



Rugged. Reliable.

AGILENT 50/55 SERIES ATOMIC  
ABSORPTION SPECTROMETERS

The Measure of Confidence



**Agilent Technologies**

rugged  
reliable



## AGILENT 50/55 AA SPECTROMETERS

Agilent Technologies is now your premier resource and partner for atomic spectroscopy. With the 2010 addition of Varian's world-renowned AA and ICP-OES products, together with our market-leading 7700 Series ICP-MS, Agilent offers you a comprehensive range of inorganic analytical instrumentation.

### High performance, standalone AA

The Agilent 50/55 Series AA instruments are rugged and reliable, making them ideal for remote sites requiring a simple, standalone AA that doesn't compromise on performance.

- Simple control via the LCD screen and dedicated keyboard
- High sample throughput using Integrate Repeat
- Simple calibration with direct concentration read-out
- Configured for direct LIMS connection via RS232
- Suitable for challenging conditions and harsh environments
- Choice of single beam 50 AA or double beam 55 AA

### Fast, simple operation

- Easy set-up. View and edit instrument parameters on screen
- No complex alignment. Wavelength and slit selection is fully automated
- Improve result accuracy. Two lamp positions enable operation while pre-warming the lamp for the next element

### Storage for all your methods

- Cookbook methods provided for all elements
- Recall and modify methods at any time
- Save up to 30 customized methods for common analyses

### On-screen results display

- Confirm results with each replicate reading
- Review the concentration, precision and absorbance result
- View the calibration to visually check linearity and check concentration or absorbance results
- Multiple language capabilities are standard. Select from eight languages at any time via the Options menu
- The industrial LCD screen and dedicated keypad are suitable for rugged laboratory conditions, unlike failure-prone touch screens

### Rugged design for lifetime operation

- Ideal for operation in challenging conditions
- Sealed optics with quartz overcoated mirrors provide protection from dust or vapors and ensure long term, stable performance
- Enhance protection using the internal air purge to maintain a positive flow of clean air through the instrument

## FAST, SIMPLE OPERATION

Only 3 steps to analysis:

1. Recall the method — the instrument is automatically set up for you
2. Check optimization
3. Calibrate the instrument and measure your samples



### Tune your performance

Achieve precise results quickly and handle complex matrices with Agilent's flexible and convenient Mark 7 atomization system.

- Tune performance using the externally adjustable impact bead
- Achieve high sensitivity — typically > 0.9 Abs from 5 mg/L Cu
- Optimize precision — typically < 0.5% RSD from ten 5 s readings
- Reduce interferences with complex samples. The removable twin headed mixing paddles ensure thorough mixing and a super-fine aerosol, for precise, accurate determinations
- Minimize burner blockage — the contoured design provides outstanding resistance to blockage, even with difficult samples
- Inert components provide compatibility with high acid and organic matrices

### Optional background correction

- Provides accurate correction with a fast 2 ms response time
- Easy access to the deuterium lamp within the lamp compartment
- Simple lamp optimization and fast user replacement
- Long lamp lifetime due to the optimized electronic control

### Optional upgrades

- Add a printer for hard copy results
- Add the SIPS for on-line dilution capability
- Extend the working range with high intensity UltrAA lamps
- Add the VGA 77 for trace level determinations of mercury and hydride forming elements (As, Se, etc.)
- Add a PC for semi-automated, sequential, multi-element determinations using the SPS 3 autosampler

### Determination of low As levels in high nickel ores

Excellent reproducibility and good read back on the QC standards is achieved, even with < 1 ppm As in solution, eliminating the need for extraction.

Sample ID	Concentration mg/L	Mean Abs	Recovery
CAL ZERO	0.0	-0.0033	
STANDARD 1	25.0	0.1717	
STANDARD 2	50.0	0.3342	
STANDARD 3	75.0	0.4805	
STANDARD 4	100.0	0.6186	
50ppm Standard 2	49.1	0.3281	
Blank	0.2	0.0017	
Sample 001	13.3	0.0916	
Sample 001 Dup	13.8	0.0950	104%
50ppm Standard 2	45.6	0.3064	91%
Sample 013	11.9	0.0816	
Sample 014	5.7	0.0395	
Sample 013 Dup	11.5	0.0791	97%
Sample 014 Dup	5.4	0.0372	95%
Sample 017	0.1	0.0007	
100 ppm Standard 4	92.6	0.5790	93%
Sample 023	23.4	0.1604	
Sample 024	12.2	0.0841	
Sample 025	0.6	0.0043	
Sample 026	0.9	0.0065	
100 ppm Standard 4	97.3	0.6029	97%
Sample 023 Dup	23.6	0.1613	101%
Sample 024 Dup	12.0	0.0828	98%
Sample 024 Dup	11.6	0.0801	95%
Sample 023 Dup	23.9	0.1634	102%
Blank	-0.3	-0.0019	

# THE COMBINED BENEFITS OF TWO LEADERS IN ATOMIC SPECTROSCOPY

With the 2010 addition of Varian, Inc., Agilent now offers an even greater range of instrumentation and the most comprehensive columns and supplies portfolio in the market. Just as important are the best-in-class service and technical support teams, focused on finding solutions for our customers. Agilent is here to provide the technology — and *the Measure of Confidence* — you need to be successful.

## An expanded portfolio of solutions from the leader in ICP-MS

The range of Agilent AA, ICP-OES and ICP-MS instruments offers unmatched performance, and the highest level of reliability and ease-of-use. The instruments are backed by a combined global network of dedicated and experienced support staff.

The industry's widest range of columns and supplies ensures that your Agilent Atomic Spectroscopy instruments will perform for the long term. Agilent also manufactures its own range of AA lamps, to guarantee performance and reliability.



Agilent 7700 Series ICP-MS offers unmatched matrix tolerance and interference removal, and the smallest footprint of any ICP-MS.



Agilent 700 Series ICP-OES is the world's most productive high performance simultaneous ICP-OES.



**Our catalog of new applications is ever growing.**

To learn about the latest, contact your local Agilent Representative or visit us at:  
[www.agilent.com/chem/](http://www.agilent.com/chem/)

**Find out how Agilent's Atomic Spectroscopy Solutions can deliver the productivity, reliability and accuracy you need.**

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U.S. and Canada

**1-800-227-9770**

[agilent\\_inquiries@agilent.com](mailto:agilent_inquiries@agilent.com)

Europe

[info\\_agilent@agilent.com](mailto:info_agilent@agilent.com)

Asia Pacific

[adinquiry\\_aplsc@agilent.com](mailto:adinquiry_aplsc@agilent.com)

Availability of chemicals dependent upon import restrictions.

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