Electronic Supplementary Information
For

NJC

Preparation and characterization of Ti supported bimodal mesoporous catalysts using a self-assembly route combined with a ship-in-a-bottle method

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Figure S1. FT-IR spectra of Ti supported ILBMMs.

Figure S2. Diffusion reflectance UV–vis spectra Ti supported ILBMMs.

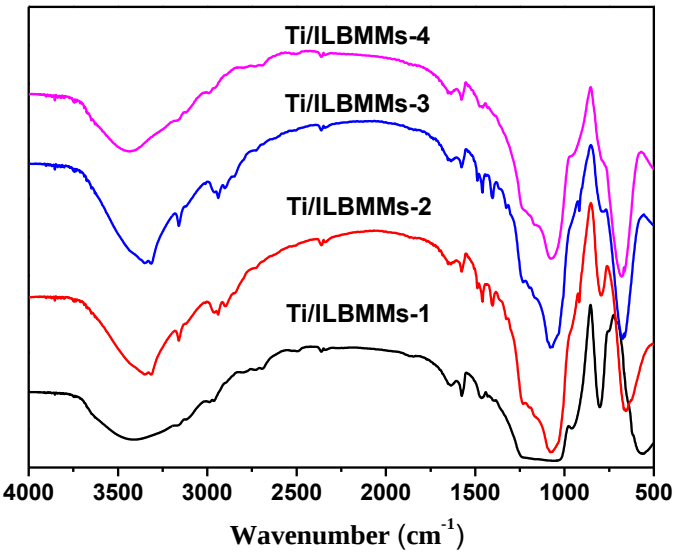

Figure S1. FT-IR spectra of Ti supported ILBMMs.

As seen in Figure S1, FT-IR spectra of all samples reveal almost same feature as that of ILBMMs, in other words, the bands at 2950 cm^{-1}, 2842 cm^{-1}, 1573 cm^{-1}, 1458 cm^{-1}, 1184 cm^{-1}, and 810 cm^{-1} are corresponding to the characteristic absorptions of IL, besides, others at 1085 cm^{-1}, 960 cm^{-1} and 815 cm^{-1} belong to the vibration peaks of the mesoporous framework (Si-O-Si). Notably, the band at 960 cm^{-1} also can be ascribed to the symmetrical stretching vibrations of Si-O-Ti, although this observation cannot be used as the direct evidence of the introduction of Ti.

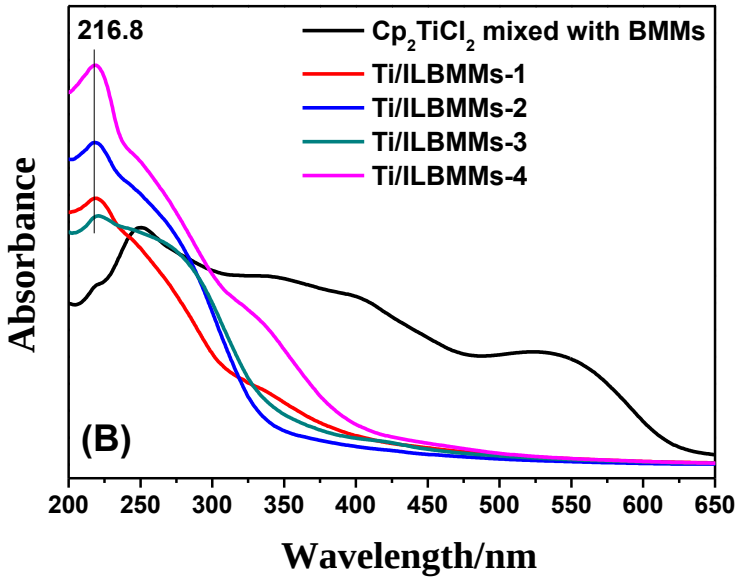

Figure S2. Diffusion reflectance UV–vis spectra Ti supported ILBMMs.

Figure S2 presents the Uv-vis spectra of Ti/ILBMMs samples. As a reference, the Uv-vis spectrum of mixture of Cp_2TiCl_2 with BMMs exhibits a broad adsorption bands, in which the adsorption peaks are centered at λ=250 nm, 420 nm and 550 nm. As compared, the Uv-vis spectra of Ti/ILBMMs samples illustrate that the band at 216.8 nm is attributed to imidazole ring of IL. These observations obviously indicate a strong interaction between IL and Cp_2TiCl_2.