



**DEPARTMENT OF CHEMICAL ENGINEERING  
UNIVERSITY OF CALCUTTA**

**Notice Inviting Quotation**

**Ref. no:** CHEM-ENQ/WBDST-FIST/HOD/01/2018-2019 **Date:** 17.05.2019

*Quotations are invited within fifteen (15) days from the date of notice, in duplicate, from vendors for purchase of Stationery/ Electrical Goods/ Chemicals / Glass Goods / Lab. Instrument & Equipment/ Wooden & Steel Furniture/ Computer & Accessories/ A.C Machine, Refrigerator & Similar other Machines. (tick the applicable one)*

*The quotations should accompany copies of valid trade license, GST certificates as applicable, PAN and other relevant documents as per University Purchase Rules*

*The list is enclosed herewith.*

*17/5/18*

**Head of the Department**

**Specification of the items required**

*Prof. & Head  
Dept. of Chemical Engineering  
University of Calcutta  
92, A. P. C. Road,  
Kolkata - 700 009*

**Name of the device:** Dynamic Contact Angle Meter

**Specification of the setup:**

Contact angle measuring range:  $0^{\circ}$ - $180^{\circ}$  (accuracy:  $\pm 0.05^{\circ}$ ) ; Horizontal camera assembly; High performance CCD Monochrome sensor; Aberration corrected high magnification lens; Integrated fine focus; Infra-red cut filters; Camera type: High speed C-mount CCD, speed: 500 fps, resolution:  $>600 \times 400$  pixels, image distortion:  $< 0.1\%$ , minimum magnification: 5x, variable zoom: up to 10 x, Illumination: PC controlling of light intensity, LED based lighting mechanism, hysteresis free illumination; substrate z-axis movement: up to 30 mm; Integrated PC with necessary software package; Contact angle measurement method: sessile drop; Measurement and display: Left, right and average contact angles. Measurement surface type: flat; Baseline operation: auto detection with fine adjustment

provision; Baseline liquid droplet contact point detection: auto; Edge detection: both auto and manual; Contact angle analysis methods: half-angle fitting, circle fitting, ellipse fitting and tangent method; Stage heating module: up to at least 200<sup>0</sup> by heating jacket or liquid circulation; Stage movement: XZ and XYZ movement of the substrate stage; Auto dispensing module; Dynamic contact angle analysis: continuous capturing & saving of images with high video resolution; Surface energy calculator; Surface tension calculator; Tilting angle analysis up to 90<sup>0</sup>.

8/15/18

**Signature of H.O.D.**

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