



Technical Data Sheet

ACS Material High Surface Area Graphene Oxide

CAS No.: 7782-42-5

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Revision: 031918

1. Preparation Method

Modified Hummer's Method

2. Characterizations

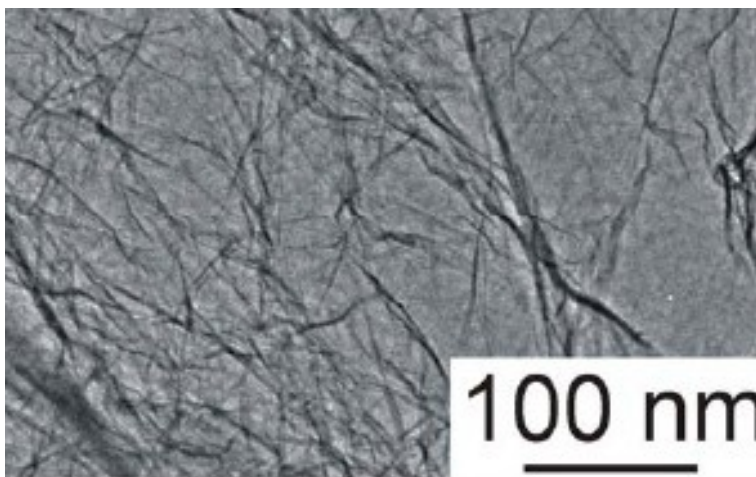
| Type: | Type A | Type B |
|-----------------|----------------------------|----------------------------|
| Appearance: | Brownish Yellow Powder | Brownish Grey Powder |
| Purity: | ~ 99% | ~ 99% |
| Lateral size: | 1-5 μm | 0.2-10 μm |
| Thickness: | 0.8-1.2 nm | ~1 nm |
| Monolayer Rate: | ~ 99% | >90% |
| Carbon Content: | ~51.26 wt.% | ~46 wt.% |
| Oxygen Content: | ~40.78 wt.% | ~50 wt.% |
| Sulfur Content: | N/A | <1.5 wt.% |
| BET: | >100 m^2/g | ~400 m^2/g |



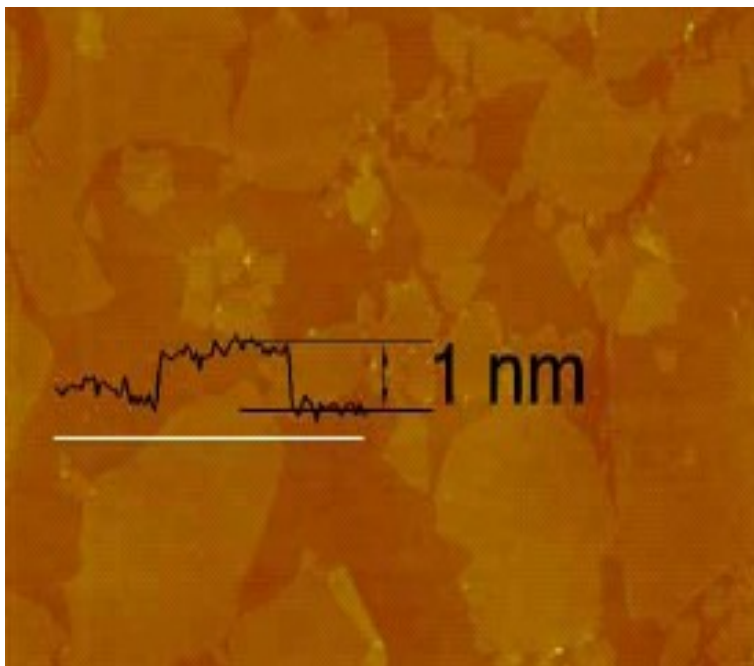
Digital Photo of ACS Material High Surface Area Graphene Oxide (Type A)



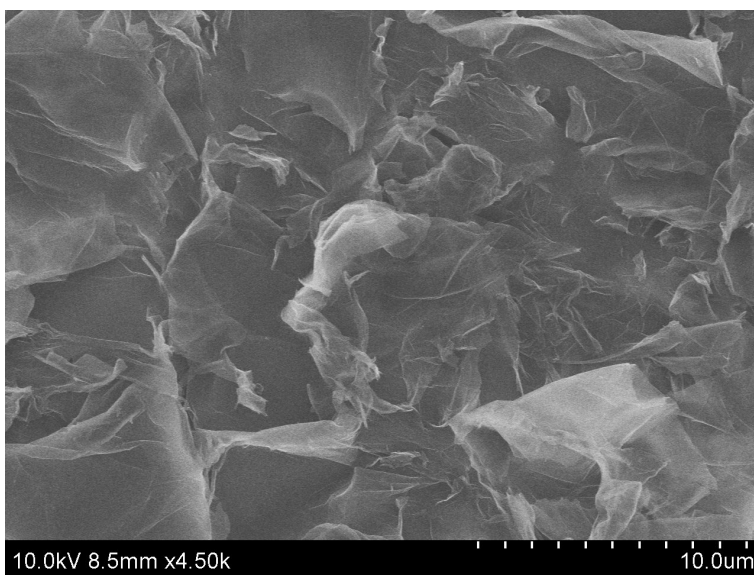
Digital Photo of ACS Material High Surface Area Graphene Oxide (Type B)



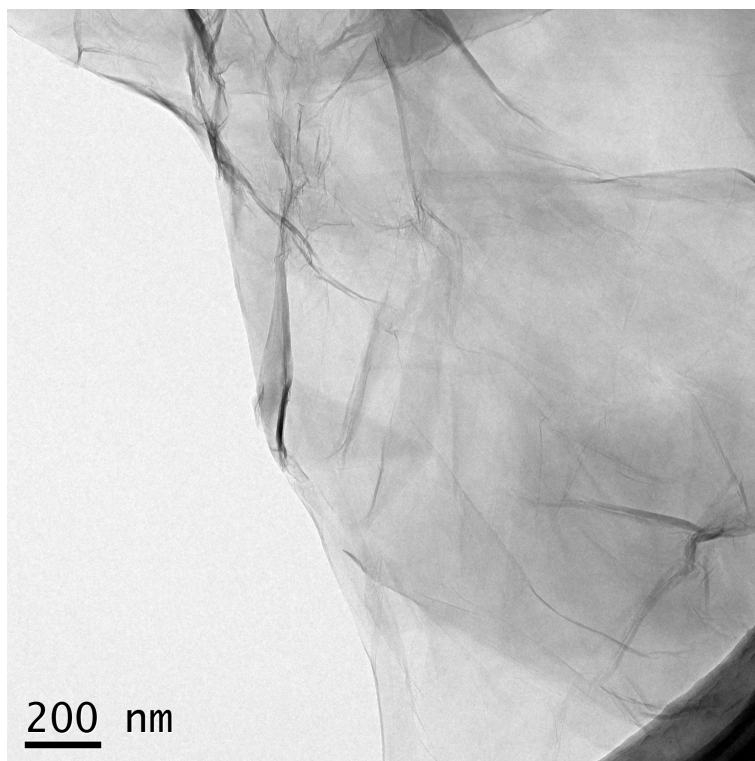
Typical TEM Image of ACS Material High Surface Area Graphene Oxide (Type A)



AFM Analysis of ACS Material High Surface Area Graphene Oxide (Type A)



Typical SEM Image of ACS Material High Surface Area Graphene Oxide (Type B)



Typical TEM Image of ACS Material High Surface Area Graphene Oxide (Type B)

3. Application Fields

- 1) Catalyst
- 2) Supercapacitors
- 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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