## **Supporting Information**

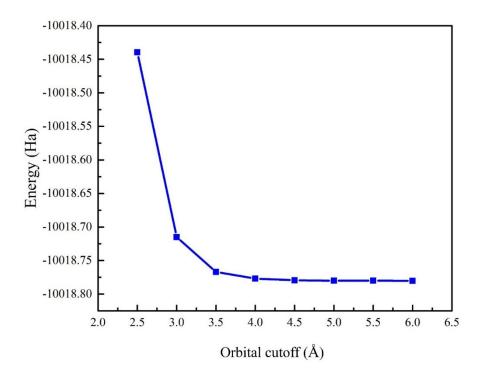
## Two-Dimensional Van der Waals CdS/germanene Heterojunction with Promising Electronic and Optoelectronic Properties: DFT+ NEGF Investigations

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**Figure S1** Energy convergence with the orbital cutoff for CdS/germanene heterojunction with Dmol<sup>3</sup> package.

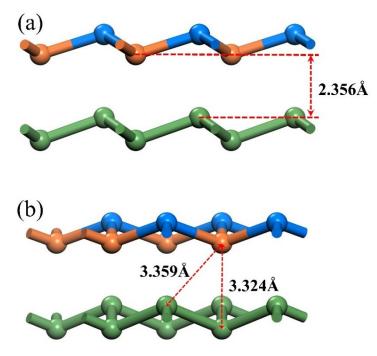


Figure S2 schematic representations of distance between (a) interlayers and Cd atom and Ge atom.

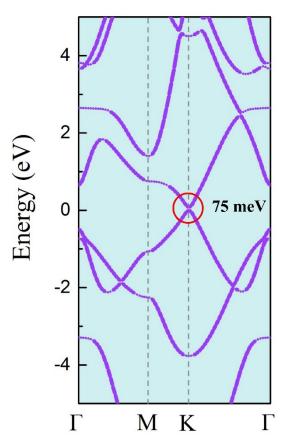
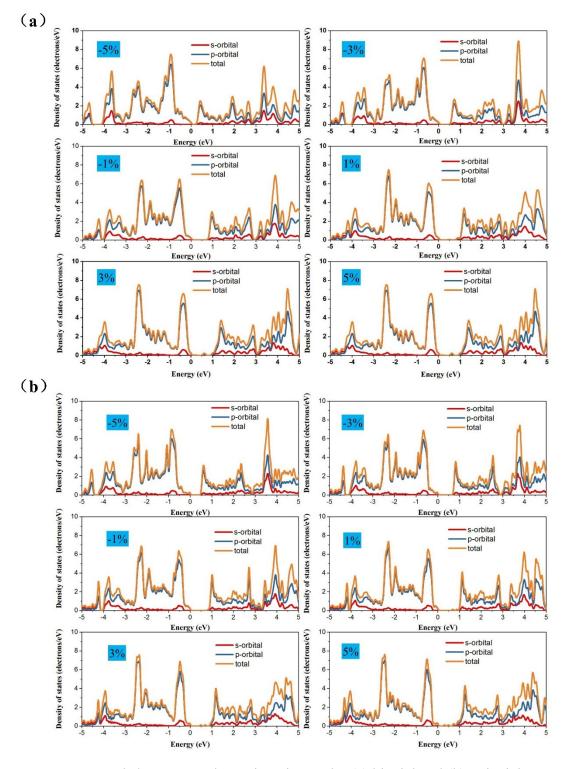


Figure S3 Band structure for germanene under biaxial tensile strain of 2.5%.



**Figure S4** DOS CdS/germanene heterojunction under (a) biaxial and (b) uniaxial strains.