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# Particle: Advances in the application of novel carbon nanomaterials in illicit drug detection

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### **Supporting Information**

1. Carbon dots functionalized papers for high-throughput sensing of 4chloroethcathinone and its analogues in crime sites.

Yen YaoTe, Lin YuSyuan, Chen TingYueh, Chyueh SanChong and Chang HuanTsung



Figure S1 Schematic illustration of C-dot-functionalized paper (CDFP) for detection of 4-chloroethcathinone.

## 2. Development of Carbon Quantum Dot–Labeled Antibody Fluorescence Immunoassays for the Detection of Morphine in Hot Pot Soup Base.

Can Zhang, Xinxin Yu, XiaoMan Shi, YuFeng Han, ZhiMing Guo and Yuan Liu



Figure S2 Illustration of fluorescence immunoassay of ant-morphine antibody labeled Carbon Quantum Dots.

### **3.** Functionalization of graphene quantum dots with antimorphine: Design of selective nanosensor for detection of morphine.

Majid Masteri-Farahani, Nazanin Mosleh



Figure S3 Schematic diagram of specific recognition of morphine by nano sensor.

#### 4. A novel label-free fluorescence aptamer-based sensor method for cocaine detection based on isothermal circular strand-displacement amplification and graphene oxide absorption.

Li Qiu, Hui Zhou and Wenping Zhu



Figure S4 Schematic representation of the label-free fluorescent aptamer-based sensor method for cocaine detection based on GO and ICSDA.

#### 5. Advances in the application of novel carbon nanomaterials in illicit drug detection.

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Figure S5 The mechanism of illicit drug detection using carbon dots, graphene and carbon nanotubes.