Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Cu_2O@PNIPAM core-shell microgels as novel inkjet materials for the preparation of CuO hollow porous nanocubes gas sensing layers

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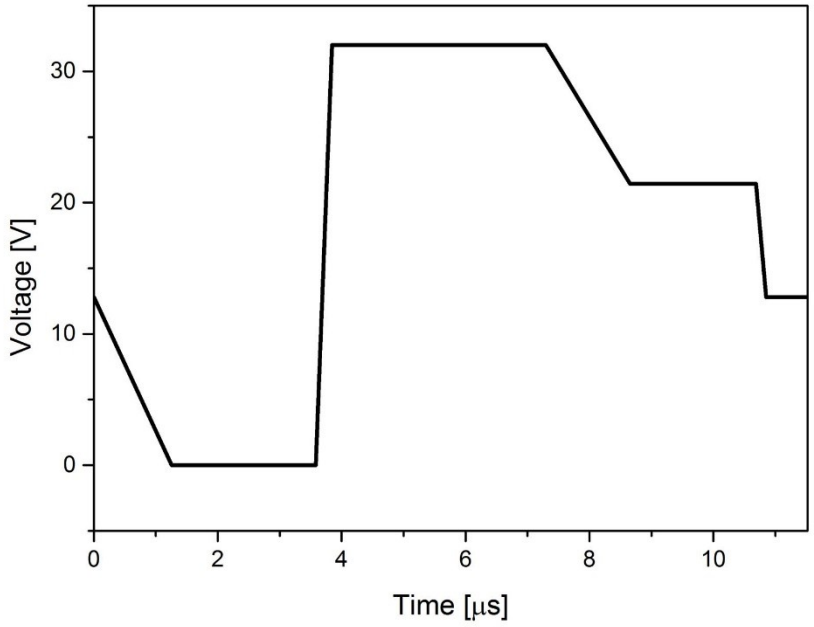

Figure s1. The waveform used for jetting.

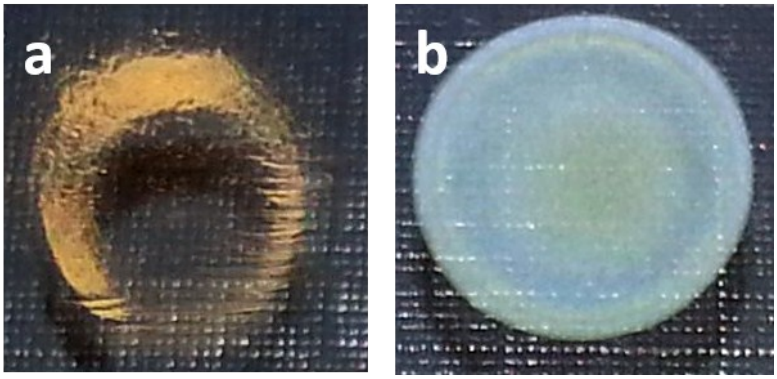

Figure s2. The photographs of the films of (a) bare Cu_2O nanocubes and (b) Cu_2O@PNIPAM core-shell nanoparticles with the same solid content of 0.026 wt. % on polystyrene (PS) substrates.

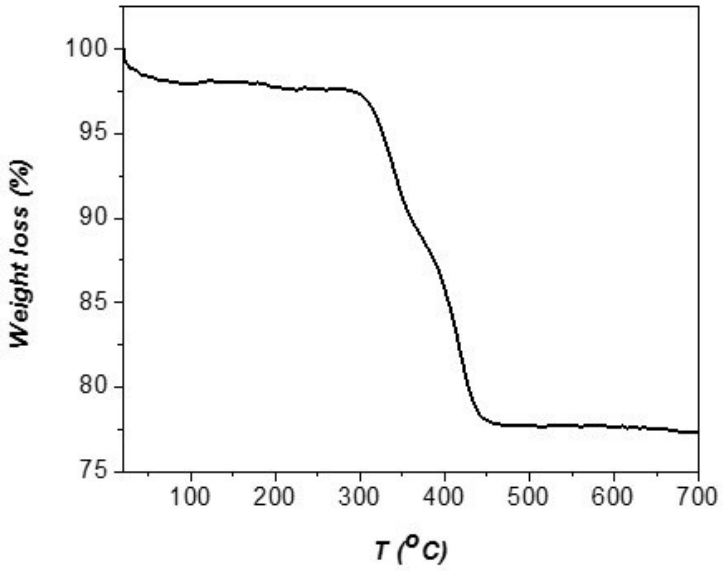

Figure s3. TGA spectra of Cu_2O@PNIPAM core-shell nanoparticles.

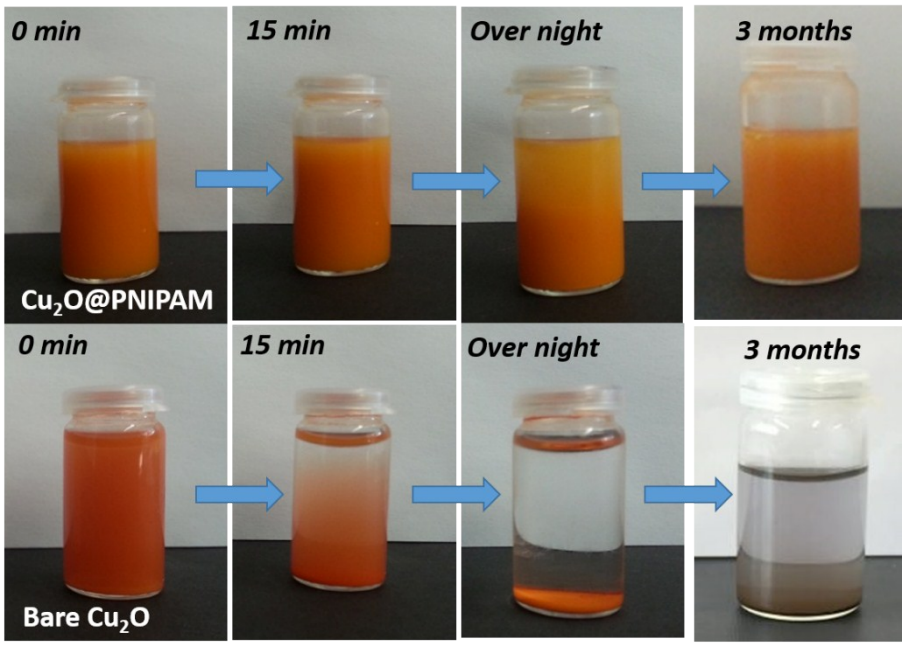

Figure s4. The photos of Cu_2O@PNIPAM core-shell nanoparticles and bare Cu_2O nanocubes kept in water at room temperature for different time.

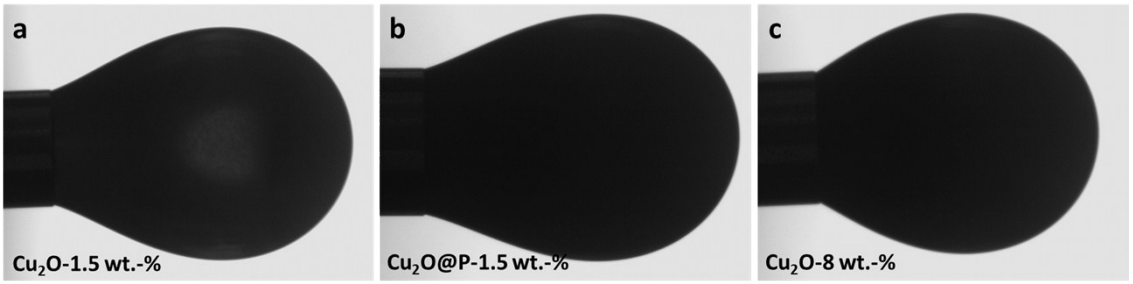

Figure s5. The photos of the droplets kept for 30 min for different samples: (a) bare Cu_2O nanocubes with 1.5 wt.% solid content, (b) Cu_2O@PNIPAM core-shell nanoparticles with 1.5 wt.% solid content and (c) bare Cu_2O nanocubes with 8 wt.% solid content.

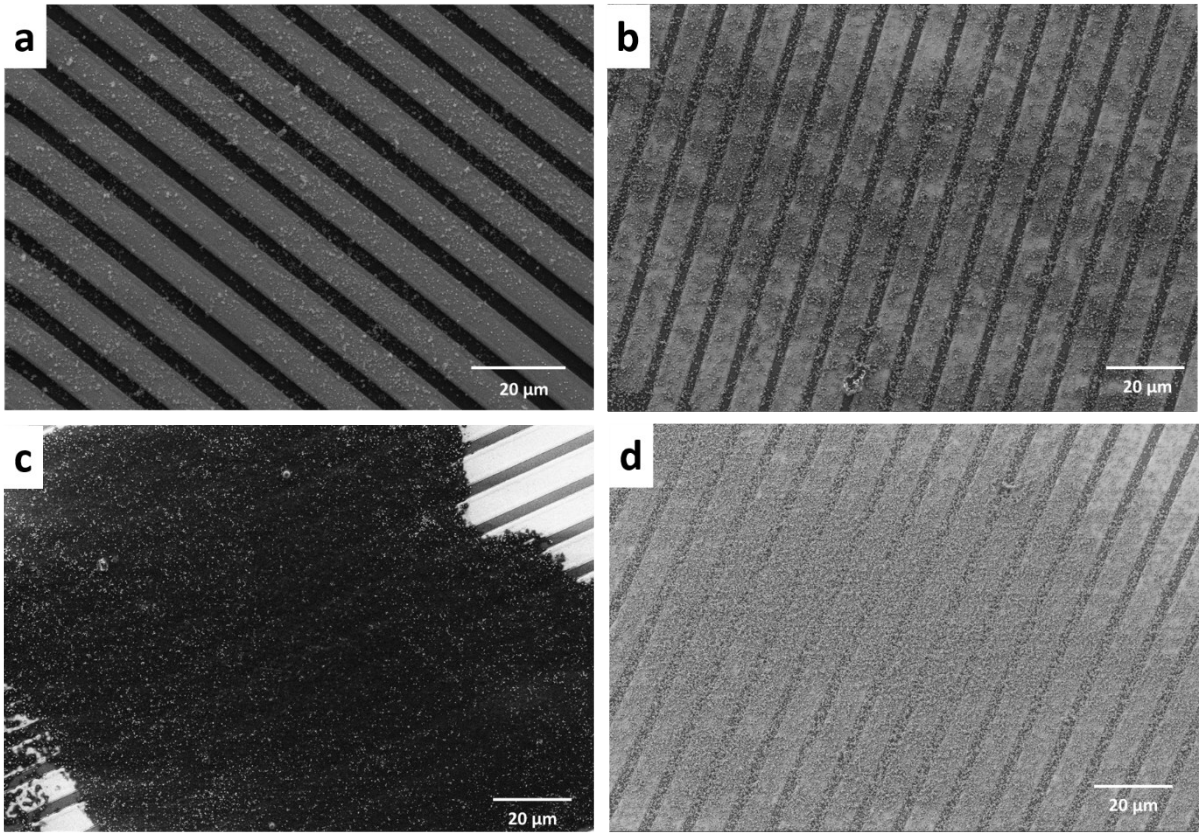

Figure s6. (a, b, c) Overview SEM images of gas sensor devices of Cu_2O (1.5 wt.%), Cu_2O (8 wt.%) and Cu_2O@PNIPAM (1.5 wt.%) before heating treatment. (d) Overview SEM image of gas sensor device of Cu_2O@PNIPAM (1.5 wt.%) after heating treatment.

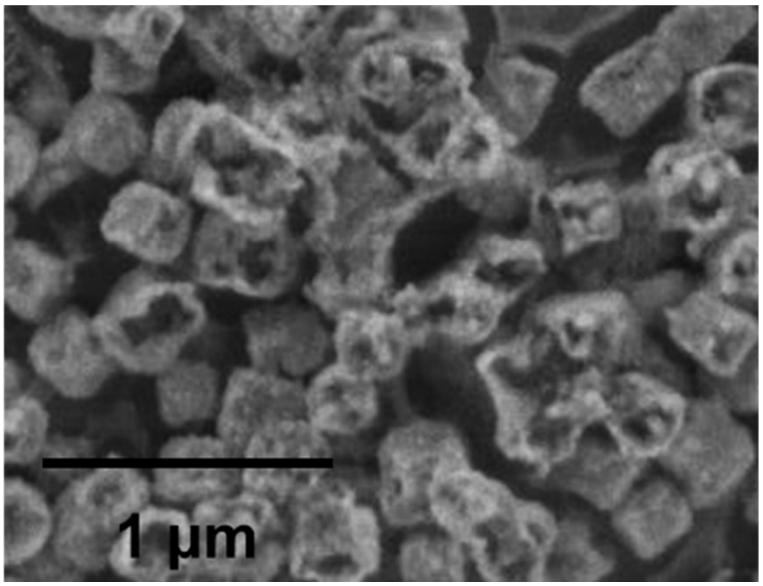

Figure s7. SEM image of CuO hollow porous sensing layers.