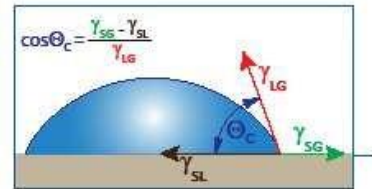# OCA 15EC Video-based optical contact angle measuring instrument

OCA 15EC Package 2 incl. DD-DM, two ESr-D, SCA 20, and SCA 21

OCA 15EC Package 1 incl. SD-DM, ESr-D, SCA 20, and SCA 21

$$\cos\Theta_C = \frac{\gamma_{SG} - \gamma_{SL}}{\gamma_{LG}}$$

Sessile drop schematic showing the quantities of Young's equation

Evaluation of contact angle or drop shape, the video-based optical contact angle measuring system, OCA 15EC.
Package 2: double direct dosing system DD-DM, two electronic dosing units ESr-D, and the software modules SCA 20 and SCA 21.
Software for efficient work.
DataPhysics is specialised in the development of high-precise and reliable methods for evaluating drop contours in combination with statistical error analysis.
The SCA software assists you in the intuitive use of the video-based optical contact angle measuring instrument OCA 15EC by specifying measurement procedures and in collecting, assessing, and evaluating the measured data.
The SCA software is designed as a modular program for all OCA instruments running under Microsoft Windows.
The software modules for the OCA 15EC are:
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
• Liquids and solids database with currently currently more than 170 records for all surface energy analysis methods includingrelated citations
SCA 21 — surface free energy
• Analysis of the surface free energy of solids as well as their components (e.g. dispersive, polar and hydrogen bond parts, acid and base portions) according to nine different theories
• Representation of wetting envelopes and work of adhesion/contact angle diagrams.
SCA 22 — surface and interfacial tension
• Analysis of the surface and interfacial tension, as well as their polar and dispersive contributions, based on the analysis of the drop shape of pendant drops
SCA 23 — lamella and liquid bridge analysis
• Analysis of the surface and interfacial tension based on the evaluation of the lamella contour
• Innovative liquid bridge analysis of 3 phase systems.
OCA 15EC Package 2 incl. DD-DM, two ESr-D, SCA 20, and SCA 21
SCA 20 and SCA 21 – measuring and evaluating the wetting properties of solids.