

Supplementary data

Table 3. Characteristic of fiber before/after carbonization

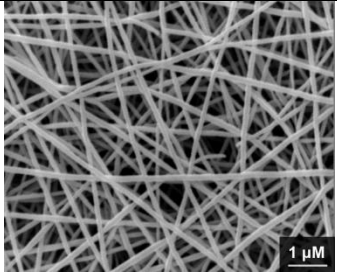
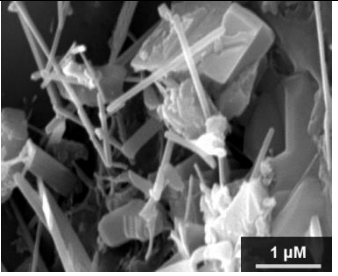
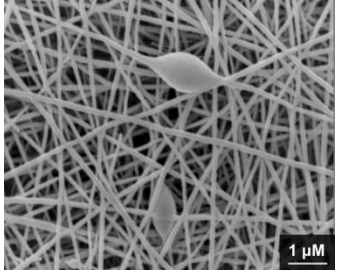
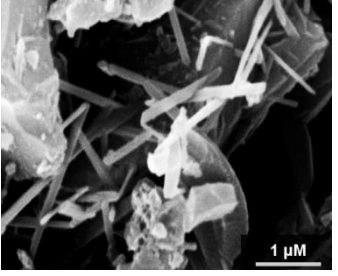
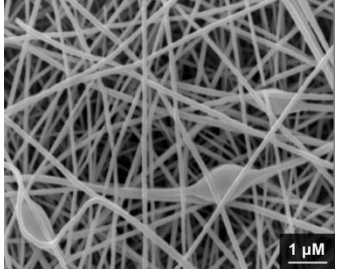
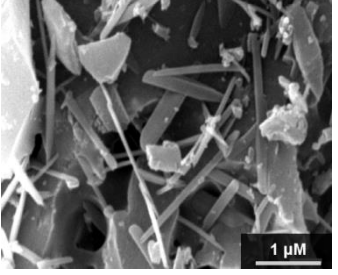
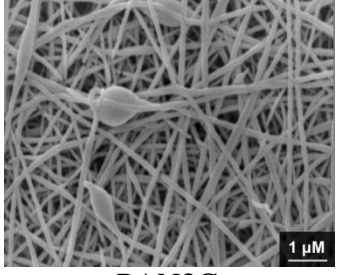
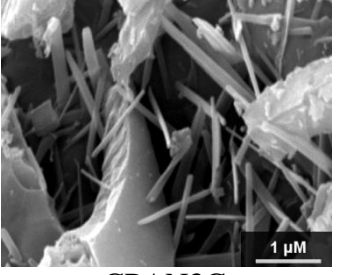
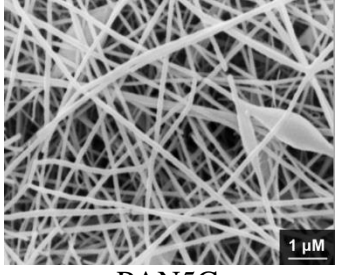
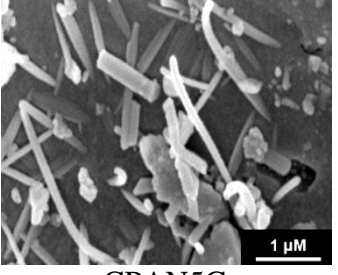
Before Carbonization		After Carbonization	
Characteristic of fiber	Fiber diameter (nm)	Characteristic of fiber	Fiber diameter (nm)
 <p>PAN</p>	126±16	 <p>CPAN</p>	102±10
 <p>PAN0.5G</p>	128±19	 <p>CPAN0.5G</p>	116±15
 <p>PAN1G</p>	134±20	 <p>CPAN1G</p>	121±12
 <p>PAN3G</p>	145±16	 <p>CPAN3G</p>	137±17
 <p>PAN5G</p>	151±21	 <p>CPAN5G</p>	144±19

Table 4. The determination of DA human serum

Samples	No.	Amount of added DA (μM)	Amount of found DA (μM)	Recovery (%)	RSD%
Human Serum	1	10.0	10.8	106.8	2.25
	2	20.0	22.2	110.9	1.93
	3	40.0	41.8	104.7	2.59

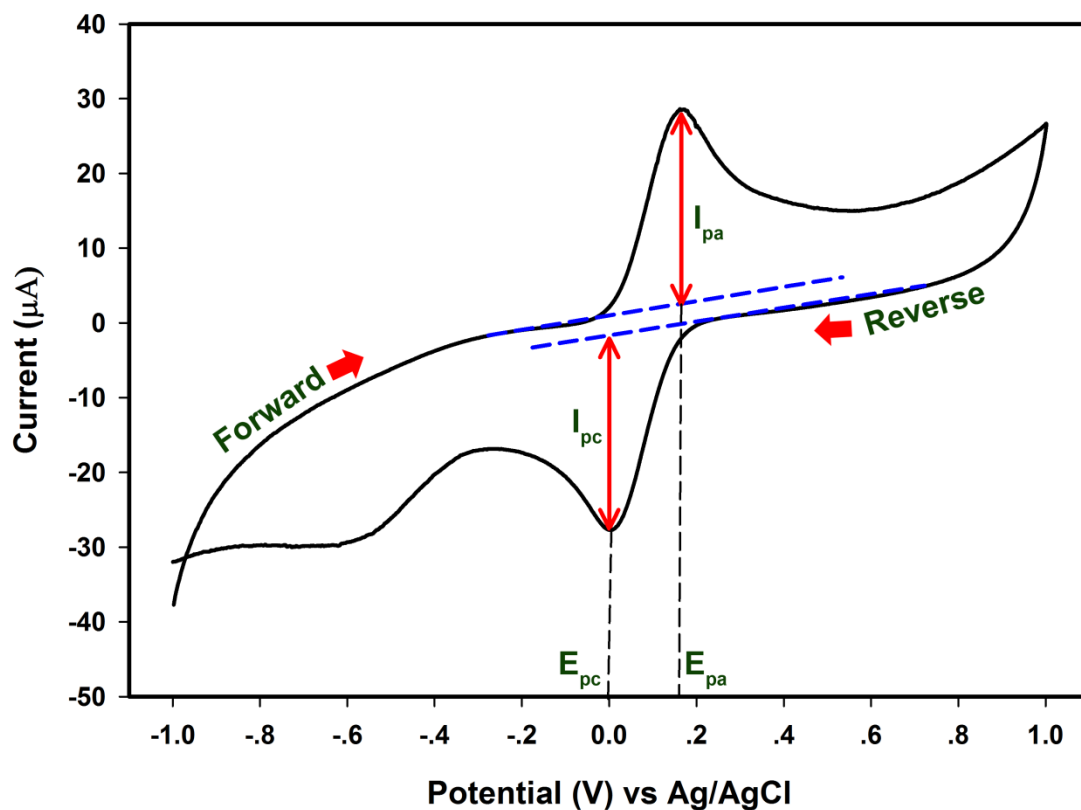


Figure 10 Determination of I_{pa} , I_{pc} , E_{pa} and E_{pc} of CPAN5G-4x electrodes with a scan rate of 50 mV s^{-1} in 0.1 M PBS at a pH of 7.4 in 1 mM $[\text{Fe}(\text{CN})_6]^{3-/4-}$

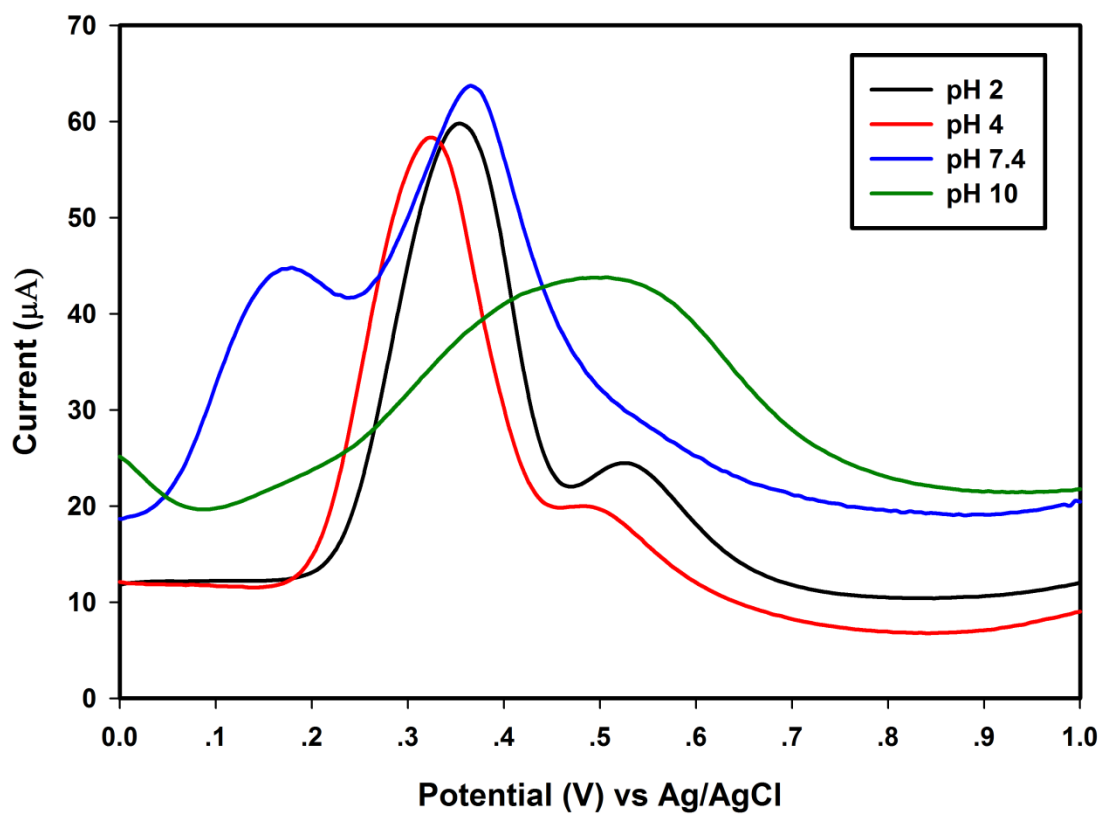


Figure 11. SWV profiles of the CPAN5G-4x electrode the presence of 40 μM DA, 80 μM AA, and 400 μM in 0.1 M PBS/5 mM SDS at various pH conditions. SWV detection conditions: pulse amplitude=0.06 V, square wave frequency=18 Hz, and step height=0.005 V.