Electronic Supplementary Material (ESI)

## Nitric Oxide-Sensitized Mitoxantrone Chemotherapy Integrated with

## Photothermal Therapy against Multidrug Resistant Tumor

Xiaoyu Huang,<sup>‡ab</sup> Rui Gu,<sup>‡a</sup> Zhihao Zhong,<sup>a</sup> Changjin Ou,<sup>d</sup> Weili Si,\*<sup>a</sup> Fu Wang,<sup>b</sup> Ting Zhang,\*<sup>c</sup> Xiaochen Dong\*<sup>a</sup>

<sup>a</sup>Key Laboratory of Flexible Electronics (KLOFE) & Institute of Advanced Materials (IAM), School of Physical and Mathematical Sciences, Nanjing Tech University (Nanjing Tech), Nanjing 211800, China. E-mail: iamwlsi@njtech.edu.cn; iamxcdong@njtech.edu.cn <sup>b</sup>School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai 200030, China.

<sup>c</sup>Department of Ultrasound Diagnostic, Jiangsu Cancer Hospital & Jiangsu Institute of Cancer Research & Affiliated Cancer Hospital of Nanjing Medical University, Nanjing 210009, China. E-mail: 13701461689@163.com

<sup>d</sup>School of Chemistry and Materials Science, Nanjing University of Information Science & Technology, Nanjing 210044, China.

\*These authors contributed equally to this work.



**Fig. S1** (a) The fluorescence intensity of N-GO, N-GO-MTX and N-GO-MTX-BNN6 NPs. (b) Absorption curves of N-GO-MTX-BNN6 NPs mixed Griess reagents under dark condition. (c, d) Absorbance curves of BNN6 and MTX solution at different concentrations.



Fig. S2 Linear cooling time vs-ln( $\theta$ ) obtained from Fig. 3g.



Fig. S3 Cell viability of MCF-7 cells in different conditions.



Fig. S4 Fluorescence Images of DAF-FM DA stained MCF-7, MDA-MB-231 and MCF-7/ADR cells treated with different irradiation time. Scale bar: 50  $\mu$ m.



**Fig. S5** MCF-7/ADR cells treated with none (left), N-GO-MTX-BNN6 NPs (middle), N-GO-MTX-BNN6 NPs and LED irradiation (20 min, middle), N-GO-MTX-BNN6 NPs and LED irradiation (10 min, right), respectively.