

Shuji Nakamura

## Shuji Nakamura is

a Japanese-born American electronic engineer and inventor specializing in the field of semiconductor technology, professor at the Materials Department of the College of Engineering, University of California, Santa Barbara, and is regarded as the inventor of the blue LED, a major breakthrough in lighting technology.

## Career

Nakamura graduated from the University of Tokushima in 1977 with a B.Eng.(Bachelor of Engineering) degree in electronic engineering, and obtained a M.Eng. (Master of Engineering) degree in the same subject two years later, after which he joined the Nichia Corporation, also based in Tokushima. It was while working for Nichia that Nakamura invented the first high brightness gallium nitride LED whose brilliant blue light, when partially converted to yellow by a phosphor coating, is the key to white LED lighting, which went into production in 1993.

- Nakamura has also worked on green LEDs, and is responsible for creating the white LED and blue laser diodes used in Blu-ray Discs and HD DVDs. Nakamura is a professor of Materials at the University of California, Santa Barbara, and holds over 100 patents. In 2008, Nakamura, along with fellow UCSB professors Dr. Steven DenBaars and Dr. James Speck, founded Soraa, a developer of solid-state lighting technology built on pure gallium nitride substrates.
- He is also one of the three recipients of the 2014 Nobel Prize for Physics "for the invention of efficient blue light-emitting diodes, which has enabled bright and energy-saving white light sources".

## Recognition

- 2001 Asahi Prize from the Japanese Newspaper, Asahi Shimbun.
- □ 2002 Benjamin Franklin Medal in Physics from the Franklin Institute.
- 2006 Finland's Millennium Technology Prize for his continuing efforts to make cheaper and more efficient light sources.
- 2007 nominee for the European Inventor Award awarded by the European Patent Office.
- 2008 Prince of Asturias Award for Technical and Scientific Research.
- 2008 Honorary degree of Doctor of Engineering from Hong Kong University of Science and Technology.

- □ 2009 Harvey Prize from the Technion in Israel.
- 2012 Silicon Valley Intellectual Property Law Association (SVIPLA) Inventor of the Year.
- 2015 Global Energy Prize for the invention, commercialization and development of energy-efficient white LED lighting technology.
- 2017 Mountbatten Medal.
- □ 2018 Zayed Future Energy Prize.