XeF2 Etch Operating Instructions

Do not exceed 30 minutes in total process time without prior staff approval.
Do not exceed more than 4 torr on the expansion tank pressure.

1) Log in- if you don’t have log in information, contact the tool supervisor.
2) Choose “Load/Unload Sample”.
3) Choose “ Yes” after being asked if you wish to load/change the sample and then wait for the chamber to purge and vent.
4) Load sample and close lid. Choose “Done” after your sample has been loaded and wait for system to pump down and purge.
5) Select “Ok” once the pump down is complete.
6) Back at the main menu, choose “ Etch Menu”.
7) Enter lot number, which is your wafer or sample number and then press “ Done”.
8) If you were given a predetermined recipe to use, Choose that now from the drop down menu under current recipe and skip steps 8-9.
9) Otherwise, choose an etch mode – normal is a good place to start if you aren’t sure.
10) Choose your process values by moving the slider or clicking the “N” to type it in directly.
    a. Choose the number of cycles to run – for example 5.
    b. Choose the etch time in seconds – for example 5.
    c. Choose XeF2 pressure in Torr – for example 3T.
    d. Choose N2 pressure in Torr – for example 0T
11) Press the green “ Start Etch” button – Note: pre-cycles run first, the etch has not yet started.
12) After the pre-cycles have finished and the etch has started, you may check with the ETA at the bottom of the screen to see how much time is left on the etch.
13) When the etch is finished the system will return you to the main menu.
14) You may slide the fume hood back and use the microscope to inspect your part at this time. Ensure that the fume hood is fully returned forward when done.
15) Press “Load/Unload Sample” to remove your sample. Choose “Yes”. After the system has finished with the purge/vent, remove the sample.
16) Return the sample to the chamber if you are going to continue etching, load a new sample or leave the chamber empty if your are finished and then close the lid. Choose “Done” to return to the main menu.
17) To continue etching, repeat steps 5-12. If you are finished, choose “Log Out”.
18) Ensure to fill out the logbook when finished.