Supplementary Materials

Fabrication of composite modified glassy carbon electrode: A highly selective, sensitive and rapid electrochemical sensor for silver ion detection in river water samples

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Table S1: Sampling GPS (longitude and latitude) of the sampling sites and site descriptions

Sampling stations	Coordinate	Site description	Code
Sungai Skudai Estuaries	1˚28’43”N 103˚43’73”E	Main sources of drinking water for the Johor Bahru City	S1
Sungai Skudai Estuaries	1˚28’18”N 103˚43’18”E	Main sources of drinking water for the Johor Bahru City	S2
Sungai Danga Estuaries	1˚27’41”N 103˚43’41”E	Town centre, restaurants, recreational site and a small jetty.	S3
Sungai Danga Estuaries	1˚27’547”E 103˚69’532”N	Town centre, restaurants, recreational site and a small jetty.	S4
Sungai Melayu Estuaries	1˚45’757”E 103˚72’432”N	A fishing village and a mussel aquaculture site, small jetty.	S5
Sungai Perepat	1˚45’957”E 103˚68’847”N	A fish aquaculture site.	S6
Nusajaya	1˚44’708”E 103˚69’338”N	Town centre, restaurants, recreational site and a small jetty.	S7
Tebing Runtuh	1˚43’913”E 103˚67’73”N	Mussel aquaculture site in the estuary.	S8
Tanjung Kupang	1˚40’907”E 103˚65’733”N	A fishing village and a mussel aquaculture site	S9
Second Link	1˚37’042”E 103˚63’565”N	Near bridge connecting Singapore and Johor, Malaysia.	S10

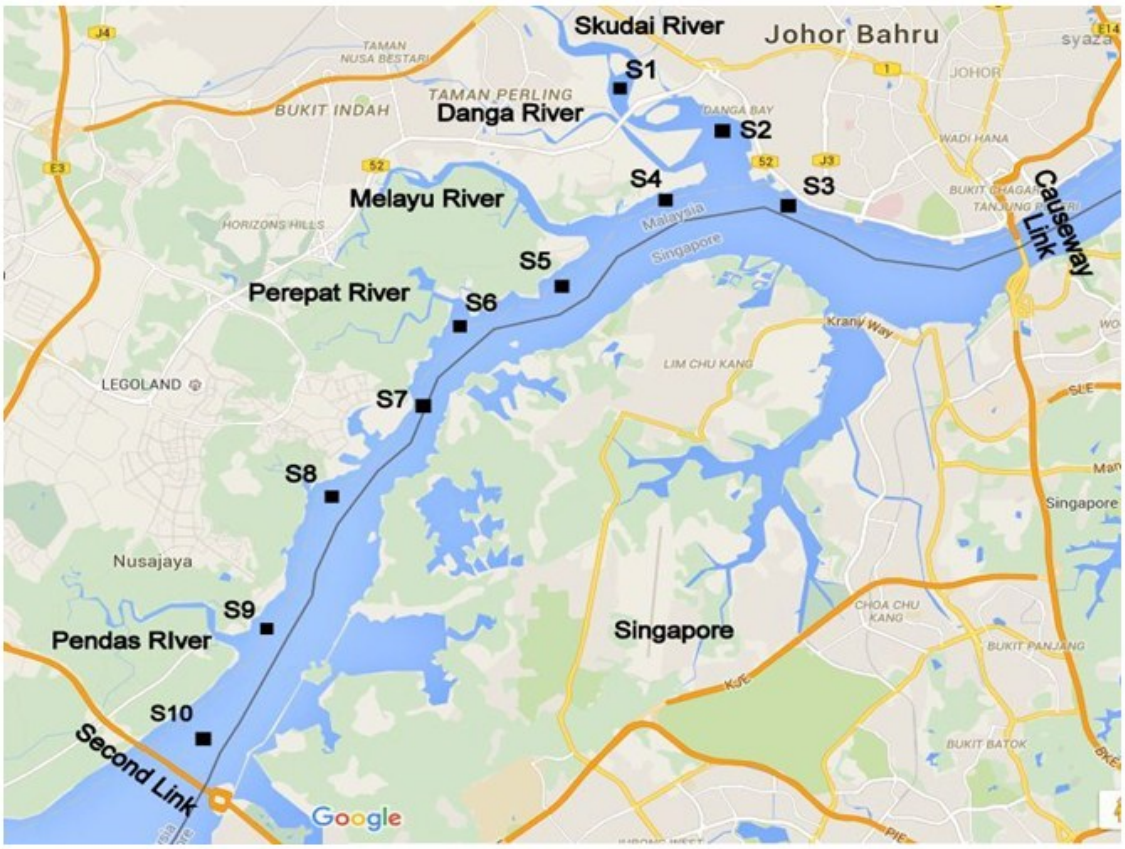


Figure S1. Location of sampling area (10 points) along Johor Strait, Malaysia.

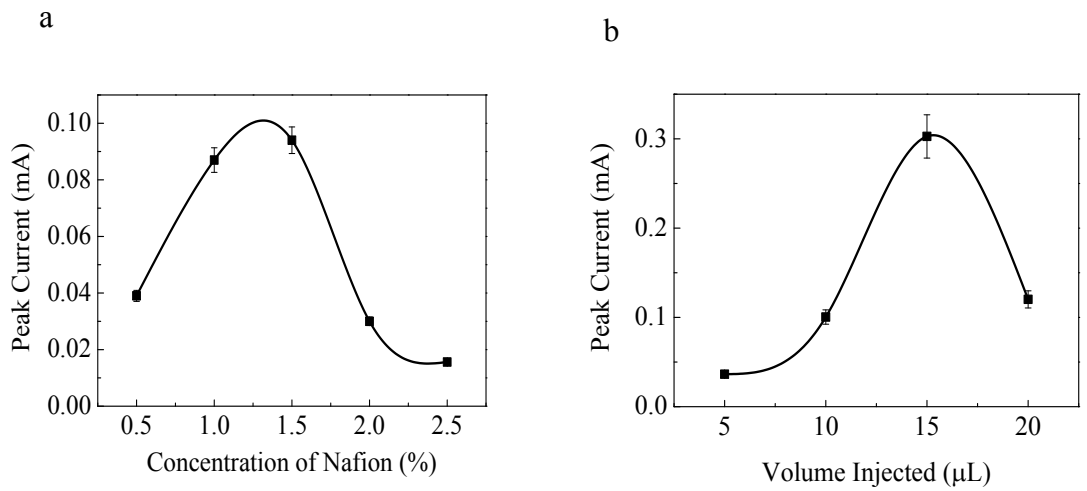


Figure S2. Effect of Nafion concentration on DPASV peak current of MWCNT-BZE-[bmim]PF_6-Nafion-GCE at 6 μg L^{-1} of Ag(I) ion. The experimental conditions as follows: pH = 4.5, E_i = -0.2 V, E_f = 0.4 V, E_{acc} = -0.1 V, t_{acc} = 360 s, υ = 25 mV/s and pulse amplitude = 25 mV.

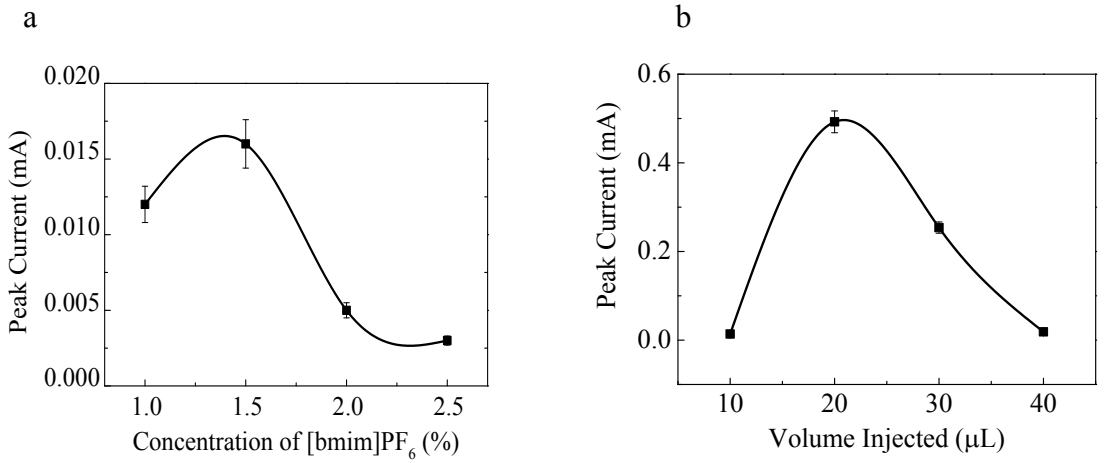
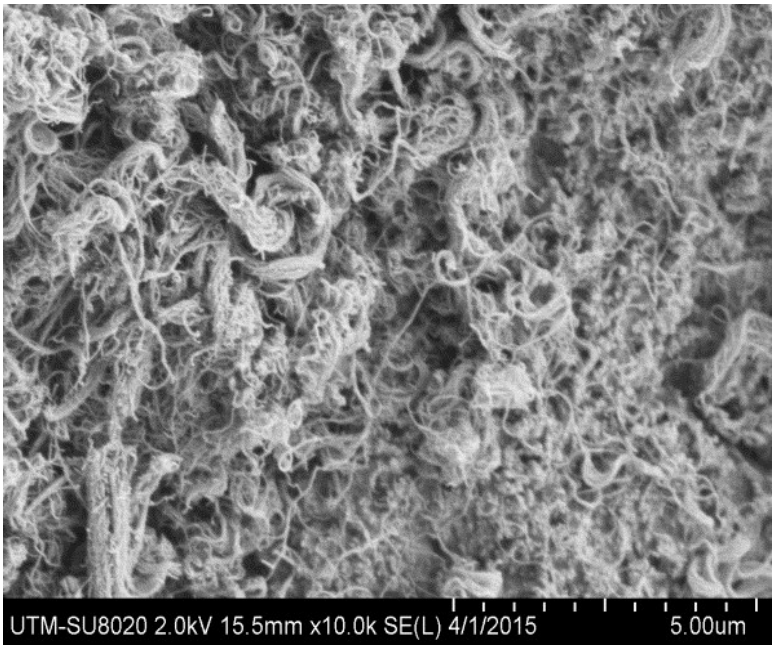


Figure S3. Effect of [bmim]PF_6 concentration on DPASV peak current of MWCNT-BZE-[bmim]PF_6-Nafion-GCE at 6 μg L^{-1} of Ag(I) ion. The experimental conditions as follows: pH = 4.5, E_i = -0.2 V, E_f = 0.4 V, E_{acc} = -0.1 V, t_{acc} = 360 s, υ = 25 mV/s and pulse amplitude = 25 mV.

a



b

Figure S4. FE-SEM images of MWCNTs. (a) before and (b) after pre-treatment

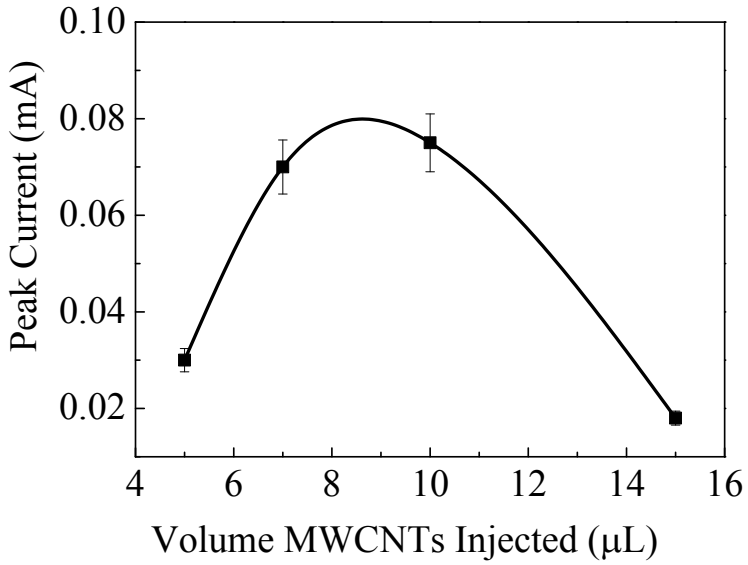


Figure S5. Effect of MWCNTs concentration on DPASV peak current of MWCNT-BZE-[bmim]PF_6-Nafion-GCE at 6 µg L^{-1} of Ag(I) ion. The experimental conditions as follows: pH = 4.5, E_i = -0.2 V, E_f = 0.4 V, E_{acc} = -0.1 V, t_{acc} = 360 s, υ = 25 mV/s and pulse amplitude = 25 mV.

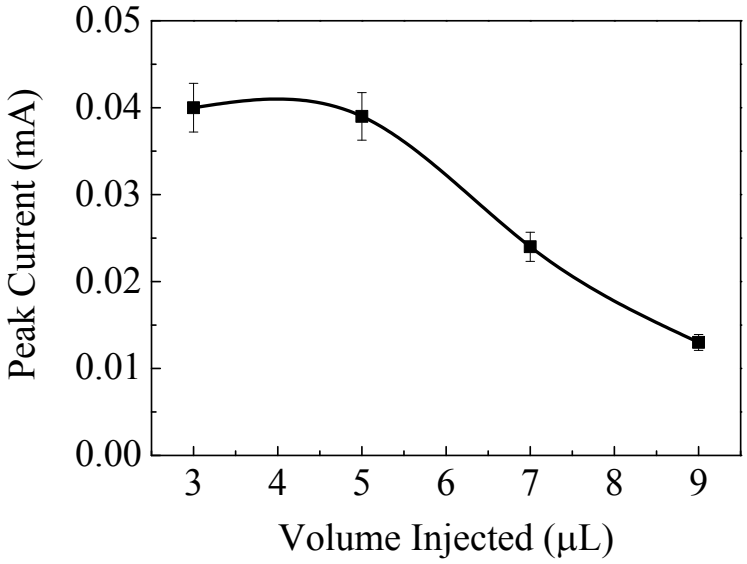


Figure S6. The effect of BZE concentration on DPASV peak current of MWCNT-BZE-[bmim]PF_6-Nafion-GCE at 6 µg L^{-1} of Ag(I) ion. The experimental conditions as follows: pH = 4.5, E_i = -0.2 V, E_f = 0.4 V, E_{acc} = -0.1 V, t_{acc} = 360 s, υ = 25 mV/s and pulse amplitude = 25 mV.