

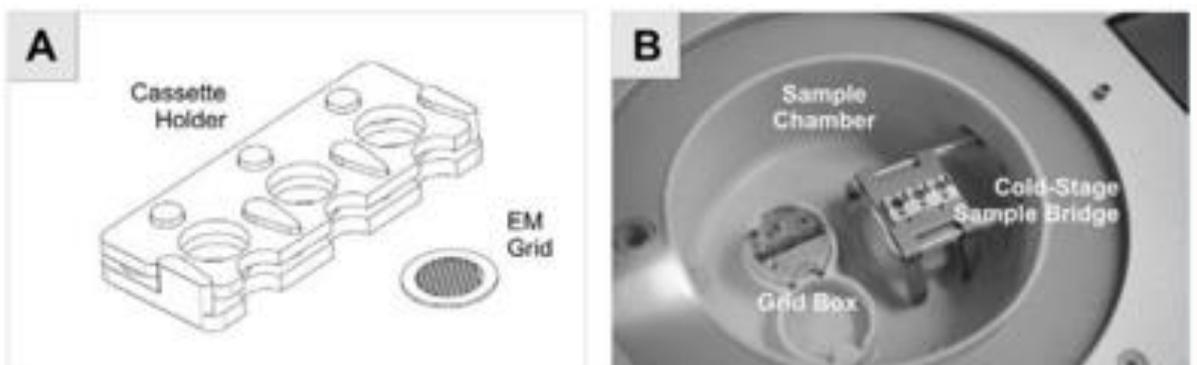
Cryo-Linkam visible light sample screening

- Plug in linkam without LN2, wait some minute/s to warm up.
- Add LN2 to the Linkam small dewar. Second from right button activates filling of the sample cryochamber. Wait till temperature of linkam stabilizes around 100 K.



Cryo-Linkam menu buttons: Left: cryochamber light on/off. 2nd: Bakeout start (only available when all LN2 is gone). 3rd: LN2 filling of cryochamber. 4th: rasters through the 3 sample positions. Pressed for 4s: access to menus for lid heater (normally on) and to LED for transmission measurements.

- Put linkam grid-holder, with the cassette holder inside, in the linkam sample cryochamber.

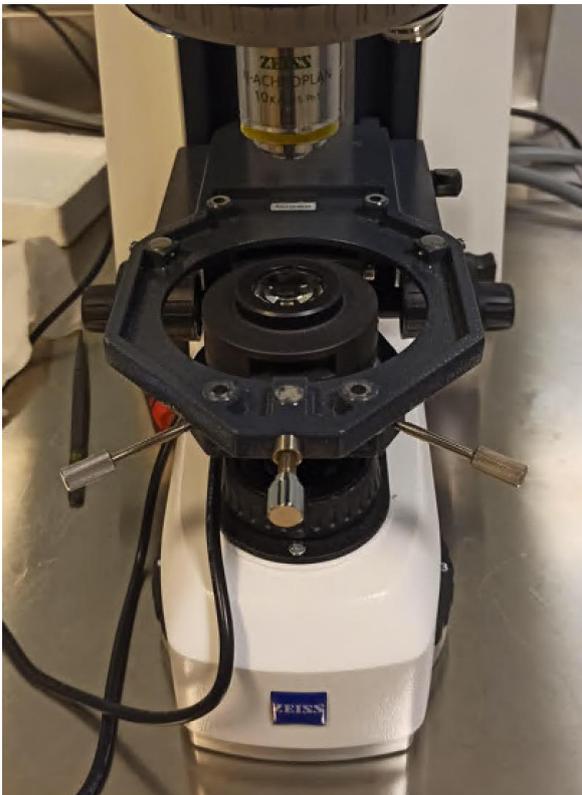


A) Linkam cassette will accommodate 3 grids. B) Once grids are mounted, the cassette is transferred with a magnetic tool to the sample bridge.

- Load the cryo-box into its linkam position.
- Open the cassette holder (top screw, red dot). Transfer 3 grids to the cassette holder. For adding samples, cassette holder must be opened (red dot, pins push to separate). Ideally golden grid side towards golden cassette side, so that sample sides are facing up when on bridge. For removing the cassette for visualization, turn the screw till green color appears (pins do not push, cassette is closed). Transfer with the magnet T-tool the cassette holder to

the sample bridge (figure 6, right part), for visualization. NOTE: White cryoboxes are not really fitting. The notch needs to be enlarged to fit both in the plunger and in the Linkam.

- Move Linkam stage to microscope base:



Base for fitting the Linkam stage.



Power supplies: upper for UV light, lower for visible/transmission (not usable with new Linkam stage, which has its own transmission LED).

- Open the ZENvision program.
- Adjust the light in the microscope (with wheel below focusing for transmission, upper right side for UV). Never use UV light combined with BF (no filter)!



Bottom: transmitted light intensity wheel



Top: UV light intensity wheel. Back slider at 1 to let UV light in. 2 = closed



Emission filter wheel. Must click to be correctly placed.

- Connect to camera pulling-out metal bar. F3 to start live imaging. Use best fit option activated. Take snapshot when ready.
- Put back the grids in the cryo-box when finished and store them in a falcon tube inside LN2 (with holes and a rope/string to fish it back), leave in LN2 storage dewar until use.

Bake out both the plunger and the linkam, this will take some hour/s, then switch off plunger and unplug linkam