

	MIT.nano Working Together Policy	
	Lab Policy and Guidance	
	Effective: 01/12/2023	Version: 1.0

WORKING TOGETHER POLICY

- 1. At least two people are required to be in the lab for corrosive processing to be performed.**
- 2. Undergraduates must be supervised at all times by a member of their research group while working in the lab.**

THE IMPORTANCE OF WORKING TOGETHER

The two requirements listed above are at the core of MIT.nano's Working Together Policy. Beyond establishing the minimum requirements for working together, the intent of this policy and guidance is to build a culture of working together with safety as a shared responsibility and to facilitate risk-based decision making with a safety mindset.

Considering the variety of hazards present in MIT.nano research labs, with the potential for emergencies and risk of injury, we encourage researchers and staff to avoid working alone in the lab for any activity as a best practice. By working together, we can be better prepared to support each other when there is an immediate need for assistance, for risk assessment, or to call emergency responders, such as the MIT.nano Emergency Response team or MIT Police.

WORKING TOGETHER DURING HIGH RISK LAB ACTIVITIES

When assessing the risks of the activities performed in MIT.nano labs, if we cannot eliminate a hazard or substitute it for something with less potential for danger, additional hazard controls are used to reduce the risks to individuals working in the lab. Depending on the activity and its risk profile, this may be implemented as engineering controls (e.g. fume hoods, wet benches, gas cabinets, interlocks, automatic gas shut-offs), administrative controls (e.g. training, standard operating procedures, gas monitoring, alarm notifications, staffed hours, 24/7 access qualification), and personal protective equipment (e.g. safety glasses, gloves, face shield, chemical-protective apron, respirators), or some combination of these controls.

Corrosive processing is the highest risk activity performed by researchers in the lab. Corrosive processing is defined as activities performed while wearing advanced PPE – safety glasses, green nitrile/neoprene gloves, chemical-protective apron, and a face shield. More specifically, this includes:

- working within the PPE Zone at corrosive hoods and wet benches, and
- transporting chemicals to/from corrosive hoods and wet benches.

To further mitigate the potential for severe injuries and incidents, high risk corrosive processing necessitates the additional administrative control stated in this policy, requiring a minimum of two people to be in the lab for corrosive processing to be performed. This requirement applies at any time, during normal hours and after hours.

UNDERGRADUATE RESEARCHERS

MIT.nano supports undergraduate research opportunities (UROP) in alignment with [UROP](#) and [Environment Health and Safety](#) (EHS) Office guidelines. Accordingly, undergraduate researchers must be supervised at all times by a member of their research group while in MIT.nano labs. MIT.nano will work with PIs/Supervisors to evaluate requests for a UROP to work unsupervised in the lab, and any approvals are made through a documented risk assessment with written approval, as outlined in the Institute's Working Alone Policy. Permission for a UROP to work unsupervised must be re-evaluated, in coordination with MIT.nano, every time there are changes to the UROP project (location, conditions, equipment, process, etc).

WORKING TOGETHER RECOMMENDATIONS & BEST PRACTICES

The Working Together Policy specifies at least two people are required to be in the lab for corrosive processing to be performed in MIT.nano laboratories. The following strategies are intended to guide you in the safety planning for your work, to help manage the risks of your research to meet these requirements and to go beyond and build a safety-minded culture at MIT.nano.

While the focus here is on corrosive processing, this does not preclude you from applying this guidance to enhance the safety of other aspects of your work in MIT.nano labs.

We recommend the following:

- Try to schedule your corrosive processing during core hours (M-F 8am-5pm) when there are more researchers, staff, and overall activity in the lab.
- Arrange for another person to join you for the highest risk steps of your process. For example, moving chemicals, pouring and mixing chemicals, adding samples to chemical tanks/beakers, disposing of waste, handling particularly hazardous chemicals like hydrofluoric acid (HF/BOE) and tetramethylammonium hydroxide (TMAH), any steps with a higher risk of splash or exposure.
- Make sure people are working nearby on the same floor or in the same bay because they will be most effective if there is an urgent need for assistance.
- Coordinate with people nearby to check in with you regularly (e.g. every 5-10 minutes).
- Discuss your work with other people in the lab before you begin processing to help prepare them with a necessary understanding of the risks and your needs.
- Schedule time in advance with other researchers or staff if you need or want a dedicated person nearby for the duration of your process.
- Plan ahead and arrange for another researcher to join you in the lab for corrosive processing outside of core hours when there is less activity in the lab.
- If you find yourself alone in the lab during corrosive processing, stop working, make safe your experiment, and reach out to other researchers or staff to join you in the lab. Label your chemicals with a *Short-Term Unattended Chemical* label until you find another person and can resume your work.
- Leverage MIT.nano staff as an additional resource during core hours. MIT.nano staff will have an increased presence in the Fab during core hours by implementing *Safety Circuit* walk-throughs of the lab. On a rotating schedule, staff will walk throughout the cleanroom with a focus on safety, and are available as an additional resource for users. Safety Circuit shifts will be visible in CORAL for planning purposes.
- Engage the fume hoods and wet benches in CORAL for awareness to lab staff and other researchers. This is especially helpful for lab staff performing Safety Circuit walk-throughs of the lab during core hours, so they can prioritize checking in with you during your process.