

Highly Sensitive Detection for Cocaine Using Aptamer-Cocaine-

Aptamer Method

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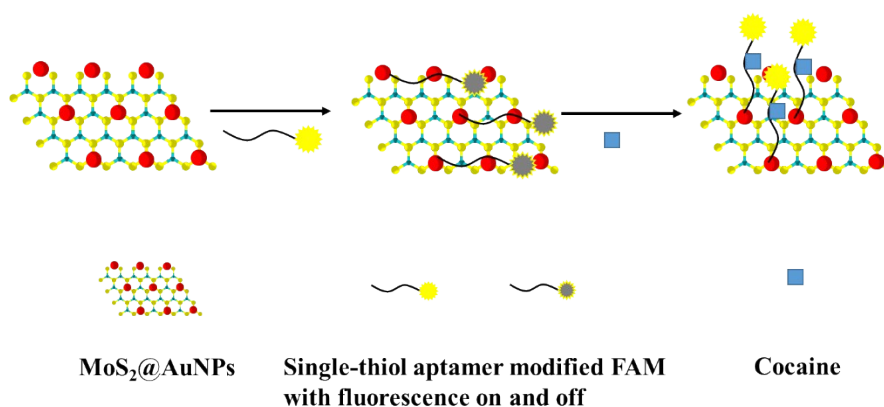


Fig.S1. The scheme of detecting cocaine using MoS₂@AuNPs immobilized with single-thiol aptamer.

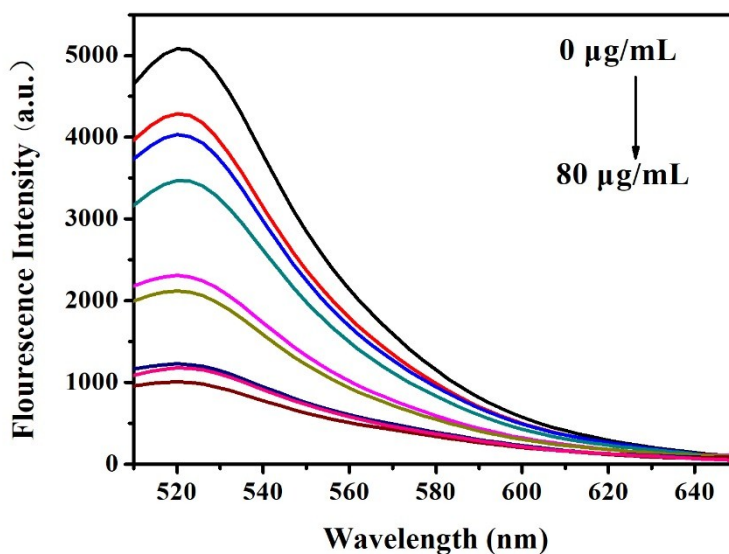


Fig.S2. The fluorescence intensity of FAM-aptamer with increasing concentration of

composite of MoS₂@AuNP (0, 10, 20, 40, 50, 55, 60, 70, 80μg/mL).

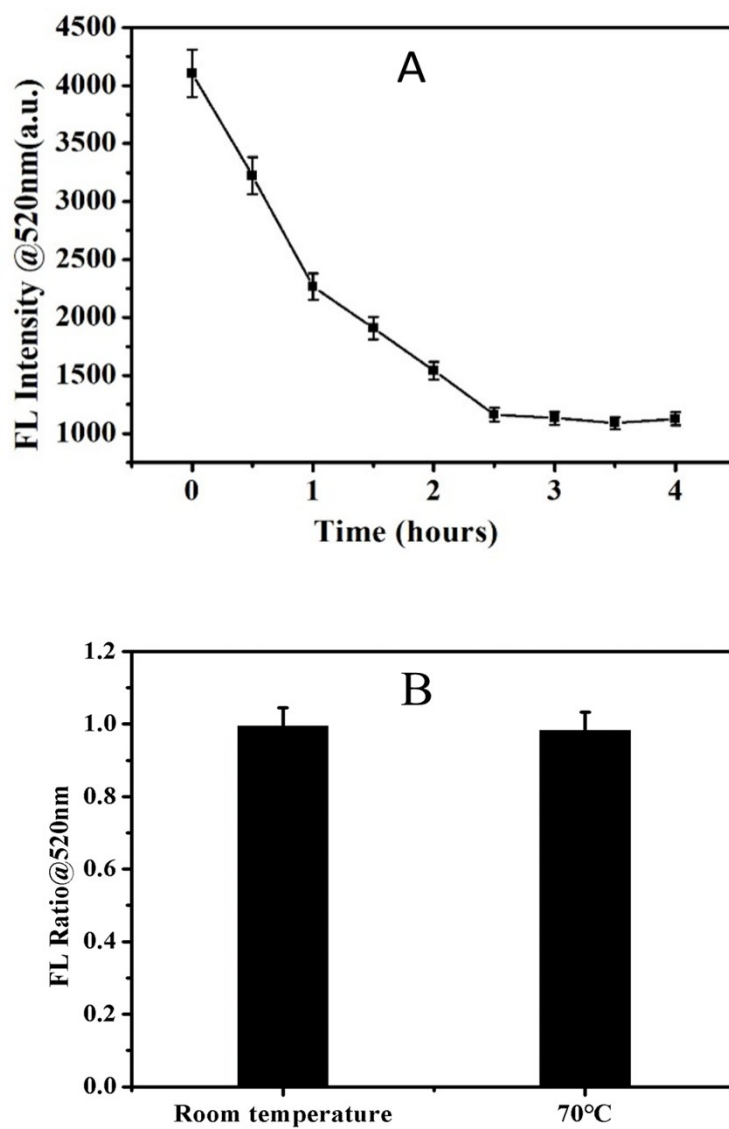


Fig.S3. (A).The quenching kinetic of the MoS₂@AuNPs aptamer sensors. (B).The effect for the fluorescence intensity of aptamer with 70 °C.

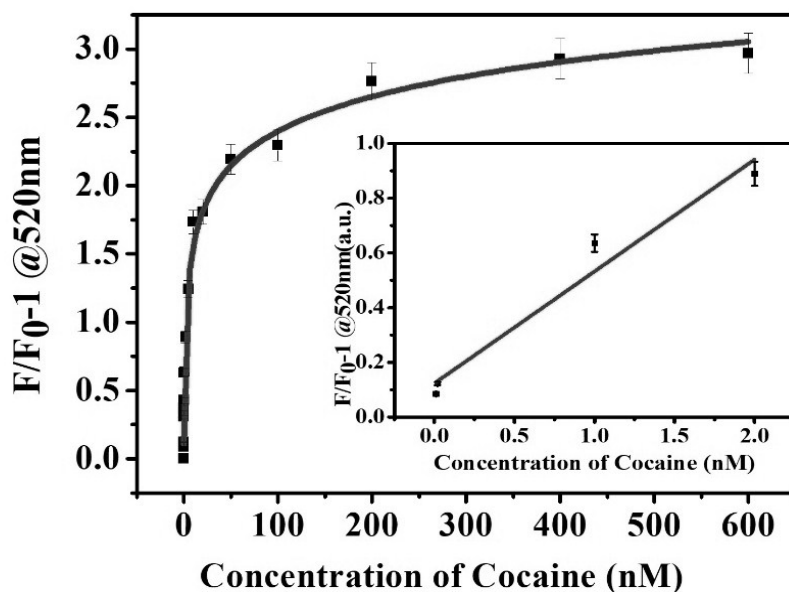


Fig.S4. The fluorescence intensity of MoS₂-aptamer modified with FAM using different concentration of cocaine (0 to 600 nM, F₀ and F were the values of fluorescence intensities without and with cocaine.)

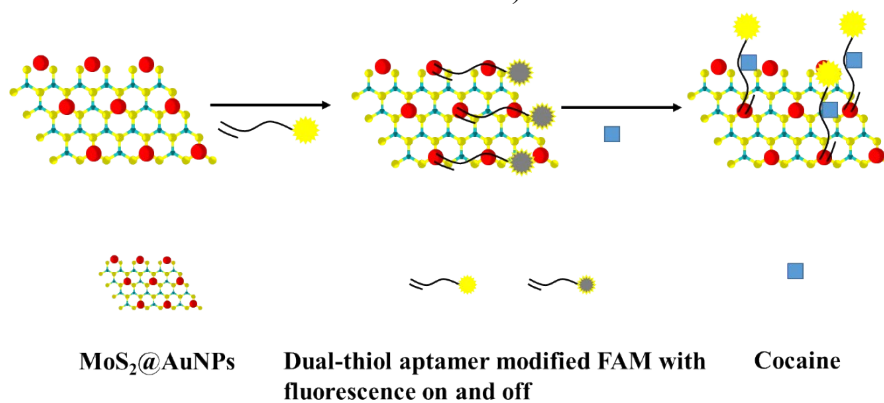


Fig.S5. The detection of cocaine using the MoS₂@AuNPs with dual-thiol aptamer

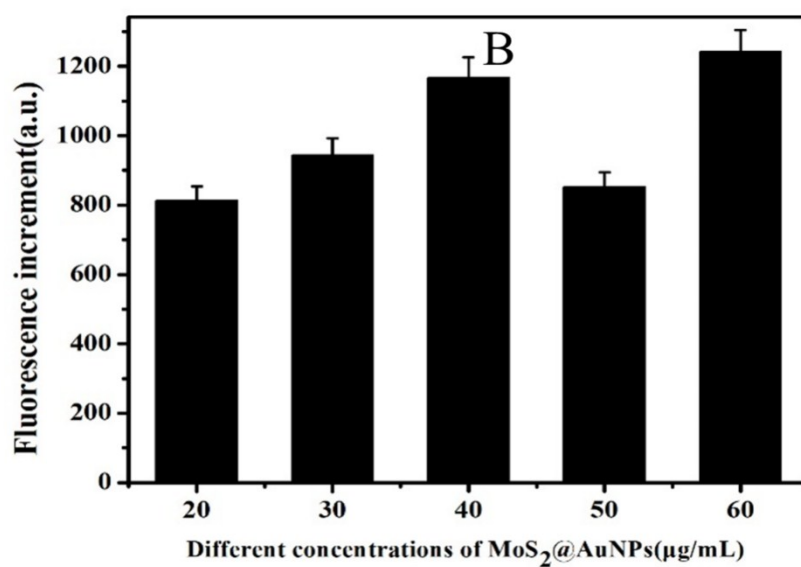
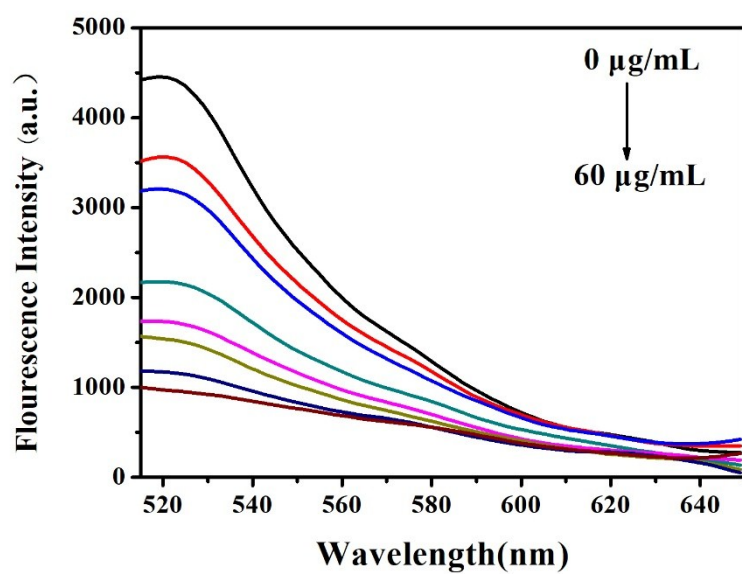


Fig.S6. (A). The fluorescence intensity of dual-thiol aptamer with increasing concentrations of composite of MoS₂@AuNPs (0, 5, 10, 20, 30, 40, 50, 60 µg/mL). (B).The effects of several concentrations of MoS₂@AuNPs for the fluorescence intensity in the presence of 5 nM cocaine.

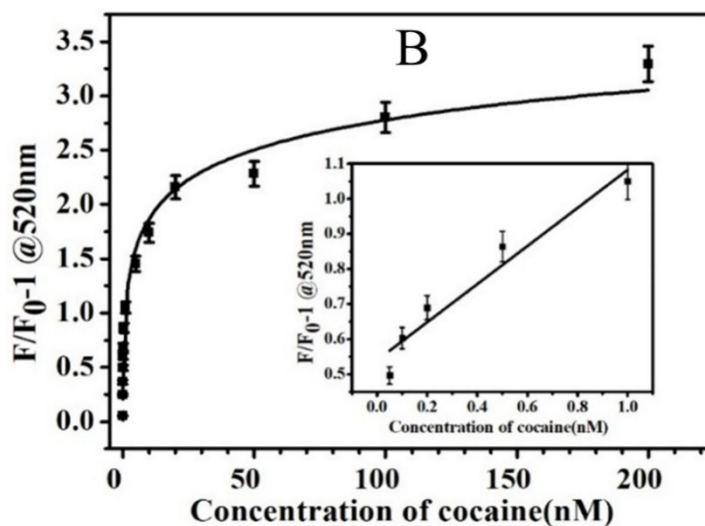
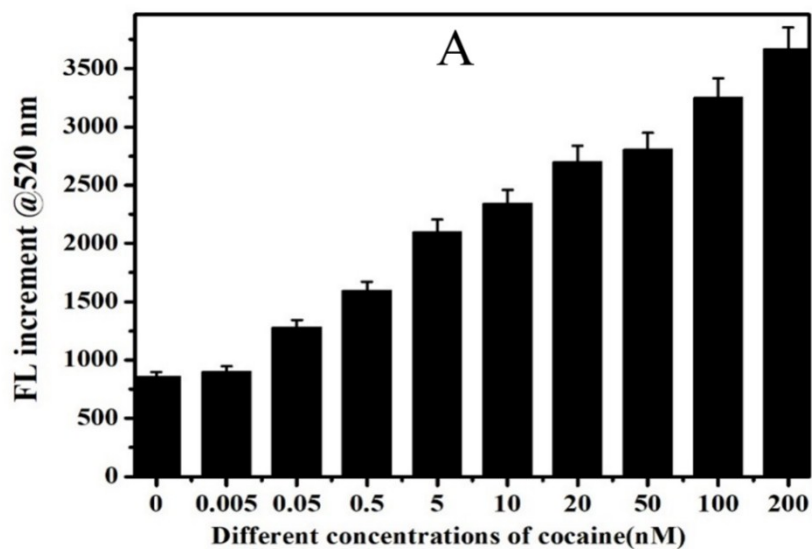


Fig.S7. (A). The fluorescence intensity with different concentrations of cocaine. (B).The fluorescence intensity with different concentrations of cocaine (0-200 nM, F and F_0 were the fluorescence intensity before and after the addition of cocaine respectively)