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

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**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*

$^1$H NMR of tri$(4$-formyl phenyl) amine

Tris$(4$-formyl phenyl)amine. $^1$H NMR (CDCl$_3$) δ 9.88 (s, 3H), 7.76-7.78 (d, 6H), 7.17–7.19 (d, 6H)
$^1$H NMR of Biphenyl

Biphenyl. $^1$H NMR (CDCl$_3$) $\delta$ 7.39–7.43 (m, 2H), 7.48–7.53 (m, 4H), 7.65–7.68 (m, 4H)
$^1\text{H NMR of 4-methyl-1,1'-biphenyl}$

4-methyl-1,1'-biphenyl. $^1\text{H NMR (CDCl}_3$) $\delta$ 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)
$^1$H NMR of 2-methyl-1,1'-biphenyl

2-methyl-1,1'-biphenyl. $^1$H NMR (CDCl$_3$) δ 2.338 (s, 3H), 7.26–7.32 (m, 4H), 7.37-7.41 (m, 3H), 7.45-7.49 (t, 2H)
1\textsuperscript{H} NMR of 4-methoxy-1,1'-biphenyl

4-methoxy-1,1'-biphenyl. 1\textsuperscript{H} NMR (CDCl\textsubscript{3}) δ 3.85 (s, 3H), 6.97 (d, 2H), 7.28 (t, 1H), 7.36 (t, 2H), 7.52–7.56 (m, 4H)
$^1$H NMR of 4-chloro-1,1'-biphenyl

4-chloro-1,1'-biphenyl. $^1$H NMR (CDCl$_3$) $\delta$ 7.26-7.46 (m, 5H), 7.51-7.61 (m, 4H)
$^1$H NMR of 4-acetyl-1,1'-biphenyl

4-acetyl-1,1'-biphenyl. $^1$H NMR (CDCl$_3$) $\delta$ 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)
$^1$H NMR of 4-nitro-1,1'-biphenyl

4-nitro-1,1'-biphenyl. $^1$H NMR (CDCl$_3$) $\delta$ 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)
$^1$H NMR of 1,1'-biphenyl-4-carboxylic acid

4-COOH substituted biphenyl. $^1$H NMR (DMSO-d$_6$) $\delta$ 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)