

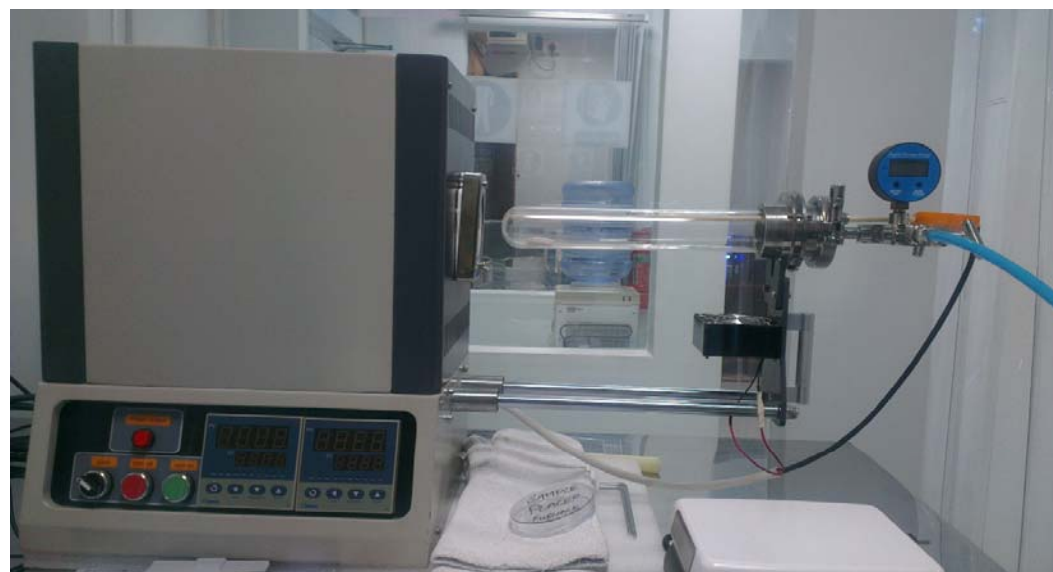


IIU-IDB ADVANCED ELECTRONICS LABORATORIES PROJECT

RAPID THERMAL PROCESSING SYSTEM

To facilitate the development and characterization of devices, AEL operates a general use computer controlled *Rapid Thermal Process* facility with a verity of temperature ranges. A user friendly interface allows operators to program desired temperature profiles (within the given limits of a specific furnace) with many segments and record the achieved result. Nitrogen, CDA, and Oxygen is provided by the facility and always available for use. Rapid Thermal Annealer is used for various applications for silicon micro-chips, compound semiconductor, photovoltaic, MEMS and other devices and systems. Typical processes include ion implantation annealing, contact sintering, synthesis, crystallization and densification. Rapid thermal oxidation and nitridation are also commonly performed with the help of gas-inlet systems. The machine is also extendable for RT-CVD usage.

Power	2.5KW
Voltage	AC 208-240V single Phase,50/60HZ
Max, Temperature	1500
Continuous Temp.	1400
Heating Element	SiC rod (1500C grade), 4pcs
Heating Zone length	6" (152mm)
Constant temp. zone	100(+/-1°C) @800-1500°C
Temp. Accuracy	+/-1
Vacuum level	10E-5 torr by molecular pump, 10E-3 torr by mechanical pump
Processing Tube	High quality mullite tube, High quality quartz tube
Thermocouples	Two S type thermal couples
Temperature controller	PID automatic control with 30 programmable segments for precise control.



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