Supporting Information

In vivo photothermal inhibition of methicillin-resistant *Staphylococcus aureus* infection by *in-situ* templated formulation of pathogen-targeting phototheranostics

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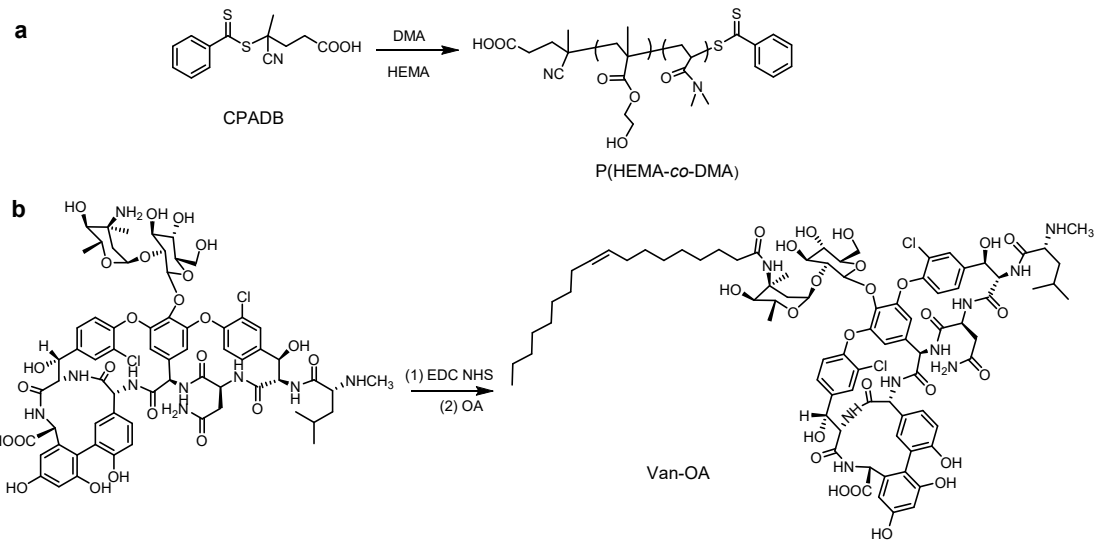

Fig. S1 Synthetic routes employed for (a) P(HEMA-*co*-DMA) and (b) Van-OA, respectively.

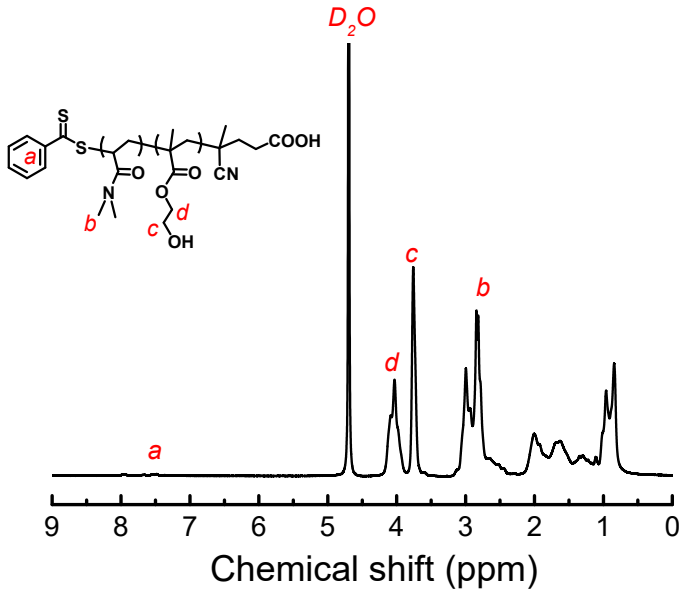

Fig. S2 ^{1}H NMR spectrum of P(HEMA-*co*-DMA) in D_2O.

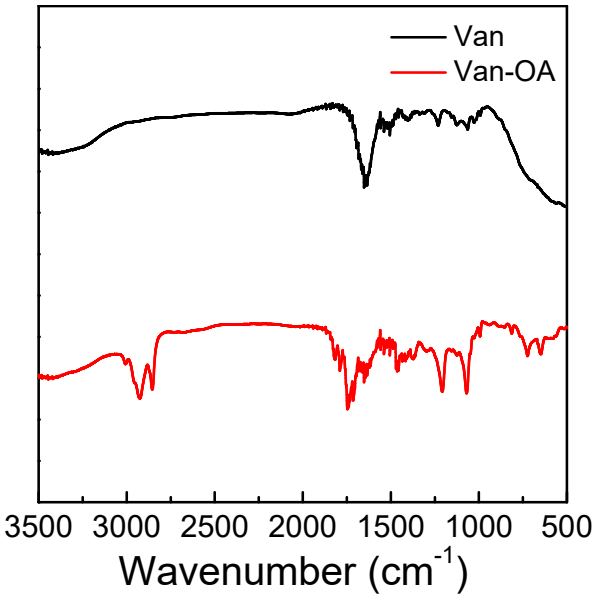

Fig. S3 FT-IR spectrum of vancomycin and Van-OA.

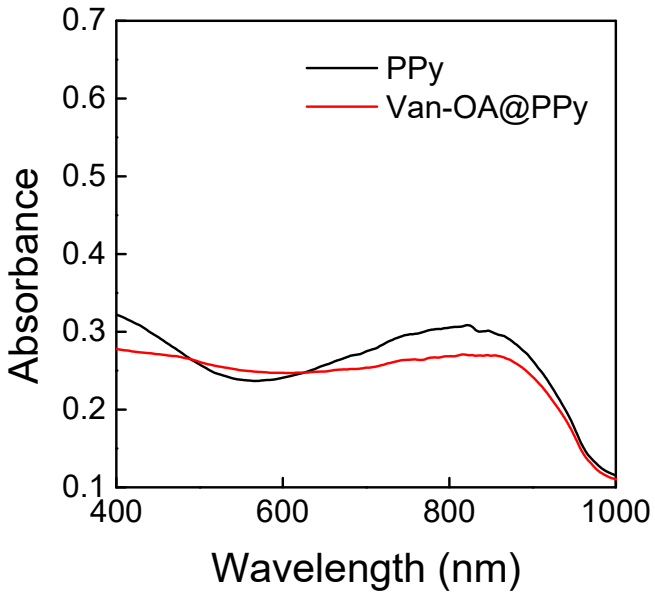

Fig. S4 UV-visible-NIR absorption spectra recorded for the dispersions of PPy and Van-OA@PPy, respectively.

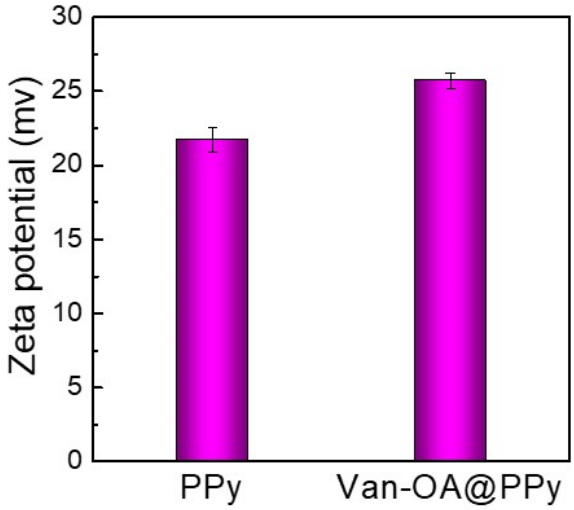

Fig. S5 Zeta potentials recorded for the dispersions of PPy and Van-OA@PPy, respectively.

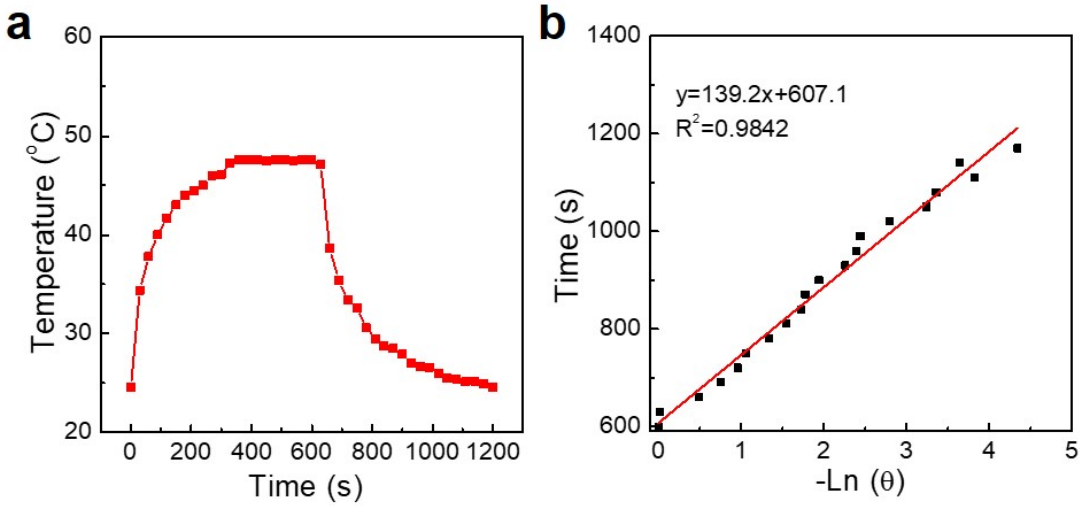

Fig. S6 (a) Temperature change of the aqueous dispersion of Van-OA@PPy (100 μg mL^{-1}) upon irradiation for 10 min (808 nm, 1.5 $W \cdot cm^{-2}$). (b) The linear fitting of time from the cooling period versus negative natural logarithm of driving force temperature.

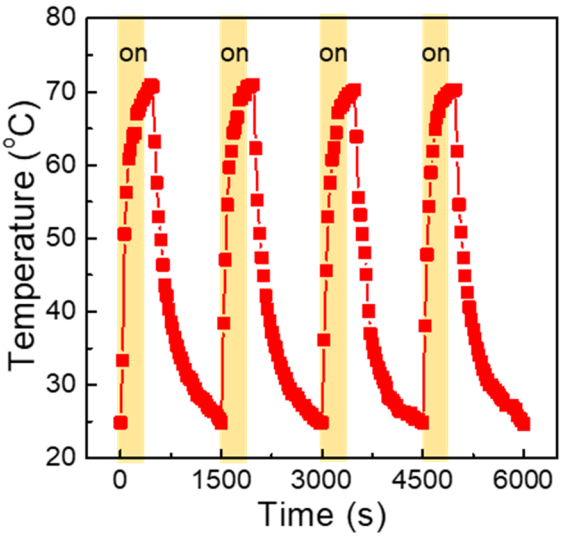

Fig. S7 The photostability of Van-OA@PPy was examined by the temperature change of the dispersion (200 μg mL^{-1}) under four cycles of irradiation and cooling process at a relatively high-power density of 2 $W \cdot cm^{-2}$.

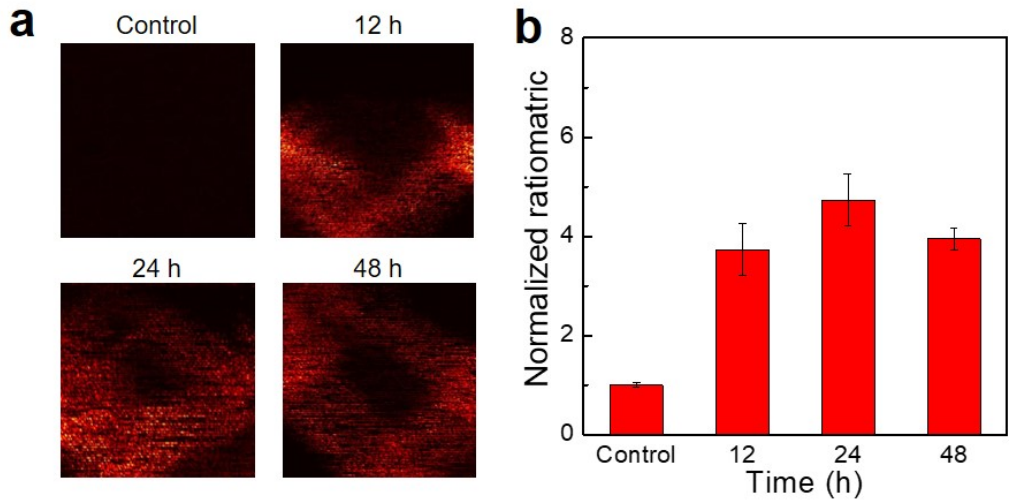

Fig. S8 (a) *In vivo* PA imaging of the MRSA-infected subcutaneous abscess before and after *in-situ* injection with Van-OA@PPy. (b) Relative PA signal of the subcutaneous abscess after treatment with Van-OA@PPy at different durations.

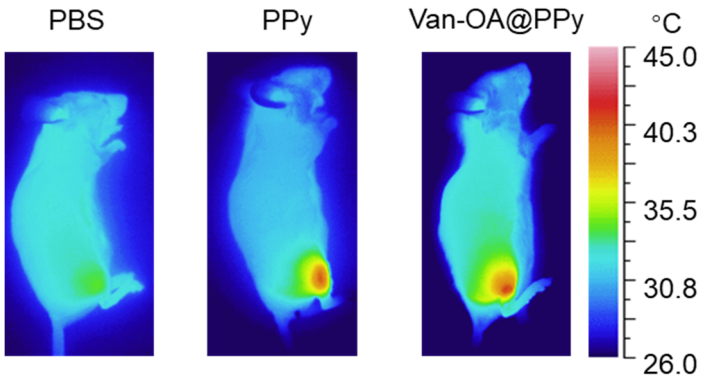

Fig. S9 Thermal images of MRSA-infected subcutaneous abscess mice after in situ injection with different samples upon irradiation by an 808 nm laser (0.5 W·cm^{-2}, 5 min).