

Is the interfacial electrochemical behavior of quercetin the same as that of catechol plus resorcinol ?

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Supplementary material

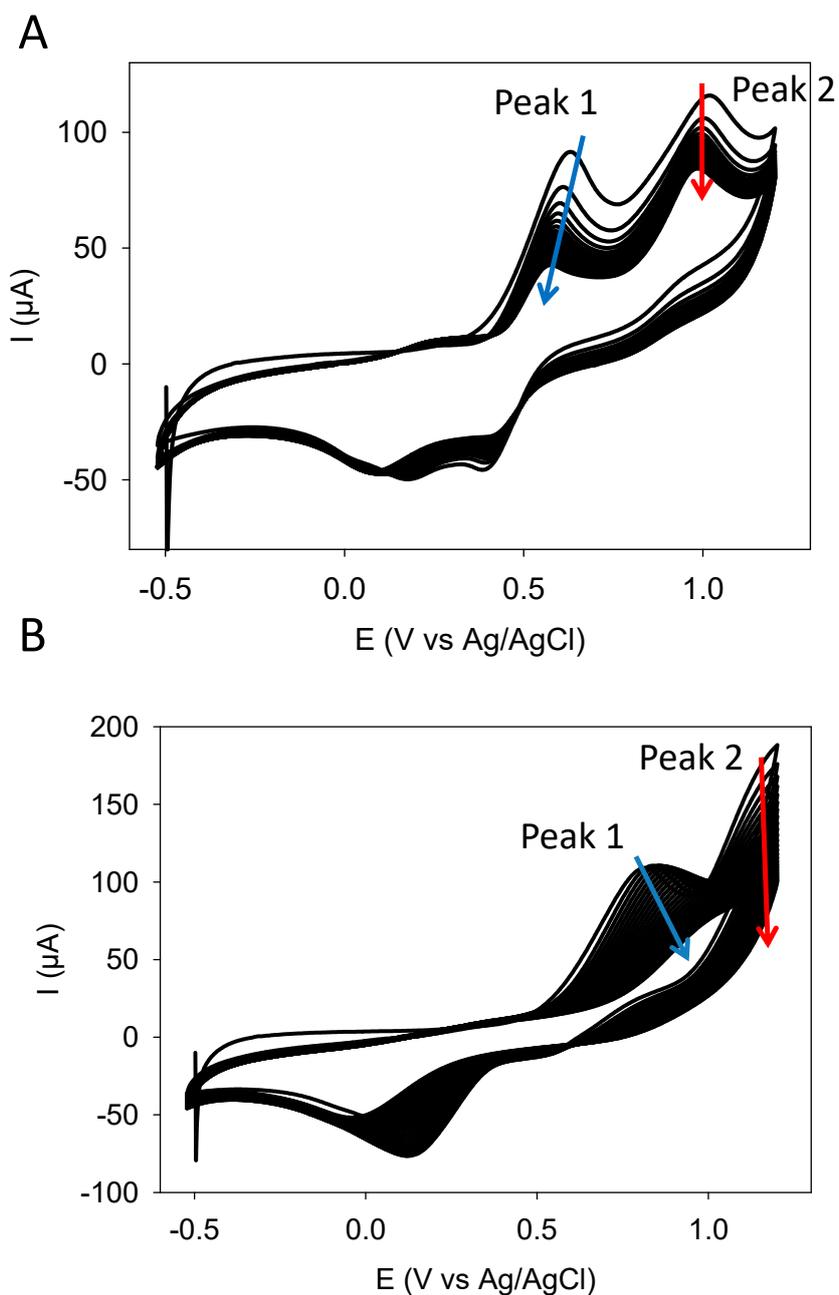


Figure S1: CV curves of quercetin (panel A) and of an equimolar catechol + resorcinol blend (panel B) at a potential sweep rate of $1000 \text{ mV}\cdot\text{s}^{-1}$. The arrows indicate the evolution of the oxidation peaks with the number of performed CV cycles.

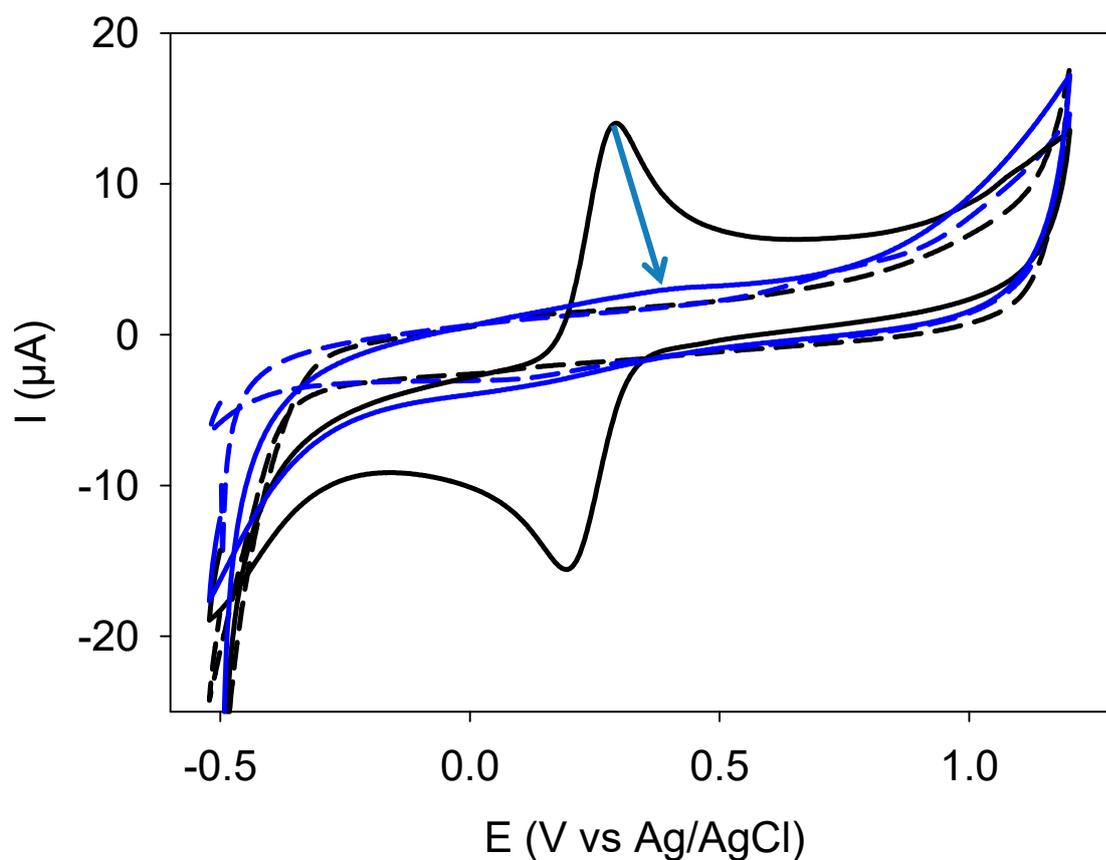


Figure S2: Comparison of CV1 (--- black dashed line, measured after film deposition but in the absence of the redox probe) and CV2 (— blue full line, measured after film deposition but in the presence of 1 mM potassium hexacyanoferrate in the presence of 50 mM sodium acetate at pH = 5) in the case of film deposition (10 CV cycles) performed at $1000 \text{ mV}\cdot\text{s}^{-1}$ from an equimolar catechol+resorcinol mixture. The arrows indicate the decrease in the oxidation current of potassium hexacyanoferrate between the pristine electrode (— black full line) and after film deposition (CV2).

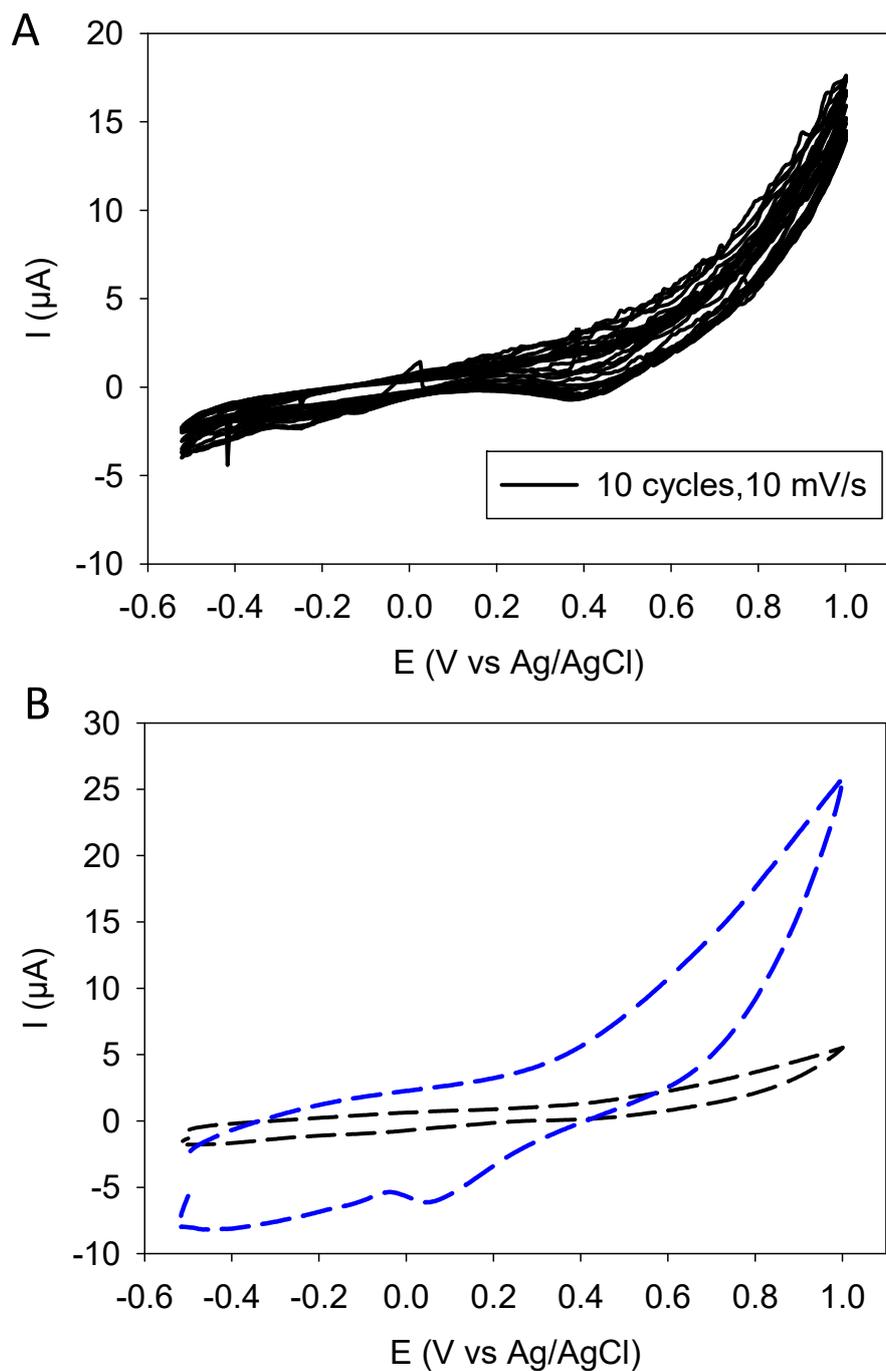


Figure S3: A: 10 CV cycles performed at $10 \text{ mV}\cdot\text{s}^{-1}$ of a quercetin solution on a gold working electrode.

B: CV performed at $100 \text{ mV}\cdot\text{s}^{-1}$ in the absence of an external redox probe on the pristine gold electrode (--- black dashed line) and on the same electrode after deposition of the quercetin film (--- blue dashed line, 10 CV cycles at $10 \text{ mV}\cdot\text{s}^{-1}$).

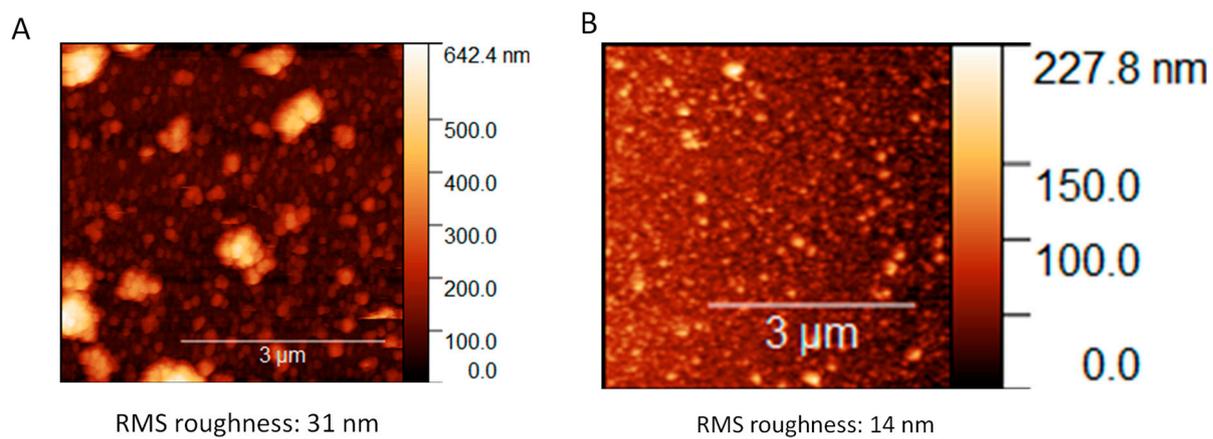


Figure S4. AFM surface topography of a catechol (panel A) and of a resorcinol based film (panel B) obtained on a gold electrode after 10 CV cycles performed at 10 mV.s⁻¹.