

Develop Hood



1. Introduction

Develop Hood is for developing photoresist patterns after use. It has storage space for developers and its waste. It has a flat platform and developing is done in user provided beakers or containers. The hood has two N2 guns, two DI water spray guns and one DI water faucet.

Only trained and approved (qualified) Users may use this hood.

2. Features and Specifications

- Two N2 guns and two DI water spray guns
- Developer and developer waste storage
- Flat platform for processing in user provided containers

3. Safety and Precautions

- All chemicals must be clearly marked with chemical name, owner's name and contact information.
- Get approval from a staff member first before bringing in any new chemical.
- Only open the cap of any chemical bottle inside the hood.
- No waste goes down the drain. All waste must be handled according to the waste procedures.
- Refer to the MSDS of every chemical that is to be used before handling that chemical.
- Follow all chemical safety rules.

PPE (Personal Protective Equipment):

Wearing safety glasses or goggles all the time is required when using this hood.

4. Operating Procedure

1. Prepare necessary beakers, tweezers, and wipes for developing.
2. To get the developer, open the doors of the bottom left cabinet. Then pull the developer drawer out, as shown in Figure 1.

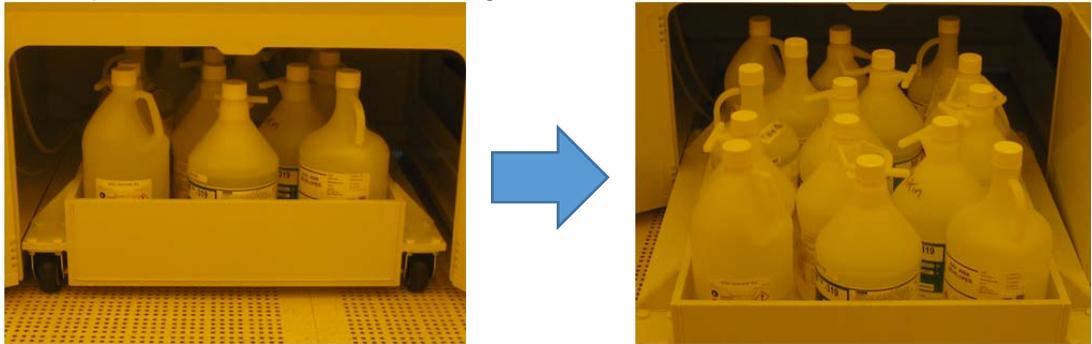


Figure 1

3. After getting the developer, push the developer drawer all the way back to the cabinet, and close the doors.
4. Only open the developer bottle inside the hood. Carefully pour some developer into a beaker (or two beakers if two developing baths are needed). The amount of developer would be enough if it reaches a level which is about 1 centimeter above the highest surface of your sample. Then put the cap back to the developer bottle. Do NOT leave the developer bottle uncapped.
5. You may use another beaker as a DI water bath for developing process. There are two DI guns and one DI faucet in the hood for getting DI water.
6. Immerse your sample in the developer bath for a certain period of time. You may gently shake the developer beaker for a better circulation of the developer.
7. There is a timer located on the top right side of the hood (Figure 2). On the timer, the red number represents how many seconds is left. And the green number represents the time setting. To set the time, press the button labeled 1, 2, 3, or 4. Changes can be seen to the green number. To start the timer, press the Timer Enable button. Once it reaches zero, a loud sound can be heard. Press the Timer Enable button again to acknowledge it.



Figure 2

8. After developing, you may put your sample into a DI water bath for 30 seconds, and then rinse your sample with DI water. If you are developing SU-8, do not rinse with DI water but with IPA (isopropyl alcohol), the waste of IPA should also be collected within a beaker.
9. Dry your sample with a N2 gun. Be aware that the N2 gun may have a strong N2 flow that could blow away your sample or damage some structures on your sample. Gently apply the N2 gun until you feel the N2 flow is safe to your sample.
10. After the developing process, put the developer bottle back to the hood cabinet. Dump the developer waste to the carboy labeled with "CAUSTIC" (Figure 3). Do not dump any IPA waste here if IPA is used for developing process. IPA waste should be dumped to the carboy labeled "Non-Halogenated" in the solvent hood located at the most inside position of the yellow light room.



Figure 3

11. Rinse all beakers with DI water three times. Clean the working area.