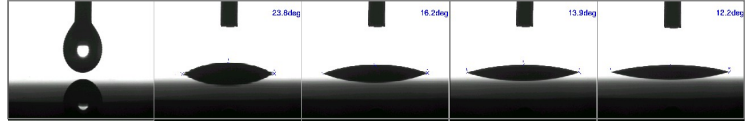


OSC 92LJ111 Contact Angle Meters

<Features>

-Sessile drop method – fast image capture

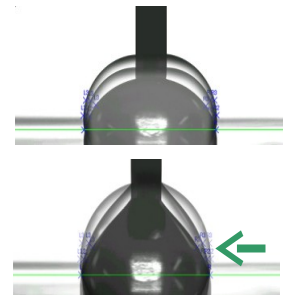
It enables sequential measurements and automatic recognition of droplet deposition. 60 or 30FPS standard & 1000FPS option
Application: initial spreading, absorbing property, effect of surface active agent



-Extension/contraction method

Advancing/receding angles are measured in response to increasing/decreasing the volume of captive droplet. Automatic dispenser AD-300s (option) is required for smooth dynamic motion by volume change.

Application: coating property, repellency, characterization of hysteresis



-Surface free energy analysis of solids

Solid surface free energies and their components are analyzed from the results of contact angle with probe liquids. Geometric mean, Harmonic mean, acid-base, Interaction analysis (Work of adhesion, Interfacial free energy), Young-Dupré, Zisman are available. Surface energy kit (option) is recommended for quick starting.

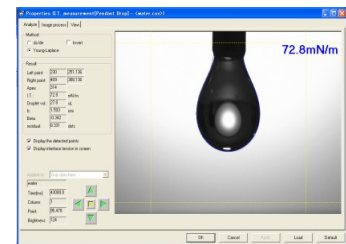
Application: adhesive property, characterizing surface modification, digitalizing hydrophilicity/hydrophobicity

-Surface/interfacial tension of liquids

Pendant drop method is adopted and its advantages compared with conventional Wilhelmy plate and du Noüy ring methods are:

- measurement with small liquid amount (less than 1mL)
- high temperature control (e.g. molten polymer applications)
- good for solutions that change surface quickly by exposure in the air

Pendant drop kit (option) is required.



-Sliding method

Advancing/Receding Angles are measured while tilting the stage. An angle of a droplet starting sliding is determined as Sliding angle and Adhesive energy between the droplet and the solid surface is analyzed at the same time. Sliding kit (option) is required.

Application: repellency/hydrophobicity, characterization of hysteresis

-Dynamic sliding method

It characterizes speed and acceleration of droplet sliding

Application: repellency/hydrophobicity, characterization of hysteresis



-Automatic recognition of droplet deposition

-Live image & Focusing aid

-Droplet volume monitoring

-Threshold level adjustment

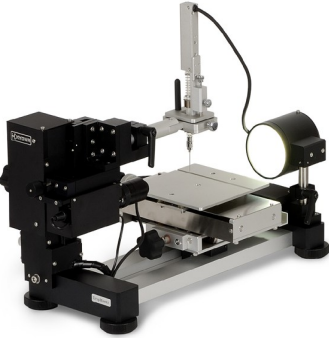
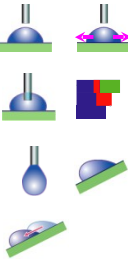
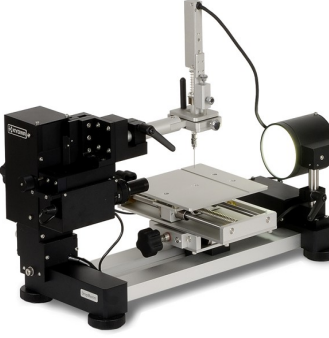
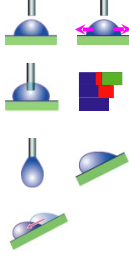

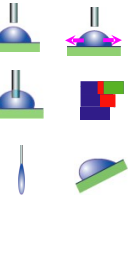









-Data chart & variable data

-Movie converter

-Standard droplet sample – Every model includes it for periodical calibration and inspection.

OSC 92LJ111 Contact Angle Meters

DropMaster series – multiple objectives for R&D and Q.C.

Flexible designed models for multi-objectives	
<p style="text-align: center;">OSC 92LJ111A</p>   <p>Fully automated operation by computer control Applicable to wide variety of functions</p>	<p style="text-align: center;">OSC 92LJ111B</p>   <p>Applicable to variety of functions as much as the OSC 92LJ111A but saving costs with manual stage</p>
<p style="text-align: center;">OSC 92LJ111C</p>   <p>Optimal cost performance model with simple baseament but applicable to variety of functions</p>	<p style="text-align: center;">OSC 92LJ111D</p>   <p>The simplest model focusing on measuring conventional static contact angle</p>
 Sessile drop method - static mode  Sessile drop method – dynamic mode over time  Extension/contraction method  Surface free energy analysis  Pendant drop method – interfacial tension measure  Sliding method  Dynamic sliding method	

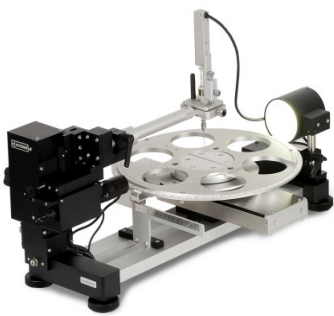
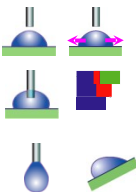
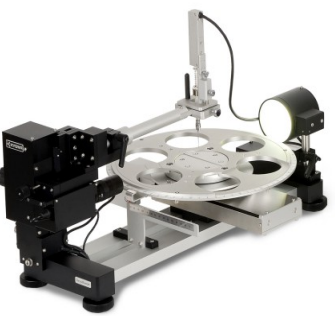
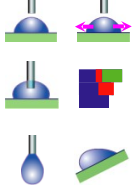
OSC 92LJ111 Contact Angle Meters

Comparison of functions

ST: standard OP: option NA: not available

Model	OSC 92LJ 111-A	OSC 92LJ 111-B	OSC 92LJ 111-C	OSC 92LJ 111-D
Sample stage size	150x150mm	150x150mm	150x100mm	160x100mm
Type of lens	3 step zoom	3 step zoom	3 step zoom	fixed focal lens
Stage movement	Computer control	Manual knob control	Manual knob control	Manual left/right fixed
Droplet deposition	Computer control	Manual Auto recognition	Manual Auto recognition	Manual
Computer control dispenser	ST	ST	OP	NA
Sliding method	OP	OP	OP	NA
Temp control - stage	OP	OP	OP	NA
Temp control - dispenser	OP	OP	NA	NA
High speed camera 1000fps	OP	OP	NA	NA
Main body size, (D×W×H)mm	about 544×297 ×249	about 544×288 ×249	about 489×274 ×289	about 346×170 ×283
Weight	about 8.5 kg	about 7.5 kg	about 5.7 kg	about 1.8 kg

DropMaster series – wafers & disk samples of diameter up to 12 inches

Wafer Cleanness and Treatment Analyzer	
OSC 92LJ111AR	OSC 92LJ111BR
 	 
Fully automated operation by computer control	Stage manual operation model

OSC 92LJ111 Contact Angle Meters

Contact Angle Meters – specific objectives

Microscopic Contact Angle Meter	Portable Contact Angle Meter
<p style="text-align: center;">OSC 92LJ111E</p>   <p>Using $\phi 5\mu\text{m}$ capillary, super small droplet of tens μm diameter (tens of Pico liters in volume) can be discharged for micro area measurements</p>	<p style="text-align: center;">OSC 92LJ111F</p>   <p>Hand-held portable type with fully automation Measurement can be done by placing the body on sample to be free from sample size restriction</p>
<p style="text-align: center;">Large Glass Substrate Cleanliness Analyzer</p> <p style="text-align: center;">OSC 92LJ111G</p>   <p>Models for flat panel samples of longitudinal 400mm, 700mm and 900mm are available.</p>	<p style="text-align: center;">Flat Panel ContactAngle Meter</p> <p style="text-align: center;">OSC 92LJ 111H</p>   <p>It is designed to be equipped on a process Q.C. equipment for large flat panels.</p>
<p style="text-align: center;">DyneMaster Tensiometer</p>	
<p style="text-align: center;">OSC 92LJ112A/B</p>  <p>Wilhelmy dynamic contact angle & powder contact angle are measured with the balance system.</p>	