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Supporting Information

Fabrication and characterization of supramolecular Cu-based metallogel thin film based

Schottky diode

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Figure S1 Gelation ability test of metal cations with gelator H₄L in DMF:

The gelation ability of various metal cations with gelator H₄L was tested in DMF, and maintaining the minimum critical gel concentration of Cu-H₄L metallogel from the synthetic method of metallogel, described in the experimental section. The gel formation strategy of Cu-H₄L metallogel in different solvents were also checked by 'inversion of the vial' test. It was clearly revealed that the Cu(OAc)₂·H₂O and gelator H₄L based mechanically stable Cu-H₄L metallogel can exclusively form in DMF (Figure S1).



Figure S2 Powder X-ray diffraction pattern of xerogel indicating amorphous upon complexation



Figure S3 XPS full survey spectra of C 1s, N 1s, O 1s, and Cu 2p.