

Supplementary Information

Simple and Rapid Determination of Ferulic Acid Levels in Food and Cosmetic Samples Using Paper-Based Platforms.

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Figure S1. Schematic of representation of photolithography and screen printing for paper-based electrochemical device.

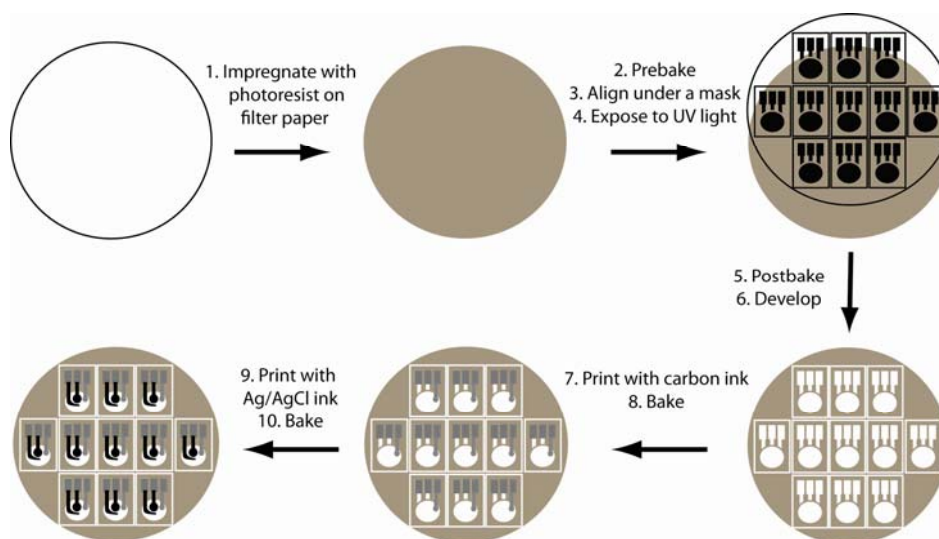


Figure S2. Schematic of representation of melting wax screen printing for colorimetric paper-based analytical device.

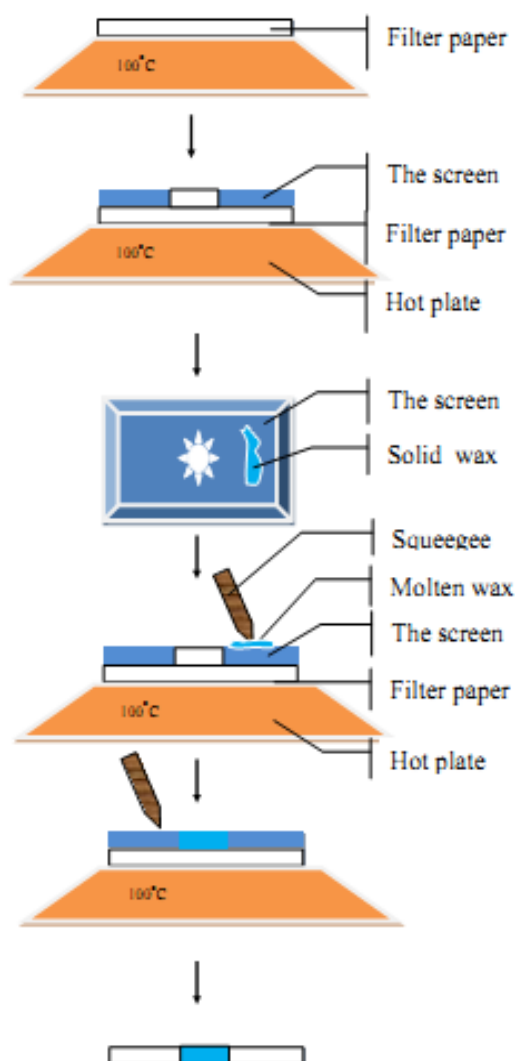


Figure S3. The influence of scan rate on the oxidation peak currents of 50 ppm ferulic acid in 0.1 mol L⁻¹ HAc- NaAc buffer solution.

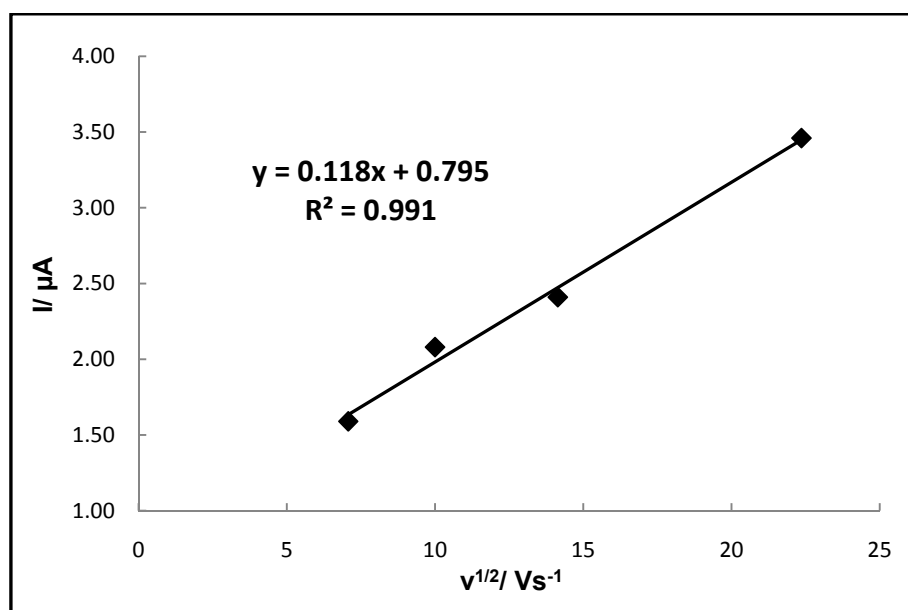


Figure S4. Differential pulse voltammograms of 50 ppm ferulic acid in 0.1 mol L⁻¹ HAc-NaAc buffer solution (pH 5) at different pulse amplitude.

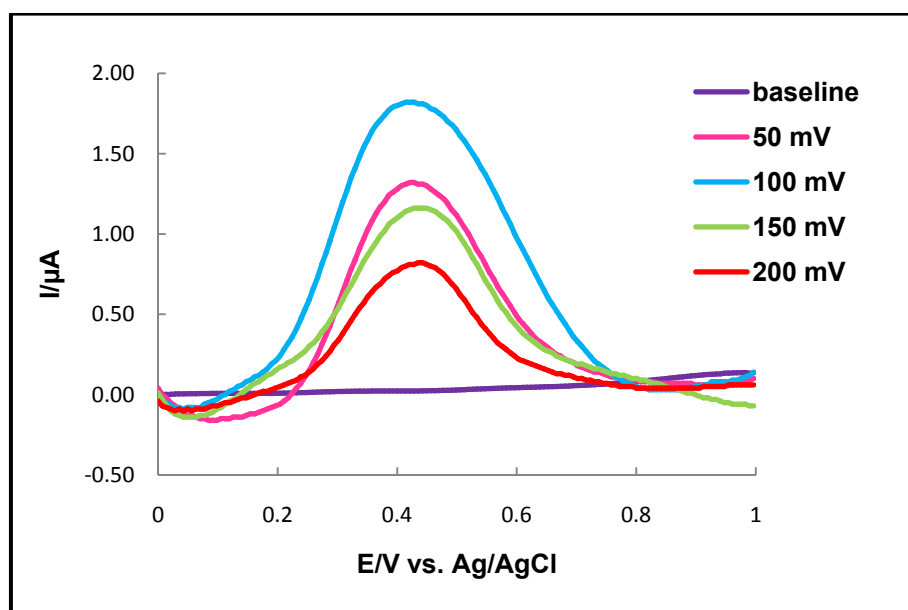


Figure S5. The effect of concentration of sodium carbonate on mean intensity.

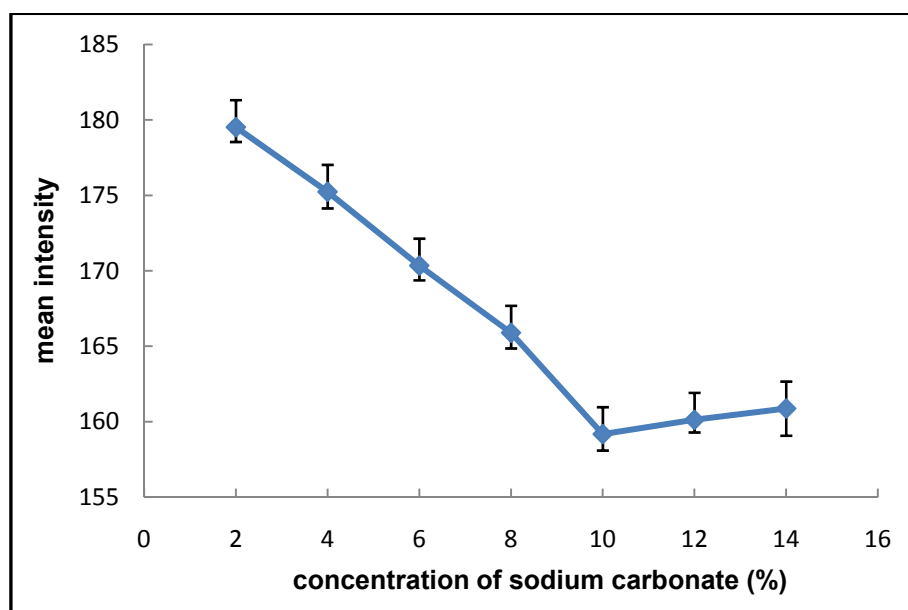


Figure S6. Separation of ferulic acid and ascorbic acid by thin-layer chromatography (a) Spot of ferulic acid; (b) Spot of ascorbic acid; (c) Spot of ferulic acid and ascorbic acid.



Figure S7. Thin- layer chromatography couple with colorimetric paper-based analytical device. Intensity of the observed color is proportional to the concentration of ferulic acid.

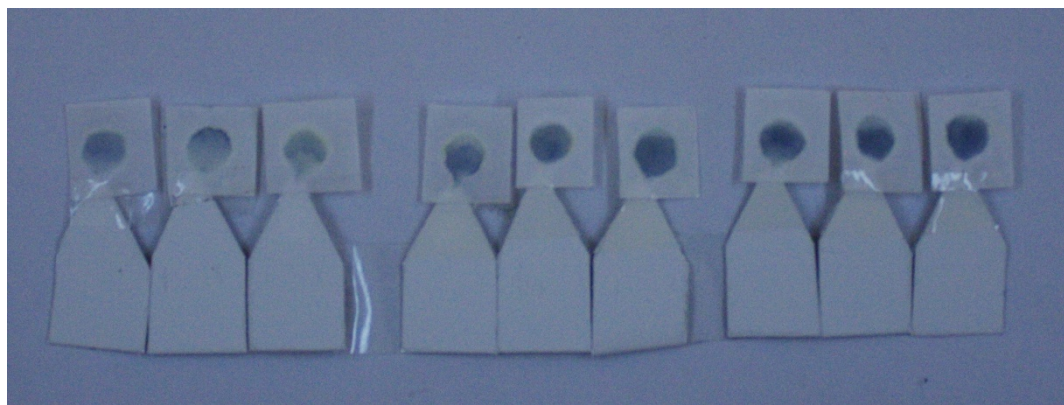


Table S1. R_f value of ferulic acid and ascorbic acid in solvent system chloroform: methanol: formic acid (85: 15: 1).

		R_f value	Average R_f
Ferulic acid	1	0.72	0.70 ± 0.01
	2	0.70	
	3	0.71	
Ascorbic acid	1	0.10	0.10 ± 0.00
	2	0.10	
	3	0.10	