

Contact Angle Measuring Instrument

Contact angle measurements, dividing into static and dynamic, analyze wettability of plastic, glass, ceramic, paper, wood or metal in addition to coating processes on extremely small surfaces. Static contact angle is measured when droplet is standing on the surface and the three-phase boundary is fixed, in contrast to the dynamic contact angle which is produced while wetting (advancing angle) or de-wetting (receding angle). Static contact angle measurement is often more meaningful for assessing quasi-static processes, e.g. bonding in semiconductor technology, where as dynamic processes such as coating, are better modelled using dynamic measurements.

There exists another model, high temperature contact angle, which is capable of carrying out measurements in a temperature range from room temperature to 727 °C.

Reliable and accurate contact angle measurements can be achieved with the aid of the fast and high-resolution camera and a user friendly software.



Application

Oil industry

• Studies of wettability of crude oil to the reservoir rock surface

Food industry

• Cleanability evaluation of surfaces of packaging materials and process line equipment

Pharmaceutical industry

• Studies of stability and solubility of drugs

Paper and packaging industry

• evaluation of wettability, absorption and spreading of various fluids, such as inks and coatings

Textile industry

• Studying the contact angle when developing water repellant clothing

Electronic industry

- Evaluation of wettability of solder metals
- Measuring the cleanliness
- Coating homogeneity evaluation
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Specification	
Models:	Static/ Dynamic/ High Temperature
Instrument dimensions (L×H×W)	50×40×30 cm
Power Source	5 V – USB port
Working temperature	Room Temperature- upgradable by order
Input	USB Cable
Output	USB Cable
Sample Dimensions (L×W)	3×3 cm
Max Sample Thickness	1 cm
Dosing system	Manual/Automatic
Max volume of drop	up to 8 µlit
Measurement specifications	
Accuracy	0.1°
Range	0 to 180°
Measuring method	Sessile drop
Optics	
Zoom	>20x
Focus	Automatic