Technical Data Sheet

ACS Material Nitrogen-doped Graphene Powder

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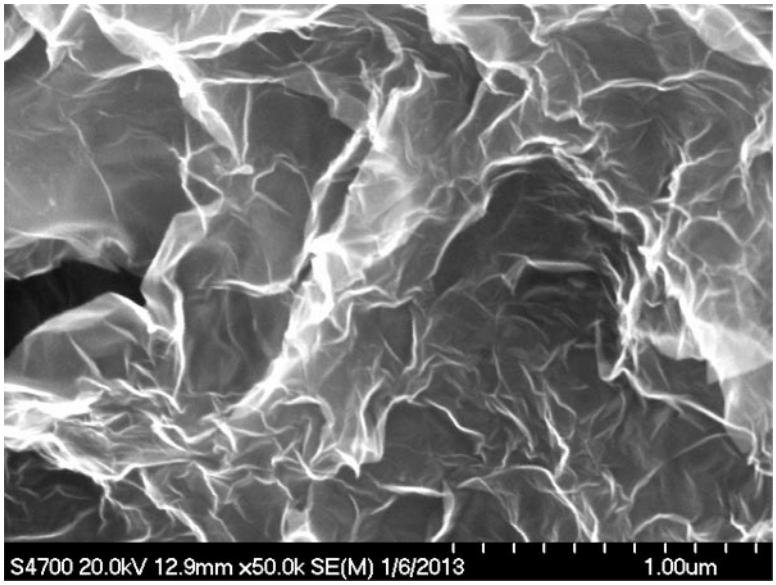
1. Preparation Method

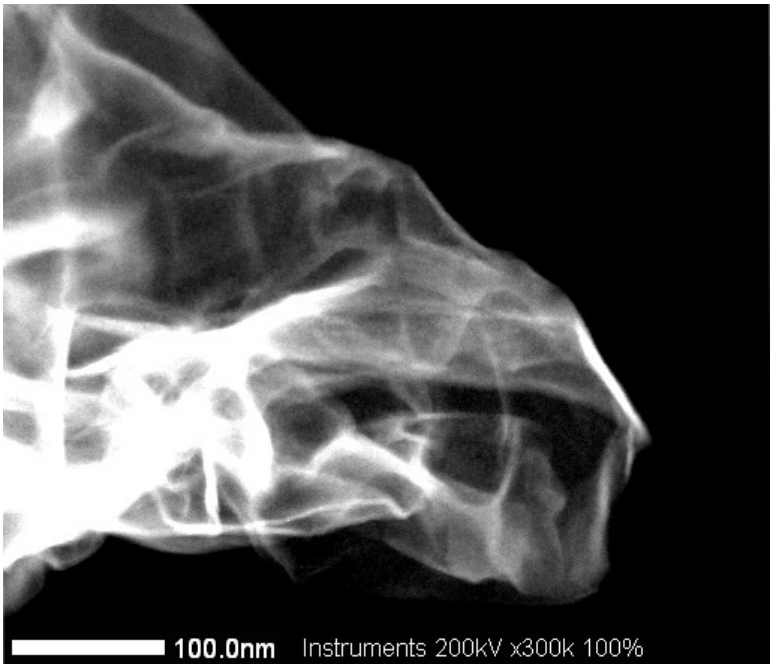
Chemical Vapor Deposition (CVD) Method

2. Characterizations

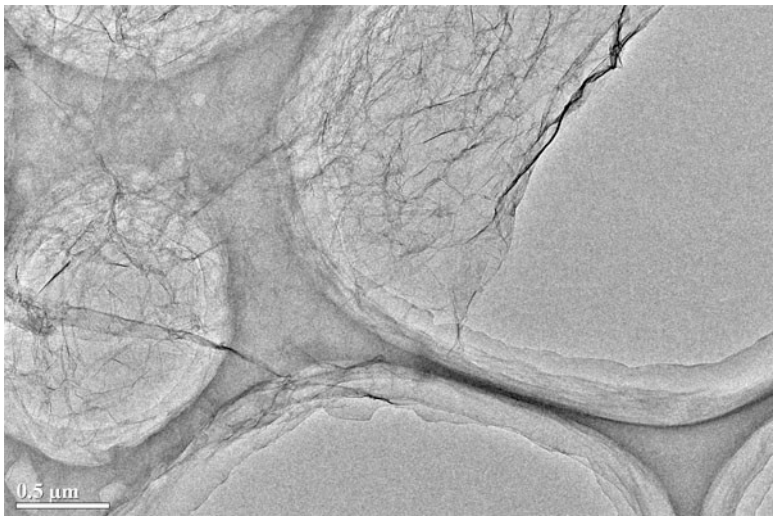
BET surface area (m^2/g):	500 ~700
Electrical Conductivity (S/m):	>1000 (characterized at the density of 0.3 g/cm^3)
Layers:	1-5 atomic layer graphene nanosheets
Lateral size (μm):	0.5-5
Carbon (at %):	~ 88.0
Nitrogen (at %):	1.0-3.0
Oxygen (at %):	7.0-7.5



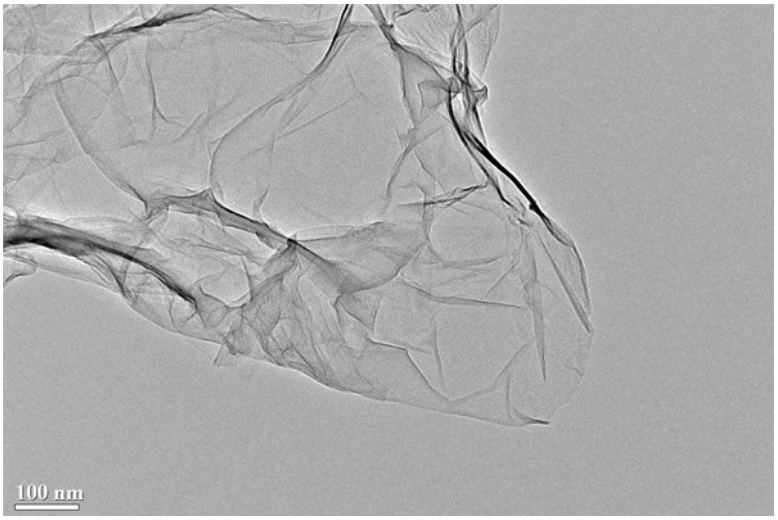
Typical SEM Image of ACS Material N-doped Graphene (1)



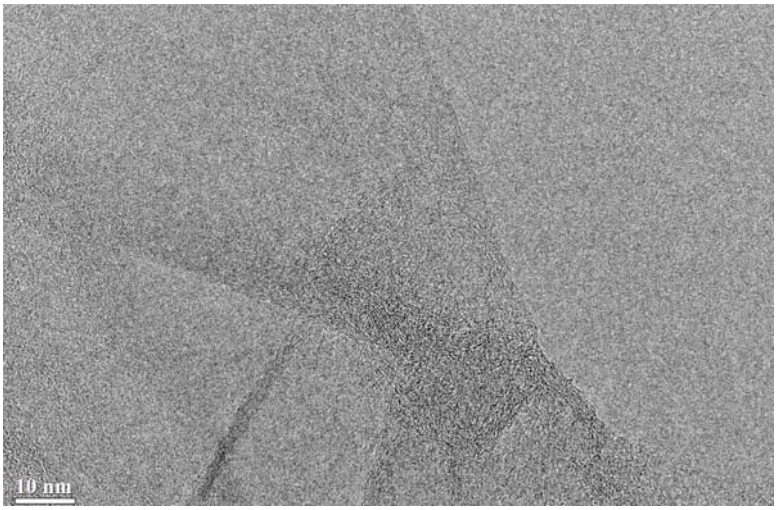
Typical SEM Image of ACS Material N-doped Graphene (2)



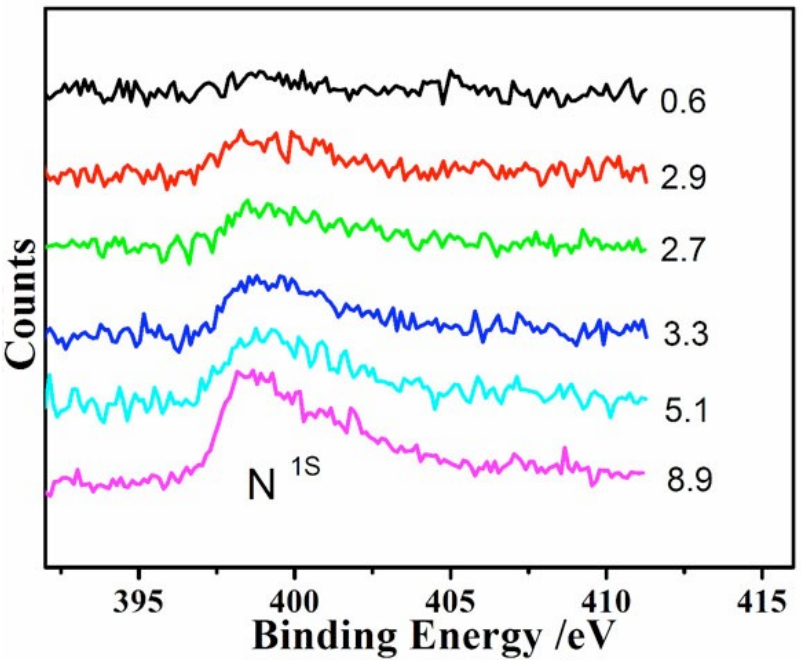
Typical TEM Image of ACS Material N-doped Graphene (1)



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