

UC SANTA BARBARA

# THE *Current*

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## The Bright Future of Lighting

[Shuji Nakamura](#), UC Santa Barbara professor of materials, 2014 Nobel laureate in physics and inventor of the bright blue LED, will speak at UCSB's Campbell Hall Tuesday, April 28. His lecture, "Invention of Blue LED, Laser and Solid State Lighting," will begin at 7:30 p.m. It is free and open to the public.

LEDs (light-emitting diodes) have become ubiquitous, and are favored for their energy savings capability. In addition, their versatility makes them the lighting of choice for electronic devices, smart buildings, vehicles, displays, public areas and industrial and commercial settings. Their durability has led also to their use in inhospitable and off-the-grid environments where artificial light is both scarce and highly necessary.

Yet it wasn't until recently that LEDs gained widespread use. Since their invention in the 1960s, LEDs, which were initially available in red, then green, orange and yellow, gained popularity as manufacturing methods improved. However the lack of a complete spectrum of colors limited their application, and it became clear that blue, a primary color necessary for white lighting, needed to be developed.

It also became clear that the blue LED was much more difficult to invent than its predecessors. So difficult, in fact, that in some circles it was deemed impossible.

In his public lecture, Nakamura will outline not only the technical challenges that accompanied his quest to create the blue LED but also the obstacles he faced professionally to accomplish what many around him said couldn't be done. It's a

journey that begins with Nakamura as a recent graduate, working at a young Japanese manufacturing company in the late 1970s and leads him all the way to Stockholm in 2014 as a Nobel Prize winner in physics. Along the way he has received numerous accolades and is recognized worldwide for his innovations that ultimately paved the way for the white LED light.

Nakamura's talk will feature live demonstrations onstage and an opportunity for audience members to ask questions.

Pre-signed copies of "Brilliant," a book by technology writer Bob Johnstone that chronicles Nakamura's endeavor to invent the blue LED, will be available for purchase at the event.

For more information, call UCSB Arts & Lectures at (805) 893-3535 or visit [www.ArtsAndLectures.ucsb.edu](http://www.ArtsAndLectures.ucsb.edu)

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The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.