Supporting Information

Multi-triggered and Enzyme-Mimicking Graphene Oxide/Polyvinyl Alcohol/G-Quartet Supramolecular Hydrogels

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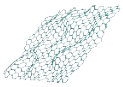
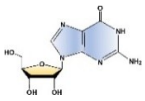
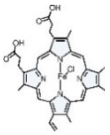
Table S1. Inversion tests about the formation of GO/G4 or GO/G4/H hydrogels.

	Compotents	GO	Guanosine (G)	H_3BO_3	K^+	Hemin (H)	Inver-sion tube	Gel forma-tion
								
1	GO/G	+	+	–	–	–		×
2	GO/H	+	–	–	–	+		×
3	GO/G/H	+	+	–	–	+		×
4	GO/G/H_3BO_3	+	+	+	–	–		×
5	GO/G/H_3BO_3/H	+	+	+	–	+		×
6	GO/G/K^+	+	+	–	+	–		×
7	GO/G/K^+/H	+	+	–	+	+		×
8	GO/G4	+	+	+	+	–		√

9	GO/G4/H	+	+	+	+	+		√

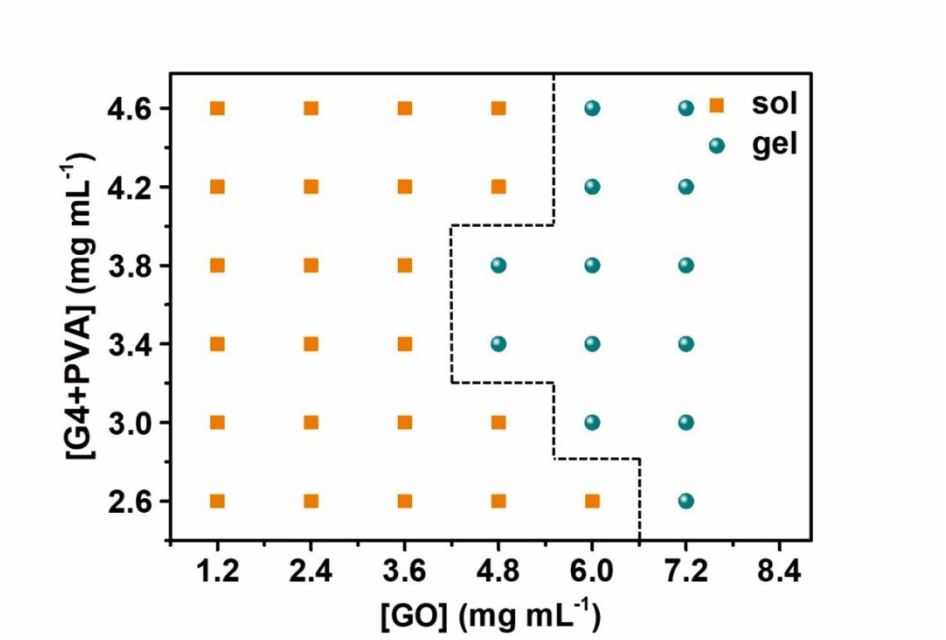


Fig. S1 Concentration-dependent gel evolution experiments were performed to make clear the influence of the components on the gelation process.

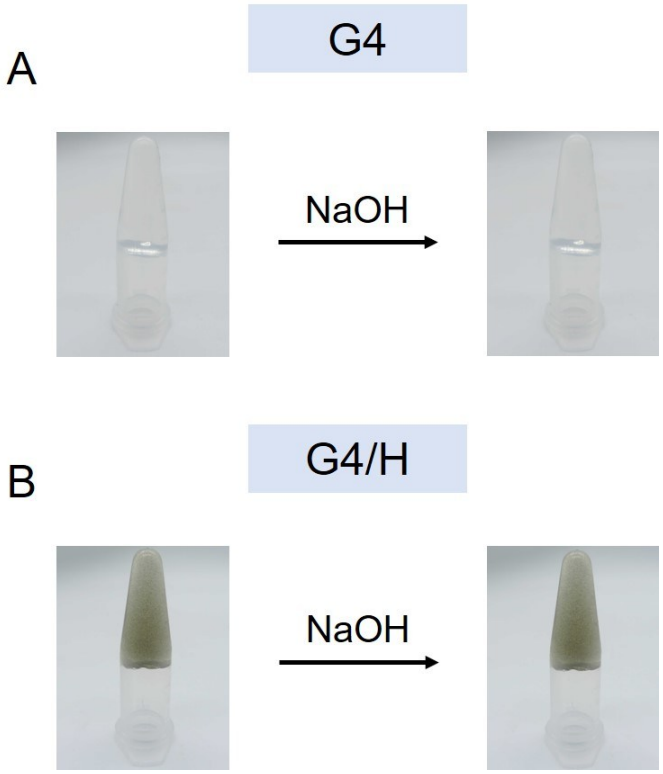


Fig. S2. Photographs of the phase change of G4 (A) and G4/H (B) hydrogels after addition of NaOH.

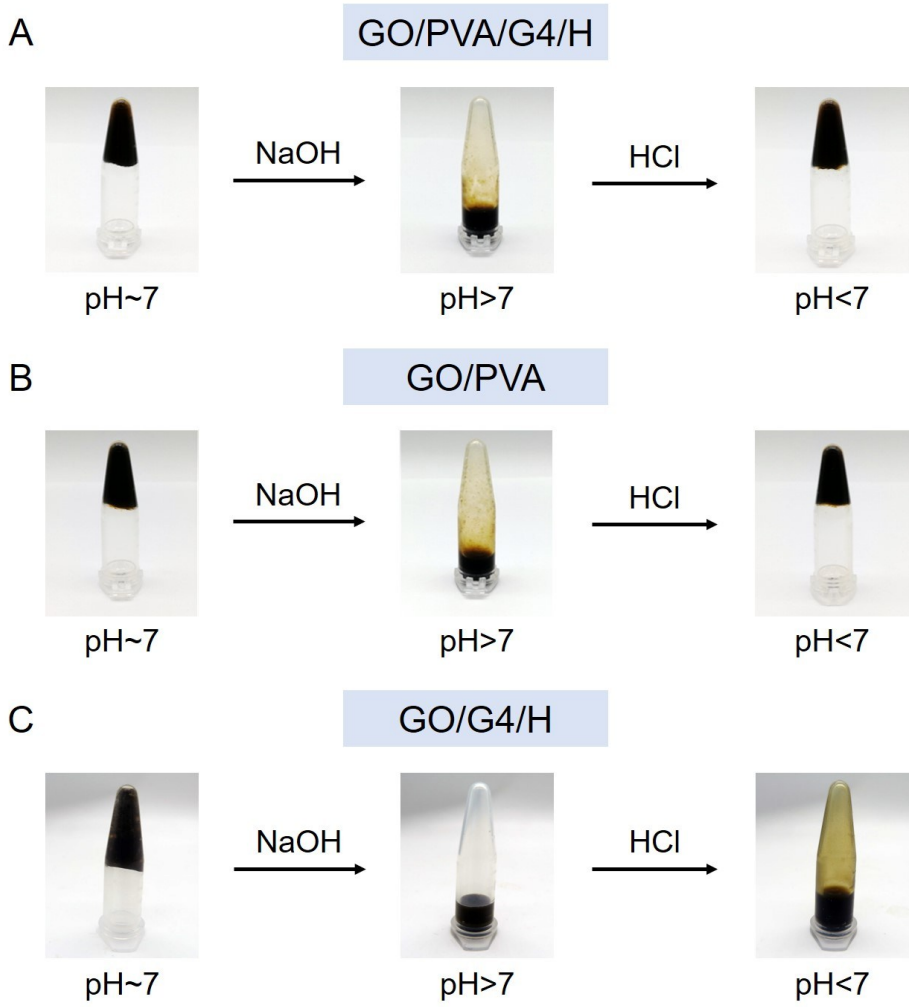
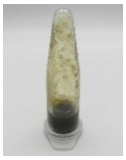


Fig S3. Photographs of pH-induced phase transitions of GO/PVA/G4/H (A), GO/PVA (B), and GO/G4/H (C) hydrogels.

Table S2. Influence of the concentration of Fe^{3+}, glucose, and urea on the logic gate.

	Concentration	Time (sec)	Inversion test
1	[Fe^{3+}] = 10 mM	8	
2	[Fe^{3+}] = 5 mM	40	
3	[Fe^{3+}] = 1 mM	160	
4	[glucose] = 55 mM	15	
5	[glucose] = 25 mM	60	
6	[glucose] = 5 mM	360	
7	[Urea] = 60 mM	18	
8	[Urea] = 30 mM	80	
9	[Urea] = 6 mM	300