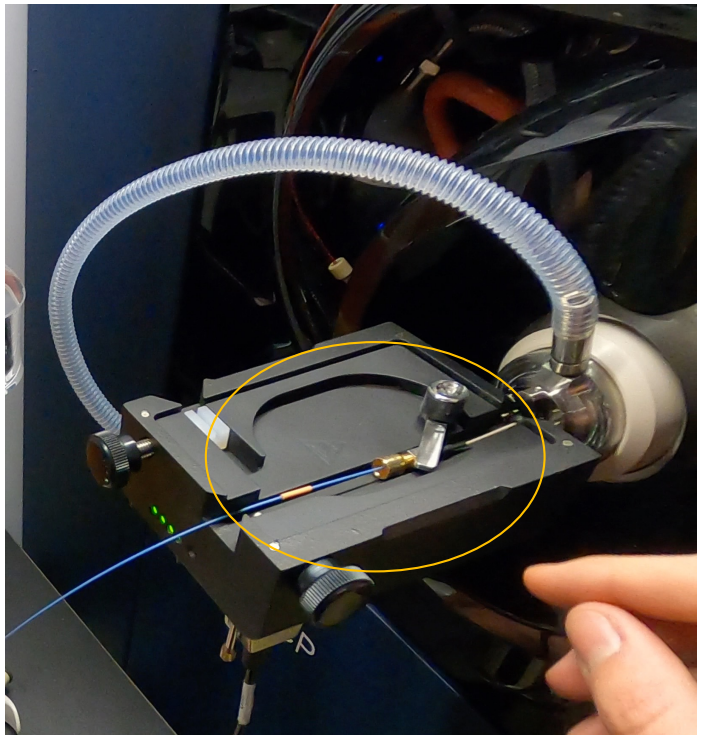
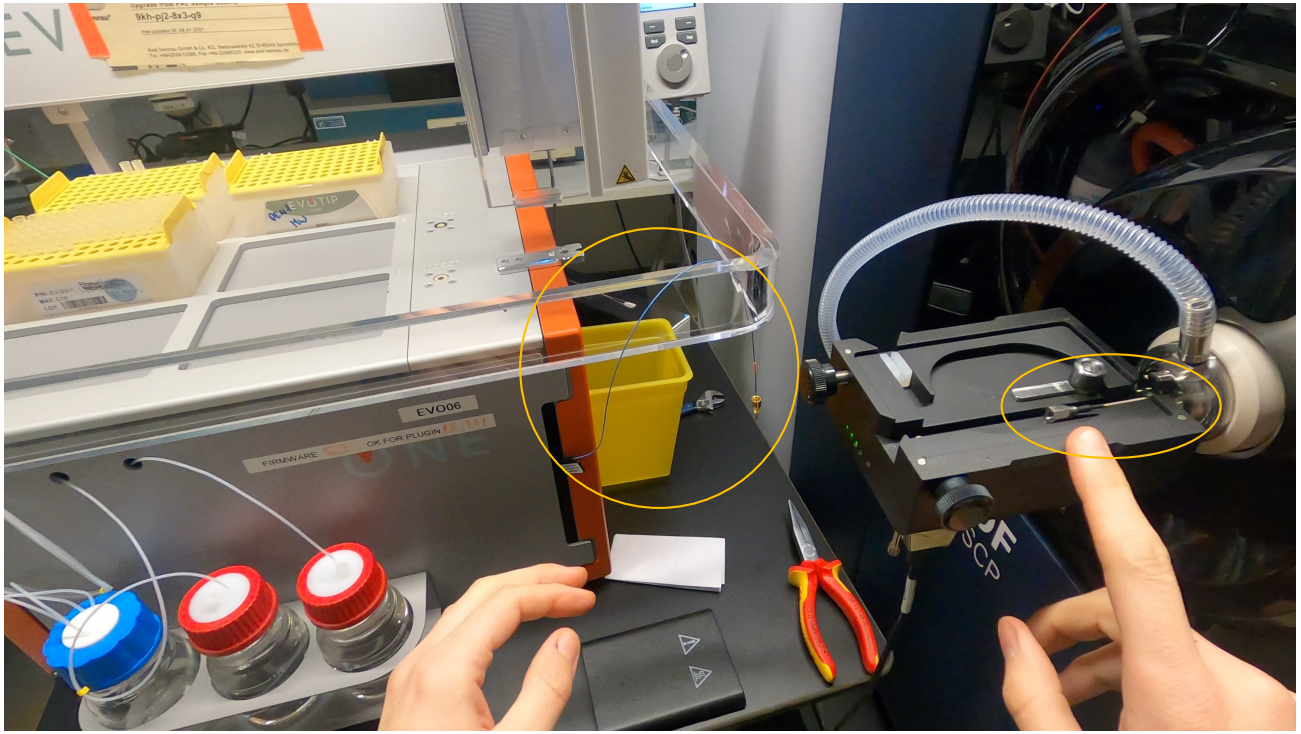
Sample line and column are connected



The column is connected with the UltraSource and with a sample line. A grounding screw of the oven is placed on top of the column sampline connection an indicator for the correct connection.

Sample line and column are disconnected



The column is still connected with the UltraSource but disconnected with a sample line. The grounding screw of the oven is not anymore on top of the column sampline connection. Additionally the sample line is not even near the column.

UltraSource (perspective from the side)

This image shows an UltraSource from the side. The distinctive oblate spheroid housing (visible as the glossy black rounded chamber) is a key identifying characteristic of the UltraSource. The column has been detached from the sample line, and you can see the thick white corrugated tube which is an air filter connected to the system. The housing features a shiny black finish with chrome/metallic accents.

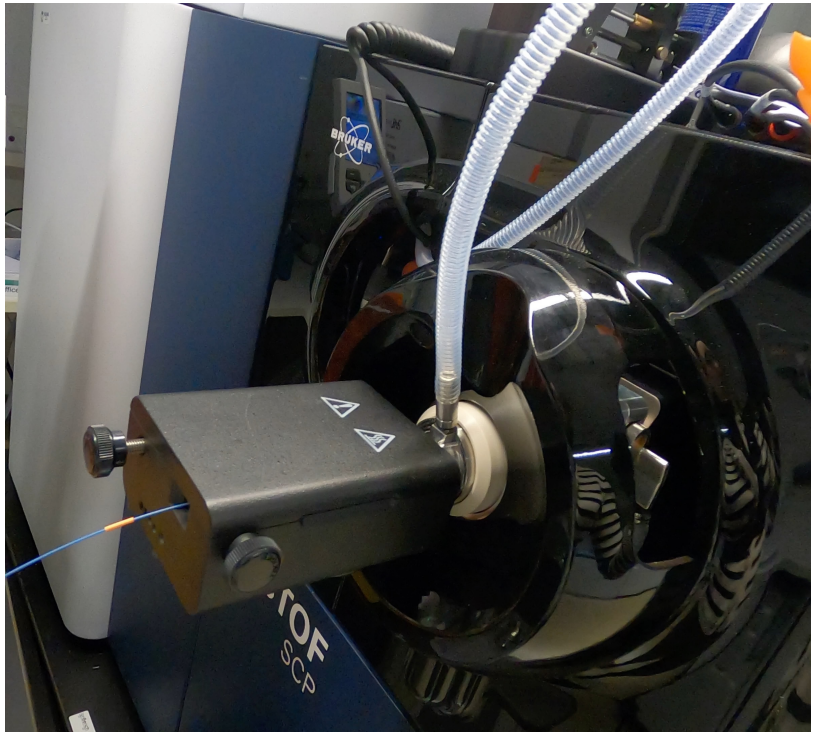
In this image the column oven is open and connected with a power supply.

UltraSource (perspective from the front)

This image shows an UltraSource from the front with its column oven closed.

At the bottom of the column oven there are two key components visible: on the left side, an adjustment screw that allows for precise positioning of the oven; on the right side, the power connection port where the electrical supply cable must be securely attached to enable temperature control.

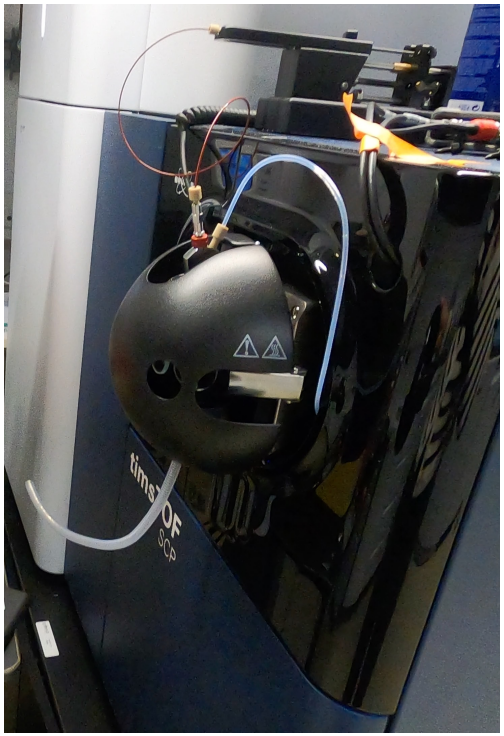
UltraSource with an oven that is not connected to power supply (from the side)



This image shows an UltraSource from the side with its column oven closed.

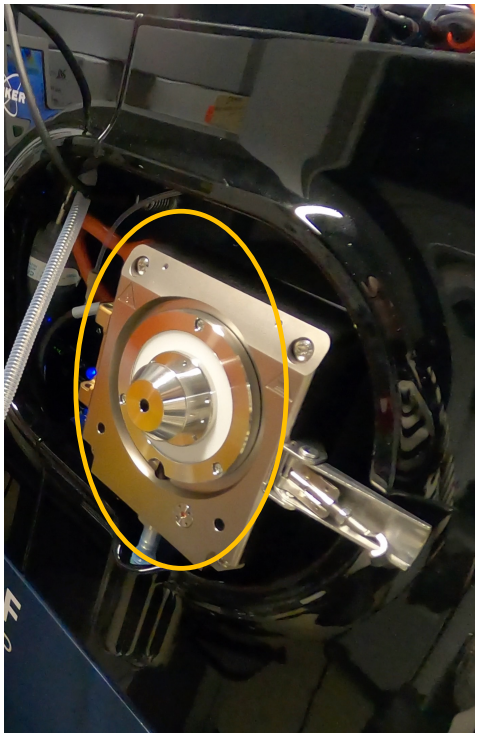
At the bottom of the column oven, there is no visible power cable connected to the power inlet, indicating that the oven is not connected to an electrical power supply.

ESI source



This image shows a Bruker ESI source. The ESI source features a distinctive half-sphere shaped housing. Notable identifying characteristics include the two white warning triangles visible on the side of the housing. You can see source is connected to multiple inputs: a thin transparent/white tube that supplies gas, and a red tube that connects to a syringe containing the sample for analysis.

Spray shield of ESI source

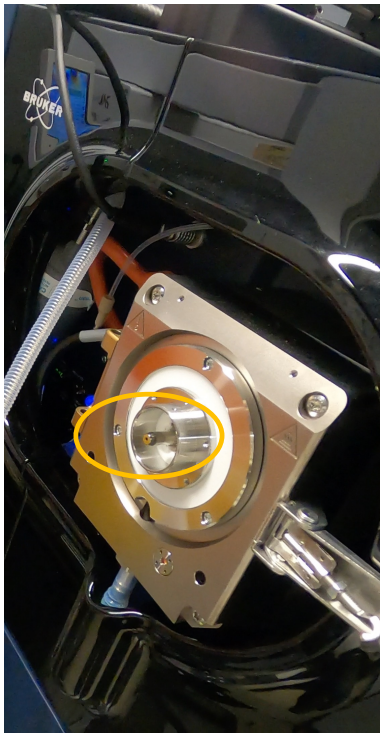


This image shows shows the spray shield of a Bruker ESI source. The spray shield is a metal cap designed to be securely pushed onto the solvation stage.

Capillary cap of ESI source

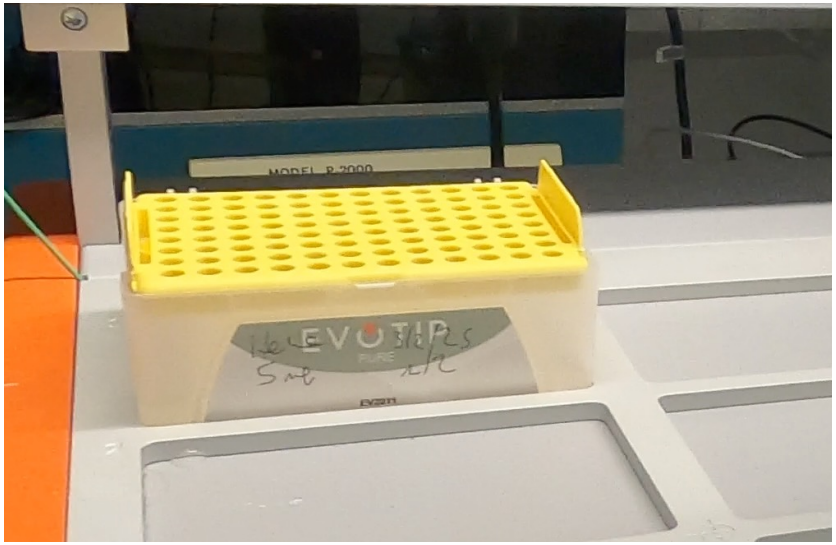
This image shows shows the capillary cap of a Bruker ESI source. The capillary cap is a metal cap with a very small hole designed to be securely pushed onto the glass capillary.

Glass capillary of ESI source



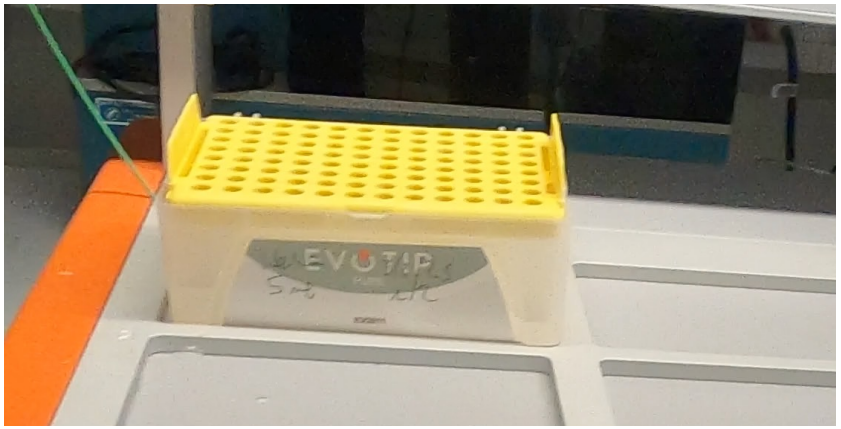
This image shows shows the glass capillary of a Bruker ESI source. The capillary cap is a glass tube with a small whole.

Firmly seated Evotip box onto Evosep rack



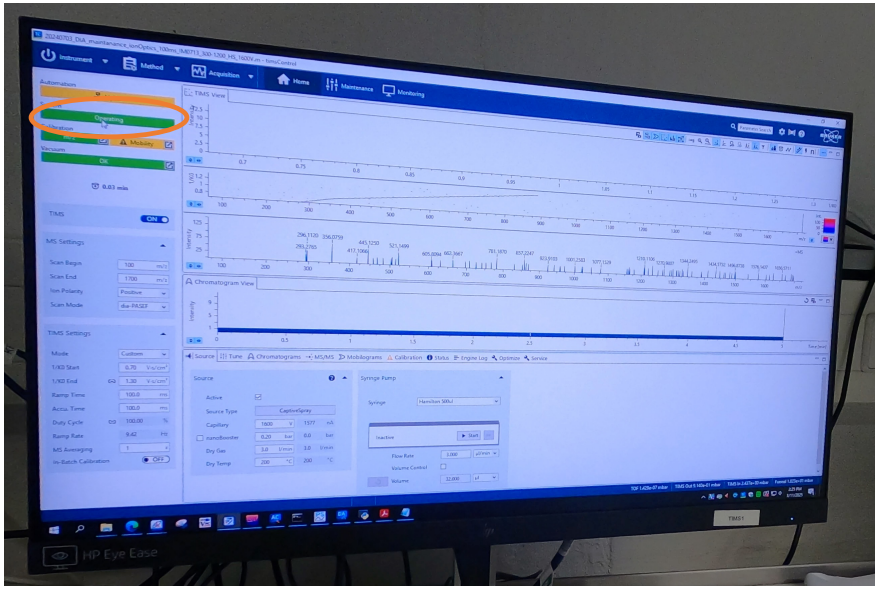
This image shows a Evotip box (transparent box with yellow grid) that is properly seated within the Evosep instrument rack (metal). The box fits securely in its designated position with no visible gaps along its sides, indicating proper placement.

Firmly seated Evotip box onto Evosep rack



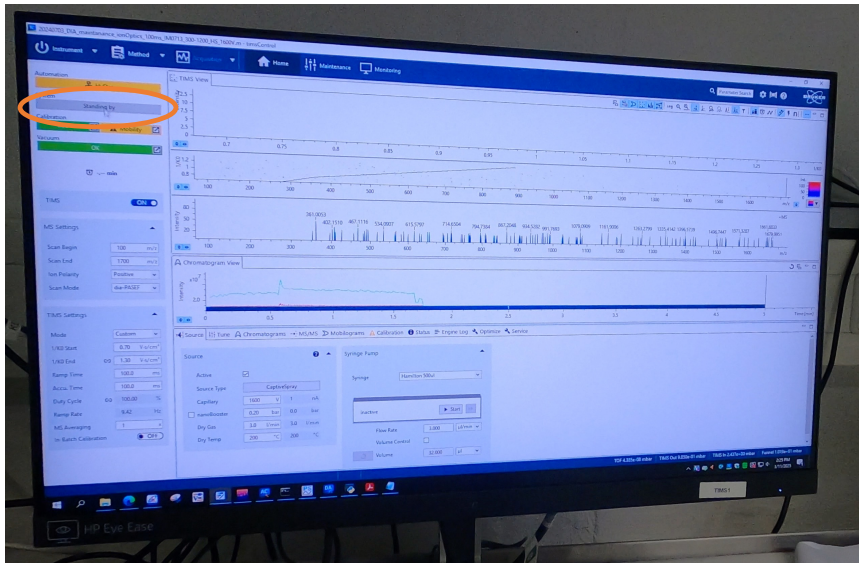
This image shows an Evotip box (transparent box with yellow grid) that is improperly seated within the Evosep instrument rack (metal). The box is positioned at an angle rather than sitting flat and square in its designated position. The right side of the box appears to be higher than the left side, creating a tilted orientation. There is also space on the left side of the box between the box and the Evosep rack.

TimsControl in ‘Operating’ Mode



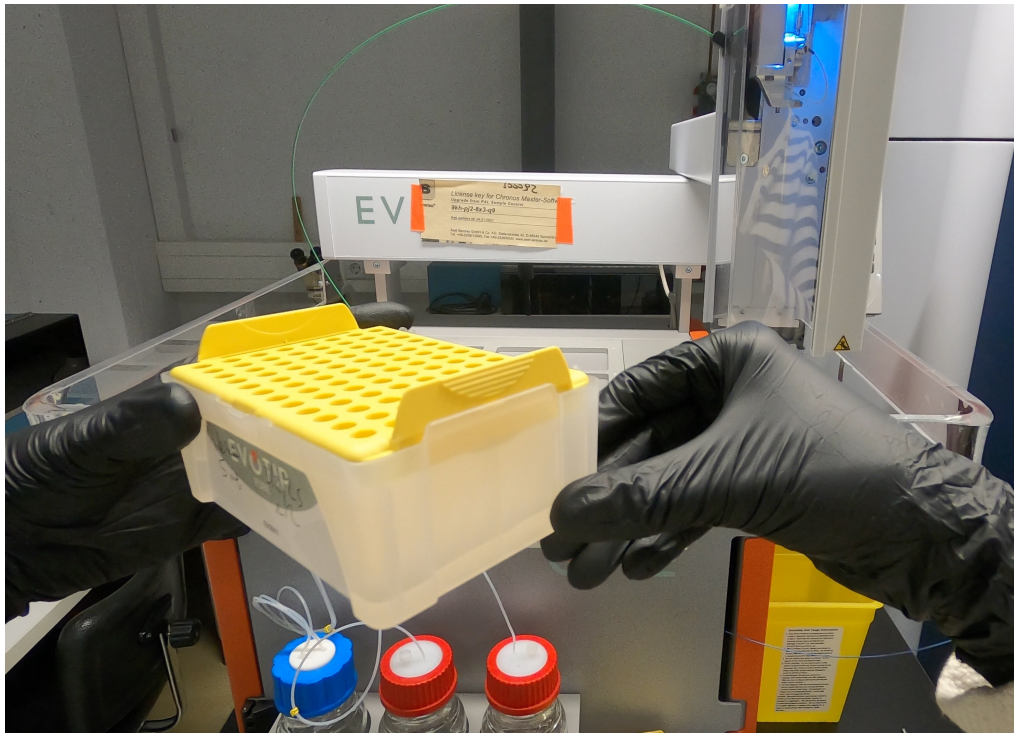
This image displays the control interface of the TimsControl software required for running a TimsTOF mass spectrometer. The instrument is currently active. This is indicated by the green "Operating" status panel in the top-left section of the screen.

TimsControl in ‘Standing by’ Mode



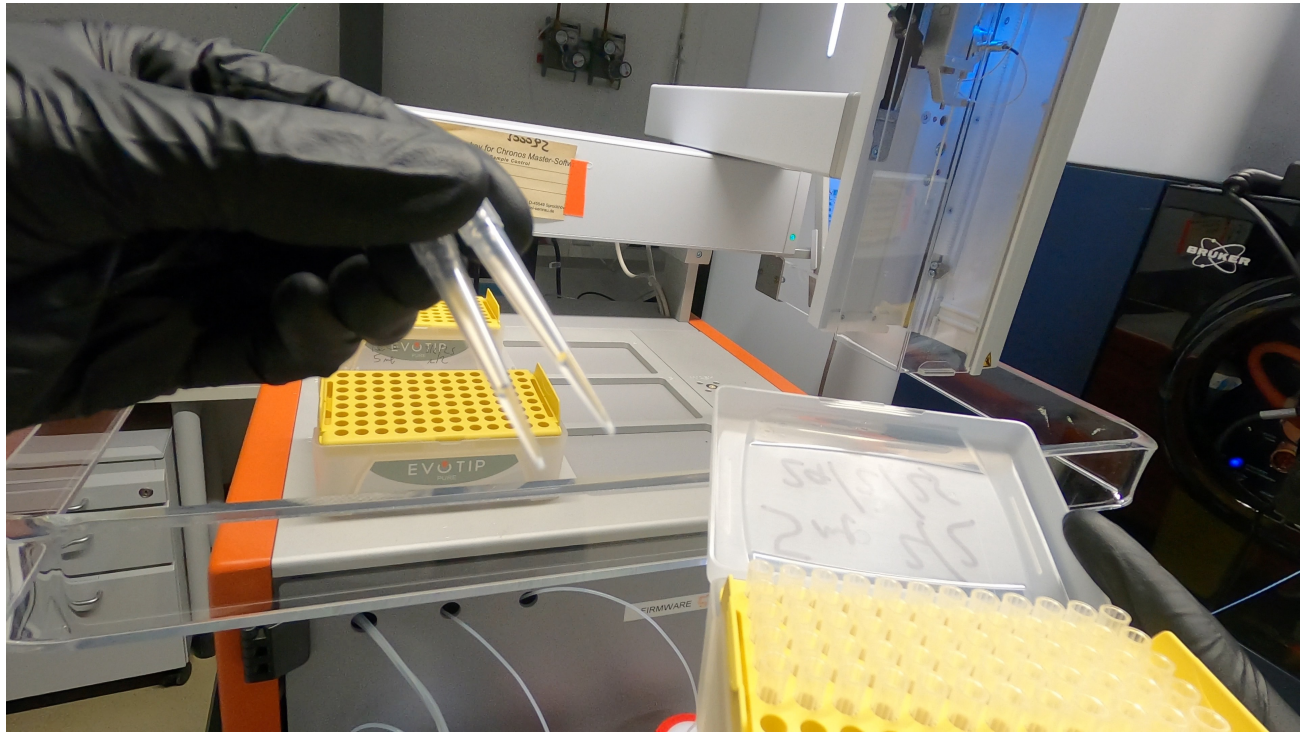
This image displays the control interface of the TimsControl software required for running a TimsTOF mass spectrometer. The instrument is currently active. This is indicated by the green "Operating" status panel in the top-left section of the screen.

Verifying the solution level of an Evotip box



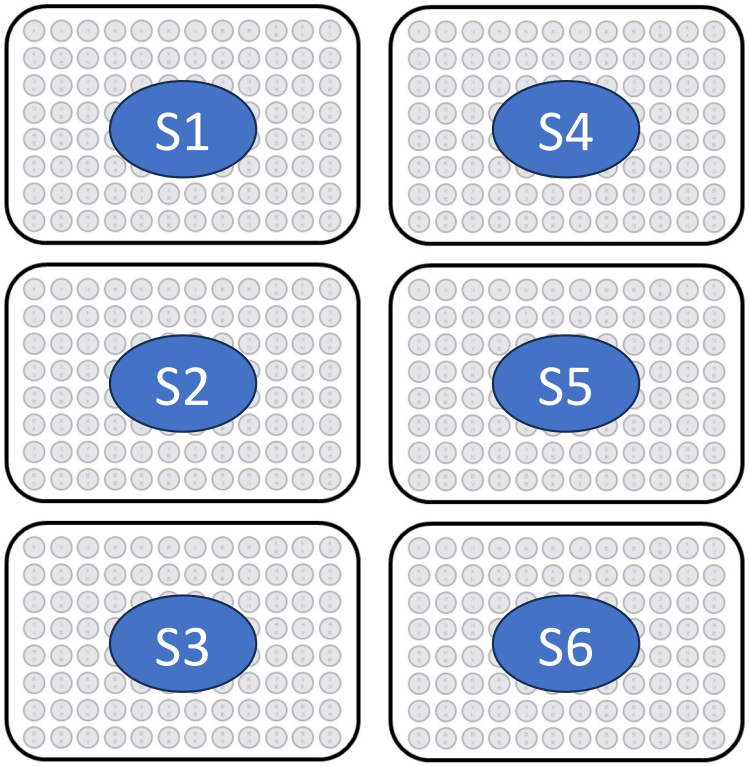
This image displays how a researcher is checking the solution content of an Evotip box. The researcher is holding an Evotip box - a white/translucent plastic container with a bright yellow grid/rack top that has "EVOTIP" printed. The box is shown from an angle so that the solvent level inside the box is visible. The person is holding their thumb as reference next to the box to verify the solvent level depth (here approximately 1 cm).

Inspecting each Evotip before placement to verify its condition



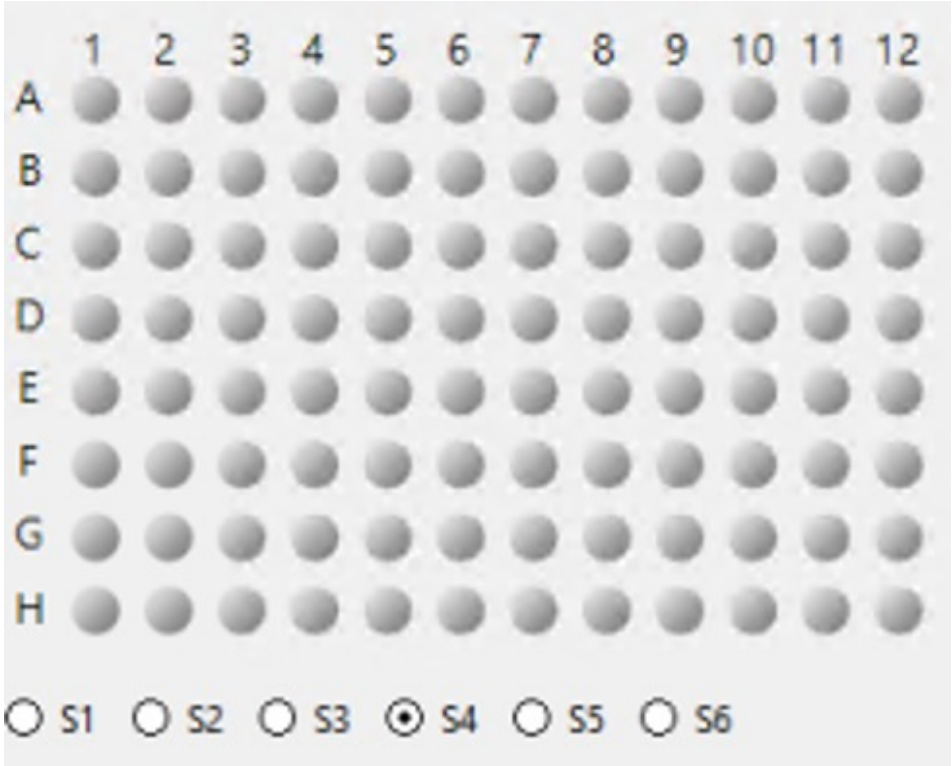
This image shows a researcher inspecting Evotips prior to placement in the yellow Evotip boxes visible in the workstation. This represents a critical quality control step. Evotips are specialized chromatography components containing a stationary phase disc. They appear as translucent pipette tips with a visible disc at the bottom. In the image, the researcher, wearing black laboratory gloves, is holding two Evotips for inspection. During this quality check, the researcher verifies that each disc displays a pale color and has visible solvent above it—both indicators of proper functionality, which are confirmed in this case.

Evosep rack layout from top



- This image shows the view onto the Evotip rack layout if you look at it from the top. S1 is in the top left corner, S2 left middle, S3 in the bottom left corner, S4 in the top right corner, S5 in the right middle and S6 in the bottom right corner.

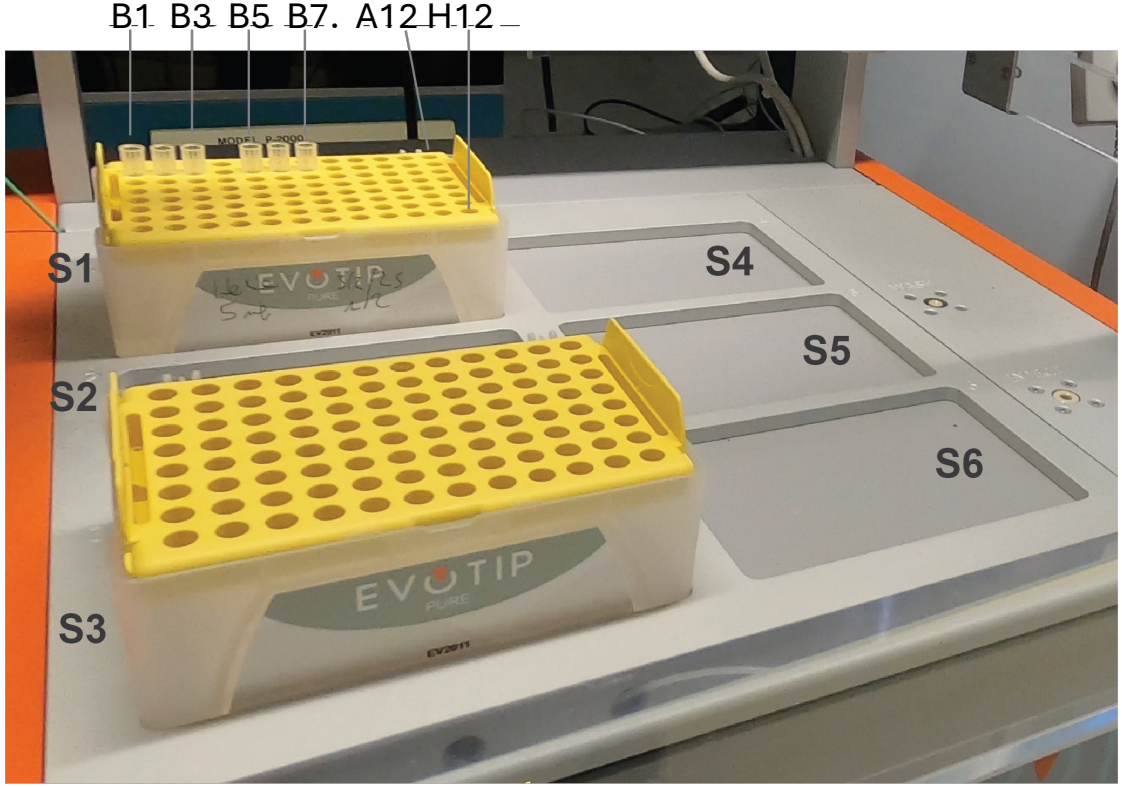
Evotip Box rack layout from top



This image shows one Evotip box layout if you look at it from the top. Vertically (top to bottom) are rows from A to H and horizonatally (from left to right) are positions 1 to 12.

An Evotip could be placed at A1 which means it would be placed in the field at the top left position.

Researcher perspective: Evosep rack with Evotip boxes

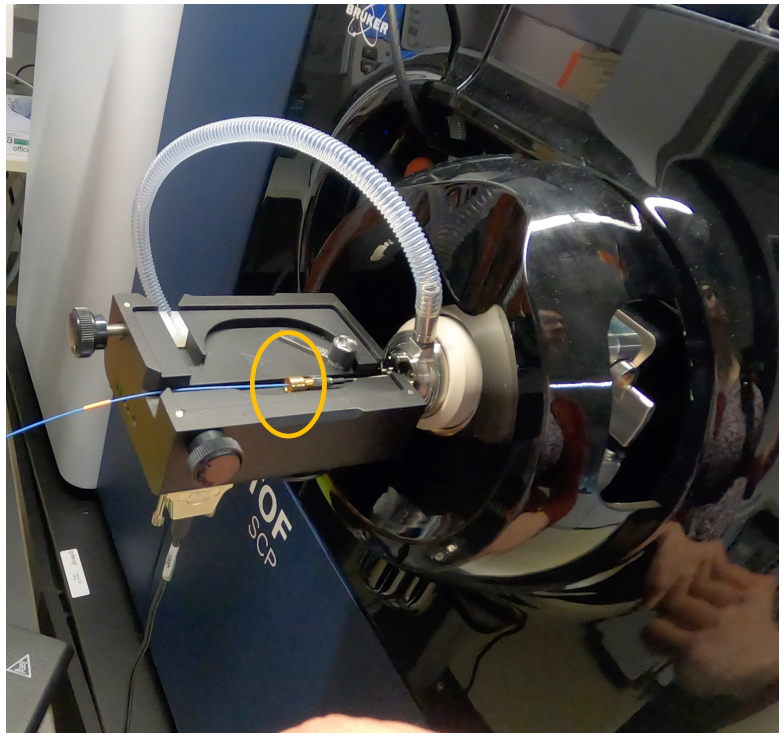


The image depicts two Evotip boxes positioned at stations S1 and S3, presented from the standard researcher's eye-level perspective rather than a top-down view. This represents the typical vantage point researchers have when working with the instrument. In the Evotip box at station S1, Evotips occupy positions B1 through B3 and B5 through B7, with a notable gap between positions B3 and B5 where no Evotip is present.

Components of a nanoViper™ Fitting

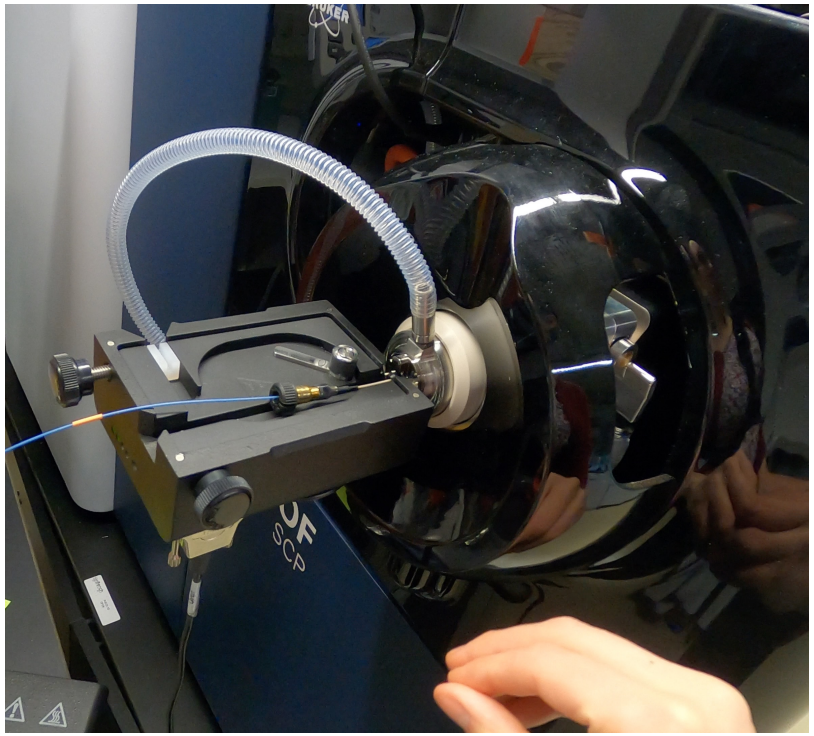
The image depicts a sample line with the product name nanoViper™ Fingertight Fitting. It consists of a black polymer cap which serves as the adapter, connected to a gold-colored metal fitting. The cap is designed to be easily pushed onto the fitting for installation and can be removed by pulling it straight off when needed.

LC sample line without nanoViper™ Fitting attached



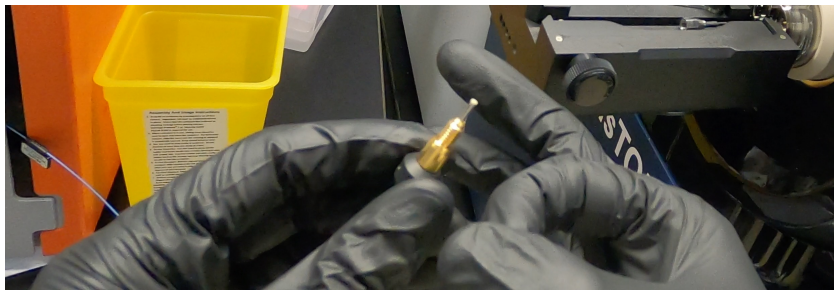
The image depicts a sample line (blue tubing) with a gold-colored metal fitting at its end. The sample line is connected with a chromatography column. The nanoViper™ adapter (black polymer cap) is not attached to this fitting. This shows the fitting in its uncapped state.

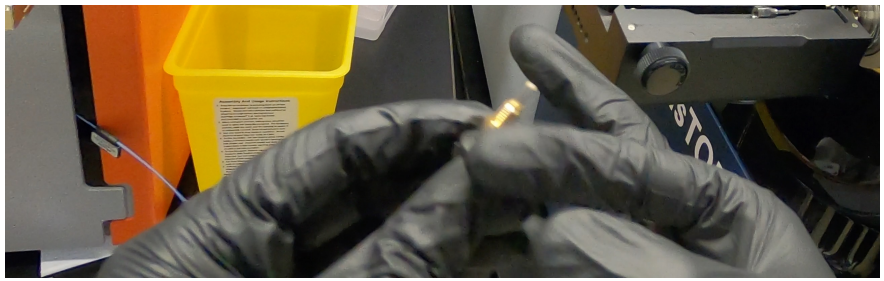
LC sample line with nanoViper™ Fitting attached



The image depicts a sample line (blue tubing) with a gold-colored metal fitting at its end where a nanoViper™ adapter (black polymer cap) is properly attached. The sample line is securely connected to a chromatography column.

Removing liquid from sample line fitting by snipping it off



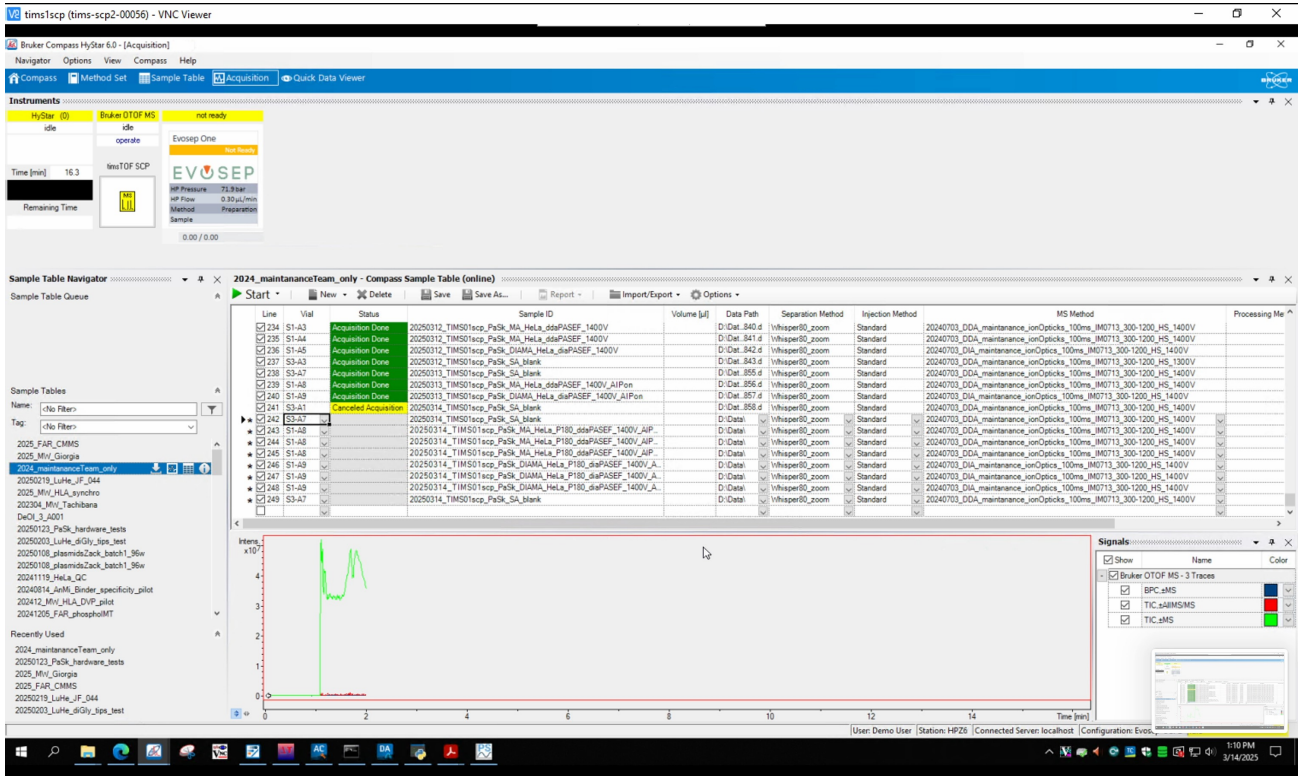


The three sequential images (from top to bottom) depict a researcher removing excess liquid from a sample line fitting. In this procedure, one gloved hand is securely holding the gold-colored metal fitting, while the other gloved hand is precisely removing droplets by performing a controlled snipping motion against the fitting using the thumb and index finger.

Setting MS averaging in timsControl

The image depicts the user interface of the software timsControl. Highlighted with the number 9 is the value MS averaging. MS averaging controls the number of spectra that are averaged for each data point, affecting signal-to-noise ratio. MS averaging needs to be 1 for measurements to maintain temporal resolution and can be increased to 10 to 30 for calibration. Higher averaging values result in smoother spectra but longer acquisition times.

Hystar



This is the Hystar software interface for LC-MS sample management. In the column 'Vial', the sample position must be indicated. The 'Status' column displays color-coded information: colored fields (green, yellow or red) indicate samples from previous queues that have already been analyzed, while grey fields represent unanalyzed samples in the current queue.

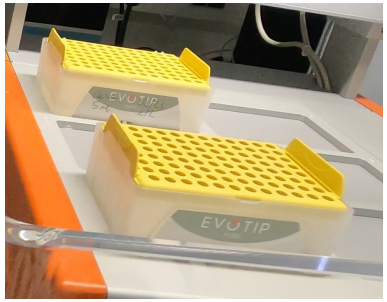
When setting up new measurements alias a queue, focus only on positions with grey status fields, as these will be included in the upcoming analysis. The following rules must be observed:

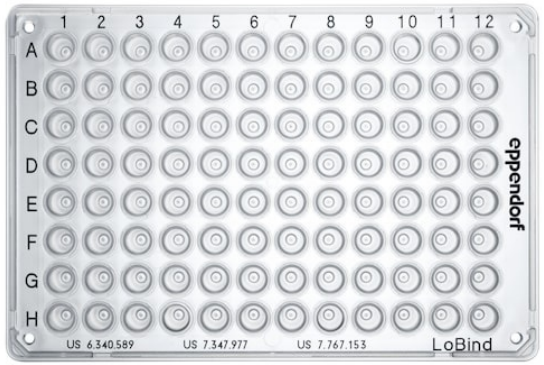
1. When working with Evosep systems, each 'Vial' position must be unique - no duplicate positions are allowed.
2. Sample positions must follow a consistent pattern. If a user requests sample placement from S1 to positions A1 through A6, these exact positions must be used as 'Vial' positions in the queue.

For Sample ID naming conventions, please use these standard formats:

- Blank Evotips: label as 'blank'
- Data-dependent acquisition runs: label as 'MA_' or 'dda'
- Data-independent acquisition runs: label as 'DIAMA_' or 'dia'

Sample placement in a 96-well Format





All images display 96-well format sample storage systems: twin tec plates on the left and Evotip boxes on the right. Precise documentation of sample placement is crucial within this standardized grid format. Positions are designated by:

- Rows: Labeled A through H from top to bottom
- Columns: Numbered 1 through 12 from left to right

When documenting sample placement, pay particular attention to:

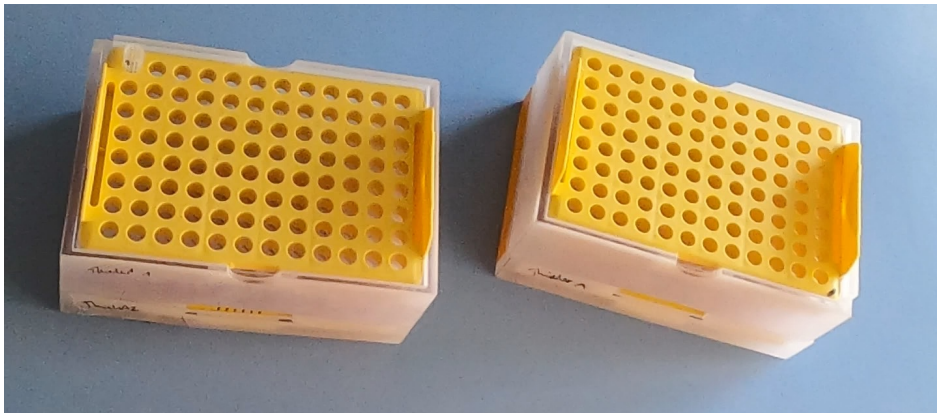
- The exact number of samples (whether half rows, complete rows, or just a few positions are filled)
- Any gaps in sample sequences
- The specific coordinates (e.g., "A3" or "F10") for each sample
- Accurate position recording ensures proper sample tracking and prevents confusion during automated analysis, especially when multiple users share the same equipment or when partial plates are being used.

Chemicals

When observing researchers handling chemicals, always verify that container labels match the instructions exactly. If a protocol specifies "Buffer A," the researcher must use a container clearly labeled "Buffer A”.

Always document the exact label text appearing on chemical containers in your notes or reports.

Evotip holder



- The image depicts Evotip holders. These devices consist of three distinct components:
  - The bottom part, which contains an integrated 96-well plate designed to collect liquid
  - The middle part, which serves as a structural support
  - The top part, which is identical to the component used in Evotip boxes and is typically yellow in color
- The bottom and middle components may appear in various colors as they are 3D-printed. A distinguishing characteristic of Evotip holders is the absence of a lid, which differentiates them from Evotip boxes that typically include a protective cover.
- The Evotip holders are used to centrifuge Evotips.

Centrifuge

The image depicts a laboratory centrifuge with its digital display panel. The display shows four key parameters:

1. Current speed (white): 0 × g (indicating the rotor is stationary)
2. Setpoint speed (blue, below current speed): 700 × g (the programmed centrifugal force for this run)
3. Time remaining (white): A value displayed in the middle section
4. Setpoint time (blue, below time remaining): A non-zero value displayed in the middle section

- The Time remaining has the same value as the setpoint time, indicating this is a snapshot captured before the centrifugation run was initiated. This represents the instrument in its "ready" state with parameters programmed but the start button not yet pressed.