

Electronic supplementary information

A simple electrochemical sensor based on rGO/MoS₂/CS modified GCE for highly sensitive detection of Pb(II) in tobacco leaves

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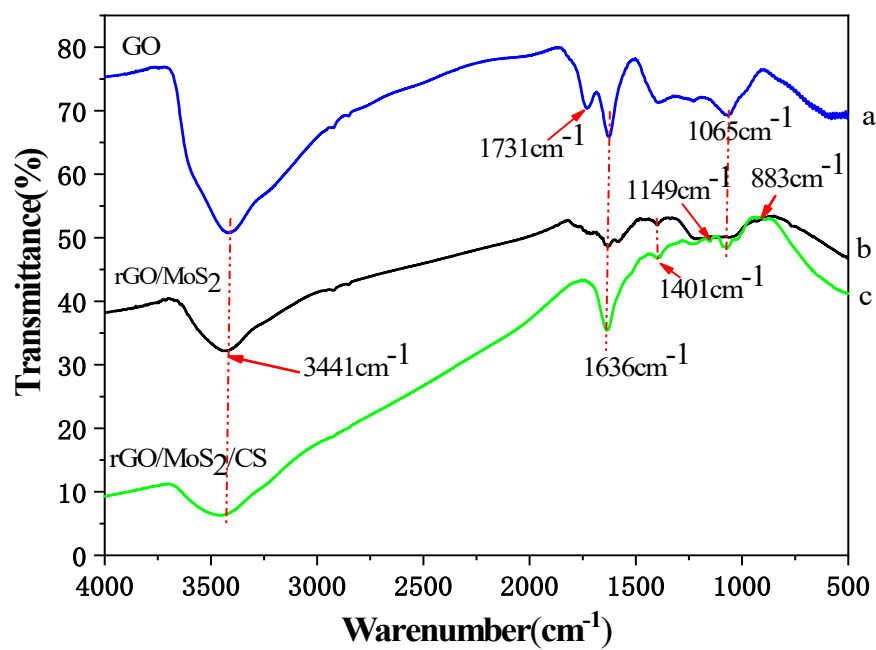


Fig.S1. FT-IR Spectra of (a) GO, (b) rGO/MoS₂ and (c) rGO/MoS₂/CS

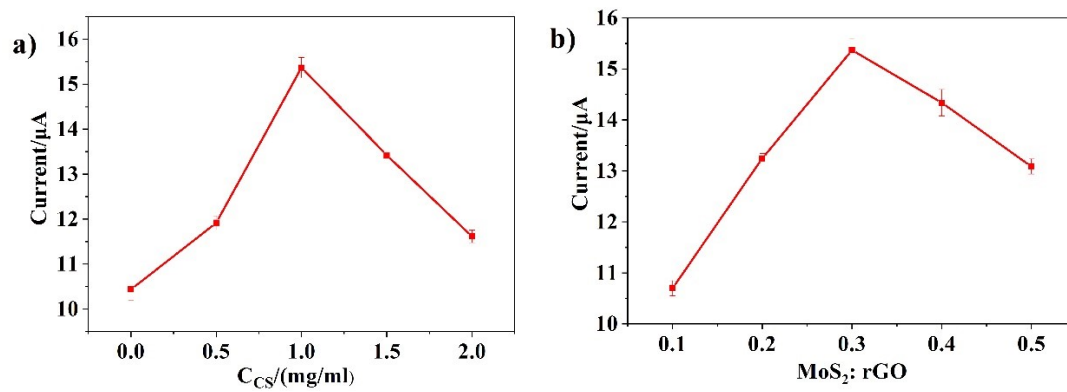


Fig. S2. The voltammetric response of the nanocomposite-modified GCE with various CS content (a) and the ratio of MoS_2 to rGO (b) for $0.50 \mu M$ of $Pb(II)$ in $0.10 M$ HAc–NaAc.

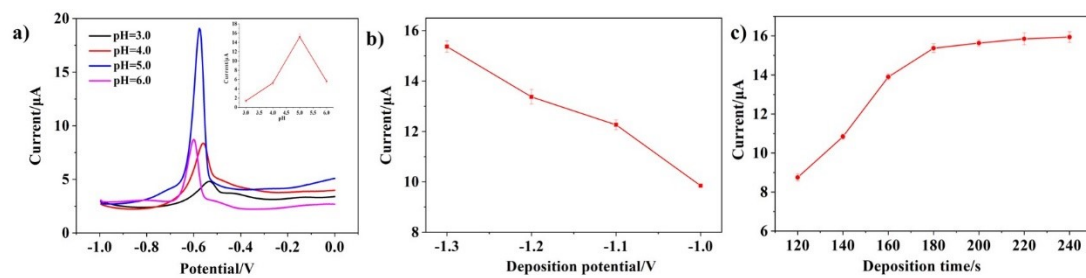


Fig. S3. Optimization of electrode operating conditions for detecting 0.50 μM of Pb(II) in 0.10 M HAc–NaAc; (a) pH; (b) deposition potential and (c) deposition time

Table S1. Comparison of the analytical performance for the analysis of Pb(II) at different electrodes

Electrode	Technique	Linear range (μM)	LOD (μM)	Reference
[Ru(bpy) ₃] ²⁺ /GO	DPV	0.1~1.2	0.0016	[1]
C ₆₀ -CS	DPASV	0.005~6.0	0.001	[2]
N-doped graphene	DPASV	0.07~9.0	0.05	[3]
ZIF-8/CS	DPASV	1.0~100	0.062	[4]
MnFe ₂ O ₄ /GO	SWASV	0.2~1.1	0.0883	[5]
Fe ₃ O ₄ /CS	SWASV	0.4~1.4	0.0422	[6]
rGO/Fe ₃ O ₄	SWASV	0.4~1.5	0.169	[7]
MoS ₂ /rGO	SWASV	0.05~0.7	0.005	[8]
rGO/MoS ₂ /CS	SWASV	0.005~2.0	0.0016	This work

Reference

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