

## Certificate of Analysis

Date of Testing: 2023-09-20 09:40:47  
Date of Next Testing: 2027-09-19 09:40:47  
Product Name: **Carbon nanotube, multi-walled**  
CAS Number: 308068-56-6  
Specifications & Purity:  
Lot #: 12313012  
SKU #: **C493463**  
Analysis: **278611**

Parameter	Limit Values	Result
Ash	0-3 (%)	1.05 %
Specific Surface Area	220-240 (m <sup>2</sup> /g)	235.20 m <sup>2</sup> /g
Length	30-50 (μm)	36.54 μm
Outer Diameter	8-15 (nm)	9.90 nm
Purity(TGA)	95-100 (%)	96.98000 %
Appearance(Black powder)	pass	Pass



John Su  
QA & QC Manager