

Electronic Supplementary Information

Electrochemical sensor for sensitive detection of luteolin based on multi-walled carbon nanotubes/poly (3,4-ethylenedioxythiophene)-gold nanocomposites

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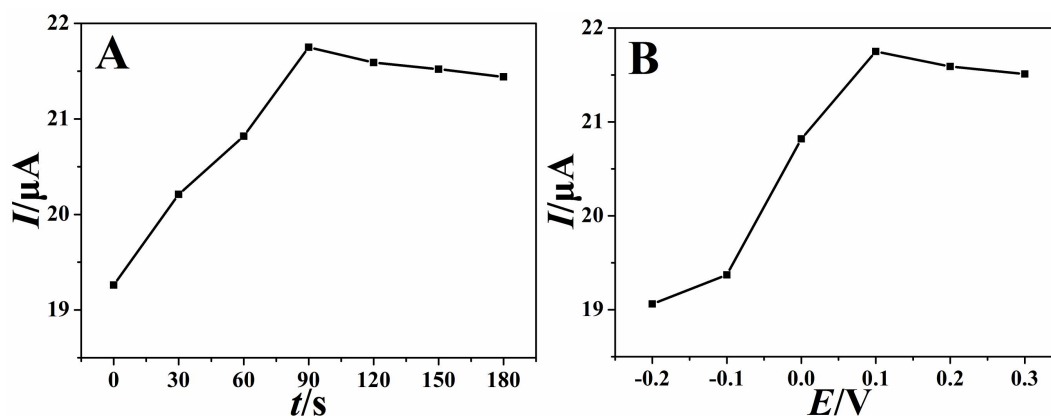


Fig. S1 The effects of accumulation time (A) and potential (B) for the detection of $5 \mu\text{mol dm}^{-3}$ luteolin in BR buffer solution at the MWCNTs/PEDT-Au/GCE.

Table.S1 Effects of possible interferences on the oxidation peak current signal of $5 \mu\text{mol dm}^{-3}$ luteolin at the MWCNTs/PEDT-Au/GCE in BR buffer solution (pH=3.0).

Interference	Concentration ($\mu\text{mol dm}^{-3}$)	Current signal change (%)
CaCl ₂	500	-3.02
K ₃ PO ₄	500	1.39
Na ₂ CO ₃	500	1.76
MgSO ₄	500	-2.49
NH ₄ F	500	3.40
Zn(Ac) ₂	500	1.98
glucose	50	-2.08
maltose	50	-1.23
sucrose	50	3.76
ascorbic acid	50	-2.84
dopamine	50	3.83
rutin	50	5.63
myricitrin	50	3.85
diosmetin	50	-2.63
quercetin	50	4.05
curcumin	50	2.59

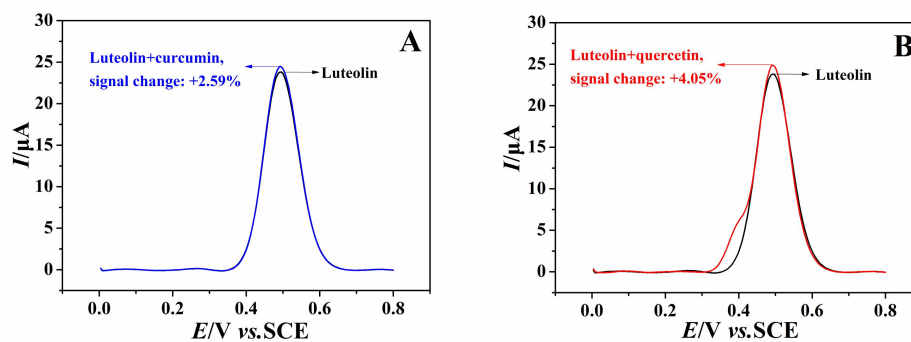


Fig. S2 The effects of curcumin (A) and quercetin (B) for the detection of $5 \mu\text{mol dm}^{-3}$ luteolin in BR buffer solution at the MWCNTs/PEDT-Au/GCE.

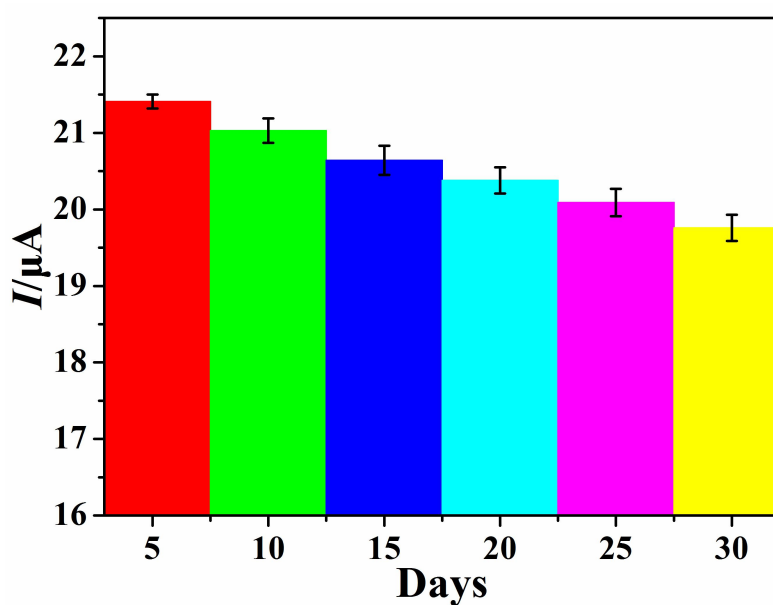


Fig. S3 The bar diagram of current responses to $5 \mu\text{mol dm}^{-3}$ luteolin recorded on MWCNTs/PEDT-Au/GCE in BR buffer solution (pH=3.0) after storing during different time periods.

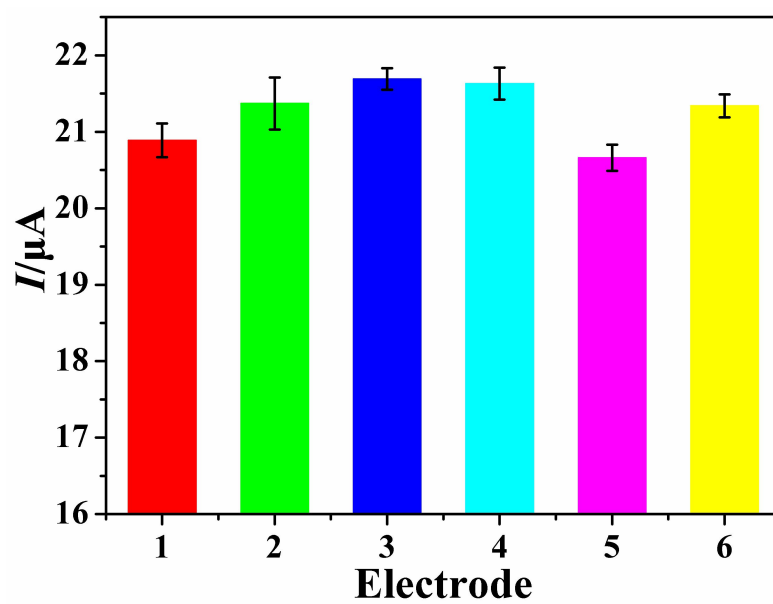


Fig. S4 SWV responds of the six identically fabricated MWCNTs/PEDT-Au/GCE in BR buffer solution (pH=3.0) containing 5 $\mu\text{mol dm}^{-3}$ luteolin. The error bars represent standard deviations of three measurements.