

## **VII. Equipment**

### ***A. Comments that apply to all equipment***

1. Leave equipment cleaner than you found it.
2. Do not use equipment without being trained *by the person in charge of the instrument*. No one else may train you on an instrument other than the person in charge.
3. Follow rules and procedures for that instrument. No rules or procedures are optional.
4. IF YOU NOTICE SOMETHING WRONG WITH THE INSTRUMENT, INFORM THE PERSON IN CHARGE IMMEDIATELY.
5. If you have a question about an instrument, please ask the person in charge. Do not try and fix an instrument without consulting the person in charge of the instrument.
6. You must sign the logbook associated with the instrument. This is also not optional.

### ***B. Rotary Evaporators***

There are three rotovaps in the center area and all function in the same basic way. Inspect your glassware prior to using the rotovap for star cracks and defects. Placing cracked glass items under vacuum presents an implosion/explosion hazard.



1. Power on the rotovap, the water bath, and the rotovap chiller. Generally the chillers take about 20 minutes to cool down the 50:50 water:ethylene glycol coolant.



2. Be sure a bump trap is attached to the rotovap.
3. Make sure solvent trap is empty (if not, contact the previous person who used the rotovap, punch them in the arm and ask them what was in the trap. Dispose of the waste in an appropriate waste container).
4. Attach your flask to the bump trap, turn on rotation and close the valve so vacuum is attained. Do not leave a full flask without vacuum on the trap, as a heavy flask can fall off the bump trap into the water bath
5. After solvent removal is finished, **MAKE SURE THE ROTOVAP IS CLEANER THAN YOU FOUND IT.** If you dirty the rotovap and don't clean it up, you are a horrible person. Rinse the bump trap in the appropriate solvent to remove residues and prevent contamination for future users.
6. If you are the last person to leave that day, turn off the rotovap power, water bath, and chiller.

**If you are removing acidic substances (like TFA), a basic KOH trap needs to be hooked up between the rotovap condenser and the vacuum pump.** This prevents corrosion of the expensive pump. A KOH trap is kept next to the right-most rotovap. When not in use, make sure the KOH trap is removed and closed to atmosphere.

