Supplemental Information

Feedback-Controlled Topological Reconfiguration of Molecular Assemblies for Programming Supramolecular Structures

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Video 1. The working process of the transient ionotronics at room temperature.

Supplemental Figures



Fig. S1 (a, b) Phase diagrams of GMP/La/urease systems with a constant GMP concentration of 50 mM at pH 8 (a) and pH 4 (b). (c, d) Photographs of GMP/La/urease systems with a constant GMP concentration of 50 mM at pH 8 (c) and pH 4 (d). The yellow and red numbers represent the concentrations of urease and La^{3+} .



GMP/urease, at different pH



GMP/La/urease, at different pH

Fig. S2 Photographs of GMP/urease (a) and GMP/La/urease (b) systems at different pH with methyl red as a pH indicator.



Fig. S3 TEM images of GMP/urease (a) and GMP/La/urease (b) systems at different times after fuel addition, the 0 min is the condition before fuel addition.



Fig. S4 Photographs of GMP, GMP/urease, GMP/La, GMP/La/urease systems at pH 12.



Fig. S5 The effects of GMP and La(NO₃)₃ on urease activity at pH 8 and pH 4.



Fig. S6 Photographs and TEM images of GMP (a) and GMP/La (b) systems at pH 8 and pH 4.



Fig. S7 XRD patterns (a), SAXS patterns (b), FTIR spectra (c), and CD spectra (d) of GMP and GMP/La systems at pH 8 and pH 4.



Fig. S8 Zeta potentials of GMP and urease at different pH.



Fig. S9 Stern-Volmer plots for the quenching of urease by GMP at pH 8 (a) and pH 4 (b).



Fig. S10 Voltage values of GMP/urease (a) and GMP/La/urease (b) systems at different time points after fuel addition. The voltage values did not decrease, which indicated that the samples were suitable for the CD measurements.



Fig. S11 (a) Schematic and photographs showing the transient-gel-templated polymerization of PEGDA on different substrates. (b) Schematic of the polymerization of PEGDA using Irgacure 2959 as a photo-initiator. (c) SEM and EDS mapping images of the lateral view of a free-standing polymer membrane prepared by transient-gel-templated polymerization of PEGDA, and a table summarizing the percent of each element.