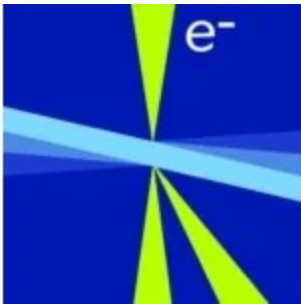
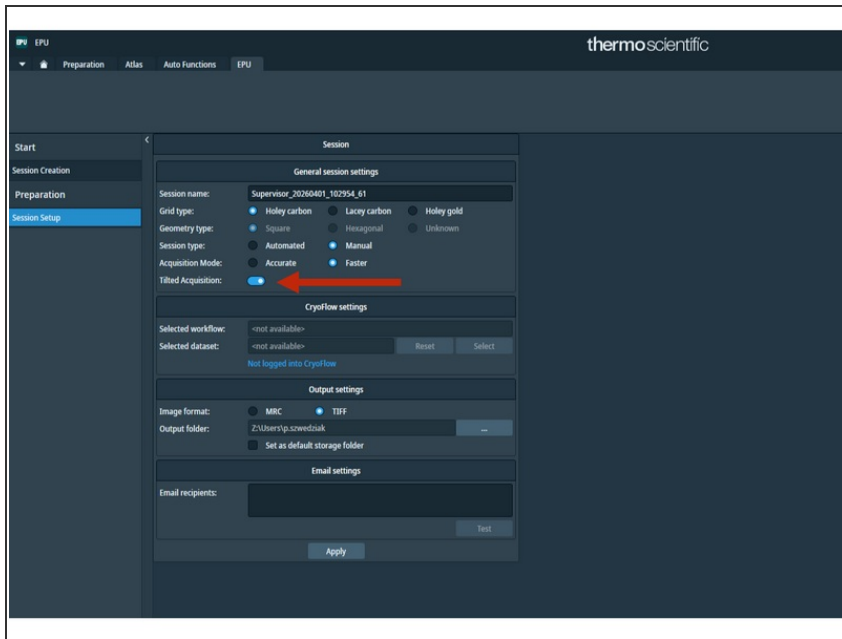


TEM - TFS Titan Krios G3i / Glacios G2: Tilted data collection

Written By: z mbstaff

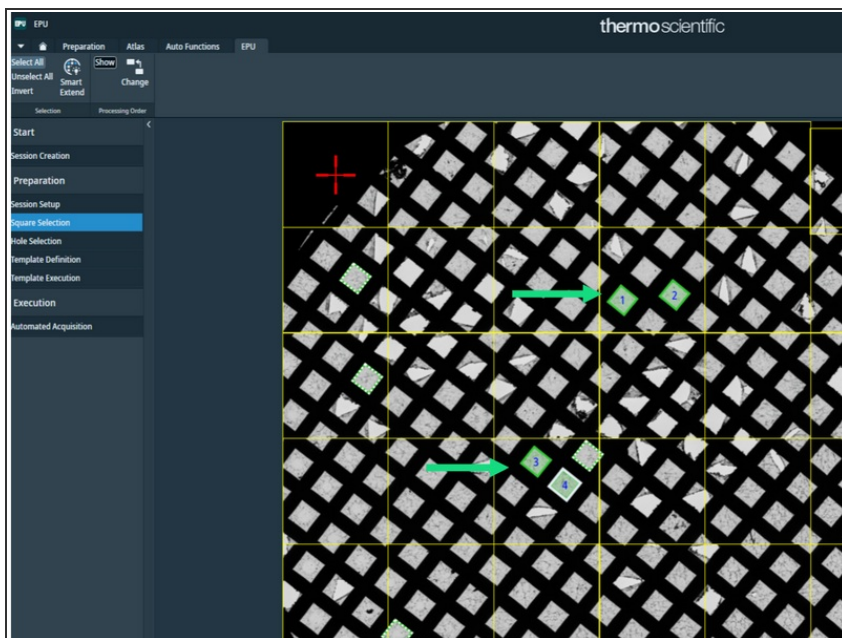


Step 1 — Start EPU session



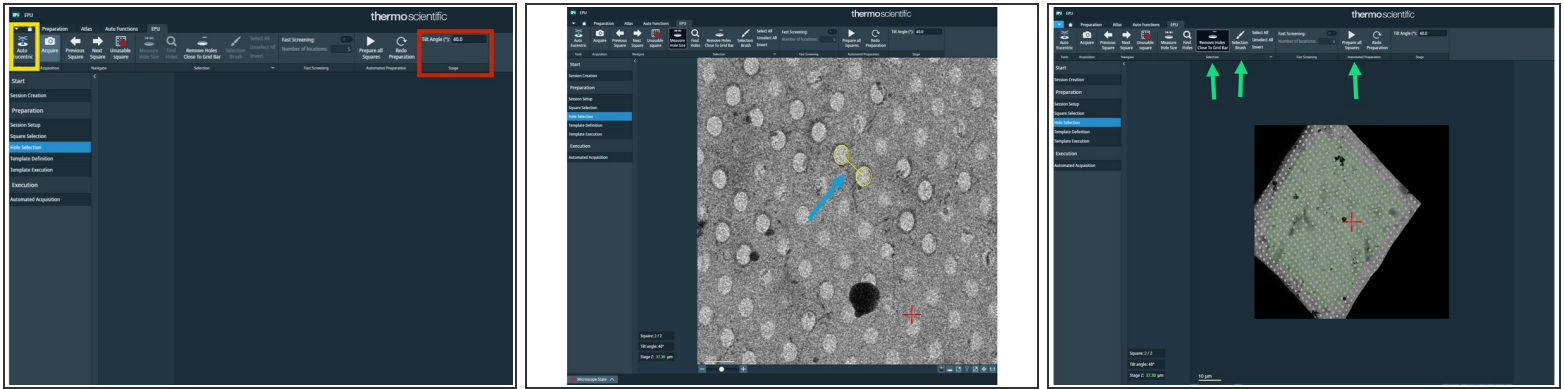
- After screening your grids start an EPU session.
- Make sure to tick option 'Tilted Acquisition'.

Step 2 — Select appropriate squares



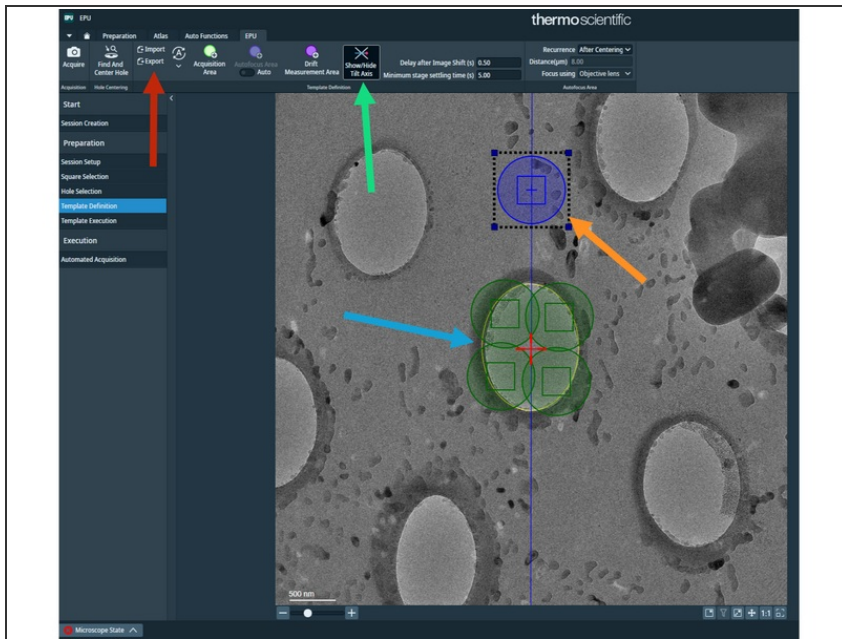
- Similarly to a regular EPU session - select the grid squares on which you would like to collect your data.

Step 3 — Select holes



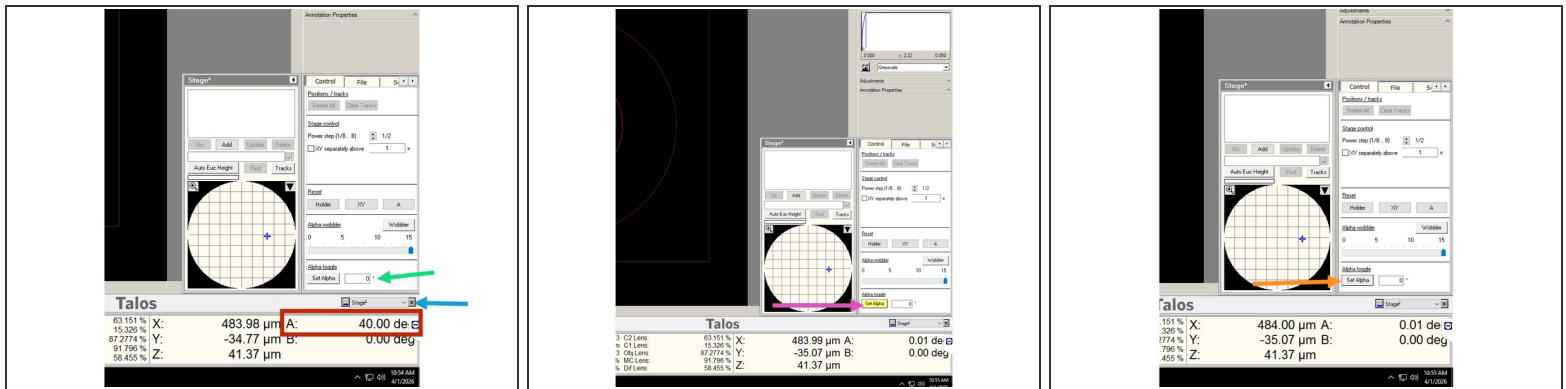
- Specify the stage tilt angle, typically 30 or 40 deg.
- Click 'Auto Eucentric'.
- Measure hole size - please note that due to the stage tilt the hole appear oval rather than circular. The two yellow patterns adopt the oval shape accordingly.
- Press 'Remove Holes Close to Grid Bar', prepare all squares and clean them with the ice filter and/or selection brush.

Step 4 — Template definition



- Import your data collection template.
- Rearrange the green data acquisition areas to ensure data collection over the ice rather than carbon.
- Click 'Show/Hide Tilt Axis'. Tilt axis will be displayed as blue line. On the Glacios G2 it will be ~vertical (please see the corresponding screenshot), on the Krios G3i it will be ~horizontal.
- Position 'Autofocus Area' on the tilt axis.

Step 5 — Tilt stage back to 0 deg for direct alignments



- In the microscope user interface (left screen, bottom-right corner) the alpha tilt (A) will show the current stage tilt (30 or 40 deg, depending on your settings).
- Open the 'Stage' control panel by clicking the menu in the bottom-right corner.
- Enter value '0' next to 'Set Alpha'.
- Click 'Set Alpha' - the button will become yellow and the alpha tilt (A) will change to '0'.
- Unclick the 'Set Alpha' button. It should turn gray again, meaning the option is deactivated.
- Proceed to direct alignments, as usual.
- ① Once the EPU run has started the stage will be automatically tilted to the preset angle.