HF VAPOR ETCHER SOP
PRIMAXX® uEtch®

Revised May 2020

PREFERRED MASKING LAYERS: Silicon, alumina, aluminum, silicon carbide, LPCVD nitride, PECVD nitride

NOTE: Photoresist is not an adequate masking layer for the HF Vapor Etching System.

SYSTEM OPERATION

1. Dehydrate your sample before processing.

2. Log into FOM.

3. Turn on the pump in the chase area. See the MNTC staff for instruction.

4. Press the **ALARMS** button at the bottom of the screen. Press the **ACK ALL** and **ESC**. All of the blocks should be green. If there are any yellow or red blocks, then contact the MNTC staff.

5. Press **PROCESS** and **VENT**. This will vent the chamber so that you may load the chamber.

6. When venting is finished open the chamber door on left side and pull out the center sample holder.

7. Load sample and close the chamber door.

MODIFYING A RECIPE

1. Press the **HOME** then **RECIPES** button.

2. Use the up and down arrows to select a preferred recipe. See additional information at the end of this SOP for recipe etch rates.

3. Enter the etch time (in seconds) you require, press **ENTER** and **SAVE**. If you do not press save, then your changes will be lost.

RUNNING A RECIPE

1. Press the **HOME** then **PROCESS** button.

2. Make sure that the correct recipe is displayed.

3. While pressing the center of the process chamber door, press **START**. The legend will change to running to indicating the process has started.

4. Verify that the chamber pressure is dropping to the base pressure. If the chamber door is not sealing correctly, press harder on the center of the chamber door.

5. At the end of the recipe or 1:10 remaining **VENT** will flash. Press **VENT** to vent the processing chamber.

6. When the tool indicates **IDLE** open the chamber door and remove your sample. If running another sample reload the chamber and repeat.

7. Close the chamber door.

8. Push the center of the chamber door and press **PURGE**.

9. When the purge cycle stops at 1:10 press the **STOP** button.

10. Turn off the pump in the chase.

11. Log out of FOM.

ADDITIONAL INFORMATION
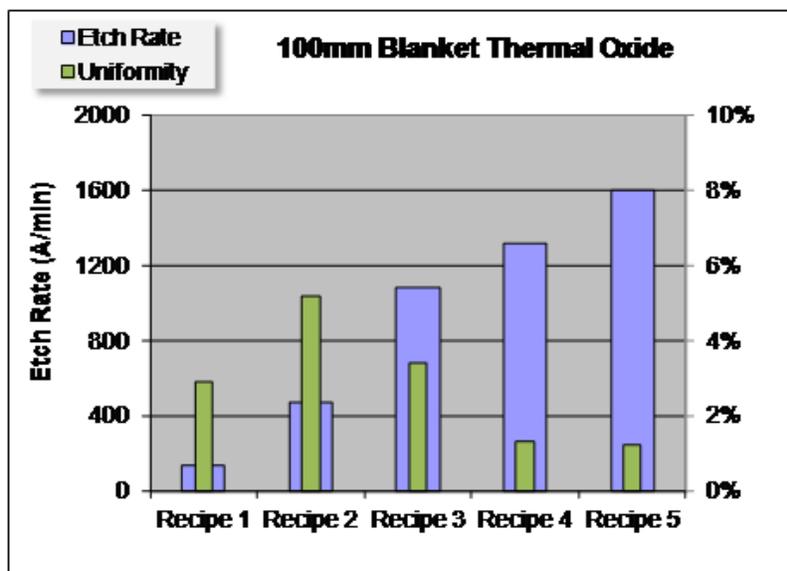
Etching and uniformity data for preset Recipes 1 through 5.