

**Supplementary Material for:**

**Nontoxic Tb<sup>3+</sup>-induced Hyaluronic Nano-poached Eggs Aggregates  
for Colorimetric and Luminescent Detection of Fe<sup>3+</sup> ions**

Jing Wang<sup>1</sup>, Bei Qian<sup>2,\*</sup>, Tao Wang<sup>1</sup>, Yanyan Ma<sup>1</sup>, Haitao Lin<sup>1</sup>, Yimeng Zhang<sup>1</sup>,  
Hongmin Lv<sup>1</sup>, Xiaonan Zhang<sup>1</sup>, Yimeng Hu<sup>1</sup>, Shanshan Xu<sup>1</sup>, Fengchen Liu<sup>3</sup>, Huiling  
Li<sup>4</sup>, Zike Jiang<sup>1,\*</sup>

<sup>1</sup>*Institute of Oceanographic Instrumentation, Qilu University of Technology (Shandong Academy of Sciences), Shandong Provincial Key Laboratory of Marine monitoring instrument equipment technology, National Engineering and Technological Research Center of Marine Monitoring Equipment, 37 Miaoling Road, Qingdao 266061, P. R. China*

<sup>2</sup> *College of Chemistry and Pharmaceutical Sciences, Qingdao Agricultural University, Qingdao 266109, China*

<sup>3</sup> *Shandong Technological center of oceanographic instrumentation Co., Ltd, 37 Miaoling Road, Qingdao 266061, P. R. China*

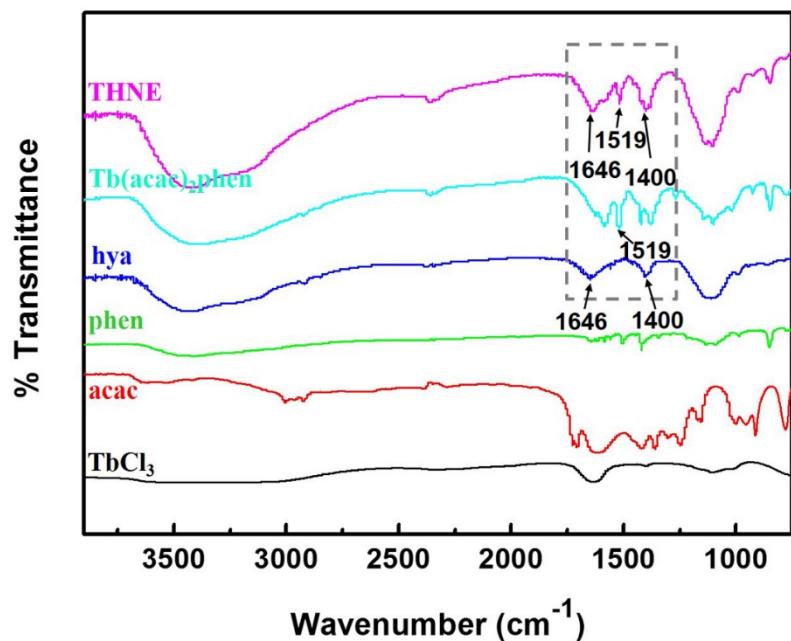
<sup>4</sup> *Innovation and Development Institute of Shangdong Province, Jinan 250101, P. R. China*

\* Corresponding author: Zike Jiang ([jiangzike2011@126.com](mailto:jiangzike2011@126.com))

Bei Qian ([bqian@qau.edu.cn](mailto:bqian@qau.edu.cn))

FTIR spectra of TbCl<sub>3</sub>, acac, phen, hya, Tb(acac)<sub>2</sub>phen and THNE are shown in Fig. S.1. Photographs of naked-eye-visible and 365 nm UV lamp illumination color changes of THNE (5.0 mM Tb<sup>3+</sup>) upon the addition of various metal ions (250 μM) are shown in Fig. S.2.

**Fig. S.1. FTIR spectra of  $\text{TbCl}_3$ , acac, phen, hya,  $\text{Tb}(\text{acac})_2\text{phen}$  and THNE**



**Fig. S.2. Photographs of naked-eye-visible and 365 nm UV lamp illumination color changes of THNE (5.0 mM Tb<sup>3+</sup>) upon the addition of various metal ions (250 µM) in ethanol-H<sub>2</sub>O (3:1, v/v);**

