

Supporting Information

"All-in-One" Strategy Based on Organic Molecule DCN-4CQA for Effective NIR Fluorescence Imaging guided Dual Phototherapy

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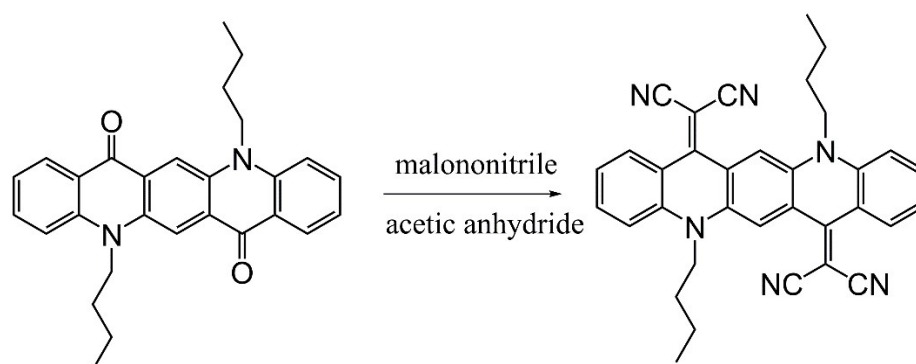
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Scheme 1. The synthesis route of DCN-4CQA

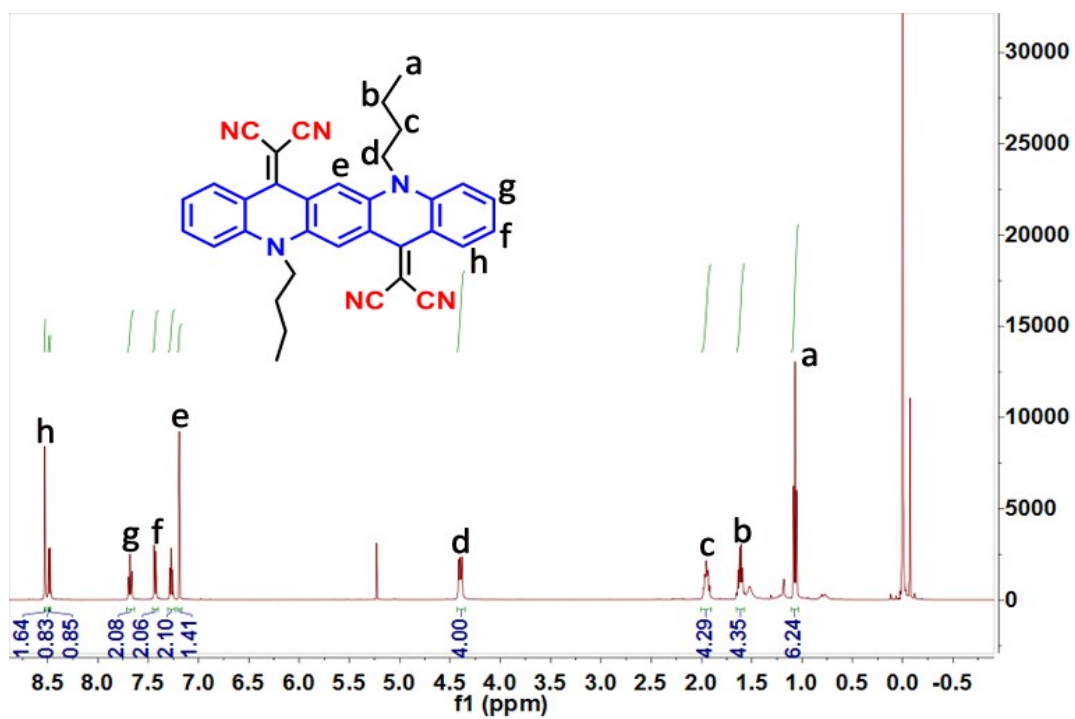


Fig. S1 ¹H NMR spectrum of DCN-4CQA in CDCl₃.

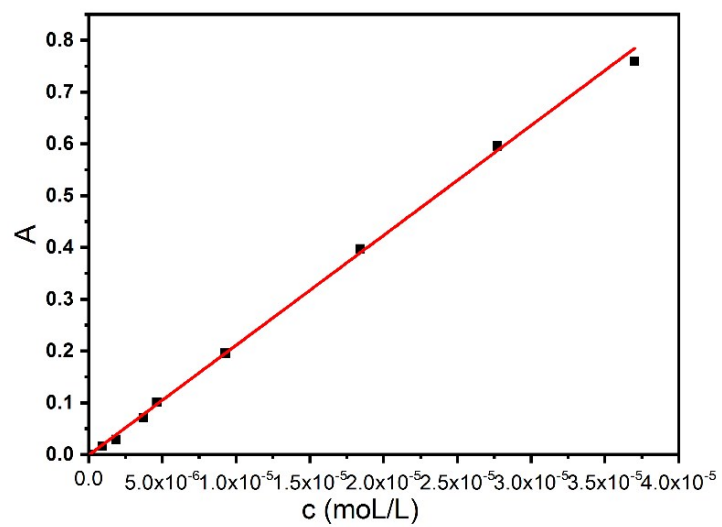


Fig. S2 Calculation of molar absorption coefficient.

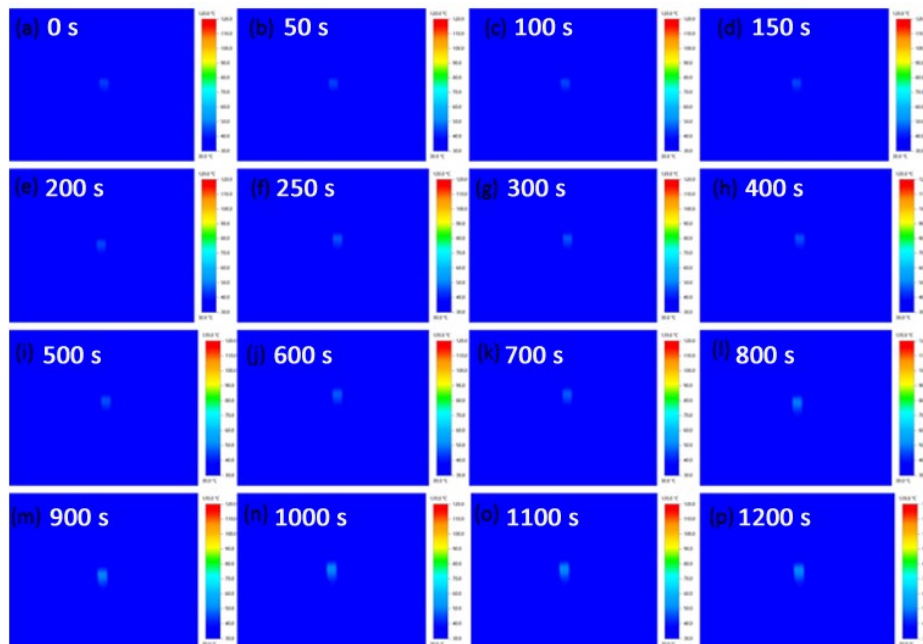


Fig. S3 Thermal imaging of PBS under 655 nm laser irradiation (1.0 W/cm²) for different times.

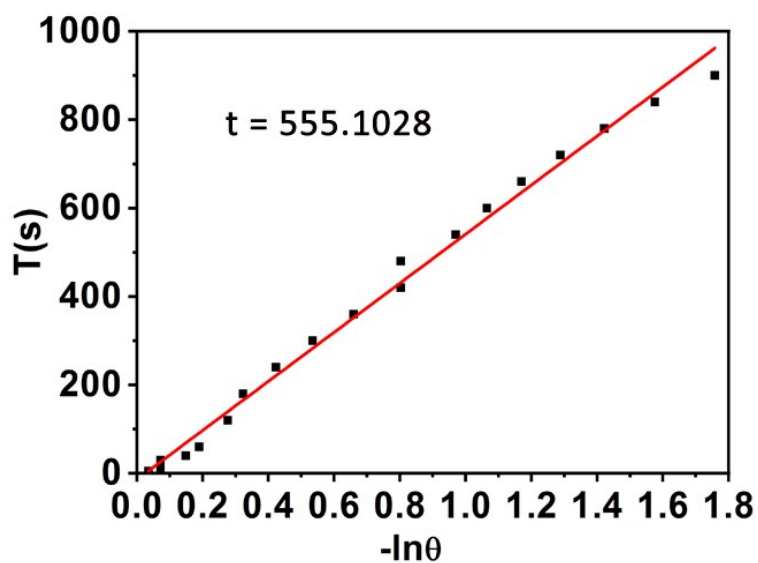


Fig. S4 Linear time data versus $-\ln(\theta)$ obtained from the cooling period of NIR laser off.

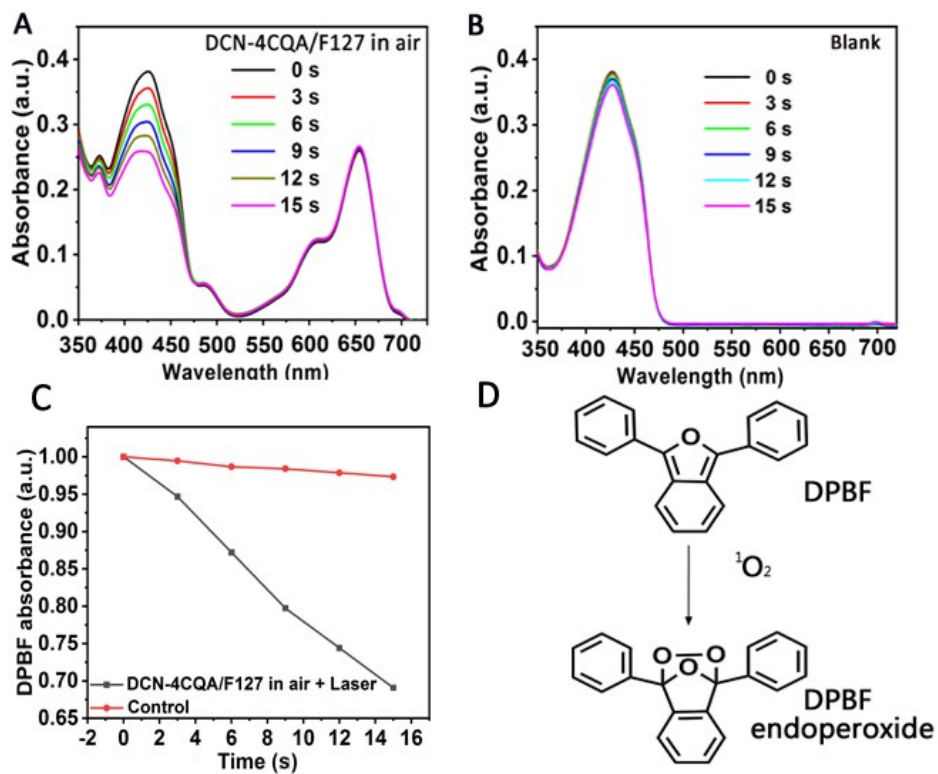


Fig. S5 (A, B) UV-vis absorption spectra of DPBF with and without DCN-4CQA under 655 nm irradiation at 1.0 W/cm² for different time. (C) Absorption at 419 nm of DPBF with and without DCN-4CQA under 730 nm laser irradiation. (D) Illustration of the reaction from DPBF to DPBF endoperoxide by singlet oxygen.

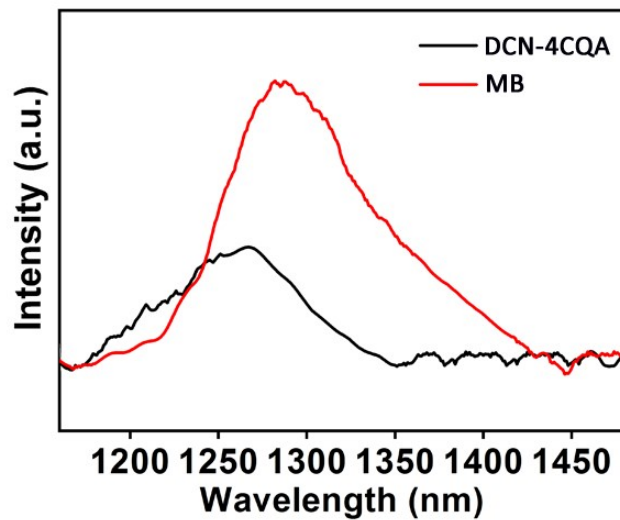


Fig. S6 $^1\text{O}_2$ emission at ~ 1270 nm induced by the commercial MB and DCN-4CQA in ethanol under excitation with a 655 nm light.

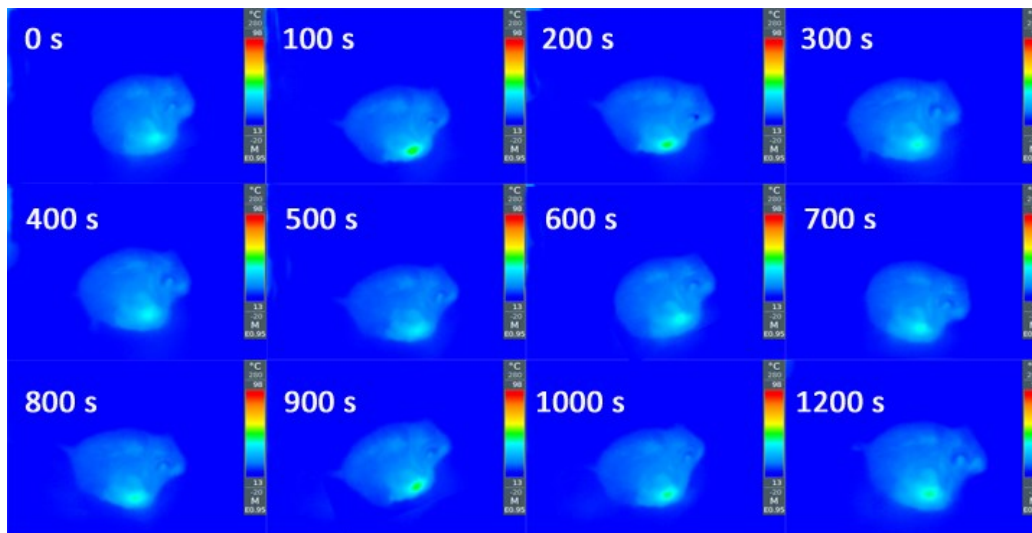


Fig. S7 Thermal imaging of mice without any treatments under 730 nm laser irradiation for different times.

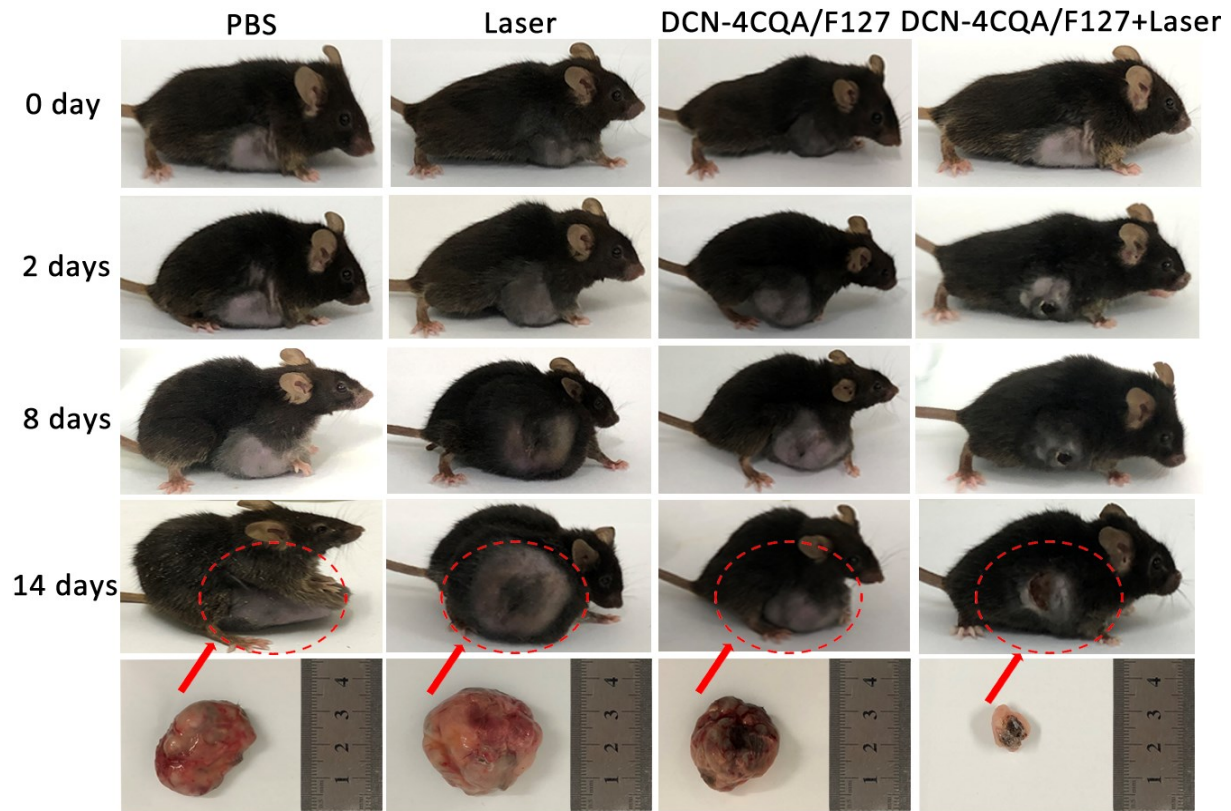


Fig. S8 Tumor images of different groups of 4T1 tumor-bearing mice after 14-day treatment.