Electronic Supplementary Material (ESI) for CrystEngComm

Supportive Information

Metal-organic gels and coordination networks of pyridine-3,5-bis(1-methyl-benzimidazole-2-yl) and metal halides: self sustainability, mechano, chemical responsiveness and gas and dye sorptions

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Table of Contents

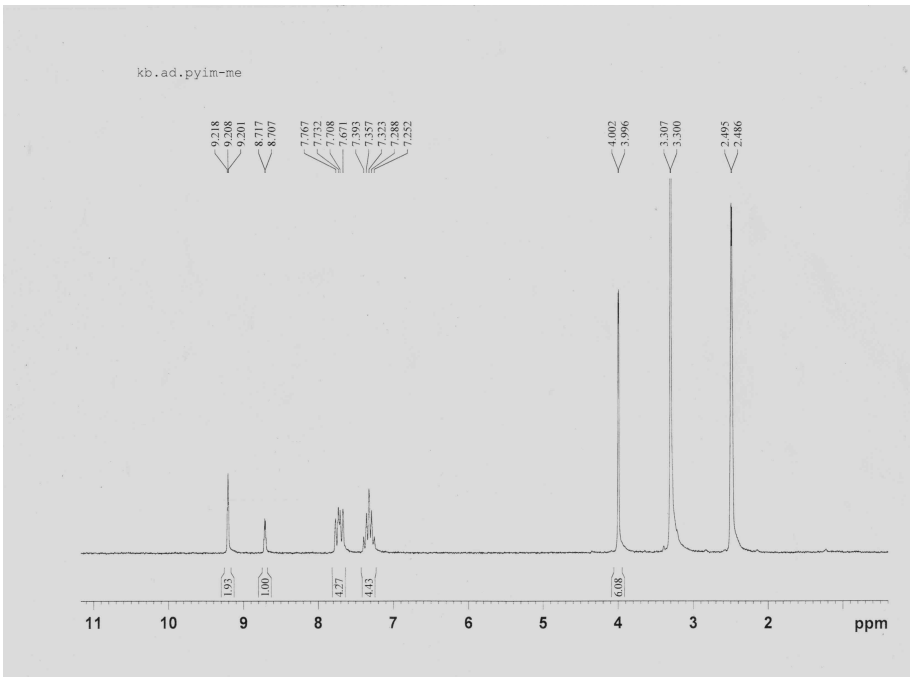
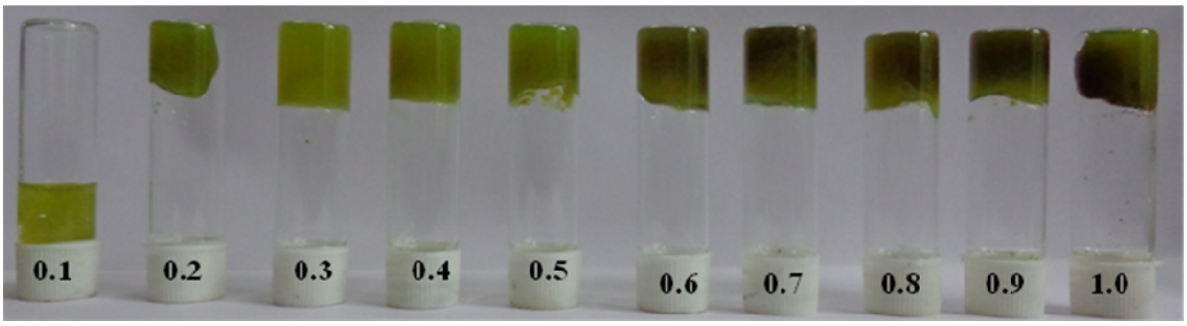


Figure S1. H^1 NMR of ligand ($\mathbf{L_1}$) in DMSO-D_6

a)



b)

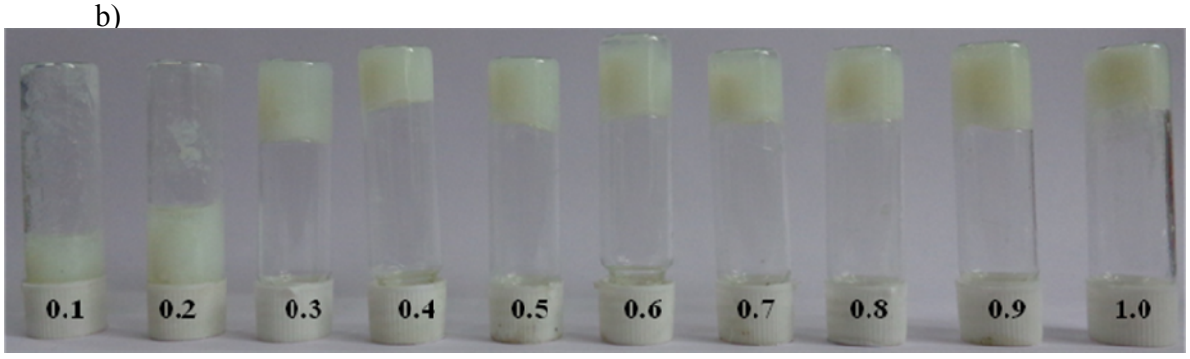


Figure S2. Illustration of inverted vials for gel formation at various ratios of metal and ligand for (a) MOG-2 and (b) MOG-3.

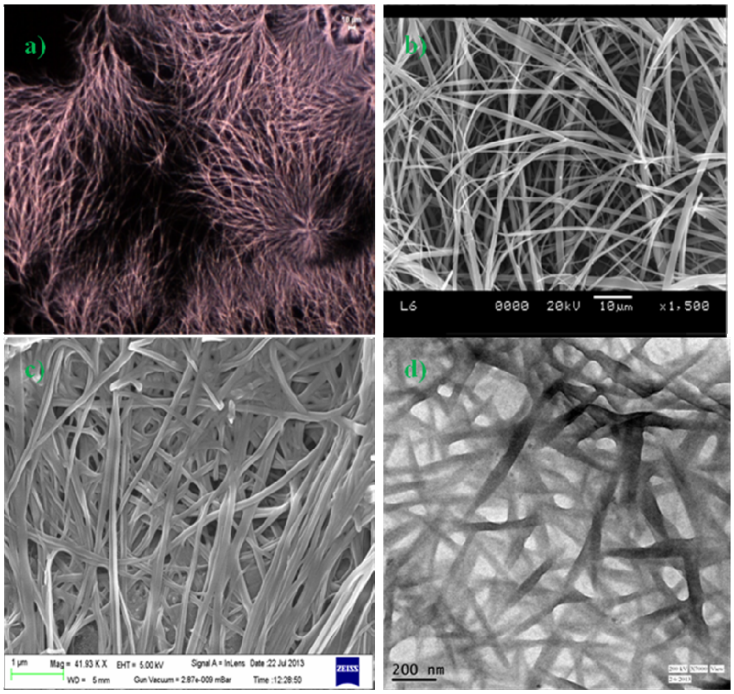


Figure S3. Illustration for microscopic studies: a) POM, b) SEM, c) FESEM, d) TEM images of MOG-2.

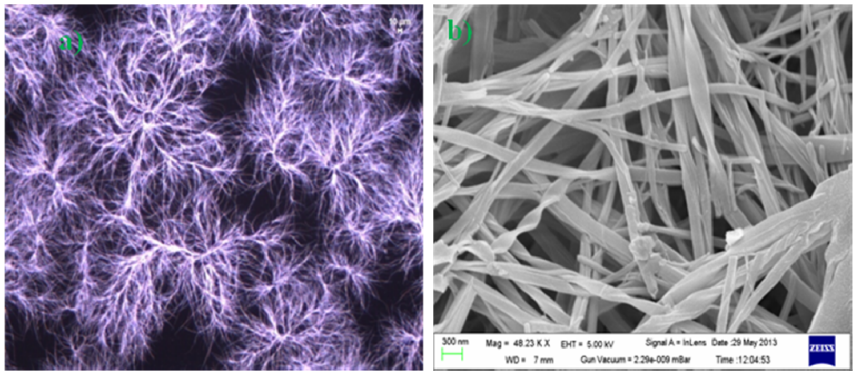


Figure S4. Illustration for microscopic studies: a) POM, c) FESEM images of MOG-3.

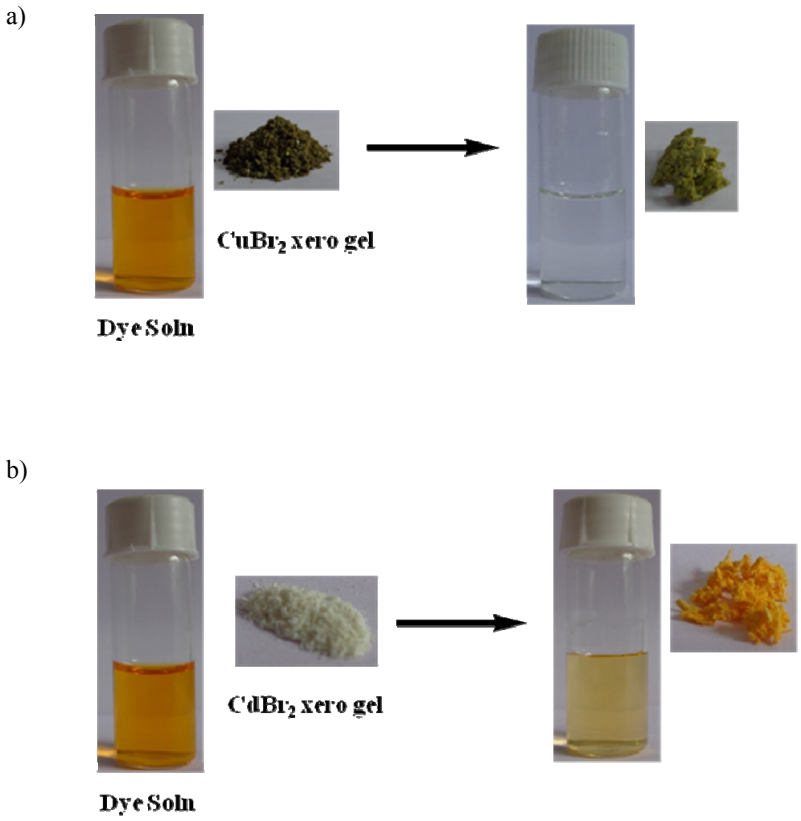


Figure S5. Methyl orange dye absorption by xerogel of (a) MOG-2 and (b) MOG-3 in aqueous solution

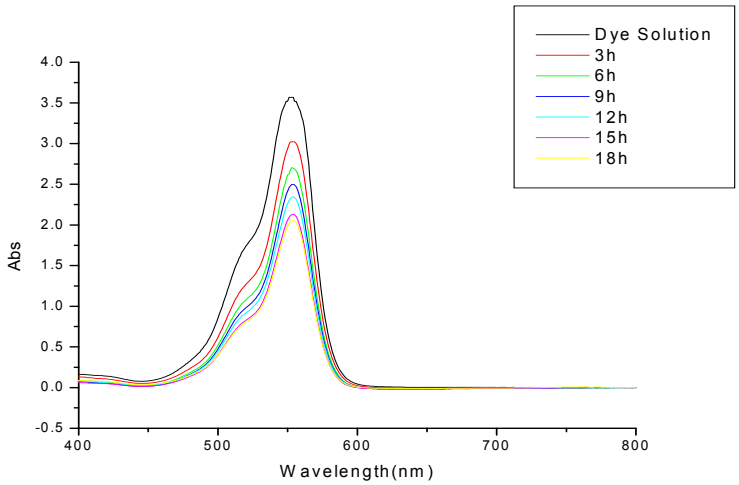


Figure S6. Monitoring of Rod-B dye absorption by xerogels at various time intervals for MOG-1.

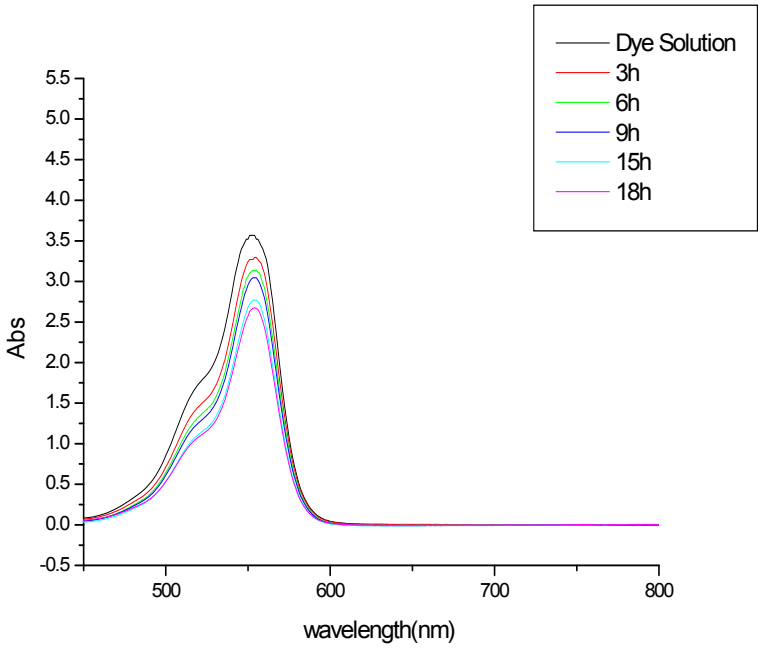


Figure S7. Monitoring of Rod-B dye absorption by xerogels at various time intervals for MOG-2.

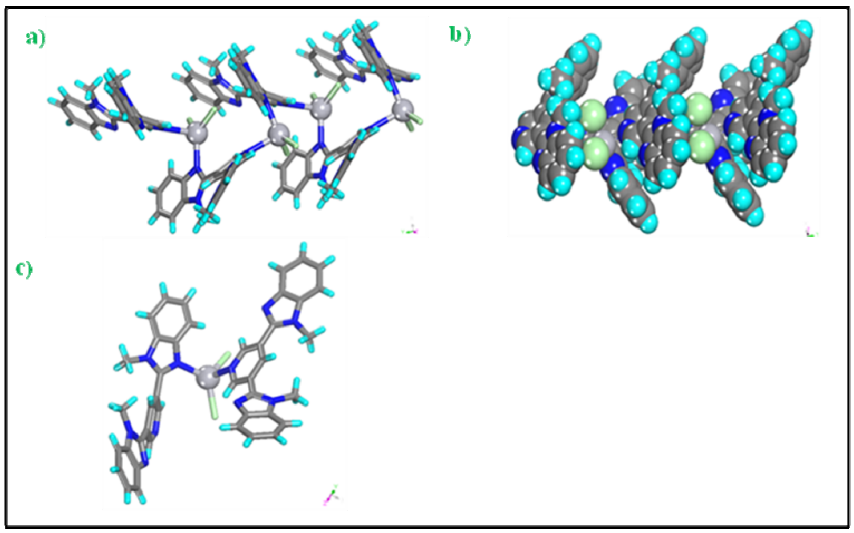


Figure S8. Illustration for the crystal structure of **2**: a) one-dimensional helical network via the coordination of imidazole and pyridine N-atoms with Hg(II), b) Space filling representation of right handed helices, c) pseudo-tetrahedral coordination environment around Hg(II).

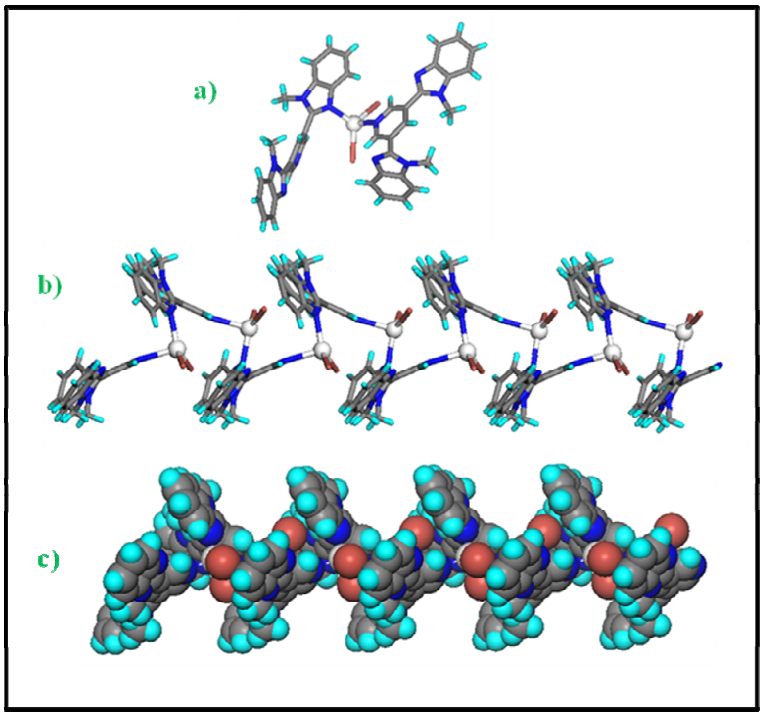


Figure S9. Illustration for the crystal structure of **3**: a) pseudo-tetrahedral coordination environment around Hg(II), b) one-dimensional helical network via the coordination of imidazole and pyridine N-atoms with Hg(II), c) Space filling representation of one-dimensional helical network.

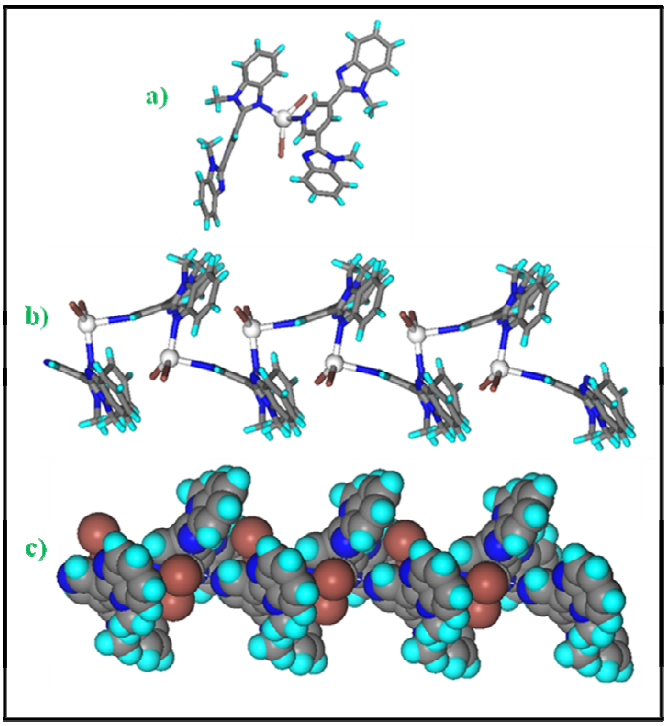


Figure S10. Illustration for the crystal structure of **4**: a) pseudo-tetrahedral coordination environment around Hg(II), b) one-dimensional helical network via the coordination of imidazole and pyridine N-atoms with Hg(II), b) Space filling representation of one-dimensional helical network.

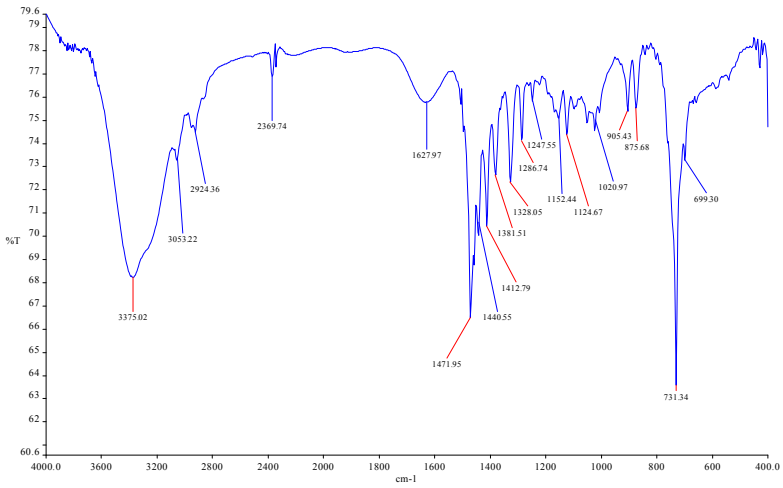


Figure S11. FTIR spectra of ligand ($\mathbf{L_1}$)

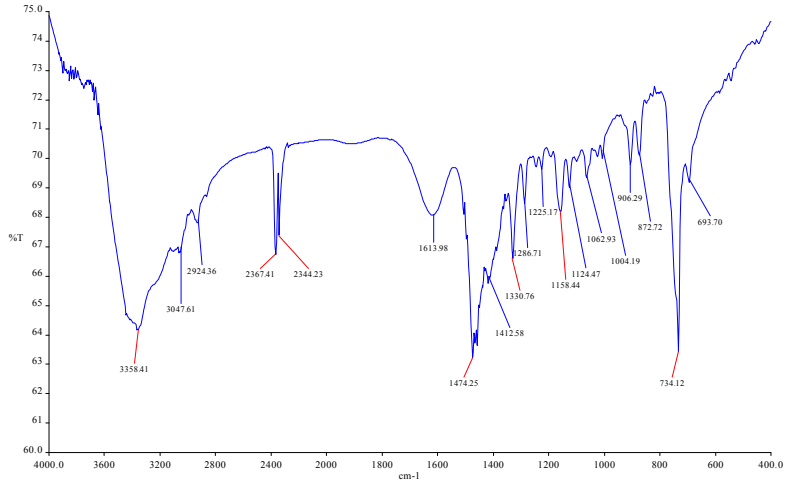


Figure S12. FTIR spectra for xerogel of MOG-1

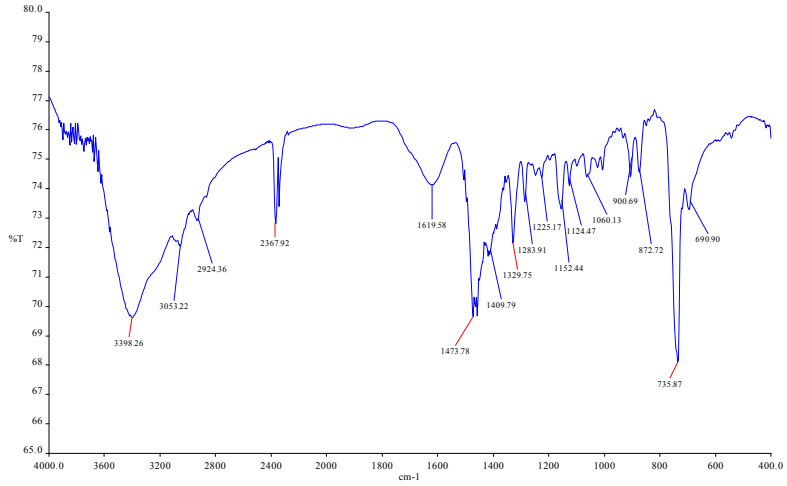


Figure S13. FTIR spectra for xerogel of MOG-2

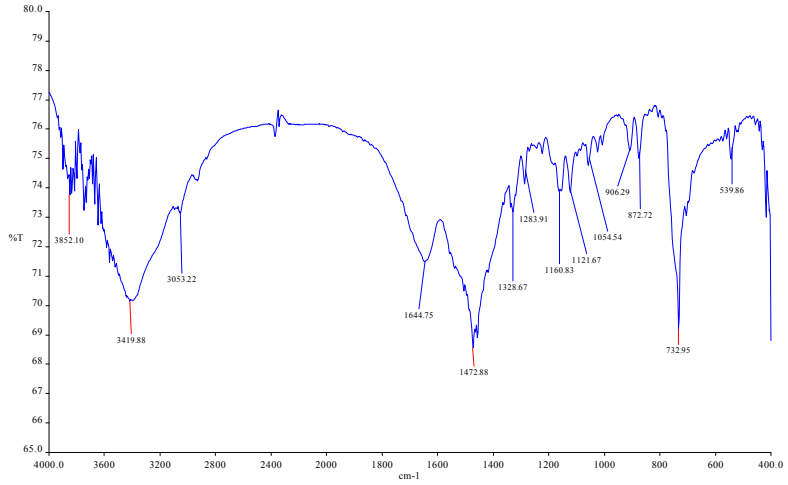


Figure S14. FTIR spectra for xerogel of MOG-3

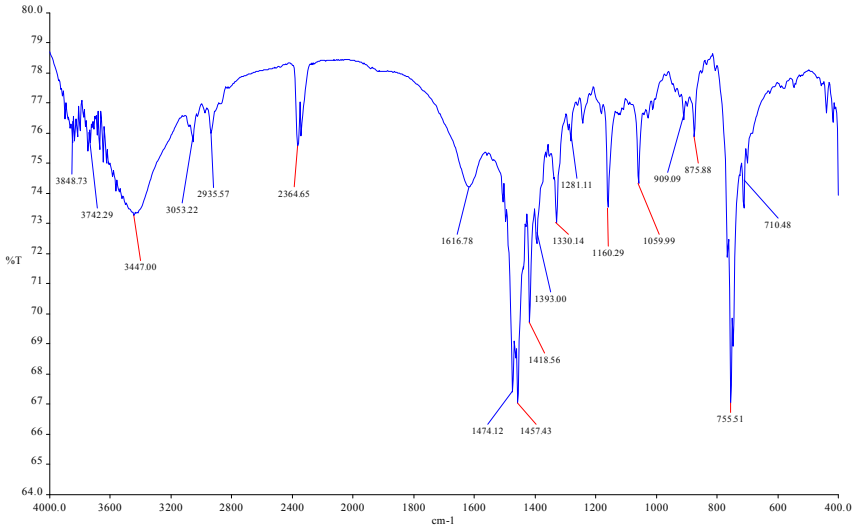


Figure S15. FTIR spectra of complex **1**

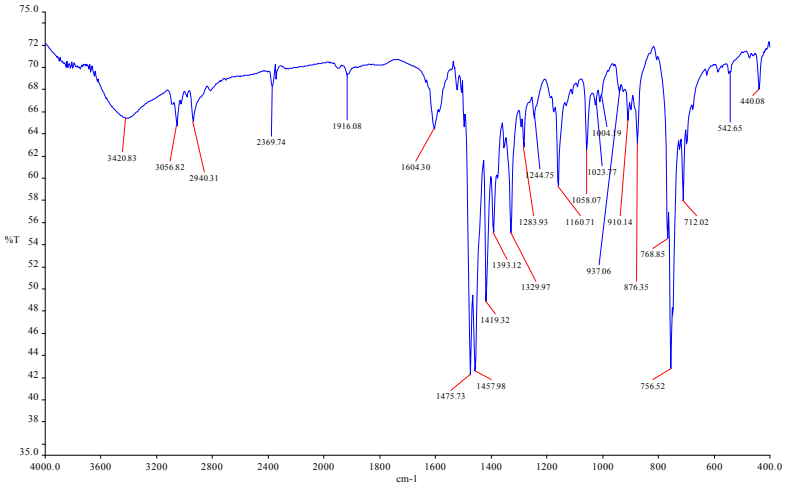


Figure S16. FTIR spectra of complex **2**

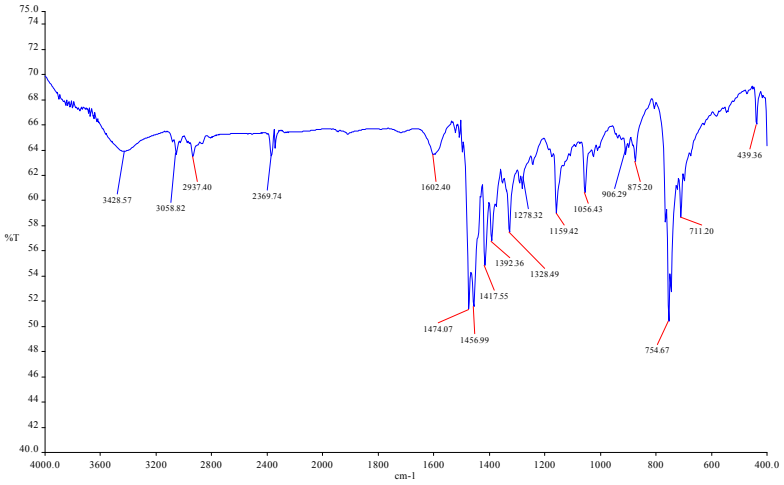


Figure S17. FTIR spectra of complex **3**

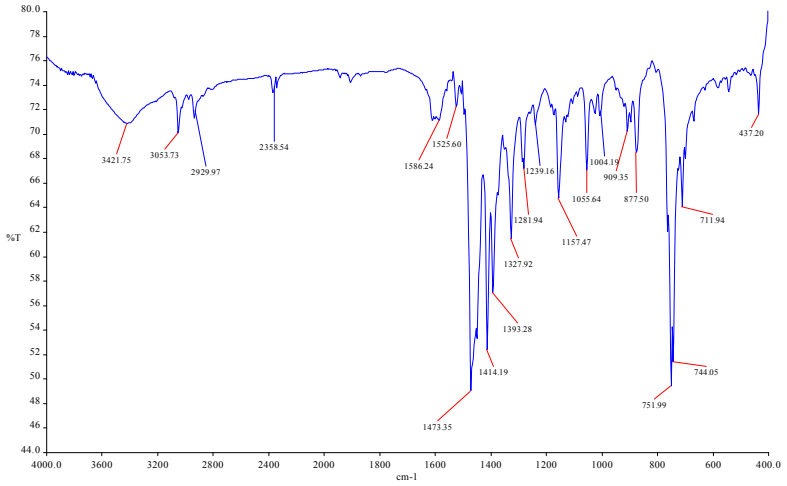


Figure S18. FTIR spectra of complex **4**

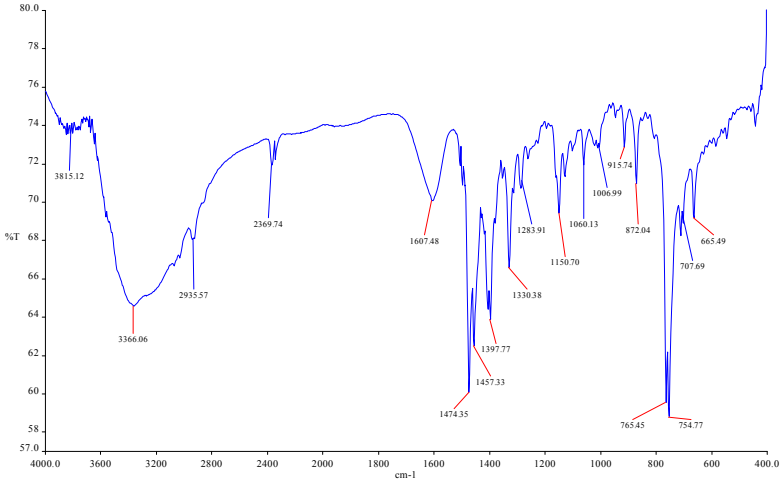


Figure S19. FTIR spectra of complex **5**

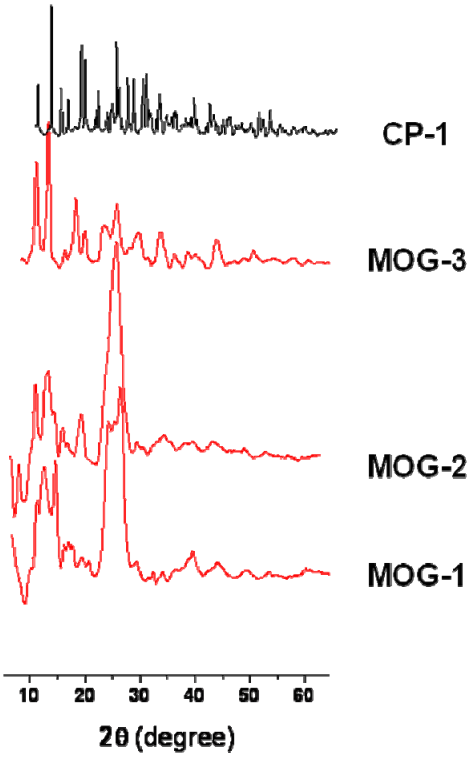


Figure S20. PXRD pattern of xerogels of MOGs and crystalline complex **1**