

Supporting Information for
Grain Size Control for Large Bilayer Graphene

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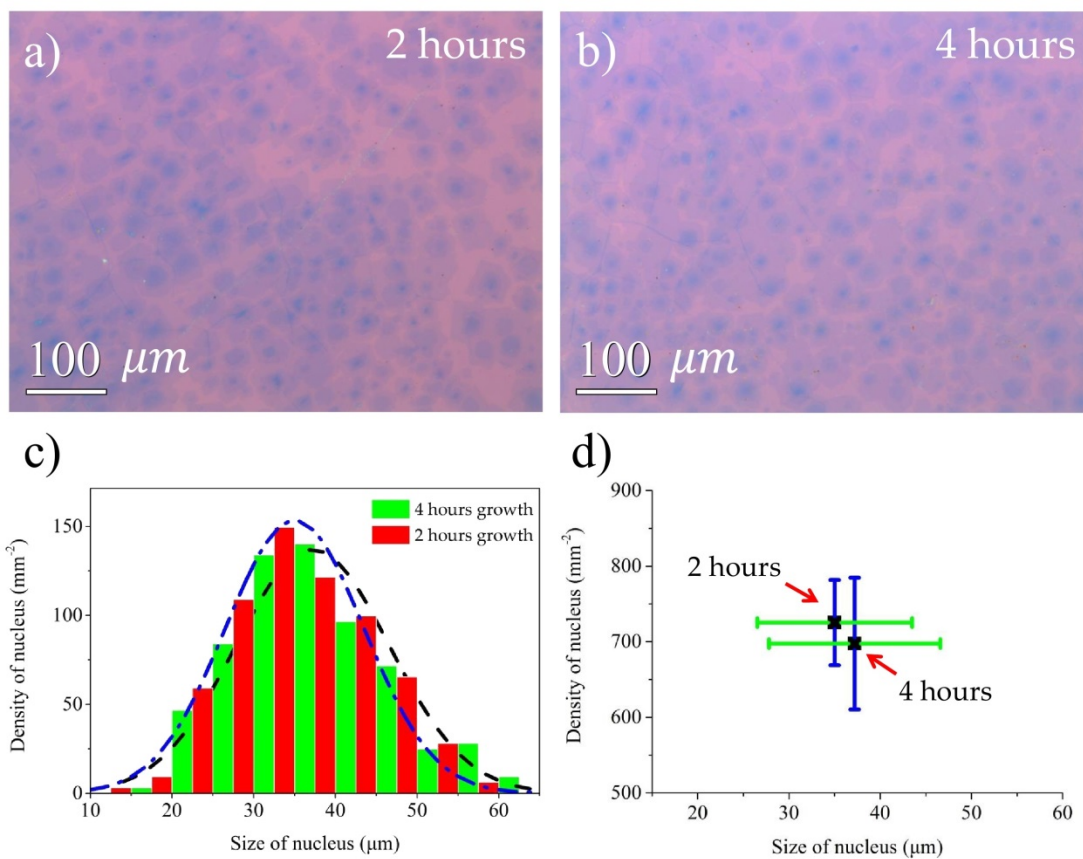


Figure S1. a, b) Optical images for continuous graphene sheet composed of large sized graphene grains with 2 hours and 4 hours growth time, respectively. c) The density & size statistics for 2 and 4 hours growth samples. d) Statistics data with error bars.

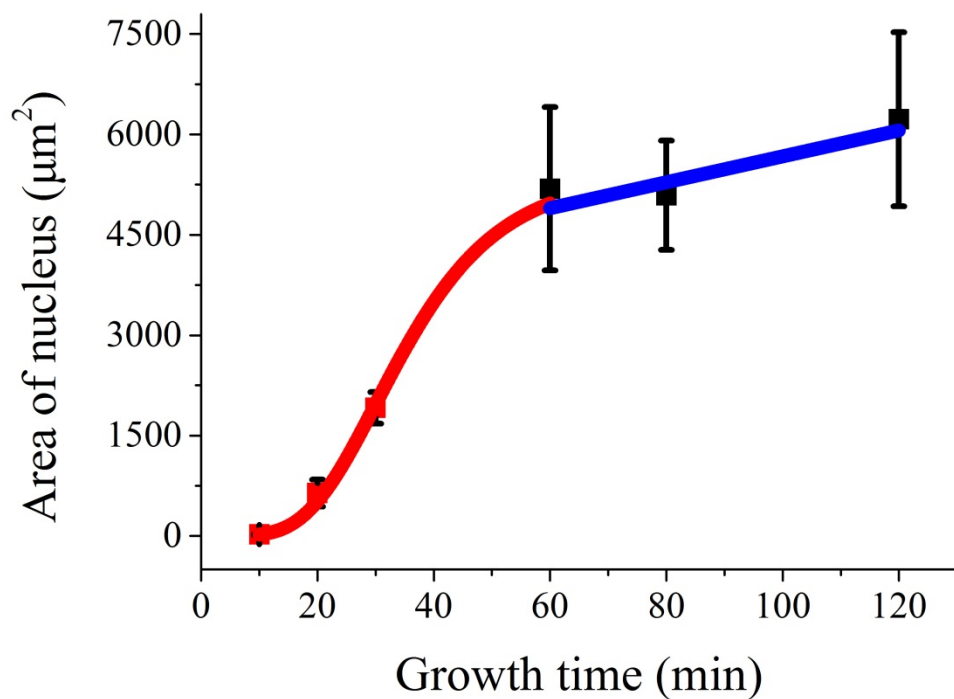


Figure S2. Plot of Area of nucleus vs. growth time. Before copper was full covered (0-60 min), this part was fitted with Gompertzian sigmoidal growth kinetics¹ according to adsorption-diffusion mechanism and the rest part (60-120 min) was fitted with straight line, represent the mechanism of gas phase penetration mechanism.

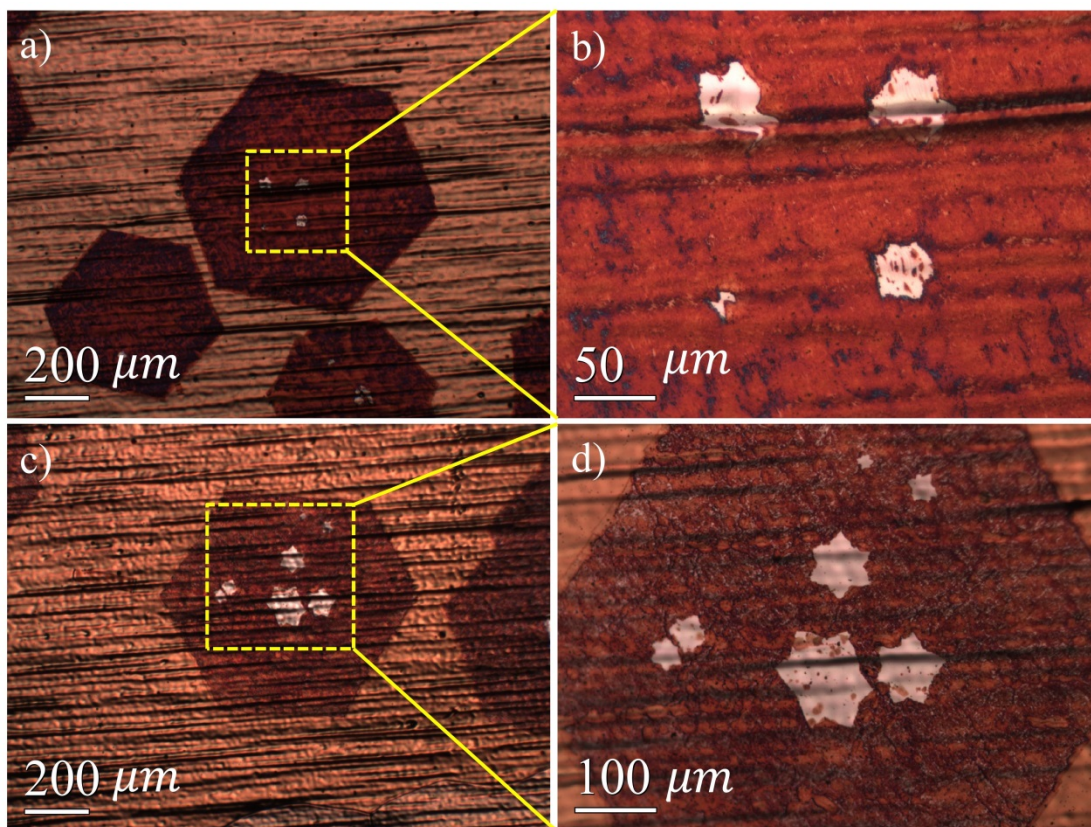


Figure S3. a, c) Single crystal graphene grains on oxidized copper (Visualization method treatment). b,d) Bilayer/trilayer grains reside in single crystalline monolayer graphene grains.

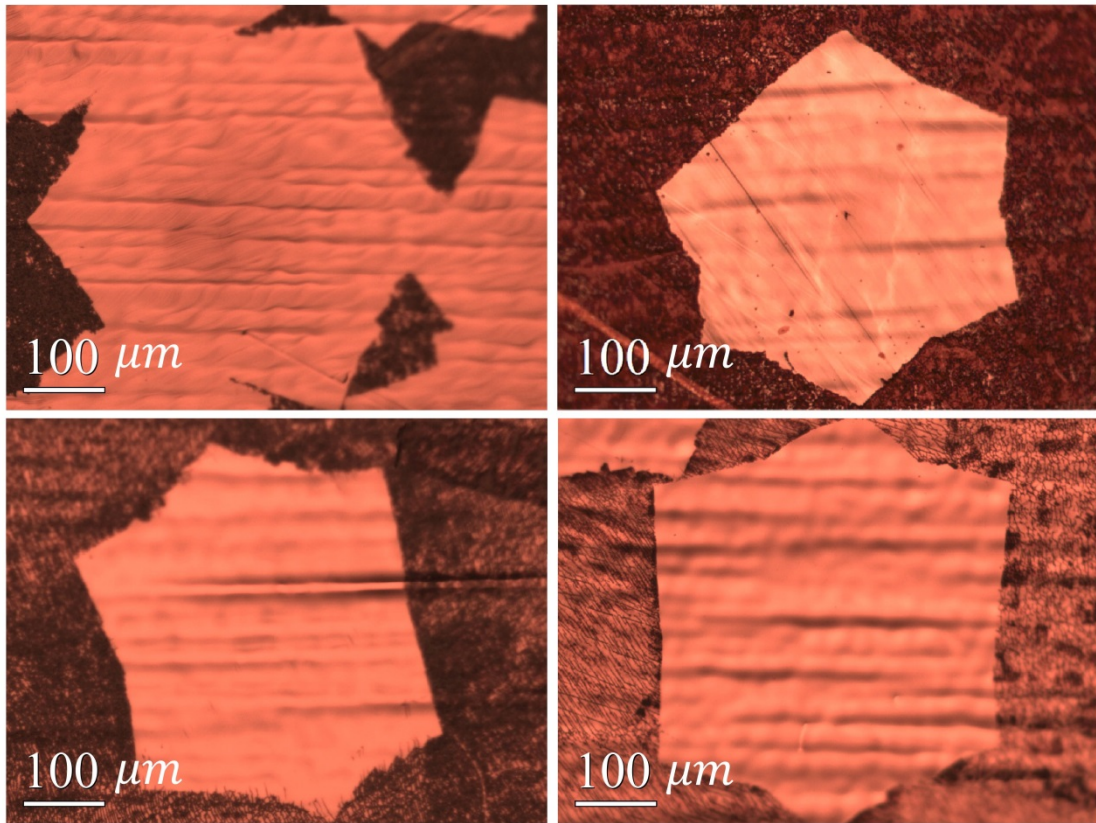


Figure S4. Large sized bilayer/few layers on copper substrate (visualization method treatment).

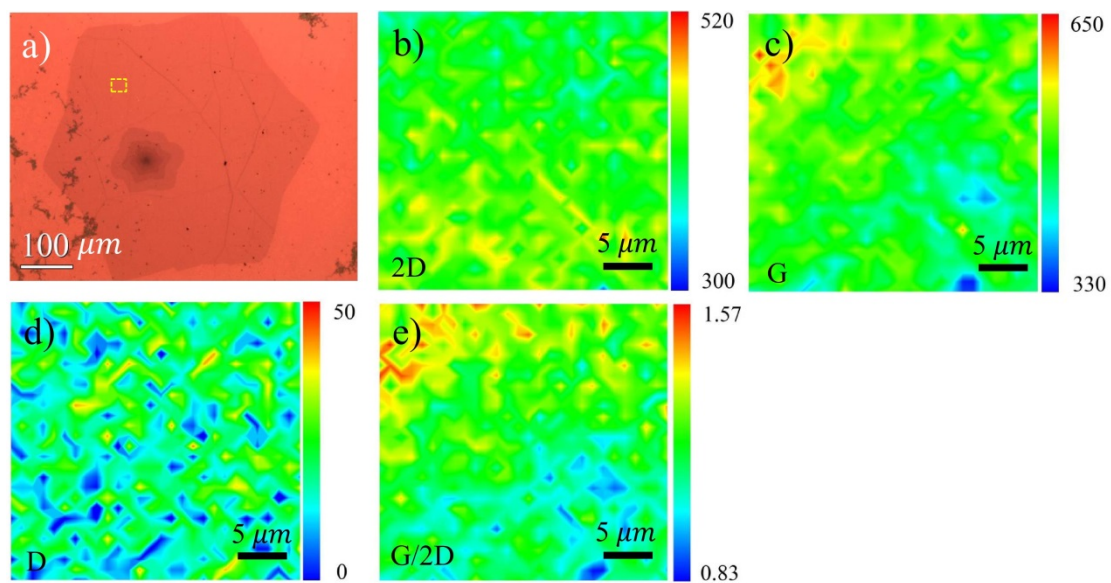


Figure S5. Raman mapping for BL/FLG. a) Optical image for synthesized bilayer graphene. b-d) two dimensional mapping Raman spectrum for 2D, G and D peak intensity, respectively. e) the mapping for ratio of G peak intensity to 2D peak intensity.

Reference:

- (1) Celebi, K.; Cole, M. T.; Choi, J. W.; Wyczisk, F.; Legagneux, P.; Rupesinghe, N.; Robertson, J.; Teo, K. B. K.; Park, H. G. *Nano Lett.* 2013, *13*, 967.