

High-performance broadband position-sensitive detector based on lateral photovoltaic effect of PbSe heterostructure: supplement

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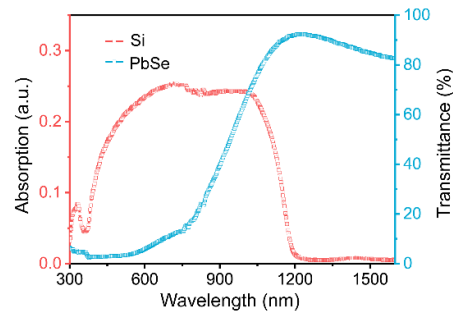


Fig. S1. Absorption spectrum of the Si substrate and transmittance of the PbSe film.

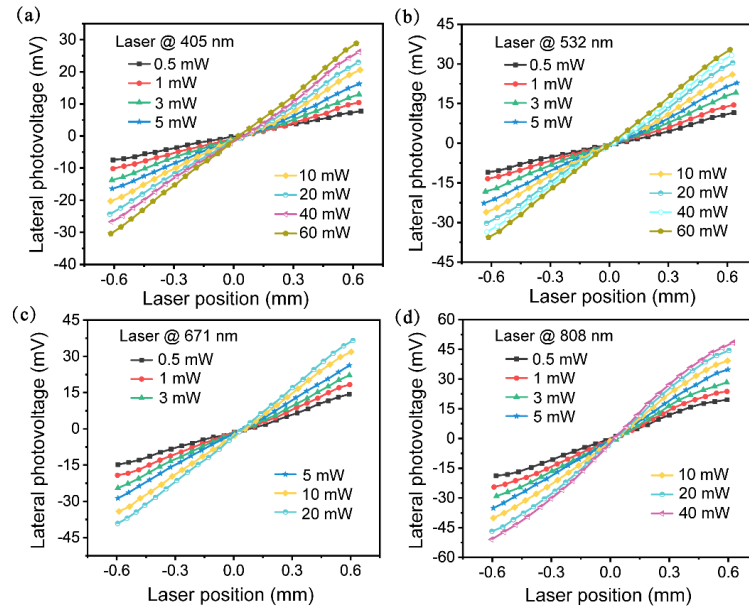


Fig. S2. Dependence of the LPV on the laser position under illumination of different laser powers for different laser wavelengths. (a) 405 nm, (b) 532 nm, (c) 671 nm, (d) 808nm, respectively.

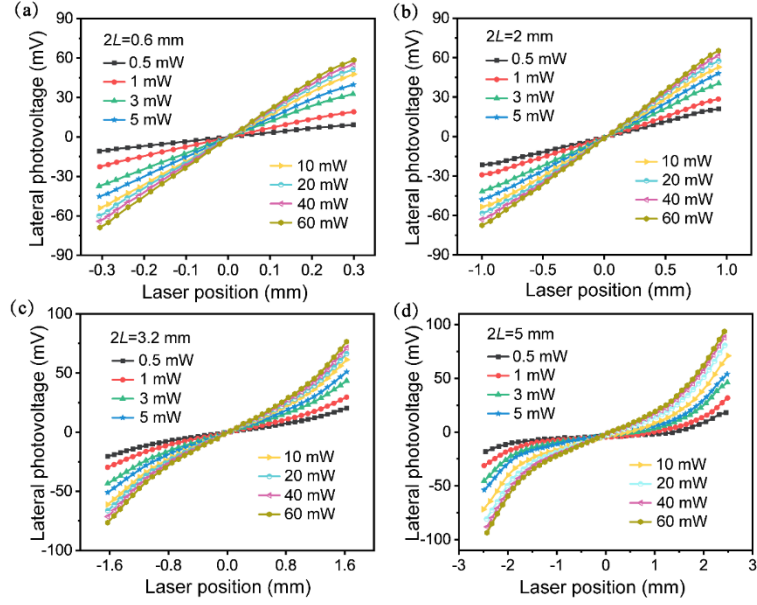


Fig. S3. Dependent of the LPV on the laser position under illumination of different laser powers for different electrode distances. (a) $2L=0.6$ mm, (b) $2L=2$ mm, (c) $2L=3.2$ mm, (d) $2L=5$ mm, respectively.

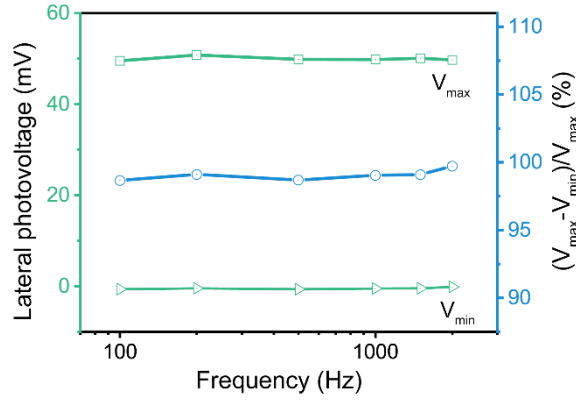


Fig. S4. V_{\max} , V_{\min} extracted from time dependent lateral photovoltages measurement, and relative balance $(V_{\max} - V_{\min})/V_{\max}$ versus chopper frequency.