

Tensiometry

BPA-1P

BPA-1S

DVA-1

PAT-1

PAT-2P

STA-1

STA-2

DPA-1

2D-Rheology

ODBA-1

ISR-1

Foams

FA-1S

TFA-1

Emulsions

DBMM-1

Fluid Dynamics

Drop Volume Tensiometer DVA-1



Classical method to measure the surface and interfacial tension of liquids

Direct setting of time

Principle is based on the accurate determination of the volume of drops detaching from circular capillaries.

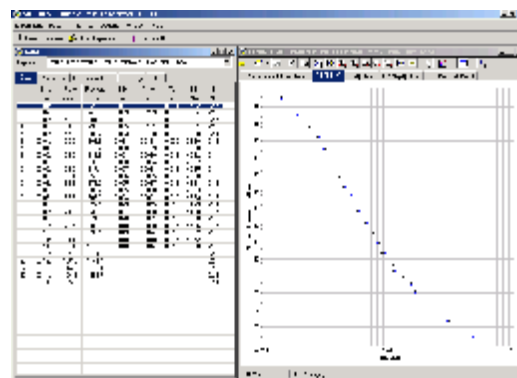
Fast drop formation allows short time measurements.

Instrumental parts

very compact construction
automatic dosing system
temperature controlled measuring cell
data acquisition via RS-232
automatic refilling
automatic cleaning procedure

Features of the instrument

- surface and interfacial tension of liquids
- dynamic interfacial tensions in a time range of less than one second up to several minutes
- complements the profile analysis tensiometry at short times, in particular for liquid/ liquid interfaces
- use with any PC or laptop
- no time-consuming filling procedure as it refills automatically from a reservoir
- temperature controlled cell
- small size, small price, and easy to handle
- correction of the viscosity effects at short drop times



Fields of Application

Surfactant science
Ink jet printing
Coating technology
Foam and emulsion technology
Detergency

Pharmacy
Cosmetics
Food technology
Medicine and biology
Ecology

Technical Data

Range of surface and interfacial tension	1 to 100 mN/m; resolution: ± 0.2 mN/m
Time range:	
- constant drop formation	0.2 s to about 1000 s
- time scan (standard)	0.2 s to about 1000 s
Drop formation	single drops averaged number of drops
Syringe volume (automatic refill)	0.1, 0.25, 0.5, 2.5 ml
Density difference	> 0.1 g/cm ³
Software	Windows software (free update over 1 years after purchase)
Measuring duration	1 min to 1 hour
Measuring option:	
- constant drop time	arbitrary number of points
- standard mode	selection of points in a user given time interval
Temperature range	10 ... 80°C
Size of device (L x W x H)	200 x 200 x 210 mm
Weight	3 kg
Interface	RS-232
Power supply	24 VDC, 40 W