

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-11-24 15:26:43  
Date of Next Testing: 2027-11-23 15:26:43  
Product Name: **Carbon nanotube, multi-walled**  
CAS Number: 308068-56-6  
Specifications & Purity:  
Lot #: K2317459  
SKU #: **C493326**  
Analysis: **261289**

Parameter	Limit Values	Result
Purity(TGA)	99.9-100 (%)	99.91000 %
Outer Diameter	20-30 (nm)	22.00 nm
Length	5-30 ( $\mu\text{m}$ )	10.00 $\mu\text{m}$
Specific surface area (BET)	>90 ( $\text{m}^2/\text{g}$ )	91.00 $\text{m}^2/\text{g}$
Ash	<0.1 (%)	0.09 %
-COOH Content	0.5-0.7 (%)	0.51000 %
Appearance(Black powder)	pass	Pass



John Su  
QA & QC Manager