

Supplementary Materials

Digitally patterned mesoporous carbon nanostructures of colorless polyimide for transparent and flexible micro-supercapacitor

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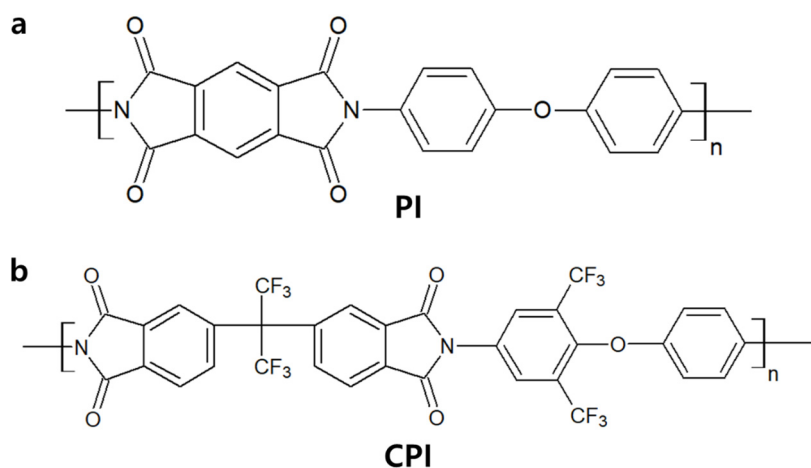


Figure 1. Chemical structure of (a) PI and (b) CPI.

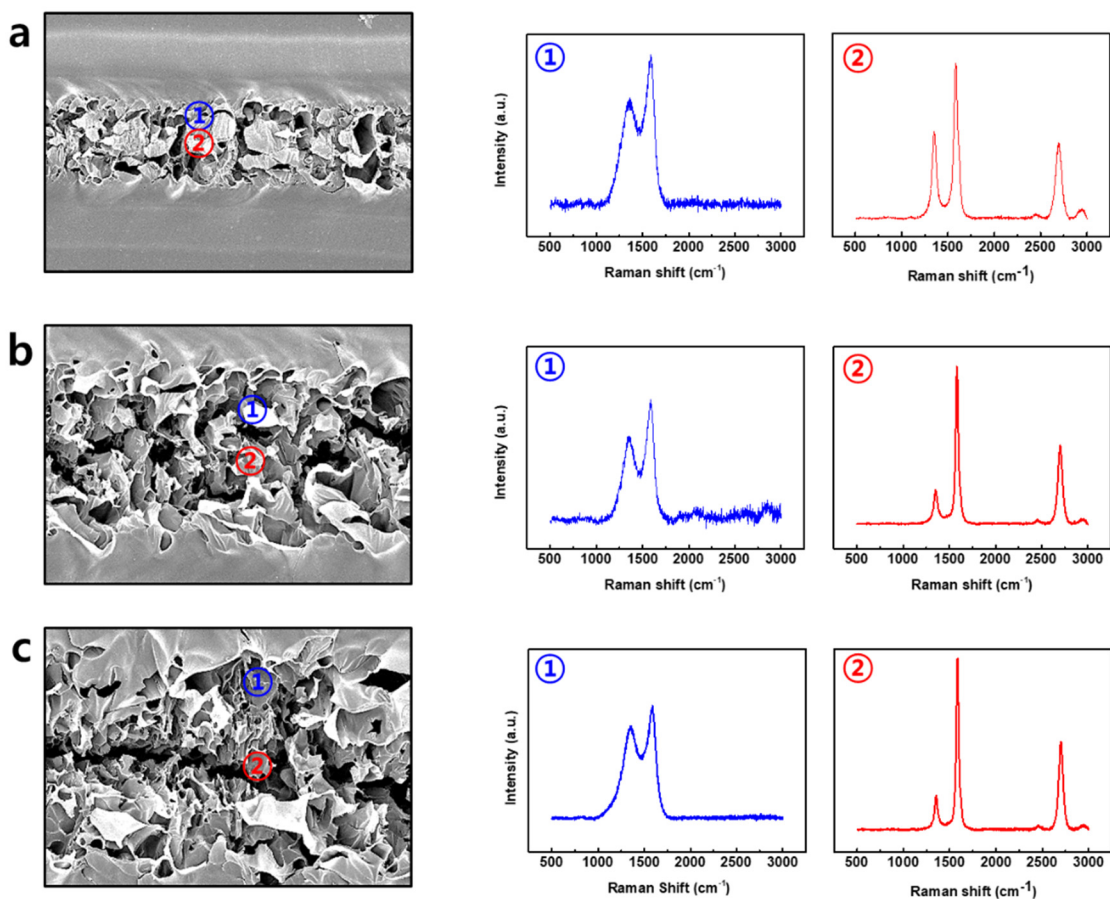


Figure 2. Raman spectra of carbon electrode fabricated by laser powers of (a) 50mW, (b) 100mW, and (c) 150mW at different area. Blue and red lines indicate amorphous and crystallized area in carbon electrode, respectively.

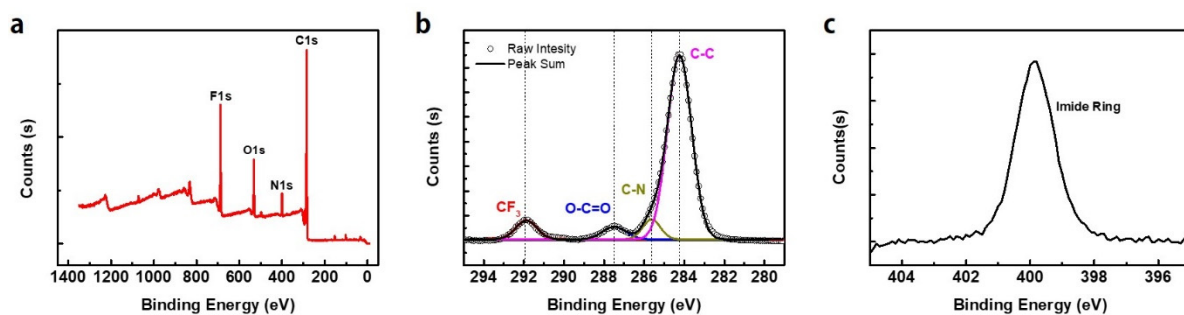


Figure 3. (a) The XPS survey spectrum of pristine CPI substrate and core level deconvoluted spectra of (b) C1s and (c) N1s.

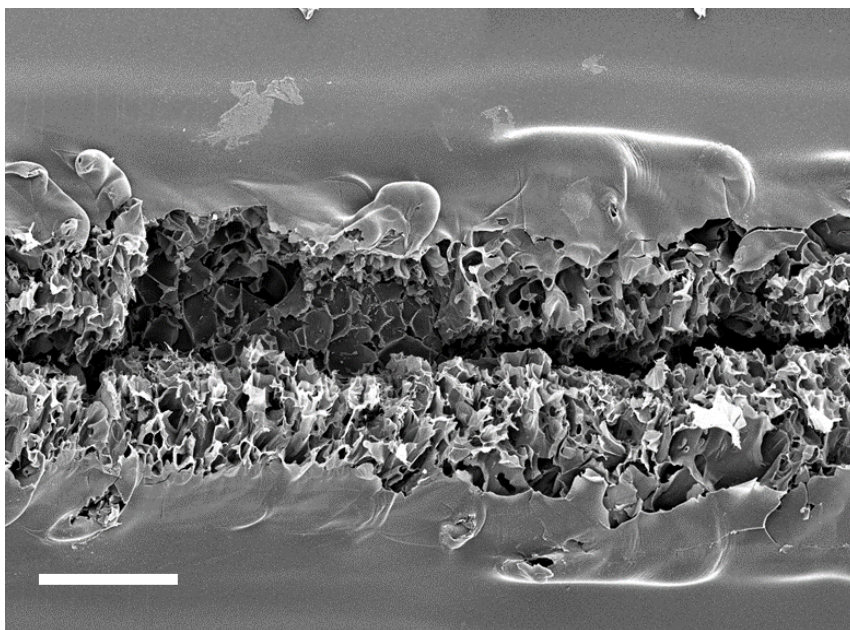


Figure 4. The SEM image of carbon electrode produced by DLWC at 200 mW and 1 mm s⁻¹. Since the produced carbon electrode is exploded and destroyed during DLWC, specific areal capacitance can be decreased. A scale bar is 20 μ m.

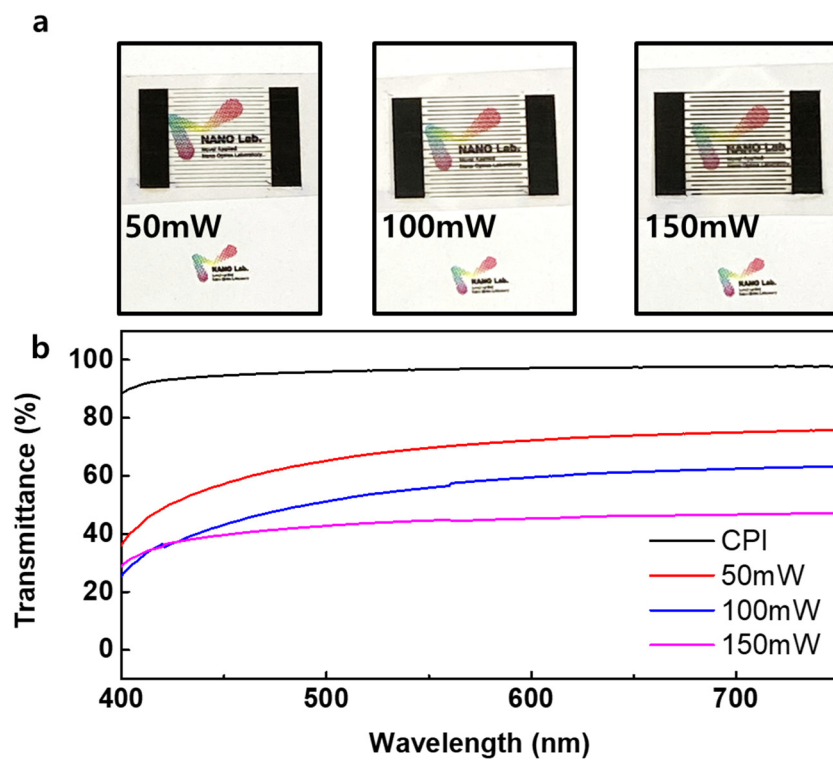


Figure 5. (a) Digital images and (b) the transmittances of carbonized CPI based MSC with different laser powers.