Supporting Information

Dissolving Microneedles Integrated with pH-responsive Micelles Containing AIEgen with Ultra-photostability for Enhancing Melanoma Photothermal Therapy

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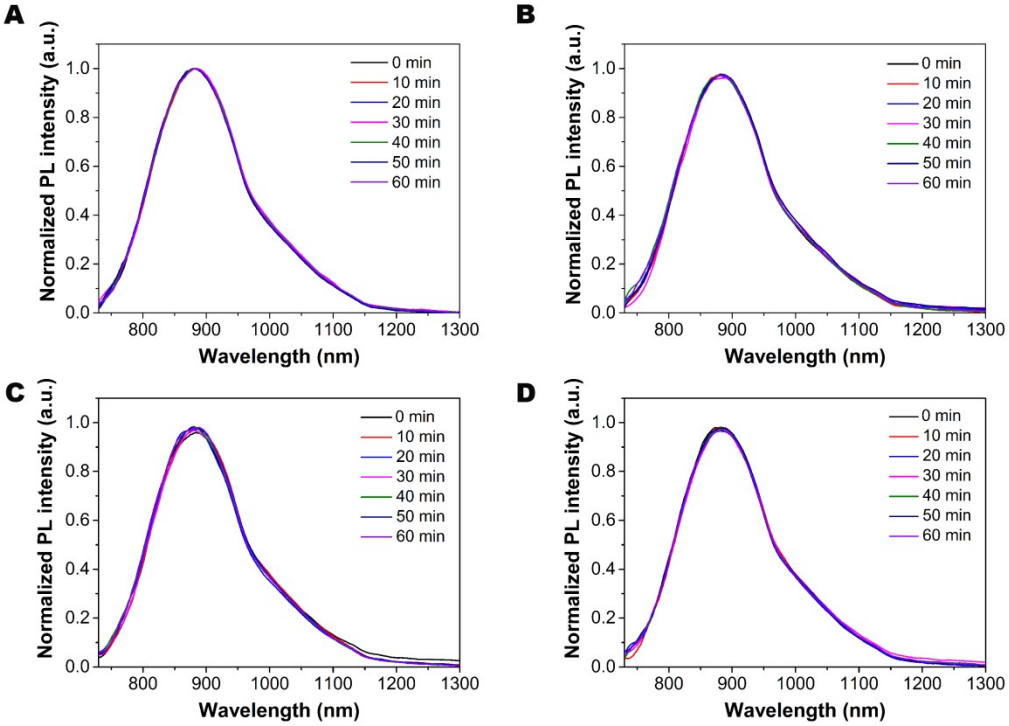

Figure S1. Photoluminescence spectra of NIR950@PMs in DI water under continuous 808 nm laser irradiation at (A) 1 W/cm^2, and (B) 0.35 W/cm^2 , (C) PBS with pH = 6.5 under continuous 808 nm laser irradiation (1 W/cm^2), (D) PBS with pH = 5.5 under continuous 808 nm laser irradiation (1 W/cm^2). (λex = 700 nm).

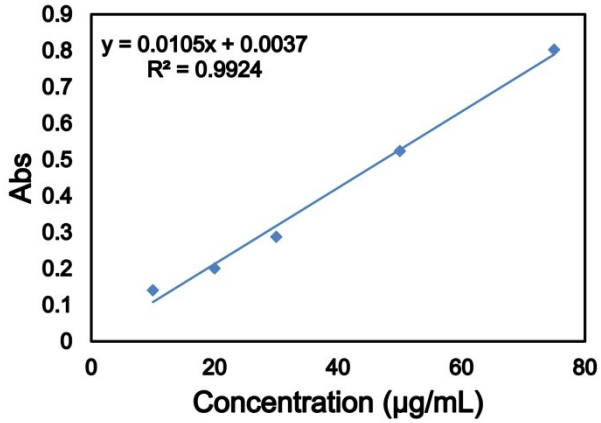

Figure S2. The linear relationship between UV absorbance and concentrations of NIR950 in ethanol solution ($R^2 = 0.9924$).

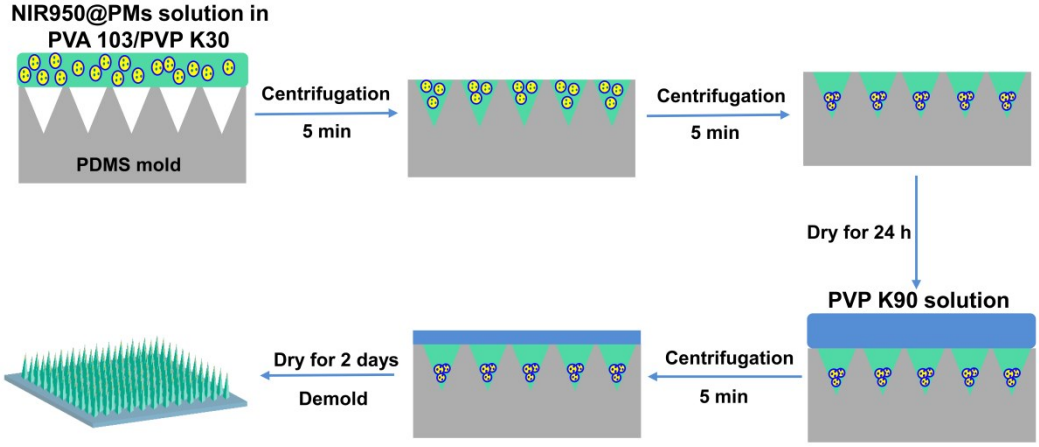

Figure S3. Schematic illustration of the fabrication process of NIR950@PMs@MN. PDMS: polydimethylsiloxane.

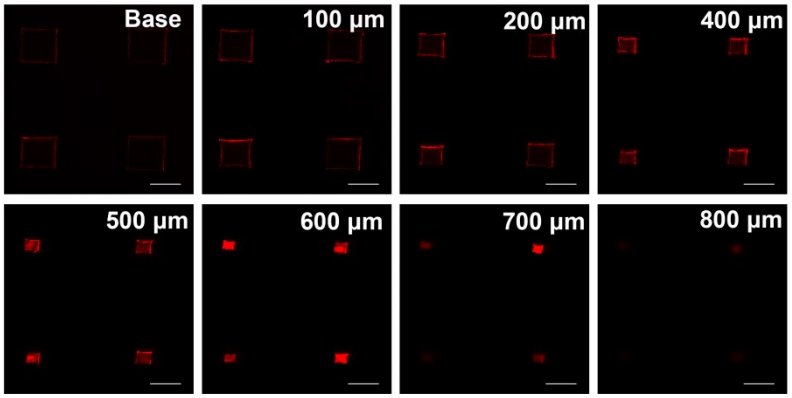

Figure S4. CLSM images of cross sections of Cancer Yellow@MN obtained at different heights (λex = 488 nm, Scale bar: 200 μm).

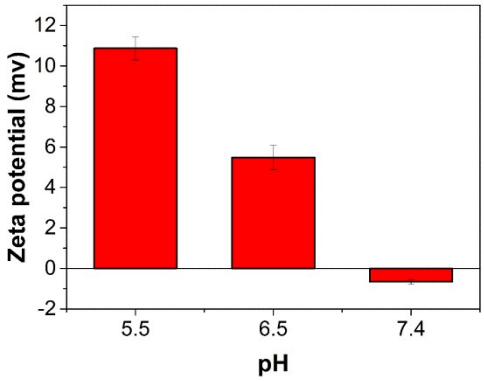

Figure S5. Zeta potential of NIR950@PMs incubated in buffers at different pH values at 37°C (Mean ± SD, n = 3).

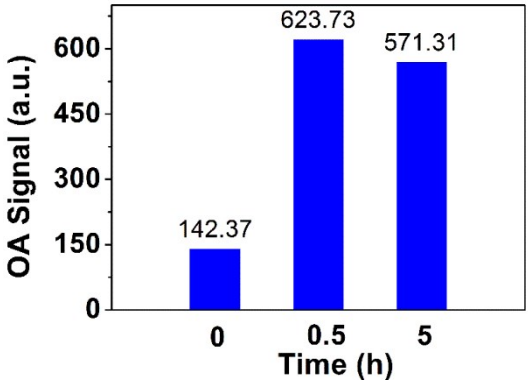

Figure S6. Quantitative analysis of OA values of the tumor sites at A375 tumor-bearing mice at different time points after application of NIR950@PMs@MN.

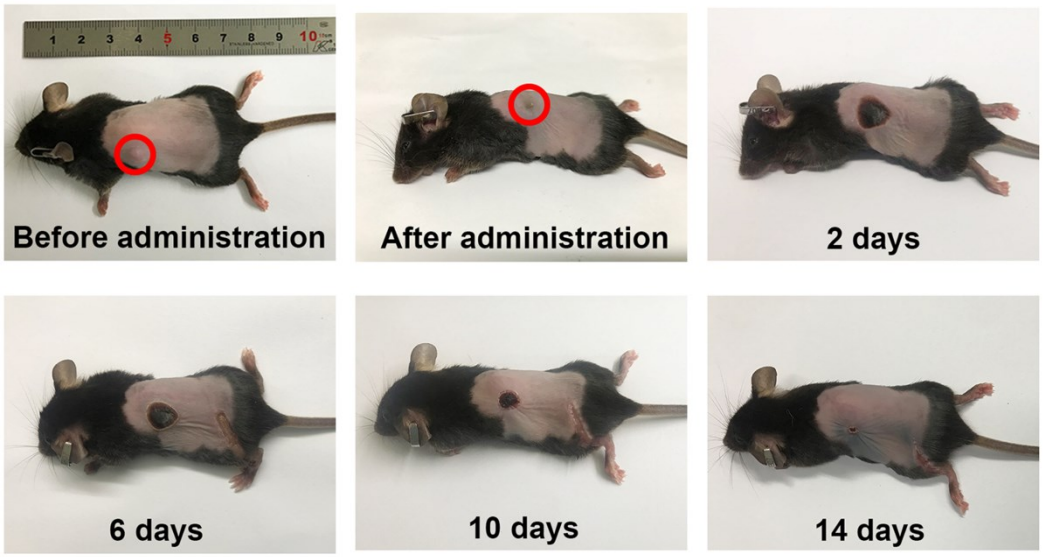

Figure S7. Skin recovery photographs of B16 tumor-bearing mice after application of NIR950@PMs@MN with PTT treatment (red circle showed the tumor site and irradiation spot).