

# Technical Data Sheet

# ACS Material Graphene Oxide

(Staudenmaier Method)

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#### **Contact Information:**

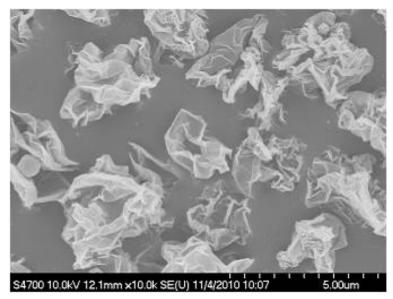
Manufacturer: ACS Material, LLC. Address: 959 E Walnut St., Suite 100 Pasadena, CA 91106, USA Phone: (866)-227-0656 Fax: (781)-518-0284 E-Mail: contact@acsmaterial.com Revision: 063017

## 1. Preparation Method

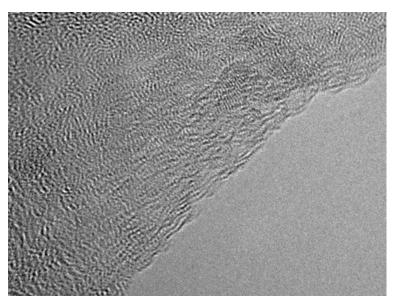
Staudenmaier Method

## 2. Characterizations

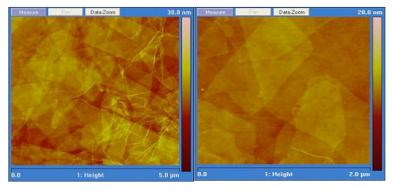
| Appearance:                  | Grey Green Powder      |  |
|------------------------------|------------------------|--|
| Diameter:                    | 1-15 μm                |  |
| Thickness:                   | 0.8-1.2 nm             |  |
| Specific Surface Area (SSA): | 5-10 m <sup>2</sup> /g |  |
| Oxygen content:              | ~35 wt.%               |  |



Typical SEM Image of ACS Material Graphene Oxide (S Method)



Typical TEM Image of ACS Material Graphene Oxide (S Method)



| AFM Analysis | of ACS Mate | erial Graphene | Oxide (S Method) |
|--------------|-------------|----------------|------------------|
|--------------|-------------|----------------|------------------|

| Element | Weight Content % |
|---------|------------------|
| C 1s    | 65.71            |
| N 1s    | 0.5              |
| O 1s    | 33.8             |

### **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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