

Facile preparation of luminescent amphiphilic carbohydrate polymers with aggregation induced emission characteristics through formation of Schiff base for biological imaging

Yun Xue<sup>a,b,#</sup>, Meiying Liu<sup>b,#</sup>, Hongye Huang<sup>b</sup>, Fengjie Deng<sup>b</sup>, Guangjian Zeng<sup>b</sup>, Qing Wan<sup>b</sup>, Shangdong Liang<sup>a,\*</sup>, Xiaoyong Zhang<sup>a,b,\*</sup>, Yen Wei<sup>c,\*</sup>

a Department of Physiology, Medical School of Nanchang University, Nanchang 330006, PR China

b College of Chemistry and Jiangxi Provincial Key Laboratory of New Energy Chemistry, Nanchang University, 999 Xuefu Avenue, Nanchang 330031, China

c Department of Chemistry and the Tsinghua Center for Frontier Polymer Research, Tsinghua University, Beijing, 100084, P. R. China.

## Results and Discussion

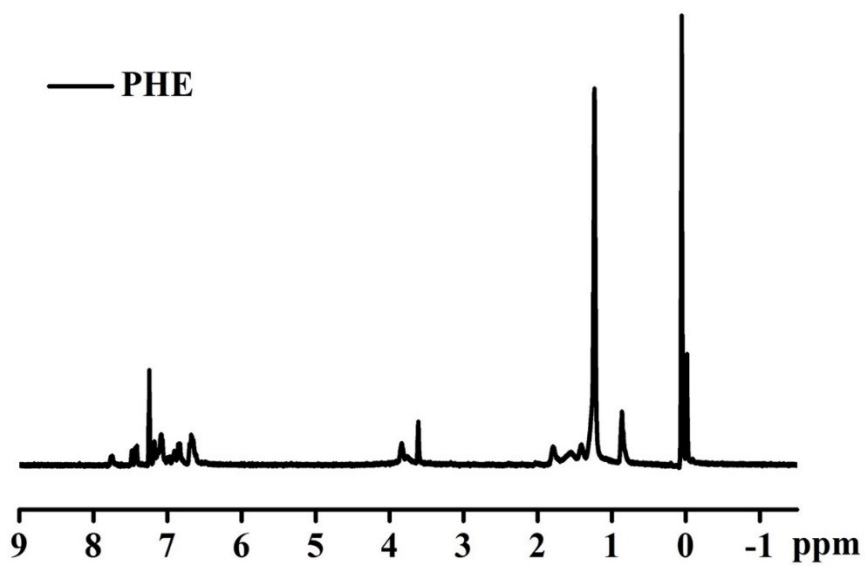


Fig. S1 <sup>1</sup>H NMR spectrum of PhE dispersed in CDCl<sub>3</sub>

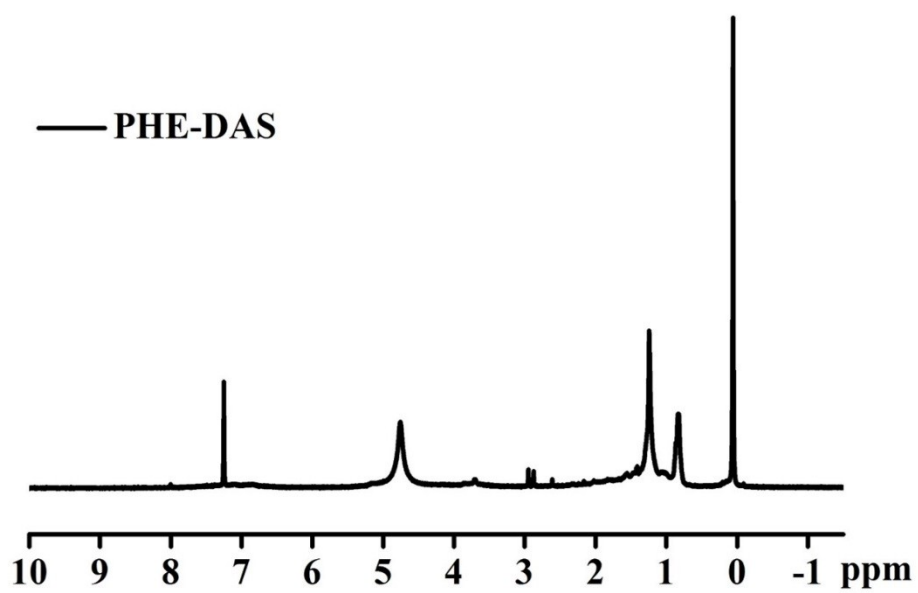
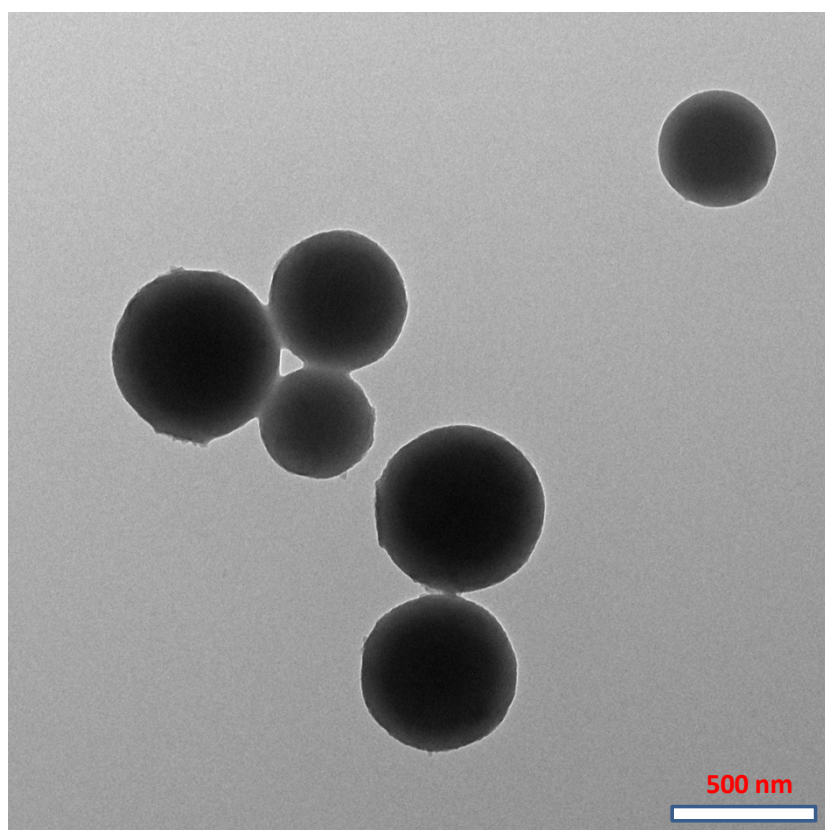
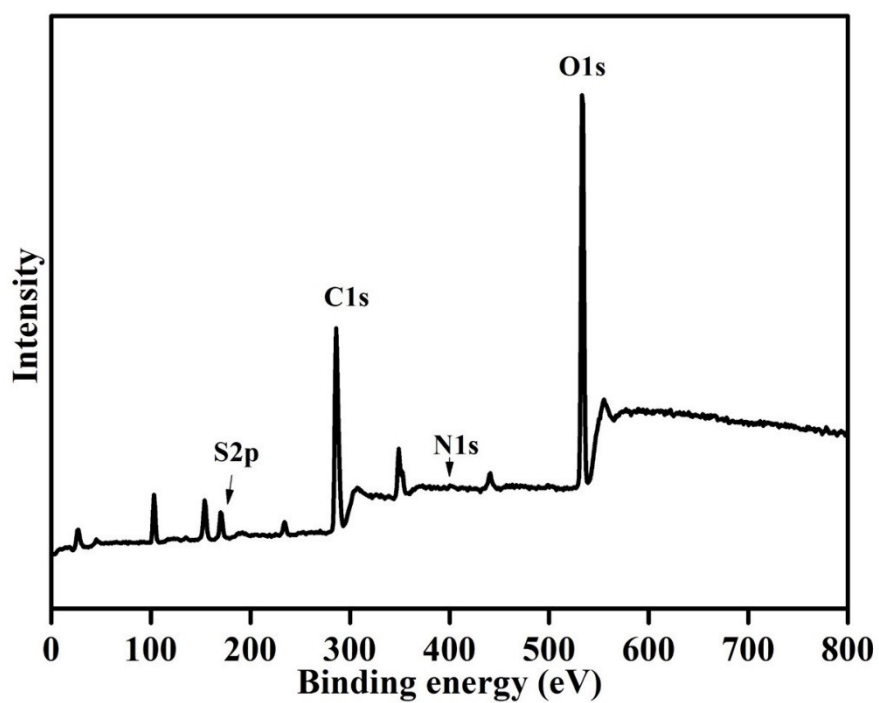


Fig. S2 <sup>1</sup>H NMR spectrum of PhE-DAS dispersed in CDCl<sub>3</sub>



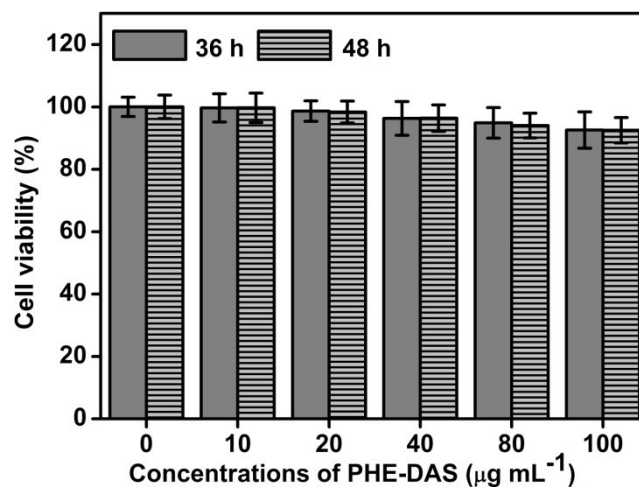
**Fig. S3** TEM images of PhE-DAS. The size of PhE-DAS LPMs is ranged from 200 to 500 nm



**Fig. S4** XPS spectrum of PHE-DAS. The elements such as carbon, nitrogen, oxygen, and sulfur were observed.

**Table S1** element contents (%) of PhE-DAS based on the XPS analysis.

	C1s	N1s	O1s	S2p
PhNH <sub>2</sub> -DAS	57.28	1.1	38.45	3.16



**Fig. S5** Cell viability of PHE-DAS for 36 h and 48 h with different concentrations (10-100 µg mL<sup>-1</sup>) for incubating.