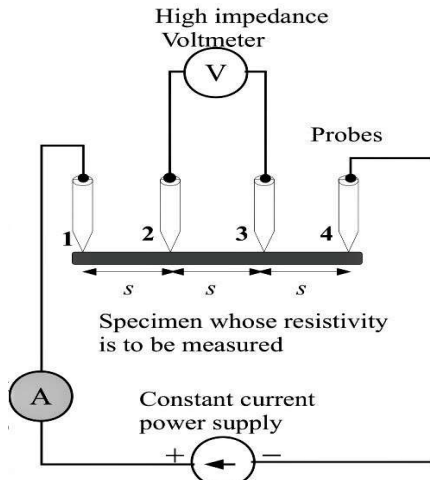
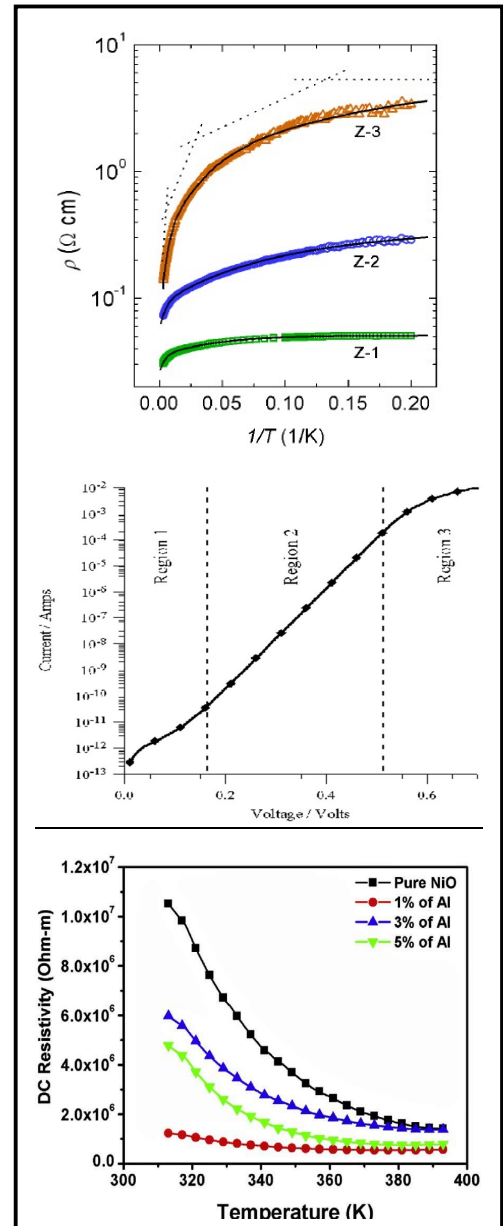


# FOUR PROBE DC RESISTIVITY MEASUREMENT SYSTEM



## ABOUT THE SYSTEM

The Electrical resistivity or specific electrical resistance and its inverse, electrical conductivity, is a fundamental property of a material that quantifies how strongly it resists or conducts electric current. A low resistivity indicates a material that readily allows current. Both resistance and resistivity describe how difficult it is to make electrical current flow through a material, but unlike resistance, resistivity is an intrinsic property. Every material has its own characteristic resistivity. The system is designed by our company are most advanced in its specifications and can undertake various tests needed by researchers. The complete system is fully automatic with temperature variation and can go down as low as liquid nitrogen. The system also has option to go beyond room temperature with high temperature options such as 500K, 773K and 1073K.



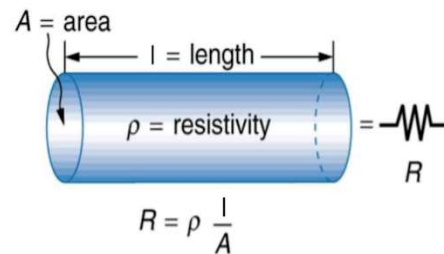
## MODEL: DRMS42

### Various Tests Performed:

- DC resistivity vs temperature in fixed intervals.
- IV Current vs Voltage in fixed temperature intervals.
- VI Voltage vs Current in fixed temperature intervals.

### Optional Tests Performed:

- Magneto resistance measurement



# FOUR PROBE DC RESISTIVITY MEASUREMENT SYSTEM

## TECHNICAL SPECIFICATION

The Four Probe resistivity test software perform important functions of the measurement automatically without any human interventions. Following are highlights of important functions:

- Simultaneous measurement of DC Resistance vs Temperature.
- Automatic measurement of Voltage/ Current and Temperature.
- Representation of data and graphs in automatic scale.
- Online math work for different calculations using sample dimensions to calculate resistivity.
- Data in standard ASCII Format exportable to standard software's like excel origin etc.

Measurement Option 1	2182A/6220
Voltage Range	10 nV – 100 V
Resolution/ Accuracy	0.1 Nv/ 0.1%
Current Range	± 2nA to ±100mA
Resolution/ Accuracy	100fA to ±10µA / 0.04 to 0.1 %
DC Resistance Range	0.01mΩ - 1TΩ
Measurement Option 2	2450
Voltage Range	20 mV – 200 V
Resolution	500nV
Current Range	± 10nA to ±1A
Resolution	500fA
Basic Accuracy	0.012%/
DC Resistance Range	0.1mΩ – 20GΩ
Temperature Options	Model
Cryogenic Temperature Stage	100RT (96K – 273K)
Microprobe Temperature Stage	RT250 (RT – 500K)
High Temperature Stage I	RT500 (RT – 773K)
High Temperature Stage II	RT800 (RT – 1073K)
Resolution	0.1°K
Accuracy	1°K
Test Specimen	Two/Four Probe
Sample Dimension	8X8 mm
Thickness (Bulk)	0.1mm to 1mm
Thickness (Film)	10µm to 100µm

**\*For detailed specification, please refer to respective brochures.  
Also, the microprobe station is for thin film measurement**

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