

Supplementary information

Non-enzymatic biosensor based on F, S-doped Carbon dots/ Copper nanoarchitecture applied in the Simultaneous electrochemical determination of NADH, Dopamine, and Uric acid in plasma.

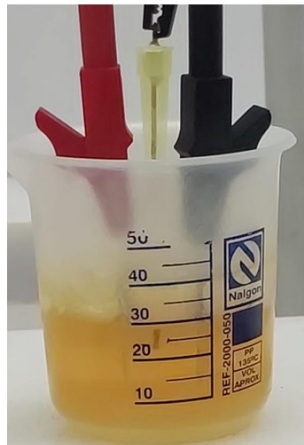
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**F, S-doped Carbon dots
chronoamperometry synthesis.**



Copper nitrate alcoholic solution.



**F, S-doped Carbon dots/ Copper
nanoarchitecture synthesis.**

Figure S1: Images of solutions of F, S-doped Carbon dots (left), alcoholic solution of CuNO_3 (middle), and the final solution of F, S-doped Carbon dots/ CuONPs (right).

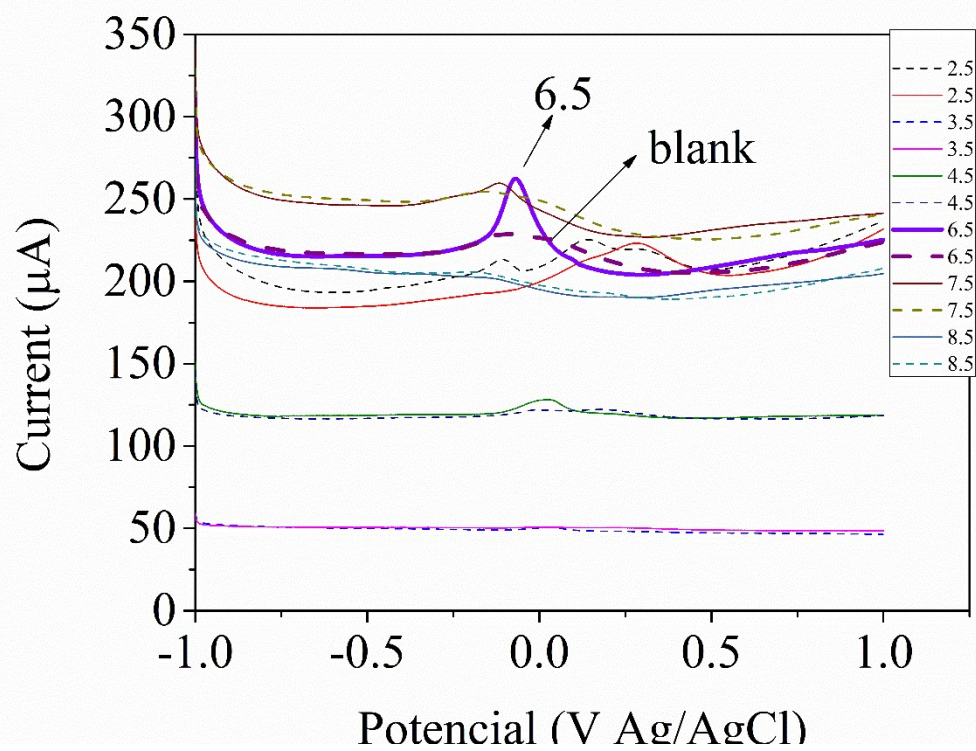


Figure S2: pH study of NADH determination.

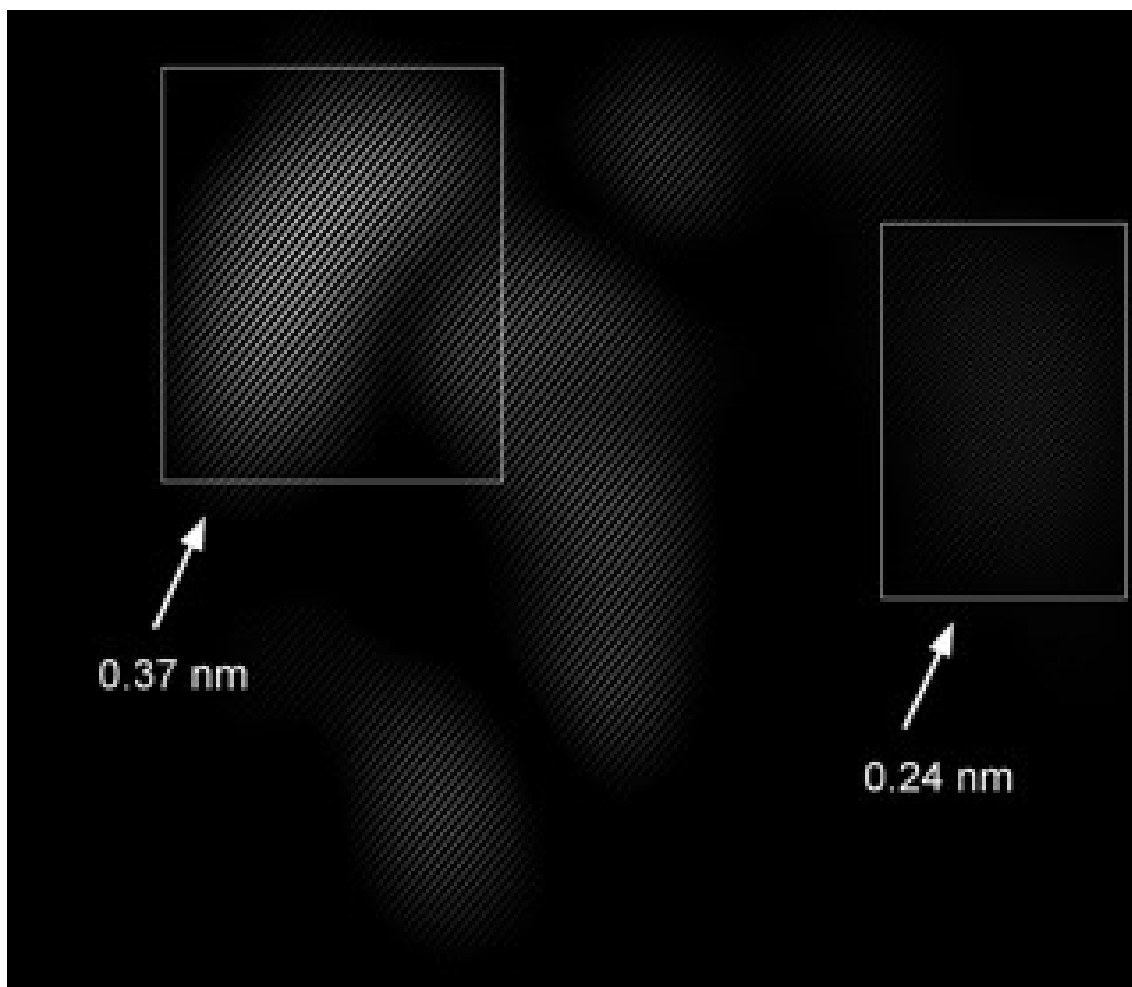
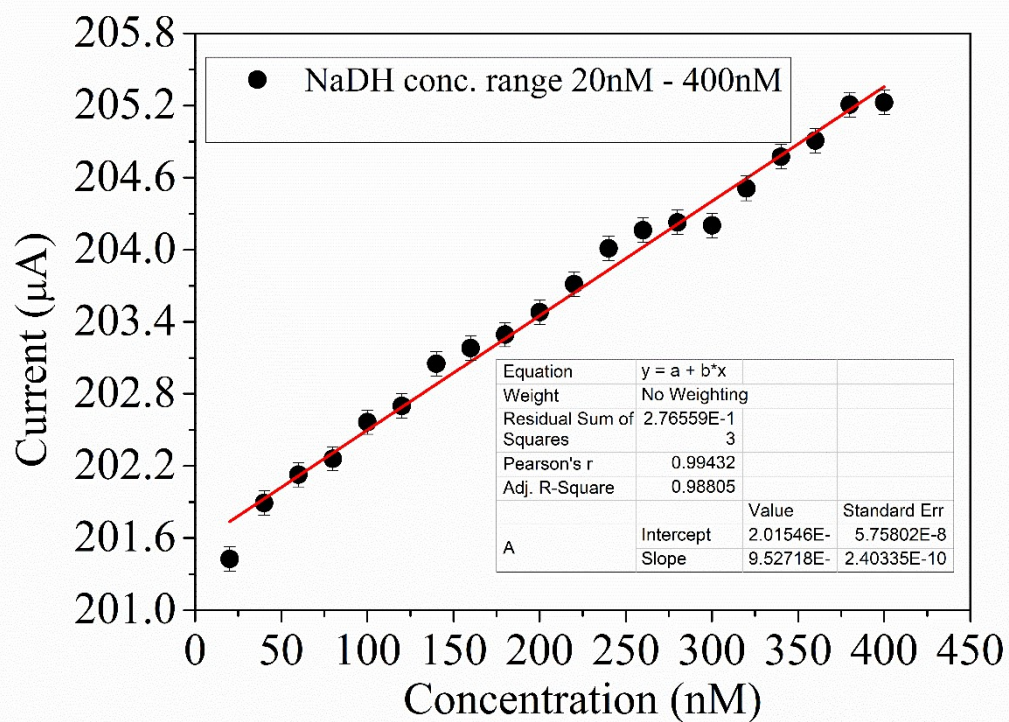
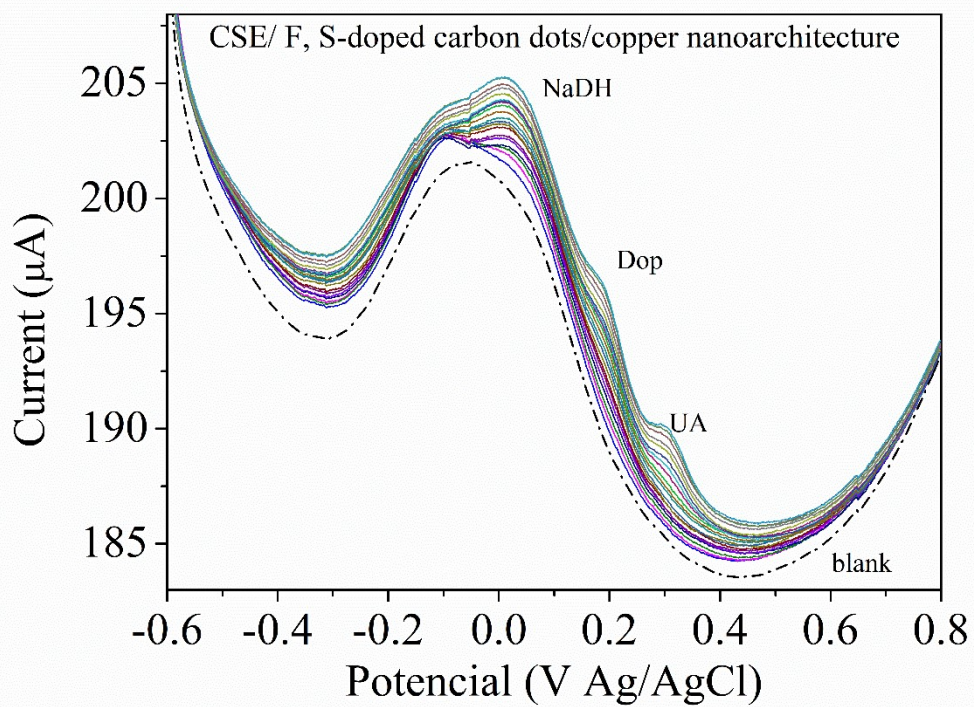


Figure S3: Interplanar distance of HR-TEM dark Images of F, S-doped Carbon dots.



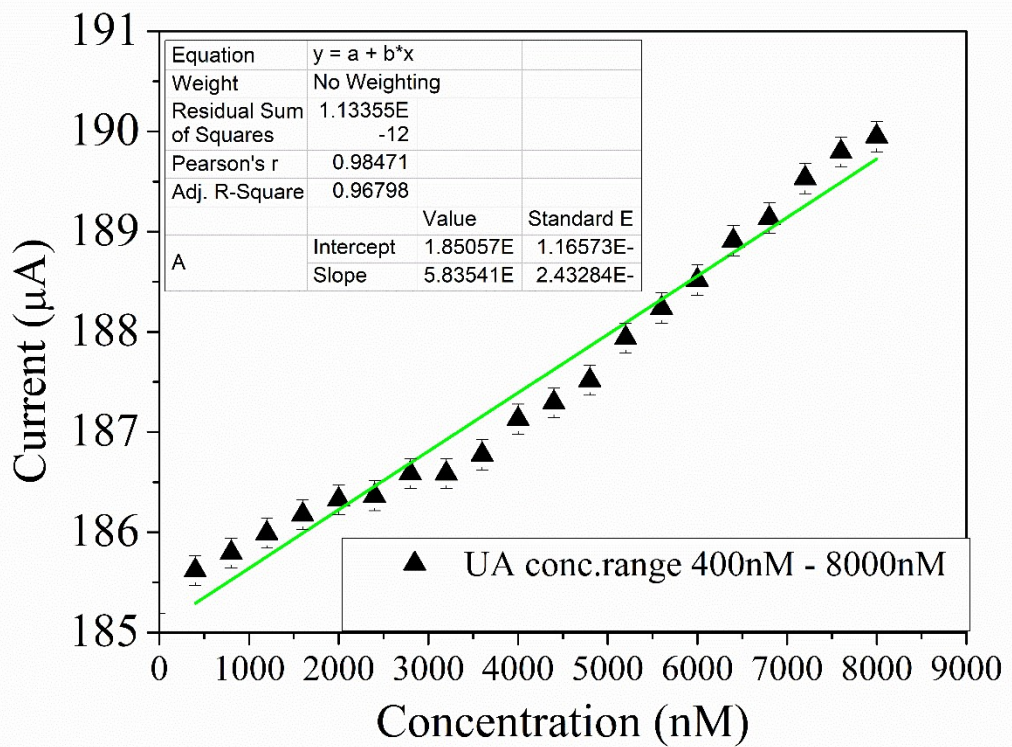
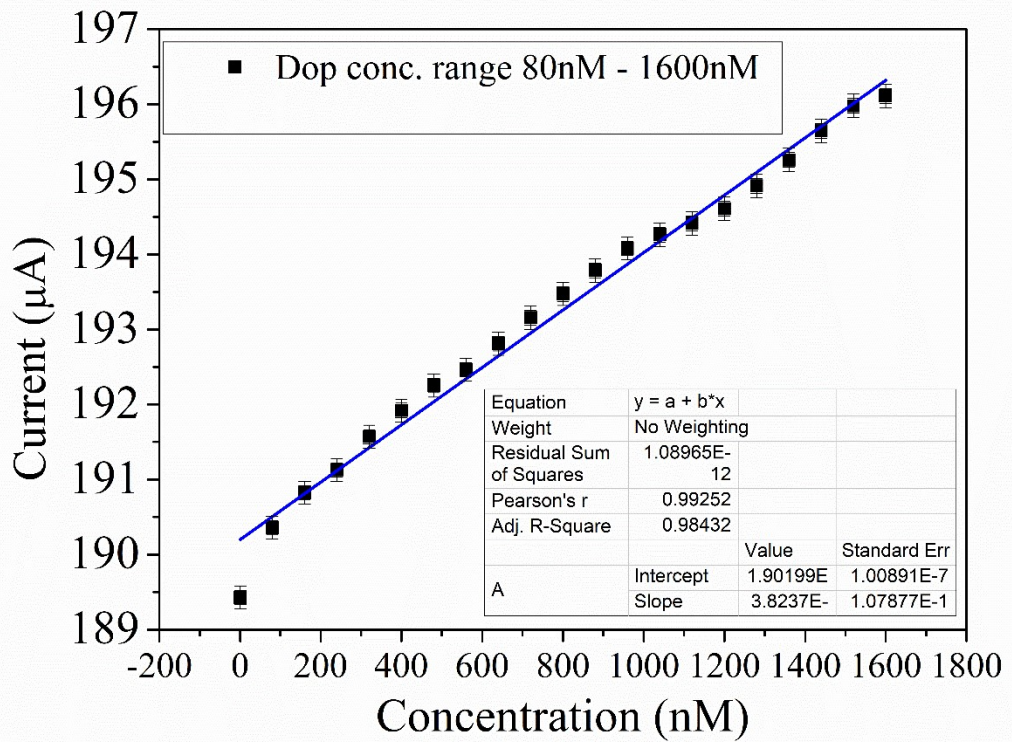


Figure S4: Electrocatalytic response for the simultaneous determination of NADH, DOP, and UA in the presence of AA, with a clear separation between peaks in the presence of AA (fixed $C=18 \times 10^{-6} \text{ mol L}^{-1}$), with small concentrations of species, being [NADH] ranging from 2×10^{-8} to $4 \times 10^{-6} \text{ mol L}^{-1}$, [DOP] ranging from 8×10^{-8} to $16 \times 10^{-6} \text{ mol L}^{-1}$, [UA] ranging from 4×10^{-7} to $8 \times 10^{-5} \text{ mol L}^{-1}$. (all measurements with error bar 3%).