

Sonicator

Principle:

A sonicator works on the principle of ultrasonication. High-frequency ultrasonic waves produce cavitation bubbles in a liquid. The collapse of these bubbles generates intense energy that disrupts particles, cells, or aggregates.

Types:

- Bath sonicator
- Probe (tip) sonicator

Uses:

- Cell lysis and disruption
- Homogenization of samples
- Dispersion of nanoparticles
- Degassing of solutions
- Cleaning laboratory instruments

Advantages:

- Rapid and efficient processing
- Suitable for small sample volumes
- Enhances extraction and mixing