

Training Catalogue



**Theory and operation
of Calorimeters, Thermal
Analyzers and Manometry
instrument**

2023 / 2024

DSC, Calorimetry, TGA, TG-DTA,
TG-DSC, TMA, Evolved Gas
Analysis, Sorption

TRAINING SESSIONS

Our 2022/2023 Training Catalogue is for laboratory managers or users of Setaram Thermal Analyzers, Calorimeters or Manometric Instruments. You will find a training session whatever your need whether that is understanding the basics of measurements or becoming an advanced user of a specific technique or instrument.

To support you with your Setaram instrument we have developed specific training programs.

They include :

- Overview of theory and measurement principles
- Detailed description of the instrument and its accessories
- Explanation of the operational conditions and tips to optimise user experience
- Experiments and data treatment of at least one analysis
- Predictive and curative maintenance

Dedicated training on the use of Calisto software (signal acquisition and processing) can be performed :

- On your site
- In our laboratory
- Online

Easily improve your skills by trying our new online 2 hour training sessions:

- Good measurement practices
- Enthalpy calibration and temperature correction
- Heat capacity determination
- Heat of reaction

Customized sessions can be developed with you. These can be focussed on instrument, technique or specific applications with training on thermal data interpretation.



Can't find your instrument in the list or need to know more about a specific training session?

Email us at
setaram@kep-technologies.com
We will get back to you within 72 hours



EMEA (Europe, Middle East, Africa)

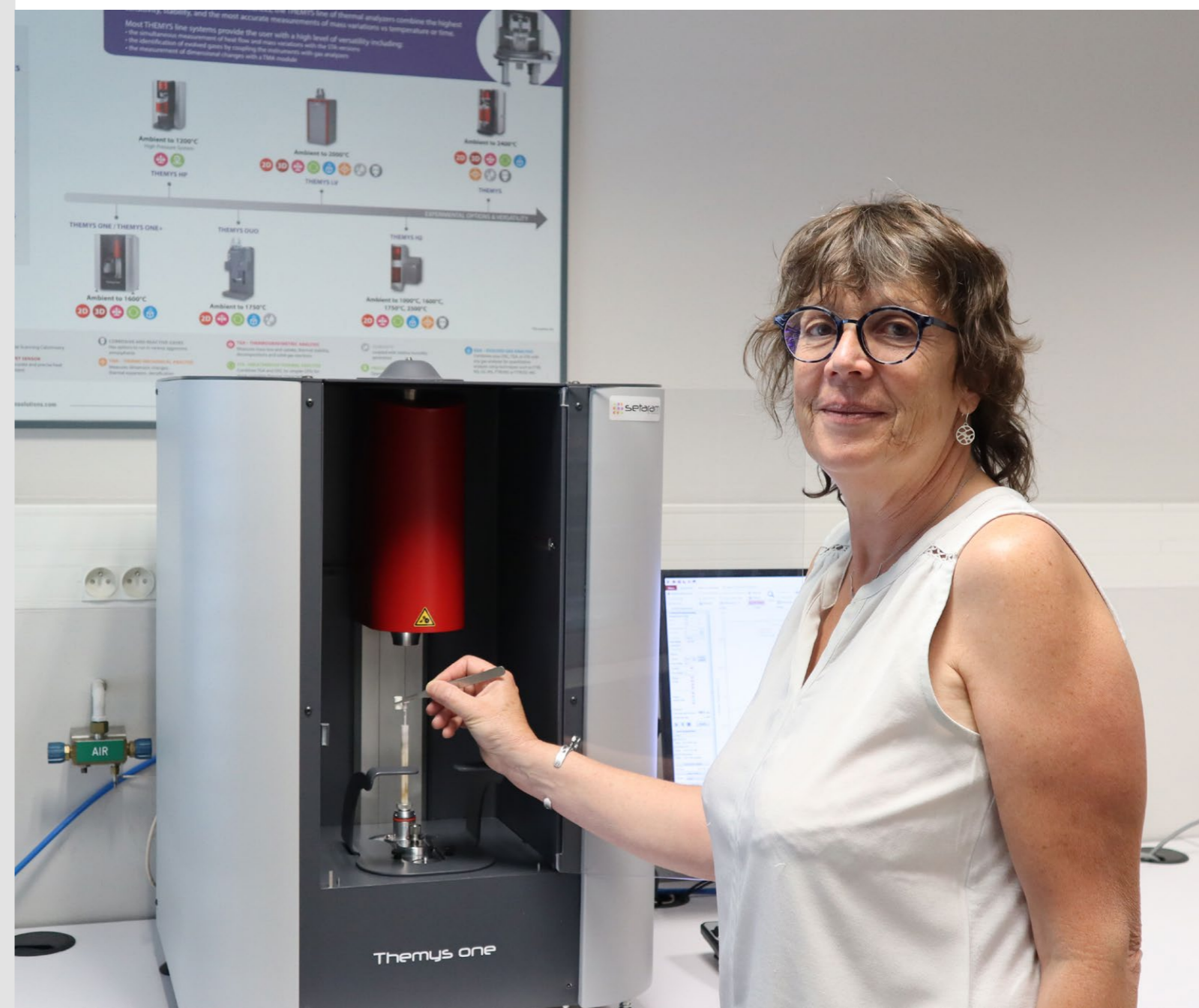
KEP TECHNOLOGIES EMEA

Applications Laboratory

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+33 4 72 10 25 25

setaram@kep-technologies.com



THERMAL ANALYSIS APPLIED TO THE SETLINE RANGE



Training

Instruments

SETLINE DSC/DSC+
SETLINE STA/STA+
SETLINE TGA

Price

2100€

Duration

1.5 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- EMEA Laboratory
- On your site



Theory

- Theoretical presentation of thermal analysis techniques
- Instrument : equipment and its key parts, preventive and curative maintenance
- Calibrations and corrections: energy calibration and temperature correction
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications
- Presentation of the autosampler



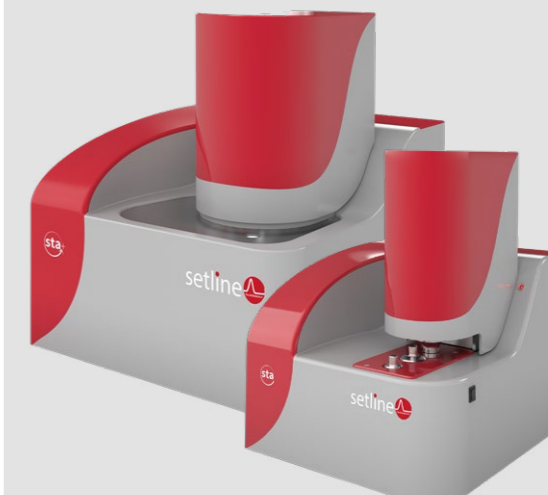
Practice

- Blank measurement
- Standard sample measurement
- Calisto software utilization
- Implementation of an option ([read more in the SETLINE brochure](#))



SETLINE DSC / DSC+

1.5 days
2100€ (\$2100)
Calibration and checking of the instrument



SETLINE STA / STA+

1.5 days
2100€ (\$2100)
Calibration and checking of the instrument



SETLINE TGA

1.5 days
2100€ (\$2100)
Calibration and checking of the instrument

All training marked with a  are available in our EMEA laboratory

THERMAL ANALYSIS APPLIED TO THE THEMYS RANGE



Training

Instrument

THEMYS
THEMYS HP
THEMYS DUO
THEMYS LV
THEMYS H2
THEMYS FLASH
THEMYS ONE / ONE+

Price

From 2100€

Duration

From 1.5 to 3 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- EMEA Laboratory
- On your site



Theory

- Principles of thermal analysis : DTA, DSC, TGA, TMA
- Instrument : equipment and its key parts, preventive and curative maintenance
- Calibrations and corrections
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Blank measurement
- Standard sample measurement
- Calisto software utilization
- Change of measurement configuration or accessories installation
- Implementation of an option ([read more in the THEMYS brochure](#)) including coupling options like MS, FTIR, GC/MS



THEMYS

from 2 to 3 days
from 2800€ (\$2800)
Change of measurement configuration



THEMYS HP

2 days
2800€ (\$2800)
Use of high pressure TGA



THEMYS DUO

from 2 to 3 days
from 2800€ (\$2800)
Symmetrical TGA measurement optimization



THEMYS LV

2 days
2800€ (\$2800)
Large volume TGA measurement optimization



THEMYS H2

2 days
2800€ (\$2800)
Cautions of use under H2



THEMYS FLASH

2 days
2800€ (\$2800)
Fast heating TGA measurement optimization



THEMYS ONE / ONE+

from 1.5 to 2 days
from 2100€ (\$2800)
Thermal analysis method optimization

All training marked with a are available in our EMEA laboratory

CALORIMETRY APPLIED TO THE CALVET RANGE



Training

Instruments

CALVET
CALVET CRYO
CALVET HT
CALVET LV
CALVET LV 4C
CALVET DC ALEXSYS
CALVET PRO
CALVET DC

Price

From 2100€

Duration

From 1.5 to 3 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- EMEA Laboratory
- On your site



Theory

- Principles of calorimetry
- Instrument : equipment and its key parts, preventive and curative maintenance
- Calibrations and corrections: energy calibration and temperature correction
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Standard sample measurement
- Calisto software utilization
- High pressure or mixing cell set-up
- Implementation of an option ([read more in the CALVET brochure](#))



CALVET

from 1.5 to 3 days
from 2100€ (\$2100)
Calorimetric measurement optimization



CALVET CRYO

from 1.5 to 3 days
from 2100€ (\$2100)
Low temperature calorimetric measurement optimization



CALVET HT

from 1.5 to 3 days
from 2100€ (\$2100)
High temperature calorimetric measurement optimization



CALVET LV

from 1.5 to 3 days
from 2100€ (\$2100)
Calorimetric measurement optimization



CALVET LV 4C

from 1.5 to 3 days
from 2100€ (\$2100)
Calorimetric measurement optimization



CALVET DC

from 1.5 to 3 days
from 2100€ (\$2100)
Calorimetric measurement optimization



CALVET DC ALEXSYS

from 1.5 to 3 days
from 2100€ (\$2100)
Drop calorimetry measurement optimization



CALVET PRO

from 1.5 to 3 days
from 2100€ (\$2100)
Thermal analysis method optimization

All training marked with a are available in our EMEA laboratory

MICRO CALORIMETRY APPLIED TO THE MICROCALVET RANGE



Training

Instruments

MICROCALVET
MICROCALVET ULTRA
MICROCALVET ULTRA 4C

Price

From 2100€

Duration

From 1.5 to 2 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- EMEA Laboratory
- On your site



Theory

- Principles of calorimetry
- Instrument : equipment and its key parts, preventive and curative maintenance
- Calibrations and corrections: energy calibration and temperature correction
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Standard sample measurement
- Calisto software utilization
- High pressure or mixing cell set-up
- Implementation of an option ([read more in the MICROCALVET brochure](#))



MICROCALVET

from 1.5 to 2 days
from 2100€ (\$2100)
Calorimetric method optimization



MICROCALVET ULTRA

from 1.5 to 2 days
from 2100€ (\$2100)
Calorimetric method optimization



MICROCALVET ULTRA 4C

from 1.5 to 2 days
from 2100€ (\$2100)
Calorimetric method optimization

All training marked with a  are available in our EMEA laboratory

MANOMETRY APPLIED TO THE GASPRO RANGE



Training

Instrument
GASPRO

Price
From 2100€

Duration
2 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- On your site



Theory

- Reminder on sorption phenomena
- Principles of Sievert's method
- Instrument : equipment and its key parts, preventive and curative maintenance
- Description of PCT and Kinetic Measurements
- Description of calibration methods of dead volume
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Measurement of a standard sample: Pre-treatment, Calibration of dead volume, PCT or kinetics measurement
- Hy-data and Hy-Analysis Software
- Implementation of an option ([read more in the GASPRO brochure](#))



GASPRO

2 days
from 2100€ (\$2100)
Manometric measurement set-up

TEST GAS
200 BAR MAX

ACCESSORIES : FLEXI LINE



Training

Instruments

FLEXI HYCO
FLEXI HP MS
FLEXI HP 1000
FLEXI BALANCE
FLEXI WET 50
FLEXI WET 200

Price

200€

Duration

1 hour

Highlights

- Experienced trainers

Location

- By Teams video
- EMEA Laboratory



Theory

- Principles of operation
- Instrument : equipment and its key parts, preventive and curative maintenance
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Practical operation
- Programming (if available)
- Parameters set-up
- Coupling to an adapted instrument



FLEXI HYCO

1 hour
200€ (\$200)

Plug-in : GASPRO, CALVET, CALVET PRO



FLEXI HP MS

1 hour
200€ (\$200)

Plug-in : GASPRO, THEMYS HP



FLEXI HP 1000

1 hour
200€ (\$200)

Plug-in : GASPRO, THEMYS HP



FLEXI HP 200

No training

Plug-in : GASPRO, THEMYS HP



FLEXI BALANCE

1 hour
200€ (\$200)

Plug-in : THEMYS, THEMYS DUO



FLEXI CHILL

No training

Plug-in : SETLINE STA/STA+, THEMYS ONE/ONE+



FLEXI WET 50

1 hour
200€ (\$200)

Plug-in : THEMYS, CALVET



FLEXI WET 200

1 hour
200€ (\$200)

Plug-in : THEMYS, CALVET

SPECIALIZED ANALYZERS FOR PROCESS SAFETY TESTING



Training

Instruments
RSC 400 AS
TAC 500 AS

Price
2100€

Duration
1.5 days

Highlights

- Training room
- Laboratory for hands-on practice
- Experienced trainers

Location

- EMEA Laboratory
- On your site



Theory

- Principles of calorimetry
- Instrument : equipment and its key parts, preventive and curative maintenance
- Temperature calibration
- Optimization of key experimental parameters
- Review of key applications and discussion around customer applications



Practice

- Standard sample measurement
 - Acquisition and processing softwares utilization
- High pressure cell set-up



RSC 400 AS

1.5 days
2100€ (\$2100)
Calorimetric measurement optimization



TAC 500 AS

1.5 days
2100€ (\$2100)
Calorimetric measurement optimization

All training marked with a  are available in our EMEA laboratory



Training

Sessions

On your site
In our laboratory
Online

Price

700€

Duration

0.5 day

Highlights

- Training room
- Teams visioconference
- Experienced trainers

Location

- EMEA Laboratory
- On your site
- By Teams video



Theory

- Calisto Acquisition: direct programming and programming of an experiment

- Main tools of Calisto Processing

- Calculations of temperature correction and sensitivity coefficients

- Processing a HeatFlow curve (DSC/DTA)

- Processing a mass variation curve (TGA)

- Processing a displacement curve (TMA)

- Review of advanced tools: calculation of heat capacity (Cp), peak separation, crystallinity rate, MS/FTIR/GCMS data imports...



Practice

- Importing an experiment

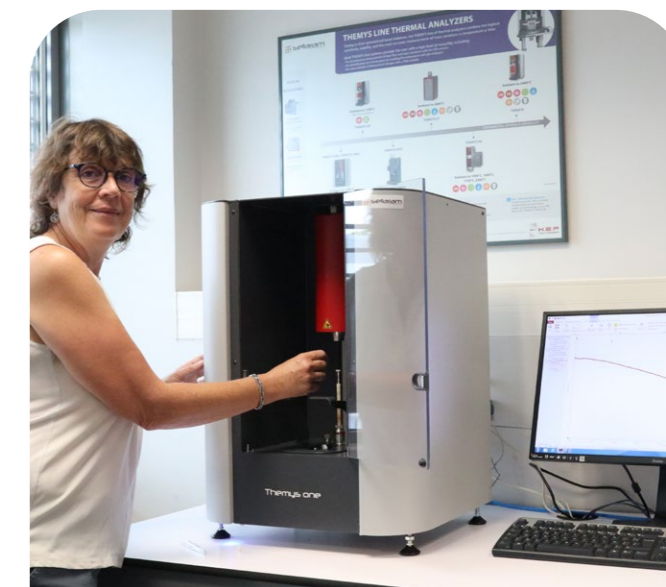
- Curve processing

- Exporting data or graphs



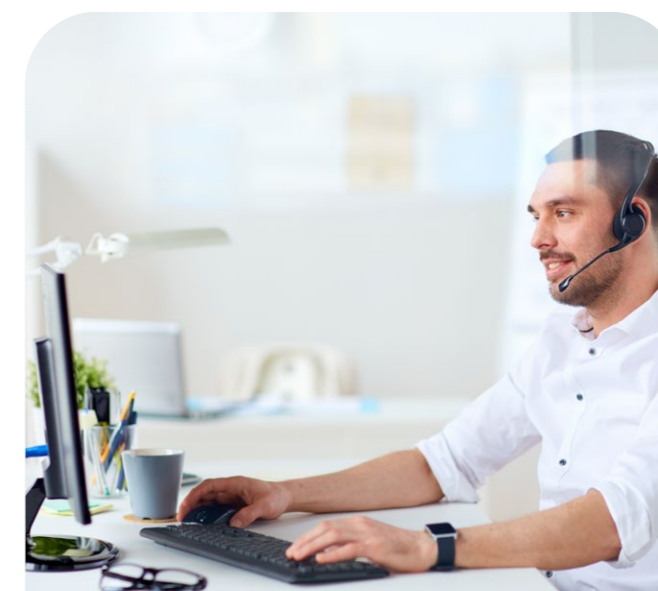
On your site

0.5 day
700€ (\$700)
Calisto use optimization



EMEA laboratory

0.5 day
700€ (\$700)
Calisto use optimization



Online

0.5 day
700€ (\$700)
Calisto use optimization

SHORT TRAINING SESSIONS



Training

Sessions

- TGA measurement practice
- DSC measurement practice
- Calorimetric measurement practice
- TMA measurement practice
- Enthalpy calibration and temperature correction
- Heat capacity (Cp) determination
- Heat mixing/reaction

Price

400€

Duration

2 hours

Highlights

- Teams visioconference
- Experienced trainers

Location

- By Teams video



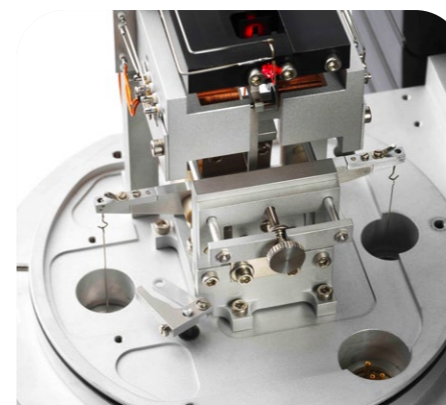
Theory

- Measurement practice
- Instrument checking
- Configuration choice
- Experimental parameters optimization
- Sample set-up
- Calibration
- Enthalpy calibration principle
- Temperature correction principle
- Experimental parameters optimization according to the sensor
- Cp determination
- Heat capacity definition
- Different calculation methods
- Experimental parameters optimization
- Heat of mixing/reaction
- Presentation of the different mixing cells
- Experimental parameters optimization
- Results interpretation



Practice

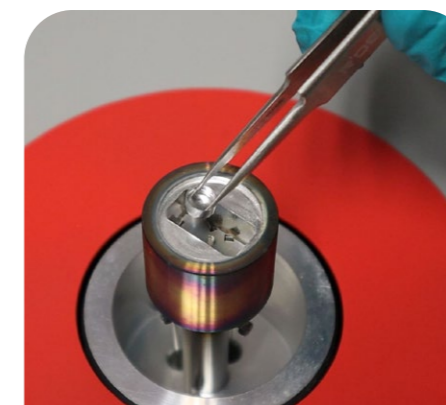
- Calibration
- Step by step set-up of a calibration
- Use of Calisto to process a measurement
- Use of Calisto to calculate coefficients
- Cp determination
- Step by step set-up of a heat capacity determination
- Data processing and Cp calculation using Calisto
- Heat of mixing/reaction
- Step by step set-up of a heat of reaction measurement
- Data processing using Calisto



TGA measurement practice

2 hours
400€ (\$400)

TGA measurement optimization



DSC measurement practice

2 hours
400€ (\$400)

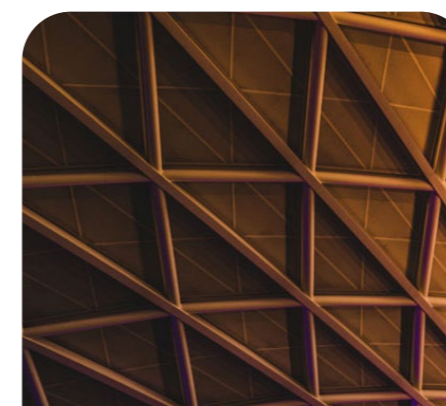
DSC measurement optimization



Calorimetric measurement practice

2 hours
400€ (\$400)

Calorimetric measurement optimization



TMA measurement practice

2 hours
400€ (\$400)

TMA measurement optimization



Enthalpy calibration and temperature correction

2 hours
400€ (\$400)

Calorimeter calibration



Heat measurement of mixing/reaction

2 hours
400€ (\$400)

Mixing set-up



Heat capacity (Cp) determination

2 hours
400€ (\$400)

Cp measurement

TRAINING SUMMARY

TRAINING	PRICE / PERSON (*)	DURAT. (from)**	DATES
SETLINE DSC/DSC+	2100€	1.5 days	Contact us
SETLINE STA/STA+	2100€	1.5 days	Contact us
THEMYS	2800€	2 days	Contact us
THEMYS ONE/ONE+	2100€	1.5 days	Contact us
THEMYS HP	2800€	2 days	Contact us
THEMYS LV (TG96)	2800€	2 days	Contact us
THEMYS DUO (TAG)	2800€	2 days	Contact us
THEMYS H2	2800€	2 days	Contact us
THEMYS FLASH	2800€	2 days	Contact us
CALVET (C80)	2100€	1.5 days	Contact us
CALVET PRO (SENSYS)	2100€	1.5 days	Contact us
CALVET CRYO (BT215)	2100€	1,5 days	Contact us
CALVET LV (MS80)	2100€	1.5 days	Contact us
CALVET LV 4C	2100€	1.5 days	Contact us
CALVET DC (MHTC)	2100€	1.5 days	Contact us
CALVET DC ALEXSYS	2100€	1.5 days	Contact us
CALVET HT (C600)	2100€	1.5 days	Contact us
MICROCALVET (μDSC7)	2100€	1.5 days	Contact us
MICROCALVET ULTRA (μSC)	2100€	1.5 days	Contact us
MICROCALVET ULTRA 4C (μSC)	2100€	1.5 days	Contact us
GASPRO (PCTPro)	2100€	1.5 days	Contact us

FLEXI HYCO	200€	1 hour	Contact us
FLEXI HP MS	200€	1 hour	Contact us
FLEXI HP 1000	200€	1 hour	Contact us
FLEXI BALANCE	200€	1 hour	Contact us
FLEXI WET 200	200€	1 hour	Contact us
FLEXI WET 50	200€	1 hour	Contact us
SETSYS evolution <i>(Old instrument)</i>	2100€	1.5 days	Contact us
Labsys evo <i>(Old instrument)</i>	2100€	1.5 days	Contact us
DSC131 evo <i>(Old instrument)</i>	2100€	1.5 days	Contact us
μDSC3 evo <i>(Old instrument)</i>	2100€	1.5 days	Contact us
CALISTO	700€	0.5 day	Contact us
SHORT TRAINING SESSIONS <i>(Online)</i>	400€	2 hours	Contact us

*For on site training, transport and living costs are charge extra
** Option only available coupled with an instrument training session. Duration and price vary depending on the options
(All prices exlude tax)



Switzerland – France – China – United States – India – Hong Kong
For contact details: www.setaramsolutions.com or setaram@kep-technologies.com

