

Nanolonics and Electronics Lab

Rules you must agree to follow for access

1. Do not remove any tools or manuals from the lab. These must be kept in the lab for the lab to operate efficiently.
2. Do not remove any supplies. These are purchased for use in the Nanolonics and Electronics Lab only.
3. You must read and understand the Nanoelectronics Lab “*Emergency Plan*” outlined below.
4. You must be properly trained and have approval from Susan Fullerton before using any equipment in the lab. For more information, read the “*Equipment Training Procedure*” outlined below.
5. Help keep the lab in working order for all users.

You must email Susan Fullerton if you:

- A. discover anything that is broken
- B. discover that we are short on any supplies
- C. observe someone not following these procedures

6. You must read and understand the “*Lab Personnel Personal Protective Equipment (PPE) Knowledge Form*” provided below.
7. Do not bring any food or drink into the lab. Period.
8. You must know the location and understand the operation of the two eye-washes and safety shower in 813.
9. Do not bring new chemicals into the lab without prior approval from Susan Fullerton. Do not send any chemicals for disposal without prior approval from Susan Fullerton. (This does not include mixed waste that is routinely generated.)
10. After you receive approval to bring in a new chemical, you are responsible for adding the safety data sheet (SDS), formerly MSDS, for the new chemical into the SDS folder under the Fullerton root directory in Box. After you add the SDS, email Susan Fullerton to report that this task has been completed.

11. You must read and understand the SDS before using a chemical.

NEXT STEPS:

1. Copy these rules into an email, state whether or not you agree to these rules, and email to Susan Fullerton (fullerton@pitt.edu)
2. Contact Bob Maniet (maniet@pitt.edu) for access to the lab. He will request specific safety training form certifications from you and your ID #. Please copy Susan Fullerton on the email.
3. Request instrument training by emailing Susan Fullerton.

Updated 10.02.22

- Do not dispose of chemicals without approval

Nanolonics and Electronics Lab, 813 Benedum Hall Emergency Plan

In case of Emergency

Step 1: Call 412-624-2121 (program this number into your phone)

Step 2: If necessary, evacuate the lab or building

Step 3: Call Susan Fullerton

Susan: 412-624-2079 (office); 412-585-2506 (cell)

Step 4: Send an Emergency Email Notification to all the group members (i.e., hit reply all on a recent group email)

What is the purpose of step 4?

- to notify all lab users of the emergency
- in the event of evacuation, to make sure that all users are accounted for

Updated 01.11.18

Nanolonics and Electronics Lab, 813 Benedum Hall

Equipment training procedure

To obtain card swipe access to the lab, 813 Benedum Hall, you must be trained. First, contact Susan Fullerton and request access. After approval, you will be put in contact with the student/postdoc who is in charge of the equipment that you need.

You are not authorized to use any piece of equipment in the lab independently until you receive final approval from Susan Fullerton.

After you have completed training with the student/postdoc, schedule an examination with Susan Fullerton. The purpose of this exam is for you to demonstrate competency on the specific piece of equipment. Prior to this meeting you should go over the documents that describe the equipment in detail on the Nanolonics and Electronics Lab facilities webpage: <http://fullertonlab.pitt.edu/facilities/>

Updated 01.17.19

Nanolonics and Electronics Lab, Personal Protective Equipment (PPE) Knowledge Certification Form

PI: Susan Fullerton **Lab:** 813 Benedum Hall **Department:** Chemical and Petroleum Engineering

Date: 01.17.19

NOTE: (1) Closed-toed shoes are required to work in this lab.

(2) You must be properly trained and have approval from Susan Fullerton before using any equipment, including the fume hood for wet chemistry.

Scenario: Using solvents

PPE Required: goggles, gloves (either latex or nitrile, depending on the solvent), fume hood

Purpose of PPE: To protect your eyes, hands, and lungs from a solvent splash or spill and vapors

Scenario: Using Acids/Bases

PPE Required: goggles, gloves, lab coat, fume hood

Purpose of PPE: To protect your eyes, hands, arms, and lungs from an acid/base splash or spill and vapors

Scenario: Using a drill or solder iron

PPE Required: goggles; if you have long hair, pull it back with a hair band

Purpose of PPE: To protect your eyes from flying debris; to prevent your hair from getting caught in the drill

Scenario: Removing items from the hot plate or vacuum oven

PPE Required: goggles, latex or nitrile gloves at $23 < T < 60$ °C; insulated gloves at $T > 60$ °C

Purpose of PPE: to protect your eyes from hot materials that could splatter and to protect your hands from burns

Scenario: Using the glovebox

PPE Required: Clean gloves (either latex or nitrile)

Purpose of PPE: To keep the inside of the glovebox gloves clean, and to protect you from glovebox gloves that are potentially contaminated.

Scenario: Using the probe station

PPE Required: Goggles when loading or unloading a sample via the interlock; gloves to protect either you or the sample.

By agreeing to the general lab rules on page one of this document, you are certifying that you understand what PPE you are required to use in this lab, its limitations, how to put on, take off, care for and maintain this PPE.

Updated 01.17.19

Nanolonics and Electronics Lab, 813 Benedum Hall Undergraduate Research ChE 1097

1097 is variable credit. You are expected to complete 3-4 hours of work/week for each credit you sign up for.

University Training: all researchers at Pitt are required to complete basic lab and research conduct training. This is a UNIVERSITY-level requirement. The specific modules that must be taken (and the websites where they are found) are:

- EH &S Chemical Hygiene Training (choose the last training link at the bottom of the page):<https://www.ehs.pitt.edu/training/overview/chemical-hygiene>
- Responsible Conduct of Research (Choose the CITI link at the bottom of the page, follow log-in directions and complete Responsible Conduct of Research – Basic Course): <https://www.orp.pitt.edu/training/training-table-list>

Please email your completed module certificates to Emily Kerr (erksh@pitt.edu).
Contact the EH&S office with any registration or access issues:

[Phone: 412-624-9505](tel:412-624-9505)

[Email: safety@ehs.pitt.edu](mailto:safety@ehs.pitt.edu)

Updated 02.5.23