

Supplementary Materials:

Controllable Valley Polarization and Strain Modulation in 2D 2H-VS₂/CuInP₂Se₆ Heterostructures

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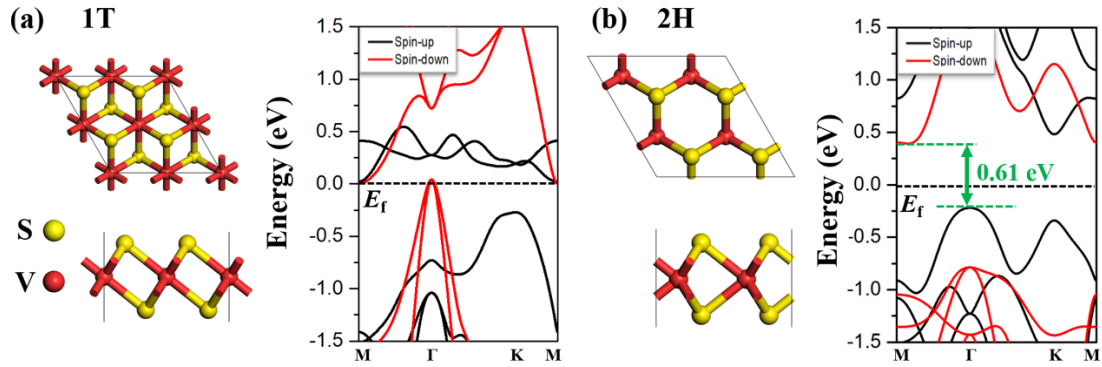


Figure S1 (a) 1T and (b) 2H configurations of VS₂ and the corresponding spin-resolved energy band structures.

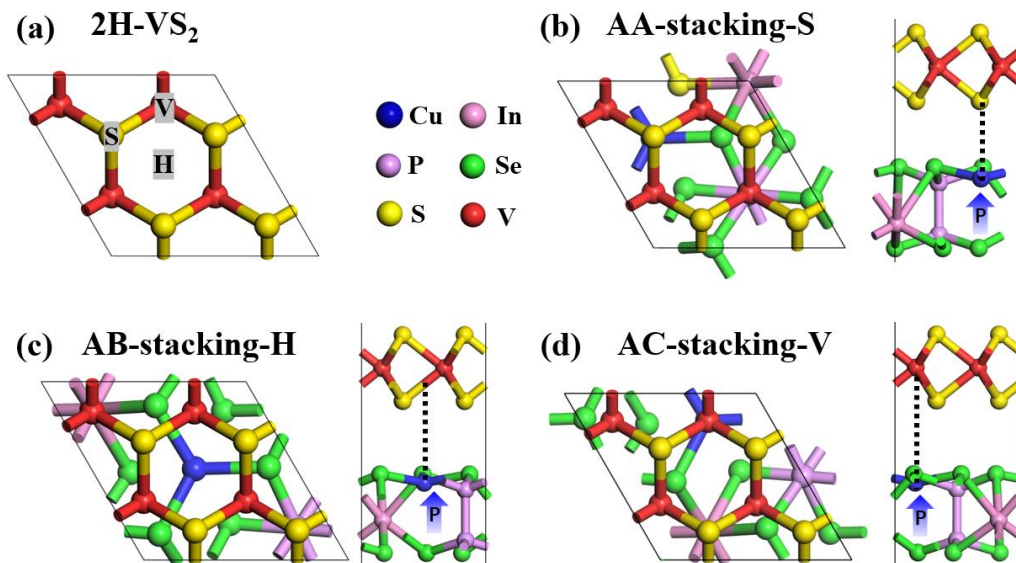


Figure S2 Three kinds of stacking patterns. (a) The stacking positions for S, H, and V, (b) AA-stacking, (c) AB-stacking, and (d) AC-stacking of 2H-VS₂/CIPSe heterostructures.

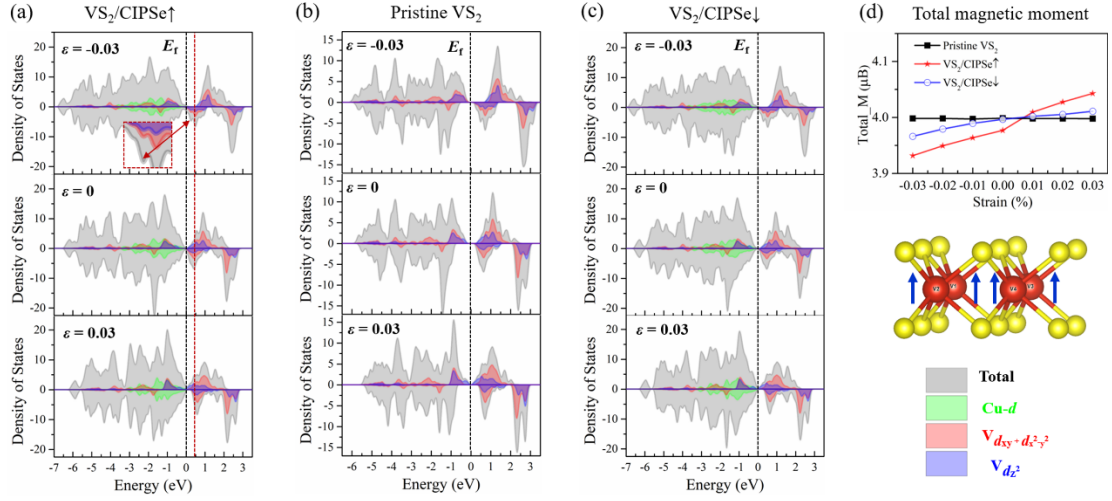


Figure S3 The partial density of states (PDOS) for both spin-up and spin-down electrons under biaxial strain for (a) AB-stacking VS₂/CIPSe↑, (b) pristine VS₂, and (c) AB-stacking VS₂/CIPSe↓. (d) The total magnetic moments of VS₂/CIPSe↑, pristine VS₂, and VS₂/CIPSe↓ under biaxial strains, respectively.