

## Supplementary Materials

### Electrochemical Detection of Bisphenol A Based on Gold Nanoparticles/Multi-Walled Carbon Nanotubes: Applications on Glassy Carbon and Screen Printed Electrodes

Maximina Luis-Sunga <sup>1,2</sup>, Soledad Carinelli <sup>1,3,\*</sup>, Gonzalo García <sup>2</sup>, José Luis González-Mora <sup>1,3,4</sup> and Pedro A. Salazar-Carballo <sup>1</sup>

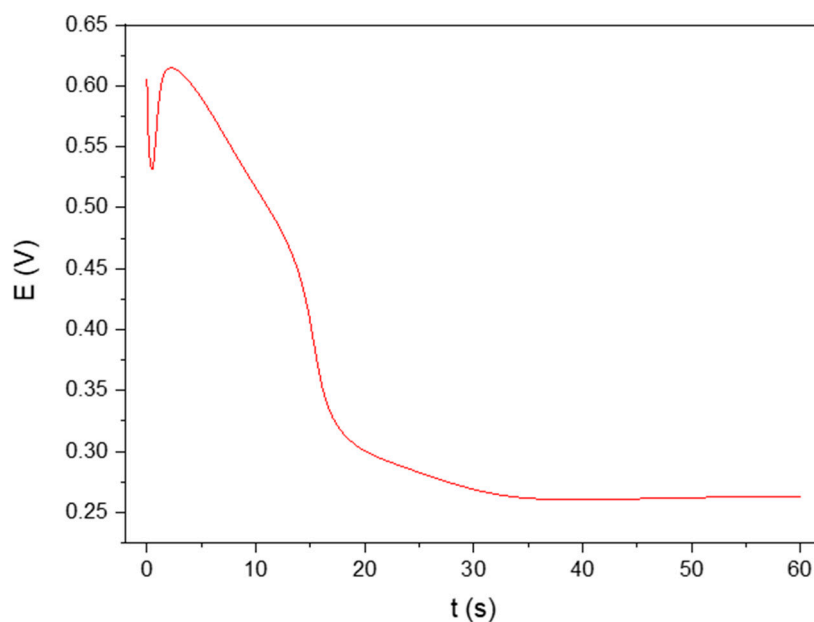
<sup>1</sup> *Laboratory of Sensors, Biosensors and Advanced Materials, Faculty of Health Sciences, Universidad de La Laguna, Campus de Ofra s/n, 38071 La Laguna, Spain*

<sup>2</sup> *Departamento de Química, Instituto Universitario de Materiales y Nanotecnología, Universidad de La Laguna, P.O. Box 456, 38200 La Laguna, Spain*

<sup>3</sup> *Departamento de Ciencias Médicas Básicas and Instituto de Tecnologías Biomédicas, Universidad de La Laguna, 38200 La Laguna, Spain*

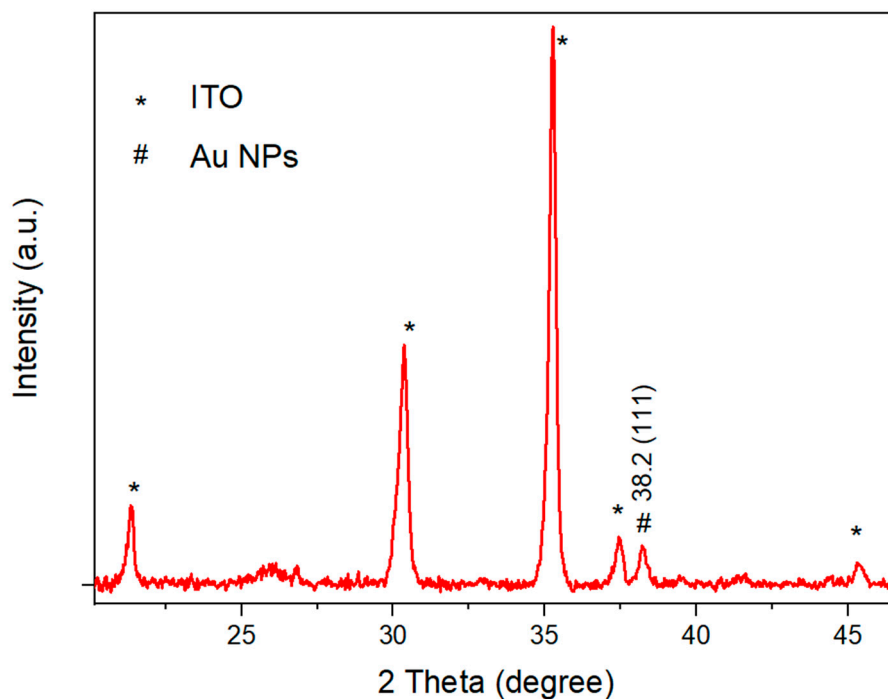
<sup>4</sup> *Instituto Universitario de Neurociencia, Universidad de la Laguna, 38071 Santa Cruz de Tenerife, Spain*

\* *Correspondence: scarinel@ull.edu.es*



**Figure S1.** Typical potential transient obtained during galvanostatic Au deposition on GCE.

Plating bath: 3 mM HAuCl<sub>4</sub>. Applied current pulse: -25  $\mu$ A for 60 s.

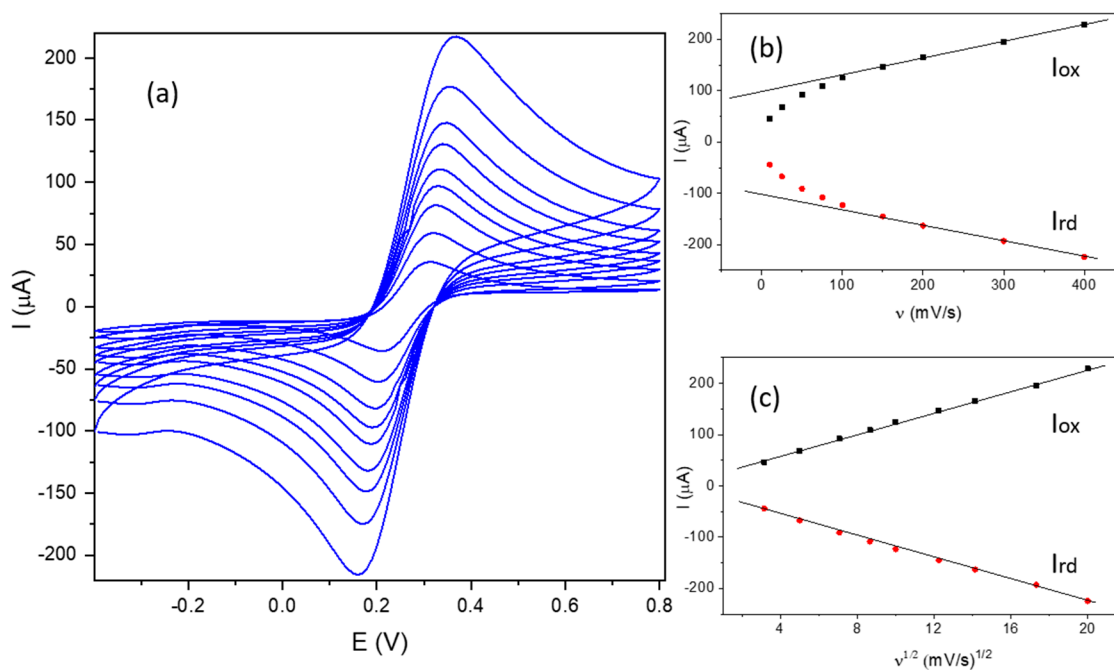


**Figure S2.** X-ray diffractogram for a CNT/Au nanocomposite deposited onto an indium-tin oxide (ITO) electrode.

**Table S1.** Parameters values obtained from the EIS data fitting for different sensor configurations.

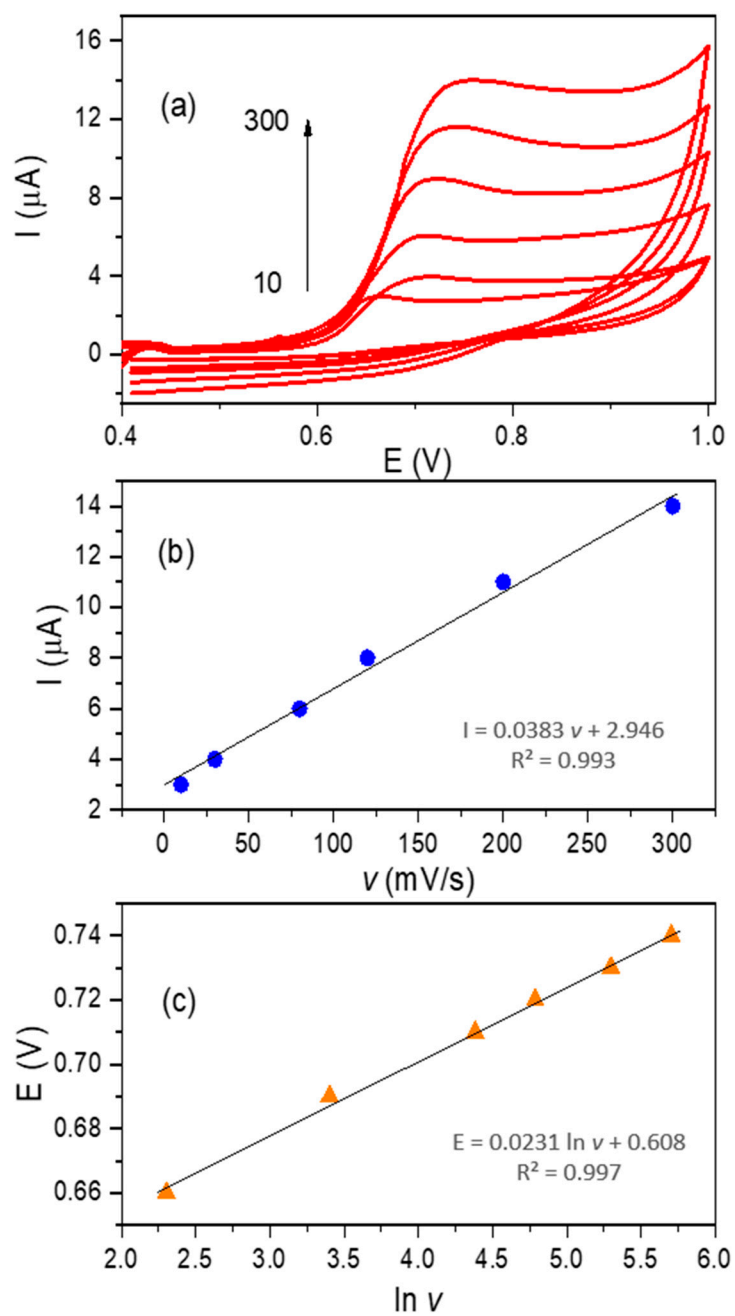
	GCE	GCE@Au	GCE/CNT	GCE/CNT@Au
<b>Rs (<math>\Omega</math>)</b>	92.5	89.3	86.8	87.8
<b>Rct (<math>\Omega</math>)</b>	538	398.4	278.7	171
<b>W (<math>K\sigma</math>)</b>	0.5	0.5	0.5	0.4
<b>Q (<math>\mu T</math>)</b>	2276	2888	14.4	57.7
<b>n</b>	0.9	0.9	0.8	0.7

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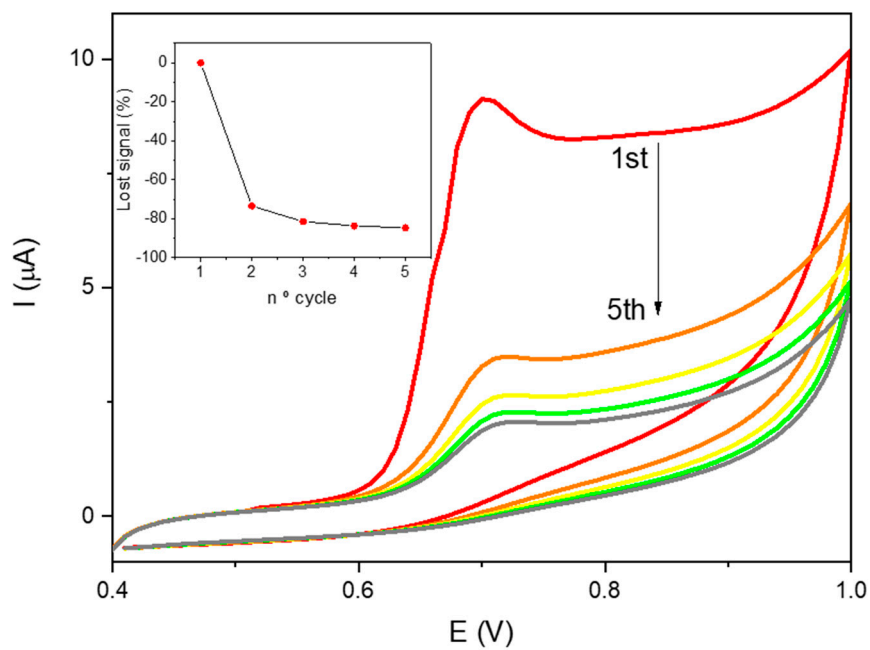
**Figure S3.** Cyclic voltammograms of the GCE/CNT/Au electrode (a) at different scan rate in 5 mM ferro/ferricyanide solution implemented with 0.1 M KCl. Anodic and cathodic peak intensity currents against de scan rate (b) and the square root of the scan rate (c).

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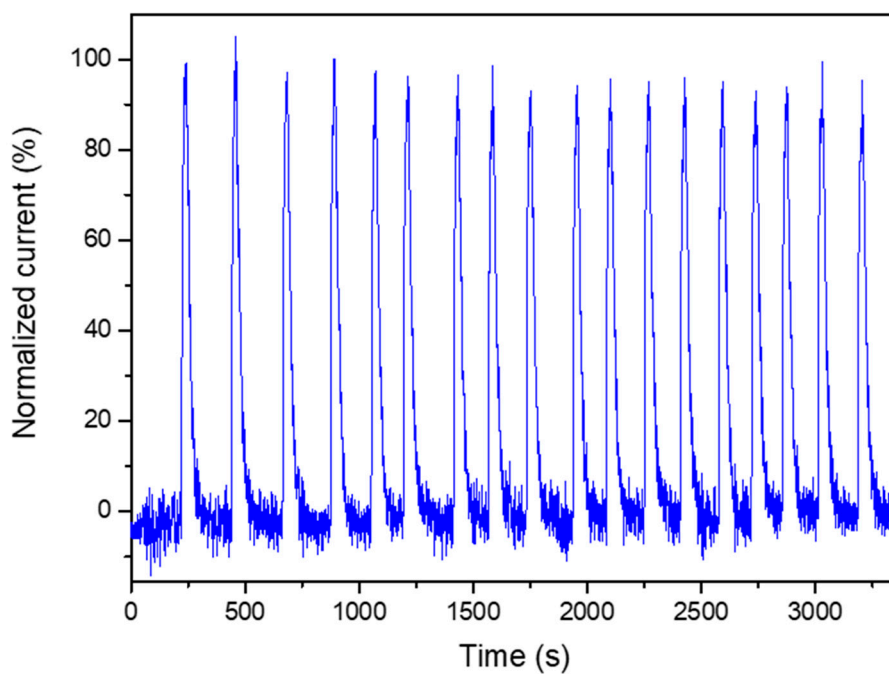


**Figure S4.** (a) Cyclic voltammograms of the GCE/CNT/Au electrode at different scan rate ( $v$ ): 10, 30, 80, 120, 200, 300 mV/s, in 50  $\mu$ M BPA 0.01 M PBS (pH = 7). (b) Anodic peak intensity currents against  $v$ . (c) Anodic peak potential shift against the  $\ln v$ .

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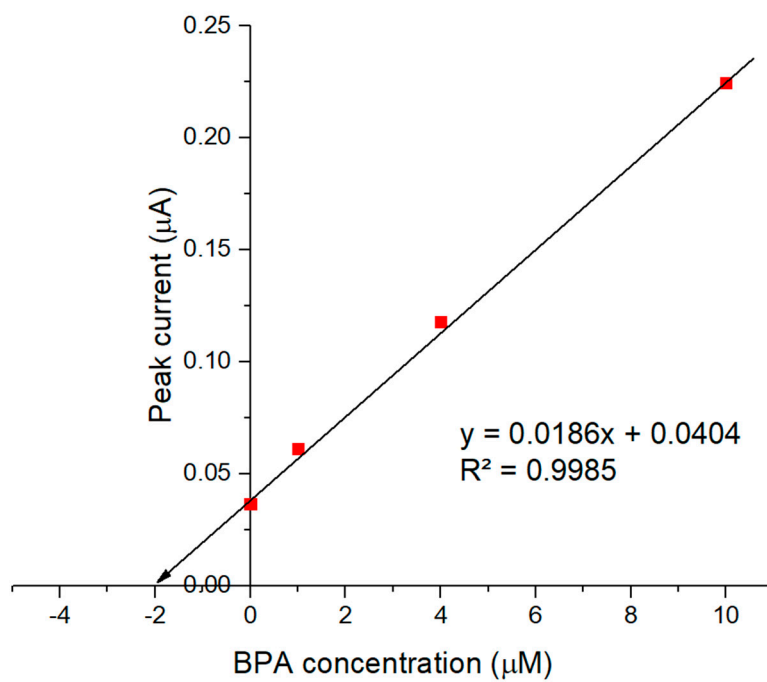


**Figure S5.** Cyclic voltammograms (CV) of GCE/CNT/Au for consecutive scans in a 50  $\mu\text{M}$  BPA solution in 0.01 M phosphate buffer solution. *Inset: percent of the signal decrease after each cycle.*



**Figure S6.** Eighteen successive injection of 1  $\mu\text{M}$  BPA solution in 0.01 M phosphate buffer solution).

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**Figure S7.** Standard calibration curve and water samples concentration estimation (sample 1) from the x-intercept.