Electronic Supplementary Material (ESI) for RSC Advances.

High-performance all-solid-state flexible carbon/TiO_2 micro-supercapacitors with photo-rechargeable capability

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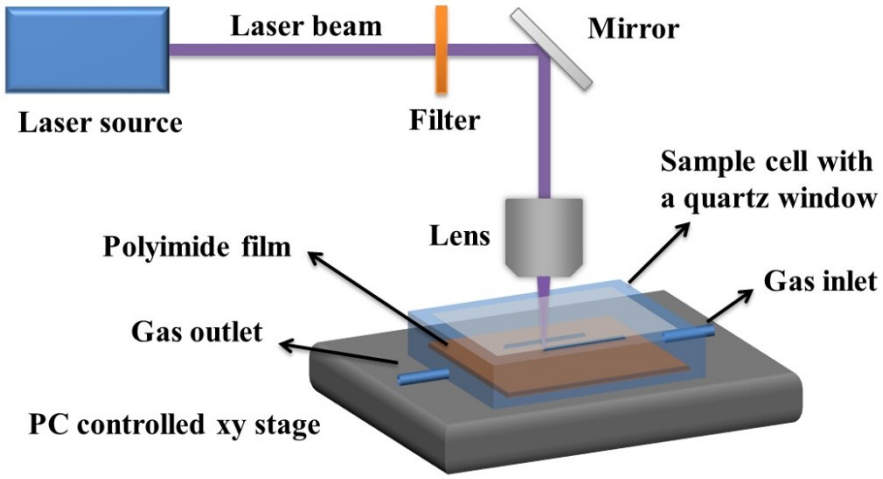

Fig. S1 Schematic illustration of the laser direct writing system and a sample cell with a quartz window for Ar atmosphere.

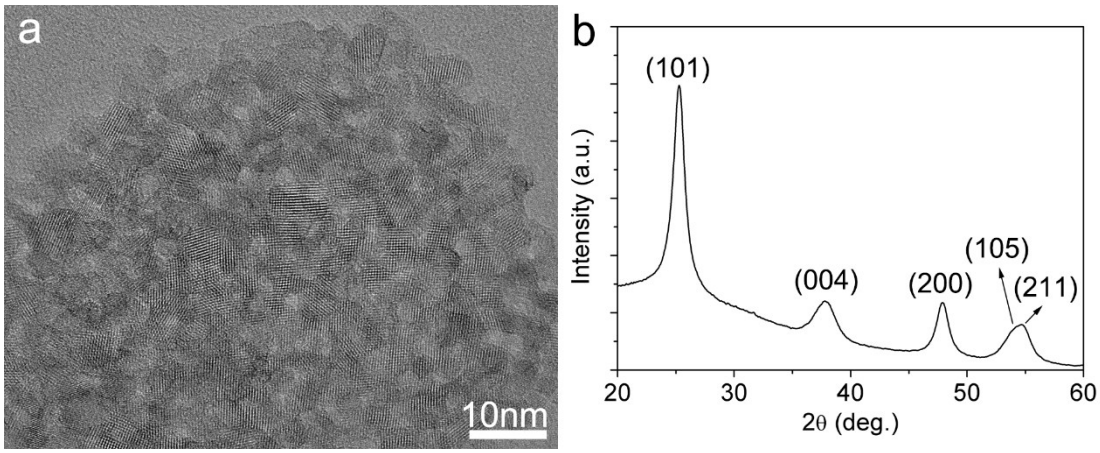

Fig. S2 TEM image (a) and XRD pattern (b) of the commercial TiO_2 nanoparticles. Although there are aggregations of the TiO_2 nanoparticles seen from the TEM image due to the water evaporation, it is still clear to distinguish the primary nanoparticles with a size of less than 10nm. The XRD pattern demonstrated the anatase phase of the TiO_2 nanoparticles.

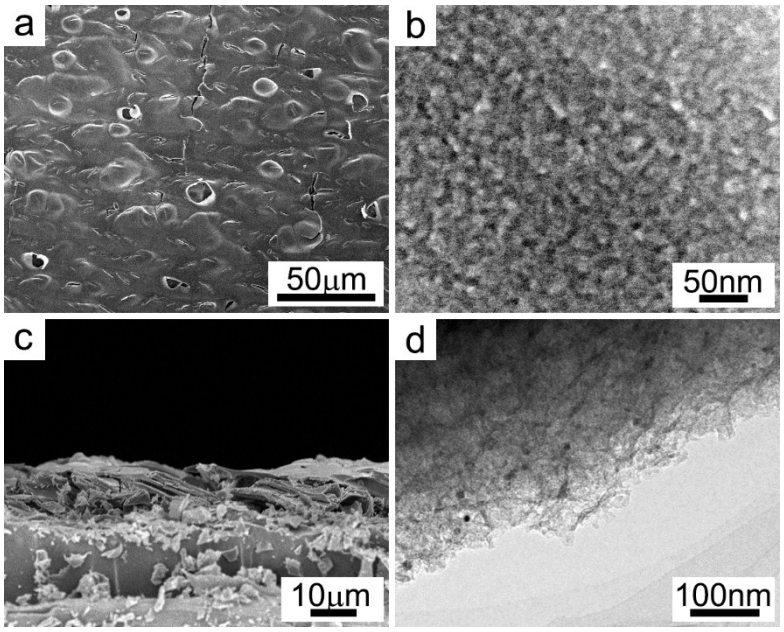

Fig. S3 Top view (a) and cross-sectional SEM images and TEM image of the carbon structures obtained by laser direct writing on polyimide film in Ar at a typical laser power of 157 mW.

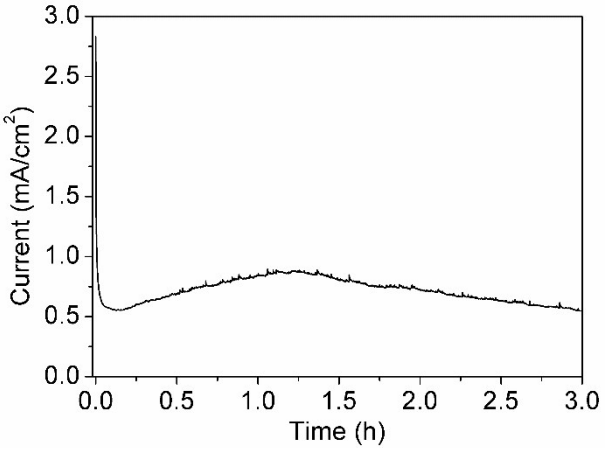

Fig. S4 The current curve of the electrophoretic deposition process.

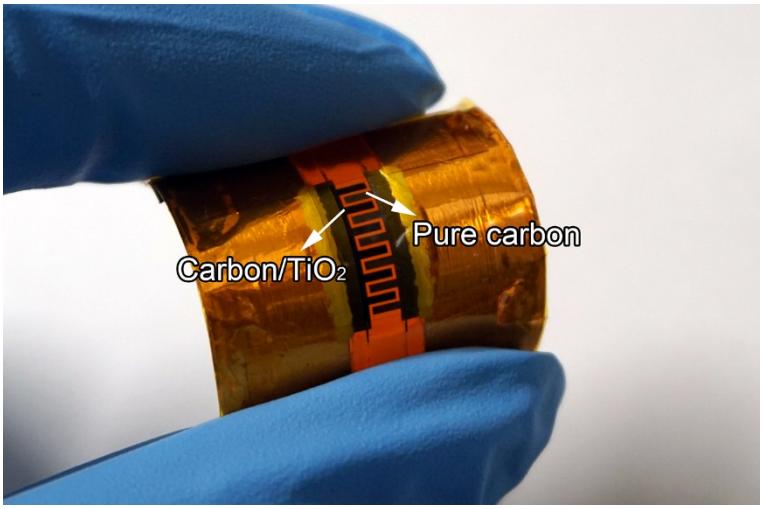

Fig. S5 As-prepared interdigitated carbon/TiO_2 photo-rechargeable micro-supercapacitors.