

## MicroCal 7.0 – Origin Lab

### INTRODUCTION

The Lumetics LINK™ software platform scans network locations for new measurement data files, copies data directly to a centralized database, and provides a powerful user interface for rapid multi-measurement multi-technique data aggregation, visualization, analysis, and reporting. LINK employs a client/server-based architecture where the LINK server hardware is provided by the end user and resides on the end user’s network. The LINK client is a portable web-based application that may be placed on any computer with network connectivity to the LINK server. For successful import, the LINK webserver requires read access to the folders where user data resides.

MicroCal microcalorimeters are powerful, analytical tools used to study biological systems. These include interactions between molecules as well as changes in conformation such as protein unfolding. The technique is very convenient requiring only minimal assay development and no labelling. The range includes both Differential Scanning and Isothermal Titration calorimetry.

### DETAILS

LINK requires the table data exported as a TXT file, from the MicroCal data processed using the Origin software. The txt file format must have TMindex in column A. The Thermogram TXT data files are optional. To import thermogram raw data, matching and unique “File” values must be present in both the table data TXT and the thermogram TXT files.

The following raw curve data may be imported, in addition to all available instrument/analysis settings and parameters calculated by the instrument software:

- Cp vs. Temperature
- 1<sup>st</sup> Derivative vs. Temperature
- 2<sup>nd</sup> Derivative vs. Temperature
- 3<sup>rd</sup> Derivative vs. Temperature

The MicroCal TXT data file example is as follows:

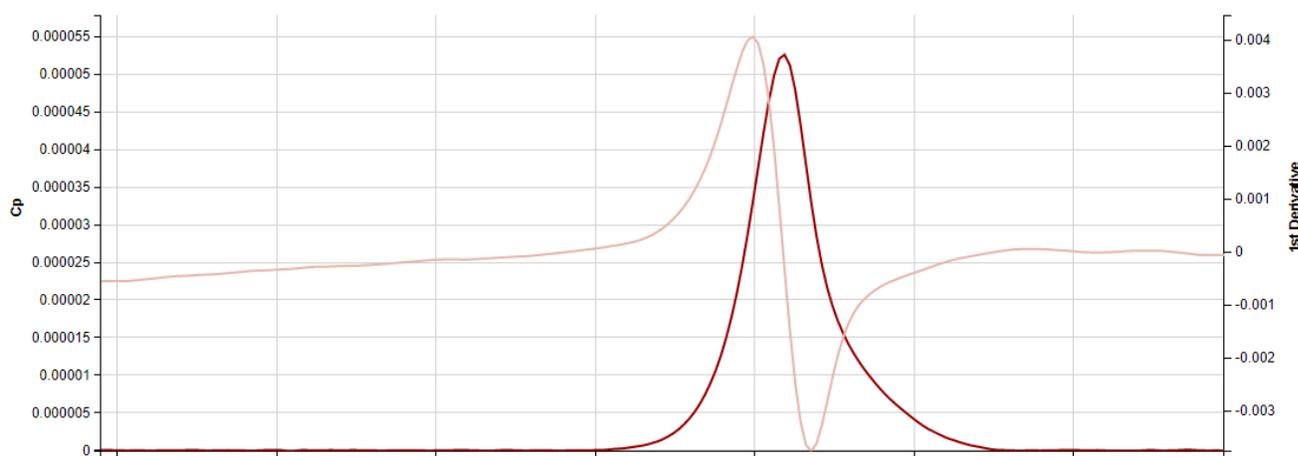
1	TMindex	DTMindex	Sample	File	Worksheet	Type	Baseline	Reference	Tray	Well	Concl1	Conc2	pH	Thalf	DH	TmOnset	Tm1	TmColor	TmShape	DTm	DTmColor	DTmShape	X1	X2	X3	Comments	A
2	--		Sample 1	ELN0415503006.dsc	Data1	BB BB	1 14	0 --		--	--	1 --															
3	1		Sample 2	ELN0415503007.dsc	Data2	STD Data1	1 16	0 --			53.56	61.87	2 3														
4	2		Sample 3	ELN0415503008.dsc	Data3	STD Data1	1 18	0 --			53.9	61.89	3 3														
5	3		Sample 4	ELN0415503009.dsc	Data4	STD Data1	1 20	0 --			53.65	62.3	4 3														

### EXAMPLES

Included below are sample dashboards from MicroCal measurement files:

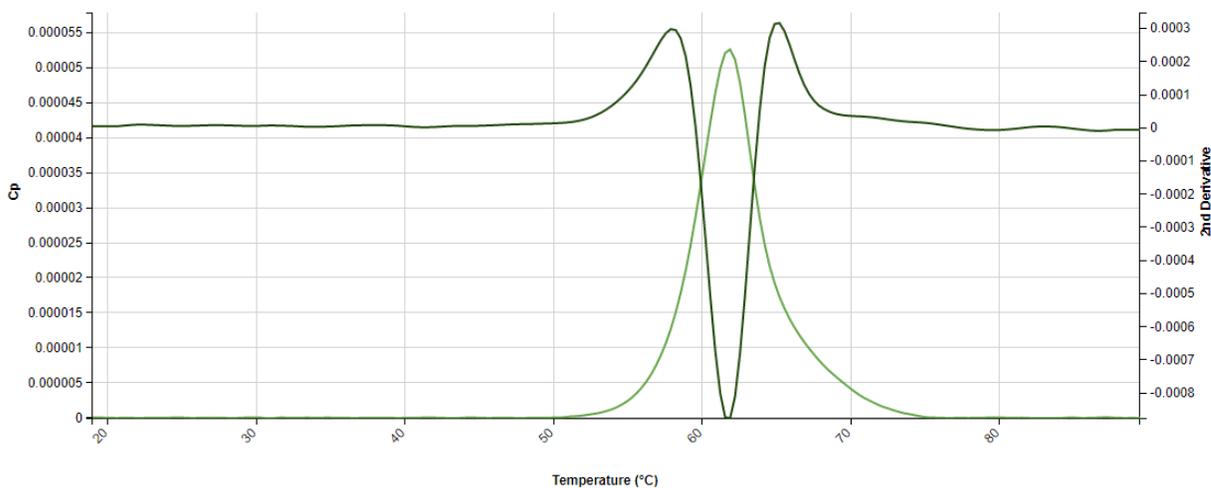
#### 1. Line Chart plotting raw data curves for Cp & 1<sup>st</sup> Derivative vs. Temperature

**Cp & 1st Derivative vs. Temperature**



## 2. Line Chart plotting raw data curves for Cp & 2<sup>nd</sup> Derivative vs. Temperature

**Cp & 1st Derivative vs. Temperature**



## 3. Tabular Summary examples:

Measurement Summary Table – Measurement Results

LINK Record ID #	Sample Name	TMShape - AVG	Tm1 - AVG	TmOnset - AVG	1st Derivative (Temperature (°C) >=1) - AVG	2nd Derivative (Temperature (°C) >=1) - AVG	3rd Derivative (Temperature (°C) >=1) - AVG	Cp (Temperature (°C) >=1) - AVG
1	buffer-buffer				0.00	0.00	0.00	0.00
2	BSA	3	61.87	53.56	-0.02	0.00	0.00	0.00
3	BSA	3	61.89	53.90	0.00	0.00	0.00	0.00
4	BSA	3	62.30	53.65	0.00	0.00	0.00	0.00

Measurement Summary Table – Instrument Settings

LINK Record ID #	Sample Name	File Name	Baseline	Well - AVG	Tray - AVG	TMShape	TmOnset	TMindex	TMColor - AVG
1	buffer-buffer	DSC_table.TXT	BB	14	1	--	--	--	1
2	BSA	DSC_table.TXT	Data1	16	1	3	54	1	2
3	BSA	DSC_table.TXT	Data1	18	1	3	54	2	3
4	BSA	DSC_table.TXT	Data1	20	1	3	54	3	4

## MICROCAL DASHBOARDS

LINK contains an extensive built-in dashboard library from LINK version 2.4.0.210401 and later. This function contains specific pre-created dashboards for all instruments and application groups.

## CONTACT LUMETICS

For direct assistance, please contact Lumetics LINK™ Support:

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