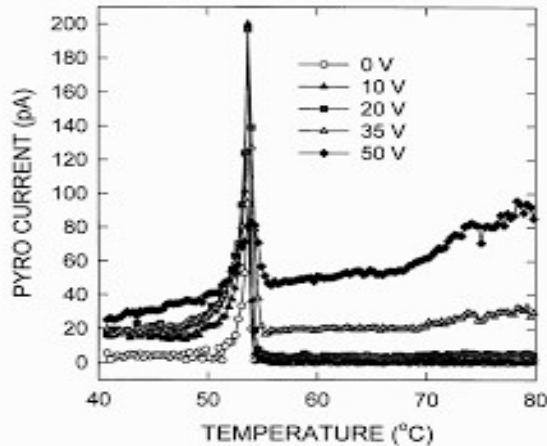
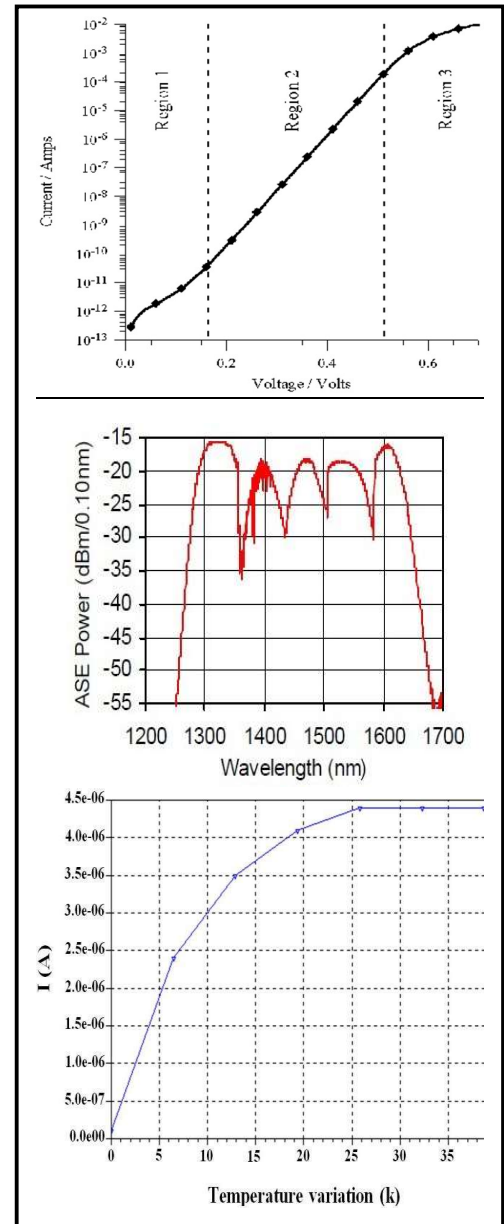


PYRO ELECTRIC MEASUREMENT SYSTEM



ABOUT THE SYSTEM

Pyroelectric measurement is a property of certain crystals which are naturally electrically polarized and as a result contain large electric fields. Pyroelectricity can be described as the ability of certain materials to generate a temporary voltage when they are heated or cooled. The change in temperature modifies the positions of the atoms slightly within the crystal structure such that the polarization of the material changes. This polarization change gives rise to a voltage across the crystal. If the temperature stays constant at its new value, the pyroelectric voltage gradually disappears due to leakage current. 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.



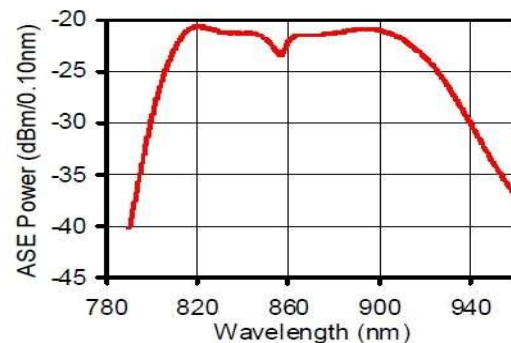
MODEL: PMS42

Various Tests Performed:

- Pyro Current vs Temperature
- Power generated at different temperature

Optional Tests Performed:

- Wavelength vs current at different Temp



PYRO ELECTRIC MEASUREMENT SYSTEM

TECHNICAL SPECIFICATION

The pyroelectric measurement test software performs important functions of the measurement automatically without any human interventions. Following are highlights of important functions:

- Simultaneous measurement of Pyro Current vs Temperature.
- Automatic measurement of Power generated at different temperature
- Representation of data and graphs in automatic scale.
- Online math work for different calculations using sample dimensions to calculate pyro parameters.
- Data in standard ASCII Format exportable to standard software's like excel origin etc.

Pyroelectric Measurement	6485
Current Range	2nA–20mA
Resolution	10fA
Voltage Burden	200µV (1mV on 20mA range)
Reading Rate	1000/s
Digits	5½
Analog Output	Yes
Battery Option	No
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)
Test Specimen	Two/Four Probe
Sample Dimension	8X8 mm
Thickness (Bulk)	0.1mm to 1mm
Thickness (Film)	10µm to 100µm
Wide Band Light Source	Specification
Wavelength Range (nm)	930 to 1100
Center Wavelength (nm)	1000
3-dB Bandwidth (nm)	105
Total Output Power (mW)	4
Wide Band Light Source option is only available in temp option - RT250 (RT – 500K) & RT500 (RT – 773K)	
*For detailed specification, please refer to respective brochures.	
Also, the microprobe station is for thin film measurement	

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