

**TENSIOMETER**

**Photo of Instrument:**



<b>Instrument Name</b>	TENSIOMETER
<b>Instrument Model &amp; Serial No.</b>	
<b>Instrument Make</b>	Surface Tenser Analyser- SEO, Korea
<b>Category of Instrument</b>	Analytical instruments
<b>Description of Instrument</b>	Scientific instrument used to measure the surface tension of liquids. Surface tension is a property of the surface of a liquid that allows it to resist an external force. It is responsible for phenomena like capillary action, where liquids can flow against gravity in narrow tubes.
<b>Instrument Technical Description and Major Specifications</b> (This Specifications Limited to Major 5)	<ol style="list-style-type: none"> <li>1) <b>Measurement Method:</b> Du-nouy Ring, Wilhelmy Plate</li> <li>2) <b>Measurement Range:</b> 1~1000 mN/m</li> <li>3) <b>Temperature</b> -10~100 °C</li> <li>4) <b>Accuracy and Precision:</b> ±0.01 mN/m</li> </ol>
<b>Application of Instrument</b> (Limited to Major 4 or 5)	<ol style="list-style-type: none"> <li>1) <b>Pharmaceuticals</b></li> <li>2) <b>Food and Beverage Industry</b></li> <li>3) <b>Adhesives and Coatings</b></li> <li>4) <b>Environmental Studies</b></li> </ol>
<b>Type of Sample Required for Analysis/Testing</b> (Quantity, Pre-Preparation, State etc.) <b>Guidelines for Sample Submission – User Instructions</b>	Liquid sample: Tensiometers are primarily designed for analyzing liquid samples. These can include water-based solutions, organic solvents, oils, emulsions, and other liquid

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	formulations.
<b>Types of Analysis/Testing</b>	<b>Wilhelmy Plate Method:</b> Using a solid plate (usually a thin strip) to measure the force required to detach the plate from the liquid surface. This method is often used for static surface tension measurements.
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<b>Technical Staff Name / Email / Contact</b>	Muhammed <span style="float: right;">Munaver</span> Muhammedmunaver@nitc.ac.in 04952285484
<b>Location of Instrument</b>	Instrumentation Lab
<b>Other Details</b>	

### User Charges

S.NO.	Type of Analysis/Testing	Internal - within Department of NITC	Internal - Other Departments NITC	External Academic Educational Institutes	National Labs	Industry
1	<b>Wilhelmy Plate Method</b>		100	200	200	400

### Slot Booking and Payment Work Flow:

- Discuss the slot availability with the technical staff in the instrumentation lab of chemical engineering department.
- Collect the request form.
- Payment should be at the accounts section of the institute.
- Get the request form signed from the faculty in charge.
- Submit the request form and samples in the instrumentation lab.