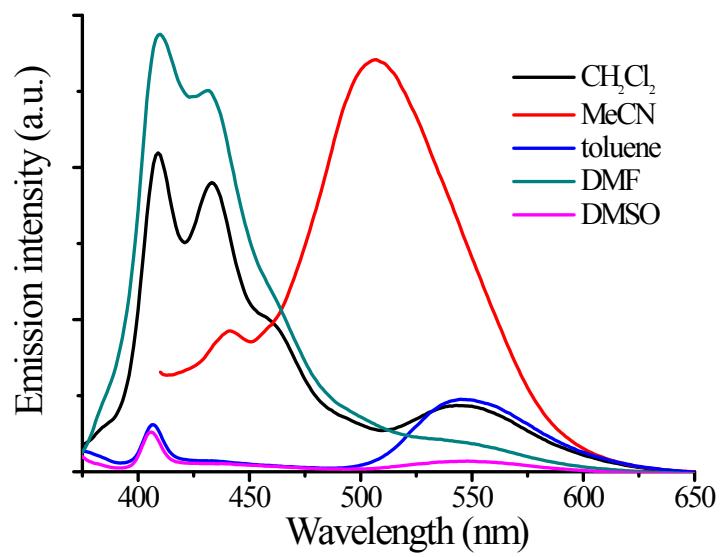


**Supporting Information**

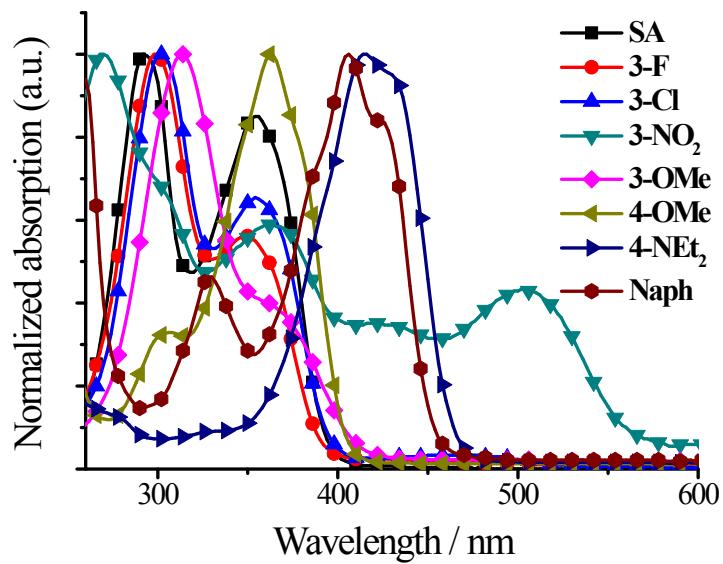
**Ratiometric fluorescent pH probes based on aggregation-induced  
emission-active salicylaldehyde azines**

**Xiaofeng Ma, Jinghui Cheng, Jiaoyan Liu, Xiangge Zhou, and Haifeng Xiang\***

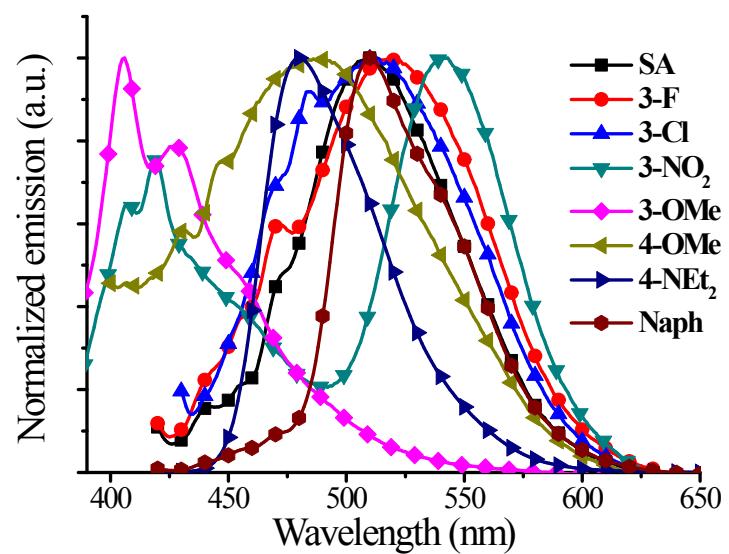
**College of Chemistry, Sichuan University, Chengdu, 610041, China**



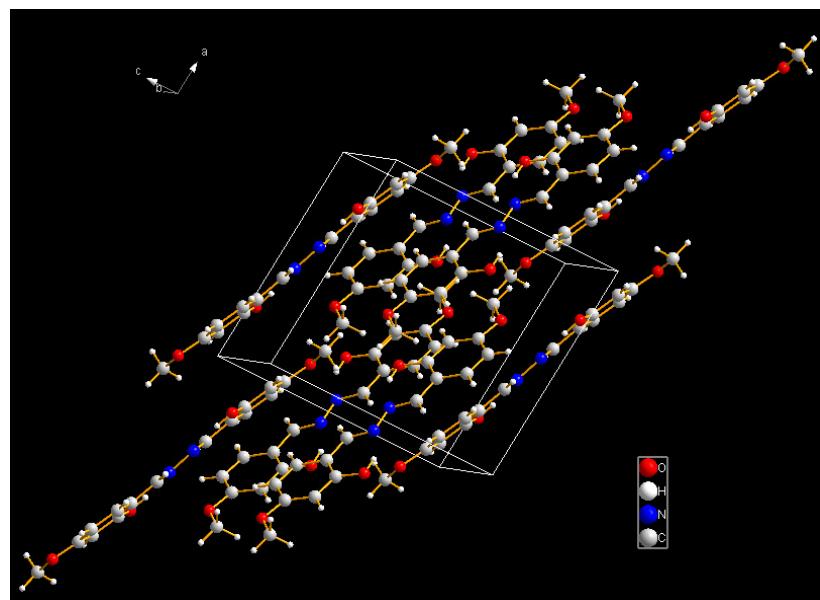
**Fig. S1** Emission spectra of **SA** in different organic solvents.



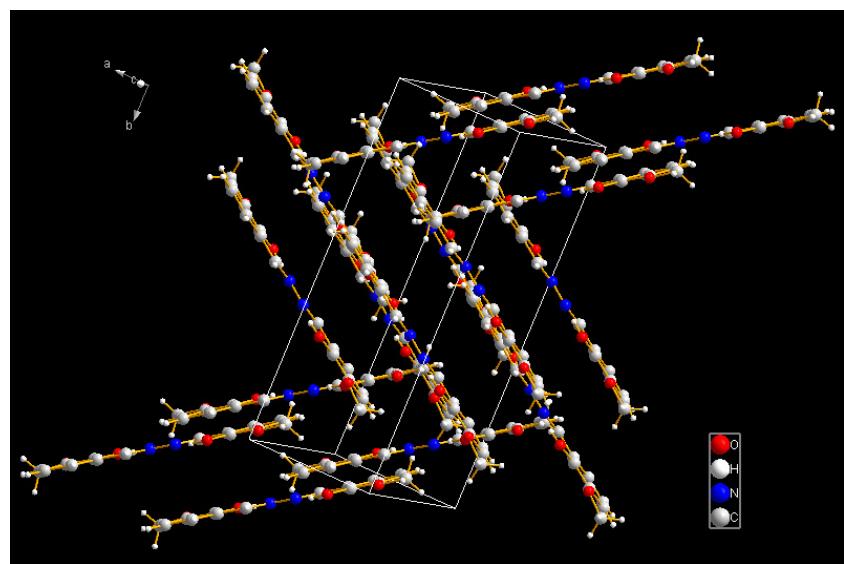
**Fig. S2** Absorption spectra of SAs in MeCN.



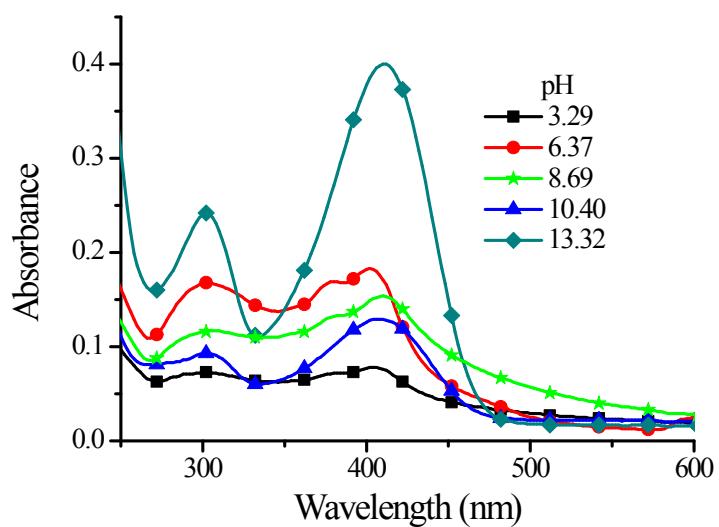
**Fig. S3** Emission spectra of SAs in MeCN.



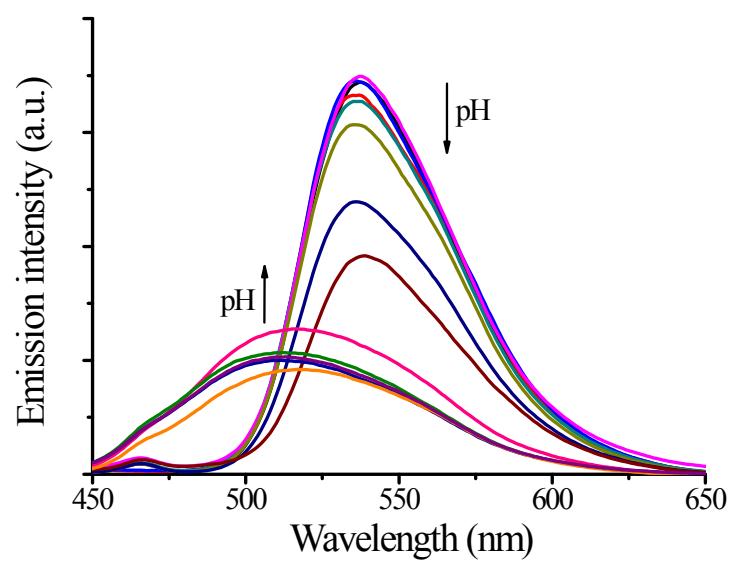
**Fig. S4** X-ray single crystal structure of 4-OMe.



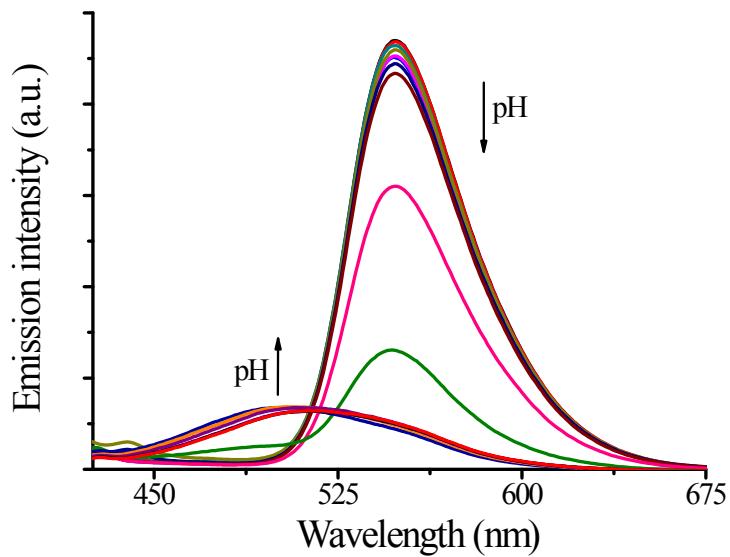
**Fig. S5** X-ray single crystal structure of **3-OMe**.



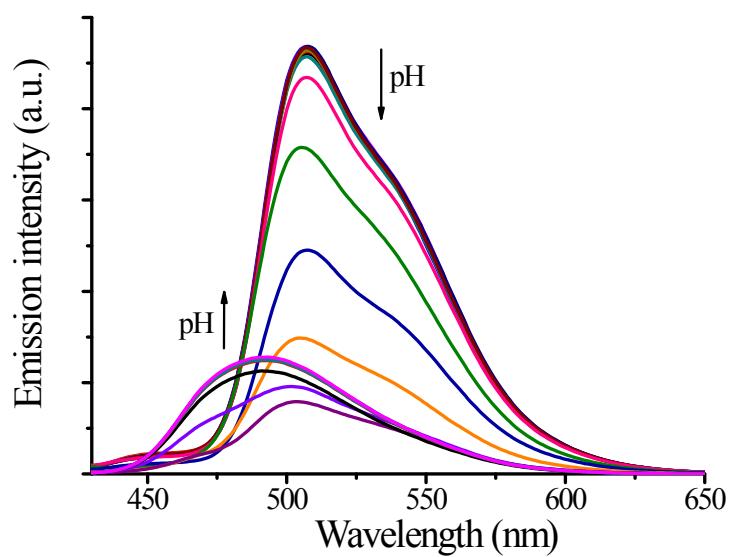
**Fig. S6** Absorption spectra of **3-Cl** at different pH values.



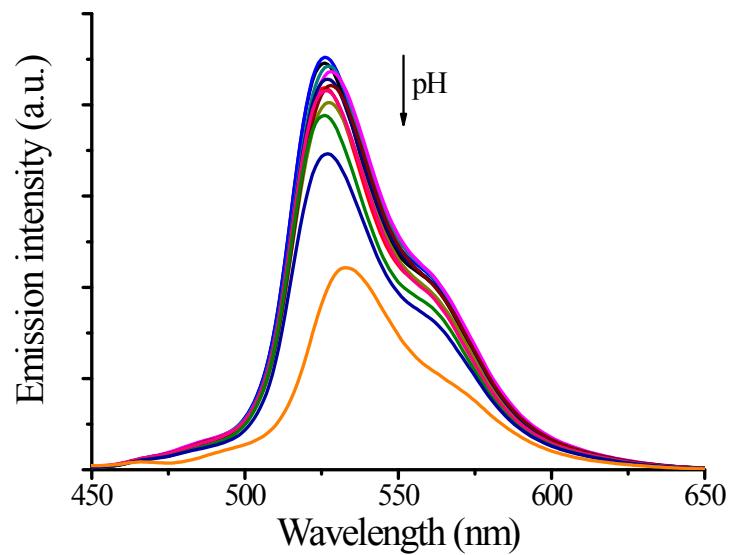
**Fig. S7** Emission spectra of **SA** at different pH values in B-R buffer solution ( $1.0 \times 10^{-5}$  mol dm $^{-3}$  and  $f = 92\%$ ).



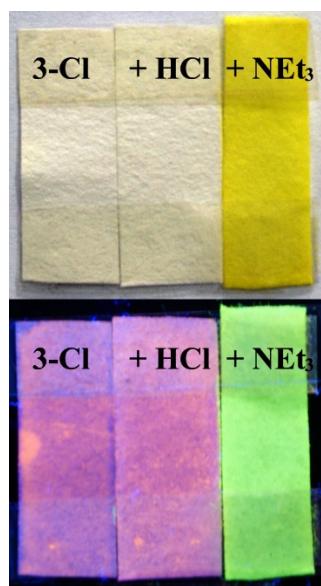
**Fig. S8** Emission spectra of **3-F** at different pH values in B-R buffer solution ( $1.0 \times 10^{-5}$  mol dm $^{-3}$  and  $f = 92\%$ ).



**Fig. S9** Emission spectra of **4-OMe** at different pH values in B-R buffer solution ( $1.0 \times 10^{-5}$  mol dm $^{-3}$  and  $f = 92\%$ ).



**Fig. S10** Emission spectra of **Naph** at different pH values in B-R buffer solution ( $1.0 \times 10^{-5}$  mol dm $^{-3}$  and  $f = 80\%$ ).



**Fig. S11** Colour changes (top: under room light; bottom: under 360 nm UV light) of homemade **3-Cl** test papers after exposing to vapors of HCl and NEt<sub>3</sub>, respectively.