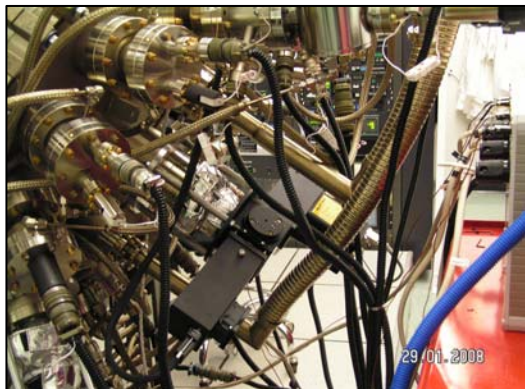


Successful Combination of kSA BandiT and RateRat on Single MBE Pyro Port!



Combined BandiT and RateRat on EPI 1240 MBE Reactor.
Photo courtesy of John Reno, Sandia National Labs.

k-Space has successfully installed a combined BandiT/RateRat system on a single 4.5" pyrometer port on an EPI 1240 MBE reactor at Sandia National Labs. Both the BandiT light source and the RateRat unit are mounted on the central pyrometer port. The BandiT detector is mounted to a 1.33" mini-conflat flange (CAR port) on the top of the reactor, utilizing a substrate backside-access quartz light pipe. The system is triggered using a k-Space programmable optical encoder unit and accompanying software. The combined unit will allow John Reno, who is in charge of the reactor, to acquire both low and high temperature substrate readings as well as accurate deposition rate and optical constant measurement during sample rotation.

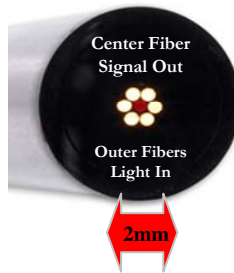
kSA MOS Thermal-Scan for Dynamic Thermal Stress Analysis From -65C to 1000C

Leveraging k-Space's expertise in integrating critical thin film metrology equipment, the Thermal Scan system combines the patented MOS (Multi-beam Optical Sensor) stress measurement technology with a high performance thermal processing chamber and gas delivery system. By integrating a single axis scanning stage, spatially-resolved curvature and stress measurement as a function of sample temperature is now possible from -65C to 1000C. Please contact k-Space for standard and customized solutions for samples up to 300mm.



200mm kSA MOS Thermal-Scan Stress Analysis System with Rapid Heating and Cooling.

k-Space Associates, Inc.



Use BandiT for Wafer Temperature Where You Never Thought Possible!

A new reflectance probe option for kSA BandiT allows for a very small optical insertion module for sample distances less than 12" (most MOCVD applications). Now, combined light source and detector optics can reach into areas previously not possible, like 4-5mm diameter quartz probe optical access ports.

kSA RateRat Laser Reflectivity System Successfully Installed onto older TSSE MOCVD System

Some advanced MOCVD systems originally manufactured by Thomas Swan Scientific Equipment (TSSE, now part of the Aixtron MOCVD group) had non-integer rotational gear ratios (between platter rotation and home pulse signal) which made triggered, multiwafer in-situ monitoring during growth impossible, until now. k-Space has developed a solution for integrating the kSA RateRat 532nm laser-based reflectivity system onto these CCS MOCVD systems for multi-wafer, spatially-resolved, real-time growth monitoring. For more information, see the kSA Application Note, "*Laser Reflectance Solution for Older CCS MOCVD Systems.*"



See the k-Space Product Line in Action at the Following Upcoming Conferences:

The 25th Symposium on Aerosol Science and Technology (kSA Asian representative, R-DEC)
August 20-22nd, 2008
Kanazawa University

German MBE Workshop for Molecular Beam Epitaxy (kSA European representative, RTA Instruments)
September 1-2nd, 2008
FIRST Center for Micro- and Nanoscience at ETH Zurich, Switzerland