



Technical Data Sheet

ACS Material Graphitized Carboxylic Multi-Walled Carbon Nanotubes (Graphitized MWNTs-COOH, 10-20 nm)

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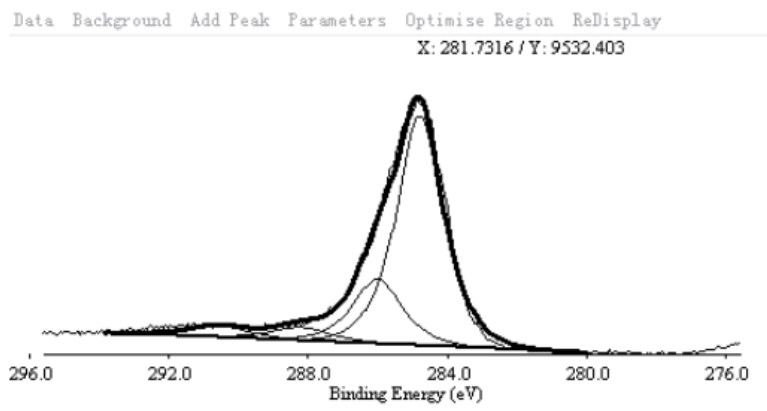
Revision: 121817

1. Preparation Method

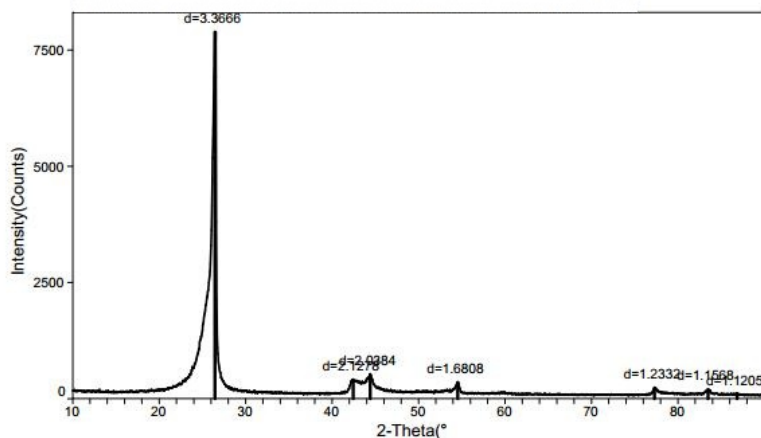
Chemical Vapor Deposition (CVD) Method

2. Characterizations

Purity:	>99.9%
-COOH Content:	1.00 wt.%
Color:	Black
Outer Diameter:	10-20 nm
Inner Diameter:	5-10 nm
Length:	10-30 μm
SSA:	>100 m^2/g
True Density:	$\sim 2.1 \text{ g}/\text{cm}^3$
EC:	>100 S/cm



XPS of ACS Material Graphitized MWNTs-COOH (Length 10-30 μm)



XRD of ACS Material Graphitized MWNTs-COOH (Length 10-30 μm)

3. Application Fields

Catalysts, additives in polymers, nanoelectrodes, drug delivery, sensors, electromagnetic-wave absorption and shielding, electron field emitters for cathode ray lighting elements, flat panel display, gas-discharge tubes in telecom networks, energy conversion, lithium-battery anodes, hydrogen storage, supercapacitors, nanotube composites (by filling or coating), nanoprobe for STM, AFM, and EFM tips, nanolithography, reinforcements in composites, *etc.*

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