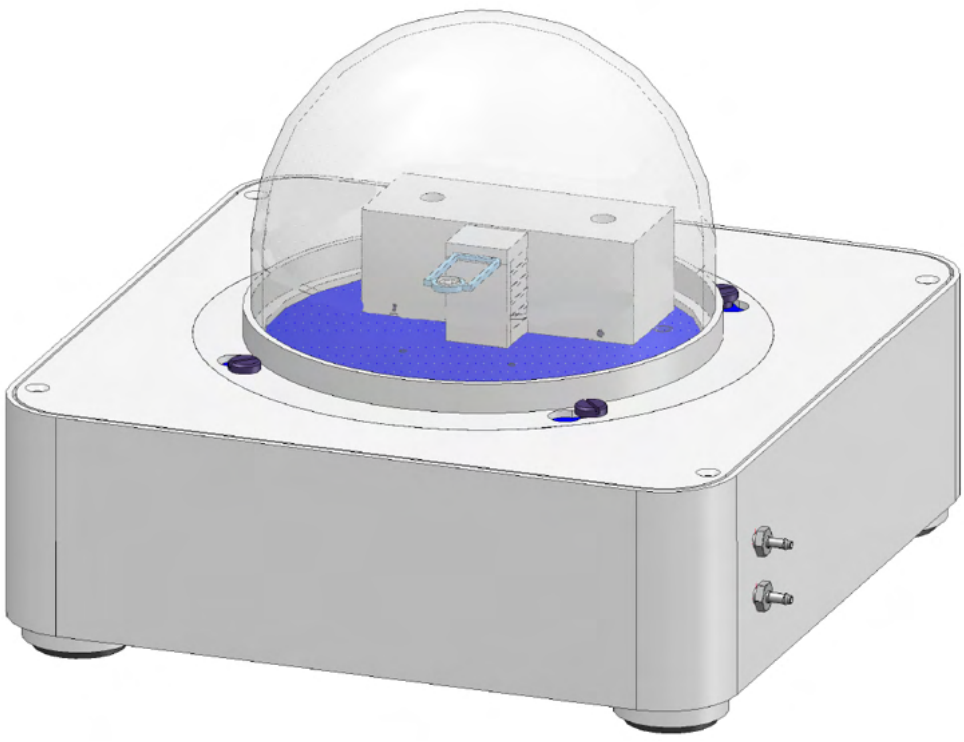
LINSEIS

pushing boundaries

# How To
# Signal processing
# with Chip-DSC



Linseis Messgeräte GmbH
Gerlach
Date: 13.10.2020

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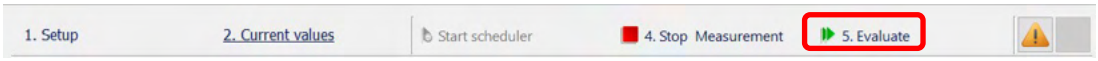
# 1. General information

This manual is a short description for handling measurements with the Chip DSC. The presented features are the most common, that are usually used. However, the evaluation software has much more features that cannot all be displayed here. For more Information, read the other available instructions about software or specific manuals for the Chip DSC.

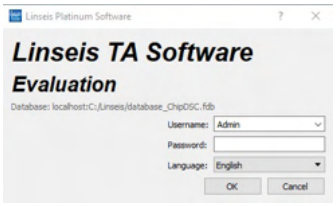
# 2. Prepare the Evaluation and load curve(s)

## 2.1 Requirements

- At first you need a finished measurement
- If the measurement is not finished and you want to evaluate the curve in the measurement software, click on “Evaluate”



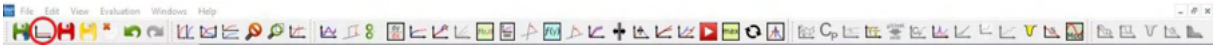

- If the measurement already finished start the evaluation software and Log in

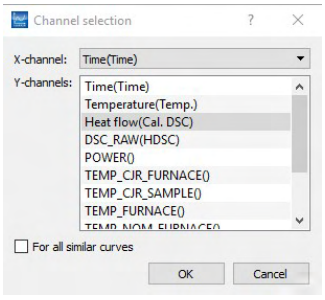

- Create a new project (Ctrl + N)

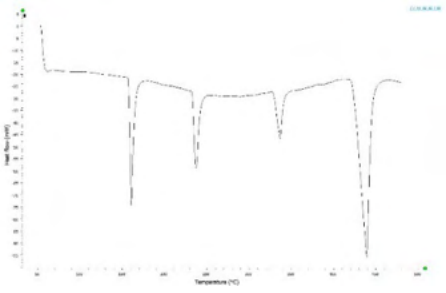
## 2.2 Load curve(s)

- Click on load curve



- Select the curve you want to evaluate (with ctrl you can select more curves at once)
- Now you need to select the channels you want to display (you can select more than one if necessary)



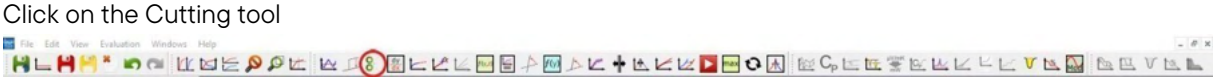



- To get access to the features, at first you need to select the curve! (left click on curve)

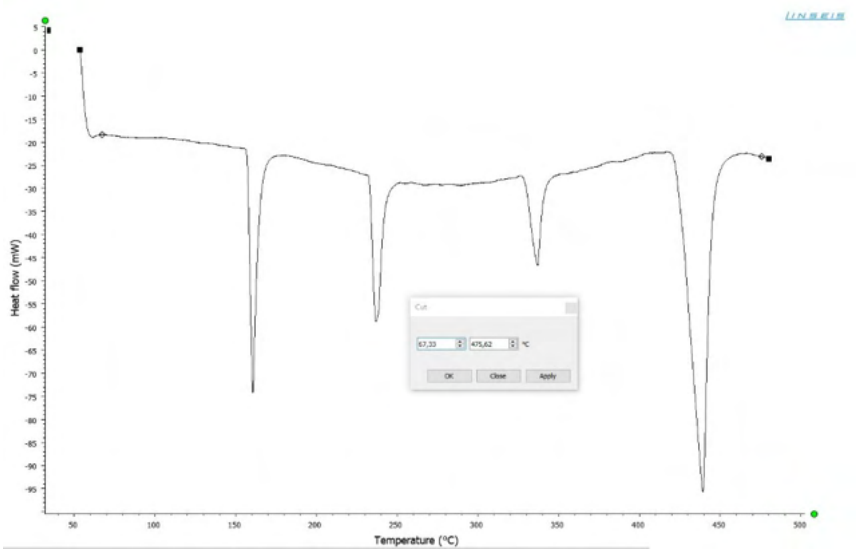
# 3. Arrange the curve(s)

## 3.1 cut

- Click on the Cutting tool



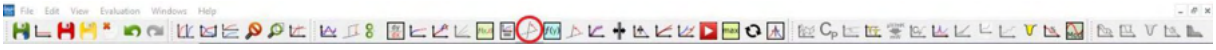
- Select the lower and the upper limit of the range you want to keep



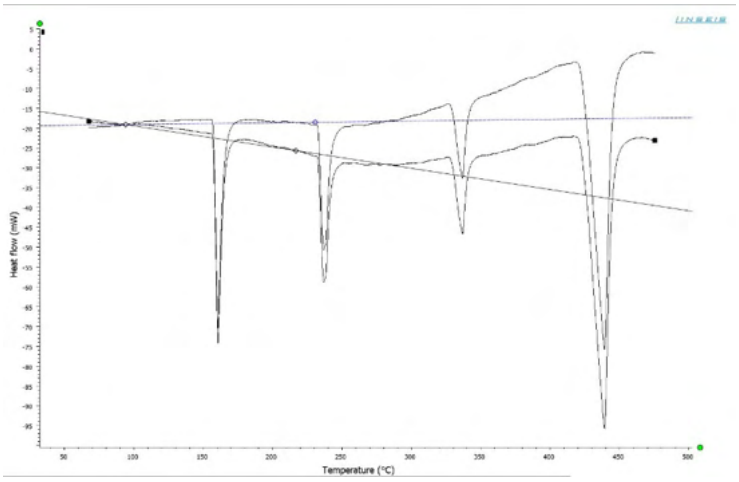

- Click on apply

### 3.2 rotate

- Click on the Rotate tool



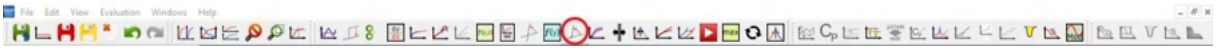
- Select the first point (axis to rotate the whole curve around)
- Select the second point (click on it and move it to the position you want)



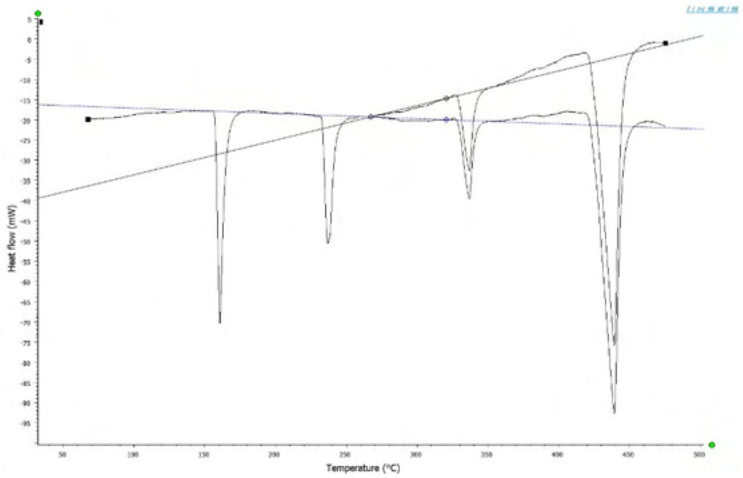

- Press Enter

### 3.3 slope correction

- Click on slope correction tool



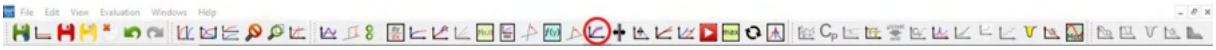
- Select first point (axis to rotate everything after the set point)
- Select second point (click on it and move it to the position you want)



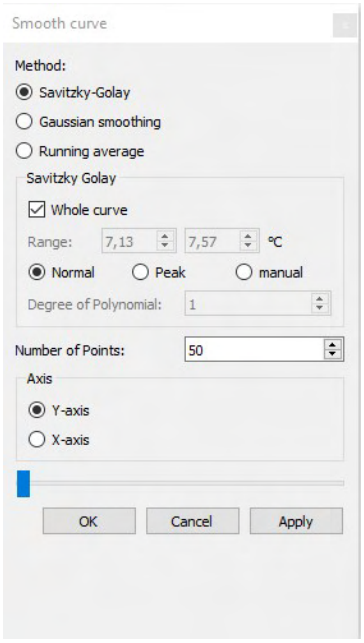

- Press Enter

### 3.4 smooth

- Click on smooth tool



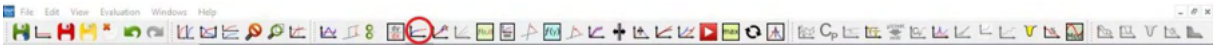
- Select type and range for smoothing



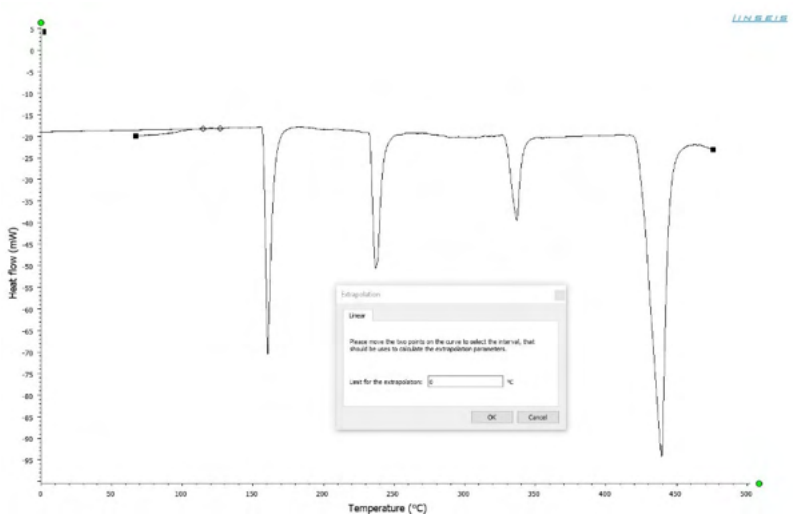

- Press Apply

### 3.5 extrapolation

- Click on extrapolation tool



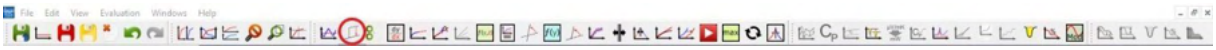
- Select two points to create a tangent over which to extrapolate
- Select the target value



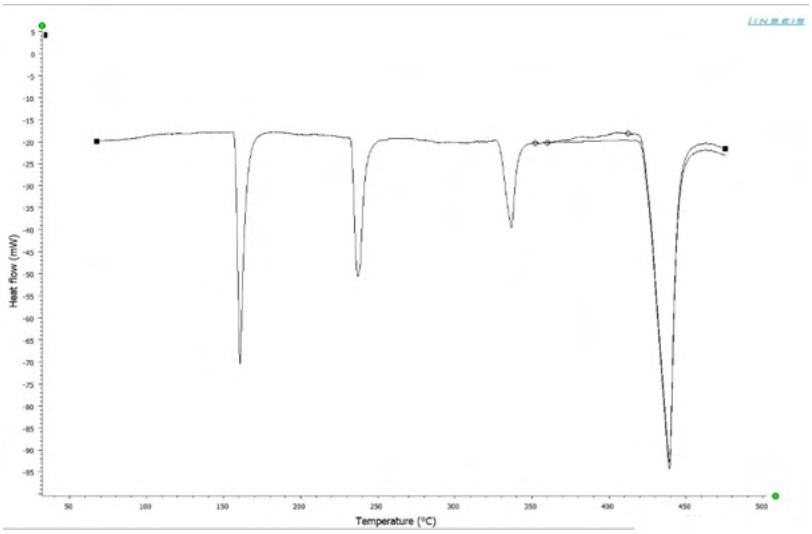

- Press Ok

### 3.6 remove bump

- Click on remove bump tool



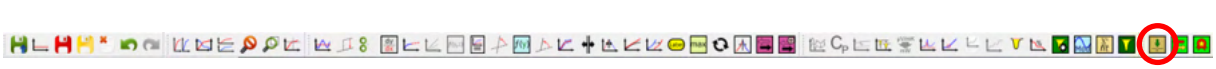
- Set two points to create a tangent over which you interpolate
- Select a third point at the target value (the range between first and third point will be interpolated)



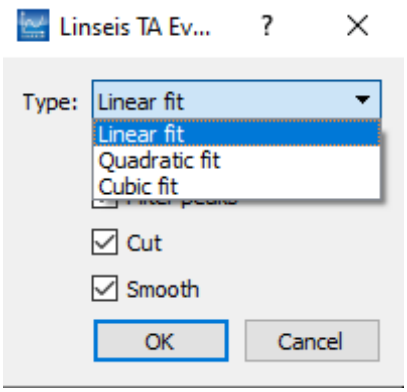

- Press Enter

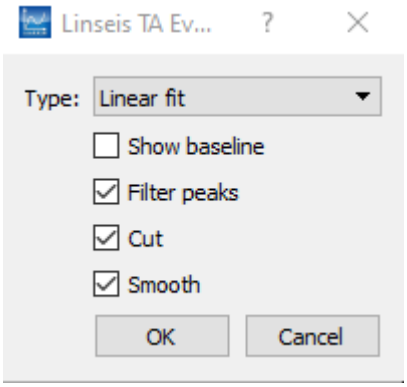
### 3.7 Automatic baseline correction

- Load and select curve (multiple curves by pressing Ctrl)
- select automatic baseline correction tool



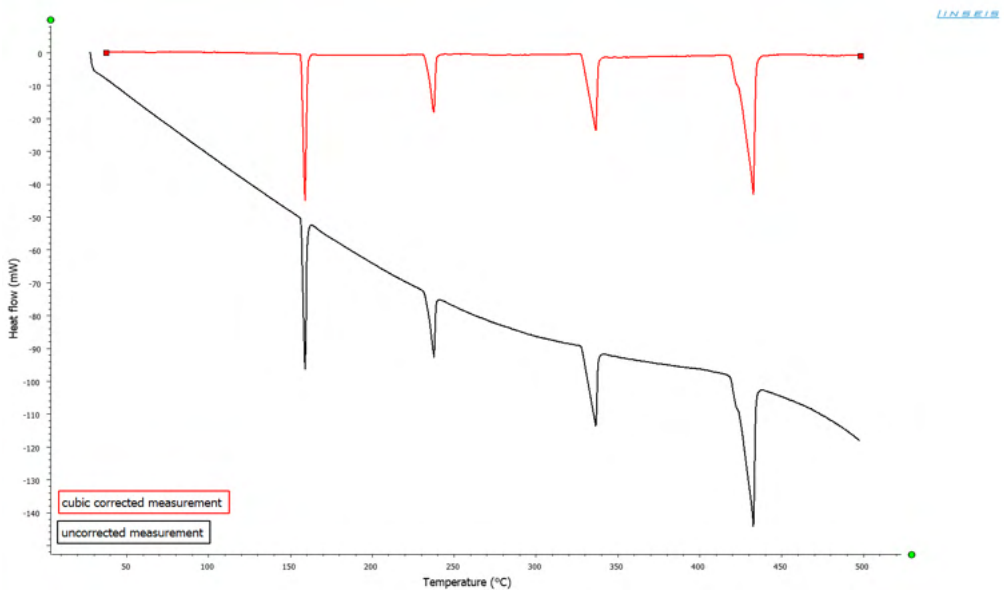
- choose the correction type for automatic correction
- select correction settings



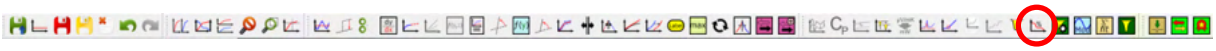

- Show baseline → show the calculated baseline
- Filter peaks → ignore detected peaks for baseline
- Cut → cut the curve (e.g. initial offset)
- Smooth → smooth the curve slightly

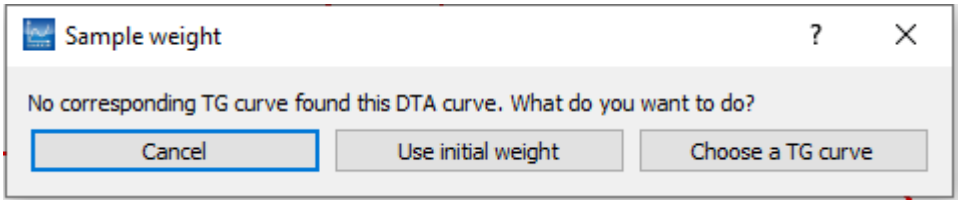
- apply correction




### 3.8 Relative Heat Flow in mW/mg

- Load and select curve (multiple curves by pressing Ctrl)
- select relative heatflow tool

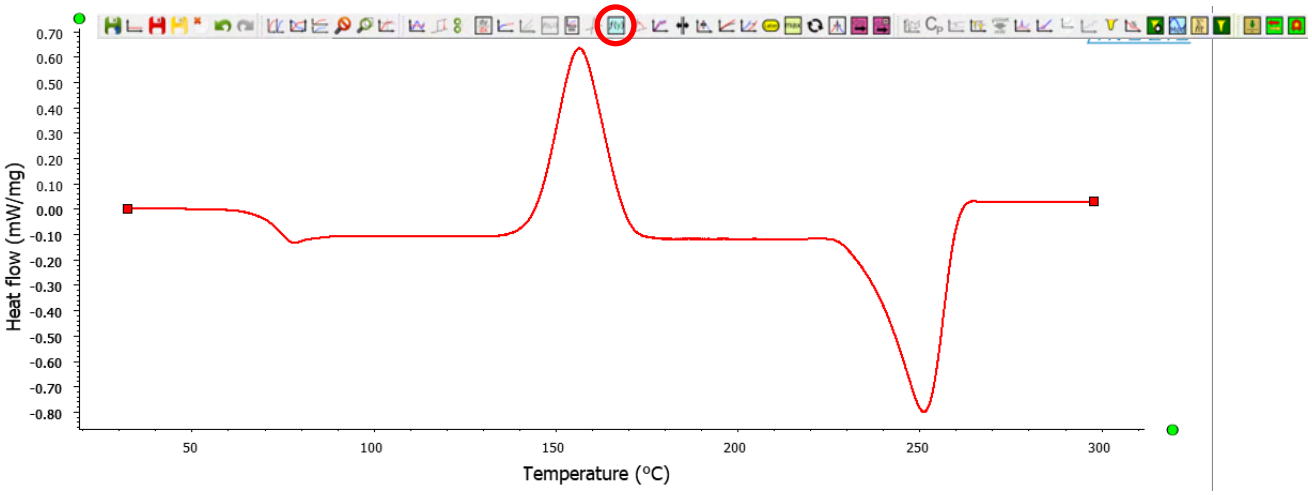


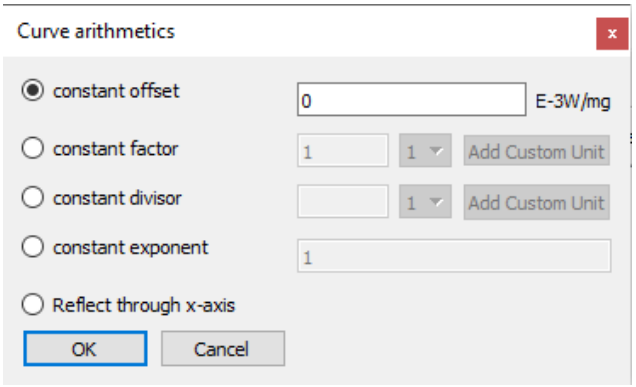


- choose Use initial weight
- you receive the relative heatflow in mW/mg

### 3.9 basic arithmetic functions

- Load and select curve (multiple curves by pressing Ctrl)
- select arithmetic on a single curve tool



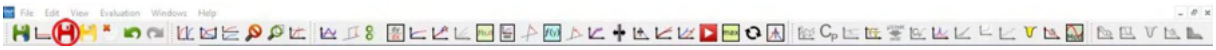




- choose the desired mathematical function
- Confirm with Ok

# 4. Save and export your curve(s)

### 4.1 save as project

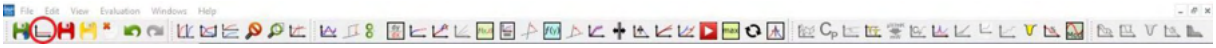
- Click on the save Project button



- Enter a name and select a target folder
- Press save

### 4.2 save as curve

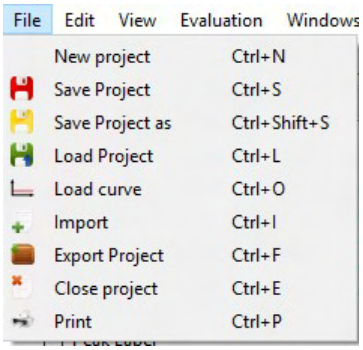
- Click on the load curve button



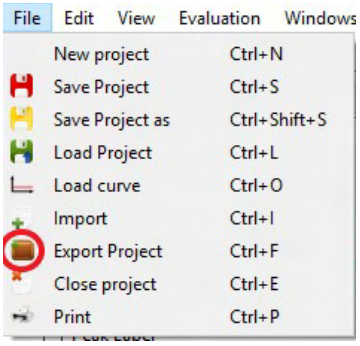
- Right click on the curve and select export
- Enter a name and select a target folder
- Press save

### 4.3 export as project

- Click on the file tab



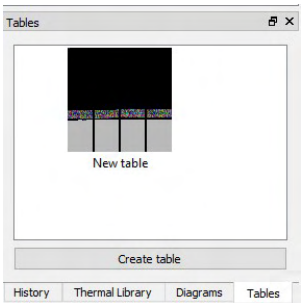

- Select Export Project




- Enter a name and select a target folder
- Press save

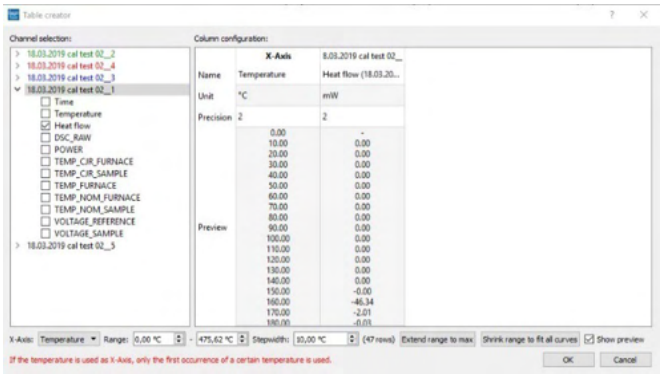
### 4.4 export as table

- Click on the table tab




- Create table

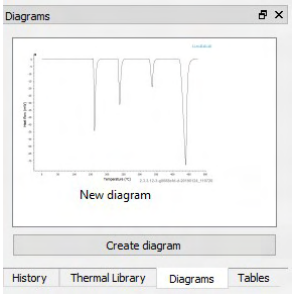
- Select the information and x-axis you want
- Enter a name
- Press save




- Right click on the Table-symbol and select export
- Enter a name and select a target folder
- Press save

### 4.5 export as diagram

- Click on the Diagram tab




- Create diagram
- Right click on the Diagram-symbol and select export
- Enter a name and select a target folder
- Press save