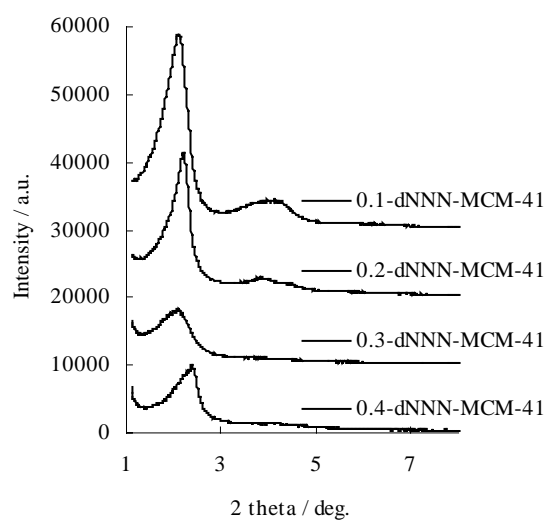
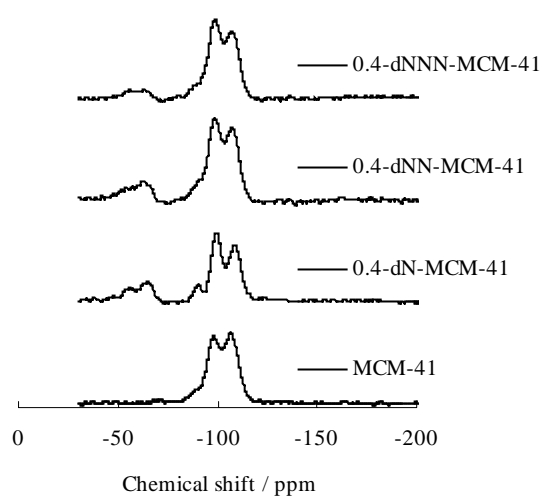


(A) x-dNN-MCM-41

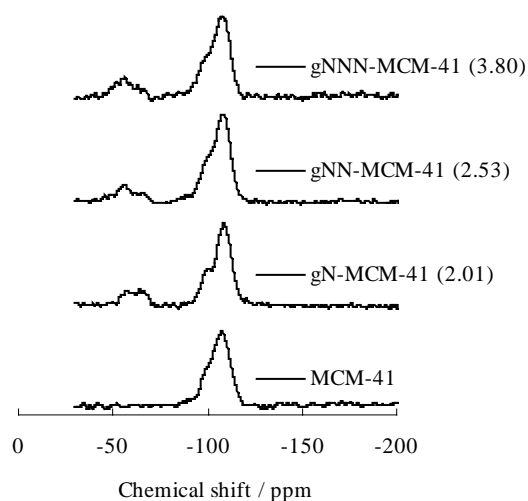


(B) x-dNNN-MCM-41

Fig. S1 XRD patterns of (A) x-dNN-MCM-41 and (B) x-dNNN-MCM-41 after the extraction of the surfactant; where x was the proportion of the NN or NNN silanes in the Si sources.



(A) Direct co-condensation method



(B) Post-synthesis grafting method

Fig. S2 ^{29}Si MAS NMR spectra of amino-functionalized MCM-41 samples via direct co-condensation method (A): the surfactant-extracted MCM-41, and 0.4-dN-MCM-41, 0.4-dNN-MCM-41 and 0.4-dNNN-MCM-41, and via post-synthesis grafting method (B): the calcined MCM-41, and gN-MCM-41, gNN-MCM-41 and gNNN-MCM-41 under maximum level for silylations, where numbers in parentheses are fixed amino groups / $\text{mmol}\cdot\text{g}^{-1}$ (See Table 2).