

## Certificate of Analysis

Date of Testing: 2023-05-09 11:29:55  
Date of Next Testing: 2027-05-08 11:29:55  
Product Name: **Zirconium dioxide**  
CAS Number: 1314-23-4  
Specifications & Purity: nanopowder, 99.99% metals basis excluding Hf or HfO<sub>2</sub>, 0.2 ~ 0.4um  
Lot #: D23251093  
SKU #: **Z104399**  
Analysis: **204112**

Parameter	Limit Values	Result
Particle size(D50)(SEM)	0.2-0.4 (µm)	0.20 µm
Trace Metal Analysis(excluding Hf or HfO <sub>2</sub> )	0-200 (ppm)	100.00 ppm
Purity Based On Trace Metals Analysis (excluding Hf or HfO <sub>2</sub> )	99.99-100 (%)	99.99%
Appearance (Z104399)	white powder	White powder
ICP Major Analysis	Confirmed to structure	Confirmed to structure
X-Ray Diffraction	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager