

# Synthesis of Graphene with Large Single-Crystalline Domains by Oxygen Assisted Chemical Vapor Deposition

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## Abstract

Large-area graphene grown by chemical vapor deposition (CVD) is promising for applications such as transparent electrodes for organic electronics and touch screen devices. In the case of graphene, grown on copper, the strong interaction between gaseous hydrocarbon and substrate results in high special density of nucleation sites. This is the origin that domain size of CVD-graphene is limited. In this report, we use oxygen during CVD process to passivate the copper surface, and maintain the special density of nucleation sites at low level. The experimental result reveals the size of single-crystalline domain of graphene could be efficiently enlarged by this treatment.

## References

[1] Authors, Journal, **Issue** (Year) page.

## Figures