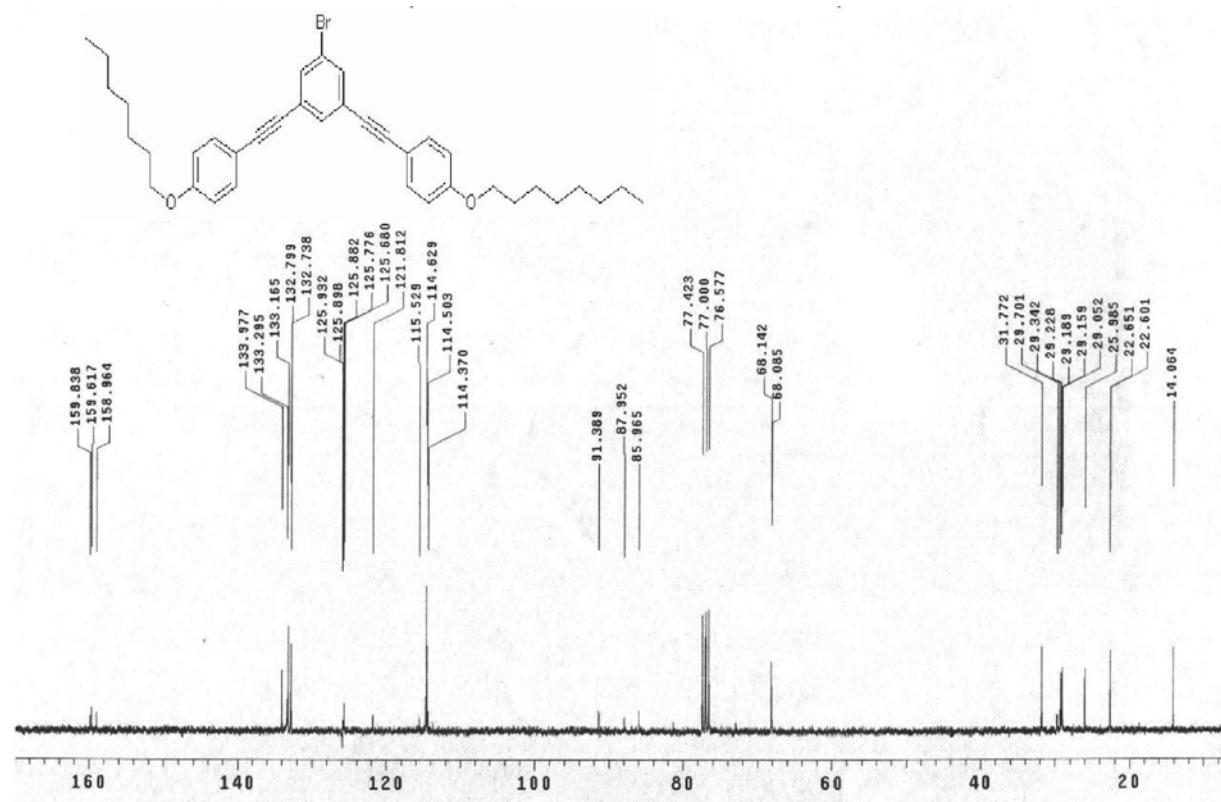
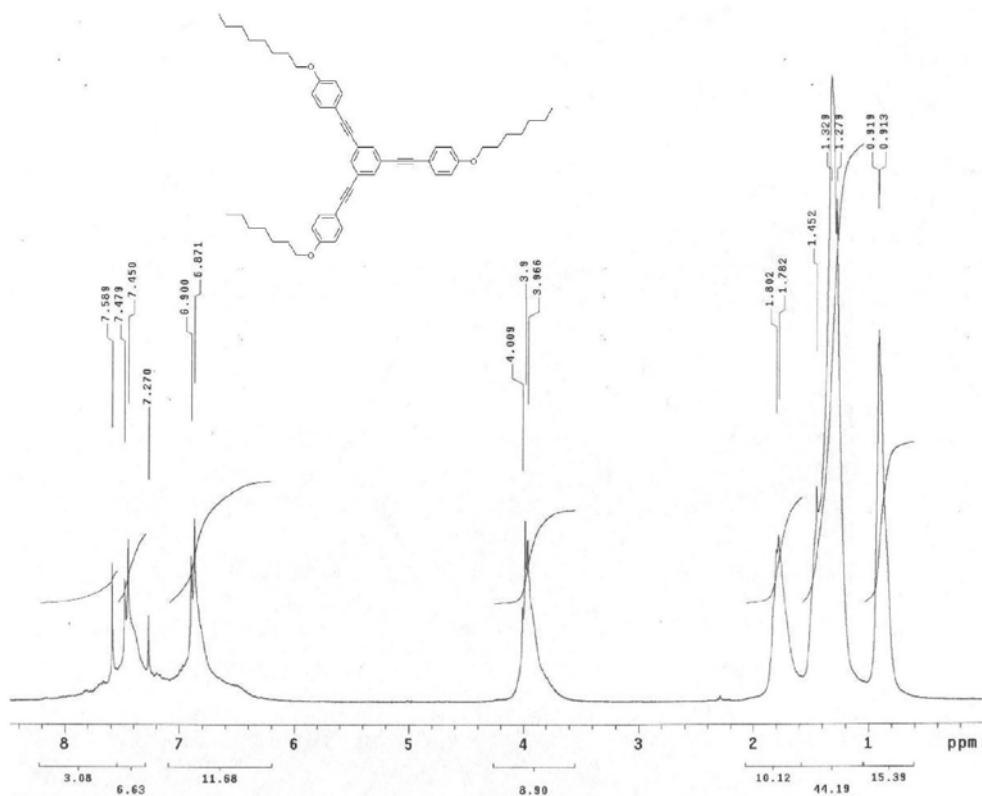


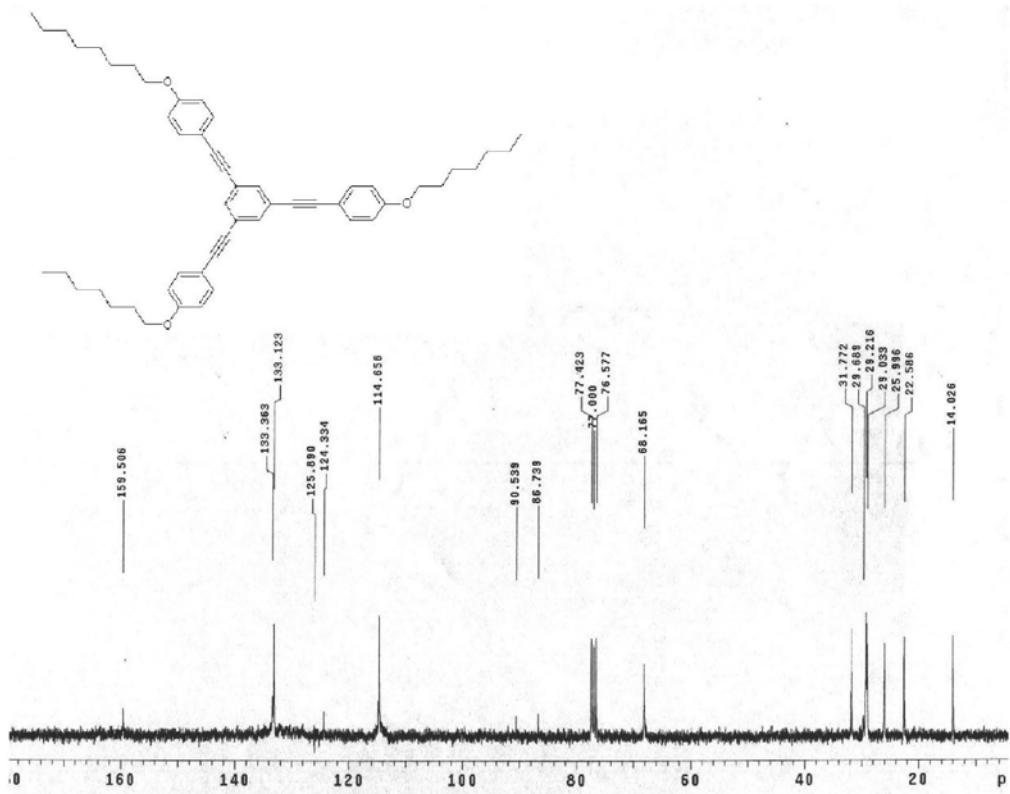
Figure S11. <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of compound 7.



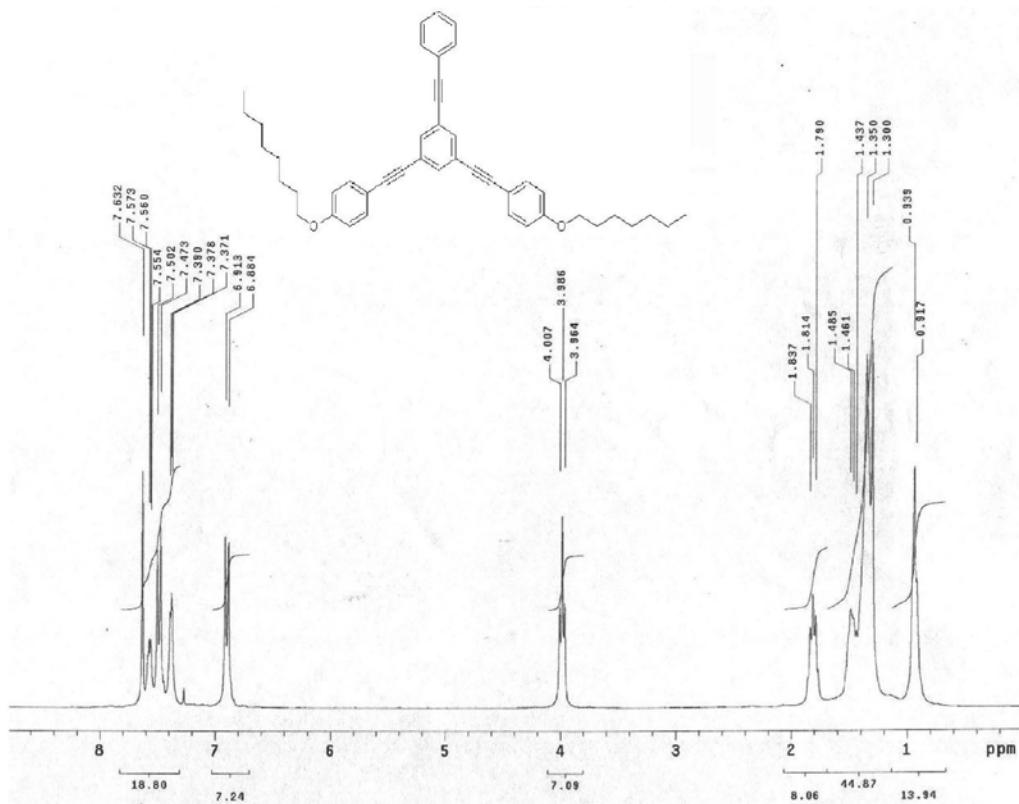
**Figure S12.** <sup>13</sup>C NMR spectrum (75 MHz, CDCl<sub>3</sub>) of compound 7.



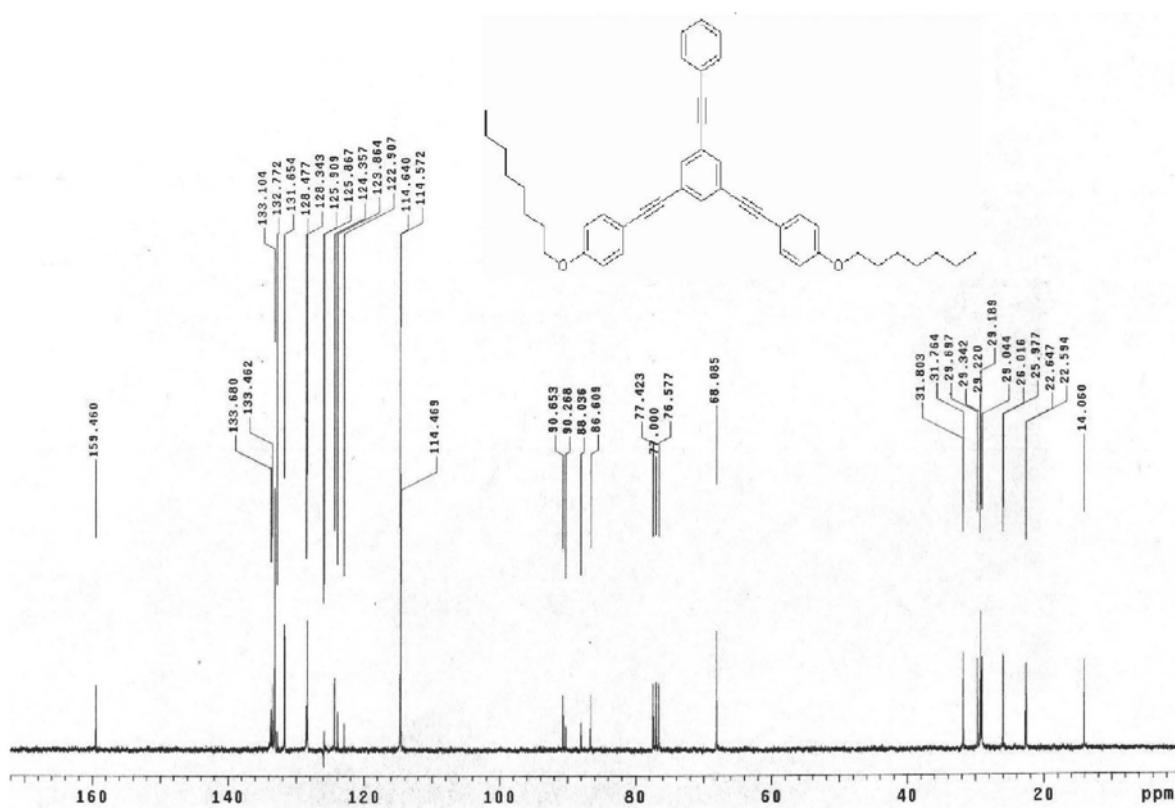
**Figure S13.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of compound 8.



**Figure S14.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{CDCl}_3$ ) of compound 8.



**Figure S15.**  $^1\text{H}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of compound **10**.



**Figure S16.**  $^{13}\text{C}$  NMR spectrum (75 MHz,  $\text{CDCl}_3$ ) of compound 10.