

## Technical data

Categories No: TNMC5

Name: -COOH Functionalized Multi-walled Carbon Nanotubes  
(MWCNTs-COOH)

Purity: >98%

-COOH Content: 1.23wt%

(The rate of surface carbon atom: 8-10mol%)

OD: 20-30nm [OD=Outer Diameter]

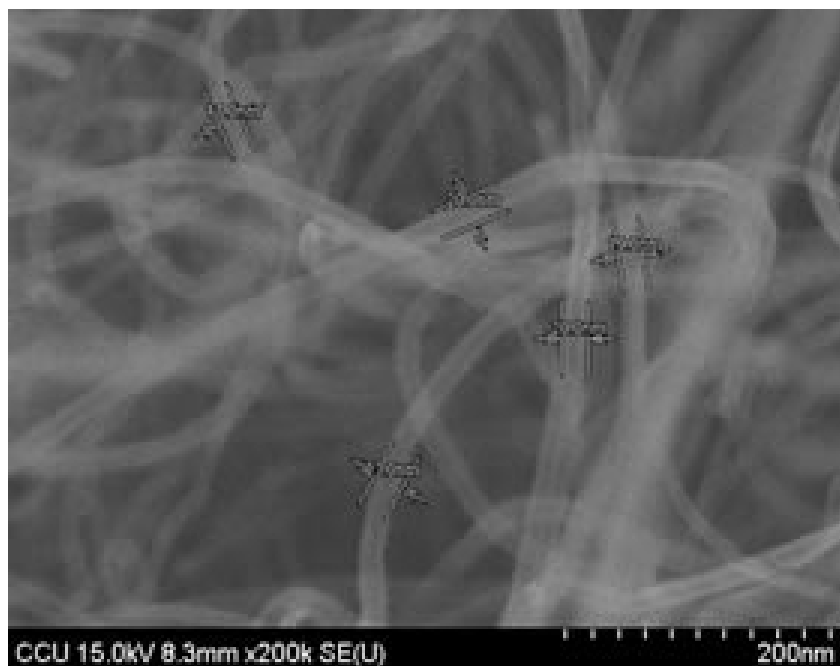
Length: 10-30um

SSA: >110m<sup>2</sup>/g [SSA=Specific Surface Area]

Color: Black

Making method: CVD

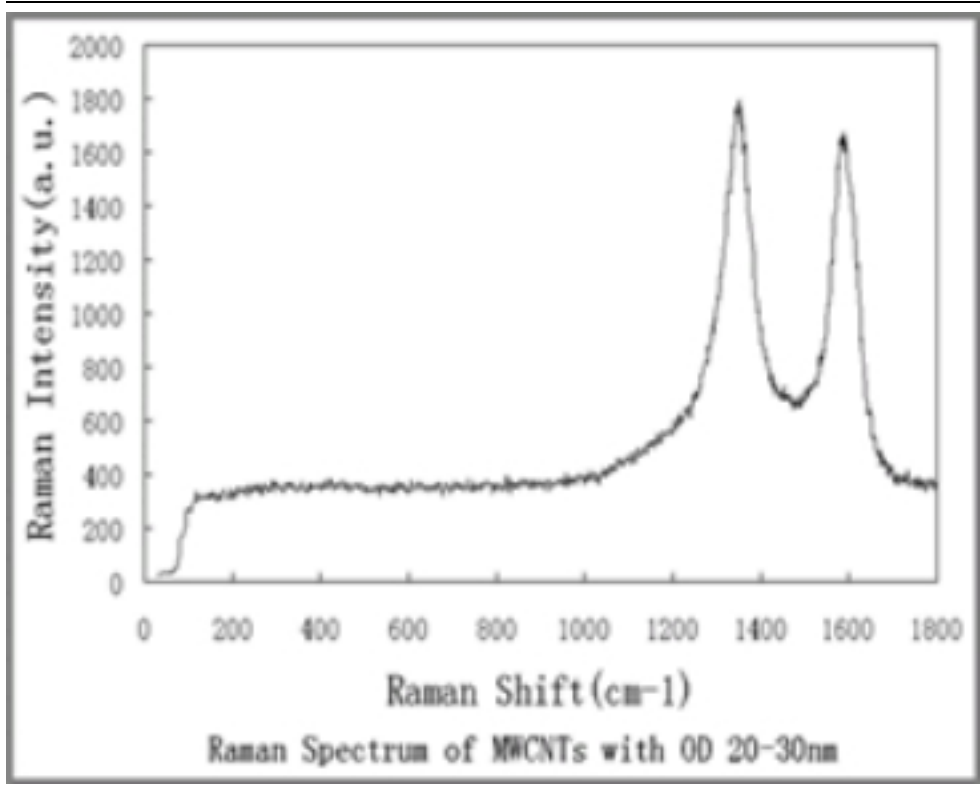
## Testing pictures



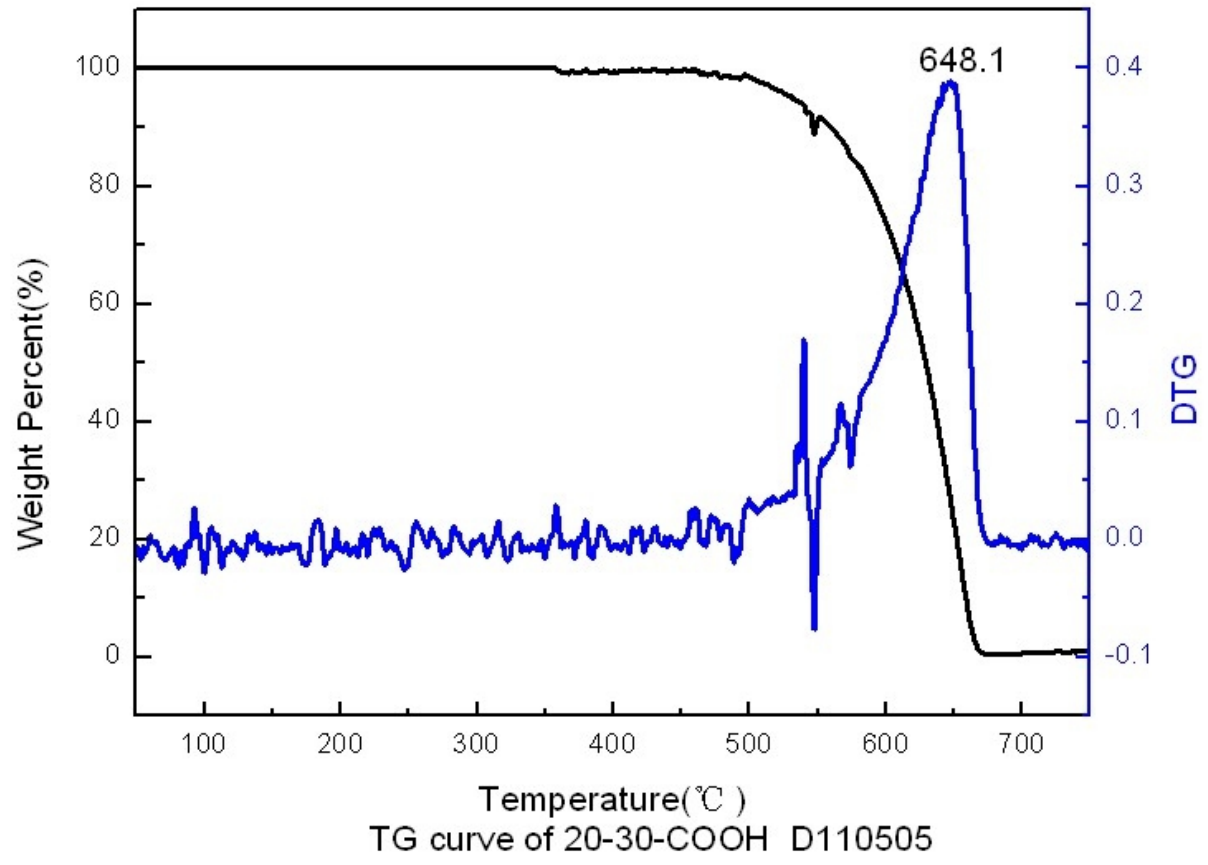
SEM

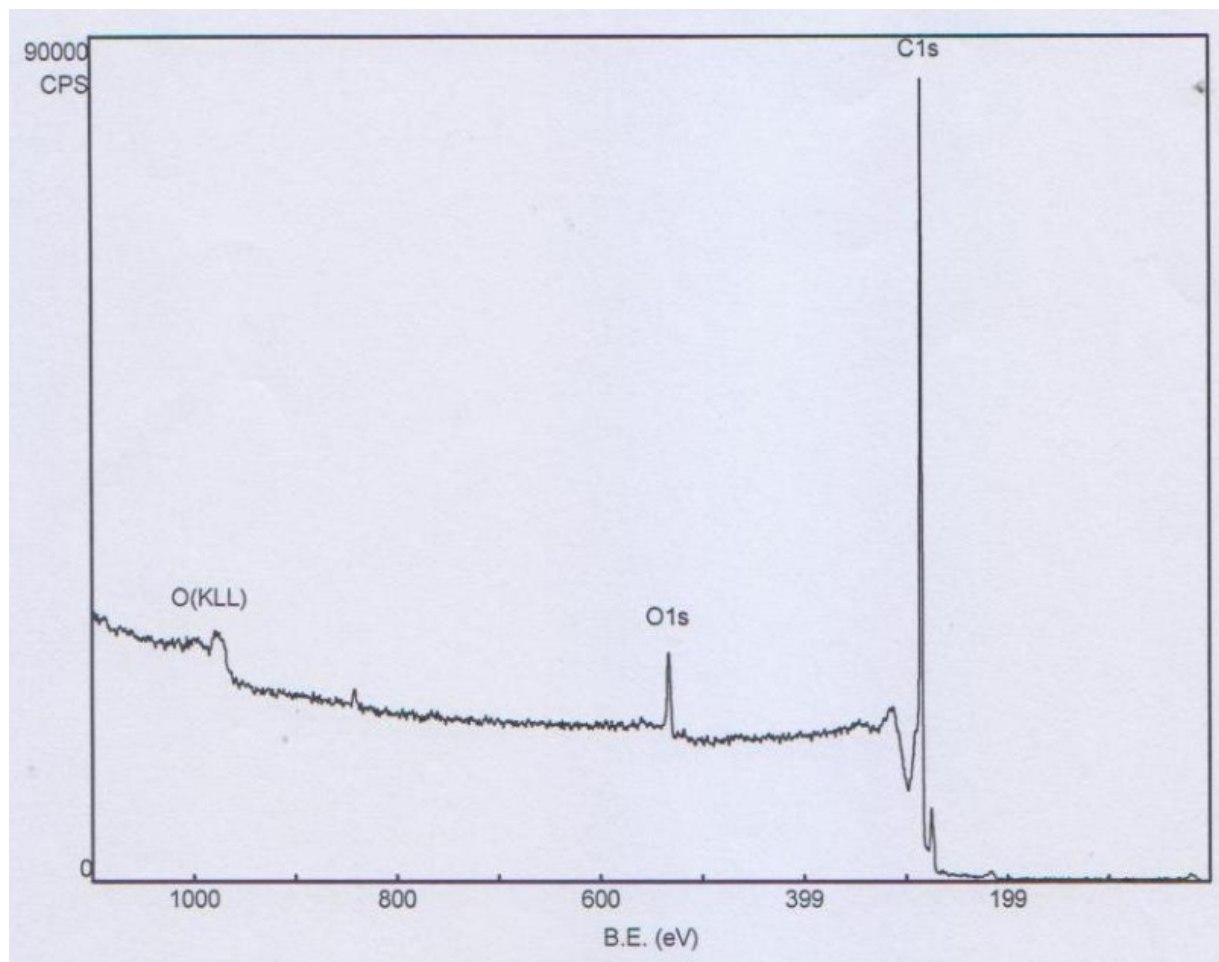


TEM



Raman Spectra of MWNTs





XPS

Components	Area(CPS)	Contents	Components
C	7300	0.25	95.07%
O	1000	0.66	4.93%

**Application instruction**

Potential Applications of Carbon Nanotubes

Additives in polymers

Catalysts

Electron field emitters for cathode ray lighting elements

flat panel display

gas-discharge tubes in telecom networks

Electromagnetic-wave absorption and shielding

Energy conversion

Lithium-battery anodes

Hydrogen storage

Nanotube composites (by filling or coating);

Nanoprobes for STM, AFM, and EFM tips

nanolithography

nanoelectrodes

drug delivery

sensors

Reinforcements in composites

Supercapacitor