

Supplementary Material

Developing Activated Carbon Veil Electrode for Sensing Salivary Uric Acid

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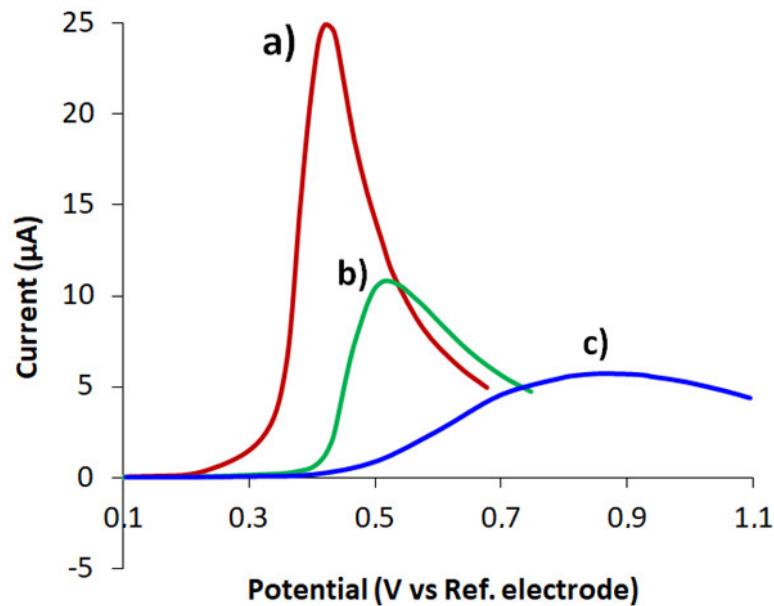


Figure S1. LS voltammograms of 0.1 mM UA for the CVE activated at 2.0 V (a), Au-gr/CVE (b) and TrX100/CVE (c) in PB pH 6.0. Potential scan rate 0.05 Vs⁻¹ (Au-gr – phytosynthesized gold nanoparticles; TrX100 – non-ionogenic surfactant Triton X-100).

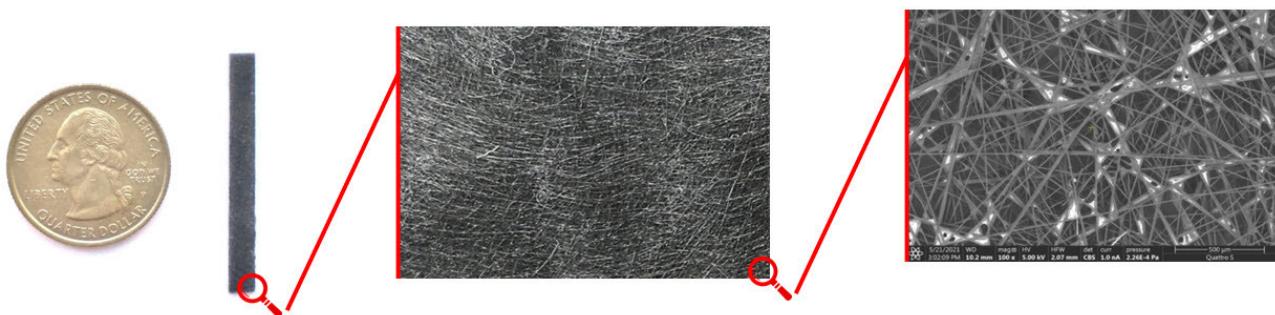


Figure S2. Photo of the CVE.

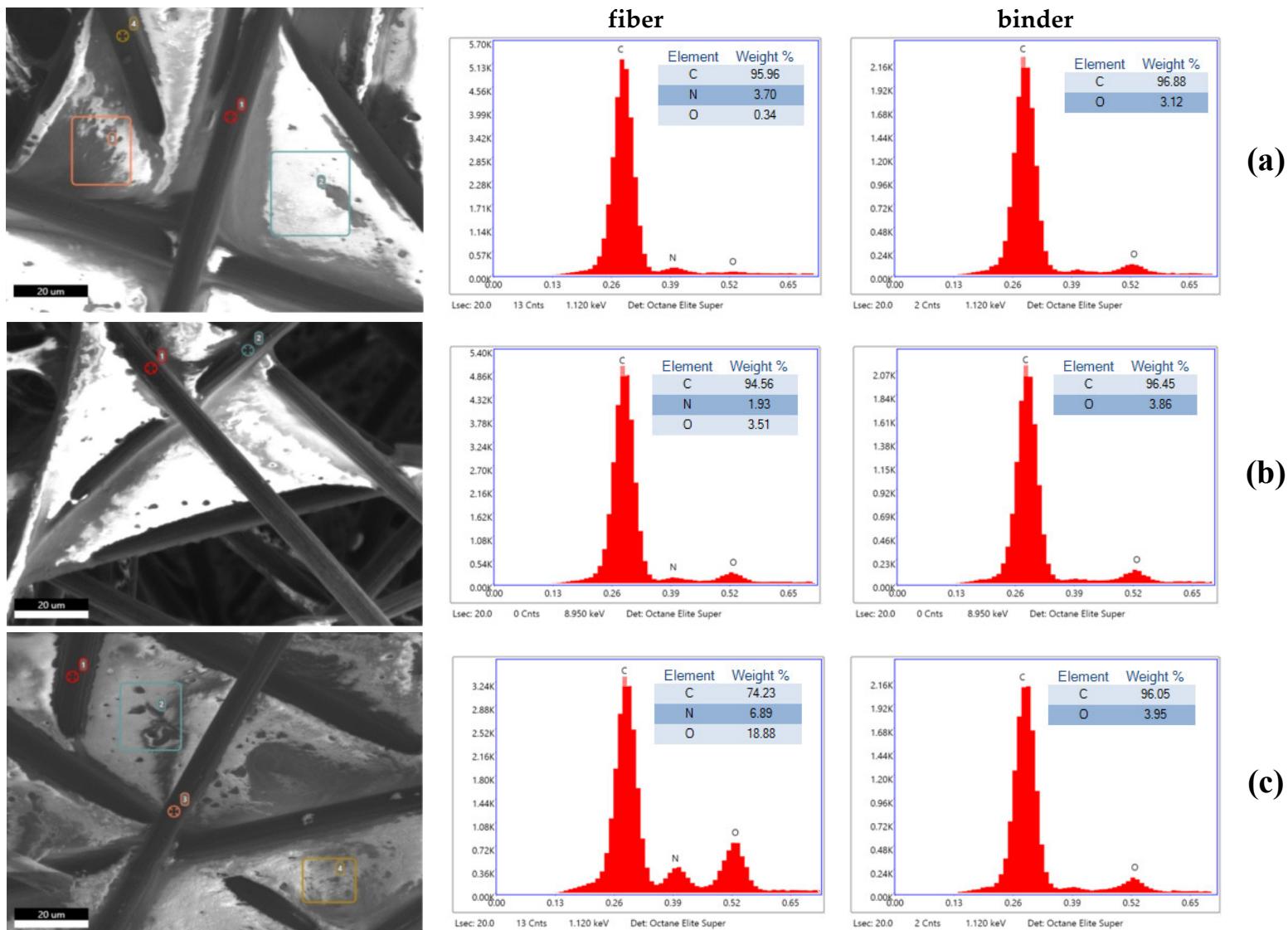


Figure S3. SEM-images and EDS spectrum of fiber and binder of the non-activated CVE (a), CVE activated at 1.6 V (b) and at 2.0 V (c). Inserts: element weight contents (%).

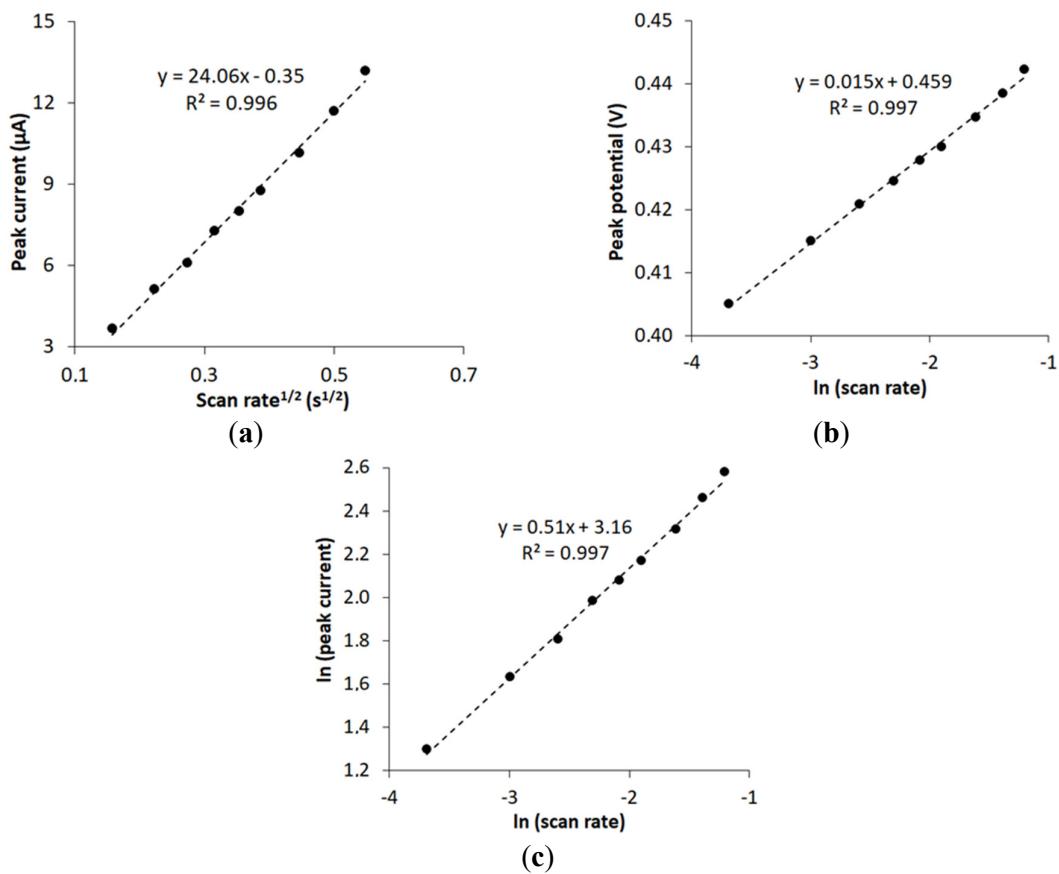


Figure S4. Kinetic dependences obtained with the use of CVE_{act} in PB pH 6.0, containing 0.01 mM UA.

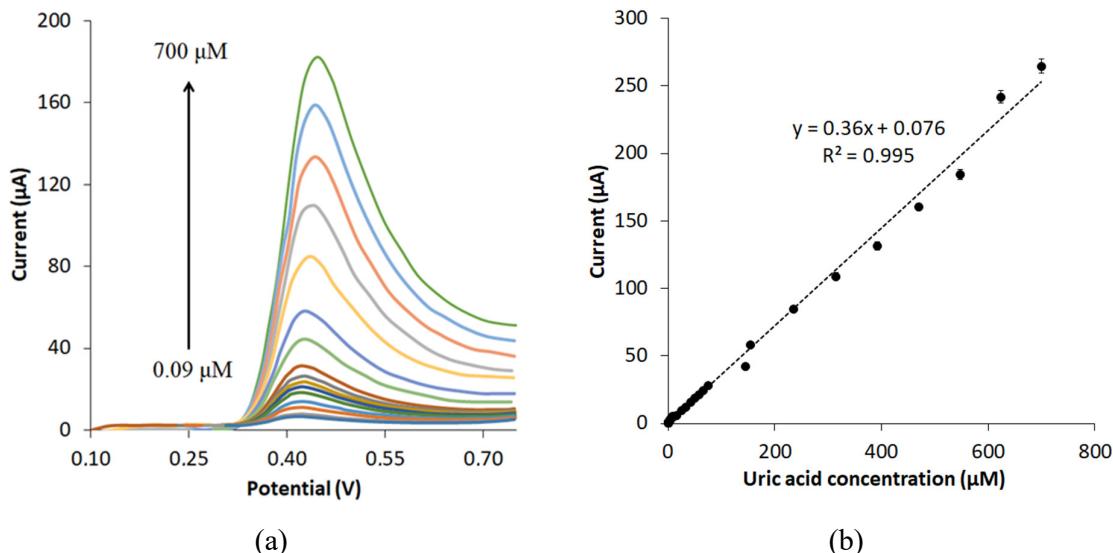


Figure S5. LS voltammograms of UA with different concentrations (0.09–700 μM) on CVE_{act} in PB pH 6.0 at potential scan rate 0.05 Vs^{-1} (a) and corresponding dependences I_p vs. UA concentration (b) ($n = 3$ for each concentration).

Table S1. Interfering influence of some substances on UA determination.

Interfering Substance	Concentration of Interfering Substance, μM	Added UA, μM	Found UA, μM	R, %
Creatinine	1000	1	1.00 ± 0.09	100
Urea	1000	1	1.05 ± 0.10	105
Glucose	1000	1	1.07 ± 0.08	107
Ascorbic acid	10	1	0.96 ± 0.11	96