

Supplementary Materials of

**Controllable synthesis of magnetic CoO
nanosheets by chemical vapor deposition**

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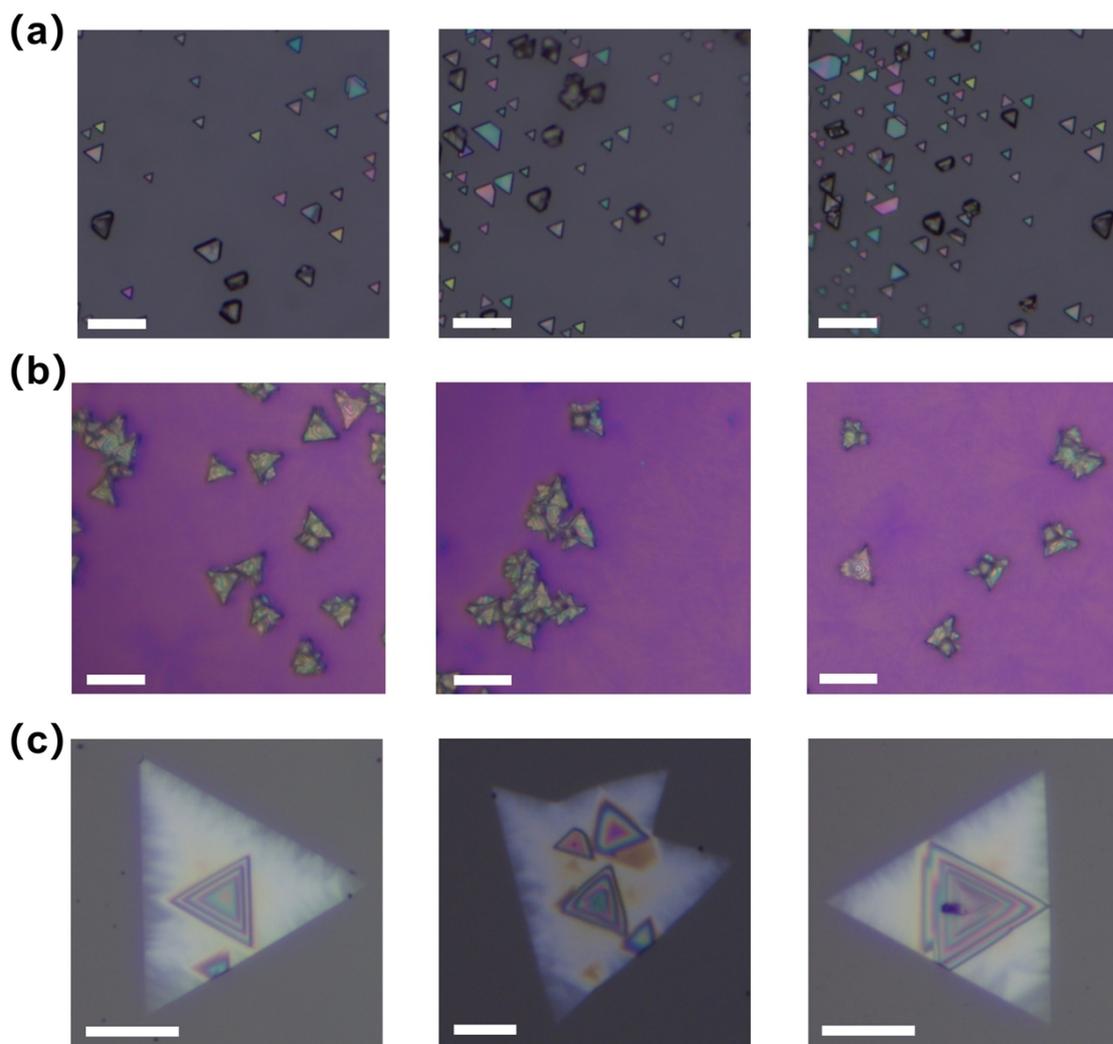


Fig. S1. (Color online) Optical microscopy (OM) images of the products obtained under different growth conditions. (a) OM image of the product synthesized without NH_4Cl addition. (b) OM image of the product grown on a SiO_2/Si substrate. (c) OM image of the product grown on a sapphire substrate. Scale bars: $10\ \mu\text{m}$.

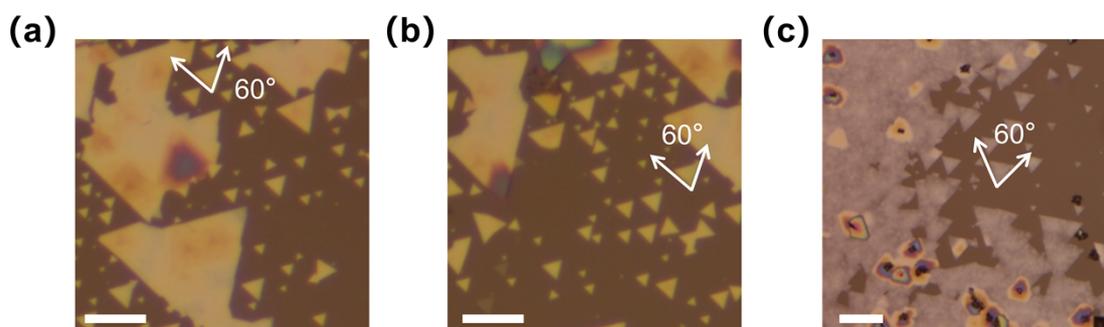


Fig. S2. (Color online) OM images of CoO nanosheets grown at $630\ ^\circ\text{C}$ with an argon flow rate of $70\ \text{sccm}$. (a)–(c) show representative optical images taken from different regions. Scale bars: 10 , 10 , and $15\ \mu\text{m}$, respectively.

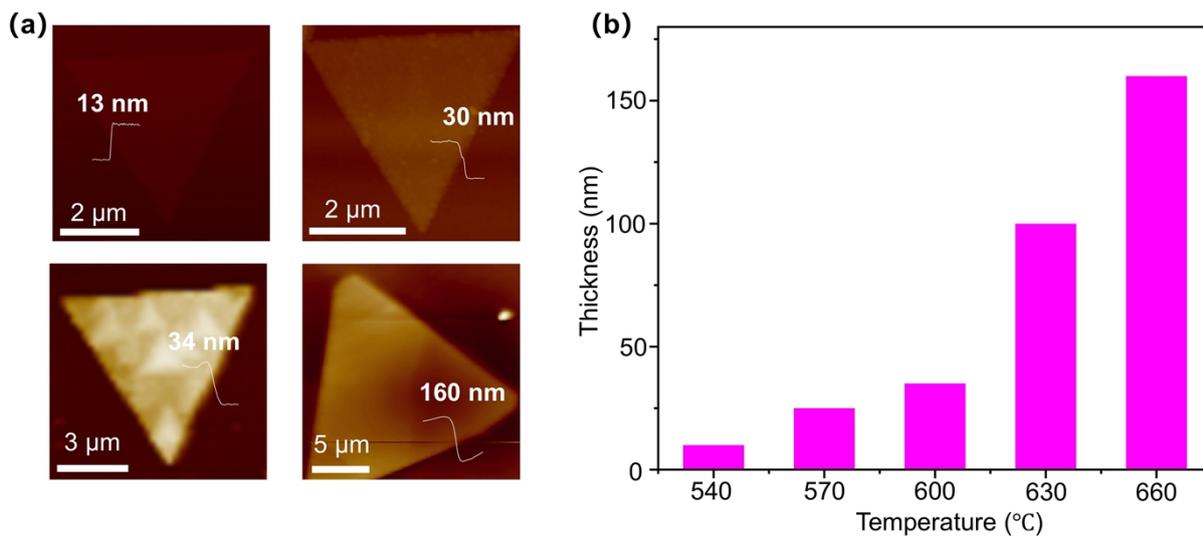


Fig. S3. (Color online) Atomic force microscopy (AFM) characterization of CoO nanosheets. (a) AFM image showing CoO nanosheets with different thicknesses. (b) Statistical thickness distribution of CoO nanosheets grown at different temperatures.

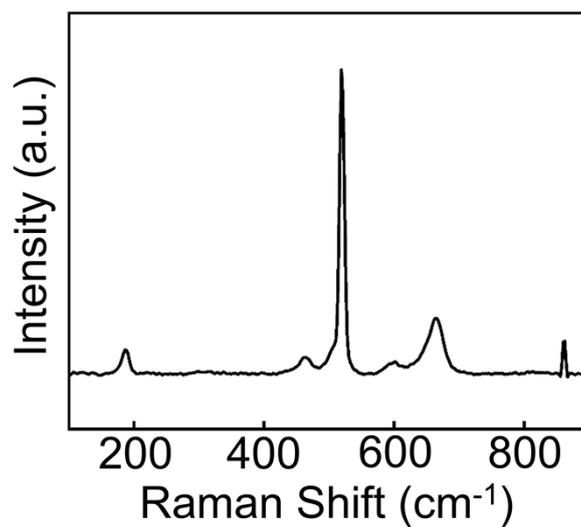


Fig. S4. Raman spectrum of the CoO nanosheets acquired under 632 nm laser excitation.

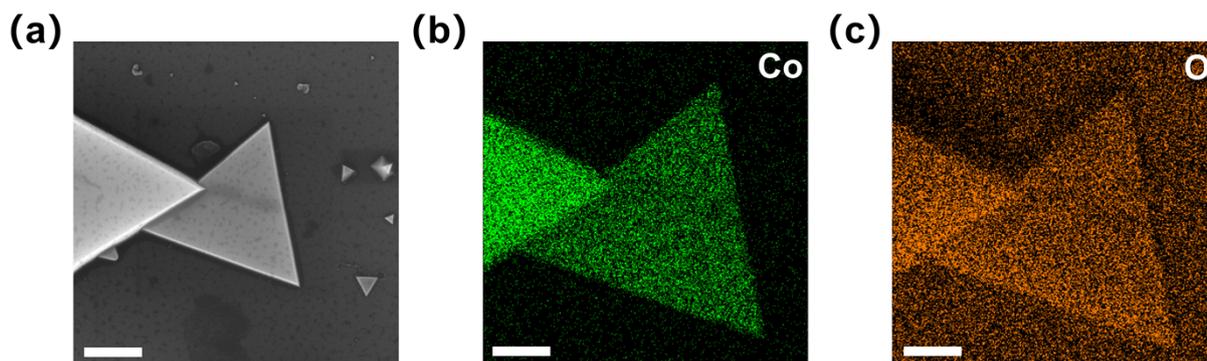


Fig. S5. (Color online) (a) Scanning electron microscopy (SEM) image of CoO nanosheets. (b,c) Energy-dispersive X-ray spectroscopy (EDS) elemental maps for Co and O. Scale bars: 1 μm .

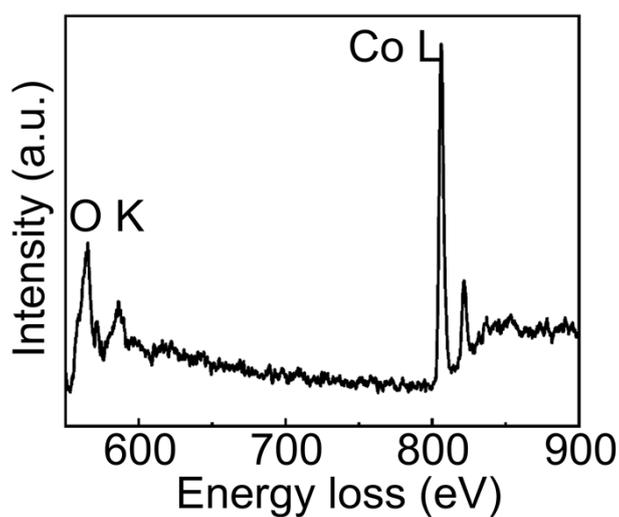


Fig. S6. Electron energy-loss spectroscopy (EELS) spectra of Co and O from a CoO nanosheet.

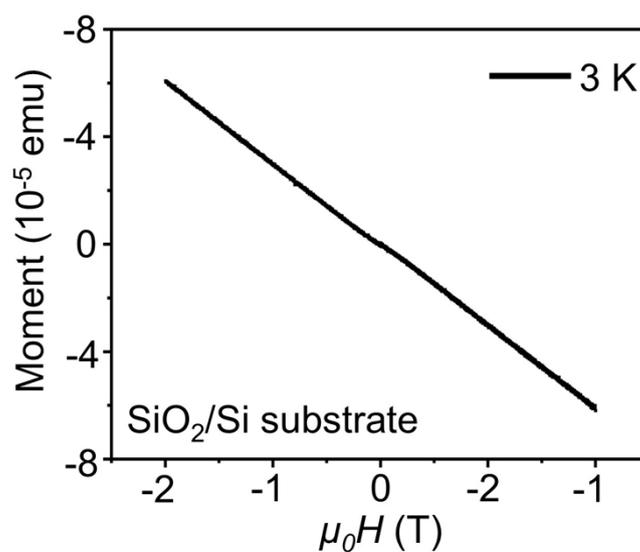


Fig. S7. Magnetic signal measured from a bare SiO_2/Si substrate.