

KY NANONET

Connecting Kentucky's Micro/Nano Community

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List your Location as a Node, [click here](#)

KYNN Overview

Editor: [Ana Sanchez Galiano](#)

The Kentucky nanoNET (KY nanoNET or simply KYNN) is a Kentucky NSF EPSCoR initiative for developing an "electronic parkway" within the Commonwealth for tying together all the various facilities, resources and people involved in micro/nanotechnology, advanced materials, and MEMS (micro-electro-mechanical systems). NSF projects the field of nanotechnology to explode from a \$400B industry today to a \$2.5T industry by 2020. To accommodate that tremendous level of growth, it is predicted that 2,000,000 nanotechnologists will need to be trained by 2020, a hundred fold increase in the number today (20,000). The NSF-supported KYNN initiative will help position the state of Kentucky to be an active participant in that economic opportunity. The KYNN presently consists of 14 distinct nodes and over 45 researchers and continues to grow each week. Please enjoy this newsletter and contact [Ana Sanchez Galiano](#) or [Dr. Kevin Walsh](#) to get involved with the KYNN.

Equipment Spotlight



In each newsletter, we will highlight a signature tool from one of the KYNN nodes. Today we present a new \$500K laser pattern generator from UofL's MNTC node. Please contact [Ana Sanchez Galiano](#) to get your capability listed in a future newsletter edition.

Heidelberg Laser Pattern Generator

The Heidelberg DWL 66FS laser lithography system is a state-of-the-art high resolution pattern generator for photomask production and direct writing. It uses a 405nm diode laser to image features as small as 500nm and has the capability to directly write three-dimensional structures using greyscale. The capabilities and flexibility of this system make it the ultimate lithographic research tool in Microelectronics, MEMS, BioMEMS, Micro Optics, ASICs, Micro-Fluidics, Sensors, Actuators, and all other applications that require micro/nano-structures. The [UofL MNTC](#) has utilized this tool to produce the following types of photomasks for KYNN users:

- 4", 5", 7", and 9" photomasks
- Chrome and Iron Oxide masks
- Test and Prime grade masks

Location:

University of Louisville Micro/Nano Technology Center
2210 South Brook St. Louisville, KY, 40292

How to access:

The MNTC can provide lithography services for wafers and other substrates sent in from customers. For a Mask Request fill out the [Mask Request Form](#) available from [kynanonet.org](#)



KYNN News and Events

October 2011

Conferences, seminars, tutorials and other events hosted by KyNanonet Members are posted on [kynanonet.org](#) and sent to our Social Media friends ([Facebook](#) and [Twitter](#))

Meet our members, visit the KY nanoNET Researcher's Database



UofL MNTC



UK Center for Nanoscale Science

Recent Events and Presentations from KYNN members:

[UofL MNTC Client Pizza Party: "Overview of the UofL Student Branch of the IEEE"](#) Presented by: [Kevin Kurtz, President](#)

Event Date: October 5, 2011

[Engineering Platforms Seminar Series: "Dramatic Nano-Fluidic Properties of Carbon Nanotube Membranes as a Platforms for Protein Channel Mimetics"](#) Presented by: [Bruce J. Hinds, Ph.D.](#)

Event Date: October 12, 2011

KYNN – Photomask Program

KORE (Kentucky Optical REsources) is KYNN's program for supplying high-quality photomasks and advanced lithographic processes such as e-beam lithography and greyscale lithography. KORE is available to both KYNN members and outside users. For more information, see details listed below or visit <http://kynanonet.org/kore1/>



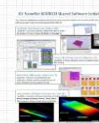
KORE Flyer

KORE News:

- New info flyer available: [Click here to download](#)
- Send a Mask Request: Fill out the [Request Form](#)

KYNN – Shared Software Program

KRUNCH (Kentucky Research Users of Nano CAD Hub) is KYNN's shared software program which offers commercial micro/nano/MEMS CAD tools to its academic KY members at no cost. Presently four commercial software packages are offered (Tanner Tools, Coventorware, Intelisense, Silvaco). For more information, see details listed below or visit <http://kynanonet.org/krunch/>



KRUNCH Flyer

KRUNCH News:

- New info flyer available: [Click here to download](#)
- KRUNCH software moves to dedicated VPN. [More info](#)
- Sign up for KRUNCH Software: Fill out the [Krunch Access Request form](#)

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