biosensors

MDPI

Supplementary information

Craft-and-stick xurographic manufacturing of integrated microfluidic electrochemical sensing platform

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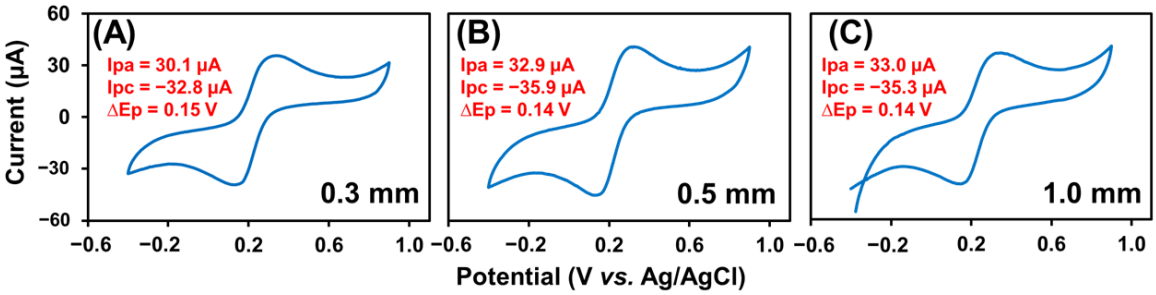


Figure S1 Cyclic voltammograms of different track widths of GPE consisted of **(A)** 0.3, **(B)** 0.5, and **(C)** 1.0 mm.

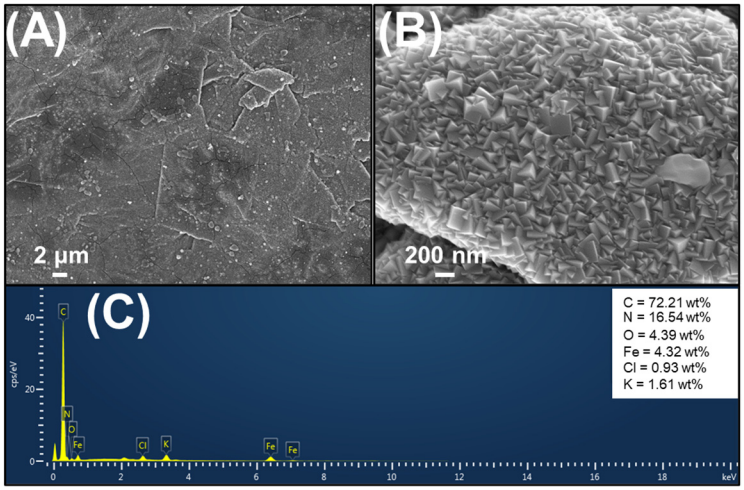


Figure S2 SEM images at **(A)** low and **(B)** high magnitude of PB modified on iGPE. **(C)** EDX spectrum of PB modified on iGPE.

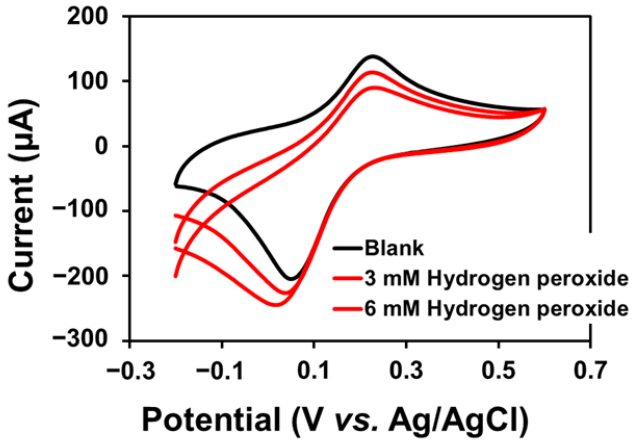
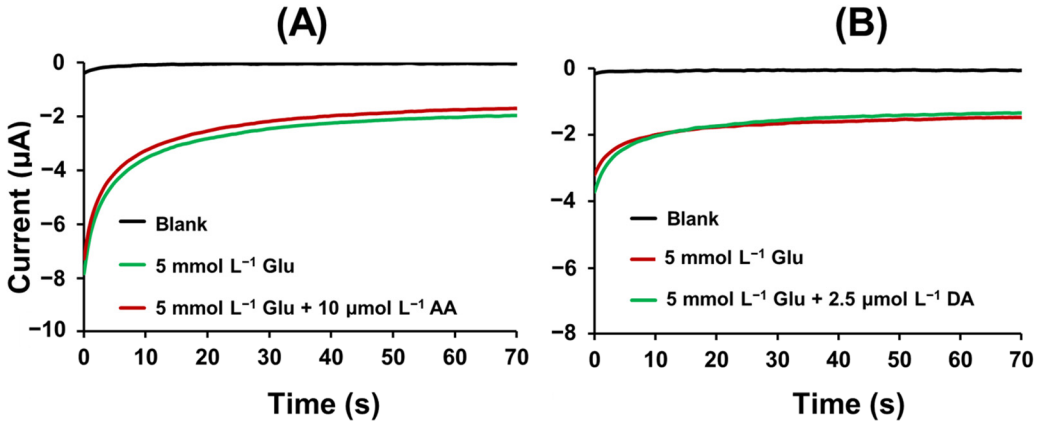


Figure S3 Cyclic voltammograms of PB/iGPE in the absent and present hydrogen peroxide containing 0.1 mol L^{-1} PBS and 0.1 mol L^{-1} KCl.



(C)

Compounds	Relative current (%)			Average	SD
	1	2	3		
5 mmol L^{-1} Glucose	100	100	100	100	-
5 mmol L^{-1} Glucose + 10 μmol L^{-1} Ascorbic acid	90.0	92.6	90.5	90.5	1.1
5 mmol L^{-1} Glucose + 2.5 μmol L^{-1} Dopamine	94.2	88.2	91.8	91.8	2.5

Figure S4 Chronoamperograms of glucose in the presented of **(A)** ascorbic acid and **(B)** dopamine**. (C)** The relative current changed interpreted from chronoamperograms A and B.

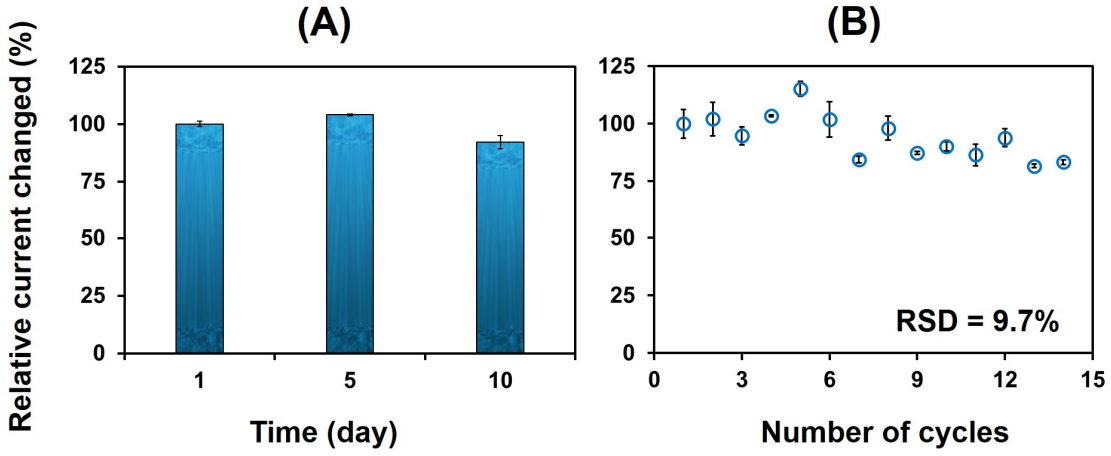


Figure S5 (A) Stability of the glucose sensor for different days with current responses to 5.0 mmol L^{-1} glucose (n=3), the current response at the first day was normalized as 100%. **(B)** Repeatability of the glucose sensor for several cycles, the response at the first time was defined as 100%.

Table S1 The recovery values obtained from the spiked standard glucose in human serum sample

Concentration of glucose (mmol L^{-1})		Recovery (%)
Spiked	Found	
0	0.96	-
1	2.05	108.8
2	2.72	88.2
3	3.62	88.7