

Advanced and practical precision instrument manufacturer

1. Contact Angle Measurement

Contact angle is the angle between interfacial tangents of gas-liquid and solid-liquid, when liquid drop down on the surface of solid. Nano-material science and engineering has become an international investigating domain, so contact angle is frequently to be concerned about the surface modification of nano-material.

SDL200 static drop contact angle and interface tension measurement instrument is applied to measure the soakage of solid by liquid. The contact angle between individual liquid as well as individual solid can be measured accurately. Samples can be solid material like film or fiber, tablet made of powder and other available material. Besides the contact angle, the instrument also can measure the parameters like surface/interface tension, CMC, the geometry size of drop as well as the free surface energy.



SDL2000A static drop contact angle and interface tension measurement

2. Parameters

2.1 Instrument units

Fundamental configuration: Peristaltic pump for application of sample, video collecting memory, manual CCD, obliquitous flat, CCD camera, optics zoom system, sample setting falt and video analyzing measurement system.

Optional units: Manual obliquitous sample setting flat, automatic electric control of temperature system, premium zoom system, self-sampling system, automatic video analyzing system and dynamoelectric 4D flat.

2.2 Function

- Measuring contact angle(height testing, angle testing)
- Measuring surface tension and CMC (suspending drop)
- Investigating and measuring the geometry size of drop (suspending drop)
- Computation of surface free energy (Owens)



SDL200C static drop contact angle and interface tension measurement



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2.3 Measurement methods

Instantaneous intercepting the image

Consecutive shooting automatically (one image in 1s-3600s)

Automatic slow motion (12 images per second)

2.4 Contact angle range: 0-180°

2.5 Magnification ratio: 266pixel/mm

2.6 Accuracy of measurement: 0.25° or 0.5°



SDL200B static drop contact angle and interface tension measurement

3. Characteristics

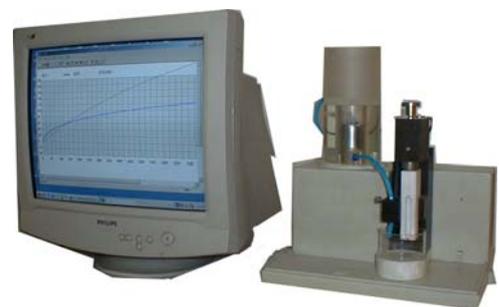
3.1 The integration of optical and CCD camera can display the image of drop legibly on the computer screen. The image taken instantaneously can minimize the error of liquid evaporation.

3.2 Special made manual obliquitous flat and peristaltic pump for application of sample are more convenient for measuring forwarding angle and back off angle.

3.3 SDL200B with extra big flat which has the geometry size of 400*400mm(21inch LCD available) is designed specially for investigation or quality control of dyeing, silicon, painting and printing, plasma. This series of products has been widely used as the international third LCD manufacturer to control and testing products all over the world

3.4 SDL200C has round sample flat with the size of $\phi 50\text{mm}-\phi 81\text{mm}$ (height: 5mm-30mm). SDL200C is mostly used to measure the round protruding resin or eyeglass.

3.5 SDL90 powder contact angle measurement instrument can test the powder wetting ability by the liquid based upon Washburn filtering method.



SDL90 powder contact angle measurement instrument

All products should be subjected to any change without notification.

Please don't hesitate to contact us if have any questions.



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