

## Advanced Seminar

### SPECTRUMA GDA 150 HR/ 650 HR and GDA 550 HR/ 750 HR series

The training course is designed for beginners and users who already have experience in dealing with the spectrometer and the software.

The existing knowledge should be developed in theory and practice to ensure that the current measurement procedure can be implemented continuously and future tasks can be realized more efficient and safer.

The skills learned here in this course form the basis to make the existing and upcoming developments of methods more efficient and safe.

#### Training content:

- Creation and adjustment of methods
- System optimization regarding detection limits and precision
- Calibration of BULK (content analysis) methods
- Calibration of depth profile (Quantitative depth profiling) methods
- Working methods with the CCD optics
- Handling of the monochromator
- Effective utilization of radio frequency (RF) technology
- Hydrogen effect, how can this be recognized, minimized?
- Working practices with alternative plasma gases (Ar/H<sub>2</sub>, Ne)
- Working with supporting technologies Same as universal sample unit , transfer chamber, external plasma ignition, automatic sampling unit and monochromator
- Error recognition in the analysis of unknown samples
- Evaluation of analytical results
- Working with the SPECTRUMA database
- Maintenance instructions, significance of error messages, data backup, sample preparation
- Presentation of new developments and applications



- Contact** SPECTRUMA ANALYTIK GMBH  
Fabrikzeile 21 • 95028 Hof • Germany  
Tel. +49 (0)9281 83308 0  
Fax. +49 (0)9281 83308 28  
Email: labor@spectruma.de
- Registration** Please send us your enrollment by mail, fax, e-mail or through our website. The registration deadline is two weeks before training starts.
- Venue** SPECTRUMA ANALYTIK GMBH  
Fabrikzeile 21 • 95028 Hof • Germany
- Time** The seminar starts at 9:00 and ends around 17:00.
- Attendance** Maximum six attendees.
- Training material** The seminar material is available before beginning of the seminar.
- Charge** The training fees below are net prices and do not include tax., lunch, coffee and soft drinks are included in the training fee.
- 1124,00 € per person if you booked a two-day seminar. Each additional person will receive 10 % discount on seminar fee.
- Several appointments as well as individual courses or alternative dates can be booked after Consultation with us. The dates can be found on the website or in the documentation.
- Hotel** The hotel and travel expenses are not included in our seminar fees. You can take SPECTRUMA special terms for the hotel accommodation which we can book for you.
- Cancellation** In case of cancellation until 2 weeks before the course starts, we charge 20 % of the seminar fee. In a later withdrawal, 75 % of the fee.  
If you are unable to attend you may name a substitute with no extra fee
- Training locally** All listed courses can also be held in-house at your site.  
These courses offer the advantage that you can set the topics yourself.  
For any further questions, please do not hesitate to contact us.

**Customer data to: Fax +49 (0)9281 83308 28  
Email: labor@spectruma.de**

<b>Company/ Contact</b>	
<b>Road</b>	
<b>Location</b>	
<b>Tel/ Fax/ Email</b>	
<b>Device Type</b>	
<b>Device number</b>	
<b>Attendee</b>	

**Date 1 / Advanced Seminar**

**Date 2 / Advanced Seminar**

**Individual date / Advanced Seminar**

\_\_\_\_\_ Date

\_\_\_\_\_ Signature