Facility Policies and Procedures

ICN2

Nanofabrication Facility

RESEARCH SUPPORT AREA – NANOFABRICATION FACILITY

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Introduction

This document provides basic information you need for working in the Nanofabrication Facility Lab, which is part of the ICN2 Research Support Facilities. The policies and procedures described are intended to ensure your safety, protect the equipment and to create an environment to develop your work in the best conditions. Users are strongly encouraged to make suggestions on how we can more effectively meet our goals.

The Nanofabrication Facility Lab is a 96 m^2 cleanroom type laboratory that offers equipment for the fabrication and characterization o micro- and nanodevices and structures. It is a specially designed and constructed room in which the air supply, air distribution, air filtration, materials of construction and operating procedures are regulated to control airbone particle concentrations to meet appropiate cleanliness levels. Our facility is classified as ISO Class 6 ansd 7 which means that there are at most 1,000 or 10,000 particles ≥ 0.1 µm per m^3 respectively.

Working in such singular working environment requires special procedures therefore it is highly recommended to read this document carefully. If you need help in understanding these instructions or need further information, feel free to consult the Nanofabrication Facility personnel.

It is important for each user to understand that their individual commitment to these protocols and rules ultimately determines the success or failure of the facility.

The penalty for non-compliance of this policies and procedures is the limitation or suspension of the facility access.

New Facility Users

To get access to the facility, new users have to follow the procedure below:

1-. Only registered users can access the Nanofabrication Facility Lab. If you are not a registered user, you have to fill the corresponding form available on the website (http://icn2.cat/en/nanofabrication-facility) and send it to nanofab@icn2.cat.

Access for visitors or untrained personnel will be restricted (PERMISSION IS NECESSARY).

2-. Contact **Dr. Raúl Perez** (raul.perez@icn2.cat) to set a short meeting to briefly discuss about your specific needs, about the best way to proceed and to review the main usage and safety rules. This meeting is mandatory and has to be done before access to the facility will be allowed.

3-. Then, after the signment of the **Usage Policy Agreement** document and the completion of a Nanofabrication Facility Lab **Safety Quiz** (accessible through the ICN2 Intranet) you will be authorized for facility access and added to the facility user mailing list. All information related with the nanofabrication facility is circulated through this mailing list.

Nevertheless, you are not allowed to use any equipment without permission of the responsible of the system.

4-. **Before using any equipment on their own, the user will receive the training necessary to make proper use of it**, as well as the permission as an independent user from the person in charge of the equipment. Make an appointment with the person in charge of the equipment you are interested on, in order to have the training.

Equipment Contact Persons

In the equipment description of the website, as well as on the following table, you can find which person to contact with:

	Equipment	Person in charge
Fabrication and Characterization	E-Beam Lithography (EBL-SEM)*	Xavier Borrisè
Fabrication	Direct Write Laser Lithography (DWL)	Raúl Pérez
	UV-Photolithography (Mask Aligner)	Raúl Pérez
	Nanoimprint Lithography (NIL)	Raúl Pérez
	ICP-Reactive Ion Etching (ICP-RIE)	Raúl Pérez
	Plasma Cleaner (O_2)	Raúl Pérez
	e-beam evaporator (AJA system)	Raúl Pérez
	Sputter Coater (Au)	Raúl Pérez
	Wet bench (wet etching)	Raúl Pérez
	Spinner	Raúl Pérez
	Wire-bonder (wedge bonding)	Raúl Pérez
Characterization	3D optical profiler	Raúl Pérez
	Stylus Profilomoter	Raúl Pérez
	Optical Microscope	Raúl Pérez
	AFM*	Raúl Pérez

*Equipment outside the Nanofabrication Facility Lab.

Working Hours

The Nanofabrication Facility Lab regular working hours are from **Monday till Friday from 9:00 – 18:00 hrs.**

For security reasons, working outside regular hours is not allowed.

In case that it is absolutely necessary to work outside the usual hour, the following procedure has to be followed:

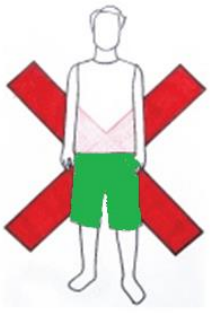
Your supervisor should send an email to nanofab@icn2.cat requesting authorization for working outside opening hours, stating the date, time and which tasks need to be carried out. **Strong arguments have to be given**.

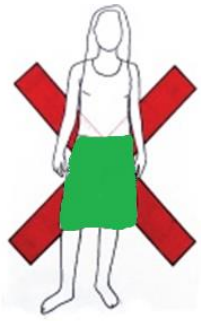
Moreover users shall never work alone, an specific buddy arrangement must be made.

During holidays or vacations the cleanroom could remain closed.

Before entering the Facility

- All users must be familiar with all policies, regulations ans safety procedures of the lab.
- No equipment, tool, instrumental or material should enter the lab without permission of the facility staff. When autorized, it has to be properly cleaned in advance.
- Food and drinks are forbidden inside the lab. No gum chewing allowed.
- The use of regular paper inside the lab has to be avoided. There are cleanroom notebooks and cleanroom paper avalaible to the users.
- **Always wear appropriate clothing and personal protective equipment when working in the facility:**
    - avoid wearing clothing made of materials that can release fibers into the cleanroom;
    - shorts and skirts are not allowed;
    - sandals or open-toed shoes are not appropriate for cleanroom use;
    - Limit the use of cosmetics.
    - Allow at least 15 minutes before entering the facility after smoking.





- While in the facility, **keep your hands away from your face**. The oils and particles of your skin can be transferred to the gloves and subsequently to the equipment or your samples.
- Contaminated gloves must not come into contact with door handles, telephones or any other materials. Replace the gloves if necessary.
- **Mobile phones** should not be kept inside your cleanroom gowning if you plan to use it inside the facility, as opening your suit will contaminate the clean environment.

Entry Procedure

In any cleanroom type laboratory, users are always the main source of particle contamination, so special garments and a specific procedure are required when entering the facility.

1. Clean your street shoes on the mat in the corridor, in front of the laboratory door.

2. Open the door using the fingerprint access. Enter the changing room, closing the door firmly behind you, and step on the adhesive mat with both shoes, several times, to capture any loose dust. Personnel things should be left on this area. You can use the rack located on the left side of the entrance.

3. Sit on the bench, which separates the dirty and clean sides of the changing room, take off your street shoes and leave them in the shelf. Take your clean shoes, turn to the clean side and put them on. Note that you should not step with your street shoes on the clean side of the changing room nor step with your clean shoes on the dirty side. There are also avalaible plastic shoe covers that are exclusively intended for visitors or sporadic users. Regular users should use their own clean shoes. Contact the lab staff to get them.

4. Fill in the Nanofabrication Facility Access Log, which is hanging above the bench next to the entrance door.

5. Then, follow the **procedure to change into cleanroom garments (see next page)**.

6. The use of gloves (nitrile ones) is mandatory inside the facility. These gloves should never be considered chemical protection gloves, but gloves to prevent contamination of equipment and samples during manipulation. For manipulation of hazardous chemicals, additional chemical protection gloves have to be used.

7. There are also disposable face mask avalaible in a dispenser in the changing room. The use of mask in not compulsory but highly recommended, and necessary for users with mustachand/or beard. Please note that these masks are NOT safety masks.

Procedure to put on the Facility Garments

Each garment set consists of a full suit and two boots (there's no right and left shoe) and is identified by a number. The pieces of the same set are identified with the same number (not to be confused with the suit size, which is preceded by a 'T'. Pieces from different sets shouldn't be mixed. All users have to also use caps, which are avalaible in a plastic bag over the boot shelves.

For dressing, you should always do it from **TOP to BOTTOM**, so starting from your head and finishing with your feet.

1. First **put on the cap**, which must cover ALL exposed hair and ears. If you have a beard or moustache (more than two days growth), you must put on a face mask.
2. Then **put on the appropiate size suit**, tie up the internal belt and close the zip. Try to put it on without touching the floor.
3. Sit on the bench and **put on the boots** (do not step on the bench for putting the boots!).
4. Finally **put on the nitrile gloves** and, after them, the face mask. Try to don't touch the skin's face with the gloves.
5. Take also safety glasses, if needed for your work.
6. You are ready to enter the facility. Pass from the changing room to the cleanroom area slowly to reduce migration of particles between areas.

Garments must be kept clean and any damage should be reported to the facility staff.

Procedure to take off the Facility Garments

For undressing, you should always do it from **BOTTOM to TOP**, so starting from your feet and finishing with your head.

1. Remove your face mask and, if still usable, store it in your storage drawer; if not, dispose of it in the waste bin.
2. Sit down on the bench, **take out the boots** and leave them in their corresponding box (check the label with the set identification number).
3. Stand up, **take out the suit** and hang it in the corresponding hanger.
4. **Take out the cap** and, if still usable, store it in your storage drawer; if not, dispose of it in the waste bin.
5. **Remove gloves** and place them into the waste bin.
6. Note the exit time in the Nanofabrication Facility Log.
7. Sit on the bench, **take off your shoes** and turn to the dirty side of the changing room, leaving your clean shoes in their shelf. If you used shoe covers, remove them when in the dirty side.
8. Put on your street shoes
9. Stand up and go to the exit door, trying not to step on the sticky mat (there's no need to dirt the sticky mat when exiting the lab).

General Rules for Working Inside the Facility

- **Only bring the most necessarily materials inside the facility:**
  - Do not bring any wrappings or packaging (e.g cardboard or polystyrene boxes) inside lab.
  - Use plastic containers/tuppers.
  - Clean everything you carry into the cleanroom.

If you are not sure whether an item is allowed inside, please ask a Nanofabrication staff member first.

- Taking any materials in and out of the facility should be avoided whenever possible. There is storage space available in the lab for users' tools and personal supplies.
- Don't leave your stuff lying around. **Always clean your workspace before leaving**. You should leave no trace of your work when you leave the lab. **Respect other's users right to enjoy a clean environment and equipment.**
- All your samples (or the box, capsule, bottle, etc, containing them) have to be properly labeled, indicating the owner and the date. They have always to be stored in your specific group cabinet, or in the general use places indicated by lab staff. Don't leave your samples spread all around the lab. The facility staff will throw away without prior notice any unidentified sample or box found on tables, fume hoods,…
- If you need lo leave an equipment or experiment running and leave the lab temporarily, you'll have to leave a note with your name, contact phone and any other important information next to your experiment.
- Never leave hazardous equipment or material unattended when in use.
- The equipment, tools, materials and garments of the facility are dedicated to the lab and cannot be removed or taken out of it.

General Rules for Working Inside the Facility

- Know were the MSDS, safety shower, eye wash, fire extinguisher and other safety equipment are located before you start working.
- **DO NOT WORK ALONE IN THE CLEANROOM**, especially if procedures being conducted are hazardous.
- It is not allowed to run inside the cleanroom. Always move calm and in a controlled manner.
- Open the doors slowly. Doors must be kept closed to keep the proper environmental conditions inside the lab.
- It is totally prohibited the use of portable music systems with headphones (MP3/iPod players, etc.) inside the cleanroom for security reasons.

Be alert to unsafe conditions in the cleanroom and report them to the Nanofabrication Facility staff at nanofab@icn2.cat

Equipment use rules

- If you are not absolutely sure how to use an equipment, first of all, **DO NOT TRY TO LEARN BY DOING IT!!!** Ask the person in charge of the equipment to help you.
- Most equipment have a logbook. **Always review the logbook before using** the equipment, and report on it any error or maintenance done.
- It is compulsory to **fill in the logbook** whenever you use any machine.
- Equipment should be used only for its designed purpose. **If a piece of equipment is broken or missed, please notify the Nanofabrication Facility staff.**
- **DO NOT MODIFY EQUIPMENT WITHOUT THE APPROVAL OF THE FACILITY STAFF**. If you require a special equipment set-up, consult them before.
- Switch off all small equipment after using it (hot plates, ultrasonic baths, etc). Close all the valves of the associated equipment services.

Facility Equipment Schedule Policies

The Nanofabrication Facility equipment can be reserved via the booking service available on the intranet website (http://ims/Web/). Search for Nanofabrication Lab schedule.

1. Enter the booking application by entering your username and password from your ICN2 account (these are the same user and password that you use to enter to your ICN2 computer).
2. Check availability and book the equipment you want to use.

   Bookings will be made in 15 minute segments.

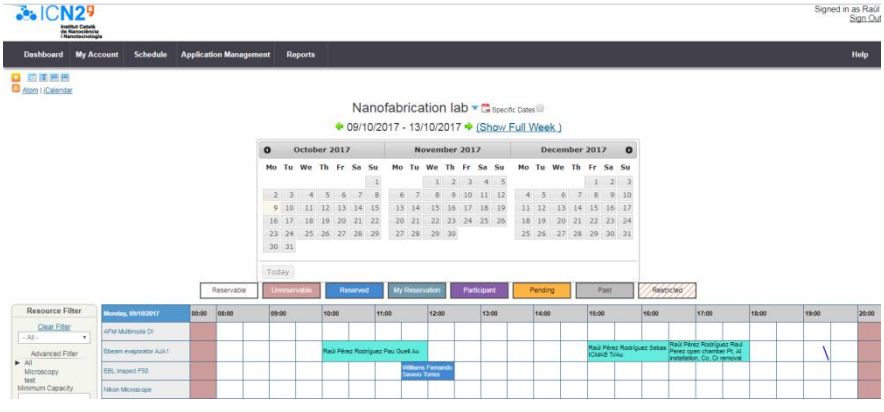
   Do not sign up for more time than you think you may need.
3. The booking service will e-mail a reminder with the booking information to you 24h prior to the schedule time.

Small equipment don't have a reservation policy, thus they are used with the first come, first served basis. Please do not abuse on your timing with them if you are aware that others users want to make use of them.

Comply with your schedule.

If for reasons unrelated to the Nanofabrication Facility you cannot attend the booked session, you must notify the Facility Staff at least 24 hours in advance at nanofab@icn2.cat.

If you don't notify the cancellation, 50% of the established fee for the booked service will be charged as a penalty.



Chemicals and consumables management

Inside the cleanroom, the workable provision of chemicals will be stored in the chemical cabinets available. They are controlled by the Nanofabrication Facility staff according to chemical incompatibilities and risk of danger, and taking conditions of conservation into account.

- Each chemical has a label with the following fields: *Username, Storage date* and *Opening date*. *Username* will be ´GENERAL' for general use products or the name of the product owner (user or group) in case of a dedicated product. All the users who want to use a dedicated product will have to contact the person/group indicated in the label. The *Storage date* will be filled by the facility staff when the product is stored and the *Openign date* has to be filled by the first person to use the product.
- All the chemicals have its storage place in the lab and they always have to be put back ther after use. It is forbidden to leave them on the tables, inside the fume hoods or on the floor.

It is each user's responsibility to read through the MSDS sheets associated with the chemicals they plan to use and to familiarize themselves with their potential hazards prior to using them.

- The MSDS are kept in a folder located at the cabinet in the central room. It is compulsory to read the MSDS of the product before using it . It is the users responsibility to know the properties and hazards of the products and chemicals they work woth, and to make sure that all required protective equipment is used when handling it.

If you want to use other chemicals than the common chemicals that are available at the cleanroom, you have to contact the Nanofabrication facility staff.

Chemicals and consumables management

- Use just the quantity of reactants needed for your process.
- Mouth pipetting is absolutely forbidden.
- When transferring liquids, do it in small quantitites and taking the appropiate precautions.

- **The use of safety glasses or googles and protective gloves is compulsory whenever handling and working with chemicals.** Depending on the type of process to be done, you may additionally need a face shield, an apron, etc. Safety glasses are stored in two blue small cabinets in the changing room. Face shields and aprons are on the stainlees steel sshelves in the central room.

- In general, all the chemical processes have to be carried out inside the fume hoods or in the wet bench, specialley those involving the use of hazardous or volatile substances, or those that can generate fumes/vapours.

- Always clean and safely remove any spill from working surfaces, floor, bottles, containers or protective gloves immediately, even if it's just water. There is a spill kit for acids, bases and solvents located under the fume hood.

- When an important spill occurs or if you don't know how to proceed, clearly mark the affected area , warn others users in the lab and contact facility staff immediately.

When preparing, mixing, transfering or storing reactants in bottles or flasks different from the original ones, you have to make sure that the construction material of the new container is compatible with the reactant to be stored in, and the new container has to always be labeled identifying its content, owner, preparation date and safety warnings.

Waste Disposal

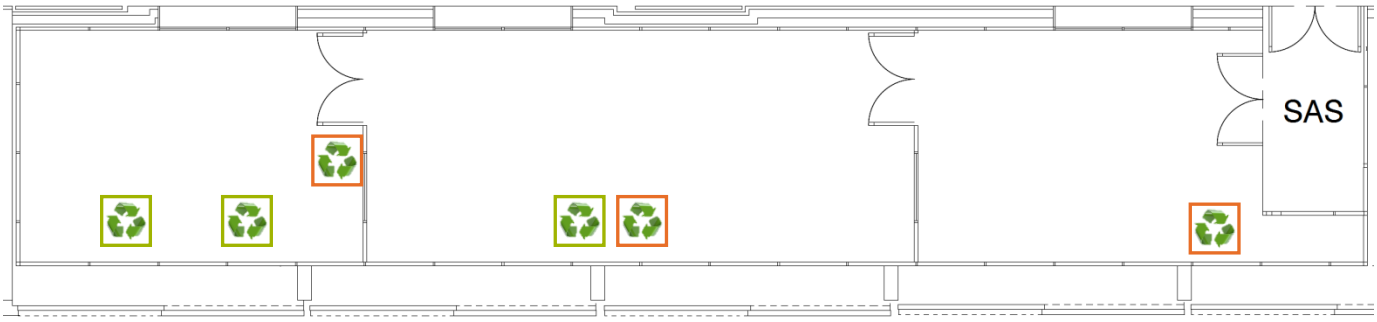
All chemical processes carried out at the cleanroom, generate a considerable amount of chemical waste.

Every chemical waste must be disposed of in a suitable container clearly labeled with the type of material it contains and the date the waste was initiated.

Chemical waste must not be disposed of in the sink.

Users are responsible for the proper disposal of all generated wastes during their work and it is their responsibility to know where to dispose of them before starting any preparation, solution or process.

If there is any doubt whether a material should be treated, contact the Nanofabrication Facility staff (nanofab@icn2.cat)



Liquid chemical waste is stored inside fumehoods.

For **solid waste** you have several containers at the point of use.

Waste Disposal

- Only authorised wastes can be thrown in the regular waste bin if in solid form (i.e. clean non-contaminated gloves, wipes, aluminum foil, plastic bags..) or down the sewer if in liquid form (i.e. water). If in doubt please contact the people in charge.
- Solutions containing polymers, resists and silicones, and all those in very low concentrations will be disposed of depending on the solvent used (e.g. in the halogentaed or non- halogenated solvents containers).
- The disposal of glass (pipettes, microscope slides, coverglass, empty vials, etc)and plastic (pipettes, tips, vial caps, etc) will be done using the respective containers.
- Any empty bottles or flasks with chemicals must be left tightly closed below the bench next to the sink in the central room of the lab, next to the solid waste containers. It is forbidden to take empty bottles out of the lab. The Nanofabrication facility staff will collect them, update the stock database and dispose of them.
- In case of acidic wastes, and to avoid the potential explosion of wastes container, always follow the procedure below:
    1. If you used a hot solution, allow it to cool down to room temperature.
    2. Carefully dilute acidic solution into water, pouring always acid into water, NEVER water into acid!!!
    3. Bring the wastes container inside the fumehood, and carefully and slowly pour the diluted solution into the wastes container, stopping if any reaction occurs. Wait until the contents of the container is stable again and finish pouring your diluted solution.
    4. Leave the wastes container to breathe, with the cap removed, for some time inside the fumehood.
    5. Install back the cap of the wastes container, leaving it slightly loose (don’t tighten it hard), and put the wastes container back in the cabinet below the fumehood.
- Special wastes such as comburents (peroxides), peroxidisable compunds (ethers, tetrahydrofurans), and some acids (hydrofluoric acid) must not be mixed together and have to be discarded in separate containers.

EMERGENCY PLAN

Emergency Plan
Emergency Safety Phone Numbers

Know how to help yourself and other lab members in case of an emergency.

Memorize the emergency safety telephone numbers.

Find out where the first aid kit, the chemical spill kits, eyewash station and safety showers are.

Know where the emergency exits are located.

Emergency Safety Phone Numbers

NECESSARY INFORMATION

- Exact location of the incident
- Description of the incident
- Name of the person reporting the incident

EMERGENCY PHONE NUMBERS	
Local Emergency for fire	1234 2605 / 679 84 65 03
Personal injury, Chemical Spill or Accident	2616
UAB Campus Security	93 581 25 25
Police	112
Medical Care Assistance (SAS)	93 581 19 00
General Emergencies Urgent Medical Emergencies	112

Call **112 ONLY** when the situation requires immediate assistance by public services (police, firefighters, medical assistance…).

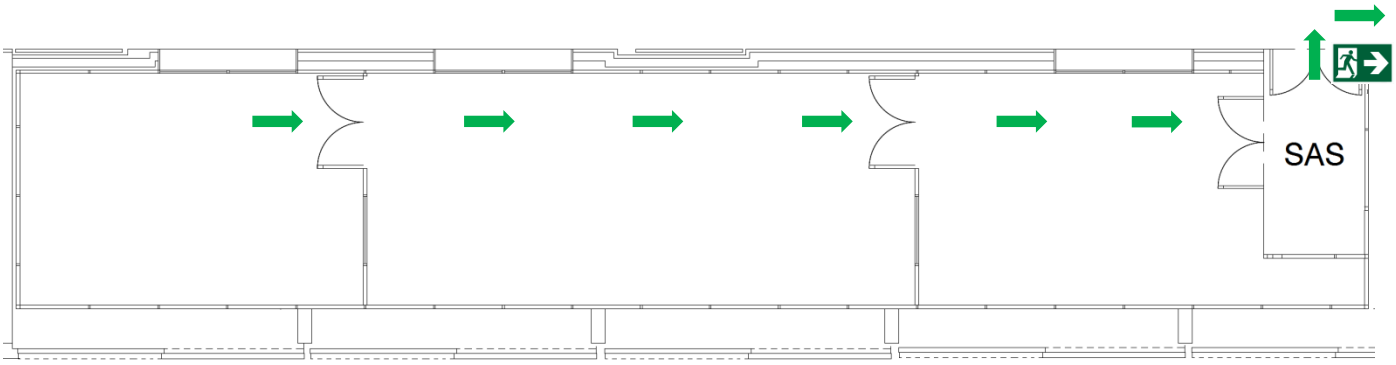
When you dial **1234** number, the call is received at reception. Receptionist will record any relevant information about the nature of the emergency and will dispatch appropriate personnel or call for assistance by public services if needed.

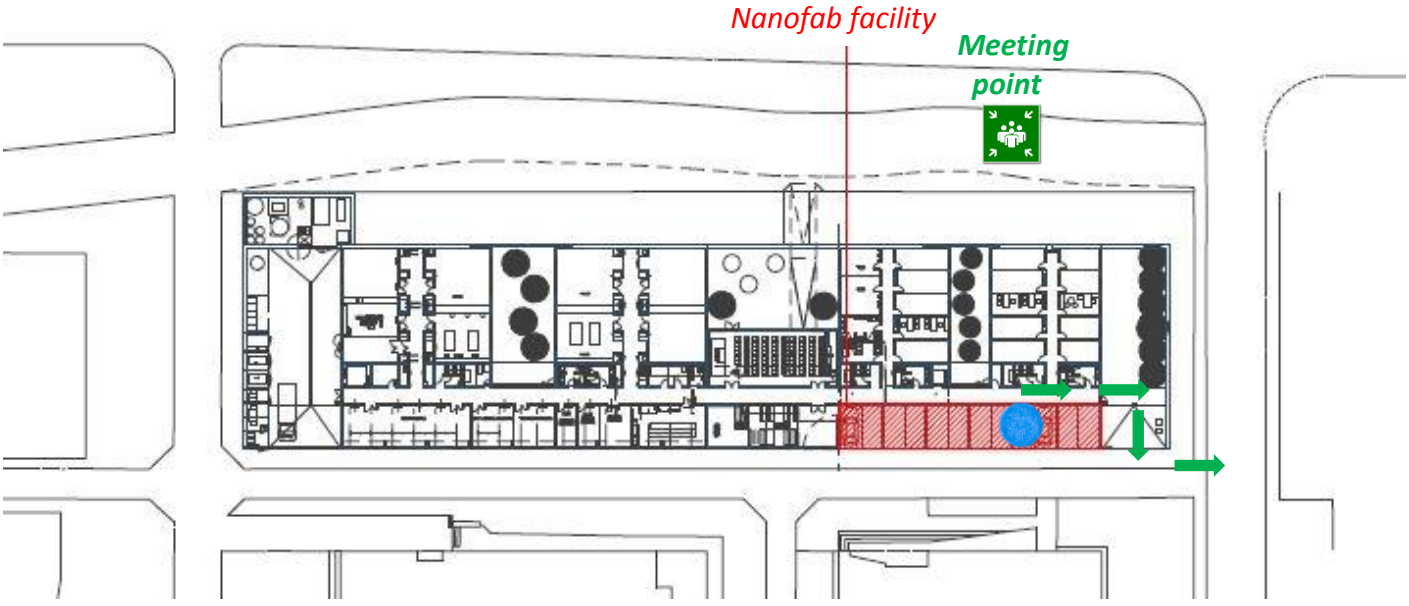
Evacuation of Nanofabrication Facility Lab

- Upon hearing a sustained fire alarm, all facility occupants must evacuate the lab.
- Before leaving your area, if time permits, turn off any equipment, which should not be left unattended.
- Close doors on leaving.
- **Do not take time to remove your cleanroom garments until you are out of the building**.
- Do not collect personal belongings.
- Use the staircases: never use lifts.
- Go directly to the designated assembly point outside of the building.
- Help visitors and group members who are unfamiliar with emergency procedures.

- Follow the instructions of the Evacuation Team Members (who wear the yellow vest).

Evacuation Routes / Assembly Point Map



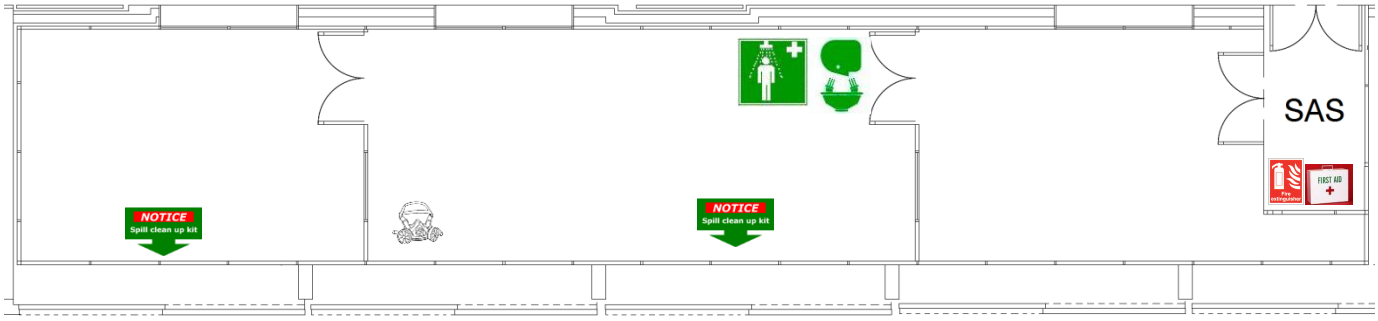


Fire section in which you are located

You are here

Evacuation routes

Emergency Safety Equipment
Location



NOTICE Spill clean up kit — Spill clean up kit

Safety shower

FIRST AID — First aid kit

Eyewash stations

Fire extinguisher — Fire extinguisher

Half-masks

In the event of fire

To ensure that the fire does not get out of control, an appropriate fire-fighting should be chosen. In the corridors of the ICN2 Building and in the laboratory you can find:

- **Dry powder extinguisher or pressurized ABC extinguisher**: a multiuse extinguisher appropriate for fires caused by inflammable liquids, fires involving solid material and inflammable gases. They are located in corridors.

- **CO_2 extinguisher:** Recommended for electrical fires, such as apparatus an electrical equipment. This type of extinguisher is located in the cleanroom and in corridors.

- **Fire Blanket:** Highly efficient for extinguishing small fires, especially if they involve burning clothes. It's located in the lab.

- **Fire hose:** A fixed installation connected to a water supply. The hoses should be handled by trained staff only.

Evacuation procedures for uncontrollable fires:

1. Leave the area of danger. **DO NOT stay** to fight a large fire. Rescue anyone in immediate danger. On your way out, if it can be done safely, turn off equioment, move any explosive or flammable materials away from possible contact with hot surfaces or other sources of ignition and confine the fire by closing doors behind you. Your safe exit, however must be given the highest priority.
2. The fire alarm on the corridor should be activated.
3. The Reception Desk of the ICN2 Building (Phone: 1234) must be informed. The Control Centre will activate the Emergency Plan and when necessary the Fireman Service will be
4. The area must be evacuated by means of one of the predetermined evacuation routes and neighboruing groups must also be instructed to leave their work space.

Procedures to be followed in case of a Laboratory Fire

If your clothes or the clothes of a colleague catch on fire:

If a person's clothing is on fire, he/she must not be allowed to run, as this will fan the flames and cause a more serious burn. Remember! **STOP, DROP and ROLL**.

Clothing fires muest be extinguished immediately, before anything else is done, in order to minimize skin burns. Try not to use your hands for they also burn.

1. Put the person under a shower or wrap him/her in a fire blanket, use an extinguisher, or whatever is avalible to smother the flames.
2. Roll the person on the floor if necessary.
3. After calling the emergency number, place clean, moist cloth on samll burned areas, wrap the person warmly to avoid shock, and secure medical assistance.

Fire-fighting procedures for controllable fires:

The decision of whether to fight the fire oneself or to wait for fire-fighting help must be made according to the type and size of the fire, its location and the circumstances of the fire. A small fire in a container may be easily snuffed out by the placement of a nonflammable cover across the container opening. A small fire in an area free of other fuels can be extinguished with appropiate avalible extinguishers before calling for help. Larger or rapidly growing fires are best left to the Fire Department.

1. To extinguish a minor fire with a fire blanket:
   - Ensure that you are positioned between the fire and a safe exit route
   - Pull tapes to remove blanket from container
   - Hold blanket by the tapes and cover burning material completely (using the blanket to shield your face and hands). Leave to cool for at least 30 minutes, keeping out of smoke.
2. To extinguish a minor fire with an extinguisher: Remember! PASS:

   Pull pin → **A**im → **S**queeze handle → **S**weep from side to side

   When extinguishing a burning solid, direct the extinguisher discharge at the base of the flame; in the case of burning liquids, direct it at the leading edge.

In case of a spill

- When a chemical spill occurs, you must take immediate action. **The individual(s) who caused the spill is responsible for prompt and proper clean up.**

- Some general guidelines to be followed for a chemical spill:
  - Immediately alert Facility Staff and area occupants, and evacuate the area if necessary.
  - Contaminated clothing must be removed immediately and the skin flushed with water.
  - Consider the need for respiratory protection. If required, use **Disposable filtering facepieces respirators** or **Half-masks** to clean up the spill.
  - Remove anything that may react with the material spilled. **Next, throw the suitable absorbent powder on the spill in order to contain** it.
  - ICN2 Nanofabrication Facility Lab is equipped with **a spill clean up kit**. This kit includes:

- **Pyracidosorb – For neutralizing acids.** With colour indicator. 1 kg absorbs approx. 0.3 l concentrated sulphuric acid, 0.6 l concentrated nitric acid and 1 l concentrated hydrochloric acid.

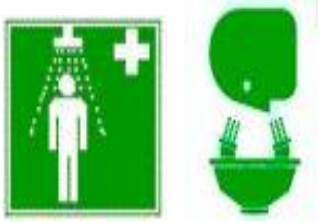
- **Basosorb – For neutralizing alkaline solutions.** With colour indicator. 1 kg absorbs approx. 1 l concentrated ammonia solution (25 %), 1 l concentrated potassium hydroxide (50 %) and 3/4 l concentrated sodium hydroxide (50 %).

- Once the powder has absorbed the liquid it should be collected with a brush and dustpan and disposed of as a solid chemical waste.

- If the spill cannot be controlled with the means available, you must immediately inform the Reception Desk of the ICN2 Building (1234).

First Aid

In case of personal injury, first aid measures will be applied immediately on-site.



The Cleanroom is equipped with a safety shower and a eyewash station which must be used in cases of splashes of chemical products, and burns affecting skin and mucous membranes.

The Cleanroom has also a first aid box for minor accidents.

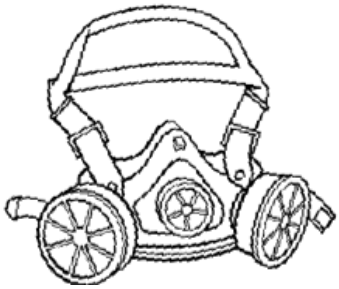
If medical attention is needed and the injured person can move, he should **go to the health care centre provided by his work insurance**.

If the injured person cannot be moved, the ambulance service must be called (**0-061 or 0-112**). After requesting a medical or ambulance service, the Reception Desk of the ICN2 Building (**1234**) must be informed.

If you have any questions, please direct them to **Jose Pérez** at jose.perez@icn2.cat.

Using respiratory protection

Respiratory protective equipment available at the clean room:



Disposable air-purifying half-masks against organic vapours with boiling points grater than 65ºC, inorganic gases and vapours (e.g. chlorine, hydrogen cyanide, hydrogen sulphide), acids gases and ammonia.

Guidelines for use:

- Fit the mask and check leak-tightness before entering the contaminated area.
- Wear the mask for the whole duration of exposure to contaminants.
- Discard the mask and replace a new one if:
  - The mask is removed in a contaminated area.
  - Excessive blockage of the mask causes excessive breathing difficulty or discomfort.
  - The mask becomes damaged or the smell of vapours present becomes detectable.
- Leave the contaminated area if dizziness, irritation or either distress occurs.

Fitting Instructions

1- Place the lower headband around the neck below the ears.
2- Holding the mask against the face and with one hand, place the top of the headband over the ears, around the crown of the head.
3- While maintaining the position of the mask, adjust the tension by pulling tab of each headband.

Enforcement

We embrace the idea of an open facility and recognize that the success of the facility depends on making it a friendly and accessible environment for the users. Although we hope to never have to penalize users for not following the policies outlined above, the user must recognize that the successful operation of the facility depends on strict adherence to these policies. Adherence to these policies is essential for maintaining a clean environment; it is in everyone's best interest to follow them. Unfortunately we must prepare for breaches of facility policy. We reserve the right to invoke the following penalties for the listed transgressions:

- Failure to create an entry in the logbook for the use of equipment, failure to properly label chemicals, not wearing proper safety equipment, not cleaning up after use of the facility:
    - o First offense: Verbal warning
    - o Second offense: Written warning
    - o Third offense: Suspension from the facility lab for 3 weeks.

Suspension from the facility lab for 3 weeks without prior warning:

- Use of any cleanroom equipment without being an authorized user for the equipment.
- Granting access to an unauthorized user to use equipment. No user can grant access to an unauthorized user to use equipment without his/her **constant** supervision. Authorized users are allowed to train other users on the equipment.
- Using the facility with someone else's access fingerprint without being an authorized user and/or not under supervision.
- Using equipment reserved for another user. A user may not use any equipment reserved by another user for the first 15 minutes of the first hour the equipment is reserved. After that time, the equipment may be used until the next reservation. If a user's run exceeds a scheduled time, the next user who has reserved the equipment should try to reach a compromise with the previous user. The machine does, however, belong to the user who reserved it, and he/she may ask the previous user to terminate their run.
- Using equipment when it is undergoing maintenance and is marked not to be used or "Machine Down". Under no circumstances is a user allowed to perform any maintenance on any equipment. Any abnormalities while using the equipment must promptly be reported to Nano3 staff.
- Installing software on any computers or modifying equipment settings on equipment dedicated computers.
- Removing supplies and/or equipment from the facility.