

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

Tensiometer
STA-1

Simple tensiometer for easy surface tension measurements

Ring and Plate tensiometry belong to the classical methods for measuring the surface tension of liquids

The principle is to measure the weight of a meniscus hanging on a ring or plate

Our solution does not require an extra force transducer as any accurate laboratory balance is suitable to complete this instrument

Easy handling and operation with a modern Windows software.

Both manual and automatic versions are available.

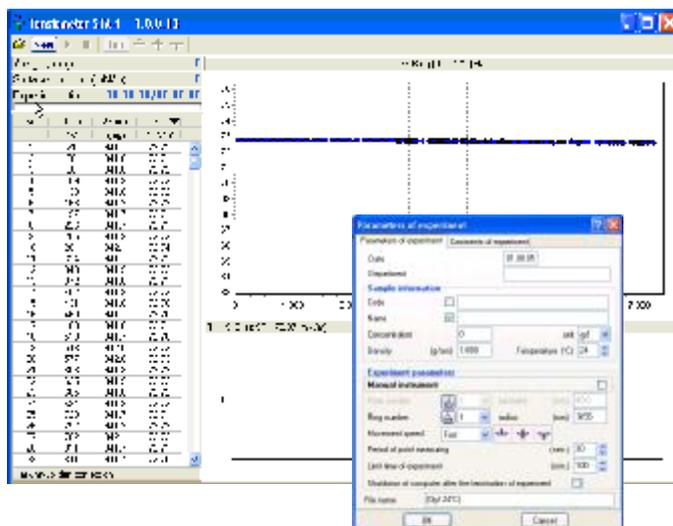
Density of a liquid can be measured as well by the immersion of a body of known volume.

Instrument parts

- analytical laboratory balance
- automatically motor driven movement of the ring or plate or manual movement by a linear stage
- holder for a ring, plate or immersion body

The instrument allows the following measurements

- surface tension of liquids
- ring and plate method
- determination of density with an immersion body
- correction factors after Harkins and Jordan
- contact angle measurements with the immersing plate technique
- easy to handle instrument and Software
- also available as manual instrument
- use with any PC or laptop



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 1000 mN/m; resolution: ± 0.1 mN/m (with balance ± 0.1 mg)
Time range	1 s to 10 h
Measuring options:	
- Du Nouy ring method	standard routine
- Wilhelmy plate method	standard (optional contact angle)
- Density determination	for liquid density < 2 g/cm ³
Range of contact angle measurement	10° to 170° accuracy $\pm 0.3^\circ$
Software	Windows software (free update over 1 year after purchase)
Size of device (L x W x H)	
- manual version (without balance)	100 x 100 x 300 mm
- automatic version (without ballance)	200 x 50 x 250 mm
Weight	
- manual version (without balance)	1 kg
- automatic version (without balance)	2 kg
Power supply	100 ... 240 AC; 50 ... 60 Hz; 55 W
Extra accessories	Wilhelmy plate immersion body for density measurements temperature controlled cell