Supplementary Information

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

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**Fig. S1** SEM micrographs of PSt@PDA/BiBB<sub>n</sub> 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** $^1$H NMR spectrum of the reaction mixture of DA and BiBB in the presence of triethylamine in CDCl₃.
**Fig. S3** AFM images of (a) PDA/BiBB$_{0.5}$ layer- and (b) PDA/BiBB$_2$ 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/BiBB$_2$ core–shell particles from the small templates, (c) PSt core particles with 3,120-nm diameters (large template), and (d) PSt@PDA/BiBB$_2$ 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 °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.