Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Supplementary Information

Carbon dots/platinum nanoparticles-loaded mesoporous silica for synergistic photodynamic/catalytic therapy of hypoxic tumors

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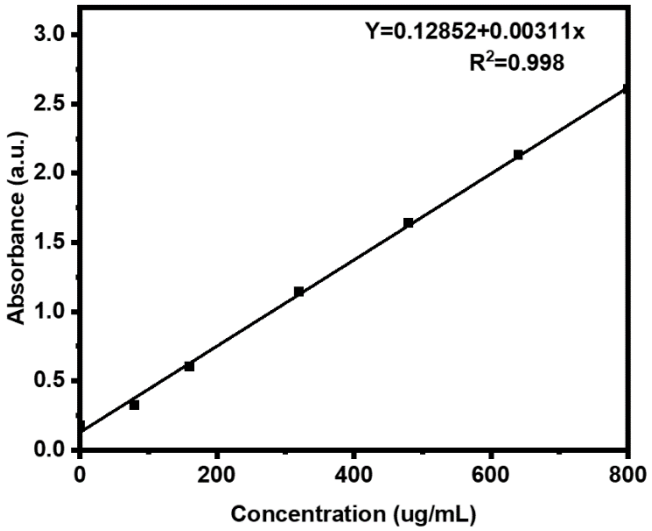

Figure S1 Adsorption values of CDs at 485 nm under various concentrations.

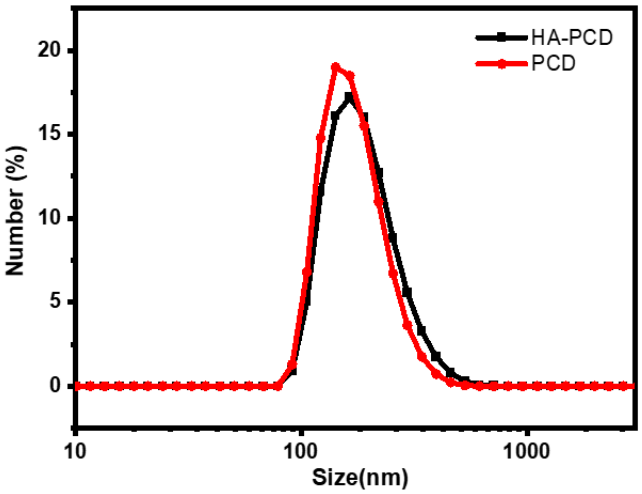

Figure S2 DLS analysis of PCD and HA-PCD in aqueous solution.

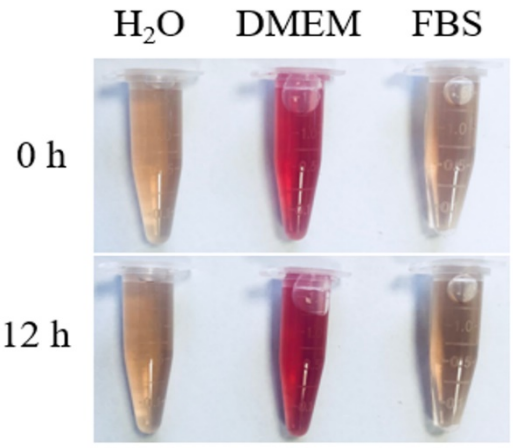

Figure S3 The dispersed stability of HA-PCD in physiological mediums.

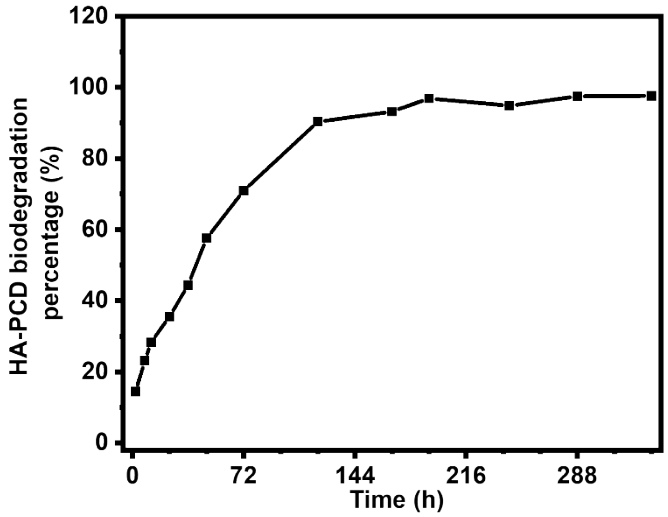

Figure S4 The biodegradation behavior of HA-PCD in SBF.

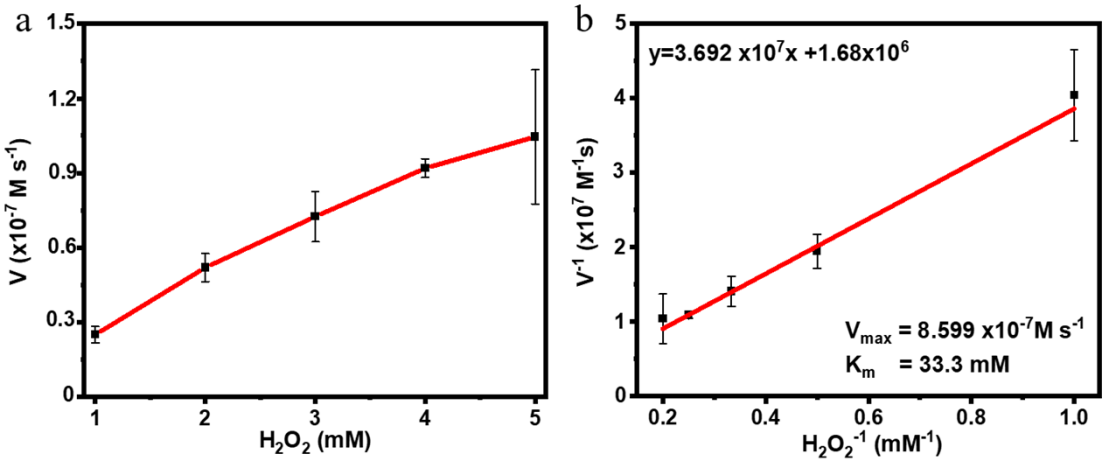

Figure S5 (a) Michaelis-Menten kinetic analysis and (b) Lineweaver-Burk plotting for HA-PCD with H_2O_2 as substrate.

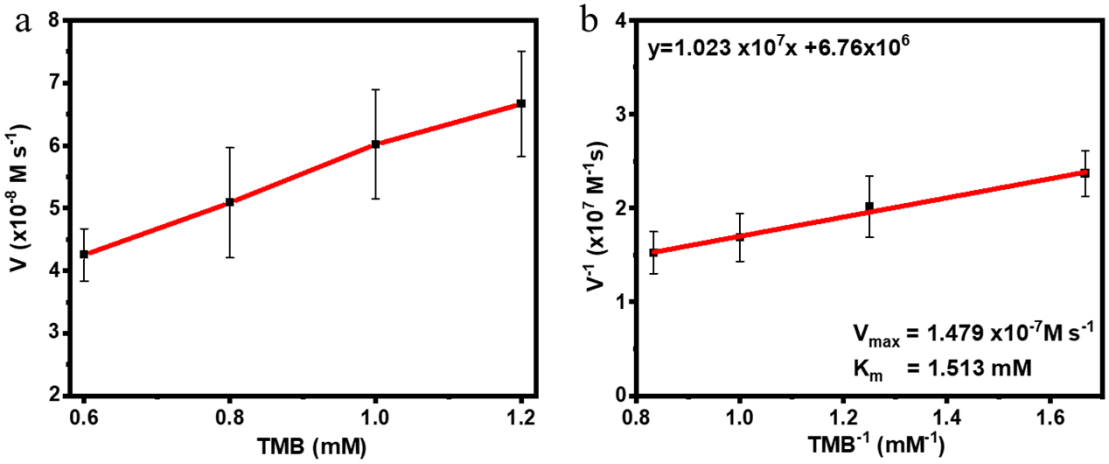

Figure S6 (a) Michaelis-Menten kinetic analysis and (b) Lineweaver-Burk plotting for HA-PCD with TMB as substrate.

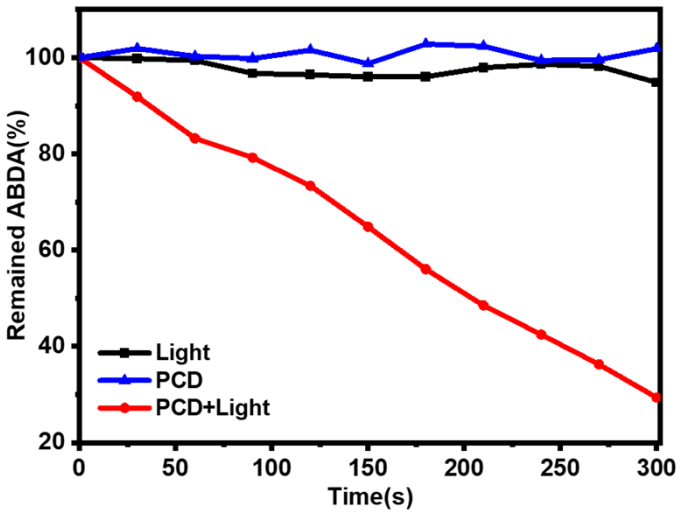

Figure S7 $^1O_2$ generation ability measurement of HA-PCD under normoxia condition upon 635 nm laser exposure (100 mW/cm^2) for various seconds, evaluated by calculating the remaining percentage of ABDA, the UV-vis absorbance at 400 nm of which would decrease in the presence of $^1O_2$.

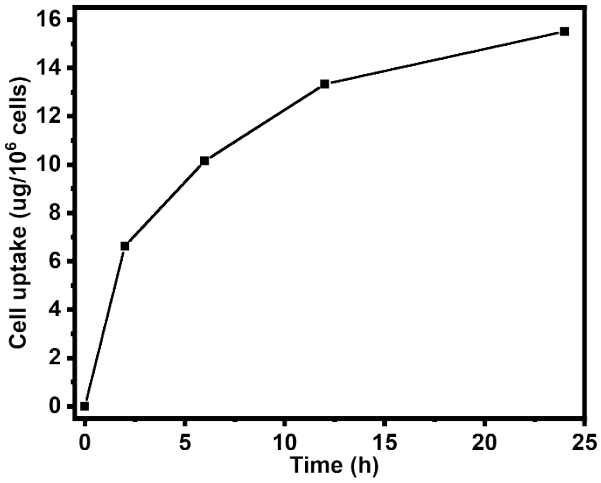

Figure S8 The HA-PCD uptake behavior of HeLa cell at various hours.

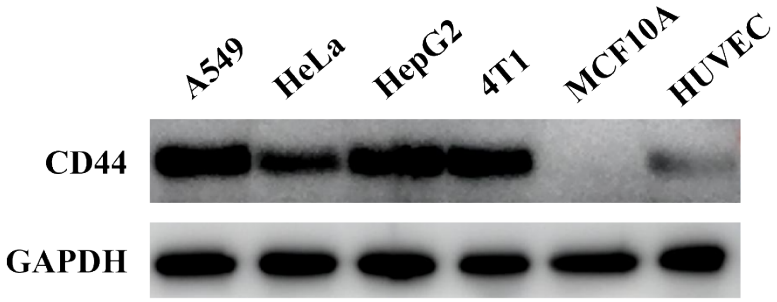

Figure S9 Western blot analysis of the CD44 expression in A549, HeLa, HepG2, 4T1, MCF10A, and HUVEC cells.

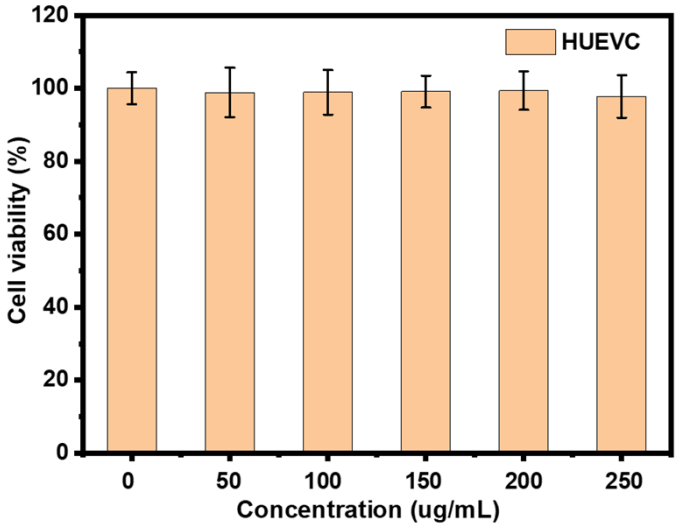

Figure S10 Cell viability of HUVEC cells incubated with HA-PCD with different concentration.

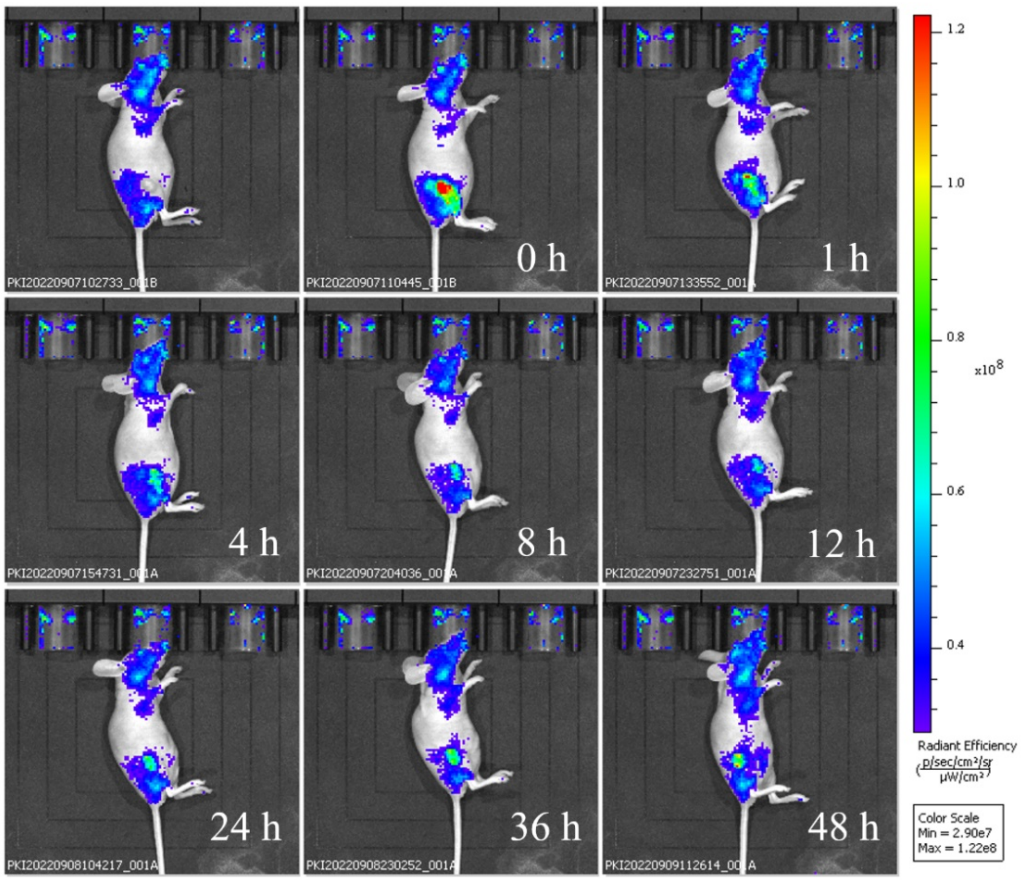

Figure S11 FL imaging of 4T1 tumor-bearing nude mice injected with HA-PCD at different time points.

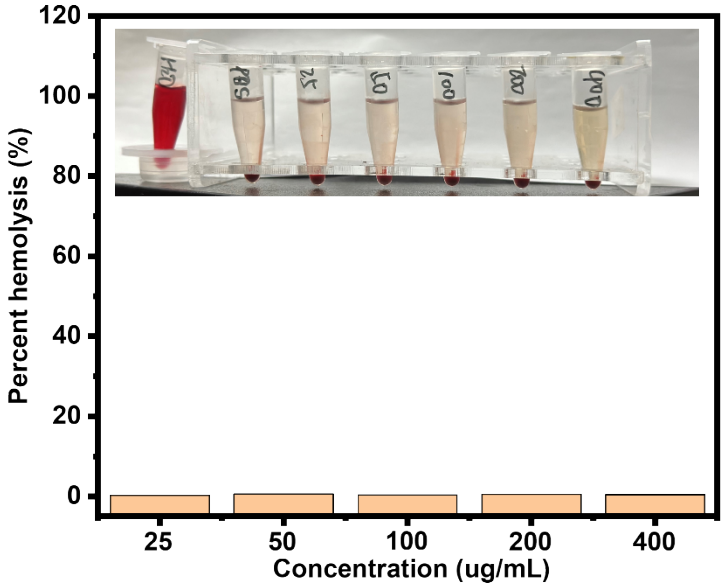

Figure S12 Hemolytic percent of red blood cells incubated with HA-PCD at various concentrations for 4h.

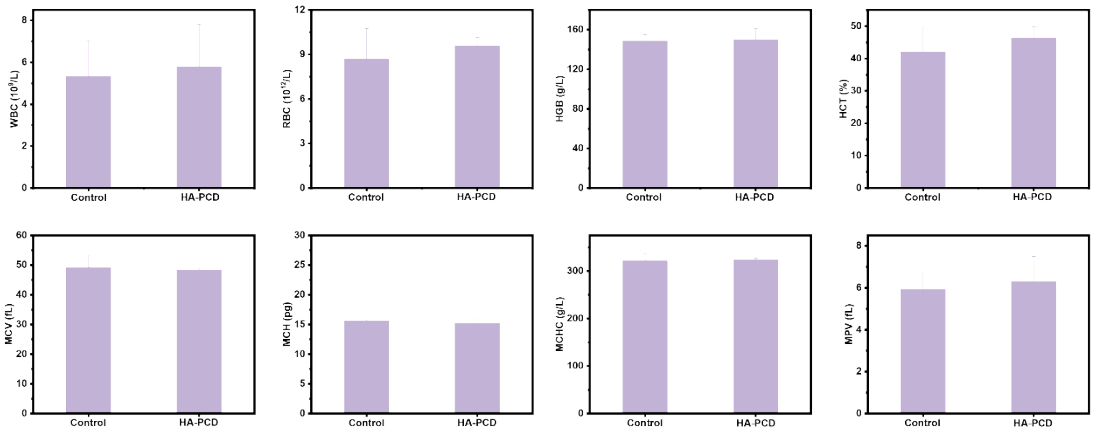

Figure S13 Blood routine examination of the mice after injection of HA-PCD at 14d.

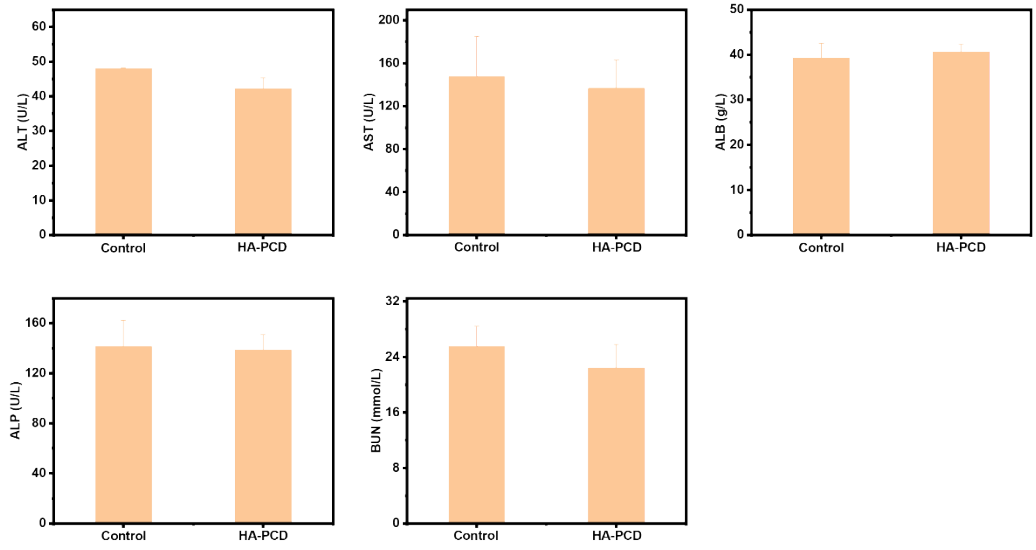

Figure S14 Blood biochemical parameters measurement of the mice after injection of HA-PCD at 14d.

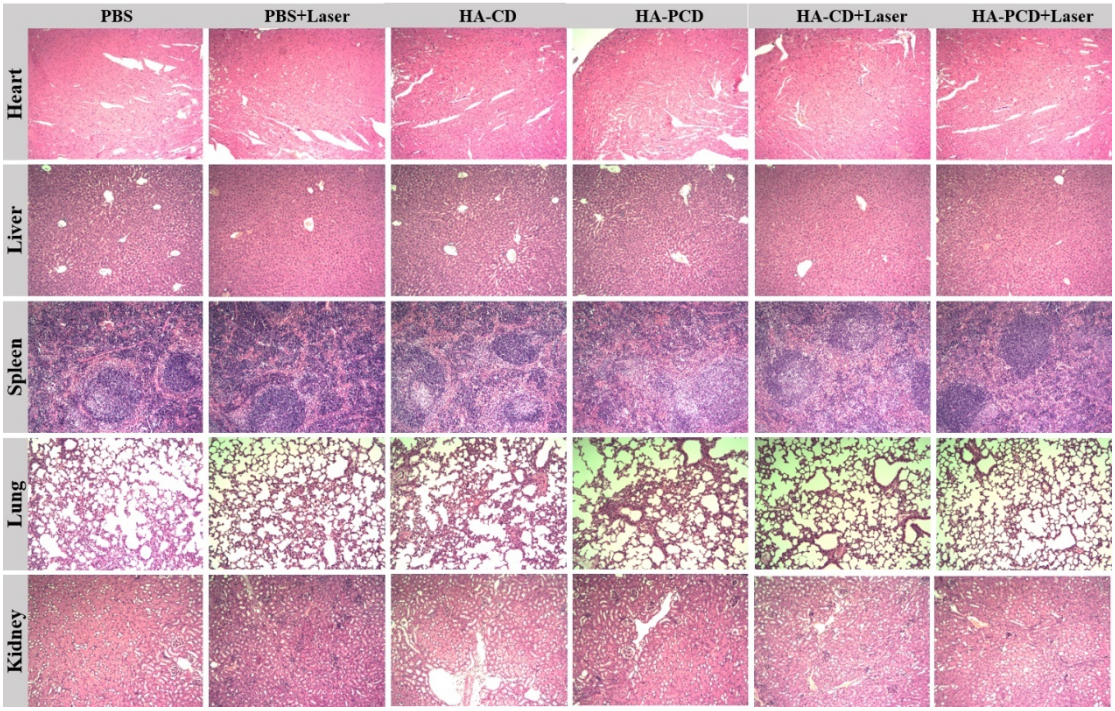

Figure S15 H&E staining of major organs slices after different treatment.