

## HOW TO DO UV LIHTOGRAPHY IN the IYTE CLEANROOM

*USE YOUR OWN CLEANROOM OVERALLS AND SLIPPERS FOR PERSONAL HYGIENE.*

ALWAYS MAKE SURE DOORS ARE CLOSED PROPERLY.

NEVER FORCE ANY MACHINE DURING OPERATION – it is not going to work even if you press harder on that knob.

CLEAN AFTER YOURSELF.

MAKE SURE YOU FILL IN THE LOG-BOOKS.

Before going to the clean room, make sure to take all the necessary materials and tools you need. Get these into the clean room via pass-through chambers. Please use your own materials and tools.

The phone number for the clean room is 7679.

In case of emergency contact Lütfi Özyüzer GSM : 0 536 301 64 32 or 6000

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**First**, go to the service room and

Plug in the extension cable. You will hear the system start.



Open the air outlet counter-clockwise  $\sim 15^\circ$ .



*If the air compressor is empty, press the green button to refill.*



Open N<sub>2</sub> outlet by turning the valve counter clockwise.

*If the meter on the left is zero, replace the tank. The N<sub>2</sub> pressure (meter on the right) should be just over zero – no need for higher pressure.*



If you need ultra pure water use the dispenser in the service room. Let the water flow by turning the blue valve counter-clockwise. The digital reading will start to decrease; use water that has 000 reading.



**Second**, take off your shoes and put on your slippers, suit, face mask, hair net and gloves.



Turn on the hood control system.



Turn on the surge protector laying between the spinner and the oven.



To turn on the spinner, turn the blue air valve behind it counter-clockwise just enough to see the spinner display come on. Do not change any existing recipes. Check the back of log-book for a list of occupied recipes.



When you are done with the spinner, it should NOT look like this:



Place aluminum foil if necessary before placing power towel or filter paper and clean the tuck with paper towel wet with acetone. Make sure photoresist does not go through the cylinder holding the tuck otherwise vacuum line will be plugged.



To use vacuum with the mask aligner, switch on the plug on the floor. You will hear the vacuum pump start.



To turn on the UV source, press the power switch down for the mercury UV lamp.



Press on the start button until you hear a few clicks to start the mercury UV lamp.



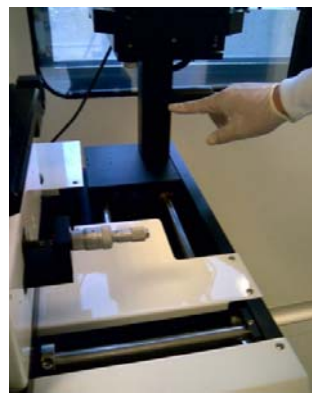
Current set up and readings



To turn on the mask aligner, turn the power switch to ON position (down).



You can move the objectives by pressing down the button shown in the x and y directions. The stage does not move unless you press the buttons.



Use the open-close switch to place glass photomask.



Turn on SUB. VAC. to stabilize substrate.

Turn off SUB. VAC. at the end of the exposure before removing the exposed substrate.



Turn the two level wheels to bring substrate close to the glass photomask. The plastic has been damaged so be very careful when doing this. At the end of the exposure gently place substrate away from the glass photomask if more samples are to be processed. When finished, pull away the substrate stage to a far-away enough distance.



Turning off the mask aligner follows the above steps in reverse: Mask aligner Power switch UP, UV source Power switch UP, turn off vacuum switch on the floor.