

FIRP LABORATORY

FORMULATION, INTERFACES, RHEOLOGY & PROCESSES

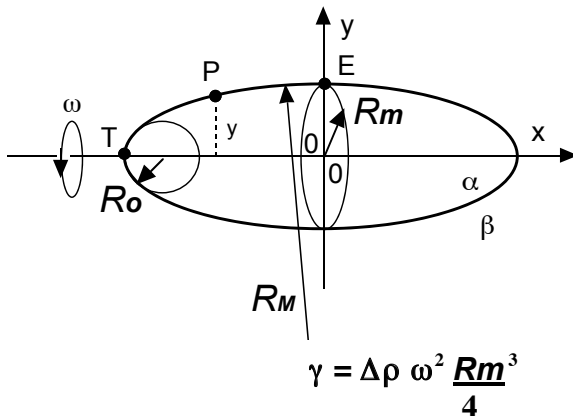
School of Chemical Engineering,
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Mérida - Venezuela

Spinning Drop Tensiometer New Commercial Model TGG-110-M4

The spinning drop tensiometer allows the measurement of low interfacial tensions (below 0.1 mN/m) as well as ultralow tensions (typically down to 0.001 mN/m and even lower).

The spinning drop technique exhibits several advantages over other methods such as pendant drop or sessile drop techniques: First it is the unique method in which the drop does not contact a solid. Hence no contact angle has to be estimated.

Next, it is quite easy to use the method in the conditions of Vonegut's approximation when the drop is elongated at least 4 times its diameter. The tension is estimated from the measurement of the drop diameter, with no curvature to evaluate.



Geometry of spinning drop



NEW MODEL TGG-110-M4

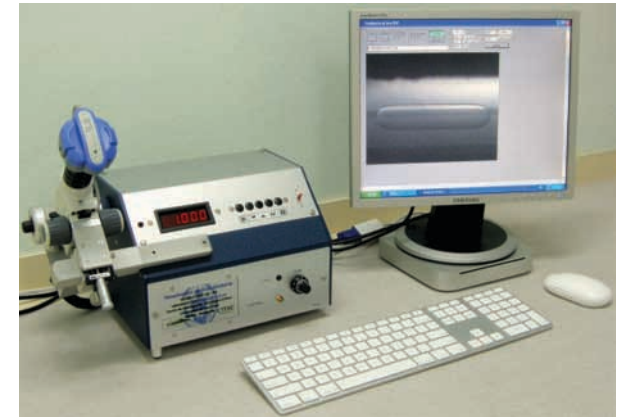
This tensiometer was developed in Mérida as a collaboration between two Universidad de Los Andes facilities: The Laboratory for Formulation, Interfaces, Rheology and Processes (FIRP-ULA) and the Center for Technological Innovation (CITEC-ULA).

CITEC is currently manufacturing short series of new model TGG110-M4 tensiometers with ultrabright LED light, CCD camera and temperature control. FIRP Lab. takes care of the training of operators as well as related scientific and technical issues.

The new Model TGG-110-M4 spinning drop tensiometer is available since November 2011 to the venezuelan and international market.



DROP IMAGE CAPTURE THROUGH CCD.



TENSIOMETER & MINIMAC SETTING

Specifications of new M4 tensiometer

- Rotational velocity 500 to 10,000 rpm.
- Low noise level ball-bearings at 10,000 rpm.
- Velocity adjustment with push-buttons.
- Ultrabright LED light illumination.
- Vertical/horizontal motion of telemicroscope.
- Visual and CCD drop observation
- New inox steel support
- Direct USB link to a Wintel PC
- Drop diameter Measurement ± 0.01 mm.
- Tension Measurement down to 0.001 mN/m
- Temperature Control up to 70 °C
- Software for image capture and processing

INFORMATION & CONTACTS

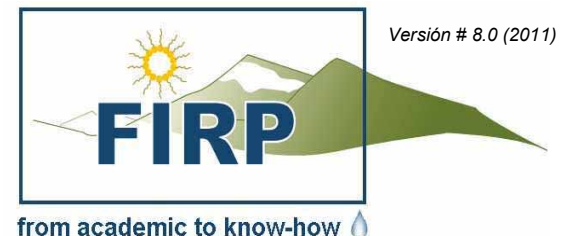


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