

**Highly sensitive and selective electrochemical detection of caffeine,
theophylline and guaiacol in green tea, green coffee, coffee, and tea extracts
using SnS₂ nanoflakes modified electrode**

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Supplementary information

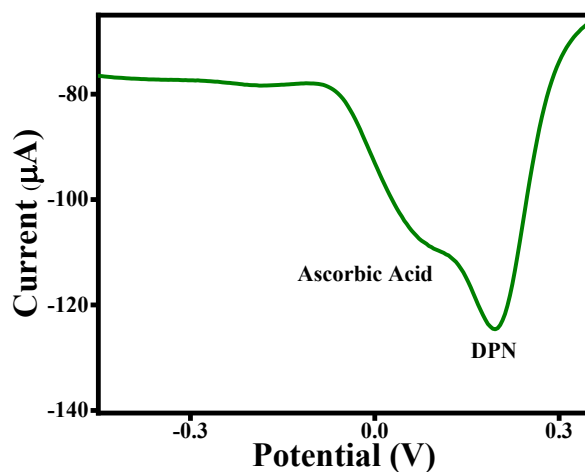


Figure S1. Ascorbic acid and dopamine (DPN) DPV graph

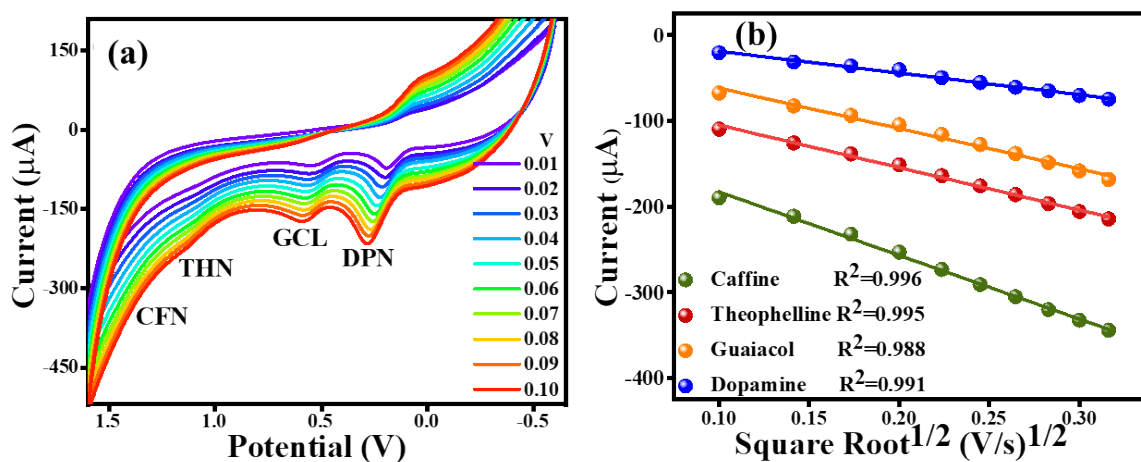


Figure S2. (a) A simultaneous CV response of CFN, THN, GCL and DPN oxidation (b) Related Square Root calibration graph of simultaneous CV response of CFN, THN, GCL and DPN

Table S1:- EDS composition of TS (W), TS (E) and TS (I)

TS(W) EDS composition			
Element	S K	Sn L	Total
Weight %	31.79	68.21	100
Atomic %	63.30	36.70	
TS(E) EDS composition			
Element	S K	Sn L	Total
Weight %	32.48	67.52	100
Atomic %	64.04	35.96	
TS(I) EDS composition			
Element	S K	Sn L	Total
Weight %	31.20	68.80	100
Atomic %	62.67	37.33	

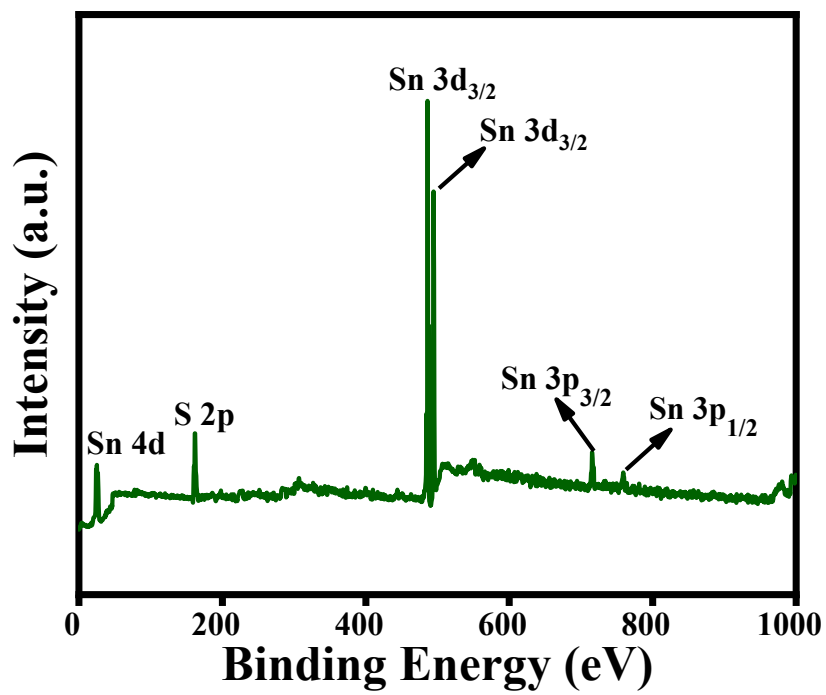


Figure. S3. Full Survey scan graph of SnS₂

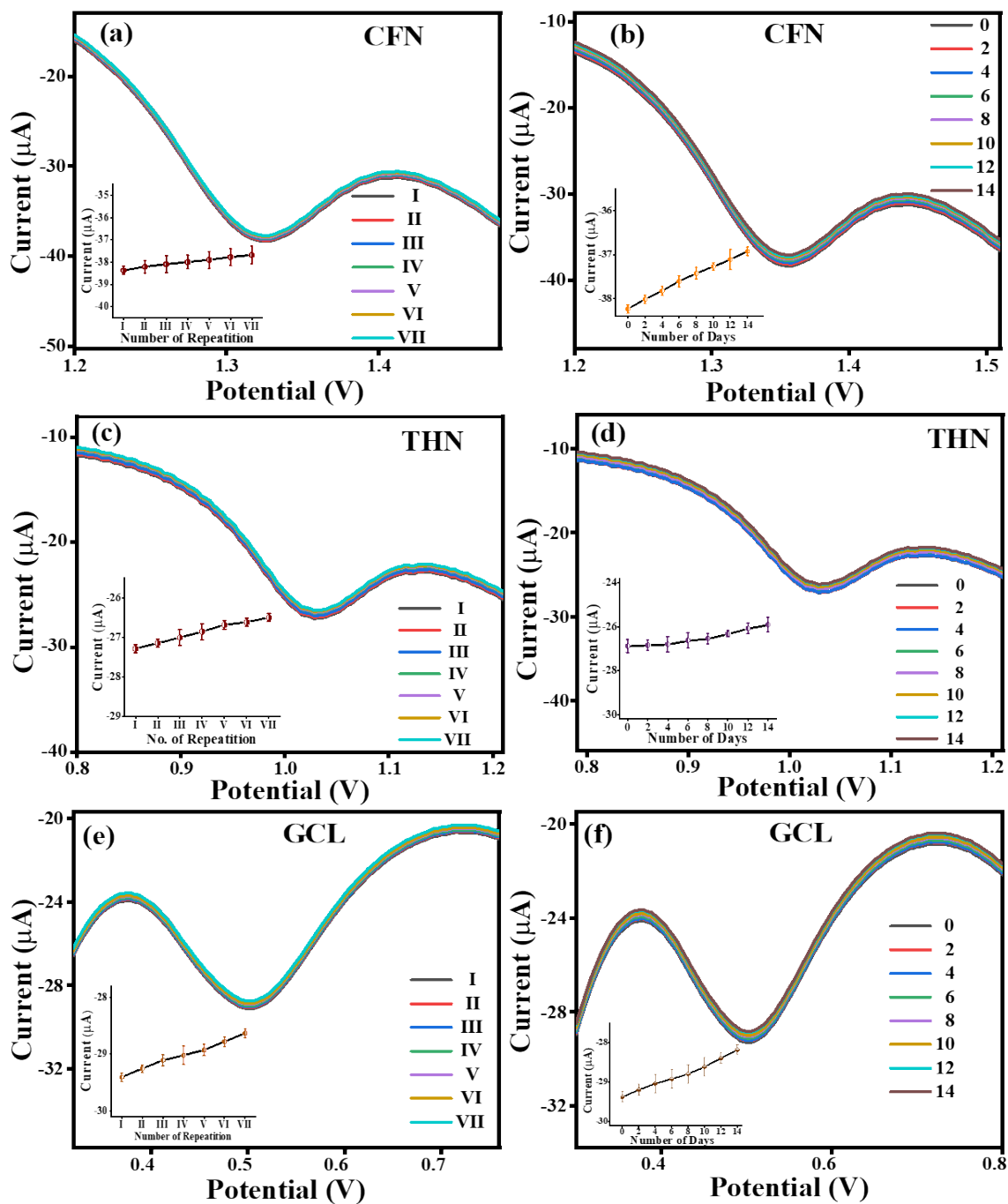


Figure. S4 Differential Pulse Voltammetry (DPV) graph (a) for the seven times repeatability of CFN (b) for the stability of CFN up to 14 days (c) for the seven times repeatability of THN (d) for the stability of THF up to 14 days (e) for the seven times repeatability of GCL (f) for the stability of GCL up to 14 days.

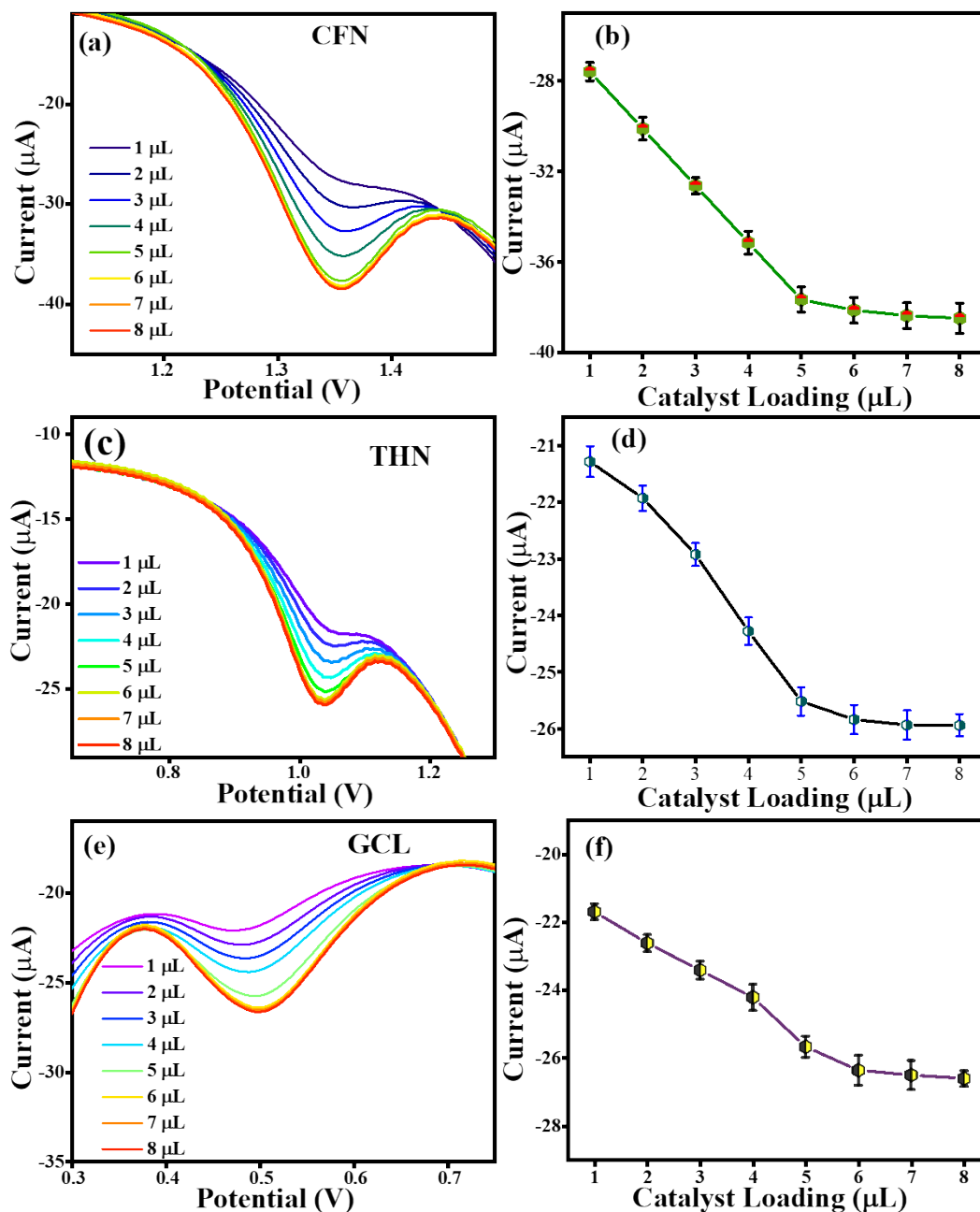


Figure S5. DPV graph (a) for CFN catalyst Loading graph (b) related linear calibration graph of CFN (c) for THN catalyst Loading graph (d) related linear calibration graph of THN (e) for GCL catalyst Loading graph (f) related linear calibration graph of GCL

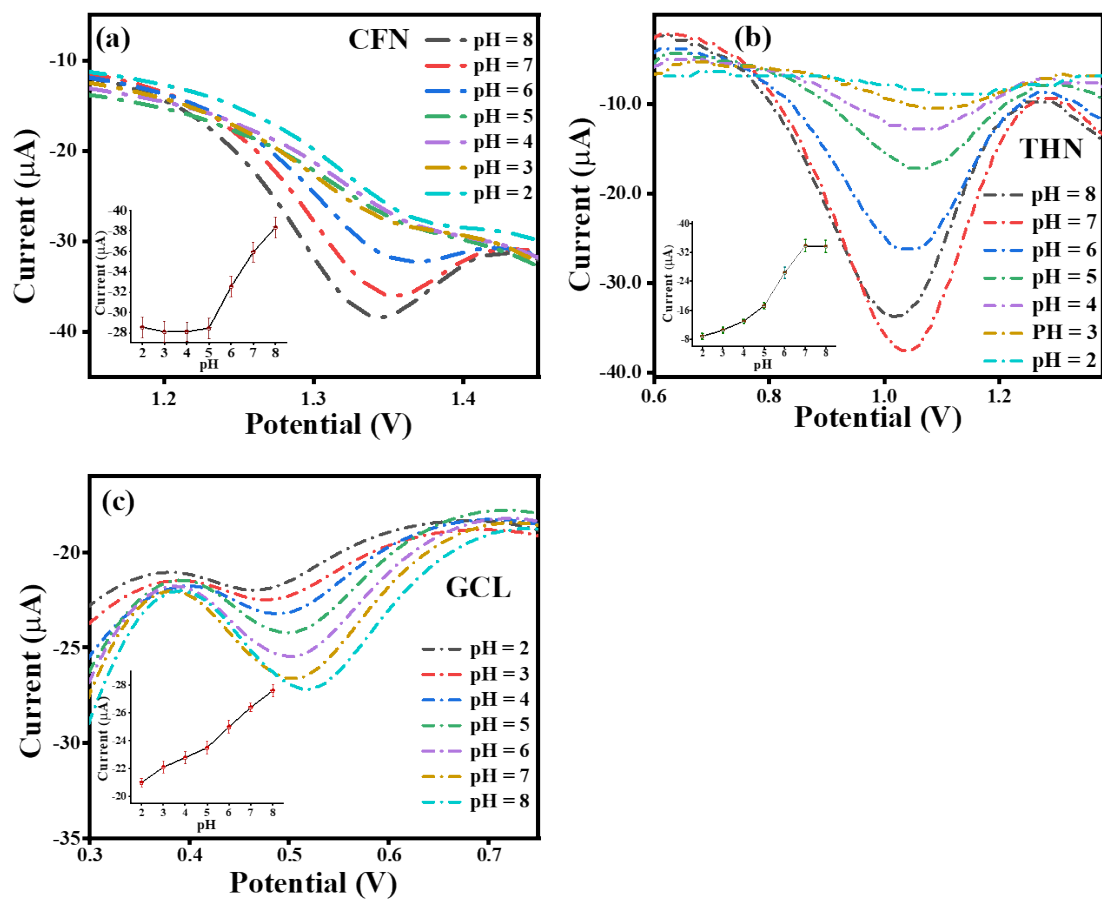


Figure. S6 DPV graph (a) Varying buffer pH graph in CFN (b) Varying buffer pH graph in THN (c) Varying buffer pH graph in GCL