

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-05-17 17:34:37
 Date of Next Testing: 2027-05-17 17:34:37
 Product Name: **Hafnium chloride**
 CAS Number: 13499-05-3
 Specifications & Purity: $\geq 99.5\%$
 Lot #: E2413346
 SKU #: **H190650**
 Version: **0**
 Analysis #: **351091**
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Zirconium(Zr)	0-0.5 (%)	0.00530 %
Trace Metal Analysis	0-1500 (ppm)	14.00000 ppm
Purity(Based On Trace Rare Earth Analysis)	99.5-100 (%)	99.99860 %
Purity (Chloride Titration by AgNO ₃)	43.4-45.2 (%)	43.60000 %
Appearance (H190650)	White powder	White powder
ICP:Confirms Hafnium Component	Confirmed	Confirmed



John Su
QA & QC Manager