

Electronic Supplementary Information

Hexagonal mesocrystals Formed by Ultra-thin Tungsten Oxide Nanowires and Their Electrochemical Behavior

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Electrochemical measurement:

Glassy carbon electrodes (GC, diameter 6.0 mm) were polished before each experiment with 1.0, 0.30, and 0.05 μm α -alumina powder and sonicated in nitric acid, acetone, doubly distilled water, and then dried at room temperature. Acetone (5 ml) was added to mesocrystals (5 mg) and the suspension sonicated for 5 minutes at room temperature. The resulting suspension (60 μl) was pipetted onto the surface of a GC electrode, which contains active material 60 μg . The casted GC was allowed to dry at room temperature. Cyclic voltammetric responses of the samples were measured with the adsorbed GC electrodes and a Pt foil as working and counter electrode in 0.5 M H_2SO_4 at room temperature using an Im6ex electrochemical workstation (Zahner Co., Ltd.) scanned between -500 mV and 400 mV versus a saturated calomel reference electrode (SCE). Average specific capacitance values were

calculated from the CV curves using the following equation: $C = \int Idt / m\Delta V$, where I is the oxidation or reduction current, dt is time differential, m indicates the mass of the active electrode material, and ΔV indicates the voltage range of one sweep segment.

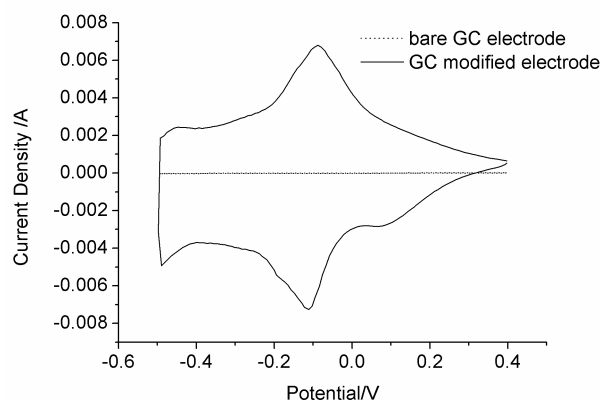


Fig. S1. Cyclic voltammogram on a bare glassy carbon electrode (dottedline) and modified GC electrodes (solid line) in 0.5 M H_2SO_4 . Scan rate=100 mVs^{-1} .