

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-05-18 16:03:51  
Date of Next Testing: 2027-05-17 16:03:51  
Product Name: **Praseodymium oxide**  
CAS Number: 12037-29-5  
Specifications & Purity: 50nm,99.5% metals basis  
Lot #: E23061028  
SKU #: **P105311**  
**Analysis: 186162**

Parameter	Limit Values	Result
Trace Rare Earth Analysis	0-5000 (ppm)	380.00 ppm
Purity(Based On Trace Rare Earth Analysis) pr (Complexometric titration)	99.5-100 (%) 80.7-85.7 (%)	99.96 % 83.26 %
Particle size	45-55 (nm)	50.34 nm
Appearance (P105311)	Brown to black powder	Brown to black powder
Form	spherical	spherical
ICP: Confirms Praseodymium Component	Confirmed	Confirmed
X-Ray Diffraction	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager