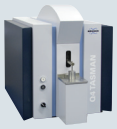
BRUKER


# Expertise in Elemental Analysis

- Spark-OES and Combustion/Fusion Analyzers

## Optical Emmission Spectrometry (Spark OES)

**Q2 ION – Ultra Compact Metals Analyzer**
- Patented optics with active ambient compensation and instant operation readiness
- For incoming material inspection and quality assurance
- Affordable price with low cost of ownership for small- medium-size business



**Q4 TASMAN – Advanced multi-chip benchtop OES**
- Three models cover every common analytical task in QA/QC
- Outstanding analytical performance with low cost of ownership
- Productivity and ease-of-use by proven pneumatic sample clamp

**Q8 MAGELLAN – High-end PMT-based vaccum spectrometer**
- Best limits of detection and stability
- Inclusion analysis and trace metal determination by single spark evaluation
- One-button operation with pneumatic sample clamp
- Q8 MAGELLAN online ready for intergration in full automation

OES / CS / ONH

Innovation with Integrity

## CS/ONH combustion / fusion Analyzers

### G4 ICARUS Series 2 – Carbon and Sulfur Analyzer

- HighSense™ UV-detection for sulfur with outstanding performance
- Programmable HF-furnace with quiet cooling and high efficiency dust filter
- ZoneProtect™ lance-free design for clean & efficient combustion
- Vacuum-free automatic cleaning system to efficiently remove splatters and dust

### G6 LEONARDO – Oxygen / Nitrogen / Hydrogen Analyzer

- Programmable electrode furnace up to 3000 °C with SampleCare™ Design
- EZDrive™ for enhanced safety and reliability → no pneumatics needed
- FusionControl for real temperature reading and control
- SmartMoleculeSequence™ → direct measurement of O (CO), N ($N_2$), H ($H_2$)

### G8 GALILEO – Most flexible Oxygen / Nitrogen / Hydrogen Analyzer

- Programmable electrode furnace up to 3000 °C with FusionControl
- SmartMoleculeSequence™ → direct measurement of O (CO), N ($N_2$), H ($H_2$)
- Additional furnace cleaning, automation, external IR furnace (dH), mass spectrometer

### G4 PHOENIX – Diffusible Hydrogen Analyzer (acc. to ISO 3690 or AWS 4.3)

- Fast heating (and cooling) temperature controlled IR furnace ($T_{max.}$ 900 °C, i.d. 30 mm)
- Automatic gas calibration unit with 10 defined volumes
- Optional mass spectrometer for Thermal Desorption Mass Spectrometry (TDMS)
- Optional resistance heated furnace up to 1100 °C

### Mass Spectrometer for G4 PHOENIX and G8 GALILEO

- Quadrupol MS with m/z range between 1 - 100 amu
- Channeltron detetcor, closed ion source and capillary inlet for ppb level detection of hydrogen or argon
- Ideal for TDMS investigations and gas impurity analysis for HIP


### Bruker Support

- Product & Application Trainings
- Performance and feasibility measurements with user samples
- Instrument demonstrations at demo facilities
- After-sales application support, and method development
- Genuine consumables and spare parts
- Maintenance contracts and service hotline