

[Supplementary Information]

**High-performance flexible photodetectors based on CdTe/MoS₂
heterojunction**

Shuo Yang,^a Yunjie Liu,^b Yupeng Wu,^a Fuhai Guo,^a Mingcong Zhang,^a Xinru Zhu,^a
Ruqing Xu^a and Lanzhong Hao^{*a}

a. School of Materials Science and Engineering, China University of Petroleum, Qingdao, Shandong,
266580, P. R. China. E-mail: haolanzhong@upc.edu.cn

b. College of Science, China University of Petroleum, Qingdao, Shandong, 266580, P. R. China

*corresponding author: haolanzhong@upc.edu.cn

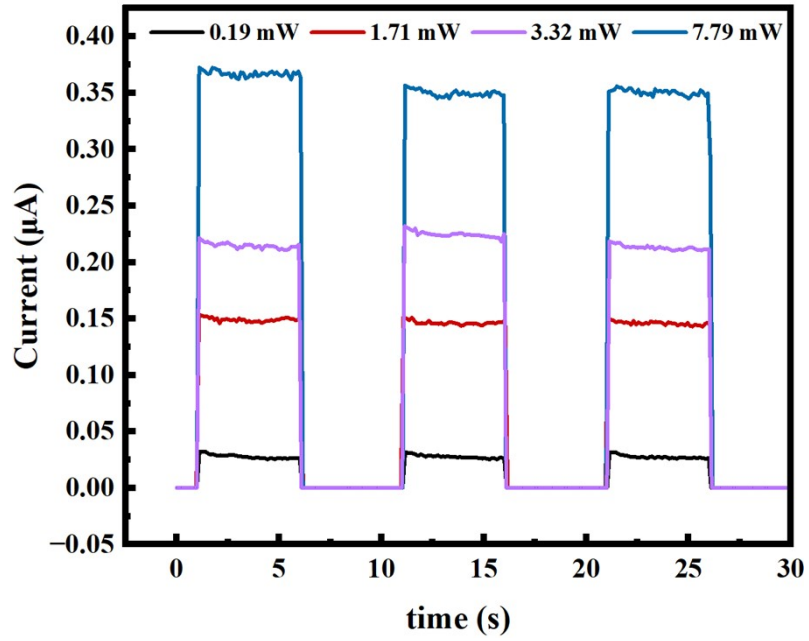


Fig. S1 Time-dependent photoresponse curves CdTe/MoS₂ under 520 nm light illuminations.

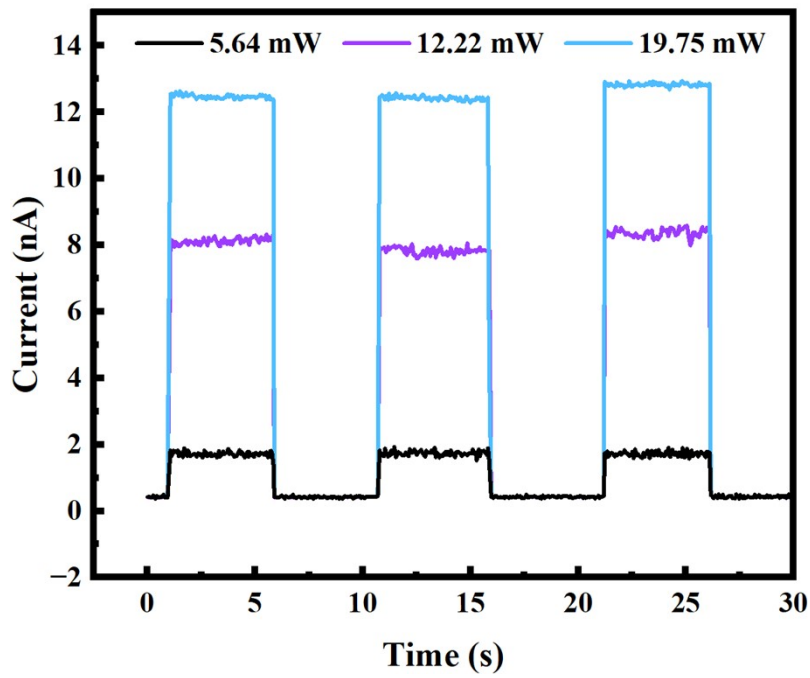


Fig. S2 Time-dependent photoresponse curves CdTe/MoS₂ under 980 nm light illuminations.

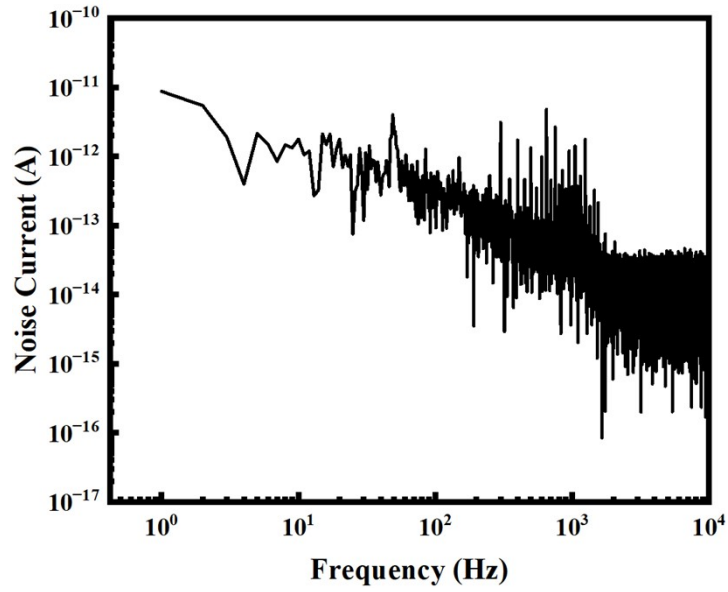


Fig. S3 Noise spectrum of the CdTe/MoS₂ heterojunction

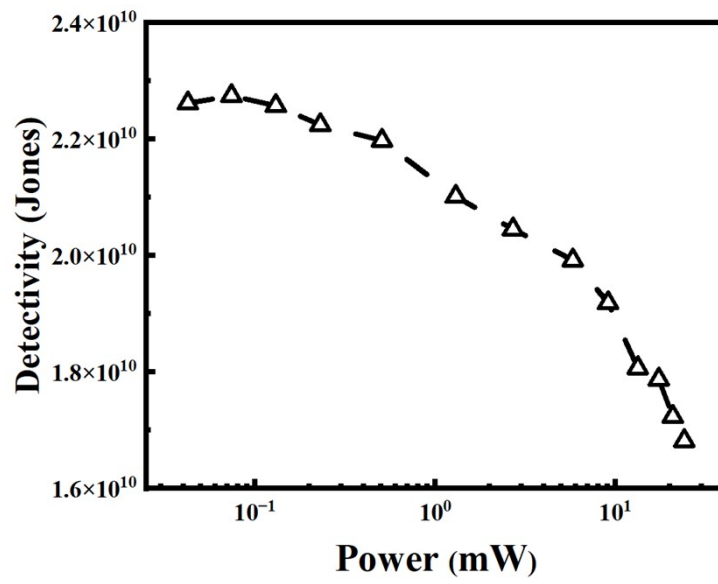


Fig. S4 Detectability of CdTe/MoS₂ heterojunction calculated using NEP

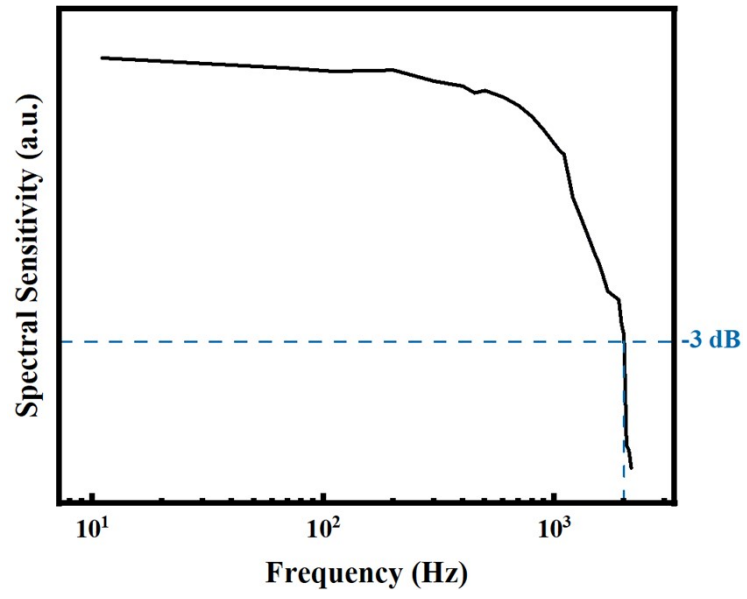


Fig. S5 Photocurrent versus frequency curve of CdTe/MoS₂ heterojunction.