

Reference Study_BODIPY Dyes_NBB

Highly efficient near-infrared BODIPY phototherapeutic nanoparticles for cancer treatment

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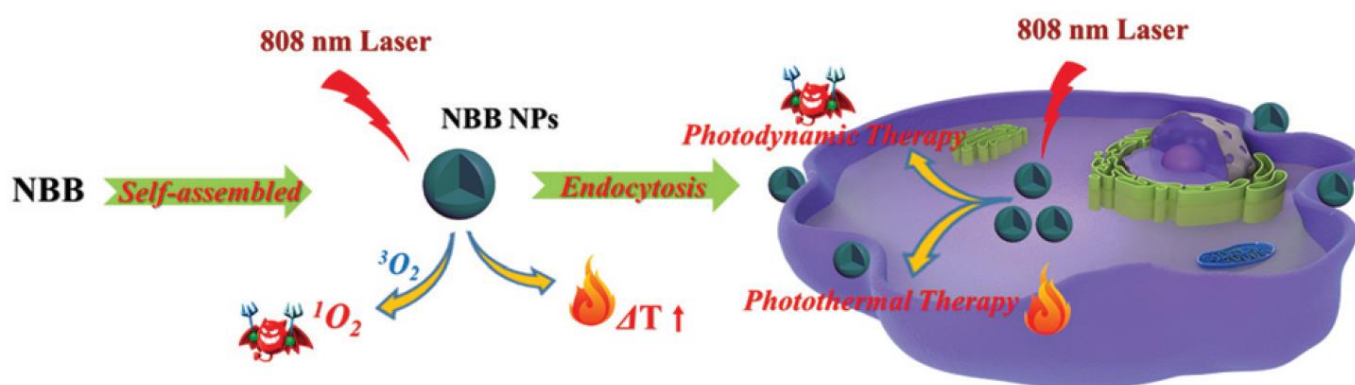
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Abstract

- BODIPYs are highly potential photoactive agents for cancer theragnostics. The rational design of BODIPYbased photoactive nanodrugs with high efficiency and near-infrared (NIR) absorption is imperative.
- A donor–acceptor–donor (D–A–D) organic photosensitizer (PS) (BODIPY, named **NBB**), which possessed strong absorption in the NIR region due to the multi-intersection of intramolecular charge transfer (ICT), photoinduced electron transfer (PET), and heavy atom effects.
- Through a nanoprecipitation method, NBB nanoparticles (NPs) were facilely prepared. The as-prepared NBB NPs exhibited favorable water-stability and photostability.
- The outstanding photon absorption capacity endows the NPs with high photothermal conversion efficiency ($Z = 53.8\%$) and active singlet oxygen (1O_2) generation ability upon 808 nm laser irradiation.

Materials & Devices



Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

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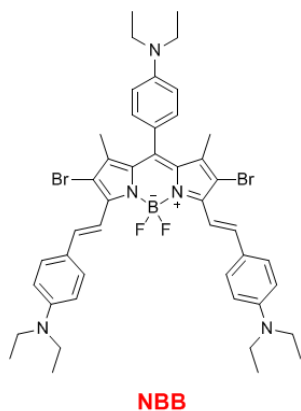
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*Figure reference: *J. Mater. Chem. B*, 2020, 8, 5305-5311. <https://doi.org/10.1039/D0TB00991A>

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