

Supplementary Materials: Enhanced Sensitivity of MoTe₂ Chemical Sensor through Light Illumination

Zhihong Feng, Yuan Xie, Enxiu Wu, Yuanyuan Yu, Shijun Zheng, Rui Zhang, Xuejiao Chen, Chonglin Sun, Hao Zhang, Wei Pang, Jing Liu, and Daihua Zhang

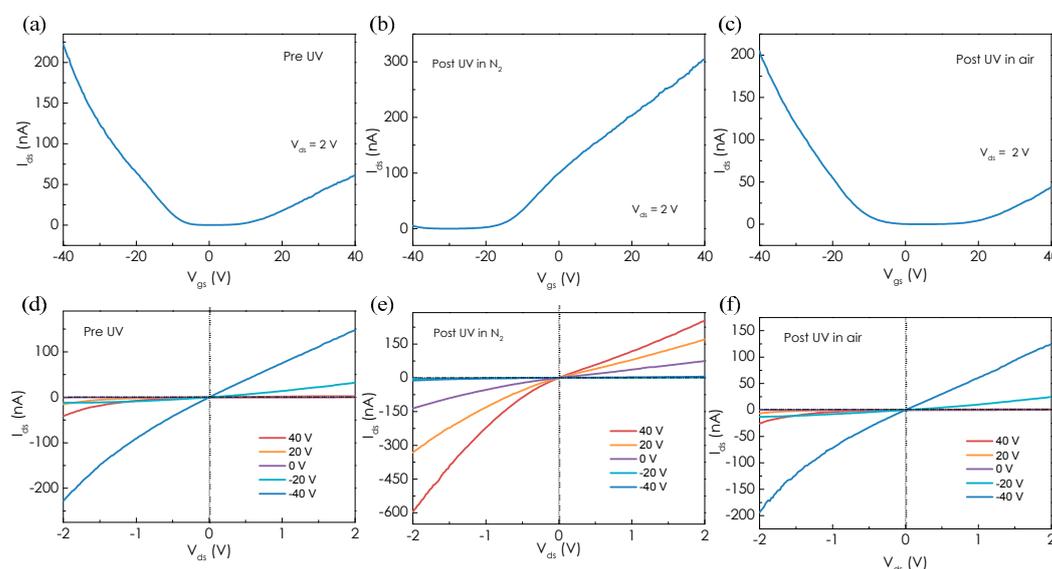


Figure S1. Transfer characteristics of MoTe₂ FET (a) before and (b) after UV illumination and (c) after recovery in air. (d–f) Corresponding output characteristics in (a–c).

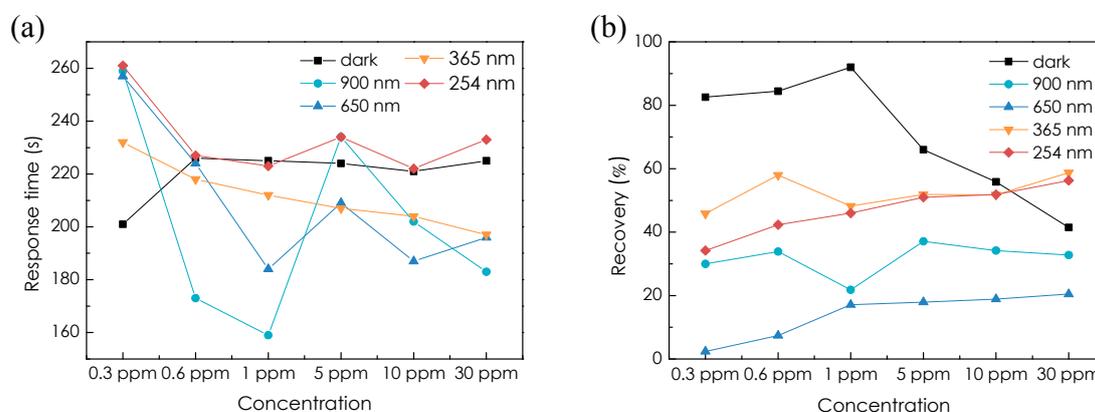


Figure S2. (a) Response time of the MoTe₂ sensor under different condition. (b) Recovery of the MoTe₂ sensor under different condition. The response time was defined as the time required to change the conductance after exposure of NH₃ in a specific range of 90%. The recovery was defined as $(G - G_{10min}) / (G - G_0) \times 100\%$, where G_0 and G are the initial conductance and 5 min after NH₃ exposure, respectively, G_{10min} is the device conductance after shutting off the target gas for 10 min.