

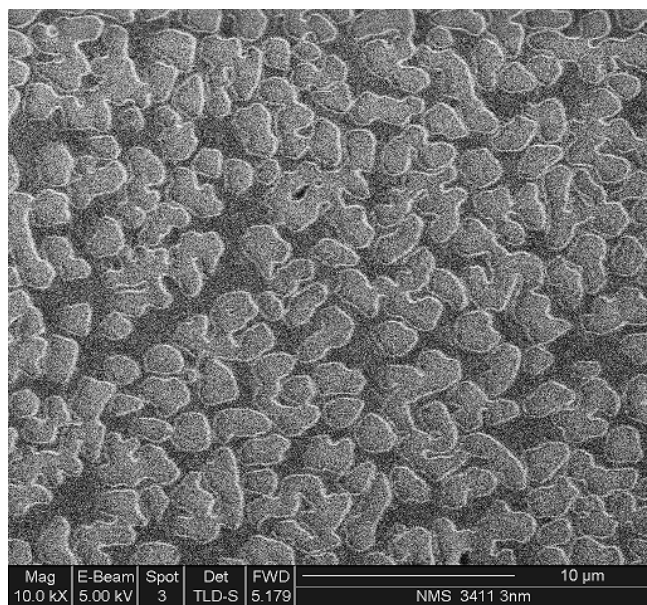
# Supporting Information

## CMOS-Compatible Synthesis of Large-Area, High-Mobility Graphene by Chemical Vapor Deposition of Acetylene on Co Thin Films

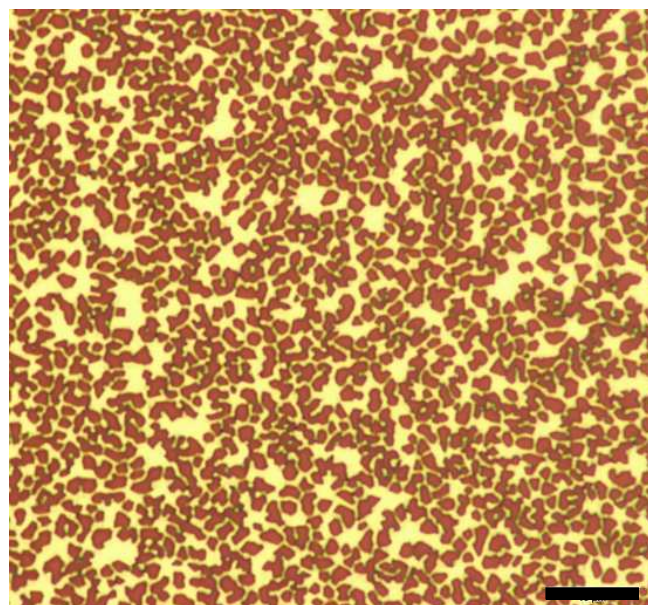
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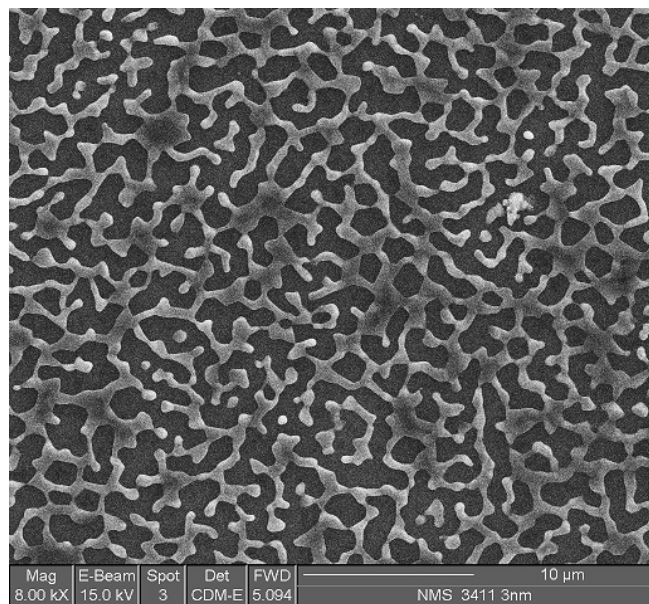


(a)

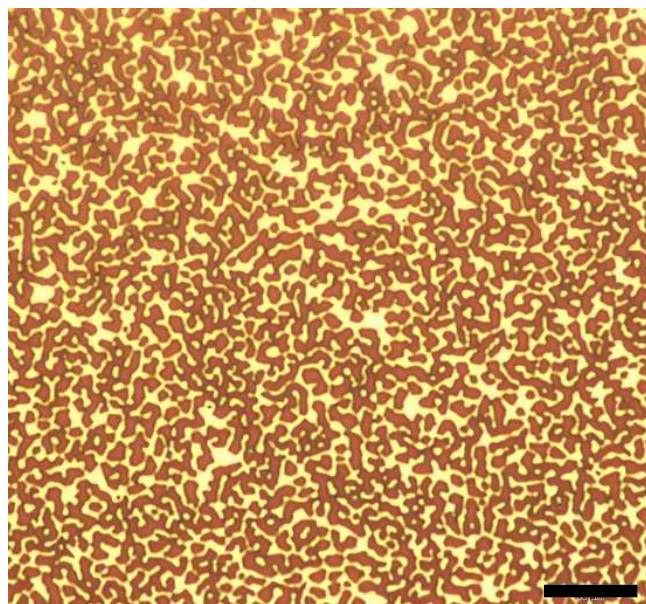


(b)

**Figure S1.** (a) SEM image and (b) corresponding optical image of graphene grown on Co film having thickness less than 100 nm ( $\sim 60$  nm) at the optimized growth temperature (800 °C), showing agglomeration of the Co film. All scale bars are 10  $\mu\text{m}$ .



(a)



(b)

**Figure S2.** (a) SEM image and (b) corresponding optical image of graphene grown at higher temperature (900 °C) on optimized Co film thickness (100 nm), showing agglomeration of the Co film. All scale bars are 10  $\mu\text{m}$ .