Supporting Information

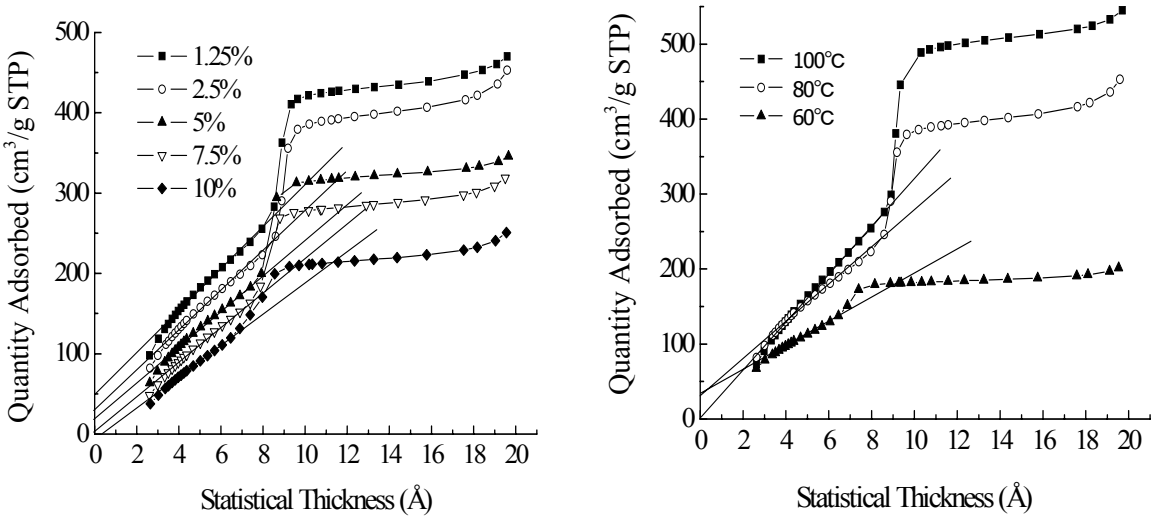

Fig. S1 ***t*-plot of the hybrid samples synthesized with different initial SiW_{11} concentrations (left, aged at 80℃) and different aging temperatures (right, 5% of initial SiW_{11} concentration). The prehydrolysis time for all the samples was 2 h.**

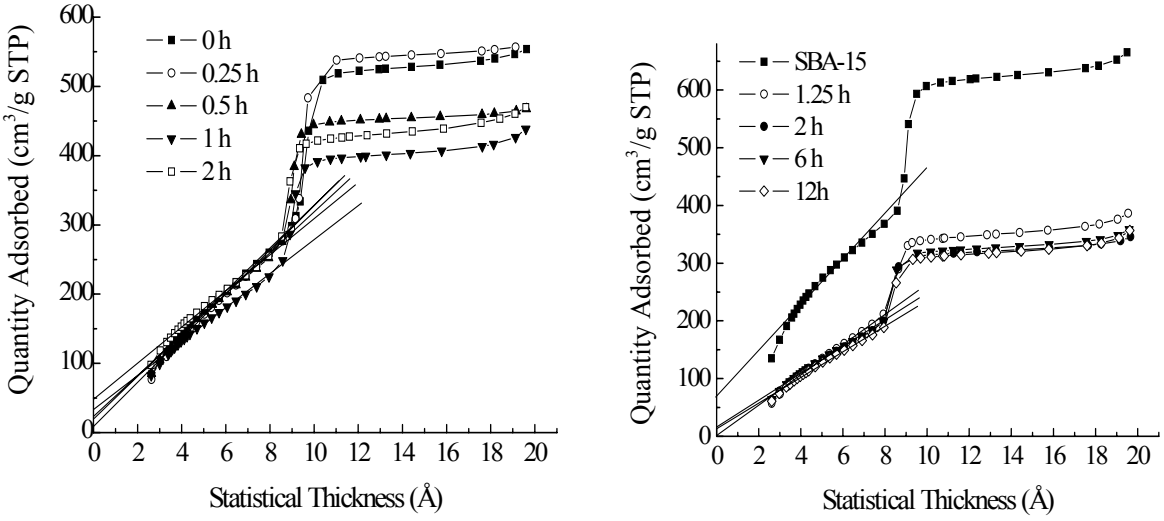

Fig. S2 ***t*-plot of 1.25%SiW_{11}/MHS (left) and 5%SiW_{11}/MHS (right, except pure SBA-15) synthesized using different prehydrolysis time. All of the samples were aged at 80℃.**

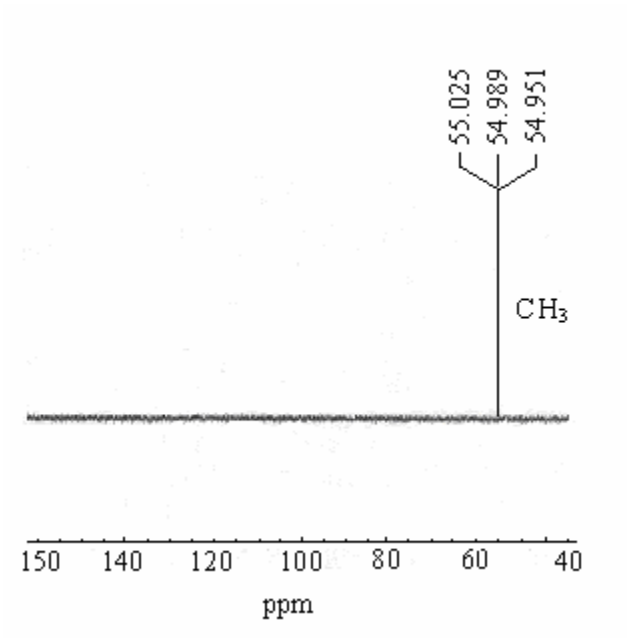

Fig. S3 DEPT 135 spectra of $SiW_{11}Si_2$ (TMA salt)

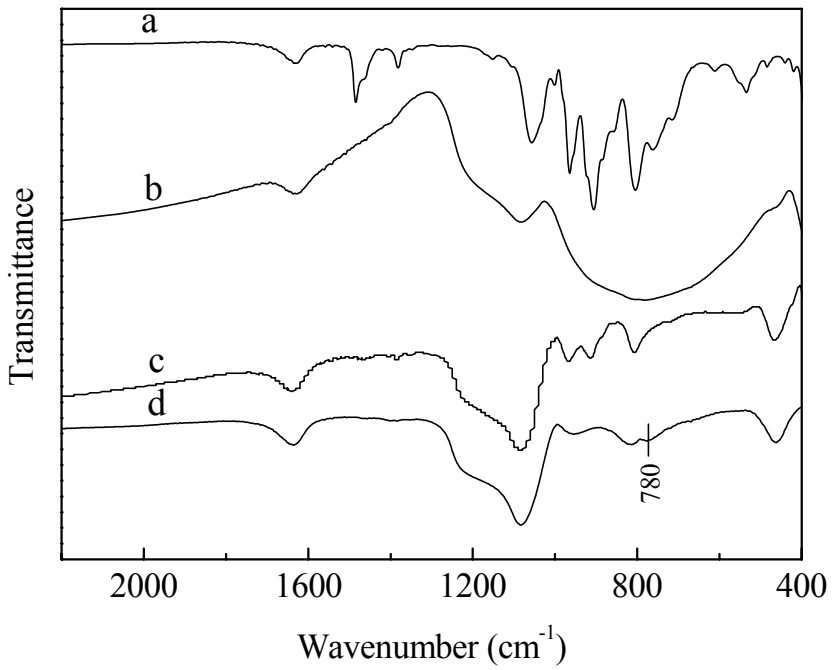

Fig. S4 IR spectra of (a) $SiW_{11}Si_2$ (TBA salt) before calcined at 500℃, (b) calcining (a) at 500℃, (c) 5%SiW_{11}/MHS before calcined at 500℃, and (d) calcining (c) at 500℃. Aging temperature and prehydrolysis time for (c) were 80℃ and 2 h, respectively.

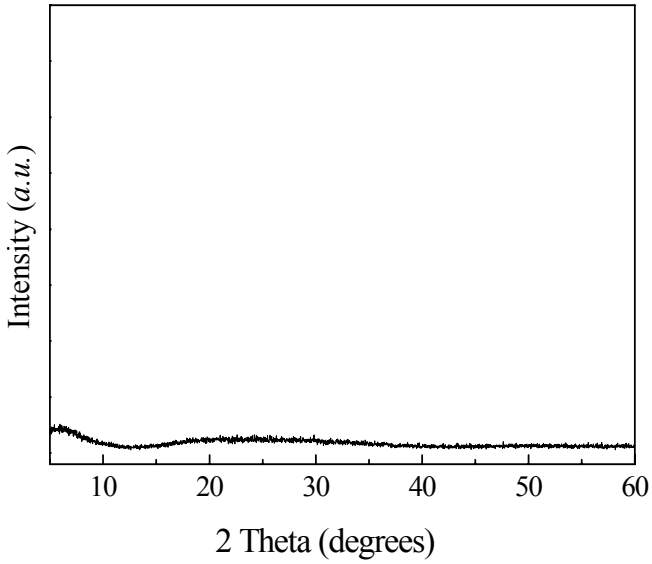

Fig. S5 Broad-angle XRD pattern of 10%SiW_{11}/MHS synthesized using prehydrolysis time of 2 h and aged at 80℃.

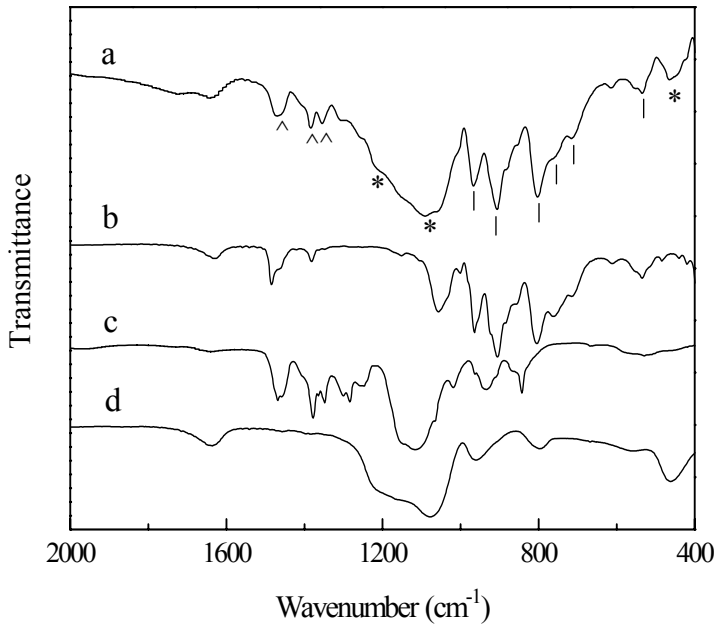

Fig. S6 IR spectra of (a) viscous solid formed at 0.25 h of prehydrolysis time in the synthesis of 5%SiW_{11}/MHS (Peaks for component $SiW_{11}Si_2$ is marked by " | ", for SiO_2 is marked by "*" and for P123 is marked by "^"), (b) $SiW_{11}Si_2$ (TBA salt), (c) P123, and (d) pure SBA-15.