Supplementary Materials

Fabrication of Au nanoparticles decorated MoS₂ nano-slices as efficient electrocatalysts used for electrochemical detection of dopamine

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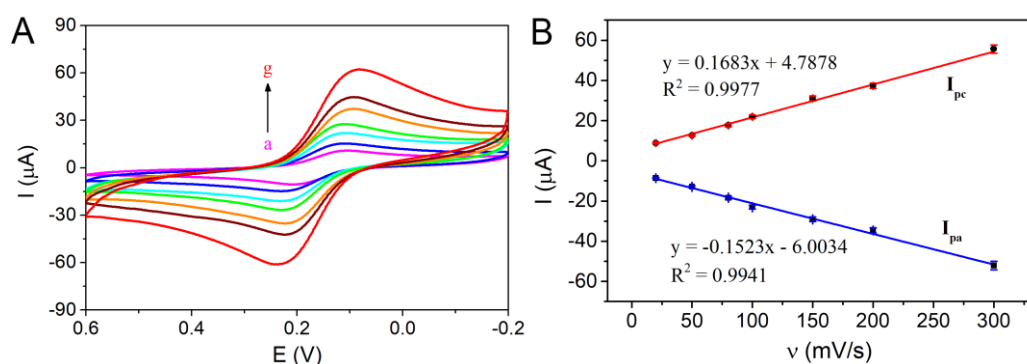[*] Correspondence: rhong@fzu.edu.cn;

Figure S1. (A) the CV curves of MoS₂/Au/CPE in 0.1M PBS (pH 7.0) containing 0.2 mM DA at a series of scan rate (from a to g: 20, 30, 50, 80, 100, 150, 200, 300 mV/s), (B) the linear relationships of I_{pa} and I_{pc} versus the scan rate.
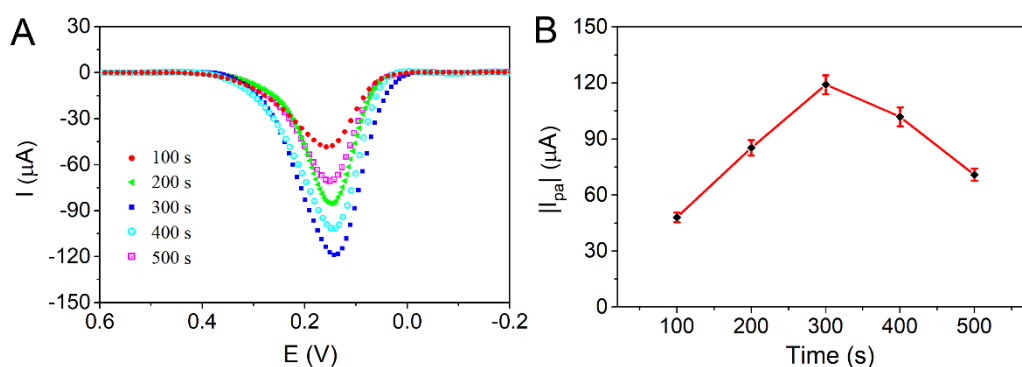

Figure S2. (A) the DPV curves of MoS₂/Au/CPE prepared under different electrodeposition time of AuNPs in 0.1M PBS (pH 7.0) containing 1.0 mM DA, (B) the corresponding variation of I_{pa} value with the increase of the electrodeposition time.
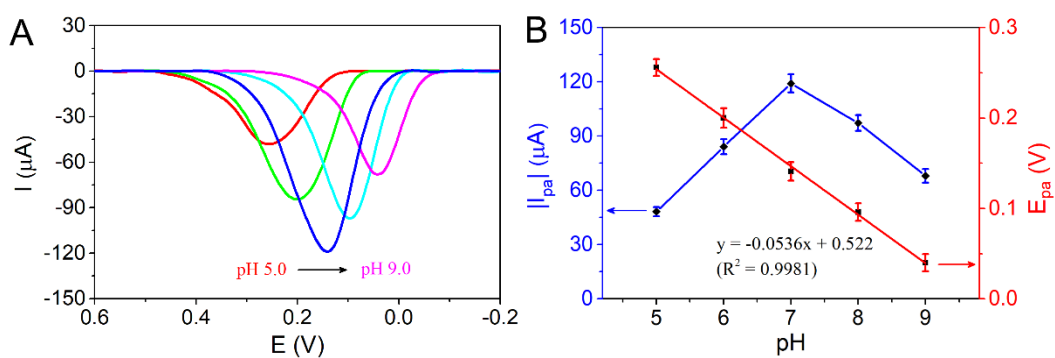
Figure S3. (A) the DPV curves of MoS$_2$/Au/CPE in 0.1M PBS (pH 7.0) containing 1.0 mM DA at different pH, (B) the corresponding variation of I$_{pa}$ and E$_{pa}$ values with the change of pH.

Table S1. Detection of 50 μM DA in the presence of the common substance.

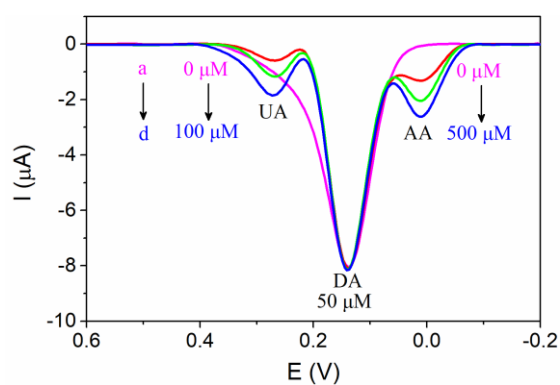| Interferent	Added (mM)	I$_{pa}$ value (μA)	Relative error (%)
/	/	8.035	/
KNO$_3$	10	8.108	0.91
NaCl	10	7.935	-1.24
CaCl$_2$	10	8.282	3.07
MgSO$_4$	10	8.327	3.63
Glucose	2	7.706	-4.09
Citric acid	2	8.302	3.32

Figure S4. The DPV curves of MoS$_2$/Au/CPE in 0.1M PBS (pH 7.0) containing 50 μM DA and (a) 0μM AA + 0μM UA, (b) 100 μM AA + 20 μM UA, (c) 300 μM AA + 60 μM UA and (d) 500 μM AA + 100 μM UA.
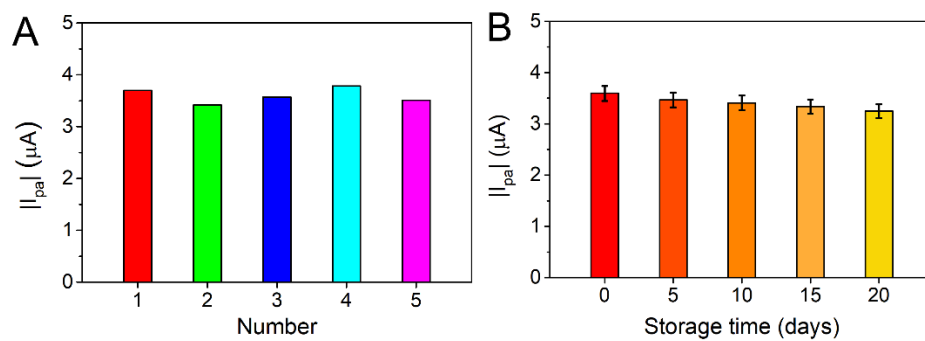
Figure S5. (A) the I_{pa} values of DPV measurements recorded in 0.1M PBS (pH 7.0) containing 10 μM DA at five independent MoS$_2$/Au/CPEs, (B) the I_{pa} values of DPV measurements in 0.1M PBS (pH 7.0) containing 10 μM DA at MoS$_2$/Au/CPE after storage for different periods of time.