

Press Information

June 9, 2010

PHILIPS LUMILEDS EQUIPMENT DONATION SUPPORTS MATERIALS SCIENCE RESEARCH AT UC SANTA CRUZ

San Jose, CA—Philips Lumileds has donated a metal-organic chemical vapor deposition (MOCVD) system for the synthesis of high-quality semiconductor materials to the Baskin School of Engineering at UC Santa Cruz. Originally purchased by Lumileds for about \$4.5 million, the MOCVD system was used to develop compound semiconductor materials for light-emitting diodes (LEDs). Most notably, it was used in the development of LUXEON LEDs as a replacement for incandescent and fluorescent light bulbs

This major equipment donation provides important new capacities for materials science research at UCSC. The equipment will be installed in the laboratory of Nobuhiko Kobayashi, associate professor of electrical engineering, for use in his research on new materials for solid-state energy conversion devices and other applications.

"Lumileds has a long history of working with public and private organizations to deliver lighting to those without it, beautify our cities, and support our educational institutions," said Greg Wilgenbusch, VP of Human Resources. This reactor enables the University to conduct research on new materials that will advance solid-state lighting technology and enable new applications for LEDs.

"This donation is a great example of private industry supporting university education, said Kobayashi. The system that Lumileds has donated runs perfectly but no longer met the company's needs for large scale production. This is not equipment that the University could afford and creates new opportunities for our students and research programs."

The AIX 200RF MOCVD system, manufactured by Aixtron AG of Germany, is designed for the production of a particular class of semiconductors with highly uniform layered structures (known as group III-V compound semiconductors). The system's laminar flow design eliminates turbulence, allowing precise control of the chemical compositions of semiconductor thin films and ensuring sharp interfaces between layers.

Kobayashi is developing semiconductor materials for use in devices that convert heat energy into useful electrical power. Such "thermoelectric" devices, if they become efficient enough, could be used to capture waste heat in a wide range of applications. Kobayashi is also investigating new materials for use in photovoltaic cells for solar energy applications.



The MOCVD system will be installed in Kobayashi's Materials Synthesis Laboratory, which is being established in UCSC's facilities at 2300 Delaware Avenue in Santa Cruz (the former Texas Instruments property). Renovation of the facilities to house Kobayashi's lab and a Materials Characterization Laboratory for Art Ramirez, dean of the Baskin School of Engineering, is expected to be completed by the end of 2010.

For more information contact:
Steve Landau
Director of Marketing Communications
Philips Lumileds
+1 408 964 2695
Steve.Landau@philips.com

About Philips Lumileds

Philips Lumileds is a leading provider of power LEDs for illumination solutions. The company's leading light output, efficacy and thermal management are direct results of the ongoing commitment to advancing solid-state lighting technology and enabling lighting solutions that are more environmentally friendly, help reduce CO₂ emissions and reduce the need for power plant expansion. Philips Lumileds' LUXEON LEDs are enabling new solutions for shop, outdoor, office, school, and home lighting applications. More information about the company's LUXEON LED products and solid-state lighting technologies can be found at www.philipslumileds.com.

About Royal Philips Electronics

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is a diversified Health and Well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of "sense and simplicity". Headquartered in the Netherlands, Philips employs approximately 116,000 employees in more than 60 countries worldwide. With sales of \$38 billion in 2008, the company is a market leader in cardiac care, acute care and home healthcare, energy efficient lighting solutions and new lighting applications, as well as lifestyle products for personal well-being and pleasure with strong leadership positions in flat TV, male shaving and grooming, portable entertainment and oral healthcare. News from Philips is located at www.philips.com/newscenter.