

Customer Training 2011 / 2012

DFS

Training Courses 2011 / 2012

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1. General Information

Thermo Fisher Scientific offers a number of training courses throughout the year for advanced mass spectrometry product systems, peripherals and software. The courses are designed to suit the requirements of beginners and advanced operators. In order to get the most from your system, we would like to encourage you to take advantage of getting in-depth knowledge of the instrument and technology from our highly experienced application specialists. Certificates are provided upon completion of the training.

Scheduled training courses take place at our Application Laboratory at

Thermo Fisher Scientific (Bremen) GmbH
Hanna-Kunath-Str. 11
28199 Bremen
Germany

Each course requires a **minimum of three participants**, but each group will not exceed a **maximum of six participants**. The training course language will be **English** unless specified otherwise.

For **training fees** please contact your local Thermo Fisher Scientific sales representative. The training fees include catering during training session (two coffee breaks and lunch). The training fees do not include individual travel costs, hotel accommodation or per diem expenses. However, we offer to arrange your hotel accommodation in Bremen. Preferably, we book our training guests into the Holiday Inn Express Bremen Airport, which is conveniently located next to our facilities, in walking distance of the airport (6 minutes) and 15 minutes by tram from the main railway station. Our preferred rate of 77 € includes breakfast and internet access.

Registration deadline is six weeks prior to scheduled dates. For registration please use our registration form. You can also register online at <http://training.thermo-bremen.com>

In case of **cancellation** we strongly recommend to nominate a substitute if possible. Cancellation prior to registration deadline is possible. Cancellations two weeks prior to scheduled courses are subject to a 50 % cancellation fee. Cancellations a week prior to scheduled courses are subject to a 90 % cancellation fee.

Training courses may be rescheduled or cancelled due to a lack of participants or other reasons. Already registered attendees will be informed as soon as possible.

On-site training Thermo Fisher Scientific can also conduct the training courses at your facilities. The on-site training courses will be customized according to your instrument(s), software and application requirement(s). Your own instrument(s) will be used to train operation and maintenance procedures.

Training upon request: Training courses with a very special content will be held upon request only.

Visa Formalities

In case you need a visa for Germany, please fill in the form below to enable Thermo Fisher Scientific (Bremen) GmbH to issue the visa invitation letter. Please mail the form to training.bremen@thermo.com or fax to No. +49 421 54 93 396.

Please allow 2-3 weeks for processing and mailing of the invitation letter.

Last name (surname)	
First name(s) (given name(s)):	
Title:	
Gender (male / female)	
Date of birth DD - month (in letters) - YYYY	
Number of passport:	
Dates of planned entry into and exit from Germany	
Correct and complete name and address of customer's company or institute, including telephone and fax numbers (no postbox):	
Expenses for travel, lodging, health insurance and per diem will be borne by:	
Correct and complete address of the embassy where to apply for visa, including telephone and fax numbers:	
Correct and complete address (no postbox) of where the originals of the invitation letters shall be sent by courier, including contact person, telephone and fax numbers:	

2. Organic Mass Spectrometers

Thermo Fisher Scientific offers a variety of training courses to suit your requirements when using the DFS.

Training Courses 2011 / 2012:	
DFS Instrument Operator Training for Quantitative Applications 5-day operator training	05. – 09. December 2011 02. – 06. July 2012
DFS Dual Data Operator Training 3-day operator training	24. – 26. January 2012 09.-11. July 2012
DFS Instrument Operator Training for Qualitative Applications and Characterization 5-day operator training	Dates & Agenda available upon request
TargetQuan 3.0 Software Operator Training 3 day operator training	Dates & Agenda available upon request
Individual / onsite training-	Dates & Agenda available upon request

To check the currently available training dates, please visit <http://training.thermo-bremen.com>

Training Sessions:

	5-day Instrument Operator training	3-day Dual Data Operator Training
Monday	14:00 – 17:00	10:00 – 17:00
Tuesday	09:30 – 17:00	09:30 – 17:00
Wednesday	09:30 – 17:00	09:30 – 17:00
Thursday	09:30 – 17:00	
Friday	09:30 – 14:00	

2.1 DFS Instrument Operator Training for Quantitative Applications

The general objective of the DFS instrument operator training for quantitative applications is to introduce to quantitative GC/HRMS techniques using the example of dioxin/furan analysis. It will familiarize users with the operational techniques and data evaluation procedures needed for high resolution GC/MS MID methods for isotope dilution techniques, exemplary following EPA method 1613 for the analysis of Dioxins/Furans.

Participants' profile: For this course, knowledge of EPA method 1613 or equivalent methods is required as well as proficient understanding of mass spectrometry (MS). The participants should have experience in the field of chromatographic analysis, especially in gas chromatography.

Course language: English

Introduction into the “Hardware” and Basics of the DFS and general HRMS

- DFS instrument geometry

Instrument Setup for “Dioxin” Analysis

- Instrument tuning for resolution and optimum sensitivity
- Instrument checks
- Magnetic and electric calibration
- Multiplier gain calibration

MID (Multiple Ion Detection)

- Theory of multiple ion detection
- LOCKMASS technique
- Setting up and optimize lock mass MID
- Data acquisition
- Checks and troubleshooting

Data Evaluation

- Chromatogram review in QualBrowser
- Using the Signal-to-noise program
- Processing data using TargetQuan
 - Setting up templates
 - Creating calibration curves
 - Manual and automatic data processing
 - Creating reports for quantification results
- Generating reports using the Reporter application

2.2 DFS Dual Data Operator Training

The general objective of the DFS Dual Data operator training is to introduce Dual Data acquisition for high throughput applications.

Participants' profile: For this course, a proficient understanding of mass spectrometry and DFS operation is expected. The participants should have the Dual Data option on the DFS system.

Course language: English or German

Introduction into the “Hardware” and Basics of the Dual Data acquisition

Instrument setup for Dual Data analysis

Troubleshooting and maintenance of the Dual Data configuration.

2.3 Registration Form

Organic Mass Spectrometer DFS Operator Training

Please mail this form to training.bremen@thermo.com
or fax it to our office at ++49 (0)421 54 93 396. Thank you!

<p>Participant</p> <p>Family name:</p> <p>First name:</p> <p>Title:</p> <p>Company/Institute:</p> <p>Address (street):</p> <p>Postal code:</p> <p>City / State:</p> <p>Country:</p> <p>Phone:</p> <p>Fax:</p> <p>E-Mail:</p>	<p>Training Course (Course Name)</p> <p>Date:</p> <p>Accommodation</p> <p>Hotel reservation Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>At Holiday Inn Express Bremen Airport <input type="checkbox"/> (77 € including breakfast and internet access)</p> <p>Other <input type="checkbox"/> (please specify price range / location)</p> <p>Date of Arrival:</p> <p>Date of Departure:</p> <p>Smoking <input type="checkbox"/> Non-smoking <input type="checkbox"/></p>
<p>Instrument type(s)</p> <p>_____</p> <p>Service number (if known):</p> <p>S/N _____</p> <p>We use the following GC Type</p> <p>_____</p> <p>Our main application is</p> <p>_____</p>	<p>Software, you are using</p> <p><input type="checkbox"/> Tuneplus version no. _____</p> <p><input type="checkbox"/> Targetquan version no. _____</p> <p><input type="checkbox"/> Xcalibur version no. _____</p> <p>FT-Programs version no. _____</p>

Date _____

Signature _____

3. Customer Operator Trainings

To check the currently available training dates, please visit <http://training.thermo-bremen.com>

Instruments	Training Course
DFS	DFS Instrument Operator Training for Quantitative Applications <i>5-day course</i> DFS Instrument Operator Training for Qualitative Applications and Characterization <i>5-day course</i> DFS Dual Data Operator Training <i>3-day course</i>
ICP-MS / GD-MS XSERIES 2 ELEMENT ELEMENT 2 ELEMENT XR ELEMENT GD	XSERIES 2 Operator Training <i>3,5-day course</i> ELEMENT2 / ELEMENT XR Operator Training <i>5-day course</i> ELEMENT2 / ELEMENT XR German Language Operator Training <i>5-day course</i> ELEMENT GD Operator Training <i>5-day course</i>
Thermal Ionization Mass Spectrometer TRITON / TRITON <i>Plus</i>	TRITON and TRITON <i>Plus</i> Basic Operator Training <i>5-day course</i> Instrument Maintenance Training <i>2-day course</i>
Multicollector ICP-MS NEPTUNE / NEPTUNE <i>Plus</i>	NEPTUNE and NEPTUNE <i>Plus</i> Basic Operator Training <i>5-day course</i> Instrument Maintenance Training <i>2-day course</i>
Exactive Q Exactive Orbitrap Elite Orbitrap Velos Pro LTQ Orbitrap Velos LTQ Orbitrap XL LTQ Orbitrap Discovery LTQ FT	These trainings will be organized by the European Training Institute ETI. For more information please contact: euro.training.hemel@thermofisher.com or catherine.lemardele@thermofisher.com Individual training available upon request.

3. Customer Operator Trainings Overview - continued

To check the currently available training dates, please visit <http://training.thermo-bremen.com>

Instruments	Training Course
Isotope Ratio Mass Spectrometers DELTA Series MAT 253 / MAT 252	GC-EA: GC IsoLink, ConFlo III/IV and Elemental Analyzer and TC/EA Peripherals <i>5-day course</i>
	GB-EA: GasBench II, ConFlo III/IV and Elemental Analyzer and TC/EA Peripherals <i>5-day course</i>
	EA: Elemental Analyzer and TC/EA Peripherals <i>3-day course</i>
	GC-GB: GC IsoLink, ConFlo III/IV and GasBench II <i>5-day course</i>
	GC-EA: Elemental Analyzer and TC/EA Peripherals and GC IsoLink, ConFlo III/IV <i>5-day course</i>
	LC: LC IsoLink and Peripherals <i>3-day course</i>
	Dual Inlet: Dual Inlet and Peripherals <i>3-day course</i>
	GB-GC: GasBench II and GC IsoLink, ConFlo III/IV <i>5-day course</i>
	GC-EA: GC IsoLink, ConFlo III/IV and Elemental Analyzer and TC/EA Peripherals <i>5-day course</i>
	Isodat Workshop Basic Software Training Advanced Software Training, Hardware programming