

## Supplementary materials

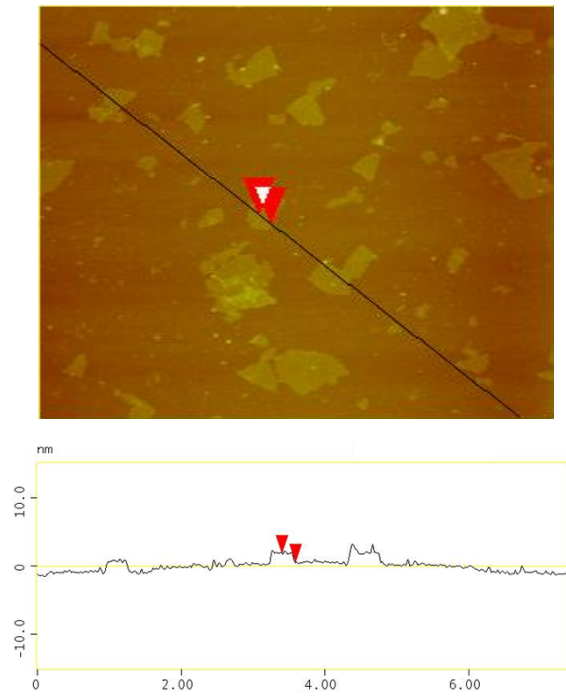
### **Preparation and performance of a novel graphene oxide sheets modified rare-earth luminescence material**

Wenjun Zhang,<sup>\*a</sup> Xuefeng Zou,<sup>a</sup> Jinfeng Zhao,<sup>a</sup>

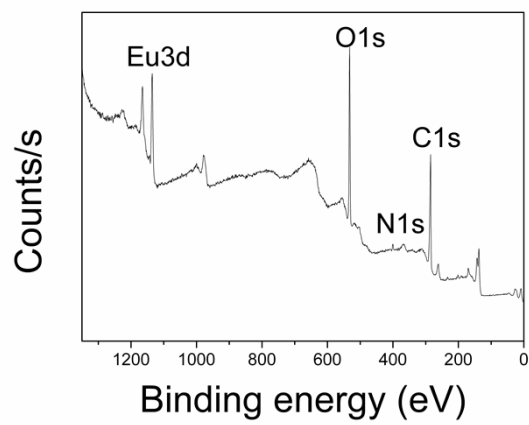
School of Chemical Engineering, Hebei University of Technology, Tianjin 300130, China

E-mail: [wjzhang@hebut.edu.cn](mailto:wjzhang@hebut.edu.cn)

**Fig. S1** SEM image of GOSs.

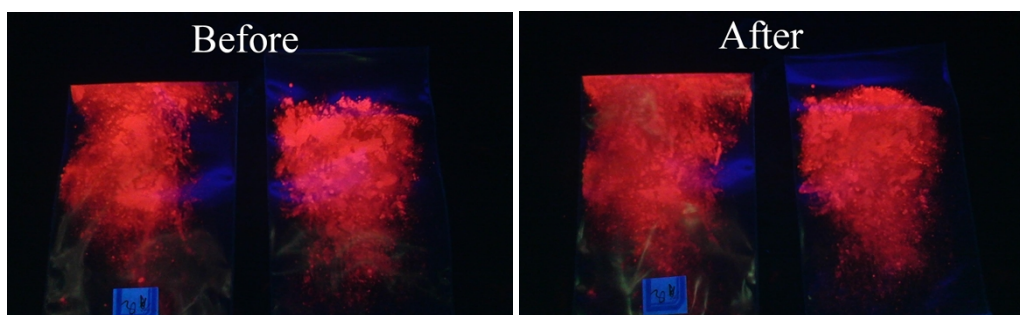


**Fig. S2** AFM image of GOSs. The thickness of GOSs was 1.236nm, indicating the single layer GOSs was obtained.

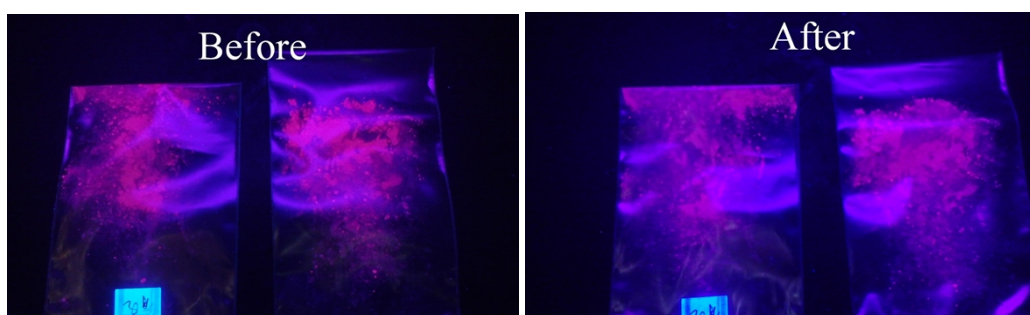


**Fig. S3** XPS spectrum of Eu-PMA-phen.

UV light 254nm



UV light 365nm



**Fig. S4** Photographs of Eu-PMA-phen/GOSs<sup>5</sup> in the seal sample bag under the UV light (254nm and 365nm). Every image consists of the two samples (the left is in the air, the right is seal). The samples were illuminated by the UV light with 254nm and 365nm in the atmosphere with air and without air for 9 days, respectively.