



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

CHEMTRACE
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CHEMICAL

Valid To: February 28, 2025

Certificate Number: 2252.02

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 Solutions<ul style="list-style-type: none">Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, K, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sn, Sr, Ta, Ti, Tl, V, Zn, ZrIn Organic Solvents<ul style="list-style-type: none">Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, K, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sn, Sr, Ta, Ti, Tl, V, Zn, ZrIn Organics by Microwave Digestion<ul style="list-style-type: none">Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, K, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sn, Sr, Ta, Ti, Tl, V, Zn, ZrIn Silicon Samples<ul style="list-style-type: none">Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, K, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sn, Sr, Ta, Ti, Tl, V, W, Zn, ZrIn Hexachlorodisilane<ul style="list-style-type: none">Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Hg, Ho, In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Os, Pb, Pd, Pr, Pt, Re, Rh, Ru, Sb, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, ZrIn Ultrapure Water<ul style="list-style-type: none">Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Pb, Pd, Pr, Pt, Rb, Re, Rh, Ru, Sb, Sc, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr	SOP CAT-C039 SOP CAT-C003 SOP CAT-C007 SOP CAT-C015 SOP CAT-C052 SOP CAT-C055 SOP CAT-W002
Analysis of Surface Trace Metals by ICP-MS (Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Ge, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Sn, Sr, Ti, V, W, Zn, Zr) <ul style="list-style-type: none">On Silicon Wafers by VPD¹On Tool Components by Acid Extraction	SOP CAT-S007 SOP CAT-S001 SOP CAT-S005
Analysis of Total Silica in Ultrapure Water by GFAAS	SOP CAT-W011 SOP CAT-C004

<u>Test(s)</u>	<u>Test Method(s)</u>
Analysis of Dissolved Silica in Ultrapure Water by Spectrophotometer	SOP CAT-W017
Analysis of Anions and Cations by Ion Chromatography <ul style="list-style-type: none"> • In Ultrapure Water • For Raw Water and UPW Extract Water Only 	SOP CAT-W003A SOP CAT-W010
Assay by Auto Titration <ul style="list-style-type: none"> • Acids • Bases 	SOP CAT-C023 SOP CAT-C024
Analysis of pH in Aqueous Solutions	SOP CAT-C045
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
Analysis of Conductivity in Aqueous Solutions	SOP CAT-W028
Analysis of Particles in Liquid Samples by <ul style="list-style-type: none"> • Liquid Particle Counter (LPC) • Particle Measuring Systems 	SOP CAT-C054 SOP CAT-C029

¹This laboratory may perform field testing activities for this test.



Accredited Laboratory

A2LA has accredited

CHEMTRACE

Portland, OR

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 6th day of July 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2252.02
Valid to February 28, 2025

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