

Supplemental Materials: Interlayer Sliding for Magnetic and Topological Phase Control in $\text{Pt}_2\text{HgSe}_3/\text{Nb}_3\text{I}_8$ van der Waals Heterostructure

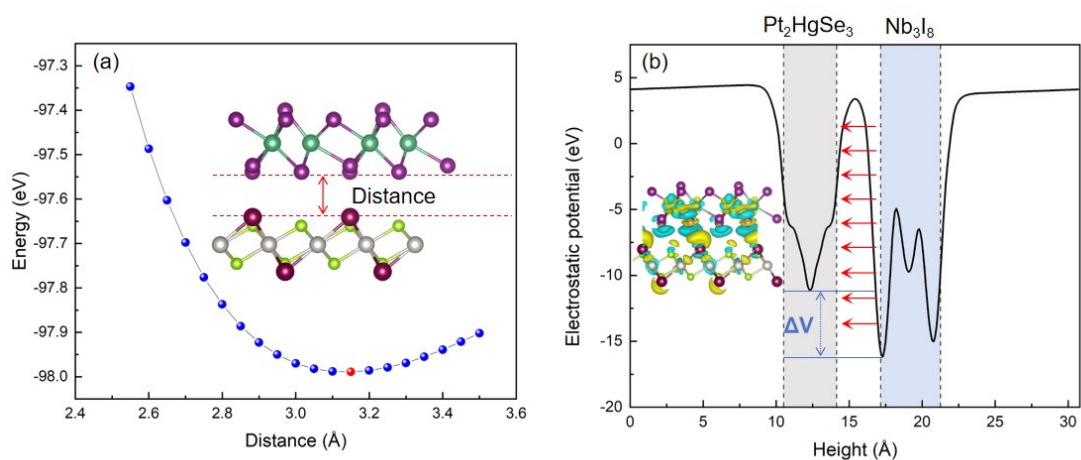


Fig. S1(a) Energy convergence study as a function of interlayer distance. (b) The electrostatic potential curves for $\text{Pt}_2\text{HgSe}_3/\text{Nb}_3\text{I}_8$ heterostructure. The inset visualizes the interfacial charge redistribution, with yellow (accumulation) and blue (depletion) regions. The resulting charge imbalance causes a potential drop and an electric field, symbolized by red arrows from the interface, forming a built-in field.

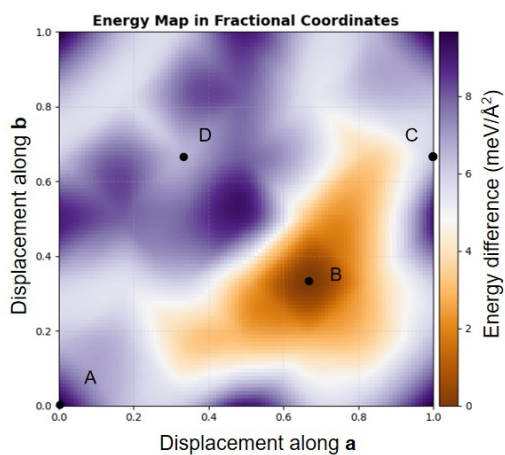


Fig. S2 Evolution of energy as a function of interlayer sliding parameters along a and b.