

## Supporting Information

### **Luminescent hydrogels based on di(4-propoxyphenyl)-dibenzofulvene exhibiting four emission colours and organic solvents/thermal dual responsive properties**

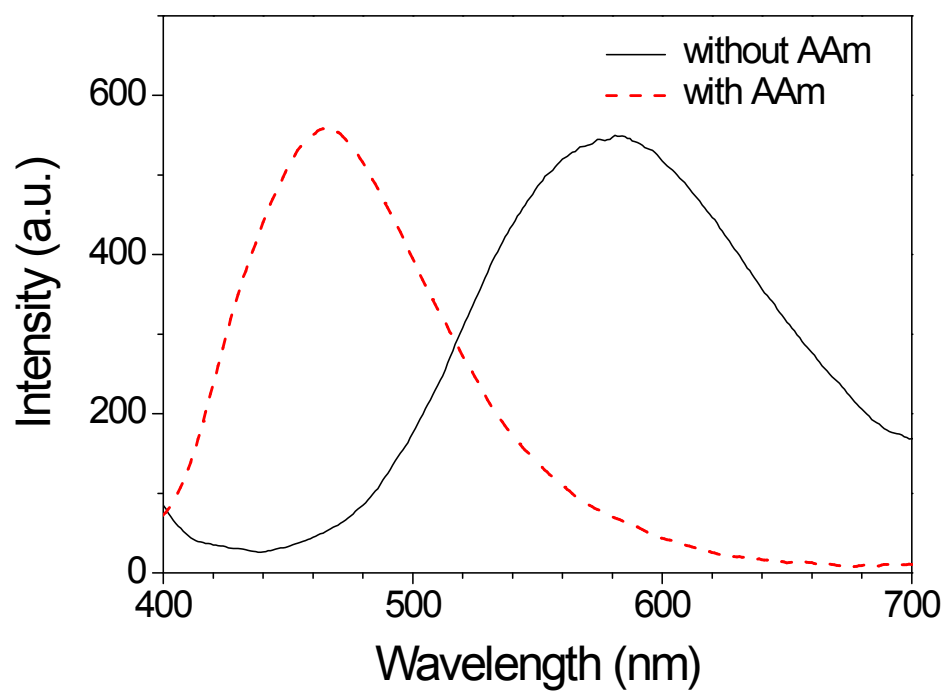
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Huiliang Wang\*

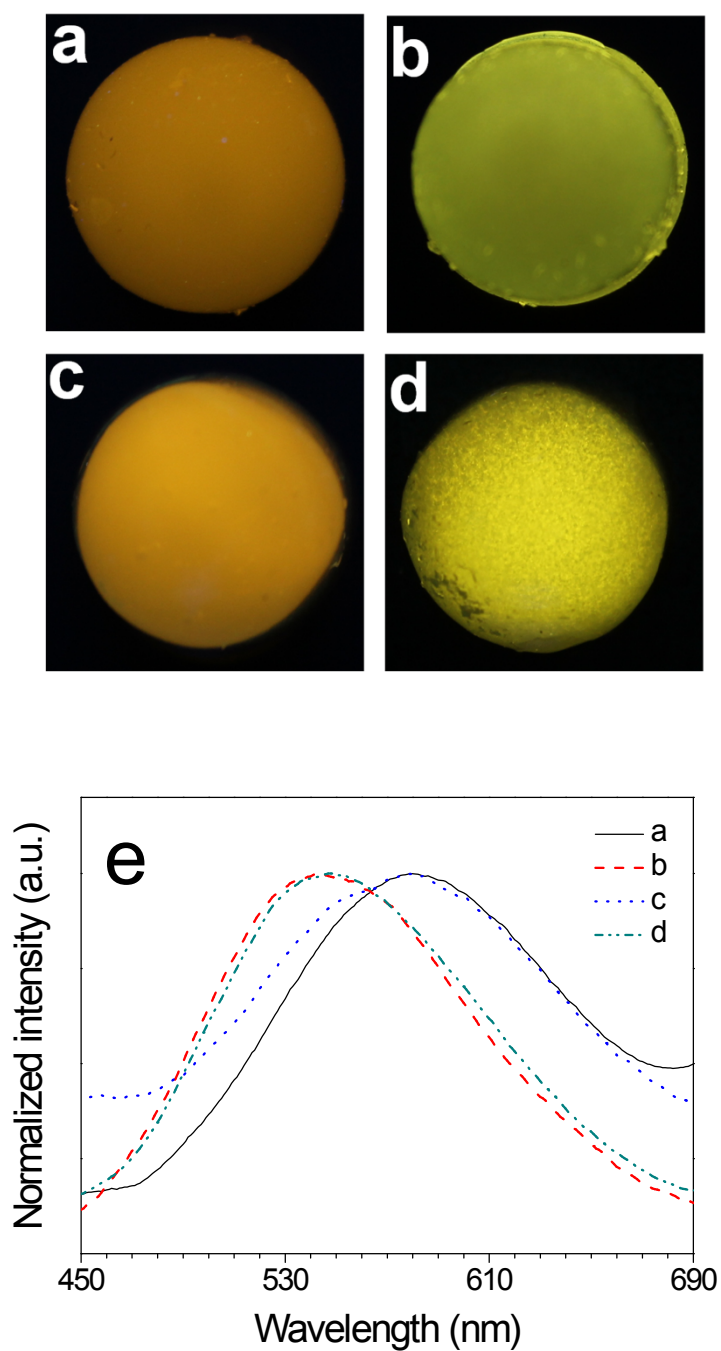
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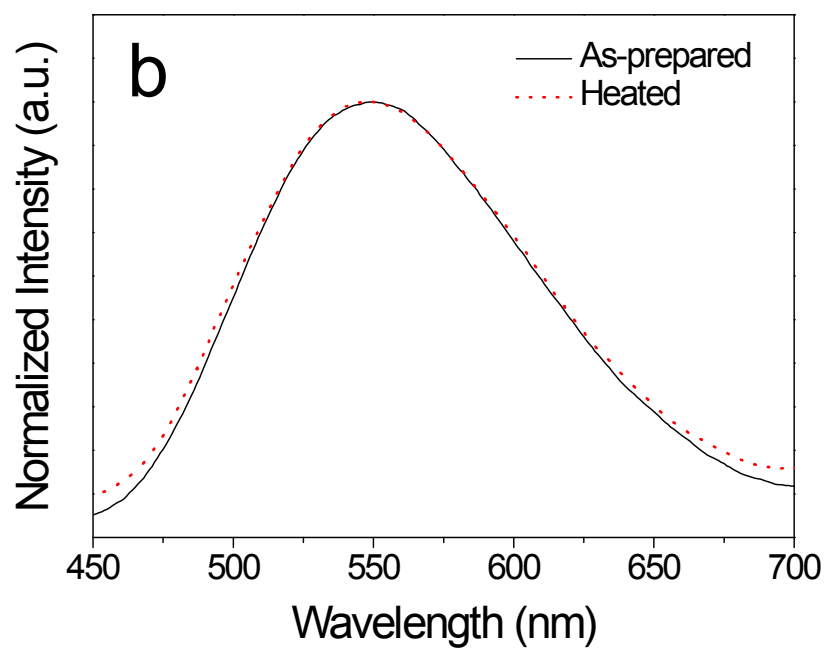
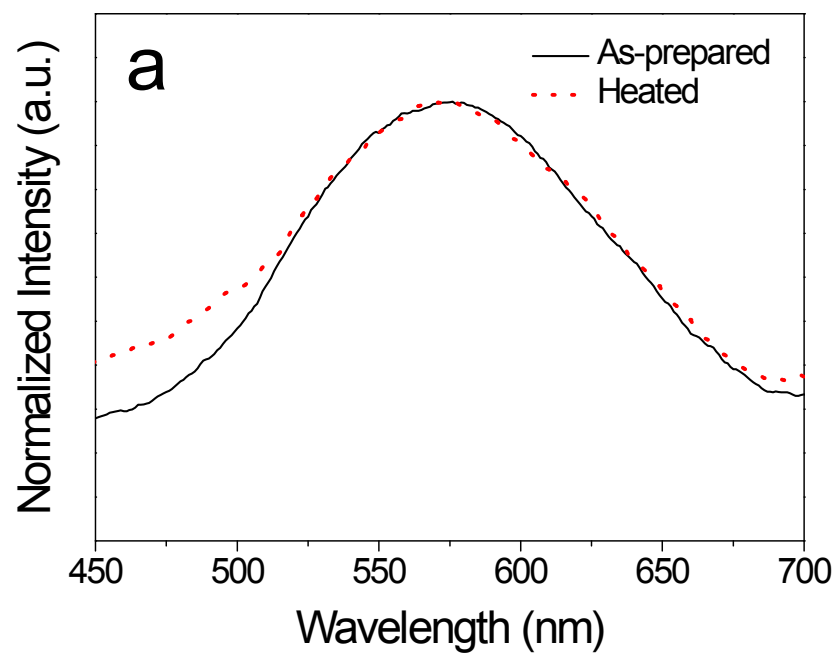
Fax: 86-10-58802075; Tel: 86-10-58808081; Email: [wanghl@bnu.edu.cn](mailto:wanghl@bnu.edu.cn)



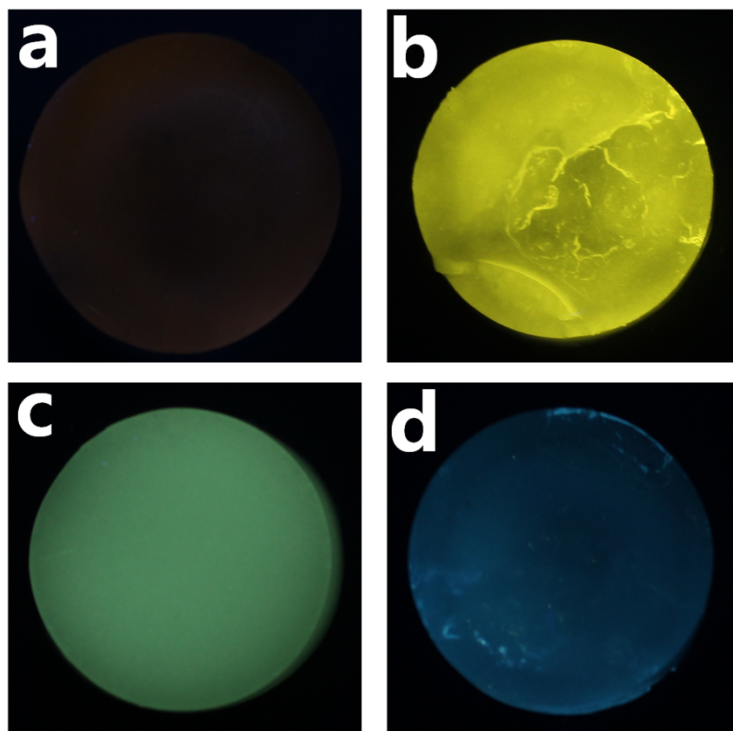
**Fig. S1** The PL spectra of the DBF dispersions with or without AAm after the freezing-thawing process.



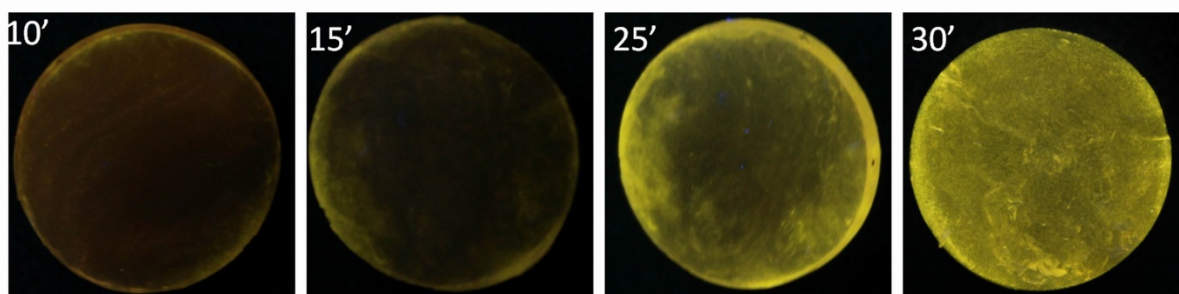
**Fig. S2** The reversible orange-yellow switches of the orange-emitting hydrogel. Photographs of the as-prepared hydrogel (a), and the hydrogel after different treatments (b-d): fuming with acetone (b), heating and then swelling (c), and fuming with acetone again (d); and the PL spectra of the hydrogels (e).



**Fig. S3** The normalized PL spectra of the hydrogel emitting orange (a) and yellow (b) before and after being heated at 70°C.



**Fig. S4.** Photographs of the hydrogels emitting orange (a), yellow (b), green (c), and blue (d) colours after being swelled for 30 days.



**Fig. S5.** Photographs showing the orange-yellow change of a hydrogel during the process of fuming with acetonitrile vapor. The hydrogel samples fumed for different times were cut off and the fresh surfaces were observed.