

Photocurrent Enhancement of PtSe₂ Photodetectors by Using Au Nanorods

SUPPORTING INFORMATION

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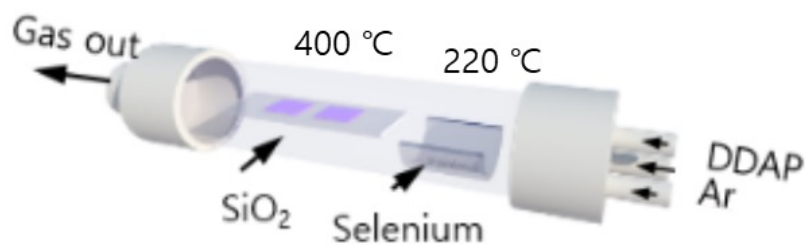
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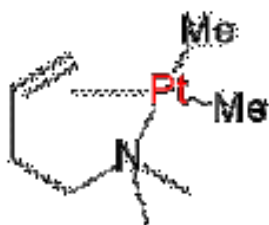
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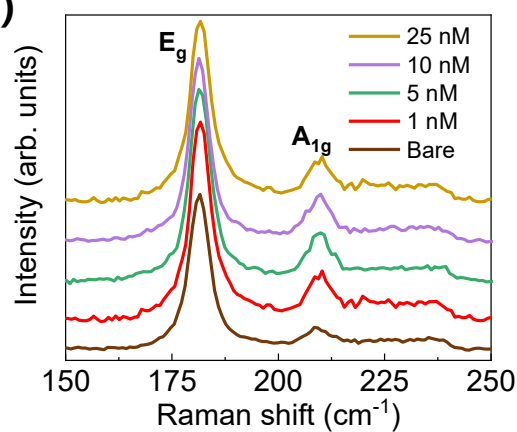
(a)



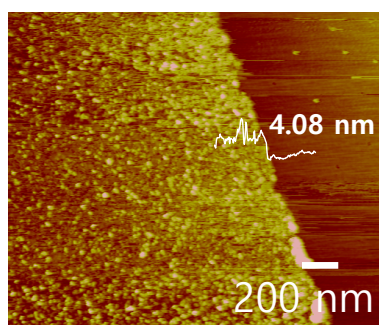
(b)



(c)



(d)



(e)

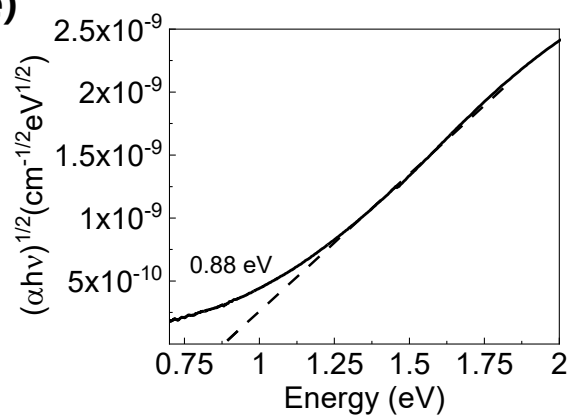


Figure S1. (a) Schematic diagram of the CVD process of 2D PtSe₂, (b) Structure of DDAP, (c) Raman spectrum of 2D PtSe₂ before and after Au nanorods spin-coating. (d) AFM image of 2D PtSe₂. (e) Tauc-plot of 2D PtSe₂ calculated from UV-vis-NIR spectra.

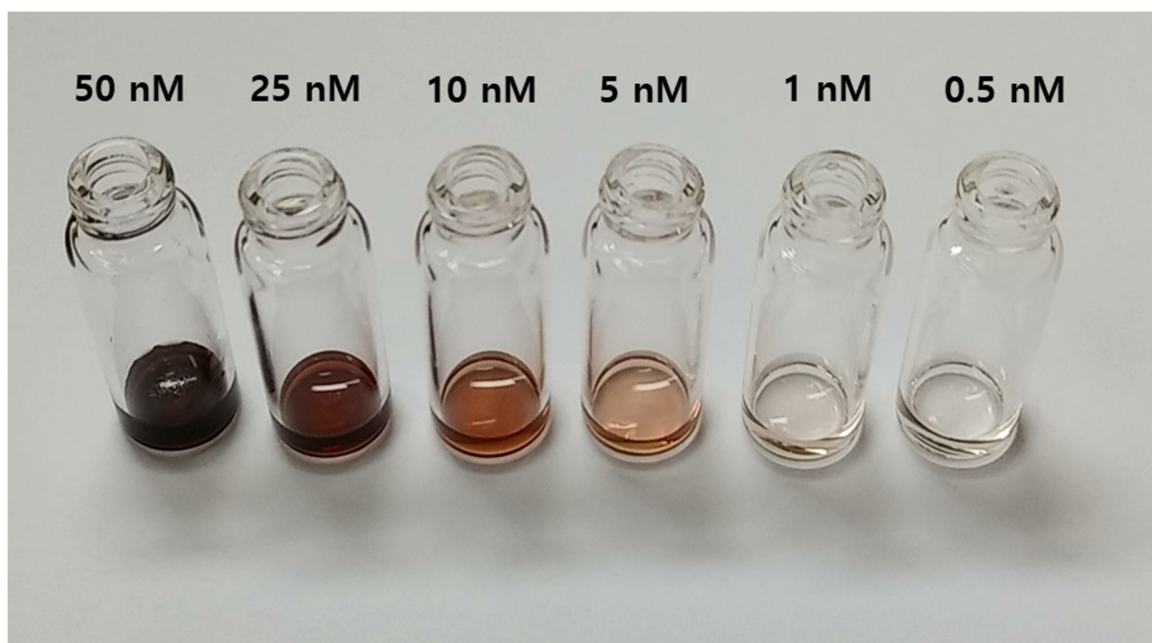


Figure S2 Picture of adjusted concentration Au nanorods solution.

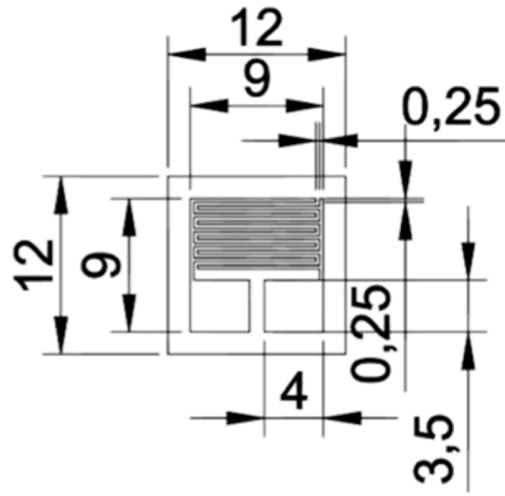


Figure S3: Dimensional drawing of the interdigitated comb shadow mask (unit: mm).

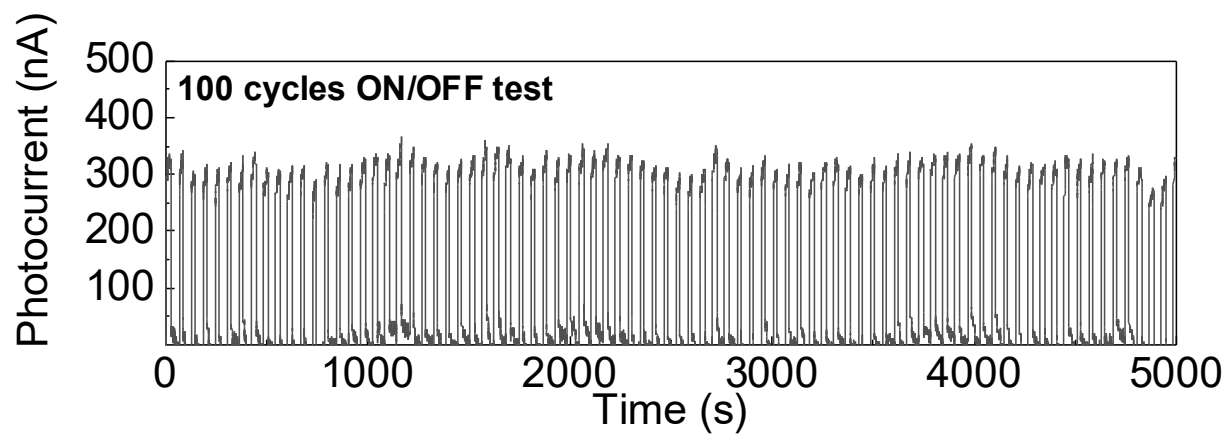


Figure S4. ON/OFF cyclic performance test of 5 nM Au nanorods/2D PtSe₂ at 940 nm.

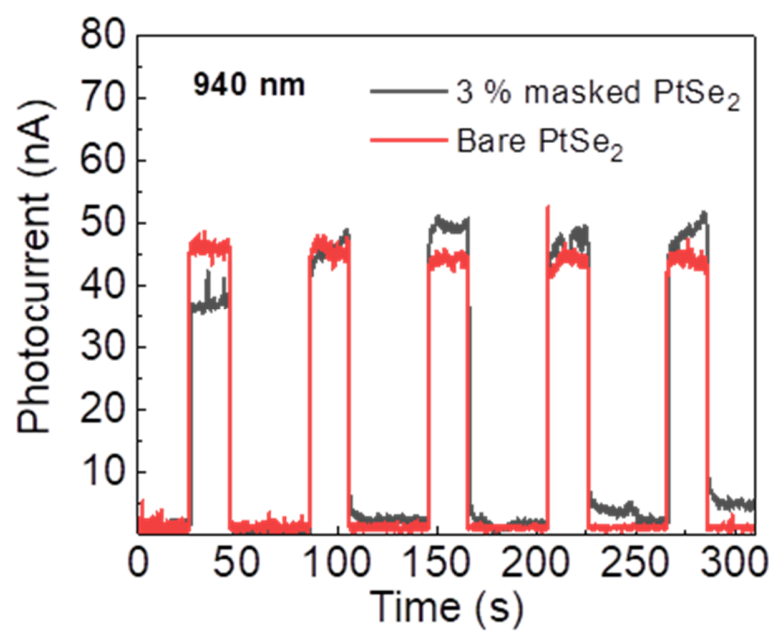


Figure S5. Photocurrent comparison of 3% masked Au nanorods/2D PtSe₂ and bare 2D PtSe₂ at 940 nm.