**TGA Alumina crucible cleaning procedure**

1. Soak the crucibles in a mild soap solution and remove all loose solids, followed by rinsing with water.

2. In a fume hood, prepare about 20 mL of *aqua regia* by measuring 5 mL of nitric acid into a ~100 mL beaker containing dirty crucibles followed by slow addition of 15 mL hydrochloric acid. Soak the crucibles in the acid solution for at least 2 hours.

3. Pour off as much acid solution as possible into a waste container, then rinse once with water and collect that in the waste container as well. After that, rinse several times with water and lay out crucibles on a paper towel to air dry for an hour or so.

   *NOTE: do not cap a solution of aqua regia waste until the next day as it fumes NO<sub>x</sub> and HCl vapor for several hours after being prepared fresh and the container may explode if capped.*

4. Once the crucibles are mostly dry, heat them in a muffle furnace for at least 2 hours at >1200°C.

5. Allow the furnace to cool to near room temp prior to removing the quartz tube and crucibles.