



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CHEMTRACE - FREMONT
ANALYTICAL TESTING AND SOLUTIONS
Quantum Global Technologies, LLC
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CHEMICAL

Valid To: February 28, 2021

Certificate Number: 2252.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following specialized analytical test services for chemicals, aqueous solutions, ultrapure water, components, chamber parts, and wafers including:

<u>Test(s)</u>	<u>Test Method(s)</u>
Analysis of Trace Metals by ICP-MS <ul style="list-style-type: none">In Acid and Base SolutionsIn Organic SolventsIn Ultrapure Water	SOP CAT-C039 SOP CAT-C003 SOP CAT-C007 SOP CAT-W002
Analysis of Surface Trace Metals by ICP-MS <ul style="list-style-type: none">On Silicon Wafers by VPDOn Tool Components by Acid Extraction	SOP CAT-S007 SOP CAT-S001 SOP CAT-S005
Analysis of Total Silica in Ultrapure Water by ICP-OES	SOP CAT-W011
Analysis of Anions and Cations by Ion Chromatography <ul style="list-style-type: none">Ultrapure WaterAqueous Solutions	SOP CAT-W003A SOP CAT-W010
Analysis of Dissolved Silica in Ultrapure Water by Spectrophotometer	SOP CAT-W017
Assay of Chemical Solutions by Auto-Titration Method	SOP CAT-C023
Analysis of pH in Aqueous Solutions	SOP CAT-C045 SOP CAT-W027
Quantitation of Viable Bacteria in Ultrapure Water	SOP CAT-W005
Analysis of Total Organic Carbon (TOC) in UPW, Acid, Hydrogen Peroxide, or Base Solutions	SOP CAT-C016 SOP CAT-W016

<u>Test(s)</u>	<u>Test Method(s)</u>
Analysis of Conductivity in Aqueous Solutions	SOP CAT-W028
Analysis by Scanning Electron Microscopy/Electron Dispersion X-Ray Spectroscopy (SEM/EDX) <ul style="list-style-type: none"> • Enumeration of Particles in Ultrapure Water • Analysis of Unknown Solids • Analysis of Porosity in TWAS-Coated Coupons • Surface Morphology 	SOP CAT-W021
Analysis of Liquid Samples by Particle Measuring Systems	SOP CAT-C029
Analysis of Liquid Samples by Liquid Particle Counter (LPC) <ul style="list-style-type: none"> • Liquid Samples 	SOP CAT-C054





Accredited Laboratory

A2LA has accredited

CHEMTRACE FREMONT ANALYTICAL TESTING SOLUTIONS

Fremont, CA

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 26th day of March 2019.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2252.01
Valid to February 28, 2021

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.