Supporting Information

Fig. S1 SEM images of biosilica synthesized by changing electric potential: (a) 1 V, (b) 2 V, (c) 4 V, and (d) 6 V, respectively. The PLL₁ peptide concentration was 6 mg/ml.
**Fig. S2** SEM images of biosilica synthesized by adjusting the PLL peptide concentration: (a) 1 mg/ml, (b) 3 mg/ml, (c) 6 mg/ml, and (d) 9 mg/ml, respectively. Experiments performed in the presence of an externally applied electric field (4 V).
Fig. S3 Energy-dispersive spectra (EDS) of peptide-silica hybrid particles.
Fig. S4 Thermogravimetric analysis (TGA) spectrum of peptide-silica composites.