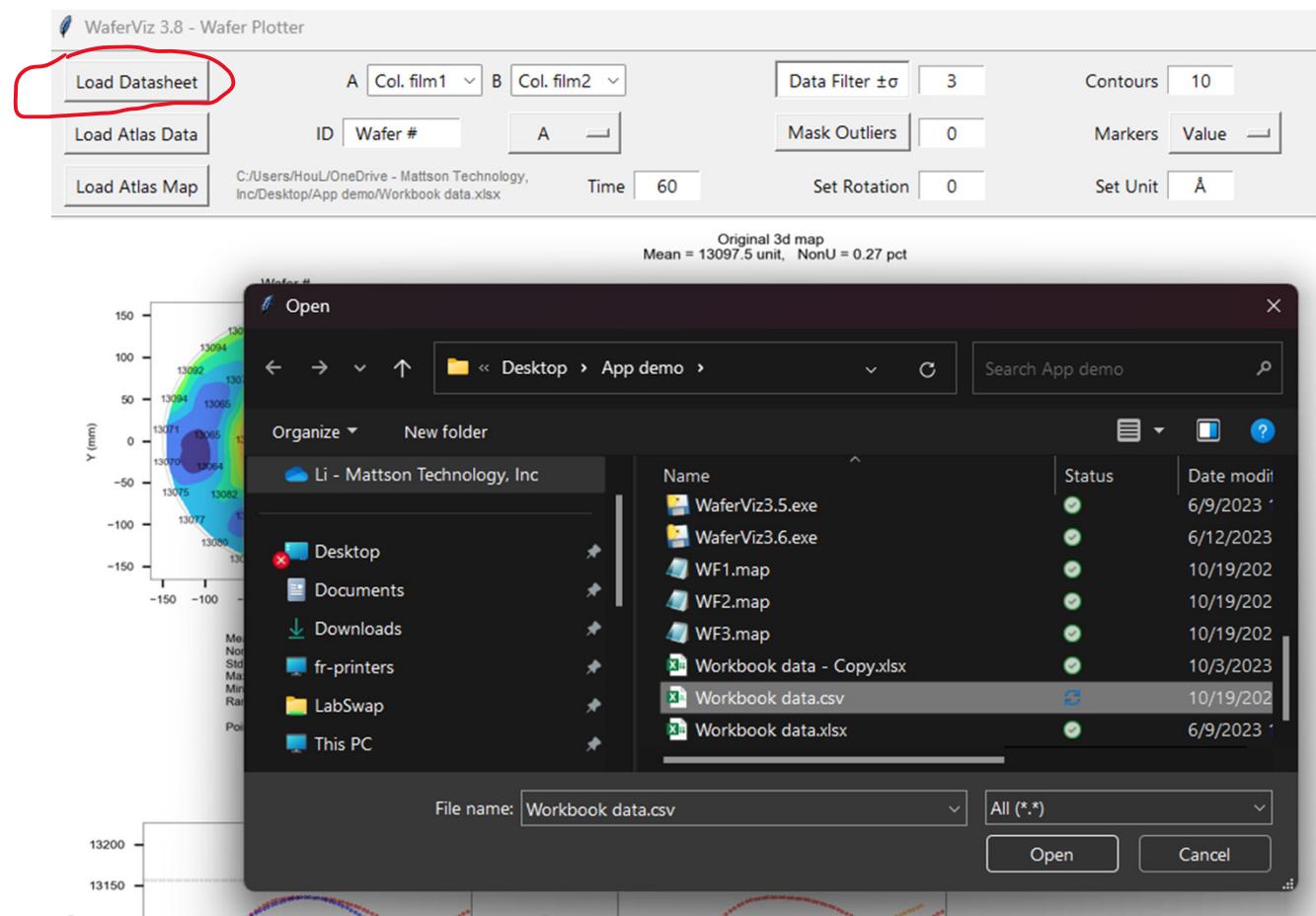


Step1: Loading Data from Datasheets You Prepared - Choice 1

- Copy and paste your raw data into Excel or CVS sheet with columns: x, y, data1, data2, ... , as shown below:
- Column A and B are reserved for (x, y) coordination. All other columns are for measurement data.
- The first row is for column labels as you can put notes there or leave it blank.
- Don't put anything on unoccupied cells to avoid errors.
- You must close the datasheet before loading otherwise it won't work.
- Click "Load Datasheet" to load.

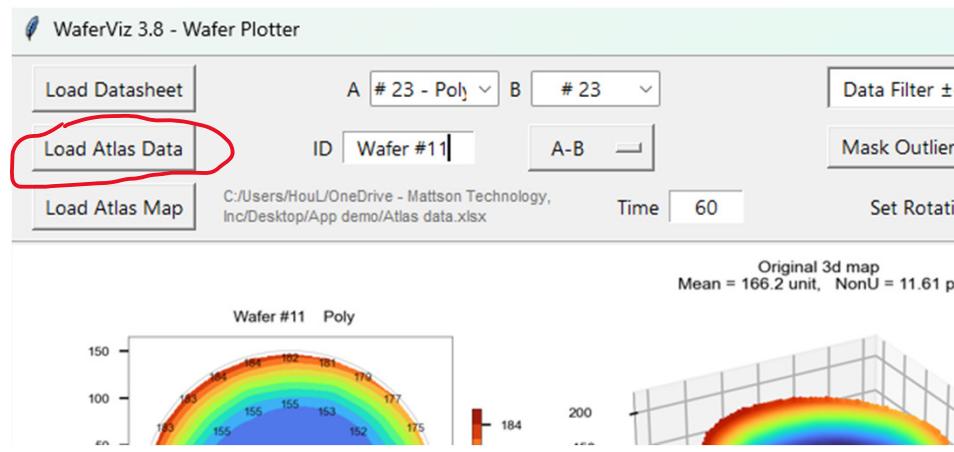
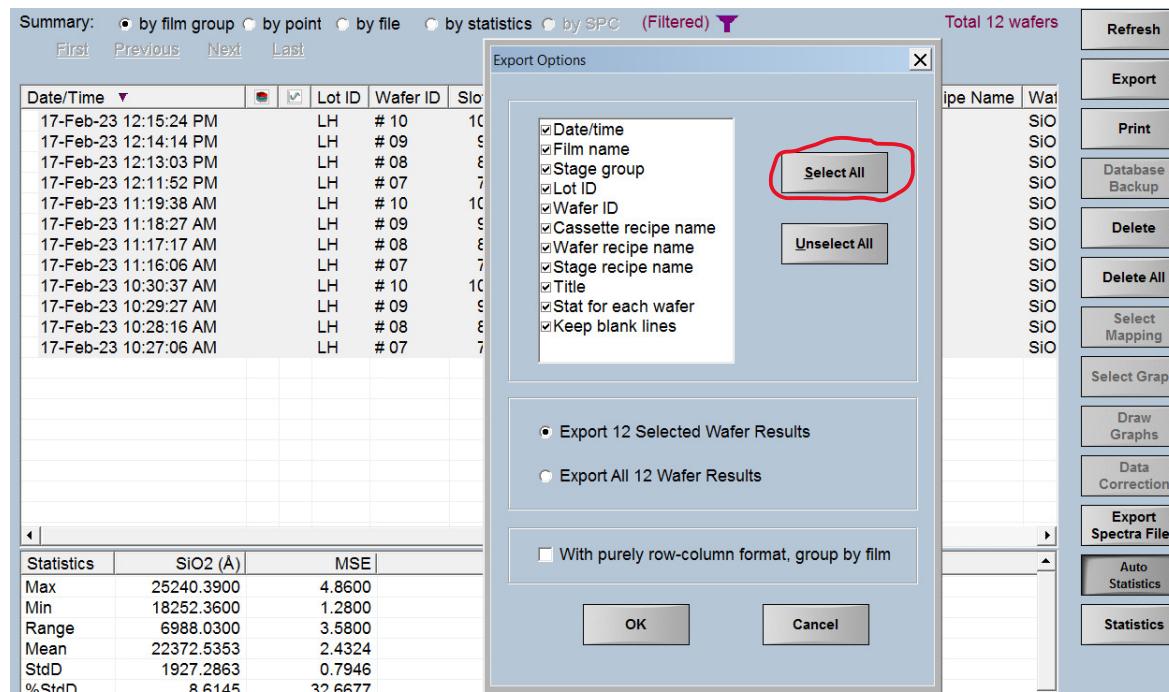
A	B	C	D	E	F	G	H	I
1 X(mm)	Y(mm)	film1	film2	film3	film4	film5		
2 0	0	13135.69	2079.12					
3 5.972	48.635	13111.55	2294.179					
4 38.613	30.167	13116.88	2278.79					
5 48.635	-5.972	13120.88	2246.208					
6 30.167	-38.612	13113.9	2265.52					
7 -5.971	-48.635	13114.53	2246.741					
8 -38.612	-30.168	13118.67	2253.023					
9 -48.635	5.971	13115.66	2288.533					
10 -30.168	38.612	13113.75	2285.452					
11 11.943	97.27	13079.07	2480.762					
12 48.257	85.295	13084.27	2452.029					
13 77.225	60.335	13096.35	2457.121					
14 94.436	26.189	13099.27	2466.867					
15 97.27	-11.943	13091.73	2407.786					
16 85.295	-48.257	13090.14	2453.966					
17 60.335	-77.225	13088.93	2446.428					
18 26.19	-94.436	13082.76	2473.871					
19 -11.943	-97.27	13087.95	2401.834					
20 -48.257	-85.295	13070.16	2437.254					
21 -77.225	-60.335	13082.41	2501.554					
22 -94.436	-26.19	13063.96	2611.412					
23 -97.27	11.943	13064.91	2661.207					
24 -85.295	48.257	13065.05	2624.74					
25 -60.335	77.225	13076.72	2540.244					

Example



Step1: Loading Data from Exported Atlas Data - Choice 2

- On Atlas tool screen click “Export” and “Select All” button as shown below.
 - Click “Load Atlas Data” to select exported files from the server.
 - Keep the data file closed otherwise it won’t work.
 - The exported raw data are shown in far right.



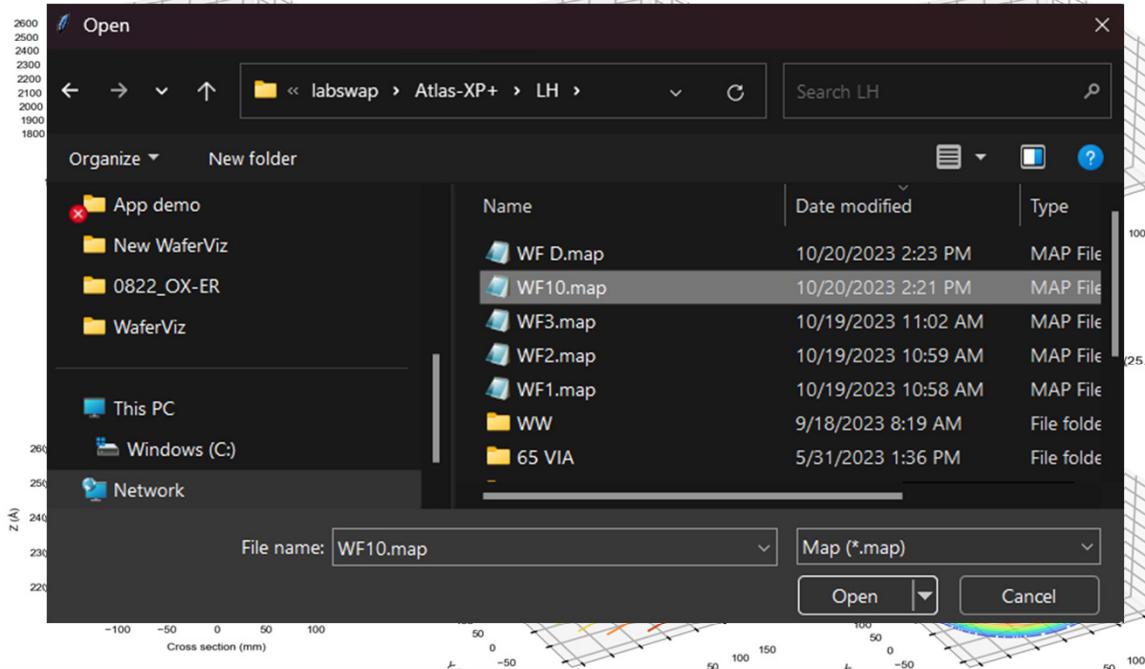
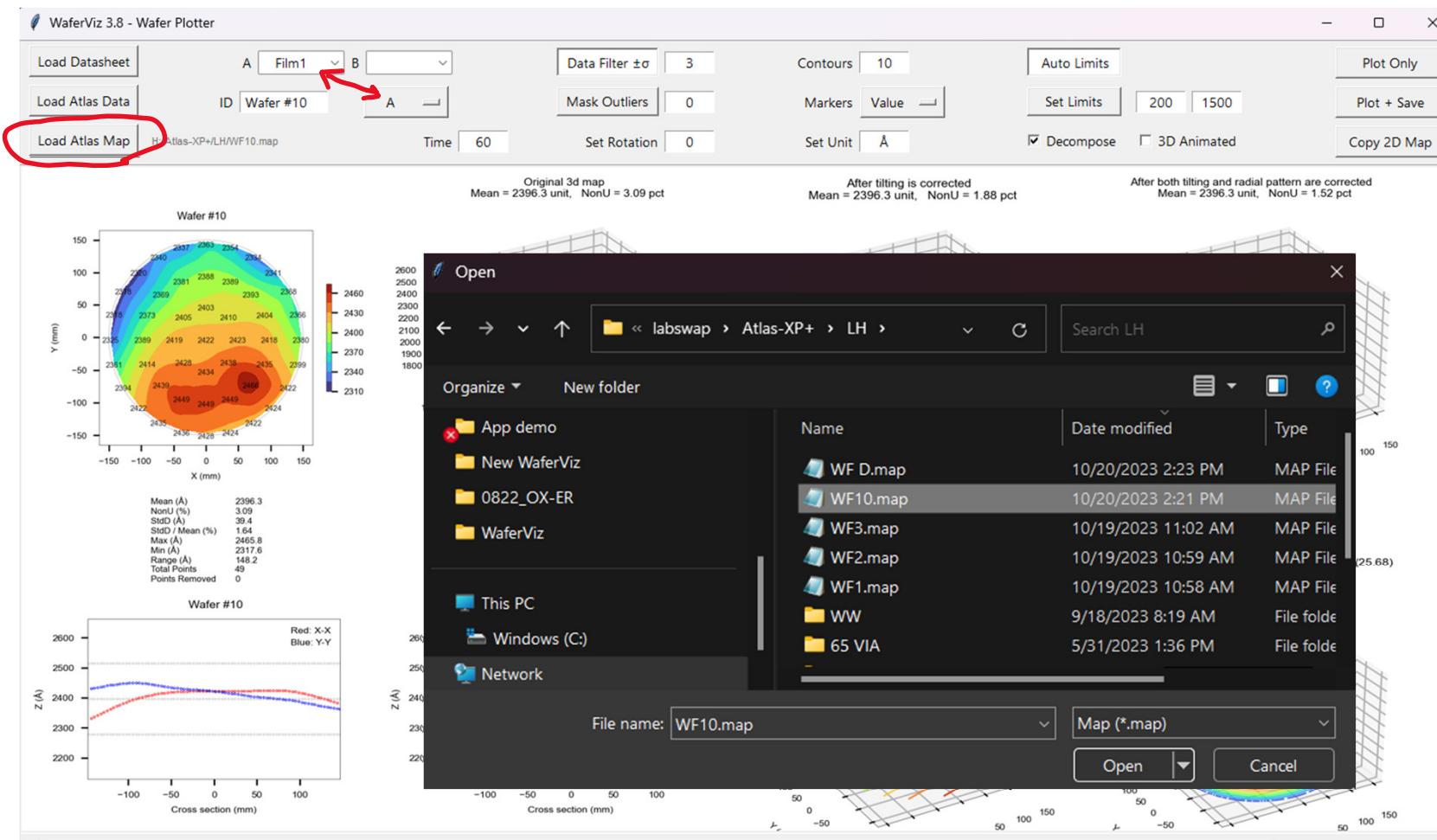
The screenshot shows a Microsoft Excel spreadsheet titled "Wafers_short". The top menu bar includes File, Home, New, Insert, Draw, Page, Form, Data, Review, View, Help, New, and xlwin. The "Home" tab is selected. On the right, there are buttons for Conditional Formatting, Format as Table, Cell Styles, and Cells. The active cell is L23. The spreadsheet contains several sections of data:

- Section 1 (Rows 1-9):** Includes Date/Tim (7/16/2021 11:13), Film nam (oxide on Si), Stage gr (25PT 3EE 4X), Lot ID (LH NEW WAFER), Wafer ID (# 10), Cassette SemiAuto -, Wafer rec SiO2 25Pt, Stage rec 25PT 3EE 4X, and Title (Point# 3EE).
- Section 2 (Rows 10-34):** A data table with columns SiO2(Å), MSE, X(mm), and Y(mm). The data points range from 2393.82 to 2368.91.
- Section 3 (Rows 35-39):** Summary statistics: Max (2410.42), Min (2311.6), Range (98.82), Mean (2363.19), StdD (3.13), %StdD (13.2), %NonU (2.09), and CTE (N/A).
- Section 4 (Rows 40-44):** Includes Date/Tim (7/16/2021 11:12), Film nam (oxide on Si), Stage gr (25PT 3EE 4X), Lot ID (LH NEW WAFER), Wafer ID (# 09), Cassette SemiAuto -, Wafer rec SiO2 25Pt, Stage rec 25PT 3EE 4X, and Title (Point# 3EE).
- Section 5 (Rows 45-59):** A second data table with columns SiO2(Å), MSE, X(mm), and Y(mm). The data points range from 2361.17 to 2368.91.

A large orange watermark "Example" is diagonally across the sheet.

Step1: Loading Data from Atlas Map Files - Choice 3

- Click “Load Atlas Map” and select map files from the server.
- Since there is only one dataset involved so select “Thickness” for “A” and select “A” from dropdown button (or “A/t” if you want to calculate the rate).
- The map file looks like in left when it is opened by Notepad.



```

WF10.map
File Edit View
MAP_DATA_9x00
Lot ID: LH 63VIAS DATA COLL
Wafer ID: # 10
Wafer Size: 300.00000
Edge Exclusion: 3.00000
Edge Clip: 3.00000
Rectangle MinX: 0.00000
Rectangle MaxX: 0.00000
Rectangle MinY: 0.00000
Rectangle MaxY: 0.00000
Film Program: Oxide on Si
Data Type: SiO2
Data Unit: Å
Display Format1: %%.%df
Display PrecisionDigits1: 2
Display Format2: %%.%df
Display PrecisionDigits2: 2
User ID: eng
Date Created: 10/13/23 08:36:12 AM
Wafer Type: Notched
Shape Type: Round
New System Model: Atlas XP+
Display Settings:
Mean: 1
Max: 1
Min: 1
StdD: 1
%StdD: 1
Range: 1
Interval: 1
%Interval: 1
NonU: 1
Map Type: 1
Map Style: 2
X Rotate: 30.00
Y Rotate: 0.00
Z Rotate: 0.00
Data Section:
Number of Points: 49
0 0.000000 0.000000 2421.940000
0 0.000000 49.000000 2403.430000
0 34.648209 34.648255 2410.310000
0 34.648209 34.648255 2412.300000
Ln 20, Col 21 80% Windows (CRLF) ANSI

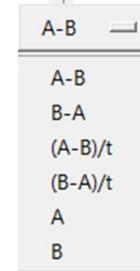
```

Step2: Configuring Settings.



1. The path to files.
2. A, B can be two films of pre-process and post-process.
3. You can enter the ID.
4. Operators, see right side.
5. You can enter process time to get rates but need to select (A-B)/t or (B-A)/t to be effective.
6. Default “Data Filter $\pm\sigma$ ” is set $\pm 3\sigma$. Beyond that the data points will be excluded. The number of excluded points is shown in the contour map.
7. If “Mask Outliers” is pressed, you can find sigma value in the contour map according to the number of points you’ve removed.
8. You can enter the number of contours from 1 to 100 for the contour map.
9. Marker choices for the contour map, see right side.
10. The default unit is Å. You can change it to any physical units such as °C, Ohm/sq, etc.
11. If “Set Limits” is pressed, You can define lower limit and up limit.

4. Operators:

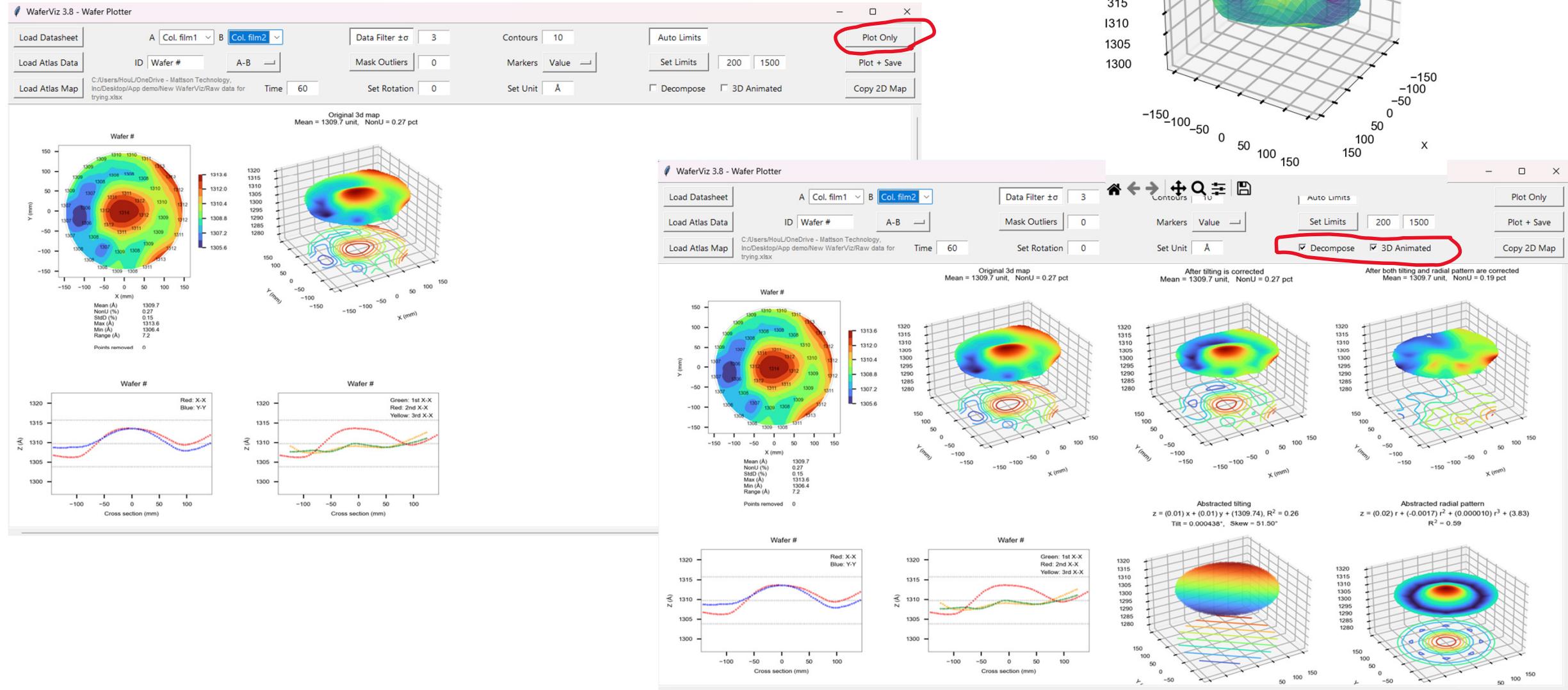


9. Marker choices for the contour map:



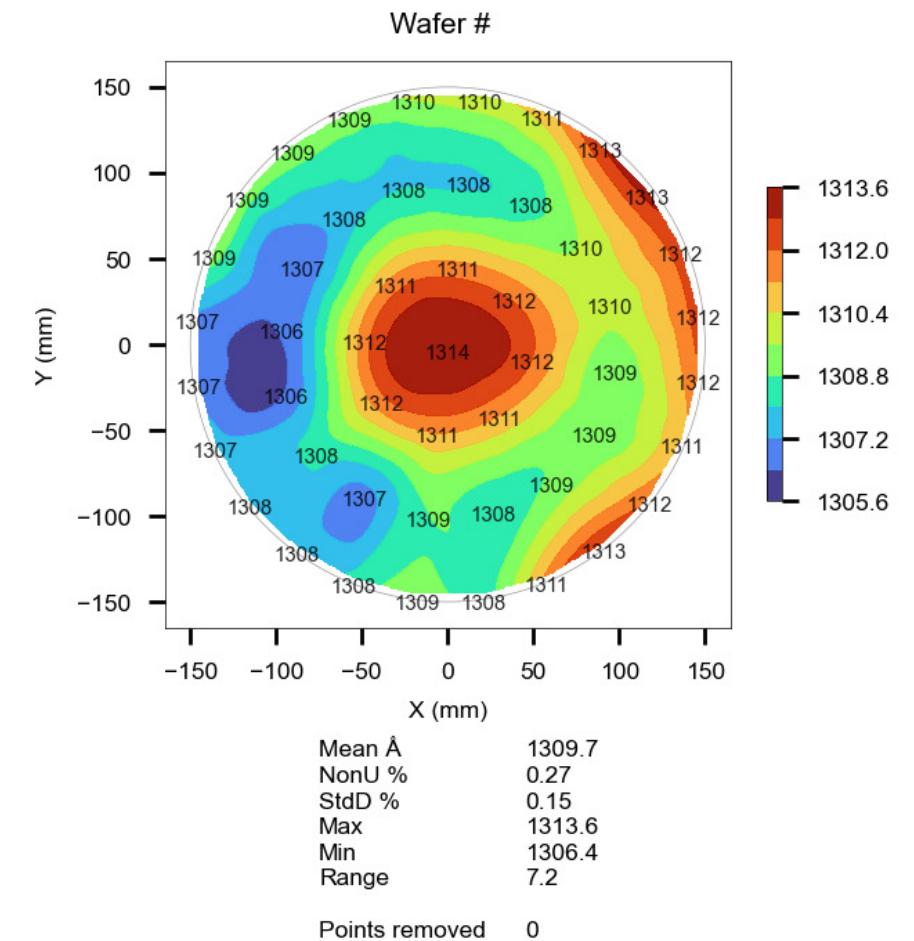
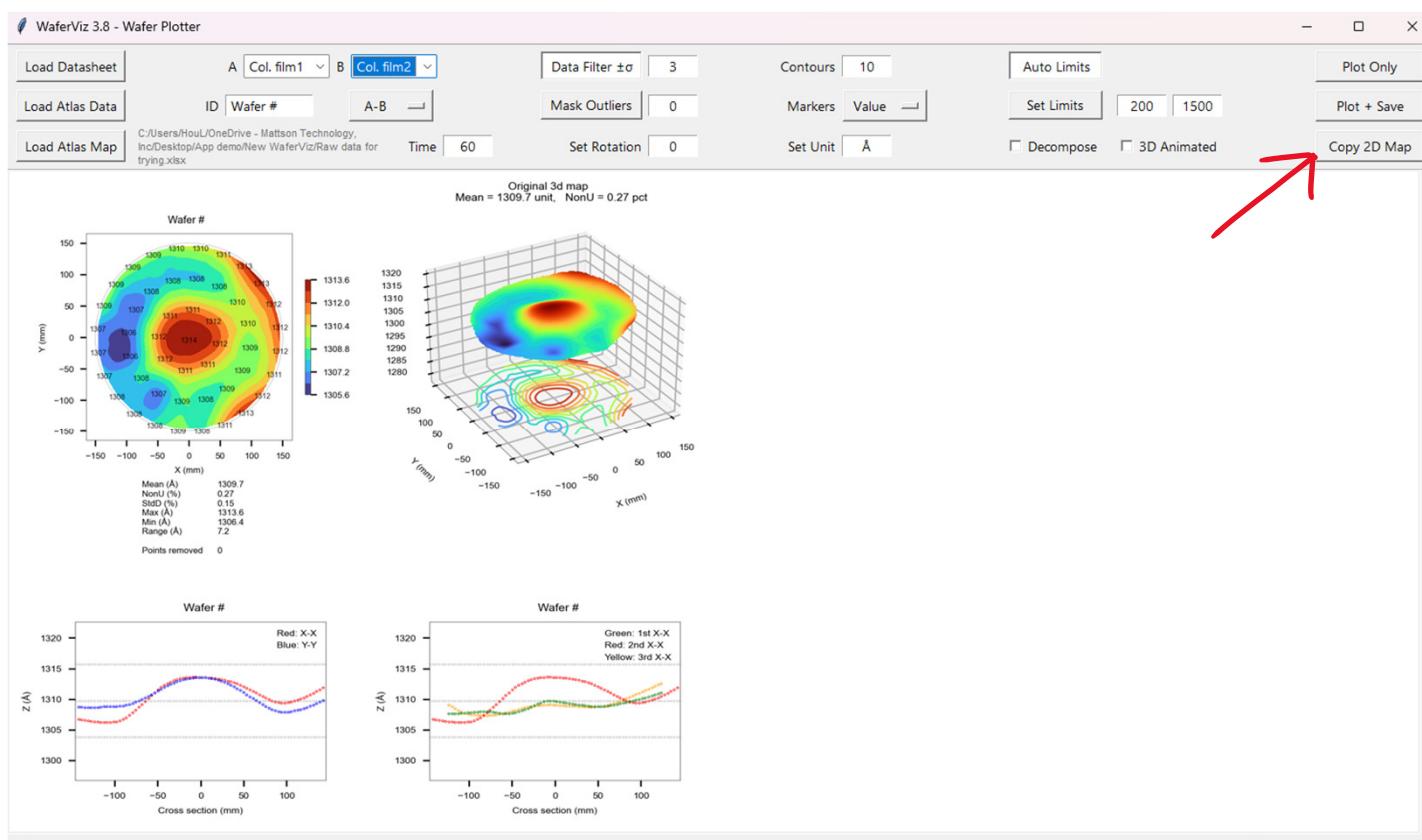
Step3: Plotting.

- By clicking on “Plot” it only takes few seconds to produce the minimal graphs.
- Selecting “Decompose” and/or “3D Animated” and “Plot” will take 22s.



Step3: Copy / Paste the Graph with One Click.

- This is a convenient shortcut.
- After graphs are plotted, clicking “Copy Map” will copy 2D contour map into Windows’ clipboard which allows you to paste it to other apps.



Step4: Saving Graphs.

- Clicking “Plot + Save” instead of “Plot Only” adds an Excel summary sheet in auto-generated folder “Saved Graphs”.
- The folder is in the same directory where you have dropped this app into.

