CAFÉ SCIENTIFIQUE TO EXPLORE SOLID-STATE LIGHTING
NEW TECHNOLOGY COULD HOLD PROMISE AS FUTURE LIGHT SOURCE


Davis will discuss how solid-state lighting has the potential to be the much-needed energy-efficient technology of the future. It is the direct conversion of electricity to visible white light using semiconductor materials and light-emitting diodes. Currently being tested in some environments, solid-state lighting needs more research, engineering, and technological development to increase efficiency, lower its heat generation, and achieve a light color that’s accurate and pleasing to the human eye.

Incandescent and fuel-based lamps convert less than 5 percent of the energy they consume into visible light; the remainder emerges as heat. Fluorescent lamps achieve a conversion efficiency of about 30 percent. Each is an engine for converting the earth’s energy resources mostly into waste heat, pollution, and greenhouse gases. The increasingly precious energy resources and the significant threat of climate change demand that we reduce the energy and environmental cost of artificial lighting. Alternative means of lighting are clearly called for.

Professor Davis is Distinguished Professor of Materials Science and Engineering at Carnegie Mellon University. He received his PhD in Materials Science and Engineering from the University of California, Berkeley. His research interests include: growth and characterization of wide band gap semiconductor thin films and devices; growth and characterization of chemical sensors; and atomic layer deposition of inorganic materials.

The evening includes time for informal discussion, eating, and drinking. Admission is free, and food and drinks are available for purchase. Doors open at 6 pm.
For more information and to RSVP, visit CarnegieScienceCenter.org or call 412.237.3400.

About Carnegie Science Center

Carnegie Science Center is dedicated to inspiring learning and curiosity by connecting science and technology with everyday life. By making science both relevant and fun, the Science Center's goal is to increase science literacy in the region and motivate young people to seek careers in science and technology. One of the four Carnegie Museums of Pittsburgh, the Science Center is Pittsburgh’s premier science exploration destination, reaching more than 700,000 people annually through its hands-on exhibits, camps, classes, and off-site education programs.

About Carnegie Museums of Pittsburgh

Founded by Andrew Carnegie in 1895, Carnegie Museums of Pittsburgh is a collection of four distinctive museums dedicated to exploration through art and science: Carnegie Museum of Art, Carnegie Museum of Natural History, Carnegie Science Center, and The Andy Warhol Museum. Annually, the museums reach more than 1.2 million people through exhibitions, educational programs, outreach activities, and special events.