

Annealsys introduces new temperature controller for RTP furnaces

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The temperature control of a Rapid Thermal Process (RTP) system is pretty difficult due to the non-linearity of the infrared heating and the high flexibility that this required in terms of process. The users want to run process from low temperature where only 1% or 2% of the power is needed up to the high temperature range with a much more dynamic behavior. It must be possible to have a good temperature control with a single silicon wafer or a substrate installed inside a graphite box that have a much higher thermal inertia. Other parameters like the reactor pressure and gas flow also have an important influence on the thermal behavior of the system. It is of course necessary to control high ramps rate up to 100°C/s but also slow ramp rates of less than 1 °C/s.

The temperature controllers that are available on the market are usually not fast enough to control the temperature whatever the process conditions are and the adjustment of the temperature control parameters (PID) is usually complicated.

In order to provide an efficient solution to our customers we have developed a new temperature controller that can insure a perfect temperature control under any process conditions. It also includes automatic calculation of the temperature control parameters (PID) for the different process conditions.

Thanks to this proprietary design we have also added the capability to work in pulse mode that open new process capabilities especially for annealing of temperature sensitive substrates. This temperature control also provides multi zone control capability for our large RTP systems.

We are proud to introduce this state of the art proprietary temperature controller that will be installed on the new generation of our RTP machines.

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About Annealsys:

Annealsys is a leading manufacturer of RTP and DLI-CVD / DLI-ALD systems for research and niche production applications in the fields of silicon and compound semiconductors, nanotechnologies, MEMS, solar cells, glass, etc. Annealsys has developed a range of RTP systems with high temperature and high vacuum capabilities and some unique features like the fast cooling system. Direct Liquid Injection (DLI) CVD and ALD systems offer the highest process versatility for development of new materials. Visit Annealsys web site at www.annealsys.com



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