

Supplementary Information

A colorless functional polydopamine thin layer as a basis for polymer capsules

Michinari Kohri,* Hiroto Kohma, Yoshihiro Shinoda, Mitsuaki Yamauchi,
Shiki Yagai, Takashi Kojima, Tatsuo Taniguchi and Keiki Kishikawa

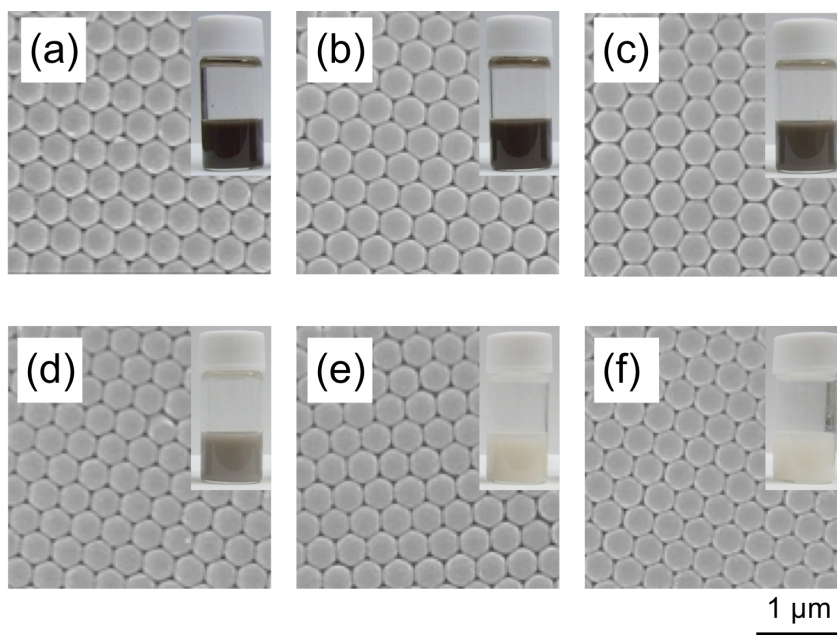


Fig. S1 SEM micrographs of PSt@PDA/BiBB_n core-shell particles with (a) $n=0$, (b) 0.5, (c) 1, (d) 1.5, and (e) 2, and (f) PSt core particles.

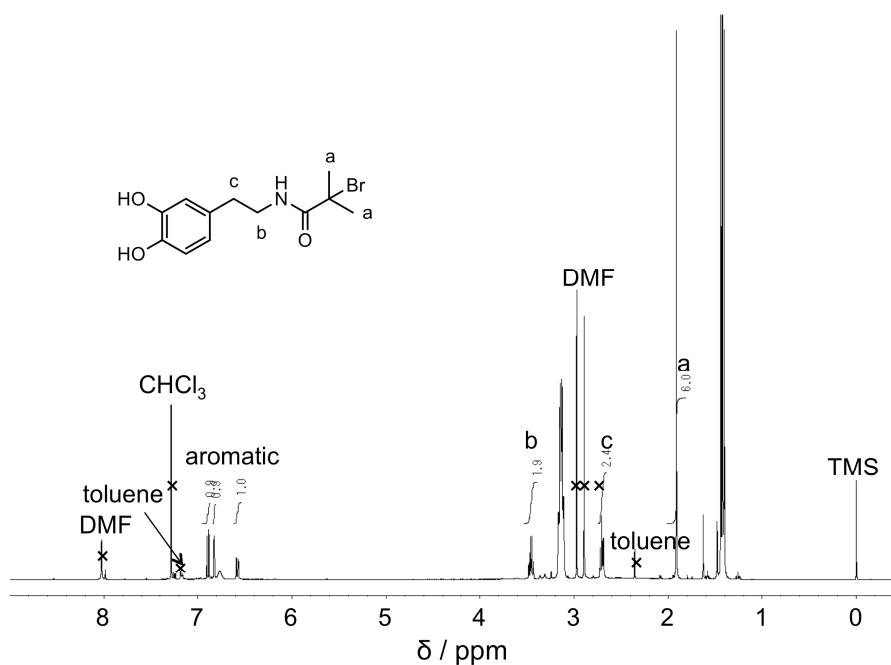


Fig. S2 ^1H NMR spectrum of the reaction mixture of DA and BiBB in the presence of triethylamine in CDCl_3 .

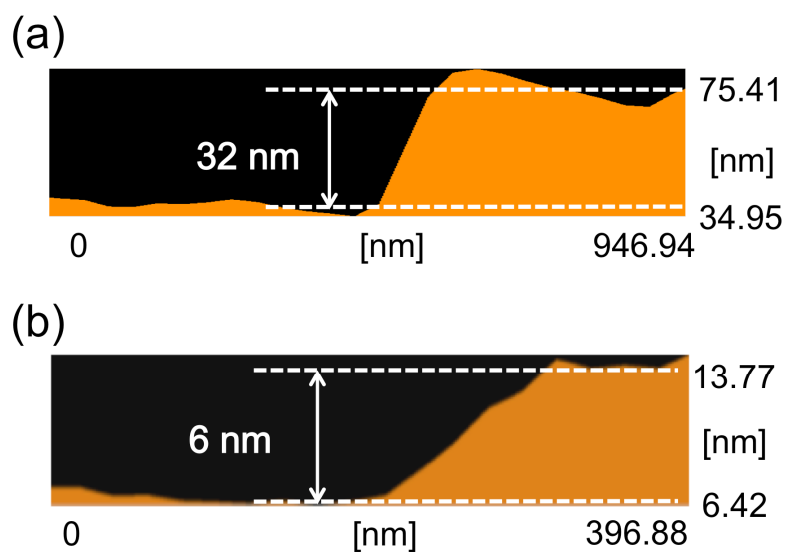


Fig. S3 AFM images of (a) PDA/BiBB_{0.5} layer- and (b) PDA/BiBB₂ layer-coated Si wafer. Part of the film was scratched with a needle.

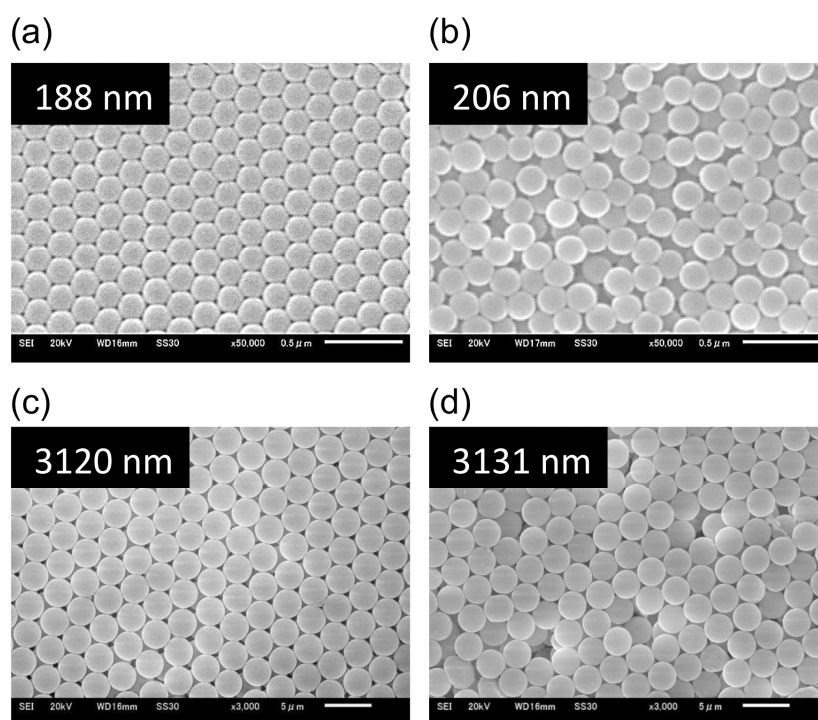


Fig. S4 SEM micrographs of (a) PSt core particles with 188-nm diameters (small template), (b) PSt@PDA/BiBB₂ core-shell particles from the small templates, (c) PSt core particles with 3,120-nm diameters (large template), and (d) PSt@PDA/BiBB₂ core-shell particles from the large templates.

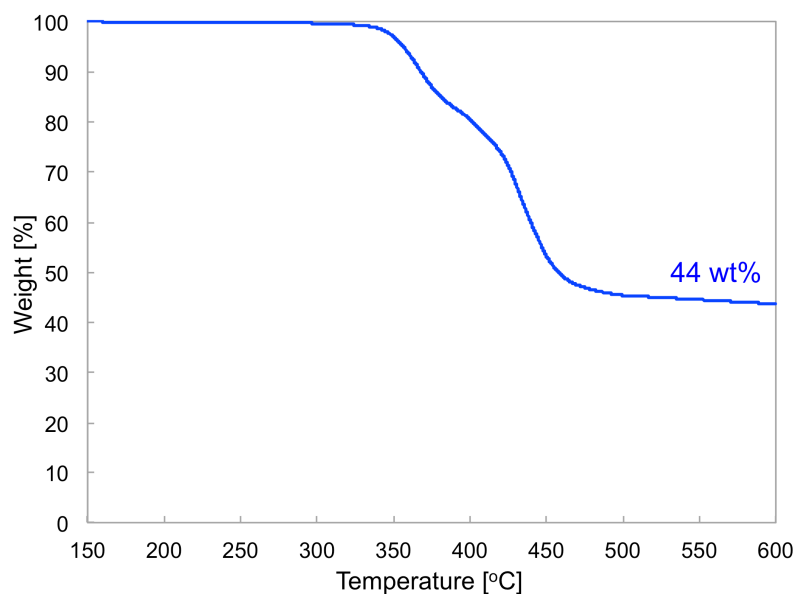


Fig. S5 TGA curve of silica-deposited PDMAEMA-grafted PHEMA capsules (organic-inorganic hybrid capsules) at a heating rate of $10^{\circ}\text{C min}^{-1}$ in air.

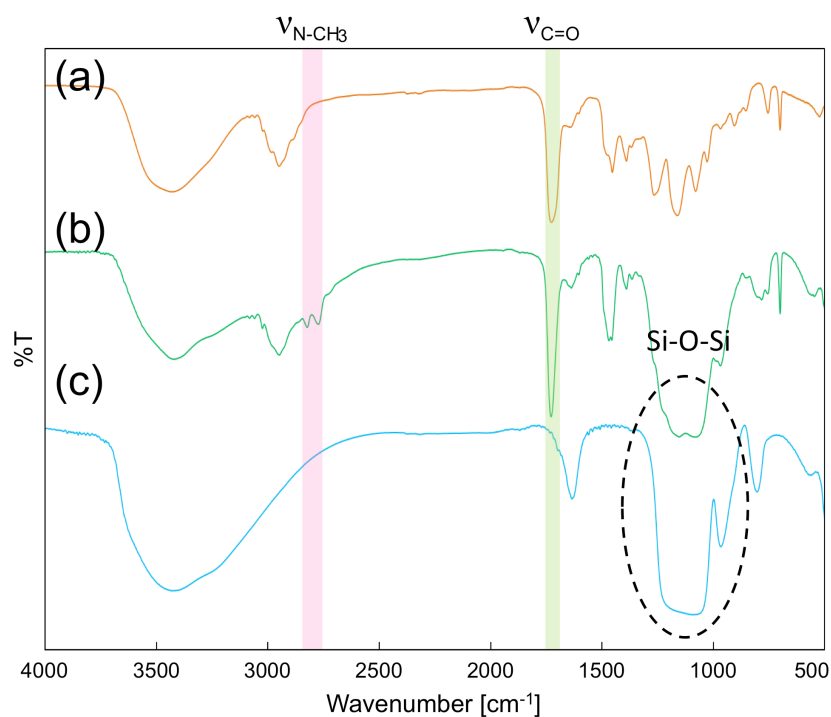


Fig. S6 IR spectra of (a) PHEMA capsules, (b) silica-deposited PDMAEMA-grafted PHEMA capsules (organic-inorganic hybrid capsules), and (c) silica capsules.