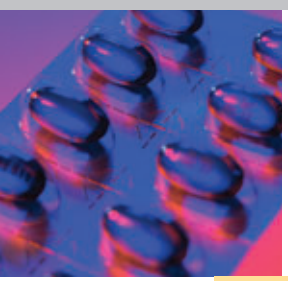
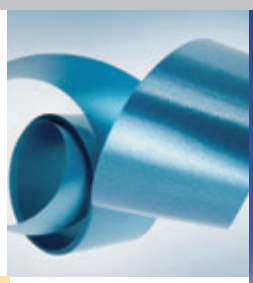
Product Specifications

The Thermo Scientific DCA 300 wettability measurement instrument (formerly sold under the CAHN brand) is designed for quality control, product development and teaching labs.

Thermo Scientific DCA 300 Analyzers





Applications:

- **Films/Fibers**
- **Powders**
- **Composites**
- **Adhesives**
- **Biomedical Polymers**
- **Inks**
- **Paints**
- **Oil Recovery**
- **Shampoos**
- **Detergents**
- **Pharmaceuticals**
- **Eye-Care Products**
- **Moisture Barriers**

Whether you need to monitor cleaning solutions or the cleanliness of your parts, the spreading and adhesion of coatings, or the interaction of fluids with biomaterials and pharmaceuticals, the Thermo Scientific Dynamic Contact Angle 300 analyzer provides solutions for determing:

- Surface tension of liquids
- Contact angle of the liquid-solid Interface
- Effect of liquid absorbency on textiles, powders and other porous materials
- Surface homogeneity of solid sheets and films

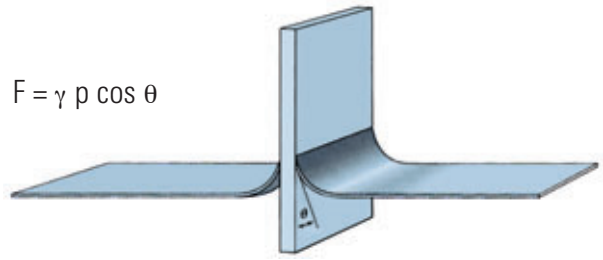
Wilhelmy Plate Method

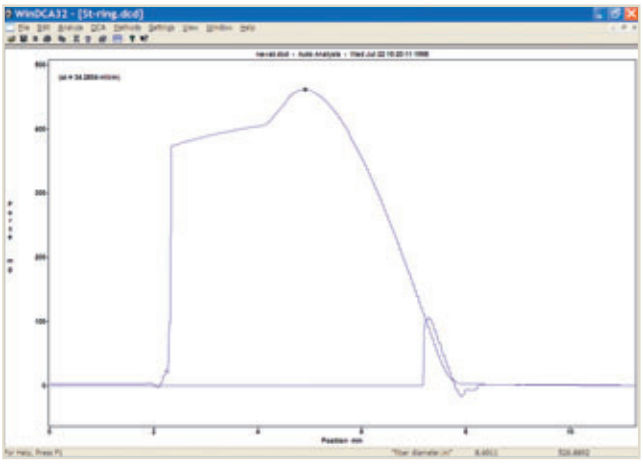
This method for measuring the surface tension of liquids employs a thin vertical plate, usually a platinum plate or glass slide of known perimeter, attached to a microbalance. In the case of a clean glass or platinum plate, one assumes a zero contact angle. The surface tension can be determined by measuring the weight of the meniscus formed on the perimeter of the plate divided by the plate's perimeter.

A similar approach is used to measure the contact angle formed when the solid sample is immersed in a liquid of known surface tension.

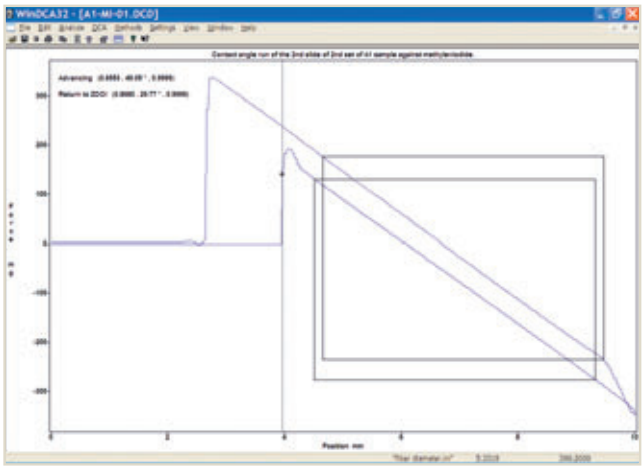
Product Specifications

Microsoft® Windows® drop down menus or dialog boxes guide the user through method development step by step.
Automatic features allow you to analyze a dynamic hysteresis curve, complete on-screen advancing, receding and zero depth of immersion results for contact angle or surface tension.





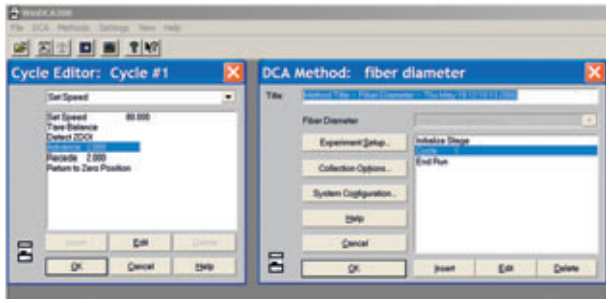
Surface tension run



Contact angle run

One Easy Standard Computer Connection

One simple connection directly to the computer's serial port gives you complete instrument control. The Microsoft® Windows®-based Thermo Scientific WinDCA 300 software allows method storage and development, automatic calibration and a complete range of analyses.



Cycle and method editor

The software expands your capabilities by offering options such as:

- A full range of probe types, e.g. rods, discs, tubes and spheres
- Good Laboratory Practices (GLP), will flag any changes to the original data
- An administrator mode to protect standard methods from unauthorized modification
- Real-time buoyancy correction

Specifications	Thermo Scientific DCA 300
Measurement Range:	
Surface Tension	0.1-500 mN/cm
Contact Angle	0-180 degrees
Measurement Precision:	
Surface Tension	± 0.2 mN/m
Contact Angle	± 0.5 degrees
Balance Precision:	1 mg
Sample size:	
Max Weight	60 g
Max Diameter	75 mm
Stage Travel:	
Total Range	45 mm
Programmable Range	15 mm
Resolution	0.01 mm
Max Speed	328 µm/sec
Min Speed	21 µm/sec
Temperature Range:	10°C for 30°C

Process Instruments

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