## **Supporting information**

## Naproxen release aspect from Boron-doped carbon nanodots as bifunctional agent on cancer therapy

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Fig. S1. Photographs of synthesized BCD after being heated at 240 °C for 4 h.



Fig. S2. The AFM histogram of BCD, analyzed by Gaussian model in origin software.



Fig. S3. TEM images of (a) BCD and (b) N-BCD. The with bars reperset 100 nm.



Fig. S4. Turbidity data of BCD and N-BCD on varied pH value after 72 h (n=3).



**Fig. S5.** The cytotoxicity concentration of BCD towards HeLa cell lines ( $2.5 \times 10^4$  cells/well) with varied concentrations (up to 500 µg/ml) after 24 h incubation at 37 °C and 5% CO<sub>2</sub> condition.



**Fig. S6.** Kinetical release curve of naproxen-loaded BCD under varied pH (4, 7, and 9) with theoretical approaches, including zero-order (red line), first-order (green line), Higuchi (orange line), and Korsmeyer–Peppas model (blue line).