

# contrAA<sup>®</sup> 700

The better way to do Atomic Absorption



**High-Resolution Continuum Source AAS for  
Flame and Graphite furnace**

Continuing the innovation that began with the **contrAA® 300**, Analytik Jena now presents the most recent development in HR-CS AAS – **the contrAA® 700**.

It combines flame, hydride and graphite furnace technique in one device.

For the first time the High-Resolution Continuum Source Technology becomes available for trace and ultra-trace analysis using atomic absorption with a graphite furnace.

The system combines the advantages of the transverse-heated graphite furnace with those of the High-Resolution Continuum Source Technology.

High-Resolution Continuum Source AAS (HR-CS AAS) offers completely new analytical possibilities for the entire spectral range – from the near vacuum UV to the near infrared – through the use of a single continuum radiation source.

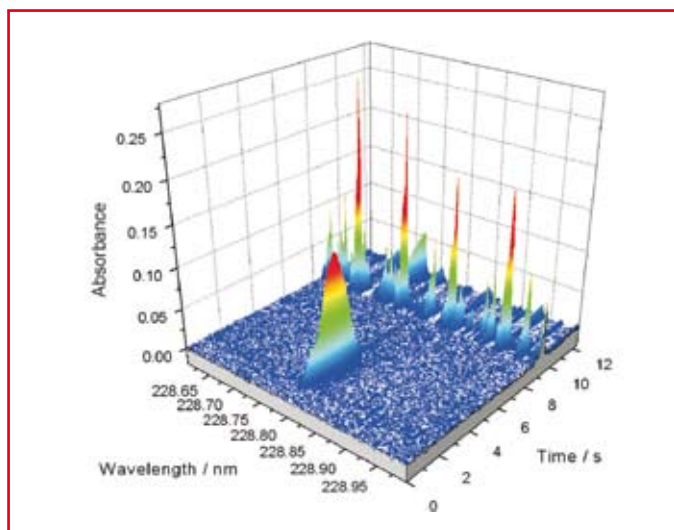
Maximum information is combined with low running cost and straightforward operation!

#### **contrAA® 700 – a new instrument generation has emerged**

- Unsurpassed variability and flexibility
- Best analytical performance
- Significant increase in efficiency
- Simple operation
- Reduced cost

#### **HR-CS AAS for flame and graphite technology**

- Only one high intensity radiation source
- Simultaneous background correction
- For use with all lines and elements
- Improvement in detection limits and linear measuring range
- Simplest method development
- Fast sequential multi-element determination for flame AAS
- Full post processing of measurements (FPP)



▲ Three-dimensional signal plot of time resolved absorption spectra for determination of Cd in an environmental sample

#### **Unique flexibility in AAS**

The Xenon short-arc lamp is a continuum radiation source with high intensity over the entire wavelength range of interest in AAS. Each element and any line is available for measurement. As a result of this feature not only atomic absorption lines, but also molecular absorption bands are accessible, hence, a completely new analytical dimension in AAS.

Whether an element is rarely or regularly investigated is no longer an issue.

#### **High-end technologies in one system**

- Flame AAS
- Transverse-heated graphite furnace
- Direct solid AAS
- Hydride technique
- HydrEA technique
- Intelligent sample preparation stations

#### **The HR-CS AAS technique closes the methodological gap between AAS and ICP OES.**

#### **Specification**

##### **Continuum radiation source**

- Xenon short-arc lamp

##### **Optical system**

- High-resolution echelle spectrometer
- UV-sensitive CCD line detector
- Complete wavelength range

##### **Dual atomizer concept**

- Easy change from flame to graphite furnace without adjustment

##### **Flame technique**

- Coded titanium burner heads with different slots (5 cm for both gases, 10 cm optimized for acetylene/air)
- Slot width optimized for long life and high matrix contents
- Sensor monitoring of all flame parameters

##### **Hydride technique**

- Accommodates all hydride systems

##### **Graphite furnace**

- Integrated computer-controlled transverse heated graphite tube
- Fully integrated cooling system
- Three-dimensional signal plot

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