Electronic Supplementary Information

Controllable growth of shaped graphene domains by atmospheric pressure chemical vapour deposition

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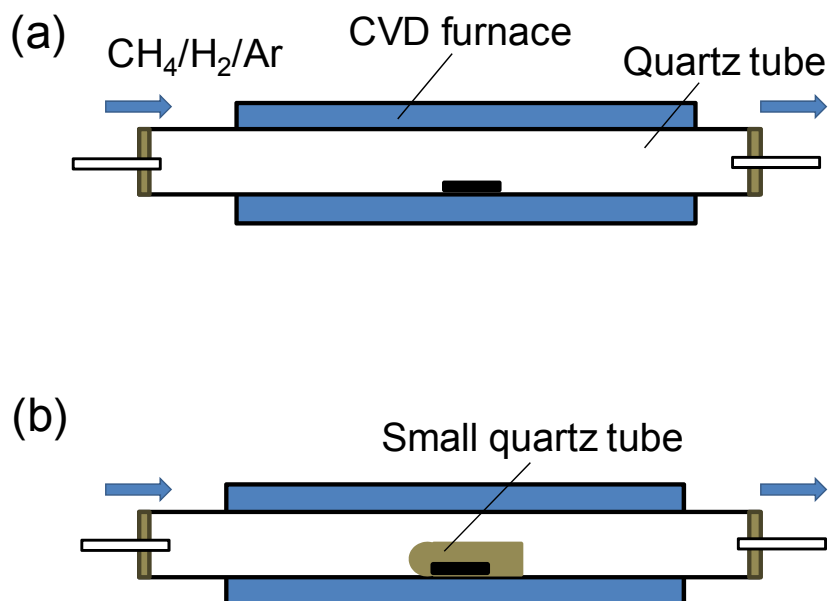*Address correspondence to: hongweizhu@tsinghua.edu.cn.

Figure S1. Schematics of CVD setups for graphene growth. (a) The copper substrate is directly positioned in the big quartz tube; (b) The copper substrate is positioned in the small quartz tube which serves as a gas stabilizer.
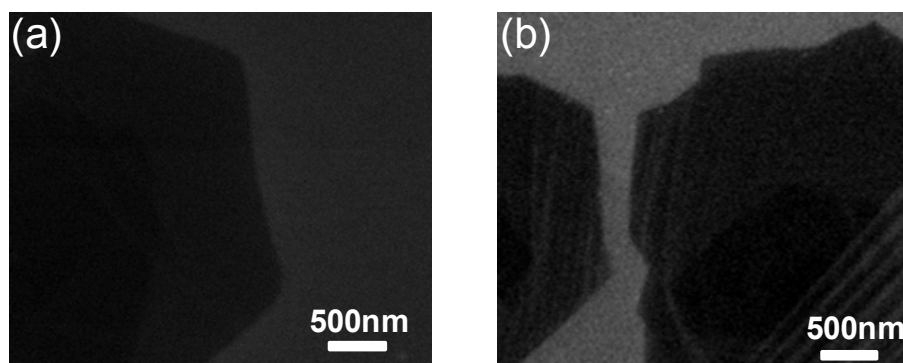
Figure S2. SEM images of (a) regularly and (b) irregularly shape graphene domains.
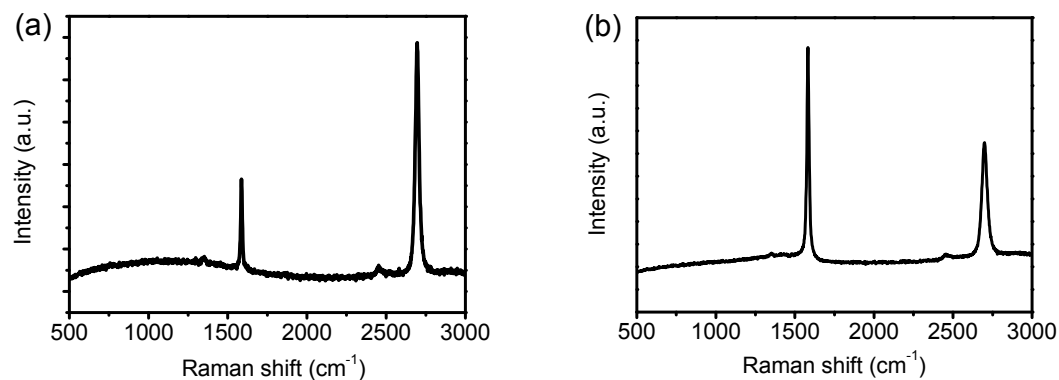

Figure S3. Raman spectra of different parts of the graphene domain. (a) Raman spectrum from the outer part of the graphene domain shows $I_{2D}/I_{G}>2$, which means single layer graphene and the G-peak shows no peak splitting which can be found in the zigzag edges of the graphene nano-ribbon [S1]. (b) Raman spectrum from the inner part of the graphene domain shows $I_{2D}<I_{G}$, which confirms the presence of multilayer graphene domain.

References:

[S1] Z. W. Shi, et al. Patterning Graphene with Zigzag Edges by Self-Aligned Anisotropic Etching. Adv. Mater., 2011, 23, 3061.