

Supporting Information for

Direct Synthesis of Co-doped Graphene on Dielectric Substrates Using Solid Carbon Sources

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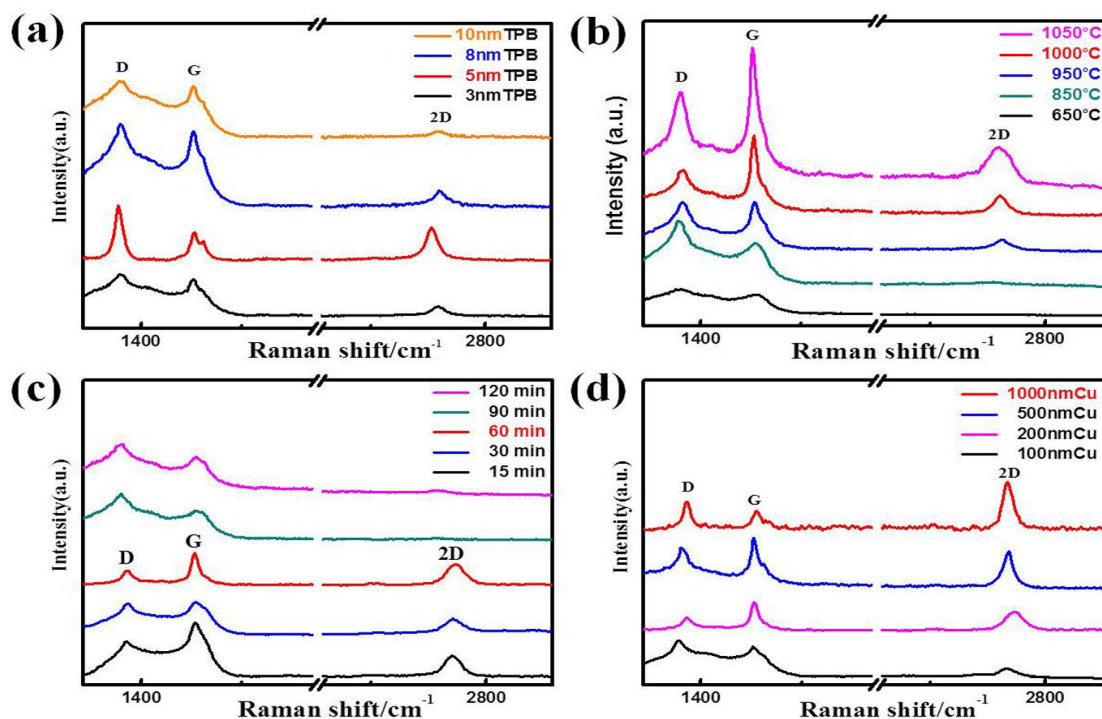


Fig. S1 Raman spectra of TPB-derived doped graphene under different reaction conditions. **a)** Different thickness of solid carbon source: 3, 5, 8, and 10 nm; **b)** Different annealing temperature: 650, 850, 950, 1000, and 1050 °C; **c)** Different annealing time: 15, 30, 60, 90, and 120 min; **d)** Different thickness of Cu film layer: 100, 200, 500, and 1000 nm.

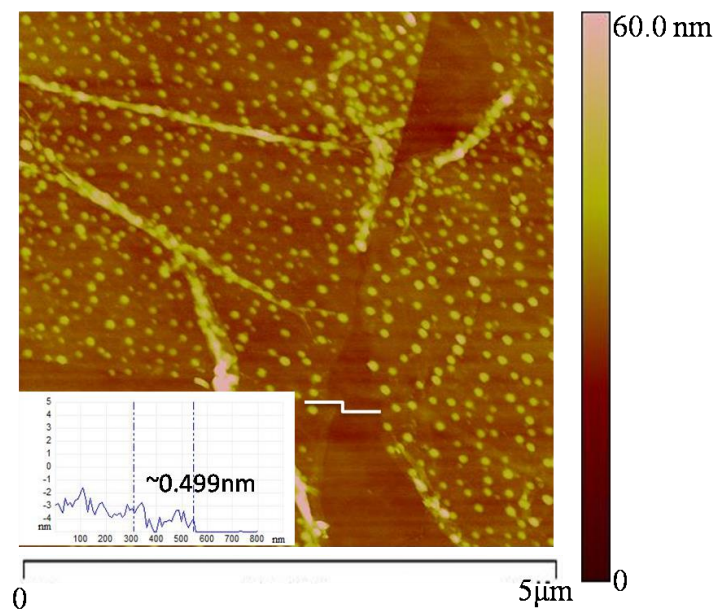


Fig. S2 AFM image of sample with 5 nm TPB, 1000 nm Cu, annealing at 1000 °C for 60 min. The inset image is height distribution, the thickness of as-grown doped-graphene is ~ 0.499 nm, indicating that the graphene film is monolayer.

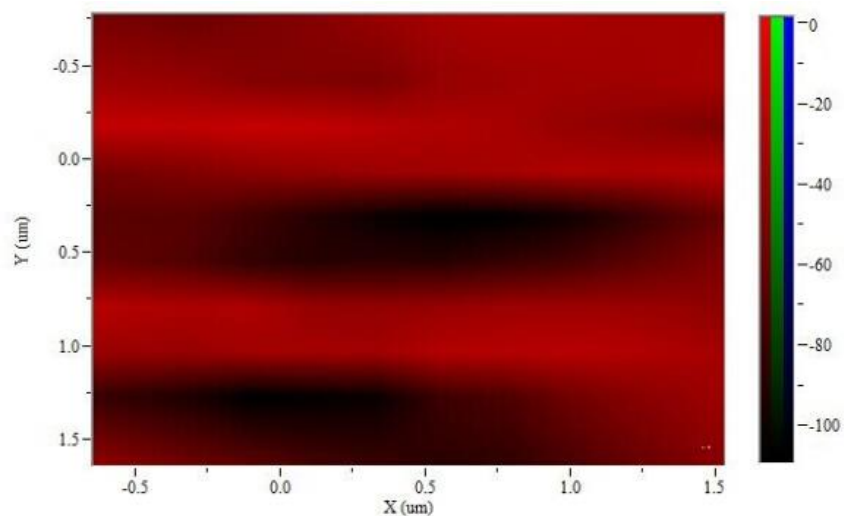


Fig. S3 Micro-Raman mapping for the 2D graphene peak, indicating that graphene film distributes uniformly on the substrate.