Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Gd-doped Polydopamine (PDA)-based theranostic nanoplatform as strong MR/PA dual-modal imaging agent for PTT/PDT synergistic therapy

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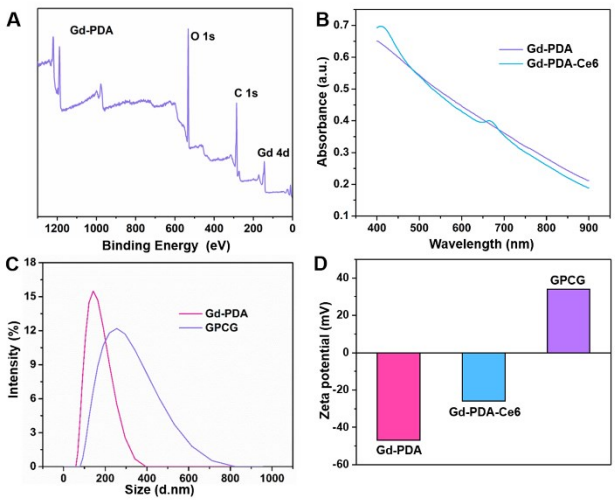

Fig. S1 (A) XPS spectra of Gd-PDA NPs, (B) UV-vis spectrum of Gd-PDA and Gd-PDA-Ce6 NPs, (C) Hydrodynamic size distribution of Gd-PDA and GPCG NPs, (D) Zeta potential of Gd-PDA, Gd-PDA-Ce6 and GPCG NPs.

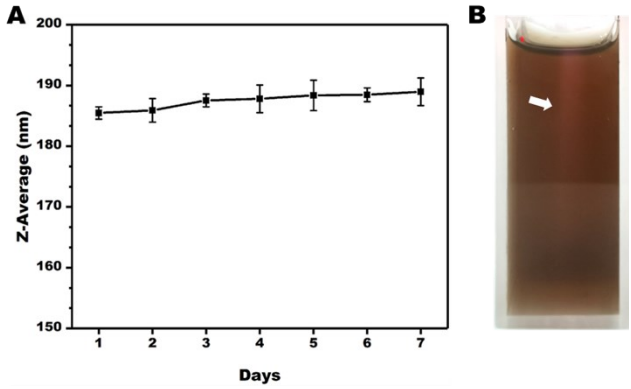

Fig. S2 Colloidal stability of GPCG NPs: (A) the 7-day stability test on the size of GPCG NPs. (B) Tyndall effect of GPCG aqueous solution at the 7th day.

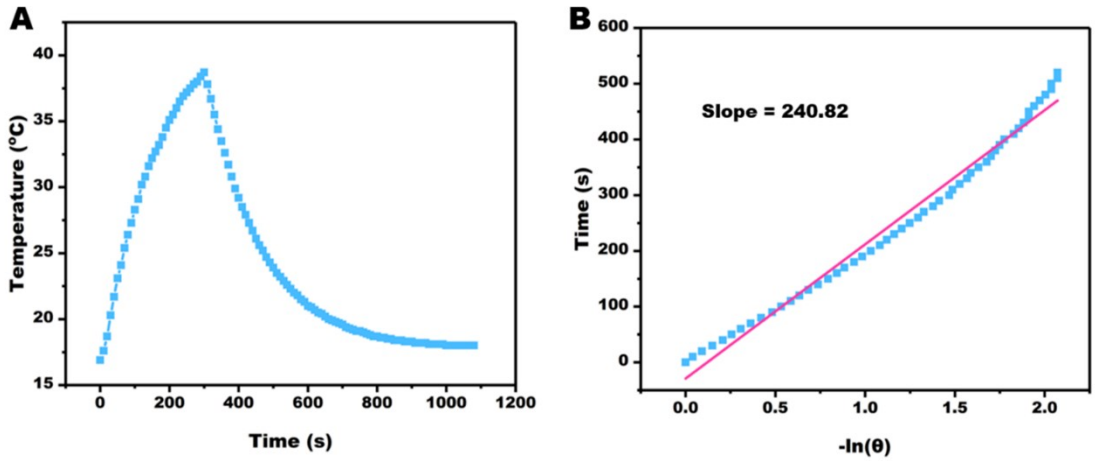

Fig. S3 (A) Photothermal property of 1 mg/mL GPCG NPs aqueous dispersion when irradiated with 808 nm laser (2 W/cm^2). The laser was turned off after irradiation for 5 min. (B) Plot of cooling time versus negative natural logarithm of the temperature driving force obtained from the cooling stage as shown in (A). The time constant for heat transfer of the system is determined to be $\tau_s = 240.82$.

Agents	Wavelength (nm)	PCE (%)	Reference
Dopamine-Melanin Colloidal Nanospheres[4]	808	40	*Advanced Materials*, 2013, **25**, 1353-1359.
Polydopamine Carbon Dots[5]	808	35	*Nanoscale Research Letters*, 2018, **13**, 287.
MOF-Polydopamine Hybrid Nanogels[6]	808	41.3	*Advanced Science*, 2018, **5**, 1800287.
Polypyrrole@polydopamine[7]	808	38.8	*Journal of Materials Chemistry B*, 2017, **5**, 1108-1116.
Polydopamine nanocapsule[8]	808	40.43	*ACS Biomaterials Science & Engineering*, 2017, **3**, 1799-1808.

Tab. 1 Photothermal conversion efficiency of typical reported PDA-related PTT agents.

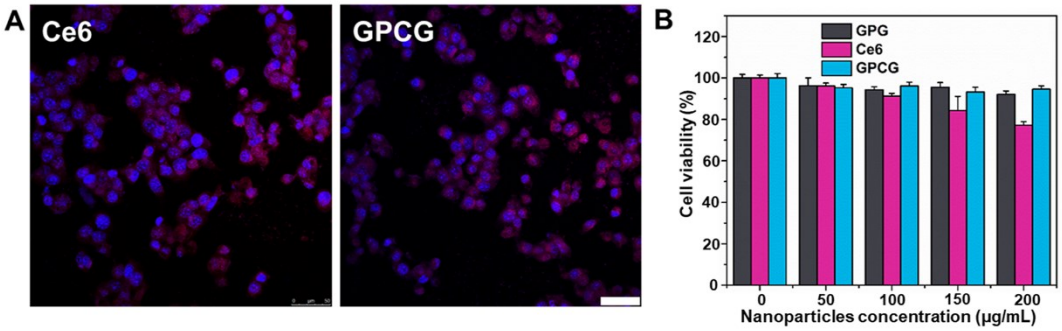

Fig. S4 (A) Cellular uptake of Ce6 and GPCG NPs under the same culture conditions by CLSM, (B) The cytotoxicity of GPG, Ce6 and GPCG NPs without irradiation by MTT assay. (The corresponding concentration of Ce6 is 0, 3.75, 7.5, 11.25 and 15 μg/mL, respectively.) Scar bar: 50 μm.

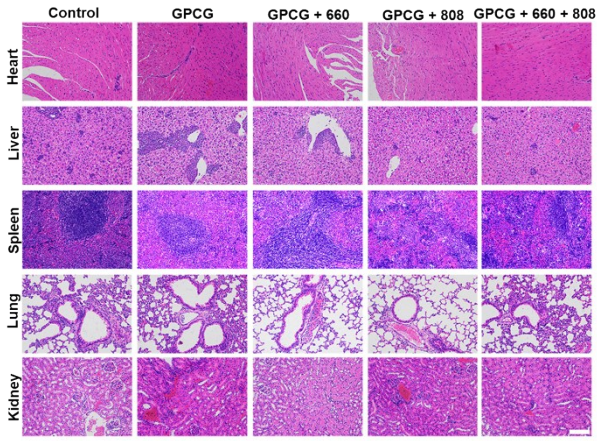

Fig. S5 In vivo toxicology evaluation of GPCG NPs via H&E staining of major organs. Scar bar: 100 μm.

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