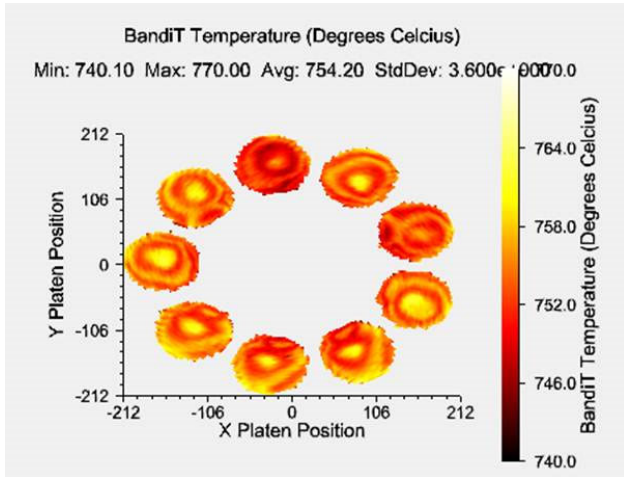


NEW PRODUCT! k-Space announces:

kSA Blue BandiT

in-situ metrology tool for HBLED material growth

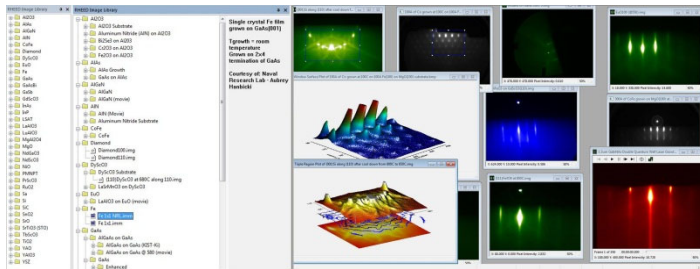


2D GaN Film Temperature Map taken during InGaN MQW growth on Veeco k465i Production MOCVD system

Production-proven [kSA BandiT](#) hardware has now been validated for use on production MOCVD reactors used in the growth of GaN-based HBLED's. Critical parameters including direct GaN film temperature during InGaN MQW growth, auto-calibrated wafer pocket/carrier temperature, film thickness, and surface roughness, all monitored at the individual wafer level. In addition, a linear scanning stage allows full platen mapping of these parameters. [kSA Blue BandiT](#) provides a turn-key monitoring solution with unmatched repeatability and analysis capabilities to increase HBLED yield and overall device performance.

Learn More Here

New! kSA400 RHEED Image Library Now Available!

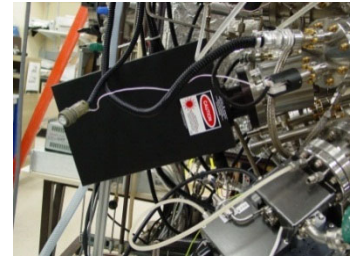


The long awaited RHEED Image Library (RIL) is now available! Over 30 gbytes of images and movies, from AIAs to YSZ, is now at your

fingertips! All new [kSA 400](#) systems will be supplied with this great RHEED library, created by you, our customers. You can also receive the library by upgrading your current kSA 400 software to the latest version – please contact us for details or download our new [RIL flyer](#).

kSA MOS system used to detect thin-film stress oscillations due to quantum confinement of free electrons

Our customers at Max-Planck Institute in Germany have recently published a remarkable paper in Physical Review Letters (PRL **109** 045501 (2012)) describing the detection of stress oscillations in a growing Al film on Si. These oscillations are due to quantum confinement of the free electrons in the Al film. Note that monolayer resolution of stress changes is required for this measurement, which the [kSA MOS](#) system is able to provide! Access the abstract via the kSA website [here](#).



k-Space Celebrates 20-Year Anniversary!

k-Space Associates, Inc. has reached a historic company milestone - 20 years in business! Founded in 1992 as a high-tech spinoff from the University of Michigan, k-Space has grown to over 25 employees. We have recently expanded our facility in 2012 and offer a full suite of today's most powerful real-time metrology solutions for solar, HBLED, semiconductor, and optical coating applications. Our original product, the kSA 300 analytical RHEED system (now the [kSA 400](#)), is being used by over 700 customers worldwide!

k-Space would like to thank all our customers, vendors, distributors and strategic partners that have helped to support our success over the past 20 years. We look forward to continued collaborations and maintaining our world-leading customer support to help ensure mutual success for the future!



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

The US Workshop on the Physics and Chemistry of II-VI Materials
November 27-29th, 2012 Seattle, Washington
<http://www.ii-viworkshop.org/>

2012 SEMICON JAPAN 2012
December 5-7th, 2012, Tokyo, Japan
(R-DEC – k-Space Japanese distributor)
<http://www.semiconjapan.org/en/>