

Supporting information

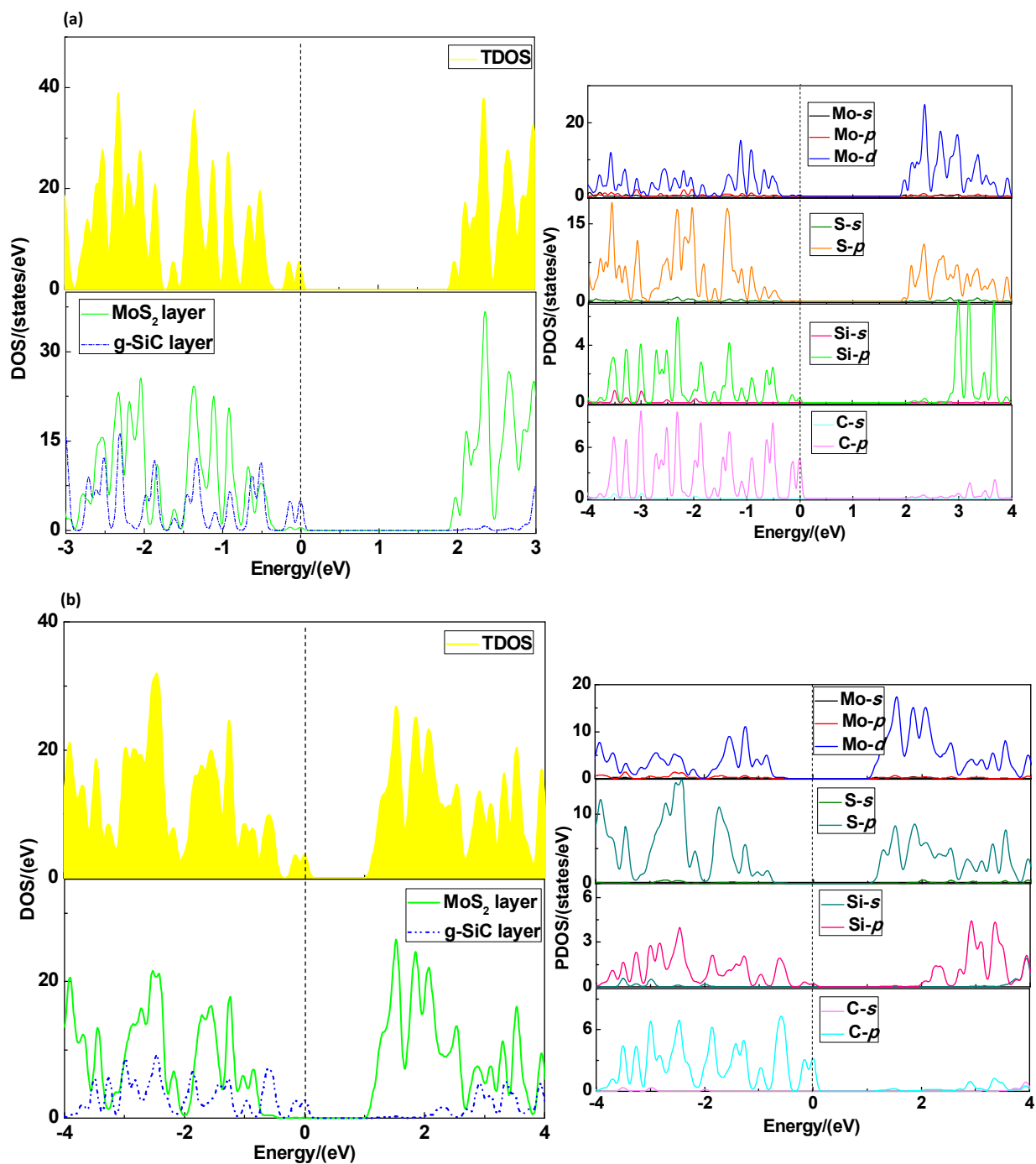


Fig. S1 The PDOS of the g-SiC/MoS₂ vdWH in II configuration (a) and III configuration (b).

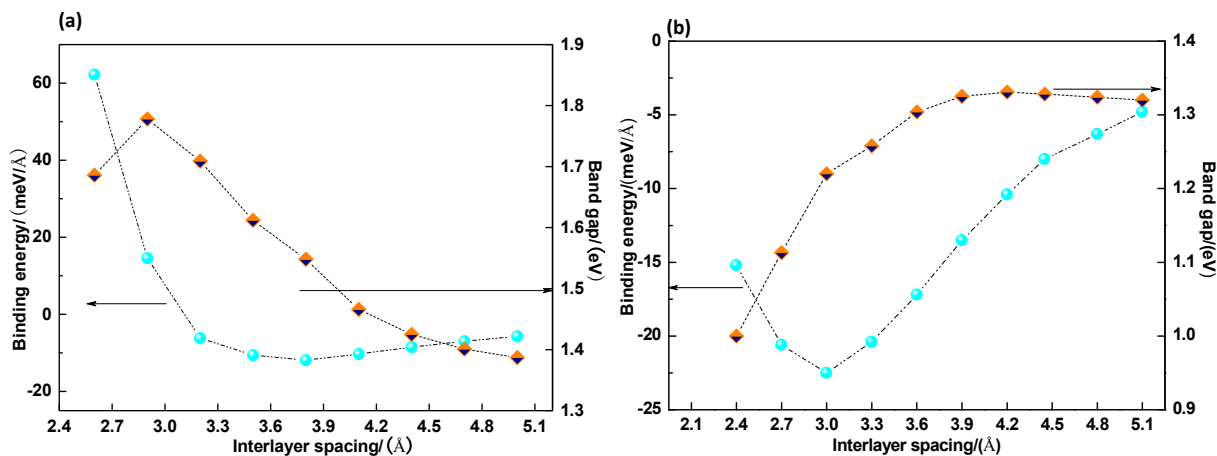


Fig. S2 The evolution trend of the band gap and binding energy of the g-SiC/MoS₂ vdWH in different configurations as a function of the tunable interlayer spacing, (a) I configuration, and (b) III configuration.

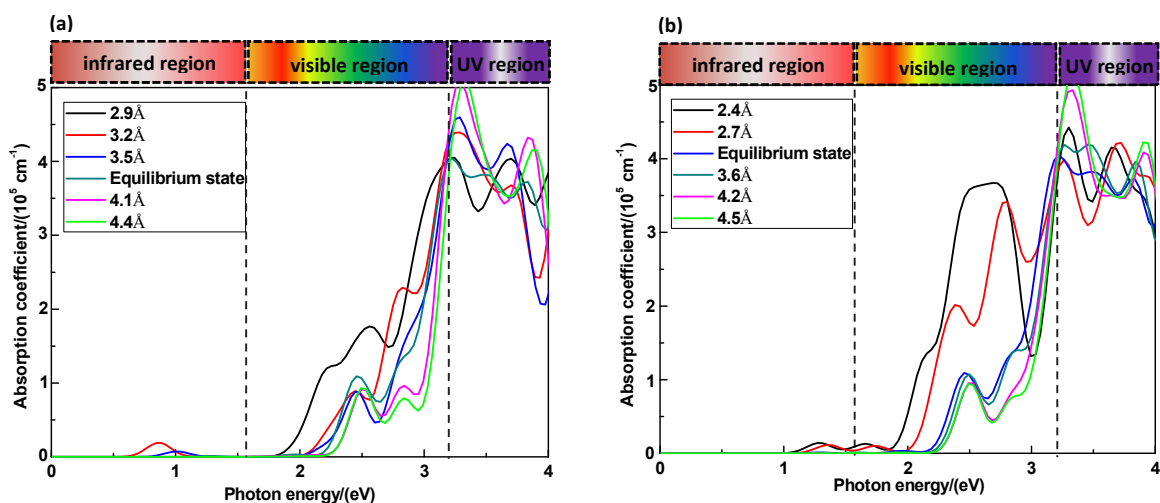


Fig. S3 The optical absorption of the g-SiC/MoS₂ vdWH in different configurations with tunable interlayer spacing as a function of the photon energy, (a) I configuration, and (b) III configuration.