

# Technical Data Sheet

# ACS Material Industrial Hydroxylate Single-Walled Carbon Nanotubes (SWNTs-OH)

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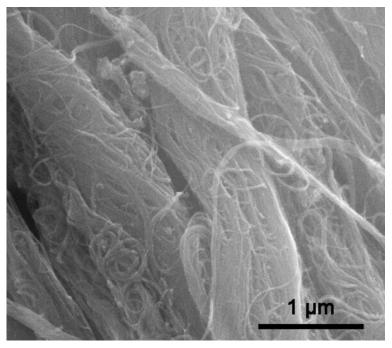
### 1. Preparation Method

Type A: Floating Catalyst Method

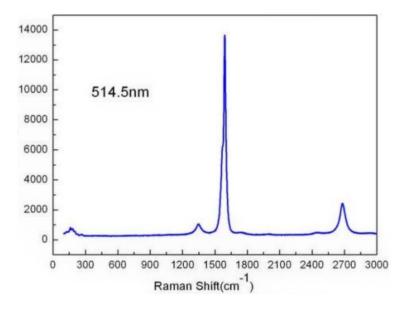
Type B: Chemical Vapor Deposition (CVD) Method

## 2. Characterizations

Туре:	Туре А	Туре В
Purity:	>60%	>60%
-OH Content:	3.96 wt%	3.96 wt%
Color:	Black	Black
Outer Diameter:	1-2 nm	1-2 nm
Inner Diameter:	0.8-1.6 nm	0.8-1.6 nm
Length:	1-3 μm	5-30 μm
Tap density:	NA	0.14g/cm <sup>3</sup>
Apparent density:	NA	$\sim 2.1 \text{g/cm}^3$
SSA:	>600m <sup>2</sup> /g	>407m <sup>2</sup> /g
EC:	>100 S/cm	>100 S/cm



TEM Image of ACS Material Industrial SWNTs-OH (Length = 1-3  $\mu$ m)



Raman Spectrum of ACS Material Industrial SWNTs-OH (Length =  $1-3 \mu m$ )

#### 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), nanoprobes for STM, AFM, and EFM tips, nanolithography, reinforcements in composites, *etc*.

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