

## Basic Seminar

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

The training course is aimed at people who want to learn the routine work and the preparation of analytical methods with the glow discharge spectrometer

Beginners and users who already possess the first experience in this area can deepen basic knowledge and expand their analytical skills and software knowledge.

The daily routine in this course will be both theoretically and practically reconstructed.

The skills learned here form the basis for a fast, trouble-free measurement process and the continuous safety in analysis.

#### Training content:

- Fundamental terms of Glow Discharge Optical Emission Spectroscopy (GDOES)
- Structure and handling of the GDA
- Handling of the software in conjunction with the spectrometer
- Process and evaluation of the calibration
- „easy“ (routinely) applications
- Evaluation of analytical results
- Error detection in the analysis of unknown samples
- Creation and adjustment of methods
- Working with the universal sample unit (USU)
- Sputter rate correction: Where you have to use it?
- Determination of detection limits
- Maintenance instructions, meaning of error messages, data backup
- Sample preparation
- Troubleshooting analyses of unknown sample
- 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: info@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.
- 1070,00 € 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: info@spectruma.de**

<b>Company/ Contact</b>	
<b>Road</b>	
<b>Location</b>	
<b>Tel./ Fax./ E-mail</b>	
<b>Device Type</b>	
<b>Device number</b>	
<b>Attendee</b>	

**Date 1 / Basic Seminar**

**Date 2 / Basic Seminar**

**Individual date / Basic Seminar**

\_\_\_\_\_ Date

\_\_\_\_\_ Signature