

GOLDWETETCH SOP

Revised May 2020

PROCEDURE

NOTE: This process is to be performed at the EDP Bench.

1. It is suggested that this operation be started within 30 minutes of the completion of a hard bake from the photolithography process.
2. Before preparing the etchant put on the appropriate personal protection equipment (PPE) of a blue chemically resistant apron, face shield and chemically resistant orange gloves.
3. Retrieve the gold etch GE-8111 solution from the acids cabinet and a Pyrex beaker marked for gold etching and place them on the EDP Bench
4. Pour enough gold etch solution into the beaker to cover your sample.
5. Place your sample into the beaker with the gold etch solution.
6. Agitate the wafer in the solution, keeping watch over the gold etching process.
7. When the etch is complete remove your wafer and place it into a wafer cassette or sample in a basket and rinse your sample using the quick-dump-rinse (QDR). Operation of the QDR can be found in the **Wet Benches SOP**.
8. Rinse and dry your sample in the lower spin-rinse-dryer (SRD) by opening the door and placing the wafer cassette into the SRD. Press the start button and wait approximately 4 minutes for the process to finish. **DO NOT PLACE YOUR SAMPLE IN THE UPPER SRD FOR IT IS RESERVED FOR RCA CLEAN WAFERS ONLY.**
9. Pour the used gold etch into the gold etch waste bottle, which is also located in the acid cabinet.
10. Rinse the Pyrex beaker and place it towards the back of the EDP bench keeping the front area clean. Dispose of any wipes on the EDP bench
11. Wash your gloves and dry them. Inspect and remove your PPE.
12. Inspect your samples visually with one of the optical microscopes available in the cleanroom.
13. If the etching is not complete or if exposed gold is left on the wafer surface then repeat steps 2 through 11 until all gold is removed from the desired areas.