k-Space Associates, Inc.



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Real-time, Full Substrate Temperature Mapping During MBE Growth!



The kSA BandiT Substrate Temperature Mapping option is a software and hardware feature that completely automates the control and acquisition of a single or multi-wafer platen temperature map. Through the

kSA BandiT full platen temperature map on 14 x 4" production MBE reactor.

use of a motorized detector module and the home pulse triggered from the MBE growth chamber, the kSA BandiT provides spatially-resolved temperatures across the entire optical collection area with millimeter resolution. The system is compatible with all of today's production MBE systems from Veeco, Riber, and VG/Oxford Instruments. Designs are also available for R&D MBE systems and MOCVD reactors where optical access is available.

Eric Friedman Returns to k-Space!

Eric Friedman (kSA Sales & Marketing Director) left k-Space about 1 year ago to pursue other interests. However, Eric missed us so much that he has returned to his previous position! Eric will help drive new product development as well as work with existing customers to better understand



customer needs for both in-situ monitoring and ex-situ characterization. "I am extremely excited to be back with k-Space, particularly during this exciting growth phase for the company. k-Space takes care of its employees just as it does its customers, with a focus on listening carefully in an open and friendly environment. Being an employee or customer of kSA transcends typical relationships; those who have kSA products or have talked to the kSA team know the culture and what this means!" Eric is looking forward to seeing everyone at upcoming conferences and is always available to discuss any product questions you may have. Welcome back, Eric!

TECH CORNER: Replay Your kSA Data Files as if They Were Live!

Did you know that no matter which kSA product you have, you can always replay your data files as if they were live?

This gives you the ability to change fitting parameters, perform different analyses, and reenact your data runs. It is also a great way to allow us to troubleshoot for you: simply acquire a short data file and send it to k-Space via email or ftp. We can then replay the data with changes in fitting parameters, etc., which aids in troubleshooting. If you are having any issues with your data, please contact us for assistance. We're always here to help!

kSA RateRat Successfully Installed onto Ellipsometry Ports on R&D MBE System

Most MBE systems in operation today have appropriate ports for integrating in-situ ellipsometry, with a small percentage of MBE growers actually using the technique. However, k-Space has recently demonstrated realtime thickness, growth rate,



and optical constant (n,k) measurement during MBE growth on a Riber Compact 21 MBE system. The ellipsometer ports were used to mount the RateRat optics head and detector. Excellent signal strength was observed, and fully triggered and synchronized data acquisition was performed during deposition. kSA is pleased to offer this two-port kSA RateRat laser reflectivity system for systems that are not able to use the normal incidence port, where white light reflectivity systems cannot be used, or where analytical RHEED has difficulty determining growth rate during rotation. Please contact kSA for more information and look for an upcoming application note on our website with the results.

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

2008 International Conference on Metallurgical Coatings and Thin Films, San Diego, CA, April 24-25 (Please be sure to catch the kSA Technology Seminar, "*In-situ, 2D curvature and stress monitoring with the k-Space kSA MOS system.*")

2008 European MRS Spring Meeting, Congress Center, Strasbourg, France, May 26-30

Booth manned by our European representative, RTA Instruments Ltd.

2008 ICMOVPE - XIV 14th International Conference of Metalorganic Vapor Phase Epitaxy, Metz (France) June 1-6 Booth manned by our European representative, RTA Instruments Ltd.

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