

SPECIFICATIONS
PURCHASE OF LAB EQUIPMENT

Sr. No.	Description/Specification	Qty
1	<p><u>High Voltage DC Conductivity Measurement System:</u></p> <p><i>i. Electrometer requirements</i></p> <p>Current measurement range: 0.1 fA – 20 mA Minimum measurement resolution: 0.1 fA (10^{-16}A) Reading rate > 10000 readings/s</p> <p><i>ii. 20 kV electrode system (three electrode system)</i></p> <p>No Partial discharges up to 20kV Conductive rubber surface for ensuring proper surface contact to specimen Self-adjustable pressure apply</p> <p><i>iii. 20 kV High voltage DC power supply</i></p> <p>20 kV, 6 mA, adjustable and programmable dc power supply, USB communication Stability: 0.05% per 8 hours Ripple noise: < 0.02% RMS of rated voltage at full load.</p> <p><i>iv. High voltage low-pass filter (20 kV)</i></p> <p>Cut off frequency < 1 Hz, Withstand: 20 kV DC + AC ripples</p> <p><i>v. Overvoltage/current protection system</i></p> <p>For protection of electrometer in case of specimen breakdown</p> <p><i>vi. Data acquisition and Calculation Software</i></p> <p>An algorithm be able to process and record the measurement data in real-time i.e. to optimize the degree of necessary averaging by dynamically adapting to the signal to noise level. Algorithm should also be able to respond to any fast-changing currents as well as specimen breakdown events.</p>	01