

# Attension Theta Lite

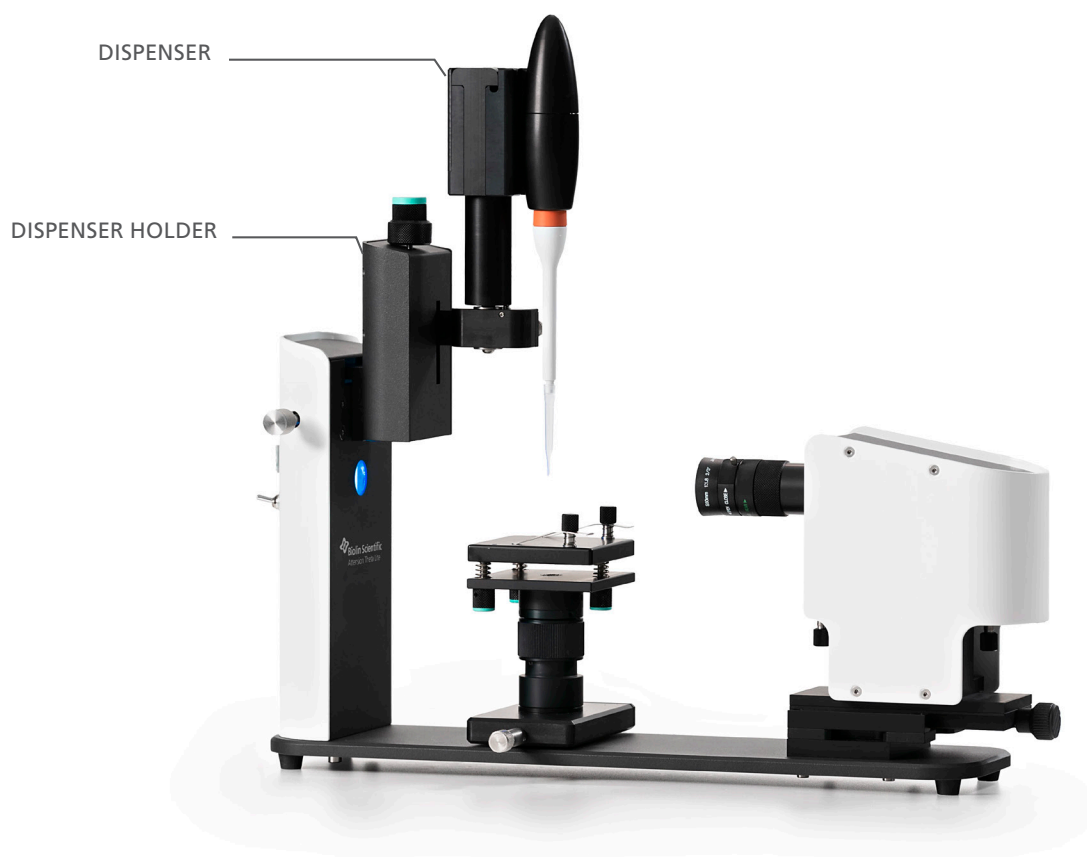
Modules and Accessories

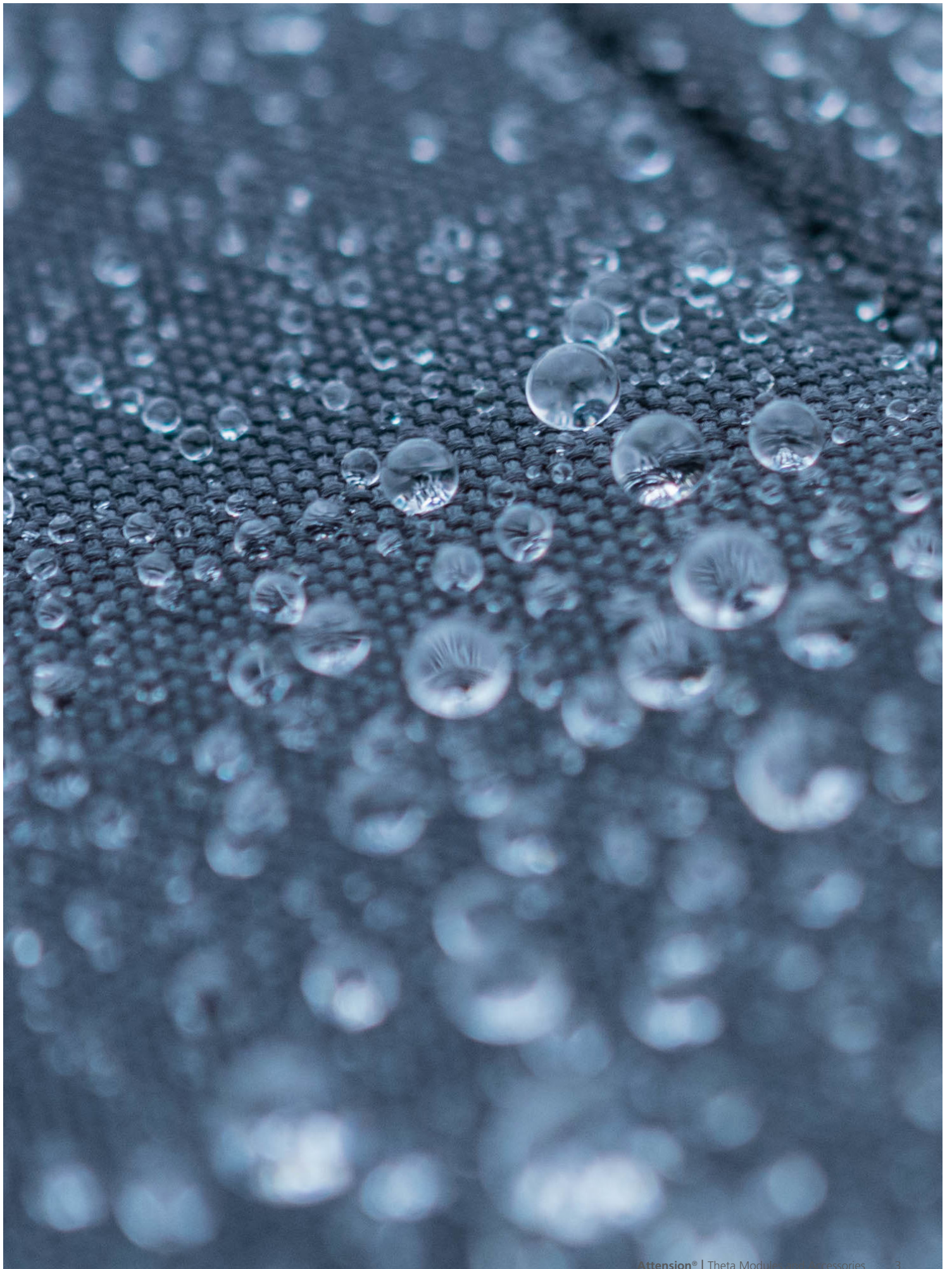
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# Attension Theta Lite Accessories

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.



Manual Precision Syringe Dispenser (C205M) with the Manual Dispenser Holder (T221)



Automatic Disposable Tip Dispenser (C311-300) with the Manual Dispenser Holder with Manual Rotation (T222)

## Dispenser Holder

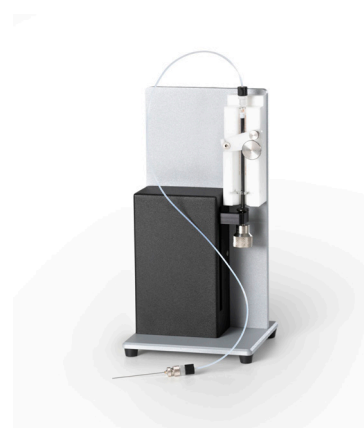
Dispenser holder is responsible for depositing the droplet on the sample in a contact angle measurement.

### 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.



Automatic Single Liquid Dispenser (C201)

## 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.



Tilting stage C218

### 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.



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

### 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.



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

### 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.



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

### 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.



Measuring chamber, room temperature (C202)

### 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.



Large cuvette for high temperature (C208A)

### Bath/circulator, Julabo CD-200F (T102USB)

A constant temperature bath/circulator, for sample liquid temperature regulation. Temperature range -20 to +150°C. Stability  $\pm 0.03^\circ\text{C}$ . 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  $\pm 0.01^\circ\text{C}$ . Digital readout.



Calibration ball (C216)

### Active vibration isolation system small (AVS-SMALL)

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.



Contact angle and surface calibration pack (C216A)

### 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



Needle adapter pack for C311-300 (C514DCA)



Hooked needle for C205 and C205A/C201, gauge 22 (C210-22)

## Service

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

Biolin Scientific offers a new online tool, InstruMentor, for finding and customizing your optimal instrument.



InstruMentor

Tensiometer selector

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