Supporting Information

Template synthesis of hierarchically structured MFI zeolite with nanosheet frameworks and tailored structure

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**Figure.** S1 IR spectra of calcined samples synthesized using (a) C\textsubscript{6}-6-diphe, (b) C\textsubscript{6}-10-diphe, (c) C\textsubscript{6}-12-diphe, (d) C\textsubscript{4}-10-diphe and (e) C\textsubscript{8}-10-diphe surfactants.

**Figure.** S2 TGA curve of as-synthesized MFI zeolite nanosheet with C\textsubscript{6}-10-diphe surfactant.
Figure. S3 $^{27}$Al MAS NMR spectra of (a) as-synthesized and (b) calcined MFI zeolite nanosheet obtained with C$_{6-12}$-diphe surfactant.

Figure. S4 (a) Optimized structure and (b) molecular electrostatic potential map of the C$_{6-12}$-diphe surfactant (atom legend: white = H; gray = C; blue = N; red = O).