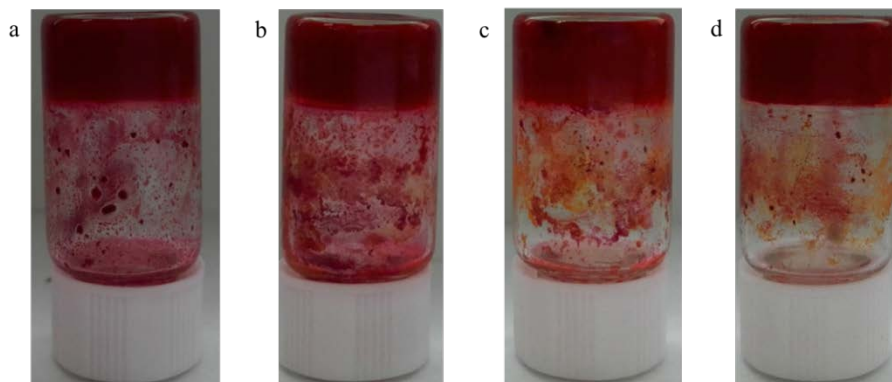


# Supplementary Materials: A Smart pH-Responsive Three Components Luminescent Hydrogel

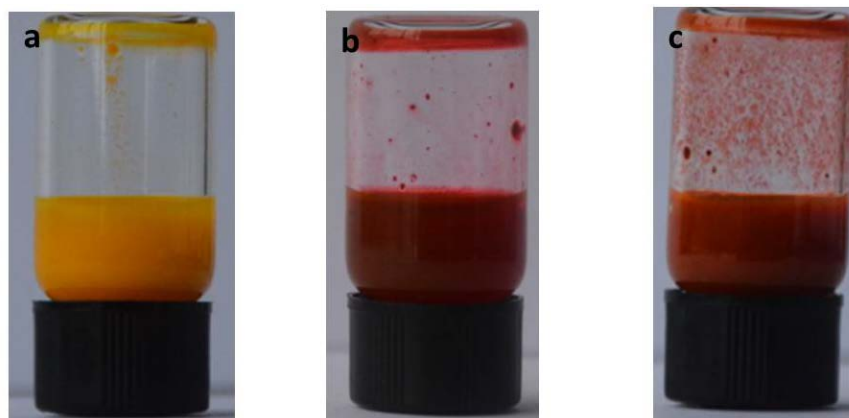
Yibao Li \*, Wei Liu, Linxiu Cheng, Ping Huang, Yu Peng, Yongquan Wu, Xun Li, Xiaokang Li \* and Xiaolin Fan

## 1. Photos of Different Mole Ratio Gels



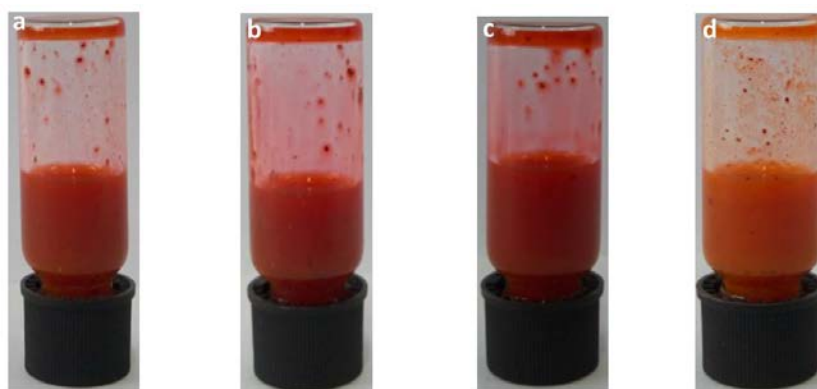
**Figure S1.** Optical images of the multicomponent gel for different mole ratio, (a) NVPD:RF:MM = 1:0.3:2, [NVPD] =  $6.7 \times 10^{-3}$  mol/L, [RF] =  $2 \times 10^{-6}$  mol/L, [MM] =  $1.3 \times 10^{-2}$  mol/L; (b) NVPD:RF:MM = 1:1:2, [NVPD] =  $6.7 \times 10^{-3}$  mol/L, [RF] =  $6.7 \times 10^{-3}$  mol/L, [MM] =  $1.3 \times 10^{-2}$  mol/L; (c) NVPD: RF : MM = 1:2:2, [NVPD] =  $6.7 \times 10^{-3}$  mol/L, [RF] =  $1.3 \times 10^{-2}$  mol/L, [MM] =  $1.3 \times 10^{-2}$  mol/L; (d) NVPD:RF:MM = 1:2:3, [NVPD] =  $6.7 \times 10^{-3}$  mol/L, [RF] =  $1.3 \times 10^{-2}$  mol/L, [MM] =  $2 \times 10^{-2}$  mol/L.

## 2. Addition Photos of the Two-Component Gelator Solution



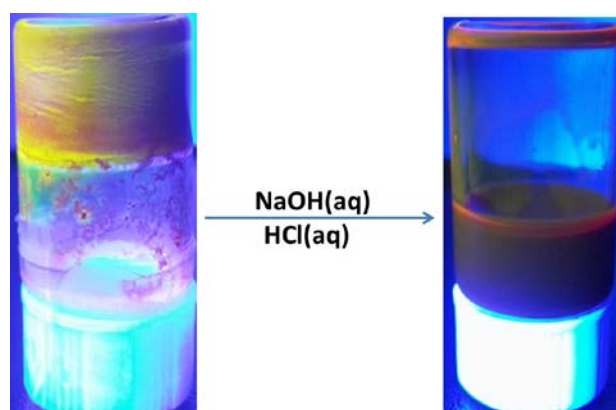
**Figure S2.** Optical images of the multicomponent gel for different ratio without ultrasound at the room temperature, (a) RF: MM = 2:2; (b) NVPD:MM = 1:2; (c) NVPD: RF = 1:2.

### 3. Addition Photos of the Three-Component Gel with Different Ratio



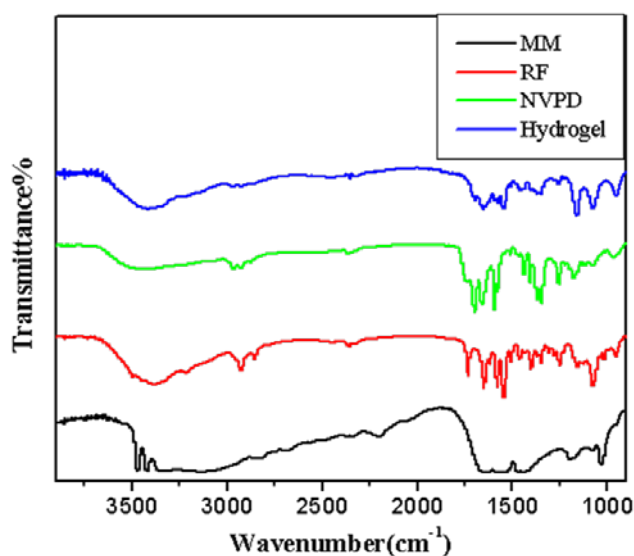
**Figure S3.** Optical images of the multicomponent gel for different ratio without ultrasound at the room temperature, (a) NVPD:RF:MM = 1:0.3:2; (b) NVPD:RF:MM = 1:1:2; (c) NVPD:RF:MM = 1:2:2; (d) NVPD:RF:MM = 1:2:3.

### 4. Addition Photos of the Three-Component Gel under 365nm UV Lamp with the Transition Gel-to-Sol Process



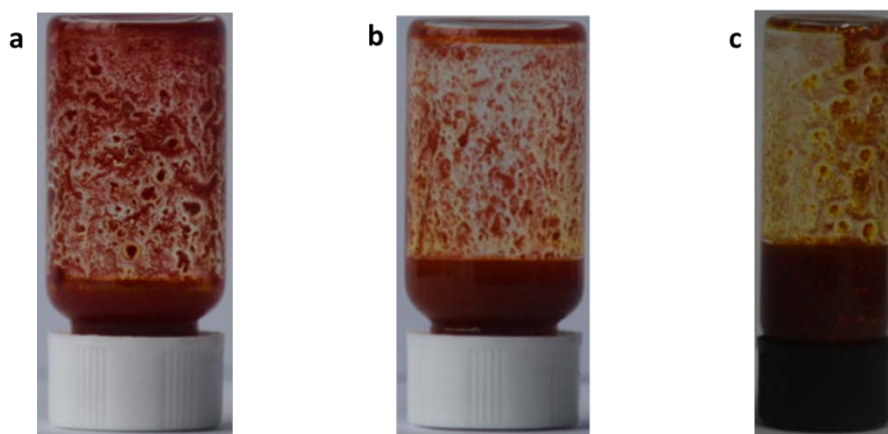
**Figure S4.** Fluorescence images of the gel ( $[NVPD] = 10^{-4}$  M) under 365 nm UV lamp of the transition process.

### 5. FT-IR Data



**Figure S5.** FT-IR spectra diluted with KBr for a NVPD/RF /MM= 1/2/2 xerogel (blue), NVPD (green), MM (black), RF (red).

## 6. Optical Images of the Different Mole Ratio Gel Reversible Process by Adjusting the pH



**Figure S5.** Optical images of the multicomponent gel for different ratio reversible process. (a) NVPD:RF:MM = 1:0.3:2; (b) NVPD:RF:MM = 1:1:2; (c) NVPD: RF:MM = 1:2:3.