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Supporting Information

A non-enzymatic glucose sensor with enhanced anti-interference ability based on MIL-53(NiFe) metal-organic framework

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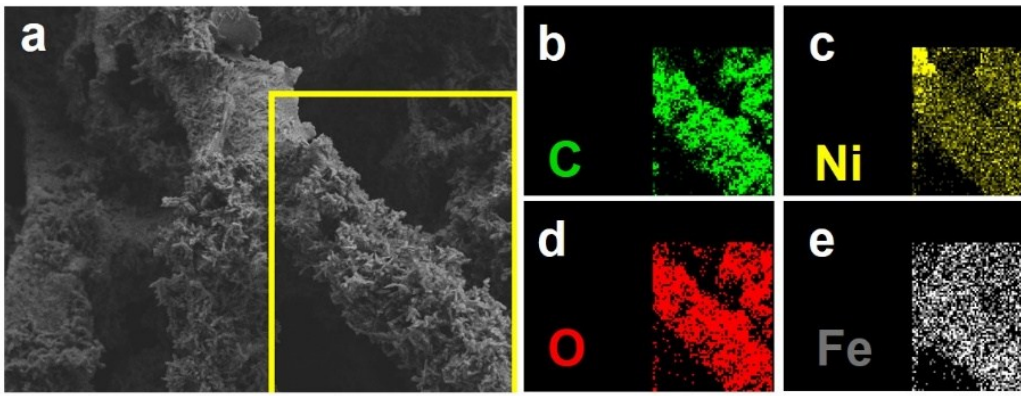

Fig. S1 EDS mappings of pristine MIL-53(FeNi) MOF/Ni foam: (a) SEM image of selected area; (b, c, d, e) mappings of Fe, O, C and Ni.

Table S1 Element contents of as-prepared MIL-53(FeNi) MOF/Ni foam.

Element	wt%	Atom%
C	31.27	50.83
O	29.48	35.97
Fe	8.45	2.96
Ni	30.81	10.25
Total	100	

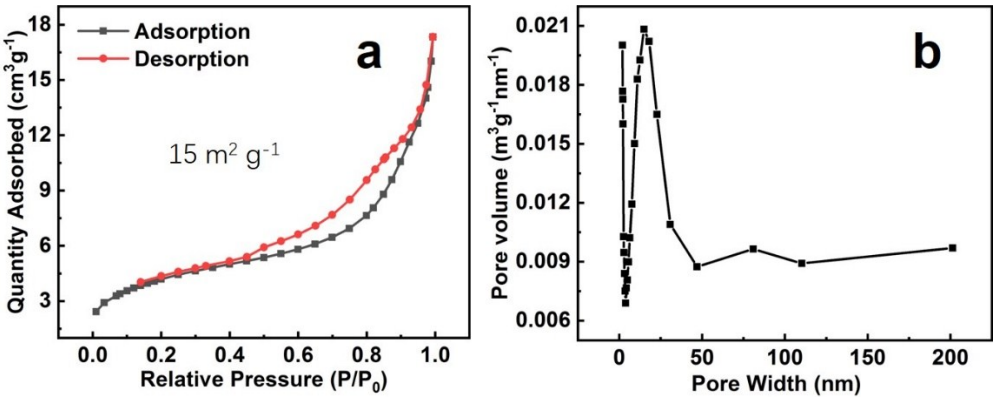

Fig. S2 N2 adsorption/desorption of MIL-53(FeNi) MOF: (a) isotherms, (b) pore distribution curve.

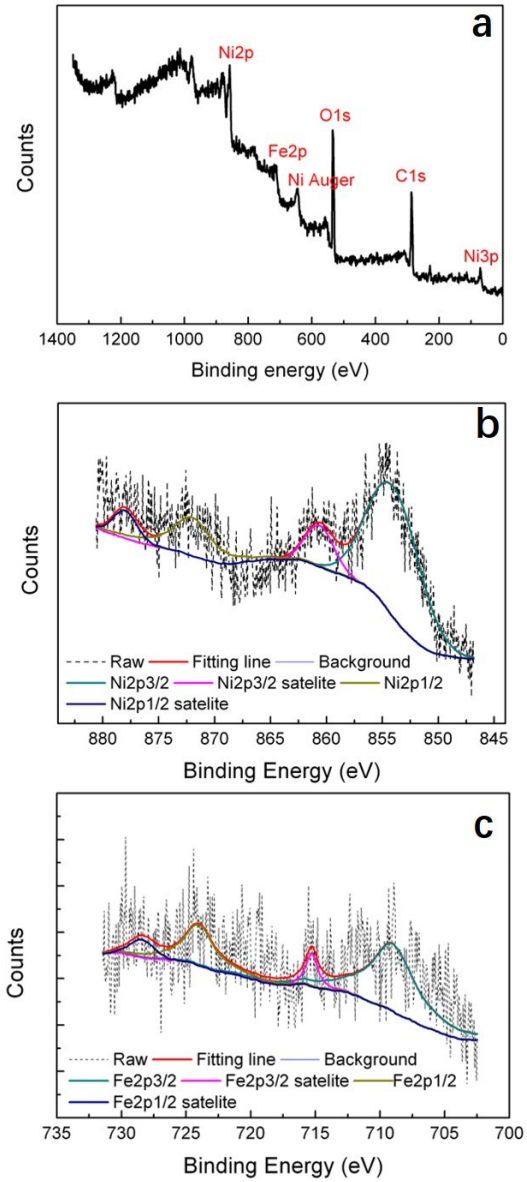

Fig. S3. XPS spectra of MIL-53(NiFe) MOF: (a) Survey, (b) Ni 2p spectra, (c) Fe 2p spectra.

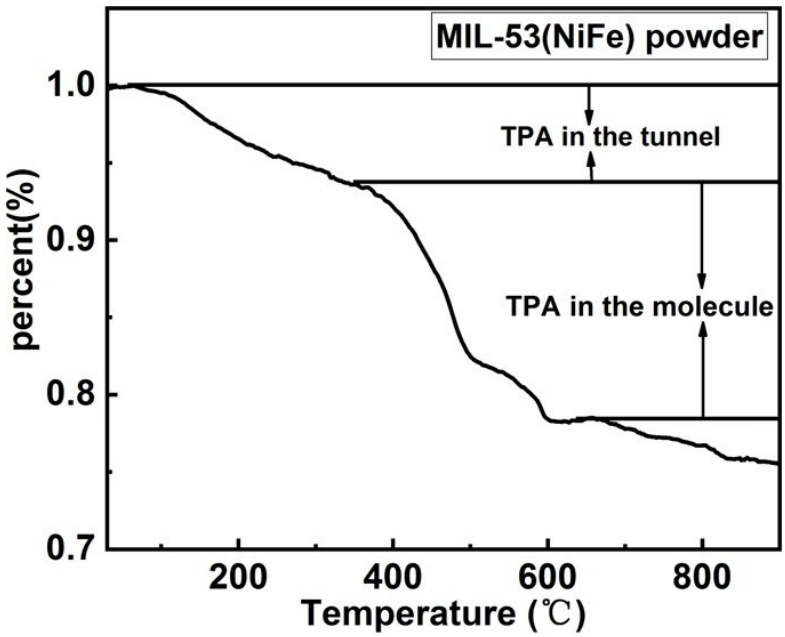

Fig. S4 TG curve of MIL-53(FeNi) MOF powder.

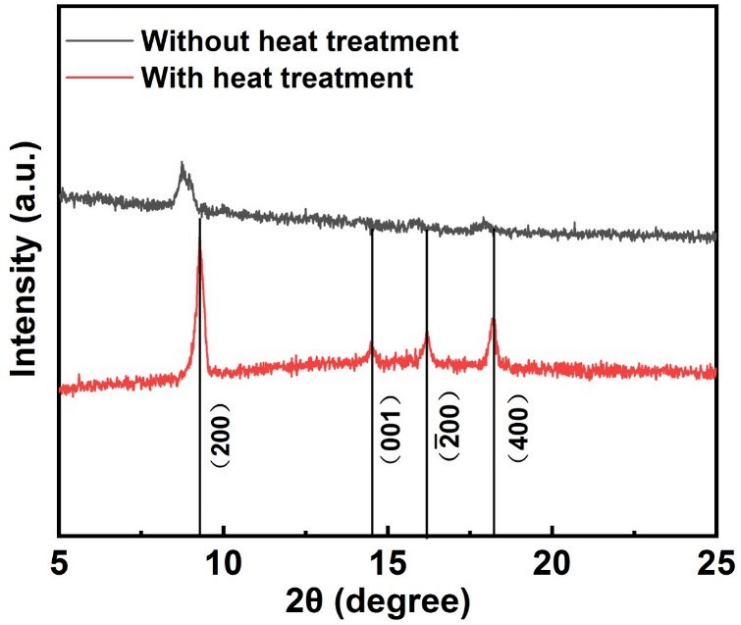

Fig. S5 Comparison on XRD patterns of pristine and heat-treated MIL-53(FeNi) MOF/Ni foam.

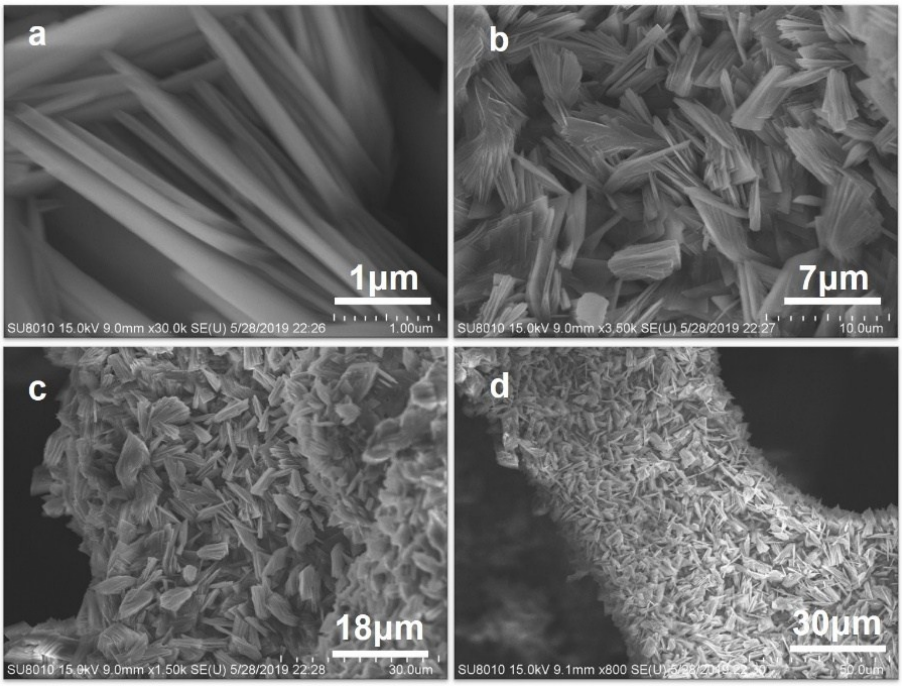

Fig. S6 SEM images of heat-treated MIL-53(FeNi) MOF/Ni foam at different magnification: (a, b, c, d) 30000×, 35000×, 50000× and 80000×.

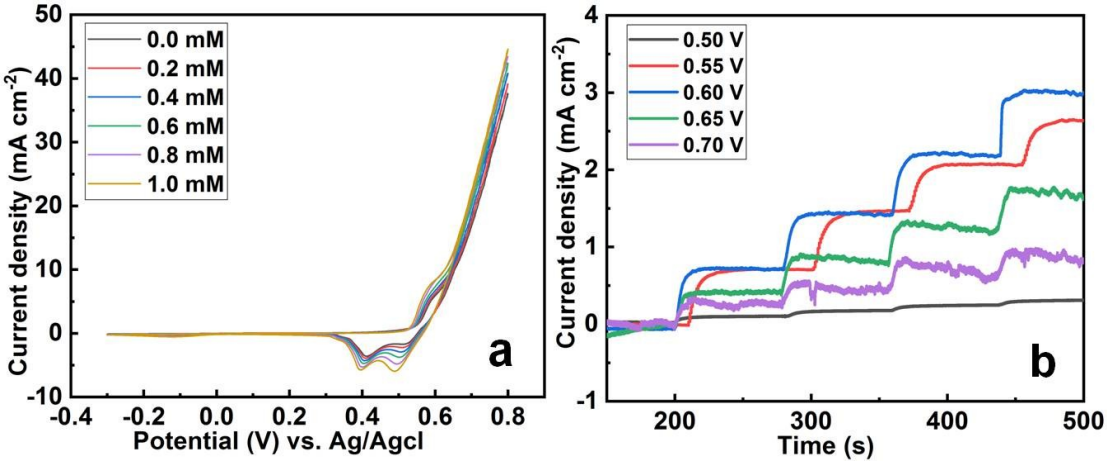

Fig. S7 (a) Amperometric response of pristine MIL-53(FeNi) MOF/Ni foam upon successively adding glucose with different concentrations at 0.6 V; (b) linear relation of steady-state current density and glucose concentration.

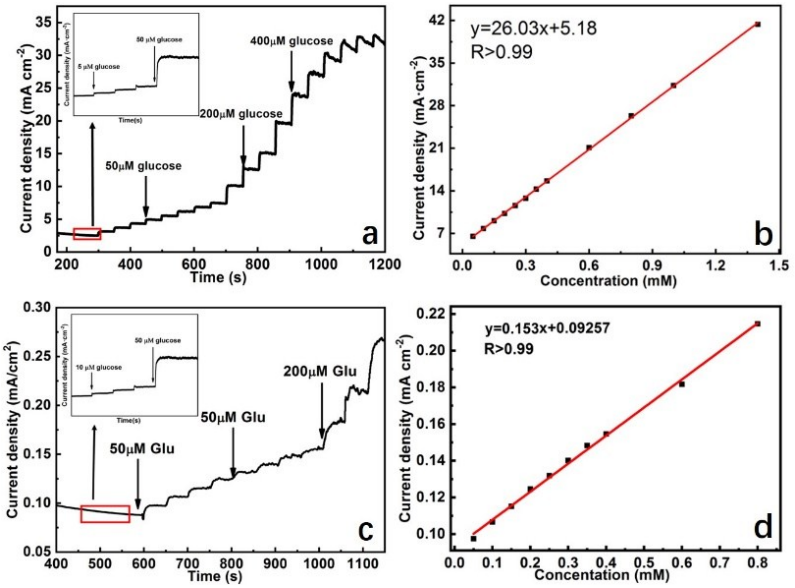

Fig. S8 (a) Amperometric response of MIL-53(Ni) MOF/Ni foam upon successively adding glucose with different concentrations at 0.6 V; (b) detection linear relation of MIL-53(Ni) MOF/Ni foam; (c) Amperometric response of MIL-53(Fe) MOF powder upon successively adding glucose with different concentrations at 0.6 V; (d) detection linear relation of MIL-53(Ni) MOF powder.

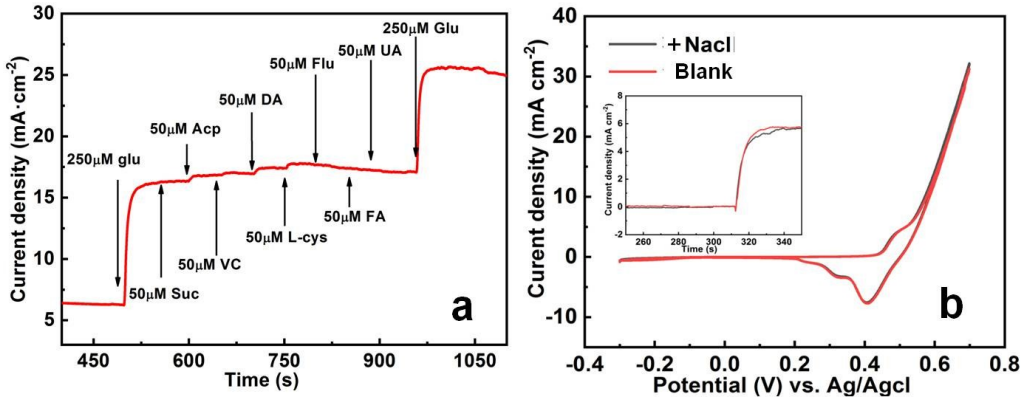

Fig. S9 (a) Interference test performed on the pristine MIL-53(FeNi) MOF/Ni foam by adding acetaminophen, AA, DA, UA, sucrose, fructose, L-cysteine and folic acid into 0.1 M NaOH at 0.6 V; (b) CV curves of the electrode in glucose electrolytes with or without NaCl.

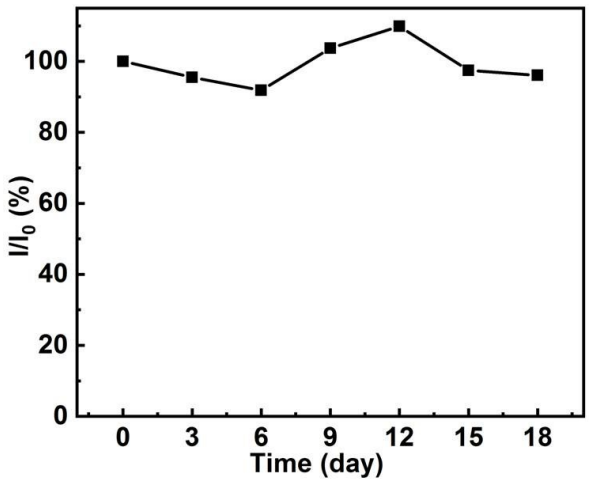

Fig. S10 Long-term stability test of pristine MIL-53(FeNi) MOF/Ni foam stored at room temperature over an 18-day period.

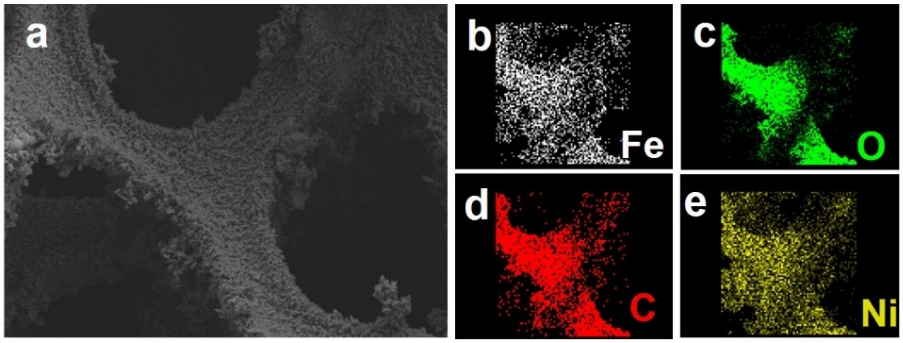

Fig. S11 EDS mappings of MIL-53(FeNi) MOF/Ni foam after long-term test: (a) SEM image of selected area; (b, c, d, e) mappings of Fe, O, C and Ni.

Table S2 Element contents of MIL-53(FeNi) MOF/Ni foam after long-term test.

Element	wt%	Atom%
C	27.64	47.10
O	29.57	37.83
Fe	8.54	3.13
Ni	34.25	11.94
Total	100	