

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

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1. Photos of Different Mole Ratio Gels

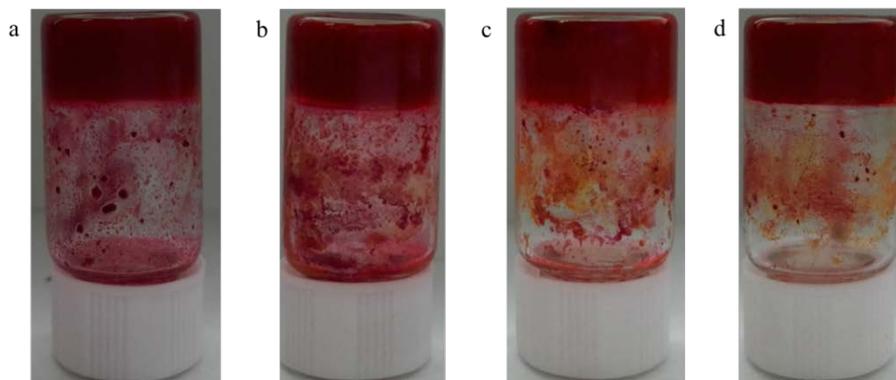


Figure S1. Optical images of the multicomponent gel for different mole ratio, (a) NVPD:RF:MM = 1:0.3:2, [NVPD] = 6.7×10^{-3} mol/L, [RF] = 2×10^{-6} mol/L, [MM] = 1.3×10^{-2} mol/L; (b) NVPD:RF:MM = 1:1:2, [NVPD] = 6.7×10^{-3} mol/L, [RF] = 6.7×10^{-3} mol/L, [MM] = 1.3×10^{-2} mol/L; (c) NVPD: RF :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

2. Addition Photos of the Two-Component Gelator Solution

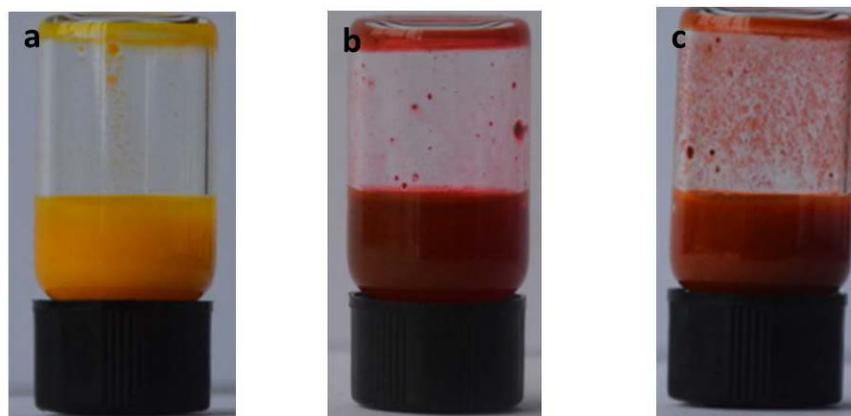


Figure S2. Optical images of the multicomponent gel for different ratio without ultrasound at the room temperature, (a) RF: MM = 2:2; (b) NVPD:MM = 1:2; (c) NVPD: RF = 1:2.

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

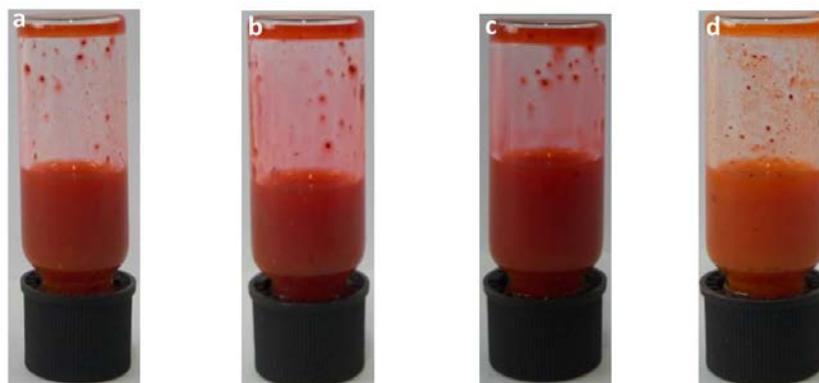


Figure S3. Optical images of the multicomponent gel for different ratio without ultrasound at the room temperature, (a) NVPD:RF:MM = 1:0.3:2; (b) NVPD:RF:MM = 1:1:2; (c) NVPD:RF:MM = 1:2:2; (d) NVPD:RF:MM = 1:2:3.

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

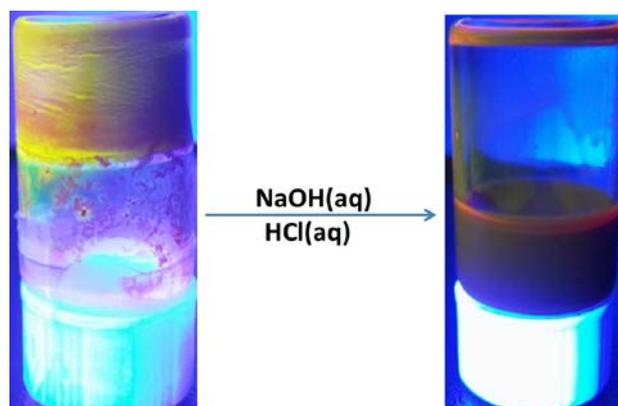


Figure S4. Fluorescence images of the gel ($[NVPD] = 10^{-4}$ M) under 365 nm UV lamp of the transition process.

5. FT-IR Data

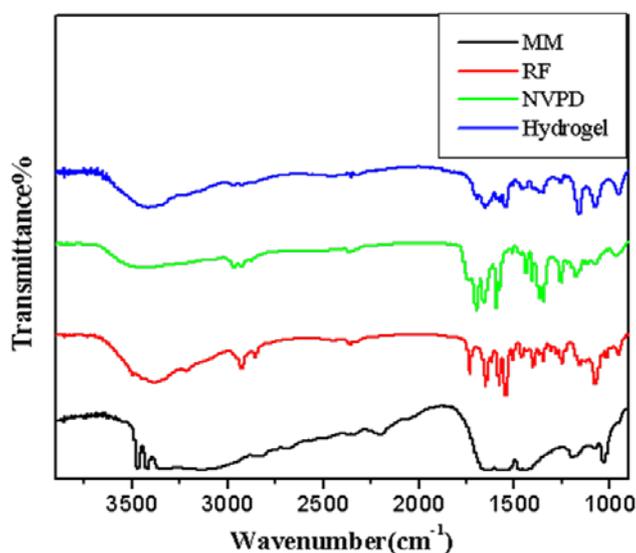


Figure S5. FT-IR spectra diluted with KBr for a NVPD/RF /MM= 1/2/2 xerogel (blue), NVPD (green), MM (black), RF (red).

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

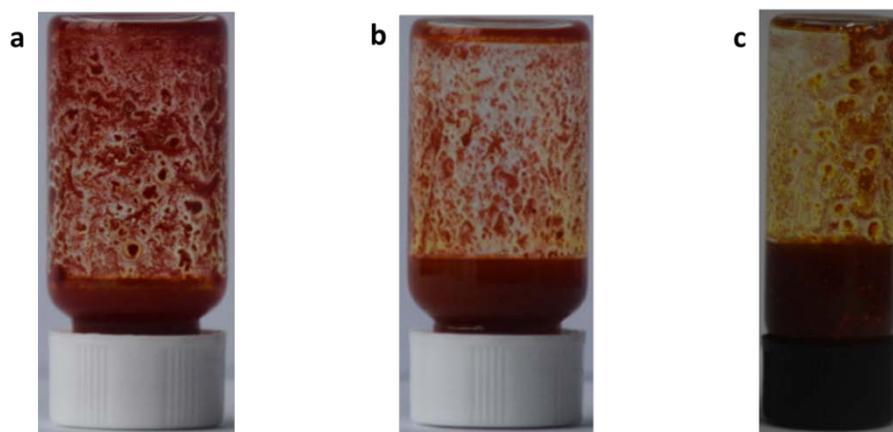


Figure S5. Optical images of the multicomponent gel for different ratio reversible process. (a) NVPD:RF:MM = 1:0.3:2; (b) NVPD:RF:MM = 1:1:2; (c) NVPD: RF:MM = 1:2:3.