



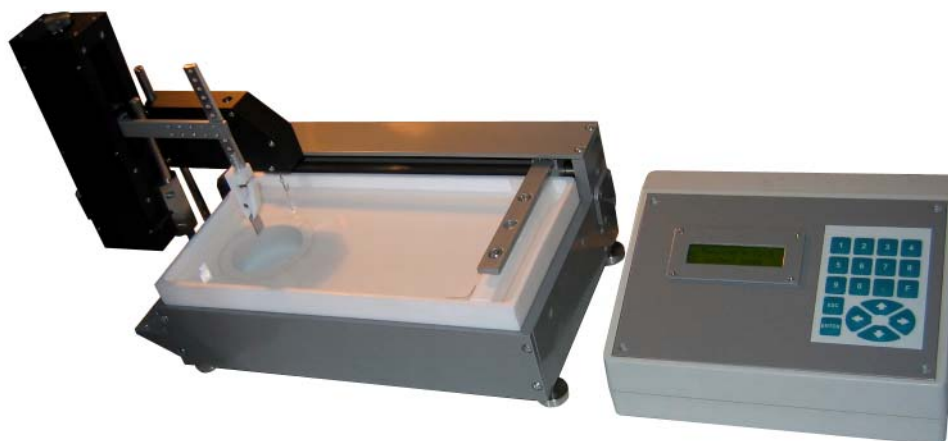
May 2010

DEAR COLLEAGUES,

We are pleased to offer for delivery in your organization

Langmuir–Blodgett trough 'LT-103'

Langmuir–Blodgett trough 'LT-103' is intended for application of monomolecular films on solid samples according to the Langmuir-Blodgett (LB) technique or to the horizontal precipitation (HP) technique as well as for deposition of multimolecular films using corresponding layer-by-layer technique.



CHARACTERISTICS OF LANGMUIR–BLODGETT TROUGH 'LT-103'

Full free surface area:	400 cm ²
Maximum free surface area confined with the barrier:	365 cm ²
Compressed (effective) area:	258 cm ²
Liquid medium volume:	1000-1050 cm ³
Dipping well:	75 mm deep, diam. 60 mm
Maximum dimensions of the immersed substrate:	70x55x4 mm (h-w-t)
Number of barriers:	One
Velocity range of the barrier motion:	54–210 mm/min (single side compression)
Dipper mechanism stroke:	85 mm (vertical position of the unit can be adjusted manually)
Dipper mechanism velocity range:	0.12–70 mm/min,
Step of the dipper mechanism velocity change:	0.1 mm/min,
Possibility of altering different monomolecular layers deposition:	Available
Delay between the layers deposition:	0–100000 s
Surface tension sensor:	Wilhelmy plate (vertical position of the sensor can be adjusted manually)
Working range of the surface tension sensor:	0-100 mN/m (stepped and fine adjustment of the range are available)
Sensitivity of the surface tension sensor:	0.01 mN/m
Overall dimensions:	Trough with mounted rig - 400x200x250 mm (w-d-h); Control unit - 220x165x105 mm (w-d-h); Weight 10/11 kg.
Supply voltage:	220 V 50 Hz
Power consumption:	not more than 40 W
Additional accessories:	<ul style="list-style-type: none"> • Substrate clamping holder for fixing the sample on the dipper lever. • Rig for film application by the horizontal precipitation method (by liquid medium draining). • PTFE inserts for reduction of the working fluid volume. • PTFE cylinder for restricting free surface area around the immersed substrate.

Note. As we proceed improvement of the designed instruments, actual features may differ from the stated above that, however, does not mean the product malfunctioning.

SPECIFICATION

Product name: Langmuir–Blodgett trough.

Model: LT-103.

Code of the goods: 8479 (847989980).

Supplier: Microtestmachines Co., Gomel, Belarus.

Developer and manufacturer: Microtestmachines Co., Gomel, Belarus.

Item and description	Amount	Price, USD
Langmuir–Blodgett trough LT-103 including:	1	12680.00
Trough with additional rig (substrate clamping holder, rig for film application by the horizontal precipitation method, PTFE inserts, a jacket for liquid thermostating)	1	
A dipper unit	1	
Surface pressure sensors	1	
Control electronic unit	1	
Additional options:		
Water-jet pump for cleaning the surface of liquid in the trough (PTFE).	1	280.00
TOTAL		12960.00

The note.

1. Price is indicated without VAT. VAT in the country of Customer is on the Customer's responsibility.
2. Price of the instrument includes: delivery, transport insurance. Additionally can be included: installation, tuning, and 5-day user course at the Customer's residence.
3. Warranty and free service period: 1 year since the equipment installation.
4. Service conditions: Initial tuning and calibration is made by representatives of Microtestmachines Co. at the Customer residence. Serious problem that may occur during warranty period will be fixed at the Customer residence. Minor questions can be settled by e-mail or phone.
5. Technical support and methodological consultations are provided for the instrument lifetime. Updated control and processing software is regularly provided for the Customer free of charge.
6. The instrument's developer provides for upgrade of the supplied equipment including addition of newly developed functions and options improving or increasing the device functionality.

The delivery set of the instrument also includes:

- Software package for the device control and data acquisition.
The software is built according to the modular scheme oriented to perform specific application technique and provides all preliminary settings and calibration necessary for the LB trough operation as well control over the systems (mechanisms of the barrier movement and sample dipping/lifting) at the film application. Acquired data can be saved in special format or text files and can be then processed, visualized and analysed in the program itself or with third party software (e.g. SurfaceView package or Microsoft Excel). Minimal configuration of host PC (not included in the delivery set): Celeron® 1.7 GHz, RAM 512 MB, HDD 160 GB, VRAM 256 MB, monitor 17" 1024x768x32 bit, MS Windows® XP SP2, USB port.
- Operation manual on the instrument and software running.
- Original video materials.

Microtestmachines Co. is original developer and manufacturer of the scanning probe microscope with the above performances.

Additional information about this and other products of Microtestmachines Co. you can get at <http://microtm.com>.

Sincerely



Dr. Andrei Suslov
Director