

## Certificate of Analysis

Date of Testing: 2023-09-21 15:32:54  
Date of Next Testing: 2027-09-20 15:32:54  
Product Name: **Carbon nanotube, multi-walled**  
CAS Number: 308068-56-6  
Specifications & Purity:  
Lot #: 12304009  
SKU #: **C493460**  
Analysis: **263286**

Parameter	Limit Values	Result
Specific Surface Area	> 60 (m <sup>2</sup> /g)	66.30 m <sup>2</sup> /g
Length	<10 (μm)	5.60 μm
Outer Diameter	30-80 (nm)	45.00 nm
Ash	0-5 (%)	4.00 %
Purity(TGA)	95-100 (%)	95.00000 %
-COOH Content	0.41-0.61 (%)	0.51000 %
Appearance(Black powder)	pass	Pass



John Su  
QA & QC Manager