

MicroCal™ Training Courses

Advanced Isothermal Titration Calorimetry

European Training Center Munich, Germany

Introduction

Isothermal titration calorimetry (ITC) is a universal technique that directly measures heat changes associated with binding between any two biomolecules. Using label-free, in-solution assays, ITC instruments provide a powerful analytical tool to measure binding affinity and thermodynamics. MicroCal ITC systems are widely used in areas such as pharmaceutical drug discovery, antibody characterization, biotherapeutic development, and throughout life science research.

Course description

The course is designed to allow users with some experience of ITC to fulfill the potential of this powerful technique. It consists of a series of seminars and practical sessions designed to give the participants a good understanding of experimental design, data analysis and to introduce a range of applications of thermodynamic data in the understanding of biomolecular interactions and macromolecular stability.

Participants will have the chance to work with the iTC₂₀₀™.

Data generated by its automated version, Auto-iTC₂₀₀™ will be presented and discussed.

The course will cover the following:

- Introduction to Isothermal Titration Calorimetry and thermodynamics
- Practical considerations and applications
- Experimental design and experimental set-up (VPViewer™ features)
- Data analysis using Origin™ for ITC software
- Frequently asked questions/troubleshooting
- Real time data with “real sample”: Registrants will have the chance to bring along their sample for analysis

All registrants may bring their ITC data for data analysis and discussions.

All courses will be performed in English.

Who should attend?

The structure of the course allows new users to get familiar with the technology very quickly. Users having at least one month of hands-on instrument will get more benefit from the course, as they may have many questions to be answered.

Learning Objectives

By the end of the course, participants will have a clear understanding of ITC technology and thermodynamics and will have gained a profound understanding of analysis of ITC data. After the course the ITC experimental set-up should become merely a routine and less of a challenge.

Course Content

Day 1	Day 2
(9:00 am – 5:00 pm)	(9:00 am – 4:30 pm)
<ul style="list-style-type: none"> • Introduction to Isothermal Titration Calorimetry and thermodynamics • Experimental design • Practical considerations and applications • VPViewer™ features • Experiment start-up 	<ul style="list-style-type: none"> • Maintenance • More Thermodynamics • Introduction to Origin for ITC software • Data analysis using Origin for ITC software • FAQs / Troubleshooting

European Training Center Munich

Equipped with modern laboratories for protein separation, detection and analysis, we provide training courses for the best outcome and optimal use of your GE Healthcare Life Sciences equipment. Further course offerings in Munich include our Fast Trak™ program for Process chromatography/filtration, protein purification in lab scale with ÄKTA™ and UNICORN™, label free interaction analysis with Biacore™ systems and Ettan™ 2D-DIGE and DeCyder™ 2-D courses. We also offer customized courses and/or on-site training on request.

Contact Details	Course Calendar 2012
<p>Munich, Germany GE Healthcare Europe GmbH European Training Center Oskar-Schlemmer-Strasse 11 80807 München, Germany</p> <p>T +49 89 96 281 631 F +49 89 96 281 640 E PSCourses.Europe@GE.com www.gelifesciences.com/pscourses</p>	<p>September 12 – 13</p> <p>Course Fee</p> <p>€ 1.300,00 plus German VAT Order No. 28-9924-93</p> <p>Including course fee, lunch and one dinner Excluding travel and accommodation costs</p>

To register please use the registration form.

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