DMA Basic Training

DSC Training

Modulated DSC Training

Basic Rheology Training

Software Training

TGA Basic Training
Thank you for your interest in TA Instruments’ Training Courses. Enclosed please find the detailed program, practical information and a registration form.

DMA Basic Training

This training provides an introduction to the DMA technique and its applications. It is designed for the new operator to get the most out of his DMA. It is mainly lecture based but includes also a practical part.

09.15 – 09.30 Registration – coffee

09.30 – 12.00 Terminology, introduction to linear viscoelastic theory
  Instrument design
  Modes of operation and when to use them
  When to use a particular clamping configuration
  Experimental considerations

12.00 – 13.00 Lunch

13.00 – 16.30 Calibration: instrument and temperature
  Applications with various types of clamps
  Tips for optimum use of data analysis software

16.30 – … Question session


**Practical Information**

**Location:** Application lab TA Instruments
Zellik (B) or Etten-Leur (NL)

**Language / notes:** The course language is English.
Notes are provided at the start of the day.

**Registration fee:** Registration fee is 400 Euro per day per person.
Lunch is included.
Participation is free of charge for users who recently bought new equipment, with a maximum of 2 persons (excluding optional hotel fare).
Universities / schools receive 100 Euro discount on the registration fee.
An invoice for course registration (if applicable) will be send after the course.

**Hotel:** If desired we can make a hotel reservation for you or provide you with information of hotels. Hotel expenses are additional and to be paid directly at the hotel reception.

For all additional questions please contact Katia Van Praet at:

B: +32-2-7060080 or
NL: +31-76-5087270
Registration Form

Mail to  belgium@tainstruments.com or netherlands@tainstruments.com
or fax to  +32-2-7060081  or  +31-76-5087280

Name :
Company :
Department :
Address :
ZIP Code : City :
Phone : Fax :
E-mail :

I want to register for Basic DMA Training on  June 14, 2007, in Zellik

Please make hotel reservation on  ……………………..       (indicate date)

Registration fee for the course:

☐ Free of charge (user of new equipment)

☐ 400 Euro

☐ 300 Euro (University / school only)

As a confirmation of your registration you will receive at latest a week prior to the course a road description, and if applicable more details with respect to the hotel.
Thank you for your interest in TA Instruments’ Training Courses. Enclosed please find the detailed program, practical information and a registration form.

Two types of DSC training courses are available. The 1-day basic DSC training is mainly hands-on, and is designed for the operator of the instrument. The 2-days advanced DSC training is mainly theoretical, with a brief hands-on session. It is designed to help the researcher / lab manager in choosing optimum measurement conditions and performing interpretation of the results. Moreover, a general overview of the use of DSC in multiple fields is presented.

**DSC Basic Training (hands-on), 1 day**

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Introduction instrumentation
  Calibration
  Design of an experimental method
  Sample preparation and set-up of experiments

12.00 – 13.00  Lunch

13.00 – 16.30  Interpretation of the results
  Use of data analysis software

16.30 – ….  Question session

There is a fair chance for participants to measure their own samples during this hands-on training.
DSC Advanced Training (theory and some hands-on), 2 days

Part 1

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Introduction technique and instrumentation
  Thermodynamic principles
  Design of an experimental method
  Calibration

12.00 – 13.00  Lunch

13.00 – 16.30  Optimisation of experimental conditions
  (purge gas, sample preparation, choice of pan type, heating & cooling rate, maintenance)

16.30 – ….  Question session

Part 2

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Measuring conditions for typical material classes
  The glass transition temperature
  Melting and crystallisation

12.00 – 13.00  Lunch

13.00 – 16.30  How to measure heat capacity ?
  Hints for optimum use of data analysis software
  Introduction to Modulated DSC

16.30 – ….  Question Session
**Practical Information**

**Location:** Application lab TA Instruments
Zellik (B) or Etten-Leur (NL)

**Language / notes:** The course language is English unless indicated differently.
Notes are provided at the start of the first course day.

**Registration fee:** Registration fee per person is 750 Euro for the 2-days course and
400 Euro for the 1-day course.
Lunch is included.
Participation is free of charge for users who recently bought new
equipment, with a maximum of 2 persons (excluding optional hotel fare).
Universities / schools receive 100 Euro discount on the registration
fee per day.
An invoice for course registration (if applicable) will be send after
the course.

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Name:

Company:

Department:

Address:

ZIP Code:  City:

Phone:  Fax:

E-mail:

I want to register for Advanced DSC Training on

- February 13-14, 2007, in Zellik
- October 16-17, 2007, in Etten-Leur

I want to register for Basic DSC Training on

- March 14, 2007, in Etten-Leur (Dutch spoken)
- May 22, 2007, in Zellik (English spoken)
- September 26, 2007, in Zellik (French spoken)

Note that the indicated course location might be subject to changes.

Please make hotel reservation on  ………………… (indicate date)

Registration fee for the course:

- Free of charge (user of new equipment)
- 750 Euro (2-days course)
- 400 Euro (1-day course)

University / school discount

As a confirmation of your registration you will receive at latest a week prior to the course a road description, and if applicable more details with respect to the hotel.
Thank you for your interest in TA Instruments’ Training Courses. Enclosed please find the detailed program, practical information and a registration form.

Two types of Modulated DSC training courses are available. The basic MDSC training is mainly hands-on, and is designed for the operator of the instrument. The advanced MDSC training is lecture based. It is designed to help the researcher / lab manager in choosing optimum measurement conditions and performing interpretation of the results. Examples of the use of MDSC for various applications and to study different types of transitions are covered.

Modulated DSC Basic Training (hands-on)

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Introduction instrumentation
  MDSC calibration
  Design of an experimental method
  Sample preparation and set-up of experiments

12.00 – 13.00  Lunch

13.00 – 16.30  Interpretation of the results
  Use of data analysis software

16.30 – ….  Question session

There is a fair chance for participants to measure their own samples during this hands-on training.
Modulated DSC Advanced Training (theory)

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Advantages of MDSC in comparison with conventional DSC
               Calibration of Modulated DSC
               Optimisation of experimental conditions for MDSC (purge gas, sample
               preparation, choice of pan type, modulation parameters and heating rate)

12.00 – 13.00  Lunch

13.00 – 16.00  MDSC data interpretation
               - glass transition region
               - influence of experimental conditions in the melting region

               Special measuring conditions and data analysis
               - thermal conductivity
               - stepwise quasi-isothermal
               - phase angle
               - Lissajous figures

16.00 – ……  Question session
**Practical Information**

**Location:** Application lab TA Instruments
Zellik (B) or Etten-Leur (NL)

**Language / notes:** The course language is English.
Notes are provided at the start of the day.

**Registration fee:** Registration fee is 400 Euro per day per person.
Lunch is included.
Participation is free of charge for users who recently bought new equipment, with a maximum of 2 persons (excluding optional hotel fare).
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Name :

Company :

Department :

Address :

ZIP Code : City :

Phone : Fax :

E-mail :

I want to register for Advanced Modulated DSC Training on  March 15, 2007, in Etten-Leur

 September 27, 2007, in Zellik

I want to register for Basic Modulated DSC Training on  May 23, 2007, in Zellik

Note that the indicated course location might be subject to changes.

Please make hotel reservation on  …………………   (indicate date)

Registration fee for the course:

☐ Free of charge (user of new equipment)

☐ 400 Euro

☐ 300 Euro (University / school only)

*As a confirmation of your registration you will receive at least a week prior to the course a road description to our application lab, and if applicable more details with respect to the hotel.*
Thank you for your interest in TA Instruments’ Training Courses. Enclosed please find the detailed program, practical information and a registration form.

Basic Rheology Training

This training is designed for the user to get a maximum out of his rheometer. It is a mixture between theory and practice.

09.15 – 09.30  Registration - coffee

09.30 – 12.00  Introduction to rheology
                Introduction to flow
                Flow demonstration
                Practical considerations

12.00 – 13.00  Lunch

13.00 – 16:15  Introduction to creep
                Creep demonstration
                Introduction to oscillation
                Oscillation demonstration

16.15 – ….  Question session
Practical Information

Location: Application lab TA Instruments Zellik (B) or Etten-Leur (NL)

Language / notes: The course language is English. Notes are provided at the start of the day.

Registration fee: Registration fee is 400 Euro per day per person. Registration is included. Participation is free of charge for users who recently bought new equipment, with a maximum of 2 persons (excluding optional hotel fare). Universities / schools receive 100 Euro discount on the registration fee. An invoice for course registration (if applicable) will be send after the course.

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Phone :  Fax :
E-mail :

I want to register for Basic Rheology Training on  □ April 26, 2007, in Etten-Leur
□ October 11, 2007, in Zellik

Note that the indicated course location might be subject to changes.

Please make hotel reservation on  .......................  (indicate date)

Registration fee for the course:

□ Free of charge (user of new equipment)
□ 400 Euro
□ 300 Euro (University / school only)

As a confirmation of your registration you will receive at latest a week prior to the course a road description to our application lab, and if applicable more details with respect to the hotel.
Thank you for your interest in **TA Instruments’ Training Courses**. Enclosed please find the detailed program, practical information and a registration form.

**Software Training**

This training is designed to help the operator in using the more advanced features of TA Instruments’ Universal Analysis software, including the use of Macro’s for autoanalysis of data files, creation of custom reports, and many other features. Universal Analysis software is used for analysis of DSC, MDSC, TGA, SDT, TMA and DMA data.

09.15 – 09.30  Registration – coffee

09.30 – 12.00  Instruction of UA software capabilities

12.00 – 13.00  Lunch

13.00 – 15.00  Hands-on of UA software capabilities
Practical Information

Location: Application lab TA Instruments
         Zellik (B) or Etten-Leur (NL)

Language: The course language is English.

Registration fee: Registration fee is 250 Euro per day per person.
                 Universities / schools receive 50 Euro discount on the registration fee.
                 Lunch is included.
                 An invoice for course registration will be send after the course.

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Name :
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Department :
Address :

ZIP Code :       City :
Phone :       Fax :
E-mail :

I want to register for UA Software Training on   September 12, 2007, in Zellik

Note that the indicated course location might be subject to changes.

Registration fee for the course:

☐ 250 Euro

☐ 200 Euro (University / school only)

As a confirmation of your registration you will receive at latest a week prior to the course a road description to our application lab.
Thank you for your interest in **TA Instruments’ Training Courses**. Enclosed please find the detailed program, practical information and a registration form.

**TGA Basic Training**

*This training is designed for the operator to get the most out of his TGA. It includes a theoretical as well as a practical part.*

09.15 – 09.30 Registration – coffee

09.30 – 12.00 Introduction technique and instrumentation
   - Calibration
   - Optimisation of experimental conditions
     - (baseline, purge gas, choice of pan type, sample preparation, design of experimental method)
   - Typical applications (thermal stability, compositional analysis)

12.00 – 13.00 Lunch

13.00 – 16.00 **Hi-Res**<sup>TM</sup> TGA:
   - Introduction
   - Different modes and their application domain
   - Choice of parameter settings
   - Applications

**Modulated**<sup>TM</sup> TGA, **Kinetics**:
   - Theory
   - Choice of experimental conditions
   - Applications

**TGA-EGA**:
   - Principle (coupling to MS, FTIR)
   - Applications
   - Tips for optimum use of data analysis software

16.00 – … Question session
Practical Information

Location: Application lab TA Instruments
Zellik (B) or Etten-Leur (NL)

Language / notes: The course language is English.
Notes are provided at the start of the day.

Registration fee: Registration fee is 400 Euro per day per person.
Lunch is included.
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E-mail :

I want to register for Basic TGA Training on \( \square \) June 13, 2006, in Zellik

Note that the indicated course location might be subject to changes.

Please make hotel reservation on \( \square \) ………………… (indicate date)

Registration fee for the course:

\( \square \) Free of charge (user of new equipment)

\( \square \) 400 Euro

\( \square \) 300 Euro (University / school only)

As a confirmation of your registration you will receive at latest a week prior to the course a road description to our application lab, and if applicable more details with respect to the hotel.