

CONTACT ANGLE

Photo of Instrument:



<b>Instrument Name</b>	CONTACT ANGLE
<b>Instrument Model &amp; Serial No.</b>	KYOWA-DMs-401
<b>Instrument Make</b>	KYOWA
<b>Category of Instrument</b>	Analytical Instrument
<b>Description of Instrument</b>	A contact angle instrument is a scientific instrument used to measure the contact angle formed between a liquid droplet and a solid surface. This measurement is crucial in various fields, including materials science, surface chemistry, and biology, as it provides insights into the wetting properties of surfaces.
<b>Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)</b>	<p><b>Stage and Sample Holder:</b> The instrument typically has a stage or sample holder where the solid substrate or sample is placed. This can be adjusted to accommodate different sample sizes and shapes.</p> <p><b>Dispensing System:</b> A mechanism for dispensing a controlled amount of liquid onto the sample surface. This is usually done through a syringe or a pump.</p> <p><b>Imaging System:</b> An optical system, often equipped with a high-resolution camera, is used to capture images of the droplet on the solid surface. The images are then analyzed to determine the contact angle.</p> <p><b>Light Source:</b> Adequate lighting is crucial for capturing clear images of the droplet. Different lighting conditions may be used to enhance contrast and visibility.</p> <ul style="list-style-type: none"> <li>• Automatic recognition of droplet deposition</li> </ul>

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	<ul style="list-style-type: none"> <li>• Live image display and droplet volume monitoring</li> <li>• Movie converter</li> <li>• Manual dispenser with a set of 5 glass syringes and 5 SUS needles for precise adjustment of droplet volume and quick refilling and replacement of liquid samples</li> <li>• Fine adjustable stage in z-axis for gentle deposition of droplets without distortion</li> <li>• Adjustable level of the body and stage</li> <li>• Droplet calibration standard for standard view, bearing one full circle for calibration and three droplet silhouettes of 5°, 60°, and 108° for periodic inspection of measurement accuracy</li> </ul>
<b>Application of Instrument</b> (Limited to Major 4 or 5)	<ul style="list-style-type: none"> <li>• Surface Chemistry and Material Science</li> <li>• Biomedical and Pharmaceutical Industry</li> <li>• Electronics and Semiconductor Industry</li> <li>• Textiles and Apparel</li> <li>• Paints and Coatings Industry</li> </ul>
<b>Type of Sample Required for Analysis/Testing (Quantity, Pre-Preparation, State etc.)</b> <b>Guidelines for Sample Submission – User Instructions</b>	Sample should be solid
<b>Types of Analysis/Testing (Quantity, Pre-Preparation, State etc.)</b> <b>Guidelines for Sample Submission – User Instructions</b>	Contact angle
<b>Faculty In-Charge Name / Email / Contact</b>	Prof. Shiny Joseph shiny@nitc.ac.in 04952285404
<b>Technical Staff Name / Email / Contact</b>	Muhammed Munaver Muhammedmunaver@nitc.ac.in 04952285484
<b>Location of Instrument</b>	Instrumentation Lab
<b>Other Details</b>	

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### User Charges:

S.NO.	Type of Analysis/ Testing	Internal - within Department of NITC	Internal - Other Departments NITC	External Academic Educational Institutes	National R&D Labs	Industry
1	Contact angle		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.