

## Certificate of Analysis

Date of Testing: 2023-09-20 09:45:53  
Date of Next Testing: 2027-09-19 09:45:53  
Product Name: **Carbon nanotube, multi-walled**  
CAS Number: 308068-56-6  
Specifications & Purity:  
Lot #: 12313159  
SKU #: **C493463**  
**Analysis: 278992**

Parameter	Limit Values	Result
Ash	0-5 (%)	2.33 %
Specific Surface Area	>80 (m <sup>2</sup> /g)	85.90 m <sup>2</sup> /g
Length	10-30 (μm)	21.00 μm
Outer Diameter	20-40 (nm)	28.00 nm
Purity(TGA)	95-100 (%)	95.00000 %
Appearance(Black powder)	pass	Pass



John Su  
QA & QC Manager