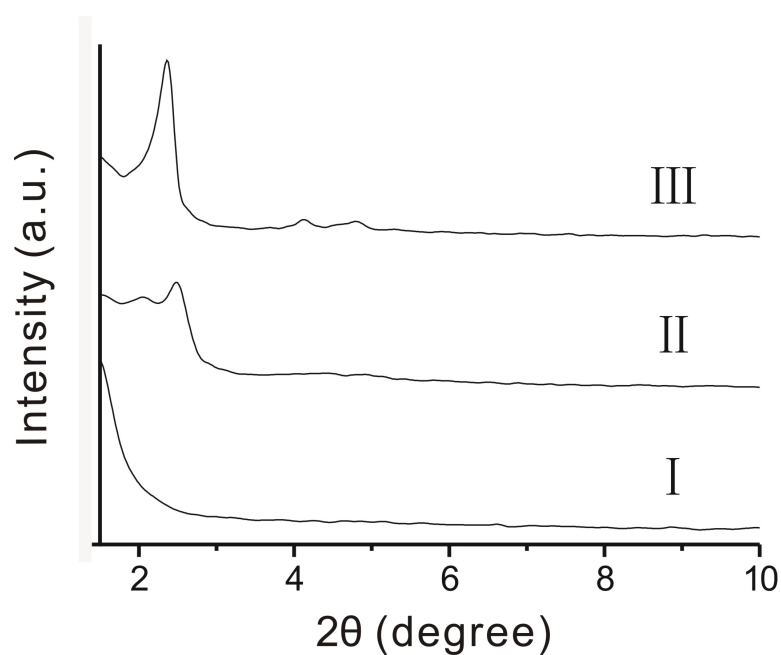


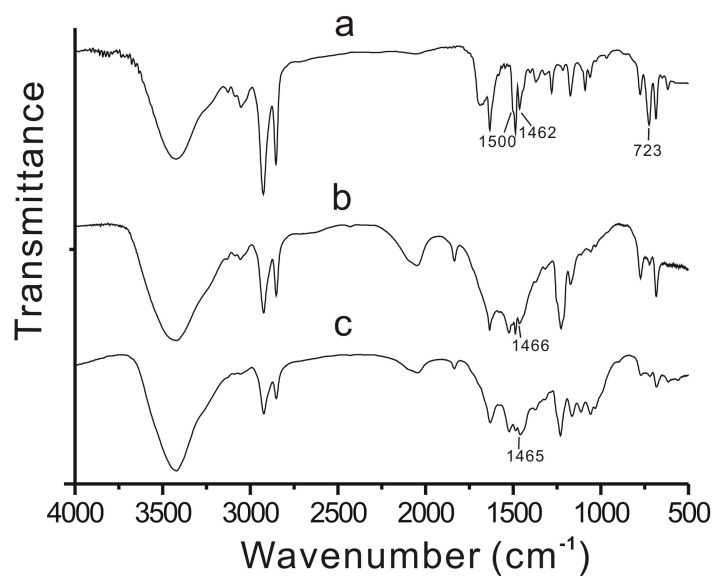
## Supporting Information

### Pyrrole Containing Ionic Liquid as Tecton for Construction of Ordered Mesoporous Silica with Aligned Polypyrrole Nanowires in Channels

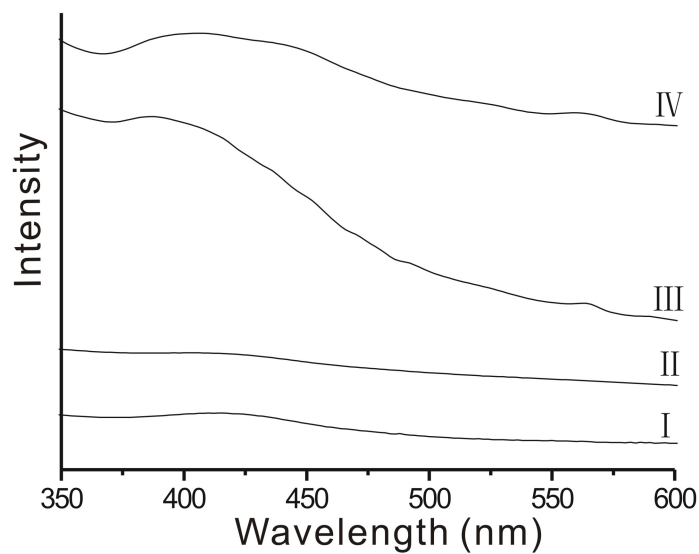
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**Figure S1** XRD patterns of the fabricated Silica using  $\gamma\text{C}_{12}\text{MIM}^+\text{Br}^-$  (III),  $\text{PyC}_{12}\text{MIM}^+\text{BF}_4^-$  (II) and  $\text{PyC}_{12}\text{MIM}^+\text{PF}_6^-$  (I) as structure-directing agent



**Figure S2** FT-IR spectra of (a) pure  $\text{PyC}_{12}\text{Pyr}^+\text{Br}^-$ , (b) polypyrrole resulting from  $\text{PyC}_{12}\text{Pyr}^+\text{Br}^-$  templated silica with hexagonal structure, and (c) polypyrrole resulting from  $\text{PyC}_{12}\text{Pyr}^+\text{Br}^-$  templated silica with worm-like structure



**Figure S3** UV/vis spectra of as synthesized silicas with hexagonal (I) and worm-like (II) structure as well as the corresponding polypyrroles (III and IV) obtained after the polymerization followed by the removal of silica shell using HF, respectively.