



Technical Data Sheet

ACS Material Nitrogen-doped Graphene Powder

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Contact Information:

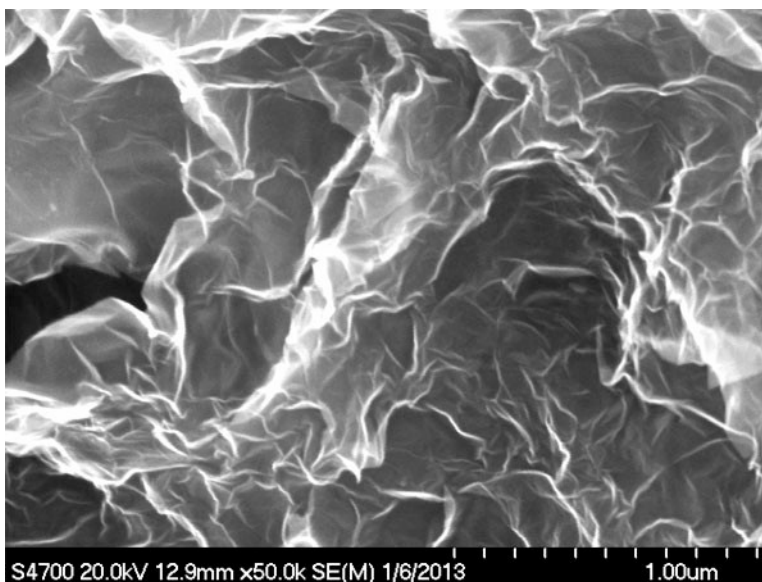
Manufacturer: ACS Material, LLC.
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Revision: 062317

1. Preparation Method

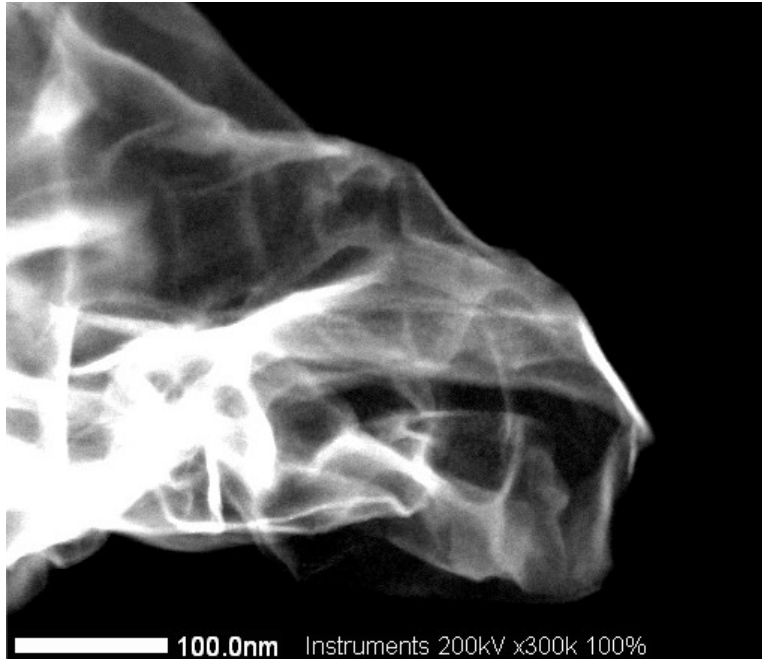
Chemical Vapor Deposition (CVD) Method

2. Characterizations

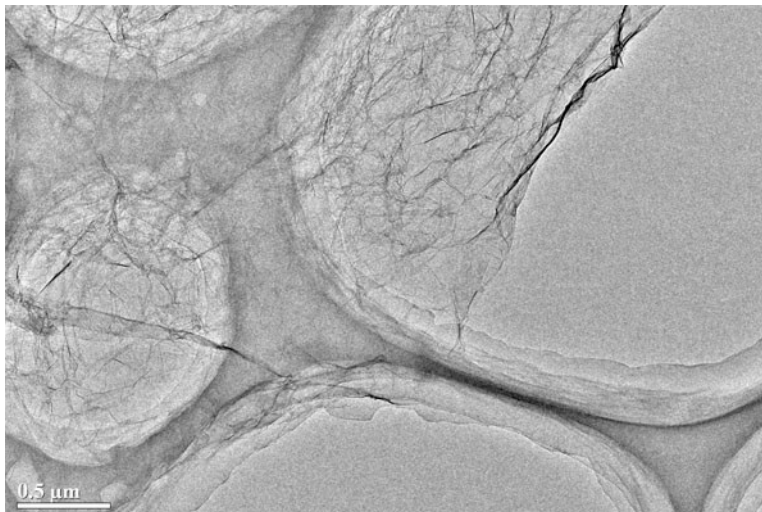
BET surface area (m²/g):	500 ~700
Electrical Conductivity (S/m):	>1000 (characterized at the density of 0.3 g/cm ³)
Layers:	1-5 atomic layer graphene nanosheets
Lateral size (μm):	0.5-5
Carbon (at %):	~ 88.0
Nitrogen (at %):	1.0-3.0
Oxygen (at %):	7.0-7.5



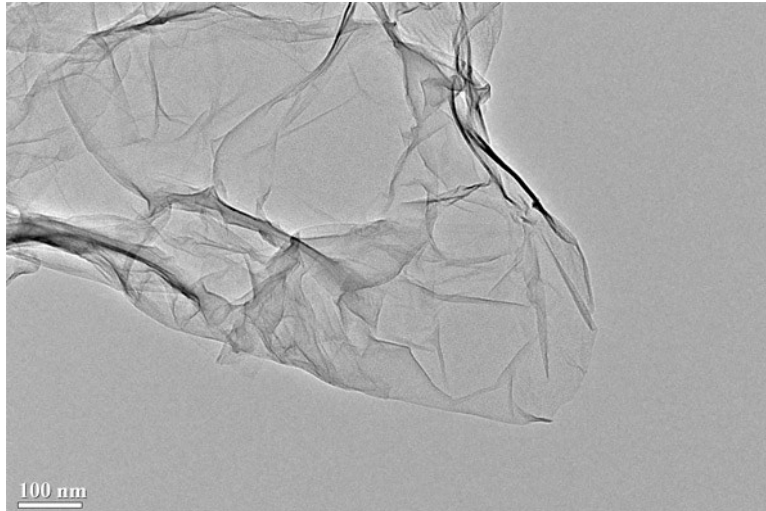
Typical SEM Image of ACS Material N-doped Graphene (1)



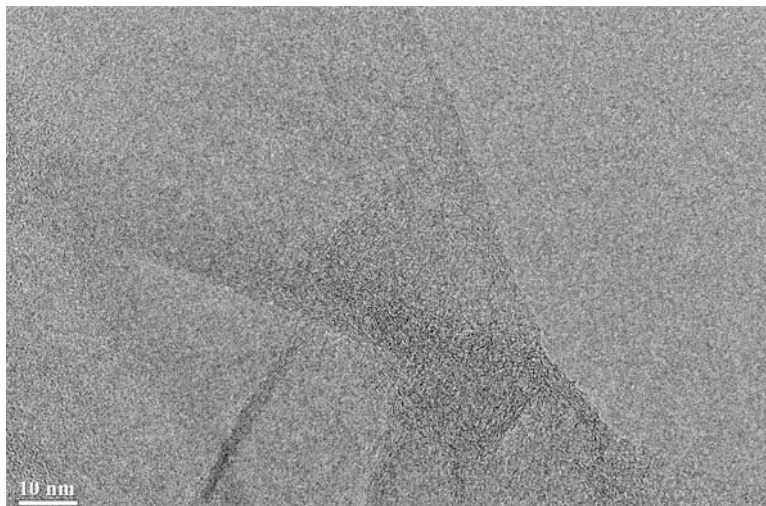
Typical SEM Image of ACS Material N-doped Graphene (2)



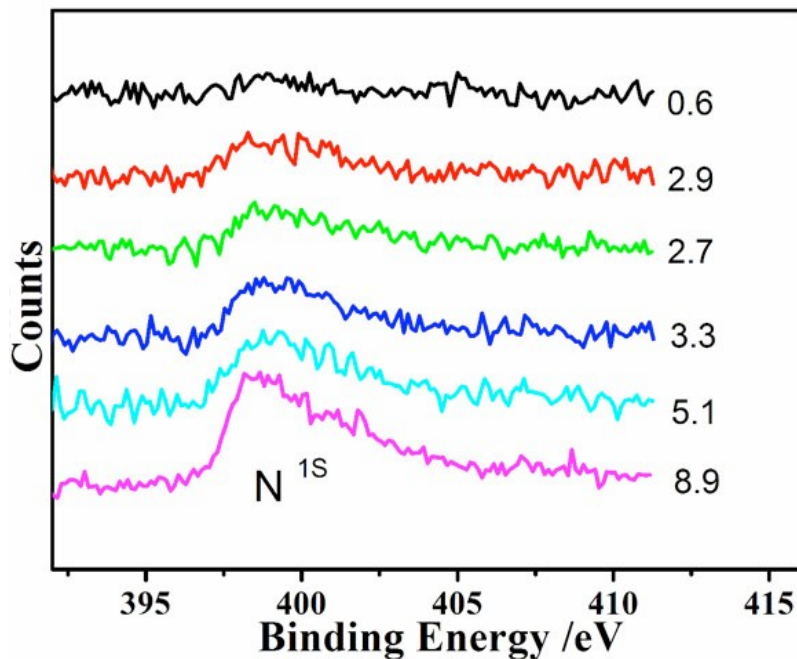
Typical TEM Image of ACS Material N-doped Graphene (1)



Typical TEM Image of ACS Material N-doped Graphene (2)



Typical TEM Image of ACS Material N-doped Graphene (3)



XPS Analysis of ACS Material N-doped Graphene

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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