Supporting Information

Evolution of the linear band dispersion of monolayer and bilayer germanene on Cu(111)

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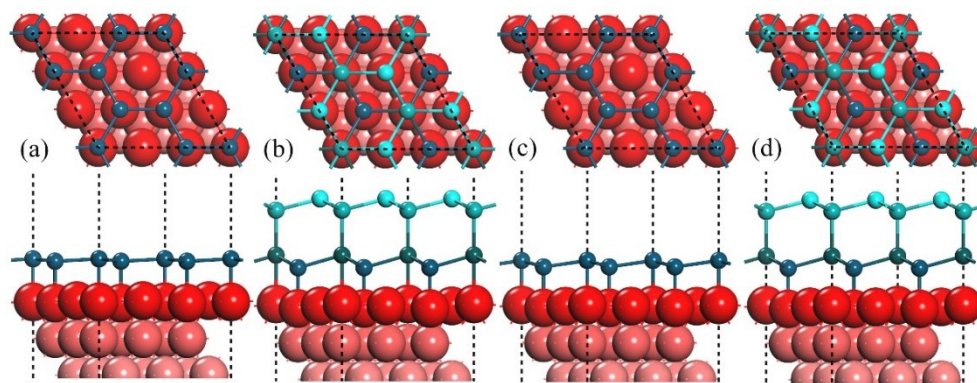
Figure S1 Top and side views of MLG/Cu(111) and BLG/Cu(111) with GGA (a), (b) and optB88-vdW (c), (d) calculations.
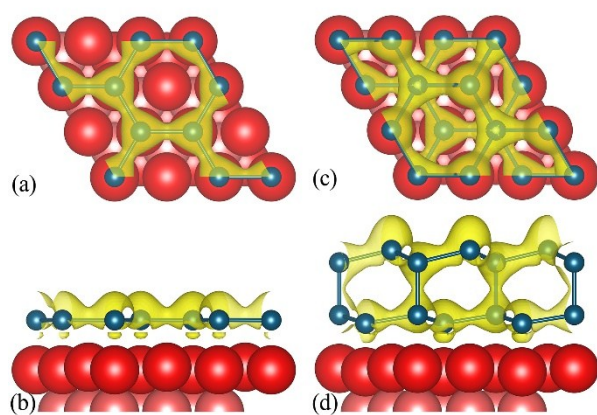
Figure S2 Top and side view of electron localization function (ELF) for MLG/Cu(111)

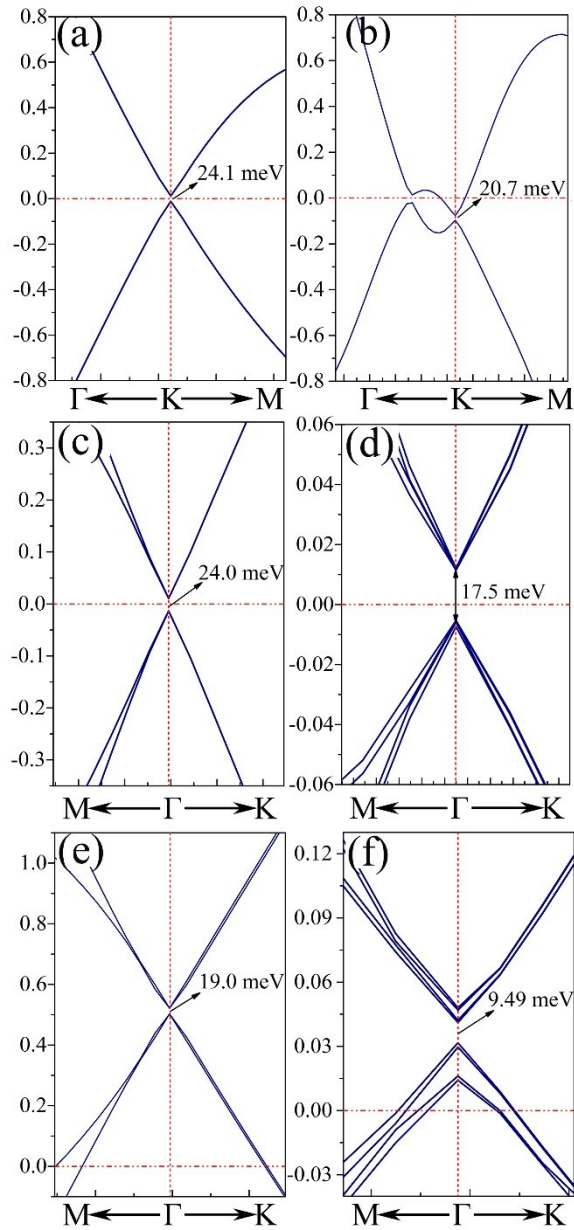(a) and (b), BLG/Cu(111) (c) and (d). The value of isosurface is taken as 0.75.

Figure S3 The enlarged band structures near the Fermi level with SOC effects considered for freestanding (1×1) MLG (a) and BLG (b), freestanding (√3×√3) MLG (c) and BLG (d), unsupported (√3×√3) MLG (e) and BLG (f). The Fermi level is represented by the horizontal dashed line.
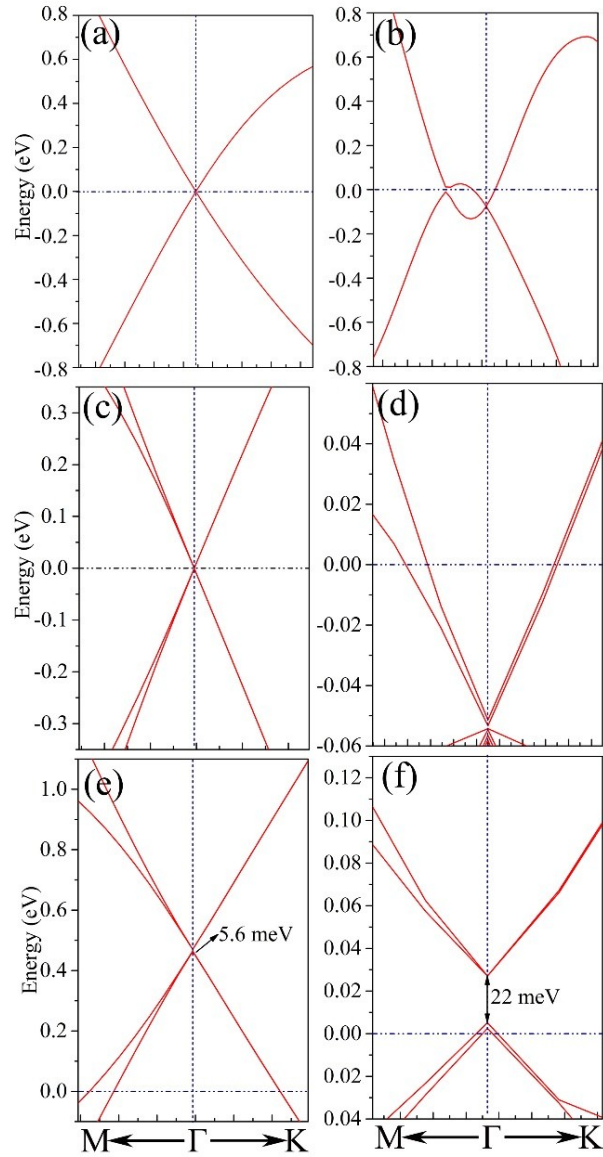
Figure S4 The enlarged band structures near the Fermi level without SOC effects considered for freestanding (1×1) MLG (a) and BLG (b), freestanding (√3×√3) MLG (c) and BLG (d), unsupported (√3×√3) MLG (e) and BLG (f). The Fermi level is represented by the horizontal dashed line.