Technical Data Sheet

ACS Material Graphene Oxide

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1. Preparation Method
Modified Hummer’s Method

2. Characterizations

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purity</td>
<td>~ 99%</td>
</tr>
<tr>
<td>Diameter:</td>
<td>1-5 µm</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.8-1.2 nm</td>
</tr>
<tr>
<td>Singer layer Ratio:</td>
<td>&gt;80%</td>
</tr>
</tbody>
</table>

Typical TEM Image (1) of ACS Material Single Layer Graphene Oxide (H Method)
Typical TEM Image (2) of ACS Material Single Layer Graphene Oxide (H Method)

AFM Analysis of ACS Material Single Layer Graphene Oxide (H Method)
The TEM and AFM analysis were completed through dispersing ACS-Material Graphene Oxide into water or ethanol with the help of ultrasound.

<table>
<thead>
<tr>
<th>Sample</th>
<th>N (wt %)</th>
<th>C (wt %)</th>
<th>O (wt %)</th>
<th>C/O at. ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphene Oxide</td>
<td>0</td>
<td>51.26</td>
<td>40.78</td>
<td>1.67</td>
</tr>
</tbody>
</table>

### 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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