Attension Theta Lite
Modules and Accessories
Theta Lite is a compact and accurate contact angle meter for effective measurements of contact angle and surface free energy. It also measures surface and interfacial tension. Accessory options for Theta Lite expand its capabilities for different applications.
Dispenser

Dispenser creates the droplets used in measurements. Theta Lite can use either manual or automatic dispenser, with single or double liquid.

**Manual Precision Syringe Dispenser (C205M)**

Accurate manual drop formation when automation isn't required. Continuous adjustment range. Droplet volume can be seen live in the OneAttension software.

**Automatic Disposable Tip Dispenser (C311-300)**

Automatic drop formation without the need for needle or syringe cleaning. For maximized easy-of-use. Combine two C311-300s for automatic double liquid dispensing for convenient surface free energy studies. Can be used with disposable needles as well with an adapter to measure e.g. dynamic contact angles with the needle method.

**Automatic Single Liquid Dispenser (C201)**

Automatic drop formation using syringes and needles. Dynamic contact angle (DCA) measurements with the needle method.

Dispenser Holder

Dispenser holder is responsible for depositing the droplet on the sample in a contact angle measurement.

**Manual Dispenser Holder (T221)**

Gentle drop deposition when automation isn't required. Simple one touch design gives high repeatability of the deposition.

**Manual Dispenser Holder with Manual Rotation (T222)**

For automated single or double disposable tip dispensing with manual gentle droplet deposition and manual dispenser rotation. When disposable tip dispensers C311-300 are used with manual deposition.
**Accessories**

A range of different accessories expand Theta Lite capabilities for example in measuring dynamic contact angles or temperature control.

**Tilting stage (C218)**

Tilting stage with manual tilting. Used for studying dynamic contact angles. Tilting range from 0 to 90°. Coarse and fine tilting movement.

**Measuring chamber, fluid bath heated, 110° C (C203W)**

Thermostatted fluid bath measuring chamber for air phase temperature control of substrate and drop. Requires fluid bath.

**Liquid/liquid chamber, fluid bath heated, 100° C (C217W)**

Thermostatted fluid bath liquid/liquid measuring chamber. Can be used for liquid/liquid contact angle studies. Requires fluid bath.

**Fluid bath heated cuvette chamber for interfacial tension studies with separate cuvette, 100°C (C208W)**

For measurement of interfacial tension between two liquids by pendant/raising drop method. Includes cuvette C208C and water bath thermostatted sample stage cuvette holder. Requires water bath.

**PT-100 temperature probe for T102ME (T102MT)**

PT-100 temperature probe to enable stand-alone temperature control by the T102ME in the sample vessel.

**Quartz Cuvette, compatible with C208W (C208C)**

1 optical quality quartz cuvette compatible with C208W.

**Large cuvette also for high temperatures (C208A)**

For measurement of interfacial tension between two liquids by pendant/raising drop method also at high temperature.
Measure chamber, room temperature (C202)
Room temperature measuring chamber for environmental protection (e.g. air flow) of substrate and drop.

Digital thermometer (T202)
Stand-alone thermometer with display and probe for temperature measurement directly from sample.

Calibration ball pack, with certificate (C216)
Calibration pack with certified calibration ball made to NIST No.821/263669-00 including original certificate document.

Bath/circulator, Julabo CD-200F (T102USB)
A constant temperature bath/circulator, for sample liquid temperature regulation. Temperature range -20 to +150°C. Stability ±0.03°C. Digital readout.

Bath/circulator, Julabo F25-ME (T102ME)
A constant temperature stand-alone bath/circulator for sample liquid temperature regulation. Serial port connection. Temperature range -28 to +200°C. Stability ±0.01°C. Digital readout.

Active vibration isolation system small (AVS-LARGE)
Especially recommended to prevent influence of vibrations in sensitive pendant drop measurements. Active vibration isolation system includes two long isolation elements, external controller, bread board table and necessary mechanics.

Contact angle and surface tension verification pack (C216A)
Contact angle and surface tension calibration verification pack. Comes with certification.

PC (C215)
Computer with pre-installed OneAttension software, compatible with the Theta Lite.
Related Items

- Precision syringe without needle, 1 ml (C205)
- Needle for C205 and C205A/C201, gauge 14 (C209-14)
- Needle for C205 and C205A/C201, gauge 22 (C209-22)
- Needle for C205 and C205A/C201, gauge 30 (C209-30)
- Hydrophobic needle for C205, C205A/C201, gauge 14, 20 pcs (C209A-14)
- Hydrophobic needle for C205, C205A/C201, gauge 22, 20 pcs (C209A-22)
- Hooked needle for C205 and C205A/C201, gauge 22 (C210-22)
- Hooked needle for C205 and C205A/C201, gauge 14 (C210-14)
- C514PP-200 Disposable polypropylene tips for C311-200 and C311-300, 1000 pcs
- C514PFA-100 Disposable PFA tips for C311-200 and C311-300, 96 pcs
- C514PC-200 Parylene coat tips for C311-200 and C311-300, 96 pcs
- C514DCA, Needle adapter pack for C311-300, 2 pcs PTFE adapters and 50 pcs disposable gauge 30 needles
- C205B, Disposable syringe for manual dispensing, 50 pcs
- C209B-14, Disposable needle for C205B and C205, gauge 14, 50 pcs
- C209B-22, Disposable needle for C205B and C205, gauge 22, 50 pcs
- C209B-30, Disposable needle for C205B and C205, gauge 30, 50 pcs

Service

Attension offers a variety of different service options from service contracts to repairs. Please contact your local sales representative to find out more.

IQOQ documentation (IQOQ-ThetaLite)

Extended checklist for ensuring that the instrument has been installed correctly (IQ) and that it is operating correctly (OQ).
About us

We are Biolin Scientific. A worldwide company making state of the art instruments and smart solutions for scientists. Knowledge is our greatest resource and an essential part of everything we do. In collaboration with leading universities and industries, we solve challenges to simplify the everyday life in the lab. Our customers are the experts in surface science, and we have the tools for them to progress.

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