

## CONTACT ANGLE GONIOMETER



**Intended Use of the Instrument:** Analysis of contact angle, surface tension, and surface free energy of materials

**Instrument Brand/Model:** Biolin Scientific/Attension Theta Lite

**AGU CRF Thematic Laboratory:** Nano-imaging and Analysis Laboratory

**Location of the Instrument:** AGU-CRF LAB4

**Academic Directors of the Instrument :**

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Contact Angle Goniometer is an optical tensiometer system to determine contact angle, surface/interfacial tension, and free surface energy of materials by simple and precise methods. It is based on time dependent analysis of the shape and the volume of an image for a generated drop. Young Laplace equation is used as the reference. Attension Theta Lite is a contact angle goniometer that measures static (sessile drop), dynamic (pendant), meniscus, captive bubble, and reverse dynamic contact angles. The cold monochromatic LED light source minimizes evaporation of the drop. It is possible to obtain repeatable measurements with a high resolution camera. It provides information on material properties such as wettability, absorption, adsorption, spreading, cleanliness, surface heterogeneity, and emulsion stability.