

Supporting Information for

A Universal Atomic Substitution Conversion Strategy Towards Synthesis of Large-Size Ultrathin Nonlayered Two-Dimensional Materials

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Supplementary Figures

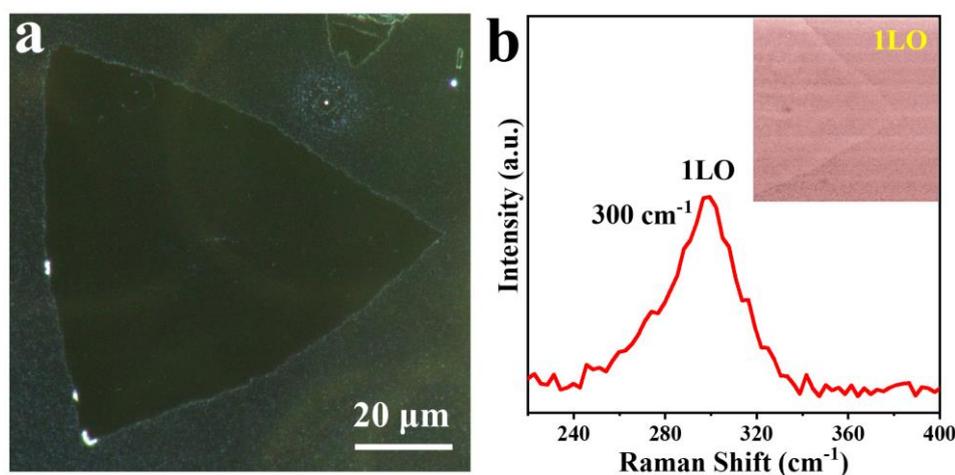


Fig. S1 Dark-field OM image (a) and Raman spectrum (b) of large-size ultrathin CdS flake in Fig. 3c

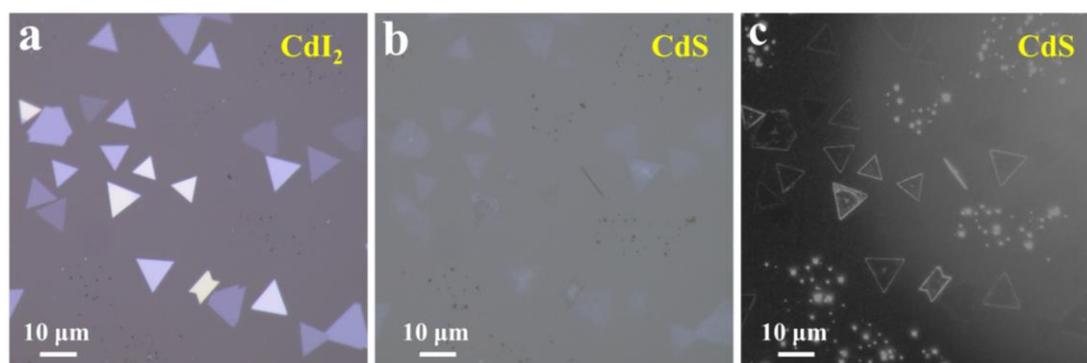


Fig. S2 Typical bright-field and dark-field OM images of large-area CdI₂ flakes with various thickness before (a) and after (b, c) conversion into CdS flakes

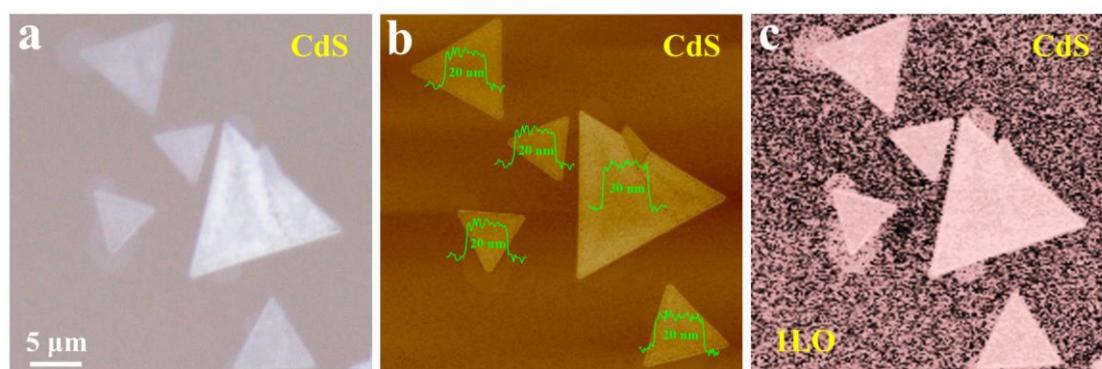


Fig. S3 Typical OM image (a) and corresponding AFM image (b), and Raman intensity mapping of converted CdS flakes with different thickness (c)

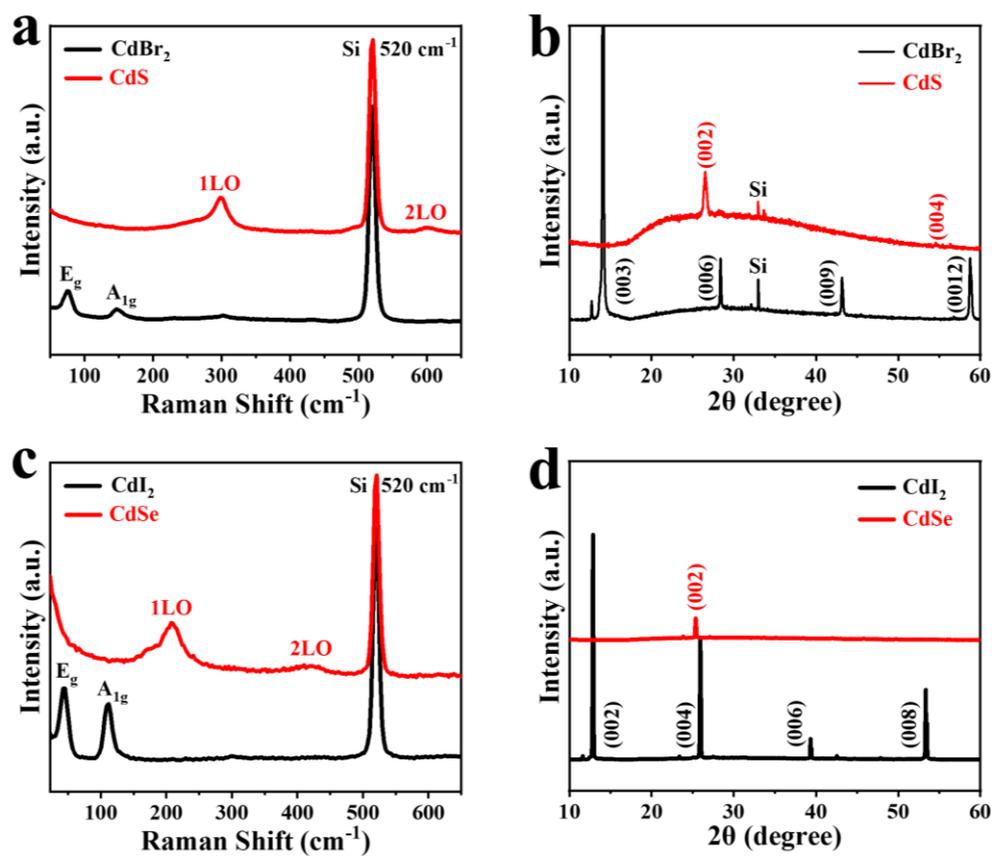


Fig. S4 **a** Raman spectra of CdBr₂ flakes grown on SiO₂/Si substrate and corresponding converted CdS flakes. **b** XRD pattern of CdBr₂ flakes grown on SiO₂/Si substrate and corresponding converted CdS flakes. **c** Raman spectra of CdI₂ flakes grown on SiO₂/Si substrate and corresponding converted CdSe flakes. **d** XRD pattern of CdI₂ flakes grown on SiO₂/Si substrate and corresponding converted CdSe flakes

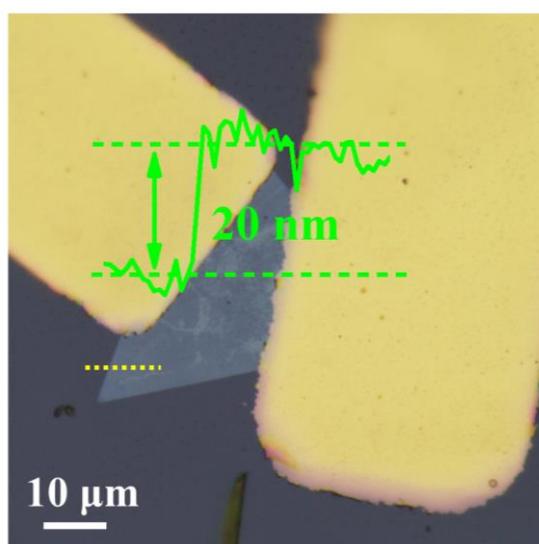


Fig. S5 OM image and corresponding AFM height profile of the converted CdS flake-based photodetector via the transfer electrode method