

# Supplementary material for “Reduced carrier-phonon scattering and enhanced absorption in silver-doped transition metal dichalcogenide photodetectors”

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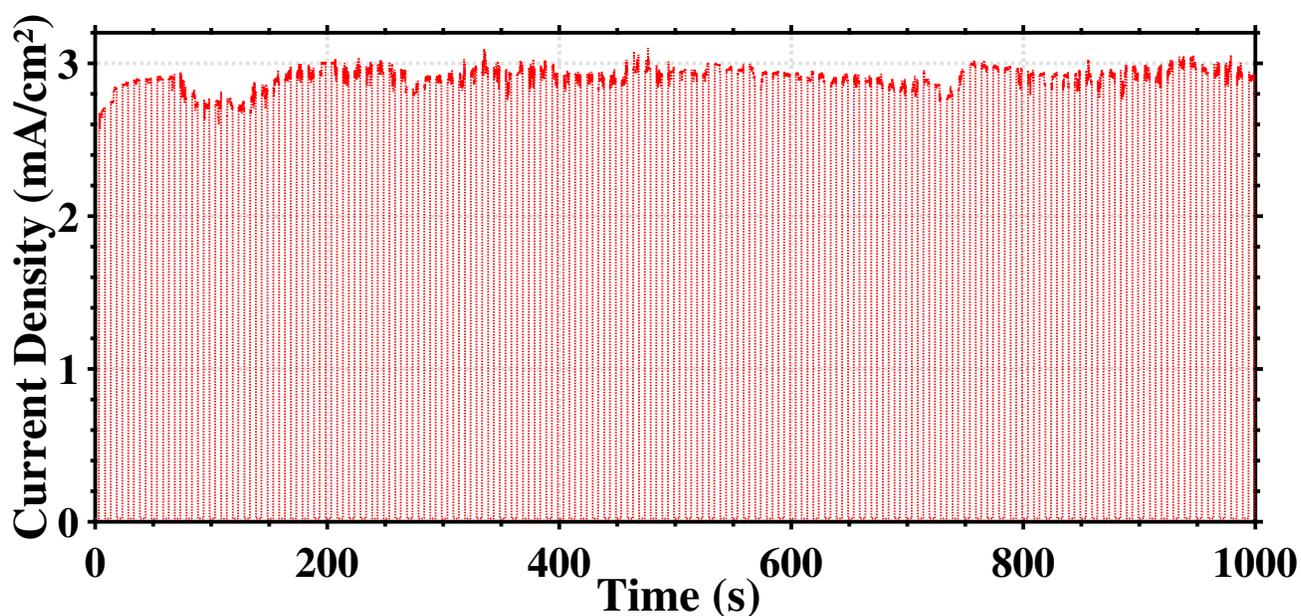


Fig. S1: Extended photoresponse data for **Ag:WS<sub>2</sub> (test)** photodetector under AM1.5G illumination conditions.

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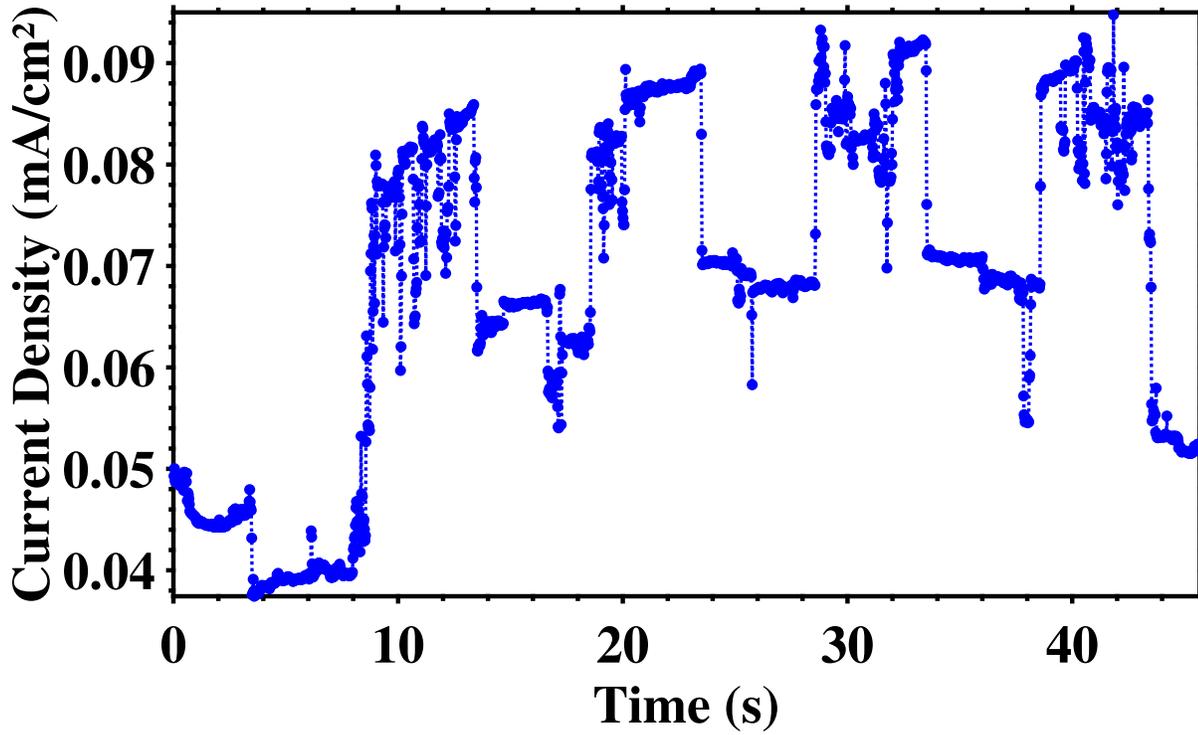
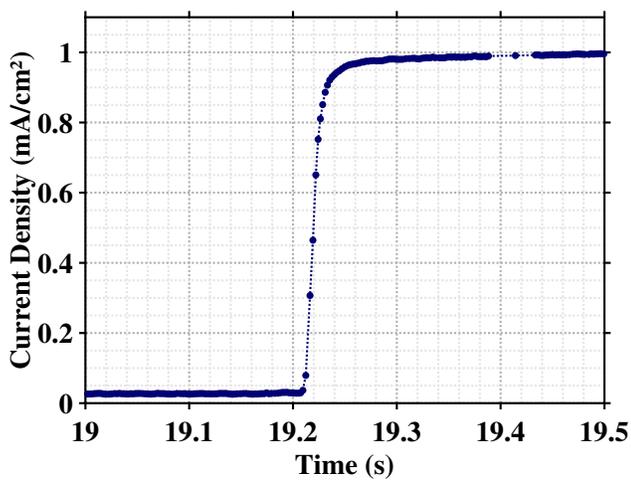
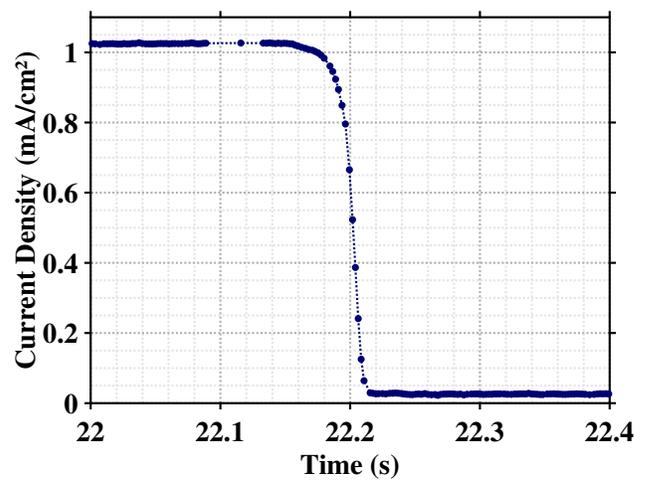


Fig. S2: Time-dependent photoresponse of  $WS_2$  (control) photodetector under AM1.5G illumination conditions.



(a) Rise time.



(b) Fall (decay) time.

Fig. S3: IV characteristics of the  $Ag:WS_2$  (test) fabricated devices: measured (a) rise time, and (b) fall (decay) time.