Supporting Information

Metal-Organic Framework Transistors for Dopamine Sensing

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Figure S1. Thicknesses of Cu₃(HHTP)₂ films with different growth cycles: a) 5 cycles; b) 10 cycles; c) 15 cycles; d) 20 cycles, respectively, and e) the dependence of thickness on growth cycle.
**Figure S2.** Top-view SEM images of Cu$_3$(HHTP)$_2$ films with different growth cycles: a) 5 cycles; b) 10 cycles; c) 20 cycles, respectively.
**Figure S3.** Top-view SEM image of a 15-cycles Cu$_3$(HHTP)$_2$ film on Au electrode.
Figure S4. Transfer characteristic of a 15-cycles Cu$_3$(HHTP)$_2$ FET (channel width $W = 0.4$ mm, channel length $L = 0.2$ mm).
Figure S5. Cyclic voltammograms of a 15-cycles Cu₃(HHTP)₂ film in 0.1 M CaCl₂ solution before and after the additions of DA with different concentrations. The scan rate is 50 mV/s.
Figure S6. a) Real-time response of a Cu$_3$(HHTP)$_2$-based chemiresistor (without gate) to additions of DA with a series of concentrations. b) Current change ($\Delta I_{DS}$) as a function of DA concentration.
Figure S7. Real-time response ($I_{DS} \sim \text{time}$, $V_{DS} = 20 \text{ mV}$, $V_{GS} = 40 \text{ mV}$) of Cu$_3$(HHTP)$_2$-based SGMTs to additions of a) AA, b) UA and c) glucose with different concentrations.