Piranha solution preparation and use.

- 1. All procedure to be done in Acid Hood. Personal protective equipment (apron, thick rubber gloves, face shield) is MUST.
- 2. No plastic dishes allowed.
- 3. Ensure the dishes are clean from organic material. Check for no chipping/cracks in the dishes.
- 4. Mix sulfuric acid with hydrogen peroxide in ratio 3:1 by volume.
 - Measure 75 ml of sulfuric acid (H2SO4) and transfer to chemical glass.
 - Add 25 ml hydrogen peroxide (H2O2) to the acid <u>very slowly</u> to prevent overheat of the solution, never in reverse!
- 5. Wait for 20 min to let Piranha cool down.
- 6. Immerse your substrates in Piranha. Ensure NO EXCESSIVE organic material on your sample, only residues are allowed.
- 7. Wait for 10 to 40 min, depending on your process.
- 8. Remove your substrates from the Piranha solution.
- 9. Wash thoroughly with water. Be careful not to splash the water to Piranha.
- 10. Transfer the used Piranha solution to Piranha waste bottle. DO NOT close the bottle tightly.