

Near-infrared photothermal therapy of Prussian-blue-functionalized lanthanide-ion-doped inorganic/plasmonic multifunctional nanostructures for the selective targeting of HER2-expressing breast cancer cells

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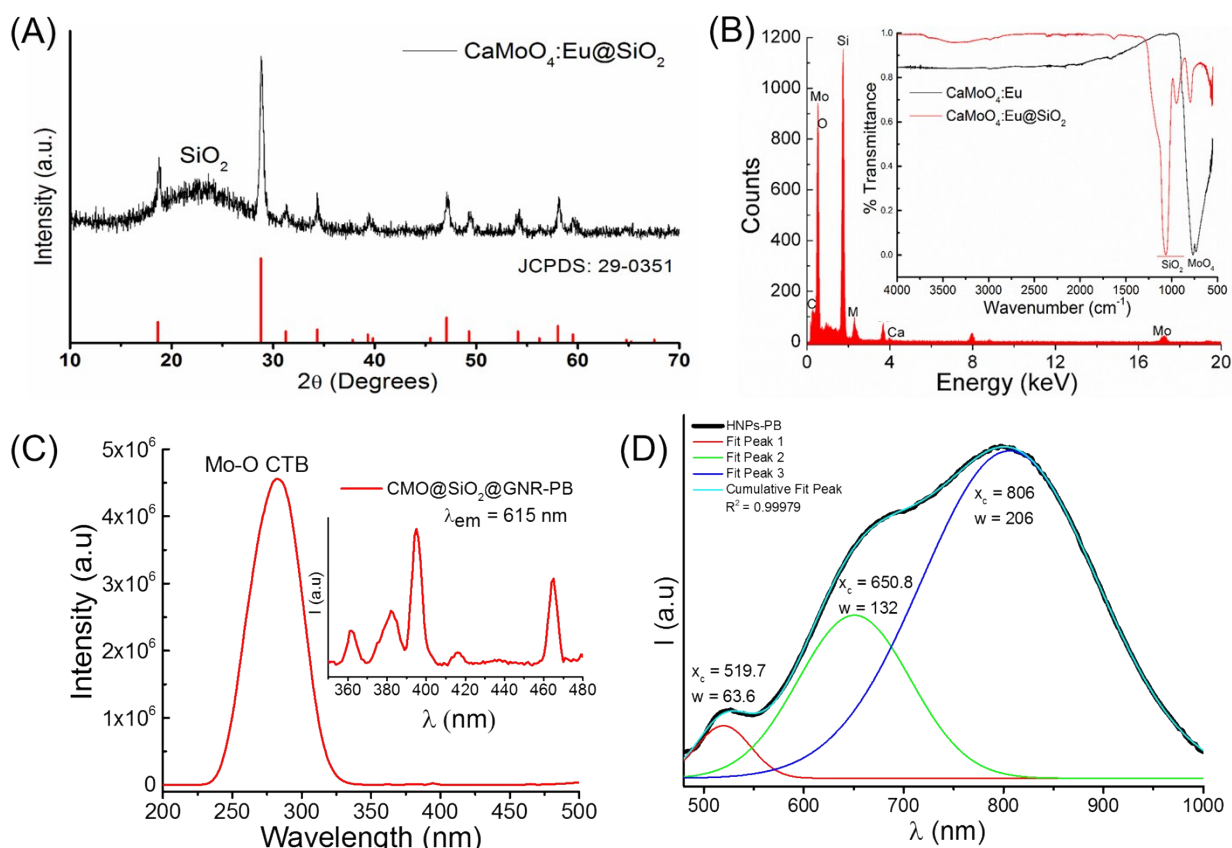


Fig. S1 (A) X-ray diffraction of silica-coated CMO:Eu NPs. (B) Energy-dispersive X-ray spectrum of $\text{CMO}@\text{SiO}_2$, inset shows the FTIR spectra of CMO:Eu and silica-coated CMO:Eu NPs, (C) Excitation spectrum of $\text{CMO}@\text{SiO}_2@\text{GNR-PB}$ NPs ($\lambda_{\text{em}} = 615$ nm), Inset shows the expansion to the excitation spectrum between 350–480 nm, (D) The deconvolution of UV–visible spectrum of $\text{CMO}@\text{SiO}_2@\text{GNR-PB}$ NPs.

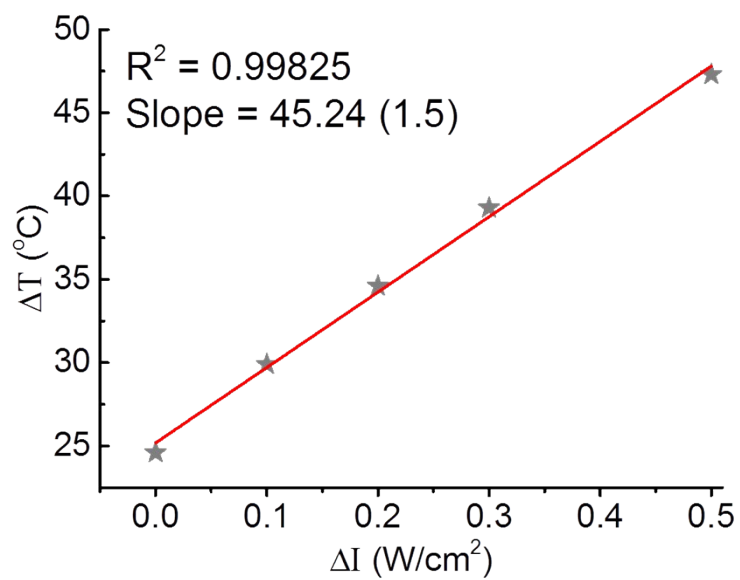


Fig. S2 Temperature increment of the synthesized CMO@SiO₂@GNR-PB solution as a function of laser power extinction.

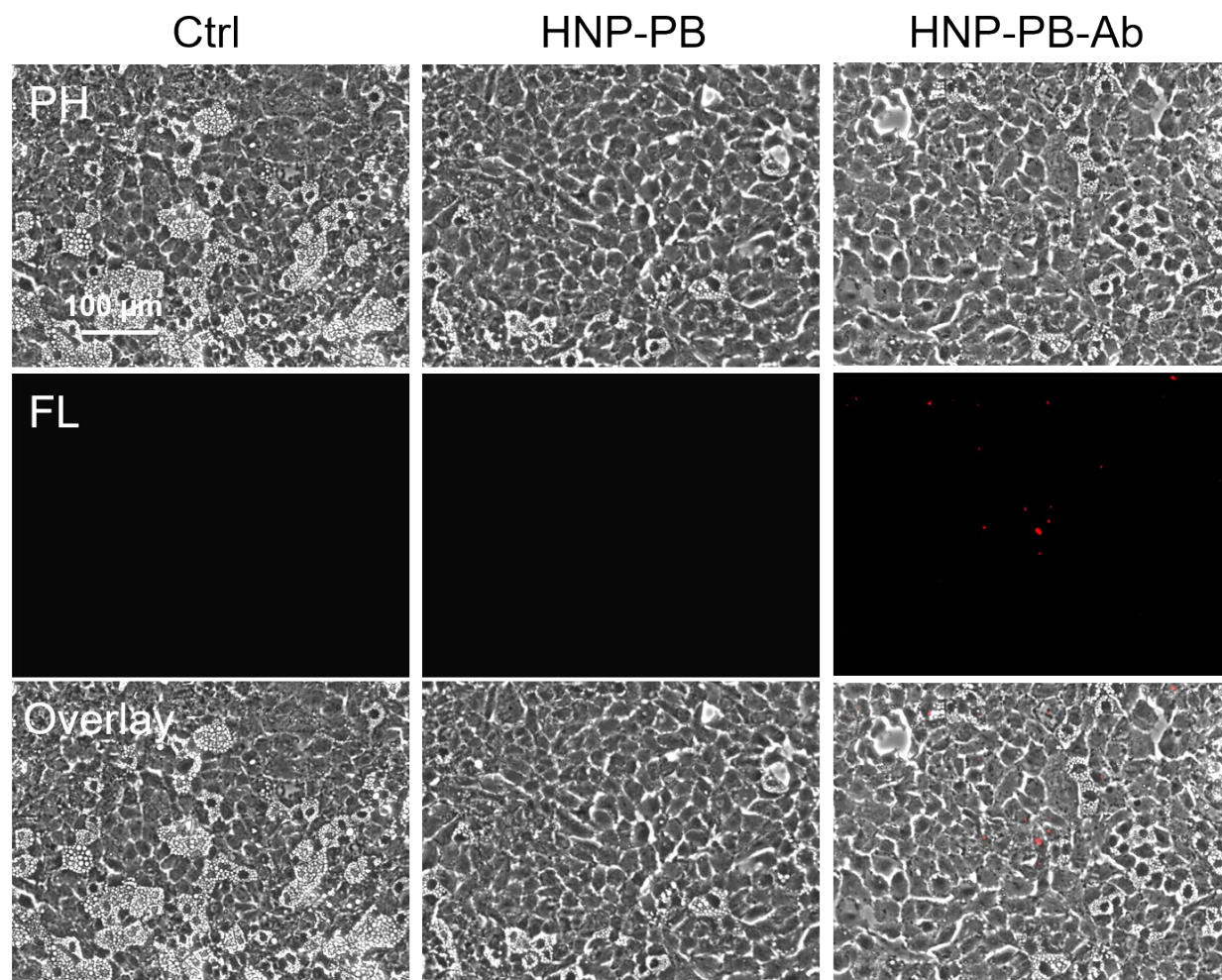


Fig. S3 Phase (PH), fluorescence (FL), and overlay images of AML12 cells without treatment and treated with HNP-PB or HNP-PB-Ab for 2 h. Scale bar: 100 μ m.

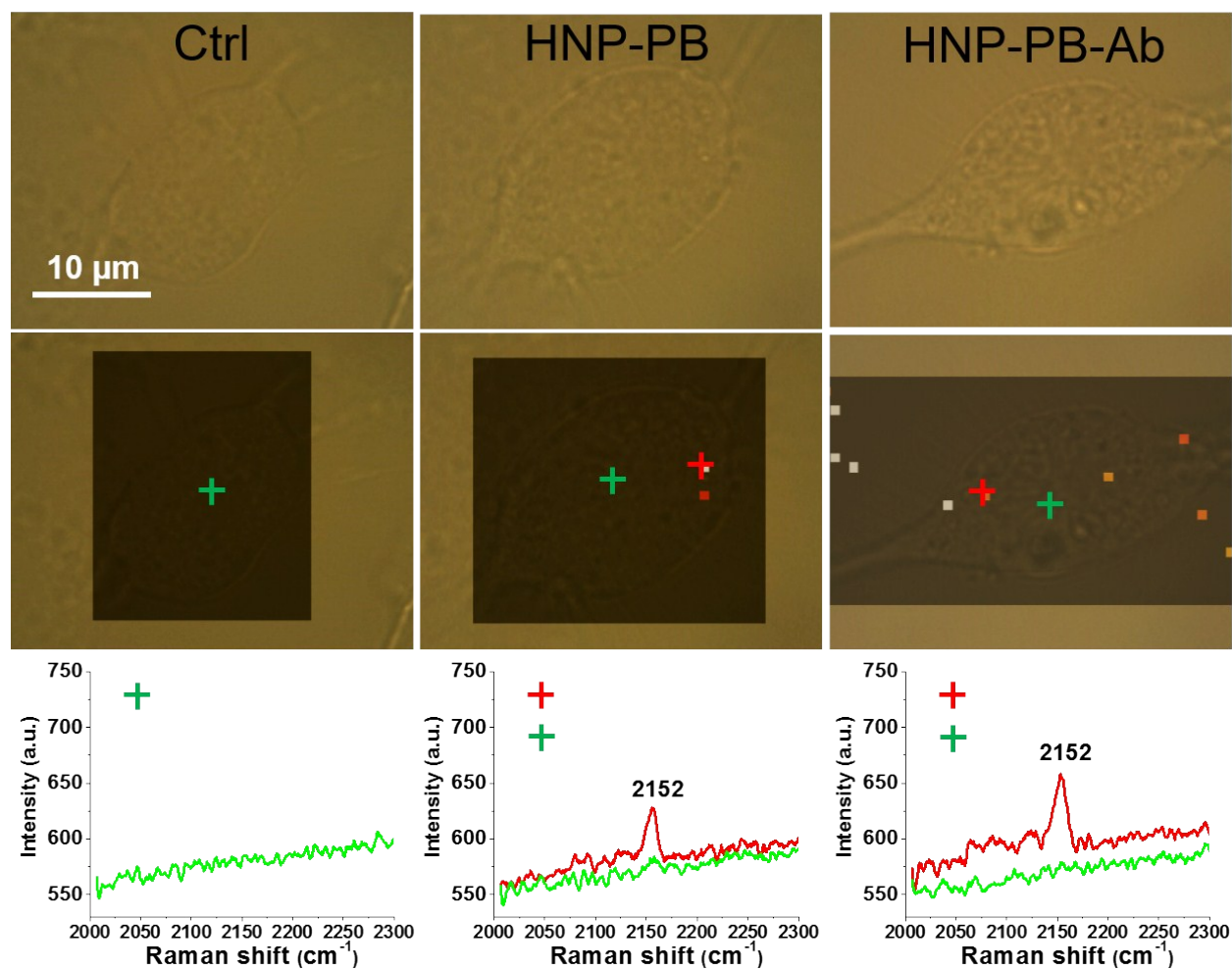


Fig. S4 Raman streamline mapping of AML12 cells without treatment and treated with HNP-PB or treated with HNP-PB-Ab for 2 h (peak at 2152 cm^{-1} from PB was selected for mapping). Scale bar: $10\text{ }\mu\text{m}$.

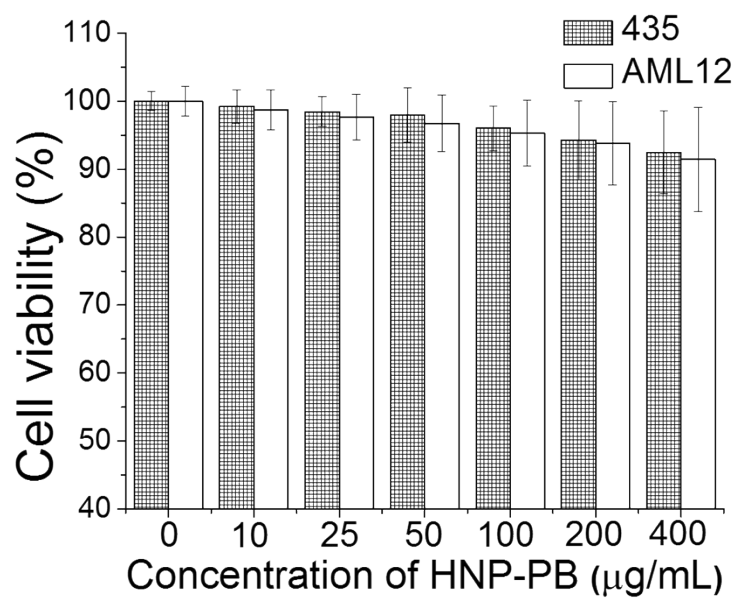


Fig. S5 Cell viability of MDA-MB-435 and AML12 cells: control and treated cells with different concentrations of HNP-PB for 24 h (error bars are the standard deviation of the mean; N = 3, * $P < 0.05$).