

Drop Shape Analyzer

DSA30M Flexible Liquid



Wettability of microscopically small surfaces by almost any liquid

Determine the wettability of very small surfaces using standard test liquids – or find out how microdroplets of your individual formulation, for example an inkjet printing ink, wet the sample. The Drop Shape Analyzer – DSA30M Flexible Liquid dispenses picoliter drops of the liquids and determines the contact angle as a relevant measured variable when wetting and coating processes on tiny surfaces are to be optimized.

Tasks and applications

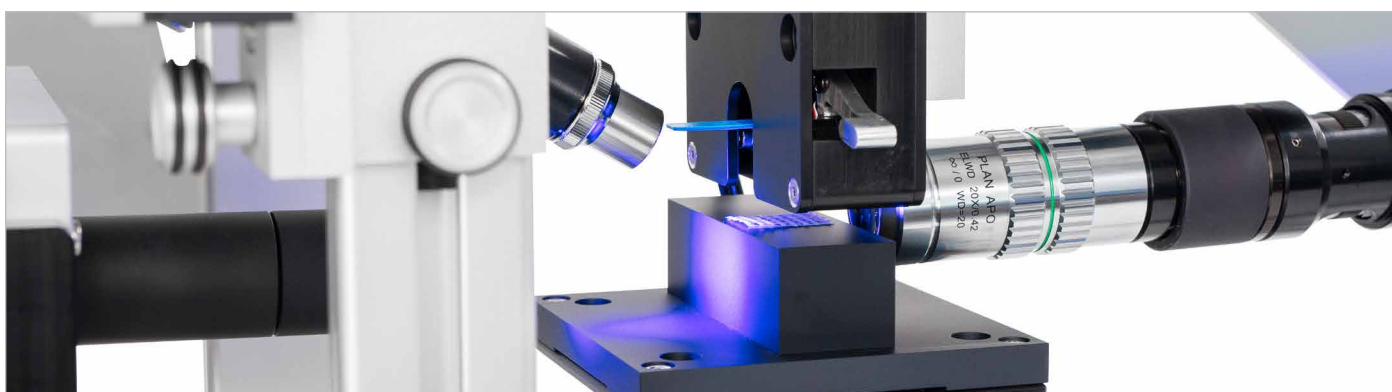
- Wettability measurement on small electronic parts
- Contact angle on hair and synthetic single fibers
- Investigating the biocompatibility of dental implants
- Wetting of nozzles of an inkjet print head

Measuring methods and options

- Contact angle between a liquid and a solid
- Surface free energy from contact angles of two test liquids using all common models
- Static contact angle, advancing angle

Powerful and designed for quick changeover of liquids

The dosing unit places tiny drops down to a volume of 10 picoliters on the sample, whereby even liquids containing particles such as paints or blood can be used without any problems. The instrument's uncomplicated disposable cartridge system ensures quick changes between several liquids. No cleaning or maintenance is required as the dosing tip is part of the cartridge. This means that even heavily soiling or hardening liquids can be dispensed. Whether you want to determine the surface free energy with several liquids or investigate the wetting of a whole range of formulations, the DSA30M Flexible Liquid is ready for it, supported by the fine positioning of the dosing unit and the sample.



DSA30M Flexible Liquid for precise dosing and analysis of picoliter drops of almost any liquid.

Providing optimum image quality for precise analyses

The high image quality required for measuring with microdroplets is also ensured: thanks to the high-quality microscope lens and the bright, homogeneous illumination, the DSA30M ensures clear videos of the droplets. Reliable measurement results from image analysis are thus guaranteed. And with the high-speed camera, even rapidly evaporating or absorbed droplets can be examined smoothly.

Specifications

Camera system		Dosing system	
Performance	CF04: 2.3 Mpix, up to 2300 fps CF10: 5.3 Mpix, up to 3450 fps	Dosing	software-controlled
		Minimum drop volume	10 pL
Optics		Contact angle	
Zoom	6.5× microscope zoom & 20× zoom micro optics	Range	0 to 180°
		Resolution	0.01°
Illumination			
Type	high power monochromatic LED with integrated strobe light		