

Supporting Information:

Solution Processed Carbon Nanotubes Modified Conducting Paper Sensor for Cancer Detection

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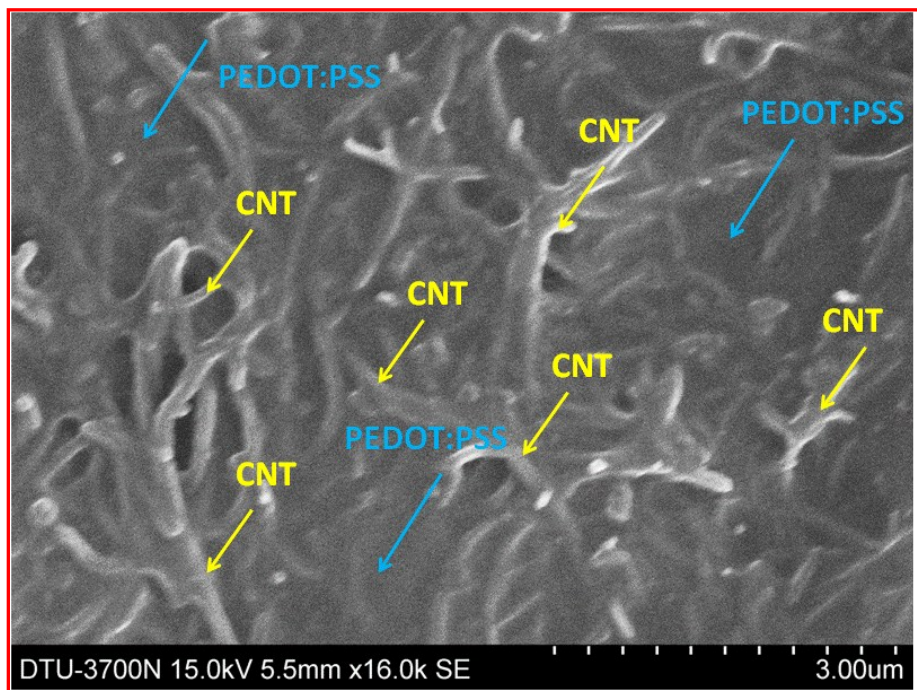


Figure S1: SEM image of CNT/PEDOT:PSS onto ITO glass substrate.

Table S1 shows response characteristics of BSA/anti-CEA/CNT/ FA@CP electrode along with those reported in literature.

S. No.	Substrate	Material	Fabrication Method	Detection Method	Linear range and Sensitivity	Stability (days)	Cost	References
1.	Array of Gold electrode	Thiol based Self assembled monolayer	Dip Coating	Amperometry	0-200 ng/ml and $3.8 \text{ nA ml ng}^{-1}$	30	High	1
2.	Glassy carbon electrode	AuNP, MWCNT, Chitosan	Drop Casting	Differential pulse voltammetry	0.3-2.5 & 2.5- 20 ng/ml and -----	30	Moderate	2
3.	ITO	AuNP, Hyperbranched polyester	Dip coating	Linear sweep stripping voltammetry	0.01-80 ng/ml -----	30	Moderate	3
4.	Gold electrode	AuNP, O-aminophenol	Drop cast	Electrochemical Impedance Spectroscopy	0.5-20 ng/ml and $1.08 \times 10^5 \Omega \text{ ng}^{-1} \text{ ml}$	-	High	4
5.	Glassy carbon electrode	Reduced graphene oxide-tetraethylene pentamine (RGO-TEPA)	Drop cast	Differential pulse voltammetry	0.05-20 ng mL^{-1}	10	Moderate	5
6.	Whatman paper 1	PEDOT:PSS/ RGO, Ethylene Glycol	Dip coating	Amperometry	2-8 ng/ml and $25.8 \mu\text{A} (\text{ng/ml})^{-1} \text{ cm}^2$	21	Low	6
7.	Whatman paper 1	PEDOT:PSS/ CNT, Formic acid	Dip coating	Amperometry	2-15 ng/ml and $7.8 \mu\text{A} (\text{ng/ml})^{-1} \text{ cm}^2$	18	Low	Present Work

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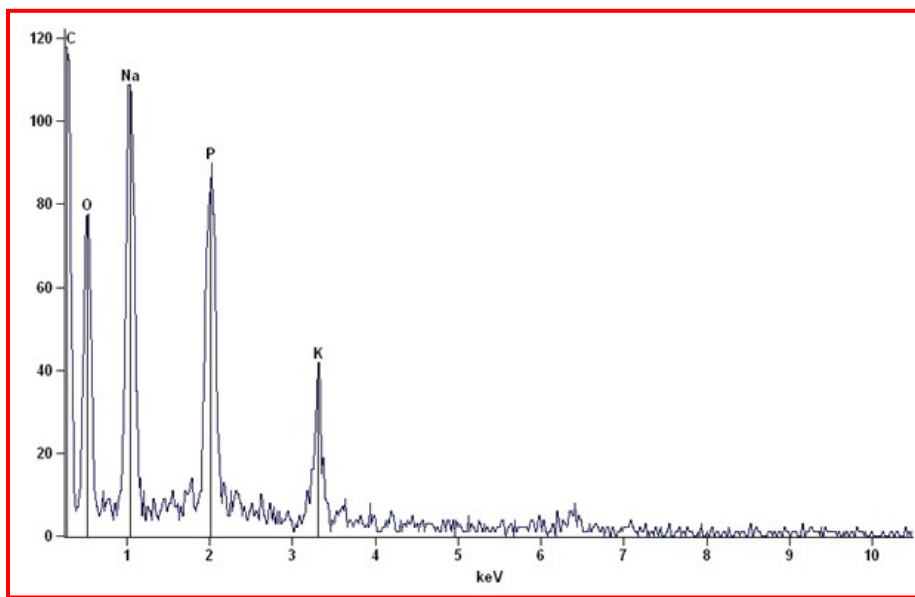


Figure S2: Energy dispersive X-ray (EDX) analysis.