

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-08-31 17:12:30  
Date of Next Testing: 2027-08-30 17:12:30  
Product Name: **Carbon nanotube, multi-walled**  
CAS Number: 308068-56-6  
Specifications & Purity:  
Lot #: H2329285  
SKU #: **C493324**  
Analysis: **263293**

Parameter	Limit Values	Result
Purity(TGA)	98-100 (%)	98.50000 %
Outer Diameter	30-80 (nm)	45.00 nm
Length	0.5-2 ( $\mu\text{m}$ )	0.76 $\mu\text{m}$
Specific surface area (BET)	> 90 ( $\text{m}^2/\text{g}$ )	99.80 $\text{m}^2/\text{g}$
Ash	< 1.5 (%)	1.10 %
-COOH Content	0.4-0.6 (%)	0.40000 %
Appearance(Black powder)	pass	Pass



John Su  
QA & QC Manager