Electronic Supplementary Information for

Magnetic core-shell-structured nanoporous organosilica microspheres for the Suzuki-Miyaura coupling of aryl chlorides: Improved catalytic activity and facile catalyst recovery

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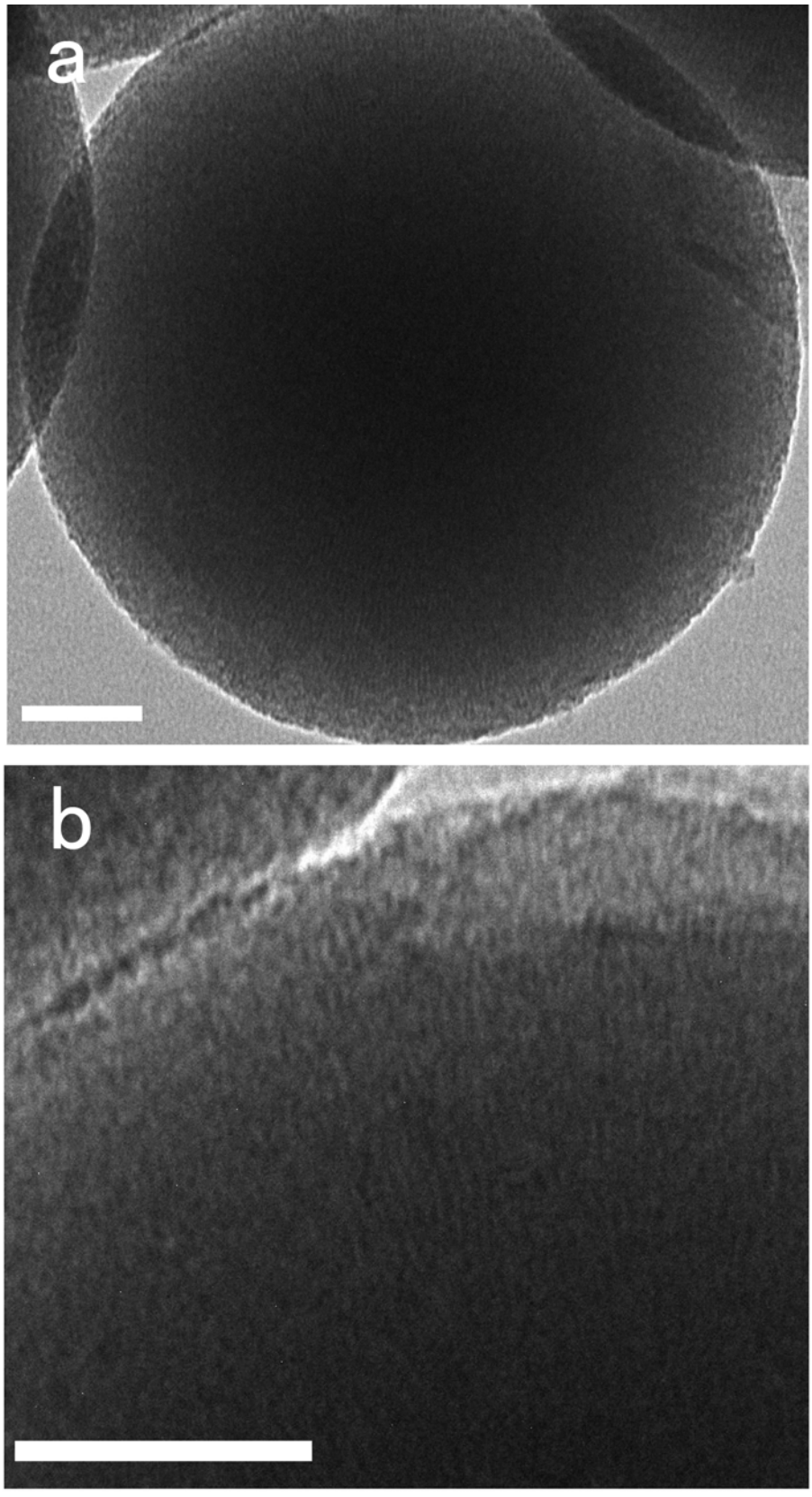

Fig S1 The TEM image of NHC-functionalized MCM-41 microspheres. The bar is 50 nm.

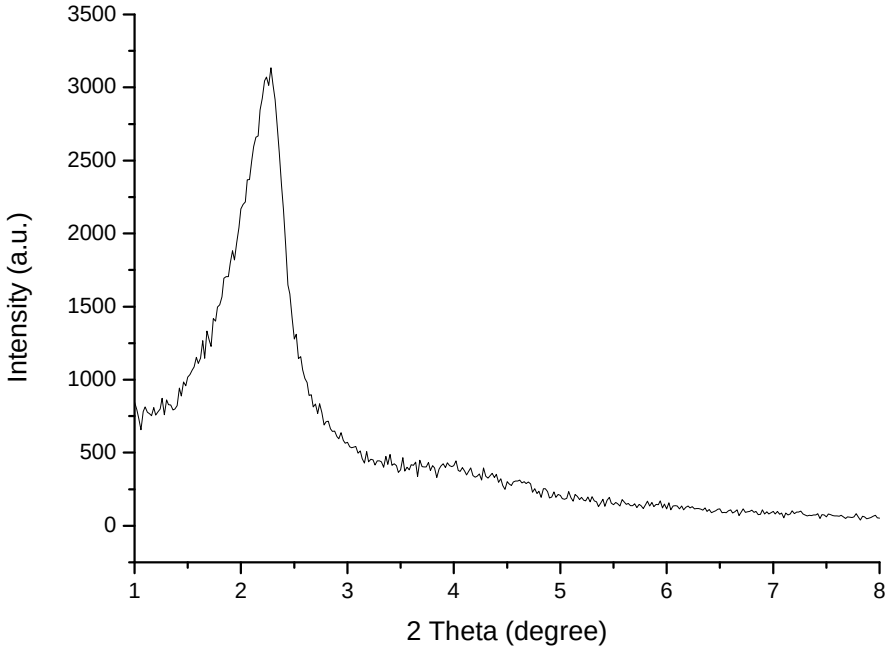

Fig. S2 XRD pattern of NHC-functionalized MCM-41 microspheres


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Fig. S3 Photograph of isolating Fe_3O_4@mSiO_2-NHC(1) after reaction by employing an external field.

The ^{1}H NMR data for the coupling products:

biphenyl ($CDCl_3$, 300 MHz, ppm): δ 7.57 (d, 4 H, J=9 Hz), 7.41-7.46 (m, 4H), 7.34 (t, 2 H, J=7.5 Hz); **4-methylbiphenyl** ($CDCl_3$, 300 MHz, ppm): 7.59 (d, 2 H, J=6 Hz), 7.24-7.57 (m, 7 H), 2.40(s, 3 H); **2-Methylbiphenyl** ($CDCl_3$, 300 MHz, ppm): 7.11-7.26 (m, 9 H); 2.15 (s, 3 H); **4-fluorobiphenyl** (CDCl3, 300 MHz, ppm): 7.50-7.53 (m, 4 H); 7.40-7.420 (m, 2 H); 7.32-7.33 (m, 1 H), 7.08-7.12 (m, 2 H); **4-trifluoromethylbiphenyl** (CDCl3, 300 MHz, ppm): 7.62 (s, 4 H), 7.51-7.54 (d, J = 6.9 Hz, 2 H), 7.30-7.42 (m, 3 H); **4-^{t}butylbiphenyl** (CDCl3, 300 MHz, ppm): 7.16-7.46 (m, 9 H), 1.19 (s, 9 H); **1-phenylnaphthalene** (CDCl3, 300 MHz, ppm): 7.28-7.38 (m, 8 H); 7.68-7.47 (m, 4 H); **diphenylmethane** ($CDCl_3$, 300 MHz, ppm): 7.14-7.25 (m, 10 H), 3.93 (s, 2 H); ***p*-benzyltoluene** ($CDCl_3$, 300 MHz, ppm): 6.96-7.14 (m, 9 H), 3.80 (s, 2 H), 2.18 (s, 3 H); ***o*-benzyltoluene** ($CDCl_3$, 300 MHz, ppm): 6.98-7.13 (m, 9 H), 3.84 (s, 2 H), 2.10 (s, 3 H); ***p*-benzylanisole** ($CDCl_3$, 300 MHz, ppm): 6.93-7.11 (m, 7 H), 6.93-7.11); ***o*-benzylanisole** ($CDCl_3$, 300 MHz, ppm): 7.03-7.15 (m, 6 H), 6.92-6.95 (m, 1 H), 6.68-6.76 (m, 2 H), 3.86 (s, 2 H), 3.62 (s, 3 H);**1-benzyl-4-trifluoromethyl methane** ($CDCl_3$, 300 MHz, ppm): 7.36-7.39 (m, 2 H), 7.01-7.16 (m, 2 H), 3.85 (s, 2 H); **1-benzylnaphthalene** ($CDCl_3$, 400 MHz, ppm): 7.19-7.98 (m, 12 H), 4.35 (s, 2 H).