

# NANOGROUP INSTRUMENTATION

If you have **troubles** with a machine or an alarm signal appears, contact **immediately** Sabrina Eder (+47 94 20 4733) or Martin M. Greve (+47 900 79 974)

## 1) Nanolab and clean room

### Nanolab lab-space:

- Clean room spaces and chemical lab-space
  - to access the Nanolab lab-spaces one requires an introduction and basic training by UiB personnel.
  - Access and training contact personnel UiB:
    - Martin M. Greve: +47 900 79 974 [martin.greve@uib.no](mailto:martin.greve@uib.no)
    - Sabrina Eder: +47 94 20 4733 [sabrina.eder@uib.no](mailto:sabrina.eder@uib.no)
  - the basic introduction and training includes a read through, discussion and signing of the 'Rules and basics for the Nano-laboratory' document.
  - Access to the Nanolab laboratory is ABSOLUTELY forbidden without this introduction!
  - Online file: [Basics for the laboratory\\_External](#) (wiki page) ✓

### E-line room:

- Raith e-line: Electron-beam lithography & microscopy
  - the instrument requires an introduction and basic training by UiB personnel.
  - to book the equipment, use the instrument specific e-line google calendar which you will be added too once you received the introduction and basic training for the instrument.
  - Online files:
    - SOP imaging: [Raith\\_imaging SOP\\_2023](#)(wiki page) ✓✓
    - SOP e-beam lithography: [SOP\\_Raith\\_E-Line\\_2023](#) (wiki page) ✓✓
- Sputter coater: EMITECH SC7620 Mini Sputter Coater
  - the instrument requires an introduction and basic training by UiB personnel.
  - currently booking of the instrument is not required.
  - Online file: [SOP\\_Mini Sputter Coater\\_2023](#) (wiki page) ✓✓

### Semi-clean room:

- Temescal FC-2000: Electron-beam evaporator
  - the instrument requires an introduction and basic training by UiB personnel.
  - to book the equipment, use the instrument specific Temescal google calendar which you will be added too once you received the introduction and basic training for the instrument.
  - Online files:
    - SOP file: [SOP\\_Temescal\\_EbeamEvaporator\\_2023](#) (wiki page) ✓✓
    - Maintenance: [SOP\\_Temescal\\_EbeamEvaporator\\_Maintenance\\_2023](#) ✓✓
- Nikon ECLIPSE LV100ND: Optical microscope

- the instrument requires an introduction by UiB personnel.
- currently booking of the instrument is not required.
- Online files:
  - SOP file: [SOP\\_Nikon\\_LV\\_1000\\_2023](#) (wiki page) ✓✓
  - Manual: [Nikon LV-100D-U Manual](#) (too big for wiki page) ✓
- Nikon SMZ 1500: Stereo microscope
  - the instrument requires an introduction by UiB personnel.
  - currently booking of the instrument is not required.
  - Online file: [SOP\\_Nikon\\_SMZ 1500\\_Stereomicroscope\\_2023](#) (wiki page) ✓✓
- Contact Angle System: dataphysics OCA 20L
  - the instrument requires an introduction and basic training by UiB personnel.
  - currently booking of the instrument is not required.
  - Online files:
    - SOP file: [SOP\\_Contact Angle\\_2023](#) (wiki page) ✓✓
    - Manual: [OCA\\_206\\_E](#) (too big for wiki page) ✓
- Mask Aligner: Manual High End Mask Aligner MJB4 (SÜSS MicroTec)
  - the instrument requires an introduction and basic training by UiB personnel.
  - currently booking of the instrument is not required.
  - Online files:
    - SOP file: [SOP\\_Mask Aligner\\_2023](#) (wiki page) ✓✓
    - Manual: [Karl Suss MJB-4 manual](#) (too big for wiki page) ✓
- Fume hood, hot plates, ultrasonic cleaner:
  - an introduction and basic training by UiB personnel is given during the general chemical lab-space introduction.
  - booking is not required but training with lab introduction is requirement.
    - SOP file: [Basics for the laboratory\\_External](#) (wiki page) ✓

#### Clean room:

- Plasmatherm 790+: Reactive-ion etcher
  - the instrument requires an introduction and basic training by UiB personnel.
  - to book the equipment, use the instrument specific Plasmatherm google calendar which you will be added too once you received the introduction and basic training for the instrument.
  - Online file:
    - SOP file: [SOP\\_Plasmatherm\\_790Plus\\_2023](#) (wiki page) ✓✓
    - Maintenance: [SOP\\_Plasmatherm\\_790Plus\\_Maintenance\\_2023](#) ✓✓
- Filmetrics F-10: Thin-film characterisation
  - the instrument requires an introduction and basic training by UiB personnel.
  - currently booking of the instrument is not required.
  - Online file: [SOP\\_Filmetrics\\_2023](#) (wiki page) ✓✓
- Spin-coater: Laurell WS-400BX-6NPP/LITE (SN 08839)
  - the instrument requires an introduction by UiB personnel.
  - currently booking of the instrument is not required.
  - Online file:

- SOP file: [SOP\\_Laurell WS 400BX Spin coater\\_2023](#) (wiki page) ✓✓
- Manual: [LITE\\_Manual\\_WE-400BX\\_Spin coater](#) (wiki page) ✓✓

➤ UV-lithography setup:

- the instrument requires an introduction by UiB personnel.
- currently booking of the instrument is not required.
- No manual

➤ Fume hood, hot plates, ultrasonic cleaner:

- an introduction and basic training by UiB personnel is given during the general chemical lab-space introduction.
- booking is not required but training with lab introduction is requirement.
  - SOP file: [Basics for the laboratory\\_External](#) (wiki page) ✓

## 2) Bond lab

### Room 267:

➤ Fluorination chamber: SPTS XETCH

- the instrument requires an introduction and basic training by qualified personnel.
- **NOTE: dangerous gases are used in this instrument!**
- currently booking of the instrument is not required.
- Online files:
  - SOP file: [SOP\\_XetchX3\\_Fluorination chamber\\_2023](#) (wiki page) ✓✓
  - Manual: [Xactic-XetchX3-System-Manual](#) (wiki page) ✓✓

## 3) Measurement Lab

### Room 263:

➤ Jupiter AFM: Oxford Instrument - Asylum Research

- the instrument requires an introduction and basic training by UiB personnel.
- to book the equipment, use the instrument specific AFM google calendar which you will be added too once you received the introduction and basic training for the instrument.
- Online files:
  - SOP file: SOP file: [SOP\\_Jupiter AFM\\_2023](#) (wiki page) ✓✓
  - Manuals: (too big for wiki page) ✓
    - User guide: [AR Jupiter User Guide\\_19C](#) ✓
    - Application guide: [AR Applications Guide\\_19C](#) ✓

## 4) Meta Lab

### Room 270B:

➤ Meta: Metastable-helium lithography

- the instrument requires an introduction and basic training by qualified personnel.
- currently booking of the instrument is not required.
- No manual

## 5) Magie & Nemi Lab

Room 191:

- Magie: Neutral atom scattering instrument
  - the instrument requires an intensive training by UiB personnel.
  - currently booking of the instrument is not required.
  - No manual
  
- Nemi: Neutral helium microscope
  - the instrument requires an intensive training by UiB personnel.
  - currently booking of the instrument is not required.
  - No manual