BOROSA
ACOUSTIC LEVITATION

DATA SHEET / Acoustic Levitator L200

for ambient conditions

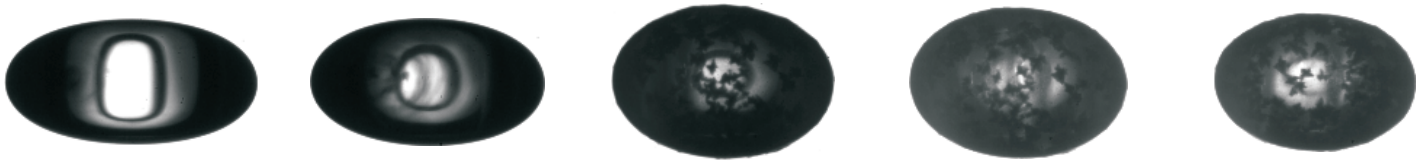
INDUSTRIE PREIS 2015
KATEGORIESIEGER

ADVANTAGES

- Contact-free measurements
- Controllable droplet-shape
- Accurate and more realistic experiments
- Intuitive control
- Low energy input
- Levitation of solids and liquids
- Very stable levitation
- No unwanted heating

FUNCTIONS

- Ideal for mass-transport, particle formation, crystallization and gelation, melting/solidification processes
- Observation of reactions and crystal growth within the droplet
- Upgradable with spectroscopic instruments to measure e.g. concentrations and phase equilibria
- work area: Pressure = ambient // Temperature = 253 K - 453 K



LABORATORY INSTRUMENT

The laboratory device L200 is well-suited for accurate measurements of mass-transport mechanisms of acoustically levitated droplets.

The specifically developed software detects the levitated sample automatically and analyzes the contour of the droplet. With this information the volume of the rotationally symmetric sample can be measured and documented.

After every experiment a data sheet with all important parameters (e.g. time, temperature, pressure, volume, horizontal and vertical droplet-diameter etc.) and picture material (pictures or a video) of the droplet will be stored on the PC.

With the help of the measured and stored volume-time-diagram it is possible to calculate valuable physical properties regarding the mass transport. These include: Diffusion- and mass transport coefficients.

Measurements regarding crystallization, particle formation, gelation and melting processes can be done due to the large working range of the L200.

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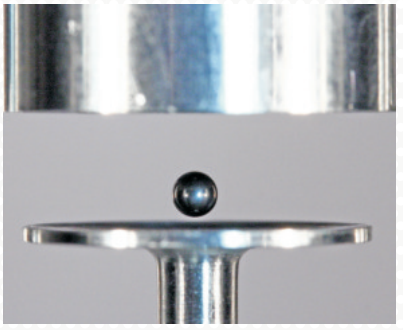
COMPONENTS L200

BASIC:

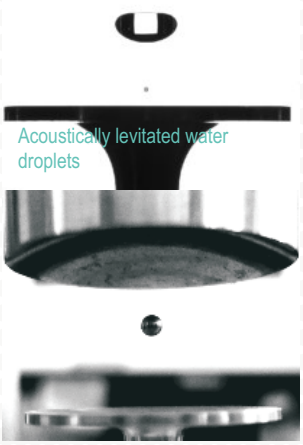
- Acoustic levitator (Material: Aluminium, ca. 40 kHz)
- Frequency generator
- Amplifier (maximum 50 Vpp)

OPTIONAL:

- Heating system with temperature control
- Measurement cell
- External gas flow
- Camera with zoom-optics
- LED-backlight
- Injection system for reproducible droplet volumes
- Software for droplet-volume measurements
- Reflector automation
- Density
- Surface Tension & Viscosity
- Pendant Droplet add-on



Acoustically levitated stainless steel ball



Acoustically levitated water droplets

Acoustically levitated stainless steel ball

L200

Reflector automation (LabView)