



## Technical Data Sheet

### ACS Material Copper Nanowire in Water

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## 1. Preparation Method

Solvothermal Method

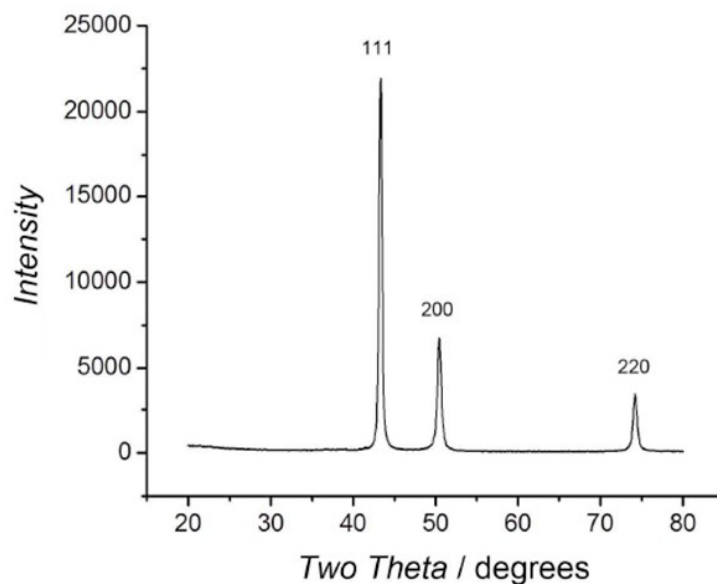
## 2. Composition/Information on Ingredients

Ingredient	CAS No	Amount
Copper	7440-50-8	~99.0%

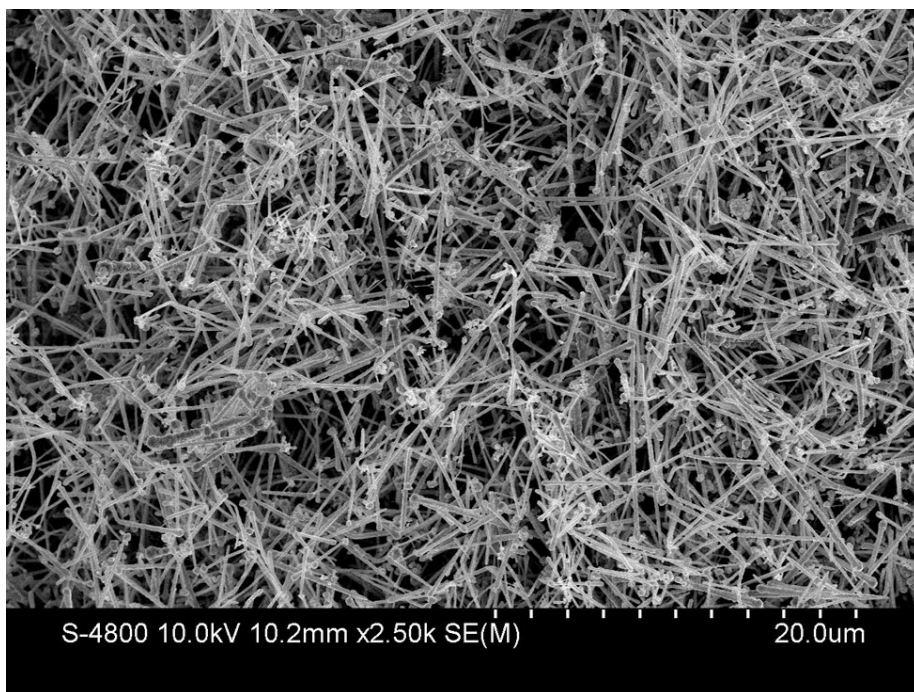
## 3. Characterizations & Analysis

Key Features of ACS Material Copper Nanowire:

<b>Carrier</b>	Water
<b>Appearance</b>	Red Dispersion
<b>Average diameter</b>	100-200 nm
<b>Length</b>	0.8-6 $\mu\text{m}$
<b>Purity</b>	$\geq 96.5$



XRD of ACS Material Copper Nanowire



SEM Image of ACS Material Copper Nanowire in Water

#### 4. Application Fields

- (1) Additives in polymers;
- (2) Catalysts;
- (3) Electron field emitters for cathode ray lighting elements;
- (4) Flat panel display;
- (5) Gas-discharge tubes in telecom networks;
- (6) Electromagnetic-wave absorption and shielding;
- (7) Energy conversion;
- (8) Lithium-battery anodes;
- (9) Hydrogen storage;
- (10) Nanotube composites (by filling or coating);
- (11) Nanoprobes for STM, AFM, and EFM tips;
- (12) Nanolithography;
- (13) Nanoelectrodes;
- (14) Drug delivery;
- (15) Sensors;
- (16) Reinforcements in composites;
- (17) Supercapacitor.

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