Technical Data Sheet

ACS Material Graphene on Ultra-fine 2000 Mesh Copper TEM Grids

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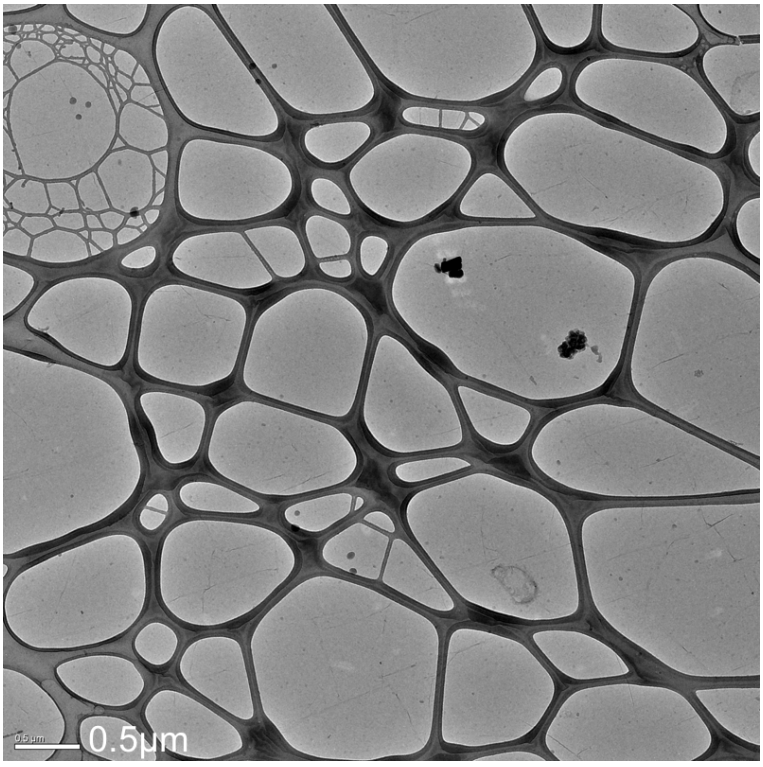
1. Preparation Method

Chemical Vapor Deposition (CVD) Method

2. Characterizations

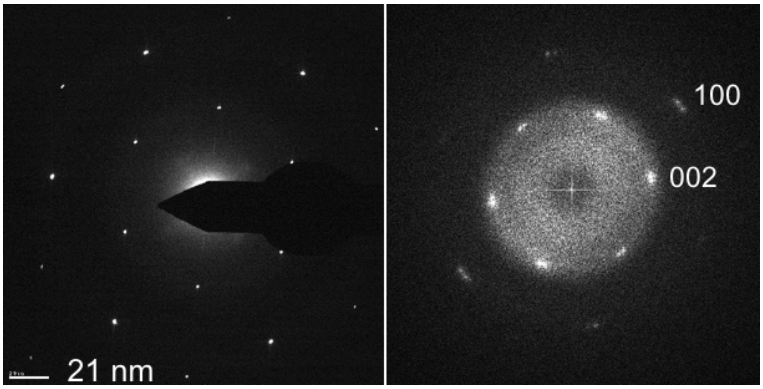
The graphene film appears as a near-transparent to light-grey film on the surface of the red-brown microporous copper TEM grid. For support, the TEM grid is attached using epoxy to a gold-colored beryllium-copper disk with a 2 x1mm aperture.

Type	Thickness of the Graphene	Transparency	TEM Grid/AFM Substrate	Support Film
1 Layer	~0.35 nm	~96.4 %	2000 Mesh Copper Grid	N/A
2 Layers	~0.7 nm	~92.7 %	2000 Mesh Copper Grid	N/A
3-5 Layers	1.0-1.7 nm	~85.8-90.4 %	2000 Mesh Copper Grid	N/A
6-8 Layers	2.1-2.8 nm	~78.5-83.2 %	2000 Mesh Copper Grid	N/A



Typical TEM Image of ACS Material single-layer graphene on Ultra-fine

2000 Mesh Copper TEM Grids



HR-TEM Image of ACS Material single-layer graphene (Left: SAED, Right: FFT)

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