

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	z-axis
Control	manual
Length	52 mm
Software	
ADVANCE	contact angle surface free energy of solids
Software languages	
	Chinese (simplified), English, French, German, Japanese, Korean, Portuguese, Russian, Spanish

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)