Technical Data Sheet

ACS Material Industrial-Grade Graphene Oxide

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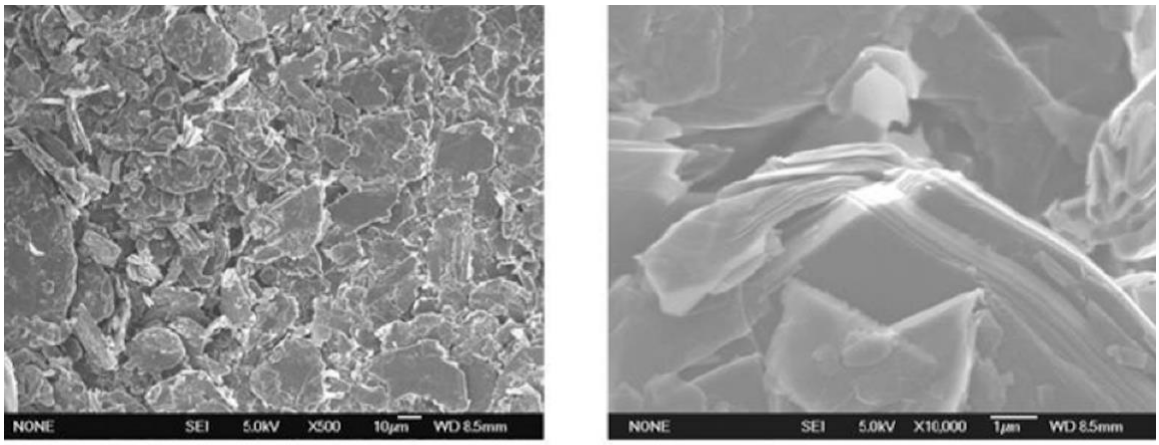
Revision: 080124

1. Preparation Method

Modified Hummer's Method

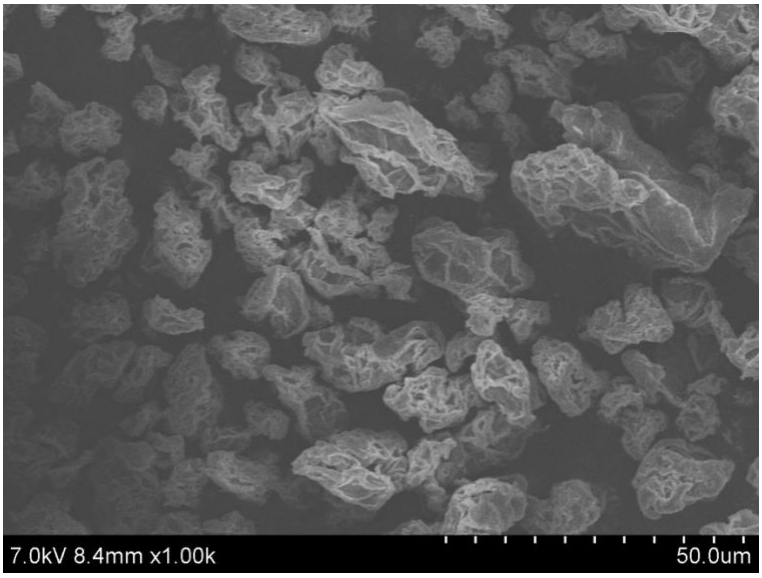
2. Characterizations

Grade:	Industrial Grade, Type A	Industrial Grade, Type B
Appearance:	Brownish Yellow Powder	Powder
Purity:	N/A	N/A
Lateral size:	0.2-10 μm	5-20 μm
Thickness:	~2 nm	N/A
pH (1mg/mL):	~3.57	~2.0
Singer layer Ratio:	>95%	N/A
Carbon Content:	~42.7 wt.%	~34-47 wt.%
Oxygen Content:	~51.6 wt.%	~45-50 wt.%
Sulfur Content:	<2.1 wt.%	N/A
Ash Content	＜1.0 wt.%	N/A
Tap Density:	~0.50 g/mL	~ 0.3-0.4 g/mL
Grain Size (mesh):	＜80	N/A

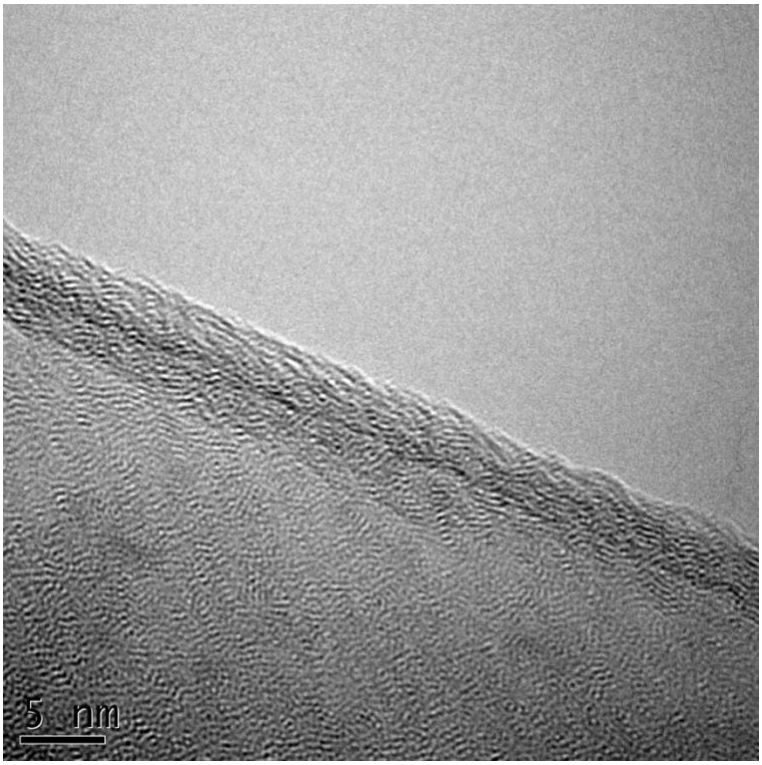


(a) (b)

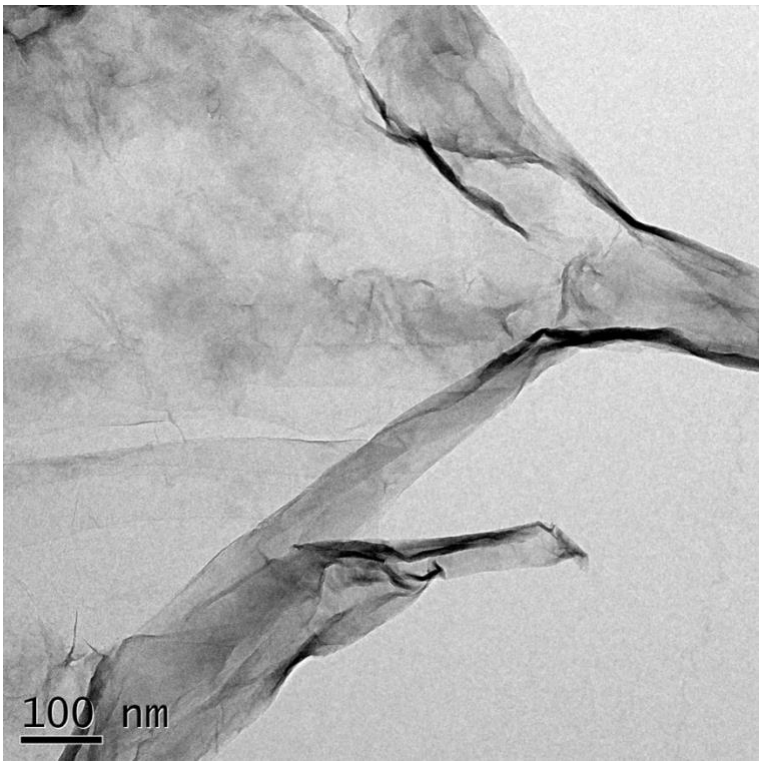
Typical SEM of ACS Material Graphene, Type A (a, b)



Typical SEM of ACS Material Graphene Oxide (Industrial Grade), Type A



Typical TEM (1) of ACS Material Graphene Oxide (Industrial Grade), Type A



Typical TEM (2) of ACS Material Graphene Oxide (Industrial Grade), Type A

3. Application Fields

1) Preparation of graphene
2) Solar energy
3) Graphene semiconductor chips
4) Conductive graphene film
5) Graphene computer memory
6) Biomaterials
7) Transparent conductive coatings