

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-11-01 09:40:10

Date of Next Testing: 2027-10-31 09:40:10

Product Name: **Carbon nanotube, multi-walled**

CAS Number: 308068-56-6

Specifications & Purity:

Lot #: J2320030

SKU #: **C493314**

**Analysis: 292340**

| Parameter             | Limit Values             | Result                   |
|-----------------------|--------------------------|--------------------------|
| COOH Content          | 1.9-2.1 (%)              | 1.98000 %                |
| Outer Diameter        | 10-20 (nm)               | 15.00 nm                 |
| Ash                   | 0-1.5 (%)                | 1.00 %                   |
| Length                | 10-30 (μm)               | 21.00 μm                 |
| Purity(TGA)           | 98-100 (%)               | 98.00000 %               |
| Specific Surface Area | ≥150 (m <sup>2</sup> /g) | 155.00 m <sup>2</sup> /g |
| Exterior color        | Black                    | Black                    |

A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager