

Contact Angle Tester

CAT

Specifications



Product group specifications

Contact Angle Tester

Camera system

Connection	USB 3.0
Resolution	1920 × 1200 px
Frame rate	2300 fps
Dark noise	2.5 electrons
Dynamic range	71.7 dB

Optics

Focus	manual
Zoom	6.5× zoom, manual
View angle	0 to 3.4°
Field of view	3.0 × 2.2 to 19.2 × 12.2 mm
Resolution	4.4 to 15.6 μm

Illumination

Type	high power monochromatic LED
Wave length, dominant	460 nm
Field of light	60 × 60 mm

Dosing system

Dosing	electronic pipette
Drop deposition	manual
Pipette, volume	120 μL
Resolution	0.5 μL

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Stages	
Control	z-axis
Length	manual 52 mm
Software	
ADVANCE	contact angle surface free energy of solids

Measurement specifications
Contact Angle Tester

Sessile drop	
Result	contact angle (CA)
Range (software-based)	0 to 180°
Resolution (software-based)	0.01°
Accuracy (instrument-based)	0.1°
Models	conic section, polynomial, circle, Young-Laplace, height-width
Types	static, dynamic
Surface free energy of solids	
Result	surface free energy (SFE), polar & disperse part, acid & base part, H-bond part
Models	equation of state, Zisman, Fowkes, Wu, Owens-Wendt-Rabel-Kaelble, Schultz-1, extended Fowkes, acid-base theory

General specifications
Contact Angle Tester

Sample dimensions	
Maximum sample space	306 mm × ∞ × 69 mm (W × D × H)
Environment	
Operating temperature	10 to 40 °C
Humidity	without condensation
Instrument dimensions	
Footprint	658 mm × 252 mm (W × D)
Height	430 mm
Weight (without accessories)	8.5 kg
Power supply	
Voltage (AC)	90 to 264 V
Power consumption	9 W
Frequency	47 to 63 Hz
Interfaces	
PC	USB 3.0 (for camera)