Supplementary Material

Differential pulse voltametric detection of dopamine using polyaniline-functionalized graphene oxide/silica nanocomposite for point-of-care diagnostics

Ankita Tejwani[1], Urvashi Sonkar[1], Kamlesh Shrivas[1]*, Khushali Tandey[1], Indrapal Karbhal[1], Manas Kanti Deb[1], Shamsh Pervez[1]

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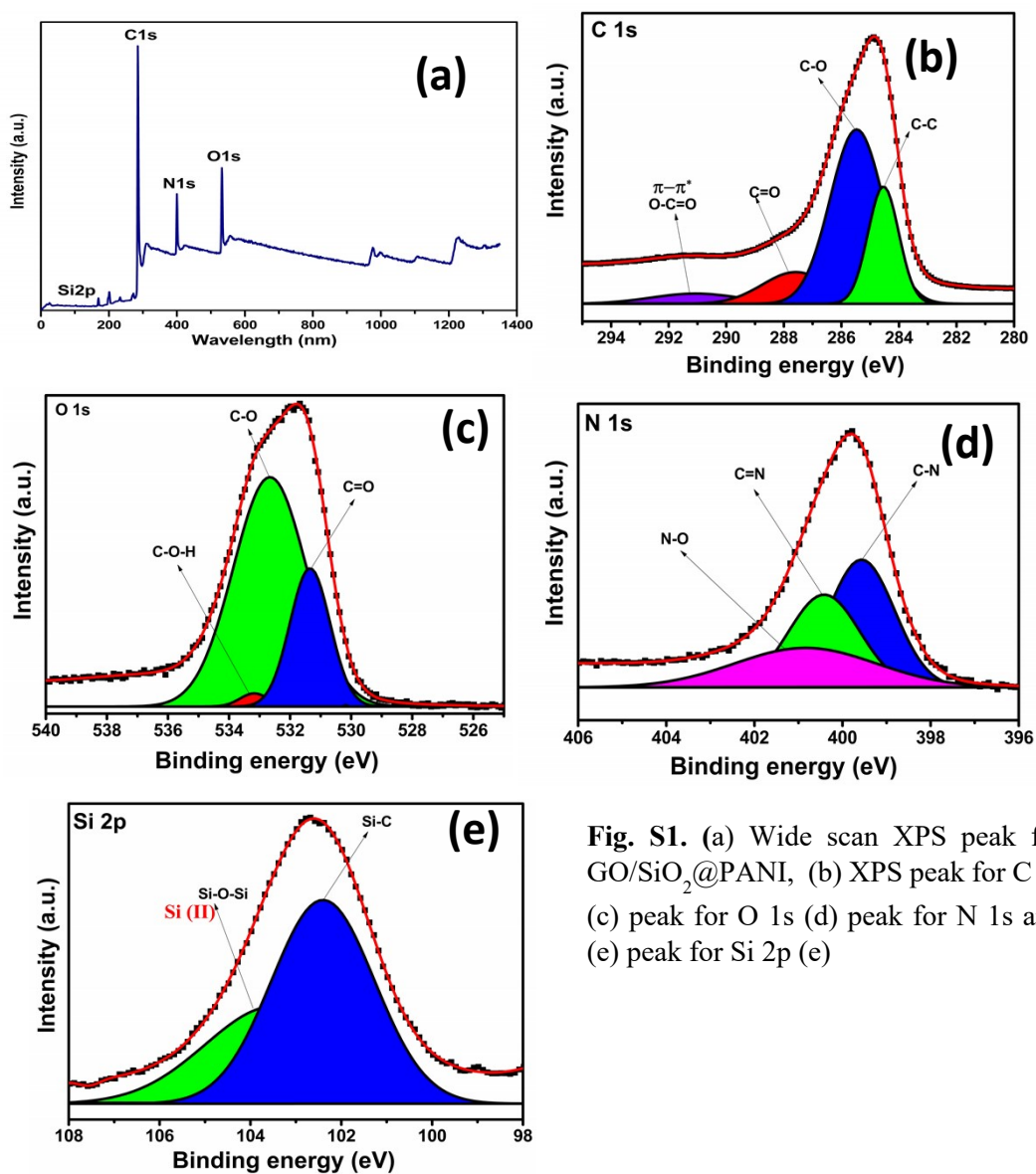**Fig. S1. (**a) Wide scan XPS peak for GO/SiO$_2$@PANI, (b) XPS peak for C 1s (c) peak for O 1s (d) peak for N 1s and (e) peak for Si 2p (e)
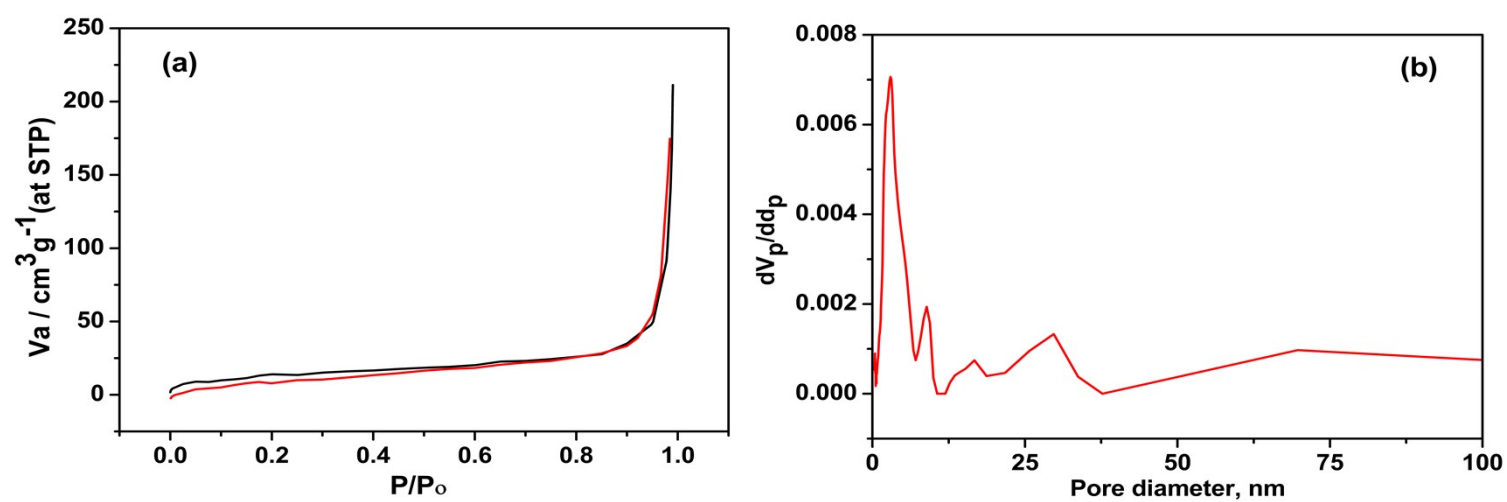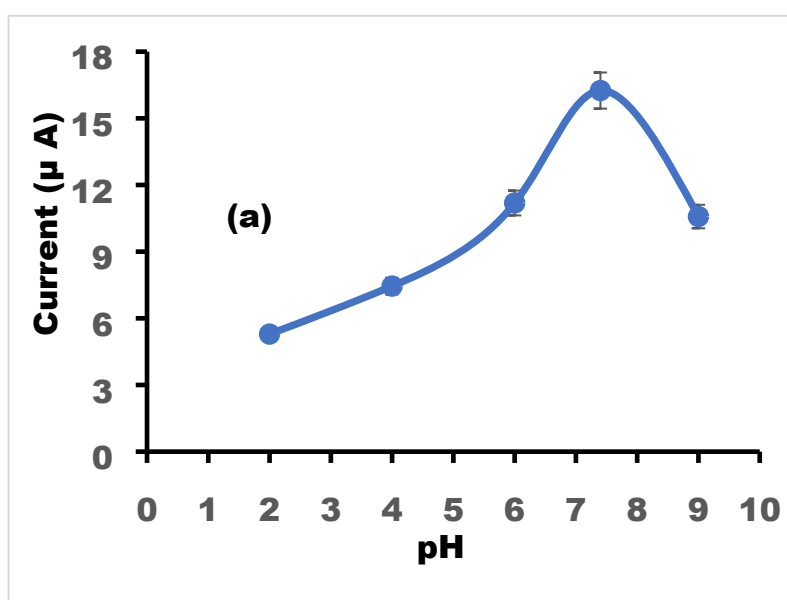
Figure S2. Nitrogen adsorption-desorption isotherm (a) and pore size distribution (b) of GO/SiO$_2$@PANI.

Table S1. Surface area, total pore volume and pore radius of GO/SiO₂@PANI.

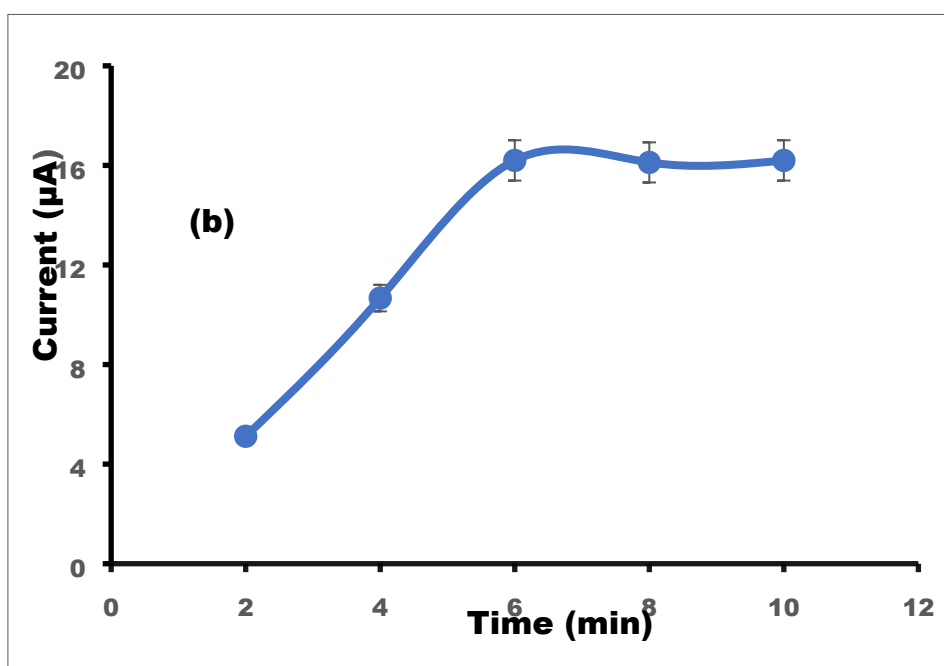| Materials	Surface Area ($m^2\,g^{-1}$)	Total Pore Volume ($cm^3\,g^{-1}$)	Pore Radius (nm)
GO/SiO₂@PANI	56.88	0.3187	11.22

(a)

Fig. S3(a) Showing the current response of 12 µM dopamine for different pH at GO/SiO₂@PANI electrode. (b) Showing the optimization of time for adsorption of dopamine at the modified electrode.
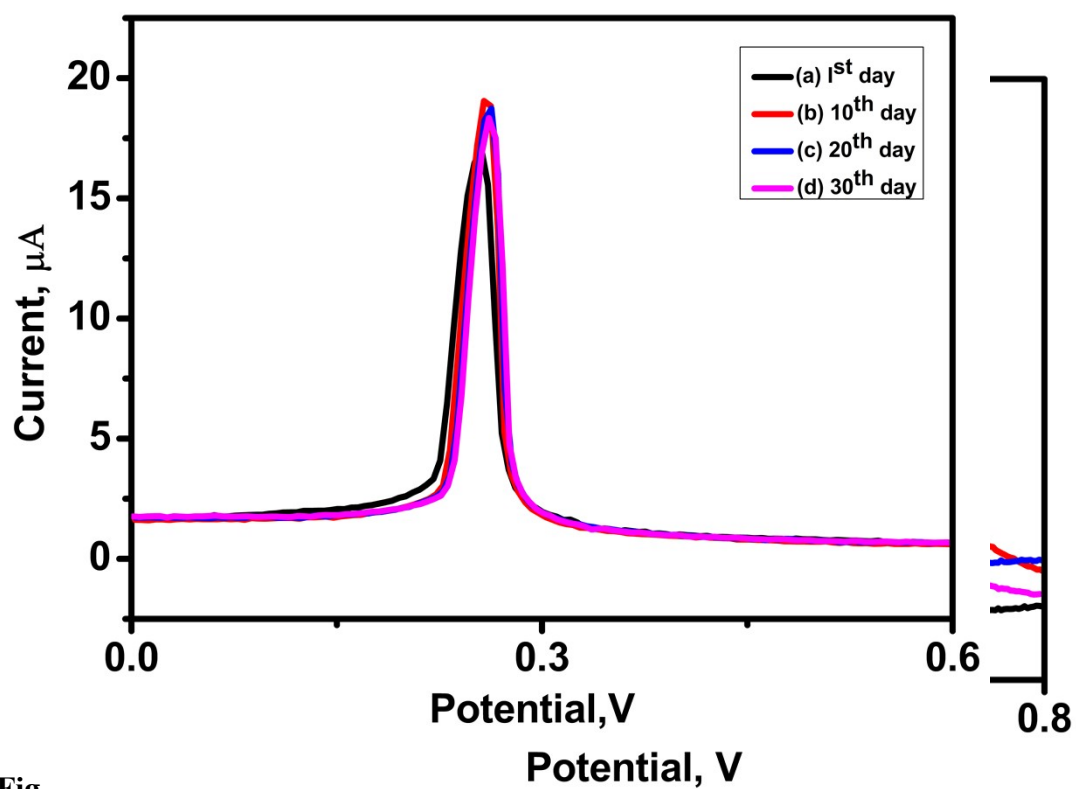
Fig. **S4.**

Repeatability of GO/SiO₂@PANI electrode for measurement of 12 μM dopamine in PBS buffer at 1st day, 10th day, 20th day and 30th day.

Fig. S5. DPV **(**a) 1 mM ascorbic acid, (b) 1 mM uric acid, (c) 1 mM glucose, and (d) DPV of dopamine (10 µM) in the presence of ascorbic acid, uric acid, glucose and PBS buffer (pH 7.4)