MESICON OMI the data acquisition software for heat flow calorimeter and KEITHKLEY DMM or Computer Data Acquisition Modules

MESICON OMI (**O**nline **M**easurement and **I**maging) is a program especially written for the acquisition of data from heat flow calorimeter with KEITHLEY DMM or Computer Data Acquisition Modules. It is designed in consideration to the special demands of calorimetric measurements. The program is offering all required features you need and is allowing very easy handling.

Features:
The **MESICON OMI** controls your DMM or Module, records, displays and saves the data of 3 channels corresponding to the three calorimeter cells.

Controlling DMM
In the *Measurement Setup Menu* it is possible to set the program parameters for controlling the DMM, which are:

- Communication Port number to which your PREMA DMM is connected
- Duration for which you want to run the measurement
- Integration time for each channel
- Step width between two data points for each channel

Displaying data
In the *Measurement Setup Menu* you can choose between displaying the data as voltage or already calculated as heat flow using the calibration constants and the sample weights.

The current number of channel together with the measured data value are displayed. The measured values for the three channels are displayed as curves in a graphical interface. Zoom option is available from 0 to 1000 h and from -4 to 300 mV or from -40 to 3000 mW/g by using left mouse button or a zoom menu. With a *Display Options Menu* all curves or selected curves can be displayed.

Additional it is possible to display the last 5 data values of each channel in a grid chart.

Storing data
Recorded data sets of each channel are saved in separated files. File names can be set in the *Measurement Setup Menu*. Saved data have ASCII format ("time, value") in real time mode. Data are saved on hard disk immediately after measuring of the three channels (no data values are lost in case of operating system failure).

In the *Measurement Setup Menu* you can choose between the data saved as voltage or as heat flow per weight. For the last option values are multiplied by calibration constant and divided by sample weight. The sample weights have to be set in *Measurement Setup Menu*.

Calibration
With the **MESICON OMI** it is very easy to calibrate the calorimeter cells. In the *Calibration Setup Menu* the channel you want to calibrate and values of base level, current and calibration resistance are requested.

The calibration program takes the maximum voltage, calculates and saves the calibration constant for the following measurements.
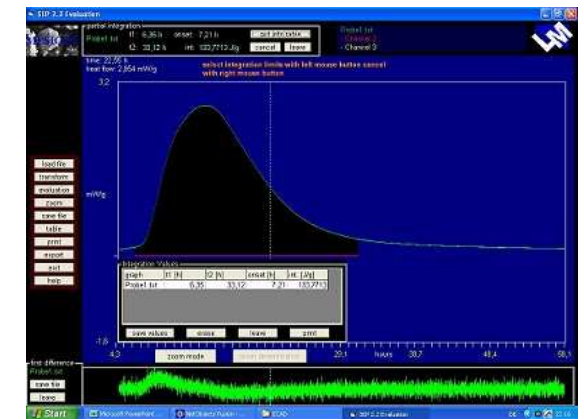
Input of maximum voltage by keyboard is also possible. Any value for the calibration constant can be set. The **MESICON OMI** will then use this constant for calculating the heat flow from voltage data.

Measurement interrupt
By using **MESICON OMI** your measurement data are not lost after an interrupt of power supply. Put **MESICON OMI** in the Autostart of your computer and the measurement will be continued automatically after power returns. Real time mode enables display of measurement interruption time.

Evaluation
MESICON SEP (**S**cientific **E**valuation **P**rogram) allows easy evaluation of your calorimetric data. All necessary operations like data transformation, curve integration or onset determination are possible.

DATA ACQUISITION MODULE
If you have got no Digital Multimeter MESICON is able to deliver a high resolution data acquisition module.

FAXIMILE No ++49 7371 - 90 94 67

From

Company_____

Name_____

Address_____

_____

_____

Phone_____

Fax_____

e-mail_____

To

MESICON
Dr. Michael Ecker Scientific Consulting
Kastanienallee 15
88499 Riedlingen
Germany

My hardware
    KEITHLEY 2000 / 2000 SCAN
    I have got no DMM, please send me
    information about high resolution data
    acquisition modules

    please send DEMO Version for testing
    MESICON OMI.
    please send license (870,00 € + tax)
    please call me for some additional
    information

Contact

MESICON
Dr. Michael Ecker
Scientific Consulting
Kastanienallee 15
D-88499 Riedlingen
Germany

Phone   ++49 73 71 - 95 94 75
Fax   ++49 73 71 - 90 94 67

e-mail   info@mesicon.de
www.mesicon.de

MESICON OMI
and
MESICON SEP

The easy way to

control and evaluate

your

calorimetric measurement