Electronic Supplementary Material (ESI) for Analytical Methods.

A flexible and sensitive electrochemical sensing platform based on dimethyl sulfoxide modified carbon cloth: towards the detection of dopamine and carvedilol

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Supporting Information

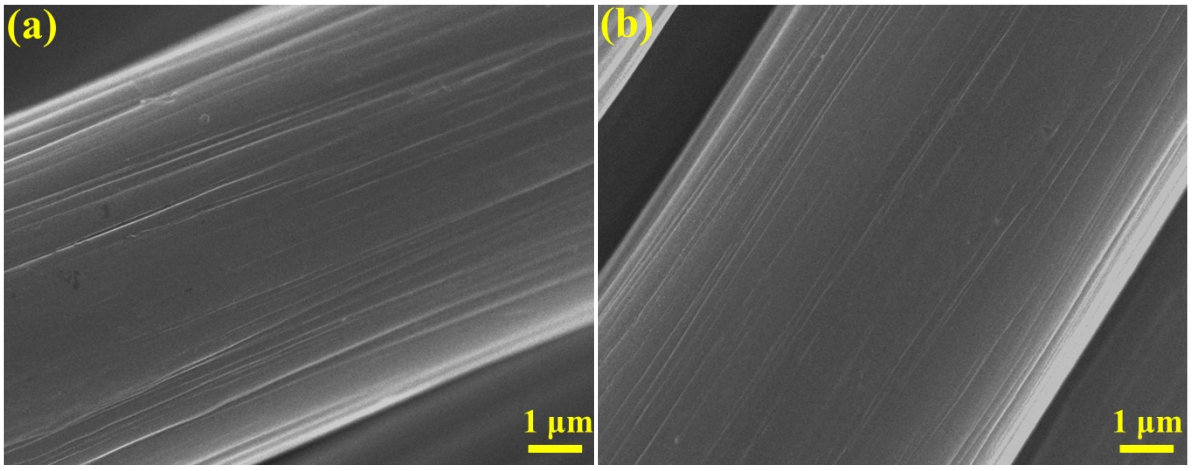

Fig. S1. SEM images of a) bare CC b) CC-DMSO

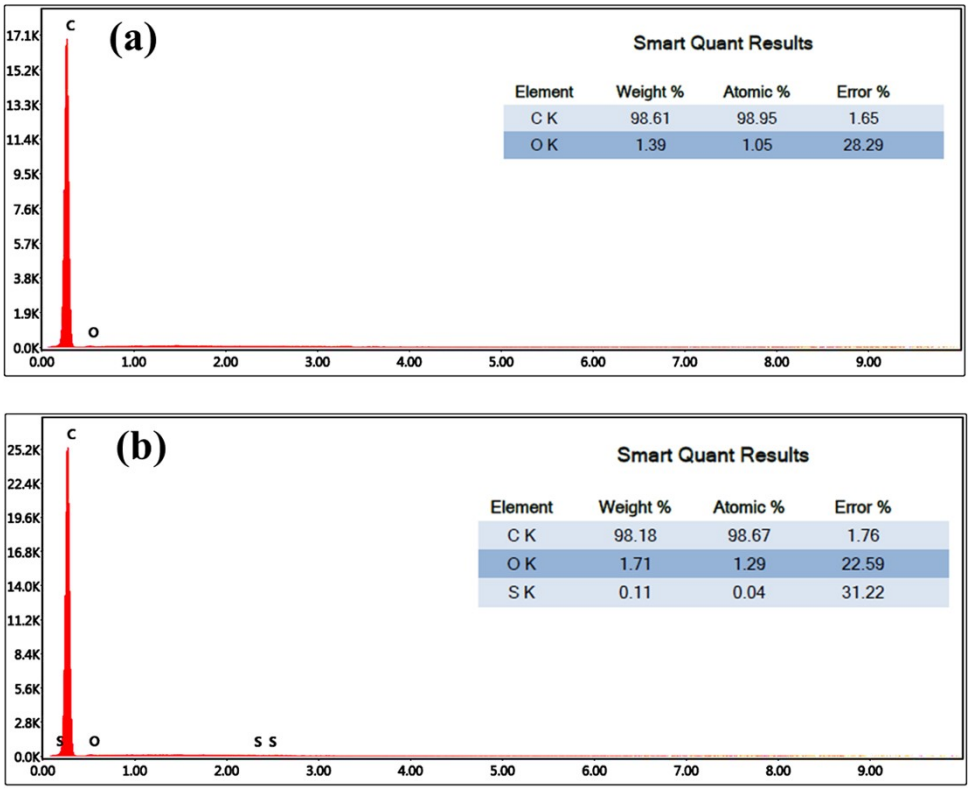

Fig. S2. The EDS spectra with elemental analysis of (a) CC and (b) CC-DMSO.

	Bare CC		**CC-DMSO**	
Element	**Atomic conc (%)**	**Mass conc (%)**	**Atomic conc (%)**	**Mass conc (%)**
C 1s	95.66	94.30	93.86	91.90
O 1s	4.30	5.70	5.25	6.88
S 2p	0	0	0.89	1.22

Table S1. The XPS elemental analysis of bare CC and CC-DMSO

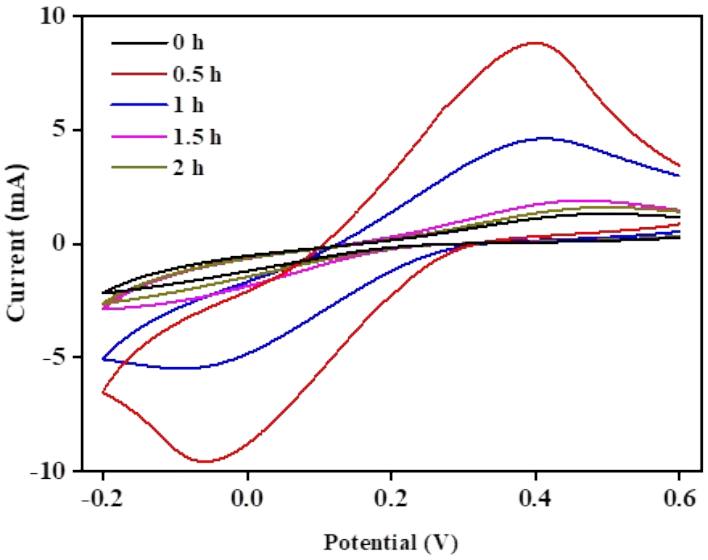

Fig. S3. CV responses of CC-DMSO with varying DMSO modification time in 0.1 M PBS with a scan rate of 100 mV/s.

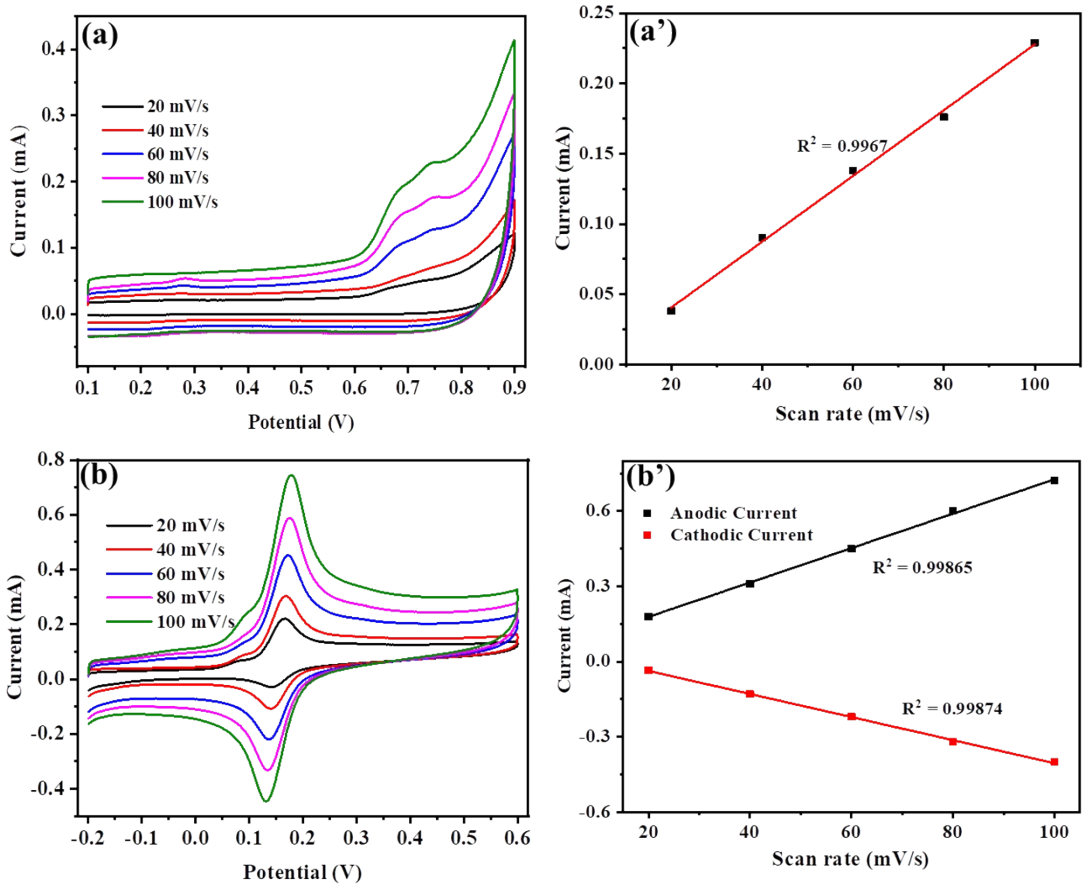

Fig. S4(a) The effect of scan rate of CC-DMSO in presence of 100 µM CAR and (a') its calibration plot. (b) The effect of scan rate of CC-DMSO in presence of 100 µM DA and (b') its calibration plot.

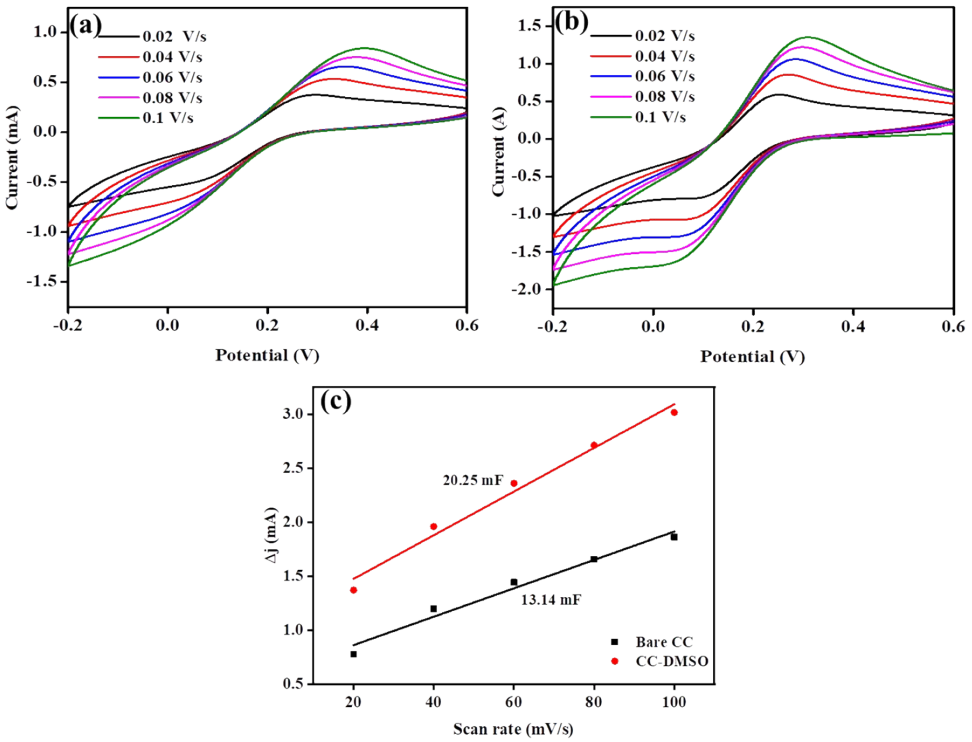

Fig. S5 (a) The CV of (a) bare CC and (b) DMSO-CC at different scan rates. (c) calibration plot of change in current density vs scan rate for CC and DMSO-CC.

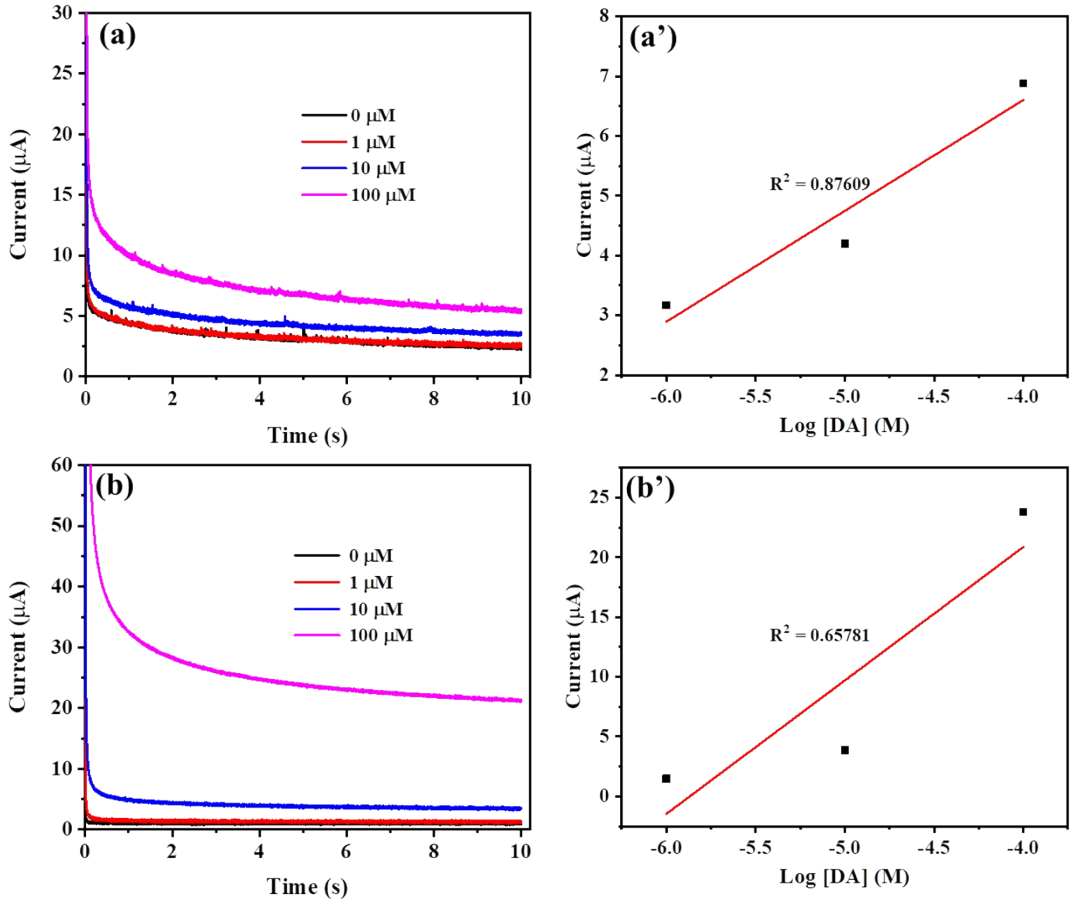

Fig. S6(a) The chronoamperometric response of unmodified CC at a potential of 0.74 V with varying the concentration of CAR and (a') the calibration plot between peak current (at 6 s) vs logarithmic concentration of CAR. (b) The chronoamperometric response of unmodified CC at a potential of 0.18 V with varying the concentration of DA and (b') the calibration plot between peak current (at 6 s) vs logarithmic concentration of DA.

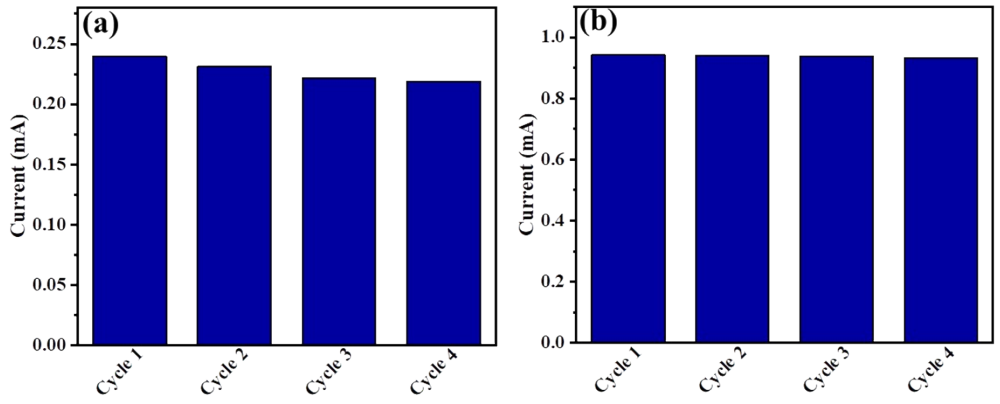

Fig S7. The repeatability of CC-DMSO sensor towards (a) CA detection (b) DA detection.

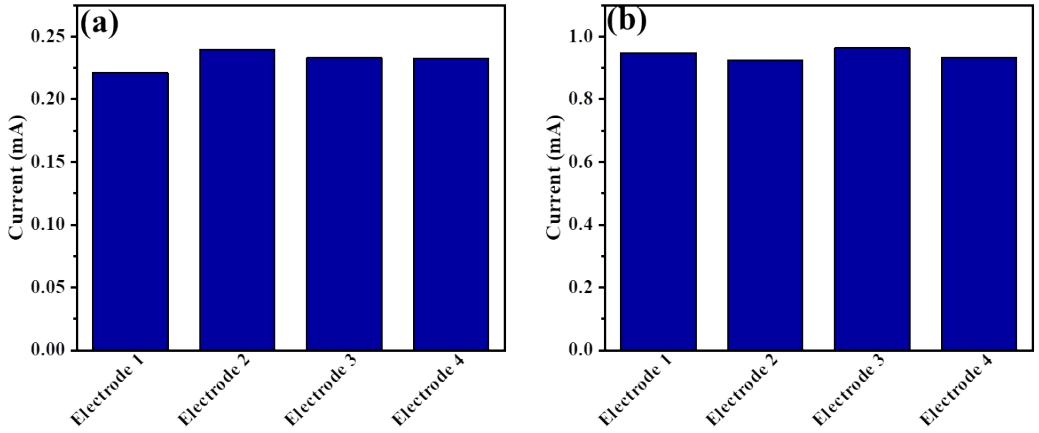

Fig. S8. The reproducability of CC-DMSO sensor towards (a) CAR detection (b) DA detection.

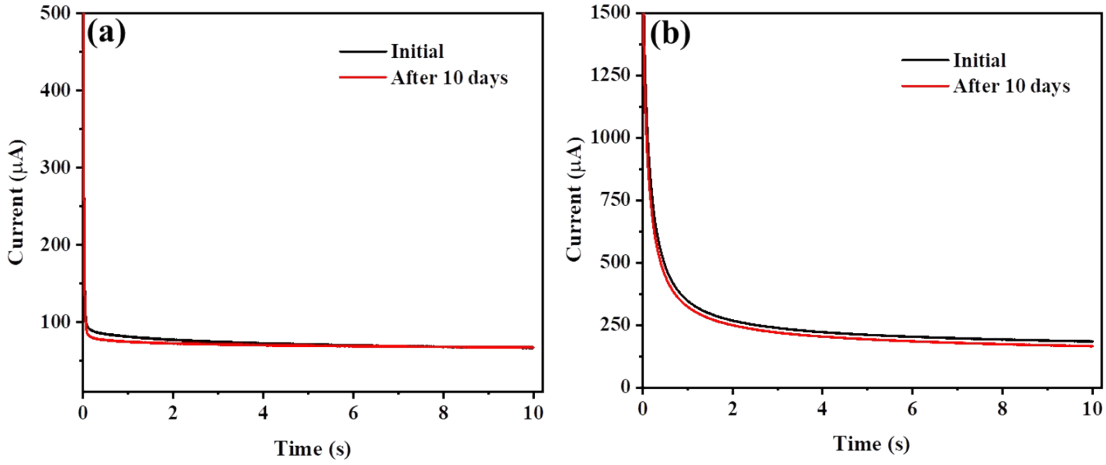

Fig S9. The chronoamperometric response of CC-DMSO after 10 days of storage at 4 °C in comparison with initial value for (a) CAR detection (b) DA detection.