



## Technical Data Sheet

### ACS Material Graphene on SiO<sub>2</sub> Substrate

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Revision: 022519

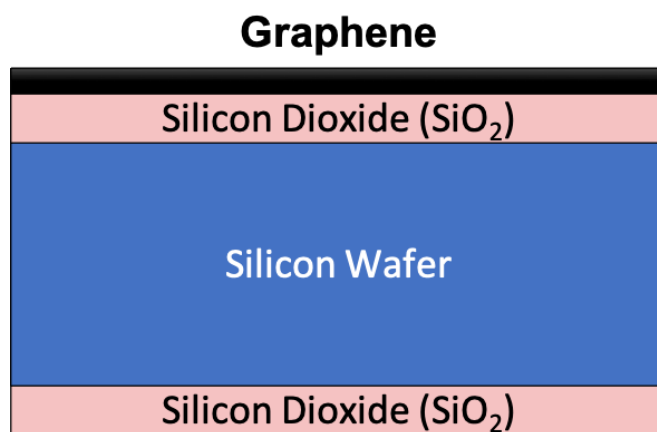
## 1. Preparation Method

CVD Graphene on silicon dioxide (300nm)/Si wafer substrate was prepared by the following steps:

- 1) As-grown Monolayer graphene on copper foil
- 2) Deposit PMMA and Cure
- 3) Etch away Cu
- 4) Wash PMMA/Graphene in DI water
- 5) Place PMMA/Graphene on substrate
- 6) Redeposit PMMA and Cure
- 7) Remove PMMA with acetone

## 2. Characterizations

<b>Layers:</b>	Predominantly single-layer graphene
<b>Sheet Resistance (<math>\Omega/\text{sq}</math>):</b>	<600
<b>Custom Order (<math>\Omega/\text{sq}</math>):</b>	<300
<b>Transparency (%):</b>	>95



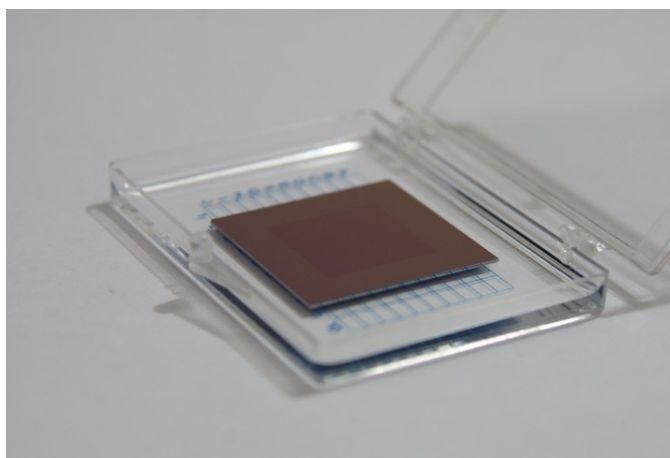
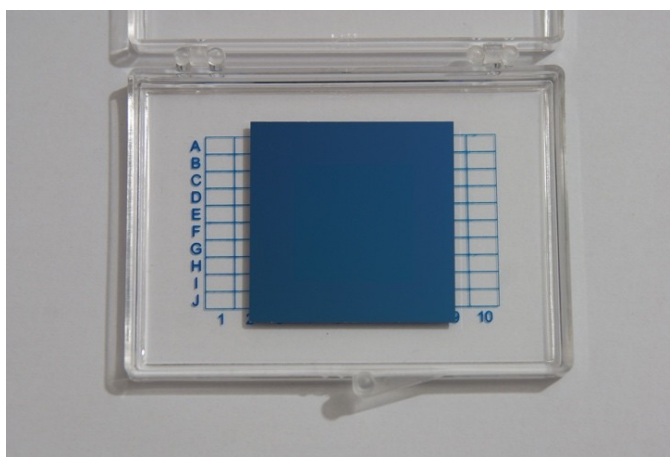
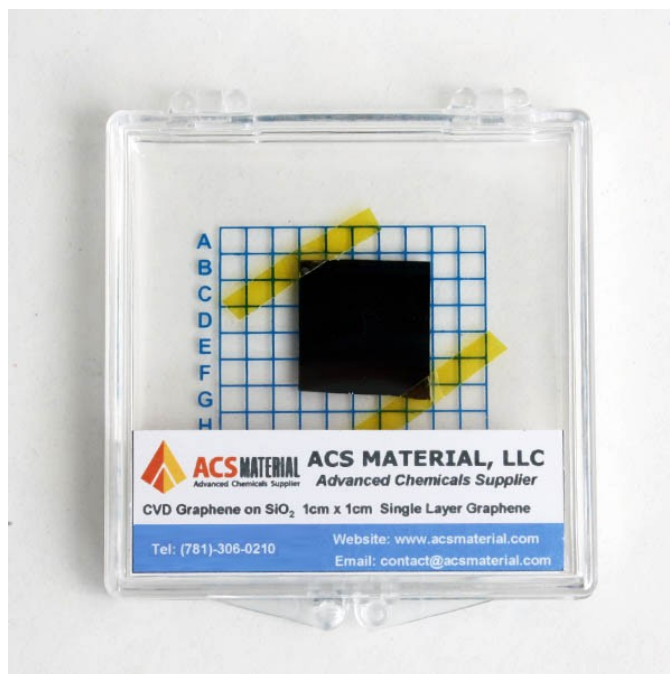
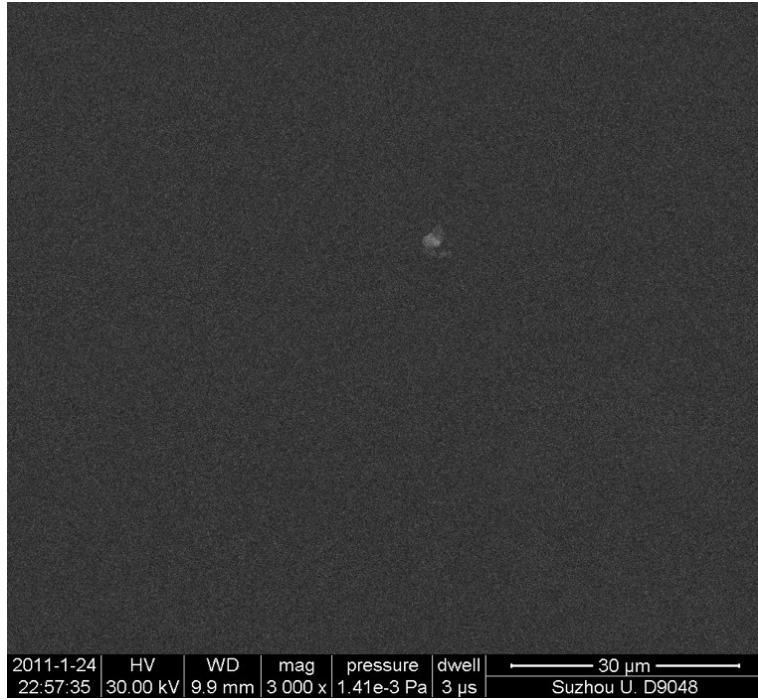
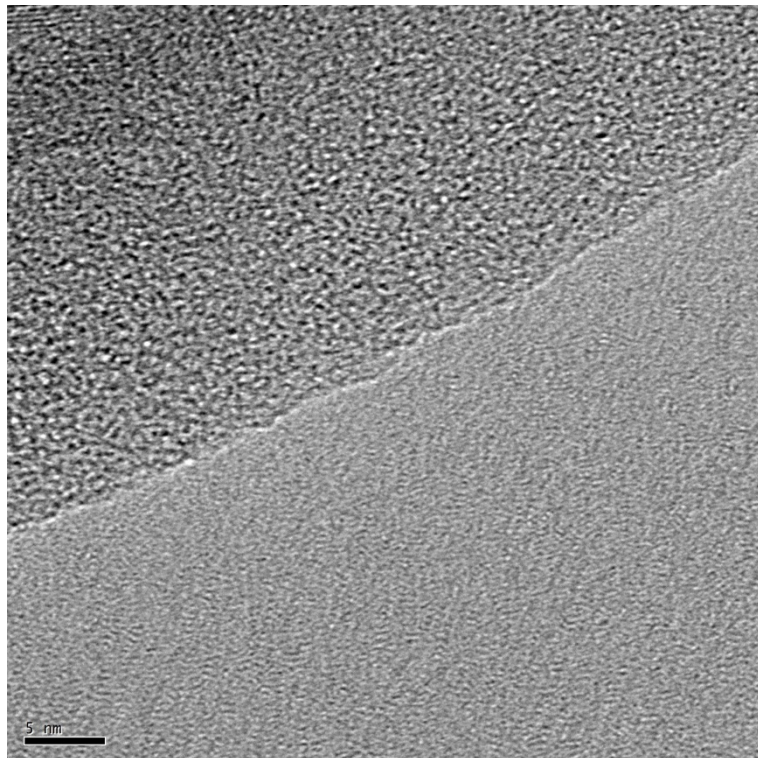


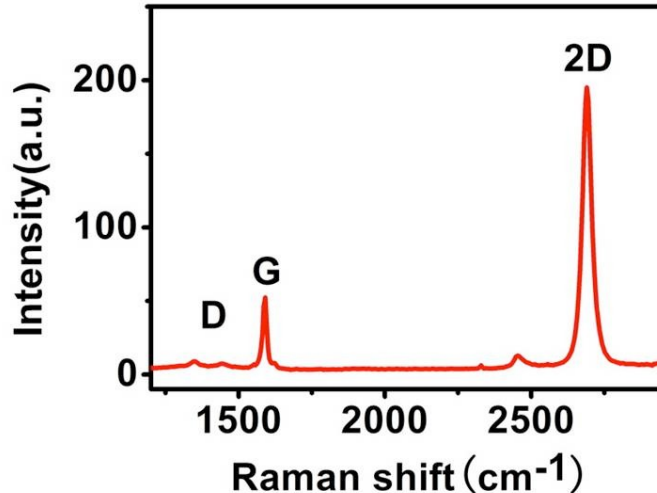
Image of ACS Material CVD Graphene on SiO<sub>2</sub> Substrate



Typical SEM Image of ACS Material Single Layer CVD Graphene Film



Typical TEM Image of ACS Material Single Layer CVD Graphene Film



Typical Raman Spectrum of ACS Material Single Layer CVD Graphene Film

### 3. Application Fields

- 1) Catalyst
- 2) Supercapacitors
- 3) Solar energy
- 4) Graphene semiconductor chips
- 5) Conductive graphene film
- 6) Graphene computer memory
- 7) Biomaterials
- 8) Transparent conductive coatings

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