



## Technical Data Sheet

### ACS Material Single Layer Graphene (Graphene Factory)

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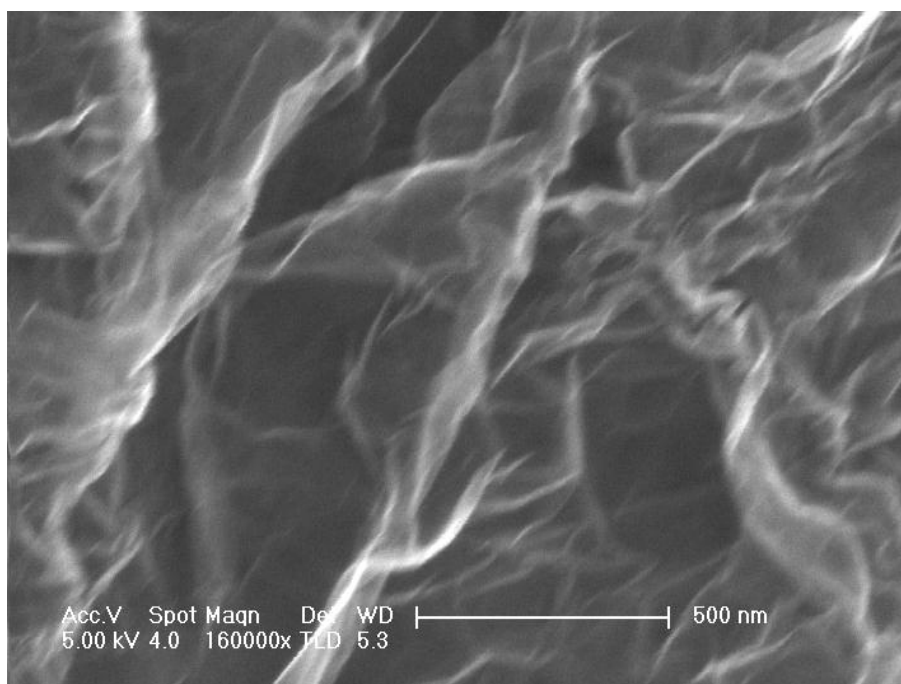
Revision: 062317

## 1. Preparation Method

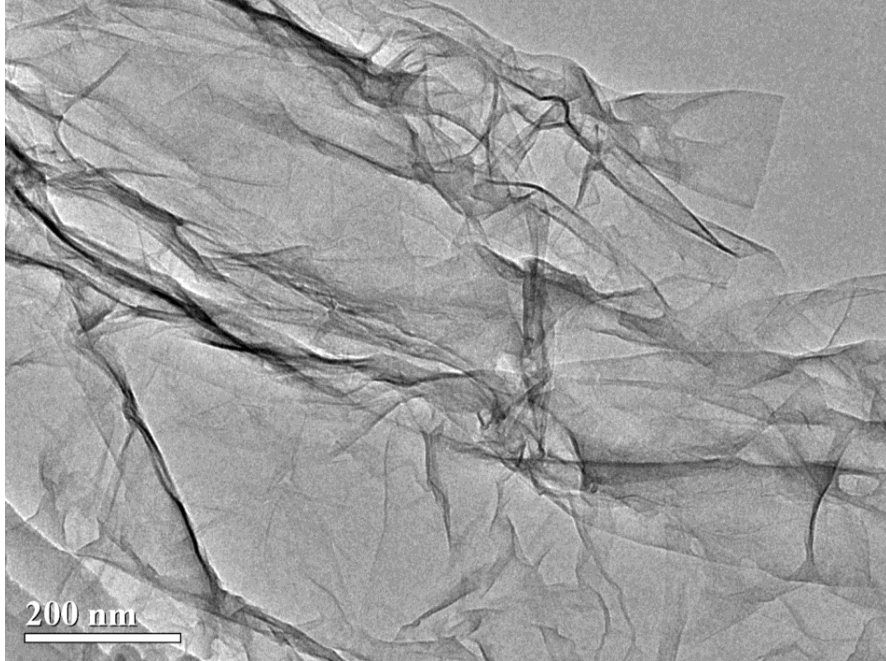
Preparation Method: Thermal exfoliation reduction + Hydrogen reduction

## 2. Characterizations

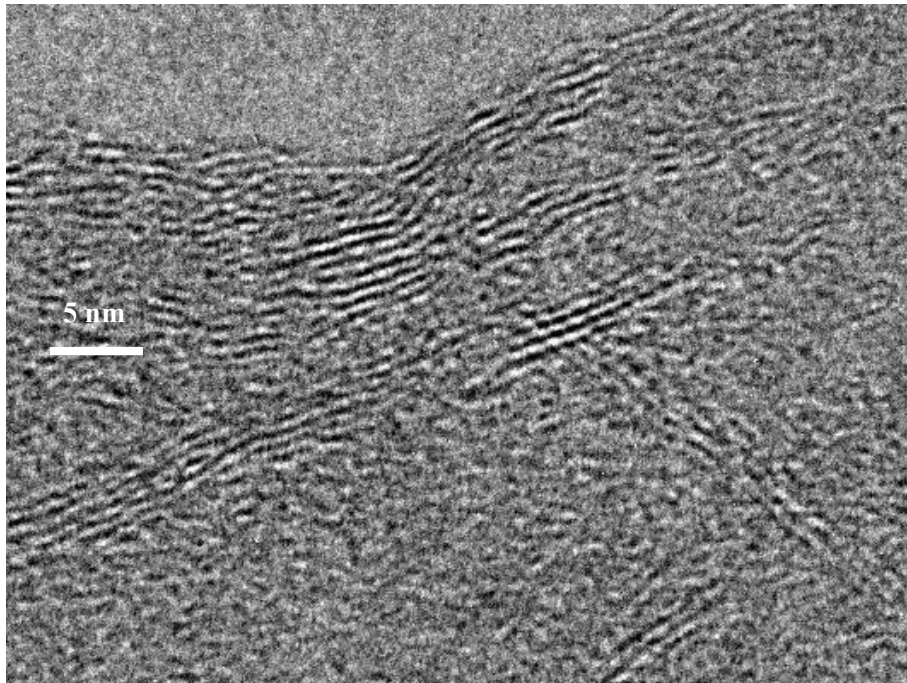
<b>Layers:</b>	1-5 atomic layer graphene nanosheets
<b>Lateral size (<math>\mu\text{m}</math>):</b>	0.5-5
<b>Oxygen (at %):</b>	7-7.5
<b>BET surface area (<math>\text{m}^2/\text{g}</math>):</b>	650-750
<b>Electrical conductivity (S/m):</b>	500-700



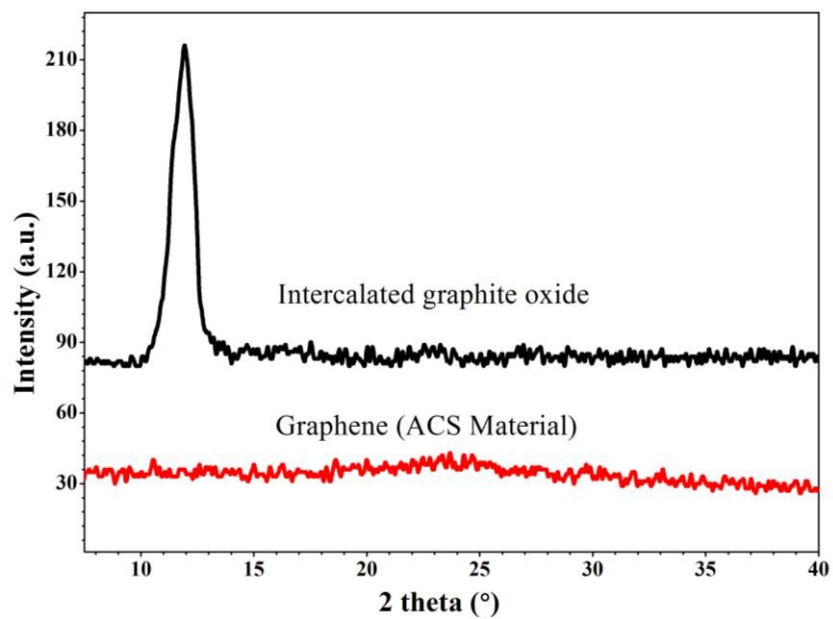
Typical SEM Image of ACS Material Single Layer Graphene (Graphene Factory)



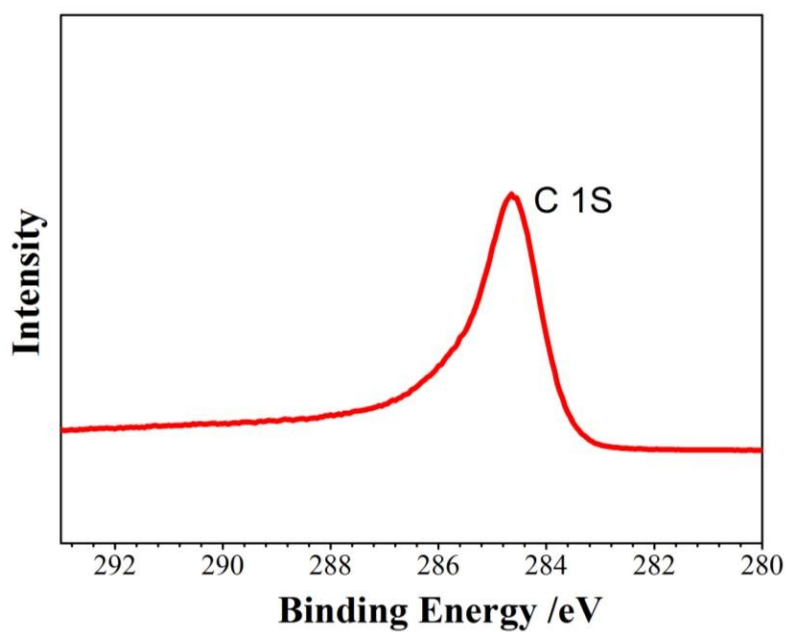
Typical TEM Image of ACS Material Single Layer Graphene (Graphene Factory)



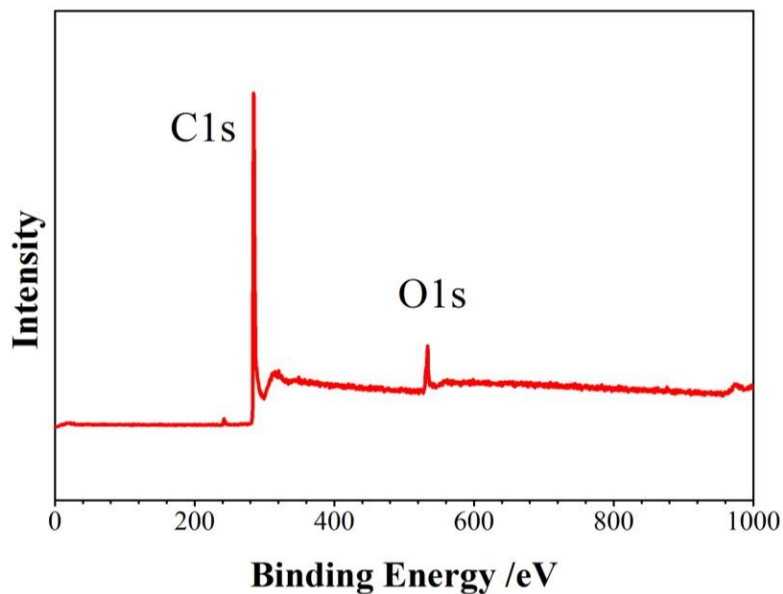
HRTEM Image of ACS Material Single Layer Graphene (Graphene Factory)



XRD patterns of ACS Material Single Layer Graphene (Graphene Factory)



XPS patterns of ACS Material Single Layer Graphene (Graphene Factory)



XPS patterns of ACS Material Single Layer Graphene (Graphene Factory)

### 3. Application Fields

- 1) Supercapacitors
- 2) Catalyst
- 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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