SUPPLEMENTARY MATERIAL

Development of an electrochemical sensor based on ternary oxide $SiO_2/Al_2O_3/SnO_2$ modified with carbon black for direct determination of clothianidin in environmental and food samples

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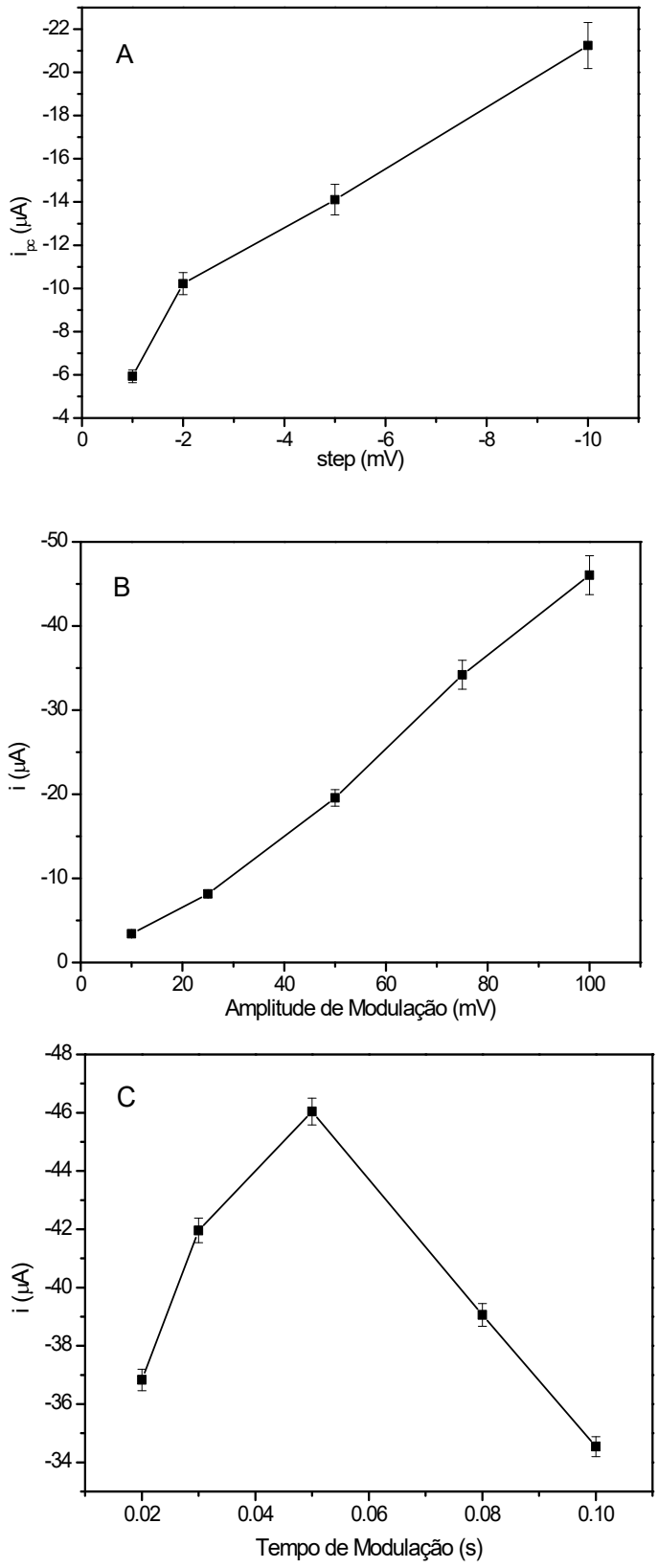

Fig. S1 - Correlation graphs between peak current (ip) and parameter: (A) step, (B) modulation amplitude and (C) modulation time.

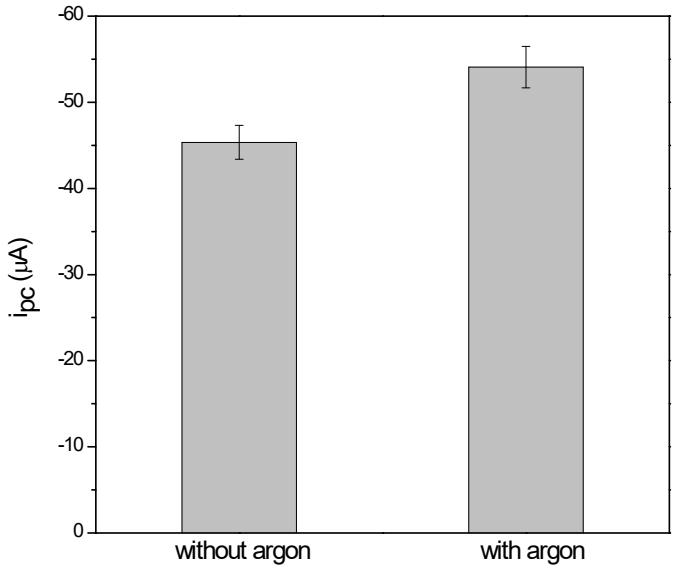

Fig. S2 - Graphic representation of the response signal obtained for analysis of samples with and without argon bubbling

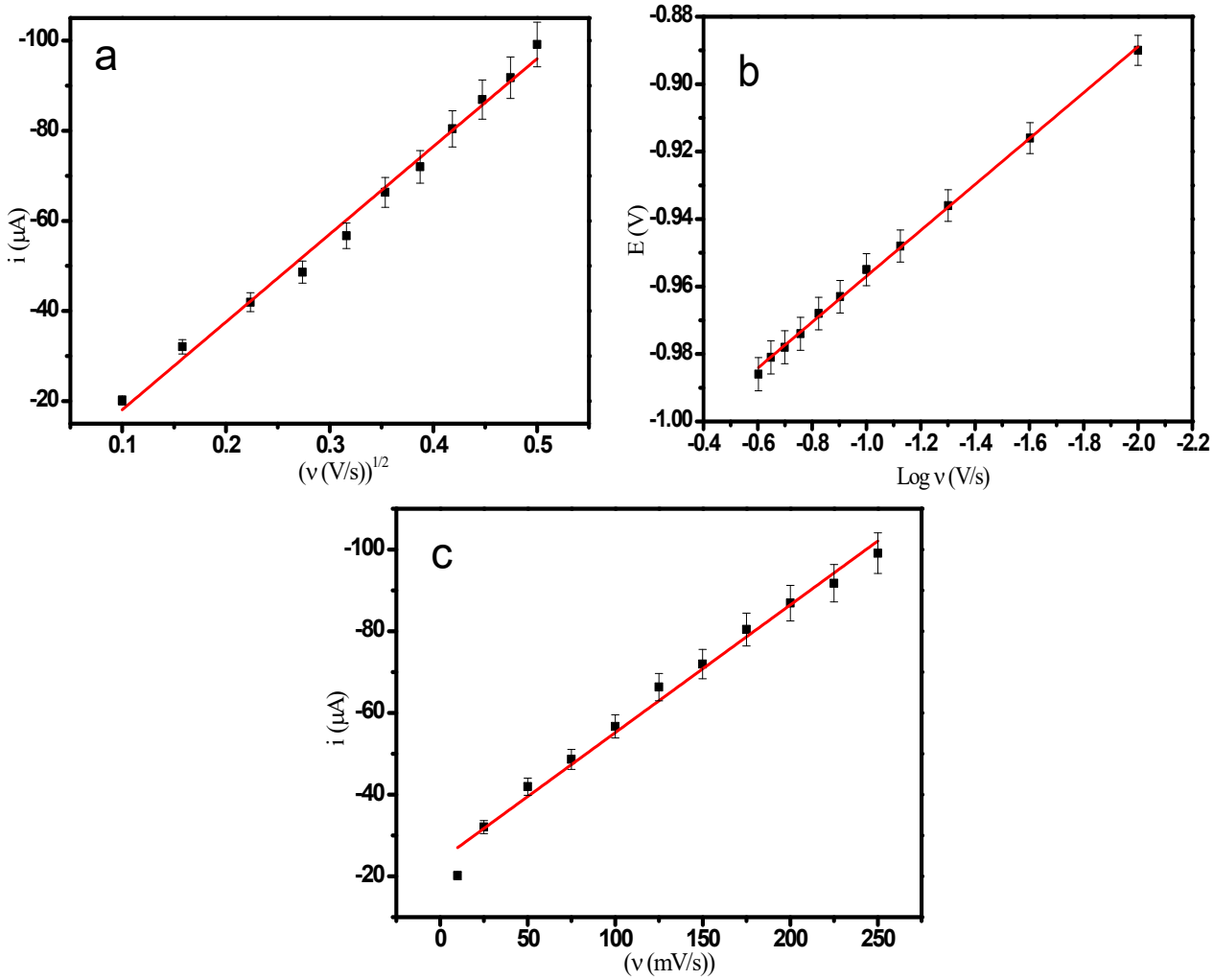

Fig. S3 – (a) correlation graph between peak current with the square root of the sweep speed, (b) correlation graph between peak potential with the logarithm of the sweep speed and (c) correlation graph between peak current and the sweep speed.

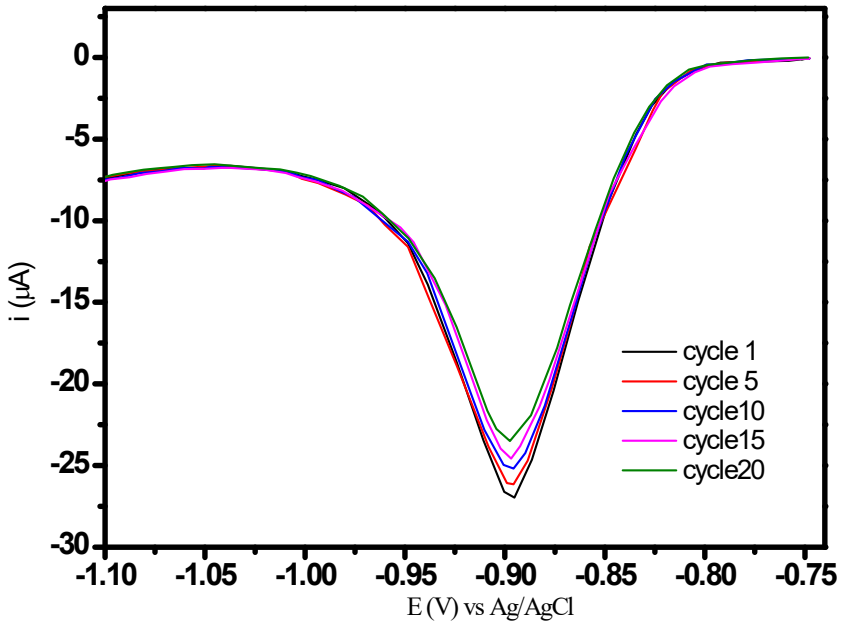

Fig.S4 – DPV curves of 60,0 μmol L^{-1} CLD at the GCE/CB/SiAlSn of the 20 successive measurements with the same electrode.

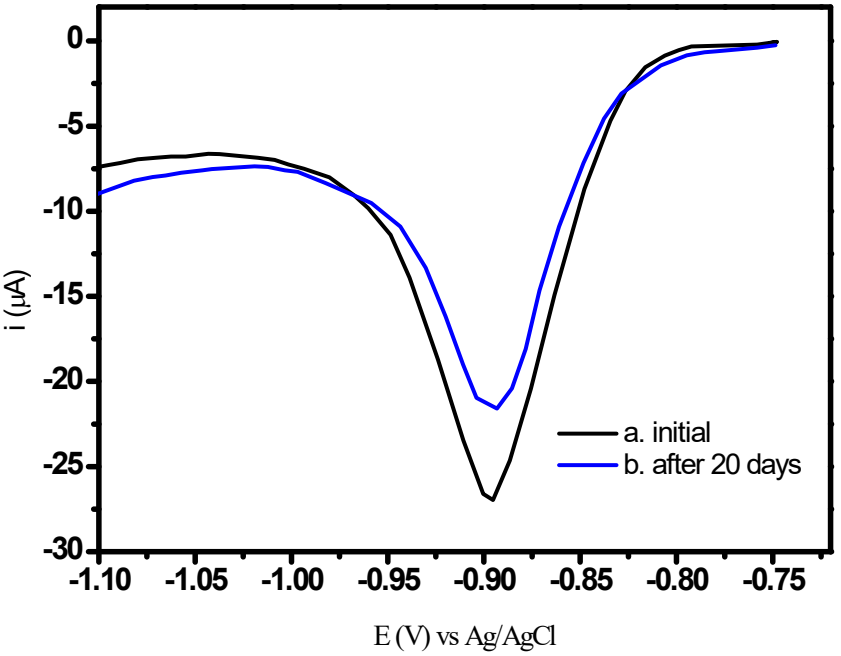

Fig.S5 – DPV curves of 60,0 μmol L^{-1} CLD at the GCE/CB/SiAlSn on the first day and 20 days later

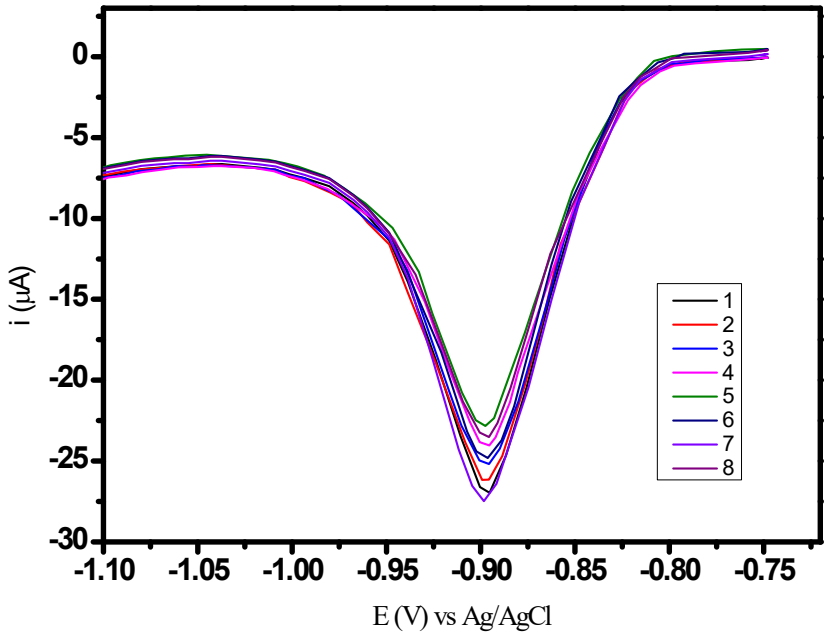

Fig.S6 – DPV curves of 60.0 μmol L-1 of the CLD in the GCE/CB/SiAlSn of 8 different electrodes

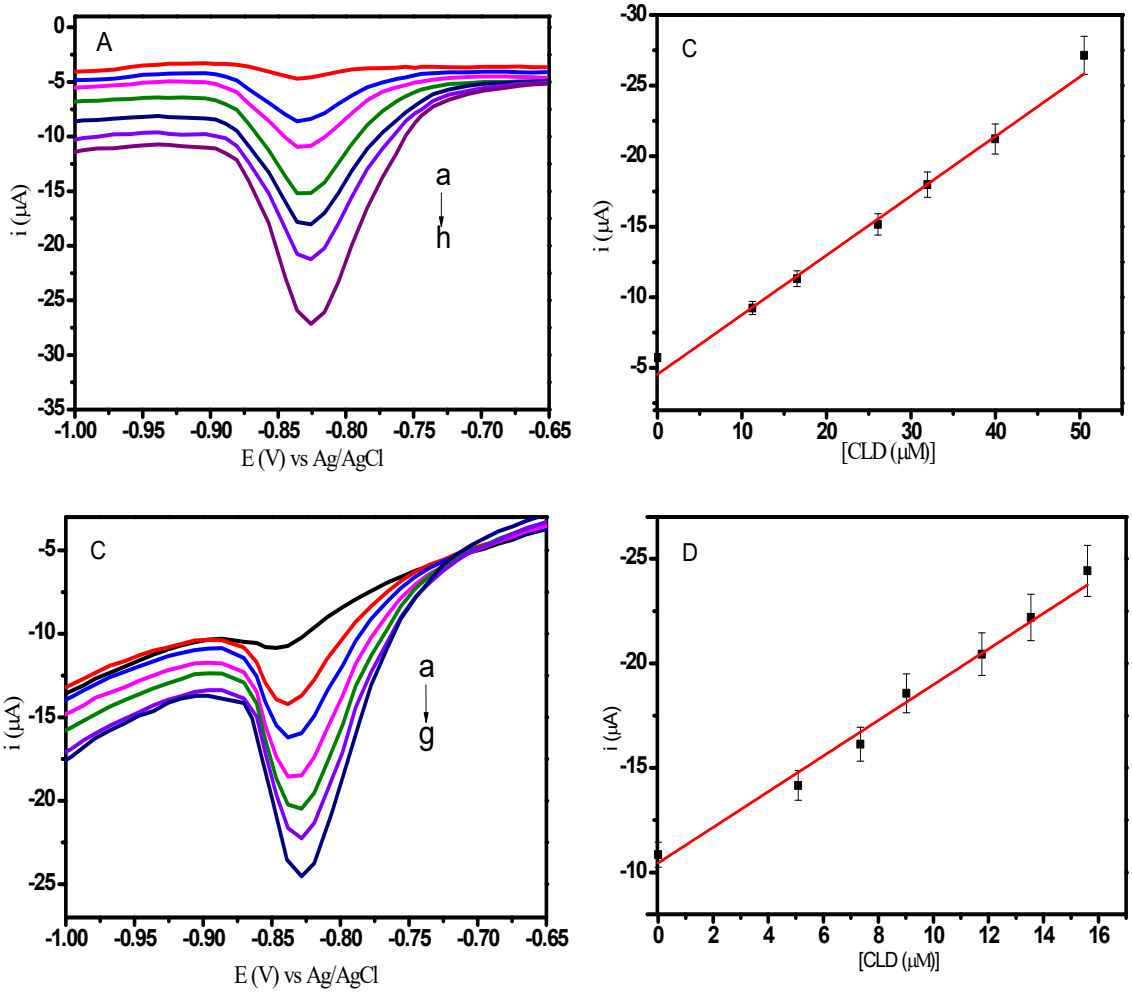

Fig. S7 - Voltammograms obtained in the determination of CLD in different environmental matrices, by DPV: (A) tap water (added 10,49 μmol L^{-1}) and (C) apple juice (added 13,50 μmol L^{-1}). Calibration curves using the standard addition method, (B) tap water and (D) apple juice.