

Standard Operating Procedure Sonicator in POWER Laboratory Model Branson 2510

Holly Chan, February 2014

Description of Process

The sonicator uses sound waves at various frequencies to agitate particles in a solution. It can be used to disperse or dissolve particles in a solution. It can also be used to help clean glass substrates with solvent.



Personal Protective Equipment

EYE PROTECTION: Safety glasses

PROTECTIVE CLOTHING: Laboratory coat and nitrile gloves

Cleaning Substrates Procedure

1. The sonicator should be filled with water up to the marked water level.
2. Turn on the sonicator with the left-most button.
3. Select the option to degas with the arrows. Press set display until it reads 5 m. Press I/O to start.
4. Meanwhile, pour acetone into a beaker and place the substrates in the substrate holder into the beaker. Cover with an aluminum foil.
5. After the sonicator is finished with the degassing, place the beaker into the sonicator. Make sure that the aluminum foil does not make contact with the water. Otherwise, the foil will start breaking down during sonication.
6. Select the option to set sonics. Set this to 10 m and press start.
7. Repeat with chloroform and then isopropanol.
8. After this is finished, turn off the sonicator.
9. Use the nitrogen gun to dry the substrates.