Morphology and wettability control of honeycomb porous films of amphiphilic fluorinated pentablock copolymers via breath figure method

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Materials

Poly (ethylene glycol) (PEG$_{2000}$) and Trifluoroethyl methacrylate (TFEMA) were purchased from Aldrich, Methyl methacrylate (MMA), Triethylamine (TEA) and CuCl were purified according to the method reported in preceding studies.$^1$ The chemical reagents, 2-bromopropiomyl bromide(2-BPB), $N,N,N′,N′,N″$-pentamethyldiethylenetriamine (PMDETA), 4-dimethylamiopryidine (DMAP), were used as received without purification. Solvents were dried by standard process.

Polymerization Process

Figure S1. The process for synthesis of Br-PEG-Br.

Figure S2. The process for synthesis of PTFEMA-$b$-PMMA-$b$-PEG-$b$-PMMA-$b$-PTFEMA pentablock copolymer.
Results

Figure S3. The FTIR spectra of the PEG, Br-PEG-Br and the pentablock copolymer.

Figure S4. Spectra of the pentablock copolymers measured in CHCl$_3$. (a) $^1$H NMR, (b) $^{13}$C NMR

Reference