Supporting Information (SI)

Electric field tunable of the electronic properties and contact types in MoS2/SiH heterostructure

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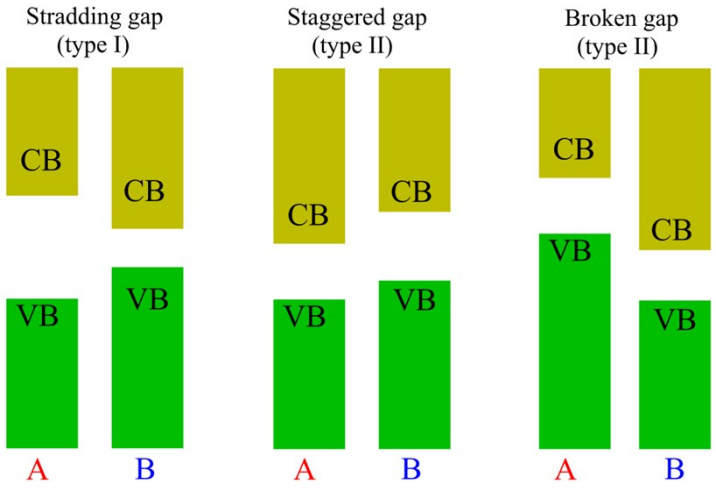

Fig. S1. Band alignments between two different semiconductors A and B.

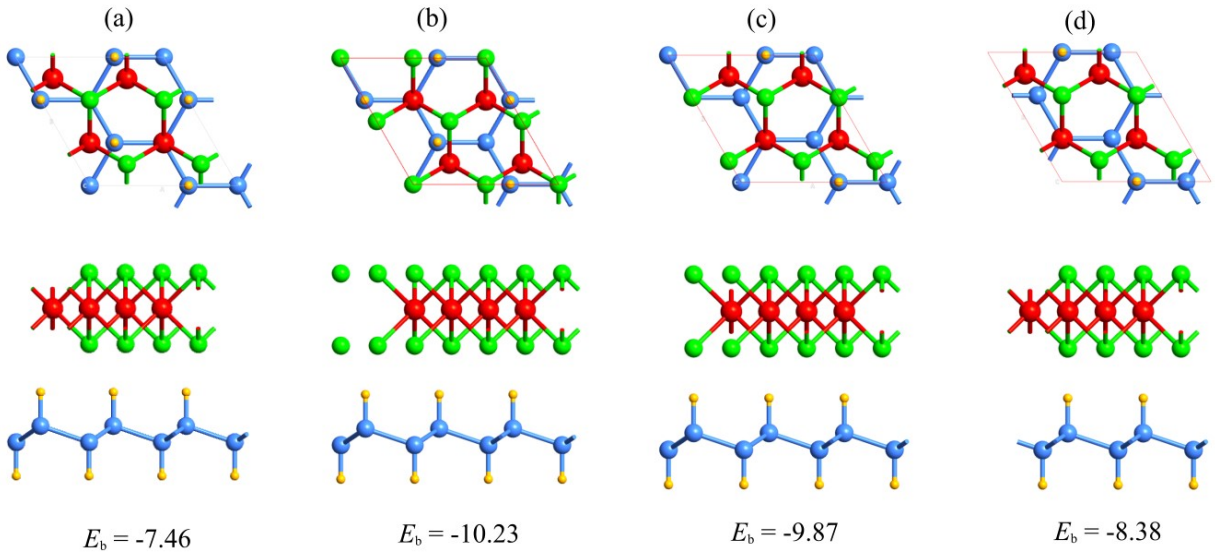

Fig. S2. Different stacking configurations of MoS2/SiH heterostructures (a) stacking I, (b) stacking II, (c) stacking III and (d) stacking IV.

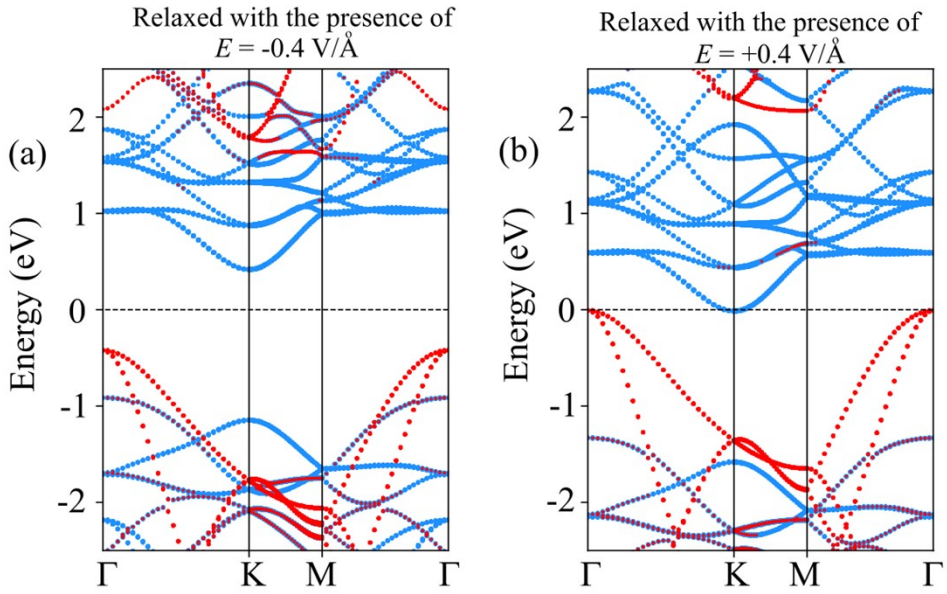

Fig. S3. Projected band structures of MoS2/SiH heterostructure under the applied strengths of electric field of (a) E = -0.4 V/Å and (b) E = +0.4 V/Å. These values of electric field were applied for both the geometric optimization and electronic properties calculations.