

Supporting Information

Detection of Biomarkers with Graphene Nanoplatelets and Nanoribbons

Chee Shan Lim, Chun Kiang Chua, and Martin Pumera*

Table S-1. Peak potentials and detection limits of biomarkers at various surfaces as reported in literature.

Analyte	Electrode Surface	Peak Potential /V	Detection Limit / μM	Reference
Uric Acid	Gold	+0.45	-	Dey, R. S.; Gupta, S.; Paira, R.; Chen, S-M.; Raj, R. <i>J. Solid State Electrochem.</i> 2012 , <i>16</i> , 173.
	BPPG modified with 1,4-Naphthoquinone/MWCNT	+0.27	0.1	Oliveira, A. X.; Silva, S. M.; Leite, F. R. F.; Kubota, L. T.; Damos, F. S.; Cassia Silva Luz, R. <i>Electroanalysis.</i> 2013 , <i>25</i> , 723.
Ascorbic Acid	Functionalised Gold	+0.17	2.4	Zhang, L.; Jia, J.; Zou, X.; Dong, S. <i>Electroanalysis</i> , 2004 , <i>16</i> , 1413.
	Gold	+0.51	-	Zhang, L.; Jia, J.; Zou, X.; Dong, S. <i>Electroanalysis</i> , 2004 , <i>16</i> , 1413.
	BPPG	+1.06	-	Hadi, M.; Rouhollahi, A.; Yousefi, M. <i>Electroanalysis</i> , 2011 , <i>23</i> , 1497.
	EPPG	+0.24	-	Hadi, M.;

Dopamine				Rouhollahi, A.; Yousefi, M. <i>Electroanalysis</i> , 2011 , <i>23</i> , 1497.
	Pyrolytic carbon film electrodes	+0.18	0.12	Hadi, M.; Rouhollahi, A.; Yousefi, M. <i>Electroanalysis</i> , 2011 , <i>23</i> , 1497.
	Functionalised Gold	+0.24	1.2	Zhang, L.; Jia, J.; Zou, X.; Dong, S. <i>Electroanalysis</i> , 2004 , <i>16</i> , 1413.
	Gold	+0.46	-	Zhang, L.; Jia, J.; Zou, X.; Dong, S. <i>Electroanalysis</i> , 2004 , <i>16</i> , 1413.
NADH	Pyrolytic carbon film electrodes	+0.02 to +0.27	2.3	Keeley, G. P.; McEvoy, N.; Nolan, H.; Kumar, S.; Rezvani, E.; Holzinger, M.; Cosnier, S.; Duesberg, G. S. <i>Anal. Methods</i> . 2012 , <i>4</i> , 2048.
	BPPG	+0.59	-	Saleh, F. S.; Rahman, M. R.; Okajima, T.; Mao, L.; Ohsaka, T. <i>Bioelectrochemistry</i> , 2011 , <i>80</i> , 121.
	Mesoporous Carbon Modified Electrode	+0.3 (vs. SCE)	1.0	Wang, Y.; You, C.; Zhang, S.; Kong, J.; Marty, J-L.; Zhao, D.; Liu, B. <i>Microchimica Acta</i> . 2012 , <i>167</i> , 75.
Guanine	CNT	+0.38	-	Wooten, M.; Gorski, W. <i>Anal. Chem.</i> 2010 , <i>82</i> , 1299.
	BPPG	+0.71 (vs. SCE)	-	Li, Q.; Batchelor-McAuley, C.; Compton, R. G. <i>J. Phys. Chem. B</i> . 2010 , <i>114</i> , 7423.

	HOPG	+0.73 (vs. SCE)	-	Li, Q.; Batchelor-McAuley, C.; Compton, R. G. <i>J. Phys. Chem. B.</i> 2010 , <i>114</i> , 7423.
	GCE/MWCNT-poly(new fuchsin) modified electrode	+0.65	18.2	Tang, C.; Yogeswaran, U.; Chen, S-M. <i>Anal. Chim. Acta.</i> 2009 , <i>636</i> , 19.
	Graphitized mesoporous carbon modified glassy carbon electrode	+0.65	0.76	Thangaraj, R.; Kumar, A. S. <i>J. Solid. State. Electrochem.</i> 2013 , <i>17</i> , 583.
Adenine	BPPG	+1.03 (vs. SCE)	-	Randviir, E. P.; Banks, C. E. <i>RSC Adv.</i> 2012 , <i>2</i> , 5800.
	EPPG	+0.96 (vs. SCE)	-	Randviir, E. P.; Banks, C. E. <i>RSC Adv.</i> 2012 , <i>2</i> , 5800.
	GCE/MWCNT-poly(new fuchsin) modified electrode	+1.04	8.60	Tang, C.; Yogeswaran, U.; Chen, S-M. <i>Anal. Chim. Acta.</i> 2009 , <i>636</i> , 19.
	Graphitized mesoporous carbon modified glassy carbon electrode	+0.85	0.63	Thangaraj, R.; Kumar, A. S. <i>J. Solid. State. Electrochem.</i> 2013 , <i>17</i> , 583.