

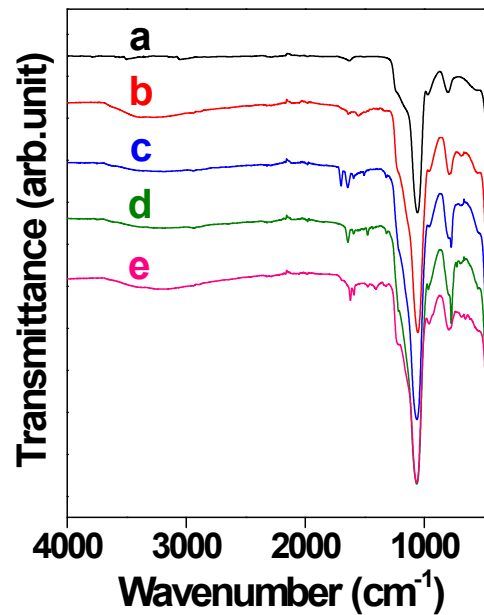
**Pronounced effect of pore dimension of silica support on Pd-catalyzed Suzuki  
coupling reaction under ambient conditions**

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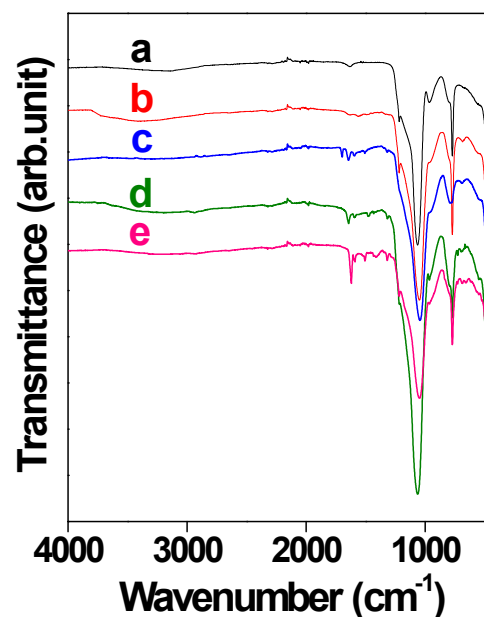
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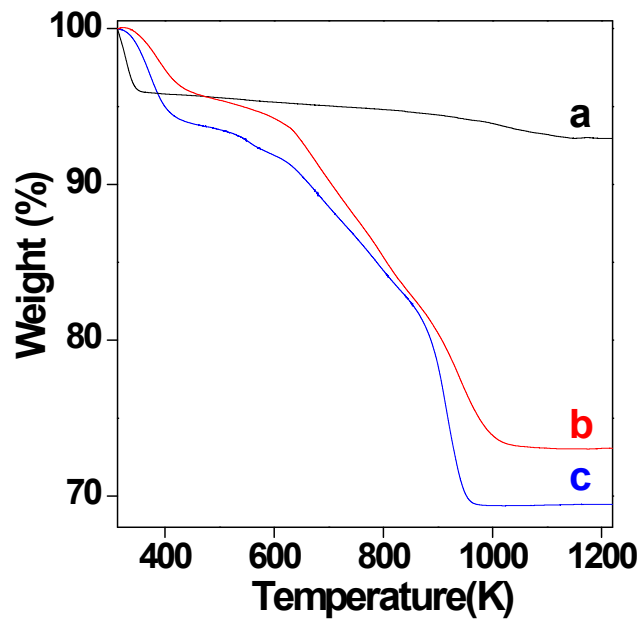
*Email: mahasweta.nandi@visva-bharati.ac.in*



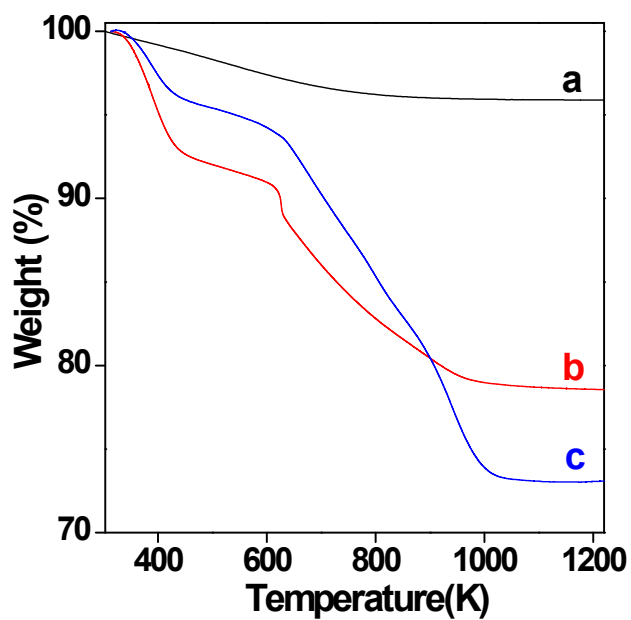
**Fig. s1.** FT-IR spectra of (a) calcined MCM-41, (b) 3-APTES functionalized MCM-41, (c) *tris*(4-formyl phenyl) amine loaded MCM-41, (d) 2-aminothiophenol grafted *tris*(4-formyl phenyl) amine MCM-41 and (e) **MCM-Pd**



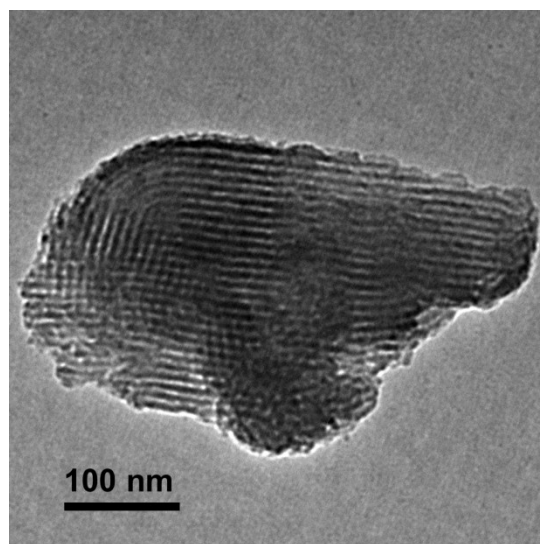
**Fig. s2.** FT-IR spectra of (a) calcined SBA-15, (b) 3-APTES functionalized SBA-15, (c) *tris*(4-formyl phenyl) amine loaded SBA-15, (d) 2-aminothiophenol grafted *tris*(4-formyl phenyl) amine SBA-15 and (e) **SBA-Pd**



**Fig. s3.** Thermogravimetric analysis of (a) calcined MCM-41, (b) 3-APTES functionalized MCM-41 and (c) *tris*(4-formyl phenyl) amine loaded MCM-41



**Fig. s4.** Thermogravimetric analysis of (a) calcined SBA-15, (b) 3-APTES functionalized SBA-15 and (c) *tris*(4-formyl phenyl) amine loaded SBA-15



**Fig. s5.** TEM image of SBA-Pd after three reaction cycles

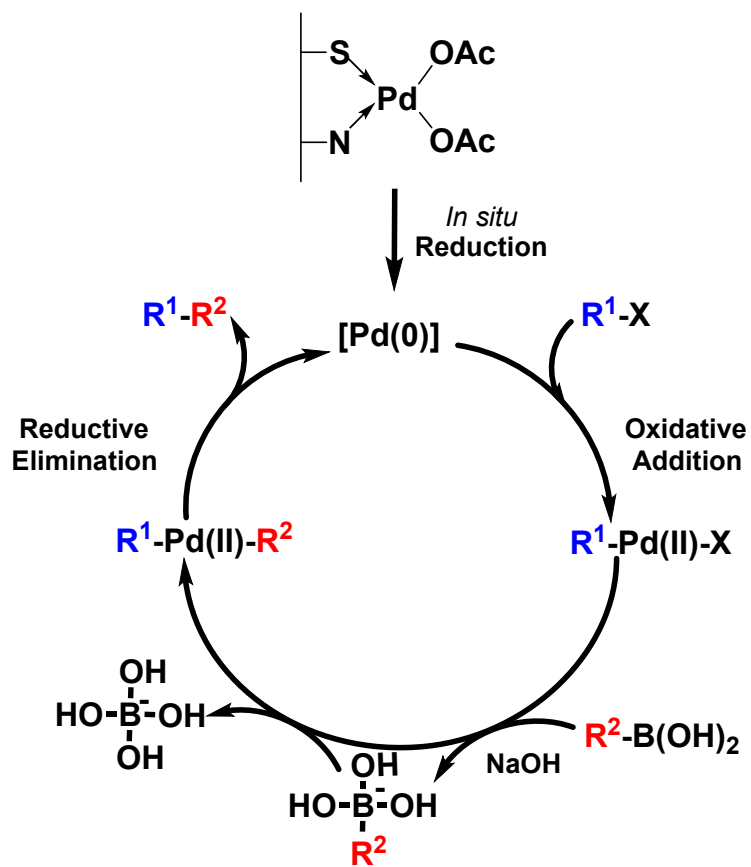


Fig. s6. Mechanism of Suzuki coupling reaction\*

\*(i) P. Veerakumar, P. Thanasekaran, K.-L. Lu, S.-B. Liu and S. Rajagopal, ACS Sustainable Chem. Eng., 2017, 5, 6357. (ii) C. Len, S. Bruniaux, F. Delbecq, V. S. Parmar, Catalysts, 2017, 7, 146 (1-23).

# <sup>1</sup>H NMR of *tris*(4-formyl phenyl) amine

Tris(4-formyl phenyl)amine. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 9.88 (s, 3H), 7.76-7.78 (d, 6H), 7.17-7.19 (d, 6H)



Current Data Parameters  
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EXPNO 16  
PROCNO 1

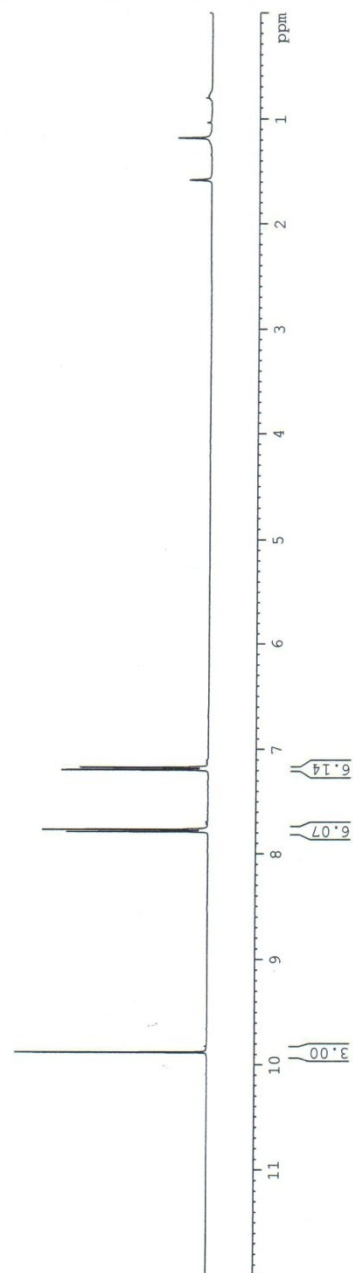
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PULPROG zg30  
TD 32768  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 186.42  
DW 60.800 usec  
DE 6.50 usec  
TE 292.0 K  
D1 1.00000000 sec  
TD0 1

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NUC1 1H  
P1 14.75 usec  
PLW1 12.00000000 W

F2 - Processing parameters  
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WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

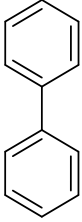
7.173  
7.177  
7.190  
7.194  
7.194  
7.767  
7.771  
7.784  
7.788

9.879



# <sup>1</sup>H NMR of Biphenyl

Biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 7.39–7.43 (m, 2H), 7.48–7.53 (m, 4H), 7.65–7.68 (m, 4H)



7.680  
7.676  
7.659  
7.657  
7.528  
7.527  
7.509  
7.489  
7.436  
7.431  
7.413  
7.395



Current Data Parameters  
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EXPNO 102  
PROCNO 1

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PULPROG zg30  
TD 32768  
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DS 2  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
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RG 54.07  
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D1 1.00000000 sec  
TDO 1

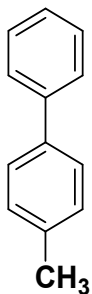
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PLW1 12.00000000 W

F2 - Processing parameters  
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SSB 0  
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GB 0  
PC 1.00

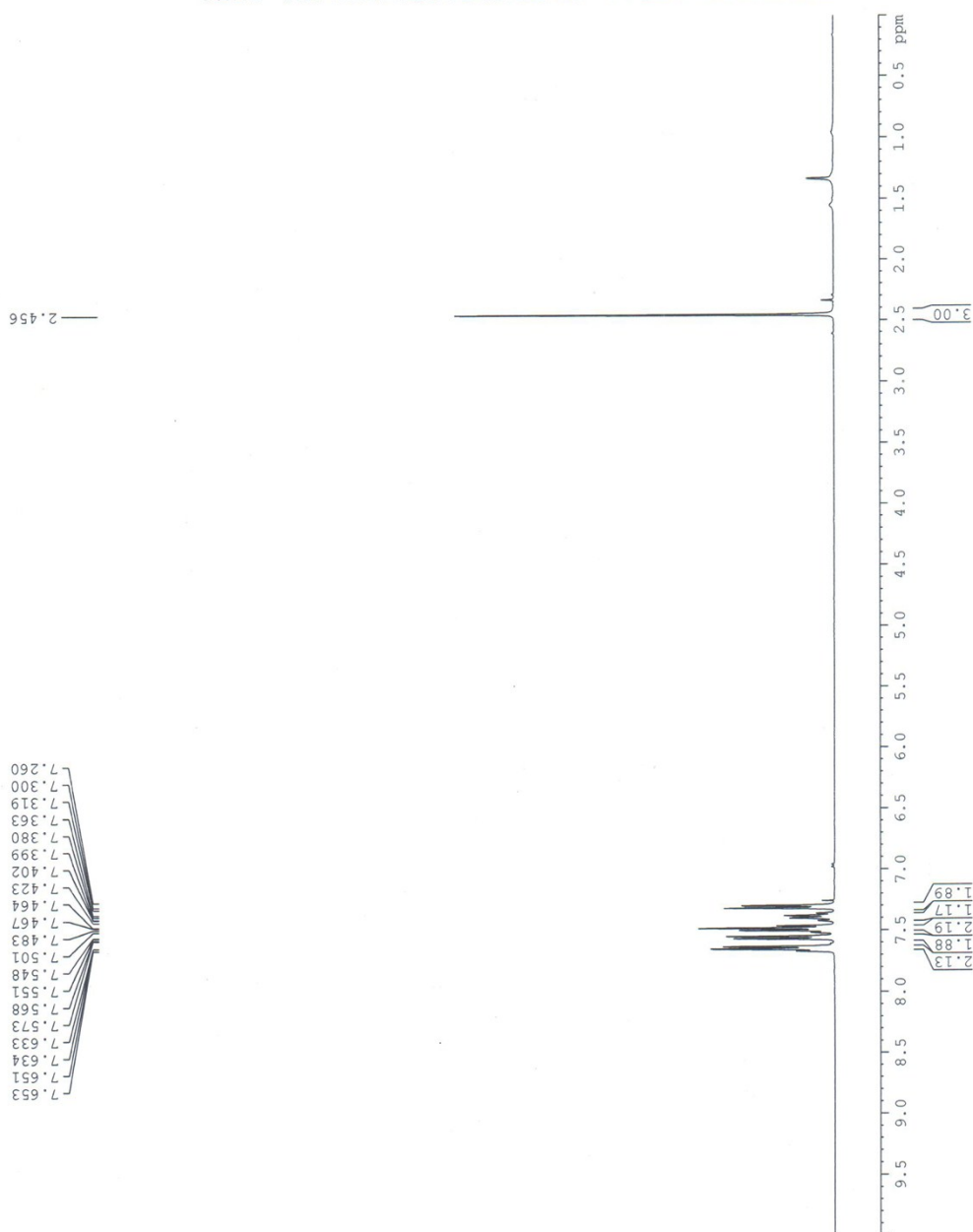


# <sup>1</sup>H NMR of 4-methyl-1,1'-biphenyl

4-methyl-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 2.45 (s, 3H), 7.30–7.31 (d, 2H), 7.40 (m, 1H), 7.46-7.50 (t, 2H), 7.54-7.57(d, 2H), 7.63-7.65 (d, 2H)



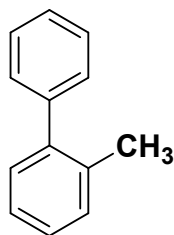
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SOLVENT CDCl3  
NS 16  
DS 2  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 47.25  
DW 60.800 usec  
DE 6.50 usec  
TE 297.9 K  
D1 1.00000000 sec  
TD0 1  
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PLW1 12.00000000 W  
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LB 0.30 Hz  
GB 0  
PC 1.00





# <sup>1</sup>H NMR of 2-methyl-1,1'-biphenyl

2-methyl-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 2.338 (s, 3H), 7.26–7.32 (m, 4H), 7.37-7.41 (m, 3H), 7.45-7.49 (t, 2H)

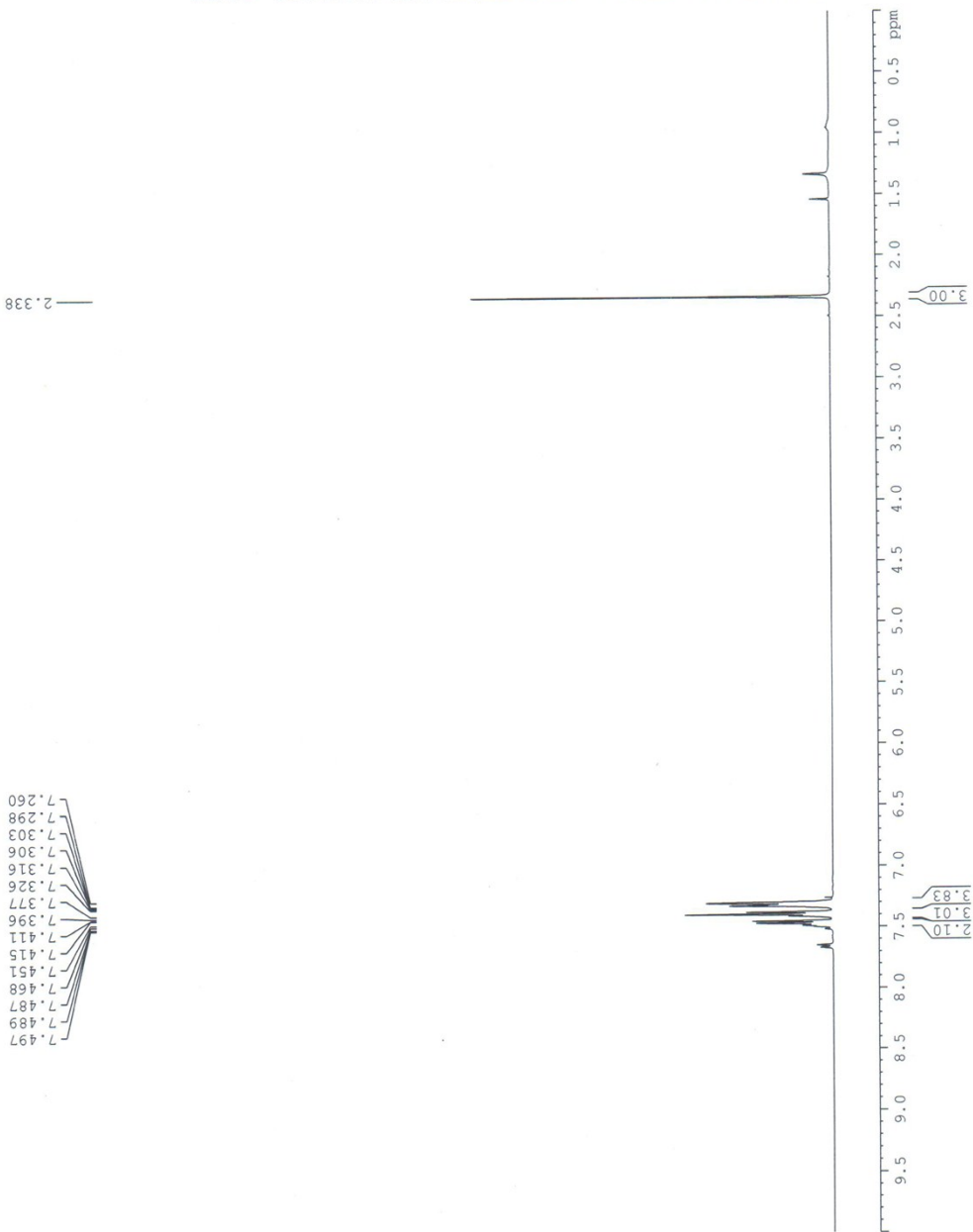


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PROCNO 1

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DS 2  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
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RG 47.25  
DW 60.800 usec  
DE 6.50 usec  
TE 297.9 K  
D1 1.0000000 sec  
TD0 1

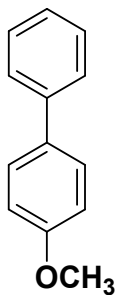
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F2 - Processing parameters  
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SF 400.1500095 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



# <sup>1</sup>H NMR of 4-methoxy-1,1'-biphenyl

4-methoxy-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 3.85 (s, 3H), 6.97 (d, 2H), 7.28 (t, 1H), 7.36 (t, 2H), 7.52–7.56 (m, 4H)

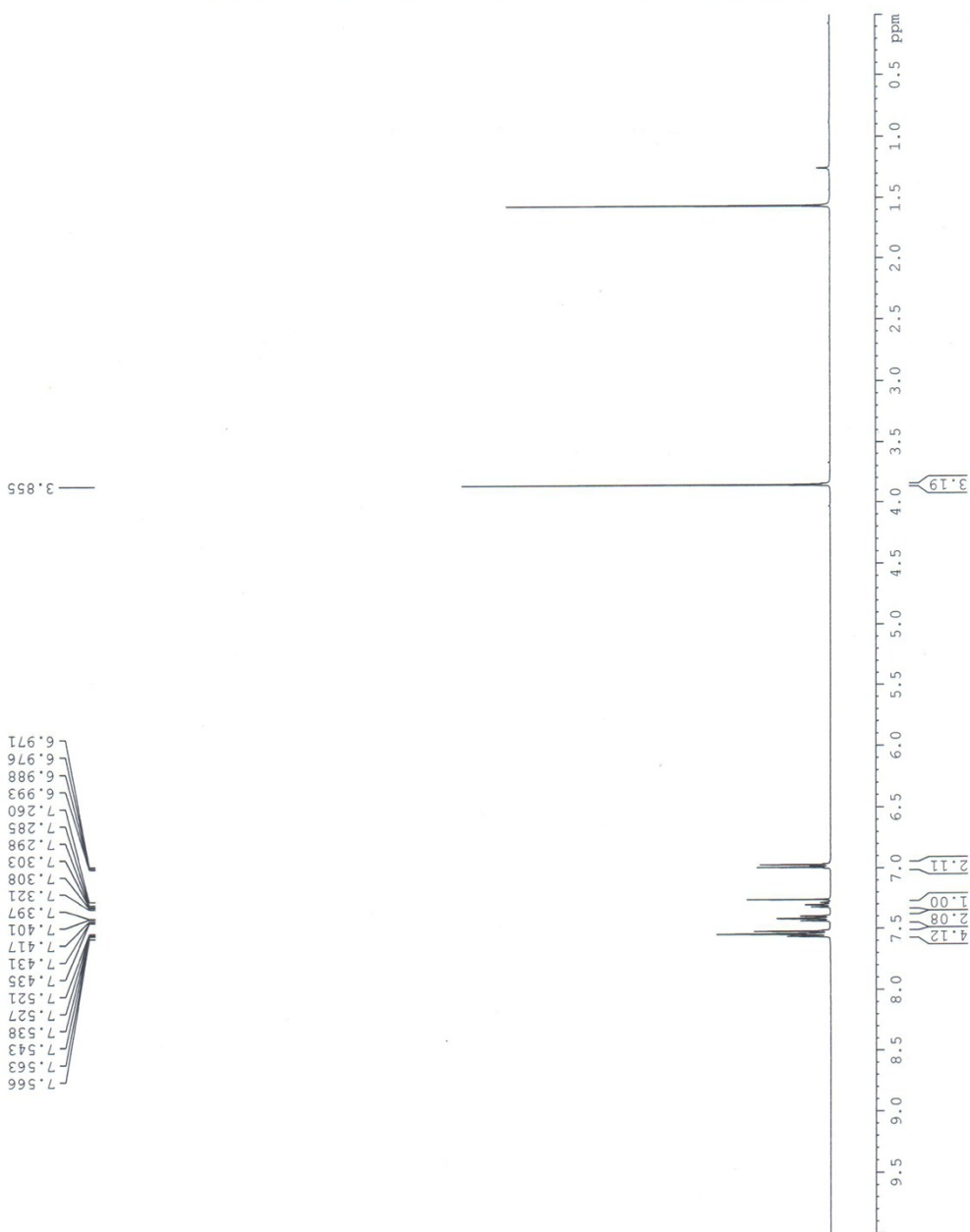


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DS 2  
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FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 168.31  
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TDO 1

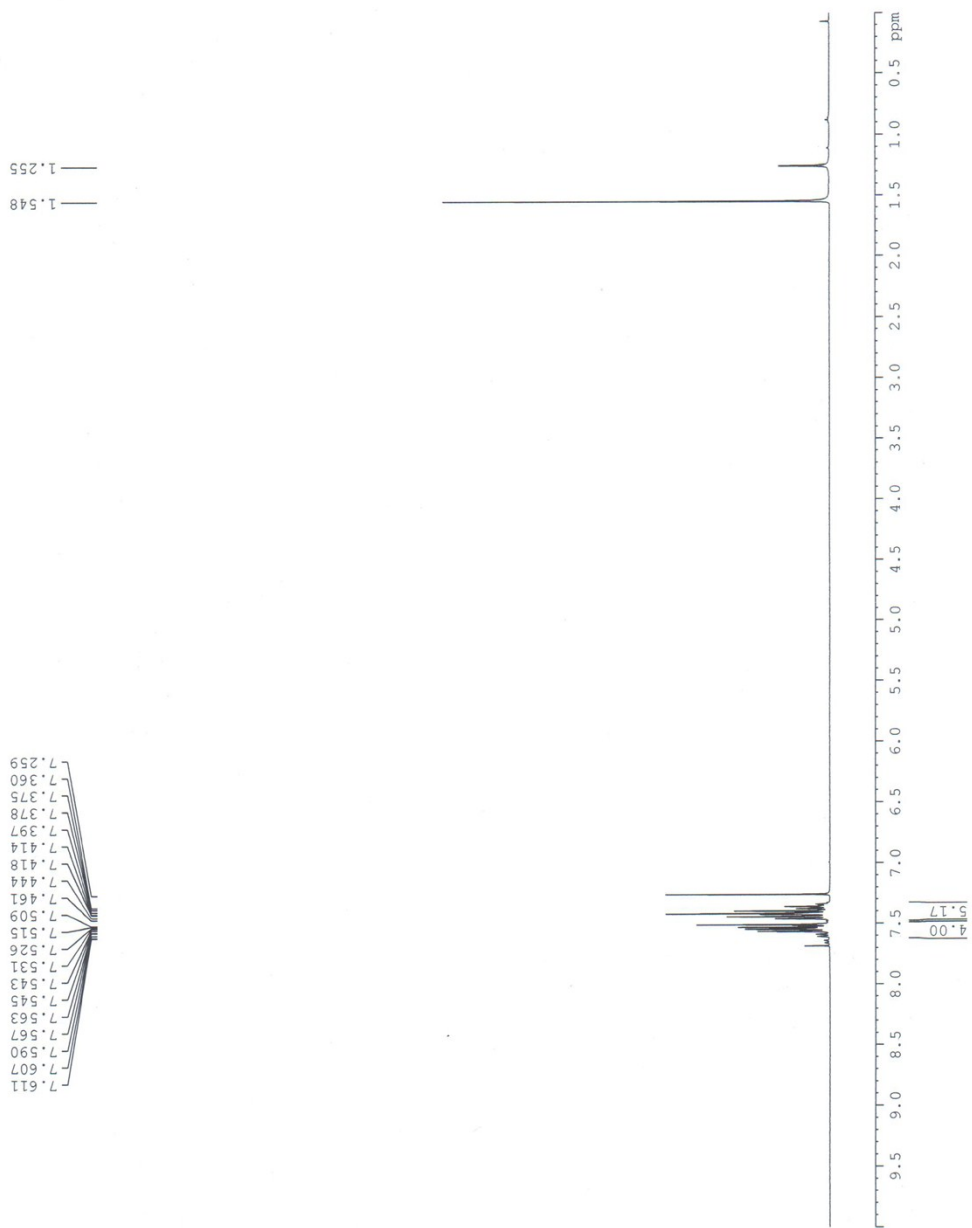
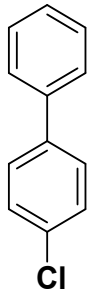
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F2 - Processing Parameters  
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WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



# <sup>1</sup>H NMR of 4-chloro-1,1'-biphenyl

4-chloro-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 7.26-7.46 (m, 5H), 7.51-7.61 (m, 4H)



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EXPNO 140  
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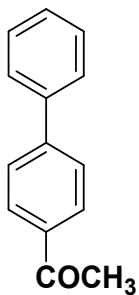
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SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 168.31  
DW 60.800 usec  
DE 6.50 usec  
TE 298.0 K  
DI 1.00000000 sec  
TDO 1

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

F2 - Processing parameters  
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SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

# <sup>1</sup>H NMR of 4-acetyl-1,1'-biphenyl

4-acetyl-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 2.64 (s, 3H), 7.40-7.49 (m, 3H), 7.61-7.64 (m, 2H), 7.67-7.70 (d, 2H), 8.05 (d, 2H)

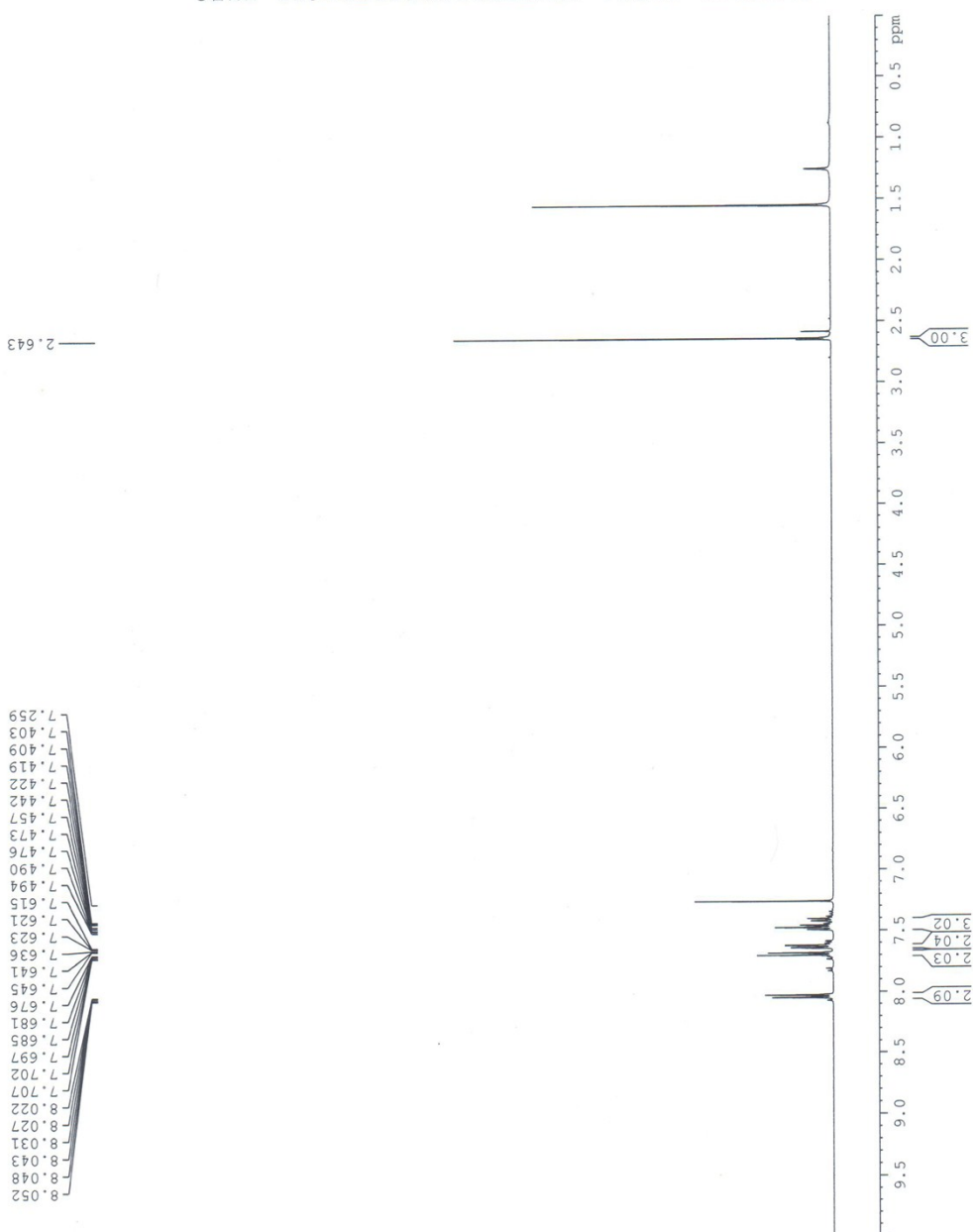


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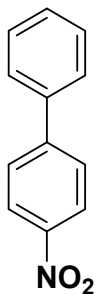
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WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



# <sup>1</sup>H NMR of 4-nitro-1,1'-biphenyl

4-nitro-1,1'-biphenyl. <sup>1</sup>H NMR (CDCl<sub>3</sub>) δ 8.30 (d, 2H), 7.72-7.75 (d, 2H), 7.62-7.64 (m, 2H), 7.47-7.52 (m, 2H), 7.44 (m, 1H)



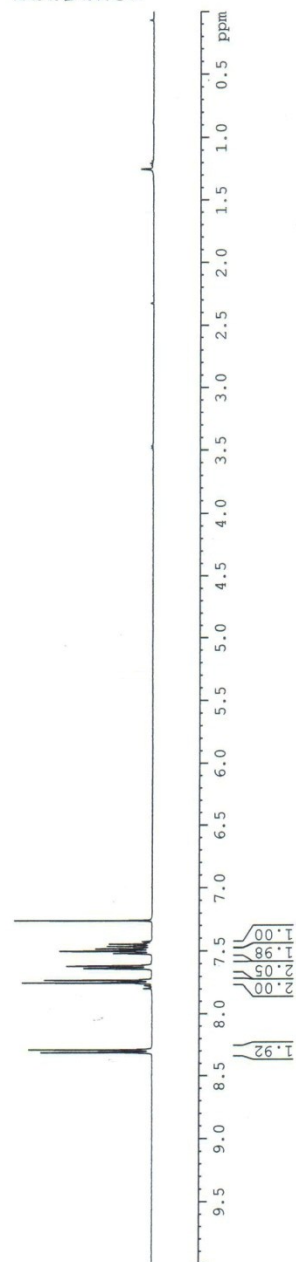
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DS 2  
SWH 8223.685 Hz  
FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 168.31  
DW 60.800 usec  
DE 6.50 usec  
TE 298.2 K  
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PLW1 12.0000000 W

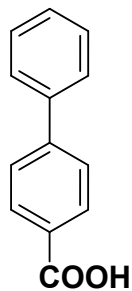
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PC 1.00

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7.752  
7.747  
7.729  
7.640  
7.636  
7.622  
7.618  
7.617  
7.518  
7.501  
7.497  
7.482  
7.463  
7.446  
7.259



# <sup>1</sup>H NMR of 1,1'-biphenyl-4-carboxylic acid

4-COOH substituted biphenyl. <sup>1</sup>H NMR (DMSO-d<sub>6</sub>) δ 13.07 (s, 1H), 8.07-8.12 (d, 2H), 7.85-7.87 (d, 2H), 7.81 (m, 1H), 7.72 (m, 1H), 7.52-7.58 (t, 2H), 7.38 (t, 1H)



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PROCNO 1

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FIDRES 0.250967 Hz  
AQ 1.9922944 sec  
RG 186.42  
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DE 6.50 usec  
TE 291.9 K  
D1 1.00000000 sec  
TD0 1

=====  
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NUC1 1H  
P1 14.75 usec  
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GB 0  
PC 1.00

