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### Amendment

Open Tender: Equipment for Common Instrument Facility

Reference No: ICSR/EQIP/067/2019

**As per the Pre-Bid meeting held on 01-03-2019 3PM, the below points are considered as part of the tender documents.**

#### **General conditions: -**

1. Documentary evidence of all technical compliance along with page number of the documentation to be given along with the Technical bid; a table should be provided indicating the specification and documentation provided showing the compliance.
2. EMD may be in the form of DD (or) BG
3. Inco-terms will be CIP Chennai

#### **Equipment Specification:-**

1. Simultaneous Thermal Analysis (TG-DTA)
  - a. Measuring range – Up to 100mg
  - b. Heating rate – 0.1 to 50 °C (K) / min or better
2. Differential Scanning Calorimetry (DSC) ---No Change-----
3. X-ray Diffraction System (XRD) ----No Change-----
4. Wave length Dispersive System (XRF) – ---- No Change-----

5. Atomic Force Microscope System (AFM)

- a. X, Y scan range: 90 micron x 90 micron (or more) in closed loop. Drift less than 500 pm/min (or better)
- b. Stage type: Motorized, software controlled, programmable for multi-site data acquisition. XY stag position accuracy / repeatability 2 micron (or better) and in bidirectional case, 3 micron (or better)
- c. Force Spectroscopy: Standard force spectroscopy with force curve and force volume. Cantilever calibration /thermal tuning required
- d. Quantitative nano mechanical mapping. Measurements of modulus, adhesion, stiffness, dissipation and deformation should be possible; resolution of 512 x 512 (or better) in 10 min or less should be possible. Documented proof of atomic resolution should be given

6. Energy Dispersive Analysis (EDS) + Scanning Electron Microscope (SEM)

- a. Vacuum System - Rotary Pump and Turbomolecular Pump to achieve the required vacuum
- b. Sputter coater – A benchtop sputter coating unit for 2 inch targets fitted with an Rotary pump optimized for SEM coating, a gold target (99.99% purity, 0.5 mm thickness) to be provided