# Supplementary Materials

## TEXTILE ORGANIC ELECTROCHEMICAL TRANSISTORS AS A PLATFORM FOR WEARABLE BIOSENSORS

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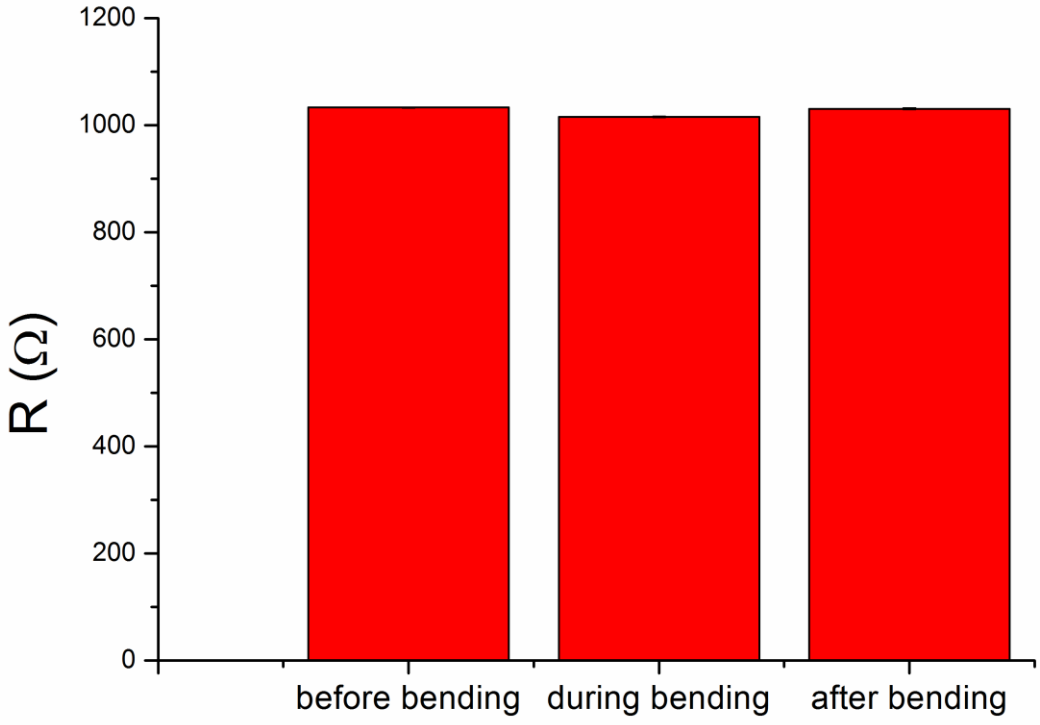
**Figure S1. Picture of the transistor during bending**

**Figure S2. Resistance value of the transistor before, during and after bending. The error bars correspond to 3 standard deviation of average.**



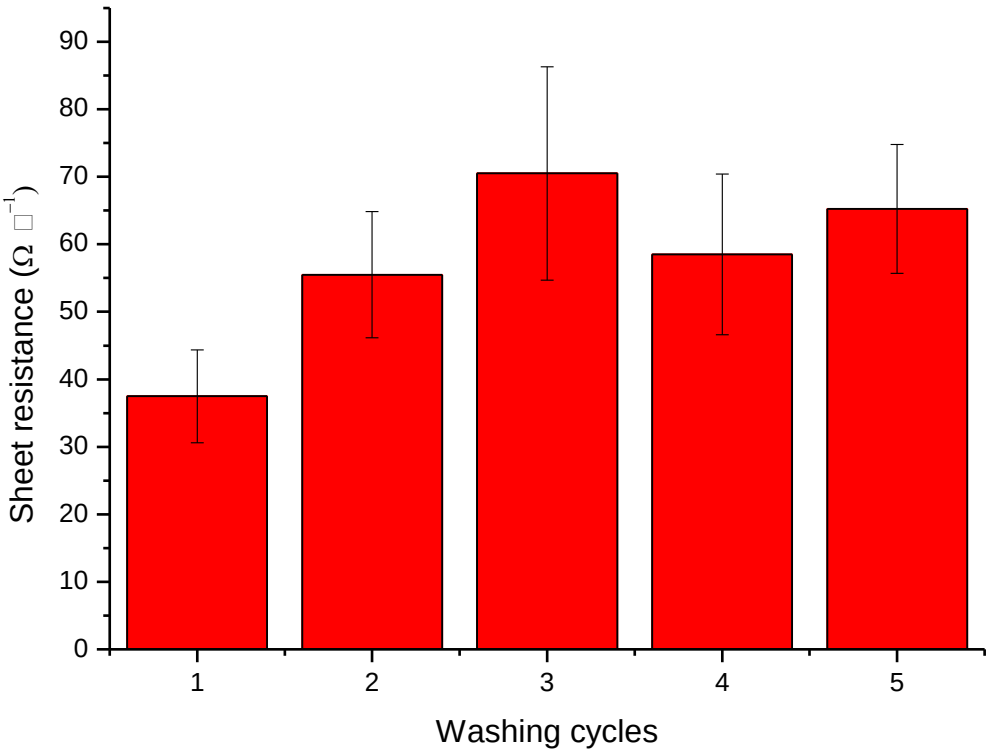



**Fig. S3**. **Resistance to washing.** Sheet resistance of the PEDOT:PSS track obtained by screen printing as a function of the number of washing cycles

**Fig. S4 Characteristic curves recorded for a G1 transistor**

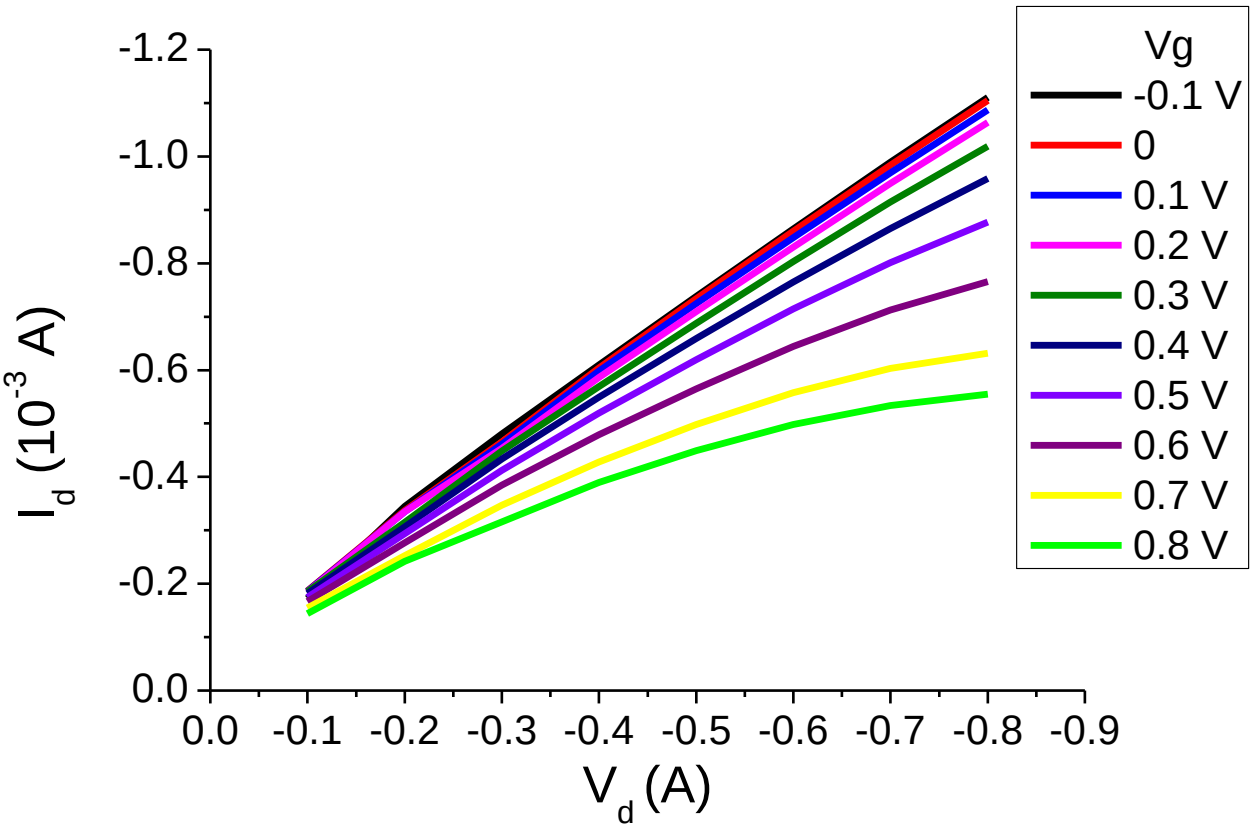


**Figure S5. A) $I_d$ in function of time for G1 OECT obtained while different amounts of ascorbic acid were added to the electrolytic solution. B) 1 – $I/I_{max}$ versus Log C plot**

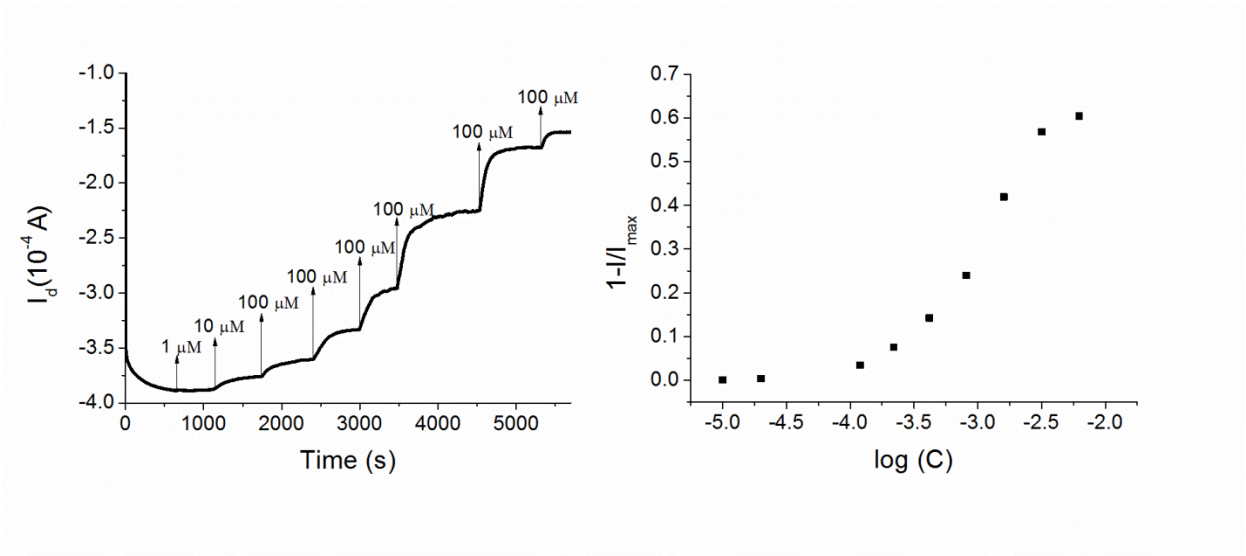



**Figure S6. A) $I_d$ in function of time for G1 OECT obtained while different amounts of dopamine were added to the electrolytic solution. B) 1 – $I/I_{max}$ versus Log C plot**

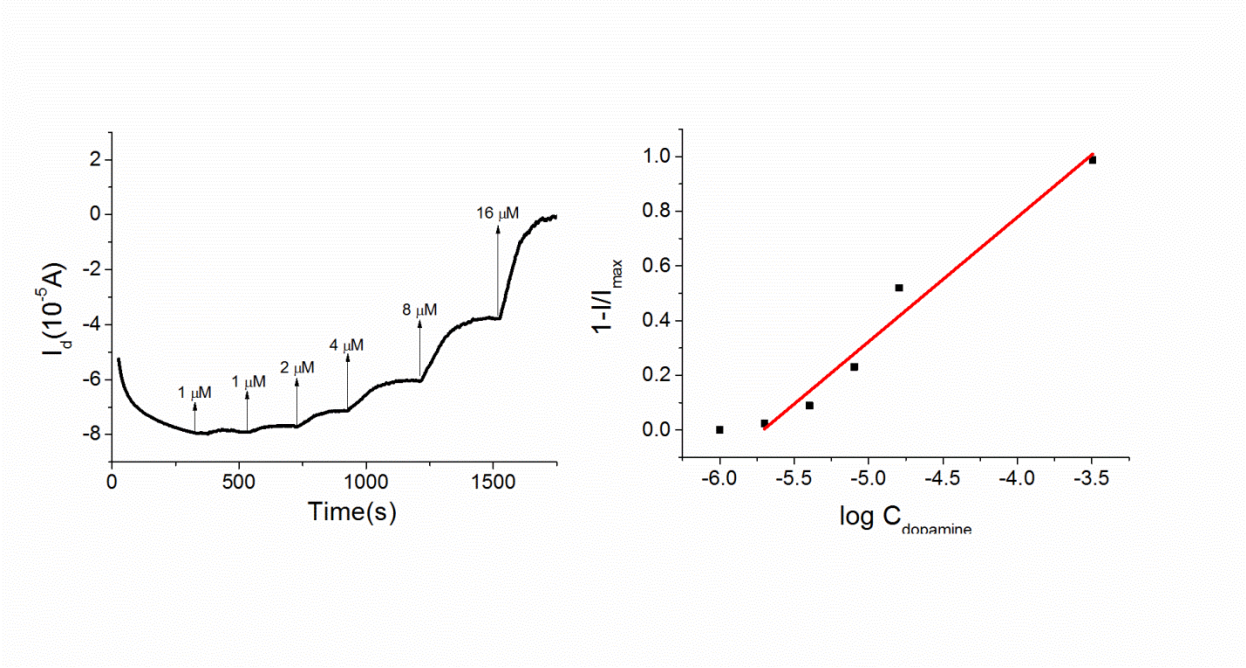


**Fig SI7. Cyclic voltammetry recorded in PBS using as working electrode a stripe of PEDOT:PSS deposited onto glass slide. The red voltammogram was recorded in 0.1 mM adrenaline solution, while the black line is the voltammogram recorded in blank solution. The peak potential of adrenaline oxidation process is 0.090 V.**

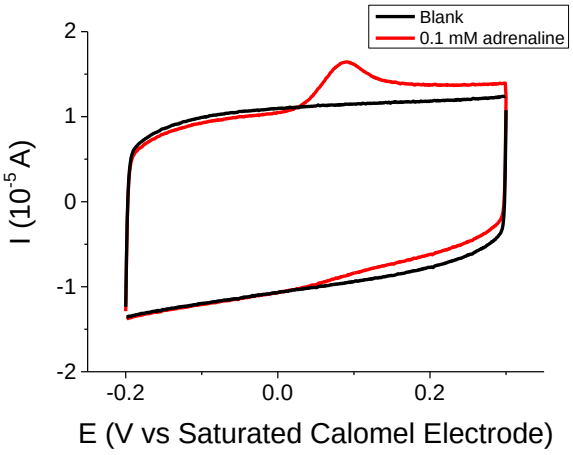



**Figure S8. Characteristic curve of G2 OECT**

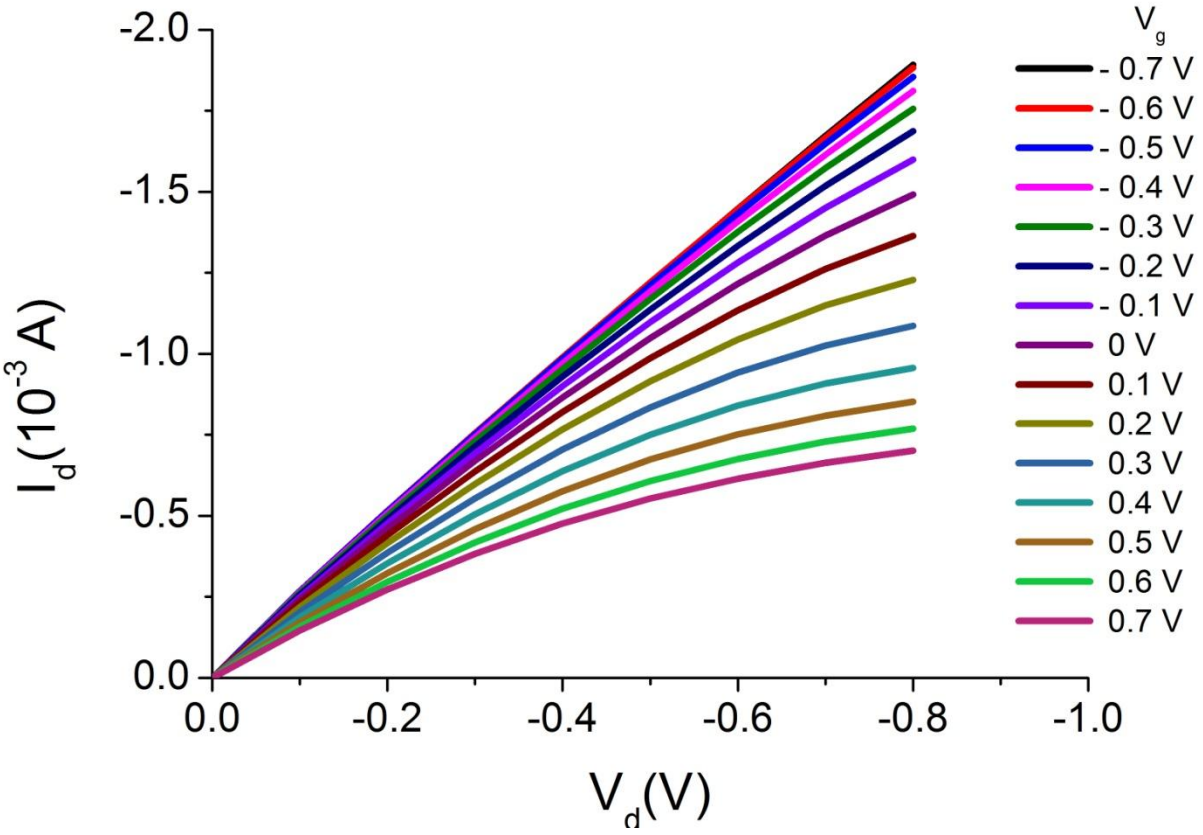


**Figure S9. A) $I_d$ in function of time for G2 OECT obtained while different amounts of ascorbic acid were added to the electrolytic solution. B) Charge versus concentration plot**

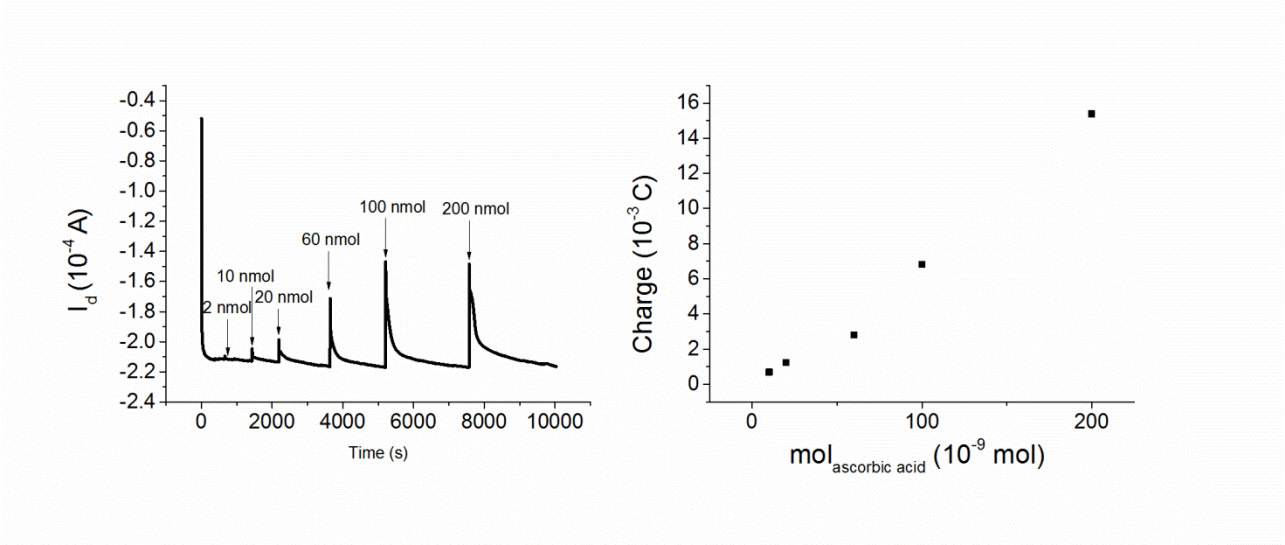



**Figure S10. A) $I_d$ in function of time for G2 OECT obtained while different amounts of adrenaline were added to the electrolytic solution. B) Charge versus Concentration plot**

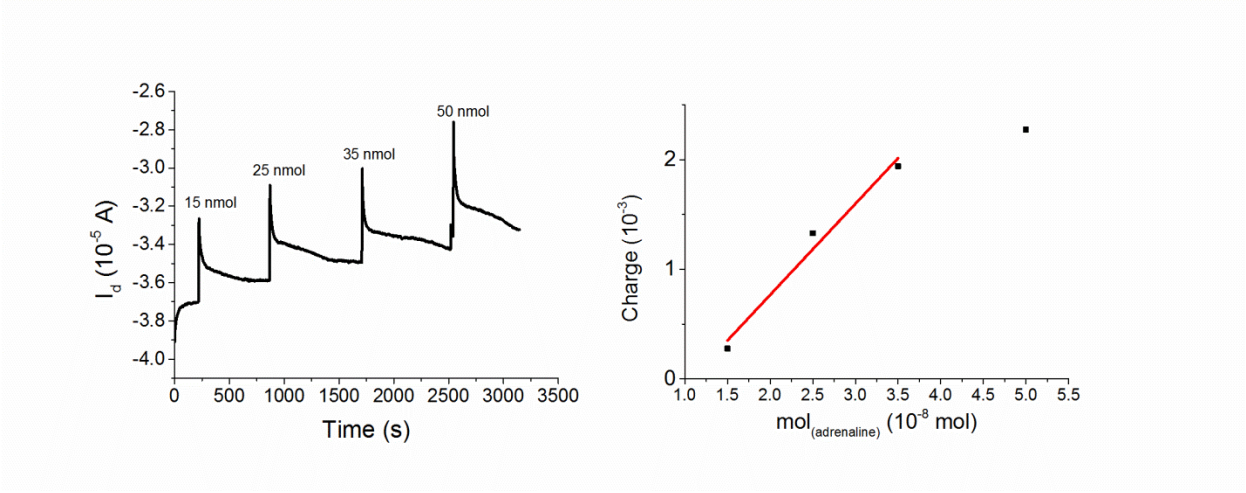


**Table SI 1. Parameters of calibration plots obtained in artificial sweat**

| | Slope (decade$^{-1}$) | intercept | $R^2$ |
|---|---|---|---|
| Ascorbic Acid | 0.48 ± 0.02 | 1.48 ± 0.05 | 0.996 |
| Adrenaline | 0.28 ± 0.04 | 1.3 ± 0.2 | 0.94 |
| Dopamine | 0.40 ± 0.05 | 1.9 ± 0.2 | 0.95 |

**Table SI 2. Experimental charge that flows at gate electrode after dopamine additions vs the theorical charge generated by dopamine oxidation.**

| **Experimental charge (mC)** | **Theoretical charge (mC)** |
|---|---|
| **0.56** | **0.96** |
| **1.4** | **1.9** |
| **2.0** | **2.9** |
| **2.8** | **3.8** |
| **2.5** | **4.8** |