SINTERFACE

Competence in Science and Instrumentation

Maximum Bubble Pressure Tensiometer BPA-1S

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 tensiometer BPA-1P is its simplified version.

Features

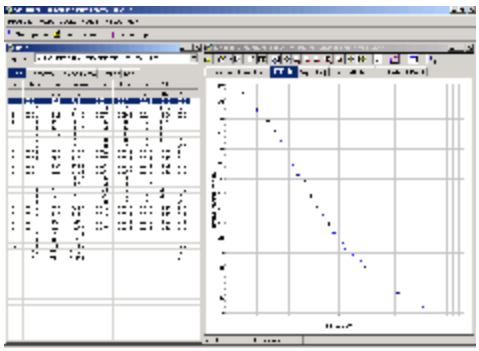
- direct and precise measurement of dead and life time
- surface tensions as function of physical time and adsorption time
- available time interval of 6 orders of magnitude (0.0001 to 100 s)
- precise measurement of scientific dynamic surface tensions
- direct determination of the hydrostatic pressure 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

SINTERFACE Technologies
Dr.R.Miller & Dr.A.Makievski GbR
Volmerstr. 5
D-12489 Berlin
GERMANY

Tel.: +49-(0)30-63923240
Fax: +49-(0)30-63923241
E-Mail:info@sinterface.com
www.sinterface.com

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	10 to 100 mN/m;
Reproducibility ov measured values	± 0.1 mN/m
Accuracy of surface tension	± 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)	20-30 min
- Fast mode (M4)	4-6 min
Software	Windows software (free update over 1 years after purchase)
Number of measurement point:	
- All scan modes (M1, M3, M4)	max. 180
- Constant mode (M2)	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 requerment:	
- Measurement unit	12 VDC
- Power supply	100 ... 240 AC; 50 ... 60 Hz
- Max. power consumption	6 W
Extra accessories	Capillaries of different diameter and design Auto sampler

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