



| | |
|---------------|---|
| *Health | 0 |
| *Flammability | 1 |
| *Reactivity | 0 |

* *Estimated from Experimental Data and Experience*

Technical Data Sheet

ACS Material CVD Graphene on Quartz

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Revision: 090215

1. Preparation Method

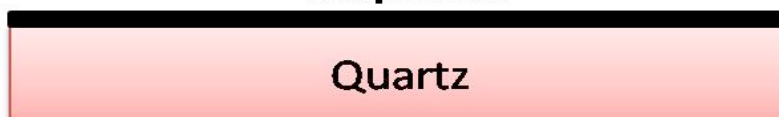
Graphene on Quartz substrate was prepared by the following steps:

- 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. Composition/Information on Ingredients

| Ingredient | CAS No |
|------------|------------|
| Carbon | 7782-42-5 |
| Quartz | 14808-60-7 |

Graphene



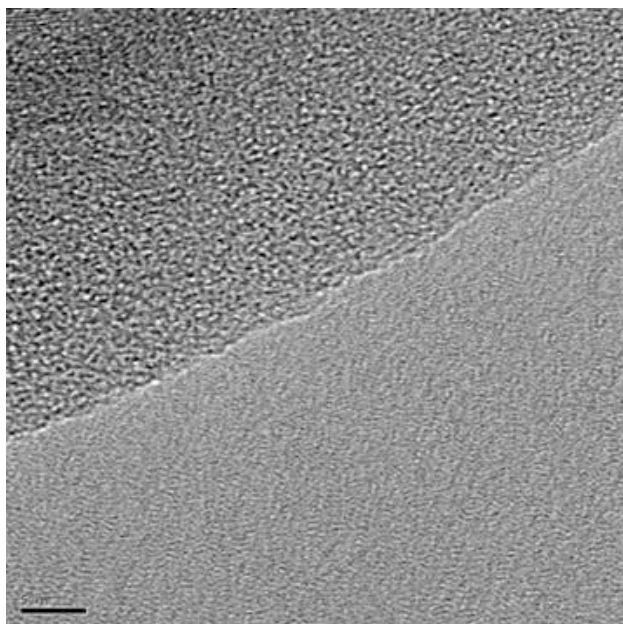
3. Characterization & Analysis

The types of Graphene on Quartz:

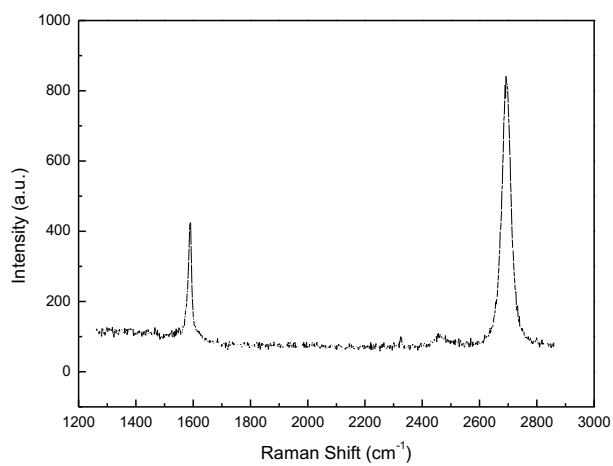
[Single Layer Graphene on Quartz](#)

[Two- or Multi-Layer Graphene on Quartz](#)

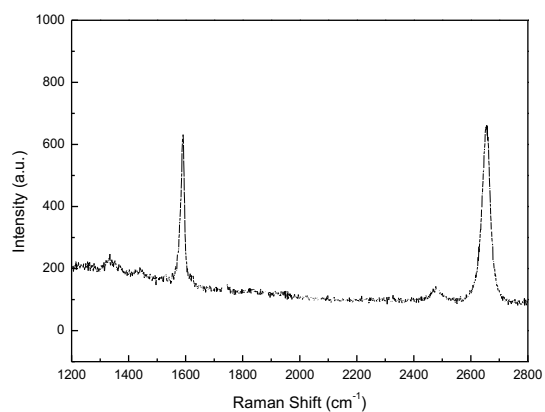
[Nitrogen-doped single or multi layer Graphene on Quartz](#)



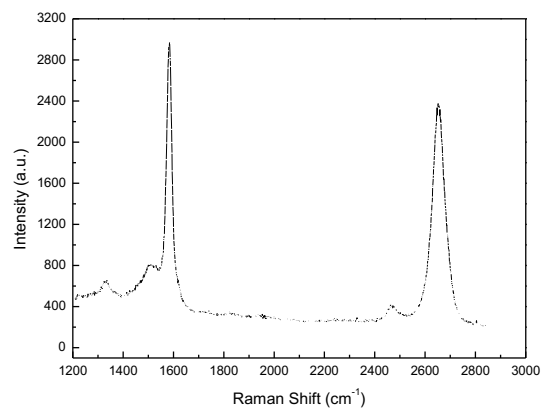
TEM for ACS Material Single Layer Graphene on Quartz



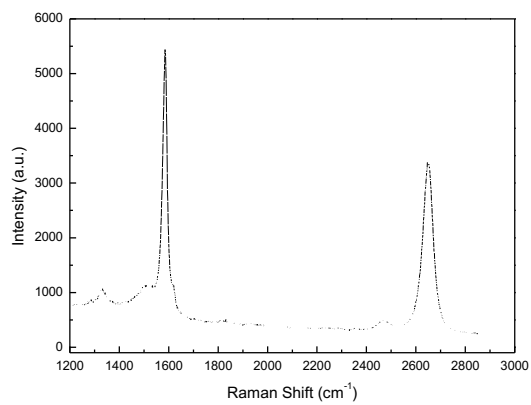
Raman Spectra for ACS Material Single Layer Graphene made by CVD Method



Raman Spectra for ACS Material 2 Layers Graphene made by CVD Method



Raman Spectra for ACS Material 3-5 Layers Graphene made by CVD Method



Raman Spectra for ACS Material 6-8 Layers Graphene made by CVD Method

4. Application Fields

Supercapacitors;
Catalyst;
Solar energy;
Graphene semiconductor chips;
Conductive graphene film;
Graphene computer memory;
Biomaterials;
Transparent conductive coatings.

5. Use Methods and Attentions

Conditions for safe storage

Keep the products in a dry and low oxygen (or oxygen-free) container at moderate temperature ($<30^{\circ}\text{C}$).



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