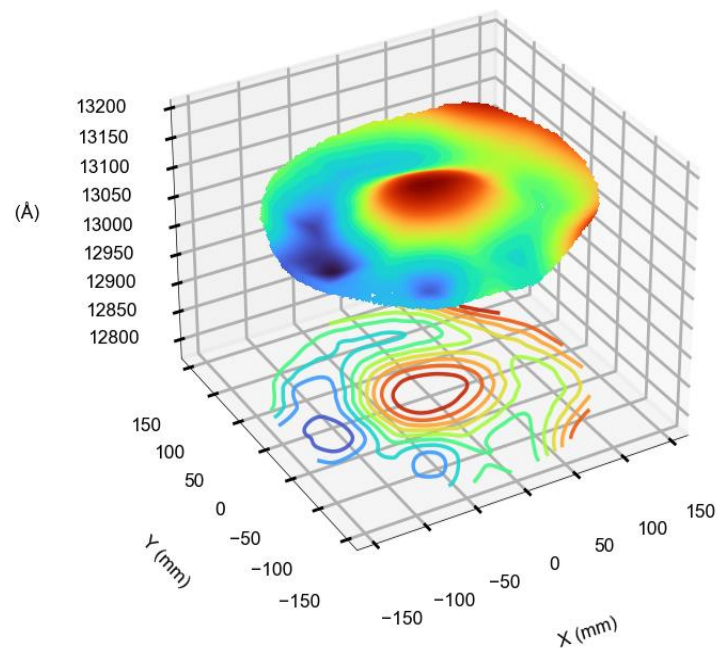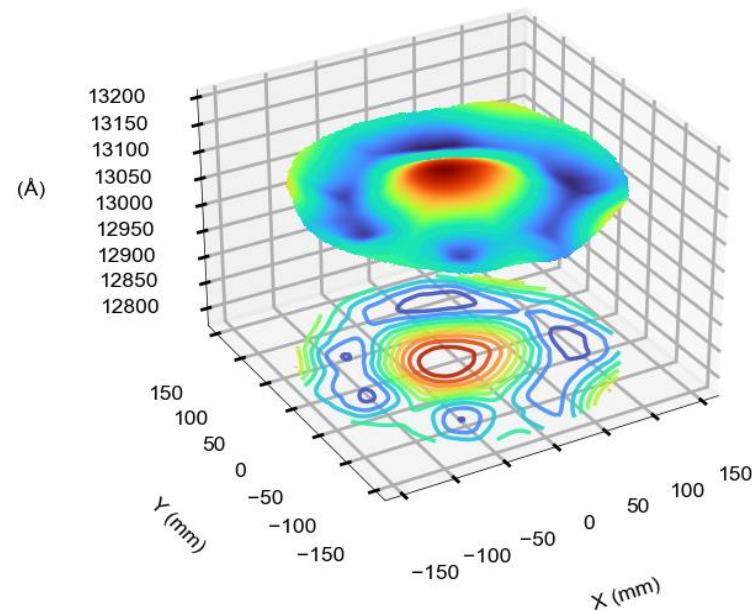Mean = 13097.5 Å, NonU = 0.27 pst
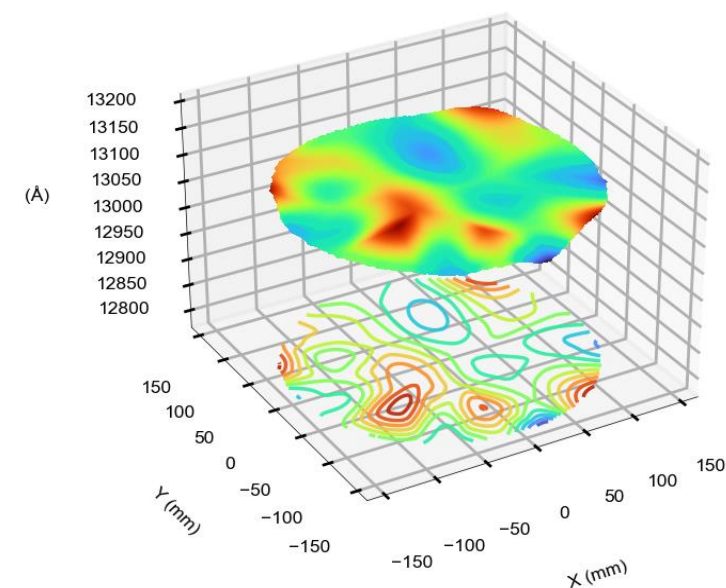
Mean = 13097.5 Å, NonU = 0.23 pst
After tilting corrected

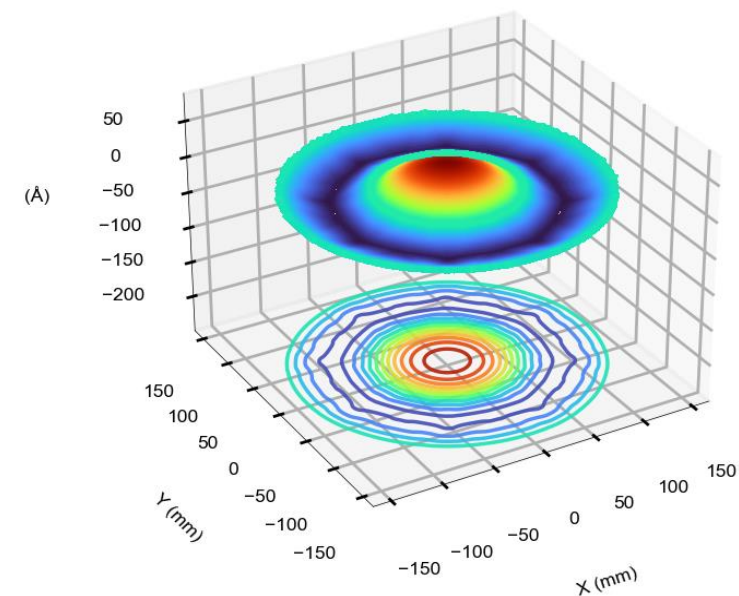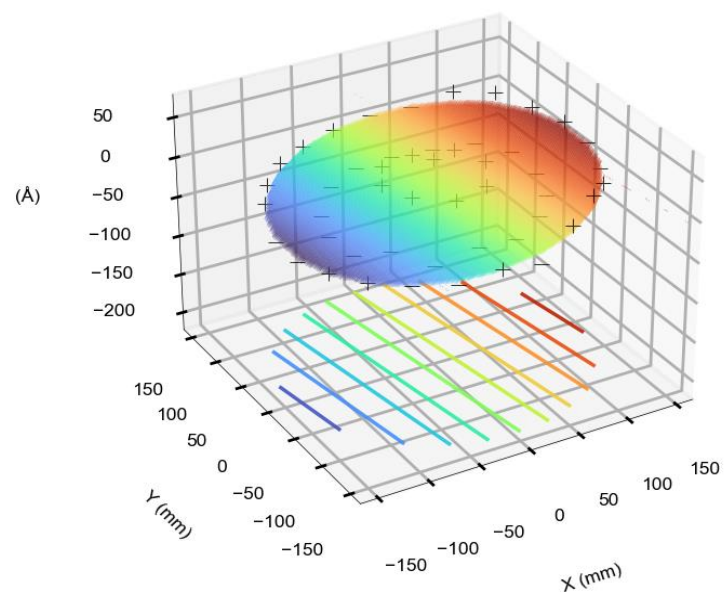Mean = 13097.5 Å, NonU = 0.11 pst
After radius profile corrected



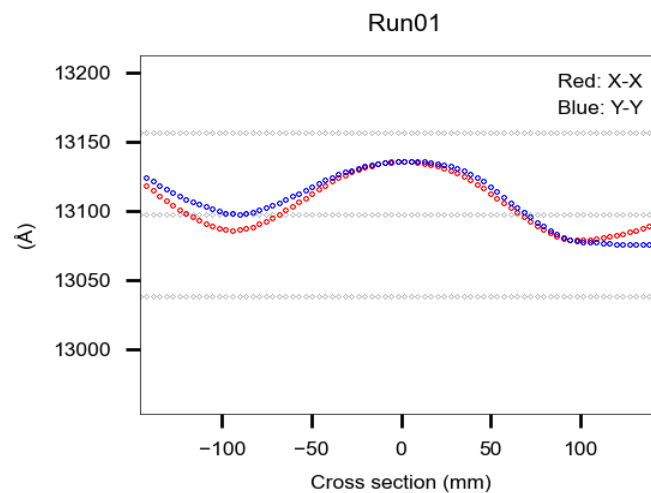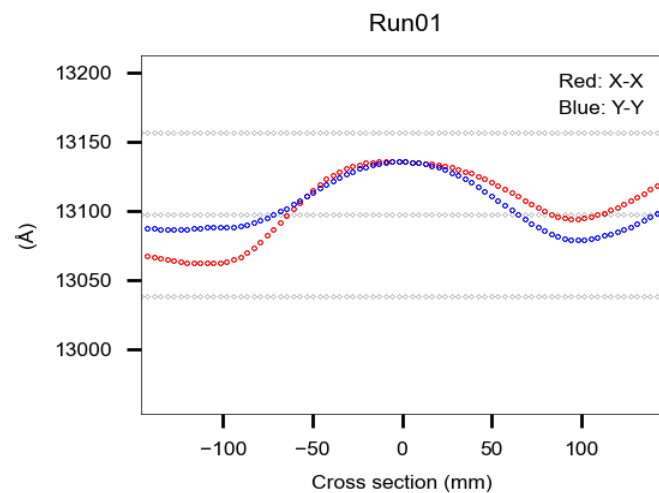Model: z = (0.02) x + (0.16) y + (13097.46), $R^2$ = 0.45
Tilting: 9 deg

Model: z = (0.20) r + (-0.02) $r^2$ + (0.00) $r^3$ + (38.23), $R^2$ = 0.80

Two possible system errors: tilting and radius profile from chamber design (ESC, RF coils, etc.)
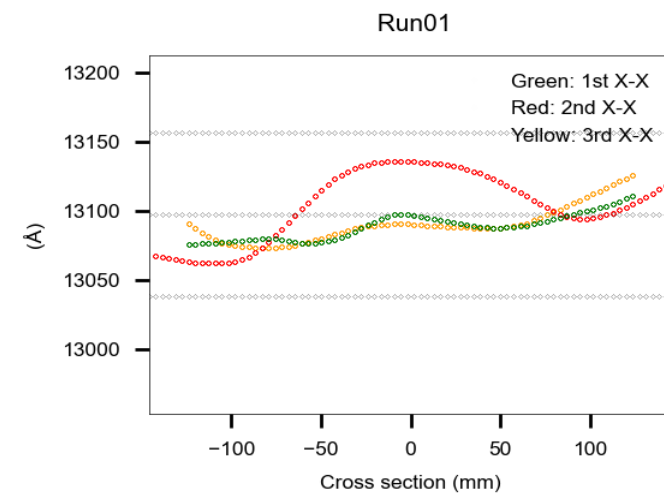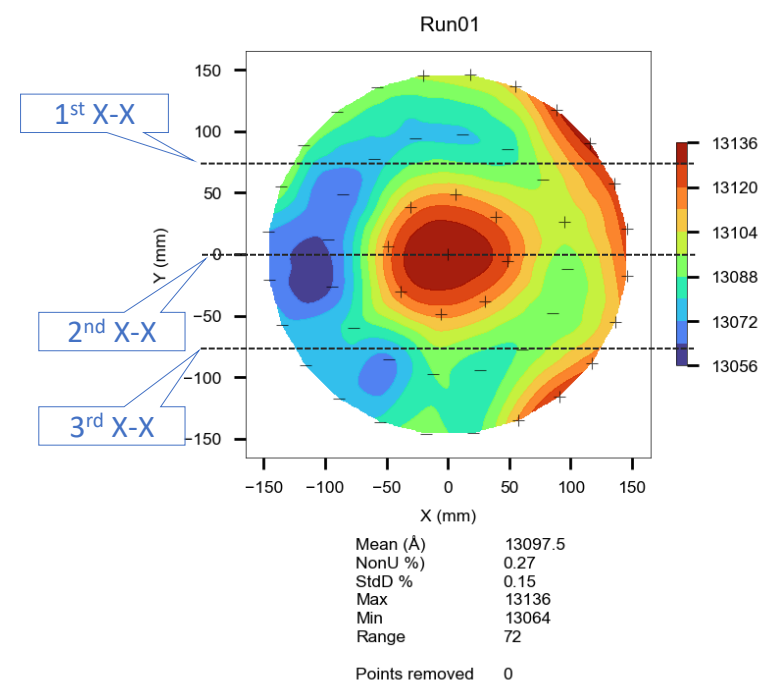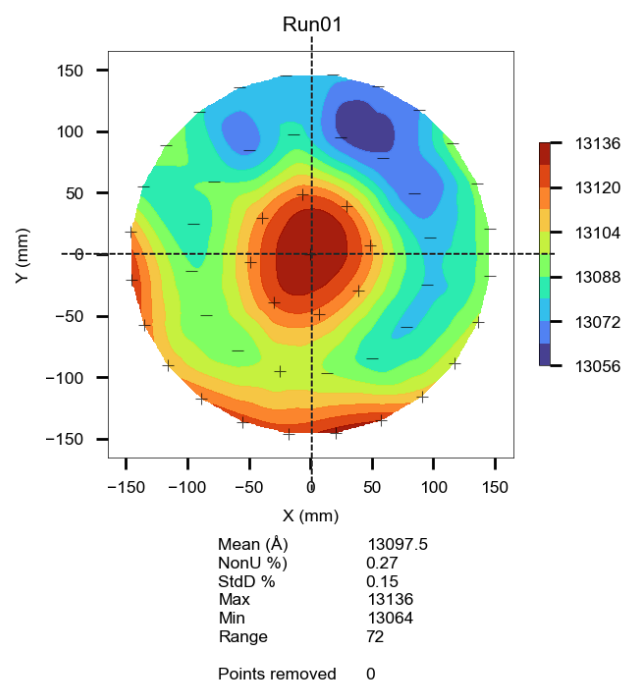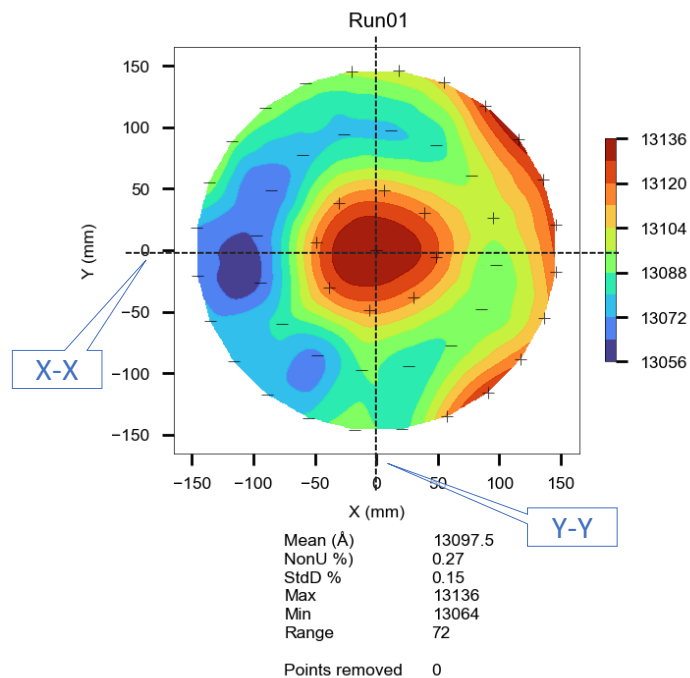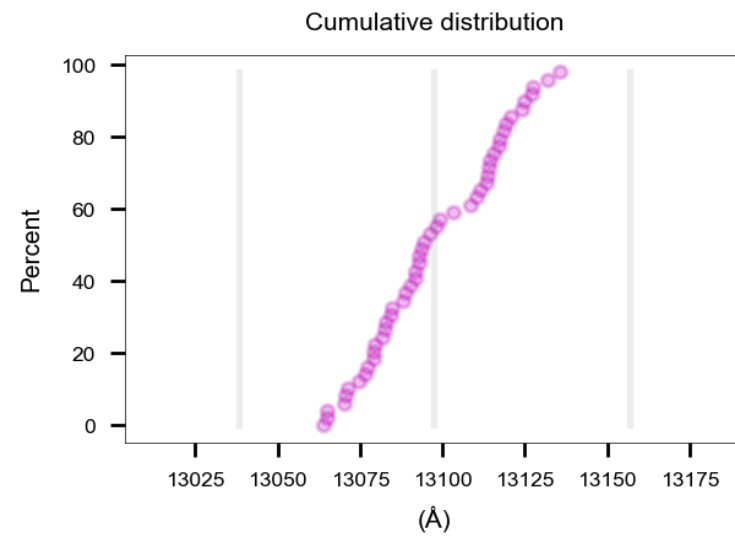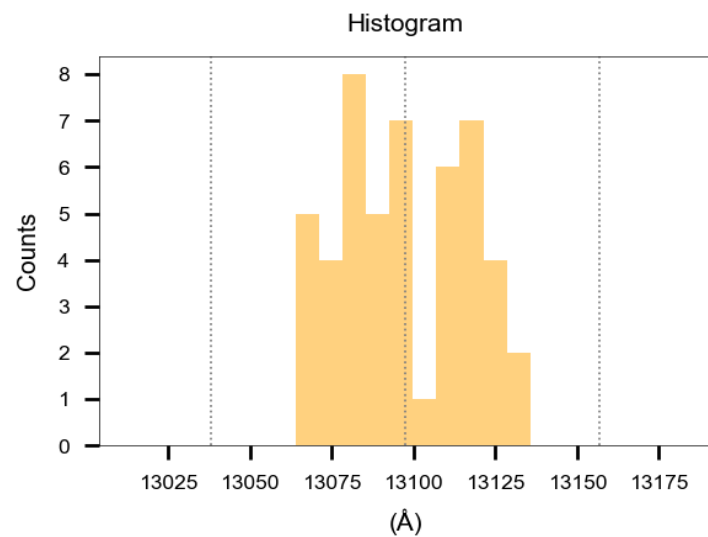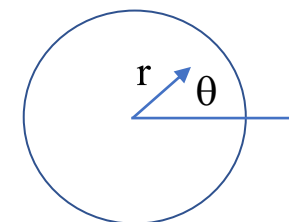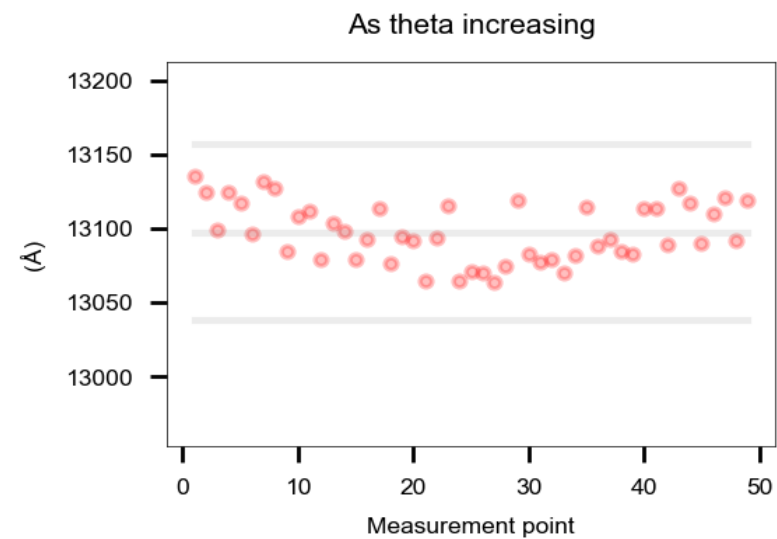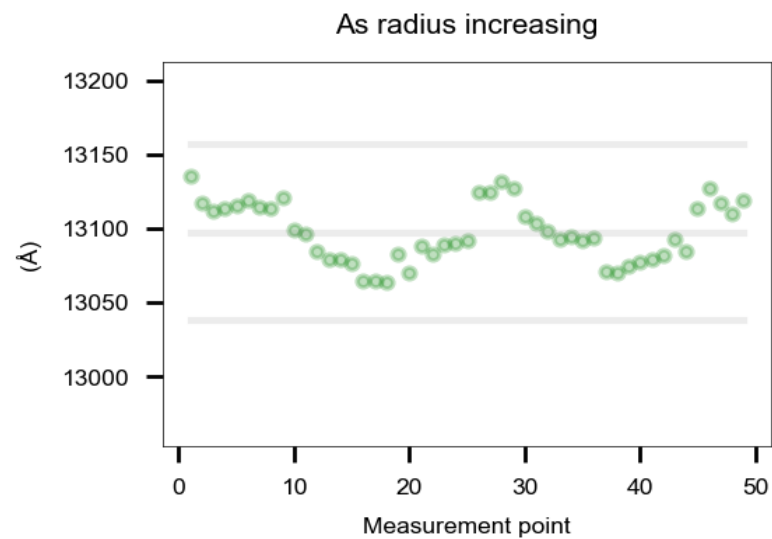
Run01

| | |
|---|---|
| Mean (Å) | 13097.5 |
| NonU %) | 0.27 |
| StdD % | 0.15 |
| Max | 13136 |
| Min | 13064 |
| Range | 72 |
| Points removed | 0 |

Run01

| | |
|---|---|
| Mean (Å) | 13097.5 |
| NonU %) | 0.27 |
| StdD % | 0.15 |
| Max | 13136 |
| Min | 13064 |
| Range | 72 |
| Points removed | 0 |

Run01

| | |
|---|---|
| Mean (Å) | 13097.5 |
| NonU %) | 0.27 |
| StdD % | 0.15 |
| Max | 13136 |
| Min | 13064 |
| Range | 72 |
| Points removed | 0 |

Run01

Red: X-X
Blue: Y-Y

Run01

Red: X-X
Blue: Y-Y

Run01

Green: 1st X-X
Red: 2nd X-X
Yellow: 3rd X-X

As radius increasing

As theta increasing

Histogram

Cumulative distribution

Raw data for trying - Excel
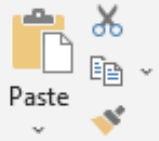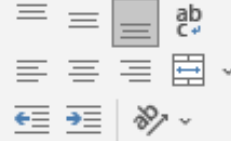
| | A | B | C | D |
|---|---|---|---|---|
| 1 | x | y | film1 | film2 |
| 2 | 0 | 0 | 13160.35 | 12422.31 |
| 3 | 5.972 | 48.635 | 12882.23 | 12082.12 |
| 4 | 38.613 | 30.167 | 12890.42 | 12119.44 |
| 5 | 48.635 | -5.972 | 12931.18 | 12119.44 |
| 6 | 30.167 | -38.612 | 13041.48 | 12245.81 |
| 7 | -5.971 | -48.635 | 13341.15 | 12369.82 |
| 8 | -38.612 | -30.168 | 13366.49 | 12490.54 |
| 9 | -48.635 | 5.971 | 13077.38 | 12444.87 |
| 10 | -30.168 | 38.612 | 12944.56 | 12201.09 |
| 11 | 11.943 | 97.27 | 12447.08 | 11568.03 |
| 12 | 48.257 | 85.295 | 12323.79 | 11708.35 |
| 13 | 77.225 | 60.335 | 12309.12 | 11755.05 |
| 14 | 94.436 | 26.189 | 12459.27 | 11807.72 |
| 15 | 97.27 | -11.943 | 12464.37 | 11916.21 |
| 16 | 85.295 | -48.257 | 12427.21 | 11831.72 |
| 17 | 60.335 | -77.225 | 12486.83 | 11730.19 |
| 18 | 26.19 | -94.436 | 12863.08 | 11773.93 |
| 19 | -11.943 | -97.27 | 13159.21 | 11985.75 |

Row1 can be written in anything for note

Columns starting from A2 and B2 are reserved for x, y coordination

Leave unused columns blank without any elements

## WaferViz 6.1 - A Free Wafer Plotting App

| Load | T1=C ⌐ | T2=D ⌐ | | Data Filter σ | 6 | Contours | 10 | Set Rotation | 0 | Run |

T1-T2 | Unit | (Å) | Mask Outliers | 0 | Markers | Sign ⌐ | | Save

Enter ID | Run01 | (T1-T2) / t | Time | 60 | | ☐ Set Range | 1000 | ☐ Decompose | Exit

For axis label other units can be entered, e.g., Ohm/sq, °C

Either set sigma or points to be removed

For fair comparison set a range for maps to be compared

For rate input time in second and click button "(T1-T2)/t"

In single-film case select "0" from dropdown button "T2=D"

| T1=C | T2=0 |
| T1=D | T2=C |
| T1=E | T2=D |
| T1=F | T2=E |
| T1=G | T2=F |
| T1=H | T2=G |
| T1=I | T2=H |
| T1=J | T2=I |
| T1=K | T2=J |
| T1=L | T2=K |
| T1=M | T2=L |
| T1=N | T2=M |
| T1=O | T2=N |
| T1=P | T2=O |
| T1=Q | T2=P |
| T1=R | T2=Q |
| T1=S | T2=R |
| T1=T | T2=S |
| T1=U | T2=T |
| T1=V | T2=U |
| | T2=V |

Sign
Dot
Value
None

| | A | B | C |
|---|---|---|---|
| 1 | Time | 04-09-2022 14-44-46 | |
| 2 | ID | Run01 | |
| 3 | Mean (Å) | 13097.5 | |
| 4 | NonU % | 0.27 | |
| 5 | StdD % | 0.15 | |
| 6 | Max | 13136 | |
| 7 | Min | 13064 | |
| 8 | Range | 72 | |
| 9 | | | |
| 10 | | | |
| 11 | X (mm) | Y (mm) | Z (Å) |
| 12 | 0 | 0 | 13135.693 |
| 13 | 5.972 | 48.635 | 13111.552 |
| 14 | 38.613 | 30.167 | 13116.884 |
| 15 | 48.635 | -5.972 | 13120.878 |
| 16 | 30.167 | -38.612 | 13113.904 |
| 17 | -5.971 | -48.635 | 13114.525 |
| 18 | -38.612 | -30.168 | 13118.665 |
| 19 | -48.635 | 5.971 | 13115.664 |
| 20 | -30.168 | 38.612 | 13113.753 |
| 21 | 11.943 | 97.27 | 13079.071 |
| 22 | 48.257 | 85.295 | 13084.271 |
| 23 | 77.225 | 60.335 | 13096.347 |
| 24 | 94.436 | 26.189 | 13099.273 |
| 25 | 97.27 | -11.943 | 13091.733 |
| 26 | 85.295 | -48.257 | 13090.14 |
| 27 | 60.335 | -77.225 | 13088.929 |
| 28 | 26.19 | -94.436 | 13082.756 |
| 29 | -11.943 | -97.27 | 13087.949 |
| 30 | -48.257 | -85.295 | 13070.164 |
| 31 | -77.225 | -60.335 | 13082.413 |
| 32 | -94.436 | -26.19 | 13063.955 |
| 33 | -97.27 | 11.943 | 13064.905 |
| 34 | -85.295 | 48.257 | 13065.053 |
| 35 | -60.335 | 77.225 | 13076.721 |
| 36 | -26.19 | 94.436 | 13079.204 |
| 37 | 17.915 | 145.904 | 13103.211 |
| 38 | 55.067 | 136.296 | 13108.365 |
| 39 | 88.467 | 117.399 | 13127.265 |
| 40 | 115.838 | 90.502 | 13131.958 |
| 41 | 135.314 | 57.438 | 13124.866 |
| 42 | 145.569 | 20.459 | 13123.988 |
| 43 | 145.904 | -17.915 | 13119.113 |
| 44 | 136.296 | -55.067 | 13110.369 |
| 45 | 117.4 | -88.467 | 13117.386 |
| 46 | 90.502 | -115.837 | 13127.334 |
| 47 | 57.438 | -135.314 | 13113.394 |



Run01

Mean (Å) 13097.5
NonU (%) 0.27
StdD % 0.15
Max 13136
Min 13064
Range 72

Points removed 0

Mean = 13097.5 Å, NonU = 0.27 pst

Mean = 13097.5 Å, NonU = 0.23 pst
After tilting corrected

Mean = 13097.5 Å, NonU = 0.11 pst
After radius profile corrected

Run01
Red: X-X
Blue: Y-Y
Cross section (mm)

Run01
Green: 1st X-X
Red: 2nd X-X
Yellow: 3rd X-X
Cross section (mm)

Model: z = (0.02) x + (0.16) y + (13097.46), R² = 0.45
Tilting: 9 deg

Model: z = (0.20) r + (-0.02) r² + (0.00) r³ + (38.23), R² = 0.80

As radius increasing
Measurement point

As theta increasing
Measurement point

Histogram
Counts

Cumulative distribution
Percent

Sheet1