## **Supporting information**

## Selenide heterostructure nanosheets with efficient near-infrared photothermal conversion for therapy

Yanbang Lian<sup>1</sup>, Congcong Wang<sup>2</sup>, Yu Meng<sup>3</sup>, Junqiang Dong<sup>1</sup>, Jianbin Zhang<sup>4</sup>, Shiqing Xu<sup>2</sup>, Gongxun Bai<sup>2\*</sup>, Jianbo Gao<sup>1\*</sup>

<sup>1</sup>Radiology Department, The First Affiliated Hospital of Zhengzhou University, Zhengzhou 450052, China

<sup>2</sup>Key Laboratory of Rare Earth Optoelectronic Materials and Devices of Zhejiang Province, College of Optical and Electronic Technology, China Jiliang University, Hangzhou 310018, China

<sup>3</sup>Oncology Department, The First Affiliated Hospital of Zhengzhou University, Zhengzhou 450052, China

<sup>4</sup> Department of Medical Oncology, Zhejiang Provincial People's Hospital, Affiliated People's Hospital, Hangzhou Medical College, Hangzhou 310014, China E-mail: cjr.gaojianbo@vip.163.com (J. Gao), baigx@cjlu.edu.cn (G. Bai)





Figure S1 *In Vitro* Experiments with mouses.

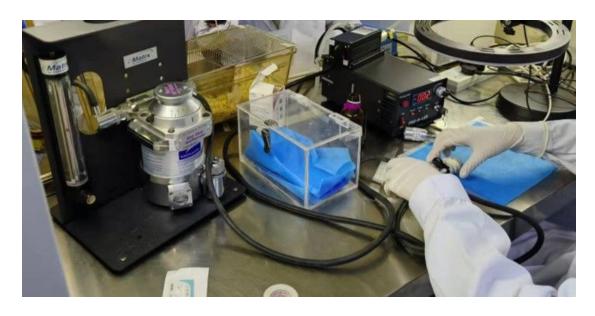


Figure S2 *In Vitro* Experimental operations.

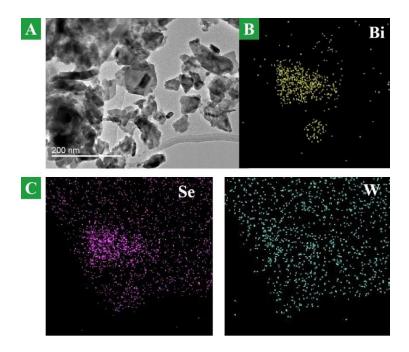


Figure S3 (A)The HR-TEM images of BW heterostructure nanosheets. The energy dispersive mapping of (B) Bi, (C) W, and Se in BW heterostructure nanosheets.