

**Microwave Operating Procedure**  
**Version 1.0**  
**2/7/14**

- 1) If the microwave is not already on, turn it on by flipping the switch on the right side near the back.
- 2) Load each vessel with desired sample and digestion/extraction medium (e.g. acid, peroxide, etc.). Place Teflon stopper and cap on each vessel and tighten caps with capping tool. Make sure sample and medium are thoroughly mixed (no unmixed sample should be on side of vessel). Total volume of sample should be between 7-25 ml. All vessels should contain a similar matrix and volume.
- 3) Load carousel with vessels, according to loading diagram next to microwave. There must be a minimum of 8 vessels. Ensure that vessels are pushed all of the way down into Kevlar sleeves. Make sure the Kevlar sleeves are dry.
- 4) Load desired microwave program by touching either the “One-touch methods” button or the “Classic methods” button and then touching the desired method. If a new method needs to be created or a method needs to be edited, see lab manager or other appropriately-trained personnel. To go back on the microwave screen, touch the back arrow button. Touch the home button to go back to the top methods screen.
- 5) Place carousel inside microwave, making sure it is seated properly on the turning mechanism. Close the door and hit Start on the method screen to start the program.
- 6) Time, temperature, and wattage can be monitored during the program. The graph remains displayed at the conclusion of the program until another key is pressed on the screen.
- 7) After program has finished, remove carousel. Remove vials and process samples accordingly.
- 8) When cleaning vessels after use, never use a brush on the inside because this will cause scratching. Use only a sponge if necessary to remove residue.
- 9) Vessels can be cleaned manually or by using acid (HNO<sub>3</sub> or HCl) and running them with the “clean” program under “Classic methods”. Make sure to clearly separate clean and dirty vessels.