

Supporting information for

Copper molybdenum sulfide (Cu₂MoS₄) nanoplates as a proficient electrocatalytic interface for enhancing electrochemical redox signals of Ofloxacin detection in pharmaceutical samples

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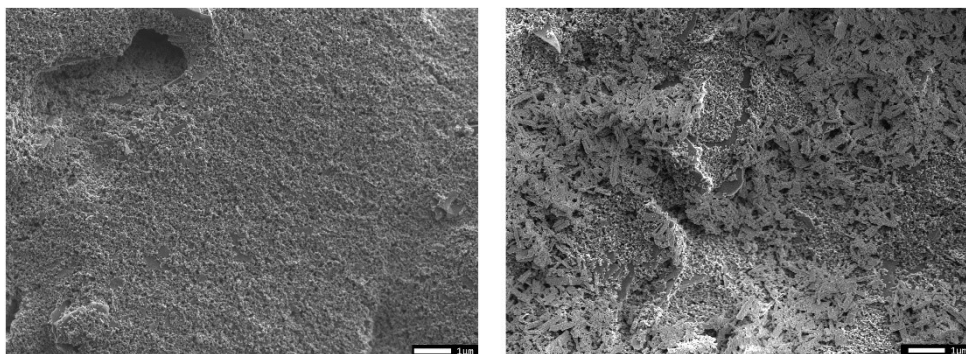


Fig. S1. SEM images of screen-printed electrodes before and after CMS modification.

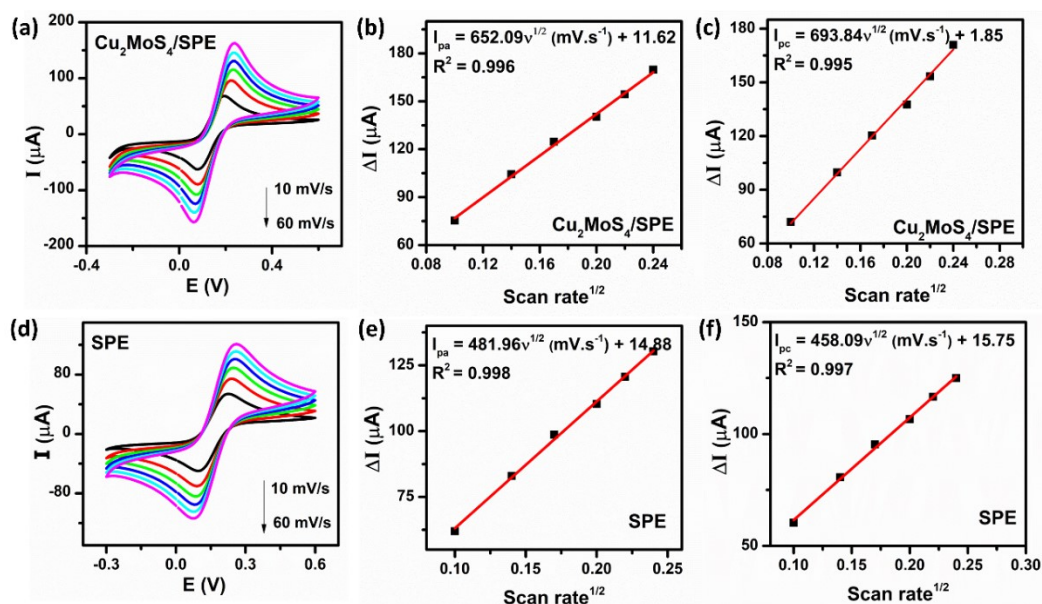


Fig. S2. CV curves recorded of un-modified and CMS-modified electrodes with various scan rates from 10 to 60 mV s^{-1} (a, d) and the corresponding calibration plots of peak current response vs. square root of scan rate (b-c, e-f).

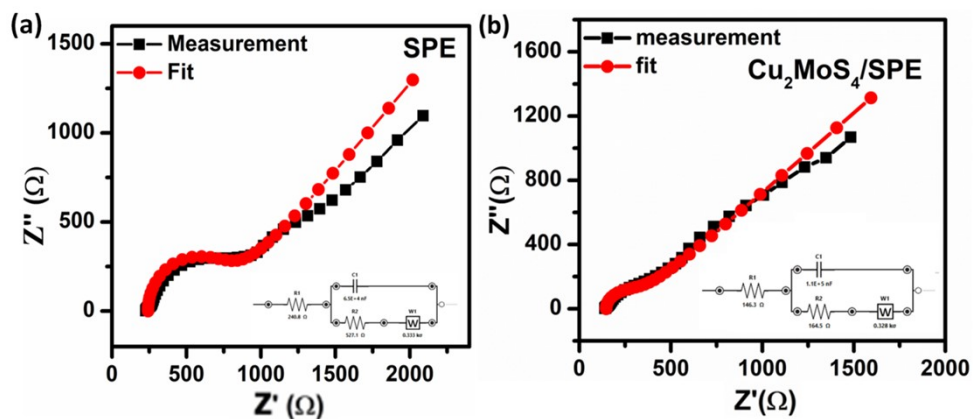


Fig. S3. Fitted and experimental Nyquist plots of impedance spectra. The red line is calculated results from model fitting, and the black line is experimental data. The inset shows the Randles equivalent circuit used for fitting the data.

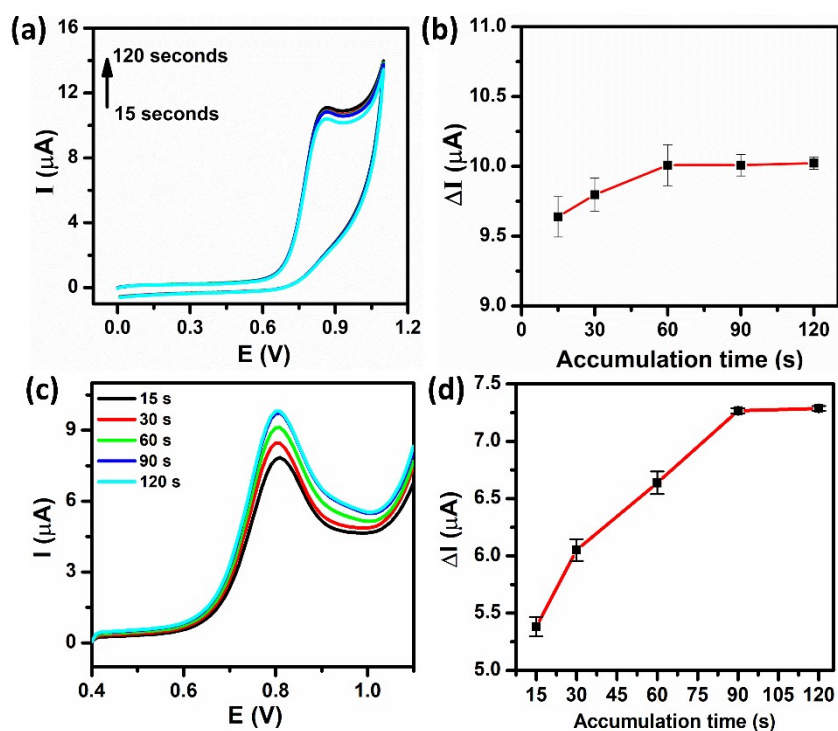


Fig. S4. Effect of accumulation time on OFX electrochemical oxidation of CMS/SPE.

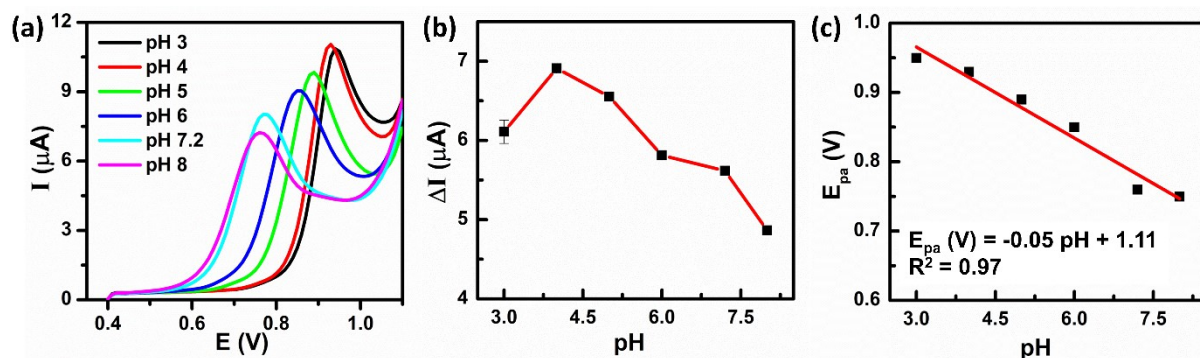


Fig. S5. DPV curves of CMS/SPE in 50 μM OFX at various pH values (a), corresponding to the plots of peak current and peak potential vs. pH value (b, c) with error bars.

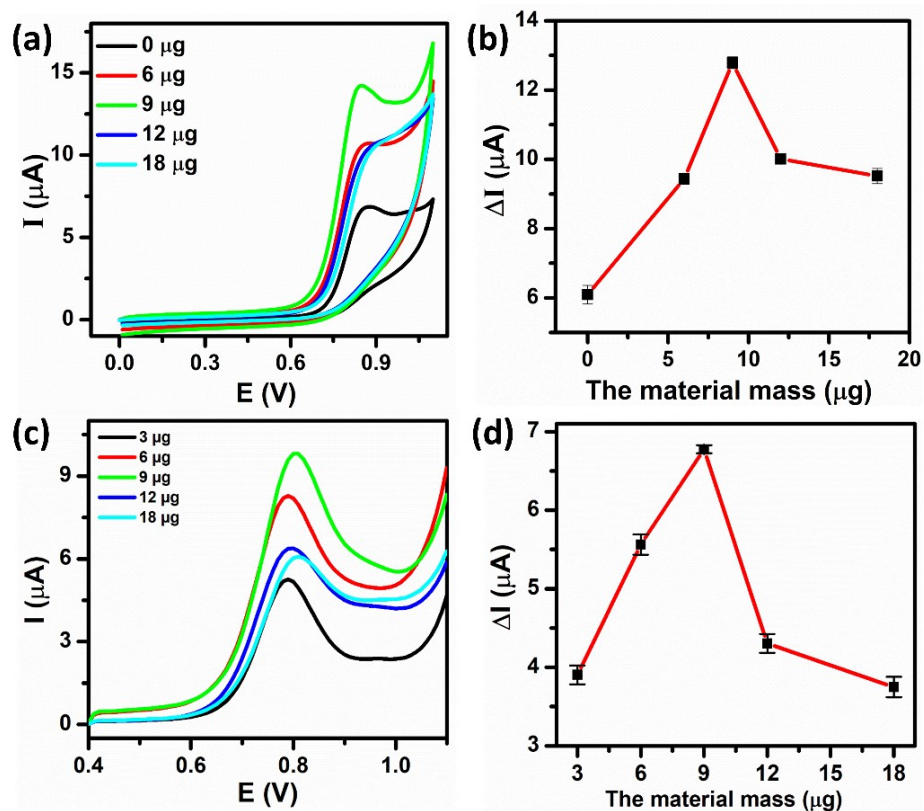


Fig. S6 Effect of modifier amount on OFX electrochemical oxidation of CMS/SPE.

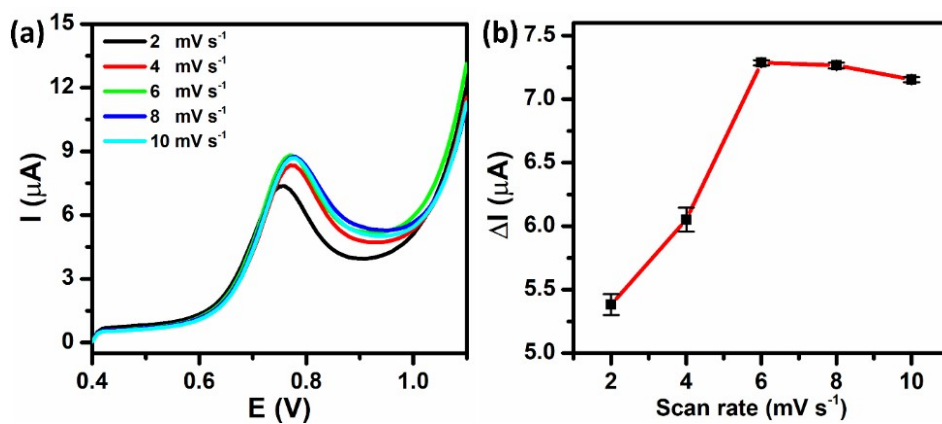


Fig. S7 Effect of scan rate on OFX electrochemical oxidation of CMS/SPE.

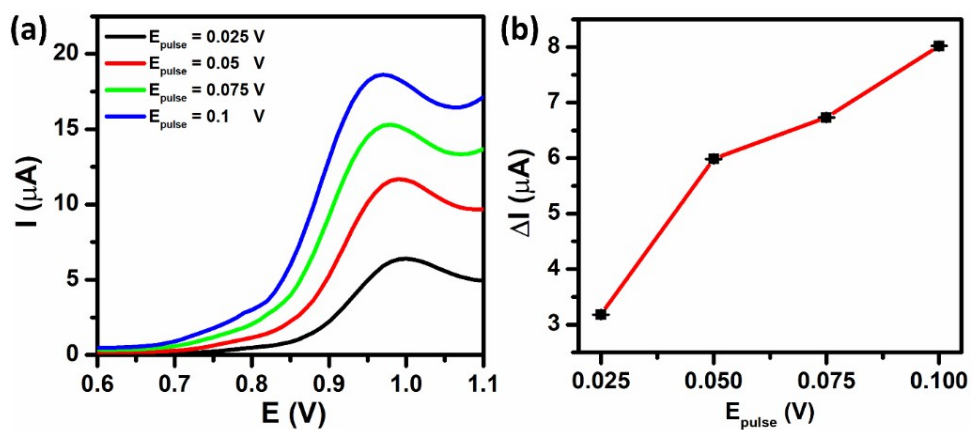


Fig. S8. Effect of pulse potential on OFX electrochemical oxidation of CMS/SPE.

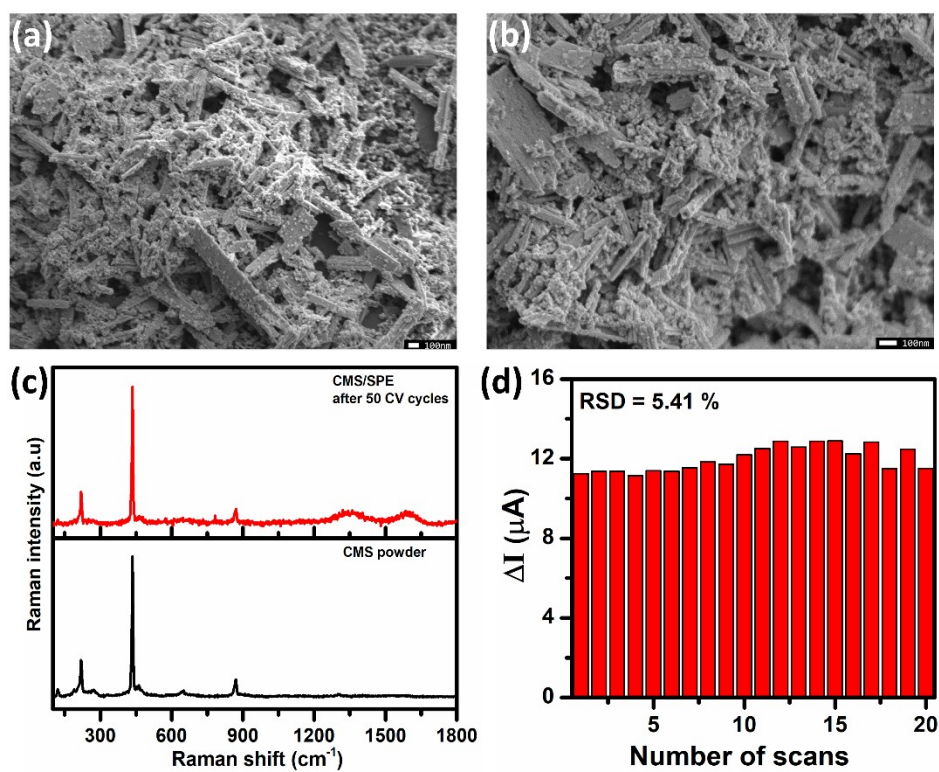


Fig. S9. Stability and repeatability of CMS-modified electrode.

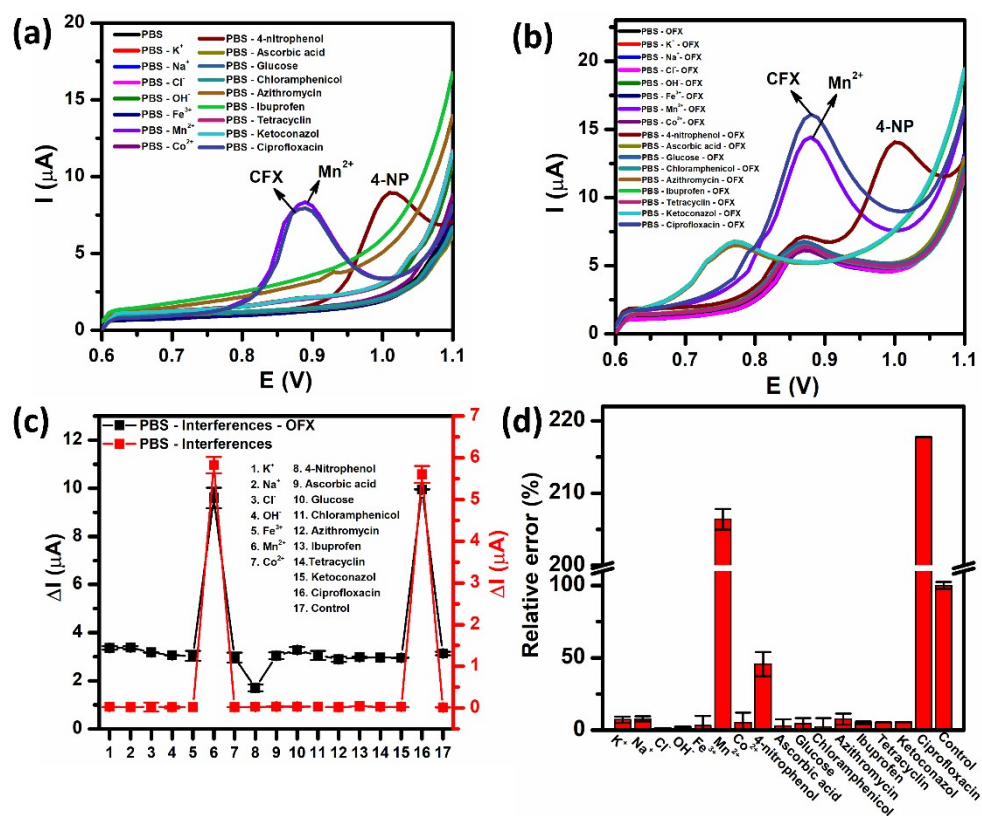


Fig. S10. Interference investigation of the CMS-modified electrodes with the 4-fold concentration of interference substances.

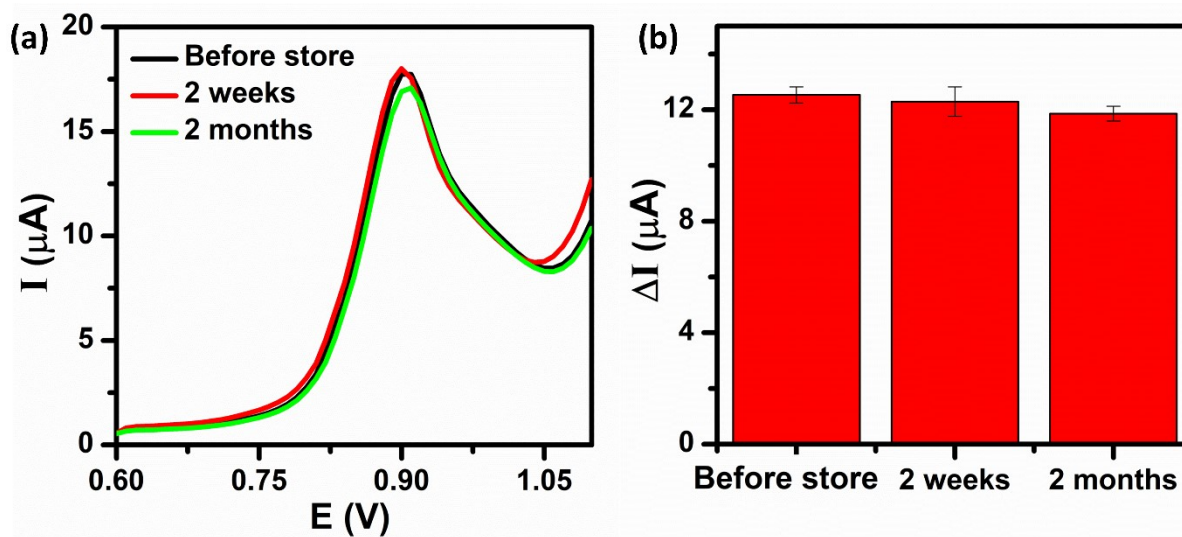


Fig. S11. Long-term stability of CMS-modified electrodes.

Table S1. Some previously analytical methods for OFX detection

Detection method	Analytical ranges (μM)	LOD (nM)	Real samples	Ref.
Photoelectrochemical	1– 100	906	-	[1]
Capillary electrophoresis	1.4– 28	102	Tissue	[2]
Spectrofluorimetric	0.075 – 3.75	50	Milk Domestic	[3]
Solid-phase spectrofluorimetric	0.140 – 1.269	33.6	Plasma Urine	[4]
HPLC with fluorescence detection	0.028 – 280	28	Aqueous vitreous	[5]

References

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