Electronic supplementary information (ESI)

A simple one-pot route to synthesize mesoporous silicas SBA-15 functionalized with exceptional high loadings of pendant carboxylic acid groups

Chung-Ta Tsai,[a] Yu-Chi Pan,[a] Chun-Chiang Ting,[a] Shanmugam Vetrivel,[a] Anthony S. T. Chiang,[b] George T. K. Fey[b] and Hsien-Ming Kao[a,*]

[a]*Department of Chemistry, National Central University, Chung-Li, Taiwan 32054, R.O.C.*

[b]*Department of Chemical and Materials Engineering, National Central University, Chung-Li, Taiwan 32054, R.O.C.*

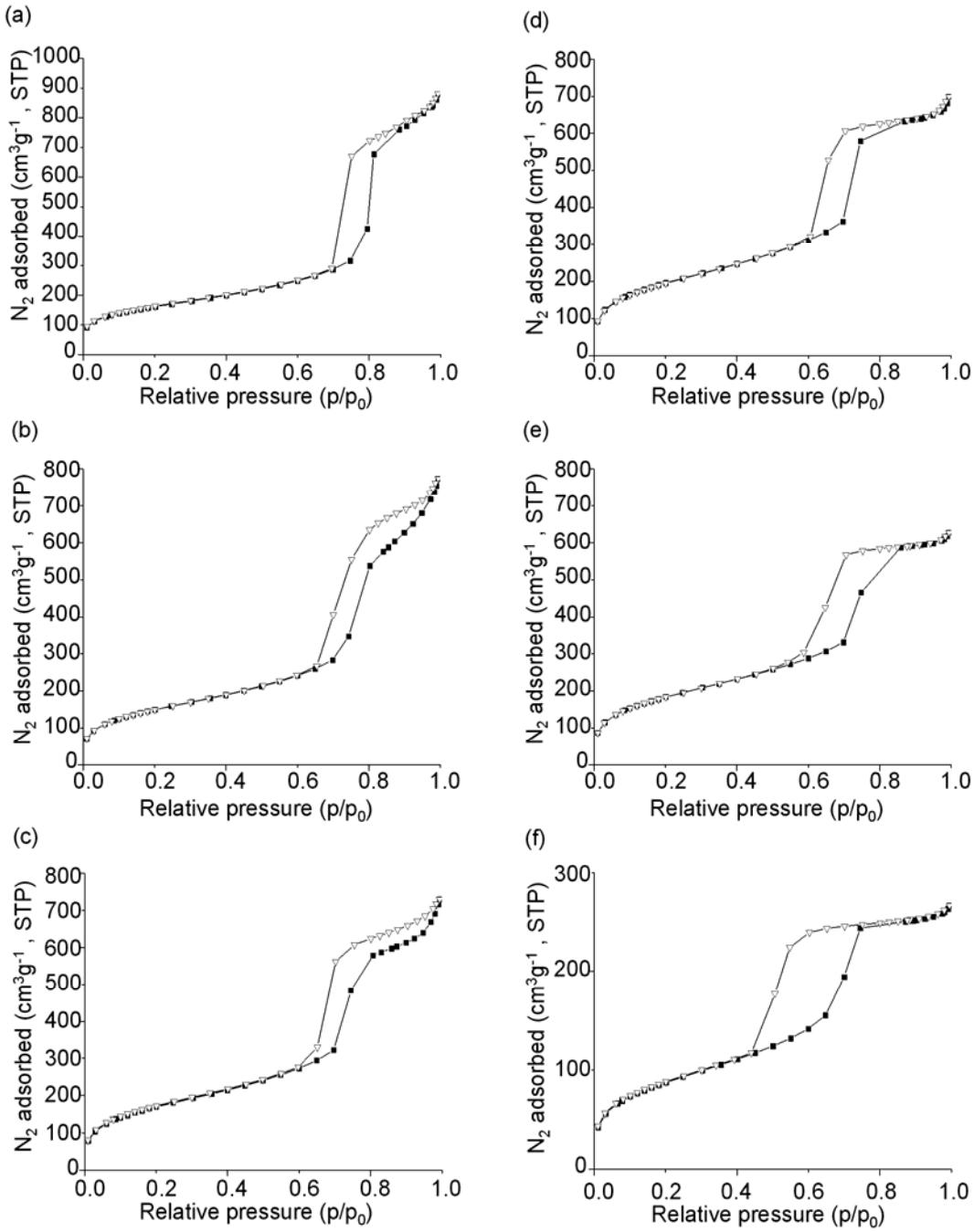

Fig. S1 N_2 adsorption-desorption isotherms of CAR-*x*, *x* = (a) 0, (b) 20, (c) 30, (d) 40, (e) 50, and (f) 60.

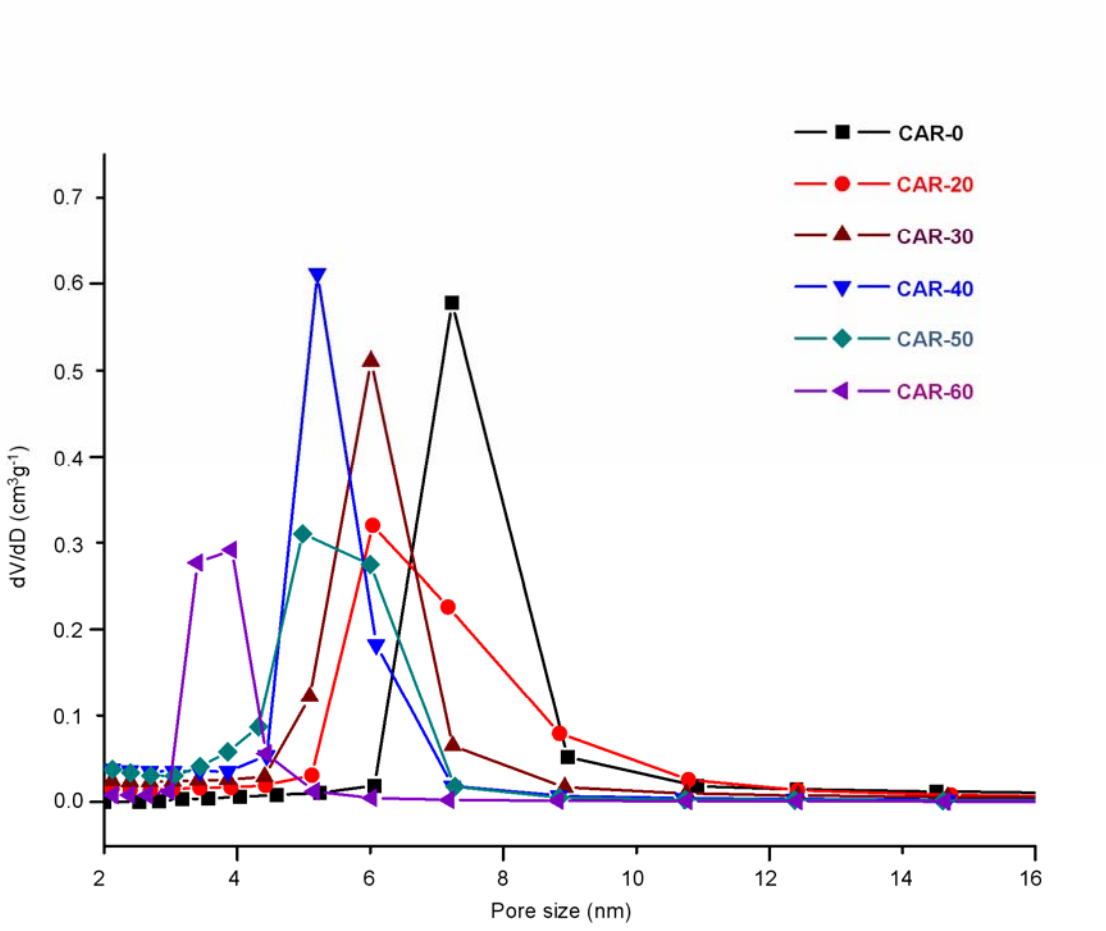

Fig. S2 Pore size distribution curves of CAR-*x*, where *x* ranges from 0 to 60.

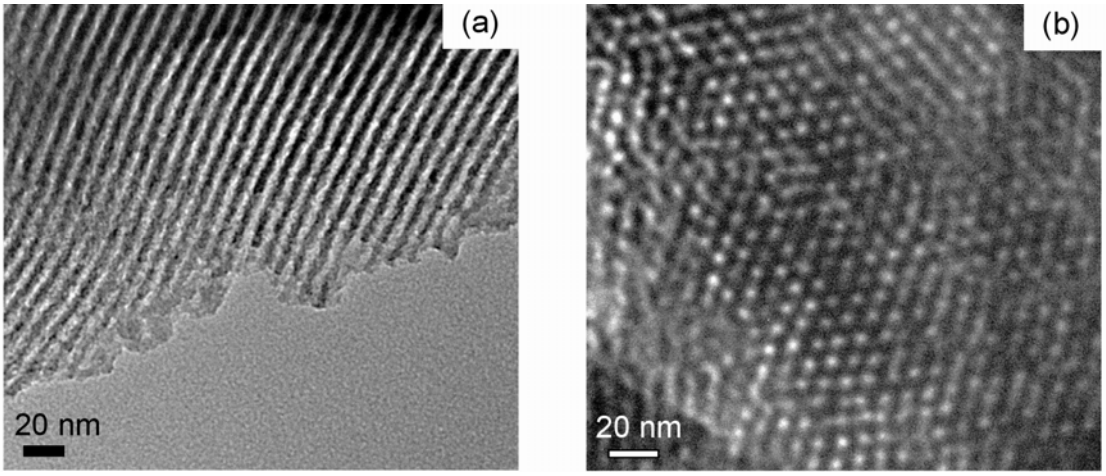

Fig. S3 TEM images of template-extracted CAR-60: (a) in the direction perpendicular to the pore axis and (b) in the direction of the pore axis.

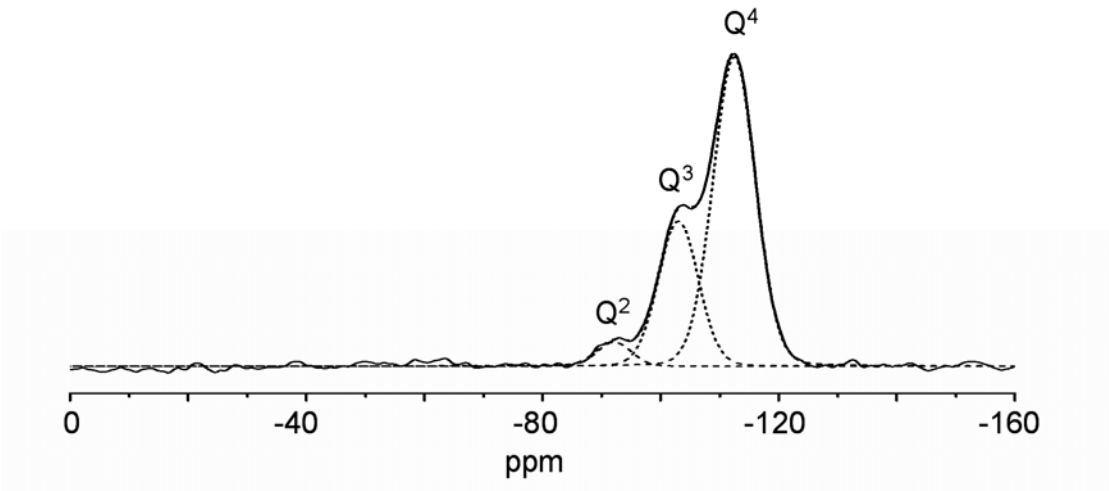

Fig. S4 ^{29}Si MAS NMR spectrum of CAR-0. The dashed lines represent the components used for the spectral deconvolution. The Q^2:Q^3:Q^4 ratio is 4:29:67.