

Supporting Information

Iridium Oxide-Gold Hybrid Nanowires Assembled on Genetically Modified Viruses for Electrochromic Application

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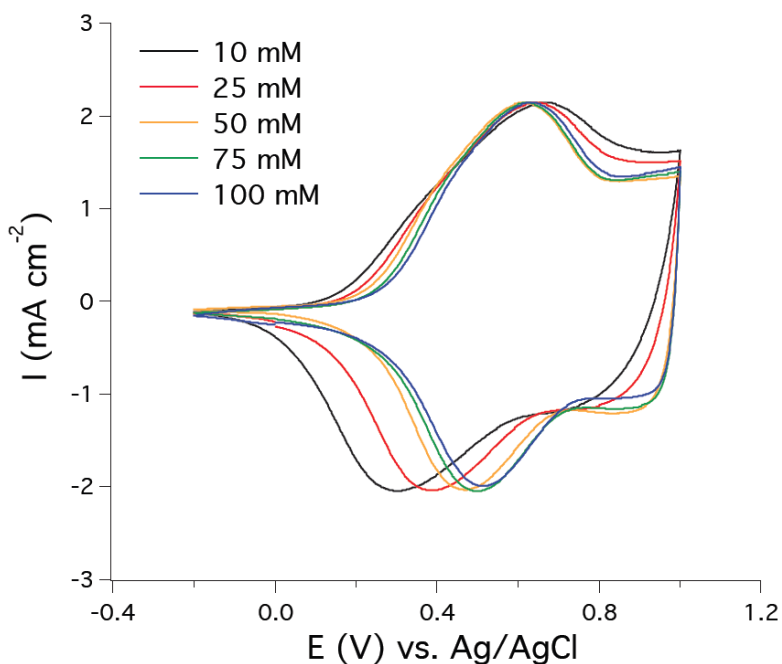


Figure S1. The cyclic voltammograms of the IrO₂ nanowires measured as a function of the HClO₄ concentration. The scan rate was set at 20 mV s⁻¹ with a step potential of 1.06 mV, and the third scan was recorded. The electrode area was about 0.27 cm².

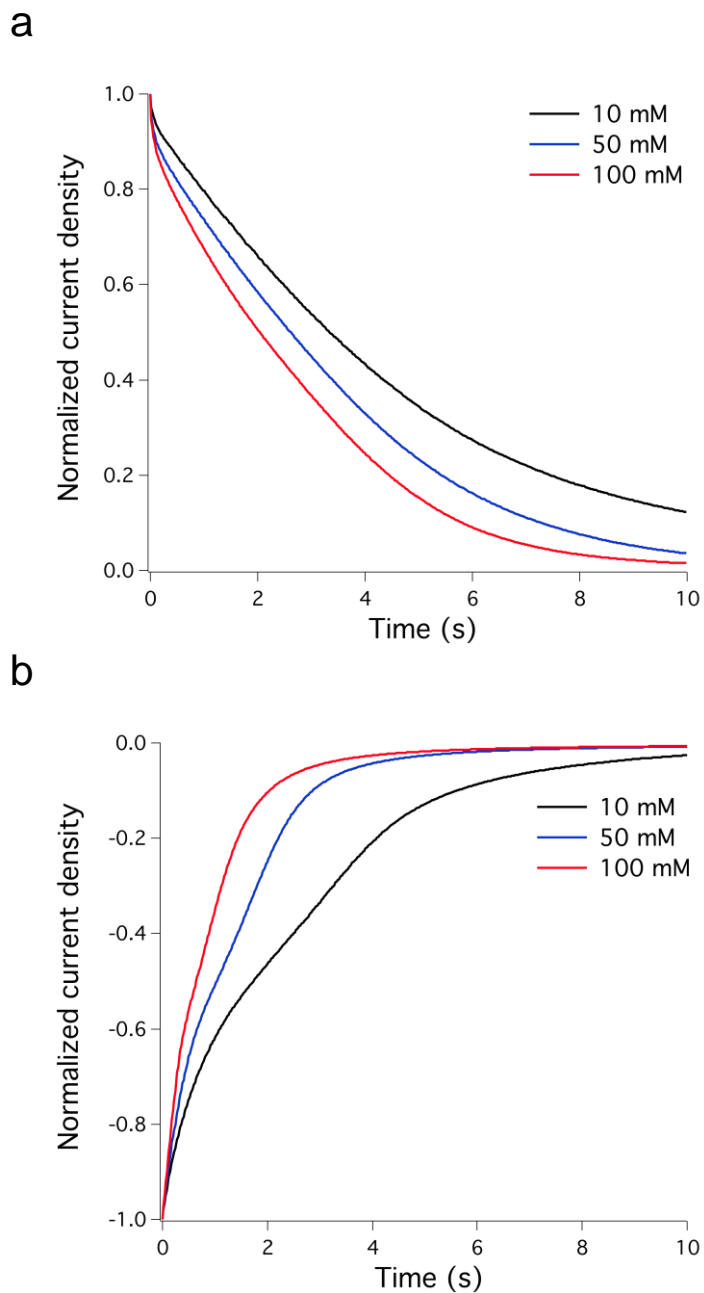


Figure S2. The chronoamperometric profiles of the IrO₂ nanowire film on an ITO glass substrate measured as a function of the HClO₄ concentration. The electrode area was about 0.27 cm².

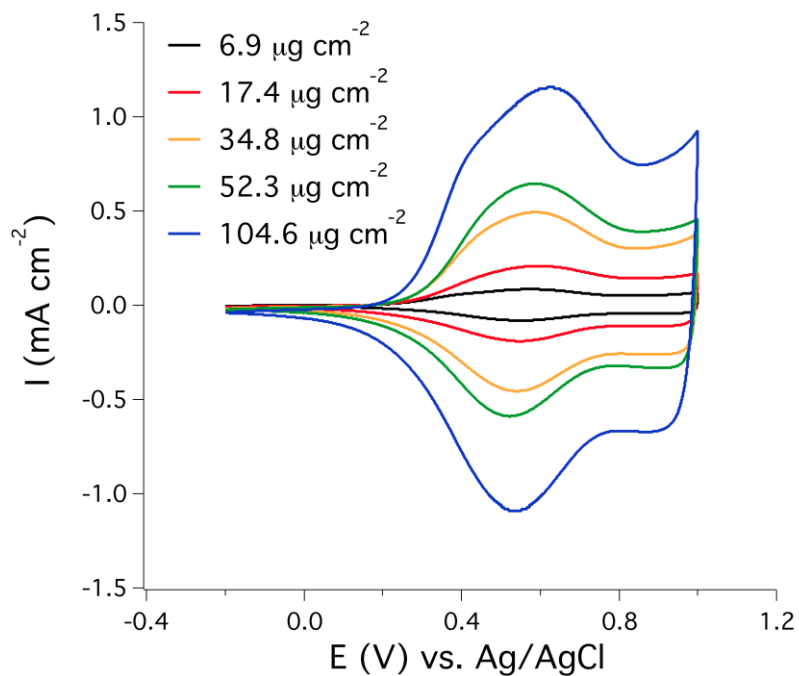


Figure S3. The cyclic voltammograms of the IrO_2 nanowires measured as a function of the amount of the IrO_2 nanowires deposited on an ITO glass substrate in 100 mM HClO_4 . The scan rate was set at 10 mV s^{-1} with a step potential of 0.45 mV, and the third scan was recorded. The electrode area was in the range of 0.40 and 0.66 cm^2 .

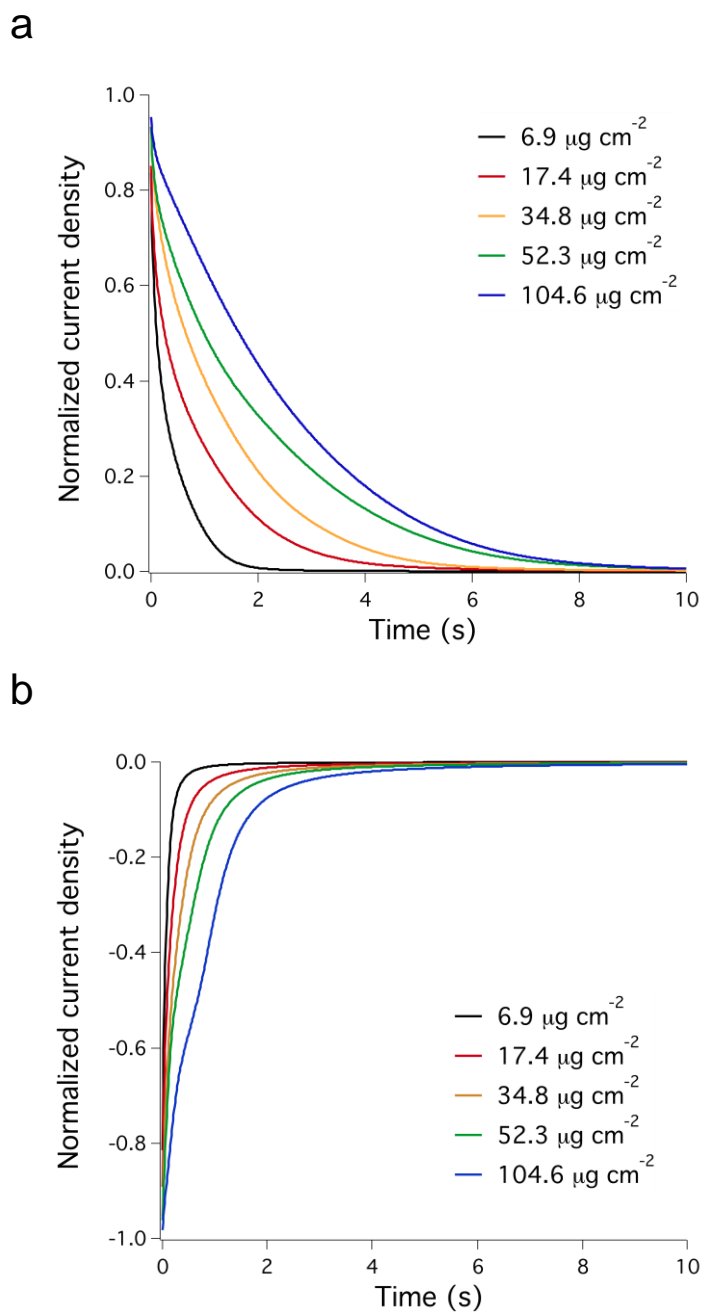


Figure S4. The chronoamperometric profiles of the IrO₂ nanowires measured as a function of the amount of the IrO₂ nanowires in 100 mM HClO₄. The scan rate was set at 10 mV s⁻¹ with a step potential of 0.45 mV, and the third scan was recorded. The electrode area was in the range of 0.40 and 0.66 cm².

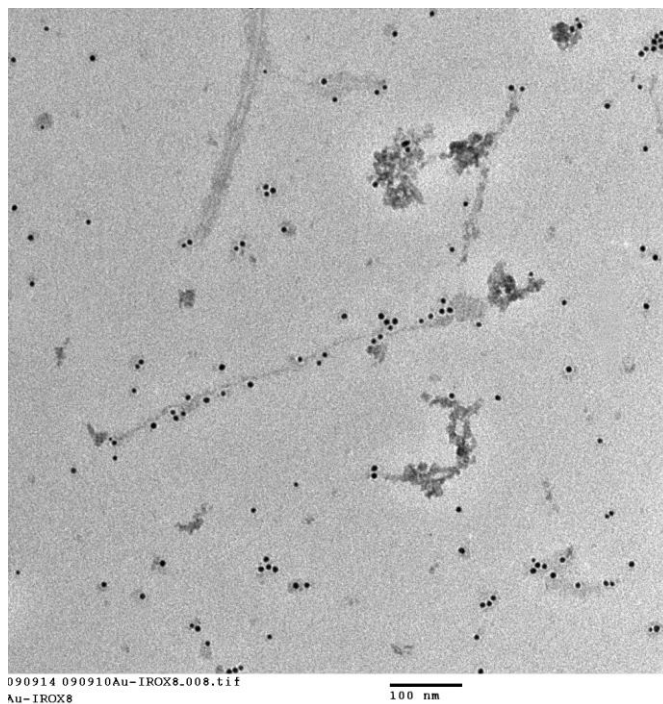


Figure S5. TEM image of the sample prepared by the application of 1.05 kV electric pulses to the mixture of the aged IrCl_3 precursors and the M13 viruses carrying Au nanoparticles.

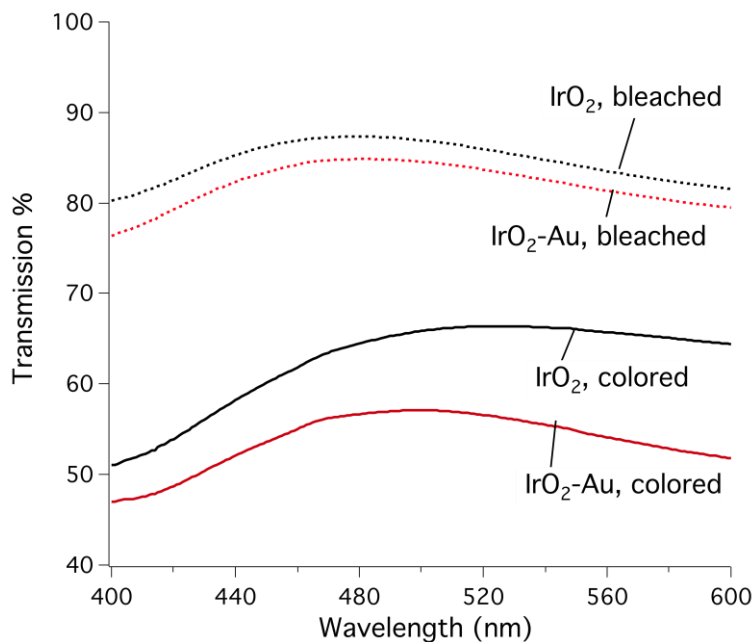


Figure S6. Transmission % of IrO₂ (black) and IrO₂-Au (red) nanowires at the oxidized (solid curve) and reduced (dotted curve) states in 100 mM HClO₄. The ITO-glass electrode was used as a blank sample.