Electronic Supplementary Material (ESI) for Nanoscale

Supporting Information

Free-Standing Nickel Oxide Nanoflake Arrays: Synthesis and Application for Highly Sensitive Non-enzymatic Glucose Sensors

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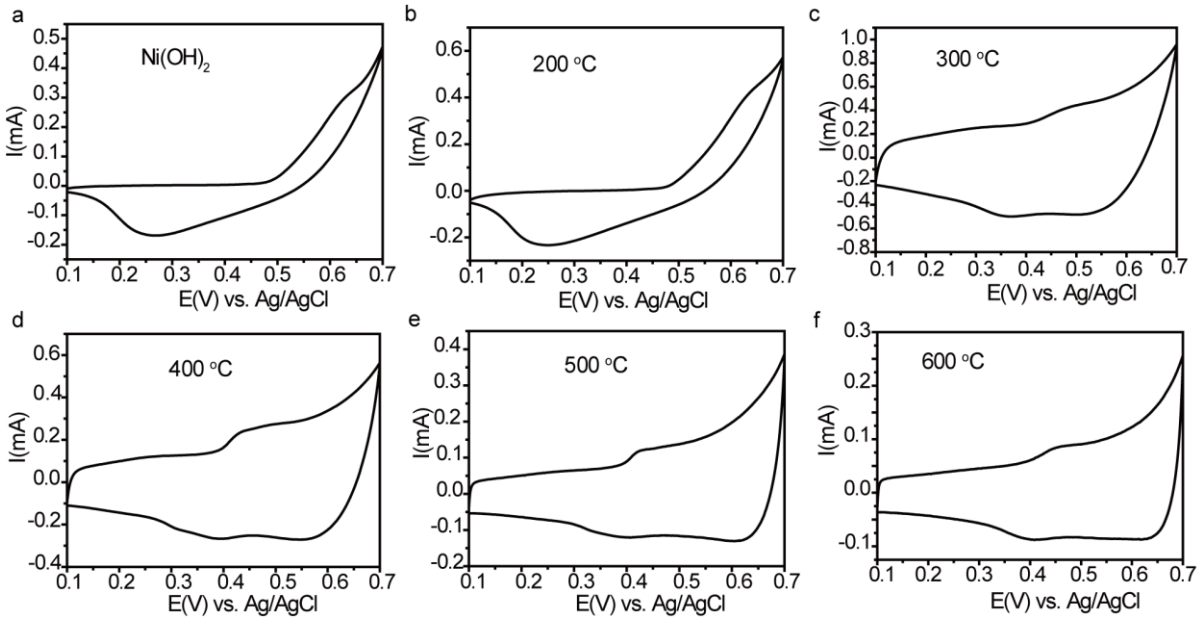

Figure S1. Cyclic voltammetric curves collected for (a) as-prepared $Ni(OH)_2$, and $Ni(OH)_2$ annealed in air at (b) 200 ^oC, (c) 300 ^oC, (d) 400 ^oC, (e) 500 ^oC and (f) 600 ^oC, in 0.1 M NaOH aqueous solution at a scan rate of 20 mV/s.

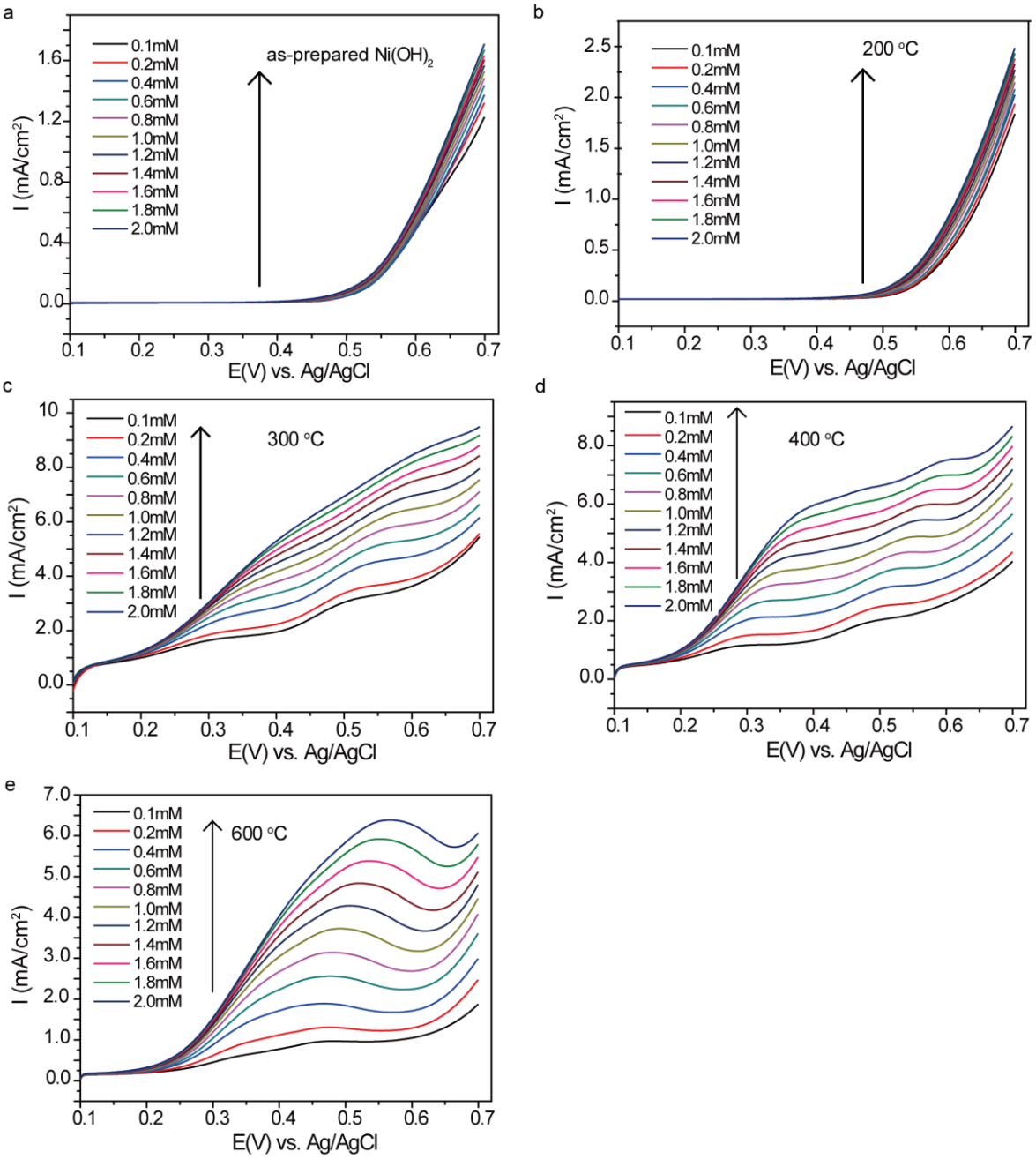

Figure S2. Linear sweep voltammograms of (a) as-prepared $Ni(OH)_2$ nanoflakes and $Ni(OH)_2$ nanoflakes annealed in air at (b) 200 ^{o}C, (c) 300 ^{o}C, (d) 400 ^{o}C and (e) 600 ^{o}C collected in a 0.1 M NaOH solution with a glucose concentrations from 0.1 mM to 2.0 mM at a scan rate of 20 mV/s.

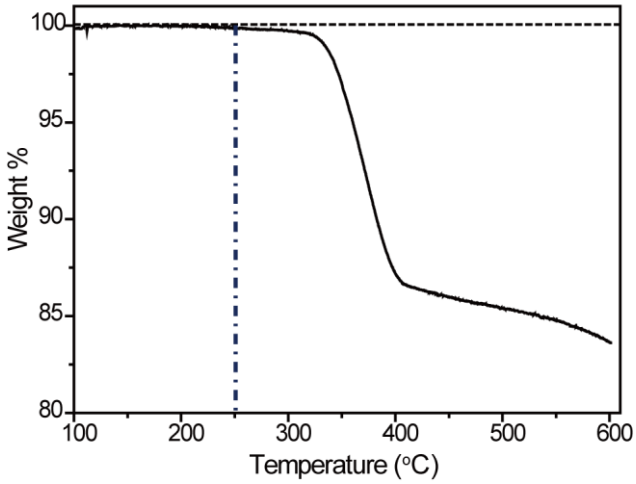

Figure S3. Thermogravimetric (TGA) curve of $Ni(OH)_2$ nanoflake arrays (in powder form) collected from FTO substrate.

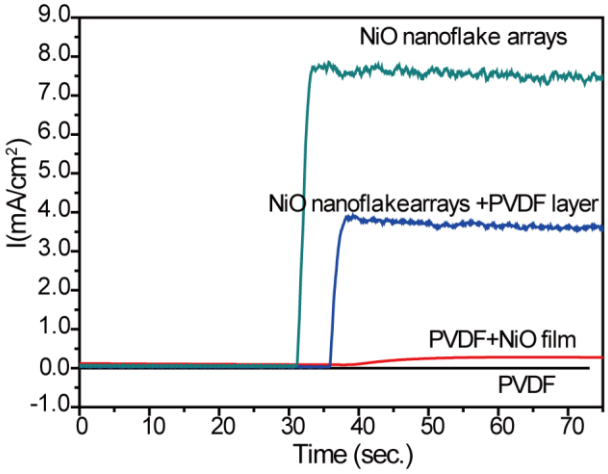

Figure S4. Ampermetric response to the addition of 1 mM glucose into a 0.1M NaOH aqueous solution at 0.5 V vs. Ag/AgCl, collected for four different samples: 1) NiO nanoflake arrays; 2) NiO nanoflake arrays spin coated with a layer of PVDF polymer; 3) PVDF layer on FTO glass; and 4) NiO powder mixed with PVDF and pasted onto FTO glass.