CLEANROOM ORIENTATION

CeNSE, NNFC

Entering to cleanroom

- Use biometric access for entering to NNFC (or IISc barcoded ID card, if available)

- Keep the footwear on the rack and wear the shoecover and cleanroom slipper

- Keep the cleanroom slipper on the rack

- Use biometric access and go inside the cleanroom entrance for airshower

Gowning Procedure

1) Wear **Facemask**

2) Wear **Hairnet**

3) Wear **Gown**

4) Wear **Shoe**

5) Wear **Gloves**

Make sure that you step on the sticky mat before you enter the cleanrom

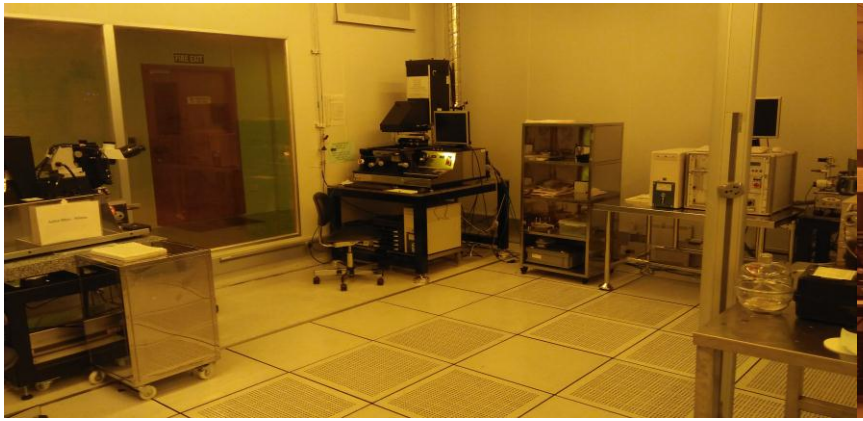
Lithography

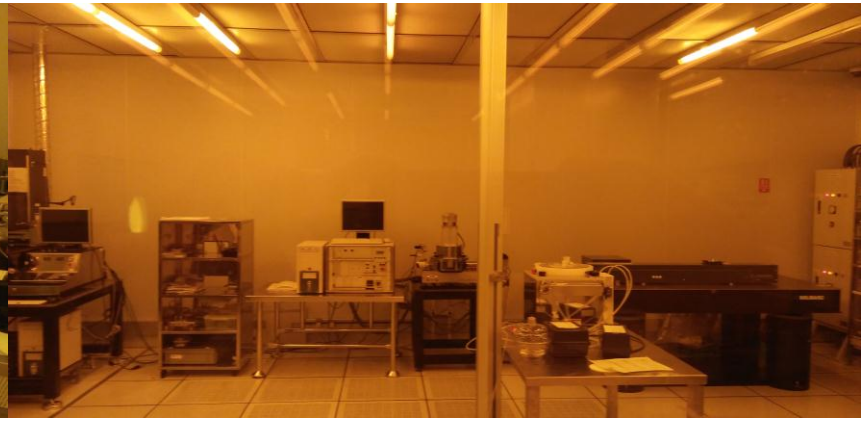
Wet etch area of Lithography for cleaning , spin coating and development process

Optical litho wet etch area

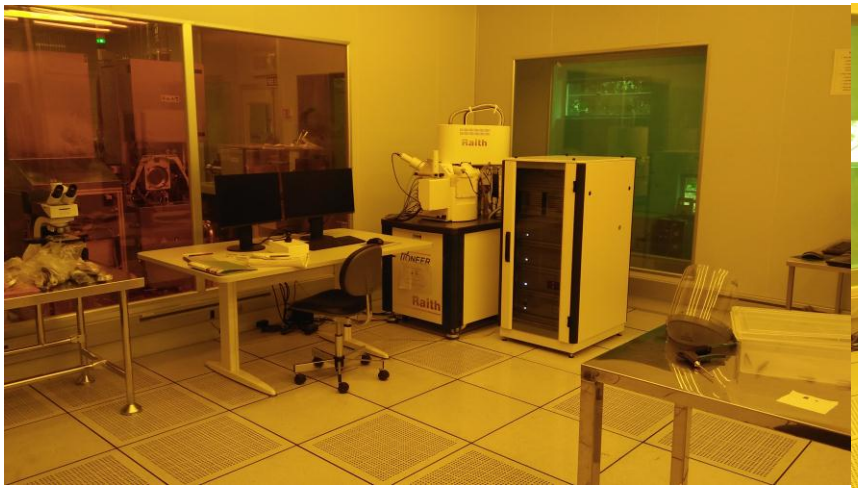
E- beam litho wet etch area

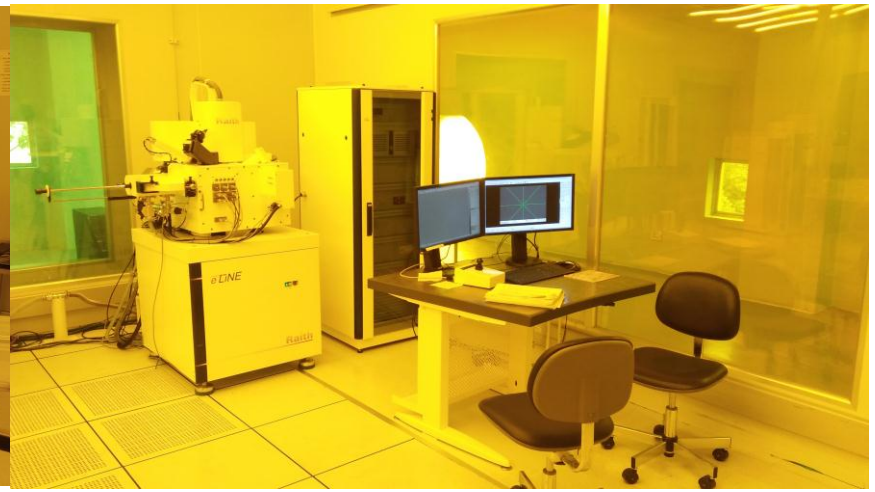
Optical lithography bay





E- Beam lithography





In case of any emergency

- **Evacuation route from Lithography bay**

In case of any alarm

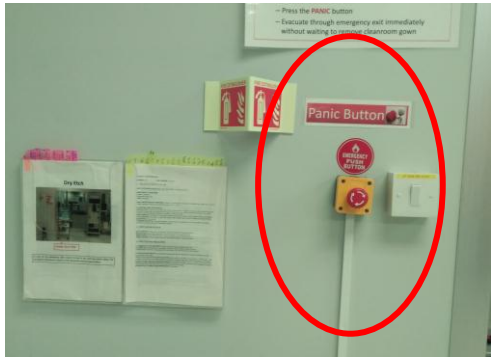
- Press EMO of the tool
- Evacuate from lithography immediately

Dry Etch

In case of a tool emergency (like presence of smoke)

1) Press **EMO** of the tool

2) Press **panic button**



3) Evacuate from dry etch by using fire exit and from nearest extension, inform BMS

❖ Evacuation route from Dry Etch

Wet Etch

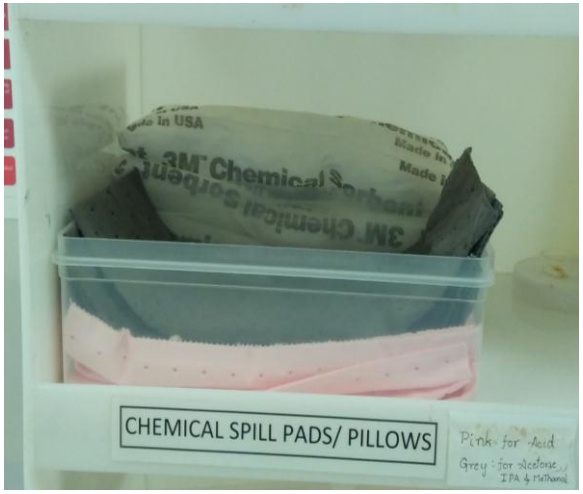
“ Your safety is our priority”

- Wear all the PPE before wet etch process

Safety measurements in wet etch

Safety shower and eye shower

Chemical spill pads/pillows



First aid box

Panic button

MSDS sheet

In case of major chemical spill

- Inform the other users in wet etch
- Evacuate immediately from wet etch
- Put the redtape which is kept infront of wet etch door
- Inform BMS (115) from the nearest extension phone

In case of minor chemical spill (less than 2ft wide and not HF)

- Cover the area by using acid spill pillows
- Dilute the chemical by using DI water
- Use pink colour absorbing pad for acids and use grey color absorbing pad for solvents
- Inform the FT/BMS

Evacuation route from Wet Etch

ALARMS INSIDE CLEANROOM

1) Alarm

2) Fire alarm

3&4) Plenum LEFT& RIGHT (smoke)

5) Below Raised floor (smoke)

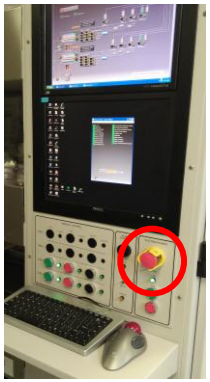
NB: If any of alarms triggered evacuate from cleanroom immediately

If there is power a failure for more than 2 minutes evacuate from cleanroom

Diffusion

In case of any emergency

- Press the EMO of the tool



- Evacuate from diffusion

In case of gas leakage

- Evacuate immediately
- After evacuation, from nearest extension in the cleanroom corridor, **inform BMS(115)**

Evacuation route from Diffusion

Thinfilm

In case of any emergency

- Press EMO of the tool
- Evacuate immediately from the bay
- Panic buttons are available near the door

Evacuation route from Thinfilm

Inline characterisation

In case of any emergency

- Turn off the tool
- Evacuate from inline characterization

Evacuation route from Inline characterisation

Equipment development

High power laser is used here

If laser is on, the indicator will be on

If laser is on, wear the laser protection glass, then only enter to the bay

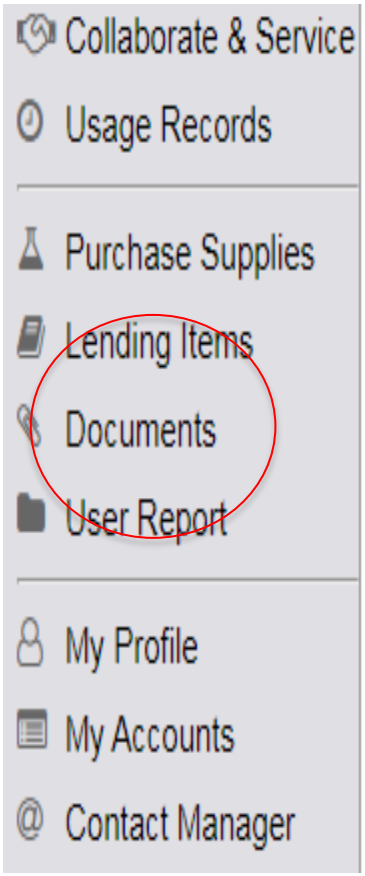
Evacuation route from Inline characterisation

Degowning

- Remove Gloves
- Remove Shoe
- Remove Gown
- Remove Hairnet
- Remove Facemask

New user training on tools

- **Training videos are available in user groups/ FOM**
- **FOM – Documents – Tool Training Video**



- **Training Video:** https://web.microsoftstream.com/video/2d7330d0-95ad-4a44-a41b-46aa7f42b180
- Anelva RF Sputtering
  - **Training Video Link:** https://web.microsoftstream.com/video/95d43039-5055-43fc-8315-13cb78ee2b
- Atomic Layer Deposition_Beneq
  - **ALD Trend Chart Sept 2018:** http://facilitybooking.cense.iisc.ernet.in/fom/downloadFile?fn=ALD_Sep
  - **Standard Operating Procedure:** http://facilitybooking.cense.iisc.ernet.in/fom/downloadFile?fn=Stand Procedure(ALD) Ver 3_01032017.docx
  - **Training Video:** https://web.microsoftstream.com/video/3751e46c-ba72-4daf-9501-14ada623b112
- Chemical HF Vapouriser WB
  - **SOP HFVPE.doc:** http://facilitybooking.cense.iisc.ernet.in/fom/downloadFile?fn=SOP HFVPE.doc
- Chemical Wet bench (Solvents/bases) Level 3
  - **Trend charts Wet Etch_August_2018:** http://facilitybooking.cense.iisc.ernet.in/fom/downloadFile?fn= Etch_August_2018_5.pot
- Chemical wet bench Acid clean -Level 1
  - **Trend charts Wet Etch_August_2018:** http://facilitybooking.cense.iisc.ernet.in/fom/downloadFile?fn= Etch_August_2018_6.pot
  - **Training video:** https://web.microsoftstream.com/video/36b458d8-1a47-4696-9b9c-177014dde999

Joining User groups

“Discover groups” in Outlook email and request to join, Tool specific groups are

1. CPD and Tempress
2. Diffusion
3. Ebeamlitho
4. In-line characterization
5. Leybold e-beam evaporator users group
6. NNFC ALD users group
7. NNFC Annexe users group
8. NNFC DRIE users group
9. NNFC PECVD users group
10. NNFC Optical Litho users group
11. NNFC RIE users group
12. Tecport E-beam Evaporator users group
13. Tecport Sputter coaters user group
14. Wet etch

Email respective Tool owners (FT’s) for drive test

WORK SAFE

Thank you