

## Supporting Information

### **Dipole controlled Schottky barrier in blue phosphorene-phosphorene-phase of GeSe based van der Waals heterostructures**

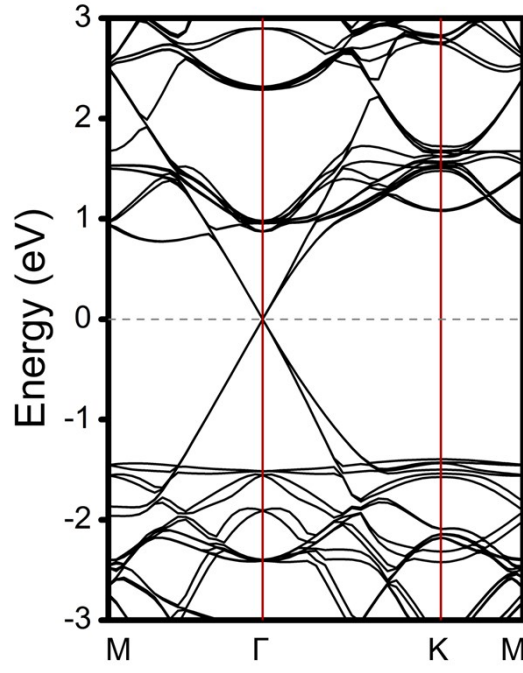
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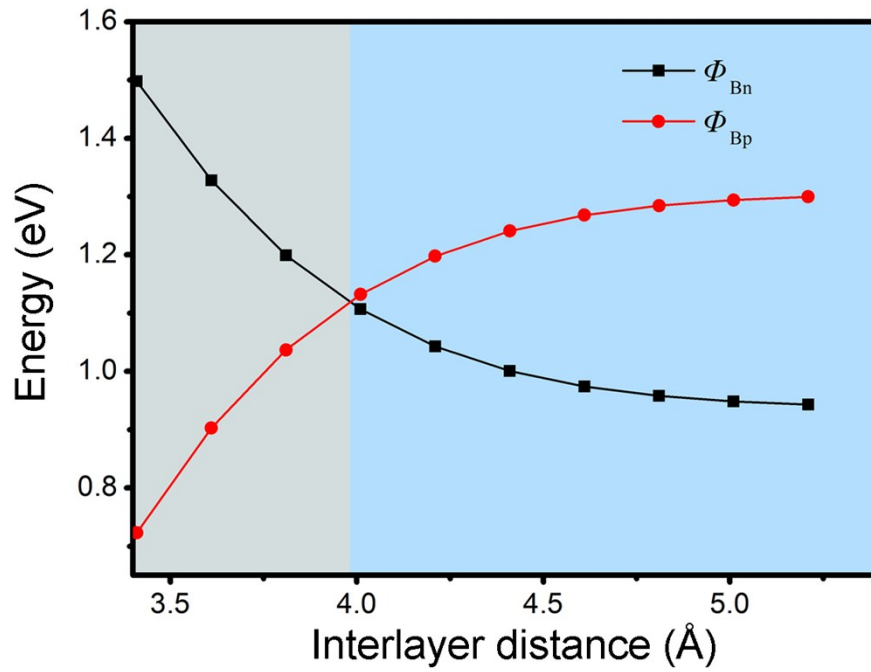
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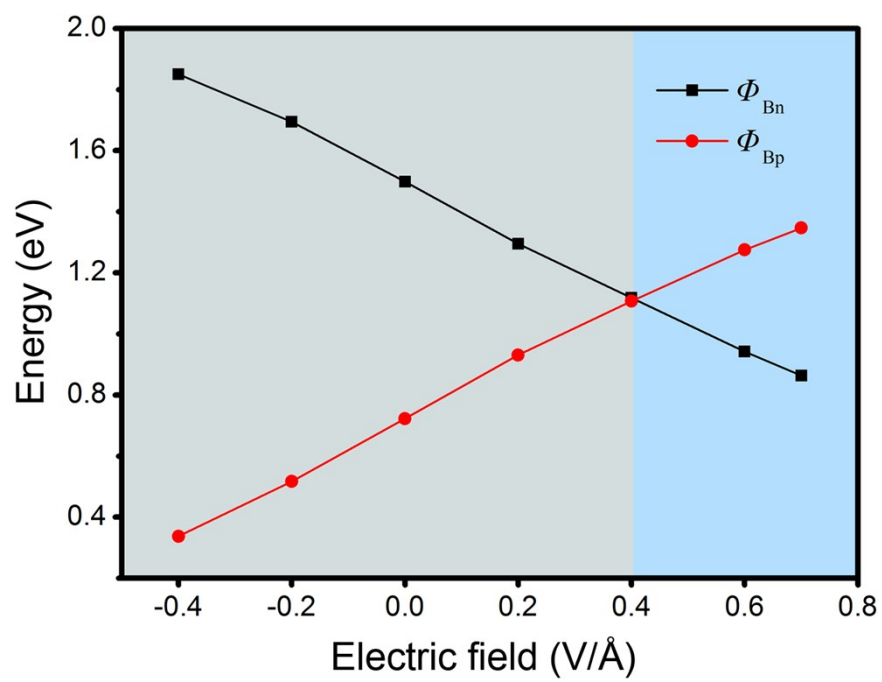
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**Figure. S1.** Electronic band structure of MX-G with SOC effects.



**Figure. S2.** The SBHs in XM-G as a function of the interlayer distance.



**Figure. S3.** The SBHs in XM-G as a function of the electric field.