Aerosol Exposure Control - Sonicator

Lab sonicators create aerosols due to the cavitation of the probe in the sample and the mechanical mixing that occurs, which suspends liquid and solid particles into the air.

SONICATOR: Safety Practices

- Always perform sonication inside a biosafety cabinet or other containment equipment (e.g. fume hood) when working with biohazardous materials.
- Keep probe depth adequate (not too close to the liquid surface).
- Start sonication at lower power settings, then increase if necessary.
- Whenever possible, reduce the sample volume to decrease the amount of aerosol generated.

Some integrated systems provide noise and aerosol protection.

Give preference to sonicators that allow sonication in sealed vessels.

Sonicators that use sealed tubes work by transmitting ultrasonic energy through the tube wall.

- After sonicating, let the sample sit for 5 to10 minutes to allow any aerosols to settle before opening the containment cabinet.