

Supplementary Information

Strain Engineering of Electronic Properties and Anomalous Valley Hall

Conductivity of Transition Metal Dichalcogenide Nanoribbons

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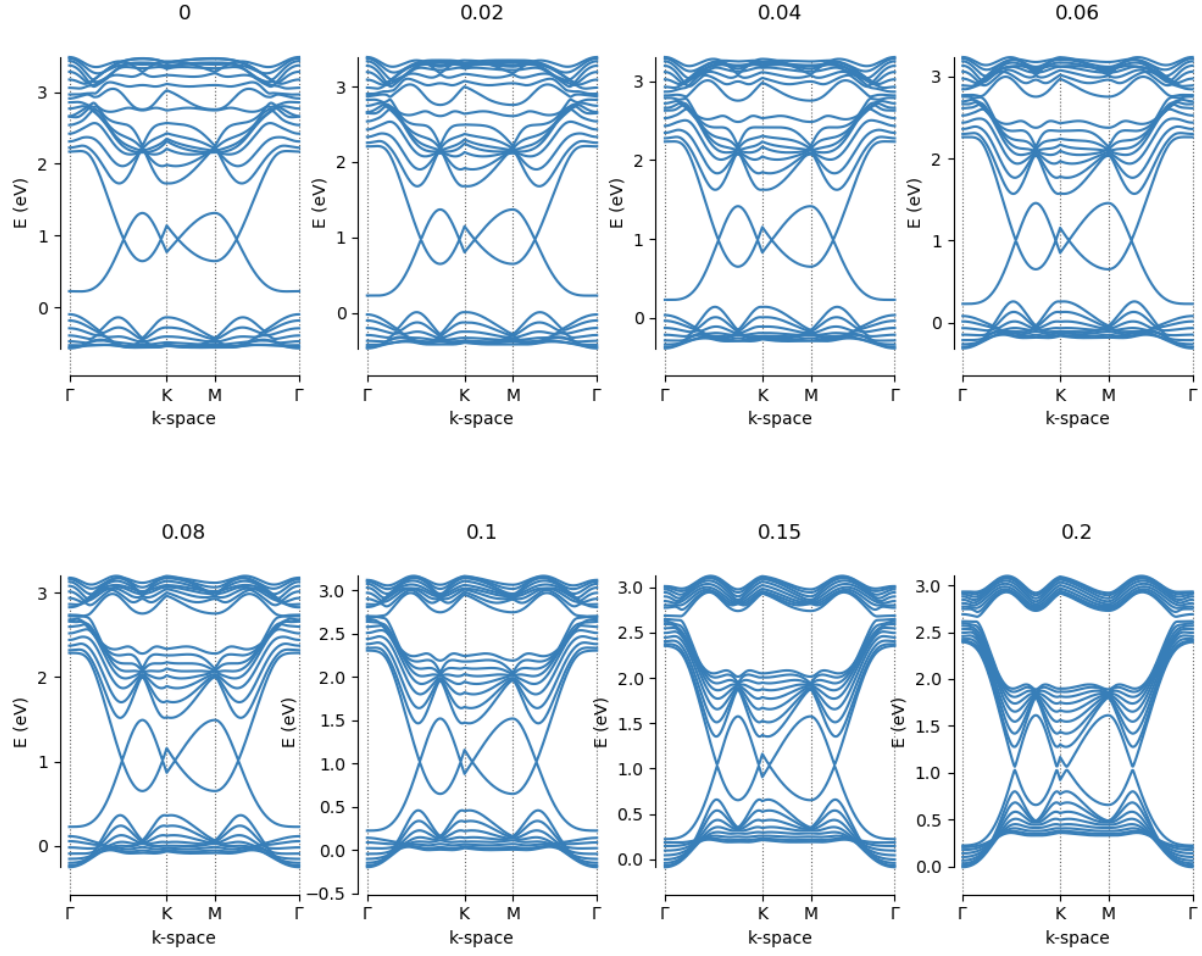


Fig S1. Electronic band structure of MoX_2 ($X = \text{S}$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

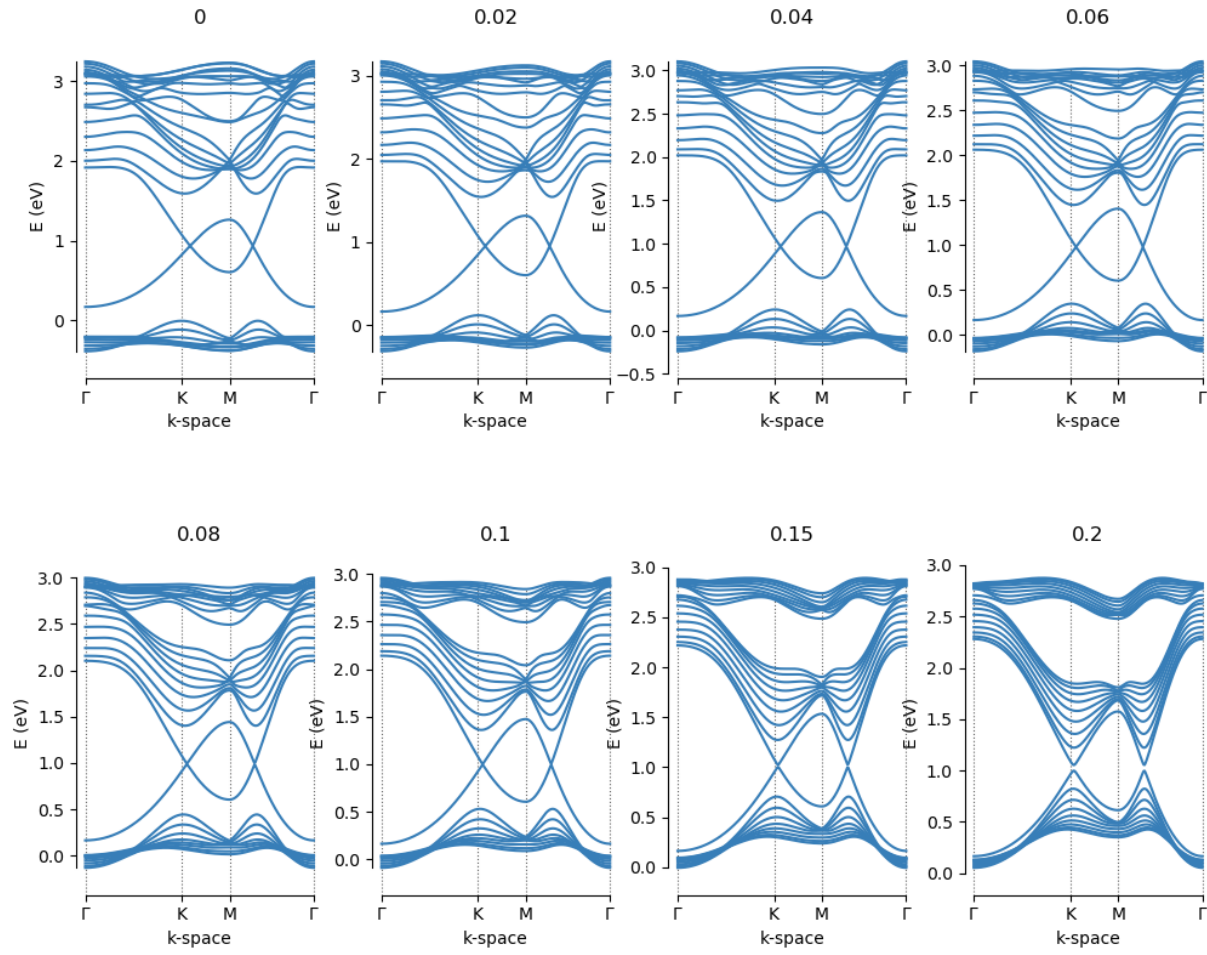


Figure S2. Electronic band structure of MoX_2 ($X = \text{Se}$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

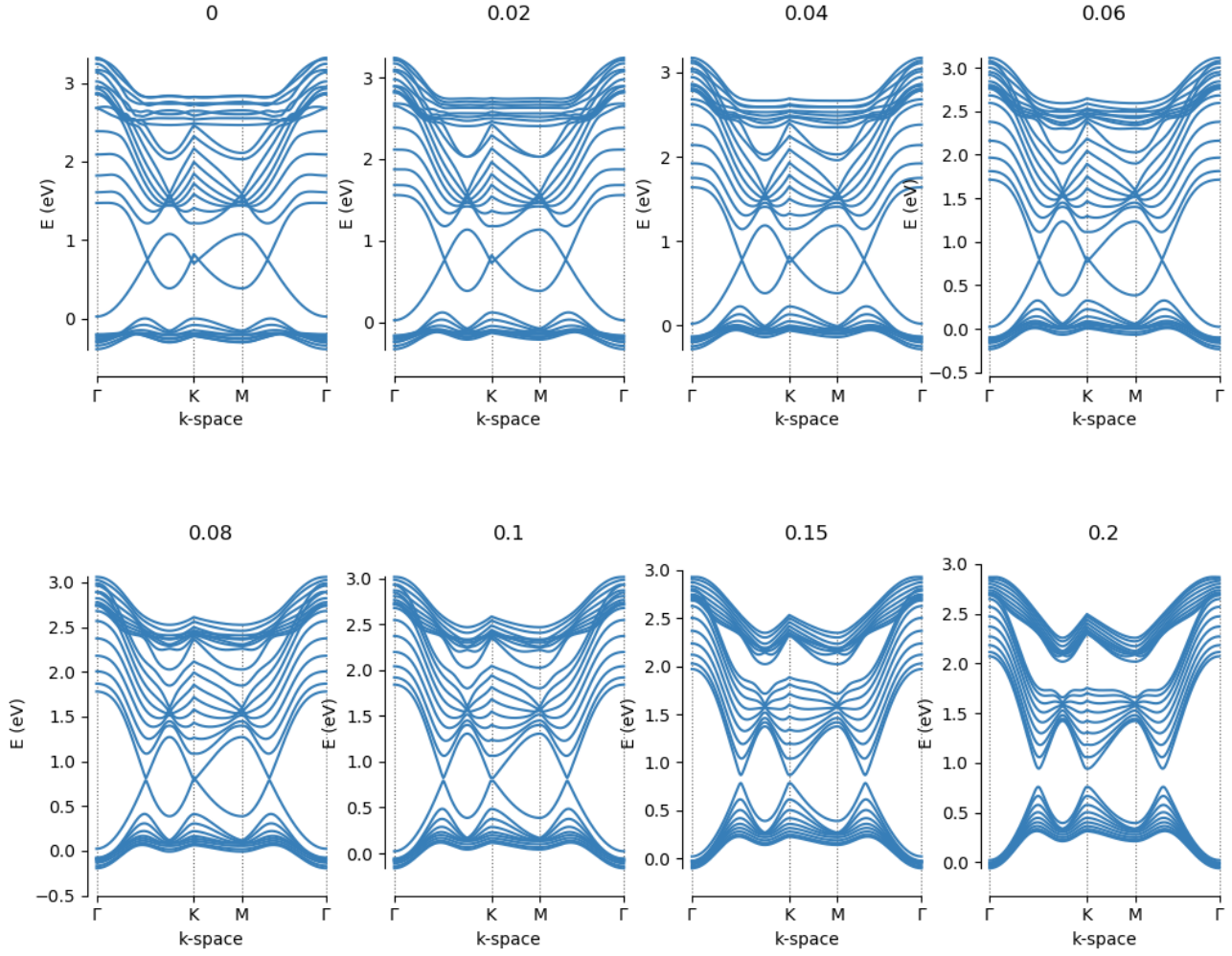


Figure S3. Electronic band structure of MoX_2 ($X = \text{Te}$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

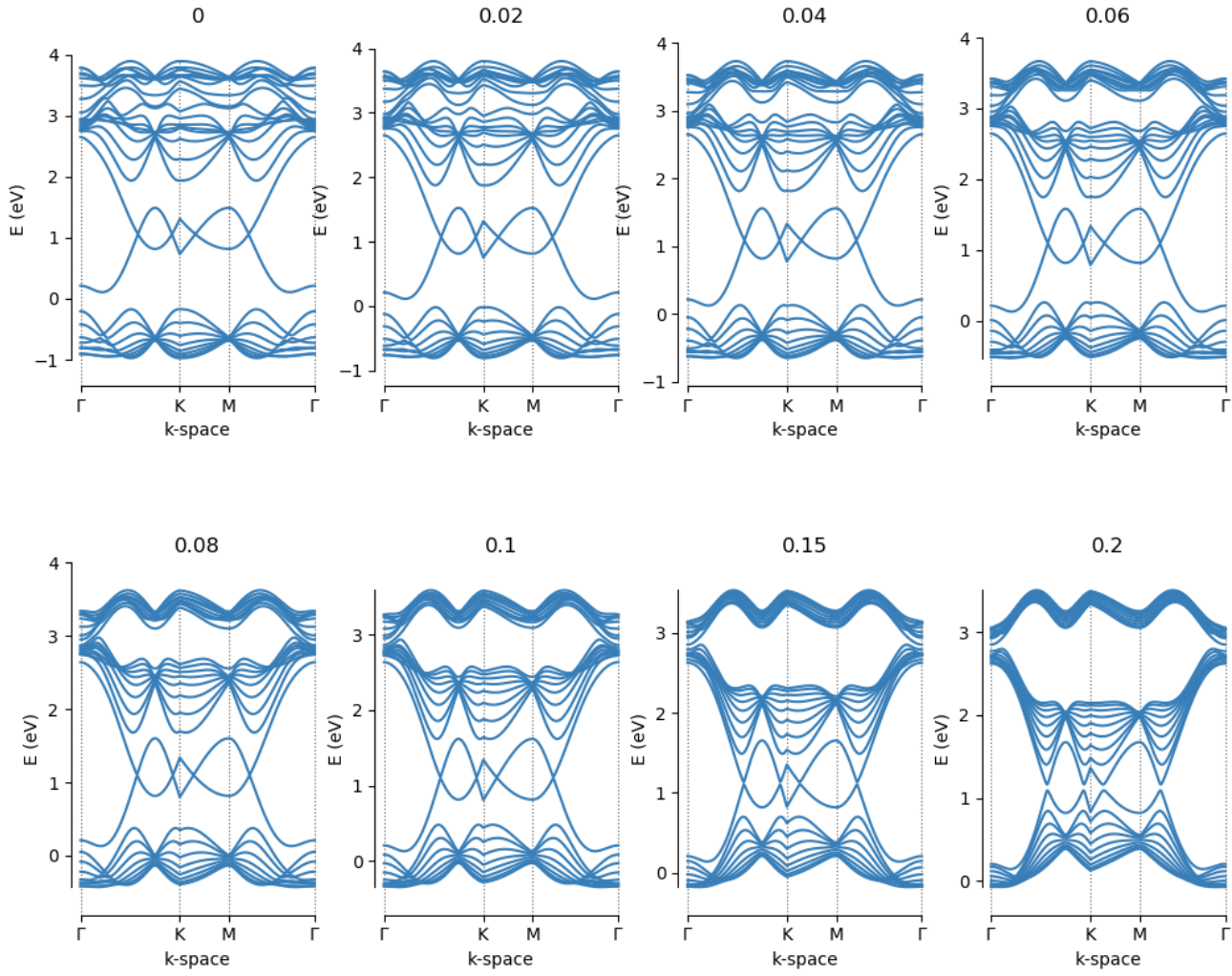


Figure S4. Electronic band structure of WX_2 ($X = S$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

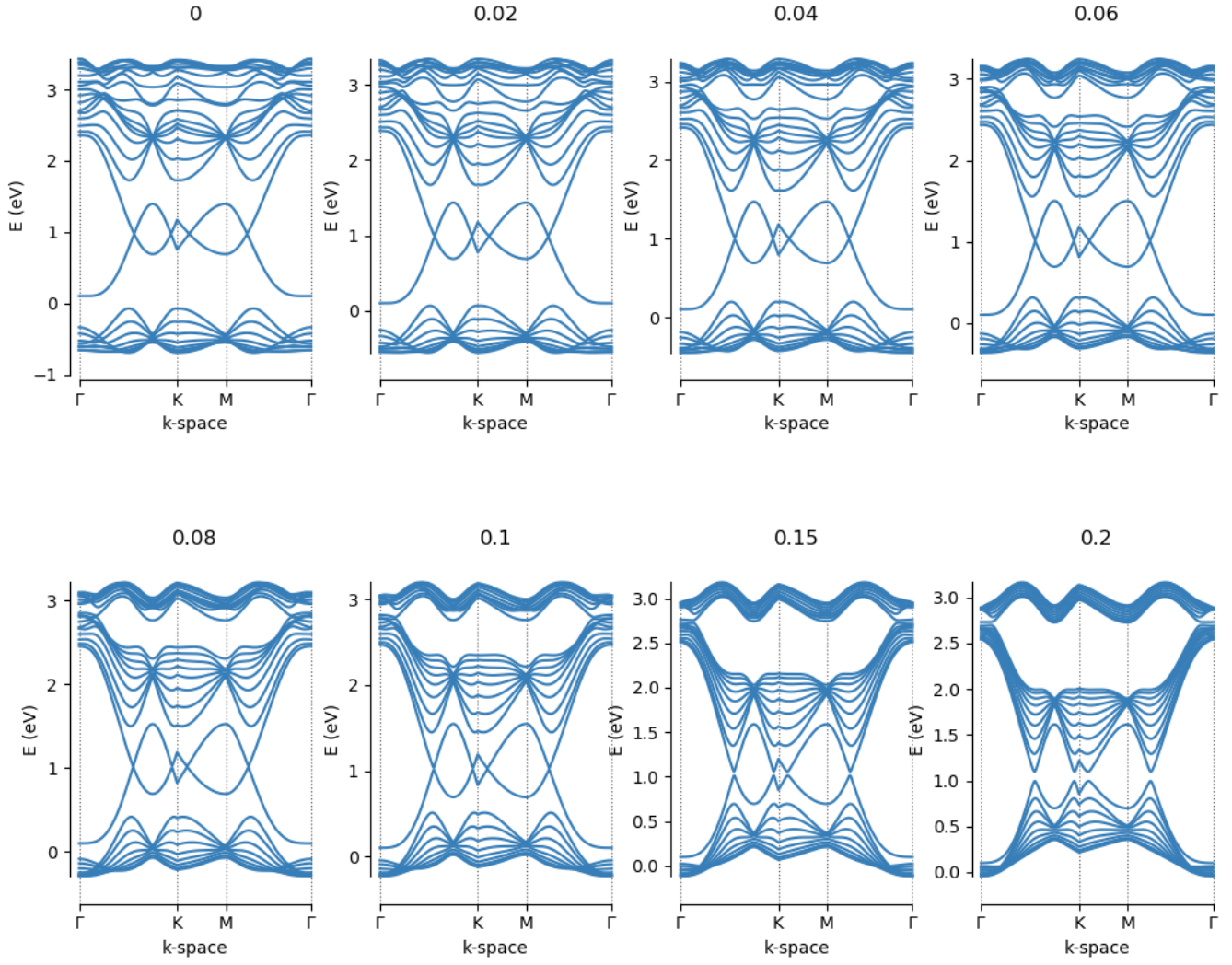


Figure S5. Electronic band structure of WX_2 ($X = \text{Se}$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

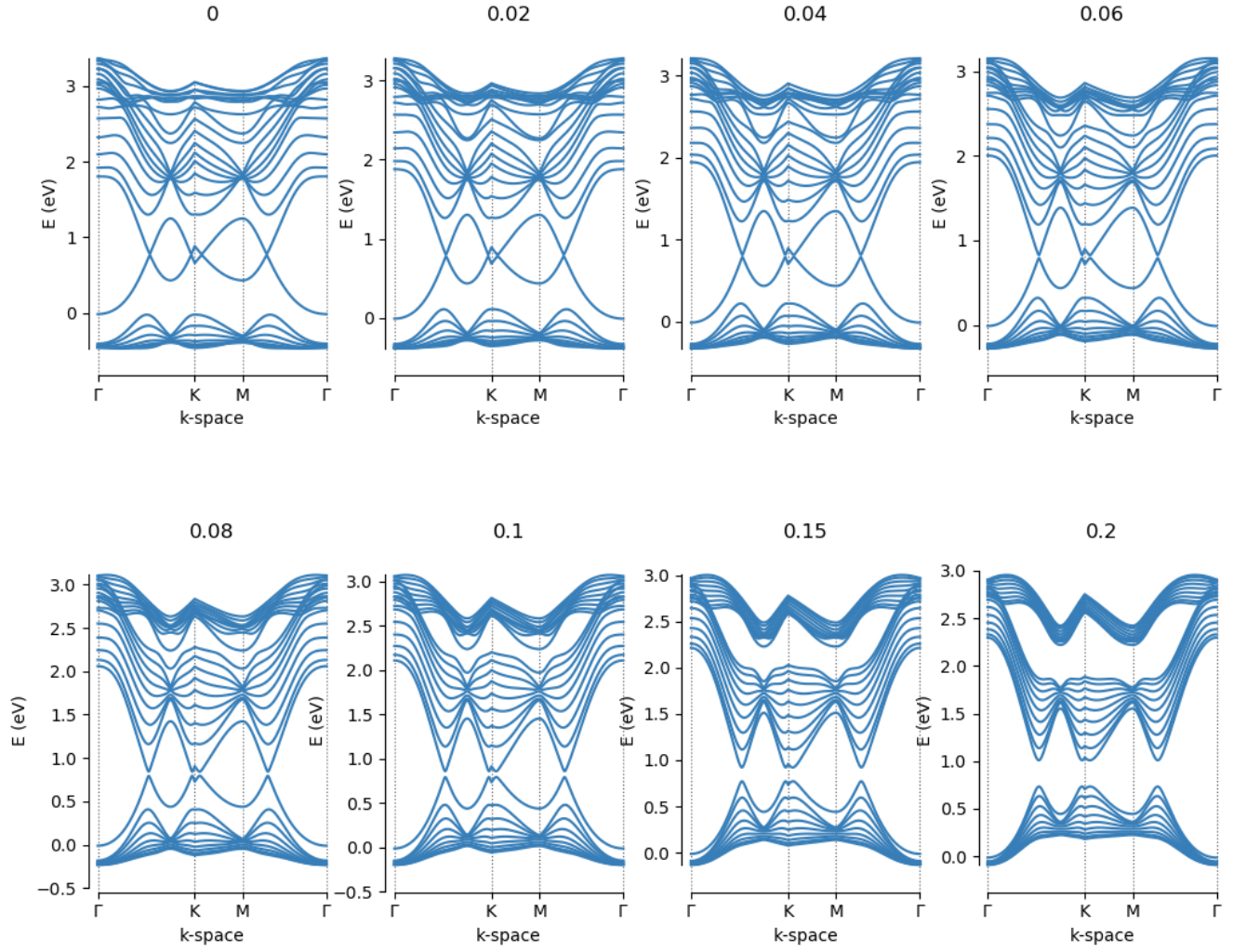


Figure S6. Electronic band structure of WX_2 ($X = \text{Te}$) for two types of strain labeled as uniaxial X-tensile strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

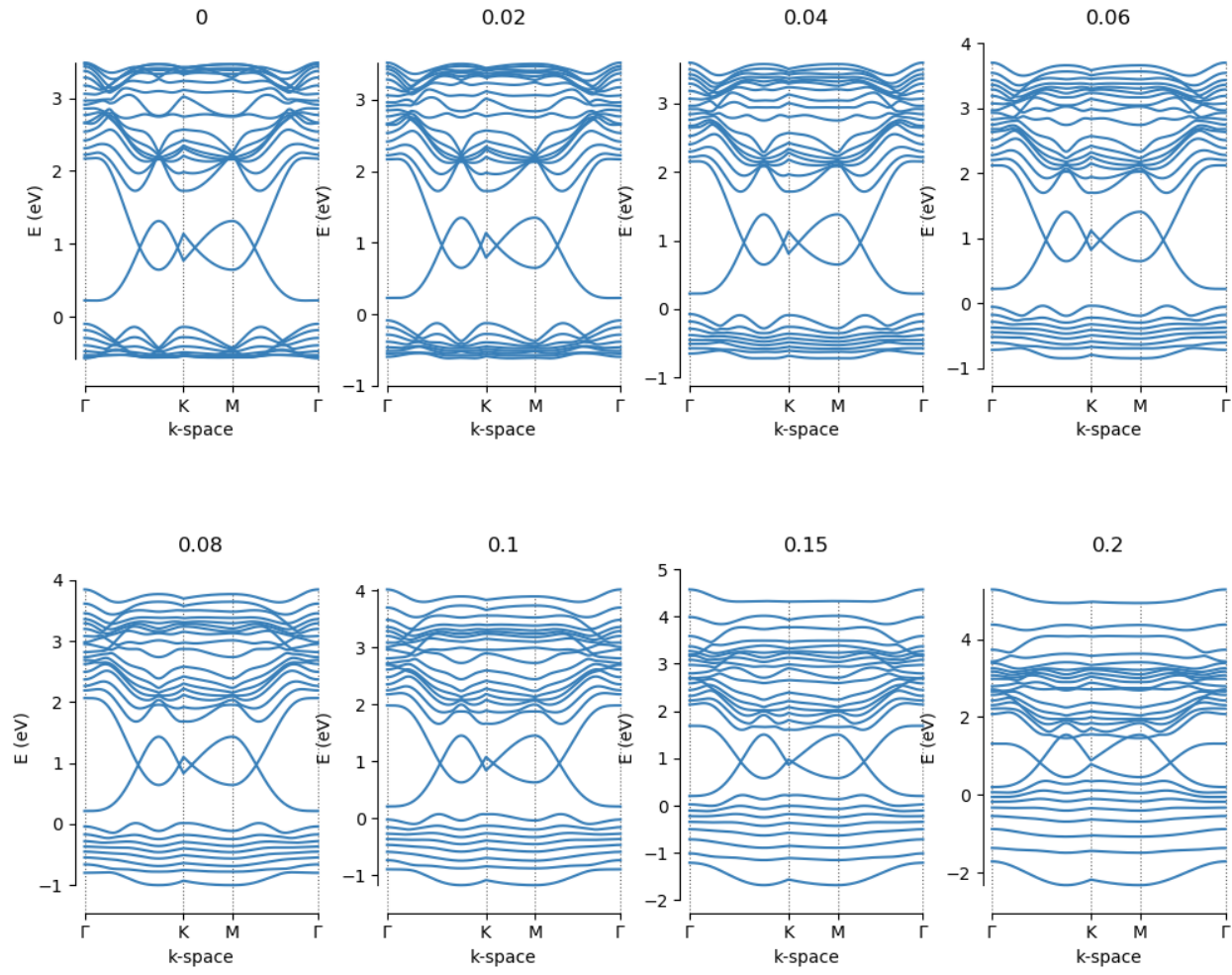


Figure S7. Electronic band structure of MoX_2 ($X = \text{S}$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

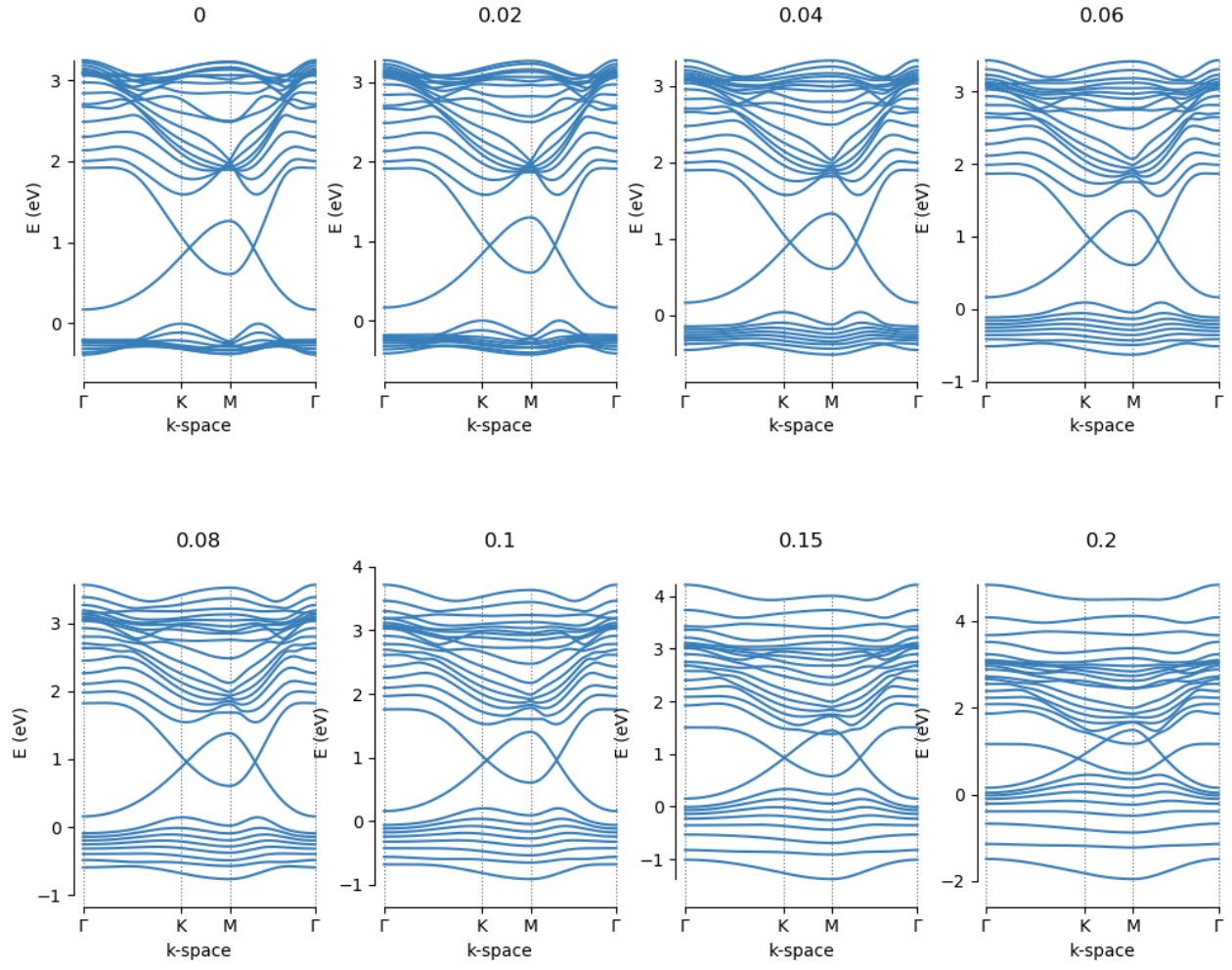


Figure S8. Electronic band structure of MoX_2 ($X = \text{Se}$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

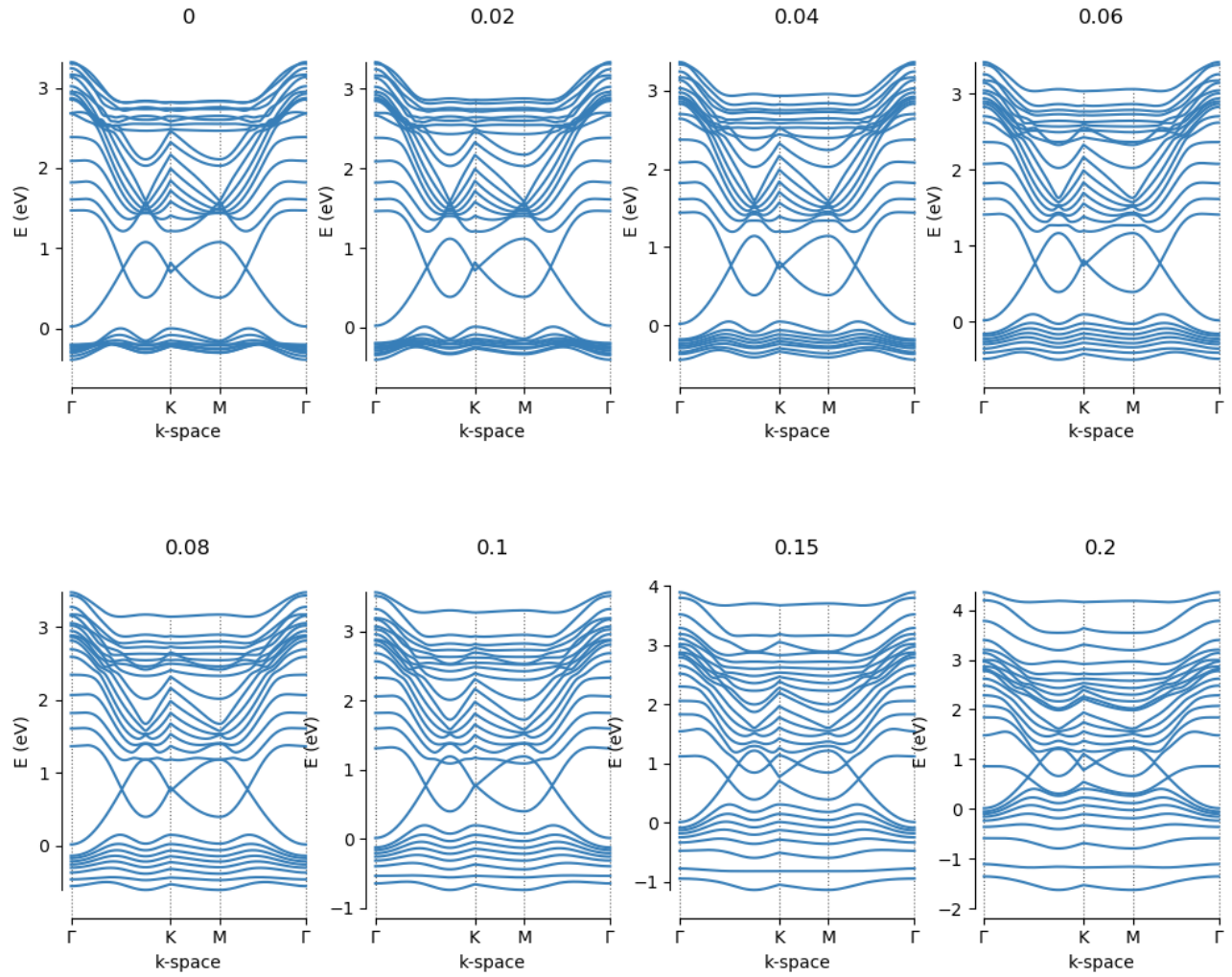


Figure S9. Electronic band structure of MoX_2 ($X = \text{Te}$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

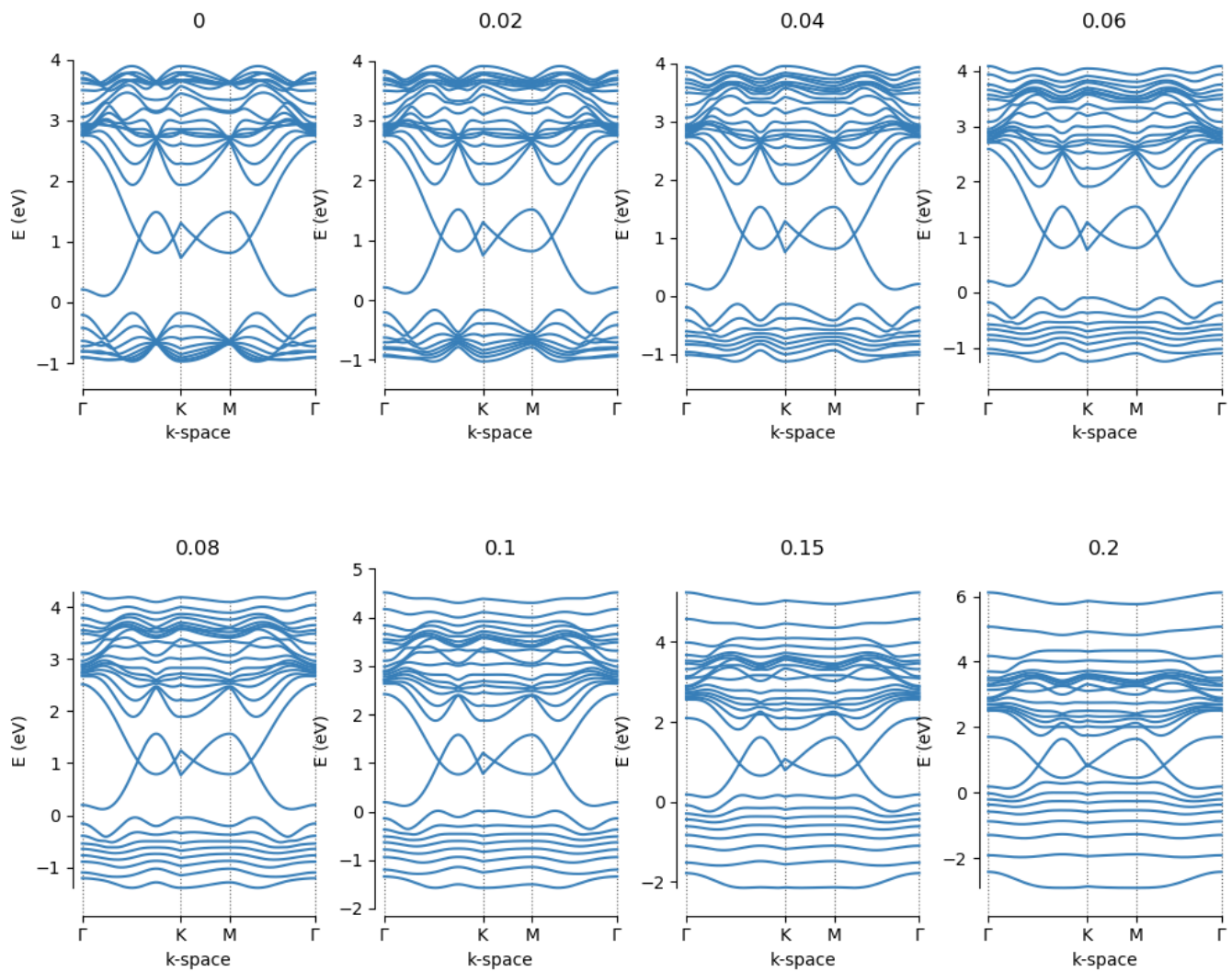


Figure S10. Electronic band structure of WX_2 ($X = S$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

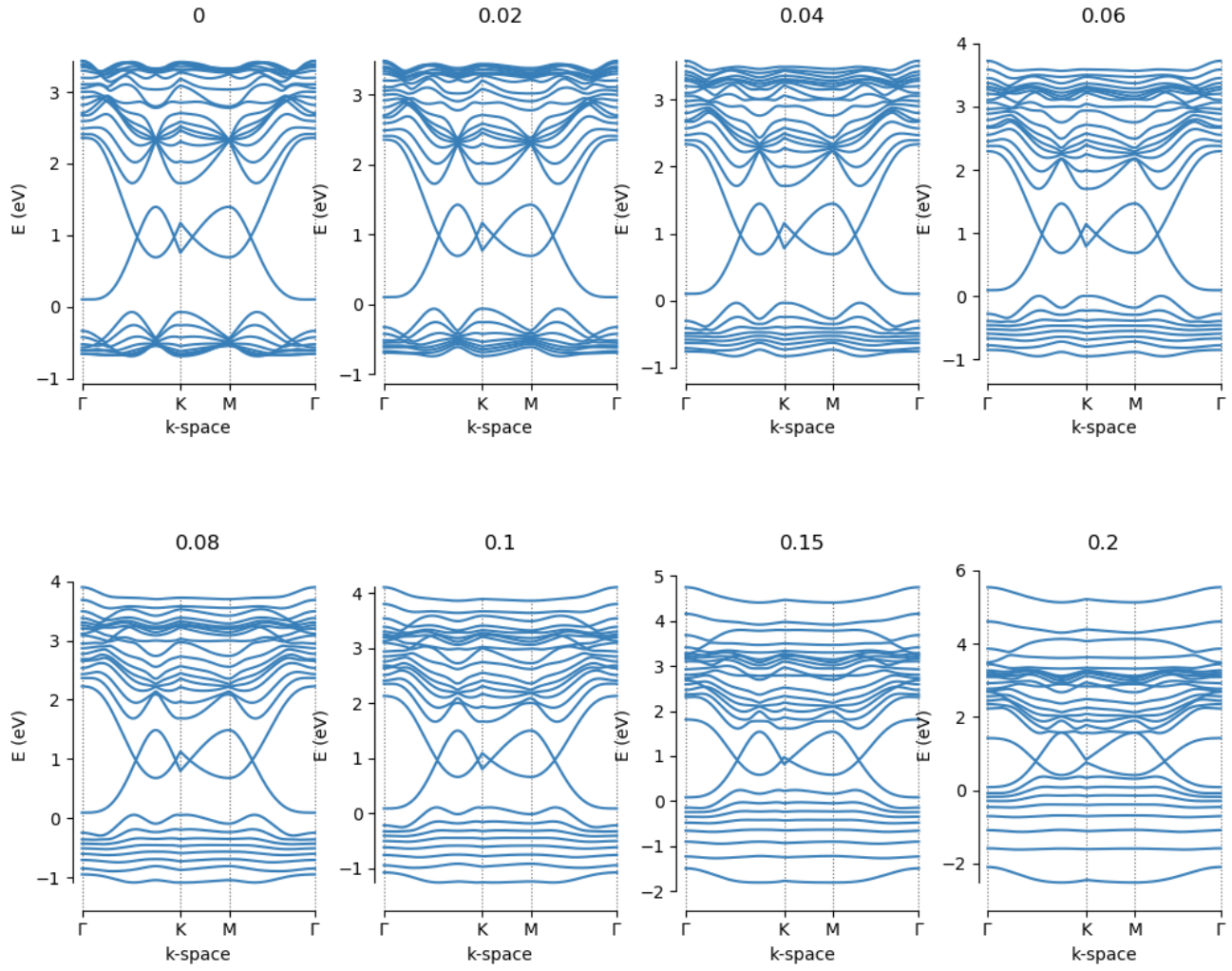


Figure S11. Electronic band structure of WX_2 ($X = \text{Se}$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.

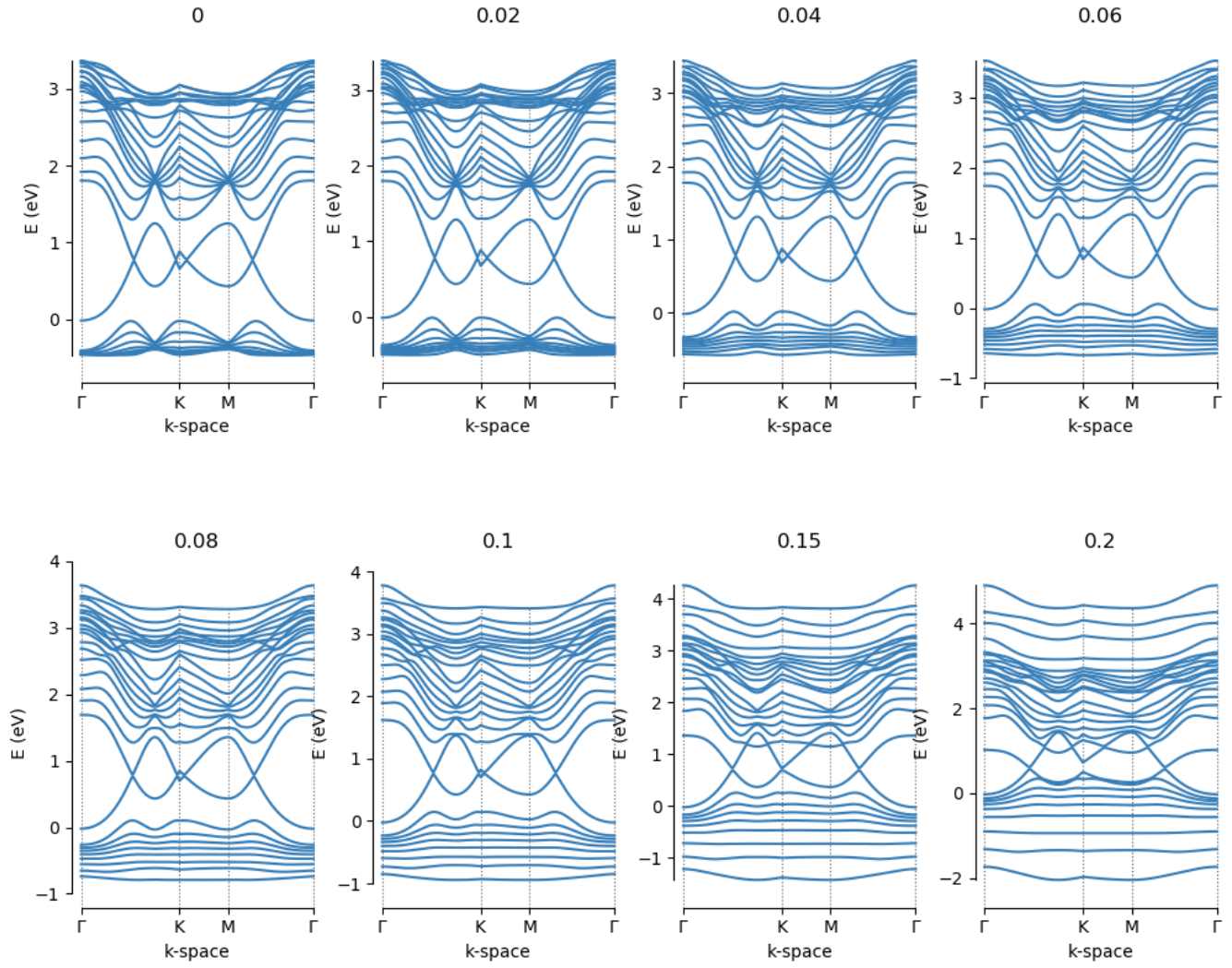


Figure S12. Electronic band structure of WX_2 ($X = \text{Se}$) for two types of strain labeled as uniaxial Y-arc strain with $c = 0, 0.02, 0.04, 0.06, 0.08, 0.1, 0.15, 0.2$.