

## Maximum Bubble Pressure Tensiometer BPA-1S

### Tensiometry

BPA-1P

**BPA-1S**

DVA-1

PAT-1

PAT-2P

STA-1

DPA-1

### 2D-Rheology

ODBA-1

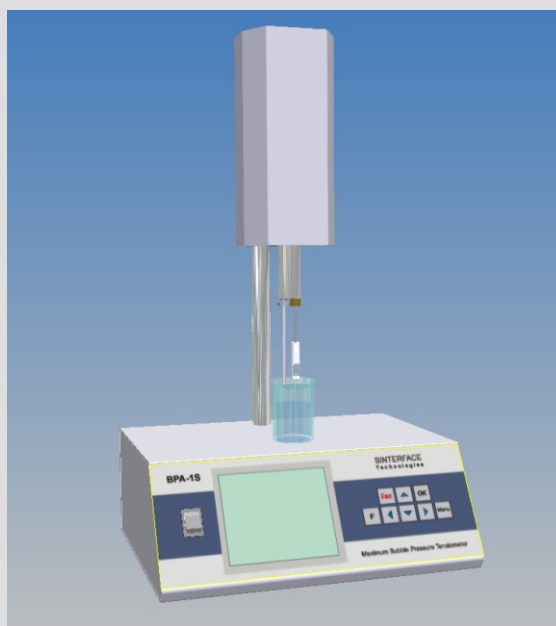
ISR-1

### Foams

FA-1S

### Emulsions

DBMM-1



New development based on more than 10 years of experience in bubble pressure measuring technique. Many new instrumental details have been published recently, such as the determination of bubble time characteristics from the gas flow signal. To reach the extra short times of milliseconds and less, the special measurement routine of Fainerman is applied. Can work as stand-alone, graphic display on board.

Unique instrument for measurements down to 0.1 milliseconds.

The BPA-1S represents the high end instrument of bubble pressure tensiometry, and the BPA-1P is its simplified version.

### Features

- direct and precise measurement of dead and life time
- surface tensions as function of physical time and adsorption time
- available time interval of 6 orders of magnitude (0.0001 to 100 s)
- precise measurement of scientific dynamic surface tensions
- direct determination of the hydrostatic pressure via automatic capillary immersion
- correction of effects from gravitation and viscosity of the liquid
- estimation of liquid's viscosity
- temperature monitoring and control of the sample
- can be run also without PC

## Software

BPA-1S can operate as stand-alone instrument. It stores data on board for 180 measurements which can be downloaded to a PC (both RS232 and USB port on board).

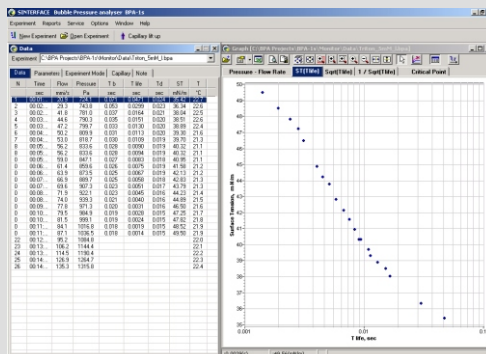
The software allows graphical display of several measurements for comparison.

Graphics with various zoom functions supports the visual analysis of the data.

Export as text file or directly into MS Excel.

Unique instrument for very short adsorption times down to 0.1 milliseconds due to the

application of the Fainerman measuring routine. Automatic and manual determination of the critical flow rate. Required small bubble volume and deadtime possible due to specially designed capillaries.



## 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

Reproducibility of measured values

Accuracy of surface tension

10 to 100 mN/m;

± 0.1 mN/m

± 0.1 mN/m

Dynamic time range

0.1 ms to 100 s

Display

- graphic display

bw 320 x 240 pixel

Min. volume test liquid

1 ml

Temperature range

10 .. 80°C

Experimental time:

- Standard mode (M1)

- Fast mode (M4)

20-30 min

4-6 min

Software

Windows software (free update over 1 years after purchase)

Number of measurement point:

- All scan modes (M1, M3, M4)

- Constant mode (M2)

max. 180

min. 30000

Memory on board

2 MB

Process controlling option

on board (on request)

Dimensions (L x W x H):

200 x 250 x 400 mm

Weight:

3 kg

Power requirement:

- Measurement unit

- Power supply

- Max. power consumption

12 VDC

100 ... 240 AC; 50 ... 60 Hz

6 W

Extra accessories

capillaries of different diameter and design

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