## Fabrication of mesoporous La<sub>3</sub>Ga<sub>5</sub>GeO<sub>14</sub>: Cr<sup>3+</sup>, Zn<sup>2+</sup> persistent

## luminescence nanocarriers with super-long afterglow for

## bioimaging-guided in vivo drug delivery to gut

Dong-Dong Zhang,<sup>a,‡</sup> Jing-Min Liu,<sup>b,‡</sup> Nan Song,<sup>a</sup> Yao-Yao Liu,<sup>a</sup> Meng Dang,<sup>a</sup> Guo-Zhen Fang,<sup>a,\*</sup> and Shuo Wang<sup>b, c,\*</sup>

<sup>a</sup> Key Laboratory of Food Nutrition and Safety, Ministry of Education, Tianjin University of Science and Technology, Tianjin, 300457, China

<sup>b</sup> Tianjin Key Laboratory of Food Science and Health, School of Medicine, Nankai University, Tianjin 300071, China

<sup>c.</sup> Beijing Advanced Innovation Center for Food Nutrition and Human Health, Beijing Technology & Business University (BTBU), Beijing, 100048, China.

*<sup>‡</sup>These authors contributed equally to the work.* 

<sup>\*</sup>Corresponding Author.

E-mail: fangguozhen@tust.edu.cn (G. Z. Fang), wangshuo@nankai.edu.cn (S. Wang)

1. The effect of different TEOS additions on the thickness of mesoporous silica.

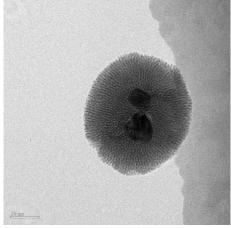


Fig. S1 HRTEM images of NPs@SiO\_ (added 600  $\mu L$  10% tetraethyl orthosilicate (TEOS)/methanol

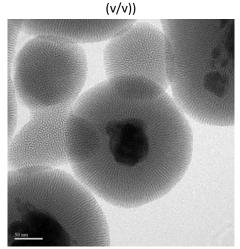


Fig. S2 HRTEM images of NPs@SiO<sub>2</sub> (added 900  $\mu$ L 10% tetraethyl orthosilicate (TEOS)/methanol (v/v))