DC ELECTRICAL CHARACTERIZATION FACILITY
(Current – Voltage Measurements)

MODEL: HP 4140B pA METER/DC VOLTAGE SOURCE

INSTALLATION PLACE: DC Electrical Characterization Laboratory (room No14 new-building), Department of Microelectronics

DESCRIPTION:
It consists of an extremely stable pico-ampere meter and 2 programmable DC voltage sources, one of which operates as a ramp and staircase generator as well as a DC source.
3 basic semiconductor measurements: I, I-V and quasi-static C-V.

SPECIFICATIONS

1. Current measurement:
   Measurement range: ±0.001×10-12 A ~ ±1.999×10-2 A, 11 ranges, auto/manual range selection.
2. DC Voltage source (V_A and V_B)
   Voltage range: 0 ~ ±10.00V, 0 ~ ±100.0V, 2 ranges (auto-ranging only)
   Voltage sweep: Auto (pause available)/Manual
   Max. Current Capacity: 10mA
3. C-V measurement:
   Measurement range: 0.0pF ~ 199.9pF, 200pF ~ 1999pF, 2 ranges of Auto range

APPLICATIONS

1. Stable pA Measurements
2. Synchronized I-V measurements
3. Quasi-static C-V measurements

CERTIFICATION/ACCREDITATION
The facility is accredited under ISO 17025.

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