

# CNSI Innovation Workshop and Microfluidics Lab Laboratory Ovens Operating Procedures

Last Updated: Bothman(5/9/22)

This SOP is compiled from the following sources. For more information reference these sources.

- [Trotec Speedy Manual](#)
- Rayjet speedy Manual
- Atmos Compact Operations Manual

## Training Checklist

## Location

## Overview

- This training provides an introduction to using and operating the laboratory ovens including:
  - PPE
  - Operational Safety Checks
  - Operating Instructions
  - Oven Specifications

## PPE

The general lab requirement to wear safety glasses, long pants and closed toe shoes applies.

Additionally, thermally insulating gloves must be work when working with hot items. They can usually be found on the bench next to the ovens

## Operational Safety Checks

1. Familiarize yourself with the oven operation and controls.
2. No food may be placed in laboratory ovens.
3. Never heat a sealed container.
4. Never heat flammable or combustible materials in the oven. A fire or explosion may result.
5. Do not use the ovens to heat any material that might pose a hazard because of acute or chronic toxicity unless an SOP has been prepared together with laboratory staff to safely vent the oven.
6. Do not operate the oven if it is damaged, or is not working properly. Please place a note on the oven to alert other users, and notify laboratory staff of the problem.
7. Use tongs or insulating gloves to handle hot items, and be aware of other people nearby when placing or removing items from the oven.
8. **Double containment is required for heating containers of liquid to prevent leaked material from contaminating the oven. This is especially true when heating PDMS molds.**

## Operating Instructions

1. Enter the set point temperature (see instructions for the different controllers below)
2. Place your items in the oven. **Remember to place liquid materials on a baking sheet or other secondary container.**
3. Set the countdown timer for the length of your run. If the timer reads zero time remaining another user who needs to use the oven may remove your items.
4. Remove your items from the oven and close the door.
5. The ovens in room 3430 are usually left powered on. The oven in 2448 is usually turned off after each run, but may be left on if repeated runs are planned.

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