Standard Operating Procedure (SOP)

Author: User(s)	Andre Nogueira	Date:	**04/10/2025**
PI/Advisor: Process Name:	David A. Shultz **Leaving the lab checklist**		
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This SOP details the steps that the last group member to leave for the day must take to avoid accidents and preserve laboratory equipment.

I. Purpose

Equipment used daily cannot usually be left on overnight. This SOP displays the correct procedures to turn off such equipment and leave the laboratory safely.

It is the responsibility of the user to read and acknowledge their understanding of this SOP.

II. Outline of Method

1. Step by Step method to close the lab as the last group member leaves the lab that day, using an attached checklist.

III. Hazards

- N/A

IV. Laboratory Equipment, Materials & Personal Protective Equipment (PPE)

- **Materials:** N/A

V. Emergency Procedures

In case of emergency, dial 911 or 919-515-3000. In case of mercury spill, contact 919-515-7915 (EHSA).

Contact Emergency: David A. Shultz (919) 656-9774.

VI. Procedure (a Step-by Step description of the work to be done)

1. **Finish your work and double-check if no one else plans to do any work inside the lab.**

- To make sure none of the equipment will need to be turned on again, double-check if there are no remaining flasks containing solutions that will need to be concentrated, unwanted materials such as contaminated needles or solids were transferred to their respective accumulating containers, and that any chemicals used are safely stored.

2. **THF distillation apparatus**

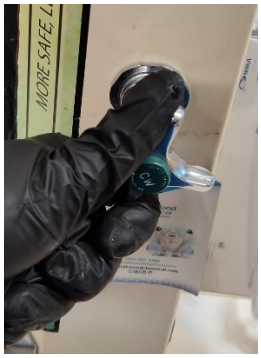
Our lab has a THF still at hood 1144:

To ensure its safety before leaving:

- Open the reflux valve, allowing the remaining distilled THF back on the bottom RBF:

- Double-check if the switch on the bottom right of the hood is on the "off" position. This switch controls the heating mantle:

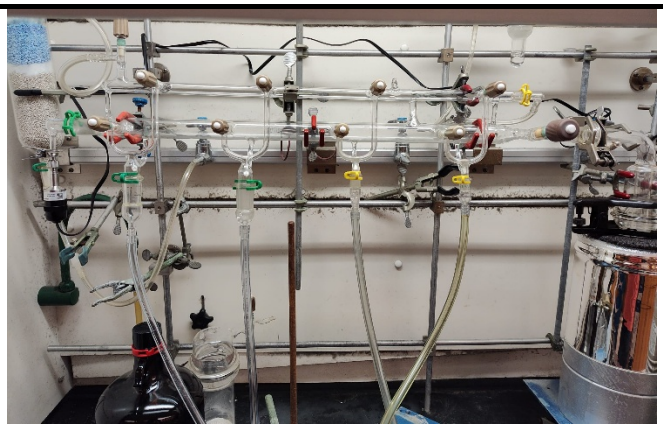
- Double-check if the valve controlling the cooling water is completely closed:



- Check if there is a constant flux of N2 downstream of the still. There should be constant bubbling on the oil trap next to the still.

3. High Vacuum pump:

Our lab has a high vacuum pump and a Schlenk line at hood 1142:



To ensure its safety before leaving:

- Turn off the power switch on the bottom right of the hood. The switch light and the pressure detector should be off.

- If liquid nitrogen is still in the dewar, transfer it back to the liquid nitrogen bottle and cap it.
- Open to the atmospheric air the vacuum part of the line. There is a valve on the top of the liquid nitrogen trap.

4. Rotoevaporators:

Our lab has two rotoevaporators connected to a chiller, a dry ice trap, and a pump. To safely turn it off and preserve the pump:

- Open the solvent reservoir below the dry ice trap and allow its content to be drained to the Becker below. Keep the valve open.
- Turn off the rotovapors and heating baths.
- Open the valves on the top of each condenser.
- Turn the vacuum pump for at least 30 seconds. After that, turn off the pump using the switch. The light on the power control on the top of the pump should change from blue to off:

5. Unwanted materials:

EHSA regulation determines that satellite accumulation sites must be emptied after every workday. Our lab has two organic solvent satellite accumulation containers, next to each sink, and an additional one used for the Combiflash. These containers must have their contents transferred to the organic unwanted accumulating container located on hood 1150

VII. Waste Handling

See step 5, above. Any unwanted materials not compatible with the existing accumulation containers must be transferred to a new container with its own label.

VIII. Drawings, schematics, sketches, etc.

N/A

IX. Maintenance, Troubleshooting, etc.

N/A

X. Authorized Users

Record acknowledgements that the SOP has been read and understood.

Authorized Users:

I have read this Standard Operating Procedure, understand the contents, have been trained on implementing the contents, and will utilize this procedure without exception.

NAME (print)	Signature	Date	PI Initial
