

ARTICLE

Supporting Information

Single-crystalline Lead Halide Perovskite Wafer for High Performance Photodetectors

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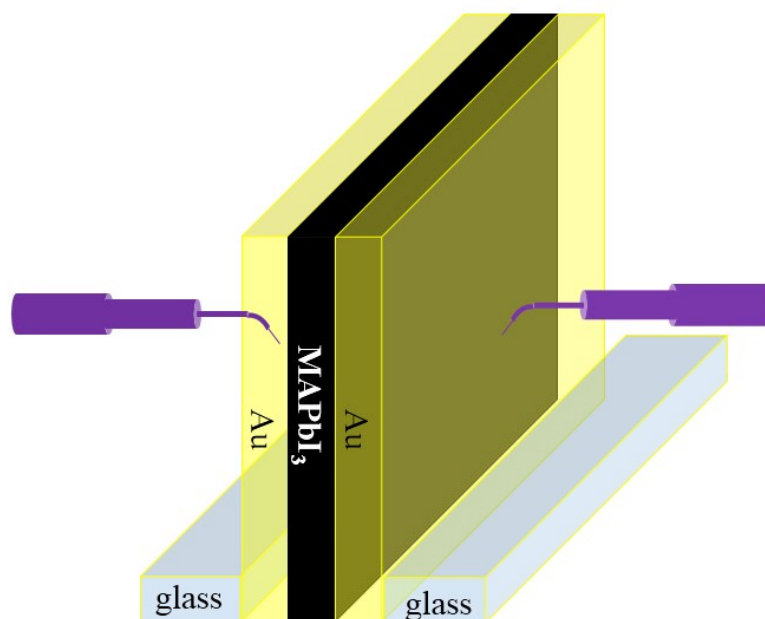
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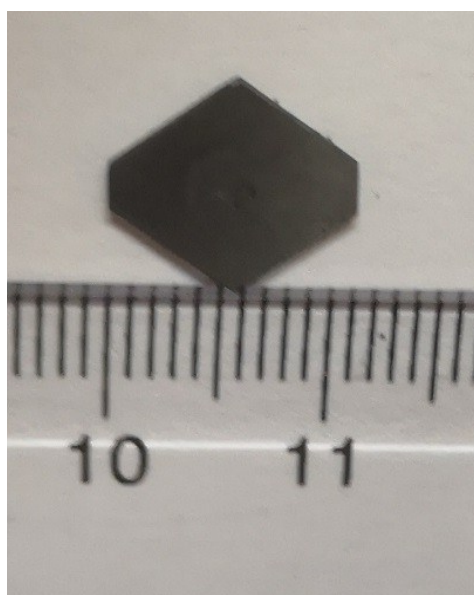
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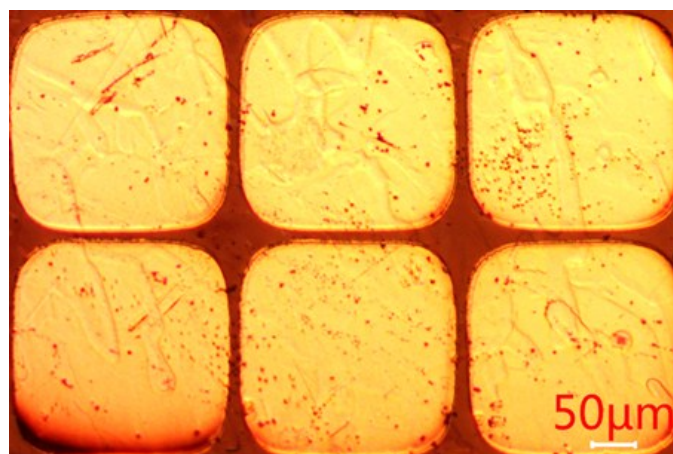
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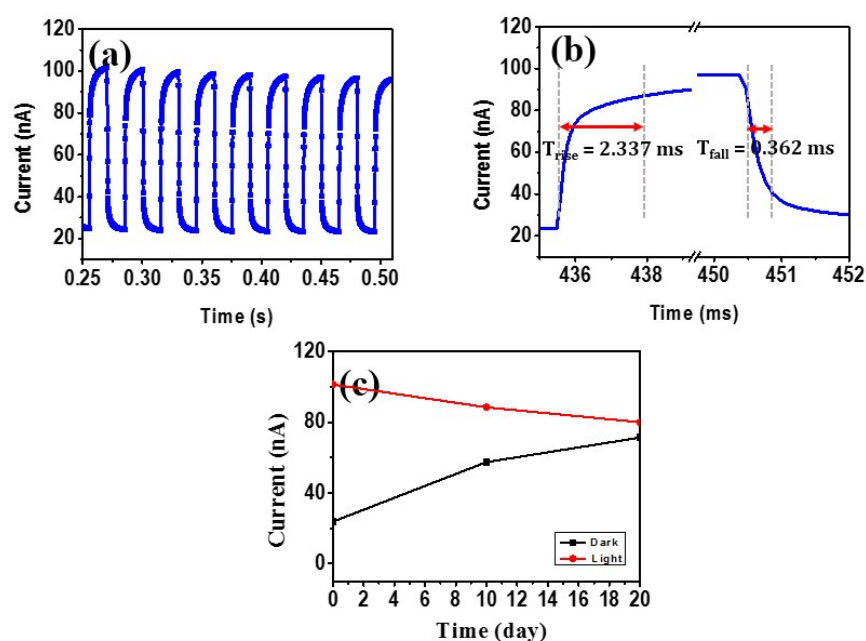
S1. Schematic diagram for measuring the electrical property of the hole-only device within the probe station.



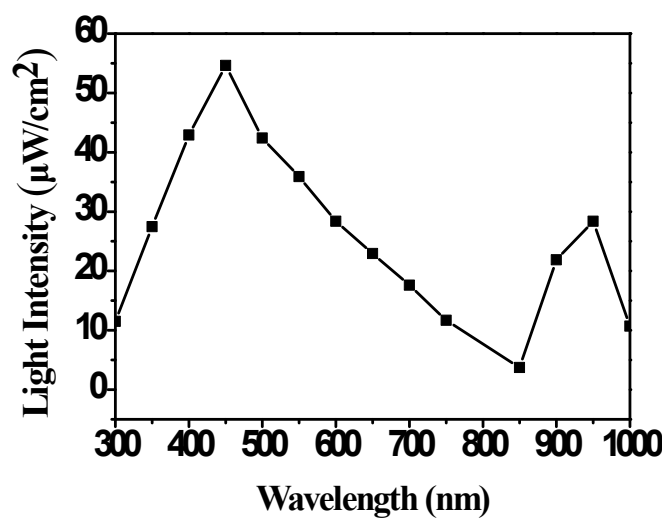
S2. The picture of the as-grown large perovskite thin wafer.



S3. The picture of the electrodes of photodetectors prepared on the as-grown perovskite wafers.



S4. Characterizations of the photodetector made of the poly-crystalline MAPbI₃ film. (a) Transient photocurrent response with multiple on/off cycles measured at 1V bias voltage under 505 nm, 10.2 mW/cm² illumination. (b) Rise and fall time measurement. (c) Stability test with the photodetector stored in air.



S5. Power densities of illuminations versus wavelength for the Xe lamp.