Electronic Supplementary Information

Strain-engineering the electronic properties and anisotropy of $GeSe_2$ monolayer

Zong-Bao Li, [a] Xia Wang, [a] Wei Shi, [a] Xiao-bo Xing [b], Ding-Jiang Xue *[c], and Jin-Song Hu[c]

[a]School of Material and Chemical Engineering, Tongren University, Tongren 554300, China

[b]MOE Key Laboratory of Laser Life Science & Institute of Laser Life Science, College of Biophotonics, South China Normal University, Guangzhou 510631, China

[c]CAS Key Laboratory of Molecular Nanostructure and Nanotechnology, Beijing National Research Center for Molecular Sciences, CAS Research/Education Center for Excellence in Molecule Science, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

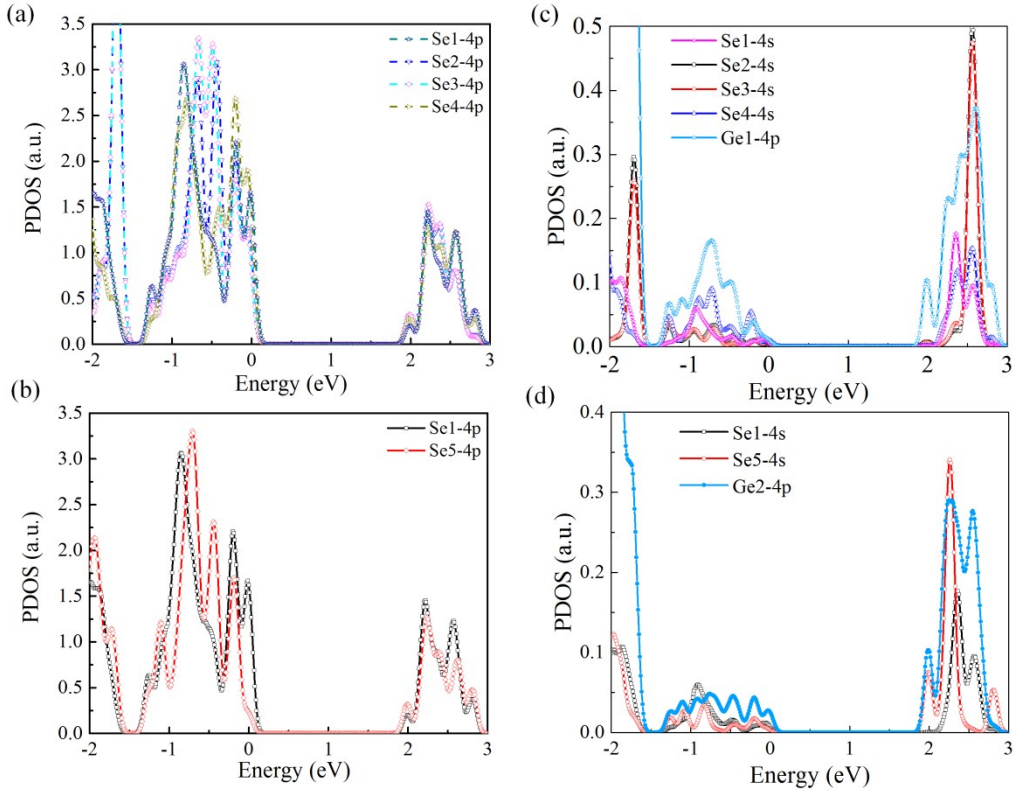

Fig. S1 PDOSs of different atoms in $GeSe_2$

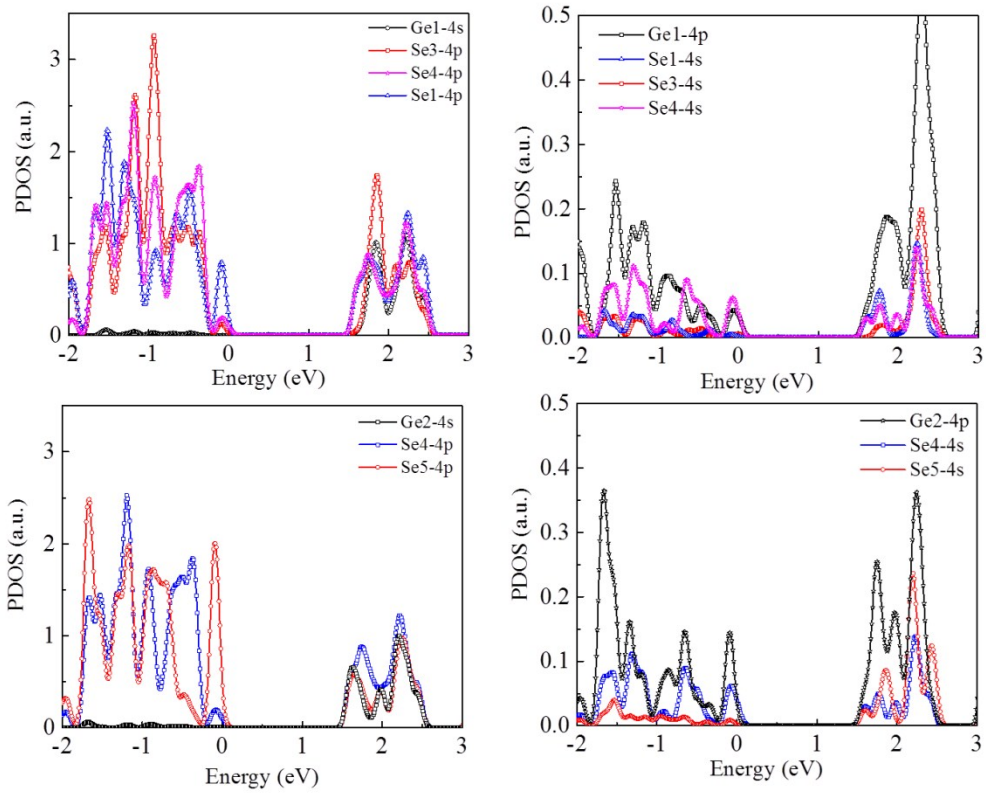

Fig. S2 PDOSs of the main atoms states under strain ε_y = -12%

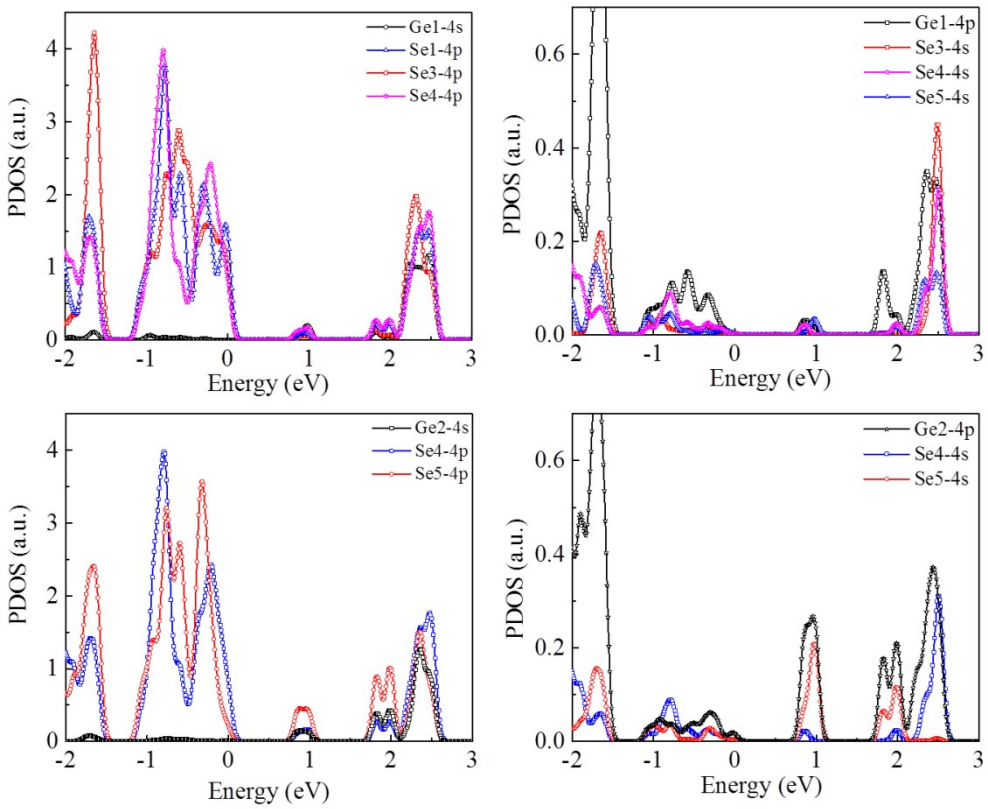

Fig. S3 PDOSs of the main atoms states under strain ε_y = 12%

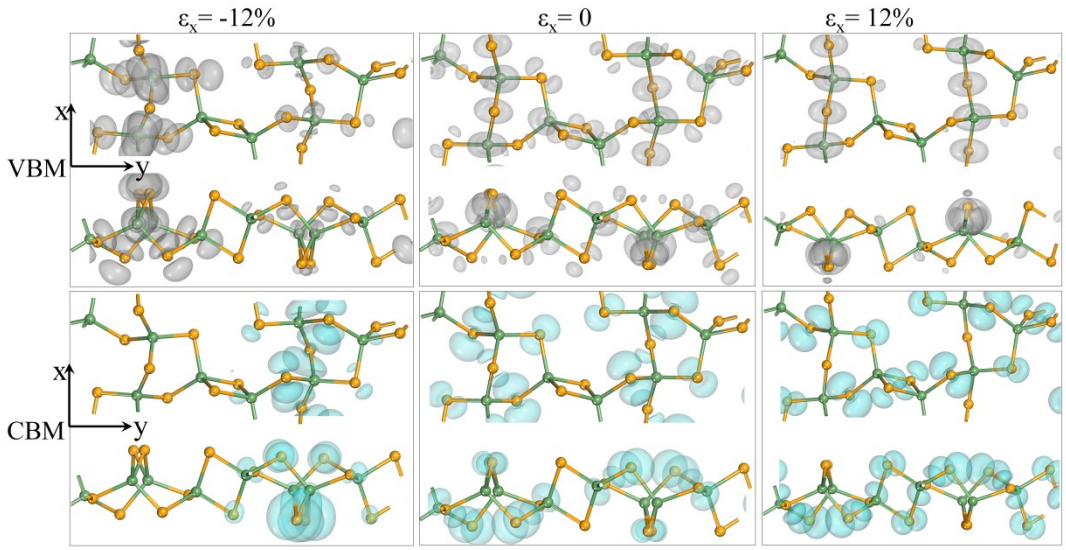

Fig. S4 The charge density contour plots of the VBM and CBM in $GeSe_2$ monolayer under different strains of ε_x=12% and ε_x = -12%. The isovalue is same.