

Supporting Information

Multi-colored hollow carbon-containing titania nanoshells for anti-counterfeiting applications

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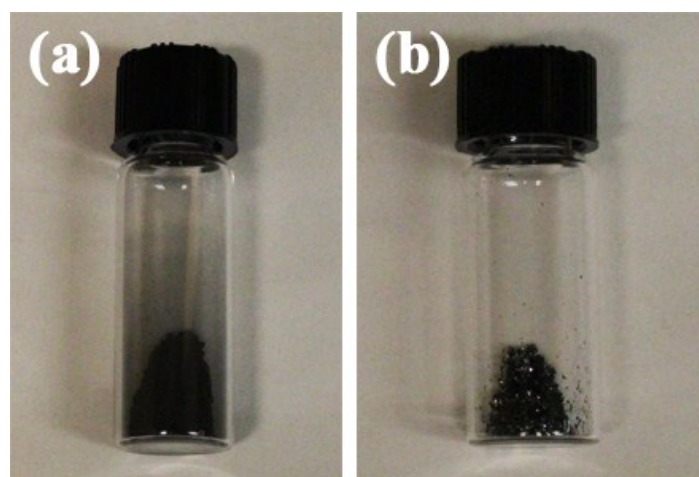


Fig. S1 Digital photographs of TiO_2 particles (a) and HPC (b) after calcination at 700 °C for 3h under anaerobic atmosphere.

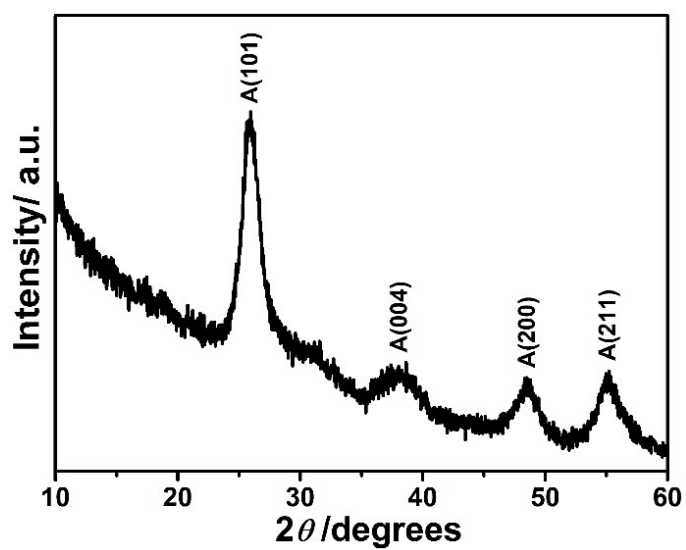


Fig. S2 XRD pattern of the final C- TiO_2 hollow nanoshells.

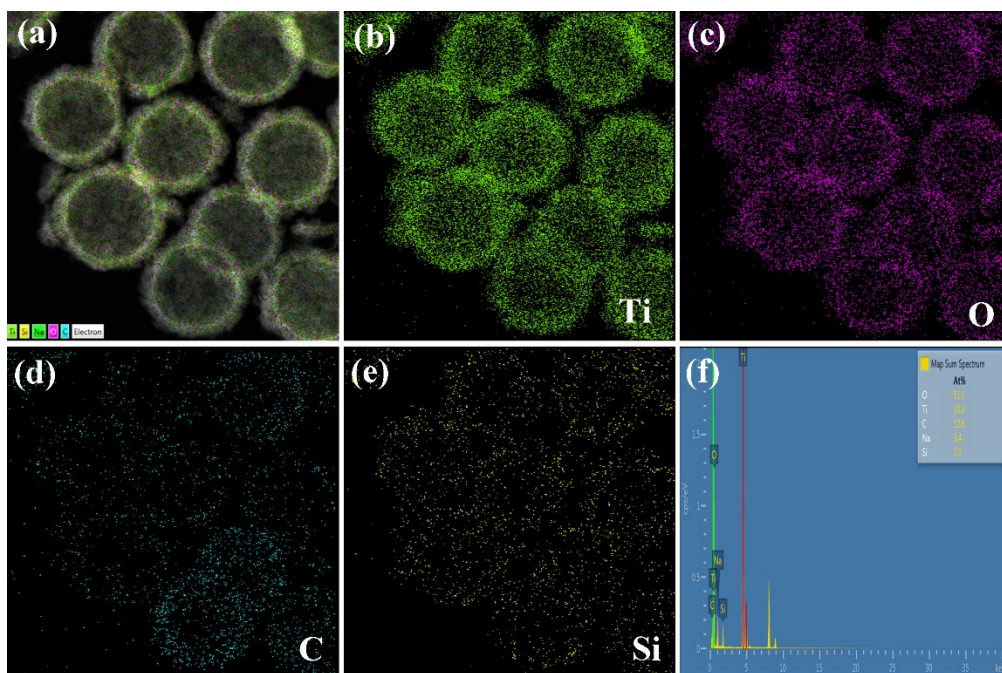


Fig. S3 Summary EDS elemental mapping of C-TiO₂ hollow nanoshells with 200 nm SiO₂ colloidal templates (a), corresponding EDS elemental mapping of Ti (b), O (c), C (d), and Si (e) from the region in (a), and the element content based on the EDS analysis (f).

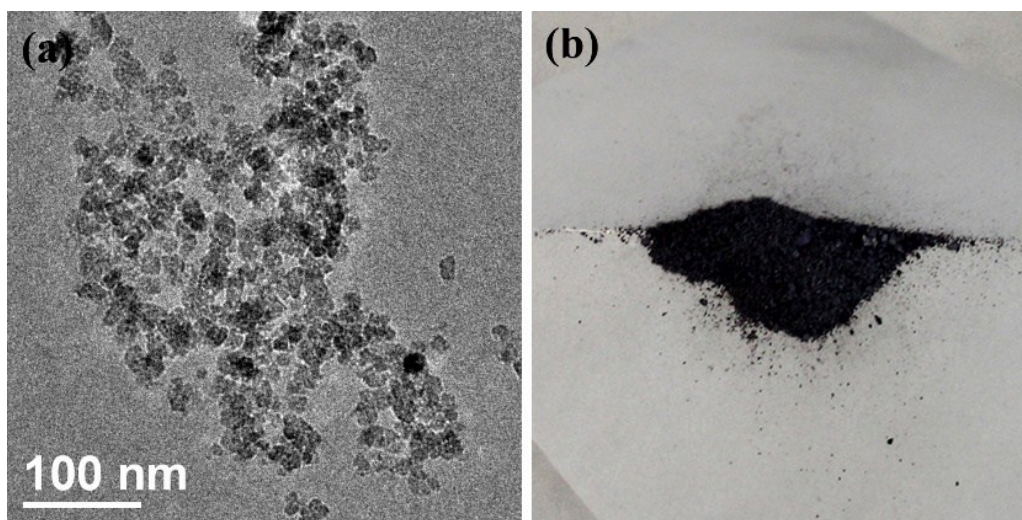


Fig. S4 TEM image (a) and the corresponding digital photograph (b) of the irregularly-shaped solid TiO₂ particles.

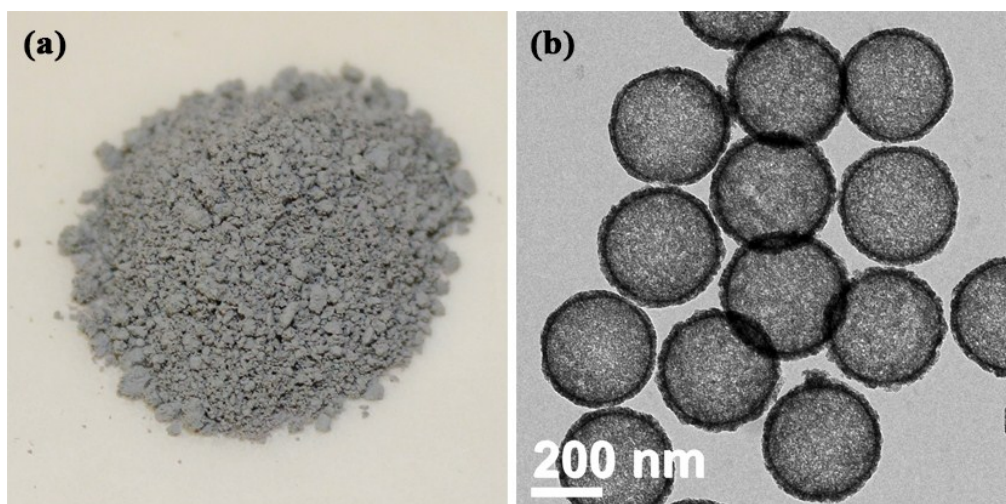


Fig. S5 Digital photograph (a) and TEM image (b) of 310(20)@C-TiO₂ hollow spheres.

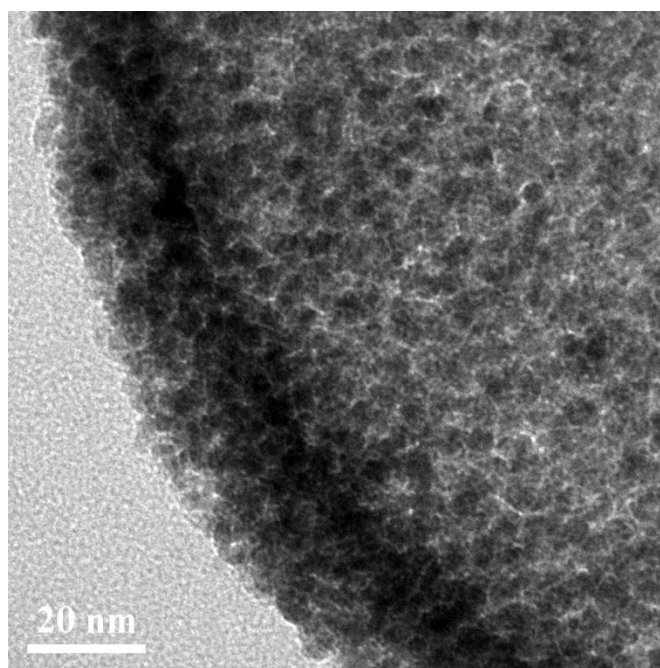


Fig. S6 HRTEM image of 180(22)@C-TiO₂ hollow nanoshells.

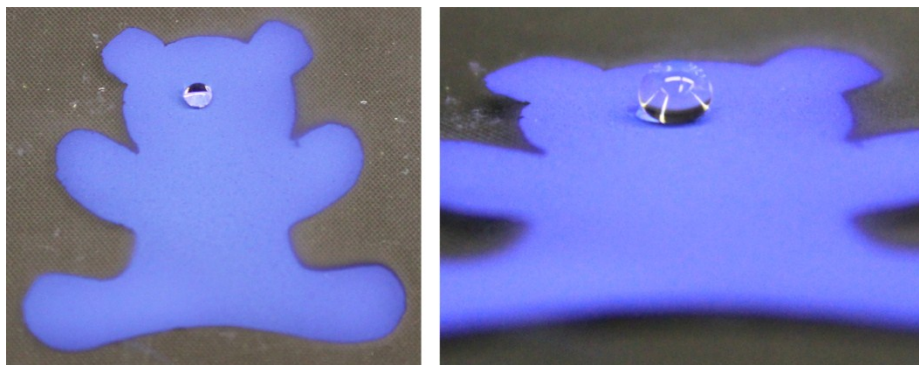


Fig. S7 Water droplet on the sprayed purple film with a panda shape.