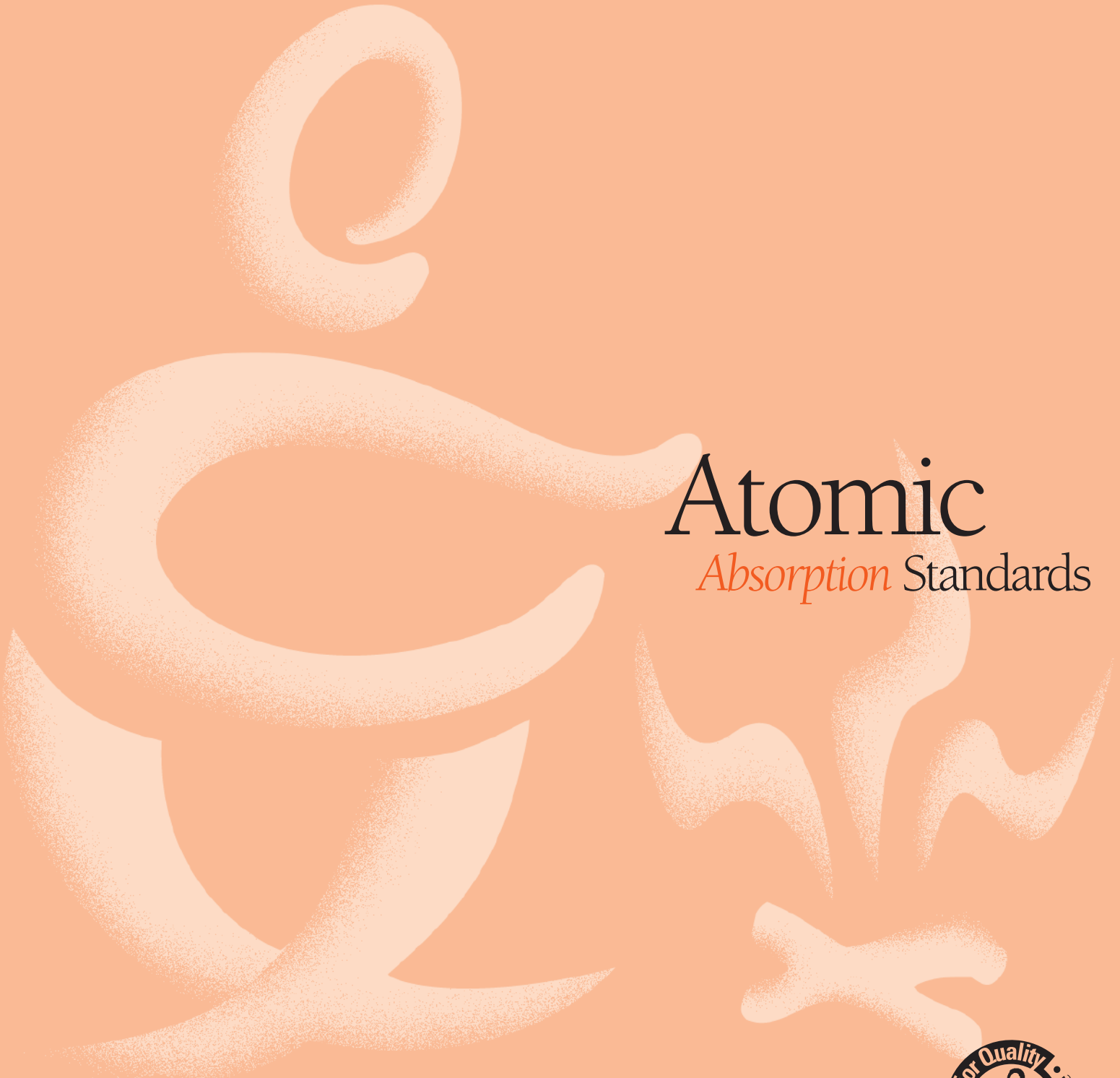

Atomic
Absorption Standards

Celebrating *50 Years* of Quality

1985
Atomic Absorption Standards Introduced

Atomic *Absorption* Standards

Atomic Absorption (AA) still remains a frequently used method for elemental analysis in both aqueous and organic media. Graphite furnace atomization and hydride generation techniques provide the best detection limits for many elements, especially those of environmental concern. For the determination of minor and trace elements in various chemical and metallurgical products, in drinking water and wastewater, in soils and biological samples, atomic absorption is the preferred method in most analytical laboratories.

SPEX CertiPrep® offers a selection of atomic absorption calibration standards and matrix modifiers. As always, we supply each solution with a comprehensive SPEXertificate® which documents the quality. Each standard is manufactured under the same Triple Checked for Quality® Assurance Program as our plasma-grade solutions:

SPEX CertiPrep's unique Triple Checked for Quality® just got better. We now triple check our products for quality *twice*.

The Starting Material

- **Stoichiometry of starting material**
- **Trace metallic impurities by ICP-AES or ICP-MS**
- **CL, SO4, checked by classical wet chemistry**

The Final Solution

- **ICP-AES for the major element**
- **Classical wet assay for major element**
- **Final ICP-AES or ICP-MS analysis for trace metal impurities on the actual solution**

To ensure that your measurements are accurate, you can rely on our certificates to provide complete information.

Customer Testimonial:

"We have found SPEX CertiPrep® Standards to be accurate and precise for AA and wet chemical analysis. This supports our laboratory QA/QC for environmental testing."

– Sally & Bruce Wenstall

Matrix Modifiers

SPEX CertiPrep® offers a variety of high-purity matrix modifiers for Graphite Furnace Atomic Absorption (GFAA). The matrix modifier will change the behavior of either the analyte element or matrix in solution with respect to temperature, thus allowing a more optimum graphite furnace program to be used. During the pyrolysis stage of GFAA, certain elements are lost due to their high volatility. Matrix modifiers are added to a solution to prevent these losses by converting the element to a less volatile form.

Element/Matrix	Starting Material	Volume mL	Catalog#
Nickel Nitrate Solution			
5% (50,000µg/mL) Nickel in 5% HNO_3	Ni	100 500	MMNI4-100 MMNI4-500
Ammonium Phosphate Solution			
40% (400,000µg/mL) Ammonium Phosphate in H_2O	$(NH_4)_2HPO_4$	100 500	MMP9-100 MMP9-500
Lanthanum Nitrate Solution			
5% (50,000µg/mL) Lanthanum in 5% HNO_3	La_2NO_3	100	MMLA2-100
Ammonium Nitrate Solution			
2% (20,000µg/mL) Ammonium Nitrate in H_2O	NH_4NO_3	100	MMNO9-100
Palladium Nitrate Solution			
2% (20,000µg/mL) Palladium in 10% HNO_3	Pd	100 500	MMPD4-100 MMPD4-500
Magnesium Nitrate Solution			
2% (20,000µg/mL) Magnesium in 5% HNO_3	$Mg(NO_3)_2 \cdot 6H_2O$	100 500	MMMG2-100 MMMG2-500

Helpful Hint:

If you cannot find the exact blend of elements you need call Customer Service or check out the design form on the next page.

Custom Standard Request Form

Please photocopy for multiple use!

Analyte(s)	Concentration(s)	Matrix	Quantity (Volume)

Application: _____ Instrument _____

Fax to: **CRM Sales & Marketing**
SPEX CertiPrep®
(732) 603-9647

For Design Assistance, call:
1-800-LAB-SPEX • 1-732-549-7144 ext. 444

Email to: **CRMSales@spexcsp.com**

Requested By: _____

Company Name: _____

Address: _____

_____

Phone Number: _____

Fax Number: _____

Email Address: _____