

Electrochemical Sensing of Hydrazine using Multilayer Graphene Nanobelts

Padmanathan Karthick Kannan^a, Stainslav A. Moshkalev^b and Chandra Sekhar Rout^a

^aSchool of Basic Sciences, Indian Institute of Technology Bhubaneswar, Bhubaneswar, Odisha – 751013.

^bCenter for Semiconductor Components, State University of Campinas, Campinas, Sao Paulo, 13083-870, Brazil

*Email: csrout@iitbbs.ac.in

Figure caption

Fig. S1 Plot of response time of the GNB/GCE sensor to achieve steady state current

Table caption

Table 1. Comparison of the performance of hydrazine sensors based on various nanomaterials with the present work.

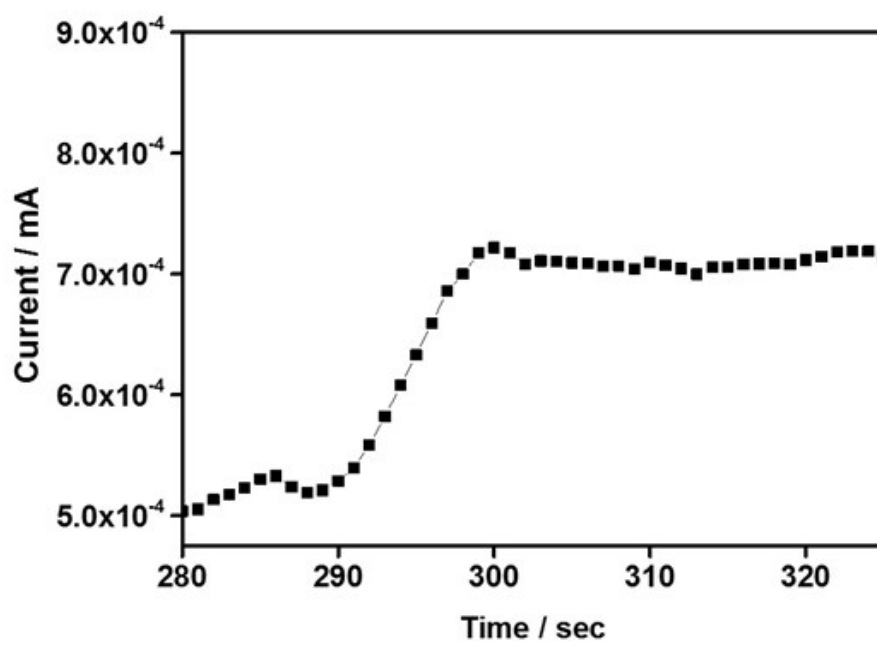


Fig. S1

Table 1: Comparison of the performance of hydrazine sensors based on various nanomaterials with the present work

Electrode	Sensitivity	Linear range	LOD	T _{res}	Ref.
	$\mu\text{A } \mu\text{M cm}^{-2}$	(μM)	(μM)	(s)	
HMWCNT	0.020	2 - 122.8	0.68	-	31
CM/MWCNT	0.022	2 - 44.0	1.40	-	32
Mn(II)-complex/MWNTs	0.038	1-1050	0.50	-	33
WO ₃	0.184	-	144.73	-	34
TiO ₂ / CNT	-	0.35-162	0.22	-	35
GNF	0.028	0.5-7.5	0.30	< 3	20
Graphene	-	3-300	1	-	25
GNB	0.080	10-1360	1.10	< 10	Present work

T_{res} = response time