Sample Cleaning and Preparation

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Sample cleaning should take approximately 25 - 35 minutes. The last step should always involve a final cleaning with isopropyl. Always wear gloves – for some of the more dangerous acids such as HF or nitric acid HNO₃, thicker gloves should be worn. Never mix acids and organic solvents – acetone and isopropyl should never be mixed with nitric acid or HF acid. Furthermore, dispose of waste chemicals into their respectively labeled waste containers. When disposing of chemical wastes down a sink, dilute with plenty of water.

Before using any container, air out the dust with the nitrogen gas hose.

- First clean your sample in an acetone solution in the ultra-sonic bath for 10 minutes.
- Then place in isopropanol for approximately one minute.
- Place in de-ionized water for approximately one minute.
- Use the ultra-sonic bath for 10 minutes with nitric acid.
- Rinse in de-ionized water again.
- Then dip the sample in HF acid for approximately 9 seconds. Be sure to use the yellow plastic cup as HF acid can etch glass. This is the most dangerous part.
- Rinse with two seperate de-ionized water solutions.
- Place in nitric acid again for approximately 1 minute.
- Again rinse with de-ionized water.
- As the final rinse step, clean with isopropanol for approximately 1-2 minutes.
- Carefully holding the sample, completely dry off the sample with nitrogen gas so as to uniformly blow all the isopropanol from the sample.
- Finally, place your clean sample in a clean container.