

OCA15 Plus Contact Angle



Contact angle measuring and contour analysis system

Technical specifications

- Maximal sample dimensions (L x W x H): 220 x ∞ x 70 mm
- Sample table dimensions: 100 x 100 mm
- Traversing range of sample table: 100 x 100 x 50 mm (in X-/Y-/Z-direction)
- Maximal sample weight: 15.0 kg
- Measuring range for contact angles: 0...180 °; \pm 0.1 ° measuring precision of the video system
- Optics: 6-fold zoom lens (0.7-4.5 magnification) with integrated fine focus (\pm 6 mm)
- Lighting with software controlled adjustable intensity without hysteresis
- Video system: USB-CCIR camera, resolution 768 x 576 pixel, sample rate 52 images/s
- Field of view 1,32 x 0,99...8,50 x 6,38 mm. Image distortion < 0.05%

Available software:

SCA 20 — contact angle

- Video based measurement and presentation of the static and dynamic contact angle on plane, convex, and concave surfaces
- Automatic measurement of the contact angle hysteresis
- Record/store of image sequences
- Statistics and measurement error analysis

SCA 21 — surface free energy

- Calculation of surface free energies on solids and their contributions with error limits based on measured contact angles. Evaluation according to Fowkes (geometric mean), Wu (harmonic mean), extended Fowkes (including H bonds), Zisman (critical surface tension), Owens-Wendt (dispersive and polar), van Oss and Good (acid-base theory), Schultz I + II (two-liquid method), Neumann's Equation of State (EOS).
- Calculation of dispersive and polar contributions of liquids based on measured surface and interfacial tensions.

Accessories:

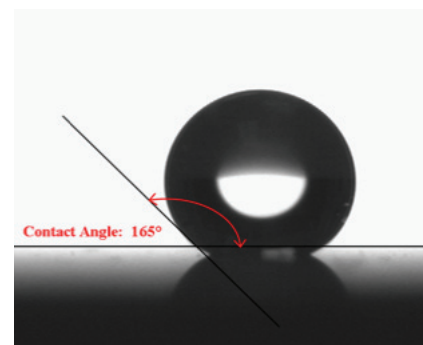
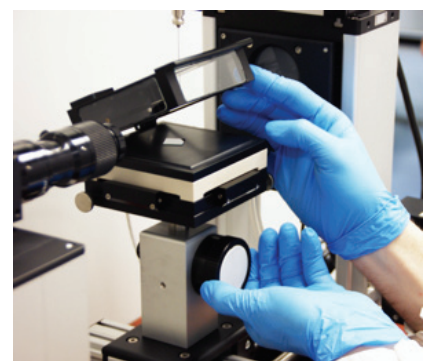
Temperature chamber (TFC-100Pro) with integrated sensors.
Temperature range -10°C- 100°C

Contact person:

Marina Cazorla
mcazorla@ibecbarcelona.eu

Manufacturer
DATAPHYSICS

Model
OCA15 plus



Operation of OCA15plus and a contact angle measurement. The system includes a temperature chamber.

NANOTECHNOLOGY
PLATFORM

www.ibecbarcelona.eu/corefacilities
nanotechnology@ibecbarcelona.eu

OPPORTUNITIES FOR YOUR RESEARCH