



# TA Instruments Training Courses

## Differential Scanning Calorimetry (DSC)

### Program

Two types of DSC training courses are available:

The **DSC maintenance training** is mainly hands-on, and is designed for the operator of the instrument. Focus is on basic maintenance of the equipment and proper use of the software. It is highly recommended to have already some practical experience before attending this course.

The **theoretical DSC training** is mainly lecture based, with only 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.

### Maintenance DSC Training

1 Day

*This training is mainly hands-on and designed for the operator to get experience in doing basic maintenance of his DSC.*

*Equipment covered on May 10 & October 3: Q2000, Q200, Q20, Q1000, Q100, Q10.*

*Equipment covered on May 11 & October 4: DSC 2500, DSC 250, DSC 25, Discovery.*

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|---------------|---|
| 08.45 – 09.00 | Registration – coffee   |
| 09.00 – 12.30 | Maintenance of the DSC: <ul style="list-style-type: none"><li>– Cleaning a dirty furnace, lid, gripper fingers</li><li>– Aligning the autolid</li><li>– Replacing the autosampler gripper fingers</li><li>– Autosampler calibration</li><li>– Gases and flow rates</li><li>– Optimum use and maintenance of the cooling accessory</li><li>– Troubleshooting</li></ul> |
| 12.30 – 13.30 | Lunch   |
| 13.30 – 17.00 | Calibration & verification (Tzero, baseline, heat flow, temperature)<br>Tips for optimum use of the data analysis software.<br><i>If possible please bring your laptop with UA or TRIOS installed on it.</i>  |



# TA Instruments Training Courses

## Differential Scanning Calorimetry (DSC)

### Theoretical DSC Training

2 Days

*This training is mainly lecture based and designed to provide a general review on the importance of experimental parameters and different applications of the DSC. This training is to a big extent brand independent.*

#### Day 1

09.15 – 09.30	Registration – coffee
09.30 – 12.00	Introduction technique and instrumentation Thermodynamic principles Design of experimental method Calibration: theory
12.00 – 13.00	Lunch
13.00 – 16.30	Optimisation of experimental conditions (purge gas, sample preparation, choice of pan type, heating & cooling rate)
16.30 –	Question session

#### Day 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



# TA Instruments Training Courses

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## Differential Scanning Calorimetry (DSC)

### Practical Information

- Location: Application lab TA Instruments  
Brusselsesteenweg 500, 1731 Zellik (B)
- Language: The course language is English.
- Notes: Notes are provided at the start of the day.
- Registration fee: Registration fee per person is 1600 Euro for the two-day course, and 1050 Euro for the one-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). Participation is also free of charge for customers with an Academic, Premium or Lifetime Support Plan.
  - Universities/schools receive 100 Euro discount on the registration fee per day.
  - An invoice for course registration (if applicable) will be sent after the course.
- Hotel: Hotels located close to our office are:
- Salons Waerboom (Groot-Bijgaarden), [www.waerboom.com](http://www.waerboom.com)  
(A room in the main hotel is the most convenient, not in the aparthotel.)
  - Gosset Hotel (Groot-Bijgaarden), [www.gosset.be](http://www.gosset.be)
- Info: For all additional questions please contact Line Vanden Eede  
B: +32-2-7060080  
NL: +31-76-5087270  
[Lvandeneede@tainstruments.com](mailto:Lvandeneede@tainstruments.com)



# TA Instruments Training Courses

## Registration Form

Mail to: [belgium@tainstruments.com](mailto:belgium@tainstruments.com) or [netherlands@tainstruments.com](mailto:netherlands@tainstruments.com)

Name:

Company:

Department:

Address:

ZIP Code:

City:

Phone:

Fax:

E-mail:

I want to register for the [theoretical DSC training](#) on

- March 22-23, 2017, in Zellik
- August 29-30, 2017, in Zellik
- November 29-30, 2017, in Zellik

I want to register for the [DSC maintenance training](#) on

- May 10, 2017, in Zellik (Q Series)
- May 11, 2017, in Zellik (Discovery Series)
- October 3, 2017, in Zellik (Q Series)
- October 4, 2017, in Zellik (Discovery Series)

DSC model that you're using: \_\_\_\_\_  
e.g. Q2000, DSC 2500

Registration fee for the course:

- Free of charge (user of new equipment)
- Free of charge (academic, premium or lifetime support plan)
- 1600 Euro (theoretical 2-days course)
- 1050 Euro (maintenance 1-day course)
- University/school discount (100 Euro per day)

**As a confirmation of your registration you will receive at latest a week prior to the course a road description to our application lab.**

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