

Electronic Supplementary Information

A novel LEuH/PVA luminescent hydrogel with ammonia response and self-recovery luminescence behavior

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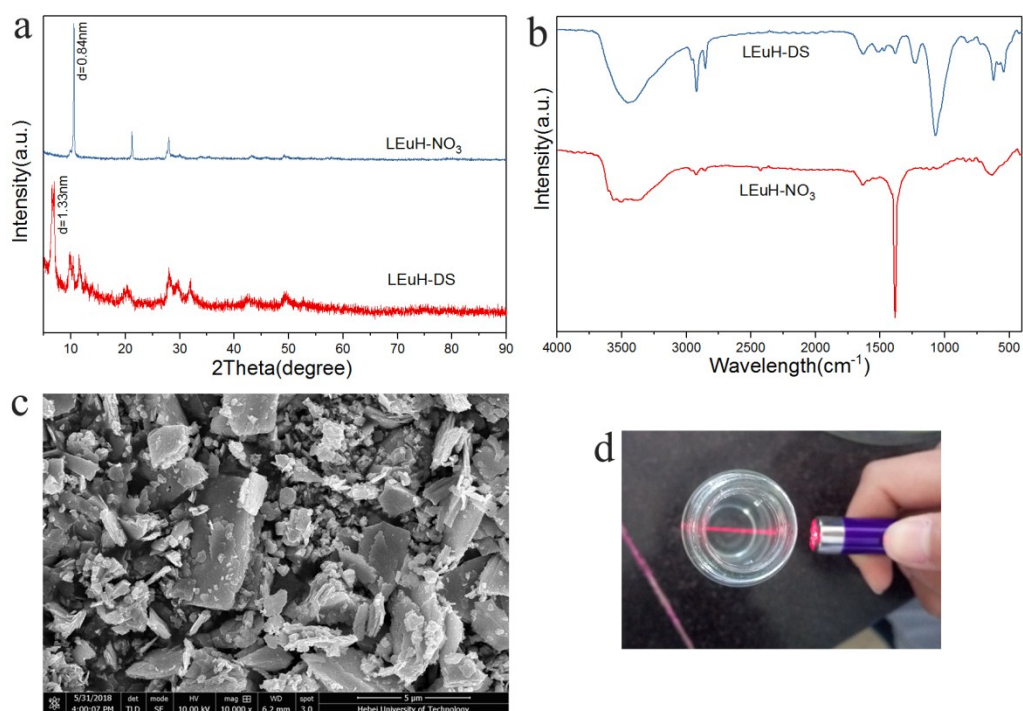


Figure S1 (a)XRD patterns of LEuH-NO₃ and LEuH-DS. (b) FT-IR spectra of of LEuH-NO₃ and LEuH-DS. (c) SEM images of LEuH-NO₃. (d) Photograph of the colloidal suspension of LEuH in formamide that displays the Tyndall effect.

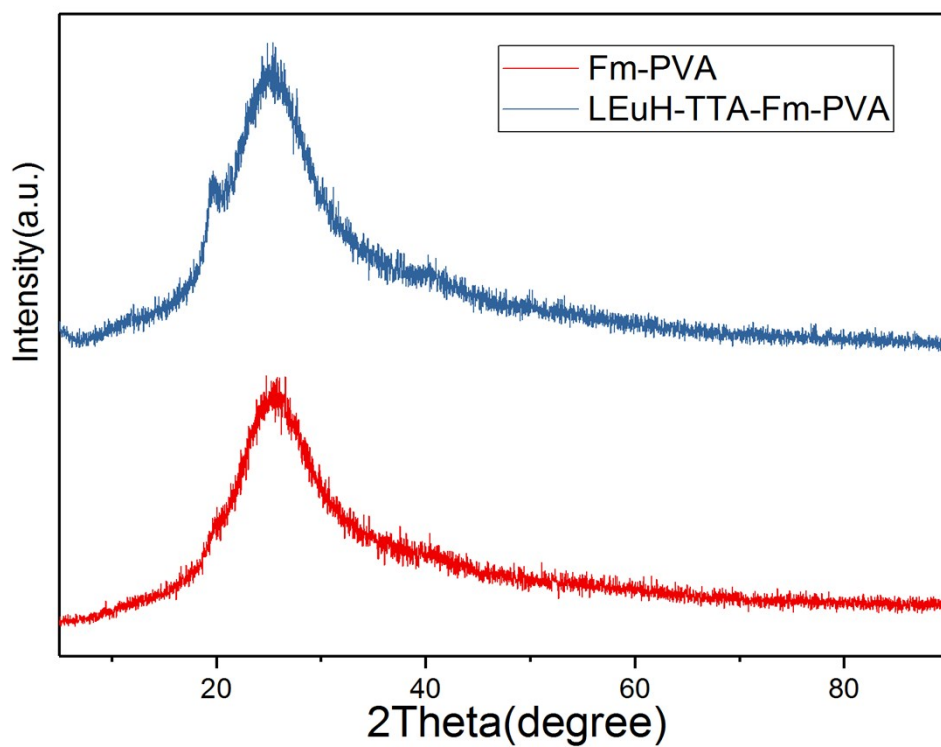


Figure S2 XRD patterns of Fm/PVA and LEuH-TTA-Fm/PVA.

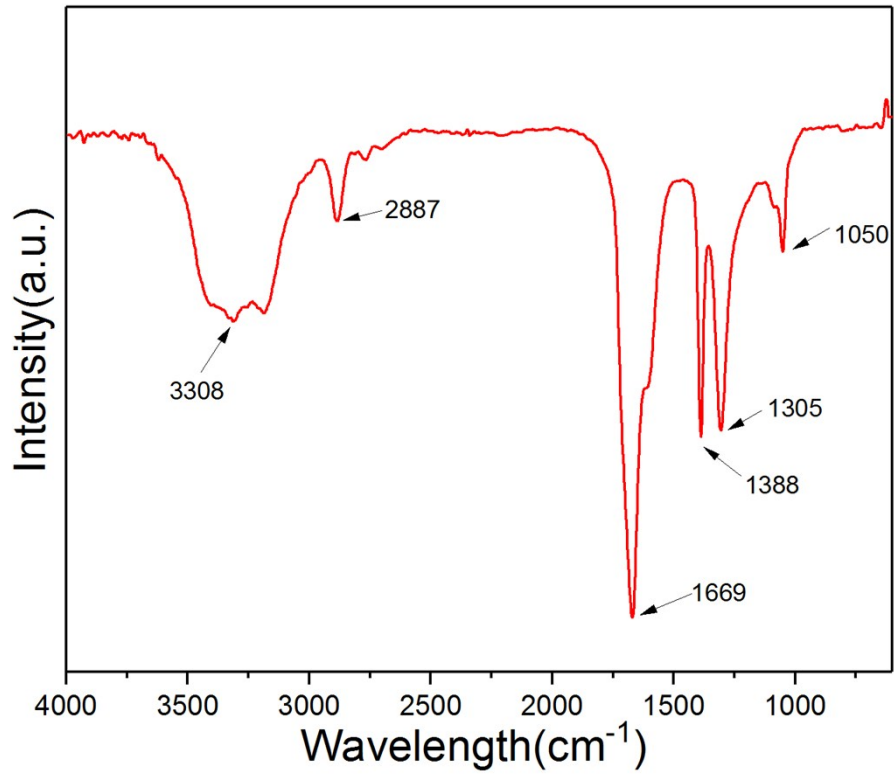


Figure S3 FTIR spectrum of LEuH-TTA-Fm/PVA.

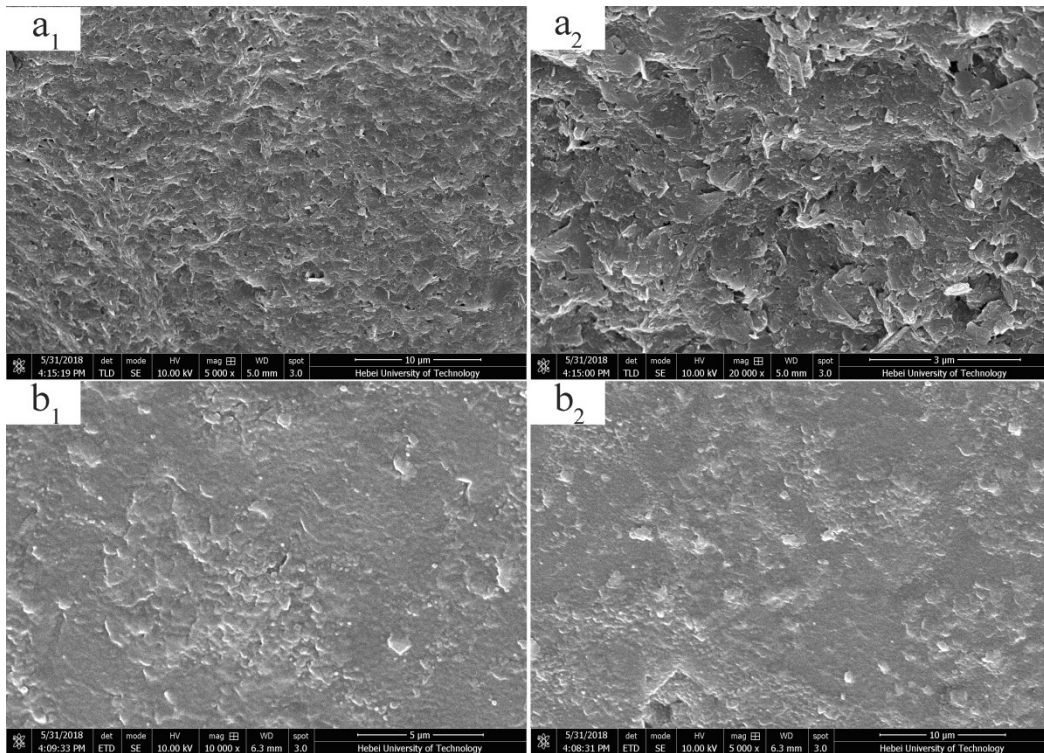


Figure S4 SEM images of (a) Fm/PVA and (b) LEuH-TTA-Fm/PVA

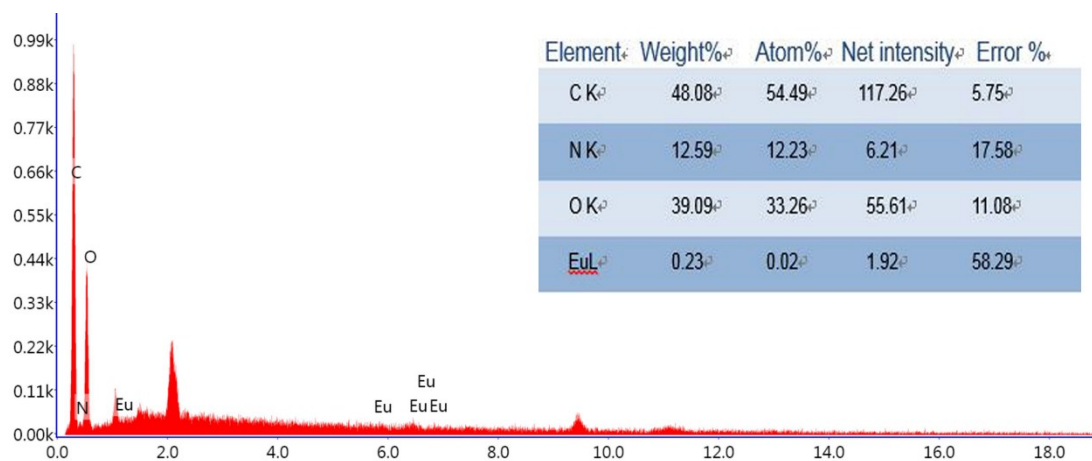


Figure S5 EDS spectrum of LEuH-TTA-Fm/PVA.

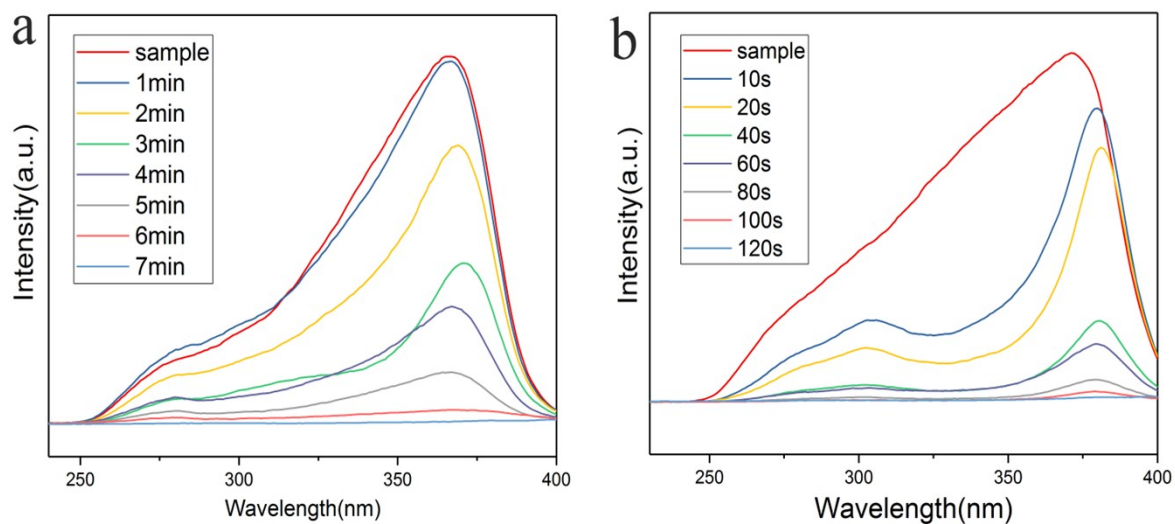


Figure S6 Excitation spectra showing the intensity changes monitored at 619 nm of LEuH-TTA-Fm/PVA in ammonia gas (a) and solution (b).

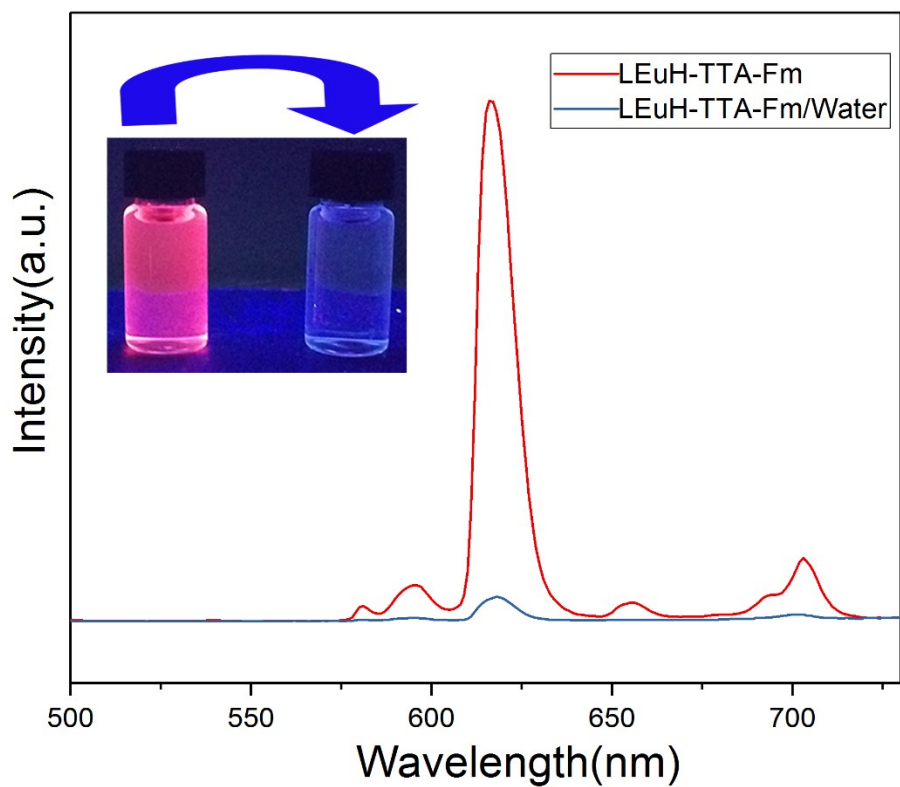
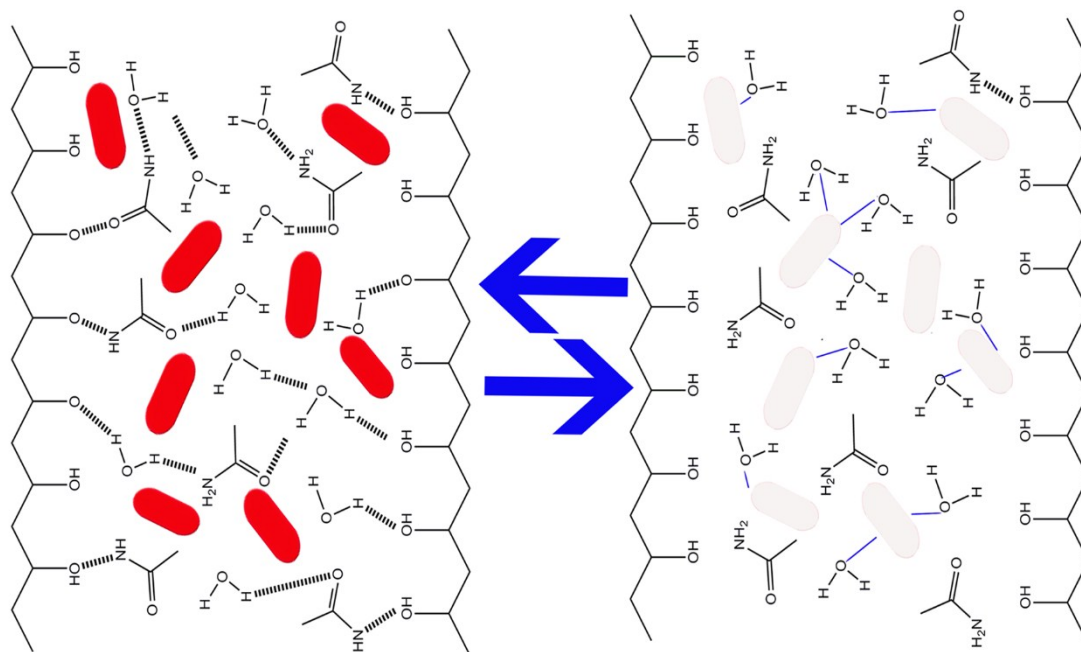


Figure S7 fluorescence quenching experiments of Eu(TTA) formamide solution caused by water



Scheme 1 The possible internal structure of LEuH-TTA-Fm/PVA hydrogel.