

Supplementary Information

Insertion of Dye-Sensitized Solar Cells in Textiles using a Conventional Weaving Process

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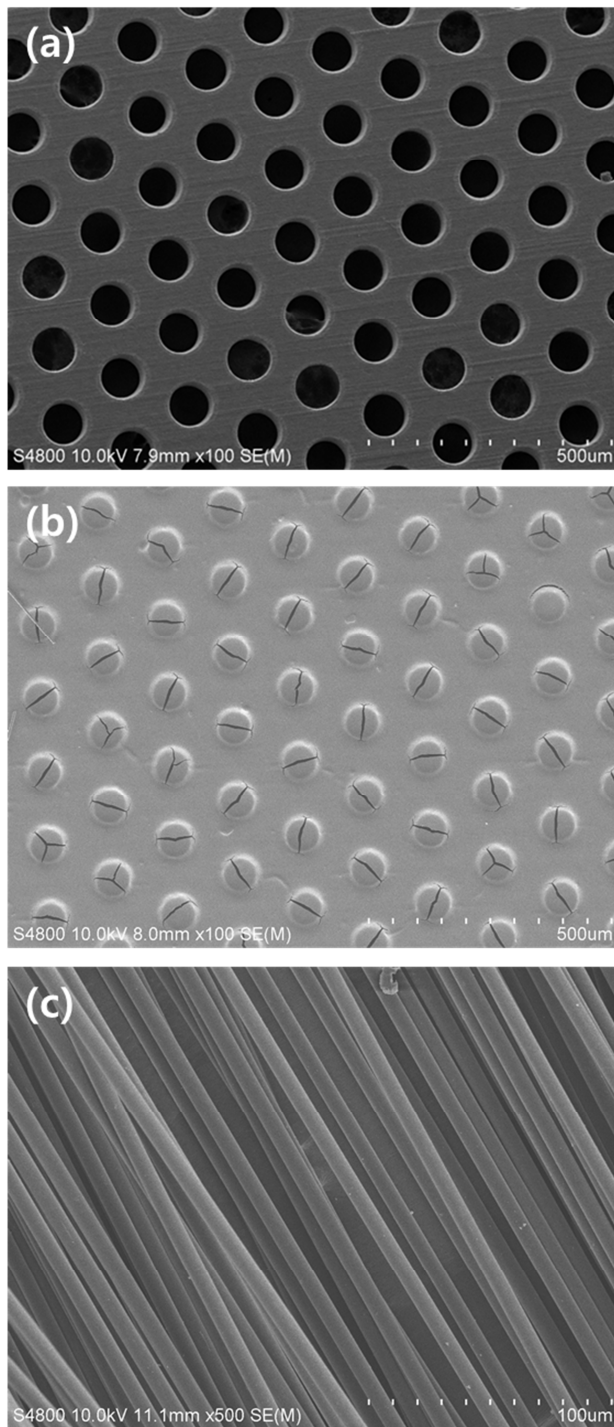
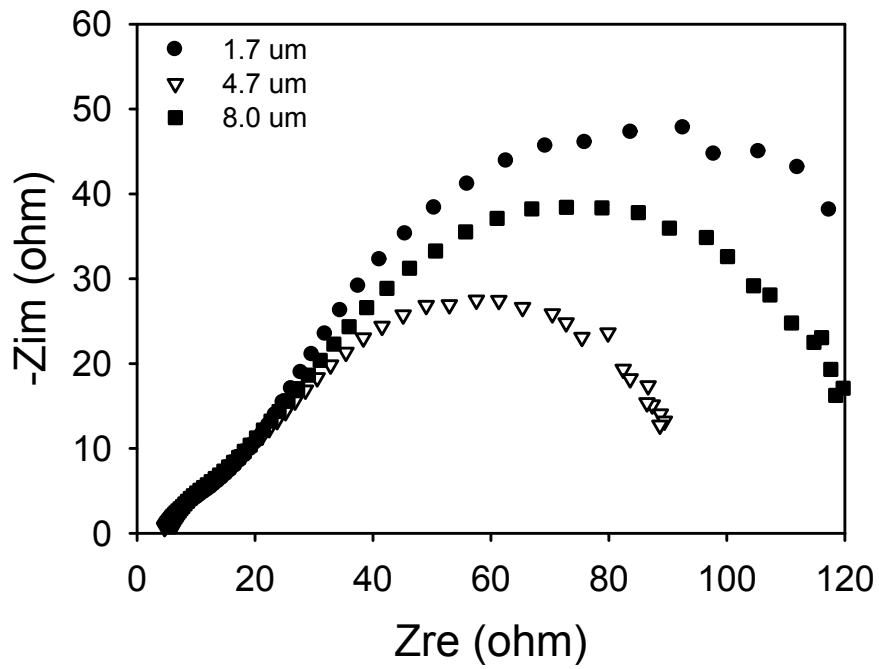
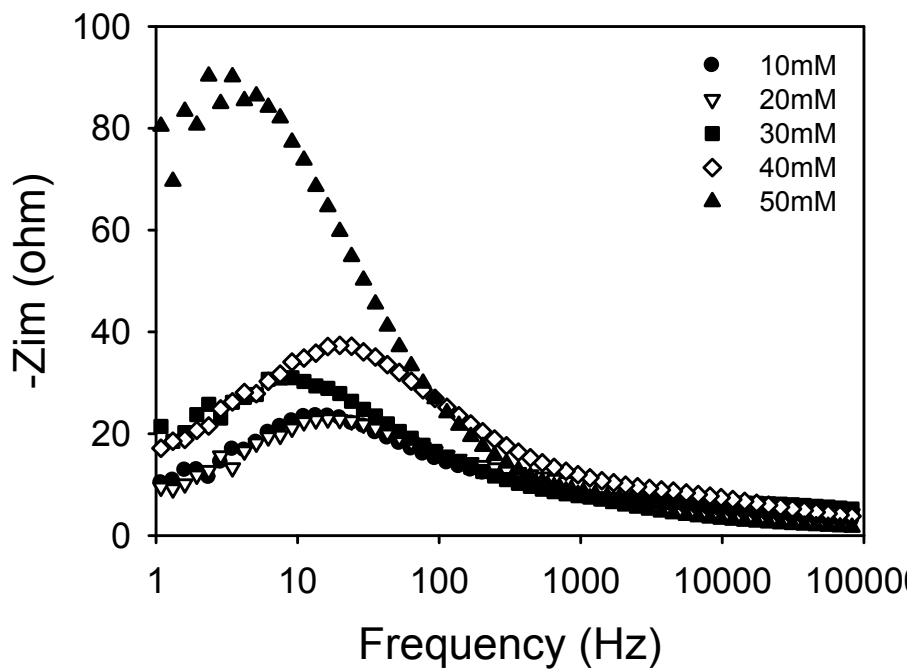


Figure S1. Scanning electron microscopy (SEM) image of (a) the etched mesh of 304 stainless steel and (b) the photoanode, (c) counterelectrode carbon yarn for the dye-sensitized solar cells (DSSCs) incorporated into the textile.

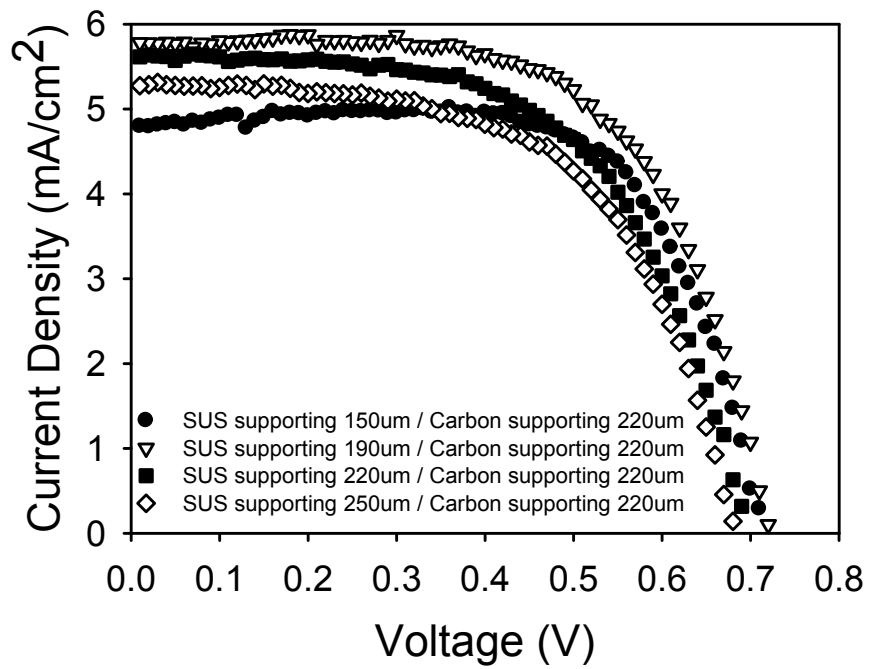


(a)

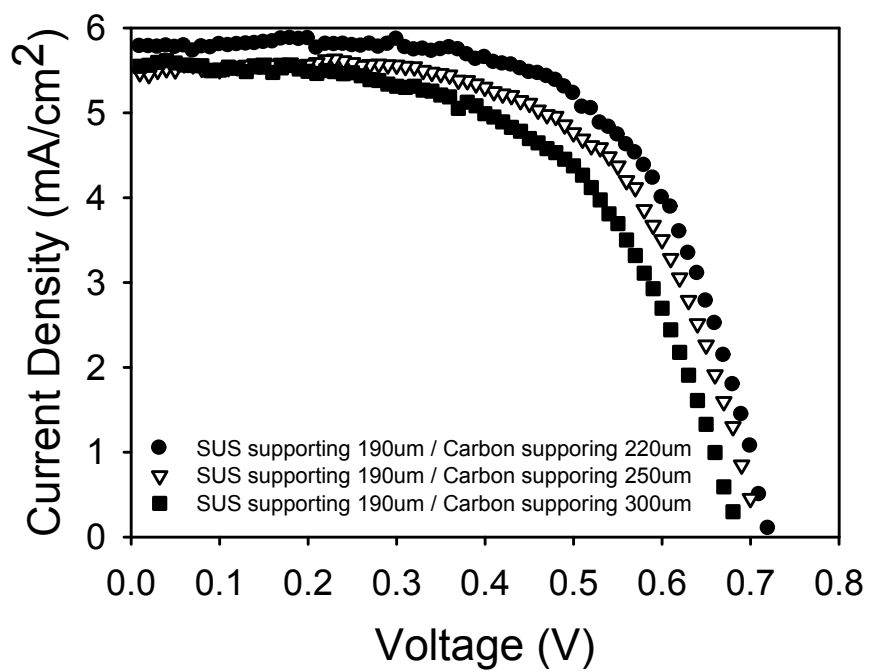


(b)

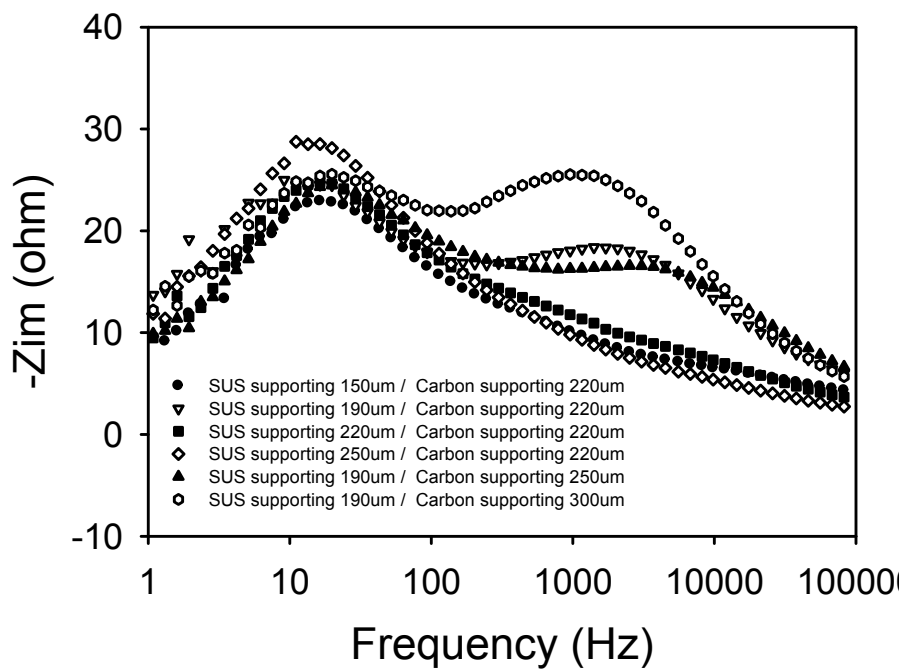
Figure S2. (a) Nyquist plot for Fig. 3(c). (b) Bode plot for Fig. 3(f).



(a)



(b)



(c)

Figure S3. (a) Current density (J)–voltage (V) characteristics of DSSCs inserted in the textile with various radius of photoanode supporting nylon warps fixing the counterelectrode-supporting warp diameter of 220 μm . (b) J – V characteristics of DSSCs inserted in the textile with a various radius of counterelectrode-supporting nylon warps fixing a photoanode-supporting warp diameter of 190 μm . (c) Bode plot for Fig. 4(c).

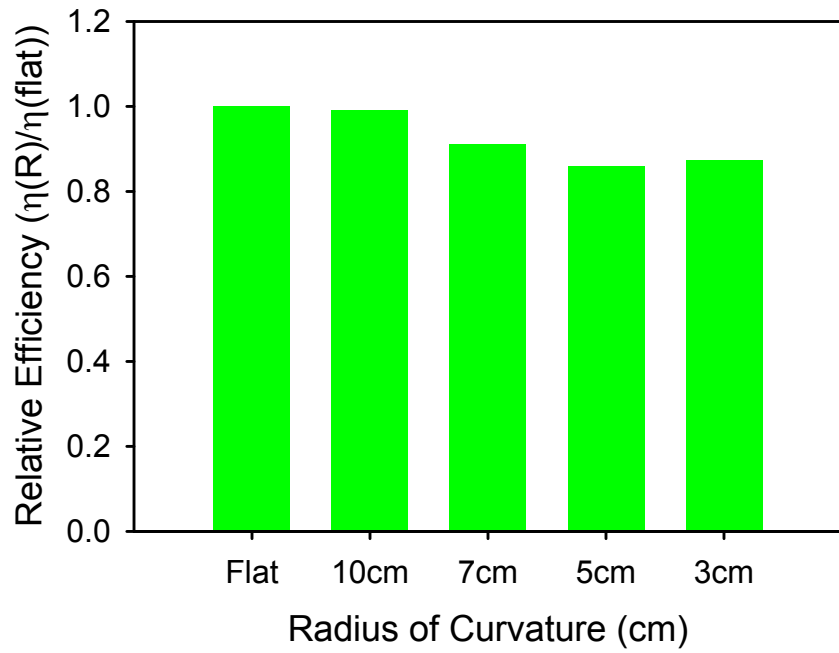


Figure S4. The relative energy conversion efficiency to flat state of inserted DSSCs according to bending radius of curvature.