Philips Lumileds Lighting Company

Several positions are available in the Technology R&D and Product Development departments, all based in San Jose, CA.

Philips Lumileds Lighting Company is the world's leading manufacturer of high-power LEDs and a pioneer in the use of solid-state lighting solutions for everyday purposes including automotive lighting, computer displays, LCD televisions, signage and signaling and general lighting. The company's patented LUXEON® Power Light Sources are the first to combine the brightness of conventional lighting with the small footprint, long life and other advantages of LEDs. The company also supplies core LED material and LED packaging, manufacturing billions of LEDs annually, and ranks as the producer of the world's brightest red, amber, blue, green and white LEDs. Philips Lumileds is headquartered in San Jose, California, with operations in the Netherlands, Japan, Malaysia, Singapore and sales offices throughout the world.

Technology R&D

The following positions are immediately available:

1. Epi Growth Scientist (2 positions)
   Hiring Manager: Ted Mihopoulos; ted.mihopoulos@philips.com
   Scientists to develop novel III-nitride epi growth processes that advance the performance of Philips Lumileds’ high-power blue, green and white LEDs. These scientists are expected to identify, plan and lead growth development projects and exploit the availability of extensive materials and device characterization capabilities available at Philips Lumileds to successfully develop solutions that can be implemented into Philips Lumileds’ production processes. Dedicated MOCVD R&D reactors are available for each project. In addition to strong contributions to improved growth of III-N materials, the individuals are also expected to make recommendations for hardware and in-situ tool improvements. While each scientist is responsible for a specific project, they will be part of a larger team of engineers/scientists who continuously improve the performance of Luxeon LEDs. Candidates are expected to have strong backgrounds in one of (preferably more): semiconductor device physics, semiconductor material science, and crystal growth.

2. Epi Characterization Scientist (2 positions)
   Hiring Manager: Ted Mihopoulos; ted.mihopoulos@philips.com
   Scientists to perform structural, optical, and electrical characterization of III-nitride materials and power LEDs. Scientists in these positions will independently lead characterization projects as well as work closely with crystal growers who run R&D reactors for improving performance of high power visible III-N LEDs. In addition, characterization scientists are expected to provide recommendations for applying characterization techniques to specific materials and device issues, as well as take ownership of developing new in-house characterization tools. Candidates are expected to have strong backgrounds in one of (preferably more): semiconductor device physics, semiconductor material science, semiconductor device optical and electrical characterization.

3. Thin Film Characterization Scientist (1 position)
   Hiring Manager: Mike Craven; mike.craven@philips.com
   The Technology R&D department is currently seeking a materials scientist to perform structural characterization of III-nitride thin films and contribute to the technical direction of a challenging research project. The scientist in this role will interact closely with epitaxy
growth scientists to develop epitaxy processes which advance the performance of our LEDs as well as independently lead characterization projects. In addition, this characterization scientist will be expected to provide recommendations for applying characterization techniques to address specific materials issues. Candidates are expected to have strong backgrounds in one (or more) of the following fields: structural characterization and analysis of semiconductors, thin film mechanics, semiconductor device characterization, and semiconductor device physics. Individuals with excellent communication skills, organizational abilities, and team-oriented attitudes are sought.

4. Phosphor Characterization Scientist (1 position)
Hiring Manager: Oleg Shcheckin; oleg.shchekin@philips.com
Lumileds’ Technology R&D, Phosphor Materials and Devices group is looking for a scientist to participate in the development of luminescent materials for high-power LEDs. The primary focus of this position is to perform optical, physical and chemical characterization of novel phosphors to help guide materials selection and synthesis. Some of the time will be spent on characterization of bulk optical materials and thin film structures. The individual is expected to be very knowledgeable in the field of luminescent material characterization, in particular, optical spectroscopy and feel comfortable to envision and setup novel and highly specialized characterization systems. A successful candidate will have to interface with epi and device engineers and scientists in other projects inside and outside Lumileds hence excellent command of technical English is a must and exposure to semiconductor materials and devices is highly desired.

Product Development
The following positions are immediately available:

1. Modeling Scientist
Hiring Manager: Werner Goetz; werner.goetz@philips.com
Scientist to build an integrated LED modeling function. Of interest are modeling of efficiency, optical, thermal, and electrical aspects of the final LED product. The individual in this role is required to provide strong leadership to coordinate input from various modeling activities already existing within the company, guide the characterization of key LED performance parameters, and have a strong drive to see modeling predictions enable accelerated product development projects. Experience with simulation of at least one technology aspect of high-power LEDs is essential. Familiarity with commercial state-of-the-art simulation tools is highly beneficial.

2. Characterization Scientist (2 positions)
Hiring Manager: Satoshi Watanabe; satoshi.watanabe@philips.com
Scientist to perform structural, optical, and electrical characterization of III-Nitride materials and high power LEDs. An individual in this position will focus on characterization of the III-Nitride materials system and LED technology elements. Scientists in this position will independently lead characterization projects as well as work closely with epi development teams for improving performance of high power LEDs. In addition, characterization scientists are expected to provide recommendations for applying characterization techniques to specific materials and device issues, as well as take ownership of in-house characterization tools. Candidates are expected to have a minimum of 3 years experience with materials and device characterization of semiconductors, a strong background in characterization of optical, electronic and structural properties of semiconductors, are intimately familiar with semiconductor optoelectronic devices physics, and possess excellent communication, organizational, and team-working skills.
3. Process Development Engineer (2 positions)
Hiring Manager: Jim Neff; jim.neff@philips.com
The Product Development group in Philips Lumileds Lighting Company (PLLC) is seeking an LED process development engineer for the development, qualification, and high-volume manufacturing transfer of next generation power LED products. This engineer will lead efforts to develop and improve next-generation back-end LED manufacturing processes, work to gain understanding and control of interactions between LED chips, packages, interconnects, and phosphor color converters in the back-end packaging line and interact with manufacturing and product development teams to drive improvements in white LED products for Automotive, Illumination, Camera Flash, and Display applications.

Contact phone numbers:

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